

---

**A**

FROM MARK STEPHENOFF TO EUGEN FOSTER 10/20/04

In 2003, the Columbus Police Division decided to form a committee to implement a photo red light enforcement program in Columbus. The Photo Red Light Committee consists of members from the Police Division, Department of Public Safety, Health Department, City Auditor's Office, Finance Department, City Attorney's Office, and Transportation Division. Dave Krier and Mark Stephenoff were asked to serve on this committee as representatives from the Transportation Division. In addition, Len Kutney has attended some committee meetings.

The Photo Red Light Committee began meeting in November, 2003. Six vendors made presentations to the committee in January, 2004. City council aides received a briefing in March, 2004. The committee spent the months of March, 2004, and April, 2004, putting together the RFP. The RFP was finalized and released in May, 2004. Also, in May, 2004, a presentation was made to the judges and court clerks; and a public informational presentation took place.

Using 2003 data, Dave Krier identified the 10 intersections with the highest number of accidents attributed to running the red light. The Site Selection Subcommittee recommended these locations for the initial implementation of the photo red light program. The recommended intersections and approach direction are as follows:

Cleveland Avenue at Spring Street – SB  
Fifth Street at Fourth Street – NB & WB  
Fulton Street at Third Street – SB  
Broad Street at Third Street – EB  
Chittenden Avenue at Summit Street – SB & WB  
Fourth Street at Mt. Vernon Avenue – NB  
Broad Street at Grant Street – NB & EB  
Gettysburg Road at Henderson Road – EB  
Fairwood Avenue at Livingston Avenue – EB  
Fourth Street at Town Street – WB

Proposals were received from six vendors in June, 2004; and those proposals were scored by the Evaluation Subcommittee. From this, a recommendation was forwarded to the Director of Public Safety in July, 2004.

The Director of Public Safety's office requested the Evaluation Subcommittee hold a second round of presentations from the vendors. Four vendors made presentations this morning. The full Photo Red Light Committee is expected to meet in approximately a week in order to approval a final report for the Director of Public Safety. After that, the contract still needs to be awarded and legislation must be approved by City Council.

A number of issues still remain that could affect our division. The Federal Highway Administration and the National Highway Traffic Safety Administration



has published a document that provides guidance for the use of red light cameras. It states that once a problem has systematically been identified, an engineering study should be conducted to determine the contributing factors and possible countermeasures. They recommend trying countermeasures to solve the problem before using red light cameras.

Photo Red Light Committee members have indicated they look for continued involvement from the Transportation Division. The Transportation Division will be expected to provide data and evaluation of potential enforcement sites, consideration and implementation of engineering solutions to a problem prior to enforcement, and data and analysis of effectiveness of countermeasures taken and/or enforcement.

The committee has also stated the desire to have a project manager from the fiscal side of the operation and the technical side of the operation. Therefore, they are looking for a person from our division to be the engineering project manager for this project; since it will involve the operation of the traffic signals and work in the right-of-way. Also, they feel this person should come from our division because the Transportation Division will already be heavily involved in site selection and the associated data analysis.

Some sort of criteria and a process needs to be developed for the installation of the red light cameras. It is conceivable that citizens will be requesting cameras at locations where they feel there is a problem. There will most likely be a need to say "yes" or "no" to a request and then to prioritize locations where it has been determined new installations are warranted. Also, how much influence will the vendor have on this process?

The different vendors have proposed varying degrees of use of existing traffic signal infrastructure for the installation of red light cameras. Decisions will need to be made concerning how much of the division's infrastructure will be made available for their use. Also, some vendors use detection loops at the stop line which may conflict with existing presence loops on some approaches.

Of course, the vendor will need to submitted plans, which will have to be reviewed and approved by the Transportation Division. How these fit into the already busy schedule will need to be determined.

All of these have the potential to greatly increase staff workload and responsibilities, along with financial responsibilities.

**From:** Kutney, Leonard G.  
**Sent:** Wednesday, April 21, 2004 2:32 PM  
**To:** Yost, Jack A  
**Cc:** Stephenoff, Mark S.  
**Subject:** Red Light Comments

Jack, These are our initial thoughts. They are by no means in final form.

Review of Purchasing Dept. Scope

1) Requirement to have and pay for a CoC technician available whenever work is being performed in our cabinet. Actual time during normal work hours. Four hour minimum on call in-basis.

2) Must meet ADA and CoC requirements for clearance i.e. when setting the cabinets (attaching to poles)

3) Must repair to the satisfaction of the engineer any damage to a traffic signal installation.

---

4) Must replace the installation in original working order i.e. loops

Len Kutney and Mark Stephenoff

**From:** Stephenoff, Mark S.  
**Sent:** Thursday, May 06, 2004 4:38 PM  
**To:** Kutney, Leonard G.  
**Subject:** RE: Emergency Language

I think that will be ok

-----Original Message-----

**From:** Kutney, Leonard G.  
**Sent:** Thursday, May 06, 2004 2:24 PM  
**To:** Stephenoff, Mark S.  
**Subject:** FW: Emergency Language

Mark I think it is ok. Do you agree? Let me know and I will respond.

-----Original Message-----

**From:** Yost, Jack A  
**Sent:** Thursday, May 06, 2004 12:44 PM  
**To:** Bowditch, Fred; Myers, Fred; Kutney, Leonard G.  
**Subject:** RE: Emergency Language

---

Better or finished. What are your votes?

-----Original Message-----

**From:** Bowditch, Fred [<mailto:FBowditch@columbuspolice.org>]  
**Sent:** Thursday, May 06, 2004 12:18 PM  
**To:** Yost, Jack A  
**Subject:** RE: Emergency Language

Better!

-----Original Message-----

**From:** Yost, Jack A [<mailto:JAYost@Columbus.gov>]  
**Sent:** Thursday, May 06, 2004 11:17 AM  
**To:** Bowditch, Fred; Kutney, Leonard G.  
**Cc:** Myers, Fred  
**Subject:** RE: Emergency Language

Thanks

I have had second thoughts on the language. How is this?

In the course of daily activity emergency situations will occur. The definition of emergency and how each party responds to same shall be part of the contract negotiations.

-----Original Message-----

**From:** Bowditch, Fred [<mailto:FBowditch@columbuspolice.org>]  
**Sent:** Thursday, May 06, 2004 12:09 PM  
**To:** Yost, Jack A  
**Subject:** RE: Emergency Language

That is my understanding - no inter connectivity.

fred

-----Original Message-----

**From:** Yost, Jack A [<mailto:JAYost@Columbus.gov>]  
**Sent:** Thursday, May 06, 2004 10:11 AM  
**To:** Bowditch, Fred; Kutney, Leonard G.  
**Cc:** Myers, Fred; Blackwell, Jeffrey  
**Subject:** Emergency Language

Here it is:

Emergency situations and how parties shall respond to same will be defined during contract negotiations.

<and that was doggone difficult to create :-)>

Fred,

---

Just double checking. The system stands on its own. There will be no connectivity to the city's network. Correct?

**M E M O R A N D U M**

TO: PHOTO RED LIGHT COMMITTEE MEMBER  
FROM: Lieutenant Jeffrey Blackwell #5051, Traffic Bureau  
SUBJECT: RFP  
DATE: April 12, 2004

---

*JJB*

Please find copy of the RFP for review and suggestions. Please return any recommendations/suggestions to Donna Hertenstein by Friday, April 23, 2004.

\*Reminder-the next Photo Red Light Meeting is April 29 @10:00AM

JB:dh

## PHOTO RED LIGHT ENFORCEMENT PROGRAM

### 1.0 Scope and Classification:

#### 1.1 Scope:

- 1.1.1 The City of Columbus (CoC), Division of Police (DoP) is seeing proposals for a Photo Red Light Enforcement Program (program). The DoP is interested in exploring all available options comprising the makeup of a Photo Red Light Enforcement Program.
- 1.1.2 The program shall include an education and awareness segment for the public, installation and testing of the system, and the issuance, collection, and appeal segment for the citations.
- 1.1.3 The purpose of the program is increased public safety through the enforcement of traffic laws associated with the red light traffic signal violations.

---

- 1.1.4 To this end, the goal of the Columbus Ohio Division of Police is to reduce the number of collisions and related injuries within the City of Columbus.

#### 1.2 Classification

- 1.2.1 The enforcement segments will consist of red light camera systems. These systems may be digital or video, or any combination of any of the aforementioned.
- 1.2.2 The areas of enforcement will be prioritized and shall be based on accident location data, causative factor of the accident, and volume of traffic.
- 1.2.3 The system will operate in conjunction with existing CoC traffic signals.
- 1.2.4 Required hardware for the system shall include, at a minimum, all computer interfaces, software, cameras, flash strobes, sensor arrays or loops, wiring, and any necessary appurtenances to provide a fully functional system.
- 1.2.5 It is anticipated that the CoC will utilize, at a minimum, 10 intersections, most with multiple approaches. If the project proves successful, the CoC envisions large increases in the number of intersections/approaches.
- 1.2.6 There shall be no minimum number or quota of violations to be generated through the use of this system.

1.2.7 The offeror's employee shall testify in any and all court proceedings at no additional cost to the CoC, whether subpoenaed by the plaintiff or the defendant.

1.2.8 The offeror will provide the staffing for this system excluding the DoP reviewer staff.

2.0 Applicable Publications

2.1

3.0 Requirements

3.1.1 The CoC expects each proposal to be based upon a turnkey operation, which shall mean the offeror shall provide all the necessary equipment associated with the system, and all necessary staff to install, operate and maintain same as well as providing all necessary services including, but not limited to. Given the above:

- Please describe how your system Photographs ~~vehicles allegedly not stopping for a red light traffic~~ signal;
- Please describes how you system obtains vehicle registration information,
- Please describe how your system reviews each photograph for visibility,
- Please describe how your system matches the make and model with the obtained registration information;
- Please describe how you system performs quality control in the form of a second opinion as to the violation (this will be DoP review);
- Please describe how your system generates a citation, with photograph, and mailing to the registered owner of the vehicle that performed the violation;
- Please describe how your system transfers electronic files of citation information between the CoC's court system and the offeror;
- Please describe how your system processes service of citations not responded to after the mailing;
- Please describe how your system provides court testimony of contested citations;
- Please describe how your system provides for a service center facility;

- Please describe how your system will provide reports to CoC and describe those reports;
  - Please describe how your system will disburse the CoC's share of the revenue generated.
- 3.1.2 Please describe how your Photo Red Light system is equipped detect a violating vehicle, activate the camera system, and produce color images of the vehicle front and rear.
- 3.1.3 Please describe how your system is capable of clearly photographing and recording the identification of the driver of the vehicle that is reasonably believed to be operating the vehicle that violated the red traffic signal.
- 3.1.4 Please describe how your systems cameras will obtain a clear image of the rear of the vehicle so as to clearly identify the rear license plate.
- 
- 3.1.4.1 Please demonstrate how your systems images are clearly discernible and visible to the naked eye without the use of enhancement equipment.
- 3.1.5 Please describe how your system is capable of consistently photographing drivers and license plates regardless of glare or materials used to obscure the license plates from clear view at various viewing angles.
- 3.1.6 Please describe how your system is capable of performing internal calibration tests for accuracy and functionality. The CoC is desirous of the following:
- 3.1.6.1 Test failures must prevent further operation of the unit.
  - 3.1.6.2 The internal test should provide a visual and/or auditory signal clearly indicating the operational accuracy or lack thereof.
  - 3.1.6.3 A series of error messages must be displayed to inform the operator of the problem/s with the system, while in the deployment mode.
- 3.1.7 Please describe how your system is capable of gathering detailed computer data for statistical analysis and histograms for submission at hearings.
- 3.8.1.1 The offeror will be required to produce monthly reports of activity and individual histograms for court purposes.
- 3.1.8 Please describe how your system is capable of accurately monitoring several traffic lanes at once.



- 3.1.9 Please describe how your system is automated with regards to set up, e.g. aperture settings, focusing, leveling and ease of loading and unloading images.
- 3.1.10 Please describe how your systems cameras have the ability to operate effectively during periods of nighttime operation and in all weather conditions.
- 3.1.11 Please describe the time it takes for your system to take photographs of vehicles entering the intersection after the signal has turned red.

#### 4.0 Proposal Submission Requirements

##### 4.1 RFP Submission:

- 4.1.1 The RFP shall consist of both a technical and cost proposal. One original and six (6) copies shall be submitted no later than April 15, 2004 at 11:00 AM Local time:

---

4.1.1.1 Purchasing Office  
City of Columbus  
50 W. Gay St.  
Columbus, Ohio 43215

##### 4.2 The document should be organized into tabbed sections as follows:

- 4.2.1 First tabbed section shall have a Letter of Submittal that shall include:

- The names of the individuals involved in the preparation of the proposal and their relationship with the Vendor.
- The name, title, address, email address and telephone number of the person to whom inquiries related to the technical and cost proposals should be directed.
- A statement confirming that the Vendor has sole and complete responsibility to perform the tasks and services described in your proposal.
- A list of all persons by name and address being officers or having an interest in your company.
- A statement that that the proposal is valid for 180 days from the date it was submitted to the City of Columbus.
- The Letter of Submittal may also include any information the Vendor wishes to add in order to clarify any area of the Proposal.

4.3.1 The second tabbed section shall include:

- A complete unaltered copy of this entire RFP document including Attachments, Exhibits, and any Addenda.

4.4.1 The third tabbed section shall respond to all Specifications cited in Sections 3.0 of this RFP. Detailed descriptions of the requested information are expected. While the Vendor may cite references to literature provided in Section 3 in order to clarify a point of discussion, the explanation provided must be in sufficient detail to fully explain the questions at hand.

4.5.1 The fourth tabbed section shall be the Financial Proposal. Full disclosure of all costs, including optional features that may be suggested by the Vendor, is required. **THE SIGNED AUTHORIZED SIGNATURE PROPOSAL PAGE 5 FROM THE BID DOCUMENT SHALL IMMEDIATELY FOLLOW THE FINANCIAL PROPOSAL AND BE A PART OF FOURTH TAB.**

---

4.6.1 The fifth tabbed section shall include:

- The Non-Collusion Affidavit
- Delinquent Personal Property Tax Affidavit

4.6.2 The Police Records Check may be required of the Vendor if a contract is entered into with the City of Columbus.

5.0 Delivery

5.1

6.0 Notes

6.1 Periods of time, stated as a number of days, shall be calendar days.

6.2 It is the responsibility of all offerors to examine the entire proposal package and seek clarification of any items or requirement that may not be clear and to check all responses for accuracy before submitting the proposal. Negligence in preparing an offer confers no right of withdrawal after the due time and date.

6.3 Inquires:

- Any doubt as to the requirements of this proposal or any apparent omission or discrepancy should be presented to the CoC. The CoC will then determine the appropriate action necessary, if any, and issue a written amendment to the requestor. Oral statements or instructions will not constitute an amendment to this proposal.

6.4 Pre-Bid Conference.

6.4.1 A pre-bid conference will be held. The date and time of this conference is indicated on page 2A of this document.

- The purpose of this conference will be to clarify the contents of this proposal in order to prevent any misunderstanding of the CoC's position. This conference will also give the offerors an opportunity to submit any questions and to discuss the contents of this proposal.

6.5 Offerors' Presentation

6.5.1 Offerors may be invited to make a presentation of their proposal. If invited, there will be a segment that involves questions from the CoC regarding the submitted proposal.

6.6 Late Proposals

6.6.1 Late proposals will not be considered. An offeror submitting a late proposal shall be so notified by the CoC.

---

6.7 Addenda

6.7.1 All addenda shall be made part of the appropriate addenda acknowledgment section as identified in 4.3.1.

- Failure to include the addenda with your bid response may result in a proposal being rejected as non-responsive.

6.8 Award of Contract:

- Notwithstanding and other provision in this proposal, the CoC expressly reserves the right to:
  - ❖ Waive any immaterial defect or informality; or
  - ❖ Reject any or all proposals, or portions thereof; or,
  - ❖ Reissue a new proposal.

6.9 A response to this proposal is an offer to contract with the CoC based upon the terms, conditions, scope of work and specifications contained in the CoC's proposal.

- A contract will be formed when the CoC's City Council awards the Professional Services contract executed by the selected offeror.

6.10 Contract Document:

- The final contract between the CoC and the successful offeror shall consist of the final form of the contract and any scopes of work incorporated therein, the offerors submitted proposal, and any executed contract amendments attached thereto.

6.12 Obligations:

- The issuance of this proposal does not obligate the CoC to pay any costs incurred in the preparation, submission, or, if needed, presentation of the proposal.

6.13 Duration of proposal

- Timely submitted proposals shall be irrevocable for a period of one hundred eighty (180) days following the proposal due date, as may be modified by addenda.

6.14 Acceptance contract/agreement

- Any contract/agreement made pursuant to this proposal must be accepted in writing by the offeror.
- If for any reason the offeror should fail to accept, in writing, any conduct by offeror which recognizes the existence of a contract/agreement pertaining to the subject matter hereof shall constitute acceptance by the offeror of ~~the contract/agreement and all its terms and conditions.~~
- Any terms proposed in the offeror's acceptance of the CoC's contract which adds to, varies from or conflicts with the terms herein are objected to.
- Any such proposed terms shall be voided and the terms herein shall constitute the completed and exclusive statement of the terms and conditions of the contract/agreement between the parties and may hereafter be modified only by written instrument executed by the authorized representatives of both parties.

6.15 Contract applicability:

- The offeror shall substantially conform to the terms, conditions, specifications and other requirements found within the text of this specific proposal. All previous agreements, contracts, or other documents, which have been executed between the offeror and the CoC, are not applicable to this proposal or any resultant contract.

6.16 The CoC, at its sole discretion, reserves the right to reject any equipment that does not meet adequate technical standards.

6.17 The following evaluation criteria will be the criteria used the evaluation team to determine with whom the Director of Public Safety shall negotiate:

Rating Key: Unacceptable = 0 Poor = 1 Fair = 2 Good = 3 Excellent = 4 Superior = 5

Criterion (Shaded) & Measures (Un-shaded)	Rating		Weight / Factor		Score
<p>1. <u>Competence</u> - the competence of the offeror to perform the required services as indicated by the technical training, education, and experience of the offeror's personnel who would be assigned to perform the work.</p> <p>Work experience of any personnel to be assigned by the offeror to this project, in performing similar projects. Particular attention will be paid to proposed team members experience in, the specific areas defined in the requirements section (Section 3).</p>	_____	X	25%		Section Score  _____
<p>Specific professional qualifications of the firm demonstrating the firm's ability to provide backup and support for the personnel selected to perform the specified job responsibilities including the overall qualifications of additional personnel available for special assignments and potential replacements.</p> <p>Experience of the offeror in successfully providing professional services similar to those needed for this project.</p>	_____	X	1.5	=	
<p>2. <u>Quality and Feasibility</u> -- the quality and feasibility of the offeror's proposal.</p> <p>The degree to which the proposal response demonstrates the Offeror's understanding the scope of the project, the objectives, the benefits to be obtained and the outcomes to be achieved.</p> <p>Offeror's understanding of the functional/technical requirements and the functionality, and appropriateness of the proposed solution.</p> <p>Practicality of the proposal response as demonstrated by a high degree of reliability and/or accuracy in successful completion of project work. (The offeror's past projects, as described in written responses and oral presentation)</p>	_____	X	20%		
	_____	X	1.5	=	
	_____	X	1	=	
	_____	X	1.5	=	

Rating Key: Unacceptable = 0 Poor = 1 Fair = 2 Good = 3 Excellent = 4 Superior = 5

Criterion (Shaded) & Measures (Un-shaded)	Rating	Weight / Factor	Score
<p>3. <u>Ability</u> - ability of the offeror to perform the required services competently and expeditiously as indicated by the offeror's workload and the availability of necessary personnel, equipment, and facilities.</p> <p>Offeror's ability to provide the scope of services (strategic, analytical, technical) needed to satisfactorily perform all services of this project.</p> <p>Ability to staff this project with continuity.</p> <p>Proposed ability to rapidly develop and deploy project deliverables.</p> <p>Consultant's current workload &amp; impact it has on ability to service the City. Document the number and type of similar projects your firm is currently involved with and a description of the current status of these projects.</p>	<p>_____</p> <p>X</p> <p>_____</p> <p>X</p> <p>_____</p> <p>X</p> <p>_____</p> <p>X</p>	<p>20%</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>	<p>=</p> <p>=</p> <p>=</p> <p>=</p> <p>Section Score</p> <p>_____</p>
<p>4. <u>Past Performance</u> - past performance of the offeror as reflected by the evaluations of the Department of Technology, other City agencies and other previous clients of the offeror with respect to such factors as quality of work, success in controlling costs, and success in meeting deadlines.</p> <p>Offeror's proven track record of success in providing quality services.</p> <p>Provided current contact name, title, e-mail address, street address, phone number, fax number, project title, and project dates.</p> <p>Overall rating of past references with respect to such factors as quality of work, success in meeting deadlines, maintaining costs, ability to adapt to technology, overall project success, etc...</p> <p>Overall similarity and applicability of work performed for references.</p>	<p>_____</p> <p>X</p> <p>_____</p> <p>X</p> <p>_____</p> <p>X</p> <p>_____</p> <p>X</p>	<p>30%</p> <p>1.5</p> <p>1</p> <p>2</p> <p>1.5</p>	<p>=</p> <p>=</p> <p>=</p> <p>=</p> <p>=</p> <p>Section Score</p> <p>_____</p>
<p>5. <u>Pricing Structure</u> - the cost or pricing structure of the offeror's proposal</p>	<p>_____</p>	<p>5%</p>	<p>Section Score</p> <p>_____</p>

Rating Key: Unacceptable = 0 Poor = 1 Fair = 2 Good = 3 Excellent = 4 Superior = 5

Criterion (Shaded) & Measures (Un-shaded)	Rating		Weight / Factor		Score
The perceived reasonableness of the cost proposal.	_____	X	1	=	_____
			Total Score	=	_____

---

**B**



THE CITY BULLETIN  
BIDS WANTED - PURCHASING OFFICE AND OTHER DIVISIONS

**PREVAILING WAGE**

Attention of the bidder is called to the special requirements that are included in the Bid Submittal Documents regarding prevailing wage rates to be paid.

**SPECIAL REQUIREMENTS**

Particular attention is called to the statutory requirements of the State of Ohio relative to licensing of corporations organized under the laws of any other state.

**CONSTRUCTION AND MATERIAL SPECIFICATIONS**

Numbered paragraphs to which reference is made in these Bid Submittal Documents refer to the City of Columbus, Ohio Construction and Materials Specifications, latest edition and will become part of the terms and conditions of the contract to be awarded. Said specifications are hereby made a part of these Bid Submittal Documents. Bidders are required to examine Section 100, General Provisions, for the requirements necessary to submit a proposal. Copies of said Construction and Material Specifications may be examined and/or purchased at the office of the Director of Public Service, 90 W. Broad St., 3rd Floor, Columbus, Ohio 43215 (614) 645-8290, at the offices of The Construction Inspection Division, 1800 E. 17th Avenue, Columbus, Ohio 43219 (614) 645-3182, and at the office of the Director of Public Utilities, 910 Dublin Rd., 4th Floor, Columbus, Ohio 43215 (614) 645-6141.

**CONTRACT PERFORMANCE AND PAYMENT BOND**

A contract performance bond and payment bond of ONE HUNDRED PERCENT (100%) of the amount of the contract with a surety or sureties licensed to conduct business in the State of Ohio according to Section 103.05 of the City of Columbus Construction and Material Specifications (CMSC), latest edition, will be required to assure the faithful performance of the work.

ORIGINAL PUBLISHING DATE: May 18, 2004

BID OPENING DATE - June 17, 2004 11:00 am

SA001147 - PHOTO RED LIGHT ENFORCEMENT SYSTEM

THE CITY BULLETIN  
BIDS WANTED - PURCHASING OFFICE AND OTHER DIVISIONS

The City of Columbus (CoC), Division of Police (DoP) is seeking Referral for Proposals (RFP) for a Photo Red Light Enforcement Program (program). The DoP is interested in exploring all available options comprising the makeup of a Photo Red Light Enforcement Program.

The contract will be for a period of three years and, given agreement by both parties, a one-time, one year extension.

The program shall include an education and awareness segment for the public, installation and testing of the system, and the issuance, collection, and appeal segment for the citations.

The purpose of the program is increased public safety through the enforcement of traffic laws associated with the red light traffic signal violations.

To this end, the goal of the Columbus Ohio Division of Police is to reduce the number of collisions and related death and injuries within the City of Columbus.

---

There will be a Pre-Bid Conference on June 2, 2004 at 10:00 AM Local Time.

If you have an interest in receiving this proposal, please FAX this form in its entirety to: Purchasing Office, (614) 645-7051 a complete copy of the specifications will be mailed to those who request the mailing and specifications are also available in person at 50 West Gay Street, Beacon Building - First Floor, Columbus, Ohio, 43215

ORIGINAL PUBLISHING DATE: May 15, 2004

SA001145 - FMD - PROF.SERV. HVAC PIEDMONT

ONE ORIGINAL AND TEN COPIES  
OF THIS BID MUST BE SUBMITTED

Bidder submitting this Bid should check the appropriate box.

This is:  The Original

This is:  One of the Copies

THIS IS A TWO SIDED BID



## Request for Proposal (RFP)

**City of Columbus, Ohio**  
Purchasing Office  
1<sup>st</sup> Floor, 50 West Gay Street  
Columbus, Ohio 43215  
614/645-8315

SOLICITATION NO.: SA 001147 JY/FM

Coop Yes Ends Date

Years Left

PHOTO RED LIGHT ENFORCEMENT SYSTEM

(Item)

SAFETY

(Department)

POLICE

(Division)

### Bid Opening Date and Time (due date and time)

JUNE 17, 2004 11:00 AM LOCAL TIME

PRE BID CONFERENCE JUNE 2, 2004

**NOTE: FAILURE TO RETURN THIS BID PROPOSAL INTACT MAY BE CAUSE FOR REJECTION.**

**Bid Proposal Submitted By:**

Company Name

Street Address

City

State

Zip

Federal I.D. No.

Contract Compliance No.

Contract Person

Phone No.

Fax No.

**FAILURE TO RESPOND MAY RESULT IN YOUR NAME BEING REMOVED FROM BID LIST.  
RETURNING THIS PAGE ONLY MARKED "NO BID" COUNTS AS A RESPONSE.**

---

**THIS PAGE WAS INTENDED TO BE BLANK**

**LEGAL NOTICE**

**PROFESSIONAL SERVICES  
Request For Proposal (RFP)  
Request for Statements of Qualifications (RFSQ)**

Sealed proposals for the following item(s) will be received by the Purchasing Office at 50 West Gay Street, 1st Floor, Columbus, Ohio 43215, **until 11:00a.m. Local Time** on JUNE 17, 2004 and at that time will be publicly opened and read. Proposals received after the time of opening will be returned to the offeror unopened. The City will not be responsible for late mail or other deliveries.

**Envelopes must be plainly marked: POLICE**

**PROPOSALS FOR PHOTO RED LIGHT ENFORCEMENT SYSTEM, PROPOSAL NO. SA 001147 JY/FM in accordance with specifications on file in the Purchasing Office.**

**PRE-BID CONFERENCE JUNE 2, 2004 10:00AM LOCAL TIME**

**FOR COPIES OF ANY OF THE FOLLOWING BID PROPOSAL CALL (614)645-7599**

Each proposal shall contain the full name and address of every person, firm or corporation interested in the same, and if a corporation, the name and address of the President and Secretary.

**EQUAL OPPORTUNITY CLAUSE:**

Each responsive bidder shall submit, with its bid, a contract compliance certification number or a completed application for certification. Compliance with the provisions of Article I, Title 39, is a condition of the contract. Failure to comply with this Article may result in cancellation of the contract.

**WITHHOLDING OF INCOME TAX:** All bidders are advised that in order for a contract to bind the City, each contract must contain the provisions found in Section 361.34 C.C.C. with regard to income taxes due or payable to the City of Columbus for wages, salaries and commissions paid to the contractor's employees as well as requiring those contractors to ensure that subcontractors withhold in a like manner.

**DELINQUENT PERSONAL PROPERTY TAX:** All bidders are charged with notice of Section 5719.042 of the Ohio Revised Code and agree that if this contract is awarded to them, the successful bidder, prior to the time the contract is entered into, will submit to the City Auditor the affidavit required by said section of the Ohio Revised Code. Said affidavit, when filed with City Auditor, is thereby incorporated into and made a part of this contract and no payment shall be made with respect to this contract unless such statement has been so incorporated as a part thereof.

**LOCAL CREDIT:** For all contracts except professional service contracts: In determining the lowest bid for purpose of awarding a contract not exceeding \$20,000.00, a local bidder shall receive a credit equal to five percent (5%) of the lowest bid submitted by a non-local bidder. In determining the lowest bid for purposes of awarding a contract in excess of \$20,000.00, a local bidder shall receive a credit equal to one percent (1%) or \$20,000.00, whichever is less, of the lowest bid submitted by a non-local bidder. A local bidder is a person, corporation or business which (a) has listed its principal place of business as being located within the corporation limits of the City of Columbus or the County of Franklin in official documents filed with Secretary of State, State of Ohio, or a valid vendor's license which indicates its place of business is located within the corporation limits of the City of Columbus or County of Franklin.

**JOEL S. TAYLOR  
Finance Director**

cc: CITY CLERK(2)/FINANCE DIR./BUYER/FISCAL OFFICER/FILE

**CITY BULLETIN ADVERTISEMENT DATES  
MAY 22, 2004**

---

**THIS PAGE WAS INTENDED TO BE BLANK**

**CONTACTS FOR INFORMATION  
CONCERNING THIS BID PROPOSAL**

Solicitation No.: SA 001147 JY/FM

Title: PHOTO RED LIGHT ENFORCEMENT SYSTEM

Department/Division or Agency: SAFETY/POLICE

Contact the following individuals on questions regarding:

	<u>NAME</u>	<u>PHONE NO.</u>
<b>Specifications:</b>	<u>LT. FRED BOWDITCH</u>	<u>(614)645-4813</u>
<b>Delivery:</b>	<u>LT. FRED BOWDITCH</u>	<u>(614)645-4813</u>
<b>Payment:</b>	<u>ERIKA STANLEY</u>	<u>(614)645-5874</u>

---

**Purchasing Office**

	<u>NAME</u>	<u>PHONE NO.</u>
<b>Procurement Specialist:</b>	<u>JACK YOST/FRED MYERS</u>	<u>(614)645-8315</u>
<b>Expediter:</b>	<u>CINDY WHITE</u>	<u>(614)645-8315</u>

---

**Equal Business Opportunity Commission Office**

For assistance with questions regarding *Contract Compliance*, telephone **(614)645-5448**.

Contact George Harper (614)645-8549 for assistance from an Equal Business Opportunity Specialist.

## EQUAL OPPORTUNITY CLAUSE

(1) The contractor will not discriminate against any employee or applicant because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: employment upgrading, demotion, or termination; rates of pay or other forms of compensation; and selection for training. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices summarizing the provisions of this Equal Opportunity Clause.

(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that the contractor is an equal opportunity employer.

(3) It is the policy of the City of Columbus that business concerns owned and operated by minority and female persons shall have the maximum practical opportunity to participate in the performance of contracts awarded by the city.

(4) The contractor shall permit access to any relevant and pertinent reports and documents by the Executive Director for the sole purpose of verifying compliance with this article, and with the regulations of the Equal Business Opportunity Commission Office. All such materials provided to the Executive Director by the contractor shall be considered confidential.

(5) The contractor will not obstruct or hinder the Executive Director or her deputies, staff, and assistants in the fulfillment of their duties and responsibilities imposed by Article I, Title 39.

(6) The contractor and each subcontractor will include a summary of this Equal Opportunity Clause in every subcontract. The contractor will take such action with respect to any subcontract as is necessary as a means of enforcing the provisions of the Equal Opportunity Clause.

(7) The contractor agrees to refrain from subcontracting any part of this contract or contract modification thereto to a contractor not holding a valid contract compliance number as provided for in Article I, Title 39.

(8) Failure or refusal of a contractor or subcontractor to comply with the provisions of Article I, Title 39, may result in the cancellation of this contract.

**ALL CONTRACTORS MUST HOLD A VALID CONTRACT COMPLIANCE  
CERTIFICATION NUMBER ISSUED BY THE EBOCO EXECUTIVE DIRECTOR.**

**For information regarding contract compliance or to receive an application, please contact the  
Equal Business Opportunity Commission Office at (614) 645-4764 or [EBOCO@cmhmetro.net](mailto:EBOCO@cmhmetro.net).**

***Applications are also available at the following locations:***

<http://eboco.ci.columbus.oh.us/>

Bid Opportunity Fax Line (614) 645-6996 (Option 4)



## **INFORMATION FOR OFFERORS (RFP)**

### **SPECIAL CONDITIONS**

Special conditions included in the specifications, if inconsistent with provisions included in "Information for Offerors (RFP)", shall take precedence over any provisions in "Information for Offerors (RFP)" to the extent inconsistent.

### **PERSONAL EXAMINATION**

Offerors are required to satisfy themselves by personal examination of the proposed contract documents and investigation of the conditions at the site of the work in order that they may be fully informed of the contract requirements, the conditions existing, and the difficulties likely to be encountered in the execution of the work.

### **SUBMISSION OF RESPONSE**

Responses must be submitted as specified in this RFP and enclosed in a sealed envelope marked as specified in the legal notice. If the potential offeror does not wish to respond, the RFP document should be so marked and returned. Offerors are invited to be present at the opening of the responses.

All proposals and other material submitted in response to this Request for Proposal (RFP) become the property of the City of Columbus. The City may choose to retain or return these materials to the offeror, at the offeror's expense.

---

The City is not liable for any cost associated with the preparation of the proposal or any other costs incurred by any bidder prior to the execution of the contract. The rejection of any proposal in whole or in part, at its discretion, will not render the City liable for incurring any cost or damage.

If at any time prior to the closing date the invited offeror decides not to provide a proposal, the City will appreciate that a letter to that effect be supplied to the City prior to the deadline.

### **ACCEPTANCE AND REJECTION**

This response submitted by the offeror to the City of Columbus will be accepted or rejected within a period of 180 days from due date. The City reserves the right to waive technicalities, and to cancel and renew the request on the required service. If more than one service, prices shall be quoted on the services requested. However, each service may be considered a separate offer and the City reserves the right to award a contract on each service separately or on all services as a whole or any combination thereof. Offerors whose proposal is made on an "All or None" basis must clearly state such fact in their written responses.

Each invitation for Bids, Request for Statements of Qualifications, and Request for Proposals issued by the City shall state that the Bid or Request may be cancelled and that any bid or proposal may be rejected in whole or in part when it is for good cause and in the best interests of the City.

### **WITHDRAWAL OF RESPONSE PROPOSALS**

Offerors may withdraw their responses at any time prior to the time specified in the advertisement as the closing time for the receipt of responses. However, no offeror shall withdraw or cancel a proposal for a period of 180 calendar days after said advertised closing time for the receipt of the proposals.

## **INFORMATION FOR OFFERORS (RFP)**

### **SIGNATURE REQUIRED**

The responses must be signed in ink. If the offeror is a firm or corporation, insert the corporate name followed by the signature of a person authorized to sign said response; if a partnership, indicate partnership name followed by the signature of one of the partners; if a sole proprietorship the signature of the owner is required. Where the person signing for a corporation is other than the president, an affidavit or a resolution of the Board of Directors showing the authority of that person to bind the corporation must be furnished.

### **DEFAULT PROVISION**

In case of default by the offeror or the contractor, the City of Columbus may procure the articles or services from other sources and hold the offeror or contractor responsible for any excess costs occasioned or incurred thereby.

### **CONTRACT AND BOND**

The offeror to whom an award is made will be required to execute a written contract with the City of Columbus, Ohio within ten days after receiving such contract for execution, and if specified in the legal notice, furnish a good and approved bond conditioned upon the faithful performance of the same. The proposal, contract, proposal bond, (if applicable), and performance bond (if applicable) shall be in the form herein specified.

---

If, at any time during the continuance of the Contract, any surety shall, in the opinion of the contracting agent of the City, become irresponsible, then said agent shall have the right to require additional and sufficient surety or sureties. The Contractor shall furnish the surety or sureties to the satisfaction of the said agent, within ten (10) days after notice. In default thereof the default provision herein shall apply.

### **LIABILITY, INSURANCE, LICENSES AND PERMITS**

Where offerors are required to enter or go onto City of Columbus property to deliver materials or perform work or services as a result of contract award, the offeror will assume full duty, obligation and expense of obtaining all necessary licenses, permits, and insurance when required. The offeror shall be liable for any damages or loss to the City occasioned by negligence of the offeror (or his agent) or any person the offeror has designated in the completion of his contract as a result of his response.

Particular attention is directed to the statutory requirements of the State of Ohio relative to the licensing of corporation organized under the Laws of any other State.

### **TAXES**

The City, being a municipality, is tax exempt and will provide appropriate artifact upon request. Federal and/or State Taxes are not to be included in prices quoted. The successful offeror will be furnished an exemption certificate if needed.

### **PRICING**

Offerors are to quote firm or fixed prices for the duration of any contract, which may be a result of the proposal unless otherwise noted in the specifications. In case of discrepancy in computing the amount of the cost, the **UNIT PRICE** quoted will govern. In the event of a conflict between the price in numbers and the price in words, the price in words will control.

## **INFORMATION FOR OFFERORS (RFP)**

### **DELIVERY**

Time will be of the essence for any orders placed as a result of this response. Purchaser reserves the right to cancel such orders, or any part thereof, without obligations if delivery is not made within the time(s) specified. Delivery shall be made during normal working hours and to the destination shown on the proposal.

### **QUALITY**

Unless otherwise stated by the offeror, the proposal will be considered as being in strict accordance with the specifications outlined in this RFP document.

### **SAMPLES**

Samples, when requested, must be furnished free of expense to the City and if not destroyed, will upon request be returned at the bidder's expense.

### **CHANGES AND ADDENDA TO RFP DOCUMENTS**

Each change or addenda issued in relation to this document will be on file in the Office of the agency requesting responses no less than five (5) working days prior to the scheduled RFP due date. In addition, to the extent possible, copies will be mailed to each person registered as having received a set of the RFP documents. Total RFP inquiry or specific item cancellations may be issued later than that time specified above.

---

### **REPUDIATION OF AGREEMENT**

The liability of the City for repudiation of any agreement which might result from this request shall be limited to the difference between the market price at the time and place for tender of the service and the unpaid sales price together with any incidental damages, but less expenses paid in consequence of the breach by the City. The liability of the city shall not be measured by the profits or overhead of seller.

### **CONTRACT MODIFICATION**

An agreement which may result from this request shall not be modified or altered by any subsequent course of performance between parties or by additional terms contained in any subsequent documents unless said additional or differing terms are incorporated by contract modification authorized to be entered into by ordinance.

### **DELINQUENT PERSONAL PROPERTY TAX**

All offerors are charged with notice of Section 5719.042 of the Ohio Revised Code and agree that if this contract is awarded to them, the successful offeror, prior to the time the contract is entered into, will submit to the City, as directed, the affidavit required by that section of the Ohio Revised Code. Said affidavit, when submitted to the City, is thereby incorporated into this Contract unless such statement has been so incorporated.

Section 5719.042 of the Ohio Revised Code: After the award by a taxing district of any contract let by competitive bid and prior to the time the contract is entered into, the person making a bid shall submit to the district's fiscal officer, a statement affirmed under oath, that the person with whom the contract is to be made was not charged at the time the bid was submitted with any delinquent personal property taxes on the general tax list of personal property of any county in which the taxing district has territory or that such person was charged with delinquent personal property taxes on any such tax list, in which case that statement shall also set forth the amount of such due and unpaid delinquent taxes and any due and unpaid penalties and interest thereon. If the statement indicated that the taxpayer was charged with any such taxes, a copy of the statement shall be transmitted by the fiscal officer to the County Treasurer within thirty (30) days of the date it is submitted. A copy of the statement shall also be incorporated into the contract and no payment shall be made with respect to any contract to which this section applies unless such statement has been so incorporated as a part thereof.

## INFORMATION FOR OFFERORS (RFP)

### APPLICABLE LAWS

The Revised Code of the State of Ohio, the Charter of the City of Columbus, and all City ordinances insofar as they apply to the laws of competitive bidding, contracts, and purchases, are made a part hereof.

### REMEDIES

All claims, counterclaims, disputes and other matters in question between the City, its agents and employees, and the Contractor arising out of or relating to this agreement or its breach will be decided in a court of competent jurisdiction within the County of Franklin, State of Ohio.

### OFFERORS TERMS AND CONDITIONS

Terms and conditions, submitted with this proposal, which are contrary to City Code or Charter shall be disregarded for the purpose of any subsequent contract. The successful offeror shall be notified as to which terms and conditions, if any, have been deleted or changed.

### PUBLIC RECORDS REQUESTS

The City of Columbus, as a political subdivision of the State of Ohio, is subject to Ohio Revised Code Chapter 149, known as the Ohio Public Records Law. ~~Consequently, the Offeror understands that ALL documents~~ submitted in response to this RFP are considered public records and WILL be released when a public records request is made by news media, competitors, or other interested parties, in accordance with the law. If you contend that certain CLEARLY MARKED portions of your response constitute an exception to Ohio's public records law, you MUST submit your legal basis in support of that assertion with your response.

If a public records request is made for any portion of the documents that you have submitted and you have NOT clearly marked such documents as information constituting an exception to Ohio's public records law, your information will be released immediately.

If a public records request is made for such information and you HAVE clearly marked portions of your response as information constituting an exception to Ohio's public records law, AND you have submitted the legal basis supporting such claim, the City will release a redacted version of your information to the requestor and notify you that a request was made and that a redacted version of your response was released. Should the requestor indicate that the redacted version is not sufficient for their purposes, you then will be IMMEDIATELY responsible for obtaining an order from a Court of competent jurisdiction in Franklin County, Ohio enjoining release of your clearly marked information constituting an exception to Ohio's public records law.

If a public records request is made for such information and you HAVE clearly marked portions of your response as information constituting an exception to Ohio's public records law, but you have NOT submitted the legal basis supporting such claim, the City WILL RELEASE your information to the requestor and notify you that a request was made and that your response was released.

DO NOT mark your entire response/submittal as information constituting an exception to Ohio's public records law. If your entire response/submittal is so marked, the City of Columbus will not consider your offer.

## **INFORMATION FOR OFFERORS (RFP)**

### **COSTS INCURRED FOR PROPOSAL SUBMISSIONS**

The City is not liable for any cost associated with the preparation of the proposal or any other costs incurred by any offeror prior to the execution of the contract. The rejection of any proposal in whole or in part, at its discretion, will not render the City liable for incurring any cost or damage.

### **WITHDRAWAL OF PROPOSALS**

If at any time prior to the closing date the invited offeror decides not to provide a proposal, the City will appreciate that a letter to that effect be supplied to the City prior to the deadline.

### **CITY IS TAX EXEMPT**

The City, being a municipality, is tax exempt and will provide appropriate certification upon written request.

### **SAFETY REQUIREMENTS**

Successful vendor shall at all times while performing duties, adhere to all rules of their particular industry, with regard to mandates by the Environmental Protection Agency (EPA) and/or Occupational Safety and Health Administration (OSHA), and any other regulation applicable to the circumstance.

### **NON-COLLUSION AFFIDAVIT**

---

Each respondent is required to submit with his proposal an affidavit stating that neither he nor his agents, nor any other party for him, has paid or agreed to pay, directly or indirectly, any person, firm or corporation any money or valuable consideration for assistance in procuring or attempting to procure the Contract herein referred to, and further agreeing that no such money or regard will be hereafter paid. This affidavit must be on the form required, titled "Non-Collusion Affidavit."

## **INFORMATION FOR OFFERORS (RFP)**

### **ADDITIONAL CONTRACT TERMS AND REQUIRED DOCUMENTS IN THE EVENT OF A CONTRACT**

This section sets forth contract terms and the required contract documents that the successful offeror must execute following the award of the contract by the contracting authority.

#### **PUBLICATIONS**

The Contractor agrees to submit to the City's Contract Administrator all advertising, sales promotion, and other publicity matters relating to this Contract wherein the City's name is mentioned or language used from which the connection of the City's name therewith may, in the City's judgment, be inferred or implied. The Contractor further agrees not to publish, or use such advertising, sales promotion, or publicity matter without the prior written consent of the City except that may be required under law.

#### **TERMINATION FOR CONVENIENCE**

The City upon thirty days written notice may terminate this agreement at its convenience. The party providing goods or services shall be entitled compensation for goods provided or services rendered under the terms of this contract up to the date of notification of termination.

---

#### **TERMINATION FOR DEFAULT**

If either the City or the Contractor violates any material term or condition of this Contract or fails to fulfill in a timely and proper manner its obligations under this Contract, then the aggrieved party shall give the other party written notice of such failure or violation. The responsible party shall give the other party written notice of such failure or violation. The responsible party will correct the violation or failure within thirty (30) calendar days or as otherwise mutually agreed. If the failure or violation is not corrected, this Contract may be terminated immediately by written notice from the aggrieved party to the other party. The option to terminate shall be the sole discretion of the aggrieved party. If it determined for any reason the failure to perform is without the defaulting party's control, fault, or negligence, the termination shall be deemed to be a Termination for Convenience.

#### **APPLICABLE LAW, REMEDIES**

This agreement shall be governed in accordance with the laws of the State of Ohio. All claims, counterclaims, disputes and other matters in question between the City, its agents and employees, and the Contractor arising out of or relating to this agreement or its breach will be decided in a court of competent jurisdiction within the County of Franklin, State of Ohio. The remedies provided for in this Contract shall not be exclusive but are in addition to all other remedies available under law.

#### **ASSIGNMENT**

This agreement may not be assigned or otherwise transferred to others by the contractor without the prior written consent of the City.

#### **SAVE HARMLESS**

Contractor shall protect, indemnify and save the City harmless from and against any damage, cost, or liability, including reasonable attorneys' fees resulting from claim, by third parties for any or all injuries to persons or damage to property arising from the acts or omissions of the Contractor, its officers, employees, agents, or Subcontractors in providing goods or services under the terms and conditions of this contract.

## **INFORMATION FOR OFFERORS (RFP)**

### **SAVE HARMLESS DISCLOSURE OF PROPRIETARY INFORMATION**

The Contractor agrees to indemnify and hold harmless the City of Columbus, Ohio and their respective officials, employees and other agents and representatives, against loss, claim, liability in tort or by statute imposed, charge, cost or expense, including without limitation, attorneys fees to the extent permitted; by law, which may be incurred in connection with, or in any manner of any damage or loss arising from disclosure of proprietary information.

### **PROPRIETARY INFORMATION INDEMNIFICATION**

The Contractor agrees to indemnify and hold harmless the City of Columbus, Ohio and their respective officials, employees and other agents and representatives, against loss, claim, liability in tort or by statute imposed, charge, cost or expense, including without limitation, attorneys fees to the extent permitted; by law, which may be incurred in connection with, or in any manner of any damage or loss arising from disclosure of proprietary information.

### **CONFIDENTIAL INFORMATION**

~~The director of the agency requesting proposals may choose to keep RFP information in confidence during the evaluation process and until the time a contract is executed. This information may include all proposal documentation, notes, including detailed prices, references, resumes, technical and cost information, etc. Thereafter, proposals and all submissions will become public information, as the City is subject to R.C. 149.43, the Public Records Act.~~

### **CONTRACTOR'S PROPRIETARY INFORMATION**

Contractor acknowledges that the City is subject to chapter R.C.149.43, the State of Ohio Public Records Law. The City agrees to keep any information confidential except as otherwise required to be disclosed by law including but not limited to the contract.

### **INDEPENDENT CONTRACTOR STATUS**

The Contractor shall perform its duties as an independent contractor and not as an employee. Neither the contractor nor any agent or employee of the contractor shall be or shall be deemed to be an agent or employee of the City of Columbus. The Contractor shall pay when due all required employment taxes and income tax on any monies paid pursuant to the contract. Contractor shall acknowledge that the contractor and its employees are not entitled to unemployment insurance benefits unless the contractor or a third party provides such coverage and that the City does not apply for or otherwise provide such coverage. Contractor shall have no authorization, express or implied, to bind the City to any agreements, liability, or understanding except as expressly set forth in the contract. Contractor shall provide and keep in force worker's compensation (and show proof of such insurance) and unemployment compensation insurance in the amounts required by law, and shall be solely responsible for the acts of the contractor, its employees and agents.

## **INFORMATION FOR OFFERORS (RFP)**

### **PROTECTION OF CITY'S CONFIDENTIAL INFORMATION**

The contractor shall acknowledge that some of the material and information which may come into its possession or knowledge in connection with the contract or its performance, may consist of confidential information, the disclosure of which to, or use by, third parties could be damaging. Therefore, access to information concerning individual recipients of the City's services to individual clients, among other items, shall not be granted except as authorized by law or agency rule. The contractor shall agree to hold all such information in strictest confidence, not to make use thereof for other than the performance of the contract, to release it only to authorized employees or subcontractors requiring such information, and not to release or disclose it to any other party. The contractor shall agree to release such information or material only to subcontractors who have signed a written agreement expressly prohibiting disclosure. The contractor shall further agree to either destroy or return all such information at the end of the term of the contract.

This section does not impose any obligation on the contractor if the information is: (1) publicly known at the time of disclosure; (2) already known to the receiving party at the time it is furnished to the contractor; (3) furnished by the City to others without restrictions on its use or disclosure; or (4) independently developed by the receiving party without use of the proprietary information.

---

### **WITHHOLDING OF CITY INCOME TAX**

Pursuant to Section 361.34 Columbus City Codes, 1959: "Said Contractor hereby further agrees to withhold all City income tax assessment due or payable under the provisions of Chapter 361, Columbus City Codes for wages, salaries and commissions paid to its employees and further agrees that any of its subcontractors shall be required to agree to withhold any such City income tax assessments due under said chapters for services performed under this Contract."

### **WORKER'S COMPENSATION INSURANCE**

The contractor shall take out and maintain, during the life of the contract, adequate worker's compensation insurance for all his employees employed at the site of the project and, in case any work is sublet, the contractor shall require the subcontractor similarly to provide worker's compensation insurance for the latter's employees, unless such employees are covered by the protection afforded by the contractor. The contractor shall furnish three (3) copies of the worker's compensation certificate showing that the contractor has paid his industrial insurance premium.

### **SIGNATURE AFFIDAVIT**

To be completed if contractor is a corporation.

### **DELINQUENT PERSONAL PROPERTY TAX AFFIDAVIT (SEE Page 3B)**

Rev. 09/25/02



## INFORMATION FOR OFFERORS (RFP)

### **PUBLIC LIABILITY INSURANCE**

The contractor shall take out and maintain during the life of the contract, such public liability (bodily injury and property damage) Insurance as shall protect him from claims from damages for personal injury, including accidental death, as well as from claims for property damage which may arise from operations under the contract, whether such operation be by himself or any subcontractor or by anyone directly or indirectly employed by either of them. Such insurance policy shall include the City as named insured. The contractor shall maintain coverage of the types and in the amounts specified below. Proof of such insurance coverage shall be evidenced by submitting a certificate of insurance. A contractor's "umbrella" type policy with limits specified below may be submitted for this requirement with the City as named insured.

The amount of such insurance shall be as follows:

#### Bodily Injury Liability:

Each Person	\$ 500,000.00
Each Accident	1,000,000.00

---

#### Property Damage Liability:

Each Person	\$ 500,000.00
All Accidents	1,000,000.00

Such insurance shall remain in full force and effect during the life of the contract.

Insurance may not be changed or cancelled unless the insured notifies the City in writing not less than thirty days prior to such change or cancellation. If any part of the contract is sublet, the contractor is responsible for the part sublet being adequately covered by insurance hereinabove described.

Contractor assumes all risk of loss and damage to the equipment provided unless loss or damage occurs at the time the operator and equipment are being operated for the purpose designated by the City and such loss or damages is caused by an act of the City or its employee which constitutes gross negligence or wanton misconduct.

---

**THIS PAGE WAS INTENDED TO BE BLANK**

**PROPOSAL** This proposal is bidder's offer to sell the item(s) set forth on the bid proposal sheet at the prices(s) quoted by bidder thereon, under the terms and conditions of these bid documents. An estimated quantity is set forth on the bid quotation sheet. Bidder is to take notice that the City makes no warranties or representations that the estimated quantity, or any quantity at all, will be ordered by the City even though the bidder's proposal is accepted by the City and a firm offer for sale executed.

If bidder's proposal is accepted by the City and the firm offer for sale is executed the bidder is to take further notice that no act, failure to act, or order placed by the City or by any official, employee or agent of the City shall constitute an order or contractually bind the City without the proper certificate by the City Auditor that funds sufficient for full payment due on any order are available. Each order placed under the firm offer for sale shall require execution of a purchase order.

### **LENGTH OF CONTRACT**

The contract shall be in effect from the date of execution by the City to and including August 31, 2007. There will be an option, by mutual agreement of the City and the contractor, to renew for one, one-year period.

---

### **QUANTITY ESTIMATES**

All quantities shown on this proposal are estimates of the annual needs of the City and are for bidding purposes only. These quantity estimates are not to be construed as representing an actual order for the amount or as a guarantee that any minimum amount will actually be purchased. The City reserves the right to buy up to twice the estimated quantity.

### **ORDERING PROCEDURE**

Blanket order will be established for various City agencies in the form of a written purchase order signed by the Finance Director referencing the terms of this contract and specifying the delivery locations. Actual quantities will be determined at the time orders are placed by various City agencies (referencing their purchase order number) based on the needs of the agency and funds availability.

### **PRICING**

Bidders are requested to bid firm or fixed prices.

## PHOTO RED LIGHT ENFORCEMENT PROGRAM

### 1.0 Scope and Classification:

#### 1.1 Scope:

1.1.1 The City of Columbus (CoC), Division of Police (DoP) is seeking Request for Proposals (RFP) for a Photo Red Light Enforcement Program (program). The DoP is interested in exploring all available options comprising the makeup of a Photo Red Light Enforcement Program.

1.1.1.2 The contract will be for a period of three years and, given agreement by parties, one, one-year extension

1.1.2 The program shall include an education and awareness segment for the public, installation and testing of the system, and the issuance, collection, and appeal segment for the citations.

---

1.1.3 The purpose of the program is increased public safety through the enforcement of traffic laws associated with the red light traffic signal violations.

1.1.4 To this end, the goal of the Columbus Ohio Division of Police is to reduce the number of collisions and related death and injuries within the City of Columbus.

#### 1.2 Classification

1.2.1 The enforcement segments will consist of red light camera systems. These systems may be digital or video, or any combination of any of the aforementioned.

1.2.2 The areas of enforcement will be prioritized and shall be based on accident location data, causative factor of the accident, and volume of traffic.

1.2.3 The system will operate in conjunction with existing CoC traffic signals.

1.2.4 Required hardware for the system shall include, at a minimum, all computer interfaces, software, cameras, flash strobes, sensor arrays or loops, wiring, and any necessary appurtenances to provide a fully functional system.

1.2.5 It is anticipated that the CoC will utilize, at a minimum, 10 intersections, most with multiple approaches. If the project proves successful, the CoC envisions additions in the number of intersections/approaches.

1.2.6 There shall be no minimum number or quota of violations to be generated through the use of this system.

- 1.2.7 The offeror's employee shall testify in any and all court proceedings at no additional cost to the CoC, whether subpoenaed by the plaintiff or the defendant.
  - 1.2.8 The offeror will provide the staffing for this system excluding the DoP reviewer staff.
  - 2.0 Applicable Publications
    - 2.1 All installations and repairs must meet the Americans with Disabilities Act (ADA) and all relevant CoC requirements.
  - 3.0 Requirements
    - 3.1 The CoC expects each proposal to be based upon a turnkey operation, which shall mean the offeror shall provide all the necessary equipment associated with the system, and all necessary staff to install, operate and maintain same as well as providing all necessary services including, but not limited to the following. Consequently:
      - 3.1.1 Please describe how your system photographs vehicles allegedly not stopping for a red light traffic signal.
      - 3.1.2 Please describe how your system obtains vehicle registration information.
      - 3.1.3 Please describe, in detail, how your system will interface with the CoC traffic signal control equipment.
      - 3.1.4 Please describe how your system reviews each photograph for visibility.
      - 3.1.5 Please describe how your system matches the make and model with the obtained registration information.
      - 3.1.6 Please describe how your system performs quality control in the form of a second opinion as to the violation (this will be DoP review).
      - 3.1.7 Please describe how your system generates a citation, with photograph, and mailing to the registered owner of the vehicle that performed the violation.
      - 3.1.8 Please describe how your company will meet Statement of Auditing Standards (SAS) 70 requirements for this project.
      - 3.1.9 Please describe how your system transfers electronic files of citation information between the CoC's court system and the offeror.
      - 3.1.10 Please describe how your system processes service of citations not responded to after the mailing.
      - 3.1.11 Please describe how your system provides court testimony of contested citations.
-

- 3.1.12 Please describe how your system provides for a service center facility.
- 3.1.13 Please describe how your system will provide reports to CoC and describe those reports.
- 3.1.14 Please provide detailed information on your service level agreements for maintenance, installation, de-installation, repairs and response.
- ❖ Please describe how you will be able to locally manage our project on a day-to-day basis (attend meetings, deal with problems, make expeditious decisions, etc.).
- 3.1.15 Please describe how your Photo Red Light system is equipped to detect a violating vehicle, activate the camera system, and produce color images of the vehicle front and rear.
- 
- ~~3.1.16 Please describe how your system is capable of clearly photographing and recording the identification of the driver of the vehicle that is reasonably believed to be operating the vehicle that violated the red traffic signal.~~
- 3.1.17 Please describe how your system's cameras will obtain a clear image of the rear of the vehicle so as to clearly identify the rear license plate.
- 3.1.18 Please demonstrate how your system's images are clearly discernible and visible to the naked eye without the use of enhancement equipment.
- 3.1.19 Please describe how your system is capable of consistently photographing drivers and license plates regardless of weather conditions, glare, materials used to obscure the license plates from clear view at various viewing angles or any other means used for interference or avoidance.
- 3.1.20 Please describe how your system is capable of performing internal calibration tests for accuracy and functionality. The CoC is desirous of the following:
- ❖ Test failures must prevent further operation of the unit.
  - ❖ The internal test should provide a visual and/or auditory signal clearly indicating the operational accuracy or lack thereof.
  - ❖ A series of error messages must be displayed to inform the operator of the problem/s with the system, while in the deployment mode.

- 3.1.21 Please describe how you will maintain the integrity of CoC's traffic signal system.
  - 3.1.21.1 Traffic signal operation shall not be modified.
  - 3.1.21.2 Supplier is responsible for any damage and must provide a cost reimbursement program.
  - 3.1.21.3 Supplier is responsible for all permits, plans, modifications of existing infrastructure and associated costs to include CoC personnel necessary for traffic control and installation/removal.
  - 3.1.21.4 The City requires that personnel from the City Transportation Department be on site for any occasion when the supplier will need access to the City's traffic signal control box.
- 3.1.22 Please describe how your system is capable of gathering detailed computer data for statistical analysis and histograms for submission at hearings.

---

  - 3.1.22.1 The offeror will be required to produce monthly reports of activity and individual histograms for court purposes.
- 3.1.23 Please describe how your system is capable of accurately monitoring multiple traffic lanes at once with vehicles of various types, heights and lengths under various weather and light conditions.
- 3.1.24 Please describe how you system is automated with regards to set up, i.e., aperture settings, focusing, leveling and ease of loading and unloading images.
- 3.1.25 Please describe how your system's cameras have the ability to operate effectively during periods of nighttime operation and in all weather conditions.
- 3.1.26 Please describe the time it takes for your system to take photographs of vehicles entering the intersection after the signal has turned red.
- 3.1.27 Please describe how your system will capture violators at a minimum of 90% of the time or more.
- 3.1.28 Please describe the process used to communicate to the Division of Transportation, Traffic Engineer's staff that any and all repairs to any damaged traffic control systems have been repaired to the satisfaction of aforementioned.
  - 3.1.28.1 Any and all installations and/or repairs shall be made according to the original working order unless CoC authorizes a change.

- 3.1.29 Please describe how the CoC is to be reimbursed whenever a CoC employee is needed to be at any one cabinet during installation or repair.
- 3.1.30 For non-emergency situations, there shall be a minimum of twenty-four (24) hours advance notice to the CoC and the work will be performed during normal CoC working hours.
- 3.1.38.1 In the course of daily activity emergency situations will occur. The definition of emergency and how each party responds to that emergency shall be part of the contract negotiations.
- 3.1.31 Please describe how you handled emergency maintenance situations with cities of comparable size or larger than Columbus, Ohio.
- 3.1.32 Offerors are required to submit a current client list with company names, addresses, appropriate contacts and associated phone, fax and e-mail addresses.
- 
- 3.1.33 Please describe your process for acceptance and disbursement of funds (i.e., the CoC's share of the revenue generated).
- 3.1.33.1 This is to include but not limited to the following:
- ❖ timing of funds remitted to CoC (from receipt from offerer to CoC);
  - ❖ reconciling funds for penalties to the number of violations;
  - ❖ process for NSF situations;
  - ❖ types of funds that can be received (i.e., cash, check, etc);
  - ❖ Process used to reconcile the account;
  - ❖ Costs associated with funds remittal;
  - ❖ Banking institution(s) used to funds deposited.
- 3.1.34 Please describe options for payments and collections.
- 3.1.35 Should the CoC determine to use a provider (other than the one described in your turnkey system) to send violators citations, collect fines and disburse monies to the CoC, please describe how your system shall integrate with the provider. If necessary, please provide cost proposal information as described in 4.0.



## 4.0 Proposal Submission Requirements

### 4.1 RFP Submission:

4.1.1 The RFP shall consist of a technical and cost proposal with financial statements provided separately. The financial statements are to be enclosed in separate envelopes that accompany your proposals and clearly marked "Confidential" with your company name and address on the outside of the envelope. The financial statements are to be the most recent financial auditing statements for your company. One original and ten (10) copies shall be submitted no later than Thursday, June 17, 2004 at 11:00 AM Local time to:

4.1.1.1 Purchasing Office  
City of Columbus  
50 W. Gay St.  
Columbus, Ohio 43215

---

### 4.2 The document should be organized into tabbed sections as follows:

4.2.1 First tabbed section shall have a Letter of Submittal that shall include:

- ❖ The names of the individuals involved in the preparation of the proposal and their relationship with the Vendor.
- ❖ The name, title, address, email address and telephone number of the person to whom inquiries related to the technical and cost proposals should be directed.
- ❖ A statement confirming that the Vendor has sole and complete responsibility to perform the tasks and services described in your proposal.
- ❖ A list of all persons by name and address being officers or having an interest in your company.
- ❖ A statement that that the proposal is valid for 180 days from the date it was submitted to the City of Columbus.
- ❖ The Letter of Submittal may also include any information the Vendor wishes to add in order to clarify any area of the Proposal.

4.2.2 The second tabbed section shall include:

- ❖ A complete unaltered copy of this entire RFP document including Attachments, Exhibits, and any Addenda.

4.2.3 The third tabbed section shall respond to all Specifications cited in Sections 3.0 of this RFP. Detailed descriptions of the requested information are expected. While the Vendor may cite references to literature provided in Section 3 in order to clarify a point of discussion, the explanation provided must be in sufficient detail to fully explain the questions at hand.

4.2.4 The fourth tabbed section shall be the Cost Proposal. Full disclosure of all costs, including optional features that may be suggested by the Vendor, is required. THE SIGNED AUTHORIZED SIGNATURE PROPOSAL PAGE 5 FROM THE BID DOCUMENT SHALL IMMEDIATELY FOLLOW THE COST PROPOSAL AND BE A PART OF FOURTH TAB.

4.2.5 The fifth tabbed section shall include:

- ❖ The Non-Collusion Affidavit
  - ❖ Delinquent Personal Property Tax Affidavit
- 

4.2.6 The Police Records Check may be required of the Vendor if a contract is entered into with the City of Columbus.

## 5.0 Delivery

5.1 Delivery shall be F.O.B. Destination Prepaid and Allowed.

## 6.0 Notes

6.1 The City of Columbus's Mayor, Michael D. Coleman, Covenant states in part "to provide an atmosphere that promotes job creation and economic growth in existing and emerging industries". To that end please describe how your company could sub-contract with emerging businesses in central Ohio. For information please contact the City of Columbus's Equal Business Opportunity Commission Office.

- ❖ George Harper, Equal Opportunity Business Specialist – (614)645-8549

6.2 Periods of time, stated as a number of days, shall be calendar days.

6.3 It is the responsibility of all offerors to examine the entire proposal package and seek clarification of any items or requirements that may not be clear and to check all responses for accuracy before submitting the proposal. Negligence in preparing an offer confers no right of withdrawal after the due time and date.

6.4 Pre-Bid Conference.

6.4.1 A pre-bid conference will be held. The date, time and location follow:

❖ June 2, 2004 at 10:00AM, Local Time

City of Columbus, Division of Police  
First Floor Auditorium  
120 Marconi Blvd.  
Columbus, OH 43215

❖ The purpose of this conference will be to clarify the contents of this proposal in order to prevent any misunderstanding of the CoC's position. This conference will also give the offerors an opportunity to submit any questions.

6.5 Offerors' Presentation

6.5.1 Offerors may be invited to make a presentation of their proposal. If invited, there will be a segment that involves questions from the CoC regarding the submitted proposal.

---

6.6 Late Proposals

6.6.1 Late proposals will not be considered. An offeror submitting a late proposal shall be so notified by the CoC.

6.7 Addenda

6.7.1 All addenda shall be made part of the appropriate addenda acknowledgment section as identified in 4.2.2.

➤ Failure to include the addenda with your bid response may result in a proposal being rejected as non-responsive.

6.8 Award of Contract:

➤ Notwithstanding any other provision in this proposal, the CoC expressly reserves the right to:

- ❖ Waive any immaterial defect or informality; or
- ❖ Reject any or all proposals, or portions thereof; or,
- ❖ Reissue a new proposal.

6.9 A response to this RFP is an offer to contract with the CoC based upon the terms, conditions, scope of work and specifications contained in the CoC's RFP.

❖ A contract will be formed when the CoC's City Council authorizes the Professional Services contract executed by the selected offeror.

6.10 Contract Document:

- ❖ The final contract between the CoC and the successful offeror shall consist of the final form of the contract and any scopes of work incorporated therein, the offeror's submitted proposal, and any executed contract amendments attached thereto.

6.11 Obligations:

- ❖ The issuance of this proposal does not obligate the CoC to pay any costs incurred in the preparation, submission, or, if needed, presentation of the proposal.

6.12 Duration of proposal

- ❖ Timely submitted proposals shall be irrevocable for a period of one hundred eighty (180) days following the proposal due date, as may be modified by addenda.

6.13 Acceptance contract/agreement

---

- ❖ Any contract/agreement made pursuant to this RFP must be accepted in writing by the offeror.
- ❖ If for any reason the offeror should fail to accept, in writing, any conduct by offeror that recognizes the existence of a contract/agreement pertaining to the subject matter hereof shall constitute acceptance by the offeror of the contract/agreement and all its terms and conditions.
- ❖ Any terms proposed in the offeror's acceptance of the CoC's contract which adds to, varies from or conflicts with the terms herein are objected to.
- ❖ Any such proposed terms shall be voided and the terms herein shall constitute the completed and exclusive statement of the terms and conditions of the contract/agreement between the parties and may hereafter be modified only by written instrument executed by the authorized representatives of both parties.

6.1.14 Contract applicability:

- ❖ The offeror shall substantially conform to the terms, conditions, specifications and other requirements found within the text of this specific RFP. All previous agreements, contracts, or other documents, which have been executed between the offeror and the CoC, are not applicable to this proposal or any resultant contract.

- 6.1.15 The City reserves the right to modify the negotiated agreement, in part or whole, to a Universal Term Contract (UTC) that will permit the addition of more intersections as the project may expand without the need for City Council approval for expenditures under \$100,000.00 per fiscal year.
  - 6.1.16 The CoC, at its sole discretion, reserves the right to reject any equipment that does not meet adequate technical standards.
  - 6.1.17 The following evaluation criteria will be the criteria used by the evaluation team to determine with whom the Director of Public Safety shall negotiate:
-

**Rating Key:** Unacceptable = 0 Poor = 1 Fair = 2 Good = 3 Excellent = 4 Superior = 5

Criterion (Shaded) & Measures (Un-shaded)	Rating	Weight / Factor	Score
<p>1. <u>Competence</u> - the competence of the offeror to perform the required services as indicated by the technical training, education, and experience of the offeror's personnel who would be assigned to perform the work.</p> <p>Work experience of any personnel to be assigned by the offeror to this project, in performing similar projects. Particular attention will be paid to proposed team members experience in, the specific areas defined in the requirements section (Section 3).</p>	_____ X	25%  2	Section Score  =
<p>Specific professional qualifications of the firm demonstrating the firm's ability to provide backup and support for the personnel selected to perform the specified job responsibilities including the overall qualifications of additional personnel available for special assignments and potential replacements.</p> <p>Experience of the offeror in successfully providing professional services similar to those needed for this project.</p>	_____ X  _____ X	1.5  1.5	=  =
<p>2. <u>Quality and Feasibility</u> – the quality and feasibility of the offeror's proposal.</p> <p>The degree to which the proposal response demonstrates the Offeror's understanding the scope of the project, the objectives, the benefits to be obtained and the outcomes to be achieved. Offeror's understanding of the functional/technical requirements and the functionality, and appropriateness of the proposed solution.</p> <p>Practicality of the proposal response as demonstrated by a high degree of reliability and/or accuracy in successful completion of project work. (The offeror's past projects, as described in written responses and oral presentation)</p>	_____ X  _____ X  _____ X	20%  1.5  1  1.5	=  =  =

**Rating Key:** Unacceptable = 0    Poor = 1    Fair = 2    Good = 3    Excellent = 4    Superior = 5

Criterion (Shaded) & Measures (Un-shaded)	Rating		Weight / Factor	Score
<p><b>3. Ability</b> - ability of the offeror to perform the required services competently and expeditiously as indicated by the offeror's workload and the availability of necessary personnel, equipment, and facilities.</p> <p>Offeror's ability to provide the scope of services (strategic, analytical, technical) needed to satisfactorily perform all services of this project.</p> <p>Ability to staff this project with continuity.</p> <p>Proposed ability to rapidly develop and deploy project deliverables.</p>	_____	X	1	=
	_____	X	1	=
	_____	X	1	=
	_____	X	1	=
<p>Consultant's current workload &amp; impact it has on ability to service the City. Document the number and type of similar projects your firm is currently involved with and a description of the current status of these projects.</p>	_____	X	1	=
<p><b>4. Past Performance</b> - past performance of the offeror as reflected by the evaluations of the Department of Technology, other City agencies and other previous clients of the offeror with respect to such factors as quality of work, success in controlling costs, and success in meeting deadlines.</p> <p>Offeror's proven track record of success in providing quality services.</p> <p>Provided current contact name, title, e-mail address, street address, phone number, fax number, project title, and project dates.</p> <p>Overall rating of past references with respect to such factors as quality of work, success in meeting deadlines, maintaining costs, ability to adapt to technology, overall project success, etc...</p> <p>Overall similarity and applicability of work performed for references.</p>	_____	X	1.5	=
	_____	X	1	=
	_____	X	2	=
	_____	X	1.5	=
<p><b>5. Pricing Structure</b> - the cost or pricing structure of the offeror's proposal</p>			5%	
				Section Score

**Rating Key:** Unacceptable = 0   Poor = 1   Fair = 2   Good = 3   Excellent = 4   Superior = 5

Criterion (Shaded) & Measures (Un-shaded)	Rating		Weight / Factor	=	Score
The perceived reasonableness of the cost proposal.	_____	X	1	=	_____
			<b>Total Score</b>	=	_____



### **ESCALATOR CLAUSE**

No price adjustment shall be granted during the first year (12) months duration of an awarded contract. Thereafter, the price increase(s) shall not exceed five percent (5%) over the ensuing year (12) months, not to exceed one increase per year during the duration of the contract. In the event the supplier receives a general price increase due to increases in the cost of raw materials, labor, freight, etc., upon giving thirty (30) days prior notice and if proper documentation is submitted as proof, said increase in addition to the unit price quoted herein, may be permitted, subject to the sole discretion of the City of Columbus Finance Director or his designee. In the event any such increase is granted, no price adjustment will be permitted prior to the effective date of any purchase orders that are already being processed, or have been filled and are awaiting shipment.

The supplier shall submit the following documentation with each request for price increase:

- (1) Copies of the old and the current price lists or similar documents which indicate the original base cost of the product to the supplier and the corresponding increase; and/or

---

- (2) Copies of correspondence sent by the supplier's aggregator/manufacturer on the aggregator's/manufacturer's letterhead, which contain the above price information and explains the source of the increase in such areas as raw materials, freight, fuel, labor, etc., and/or
- (3) Copies of excerpts from business publications, market quotations or trade journals recognized as being representative of their particular trade or industry, that indicates a trend toward an increase in the current market for commodities under the contract.

### **DEESCALATOR CLAUSE**

Should there be a decrease in the cost of the finished product, the Finance Department/Purchasing Division shall be notified immediately and the resulting price adjustment will be incorporated into the awarded contract and made a part thereof.

### **Cooperative Purchasing**

The successful bidder may also make available item(s) under the terms, conditions and pricing of the proposed contract to agencies sanctioned by the City in its cooperative purchasing efforts. Any agency which is not subject to a City of Columbus purchase order must be invoiced directly by the vendor.

Sanctioned agencies' participation is subject to a credit approval by the vendor, as the City of Columbus is in no way obligated by those agencies' financial commitments. Sanctioned agencies include members of the Central Ohio Organization of Public Purchasers (COOPP), members of the Southwest Ohio Purchasers 4 Government (SWOP4G), members of the Ohio, Indiana Northern Kentucky Chapter of NIGP (OINK), and members the Franklin County Fire Chiefs Association in addition to any agencies specifically mentioned in this bid.

---

# 1. Non-Collusion Affidavit

(This affidavit must be executed for the proposal to be considered)

State of \_\_\_\_\_)

County \_\_\_\_\_)

\_\_\_\_\_, being first duly sworn deposes and says that the is, \_\_\_\_\_, (sole owner, a partner, president, secretary, etc.) of the party making the foregoing proposal or bid; that such bid is genuine and not collusive or sham; that said bidder is not financially interested in, or otherwise affiliated in a business way with any other bidder on the same Contract; that said has not colluded, conspired, connived or agreed, directly or indirectly, with any bidder or person, to put in a sham bid, or that such other person shall refrain from bidding, and has not in any manner directly or indirectly, sought by agreement or collusion, or communication or conference, with any person, to fix the bid price of affiant or any other bidder or to secure any advantage against the City of Columbus, Ohio or any person or persons interested in the proposed Contract; and that all statements contained in said proposal or bid are true; and further, that such bidder has not directly or indirectly submitted this bid, or the contents thereof or divulged information or data relative thereto to any association or to any member or agent thereof.

\_\_\_\_\_  
Signature of Affiant

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Notary public in and for

(Seal)

(county)

(state)

My commission expires:

---

**THIS PAGE WAS INTENDED TO BE BLANK**

**PROPOSAL**

To the Finance Director of the City of Columbus, Ohio:

We (I) propose to furnish the following article(s) and/or service(s) at the price(s) and terms stated subject to all instructions, conditions, specifications and all attachments hereto. We (I) have read all attachments including the specifications and fully understand what is required.

Prices are to be quoted F.O.B.:

See Page 5

Delivery: \_\_\_\_\_ calendar day(s) after receipt of order.

Terms: \_\_\_\_\_

Company Name or Bidder's Name: \_\_\_\_\_

Business Address of Bidder: \_\_\_\_\_

**REQUIRED Company Employee Information:**

Total number of company employees = \_\_\_\_\_

Total number of company employees working in Columbus = \_\_\_\_\_

Additional number of employees that will be working in Columbus in the event this contract is awarded to your company = \_\_\_\_\_

The full name and residence of all persons and parties interested in the foregoing bid are: (If a corporation, give the name and address of the president and secretary; if firm or partnership, the names and address of the members or partners.)

Name

Address

_____	_____
_____	_____
_____	_____
_____	_____

Authorized Signature X \_\_\_\_\_ Title: X \_\_\_\_\_

(SIGNATURE MUST IN WRITING IN OTHER THAN BLACK INK)

(TITLE MUST BE GIVEN)

---

**THIS PAGE WAS INTENDED TO BE BLANK**

**Signature Affidavit**

*(To be filled in and executed if the contractor is a corporation.)*

County of \_\_\_\_\_

State of \_\_\_\_\_

\_\_\_\_\_, being duly sworn, deposes and says that he/she is  
(Name of Affiant)\*

Secretary of \_\_\_\_\_

A corporation organized and existing under and by virtue of the laws of the

State of \_\_\_\_\_ and having its principle office at

\_\_\_\_\_  
(Number and Street) (City/State) (Zip Code)

Affiant further says that he/she is familiar with the records, minute books and

by-laws of \_\_\_\_\_ affiant further says

That \_\_\_\_\_ is \_\_\_\_\_  
(Name of person signing proposal/contract) (Title)

Of the corporation, is duly authorized to sign the contract for \_\_\_\_\_

\_\_\_\_\_, for said corporation by virtue of

**(State whether a provision of by-laws or a resolution of the Board of Directors.  
If by resolution, give date of adoption.)**

\_\_\_\_\_  
Signature of Affiant\*

Sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Notary Public in and for

\_\_\_\_\_  
(County) (State)

\*Affiant must be someone other than the signer of proposal/contract.

---

**THIS PAGE WAS INTENDED TO BE BLANK**



---

C

**Tyre, Evelyn M.**

---

**From:** Holland, Gary L.  
**Sent:** Monday, June 07, 2004 3:26 PM  
**To:** Blackwell, Jeffrey  
**Cc:** Brown, Mitchell J.  
**Subject:** RE: Photo Red Light Vendor evaluation team.

-----Original Message-----

**From:** Blackwell, Jeffrey [mailto:JBlackwell@columbuspolice.org]  
**Sent:** Monday, June 07, 2004 2:46 PM  
**To:** Holland, Gary L.  
**Cc:** Crosby, Richard; Brust, Ty; Cecutti, William T.; Cheatom, Carolyn F.; Deluca, David A.; Everhart, Cjarrault; Fofana, Jacqueline E.; Gordon, Fay E.; Gorsuch, Kathryn E.; Hopper, Diane; Landers, William; Lieberman, Brenda K.; Mancini, John; Perrigo, Jennifer L.; Roadcap, Gerald L.; Stewart, Jacqueline L.; Summers, Shiela; Terry Moore; Timothy McVey; Wooldridge, Gayla; Zimmer, Kathy  
**Subject:** Phot Red Light Vendor evaluation team.

---

Lieutenant,

This is okay. You'll need to know from Jack Yost how they conduct their initial screening to see which vendors were responsive to the basic bid requirements. Once they certify who passes through the filter and provides explanations why for those who don't, the committee will hunker down for its item-by-item walk through. You'll really have to have a consistent and tight process as you review each area and specification.

Once you develop the evaluation sheet the committee plans to use, make sure I have at least a copy. Also, I'd like to know when you will formally commence your evaluation (# of days Purchasing has - # of vendors and estimated eval time).

I appreciate the hard work going into this. Finally, the thought occurred to me that we should reconvene the entire RFP Committee to heard the top three recommendations, answer questions the members may have and, then, present to Director Brown. I'd send a perfunctorily invite to the executive staff at that time.

Keep up the good work.

\*\*\*\*\*

Sir: The vendor evaluation team has been set at 7 members at the suggestion of the purchasing office. It was recommende that you not be on the eval team due to the liklihood that you may have significant input into the ultimate awardee of the contract. Let me know your thoughts on this one. As it stands now the committee is as follows:

**Police**

**Lt. J Blackwell, CPD/Traffic  
Lt. Ty Brust, CPD/Patrol  
Sherry Mercurio, CPD/PIO**

**Transportation Division**

**Mark Stephenoff, Transportation  
Dave Krier, Transportation**

**Health**

**Amanda Ford, City  
George Harper, EBOCO**

**We will meet next Monday or Tuesday and formulate a game plan under the guidance of Lt. Bowditch. I will keep you apprised of any significant developments as they occur.**

**Respectfully,**

**Lt. B**

---

---

**D**

## PRE-BID CONFERENCE AGENDA

1. All attendees to sign in via the sign-in sheets.
2. Welcome – Yost - Moderator
  - 2A. Introduction of all Department Staff present and their role in the RFP process. – Division of Police Rep.
  - 2B. Introduction of all other attendees. One representative per company – Yost
3. Format of the Pre-Bid Conference - Yost
  - 3A. Explain the following:
    - 3A1. Questions will be posed on form provided and passed to the moderator.
    - 3A2. Simple questions will answered at this Pre-Bid Conference.
    - 3A2. If more complicated, it will be indicated so and an answer will be given in less than 48 hours. It will be sent via email to all attendees and by mail to all suppliers originally sent the bid.
    - 3A3. All answers, whether answered today or later, will be sent to the attendees via email and to all bidders whom were originally sent the bid.
  - 3B. Take questions from attendees. Questions will be given to team members. Team will confer and answer or not answer as described above. - Yost

MULVHILL  
ACS  
PEAK  
REDFLEX  
TRANS  
NESTER

## PRE-BID QUESTION & ANSWER

- Q: Is the Ordinance written? If so, what is the fine amount? Will speed enforcement be allowed? Are there penalties for non-compliance, registration lock out, etc?
- A: No the Ordinance is not written at this time. The fine amount cannot be commented on at this time. Speed enforcement will not be addressed at this time but may be considered later. There will be penalty clause for non-compliance.
- Q: Do you plan for front photography? If yes what is its intended use? Are we to photograph the driver?
- A: The Committee will look at proposals from all Vendors, this has not been decided on yet. Not important to photograph the driver of the vehicle.
- 
- Q: ~~Can contract term be defined as 3 years from date of installation instead of execution of the contract?~~
- A: To be determined when the contract is awarded.
- Q: 1.2.4 - Is it correct to interpret this section to mean all hardware necessary for the system to be fully functional? Recognizing that technologies vary in terms of hardware requirements?
- A: Yes
- Q: 3.1.10 – Are there any specific service of citation processes that the City desires?
- A: Propose what you (Vendor's) have and the Committee will evaluate.
- Q: 3.1.12 – Are there any specific service center facility requirements that the City desires?
- A: Local office in Franklin County, the City of Columbus.
- Q: 3.1.16 & 3.1.19 – Will the citation be issued to the registered owner of the vehicle according to the DMV registered owner information? If so, is a driver image required to issue a citation?
- A: Yes, the citation will be issued to the registered owner of the vehicle, the driver image is not necessary.
- Q: 3.1.21.1 – According to 1.1.4, the goal of the Columbus Ohio Division of Police is to reduce the number of collisions and related deaths and injuries. In keeping with this objective, there are optional safety features that can help avoid a crash, but 3.1.21.1 would prevent this feature from being implemented. Would the City be willing to re-evaluate this section on an intersection by intersection basis?
- A: Propose what you have and the Committee will evaluate.

Q: 3.1.21.3 – Do we have to reimburse City of Columbus Transportation Department personnel, if it is not necessary to access the traffic signal control box?

A: Dependent upon the situation, possibly.

Q: 3.1.21.4 – Is City of Columbus Department of Transportation personnel needed on-site if the contractor will not be accessing the traffic signal box.

A: Yes, an inspector will need to be on site and pay for PO if needed. (only for non-emergency situations). Permits possibly will be required.

Q: 3.1.29 & 3.1.30 – Is notice to City of Columbus Transportation Department personnel needed on-site if the contractor will not be accessing the traffic signal box?

A: Yes, advisement would be necessary due to potential of interoperability malfunction.

**Q: 3.1.35 – What type of equipment/software is currently being used? Do you have an existing provider in place or will a new RFP be issued for this service?**

**A: We currently have contracts with A.C.S. for EMS services and parking violations. However, the awarding of this contract is not depended upon any electronic services you may provide, or the compatibility with existing city systems.**

Q: 1.2.2 – Does the City of Columbus have a list of intersections to be surveyed/prioritized that will be made available to the selected vendor? Is there data available for these intersections?

A: Yes, the City does have a list of intersections that would be priority. The data will be made available to the selected Vendor.

Q: 1.2.5 – Should pricing be quoted on a lease basis (per approach) or on a per-ticket basis? Should purchase option be quoted?

A: Vendors can put in their proposal all 3 ways.

**Q: 3.1.9 – Are there limitations on what types of electronic files the court system can accept?**

**A: At this time hard copies will be used if necessary in Municipal Court.**

Q: 3.1.12 – Do you require the Vendor to establish a physical local office?

A: Yes.

Q: 3.1.14 – Will you require front and rear images of each violation?

A: Undetermined at this time.

Q: 6.1 – Does the City maintain a listing of businesses covered under this section?

A: Yes, contact George Harper for more information.

Q: If you are aware of how court adjudication data will be provided to the Vendor, would you describe that please, or will this be worked out with the Vendor?

A: This will be worked out with the selected Vendor.

Q: The RFP refers to City of Columbus court system. Is this Franklin County Municipal Court? Do you contemplate coordination with Muni Court?

A: Yes. Have met with administrative judge Brandt and will develop system for Municipal Court review if the hearing officer cannot settle the ticket dispute.

Q: Will the City consider eliminating requirement for face photography?

A: Vendors should submit whatever technology they have concerning the recording of the violator vehicle.

---

Q: What is the anticipated fine amount?

A: Undetermined at this time.

Q: Has the City identified all approaches to be enforced? If not, what will role of vendor be in site selection?

A: The site selection committee will review data and responses from Precinct regarding intersections, selected Vendor will have input.

**Q: What is the hourly rate for City engineers that will visit traffic controllers at Vendor's expenses?**

**A: Electronics maintenance personnel rates as of today 6-3-2004, \$42.30 per hour (subject to rise). Vehicle charge is \$40.36 per hour. Police rate \$32.50 per hour, Sergeant rate \$38.00. Car rental \$15.00 per hour.**

Q: Does the City want Vendor's to submit financial statements with their bids? If yes, which statements are requested?

A: Yes, most recent Audited statements at least Un-Audited statements, (SAS70)

Q: Can Vendor share conduit with the City for installation?

A: This would have to be negotiated and looked at for each site. Probably not.

**Q: City has requested histogram reports for court proceedings. What information is to be provided in the histograms?**

**A: Vendor is to provide answer to this question as to what they can provide. Reference 3.1.22.**



Q: Will City use registration hold to enforce citations?

A: No, not at this time.

Q: Will Committee consider rear image only (owner identification) solution?

A: Yes.

Q: Will you allow bidders to submit a proposed front and rear image (driver identification) system and a rear image only (owner identification) system as an alternative?

A: Yes.

---

**E**

# Red Flex

*Traffic System's*

*Company*



# Redflex Traffic Systems Business Cards



**Aaron M. Rosenberg, PhD**  
Vice President of Sales & Marketing  
North America, Latin America  
& the Caribbean

**REDFLEX**  
TRAFFIC SYSTEMS

---

Redflex Traffic Systems, Inc.  
6047 Bristol Pkwy, 1st Floor  
Culver City, CA 90230  
Tel: 310 743 1209 · Fax: 310 642 0142  
Email: arosenberg@redflex.com <http://www.redflex.com>







**REDFLEX**

Redflex Traffic Systems, Inc.

15029 N. 74th Street  
Scottsdale, AZ 85260

Tel: 408 607 0705

Fax: 408 607 0752

www.redflex.com

September 24, 2002

Lt. Karl L. Barth  
Traffic Bureau  
Division of Police  
120 Marconi Blvd.  
Columbus, Ohio 43215-0009

Dear Lt. Barth,

I am forwarding this package of information regarding Redflex Traffic Photo Enforcement Systems in the hope that you would consider the traffic safety ramifications of digital camera technology in the City of Columbus.

Our 20-camera "pilot project" in TOLEDO has been operating for nearly two years. The city recently held a press conference to reveal that camera-installed intersections have experienced an overall **26% reduction in accidents**, compared to five previous year averages. Toledo has requested that Redflex expand the project to 30 cameras, as soon as possible.

The City of DAYTON just signed a contract with Redflex for the placement of 18 red light cameras in an attempt to impact the 409 signalized intersection accidents they have experienced in the last three years.

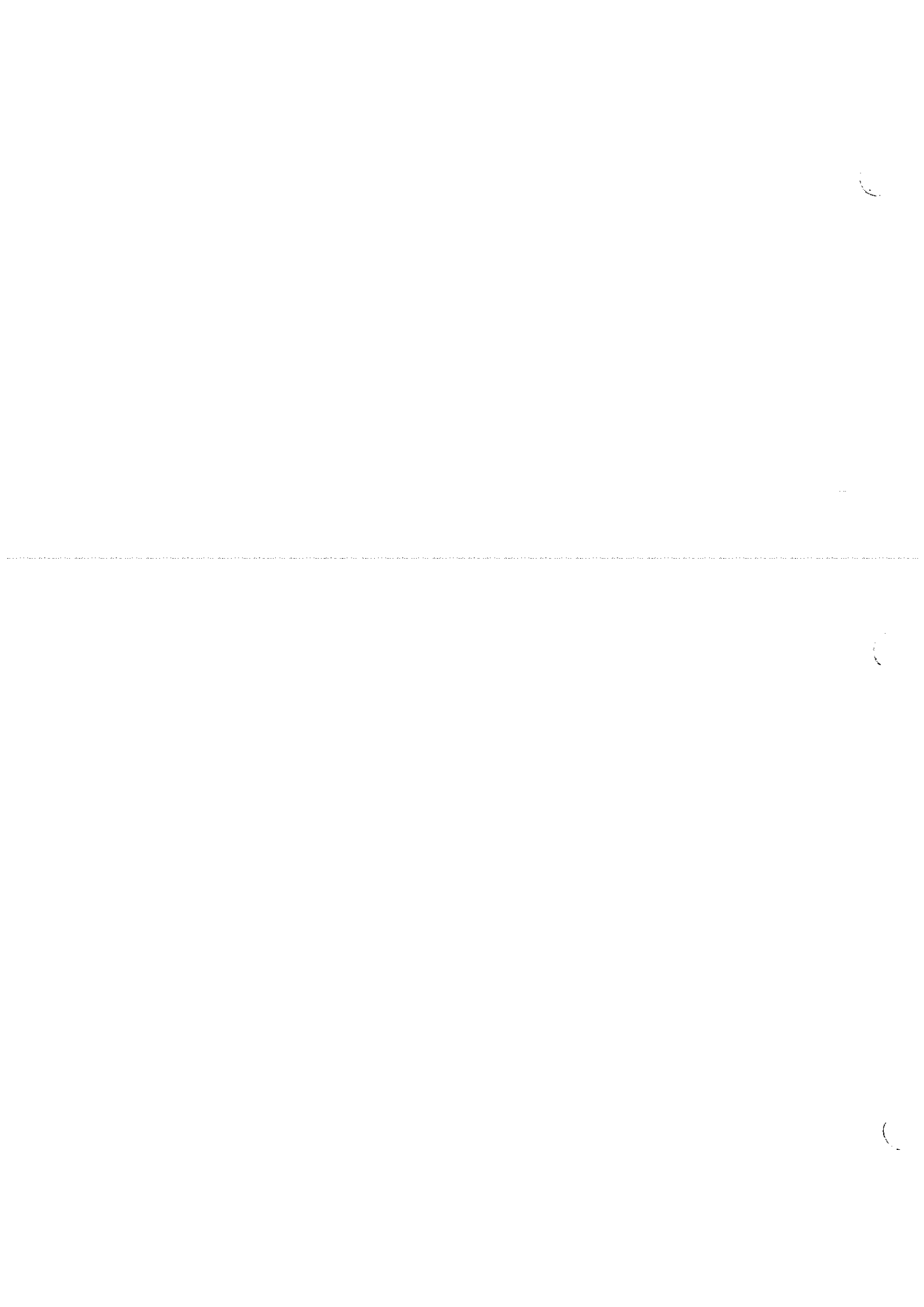
The City of CINCINNATI has gathered together their key Law, Police and Traffic Engineering personnel to explore camera placement and is actively seeking a red light photo enforcement program. Police from Cincinnati will be traveling to Toledo next week to look at camera intersections and view the method by which police authorize photo enforcement citations.

The enclosed CD gives you a glimpse of the Redflex method of documenting traffic violations through digital photography. I would like to spend an hour with you talking about how the other cities developed their ordinances, how the cameras work, how Redflex's exclusive software assists officers in verifying violations for mailing, etc.

I would like to give you a call next week to set up a meeting time, maybe at the Italian place over by the ballpark or wherever you would like for lunch. How about it?

Sincerely,

Joe Moore  
Ohio Operations Representative

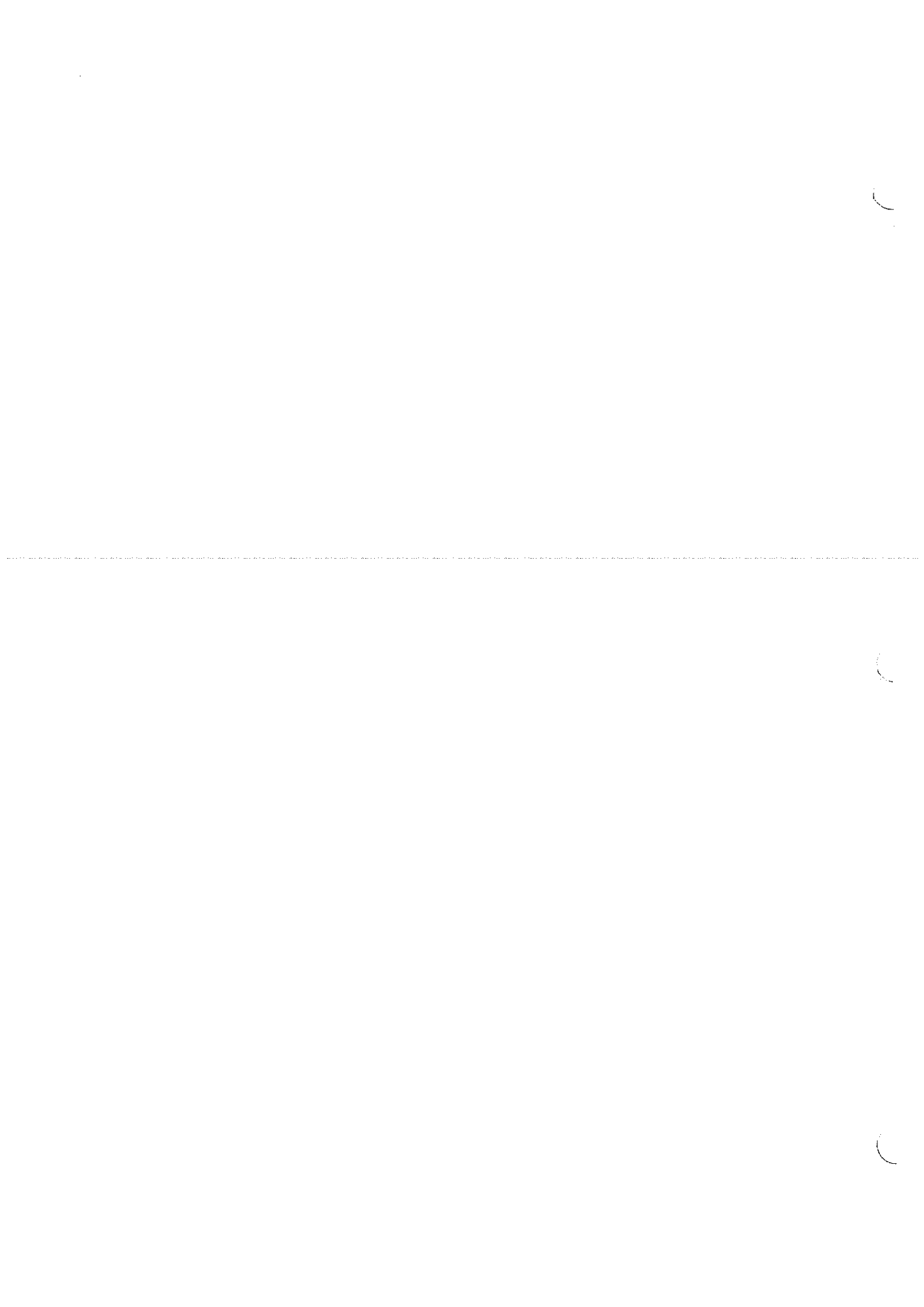




Current Cities that have Redflex

<b>Culver City, CA</b>	
Client Contact	Sgt. Omar Corrales
Contact #:	310-489-2506
<b>Ventura, CA</b>	
Client Contact	Sgt. John Turner
Contact #:	(805) 207-9350
<b>El Cajon, CA</b>	
Client Contact	Ed Krulikowski
Contact #:	619-441-1653
<b>Toledo, OH</b>	
Client Contact	Sgt. Paul Kerschbaum
Contact #:	(419) 245-3258
<b>Monroe, NC</b>	
Client Contact	Mark Donham
Contact #:	704-282-4510
<b>Cary, NC</b>	
Client Contact	Dale Privette
Contact #:	919-462-3833
<b>Oxnard, CA</b>	
Client Contact	Com. Tom Chronister
Contact #:	805-385-7600
<b>El Monte, CA</b>	
Client Contact	Sgt. Bob Roach
Contact #:	626-580-2164
<b>Scottsdale, AZ</b>	
Client Contact	Lt. Mike Rosenberger
Contact #:	(480) 312-7016
<b>Paradise Valley, AZ</b>	
Client Contact	Lt. Ron Warner
Contact #:	480-948-7418
<b>Inglewood, CA</b>	
Client Contact	David Naden
Contact #:	310-412-5641
<b>Upland, CA</b>	
Client Contact	Capt. Rod Lines
Contact #:	909-9467624
<b>Santa Ana, CA</b>	
Client Contact	Lt. Tony Levatino
Contact #:	714-245-8210
<b>Savannah, GA</b>	
Client Contact	Sean Brandon
Contact #:	912-651-6420

SP Brandon @ CI, SAVANNAH, GA. U  
 MGT CALLED  
 FBI



Dayton, Ohio Client Contact	Detective Carol Johnson 937-333-1084
--------------------------------	---

1

2

3

**REFLEX TRAFFIC SYSTEMS**

TOTAL PROVIDER OF 'END TO END' TRAFFIC CAMERA SYSTEMS AND SERVICES THAT IMPROVE ROAD SAFETY

**HOME****REFLEX TRAFFIC SYSTEMS**

Overview  
ASX Announcements  
Contact Information

**ROAD SAFETY PROGRAMS**

Program Results  
Redflex's 'end to end' program operations

**REFLEX SAFETY PRODUCTS**

SMARTCAM™  
[REFLEXred](#)  
[REFLEXred & speed](#)  
[REFLEXspeed](#)  
[REFLEXtoll](#)  
[REFLEXprocessing](#)

**SAMPLES**

Notices

**PRODUCT BROCHURES**

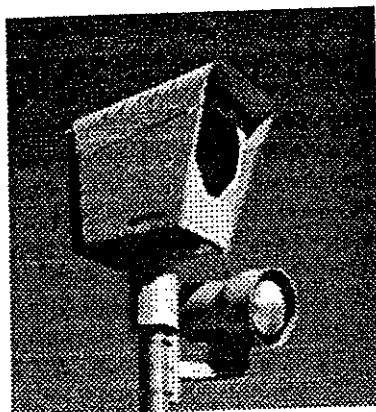
Product Brochures

**EMPLOYMENT**

Work with us

**LINKS**

Road safety sites

**REFLEX TRAFFIC SAFETY PRODUCTS**

Redflex traffic-law enforcement products and systems are sold outright, leased, or operated in outsourced programs by Redflex on behalf of its clients. Redflex traffic safety products are operating across Australia, Canada, the Middle East and the U.S.A.

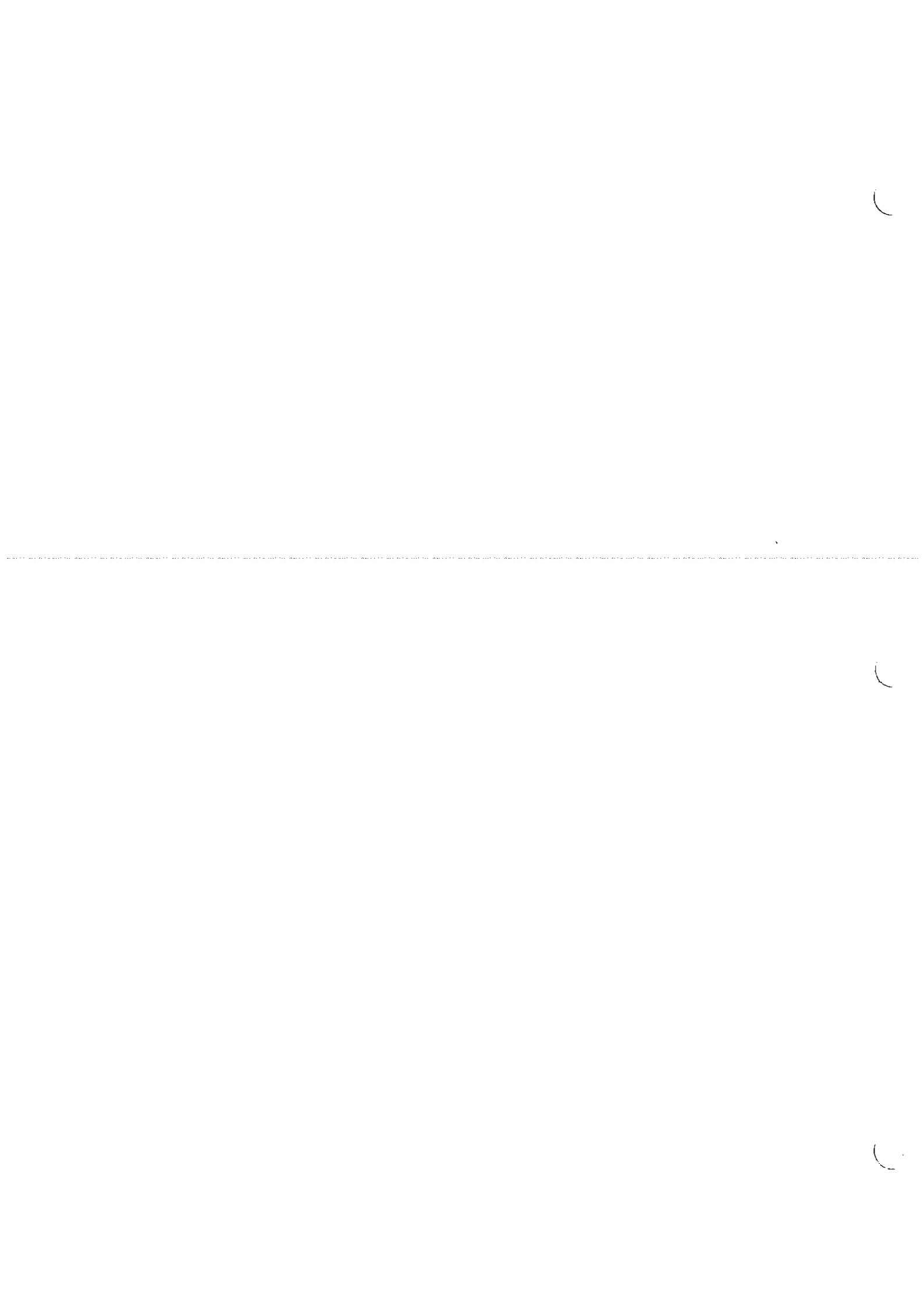
**DIGITAL REFLEXred - RED LIGHT TRAFFIC CAMERAS**

REFLEXred digital traffic camera systems are designed to deliver on-line monitoring, capture and communication of high quality evidence to enforce red light violations.

REFLEXred systems are capable of monitoring up to four lanes of traffic (including turning lanes) because they integrate several high-resolution SMARTCAM™ units to insure precise imaging capabilities). Rapid recycle illumination systems are synchronized to flash at precisely the same instant as the cameras image, allowing effective 24-hour enforcement.

Redflex's custom-designed cameras and flash system housings are installed on poles or gantries to optimize imaging quality from each site. The robust, all-weather housing is bullet resistant.

In-road or radar sensors identify vehicles running the red light and record their speeds. ALL required prosecution data is captured and



# SAFETY FIRST



Volume 1

ISSUE 1 SPRING 2002

## The Redflex System Provides the Industry's Highest Image Clarity



Image #1 (Scene A): Violating Vehicle Prior to the Stop Line



Image #2 (Scene B): Vehicle Committing the Violation



Image #3 (Zoom A): Facial Image of Violator

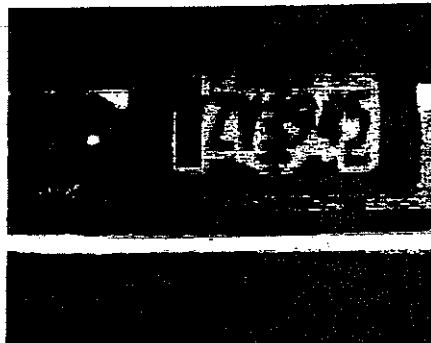


Image #4 (Zoom B): License Plate Image of Vehicle

## The Redflex System Produced the Industry's Highest Safety Results

**Ventura** Achieved a **60% Reduction** in Injury Accidents with a Downward Trend Citywide

For more information about the City of Ventura's Red Light Program, please contact:

Sgt. John Turner  
(805) 207-9350

**Culver City** Achieved a **65% and 48% Reduction** in Accidents in the 1<sup>st</sup> and 2<sup>nd</sup> years of their program, respectively

For more information about the City of Culver City's Red Light Program, please contact:

Sgt. Omar Corrales  
(310) 253-6108

### RECENT REDFLEX NEWS >>>

**Bakersfield** Partners with Redflex to Launch Red Light Camera Program

**El Cajon** Partners with Redflex to Launch Red Light Camera Program

**Culver City** Renews 5-Year Contract with Redflex for Red Light Camera Program

**Santa Monica** Selects Redflex as Partner for Red Light Camera Program

### WANT MORE INFORMATION???

For additional information on all-digital traffic enforcement solutions including automated red light and speed enforcement technologies, please contact:

Aaron Rosenberg  
Vice President of Sales  
Redflex Traffic Systems  
5813 A Uplander Way  
Culver City, CA 90230  
Phone: (310) 642-0470  
[arosenberg@redflex.com](mailto:arosenberg@redflex.com)  
[www.Redflex.com](http://www.Redflex.com)

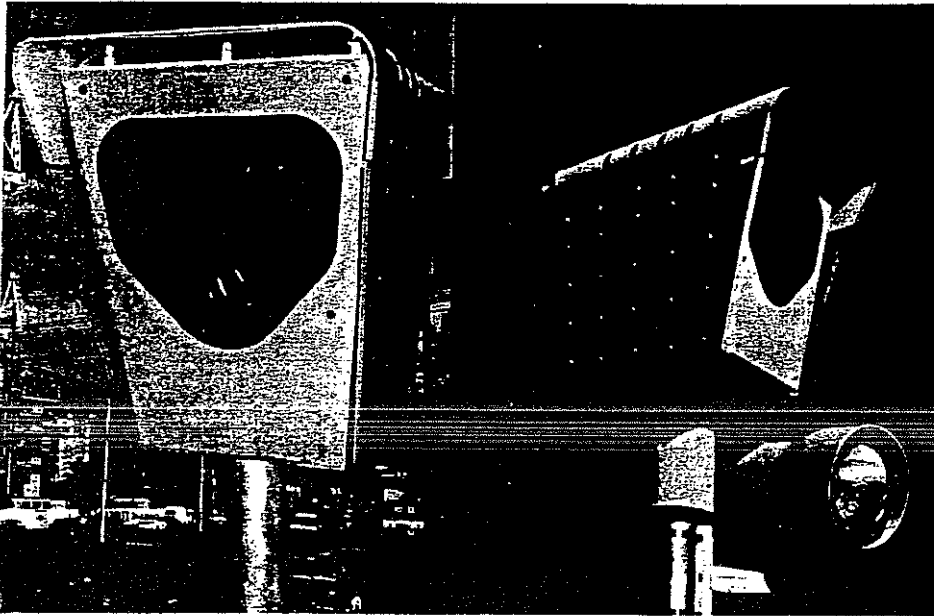
# SAFETY FIRST



Volume 1

ISSUE 1 SPRING 2002

## Redflex Introduces the Industry's Only Combined All-Digital System That Includes Digital Still & Digital Video Violation Capture Technology



The State-of-the-Art Combined Camera Unit, Housing and Synchronized Illumination Module

As the leading provider of total end-to-end traffic enforcement solutions, Redflex is pleased to introduce the latest innovation in all-digital red light enforcement - The Combined All-Digital Still and Video Synchronized Camera Unit. Each camera unit provides the industry's highest resolution images with an aggregate of over 7,000,000-pixels. This state-of-the-art technology translates into unequaled image clarity and detail on a 24x7 basis regardless of weather or lighting conditions. Each Redflex Camera Unit provides crisp color still images and 12 seconds of color video images for non-refutable and virtually non-contestable violation enforcement. These units are the cultivation of over 10 years of research and development and have been designed from the ground up specifically for traffic enforcement photography. Each Camera Unit also includes a synchronized flash illumination module for unparalleled nighttime violation capture without causing public and/or safety nuisances. All images are encrypted on-site at the point of capture.

### Automated Red Light Enforcement Saves Lives>>>

Welcome to the first edition of the Safety-First newsletter developed by Redflex Traffic Systems, Inc. This newsletter was developed to share information and generate awareness regarding advancements in automated traffic enforcement technologies that are enabling truly significant safety benefits. Redflex is one of the largest and most experienced providers of traffic enforcement technologies and safety programs with over a decade of experience and nearly 150 operational systems producing real reductions in accidents, fatalities and costly property damage. Please let Redflex help your city develop a successful program by implementing the most advanced lifesaving technologies.

We hope you'll find this a useful resource for education, awareness and information.





# SAFETY FIRST

## THE REDFLEX DIFFERENCE

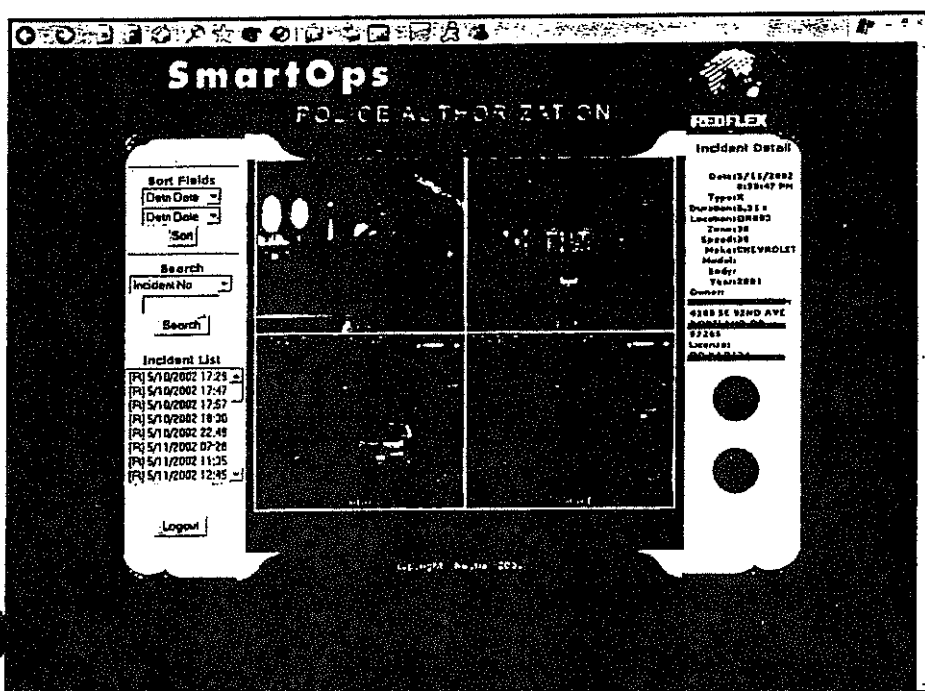
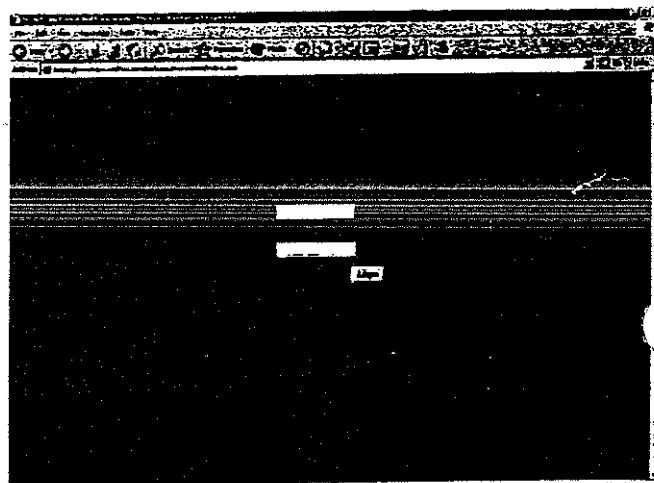
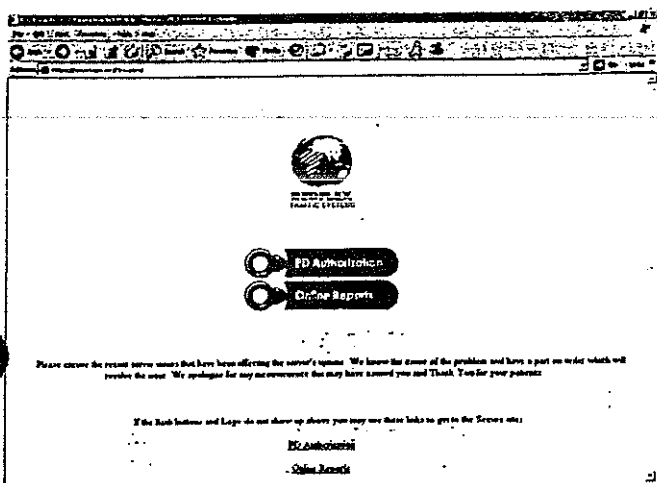
- Recent awards to Redflex in the last four open bids.
- Proven to **reduce accidents in the magnitude of 50-70%** year-after-year.
- A unique user-friendly web-based tool for Citation Authorization which will increase the effectiveness of Law Enforcement resources enabling the authorization of individual citations in less than 10-30 seconds per citation from any computer that has internet access.
- The majority of Reflex programs are completely violator funded and some municipalities have generated new revenue streams resulting in literally millions of dollars for city funds.
- Redflex has a rich resource pool of seasoned marketing and public relations professionals to work with the City to develop a comprehensive Community Awareness and Media Campaign. Redflex customer cities consistently generate the highest public awareness and public support ratings in the **magnitude of 70-90%**.
- Redflex system capabilities to photo enforce left hand turns, right hand turns, and speed violations.
- Experience as the provider to some of the **largest single-city** digital photo enforcement programs currently operational in North America.
- The industry's highest citation yield rates, proven to be **30-50% higher** than most alternative systems, which results in increased program effectiveness and increased city-revenue.
- The unique capability of our back-office to provide access to all citation and violation data and images on a **24x7 basis** directly through the Internet.
- All images are **encrypted at point of capture**.
- Redflex offers fully integrated services and **does not** outsource the back office processing. Other vendors use a third party contractors opening issues of the chain of custody.
- Record of evidence in court: Our programs have proven provide **win-rates** in the magnitude of **90-95% of contested violations** via court review and/or administrative review processes.
- Redflex offers **24x7** enforcement through a synchronized flash illumination module that does NOT cause safety and/or public nuisance issues like the competitions fixed illumination.
- Ability to accurately capture **high-speed vehicles up to 130 MPH** in night and variable weather conditions (versus alternative systems that are effective at 35-45 MPH.)
- The Redflex system provides superior resolution and high quality images with an aggregate of **7,000,000 pixels of digital still images** and the addition of **12 seconds of digital video images** resulting in virtually non-refutable and non-contestable citations and evidence.
- **Remotely configurable** camera systems that insure clear images in all weather conditions.
- The ability to implement a system that is configured to accurately and effectively **capture Commercial Trucking** violators.
- A legacy of **over a decade of experience** in providing effective and proven Automated Red Light Enforcement Programs.

# SAFETY FIRST



## THE REDFLEX WEB-BASED AUTHORIZATION MODULE - WEBOPS

The REDFLEX web-based on-line module for police review and authorization is called WEBOPS. This application is completely web-enabled and can be accessed by assigned users through any computer that has Internet access. The application is available for assigned Police or City personnel and is completely secure using robust user management and Internet security protocols. The application was developed in conjunction with various police and city agencies to ensure ease-of-use and intuitive navigation. Once an assigned user is logged-in to the application, he/she will be able to see all violations waiting for review. Each citation notice includes all required DMV information and authorized police personnel have the ability to review each violation and indicate citation acceptance or rejection.



### HIGHLIGHTS:

- Web-based for 24x7 access via the internet
- Single-screen violation review and authorization
- Single-click image enlargement
- Single-click violation acceptance/rejection
- Ability to quickly search and sort violations and archives
- 24x7 on-line access to management reports
- All passenger images are blocked out for privacy
- Effective nighttime image capture (violation on left was captured at 8:58 PM)
- Password protected



# STATEMENT OF SMARTCAMRED RED LIGHT CAMERA TECHNOLOGY (REAR PHOTOGRAPHY ONLY)

Digital SMARTCAMred Camera Systems **ONLY** trigger during the red light signal phase.

The Camera Systems record:

- Three separate images for each red light violation, and
- The date, time, time into the red cycle, location code, detected vehicle speed and posted speed limit for each violation. The Camera System imprints this data onto the Databar which is displayed at the top of all three images. (See example Databar below)

Each Camera System consists of a Main Camera to provide rear-shot images of the vehicle and a zoomed image of its rear license plate.

The Main Camera is connected to the traffic signal controller and detection sensors. During the green and amber signal phases the camera is not active. It **ONLY** becomes active **AFTER** a delay period from the start of the red signal phase.

When the sensors detect a violation, the Main Camera triggers. The **First Image** shows the vehicle just behind the stop bar with the traffic signal already red. The **Second Image** is activated when the vehicle has proceeded through the intersection during the red phase (therefore displaying a red light violation).

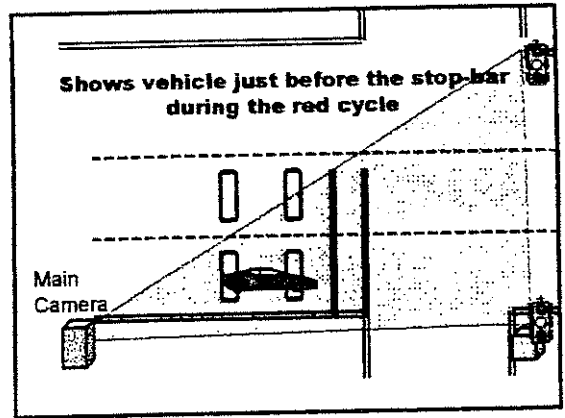
The **Plate Camera** captures the rear license plate of the violating vehicle. The plate-shot is triggered to occur at an optimal distance for plate image quality.

The System uses encryption to **safeguard the image evidence** against alteration. At the scene, the System gives each image and its data a **unique signature** to confirm its authentic status. **Public key cryptography** and additional encryption processes secure the transmission process.

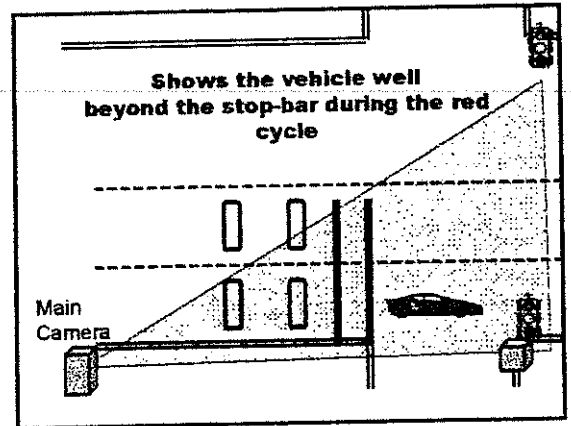
### Databar Description:

1. Location of Violation
2. Date and Time of Violation
3. Duration, in seconds, that the traffic signal was red at the time of the violation

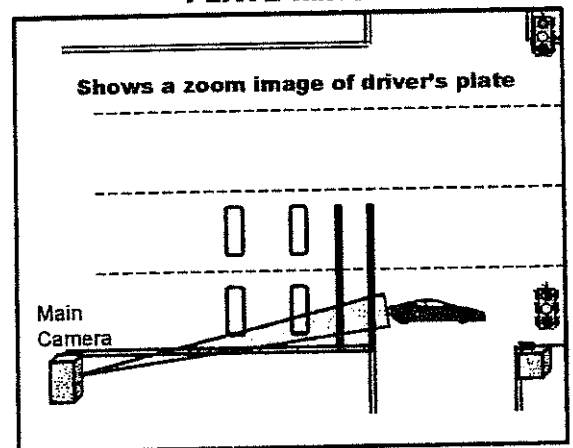
### FIRST IMAGE



### SECOND IMAGE



### PLATE IMAGE

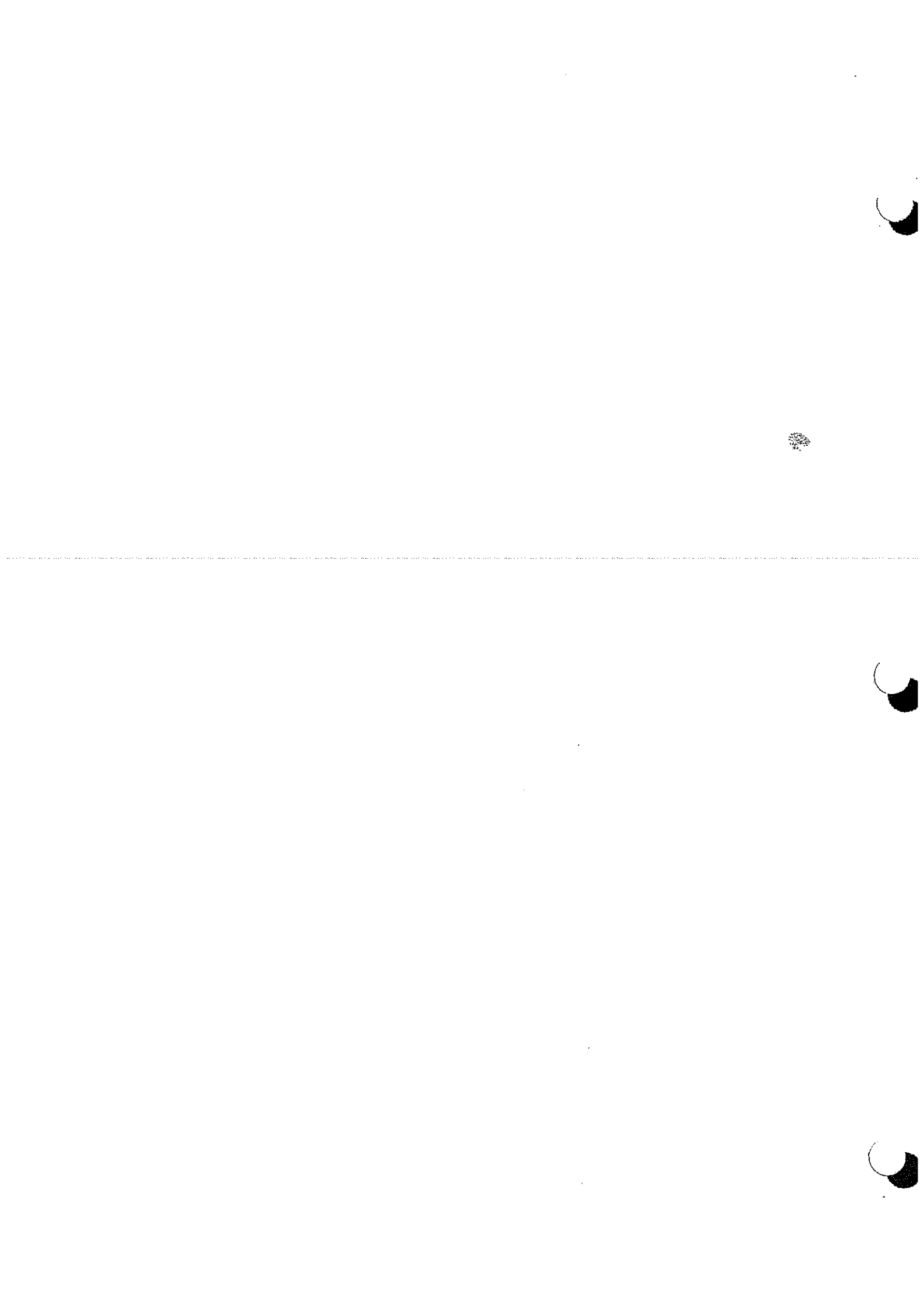


These Figures are a fair and accurate representation of a violation.

R01 SNOWDEN RIVER @ McGAW ID 101 SL 45MPH DI HC L 2  
 REDFLEX 05/03/1999 08 06 04 F 003A P RED VS 060MPH TR 000 8

2.

3.



# SAFETY FIRST



changes to red aren't photographed. This technology is intended to catch vehicles driven by motorists who enter an intersection after the signal has turned red.

- **Does someone review the photographs before motorists are ticketed?** Yes. Trained police officers or other officials review every picture to verify vehicle information and ensure that the vehicle is in violation. Tickets are mailed to vehicle owners only in cases where it's clear the vehicle ran the red light.
- **Do red light cameras violate motorists' privacy?** No. Driving is a regulated activity on public roads. By obtaining a license, a motorist agrees to abide by certain rules -- to obey traffic signals, for example. Neither the law nor common sense suggests drivers shouldn't be observed on the road or have their violations documented. In addition, red light camera systems can be designed to photograph only a vehicle's rear license plate -- not vehicle occupants, depending on local law. Only the vehicles driven by motorists who are violating the law are photographed.
- **Are special laws needed to allow localities to use red light cameras to cite violators?** In order for localities to use the cameras for law enforcement purposes, laws must authorize enforcement agencies to cite red light violators by mail. The legislation also must make the vehicle owner responsible for the ticket, establishing a presumption that the registered owner is the vehicle driver at the time of the offense. Red light cameras are currently permitted in 15 states -- Arizona, California, Colorado, Delaware, Georgia, Hawaii, Illinois, Maryland, New York, North Carolina, Ohio, Oregon, Utah, Virginia, and Washington -- and the District of Columbia. Violations photographed by red light cameras are most commonly treated in one of two ways -- as traffic violations or as the equivalent of parking tickets, depending on state law. If, as in New York, red light camera violations are treated like parking citations, the law can make registered vehicle owners responsible without regard to who was driving at the time of the offense. Virginia makes red light camera violations a civil offense like New York, but unlike New York the state allows registered owners to avoid citations by filing affidavits swearing they weren't driving when the violations occurred.
- **Does the American public support the use of red light cameras?** The large majority of the U.S. public supports the use of red light cameras (80 percent in cities with cameras and 76 percent in cities without cameras). A 1996 survey by the Insurance Research Council found that the highest support for red light cameras was in large cities, where 83 percent of respondents supported their use. Widespread support is found in both cities with red light cameras and those without such enforcement. A recent Institute survey in 10 cities -- 5 with and 5 without cameras -- reported that 80 percent of drivers in cities with cameras and 76 percent of those in cities without cameras were in favor of camera enforcement.

Source: November 2001, Insurance Institute for Highway Safety  
[http://www.hwysafety.org/safety\\_facts/qanda/rlc.htm](http://www.hwysafety.org/safety_facts/qanda/rlc.htm)

## WANT MORE INFORMATION?

For additional information on all-digital traffic enforcement solutions including automated red light and speed enforcement technologies, please contact:

Aaron Rosenberg  
Vice President of Sales  
Redflex Traffic Systems, Inc.  
Phone: (310) 642-0470  
[arosenberg@redflex.com](mailto:arosenberg@redflex.com)  
[www.Redflex.com](http://www.Redflex.com)

# SAFETY FIRST

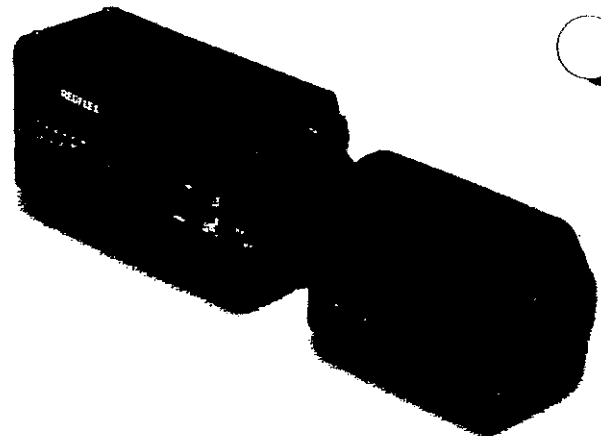


## Q&A: RED LIGHT CAMERAS

Red light cameras can help communities enforce traffic laws by automatically photographing vehicles whose drivers run red lights. A red light camera system is connected to the traffic signal and to sensors buried in the pavement at the crosswalk or stop line. The system continuously monitors the traffic signal, and the camera itself is triggered by any vehicle passing over the sensors above a pre-set minimum speed and a specified time after the signal has turned red. A second photograph is taken showing the red light violator in the intersection. The camera records the date, time of day, and time elapsed since the beginning of the red signal and the speed of the vehicle. Electronic flash produces clear images of vehicles under all light and weather conditions. Tickets typically are sent by mail to registered owners of the violating vehicles, based on review of photographic evidence.

- **What is red light running?** A violation occurs when a motorist enters an intersection (often deliberately) some time after the signal light has turned red. Motorists inadvertently in an intersection when the signal changes to red -- when waiting to turn, for example -- aren't red light runners.
- **Is red light running a big problem?** Each year more than 800 people die and an estimated 200,000-plus are injured in crashes that involve red light running. More than half of the deaths are pedestrians and occupants in other vehicles who are hit by the red light runners.
- **Running red lights and other traffic controls like stop and yield signs is the most frequent type of police-reported urban crash,** Institute research shows. Researchers studied police reports of crashes on public roads in four urban areas during 1990 and 1991. Of 13 crash types researchers identified, running traffic controls accounted for 22 percent of all crashes. Among crashes involving running traffic controls, 24 percent involved running red lights. The same study shows that motorists are more likely to be injured in crashes involving red light running than in other types of crashes. Occupant injuries occurred in 45 percent of the red light running crashes studied, compared with 30 percent for other crash types.
- **How often do drivers run red lights?** A study conducted over several months at five busy intersections in Fairfax, Virginia, indicates that motorists frequently run red lights. On average, a motorist ran a red light every 20 minutes. During peak travel times, red light running was more frequent.
- **Isn't conventional police enforcement sufficient?** Enforcing traffic laws in dense urban areas by traditional means poses special difficulties for police, who in most cases must follow a violating vehicle through a red light to stop it. This can endanger motorists and pedestrians as well as officers, and police can't be everywhere at once. Communities don't have the resources to allow police to patrol intersections as often as would be needed to ticket all motorists who run red lights. The cameras allow police to focus on other enforcement needs.
- **What safety benefits do red light cameras provide?** They've been shown to reduce red light violations and intersection crashes. In recent studies significant citywide crash reductions followed the introduction of red light cameras. Injury crashes at intersections with traffic signals in the City of Culver, California, were reduced 65% after the camera program began and an additional 46% in the second year of operation. Another study showed accidents declined about 57% percent in the City of Ventura, California, after one year of camera enforcement.
- **Who runs red lights?** The Institute created a profile of red light runners by studying driver behavior at an Arlington, Virginia, intersection equipped with a red light camera. The study compared red light runners to motorists who had an opportunity to run a red light but didn't. As a group, red light runners were younger, less likely to use safety belts, had poorer driving records, and drove smaller and older vehicles than drivers who stopped for red lights. Red light runners were more than three times as likely to have multiple speeding convictions on their driver records. No gender differences were found between violators and drivers who didn't run red lights.
- **Do the cameras photograph every vehicle passing through an intersection?** No. The cameras are set so only those vehicles that enter an intersection after the light has turned red are photographed. Vehicles that enter on yellow and are still in an intersection when the light





## SPECIFICATIONS

### IMAGING

Resolution	Pixels: 1434(H) X 1050(V), active 1404 X 1040
Sensor Type	Wfine* CCD Progressive Scan Square Pixel
Dynamic Range	65dB (1024 Levels) for each RGB channel
Format	0.5 inch
Shutter	electronic, variable at 1/22,000 second

### PERFORMANCE

Imaging Rates	minimum 2 per second with full system integration, to 7.5 per second
Fixed Site Flash	variable to 500 watts duration: 1/2,600 second recycle time: 0.25 second
Mobile Flash	variable to 200 watts recycle time: 0.5 seconds

### ENFORCEMENT OPTIONS

Programmable	pre-scheduled on a day by day basis
Available modes	red light, speed, special purpose (bus, toll lane, weigh-in-motion, route-average-speed etc.)
Concurrent modes	multiple
Lanes	up to four

### COMMUNICATIONS (FIXED SITES)

POTS	56K modem
ISDN or ADSL	128kbits/seconds
Fibre Optic	100 BaseFX
Twisted Pair (Cat.5)	100 BaseTX

### ENCLOSURE (FIXED SITE)

Minimum Rating	IP65
Protection	enclosure & glass bullet-resistant to Level 11 of US National Institute of Justice ballistics rating
Finish	powder coated to ASA61. Color optional

### DETECTION (FIXED SITE)

In-ground	Inductive loops: 2 X NEMA four channel Digital Vehicle Detector with adjustable 8 level sensitivity for each channel and frequency selector. Automatic self tuning range of 20-1000uH.  piezo: speed range; from 2kmh to greater than 200kmh  accuracy: better than +/- 2kmh above 100kmh
Non-intrusive	radar/laser

### DETECTION (MOBILE)

Doppler Radar	vehicle discrimination, speed and length.
Laser	directional speed from 0-320kmh continuous (2Hz) operation or single shot mode

### ENVIRONMENTAL

Temperature	operating 0C (32F) to 50C (122F) storage -40C (40F) to 75C (167F)
Humidity	99% (with climate control)

### ELECTRICAL FIXED SITE

Power	variable 86VAC to 264VAC @ 50/60Hz
Signal inputs/ outputs	opto-isolated 5VDC to 50VDC

### ELECTRICAL MOBILE

Power	12V signal input/outputs
Signal inputs/ outputs	opto-isolated 5VDC to 50VDC
Protection	surge/lightning on loops, power and communications

\*Wfine is a trademark of the Sony Corporation



**REDFLEX TRAFFIC SYSTEMS INC.**

USA: San Francisco Tel: +1 (415) 538-1800 Arizona Tel: +1 (480) 607 0705 Australia: Tel: +61 (3) 9674-1888



HIGH-RESOLUTION DIGITAL SPEED PHOTO ENFORCEMENT

TM



**REDFLEX**  
TRAFFIC SYSTEMS

# ● REDFLEX

HIGH-RESOLUTION DIGITAL SPEED PHOTO ENFORCEMENT CAMERA SYSTEMS

- **Fast-turnaround ticketing with encrypted evidence**
- **Clear, easily-readable, full-color images**
- **No film delays, costs & risks**
- **Enforcing violations over 4 lanes**
- **Dual-Camera systems record driver's face & rear license-plate images**
- **Built, customized & maintained to specific City requirements by Redflex**

## ENFORCEMENT OPTIONS

### Mobile digital speed camera systems:

- In-vehicle or Roadside tripod-mounted deployment options
- Operator's Deployment Computer displays camera field-of-view for instant quality control
- Direct download of evidence or transfer on disk

### Fixed-site digital speed camera systems:

- Remote communications for secured evidence transfer & on-line performance checks
- Full remote control of the lens with automatic iris control, AGC, electronic zoom and focus
- Robust, all-weather, bullet and vandal-resistant enclosures with tamper-proof locking

## PERFORMANCE FEATURES

Full-color, high-resolution, digital imaging at 10bits per channel RGB

Crisp plate characters 65dB dynamic range

Sustainable imaging at 2 frames per second or faster

24-hour enforcement with precisely synchronized flash and imaging

Wear and tear minimized with electronic shuttering

Detailed reporting from continuous data records

## OPTIMAL EVIDENCE

Easily-read, 'zoomed' license plate images across up to 4 traffic lanes

256-character, flexibly-configured Databar at the image header

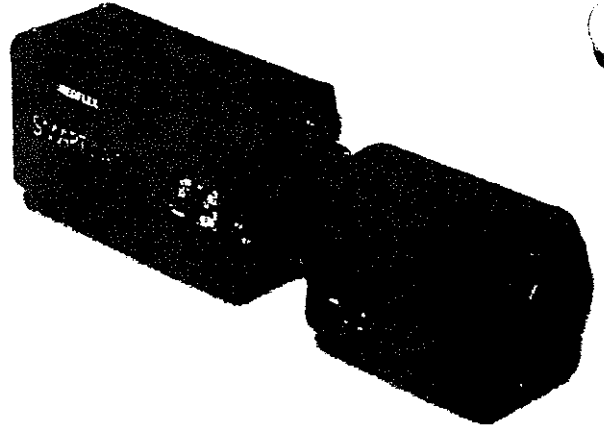
Complete security of primary evidence with Redflex encryption and secured communication



*In-vehicle dual camera deployment*



*Fixed site system*



## SPECIFICATIONS

### IMAGING

Resolution Pixels: 1434(H) X 1050(V), active 1404 X 1040  
 Sensor Type Wfine\* CCD Progressive Scan Square Pixel  
 Dynamic Range 65dB (1024 Levels) for each RGB channel  
 Format 0.5 inch  
 Shutter electronic, variable at 1/22,000 second

### PERFORMANCE

Imaging Rates minimum 2 per second with full system integration, to 7.5 per second  
 Fixed Site Flash variable to 500 watts  
 duration: 1/2,500 second  
 recycle time: 0.25 second  
 Mobile Flash variable to 200 watts  
 recycle time: 0.5 seconds

### ENFORCEMENT OPTIONS

Programmable pre-scheduled on a day by day basis  
 Available modes red light, speed, special purpose (bus, toll lane, weigh-in-motion, route-average-speed etc.)  
 Concurrent modes multiple  
 Lanes up to four

### COMMUNICATIONS (FIXED SITES)

POTS 56K modem  
 ISDN or ADSL 128kBits/seconds  
 Fibre Optic 100 BaseFX  
 Twisted Pair 100 BaseTX (Cat.5)

### ENCLOSURE (FIXED SITE)

Minimum Rating IP65  
 Protection enclosure & glass bullet-resistant to Level 11 of US National Institute of Justice ballistics rating  
 Finish powder coated to ASA61. Color optional

### DETECTION (FIXED SITE)

In-ground inductive loops: 2 X NEMA four channel Digital Vehicle Detector with adjustable 8 level sensitivity for each channel and frequency selector. Automatic self tuning range of 20-1000uH.  
 piezo: speed range; from 2kmh to greater than 200kmh  
 accuracy: better than +/- 2kmh above 100kmh  
 Non-intrusive radar/laser

### DETECTION (MOBILE)

Doppler Radar vehicle discrimination, speed and length.  
 Laser directional speed from 0-320kmh continuous (2Hz) operation or single shot mode

### ENVIRONMENTAL

Temperature operating 0C (32F) to 50C (122F)  
 storage -40C (40F) to 75C (167F)  
 Humidity 99% (with climate control)

### ELECTRICAL FIXED SITE

Power variable 86VAC to 264VAC @ 50/60Hz  
 Signal inputs/ outputs opto-isolated 5VDC to 50VDC

### ELECTRICAL MOBILE

Power 12V signal input/outputs  
 Signal inputs/ outputs opto-isolated 5VDC to 50VDC  
 Protection surge/lightning on loops, power and communications

\*Wfine is a trademark of the Sony Corporation



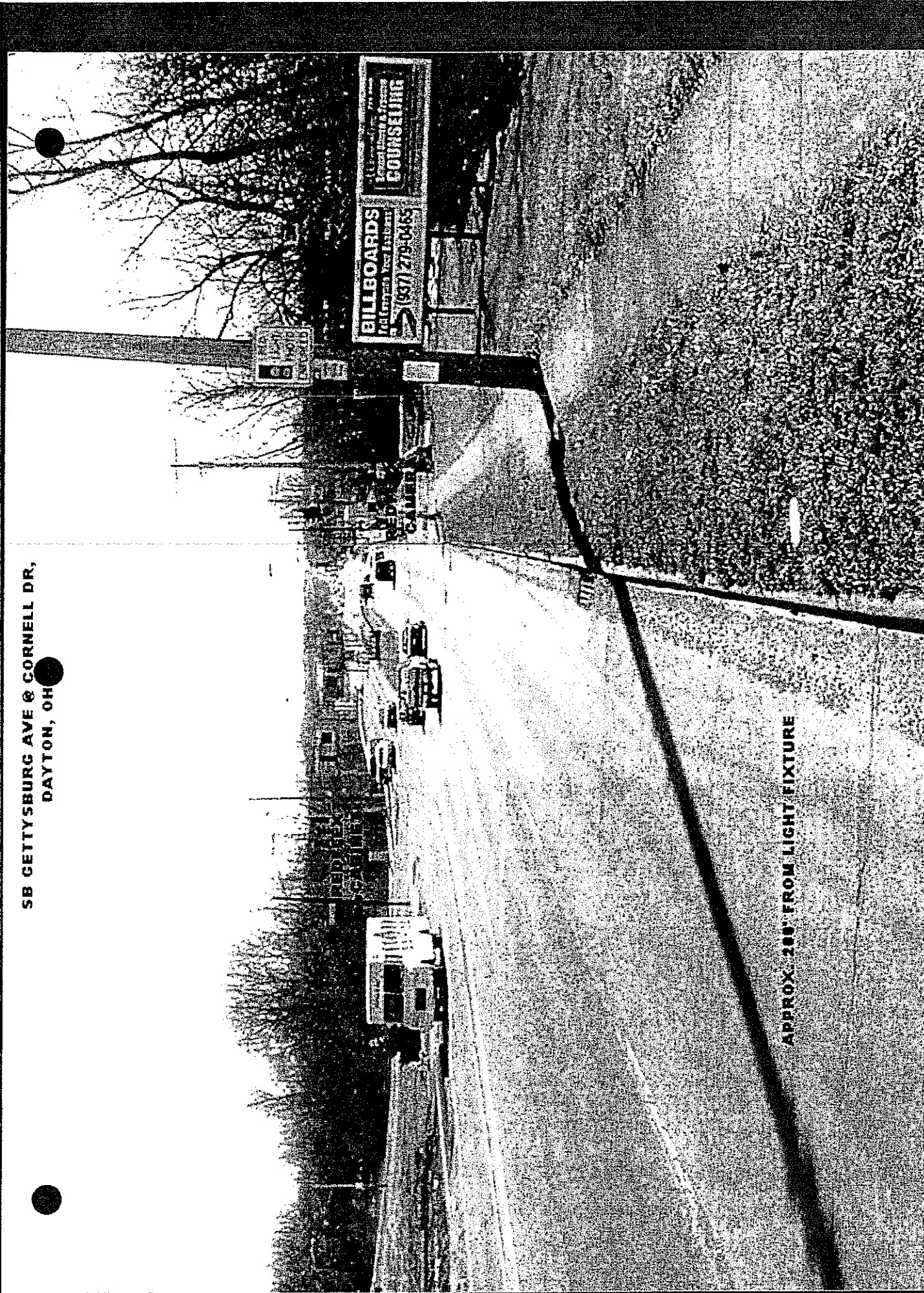
---

# Red Flex

*Traffic System's*

*Sample pictures of the Photo Red Light  
Systems installed*

SB GETTYSBURG AVE @ CORNELL DR,  
DAYTON, OH



APPROX. 200' FROM LIGHT FIXTURE

INDUCTIVE LOOPS  
PULL BOX  
STANLEY AVE. @ VALLEY ST.  
DAYTON, OHIO

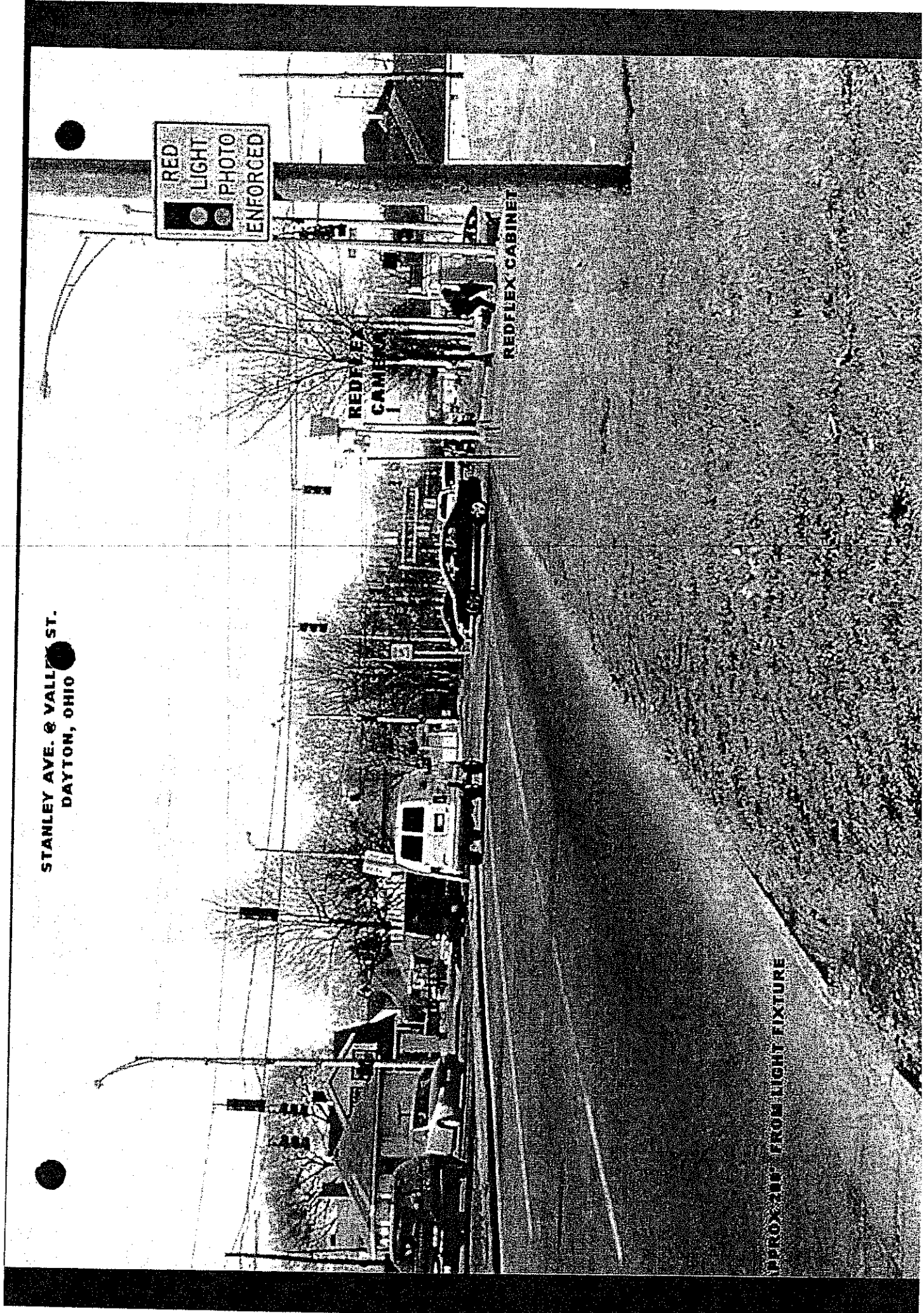


STANLEY AVE. @ VALLEY ST.  
DAYTON, OHIO

RED LIGHT PHOTO ENFORCED

RED FLEX CAMERA  
RED FLEX CABINET

APPROX 200' FROM LIGHT FIXTURE



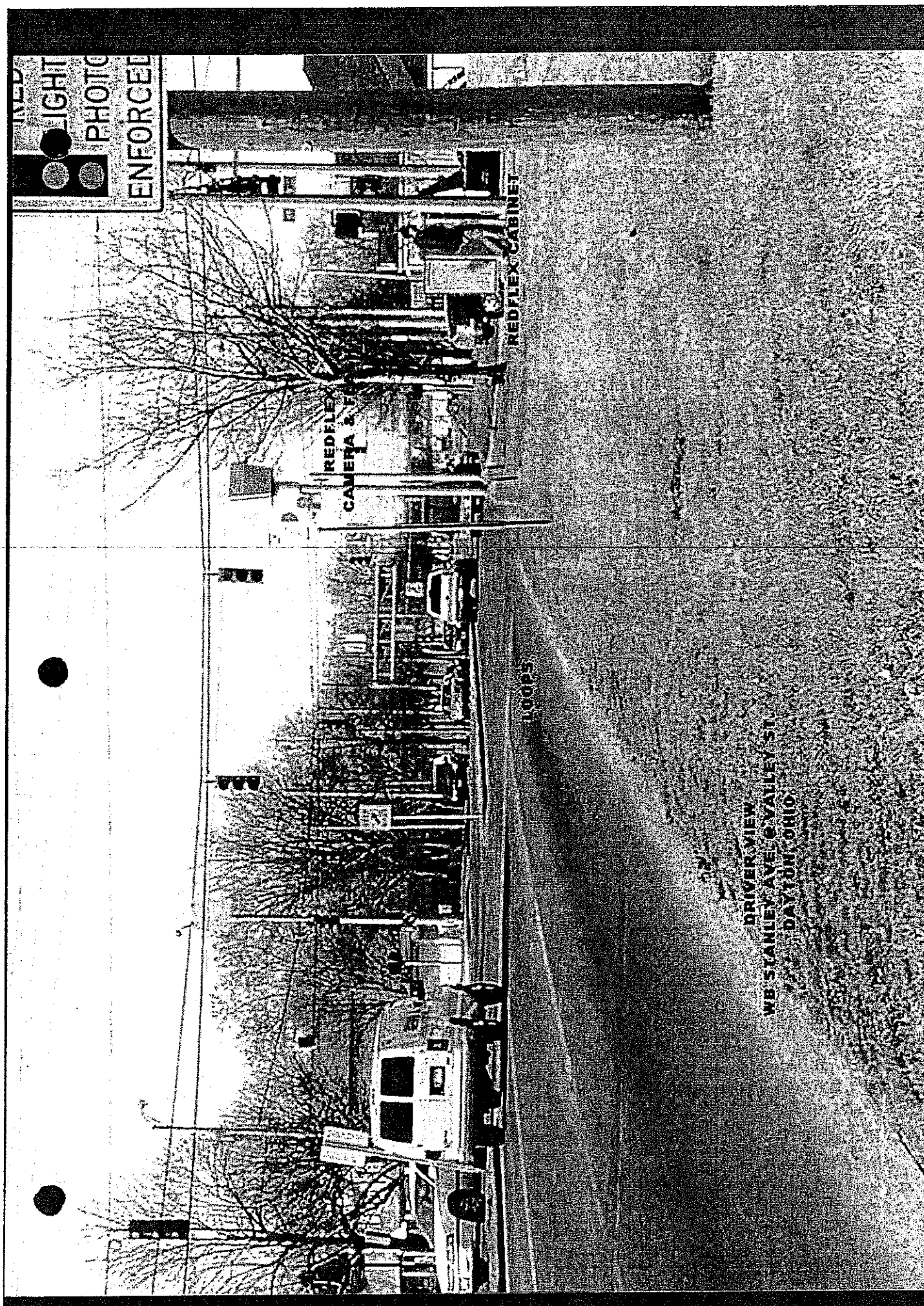
RED FLEX  
LIGHT  
PHOTO  
ENFORCED

RED FLEX  
CAMERA & F

RED FLEX CABINET

DOOPS

DRIVER VIEW  
WB STANLEY AVE & VALLEY ST  
DAYTON OHIO



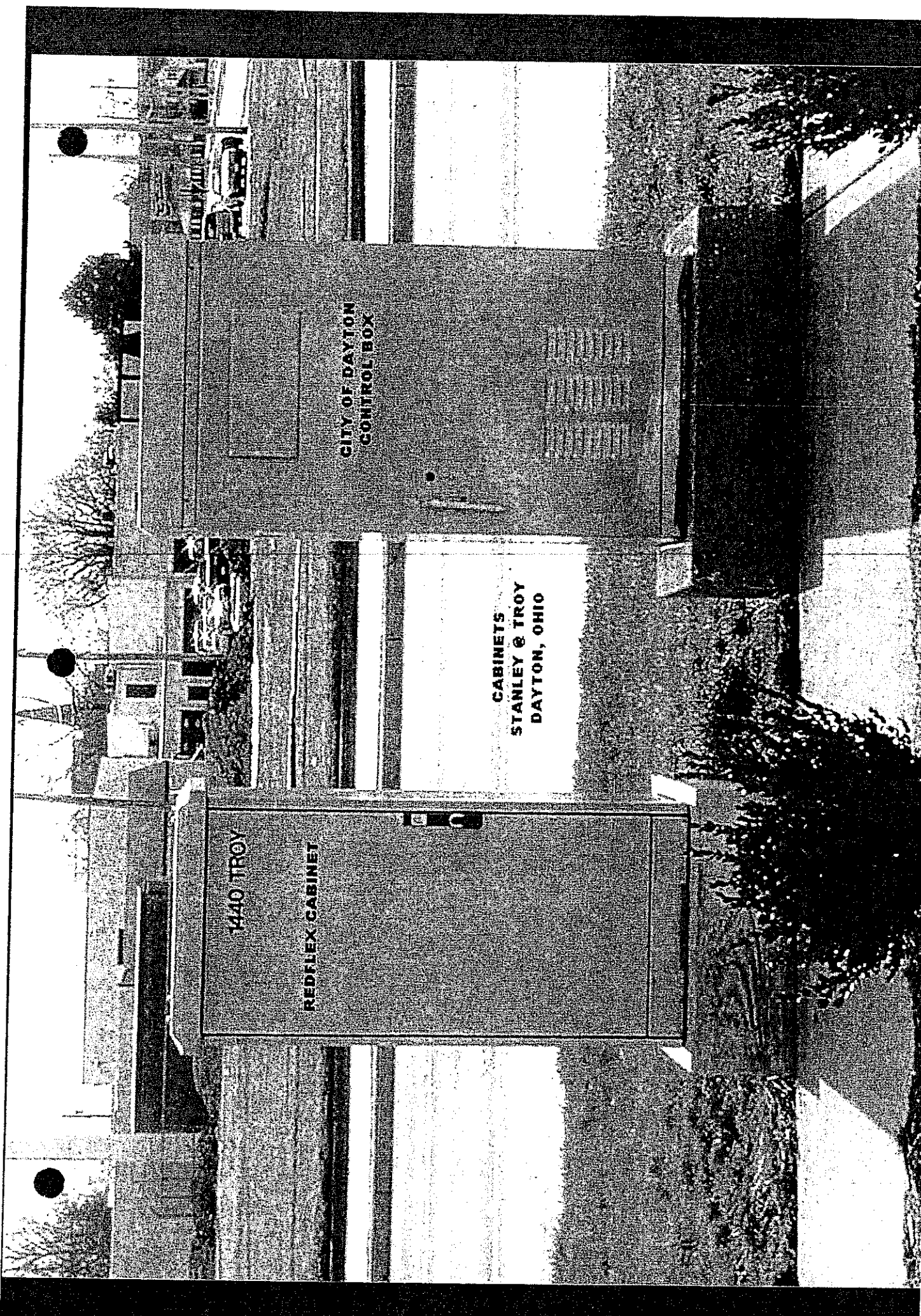


1440 TROY

REFLEX CABINET

CABINETS  
STANLEY & TROY  
DAYTON, OHIO

CITY OF DAYTON  
CONTROL BOX

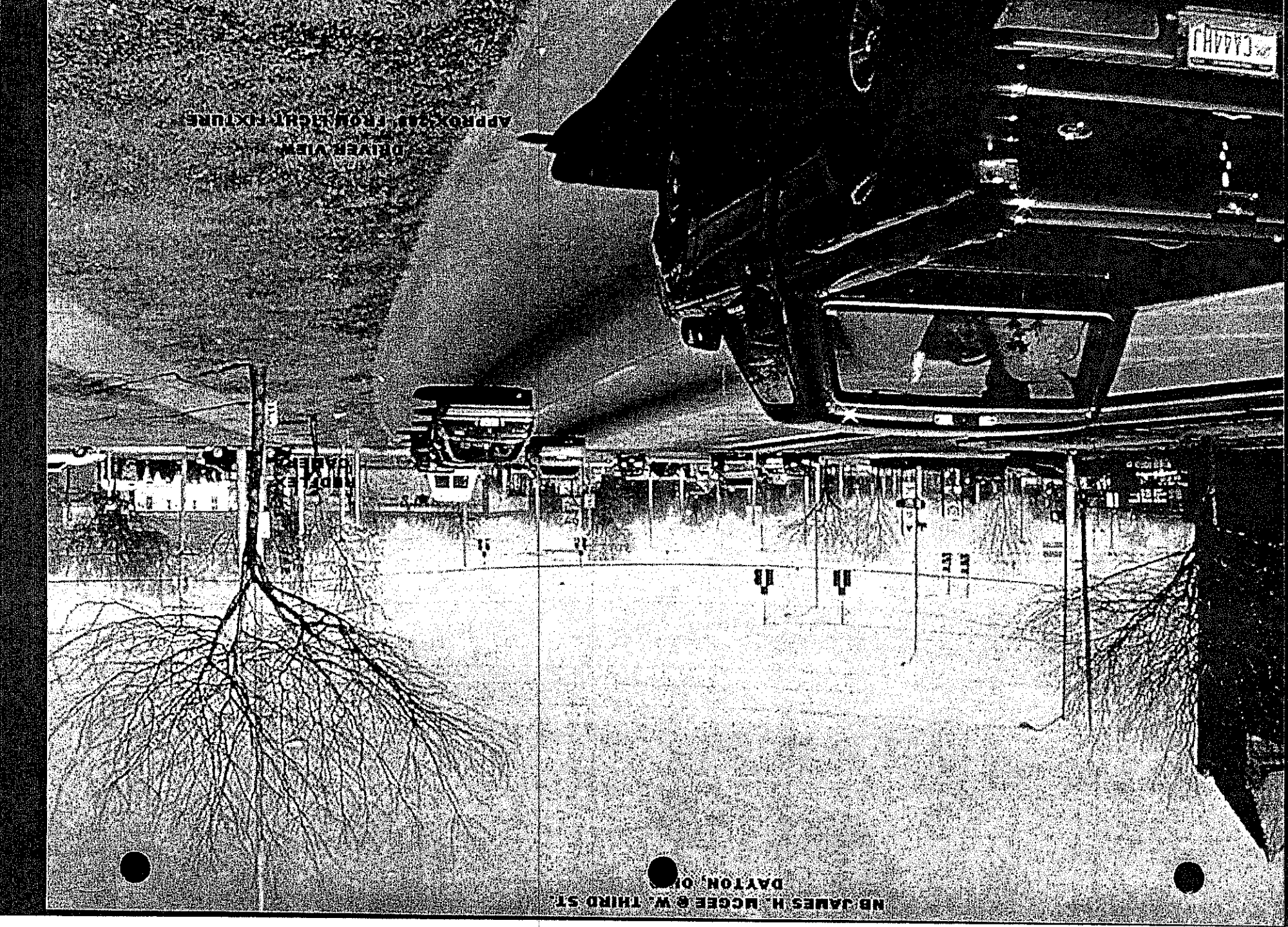




CHRYSLER

DRIVER VIEW  
APPROX 500' FROM LIGHT FIXTURES

NB JAMES H. MCCOY & W. THIRD ST  
DAYTON, OH



NB TROY ST. @ STANLEY AVE.  
DAYTON, OHIO

REDFLEX  
CAMERA AND FLASH

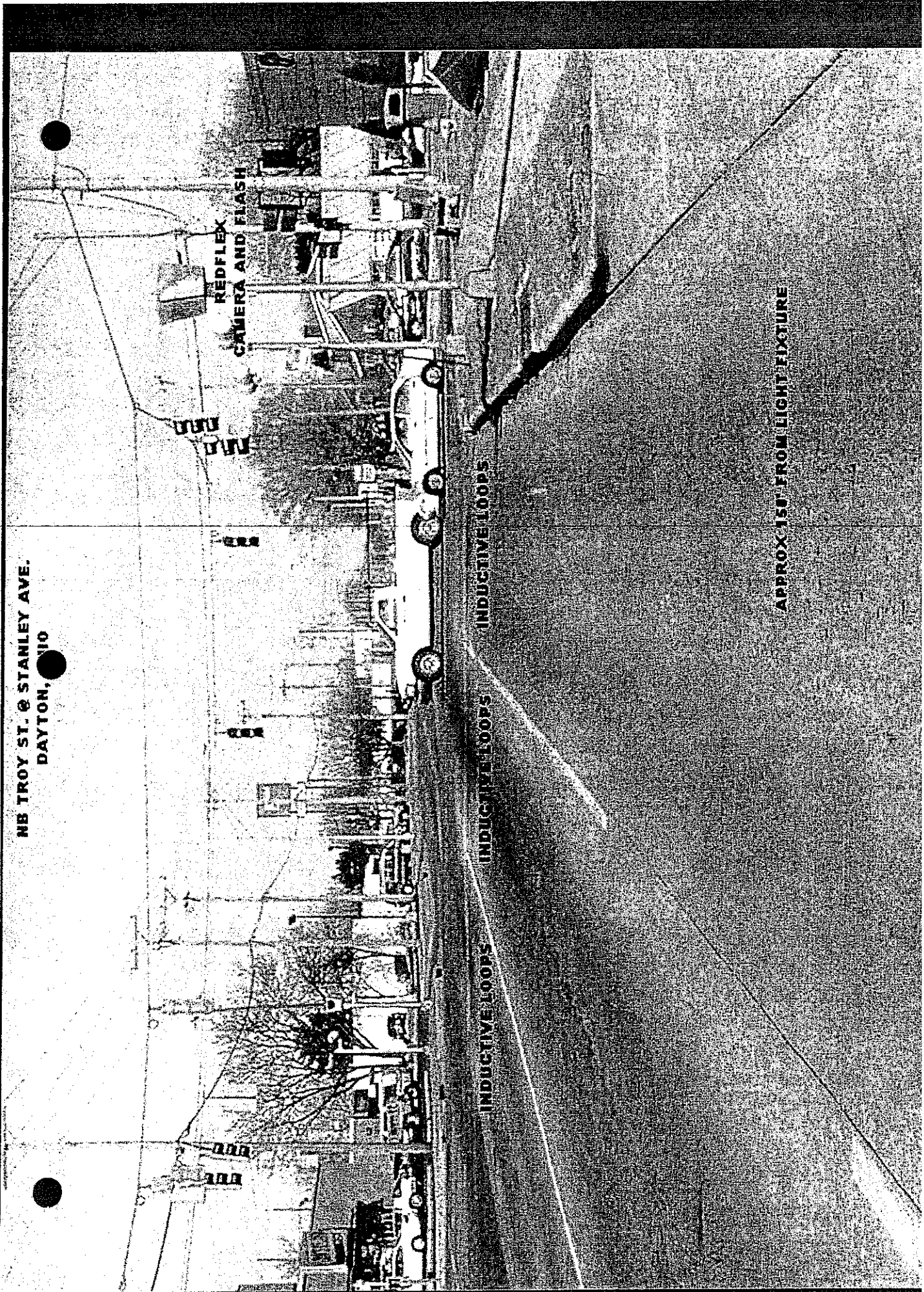
INDUCTIVE LOOPS

INDUCTIVE LOOPS

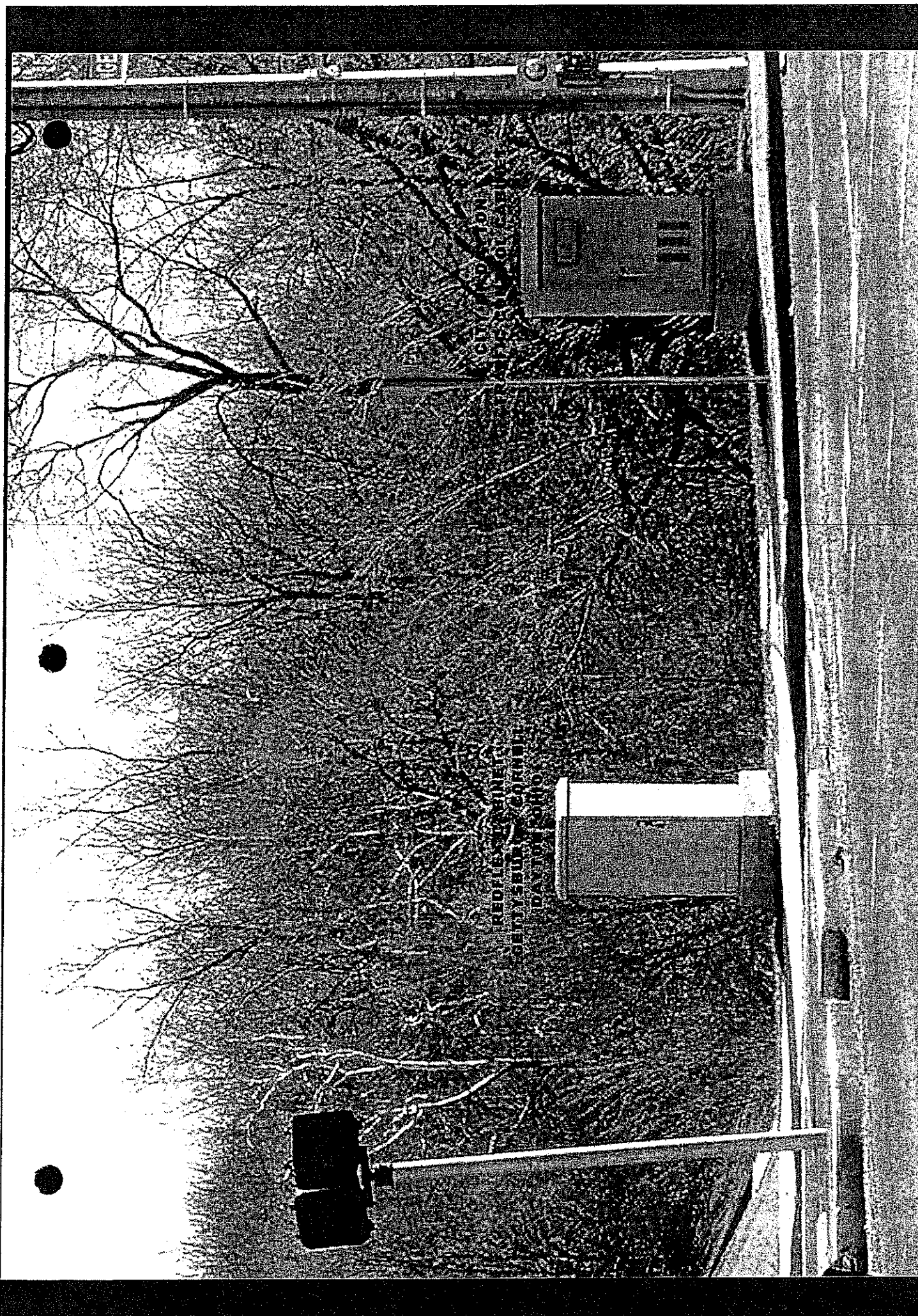
INDUCTIVE LOOPS

INDUCTIVE LOOPS

APPROX 150' FROM LIGHT FIXTURE







INDUCTIVE LOOP ONLY  
LEFT TURN LANE

PIEZO LOOP PIEZO

PIEZO LOOP PIEZO

RED FLEX  
FULL BOX





03-4097AA001.jpg



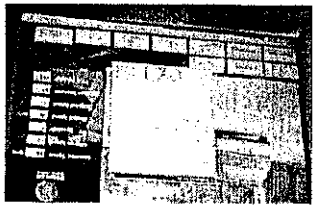
03-4097AA006.jpg



03-4097AA011.jpg



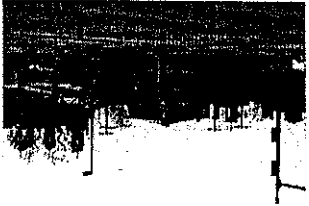
03-4097AA016.jpg



097AA021.jpg



03-4097AA002.jpg



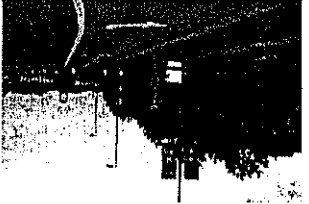
03-4097AA007.jpg



03-4097AA012.jpg



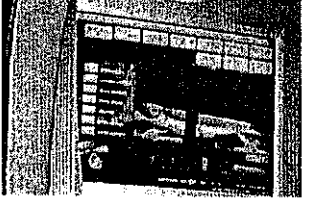
03-4097AA017.jpg



03-4097AA003.jpg



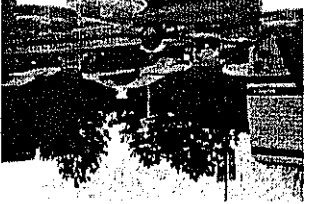
03-4097AA008.jpg



03-4097AA013.jpg



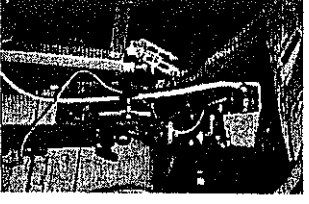
03-4097AA018.jpg



03-4097AA004.jpg



03-4097AA009.jpg



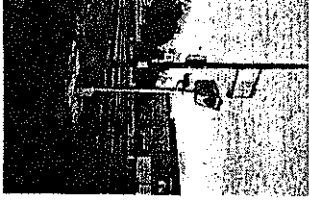
03-4097AA014.jpg



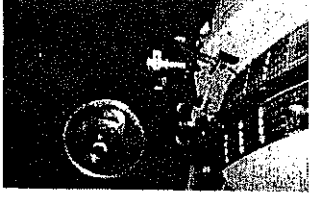
03-4097AA019.jpg



03-4097AA005.jpg



03-4097AA010.jpg

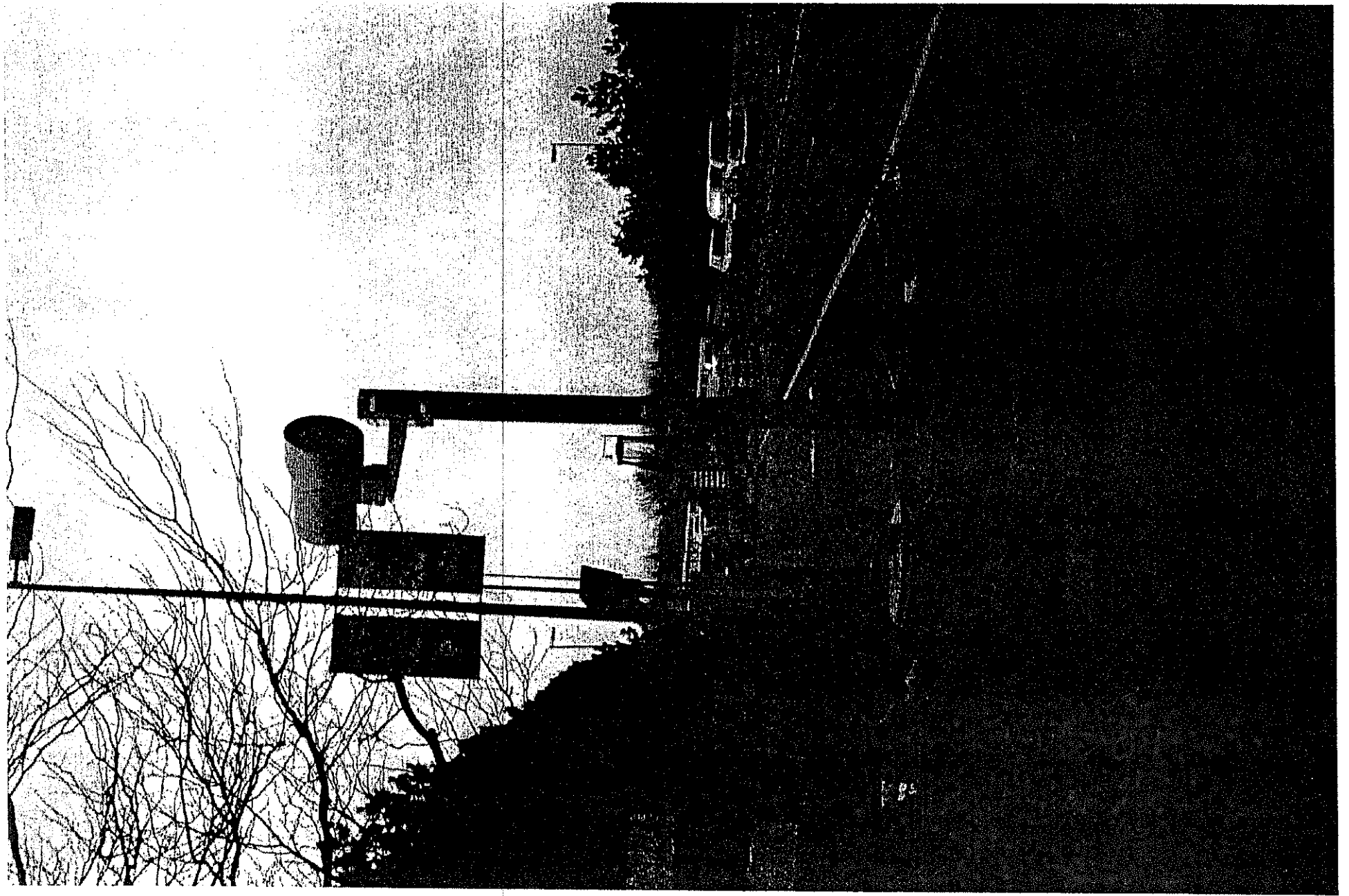


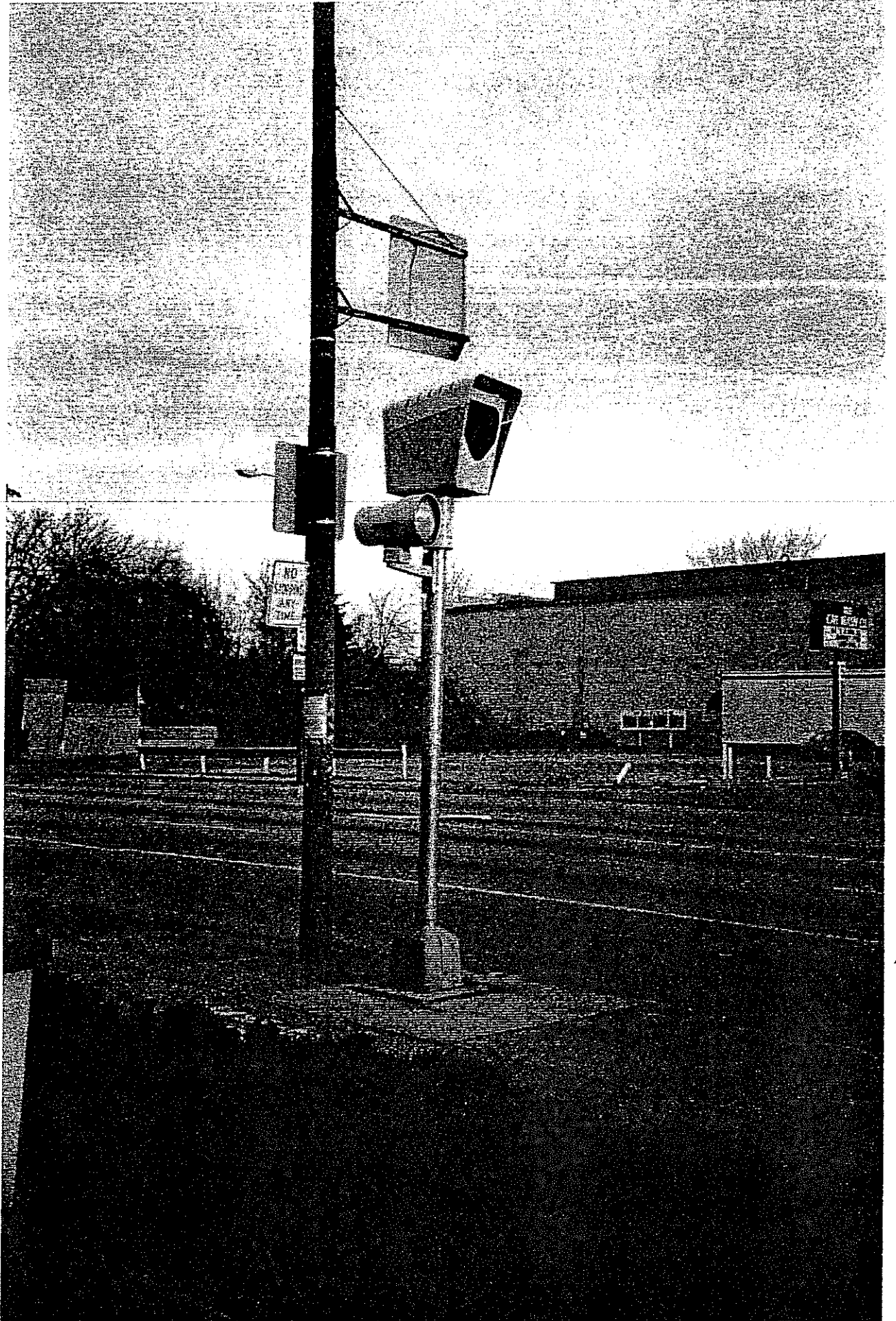
03-4097AA015.jpg



03-4097AA020.jpg

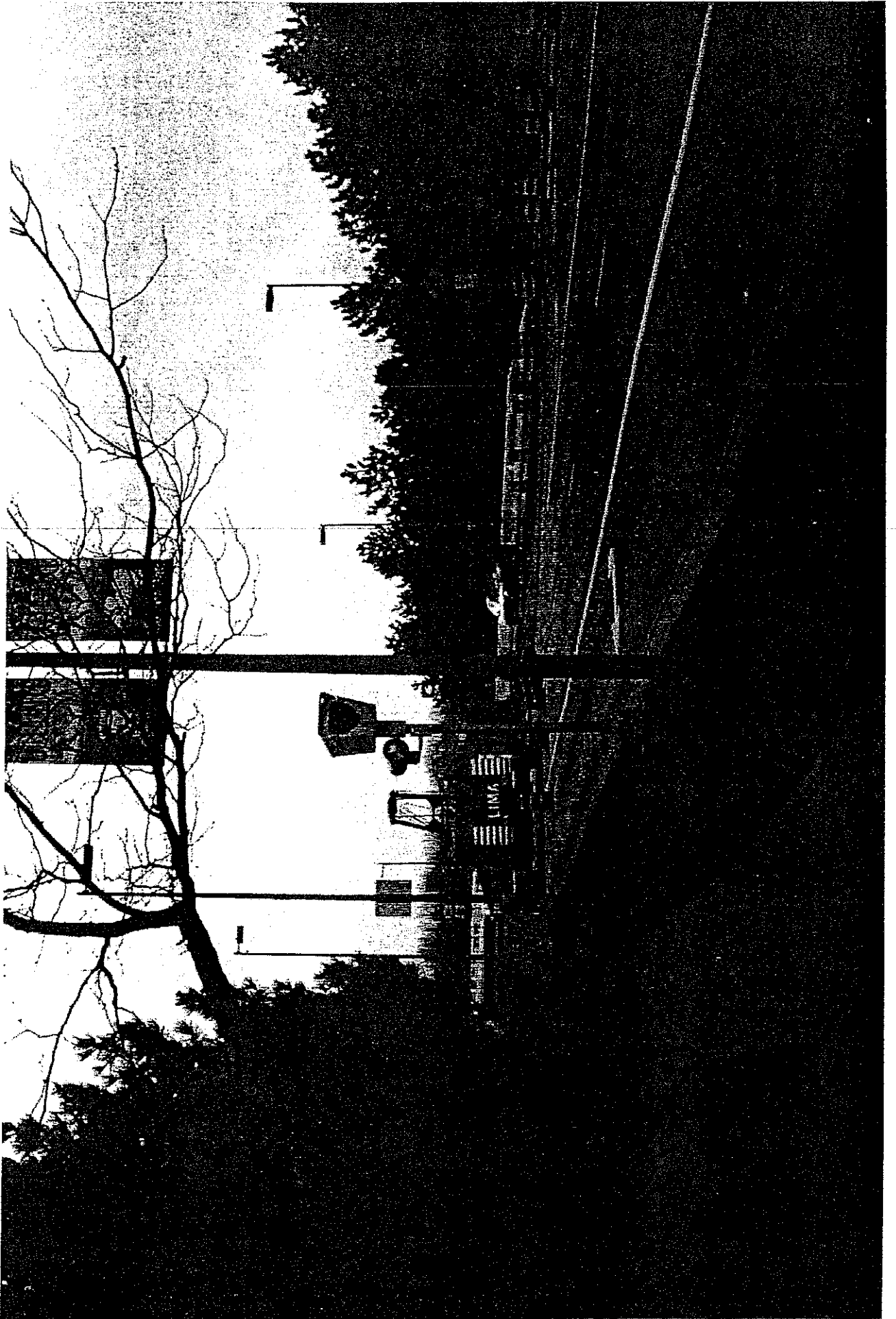




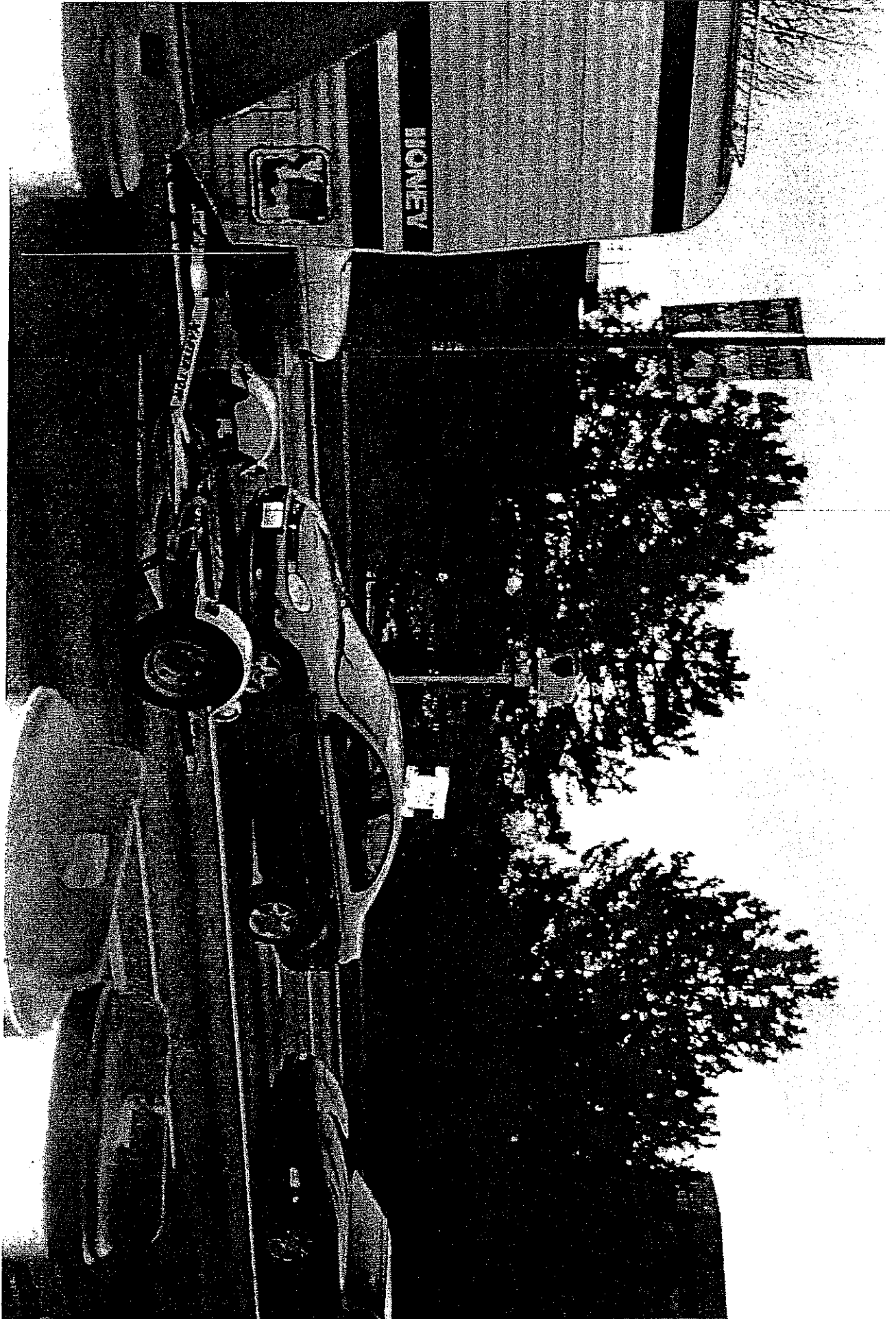


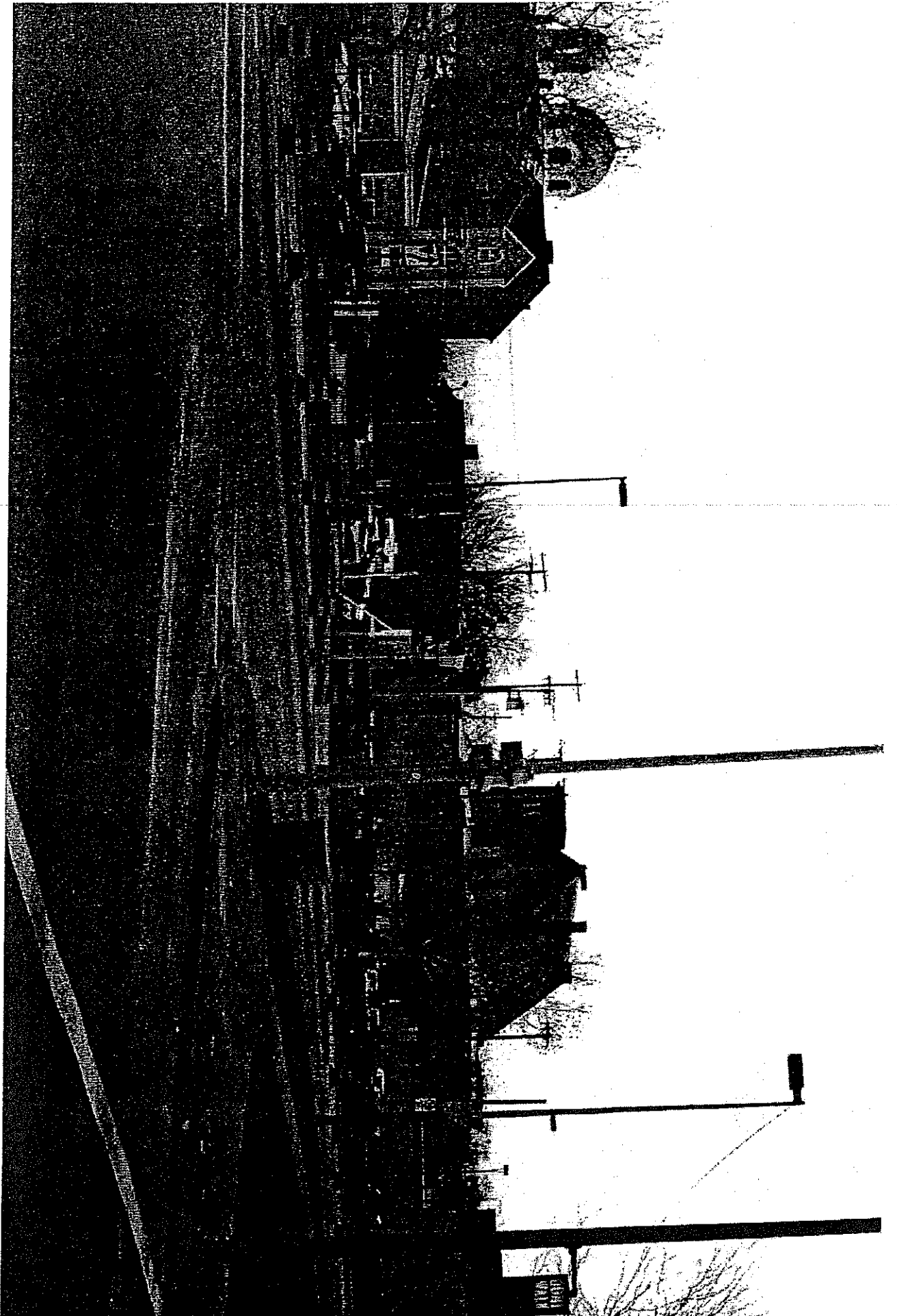


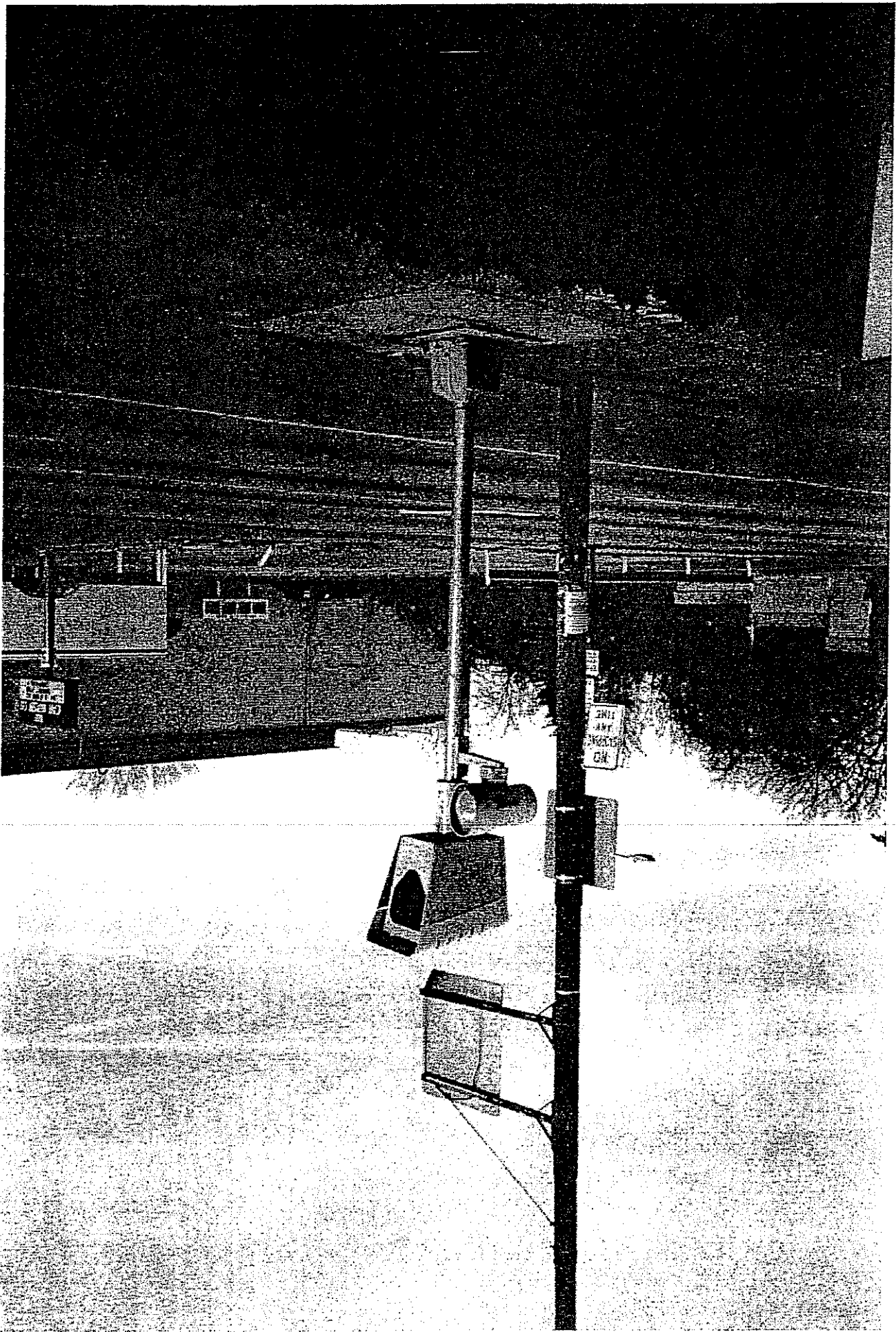




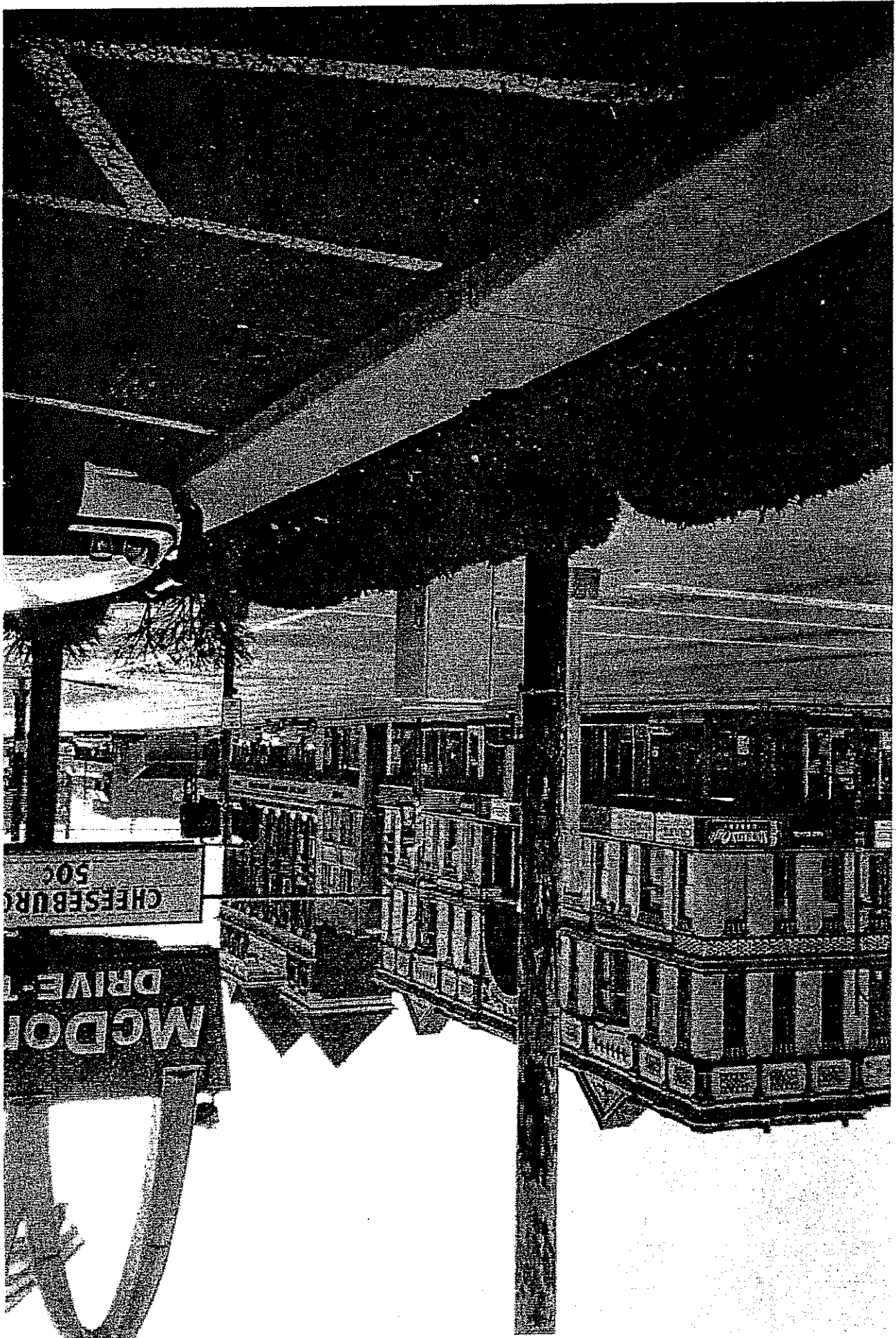












---

# Red Flex

*Traffic System's*

*Miscellaneous Questions and Answers of Cities  
with Red Flex System's*



**Foor, Roger**

---

**From:** Joseph Moore [jmoore@redflex.com]  
**Sent:** Saturday, February 15, 2003 11:45 AM  
**To:** Foor, Roger  
**Subject:** Discussion Items from 2-14-03

Roger,

Just to chronicle some of our discussion items from yesterday:

**HIGH VOLUME INTERSECTIONS:**

Ideally, Redflex wants to place cameras at intersections that #1 are high accident locations, and #2 have promise of producing a consistent number of violations to insure that the cost to place a camera (with zero cost to the city except power and telephone) can be recovered and a profit sustained. Redflex would conduct video/visual surveillance of those intersections offered as "high accident" and discuss with you their findings prior to committing to place a camera.

**VIDEO SURVEILLANCE:**

Redflex can insert it's exclusive SmartScene video detection system into each "still" camera housing. Fixed and mobile speed camera technology is also available.

**RIGHT-TURN-ON-RED ENFORCEMENT:**

In all of it's contracts, Redflex negotiates an "Issuance Criteria" with each community. The purpose of this is to insure there are no enforcement surprises or changes in notice issuance policy without mutual agreement. Many of these issues have been addressed, and solved, to the satisfaction of cities like Toledo and Dayton, e.g. right turns on red, emergency vehicles, funeral processions, city/county vehicles photographed in violation, etc.

Right-turn-on-red violations are forwarded for Police Authorization but only after they fit a "criteria" of minimum speed of 25MPH on detection and only a few tenths of a second between Scene A & Scene B. In other words, they took the corner on two wheels and in violation of the tenets of ORC 4511.13.

**POSTING BOND FOR A HEARING:**

Both Dayton and Toledo currently require the posting of a surety bond when requesting an Administrative Hearing on a photo enforcement notice. But, Toledo is seeking to amend their ordinance eliminating the bond requirement. They do not intend to fight the motion filed.

**ARCHIVING IMAGES:**

Each community (Toledo and Dayton) has contracted various archiving requirements. Basically, Redflex retains images for three (3) years. I will share specific archiving language with you when needed.

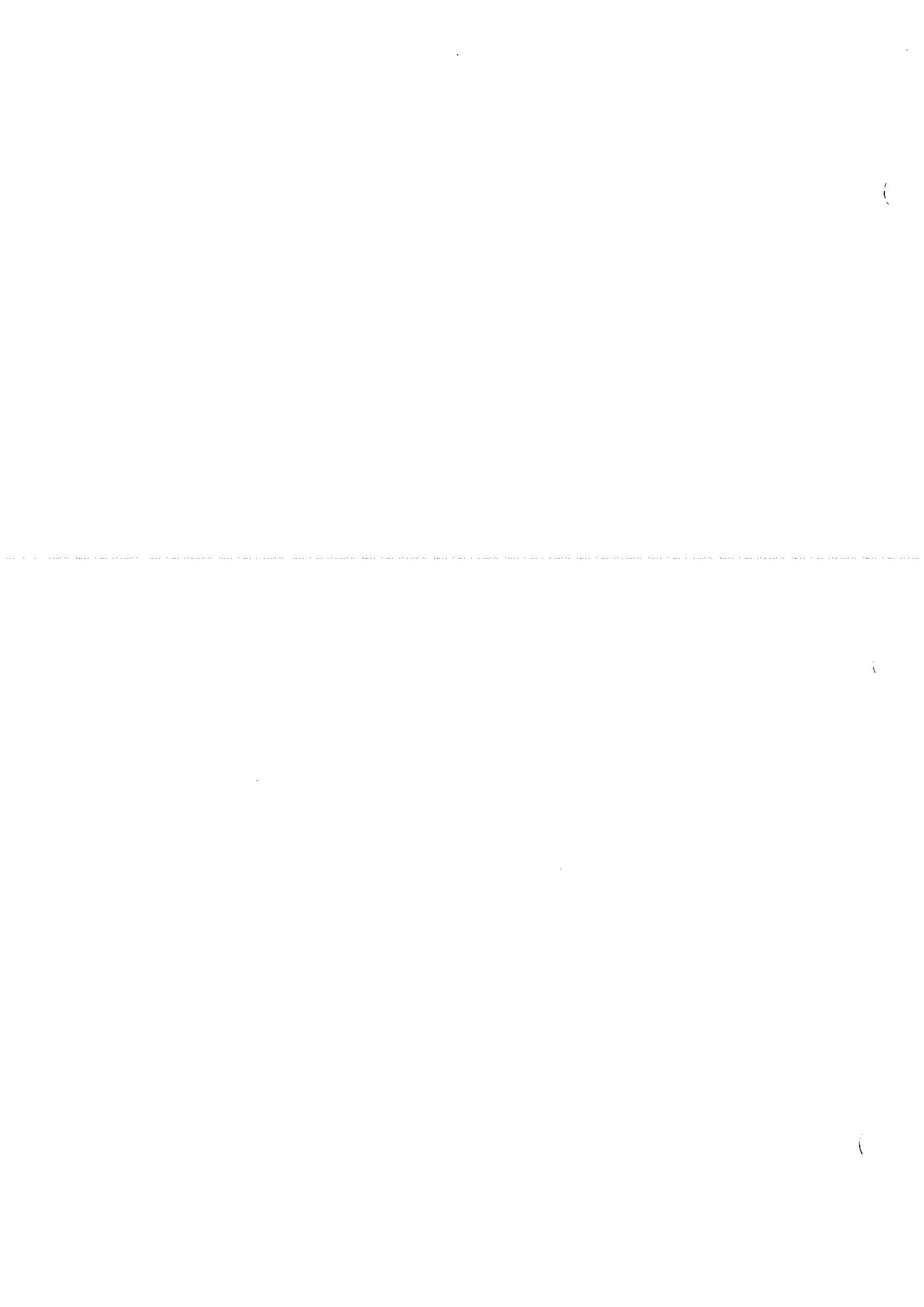
**FINE SCHEDULING:**

Determining the fee-for-service for each contract is based on several variables; number of approaches, anticipated number of citations, city contributions to the project, etc. Our Ohio contracts have, historically, been based on a percentage of each fine paid. The actual percentage Redflex

would receive for each "paid" notice, and what the City would receive are determined as contract negotiations progress.

There are probably many other details that you haven't thought of yet but that have been addressed in the Ohio programs we would try to replicate in Columbus. Not to worry. We will cover them.

Joe



### Earlier Toledo Police interview. Spring of 2003

Previous questions asked earlier of Lt. Kevin Keel, Commanding Officer of the Toledo Police, Traffic Bureau. These questions were asked by phone, in the early part of 2003.

Questions being asked by Officer Roger Foor, Columbus Division of Police.

Answers by Lt. Kevin Keel, Toledo Police.

- a. Question- Which company are you with?  
Answer- Redflex
- b. Question- Are you letting Redflex run the Red Light Photo program.  
Answer- No, we lease the equipment and the services of the company.
- c. Question- What is the cost that you are paying for the cameras?  
Answer- No cash outlay. Redflex collects the fines and we receive 7%.
- d. Question-How are these cameras placed?  
Answer-We recommend different intersections that we want targeted and Redflex does the study for us and comes back to the city with their recommendations for camera placement.
- e. Question- Any problems with the system?  
Answer- No, the company installs and maintains the system.
- f. Question- Any other problems you want to share?  
Answer- Right Turn on Red. The citizens approach an intersection going passed the stop bar to the intersection and come to a stop. They do this to look left for oncoming traffic before executing a right turn. The camera shows it as a red light being run. (This was corrected later in 2003)
- g. Question- How much are the fines for violators who run the red lights?  
Answer- We get 7% of all the fines collected.
- h. Question- How are hearings handled?  
Answer- Everyone pays Redflex before a hearing is set up. A lieutenant on the Police Department holds the hearings. We can handle normally 5 cases in a 10 minute period. We have had 60 cases in a 4 hour time span. Most cases are guilty. However, some EMS vehicles are sometimes missed, and many right turns on red have been thrown out. When that occurs we notify Redflex of the ticket number and have them refund the money to the citizen normally within 4 to 6 weeks. (Note- since this interview the city of Toledo has changed requiring the citizen to pay prior to the hearing then refunding if they are found not guilty)

Columbus Division of Police  
Photo Red Light Committee  
November 25<sup>th</sup>, 2003  
Toledo Police Dept.  
Lt. Keel

Questions and Answers

Asking the questions is Officer Roger Foor, Columbus Police and member of the Photo Red Light Committee

Answering the questions is Lt. Keel, Toledo Police Commanding officer of the Toledo Police, Traffic Bureau and overseer of their Photo Red Light System and Photo Speed System.

Interview conducted on November 25<sup>th</sup>, 2003 in Toledo Ohio.

1. Question- What type of time is involved between violation and when officer reviews red light?

Answer- They are reviewed daily. currently they have 6 officers trained to review the violations.

2. Question- What is the workload and how long does it take to review the violations on a daily basis.

Answer- The workload takes one officer between 1 to 2 hours a day to review the violations. The other 5 officers are cross-trained for days off, sickness, and vacation.

3. Question -.Does the civil or criminal lawyers have access to pictures taken on red light accidents?

Answer- As of today we have had no legal problems with this. We have a way the public gets any public records. We just email the company and they send us a package.

4. Question -Can officers use the evidence of a photo red light violation to make an accident case?

Answer- They recently had a red light violator go through an intersection at a speed of 61 mph, she struck and killed a child. They have the evidence on tape of the car running the light and the child in the middle of the intersection. They plan on using the video in court.

5. Question- How can we retrieve it and how long does it take?

Answer- It only takes a short period of time.

6. Question- Can lawyers subpoena Photo Red Light records, and have you had a problem with that?

Answer- Yes. No problem so far.

7. Question- Is there any cost involved from the Company when records are subpoenaed?

Answer- No cost to the Police Dept

8. Question- Have you ever had someone vandalize the Photo Red Light cameras?

Answer- Yes, all the time.

9. Question- When they are vandalized who pays for the damage and how long is the camera out of service?

Answer- The company knows when a camera is out of service and dispatches the technician to repair or replace the damaged equipment at no charge. The company requests an OH-1 if one is filled out on an accident so they can seek reimbursement from the insurance company for the expense.

10. Question- When an intersection dries up what happens?

Answer- So far, Toledo hasn't changed any intersections

11. Question- Will the vendor company leave the hardware at the intersection and start a new intersection?

Answer- They are currently in negotiations to possibly change the approach of an intersection.

12. Question- Can we set up dummy cameras at intersections?

Answer- The City of Toledo does not have any dummy intersections at this time.

13. Question- What's the hardware cost involved in setting up dummy intersections.

Answer- Toledo has no ideal of the cost.

14. Question- Can you set up several intersections with the ability to switch between intersections on different days of the week?

Answer- They didn't know if that technology exists on the switching of cameras.

15. Question- Did you ever have any legal challenges to the legality of the Photo Red Light camera system?

Answer- No, everything is CIVIL. The City of Toledo required the fine to be assessed prior to the hearing. A citizen took the City of Toledo to court on this matter and won. Toledo is no longer requiring the party to pay the fine until after their hearing, and is found guilty.

16. Question- Do we owe the Photo Red Light Company any monies for emergency vehicles that run red lights? What if the red light and sirens are not activated?

Answer- No, the company doesn't even send the violation to the Department for review.

17. Question- When we decide to not cite, and the company claims it's a good red light, what procedure do we follow?

Answer- There is a window on the violation scene that lists several reasons to reject a violation. The officer just chooses the most appropriate one and sends it forward

18. Question- Do we owe for that violation?

Answer- No cost for rejected violations or non-paid violations.

19. Question- Who has the final say?

Answer- The City, No questions asked.

20. Question- What is your collection rate? 70% - 80%?

Answer- Their collection rate is 80 %.

21. Question- How much is your fine ?

Answer- Our fine was recently raised to \$95.00

22. Question- Do you have a problem collecting payment?

Answer- One of the problems are vehicles registered in other states, they typically do not pay. Also the Photo Systems are not yet covered in the State of Ohio Deter system that puts a hold on the license plates of persons who have outstanding tickets.

23. Question- What do you do when it's a rental vehicle?

Answer- The Vender contacts the rental company and sends the ticket to the person who rented the vehicle.

24. Question-What about someone borrowing the vehicle?

Answer- The owner simply sends the ticket in within 21 days. On the back of the citation there is an area that ask questions about who was driving the vehicle and all the information about that person.

25. Question- What about a Stolen vehicle?

Answer- A stolen report must have been filled out in a timely manner prior to or close to the violation.

26. Question- How often do people use the defense that the car was stolen? We have them do this on hit-skips all the time in Columbus.

Answer- Very Seldom

27. Question- What about a Repairman test-driving your car?

Answer- The owner just calls and lets the Department know what repair company had the vehicle. We will contact that company to ascertain who was driving the vehicle at that time of the violation and issue that party the citation.

28. Question- Have you encountered any problems with Juvenile offenders?

Answer- They have never encountered any problems

29. Question- Do you take pictures of the driver?

Answer- No, however, if you take a picture of the driver you have to X-out the passengers. The company automatically does this for you.



30. Question- How clear are they? The photos.

Answer- Fairly clear I understand

31. Question- Are you satisfied with your Vender Redflex?

Answer- Yes we are

32. Question- Why are you satisfied?

Answer- They have very little down time. Of course, there are bugs in any new system that is set up, but the vender worked hand in hand with City engineers to solve them.

33. Question- What is the Volume per camera per month?

Answer- 32,000 Citations have been issued in a four-year period at 10 intersections with 2 approaches at each intersection.

34. Question- How much monies are you realizing per month on each camera or for the total program. Where are the monies going?

Answer- Lt Keel has no knowledge of the monies and how it's dispersed within the City of Toledo. They recently raised the fine to \$95.00 per cite. The effect is they doubled the contested cases from 30 a month to 60.

35. Question- What kind of Neighborhood groups did you get involved in the committee?

Answer- They did not have citizen groups in the process until after it was in place, then they had a media blitz on safety concerns.

36. Question- What was your Media strategy?

Answer- They used the media for safety concerns

37. Question- For those who don't pay, how about a lien on license tags and what happens on time of renewal of license tags. Is anything being done to get the Photo Red Light Systems into the Deter System.

Answer- Currently, Photo Systems in the State of Ohio are not in the Deter System like Parking violations are. The State legislators have to incorporate the photo systems in the Deter System in order to be able to go after those who fail to pay. Twice a bill has been introduced in the State House , and twice it has been turned down.

38. Question- Multiple lanes @ an intersection with multiple violations @ the same time. Can the camera catch all involved at the same time?

Answer- With the Current technology does not allow this. It takes 2 to 3 seconds for the Camera to reset.

39. Question- On Hearings are there many?

Answer- There are a lot of the violators sending in full payment and putting their signature in area where it states I want a hearing. Some violators are confused on where to place their signature so they sign wherever it says signature.

40. Question- How do you get the information for a hearing from the vendor.

Answer- The Toledo Police Department just simply sends for a hearing packet, which is sent over night to the police department

41. Question- Do you take a picture of the front and rear license plate?

Answer- Rear license plate. This is done for out of state vehicles, also locals who fail to place the front license tags on their vehicles. Also, since we are next to the state of Michigan which only has one tag. Note: Commercial vehicles won't be caught with this method. Need pictures of both front and rear license tags.

42. Question- I hear from other cities that they have problems with right turn on red. Do you enforce these photo red light violations if they do not stop?

Answer- Yes.

43. Question- How do you handle the stop before right turn on red?

Answer- We too had problems in the beginning, but our solution is timing. We give 2 seconds between the first time they trip the sensor and the actual right turn.

*Savannah, Ga.*  
*Sean Brandon*  
*Finance and Management Coordinator*  
*1-912-651-6420*  
*sbrandon@ci.savannah.ga.us*

*Interviewer is Officer Roger G. Foor # 566, Special Events, Traffic Bureau*

I phoned a Sean Brandon, Finance and Management Coordinator in Savannah, Georgia on the Photo Red Light enforcement. The following questions were asked along with his answers.

**1. Which Company are you with?**

Answer: Redflex

**2. Are you letting Redflex run the Red Light Photo program?**

Answer: We are buying the cameras. We currently have one camera.

**3. What is the cost that you are paying for that one camera?**

Answer: \$186,000.00 for the one camera. However, the state of Georgia is paying for the first camera. The law was written that the State would pay up to \$200,000.00 to get the Photo Red Light System up and running for each City wishing to participate in the program. However, Law enforcement must run the program. We will add at our own expense one to two camera's a year. The parking division will run the program.

**4. Where will you place these cameras?**

Answer: Our transportation unit comes out with the most dangerous intersection each year. That's where we'll be placing them. A good note to this is the public goes along with the program because it is at the most dangerous intersection.

**5. Any problems with the system to be installed?**

Answer: Yes, you need *Fiber Optic Cable* to get it up and running.

**6. Any other problems you want to share?**

Answer: The State of Georgia, Department of Bureau of Motor Vehicles refused to look up all those License Registrations due to the fact that it was a civil matter, not a crime. The State Legislators had to address this problem. That's why our parking division is currently handling the Photo Red Light because the parking tickets in our city had already switched over from a crime to a civil matter on the fines.

**7. How much are the fines for violators who run red lights?**

Answer: \$ 70.00 for cameras (civil) and \$130.00 for Officers stopping them (criminal). I wish we had kept the Photo Red Lights a crime. Now we have two separate fines, and it gets confusing in court at times.

*Scottsdale, Arizona Police Dept.  
Lt. Mike Rosenburger  
Traffic Bureau  
1-480-312-7016*

*Interviewer is Officer Roger G. Foor # 566, Special Events, Traffic Bureau*

I phoned Lt. Rosenburger, Scottsdale Police Dept in Scottsdale, Arizona on the Photo Red Light enforcement. The following questions were asked along with his answers.

**1. Which Company are you with?**

Answer: Redflex

**2. Are you letting Redflex run the Red Light Photo program?**

Answer: Redflex runs the entire program, including court packets. They also send out the tickets, collect the fine etc.

**3. What is the cost that you are paying for that one camera?**

Answer: They pay a monthly leasing fee with a small percentage of the fine coming to the general fund to the City of Scottsdale. The fine is split up with the State, courts, local programs etc.

**4. Where so you place your cameras?**

Answer: Their Transportation Division works directly with Redflex.

**5. Any problems with the system to be installed?**

Answer: They have adjusted their program since 1997, but they love it

**6. Any other problems you want to share? ie right turn on red?**

Answer: They do not do Right turn on Red.

**7. How much are the fines for violators who run red lights?**

Answer: \$185.00 per ticket. All Red Lights are Civil

**8. Hearings?**

Answer: Their regular Criminal Traffic Court handles all cases.

Note: After the second red light, the citizen is ordered to take a drivers training coarse.

*Toledo, Ohio Police Dept.*

*Lt. Keel*

*Traffic Bureau*

*1-419-245-3204 - 245-3254*

*Interviewer is Officer Roger G. Foor # 566, Special Events, Traffic Bureau*

I phoned Lt. Keel, Toledo Police Dept in Toledo, Ohio on the Photo Red Light enforcement. The following questions were asked along with his answers.

**1. Which Company are you with?**

Answer: Redflex

**2. Are you letting Redflex run the Red Light Photo program?**

Answer: No, we lease the equipment and services of the company.

**3. What is the cost that you are paying for that one camera?**

Answer: No cash outlay. Redflex collects the fines and we receive 7 %.

**4. Where will you place these cameras?**

Answer: We recommend different intersections that we want targeted and Redflex does the study for us and comes back to the City with their recommendations.

**5. Any problems with the system to be installed?**

Answer: No, the company installs and maintains the system.

**6. Any other problems you want to share?**

Answer: Right Turn on Red. The citizens approach an intersection going passed the stop bar to the intersection and come to a stop. They do this to look left for oncoming traffic before executing a right turn. The camera shows it as a red light being run.

**7. How much are the fines for violators who run red lights?**

Answer: We get 7% of all fines collected.

**8. Hearings?**

Answer: Everyone pays Redflex before a hearing is set up. A Lieutenant on the Police Dept. holds court hearings. They can handle 5 cases in a 10 minute period. They had 60 cases in a 4-hours time span. Most cases are guilty. However, EMS vehicles are sometimes missed, and right turn on red has been thrown out. When that occurs we notify Redflex of the ticket number and have them refund the citizen within 4 to 6 weeks.

*Cincinnati, Ohio  
Sgt. Ray Smith  
Cincinnati Police Dept.  
1-513-352-3520*

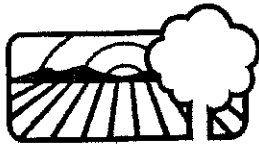
*Interviewer is Officer Roger G. Foor # 566, Special Events, Traffic Bureau*

I phoned a Sgt. Ray Smith, Cincinnati Police Dept. in Cincinnati, Ohio on the Photo Red Light enforcement. They are just beginning to look into the systems and are currently assigning the program to a safety committee with Citizens, Media, Law enforcement officials, and City Hall on board.

No questions ask do to they are in the first stages of Photo Red Light Systems.

The following questions were asked along with his answers.

- 1. Which Company are you with?**  
Answer: Just bidding out venders
- 2. Are you letting Redflex run the Red Light Photo program?**  
Answer: Don't know at this time
- 3. What is the cost that you are paying for that one camera?**  
Answer: Bids are out now
- 4. Where will you place these cameras?**  
Answer: Intersections that have the most red light violations.
- 5. Any problems with the system to be installed?**  
Answer: N/A
- 6. Any other problems you want to share?**  
Answer: Getting everyone behind the idea at first.
- 7. How much are the fines for violators who run red lights?**  
Answer: N/A



CITY OF MODESTO  
COMMITTEE AGENDA REPORT

COMMITTEE MEETING:  
Date of Meeting

March 8, 2004

TO: Safety and Communities Committee  
Will O'Bryant, Chair  
Brad Hawn, Vice-Chair  
Bob Dunbar

FROM: Roy Wasden, Chief of Police

SUBJECT: Automated Red light Photo Enforcement Program

CONTACT: Dan Inderbitzen, Police Lieutenant  
[inderbitzend@modestopd.com](mailto:inderbitzend@modestopd.com) 342-6142

**RECOMMENDED COMMITTEE ACTION:**

Receipt of this report regarding an Automated Red Light Photo Enforcement program to augment the existing comprehensive traffic calming measures currently being utilized by the Modesto Police Department; and, recommendation of the development a three (3) 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.

Upon contract development, recommendation to the full City Council of approval and implementation of a Citywide Red Light Photo Enforcement Program and a resolution authorizing the City Manager 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 5 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 none of the 125 signalized intersections. In Oxnard, as in many other jurisdictions where red light photo enforcement is conducted, there is 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:

<b>LOCATION</b>	<b>NUMBER OF COLLISIONS</b>
<b>Briggsmore/McHenry</b>	<b>58</b>
<b>McHenry/Standiford/Sylvan</b>	<b>51</b>
<b>Standiford/Tully</b>	<b>49</b>
<b>Briggsmore/Carpenter/Sisk</b>	<b>47</b>
<b>Sisk/Standiford</b>	<b>42</b>
<b>ElVista/Oakdale/Scenic</b>	<b>38</b>
<b>Bodem/Scenic</b>	<b>34</b>
<b>McHenry/Rumble</b>	<b>30</b>
<b>McHenry/Orangeberg</b>	<b>30</b>
<b>Briggsmore/Coffee</b>	<b>29</b>

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 which 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 | Stamislus County District Attorneys 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

### **Reference Questions:**

At the May 12, 2003 meeting the committee developed the following series of questions that were used to quiz members of reference cities operating automated systems. From May 12 through July 8, committee members, utilizing the established questionnaires, 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.

1. How long have you been using this system?
2. What was it about this vendor and system verses the competitors that made your city choose them?
3. How long did it take from the time the vendor was selected to implementation? Was it completed on schedule and on budget?
4. Has the system hardware, software and review process met your expectations? Why or why not?
5. Is the system meeting your expectations of photo quality, number of citations generated and citation processing?
6. What was the quality of the public awareness and user training the vendor provided to you?
7. What is your experience with system maintenance and support from the vendor?
8. If you had the opportunity to implement this system again would you do the same thing? What would you change or add?
9. Can you refer me to other cities using the same product and/or the person who worked on the implementation?
10. What kinds of problems have occurred with your system and how did the vendor resolve them?

### **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.

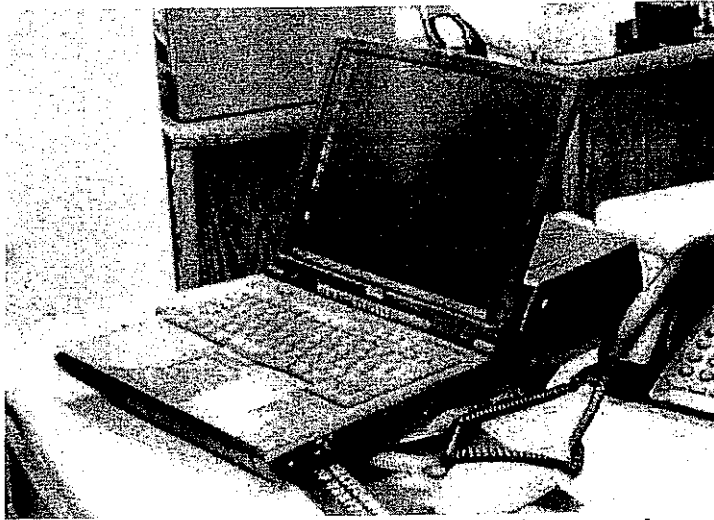
**Appeals and Court:** An appeals process is part of a Red Light Camera program. Cities processes vary slightly but generally when a motorist requests an appeal hearing the motorist is allowed to view the violation from a computer as it appeared to the reviewing officer. All agencies the committee met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

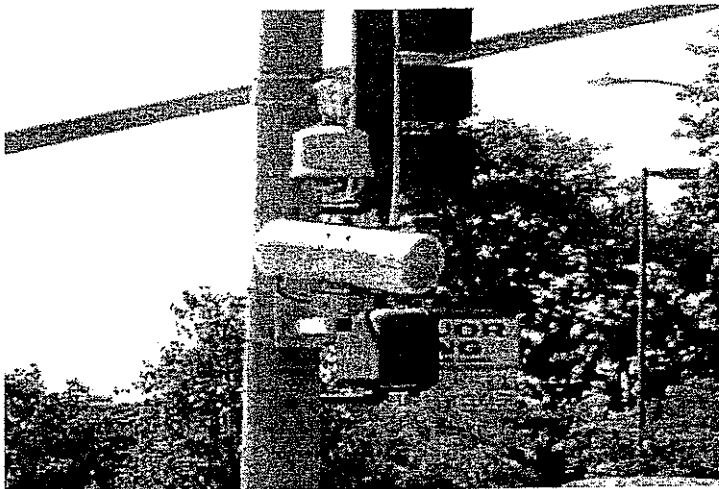
##### **Fresno Utilizing Nestor Automated Red Light Equipment**

On Tuesday September 16, 2003 Councilmember Keating, Mark Averell, Chris Harris and Dan Inderbitzen traveled to the City of Fresno and met with the red light enforcement supervisor, Sergeant Chandler (559-621-6402). Fresno is utilizing the Nestor automated red light equipment.

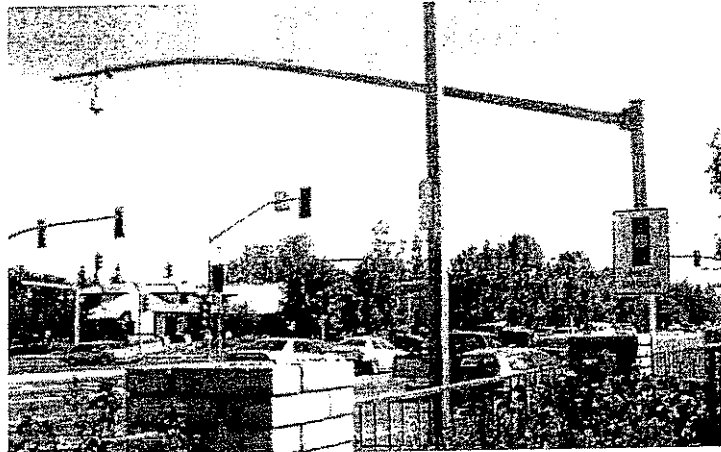
## Hardware



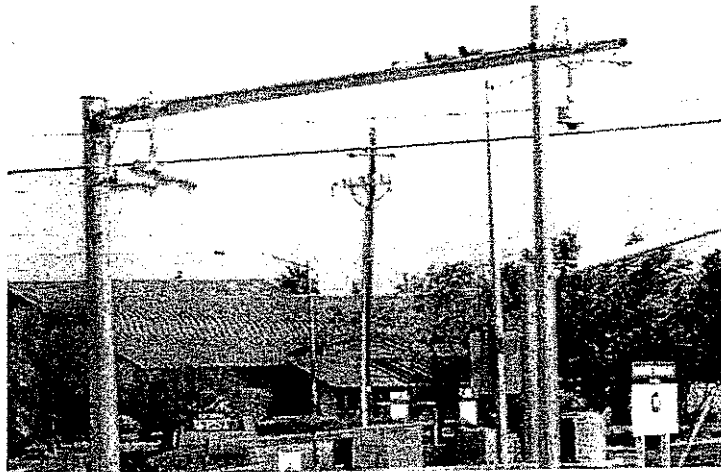
Agency access to digital photos is via a vendor owned dedicated lap top computer. This computer is connected to the vendor's database utilizing a committed DSL line.



Digital camera and flash lighting equipment is installed either on existing traffic control poles or on newly installed poles.

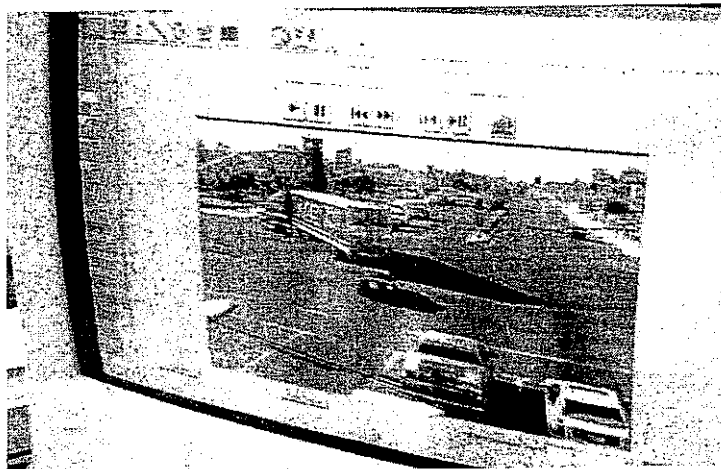


Nestor camera equipment shown is installed on an overhead light pole.



Nestor overhead camera and lighting.

### **Software**



Review display shows large digital video and still photo of violation. Software is user friendly with the capability of viewing a violation soon after the actual violation, along with all pertinent DMV information.



**Agency Access:**

The City of Fresno, utilizing the Nestor Red light Camera product, accesses digital photos of violations via a vendor provided, dedicated lap top computer. This computer is connected to the vendor's database utilizing a committed DSL line. Viewing of violations for approval and violator appeal hearings are done via this computer.

**Issuance Rate:**

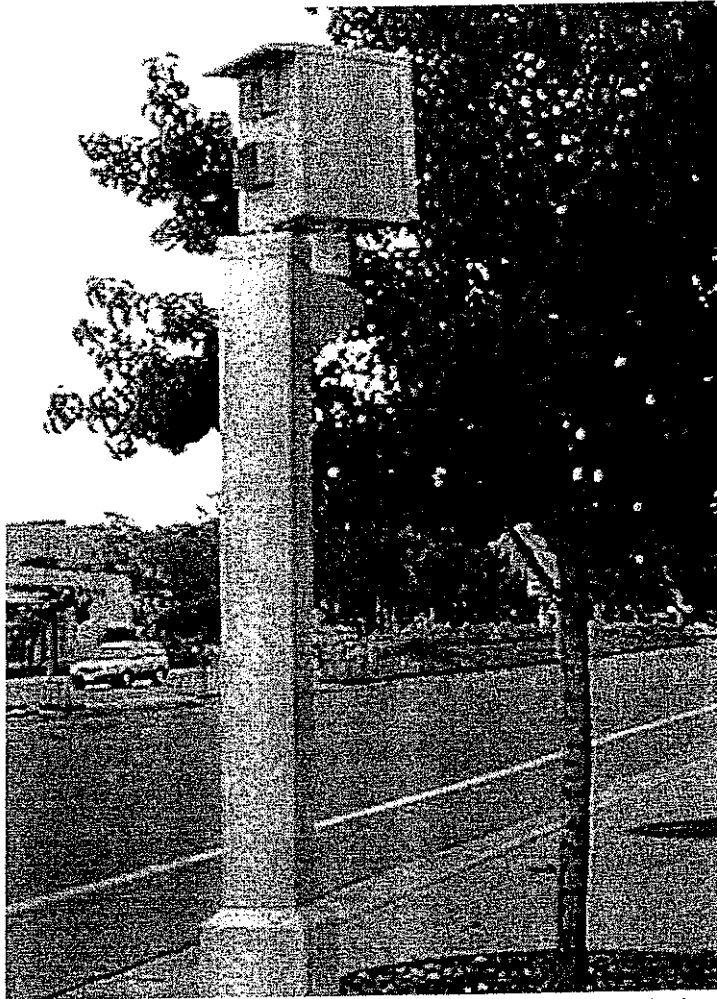
**Information received from Fresno indicates the issuance rate, or percent of motorists citable in Fresno between the months of January through August 2003, for the three Red light enforced intersections containing 12 cameras was 24.8 percent of violations captured.**

**Cupertino Utilizing the ACS Automated Red Light Equipment**

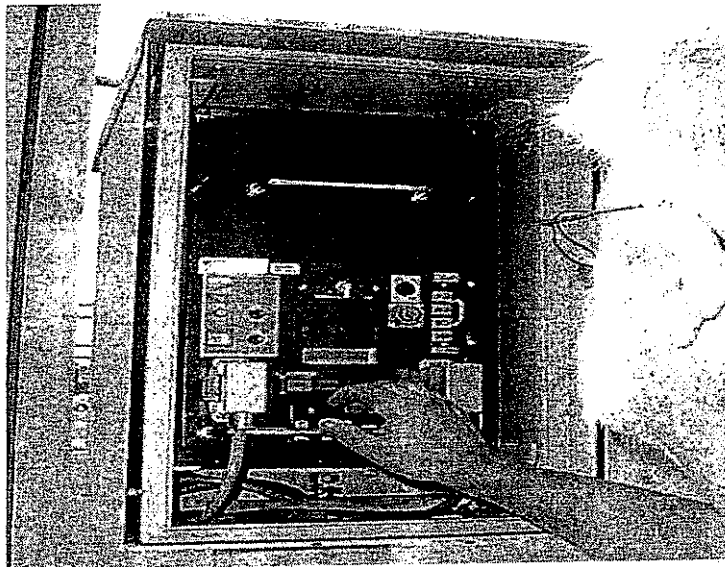
On Friday October 17, 2003 Mark Averell, Chris Harris, Jeff Barnes and Dan Inderbitzen traveled to the City of Cupertino and met with red light enforcement supervisor, Sergeant Turini, with the Santa Clara Sheriffs Department (408-777-3173). Cupertino is utilizing the ACS automated red light equipment.

**Hardware**

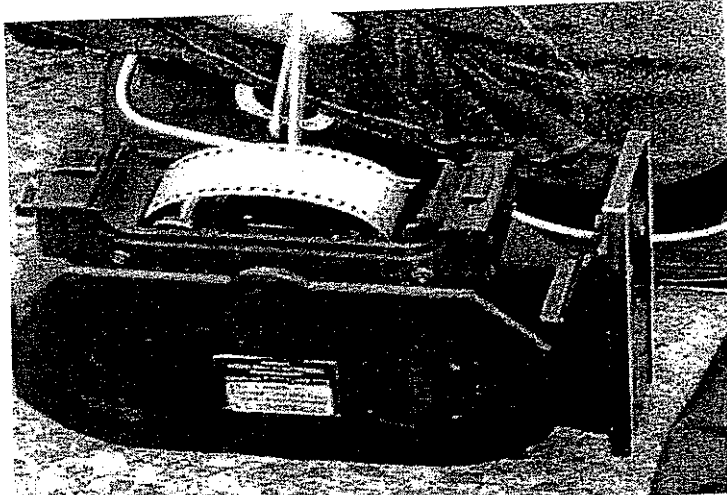
Sergeant Rick Turini accesses the photos via a secured Internet web site. Photos are taken on 35mm film, removed from the cameras on a daily basis and shipped overnight to ASC. The film is processed and posted on the web site. Violation photos are available for review within a few days of the violations. .



35 mm film camera equipment and flash lighting is housed in a single unit.



The camera is lowered and taken out of the housing to remove the 35mm film.

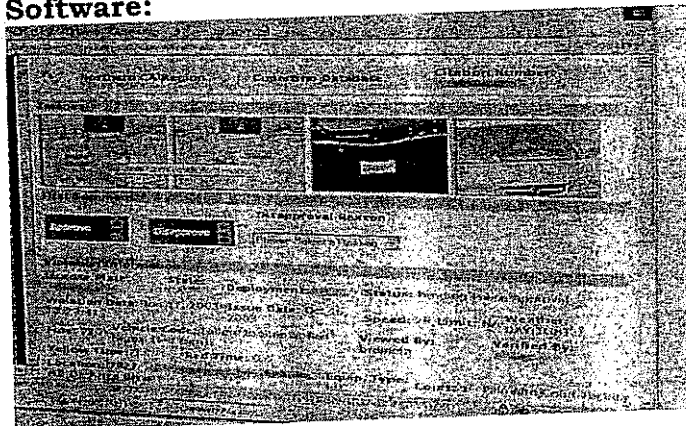


The segment of film with violation exposures is cut from the camera.



The film is removed, placed into a canister and sent for developing and then posted on the web site for department review.

**Software:**



Internet access of violation photos appears on the web site along with all pertinent DMV information.

**Agency Access:**

The City of Cupertino utilizes the ACS Red light Camera product. This system utilizes 35mm wet film processing, which is developed and posted on the vendor web site within days of the actual violations. Viewing of violations for approval and violator appeal hearings is done via a secured Internet web site.

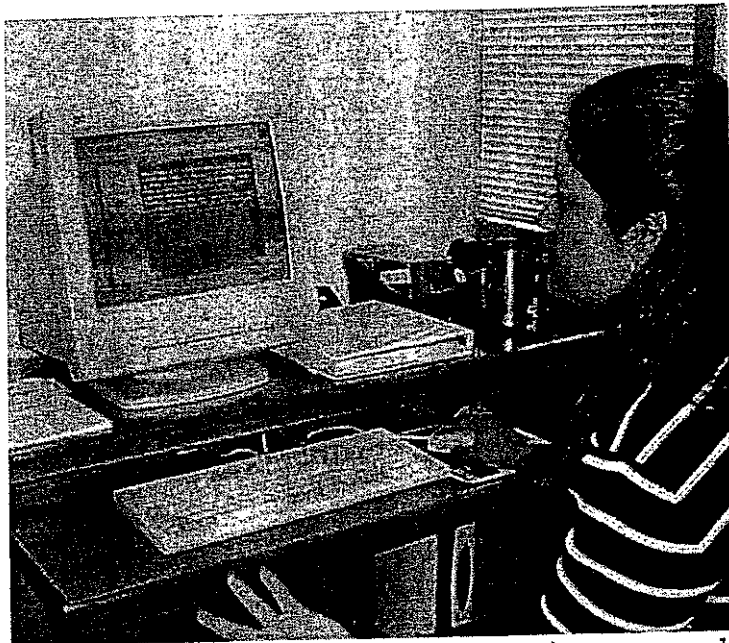
**Issuance Rate:**

Information received from Cupertino indicates the issuance rate or percent of motorists citable from the two automated red light controlled intersections, or five cameras, from September 2002 to September 2003 is 27 percent of violations captured.

**Fremont Utilizing Redflex Automated Red Light Equipment**

On Monday November 17, 2003 Mark Averell, Chris Harris, Jeff Barnes Firoz Vohra and Dan Inderbitzen traveled to the City of Fremont and met with red light enforcement coordinator, Ms. Agnas Nair with the Fremont Police Department (510 790-6984). Fremont is utilizing the Redflex automated red light equipment.

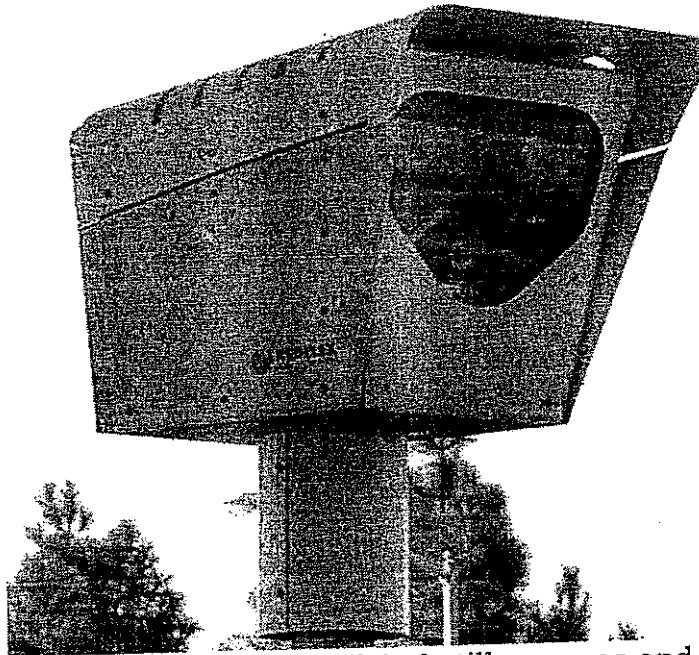
**Hardware**



Ms. Nair accesses the Redflex data via a secured Internet web site



Redflex digital photo and video equipment is housed in a single tower. Lighting is installed in close proximity of the cameras.

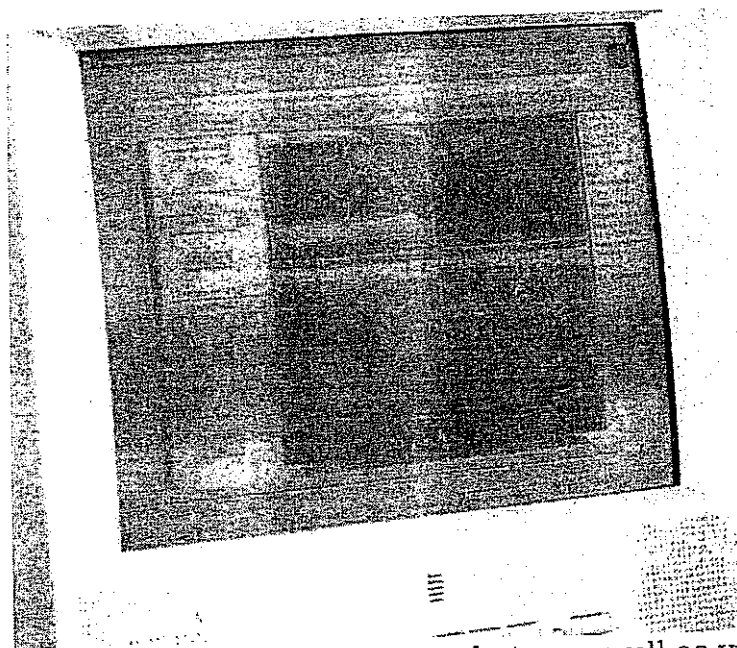


The tower houses two digital still cameras and one digital video camera.



Redflex combined camera tower with lighting attached.

**Software:**



The web site allows access to photos as well as video of violations along with all pertinent DMV information.

**Agency Access:**

The City of Fremont utilizes the Redflex Red light Camera product. This system utilizes two still digital cameras and one digital video camera. Viewing of violations for approval and violator appeal hearings is done via a secured Internet web site.

**Issuance Rate:**

**Information received from Fremont indicates the issuance rate, or percent of motorists citable from their eight automated red light controlled intersections, or eight cameras, from January through December of 2003 is 70 percent of violations captured.**

**II. REASONS FOR RECOMMENDATION:**

This report is presented to the Safety and Communities Committee 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 because Redflex technology and the companies 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. In addition, the combination of digital photography and video, coupled with access via the Internet from any computer, including the courts, was very significant. Even though other vendors may now have this technology, 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 make these recommendation to the full City Council to pursue red light traffic enforcement.

**VII. PUBLIC PARTICIPATION:**

State law requires that prior to implementation of an Automated Red light Photo Enforcement Program, a public hearing be held. This hearing will be conducted at the time the final contract between the City of Modesto and Redflex Traffic Systems is presented for approval.

**VIII. OTHER COMMITTEES' RECOMMENDATION**

None.

**IX. ENVIRONMENTAL REVIEW:**

None with this report.

**X. STEPS FOLLOWING APPROVAL:**

The contract will be negotiated and sent to the full City Council for public hearing and action.

Prepared By:

\_\_\_\_\_  
Judy Tognolini, Administrative Analyst  
[tognolinij@modestopd.com](mailto:tognolinij@modestopd.com) 572-9523

Submitted By:

\_\_\_\_\_  
Roy Wasden, Police Chief



# British say road cameras are rubbish

By Shelley Emling  
COX NEWS SERVICE

LONDON — They have been blown up, sawed down and pelted with eggs. They've even been ringed with old car tires doused with gasoline and set ablaze.

What could possibly be the object of so much hostility among a population known for its stiff-upper-lip civility? Speed-enforcement cameras

along Britain's roadways. Speed cameras — or photo-radar cameras — have sparked such an uproar here that it's not hard to find extreme examples of vandalism performed by otherwise law-abiding Britons.

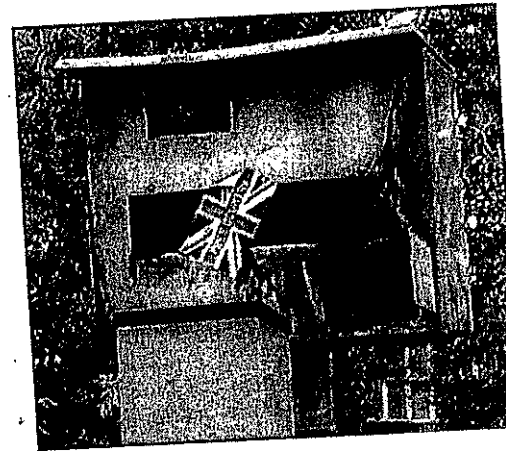
One London group called Motorists Against Detection, whose members often don masks bearing Prime Minister Tony Blair's likeness, has vandalized as many as 30 devices in a month.

Police condemn the group as "a terrorist organization."

But MAD's spokesman, who calls himself Captain Gatso after the brand name of the cameras, has said that many in the group are responsible professionals who've been driven to vandalism by an unjust form of taxation.

In total, police estimate that

See **CAMERAS** Page A2



Arson is a favorite among vandals of speed cameras along British roads. The damage to this one in West Yorkshire was featured on the anti-camera Web site [www.speed-cam.co.uk](http://www.speed-cam.co.uk).

## CAMERAS

FROM PAGE A1

400 cameras have been vandalized during the past two years, with a sharp increase in attacks since last summer.

London authorities last month announced that about 140 cameras would be removed in an action that could spread to other cities.

The cameras will be replaced with speed-indicator devices that flash a frowning face at drivers traveling even 1 mph over the speed limit — and a smiling face at drivers who are compliant.

But Lisa Lee, a spokeswoman for the Department of Transport, said the move does not portend the end of the road for speed cameras.

"They are here to save lives and to change driver behavior and not to raise money," she said. "They are put up only at sites where there's a history of speed-related accidents."

stepped into the fray, pledging last month to rip out all cameras that are only raising money.

"They are the classic example of a government determined to intrude to an astonishing extent into people's everyday lives," he said.

Howard charged that the ruling Labor Party is using cameras as yet another stealth tax — and many drivers agree.

"You simply can't use speed cameras as weapons of mass prosecution," said Tony Vickers, a spokesman for the Association of British Drivers. "We object to prosecuting millions of people a year for trivial technical offenses."

But Vicky Cann, assistant director of Transport 2000, an independent lobbying group that promotes better public transportation, said the cameras save lives.

"Speed cameras reduce death and injury by 35 percent in the areas where they are placed," she said, adding that they are placed only in spots that have had four serious or fatal crashes in four years.

# **Red Flex**

*Traffic System's*

**Sample Ohio City Ordinance's**

**of**

Dayton, Toledo, Cincinnati, Northwood

DAYTON, OHIO  
PHOTO ENFORCEMENT  
ORDINANCE

By MR. ZIMMER No 30114-02

**AN ORDINANCE**

Supplementing and Amending the Revised Code of General Ordinances by the Enactment of Section 70.121 and the Amendment of Section 70.99, Regarding an Automated Traffic Control Photographic System.

WHEREAS, The City seeks to reduce the frequency of vehicle operators running red traffic lights; and

WHEREAS, The frequency of running red lights creates a substantial risk to the safety of citizens on the roadway; and

WHEREAS, An automated traffic control photographic system will assist the Dayton Police Department by alleviating the necessity for conducting extensive conventional traffic enforcement at high accident intersections; and

WHEREAS, The adoption of an automated traffic control photographic system will result in a significant reduction in the number of red light violations and/or accidents within the City of Dayton; now, therefore,

**BE IT ORDAINED BY THE COMMISSION OF THE CITY OF DAYTON:**

Section 1. That Section 70.121 of the Revised Code of General Ordinances is be enacted to read as follows:

**70.121 CIVIL PENALTIES FOR AUTOMATED TRAFFIC CONTROL PHOTOGRAPHIC SYSTEM:**

**(A) Applicability.**

(1) Notwithstanding any other provision of the traffic code, the City of Dayton hereby adopts a civil enforcement system for red light camera system violations as outlined in this ordinance. The automated traffic control photographic system (ATCPS) imposes monetary liability on the owner of a vehicle, for failure of an operator thereof to comply with traffic control indications in the City of Dayton in accordance with the provisions of this Ordinance.

(2) The City of Dayton shall be responsible for administering the ATCPS. Specifically, the Dayton Police Department or its designee shall be empowered to install and operate an automated traffic control signal photographic system within the City of Dayton.

(3) This ordinance applies whenever traffic is controlled by traffic control signals exhibiting different colored lights, or colored lighted arrows, successively one at a time or in combination. Only the colors green, red and yellow shall be used, except for special pedestrian signals carrying a word legend, and said lights shall indicate and apply to drivers of vehicles and trackless trolleys, as follows:

(a) Green indication means the same as defined in Section 70.13(b)(1)(a), (b), and (c).

(b) Steady yellow indication means the same as defined in Section 70.13(b)(2)(a), (b).

(c) Steady red indication means the same as defined in Section 70.13(b)(3)(a), (b), (c), and (d).

(4) Intersections in which an ATCPS is installed shall have visible postings upon approach of the intersection that the intersection is equipped with an automated traffic control signal monitoring system.

(5) The City of Dayton Police Department or its designee shall administer the ATCPS program and shall maintain a list at each Police District of system locations within the city limits where traffic-control photographic systems are installed.

(6) Whenever a Dayton Police Officer witnesses a violation of Section 70.13(b)(3) or Ohio Revised Code Section 4511.13, and has issued a citation pursuant to those sections, this ordinance does not apply. However the recorded image may be used as evidence for a violation of Section 70.13(b)(3) or Ohio Revised Code Section 4511.13. Any citation for a violation of Section 70.13(b)(3) or Ohio Revised Code Section 4511.13 issued personally by an officer of the City of Dayton Police Department at an ATCPS location shall not be issued in the manner described under this ordinance. The citation shall be treated in the same manner as prescribed by Dayton Police Department policy 3.03-4 IV.

(7) This ordinance shall not apply to violations involving vehicle or pedestrian collisions.

(B) Definitions.

For purposes of this ordinance, the following words and phrases shall have the meanings indicated.

(1) "Owner" means the registered owner of a motor vehicle as identified by the Bureau of Motor Vehicles for the state registered or a lessee of a motor vehicle under a lease of 6 months or more.

(2) "Recorded Images" means images recorded by an automated traffic control signal photographic system on any of the following:

(a) Two or more photographs; or

(b) Two or more microphotographs; or

(c) Two or more electronic images; or

(d) Two or more Digital images; or

(e) Videotape; or

(f) Any other medium; and

(g) Showing the front or rear of a motor vehicle and on at least one image or portion of tape, clearly identifying the license plate number of the motor vehicle.

(3) "Automated Traffic Control Signal Photographic System" means a device with one or more motor vehicle sensors, installed to work in conjunction with a traffic control signal, to produce recorded images of motor vehicles entering an intersection against a red signal indication.

(4) "In Operation" means operating in good working condition.

(5) "Hearing Officer" means an independent third party, not employed by the City of Dayton Police Department or its designee.

(6) "System Location" is the approach to an intersection toward which a photographic, microphotographic, electronic image, digital image, videotape, or any other medium is directed and is in operation. It is the location where the automated traffic control photographic system is installed to monitor offenses under this ordinance.

(7) "Responsible Party" is the person who was operating the vehicle at the time of the violation or the person who had care, custody, and control of the vehicle at the time of the violation.

(C) Violation.

(1) It shall be unlawful for a vehicle to cross the stop line at a system location when the traffic controls signal for that vehicle's direction of travel is emitting a steady red light. The owner of the vehicle shall be responsible for a violation under this section, except when the owner can provide evidence that the vehicle was in the care, custody, and control of another person at the time of the violation, as described in subsection (C)(2).

(2) The owner of the vehicle shall not be responsible for the violation if, within fifteen (15) calendar days after notification of liability, the owner furnishes the City of Dayton Police Department or its designee with: *+ 15 DAY Proof*

(a) The name and address of the person who leased, rented, or otherwise had the care, custody, and control of the vehicle at the time of the violation; or

(b) An affidavit by the owner stating that at the time of the violation, the vehicle or the license plates of the vehicle involved were stolen or were in the care, custody, or control of some person who did not have the owner's permission to use the vehicle, or that the motor vehicle or registration plates of vehicle were stolen before the violation occurred and were not under the control or possession of the owner at the time of the violation. In order to demonstrate that the vehicle or the license plates were stolen before the violation occurred and were not under the control or possession of the owner at the time of the violation, the owner must submit proof that a police report about the stolen motor vehicle or license plates was filed prior to the violation or within 48 hours after the violation occurred.

(3) A certified copy of the notice of liability alleging the violation of this ordinance occurred, sworn to or affirmed by a duly authorized Police Officer of the City of Dayton, with the recorded images produced by an automated traffic control signal photographic system shall be prima facie evidence of the facts contained therein and shall be admissible in a proceeding alleging a violation under this ordinance.

(4) If the vehicle involved in the violation is a commercial vehicle and the notice of liability is issued to a corporate entity, the corporate entity must provide to the Dayton Police Department or its designee an affidavit, sworn to or affirmed by the statutory agent of the corporate entity, that:

(a) States that the person/entity named in the notice of liability was not in operation of the vehicle at the time of the violation; and

(b) Provides the name, address, and driver's license identification number of the person who was in operation of the vehicle at the time of the violation.

(D) Notice of Liability.

(1) The notice of liability shall be processed by the City of Dayton Police Department or its designee, and shall be served by ordinary mail to the owner's address as given on the motor vehicle registration from the Bureau of Motor Vehicles of the state registered. The notice of liability shall include:

- (a) The name and address of the registered owner of the vehicle;
- (b) The license plate number of the motor vehicle involved in the violation;
- (c) The violation charged;
- (d) The location of the intersection;
- (e) The date and time of the violation;
- (f) A copy of the recorded image(s);
- (g) The amount of the civil penalty imposed and the date by which the civil penalty should be paid and where the payment should be made;
- (h) A signed statement by a Dayton Police Officer that based on inspection of recorded images, the motor vehicle was being operated in violation of subsection (C)(1) of this ordinance, and a statement that the recorded images are prima facie evidence of a violation of subsection (C)(1) of this ordinance;
- (i) Information advising the person alleged to be liable of the options as provided in subsection (E)(1) of this ordinance;
- (j) The time, place, and manner in which an administrative appeal can be initiated and a warning that failure to exercise the options provided under subsection (E)(1) of this ordinance in a timely manner is an admission of liability.

(2) The City of Dayton or its designee may mail, by ordinary mail, a warning notice in lieu of notice of liability under this ordinance.

(3) Except as provided in subsection (E)(3)(b), a notice of liability issued under this ordinance shall be mailed no later than fifteen (15) calendar days after the alleged violation. *SHOULD BE 21 DAYS PL*

(4) Except as provided under subsections (E)(3)(a) of this ordinance, the Dayton Police Department or its designee may not mail a notice of liability to a person who is not the owner of the vehicle.

(E) Administrative Appeal.

(1) An owner or responsible party who receives a "notice of liability", under this ordinance may do one of the following:

(a) Pay the civil penalty, in accordance with instructions on the notice of liability; or

(b) Within fifteen (15) calendar days provide the Dayton Police Department or its designee information as to the driver of the vehicle, at the time of the violation; or

(c) Contest the notice of liability by filing a written request for review of the notice of liability with payment in the amount equal to the amount of the civil penalty to the City of Dayton Police Department or its designee. An individual desiring a hearing must post payment equal to the amount of the civil penalty before an appeal hearing will be scheduled. A written notice of request for review must be filed within fifteen (15) days after receipt of the notification of liability. The failure to give notice of request for review within this time period shall constitute a waiver of the right to contest the notice of liability. A Hearing Officer shall hear reviews. A hearing shall be held within ten (10) business days of the receipt of the request for review; this time may be extended upon a written request for additional time. *(needs to be 30 days)*

(i) The Hearing Officer shall determine whether a preponderance of evidence establishes that a violation of this ordinance occurred and the person requesting the review is liable. A certified copy of the notice of liability alleging the violation of this ordinance occurred, sworn to or affirmed by a duly authorized Police Officer of the City of Dayton, with the recorded images produced by a traffic control photographic system shall be prima facie evidence of the facts contained therein and shall be admissible in a proceeding alleging a violation under this ordinance. Adjudication of liability shall be based on a preponderance of the evidence.

(ii) If the Hearing Officer finds sufficient evidence of a violation, but the owner or the responsible party is not liable, the Hearing Officer shall, in writing, issue a decision finding the individual not liable and submit it to the City of Dayton Police Department or its designee.



(2) If the owner or responsible party chooses to contest the notice of liability, the Hearing Officer may consider any of the following as an affirmative defense of a violation:

(a) That the driver of the vehicle passed through the intersection in order to yield the right-of-way to an emergency vehicle in accordance with Ohio Revised Code Section 4511.45, or to a funeral procession in accordance with Section 71.13.

(b) That the motor vehicle or registration plates of the motor vehicle were stolen before the violation occurred and were not under the control or possession of the owner at the time of the violation. In order to demonstrate that the motor vehicle or the registration plates were stolen before the violation occurred and were not under the control or possession of the owner at the time of the violation, the owner must submit proof that a police report about the stolen motor vehicle or registration plates was filed prior to the violation or within 48 hours after the violation occurred.

(c) That this section is unenforceable because at the time and place of the alleged violation, the traffic control signal was not operating properly or the traffic control signal monitoring system was not in proper position and the recorded image is not legible enough to determine the information needed.

(d) Evidence, other than that adduced pursuant to subsection (E)(2)(b) of this ordinance, that the owner or person named in the notice of liability was not operating the vehicle at the time of the violation. To satisfy the evidentiary burden under this subsection, the owner or person named in the notice of liability shall provide to the Hearing Officer evidence showing the identity of the person who was operating the vehicle at the time of the violation, including, at a minimum, the operator's name and current address, and any other evidence that the Hearing Officer deems pertinent.

(3) If the Hearing Officer finds that the person or entity named in the notice of liability was not operating the vehicle at the time of the violation or receives evidence under subsection (E)(2)(d) identifying the person driving the vehicle at the time of the violation, the Hearing Officer shall provide to the City of Dayton Police Department or its designee within five (5) calendar days, a copy of any evidence substantiating who was operating the vehicle at the time of the violation.

(a) Upon the receipt of evidence of the responsible party pursuant to this subsection or pursuant to subsection (C)(2)(a), the City of Dayton Police Department or its designee may issue a notice of liability, with the name and address of the responsible party and the information required by subsection

(D)(1)(b),(c),(d),(e),(f),(g),(h),(i), and (j) of this ordinance, to the person that the evidence indicates was operating the vehicle at the time of the violation.

(b) A notice of liability issued under this subsection (E)(3) shall be sent by ordinary mail no later than five (5) business days after receipt of the evidence from the Hearing Officer or the owner.

(F) Civil Penalties.

(1) Unless the driver of the motor vehicle received a citation from a police officer at the time of the violation, the owner or responsible party for the motor vehicle is subject to a civil penalty if the motor vehicle is recorded by an automated traffic control photographic system while being operated in violation of this ordinance.

(2) A civil penalty under this ordinance may not exceed \$250.00. Persons who choose to pay the civil penalty without appearing before a Hearing Officer may do so in the manner indicated on the notice of liability.

(3) A violation for which a civil penalty is imposed under this ordinance is not a moving violation for the purpose of assessing points under Ohio Revised Code Section 4507.021(16) for minor misdemeanor moving traffic offenses and may not be recorded on the driving record of the owner or operator of the vehicle and shall not be reported to the Bureau of Motor Vehicles;

(G) Collection of Civil Penalty.

If the civil penalty is not paid, the civil penalty imposed under the provisions of this ordinance shall be collectible, together with any interest and penalties thereon, by civil suit.

Section 2. That Section 70.99(A) of the Revised Code of General Ordinances is hereby amended to read as follows:

70.99 GENERAL PENALTY FOR TITLE VII.

(A) Whoever violates any provision of this title, for which no penalty is otherwise provided, is guilty of a minor misdemeanor on a first offense; on a second offense within one year after the first offense, such person is guilty of a misdemeanor of the fourth degree; on each subsequent offense within one year after the first offense, such person is guilty of a misdemeanor of the third degree. When any person is found guilty of a first offense for a violation of Section 71.50 upon a finding that he operated a motor vehicle faster than 35 miles an hour in a business district, or faster than 50 miles an hour in other portions, or faster than 35 miles an hour while passing through a school zone during recess or while children are going to or leaving school during the opening or closing hours, such person is guilty of a misdemeanor of the fourth degree.

Section 3. That Section 70.99(A) of the Revised Code of General Ordinances, as heretofore enacted by the Commission, is hereby repealed.

PASSED BY THE COMMISSION JUNE 12, 2002

SIGNED BY THE MAYOR JUNE 12, 2002




MAYOR OF THE CITY OF DAYTON, OHIO

ATTEST:

  
Clerk of the Commission

APPROVED AS TO FORM:

  
City Attorney

TOLEDO OH  
PHOTO RED LIGHT  
AND SPEED ORDINANCE

POL012103REPEAL313.12P  
MATTHEWS X3203

ORDINANCE NO. 55-03

Repealing Section 313.12 of the Toledo Municipal Code entitled, "Civil Penalties for Automated Red Light System Violations" and enacting a new Section 313.12 of the Municipal Code entitled, "Civil Penalties for Automated Red Light and Speeding Violations"; and declaring an emergency.

SUMMARY AND BACKGROUND:

In 1999 the City of Toledo enacted an ordinance that permitted the enforcement of red light violations by means of an automated camera system. Violators were assessed a civil penalty and a means to appeal this penalty was provided in the ordinance. Since the inception of this program, the City has experienced a significant decrease in motor vehicle accidents at the targeted intersections. The proposed ordinance would extend the automated enforcement system to speeding violations and increase the penalty for red light violations from \$75 to \$95. The City expects to realize a further decrease in accidents as drivers reduce their speed in response to these cameras. NOW, THEREFORE, be it ordained by the Council of the City of Toledo

SECTION 1. That Section 313.12 of the Municipal Code which reads:

**313.12. Civil penalties for automated red light system violations.**

**(a) Automated red light system/civil violation - General.**

(1) Notwithstanding any other provision of this Traffic Code, the City of Toledo hereby adopts a civil enforcement system for red light camera system violations as outlined in this section. Said system imposes monetary liability on the owner of a vehicle for failure of an operator thereof to comply with traffic control indications in the city of Toledo in accordance with the provisions of this Section.

(2) The City of Toledo Division of Transportation, the Toledo Police Department, and the Toledo Department of Law shall be responsible for administering the Automated Red Light System. Specifically, the Toledo Division of Transportation and the Toledo Police Department shall be empowered to install and operate red light camera systems within the city of Toledo. And, the Toledo Division of Transportation and the Toledo Police Department shall maintain a list of system locations where red light camera systems are installed. Said departments will make the determination as to which intersection locations will be utilized.

(3) Any citation for an automated red light system violation pursuant to this Section, known as a "Notice of Liability" shall:

- A. Be processed by officials or agents of the City of Toledo;

B. Be forwarded by first-class mail or personal service to the vehicle's registered owner's address as given on the state's motor vehicle registration, and

C. Clearly state the manner in which the violation may be appealed.

**(b) Definitions.**

(1) "Automated red light system" is the equivalent of "Traffic control signal monitoring device" or "Traffic control photographic system." Said system/device is an electronic system consisting of a photographic, video or electronic camera and a vehicle sensor installed to work in conjunction with an official traffic controller and to automatically produce photographs, video or digital images of each vehicle violating a standard traffic control.

(2) "In operation" means operating in good working condition.

(3) "System location" is the approach to an intersection toward which a photographic, video or electronic camera is directed and is in operation. It is the location where the automated camera system is installed to monitor offenses under this Section.

(4) "Vehicle owner" is the person or entity identified by the Ohio Bureau of Motor Vehicles, or registered with any other State vehicle registration office, as the registered owner of a vehicle.

**(c) Offense.**

(1) The owner of a vehicle shall be liable for a penalty imposed pursuant to this Section if such vehicle crosses a marked stop line or the intersection plane at a system location when the traffic signal for that vehicle's direction is emitting a steady red light.

(2) It is prima facie evidence that the person registered as the owner of the vehicle with the Ohio Bureau of Motor Vehicles (or with any other State vehicle registration office) was operating the vehicle at the time of the offense set out in subsection (c)(1) above.

(3) Notwithstanding subsection (c)(2) above, the owner of the vehicle shall not be responsible for the violation if, within twenty-one (21) days from the date listed on the "Notice of Liability," as set forth in subsection (d)(3) below, he furnishes the Hearing Officer:

A. An affidavit by him, stating the name and address of the person or entity who leased, rented, or otherwise had the care, custody and control of the vehicle at the time of the violation;  
OR

B. A law enforcement incident report/general offense report from any state or local law enforcement agency/record bureau stating that the vehicle involved was reported as stolen before the time of the violation.

(4) An imposition of liability under the Section shall not be deemed a conviction as an operator and shall not be made part of the operating record upon whom such liability is imposed.

(5) Nothing in this Section shall be construed to limit the liability of an operator of a vehicle for any violation of subsection (c)(1) herein.

(6) This Section shall not apply to violations involving vehicle collisions.

**(d) Penalty; Administrative Appeal.**

(1) Any violation of subsection (c)(1) herein shall be deemed a noncriminal violation for which a civil penalty of \$75.00 shall be assessed and for which no points authorized by Ohio R. C. 4507.021 ("Point system for license suspension") shall be assigned to the owner or driver of the vehicle.

(2) The City of Toledo, via its Division of Transportation, Police Department, Law Department and Municipal Court Clerk may establish procedures for the collection of the civil penalties imposed herein, and may enforce the penalties by a civil action in the nature of a debt.

(3) A notice of appeal shall be filed with the Hearing Officer within twenty-one (21) days from the date listed on the "Notice of Liability." The failure to give notice of appeal or pay the civil penalty within this time period shall constitute a waiver of the right to contest the citation and will be considered an admission. Appeals shall be heard through an administrative process established by the City of Toledo Police Department. An individual desiring a hearing must post a bond equal to the amount of the civil penalty before an appeal hearing will be scheduled. In the event that the decision of the hearing officer is in favor of the City of Toledo, the bond monies previously posted shall be paid to the City of Toledo. A decision in favor of the City of Toledo may be enforced by means of a civil action.  
(Ord. 125-99 Passed 3-16-99.)

be and the same is hereby repealed.

SECTION 2. That a new Section 313.12 of the Municipal Code be enacted to read as follows:

**313.12. Civil penalties for automated red light and speeding system violations.**

**(a) Automated red light and speeding system/civil violation - General.**

(1) Notwithstanding any other provision of this Traffic Code, the City of Toledo hereby adopts a civil enforcement system for red light and speeding camera system violations as outlined in this section. Said system imposes monetary liability on the owner of a vehicle for failure of an operator thereof to comply with traffic control indications in the city of Toledo in accordance with the provisions of this Section.

(2) The City of Toledo Division of Transportation, the Toledo Police Department, and the Toledo Department of Law shall be responsible for administering the Automated Red Light and Speeding System. Specifically, the Toledo Division of Transportation and the Toledo Police Department shall be empowered to install and operate red light and speeding camera systems within the city of Toledo. And, the Toledo Division of Transportation and the Toledo Police Department shall maintain a list of system locations where red light and speeding camera

systems are installed. Said departments will make the determination as to which locations will be utilized.

(3) Any citation for an automated red light and speeding system violation pursuant to this Section, known as a "Notice of Liability" shall:

- A. Be processed by officials or agents of the City of Toledo;
- B. Be forwarded by first-class mail or personal service to the vehicle's registered owner's address as given on the state's motor vehicle registration, and
- C. Clearly state the manner in which the violation may be appealed.

**(b) Definitions.**

(1) "Automated red light and speeding system" is the equivalent of "Traffic control signal monitoring device" or "Traffic control photographic system." Said system/device is an electronic system consisting of a photographic, video or electronic camera and a vehicle sensor installed to work alone or in conjunction with an official traffic controller and to automatically produce photographs, video or digital images of each vehicle violating a standard traffic control.

(2) "In operation" means operating in good working condition.

(3) "System location" is the approach to an intersection or a street toward which a photographic, video or electronic camera is directed and is in operation. It is the location where the automated camera system is installed to monitor offenses under this Section.

(4) "Vehicle owner" is the person or entity identified by the Ohio Bureau of Motor Vehicles, or registered with any other State vehicle registration office, as the registered owner of a vehicle.

**(c) Offense.**

(1) The owner of a vehicle shall be liable for a penalty imposed pursuant to this Section if such vehicle crosses a marked stop line or the intersection plane at a system location when the traffic signal for that vehicle's direction is emitting a steady red light.

(2) The owner of a vehicle shall be liable for a penalty imposed pursuant to this Section if such vehicle is operated at a speed in excess of those set forth in Section 333.03.

(3) It is prima facie evidence that the person registered as the owner of the vehicle with the Ohio Bureau of Motor Vehicles (or with any other State vehicle registration office) was operating the vehicle at the time of the offense set out in subsection (c)(1) above.

(4) Notwithstanding subsection (c)(3) above, the owner of the vehicle shall not be responsible for the violation if, within twenty-one (21) days from the date listed on the "Notice of Liability," as set forth in subsection (d)(3) below, he furnishes the Hearing Officer:

A. An affidavit by him, stating the name and address of the person or entity who leased, rented, or otherwise had the care, custody and control of the vehicle at the time of the violation:  
OR

B. A law enforcement incident report/general offense report from any state or local law enforcement agency/record bureau stating that the vehicle involved was reported as stolen before the time of the violation.

(4) An imposition of liability under the Section shall not be deemed a conviction as an operator and shall not be made part of the operating record upon whom such liability is imposed.

(5) Nothing in this Section shall be construed to limit the liability of an operator of a vehicle for any violation of subsection (c)(1) or (c)(2) herein.

(6) This Section shall not apply to violations involving vehicle collisions

(d) **Penalty: Administrative Appeal.**

(1) Any violation of subsection (c)(1) herein shall be deemed a noncriminal violation for which a civil penalty of \$95.00 shall be assessed and for which no points authorized by Ohio R. C. 4507.021 ("Point system for license suspension") shall be assigned to the owner or driver of the vehicle.

(2) Any violation of subsection (c)(2) herein shall be deemed a noncriminal violation for which a civil penalty of \$95.00 shall be assessed and for which no points authorized by Ohio R. C. 4507.021 ("Point system for license suspension") shall be assigned to the owner or driver of the vehicle.

(3) The City of Toledo, via its Division of Transportation, Police Department, Law Department and Municipal Court Clerk may establish procedures for the collection of the civil action in the nature of a debt.

(4) A notice of appeal shall be filed with the Hearing Officer within twenty-one (21) days from the date listed on the "Notice of Liability." The failure to give notice of appeal or pay the civil penalty within this time period shall constitute a waiver of the right to contest the citation and will be considered an admission. Appeals shall be heard through an administrative process established by the City of Toledo Police Department. A decision in favor of the City of Toledo may be enforced by means of a civil action or any other means provided by the Ohio Revised Code.

SECTION 3. That this ordinance hereby is declared to be an emergency measure and shall be in force and effect from and after its passage. The reason for the emergency lies in the fact that same is necessary for the immediate preservation of the public peace, health, safety and property.



Vote on emergency clause: Yes 12, Nays 0

PASSED: FEB 18 2003, 2003, as an emergency measure:

Yes 12, Nays 0

ATTEST: M. J. Beazely  
MICHAEL J. BEAZELY  
CLERK OF COUNCIL

Laura Escobar  
~~LAURA ESCOBAR~~  
PRESIDENT OF COUNCIL

Approved: 2/14, 2003.

Jack Ford  
JACK FORD  
MAYOR

I hereby certify that the above is a true and correct copy of  
an ordinance passed by Council \_\_\_\_\_, 2003.

ATTEST:  
MICHAEL J. BEAZELY  
CLERK OF COUNCIL

City of Cincinnati

RID *[Signature]*

An Ordinance No. \_\_\_\_\_

- 2004

ENACTING new Sections 501-1-A3, 501-1-P8 and 502-19.1, and AMENDING Section 502-19 of the Cincinnati Municipal Code to provide for the implementation of automated traffic control systems for the enforcement of traffic code provisions relating to red traffic-control signals and speed limits.

WHEREAS, disobedience to traffic control signals and speed limits has contributed to a significant number of motor vehicle accidents in the City of Cincinnati, which accidents have often resulted in death, serious personal injury and / or substantial property damage; and

WHEREAS, the City desires to reduce the frequency with which disobedience to traffic control signals and speed limits and the accidents caused by such disobedience occur; and

WHEREAS, the use of automated traffic enforcement systems will assist the City in accomplishing such a reduction without the disadvantages attendant to conventional traffic enforcement, such as disruptions in the flow of traffic at heavily traveled intersections and expenses associated with increased police manpower; now, therefore,

BE IT ORDAINED by the Council of the City of Cincinnati, State of Ohio:

Section 1. That new Sections 501-1-A3 and 501-1-P8 of the Cincinnati Municipal Code are hereby enacted to read as follows:

**Sec. 501-1-A3. Automated Traffic Enforcement System.**

“Automated traffic enforcement system” shall mean any photographic equipment linked to a violation detection system that synchronizes the taking of a photograph with the occurrence of a traffic signal violation or moving infraction in accordance with § 502-19.2.

**Sec. 501-1-P8. Photographic Equipment.**

“Photographic Equipment” shall mean a system that may include, but is not limited to, devices which link a camera, computer, and traffic signal, alone or in combination with other devices, to detect vehicles which have violated the traffic signal and to photograph the motor vehicle, its occupants, or other objects. Such a system may also include, but is not limited to, devices that combine a Doppler radar instrument, camera, and computer, alone or in combination with other devices, to measure the speed of a motor vehicle or other object and to

photograph the motor vehicle, its occupants, or other objects. The results of photographic equipment means the images, speed measurement, and any other data or information produced by the automated traffic enforcement system.

Section 2. That Section 502-19 of the Cincinnati Municipal Code is hereby amended to read as follows:

**Sec. 502-19. Disobeying Traffic-Control Devices and Signals.**

**\*\*1\*\***

(a) Unless otherwise instructed by a police officer at the location of a traffic-control device, no pedestrian shall disobey the instruction of any traffic-control device placed in accordance with the provisions of the traffic code.

(b) It shall be unlawful for the driver of any vehicle to disobey the instruction of any traffic-control device, unless otherwise instructed by a police officer at the location of the traffic-control device

(c) At intersections controlled by traffic-control signals, vehicular traffic facing a steady red traffic-control signal shall stop before entering the intersection and shall remain stopped until directed to proceed by a steady green traffic-control signal.

(d) When both traffic-control signals and stop signs are erected at an intersection, traffic shall be governed by the traffic-control signal while it is in operation.

Section 3. That new Section 502-19.1 of the Cincinnati Municipal Code is hereby enacted to read as follows:

**Sec. 502-19.1. Automated Traffic Enforcement System.**

(a) General.

(1) The City of Cincinnati hereby adopts an automated traffic enforcement system for the purpose of using photographic equipment to record visual images of vehicles entering intersections in violation of § 502-19(c) and/or operating a vehicle in excess of the limits set forth in § 506-8; and using said images as the basis for issuing tickets to the owners of such vehicles within thirty (30) days of the infraction.

(2) The Department of Transportation and Engineering and the Cincinnati Police Division shall be responsible for implementing the automated traffic enforcement system for both traffic signal and speed enforcement. These

departments are hereby empowered to designate the intersections and streets to be monitored by automated traffic enforcement systems; to install, operate and maintain automated traffic enforcement systems at such designated locations; and to take any and all other measures necessary for the implementation of the system. The Police Division shall maintain a list, available to the public, of locations so monitored.

(3) The Police Division is further empowered to contract with governmental or nongovernmental entities for services necessary for the implementation of this system. Such contracts shall be subject to the provisions of Chapter 321 of this code. No entity with whom the Police Division contracts shall be paid in a manner dependent upon the number of tickets issued under this Section.

(4) The intersections chosen for automated traffic enforcement under this section must display a yellow traffic-control signal for a time that complies with the Ohio Department of Transportation's Manual of Uniform Traffic Control Devices.

(5) The street locations chosen for automated traffic enforcement under this section must display a speed limit sign in compliance with the Ohio Department of Transportation's Manual of Uniform Traffic Control Devices §§ 2B.11 and 2B.15 and the Ohio Revised Code § 4511.21.

(b) Notice Requirements.

(1) For at least fourteen (14) consecutive days prior to the installation of an automated traffic enforcement system at an intersection or street location, the Police Division or its designee must publish notice in a local newspaper of general circulation that the intersection or street location will be subject to automated traffic enforcement. Said notice must specify the date on which automated traffic enforcement will begin.

(2) Prior to the date on which automated traffic enforcement begins at an intersection or street location, the Police Division or its designee shall erect a sign in a conspicuous location that provides notice that an automated traffic enforcement system is being used to monitor traffic.

(3) For the first thirty (30) days that an automated traffic enforcement system is in operation at a given intersection or street location, no tickets may be issued on the basis of the images produced by that system. Warnings may be issued during that thirty-day period.

(c) Offense.

(1) An officer employed by the Cincinnati Police Division shall examine the image recorded by the automated traffic enforcement system to determine whether an infraction of § 502-19(c) or § 506-8 has occurred. If the image recorded by the automated traffic enforcement system shows an infraction of § 502-19(c) or § 506-8, contains a notation of the date and time of the alleged violation, and shows the letter and numbers on the vehicle's license plate, as well as the state in which the license plate was issued, the officer may use any lawful means to identify the vehicle's owner.

(2) The fact that a person is registered as the owner of a vehicle with the vehicle registration office of the state that issued the license plate displayed on the vehicle shall be prima facie evidence that said person was operating the vehicle at the time of an infraction recorded by an automated traffic enforcement system.

(3) Within thirty (30) days of the infraction and upon identification of the registered owner of the vehicle, an officer may issue and send by first-class United States mail a ticket charging the owner with an infraction of § 502-19(c). Said ticket must state the date on which the ticket was issued; the date, time and location of the infraction; the time in which a response must be made; and the manner in which the ticket may be appealed. In addition, a copy of the image(s) that served as a basis for the ticket must accompany the ticket.

(4) A person who receives such a ticket shall be required to respond to it by paying the penalty as directed on the ticket within twenty-one (21) days of its issue date, or by submitting proof of his non-liability as set forth in subsection (c)(5) within twenty-one (21) days of its issue date, or by submitting, to the address listed on the ticket, requests a hearing as set forth in subsection (d) within twenty-one (21) days of its issue date.

(5) Notwithstanding subsection (b)(2), the owner of the vehicle shall not be liable for a penalty under this section if:

(i) At the time of the infraction, the vehicle was in the custody of someone other than its owner pursuant to a written lease or rental agreement and the owner submits, to the address listed on the ticket, either a copy of the lease or rental agreement along with the name and address of the lessee or renter.

(ii) At the time of the infraction, the vehicle or the license plate depicted in the image which served as the basis for the ticket was stolen and the owner submits, to the address listed on the ticket, a copy of the police report stating the vehicle or license plate had been reported stolen at the time.

(6) Nothing in subsection (c)(5) shall be construed as limiting the liability of an operator of a vehicle for any violation of § 502-19(c) or § 506-8.

(d) Appeal.

(1) A person who received a ticket pursuant to this Section may appeal the ticket by making a written request for a hearing to the address listed on the ticket. Said request shall be accompanied by a monetary deposit in an amount equal to the amount of the civil penalty stated on the ticket.

(2) Within ten (10) days of the receipt of the request for a hearing and the monetary deposit referred to in subsection (d)(1), a hearing shall be held by a hearing officer appointed by the Cincinnati Police Division or its designee. The hearing officer shall determine whether a preponderance of evidence establishes that a violation occurred and that the person who received the ticket is liable for the penalty set forth in subsection (c).

(3) A certified copy of the ticket alleging a violation of § 502-19(c) or § 506-8, along with a copy of the image that served as a basis for the ticket, shall be prima facie evidence of the facts contained therein and shall be admissible in a proceeding alleging a violation under this ordinance.

(4) In considering whether the person is liable, the hearing officer may consider any of the following as an affirmative defense of a violation:

(i) That the ticket was issued and sent by first-class mail more than thirty (30) days after the date of the infraction recorded by the automated traffic enforcement system.

(ii) That the driver of the vehicle passed through the intersection or had increased speed in order to yield the right of way to an emergency vehicle, in accordance with Ohio Revised Code § 4511.45, or to a funeral procession, in accordance with Ohio Revised Code § 4511.451.

(iii) That either the vehicle or license plate depicted on the image which served as the basis for the ticket was stolen before the violation occurred and was not in possession of the owner at the time of the violation, if the owner submits proof that a police report about the stolen vehicle or license plate was filed prior to, or within forty-eight (48) hours after, the violation.

(iv) That this section is unenforceable because the automated traffic enforcement system was not operating properly, or the automated traffic enforcement system was not in a proper position, or that the image that served as the basis for the ticket is not legible enough to show the letters and numbers or the state that issued the license plate on the vehicle.

(v) That the driver of the vehicle entered the intersection as part of a funeral procession or at the direction of a police officer.

(vi) Substantial and convincing evidence that the owner or person named in the ticket was not operating the vehicle at the time of the violation. To satisfy the evidentiary burden under this subsection, the owner or person named in the ticket shall provide the hearing officer with substantial and convincing evidence of the identity of the person who was operating the vehicle at the time of the violation, including, at a minimum, the operator's name and current address.

(5) The hearing officer shall notify the Police Chief or the Police Chief's designee, as well as the person named on the ticket, of the decision within three (3) days of the hearing. In addition, should the hearing officer conclude that a preponderance of evidence demonstrates that someone other than the person named in the ticket was operating the vehicle at the time of the violation, the hearing officer shall forward to the Cincinnati Police Department all evidence provided to him as to the operator's identity.

(6) Within five (5) business days of receiving the evidence referred to in subsection (c)(5), the Cincinnati Police Department or its designee may issue a ticket to the person whom the evidence indicates was operating the vehicle at the time of the violation.

(e) Penalties.

(1) Unless the operator of a vehicle which is in violation of § 502-19(c) received a citation from a police officer at the time the violation occurred, the operator shall be subject to a civil penalty of \$100.00 if the vehicle is recorded by an automated traffic enforcement system.

(2) Unless the operator of a vehicle that is in violation of § 506-8 received a citation from a police officer at the time of the violation occurred, the operator shall be subject to a civil penalty of \$100.00 if the vehicle is recorded by an automated traffic enforcement system.

(3) A violation for which a civil penalty is imposed under this Section shall not be considered a moving violation for the purpose of assessing points under Ohio Revised Code § 4507.021 and shall not be reported to the Bureau of Motor Vehicles of any state.

(4) The failure to respond to a ticket in a timely fashion as set forth in subsection (b)(4) shall constitute a waiver of the right to contest

liability for the violation under subsection (c). Said failure shall result in an additional penalty of \$100.00.

(5) If the penalties set forth in this subsection remain unpaid for more than thirty (30) days after the date on which the ticket was issued, the penalties shall be collected, together with any interest and penalties thereon, by civil suit or other appropriate means of collection.

Section 4. That Section 502-19 of the Cincinnati Municipal Code, currently in effect, is hereby repealed.

Section 5. That the terms hereof shall take effect from and after the earliest period permitted by law.

Passed: \_\_\_\_\_, 2004

\_\_\_\_\_  
Mayor

Attest: \_\_\_\_\_  
Clerk

\_\_\_\_\_  
New wording underscored. Language deleted is indicated by asterisks as follows:

**\*\*1\*\*** No pedestrian or driver of a vehicle shall disobey the instruction of any traffic-control device placed in accordance with the provisions of the traffic code unless at the time otherwise directed by a police officer. When both traffic control signals and stop signs are erected at an intersection, traffic shall be governed by the traffic-control signal while it is in operation.



10/22/04 FRI 17:30 FAX 4196933515

NORTHWOOD PD

*10/22/04*

CITY OF NORTHWOOD

ORDINANCE NO. 2004-37

ORDINANCE ENACTING NEW CHAPTER 418 AND NEW SECTIONS 418.01 AND 418.02 AND AMENDING SECTION 414.01 OF THE NORTHWOOD CODIFIED ORDINANCE TO PROVIDE FOR THE IMPLEMENTATION OF AUTOMATED TRAFFIC CONTROL SYSTEMS FOR THE ENFORCEMENT OF TRAFFIC CODE PROVISIONS RELATING TO RED TRAFFIC-CONTROL SIGNALS AND SPEED LIMITS, AND DECLARING AN EMERGENCY.

WHEREAS, disobedience to traffic control signals and speed limits has contributed to a significant number of motor vehicle accidents in the City of Northwood, which accidents have resulted in death, serious personal injury and / or substantial property damage; and

WHEREAS, the City of Northwood desires to reduce the frequency with which disobedience to traffic control signals and speed limits and the accidents caused by such disobedience occur; and

WHEREAS, the use of automated traffic enforcement systems will assist the city in accomplishing such a reduction without the disadvantages attendant to conventional traffic enforcement, such as disruptions in the flow of traffic at heavily traveled intersections and expenses associated with increased police manpower, now, therefore,

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF NORTHWOOD, WOOD COUNTY, STATE OF OHIO:

SECTION 1. That new Chapter 418 with Sections 418.01(a) and 418.01(b) of the Northwood Codified Ordinance are hereby enacted to read as follows:

**CHAPTER 418 AUTOMATED TRAFFIC ENFORCEMENT**

**SECTION 418.01(a) Automated Traffic Enforcement System.**

"Automated Traffic Enforcement System" shall mean any photographic equipment linked to a violation detection system that synchronizes the taking of a photograph, video or digital image with the occurrence of a traffic signal violation or moving infraction in accordance with Sections 414.01 and 434.03.

**SECTION 418.01(b) Photographic Equipment.**

"Photographic Equipment" shall mean a system that may include, but is not limited to, devices which link a camera, computer, and traffic signal, alone or in combination with other devices, to detect vehicles which have violated the traffic signal and to record an image of the motor vehicle, its occupants, and other objects. Such a system may also include, but is not limited to, devices that combine a Doppler radar instrument, camera, and computer, alone or in combination with other devices, to measure the speed of a motor vehicle or other object and to record an image of the motor vehicle, or other objects. The results of photographic, video or digital imaging equipment means the images, speed measurement, and any other data or information produced by the automated traffic enforcement system.

*Op. 246 Oct. 2004-37*

**SECTION 2.** That section 414.01 of the Northwood Codified Ordinance is hereby amended to read as follows:

**SECTION 414.01 Disobeying Traffic-Control Devices and Signals.**

(A)

1. Unless otherwise instructed by a police officer at the location of a traffic-control device, no pedestrian shall disobey the instruction of any traffic-control device placed in accordance with the provisions of the traffic code.
2. It shall be unlawful for the driver of any vehicle to disobey the instruction of any traffic-control device, unless otherwise instructed by a police officer at the location of the traffic-control device.
3. At intersections controlled by traffic-control signals, vehicular traffic facing a steady red traffic-control signal shall stop before entering the intersection and shall remain stopped until directed to proceed by a steady green traffic control signal.
4. When both traffic-control signals and stop signs are erected at an intersection, traffic shall be governed by the traffic-control signal while it is in operation.

(B) Except as otherwise provided in this division, whoever violates this section is guilty of a minor misdemeanor. If, within one year of the offense, the offender previously has been convicted of or pleads guilty to one predicate motor vehicle or traffic offense, whoever violates this section is guilty of a misdemeanor of the fourth degree. If, within one year of the offense, the offender previously has been convicted of two or more predicate motor vehicle or traffic offenses, whoever violates this section is guilty of a misdemeanor of the third degree.

**SECTION 3.** The new Section 418.02 of the Northwood Codified Ordinance is hereby enacted to read as follows:

**SECTION 418.02 Automated Traffic Enforcement System**

(a) GENERAL

- (1) The City of Northwood hereby adopts an automated traffic enforcement system for the purpose of using photographic, video or digital imaging equipment to record visual images of vehicles entering intersections in violation of Section 414.01 and / or operating a vehicle in excess of the limits set forth in Section 434.03 and using said images as the basis for issuing "Notice of Liability" to the owners of such vehicles within thirty (30) days of the infraction.
- (2) The City of Northwood Streets Department and the Northwood Police Department shall be responsible for implementing the automated traffic enforcement system for both traffic signal and speed enforcement. These departments are hereby empowered to designate the intersections and streets to be monitored by automated traffic enforcement systems; to install, operate and maintain automated traffic enforcement systems at such designated locations; and to take any and all other measures necessary for the implementation of the system. The Police Department shall maintain a list available to the public, of locations so monitored.
- (3) The intersections chosen for automated traffic enforcement under this section must display a yellow traffic control signal for a time that complies with the Ohio Department of Transportation's Manual of Uniform Traffic Control Devices.

12/22/04 FRI 17:50 FAX 4198833515

NORWICH PD

p. 3 of 6

P.D. 2004-37

(4) The street locations chosen for automated traffic enforcement under this section must display a speed limit sign in compliance with the Ohio Department of Transportation's Manual of Uniform Traffic Control Devices Sec 2B.11 and Sec 2B.15 and the Ohio Revised Code Section 4511.21.

(b) NOTICE REQUIREMENTS.

- (1) For at least fourteen (14) consecutive days prior to the installation of an automated traffic enforcement system at an intersection or street location, the Police Department or its designee must publish notice in a local newspaper of general circulation that the intersection or street location will be subject to automated traffic enforcement. Said notice must specify the date on which automated traffic enforcement will begin.
- (2) Prior to the date on which the automated traffic enforcement begins at the intersection or street location, the Police Department or its designee shall erect a sign in a conspicuous location that provides notice that an automated traffic enforcement system is being used to monitor traffic.
- (3) For the first thirty (30) days that an automated traffic enforcement system is in operation at a given intersection or street location, no "Notices of Liability" may be issued on the basis of the images produced by the system. Warnings may be issued during that thirty (30) day period.

(c) OFFENSE

- (1) An officer employed by the Northwood Police Department shall examine the image recorded by the automated traffic enforcement system to determine whether an infraction has occurred. If the image recorded by the automated traffic enforcement system shows an infraction, contains a date and time of the alleged violation, and shows the letter and numbers on the vehicle's license plate, as well as the state in which the license was issued, the officer may use any lawful means to identify the vehicle's owner.
- (2) The fact that a person is registered as the owner of a vehicle with the vehicle registration office of the state that issued the license plate displayed on the vehicle shall be prima facie evidence that said person was operating the vehicle at the time of an infraction recorded by an automated traffic enforcement system.
- (3) Within thirty (30) days of the infraction and upon identification of the registered owner of the vehicle, an officer may issue and send by first-class United States mail a "Notice of Liability" charging the owner with an infraction. Said "Notice of Liability" must state the date on which the "Notice of Liability" was issued, the date, time and location of the infraction; the time in which a response must be made; and the manner in which the "Notice of Liability" may be appealed. In addition, a copy of the image(s) that served as a basis for the "Notice of Liability" must accompany the "Notice of Liability".
- (4) A person who receives such a "Notice of Liability" shall be required to respond to it by paying a civil penalty as directed on the "Notice of Liability" with twenty-one (21) days of its issue date, or by submitting proof of his non-liability as set forth in subsection (c) (5) within twenty-one (21) days of its issue date, or by submitting, to the address listed on the "Notice of Liability", a request for a hearing as set forth in subsection (d) within twenty-one (21) days of its issue date.

*10/22/04**Dec. 2004-37*

- (5) Notwithstanding subsection (b) (2), the owner of the vehicle shall not be liable for a penalty under this section if:
- (i) At the time of the infraction, the vehicle was in the custody of someone other than its owner pursuant to a written lease or rental agreement and the owner submits, to the address listed on the ticket, either a copy of the lease or rental agreement along with the name and address of the lessee or renter.
  - (ii) At the time of the infraction, the vehicle or the license plate depicted in the image which served as the basis for the "Notice of Liability" was stolen and the owner submits, to the address listed on the ticket, a copy of the police report stating the vehicle or license plate had been reported stolen at the time.
- (6) Nothing in subsection (c) (5) shall be construed as limiting the liability of an operator of a vehicle for any violation of Section 414.01(C) or 434.03
- (d) APPEAL
- (1) A person who received a "Notice of Liability" pursuant to this Section may appeal the "Notice of Liability" by making a written request for a hearing to the address listed on the "Notice of Liability".
  - (2) Within thirty (30) days of the receipt of the request for a hearing, a hearing officer appointed by the Northwood Police Department or its designee shall hold a hearing. The hearing officer shall determine whether a preponderance of evidence establishes that a violation occurred and that the person who received the "Notice of Liability" is liable for the penalty set forth in subsection (e).
  - (3) A certified copy of the "Notice of Liability" alleging the violation, along with a copy of the image that served as a basis for the "Notice of Liability", shall be prima facie evidence of the facts contained therein and shall be admissible in a proceeding alleging a violation under this ordinance.
  - (4) In considering whether the person is liable, the hearing officer may consider any of the following as an affirmative defense of a violation.
    - (i) That the "Notice of Liability" was issued and sent by first-class mail more than thirty (30) days after the date of the infraction recorded by the automated traffic enforcement system.
    - (ii) That the driver of the vehicle passed through the intersection or had increased speed in order to yield the right of way to an emergency vehicle, in accordance with Ohio Revised Code 4511.45 or to a funeral procession, in accordance with Ohio Revised Code 4511.451.
    - (iii) That either the vehicle or the license plate depicted on the image which served as the basis for the "Notice of Liability" was stolen before the violation occurred and was not in possession of the owner at the time of the violation, if the owner submits proof that a police report about the stolen vehicle or license plate was filed prior to, or within forty-eight (48) hours after the violation.
    - (iv) That this section is unenforceable because the automated traffic enforcement system was not operating properly, or the automated traffic enforcement system was not in a proper position, or that the image that served as the basis for the "Notice of Liability" is not legible enough to show the letters and numbers or the state that issued the license plate on the vehicle.

*pp. 5 of 6*

*Ord. 2004-37*

- (v) That the driver of the vehicle entered the intersection as part of a funeral procession or at the direction of a police officer.
- (vi) Substantial and convincing evidence that the owner or person named in the "Notice of Liability" was not operating the vehicle at the time of the violation. To satisfy the evidentiary burden under this subsection, the owner or person named in the "Notice of Liability" shall provide the hearing officer with substantial and convincing evidence of the identity of the person who was operating the vehicle at the time of the violation, including, at a minimum, the operator's name and current address.
- (5) The hearing officer shall notify the Police Chief or the Police Chief's designee, as well as the person named on the "Notice of Liability", of the decision within five (5) days of the hearing. In addition, should the hearing officer conclude that a preponderance of evidence demonstrates that someone other than the person named in the "Notice of Liability" was operating the vehicle at the time of the violation, the hearing officer shall forward to the Northwood Police Department all evidence provided to him as to the operator's identity.
- (6) Within ten (10) business days of receiving the evidence referred to in subsection (c)(5), the Northwood Police Department or its designee may issue a "Notice of Liability" to the person whom the evidence indicates was operating the vehicle at the time of the violation.
- (e) PENALTIES
  - (1) Unless the operator of a vehicle which is in violation of Sec 414.01 received a citation from a police officer at the time of the violation occurred, the operator shall be subject to a civil penalty equal to the penalty for said offense if issued through the Northwood Mayors Court (First offense), if the vehicle is recorded by an automated traffic enforcement system.
  - (2) Unless the operator of a vehicle that is in violation of Sec 434.03, received a citation from a police officer at the time of the violation occurred, the operator shall be subject to a civil penalty equal to the penalty for said offense if issued through the Northwood Mayors Court (First offense, second level), if the vehicle is recorded by an automated traffic enforcement system.
  - (3) A violation for which a civil penalty is imposed under this Section shall not be considered a moving violation for the purpose of assessing points under Ohio Revised Code 4507.021 and shall not be reported to the Bureau of Motor Vehicles of any state.
  - (4) The failure to respond to a "Notice of Liability" in a timely fashion as set forth in subsection (c)(4) shall constitute a waiver of the right to contest liability for the violation under subsection (c). Said failure shall result in an additional penalty of \$100.00.
  - (5) If the penalties set forth in this subsection remain unpaid for more than sixty (60) days after the date on which the ticket was issued, the penalties shall be collected, together with any interest and penalties thereon, by civil suit or other appropriate means of collection.

*\$190*

*Op. 6 of 6*

*Ord. 2004-37*

Section 4. It is found and determined that all formal actions of Council concerning or relating to the passage of this Ordinance were adopted in an open meeting of the Council, and that all deliberations of this Council and any of its committees, that resulted in such formal actions, were in meetings open to the public in compliance with all legal requirements of the City of Northwood, County of Wood and the State of Ohio.

Section 5. This ordinance is hereby declared to be an emergency measure and shall take effect and be in force from and after its date of passage and approval. The reason for the emergency lies in the fact that this ordinance is necessary for the preservation of the public peace, health, safety and welfare and for the further reason that it is necessary to have an up-to-date codification, with which to administer the affairs of the City and ensure law and order.

Vote to suspend rules: For: 7 Against: 0

Vote on emergency clause: For: 7 Against: 0

Vote on final adoption: For: 7 Against: 0

ADOPTED Oct 14 2004 as an emergency measure.

ATTEST:

*John E. Noerdy*  
Clerk of Council

*D. S. Bell*  
President of Council

APPROVED AS TO FORM:

APPROVED:

*B. B. King*  
City Attorney

*Mark A. Stone*  
Mayor

ONE ORIGINAL AND TEN COPIES  
OF THIS BID MUST BE SUBMITTED

Bidder submitting this Bid should check the appropriate box.  
This is:  The Original  
This is:  One of the Copies

THIS IS A TWO SIDED BID



## Request for Proposal (RFP)

City of Columbus, Ohio  
Purchasing Office  
1<sup>st</sup> Floor, 50 West Gay Street  
Columbus, Ohio 43215  
614/645-8315

SOLICITATION NO.: SA 001147 JY/FM

Coop Yes Ends Date

Years Left

PHOTO RED LIGHT ENFORCEMENT SYSTEM  
(Item)

SAFETY  
(Department)

POLICE  
(Division)

Bid Opening Date and Time (due date and time)

JUNE 17, 2004 11:00 AM LOCAL TIME  
PRE BID CONFERENCE JUNE 2, 2004

NOTE: FAILURE TO RETURN THIS BID PROPOSAL INTACT MAY BE CAUSE FOR REJECTION.

Bid Proposal Submitted By:

REDFLEX TRAFFIC SYSTEMS INC.

Company Name

15020 N. 74TH STREET

Street Address

SCOTTSDALE

AZ.

85260

City

State

Zip

94.3292233

Federal I.D. No.

94-3292233

Contract Compliance No.

AARON ROSALES

310.213.6994

310.878.0111

Contract Person

Phone No.

Fax No.

FAILURE TO RESPOND MAY RESULT IN YOUR NAME BEING REMOVED FROM BID LIST.  
RETURNING THIS PAGE ONLY MARKED "NO BID" COUNTS AS A RESPONSE.

LEGAL NOTICE

**PROFESSIONAL SERVICES**

**Request For Proposal (RFP)**

**Request for Statements of Qualifications (RFSQ)**

Sealed proposals for the following item(s) will be received by the Purchasing Office at 50 West Gay Street, 1st Floor, Columbus, Ohio 43215, until 11:00a.m. Local Time on JUNE 17, 2004 and at that time will be publicly opened and read. Proposals received after the time of opening will be returned to the offeror unopened. The City will not be responsible for late mail or other deliveries.

Envelopes must be plainly marked: POLICE

**PROPOSALS FOR PHOTO RED LIGHT ENFORCEMENT SYSTEM, PROPOSAL NO. SA 001147 JY/FM**  
in accordance with specifications on file in the Purchasing Office.

**PRE-BID CONFERENCE JUNE 2, 2004 10:00AM LOCAL TIME**

**FOR COPIES OF ANY OF THE FOLLOWING BID PROPOSAL CALL (614)645-7599**

Each proposal shall contain the full name and address of every person, firm or corporation interested in the same, and if a corporation, the name and address of the President and Secretary.

**EQUAL OPPORTUNITY CLAUSE:**

Each responsive bidder shall submit, with its bid, a contract compliance certification number or a completed application for certification. Compliance with the provisions of Article 1, Title 39, is a condition of the contract. Failure to comply with this Article may result in cancellation of the contract.

**WITHHOLDING OF INCOME TAX:** All bidders are advised that in order for a contract to bind the City, each contract must contain the provisions found in Section 361.34 C.C.C. with regard to income taxes due or payable to the City of Columbus for wages, salaries and commissions paid to the contractor's employees as well as requiring those contractors to ensure that subcontractors withhold in a like manner.

**DELINQUENT PERSONAL PROPERTY TAX:** All bidders are charged with notice of Section 5719.042 of the Ohio Revised Code and agree that if this contract is awarded to them, the successful bidder, prior to the time the contract is entered into, will submit to the City Auditor the affidavit required by said section of the Ohio Revised Code. Said affidavit, when filed with City Auditor, is thereby incorporated into and made a part of this contract and no payment shall be made with respect to this contract unless such statement has been so incorporated as a part thereof.

**LOCAL CREDIT:** For all contracts except professional service contracts: In determining the lowest bid for purpose of awarding a contract not exceeding \$20,000.00, a local bidder shall receive a credit equal to five percent (5%) of the lowest bid submitted by a non-local bidder. In determining the lowest bid for purposes of awarding a contract in excess of \$20,000.00, a local bidder shall receive a credit equal to one percent (1%) or \$20,000.00, whichever is less, of the lowest bid submitted by a non-local bidder. A local bidder is a person, corporation or business which (a) has listed its principal place of business as being located within the corporation limits of the City of Columbus or the County of Franklin in official documents filed with Secretary of State, State of Ohio, or a valid vendor's license which indicates its place of business is located within the corporation limits of the City of Columbus or County of Franklin.

**JOEL S. TAYLOR**  
Finance Director

cc: CITY CLERK(2)/FINANCE DIR./BUYER/FISCAL OFFICER/FILE

**CITY BULLETIN ADVERTISEMENT DATES**  
**MAY 22, 2004**



## EQUAL OPPORTUNITY CLAUSE

- (1) The contractor will not discriminate against any employee or applicant because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: employment upgrading, demotion, or termination; rates of pay or other forms of compensation; and selection for training. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices summarizing the provisions of this Equal Opportunity Clause.
- (2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that the contractor is an equal opportunity employer.
- (3) It is the policy of the City of Columbus that business concerns owned and operated by minority and female persons shall have the maximum practical opportunity to participate in the performance of contracts awarded by the city.
- (4) The contractor shall permit access to any relevant and pertinent reports and documents by the Executive Director for the sole purpose of verifying compliance with this article, and with the regulations of the Equal Business Opportunity Commission Office. All such materials provided to the Executive Director by the contractor shall be considered confidential.
- (5) The contractor will not obstruct or hinder the Executive Director or her deputies, staff, and assistants in the fulfillment of their duties and responsibilities imposed by Article I, Title 39.
- (6) The contractor and each subcontractor will include a summary of this Equal Opportunity Clause in every subcontract. The contractor will take such action with respect to any subcontract as is necessary as a means of enforcing the provisions of the Equal Opportunity Clause.
- (7) The contractor agrees to refrain from subcontracting any part of this contract or contract modification thereto to a contractor not holding a valid contract compliance number as provided for in Article I, Title 39.
- (8) Failure or refusal of a contractor or subcontractor to comply with the provisions of Article I, Title 39, may result in the cancellation of this contract.

**ALL CONTRACTORS MUST HOLD A VALID CONTRACT COMPLIANCE  
CERTIFICATION NUMBER ISSUED BY THE EBOCO EXECUTIVE DIRECTOR.**

**For information regarding contract compliance or to receive an application, please contact the  
Equal Business Opportunity Commission Office at (614) 645-4764 or [EBOCO@cmhmetro.net](mailto:EBOCO@cmhmetro.net).**

*Applications are also available at the following locations:*

<http://eboco.ci.columbus.oh.us/>

Bid Opportunity Fax Line (614) 645-6996 (Option 4)

## ORDER OF PRECEDENCE

In the event of conflict or inconsistency within the Contract, the documents listed below shall apply, from highest to lowest in each area described below.

1. In the event of any legal issues:
  - 1A. Terms and Conditions as set in Section One
  - 1B. Information For Offerors as set in Section Four, the Original RFP Document, SA 001147JY/FM, Pages 3 through 3H.
2. In the event of any day to day business issues:
  - 2A. Section 2 In Its Entirety
  - 2B. Section 3 In Its Entirety, Including Exhibits
  - 2C. The Original RFP, Including Addendums

SECTION

ONE

**1. License; Reservation of Rights.**

- 1.1. License. Subject to the terms and conditions of this Agreement, Redflex hereby grants the Customer, and the Customer hereby accepts from Redflex upon the terms and conditions herein specified, a non-exclusive, non-transferable license during the Term of this Agreement to: (a) solely within the City of Columbus, access and use the Redflex System for the sole purpose of reviewing Potential Violations and authorizing the issuance of Citations pursuant to the terms of this Agreement, and to print copies of any content posted on the Redflex System in connection therewith, (b) disclose to the public (including outside of the City of Columbus) that Redflex is providing services to the Customer in connection with Photo Speed and Photo Red Light Enforcement Program pursuant to the terms of this Agreement, and (c) use and display the Redflex Marks on or in marketing, public awareness or education, or other publications or materials relating to the Photo Speed and Photo Red Light Enforcement Program, so long as any and all such publications or materials are approved in advance by Redflex.
- 1.2. RESERVATION OF RIGHTS. The Customer hereby acknowledges and agrees that: (a) Redflex is the sole and exclusive owner of the Redflex System, the Redflex Marks, all Intellectual Property arising from or relating to the Redflex System, and any and all related Equipment, (b) the Customer neither has nor makes any claim to any right, title or interest in any of the foregoing, except as specifically granted or authorized under this Agreement, and (c) by reason of the exercise of any such rights or interests of Customer pursuant to this Agreement, the Customer shall gain no additional right, title or interest therein.
- 1.3. RESTRICTED USE. The Customer hereby covenants and agrees that it shall not (a) make any modifications to the Redflex System, including but not limited to any Equipment, (b) alter, remove or tamper with any Redflex Marks, (c) use any of the Redflex Marks in any way which might prejudice their distinctiveness, validity or the goodwill of Redflex therein, (d) use any trademarks or other marks other than the Redflex Marks in connection with the Customer's use of the Redflex System pursuant to the terms of this Agreement without first obtaining the prior consent of Redflex, or (e) disassemble, de-compile or otherwise perform any type of reverse engineering to the Redflex System, the Redflex System, including but not limited to any Equipment, or to any, Intellectual Property or Proprietary Property of Redflex, or cause any other Person to do any of the foregoing.
- 1.4. PROTECTION OF RIGHTS. Redflex shall have the right to take whatever action it deems necessary or desirable to remedy or prevent the infringement of any Intellectual Property of Redflex, including without limitation the filing of applications to register as trademarks in any jurisdiction any of the Redflex Marks, the filing of patent application for any of the Intellectual Property of Redflex, and making any other applications or filings with appropriate Governmental Authorities. The Customer shall not take any action to remedy or prevent such infringing activities, and shall not in its own name make any registrations or filings with respect to any of the Redflex Marks or the Intellectual Property of Redflex without the prior written consent of Redflex.

1.5. INFRINGEMENT. The Customer shall use its reasonable best efforts to give Redflex prompt notice of any activities or threatened activities of any Person of which it becomes aware that infringes or violates the Redflex Marks or any of Redflex's Intellectual Property or that constitute a misappropriation of trade secrets or act of unfair competition that might dilute, damage or destroy any of the Redflex Marks or any other Intellectual Property of Redflex. Redflex shall have the exclusive right, but not the obligation, to take action to enforce such rights and to make settlements with respect thereto. In the event that Redflex commences any enforcement action under this Section 4.5, then the Customer shall render to Redflex such reasonable cooperation and assistance as is reasonably requested by Redflex, and Redflex shall be entitled to any damages or other monetary amount that might be awarded after deduction of actual costs; provided, that Redflex shall reimburse the Customer for any reasonable costs incurred in providing such cooperation and assistance.

1.6. INFRINGING USE. The Customer shall give Redflex prompt written notice of any action or claim action or claim, whether threatened or pending, against the Customer alleging that the Redflex Marks, or any other Intellectual Property of Redflex, infringes or violates any patent, trademark, copyright, trade secret or other Intellectual Property of any other Person, and the Customer shall render to Redflex such reasonable cooperation and assistance as is reasonably requested by Redflex in the defense thereof; provided, that Redflex shall reimburse the Customer for any reasonable costs incurred in providing such cooperation and assistance. If such a claim is made and Redflex determines, in the exercise of its sole discretion, that an infringement may exist, Redflex shall have the right, but not the obligation, to procure for the Customer the right to keep using the allegedly infringing items, modify them to avoid the alleged infringement or replace them with non-infringing items.

## 2. Representations and Warranties.

### 2.1. Redflex Representations and Warranties.

2.1.1. Authority. Redflex hereby warrants and represents that it has all right, power and authority to execute and deliver this Agreement and perform its obligations hereunder.

2.1.2. Professional Services. Redflex hereby warrants and represents that any and all services provided by Redflex pursuant to this Agreement shall be performed in a professional and workmanlike manner and, with respect to the installation of the Redflex System, subject to applicable law, in compliance with all specifications provided to Redflex by the Customer.

### 2.2. Customer Representations and Warranties.

2.2.1. Authority. The Customer hereby warrants and represents that it has all right, power and authority to execute and deliver this Agreement and perform its obligations hereunder.

2.2.2. Professional Services. The Customer hereby warrants and represents that any and all services provided by the Customer pursuant to this Agreement shall be performed in a professional and workmanlike manner.

2.3. LIMITED WARRANTIES. EXCEPT AS OTHERWISE PROVIDED IN THIS AGREEMENT, REDFLEX MAKES NO WARRANTIES OF ANY KIND,

EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WITH RESPECT TO THE REDFLEX SYSTEM OR ANY RELATED EQUIPMENT OR WITH RESPECT TO THE RESULTS OF THE CUSTOMER'S USE OF ANY OF THE FOREGOING. NOTWITHSTANDING ANYTHING TO THE CONTRARY SET FORTH HEREIN, REDFLEX DOES NOT WARRANT THAT ANY OF THE DESIGNATED INTERSECTION APPROACHES OR THE REDFLEX SYSTEM WILL OPERATE IN THE WAY THE CUSTOMER SELECTS FOR USE, OR THAT THE OPERATION OR USE THEREOF WILL BE UNINTERRUPTED. THE CUSTOMER HEREBY ACKNOWLEDGES THAT THE REDFLEX SYSTEM MAY MALFUNCTION FROM TIME TO TIME, AND SUBJECT TO THE TERMS OF THIS AGREEMENT, REDFLEX SHALL DILIGENTLY ENDEAVOR TO CORRECT ANY SUCH MALFUNCTION IN A TIMELY MANNER.

**3. Termination.**

**3.1. GROUNDS FOR TERMINATION:**

~~6.1. TERMINATION FOR CAUSE: 6.1.1 Change in Law, etc. Either party shall have the right to terminate this Agreement immediately by written notice to the other if (i) state statutes are amended to prohibit or substantially change the operation of photo speed and photo red light enforcement systems; or (ii) any court having jurisdiction over Citythe Customer rules, or Ohio or federal statute declares, that results from the Redflex System of photo speed and photo red light enforcement are inadmissible in evidence; or (iii) the other party commits any material breach of any of the provisions of this Agreement which breach is not remedied within forty-five (45) calendar days (or within such other time period as the Customer and Redflex shall mutually agree, which agreement shall not be unreasonably withheld or delayed) after written notice from the non-breaching party setting forth in reasonable detail the events which caused the breach.~~

6.1.2 Termination for Default. If either party violates any material term or condition of this Agreement or fails to fulfill in a timely and proper manner its obligations under this Agreement, such party shall give the other party written notice of such failure or violation. Such party will correct the violation or failure as soon as practicable but in all events within thirty (30) days after the violation or failure or as otherwise mutually agreed in writing by the parties. If the failure or violation is not corrected within that period, this Agreement may be terminated immediately by written notice from the aggrieved party to the other party. The option to terminate shall be in the sole discretion of the aggrieved party. If it determined for any reason the failure to perform is without the defaulting party's control, fault, or negligence and the Customer is the defaulting party, the termination shall be deemed to be a "termination for convenience."

6.1.3 Termination for Convenience. The Customer upon thirty (30) days written notice may terminate this Agreement at its convenience.

3.1. Rights on Termination. The rights to terminate this Agreement given provided in this Section 6.1 shall be without prejudice to any other right or remedy of either party in respect of the breach concerned (if any) or any other breach of this Agreement. The termination of this Agreement shall not relieve either party of any liability that accrued prior to such termination, including, without limitation, any obligation of the Customer to pay for goods or services provided prior to the date of termination. In addition, the Customer acknowledges that Redflex incurs substantial capital expenditures in the construction and installation of the Designated Intersection Approaches and associated hardware and software customization required to support the Customer's needs. Accordingly, in the event this Agreement is terminated for convenience by the Customer, the Customer shall have the obligation to promptly pay and Redflex shall have the right to receive the aggregate unamortized portion of the costs incurred by Redflex in connection with the performance of its obligations pursuant to this Agreement (including, without limitation, costs of hardware, costs involved in construction at the Designated Intersection Approaches and internally capitalized costs of installation and software development), such amortization to be in accordance with the amortization policy employed by Redflex in accordance with U.S. generally accepted accounting principles.

3.2. PROCEDURES UPON TERMINATION. The termination of this Agreement shall not relive either party of any liability that accrued prior to such termination. Except as set forth in Section 6.3,6.4, upon the termination of this Agreement, all of the provisions of this Agreement shall terminate and:

3.2.1. Redflex shall (i) immediately cease to provide services, including but not limited to work in connection with the construction or installation activities and services in connection with the Photo Speed and Photo Red Light Enforcement Program, (ii) promptly deliver to the Customer any and all Proprietary Property of the Customer provided to Redflex pursuant to this Agreement, (iii) promptly deliver to the Customer a final report to the Customer regarding the collection of data and the issuance of Citations in such format and for such periods as the Customer may reasonably request, and which final report Redflex shall update or supplement from time to time when and if additional data or information becomes available, (iv) promptly deliver to Customer a final invoice stating all fees and charges properly owed by Customer to Redflex for work performed and Citations issued by Redflex prior to the termination, and (v) provide such assistance as the Customer may reasonably request from time to time in connection with prosecuting and enforcing Citations issued prior to the termination of this Agreement.

3.2.2. The Customer shall (i) immediately cease using the Photo Speed and/or Photo Red Light Enforcement Program, accessing the Redflex System and using any other Intellectual Property of Redflex, (ii) promptly deliver to Redflex any and all Proprietary Property of Redflex provided to the Customer pursuant to this Agreement, and (iii) promptly pay any and all

fees, charges and amounts properly owed by Customer to Redflex for work performed and Citations issued by Redflex prior to the termination.

3.2.3. Unless the Customer and Redflex have agreed to enter into a new agreement relating to the Photo Speed and Photo Red Light Enforcement Program or have agreed to extend the Term of this Agreement, Redflex shall remove any and all Equipment or other materials of Redflex installed in connection with Redflex's performance of its obligations under this Agreement, including but not limited to housings, poles and camera systems, and Redflex shall restore the Designated City Vehicles and Designated Intersection Approaches to substantially the same condition such Designated Intersection Approaches were in immediately prior to this Agreement.

3.3. SURVIVAL. Notwithstanding the foregoing, the definitions and each of the following shall survive the termination of this Agreement: (x) Sections 4.2 (Reservation of Rights), 5.1 (Redflex Representations and Warranties), 5.2 (Customer Representations and Warranties), 5.3 (Limited Warranty), 6 (Termination), 7 (Confidentiality), 8 (Indemnification and Liability), 9 (Notices), 10 (Dispute Resolution), 11.1 (Assignment), 11.17 (Applicable Law), 11.16 (Injunctive Relief; Specific Performance) and 11.18 (Jurisdiction and Venue), and (y) those provisions, and the rights and obligations therein, set forth in this Agreement which either by their terms state, or evidence the intent of the parties, that the provisions survive the expiration or termination of the Agreement, or must survive to give effect to the provisions of this Agreement.

4. CONFIDENTIALITY. During the term of this Agreement and for a period of three (3) years thereafter, neither party shall disclose to any third person, or use for itself in any way for pecuniary gain, any Confidential Information learned from the other party during the course of the negotiations for this Agreement or during the Term of this Agreement. Upon termination of this Agreement, each party shall return to the other all tangible Confidential Information of such party. Each party shall retain in confidence and not disclose to any third party any Confidential Information without the other party's express written consent, except (a) to its employees who are reasonably required to have the Confidential Information, (b) to its agents, representatives, attorneys and other professional advisors that have a need to know such Confidential Information, provided that such parties undertake in writing (or are otherwise bound by rules of professional conduct) to keep such information strictly confidential, and (c) pursuant to, and to the extent of, a request or order by any Governmental Authority, including laws relating to public records. Notwithstanding anything in this Section 7, Redflex acknowledges that all proposals and all submissions by Redflex to the Customer will become public information to the extent required by R.C. 149.43, the Public Records Act.

## 5. Indemnification and Liability.

5.1. Indemnification by Redflex. ~~Subject to Section 8.3, Redflex hereby agrees to defend and indemnify the Customer and its affiliates, shareholders or other interest holders, managers, officers, directors, employees, agents, representatives and successors, permitted assignees and each of their affiliates, and all persons acting by, through, under or in concert with them, or any of them (individually a~~



~~“Customer Party” and collectively, the “Customer Parties”~~ against, and to protect, save and keep harmless the Customer Parties from, and to pay on behalf of or reimburse the Customer Parties as and when incurred for, any and all liabilities, obligations, losses, damages, penalties, demands, claims, actions, suits, judgments, settlements, costs, expenses and disbursements (including reasonable attorneys’, accountants’ and expert witnesses’ fees) of whatever kind and nature (collectively, “Losses”), which may be imposed on or incurred by any Customer Party arising out of or related to (a) any material misrepresentation, inaccuracy or breach of any covenant, warranty or representation of Redflex contained in this Agreement, or (b) the willful misconduct of Redflex, its employees or agents which result in death or bodily injury to any natural person (including third parties) or any damage to any real or tangible personal property (including the personal property of third parties), except to the extent caused by the willful misconduct of any Customer Party. 8.2 and the other limitations herein, Redflex shall protect, indemnify and save the Customer harmless from and against any damage, cost, or liability, including reasonable attorneys’ fees (i) resulting from claims by third parties for any or all injuries to persons or damage to property arising from the negligent acts or omissions of Redflex, its officers, employees, agents, or subcontractors in providing goods or services under the terms and conditions of this Agreement, or (ii) which may be incurred in connection with, or in any manner of any damage or loss arising from, disclosure by Redflex of proprietary information of the Customer. The maximum aggregate liability of Redflex under this Section 8.1 shall in no event exceed the aggregate amounts paid to Redflex by the Customer under this Agreement. The provisions of this Section 8.1 shall constitute the exclusive rights and remedies of the Customer against Redflex for the matters indemnifiable under this Section 8.1.

~~8.2. Indemnification by Customer.~~ Subject to Section 8.3, the Customer hereby agrees to defend and indemnify Redflex and its affiliates, shareholders or other interest holders, managers, officers, directors, employees, agents, representatives and successors, permitted assignees and all persons acting by, through, under or in concert with them, or any of them (individually a “Redflex Party” and collectively, the “Redflex Parties”) against, and to protect, save and keep harmless the Redflex Parties from, and to pay on behalf of or reimburse the Redflex Parties as and when incurred for, any and all Losses which may be imposed on or incurred by any Redflex Party arising out of or in any way related to (a) any material misrepresentation, inaccuracy or breach of any covenant, warranty or representation of the Customer contained in this Agreement, (b) the willful misconduct of the Customer, its employees, contractors or agents which result in death or bodily injury to any natural person (including third parties) or any damage to any real or tangible personal property (including the personal property of third parties), except to the extent caused by the willful misconduct of any Redflex Party, (c) any claim, action or demand not caused by Redflex’s failure to perform its obligations under this Agreement, or (d) any claim, action or demand challenging the Customer’s use of the Redflex System or any portion thereof, the validity of the results of the Customer’s use of the Redflex System or any portion thereof, or the validity of the Citations issued, prosecuted and

collected as a result of the Customer's use of the Redflex System or any portion thereof.

~~8.3. Indemnification Procedures. In the event any claim, action or demand (a "Claim") in respect of which any party hereto seeks indemnification from the other, the party seeking indemnification (the "Indemnified Party") shall give the party from whom indemnification is sought (the "Indemnifying Party") written notice of such Claim promptly after the Indemnified Party first becomes aware thereof; provided, however, that failure so to give such notice shall not preclude indemnification with respect to such Claim except to the extent of any additional or increased Losses or other actual prejudice directly caused by such failure. The Indemnifying Party shall have the right to choose counsel to defend such Claim (subject to the approval of such counsel by the Indemnified Party, which approval shall not be unreasonably withheld, conditioned or delayed), and to control, compromise and settle such Claim, and the Indemnified Party shall have the right to participate in the defense at its sole expense; provided, however, the Indemnified Party shall have the right to take over the control of the defense or settlement of such Claim at any time if the Indemnified Party irrevocably waives all rights to indemnification from and by the Indemnifying Party. The Indemnifying Party and the Indemnified Party shall cooperate in the defense or settlement of any Claim, and no party shall have the right enter into any settlement agreement that materially affects the other party's material rights or material interests without such party's prior written consent, which consent will not be unreasonably withheld or delayed.~~

5.2. 8.4. LIMITED LIABILITY. Notwithstanding anything to the contrary in this Agreement, neither party shall be liable to the other, by reason of any representation or express or implied warranty, condition, covenant or other term of this Agreement (including, without limitation, Section 8.1) or any duty at common or civil law, for any indirect, incidental, special, lost profits or consequential damages, however caused and on any theory of liability arising out of or relating to this Agreement.

6. **NOTICES.** Any notices to be given hereunder shall be in writing, and shall be deemed to have been given (a) upon delivery, if delivered by hand, (b) three (3) days after being mailed first class, certified mail, return receipt requested, postage and registry fees prepaid, or (c) one Business Day after being delivered to a reputable overnight courier service, excluding the U.S. Postal Service, prepaid, marked for next day delivery, if the courier service obtains a signature acknowledging receipt, in each case addressed or sent to such party as follows:

6.1. Notices to Redflex:

Redflex Traffic Systems, Inc.  
15020 North 74<sup>th</sup> Street  
Scottsdale, AZ 85260  
Attention: Ms. Karen Finley  
Facsimile: (480) 607-0752

6.2. Notices to the Customer:  
City of Columbus

Attention: City Manager  
Facsimile:

With a copy to:

City of Columbus  
Jeffrey Blackwell, Lieutenant  
Facsimile:

7. **DISPUTE RESOLUTION.** Upon the occurrence of any dispute or disagreement between the parties hereto arising out of or in connection with any term or provision of this Agreement, the subject matter hereof, or the interpretation or enforcement hereof (the "Dispute"), the parties shall engage in informal, good faith discussions and attempt to resolve the Dispute. In connection therewith, upon written notice of either party, each of the parties will appoint a designated officer whose task it shall be to meet for the purpose of attempting to resolve such Dispute. The designated officers shall meet as often as the parties shall deem to be reasonably necessary. Such officers will discuss the Dispute. If the parties are unable to resolve the Dispute in accordance with this Section 10, and in the event that either of the parties concludes in good faith that amicable resolution through continued negotiation with respect to the Dispute is not reasonably likely, then the parties may mutually agree to submit to binding or nonbinding arbitration or mediation.

8. **Miscellaneous.**

8.1. ~~Assignment.~~ ~~Neither party may assign all or any portion of this Agreement without the prior written consent of the other, which consent shall not be unreasonably withheld or delayed; provided, however, The Customer hereby acknowledges and agrees that the execution (as outlined in Exhibit F), delivery and performance of Redflex's rights pursuant to this Agreement shall require a significant investment by Redflex, and that in order to finance such investment, Redflex may be required to enter into certain agreements or arrangements ("Financing Transactions") with equipment lessors, banks, financial institutions or other similar persons or entities (each, a "Financial Institution" and collectively, "Financial Institutions"). The Customer hereby agrees that Redflex shall have the right to assign, pledge, hypothecate or otherwise transfer ("Transfer") its rights, or any of them, under this Agreement to any Financial Institution in connection with any Financing Transaction between Redflex and any such Financial Institution, subject to the Customer's prior written approval, which approval shall not be unreasonably withheld or delayed. The Customer further acknowledges and agrees that in the event that Redflex provides written notice to the Customer that it intends to Transfer all or any of Redflex's rights pursuant to this Agreement, and in the event that the Customer fails to provide such approval or fails to object to such Transfer within forty-five (45) business days after its receipt of such notice from Redflex, for the purposes of this Agreement, the Customer shall be deemed to have consented to and approved such Transfer by Redflex. Notwithstanding the above, this Agreement shall inure to the benefit of, and be binding upon, the parties hereto, and their respective~~

~~successors or assigns. This Agreement may not be assigned or otherwise transferred to others by either party without the prior written consent of the other party. The Customer hereby agrees to execute and deliver the Acknowledgment and Consent in the form attached hereto as Exhibit F.~~

- 8.2. ~~RELATIONSHIP BETWEEN REDFLEX AND THE CUSTOMER. Nothing in this Agreement shall create, or be deemed to create, a partnership, joint venture or the relationship of principal and agent or employer and employee between the parties. The relationship between the parties shall be that of independent contractors, and nothing contained in this Agreement shall create the relationship of principal and agent or otherwise permit either party to incur any debts or liabilities or obligations on behalf of the other party (except as specifically provided herein).~~INDEPENDENT CONTRACTOR STATUS. Redflex shall perform its duties as an independent contractor and not as an employee. Neither Redflex nor any agent or employee of Reflex shall be or shall be deemed to be an agent or employee of the Customer. Redflex shall pay when due all required taxes on any monies paid to it pursuant to this Agreement. Reflex acknowledges that Redflex and its employees are not entitled to unemployment insurance benefits unless Redflex or a third party provides such coverage and that the Customer does not apply for or otherwise provide such coverage. Neither party has any authorization, express or implied, to bind the other to any agreements, liability, or understanding except as expressly set forth in this Agreement.
- 8.3. AUDIT RIGHTS. Each of parties hereto shall have the right to audit the books and records of the other party hereto (the "Audited Party") solely for the purpose of verifying the payments, if any, payable pursuant to this Agreement. Any such audit shall be conducted upon not less than forty-eight (48) hours' prior notice to the Audited Party, at mutually convenient times and during the Audited Party's normal business hours. Except as otherwise provided in this Agreement, the cost of any such audit shall be borne by the non-Audited Party. In the event any such audit establishes any underpayment of any payment payable by the Audited Party to the non-Audited Party pursuant to this Agreement, the Audited Party shall promptly pay the amount of the shortfall, and in the event that any such audit establishes that the Audited Party has underpaid any payment by more than twenty five percent (25%) of the amount of actually owing, the cost of such audit shall be borne by the Audited Party. In the event any such audit establishes any overpayment by the Audited Party of any payment made pursuant to this Agreement, non-Audited Party shall promptly refund to the Audited Party the amount of the excess.
- 8.4. FORCE MAJEURE. Neither party will be liable to the other or be deemed to be in breach of this Agreement for any failure or delay in rendering performance arising out of causes beyond its reasonable control and without its fault or negligence. Such causes may include but are not limited to, acts of God or the public enemy, terrorism, significant fires, floods, earthquakes, epidemics, quarantine restrictions, strikes, freight embargoes, or Governmental Authorities approval delays which are not caused by any act or omission by Redflex, and unusually severe weather. The party whose performance is affected agrees to notify the other promptly of the existence and nature of any delay.

- 8.5. ENTIRE AGREEMENT. This Agreement represents the entire Agreement between the parties, and there are no other agreements (other than invoices and purchase orders), whether written or oral, which affect its terms. This Agreement may be amended only by a subsequent written agreement signed by both parties.
- 8.6. SEVERABILITY. If any provision of this Agreement is held by any court or other competent authority to be void or unenforceable in whole or part, this Agreement shall continue to be valid as to the other provisions thereof and the remainder of the affected provision.
- 8.7. WAIVER. Any waiver by either party of a breach of any provision of this Agreement shall not be considered as a waiver of any subsequent breach of the same or any other provision thereof.
- 8.8. CONSTRUCTION Except as expressly otherwise provided in this Agreement, this Agreement shall be construed as having been fully and completely negotiated and neither the Agreement nor any provision thereof shall be construed more strictly against either party.
- 8.9. HEADINGS. The headings of the sections contained in this Agreement are included herein for reference purposes only, solely for the convenience of the parties hereto, and shall not in any way be deemed to affect the meaning, interpretation or applicability of this Agreement or any term, condition or provision hereof.
- 8.10. EXECUTION AND COUNTERPARTS. This Agreement may be executed in any number of counterparts, each of which when so executed and delivered shall be deemed an original, and such counterparts together shall constitute only one instrument. Any one of such counterparts shall be sufficient for the purpose of proving the existence and terms of this Agreement, and no party shall be required to produce an original or all of such counterparts in making such proof.
- 8.11. COVENANT OF FURTHER ASSURANCES. All parties to this Agreement shall, upon request, perform any and all acts and execute and deliver any and all certificates, instruments and other documents that may be necessary or appropriate to carry out any of the terms, conditions and provisions hereof or to carry out the intent of this Agreement.
- 8.12. REMEDIES CUMULATIVE. ~~Each~~Except as provided in Section 8.1, ~~each~~ and all of the several rights and remedies provided for in this Agreement shall be construed as being cumulative and no one of them shall be deemed to be exclusive of the others or of any right or remedy allowed by law or equity, and pursuit of any one remedy shall not be deemed to be an election of such remedy, or a waiver of any other remedy.
- 8.13. BINDING EFFECT. This Agreement shall inure to the benefit of and be binding upon all of the parties hereto and their respective executors, administrators, successors and permitted assigns.
- 8.14. COMPLIANCE WITH LAWS. Nothing contained in this Agreement shall be construed to require the commission of any act contrary to law, and whenever there is a conflict between any term, condition or provision of this Agreement and any present or future statute, law, ordinance or regulation contrary to which the parties have no legal right to contract, the latter shall

prevail, but in such event the term, condition or provision of this Agreement affected shall be curtailed and limited only to the extent necessary to bring it within the requirement of the law, provided that such construction is consistent with the intent of the Parties as expressed in this Agreement.

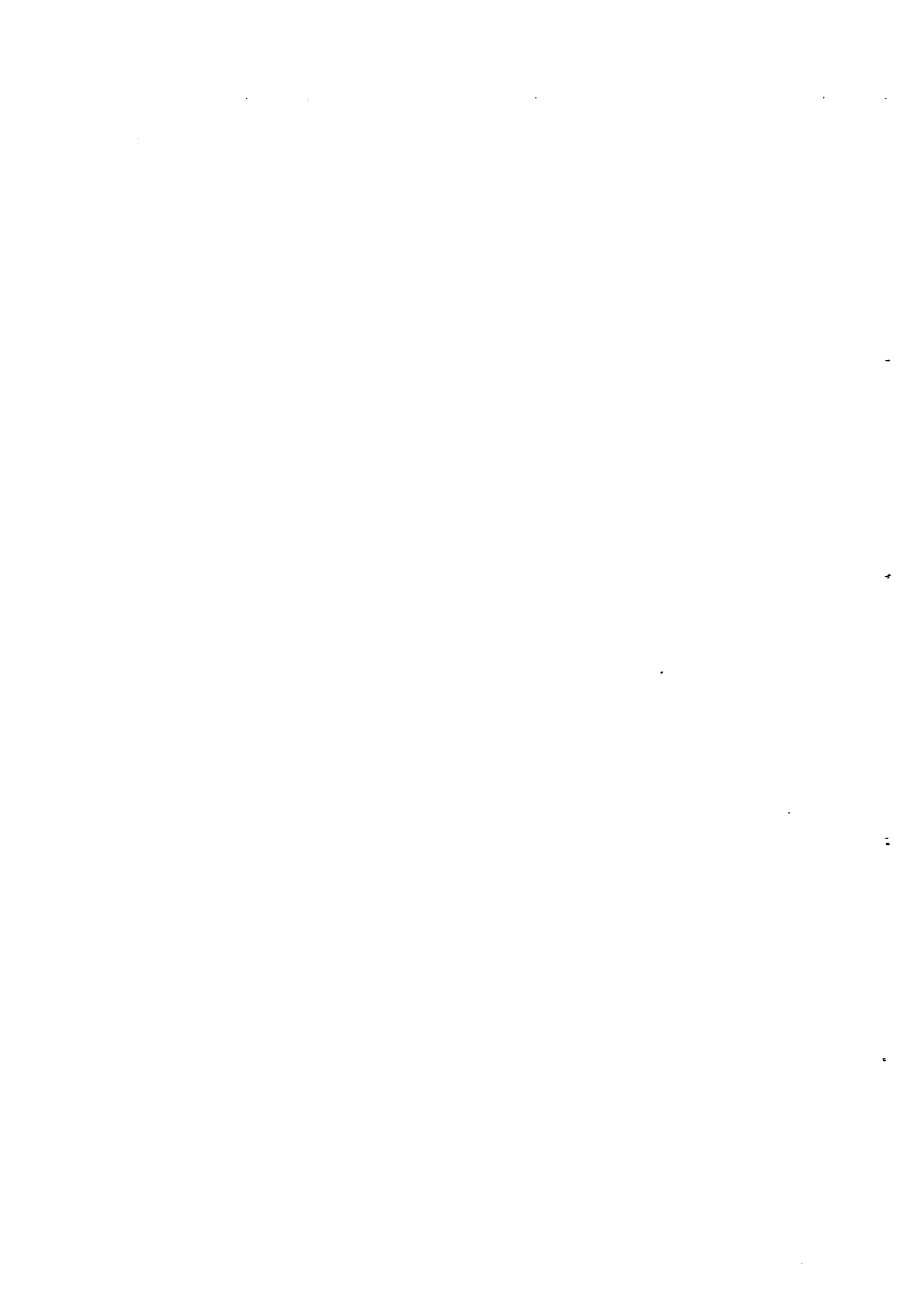
- 8.15. NO THIRD PARTY BENEFIT. Nothing contained in this Agreement shall be deemed to confer any right or benefit on any Person who is not a party to this Agreement.
- 8.16. INJUNCTIVE RELIEF; SPECIFIC PERFORMANCE. The parties hereby agree and acknowledge that a breach of Sections 4.1 (License), 4.3 (Restricted Use) or 7 (Confidentiality) of this Agreement would result in severe and irreparable injury to the other party, which injury could not be adequately compensated by an award of money damages, and the parties therefore agree and acknowledge that they shall be entitled to injunctive relief in the event of any breach of any material term, condition or provision of this Agreement, or to enjoin or prevent such a breach, including without limitation an action for specific performance hereof.
- 8.17. APPLICABLE LAW. This Agreement shall be governed by and construed in all respects solely in accordance with the laws of the State of Ohio, United States.
- 8.18. JURISDICTION AND VENUE. ~~Any dispute arising out of or in connection with this Agreement shall be submitted to the exclusive jurisdiction and venue of the courts located in the County of Lucas, Ohio and both parties specifically agree to be bound by the jurisdiction and venue thereof.~~ All claims, counterclaims, disputes and other matters in question between the Customer, its agents and employees, and Redflex arising out of or relating to this Agreement or its breach will be decided in a court of competent jurisdiction within the County of Franklin, State of Ohio.
- 8.19. WITHHOLDING. Redflex shall withhold all income tax assessment due or payable under the provisions of Chapter 361, Columbus City Codes for wages, salaries and commissions paid to its employees and agrees that any of its subcontractors shall be required to agree to withhold any such City income tax assessments due under said chapters for services performed under this Agreement.
- 8.20. PUBLICATIONS. Redflex agrees to submit to the Customer's Contract Administrator all advertising, sales promotion, and other publicity matters relating to this Agreement wherein the Customer's name is mentioned or language used from which the connection of the Customer's name therewith may, in the Customer's judgment, be inferred or implied. Redflex further agrees not to publish, or use such advertising, sales promotion, or publicity matter without the prior written consent of the Customer except if required under law.

## Insurance

~~1. During the Term,~~

~~Redflex shall procure and maintain and Redflex's sole cost and expense the following insurance coverage with respect to claims for injuries to persons or damages to property which may arise from or in connection with the performance of work or services pursuant to this Agreement by Redflex, and each of Redflex's subcontractors, agents, representatives and employees:~~

- ~~2. Commercial General Liability Insurance. Commercial General Liability Insurance with coverage of not less than One Million Dollars (\$1,000,000) combined single limit per occurrence for bodily injury and property damage;~~
- ~~3. Commercial Automobile Liability Insurance. Commercial Automobile Liability Insurance with coverage of not less than One Million Dollars (\$1,000,000) combined single limit per occurrence for bodily injury or property damage, including but not limited to coverage for all automobiles owned by Redflex, hired by Redflex, and owned by third parties;~~
- ~~4. Professional Liability (Errors and Omissions) Insurance. Redflex will use its commercial best efforts to procure and maintain Professional Liability (Errors and Omissions) Insurance with coverage of not less than One Million Dollars (\$1,000,000) per occurrence and in the aggregate.~~
- ~~5. Workers' Compensation and Employer's Liability Insurance. Workers' Compensation Insurance with coverage of not less than the limits required by the Labor Code of the State of Ohio.~~
- ~~6. With respect to the insurance described in the foregoing Section 8.1 of this Exhibit E, any deductibles or self-insured retentions must be declared to and approved by the Customer, and any changes to such deductibles or self-insured retentions during the Term must be approved in advance in writing by the Customer.~~
- ~~7. With respect to the Commercial General Liability Insurance the following additional provisions shall apply:~~
- ~~8. The Columbus Parties shall be covered as additional insureds with respect to any liability shall take out and maintain during the Term such public liability (bodily injury and property damage) insurance as shall protect it from claims from damages for personal injury, including accidental death, as well as from claims for property damage which may arise from operations under this Agreement, whether such operation be by Redflex or any subcontractor or by anyone directly or indirectly employed by either of them. Such insurance policy shall include the Customer as additional insured with respect to any liability arising from any act or omission of any Redflex PartiesRedflex on the premises upon which any such Redflex Partiesit may perform services pursuant to this Agreement, and such coverage shall contain no special limitations on the scope of protection afforded to such additional insureds.~~
- ~~9. The insurance coverage procured by Redflex and described above shall be the primary insurance with respect to the Columbus Parties in connection with this Agreement, and any insurance or self-insurance maintained by any of the Columbus Parties shall be in excess, and not in contribution to, such insurance.~~





- ~~10. Any failure to comply with the reporting provisions of the various insurance policies described above shall not affect the coverage provided to the Columbus Parties, and such insurance policies shall state the such insurance coverage shall apply separately with respect to each additional insured against whom any claim is made or suit is brought, except with respect to the limits set forth in such insurance policies.~~
- ~~11. With respect to the insurance described in the foregoing Section 8.1 of this Exhibit E, each such insurance policy shall be endorsed to state that the coverage provided thereby shall not be cancelled except after thirty (30) calendar days' prior written notice to the Customer. If any of the Redflex Parties are notified by any insurer that any insurance coverage will be cancelled, Redflex shall immediately provide written notice thereof to the Customer and shall take all necessary actions to correct such cancellation in coverage limits, and shall provide written notice to the Customer of the date and nature of such correction. If Redflex, for any reason, fails to maintain the insurance coverage required pursuant to this Agreement, such failure shall be deemed a material breach of this Agreement, and the Customer shall have the right, but not the obligation and exercisable in its sole discretion, to either (i) terminate this Agreement and seek damages from Redflex for such breach, or (ii) purchase such required insurance, and without further notice to Redflex, deduct from any amounts due to Redflex pursuant to this Agreement, any premium costs advance by the Customer for such insurance. If the premium costs advanced by the Customer for such insurance exceed any amounts due to Redflex pursuant to this Agreement, Redflex shall promptly remit such excess amount to the Customer upon receipt of written notice thereof.~~
- ~~12. Redflex shall provide certificates of insurance evidencing the insurance required pursuant to the terms of this Agreement, which certificates shall be executed by an authorized representative of the applicable insurer, and which certificates shall be delivered to the Customer prior to Redflex commencing any work pursuant to the terms of this Agreement. Redflex shall maintain coverage of the types and in the amounts specified below. Proof of such insurance coverage shall be evidenced by submitting a certificate of insurance. A contractor's "umbrella" type policy with limits specified below may be submitted for this requirement with the Customer as additional insured with respect to any liability arising from any act or omission of Redflex on the premises upon which it may perform services pursuant to this Agreement.~~

The amount of such insurance shall be as follows:

Bodily Injury Liability:

<u>Each Person</u>	<u>\$ 500,000.00</u>
<u>Each Accident</u>	<u>1,000,000.00</u>

Property Damage Liability:

<u>Each Person</u>	<u>\$ 500,000.00</u>
<u>All Accidents</u>	<u>1,000,000.00</u>

Redflex shall take out and maintain, during the life of the contract, adequate worker's compensation insurance for all its employees employed at the site of the project and, in case any work is sublet, Redflex shall require the subcontractor similarly to provide worker's compensation insurance for the latter's employees, unless such employees are covered by the protection afforded by Redflex. Redflex shall furnish three (3) copies of the worker's compensation certificate showing that Redflex has paid his industrial insurance premium. In addition, Reflex shall provide and keep in force unemployment compensation insurance in the amounts required by law, and shall be solely responsible for the acts of Redflex, its employees and agents.

Insurance may not be changed or cancelled unless the insured notifies the Customer in writing not less than thirty days prior to such change or cancellation. If any part of this Agreement is sublet, Redflex is responsible for the part sublet being adequately covered by insurance hereinabove described.

Redflex assumes all risk of loss and damage to the equipment provided by it under this Agreement, unless loss or damage occurs at the time the operator and equipment are being operated for the purpose designated by the Customer and such loss or damages is caused by an act of the Customer or its employees which constitutes negligence or misconduct.

## Letter of Submittal

Name of the individuals involved in the preparation of the proposal and their relationship with the Vendor.

Name	Relationship With Redflex
Bruce Higgins	CEO, Redflex
Aaron M. Rosenberg	Vice President, Redflex
Mark Etzbach	Regional Manager, Redflex
Richard Eden	Controller, Redflex
Joe Moore	Ohio Customer Manager, Redflex

Name, titles, address, email address and telephone number of the person to whom inquiries related to the technical and cost proposals should be directed.

### Primary Contact Information:

Aaron M. Rosenberg, PhD  
Vice President, Pan America  
6047 Bristol Parkway  
Culver City, CA. 90230  
[arosenberg@redflex.com](mailto:arosenberg@redflex.com)  
Direct: 310.743.1209  
Fax: 310.878.0111

Redflex has sole and complete responsibility to perform the tasks and services in the enclosed proposal.

List of all persons by name and address being officers of the company:

Redflex Traffic Systems, Inc. is a wholly owned entity of Redflex Holdings Ltd. Redflex Holdings was established in 1983 and the group was structured into its current form in 1995. Redflex Holdings Ltd has been listed on the Australian Stock Exchange since January 1997. The Group operates its own systems engineering and manufacturing operations, as well as complex systems integration and research and development programs, which supports aerospace, defense, traffic management, transportation, and communication sectors.

Redflex Traffic Systems, Inc. was established in 1986 and is incorporated in the State of Delaware.

The Redflex Officers include:

Name	Position	Address
Christopher Copper	Chairman	31 Market Street South Melbourne. Vic. 3205

Graham Davie	Chief Executive Officer	31 Market Street South Melbourne. Vic. 3205
Bruce Higgins	Executive Director	15020 North 74th Street, Scottsdale, AZ 85260, USA
Peter Lewinsky	Non-Executive Director	31 Market Street South Melbourne. Vic. 3205
Robin Debernardi	Non-Executive Director	31 Market Street South Melbourne. Vic. 3205
Karen Finley	Secretary	15020 North 74th Street, Scottsdale, AZ 85260, USA

Redflex declares that this proposal is valid for 180 days from the date it was submitted to the City of Columbus.

### **The Letter of Submittal**

As the largest and longest-established provider of photo enforcement solutions in the United States, Redflex is uniquely positioned to ensure the City of Columbus implements a truly world-class community safety program. Redflex currently supports over 50 cities and counties across the country and has been providing the most advanced and proven photo enforcement services for nearly two decades. Redflex has been privileged enough to partner with some of the largest metropolitan communities in the United States, including the City of Chicago, San Jose and our two most recent selections; the Cities of Virginia Beach and Albuquerque.

***“The camera technology proposed by Redflex was determined to be significantly superior to that of the competition.”***

Virginia Beach Selection Team  
March 2004

Year after year, Redflex has proven to implement the most advanced technologies, provide the most comprehensive support services and deliver the greatest traffic safety benefits. In partnering with Redflex, the City of Columbus will buffer itself from any unwarranted embarrassment, legal contests and negative press coverage that has been experienced by many programs currently and/or once supported by our competition. In fact, in no less than six programs across the US, Cities have removed equipment, exited contracts and severed relationships with our competition; only to replace our competitor's programs with the Redflex solution. Redflex currently installs 20+ new systems per month, which equals more than all of the competition combined.

Our goal is to ensure the City of Columbus implements a program that reduces intersection collisions and safeguards the City from all inherent risk that can result from operating a photo enforcement program.

As a large and highly visible City, Columbus will fall under the intensive evaluation, examination and scrutiny of the public watchdogs, civic activists and defense attorneys. Redflex prides itself on the experience and integrity that is provided to each of our partner cities. We don't believe in cutting corners, we will never implement a solution that has little or no proven effectiveness and/or demonstrated results. To protect the City from an ill-fated destiny, the City of Columbus must partner with the largest, most experienced and most successful provider of photo enforcement solutions; which is empirically and undeniably – REDFLEX TRAFFIC SYSTEMS.

### **Redflex Business Focus**

Redflex Traffic Systems is the only solution provider that can offer the City of Columbus a completely integrated solution. Redflex employs 100s of seasoned staff that provide in-house skills and competencies in system design, camera unit manufacturing, software development, comprehensive construction and engineering services, and robust maintenance and support services. Redflex currently provides photo enforcement programs in 10 countries worldwide, 11 states and 60+ municipalities.

Our sole focus is to provide cities with the most effective photo enforcement program available. We are the only vendor who operates 100% of its business exclusively in photo enforcement, which is the foundation for our success.

Our programs have consistently provided cities with (1) the greatest citation issuance rates, in the magnitude of 90%; (2) the greatest crash reduction benefits, in the magnitude of 70%; (3) the greatest public approval rating and support, in the magnitude of 90%; and (4) the greatest financial return on investment and net revenue.

***“The site visits demonstrated that the technology deployed resulted in greater issuance of citation. The Redflex system was better able to detect and document violations.”***

Virginia Beach Selection Team  
March 2004

***“Since inception of the Chicago DARLEP Program, over 93% of all violators have been ticketed for poor driving behaviors.”***

John Bills, Asst. Commissioner  
Chicago DOT  
City of Chicago

Redflex Traffic Systems currently supports over 300 operational photo enforcement systems and is financially viable and solvent. Redflex Traffic Systems currently has sufficient cash to successfully install, support and service the Columbus photo enforcement program. As referenced, Redflex is currently installing more new systems on monthly basis than all of the competition combined and in many situations more than most competitors install annually.

### **Ohio Experience**

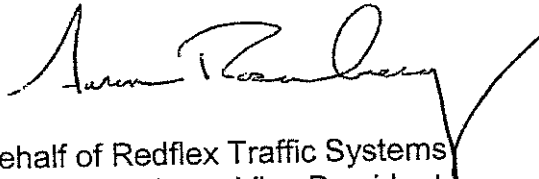
Supporting the only two programs in full operation across the State of Ohio, Redflex is uniquely positioned to adhere to local and state requirements, which will result in an efficient and effective implementation and ongoing operation. Redflex supports very successful programs in the cities of Dayton and Toledo. With a combined of 5 ½ years of experience providing digital photo enforcement programs in the State of Ohio, Redflex is best positioned to ensure total success for the City and Citizens of Columbus.

**“Redflex was chosen as the partner for the City of Dayton based on their high standards and integrity.”**

Det. Carol Johnson  
Dayton Police Department  
City of Dayton

Since their inception, both of the programs in cities Dayton and Toledo have expanded the total number of systems and increased the scope of enforcement to include Redflex fixed and mobile speed enforcement solutions.

Sincere Regards,



On Behalf of Redflex Traffic Systems  
Aaron M. Rosenberg, Vice President  
Redflex Traffic Systems  
(310) 213.6994  
arosenberg@redflex.com

**LENGTH OF CONTRACT**

The contract shall be in effect from the date of execution by the City to and including August 31, 2007. There will be an option, by mutual agreement of the City and the contractor, to renew for one, one year periods.



SECTION

TWO

1. **DEFINITIONS.** In this Agreement, the words and phrases below shall have the following meanings:
  - 1.1. "Authorized Officer" means the Police Project Manager or such other individual(s) as the Customer shall designate to review Potential Violations and to authorize the Issuance of Citations in respect thereto, and in any event, a sworn police officer.
  - 1.2. "Authorized Violation" means each Potential Violation in the Violation Data for which authorization to issue a citation in the form of an Electronic Signature is given by the Authorized Officer by using the Redflex System.
  - 1.3. "Citation" means the notice of a Violation, which is mailed or otherwise delivered by Redflex to the violator on the appropriate Enforcement Documentation in respect of each Authorized Violation.
  - 1.4. "Confidential Information" means, with respect to any Person, any information, matter or thing of a secret, confidential or private nature, whether or not so labeled, which is connected with such Person's business or methods of operation or concerning any of such Person's suppliers, licensors, licensees, customers or others with whom such Person has a business relationship, and which has current or potential value to such Person or the unauthorized disclosure of which could be detrimental to such Person, including but not limited to:
    - 1.4.1. Matters of a business nature, including but not limited to information relating to development plans, costs, finances, marketing plans, data, procedures, business opportunities, marketing methods, plans and strategies, the costs of construction, installation, materials or components, the prices such Person obtains or has obtained from its clients or customers, or at which such Person sells or has sold its services; and
    - 1.4.2. Matters of a technical nature, including but not limited to product information, trade secrets, know-how, formulae, innovations, inventions, devices, discoveries, techniques, formats, processes, methods, specifications, designs, patterns, schematics, data, access or security codes, compilations of information, test results and research and development projects. For purposes of this Agreement, the term "trade secrets" shall mean the broadest and most inclusive interpretation of trade secrets.
    - 1.4.3. Notwithstanding the foregoing, Confidential Information will not include information that: (i) was generally available to the public or otherwise part of the public domain at the time of its disclosure, (ii) became generally available to the public or otherwise part of the public domain after its disclosure and other than through any act or omission by any party hereto in breach of this Agreement, (iii) was subsequently lawfully disclosed to the disclosing party by a person other than a party hereto, (iv) was required by a court of competent jurisdiction to be described, or (v) was required by applicable state law to be described.
  - 1.5. "Designated Intersection Approaches" means the Intersection Approaches set forth on Exhibit A attached hereto, and such additional Intersection Approaches as Redflex and the Customer shall mutually agree from time to time.
  - 1.6. "Designated Vehicles" means the vehicle supplied and equipped by Redflex for the purpose of mobile photo Speed Enforcement

- 1.7. “Electronic Signature” means the method through which the Authorized Officer indicates his or her approval of the issuance of a Citation in respect of a Potential Violation using the Redflex System.
- 1.8. “Enforcement Documentation” means the necessary and appropriate documentation related to the Photo Speed and Red Light Enforcement Program, including but not limited to warning letters, citation notices (using the specifications of the Judicial Council and the Columbus Police Department), a numbering sequence for use on all citation notices (in accordance with applicable court rules), instructions to accompany each issued Citation (including in such instructions a description of basic court procedures, payment options and information regarding the viewing of images and data collected by the Redflex System), chain of custody records, criteria regarding operational policies for processing Citations (including with respect to coordinating with the Department of Motor Vehicles), and technical support documentation for applicable court and judicial officers .
- 1.9. “Equipment” means any and all cameras, sensors, equipment, components, products, software and other tangible and intangible property relating to the Redflex Photo Speed and Photo Red Light System(s), including but not limited to all camera systems, housings, radar units, servers and poles.
- 1.10. “Fine” means a monetary sum assessed for Citation, including but not limited to bail forfeitures, but excluding suspended fines..
- 1.11. “Governmental Authority” means any domestic or foreign government, governmental authority, court, tribunal, agency or other regulatory, administrative or judicial agency, commission or organization, and any subdivision, branch or department of any of the foregoing.
- 1.12. “Installation Date of ~~Combined Photo Red Light & Speed Program~~” means the date on which Redflex completes the construction and installation of at least one (1) Intersection Approach in accordance with the terms of this Agreement so that such Intersection Approach is operational for the purposes of functioning with the combined Redlight Photo & Speed Enforcement Program.
- ~~1.13. “Installation Date of Mobile Photo Speed Program” means the date on which Redflex completes the construction and installation of at least one mobile unit (van) in accordance with the terms of this Agreement so that such mobile speed unit is operational for the purposes of functioning with the Speed Photo Enforcement Program.~~
- 1.14. “Intellectual Property” means, with respect to any Person, any and all now known or hereafter known tangible and intangible (a) rights associated with works of authorship throughout the world, including but not limited to copyrights, moral rights and mask-works, (b) trademark and trade name rights and similar rights, (c) trade secrets rights, (d) patents, designs, algorithms and other industrial property rights, (e) all other intellectual and industrial property rights (of every kind and nature throughout the universe and however designated), whether arising by operation of law, contract, license, or otherwise, and (f) all registrations, initial applications, renewals, extensions, continuations, divisions or reissues hereof now or hereafter in force (including any rights in any of the foregoing), of such Person.

- 1.15. “Intersection Approach” means a conduit of travel with up to four (4) contiguous lanes from the curb (e.g., northbound, southbound, eastbound or westbound) on which at least one (1) digital, rear shot multiple image color camera has been installed by Redflex for the purposes of facilitating combined Redlight & Speed Photo Enforcement by the Customer.
- 1.16. “Operational Period” means the period of time during the Term, commencing on the Installation Date, during which the Photo Speed and Photo Red Light Enforcement Program is functional in order to permit the identification and prosecution of Violations at the Designated City Streets and Intersection Approaches by a sworn police officer of the Customer and the issuance of Citations for such approved Violations using the Redflex System.
- 1.17. “Person” means a natural individual, company, Governmental Authority, partnership, firm, corporation, legal entity or other business association.
- 1.18. “Police Project Manager” means the project manager appointed by the Customer in accordance with this Agreement, which shall be a sworn police officer and shall be responsible for overseeing the installation of the Intersection Approaches and the implementation of the Redlight Photo Enforcement Program, and which manager shall have the power and authority to make management decisions relating to the Customer’s obligations pursuant to this Agreement, including but not limited to change order authorizations, subject to any limitations set forth in the Customer’s charter or other organizational documents of the Customer or by the city counsel or other governing body of the Customer. *Employee*
- 1.19. “Administrative Hearing Officer” means, the person ~~hired~~ by the City to act as an impartial judge for all requests for an Administrative Appeals Hearing.
- 1.20. “Potential Violation” means, with respect to any motor vehicle passing through a Designated City Street and/or Intersection Approach, the data collected by the Redflex System with respect to such motor vehicle, which data shall be processed by the Redflex System for the purposes of allowing the Authorized Officer to review such data and determine whether a Speed and/or Red Light Violation has occurred.
- 1.21. “Proprietary Property” means, with respect to any Person, any written or tangible property owned or used by such Person in connection with such Person’s business, whether or not such property is copyrightable or also qualifies as Confidential Information, including without limitation products, samples, equipment, files, lists, books, notebooks, records, documents, memoranda, reports, patterns, schematics, compilations, designs, drawings, data, test results, contracts, agreements, literature, correspondence, spread sheets, computer programs and software, computer print outs, other written and graphic records and the like, whether originals, copies, duplicates or summaries thereof, affecting or relating to the business of such Person, financial statements, budgets, projections and invoices.
- 1.22. “Redflex Marks” means all trademarks registered in the name of Redflex or any of its affiliates, such other trademarks as are used by Redflex or any of its affiliates on or in relation to Photo Speed and Photo Red Light Enforcement at any time during the Term this Agreement, service marks, trade names, logos,

brands and other marks owned by Redflex, and all modifications or adaptations of any of the foregoing.

1.23. “Redflex Project Manager” means the project manager appointed by Redflex in accordance with this Agreement, which project manager shall initially be Joe Moore, or such person as Redflex shall designate by providing written notice thereof to the Customer from time to time, who shall be responsible for overseeing the construction and installation of the Designated Intersection Approaches and the implementation the Photo Speed and Photo Red Light Enforcement Program, and who shall have the power and authority to make management decisions relating to Redflex’s obligations pursuant to this Agreement, including but not limited to change-order authorizations.

1.24. ~~“Combined Redflex Photo Red Light & Speed Fixed System”~~ means, collectively, the SmartCam™ System, the SmartOps™ System, the Redlight Photo Enforcement and Speed Enforcement Program, and all of the other equipment, applications, back office processes and digital red light traffic enforcement cameras, sensors, components, products, software and other tangible and intangible property relating thereto.

1.25. ~~“Combined Photo Red Light & Speed Enforcement Program”~~ means the process by which the monitoring, identification and enforcement of Violations is facilitated by the use of certain equipment, applications and back office processes of Redflex, including but not limited to cameras, flashes, central processing units, signal controller interfaces and detectors (whether loop, radar or video loop) which, collectively, are capable of measuring Violations and recording such Violation data in the form of photographic images of motor vehicles.

1.26. “Photo Redlight Violation Criteria” means the standards and criteria by which Potential Violations will be evaluated by sworn police officers of the Customer, which standards and criteria shall include, but are not limited to, the duration of time that a traffic light must remain red prior to a Violation being deemed to have occurred, and the location(s) in an intersection which a motor vehicle must pass during a red light signal prior to being deemed to have committed a Violation, all of which shall be in compliance with all applicable laws, rules and regulations of Governmental Authorities.

~~1.27. “Redflex Photo Speed System” means, collectively, the SmartCam™ System, the SmartOps™ System, the Photo Speed Enforcement Program, and all of the other equipment, applications, back office processes and digital speed traffic enforcement cameras, radar units, components, products, software and other tangible and intangible property relating thereto.~~

~~1.28. “Photo Speed Enforcement Program” means the process by which the monitoring, identification and enforcement of Violations is facilitated by the use of certain equipment, applications and back office processes of Redflex, including but not limited to cameras, flashes, central processing units, interfaces and detectors which, collectively, are capable of measuring Violations and recording such Violation data in the form of photographic images of motor vehicles.~~

~~1.29. “Photo Speed Violation Criteria” means the standards and criteria by which Potential Violations will be evaluated by sworn police officers of the~~

~~Customer, which standards and criteria shall include, but are not limited to, the vehicle speed, the location(s) in which a motor vehicle must exceed posted speed limits prior to being deemed to have committed a Violation, all of which shall be in compliance with all applicable laws, rules and regulations of Governmental Authorities.~~

- 1.30. “SmartCam™ System” means the proprietary digital speed and redlight photo enforcement system of Redflex relating to the Photo Speed and Red Light Enforcement Program.
- 1.31. “SmartOps™ System” means the proprietary back-office processes of Redflex ~~relating to the Photo Speed and Red Light Enforcement Program.~~
- 1.32. “SmartScene™ System” means the proprietary digital video camera unit, hardware and software required for providing supplemental violation data.
- 1.33. “Traffic Signal Controller Boxes” means the signal controller interface and detector, including but not limited to the radar or video loop, as the case may be.
- 1.34. “Violation” means any traffic violation contrary to the terms of the Vehicle Code or any applicable rule, regulation or law of any other Governmental Authority, including but not limited to operating a motor vehicle contrary to traffic signals, and operating a motor vehicle without displaying a valid license plate or registration.
2. **SERVICES.** Redflex shall provide ~~the Photo Speed and~~ Photo Red Light Enforcement Program to the Customer, in each case in accordance with the terms and provisions set forth in this Agreement.
  - 2.1. **INSTALLATION.** With respect to the construction and installation of ~~(1) the Designated Intersection Approaches and the installation of the Redflex System at such Designated Intersection Approaches and (2) installation of the Redflex Photo Speed System in Designated City Vehicles,~~ the Customer and Redflex shall have the respective rights and obligations set forth on Exhibit B attached hereto.
  - 2.2. **MAINTENANCE.** With respect to the maintenance of the Redflex System at (1) the Designated Intersection Approaches and (2) in Designated Vehicles, the Customer and Redflex shall have the respective rights and obligations set forth on Exhibit C attached hereto.
  - 2.3. **VIOLATION PROCESSING.** During the Operational Period, Violations shall be processed as follows:
    - 2.3.1. All Violations Data shall be stored on the Redflex System;
    - 2.3.2. The Redflex System shall process Violations Data gathered from the Designated City Streets and/or Intersection Approaches and Designated Vehicles into a format capable of review by the Authorized Officer via the Redflex System;
    - 2.3.3. The Redflex System shall be accessible by the Authorized Officer through a virtual private network in encrypted format by use of a confidential password on any computer equipped with a high-speed internet connection and a web browser;
    - 2.3.4. Redflex shall provide the Authorized Officer with access to the Redflex System for the purposes of reviewing the pre-processed Violations Data within seven (7) days of the gathering of the Violation Data from the

applicable Designated City Streets and/or Intersection Approaches and Designated Vehicles

- 2.3.5. The Customer shall cause the Authorized Officer to review the Violations Data and to determine whether a citation shall be issued with respect to each Potential Violation captured within such Violation Data, and transmit each such determination in the form of an Electronic Signature to Redflex using the software or other applications or procedures provided by Redflex on the Redflex System for such purpose, and REDFLEX HEREBY ACKNOWLEDGES AND AGREES THAT THE DECISION TO ISSUE A CITATION SHALL BE THE SOLE, UNILATERAL AND EXCLUSIVE DECISION OF THE AUTHORIZED OFFICER AND SHALL BE MADE IN SUCH AUTHORIZED OFFICER'S SOLE DISCRETION (A "CITATION DECISION"), AND IN NO EVENT SHALL REDFLEX HAVE THE ABILITY OR AUTHORIZATION TO MAKE A CITATION DECISION;
- 2.3.6. With respect to each Authorized Violation, Redflex shall print and mail a Citation within six (6) days after Redflex's receipt of such authorization; provided, however, during the Warning Period, warning violation notices shall be issued in respect of all Authorized Violations;
- 2.3.7. Redflex has developed and will maintain a system for the collection, accounting and reporting of all citation payments made as a result of the photo enforcement program. Redflex shall also forward to the Customer its entitled portion of the fines collected, minus any contractual subtractions, under this agreement at the end of each month in which the fines were collected.
- 2.3.8. Redflex shall provide a toll-free telephone number for the purposes of answering citizen inquiries and schedule viewing of violations with the client, on behalf of the recipient of the citation.
- 2.3.9. Redflex shall permit the Authorized Officer to generate monthly reports using the Redflex Standard Report System.
- 2.3.10. Upon Redflex's receipt of a written request from the Customer and in addition to the Standard Reports, Redflex shall provide, without cost to the Customer, reports regarding the processing and issuance of Citations, the maintenance and downtime records of the Designated Intersection Approaches and the functionality of the Redflex System with respect thereto to the Customer in such format and for such periods as the Customer may reasonably request; provided, however, Redflex shall not be obligated to provide in excess of six (6) such reports in any given twelve (12) month period without cost to the Customer;
- 2.3.11. Upon the Customer's receipt of a written request from Redflex, the Customer shall provide, without cost to Redflex, reports regarding the prosecution of Citations and the collection of fines, fees and other monies in respect thereof in such format and for such periods as Redflex may reasonably request; provided, however, the Customer shall not be obligated to provide in excess of six (6) such reports in any given twelve (12) month period without cost to Redflex;

- 2.3.12. During the six (6) month period following the Installation Date and/or upon Redflex's receipt of a written request from the Customer at least fourteen (14) calendar days in advance of court proceeding, Redflex shall provide expert witnesses for use by the Customer in prosecuting Violations; provided, however, the Customer shall use reasonable best efforts to seek judicial notice in lieu of requiring Redflex to provide such expert witnesses; and
- 2.3.13. During the three (3) month period following the Installation Date, Redflex shall provide such training to police personnel as shall be reasonably necessary in order to allow such personnel to act as expert witnesses on behalf of the Customer with respect to the Redlight Enforcement Program.
- 2.4. PROSECUTION AND COLLECTION; COMPENSATION. The Customer shall diligently prosecute Citations and the collection of all Fines in respect thereof, and Redflex shall have the right to receive, and the Customer shall be obligated to pay, the compensation set forth on Exhibit D attached hereto.
- 2.5. OTHER RIGHTS AND OBLIGATIONS. During the Term, in addition to all of the other rights and obligations set forth in this Agreement, Redflex and the Customer shall have the respective rights and obligations set forth on Exhibit E attached hereto.
- CHANGE ORDERS. The Customer may from time to time request changes to the work required to be performed or the addition of products or services to those required pursuant to the terms of this Agreement by providing written notice thereof to Redflex, setting forth in reasonable detail the proposed changes (a "Change Order Notice"). Upon Redflex's receipt of a Change Order Notice, Redflex shall deliver a written statement describing the effect, if any, the proposed changes would have on the pricing terms set forth in Exhibit D (the "Change Order Proposal"), which Change Order Proposal shall include (i) a detailed breakdown of the charge and schedule effects, (ii) a description of any resulting changes to the specifications and obligations of the parties, (iii) a schedule for the delivery and other performance obligations, and (iv) any other information relating to the proposed changes reasonably requested by the Customer. Following the Customer's receipt of the Change Order Proposal, the parties shall negotiate in good faith and agree to a plan and schedule for implementation of the proposed changes, the time, manner and amount of payment or price increases or decreases, as the case may be, and any other matters relating to the proposed changes; provided, however, in the event that any proposed change involves only the addition of equipment or services to the existing Designated Intersection Approaches, Designated City Vehicles, or the addition of Intersection Approaches to be covered by the terms of this Agreement, to the maximum extent applicable, the pricing terms set forth in Exhibit D shall govern. Any failure of the parties to reach agreement with respect to any of the foregoing as a result of any proposed changes shall not be deemed to be a breach of this Agreement, and any disagreement shall be resolved in accordance with Section 10.

"Violations Data" means the images and other Violations data gathered by the Redflex System at the Designated City Streets and/or Intersection Approaches.



SECTION

THREE

### **3. Requirements**

3.1. The CoC expects each proposal to be based upon a turnkey operation, which shall mean the offeror shall provide all the necessary equipment associated with the system, and all necessary staff to install, operate and maintain same as well as providing all necessary services including, but not limited to the following. Consequently:

#### **Redflex Response:**

Redflex is the only vendor that currently supports automated enforcement programs across the great State of Ohio. Specifically, Redflex has a combined 5 ½ years of operating successful programs in the cities of Toledo and Dayton. Redflex is pleased to announce several highlights regarding our experience with these two programs, which will exemplify our ability to provide the City of Columbus a full turnkey operation that will minimize both City financial and operational risk exposure and emphasize Citizen Safety. The City Toledo currently supports over 20 photo enforcement systems and in the upcoming weeks will be the first in Ohio to **utilize fixed speed** enforcement. The Dayton City Council has authorized City Staff to take full advantage of the dual capabilities provided by Redflex, which includes using the same camera systems to capture **both red light violations and speed-on-green** violations. The City of Dayton recently completed its annual program audit. As a result of this audit, the City discovered that the Redflex system reduced intersection crashes **up to 60%** at some intersections and produced additional revenue to the City, which has allowed the Dayton Police Department to **purchase 11 new patrol cars**.

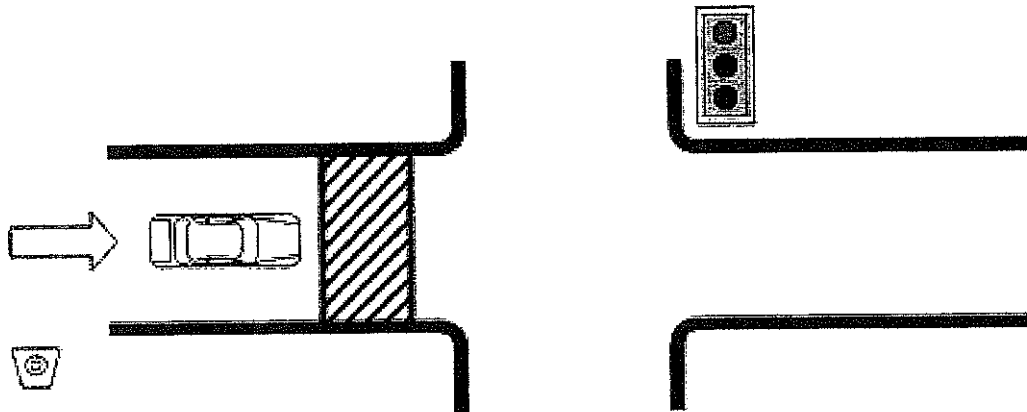
Redflex supported over 50 cities across the United States; we have been selected in 20 out of 22 competitive tenders for which we have participated and we are currently installing more than 20 new systems a month, which are more than all of the competition combined. With Redflex there will be no surprises, no risk and no unwarranted embarrassment to the City. With Redflex, the City will receive the most comprehensive program, the greatest depth of knowledge and experience and the most proven advanced digital technologies available. I am confident that the City of Columbus will quickly understand why cities like Toledo, Dayton and some of the largest cities in the United States like Chicago, Albuquerque, San Jose and Virginia Beach have all chosen Redflex Traffic Systems; making us the largest and longest-established vendor in the United States.

3.1.1. Please describe how your system photographs vehicles allegedly not stopping for a red light traffic signal.

#### **Redflex Response:**

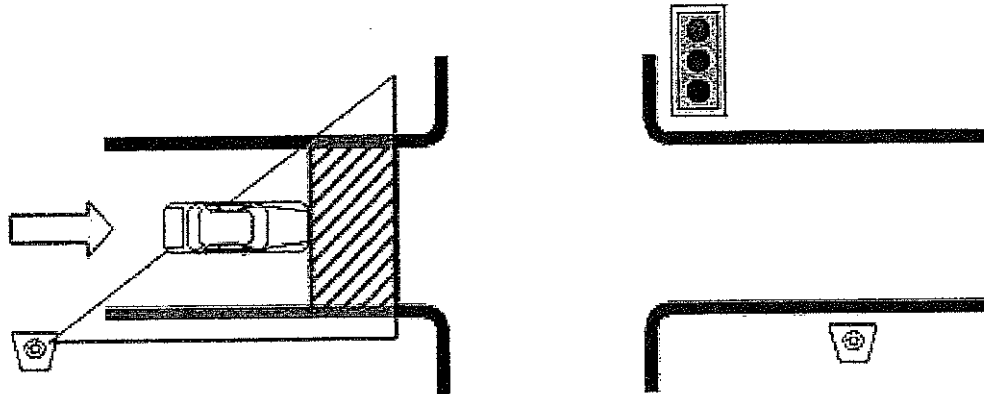
The Redflex System utilizes a single pole and camera enclosure per intersection approach. The single pole configuration is not only the most effective, but the cleanest and least invasive to the City's existing landscape in the industry. This set-up requires no large mastarms and in many situations, if desired by the City can utilize the City's existing poles which would require no new infrastructure in the City's right of ways. The Redflex camera enclosure utilizes a four-camera configuration, which has been proven to optimize violation capture and citation

issuance. There are two primary factors that are required for effectively photographing alleged violations. Specifically, (1) the signal must have commenced the red phasing and (2) the violating vehicle must be on the near-side of the violation limit line prior to the commencement of the red phase. These two factors must be accurately maintained to ensure the overall quality and integrity of the program. Each of these two concepts will be examined in detail within this proposal. To provide a brief conceptual model on this process, please review the following sequence:



In this image, no violation has yet to occur. This image depicts the vehicle as it approaches the intersection, prior to the violation limit line as the signal commences the red-phase.

The system (1) receives input that the signal has commenced the red phase and (2) the violation presence detection system has determined the vehicle will be in violation. Only once these two inputs are confirmed, will the camera unit begin its sequencing on images, which includes the over 300 individual images and full motion video of the violation.

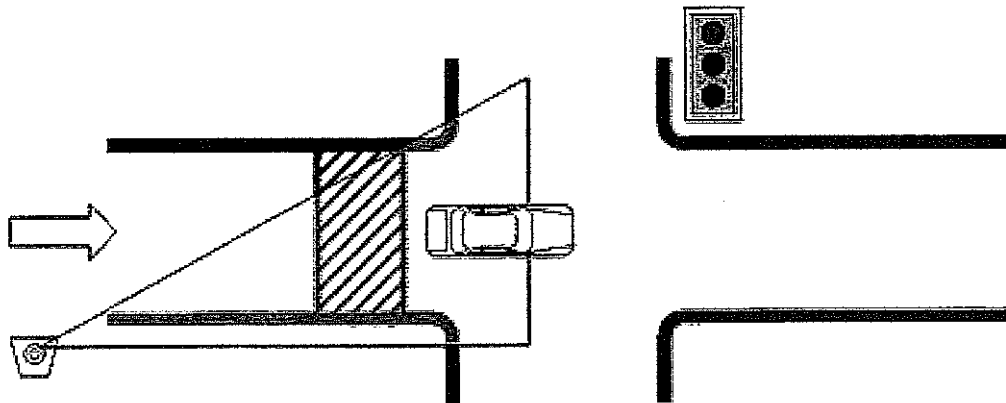


The Scene A Image will illustrate the vehicle on the nearside of the violation line (pre-violation) with a clearly visible overhead signal in the red-phase.

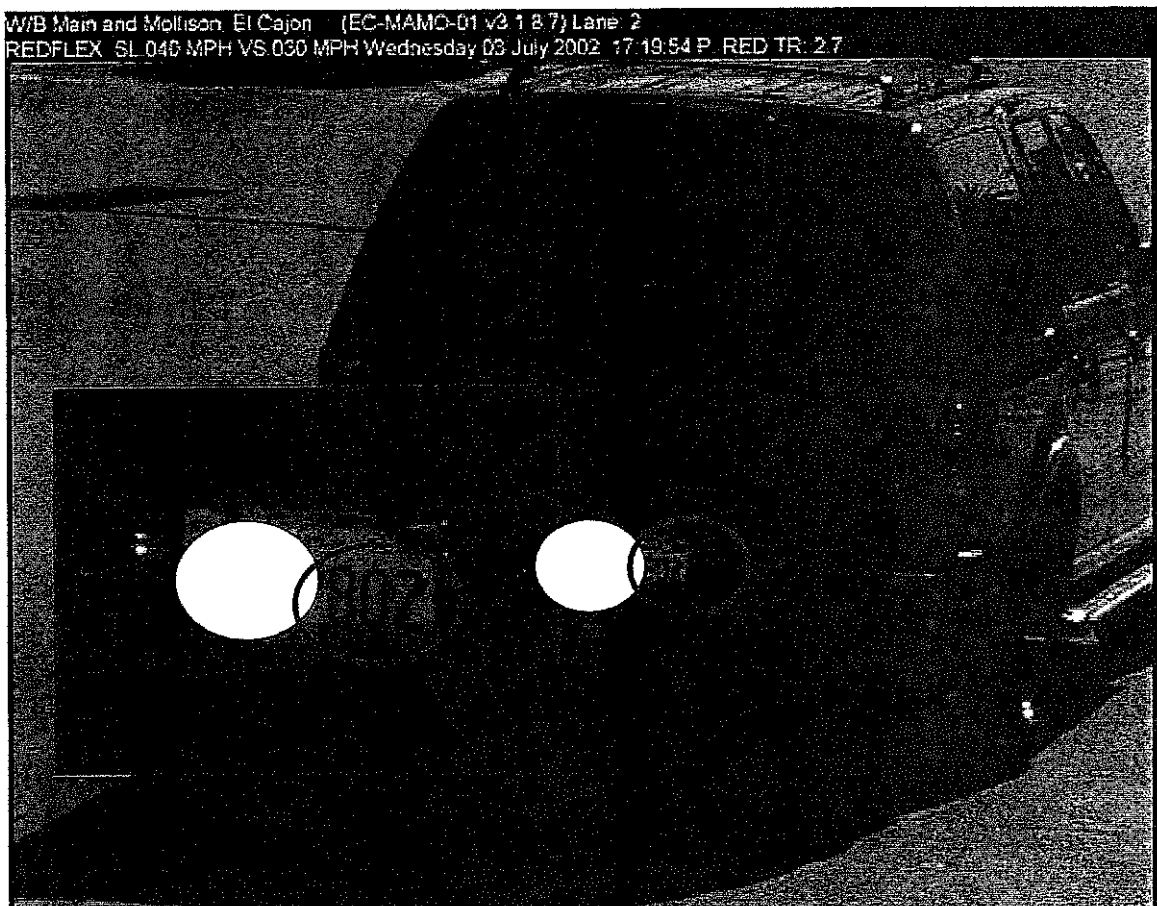
#### Sample Scene A Image:



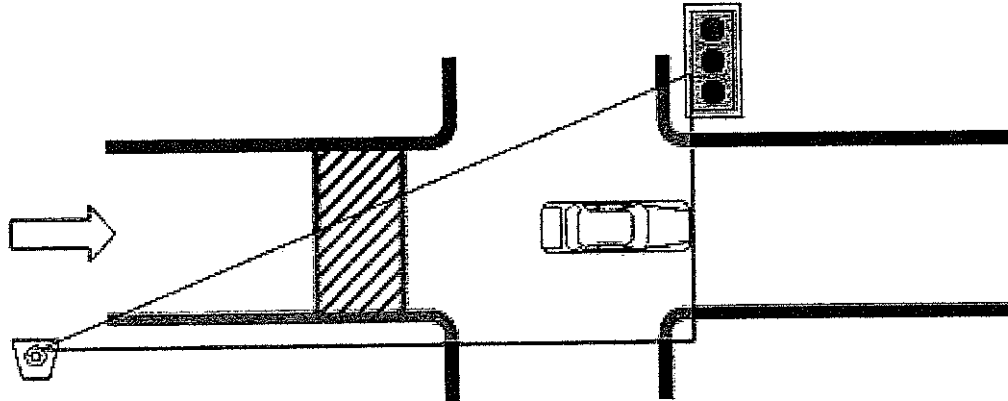
The Redflex System was developed to ensure that the vehicle's registration tag can be effectively captured through multiple sources and images. In addition to capturing the plate images via the 300+ individual frames, Redflex provides a dedicated high resolution plate camera, which ensures citation issuance.



The Plate Image provides a very high resolution image of the vehicles plate. This high resolution image, which can be actively zoomed without losing image quality can only be achieved with dedicated plate cameras.



The Scene B Image will illustrate the vehicle completely crossing the intersection with a clearly visible overhead signal in the red-phase.

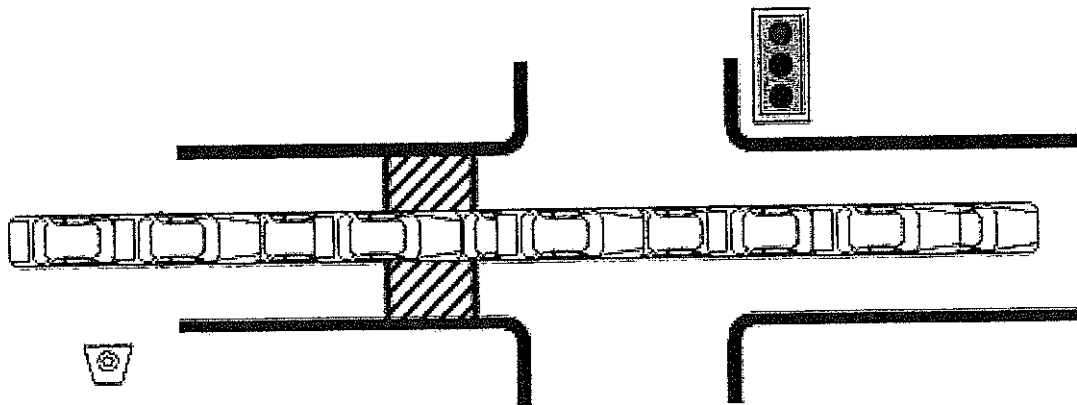


Sample Scene B Image



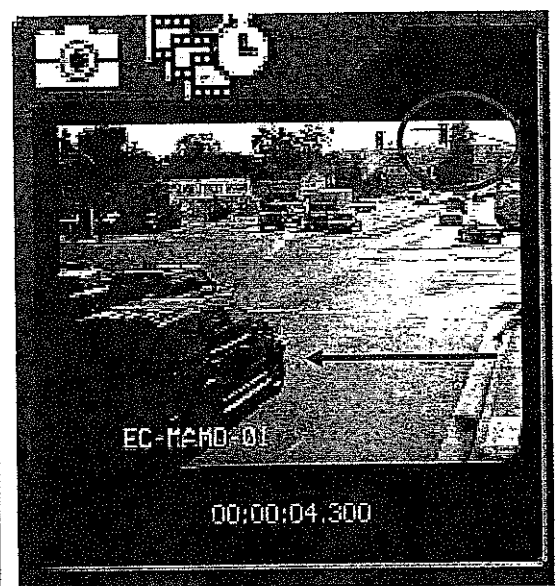
In addition to three dedicated high resolution digital still cameras, each Redflex housing includes a high resolution digital video camera. Redflex is the only vendor to deliver this type of combination camera system. While others espouse to provide this feature, in reality, only Redflex has proven capabilities with hundreds of operational systems and years of experience providing these advanced features.

Only Redflex provides 12-seconds of full motion video for each violation. This video provides a critical supplement to the high resolution digital still images



The Redflex System provides a minimum of 6 seconds of pre-violation video and 6 seconds of post-violation video.

Sample Video (25 of the 300+ Frames Captured)



3.1.2. Please describe how your system obtains vehicle registration information

**Redflex Response:**

As the only vendor supporting programs in the State of Ohio, Redflex has implemented a near "real-time" process for accessing DMV information. Redflex operators actively place files to a dedicated Ohio DMV site that generates a response file every three hours. Our longstanding relationship with the Ohio DMV has been supported by Mary Dearwester of the Ohio DMV. Working with Ms. Dearwester, Redflex has already begun the process of outlining the needs of Columbus and we have already been instructed that we can effectively add the City of Columbus to this process.

Below lists the basic information provided through our Ohio DMV linkages that is typically required to issue infractions to motorists:

- Name of registered owner
- Current address
- Vehicle year, make and model
- Date of birth & driver's license number may be required by certain jurisdictions

3.1.3. Please describe, in detail, how your system will interface with the CoC traffic signal control equipment.

**Redflex Response:**

With nearly 2 decades of experience supporting red light camera programs, Redflex prides itself on maintaining the integrity of each City's traffic control system by taking a completely non-invasive approach. To this point, Redflex Programs will not require direct access to traffic light controllers or the control field cable. Our system runs completely autonomously to the City's existing infrastructure. Redflex engineers can provide the City numerous means to non-invasively detect red light phasing. All prescribed methods are optically isolated from the traffic controller unit and can utilize isolation relays and equivalent means.

3.1.4. Please describe how your system reviews each photograph for visibility.

**Redflex Response:**

Providing cameras that offer significantly higher resolution than video-only, residual imaging and most digital still-only systems, provides our partners with the greatest quality images with the highest visibility.

Redflex will provide the City with a truly robust process for photograph review and quality assurance, which ensures the highest quality images and evidence. In a real-time manner, Redflex extracts the images and violation data directly from the intersection remotely using a secure communication network. Once the images are extracted from the intersection site, not one, but **two discreet**

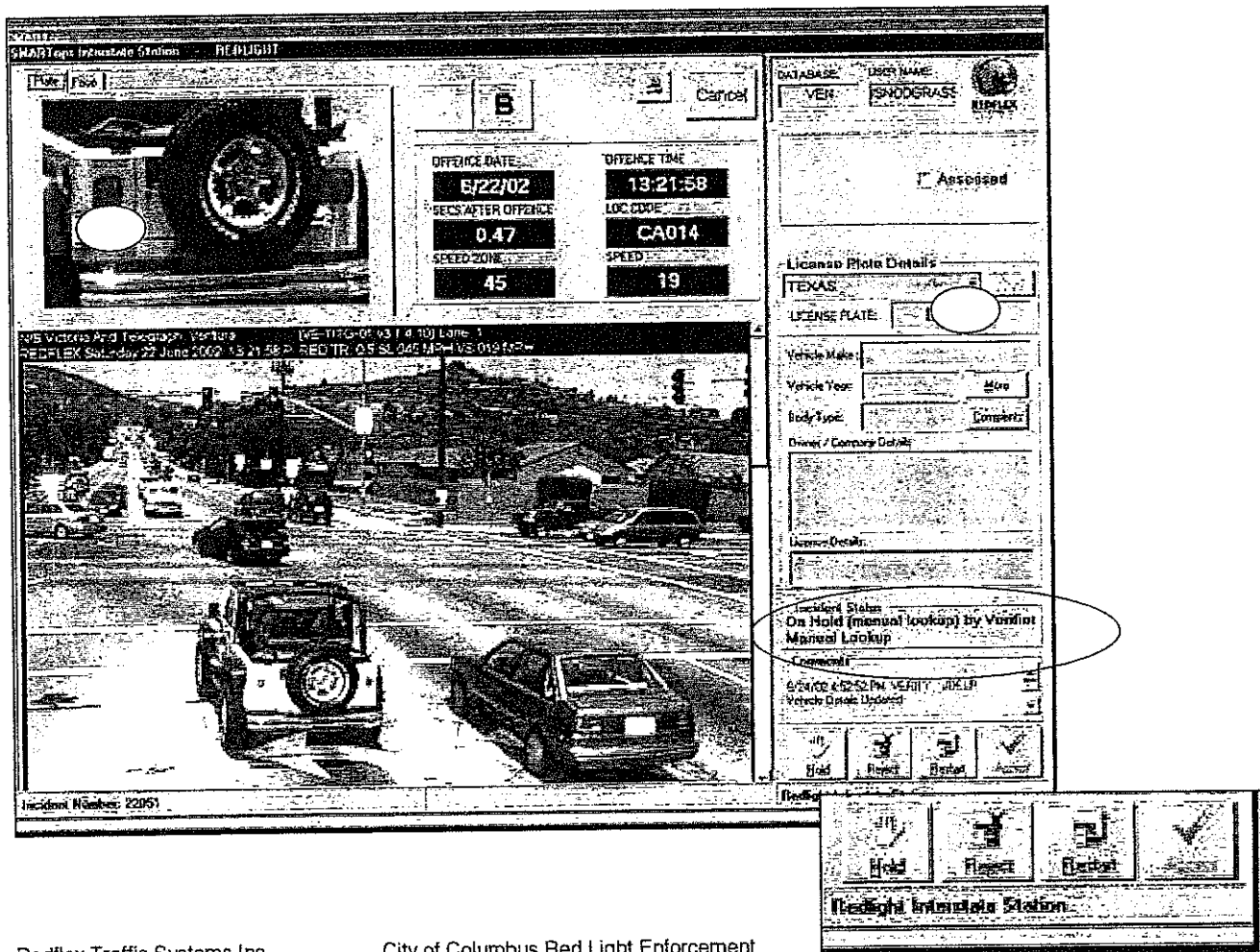


**individuals** (operators) review each citation for image clarity, alignment with the City specified issuance criteria and for overall quality assurance purposes. Additionally, it is during this stage of the process the Redflex operators will access the applicable DMV databases, including out-of-state vehicles, to look up pertinent registration and driver information, which will be populated directly into the application.

3.1.5. Please describe how your system matches the make and model with the obtained registration information.

**Redflex Response:**

As outlined in Section 3.1.2, Redflex operators currently have existing linkages to the Ohio DMV databases and we have already instituted a process for real-time DMV lookups, which automatically populated the fields on the Redflex SmartOps application. This process ensures that manually key stroke and typo issues are minimized. Once the information is populated, the Redflex operator will cross check the registration information with the vehicle in the image. As you can see below, the Redflex operator will utilize the "On Hold" feature while the registration information is being captured via the DMV connections. Once this information is returned, the operator will have the ability to "Hold", "Reject" and "Accept" the information upon cross referencing and matching vehicle make and model with registration information. This process is completed for each violation.



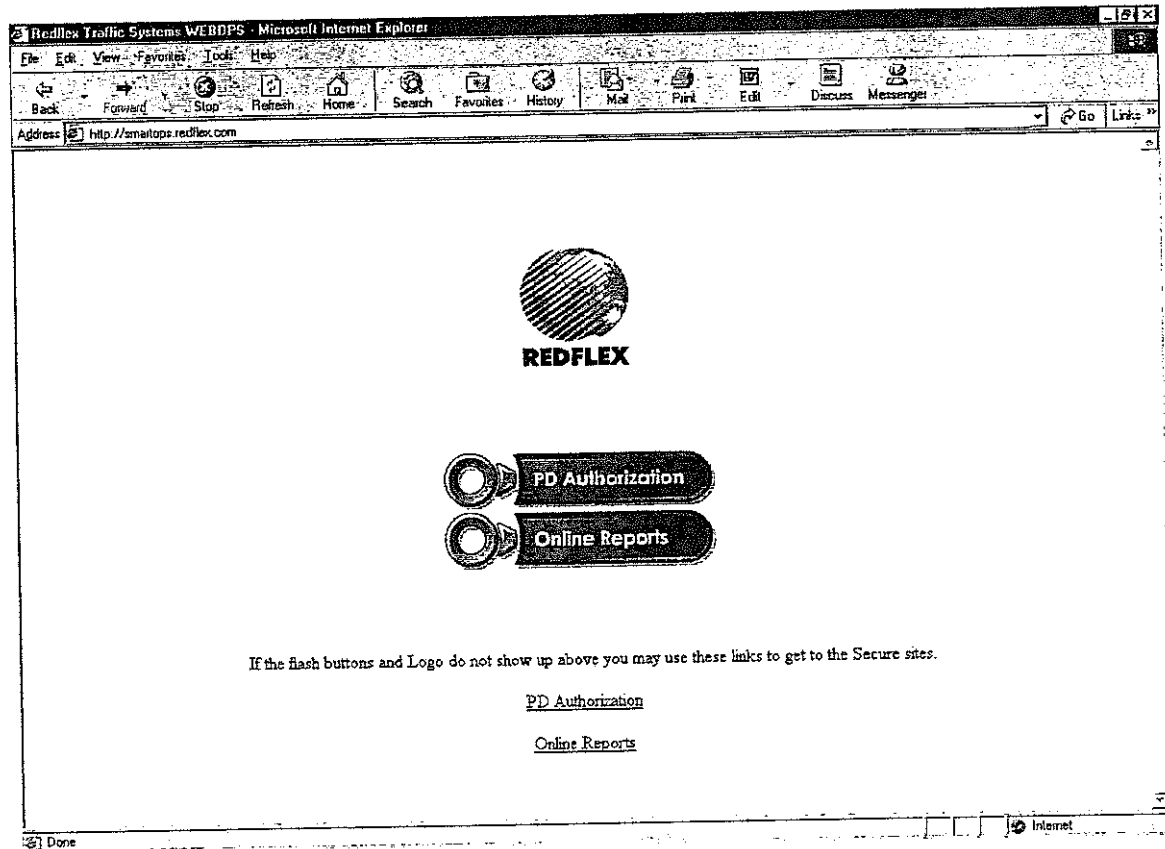
3.1.6. Please describe how your system performs quality control in the form of a second opinion as to the violation (this will be DoP review).

**Redflex Response:**

Redflex provides a **web-based on-line** application for Police/City citation review and authorization, which is called WebOps. This application is completely web-enabled and can be accessed by assigned users through any computer that has Internet access. The application is available for assigned City and/or Law Enforcement personnel and is completely **secure using robust user management and Internet security protocols**. The application was developed in conjunction with various law enforcement agencies to **ensure ease-of-use** and intuitive navigation. Once an officer is logged-in to the application, he/she will be able to see all violations waiting for review. Each citation notice includes all required information and authorized police personnel have the option to review each notice and indicate violation acceptance or rejection. When violations are accepted, the application utilizes digital signatures confirming City authorization of the notice.

The following pages will demonstrate the exact process the City will utilize when reviewing and authorizing citations using the WebOps web-based application. The WebOps application requires no special software or databases; it is completely accessed through the internet and only requires that a user has internet access.

When accessing WebOps, the following screen should be displayed:

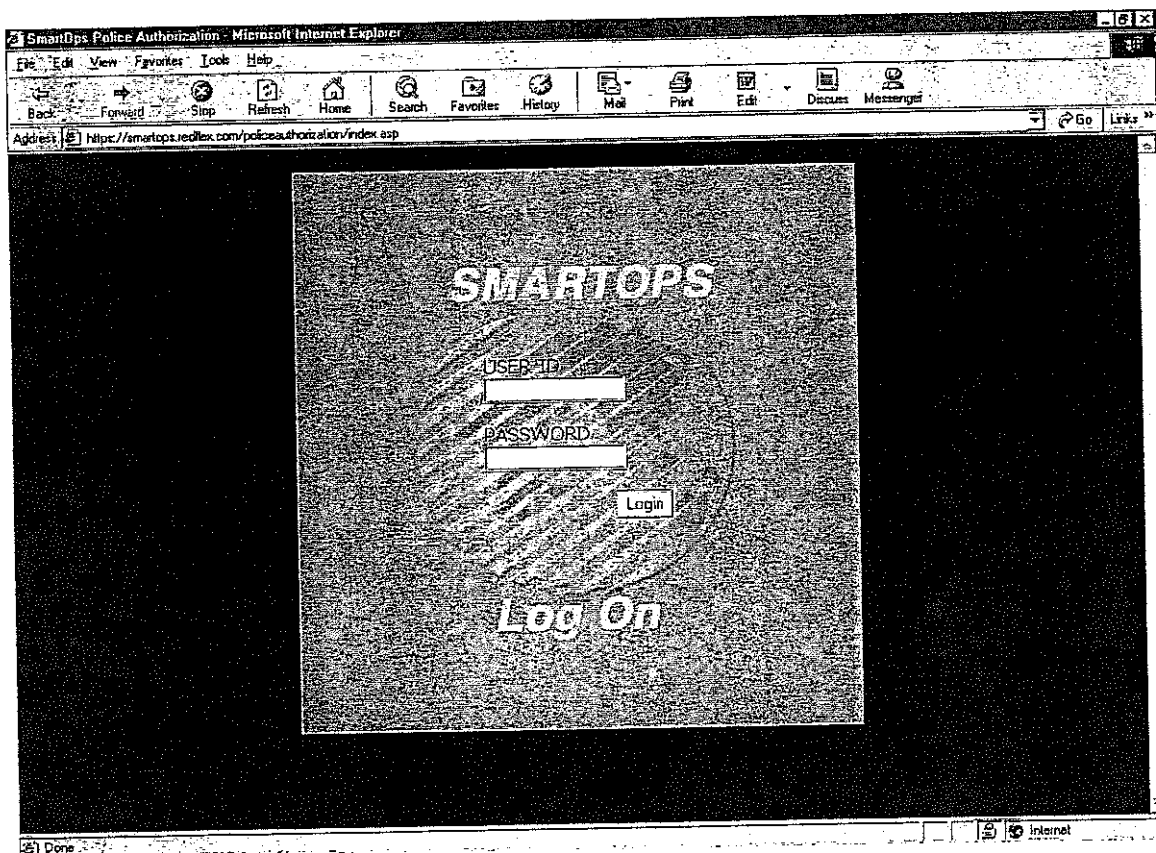


The PD Authorization module is the tool that is used to retrieve, view, and authorize traffic incidents and information.

The Online Reports module is the tool used to obtain the intersection history.

### **Police Authorization**

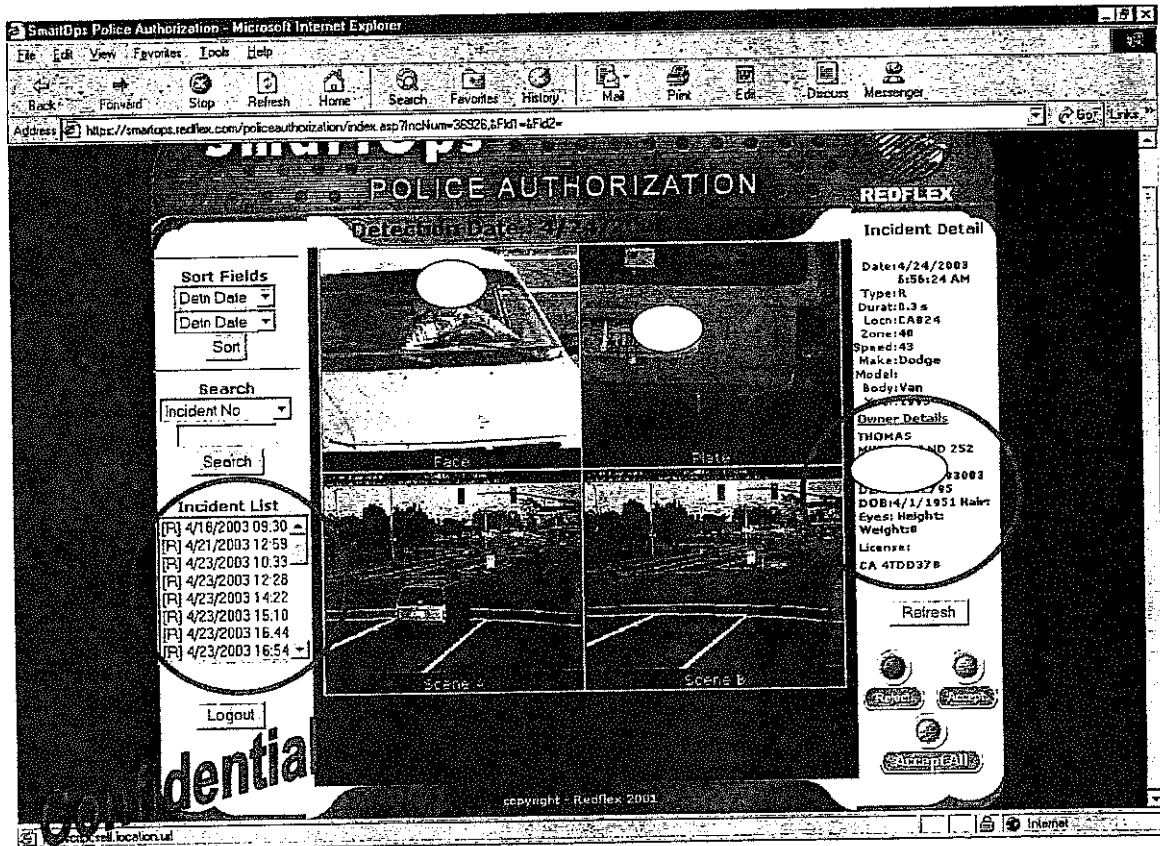
Selecting "PD Authorization" from the Redflex Traffic Systems Main Menu to brings up the following screen:



A user ID and password are required. Typically, individuals that do not require the ability to accept and reject traffic incidents are given read-only access. In this case, the user ID and password may be the same. Individuals that require the ability to accept and reject traffic incidents must have a secure password meeting a number of criteria.

### Police Authorization – Accept/Reject Access

If the individual has access to accept or reject traffic incidents, the first step is to select an incident from the "Incident List." The incidents in this list have been verified by the RTS Production Team and are waiting for customer approval. A screen similar to the following will be displayed:



This screen has been designed to provide the digital images and information for each incident requiring approval. RTS provides additional tools on this screen to help the individual ensure that an incident is authorized appropriately:

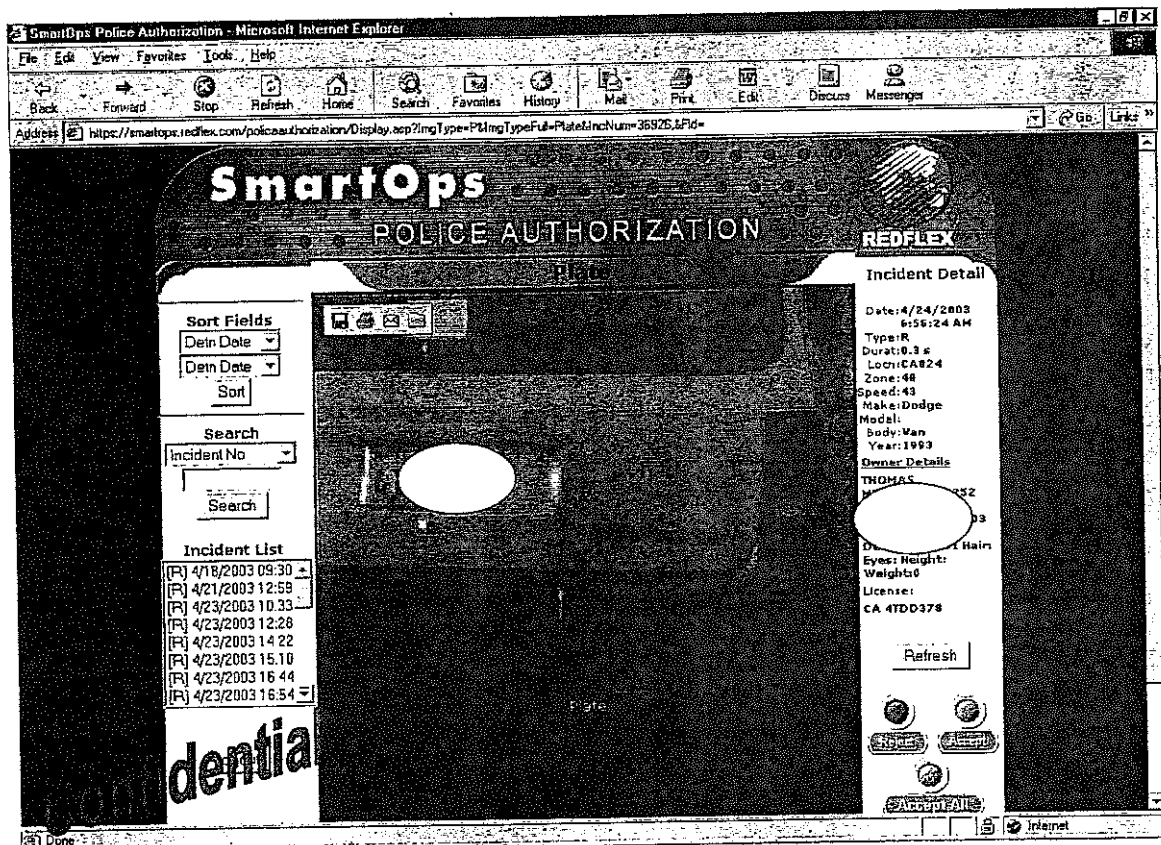
- Enlarged digital images
- Information about the incident
- Information about the registered owner of the offending vehicle
- A 12-second video clip, if SMARTscene has been installed

Selecting any of the digital images enlarges it.

Information about the incident and the registered owner is on the right-hand side of the screen under "Incident Details."

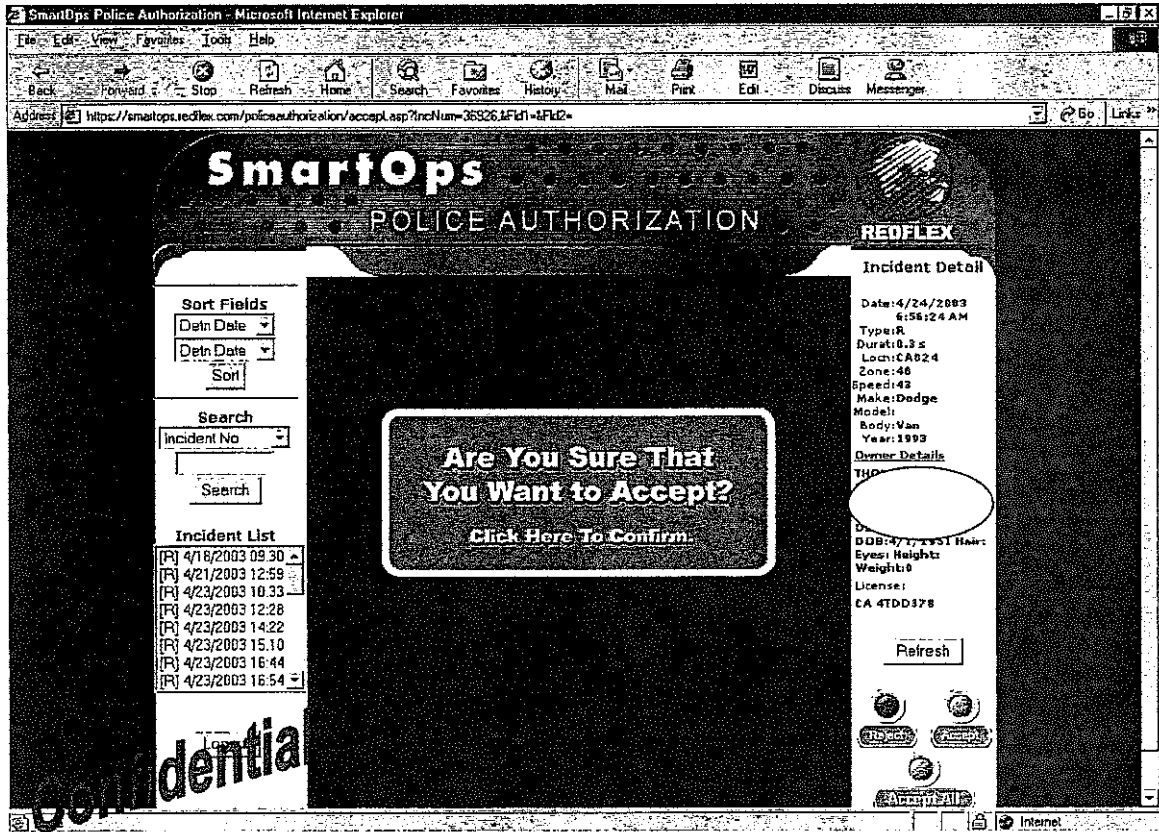
If a 12-second video clip is available, select "View Video" under the digital images to view it.

To determine if the license plate given in the "Incident Details" matches the license plate in the digital image of the plate, select this digital image. An enlarged digital image similar to the following is displayed:



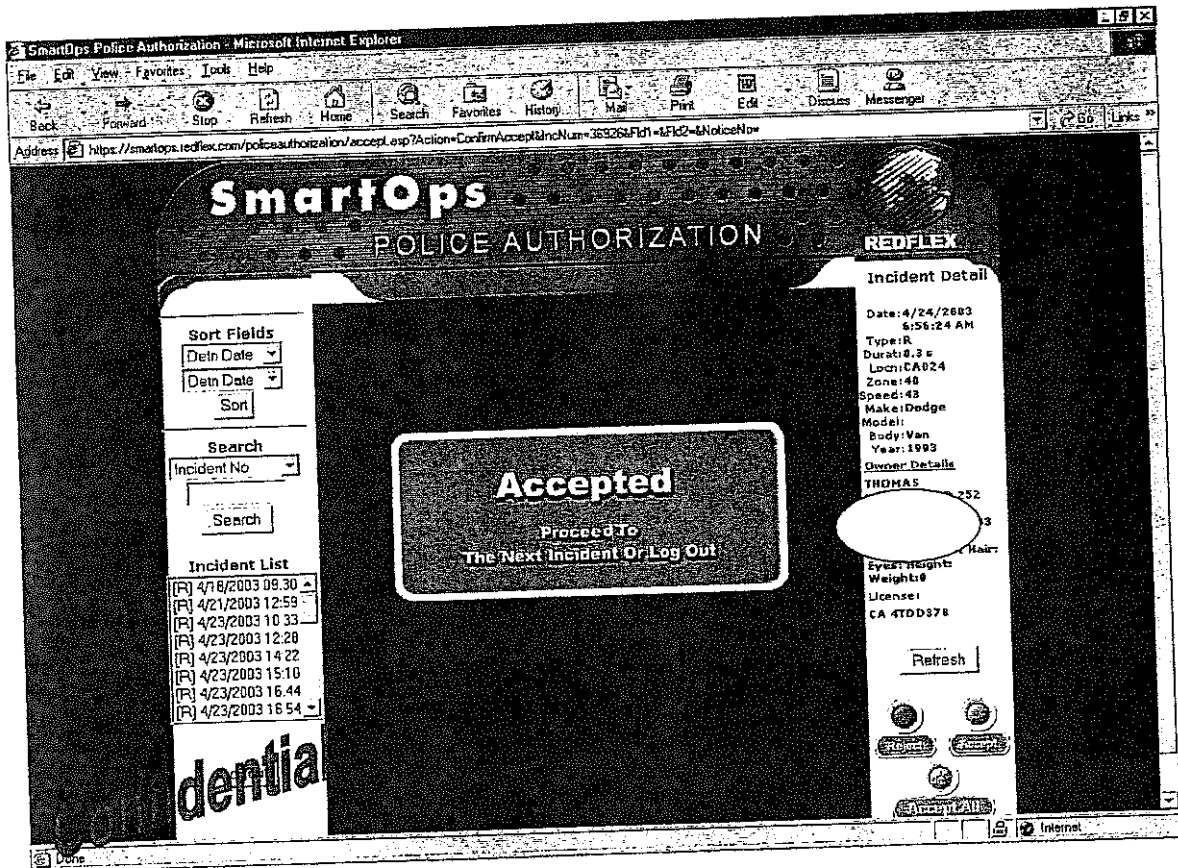
Using the on-line tools that Redflex Traffic Systems provides, each customer determines their own policies and procedures for accepting traffic incidents for citation processing. In addition, each customer determines their own policies and procedures for rejecting incidents.

If the individual reviewing the traffic incident determines that it is a valid offence, the next step is to select the "Accept" button in the lower right-hand corner of the screen. Doing so triggers the following screen to be displayed:



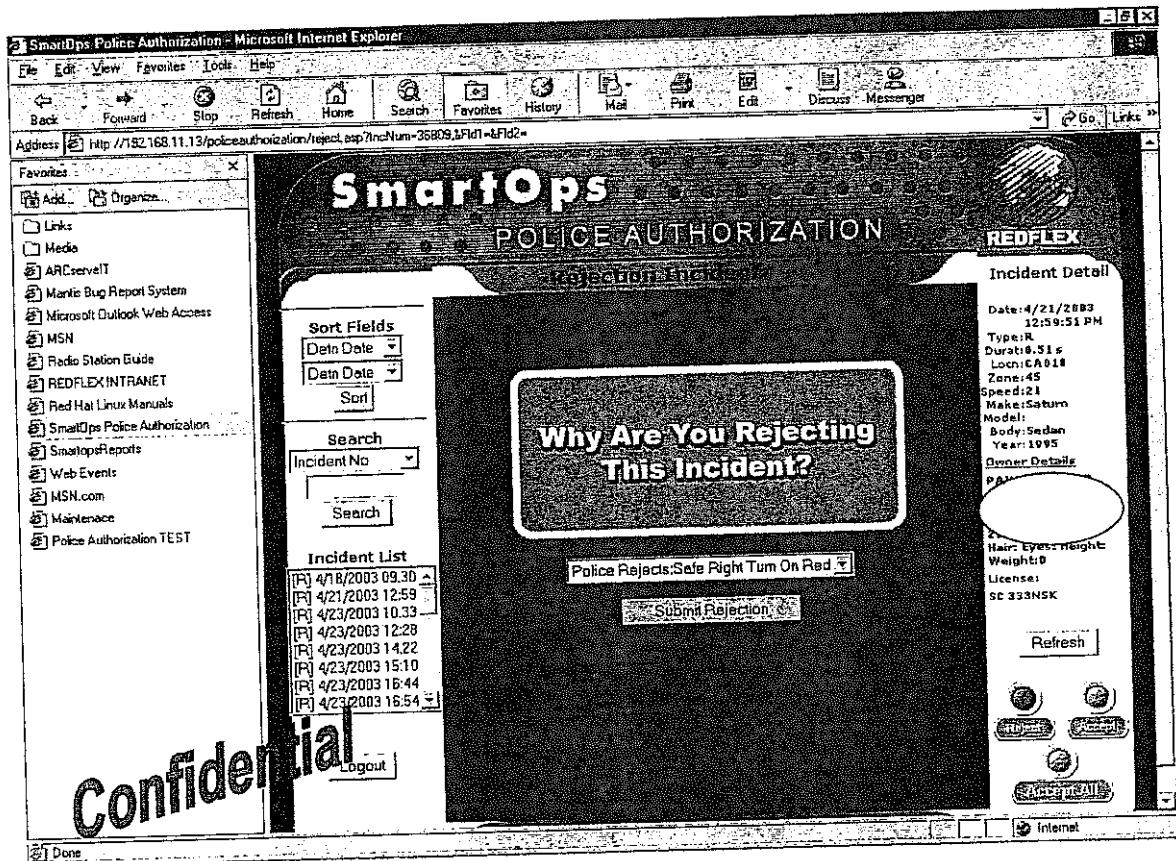
If the individual does not click on the green icon in the center of the screen, the incident will not be approved and will remain in the "Incident List."

If the individual clicks on the green icon, the incident is accepted for citation processing and the following screen is displayed:



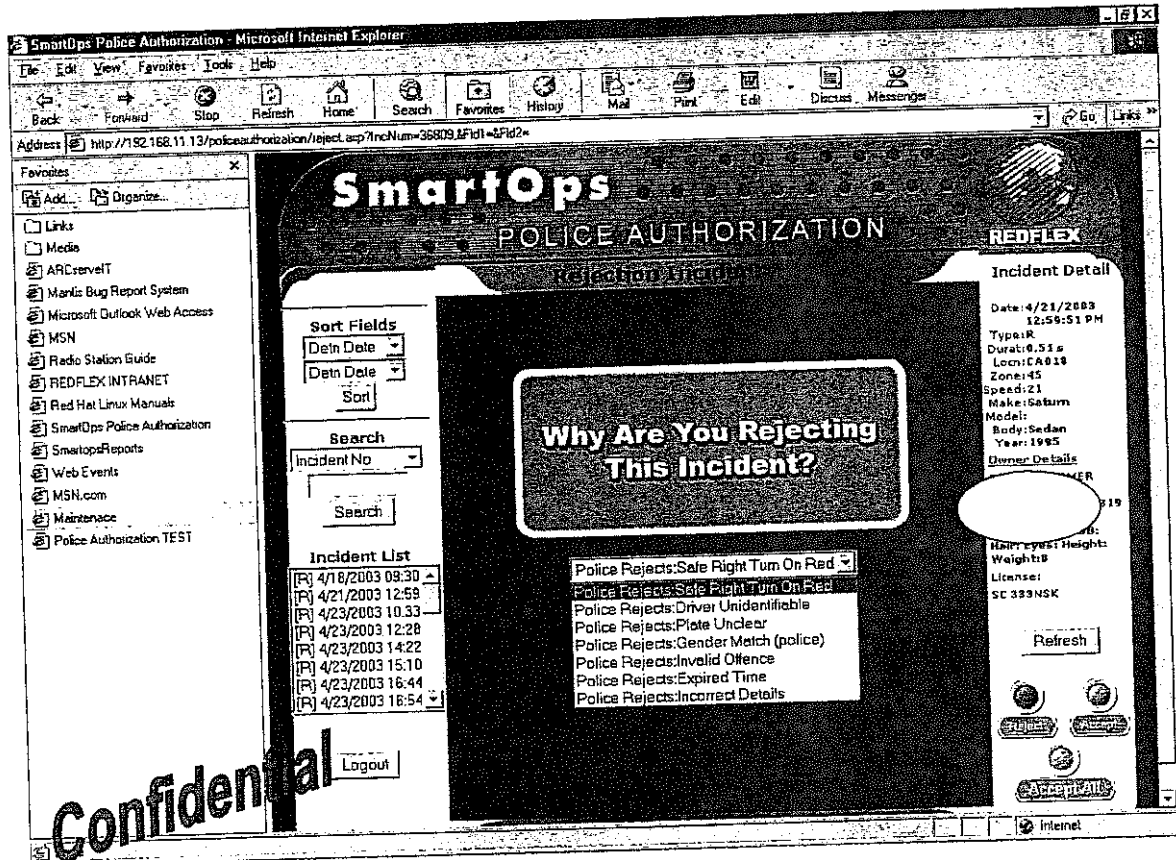


If the individual reviewing the traffic incident determines that it is not a valid offence, the next step is to select the "Reject" button in the lower right-hand corner of the screen. Doing so triggers the following screen to be displayed:



Rejecting a traffic incident ensures that a citation is not generated. Incidents can be rejected for a number of reasons. RTS provides a standard list of reject reasons to all customers. The number of incidents rejected for a given reject reason is included in the Customer Management Report.

To access the list of reject reasons available, click on the text or triangle under the text icon with the green background. A screen similar to the following is displayed:



If it is the determination of the reviewing individual that the incident is not prosecutable, one of the following reject reasons is selected:

- ✓ Safe Right Turn on Red
- ✓ ~~Driver Unidentifiable (only used where face image is required)~~
- ✓ Plate Unclear
- ✓ ~~Gender Match (only used where face image is required)~~
- ✓ Invalid Offence
- ✓ Incorrect Details
- ✓ Expired Time – the incident is too old to continue processing
- ✓ OTHERS

3.1.7. Please describe how your system generates a citation, with photograph, and mailing to the registered owner of the vehicle that performed the violation

**Redflex Response:**

Once the authorizing party completes the process as outlined in Section 3.1.6 and chooses to “accept” the violation, the Redflex System will automatically queue the information and violation images for citation notice generation and printing. Each citation notice will enclose a digital signature from the office that authorized the citation, which is physically printed on each citation. Other citation highlights typically includes:

- Unique Sequencing & Numbering
- Affidavit of Non-Liability & Nomination Form
- Adjudication Instructions
- Program Information
- Payment Coupon & Payment Instructions

The Redflex Solution will allow the City to easily develop and print a citation (notice to appear) per the requirements outlined by the applicable Judicial Council (if required) and Redflex will work with the City of Columbus ensure that the Judicial Council formally approves the citation design, format and layout. Additionally, if desired, each citation can include an Affidavit of Non-liability.

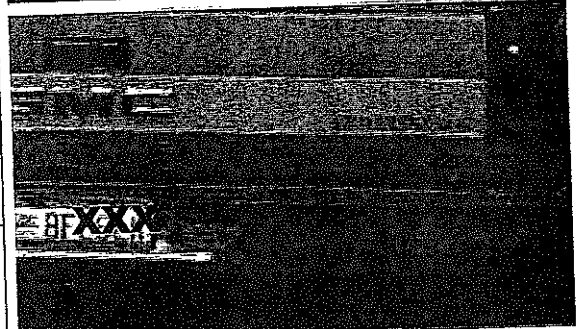
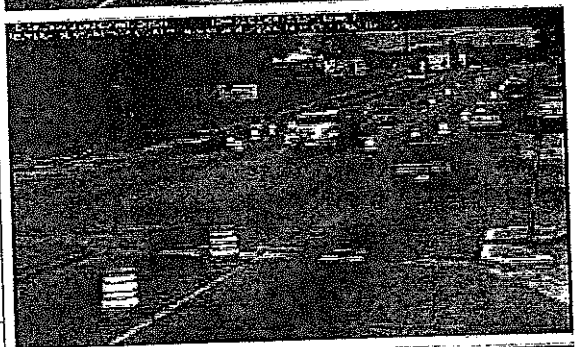
Sample Citation: Dayton Ohio



CITY OF DAYTON  
RED LIGHT TRAFFIC CAMERA  
NOTICE OF LIABILITY

NUMBER DA00015205

XXXXXXXXXX  
6356 FORESTDALE AV  
XXXXXXXXXX



DATE OF VIOLATION: May 04, 2004		TIME OF VIOLATION: 02:15 PM	
REGISTERED OWNER OF VEHICLE XXXXXXXXXX			
ADDRESS 6356 FORESTDALE AV			
CITY	STATE	ZIP CODE	
XXXXXXXXXX	OH	45427	
VEHICLE ID	STATE		
BFF26LK	OH		
VEH. MAKE	MODEL	YEAR	
GMC	Truck	1998	
RECORDED IMAGES ARE FIRST-FACTOR EVIDENCE OF A VIOLATION OF SECTION 106.01 OF THE REvised CODE OF GENERAL ORDINANCES OF THE CITY OF DAYTON, OHIO (SECTION 106.01) TRAFFIC CONTROL PHOTOGRAPHING DISTRICT RED LIGHT VIOLATION.			
LOCATION OF VIOLATION: Gettysburg and Corning			
THIS VIOLATION WAS NOT CORRECTED IN THE PRESENCE OF A POLICE OFFICER AND DISPOSITION OF THE RECORDED IMAGES, AND SEND DUPLY TO THE CITY OF DAYTON, OHIO SECTION 106.01 OF THE CODE OF GENERAL ORDINANCES OF THE CITY OF DAYTON, OHIO UNDER THE PENALTY OF FINE AND COSTS OF THIS NOTICE, THAT THE INFORMATION IS TRUE AND CORRECT.			
05/14/2004	<i>Carol Johnson</i>	CAROL JOHNSON	10724
DEPT. NO.	SIGNATURE	DECLARANT	PHONE
YOU MUST RESPOND TO THIS NOTICE IN ONE OF THE FOLLOWING WAYS NO LATER THAN: 06/03/2004			
1. Call the police to the address. See page 2 for details. 2. Provide information to the police to the address. See section A on the reverse side of 3. Request a hearing to contest the notice of liability. See section B on the reverse side.			

DAYTON PAYMENT COUPON FOR: DA00015205  
AS THE REGISTERED OWNER OF THE VEHICLE, YOU ARE RESPONSIBLE FOR PAYING THIS NOTICE. YOU MUST DO SO BY: 03-JUN-2004  
NO POINTS WILL BE ASSESSED TO YOUR DRIVING RECORD. NO RECORD OF THIS OFFENSE WILL BE SENT TO YOUR INSURANCE COMPANY OR THE  
BUREAU OF MOTOR VEHICLES. HOWEVER, IF YOU WERE NOT THE DRIVER AT THE TIME OF THE OFFENSE, YOU MAY CHOOSE TO COMPLETE THE  
AFFIDAVIT ON SECTION A ON THE REVERSE SIDE OF THIS NOTICE AND INDICATE WHO WAS DRIVING.  
IF YOU ARE NOMINATING ANOTHER PERSON, YOU NEED NOT PAY THIS NOTICE

MAIL CHECK, MONEY ORDER, OR VISA/MASTERCARD PAYMENT TO:

Dayton Red Light Photo Enforcement Program  
P.O. Box 9957  
Toledo, Ohio 43697

Expenses Due: Month \_\_\_\_\_ Year \_\_\_\_\_

NAME: \_\_\_\_\_ CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE: \_\_\_\_\_

Failure to pay this fine will result in a civil action against you

FINE AMOUNT: \$85.00      PWD: \$9.00

XXXXXXXXXX  
XXXXXXXXXX  
DAYTON, OH 45427

\*DA0001520508

### **Citation Numbering Sequencing**

In accordance with the City, each Citation has a unique citation numbering sequence to enable the Courts and the City to distinguish between photo red light citations and others. Redflex develops a unique numbering sequence that is applied to both original citations and citations that have been reissued to a nominated driver per the Affidavit of Non-liability process.

### **Instruction Sheet**

In addition to providing an approved citation including an Affidavit of Non-liability (Nomination), Redflex will provide the City with an instruction sheet that will accompany each citation. This instruction sheet will include all pertinent information regarding Court procedures, payment processing, photo viewing scheduling, background information regarding the program and the technology and additional information as specified by the City.

The ability to nominate a driver enables an effective means for issuing citations to fleet and rental vehicles. Specifically, when a citation is mailed to the fleet owner, the vehicle can be traced to the driver who was assigned and renting the vehicle during the violation date/time. Once the fleet owner sends the affidavit of non-liability and nominates the accurate driver, the first citation is dismissed and a new citation with the same sequencing with an additional character is promptly issued. Ultimately, depending on the type of violation, the registered owner may be responsible for the violation fine, if a nominated driver is not identified.

### **Chain of Custody**

The Redflex Solution provides the industry's leading secure chain of custody. This is enabled in the fact that Redflex is the only fully vertically integrated provider of photo enforcement solutions. Since Redflex manufactures the camera units, operates the back-office, processes the citations and maintains the system; this means that nothing leaves the Redflex "umbrella" and the City is secure from unwarranted legal risk and improprieties. The chain includes multiple levels of tightly integrated security including:

- ✓ Digital encryption at the point of Image Capture, including digital signature encoding to impede any possible electronic record tampering
- ✓ Violation Verification, which includes digital certifications and audit trails for each system transaction
- ✓ 128-bit encrypted Notice Authorization Module that deploys robust user management and security protocols, with explicit authentication and user access protocols
- ✓ Citation Processing which includes digital certificates, digital signatures and audit trails

Each transaction is documented, audited, certified and archived, resulting in a vertically integrated solution and permanent safeguards throughout the entire lifecycle of the enforcement process. Redflex is the only program that does not require data and images to be physically and/or electronically transferred between different vendors and/or City agencies, which result in a preserved and secure chain of custody.

The Redflex Processing Modules will also allow the City to easily institute a warning letter period that is typically from the initial 30 days from program commencement. During this warning period violators will be issued a warning letter and no fines will be assessed.

Sample Warning Letter:

**The City of Columbus**  
**RED LIGHT CAMERA ENFORCEMENT PROGRAM**

**WARNING LETTER ONLY - RED MEANS STOP**

The City of Columbus has enacted legislation authorizing cities to use automated enforcement systems to issue Citation Notices for red light traffic violations. The City of Columbus has therefore begun a photo red light traffic enforcement pilot program as a major effort to reduce the number of collisions and associated injuries and deaths due to red light violations.

The program uses automated camera systems and sensor devices to detect vehicles entering the intersection during the red light phase. The camera system is *only activated when the light is red*. Vehicles crossing the stop bar or entering the pedestrian crosswalk after the light turns red are detected automatically and the camera system records digital images of the violator, vehicle and surroundings. Each digital image of a violation is imprinted with the date, time, location, and the time into the red signal when the violation occurred.

A vehicle registered in your name was noted to be in violation of the Official Code of the City of Columbus, Ordinance #(XXX); the information below describes the vehicle photographed violating the traffic signal:

Location:	«Location»
Date of Violation:	«Date of Violation»
Time:	«Time of Violation»
License Plate #:	«License Plate»

This letter is being sent to you **as a courtesy** during the first 30 days of the program, to remind you to drive defensively, and to adhere to all traffic laws. If you violate this law after (date), you will be mailed a citation with a fine of \$70.

You do not need to respond to this letter

For more information please call Toll-free 1-877-84SAFE-T (1-877-847-2338)

3.1.8. Please describe how your company will meet Statement of Auditing Standards (SAS) 70 requirements for this project.

**Redflex Response:**

Incorporated in the State of Delaware, Redflex is in full compliance with Statement on Auditing Standards (SAS) No. 70. As a service organization, Redflex support in-depth audits of our control activities, which includes controls over information technology and related processes. Redflex provides adequate controls and safeguards, especially since we host or process data belonging to their customers.

3.1.9. Please describe how your system transfers electronic files of citation information between the CoC's court system and the offeror.

**Redflex Response:**

The Redflex System provides electronic file interfaces that enable electronic files to be downloaded to the specified Court System in an automated manner or with the utilization of an FTP site. The file transfer interface will include a seamless transfer of citation information. With in-house DBAs and Software Engineering services, Redflex will be able to ensure the effective development of specific interfaces with the City's CJIS system. Redflex currently supports seamless data integration and has developed system interfaces with 30+ court systems across the country.

3.1.10. Please describe how your system processes service of citations not responded to after the mailing.

**Redflex Response:**

Absent participation in the State of Ohio Bureau of Motor Vehicles D.E.T.E.R. system of "vehicle registration lockout", Redflex Traffic Systems has materially assisted the cities of Dayton and Toledo to pursue Notices of Liability "in default" by;

- Providing a warning on the original Notice that "Failure to pay this fine will result in a civil action against you".
- On the exact day, as prescribed by Municipal Ordinance, when the registered owner is considered "in default". Redflex automatically mails a "Notice of Default" to the recipient. This reminder is mailed regardless of whether a partial payment has been made (any remaining liability is so indicated on the letter) or the fine has been ignored in total.
- To protect against cross-mail responses by the Notice recipient, and with the approval of the CoC, Redflex will build into the system a "buffer" period which extends the legal response requirement of the Ordinance by an additional period of time, ~~e.g. if response to the Notice is 20 days by Ordinance, an addition 10 or 20 days can be added before default letters are mailed. This has proven to be successful in the Dayton and Toledo projects.~~ **THE DEFAULT PERIOD WILL BE 21 DAYS.**
- An ongoing and continually updated "Delinquent List" will be maintained and available to authorized CoC personnel in Redflex SmartOps Online Reports. Names, addresses, citation numbers of those Notices "in default"

are listed. These are the persons against whom Redflex and CoC would seek refer to a collection agent or pursue by civil action.

- Redflex will materially assist any agent of the CoC in the collection process including mailing duplicate copies of original notices for those claiming non-receipt or loss, forwarding to CoC any/all original documents and responses made by a notice recipient (records of nominations that were insufficient to process, any letter or note that portrays an attempt to respond to the original notice. Etc.)
- Should CoC choose to engage civil court as a remedy for the default of “multiple offenders”, like the City of Dayton has done, Redflex will assist in providing any photographic evidence and expert testimony needed.
- If CoC adds an interest/penalty section to the Ordinance, a fee above the stated fine amount can be added to offset the cost of collections thereby keeping the CoC fine share for a collection whole and intact.
- As archivists for the Toledo/Dayton programs, Redflex has an ongoing presence is providing documentation from which collection activity can be directed and prosecution requirements maintained. The CoC will be accorded the same privilege at no cost.

3.1.11. Please describe how your system provides court testimony of contested citations.

**Redflex Response:**

Redflex provides jurisdictions with comprehensive adjudication and court support services, including the development of a court file transfer interface, court training modules, provisions for court packages for each hearing and expert witness testimony.

~~Depending on the City's requirements, Redflex can provide both Administrative Adjudication services and support and Court services and support. This includes the scheduling of appeal hearings, training hearing panels and/or hearing officers and providing critical documentation and hearing packages.~~

For all installed systems across the U.S., Redflex has analyzed existing data and determined that less than 1% of all contested cases are dismissed. Our existing programs see a rate of between 1-3% of persons registering to contest a case in an adjudication proceeding and/or in court. These low numbers of contested cases are indicative of the high quality and high resolution of the images that are produced by Redflex cameras.

**Court/Appeal Evidence Packages**

Redflex will provide the City with a designated court/evidentiary package for each requested hearing. Court packages are jurisdiction specific, but each typically includes:

- ✓ Multiple full-color Scene Violation Images, showing the violating vehicle before entering the intersection during the red light phase, and in mid



intersection during the red light phase, with superimposed Databar showing all required violation data

- ✓ A full-color, 'zoomed-in', enlarged, license plate Image
- ✓ Complete violation data comprising the data transmittal sheets
- ✓ Statement of Technology
- ✓ Chain of Custody of the proper handling of the images along with the proper functioning of the camera system
- ✓ Other information as defined in consultation with the City and Courts including correspondence regarding the violation.

### **Expert Witness**

In addition to Court Training and Workshops tailored for court personnel such as judges, clerks and commissioners, Redflex provides each jurisdiction with a qualified and competent expert witness to testify regarding the accuracy and technical operation of the program.

3.1.12. Please describe how your system provides for a service center facility.

### **Redflex Response:**

Redflex Traffic Systems is proud to provide the City of Columbus a single control point for all customer service activities and program management at a local Customer Service Center. This center will be handling frontline customer service and our program staff will commit to providing superior customer service. This office will provide a convenient location for all customer service and customer support activities, which will be conveniently, **located within the City limits**. With resources currently in the Columbus area, Redflex has already commenced the process of securing space in the City of Columbus. We propose an office with sufficient space for an effective operation, including public areas, ~~and hearing rooms~~. To ensure effective staffing for all support services, Redflex proposed several customer service staff plus a manager. Specific customer service requirements that will be provided from the Customer Service Office will include:

### **Customer Service & Complaint Handling**

Redflex recognizes that excellent customer service is critical to a successful program and each of our customer service representatives completed the rigorous training on a proven Customer Service Methodology, which ensures that all Customer Service Representatives adhere to strict standards that will exceed the City's expectations. Our local presence will provide the City and its citizens with a high level of comfort through the deliverance of unparalleled customer service.

### **Complaint Handling**

All citizen complaints and inquiries are logged into the central complaint tracking system for handling by the appropriate staff member and other inquiries involving policy issues are referred to City staff. If the issue is not addressed within 48 hours, the program automatically notifies the project manager; if not addressed

within 72 hours corporate managers are notified. The project manager and assistant manager review the inquiries weekly to ensure that the issues are resolved appropriately.

### **Customer Service Training**

Because Redflex customer service professionals are often the first point of contact for residents and visitors to the City of Columbus, ensuring that our staff is fully trained in delivering superior customer service is critical to your satisfaction. All employees of Redflex undergo extensive orientation and training, not only in performing their duties, but also in dealing with the public in a friendly and professional manner.

Redflex will provide the City with access to a local management team 24x7. The Redflex project manager will always be accessible by cell phone. Additionally, the Redflex partnership will ensure to meet and/or exceed the City's expectation for the vendor to resolve 98% of all citizens' inquiries.

### **Local Program Supervision**

With the development of a local office in the City of Columbus, Redflex will provide local supervision of the program. We expect our operation to blend well with that of the City with supervision over many critical activities, which includes, but is not limited to:

- ✓ Local Customer Service and Complaint Handling
- ✓ Payment Handling
- ✓ Adjudication & Court Coordination and Support
- ✓ Maintenance Coordination

3.1.13. Please describe how your system will provide reports to CoC and describe those reports

#### **Redflex Response:**

The Redflex System provides a comprehensive statistics packages and numerous standard reports. Each report can be easily accessed on-line via the Internet. The powerful Oracle relational database underpinning SmartOps/WebOps report generation function allows extensive management reporting to the City and system managers.

Monthly reports will provide detailed enforcement program data including:

- ✓ Violation records: the number of violations detected (by site); the number of violations imaged; the number of images processed; violation types
- ✓ Citations issued
- ✓ Rejected violations processed by reason including:
  - Unit malfunction
  - ~~Failed driver identity~~
  - Illegible plate
  - Missing plate(s)
  - Third party obstruction (by common type)
  - Marred/dirty plate

- Bad DMV record
- And other categories as practical
- ✓ The number of vehicles monitored
- ✓ Maintenance, bug & downtime logs
- ✓ Date/time ranges (including turnaround between violation and ticketing)
- ✓ Detailed phone account
- ✓ Appointments scheduled/held
- ✓ Court hearings scheduled/held
- ✓ Citation status/dispositions
- ✓ Hours of operation

Reports may be displayed on a monitor via secure Internet access or printed for supply to the City. With the web-based reports, selected City management can create reports to assist with management or policy decisions. Redflex maintains database reporting systems and statistics modules that are capable of providing detailed information regarding every component of the programs performance.

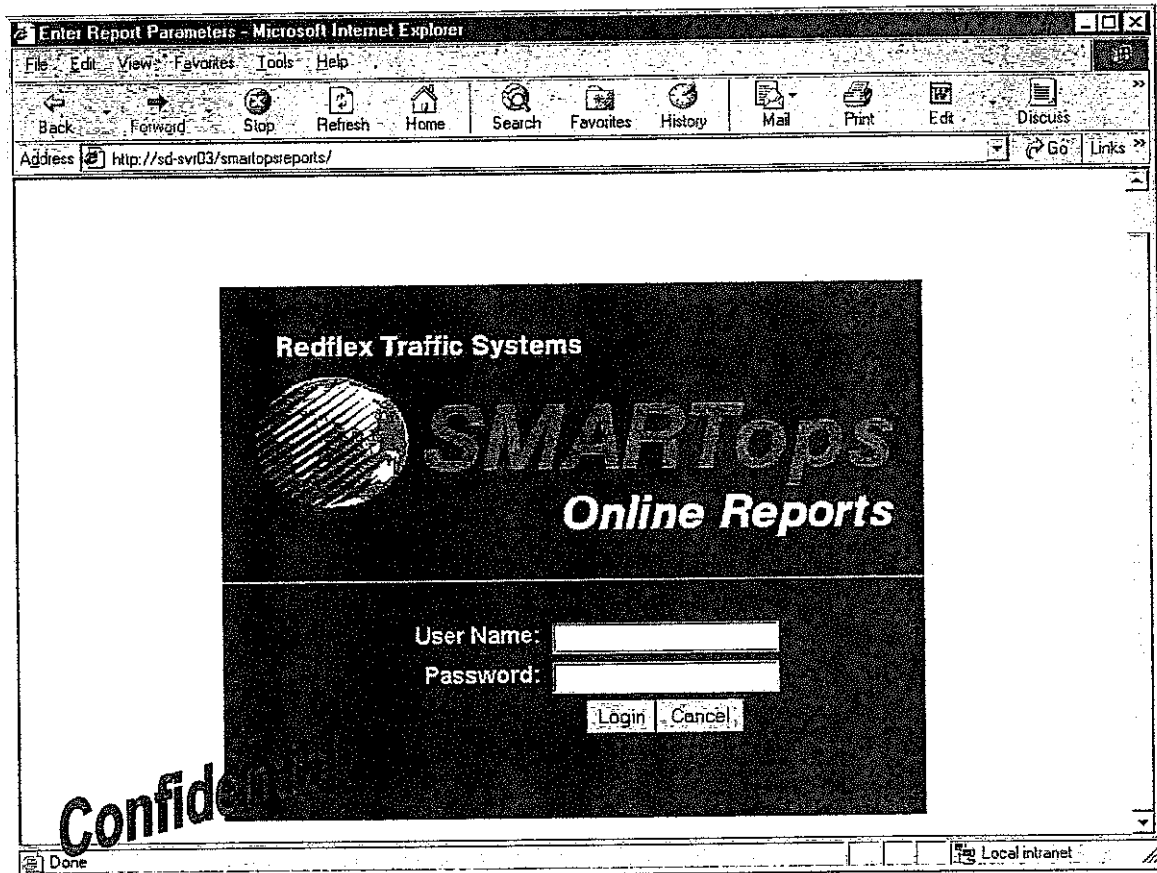
The Redflex Program includes very robust querying and reporting capabilities. Utilizing on web-based interface and robust user management protocols, various City agencies will be access mission critical information.

### **Management Reporting**

The Online Reports module is the tool used to obtain the intersection history.

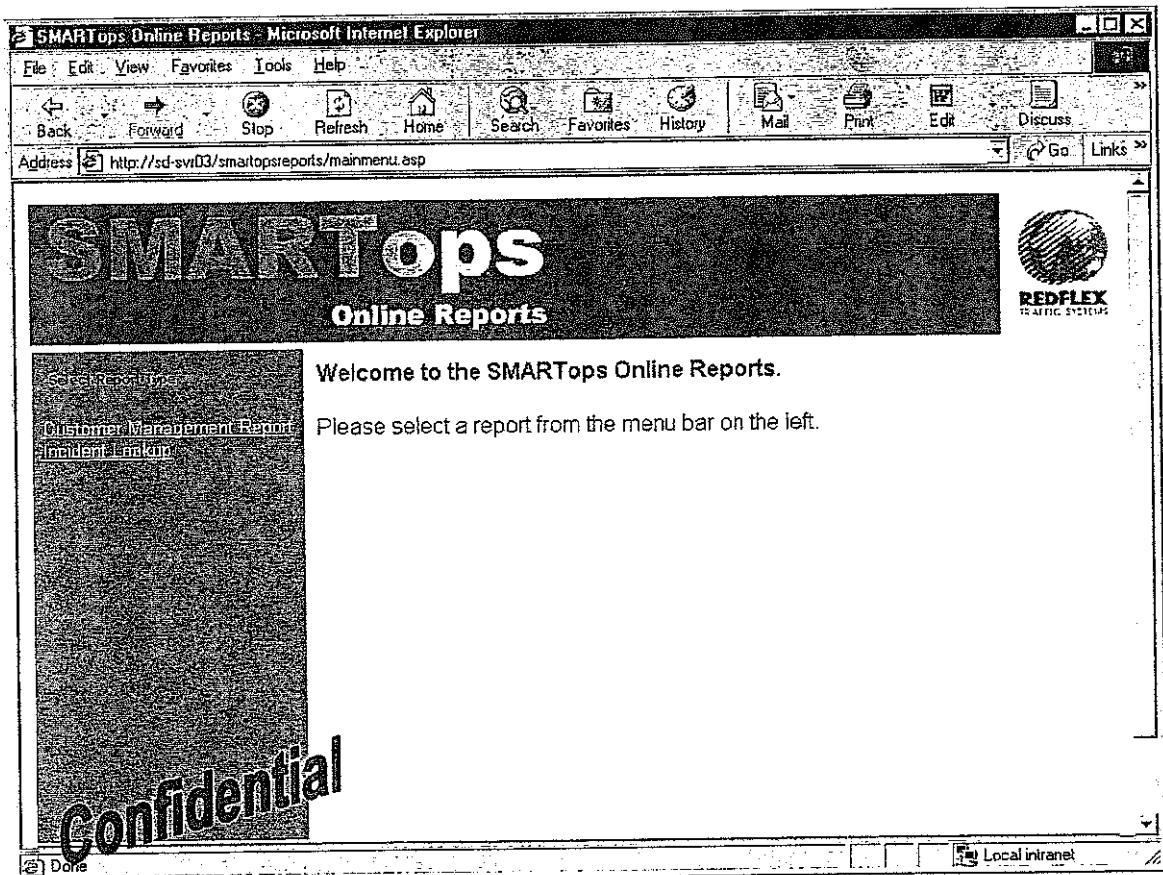
### **Online Reports**

Select "Online Reports" from the first screen to bring up the following screen:



Enter your user name and password. Then, select the "Login" button.

If you have logged in successfully, you should see the following report selection on the left-hand side of the screen:



- The Customer Management Report features detailed information pertaining to the number of violations, the number of violations that have been rejected, as well as the number of notices printed by intersection.
- The Incident Lookup Report provides the ability to search for incidents based on date ranges and location.

## Customer Management Report

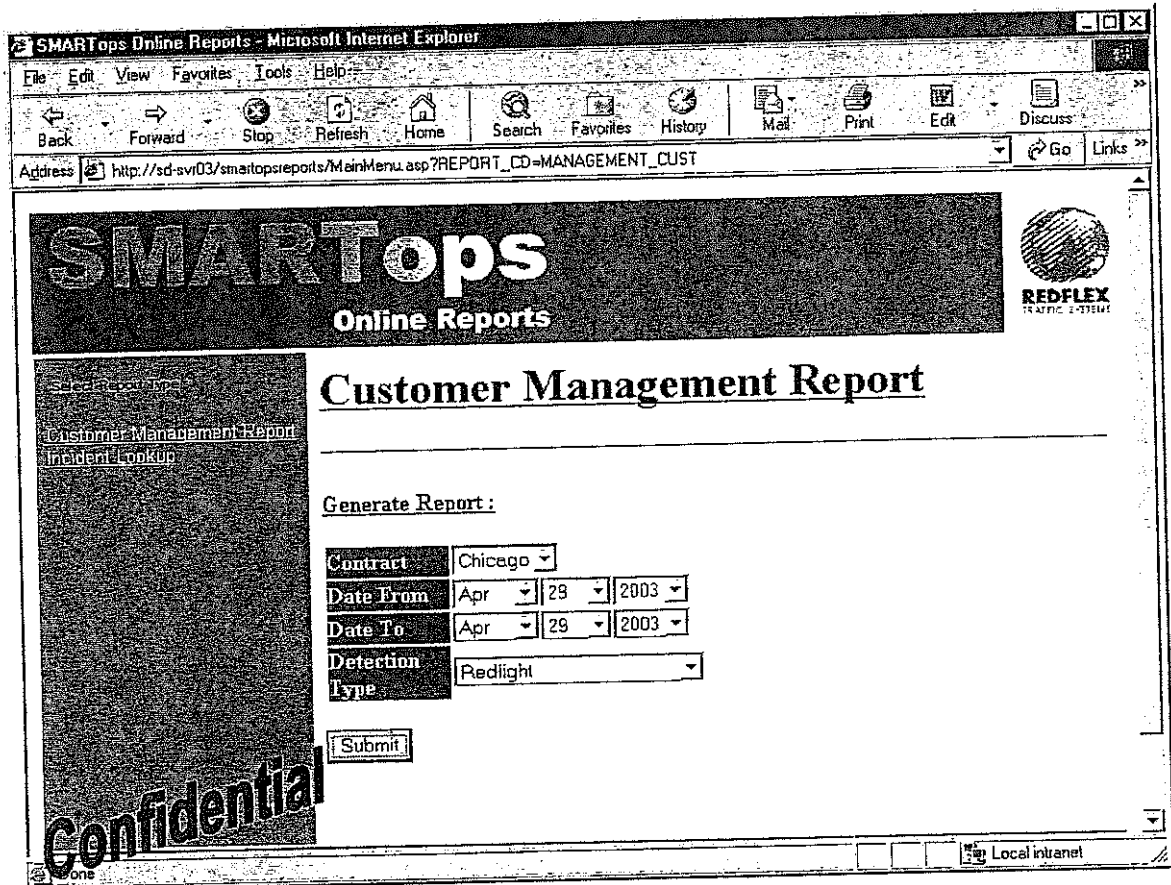
After selecting the Customer Management Report, the following screen is displayed:

The screenshot shows a Microsoft Internet Explorer browser window displaying the SMARTops Online Reports application. The address bar shows the URL: [http://sd-svr03/smartopsreports/MainMenu.asp?REPORT\\_CD=MANAGEMENT\\_CUST](http://sd-svr03/smartopsreports/MainMenu.asp?REPORT_CD=MANAGEMENT_CUST). The page features the SMARTops logo and the REDFLEX TRAFFIC SYSTEMS logo. The main heading is "Customer Management Report". Below this, there is a "Generate Report:" section with several dropdown menus: "Contract" (set to "Contract"), "Date From" (Month, Day, Year), "Date To" (Month, Day, Year), and "Detection Type" (set to "Detection Type"). A "Submit" button is located below these fields. A large "Confidential" watermark is overlaid on the bottom left of the page. The browser's status bar at the bottom indicates "Local intranet".

This screen is used to enter the parameters required to generate the report. The "Date From" and "Date To" parameters are the range of dates and times that the violations occurred. If you want to know the numbers for a given day, the "Date From" and "Date To" will be identical. The "Detection Type" parameter is used to determine which type of violation you want. Redflex Traffic Systems has customers with the capability of capturing red-light violations, fixed-speed violations, and/or speed-van violations.

After you have selected the parameters to generate the report, enter the "Submit" button to view the report.

Here is an example of this screen with the search criteria entered to retrieve Historical violation details from the April 29<sup>th</sup> 2003.



To view the report, select the "Submit" button.

You will see a screen similar to the following screen, which shows two locations currently on-line with a total of 33 violations for April 29<sup>th</sup> 2003. Since April 29<sup>th</sup>, the City of Chicago has expanded to over 20 locations currently "live" and 20 more undergoing installation.

**Customer Management Report (Chicago) Redlight Incidents**  
29-Apr-2003 to 29-Apr-2003

	DR-SWIFT	DR-WISDOT	TOTAL
Total Violations	23	10	33
<b>Less Uncontrollable Factors</b>			
Obstruction	0	1	1
Registration	2	0	2
Issues	2	1	3
<b>Total</b>	<b>21</b>	<b>9</b>	<b>30</b>
Sub Total Violations	20	9	29
Less In Progress	1	0	1
Available for Prosecution			

**confidential**

Reports Menu

Use the printer icon above the "Preview" tab to print the entire report. Use the envelope icon to export the information on the report to an Excel spreadsheet or Word document.



## Incident Lookup Report

After selecting the Incident Lookup Report, the following screen is displayed:

The screenshot shows a Microsoft Internet Explorer browser window displaying the SMARTops Online Reports application. The address bar shows the URL: [http://sd-svr03/smartsreports/MainMenu.asp?REPORT\\_CD=LOOKUP](http://sd-svr03/smartsreports/MainMenu.asp?REPORT_CD=LOOKUP). The page features the SMARTops logo and the REDFLEX TRAFFIC SYSTEMS logo. The main heading is "Incident Lookup Report". On the left, there is a sidebar with a "Select Report Type" section containing links for "Customer Management Report" and "Incident Lookup". The main content area is titled "Generate Report:" and contains the following form fields:

- Contract:** A dropdown menu with "Contract" selected.
- Date From:** A series of dropdown menus for Day, Month, Year, Hour, and Minute.
- Date To:** A series of dropdown menus for Day, Month, Year, Hour, and Minute.
- Location:** A dropdown menu.

Below the form fields is a "Generate Report" button. A large "Confidential" watermark is overlaid on the bottom left of the page. The browser's status bar at the bottom shows "Done" and "Local intranet".

The "Date From" and "Date To" are used to enter the specific range of dates and/or times that you want to retrieve incidents for. The "Location" is a drop-down menu with all valid locations by approach. You also have the ability to "Select All" to give a list of all incidents for all locations for the date range specified.

Here is an example of this screen with the search criteria entered. You will see a screen similar to the following:

**INCIDENT LOOKUP REPORT**

**Chicago**

<u>INTERSECTION</u>	<u>INCIDENT_NO</u>	<u>CITATION_NO</u>	<u>LOCATION_CODE</u>	<u>DETECTION_DATE</u>
CG-55WE-01	1577		IL001	27-Apr-2003 0:33
CG-55WE-01	1582		IL001	27-Apr-2003 0:57
CG-55WE-01	1583		IL001	27-Apr-2003 1:02
CG-55WE-01	1584		IL001	27-Apr-2003 1:02
CG-55WE-01	1585		IL001	27-Apr-2003 1:36
CG-55WE-01	1586		IL001	27-Apr-2003 2:01
CG-55WE-01	1587		IL001	27-Apr-2003 2:22
CG-55WE-01	1578		IL001	27-Apr-2003 3:24
CG-55WE-01	1579		IL001	27-Apr-2003 4:21
CG-55WE-01	1581		IL001	27-Apr-2003 4:38
CG-55WE-01	1615		IL001	27-Apr-2003 5:20
CG-55WE-01	1810		IL001	27-Apr-2003 5:34
CG-55WE-01	1817		IL001	27-Apr-2003 5:49
CG-55WE-01			IL001	27-Apr-2003 6:01

**Confidential**

Done Local intranet

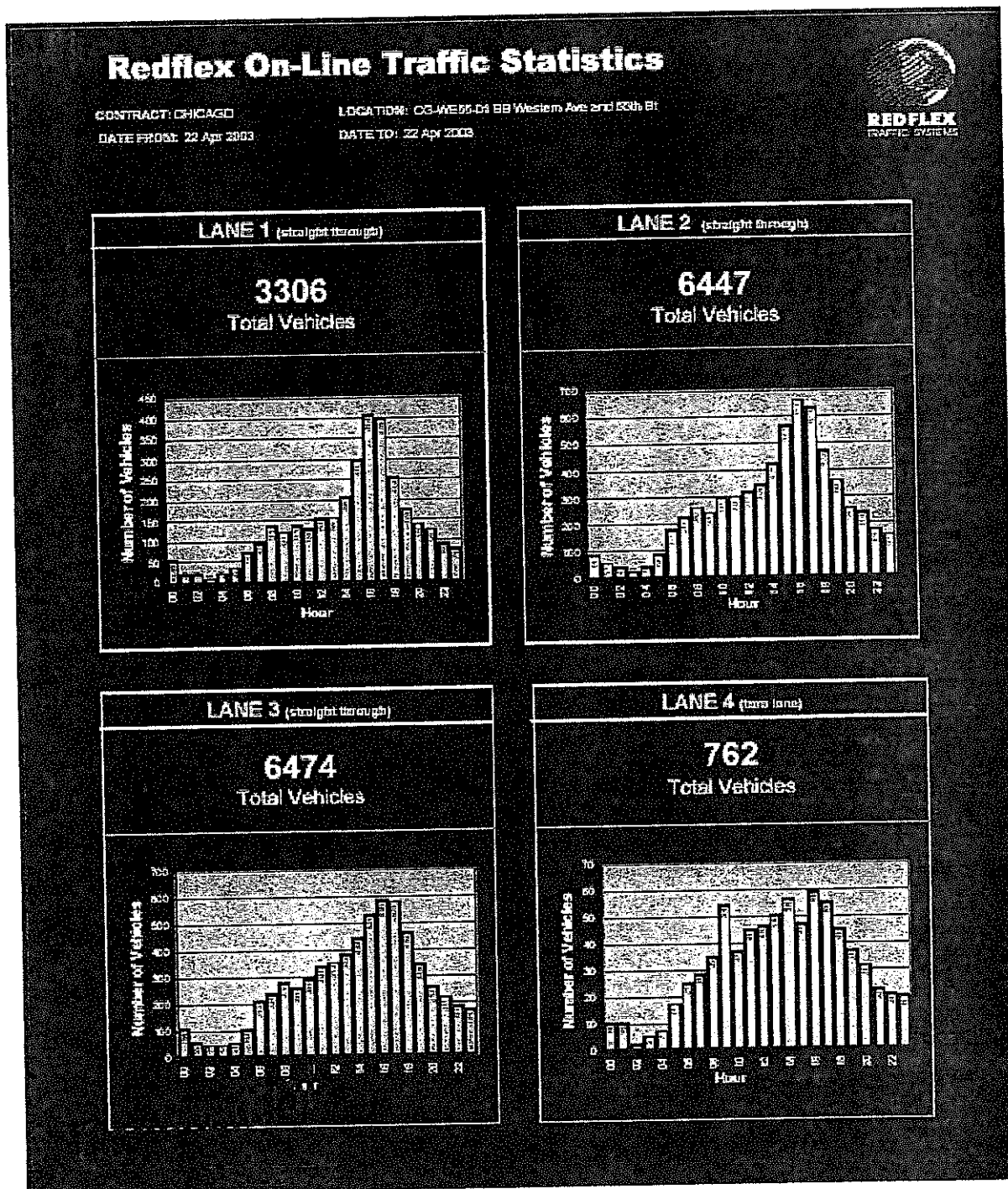
Use the printer icon above the "Preview" tab to print the report. Use the envelope icon to export the information on the report to an Excel spreadsheet or Word document.

### Statistical Reporting

Redflex is pleased to introduce the industry's only **real-time traffic and violation statistical reporting tool**. This tool can provide the City with a large variety of important traffic management and violation statistics, which can be represented through various easy to read graphs and charts.

### Sample Traffic Volume Statistical Graph

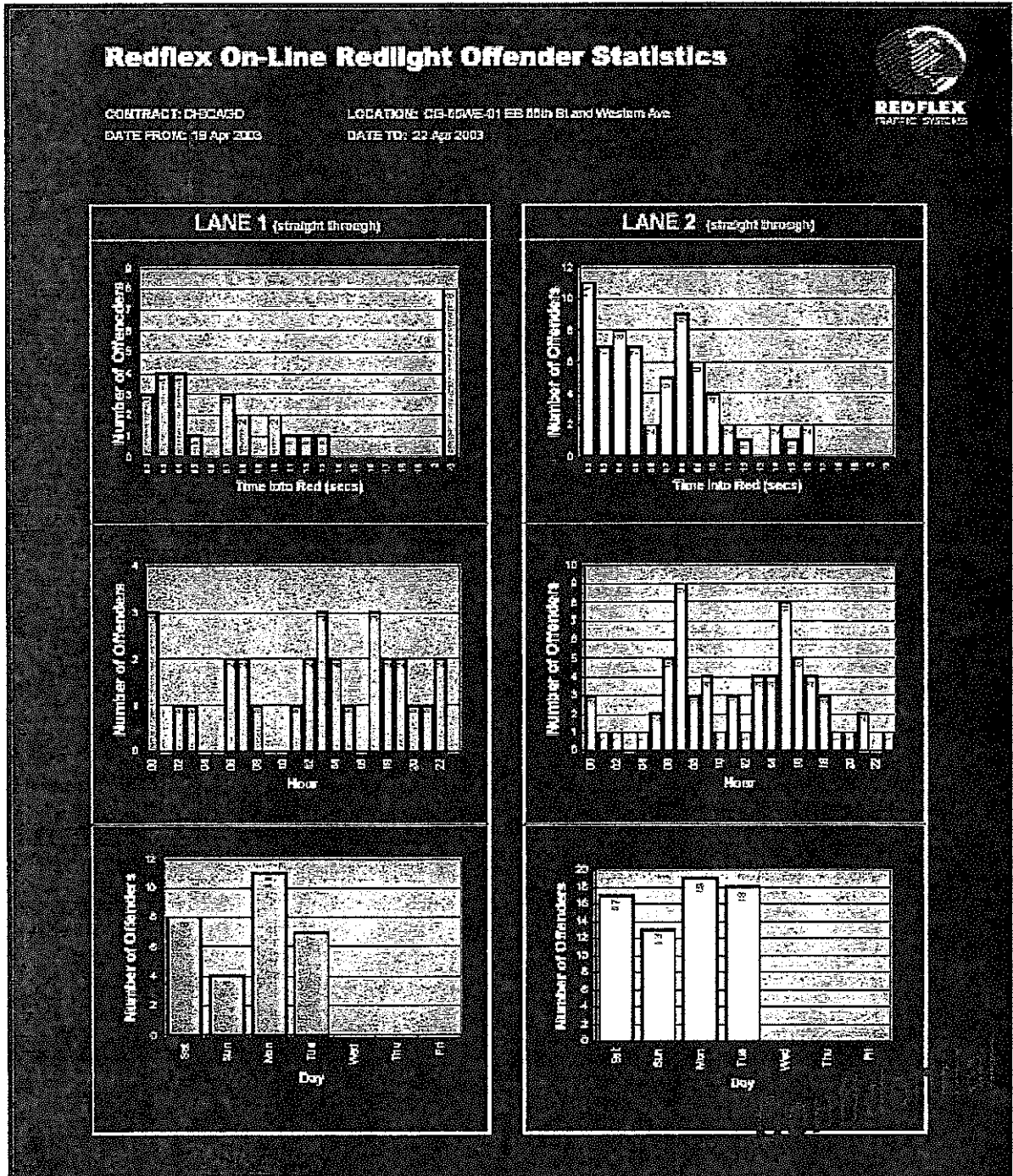
The Redflex Program provides "real-time" intersection and traffic statistics. The table below provides information about vehicle volume by lane of traffic and time



of day.

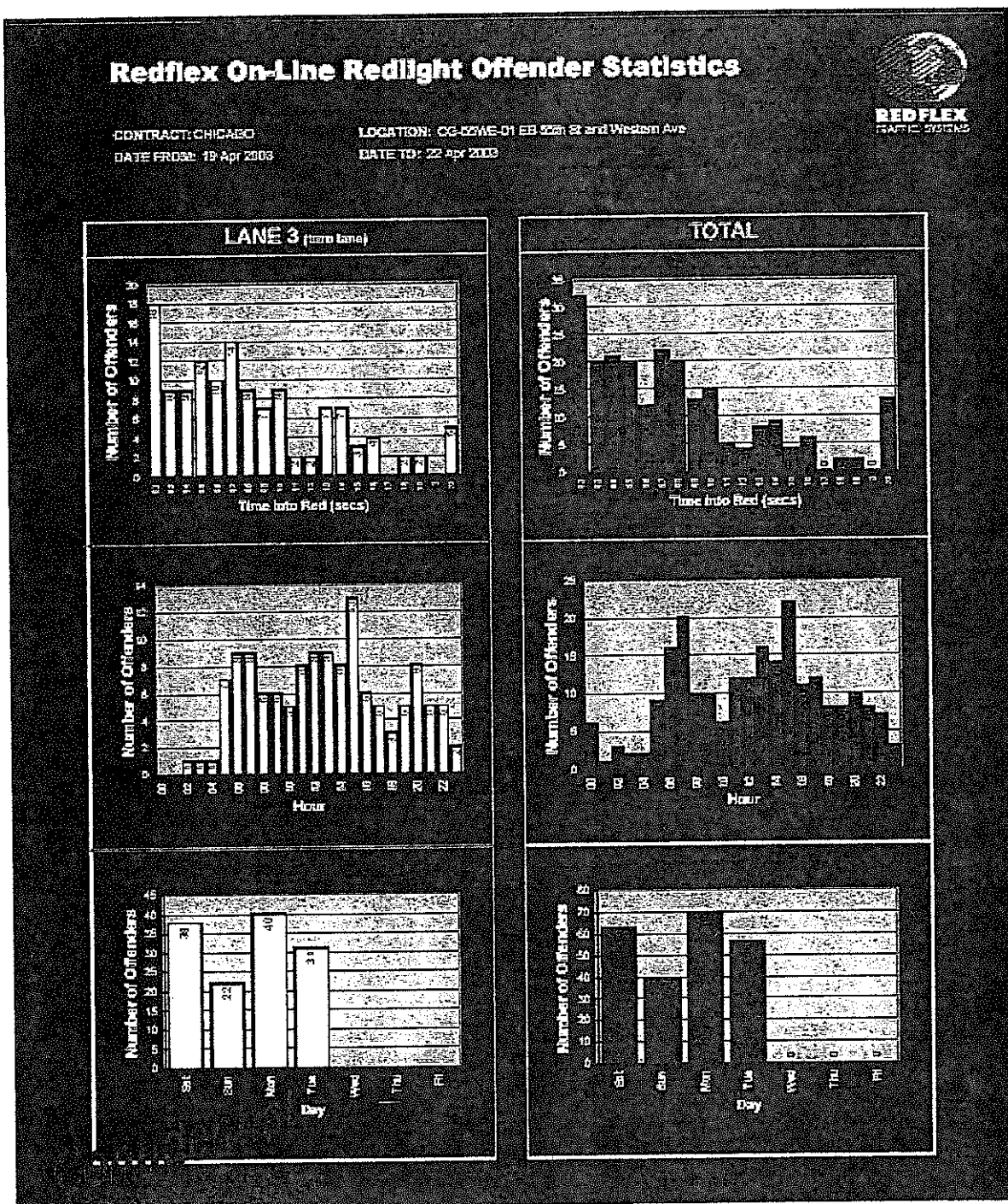
### Sample Violation Statistical Graph

The Redflex Program provides "real-time" red light running & violation statistics. The table below provides information about violation volume by lane of traffic by time of day and by day of the week.



### Sample Violation Statistical Graph II

The table below provides information about violation detail, outlining how many milliseconds into the red phase a violation occurs by lane of traffic and by hour of the day.



- 3.1.14. Please provide detailed information on your service level agreements for maintenance, installation, de-installation, repairs and response.

**Redflex Response:**

Redflex Traffic Systems provides maintenance services that are available to the City of Columbus by providing a comprehensive multi-tiered approach. Through pre-emptive & on-site maintenance, daily remote systems checks and software maintenance and support, Redflex ensures optimal system performance.

- ✓ **Pre-emptive Maintenance:** Redflex's Smartcam™ technologies allow for download of systems diagnostics for scheduling of preventive maintenance on a daily basis.
- ✓ **Remote-status checks** on each installed camera system to be conducted by fully qualified Redflex Technicians.
- ✓ **Remote Software maintenance and support** to be provided by the Redflex team of professional software and hardware engineers.

**Pre-emptive Maintenance**

Periodic maintenance inspections are performed to ensure potential problems are identified before a malfunction occurs. Pre-emptive maintenance is executed each time a technician responds to perform **any** maintenance function during on-site visits. These maintenance functions will be performed only **after** Redflex notifies the City of its intent to do work at the site.

Pre-emptive maintenance includes but is not limited to:

- ✓ Cleaning the camera enclosure glass
- ✓ Inspect the cabinet for signs of leakage, wear and/or damage and clean as necessary
- ✓ Inspecting cables, connectors and hardware for signs of wear or damage
- ✓ Inspecting poles, bases and enclosures for signs of damage and to ensure proper alignment
- ✓ Inspecting detection devices
- ✓ Testing cabinet safety devices for proper operation to ensure safe working conditions for maintenance personnel and the general public in the case of an accident that could expose the public to operating voltages

Each site will be visited on a routine basis to perform pre-emptive maintenance at a minimum.

Pre-emptive maintenance tasks will be documented in the intersection maintenance log for every inspection being performed. Entries will include:

- ✓ Date and time inspection performed
- ✓ Technician performing inspection
- ✓ Results of the inspection
- ✓ The next scheduled maintenance inspection due date

- ✓ Reason for inspection (i.e. scheduled or as a result of other maintenance)

Pre-emptive maintenance inspections will be performed on a rotational basis to ensure each site is visited within a specified time. This will be accomplished by scheduling the next minimum maintenance period based on the last date an inspection was performed. If a technician responds to an outage he will conduct the periodic inspection during this visit and the next scheduled inspection would be revised based on specifications. This pre-emptive maintenance program will be monitored and scheduled by the Lead Technician; Redflex Maintenance Technicians and trained local support teams authorized to perform maintenance in accordance with established maintenance agreements.

### **Remote Status Checks**

Remote status checks consist of two distinct segments; daily operational and quality checks, which together provide positive, near real time, and daily operational feedback that the system is functioning properly and producing the desired results.

### **Daily Operational Checks**

The central server automatically downloads digital violation images from the camera locations in the City to designated Redflex servers. From this automated reports are generated by the system and reported to the System Engineer, the Production Support Administrator, the Camera Systems Analyst and the Technician Supervisor. These key individuals evaluate the daily activity of the intersection cameras and the central server to determine if there are any anomalies in the data provided.

The daily operational systems checks are performed on each individual camera and are accessed remotely via the system's computers through the secure, high-speed communication connection. The systems checks as described below include verifying that the system parameters are properly configured, verifying that software settings are accurate, confirming that the download folder is properly configured, authenticating that the detection system is exhibiting proper activity and signaling sequencing, and completing a real life offence simulation (usually triggered during a green phase) to validate it is capturing images successfully.

System parameters that are verified include:

- ✓ The camera has a valid certificate to ensure it is authorized to process encrypted information
- ✓ The enforcement mode is enabled and in the correct mode
- ✓ The enforcement mode is set to the proper application
- ✓ The amnesty period (time in the red phase at which point the cameras can capture offenders) is properly configured
- ✓ The detection device that interfaces to the external input signals at the intersection is configured and functioning correctly



- ✓ Each lane enforced has the appropriate image capture settings configured to capture the offending vehicle at the appropriate time during the violation, and that it is set to the correct enforcement mode

The software settings are checked for accuracy, these setting include:

- ✓ The speed limit is selected to be imprinted on the violation
- ✓ The data block has accurate information identifying the proper location, machine identification and software version used
- ✓ The individual camera's aperture, focus, zoom and exposure are properly configured for each individual camera

The download folder is the place in the camera system where offence files are stored locally until the import server housed at the Redflex Operations Center successfully downloads them. It acts as a temporary storage facility at the intersection that can handle up to 5000 offence files. This folder is checked to ensure proper connectivity to the importer server at the Redflex Operations Center by verifying:

- ✓ The software is configured to place the offence files in the proper file folder location
- ✓ The file folder location has the correct security access and is accessible to the import server

The detection systems are checked for proper activity and signaling sequencing:

- ✓ Ensure the detection device is communicating with the main camera system
- ✓ Ensure red and green phase indications are represented for each signal phase change. Still images can be captured in real time remotely to verify that the phase message received from the detection device corresponds to the phase shown in the live still image taken
- ✓ Ensure each lane being monitored by the detection device has the appropriate number of messages to capture an offending vehicle

A Real Time offence simulation system check is performed during the "green phase" of the signaling to verify proper operation and sequencing of image sets. This final check simulates an offense to verify all system parameters, including image capture and encryption packaging is functioning properly.

### **Daily Quality Checks & Issue Tracking**

Images are viewed by the Violation Processing Department as they are downloaded by the system and processed to be forwarded to the City for authorization. If a Processing Associate discovers a quality problem such as an image being blurry, camera alignment is not correct or the video is not functioning properly, they log the malfunction on an internal website, which is monitored by the Technical Services Department. The Camera Systems Analyst (CSA) monitors the website during the day to accept inputs from the Processing Associates, performing initial evaluations on the validity of the submitted reports,



and logs them as discrepancies in the maintenance log as needed. This helps to ensure timely repair by a member of the Technical Services Staff.

Once the discrepancies are logged, the CSA develops a work order to be assigned to the Technician responsible for handling the City's system issues. The work order provides a means for tracking open and resolved issues as well as providing a means to track on-going system issues and to identify opportunities for system enhancements.

When the Maintenance Technician is assigned the work order, they perform any remote repair activities as previously discussed to remedy the problem. If at any time the problem cannot be resolved via the remote capabilities previously described, the work order is turned over to the local repair facility to repair the problem at the intersection or the Technician is deployed to the site to resolve issues that may be outside the scope of services performed by the local facility.

#### **Emergency versus Non-Emergency System Issues (Service Levels)**

Redflex has primary responsibility for the daily operation of the systems, including a maximum two (2) hour response time to maintenance issues identified as any fault that renders the system unable to perform its absolute necessary functionality. However, when issues arise that may impose a limit on the system's capabilities or which may cause the City a slight inconvenience, Redflex handles those concerns in an equally expedient manner.

To assist the City in defining the category and how issues will be addressed, Redflex uses the following Fault Definitions:

**Fault** means anything, which does or could result in the supported system not performing in accordance with the specified functionality.

1. **Category 1 fault** means a Fault, which renders the system unable to perform absolutely necessary functionality, such as a power outage or when a vehicle crashes into a pole and knocks it over.
2. **Category 2 fault** means a Fault which is not a Category 1 Fault, but which imposes limits or restrictions on use of important functionality of the system, such as a flash is burned out or one camera is not working or one lane is not responding during the remote check.
3. **Category 3 fault** means a Fault which is neither a Category 1 or 2 Fault, but which may cause City to suffer inconvenience in performing regularly used functions of the system such as the communication company changes the I.P address without advising Redflex of the change, which causes the images to be stored at the intersection until communication is reestablished (i.e., delays image processing and the ability to access the streaming video component).
4. **Category 4 fault** means a Fault which is neither a Category 1, 2 or 3 Fault, such as a dark image.

## Response Times

Once the fault has been identified the response times for the faults as described above are as follows:

1. For a Category 1 Fault, response by Redflex within 2 hours
2. For a Category 2 Fault, response by Redflex within 5 hours
3. For a Category 3 Fault, response by Redflex within 1 working day
4. For a Category 4 Fault, response by Redflex within 2 working days (Redflex is typically dependent on the **local communications service provider** that will only commit to having the communication issue resolved within 48 hours)

*5. TOTAL DOWN TIME FOR 1 THRU 4 WILL BE UPON CITY'S RESPONSE.*

## Support Obligations of Redflex Traffic Systems: Overview

As outlined, Redflex Traffic Systems shall ensure that trained and capable staff is available to the City to provide hardware and software support for the duration of the contract, which includes support services that are easily accessible during normal City business hours and are in accordance with the City's specific desired response times and service levels. Technical and programmatic consultation and assistance may include:

- ✓ Emergency remote and/or on-site technical support to assist the City in the isolation of catastrophic hardware and/or software problems
- ✓ General telephone, email and facsimile hardware and/or software support assistance
- ✓ On-site support, where such support is necessary to resolve specific problems
- ✓ On-site and remote support for all programmatic malfunctions and system debugging
- ✓ Processing of City software/documentation bug reports. Provision, upon request, of status reports of such processing
- ✓ Software testing to ensure no regressions in operational status occurs as a result of the support activities
- ✓ Configuration management of Redflex provided software
- ✓ Notification and provision to City of available program upgrades, when such upgrades are available for general release
- ✓ Change Requests for software changes will be quoted on, in a timely manner
- ✓ File Transfers (FTP): The Redflex System is built on Oracle and integration is fairly straightforward. Specifically, Redflex has already developed and implemented file transfer protocols with a variety of City agencies and court systems across the United States. Redflex programmers and database administrators will work directly with the City IT department to ensure effective system integration and file transfers.



In addition to remote and on-site maintenance and configuration for the Redflex camera units and software, the Redflex System provides an effective means for

Redflex operators to continuously maintain and monitor traffic volumes and other pertinent Violation Detection System tests and safeguarding.

### Sample Screen Shot of Violation Detection System Monitoring

The screenshot displays the SMARTCam Console interface for station FR-FRMD-01. The main window is titled 'SMARTCam Console - FR-FRMD-01' and includes a menu bar with 'Location', 'Camera', 'Misc', 'View', and 'Help'. A left-hand menu lists options such as 'Configuration', 'Audit Log', 'Live View', 'Next Vehicle's', and 'Statistics'. The central area features tabs for 'Enforcement', 'Security', and 'Data Storage'. The 'Enforcement' tab is active, showing 'Active Enforcer' as 'Redflex Traffic Systems Site Controller' and 'Enforcement Mode' as 'Redlight'. Below this, there are sections for 'General', 'Collision Avoidance', 'Data Block', 'Site Controller', 'Debug', 'File Transfer', 'Slave Camera', and 'Lane Configuration'. A 'Live Output' section is checked and displays a table of data. The right-hand side of the console features a large table with the following columns: Lane, Type, Phase, Phase Duration, and Speed. The table contains 18 rows of data, including lane numbers (1, 2, 3, 4), types (A, B, P), phases (G, R), phase durations, and speeds (40, 44, 13, 0.0).

Lane	Type	Phase	Phase Duration	Speed
✓ 1	A	G	18.4	40
✓ 1	B	G	19.0	40
✓ 1	A	G	20.5	41
✓ 1	B	G	21.2	41
✓ 2	A	G	22.4	44
✓ 2	B	G	22.9	44
✓ 2	P	R	0.0	
✓ 1	P	R	0.0	
✓ 4	P	R	0.0	
✓ 3	P	R	0.0	
✓ 1	A	R	32.2	13
✓ 2	A	R	33.5	13
✓ 2	P	G	0.0	
✓ 1	P	G	0.0	
✓ 4	P	G	0.0	
✓ 3	P	G	0.0	

- Please describe how you will be able to locally manage our project on a day-to-day basis (attend meetings, deal with problems, make expeditious decisions, etc).

**Redflex Response:**

Successfully implementing, deploying and maintaining 100's of all-digital red-light camera systems in over 50 municipalities across the United States, Redflex Traffic Systems has successfully developed a proven, tried and battle-tested program methodology based operational best practices that ensures program success for many years to come. In utilizing a structured approach that has been developed and fine-tuned through years of experience, Redflex Traffic Systems will be able to provide the City of Columbus a world-class photo enforcement program that will meet the City's aggressive timelines and exceed program objectives and expectations.

The Redflex Project Management Team is committed to delivering a rapid and efficient program implementation with seamless transitions from implementation to on-going operations that helps make certain the City of Columbus will achieve its targeted safety objectives and financial return on investment. The Redflex Project Management Team will help the City plan, design, implement and manage a comprehensive automated red light enforcement program. As mentioned, at the heart of our Program Management services is the Redflex Methodology, which includes proven, straightforward processes and tools that make red light enforcement system implementations a low risk, highly effective proposition for the community of Columbus. The methodology approaches implementation in well-defined, manageable phases, which enables rolling out systems over discrete intervals and targets with the first actual transaction in less than 45 to 60 days; which is truly industry leading.

As mentioned, the Redflex Program Management Methodology approaches program implementation in well-defined, manageable phases and targets to achieve full system functioning within the City's desired timelines. Our extraordinary track record for meeting aggressive goals demonstrates the value and pride each Redflex employee assigns to exceeding the customer's expectations and timelines. To meet aggressive timelines, our teams of seasoned professionals are well trained on the Redflex Methodology. Our proposed implementation schedule and timelines will be refined as we work with City Departments and Planners and will be subject to approval by the appropriate city officials. The Redflex Methodology offers a proven 5-step approach, including (1) Kick-Off, (2) Analysis & Design, (3) Installation & Configuration, (4) Testing & Deployment and (5) Support & Maintenance.

Upon successful execution of the contract, Redflex will promptly transition to a project management mode, upon which, the designated program manager will commence Phase I: Project Kick-Off activities. Due to the scope, magnitude and importance of working with the City of Columbus, Redflex would like to

demonstrate our commitment through the allocation of our Vice President of Operations, Ms. Karen Finley as the program manager to ensure the City of Columbus achieves its objectives and expectations.

### **Program Manager**

As mentioned, due to the scope and strategic importance of working with the City of Columbus, the designated senior lead for this specific project will be Karen Finley. Karen Finley, Vice President of Operations, will assume overall responsibility for delivery of Program Management Services to the City of Columbus. Karen has nearly 10 years experience in photo red light enforcement programs and has been directly involved with the Program and Project Management activities of dozens of projects across the United States.

Ms. Finley is responsible for the management of all Redflex Traffic Systems contract services and operations delivered throughout the lifetime of the contract. She heads an experienced operations team of over 100 resources and her specific responsibilities include:

- ✓ Implementation support for new photo enforcement contracts
- ✓ Management of ongoing transaction processing for Redflex Traffic Systems' U.S. photo enforcement contracts according to their specific business requirements including notice production, revenue enhancement, cost control and client reporting
- ✓ Management of field support services for speed and red light enforcement programs

Ms. Finley is nationally recognized as a subject matter expert in the field of photo enforcement and is a very sought after speaker on the topic who regularly addresses a variety of industry groups.

Ms. Finley has a strong background in process reengineering, IT, delivery and management of client services with emphasis on cost effectiveness, consistency, quality, accuracy and performance to standards that are within budget and on schedule. These skills are directly relevant to her contract management role at Redflex. Immediately prior to joining Redflex, Ms. Finley was the Director of Operations for a major insurance provider heading a team of 200 employees.

### **Principal Staff (Intersection Analysis, Design & Installation)**

#### **Project Manager**

The Project Manager is responsible for the success of the implementation. This individual plans, directs and coordinates all activities related to the technology implementation. Direct responsibilities include: project plan development, timelines and goal specification, staffing & scheduling, contingency plan development and resource allocation. This individual directs and coordinates project personnel, coordinates project activities with appropriate government agencies and resources and tracks project progress and results. The Project Manager dedicated to the City of Columbus will be Joe Bernard. Mr. Bernard has

been with Redflex for over 8 years and has successfully implemented programs in dozens of cities, including Toledo and Dayton Ohio.

### **Construction Manager**

Ensures all required planning, engineering, and construction activities are approved and managed for each applicable intersection. Working closely with Public Works and other pertinent City Departments, this individual is responsible for equipment implementation and installation activities, including management of sub-contractors. The Construction Manger is responsible for site plan, drawing and specification preparation, the sub-contractor bid process and overall inspection and compliance to customer specifications of construction activities. The Construction Manager dedicated to the City of Columbus is Joe Tromba. Mr. Tromba has over 15 years experience in construction and engineering management. Mr. Tromba has a bachelor's degree in electrical engineering, an MBA and a post graduate certificate in International Banking and Finance. Prior to joining Redflex Traffic Systems, he held senior positions at Verizon Communications, Cox Communications and was owner of C&C Communications, an Engineering and Construction firm. Mr. Tromba is an expert in engineering & design, account management, construction management, and NEMA Standards. Mr. Tromba has extensive skills in managing complex projects and coordinating with several entities. Mr. Tromba has experience managing photo red light enforcement programs in multiple cities across the United States.

### **Field Installation & Maintenance Supervisor**

This individual installs and maintains computer controlled digital camera equipment and associated hardware. The Field Supervisor plans and conducts site surveys, camera unit installation and testing, and on-site/off-site system maintenance, including installs, diagnostics and upgrades. The Field Supervisor dedicated to the City of Columbus is Tony Parrino. Tony has over 5 years of experience with Redflex Traffic Systems and he supervises a seasoned team of technicians who have successfully serviced 100's of photo enforcement systems across the United States. Retired from the Air Force with 20 years experience as a Communications Field specialist, Mr. Parrino has developed a keen understanding of the client issues involved in planning, executing and managing a major photo enforcement program. With years of experience in air traffic control and close involvement with Air Force Security Police, Mr. Parrino brings a unique blend of interpersonal, practical and technical skills and commitment to his work in implementing effective client solutions for improved Public Safety.

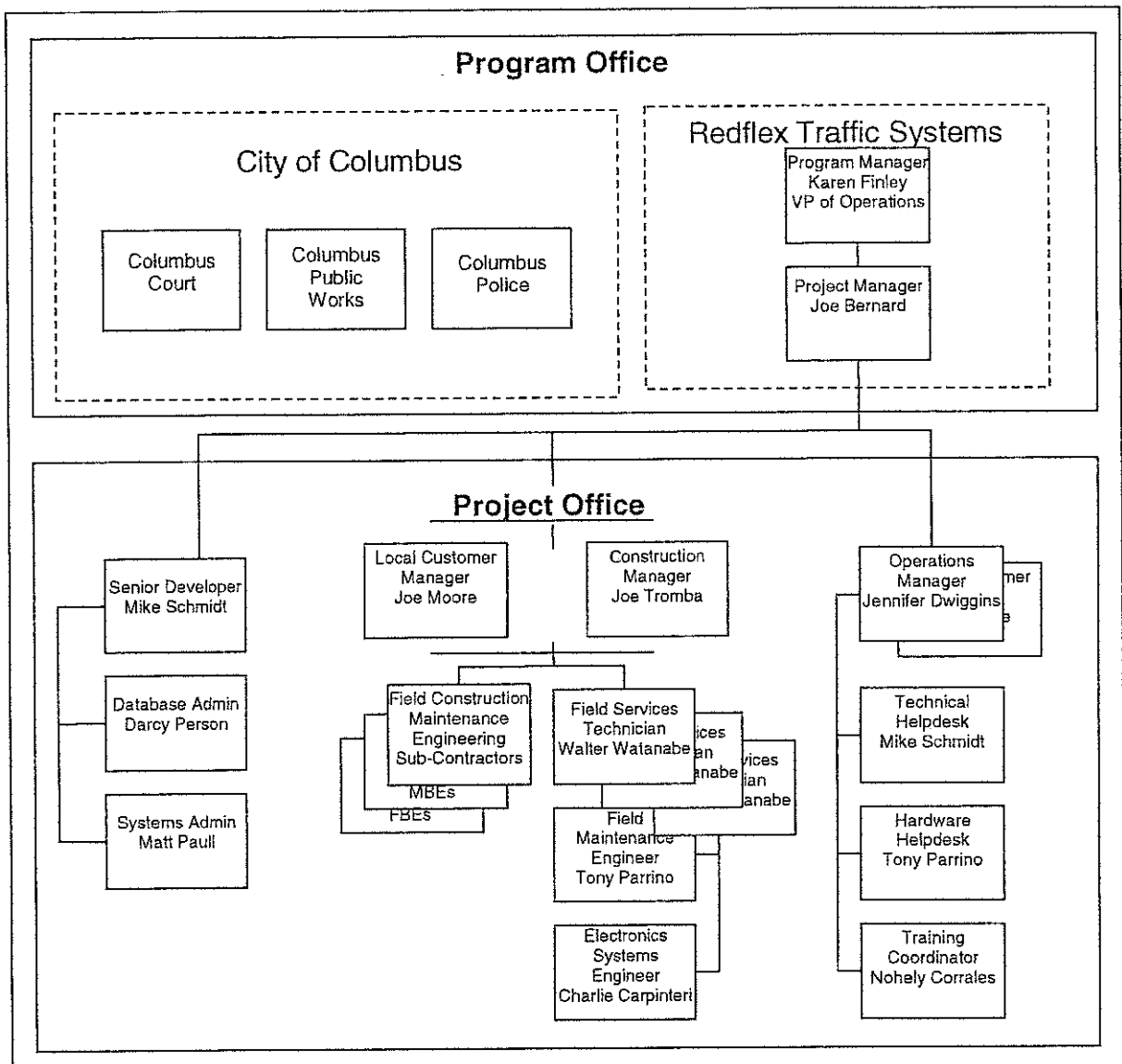
### **Database Administration & LAN Specialist**

This individual assists in the installation, configuration and troubleshooting of LANs and network hardware and software and monitors and maintains network stability and administration. The DBA dedicated to the City of Columbus will be Darcy Person. Ms. Person has over 20 years of experience in management networks, software architecture and systems integration. Ms. Person currently

manages and maintains the network stability and integrity for each of the current contracts across the United States.

Once the Program has been installed and tested, Redflex will provide a **dedicated Columbus-based** Operations and Support team to ensure optimum performance.

### Proposed Program Management Organization Structure



= Denotes Local Columbus Based Resources

\*Local resources include Customer Service Staff and Field Technicians.

### **Principal Staff (Ongoing Operations)**

Per the Operations and Support Team Structure, the successful ongoing operations and management of the City's program will include several additional roles. The most critical of these roles are the local Customer Representative and Operations Manager.

### **Customer Relationship Manager**

This individual is responsible for the success of the business relationship and the ongoing success of the City's program. This individual is dedicated to servicing the City and will be in continuous contact with the various City Project Managers and Agencies that are required for the successful operation of the program. Additionally, this individual will act as the "single-point" of contact for the City, be responsible to promptly address all inquiries, monitor program operations and ensure a successful remedy of any reported issues.

The Customer Representative for the City of Columbus will initially be Joe Moore. Mr. Moore has supported with the City of Columbus for several years as the City progressed in making this important safety program a reality for the Citizens of Columbus.

Mr. Moore has extensive law enforcement experience in the State of Ohio and has supported out Dayton and Toledo programs for many years.

"I want you to know that anything I do in the performance of my responsibilities to maintain and promote the redlight enforcement program here in Dayton is a reflection of the quality of support and output from Joe Moore"

Detective Carol Johnson  
Dayton Police Dept.  
Red Light Camera Program

Mr. Moore has been managing the traffic photo enforcement projects in Dayton and Toledo, Ohio since their inception.

He is responsible for contract compliance and client relations regarding all facets of the projects.

The Toledo project is the oldest fully digital, rear photography, registered owner-obligation project in the eastern United States.

With over 29 years as a Police Officer, Mr. Moore has been engaged as a traffic safety consultant in the use of pulse laser speed and ranging devices and in the preparation and activation of photo enforcement programs in the Midwest.

Mr. Moore will be the initial Program Manager and Redflex will train and utilize a local Columbus resource upon program commencement. Redflex would like to work closely with the City of Columbus to identify this resource and we have found that a retired Columbus Police Officer would be a suitable replacement for Mr. Moore. So please begin thinking about some possible people. Thank you.



### **Operations Manager**

This individual directs and coordinates all the activities relating to the production and processing of violation transaction and will act as the liaison between violation processing, image transfer and the field technicians. Specific responsibilities include the monitoring of the production process for adherence to quality standards and compliance, the ongoing planning and monitoring of production schedules and workflow demands and the establishment of processes that ensure compliance with customer specifications. The Operations Manager dedicated to the City of Columbus will be Jennifer Dwiggins.

Ms. Dwiggins has been with the Redflex Traffic Processing Center since 2003, and has been involved in the National Focus on Safety project and over a dozen programs nation wide. Ms. Dwiggins has a wealth of Operations Management experience and a keen working knowledge of the State of Ohio. Prior to joining Redflex, she held leadership roles at Verizon Information Technologies (formerly GTE) and CES (formerly Wellmark, Inc.). Ms. Dwiggins holds a Bachelor's degree from Georgia State University in Computer Information Systems.

As we have demonstrated, each Redflex Project Team member is an experienced professional, who has successfully implemented and maintained Red Light Enforcement programs and has been rigorously trained on Redflex's proven methodology and implementation tools that provide rapid, reliable results. The Redflex Program Implementation Methodology allows for systematic and integrated implementation processes. On the basis of our deep implementation experience, Redflex proposes achieving Full Program operation within the City's specified timelines.

We are confident that the Redflex team is the best and clearly the most experienced in the industry and that our proven cost sensitive, low risk solution represents the industry's most powerful combination of all-digital technology, reliability and program success.

### **Experience Matrix**

As outlined, Redflex staff has an average tenure of nearly 5 years dedicated to photo enforcement. Each Redflex team members is highly skilled and well seasoned in supporting successful photo enforcement programs. Our team has worked on more successful system implementations and currently supports more successful programs than all of the competition combined. Our team truly knows how to ensure the City of Columbus supports a truly world-class program. The proposed team also has more experience in supporting operational programs in the State of Ohio than the competition. They are fully aware of the operational and legal nuances required to work in Ohio based programs. The proposed team is systematically and objectively the most qualified to support the City of Columbus.

Name	Position	Years Exp.	Photo Exp.	Project Responsibilities	Previous Projects and Contacts
Karen Finley	V.P. of Ops.	15	10	Assumes overall responsibility for delivery of Program Management Services to the City of Columbus.	*Refer To Project List
Joe Bernard	Project Mgr.	8	8	Plans, directs and coordinates all activities related to the technology implementation.	*Refer To Project List
Joe Tromba	Construction Mgr.	15	1	Responsible for equipment implementation and installation activities, including management of sub-contractors.	*Refer To Project List
Tony Parrino	Field Supervisor	20	6	Plans and conducts site surveys, camera unit installation and testing, and on-site/off-site system maintenance, including installs, diagnostics and upgrades.	*Refer To Project List
Darcy Person	Data Base Admin.	20+	4	Assists in the installation, configuration and troubleshooting of LANs and network hardware and software and monitors and maintains network stability and administration.	*Refer To Project List
Jennifer Dwigins	Operations Manager	18	<1	This individual directs and coordinates all the activities relating to the production and processing of violation transaction and will act as the liaison between violation processing, image transfer and the field technicians.	*Refer To Project List

3.1.15. Please describe how your Photo Red Light system is equipped to detect a violating vehicle, activate the camera system, and produce color images of the vehicle front and rear.

**Redflex Response:**

The Redflex Solution is built upon the most comprehensive system available in the market and offers extensive advantages over digital video-only, digital still-only and wet film systems. The Redflex Solution is the industry's only program that includes four cameras per camera unit. This includes *three (3) high-resolution digital still cameras and one (1) high-resolution digital video camera*. As a result of Redflex's extensive field experience and concentrated research and development efforts, it has been determined that this combination of cameras provides the optimum effectiveness for image capture.

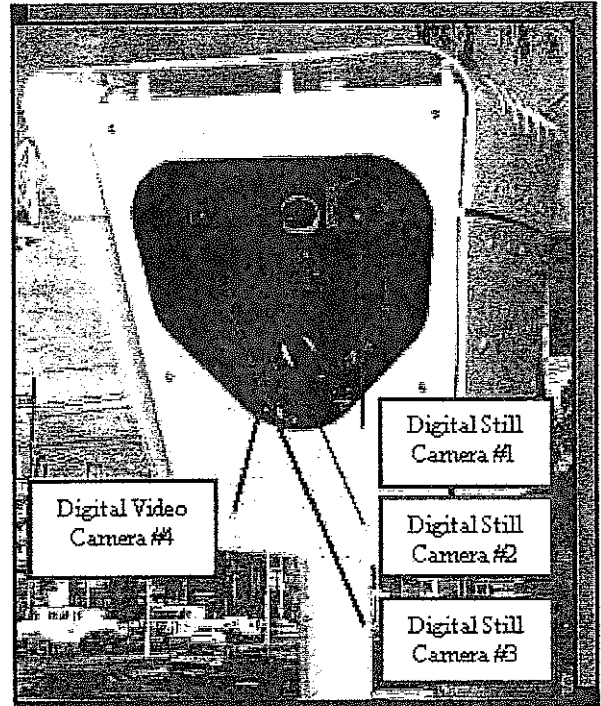
Each Redflex Still Camera has proven to capture some of the industry's clearest and sharpest images and we are confident they will meet the City's citation requirements.

**300+ Images of Each Violation (Video & Still Imaging Technologies)**

The Redflex System also provides 12-seconds of full motion digital video that captures 30 frames per second, which provides clear situational images for increased evidence and violation validation. Additionally, the digital video unit can be used as real-time, 24x7 streaming "live-feed" if the city wants to monitor

specific intersections as an integrated element of the City's ITS Program and Transportation Management Center.

When the specific intersection's detection system is triggered by a violation occurring, the main camera unit's central processor triggers and synchronizes the image capturing process. This includes triggering and capturing the following three high resolution digital still images and full motion digital video images per violation: (1) an image of the rear of the violating vehicle prior to the legal violation line, (2) a "zoomed" image of the rear license-plate of the violating vehicle in its particular lane of traffic, (3) a second image of the violating vehicle clearly crossing the intersection, (4) 12-Seconds of Full Motion Video. License plate images can be obtained in two (2) manners:



1. Via the dedicated plate camera(s)
2. Via the cropping and zooming of the Scene A and Scene B images.

The System safeguards the image and data against alteration by giving each element a unique signature to confirm its authentic status. Public key cryptography and additional encryption processes secure the transmission process.

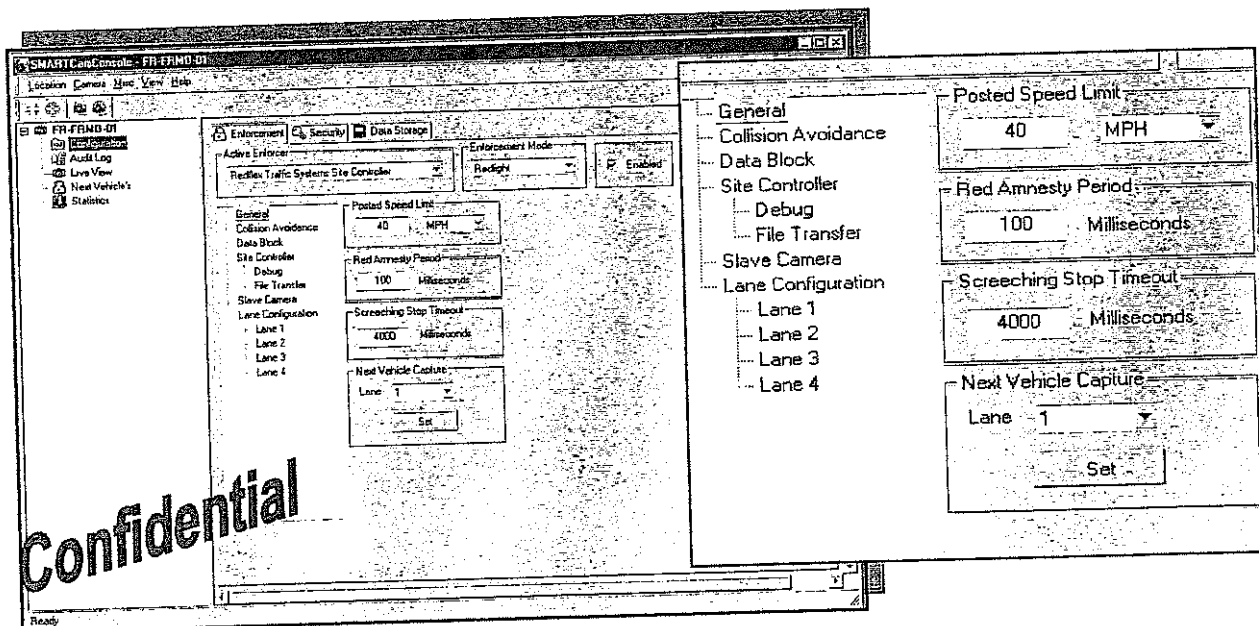
Each of the (3) three digital still images provided for every violation includes an encrypted databar, which "stamps" pertinent violation information of the image at the very point of capture. The databar includes a **256-character** field that can be customized to suit the City's specific preferences and requirements. The standard data elements that are encrypted at the point of capture on each image include:

- ✓ A unique violation number and sequencing
- ✓ Date (mm/dd/yy)
- ✓ Number of seconds of amber aspect displayed, accurate to 1/10<sup>th</sup> of a second
- ✓ Number of seconds of red aspect displayed, accurate to 1/10<sup>th</sup> of a second
- ✓ Location code or identifier, including, but not limited to: city, street and direction of traffic
- ✓ Vehicle speed
- ✓ Posted speed
- ✓ Lane of violation

#### Sample Databar

```
REDFLEX LOCATION: CG-55WE-01 FRAME: 0046 Saturday 17 May 2003 12:19:46 LANE: Lane2
SPEED LIMIT: 30 MPH VEHICLE SPEED: 26 MPH TIME INTO RED: 0.30
2400 W 55th St (E) / Western Ave, Chicago YELLOW DURATION: 3.00 (CG-55WE-01 v3.2.0.17)
```

## Sample Screenshot Demonstrating System Adjustability

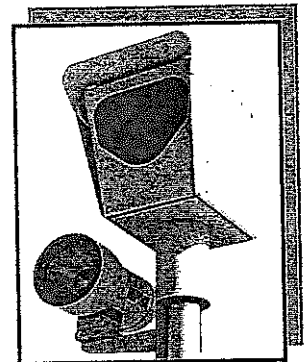


Redflex is the only system that provides four (4) unique pieces of violation data that is compromised of over 300 individual images of each violation. Violation images include (1) **Scene A Image**: a rear image of the vehicle prior to the violation line, with the red phasing clearly visible, (2) **Plate Image**: a rear image of the vehicle with a "zoomed" license plate image, (3) **Scene B Image**: a rear image of the vehicle clearly progressing through the intersection and committing the violation, with the red phasing clearly visible, and (4) **12-seconds of full motion video**, including 6-seconds pre-violation and 6-seconds post violation.

### Flash Unit

The Redflex System provides a Synchronized Flash Illumination System that is triggered to synchronize precisely with the still camera's digital imaging in all light and weather conditions, which ensures effective full-color images 24 x 7.

The Flash Unit is typically mounted on the camera pole or to an existing traffic pole for in-line illumination. The flash provides visible white-light to ensure full-color imaging of critical license plate images and violator face images in all ambient light and variable weather conditions. The Flash Unit is automatically synchronized with the digital still camera's imaging shutter release at all times. The very short flash duration (~1/2600<sup>th</sup> of a second) and ultra fast recycle time (~250 milliseconds) means that the flash does not become a public nuisance and/or impact driver safety.



The synchronized flash unit effectively provides illumination for up to four (4) lanes of traffic for ample illumination for approximately 50 feet wide at a distance of up to 150 feet. Each flash unit includes neutral density filters that provide effective adjustment and customization based on actual intersection illumination needs. Flash intensity is determined via a careful study of camera unit location, image quality, physical geometries and customer input and guidance.

Additionally, the flash unit can be easily turned off, on and reset remotely utilizing the camera configuration software module via the VPN. Flash intensity is routinely tested with a light meter to ensure effective illumination without imposing public nuisance or driver safety risks.

### ~~NO WHITE FLASH OPTION~~

~~Importance Note: Redflex has effectively tested and evaluated the implementation of non flash system configurations, which are not actively utilized in the US because they may actually reduce program effectiveness as a result of the following:~~

- ~~✓ Infrared imagery does not allow clear color images, which are critical for identification purposes and may not be admissible in many courts.~~
- ~~✓ Low Lux imagery is only marginally effective (at best) nighttime and when vehicles exceed even moderate speeds as low as 35 MPH.~~

- ~~✓ The flash unit has proven to be much more effective at changing driver behavior. It has been proven that when a flash "goes off", the violator becomes immediately aware that they have actively run a red light and subsequently when immediately curb any illegal behaviors, including red light running and speeding!~~

### **Non-Intrusive Detection Units & Conduits**

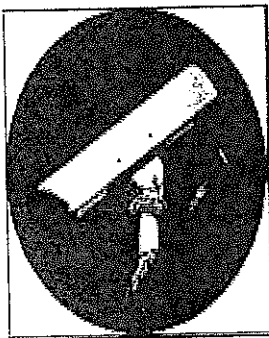
The Redflex Full-Service Solution includes (1) all necessary hardware, including camera units, housings, poles, flash units, and detection units, (2) all necessary software including image extraction, citation processing, notice formatting and citation authorization modules, and (3) all necessary services including installation, maintenance, wiring connections and electrical services.

### **Vehicle Detection Unit**

Redflex can offer the City of Columbus a variety of Vehicle Detection Units, each which includes the following features:

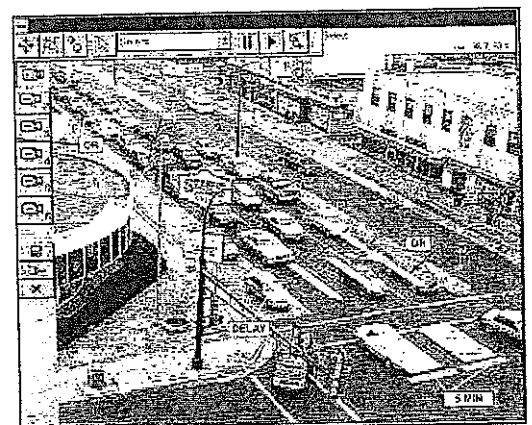
- ✓ Automatic self-tuning
- ✓ Sensitivity control
- ✓ Automatic recovery for opens, shorts and power failure
- ✓ Presence of pulse modes of operation
- ✓ Multi-channel outputs
- ✓ Easy installation, adjustment and maintenance

### **Non-Intrusive Video Sensor System (Video Loops)**



In addition to traditional in-pavement inductive loops and non-intrusive radar incident detection applications, Redflex is pleased to offer the City of Columbus the industries most advanced non-intrusive video sensor incident detection system, which will not negatively impact the City's roadbed and/or tax limited spatial conditions. This state-of-the-art system uses video sensors, which utilizes video image analysis processors to synthesize the output from a variety of camera configurations.

These robust systems offer a wide-dynamic range, which is historically considered a constraint of video sensor systems. The System runs automated self-diagnostics of all sensors and hubs to ensure limited deviation from normal operation. The system's video sensors are configured to ensure accurate field-of-view for each specified detection zone. The systems accuracy is enabled via the reconciliation of the spatial signature of each



detected vehicle and the integrated temporal signature of its motion.

Field tests have demonstrated excellent reliability. This type of technology has proven to increase the efficacy and flexibility of the Redflex Program to intersections when it is preferred that conventional loops be not installed.

### **Traditional Loops**

In many situations, Redflex utilizes in-ground induction loops as an effective vehicle detection unit. Redflex has successfully deployed industry standard induction loops in over 100 installations. Through this deep operational experience, Redflex has been able to institute a great degree of flexibility with respect to actual loop placement to ensure no interference or "cross-talk" with any existing City loop-based traffic controls. The Redflex Red Light Photo Enforcement System uses inductive loops for presence and time distance calculations to activate our digital cameras. A set of two loops will be placed in each monitored lane, and Redflex will provide a loop detail that accommodates detection for both local municipality traffic detection and the Redflex system. Redflex loops can be placed in various configurations and sizes, and in between existing "City loops". Redflex will pay for the replacement of any "city loops" impacted during construction of the Redflex Red Light Enforcement System.

Redflex also offers radar-based vehicle detection systems, which can be a viable alternative to traditional non-intrusive video sensors and in-ground induction loop systems and video sensor systems. Redflex has successfully deployed this type of vehicle detection system in several U.S.-based cities.

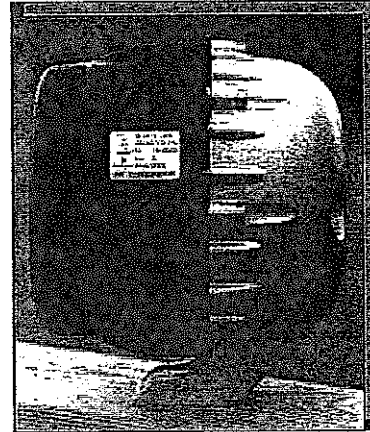
**Traditional loops are required should the City desire to "turn-on" the Speed-on-Green enforcement feature, as Redflex currently supports in many cities, including Toledo Ohio.**

### **The Radar Based System**

Redflex can offer the City the RS240 which provides multi-target distance and speed measurement using proprietary FM Doppler radar at 24GHz. The 24GHz Radar technology projects a focused radar beam at traffic approaching an intersection. The system identifies each vehicle that enters the sensor area and continually tracks it, creating reports of speed, distance, and direction of each vehicle, 21 times per second.

### The 24GHz Radar:

- ✓ Calculates the probability of vehicles entering the intersection after the light has changed
- ✓ Creates a data record containing the violation details
- ✓ Can extend the red phase for crossing traffic during a violation using the optional Red Light Delay System
- ✓ Creates a log file for every vehicle that passes the stop line, or another pre-defined report line (see Figure 7)
- ✓ Can be set to log all passing vehicles and to provide statistics such as vehicle count, average speed, percentiles, etc.



The 24GHz radar can be an effective device for various situations and circumstances that limit the application of traditional in-ground loop based systems. Some of the immediate benefits of this solution include:

- ✓ No need for installation of magnetic induction loops at intersections, reducing the installation time, street construction, and inconvenience to daily traffic flow caused by the installation, maintenance, and repair of magnetic induction loops and overhead systems.
- ✓ Effective all-weather detection and picture quality. The radars are insensitive to light conditions, rain and other weather conditions, and the high-resolution cameras combined with efficient flashes guarantee the best possible picture quality under any condition.
- ✓ The distance at which the traffic is monitored can be tailored to the specific requirements of each intersection, and can easily be adjusted to changing conditions.
- ✓ The sensor tracks a violating vehicle to the optimal position for the first and second images, permitting maximum camera effectiveness.

3.1.16. Please describe how your system is capable of clearly photographing and recording the identification of the driver of the vehicle tag is reasonable believed to be operating the vehicle that violated the red traffic signal.

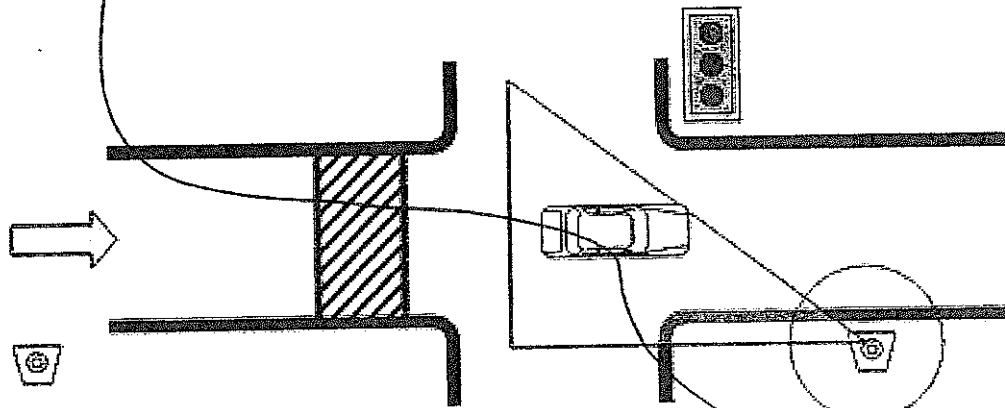
#### **Redflex Response:**

There are several states in the US that require programs to capture the driver of the vehicle in addition to the vehicle tags. These States include California, Oregon, Arizona and Colorado. Redflex supports more programs in these states than all the competition combined. Should the City desire to implement this type of system, Redflex would be required to make minor system and software modifications, which would be inclusive of a second pole and camera housing.



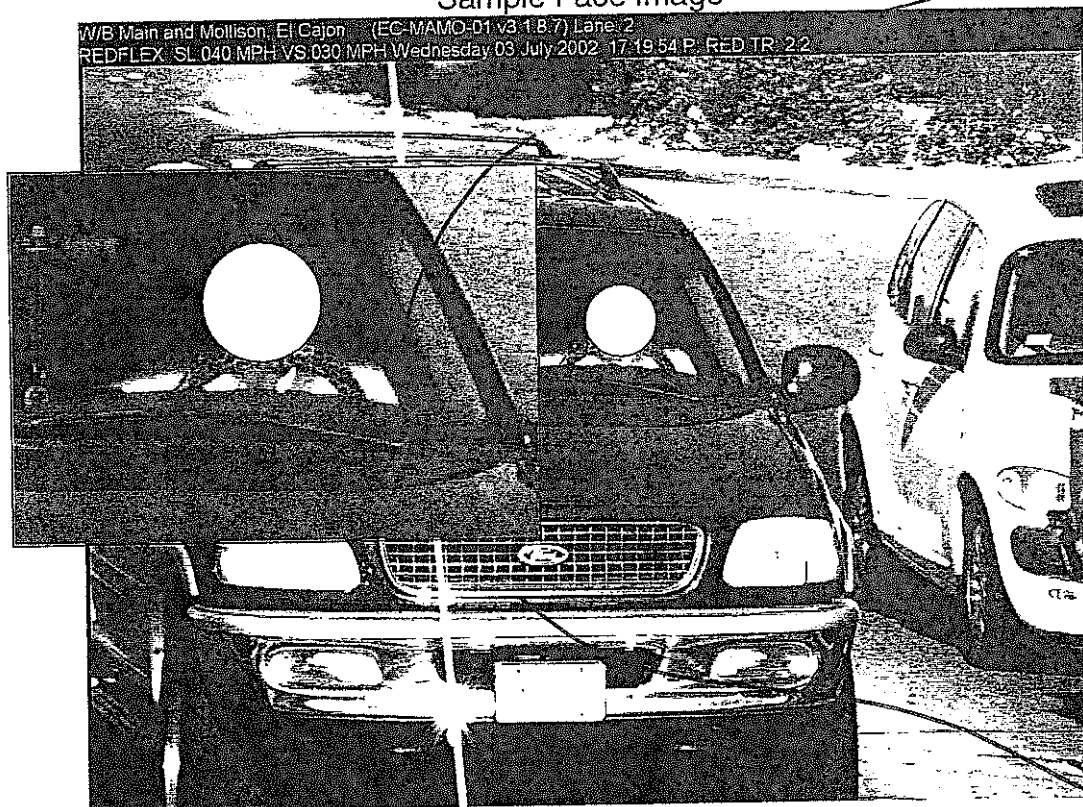
This pole and housing would be situated on the far side of the intersection.

The Reflex System would capture the face image to the defendant in a synchronized fashion, as the vehicle crosses the intersection.



The Face Image will capture the driver's face after clearly crossing the violation line, all passengers are "blocked" to protect the identity of the innocent.

### Sample Face Image



3.1.17. Please describe how your system's cameras will obtain a clear image of the rear of the vehicle so as to clearly identify the rear license plate.

**Redflex Response:**

As outlined above, Redflex is the only vendor to use a dedicated "plate" camera, which is one of the highest resolutions in the industry. Redflex is unique in this approach in an industry where vendors try to minimize their cost, which means they utilize fewer cameras that can often equate to poor plate images. In addition to a high resolution dedicated plate camera, which has a sole purpose of providing clear plate images, Redflex can capture plate images from the scene images captured by the various other high resolution cameras which are in each housing.

3.1.18. Please demonstrate how your system's images are clearly discernible and visible to the naked eye without the use of enhancement equipment.

**Redflex Response:**

To answer this question, it is prudent to build upon the response outlined above with some actual images. All vendors can provide images at 35MPH at noon on a sunny day, but to demonstrate our capabilities, please see the following:

- Large Double Left-Turn of a School Bus (Georgia)
- Torrential Rain @ Nighttime (Oregon)
- Snow Storm @ Nighttime (Ohio)
- Daytime Collision (Ohio)
- 107 MPH (California)
- Multi-Axel @ Nighttime (North Carolina)

~~To truly understand the capabilities provided by the Redflex System and to substantiate the system's effectiveness in the climate typical to Ohio, I encourage the City of Columbus to contact both the cities of Dayton and Toledo. For contact information, please see Section 3.1.32.~~

**Only a vendor's customer can separate the "wheat from the chaff" with respect to the vendor's capabilities!**

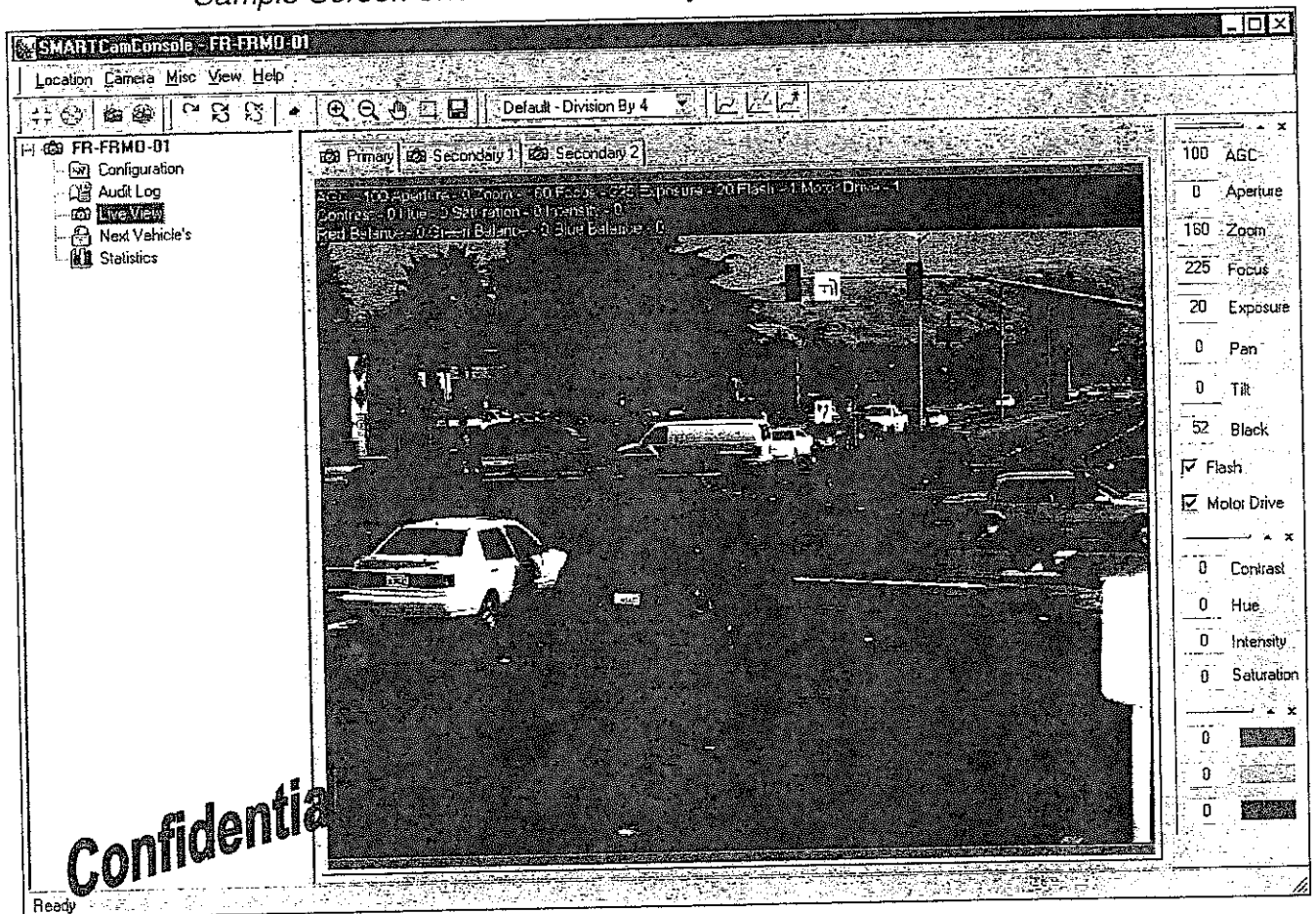
<INSERT "DIFFICULT IMAGES">

3.1.19. Please describe how your system is capable of consistently photographing drivers and license plates regardless of weather conditions, glare, materials used to obscure the license plates from clear view at various viewing angles of any other means used for interference or avoidance.

**Redflex Response:**

As outlined in Section 3.1.18, in each camera housing, Redflex provide four different high resolution digital still cameras and full motion digital video cameras. This camera configuration was developed to optimize the system performance, which means minimizing image quality issues and citation rejections. Redflex is the only system, which provides this 4-camera configuration. In addition to using more cameras than any other vendor, Redflex is able to remotely configure each camera system. This means that Redflex is able to make adjustments and fine turn each camera remotely.

*Sample Screen Shot for Remote Adjustment & Configuration*



In a remote fashion, a Redflex operator can make “real-time” adjustments to the camera units. Remote adjustments include:

- ✓ Zoom
- ✓ Focus
- ✓ Flash
- ✓ Contrast
- ✓ Aperture

These adjustments ensure the industry's greatest citation issuance rates and minimal system malfunction.

The remote adjustment and configuration capabilities allow approximately **90%+ of all technical malfunctions to be addressed in "real-time"** with minimal camera downtime. Remote maintenance includes pre-emptive maintenance, which allows Redflex technicians to *download system diagnostics* for scheduling of preventative maintenance on a *daily basis*. However, if additional adjustments need to be conducted, the Redflex camera units can be easily removed from the housing for quick and expeditious adjustments.

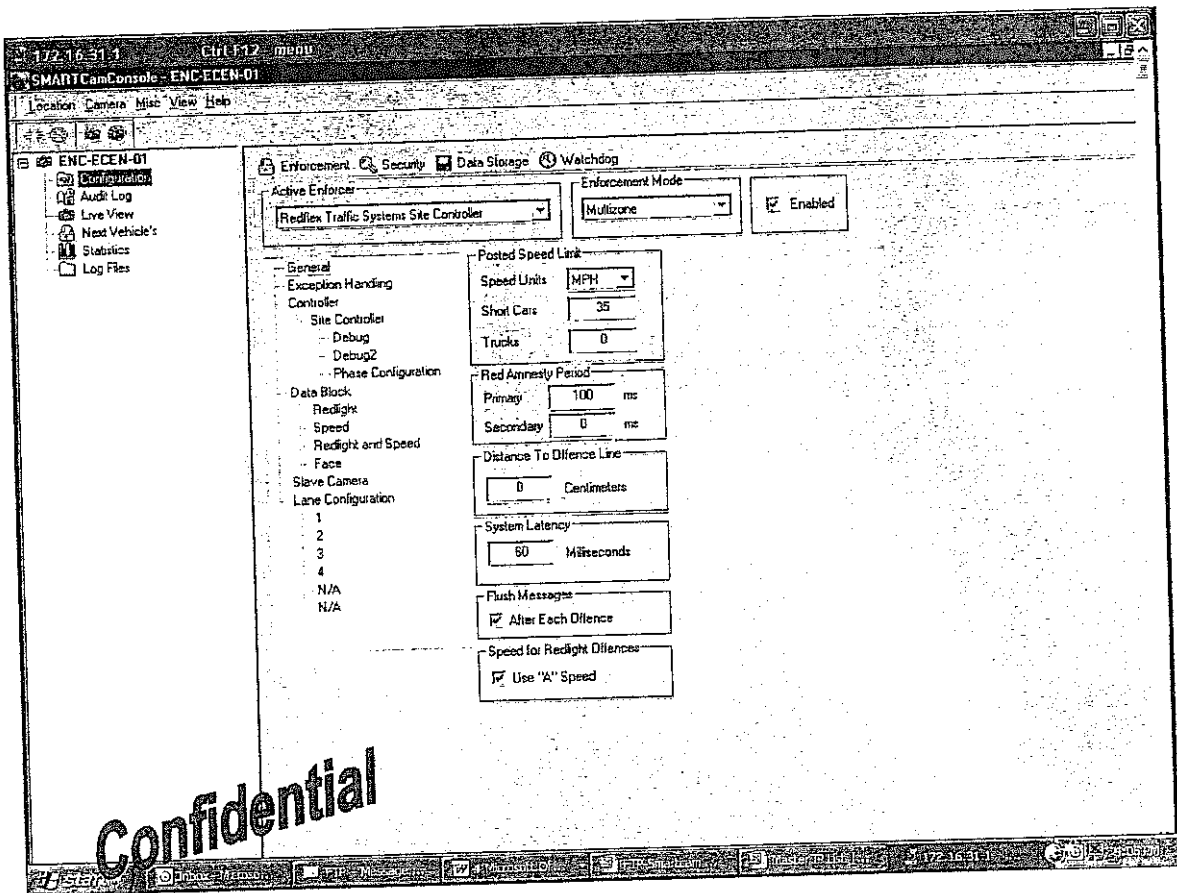
3.1.20. Please describe how your system is capable of performing internal calibration tests for accuracy and functionality. The Coc is desirous of the following:

- Test failures must prevent further operation of the unit.
- The internal test should provide a visual and-or auditory signal clearly indicating the operational accuracy or lack thereof.
- A series of error messages must be displayed to inform the operator of the problem/s with the system, while in the deployment mode.

**Redflex Response:**

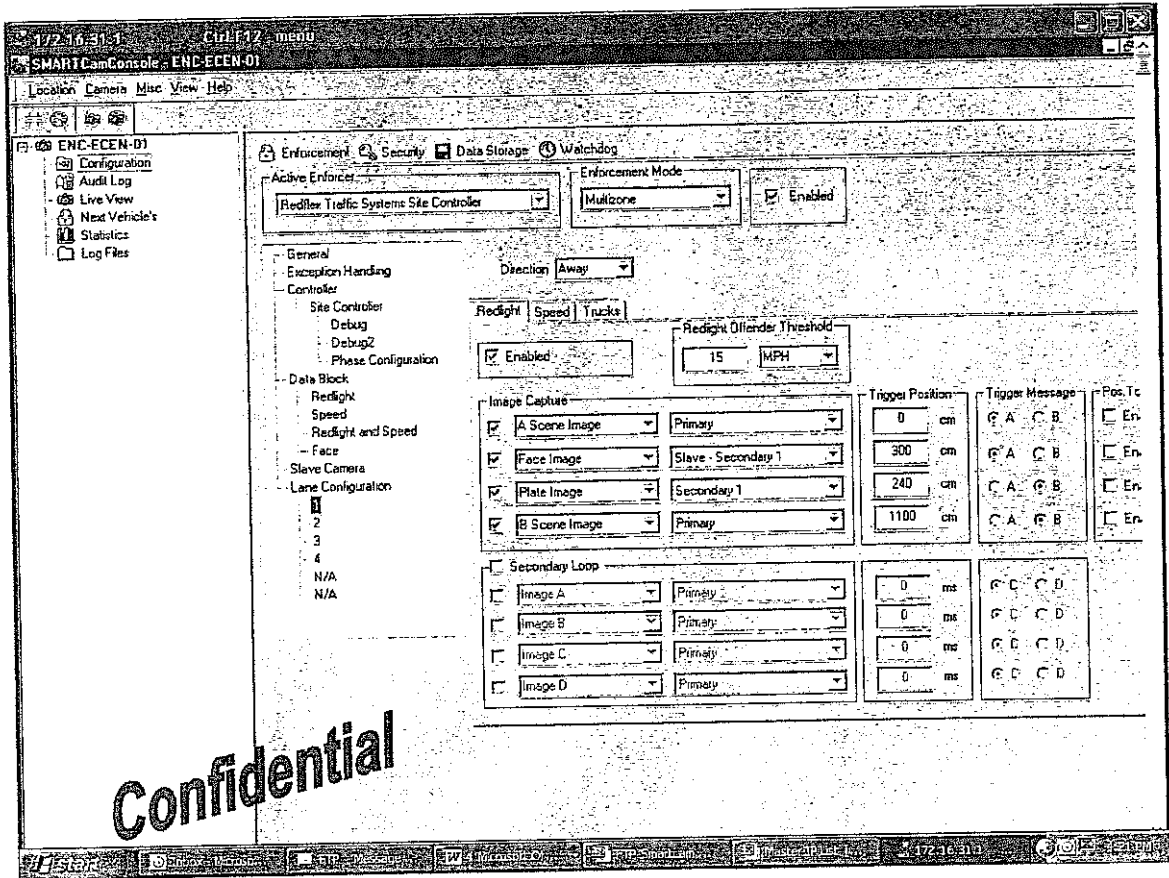
As outlined in Section 3.1.14, Redflex will provide the City extensive and comprehensive maintenance program, which includes comprehensive daily systems checks. In addition to the daily system checks and diagnostics, Redflex will implement an extensive quality control procedure for testing the camera unit's operational functionality. This includes automated reporting and error checking that Redflex technicians perform. These checks are inclusive of entire System, Camera Units and the Detection Systems.

<SEE BELOW>

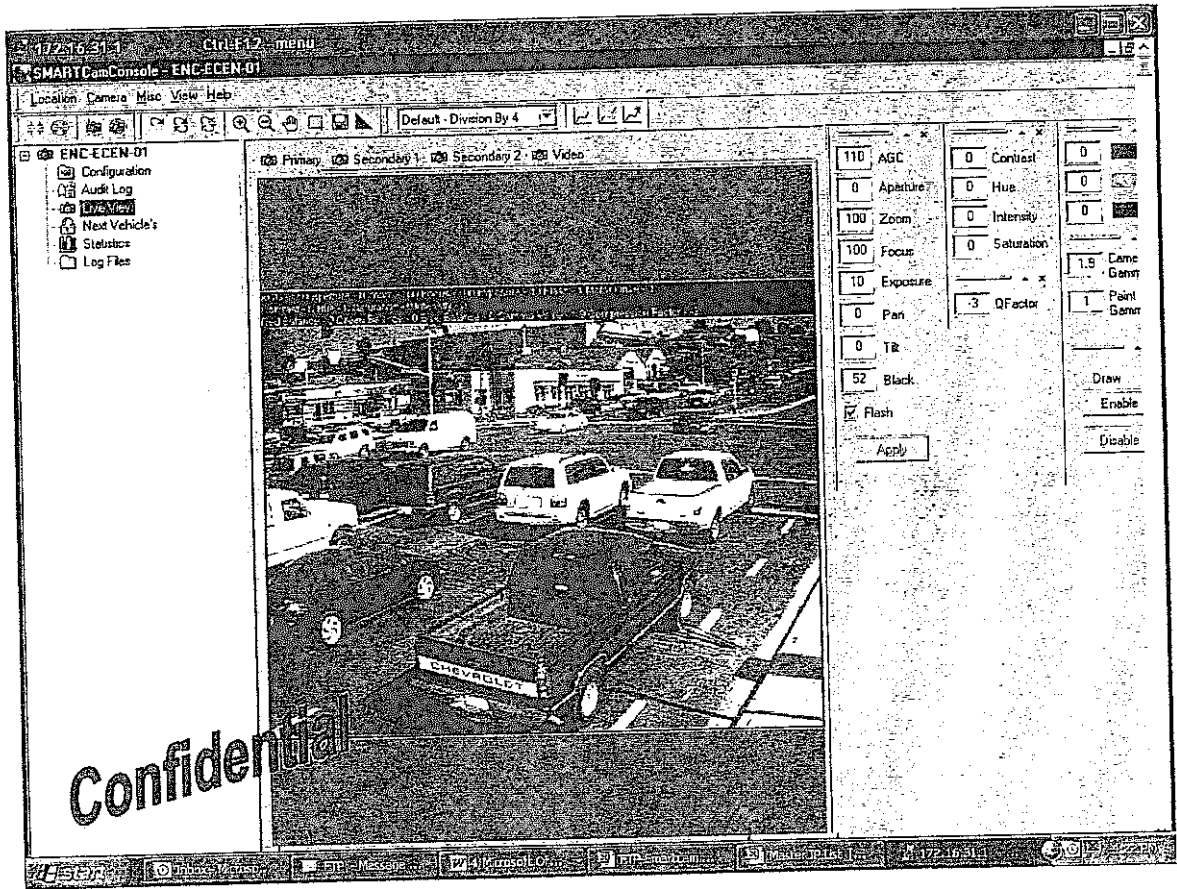


When the automated report generated by the system identifies an approach as not detecting any vehicles, potentially indicating a malfunction, a series of systems checks are performed to verify the operating parameters and individual systems settings are appropriate.

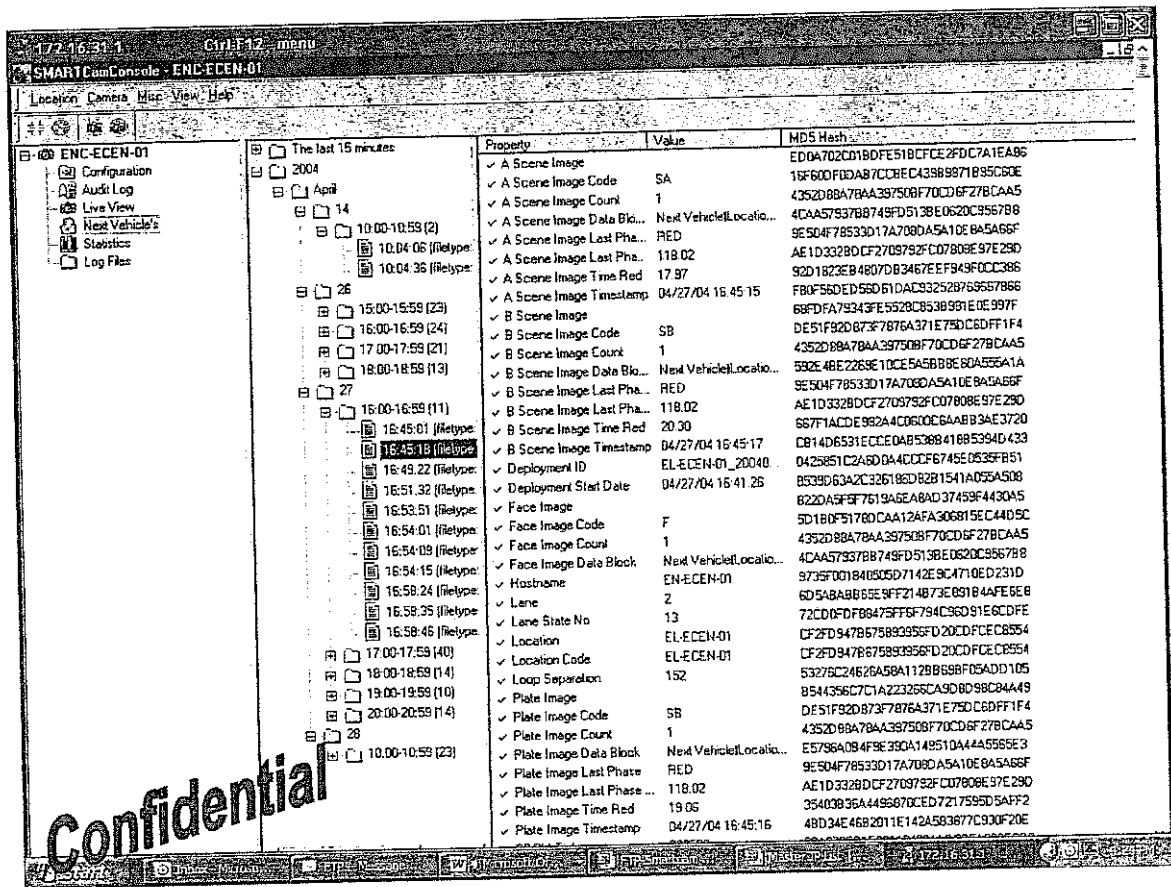
The first check is to determine if the system is enabled in the "enforcement" mode.



This screen verifies camera triggering to ensure proper settings are entered for camera timings.



The cameras are checked to ensure proper operation and setup.



Simulated incident capturing is performed to further test system operation during the "normal" traffic phase allowing vehicle movement.

3.1.21. Please describe how you will maintain the integrity of CoC; traffic signal system

**Redflex Response:**

As outlined in Section 3.1.3, Redflex Programs will not require direct access to traffic light controllers or the control field cable. Our system runs completely autonomously to the City's existing infrastructure. Redflex engineers can provide the City numerous means to non-invasively detect red light phasing. All prescribed methods are optically isolated from the traffic controller unit and can utilize isolation relays and equivalent means. Redflex **will never exert** any influence over the City's traffic signal system, which will ensure total integrity for the City. In addition, the Redflex system can also provide engineer with more tools to ensure integrity of the signals phasing and timings. Since the Redflex System captures full motion video, which can include video of the signals phasing, the signal timing can be cross-referenced with the time stamp provided on each frame of video. Additionally, Redflex is please to provide the City of Columbus with the option **real-time intersection monitoring** capabilities.



As highlighted, Redflex is pleased to offer the City of Columbus the ability to access streaming video from each intersection 24 hours a day. This new functionality is extremely valuable for:

**Congestion management/operations optimization** — Real-time monitoring of congestion at intersections and along corridors allows:

- ✓ Technicians to manually modify timing plans to relieve congestion resulting from isolated events
- ✓ Engineers to modify timing plans to meet traffic demand.
- ✓ Operation/safety — Real-time monitoring, vehicle and non-motorized conflict monitoring.
- ✓ Transit corridor monitoring.

**Incident management:**

- ✓ Report incidents to police, fire and rescue
- ✓ Report incidents to traffic reports and traffic reporting services

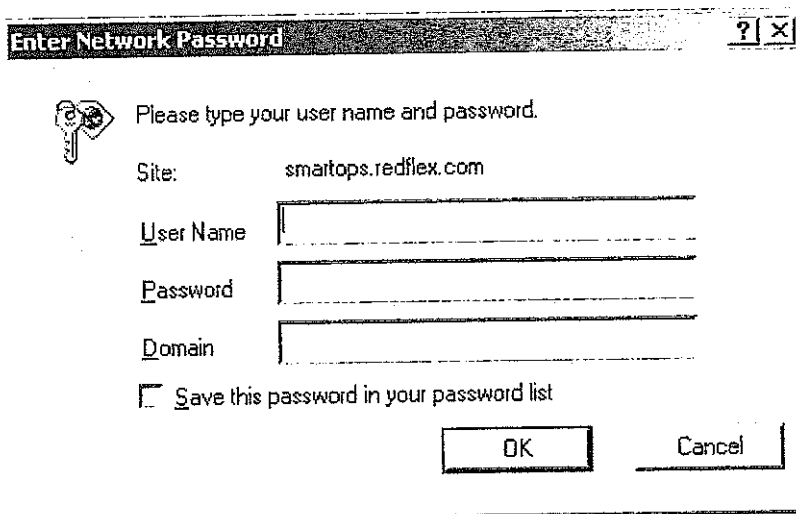
**911 Command Center and Disaster Monitoring:**

- ✓ Real-time viewing of City intersections regardless of signal system functioning
- ✓ Real-time viewing capabilities in post-disaster recovery

### Streaming Video Access

The streaming video can be easily accessed through a URL/web address.

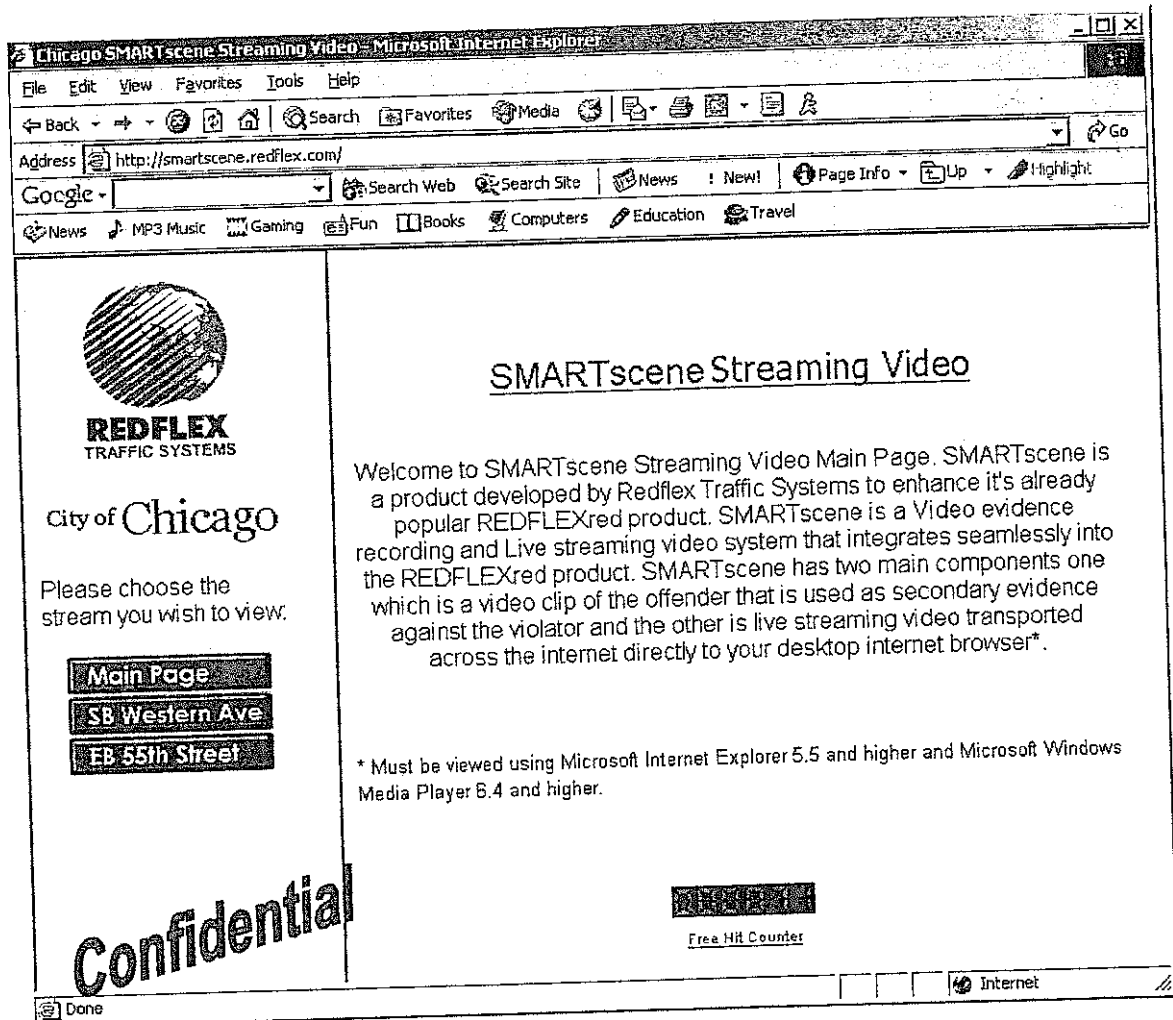
You will be directed to a logon screen:



The screenshot shows a dialog box titled "Enter Network Password" with a help icon and a close button in the top right corner. The dialog contains the following elements:

- A key icon and the text "Please type your user name and password."
- A "Site:" label followed by the text "smartops.redflex.com".
- Three input fields labeled "User Name", "Password", and "Domain".
- A checkbox labeled "Save this password in your password list" which is currently unchecked.
- Two buttons at the bottom: "OK" and "Cancel".

Once logged on you will receive a screen like the following:



From this window the frame on the left allows you to choose which direction of travel being monitored you wish to view. In this case our choices are SB Western Ave and EB 55<sup>th</sup> Street. Click on either link to view the stream.

This window shows the stream playing in the right frame. To view the other direction of travel, click on the link to it in the left frame.

REDFLEX  
TRAFFIC SYSTEMS

City of Chicago

Please choose the stream you wish to view.

Main Page  
SB Western Ave.  
EB 55th Street  
Statistic Reports

### SMARTscene Streaming Video

East Bound 55th Street @ Western Avenue

Chicago, IL

Status: ONLINE @ 250Kb/sec

Note: Video can take up to 15 seconds before it is displayed on the screen.

**Confidential**

Discussions not available on <http://smartscape.redflex.com/>

\*Note: Streaming speeds are dependent on bandwidth and processor speed. Redflex offers basic packages that are inclusive with the Turnkey pricing and premium packages are also available.

3.1.21.1. Traffic signal operation shall not be modified.

**Redflex Response:**

As outlined, Redflex will never modify, interface and/or exert any type of influence over the City's traffic signal operation – end of story.

3.1.21.2. Supplier is responsible for any damage and must provide a cost reimbursement program.

**Redflex Response:**

Redflex provides one of the most non-invasive systems currently operational. Our program requires minimal installation efforts and has little propensity for damage. Regardless, Redflex will **provide all cost reimbursement** for any damage caused by our System.

3.1.21.3. Supplier is responsible for all permits, plans, modifications of existing infrastructure and associated costs to include CoC personnel necessary for traffic control and installation/removal.

**Redflex Response:**

As part of our standard implementation methodology, Redflex works closely with various City agencies, including the Police, Traffic Engineering and Public Works in the identification of the City's most dangerous intersections. Redflex and the City identify and triangulate which intersections warrant automated enforcement to ensure the City meets its specified safety needs. This process includes a detailed review of numerous data points, which include:

- Collision histories
- Collision diagrams: which will provide the City a better understanding regarding the nature and type of collisions
- Engineering studies
- Site walkthroughs
- Geometric analysis
- Pavement analysis

Redflex also completes a **video-analysis** at each short listed intersection during peak traffic times, which provides both the City and Redflex a baseline of actual violation volumes.

**Design**

Redflex Traffic Systems has a successful track record of providing design for hundreds of Automated Camera Enforcement System for installation in over 50 jurisdictions across 10 states. Using State of Ohio Licensed engineers, local traffic signal construction contractors, and upon receiving guidance from the approving body of engineers, Redflex will meet the civil and electrical engineering constraints of each intersection in each jurisdiction. Redflex will have developed a design for the Automated Camera Enforcement System, and will seek approvals and associated permits from the governing agencies. Licensed, insured and bonded contractors and traffic signal engineers will complete all Redflex construction.

## **Permitting**

Redflex has successfully supported the permitting process in over 50 municipalities in 11 states. Working our local partners, Redflex will develop designs and installation plans to explicitly meet all City requirements, while being in strict compliance with city, county, state and federal guidelines. Redflex will develop design plans and CADD documentation for preparation and approval from appropriate City agencies.

## **Equipment Installation**

Our teams of seasoned professionals are well trained on the **Redflex Construction Methodology**. The Redflex Construction Methodology offers a proven and structured approach, which ensures that Redflex successfully delivers a fully functional program within the City's specified timelines. This Redflex Methodology covers the installation, configuration, and support services for:

- Hardware Installation
- Software Configuration
- Citation Processing
- System Integration

The Redflex Methodology has been developed and tested over hundreds of successful system implementations worldwide.

## **Kick-Off, Planning and Resource Allocation**

Kick-Off, Planning and Resource Allocation is the first phase of the implementation activities. During this phase the Redflex team will work closely with the City's Traffic Engineering, Police Department, Public Works, judiciary and other critical City agencies. The result of these meetings will finalize proposed project plans, role and responsibility identification, milestone identification, and timeline formalization and issue resolution/escalation procedures. Our Program Management Office has already created a baseline plan for the total installation process, which includes the obtaining of necessary permits; identifying and securing qualified subcontractors and capturing city-specific requirements and business processes.

## **Analysis and Design**

The Analysis and Design phase allows the project team to focus on defining business processes, collecting requirements and documentation within the City's DOT, Police Department, Public Works, Traffic Engineering, Court and other critical City agencies, reviewing and developing detailed intersection and engineering drawings, defining system configurations and customizations required and determining external system integration requirements. Additionally, during this phase of the project, the Redflex Project Team will work closely with the Police, Court, Traffic Engineering and other agencies to identify and codify city-specific citation issuance and processing criteria to ensure the highest quality

evidence, most secure chain of custody and highest levels of overall quality assurance possible.

### **Installation and Configuration**

During the Installation and Configuration phase the project team performs the tasks of installing necessary equipment, such as the communications infrastructure and configuring Redflex applications to meet the City's requirements as outlined in the Schedule of Program Milestones. Redflex will perform all the required preparatory and installation work essential for the City's program for the specified intersection. Redflex is the only vendor that has successfully implemented dozens of all-digital programs and who can aggressively meet the City's milestones. During the construction phase, Redflex will work very closely with critical City Departments, such as Traffic Engineering and Public Works and to determine the optimum placement of the camera equipment within the City's identified intersection. These activities include conducting a detailed engineering analysis of each proposed location to layout the equipment's configuration and to contract with local seasoned engineering and construction firms to perform the designs, preparing CADD documents and installation and integration of the equipment within the City of Columbus' infrastructure in accordance with the established protocols and procedures that were developed and successfully tested by Redflex. All of these processes will be conducted with "hands-on" oversight and involvement of numerous members of the Redflex Construction and Program Management Teams. Redflex will remain responsible for the design and completion of all required engineering drawings, installation procedures of subcontracting parties, the placement of detection devices, placement of intersection furnishings (camera units, housings and cabinets) and all communication and electrical connections. Additionally, it is appropriate to note that Redflex **actively supports Minority/Women Business Enterprises (MWBE)** and has a long standing policy to ensure equal opportunity for MWB enterprises and makes a good faith effort to subcontract, where applicable with MWB enterprises.

As a result of autonomous and non-intrusive nature of our system set-up, the City will experience minimal disruption. This includes minimal impact on traffic flows, lane closures and interference from general construction efforts

### **Deployment & Testing**

The Deployment phase of the project focuses on deployment planning, developing marketing and public awareness campaigns, program "go-live", and total system testing and training of the identified City Staff. The Redflex team will rigorously test each camera site, program processes and evaluate the output to ensure effective program operations. All violation detection and capture processes and protocols are thoroughly tested and are totally validated prior to the systems becoming operational. These testing procedures include all hardware (camera units, detection devices, interfaces, etc), software and service components (File Transfers, Public Awareness) of the program. These precise

testing protocols ensure that a maximum number of violations are being captured and have been empirically tested and proven to enable the industry's leading citation yield rates.

## Support

Once the Red Light Enforcement Program has been deployed, Redflex provides full operational support and maintenance services.

## Local Subcontractor Contact Information

Redflex is very committed to utilizing local contractors to aid in the construction and implementation of each system. Redflex provides extensive oversight and construction management during each step of the implementation. Construction efforts follow a comprehensive methodology and guide that has been tried, tested and proven effective for working with local sub-contractors and ensuring all project timelines are met.

3.1.21.4. The City requires that personnel from the City Transportation Department be on site for any occasion when the supplier will need access to the City's traffic signal control box.

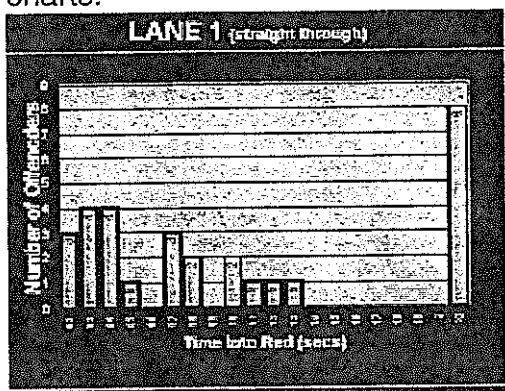
### Redflex Response:

Redflex will ensure this requirement is met.

3.1.22. Please describe how your system is capable of gathering detailed computer data for statistical analysis and histograms for submission at hearing.

### Redflex Response:

As outlined in Section 3.1.13, Redflex is pleased to introduce the industry's only **real-time traffic and violation statistical reporting tool**. This tool can provide the City with a large variety of important traffic management and violation statistics, which can be represented through various easy to read graphs and charts.



This chart provides one of nearly a dozen analyses that can be completed with the Redflex System. This sample statistic shows the # of offences that occurred in lane #1 on a single day. This also demonstrated the flagrant nature of these violations (i.e. how many seconds into the red phase)

As outlined in Section 3.1.13, Redflex provides a complete statistical reporting application that provides critical real-time analysis.

3.1.22.1. The offeror will be required to produce monthly reports of activity and individual histograms for court purposes.

**Redflex Response:**

Please see Section 3.1.13 and 3.1.21. The Redflex Program will provide the most comprehensive set of reports that can be queried on a real-time basis, not just monthly. These reports will be customized to ensure all City and Court requirements are satisfactorily met.

3.1.23. Please describe how your system is capable of accurately monitoring multiple traffic lanes at once with vehicles of various types, heights and lengths under various weather and light conditions.

**Redflex Response:**

Redflex prides itself on its unique four-camera set-up, which provides the industries most accurate capture of various vehicle types, including multi-axel and motorcycle, in the most extreme weather conditions during variant lighting conditions.

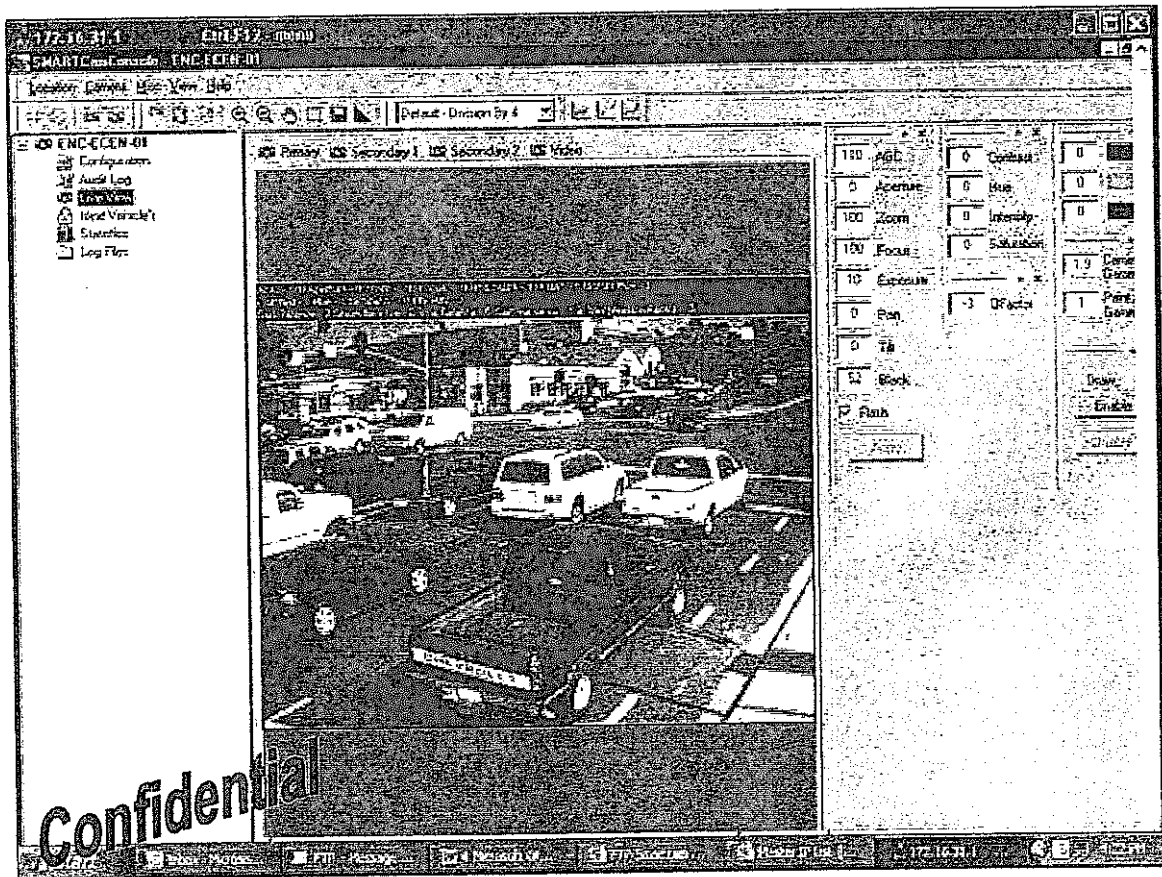
<INSERT ADDITIONAL SAMPLE IMAGES>



3.1.24. Please describe how your system is automated with regards to set up, i.e., aperture setting, focusing, leveling and ease of loading and unloading images.

**Redflex Response:**

The Redflex System provides the unique ability to make system adjustments remotely. This remote configuration capability provides system optimization and ensures images are clear and crisp even in the most extreme conditions.

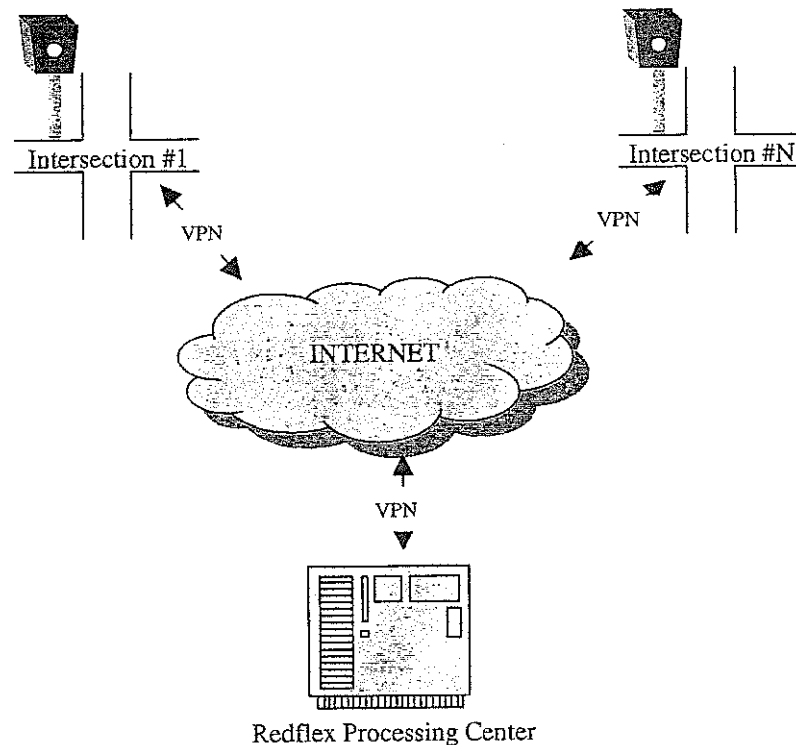


The ability to remotely configure the camera systems and extract images is made possible with secure communication linkages.

Each Redflex Camera Unit provides robust nonvolatile on-site image and violation data storage and archiving capabilities. This is accomplished with an on-site server that can store thousands of images if required. Fortunately, each Redflex Camera Unit and its associated server is connected to a broadband network, such as DSL, T1, Wi-Fi, Fiber Optics and Redflex incorporates additional Cisco Firewall security measures which result in a highly secure network called a Virtual Private Network (VPN). Through the VPN, Redflex is able to "pull" images and violation data directly from the intersection in a real-time fashion. Once images are extracted from the intersection they are stored,

archived and backed-up on redundant servers to ensure ease of retrieval and critical disaster recovery.

### ***High Level Image Retrieval & System Architecture Diagram***



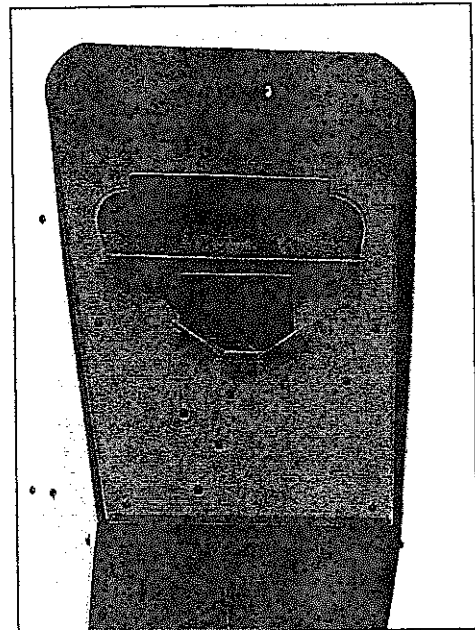
Additional benefits of the Redflex VPN include:

- ✓ The ability to make remote “real-time” camera adjustments
- ✓ The ability to take “test shots” and view in real-time to ensure proper system functioning
- ✓ The ability to download system diagnostics directly from the intersection
- ✓ The ability to view real-time streaming “live” video from the intersection

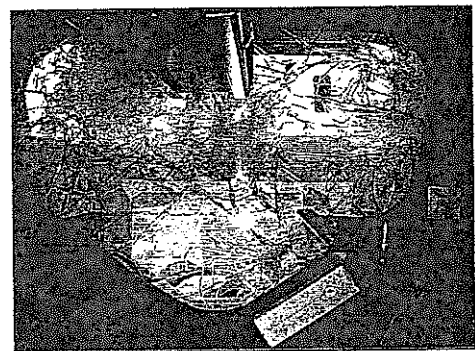
The Redflex Camera Units are pole-mounted in vandal and weather resistant lockable housings and each pole is inset into concrete footings. The Camera housing units were designed to preserve the overall effectiveness of the Red Light Enforcement Program’s operation and to protect the Redflex Camera Units from extreme weather conditions and vandalism ensuring minimal “downtime” and easy maintenance. Poles are typically 10’-12’ high, which protects the housings from defacement and ensures effective multi-lane image capture. Each Redflex Housing & Pole System offers:

- Weather, bullet, and vandalism resistant enclosures built to the standards of the National Electrical Manufacturers Association.
- Waterproof (salt and freshwater) and dust-proof to IP65 with sealed access panel.

- Built from stainless steel or toughened aluminum; Zinc dipped and powder painted in a neutral color
- Doubled-walled for extra protection and heat convection.
- Fitted with polycarbonate, bullet-resistant, N1J Standard, Ballistic Resistant Protective Material (U.S. Justice Department) toughened glass windows.
- Equipped with shrouds that allow rotation and pivoting on the pole for optimal alignment.
- Designed to aesthetically blend with City's environment and current traffic control setup. No additional obtrusive mastarms or overhanging elements required.
- Securely locked into place with eight guide bolts that are securely covered by another shroud to prevent tampering. These can only be accessed from within the Housing. Housing locks are fashioned from toughened steel with the single key engaging the three-way bolts.
- Camera Units are easily reachable without the utilization of lifts and Redflex has successfully deployed systems that include automated raising and declining mechanisms, which utilize "garage door" engines and controls.



Bullet Proof Housing  
& Glass



3.1.25. Please describe how your system's cameras have the ability to operate effectively during periods of nighttime operation and in all weather conditions.

**Redflex Response:**

Redflex Systems have been used successfully in the humidity, the Arizona monsoon season, the torrential rain of Beaverton Oregon, the heat in the dead of summer in several Middle Eastern countries including Bahrain and UAE and throughout the painful winters of Chicago, Sioux Falls, Dayton and Toledo. The System has been designed to effectively sustain operations within the range of sub-zero degrees Fahrenheit to 122 degrees Fahrenheit with an outside humidity of over 99%. Please see Section 3.1.15 for more information regarding

illumination capabilities and see the enclosed sample violation images for variable weather and variant lighting conditions.

- 3.1.26. Please describe the time it takes for your system to take photographs of vehicles entering the intersection after the signal has turned red.

**Redflex Response:**

As a result of the elaborate detection algorithms and the combination of presence detection systems proposed; Redflex can accurately capture and validate images at 1/10<sup>th</sup> of second after the commencement of the red phase. In nearly 99% of the 300+ systems currently operational, Redflex enforces violation activity at 1/10<sup>th</sup> of second. Additionally, the evidence is uncontestable through the combination of both digital still and full motion video, which will demonstrate the cars exact position on the nearside of the violation line and will demonstrate the actually phasing changes of the signal head.

- 3.1.27. Please describe how your system will capture violators at a minimum of 90% of the time or more.

**Redflex Response:**

Redflex is one of the few vendors who can actually substantiate our capabilities and our abilities of achieve a 90% capture rate. This is achieved with the following features:

- Remote configuration (See Section 3.1.24)
- Real-time System Testing
- Automated Error Messaging
- Four-Camera Configuration
  - Multiple Still Images
  - 300+ Frames of Evidence
- Synchronized Illumination
- On-Going System Testing & Diagnostics (See Section 3.1.21)
  - Detection Systems
  - Camera Systems

Attached is a sample report from the City of Chicago, which achieves above a 90% violation capture rate in one of the largest programs in the United States. This report is the actual report from the month of May 2004.

Customer Management Report (Chicago) Redlight Incidents 1-May-2004 to 31-May-2004												
V. MANAGEMENT REP. MAIN HEADING (S)												
	CO-01	CO-02	CO-03	CO-04	CO-05	CO-06	CO-07	CO-08	CO-09	CO-10	CO-11	CO-12
<b>Less Unrecoverable Factors</b>												
Construction	0	0	0	0	0	0	0	0	0	0	0	0
Police/Fire/Other	0	0	0	0	0	0	0	0	0	0	0	0
Registration	0	0	0	0	0	0	0	0	0	0	0	0
Station	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Sub Total Notices</b>	<b>295</b>	<b>494</b>	<b>84</b>	<b>288</b>	<b>312</b>	<b>286</b>	<b>368</b>	<b>1,248</b>	<b>378</b>	<b>673</b>	<b>469</b>	<b>188</b>
<b>Available for Prosecution</b>	<b>295</b>	<b>494</b>	<b>84</b>	<b>288</b>	<b>312</b>	<b>286</b>	<b>368</b>	<b>1,248</b>	<b>378</b>	<b>673</b>	<b>469</b>	<b>188</b>
<b>Less Subject</b>												
Carryover	0	0	0	0	0	0	0	0	0	0	0	0
Mail Location	0	0	0	0	0	0	0	0	0	0	0	0
Police/Fire/Other	0	0	0	0	0	0	0	0	0	0	0	0
Registration	0	0	0	0	0	0	0	0	0	0	0	0
Station	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Process Issues</b>	<b>278</b>	<b>469</b>	<b>81</b>	<b>277</b>	<b>305</b>	<b>278</b>	<b>351</b>	<b>1,230</b>	<b>372</b>	<b>652</b>	<b>460</b>	<b>185</b>
<b>Notices Printed</b>	<b>278</b>	<b>469</b>	<b>81</b>	<b>277</b>	<b>305</b>	<b>278</b>	<b>351</b>	<b>1,230</b>	<b>372</b>	<b>652</b>	<b>460</b>	<b>185</b>

**Confidential**

System 1: 94%  
System 2: 95%  
System 3: 86%  
Etc, etc, etc.

Process Issues	Total	100%	100%	100%
Total	17	006%	25	005%
Notices Printed	278	094%	469	095%

3.1.28. Please describe the process used to communicate to the Division of Transportation, Traffic Engineer's staff that any and all repairs to any damaged traffic control systems have been repaired to the satisfaction of aforementioned.

**Redflex Response:**

As outlined in Section 3.1.14, Redflex provides an effective process should system repair be required and has developed a comprehensive Installation methodology as outlined in Section 3.1.21.3.

In summary, Redflex will work closely with the City's team of engineers to ensure all requirements and resolutions are effectively communicated and implemented.

3.1.28.1. Any and all installations and/or repairs shall be made according to the original working order unless CoC authorizes a change.

**Redflex Response:**

Redflex agrees to this requirement.

3.1.29. Please describe how the CoC is to be reimbursed whenever a CoC employee is needed to be at any one cabinet during installation or repair.

**Redflex Response:**

Redflex will reimburse the City for all direct costs and overhead when required. The payment will be made promptly upon receipt of the City invoice and in alignment with the City specified payment cycles.

3.1.30. For non-emergency situations, there shall be a minimum of twenty-four (24) hours advance notice to the CoC and the work will be performed during normal CoC working hours.

**Redflex Response:**

Redflex agrees to this requirement.

3.1.30.1. In the course of daily activity emergency situations will occur. The definition of emergency and how each party responds to that emergency shall be part of the contract negotiations.

**Redflex Response:**

Redflex agrees to this requirement. Please see Section 3.1.14 for an existing definition of emergency situations and associated response times. This definition and service level response times shall be part of contract negotiations at the request of the City.

3.1.31. Please describe how you handled emergency maintenance situations with cities of comparable size or larger than Columbus, Ohio.

**Redflex Response:**

The procedures outlined in Section 3.1.14 have been implemented in numerous Cities are that are in excess of 1,000,000 citizens, including Chicago and San Jose and in cities with populations of 500,000, including Virginia Beach and

Albuquerque. Our Emergency response ensure satisfactory response within 2 hours and resolution within 24-48 hours.

3.1.32. Offerors are required to submit a current client list with company names, addresses, appropriate contacts and associated phone, fax and e-mail addresses.

**Redflex Response:**

Redflex currently provides photo red light enforcement services for over 50 cities across 11 states in the United States. Our digital system installation base is greater than all of the competition put together. Redflex has nearly 20 years of project experience including the design, installation and maintenance of comprehensive photo enforcement programs. Redflex has also been able to provide City's with superior program support and customer service with the most experienced, accessible and knowledgeable personnel in the industry. To this point, Redflex has never lost an incumbency and since the mid-1980's, no City has failed to renew its contract with Redflex. Only Redflex delivers on its promises and only Redflex has the ability to substantiate our claims through our vast customer base.

As the City of Columbus prepares to evaluate and ultimately decide which vendor will be selected to support the City, I encourage the City's Selection Committee to spend a significant amount of time on checking references. Specifically, it is important to inquiry about the specific digital technology that is being proposed to the City. As previously outlined, digital technology can provide the City of Columbus with significant benefits and increased effectiveness over antiquated wet-film and video-only/residual imaging technologies. However, the implementation and support of a successful digital program requires years of hands-on experience. Vendors often espouse that they have extensive experience, tremendous depth of expertise and extensive breath of operational knowledge; however, if the City chooses a less experienced vendor it may spell years of embarrassment, indignity for the City and City Staff and possible program discontinuation; which is what has happened to some poorly supported programs across the Country.

Below several Mid-West customer references, each which offers similar program size, complexity and magnitude as the City of Columbus.

Select References

Name of Client	Dayton, Ohio
Client Point of Contact	Detective Carol Johnson
Contact Phone Number	(937) 333-1084

Services Provided	Full Turnkey
-------------------	--------------

Name of Client	Toledo, Ohio
Client Point of Contact	Lt. Kevin Keel
Contact Phone Number	(419) 245-3254
Services Provided	Full Turnkey

Name of Client	Chicago, Illinois
Client Point of Contact	John Bills, Asst. Commissioner DOT
Contact Phone Number	(312) 744-9821
Services Provided	Full Turnkey

#### **Full Customer List & Contact Information (Automated Enforcement – Only)**

Based on the list below, one can quickly understand that Redflex supports many successful photo enforcement programs across the US. Upon deeper review, this list becomes substantially more impressive when one understands that:

- All of these programs are full digital
- 6 of these programs were once supported by our competition and whom were replaced by Redflex
- 90% of these contracts were won in highly competitive situations
- Some of these programs have been in operation since the 1980's
- Redflex has not missed a deadline or defaulted on a contractual obligation
- Redflex has never been a party to a class action legal matter, had a program shut down or lost an incumbency
- Each of the team members dedicated to the City of Columbus has supported dozens of the city's listed below



	CITY	ST	CONTACT	PHONE#	ADDRESS
1	Chandler	AZ	Officer Jed Gunter	(480) 782-4217	250 E. Chicago Ave. Chandler, AZ 85225
2	Paradise Valley	AZ	Lt. Ron Warner	(480) 948-7418	6401 E. Lincoln Dr. Paradise Valley, AZ 85253
3	Scottsdale	AZ	Bruce Kalin	(480) 312-7014	3700 N. 74 St. Scottsdale, AZ 85257
4	Bakersfield	CA	Lt. Tim Taylor	(661) 326-3896	1601 Truxton Ave. Bakersfield, CA 93302
5	Compton	CA	Deputy Russ Townsley	(310) 605-6500	301 S. Willowbrook Compton, CA 90220
6	Culver City	CA	Sgt. Omar Corrales	(310) 253-6268	4040 Duquesne Ave. Culver City, CA 90230
7	El Cajon	CA	Ed Krulikowski	(619) 441-1653	200 E. Main St. El Cajon, CA 92020
8	El Monte	CA	Sgt. Bob Roach	(626) 580-2164	11333 Valley Blvd. El Monte, CA 91731
9	Fremont	CA	Agnes Nair	(510) 790-6622	2000 Stevenson Blvd. Fremont, CA 94537-5007
10	Garden Grove	CA	George Allan	(714) 741-5190	11301 Acacia Parkway Garden Grove, CA 92842
11	Hawthorne	CA	Sgt. Keith Kauffman	(310) 970-7261	4440 W. 126th St. Hawthorne, CA 90250
12	Inglewood	CA	Officer Dean Young	(310) 412-5200	One Manchester Blvd. Inglewood, CA 90301
13	Oxnard	CA	Sgt. Ron Whitney	(805) 385-7749	251 S. C St. Oxnard, CA 93030
14	San Jose	CA	Linda Landreth	(408) 794-6216	4 N. 2 <sup>nd</sup> , 10 <sup>th</sup> Floor San Jose, CA 95113
15	San Juan Capistrano	CA	Deputy Marquez	(949) 443-6373	32400 Paseo Adelanto San Juan Capistrano, CA 92675
16	Santa Ana	CA	Sgt. Kevin Brown	(714) 245-8200	60 Civic Center Plaza Santa Ana, CA 92702
17	South Gate	CA	Officer Jim Hugar	(323) 563-5493	8620 California Ave. South Gate, CA 90280
18	Upland	CA	Captain Rod Lines	(909) 946-7624	1499 W. 13th St. Upland, CA 91786
19	Ventura	CA	Lt. Fenwick	(805) 339-4341	1425 Dowell Dr. Ventura, CA 93003
20	Fairfield	CA	Lt. Paul Bockrath	(707) 428-7645	1000 Webster St. Fairfield, CA 94533
21	Vista	CA	Sgt. Ray Miller	(760) 966-3520	325 South Melrose Dr. Vista, CA 92083
22	Encinitas	CA	Sgt. Ray Millier	(760) 966-3520	325 South Melrose Dr. Vista, CA 92083
23	Oceanside	CA	Lt. Tom Jones	(760) 535-1525	3855 Mission Ave. Oceanside, CA 92054

24	Escondido	CA	Cpt. Cory Moles	(760) 644-1071	700 West Grand Ave. Escondido, CA 92925
25	Del Mar	CA	David Scherer	(858) 755-3294	1050 Camino Del Mar Del Mar, CA 92014
26	Emeryville	CA	Lt. Greg Bowman	(925) 918-2893	2449 Powell St. Emeryville, CA 94608
27	Santa Clarita	CA	Gus Pivetti	(661) 286-4047	23920 Valencia Blvd. Santa Clarita, CA 91355
28	Ridgecrest	CA	Chief Michael Avery	(760) 371-3710	100 West California Ave. Ridgecrest, CA 93555
29	Stockton	CA	Lt. Tom Wells	(209) 937-8377	22 E. Market St. Stockton, CA 95202
30	Solana Beach	CA	David Ott	(858) 720-2410	500 Lomas Santa Fe Dr. Solana Beach, CA 92075
31	Maywood	CA	Chief Bruce Leflar	(323) 562-5005	4319 E. Slauson Ave. Maywood, CA 90270
32	Paramount	CA	Bill Padgett	(562) 220-2000	16400 Colorado Ave. Paramount, CA 90723
33	Lynwood	CA	Lt. Dave Tellez	(323) 526-5541	4700 Ramona Blvd. Monterey Park, CA 91754
34	San Mateo	CA	Lt. Rick Passinisi	(650) 522-7710	2000 S. Delaware St. San Mateo, CA 94403
35	Modesto	CA	Lt. Dan Inderbitzen	(209) 342-6142	600 10th St. Modesto, CA 95353
36	Fort Collins	CO	Lt. Gary Perman	(970) 221-6554	300 Laporte Ave. Fort Collins, CO 80521
37	Rome	GA	Kirk Milan	(706) 236-4468	200 Vaughn Rd. Rome, GA 30162
38	Savannah	GA	Sean Brandon	(912) 651-6420	P.O. Box 1027 Savannah, GA 31402
39	Chicago	IL	John Bills	(312) 744-9821	30 North LaSalle St. Chicago, IL 60602
40	Albuquerque	NM	Lt. Bob Haarhues	(505) 761-4089	5408 2nd St. NW Albuquerque, NM 87107
41	Cary	NC	Dale Privette	(919) 462-3833	318 N. Academy St. Cary, NC 27513
42	Monroe	NC	Mark Donham	(704) 282-4510	P.O. Box 69 Monroe, NC 28111
43	Greenville	NC	Steven Yetman	(252) 329-4066	1500 Beatty St. Greenville, NC 27835
44	Stallings	NC	Asst. Chief Dave Hern	(704) 821-8557	P.O. Box 4030 Stallings, NC 28106
45	Indian Trail	NC	John Munn	(704) 821-8114	P.O. Box 2430 Indian Trail, NC 28079
46	Knightdale	NC	Gary McConkey	(919) 217-2201	950 Steeple Square Qt. Knightdale, NC 27545
47	Marshville	NC	Carl Webber	(704) 624-2515	201 W. Main St. Marshville, NC 28103

48	Dayton	OH	Detective Carol Johnson	(937) 333-1084	335 W. Third St. Dayton, OH 45402
49	Toledo	OH	Lt. Kevin Keel	(419) 245-3254	525 N. Erie St. Toledo, OH 43624
50	Beaverton	OR	Linda Adlard	(503) 526-2222	P.O. Box 4755 Beaverton, OR 97076
51	Medford	OR	Dpt. Chief Ron Norris	(541) 774-2260	411 W. 8th St. Medford, OR 97501
52	Sioux Falls	SD	Shannon Ausen	(605) 367-8601	224 West Ninth St. Sioux Falls, SD 57104
53	Columbus	VA	Ryan Arnold	(755) 427-8035	2401 Courthouse Dr. Columbus, VA 23456

3.1.33. Please describe your process for acceptance and disbursement of funds (e.e., the CoC's share of the revenue generated).

3.1.33.1. This is to include but not limited to the following:

- Timing of funds remitted to CoC (from receipt from offerer to CoC);
- Reconciling funds for penalties to the number of violations;
- Process for NSF situations;
- Types of funds that can be received (e.e., cash, check, etc);
- Process used to reconcile the account;
- Costs associated with funds remittal;
- Banking institution(s) used to funds deposited.

**Redflex Response:**

Funds can be received via mail (check, money order or credit card), online (electronic check or credit card) or at a local office (any form). All funds will be remitted to a single lockbox account operated by an FDIC member bank, *UNDER CHARGE*. Statements from the lockbox account will serve as the primary independent source of program funds received.

*OF THE STATE OF OHIO*

- Mail items are forwarded by the violator in a prepaid envelope to a PO Box managed by the lockbox bank. Items are opened, recorded and electronically notified to Redflex from where payments are recorded in our database
- Internet payments are accepted through a secured and encrypted payment gateway. Users are immediately notified of the success or failure of the transaction and funds are routed to an internet merchant account that clears directly into the lock box account
- Physical non-cash payments accepted on-site will be passed via US mail to the lockbox account in the manner of other mail items. Cash will be appropriately controlled and recorded by on-site staff and paid into a local bank account from where funds will be periodically swept into the lockbox account.

Each month, Redflex will receive a bank statement from the lockbox bank showing account activity for the previous calendar month. The amount earned by the city will be calculated as the full value of fine receipts, less any chargebacks made by the bank for declined transactions. The amount due to the city will be calculated and funds will be wired transferred to the city and supporting documentation will be provided on or before the 23rd of the month.

#### Invoices

Invoices for services will be mailed on the last day of the month for that month's service. Payment terms will be 45 days from date of invoice. It is explicitly understood by Redflex that the city's cumulative payment obligation for invoiced service shall not exceed the cumulative program receipts earned. No late fees or interest will be charged on any balance due to Redflex carried in this manner.

The monthly reporting package to the city will include the invoice for our service, a copy of the bank statement, a calculation of the city revenue and a statement of the city's account with Redflex.

#### Additional notes

Interest is not permitted on corporate checking accounts with volumes such as these due to federal regulations. However, a credit is made to the service charges based on average balances which equates to a modest interest payment and hopefully satisfies your concerns if the city is responsible for such charges

3.1.34. Please describe options for payments and collections.

#### **Redflex Response:**

##### **Payment Options**

Redflex will be able to offer the City of Columbus with a large variety of payment options. Payment options will include standard checks, cash, credit card, by telephone and/or Internet modes, with the addition of IVR (Interactive Voice Response).

##### **Citations can be paid in the following ways:**

Redflex can offer citizens the ability to pay tickets online or by one of the traditional methods. Payments will be accepted through a secure server, 24 hours a day, seven days a week.

- **By Mail**

When paying a citation by mail, citizens will be asked to enclose the citation and a personal check, money order or cashier's check for the penalty amount indicated on the front of the citation. Checks will be made payable to the "City of Columbus" and will be mailed to a specified address.

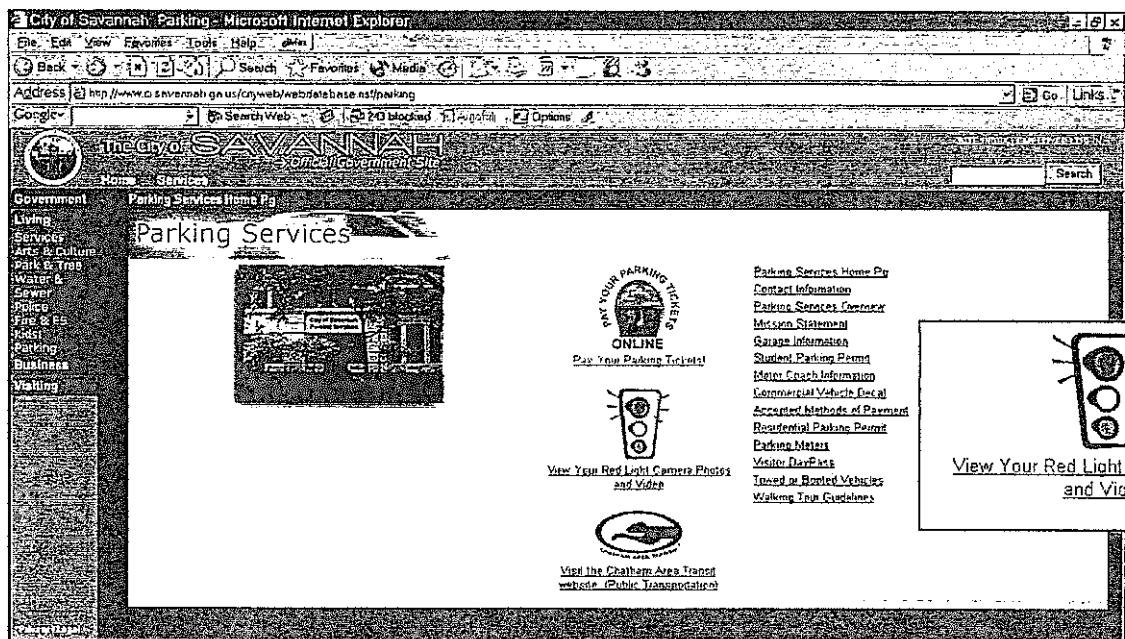
- **Walk-In**

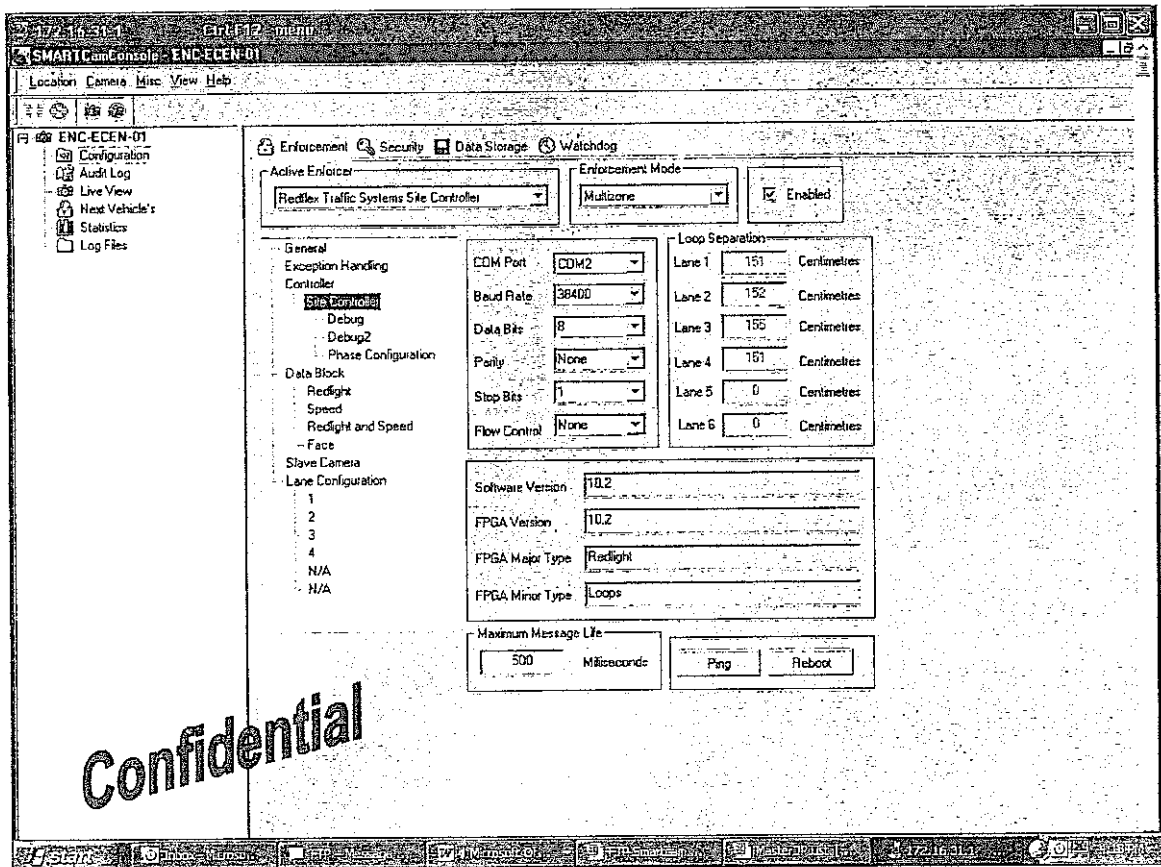
Walk-in payments are accepted at the local customer service office, Monday through Friday from 8 am - 5 pm.

- **Drop Box**  
Payments can be deposited at the City's drop-box locations, 24 hours a day, seven days a week at a variety of specified locations.
- **By Phone**  
Credit card payments are accepted over the telephone by calling the local customer service office.
- **Pay-by-Web**  
Redflex can offer the citizens of Columbus the ability to utilize credit card payments via the Internet. This service is extended to the public in order to reduce the time and effort it takes to make parking and other fine payments. This service is in addition to other payment options and is offered to the public without any additional charge.

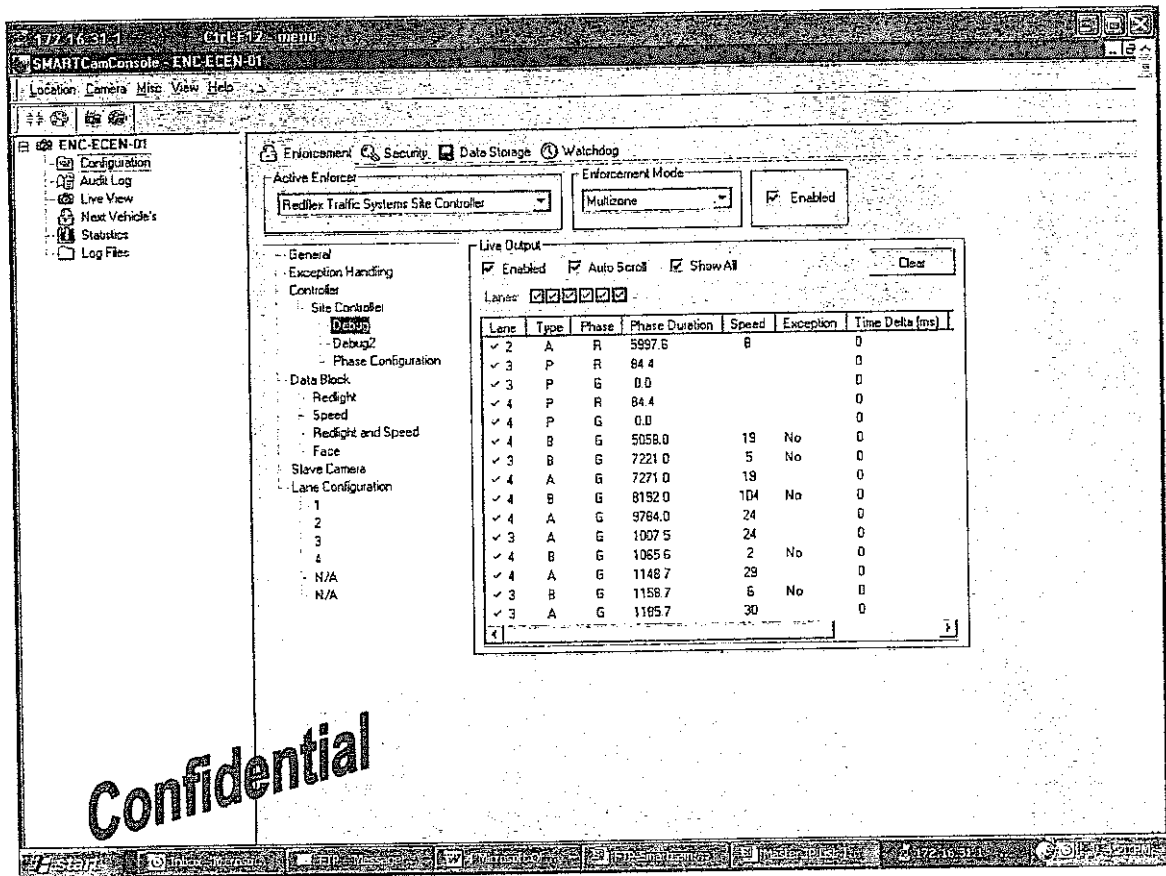
To supplement the effectiveness of the Pay-by-Web option, Redflex would like to demonstrate the on-line citation viewing and payment portal currently utilized by a prominent Redflex partner, the City of Savannah Georgia.

Citizens can view their citation images in full color, including the 12 seconds of full motion video directly from the City's own website.

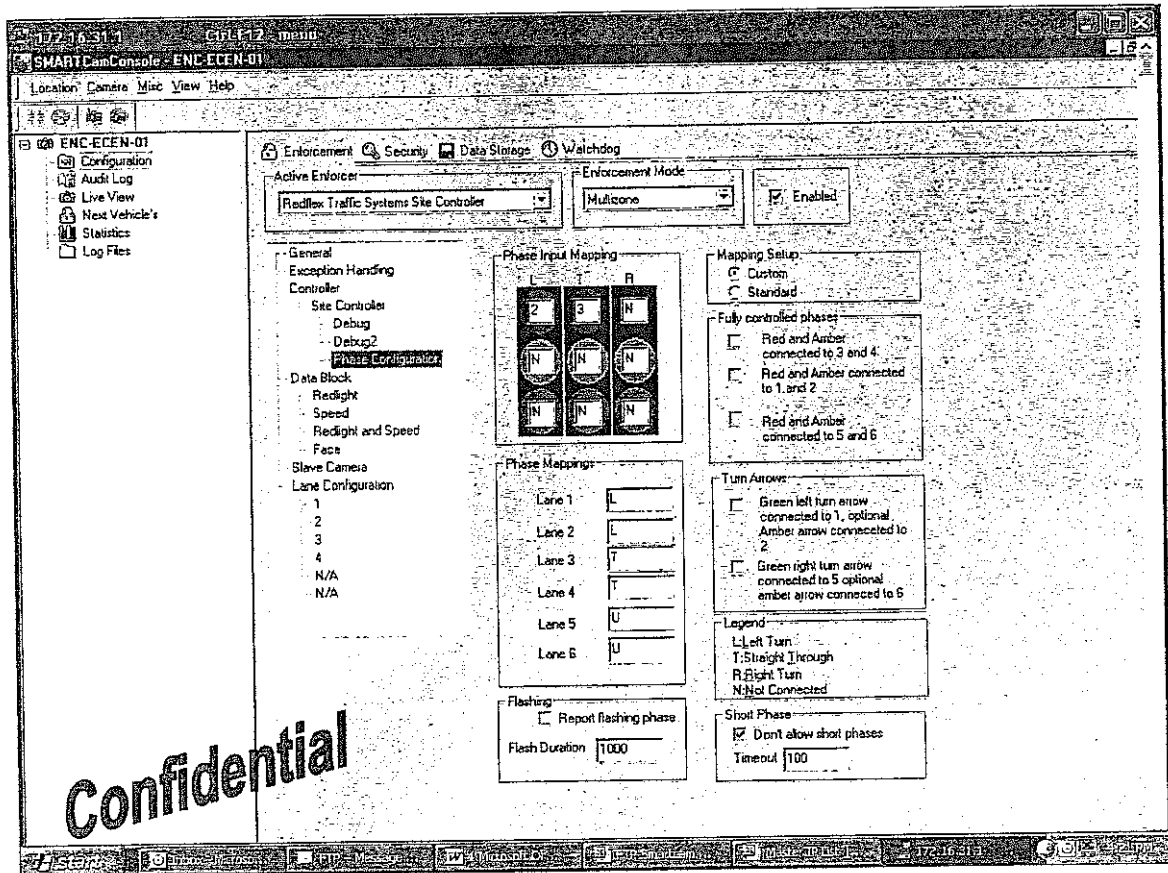




The next check is to verify that the detection system is operating properly. This screen shows the communications link between the detection system and the camera system to confirm a communications problem does not exist.

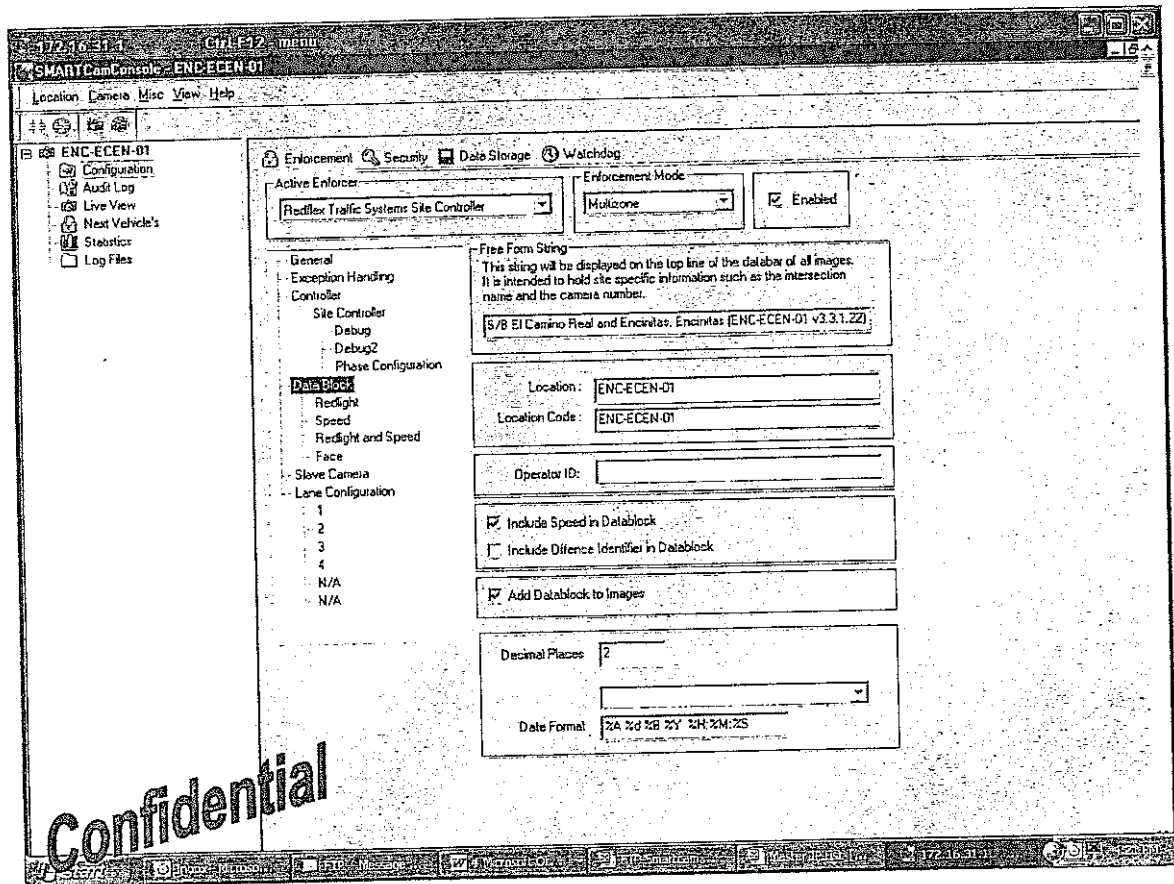


Further checks of the detection system test for traffic sensor activity to ensure each lane being monitored displays required messages.



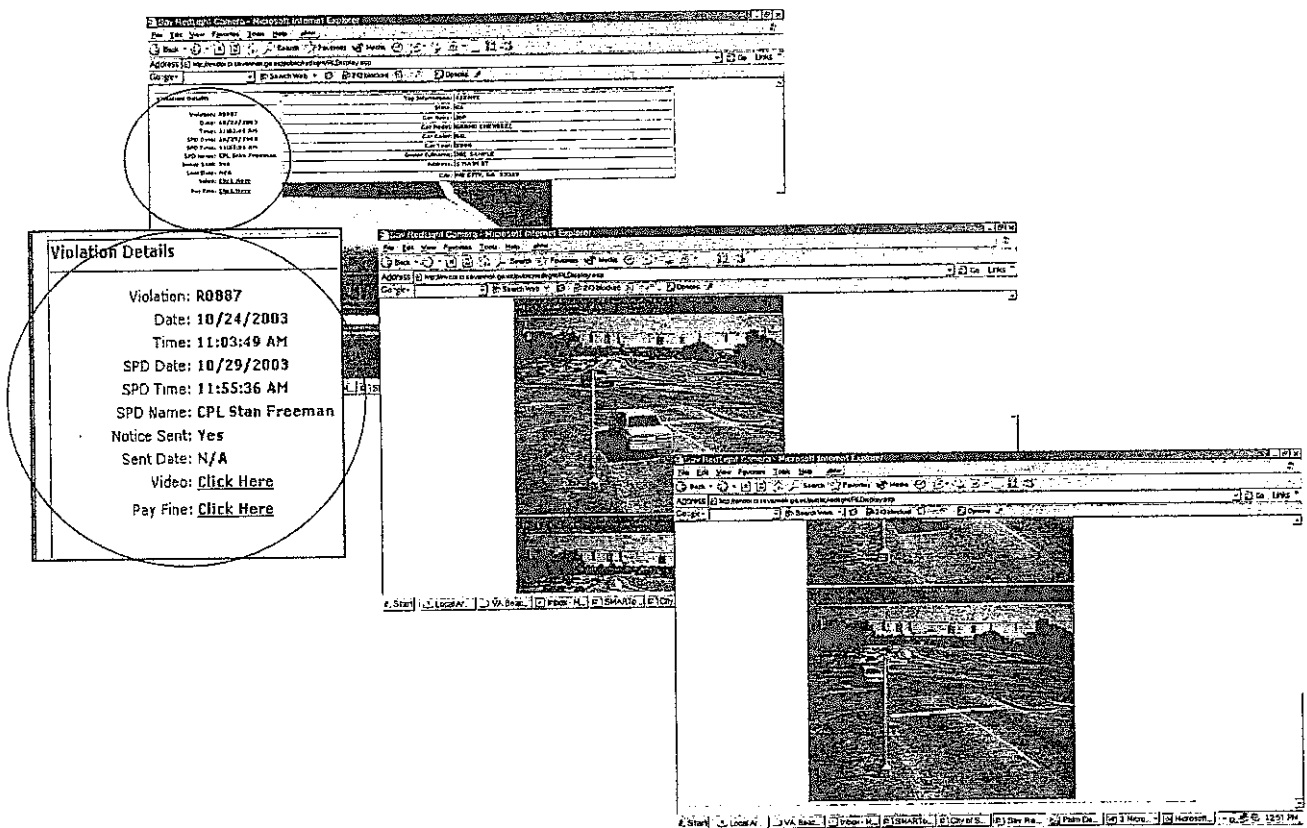
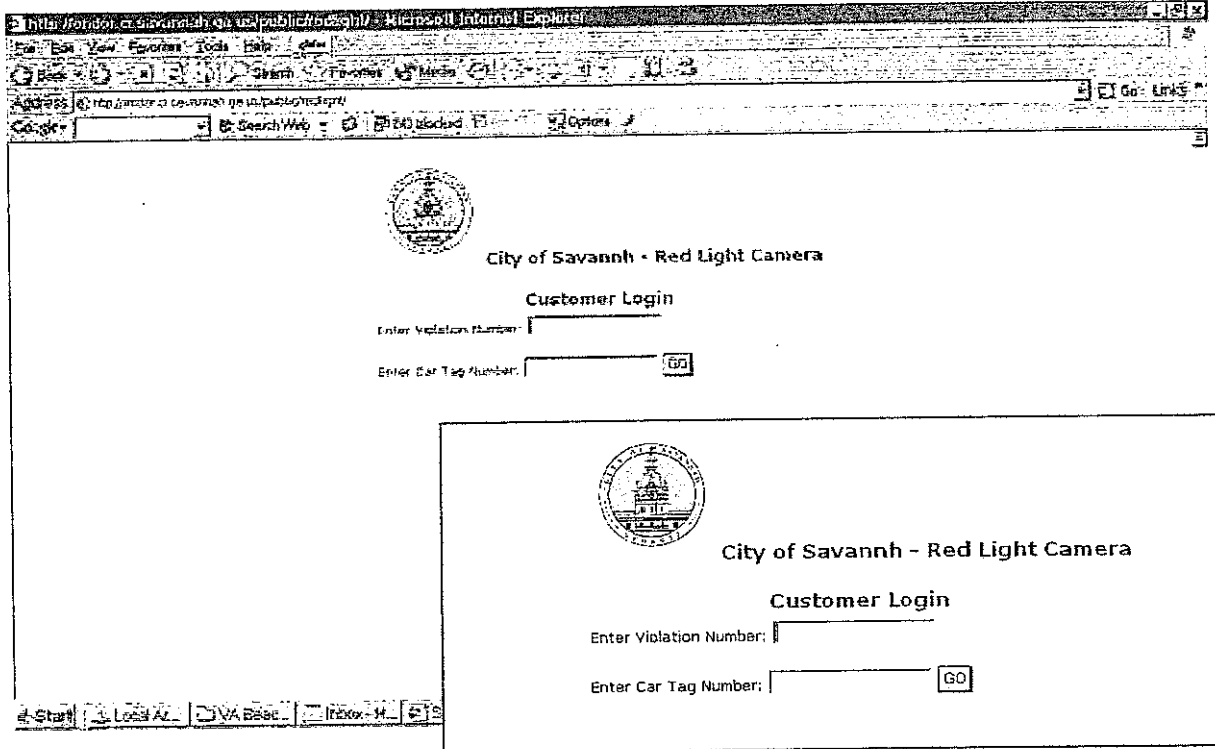
This screen verifies the required phasing for the detection systems to ensure proper operation.



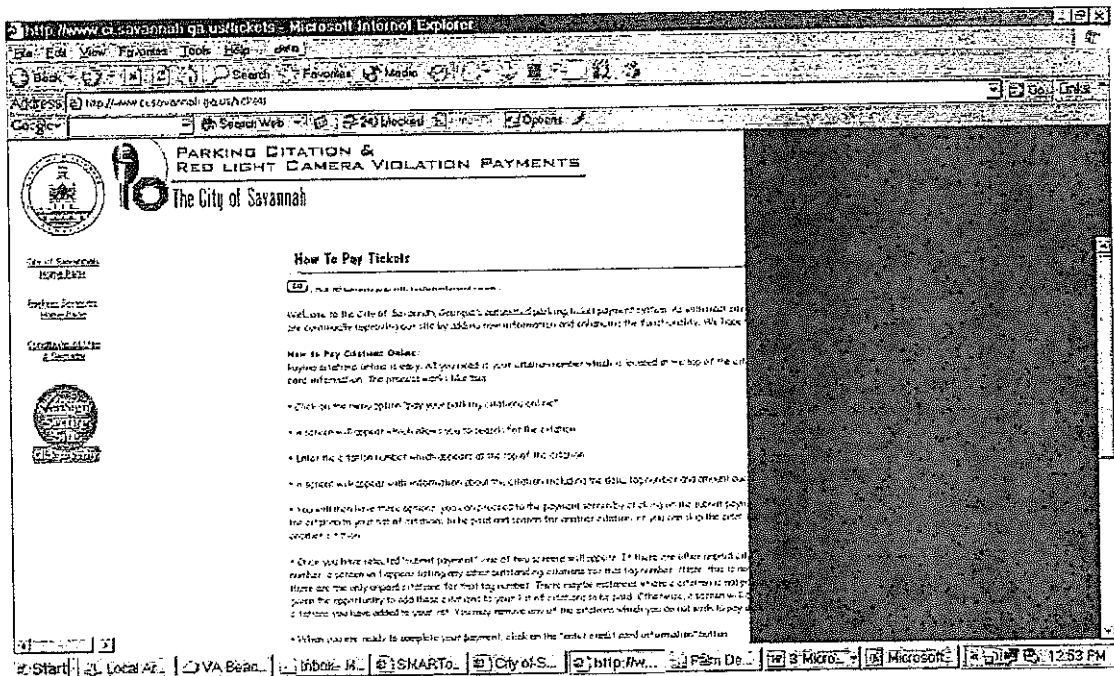


This screen verifies the databar information.

Once the Citizen "clicks" on the option to view the photo and video, they will be linked to the following page, which asks for the violation number and the car tag number.



Once the defendant reviews the images and the video clip, they will have the option to pay-by-web.



Payments are accepted through a partner banks secure server, to provide you with a safe, secure method of Internet transaction. When you decide to make a payment online, you are automatically connected to the Bank's secure server in the City of Columbus. When you enter your credit card information, you are in direct contact with the bank. The bank authorizes your card and then electronically sends a notification of the approved payment.

This method of credit card transaction should provide you with the utmost confidence. It is safer than buying with a credit card in a retail store because there is no merchant entering your credit card information.

- **Accepting Walk-up Payments**

The walk-in payment made by an individual is collected and processed by office staff. A numbered receipt is written in a receipt book. This receipt indicates a citation number, amount paid, date of payment, check number, check off form of payment, individual's first and last name, and clerks signature.

### Payment receipt procedures

- A receipt from the receipt book is written for every walk-in and phone payment to document the transaction.
- Cash, check or money order to original ticket or ticket copy from the system.
- Payments are immediately put in a locking cash box, with no change given from the walk-in receipts. Transaction logs are completed at the end of the

transaction for every transaction. The person doing the daily deposit does not receive a payment.

- Computer/Citation Database Security:
  - Screen saver with password on all computers
  - Turn computers and monitors off at night
  - Log out of Citation Database when leaving desk area
  - Citation Database password not given to anyone else
  - Passwords are changed monthly
- Walk-in payments are audited at the end of the day by the manager. The manager audits the receipt book with the transaction log and compares that to the cash on hand.

### **Posting**

Citation payments are processed by the office clerks daily. Office personnel log onto the Citation Database System in order to post payments. This is a separate process from the collection of payments. In order to have accurate processing on the Citation Database System, the ticket and tag numbers must appear on the check, money order or receipt (cash payments). The result of accurate information into the Citation Database System is needed to generate a financial report daily. The End-of-Day transaction report is balanced against the deposit record to identify any over/short transactions. This report must balance daily.

The daily balance sheet is completed to reflect the type of revenue collected and any over/short balances with an explanation.

### **Collection**

All payments will be collected and deposited into a City specified account and will be in direct accordance with the City's guidelines. With respect to collections, Redflex has an existing relationship with various Collection Services and this process will be made available for the Columbus Program for all delinquent payments. Working closely with the City, Redflex can ensure that the City achieves and exceeds all specified performance standards, including a 70-80% collection rate.

**Please see Section 3.1.10 for detail regarding our proposed Collection Procedures.**

### **Sample Documents**

- **Video Intersection Analysis**
- **Public Awareness Collateral**
- **Sample Construction Commissioning Sign-Off Deliverable**

## Sample Video Intersection Analysis

### Video Analysis

As requested by the City, Redflex has conducted video monitoring of the assigned intersection of S. <xx> Avenue and W. <xx> Street. The video surveying was done during peak hours (7a- 11a, 3p-7p) on February 20, 21 and 24, 2003. Monitoring was performed during peak hours, when the majority of violations occur.

Monitoring this intersection yielded an increased understanding of the conditions that may lead to red light running. In addition to being a busy intersection for vehicular traffic (average daily volume of 59,450), the Redflex video monitoring of all approaches at the intersection revealed other factors that add to driver impatience and distraction. Such factors, though not an excuse, can lead to increased red light running:

- A high incidence of left turn offenders on W/B <xx><sup>h</sup> as traffic changes from one-way to two-way
- A high incidence of right turn offenders despite a posted "No Right on Red 7a-7p" sign
- The presence of pedestrians accessing the park
- School buses dropping off and picking up students at the <xx> Park Field house
- Heavy CTA bus traffic due to the <xx> route on <xx> Avenue; the <xx> and <xx> routes on W. <xx><sup>th</sup> Street and the proximity to the Orange Line Station.
- Confusion and impatience from the triangular traffic interface separating eastbound <xx> and westbound <xx><sup>th</sup> Street.

### Collision Data

At the subject intersection, data provided by the City Police reports an annual collision count of 49, including:

- 34 - angle turn crashes
- 8 - failure to yield
- 3 - disregard signal
- 4 - unaccounted for

This rate of collisions yields an index number (Total collisions = 49 +34+8+3) of 94, the highest index in the entire City.

### Video Monitoring Results

The table labeled "Exhibit A: Video Monitoring Results" (page 8) shows the number of violations recorded by Redflex at the intersection of S. <xx> Avenue and W. <xx><sup>th</sup> Street on Thursday February 20, Friday February 21, and Monday February 24, 2003. Monitoring of traffic was done in all four directions (NB, SB,

WB, EB). Redflex cameras captured violations by Thru, Left, and Right turn traffic.

Redflex's procedures for performing traffic violation monitoring were developed by considering past historical traffic data, existing signage and traffic signals, and periods of heaviest traffic. Redflex research determined that since the heaviest traffic volume at <xx> Avenue and <xx><sup>th</sup> Street takes place during peak traffic hours (7 to 11 AM and 3 to 7 PM on weekdays), and since we monitored twice as many approaches as required, our study would yield numbers sufficient to reveal trends.

In fact, this four-direction methodology yielded a higher rate of capture and resulted in the monitoring of 41,088 vehicles, fully 69% of average daily traffic volume through this intersection.

#### **Volume vs. Violations**

The table labeled "Exhibit B: Volume vs. Violations" (page 9) displays the total traffic volume as compared to the total number of violations during the monitoring period. Data gathered by Redflex indicates that nearly .9% of all drivers using the intersection of <xx> Avenue and <xx><sup>th</sup> Street during the peak hour monitoring periods run a red light (367 out of 41,088). With an average daily total of 59,450 vehicles through the intersection and annual average of 49 collisions, this is strong evidence that red light running is a major problem at this intersection.

Exhibit B also helps establish a baseline for determining the future effectiveness of the City's DARLEP program. By comparing future intersection violation numbers against these pre-program findings, the City will be able to determine if photo enforcement is a sufficient deterrent to reduce red light running.

#### **Violations Per Day**

The graph labeled "Exhibit C: Violations Per Day" (page 10) illustrates the number of red light running violations captured each day during the monitoring period (February 20, February 21, and February 24, 2003). This, along with the Volume vs. Total Violations table on page 9 also helps establish a baseline for determining the future effectiveness of the City's DARLEP program.

The two highest incidences of red light running during the monitoring period were:

- Through traffic on southbound <xx> Avenue (55 on 2/20)
- Through traffic on northbound <xx> Avenue (60 on 2/24)

In both cases, the high number of red light runners took place during afternoon rush hour when traffic is heaviest and people are least patient. There were three incidences during the monitoring period that no violations were captured:

- No left turn violations from southbound <xx> Avenue (2/21)
- No right turn violations from northbound <xx> Avenue (2/24)
- No right turn violations from westbound <xx><sup>th</sup> Street (2/24)

The absence of left turn violations from southbound <xx> Avenue occurred in morning rush hour. This seems counterintuitive because the left turn lane does not have a dedicated left turn arrow for southbound traffic heading toward eastbound <xx>. This may also be due to directional commuting patterns, as there were 8 such violations during afternoon drive.

Right turn violations from northbound <xx> Avenue are rare because of one-way westbound traffic on <xx><sup>th</sup> Street, however, hard right turns onto the eastbound <xx> access road may occur.

The lack of right turn violations from westbound <xx><sup>th</sup> Street onto northbound <xx> Avenue on the afternoon of February 24 appears to be an anomaly, as there were 5 violations that same morning.

#### **Advantage of Peak Period Monitoring**

The pie chart labeled “Exhibit D: Advantage of Peak Period Monitoring” (page 11) shows the effectiveness of Redflex’s video monitoring methodology during this demonstration period. Monitoring traffic with Redflex’s SMARTscene technology during peak traffic periods (7a-11a and 3p-7p) allowed Redflex to capture fully 69% of average daily total traffic volume traveling through the intersection of S. <xx> Avenue and W. <xx><sup>th</sup> Street.

By capturing 367 red light running violations and 41,088 vehicles at this intersection during rush hours, Redflex’s SMARTscene technology and the peak period monitoring methodology set an effective baseline for comparing the future effectiveness of the City’s DARLEP program.

#### **Conclusion**

Redflex Traffic Systems, Inc. has carefully constructed an effective methodology for measuring the need for and effectiveness of a red light enforcement program at the intersection of S. <xx> Avenue and W. <xx><sup>th</sup> Street.

Once Redflex SMARTscene and REDFLEXred™ technology is operational at the intersection during phase I, Redflex will provide weekly statistics and data to validate our initial analysis. These early statistics will also serve to document changes (if any) in driver behavior experienced once cameras are operational, and again when the program is in full swing and citations are being mailed to violators.

On the completion of Phase I, Redflex will remain prepared to prove the effectiveness and value of our systems and technology. We will gladly submit to



any further tests or studies that will help convince the City of the superiority of our products and services.

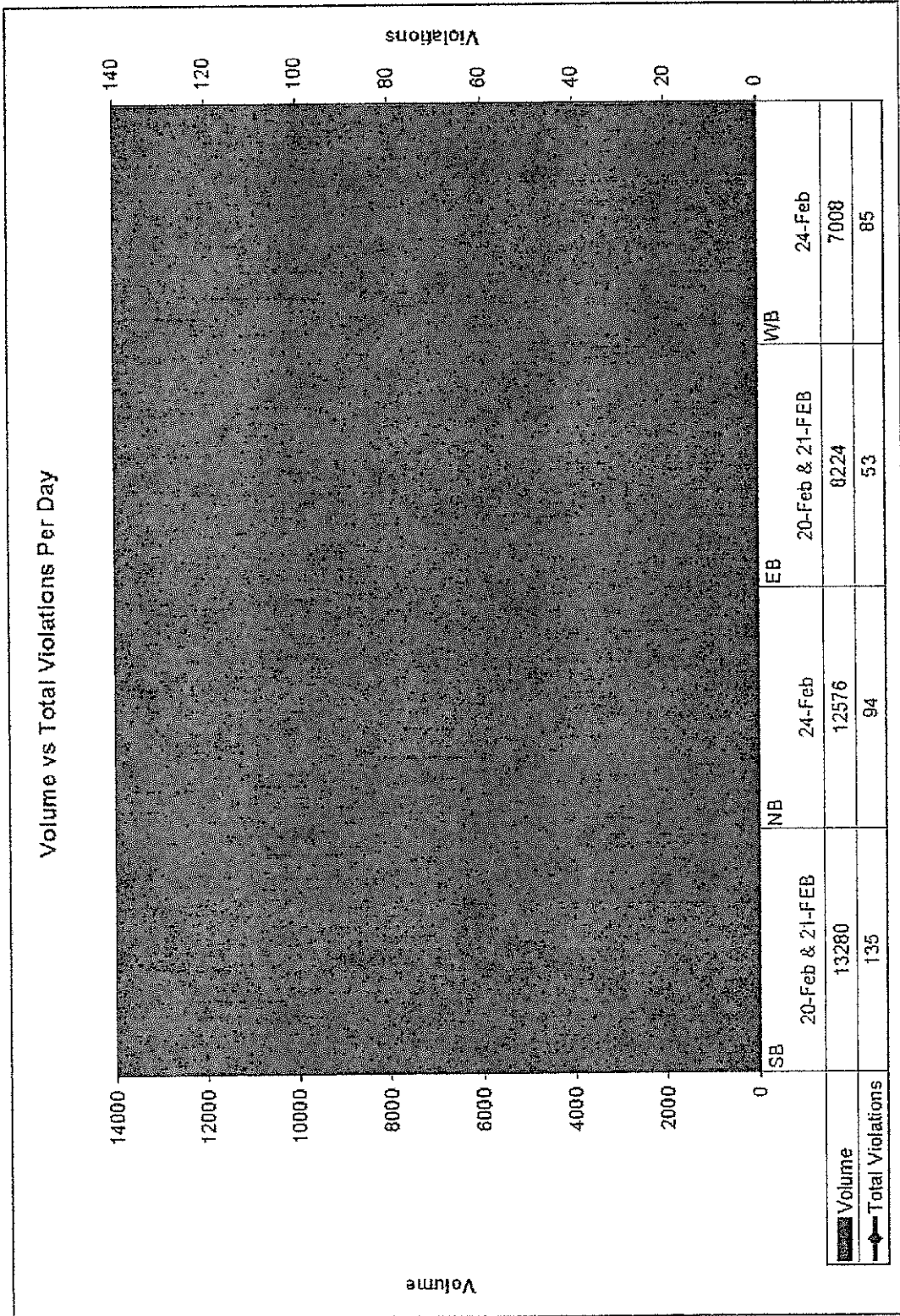
At Redflex, we believe our superior digital imaging cameras and technology give us a distinct advantage over any competitor. Combined with our successful experience in numerous United States cities, our record of unparalleled customer service and innovation, and our reputation for standing behind our products and services, Redflex stands ready to serve the citizens of <xx> and the <xx> Department of Transportation's Digital Automated Red Light Enforcement Program (DARLEP).

**Exhibit A: Video Monitoring Results**  
*(for explanation, see page 4)*

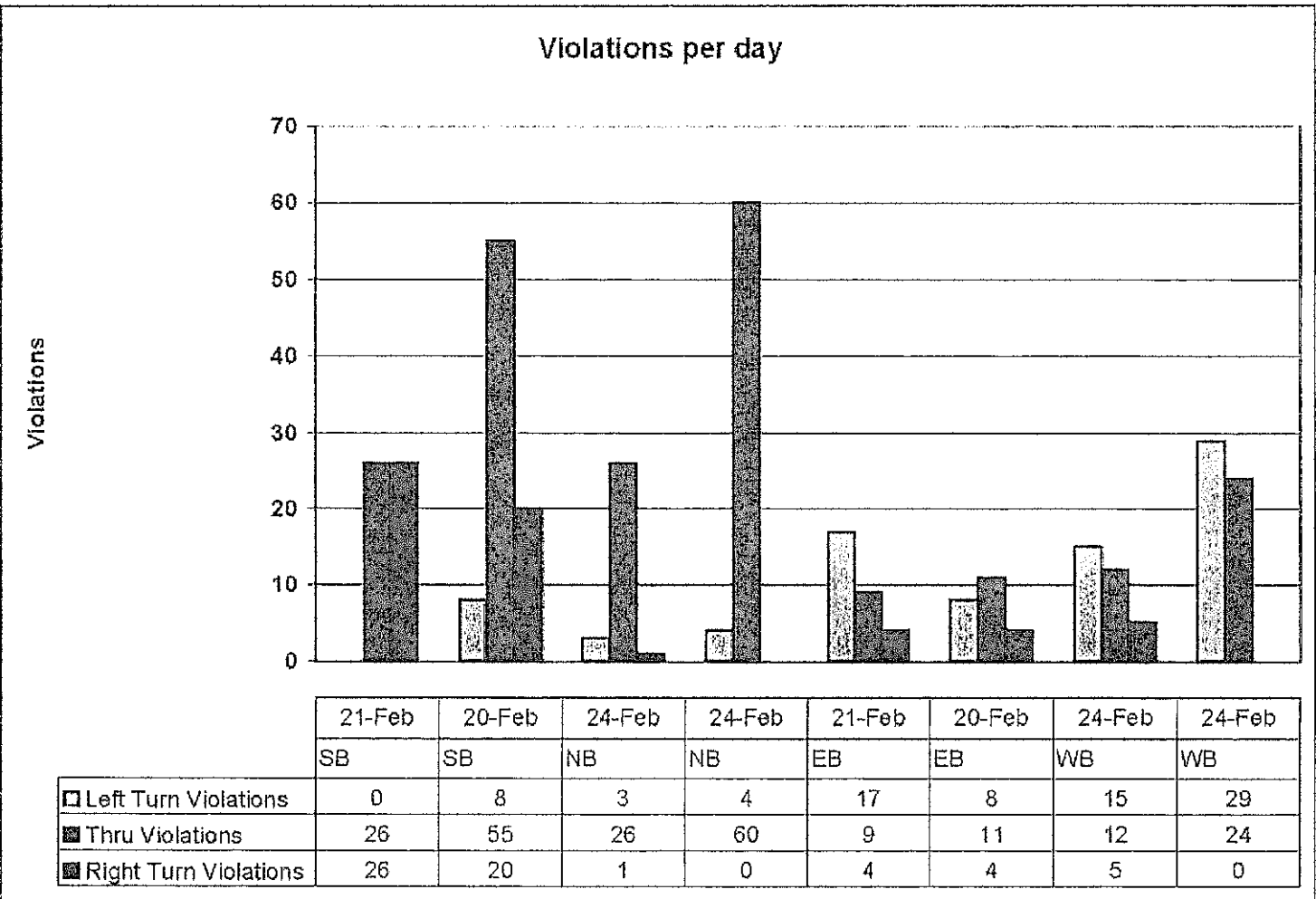
**City of Chicago**  
**Traffic Violation Data 55th and S. Western Ave**

Intersection	Dir	Date Recorded	Time Recorded	Volume	Left Turn Violations	Thru Violations	Right Turn Violations	Total Violations	Data Hours
Western Avenue	SB	21-Feb	7-11 AM	13280	0	26	26	52	4
	SB	20-Feb	3-7 PM		8	55	20	83	4
Western Avenue	NB	24-Feb	7-11 AM	12576	3	26	1	30	4
	NB	24-Feb	3-7 PM		4	60	0	64	4
Western Avenue	EB	21-Feb	7-11 AM	8224	17	9	4	30	4
	EB	20-Feb	3-7 PM		8	11	4	23	4
55th Street	WB	24-Feb	7-11 AM	7008	15	12	5	32	4
	WB	24-Feb	3-7 PM		29	24	0	53	4

**Exhibit B: Volume vs Total Violations per Day**  
*(for explanation, see page 5)*



**Exhibit C: Violations per Day**  
*(for explanation, see page 5)*



## Sample Public Awareness Materials Sample Media Release #1

### <xxx> JOINS NATIONWIDE FIGHT AGAINST RED LIGHT RUNNING Effort to Eliminate 'Most Dangerous' Crashes

Mayor <xxx> announced today that the City of <xxx> is about to become the latest American community to use photo enforcement to reduce the number of collisions caused by red light runners. Mayor <xxx> said that the city has contracted Redflex Traffic Systems, Inc., a leading provider of digital imaging solutions for traffic management and road safety, to install red light cameras at (NUMBER) high-risk intersections.

According to the Insurance Institute for Highway Safety (IIHS), red light running causes about 260,000 crashes each year, and numbers are rising.

On a national basis, fatal crashes involving red light running increased 15 percent between 1992 through 1996, far outpacing the 6 percent rise in all other fatal crashes. Crashes at traffic signals cost Americans an estimated \$7 billion annually in medical costs, time off work, insurance hikes and property damage. The impact of personal and emotional trauma is incalculable.

Red light runners are most likely to be younger than 30, have multiple speeding convictions, and are less likely to use seat belts than other drivers. Fatally injured red light runners are six times more likely to have a blood alcohol level of 0.10 percent or more than other drivers in such crashes. (IIHS)

(REVIEW DRAFT/INSERT LOCAL STATS eg) In <xxx> in 1997 (the most recent year for which statistics are available), .... people were killed in fatalities caused by red light running, and another ..... were injured. Even worse, the total number of people either injured or killed was ..... percent higher than in ..... and the total number of accidents is increasing (..... in .....). To combat these trends, <xxx> is turning to technology.

Each camera system will consist of a main camera that digitally photographs the violator's car and rear license plate, which are used to identify vehicles and to generate citations.

(INSERT NAME) Program Manager expects the cameras to start operating around (date) "We are instituting red light cameras for two reasons: to catch drivers who violate the law, and to use significant fines to deter other motorists from running red lights," (NAME) said "Our community supports this effort, and statistics from around the country show that red light cameras can reduce collisions."

City Police Chief (INSERT NAME) supports the new Program. "Red light running collisions are among the most dangerous. Anyone, of any age, in or near an intersection could become a red light running injury victim," said (Chief NAME). "The Camera Program is another excellent tool to help Police stop red light running crashes."

Further information:

## Sample Media Release #2

### CONSTRUCTION STARTS FOR CITY'S FIGHT AGAINST RED LIGHT RUNNING

Camera Effort to Eliminate 'Most Dangerous' Crashes

Construction to install red light cameras for the City of <xx> Digital Automated Red Light Enforcement Program (DARLEP) has commenced at the high-risk intersection(s) of (STREET) and (STREET).

Mayor <xx> said that the City will use photo enforcement to support existing police efforts against red light runners. The City has contracted Redflex Traffic Systems, Inc., a leading provider of digital imaging solutions for traffic management and road safety, to install red light cameras at a total of ..... high-risk intersections over the next few months.

According to the Insurance Institute for Highway Safety (IIHS), red light running causes about 260,000 crashes each year, and numbers are rising.

On a national basis, fatal crashes involving red light running increased 15 percent between 1992 through 1996, far outpacing the 6 percent rise in all other fatal crashes. Crashes at traffic signals cost Americans an estimated \$7 billion annually in medical costs, time off work, insurance hikes and property damage. The impact of personal and emotional trauma is incalculable.

Red light runners are most likely to be younger than 30, have multiple speeding convictions, and are less likely to use seat belts than other drivers. Fatally injured red light runners are six times more likely to have a blood alcohol level of 0.10 percent or more than other drivers in such crashes. (IIHS)

(INSERT LOCAL STATS eg) In <xx> in 1997 (the most recent year for which statistics are available), .... people were killed in fatalities caused by red light running, and another ..... were injured. Even worse, the total number of people either injured or killed was ..... percent higher than in ..... and the total number of accidents is increasing (..... in .....). To combat these trends, (INSERT CITY) is turning to technology.

The camera system will consist of a main camera that digitally photographs the violator's car including the rear license plate, which is used to identify vehicles and generate citations.

(INSERT NAME) Program Manager expects the cameras to start operating around ..... "We are instituting red light cameras for two reasons: to catch drivers who violate the law, and to use significant fines to deter other motorists from running red lights," (NAME) said "Our community supports this effort, and statistics from around the country show that red light cameras can reduce collisions."

City Police Chief (INSERT NAME) supports the new Program. "Red light running collisions are among the most dangerous. Anyone, of any age, in or near an intersection could become a red light running injury victim," said (Chief NAME). "The Camera Program is another excellent tool to help Police stop red light running crashes."

## Sample Media Release #3

### PHOTO ENFORCEMENT CITATIONS START TOMORROW 30 Day Grace Period Over, Citations Real for <xxx> Red Light Runners

By now, <xxx> motorists should be aware that the City has a new photo enforcement program to reduce red light running collisions.

"With cameras monitoring the intersection(s) of ..... and ..... we've issued Warning Notices for the past 30 days," said (INSERT NAME), Program Manager for the traffic safety initiative. "Now it's time to start citing violators."

Starting tomorrow (DATE), drivers who are photographed running red lights will receive an official traffic Citation in the mail with photos recording the violation printed onto it. They will be responsible for paying the fines listed on the Citation that could total (INSERT FINE AMOUNT).

Violators will have (XXX) choices: (INSERT OPTIONS FOR RESPONDING).

"The best and safest choice for drivers is just to *STOP ON THE RED*. Then you are not photographed and not fined" said (PROGRAM MANAGER NAME).

"We have taken great pains to be as fair as possible with this new program. Our community has had a 30-day grace period to learn about the cameras without fines being issued. We've also been careful to select systems with in-built quality assurance checks on production of all tickets.

"We need to do everything in our power to reduce collisions," said Police Chief (NAME), "and a hefty fine for red light running will make all motorists think twice before they endanger themselves and others."

"(SUBSTITUTE RELEVANT CITY DATA FOR THE FOLLOWING) Collisions rose by ..... to ..... in the two years to ..... and fatalities caused by red light running doubled. (1997 is the most recent year for which statistics are available.)

"Red light running accidents are the most dangerous form of traffic accident," said Chief (NAME). You have almost a one in two chance of being injured in this kind of accident. We must reverse these trends. We want motorists to know our red light cameras are in place as part of our total law enforcement program."

<xxx>'s Digital Automated Red Light Enforcement Program (DARLEP) is administered by Redflex Traffic Systems, Inc.



# The Light is Red for a Reason SO STOP!

**What is red light running?** A violation occurs when a motorist *deliberately* enters an intersection *after* the signal light has turned red. Motorists who are already in an intersection when the signal changes to red - while waiting to turn, for example - are not red light running so they are not ticketed.

**Why use red light cameras not just more police?** Cameras enhance the existing Chicago Police Department's effort round the clock because we can't be everywhere at once. In cities where red light cameras are in use, Police say it would take 12-15 more officers to have the same effect as one camera.

Traditional police enforcement also poses special difficulties and dangers for police who may have to follow violating vehicles through intersections during the red light which endangers them as well as other drivers, passengers and pedestrians.

**Do red light cameras improve public safety?** YES, they've been *proven* to reduce red light violations, intersection crashes and injuries. Violations usually fall by around 40 percent or more in the first year. In Oxnard, CA, they fell 42 percent in four months. In Fairfax VA, they dropped 44 per cent in the first year, and also fell 34 per cent at other non-camera intersections as motorists generally became more aware of the need for safe driving. Records of accidents and serious injuries also show declines.

In Scottsdale, AZ, after four years of photo enforcement, 70 per cent of young drivers report driving more carefully than they would in other cities without traffic cameras.

**Are they fair?** YES. If you don't run the red light, you won't be photographed or fined.

The cameras *only start operating* after the light has turned red. Chicago drivers who enter on yellow and are still in the intersection when the light changes to red aren't photographed. Most programs also require police to check and authorize every ticket before it is issued to confirm a genuine violation has occurred.

**Do they violate privacy?** NO. Illinois law states that driving on public roads is a regulated activity, not a right. Neither law nor common sense suggest that drivers should not be observed on the road or have their violations documented.

**Does the American public support the use of red light cameras?** YES. Two 1995 surveys for the Insurance Institute of Highway Safety revealed that 66 percent of people surveyed favored red light cameras compared with only 28 percent who opposed.

Support is highest - 80 percent or more - in large cities and in communities that already use the systems.



**Sample Construction Commissioning Sign-Off Deliverable  
Redflex Traffic Systems**

Digital Automated Red Light Enforcement Program

Final Acceptance Checklist  
(Red Light Camera System)

This Final Acceptance acknowledges that the Digital Automated Red Light Photo Enforcement Camera System operates in accordance with the Request for Proposal determined by the City of <xxx> Standards and specifications. Upon review of listed items below, the City Representative shall execute a 'Final Acceptance'.

Location: <xx> Ave & <xx><sup>th</sup> Street

Camera Code: CG-WE55-01  
Camera Code: CG-WE55-02

Intersection Installation		RTS Technician		
		Yes	No	Initials
1.	Has the testing of all necessary equipment hardware and software been completed?			
2.	Did Redflex perform a post construction check to determine worked performed by the Subcontractor was in accordance with specified guidelines?			
3.	Are the Photo Enforcement Camera Systems at both approaches in full working order?			
4.	Has the fixed speed threshold been set to capture offenses at 6mph or greater over the posted speed of 30mph?			
5.	Did Redflex perform a video intersection analysis of the designated intersection for statistical purposes?			

Intersection Installation		City		
		Yes	No	Initials
1.	Is the Photo Enforcement Camera system installed at the designated location chosen by the City of <xxx>?			
2.	Is the Photo Enforcement Camera system installed at the designated approach(es) chosen by the City of <xxx>?			
3.	Has all the equipment necessary to operate the camera			

	system been installed? I.e. Poles, housings, flashes, cameras, vehicle detection system and software?			
4.	Was the Photo Enforcement Camera System operational by the date designated by the city and as agreed to by Redflex?			
5.	Did Redflex perform a video intersection analysis of the designated intersection for statistical purposes?			
6.	Were the Violation Video tapes and a detailed statistical report presented to the city?			
7.	Was the installation of equipment performed in compliance with all applicable local, state and federal laws and regulations?			
8.	Was the intersection landscaping placed back into its original state?			
9.	City advised that the speed threshold is 6mph over the speed limit at EB <xx> <sup>th</sup> Street.			

Maintenance Plan		City		
		Yes	No	Initials
No.	Question			
1.	Did Redflex present to the City a comprehensive Maintenance Service Plan?			

**Comments:**

Please provide explanation for items checked in the shaded area. What corrective actions are required?

---



---



---



---



---

The signing of this document signifies that all City representatives agree that Redflex Traffic Systems, Inc. has satisfied the contractual obligations described in the Request for Proposal.

City of <xxx> Representative:

Redflex Traffic Systems, Inc.

## Cost Proposal

Redflex is pleased to offer the City a full turnkey program with no upfront cost and no out-of-pocket cost that will guarantee cost neutrality for the lifetime of the program. More on this later!

The most important single attribute a vendor can provide the City of Columbus is a high citation issuance rate. The citation issuance rate can be calculated by the following simple formula.

### FORMULA FOR TRUE ISSUANCE RATE

<b><i># of Citations Issued</i></b> <b><i>Divided by</i></b> <b><i>Total # of Violations</i></b>
--

#### Erroneous Issuance Rates

Across the Country the average true issuance that has been documented by most cities supported by programs other than Redflex is approximately 40 - 50%. This means that only 4 out of 10 violators will actually receive a citation notice. Unfortunately, vendors find a way to justify this low issuance rate with creative accounting practices. For example, they utilize the notion that the violation was not prosecuted as a result of poor plate image quality due to sun glare. In this scenario, the vendor will typically deduct this issue from the issuance rate calculation because they rationalize this as a non-controllable factor. In taking all of these exclusions/deductions, the vendor can actually state a more significant issuance rate, but they are stating the "true issuance" rate in an erroneous fashion.

Worst yet, is the vendor with limited experience and no demonstrated issuance rate. All new technologies that require a City to act as a laboratory rat, may suffer a much worse fate than a low issuance rate. Typically, in these situations, the Cities will not even have a functioning program for many months and often years. In fact, it has been proven that when the programs actually "go-live" and become operational, the true issuance rate will be 10-30% at best!!!

Across the United States, Redflex has empirically proven via independent reports to achieve an 80% to 90%+ true issuance rate, which is 20-50% greater, than the competition

In addition to correlating with traffic safety, the City's citation issuance rate is the single most important factor for determining the net revenue stream that can be forecasted by the City.

Using a simple equation and assuming all variables are the same except for citation issuance rate, the City may actually lose millions of dollars each year by choosing a vendor other than Redflex. To further demonstrate the profoundness of the point, I am also assuming that the competition is providing the City a program for FREE! In this situation, the city may still lose millions annually.

	REDFLEX	Competition
# Of Violations Per Day	15	15
Citation Issuance Rate	80%	40%
# Of Citations Issued Per Day	12	6
# Of Citations Issued Per Month	360	180
% Of Citations Paid	75%	75%
# Of Citations Paid	270	135
City Allocation Of Fine	\$95	\$95
Gross Monthly Citation Revenue	\$25,650.00	\$12,825
Avg. Redflex Fee	\$5,170.00	\$0
Monthly City Net Profit	\$20,480.00	\$12,825
Annual City Net Profit	\$245,760.00	\$153,900
# Of Intersection Approaches (System) Enforced	20	20
<b>Annual Program Net Profit</b>	<b>\$4,915,200.00</b>	<b>\$3,078,000</b> <b>(\$1,837,200.00)</b>

**If our competition provides the City a photo enforcement program for free, the City may still lose nearly \$2,000,000 annually!!!**

## Pricing Proposal

Redflex believes in providing the City of Columbus with the most comprehensive program, the most advanced technologies and the greatest depth of proven program effectiveness without "nickel and diming" the City. All pricing is for the full turnkey program with no hidden costs and no additional costs.

Redflex is pleased to provide the City several pricing options. The first pricing option is based on fixed monthly fee per system.

Monthly Fixed Fee per System = \$5,170

### Revenue Projections Based on this Fixed Fee

	REDFLEX
# Of Violations Per Day	15
Citation Issuance Rate	80%
# Of Citations Issued Per Day	12
# Of Citations Issued Per Month	360
% Of Citations Paid	70%
# Of Citations Paid	252
City Allocation Of Fine	\$95
Gross Monthly Citation Revenue	\$23,940.00
Avg. Redflex Fee	\$5,170.00
Monthly City Net Profit	\$18,770.00
Annual City Net Profit	\$225,240.00
# Of Intersection Approaches (System) Enforced	20
<b>Annual Program Net Profit</b>	<b>\$4,504,800.00</b>

Conservatively, with 80% citation issuance (as referenced in the proposal, Chicago achieved 93%) and with a 70% collection rate, the City can net \$4,500,000 of new annual revenue.

If the City should decide to pursue this model, Redflex will **contractual guarantee** the City can never operate at a loss. If annually, the City recoups less then the program collects, **Redflex will reimburse the City!**

The second pricing option is based on a **Per Citation Paid** basis. This model includes tiers that will provide the City with stronger financial return through greater citation volume.

The assumption of the tiers is based a 20 system program (i.e. 10 intersections with two enforced approaches)

Tier	Definition	% Paid to Redflex	\$ Paid to Redflex
1	0 – 1000	75%	\$71.25
2	1001- 2000	65%	\$61.75
3	2000+	50%	\$47.50

Pricing tiers are based on a \$95 citation fine amount, which is the same as the Toledo and Dayton programs.

**In alignment with our program in Toledo, Redflex would like to offer the City the additional service of Fixed Speed enforcement. This would be inclusive of the pricing outlined above.**

The Redflex Fixed Speed Enforcement Program is achieved with no additional camera housings or systems and with minimal additional hardware. The Redflex System enforces Speed-On-Green and the City can determine the minimum threshold for enforcement.

To ensure no upfront cost with the fixed fee program, Redflex will invoice the City based on a monthly fixed fee and the City will have up to 90 days to pay the invoice. This arrangement will be executed initially in the program and will allow the City to actually collect fines and receive monies from violators prior to paying the Redflex invoice – no risk!

Redflex will also evaluate the total dispositions and collections provided from the program to determine if the City is receiving enough monies to cover the monthly invoicing. If there is a discrepancy, Redflex will adjust the pricing to ensure cost neutrality – no risk!

Signed Authorization Signature Proposal Page 5 from the bid document

# PROPOSAL

To the Finance Director of the City of Columbus, Ohio:

We (I) propose to furnish the following article(s) and/or service(s) at the price(s) and terms stated subject to all instructions, conditions, specifications and all attachments hereto. We (I) have read all attachments including the specifications and fully understand what is required.

Prices are to be quoted F.O.B.:

See Page 5

Delivery: TBD calendar day(s) after receipt of order.

Terms: TBD

Company Name or Bidder's Name: REFLEX TRAFFIC SYSTEMS

Business Address of Bidder: 6047 BRISTOL PARKWAY  
CULLER CITY CA 90230

### REQUIRED Company Employee Information:

Total number of company employees = 150

Total number of company employees working in Columbus = 2

Additional number of employees that will be working in Columbus in the event this contract is awarded to your company = 5

The full name and residence of all persons and parties interested in the foregoing bid are: (If a corporation, give the name and address of the president and secretary; if firm or partnership, the names and address of the members or partners.)

Name

Address

BRUCE HIGGINS

15026 N. 74TH SCOTTSDALE AZ 85260

KAREN FINLEY

"

Authorized Signature X

*Aaron Rawls*  
(SIGNATURE MUST IN WRITING IN OTHER THAN BLACK INK)

Title: X

VICE PRESIDENT

(TITLE MUST BE GIVEN)

*Aaron Rawls*  
5



# 1. Non-Collusion Affidavit

(This affidavit must be executed for the proposal to be considered)

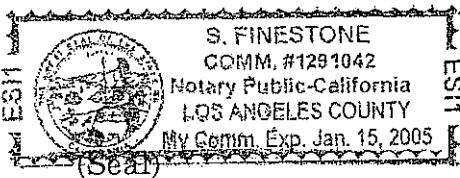
State of CALIFORNIA)

County Los Angeles)

AARON ROSENBERG, being first  
duly sworn deposes and says that he is, Vice President, (sole  
owner, a partner, president, secretary, etc.) of the party making the foregoing  
proposal or bid; that such bid is genuine and not collusive or sham; that said bidder  
is not financially interested in, or otherwise affiliated in a business way with any  
other bidder on the same Contract; that said has not colluded, conspired, connived  
or agreed, directly or indirectly, with any bidder or person, to put in a sham bid, or  
that such other person shall refrain from bidding, and has not in any manner  
directly or indirectly, sought by agreement or collusion, or communication or  
conference, with any person, to fix the bid price of affiant or any other bidder or to  
secure any advantage against the City of Columbus, Ohio or any person or persons  
interested in the proposed Contract; and that all statements contained in said  
proposal or bid are true; and further, that such bidder has not directly or indirectly  
submitted this bid, or the contents thereof or divulged information or data relative  
thereto to any association or to any member or agent thereof.

Aaron Rosenberg  
Signature of Affiant

Sworn to and subscribed before me this 15 day of June, 2004.



Notary public in and for

Los Angeles

(county)

California

(state)

My commission expires: 1-15-05

## **Section V**

### **The Non-Collusions Affidavit**

Please see the "Original" proposal for the executed affidavit.

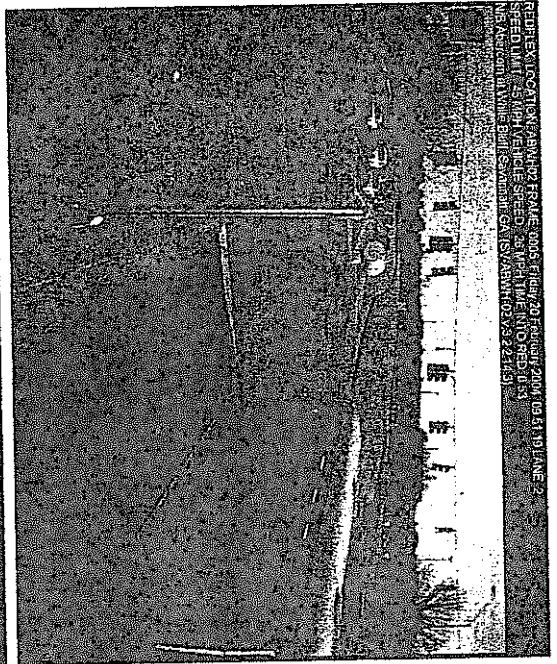
### **Delinquent Personal Property Tax Affidavit**

To be provided per Addendum 3

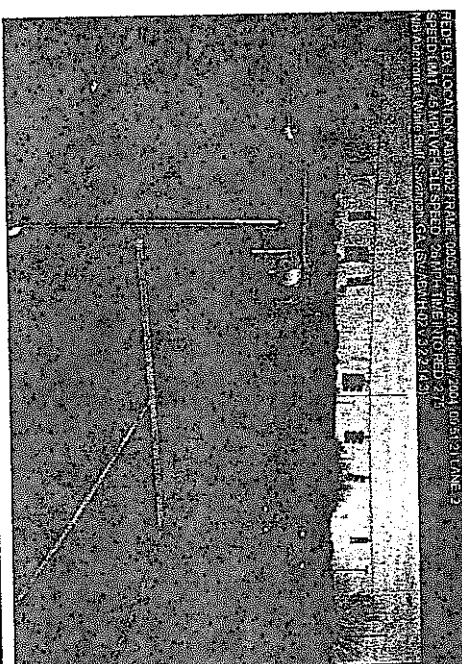
### **Public Records: Legal Basis**

Redflex has clearly marked the word "CONFIDENTIAL" several application "screen shots" and city-specific materials. The screen shots are proprietary to Redflex, provide Redflex a competitive advantage and are not available in the public domain. Additionally, Redflex has provided samples of documentation that is specific to several Cities which are supported by the Redflex System. The Cities has authorized the use of this material for the evaluation of the City of Columbus, but due to the nature of this information, we request that it not be made public under Ohio Public Records Law.

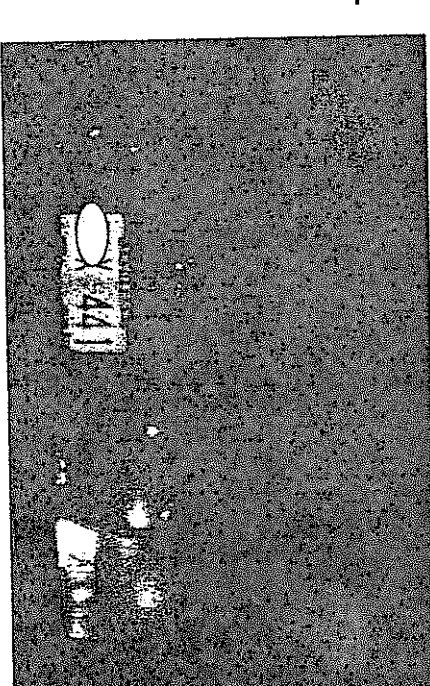
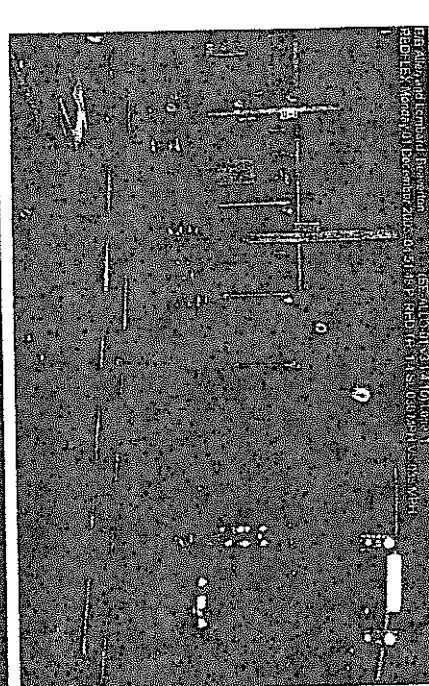
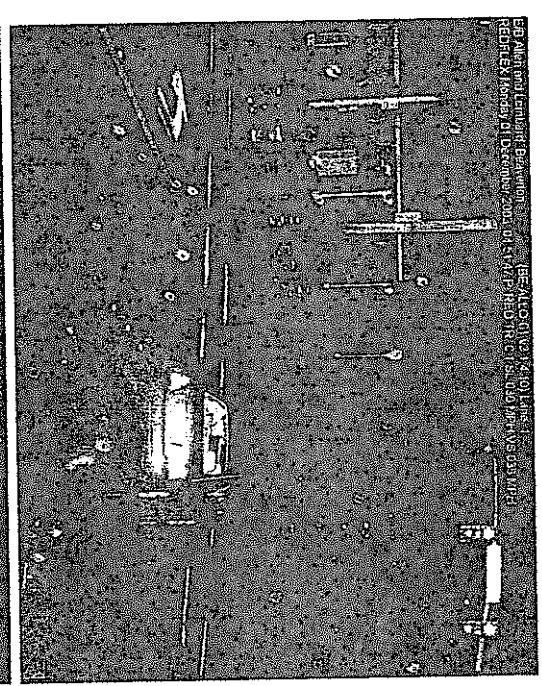
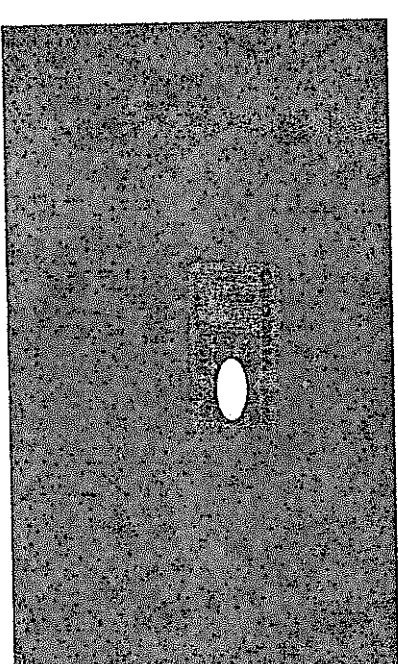
**DIFFICULT  
IMAGES**



**LARGE  
DOUBLE  
LEFT  
TURN  
(Georgia)**

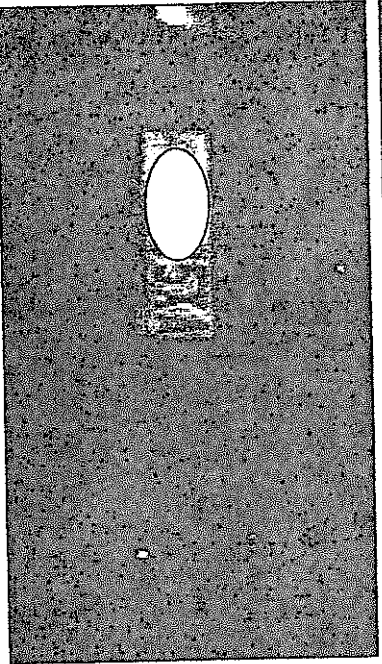
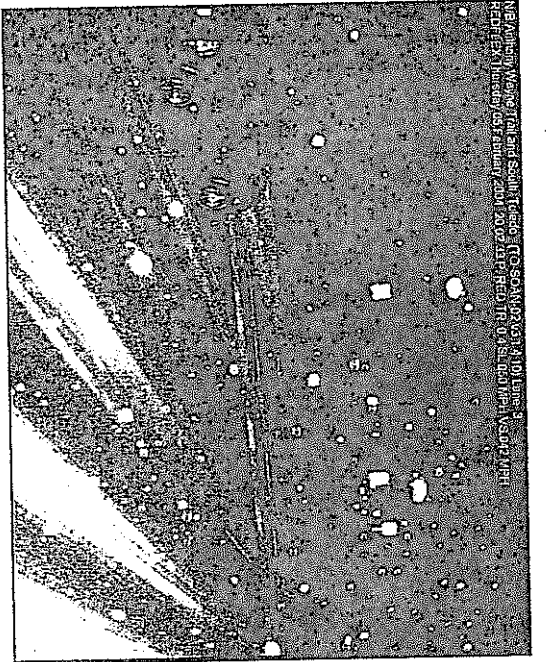


**RAIN  
@ NIGHT  
(Oregon)**

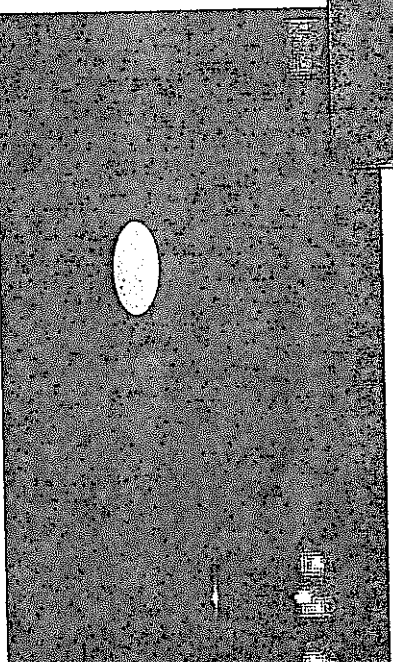
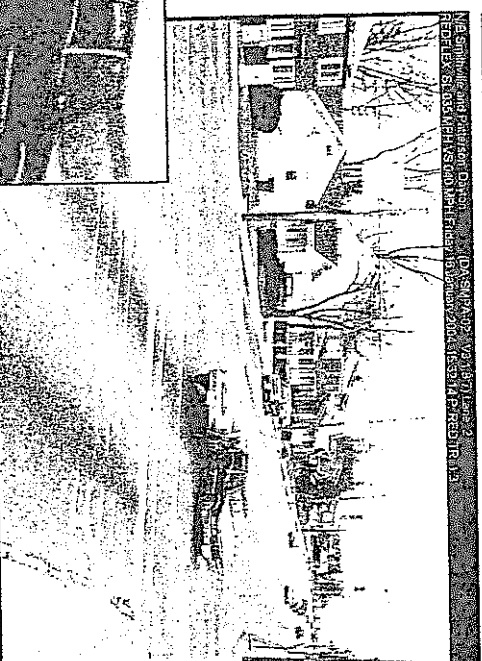
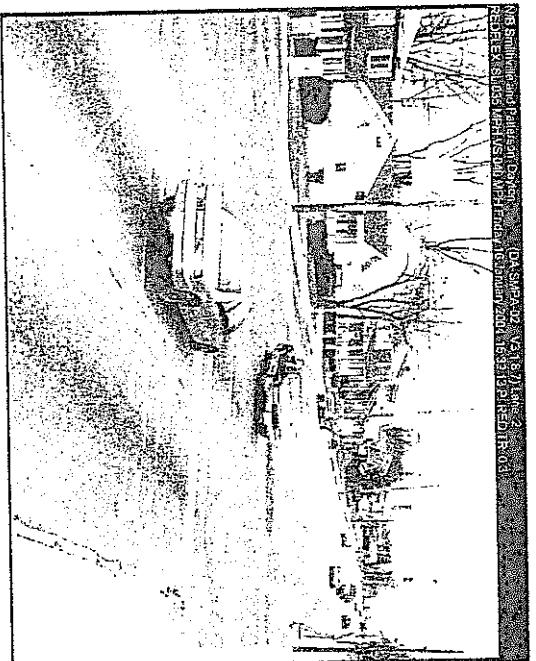


# DIFFICULT IMAGES 2

## SNOW @ NIGHT (Ohio)

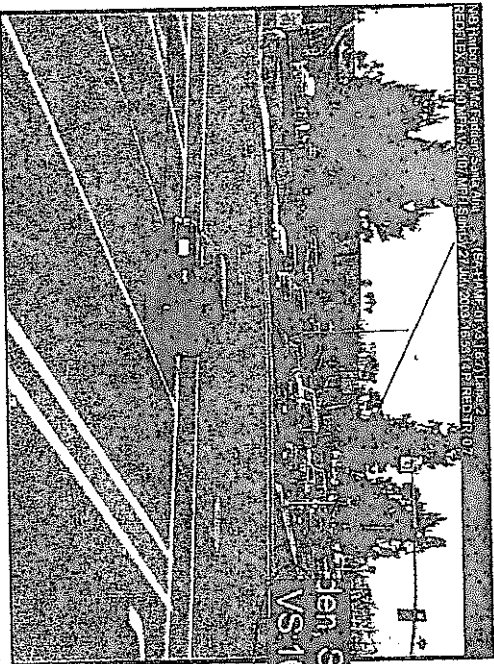


## COLLISION (Ohio)

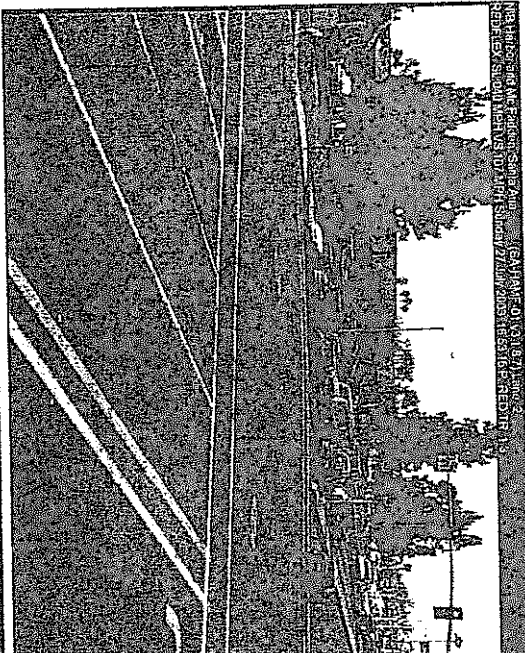




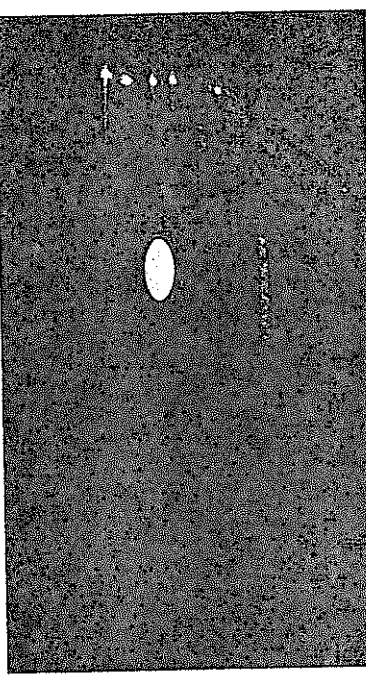
**DIFFICULT  
IMAGES**



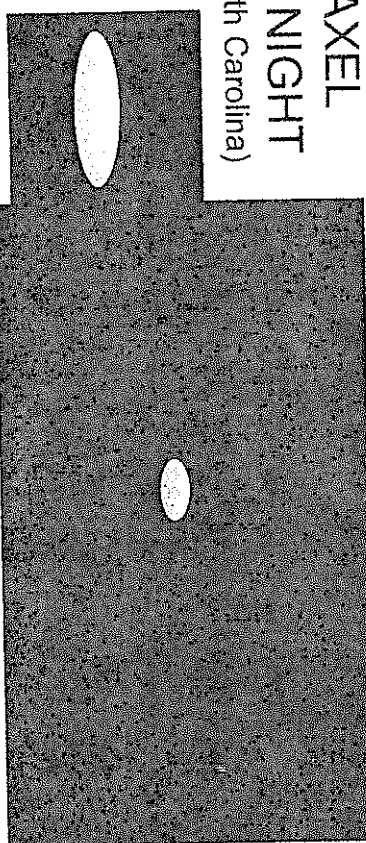
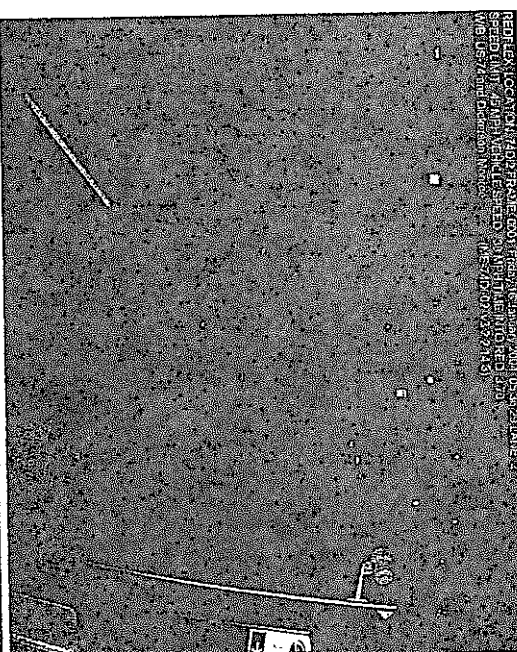
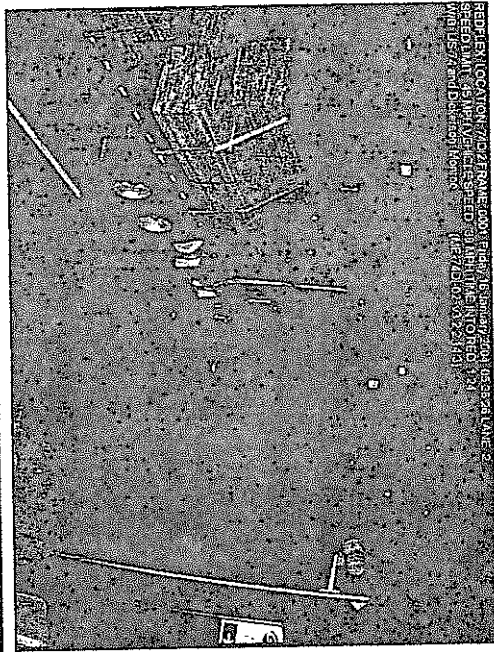
107 MPH  
 (California)



107 MPH  
 (California)



**MULTI-  
AXEL  
@ NIGHT  
(North Carolina)**



### ESCALATOR CLAUSE

No price adjustment shall be granted during the first year (12) months duration of an awarded contract. Thereafter, the price increase(s) shall not exceed five percent (5%) over the ensuing year (12) months, not to exceed one increase per year during the duration of the contract. In the event the supplier receives a general price increase due to increases in the cost of raw materials, labor, freight, etc., upon giving thirty (30) days prior notice and if proper documentation is submitted as proof, said increase in addition to the unit price quoted herein, may be permitted, subject to the sole discretion of the City of Columbus Finance Director or his designee. In the event any such increase is granted, no price adjustment will be permitted prior to the effective date of any purchase orders that are already being processed, or have been filled and are awaiting shipment.

The supplier shall submit the following documentation with each request for price increase:

- (1) Copies of the old and the current price lists or similar documents which indicate the original base cost of the product to the supplier and the corresponding increase; and/or
- (2) Copies of correspondence sent by the supplier's aggregator/manufacturer on the aggregator's/manufacturer's letterhead, which contain the above price information and explains the source of the increase in such areas as raw materials, freight, fuel, labor, etc., and/or
- (3) Copies of excerpts from business publications, market quotations or trade journals recognized as being representative of their particular trade or industry, that indicates a trend toward an increase in the current market for commodities under the contract.

### DEESCALATOR CLAUSE

Should there be a decrease in the cost of the finished product, the Finance Department/Purchasing Division shall be notified immediately and the resulting price adjustment will be incorporated into the awarded contract and made a part thereof.

### **Cooperative Purchasing**

The successful bidder may also make available item(s) under the terms, conditions and pricing of the proposed contract to agencies sanctioned by the City in its cooperative purchasing efforts. Any agency which is not subject to a City of Columbus purchase order must be invoiced directly by the vendor.

Sanctioned agencies' participation is subject to a credit approval by the vendor, as the City of Columbus is in no way obligated by those agencies' financial commitments. Sanctioned agencies include members of the Central Ohio Organization of Public Purchasers (COOPP), members of the Southwest Ohio Purchasers 4 Government (SWOP4G), members of the Ohio, Indiana Northern Kentucky Chapter of NIGP (OINK), and members the Franklin County Fire Chief's Association in addition to any agencies specifically mentioned in this bid.

# EXHIBITS



EXHIBIT "A"  
Designated Intersection Approaches

The contract is for the implementation of up to XX intersections. Identification of enforced intersection will be based on mutual agreement between Redflex and the City as warranted by community safety and traffic needs.

EXHIBIT "B"

**Construction and Installation Obligations**

**Timeframe for Installation: Combined Fixed Photo Red Light & Speed System**

Redflex will have each specified intersection installed and activated in phases in accordance with an implementation plan to be mutually agreed to by Redflex Traffic Systems and the Municipality.

Redflex will use reasonable commercial efforts to install the system in accordance with the schedule set forth in the implementation plan that will be formalized upon project commencement.

Redflex will use reasonable commercial efforts to install and activate the first specified intersection within the first sixty (60) days subsequent to formal project kick-off. The Municipality agrees that the estimated timeframe for installation and activation are subject to conditions beyond the control of Redflex and are not guaranteed.

In order to provide the client with timely completion of the photo enforcement project Redflex Traffic Systems requires that the city assist with providing timely approval of City permit requests. The City acknowledges the importance of the safety program and undertakes that in order to keep the project on schedule the customer is to provide city engineers review of Redflex permit requests and all documentation within a two business days. Redflex will also review and correct if necessary any redlines within two business days. Permits need to be received within five business days of first submittal in order to implement the program in a timely manner.

1. Redflex Obligations. Redflex shall do or cause to be done each of the following (in each case, unless otherwise stated below, at Redflex's sole expense):
  - 1.1. Appoint the Redflex Project Manager and a project implementation team consisting of between one (1) and four (4) people to assist the Redflex Project Manager;
  - 1.2. Request current "as-built" electronic engineering drawings for the Designated Intersection Approaches (the "Drawings") from the city traffic engineer;
  - 1.3. Develop and submit to the Customer for approval construction and installation specifications in reasonable detail for the Designated Intersection Approaches, including but not limited to specifications for all radar sensors, pavement loops, electrical connections and traffic controller connections, as required; and
  - 1.4. Seek approval from the relevant Governmental Authorities having authority or jurisdiction over the construction and installation specifications for the Designated Intersection Approaches (collectively, the "Approvals"), which will include compliance with City permit applications.
  - 1.5. Finalize the acquisition of the Approvals;

- 1.6. Submit to the Customer a public awareness strategy for the Customer's consideration and approval, which strategy shall include media and educational materials for the Customer's approval or amendment (the "Awareness Strategy");
  - 1.7. Develop the Redlight Violation Criteria in consultation with the Customer;
  - 1.8. Develop the Enforcement Documentation for approval by the Customer, which approval shall not be unreasonably withheld;
  - 1.9. Complete the installation and testing of all necessary Equipment, including hardware and software, at the Designated Intersection Approaches (under the supervision of the Customer);
  - 1.10. Cause an electrical sub-contractor to complete all reasonably necessary electrical work at the Designated Intersection Approaches, including but not limited to the installation of all related Equipment and other detection sensors, poles, cabling, telecommunications equipment and wiring, which work shall be performed in compliance with all applicable local, state and federal laws and regulations;
  - 1.11. Install and test the functionality of the Designated Intersection Approaches with the Redflex System and establish fully operational Violation processing capability with the Redflex System;
  - 1.12. Implement the use of the Redflex System at each of the Designated Intersection Approaches;
  - 1.13. Deliver the Materials to the Customer; and
  - 1.14. Issue citation notices for Authorized Violations;
  - 1.15. Redflex shall provide training (i) for up to fifteen (15) personnel of the Customer, including but not limited to the persons who Customer shall appoint as Authorized Officers and other persons involved in the administration of the Redlight Photo Enforcement Program, (ii) for at least sixteen (16) hours in the aggregate, (iii) regarding the operation of the Redflex System and the Redlight Photo Enforcement Program, which training shall include training with respect to the Redflex System and its operations, strategies for presenting Violations Data in court and judicial proceedings and a review of the Enforcement Documentation;
  - 1.16. Interact with court and judicial personnel to address issues regarding the implementation of the Redflex System, the development of a subpoena processing timeline that will permit the offering of Violations Data in court and judicial proceedings, the establishment of a court hearing schedule for adjudicating upon Citations, and coordination between Redflex, the Customer and juvenile court personnel; and
  - 1.17. Provide reasonable public relations resources and media materials to the Customer in the event that the Customer elects to conduct a public launch of the Redlight Photo Enforcement Program.
  - 1.18. Citation processing and citation re-issuance
2. CUSTOMER OBLIGATIONS. The Customer shall do or cause to be done each of the following (in each case, unless otherwise stated below, at Customer's sole expense):
- 2.1.1. Appoint the Police Project Manager; Provide an Administrative Hearing Officer to preside over Appeals Hearing for the City.

- 2.1.2. Assist Redflex in obtaining the Drawings from the relevant Governmental Authorities;
- 2.1.3. Notify Redflex of any specific requirements relating to the construction and installation of any Intersection Approaches or the implementation of the Redlight Photo Enforcement Program;
- 2.1.4. Provide assistance to Redflex in obtaining access to the records data of the Department of Motor Vehicles in Redflex's capacity as an independent contractor to the Customer; and
- 2.1.5. Assist Redflex in seeking the Approvals
- 2.1.6. Provide reasonable access to the Customer's properties and facilities in order to permit Redflex to install and test the functionality of the Designated Intersection Approaches and the Redlight Photo Enforcement Program;
- 2.1.7. Provide reasonable access to the personnel of the Customer and reasonable information about the specific operational requirements of such personnel for the purposes of performing training;
- 2.1.8. Seek approval or amendment of Awareness Strategy and provide written notice to Redflex with respect to the quantity of media and program materials (the "Materials") that the Customer will require in order to implement the Awareness Strategy during the period commencing on the date on which Redflex begins the installation of any of the Designated Intersection Approaches and ending one (1) month after the Installation Date;
- 2.1.9. Assist Redflex in developing the Redlight and Speed Violation Criteria; and
- 2.1.10. Seek approval of the Enforcement Documentation.

EXHIBIT "C"

Maintenance

1. All repair and maintenance of the Red Light Enforcement systems and related equipment will be the sole responsibility of Redflex, including but not limited to maintaining the casings of the cameras included in the Redflex System and all other Equipment in reasonably clean and graffiti-free condition.
2. Redflex shall not open the Traffic Signal Controller Boxes without a representative of city Traffic Engineering present.
3. The provision of all necessary communication, broadband and telephone services to the Designated Intersection Approaches will be the sole responsibility of the Customer.
4. The provision of all necessary electrical services to the Designated Intersection Approaches will be the sole responsibility of the Customer
5. In the event that images of a quality suitable for the Authorized Officer to identify Violations cannot be reasonably obtained without the use of flash units, Redflex shall provide and install such flash units.
6. The Redflex Project Manager (or a reasonable alternate) shall be available to the Police Project Manager each day, on a reasonable best efforts basis.

EXHIBIT "D"  
COMPENSATION & PRICING

The Contractor's compensation here under shall consist of a variable per citation paid basis.

The City and Redflex have agreed to the following pricing schedule based on a full turnkey 20-system program:

Variable Fee Model

<u>Tier</u>	<u>Violations Paid Per Month</u>	<u>% Paid To Reflex</u>	<u>\$ Paid to redflex</u>	<u>% Paid to City</u>	<u>\$ Paid to City</u>
<u>1</u>	<u>0 – 1000</u>	<u>75%</u>	<u>\$71.25</u>	<u>25%</u>	<u>\$23.75</u>
<u>2</u>	<u>1001 – 2000</u>	<u>65%</u>	<u>\$61.75</u>	<u>35%</u>	<u>\$33.25</u>
<u>3</u>	<u>2000+</u>	<u>50%</u>	<u>\$47.50</u>	<u>50%</u>	<u>\$47.50</u>

Optional Pricing Schedules

At the commencement of each year from two through five, the City at its option may change from the Variable Fee Model to either the Fixed Fee Schedule or Combination Model.

Fixed Fee Schedule:

Redflex shall provide a full turnkey program with a fixed monthly fee of \$5,170.00 per system. The City shall keep 100% of all revenue received from the program.

Combinations Model:

Redflex shall provide a full turnkey system with pricing on both a variable and fixed schedule as follows:

- \$2,500 Fixed Monthly Fee per System
- Redflex to keep 40% of the citations paid.
- City shall get 60% of the citations paid.

**BUSINESS ASSUMPTIONS FOR ALL PRICING OPTIONS:**

1. Redflex construction will be able to utilize existing conduit for installation where space is available.
2. Decommissioning/Relocation of constructed approaches: The Customer hereby acknowledges and agrees that the construction of the Designated Intersection Approaches pursuant to this Agreement shall require a significant investment by Redflex. In the event that the Customer wishes to decommission or relocate an existing approach, Customer agrees to compensate Redflex a one-time lumps sum payment of \$16,000 (or such mutually agreed alternative amount) for each such decommissioned or relocated Intersection Approach. The two parties shall mutually agree to any decommissioning or relocation prior to any construction or deconstruction”
- 3 Method of payment to the City of Columbus must be approved by the City Auditor and the City Treasurer.

ONE ORIGINAL AND TEN COPIES  
OF THIS BID MUST BE SUBMITTED

Bidder submitting this Bid should check the appropriate box

This is:  The Original

This is:  One of the Copies

THIS IS A TWO SIDED BID



# Request for Proposal (RFP)

**City of Columbus, Oh**  
Purchasing Office  
1<sup>st</sup> Floor, 50 West Gay Street  
Columbus, Ohio 43215  
614/645-8315

SOLICITATION NO.: SA 001147 JY/FM

Coop Yes Ends Date

Years Left

PHOTO RED LIGHT ENFORCEMENT SYSTEM  
(Item)

SAFETY  
(Department)

POLICE  
(Division)

**Bid Opening Date and Time (due date and time)**

JUNE 17, 2004 11:00 AM LOCAL TIME  
PRE BID CONFERENCE JUNE 2, 2004

**NOTE: FAILURE TO RETURN THIS BID PROPOSAL INTACT MAY BE CAUSE FOR REJECTION.**

**Bid Proposal Submitted By:**

ACS State & Local Solutions, Inc.  
**Company Name**

1200 K Street, NW  
**Street Address**

Washington,  
**City**

DC  
**State**

20005  
**Zip**

13-1996647  
**Federal I.D. No.**

13-1996647  
**Contract Compliance No.**

Mr. Frank Harrison  
**Contract Person**

(202) 414-3633  
**Phone No.**

(202) 408-4922  
**Fax No.**

**FAILURE TO RESPOND MAY RESULT IN YOUR NAME BEING REMOVED FROM BID LIST.  
RETURNING THIS PAGE ONLY MARKED "NO BID" COUNTS AS A RESPONSE.**



ONE ORIGINAL AND TEN COPIES  
OF THIS BID MUST BE SUBMITTED

Bidder submitting this Bid should check the appropriate b

This is:  The Original

This is:  One of the Copies

THIS IS A TWO SIDED BID



# Request for Proposal (RFP)

**City of Columbus, Oh**  
Purchasing Office  
1<sup>st</sup> Floor, 50 West Gay Street  
Columbus, Ohio 43215  
614/645-8315

SOLICITATION NO.: SA 001147 JY/FM

Coop Yes Ends Date

Years Left

PHOTO RED LIGHT ENFORCEMENT SYSTEM  
(Item)

SAFETY  
(Department)

POLICE  
(Division)

**Bid Opening Date and Time (due date and time)**

JUNE 17, 2004 11:00 AM LOCAL TIME  
PRE BID CONFERENCE JUNE 2, 2004

**NOTE: FAILURE TO RETURN THIS BID PROPOSAL INTACT MAY BE CAUSE FOR REJECTION.**

**Bid Proposal Submitted By:**

Company Name

Street Address

City

State

Zip

Federal I.D. No.

Contract Compliance No.

Contract Person

Phone No.

Fax No.

**FAILURE TO RESPOND MAY RESULT IN YOUR NAME BEING REMOVED FROM BID LIST.  
RETURNING THIS PAGE ONLY MARKED "NO BID" COUNTS AS A RESPONSE.**

**THIS PAGE WAS INTENDED TO BE BLANK**

LEGAL NOTICE

**PROFESSIONAL SERVICES**  
**Request For Proposal (RFP)**  
**Request for Statements of Qualifications (RFSQ)**

Sealed proposals for the following item(s) will be received by the Purchasing Office at 50 West Gay Street, 1st Floor, Columbus, Ohio 43215, **until 11:00a.m. Local Time on JUNE 17, 2004** and at that time will be publicly opened and read. Proposals received after the time of opening will be returned to the offeror unopened. The City will not be responsible for late mail or other deliveries.

Envelopes must be plainly marked: **POLICE**

**PROPOSALS FOR PHOTO RED LIGHT ENFORCEMENT SYSTEM, PROPOSAL NO. SA 001147 JY/FM**  
in accordance with specifications on file in the Purchasing Office.  
**PRE-BID CONFERENCE JUNE 2, 2004 10:00AM LOCAL TIME**

**FOR COPIES OF ANY OF THE FOLLOWING BID PROPOSAL CALL (614)645-7599**

Each proposal shall contain the full name and address of every person, firm or corporation interested in the same, and if a corporation, the name and address of the President and Secretary.

**QUAL OPPORTUNITY CLAUSE:**

Each responsive bidder shall submit, with its bid, a contract compliance certification number or a completed application for certification. Compliance with the provisions of Article 1, Title 39, is a condition of the contract. Failure to comply with this Article may result in cancellation of the contract.

**WITHHOLDING OF INCOME TAX:** All bidders are advised that in order for a contract to bind the City, each contract must contain the provisions found in Section 361.34 C.C.C. with regard to income taxes due or payable to the City of Columbus for wages, salaries and commissions paid to the contractor's employees as well as requiring those contractors to ensure that subcontractors withhold in a like manner.

**DELINQUENT PERSONAL PROPERTY TAX:** All bidders are charged with notice of Section 5719.042 of the Ohio Revised Code and agree that if this contract is awarded to them, the successful bidder, prior to the time the contract is entered into, will submit to the City Auditor the affidavit required by said section of the Ohio Revised Code. Said affidavit, when filed with City Auditor, is thereby incorporated into and made a part of this contract and no payment shall be made with respect to this contract unless such statement has been so incorporated as a part thereof.

**LOCAL CREDIT:** For all contracts except professional service contracts: In determining the lowest bid for purpose of awarding a contract not exceeding \$20,000.00, a local bidder shall receive a credit equal to five percent (5%) of the lowest bid submitted by a non-local bidder. In determining the lowest bid for purposes of awarding a contract in excess of \$20,000.00, a local bidder shall receive a credit equal to one percent (1%) or \$20,000.00, whichever is less, of the lowest bid submitted by a non-local bidder. A local bidder is a person, corporation or business which (a) has listed its principal place of business as being located within the corporation limits of the City of Columbus or the County of Franklin in official documents filed with Secretary of State, State of Ohio, or a valid vendor's license which indicates its place of business is located within the corporation limits of the City of Columbus or County of Franklin.

**JOEL S. TAYLOR**  
Finance Director

cc: CITY CLERK(2)/FINANCE DIR./BUYER/FISCAL OFFICER/FILE

ITY BULLETIN ADVERTISEMENT DATES  
MAY 22, 2004

**THIS PAGE WAS INTENDED TO BE BLANK**

## CONTACTS FOR INFORMATION CONCERNING THIS BID PROPOSAL

Solicitation No.: SA 001147 JY/FM

Title: PHOTO RED LIGHT ENFORCEMENT SYSTEM

Department/Division or Agency: SAFETY/POLICE

Contact the following individuals on questions regarding:

	<u>NAME</u>	<u>PHONE NO.</u>
<b>Specifications:</b>	<u>LT. FRED BOWDITCH</u>	<u>(614)645-4813</u>
<b>Delivery:</b>	<u>LT. FRED BOWDITCH</u>	<u>(614)645-4813</u>
<b>Payment:</b>	<u>ERIKA STANLEY</u>	<u>(614)645-5874</u>

### Purchasing Office

	<u>NAME</u>	<u>PHONE NO.</u>
<b>Procurement Specialist:</b>	<u>JACK YOST/FRED MYERS</u>	<u>(614)645-8315</u>
<b>Expediter:</b>	<u>CINDY WHITE</u>	<u>(614)645-8315</u>

### Equal Business Opportunity Commission Office

For assistance with questions regarding *Contract Compliance*, telephone (614)645-5448.

Contact George Harper (614)645-8549 for assistance from an Equal Business Opportunity Specialist.

## EQUAL OPPORTUNITY CLAUSE

- (1) The contractor will not discriminate against any employee or applicant because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: employment upgrading, demotion, or termination; rates of pay or other forms of compensation; and selection for training. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices summarizing the provisions of this Equal Opportunity Clause.
- (2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that the contractor is an equal opportunity employer.
- (3) It is the policy of the City of Columbus that business concerns owned and operated by minority and female persons shall have the maximum practical opportunity to participate in the performance of contracts awarded by the city.
- (4) The contractor shall permit access to any relevant and pertinent reports and documents by the Executive Director for the sole purpose of verifying compliance with this article, and with the regulations of the Equal Business Opportunity Commission Office. All such materials provided to the Executive Director by the contractor shall be considered confidential.
- (5) The contractor will not obstruct or hinder the Executive Director or her deputies, staff, and assistants in the fulfillment of their duties and responsibilities imposed by Article I, Title 39.
- (6) The contractor and each subcontractor will include a summary of this Equal Opportunity Clause in every subcontract. The contractor will take such action with respect to any subcontract as is necessary as a means of enforcing the provisions of the Equal Opportunity Clause.
- (7) The contractor agrees to refrain from subcontracting any part of this contract or contract modification thereto to a contractor not holding a valid contract compliance number as provided for in Article I, Title 39.
- (8) Failure or refusal of a contractor or subcontractor to comply with the provisions of Article I, Title 39, may result in the cancellation of this contract.

**ALL CONTRACTORS MUST HOLD A VALID CONTRACT COMPLIANCE  
CERTIFICATION NUMBER ISSUED BY THE EBOCO EXECUTIVE DIRECTOR.**

For information regarding contract compliance or to receive an application, please contact the Equal Business Opportunity Commission Office at (614) 645-4764 or [EBOCO@cmhmetro.net](mailto:EBOCO@cmhmetro.net).

*Applications are also available at the following locations:*

<http://eboco.ci.columbus.oh.us/>

Bid Opportunity Fax Line (614) 645-6996 (Option 4)

## INFORMATION FOR OFFERORS (RFP)

### SPECIAL CONDITIONS

Special conditions included in the specifications, if inconsistent with provisions included in "Information for Offerors (RFP)", shall take precedence over any provisions in "Information for Offerors (RFP)" to the extent inconsistent.

### PERSONAL EXAMINATION

Offerors are required to satisfy themselves by personal examination of the proposed contract documents and investigation of the conditions at the site of the work in order that they may be fully informed of the contract requirements, the conditions existing, and the difficulties likely to be encountered in the execution of the work.

### SUBMISSION OF RESPONSE

Responses must be submitted as specified in this RFP and enclosed in a sealed envelope marked as specified in the legal notice. If the potential offeror does not wish to respond, the RFP document should be so marked and returned. Offerors are invited to be present at the opening of the responses.

All proposals and other material submitted in response to this Request for Proposal (RFP) become the property of the City of Columbus. The City may choose to retain or return these materials to the offeror, at the offeror's expense.

The City is not liable for any cost associated with the preparation of the proposal or any other costs incurred by any bidder prior to the execution of the contract. The rejection of any proposal in whole or in part, at its discretion, will not render the City liable for incurring any cost or damage.

If at any time prior to the closing date the invited offeror decides not to provide a proposal, the City will appreciate that a letter to that effect be supplied to the City prior to the deadline.

### ACCEPTANCE AND REJECTION

This response submitted by the offeror to the City of Columbus will be accepted or rejected within a period of 180 days from due date. The City reserves the right to waive technicalities, and to cancel and renew the request on the required service. If more than one service, prices shall be quoted on the services requested. However, each service may be considered a separate offer and the City reserves the right to award a contract on each service separately or on all services as a whole or any combination thereof. Offerors whose proposal is made on an "All or None" basis must clearly state such fact in their written responses.

Each invitation for Bids, Request for Statements of Qualifications, and Request for Proposals issued by the City shall state that the Bid or Request may be cancelled and that any bid or proposal may be rejected in whole or in part when it is for good cause and in the best interests of the City.

### ~~WITHDRAWAL OF RESPONSE PROPOSALS~~

~~Offerors may withdraw their responses at any time prior to the time specified in the advertisement as the closing time for the receipt of responses. However, no offeror shall withdraw or cancel a proposal for a period of 180 calendar days after said advertised closing time for the receipt of the proposals.~~

## **INFORMATION FOR OFFERORS (RFP)**

### **SIGNATURE REQUIRED**

The responses must be signed in ink. If the offeror is a firm or corporation, insert the corporate name followed by the signature of a person authorized to sign said response; if a partnership, indicate partnership name followed by the signature of one of the partners; if a sole proprietorship the signature of the owner is required. Where the person signing for a corporation is other than the president, an affidavit or a resolution of the Board of Directors showing the authority of that person to bind the corporation must be furnished.

### **DEFAULT PROVISION**

In case of default by the offeror or the contractor, the City of Columbus may procure the articles or services from other sources and hold the offeror or contractor responsible for any excess costs occasioned or incurred thereby.

### **CONTRACT AND BOND**

The offeror to whom an award is made will be required to execute a written contract with the City of Columbus, Ohio within ten days after receiving such contract for execution, and if specified in the legal notice, furnish a good and approved bond conditioned upon the faithful performance of the same. The proposal, contract, proposal bond, (if applicable), and performance bond (if applicable) shall be in the form herein specified.

If, at any time during the continuance of the Contract, any surety shall, in the opinion of the contracting agent of the City, become irresponsible, then said agent shall have the right to require additional and sufficient surety or sureties. The Contractor shall furnish the surety or sureties to the satisfaction of the said agent, within ten (10) days after notice. In default thereof the default provision herein shall apply.

### **LIABILITY, INSURANCE, LICENSES AND PERMITS**

Where offerors are required to enter or go onto City of Columbus property to deliver materials or perform work or services as a result of contract award, the offeror will assume full duty, obligation and expense of obtaining all necessary licenses, permits, and insurance when required. The offeror shall be liable for any damages or loss to the City occasioned by negligence of the offeror (or his agent) or any person the offeror has designated in the completion of his contract as a result of his response.

Particular attention is directed to the statutory requirements of the State of Ohio relative to the licensing of corporation organized under the Laws of any other State.

### **TAXES**

The City, being a municipality, is tax exempt and will provide appropriate artifact upon request. Federal and/or State Taxes are not to be included in prices quoted. The successful offeror will be furnished an exemption certificate if needed.

### **PRICING**

Offerors are to quote firm or fixed prices for the duration of any contract, which may be a result of the proposal unless otherwise noted in the specifications. In case of discrepancy in computing the amount of the cost, the **UNIT PRICE** quoted will govern. In the event of a conflict between the price in numbers and the price in words, the price in words will control.



## INFORMATION FOR OFFERORS (RFP)

### DELIVERY

Time will be of the essence for any orders placed as a result of this response. Purchaser reserves the right to cancel such orders, or any part thereof, without obligations if delivery is not made within the time(s) specified. Delivery shall be made during normal working hours and to the destination shown on the proposal.

### QUALITY

Unless otherwise stated by the offeror, the proposal will be considered as being in strict accordance with the specifications outlined in this RFP document.

### SAMPLES

Samples, when requested, must be furnished free of expense to the City and if not destroyed, will upon request be returned at the bidder's expense.

### CHANGES AND ADDENDA TO RFP DOCUMENTS

Each change or addenda issued in relation to this document will be on file in the Office of the agency requesting responses no less than five (5) working days prior to the scheduled RFP due date. In addition, to the extent possible, copies will be mailed to each person registered as having received a set of the RFP documents. Total RFP inquiry or specific item cancellations may be issued later than that time specified above.

### REPUDIATION OF AGREEMENT

The liability of the City for repudiation of any agreement which might result from this request shall be limited to the difference between the market price at the time and place for tender of the service and the unpaid sales price together with any incidental damages, but less expenses paid in consequence of the breach by the City. The liability of the city shall not be measured by the profits or overhead of seller.

### CONTRACT MODIFICATION

An agreement which may result from this request shall not be modified or altered by any subsequent course of performance between parties or by additional terms contained in any subsequent documents unless said additional or differing terms are incorporated by contract modification authorized to be entered into by ordinance.

### DELINQUENT PERSONAL PROPERTY TAX

All offerors are charged with notice of Section 5719.042 of the Ohio Revised Code and agree that if this contract is awarded to them, the successful offeror, prior to the time the contract is entered into, will submit to the City, as directed, the affidavit required by that section of the Ohio Revised Code. Said affidavit, when submitted to the City, is hereby incorporated into this Contract unless such statement has been so incorporated.

~~Section 5719.042 of the Ohio Revised Code: After the award by a taxing district of any contract let by competitive bid and prior to the time the contract is entered into, the person making a bid shall submit to the district's fiscal officer, a statement affirmed under oath, that the person with whom the contract is to be made was not charged at the time the bid was submitted with any delinquent personal property taxes on the general tax list of personal property of any county in which the taxing district has territory or that such person was charged with delinquent personal property taxes on any such tax list, in which case that statement shall also set forth the amount of such due and unpaid delinquent taxes and any due and unpaid penalties and interest thereon. If the statement indicated that the taxpayer was charged with any such taxes, a copy of the statement shall be transmitted by the fiscal officer to the County Treasurer within thirty (30) days of the date it is submitted. A copy of the statement shall also be incorporated into the contract and no payment shall be made with respect to any contract to which this section applies unless such statement has been so incorporated as a part thereof.~~

## INFORMATION FOR OFFERORS (RFP)

### APPLICABLE LAWS

The Revised Code of the State of Ohio, the Charter of the City of Columbus, and all City ordinances insofar as they apply to the laws of competitive bidding, contracts, and purchases, are made a part hereof.

### REMEDIES

All claims, counterclaims, disputes and other matters in question between the City, its agents and employees, and the Contractor arising out of or relating to this agreement or its breach will be decided in a court of competent jurisdiction within the County of Franklin, State of Ohio.

### OFFERORS TERMS AND CONDITIONS

Terms and conditions, submitted with this proposal, which are contrary to City Code or Charter shall be disregarded for the purpose of any subsequent contract. The successful offeror shall be notified as to which terms and conditions, if any, have been deleted or changed.

### PUBLIC RECORDS REQUESTS

The City of Columbus, as a political subdivision of the State of Ohio, is subject to Ohio Revised Code Chapter 149, known as the Ohio Public Records Law. Consequently, the Offeror understands that ALL documents submitted in response to this RFP are considered public records and WILL be released when a public records request is made by news media, competitors, or other interested parties, in accordance with the law. If you contend that certain CLEARLY MARKED portions of your response constitute an exception to Ohio's public records law, you MUST submit your legal basis in support of that assertion with your response.

If a public records request is made for any portion of the documents that you have submitted and you have NOT clearly marked such documents as information constituting an exception to Ohio's public records law, your information will be released immediately.

If a public records request is made for such information and you HAVE clearly marked portions of your response as information constituting an exception to Ohio's public records law, AND you have submitted the legal basis supporting such claim, the City will release a redacted version of your information to the requestor and notify you that a request was made and that a redacted version of your response was released. Should the requestor indicate that the redacted version is not sufficient for their purposes, you then will be IMMEDIATELY responsible for obtaining an order from a Court of competent jurisdiction in Franklin County, Ohio enjoining release of your clearly marked information constituting an exception to Ohio's public records law.

If a public records request is made for such information and you HAVE clearly marked portions of your response as information constituting an exception to Ohio's public records law, but you have NOT submitted the legal basis supporting such claim, the City WILL RELEASE your information to the requestor and notify you that a request was made and that your response was released.

DO NOT mark your entire response/submittal as information constituting an exception to Ohio's public records law. If your entire response/submittal is so marked, the City of Columbus will not consider your offer.



## **INFORMATION FOR OFFERORS (RFP)**

### **ADDITIONAL CONTRACT TERMS AND REQUIRED DOCUMENTS IN THE EVENT OF A CONTRACT**

This section sets forth contract terms and the required contract documents that the successful offeror must execute following the award of the contract by the contracting authority.

#### **PUBLICATIONS**

The Contractor agrees to submit to the City's Contract Administrator all advertising, sales promotion, and other publicity matters relating to this Contract wherein the City's name is mentioned or language used from which the connection of the City's name therewith may, in the City's judgment, be inferred or implied. The Contractor further agrees not to publish, or use such advertising, sales promotion, or publicity matter without the prior written consent of the City except that may be required under law.

#### **TERMINATION FOR CONVENIENCE**

The City upon thirty days written notice may terminate this agreement at its convenience. The party providing goods or services shall be entitled compensation for goods provided or services rendered under the terms of this contract up to the date of notification of termination.

#### **TERMINATION FOR DEFAULT**

If either the City or the Contractor violates any material term or condition of this Contract or fails to fulfill in a timely and proper manner its obligations under this Contract, then the aggrieved party shall give the other party written notice of such failure or violation. The responsible party shall give the other party written notice of such failure or violation. The responsible party will correct the violation or failure within thirty (30) calendar days or as otherwise mutually agreed. If the failure or violation is not corrected, this Contract may be terminated immediately by written notice from the aggrieved party to the other party. The option to terminate shall be the sole discretion of the aggrieved party. If it determined for any reason the failure to perform is without the defaulting party's control, fault, or negligence, the termination shall be deemed to be a Termination for Convenience.

#### **APPLICABLE LAW, REMEDIES**

This agreement shall be governed in accordance with the laws of the State of Ohio. All claims, counterclaims, disputes and other matters in question between the City, its agents and employees, and the Contractor arising out of or relating to this agreement or its breach will be decided in a court of competent jurisdiction within the County of Franklin, State of Ohio. The remedies provided for in this Contract shall not be exclusive but are in addition to all other remedies available under law.

#### **ASSIGNMENT**

This agreement may not be assigned or otherwise transferred to others by the contractor without the prior written consent of the City.

#### **SAVE HARMLESS**

Contractor shall protect, indemnify and save the City harmless from and against any damage, cost, or liability, including reasonable attorneys' fees resulting from claim, by third parties for any or all injuries to persons or damage to property arising from the acts or omissions of the Contractor, its officers, employees, agents, or Subcontractors in providing goods or services under the terms and conditions of this contract.

## INFORMATION FOR OFFERORS (RFP)

### **HAVE HARMLESS DISCLOSURE OF PROPRIETARY INFORMATION**

The Contractor agrees to indemnify and hold harmless the City of Columbus, Ohio and their respective officials, employees and other agents and representatives, against loss, claim, liability in tort or by statute imposed, charge, cost or expense, including without limitation, attorneys fees to the extent permitted; by law, which may be incurred in connection with, or in any manner of any damage or loss arising from disclosure of proprietary information.

### **PROPRIETARY INFORMATION INDEMNIFICATION**

The Contractor agrees to indemnify and hold harmless the City of Columbus, Ohio and their respective officials, employees and other agents and representatives, against loss, claim, liability in tort or by statute imposed, charge, cost or expense, including without limitation, attorneys fees to the extent permitted; by law, which may be incurred in connection with, or in any manner of any damage or loss arising from disclosure of proprietary information.

### **CONFIDENTIAL INFORMATION**

The director of the agency requesting proposals may choose to keep RFP information in confidence during the evaluation process and until the time a contract is executed. This information may include all proposal documentation, notes, including detailed prices, references, resumes, technical and cost information, etc. Thereafter, proposals and all submissions will become public information, as the City is subject to R.C. 149.43, the Public Records Act.

### **CONTRACTOR'S PROPRIETARY INFORMATION**

Contractor acknowledges that the City is subject to chapter R.C.149.43, the State of Ohio Public Records Law. The City agrees to keep any information confidential except as otherwise required to be disclosed by law including but not limited to the contract.

### **INDEPENDENT CONTRACTOR STATUS**

The Contractor shall perform its duties as an independent contractor and not as an employee. Neither the contractor nor any agent or employee of the contractor shall be or shall be deemed to be an agent or employee of the City of Columbus. The Contractor shall pay when due all required employment taxes and income tax on any monies paid pursuant to the contract. Contractor shall acknowledge that the contractor and its employees are not entitled to unemployment insurance benefits unless the contractor or a third party provides such coverage and that the City does not apply for or otherwise provide such coverage. Contractor shall have no ~~authorization, express or implied, to bind the City to any agreements, liability, or understanding except as expressly set forth in the contract. Contractor shall provide and keep in force worker's compensation (and show proof of such insurance) and unemployment compensation insurance in the amounts required by law, and shall be solely responsible for the acts of the contractor, it's employees and agents.~~

## **INFORMATION FOR OFFERORS (RFP)**

### **PROTECTION OF CITY'S CONFIDENTIAL INFORMATION**

The contractor shall acknowledge that some of the material and information which may come into its possession or knowledge in connection with the contract or its performance, may consist of confidential information, the disclosure of which to, or use by, third parties could be damaging. Therefore, access to information concerning individual recipients of the City's services to individual clients, among other items, shall not be granted except as authorized by law or agency rule. The contractor shall agree to hold all such information in strictest confidence, not to make use thereof for other than the performance of the contract, to release it only to authorized employees or subcontractors requiring such information, and not to release or disclose it to any other party. The contractor shall agree to release such information or material only to subcontractors who have signed a written agreement expressly prohibiting disclosure. The contractor shall further agree to either destroy or return all such information at the end of the term of the contract.

This section does not impose any obligation on the contractor if the information is: (1) publicly known at the time of disclosure; (2) already known to the receiving party at the time it is furnished to the contractor; (3) furnished by the City to others without restrictions on its use or disclosure; or (4) independently developed by the receiving party without use of the proprietary information.

### **WITHHOLDING OF CITY INCOME TAX**

Pursuant to Section 361.34 Columbus City Codes, 1959: "Said Contractor hereby further agrees to withhold all City income tax assessment due or payable under the provisions of Chapter 361, Columbus City Codes for wages, salaries and commissions paid to its employees and further agrees that any of its subcontractors shall be required to agree to withhold any such City income tax assessments due under said chapters for services performed under this Contract."

### **WORKER'S COMPENSATION INSURANCE**

The contractor shall take out and maintain, during the life of the contract, adequate worker's compensation insurance for all his employees employed at the site of the project and, in case any work is sublet, the contractor shall require the subcontractor similarly to provide worker's compensation insurance for the latter's employees, unless such employees are covered by the protection afforded by the contractor. The contractor shall furnish three (3) copies of the worker's compensation certificate showing that the contractor has paid his industrial insurance premium.

### **SIGNATURE AFFIDAVIT**

To be completed if contractor is a corporation.

### **DELINQUENT PERSONAL PROPERTY TAX AFFIDAVIT (SEE Page 3B)**

Rev. 09/25/02

## INFORMATION FOR OFFERORS (RFP)

### PUBLIC LIABILITY INSURANCE

The contractor shall take out and maintain during the life of the contract, such public liability (bodily injury and property damage) Insurance as shall protect him from claims from damages for personal injury, including accidental death, as well as from claims for property damage which may arise from operations under the contract, whether such operation be by himself or any subcontractor or by anyone directly or indirectly employed by either of them. Such insurance policy shall include the City as named insured. The contractor shall maintain coverage of the types and in the amounts specified below. Proof of such insurance coverage shall be evidenced by submitting a certificate of insurance. A contractor's "umbrella" type policy with limits specified below may be submitted for this requirement with the City as named insured.

The amount of such insurance shall be as follows:

#### Bodily Injury Liability:

Each Person	\$ 500,000.00
Each Accident	1,000,000.00

#### Property Damage Liability:

Each Person	\$ 500,000.00
All Accidents	1,000,000.00

Such insurance shall remain in full force and effect during the life of the contract.

Insurance may not be changed or cancelled unless the insured notifies the City in writing not less than thirty days prior to such change or cancellation. If any part of the contract is sublet, the contractor is responsible for the part sublet being adequately covered by insurance hereinabove described.

Contractor assumes all risk of loss and damage to the equipment provided unless loss or damage occurs at the time the operator and equipment are being operated for the purpose designated by the City and such loss or damages is caused by an act of the City or its employee which constitutes gross negligence or wanton misconduct.

**THIS PAGE WAS INTENDED TO BE BLANK**



**PROPOSAL** This proposal is bidder's offer to sell the item(s) set forth on the bid proposal sheet at the prices(s) quoted by bidder thereon, under the terms and conditions of these bid documents. An estimated quantity is set forth on the bid quotation sheet. Bidder is to take notice that the City makes no warranties or representations that the estimated quantity, or any quantity at all, will be ordered by the City even though the bidder's proposal is accepted by the City and a firm offer for sale executed.

If bidder's proposal is accepted by the City and the firm offer for sale is executed the bidder is to take further notice that no act, failure to act, or order placed by the City or by any official, employee or agent of the City shall constitute an order or contractually bind the City without the proper certificate by the City Auditor that funds sufficient for full payment due on any order are available. Each order placed under the firm offer for sale shall require execution of a purchase order.

### **LENGTH OF CONTRACT**

The contract shall be in effect from the date of execution by the City to and including August 31, 2007. There will be an option, by mutual agreement of the City and the contractor, to renew for one, one year period.

### **QUANTITY ESTIMATES**

All quantities shown on this proposal are estimates of the annual needs of the City and are for bidding purposes only. These quantity estimates are not to be construed as representing an actual order for the amount or as a guarantee that any minimum amount will actually be purchased. The City reserves the right to buy up to twice the estimated quantity.

### **ORDERING PROCEDURE**

Blanket order will be established for various City agencies in the form of a written purchase order signed by the Finance Director referencing the terms of this contract and specifying the delivery locations. Actual quantities will be determined at the time orders are place by various City agencies (referencing their purchase order number) based on the needs of the agency and funds availability.

### **PRICING**

Bidders are requested to bid firm or fixed prices.

---

---

---

---

---

---

## PHOTO RED LIGHT ENFORCEMENT PROGRAM

### 1.0 Scope and Classification:

#### 1.1 Scope:

1.1.1 The City of Columbus (CoC), Division of Police (DoP) is seeking Request for Proposals (RFP) for a Photo Red Light Enforcement Program (program). The DoP is interested in exploring all available options comprising the makeup of a Photo Red Light Enforcement Program.

1.1.1.2 The contract will be for a period of three years and, given agreement by parties, one, one-year extension

1.1.2 The program shall include an education and awareness segment for the public, installation and testing of the system, and the issuance, collection, and appeal segment for the citations.

1.1.3 The purpose of the program is increased public safety through the enforcement of traffic laws associated with the red light traffic signal violations.

1.1.4 To this end, the goal of the Columbus Ohio Division of Police is to reduce the number of collisions and related death and injuries within the City of Columbus.

#### 1.2 Classification

1.2.1 The enforcement segments will consist of red light camera systems. These systems may be digital or video, or any combination of any of the aforementioned.

1.2.2 The areas of enforcement will be prioritized and shall be based on accident location data, causative factor of the accident, and volume of traffic.

1.2.3 The system will operate in conjunction with existing CoC traffic signals.

1.2.4 Required hardware for the system shall include, at a minimum, all computer interfaces, software, cameras, flash strobes, sensor arrays or loops, wiring, and any necessary appurtenances to provide a fully functional system.

1.2.5 It is anticipated that the CoC will utilize, at a minimum, 10 intersections, most with multiple approaches. If the project proves successful, the CoC envisions additions in the number of intersections/approaches.

1.2.6 There shall be no minimum number or quota of violations to be generated through the use of this system.

- 1.2.7 The offeror's employee shall testify in any and all court proceedings at no additional cost to the CoC, whether subpoenaed by the plaintiff or the defendant.
- 1.2.8 The offeror will provide the staffing for this system excluding the DoP reviewer staff.
- 2.0 Applicable Publications
  - 2.1 All installations and repairs must meet the Americans with Disabilities Act (ADA) and all relevant CoC requirements.
- 3.0 Requirements
  - 3.1 The CoC expects each proposal to be based upon a turnkey operation, which shall mean the offeror shall provide all the necessary equipment associated with the system, and all necessary staff to install, operate and maintain same as well as providing all necessary services including, but not limited to the following. Consequently:
    - 3.1.1 Please describe how your system photographs vehicles allegedly not stopping for a red light traffic signal.
    - 3.1.2 Please describe how your system obtains vehicle registration information.
    - 3.1.3 Please describe, in detail, how your system will interface with the CoC traffic signal control equipment.
    - 3.1.4 Please describe how your system reviews each photograph for visibility.
    - 3.1.5 Please describe how your system matches the make and model with the obtained registration information.
    - 3.1.6 Please describe how your system performs quality control in the form of a second opinion as to the violation (this will be DoP review).
    - 3.1.7 Please describe how your system generates a citation, with photograph, and mailing to the registered owner of the vehicle that performed the violation.
    - 3.1.8 Please describe how your company will meet Statement of Auditing Standards (SAS) 70 requirements for this project.
    - ~~3.1.9 Please describe how your system transfers electronic files of citation information between the CoC's court system and the offeror.~~
    - ~~3.1.10 Please describe how your system processes service of citations not responded to after the mailing.~~
    - 3.1.11 Please describe how your system provides court testimony of contested citations.

- 3.1.12 Please describe how your system provides for a service center facility.
- 3.1.13 Please describe how your system will provide reports to CoC and describe those reports.
- 3.1.14 Please provide detailed information on your service level agreements for maintenance, installation, de-installation, repairs and response.
- ❖ Please describe how you will be able to locally manage our project on a day-to-day basis (attend meetings, deal with problems, make expeditious decisions, etc.).
- 3.1.15 Please describe how your Photo Red Light system is equipped to detect a violating vehicle, activate the camera system, and produce color images of the vehicle front and rear.
- 3.1.16 Please describe how your system is capable of clearly photographing and recording the identification of the driver of the vehicle that is reasonably believed to be operating the vehicle that violated the red traffic signal.
- 3.1.17 Please describe how your system's cameras will obtain a clear image of the rear of the vehicle so as to clearly identify the rear license plate.
- 3.1.18 Please demonstrate how your system's images are clearly discernible and visible to the naked eye without the use of enhancement equipment.
- 3.1.19 Please describe how your system is capable of consistently photographing drivers and license plates regardless of weather conditions, glare, materials used to obscure the license plates from clear view at various viewing angles or any other means used for interference or avoidance.
- 3.1.20 Please describe how your system is capable of performing internal calibration tests for accuracy and functionality. The CoC is desirous of the following:
- ❖ Test failures must prevent further operation of the unit.
  - ❖ The internal test should provide a visual and/or auditory signal clearly indicating the operational accuracy or lack thereof.
  - ❖ A series of error messages must be displayed to inform the operator of the problem/s with the system, while in the deployment mode.

- 3.1.21 Please describe how you will maintain the integrity of CoC's traffic signal system.
  - 3.1.21.1 Traffic signal operation shall not be modified.
  - 3.1.21.2 Supplier is responsible for any damage and must provide a cost reimbursement program.
  - 3.1.21.3 Supplier is responsible for all permits, plans, modifications of existing infrastructure and associated costs to include CoC personnel necessary for traffic control and installation/removal.
  - 3.1.21.4 The City requires that personnel from the City Transportation Department be on site for any occasion when the supplier will need access to the City's traffic signal control box.
- 3.1.22 Please describe how your system is capable of gathering detailed computer data for statistical analysis and histograms for submission at hearings.
  - 3.1.22.1 The offeror will be required to produce monthly reports of activity and individual histograms for court purposes.
- 3.1.23 Please describe how your system is capable of accurately monitoring multiple traffic lanes at once with vehicles of various types, heights and lengths under various weather and light conditions.
- 3.1.24 Please describe how you system is automated with regards to set up, i.e., aperture settings, focusing, leveling and ease of loading and unloading images.
- 3.1.25 Please describe how your system's cameras have the ability to operate effectively during periods of nighttime operation and in all weather conditions.
- 3.1.26 Please describe the time it takes for your system to take photographs of vehicles entering the intersection after the signal has turned red.
- 3.1.27 Please describe how your system will capture violators at a minimum of 90% of the time or more.
- 3.1.28 Please describe the process used to communicate to the Division of Transportation, Traffic Engineer's staff that any and all repairs to any damaged traffic control systems have been repaired to the satisfaction of aforementioned.
  - 3.1.28.1 Any and all installations and/or repairs shall be made according to the original working order unless CoC authorizes a change.

- 3.1.29 Please describe how the CoC is to be reimbursed whenever a CoC employee is needed to be at any one cabinet during installation or repair.
- 3.1.30 For non-emergency situations, there shall be a minimum of twenty-four (24) hours advance notice to the CoC and the work will be performed during normal CoC working hours.
- 3.1.38.1 In the course of daily activity emergency situations will occur. The definition of emergency and how each party responds to that emergency shall be part of the contract negotiations.
- 3.1.31 Please describe how you handled emergency maintenance situations with cities of comparable size or larger than Columbus, Ohio.
- 3.1.32 Offerors are required to submit a current client list with company names, addresses, appropriate contacts and associated phone, fax and e-mail addresses.
- 3.1.33 Please describe your process for acceptance and disbursement of funds (i.e., the CoC's share of the revenue generated).
- 3.1.33.1 This is to include but not limited to the following:
- ❖ timing of funds remitted to CoC (from receipt from offerer to CoC);
  - ❖ reconciling funds for penalties to the number of violations;
  - ❖ process for NSF situations;
  - ❖ types of funds that can be received (i.e., cash, check, etc);
  - ❖ Process used to reconcile the account;
  - ❖ Costs associated with funds remittal;
  - ❖ Banking institution(s) used to funds deposited.
- 3.1.34 Please describe options for payments and collections.
- 3.1.35 Should the CoC determine to use a provider (other than the one described in your turnkey system) to send violators citations, collect fines and disburse monies to the CoC, please describe how your system shall integrate with the provider. If necessary, please provide cost proposal information as described in 4.0.

#### 4.0 Proposal Submission Requirements

##### 4.1 RFP Submission:

4.1.1 The RFP shall consist of a technical and cost proposal with financial statements provided separately. The financial statements are to be enclosed in separate envelopes that accompany your proposals and clearly marked "Confidential" with your company name and address on the outside of the envelope. The financial statements are to be the most recent financial auditing statements for your company. One original and ten (10) copies shall be submitted no later than Thursday, June 17, 2004 at 11:00 AM Local time to:

4.1.1.1 Purchasing Office  
City of Columbus  
50 W. Gay St.  
Columbus, Ohio 43215

##### 4.2 The document should be organized into tabbed sections as follows:

4.2.1 First tabbed section shall have a Letter of Submittal that shall include:

- ❖ The names of the individuals involved in the preparation of the proposal and their relationship with the Vendor.
- ❖ The name, title, address, email address and telephone number of the person to whom inquiries related to the technical and cost proposals should be directed.
- ❖ A statement confirming that the Vendor has sole and complete responsibility to perform the tasks and services described in your proposal.
- ❖ A list of all persons by name and address being officers or having an interest in your company.
- ❖ A statement that that the proposal is valid for 180 days from the date it was submitted to the City of Columbus.
- ❖ The Letter of Submittal may also include any information the Vendor wishes to add in order to clarify any area of the Proposal.

4.2.2 The second tabbed section shall include:

- ❖ A complete unaltered copy of this entire RFP document including Attachments, Exhibits, and any Addenda.

- 4.2.3 The third tabbed section shall respond to all Specifications cited in Sections 3.0 of this RFP. Detailed descriptions of the requested information are expected. While the Vendor may cite references to literature provided in Section 3 in order to clarify a point of discussion, the explanation provided must be in sufficient detail to fully explain the questions at hand.
- 4.2.4 The fourth tabbed section shall be the Cost Proposal. Full disclosure of all costs, including optional features that may be suggested by the Vendor, is required. THE SIGNED AUTHORIZED SIGNATURE PROPOSAL PAGE 5 FROM THE BID DOCUMENT SHALL IMMEDIATELY FOLLOW THE COST PROPOSAL AND BE A PART OF FOURTH TAB.
- 4.2.5 The fifth tabbed section shall include:
- ❖ The Non-Collusion Affidavit
  - ❖ Delinquent Personal Property Tax Affidavit
- 4.2.6 The Police Records Check may be required of the Vendor if a contract is entered into with the City of Columbus.

5.0 Delivery

- 5.1 Delivery shall be F.O.B. Destination Prepaid and Allowed.

6.0 Notes

6.1 The City of Columbus's Mayor, Michael D. Coleman, Covenant states in part "to provide an atmosphere that promotes job creation and economic growth in existing and emerging industries". To that end please describe how your company could sub-contract with emerging businesses in central Ohio. For information please contact the City of Columbus's Equal Business Opportunity Commission Office.

- ❖ George Harper, Equal Opportunity Business Specialist – (614)645-8549

6.2 Periods of time, stated as a number of days, shall be calendar days.

6.3 It is the responsibility of all offerors to examine the entire proposal package and seek clarification of any items or requirements that may not be clear and to check all responses for accuracy before submitting the proposal. Negligence in preparing an offer confers no right of withdrawal after the due time and date.



6.4 Pre-Bid Conference.

6.4.1 A pre-bid conference will be held. The date, time and location follow:

❖ June 2, 2004 at 10:00AM, Local Time

City of Columbus, Division of Police  
First Floor Auditorium  
120 Marconi Blvd.  
Columbus, OH 43215

❖ The purpose of this conference will be to clarify the contents of this proposal in order to prevent any misunderstanding of the CoC's position. This conference will also give the offerors an opportunity to submit any questions.

6.5 Offerors' Presentation

6.5.1 Offerors may be invited to make a presentation of their proposal. If invited, there will be a segment that involves questions from the CoC regarding the submitted proposal.

6.6 Late Proposals

6.6.1 Late proposals will not be considered. An offeror submitting a late proposal shall be so notified by the CoC.

6.7 Addenda

6.7.1 All addenda shall be made part of the appropriate addenda acknowledgment section as identified in 4.2.2.

➤ Failure to include the addenda with your bid response may result in a proposal being rejected as non-responsive.

6.8 Award of Contract:

➤ Notwithstanding any other provision in this proposal, the CoC expressly reserves the right to:

- ❖ Waive any immaterial defect or informality; or
- ❖ Reject any or all proposals, or portions thereof; or,
- ❖ Reissue a new proposal.

6.9 A response to this RFP is an offer to contract with the CoC based upon the terms, conditions, scope of work and specifications contained in the CoC's RFP.

❖ A contract will be formed when the CoC's City Council authorizes the Professional Services contract executed by the selected offeror.

- 6.10 Contract Document:
- ❖ The final contract between the CoC and the successful offeror shall consist of the final form of the contract and any scopes of work incorporated therein, the offeror's submitted proposal, and any executed contract amendments attached thereto.
- 6.11 Obligations:
- ❖ The issuance of this proposal does not obligate the CoC to pay any costs incurred in the preparation, submission, or, if needed, presentation of the proposal.
- 6.12 Duration of proposal
- ❖ Timely submitted proposals shall be irrevocable for a period of one hundred eighty (180) days following the proposal due date, as may be modified by addenda.
- 6.13 Acceptance contract/agreement
- ❖ Any contract/agreement made pursuant to this RFP must be accepted in writing by the offeror.
  - ❖ If for any reason the offeror should fail to accept, in writing, any conduct by offeror that recognizes the existence of a contract/agreement pertaining to the subject matter hereof shall constitute acceptance by the offeror of the contract/agreement and all its terms and conditions.
  - ❖ Any terms proposed in the offeror's acceptance of the CoC's contract which adds to, varies from or conflicts with the terms herein are objected to.
  - ❖ Any such proposed terms shall be voided and the terms herein shall constitute the completed and exclusive statement of the terms and conditions of the contract/agreement between the parties and may hereafter be modified only by written instrument executed by the authorized representatives of both parties.
- 6.1.14 Contract applicability:
- ❖ The offeror shall substantially conform to the terms, conditions, specifications and other requirements found within the text of this specific RFP. All previous agreements, contracts, or other documents, which have been executed between the offeror and the CoC, are not applicable to this proposal or any resultant contract.

- 6.1.15 The City reserves the right to modify the negotiated agreement, in part or whole, to a Universal Term Contract (UTC) that will permit the addition of more intersections as the project may expand without the need for City Council approval for expenditures under \$100,000.00 per fiscal year.
- 6.1.16 The CoC, at its sole discretion, reserves the right to reject any equipment that does not meet adequate technical standards.
- 6.1.17 The following evaluation criteria will be the criteria used by the evaluation team to determine with whom the Director of Public Safety shall negotiate:

Rating Key: Unacceptable = 0 Poor = 1 Fair = 2 Good = 3 Excellent = 4 Superior = 5

Criterion (Shaded) & Measures (Un-shaded)	Rating	Weight / Factor	Score
<p><b>1. Competence</b> - the competence of the offeror to perform the required services as indicated by the technical training, education, and experience of the offeror's personnel who would be assigned to perform the work.</p> <p>Work experience of any personnel to be assigned by the offeror to this project, in performing similar projects. Particular attention will be paid to proposed team members experience in, the specific areas defined in the requirements section (Section 3).</p> <p>Specific professional qualifications of the firm demonstrating the firm's ability to provide backup and support for the personnel selected to perform the specified job responsibilities including the overall qualifications of additional personnel available for special assignments and potential replacements.</p> <p>Experience of the offeror in successfully providing professional services similar to those needed for this project.</p>	<p>_____</p> <p>X</p> <p>_____</p> <p>X</p> <p>_____</p> <p>X</p>	<p>25%</p> <p>2</p> <p>1.5</p> <p>1.5</p>	<p>Section Score</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p><b>2. Quality and Feasibility</b> – the quality and feasibility of the offeror's proposal.</p> <p>The degree to which the proposal response demonstrates the Offeror's understanding the scope of the project, the objectives, the benefits to be obtained and the outcomes to be achieved.</p> <p>Offeror's understanding of the functional/technical requirements and the functionality, and appropriateness of the proposed solution.</p> <p>Practicality of the proposal response as demonstrated by a high degree of reliability and/or accuracy in successful completion of project work. (The offeror's past projects, as described in written responses and oral presentation)</p>	<p>_____</p> <p>X</p> <p>_____</p> <p>X</p> <p>_____</p> <p>X</p>	<p>20%</p> <p>1.5</p> <p>1</p> <p>1.5</p>	<p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>

**Rating Key:** Unacceptable = 0 Poor = 1 Fair = 2 Good = 3 Excellent = 4 Superior = 5

Criterion (Shaded) & Measures (Un-shaded)	Rating		Weight / Factor		Score
<p><b>3. Ability</b> - ability of the offeror to perform the required services competently and expeditiously as indicated by the offeror's workload and the availability of necessary personnel, equipment, and facilities.</p> <p>Offeror's ability to provide the scope of services (strategic, analytical, technical) needed to satisfactorily perform all services of this project.</p> <p>Ability to staff this project with continuity.</p> <p>Proposed ability to rapidly develop and deploy project deliverables.</p> <p>Consultant's current workload &amp; impact it has on ability to service the City. Document the number and type of similar projects your firm is currently involved with and a description of the current status of these projects.</p>	<p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>X</p> <p>X</p> <p>X</p> <p>X</p>	<p>20%</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>	<p>=</p> <p>=</p> <p>=</p> <p>=</p>	<p>Section Score</p> <p>_____</p>
<p><b>4. Past Performance</b> - past performance of the offeror as reflected by the evaluations of the Department of Technology, other City agencies and other previous clients of the offeror with respect to such factors as quality of work, success in controlling costs, and success in meeting deadlines.</p> <p>Offeror's proven track record of success in providing quality services.</p> <p>Provided current contact name, title, e-mail address, street address, phone number, fax number, project title, and project dates.</p> <p><del>Overall rating of past references with respect to such factors as quality of work, success in meeting deadlines, maintaining costs, ability to adapt to technology, overall project success, etc...</del></p> <p>Overall similarity and applicability of work performed for references.</p>	<p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>X</p> <p>X</p> <p>X</p> <p>X</p>	<p>30%</p> <p>1.5</p> <p>1</p> <p>2</p> <p>1.5</p>	<p>=</p> <p>=</p> <p>=</p> <p>=</p>	<p>Section Score</p> <p>_____</p>
<p><b>5. Pricing Structure</b> - the cost or pricing structure of the offeror's proposal</p>	<p>_____</p>	<p></p>	<p>5%</p>	<p></p>	<p>Section Score</p> <p>_____</p>

**Rating Key:** Unacceptable = 0   Poor = 1   Fair = 2   Good = 3   Excellent = 4   Superior = 5

Criterion (Shaded) & Measures (Un-shaded)	Rating		Weight / Factor		Score
The perceived reasonableness of the cost proposal.	_____	X	1	=	_____
			<b>Total Score</b>	=	_____

**ESCALATOR CLAUSE**

No price adjustment shall be granted during the first year (12) months duration of an awarded contract. Thereafter, the price increase(s) shall not exceed five percent (5%) over the ensuing year (12) months, not to exceed one increase per year during the duration of the contract. In the event the supplier receives a general price increase due to increases in the cost of raw materials, labor, freight, etc., upon giving thirty (30) days prior notice and if proper documentation is submitted as proof, said increase in addition to the unit price quoted herein, may be permitted, subject to the sole discretion of the City of Columbus Finance Director or his designee. In the event any such increase is granted, no price adjustment will be permitted prior to the effective date of any purchase orders that are already being processed, or have been filled and are awaiting shipment.

The supplier shall submit the following documentation with each request for price increase:

- (1) Copies of the old and the current price lists or similar documents which indicate the original base cost of the product to the supplier and the corresponding increase; and/or
- (2) Copies of correspondence sent by the supplier's aggregator/manufacturer on the aggregator's/manufacturer's letterhead, which contain the above price information and explains the source of the increase in such areas as raw materials, freight, fuel, labor, etc., and/or
- (3) Copies of excerpts from business publications, market quotations or trade journals recognized as being representative of their particular trade or industry, that indicates a trend toward an increase in the current market for commodities under the contract.

**DEESCALATOR CLAUSE**

Should there be a decrease in the cost of the finished product, the Finance Department/Purchasing Division shall be notified immediately and the resulting price adjustment will be incorporated into the awarded contract and made a part thereof.

---

---

---

---

### **Cooperative Purchasing**

The successful bidder may also make available item(s) under the terms, conditions and pricing of the proposed contract to agencies sanctioned by the City in its cooperative purchasing efforts. Any agency which is not subject to a City of Columbus purchase order must be invoiced directly by the vendor.

Sanctioned agencies' participation is subject to a credit approval by the vendor, as the City of Columbus is in no way obligated by those agencies' financial commitments. Sanctioned agencies include members of the Central Ohio Organization of Public Purchasers (COOPP), members of the Southwest Ohio Purchasers 4 Government (SWOP4G), members of the Ohio, Indiana Northern Kentucky Chapter of NIGP (OINK), and members the Franklin County Fire Chief's Association in addition to any agencies specifically mentioned in this bid.



**1. Non-Collusion Affidavit**

**(This affidavit must be executed for the proposal to be considered)**

State of \_\_\_\_\_ )

County \_\_\_\_\_ )

\_\_\_\_\_, being first duly sworn deposes and says that the is, \_\_\_\_\_, (sole owner, a partner, president, secretary, etc.) of the party making the foregoing proposal or bid; that such bid is genuine and not collusive or sham; that said bidder is not financially interested in, or otherwise affiliated in a business way with any other bidder on the same Contract; that said has not colluded, conspired, connived or agreed, directly or indirectly, with any bidder or person, to put in a sham bid, or that such other person shall refrain from bidding, and has not in any manner directly or indirectly, sought by agreement or collusion, or communication or conference, with any person, to fix the bid price of affiant or any other bidder or to secure any advantage against the City of Columbus, Ohio or any person or persons interested in the proposed Contract; and that all statements contained in said proposal or bid are true; and further, that such bidder has not directly or indirectly submitted this bid, or the contents thereof or divulged information or data relative thereto to any association or to any member or agent thereof.

\_\_\_\_\_  
Signature of Affiant

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Notary public in and for

\_\_\_\_\_  
(Seal)

\_\_\_\_\_  
(county)

\_\_\_\_\_  
(state)

My commission expires:

**THIS PAGE WAS INTENDED TO BE BLANK**

# PROPOSAL

To the Finance Director of the City of Columbus, Ohio:

( We (I) propose to furnish the following article(s) and/or service(s) at the price(s) and terms stated subject to all instructions, conditions, specifications and all attachments hereto. We (I) have read all attachments including the specifications and fully understand what is required.

Prices are to be quoted F.O.B.:

See Page 5

Delivery: \_\_\_\_\_ calendar day(s) after receipt of order.

Terms: \_\_\_\_\_

Company Name or Bidder's Name: \_\_\_\_\_

Business Address of Bidder: \_\_\_\_\_

**REQUIRED Company Employee Information:**

Total number of company employees = \_\_\_\_\_

Total number of company employees working in Columbus = \_\_\_\_\_

Additional number of employees that will be working in Columbus in the event this contract is awarded to your company = \_\_\_\_\_

The full name and residence of all persons and parties interested in the foregoing bid are: (If a corporation, give the name and address of the president and secretary; if firm or partnership, the names and address of the members or partners.)

Name

Address

Name	Address
_____	_____
_____	_____
_____	_____
_____	_____

Authorized Signature X \_\_\_\_\_ Title: X \_\_\_\_\_

(SIGNATURE MUST IN WRITING IN OTHER THAN BLACK INK)

(TITLE MUST BE GIVEN)

**THIS PAGE WAS INTENDED TO BE BLANK**

**Signature Affidavit**

*(To be filled in and executed if the contractor is a corporation.)*

County of \_\_\_\_\_

State of \_\_\_\_\_

\_\_\_\_\_, being duly sworn, deposes and says that he/she is  
(Name of Affiant)\*

Secretary of \_\_\_\_\_

A corporation organized and existing under and by virtue of the laws of the

State of \_\_\_\_\_ and having its principle office at

\_\_\_\_\_  
(Number and Street)

\_\_\_\_\_  
(City/State)

\_\_\_\_\_  
(Zip Code)

Affiant further says that he/she is familiar with the records, minute books and

by-laws of \_\_\_\_\_ affiant further says

That \_\_\_\_\_ is \_\_\_\_\_  
(Name of person signing proposal/contract) (Title)

Of the corporation, is duly authorized to sign the contract for \_\_\_\_\_

\_\_\_\_\_, for said corporation by virtue of

\_\_\_\_\_  
**(State whether a provision of by-laws or a resolution of the Board of Directors.  
If by resolution, give date of adoption.)**

\_\_\_\_\_  
Signature of Affiant\*

Sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Notary Public in and for


\_\_\_\_\_  
(County)

\_\_\_\_\_  
(State)

Affiant must be someone other than the signer of proposal/contract.

**THIS PAGE WAS INTENDED TO BE BLANK**

### Notice of Parking Infraction

  
**PARKING VIOLATIONS BUREAU**  
CITY OF COLUMBUS, OHIO

OH-ARR6095 06/05/01  
JOHN DOE  
123 MAIN STREET  
DELEWARE, OH 43015-1622

**RE: Notification of Parking Infraction**

Dear Sir or Madam:

The records of the Parking Administrator indicate that you have failed to respond to the Parking Ticket Infraction issued to a vehicle registered in your name and as identified below. You must pay the total due, or deny the Parking Infraction; explain the circumstance of the Parking Infraction; and/or request a hearing in writing.

If you fail to answer or request a hearing within 30 days, an additional \$10 penalty will be added and a default judgment may be entered against you. This judgment will include all fines, penalties, fees and costs according to law as well as the possibility of a registration hold being imposed upon your vehicle.

You may pay in person by check, money order, Visa, MasterCard, or Discover at the address listed above. The hours of operation are Monday thru Saturday 8:00 A.M. to 9:00 P.M., Sunday 8:00 A.M. to 6:00 P.M.

NOTE: A \$15.00 return check fee will be charged for all checks returned by your bank.

OH-ARR6095

<u>Ticket Number</u>	<u>Issue Date</u>	<u>Violation</u>	<u>Time</u>	<u>Location</u>	<u>Fine</u>	<u>Penalty</u>	<u>Amount Due</u>
5536713261	02/01/01	OVERTIME METER	02:56PM	FRONT	\$15	\$5	\$20

**Total Due: \$20**

---

Make Check/Money Order Payable to: City of Columbus and WRITE YOUR PLATE NUMBER ON YOUR PAYMENT

5536713261

Amount Due: \$20

State/Plate OH ARR6095  
John Doe


**IF PAYING BY MAIL, PLEASE DO NOT SEND CASH.**

153CPRL0A

**Exhibit 3-107 - A Notice of Parking Infraction is sent to parking citations that are left unpaid after ten days from the date of issuance.**



### Impending Judgement Notice

  
PARKING VIOLATIONS BUREAU  
CITY OF COLUMBUS, OHIO

OH-CAT3908  
JOHN DOE  
123 MAIN STREET  
DELEWARE, OH 43015-1622

06/05/01  
**RE: Impending Judgment Notice**

Dear Sir or Madam:

Failure to answer Parking Infractions within 10 days may result in the imposition of an additional penalty and shall be considered an admission of guilt. A Default Judgment in the amount of all fine, penalties, fees and costs due may be entered against you.

WARNING: A law has been passed allowing for the Bureau of Motor Vehicles to hold the renewal of your license plates if you have outstanding parking tickets. To prevent further legal action you should take immediate action to pay your fines.

You may pay in person by check, money order, Visa, MasterCard, or Discover at the address listed above. The hours of operation are Monday thru Saturday 8:00 A.M. to 9:00 P.M., Sunday 8:00 A.M. to 6:00 P.M.

NOTE: A \$15.00 return check fee will be charged for all checks returned by your bank.

<u>Ticket Number</u>	<u>Issue Date</u>	<u>Violation</u>	<u>Time</u>	<u>Location</u>	<u>Fine</u>	<u>Penalty</u>	<u>Amount Due</u>
5536983682	05/21/01	OVERTIME METER	08:55AM	STATE	\$15	\$15	\$30

**Total Due: \$30**

Make Check/Money Order Payable to City of Columbus and WRITE YOUR PLATE NUMBER ON YOUR PAYMENT

5536983682

**Amount Due: \$30**

State/Plate OH CAT3908  
John Doe

**IF PAYING BY MAIL, PLEASE DO NOT SEND CASH.**


154.CPRL04

**Exhibit 3-108. After 30 days from the issued date of the Notice of Infraction, an Impending Judgment notice is sent if the ticket remains unpaid**





**Pre-Judgement Notice**



**PARKING VIOLATIONS BUREAU**  
CITY OF COLUMBUS, OHIO

07/03/01

OH-AVT2220  
JOHN DOE  
123 MAIN STREET  
COLUMBUS, OH 43201-2773

**RE: Pre-Judgment Notice**

Dear Sir or Madam:

Records of the Parking Violations Bureau indicate that you have ignored previous notice(s) of delinquent parking violations for a vehicle registered in your name, or failed to appear for a scheduled hearing.

**WARNING:** Your failure to respond within ten days as prescribed by law can now be considered an admission of guilt. This could then cause the Bureau of Motor Vehicles to not allow you to renew your license plates and assess an additional penalty due to these outstanding parking tickets. To prevent this occurrence you should take immediate action to pay your fines.

You may pay in person by check, money order, Visa, MasterCard, or Discover at the address listed above. The hours of operation are Monday thru Saturday 8:00 A.M. to 9:00 P.M., Sunday 8:00 A.M. to 6:00 P.M.

NOTE: A \$15.00 return check fee will be charged for all checks returned by your bank.

OH-AVT2220					Fine	Penalty	Amount Due
Ticket Number	Issue Date	Violation	Time	Location			
5536990380	03/22/01	OVERTIME METER	10:07AM	LYNN	\$15	\$15	\$30
5536963360	03/20/01	OVERTIME METER	11:13AM	PEARL	\$15	\$15	\$30

**Total Due: \$60**

---

Make Check/Money Order Payable to: City of Columbus and WRITE YOUR PLATE NUMBER ON YOUR PAYMENT

5536990380 5536963360

Amount Due: \$60

State/Plate OH AVT2220  
JOHN DOE

**IF PAYING BY MAIL, PLEASE DO NOT SEND CASH.**

120 CHTX

**Exhibit 3-109. Twenty days after the Impending Judgement Notice is sent, a Pre-Judgment Notice is sent to any unpaid parking ticket. This notice is mailed at the City's option.**

**Notice 4 – Notice of Registration Hold**

*With the State's approval and as an additional enforcement tool, ACS can build upon its proven experience with Ohio's BMV registration hold processing currently in place for the City's parking program.*



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

---

When the state enables legislation for photo red light and registration hold, ACS will be ready to immediately implement this non renewal sanction. In the remainder of this subsection, ACS describes our registration hold solution.

The Registration Hold process is the City's toughest and most complex sanction for violation enforcement. Motorists must be properly notified of impending non-renewal for unresolved tickets or an erroneous registration hold could result. Inexperienced vendors may fail to ensure accuracy when selecting eligible tickets for the impending registration non-renewal notification, adversely affecting the overall integrity of this essential enforcement tool.

eTIMS<sup>SM</sup> table-driven noticing program ensures the accurate and timely generation of impending BMV registration non-renewal (hold) notices to delinquent violators. This notice is sent 30 days prior to registration hold and provides good customer service by notifying the violator of the impending hold and additional BMV fees associated with the hold.

If the City decides to enable Registration Hold this fourth notice will drafted and implemented. The Notice of Registration Hold (see Exhibit 3-110) will be produced on approved City of Columbus letterhead. All notices will contain, at a minimum, the following required information:

- Notice number
- The date the notice is generated
- PVB identification information
- The vehicle registration number and state

For each of the unpaid parking tickets (up to 10) the ticket date, ticket number, violation, violation location, violation time, fine amount, penalty amount, amount due, and the total amount due for all tickets listed.

---

**Notice 5 – "Sweep Mailing"**

---

In addition, in partnership with the City, ACS has developed a specialized collection notice known as a "Sweep Mailing." The Sweep Mailing Notice is an enhanced enforcement tool which has achieved exceptional revenue results in the past. The Sweep Notice is sent to individuals that have not responded to prior notices and do not meet the requirements of being placed in registration hold with the BMV. The City will not be billed for these mailings until the revenue received exceeds the cost of the Sweep Notices. In the past, revenue generated from Sweep Notices has always exceeded the associated costs. In previous runs, the City has achieved collection rates of 24 percent from Sweep Noticing. ACS will provide the City with Sweep Mailings, including all associated forms and envelopes.


---

---

*Notice design flexibility ensures superior customer service and allows for the implementation of various collection strategies.*



## Notice of Registration Hold

<small>City of Columbus Parking Violations Bureau</small>				<small>City of Columbus Ohio 43215-1000 614 644 3400</small>	
<b>PARKING VIOLATIONS BUREAU</b> CITY OF COLUMBUS, OHIO					
OH-8HJ8326 John Doe 123 Main Street DUBLIN, OH 43017-9707		06/12/01 <b>RE: NOTICE OF REGISTRATION HOLD</b>			
Dear Sir or Madam:					
The registration renewal of your vehicle license plate <b>WILL BE DENIED</b> by the Ohio Bureau of Motor Vehicles due to unpaid violations listed below. As a result of your failure to respond, your license plate number will be reported in 30 days to the Ohio Bureau of Motor Vehicles and you will not be permitted to renew your license plates until you completely satisfy ALL of the parking ticket judgments.					
You must pay these tickets immediately at the Parking Violations Bureau. Only Cash, cashier's check, money order, or MasterCard/Visa will be accepted. No personal checks will be accepted.					
The next notice you receive on these tickets will be from the Ohio Bureau of Motor Vehicles indicating that your vehicle registration has been suspended. If your registration is held, you will be charged with an additional \$5.00 per ticket by the State of Ohio.					
<b>YOU MUST TAKE IMMEDIATE ACTION TO PROTECT YOUR DRIVING PRIVILEGES.</b>					
State/Plate OH 8HJ8326					
<u>Ticket</u>	<u>Issue Date</u>	<u>Violation</u>	<u>Location</u>	<u>Amount Due</u>	
5536640343	01/19/01	OVERTIME METER	RUSSELL LT	\$30	
5536425664	01/12/01	OVERTIME METER	RUSSELL LOT	\$30	
				<b>Total Due:</b>	<b>\$60</b>
0601000000015					
BRING THIS NOTICE WITH YOU TO: PARKING VIOLATIONS BUREAU 400 W. WHITTIER STREET COLUMBUS, OHIO 43215 8:00 AM TO 9:00 PM MONDAY THRU SATURDAY 8:00 AM TO 6:00 PM SUNDAY					
5536640343 5536425664					

**Exhibit 3-110. Registrations with three or more tickets remaining unpaid that have received a Pre-judgment Notice will receive a Notice of Registration Hold.**

ACS currently provides the City with notices that meet the criteria specified in the RFP. The actual text of the notices conforms to all applicable laws and has been approved by the City.

ACS has performed numerous test mailings and notice design adjustments for its clients nationwide which have shown that more citizens respond, whether by inquiry or payment, when information is provided on a clearly formatted, color enhanced notice. We have evaluated and implemented effective noticing strategies which include laser printed letters, colored notices, various stocks of envelopes, and the inclusion of a



"stuffer" card with special wording or warnings to complement various notices. In March 2001, ACS made further progress in notice mailings by switching mail house vendors. Barton and Cooney is a mail house vendor that provides professional-looking color notices printed on high-quality laser printers. Changes to notices can be made and implemented in a more timely manner with the new vendor ensuring the City will have greater flexibility in the noticing system.

In addition, ACS has experience in developing specialized noticing strategies for particular populations, whether based upon the number of tickets outstanding, dollar value or type of violation. This essential experience allows ACS to maintain consistent collection rates in all our client cities, and to provide Columbus with a valuable resource of knowledge.

*Quality Control reports ensure the mailing of accurate and effective notices.*

eTIMS<sup>SM</sup> Noticing Subsystem produces reports designed to ensure notice quality and accuracy. To reduce erroneous data and ensure accuracy in the notice generation process, ACS will provide the City with detailed Notice Registers for each notice type. The Notice Registers include the following information:

- Registration number
- Name and Address to which notice will be mailed
- Citation number
- Issue date
- Violation code
- Fine amount
- Penalty amount
- Name and address of violator

In addition, they provide the total number of notices sent and associated postage amounts, both in total and broken down by zip code. Notice registers provide the mechanism for performing quality control and reconciliation with the Notice Management Subsystem. Our monthly reporting package provides additional management data related to notice effectiveness, including the number of notices for which payment was received and the number of open unnoticed violations.

~~*eTIMS<sup>SM</sup> Notice Management Subsystem provides online inquiry and online notice tracking and inquiry.*~~

---

---

ACS developed the Notice Management Subsystem to enhance the ability to monitor and control noticing efforts. The Notice Management Subsystem provides important information about a mailing including notice count, citation count, and the total amount due for a specific notice type and date Exhibit 3-111. This eTIMS<sup>SM</sup> subsystem provides ~~online details of the generation of notices by the following methods of inquiry:~~

---

---



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

Type	Date	Ticket Count	Notice Count	Page Count	Total Due	Sequence
001 CURR Overdue	03/04/02	14,823	13,387	13,400	\$560,941.00	
001 CURR Overdue	03/05/02	5,985	5,489	5,489	\$227,980.00	
001 CURR Overdue	03/06/02	6,096	5,607	5,613	\$231,545.00	
001 CURR Overdue	03/07/02	6,128	5,601	5,606	\$232,906.00	
001 CURR Overdue	03/11/02	15,372	13,902	13,929	\$583,604.60	
001 CURR Overdue	03/12/02	5,748	5,265	5,271	\$216,775.00	
001 CURR Overdue	03/13/02	5,624	5,157	5,170	\$214,375.00	
001 CURR Overdue	03/14/02	5,620	5,156	5,157	\$214,227.00	
001 CURR Overdue	03/18/02	10,339	9,414	9,424	\$388,677.00	
001 CURR Overdue	03/19/02	5,953	5,444	5,453	\$233,189.50	
001 CURR Overdue	03/21/02	7,543	3,984	4,878	\$354,890.70	
001 CURR Overdue	03/22/02	12,387	9,782	7,564	\$221,879.80	

**Exhibit 3-111. The Notice Management Summary Page displays relevant information pertaining to notice mailings. Proprietary Information**

- By notice date, listing all notices in notice type order, generated for the specific date entered up to and including current date
- By notice type, listing all notices of the specified type and the date of their generation
- By registration number (state/plate), listing all notices generated for a specific plate

If a notice is destroyed during the printing process and cannot be mailed, the ability to back out the notice record is crucial. Although this function is not frequently required, the absence of this ability would result in the associated citations being erroneously viewed as eligible for the next stage of noticing and enforcement activity. This essential back out capability exists on eTIMS<sup>SM</sup> and removes the notice from all associated citations on the database, allowing them to be selected again for the same notice during the next notice generation process. This capability ensures proper notice sequencing and efficient customer service.

The eTIMS<sup>SM</sup> Notice Management Subsystem also provides the City with an online representation of citation status and registration information as it was at the time of notice creation. The ability to view both previous and current citation conditions online as well as to verify the name and address the notice was mailed to is critical for responding to violator inquiries. This "snapshot" capability provides the City with an extremely useful tool for rendering the best possible customer service.



*eTIMSSM' ability to accurately track vehicle ownership, current address and responsibility information ensures notice processing integrity.*

Accurate system information is necessary to ensure appropriate notice generation. eTIMSSM provides a comprehensive history for tracking vehicle ownership, name and address updates, and transfers of responsibility.

eTIMSSM' name and address history feature maintains up to 10 addresses associated with a plate including a "nixed" status indicator. When a subsequent name and address is received from Ohio BMV or an Out-of-State Registry System, it is compared to the current address on file and, if different, applied. This process causes the previous registration information to be recorded in history, and is displayed on the plate summary screen.

eTIMSSM provides the PVB staff with the ability to track name and address data when responsibility belongs to an individual other than the registered owner, as well as maintain the ownership information received from the BMV. When a change of responsibility is applied, eTIMSSM has the ability to automatically back out previous notices sent to the registered owner, add or delete penalties and/or fees, and produce notices for the newly assigned responsible party. This process ensures that notices are only mailed to the responsible individual.

When ticket responsibility differs from vehicle ownership, as identified by a leasing company or other source, the name and address of the accountable party is displayed by eTIMSSM. If ticket responsibility subsequently changes, the system has the ability to replace an existing name and address with updated information. In addition, if ticket obligation should revert back to the vehicle owner, eTIMSSM will write the ticket level name and address to history, and responsibility will once again be with the registered owner. If desired, this process can include the creation of a notification letter to registered owner that responsibility has been returned to them.

### **Payment Plans**

*ACS can implement its installment payment subsystem tailored for the municipal debt environment.*

---

**Once the payment arrangements are made, the system generates a payment plan confirmation notice. Broken promise notices are automatically issued when payments are missed.**

---

---

This activity is initiated only when all other avenues have been exhausted and only with the permission of the client. Asset verification, credit bureau reporting, and referral for legal actions are all enforcement methods that ACS is qualified to use. However, as a public sector service provider, we fully understand the city's reticence in employing some of these methods and we will work with city management to ensure comfort with the level of pursuit our collectors use.

---



### Consumer Credit Reporting

Throughout our years of experience, we have found that credit bureau reporting is an extremely valuable tool in the collection and recovery process. ACS' standard operating procedures entail reporting unsatisfied debts and delinquent debtors to TransUnion. This is now occurring for our Philadelphia, Pennsylvania; Los Angeles, California; Washington, DC; and Raleigh, North Carolina clients.

If approved, each month our collection center would prepare a tape that is sent to TransUnion. The cost associated with this reporting is not included in our base proposal. We will include all Columbus-specific debtor information in this tape, just as we have done and continue to do for our other collection services customers throughout the country. This tape is laid out in the standard ACB, metro format used by the three main credit-reporting agencies. For national child support collections we utilize procedures to interface with Equifax and Experian.

Each submission includes:

- Name of the debtor
- Debtor's address
- Debtor's Social Security Number (if available)
- Date the account was referred for collection
- Name of the collection agency that is handling the case
- Name of the creditor
- Amount of the debt
- Date of last payment

Each month the names of debtors with balances are included in the tape and, if payments have been made on the account or the account has been paid in full during that month's reporting, the bureaus are able to update their individual debtor files accordingly.

Through our collection efforts and the use of reporting delinquent accounts to credit bureaus, the city can be assured that we will professionally and continuously comply with the Fair Debt Collection Practices Act and the Fair Credit Reporting Act.

*ACS is the most capable vendor to provide a timely, accurate, and efficient collections program.*

---

---

Notice generation and control is a vital and complex function of any parking violation processing system. The vendor must possess the ability to accurately maintain name and address information, notice criteria and tables, notice history, and returned mail status. If any one of these functions fails, the entire notice program fails and the enforcement of red light citations is disrupted for the entire project. ACS possesses the necessary experience, ability, and knowledge to ensure an accurate and efficient notice generation and judgment document process is in place day one of contract start-up.



### **3.1.35 | Separate Payment and Collections Provider**

This section has been eliminated through Addendum #1.





### 3.1.36 | Public Education and Awareness

#### HIGHLIGHTS

- ACS has supported more than 50 successful photo enforcement public information campaigns
- ACS has provide public information and education support to more large city photo enforcement programs in North America than all other vendors combined
- ACS provides photo enforcement systems and services to 15 of the largest 20 participating cities in North America
- ACS will provide a static web site for the City's photo red light enforcement program
- Campaign targets to all stakeholders including the public, public officials, media, and government agencies

*ACS recognizes that public acceptance of the automated red light enforcement program plays a vital role in achieving the City of Columbus' goal of modifying driver behavior and thereby reducing the number of collisions at signaled intersections.*

The support of citizens is critical to the success of the City's traffic camera system. The City of Columbus understands photo enforcement technology and the positive effect this technology can have in reducing vehicle accidents and fatalities. ACS strongly believes that the safety issues surrounding the use of red light photo enforcement technology, presented to the public by means of a well-articulated public information campaign, will win the support that is needed to successfully sustain the program.

ACS has extensive public sector management experience—more than 90 percent of ACS' senior managers are former public servants. Based on our experience working for the public sector, we are well aware of the importance of implementing an effective communication campaign when introducing a new program, such as the automated red light enforcement proposed by the City of Columbus.

The ACS team has successfully supported more than 50 automated traffic enforcement public education campaigns. We believe that the implementation of a public information program must explain the purpose, timing, and expected results of the City's traffic camera system. ACS, working in partnership with its clients, has a proven track record of designing and executing results-oriented public safety communications campaigns.

We understand, from reading the City's RFP, that ACS may be required to attend public meetings and assist the Columbus Police Department and other city staff in demonstrating the red light camera equipment and program. We have done this for many of our clients, and are prepared to assist the City of Columbus in this important public information and education (PI&E) task. ACS will also provide general public information and education support to the City. More information on our involvement in red light enforcement community awareness campaigns is provided in the following subsections.

While ACS has tremendous experience in providing PI&E campaigns to the largest cities in North America, we believe it is critical to add local community knowledge and understanding of the unique City of Columbus operating environment to our team.



ACS typically partners with local public relations or marketing communications firms to develop and execute public outreach campaigns for photo enforcement.

To best create an effective public information and education campaign for the City of Columbus, ACS will partner with a local firm, PolicyWorks. PolicyWorks has evolved from 30 years of public, private, and community service in the City of Columbus. Known regionally and locally for public/private issue campaigns, PolicyWorks also brings a national reputation for political campaigns. Led by Dani Palmore, PolicyWorks associates possess a wealth of knowledge and experience in public outreach, community organization, public relations, and marketing.

PolicyWorks recognizes that all clients have diverse objectives and welcome the opportunity to strategize and implement action steps that will produce solid deliverables. PolicyWorks believes that these deliverables will set the stage for responsible decisions that influence the way that policy works.

The partnership with Dani Palmore and her firm has already proven successful through her efforts as an ACS subcontractor with the Columbus EMS billing program. PolicyWorks is responsible for educating the citizens of Columbus and Franklin County about the new billing policy and proper use of the Emergency Medical Services (EMS) while gaining public acceptance and instilling confidence in the new system. With vast experience as a local educator on public policies, Dani Palmore is the natural choice to lead a campaign where success can be measured in lives saved and the public's increased awareness of traffic safety dangers and how to mitigate them.

In the remainder of this section, ACS outlines the factors we believe will contribute to a successful PI&E campaign in the City of Columbus.

### 3.1.36.1 Outreach to All Stakeholders

A centerpiece of the public information and education program for a successful automated red light enforcement program is to provide information to all stakeholders in the traffic safety program. The stakeholders in such a program are numerous. They include:

**Public**—The public encompasses not only the driving public that receives citations but residents in Columbus, visitors to Columbus, and students who study in Columbus. In addition, there are entities that have a stake in the outcome of the citations. They include owners of vehicles driving on the roads of Columbus such as rental companies, fleets, government agencies, and commercial vehicles owners. These vehicle owners all have a stake in the program since citations will be mailed to them.

**City Council and Executive Management**—The executives in the legislative and executive branches of government in Columbus all have a stake in the program since they will receive complaints and complements regarding the operation of the system and the customer service we provide. They are not only members of the city council, the mayor, and the city manager, but also staff members to the city council members, staff in the city manager's office, and public information officers who are in constant contact with the public.



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

---

**Government agencies**—The officials in numerous government agencies will be involved from time to time on various policy issues regarding the red light enforcement program. They include departments of Transportation, Finance, Police, City Attorney's office in the city and county, as well as the courts and state agencies.

**Media**—The stakeholders in the media include those reporters, editors, and publishers from the print, television, radio, and Internet sites who will cover the stories about the red light enforcement program. The reporters and editors include those representing local stations as well as national broadcasters.

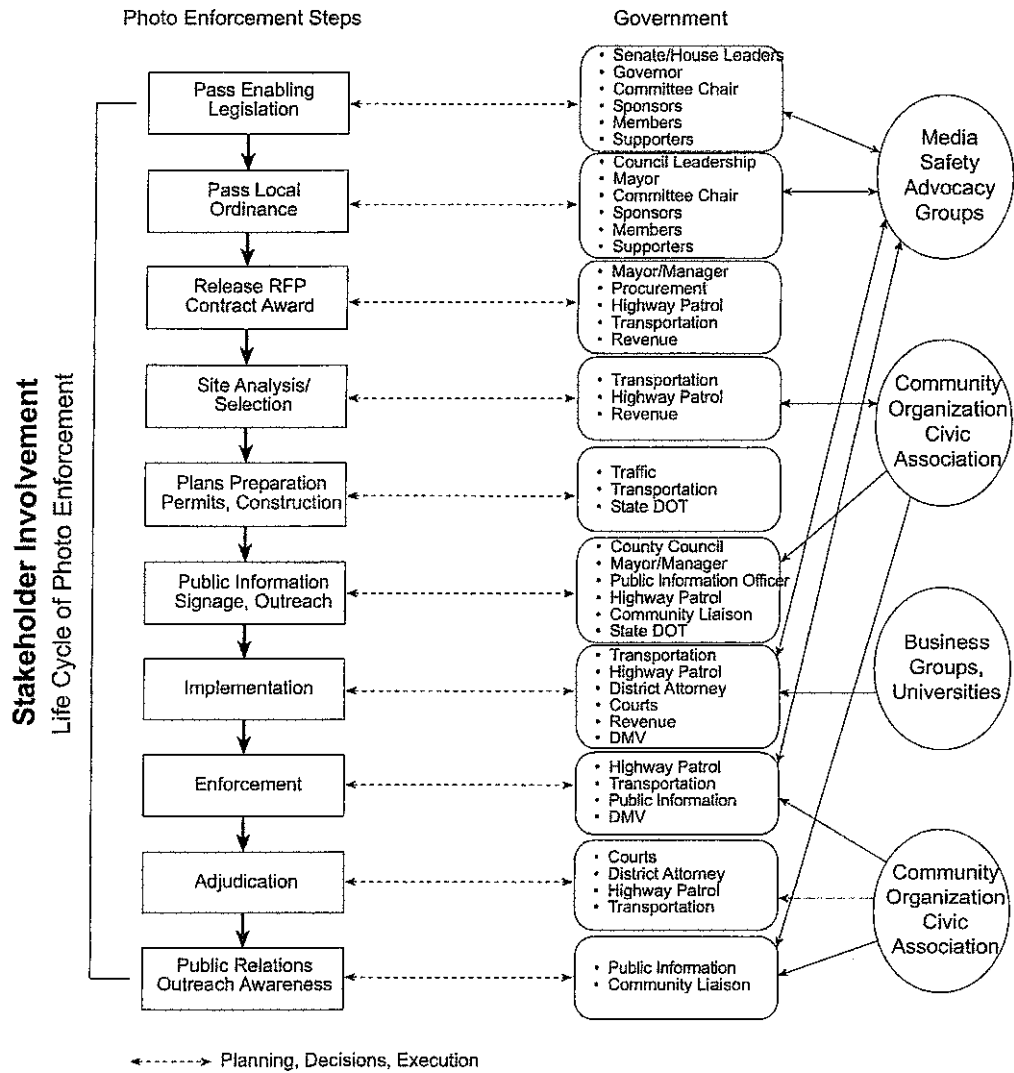
These stakeholders will be actively involved in the red light enforcement program throughout the lifecycle of the project. Exhibit 3-112 shows how the stakeholders get involved during the various stages of the program.

Leveraging our experience in public education and awareness campaigns, ACS will assist the City in providing information to all these stakeholders. It is essential that the information provided is accurate and timely. We will assist the city in these types of material:

- Community presentation
- Public information messages in the media
- Video tape for presentation
- Mailings such as inserts
- Flyers
- Signage of the program
- Web site
- Interactive voice response (IVR) system
- One-stop walk-in office co-located with parking ticket office
- Reports
- Follow-up statistics and information
- Online access to citation information and customer service actions
- Reports on the accomplishments of the program
- Statistics on the program
- Demonstrations of the system—how it works
- Briefings and presentations
- References from other cities on their lessons learned
- Immediate response on inquiries from the citizens
- Online access to citation images
- Analysis of the locations of the systems and response to requests for relocations
- Statistics on the program
- Trends on violations and public safety accomplishments
- Briefings and presentations
- Demonstrations of the system
- Provide materials for stories
- Assist the city in media presentations
- Assist the city in preparing press releases
- Provide expert knowledge on the system
- Provide statistics and data regarding the program through the city
- Provide references to other cities
- Respond to inquiries from citizens



City of Columbus  
Ohio Photo Red Light Enforcement System



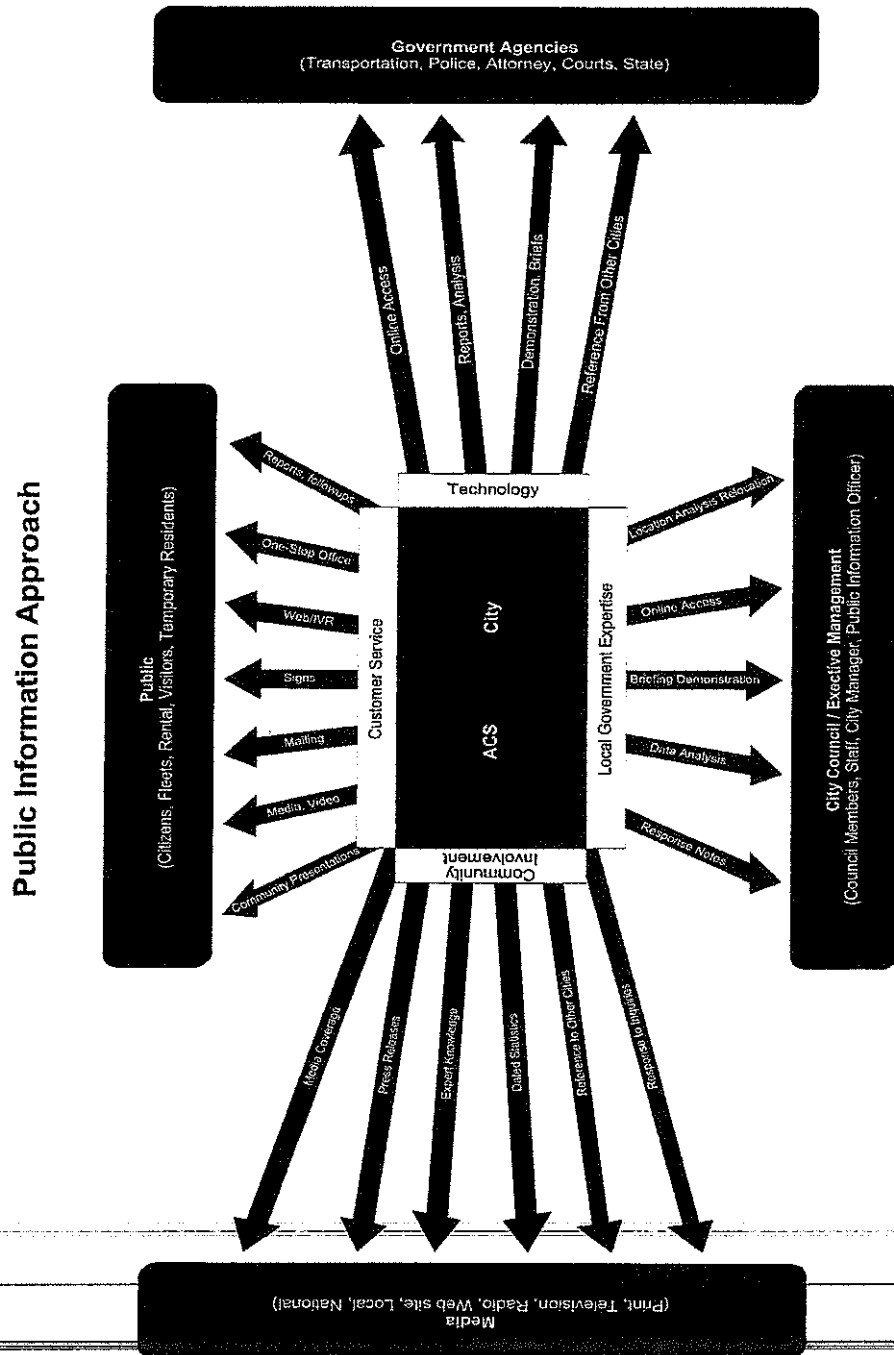
001 CPRLM

**Exhibit 3-112. ACS' public information campaign extends across all government and community stakeholders.**

Exhibit 3-113 provides a graphic representation of all of the steps that ACS and the city will take to ensure all City of Columbus stakeholders and constituents are aware of the city's automated red light enforcement program, its objectives, program performance, and success. ACS is the only vendor who has the track record and resources to support for the city in this critical task. This is because we have the technology, the best practices, the tools in customer service, the public education resources, heritage of community involvement, and the local government expertise in photo enforcement to ensure success.



City of Columbus  
Ohio Photo Red Light Enforcement System



002, CPRL04

**Exhibit 3-113. ACS' Public Information from approach will ensure all City stakeholders are (1) aware of the City's program, and its safety objectives and (2) receive and have access to continuous and timely information about ongoing program performance and success.**



### 3.1.36.2 Lessons Learned

Due to ACS' vast experience in assisting cities implementing red light enforcement programs, we have collected numerous lessons learned from these experiences. ACS is in the unique position of assisting our clients in developing a public information campaign based on these lessons learned.

Columbus' public information master plan should take into account the following:

- 1) Relationships with the local media need to be renewed and nurtured frequently. Regular media education on red light photo enforcement will be very important. A schedule of press releases and media update events about the success of the program are recommended.
- 2) Targeted red light photo enforcement public education, community awareness, and public relations programs need to be aggressively sustained over lengthy and even indefinite periods of time. For example, the city should communicate with "new" (to the City) drivers indefinitely.
- 3) The repetitive use of multiple media and other venues is required to communicate effectively. The city should utilize new cost effective awareness measures that allow the city to reach an already large and growing population.
  - While direct mailings to households and local businesses and community public awareness surveys are most certainly recommended, other communication strategies are also suggested.
  - The recommended communications campaign includes the strategic use of local television, school awareness programs, the city Internet site, theater advertising, community newsletters, Speakers Bureaus, and poster contest programs. The city should develop press kits to roll out a new photo enforcement program.
- 4) Relationships with special audiences and constituency "stakeholders" also need to be renewed and nurtured regularly. In particular, "stakeholder" education will be very important.
  - ~~The creation of a Speakers Bureau can be an excellent way for the city to develop regular communication with the "gatekeepers" and to foster local photo enforcement champions. ACS will work to facilitate collaboration among the city public information officers, law enforcement, transportation safety, traffic engineering, and court officials.~~
  - ~~Establishing a mailing list of these key players in the community allows the city to ensure delivery of all community awareness messages to the most important recipients.~~
- 5) In any program, there can be unexpected public relations situations. To be ill-prepared for such unforeseen events is to jeopardize the entire red light photo en-



forcement program. A strong understanding of effective crisis communication must therefore be a priority.

- Focus must be retained on the core message—increasing public safety. This must be reaffirmed at every opportunity.
- In the event that other red light photo enforcement programs (regionally, nationally) have problems, the success of Columbus' program and its tailored approach to the community must be a dominant theme.
- ACS will assist the city in developing a comprehensive public information plan. We will assist the city in preparing briefing materials, statistics, and demonstrations to various print media publications.

The key to ACS' success is our ability to anticipate frequently asked questions and prepare the necessary materials, information, and quotes to reporters who ask these questions. For unusual questions, ACS has a track record in responding quickly to questions from the media. We will work closely with the city's public information officer or contract administrator to respond to all media inquiries.

ACS and PolicyWorks are available as a resource to assist the city in the development of a highly effective public information and awareness campaign. No other vendor in the industry brings this focus or proven track record to the table. The following strategies are presented as components of a comprehensive community awareness tactical plan. All or part of our plan has been deployed successfully in other cities similar in size and program scope to the city.

What sets ACS apart from all others in the industry is our results—the successful implementation of programs tailored for each client jurisdiction.

### **3.1.36.3 Specific Recommendations on Columbus' Public Information Program**

Following are specific recommendations that we believe will assure high acceptance of the program from the Columbus public.

*The creation of a winning public information and education campaign for the City of Columbus depends upon a clear understanding of public opinion and its impact upon the community.*

---

~~Up-front community support of this program is critical to its success. A well-developed public education program enables the city to focus on enforcement and safety issues throughout the life of the program, rather than defending the program to a dissatisfied public. To develop a plan to effectively build support for the program prior to start-up, several factors should be considered:~~

- Public approval is difficult to build—efforts must be carefully targeted



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

---

- Messages are lost quickly, and communication must be repeated over a variety of media sources
- Small, well-organized groups can have a disproportionate influence on public policy—controversies can ignite quickly

Accordingly, we recommend that Columbus' public information and awareness campaign include the following:

- Presentations at public meetings to promote traffic safety and photo enforcement
- Written documents in question and answer format and program fact sheets to answer citizen questions
- Demonstrations of the traffic camera system technology at public meetings
- Toll-free hotline, staffed by professional customer service representatives, for citizens to ask questions and receive information concerning the red light photo enforcement program
- Informational brochures with messages that target various city residents
- Targeted awareness campaigns aggressively sustained over lengthy and, in some cases (i.e., for new and/or out-of-town drivers), indefinite periods of time
- Repetitive use of a variety of media that would include a communications mix of press kits, media conferences, use of city Internet, article placement, updates in the city's community outreach newsletter, and an informational brochure
- Relationships with the local media need to be renewed and nurtured frequently (press releases and media update events on the progress of the program are recommended)
- Relationships with special audiences and constituency "stakeholders" (e.g., neighborhood groups and citizen advisory councils) need to be fostered. The creation of a Speakers Bureau can be an excellent way to maintain regular communication with gatekeepers, as well as the establishment of a mailing list of these key community players to permit the timely dissemination of information
- Identification of photo enforcement champions, opinion leaders in Columbus, who will publicly support Columbus' red light enforcement program.

---

---

#### **3.1.36.4 Written Products**

---

---

*ACS will assist the city in designing marketing material to be used in community meetings, stakeholder briefings, and public school education so that the Columbus automated red light enforcement program is well publicized.*





---

### **Handouts and Marketing Material**

---

The key to success in any new and high-profile program is the early publicity of the program to all of the stakeholders. The design and creation of the marketing material that describe the program must be completed during the early stage of planning. They should be distributed and disseminated prior to the installation of the camera systems so that the stakeholders have an opportunity to understand the program and get their questions answered.

ACS is the only vendor who has extensive experience assisting cities in meeting this challenge. We propose that the city evaluate numerous marketing materials that have been designed and implemented in other cities for the appropriate distribution in the City of Columbus. They include:

- Full color brochure explaining the program
- Pamphlets on frequently asked questions and answers
- Inserts regarding the program to be included in city mailing such as water bills and parking tickets
- Bumper stickers with the Columbus red light enforcement program logo
- Flyers about the program
- Coloring books for school children
- Pencils with logo about Columbus red light enforcement program logo
- Maps on the locations of the red light cameras

Choosing ACS will allow the city access to the expertise and lessons learned from other cities. ACS would also assist the city in selecting vendors and compare prices depending on the volume of the material being procured.

There are other materials that we have founded to be helpful in publicizing this high-profile program:

---

### **Columbus Red Light Enforcement Program Communications Strategy Manual**

---

The objective of the City of Columbus' public awareness campaign is two-fold: (1) to build and sustain support for photo enforcement in Columbus; and (2) positively impact driver behavior and compliance with Columbus traffic laws. With these goals in mind, ACS will support the City of Columbus in preparing a comprehensive communications strategy manual that will encompass resident notification, media relations, public outreach, opinion polling, and a stakeholder communication strategy.

The communications manual will include a detailed plan consisting of a timeline, schedule of events and appearances, lists of organizations and groups, Q&A and fact sheets for project personnel, and proposed community education strategy, all subject to the approval of the city. In close partnership with the city, ACS will update this plan throughout the program's duration.

### **3.1.36.5 Press Material and Media Relations**



Media relations will comprise two stages of the project: initial implementation of the program and ongoing operations. The initial phase will involve supporting the city in the kickoff conference while the ongoing program will involve support in providing material and information regarding the program, statistics on the program, detailed explanations of the equipment, location of the cameras, and response to inquiries from the public.

---

#### **Kick-Off Press Conference and Equipment Demonstration**

---

The ACS team will work with the City of Columbus (and stakeholder agencies such as the Police Department and Department of Motor Vehicles) in the coordination of a kick-off event designed to educate the community about the objective of the red light photo enforcement program and its applicability as a means to improve traffic safety. ACS will coordinate the press conference at the program's commencement and coordinate all logistics, including preparing a media packet that includes:

- A news release
- An overview of the Columbus photo enforcement program
- A project fact sheet
- A project Q&A sheet
- Backgrounders that profile successful photo enforcement projects in other large cities
- An easy-to-understand fact sheet that explains red light camera technology
- Biographical data on principal program administrators
- An explanation of how the program will be administered
- A spokesperson contact list

ACS recommends that the press conference feature city officials, the Police Department, and supportive residents and community leaders as proponents of the program. ACS will also provide sample violation photos (as allowed by statute) and be in attendance to explain how applicable technologies work.

*ACS has successfully supported numerous cities in carrying out their initial press event. They include highly visible and intensively covered cities such as Washington, D.C.; Baltimore, Maryland; Fairfax County, Virginia; Wilmington, Delaware; Los Angeles, California; and San Francisco, California.*

---

#### **Media Relations Program**

---

ACS believes that on-going media relations are essential to sustaining successful photo enforcement public information and public education programs. As such, our team recommends that the city's public information program does not stop once the initial events and fanfare are over. Over the length of the program, ACS recommends that the city carry out an extended media relations program that uses the red light camera program to promote traffic safety. This separately priced, optional program, as currently envisioned by our team, would include:

- Writing and placing one or more articles in the local, daily newspaper of the city's choice.

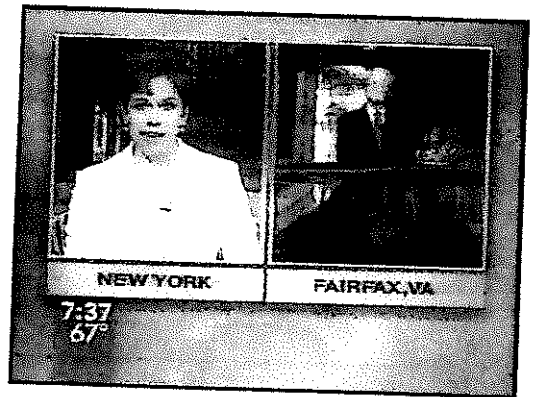


**City of Columbus  
Ohio Photo Red Light Enforcement System**

- Identifying and contacting key local print journalists and editors in order to brief them on the project and solicit their interest and support. ACS experience shows that outreach to traffic reporters and commuter journalists such as Dr. Gridlock of the Washington Post increases support and understanding of the program.
- Identifying and contacting key radio and television outlets to encourage coverage (Exhibits 3-114 and 3-115 below are just two examples).
- Identifying and contacting key radio "drive time" traffic reporters to brief them on the project.
- Organizing a media fax network for the purpose of keeping media representatives aware of the status of Columbus' red light enforcement program.



*Exhibit 3-114. Red light photo enforcement programs have generated positive news coverage in cities throughout the country.*



*Exhibit 3-115. NBC's Today Show—coverage and discussion by Robert Hagar and Katie Couric.*

- Composing, for distribution to the media, issue papers that address pertinent public policy issues raised by red light photo enforcement, as well as answer-specific anticipated criticisms of red light photo enforcement.
- Organizing additional news conferences on the occasion of significant project milestones.
- Regularly identifying and pitching red light photo enforcement's positive message to electronic and print media that support the program's public safety goals.

There are no guarantees that a newspaper will print what the City or ACS provides. However, ACS is experienced in working with local newspaper organizations regarding the regular inclusion of information about red light photo enforcement. Newspapers are placing increasing emphasis on providing their readers with tangible benefits. Information pertaining to the distribution of red light cameras supports this goal. The dissemination of this information to the public also demonstrates the program's commitment to fairness.



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

---

We have been successful in providing the necessary information to high profile newspapers such as the *Washington Post* where positive stories about the red light enforcement program have been published. The result is an enforcement program that is highly supported by the public.

ACS recommends that program data be provided to all local publications as it becomes available. It would be packaged in a graphically pleasing format that appeals to editors and readers.

In order to detail some of our past experience in implementing media and community relations programs, ACS provides the following specific examples of our acclaimed community awareness programs in action.

- Tempe, Arizona—Citywide mailing of ACS' SuperCard to all residences develops immediate recognition that photo enforcement is "coming to town."
- Community awareness result: Tempe's program has received strong and enduring support from the community and continues to flourish.
- National City, Colorado—ACS developed an elementary school "photo radar awareness" program that received the enthusiastic support of children, their parents, and local educators.
- Community awareness result: Parents got the message from their children that speeding in their community was a big concern—and their help was needed. National City was one of the first cities in the western U.S. to establish photo radar, and community support was there from day one.
- Los Angeles County, California—Working with the Metropolitan Transportation Authority, ACS developed a survey of driver attitudes towards photo enforcement at the beginning of the program. Community awareness result: The survey validated the strong support for photo enforcement within the County.

### **3.1.36.6 Community Awareness Program**

ACS develops, in partnership with our client jurisdictions, a multi-faceted community awareness program that is designed to meet local needs. If selected to implement the traffic camera system in Columbus, ACS will assist the city in design a program that incorporates the lessons learned and best practices in leading jurisdictions around the nation. This will help to ensure the long-term success of Columbus' program.

At the city's option, ACS will work with the city to seek speakers to make presentations to local community groups. Such groups would include organizations ranging from local service clubs (Elons, Rotary, Optimists, etc.), professional groups (the Association of Realtors, legal bar, Chamber of Commerce, etc.), and community organizations.

In support of these efforts, ACS will help the city to provide presentation materials and training to appropriate members of the community who can become the red light photo enforcement program's Speakers Bureau, most likely comprised of select interested



members of the Police Department and other city staff, as well as volunteer citizen activists. In addition to providing training on the technology, ACS will also assist in the presentation of materials to the members of the Columbus Red Light Enforcement Program Speakers Bureau.

Outreach to the public schools is also an essential component of the program. For example, the Charlotte, North Carolina, *SafeLight* program targeted public schools in its outreach program and concentrated on educating the school children. ACS assisted Charlotte in making presentations about the workings of the red light camera systems.

### 3.1.36.7 Public Opinion Surveys

As a separately priced option, ACS is willing to develop a minimum of three professional public research opinion surveys on red light photo enforcement. These surveys will be prepared with input and approval of the City's contract administrator, and the Columbus Police Department will approve the contents of each survey. For each survey, ACS recommends that the city interview a minimum of 400 people, who will be part of a statistically valid random sample of Columbus households, prepared by a polling organization approved by the city. ACS realizes the importance of developing a strong foundation of public opinion data that can be invaluable for on-going community awareness, particularly in the area of media relations.

The first public opinion survey should be executed near or on the implementation date of the program. In this way, the city can establish a baseline for how Columbus residents view red light photo enforcement systems. It is important for the City of Columbus to know how its own residents view the program, so that the city can most effectively target a community awareness program to the needs of residents.

Conducting follow-up surveys per a pre-determined schedule is also important as an on-going means of listening to the views of Columbus residents as the program develops. ACS recommends conducting the second survey approximately one year after implementation and the third survey approximately two years after implementation.

ACS has had significant results with similar surveys coordinated for the Arizona cities of Mesa and Tempe. For each of these cities, an initial survey was conducted just prior to program implementation and a follow up survey one year later. What these results show is that as awareness increases, public support remains consistently high.

#### Survey Results for the City of Mesa

Percentage of Residents	Before Program Implemented	One Year Later
Aware of Photo Enforcement	28%	72%
Approve of Red Light Camera Enforcement	78%	82%
Approve of Photo Radar Enforcement	76%	75%

#### Survey Results for the City of Tempe

Percentage of Residents	Before Program Implemented	One Year Later
Aware of Photo Enforcement	34%	61%
Approve of Red Light Camera Enforcement	81%	81%
Approve of Photo Radar Enforcement	80%	78%



### 3.1.36.8 Web site

ACS will work with the city to develop a static Web site for the Columbus red light enforcement program—leveraging our corporate-wide experience in implementing Web sites, particularly for our traffic enforcement clients. The proposed Web site should be easy to navigate, contain information and statistics, and allow for linkage to payment of citations. It should contain:

- Basic information regarding the program
- Legislation and ordinance that created the red light enforcement program
- Guidelines and information on payments and hearing scheduling
- Location of the red light cameras
- Frequently asked questions
- Statistics generated by the program
- Inquiry regarding the amount owed via citation number
- Provisions to pay the fine or penalty
- Links to other public safety web sites

ACS' qualifications to assist in designing and implementing such a Web site are based on our experience in developing and assisting our clients in their Web site design.

In January 2002, ACS launched a new photo enforcement Web site, [www.trafficsafety.com](http://www.trafficsafety.com). As shown in Exhibit 3-116 the Web site has a *Traffic Safety Resources* area focused on public education. The ACS Web site contains information on traffic safety reports, students, public opinion polls, frequently asked questions, technology and equipment profiles, and profiles of successful programs in North America.

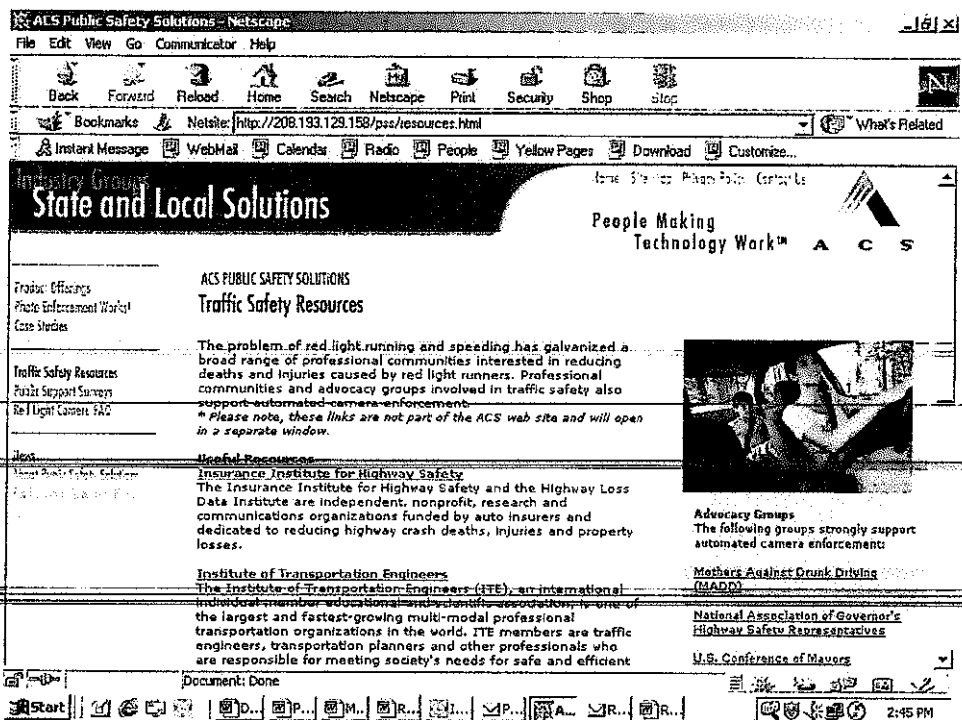


Exhibit 3-116. ACS Traffic Safety Web site.



### 3.1.36.9 Demonstrated Accomplishments of ACS Public Outreach Efforts

---

#### **Experienced Public Communicators**

---

ACS manages more than 50 photo enforcement contracts throughout North America and ACS staff has supported the public outreach strategy of every client. As a result, ACS has the corporate experience of developing public outreach strategies for every major city with a turnkey photo enforcement program.

---

#### **A Track Record of Successful Public Education Programs**

---

ACS works closely with clients to develop multi-faceted outreach strategies that ensure long-term program success. As the most trusted provider of photo enforcement solutions in the largest municipalities in North America, ACS brings the most experience in developing and executing effective, results-driven public outreach strategies. ACS has demonstrated in such large cities as Charlotte, Washington, D.C., Los Angeles, and Edmonton, Alberta, success in building public support for photo enforcement and compliance with local traffic laws. ACS has a track record of working with clients on low cost and creative public education/outreach strategies to promote photo enforcement.

---

#### **ACS Measurement Builds Understanding**

---

Successful public outreach strategies often begin with understanding current public sentiment towards photo enforcement. ACS customarily support the conducting of opinion research through surveys to measure public support for photo enforcement. Opinion surveys establish a baseline. Further, results are used to both design appropriate outreach strategies and messages; survey results are used in promotional materials. This technique, exclusive to ACS, allows the city to establish a dialogue with the public on the issue of public safety. Surveys in Mesa, Denver, Colorado, Baltimore, and Oxnard, California, yielded positive results for the public outreach campaign.

---

#### **ACS Effectively Executes Comprehensive Communications Campaigns**

---

ACS understands that early and repetitive notification prepares the public for new programs and builds support. In Mesa, Tempe, and Charlotte, ACS worked closely with the client on resident notification using inserts, or SuperCards, in local utility bills.

---

ACS has successfully employed a media strategy to initiate photo enforcement programs and to engage the local print and electronic media. For each client, ACS helps to organize press conferences to kick-off the photo enforcement program. ACS works closely with clients to coordinate appropriate city officials such as elected officials, law enforcement, transportation, public safety commissions, and court officials. ACS prepares written documents, visual displays, and technology demonstrations to help the public better understand the objectives of photo enforcement.

---

---

In Edmonton, ACS worked with the client to run radio ads during peak commuter hours. Research revealed the most appropriate high-risk drivers to target. The ad messages and timing targeted older and teenage drivers.



ACS partners with clients to implement innovative and creative public outreach strategies. ACS helps the clients to identify key audiences. In Edmonton, ACS helped to enhance student awareness and participation in traffic safety issues. Students painted poles used to mount cameras. The pole painting attracted positive community and press response. Photo enforcement banners were placed on buses and across bridges. The client used its City Link newsletter and ACS assisted with the development of photo enforcement area of the city's Web site.

ACS helped the client to reach out to another key audience—local legislators. ACS participated in the Alberta Union of Municipal Associations, an association comprised of mayors and city councilors. The photo enforcement booth helped to educate government officials on photo enforcement technologies and the program's success.

In the District of Columbia, the client appears on local public policy talk radio programs such as WTOP. ACS assists the client with program statistics that clarify and amplify improvements in traffic safety. ACS collaborated with the client on filmed public service announcement to promote automated speed enforcement. Also, ACS assisted with the development of an education video used to describe the adjudication process.

ACS also encourages clients to participate in national awareness weeks to promote traffic safety. Clients such as the City of San Francisco participated in the U.S. Department of Transportation 2001 Stop Red Light Running Campaign (September). In April 2002, ACS demonstrated its photo radar vehicle at the National Work Zone Awareness Week press event.

In other cities, such as Los Angeles, ACS staff is always available to attend community and adjunct governmental meetings. ACS attends the LAPD and MPD (Washington, D.C.) community advisory board meetings with city officials.

ACS looks forward to working with the City of Columbus in developing a highly effective public information campaign and responsive media relations program.





## 4.0 COST PROPOSAL

---

### Introduction

---

ACS Public Safety Solutions (ACS) is pleased to present the City of Columbus with our pricing for the Photo Red Light Enforcement System, solicitation number SA 001147 JY/FM. Since 1992, ACS has been the industry leader in delivering successful automated traffic enforcement programs in North America. Our technology partner, Gatsometer, has been providing photo enforcement systems since the mid 1950's. Today, ACS operates more than 50 photo enforcement programs in 12 US States and the District of Columbia as well as four provinces throughout Canada. No vendor brings more large-city photo enforcement experience than ACS - we provide photo enforcement systems and services to 15 of the 20 largest participating cities in North America. Around the world, 50% of all photo enforcement systems are provided by our partner Gatsometer. With this vast experience comes a great appreciation of the level of resources required to deliver a successful program. Our proposal presents in detail the steps required to ensure our clients receive the world-class technology, support, and expertise required to implement this program. ACS is determined to offer our expertise at a competitive price based on our commitment to each program and its ultimate mission to reduce violations, collisions, and deaths.

The proposal emphasizes a high level of product support, customer service, and public relations because an unsupported program will be less successful and more expensive in the long run for all parties involved. The monthly fees paid to an experienced vendor, such as ACS, must be weighed against the risks and potential costs associated with selecting a vendor with less experience in similar size and scope contracts. In addition, ACS is committed to the City of Columbus and has been providing emergency medical billing services for the Columbus Fire Department since 2002 and has been providing our proprietary Ticket Information Management System (TIMS) and associated services for the Parking Violations Bureau (PVB) since 1993.

---

### Options

---

The City requested to see a variety of technical, service, and pricing options. We have responded to this request by providing several approaches that offer the city total control and flexibility in its choice of photography and pricing options. ACS also provides the City with the option of choosing (1) our stand-alone, full service proposal (where ACS handles all program functions with the exception of notice approval) or (2) the existing Parking Violations Bureau (PVB) staff and system infrastructure to handle a majority of back office and customer service functions, mirroring our existing parking violations program scope of work breakdown.

---

---

Our pricing options are first divided into the two core services choices:

- ACS Full Service or
- PVB/ACS Model



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

Within each of these core service options, we provide further sub-options that include front and rear photography or rear photography only. In addition, ACS provides pricing for each of these option combinations based on three models:

- Monthly Installation Fee + Transaction Processing Fee
- Purchase Price + Transaction Processing Fee
- Transaction Processing Fee

The result is 12 possible service, technology (photography), and price combinations, as listed below.

Service	Photography	Pricing
1. ACS Full Service	Front and Rear	Monthly Installation Fee + Transaction Processing Fee
2. ACS Full Service	Front and Rear	Purchase Price + Transaction Processing Fee
3. ACS Full Service	Front and Rear	Transaction Processing Fee
4. ACS Full Service	Rear Only	Monthly Installation Fee + Transaction Processing Fee
5. ACS Full Service	Rear Only	Purchase Price + Transaction Processing Fee
6. ACS Full Service	Rear Only	Transaction Processing Fee
7. PVB/ ACS Model	Front and Rear	Monthly Installation Fee + Transaction Processing Fee
8. PVB/ACS Model	Front and Rear	Purchase Price + Transaction Processing Fee
9. PVB/ACS Model	Front and Rear	Transaction Processing Fee
10. PVB/ACS Model	Rear Only	Monthly Installation Fee + Transaction Processing Fee
11. PVB/ACS Model	Rear Only	Purchase Price + Transaction Processing Fee
12. PVB/ACS Model	Rear Only	Transaction Processing Fee

**Pricing**

**ACS Ensures Program Cost Neutrality**

Regardless of the option selected by the City, ACS agrees that in the event that total monthly fees to be billed by ACS in a given month exceed current monthly gross program fines collected in the same given month, the City will pay the vendor 100% of the collected fines only. The remaining unpaid portion of the vendor's total monthly fee will roll over and be added to the following month's total vendor fees to be paid. At the end of the contract term, any unpaid rollover amounts owed to the ACS will not be paid by the City.

~~Our price will cover all services required by the RFP and addressed in our response. Each section will address the separate pricing options and subsequent pricing categories and the monthly fees under each pricing approach.~~

**A. ACS Full Service Options and Price**

Under this full service approach, ACS will provide the front end digital camera service and maintenance of the equipment (including digital still and video) and the back end data processing application support, data processing, customer service, notice management, collections, expert testimony and evidence, payment processing, and public information and education support.



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

<b>Table 1</b> <b>ACS Full Service</b>	<b>Per Enforced Approach</b>		<b>@ 20 Approaches</b>
	<b>Installation</b>	<b>Processing Fee</b>	<b>Monthly Fee **</b>
<b>Approach 1</b>			
Monthly Fee + Processing Fee (Front and Rear Picture)*	\$ 4,150	\$ 1,516	\$ 113,320
Monthly Fee + Processing Fee (Rear Picture Only)*	\$ 3,150	\$ 1,516	\$ 95,320
<b>Approach 2</b>			
Purchase + Processing Fee (Front and Rear Picture)*	\$ 150,000	\$ 1,516	\$ 30,320
Purchase + Processing Fee (Rear Picture Only)*	\$ 115,050	\$ 1,516	\$ 30,320
<b>Approach 3</b>			
Per Ticket Paid Fee (Front and Rear Picture)*	\$ 39.76 ***	\$ -	\$ 194,035
Per Ticket Paid Fee (Rear Picture Only)*	\$ 33.69 ***	\$ -	\$ 164,383

\*Assumes 10 Issued Violations Per Day and 7.5 Paid Per Day Per Enforced Approach  
 \*\* Assumes 20 Enforced Approaches  
 \*\*\* This is an estimated blended rate based on the estimated number of citations paid per month and our tiered pricing schedule described below in Table 2

In the above table the City has the following three approaches with two options for each approach:

**Approach 1**—A fixed monthly fee to cover the installation and equipment costs of each enforced approach over the life of the program plus a per paid transaction fee of \$9.75 per citation paid. Our transaction estimates are based on 10 issued citations per camera per day and 7.5 paid citations per camera per day. By factoring in an anticipated 40% decline in violations within 4 years, the average monthly processing fee over the contract life is \$1,516 per camera per month

**Approach 2**—This option includes an upfront equipment purchase price upon installation and per citation paid transaction fee of \$9.75 per citation paid. Our transaction estimates are based on 10 issued citations per camera per month and 7.5 paid citations per camera per day. By factoring in an anticipated 40% decline in 4 years, the average monthly processing fee over the life of the contract is \$1,516 per camera per month.

**Approach 3**—This option is an all inclusive fee based on the number of citations paid per month. The per paid citation rate in Table 2 is a blended rate based on 20 enforced approaches and the following monthly per paid citation tiers

<b>Table 2</b> <b>Monthly Tiers</b>	<b>Front and Rear Picture</b>	<b>Rear Picture</b>
<b>1 - 3000</b>	<b>\$49</b>	<b>\$42</b>
<b>3000 - Greater</b>	<b>\$49</b>	<b>\$45</b>

These tiers assume 20 enforced approaches are operational, if the City chooses to add more enforced approaches the tiers will increase by 5% for each additional approach.



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

Therefore if 21 approaches were enforced Tier 1 would be 1 - 3,150 and Tier 2 would be 3,151 and greater.

**Pricing Analysis ACS Full Service**

Based on the pricing approaches detailed above, the Fixed Monthly Fee plus Transaction Processing is the least cost approach under the ACS Full Service options. ACS has intentionally made this price attractive due to our firm belief that the contract financing should not be based on the number of tickets paid. A purely Per Paid approach lends itself to the perception that a vendor is being paid a "bounty" for capturing and processing violations. ACS' concern is that this perception will only undermine the success of the program and detract from the positive impact it will most certainly have on the lives of the citizens of Columbus.

**B. ACS and Parking Violations Bureau**

Under this process ACS would provide the front end service and maintenance of the equipment, initial event review, application support, notice management, collections, expert testimony, public information and education support. The Parking Violations Bureau will provide the staffing to work on our system to provide customer service, process payments and mail, scheduling court appearances, and provide administrative adjudication of tickets.

Our pricing options will incorporate an installation fee (either lease or purchase) and violation processing fees. Our anticipated violation processing fees, based on using the PVB model, are as follows.

<b>Table 3 *</b>	
<b>Item Description</b>	<b>Unit Price</b>
Per Ticket	\$1.80
Per Payment	\$0.49
Out of State Plate Lookup	\$0.15
First Notice	\$0.62
Second Notice - 31 days	\$0.62
Third Notice - 61 days	\$0.62
Delinquent Collections Without Registration Hold (Delinquent Day 91)**	18%
Delinquent Collections With Registration Hold (Delinquent Day 91)	12%

- The intent is to operate under the same terms and conditions of the existing contract between the PVB and ACS State and Local Solutions

\*\* Currently, no statewide enabling legislation exists for registration hold. ACS will offer this notice to the City when enabling legislation is passed.

In Table 4 below ACS has provided a number of approaches and the per enforced approach fee for each option under the PVB model.



**City of Columbus  
Ohio Photo Red Light Enforcement System**

Table 4 Columbus Pricing Sheets Using Parking Violations Bureau Back Office Processing	Per Enforced Approach	Processing Fee ***	@ 20 Ap- proaches
	Installation		Monthly Total **
<b>Approach 1</b>			
Monthly Fee + Processing Fee (front and rear photography)*	\$ 4,150	\$ 780	\$ 98,600
Monthly Fee + Processing Fee (rear photography only)*	\$ 3,250	\$ 780	\$ 80,600
<b>Approach 2</b>			
Purchase + Processing Fee (front and rear photography)*	\$ 150,000	\$ 780	\$ 15,600
Purchase + Processing Fee (rear photography only)*	\$ 115,050	\$ 780	\$ 15,600
<b>Approach 3</b>			
Per Ticket Paid Fee (front and rear photography)*	\$ 35.07	-	\$ 171,138
Per Ticket Paid Fee (rear photography only)*	\$ 32.30	-	\$ 157,629

\* Assumes 10 Issued Violations Per Day and 7.5 Paid Per Day Per Enforced Approach

\*\* Assumes 20 Enforced Approaches

\*\*\* This is a blended per ticket paid rate based on the tiered pricing schedule in Table 4

In the above table the City has the following three approaches with two options for each approach:

**Approach 1**—A fixed monthly fee to cover the installation and equipment costs of each enforced approach over the life of the program plus a processing fee based on the same pricing terms that exist in our current PVB contract. Our transaction estimates are based on 10 issued citations per camera per month and 7.5 paid citations per camera per day. By factoring in an anticipated 40% decline in 4 years, the average monthly processing fee over the life of the contract is \$780 per camera per month.

**Approach 2**—This option includes an upfront equipment purchase price upon installation and per citation paid transaction processing fee based on the same pricing terms that exist in our current PVB contract. Our transaction estimates are based on 10 issued citations per camera per month and 7.5 paid citations per camera per day. By factoring in an over an anticipated 40% decline in 4 years, the average monthly processing fee over the life of the contract is \$780 per camera per month.

**Approach 3**—This option is an all inclusive fee based on the number of citations paid per month. The per paid citation rate in Table 4 is a blended rate based on 20 enforced approaches and the following monthly per paid citation tiers.

Table 5 Monthly Tiers	Front and Rear Picture	Rear Picture
1 - 3000	\$44	\$40
3000 - Greater	\$15	\$15

These tiers assume 20 enforced approaches are operational, if the City chooses to add more enforced approaches the tiers will increase by 5% for each additional approach.



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

Therefore if 21 approaches were enforced Tier 1 would be 1 - 3,150 and Tier 2 would be 3,151 and greater.

**Pricing Comparison of ACS Full Service and ACS/PVB Cooperation**

ACS can not only provide the most advanced, reliable and proven front end camera solution in the world, it can also provide a back office application already integrated in the City's Parking Violations Bureau. By capitalizing on the long term partnership between ACS and the PVB, the City will choose the most efficient operational and customer service oriented approach available. It will also select one the least expensive approaches offered by ACS. It is rare that the best solution is the least expensive solution, but as is typical of ACS' partnerships throughout the country, we thrive on providing the best solution at the best price we can offer. In this case the institutional synergies that exist between our parking violations team and our photo enforcement team allow us to reduce costs without diminishing our level of service.

The following table demonstrates the savings over the possible 48 months of the contract by choosing a combination of ACS and the PVB rather than ACS Full Service.

<b>Table 6</b> <b>Comparison of Costs Between</b> <b>ACS Full Service and ACS &amp; PVB</b>	<b>ACS Stand Alone</b>	<b>ACS &amp; PVB</b>	<b>City Savings</b>
<b>Approach 1</b>			
Monthly Fee + Processing Fee (Driver Identification)*	\$ 5,439,360	\$ 4,575,360	\$ 706,560
Monthly Fee + Processing Fee (Owners Identification Only)*	\$ 4,575,360	\$ 3,868,800	\$ 706,560
<b>Approach 2</b>		\$ -	\$ -
Purchase + Processing Fee (Driver Identification)*	\$ 4,455,360	\$ 3,748,800	\$ 706,560
Purchase + Processing Fee (Owners Identification Only)*	\$ 3,756,360	\$ 3,049,800	\$ 706,560
<b>Approach 3</b>		\$ -	\$ -
Per Ticket Paid Fee (Driver Identification)*	\$ 9,313,674	\$ 8,214,610	\$ 1,099,064
Per Ticket Paid Fee (Owners Identification Only)*	\$ 7,890,403	\$ 7,566,195	\$ 324,208

As Table 6 demonstrates the best value solution is Approach 1 with a combination of ACS and PVB staff. Even though the savings of over \$706K over the life of the contract is less than the nearly \$1.2 million in Approach 3 when comparing ACS Full Service and ACS with the PVB, the City will end up paying over \$3.6 million or 44% less over the life of the contract by simply choosing Approach 1 over Approach 3.

Our desire is to not make this contract appear as a contingency contract. A fixed price component allows us to safely recover our investment and make a reasonable profit. We have always believed that the integrity of the program is of utmost importance and have provided our best price under Approach 1.



---

### **Rear Photography versus Front and Rear Photography**

---

ACS has the capability and is fully prepared to provide a dual, front and rear photography system to the City of Columbus. In fact, we provide such dual camera systems throughout the states of California and Arizona in support of their driver liability photo programs where faces are required for enforcement. Today, no photo enforcement program in the United States that is based on registered owner liability takes frontal photography images. As mentioned in our proposal, it is worth noting, however, that our rear-only digital camera system is already producing issuance rates above 90% in the City of Raleigh. Throughout the US where we use rear photography only, our court and hearing conviction rates exceed 90% also. Further, with the inclusion of a rear view, 12 second video clip for every violation, the City will have more than enough evidence to maximize issuance and evidence for court.

ACS understands the City's desire to explore the use of frontal photography and the potential benefit that could be achieved through its use. However, with issuance and conviction rates already averaging above 90% with rear photography only, ACS does not believe the benefit of obtaining frontal photography outweighs (1) the cost of the additional cameras required to produce such images and (2) the potential public backlash from the unnecessary use of frontal photography. Even if the City is not focused on the driver's face, the public will perceive they are being watched and recorded in their vehicles.

It is for these reasons ACS recommends the City consider using rear photography only.

### **C. Additional Services**

Prior to each installation ACS can provide video validation services of each potential approach, in order to establish baseline data prior to enforcement. This service can be provided for \$1,300 per 12 hour video session and analysis.

---

### **Alternative Pricing**

---

The current RFP limits the extent of time that a vendor has to recoup its investment to realistically 42-45 months if the option year is exercised, even though the equipment has a useful life of 6-7 years. If the City chooses to extend the contract to a more typical 5 year base contract plus 2 one year options, ACS can reduce its monthly fixed fee accordingly.

---

---

### **Price Conditions**

---

- 1) Each Approach cost is amortized over a 48 month period. Our pricing assumes all ~~construction will be done within 6 months of contract signing, leaving a possible 42~~ months to recoup our costs. If the City chooses to install and approaches beyond the first six months of the program, the balance of the unamortized installation costs will be paid at the end of the contract period if it is not extended.



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

---

- 2) At the end of the contract ACS will remove all poles and housings from the enforced intersections.
- 3) City's payment will be made in 30 days of receiving an undisputed invoice.
- 4) All fees associated with the permitting process will be passed through to the City on a cost reimbursement basis, without markup or profit.
- 5) Any cost incurred to install conduit will be passed through to the City as a cost reimbursement without markup or profit.
- 6) ACS will pass through the cost of all telecommunications connections and ongoing charges and electrical connections and ongoing charges to each of the camera sites on a cost reimbursement basis, without markup or profit.
- 7) If the City chooses to Terminate for Convenience ACS will pass all unamortized capital costs and de install costs to the client as a reimbursable expense.





**PROPOSAL**

To the Finance Director of the City of Columbus, Ohio:

We (I) propose to furnish the following article(s) and /or service(s) at the price(s) and terms stated subject to all instructions, conditions, specifications and all attachments hereto. We (I) have read all attachments including the specification and fully understand what is required.

Prices are to be quoted F.O.B.:

See Page 5

Delivery: \_\_\_\_\_ calendar day(s) after receipt of order.

Terms: See Proposal Section 8.0, Terms and Conditions

Company Name or Bidder's Name ACS State & Local Solutions, Inc.

Business Address of Bidder: 1200 K Street, NW, Washington, DC 20005

**REQUIRED Company Employee Information:**

Total number of company employees= 40,000

Total number of company employees working in Columbus 12

Additional number of employees that will be working in Columbus in the event this contract is awarded to your company= TBD

The full name and residence of all persons and parties interested in the foregoing bid are: (If a corporation, give the name and address of the president and secretary; if firm or partnership, the names and address of the members or partners.)

Name	Address
John Brophy, President	1200 K Street, NW, Washington, DC 20005
Bill Deckleman, Secretary	2828 N Haskell, Dallas, TX 75204

Authorized Signature [Handwritten Signature] Title: President  
 (SIGNATURE MUST IN WRITING IN OTHER THAN BLACK INK) (TITLE MUST BE GIVEN)

City of Columbus  
Ohio Photo Red Light Enforcement System

# 5.0 AFFIDAVITS

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



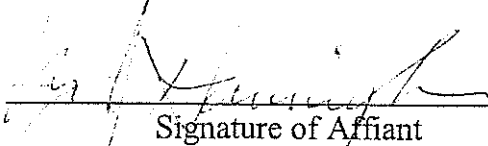
**1. Non-Collusion Affidavit**

**(This affidavit must be executed for the bid to be considered)**

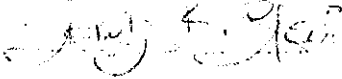
State of District of Columbia )

County \_\_\_\_\_ )

Maury Hannigan, being first duly sworn, deposes and says that he is, Senior Vice President and Managing Director of ACS Public Safety Solutions, (sole owner, a partner, president, secretary, etc. ) of the party making the foregoing proposal or bid; that such bid is genuine and not collusive or sham; that said bidder is not financially interested in, or otherwise affiliated in a business way with any other bidder on the same Contract; that the said has not colluded, conspired, connived or agreed, directly or indirectly, with any bidder or person, to put in a sham bid, or that such other person shall refrain from bidding, and has not in any manner directly or indirectly, sought by agreement or collusion, or communication or conference, with any person, to fix the bid price of affiant or any other bidder or to secure any advantage against the City of Columbus, Ohio or any person or persons interested in the proposed Contract: and that all statements contained in said proposal or bid are true; and further, that such bidder has no directly or indirectly submitted this bid, or the contents thereof of divulged information or data relative thereto to any association or to any member or agent thereof.

  
\_\_\_\_\_  
Signature of Affiant

Sworn to and subscribed before me 15 day of June, 2004.



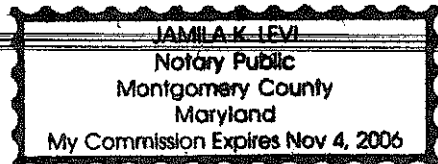
Notary public in and for

(Seal)

Montgomery  
(county)

Maryland  
(state)

My commission expires:



**Signature Affidavit**

(to be filled in and executed if the contractor is a corporation)

**District of Columbia**

Richard J. Russin (Affiant), being duly sworn, deposes and says that he is Senior Vice President, Group Counsel and Assistant Secretary of ACS State and Local Solutions, Inc.

A corporation organized and existing under and by virtue of the laws of the

State of New York and having its principle office at

1200 K Street, NW                      Washington, DC                      20005  
(Number and Street)                      (City/State)                      (Zip Code)

Affiant further says that he is familiar with the records, minute books and

By-laws of ACS State and Local Solutions, Inc. affiant further says

That Maury Hannigan is Vice President, Managing Director, Public Safety Solutions (Name of person signing proposal/contract)                      (Title)

Of the corporation, is duly authorized to sign the contract for \_\_\_\_\_

ACS State and Local Solutions, Inc., for said corporation by virtue of

the attached Power of Attorney

(State whether a provision of by-laws or a resolution of the Board of Directors.

If by resolution, give date of adoption.)

Richard J. Russin  
Signature of Affiant\*

Sworn before me this 15th day of June, 2004

My Commission expires:

Marcy S. Jones  
Notary Public, District of Columbia  
My Commission Expires 04-1-2008

Marcy Jones  
Notary Public for and for

Washington County DC.

\* Affiant must be someone other than the signer of proposal/contract.

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS,

That ACS STATE & LOCAL SOLUTIONS, INC. as principal, a New York corporation, having corporate offices at 1200 "K" St., NW, Washington, DC 20005 (hereinafter called "the Corporation"), pursuant to the by-laws of the Corporation and a resolution duly adopted June 25, 1987 by the Board of Directors, does hereby designate and appoint Maury Hannigan (called "the Attorney"), of the Corporation's 1200 K St., NW, Washington, DC 20005 office its true and lawful attorney for the Corporation, and in its name, place and stead:

1. to negotiate with reference to the contract for the Photo Red Light Enforcement System resulting from solicitation number SA 001147 JY/FM issued by the City of Columbus, and other obligations of the Corporation and all matters incidental thereto with any person or commercial entity, the Government of any City, Township or Municipality of any state of the United States, or Government of any state of the United States, or the Government of the United States, with any public benefit corporation and with any departments, officials or agents of thereof, as may be concerned with the subject matter of any such negotiation, or any amendment or any cancellation of any such contract, or any related document and to execute such contract, amendment or cancellation, and any or all such documents or instruments which he deems necessary or incidental thereto, including subcontracts and procurements incidental thereto all in such form and containing such provisions as he shall determine proper, necessary or advisable; and
2. to sign and deliver any and all releases, waivers, notices and certificates to be made by the Corporation under or in connection with the contract for the Photo Red Light Enforcement System resulting from solicitation number SA 001147 JY/FM issued by the City of Columbus, with the above named entities to which the Corporation is or shall be a party, which releases, waivers, notices and certificates under the terms of such contracts or by commercial custom or by law, may be signed on behalf of the Corporation by an Attorney-in-Fact; hereby revoking and canceling any and all other powers of attorney heretofore granted by the Corporation to the Attorney; and hereby approving, ratifying and confirming in all respects all acts heretofore performed and steps heretofore taken by the Attorney for and in the name of the Corporation and on its behalf under any power of attorney hereby revoked, and all acts performed and steps taken by the Attorney for and in the name of the Corporation and on its behalf hereunder.

This Power of Attorney shall be construed to continue in full force and effect as to any person dealing with the Attorney up to and including December 31, 2004, unless the same shall be sooner revoked by the Corporation by action of any two of the officers duly authorized to execute this Power of Attorney or by a resolution of its Board of Directors.

Dated: June 15, 2004

ACS STATE AND LOCAL SOLUTIONS, INC.

ATTEST:

By: Richard Russin  
Richard Russin  
Assistant Secretary

By: John Brophy  
John Brophy  
President

## 6.0 EQUAL BUSINESS OPPORTUNITY

ACS is proud of our distinguished record of utilizing local minority, women-owned businesses, and disadvantaged business enterprises in the majority of our existing contracts. Last year, ACS State and Local Solutions spent over \$35 million on minority and women business enterprises, seven percent of our total expenditures.

For the Columbus red light enforcement contract, ACS will use the following minority, and disadvantaged business enterprises:

- PolicyWorks - a women-owned, subcontractor for the Photo Red Light Enforcement Program's public education and awareness component. Their City of Columbus Contract Compliance Number is 31-1142361.
- McDaniels Construction - a Columbus based minority owned business, will provide electrical installation services.

We will attempt to use minority, women-owned, and disadvantaged business enterprises for other applicable, ancillary services in the following categories:

- Office Supplies
- Courier Service
- Printing
- Catering

Finally, ACS will use M•E Companies, headquartered in Columbus with six offices located throughout Ohio, to provide all engineering services required for the installation of all cameras. Their City of Columbus Contract Compliance Number is 31-1442777.



## 7.0 QUALIFICATIONS AND EXPERIENCE

### HIGHLIGHTS

- ACS brings the resources of a nearly \$4 billion, Fortune 500 corporation with more than 40,000 employees worldwide
- More than 20 year successful partnership with the City of Columbus and Parking Violations Bureau
- 15 of the 20 largest North American city photo enforcement programs use ACS systems and services
- More than 50 photo enforcement contracts in the U.S. and Canada
- More automated traffic enforcement camera approaches installed and more violations processed than all other vendors combined in North America
- Overall 99% rebid rate throughout North America speaks to ACS track record for providing superior technology, service and public safety results
- Highest issuance rates, violation reductions, and collision reductions in industry
- Recently named one of the nation's "big three" state and local government service providers by Washington Technology magazine
- Have been selected for award for nearly every major program over all other competitors since 2002 – Providence (20 digital cameras w/video), Raleigh (20 digital cameras w/video), Baltimore (60 digital cameras w/video), Los Angeles County (program expansion and digital cameras), and Winnipeg (25 red light and 6 mobile radar cameras)
- More than 750 red light camera approaches installed

*ACS brings a 20 year proven violations processing track record in the City of Columbus and the most experience providing the exact scope of photo enforcement services required to more large cities in North America than all other vendors combined.*

The City of Columbus, with a population greater than 700,000, is the 15<sup>th</sup> largest city in the United States and the largest city in the State. For these reasons and the fact that Columbus is the state capital, the City's photo red light program will be extremely high profile. In addition to being high profile, the City's program will be very complex. As required by the RFP, the selected vendor will be responsible for integrating and maintaining digital camera technology, providing site analysis, managing multiple engineering and construction subcontractors, processing thousands of violations, facilitating thousands of name and address requests, providing online police review, mailing all violation notices, processing thousands of mail and payment correspondence, preparing hundreds of evidence packages for court, performing delinquent collections for outstanding debt, and providing public information and education support. The City's turnkey program will be one of the most comprehensive, end-to-end programs in North America.

It is important for the City to consider each vendor's experience in the provision of each of these required systems and services. Most vendors in the industry have installed camera systems and have been responsible for initial event review and mailing a single notice to the public. However, very few vendors have ever been responsible for provid-



**City of Columbus  
Ohio Photo Red Light Enforcement System**

ing turnkey photo enforcement systems and violations processing services to include multiple notice mailing, collections, payment processing, and mail processing. Even fewer have performed these services in the City the size of Columbus where processing volumes will be extremely large.

*Company Background and Financial Stability – Most Secure Partner for Columbus*

ACS brings a 20 year proven violations processing track record in the City of Columbus and the most experience providing the exact scope of services required to more large cities in North America than all other vendors combined. ACS specializes in serving North America's largest cities. In fact, today, ACS provides photo enforcement systems and services to 15 of the 20 largest participating cities in North America. Equally important, ACS is a US-based company, subject to the auditing and ethical laws of our country, with the financial resources and capability required of a strong and stable City of Columbus partner.

In the remainder of this section, ACS details its company strength and qualification for this project.

*ACS offers the City of Columbus a financially secure vendor with extensive experience in the successful design, installation, operation, and maintenance of photo red light enforcement programs.*

ACS is a nearly \$4 billion, publicly-held Fortune 500 company with more than 40,000 employees operating from more than 90 countries and 750 office locations. ACS provides a broad array of business process outsourcing and information technology services and solutions that help our government and commercial clients and the customers they serve. In fact, according to Washington Technology, ACS is the number one state and local government service provider in the United States, above IBM and EDS. This past December, ACS was honored to be named #12 on Forbes' list of Best Big Companies for 2003.

ACS' financial performance and stability are most evident by the corporation's streak of 28 consecutive quarters of achieving or exceeding Earnings Per Share expectations, and the 35 percent compounded return to investors ACS has generated since its initial public offering in 1994. In ACS, the City gains the only partner in the industry with the proven financial and personnel resources required to ensure a successful on-time delivery and operation of the automated red light enforcement system today and for years to come.

Headquartered in Dallas, Texas, ACS is a leading full-service provider of technology-based outsourcing and system integration solutions to a diverse client base of large and small corporations and government agencies. These services include data center operations, desktop services, network management, application software solutions, telecommunications management, BPO services, e-Commerce, and professional staffing services. In each area, our goal is to provide service that is both client-driven and value-laden. Whether the client is in need of greater efficiency, ongoing or temporary support, or just wants to maximize existing applications, ACS has the capabilities to get the job done.





**City of Columbus  
Ohio Photo Red Light Enforcement System**

*ACS brings to the City our experience as the leading provider of automated traffic systems in North America, with more than 750 systems installed, more than 100 digital cameras under contract, and more than 50 clients throughout the U.S. and Canada. We have installed more than 60 percent of all cameras in North America and have processed more photo enforcement violations, payments, and mail than all other vendors combined.*

*ACS – More Turnkey Photo Enforcement Experience Than All Other Vendors Combined*

A proposer's qualifications are best evidenced by a history of successes on similar contracts and customer satisfaction.

ACS has been actively involved with complete turnkey violations processing programs since the early 1980s and involved with automated traffic enforcement programs since 1992.

As depicted in Exhibits 7-1 and 7-2, ACS has more red light camera approaches installed in North America than all other contractors combined. ACS also processes more violations, responds to more phone calls, and processes more correspondence than all other vendors combined. On behalf of our US based automated photo enforcement customers, ACS has:

- Analyzed more than 4,000 intersection approaches
- Installed more than 750 automated traffic enforcement systems
- Processed more than four million automated traffic enforcement violations
- Responded to more than 250,000 customer service calls
- Prepared more than 50,000 evidence packages
- Scheduled more than 75,000 hearings
- Processed more than one million payments

On behalf of our over 100 violation processing customers, ACS annually:

- Processes more than 15 million violations
- Facilitates more than 12 million name and address requests, maintaining a greater than 90 percent hit rate

---

- Processes more than \$450 million in mail and walk-in payments

---

- Processes more than \$25 million in pay-by-web payments

---

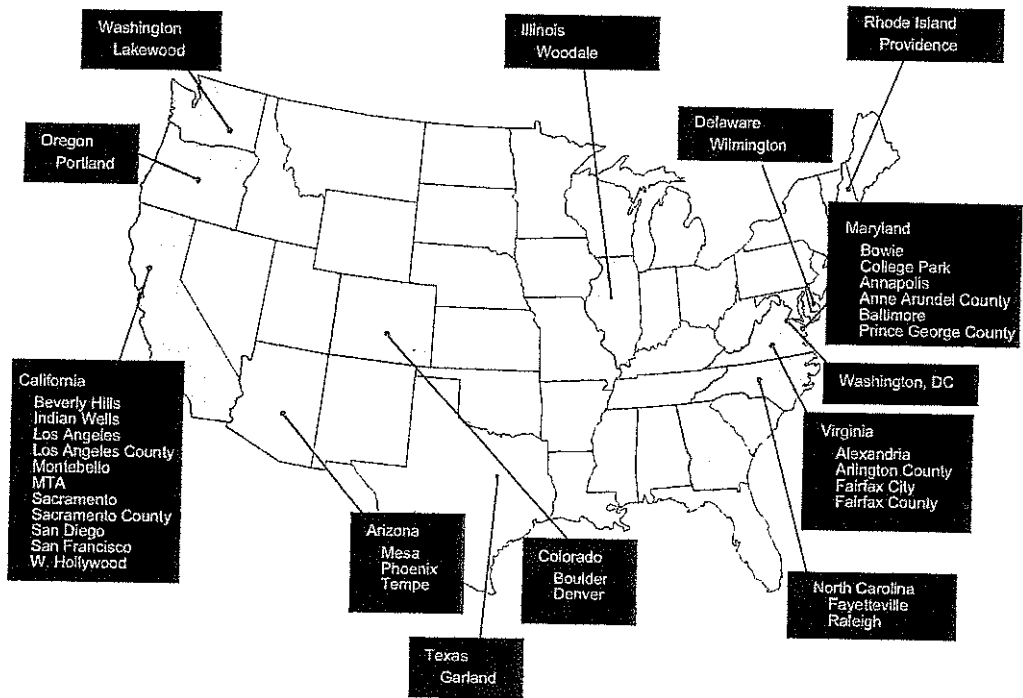
ACS also boasts the industry's highest name and address "hit" rates in excess of 90% across all 50 state DMVs, the nation's highest issuance rates, and the industry's highest system uptime and reliability.

---



City of Columbus  
Ohio Photo Red Light Enforcement System

ACS' U.S. Photo Enforcement Market Presence



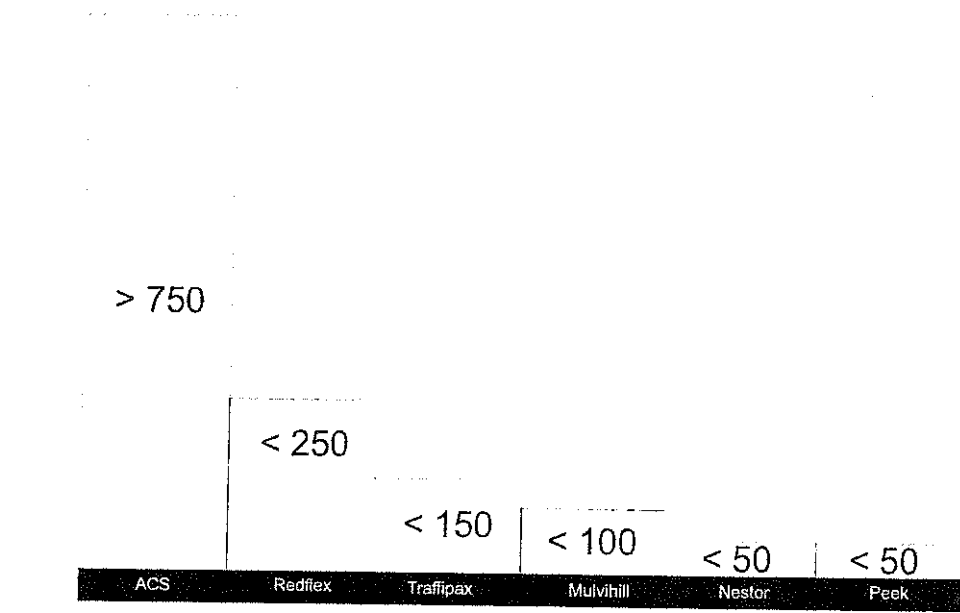
\* Competitively selected for demonstration project

CS1 CPR.01

**Exhibit 7-1. ACS has more photo enforcement contracts and experience in the US than any other vendor.**



Red Light Camera Approaches Installed in North America



052 CPR104

**Exhibit 7-2. ACS brings to the City's Program lessons learned from more photo enforcement contracts than all other vendors combined.**

*ACS Dominates the Large City Photo Enforcement Market Place – There Is No Close Second*

*ACS provides automated photo enforcement systems and services to 15 out of the 20 largest participating cities in the U.S. and Canada, and has proven its ability to successfully deliver and operate the scope of work required by the City of Columbus, one of the largest and highest profile environments in North America.*

ACS brings extensive experience in the installation, operation, and service of red light cameras in the largest cities in the U.S. and Canada where we have issued hundreds of thousands of tickets, responded to hundreds of thousands of customer service inquiries, and supported thousands of successful court hearings. In fact, ACS has detected, captured, and processed more violations, mailed more client-approved notices, responded to more phone calls, processed more incoming correspondence, and prepared more court packages for just our 15 largest photo enforcement customers alone than all other vendors have throughout North America. ACS' 15 largest North American city customers include:

- |                      |                 |
|----------------------|-----------------|
| 1) Los Angeles, CA   | 3.7M population |
| 2) Toronto, ON       | 2.5M population |
| 3) Phoenix, AZ       | 1.3M population |
| 4) San Diego, CA     | .2M population  |
| 5) San Francisco, CA | .78M population |
| 6) Ottawa, ON        | .77M population |
| 7) Edmonton, AB      | .68M population |



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

8) Baltimore, MD	.65M population
9) Mississauga, ON	.62M population
10) Winnipeg, MB	.61M population
11) Washington, DC	.57M population
12) Denver, CO	.55M population
13) Vancouver, BC	.55M population
14) Portland, OR	.53M population
15) Hamilton, ON	.49M population

ACS has been very selective in the number of programs we have bid in the past two years. To ensure we have effectively maintained outstanding service to our existing customer base and to ensure 100% successful implementation of all new programs, ACS has focused our new business activity on securing North America's largest and most complex end-to-end photo enforcement programs.

In addition, our 99% contract renewal and re-bid record over the past 12 years speaks to our ability to successfully deliver and service our large, medium, and small city contracts. ACS has proven we do not look to sign up and deliver more programs than we can credibly implement and operate.

For example, in Winnipeg, Manitoba, ACS recently installed 24 red light cameras and six mobile photo radar units within one year of contract signing. Other large city installations include:

- Washington, DC—Installed 40 cameras in four months, including all site analysis and video validation, violation processing systems, payment processing, customer services, hearing scheduling, mail processing, DMV adjudicator system provision, name and address acquisition, and training.
- Los Angeles—Working directly with the Department of Transportation, evaluated over 300 intersections with video validation at 70; supervised DOT construction of 32 camera systems.
- San Francisco—Installed 42 systems with very complicated construction issues, including site analysis and video validation.
- Baltimore—Installed 48 cameras within two years of contract award including site evaluation and video analysis at over 100 intersections.

---

~~The City of Columbus is not a place for vendors who think they take their manufacturing and installation capabilities to the next level. The City of Columbus is one of the nation's highest profile, fastest growing cities that requires a vendor that has proven its ability to deliver in similar environments.~~

---

ACS has proven over the past 12 years that we have the resources, manufacturing capability, and cash required to install and operate the largest city programs in North America. More importantly, we have a proven track record for delivering outstanding service to each.



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

*Certainty of Enforcement Equals Dramatic Safety Results. Certainty of Fairness Ensures The Program Receives Communities Full Support.*

*With ACS citizens are certain the City's camera system will detect and capture their violations, every time. Citizens are certain the program's citation processing system and camera evidence will hold them accountable for each violation. As a result of this certainty of enforcement, driving behavior changes dramatically.*

While proud of our technical, operational, and service accomplishments and statistics, ACS is most proud of the dramatic safety results we have achieved for every customer, including most of the largest participating cities in North America.

**Washington, DC**—ACS' five year partnership with the District of Columbia to provide end-to-end camera and processing services has achieved significant safety results. Today, ACS provides the City with 39 red light cameras, six mobile speed cameras, and 1 permanent fixed speed camera. To date, the following results have been achieved:

- 64% decrease in the number of red light running violations
- City-wide, 24,300 fewer drivers run red lights each month in the District, an unbelievable accomplishment
- 80% decrease in the percentage of aggressive speeders in the District
- Speed violations have been reduced from 176 to 26 per hour
- 13% reduction in red light running fatalities
- As a side benefit, the City has generated more than \$40 million net revenue over the past five years

**Edmonton, Alberta**—The City and ACS began our safety partnership in 1992. ACS provides citation processing and customer service in support of five mobile photo radar units and 20 red light cameras rotating amongst 45 housings. Over the past 12 years, the safety results of our program have been unprecedented:

- 80% reduction in red light violations per day since red light camera program's inception (red light cameras installed in 1998)
- 21% reduction in left turn collisions
- 60% reduction in the average number of people killed in collisions per year in the 10 years after photo speed introduced (538 killed from 1981 - 1992 down to 188 killed from 1993 through the end of 2002)

**Baltimore, MD**—The City and ACS implemented our automated photo red light program in 1999. Today, 47 red light cameras operate throughout the City with an additional 60 digital units to be installed over the next twelve months. The City's program has been an unqualified success, achieving:



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

- 64 percent reduction in side impact collisions
- 54 percent decline in rear-end collisions
- 73 percent fewer fatalities at protected intersections since February 1999
- As a side benefit, the program has generated more than \$15 million in net revenue

**State of California**—ACS currently supports 12 red light camera programs and more than 200 red light camera systems in the State, including six of the largest jurisdictions contracting out for services – City of Sacramento, Sacramento County, City of Los Angeles, Los Angeles County, San Diego, and San Francisco. ACS' red light clients in the State have also been very successful in reducing dangerous driving. As reported in the California State Audit in July 2002:

- Sacramento achieved a 44% reduction in collisions after placement of red light cameras
- San Francisco achieved a 37% reduction in collisions after placement of red light cameras

In addition to these safety statistics, ACS customers also enjoy some of the highest collection rates in the industry. In jurisdictions where ACS is responsible for full noticing, our clients average greater than 75% collection rate, with many cities well beyond 80%. Our conviction rates average over 85% nationwide, due to the strength of the evidence produced by our camera system, the quality of the documentation recorded by ACS, and the testimony of our staff, as required. Based on the safety, collection, and conviction statistics achieved by ACS and its clients, there is no question our partnerships always create certainty of enforcement in every community served.

ACS understands that certainty of enforcement must be complemented by certainty of fairness to ensure total program support and future program expansion. ACS is proud of our track record for ensuring certainty of fairness in every community we operate, through the provision of outstanding customer service and the provision of effective public information and education support. For example, in Edmonton, 90% of citizens surveyed were in favor of photo enforcement. Public surveys also showed dramatic support for our red light programs in Tempe, AZ (81%) and Mesa, AZ (82%). These statistics, and many other similar public surveys, demonstrate ACS' proven ability to create certainty of fairness and support for our programs throughout North America.

*99% Competitive Rebid and Renewal Success Evidences ACS Customer Satisfaction and Safety Achievements*

---

*ACS maintains a 99% competitive rebid success rate for all photo enforcement programs throughout North America. We believe our near 100% renewal and competitive reselection rate speaks to the quality of service and technology offered by ACS.*

---

Over the past 24 months, our customers' actions further evidence our incredible public safety achievements and the strength of the partnerships we create:

- 
- City of San Diego signs five year contract extension with ACS
  - City of Sacramento signs five year contract extension with ACS
  - Sacramento County signs five year contract extension with ACS



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

- Los Angeles County re-selects ACS over all other vendors in competitive rebid process - signs five year contract with ACS
- Los Angeles City – signs one year extension with ACS
- Beverly Hills selects ACS over all other vendors in competitive rebid process
- West Hollywood executes one year contract renewal with ACS, continuing our successful photo red light program
- Arlington County, VA executes one year renewal option, converts program from per citation issued to flat monthly fee pricing
- City of Boulder, CO executes one year renewal option, adds new mobile radar vehicle
- City of Denver, CO awards ACS five year contract extension, looking to expand program
- City of Portland, OR awards ACS a one year extension
- Fairfax County, VA awards ACS a three year contract extension
- City of Wilmington, DE awards ACS a three year contract extension

*New Contract Awards & Selections Signify The Strength of ACS as Leading Provider of Both Film and Digital Systems and Services*

Each and every one of these programs was heavily marketed by our competition. As the references provided in this section will demonstrate, ACS has created extremely loyal and satisfied clients throughout North America.

In addition to building strong, long term public safety partnerships with our existing customers, ACS also continues to expand its customer base, especially in the area of digital technology. Since 2002, ACS has been selected as the vendor to provide red light camera systems by nearly every major city in North America contracting out for these services, including:

- **Winnipeg, MB**—ACS awarded a contract to provide 25 red light and six mobile speed camera units
- **Providence, RI**—ACS awarded a contract to provide 20 digital red light cameras with live video streaming and video clips and one of the most technologically advanced violation processing system and service programs in the nation. ACS will provide the City with pay-by-phone, pay-by-web, Integrated Voice Response, online hearing request, 24x7 citizen violation video and image review via the internet, 100% correspondence imaging system, and 100% internet based client citation approval and Citeware update and inquiry. One key competitor is based in Providence, RI.
- **Raleigh, NC**—ACS awarded a contract to provide a minimum of 15 digital red light camera systems we also provide the City with pay-by-phone, pay-by-web, Integrated Voice



**City of Columbus  
Ohio Photo Red Light Enforcement System**

Response System, and 24x7 citizen violation video and image review via the internet, online hearing request, and 100% internet based client citation approval and Citeware update and inquiry

- **Baltimore, MD**—ACS has been selected for negotiation by the City to provide 60 digital camera systems and violation processing services. The City of Baltimore's project will be the largest digital program in North America. As part of the procurement process, the City down-selected three vendors who would be matched against each other in a head-to-head, side by side comparison of their technology, processing systems, and service. One of the vendors had recently defeated ACS in the City of Chicago, which was only interested in purchasing cameras and using IBM for all violation processing services. After systems were installed and capabilities, service offering, and quality measured, ACS was selected over all other vendors.

As detailed above, ACS has been awarded or selected for negotiation for nearly every major city program in the US over the past two years. In each of these procurements, competition was extremely intense, as few large program opportunities present themselves that often it our marketplace.

*ACS - Leading the Industry in Integration and Innovation in the Present, Past, and Future*

*ACS has proven the ability to seamlessly integrate all of the RFP-required components into a successful large-scale automated red light photo enforcement operation.*

Because this is a systems and services program, we believe it is important for the City to distinguish between proposing contractors with a business processing focus and vendors with a manufacturing focus. Many vendors have a manufacturing focus and will highlight their red light camera equipment as the focal point of their proposals. While an integral part of an overall turnkey automated red light enforcement system, red light cameras are a technology commodity. Like all technology commodities, red light camera systems have changed and will continue to change as technology improves. As we enter a more digital environment, changes and upgrades to digital camera technology will occur nearly every six months. Today, most vendors have film and digital based systems that operate successfully. However, ACS is the only vendor with the proven ability or core competency to:

- 
- Support and maintain the systems installed

---

---

  - Manage the various subcontracting partners required for site analysis, installation, and ongoing service

---

---

  - Ensure the City is provided with the latest technologies, regardless of manufacturer, as new upgrades become available

---

---

  - Integrate and coordinate the various agencies that will participate on this program
  - Provide the customer services critical to this program's success





**City of Columbus  
Ohio Photo Red Light Enforcement System**

- Provide the ticket information management system with the necessary accuracy, integrity, and ease of use required for violation processing and service
- Provide effective in-state and out-of-state name and address acquisition
- Competently facilitate correspondence processing
- Provide effective customer service
- Develop and manage a coordinated, comprehensive public information and education campaign over the life of the project (many automated red light enforcement vendors are based outside the U.S. and have little understanding of the operating and political environments of U.S. cities)

ACS, as a BPO company, brings each of these critical core competencies to this project. We do not manufacture cameras. We integrate the best available technologies into our overall service solution to the City. While a few vendors may possess some experience in these integration areas, nearly all are camera manufacturing-focused vendors, tied to their brand and products for life. In the event another manufacturer revolutionizes the industry with a new system or feature, these firms will be left behind as they are held captive by the investment they have made in their existing products and their limited cash flow. Because we are a system integrator and outsourcing company with no manufacturing ties, ACS will always be able to bring the City the best automated red light technology available on the market today, regardless of manufacturer.

ACS' has the longest and most impressive track record in the industry for developing or integrating the most advanced technologies and services in photo enforcement.

*ACS is very proud of our proven ability to integrate various technologies and services for our customers, ensuring they are always on the leading-edge of technology. ACS has never failed to provide our existing customers with new technology as requested.*

---

**ACS City of Columbus Project References**

---

**ACS Customer:** District of Columbia  
**Point of Contact:** Lieutenant Patrick Burke  
**Address:** 300 Indiana Avenue  
Washington, DC 20001  
**Telephone:** (202) 727-4513  
**Contract Dates:** August 1999 to Present

---

---

**Program Scope:** The District of Columbia selected ACS to implement its turnkey automated traffic enforcement program in March 1999. Initially, the program called for the installation of 39 red light cameras and fully turnkey services including: site selection, construction drawings, permitting, installation, field service and maintenance, violation processing, name and address acquisition, telephone customer service, mail and payment correspondence processing, hearing scheduling, hearing docket delivery, evidence preparation and delivery, ex-



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

pert testimony. Since the program's inception, ACS has successfully processed and mailed more than 433,193 red light notices, facilitated more than 450,000 DMV name and address requests, responded to more than 80,000 customer service inquiries, scheduled and prepared evidence packages for more than 25,000 hearings, and processed more than 291,879 payments on behalf of the District.

The safety achievements of the District's red light enforcement cameras are nearly unprecedented. Overall, the District has achieved a 64.2 percent reduction in the number of red light violations per month. This equates to more than 24,300 fewer drivers running red lights every month. More significantly, 14-16 percent of all traffic related fatalities in the District have consistently been caused by red light running over time. However, in 2000, the first full year of red light camera operation, the overall percent of traffic fatalities related to red light running dropped to two percent a dramatic achievement.

In 2000, the National Council on Public and Private Partnerships awarded the District of Columbia and ACS their Public and Private Partnership Award. The District expanded the scope of its successful automated traffic enforcement program in August 2001 by deploying five photo speed camera units to help combat its citywide speeding epidemic the first photo speed enforcement program on the East Coast. In 2004, ACS and the District of Columbia expanded to six mobile radar speed cameras and installed the first operational fixed speed camera in the United States. To date, ACS has mailed more than 828,520 photo speed enforcement violations.

**ACS Customer:** Prince George's County, Maryland  
**Point of Contact:** Lt. Jeff Youmans  
Police Department  
**Address:** 4923 43<sup>rd</sup> Avenue  
Hyattsville, MD  
**Telephone:** (301) 985-5970  
**Contract Dates:** September 1999 - present

**Program Scope:** Prince George's County selected ACS to implement its turnkey automated traffic enforcement program in September 1999. Initially, the program called for the installation of 20 cameras and end-to-end services including site selection, drawings, permits, camera installation, camera maintenance, violation processing, name and address acquisition, secondary violation review, notice mailing, customer service, payment processing, correspondence processing, court scheduling, court docket preparation and delivery, evidence preparation, and expert testimony.

On behalf of the City, ACS has mailed more than 150,000 first notices, more than 75,000 second notices, and more than 25,000 collection notices. Further, ACS has processed more than 100,000 payments,



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

scheduled and prepared evidence packages for more than 9,000 hearings, and generated a greater than 70% collection rate. Our program has achieved a 45% reduction in the number of red light runners each month in Prince George's County.

As a result of the initial program's success, the County has added two additional cameras and is currently working with ACS on a contract extension that will expand the program further.

**ACS Customer:** Winnipeg, Manitoba  
**Point of Contact:** Sgt. Jerry Munch  
Winnipeg Police Department  
**Address:** 1313 Kenaston Boulevard  
Winnipeg, MB R3P 2P2  
**Telephone:** 204-928-7602  
**Contract Dates:** May 2002 - present

**Program Scope:** In May 2002, the City of Winnipeg awarded ACS one of the largest and most complex photo enforcement contracts in North America. Under the terms of our five year agreement, ACS will provide the City (1) intersection safety cameras issuing red light and speed on green, (2) mobile speed enforcement vehicles, (3) construction zone trailer units, and (4) turnkey violation processing.

Today, ACS has installed and maintains 24 photo intersection safety cameras, six mobile speed enforcement vehicles, and one construction zone trailer. On behalf of the City, ACS has mailed more than 190,000 notices, facilitated more than 192,000 DMV name and address requisitions, and prepared more than 1,700 evidence packages.

From July 2002 to July 2003 there has been a 74% reduction in collisions at the first 12 intersections, an overall decrease of 7% in violation speed in school and playground zones, and an overwhelming public acceptance of the program. Winnipeg Police Service has received more than 500 letters, emails, and cards requesting more intersection safety cameras or offering location suggestions.

With the public and court acceptance of our existing camera systems, the City is now poised to expand the number of cameras being used.

---

---

**ACS Customer:** Edmonton, Alberta  
**Point of Contact:** Sgt. Tom Bell  
Edmonton Police Department  
**Address:** 9620-103A Ave  
Edmonton, AB Canada T5H 0H7  
**Telephone:** 780-421-3304  
**Contract Dates:** October 1992 to present

---

---

**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

**Program Scope:** The City of Edmonton selected ACS to implement its turnkey automated traffic enforcement program in May 1996. Initially the program called for two photo radar mobile vehicles, violation processing, name and address acquisition, telephone customer service, mail and payment correspondence processing, evidence preparation and delivery, and expert testimony. In 1999, Edmonton expanded to program in include red light running, right on red running, site selection, construction drawings, permitting, installation, field service and maintenance, and increase from two photo radar mobile vehicles to five.

Today, ACS has installed and maintains 18 photo red light cameras and five mobile speed enforcement vehicles. On behalf of the City, ACS has mailed more than 1.2M notices, responded to more than 50,000 customer service calls, and processed more than 750,000 payments.

With the public and court acceptance of our existing camera systems, the City is now poised to expand red light and mobile speed enforcement as well as begin speed on green and construction/school zone photo enforcement. Currently, the City plans to add 12 new red light cameras per year as well as well as one photo radar mobile vehicle per year for the next five years.

**ACS Customer:** County of Sacramento, CA  
**Point of Contact:** Lieutenant Richard Carlson  
**Address:** Sacramento County Sheriff's Department  
903 Enterprise Drive  
Sacramento, CA 95823  
**Telephone:** 916-876-6604  
**Contract Dates:** Sacramento County - April 2001 to present.

**Program Scope:** The County of Sacramento awarded ACS their automated red light enforcement contract in April 2001. During the first phase of the program, ACS installed 7 automated red light enforcement systems. In January of 2002, Sacramento County began negotiations with ACS on a new 5-year sole source fixed fee contract to replace their initial three year contract. The contract called for a minimum of 10 automated red light enforcement systems, and also included the addition of rear cameras to form a dual red light camera system. The City of Sacramento approached Sacramento County during the contract negotiations to take over their program and run it as a County Wide Metro Program. ACS and Sacramento County entered into a new 5-year sole source contract on July 29, 2003. Sacramento County entered into an agreement with the City of Sacramento to run their program on September 9, 2003. The combined Metro program calls for a minimum of 20 red light camera systems. Since contract inception, ACS, on behalf of the County and City of Sacramento, has installed 23 front red light camera poles and housings, and rotates 19 red light camera units through the 23 housings. 3 rear red light cameras have been added to existing front camera units creating a dual camera setup. Since early red light camera program inception of both the City and County of Sacramento, red light camera enforced intersections have captured



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

178,131 violations, and 69,496 police approved citations have been issued. The red light camera programs have experienced tremendous success at enforced intersections. The County of Sacramento has experienced a 33% reduction in collisions at enforced intersections, while the City of Sacramento has had a 56% reduction in collisions at enforced intersections.

Because of the successful partnership with ACS, and based on the program's success in dramatically reducing red light collisions, the County continues to expand its Metro Wide program by installing new front and rear cameras.



## 8.0 TERM AND CONDITIONS

### HIGHLIGHTS

- As Columbus' partner for more than 20 years ACS has built a stable contractual relationship with the City
- ACS has proposed alternate language for several contract terms for the City's review and consideration
- Any proposed modifications by ACS are open to negotiation.

ACS is a proven partner with the City of Columbus, working in partnership with the City, Parking Violations Bureau, and City Treasurer for more than 20 years to bring the best possible services to the City and its constituents.

ACS has thoroughly reviewed the Terms and Conditions contained in the City of Columbus's Request for Proposal for Photo Red Light Enforcement System, Proposal No. SA 001147 JY/FM. ACS is willing and able to comply with the RFP's proposed terms and conditions with the exception of a few provisions containing language that appears to conflict with ACS corporate policies and business practices.

Accordingly, we respectfully submit, for the City's consideration, recommendations for rewording the provisions listed below and/or clarification on some proposed contract terms. Of course, all issues raised in this section are subject to negotiation. ACS welcomes the opportunity to work with the City of Columbus to ensure the wording of the cited requirements is satisfactory to both parties.

ACS has no desire to affect any protections that the City of Columbus feels are appropriate for its purposes. The proposed modifications are intended only to permit the administration of those protections to come within the existing policies of ACS. ACS believes that the following suggested revisions would accomplish this objective without in any way diminishing the protections available to the City. Our proposed changes and clarification questions are as follows:

**RFP Page 3A, Contract and Bond:** The RFP references some type of form, which was not included in this RFP. If there should be a performance bond requirement, then the bond would only be issued on an annually renewable bond form to be provided by our surety broker. This is basically the only way ACS can get bonds issued.

Please revise the second paragraph to read:

~~At any time during the continuance of the Contract, any surety shall, in the opinion of the contracting agent of the City, become irresponsible, then said agent shall have the right to require additional and sufficient surety or sureties. The Contractor shall furnish the surety or sureties to the satisfaction of the said agent within ten (10) days after notice. In default thereof the default provision herein shall apply. If a surety performance bond shall be required, the bond shall be issued by a surety carrier authorized to con-~~

**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

*duct business in the State of Ohio with a minimum A.M. Best rating of A- or better. The bond can be issued on an annually renewable bond form to be provided by Contractor's Surety Broker."*

RFP Page 3A, Liability, Insurance, Licenses and Permits. Please revise the text to read:

"Where offerors are required to enter or go onto City of Columbus property to deliver materials or perform work or services as a result of contract award, the offeror will assume full duty, obligation and expense of obtaining all necessary licenses, permits, and insurance when required. The offer shall be liable for any *direct damages or loss* to the City ~~occasioned by~~ to the extent caused negligence of the offeror (or his agent) or any person the offeror has designated in the completion of his contract as a result of his response.

RFP Page 3B, Repudiation of Agreement. Please revise this section to read:

The liability of the City for repudiation of any agreement which might result from this request shall be limited to the difference between the market price at the time and at the time and place for tender of the service and the unpaid sales price together with any incidental damages, but less expenses paid in consequence of the breach by the City. The liability of the city shall not be measured by the profits or overhead of seller. *For purposes of this clause, incidental damages shall include but are not limited to, subcontractor settlement costs, employee severance and relocation costs, and claim preparation costs.*

RFP Page 3C, Public Records Request. Please revise line 3 to read:

If a public records request is made for such information and you HAVE clearly marked portions of your response as information constituting an exception to Ohio's public records law, AND you have submitted the legal basis supporting such claim, the City will *after prior coordination with the Offeror* release a redacted version of your information to the requestor and notify you that a request was made and that a redacted version of your response was released. Should the requestor indicate that the redacted version is not sufficient for their purposes, you then will be IMMEDIATELY responsible for obtaining an order from a Court of competent jurisdictions in Franklin County, Ohio enjoining release of your clearly marked information constituting an exception to Ohio's public records law.

---

RFP Page 3D, City is Tax Exempt. ACS respectfully asks that the first line is revised to read:

---

The City, being a municipality, is tax exempt and will provide appropriate *contractor tax exemption* certification upon written request.

---

RFP Page 3E, Termination for Convenience. Please revise this section to read:

The City upon thirty days written notice may terminate this agreement at its convenience. The party providing goods or services shall be entitled compensation for goods provided or service rendered under the terms of this contract up to the date of notifica-



**City of Columbus  
Ohio Photo Red Light Enforcement System**

tion of termination plus subcontract settlement costs, employee reduction-in-force and relocation costs, the administrative and professional costs associated with preparing the termination proposal, and a reasonable profit thereon. In addition, the City will be responsible for any and unamortized system installation and de installation costs.

RFP Page 3E, Termination for Default Please revise this section to read:

If either the City or the Contractor violates any material term or condition of this Contract or fails to fulfill in a timely and proper manner its *material* obligations under this Contract, then the aggrieved party shall give the other party...

RFP Page 3E, Assignment. Please revise this section to read:

This agreement may not be assigned or otherwise transferred to others by the contractor without the prior written consent of the City *which shall not be unreasonably withheld.*

RFP Page 3E, Save Harmless. Please revise the third line to read:

Contractor shall protect, indemnify and save the City harmless from and against any damage, cost, or liability, including reasonable attorneys' fees resulting from claim, by third parties for any or all injuries to persons or damage to property ~~arising from~~ *to the extent caused the negligent acts or negligent omissions of the Contractor, its officers, employees, agents, or Subcontractors in providing goods or service under the terms and conditions of this contract.*

RFP Page 3F, Save Harmless Disclosure of Proprietary Information. Please revise this section to read:

~~To the extent the contractor was negligent~~ *the Contractor agrees to indemnify and hold harmless the City of Columbus, Ohio and their respective officials, employees and other agents and representatives, against loss, claim, liability in tort or by statute imposed, charge, cost or expense, including without limitation, attorneys fees to the extent permitted; by law, which may be incurred in connection with, or in any manner of any damage or loss arising from disclosure of third party proprietary information.*

RFP Page 3F, Proprietary Information Indemnification. Please delete the clause because it duplicates the clause above it entitled "Save Harmless Disclosure of Proprietary Information."

---

~~The Contractor agrees to indemnify and hold harmless the City of Columbus, Ohio and their respective officials, employees and other agents and representatives, against loss, claim, liability in tort or by statute imposed charge, cost or expense, including without limitation, attorneys fees to the extent permitted; by law, which may be incurred in connection with, or in any manner of any damage or loss arising from disclosure of proprietary information.~~

RFP Page 3G, Workers' Compensation Insurance: ACS has obtained the proper workers' compensation insurance.





**City of Columbus  
Ohio Photo Red Light Enforcement System**

**RFP Page 3H, Public Liability Insurance:** The City cannot be a "named insured" under ACS' general liability insurance policy. They can, however, be listed as additional insured. In addition, subcontractor's must obtain their own insurance. Please revise this section to read:

~~Public Commercial General Liability Insurance~~

The contractor shall take out and maintain during the life of the contract, such ~~public commercial general~~ liability (bodily and property damage) insurance as shall protect him from claims from damages for personal injury, including accidental death, as well as from claims for property damage which may arise from ~~contractor's~~ operations under the contract ~~whether such operations be by himself or any subcontractor or anyone directly or indirectly employed by either of them.~~ Such insurance policy shall include the City as ~~named~~ additional insured. The contractor shall maintain coverage of the types and in amounts specified below. Proof of such insurance coverage shall be evidenced by submitting a *standard* certificate of insurance. A contractor's 'umbrella' type policy with limits specified below may be submitted for this requirement with the City as ~~named~~ additional insured.

The amount of such insurance shall be ~~as follows~~ one of the two following options:

a) Bodily Injury Liability:

Each Person	\$500,000.00
Each Accident	1,000,000.00
Property Damage Liability:	
Each Person	\$500,000.00
All accidents	1,000,000.00

b) or a combed single limit for bodily injury and property damage in the amount of \$1,000,000 per occurrence and \$2,000,000 general aggregate.

Such insurance shall ~~remain in full force and effect~~ be maintained during the life of the contract.

Insurance may not be *materially* changed or cancelled unless the insured notifies the City in writing not less than thirty days prior to such *material* change or cancellation. If any part of the contract is sublet, the contractor ~~is responsible for the part sublet adequately covered by insurance hereinabove described~~ shall require subcontractors to ~~also maintain insurance as required by this RFP.~~

~~Contractor assumes all risk of loss and damage to the equipment provided, while in contractor's care, custody, or control, unless loss or damage occurs at the time the operator and equipment are being operated for the purpose designated by the City and such loss or damages is caused by an act of the City or its employee which constitutes gross negligence or willful misconduct.~~

**RFP Page 4I, Section 6.1.16.** Please revise the first line to read:

The CoC, at its sole *reasonable* discretion, reserves the right to reject any equipment that does not meet adequate technical standards.

**City of Columbus  
Ohio Photo Red Light Enforcement System**

Additional Clauses. ACS respectfully asks to add the following clauses:

i. Limitation of Liability

Except for fees owed by the City to the Contractor for services rendered, or for citation revenue collected by the Contractor but not turned over to the City, or for breach of a party's intellectual property or confidentiality obligations, (1) a party's total, aggregate liability to the other party, whether in contract (including, but not limited to, indemnification liability), tort, or otherwise shall not exceed \$500,000 and (2) neither party shall be liable to the other party for indirect, special, incidental, consequential, or punitive damages.

ii. Intellectual Property

Notwithstanding this or any other section of this contract, ACS shall retain title to any and all ACS proprietary and/or confidential information, data, studies, documents, patents, copyrights, software, trade secrets, know how, techniques, and processes and derivatives thereof (collectively called "ACS Intellectual Property"), utilized in the performance of this Agreement. The City may use ACS Intellectual Property only as expressly authorized in a separate licensing agreement.

iii. Force Majeure

a. Neither party shall be liable for any default or delay in the performance of its obligations under this contract if and to the extent such default or delay is caused, directly or indirectly, by fire, explosion, cable cuts, vandalism, sabotage, power outage, strike, action or inactions of any other government, actions or inactions of subcontractors, flood, lightning, earthquake, elements of nature or "acts of God", war, riots, any civil or military authority (by national emergency or acts of third parties), civil disorders, rebellions, revolutions, insurrections, or acts of terrorism, software virus, naturally occurring or man-made obstructions to transmissions, provided the existence of such obstructions is beyond the responsible party's control (a "Force Majeure Event").

b. In such event, the party with the obligation to perform shall as soon as practicable give written notice to the other party specifying the nature and anticipated duration of the Force Majeure Event and outline its recovery plan, if any. The party with the obligation to perform shall be excused from further performance or observance of the obligation(s), with the exception of any fees or payments previously due and payable under this contract, so affected for as long as such circumstances prevail and such party continues to use commercially reasonable efforts to recommence performance or observance whenever and to whatever extent reasonably practicable without delay.

iv. Indemnification

Notwithstanding any other provision or language to the contrary, the City shall indemnify and hold harmless the Contractor from any and all claims, lawsuits, losses, damages, costs, and/or attorneys' fees arising under, related to, or connected with any vehicle driver, vehicle owner, vehicle passenger, or any other person who disputes his/her citation or fine, or the assessment thereof, the use, legality, or Constitutionality of the photo enforcement system or program, or the support provided by the Contractor to the City in connection with this Agreement.

v. Order of Precedence

**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

In the event of any conflict or inconsistency in the definition or interpretation of any word, responsibility, schedule, or the contents or description of any task, deliverable, goods, service, or other work, or otherwise, between and/or among this present document and the Exhibits, such conflict or inconsistency shall be resolved by giving precedence first to any applicable Proposal Conditions and second, to the body of the RFP, then to the Exhibits or Attachments.



City of Columbus  
Ohio Photo Red Light Enforcement System

# Appendix A





## RISK ADVISORY SERVICES EXTERNAL REPORT SUMMARY

Group:	State & Local Solutions
Report Name:	Tarrytown Data Center
Location:	Tarrytown, New Jersey
Report Type:	SAS 70
Opinion:	Unqualified
Report Period:	March, 25, 2003 – October 31, 2003
Report Date:	February 6, 2004
Auditor:	ML Weekes & Co., PC

### INTERNAL CONTROL ASSESSMENT MATRIX

The table below summarizes the assessment of the control profile based on our review of the audit opinion and report.

Process Activity	Control Design	Control Compliance	Control Objectives Achieved	Issues Noted
System Information Operations (Production)	Effective	Effective	Yes	No
Systems Development	Effective	Effective	Yes	No
Database Systems	Effective	Effective	Yes	No
Network Support	Effective	Effective	Yes	No
System Software Support	Effective	Effective	Yes	No
Hardware Support	Effective	Effective	Yes	No
Business Continuity Planning	Effective	Effective	Yes	No
Information Security	Effective	Effective	Yes	No
Physical Security	Effective	Effective	Yes	No
Technical Support Services	Effective	Effective	Yes	No

The assessments of control design and compliance were made with the range of: Effective, Needs Improvement, or Weak. A Weak assessment indicates a qualification in the audit opinion.



*Report on Controls Placed in Operation  
and Tests of Operating Effectiveness*

As of October 31, 2003

**ACS State and Local Solutions, Inc.**  
**Tarrytown Data Center**



**ML WEEKES & COMPANY, PC**  
CERTIFIED PUBLIC ACCOUNTANTS

MLW | 112 STRAWBERRY HILL AVE., SUITE G / STAMFORD, CT 06902

(203) 323-3351 / (203) 359-8073 FAX

Proprietary and Confidential

**ACS State & Local Solutions, Inc.**  
**Tarrytown Data Center Operations**  
**Report on Controls Placed in Operation and Tests of Operating Effectiveness**  
**As of October 31, 2003**

**Table of Contents**

<b>Description</b>	<b>Page</b>
<b>SECTION ONE</b>	
Report of Independent Accountants.....	1
<b>SECTION TWO</b>	
ACS State and Local Solutions, Inc. – Description of Controls	
I. Overview.....	3
II. Relevant Aspects of the Control Environment .....	4
III. Tarrytown Data Processing Environment.....	13
IV. Production Application Systems.....	15
V. Control Objectives, Controls, Tests of Operating Effectiveness and User Control Considerations .....	16
<b>SECTION THREE</b>	
Information Provided by Independent Accountants	
I. Introduction.....	57
II. Tests of Effectiveness.....	58
III. Results of Testing Performed.....	61

**SECTION ONE**

**Report of Independent Accountants**





### Report of Independent Accountants

To the Audit Committee of Affiliated Computer Services, Inc. (ACS)

We have examined the accompanying description of the controls the Tarrytown Data Center (TTDC) of ACS State and Local Solutions, Inc. (the "Company"), a wholly-owned subsidiary of ACS. Our examination included procedures to obtain reasonable assurance about whether (1) the accompanying description presents fairly, in all material respects, the aspects of the Company's TTDC controls that may be relevant to a user organization's internal control as it relates to an audit of financial statements, (2) the controls included in the description were suitably designed to achieve the control objectives specified in the description, if those controls were complied with satisfactorily, and user organizations applied the controls contemplated in the design of the Company's controls, and (3) such controls had been placed in operation as of October 31, 2003. The control objectives were specified by management of the Company. Our examination was performed in accordance with standards established by the American Institute of Certified Public Accountants and included those procedures we considered necessary in the circumstances to obtain a reasonable basis for rendering our opinion.

In our opinion, the accompanying description of the aforementioned controls presents fairly, in all material respects, the relevant aspects of the Company's TTDC controls that had been placed in operation as of October 31, 2003. Also, in our opinion, the controls, as described, are suitably designed to provide reasonable assurance that the specified control objectives would be achieved if the described controls were complied with satisfactorily and user organizations applied the controls contemplated in the design of the Company's controls.

In addition to the procedures we considered necessary to render our opinion as expressed in the previous paragraph, we applied tests to specific controls listed in Section II to obtain evidence about their effectiveness in meeting the control objectives described in Section II during the period from March 25, 2003 to October 31, 2003. The specific controls, related control objectives and the nature, timing, extent and results of the tests are listed in Section II. This information has been provided to user organizations of the Company and to their auditors to be taken into consideration, along with information about internal control at user organizations, when making assessments of control risk of user organizations. In our opinion, the controls that were tested, as described in Section II, were operating with sufficient effectiveness to provide reasonable, but not absolute, assurance that the control objectives specified in Section II were achieved during the period from March 25, 2003 to October 31, 2003.

The relative effectiveness and significance of specific controls at the TTDC and their effect on assessments of control risk at user organizations are dependent on their interaction with the controls and other factors present at individual user organizations. We have performed no procedures to evaluate the effectiveness of controls at individual user organizations.



**ML WEEKES & COMPANY, PC**  
CERTIFIED PUBLIC ACCOUNTANTS

MLW 112 STRAWBERRY HILL AVE., SUITE G / STAMFORD, CT 06902

(203) 323-3351 / (203) 359-8073 FAX

The description of controls at the TTDC is as of October 31, 2003, and information about tests of the operating effectiveness of specified controls covers the period from March 25, 2003 to October 31, 2003. Any projection of such information to the future is subject to the risk that, because of change, the description may no longer portray the controls in existence. The potential effectiveness of specific controls at the TTDC is subject to inherent limitations and, accordingly, errors or fraud may occur and not be detected. Furthermore, the projection of any conclusions, based on our findings, to future periods is subject to the risk that changes made to the system or controls or the failure to make needed changes to the system or controls may alter the validity of such conclusions.

This report is intended solely for use by management of the Company, its TTDC clients and the independent accountants of its TTDC clients.

*ML Weekes & Company, PC*

February 6, 2004

## **SECTION TWO**

**ACS State and Local Solutions, Inc.  
Description of Controls**

## I. OVERVIEW

Affiliated Computer Services, Inc. (ACS) is a public company listed on the New York Stock Exchange (NYSE) and is recognized as a full-service provider of diversified business process outsourcing and information technology (IT) outsourcing solutions to commercial and government clients worldwide. The company comprises more than 40,000 people in multiple locations around the world with a diverse and growing client base including *Fortune* 1000 companies and all levels of government. ACS is organized into four Operating Groups, each consisting of multiple Business Units that are staffed with subject matter experts and experienced practitioners that market to targeted lines of business (LOB). The Operating Groups are Business Process Outsourcing/Commercial Solutions, Federal Solutions, State Healthcare Solutions, and State and Local Solutions.

ACS State & Local Solutions, Inc. is headquartered in Washington, DC, and operates as a wholly owned subsidiary of ACS. ACS State & Local Solutions is nationally recognized as the leading provider of data processing, program management and systems integration services to state and local governments. ACS SLS offers a range of intelligent business process outsourcing services including electronic toll collections (ETC), photo enforcement traffic systems, traffic violations and remittance processing, child support enforcement systems, transit payment systems, the PrePass<sup>sm</sup> commercial truck weigh station bypass services, motor carrier registration, fuel tax processing services and many others. Hereafter in this report, ACS and its operating units will be collectively referred to as ACS or the Company.

The ACS Tarrytown Data Center (TTDC) operates as the IT service company within ACS State & Local Solutions, Inc. through shared technology platforms, subject matter expert (SME) knowledge and leveraging common products, technologies and vendor agreements. The TTDC supports the Company's internal infrastructure, product solutions and customer service delivery. Clients range from various state and local government transit and highway agencies, law enforcement departments, fire departments, emergency medical services, child and family services, and welfare and workforce boards.

This report describes the controls surrounding TTDC operations. This report is intended to provide ACS clients and their independent accountants with information sufficient to understand the functions performed by the TTDC. When combined with an understanding of the controls in place at user locations, this report is intended to permit an evaluation of the overall control environment of clients using TTDC processing services. This document was prepared in accordance with the guidelines contained in the American Institute of Certified Public Accountants (AICPA) Statement on Auditing Standards No. 70, entitled "Service Organizations" as amended by AICPA Statements on Auditing Standards No. 88 entitled "Service Organizations and Reporting on Consistency" and No. 98 entitled "Omnibus Statement on Auditing Standards 2002" (hereafter collectively referred to as "SAS No. 70").

## II. RELEVANT ASPECTS OF THE CONTROL ENVIRONMENT

The control environment has a pervasive influence on the way business activities are structured, objectives are established and risks are assessed. It also influences controls, information and communication systems, and monitoring procedures. A company's history and managerial culture also influence the control environment. Effectively controlled entities strive to employ competent people, instill an enterprise-wide attitude of integrity and control consciousness, and set a positive "tone at the top". These entities establish appropriate controls that foster shared values and teamwork in pursuit of the organizations' objectives. ACS operates in a highly regulated industry where risk management, control and reputation are critical. ACS has instituted numerous corporate-wide, operating group wide and business-unit specific policies and programs to promote and ensure an appropriate control environment.

The elements of ACS' control environment, including the extent to which each element of internal control<sup>1</sup> is addressed, are described below:

- A. Integrity and Ethical Values
- B. Commitment to Competence
- C. Internal Audit and Management Oversight
- D. Overview of Business Continuity Planning
- E. ACS Information Technology (IT) Project Management Methodology
- F. ACS Tarrytown Data Center Organizational Structure
- G. Operating Procedures and Information and Communication Methods

### A. Integrity and Ethical Values

ACS has instituted a Corporate Ethics Program designed to instill a climate of integrity and ethical values, which are critical to the establishment and maintenance of an effectively controlled organization. The Corporate Ethics Program includes an ethics office which serves as the single point of contact for ethics issues, administers the Company Ethics Help-Line, communicates and disseminates ethics program materials explaining the purpose and structure of company-wide ethics program, tracks and monitors ethics awareness and compliance training for each employee, evaluates program effectiveness through employee feedback and random surveys and incorporates responsive feedback to improve program efficiency and effectiveness. Furthermore, the principal element of the ethics program includes a Code of Ethical Business Conduct disseminated to all employees. The principles and policies included in the Code address two main areas – compliance and ethical conduct. Compliance means following applicable laws, regulations, and Company policies that govern business processes worldwide. All ACS employees are required to certify their acknowledgement and understanding of the Code of Ethical Business Conduct annually which details three basic expectations (1)

<sup>1</sup> The interrelated elements of internal control include control environment, risk assessment, control activities, information and communication and monitoring as defined by the Committee of Sponsoring Organizations (COSO) of the Treadway Commission, in its report "Internal Control -- Integrated Framework", as amended July 1994.

obey all applicable laws and regulations; (2) provide a positive and safe work environment; and (3) protect ACS' assets and reputation. Additionally the Code correlates the various ACS business policies applicable to ethical conduct including:

- Insider Trading and Disclosure
- Contracting with Federal, State and Local Governments
- Compliance with Antitrust Laws
- Political Contributions
- Gifts and Gratuities
- Conflict of Interest
- Equal Opportunity
- Health, Safety and Environment

## **B. Commitment to Competence**

An important part of a control environment is a company's policies regarding their employees. ACS maintains formal hiring practices designed to ensure new employees are qualified for their job responsibilities. Formal job descriptions communicate the general function and specific duties of a position. All applicants pass through an interview process that assesses their qualifications related to expected responsibility level for the applied position. Upon employment, new employees' backgrounds are verified for past employment history, credit, bonding and criminal activity including drug testing. The extent of the background verification is dependent on the new employee's job responsibilities.

ACS' TTDC management team utilizes a set of human resource policies, procedures and programs including performance appraisal practices, new hire procedures, termination procedures, special recognition awards, and tuition reimbursement to recruit and retain qualified personnel. New employees attend an orientation on their first day of work and then participate in ongoing training to introduce them to ACS and TTDC job specific matters. Employees are provided with measurable objectives and are subject to annual performance reviews to ensure competence.

## **C. Internal Audit and Management Oversight**

### *Corporate Internal Audit*

For a control environment to be effective, the importance placed on controls must be evident at the most senior levels of the organization. In August 2000 the Executive Management and the Audit Committee of the ACS Board of Directors adopted an Internal Audit Charter. The purpose of the charter was to establish the Corporate Internal Audit Department's position within ACS, authorize its access to records, personnel, and physical properties in the performance of audits, and to define the scope of internal auditing activities.

Corporate Internal Auditing is an independent appraisal activity established within ACS to examine and evaluate its activities as a service to the organization. The objective of Corporate Internal Auditing is to assist members of the organization in the effective discharge of their responsibilities.

To this end, Corporate Internal Auditing furnishes them with analyses, appraisals, recommendations, counsel, and information concerning the activities reviewed. The auditing objective includes promoting effective control at reasonable cost using a risk-based audit approach.

#### *TTDC Quality Assurance Department*

The TTDC maintains a Quality Assurance (QA) Department designed to perform testing and ensure quality in the products produced by the software development groups. The department is focused on promoting core values and concepts such as customer-driven quality, fast response and focused results. The mission of the QA department is to deliver the highest quality product on time that meets all specification requirements. Using a standard testing methodology, the QA department creates system test plans and system test cases, utilizes test tools (for defect tracking and performance), collects test data, tracks defects and executes system tests and manages the test cycles. The QA department is led by the Director of QA and a staff of four senior quality engineers.

#### *Management Assessment of Internal Controls Relative to Sarbanes-Oxley Act of 2002*

The Sarbanes-Oxley Act of 2002 was passed to protect investors by improving the accuracy and reliability of corporate disclosures made pursuant to securities laws. Pursuant to Section 404 of the Act, each year the company's annual report must contain a report from management on financial reporting internal controls that includes: a statement of management's responsibility for establishing and maintaining adequate internal control over financial reporting, a statement identifying the framework used by management to evaluate the effectiveness of internal control over financial reporting, management's assessment of the effectiveness of internal control over financial reporting as of the end of the most recent fiscal year, and a statement that the issuer's independent auditor has issued an attestation report on management's assessment.

In preparation for the new reporting and disclosure requirements under the Act, ACS has initiated a Sarbanes-Oxley (SOX) 404 Project designed to institute company-wide control processes to ensure compliance with Section 404 of the Act. The project is lead by the ACS Chief Financial Officer with a steering committee consisting of the Chief Accounting Officer, Senior Vice President of Finance, Corporate Controller, Director of Risk Advisory Services and the independent accounting firm KPMG. The project has selected pilot review sites, one of which is an ACS State & Local Solutions' unit that is provided services by the TTDC. Project key activities include the documentation of current processes and controls, comparison of controls to expectations, to identify gaps, redesign controls to close gaps, validate corrective action and monitor operating effectiveness. The expected project benefits extend beyond compliance, with the creation of a platform and protocols for continuous monitoring and improvement of internal controls over financial reporting.

#### *Regulatory and Corporate Oversight*

As the data processor for numerous systems supporting government client programs the TTDC is subject to many audits and reviews performed directly or indirectly by ACS' government clients. During the past twenty-four months the TTDC has undergone a series of external and internal reviews designed to assess its control environment and control procedures including:

- A March 12, 2003 Agreed-Upon Procedures (AUP) review performed by Deloitte & Touche (D&T). D&T was engaged by the New York Metropolitan Transportation Authority (MTA) to perform a review of the New York E-ZPass<sup>sm</sup> control environment. The audit procedures applied were agreed to by the MTA. The scope of the Agreed-Upon procedures review included a review of the MTA's E-

ZPass<sup>sm</sup> data processing environment, including the ACS TTDC and the E-ZPass<sup>sm</sup> application (VECTOR) development center, in Rockville Maryland.

- A September, 2002 Security Audit performed by KPMG. KPMG was engaged by the Port Authority of New York and New Jersey (PANYNJ) to assess the physical and information security of the PANYNJ E-ZPass<sup>sm</sup> service center and account management hosting solution. The scope of the review included the ACS E-ZPass<sup>sm</sup> service center in Staten Island and the TTDC.
- A March, 2002 internal audit performed by the ACS Corporate Internal Audit department which was further augmented by KPMG audit staff under contract to ACS internal audit, to assess and evaluate the general internal controls of the TTDC. The scope of the review included a review and evaluation of physical and logical access controls, change management procedures, business continuity planning, systems development procedures and other related areas.

Although procedural findings were noted in each review, there were no major findings and all issues have been addressed and corrective action taken.

In addition to the audit reviews the Company has instituted an Information Technology Executive Council (ITEC) and an Architecture Board designed to oversee and guide the mission of the Company's Information Services. The ITEC consists of the Company CIO, all Unit CIOs and senior management of the IS organization. Its mission is to provide input, direction and guidance to the IS organization to ensure delivery of the best possible technology infrastructure, products and service delivery at the lowest possible cost. The ITEC meets every month. The Architecture Board was formed as an initiative of the ITEC and consists of representative from all LOB/Unit development groups. Its mission is to reduce costs by implementing standardized IT architecture with maximum reuse and sharing of resources in the areas of application development, solution implementation and IT operations. The Board meets every month.

#### D. Overview of Business Continuity Planning

ACS' business continuity planning focuses on maintaining and/or rapidly recovering critical business functions that provide service to customers. All business continuity planning efforts are guided by a business continuity and disaster recovery planning program that defines the planning and recovery processes required during an unexpected business interruption and throughout the recovery efforts. Significant resources are dedicated to managing this program.

The TTDC management collectively provides guidance, training and expertise in the area of business continuity and disaster recovery planning. Each department has a team member responsible for the planning, testing, and maintenance of business continuity plans.

Key components of ACS' business continuity plans include:



- Existing Service Agreement with SunGard for their Availability Services to provide disaster recovery facilities and the appropriate environment and infrastructure to allow ACS' data center to be operating effectively.
- Existing Service Agreement with Iron Mountain for their Records and Storage Management services to provide for secure, off-site storage of critical business documents and electronically stored data.
- Secure facilities through the use of security guards, building access cards, biometric hand readers, building zone restrictions, video surveillance, and numeric key pads.
- Environmental protection of information systems through the use of backup power generators, HVAC systems, fire suppression systems as well as the 24 hour monitoring of such systems.
- Documented and tested disaster recovery plans incorporating specific instructions to ACS staff on the most effective and efficient method of restoring production operations of information and facilities.

Business continuity activation procedures are tested regularly to ensure that communications, vital records, recovery systems and necessary equipment are available and function correctly. Testing programs are required to include documented objectives and procedures, written test plans and results, business validation of results, and resolution of any action items that are identified during the tests.

#### **E. ACS Information Technology (IT) Project Management Methodology**

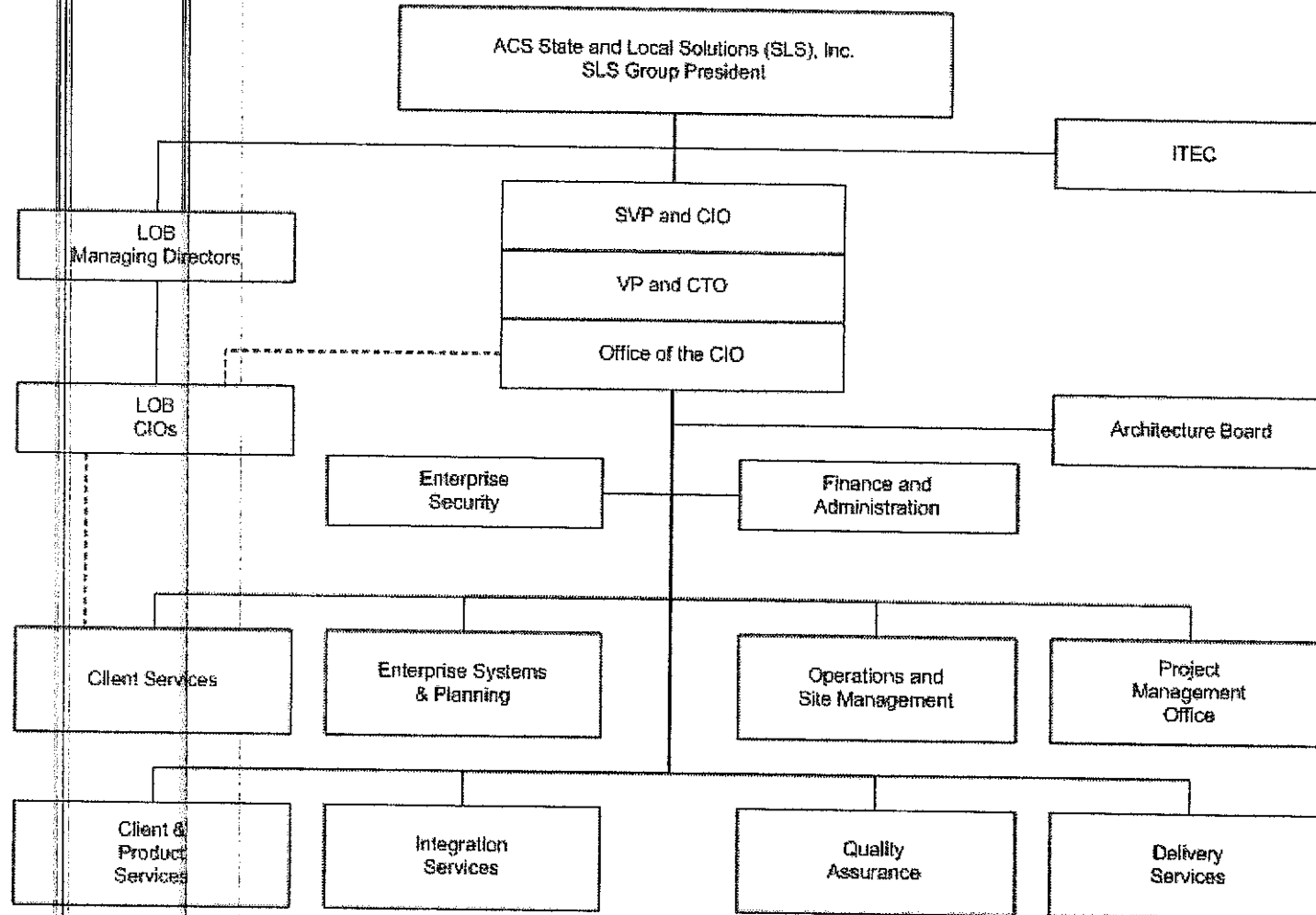
ACS has instituted a project management methodology and a project management office (PMO) to develop, implement and manage information technology systems. The methodology is made up of multiple components including policies, practices, processes and tools. The PMO goal is to provide a set of core processes that provide a repeatable and self-improving methodology for achieving project deliverables. The ACS methodology is based on Institute of Electrical and Electronic Engineering (IEEE), International Organization of Standardization (ISO) and Project Management Institute (PMI) standards. The methodology uses prescribed processes defined in each phase of the project. Project management processes are not discrete, one-time events; they consist of overlapping activities that occur at varying levels of intensity throughout each phase of the project. The process groups are linked by the results they produce. The results or outcome of one becomes an input to another.

The project management methodology is designed to increase probability of on-time and on-budget delivery, increase profitability through reduced project costs, improve customer satisfaction through successful outcomes and increase schedule accuracy of project plans.

#### **F. ACS Tarrytown Data Center Organizational Structure**

The ACS TTDC organizational structure provides the framework for achieving objectives by which activities are planned, executed, controlled and monitored. The organizational structure, as illustrated in the following chart and described below is largely a centralized matrix organization designed to promote common processes and best practices. The structure provides for an adequate segregation of duties as well as a clearly defined area of responsibility.

ACS TTDC Organizational Structure



TTDC Organization

The TTDC houses the Information Services Organization for ACS State and Local Solutions overseeing the Company's network operations, including the majority of mainframe, midrange and desktop systems. The Information Service organization is led by an ACS Senior Vice

President and Chief Information Office (CIO) and a Vice President and Chief Technology Officer (CTO). The CIO reports to the ACS State and Local Group President. Further oversight is offered through the CIO's participation with the SLS Executive Committee, the Corporate CIO Council and the SLS Information Technology Executive Council (ITEC).

The Data Center supports and maintains client production systems and also provides Information Technology Services such as: Information Resource Strategy Planning, Information System Operations (Computer/Data Processing), Information Security, Business Continuity Planning and Disaster Recovery, Database Implementation and Support, Network Support, System Software Support, and Hardware Support. The organization also maintains a Client & Product Service group for each Company business unit designed to directly support client needs and requirements. The organizational departments of the TTDC are as follows:

#### *Client Services*

A Client Services organization exists to ensure delivery of all information technology services to every LOB. It is headed by a Vice President who reports to the office of the CIO. Within the group is a Director for each of the SLS LOB's. Each Director serves as a focal point, single point of contact, and advocate for his or her respective LOB and its IT needs. The Directors are the principal channel of communication between the respective LOB and the Tarrytown Data Center, conveying the needs and requirements of the LOB to the TTDC and managing the delivery of services to the LOB. Each Director is also instrumental in ensuring alignment of business objectives with IT initiatives, alignment of technology plans with business objectives, and appropriate line of business budgets for the TTDC services.

#### *Enterprise Security*

Enterprise Security is responsible for all aspects of security for ACS SLS including security policies and procedures, physical security, risk assessment, virus protection, interface with Corporate security organizations, interface to network of employees with field security responsibilities, password and privilege administration, implementation and operation of network intrusion detection, and implementation and operation of network and server security automation software systems. The group is managed by a Vice President of Enterprise Security reporting directly to the CIO and CTO.

#### *Finance & Administration*

The Finance & Administrative department is responsible for all aspects of finance, accounting, procurement, asset management, shipping and receiving, payroll control, facilities administration and HR liaison. The department is managed by a Director of Finance & Administration reporting directly to the CIO.

#### *Operations*

The Operations group consists of computer operations, production control and disaster recovery. Computer operations is responsible for monitoring the mainframe batch flow, maintaining a clean and secure Data Center, and managing the backups on all platforms and ensuring the backups are secure at an offsite facility. Production Control is responsible for developing and maintaining balanced and automated schedules for permanent and on demand processing while considering job time frames, resources, client availability, and

deadline requirements. Disaster recovery is responsible for providing a means to reestablish IT structure including data, applications, networks and operating environment in cases of disaster. The Operations/Production Control department is managed by a Director of Operations reporting directly to the CIO.

#### *Project Management Office (PMO)*

The PMO was established to develop, improve and implement a standard project management methodology, implement best practices, review and assess all processes, maximize access to ACS resources, assist new projects with documents and SME and support field and local projects with tools and other capabilities. The PMO is managed by a Director of PMO reporting directly to the CIO.

#### *Client and Product Services*

Client and Product Services is designed to provide the corresponding SLS lines of business with software development and maintain in support of the unit's clients, business activities and goals including developing and maintaining service level agreements, assisting marketing staff with pre-sales efforts, capturing and analyzing client system requirements, and monitoring system performance. The group is lead by a Director of Client Services reporting directly to the CIO.

#### *Enterprise Systems & Planning*

The Enterprise Systems & Planning department is charged with providing information technology infrastructure support for all the operation groups within the Company such as finance, HR, and client relations. These services include Enterprise Messaging Systems, Corporate Internet and Intranet services and consolidated reporting systems. The group is managed by a Director of Enterprise Systems & Planning reporting directly to the CIO.

#### *Integration Services*

The Integration Services department is responsible for maintaining all operating systems and Database Management Systems (DBMS) at the vendor support levels, maintaining system availability, monitoring system performance, applying integrity and security fixes, planning tests, and implementing system upgrades. The group is managed by a Director of Integration reporting directly to the CIO.

#### *Delivery Services*

The Delivery Services department is responsible for proposal support, requirements definition, application implementation, LAN design and implementation, project management and project control across SLS LOBs. The group is managed by a Director of Delivery Services reporting directly to the CIO.

#### *Quality Assurance (QA)*

The QA Department is designed to ensure the integration of key business requirements into a results oriented framework. The department is focused on promoting core values and concepts such as customer-driven quality, fast response and focused results. The mission of the QA department is to deliver the highest quality product on time that meets all specification requirements. Using a standard testing methodology the QA departments creates system test plans, creates system test cases, utilizes test tools (for defect tracking and

performance), collects test data, tracks defects and executes systems test and manages the test cycles. The group is managed by a Director of QA reporting directly to the CIO.

#### **G. Operating Procedures and Information and Communication Methods**

In addition to the ACS corporate policies and procedures, the TTDC also maintains a detailed set of policies and procedures for each of its departments and general functions including, but not limited to: computer operations, production control processes, systems development processes, change control, and quality assurance. Additionally, the TTDC utilizes a series of systems and methods to integrate operations, deliver services and communicate roles and responsibilities to individual employees. Those systems and methods include the Network Operations Center (NOC) and help desk, designed to address and monitor internal and external problems. The NOC/Help Desk is the first level of support and receives calls on an 800 number from ACS employees and external customers. Alerts are monitored and escalated accordingly. The NOC/Help Desk also monitors the network, interactive voice response systems and Web sites to ensure the systems are continually operating. Alerts and problems are tracked through the Remedy system, a third-party trouble ticket system, designed to track and monitor system and application issues. The TTDC also uses an Earned Value Process, a project management tool designed to assist in the management and control of projects. The Earned Value process provides a mechanism and structure to measure costs and schedule performance. This process offers management an early indication of deviations (cost and schedule) from the project plan and the extent of any deviations. Furthermore, TTDC utilizes a time and reporting system (NIKU) to capture and report employees' project hours and expenses.

### III. TARRYTOWN DATA CENTER (TTDC) PROCESSING ENVIRONMENT

The TTDC's computer operations is available 24 hours a day, 7 days a weeks and 365 days a year, principally supporting 5 computing platforms including IBM mainframe, AS/400, HP9000, Compaq Alpha and Windows NT and 2000 Server. Computer operations utilize a common solutions framework including a (a) secure, resilient architecture, featuring load-balancing, capacity on demand and component and system redundancy, (b) centralized systems and network monitoring, (c) storage-area-network (SAN) technology, (d) common backup and recovery solutions and (e) disaster recovery. The TTDC processing infrastructure also includes production control, systems administration, database administration, network engineering, a NOC and help desk services. Key elements of the TTDC processing environment include:

#### *System Information Operations (Production)*

To ensure the continuing functionality of client application systems, it is imperative that production jobs (batches and scripts) are executed. Production analysts utilize Unicenter CA-7 and Unicenter CA-11 to both schedule production jobs as well as report on the production job execution success. Production analysts schedule jobs, monitor their execution and take remedial action in the event of job failures.

#### *Systems Development and Maintenance*

The computer platforms are designed and configured to provide the systems applications and subsystems sufficient computing power to provide a stable production environment. All software development follows a "best practices" Software Development Life Cycle (SDLC) methodology. The SDLC is comprised of a phased approach to application development designed to standardize the implementation of new releases or modifying existing systems. Modifications to production systems require the approval of the Change Control Board (CCB) at the Data Center Operations. The CCB meets weekly to discuss planned changes as well as previously implemented changes. All change controls submitted to the CCB are documented by the submitter and are reviewed by the CCB.

#### *Database Systems*

Databases are supported by database analysts who provide technical expertise in maintaining database integrity and monitoring database performance. Test and QA databases are available and in use during the software development efforts to simulate the effects of proposed system modifications.

#### *Network Engineering and Support*

The Data Center utilizes Windows 2000 Servers to provide LAN services and connectivity. Network hardware necessary to support the LAN include Cisco switches, routers and hubs. WANs are established with major off-site facilities including many Customer Service Centers (CSC) and the Transportation Service Center (TSC). This WAN incorporates high-speed, dedicated communication networks including T-1s and Frame Relays. More than one telecommunications provider is contracted to ensure the availability of the network in case one provider is experiencing difficulties in providing services.

*System Software Support*

Purchases of database, hardware, and network systems and systems software requires the approval of management with cost breakpoints requiring management approval at ever higher hierarchical levels. Inventory is performed of both hardware and software periodically to reduce the financial and legal risks of improper reporting of assets and licenses.

*Business Continuity and Disaster Recovery Planning*

Business Continuity and Disaster Recovery Planning is an initiative of the Information Technology group of ACS. The Data Center has implemented a Disaster Recovery Plan. ACS has agreements with SunGard and Iron Mountain to facilitate secure off-site storage of mission critical documentation and system backups as well as to provide the technical infrastructure necessary to reinstate a production environment in the event that the Data Center is inaccessible. The Disaster Recovery Plan was recently tested by Data Center Operations and included a full review and update of the plan following the test. Backups are systematically scheduled and are created both daily and weekly and are incremental and full backups respectively. The backups are sent offsite daily using Iron Mountain as the contracted off-site, environmentally controlled storage facility. Other initiatives in place to support the Business Continuity goals include data center and physical security, application system security as well as other data center environmental safeguards such including fire suppression systems, uninterruptible power supplies and backup generators. Alternatively, secondary communication links of the WAN are in place to support mission critical communications and interfaces between locations.

*Information and Physical Security*

Security surrounding information and intellectual assets is provided by network applications discussed earlier. This access is setup according to a security policy designed and maintained by the Security administrator of ACS. Password structure, length and expiration are designed and standardized to the extent available by the application system providing the security. Other initiatives in information security include the use of anti-virus applications on desktop computers as well as maintaining the latest Microsoft patches applicable to each version of the Windows operating system. Physical security is supported through the use of building access restrictions provided by the facilities department (independent of ACS) as well as ACS specific access restriction efforts including zoned access areas, additional security hardware (biometric hand readers) and employee and visitor badges.

*Technical Support*

Technical support is a service encompassing the Data Center Operations, various ACS facilities and various customer service centers maintained by ACS. A three-tiered structure is in place to provide technical support for the computer infrastructure including the hardware, software and application systems functioning to support the various customer operations. Level 1 support is available at the Data Center Operations. If an issue needs to be escalated, a Level 2 support person residing in the TTDC is contacted. If the issue cannot be resolved at Level 2, it is escalated to Level 3 which will then be considered a development request (DR) and considered for resolution through the DR process utilizing the SDLC. The Data Center Operations team uses Remedy, a third-party trouble ticket system, to track and monitor system and application issues. These issues are monitored and followed up until resolution.

#### IV. TARRYTOWN DATA CENTER (TTDC) PRODUCTION APPLICATION SYSTEMS

The TTDC employs a common applications solution framework utilizing generic web architecture, DOS, Virus detection, monitoring and reaction processes, load balancing and capacity on demand, and a national trusted network. The common application solutions framework consists of defined layers: internet services, Web services, application services, database services, storage services and systems and network management.

In delivering the various core products offered by the Company, the TTDC has the capacity to operate a range of system applications on its computing platforms. The range of core products include ETC, photo enforcement traffic systems, traffic violations and remittance processing, child support enforcement systems, transit payment systems, the PrePass<sup>sm</sup> commercial truck weigh station bypass services, motor carrier registration, fuel tax processing services. The key application systems and computing platforms utilized to run such applications include:

Application Name	Application Description	Platform
VECTOR	An ETC client-server application implemented in a distributed processing environment.	Open VMS, Oracle RDB and Windows NT
KidStar	Integrated payment and disbursement reconciliation platform for child support payments	Oracle Web logic, Unix and Jboss
Accord	Payment processing application for child support payments	Microsoft Visual Basic 6.0, Microsoft SQL 7.0
WebChek	Website for employers to electronically submit child support payments	JRUN Oracle
New Hire	Website for employer to electronically submit new hire forms	Web Logic, Oracle
TIMS	An application system, that interfaces with the all state DMV systems.	Adabas
MVS Express	Intranet/internet delivery of Motor Vehicle Service system	N/T, HP/UNIX, Mainframe, AS/400
CVO Prepass	Trucking industry tracking	HP UNIX
Masterpiece/Net	Internal company financial accounting system including general ledger, accounts payable and accounts receivable	HP UNIX, Oracle DB, Windows NT Web user interface
Citeware/CiteWeb	Photo Enforcement applications	SQL Server



## V. CONTROL OBJECTIVES, CONTROLS, TESTS OF OPERATING EFFECTIVENESS AND USER CONTROL CONSIDERATIONS

### Control Objectives, Control Activities, Tests of Operating Effectiveness

A system of internal control is intended to provide reasonable, but not absolute, assurance that the control objectives are achieved. The TTDC has specified their control objectives and identified their control activities in order to achieve those objectives. These broad objectives have been determined by ACS management.

ACS has specified certain control objectives which were to be covered by tests of operating effectiveness. ML Weekes & Company, PC has determined the nature, timing and extent of testing to be performed in order to test if the control activities surrounding the control objectives specified by management are in place and operating effectively. Additional information about the nature, timing and extent of the testing is contained in Section III of this report.

### User Control Considerations

Processing of transactions for clients performed by ACS' TTDC covers only a portion of the overall internal control of users. It is not feasible for all of the control objectives relating to the processing of transactions to be completely achieved by the TTDC. Therefore, the users' internal control must be evaluated in conjunction with the internal control and testing summarized in this report.

In order for TTDC clients to rely on the internal control reported on herein, the clients must evaluate their own system of internal control to determine if the following controls, at a minimum, are in place:

- Processing options (parameters) are appropriately authorized, approved, and implemented.
- Transactions are appropriately authorized, complete, and accurate.
- Erroneous input data are corrected and resubmitted.
- Output reports are reviewed by appropriate individuals for completeness and accuracy.
- Output received from the TTDC is routinely reconciled to relevant user organization control totals.
- Appropriate physical security at the customer facilities, including access to terminals, printers and other devices,

The list of user-organization control considerations presented above do not represent a comprehensive set of all the controls that should be employed by user organizations. Other controls may be required at user organizations.

### Summary of Control Objectives

- A. **System Information Operations (Production)**  
Controls surrounding systems information operations (production) provide reasonable assurance that the scheduling and setup of computer processing is performed, the accuracy and completeness of the processing is verified, according to established routines and procedures and the tracking and reporting of processing problems is performed according to established procedures.
- B. **Systems Development**  
Controls surrounding software development and maintenance provide reasonable assurance that a formal development process is in place, requests for modifications are formally initiated, development of modifications are performed and monitored in a controlled environment and modifications are adequately tested, approved and migrated into production.
- C. **Database Systems**  
Controls surrounding database systems provide reasonable assurance that databases are supported by documented maintenance procedures, database modifications are implemented through a formal change control process and access to test and production database systems is restricted.
- D. **Network Support**  
Controls surrounding network support provide reasonable assurance that network infrastructure policies and procedures are in place, approved by management and fully supported.
- E. **System Software Support**  
Controls surrounding system software support provide reasonable assurance that system software is properly requested, authorized, licensed, installed, maintained and supported.
- F. **Hardware Support**  
Controls surrounding hardware support provide reasonable assurance that hardware is properly requested, authorized, licensed, installed, maintained and supported.
- G. **Business Continuity Planning**  
Controls surrounding business continuity planning provide reasonable assurance that a comprehensive plan is in place and provides for the timely availability of all resources that are necessary to operate critical processes, including the recovery of critical data and systems.

**H. Information Security**

Controls surrounding systems information security provide reasonable assurance that information security policies exist, access to network resources are restricted, virus detection systems are installed and software licenses are properly in place.

**I. Physical Security**

Controls surrounding physical security provide reasonable assurance that physical assets are protected and access is restricted to pre-authorized individuals.

**J. Technical Support Services**

Controls surrounding technical support services provide reasonable assurance that computer system issues are tracked, managed and resolved in an efficient and effective manner.

<b>Control Objectives and Related Controls</b>		
<b>A. System Information Operations (Production)</b>		
Controls surrounding systems information operations (production) provide reasonable assurance that the scheduling and setup of computer processing is performed, the accuracy and completeness of the processing is verified, according to established routines and procedures and the tracking and reporting of processing problems is performed according to established procedures.		
<b>Controls</b>	<b>Tests of Operating Effectiveness</b>	<b>Test Results</b>
A.1 The ACS application systems rely on jobs to be run on a systematic schedule to ensure the full operation and functionality of the systems.	<p><b>Inspection</b> Examined sample production schedules listing the specific jobs (scripts or batches) that are needed to be run in order to maintain the systems operability.</p> <p><b>Observation</b> Observed a senior production analyst viewing and modifying production job schedules.</p>	No relevant exceptions were noted.
A.2 Jobs are scheduled using an automated, electronic scheduling system. ACS uses Unicenter CA-7 Job Management as its scheduling system. Job status and history is reported using Unicenter CA-11 Job Management.	<p><b>Inspection</b> Examined sample production schedules showing the automated system used to schedule the jobs.</p> <p><b>Observation</b> Observed a senior production analyst viewing and modifying production job schedules using CA-7 and CA-11.</p>	No relevant exceptions were noted.
A.3 Jobs are created and maintained by application developers. Production analysts are responsible for scheduling the jobs. Production analysts work with application developers to determine the optimum times to run jobs.  Production jobs and job modifications originate from application development.	<p><b>Inspection</b> Examined sample production job modification requests originating from application development.</p> <p><b>Observation</b> Observed the production job schedules that included the job modification requests.</p>	No relevant exceptions were noted.

<b>Control Objectives and Related Controls</b>		
<b>A. System Information Operations (Production)</b>		
<p>Controls surrounding systems information operations (production) provide reasonable assurance that the scheduling and setup of computer processing is performed, the accuracy and completeness of the processing is verified, according to established routines and procedures and the tracking and reporting of processing problems is performed according to established procedures.</p>		
<b>Controls</b>	<b>Tests of Operating Effectiveness</b>	<b>Test Results</b>
A.4 A senior production analyst prints the full daily production schedule. The daily production schedule is reviewed and signed by the analysts for their respective sections of the production schedule. The full schedule is reviewed and approved by the production supervisor.	<p><b>Inspection</b> Examined a sample full daily production schedule signed off by production analysts and production supervisor.</p>	No relevant exceptions were noted.
A.5 The full daily production schedule is bound in a 3 ring binder and delivered to the production support team of the operations data center for use as a reference during the non-daily hours.	<p><b>Observation</b> Observed the production support team in possession of the current day's daily production schedule.</p> <p><b>Inspection</b> Examined the bound daily production schedule with analyst and supervisor signatures.</p>	No relevant exceptions were noted.
A.6 Production jobs being executed are monitored by production analysts during the day and production support the remainder of the time. CA-11 captures job success or failure with error codes and is used in the resolution of the exception. Job failures are resolved and logged in Remedy.	<p><b>Inspection</b> Examined a sample job failure reported from Unicenter CA-11 Job Management, its correlated Remedy ticket information communicated in an email, and the application developers feedback. Examined the Remedy report confirming existing information, resolution notes and status.</p>	No relevant exceptions were noted.

<b>Control Objectives and Related Controls</b>		
<b>A. System Information Operations (Production)</b>		
Controls surrounding systems information operations (production) provide reasonable assurance that the scheduling and setup of computer processing is performed, the accuracy and completeness of the processing is verified, according to established routines and procedures and the tracking and reporting of processing problems is performed according to established procedures.		
<b>Controls</b>	<b>Tests of Operating Effectiveness</b>	<b>Test Results</b>
A.7 In instances of exceptions, the production support team utilizes the daily production schedule to recover information pertaining to restarts, recovery and other unusual events. The production support analyst then acts on this information to resolve the exception.	<p><b>Inspection</b> Examined the daily production schedule as supplied by the production team to the production support team (as part of the network operations center team).</p> <p><b>Observation</b> Observed a production support team member maintaining a log of exceptions and referring to the daily production schedule for information on what steps to take.</p>	No relevant exceptions were noted.
A.8 Access to production programs and databases are restricted to authorized personnel only through the use of usernames and passwords.	<p><b>Observation</b> Observed production analyst interfacing with production scheduling system with the use of usernames and passwords.</p>	No relevant exceptions were noted.
A.9 Production programs and data are backed up daily and tapes transferred to an offsite storage facility daily.	<p><b>Observation</b> Observed data center operations staff creating and labeling backup media.</p> <p><b>Inspection</b> Examined offsite storage facility inventory catalog.</p>	No relevant exceptions were noted.

<b>Control Objectives and Related Controls</b>		
<b>A. System Information Operations (Production)</b>		
<p><b>Controls surrounding systems information operations (production) provide reasonable assurance that the scheduling and setup of computer processing is performed, the accuracy and completeness of the processing is verified, according to established routines and procedures and the tracking and reporting of processing problems is performed according to established procedures.</b></p>		
<b>Controls</b>	<b>Tests of Operating Effectiveness</b>	<b>Test Results</b>
<p><b>A.10</b> Production documentation including end-user operating procedures and production analyst instructions is maintained at an offsite storage facility.</p>	<p><b>Inquiry</b> Inquired of data center manager of the existence of offsite storage facility.</p> <p><b>Inspection</b> Examined offsite storage facility inventory catalog and offsite storage facility agreement between ACS and Iron Mountain.</p>	<p>No relevant exceptions were noted.</p>
<p><b>A.11</b> System users are adequately trained through periodic classes prepared and presented by the production supervisors as well as third party vendors.</p>	<p><b>Inquiry</b> Inquired of the production supervisor of training status and efforts of system users.</p> <p><b>Inspection</b> Examined documentation supporting the occurrence of user training.</p>	<p>No relevant exceptions were noted.</p>

Control Objectives and Related Controls		
B. Systems Development		
Controls surrounding software development and maintenance provide reasonable assurance that a formal development process is in place, requests for modifications are formally initiated, development of modifications are performed and monitored in a controlled environment and modifications are adequately tested, approved and migrated into production.		
Controls	Tests of Operating Effectiveness	Test Results
B.1 Development of systems is under the guidance of a best practices Architecture Board and the ITEC (Information Technology Education Council).	<b>Inquiry</b> Inquired of the systems development manager the use of best practices through the Architecture Board and the ITEC.	No relevant exceptions were noted.
B.2 Systems development is performed with the structure of a project planning application system (Microsoft Project) and standardized project templates.	<b>Observation</b> Observed Microsoft Project project plans for development initiatives.	No relevant exceptions were noted.
B.3 All projects include the utilization of a test environment and a test plan which reduces the risk of production systems failures and downtime.	<b>Inspection</b> Examined sample test plans showing the procedures included to test the application including changes prior to installing into production.  <b>Observation</b> Observed staff interacting within a test environment.	No relevant exceptions were noted.
B.4 All projects include an impact assessment which is a management estimate of the potential risk of implementing the new application or enhancement.	<b>Inspection</b> Examined sample impact assessments.	No relevant exceptions were noted.



<b>Control Objectives and Related Controls</b>		
<b>B. Systems Development</b>		
Controls surrounding software development and maintenance provide reasonable assurance that a formal development process is in place, requests for modifications are formally initiated, development of modifications are performed and monitored in a controlled environment and modifications are adequately tested, approved and migrated into production.		
<b>Controls</b>	<b>Tests of Operating Effectiveness</b>	<b>Test Results</b>
<b>B.5</b> All projects are documented, monitored and reviewed by the appropriate Director of Application Development responsible for that application.	<b>Inspection</b> Examined project plans and monitoring reports related to Application Development.	No relevant exceptions were noted.
<b>B.6</b> All projects include, if necessary, updating the operations, production and help desk system documentation which maintains current application system documentation including procedures.	<b>Inquiry</b> Inquired of application development directors of the process to update operations, production and help desk system documentation.	No relevant exceptions were noted.
<b>B.7</b> All projects include, if necessary, training of production, help desk or operations staff. This will ensure that new applications or enhancements will be supported and maintained by a technical skill level necessary to ensure a stable production environment.	<b>Inquiry</b> Inquired of application development directors of the process to train staff as necessary as part of the project development process.  <b>Inspection</b> Examined documentation to support evidence of staff training.	No relevant exceptions were noted.
<b>B.8</b> All modifications to production systems are tested in an isolated test environment which greatly reduces the risk that the production environment will be affected by the testing of the new application or enhancement.	<b>Inquiry</b> Inquired of application development directors the process of testing in a test environment.  <b>Observation</b> Observed staff interacting within a test environment.	No relevant exceptions were noted.

<b>Control Objectives and Related Controls</b>		
<b>B. Systems Development</b>		
Controls surrounding software development and maintenance provide reasonable assurance that a formal development process is in place, requests for modifications are formally initiated, development of modifications are performed and monitored in a controlled environment and modifications are adequately tested, approved and migrated into production.		
<b>Controls</b>	<b>Tests of Operating Effectiveness</b>	<b>Test Results</b>
<b>B.9</b> All modifications to production systems are reviewed and approved by management to reduce the risk that an unauthorized change to the production environment will affect its stability or operating effectiveness.	<b>Inspection</b> Examined documentation to support the review and approval of modifications to production systems.	No relevant exceptions were noted.
<b>B.10</b> All modifications to production systems are submitted, reviewed, approved, and executed through a change control board which ensures that proposed changes are reviewed as to their potential impact on the intended system as well as other peripheral applications.	<b>Inspection</b> Examined change control documentation including submitted change control by application development and review and approval by change control board.  <b>Inspection</b> Selected sample change controls listed on the change control agenda. Examined the review and approval status by the change control board of the selected change controls. Inspected the execution documentation from the operations data center of the selected change controls. Inspected the communication to complete the change control process of the selected change controls.	No relevant exceptions were noted.
<b>B.11</b> The change control board follows a management approved change control process recorded in the change control policies and procedures.	<b>Inspection</b> Examined change control board policies and procedures.	No relevant exceptions were noted.

<b>Control Objectives and Related Controls</b>		
<b>B. Systems Development</b>		
Controls surrounding software development and maintenance provide reasonable assurance that a formal development process is in place, requests for modifications are formally initiated, development of modifications are performed and monitored in a controlled environment and modifications are adequately tested, approved and migrated into production.		
<b>Controls</b>	<b>Tests of Operating Effectiveness</b>	<b>Test Results</b>
B.12 All change controls are monitored for completion status and communicated to the respective originating parties through email.	<p><b>Inquiry</b> Inquired of change control manager that change controls are monitoring.</p> <p><b>Inspection</b> Examined communications about the status of change control execution.</p>	No relevant exceptions were noted.

Control Objectives and Related Controls		
C. Database Systems		
Controls surrounding database systems provide reasonable assurance that databases are supported by documented maintenance procedures, database modifications are implemented through a formal change control process and access to test and production database systems is restricted.		
Controls	Tests of Operating Effectiveness	Test Results
C.1 Databases are supported by documented maintenance procedures including start-up, shut-down and database maintenance.	<b>Inspection</b> Examined maintenance procedures documentation.	No relevant exceptions were noted.
C.2 Databases maintenance procedures are performed routinely to ensure that the database operates in an effective manner and also to keep the database maintenance documentation up to date.	<b>Inquiry</b> Inquired of the manager of database systems that the database maintenance is performed routinely.  <b>Inspection</b> Examined documentation to support database maintenance is performed routinely.	No relevant exceptions were noted.
C.3 All database modifications are tested in a test environment prior to installation into the production environment to reduce the risk that a database modification will affect the effectiveness of the production environment.	<b>Inquiry</b> Inquired of the manager of database systems about database modifications.  <b>Observation</b> Observed the existence and use of a test environment.	No relevant exceptions were noted.
C.4 All database modifications include an impact assessment prior to implementation in the production environment to analyze the possible effects of a planned database modification.	<b>Inspection</b> Examined a sample of impact assessment documentation.	No relevant exceptions were noted.
C.5 All database modifications to production environment databases are implemented through the change control process.	<b>Inspection</b> Examined a sample of change controls relating to database structure modifications.	No relevant exceptions were noted.

<b>Control Objectives and Related Controls</b>		
<b>C. Database Systems</b>		
<b>Controls surrounding database systems provide reasonable assurance that databases are supported by documented maintenance procedures, database modifications are implemented through a formal change control process and access to test and production database systems is restricted.</b>		
<b>Controls</b>	<b>Tests of Operating Effectiveness</b>	<b>Test Results</b>
<b>C.6</b> Database startup and shutdown procedures are documented, tested, executed and updated routinely to ensure operational effectiveness of databases as a key component of the production environment.	<p><b>Inquiry</b> Inquired of the manager of database systems about database startup and shutdown procedures.</p> <p><b>Inspection</b> Examined the database startup and shutdown procedures and evidence of testing and execution.</p>	No relevant exceptions were noted.
<b>C.7</b> Database analysts maintain sufficient skill levels on database platforms to ensure a well supported production environment.	<p><b>Inquiry</b> Inquired of the manager of database systems about the training of database analysts.</p> <p><b>Inspection</b> Examined evidence of training of database analysts.</p>	No relevant exceptions were noted.
<b>C.8</b> Access to test and production database systems is restricted to authorized personnel as mandated by management and application requirements to reduce the risk that unauthorized changes to test and production systems happen and to reduce the risk that accidental changes to test and production systems occur.	<p><b>Observation</b> Observed a database analyst attempting access to test and production database systems.</p>	No relevant exceptions were noted.

<b>Control Objectives and Related Controls</b>		
<b>D. Network Support</b>		
<b>Controls surrounding network support provide reasonable assurance that network infrastructure policies and procedures are in place, approved by management and fully supported.</b>		
<b>Controls</b>	<b>Tests of Operating Effectiveness</b>	<b>Test Results</b>
<b>D.1</b> Acquisition of network hardware, software and services is reviewed and approved by management reducing the risk that incompatible equipment or configuration is purchased and implemented.	<b>Inspection</b> Examined management approval for the acquisition of network hardware, software and services.	No relevant exceptions were noted.
<b>D.2</b> Purchases, development and maintenance of network system hardware, software and services follows a written policy authorized by management to standardize what is purchased and to obtain the appropriate authorizations to purchase such hardware, software and services.	<b>Inspection</b> Examined policies and procedures relating to the purchasing, development and maintenance of network system hardware, software and services.	No relevant exceptions were noted.
<b>D.3</b> Network infrastructure changes are reviewed and approved by management to reduce the risk that an unintended change to the production environment will reduce the effectiveness of the production environment.	<b>Inspection</b> Examined management approval for network infrastructure changes.	No relevant exceptions were noted.

Control Objectives and Related Controls		
D. Network Support		
Controls surrounding network support provide reasonable assurance that network infrastructure policies and procedures are in place, approved by management and fully supported.		
Controls	Tests of Operating Effectiveness	Test Results
D.4 Network infrastructure changes are tested in an isolated testing environment and include the use of test plans. Test plans consist of scripts, batches or similar methods to test the intended change as well as other unintended effects on the operating environment prior to installation into the production environment.	<p><b>Inquiry</b> Inquired of management that test plans are used in all changes in the network infrastructure.</p> <p><b>Inspection</b> Examined evidence that test environments have been used prior to implementing network infrastructure changes. Examined sample test plans.</p> <p><b>Observation</b> Observed the network test environment.</p>	No relevant exceptions were noted.
D.5 Network infrastructure changes are implemented into production systems through the change control process which considers the timing and the nature of the changes and any effects the proposed changes will have on other systems.	<p><b>Inspection</b> Examined a sample of change controls relating to network infrastructure changes.</p>	No relevant exceptions were noted.
D.6 Access to test and production network environments is restricted to reduce the risk that unauthorized or unintended changes are made that affect the operating effectiveness of the production environment.	<p><b>Observation</b> Observed a network analyst accessing the network infrastructure resources.</p>	No relevant exceptions were noted.
D.7 Users receive routine training on new and modified network systems to ensure that the network environment is supported by skilled and trained individuals.	<p><b>Inspection</b> Examined evidence of network staff training.</p>	No relevant exceptions were noted.

Control Objectives and Related Controls

D. Network Support

Controls surrounding network support provide reasonable assurance that network infrastructure policies and procedures are in place, approved by management and fully supported.

Controls	Tests of Operating Effectiveness	Test Results
<p><b>D.8</b> Operations and maintenance documentation is routinely updated and published which provides users the ability to reference current information on the hardware, software and services in place to provide an effective LAN and WAN.</p>	<p><b>Inquiry</b> Inquired of the network manager about the updating of operations and maintenance documents for the network.</p> <p><b>Inspection</b> Examined operations and maintenance documentation.</p>	<p>No relevant exceptions were noted.</p>



Control Objectives and Related Controls		
E. System Software Support		
Controls surrounding system software support provide reasonable assurance that system software is properly requested, authorized, licensed, installed, maintained and supported.		
Controls	Tests of Operating Effectiveness	Test Results
E.1 Acquisition of system software and services is reviewed and approved by management to ensure compatible and standardized software is purchased and authorized.	<b>Inspection</b> Examined management approval for the acquisition of system software and services.	No relevant exceptions were noted.
E.2 Purchases, development and maintenance of system software and services follows a written policy authorized by management to reduce the risk that incompatible and non-standardized software is purchased and implemented without authorization.	<b>Inspection</b> Examined policies and procedures relating to the purchasing, development and maintenance of system software and services.	No relevant exceptions were noted.
E.3 System software and service changes are reviewed and approved by management to reduce the risk that new software and/or services are implemented without an assessment or authorization by management.	<b>Inspection</b> Examined management approval for system software and service changes.	No relevant exceptions were noted.

Control Objectives and Related Controls		
E. System Software Support		
Controls surrounding system software support provide reasonable assurance that system software is properly requested, authorized, licensed, installed, maintained and supported.		
Controls	Tests of Operating Effectiveness	Test Results
E.4 System software and service changes are tested in an isolated testing environment and include the use of test plans. Testing provides that the software or service intended to updated or maintain existing applications does not have negative effects on the computing environment.	<p><b>Inquiry</b> Inquired of management that test plans are used in all changes in the system software and services.</p> <p><b>Inspection</b> Examined evidence that test environments have been used prior to implementing system software and service changes. Examined sample test plans.</p> <p><b>Observation</b> Observed the system software and services test environment.</p>	No relevant exceptions were noted.
E.5 System software and service changes are implemented into production systems through the change control procedure to enhance the analysis of the intended change and the possible effects it may have on the intended and peripheral systems.	<p><b>Inspection</b> Examined a sample of change controls relating to system software and service changes.</p>	No relevant exceptions were noted.
E.6 Access to test and production system software and services is restricted to reduce the risk of unauthorized or unintended modifications to the production environment.	<p><b>Observation</b> Observed a system software and service analyst accessing system software and service resources.</p>	No relevant exceptions were noted.
E.7 Users receive routine training on new and modified system software and services to reduce the risk that systems software and services are not maintained and configured properly.	<p><b>Inspection</b> Examined evidence of system software and service staff training.</p>	No relevant exceptions were noted.

<b>Control Objectives and Related Controls</b>		
<b>E. System Software Support</b>		
<b>Controls surrounding system software support provide reasonable assurance that system software is properly requested, authorized, licensed, installed, maintained and supported.</b>		
<b>Controls</b>	<b>Tests of Operating Effectiveness</b>	<b>Test Results</b>
E.8 System software documentation is routinely updated and published which provides to system users the ability to reference up to date information on the system software and services in use in the production environment.	<p><b>Inquiry</b> Inquired of the system software and service manager about the updating of operations and maintenance documents for system software and services.</p> <p><b>Inspection</b> Examined operations and maintenance documentation.</p>	No relevant exceptions were noted.

<b>Control Objectives and Related Controls</b>		
<b>F. Hardware Support</b>		
<b>Controls surrounding hardware support provide reasonable assurance that hardware is properly requested, authorized, licensed, installed, maintained and supported.</b>		
<b>Controls</b>	<b>Tests of Operating Effectiveness</b>	<b>Test Results</b>
<b>F.1</b> Acquisition of hardware is reviewed and approved by management to reduce the risk that unauthorized hardware is implemented into the production environment which may result in unintended consequences and possible loss of production environment effectiveness.	<b>Inspection</b> Examined management approval for the acquisition of hardware systems.	No relevant exceptions were noted.
<b>F.2</b> Purchases, development and maintenance of hardware follows a written policy authorized by management to standardize the methods and minimize the number of unique configurations of hardware.	<b>Inspection</b> Examined policies and procedures relating to the purchasing, development and maintenance of hardware systems.	No relevant exceptions were noted.
<b>F.3</b> Hardware changes are reviewed and approved by management to reduce the risk that the introduction of changes to the production environment cause unintended effects.	<b>Inspection</b> Examined management approval for hardware system changes.	No relevant exceptions were noted.
<b>F.4</b> Hardware changes are tested in an isolated testing environment and include the use of test plans to review the possible issues that may become an issue when hardware changes are made in a production environment.	<b>Inquiry</b> Inquired of management that test plans are used in all changes in hardware systems.  <b>Inspection</b> Examined evidence that test environments have been used prior to implementing hardware system changes. Examined sample test plans.  <b>Observation</b> Observed the hardware systems test environment.	No relevant exceptions were noted.

<b>Control Objectives and Related Controls</b>		
<b>F. Hardware Support</b>		
<b>Controls surrounding hardware support provide reasonable assurance that hardware is properly requested, authorized, licensed, installed, maintained and supported.</b>		
<b>Controls</b>	<b>Tests of Operating Effectiveness</b>	<b>Test Results</b>
<b>F.5</b> Hardware changes are implemented into production systems through the change control procedure to review possible timing issues and conflicts that arise from the manpower needed to implement the change as well as to review the possible effects the change may have on other systems.	<b>Inspection</b> Examined a sample of change controls relating to hardware system changes.	No relevant exceptions were noted.
<b>F.6</b> Hardware systems are capable of self-monitoring through automated hardware systems monitoring tools that provide information about the current operating effectiveness of the hardware and log issues that have arisen in software and hardware installed on computers.	<b>Observation</b> Observed the hardware system self-monitoring tools in place.	No relevant exceptions were noted.
<b>F.7</b> Hardware systems status updates are sent to systems administrators via messaging services including paging, text messages to mobile devices, and email notifications. These updates are reviewed and acted upon in a timely manner to ensure that hardware issues are not persistent throughout the hardware infrastructure and that they have no lasting impression on the effectiveness of the operating environment.	<b>Inquiry</b> Inquired of systems administrators about the communication methods of hardware system automated messages.	No relevant exceptions were noted.
<b>F.8</b> Access to test and production hardware is restricted to reduce the risk that unauthorized or unintended changes to test and production systems occurs.	<b>Observation</b> Observed a hardware system analyst accessing hardware system resources.	No relevant exceptions were noted.

<b>Control Objectives and Related Controls</b>		
<b>F. Hardware Support</b>		
Controls surrounding hardware support provide reasonable assurance that hardware is properly requested, authorized, licensed, installed, maintained and supported.		
<b>Controls</b>	<b>Tests of Operating Effectiveness</b>	<b>Test Results</b>
F.9 Users receive routine training on new and upgraded hardware to provide for a stable and effective production environment maintained by trained users.	<b>Inspection</b> Examined evidence of hardware systems staff training.	No relevant exceptions were noted.
F.10 Hardware documentation is routinely updated and published to provide users with the information needed on current hardware systems to maintain an effective production environment.	<b>Inquiry</b> Inquired of the hardware systems manager about the updating of operations and maintenance documents for hardware systems.  <b>Inspection</b> Examined operations and maintenance documentation.	No relevant exceptions were noted.

<b>Control Objectives and Related Controls</b>		
<b>G. Business Continuity Planning</b>		
<b>Controls surrounding business continuity planning provide reasonable assurance that a comprehensive plan is in place and provides for the timely availability of all resources that are necessary to operate critical processes, including the recovery of critical data and systems.</b>		
<b>Controls</b>	<b>Tests of Operating Effectiveness</b>	<b>Test Results</b>
<p><b>G.1</b> A disaster recovery plan has been prepared and approved by management. The disaster recovery plan has detailed planning materials for each major operating system. The plans are to be implemented by Functional Area Management Recovery (FARM) teams, which includes employees who normally work in the related areas. Disaster recovery plans have been prepared for VMS, NT, HP, Media, Mainframe and AS 400. In addition a separate plan is maintained for the CORE team which includes key executive management.</p>	<p><b>Inspection</b> Examined the disaster recovery plans for each of the FARM teams and the CORE team noting that a comprehensive plan has been prepared for each area.</p> <p><b>Inquiry</b> Inquired of management and noted that the current disaster recovery plans have been reviewed and approved by FARM team coordinators and management of the Company.</p> <p><b>Inspection</b> Inspected reports on the results of the disaster recovery tests noting that no significant items were noted that would have caused the disaster recovery test to fail. All major applications and the latest available data backups were successfully recovered using SunGard provided facility and equipment.</p>	<p>No relevant exceptions were noted.</p>

<b>Control Objectives and Related Controls</b>		
<b>G. Business Continuity Planning</b>		
<b>Controls surrounding business continuity planning provide reasonable assurance that a comprehensive plan is in place and provides for the timely availability of all resources that are necessary to operate critical processes, including the recovery of critical data and systems.</b>		
<b>Controls</b>	<b>Tests of Operating Effectiveness</b>	<b>Test Results</b>
<p><b>G.2</b> The disaster recovery plan has been tested during the year. Such testing was performed at the organizations disaster recovery Hot site provided by SunGard. Testing, including the recovery of the OS390 Mainframe, the GS160 for the New York and New Jersey E-ZPass<sup>sm</sup>, Unix System for Masterpiece Financial applications and the New York and New Jersey E-ZPass<sup>sm</sup> web site, seven NT Servers and the data network communication to connect all platforms together and validate application software.</p>	<p><b>Inquiry</b> Inquired of Director of Distribution Services that the disaster recovery test was performed and the production environment was successfully recovered.</p> <p><b>Inspection</b> Inspected reports on the results of the disaster recovery tests noting that no significant items were noted that would have caused the disaster recovery test to fail. All major applications and the latest available data backups were successfully recovered using SunGard provided facility and equipment.</p>	<p>No relevant exceptions were noted.</p>
<p><b>G.3</b> The outcome of the disaster recovery test, including any findings and efficiencies, have been used to modify the current disaster recovery plan.</p>	<p><b>Inquiry</b> Inquired of the Director of Distribution Services that the results of the test were used to modify the existing plan accordingly.</p> <p><b>Inspection</b> Examined the disaster recovery plan for modifications made as a result of the test.</p>	<p>No relevant exceptions were noted.</p>



<b>Control Objectives and Related Controls</b>		
<b>G. Business Continuity Planning</b>		
Controls surrounding business continuity planning provide reasonable assurance that a comprehensive plan is in place and provides for the timely availability of all resources that are necessary to operate critical processes, including the recovery of critical data and systems.		
<b>Controls</b>	<b>Tests of Operating Effectiveness</b>	<b>Test Results</b>
G.4 Disaster recovery awareness and training programs have been implemented.	<p><b>Inquiry</b>                  Inquired of the Director of Distribution Services noting that each FARM coordinator is responsible for training his functional area employees. Such training is performed through the use of circulating the disaster recovery plan through electronic format as well as having a hard copy maintained on site.</p>	No relevant exceptions were noted.
G.5 The Company has a signed agreement with SunGard to provide an offsite disaster recovery facility. Such facility has adequate, if not better, hardware and connectivity in order to recover the production environment	<p><b>Inspection</b>                  Examined the offsite disaster recovery facility agreement with SunGard and noted that a detail list of hardware and related production supplies will be provided.</p> <p><b>Inspection</b>                  Inspected reports on the results of the disaster recovery tests noting that no significant items were noted that would have caused the disaster recovery test to fail. All major applications and the latest available data backups were successfully recovered using SunGard provided facility and equipment.</p>	No relevant exceptions were noted.

<b>Control Objectives and Related Controls</b>			
<b>G. Business Continuity Planning</b>			
<b>Controls surrounding business continuity planning provide reasonable assurance that a comprehensive plan is in place and provides for the timely availability of all resources that are necessary to operate critical processes, including the recovery of critical data and systems.</b>			
	<b>Controls</b>	<b>Tests of Operating Effectiveness</b>	<b>Test Results</b>
	G.6 The offsite disaster recovery facility has the infrastructure and information resources available in the event of disaster recovery situation.	<p><b>Inspection</b> Examined the offsite disaster recovery facility agreement with SunGard and noted that a detail list of hardware and related production supplies will be provided.</p> <p><b>Inspection</b> Inspected reports on the results of the disaster recovery tests noting that no significant items were noted that would have caused the disaster recovery test to fail. All major applications and the latest available data backups were successfully recovered using SunGard provided facility and equipment.</p>	No relevant exceptions were noted.
	G.7 Programs and data are backed up to media on a daily basis which incorporate changes from the last daily backup. Full backup procedures are performed on a weekly basis where programs and all related data are backed up to media tapes.	<p><b>Observation</b> Observed the data center operations staff creating backup media.</p>	No relevant exceptions were noted.
	G.8 Backup media is labeled, organized into bins on a daily basis upon backup procedures. A listing of the actual bins that have been shipped to archive storage is maintained and catalogued.	<p><b>Observation</b> Observed the data center operations staff labeling, organizing and listing of backup media.</p> <p><b>Reperformance</b> Requested a bin of media, chosen from the backup listing maintained by the client, from Iron Mountain, the Company's offsite storage provider. Obtained the bin the following day and inspected contents of backed up items.</p>	No relevant exceptions were noted.

<b>Control Objectives and Related Controls</b>		
<b>G. Business Continuity Planning</b>		
Controls surrounding business continuity planning provide reasonable assurance that a comprehensive plan is in place and provides for the timely availability of all resources that are necessary to operate critical processes, including the recovery of critical data and systems.		
<b>Controls</b>	<b>Tests of Operating Effectiveness</b>	<b>Test Results</b>
G.9 Backup media is transported daily to a secure, environmentally controlled offsite storage facility.	<p><b>Observation</b> Observed the pickup of the backup media by Iron Mountain, the Company's offsite storage provider, to be transported offsite.</p> <p><b>Inspection</b> Examined the offsite media catalog.</p>	No relevant exceptions were noted.
G.10 Backup media stored offsite is routinely retrieved and tested.	<p><b>Observation</b> Observed the requests for backup media to be retrieved from offsite storage facility.</p> <p><b>Reperformance</b> Requested a bin of media, chosen from the backup listing maintained by the client, from Iron Mountain, the Company's offsite storage provider. Obtained the bin the following day and inspected contents of backed up items.</p>	No relevant exceptions were noted.

Control Objectives and Related Controls

G. Business Continuity Planning

Controls surrounding business continuity planning provide reasonable assurance that a comprehensive plan is in place and provides for the timely availability of all resources that are necessary to operate critical processes, including the recovery of critical data and systems.

Controls	Tests of Operating Effectiveness	Test Results
<p>G.11 Backup media is accessible in the event of a disaster recovery situation.</p>	<p><b>Inquiry</b> Inquired of Director of Distribution Services that the disaster recovery plan and procedures are available to all employees noting it is available in hard copy as well as electronically.</p> <p><b>Inspection</b> Inspected a listing of supplies that are maintained with Iron Mountain, the Company's offsite storage facility noting that disaster recovery documentation is available.</p> <p><b>Inspection</b> Examined the offsite media catalog.</p>	<p>No relevant exceptions were noted.</p>
<p>G.12 The data center is monitored by smoke, fire alarms, and a fire suppression system. The Company utilizes Panorama, a data center environmental manager (DEM), to monitor the temperature in the computer room every 4 hours. In addition the Company performs a weekly test to determine that the generator is working and logs are maintained.</p>	<p><b>Observation</b> Observed the existence of smoke and fire alarms and a fire suppression system.</p> <p><b>Observation/Inquiry</b> Observed the Panorama system and employees logging the computer room temperature. Also inquired of management of what the relevant range of temperature and who reviews the hourly log.</p>	<p>No relevant exceptions were noted.</p>

Control Objectives and Related Controls		
G. Business Continuity Planning		
Controls surrounding business continuity planning provide reasonable assurance that a comprehensive plan is in place and provides for the timely availability of all resources that are necessary to operate critical processes, including the recovery of critical data and systems.		
Controls	Tests of Operating Effectiveness	Test Results
G.13 Data center monitoring equipment is tested routinely.	<p><b>Inquiry</b> Inquired of data center manager that the equipment is tested routinely.</p> <p><b>Inspection</b> Examined a sample of testing results from routine testing.</p>	No relevant exceptions were noted.
G.14 The data center power is supported by a power generator backup power system.	<p><b>Observation</b> Observed the presence of a power generator backup power system.</p> <p><b>Inquiry</b> Inquired of the data center manager the backup power system.</p>	No relevant exceptions were noted.
G.15 The power generator is tested routinely.	<p><b>Inquiry</b> Inquired of the data center manager the backup power system.</p>	No relevant exceptions were noted.

<b>Control Objectives and Related Controls</b>		
<b>H. Information Security</b>		
<b>Controls surrounding systems information security provide reasonable assurance that information security policies exist, access to network resources are restricted, virus detection systems are installed and software licenses are properly in place.</b>		
<b>Controls</b>	<b>Tests of Operating Effectiveness</b>	<b>Test Results</b>
<b>H.1</b> A security policy exists and outlines security levels, access and monitoring requirements as defined by ACS to provide a secure and stable production environment.	<b>Inspection</b> Examined the security policy including the pronouncement of security levels, access and monitoring requirements.	No relevant exceptions were noted.
<b>H.2</b> Access to network resources are restricted through the use of a network operating system to reduce the risk that unauthorized or unintended use of network resources including printers, servers, and networks affects the operating effectiveness of the production environment.	<b>Observation</b> Observed users accessing network being required to enter a user id and password.	No relevant exceptions were noted.
<b>H.3</b> The network operating system is configured to allow custom access controls including restrictions as to read and write access to specific network resources.	<b>Inquiry</b> Inquired of the network support manager that the network is configured to allow custom access controls to restrict access to network resources.  <b>Observation</b> Observed network user attempting to gain access to non-authorized areas of the network.	No relevant exceptions were noted.
<b>H.4</b> Access to network resources is routinely monitored for appropriate individual and group access rights and restrictions to ensure that terminated employees are no longer active as well as to review employee access as determined by their responsibilities and the department or organization to which they belong.	<b>Inquiry</b> Inquired of the network manager about the monitoring process of network access.	No relevant exceptions were noted.

<b>Control Objectives and Related Controls</b>		
<b>H. Information Security</b>		
<b>Controls surrounding systems information security provide reasonable assurance that information security policies exist, access to network resources are restricted, virus detection systems are installed and software licenses are properly in place.</b>		
<b>Controls</b>	<b>Tests of Operating Effectiveness</b>	<b>Test Results</b>
H.5 All information systems restrict access with the use of user IDs and passwords.	<b>Observation</b> Observed network user attempting to gain access to network resources with invalid credentials.	No relevant exceptions were noted.
H.6 Passwords follow a policy for duration of use, explicit confidentiality and character format to create a strong defense against unauthorized attempts to access the network, hardware, software and services.	<b>Inquiry</b> Inquired of the network manager the policy on passwords.  <b>Observation</b> Observed network manager attempt to change password.	No relevant exceptions were noted.
H.7 New users are setup with appropriate individual and group access rights and restrictions based upon proper authorization from management.	<b>Inquiry</b> Inquired of the network manager the policy on passwords.  <b>Observation</b> Observed network manager attempt to access network resources without proper authorization.	No relevant exceptions were noted.
H.8 Terminated employees access to network resources is immediately removed and passwords changed for shared resources to reduce the risk of harmful actions that can be taken against the organization's assets and production environment.	<b>Inquiry</b> Inquired of the network manager the policy on employee terminations.  <b>Observation</b> Observed network manager remove access to network resources.	No relevant exceptions were noted.

Control Objectives and Related Controls		
H. Information Security		
Controls surrounding systems information security provide reasonable assurance that information security policies exist, access to network resources are restricted, virus detection systems are installed and software licenses are properly in place.		
Controls	Tests of Operating Effectiveness	Test Results
H.9 Authorization levels for employees who change roles and/or responsibilities are modified at the time of the change to reduce the risk of harmful actions that can be taken against the organization's assets and production environment.	<p><b>Inquiry</b> Inquired of the network manager the process on changing authorization roles and responsibilities.</p> <p><b>Observation</b> Observed network manager modify access to network recourses.</p>	No relevant exceptions were noted.
H.10 Unauthorized access attempts to network resources including hardware applications, systems and data is logged in an access control file which is periodically reviewed and can be accessed in an effort to research unauthorized access.	<p><b>Inquiry</b> Inquired of the network manager the process of logging.</p> <p><b>Inspection</b> Examined the unauthorized access attempts log.</p>	No relevant exceptions were noted.
H.11 Unauthorized access attempt control log file is routinely reviewed by the network manager and corrective actions are taken, if able, to reduce the risk of a negative effect on the production environment.	<p><b>Inquiry</b> Inquired of network manager the process of reviewing the unauthorized access attempt log and taking corrective actions.</p>	No relevant exceptions were noted.
H.12 A virus detection system is installed and operating effectively to guard against malicious viruses that are aimed at bringing down network resources.	<p><b>Observation</b> Observed presence of anti-virus software.</p> <p><b>Inspection</b> Examined virus activity log.</p>	No relevant exceptions were noted.



Control Objectives and Related Controls		
H. Information Security		
Controls surrounding systems information security provide reasonable assurance that information security policies exist, access to network resources are restricted, virus detection systems are installed and software licenses are properly in place.		
Controls	Tests of Operating Effectiveness	Test Results
H.13 Virus definitions are routinely updated to provide for the most up to date guard against viruses. Virus definition updates are available for download and installation by security personnel through a subscription service with an antivirus software vendor.	<p><b>Inquiry</b> Inquired of network manager the process to update virus definitions.</p> <p><b>Inspection</b> Examined the virus definition date on several workstations.</p>	No relevant exceptions were noted.
H.14 Incoming email is scanned prior to entering the email system and is rejected or quarantined to reduce the harmful effects of spreading the virus and hampering the effectiveness of servers.	<p><b>Inquiry</b> Inquired of network manager the presence of virus scanning before entering email server.</p> <p><b>Observation</b> Observed the processing of email through an antivirus program.</p>	No relevant exceptions were noted.
H.15 Microsoft Windows patches are routinely downloaded and installed on computer systems running the Microsoft Windows operating system.	<p><b>Inquiry</b> Inquired of network manager the application of Microsoft Windows patches.</p> <p><b>Inspection</b> Examined 3 computers for up to date windows patches.</p>	No relevant exceptions were noted.

Control Objectives and Related Controls		
H. Information Security		
Controls surrounding systems information security provide reasonable assurance that information security policies exist, access to network resources are restricted, virus detection systems are installed and software licenses are properly in place.		
Controls	Tests of Operating Effectiveness	Test Results
<p><b>H.16</b> All software is authorized by management to reduce the use of unauthorized software that may affect the production environment as well as the local and wide area networks.</p>	<p><b>Inquiry</b> Inquired of network manager that all software is authorized by management.</p> <p><b>Inspection</b> Examined documentation to support the management authorization of a program application.</p>	<p>No relevant exceptions were noted.</p>
<p><b>H.17</b> Software licenses inventory is performed annually to reduce the liability and exposure associated with insufficient licenses.</p>	<p><b>Inquiry</b> Inquired of management that an annual license inventory is performed.</p> <p><b>Inspection</b> Examined the annual license inventory documentation.</p>	<p>No relevant exceptions were noted.</p>
<p><b>H.18</b> Deficiencies in licenses are resolved by license acquisition or removal of software and is monitored and reported by the Security group of ACS.</p>	<p><b>Inquiry</b> Inquired of management that licenses are obtained or software removed when an insufficient number of licenses is not present.</p> <p><b>Inspection</b> Examined a sample invoice for the purchase of licenses to resolve the deficiency found during the annual license inventory.</p>	<p>No relevant exceptions were noted.</p>

<b>Control Objectives and Related Controls</b>		
<b>I. Physical Security</b>		
<b>Controls surrounding physical security provide reasonable assurance that physical assets are protected and access is restricted to pre-authorized individuals.</b>		
	<b>Controls</b>	<b>Tests of Operating Effectiveness</b>
	<b>I.1</b> A security policy exists and outlines security levels, access and monitoring requirements.	<b>Inspection</b> Examined the security policy including the pronouncement of security levels, access and monitoring requirements.
	<b>I.2</b> Access to facility is restricted utilizing multiple levels of security restrictions.	<b>Observation</b> Observed physical access restrictions with multiple levels of restrictions including id badges, card keys and biometric hand readers.
	<b>I.3</b> Building security monitors premises with personnel including vehicle and foot patrols.	<b>Observation</b> Observed building security monitoring the premises through vehicle and foot patrol as well monitoring the entrance during operating hours while the entrance doors are locked.  <b>Reperformance</b> Attempted to access building after hours and the doors were locked. Used a card key with appropriate access to gain entrance through locked doors.
	<b>I.4</b> Building security requires visitors to register at front desk and be required to display visitor badge throughout visit.	<b>Observation</b> Observed visitors signing in at front entrance security desk. Visitors were assigned visitor badges.
		<b>Test Results</b>
		No relevant exceptions were noted.
		No relevant exceptions were noted.
		No relevant exceptions were noted.
		No relevant exceptions were noted.

Control Objectives and Related Controls		
I. Physical Security		
Controls surrounding physical security provide reasonable assurance that physical assets are protected and access is restricted to pre-authorized individuals.		
Controls	Tests of Operating Effectiveness	Test Results
I.5 Building security issues card keys to employees and long-term visitors for access to restricted areas.	<b>Observation</b> Observed long-term visitors and employees being assigned permanent badges.	No relevant exceptions were noted.
I.6 Card keys are required to gain access to restricted areas.	<b>Observation</b> Observed employees gaining access to restricted areas using card keys.	No relevant exceptions were noted.
I.7 A biometric hand reader system is utilized to further restrict access to the data center level of the building as well as the data center itself.	<b>Observation</b> Observed employees gaining access to restricted data center level of building and the data center using the biometric hand reader.	No relevant exceptions were noted.
I.8 The biometric hand reader system utilizes both a three digit access code and a hand scan to determine access authorization to restricted areas.	<b>Observation</b> Observed employees using the biometric hand reader system by entering a three digit access code and then performing a hand scan to gain access to restricted areas.  <b>Reperformance</b> Attempted access to restricted area by entering an invalid three digit access code and then performing a hand scan.	No relevant exceptions were noted.
I.9 A monthly review of the authorized individuals of the biometric hand readers is performed to modify the access restrictions according to the persons new responsibility level.	<b>Inquiry</b> Inquired of security about the monthly review of the biometric hand reader access system.	No relevant exceptions were noted.

Control Objectives and Related Controls		
I. Physical Security		
Controls surrounding physical security provide reasonable assurance that physical assets are protected and access is restricted to pre-authorized individuals.		
Controls	Tests of Operating Effectiveness	Test Results
I.10 Only authorized personnel are allowed to enter the data center.	<p><b>Observation</b> Observed employees gaining access to the data using the biometric hand reader as a device to restrict non-authorized access to the data center.</p> <p><b>Reperformance</b> Attempted access to the data center as a non-authorized individual.</p>	No relevant exceptions were noted.
I.11 Visitors requesting access to the data center must have a valid reason, request to be let in, sign a log and be accompanied the whole time while in the data center.	<p><b>Observation</b> Observed data center visitors signing into log for data center access.</p> <p><b>Inspection</b> Examined the data center access log.</p>	No relevant exceptions were noted.
I.12 Terminated employees access authorizations are modified upon termination.	<p><b>Inquiry</b> Inquired of management about the process of removing access authorizations upon employee termination.</p>	No relevant exceptions were noted.

Control Objectives and Related Controls		
J. Technical Support Services		
Controls surrounding technical support services provide reasonable assurance that computer system issues are tracked, managed and resolved in an efficient and effective manner.		
Controls	Tests of Operating Effectiveness	Test Results
J.1 A help desk is provided to all employees of ACS as well as product end-users.	<p><b>Observation</b> Observed help desk staff working in a help desk area as part of the data center providing help desk functions.</p> <p><b>Inquiry</b> Inquired of Data Center Manager and noted that all help desk employees field calls for ACS State and Local Solutions employees as well as calls for clients.</p>	No relevant exceptions were noted.
J.2 Help desk staff are trained on the systems for which they provide help desk services.	<p><b>Inquiry</b> Inquired of the help desk manager of training provided to employees. It is noted that employees</p> <p><b>Inspection</b> Examined training documentation of help desk staff.</p>	No relevant exceptions were noted.
J.3 Help desk staff are provided with policies and procedures on the systems for which they provide help desk services.	<p><b>Inspection</b> Obtained and reviewed a copy of the company's policies and procedures related to systems that are maintained used by the help desk in resolving issues. Inspected actual hard copies of policies and procedures that are maintained in the help desk operations noting they are available to all employees.</p>	No relevant exceptions were noted.

<b>Control Objectives and Related Controls</b>		
<b>J. Technical Support Services</b>		
<b>Controls surrounding technical support services provide reasonable assurance that computer system issues are tracked, managed and resolved in an efficient and effective manner.</b>		
<b>Controls</b>	<b>Tests of Operating Effectiveness</b>	<b>Test Results</b>
<p><b>J.4</b> The Company utilizes a third party help desk/resolution tracking system called Remedy. All help desk calls that are fielded by help desk employees are logged into Remedy. Information including the callers name, the system or hardware which the caller has an issue with and a general description of the actual issue and a unique issue id number is given to that particular call. Once resolved sign offs are maintained electronically within Remedy.</p>	<p><b>Observation</b> Observed help desk staff entering help desk calls into Remedy. Such information that is input into the Remedy system includes the category of the issue (i.e. hardware, software), type of hardware/software (i.e. file server), actual item and a summary of the issue the user is having. The preceding information is maintained on a help desk ticket. Further a log is maintained that identifies the name of the caller with a unique call id.</p>	<p>No relevant exceptions were noted.</p>
<p><b>J.5</b> A Remedy ticket is immediately created for all help desk calls</p>	<p><b>Observation</b> Observed help desk staff entering help desk calls into Remedy. Such information that is input into the Remedy system includes the category of the issue (i.e. hardware, software), type of hardware/software (i.e. file server), actual item and a summary of the issue the user is having. The preceding information is maintained on a help desk ticket. Further a log is maintained that identifies the name of the caller with a unique call id.</p> <p><b>Inquiry</b> Inquired of help desk staff that all help desk calls are entered into Remedy.</p>	<p>No relevant exceptions were noted.</p>

Control Objectives and Related Controls		
J. Technical Support Services		
Controls surrounding technical support services provide reasonable assurance that computer system issues are tracked, managed and resolved in an efficient and effective manner.		
Controls	Tests of Operating Effectiveness	Test Results
J.6 Tickets are resolved through the use of an escalation system by assigning the ticket to a Level II person. If Level II can't resolve the ticket, then it the ticket is escalated and assigned to a Level III person.	<p><b>Inquiry</b> Inquired of help desk supervisor the escalation and resolution process of tickets.</p> <p><b>Observation</b> Observed help desk staff escalating ticket in Remedy.</p> <p><b>Inspection</b> Examined Remedy reports showing open tickets at different escalation levels.</p>	No relevant exceptions were noted.
J.7 Tickets are resolved in a timely manner.	<p><b>Inspection</b> Examined Remedy reports showing ticket status and length of time of resolution.</p> <p><b>Inquiry</b> Inquired of the help desk supervisor that all tickets are resolved in a timely manner.</p>	No relevant exceptions were noted.
J.8 The help desk supervisor monitors the effectiveness and efficiency of the help desk.	<p><b>Inquiry</b> Inquired of the help desk supervisor that monitoring of open and closed tickets is performed on a routine basis.</p>	No relevant exceptions were noted.
J.9 Management monitors the effectiveness and efficiency of the help desk system.	<p><b>Inquiry</b> Inquired of management that monitoring of the help desk system is performed on a routine basis.</p>	No relevant exceptions were noted.



<b>Control Objectives and Related Controls</b>		
<b>J. Technical Support Services</b>		
<b>Controls surrounding technical support services provide reasonable assurance that computer system issues are tracked, managed and resolved in an efficient and effective manner.</b>		
<b>Controls</b>	<b>Tests of Operating Effectiveness</b>	<b>Test Results</b>
J.10 Help desk management holds weekly meetings with all staff to determine, manage and resolve issues with providing a help desk.	<b>Inquiry</b> Inquired of help desk supervisor that weekly meetings are held to monitor help desk activities and trends.	No relevant exceptions were noted.

**SECTION THREE**

**Information Provided by Independent Accountants**

## I. INTRODUCTION

This report is intended to provide ACS TTDC clients and their independent accountants with information sufficient to understand the controls that may affect the processing of user applications, and to provide information about the operating effectiveness of the controls that were tested. This report, when combined with an understanding of the controls in place at customer locations, is intended to assist in the assessment of the controls surrounding transactions processed by the TTDC.

Our examination of the controls of ACS was restricted to those control objectives and the related controls outlined by ACS management in the matrices contained in Section II of this Report: "Control Objectives, Controls, Tests of Operating Effectiveness, and User Control Considerations". Management believes these are the relevant key controls for the stated objectives. The examination was performed in accordance with AICPA Statement on Auditing Standards No. 70, entitled "Service Organizations" as amended by AICPA Statements on Auditing Standards No. 88 entitled "Service Organizations and Reporting on Consistency" and No. 98 entitled "Omnibus Statement of Auditing Standards 2002" (collectively referred to as "SAS No. 70"). It is each interested party's responsibility to evaluate this information in relation to the internal controls in place at each user location to assess the total internal control environment. If effective user controls are not in place, the controls within ACS may not compensate for such weaknesses.

The objective of a coordinated system of controls is to provide reasonable, but not absolute, assurance as to the safeguarding of assets against loss from unauthorized use or disposition and the reliability of financial records for maintaining accountability for assets. The concept of reasonable assurance recognizes that the cost of a system of internal control should not exceed the benefits derived and also recognizes that the evaluation of these factors necessarily requires estimates and judgments by management.

As part of our review of ACS' internal controls, we performed a variety of tests, each of which provided different levels of audit satisfaction. The combined results of these tests provided the basis for our understanding of the framework for control, and whether the controls represented were actually in place as of October 31, 2003 and were operating effectively throughout the period from March 25, 2003 through October 31, 2003.

## II. TESTS OF EFFECTIVENESS

### Control Environment

The control environment represents the collective effect of various factors on establishing, enhancing or mitigating the effectiveness of specific controls. In addition to the tests of specific controls described below, our procedures included tests of, or considered the relevant elements of ACS' control environment including:

- ACS' organizational structure and approach to segregation of duties,
- Management control methods,
- Personnel policies and practices,
- Internal audit and Quality Assurance, and
- Oversight by Regulatory Agencies.

Our tests of the control environment included the following procedures, to the extent we considered necessary: (a) a review of ACS' organizational structure, including segregation of functional responsibilities, policy statements, accounting and processing manuals, personnel policies and Internal Audit policies and reports; (b) discussions with management, operations, administrative and other personnel who are responsible for developing, ensuring adherence to and applying controls; and (c) observations of personnel in the performance of their assigned duties.

The control environment was considered in determining the nature, timing and extent of the testing of the operation of the controls relevant to achievement of the control objectives.

### Controls

Our tests of the operating effectiveness of controls included such tests as were considered necessary in the circumstances to evaluate whether those controls, and the extent of compliance with them, are sufficient to provide reasonable, but not absolute, assurance that the specified control objectives were achieved during the period from March 25, 2003 to October 31, 2003. Our testing of the operating effectiveness of controls was designed to cover a representative number of transactions and controls throughout the period March 25, 2003 to October 31, 2003, for each of the controls listed in the matrices in Section II, which are designed to achieve the specified control objectives. In selecting particular tests of the operating effectiveness of controls, we considered: (a) the nature of the controls being tested, (b) the types and competence of available evidential matter, (c) the nature of the control objectives to be achieved, (d) the assessed level of control risk, and (e) the expected efficiency and effectiveness of the test. Such techniques were used to evaluate the fairness of the description of the controls and to evaluate the operating effectiveness of specified controls as indicated in the matrix.

Tests performed of the operational effectiveness of the controls detailed in the matrices in Section II are described below:

TYPE	DESCRIPTION
<i>Inquiry</i>	<p>Inquired of appropriate ACS personnel. Inquiries seeking relevant information or representation from ACS personnel were performed to obtain, among other things:</p> <ul style="list-style-type: none"> <li>• Knowledge and additional information regarding the control.</li> <li>• Corroborating evidence of the control.</li> </ul> <p>As inquiries were performed for substantially all controls, the test was not listed individually for every control activity shown in the matrices in Section II.</p>
<i>Inspection</i>	<p>Inspected documents and records indicating performance of the control. This includes, among other things:</p> <ul style="list-style-type: none"> <li>• Inspection of reconciliation and management reports that age or quantify reconciling items to assess whether balances and reconciling items are properly monitored, controlled and resolved on a timely basis.</li> <li>• Examination of source documentation and authorizations to verify propriety of transactions processed.</li> <li>• Examination of documents or records for evidence of performance, such as the existence of initials or signatures.</li> <li>• Inspection of ACS systems documentation, such as operations manuals, flow charts and job descriptions.</li> </ul>
<i>Observation</i>	<p>Observed the application or existence of specific controls as represented.</p>
<i>Reperformance</i>	<p>Reperformed the control or processing applications to ensure the accuracy of its operation. This includes, among other things:</p>

- Obtaining evidence of the arithmetical accuracy and correct processing of transactions by performing independent calculations.
- Reperforming the matching of various system records by independently matching the same records and comparing reconciling items to prepared reconciliations.
- Processing test transactions through application programs in a test environment.

### **Understanding the Operations**

Gaining an understanding of the operations involves observing and following the flow of transactions through the system, discussing with ACS employees the relevant processing functions performed and the controls applied, and reviewing documents and records. This process enabled us to gain an understanding of ACS' framework for control and to identify those controls that are necessary to effectively achieve specified objectives and validate the existence and effectiveness of controls.

### **Detailed Tests**

Procedures to test transactions, balances or other items included inspection of documents and records as well as reperformance. The detailed tests of transactions, balances or other items involved a judgmental selection of items from throughout the review period and included review of the processing of the items for compliance with ACS' controls. This testing was designed to assess the effectiveness of certain controls.

### III. RESULTS OF TESTING PERFORMED

The testing of control objectives is detailed in Section II. The results of testing controls were satisfactory to conclude that the controls identified in Section II were operating effectively to provide reasonable, but not absolute, assurance that the control objectives were achieved during the period from March 25, 2003 to October 31, 2003.

# Appendix B





# THE "PATH" SYSTEM

(PORTABLE ARCHIVAL TRAFFIC HISTORY)

The "PATH" video system reduces staffing needs for parking lot studies, intersection studies and highway flow analysis. The system can also be adapted for O&D studies. The video tapes provide an excellent media for gaining citizen support of projects, for conducting before-and-after studies, for justifying expenditures, and for safety analysis.



Figure 1

ATD developed the PATH system for video surveillance of grade crossings, intersections, and freeways or parking lots. It is designed to observe all vehicles, pedestrians, cyclists, or any other movement within each specific interchange over a 48 hour period.

A lightweight portable battery-powered time-lapse video system is used that can be easily transported and quickly mounted to an existing pole at an intersection. The time of day, date and location are superimposed over the video information so that the data can be correlated with other locations that are being recorded simultaneously. Figure #1 shows a new CV-99 dual camera color video system.

The video system is painted gray to match existing pole mounted transformers. It consists of an electronics package and camera enclosures. A selection of wide angle or zoom lenses are available to insure proper coverage of each location. The color cameras or infra-red cameras are mounted within an environmental enclosure. Windows are treated to avoid condensation during wet weather.

The electronics unit is housed within a weatherproof ruggedized aluminum housing with two locking hasps for the door. Rings are supplied on the back of the cabinet so that it can be chain locked to the pole. Fast-action stainless steel bands are used to attach the camera enclosures and the recording package to any size pole.

Engineers simply deploy the system in the field on any pole, structure, or in a stand-alone configuration. It is possible to provide a bore-sighted laser system or radar sensor with the package for speed analysis. Color night time images may be recorded if normal street lighting is available.

A time-lapse VCR is provided which will record for a number of pre-selected time periods. A heavy duty 12 volt marine battery is mounted within the recording case which allows the system to be operated continuously for a period of 24 to 48 hours. A "high voltage" warning sign is incorporated to keep out inquisitive youngsters. Audio can be recorded in the 2, 6, 12 or 24 hour modes when an optional microphone is installed.

The data can be reviewed and reduced in a fraction of the actual recording time. Two or more color cameras can be recorded in a time-lapse split screen format. The images may be divided vertically or horizontally or arranged in a quadrature display as shown in the computer data image of figure 2.

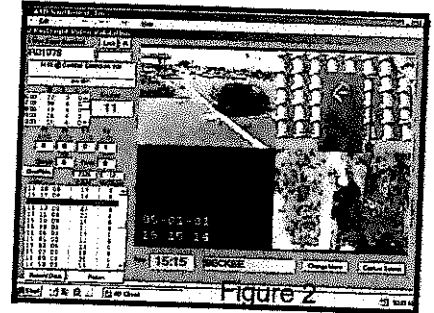


Figure 2

Figure 3 shows one version of a self-contained trailer mounted system which can be used for surveillance purposes.

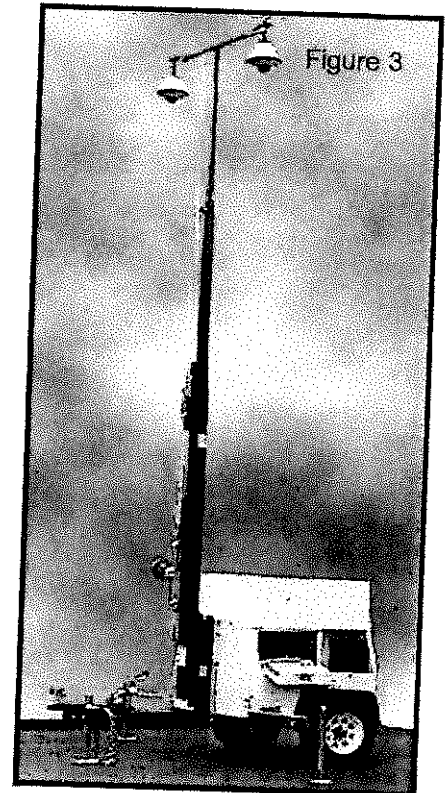
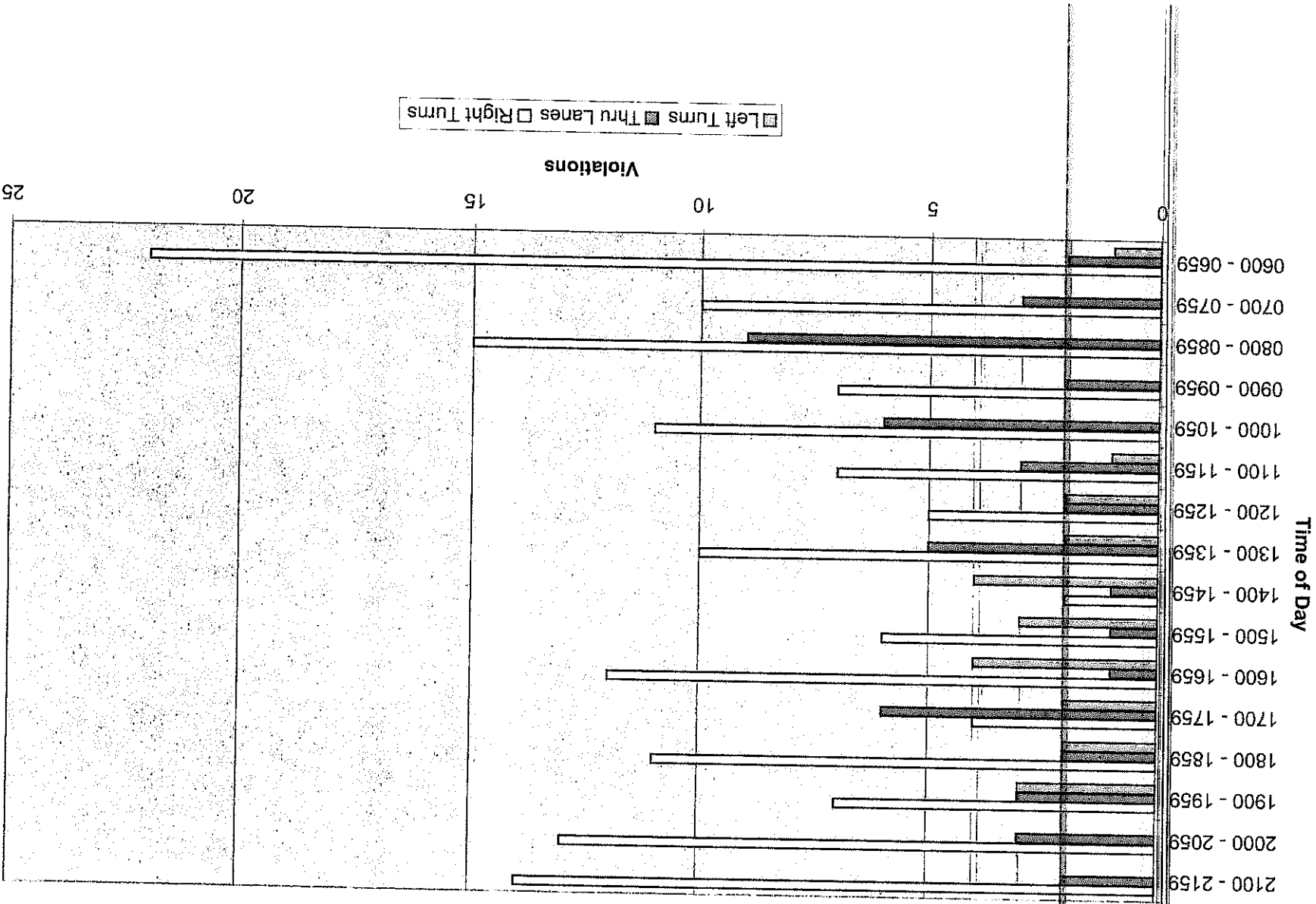


Figure 3

Our staff will assist you in gathering Video Traffic Data anywhere in the world. These units are provided on a rental, lease or sales basis. Financing can be arranged. They are now employed in city, county, state and foreign applications around the world. Call or fax for rates.

For Additional Information, Contact: ATD NORTHWEST  
 PH:425-558-0359 FAX:425-558-9413 E-Mail: atd@atdnw.com WEBSITE: www.atdnw.com

**Violations by Time of Day  
Sample Site 4 (WB Day 2)**



Left Turns 
  Thru Lanes 
  Right Turns

25

20

15

10

5

0

Time of Day

# Appendix C



# Today In Public Safety



Monday, April 26, 2004

## *Washington, D.C. Activates North America's First Fixed-Site Radar Camera System*

*Safer streets improve the quality of life in the District*

The Washington, D.C. Metropolitan Police Department and public safety leader ACS, announced that only one month after unveiling a fixed-site radar camera, the latest technology in automated speed enforcement, great strides have been made in changing driver behavior and improving public safety.

During the initial 30 days of the program, the single camera detected over 15,000 vehicles traveling well above the speed limit. More than 10,000 of these were detected in the first 15 days. The highest speed recorded in the 25 mph school zone was 88 mph.

The first of its kind in North America, the fixed-site radar camera signifies a new level of public safety for one DC neighborhood. The camera system targets aggressive drivers in the school zone surrounding Gallaudet University. The University population, most of which is hearing impaired, applauded the new technology and the decision by the MPD to take action in their neighborhood.

---

"Photo enforcement technology is helping to enhance traffic safety in the District of Columbia, and it is helping to improve the quality of life in our neighborhoods," Chief of Police Charles H. Ramsey said.

---

The detection system uses a Doppler radar beam projected across the road at a specific angle. As a vehicle enters the beam, its speed is calculated. If that speed is determined to be above the legal limit and threshold set by the police, a photograph of the violating vehicle is taken. Police will conduct a visual review of each violation

image and associated data and approve or disapprove every violation. If approved, a citation is mailed to the registered owner.

The camera system is functional 24-hours a day, seven days a week, in all traffic or weather conditions. This fact coupled with a strong public information and education campaign will leave drivers no choice but to slow down or pay the penalty.

Drivers caught speeding by the fixed-site camera will receive a notice of infraction in the mail. While the photo enforced citation carries no points in Washington, D.C., the fine may be up to \$200.

ACS has been working with the District of Columbia for over 5 years to support public safety programs. Red light violations have been reduced by 67.8 %, resulting in an average of 25,600 fewer red light violations each month. Since the MPD began using mobile speed enforcement vehicles two and a half years ago, the percentage of vehicles cited by these units for aggressive speeding has dropped from 31% to only 6%. Both ACS and the MPD expect this addition to the program to continue to significantly improve public safety.

---

"ACS is proud to partner with the District of Columbia and to provide the latest technology in red-light and speed enforcement, said Maury Hannigan, ACS Vice President and Managing Director of Public Safety Solutions. "We take great pride in helping to change driver behavior and make city streets safer for its citizens."

---

# Today In Public Safety



Monday, May 3, 2004

## City of Providence to Run First Digital Photo Safety Program in the Northeastern U.S.; Providence, RI Cites ACS' National Record in Public Safety

The City of Providence and public safety leader, ACS, have announced a partnership agreement to provide the first digital automated red light enforcement program in the Northeastern United States.

ACS will provide digital equipment for up to twenty intersections in areas determined by the City to be high risk. ACS will not only install and maintain the state-of-the-art digital cameras, but will also provide the City with violations processing and customer service operations.

ACS and Providence are working hand-in-hand to make streets safer for citizens. ACS will operate under business rules set forth by the Providence Police Department. Police will conduct a visual review of each violation image and associated data and approve or disapprove every violation. If approved, a citation is mailed to the registered owner.

The camera system functions 24 hours a day, seven days a week, in all traffic and weather conditions. This fact coupled with a strong public information and education campaign will leave drivers no choice but to slow down or pay the penalty. The City anticipates a significant reduction in red light violations, and the citation fees are expected to support the cost of the program.

"My administration is continually looking for ways to provide the citizens of Providence with the services they need while stretching their tax

dollars," said Mayor David N. Cicillini. "The City of Providence could only entrust this critical program to the most experienced company in the business. ACS unquestionably offered the city the best digital camera technology, a proven ticket information management system, and the most advanced customer service technology."

With more than 50 contracts and 750 installed camera systems in the United States and Canada, ACS is the market leader in public safety solutions. ACS' success is marked by a 99 percent renewal and competitive re-bid rate among its current clients.

According to the Federal Highway Administration, photo safety programs have dramatically reduced red light violations, crashes, injuries and deaths. The ACS photo safety programs have produced dramatic results. For example, Washington, D.C. has experienced a 68 percent reduction in red-light violations at protected intersections. In Baltimore, there has been a 64 percent reduction in side-impact collisions, 54 percent decline in rear-end collisions, and 73 percent fewer fatalities since February 1999.

"We look forward to building upon this relationship with Providence," said John Brophy, group president, ACS State and Local Solutions.

"Photo enforcement coupled with sound engineering and public education is an effective life-saving tool."

# Today In Public Safety



Monday, May 10, 2004

## World Health Organization in Favor of Red Light and Speed Limit Photo Enforcement

A report released by the World Health Organization (WHO) and World Bank concluded that photo enforcement cameras are an effective means for reducing the number and severity of traffic collisions.

According to the report, the effectiveness of the cameras at traffic lights reflects a 12 percent reduction in the number of injuries related to crashes. The report cites several high traffic areas around the world, such as Australia and California, which experienced a significant decrease in crashes and front to side impacts following the installation of photo enforcement technology.

According to the report, not only have they reduced the number of accidents and injuries due to red light running, but the cameras have also been an extremely effective tool in speed enforcement. Informing the public of photo enforcement cameras in areas where crashes are most frequent and the speed limit is most often broken has led to a significant reduction in related crashes.

Leslie Blakey, executive director of the National Campaign to Stop Red Light Running, says, "The report reaffirms what many other studies have shown, namely that red light and speed limit photo enforcement technologies significantly reduce crashes, fatalities, and injuries."

This report should be reviewed thoroughly by national, state, and local policy makers interested in making our roadways safer."

A copy of this report can be found at [http://www.who.int/world-health-day/2004/infomaterials/world\\_report/en/](http://www.who.int/world-health-day/2004/infomaterials/world_report/en/)

## Baltimore Chooses ACS to Implement Digital Cameras and Increase a Successful Photo Safety Program

ACS has furthered its partnership with the City of Baltimore by agreeing to a contract to install up to 60 additional digital photo enforcement cameras at intersections across the City. ACS has supported Baltimore's Photo Safety program since February 1999. Currently, ACS operates 47 red light cameras.

Red light cameras are a proven safety solution—especially in the City of Baltimore. Prior to the introduction of cameras at specific intersections, the City was averaging more than 200 injuries annually. Last year, the number of traffic related injuries dropped to 63. Since photo enforcement cameras have been installed in the City, side-impact collisions have been reduced by 64 percent and automobile fatalities have been reduced by 73 percent at protected intersections.

"This is all about public safety," said Al Foxx, Director of Transportation for the City. "It is our intent to make our streets as safe as possible for the citizens of Baltimore."

The new camera locations are chosen based upon police accident reports, community complaints, and data gathered from the Transportation Department.

# Today In Public Safety



Monday, May 17, 2004

## *Slowing Down a Dangerous Trend in Traffic Crashes*

According to the National Highway Traffic Safety Administration, speeding is one of the most prevalent factors contributing to traffic crashes. In 2002, speeding was a factor in up to 56 percent of all fatal crashes. Nearly 14,000 lives were lost in speeding-related crashes, and these crashes cost society an estimated \$40.4 billion annually.

Automated Speed Enforcement has proven to be an effective tool in combating excessive speeding and speed-related crashes. Automated Speed Enforcement (ASE) cameras typically use Doppler radar to detect speed infractions. ASE cameras project a narrow Doppler radar beam (no more than 5 feet wide) across the road at a 20 degree angle. As a vehicle enters the beam, its speed is calculated by the ASE Doppler radar. If vehicle speed is determined to be above the posted speed and the threshold speed set by law enforcement, the camera takes a photograph recording the image of the alleged violation and all violation information.

Legislation allowing automated speed enforcement exists in Washington DC, Arizona, Colorado, Oregon, Alberta, and Manitoba. ACS currently runs 16 ASE enforcement programs in the Canadian cities of Winnipeg, Camrose, Medicine Hat, Red Deer, St. Albert, Strathcona, Edmonton, and Wood Buffalo. The U.S. cities of Boulder, Denver, Portland, Washington DC, Mesa, Tempe, and Phoenix also contract with ACS for ASE systems and services. In addition, ASE programs are operated by the cities of Charlotte, NC, Scottsdale, AZ, Ft. Collins, CO, Beaverton, OR, and Paradise Valley, AZ.

ACS' Automated Speed Enforcement programs have achieved dramatic public safety results. For example: Tempe has enjoyed a 42% reduction in average speed in deployment zones, and Mesa

experienced a 52% reduction. On average in Washington DC, violations have been reduced from 176 to 26 per hour. In the City of Edmonton, traffic fatalities have dropped an average of 60% per year in the 9 years following ASE compared to the 10 years prior to ASE operation.

## *The City of Wilmington Awards ACS a three year contract to expand its successful Automated Red Light Camera Program*

Under this three year contract extension, the City will expand its existing automated red light program with ACS from 10 cameras at 10 approaches to 15 cameras at 15 approaches.

ACS has been the City's automated red light camera system and service provider since 2001. During this period, the city has issued nearly 75,000 red light violations to motorists. From the program's inception, the city has seen a 55 percent reduction in red light running violations.

Services and equipment provided in the program include state-of-the-art cameras, hardware, camera maintenance, citation mailing, customer service, integrated voice response system, court hearing scheduling, expert testimony, and court evidence preparation

"We look forward to building upon this relationship with Wilmington," said John Brophy, group president, ACS State and local Solutions. "Photo enforcement, coupled with sound engineering and public education, is an effective life-saving tool. Our experience with programs in other states demonstrates significant reductions in collisions and violations."

For more information on photo traffic safety programs, please call ACS at 202-414-3671 or visit our website at [www.trafficsafety.com](http://www.trafficsafety.com).

# Today In Public Safety



May 24, 2004

## *Work Zone Safety Legislation Gaining Ground*

Work zone safety is a serious problem worldwide. The death toll in the U.S parallels that of red light running. Each year work zone collisions result in the deaths of approximately 1,200 men, women, and children.

With more than twice the national average of work zone fatalities, both New York and Illinois are taking steps towards passing legislation enabling photo enforcement to curb this threat to public safety. The New York work zone safety bill is currently being reviewed by the State's Transportation Committee. Illinois is only one vote away from passing their legislation and the vote is expected to occur by the end of May.

Washington, DC already has speed enabling legislation in place and recently program officials have begun preparations to start a work zone safety program. The program will build on the city's very successful automated red light and speed enforcement programs.

In addition, the Canadian cities of Edmonton and Winnipeg have been operating work zone and school zone speed programs of their own for more than a year.

## *Digital Program in Raleigh, NC – Expanding a Foundation of Success*

Together, the City of Raleigh and ACS redefine the term "State-of-the-Art" with their automated red-light enforcement program. Today, ACS is in the process of expanding the number of digital cameras from eight to fifteen across the City. In addition to providing still digital photography, ACS provides a 12 second violation video clip and live video surveillance capabilities.

Raleigh citizens also have the convenience of utilizing advanced service features such as Pay-by-Web and an integrated voice response (IVR) system. These features allow citizens to pay their fines, appeal their citations, or obtain account information 24 hours a day, seven days a week.

ACS' digital red light enforcement systems have produced industry leading issuance rates in Raleigh. For example, over the past four months alone, ACS has produced a 94% average issuance rate.

"ACS is very proud of our partnership with the City of Raleigh and we look forward to expanding our joint public safety, technical, and performance accomplishments, said Maury Hannigan, Vice President and Managing Director of ACS Public Safety Solutions

*For more information on photo traffic safety programs, please call Josh Feldman at 202-414-3671 or visit our website at [www.trafficsafety.com](http://www.trafficsafety.com)*



# Today In Public Safety



Tuesday June 1, 2004

## *First City in Texas to Employ Photo Enforcement*

Garland, Texas officials understood the danger of red light running in their community and were determined to make their streets safer. When the State of Texas passed legislation allowing municipalities to enact their own home rule traffic enforcement ordinances, the City of Garland, led by City Attorney Charlie Hinton and First Assistant City Attorney Brad Neighbor, saw an opportunity to turn their vision of a photo red light enforcement program into a reality.

With no other photo enforcement programs in place in Texas and no statewide enabling legislation for photo enforcement specifically, it took initiative and unwavering confidence on the part of Hinton, Neighbor and the entire City administration and council to initiate this home rule effort.

"We took on this initiative on behalf of a community that deserves the highest level of public safety available," said Neighbor. "Photo enforcement brings us one step closer to achieving that goal."

The City looked towards ACS to provide all photo enforcement systems and services for this critical initiative. Currently, the program has four film camera systems and is beginning the installation of additional fully digital camera system. Within six months, the City's red light program has issued more than 17,000

notices and, more importantly, has already yielded a 15 percent reduction in violations, based on preliminary studies.

## *Three More Cities Renew Contracts with ACS*

Satisfied customers remain customers for a long time. Recently, Portland, Oregon, Fairfax County and Alexandria, Virginia have all signed contract renewals with ACS to continue their automated red light enforcement programs.

Since 1996, ACS has been providing photo enforcement systems and services to the City of Portland. In that time, the city has cited 275,000 violators and seen more than a 60 percent reduction in red light running. The contract was renewed for one year.

The County of Fairfax, Virginia signed a new three year agreement with ACS. Over the last four years, the County of Fairfax has cited more than 80,000 red light runners and achieved a 60% reduction in red light violations at enforced approaches, according to preliminary studies.

Likewise, the City of Alexandria, Virginia chose ACS to initiate its red-light photo enforcement program in 1997 and has tapped ACS for a one year renewal of that partnership. The City's program consists of four enforced intersections and the city has issued more than 100,000 violations to date.

# Today In Public Safety



Tuesday, June 8, 2004

## *Red Light Photo Enforcement Attracts Strong Supporter*

Recently, the American Association of State Highway Transportation Officials (AASHTO) endorsed the use of automated traffic law enforcement. During its Board of Director's meeting in St. George, Utah, May 16-17, AASHTO urged adoption of state safety strategic plans and acted on other transportation issues.

During the meeting, AASHTO board members spoke about the alarming number of fatalities due to speeding and running red lights and rail-crossing signals. They noted that automated traffic law enforcement has been an effective tool in the reduction of traffic deaths and improving driver compliance with traffic laws.

AASHTO has adopted a goal of reducing fatalities to 1.0 death per hundred million vehicle miles by 2008. They are also encouraging states to build broad public support for automated traffic enforcement, promote enactment of enforcement laws, and support the use of such technology in concert with engineering analyses and public information campaigns to reduce the number of deaths caused by traffic-law violations.

ACS is proud to be dedicated to a proven public safety solution that is saving the lives of citizens each day. We appreciate the support of photo enforcement—especially from associations such as AASHTO that are committed to making roads safer for the public.

## *Red Light Enforcement Pilot a Proven Success in Ontario*

The Red Light Camera Enforcement Pilot Project in Ontario was an unqualified success according to Synectics Transportation Consultants Inc. who recently completed a study on behalf of the Ontario Ministry of Transportation.

Data from the first two years of the pilot, which was conducted in five Ontario cities, was analyzed. In Toronto, there was an 18% reduction in fatal and personal injury collisions at the intersections where Red Light Cameras were deployed. At intersections where no cameras were placed, those same types of collisions increased by over 4%. While rear-end collisions increased slightly, the reduction in more serious right angle collisions was significant. In fact, the pilot contributed to an over 25% decrease in fatal and injury angle collisions, and an almost 18% reduction in angle collisions that resulted in property damage only.

The Synectics study estimates that some 47 fatal and injury collisions were avoided as a result of the Pilot Project, and estimates the associated cost savings to be almost \$3.8 million.

Based on the results presented in this report, the Red Light Camera Enforcement Pilot Project has proven to be an effective tool in reducing fatal and injury collisions, preventing injuries and saving lives. Synectics suggests that the pilot project was worthwhile and would continue to be of benefit to any participating municipality.

The Ontario government is reviewing this report and is expected to expand the program to allow more cities to use Red Light Cameras.

City of Columbus  
Ohio Photo Red Light Enforcement System

**2.0** RFP



**City of Columbus  
Ohio Photo Red Light Enforcement System**

<b>RESUME</b>	<b>ERIC HUNN</b> Vice President, Business Development City of Columbus Red Light Photo Enforcement System
<b>Qualifications</b>	Responsible for business and financial management of operations in excess of \$65 million. Possesses project management experience for major government systems integration and consulting contracts. Trained in both computer and procedural functions, for all levels of employees. Has parking citation experience in the areas of payments, hearings, public service, collections, and reconciliation.
<b>Experience</b>	
<b>2003 - Present</b>	<i>Vice President, Business Development</i> Responsible for business development in support of violations processing. Actively participates in new contract activities.
<b>2001 - 2003</b>	<i>Vice President, Operations, ACS State and Local Solution, Washington, D.C.</i> Responsible for oversight operations of over 20 municipal contracts across the country for the provision of parking and moving violations processing and collections services. Performs numerous management, financial, and administrative decisions regarding ongoing business. Concentrates on marketing efforts for substantial business growth.
<b>1998 - 2001</b>	<i>Director of Operations, Lockheed Martin IMS</i> Responsible for daily operations of Municipal Services contracts in the Philadelphia region. Prepares budget and provides monthly financial analysis of A/P, A/R, P/R, and P&L. Regularly interfaces with clients and public officials in reference to business operations and marketing.
<b>1993 - 1997</b>	<i>Project Management, Wilmington Department of Finance, Lockheed Martin IMS</i> Oversight of all operational and contract deliverables for city of Wilmington, Delaware parking citation processing and collections contract. Resolved system, service, and revenue/billing issues. Worked with data center, mailhouse, and lockbox vendor to coordinate and commence processing of lockbox payments using laser printed notices and scanline processing. Managed generation and extract of weekly populations of delinquent mailings. Responded to various client requests for documentation, security modifications, and numerous statistical write-ups.
<b>1993 - 1997</b>	<i>Project Management, Cleveland and Columbus, Ohio, Lockheed Martin IMS</i> Managed all aspects of contract operations and assurance of deliverables for the cities of Cleveland and Columbus Ohio parking citation processing and collections contracts. Engineered special collections mailings, including notice design, population extract and review and identification of problem records. Load start-up of DMV Registration Hold for Columbus, including all system aspects and client signoffs; developed special reports and calculated statistics for client review. Prepared budget and monthly variance information. Prioritized and worked in concert with data center to resolve numerous miscellaneous system issues and enhancements.
<b>1993</b>	<i>Implementation Team, Wilmington Department of Transportation, Lockheed IMS</i> Conducted and scheduled four weeks of training sessions for approximately 20 city employees. Installed and tested a variety of hardware. Provided a month's worth of on-site system analysis problem resolution. Executed a reconciliation of

**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

ERIC HUNN (Continued)	converted information from the city's database.
1993	<p><i>System Analysis and Test Plan Development, Albany, New York Child Support, Lockheed IMS</i></p> <p>Worked with local analyst to review, test, and document a remittance processing and disbursement system for New York State Child Support Payments. Test plan was forwarded to the New York Department of Social Services as part of the sign-off package, allowing Lockheed Martin's contract services to be expanded.</p>
1991 - 1993	<p><i>Systems Analyst, Lockheed IMS</i></p> <p>Promoted to position after one year of employment in the Information Systems field. Trained over 200 employees of Philadelphia Traffic Court and Philadelphia Parking Authority on using in-house ticket processing system. Compiled training manual used by city employees during training seminars; designed text and graphic layouts. Tested and enhanced new system processing modules, consorting with technical programmers working out of corporate data center.</p>
1990 - 1991	<p><i>Quality Assurance Analyst, Lockheed IMS</i></p> <p>Assisted in conversion of major data processing system for municipal organization installation site. Reconciled daily financial information processed by client. Worked on text design and graphic layout of enforcement collection notices to be mailed to the public. Monitored turnover of data processing supplies, including preparation of budget worksheets and interaction with vendors. Identified periodic system problems and helped devise immediate solutions, making discreet judging whether problems required attention from on-site or corporate data center staff.</p>
<b>Education</b>	<p>M.B.A., Operations Management, Drexel University          B.S., Finance, Pennsylvania State University, College of Business Administration</p>

City of Columbus  
Ohio Photo Red Light Enforcement System

<b>RESUME</b>	<p><b>RICH KOSINA</b> Corporate Oversight City of Columbus Red Light Photo Enforcement System</p>
<b>Qualifications</b>	<p>Mr. Kosina has four years of photo enforcement camera programs operations experience. He has extensive experience in technical support, having established help desks and inventory control systems as well as managed repair centers for photographic and electronic products. Mr. Kosina is experienced in the maintenance, repair, and remanufacture of various electronic and optical products. He is a recognized authority on expert witness testimony for photo enforcement.</p>
<b>Experience</b>	
1997 - Present	<p><i>Vice President, Engineering and Technical Support ACS (formerly Lockheed Martin, IMS)</i> Mr. Kosina's responsibilities include engineering, technical, and court support to meet client-specific needs. This includes the procurement of photo enforcement and related equipment, inventory management, preventive maintenance, repair, certification, installation, construction, and court testimony. Mr. Kosina is also responsible for improving effectiveness of client programs from a technological perspective, working in partnership with the program manager.</p>
1995 - 1997	<p><i>Vice President, RIAN Enterprises, Inc.</i> Owner of display and decoration business serving Arizona and the Southwest. Time was split between operating a small business and making sales calls to accounts.</p>
1990 - 1995	<p><i>National Service Manager, Nikon Inc.</i> As director of product service for a leading manufacturer of cameras, optics, binoculars, and eyewear products, Mr. Kosina managed a nationwide staff of over 100 personnel with an operating budget of \$9 million. Responsibilities included the direct reporting of eight national and regional managers (both Japanese and American hires), who individually directed the national parts department, service mainframe computer, service accounts receivable, technical training, four regional service centers, two satellite service centers, 46 authorized independent repair stations, and 13 independent repair subcontractors. Determined length of warranties, repair prices, and all policies and procedures for the service division. Interfaced daily with COO, various product and sales managers, advertising, marketing, and the home office in Japan. Scheduled technical support to newspapers, photojournalism seminars, and newsworthy current events. Coordinated product service through an independent distributor network in both Central and South America. Traveled nationally supporting sales network, regional offices, dealer events, and trade shows.</p>
1988 - 1990	<p><i>Vice President, General Operations, Bigston Corporation, U.S.A.</i> Responsible for the day-to-day operations of a five-location electronic service company grossing over \$6 million in sales annually. Each branch reported directly to Mr. Kosina through a branch manager with a total employee count of over 240. Full profit and loss responsibility, as well as operations, computer systems adaptations, purchasing, policy-making, staffing, and personnel control. Personally marketed services to develop new business. Products handled included fax machines, audio products, cellular and line telephones, VCRs, camcorders, televisions, microwave ovens, personal stereos, and small appliances.</p>

**City of Columbus  
Ohio Photo Red Light Enforcement System**

<b>RICH KOSINA (Continued) 1987 - 1988</b>	<i>President and Operation Facilitator, May Electric Construction Company</i> Responsible for customer relations, contract negotiations, marketing, public relations, liaison with the city, and public and private organizations. Performed rough field installations along with employee readiness, preparation, and production.
<b>1978 - 1988</b>	<i>Regional Service Manager, Hitachi Home Electronics</i> Provided quality electronic service for audio, video, appliances, cellular telephones, and security products on the consumer side as well as video printers, CD ROMs, CCTV, and time lapse VCRs on the industrial side in the 13 Midwestern states. This was accomplished through an authorized independent service network of over 500 companies. The professionalism and quality of repairs from these service centers was monitored through regular visits, training seminars, and technical support from Mr. Kosina and regional staff. Negotiated warranty rate schedules, marketed parts, technical literature, test equipment, and extended warranties to service centers, parts distributors, and end users. Responsible for both regional and Midwest-based national sales accounts regarding service policies and procedures, including the coordination of a sales rep force and later a direct sales force in this area. Directed the setup of regional and national trade shows held in the Midwest, including Summer CES. Coordinated and trained toll-free telephone number service provided by a marketing firm based in Peoria, Ill.
<b>1978</b>	<i>Technician, Gould Inc.</i> Individually designed and manufactured cell cyclers, which tested prototype batteries in a laboratory environment. Built units from own designs, starting with the drawing of the schematics through the complete wiring and subsequent installation. Used calibration test standards to regularly keep laboratory test equipment up to government standards.
<b>1975 - 1978</b>	<i>Service Manager/Technician, Photo Vend Co.</i> Managed staff of four technicians performing field service on electronic coin-operated games and electro-mechanical photo vending machines. Personally responsible for all repairs to logic boards utilizing digital logic probe, pulser, and customary test equipment.
<b>1972 - 1975</b>	<i>Technician, Broadmoor Industries, Ltd.</i> Performed marketing, customer and contract relations, and field installation. Monitored employee productivity. Broadened areas of expertise by performing heavy commercial and industrial electrical projects, including pre-concrete work on freeways, bridges, traffic signal control areas, and street lighting.
<b>Education</b>	Associate Business Administration, Harper College, Palatine, Illinois Associate Electronic Engineering Technology, DeVry Institute of Technology, Chicago, Illinois Personal computer classes, Roosevelt University, Arlington Heights, Illinois Repair of VCRs, Hitachi Video Recorder School, Tokai, Japan

**City of Columbus  
Ohio Photo Red Light Enforcement System**

<b>RESUME</b>	<p><b>JOHN LANE</b> Ohio Cities Manager, ACS City of Columbus Red Light Photo Enforcement System</p>
<b>Qualifications</b>	<p>Over 20 years experience in parking management contract support and large-city parking management consulting. Mr. Lane assists the Directors of both the Columbus and Cleveland PVB in ticket writing procedures, management communications with ticket writers, and development of the budget.</p>
<b>Experience</b>	<p><i>1984 - Present</i>     <i>Ohio Cities Manager, ACS</i> Provide on-site and ongoing contract support and parking management consulting services for both the City of Columbus and the City of Cleveland's on-street parking programs. Specifically, Mr. Lane assists the Directors of both the Columbus and Cleveland PVB in ticket writing procedures, management communication with ticket writers, and development of the budget.</p> <p><i>1980 - 1984</i>     <i>President, The East Oregon Company</i> Developed historic properties in the Historic Oregon District and in the South Dayton View Historic District. Developed residential, apartment rentals, condominiums, and commercial properties.</p>
<b>Education</b>	<p>BS, Science, University of Dayton, Dayton, OH</p>



City of Columbus  
Ohio Photo Red Light Enforcement System

<b>RESUME</b>	<p><b>THOMAS LARKIN</b> IT Manager/LAN Administrator City of Columbus Red Light Photo Enforcement System</p>
<b>Qualifications</b>	<p>Mr. Larkin has more than 15 years of experience in systems design, development and programming, including full systems design life cycle. He has extensive knowledge of online systems and significant experience implementing and supporting programs for Photo Red Light Enforcement Programcontracts. Mr. Larkin's specialized knowledge includes: Hardware: IBM 3090 (600J), 4341, 4331, TARTAN, TRACE SCANNER, PC; Software: COBOL, CICS Command Level, INTERTEST, CICS ASSEMBLER, SAL, RFGIL, IMS, IDMS, ADABAS, NATURAL, POCUS, VSAM, OS/MVS, OS AND DOS JCL, TSO/SPF, ICCF, VM/CMS, PANVALET, LIBRARIAN, Software International B/L McCormick and Dodge G/L, LOTUS 1-2-3, DisplayWrite, WordPerfect, Yourdon Toolkit, TimeLine, QuattroPro, DataEase, dBaseII, PC DOS, TARTAN Data Entry Language.</p>
<b>Experience</b>	
1992 - Present	<p><i>Senior Systems Manager, Red Light Systems, ACS</i> Responsible for day-to-day management of team supporting ACS' Photo Red Light Enforcement Programcontracts. Primary interface is with Western Regional office. Directs support staff in programming development and maintenance. Proficient in DMV interfaces and NLETS processing. Has experience supporting and implementing programs for Photo Red Light Enforcement Programcontracts.</p>
1987 - 1992	<p><i>Project Lead, Pan American World Airways</i> Served as project lead of the programming staff responsible for revenue processing systems. Responsibilities included administrative function, hiring, and technical involvement in all design. Designed an on-line Edit and Correction of input-lifted flight coupon data uploaded from a TRACE/TARTAN scanner. Managed a large group during two phases of the MAPPS (Marketing Analysis Performance Projection Systems) project, which was used by marketing to determine sales projections, performance and forecasting for company growth. Responsibilities included designing ADABAS files, a CICS application system, and batch support system.</p>
1986 - 1987	<p><i>Sony Corporation of North America.</i> Responsible for the implementation of Electronic Data Interchange (EDI), which enabled customers' PCs to interact with our mainframe order entry, shipping, and invoicing systems. Designed a new IMS database for EDI, modified and maintained 120 on-line CICS and batch programs for order entry and shipping. Expanded the lengths of all segments on the Order database and the databases it feeds. Coordinated this project with all of the other MIS groups impacted (invoicing, finance, shipping/receiving, sales, etc.).</p>
1982 - 1986	<p><i>Pioneer Video, Inc.</i> Responsible for a major development effort that involved the creation of new CICS applications for order entry, accounts receivable, accounts payable, inventory control, sales, and marketing. Interfaced with users to define requirements and develop specifications, designed systems, and coded programs in COBOL using Command Level CICS.</p>
1981 - 1982	<p><i>Fleming R. Revell, Inc.</i> Responsible for the development and implementation of an on-line CICS accounts payable system.</p>

**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

**THOMAS  
LARKIN**  
(Continued)

<b>Education</b>	
	Business Computer Processing, Computer Processing Institute, 1992 Business Management, Footland Community College Business and Political Science, Saint Michael's College

**City of Columbus  
Ohio Photo Red Light Enforcement System**

<b>RESUME</b>	<p><b>DANNETTE M. PALMORE</b> Public Awareness Campaign City of Columbus Red Light Photo Enforcement System</p>
<b>Qualifications</b>	<p>Palmore is a successful businesswoman with extensive experience as a political consultant and campaign manager for local and national candidates. With an intimate knowledge of politics and government, Ms. Palmore's experience uniquely enables her to blend sound management and day-to-day responsibilities aimed toward energizing public opinion</p>
<b>Experience</b>	<p>Dannette Palmore's experience in state and local government extends from working in the Ohio House of Representatives to working with former City Council President, Mayor Michael Coleman as his legislative and community liaison. During her tenure at Columbus City Council, Dannette worked closely with developers on city zoning issues. However, her personal commitment lies in creating opportunities for fair and decent housing in Columbus. Her success in housing is reflected in the initiative known as "The Commons at Grant," and her work with the Columbus Housing Partnership and The Volunteers of America. Ms. Palmore continues to work with National Church Residences and the City of Columbus on future housing opportunities.</p> <p>In politics, Ms. Palmore has earned a reputation for excellence. In 1988, Ms. Palmore served as the National Deputy Director for Jesse Jackson's presidential campaign. Throughout the 1990's, Ms. Palmore assisted on campaigns for candidates ranging from Senator John Glenn to Ohio gubernatorial candidate Lee Fisher to Mayor Michael Coleman of Columbus. Ms. Palmore also organized and implemented one of the most successful voter registration programs in the history of Columbus, Ohio by registering 13,000 new voters during the Ben Espy for Mayor campaign. Ms. Palmore's outstanding achievements in campaign management and grassroots organization have earned her numerous honors including but not limited to a feature in Who's Who in American Politics, and honorable mention by Campaign and Elections Magazine, and serving as a guest lecturer at Harvard University's Kennedy School of Government.</p> <p>Ms. Palmore's community involvement is reflected in several successful COTA campaigns, school board levies and most recently the housing initiative known as "The Commons at Grant." Ms. Palmore continues to work closely with Representative Joyce Beatty and the American Heart Association as well as the NIA Performing Arts Company whose holiday presentation of Langston Hughes' Black Nativity gained widespread recognition for quality community theatre.</p>

**City of Columbus  
Ohio Photo Red Light Enforcement System**

<b>RESUME</b>	<p><b>JOHNNY WHITEHEAD</b> Public Safety Services Advisor, ACS City of Columbus Red Light Photo Enforcement System</p>
<b>Qualifications</b>	<p>More than 27 years in state and local government, including 21-years in law enforcement, Director of Operations at the Maryland Motor Vehicle Administration (MVA), Senior Policy Advisor on Public Safety in the Office of the Lt. Governor of Maryland.</p>
<b>Experience</b>	<p>2003 - Present <i>Director, Company Operations, ACS State and Local Solutions, Washington, DC</i> Provide advice/support to the ACS chief operating officer about public safety/highway safety issues, including red light camera enforcement, emergency medical services, and public safety technology. Serve as subject matter expert to design public safety/highway safety solutions.</p>
2001 - 2003	<p><i>Senior Policy Advisor on Public Safety, Office of the Lt. Governor, Maryland</i> Provided research, policy development, and advice on a range of topics, including community-based policing, highway traffic safety, substance abuse treatment, domestic and gun violence, fire and rescue services, public safety technology, radio interoperability, emergency preparedness, the judiciary, and state and federal legislation. Represented the Lt. Governor on boards, committees, and councils. Accomplishments include:</p> <ul style="list-style-type: none"> <li>▪ Advancing the Lt. Governor's legislative priorities through the 2002 General Assembly.</li> <li>▪ Helping the Criminal Justice Coordinating Council achieve improvements in the Early Resolution court process (designed to free court dockets for more serious cases); increasing the number of diversion slots for first-time, non-violent offenders; improving coordination among Baltimore criminal justice agencies; and identifying additional funding for criminal justice agencies and initiatives.</li> </ul>
1997 - 2001	<p><i>Director of Operations, Maryland Department of Transportation, Motor Vehicle Administration</i> Directed activities of over 900 employees assigned to 25 branch offices, 19 Vehicle Emissions Inspection Stations, and the MVA Call Center. Managed MVA's operational components, customer service, prevention/detection of fraud, maintenance/security for 45 facilities, planning and preparation for new construction and renovations, Office of Operations budget preparation, and the Vehicle Emissions Inspection Program (VEIP). Accomplishments include:</p>
	<ul style="list-style-type: none"> <li>▪ Guiding the organization through a major reorganization to improve customer service and decentralize decision-making.</li> <li>▪ Restructuring MVA fiscal specialist positions to provide fiscal and legislative audit support and oversight to all branch offices.</li> <li>▪ Decreasing branch office and VEIP customer wait times.</li> </ul> <p>Serving as Project Manager for the Maryland Outstanding Arrest Warrant Flagging System, which authorizes law enforcement agencies to transmit data to the MVA to suspend privileges of customers with outstanding arrest warrants.</p>

**City of Columbus  
Ohio Photo Red Light Enforcement System**

<p><b>JOHNNY WHITEHEAD (Continued)</b> 1979 - 1997</p>	<p><i>Various Positions, Baltimore County Police Department (BCPD), Maryland</i></p> <p>As Colonel, Chief of Field Operations Bureau (1995-1997), directed activities of 1,300 employees in eight patrol precincts, the Marine, Aviation, Auxiliary Police, Tactical, and K-9 units, and the Traffic and Youth and Community Resource sections. Established policy; managed department's operational components, a \$55 million budget, and strategic planning. Accomplishments include:</p> <ul style="list-style-type: none"> <li>▪ Instituting long-range planning process for commanders to reduce violent crime and improve quality of life in the most troubled neighborhoods.</li> <li>▪ Creating a Status of the Command process to examine crime trends and other health-of-a-command indicators, e.g., use-of-force complaints, and sick leave trends.</li> <li>▪ Establishing Community Action Teams (CAT), for which police officers and supervisors were selected, trained, and deployed based on crime trends and precinct strategic objectives.</li> <li>▪ Generating the Business Patrol Initiative to address the concerns of business owners along commercial corridors by deploying linear patrol posts; this contributed to multi-year reductions in violent and property crime in Baltimore County.</li> </ul>
<p>1976 - 1979</p>	<p><i>Various Positions, Baltimore City Police Department, Maryland</i></p> <p>As Police Officer, Northern District (1977-1979), performed general motorized/foot patrol functions.</p> <p>As Police Cadet, Central Records (1976-1977), performed clerical duties.</p> <p>As Major, Towson Precinct (1994-1995), managed 105 officers; worked with community association and business groups to address concerns about crime and other issues.</p> <p>As Captain, Employment and Basic Training Division (1993-1994), responsible for recruitment/background investigation/selection of new police officers and their basic training.</p> <p>As Captain, Cockeysville Precinct (1991-1993), managed 85 officers assigned to a precinct that covered 200 square miles of rural, commercial, industrial, and residential communities.</p> <p>As Lieutenant/Sergeant/Legislative Liaison, Legal Division (1986-1991), monitored/lobbied for local, state, and federal laws affecting law enforcement. Educated lawmakers about the effect of, and assisted them in crafting, legislation. Provided written/live testimony.</p> <p>As Sergeant, North Point Precinct (1985-1986), served as field supervisor responsible for corporal and eight police officers performing patrol functions.</p> <p>As Corporal/Instructor, Training Division (1984-1985), taught criminal and constitutional law in the In-Service Training Section; Introduction to Law Enforcement and First Aid in the Entrance-Level Training Program; performed other supervisory and administrative functions.</p>

**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

<p><b>JOHNNY WHITEHEAD</b>  <b>(Continued)</b></p>	<p><i>As Corporal/Investigator, Vice Narcotics Division (1983-1984), conducted undercover drugs/gambling investigations, developed expertise in writing and executing search and seizure warrants, supervised undercover investigations including court-ordered wiretaps.</i></p> <p><i>As Police Officer, Towson Precinct (1979-1984), performed general motorized patrol functions.</i></p>
<p><b>Education</b></p>	<p>M.S., Applied Behavioral Science, Johns Hopkins University, 1996          B.S., Criminal Justice, University of Baltimore, 1992          FBI National Academy, 151st Session, 1987          Federal Executive Institute (FEI), Program 203, 1994</p>

## 3.1.15 | Violation Detection and Photographs

### 3.1.15.1 Violation Detection

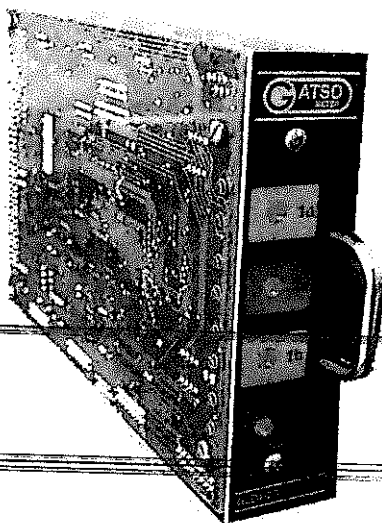
#### HIGHLIGHTS

- Digital vehicle detection
- Most accurate detection device made
- Not just detection but vehicle profiling
- Speeds accurate to +/- 1 mph up to 100mph, unmatched speed accuracy
- Speed on Green ready
- Programmable loop pitch setting to accommodate most any road surface obstruction

*The only digital loop detection system offers 100% vehicle detection and provides speeds accurate to + or - 1 mph through the exclusive use of vehicle profiling*

The primary concern for most jurisdictions installing an automated enforcement system is accurate vehicle detection. ACS, via our technology partner Gatsometer supplies the most accurate detection method made. Gatsometer's in-ground inductive loops have accurately detected vehicles for over 40 years. Recently, Gatsometer has taken this technology a step further with the introduction of the digital the Loop Detector 4 (GLD4). The GLD4 digital loop detector was engineered exclusively for extremely accurate detection of vehicles disobeying a red traffic signal. Like all products offered by ACS it is forward compatible ready to provide speed on green should the City go in this direction at a later date.

#### Gatsometer GLD4 Loop Detector Features



The Gatsometer digital camera systems incorporate state-of-the-art detector devices. To best utilize the device a pair of in-ground loops are installed in each traffic lane.

The detectors built into every digital red light camera system offered by ACS have the following features:

Exhibit 3-64. Gatsometer GLD4 Loop Detector

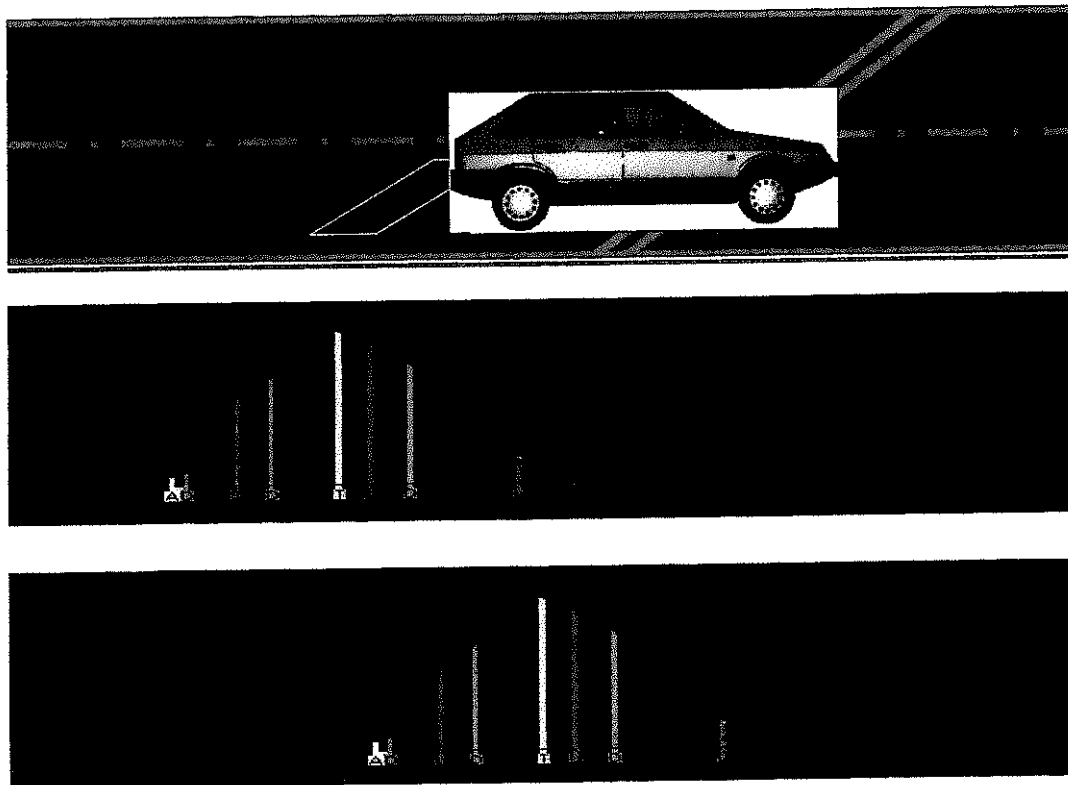
**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

- The GLD4 loop detector device is completely self-tuning. Whenever power to the red light camera device is installed the device automatically goes into self-tune. During this mode the device is measuring the inductance of each connected in-ground loops. If the factory range is not met, the system will not allow the particular loop to enter service. No images can be taken.
- Unlike analog detectors from other vendors, the GLD4 is a completely automatic, digital device with no manual switches to set. Manual frequency sensitivity switches for high, medium, and low became obsolete when the GLD4 debuted over 5 years ago. The GLD4 operates in frequencies different from other loop detection devices and cross-talk is rarely a problem. The City will benefit from the extreme accuracy of the GLD4 over older analog detectors.
- The GLD4 loop detector device automatically recovers from opens, shorts, and power failures. The latter is a routine feature as described in item 1 above. In the case of shorts and opens in the loops, while the GLD4 device will recover from these failures when they no longer exist, it is policy for the Field Service Technician to note the occurrence in his log and request a company electrician to investigate. Deterioration of the cabling or water entry into it could be the cause and a permanent solution will be sought out.
- The GLD4 loop detector device contains 4-input channels. This allows for the monitoring of two separate lanes per unit. Gatsometer supplies the Digi-Cam and Multi-Cam digital red light systems with two GLD4 devices. This doubling up provides a total of 8-input channels and four lane coverage.
- The digital GLD4 detector negates the need to select presence or pulse mode as in analog detectors.

The GLD4 detector device used in the Gatsometer GTC-D red light camera performs a self calibration (see item 1 above) each time power is applied. Upon completion of the tuning process which assures the wire and cable technical qualities installed in the roadway has not varied, a calibration process immediately begins. A frequency equal to a vehicle traveling over the loops in each lane at 500 kmh (300 mph) is simulated across the loops. The result of the test appears on the LCD display. The signal must be received +/- 2 kmh. Therefore, only speeds received as 498, 499, 500, 501, and 502 kmh are acceptable. Any speeds received outside this range will cause the particular lane to not go into enforcement. This is a remarkable specification.



## City of Columbus Ohio Photo Red Light Enforcement System



**Exhibit 3-65. Resulting Bell curve produced from the metallic properties of the vehicle as it crosses over loops.**

Our Digital Camera systems record a great deal of roadway information when operating. Besides counting the number of red light running vehicles per lane, the amount of red time passed when the light was red is also recorded. This information can be very useful to the traffic engineer to determine the amount of "all red" time a particular intersection is programmed for. More information on this feature can be found in Section 3.1.3. placed at a specific distance to the point of violation. The exact location is determined based on the criteria supplied by the Police requirement where the first photograph should be taken. For each event captured, two overview images are taken from the rear camera clearly showing the vehicle behind the point of violation with the red traffic signal illuminated. A third, close-up photograph from the rear camera is supplied of the rear license plate. Lastly, a fourth, close-up image of the driver is supplied from the front camera.

---

### Speed on Green Ready

---

In January 1999 the European Community (EU) passed a requirement whereas a speeding ticket could not be issued by an automatic device unless a secondary approved method of speed calculation was performed. Gatsometer, as early as 1996 began working on a new state-of-the-art detector device to meet the 1999 EU requirement. The Gatsometer Loop Detector 4 (GLD4) loop detector was the result of those efforts. The device was first introduced by Gatsometer for vehicle detection in 1998. The GLD4 was and remains the only loop detector approved in Europe for the issuance of a moving



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

---

violation. Both the Digi-Cam and Multi-Cam units incorporate two GLD4 digital loop detector modules. ACS has exclusively installed the devices in all new intersections since 1998.

Above, the GLD4 (Exhibit 3-64) is not an ordinary loop detector. Besides detecting vehicles as they transverse the in-ground loops, the device actually measures the metallic content of the passing vehicle. A Bell curve (Exhibit 3-65 on the next page) is generated from each of the two in-ground loops in the traffic lane. These curves are compared to each other and five points on curve one must match the same five points on curve two. The EU only required three points to match but, Gatsometer went for higher accuracy requiring five. After the match is made the times between these five points are analyzed. By averaging the times between these multiple points an extremely accurate speed results. This speed is displayed in the second images databar. The accuracy according to Gatsometer specifications is +/- 1 mph up to 100 mph. Above 100 mph the accuracy is 2%. The resulting speeds have been checked on numerous occasions using an external laser- measuring device. The measured results have always met the specification. Should future Columbus legislation allow speed enforcement at intersections, the City can immediately turn on this feature and begin issuing citations to vehicles exceeding the speed on not just red, but amber and green also.

Gatsometer's speed accuracy has been verified by National Laboratories of the United Kingdom, Belgium, Germany, and the Netherlands to name a few. The Photo Red Light Enforcement System offered by ACS has this feature already built in to every unit made. It is easily activated via the four button input screen.

Other vehicle detection methods do not have the ability to provide accurate speed. Recently in Victoria, Australia the government elected to return millions in fines when they discovered the piezo vehicle detectors installed to capture speeders were continually affected by the weather. Video prediction methods offering speed are grossly affected by time of day and shadows. Even in-ground loops will not provide an accurate speed unless an advanced loop detector is connected to them. The detector must sample the speed multiple times or it will not be accurate.

Accurate speed and the immediate ability to begin Speed on Green is an important feature for the City of Columbus should the City decide in the future to join cities like Winnipeg, Canada and Washington DC who already use or are planning to implement speed on green programs. Only in-ground loops and the Gatsometer GLD4 digital loop detector will give the City of Columbus the extreme accuracy required and prosecutable evidence it deserves.

---

---

### **3.1.15.1 Photographs**

ACS offers the City the highest resolution images and more photography and enforcement options than all other vendors. Specifically, ACS:

---

---

**Offers the city multiple photography and video options—**ACS', as we do throughout many cities in California and Arizona, can provide the City with frontal and rear photography images, documenting red light violations from all angles and providing multiple options for acquiring license plate information. ACS can also provide a 12 second



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

---

video clip for every violation. ACS is prepared to provide front and rear cameras or only rear cameras based on the final decision of the City of Columbus. Our camera system can record left turn, right turn, and straight thru violations.

**Offers the City the highest resolution digital multi-camera system in the industry—**Each individual digital camera provided by Gatsometer provides two mega pixels of resolution and a 12 bit sensor chip. A typical four lane red light approach equipped with multiple front and rear cameras will collectively provide more than 18 million pixels of resolution. Further, each individual 12 bit camera offers 6.87 billion levels of gray scale for the sharpest image quality possible. The next closest multi-cam provider offers only 1.54 mega pixels of resolution per camera and only 10 bit sensors (as seen in the chart below), limited the level of gray scales to one billion, six times less resolution power than ACS' camera system.

<b>Supplier</b>	<b>Pixel Count</b>	<b>Sensor Type</b>	<b>Levels of Gray Scale</b>
ACS digital multi cam	2 million	12-bit	6.87 billion
Next closet multi camera competitor	1.54 million	10-bit	1 billion

**Combines the resolution of still digital images with the instant replay power of video—**There is no question still digital cameras produce violation images with much higher resolution than video based systems. Video based systems typically offer only offer less than 1 mega pixel of resolution and are significantly affected by poor weather, lighting, and environmental conditions. While video is not a strong medium for producing the highest quality violation images for primary evidence, the instant replay of each event it records can play a role in producing useful secondary, supplemental evidence. ACS strongly believes a digital camera system that combines the power of still image photography along with the power of video's instant replay offers the best combination of evidence for the City. Our technical solution will complement our still digital images with a 12 second video clip of every violation. In this way, the City is assured the benefit video with the highest possible issuance rates and highest quality primary violation evidence.

**Offers the City the most flexible enforcement configurations in the industry—**Some approaches the City selects to enforce will require only two lanes of enforcement. Others will require four or more lanes of enforcement. Some approaches will have significant truck volume. Other approaches may be extremely wide. No single camera configuration can address the unique enforcement needs of every possible approach configuration. For example, a side mounted camera placed 12 feet high will have extreme difficulty enforcing outside lanes when approaches are very wide or

---

---

Exhibits 3-66 — 3-67 show the typical view from a front camera. Exhibits 3-68 — 3-70 show a typical rear image recorded by a rear camera powerful reporting tools.

---

---



City of Columbus  
Ohio Photo Red Light Enforcement System



*Exhibit 3-66. Front images of a speeding infraction*

**City of Columbus  
Ohio Photo Red Light Enforcement System**



*Exhibit 3-67. Front images of a speeding infraction*



**City of Columbus  
Ohio Photo Red Light Enforcement System**



*Exhibit 3-68. Rear images of a red light infraction (Picture 1 of 2)*

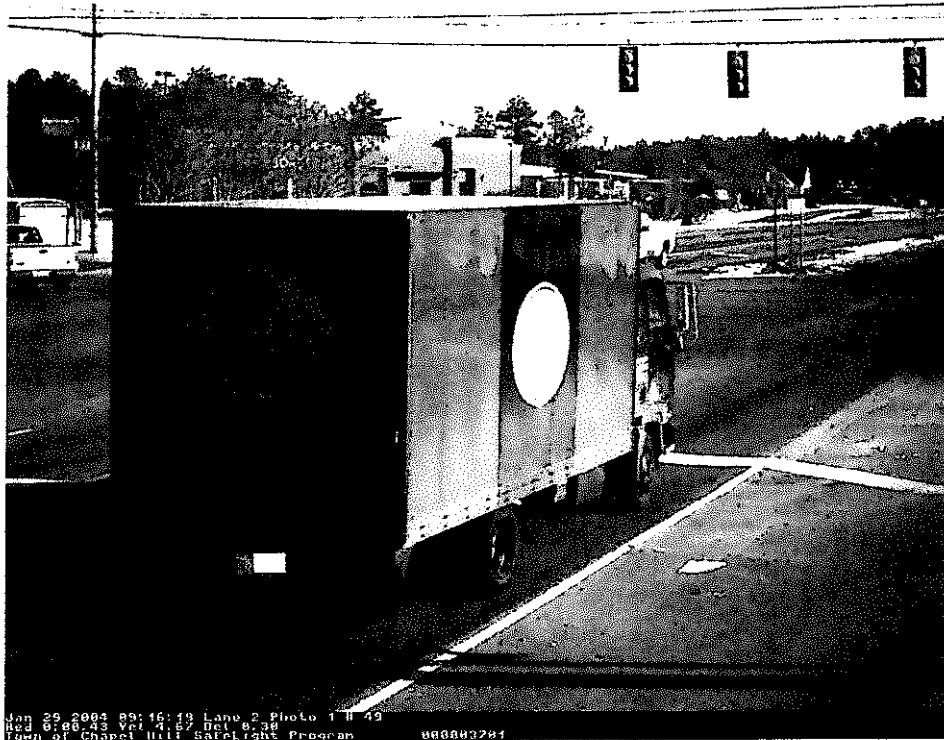
City of Columbus  
Ohio Photo Red Light Enforcement System



*Exhibit 3-68. Rear images of a red light infraction (Picture 2 of 2)*



**City of Columbus  
Ohio Photo Red Light Enforcement System**



**Exhibit 3-69. Trucks are easily detected and captured by Gatsometer's Digital Camera System. (Part 1 and 2 of 3)**





**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

---

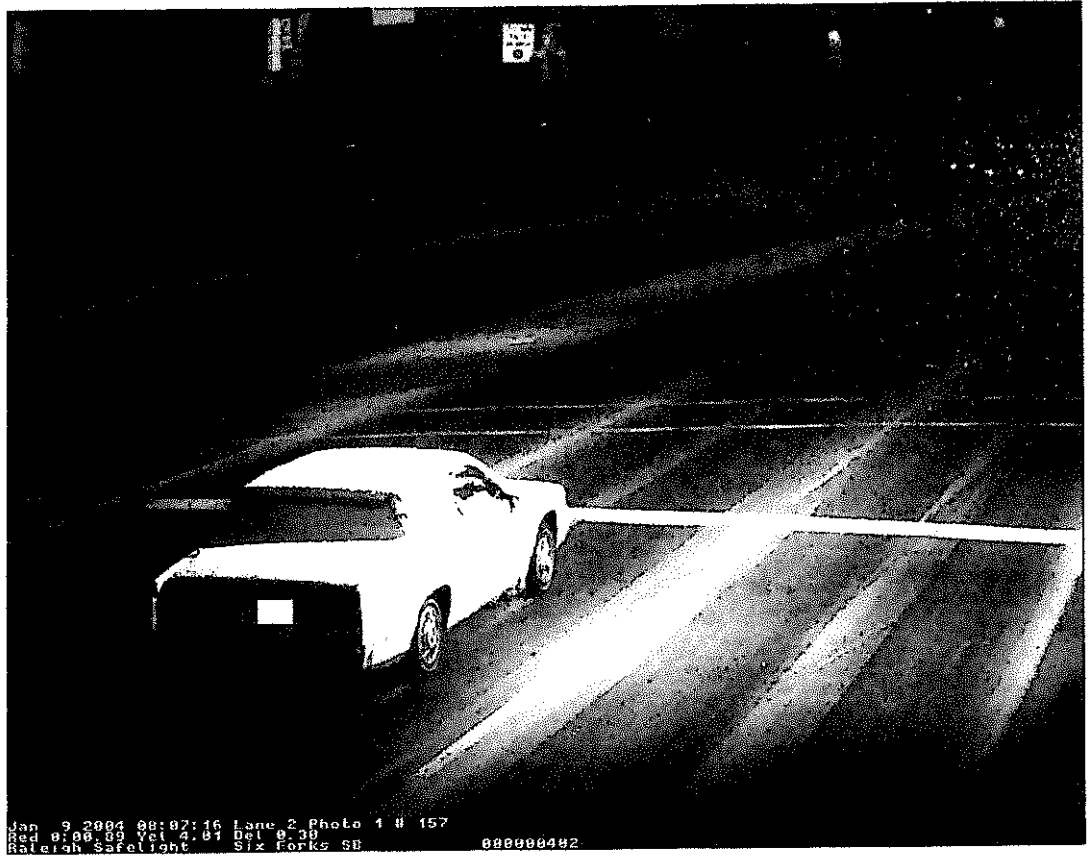


*Exhibit 3-69. Trucks are easily detected and captured by Gatsometer's Digital Camera System. (Part 3 of 3)*



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

---

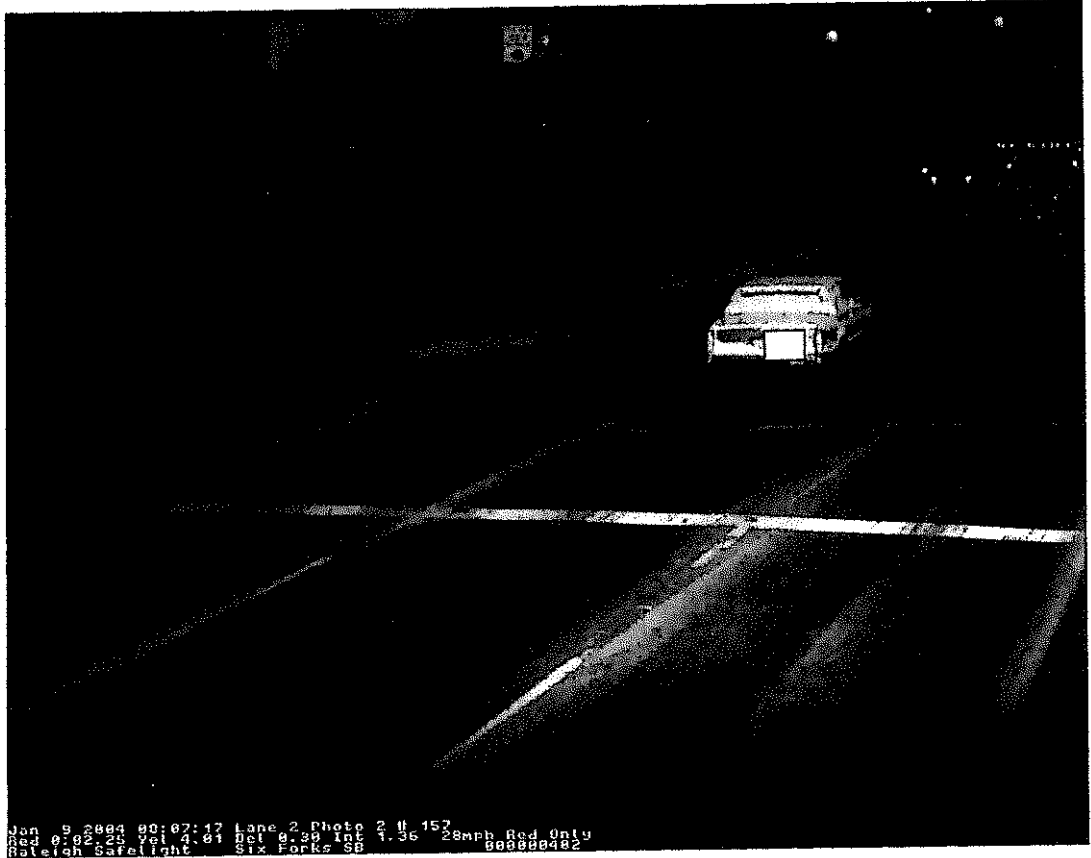


***Exhibit 3-70. Snow poses no challenge to Gatsometer's camera – even on a dark and stormy morning. (Part 1 of 3)***



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

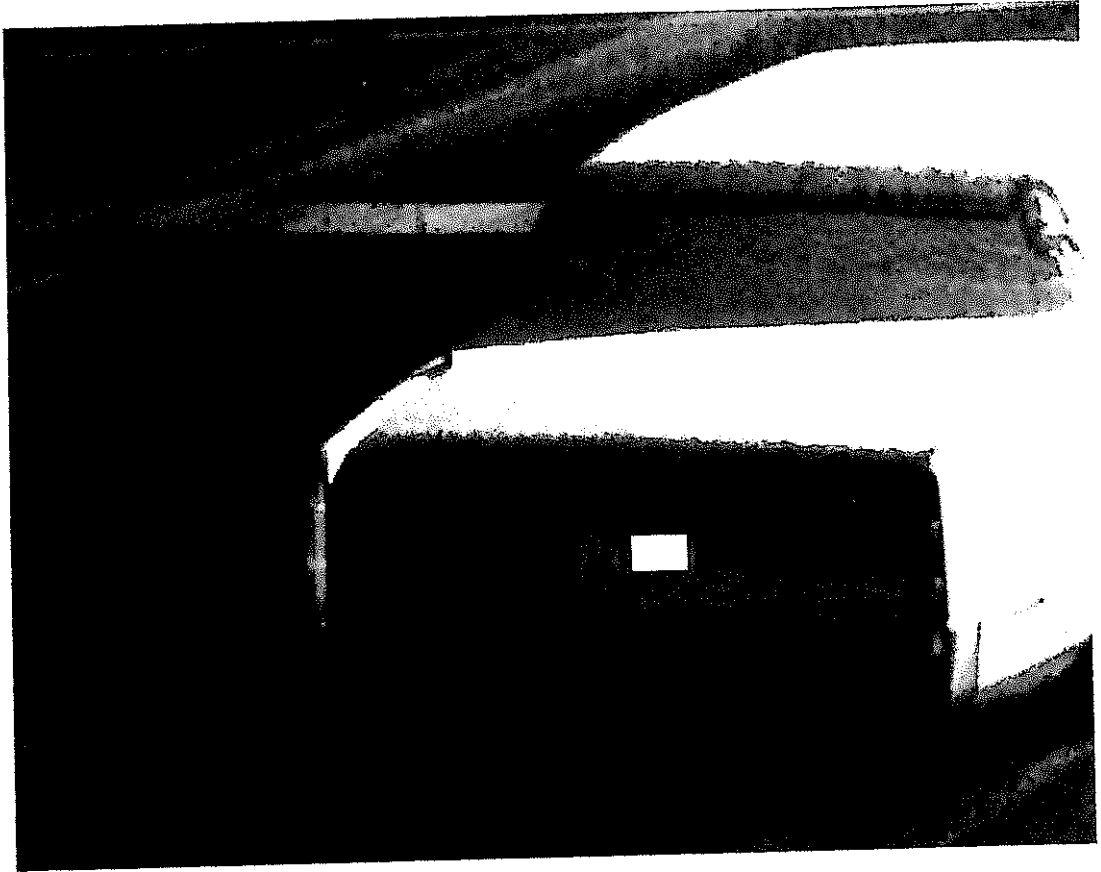
---



***Exhibit 3-70. Snow poses no challenge to Gatsometer's camera – even on a dark and stormy morning. (Part 2 of 3)***

**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

---



*Exhibit 3-70. Snow poses no challenge to Gatsometer's camera – even on a dark and stormy morning. (Part 3 of 3)*

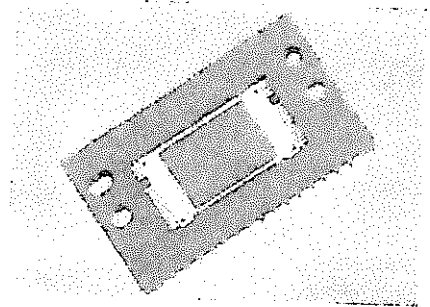
### 3.1.16 Driver Images

#### HIGHLIGHTS

- 12 bit cameras
- 6 times more imaging power than any other automated enforcement system
- Higher yields capturing driver faces behind tinted windshields
- Easier license plate identification

*ACS will provide the City of Columbus the most powerful digital camera which will provide the highest yield in identifying red light violating drivers in the event the City chooses to capture facial images.*

Many vendors have chosen consumer cameras to handle the important task of capturing the violation images. A consumer camera is not built to reside at an intersection twenty-fours a day. Nor do they employ the necessary burst rate and encryption to always be ready to fire while protecting the data captured. Worst of all, to satisfy the consumer's insatiable craving for new products, it is typical for these cameras to be replaced every six months. When a replacement is needed due to failure, it is no longer available. Further, consumer camera manufactures have a set plan they follow releasing improvements and new technology in linear fashion. As the worlds largest manufacturer of automated enforcement products Gatsometer is not constraint by these companies electing to produce their own camera several years ago. Originally beginning with an 8 bit model they quickly realized more image power was needed to capture drivers faces through a tinted windshield. While most other automated enforcement companies are just moving into 8 bit cameras waiting for 10 bit to debut, Gatsometer introduced this year their 12 bit camera. Exhibit 3-71 is a chart showing the huge differences between charged coupled devices (CCD's).



12 bit CCD device

Camera	Type	Available colors
8 bit	RGB	16.7 million
10 bit	RGB	1.0 billion
12 bit	RGB	6.8 billion

Exhibit 3-71. CCD Color Comparison Chart

~~For the City's Addendum #1, the City has made it clear that capturing facial images will~~  
not necessarily be required. However, if the City wishes to capture a human face behind a tinted windshield or small characters on a license plate, the ability to utilize the imaging capability of a 12-bit camera is a win-win situation for the City of Columbus. If the City wants to obtain the most identifiable faces and license plates from the violations images captured, the only choice is 12-bit camera technology. No other Photo Red Light



**City of Columbus  
Ohio Photo Red Light Enforcement System**

Enforcement System vendor offers 12-bit technology. Only ACS can provide the City this powerful camera.

Exhibits 3-72 and 3-73 show examples of faces captured using the Gatsometer digital red light system. Section 3.1.18 should also be referred to for examples from the 12-bit camera.



*Exhibit 3-72. More bright Sun and Shadows*



*Exhibit 3-73. Face capture even when bright Sun and Shadows are present*

### 3.1.17 Rear License Plate Images

#### HIGHLIGHTS

- 12 bit cameras
- Six times more imaging power than any other automated enforcement system
- Higher yields capturing license plates with high resolution cameras

*The most powerful digital camera offered for automated enforcement*

Already discussed in Section 3.1.16 ACS will provide the City of Columbus 12 bit digital color cameras. These cameras, the most powerful offered by any company for automated enforcement are capable of producing over six billion levels of gray assuring the City the best identification yield of both driver faces and license plate characters.

Section 3.1.1 details our approach to detecting and capturing violations as well as provides details about our proposed camera system. In the pages that follow, we show examples of the rear photography images.



City of Columbus  
Ohio Photo Red Light Enforcement System





City of Columbus  
Ohio Photo Red Light Enforcement System

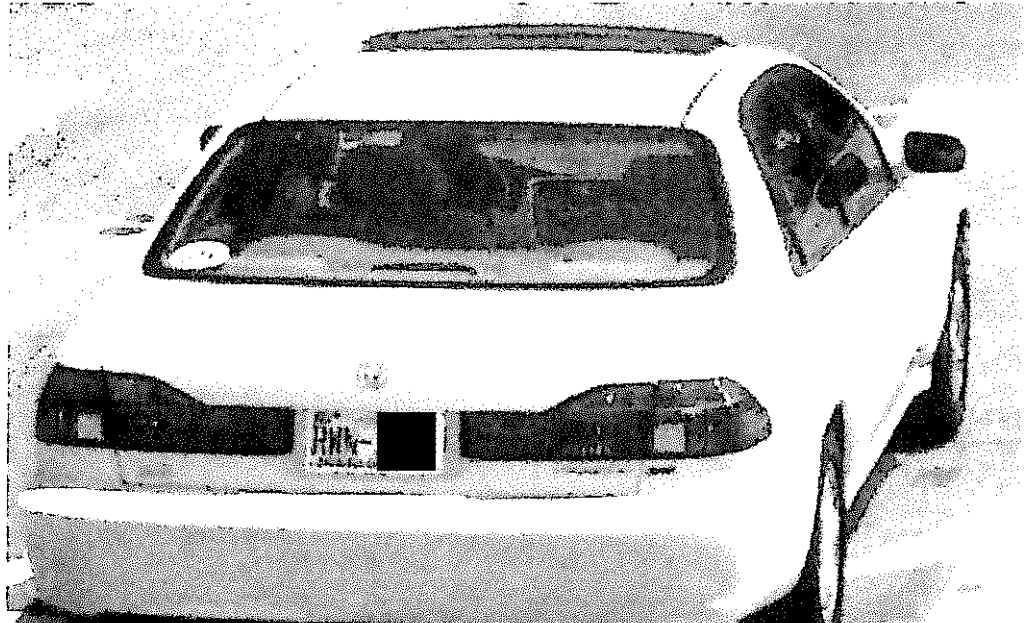


Photo 1 # 416

ugh EB

000000503



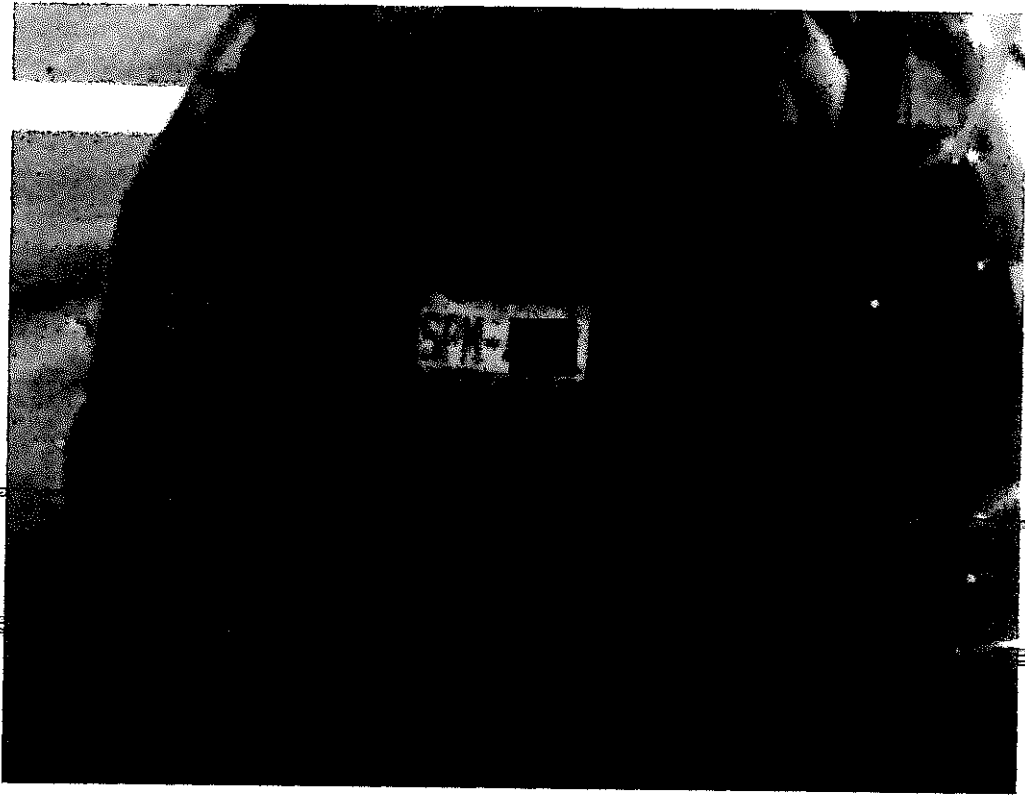
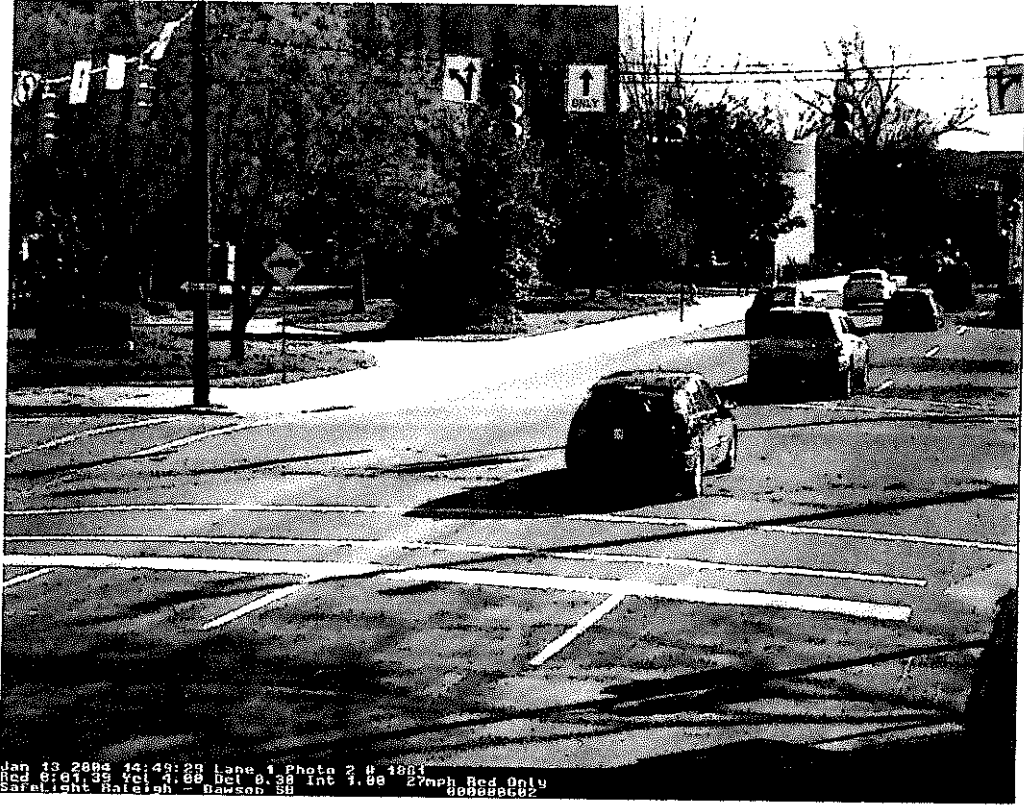
Jan 13 2004 14:49:28 Lane 1 Photo 1 # 1881

Red 5:05:39 Vel 4.06 Oct 8.39

Camera: 8121210 - Dawson SR

000000502

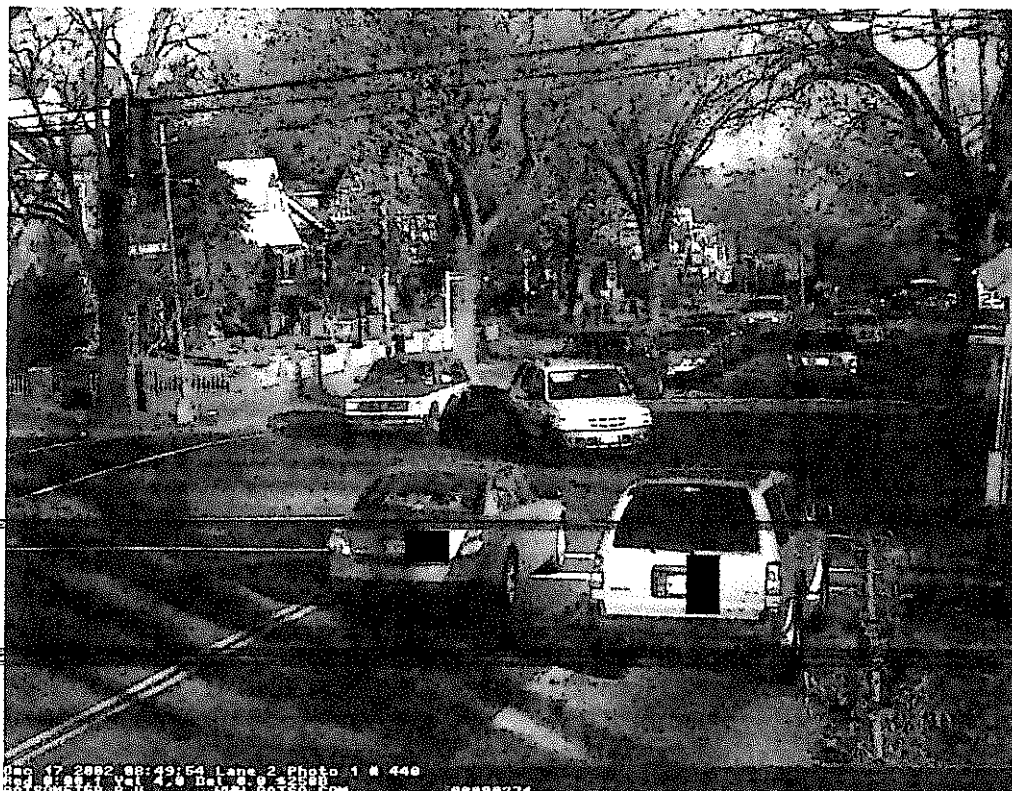
City of Columbus  
Ohio Photo Red Light Enforcement System



City of Columbus  
Ohio Photo Red Light Enforcement System



City of Columbus  
Ohio Photo Red Light Enforcement System





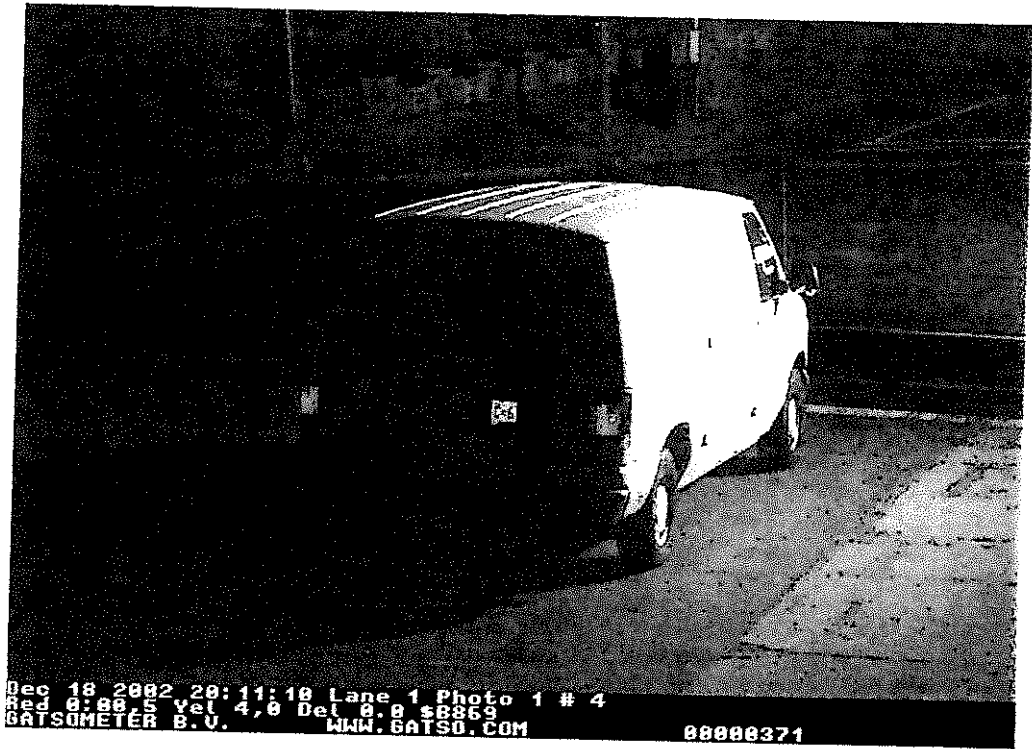
City of Columbus  
Ohio Photo Red Light Enforcement System



City of Columbus  
Ohio Photo Red Light Enforcement System



City of Columbus  
Ohio Photo Red Light Enforcement System



### 3.1.18 Clearly Discernable Images

*Recognizing faces (optional) and identifying license plates from vehicles speeding down a road in varying degrees of light and difficult weather conditions requires a specially designed camera with the highest light gathering ability*

Only ACS through its partnership with Gatsometer offers a 12-bit camera in its Photo Red Light Enforcement System. No other vendor offers the power of 12-bit and the 6.8 billion levels of gray the camera applies to recognize the face of drivers (optional) and their vehicle license plate. More information on the power of this camera can be found in the beginning of Section 3.1.1 but these cameras typically eliminate the need to apply any enhancements to the original image captured in order to make identification. No other system offered can provide the clear, crisp images easily readable by the naked eye as shown in the following images in Exhibits 3-74 – 3-79.



*Exhibit 3-74. Untouched overview image with violators license plate easily readable*



**City of Columbus  
Ohio Photo Red Light Enforcement System**



*Exhibit 3-75. Available zoom of previous image 3-74*

**City of Columbus  
Ohio Photo Red Light Enforcement System**



*Exhibits 3-76. Vehicle shown in 1<sup>st</sup> and 2<sup>nd</sup> image violating through a large inter-section*

City of Columbus  
Ohio Photo Red Light Enforcement System



*Exhibit 3-77. License plate captured with ACS exclusive 12-bit camera from previous violation image set*



City of Columbus  
Ohio Photo Red Light Enforcement System



*Exhibit 3-78. Face captured with ACS exclusive 12-bit camera from previous violation image set*



City of Columbus  
Ohio Photo Red Light Enforcement System



*Exhibit 3-79. License plate recognizable off overview image*

### 3.1.19 Unobstructed Photographs

#### HIGHLIGHTS

- Only company offering multiple camera configurable to overcome all possible obstruction at particular intersections
- Side of road or over road camera configurations available
- Rear, front and side lighting properly adjusted to capture face, plate, and car type
- Digital still images of every violation
- 12 second video clip provides supplemental evidence
- Illegal right and left hand turns easily enforced

*Only ACS offers multiple camera configurations specifically designed to overcome any obstruction or other enforcement challenge at any intersection approach.*

Every intersection approach presents unique challenges. Some approaches are extremely wide, making rendering curbside photography, even in multiple camera configurations, ineffective. Other approaches have extremely high truck traffic volumes requiring an overhead view to ensure all plates from violating vehicles are not blocked. Many approaches may be in historic or tourist areas where minimization of street furniture and aesthetics are critical. For example, in historic Old Town, Alexandria, per our client's request, ACS designed and built colonial lamppost style camera poles and housings to blend in with the environment. There is no one single configuration that will meet the unique challenges and issues present at every approach in Columbus. With this understanding, Gatsometer offers the city three unique camera configurations all using Gatsometer's core digital cameras, that address the needs of two lane, three-four lane, and four or more lane approaches. Section 3.1.1.5 Multiple Camera Configurations details each of our camera configurations. As detailed in Section 3.1.1.5, ACS camera configurations make it possible for us to:

**Maximize issuance using multiple cameras focusing on individual lanes**—Using our side of the road, multi-camera configuration, ACS will maximize issuance as we are able to focus individual cameras on individual lanes. Single digital still and single video camera solutions have only one focal point per enforced approach. Approaches with three or more lanes are very wide intersections create a problem for single camera vendors as it is very difficult to capture high quality license plate images from outside lanes using a single focal point. Conversely, ACS' multi-cam solution allows multiple focal points using individual cameras for individual lanes. As a result of this increased focus, we are able to capture higher quality images from the front and the rear.

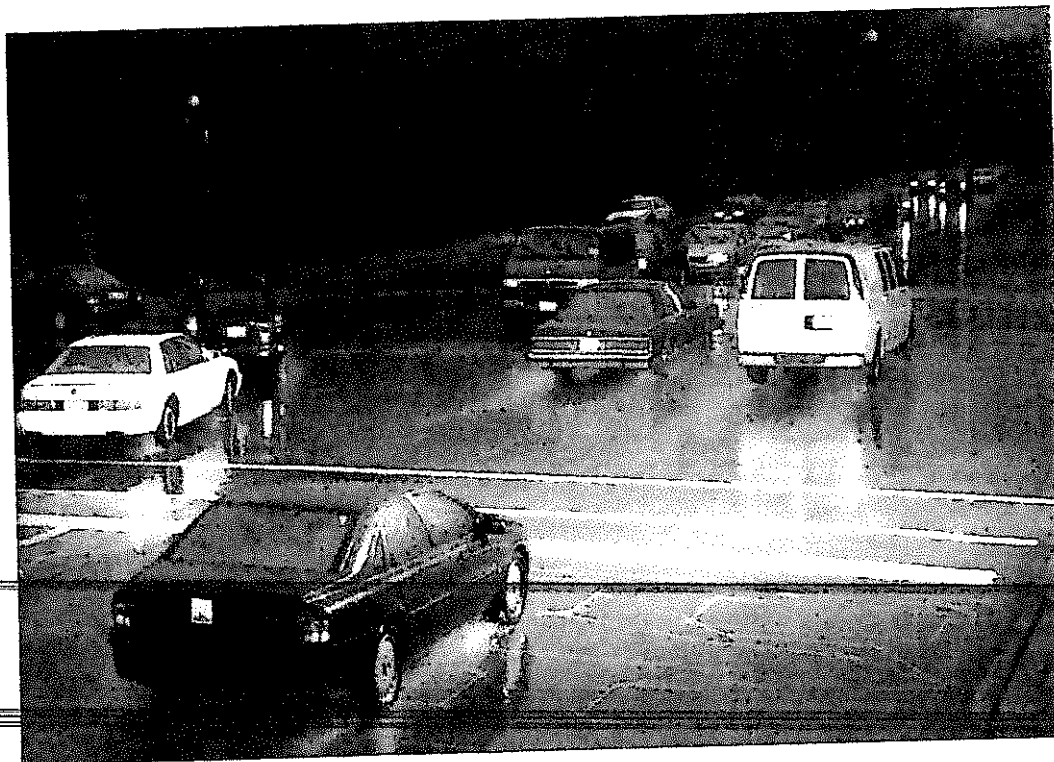
**See over and around unusually large trucks and objects using our overhead mast arm digital camera configuration**—In this configuration, individual digital cameras are placed on a mast arm extended over the approach with individual cameras placed directly above and behind every enforced lane from the rear and directly above and in front of every enforced lane from the front (if front photography is used). As a Port City, Columbus has heavy truck traffic. At intersections along major arterial streets

**City of Columbus  
Ohio Photo Red Light Enforcement System**

known for heavy truck traffic, our over-the-road Multi-Cam configuration can be installed, placing the cameras eighteen feet above the road surface, with individual cameras placed directly over and behind each lane of enforcement. Using this configuration even the tallest trucks can safely pass under the camera arm and the view from the cameras is unobstructed. This allows the camera to see and capture violations even when trucks are present. Conversely, vendors that only offer side of the road configurations will have a very difficult time capturing these violations as they are not high enough and cannot extend far enough to see around or over trucks. Only the over road mast arm can guarantee the City of Columbus the highest yields from the events.

Poor weather conditions can also affect the ability of the camera to capture events. Our in-ground loops are completely unaffected by weather properly detecting vehicles even when covered with snow. Fog and rain (See Exhibit 3-80) do not create inhibit the cameras ability to capture images nor does snow with one exception. If a heavy snowstorm strikes and the flakes are very large, the resulting photograph will be very beautiful but the large flakes when illuminated by the flash could block numbers on the license plate. The buildup of snow and mud on a license plate blocking the characters also prevents the camera from seeing the characters. Exhibit 3-81 show a typical violation with snow present.

Windshield glare provides a challenge for any camera made. No system can completely eliminate windshield glare but the combination the Gatsometer 12 bit camera combined with the use of polarizing filters can help reduce it.



*Exhibit 3-80. Rain Image*



City of Columbus  
Ohio Photo Red Light Enforcement System



Jan 09 2004 09:48:35 Lane 1 Photo 1 # 1588  
Issd 0.35 Del 0.30  
SafeLight Raleigh - Hillsborough EB



:35 Lane 1 Photo 1 # 1588  
.08 Del 0.30  
- Hillsborough EB 000000

Exhibit 3-81. Snow images



### 3.1.20 Internal Calibration

#### HIGHLIGHTS

- Camera system self tunes to in-ground loops
- Speed accuracy self tested to +/- 1 mph up to 100 mph
- Internal computer clock tested against precision tuned crystal
- Sensors continually monitor temperature of the system
- Equipment withstands power brownouts
- Automatically retunes and resets after complete power outages

*Gatsometer has designed the digital camera system to the most stringent standards. It assures the Police through regular remote monitoring the evidence it produces is completely prosecutable*

In Tarrytown, New York located below ground level with concrete walls 10 feet thick is the ACS Data Center affectionately referred to as the "Bunker." In this facility a staff monitors all equipment and databases which are part of ACS State and Local Solutions, Inc. Part of the monitoring performed is watching over the entire Photo Red Light Enforcement System for over 50 cities and counties in North America. Several times a day every digital camera is remotely checked to insure all systems are operating properly. If at any time a problem is found, the ACS Project Manager is contacted to take corrective action. This action could be as simple as remotely checking the system or he can dispense his Digital Field Service Technician (DFST) to visit the intersection. This procedure is a 24/7 operation.

Preventive maintenance checks of the camera system timing takes place each time the camera system is also performed by the Digital System Technician. Each time the system is powered up, a precisely tuned quartz crystal is activated. This crystal outputs an exact frequency which is compared or "beat" against the clock frequency of the internal industrial computer. If the timing not exact, the system will not go into enforcement.

At the same time the system clock timing is being checked the digital loop detector modules are tested. The process begins with a check of the in-ground loops and their related wiring. The system self measures the inductance, resistance, and resistance to earth ground. A specific range is hard programmed into the camera system. The readings which are returned by the loops and wiring must fall within this range or the particular lane out of spec will not be allowed to come into enforcement. The next test is the accuracy of vehicle speed. A frequency equal to a vehicle traveling 300 mph is simulated into the loop detector modules. The module must capture the speed +/- 1 mph up to 100mph. If this range is met, the particular lane will not be allowed to come into enforcement. Also during this start up process the hard disk device, camera and flashes are also tested. The visiting Field Service Technician and/or Police representative can watch all this happening. During the normal course of operation, automatic checks and internal sensors are continually performed and checked.

**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

*For 45 years Gatsometer has designed and manufactured the best and most widely used automated enforcement equipment in the world built to the most stringent standards*

The camera systems and related required equipment including flashes proposed by ACS in this RFP operate in total compatibility with U.S. power. Gatsometer supplies all equipment for the U.S. and Canadian market with 110 VAC wiring. The power supplies of the camera systems will also handle voltage surges and drops. In fact, they will continue to operate properly even if the voltage supplied drops as low as 70 VAC. Lightning suppression is also built into all offered systems.

Backup external power is not required with Gatsometer digital camera systems. All violation images and related data are immediately saved to a removable hard disk. Should power be lost through a short brown out or longer through an extended black out the City can be assured no loss of violation events will occur. In the event of a full power loss or blackout upon the power being restored the system completely retunes itself and resets before going back into enforcement. Information consisting of the date and time of the power loss is recorded to the hard drive.

The system clock originates from an integrated circuit (IC). The IC supplies time and date accurate to a few parts per million/month. It also provides a daytime savings time option which automatically adjusts the clock one hour twice yearly. The IC is powered by an internal battery which the chip manufacturer requires replacement of every ten years. Always conservative, Gatsometer suggests the battery be replaced sooner at every seven years.

Additional information on built -in features to protect the City infrastructure are discussed in Section 3.1.3.

Additional information on the Tarrytown Data Center, staff support, and Preventive Maintenance are located in Section 3.1.31.

## 3.1.21 Traffic Signal System Integrity

### 3.1.21.1 No Signal Modifications

#### HIGHLIGHTS

- All equipment supplied is completely isolated from City traffic signal system
- City Traffic Signal Technician requests for any access to City system
- Site review with photo performed before and after intersection construction
- ACS Construction Manager on site during all construction
- All work performed by licensed local contractors
- Fully insured and responsible for all work performed at camera locations

*No part of the installation of the Photo Red Light Camera System affects the City Traffic Signal Integrity*

It is ACS company policy that no ACS employee or contractor may access the City traffic control cabinet without a City Traffic Signal Technician present. This policy was made to protect the City from unauthorized personnel tampering with their system.

Complete isolation of the Photo Red Light Camera System is provided by two separate and different forms of isolation. Please see Section 3.1.3 for more information on this feature.

### 3.1.21.2 Cost Reimbursement Program

*ACS prides itself on ensuring an intersection is returned to the same state it was before the installation of automated enforcement products began*

During the intersection evaluation process for camera pole placement, wire runs, etc, process detailed photographs are taken of all areas which will be disturbed by the installation of the red light camera system. After the installation work is completed and the system is in operation, a site review is performed to ensure the intersection has been restored to its original state. Upon termination of any signed agreement between ACS and the Division of Police for Photo Red Light Enforcement Systems all above ground equipment will be removed and the site restored to pre-automated enforcement conditions. This includes removing:



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

- All camera poles, camera housings, and concrete bases
- All flash poles, flash housings, and concrete bases

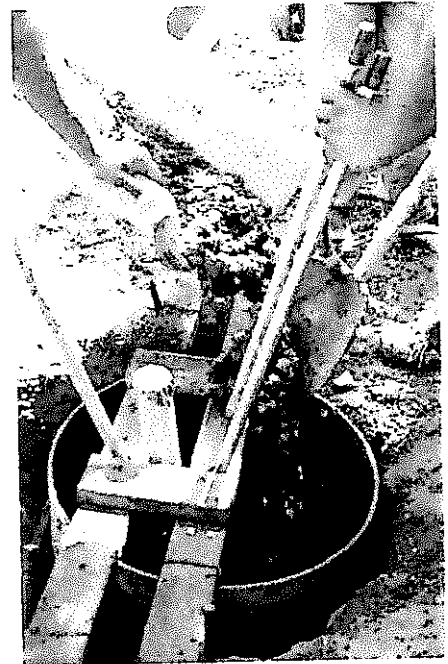
Other in-ground items such as pullboxes, handholds, and wiring are open to discussion so a determination can be made. Examples include:

- Pullboxes permanently installed in concrete sidewalks
- Handhold (if used) installed in the roadway
- In-ground loops and lead ins
- Traffic phase and power cables located in conduits

The City may not wish to remove these items which are part of the intersection infrastructure.

All engineered plans for the installation of the Photo Red Light Enforcement Systems will be drawn by a local State of Ohio licensed engineering firm under assistance and direction of ACS National Engineering Service Center (NESC) staff. ACS is currently in discussions with M E Companies of Columbus, OH to provide engineering plans. M E is a full service construction firm specializing in transportation infrastructure in the City of Columbus. ACS is also currently in discussion with McDaniels Construction, a Columbus-based minority owned business with construction experience in the City. An ACS Construction Manager will be on site for all construction to ensure all requirements are met.

ACS believes by using local contractors familiar with the city building codes and practices that we will ease the burden on the City permitting department when plans are submitted and field inspections made. The use of local contractors also allows jobs to be created in the State of Ohio.



The need for City personnel during the installation process is limited to the connection to the City traffic controller. ACS company policy does not allow ACS personnel to access the traffic controller without a City Signal Technician present. Once the Photo Red Light Enforcement System is completely installed a request would be made to the City for a Traffic Signal Technician to assist us in connection to the yellow and red phase. This process includes reviewing together the signal plan inside the traffic controller cabinet, identifying the correct terminal connections, making an attachment, and verifying at the camera system the correct phases are being received. Typically, this process requires an hour of the City technicians time. ACS per the RFP requirement will reimburse the City for the time the City technician is needed.

**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

Although no damage to existing intersection infrastructure is expected during the Photo Red Light Enforcement System Installation, ACS and its contractors are liable and have insurance to protect the City and repair any damage ACS or its contractors have caused.

### **3.1.21.3 Permits and Plans**

*ACS will never perform any work in the City without all proper City-approved permits, plans, and documentation.*

ACS has been actively involved with automated traffic enforcement programs since 1992. ACS is the leading provider of automated traffic systems in the US and Canada with more than 750 systems installed and 55 clients throughout the US and Canada. ACS has installed more than 60 percent of all cameras installed in North America and provides complete turnkey systems and services to more jurisdictions than all other vendors combined.

The integrity of the existing traffic signal system is maintained through strict adherence to terms and conditions as provided on the permit issued by the client. It is safe to assume that 99 percent of the installed systems required some type of permit. This has given ACS a considerable depth of experience in obtaining permits and maintaining the integrity of the existing traffic signal system.

Our experience has taught us that there are two basic rules to follow in obtaining permits:

- Understand the process
- Follow the process precisely

Every jurisdiction has a unique permitting process. Prior to beginning plan development, ACS will meet with City staff to gain the best possible understanding of the permit and approval process. ACS also understands that many plan reviewers may not have experience with red light camera systems. It is therefore important that city staff know where to direct questions regarding our equipment during the plan review process. Establishing a good line of communication is the first step in understanding the permit process.

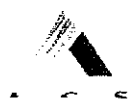
ACS also understands the importance of using an engineering firm with experience in developing construction plans for a specific jurisdiction. While it is certainly possible to obtain copies of all policies and procedures for obtaining permits, there are invariably interpretations of those policies and procedures within any jurisdiction. Lack of knowledge of those interpretations can lead to lengthy delays and frustration for all concerned. ACS is currently in discussions with M•E Companies, Inc., a firm highly experienced in obtaining permits and approvals in the City of Columbus, to provide plan development and permit processing support.

**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

The most expeditious route to obtaining a permit is to provide a set of plans and specifications that conform to established protocols in the accepted format as established by the City. ACS will work with the City to ensure that the permit and approval process goes smoothly. As detailed in Section 3.1.29, CoC Reimbursement, ACS will reimburse the City for engineer and Police office time required for installation or repairs associated with our equipment or work.

**3.1.21.4 Work in Conjunction with City Transportation  
Department**

ACS understands the importance of maintaining the integrity of the City's existing traffic control system. From an operational point of view, it is absolutely essential that the City be aware of any equipment installed within the immediate area of any traffic control system, the lack of any interconnection to the existing system notwithstanding. As a general rule, ACS makes every effort to install all interfaces with existing equipment outside the City's traffic controller. However, should a particular installation require an interface within the existing controller, ACS has a strict policy whereby no field technician is allowed to make any repairs, adjustments or modifications to the ACS equipment, should such equipment reside within the City traffic controller cabinet, without the appropriate City Transportation Department representative in attendance. The City Transportation Department will be reimbursed for any personnel required (per Section 3.1.29 of the RFP).



### 3.1.22 Statistical Analysis

*ACS unmatched experience provides a twenty-five year history of analytical reporting to the City of Columbus' red light program and the only vendor with Columbus-specific processing experience.*

The power of our ACS' reporting solution lies in the fact that we have geared our online reporting packages to optimize the performance of our client's contracts. We realize that these programs are designed to modify bad driving behavior to reduce the number of crashes, injuries and fatalities in the City of Columbus. The typical 40-60% reduction that other cities have seen is well within the City's grasp, but only if its program is managed well through relentless analysis of each stage of the process.

For our digital image verification solution, the initial step, prior to actually viewing the images, is an automated statistical analysis of the data returned for the site to identify potential issues. Based on historical data for each site, it is easy to immediately determine if one of the lanes is suffering any type of degradation in capture rate, to validate the settings of the camera against the data returned (such as minimum speed and red phase settings) and to ensure the capture of the test shots framing all of the events for the deployment. Reports are generated and are available online for management review (and for review by our National Engineering Support Center and City program management) before a single image is verified. This provides the fastest possible way of identifying issues with the cameras and lanes so down time is minimized.

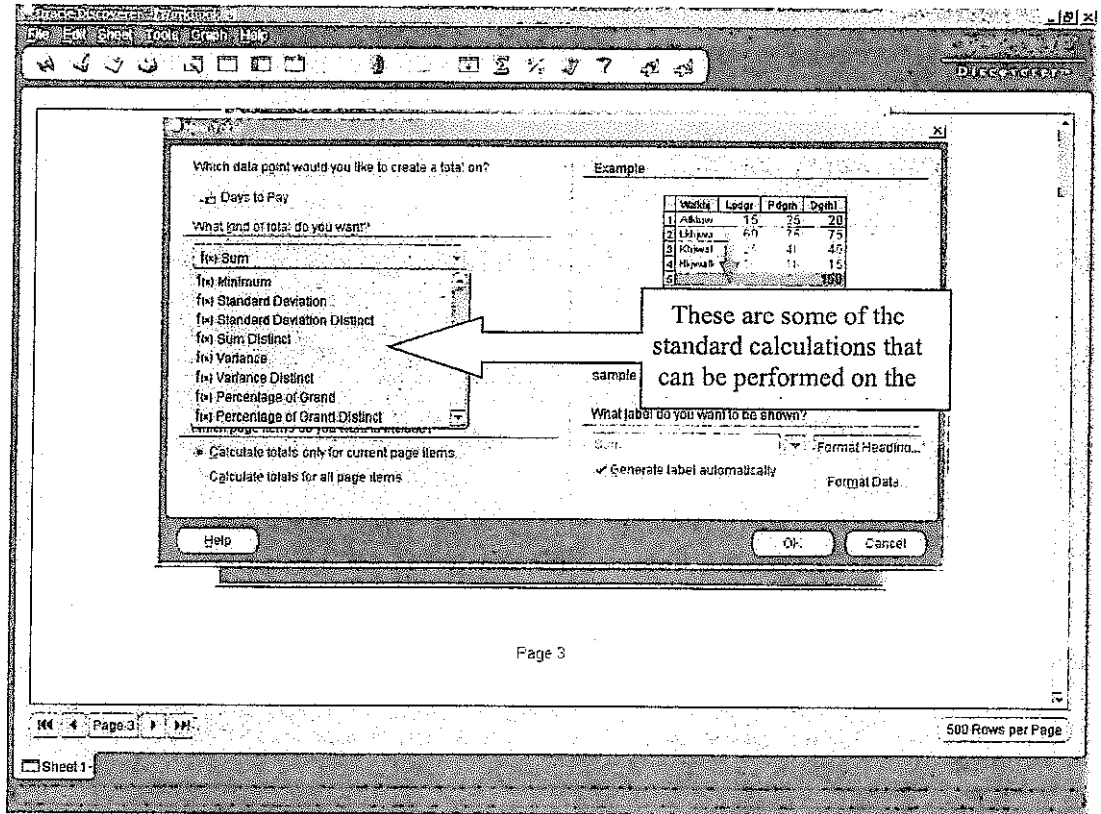
Each step of our operation is tracked and monitored. These steps are detailed in Section 3.1.6, System Quality Control. We have built our analysis around the concept of trend and variance analysis reporting. We want to not just count violations or events, but determine the change over time of key components of the program. These data elements and patterns will allow the managers to quickly respond to issues and to ensure that the program's issuance and compliance is maximized. We want our system to do the hard work of number crunching and let the managers take advantage of the key metrics at their disposal to best manage their programs.

*The power of our relational database-reporting tool lies in its ability to conduct statistical analysis of data over time.*

Due to the sophisticated nature of Oracle's database power, there is virtually no limit to the multiple parameter selection searches that can be performed using our system. Exhibits 3-82 and 3-83 depict some of the types of standard analytical and parameter options available on the web-based version of this product. This includes violations, processed citations, and all related data. All photo enforcement programs rely on information that shows change by a variety of parameters, such as the reduction of violations over time by location, the pattern of payments based on notice type over time, and the types of customer service contacts made during different phases of the program. Exhibits 3-84 through 3-86 shows examples of reports generated by this system that are available to City officials online, 24 hours a-day, seven days a week.



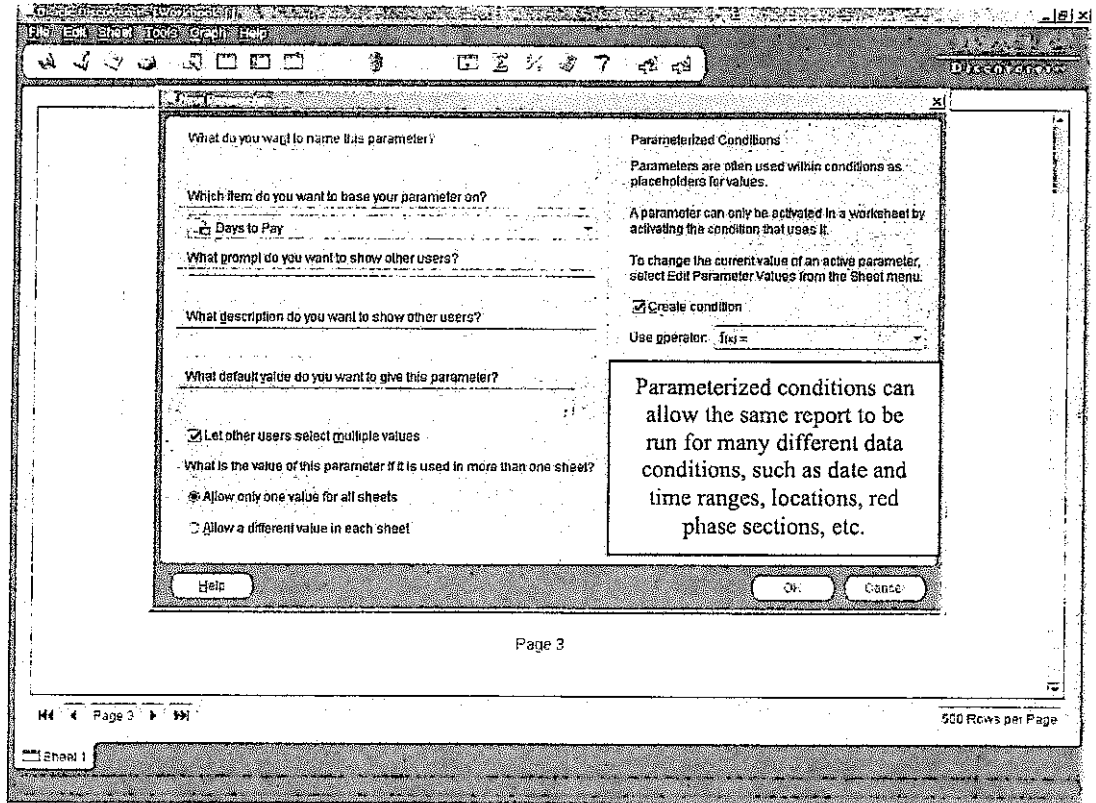
City of Columbus  
Ohio Photo Red Light Enforcement System



**Exhibit 3-82. While most users will employ simple data calculations on the reports, our Data Warehousing product makes it just as easy to use sophisticated statistical analytical tools.**



City of Columbus  
Ohio Photo Red Light Enforcement System



**Exhibit 3.83.** Using multiple parameters, basic report formats can be modified to accomplish many tasks.

City of Columbus  
Ohio Photo Red Light Enforcement System

Oracle Discoverer - [count of open tickets by plate report for DCRED] - 16 x

ORACLE  
DISCOVERER

	Rp Plate State	Rp Plate	Ticket Number	COUNT	Amount Due	SUM
1	VA	E		15		2250.00
2	DD	W	321	14		1175.00
3	DC	G		12		1350.00
4	MD	G				1800.00
5	DC	G		11		825.00
6	DC	G				825.00
7	DC	G		9		675.00
8	DC	H				1050.00
9	DC	A				1350.00
10	DC	A				1350.00
11	MD	G	D			1350.00
12	MD	G				1350.00
13	MD	H				1350.00
14	DC	G		8		600.00
15	DC	G				600.00
16	DC	A				1200.00
17	DC	A				1200.00
18	DC	A				1200.00
19	MD	A				1200.00
20	MD	C				1200.00
21	MD	GOPR00				1200.00

500 Rows per Page

DC Red Light Heavy Hitters List - Created 3-20-03

Start: In... Sv... e... A... e... D... Or... M... J... J... 20... M... J... H... M... e... C... 9:13 PM

Exhibit 3-84. It is easy to determine the violators with the highest number of citations with ACS' ad hoc reporting.



City of Columbus  
Ohio Photo Red Light Enforcement System

Oracle Discoverer - (DIS ADMIN/DRED - Ignored Plate Level Plate Level)

ID	Title	Issue Date	Time	Location	Ticket Number	Amount	Days	Hours	Minutes	Seconds	Start Notice Date	End Notice Date	Total Paid
1	DC AR2101	02/05/2003	02:42	BRANCH N/E @ ALABAMA SE	R008042418	\$150	0	0	0	0	10	02/20	\$0
2		02/05/2003	21:47	E CAPITOL W/B AT SOUTHERN AVE NE 2	R005046485	0	0	0	11	02/13	1	02/13	\$0
3					Ticket Count: 2	Sum: \$150							
4	525	01/05/2003	21:38	E CAPITOL E/B AT TEXAS SE	R004972999	\$150	0	0	0	0	25	03/28	\$0
5		01/05/2003	21:41	E CAPITOL W/B AT BENNING RD NE	R004875228	\$150	0	0	0	0	25	03/28	\$0
6					Ticket Count: 2	Sum: \$300							
7	90	01/15/2003	00:36	NDRTH CAPITOL W/B @ HAREWOOD NE 2	R004926885	\$150	0	0	0	0	20	03/14	\$0
8		01/15/2003	00:41	N CAPITOL NE @ RIGGS RD	R004998281	\$150	0	0	0	0	20	03/20	\$0
9					Ticket Count: 2	Sum: \$300							
10	45	02/09/2003	12:59	BRANCH N/B @ ALABAMA SE	R005054925	0	0	0	11	02/20	2	02/19	\$0
11		02/09/2003	13:11	M ST W/B @ WHITEHURST FWY NW	R005054443	0	0	0	11	02/14	0	0	\$0
12					Ticket Count: 2	Sum: 0							
13	31	02/21/2003	04:48	RHODE ISLAND W/B @ REED NE	R005070117	\$75	0	0	0	0	1	03/04	\$0
14		02/21/2003	14:38	NY AVE W/B AT 4TH ST NW	R005081447	\$75	0	0	0	0	1	03/04	\$0
15					Ticket Count: 2	Sum: \$150							
16	75	03/04/2003	00:32	NY AVE W/B AT 4TH ST NW	R005108808	0	0	0	11	03/07	0	0	\$75
17		03/04/2003	18:32	BLADENSBURG RD W/B AT NY AVE NE 2	R005107281	0	0	0	0	0	1	03/13	\$75
18					Ticket Count: 2	Sum: 0							
19	25	03/01/2003	01:13	SUITLAND PKWY W/B AT STANTON RD SE 1	R005095885	\$75	0	0	0	0	1	03/11	\$0
20		03/01/2003	00:16	SUITLAND E/B AT FIRTH STERLING SE 2	R005096049	\$75	0	0	0	0	1	03/11	\$0

500 Rows per Page

Sheet 1

Start | Plate Level Multiple ... | Inbox - Microsoft Ou... | AC5-SLS : Data War... | Discoverer Start Pag... | Oracle Discoverer... | 12:47 PM

Exhibit 3-85. This report listing data of violators with multiple tickets on the same day is helpful for management to ensure quality control (and shows that some people are really dangerous drivers!).

**City of Columbus  
Ohio Photo Red Light Enforcement System**

A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Fine Amount	Penalty 1	Penalty 2	Reduction Amount	Total Paid	Unapplied Amt	Issue Date	Ticket Number	Plate State	Plate	Registered Owner Name	Address	City	State Zip
75.00	10.00	00	00	256.00	170.00	20-Apr-2002	WMX0403504	DE	5	ARRINGTON ROBERT D	612 GALT CHECK RD	MIDDLETOWN	DE 197
75.00	10.00	00	00	205.00	120.00	24-Aug-2001	WMX0119178	DE	P	ROBINSON AMERE DE REL	3002 WEST ST	WILMINGTON	DE 198
75.00	10.00	00	00	205.00	120.00	23-Oct-2001	WMX0109194	DE	P	JOHNSON MARK B SAYON	PO BOX 20103	WILMINGTON	DE 198
75.00	10.00	00	00	185.00	110.00	25-Aug-2001	WMX0110204	DE	C	AL EMAR ERNESTO J	2600 LANCASTER AVE	WILMINGTON	DE 198
75.00	10.00	10.00	00	200.00	105.00	10-Aug-2002	WMX0514474	DE	9	PRITCHETT APRIL	2410 BOWENS ST	WILMINGTON	DE 198
75.00	00	00	00	175.00	100.00	24-Oct-2002	WMX0595494	DE	7	RUSSO PAMELA S	4856 WYBROWANTINE CT	WILMINGTON	DE 198
75.00	10.00	10.00	00	190.00	95.00	15-May-2002	WMX0401776	DE	P	CHEN HOU GUAN	E E 44TH ST	WILMINGTON	DE 198
75.00	10.00	10.00	95.00	95.00	95.00	23-Oct-2002	WMX0598541	DE	C	ADHINS ALICE LOUISE	9 MOZART WAY	NEWARK	DE 197
75.00	00	00	00	170.00	95.00	06-Sep-2001	WMX0134674	DE	5	GRANT ROSALBA	424 BOYDS CORNER RD	MIDDLETOWN	DE 197
75.00	10.00	00	00	170.00	85.00	24-Dec-2002	WMX0655303	DE	2	CHIFFEN CERALDINE V	8 JENSEN DR	WILMINGTON	DE 198
75.00	10.00	10.00	00	180.00	85.00	17-Dec-2002	WMX0648931	DE	8	GRACIA DAVID	115 LAUREL LN	WILMINGTON	DE 198
75.00	10.00	00	00	170.00	65.00	03-Dec-2002	WMX0632180	DE	H	CROALL DONALD H	26 MEADOW LN	NEWARK	DE 197
75.00	10.00	00	00	170.00	85.00	16-Nov-2002	WMX0620862	DE	C	PROCTOR JOYCE D	304 PHEASANT DR	MIDDLETOWN	DE 197
75.00	10.00	10.00	00	180.00	85.00	10-Oct-2002	WMX0581755	OH	A	THE HERTZ CORPORATION	19025 MAPLEBROOK AVE	CLEVELAND	OH 441
75.00	10.00	10.00	00	190.00	85.00	12-Jun-2002	WMX0488344	DE	2	WANTHRA STANLEY WANNYORKE	12 ROSS CT	NEWARK	DE 197
75.00	10.00	00	10.00	180.00	65.00	19-Jun-2002	WMX0484225	DE	P	MCCARTNEY ANNA MARIE	5207 LEPARC DR	WILMINGTON	DE 198
75.00	10.00	00	85.00	85.00	65.00	22-Aug-2001	WMX0110703	PA	E	MARLE HARRY	408 PENN AVE	WEST READING	PA 193
75.00	10.00	00	85.00	85.00	65.00	04-Sep-2001	WMX0129620	DE	P	ASHLEY ERH CASHTAL	1801 W 3RD STREET	WILMINGTON	DE 198
75.00	00	00	00	160.00	65.00	30-Aug-2001	WMX0124161	DE	C	WORRALL TODD J	10 E PERRIN LANE	NEWARK	DE 197
75.00	00	00	00	160.00	65.00	25-Aug-2001	WMX0117187	DE	7	MORFALES ELISEO	612 N HARRISON ST	WILMINGTON	DE 198
75.00	10.00	00	85.00	85.00	65.00	14-Sep-2001	WMX0145277	MD	E	CAROLYN MARIE LINTON	1324 LEEDS RD	EURTON	MD 219
75.00	00	00	00	160.00	65.00	20-Oct-2001	WMX0184799	DE	9	BROWN HAROLD D	517 W 9TH ST	WILMINGTON	DE 198
75.00	10.00	10.00	00	180.00	65.00	22-May-2002	WMX0437924	DE	4	WILSON JEFFREY	501 BIRKWOOD ST	WILMINGTON	DE 198
75.00	10.00	00	85.00	85.00	65.00	14-May-2002	WMX0428510	DE	4	BELLEHER CAROL M	518 LANPATER DR	NEWARK	DE 197
75.00	10.00	00	85.00	85.00	65.00	12-Apr-2002	WMX0394299	DE	9	SIMMONS OLIVER W	695 W 9TH ST	WILMINGTON	DE 198
75.00	10.00	10.00	00	180.00	65.00	05-Apr-2002	WMX0398506	DE	4	ANDRADE MARCOS A	4932 S RAINBOW CT	WILMINGTON	DE 198
75.00	10.00	10.00	00	180.00	65.00	10-Mar-2002	WMX0564757	DE	2	RODRIGUEZ TAINA COLON	66 THREE RIVERS DR	NEWARK	DE 197
75.00	10.00	10.00	00	180.00	65.00	08-Feb-2002	WMX0524987	PA	E	ENTERPRISE LEASING CO OF PHILA	100 MATSONFORD RD	RADIOL	PA 190
75.00	10.00	10.00	00	180.00	65.00	24-Jan-2002	WMX0329933	DE	4	WILSON SHARON D	1023 W 7TH ST	WILMINGTON	DE 198
75.00	10.00	00	00	170.00	65.00	17-Nov-2001	WMX0223719	DE	9	ROANE BARBARA A	57 BRIARCLIFF DR	NEW CASTLE	DE 197
75.00	00	00	00	160.00	65.00	20-Sep-2001	WMX0150620	DE	P	FETTERS BRIEN	4206 MARLOWE RD	WILMINGTON	DE 198
75.00	10.00	10.00	00	175.00	60.00	04-Aug-2002	WMX0508863	DE	6	DONAH CHARLES	12 CHESTERFIELD DR	NEW CASTLE	DE 197
75.00	10.00	10.00	00	175.00	60.00	17-Mar-2002	WMX0356611	DE	P	COLLEGRIVE ROBERT M	9 ELLMURST PLACE	WILMINGTON	DE 198
60.00	10.00	00	00	140.00	60.00	05-Jul-2001	WMX0400742	DE	C	THOMAS MAURICE DMARIO	12 RADWA DRIVE	NEWARK	DE 197
75.00	10.00	00	00	160.00	75.00	20-Nov-2002	WMX0521946	NJ	1	IRLHASSEL TRANSPORT INC	11	MANASQUAN	NJ 087

**Exhibit 3-86. This overpayment report was created in a few minutes and was exported to Excel with a few keystrokes.**

Our system easily generates histograms, which shows frequency of data, such as the number of violations per hour per intersections or the number of violators going specific speeds. We will work with the City to develop specific reports for submission at hearings and other purposes as required. See example histograms and reports that are available to the City online in Exhibits 3-87 through 3-91. The data parameters of each of these reports is set online by the City user.

No one understands how to structure analysis reporting better than ACS, especially for photo enforcement programs. Our dedicated professionals will ensure that the City has all of the timely, pertinent information necessary to evaluate the performance of the program, formatted to facilitate understanding from the lay public and elected officials. One of our recommendations that worked well for other clients is to publish monthly results on the web site for this program, along with other informational materials. This allows real-time access to the progress being made by the City to make the streets of Columbus safer for residents and visitors.

*Single, integrated parking and red light program database allows for most user-friendly, one stop collections reporting.*



City of Columbus  
Ohio Photo Red Light Enforcement System

Graphical Speed Distribution  
WinnipegPR  
For 1/1/2004 to 1/31/2004  
All Locations  
All Lanes

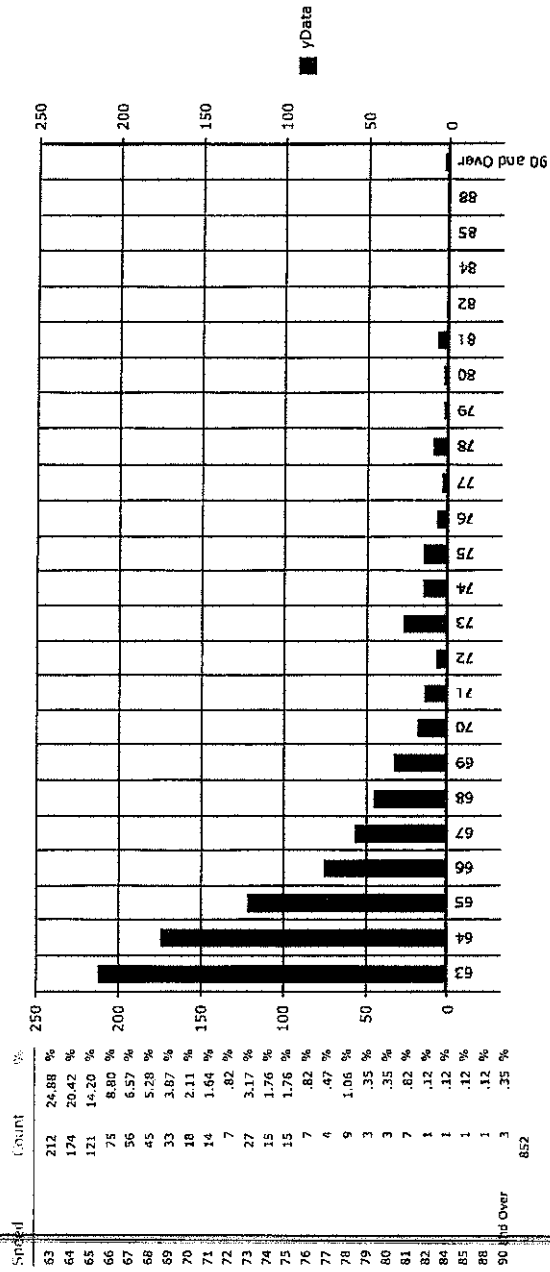


Exhibit 3-87 Diagram data can be displayed in a number of charts and graphs.

City of Columbus  
Ohio Photo Red Light Enforcement System

Graphical Speed Distribution

WinnipegPR  
For 1/1/2004 to 1/31/2004  
All Locations  
All Lanes

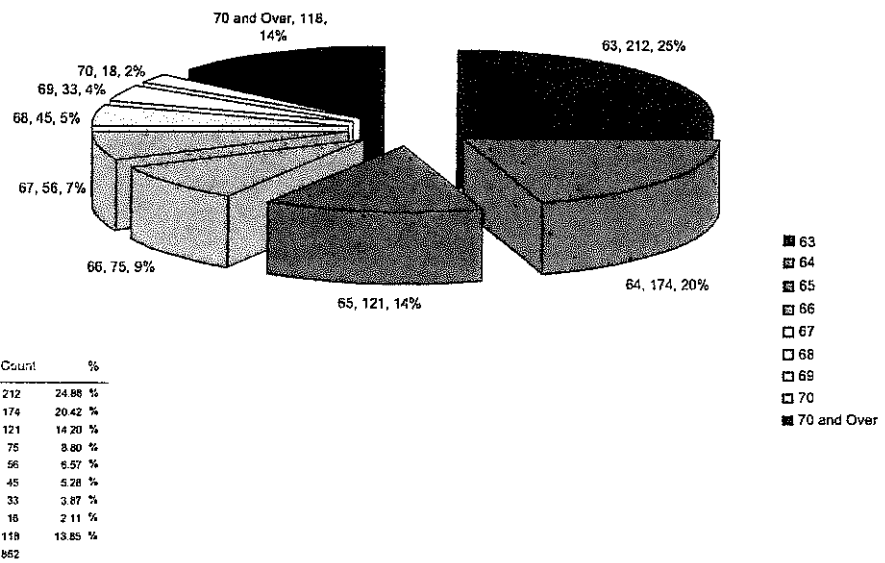


Exhibit 3-88. Pie charts displaying graphical program data are just a click away.

0210PRLD



### Graphical Hour Distribution

Raleigh  
For 1/1/2004 to 1/31/2004  
All Locations  
All Lanes

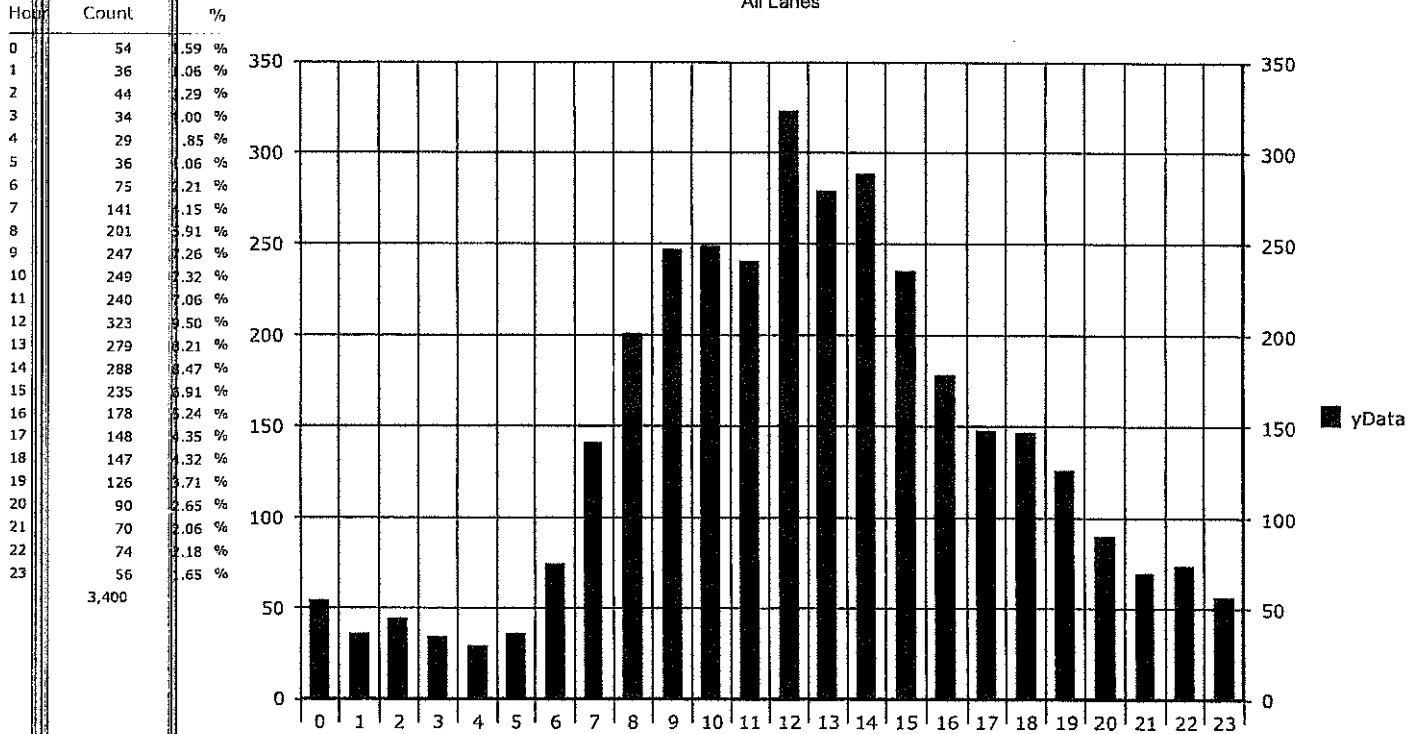


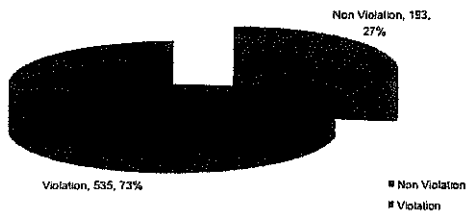
Exhibit 3-89. Graphical view of all violations during January by number and time of day.

City of Columbus  
Ohio Photo Red Light Enforcement System

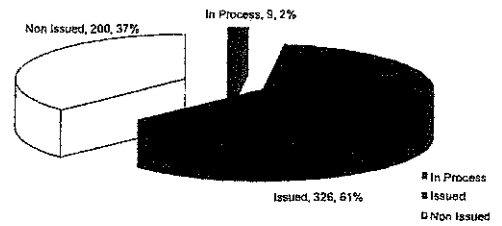
Graphical Client Summary

*WinnipegRL*  
For 5/1/2004 to 5/31/2004  
All Locations

Events Count: [Violations] vs. [Non Violation]



Violations Count: [Issued] vs. [Non Issued] vs. [In Process]



023 CPRLD4

**Exhibit 3-90. Event and Violation Counts available in any date range selected by the city using our on-line reporting system.**





City of Columbus  
Ohio Photo Red Light Enforcement System

Graphical Speed Distribution

WinnipegRL  
For 1/1/2004 to 1/31/2004  
All Locations  
All Lanes

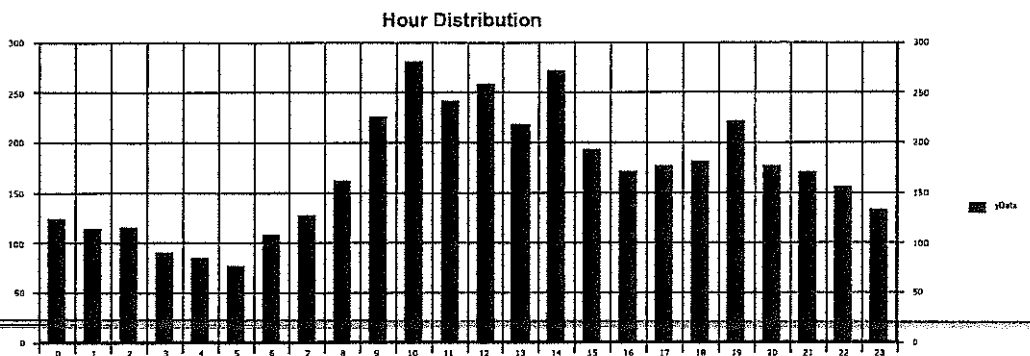
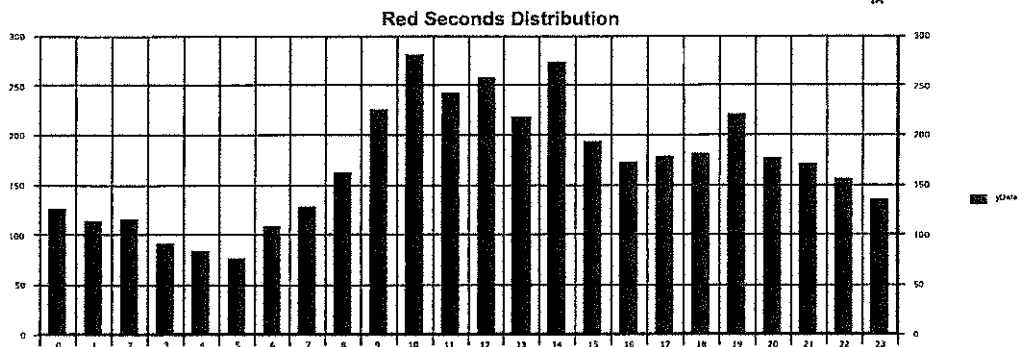
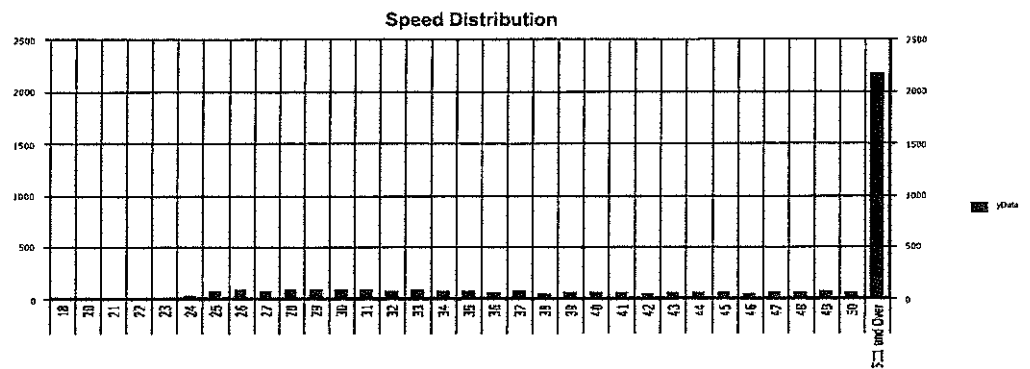


Exhibit 3-91. ACS online reporting systems allow City employees access to powerful graphs and data displaying key program data.



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

Because ACS can seamlessly integrate the databases for both red light and parking ticket processing programs, we can also provide single, integrated reports that combine the results of both programs. In this way, the City can print collections, payment, and performance reports that document, in total, the status of all outstanding parking and red light tickets in a single report. Using this information, the City can make informed decisions about collection strategies and future business rules for each program.

**3.1.22.1 Monthly Reports**

*ACS' powerful reporting tools provide full access to numerical and graphical reporting specific to the needs of Columbus.*

Based on our ability to provide a suite of hundreds of standard reports, many of them familiar to the City through our parking management program, our web-based dynamic reporting and our ad hoc data reporting and analysis tools, the managers and other users of the red light program will have any possible data at their fingertips, not just during monthly report runs, but at any time.

This will include weekly, monthly and other routine recaps of information as well as trend and variance analysis. Individual histograms will be made available for court purposes, as required. Section 3.1.13, Reports, and Section 3.1.22, Statistical Analysis provide an in-depth review of our proposed reporting capabilities.



### 3.1.23 Monitoring Multiple Lanes

#### HIGHLIGHTS

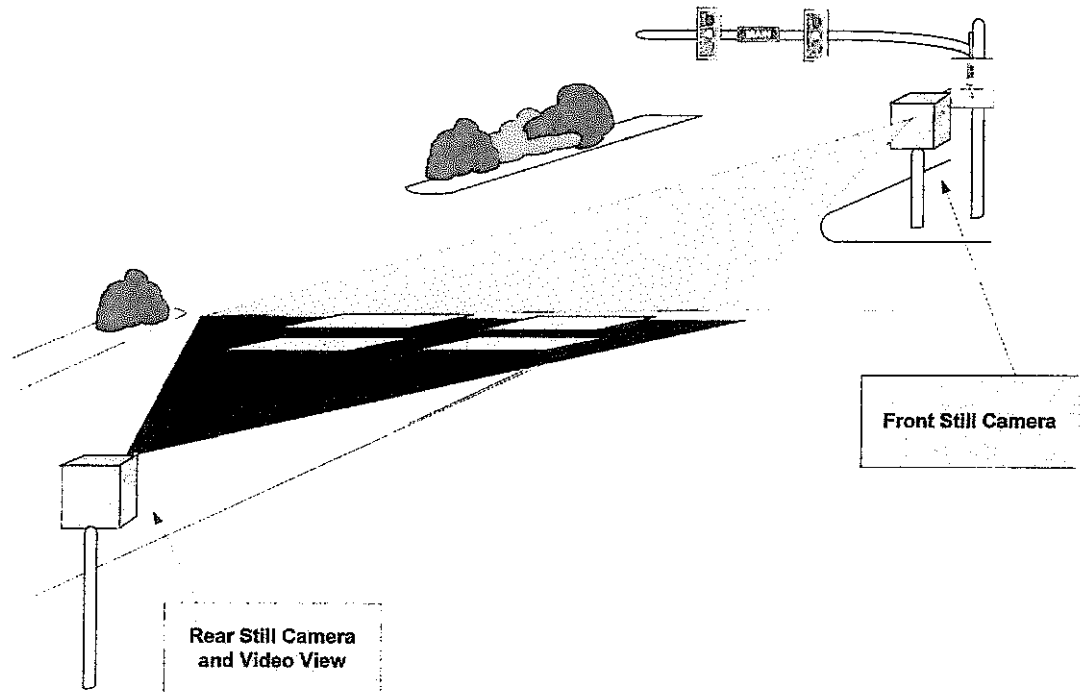
- Multiple Photo Red Light Camera Configurations available
- Most accurate individual lane vehicle detection
- The right camera system for any intersection configuration

*ACS offers multiple camera configurations to overcome the enforcement challenges of every possible intersection. There is almost no limit to the number of lanes our system can enforce.*

Gatsometer's digital cameras can be installed in three unique configurations, ensuring ACS is able to enforce an almost unlimited number of lanes per approach. Section 3.1.1.5, Multiple Camera Configurations, details the three core camera configurations offered to the City of Columbus. No other vendor offers this level of configuration flexibility.

The first configuration offered (Exhibit 3-92) is built to accommodate two to three lanes of enforcement and uses a single Gatsometer digital camera. License plate information is obtained from the overview image by zooming on either the rear or front environmental images. A video camera programmed to continually produce a short video clip provides supplemental evidence to the two digital still images. The resulting evidence package available contains four digital still images (two from the front and two from the rear), a close up of the license plate, and the video clip. This configuration is truly the most portable in the industry, as the camera and computer are self contained in a single housing, allowing for simple removal and transport to another empty housing.

**City of Columbus  
Ohio Photo Red Light Enforcement System**

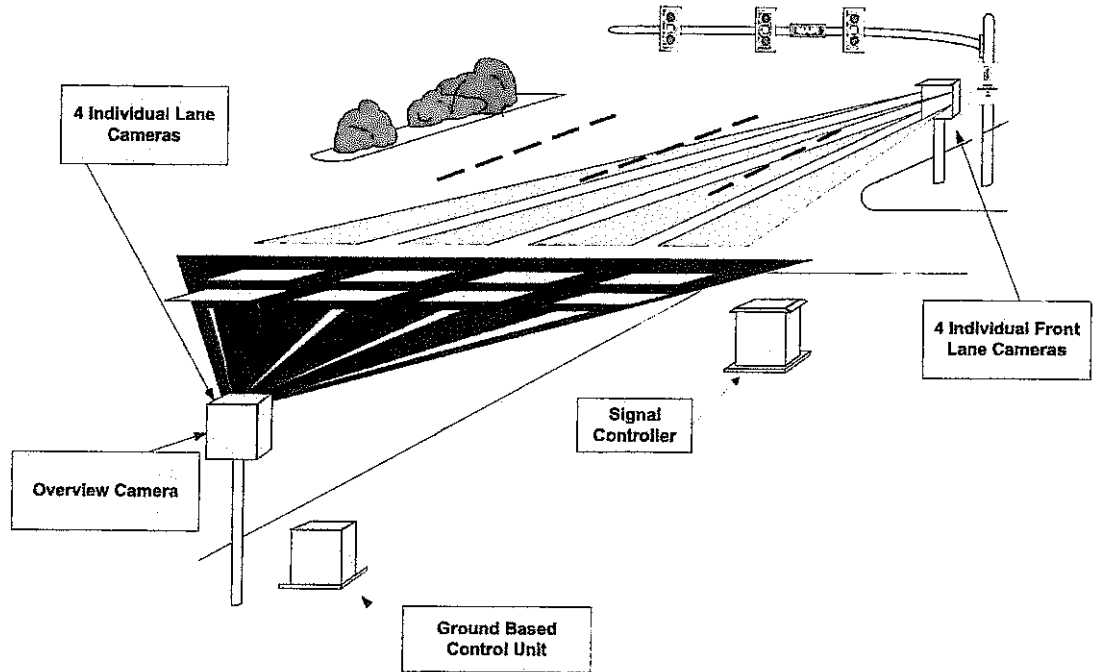


**Exhibit 3-92. Side Fire, two/three lane configuration**

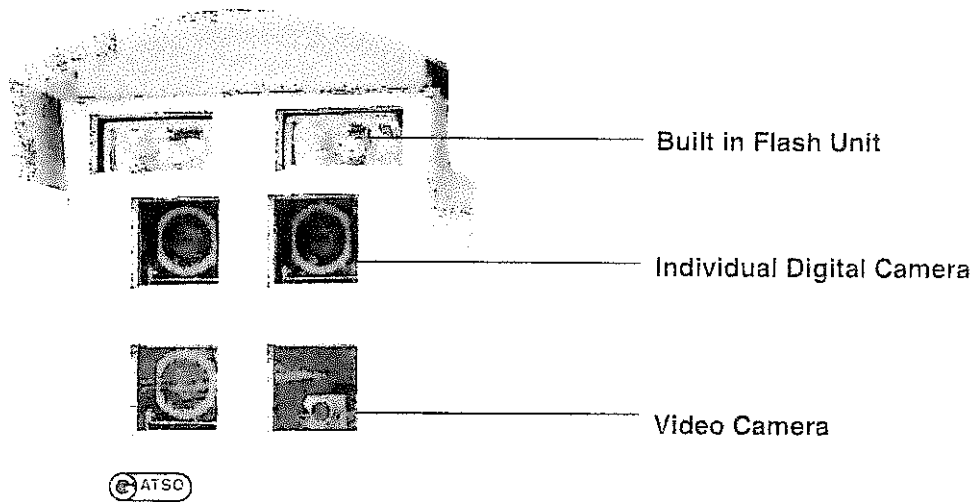
Our second configuration was built specifically for three or four lanes of enforcement per approach, easily capturing right turn and left turn lane violations. In this configuration (Exhibit 3-93), we are able to focus individual cameras on individual lanes (see Exhibit 3-94). Single digital still and single video camera solutions have only one focal point per enforced approach. Approaches with three or more lanes are very wide intersections create a problem for single camera configurations as it is very difficult to capture high quality license plate images from outside lanes using a single focal point. Conversely, ACS' multi-cam solution allows multiple focal points using individual cameras for individual lanes. As a result of this increased focus, we are able capture higher quality images from the front and the rear.



**City of Columbus  
Ohio Photo Red Light Enforcement System**



**Exhibit 3-93. Side Fire multi-cam uses individual cameras focused on individual lanes to maximize issuance across multiple lanes of traffic**



**Exhibit 3-94. Side Fire multi-cam configuration – the number of individual cameras included in the housing is based on the number of total lanes required for enforcement.**

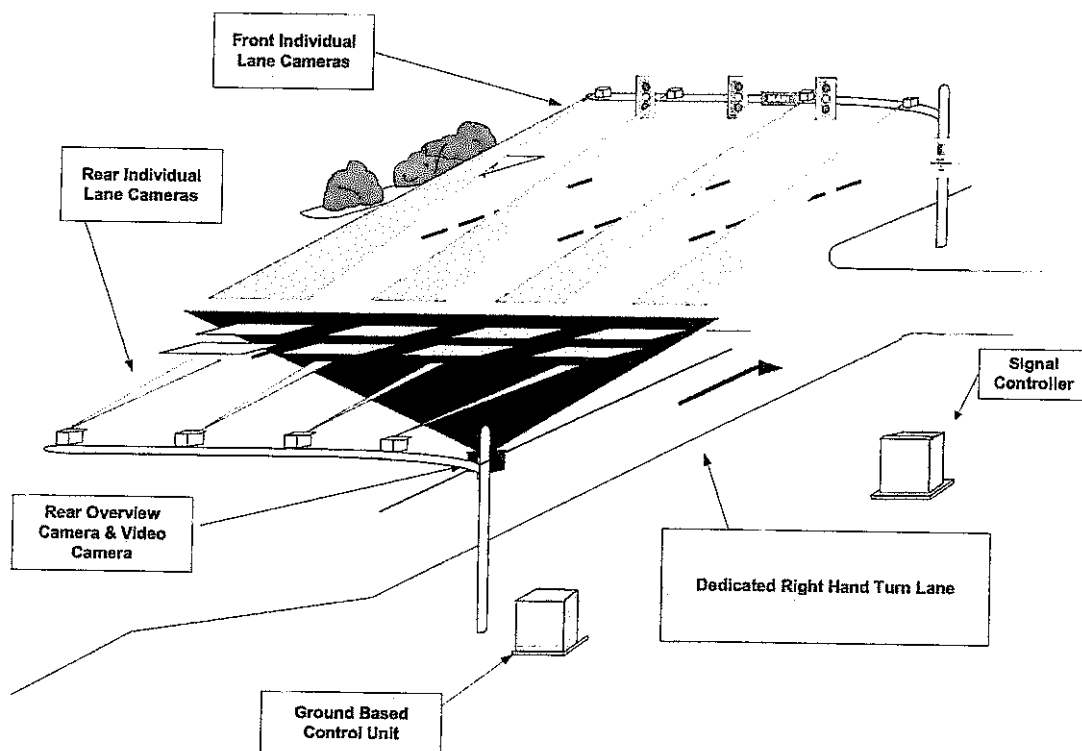


**City of Columbus  
Ohio Photo Red Light Enforcement System**

Our third configuration (Exhibit 3-95) was designed to overcome the challenge presented by extremely wide approaches, approaches with four or more lanes, or approaches with heavy truck volume. When installed on a horizontal mast arm, our overhead multi camera configuration provides the highest degree of lane coverage available. Four or more lanes are easily monitored, even when a dedicated right hand turn lane is present. In this case, the Overhead Multi-Cam configuration is actually shooting over this extra lane and still capturing four lanes of traffic.

The Overhead Multi-Cam configuration can accomplish license plate capture of traffic lanes even when far from the curbside. By placing the individual lane cameras along a horizontal mast arm, the concentration of one camera and flash on its particular lane allows very near 100% capture and identification rate. This very high success rate is only possible because vehicles in adjoining lanes no longer can block the cameras view of the offending vehicle (perfect for overcoming heavy truck volume).

Please review Section 3.1.1 and subsection 3.1.1.5 for more details about our ability to monitor multiple lanes of traffic using our multiple configurations.



**Exhibit 3-95. Our overhead multi camera configuration is built to cover extremely wide approaches or heavily truck traveled routes**

---

---

**Detection System**

100% vehicle detection accuracy through Gatsometer digital inductive loops at all times of day, under any weather conditions. ACS offers Columbus the world's most widely



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

used and tested red light camera detection system. Key features of our proposed inductive loop detection system include:

- Do not rely on any visual identification of vehicles. Instead, the loops rely on magnetic fields for detection and are unaffected by the weather, time of day, lighting, shadows, or temperature.
- Do not suffer from vehicle misses that laser based systems often due because their pinpoint lasers missed their target or were affected by wind or other environmental conditions.
- Offer the City truly automated detection of violations – if a car crosses the loops regardless of any other environmental factor – the vehicle will be detected.
- Only ACS can offer near 100% vehicle detection under any environmental condition.
- + or - 1mph speed accuracy – most accurate speed detection in industry allows for future speed on green, yellow, and red program

Using Gatsometer's digital loop detectors, ACS can detect more violations than any other vendor in the industry. Even with its detection successes, ACS continues to research and evaluate non-invasive detection systems. Many of the non-invasive detection technologies discussed earlier are continually being worked on and tested jointly by ACS and Gatsometer's R & D Departments. When these detection technologies have been improved to match in-ground loops for accuracy and reliability under all environmental conditions, ACS will offer the City a free pilot to compare the new technology against loops.

The in-ground loops installed by ACS do not interfere with the City of Columbus's traffic signal control infrastructure. The loops only connect to the cameras and in fact the only required inputs to the Photo Red Light Enforcement system are 110VAC and yellow and red traffic phase. More on these connections can be found in Section 3.1.21.



### 3.1.24 Automation of Camera System

#### HIGHLIGHTS

- Automatic aperture control
- Multiple methods of data retrieval
- Same encryption used as US military
- Government approved encryption

*Unattended camera system operation providing the highest quality images 24 hours/day, 7 days/week*

The Photo Red Light Camera Systems provided by ACS are completely automatic and self-sustaining. Once installed and aligned the camera systems operate unattended. Human intervention is only required in the form of preventive maintenance.

The digital camera component incorporates an automatic aperture which continually adjusts to the varying ambient light conditions. In bright sunlight the unit closes down the lens reducing the amount of light which reaches the CCD sensor. In extreme darkness, the aperture opens fully allowing more light to reach the CCD. Focus is set and fixed by an ACS Image Quality Specialist (IQS) at the time of installation. The quality of the images produced are monitored daily to ensure driver and license plate recognition is optimum.

Alignment of the camera is performed when the Photo Red Light Camera System is initially installed. This includes the setting of the camera pole, leveling, aligning all still image cameras to ensure the all events captured allow for driver and license plate identification, and also ensuring the video camera has an unobstructed view of all monitored lanes of traffic. Once leveled and aligned, no further adjustment is needed.

Potential violations can be retrieved from the Photo Red Light Camera System via several methods. The multiple back up methods guarantees the Police even in the rare event of a telecommunication line or power line failure, the photo evidence can still be extracted from the camera system. Potential violations can be downloaded via the following methods and order.

- Remotely via DSL telecommunications line
- ~~▪ Remotely via ISDN telecommunications line~~
- On site visit via laptop connection
- On site visit via exchangeable hard drive
- In office download via laptop or hard drive exchange

Where available, ACS will have a DSL telecommunication line installed between the digital camera at an intersection approach and the server at the local processing office. DSL has proven to be the fastest communications medium (Exhibit 3-96) for transferring images from the intersections to the processing center. A DSL router and firewall to safeguard images and data will be placed in the housing. In areas where DSL is





**City of Columbus  
Ohio Photo Red Light Enforcement System**

not available, an ISDN telecommunications line will be installed. An ISDN router will be placed inside the housing.

<b>ANALYSIS OF COMMON DATA TRANSFER METHODS</b>					
<b>Technology</b>	<b>Advertised Throughput Bits per Second</b>	<b>Estimated Real World Throughput Bits per Second</b>	<b>Real World Throughput in Bytes per Second</b>	<b>Seconds to Upload One Picture (500,000 bytes)</b>	<b>Minutes to Upload One Infraction (Five Pictures)</b>
<b>Cellular Dialup</b>	14400	11520	1440	347.2	28.9
<b>Dialup</b>	56000	44800	5600	89.3	7.4
<b>ISDN BRI</b>	144000	115200	14400	34.7	2.9
<b>DSL</b>	1500000	1200000	150000	3.3	0.3
<b>Cable Modem Uploads</b>	384000	307200	38400	13.0	1.1
<b>Cable Modem Downloads</b>	2000000	1600000	200000	2.5	0.2

**Exhibit 3-96. Communication Line Comparison Chart**

No matter which data extraction download is used, the potential violation images and data are completely secured and encrypted. The encryption discipline chosen by Gatsometer is AES which was approved by the National Institute of Standards and Technology (NIST) for all sensitive documents including military documents. AES encryption approved by the National Institute of Standards and Testing (NIST) and used by the Federal Government for all its military documents is the encryption used by Gatsometer in both the Digi-Cam and Multi-Cam systems.

It was in November 2001 the United States government through the National Institute for Standards and Technology (NIST) after approval by the Secretary of Commerce issued the Federal Information Processing Standards Publication 197 (FIPS PUB 197). The publication introduced the new Advanced Encryption Standard (AES) which all government agencies requiring encryption for sensitive and non-sensitive documents can be applied. The US government from several entries submitted selected the new standard. After the U.S. government announced non-governmental and private organizations requiring high security of data were encouraged to also adapt the standard, Gatsometer committed to it.

Within our digital camera system, each captured violation image and accompanying data is encrypted using AES before being stored to the solid-state hard drive. The adaptation of AES insures high-level security via the attachment of US Government approved electronic signature sometimes called a watermark affixed to every image. The AES algo-



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

rithm is a symmetric block cipher that can encrypt (encipher) and decrypt (decipher) information. Encryption converts data to an unintelligible form called ciphertext; decrypting the ciphertext converts the data back into its original form called plaintext.

# AES

---

Advanced Encryption Standard

APPROVED BY



### 3.1.25 Camera Operation in Nighttime and all Weather Conditions

#### HIGHLIGHTS

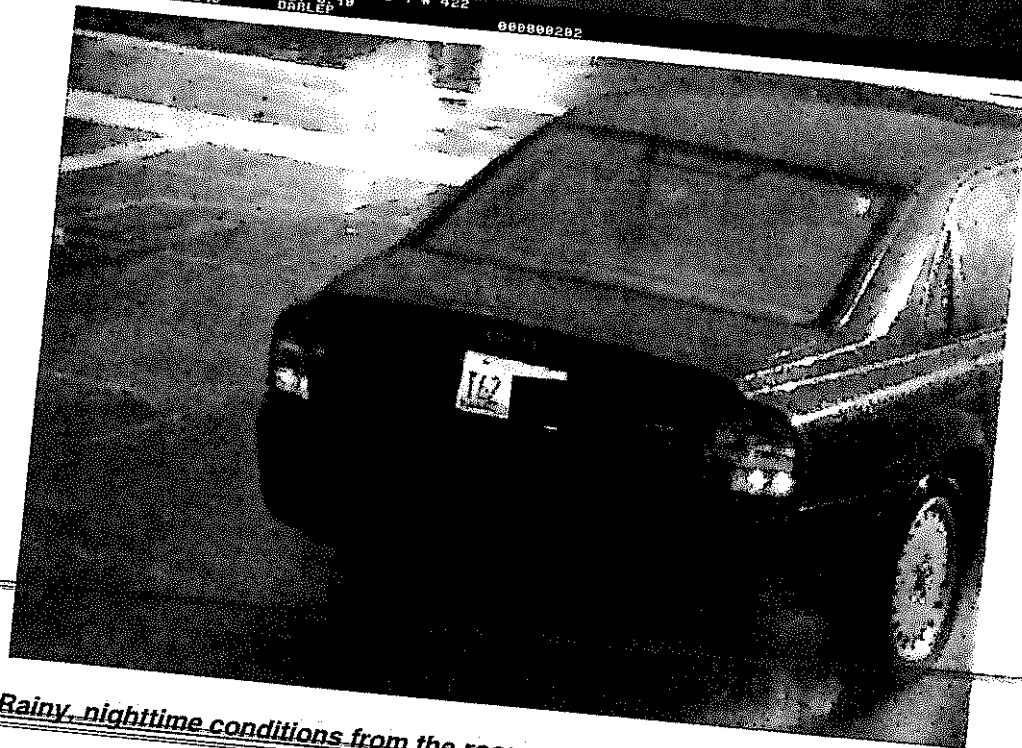
- Tried and tested flash illumination
- Vehicle detection unaffected by bad weather conditions
- High resolution digital still cameras
- Low light video camera

*Whether a bright sunny day, moonless night, rain, or snow the digital color cameras offered by ACS will capture red light running violations under all lighting and weather conditions*

It is not a secret photographing a vehicle violating a red light on a sunny day is not difficult. What becomes important is whether the camera used produces high quality images allowing both facial and license plate identification. Further, since drivers do disobey red lights at night and in poor weather also, the cameras must be able to produce the same high quality images for identification under these conditions also. The following pictures provide samples of images under both nighttime and less than perfect weather conditions. Proposal Sections 3.1.1 provides details about our camera system, such as our 12 bit camera that provides six times more processing power than the nearest competitor, that allow ACS to offer highest resolution system in the industry.



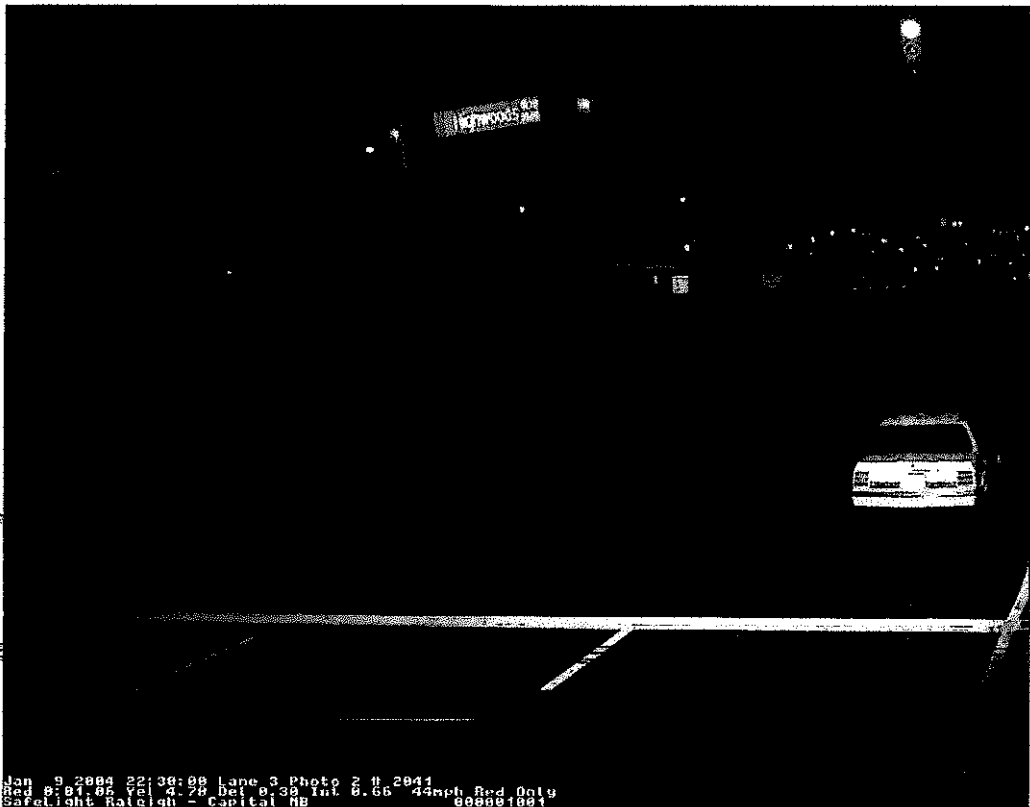
City of Columbus  
Ohio Photo Red Light Enforcement System



*Rainy, nighttime conditions from the rear*



City of Columbus  
Ohio Photo Red Light Enforcement System



City of Columbus  
Ohio Photo Red Light Enforcement System



*Nighttime image with very clear license plate*

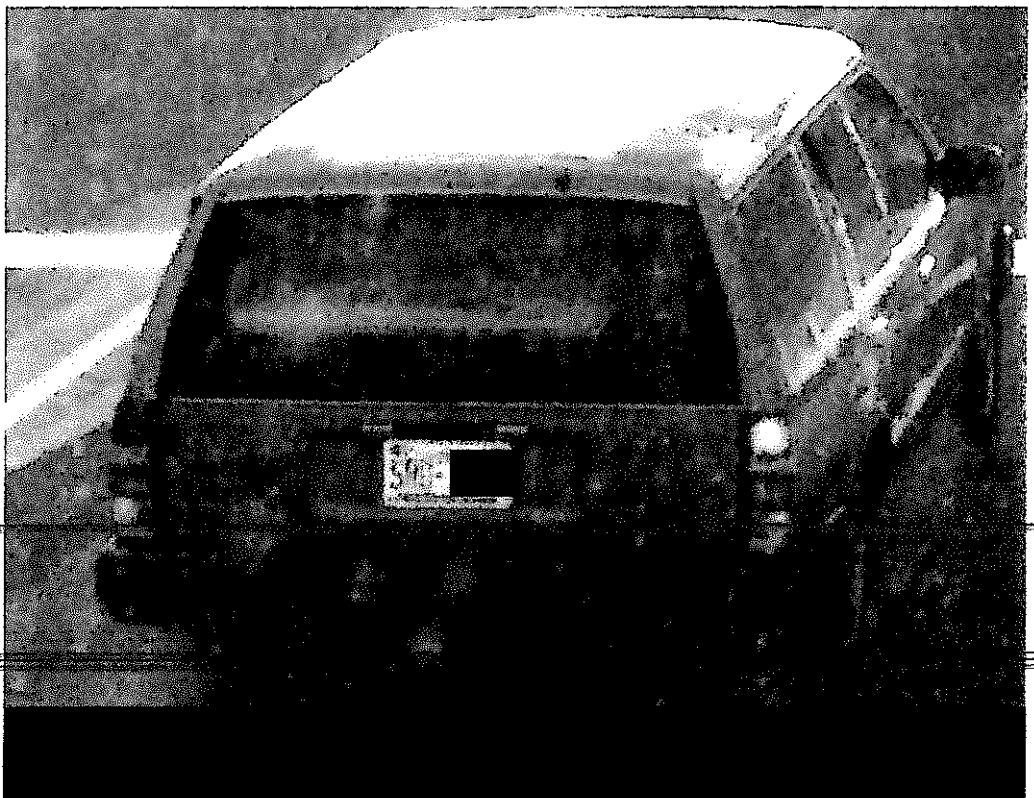


Jan 9 2004 09:01:28 Lane 3, Photo 1 # 2025  
Red 0:00:37 Vel 4.76 Del 9.99  
SoftLight Ra:Light - Capital MB 000001001

City of Columbus  
Ohio Photo Red Light Enforcement System



Jan 9 2004 09:01:39 Lane 3 Photo 2 # 2025  
Red 8:01.38 Vel 4.76 Del 9.38 Int 1.88 29mph Red Only  
SafeLight Raleigh - Capital NB 900081001

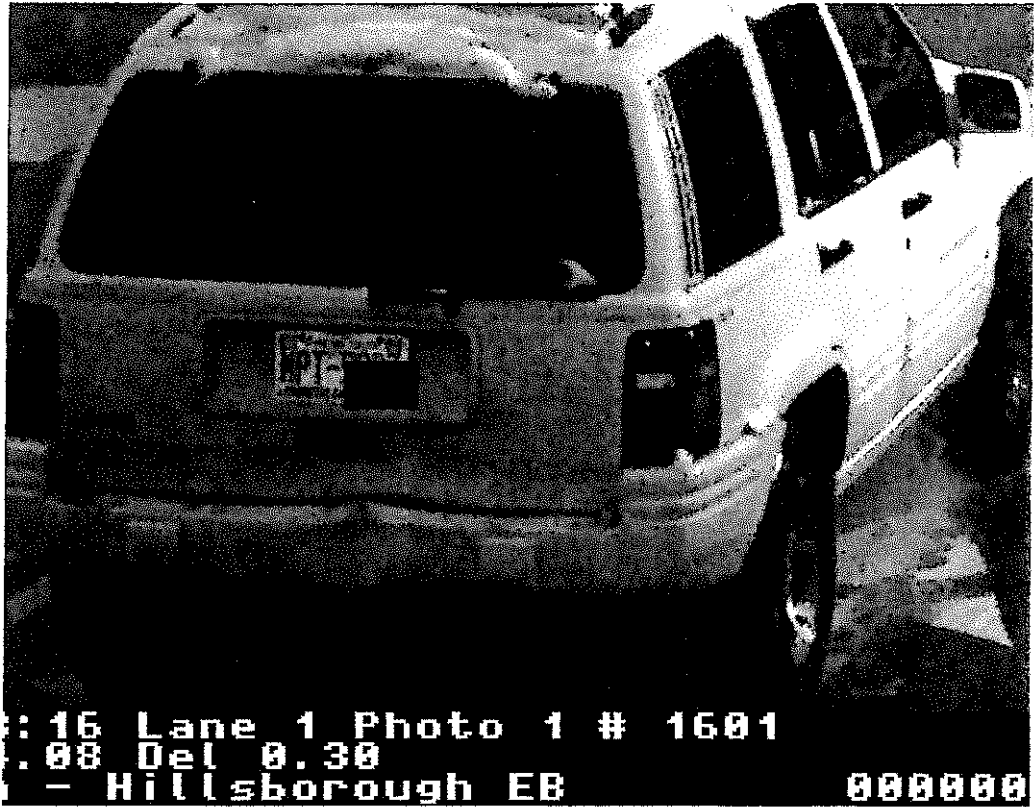


**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

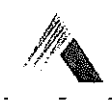




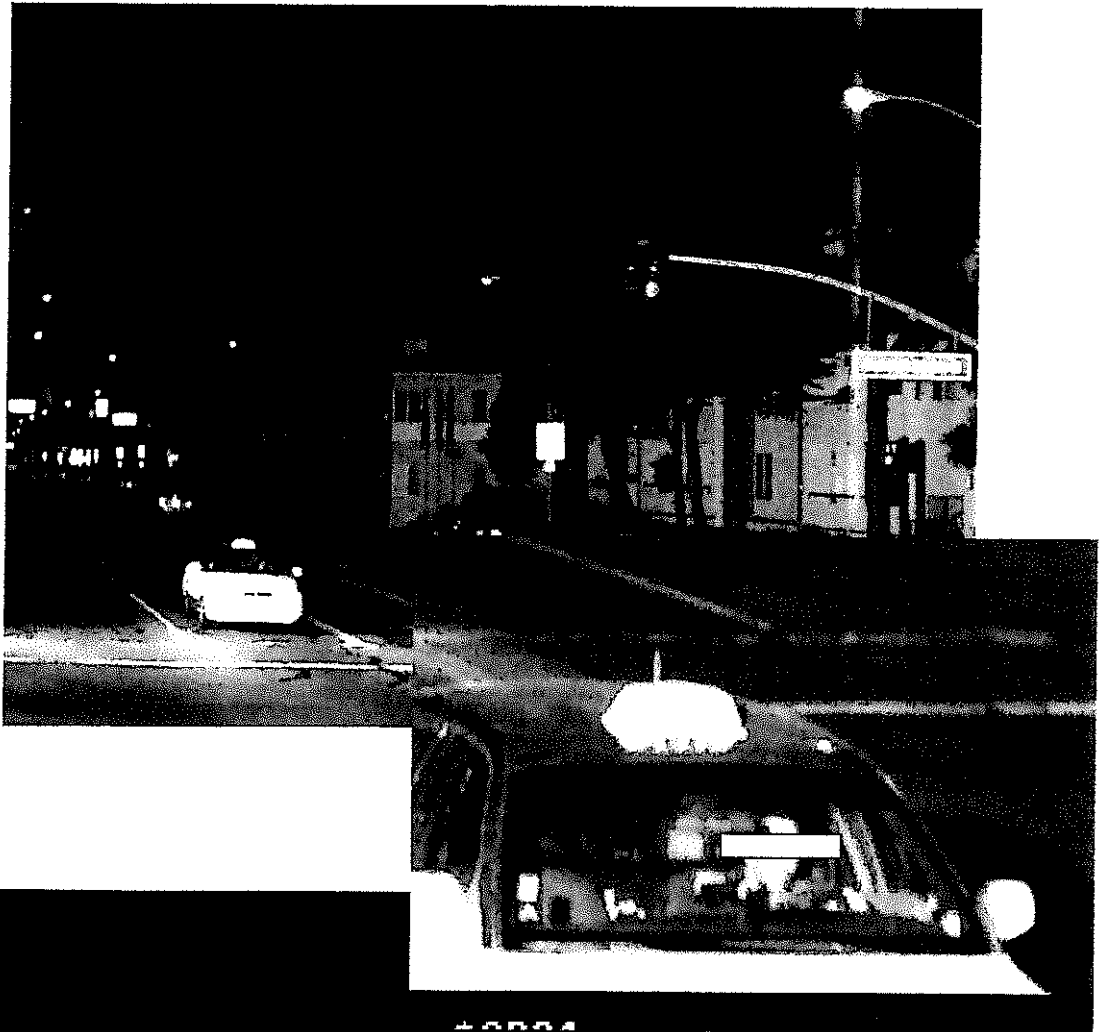
City of Columbus  
Ohio Photo Red Light Enforcement System



*High quality snow images produced by Gatsometer*



City of Columbus  
Ohio Photo Red Light Enforcement System



*Night images from the front*



### 3.1.26 Camera System Speed

#### HIGHLIGHTS

- Violations detected and captured in under a second
- Position of violators in images determined by the Police
- Video clip supplements still photo evidence

*Able to detect a vehicle and determine a possible red light running violation in less than 1 second, the Gatsometer Photo Red Light Camera Systems will provide the extra enforcement tool to supplement the City of Columbus Division of Police*

The need to both detect and photograph a potential red light violator in a fraction of a second is a must in any Photo Red Light Camera System. In the past, Gatsometer manufactured the fastest film-based camera systems in the industry. Today, Gatsometer's the fastest digital camera system in the marketplace.

Disturbance of the in-ground inductive loops by a violating vehicle begins the process to capturing a red light running violator. Every time a vehicle enters and disturbs the first loop in a particular lane, the disturbance sends a signal to the internal computer. Receiving the signal from the loops, the computer operating at an extremely fast twenty million Hertz (cycles per second) grabs the time from the internal clock real time clock integrated circuit. As the car continues travel and disturbs the second loop in their lane the computer again grabs the time from the internal real time clock and also asks three important questions.

- 1) Is the red traffic signal illuminated?
- 2) Is any pre-programmed red delay time expired?
- 3) Is the vehicle exceeding the pre-programmed minimum speed?

All three questions must be answered yes which sends a signal to the digital camera to snap a picture. The entire process happens in thousands of a second. The displayed clock in the image databar can display the time to hundredths of a second.

The positioning of the vehicle in the first photo taken is determined by the position of the in-ground loops. Most municipalities choose to have the first photograph show the violating vehicle behind the point of violation with the red traffic signal illuminated in the photo. ~~The actual determination of the vehicle positioning would be made by the~~  
Division of Police.

~~Supplemental to the digital still images, each time the yellow traffic signal illuminates a twelve second color video clip begins. The clip will show a wide angle view of the~~  
monitored intersection approach beginning with the yellow traffic signal illuminated through the change to red for a total of twelve seconds. If no violation event occurs, the clip is recorded over the next time the yellow light illuminates. Exhibit 3-97 below, ACS provides a small sample of the individual video images captured during a 12 second video clip. The violator in this example, is in the left, straight through lane.



City of Columbus  
Ohio Photo Red Light Enforcement System

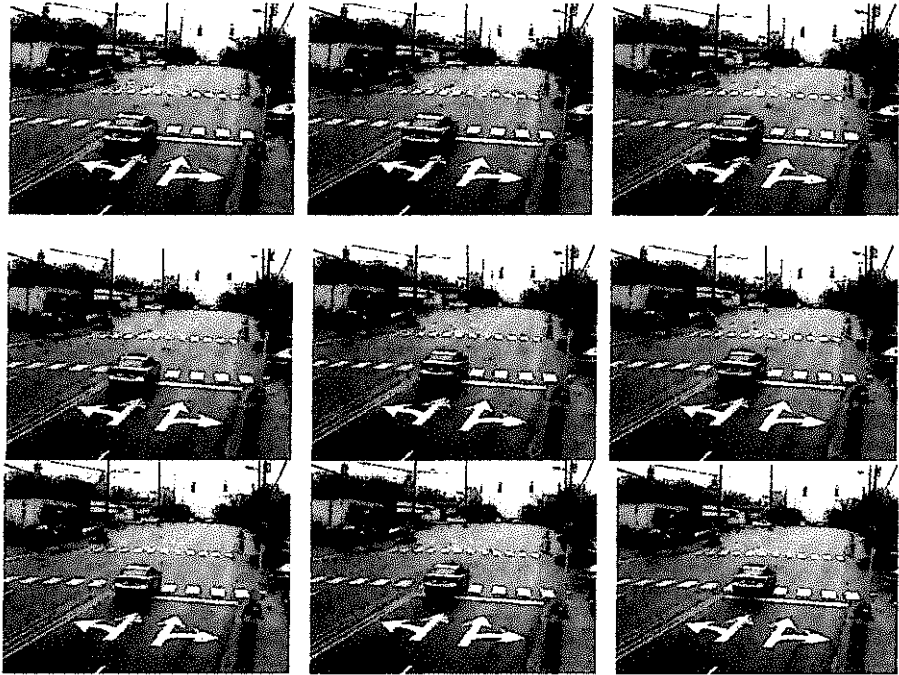
---



***Exhibit 3-97. Beginning with the yellow light illuminating, shown is the first 27 frames from the 360 total frames available each video clip produces (Part 1 of 2)***

City of Columbus  
Ohio Photo Red Light Enforcement System

---



*Exhibit 3-97. Beginning with the yellow light illuminating, shown is the first 27 frames from the 360 total frames available each video clip produces (Part 2 of 2)*



### 3.1.27 | Violation Capture

#### HIGHLIGHTS

- Currently maintaining issuance rate above 90% with our digital camera technology
- ACS is the only company to ever sign up to and meet a 90% issuance requirement in the industry
- Exceeding the more stringent contract requirement in the country violation yield
- Best detection system available delivers 100% vehicle detection
- Only 12-bit camera vendor—six times the processing power of nearest competitor
- ACS will detect and issue more violations than any other vendor in the industry

*No other digital camera system will detect more violations or issue a higher number of citations for the City of Columbus than ACS. Our violation detection system will deliver 100% violation detection and + or – 1 mph speed accuracy. Our digital camera system has proven its ability to achieve a greater than 90% issuance rate.*

ACS is confident in our proposed digital camera system's ability to meet the City's 90% requirement for violation capture because we are the only company to ever sign up to and meet this performance standard in the industry. The City of Raleigh required a 90% yield from the digital violations captured – the highest issuance rate performance standard in North America. Specifically, the City requires 90% of all violations captured have sufficient image quality to become violations. For the calendar year 2004, ACS has exceeded this requirement delivering to the City of Raleigh the best safety program possible.

Equally important, ACS' proposed violation detection system will detect more violations and provide more accurate vehicle speeds than any other detection system in the industry. In addition to providing 100% vehicle detection, our system provides + or – 1 mph speed accuracy, allowing the City to use our red light cameras to issue accurate speed on green, yellow, and red violations in the future, should the City enable a speed program.

Please review sections 3.1.1, How System Photographs Vehicles and Section 3.1.15, Violation Detection and Photographs for a detailed discussion about our proposed detection and camera technology that will provide the City with the highest issuance yields in the industry.



### **3.1.28 | Communication with Traffic Engineer's Staff**

ACS understands the importance of maintaining the integrity of the City's existing traffic control systems. ACS traffic safety camera systems are designed to be physically and electrically isolated from the existing traffic control system. Our system is isolated from the existing traffic controllers that there is that any damage to an ACS traffic safety camera system will in no way impact the operation of the existing traffic control system.

ACS also recognizes the critical importance of notifying the Division of Transportation (DOT), Traffic Engineer's staff when repairs are made in the vicinity which may impact traffic flow and therefore the safety at any controlled intersection. ACS utilizes an online tracking system (Citetrack) that automatically sends a notification to all parties with a need to have the information upon completion of any repairs or system modifications. This not only keeps all parties informed, it provides complete documentation and a record of dates when activities were completed. ACS will include in the distribution any members of the Division of Transportation, Traffic Engineer's staff who have a need for this information.

In addition to the use of Citetrack, ACS is prepared to also establish an email or telephone contact protocol with the DOT's traffic engineers, ensuring proper notification of any repair work.

ACS also agrees that any and all installation and/or repairs will be made according to the original working order unless CoC authorizes a change.

For additional information on Citetrack, please see section 3.1.14.



### **3.1.29 | CoC Reimbursement for Installation and Repairs**

As noted in Section 3.1.21, personnel from the City Transportation Department must be on site for any occasion when access to the traffic signal controller is needed. ACS will reimburse the City of Columbus at published rates for this service. Immediately upon receipt of written notice to proceed, ACS will set up a standard vendor identification in the ACS accounts payable system to facilitate payment of invoices submitted by the City. Payment may be expected within 30 days of receipt by ACS of the invoice and supporting documentation.





### 3.1.30 | Non-emergency Maintenance

ACS understands the need to coordinate all activities with the City of Columbus Transportation Department. The Photo Red Light Enforcement Program, as proposed by ACS, is designed to have minimal impact on existing traffic engineering activities and resources. As noted elsewhere in this proposal, the ACS traffic safety camera systems are designed to be physically and electrically isolated to prevent any possibility of disruption of normal traffic control activities. Occasionally, however, major repairs may be necessary which require City of Columbus personnel to be on-site. These non-emergency circumstances, which will be relatively infrequent, will be scheduled during normal business hours, with a minimum of 24 hours advance notice to the City of Columbus department affected. The City and ACS will work in partnership during negotiations to define the term "emergency" and our exact procedures and responsibilities in response to each. For a detailed discussion of regularly scheduled maintenance activities and procedures, please see section 3.1.31, Maintenance and Emergency Procedures.



### 3.1.31 | Maintenance and Emergency Procedures

#### HIGHLIGHTS

- 15% spare camera inventory onsite in Columbus at all times
- Four layers of program support
- Online CiteTrak allows 24 hour access to maintenance and work order database
- 24 hour network and communications monitoring
- Fulltime Digital System Technician based in Columbus

*A comprehensive, program of preventive maintenance, and an established infrastructure capable of responding to critical failure events are essential features of the proven ACS operational support plan.*

The success of the City of Columbus's Photo Red Light Enforcement Program will depend largely on the selected vendor's ability to maximize enforcement and to produce clear, accurate, consistent evidence. To maximize enforcement and produce high quality evidence that will withstand careful legal scrutiny, the selected vendor must:

- Minimize camera down time
- Maximize image quality

Cameras out of service do not contribute to the enforcement of red light violations. Poor quality images that will not withstand evidentiary challenges will undermine the credibility of the City's program as well as its desired deterrent effect. Cameras must be operational and recording clearly prosecutable images in order to support a successful program.

The City of Columbus Photo Red Light Enforcement Program requires a vendor with experience, resources, and a proven infrastructure to support a major photo enforcement program. This is not an opportunity for a smaller, inexperienced vendor to "step up to the next level." This is a high profile project being implemented in a major city and demands proven expertise.

It is absolutely critical that the selected vendor have a proven, comprehensive system for maintenance and repair. ACS, with the experience gained through providing repair and maintenance support for over 750 installed camera approaches, is prepared to provide such a program. ~~ACS is, in fact, the only vendor able to draw on this kind of experience.~~ The following sections provide an overview of the ACS technical support organization, an explanation of our proposed plan to meet response time requirements, an overview of the major repair process, and a detailed preventive maintenance plan.

---

---

#### Organization of Technical Support

---

ACS, building on the knowledge gained from operating 55 red light camera programs across the United States and Canada, has developed a system of repair and maintenance



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

---

designed to maximize camera productivity, and achieve the highest possible issuance rates. ACS maintains a database of all of our installations which tracks information on maintenance schedules, routine maintenance, upgrades and other repairs. Our approach is to provide a dual system of preventive maintenance and rapid response to any critical failure (such as a pole knockdown), provided by four levels of technical support. Each level is supported by a more comprehensive resource, immediately below it, having a higher level of technical expertise. Technical support is organized around four levels:

- 1) **Project level**—Routine preventive maintenance and repairs are handled by our highly trained Digital System Technicians. For the Columbus Photo Red Light Enforcement project, we will hire a Digital System Technician (DST) to service and maintain the digital camera system. Our Digital Technician will be trained at the ACS National Engineering Support Center in Scottsdale, Arizona, and work out of our existing Columbus project office, located at 2222 Dividend Drive. In the event our DST cannot repair a malfunctioning camera, the unit will immediately be swapped out with a functioning unit.
- 2) **Regional level**—Regional support is typically provided when problems require more experienced troubleshooting skills, or whenever the services of a subcontractor are required. Support at this level will be provided by a regional Construction Coordinator and Image Quality Specialist from the Mid-Atlantic Regional office in Washington DC.
- 3) **National level**—National support is provided through the ACS National Engineering Support Center (NESC) in Scottsdale, AZ, (Exhibit 3-98) and the implementation/construction group in San Diego, CA, (Exhibit 3-99). At this level support takes the form of analysis of highly technical problems, component repair, contract administration, and allocation of resources to deal with emergency situations.
- 4) **Equipment manufacturer**—ACS has established working relationships only with manufacturers having the highest reputations for both quality and service. All proposed equipment vendors for the Columbus project maintain a staff of design and manufacturing engineers that are on-call to provide assistance and advice on problems at the component level.

In addition to this comprehensive technical support, the ACS digital camera network is supported by the Network Operations Center (NOC) out of Tarrytown, New York. The NOC monitors the supporting network on a 24/7 basis. This is accomplished through a system of automatic checks made on a regular basis to verify that each camera is powered up (operational), and able to communicate with the ACS network. If the NOC determines that a camera has lost power or communications, a message is automatically sent to the responsible ACS Project Manager or designated Digital Service Technician for immediate investigation. This constant monitoring ensures that all cameras maintain the highest level of reliability, and ensures that downtime is kept to an absolute minimum, and that any camera experiencing a malfunction can easily be replaced within 24 hours.



### Engineering Organization Chart

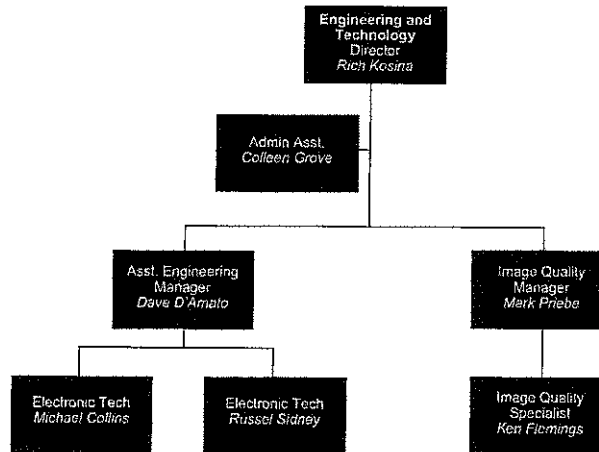


Exhibit 3-98. ACS' National Engineering Support Center Staff.

051 CPRL04

### Implementation and Construction Organization Chart

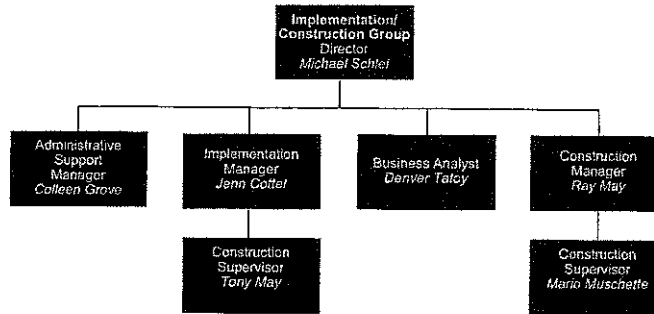


Exhibit 3-99. Only ACS maintains an internal, full time team of construction and implementation supervisors.

052 CPRL04

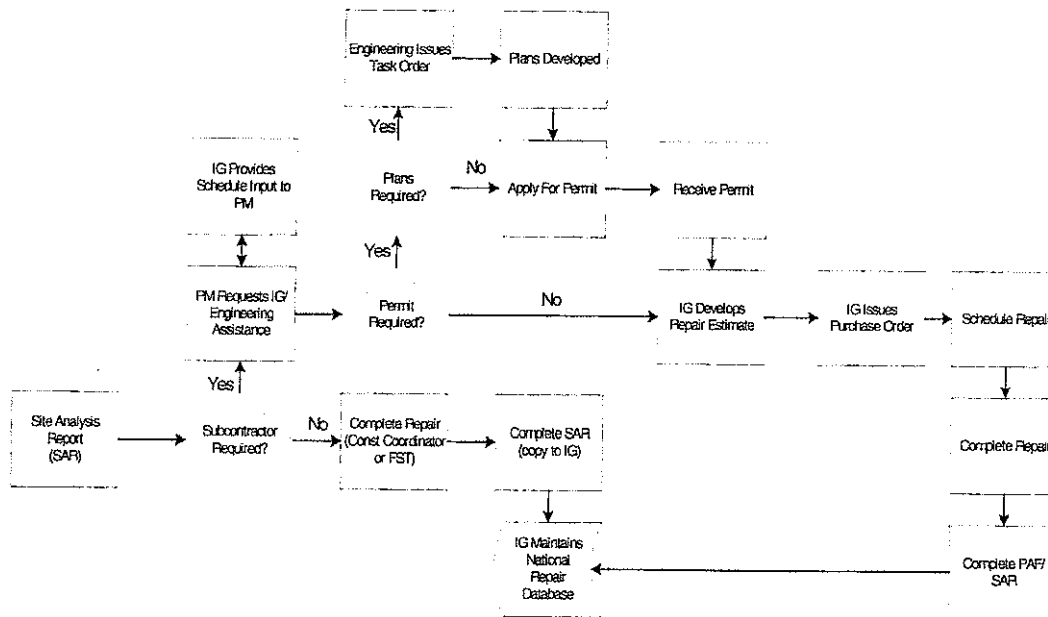
No other photo enforcement vendor has this level of maintenance support available in the United States. Most of the other vendors must depend on their overseas engineering staff to support the few technicians deployed in the United States.

ACS provides technical support using this model on 55 projects, supporting over 800 camera installations. Based on our experience, we are confident that we have the resources in place to assure the City that any camera replacement can be completed within 24 hours of notification.



### Addressing System Problems

In the event that a unit cannot be repaired in the field, it will immediately be swapped out from an inventory of spare units on hand locally (normally 15 percent of the installed cameras). The damaged unit will be shipped to the NESC where a factory-trained staff of technicians will make the necessary repairs. This system ensures that Columbus will be fully confident that all systems will be maintained at the highest level of productivity. No intersection will be out of enforcement more than 24 hours due to camera failure. Occasionally, catastrophic failure occurs due to circumstances beyond our control. For example, cars hit camera poles, other contractors working in the street cut detection loops, vandalism may take a camera out of service, etc. ACS will contract with a local traffic signal/electrical contractor, to provide emergency services on an as-needed basis. The following flow chart provides a detailed description of the major repair process.



### Regular Preventive Maintenance

Preventive maintenance begins with a daily review of rejected images. Rejected images provide the best indication of a potential image quality problem. This initial local review determines whether an image quality problem exists at any site that requires a field service call. In addition, the cameras will be a part of the ACS intranet, so it will be possible for Mark Priebe, Manager of Image Quality, to check camera alignment, focus and settings from the NESC. This daily review of rejected images allows ACS to identify potential problems and to make adjustments quickly.

ACS has also developed a program of scheduled inspection and routine preventive maintenance. This program is designed to identify potential problems in the field, at the earliest possible point. This allows us to keep minor problems from turning into major problems that could result in a system failure and camera downtime. Following is a proposed inspection schedule. This schedule will be adjusted during the program startup to reflect local conditions.

City of Columbus  
Ohio Photo Red Light Enforcement System

Planned Maintenance Program

MAINTENANCE ITEM	DESCRIPTION	WEEKLY	MONTHLY	QUARTERLY	MANUAL REFERENCE
Unattended Housing	Check up/down operation for smooth operation and physical integrity. Check paint/housing for graffiti and/or other vandalism	✓			Field Service Technician Manual
Detection Loops	Check electrical continuity. Inspect installation for proper road seal. Inspect splice points for coupling seal and evidence of moisture.	✓			Field Service Technician Manual
Monitor System Performance	Use NT Performance Monitor to Check Usage of Processor, Logical Disk, Physical Disk, Memory and System.	✓			Operating System Manual
Clean Hub Fans & Filters	Verify vents are not blocked, remove obstructions, and remove dust and dirt by vacuuming and wiping.		✓		Cabinet Maintenance Manual
Clean Storage Drive	Clean storage drive to prevent ingress of dust and grime. Clean internal drive mechanism.			✓	Computer Hardware Maintenance Manual
Perform Hard Disk Scan	Establish that drive has not developed fragmented files, invalid file names, cross-linked files, etc.	✓			Computer Hardware Maintenance Manual
Check Vents & Clean Exterior and Interior of Cabinet	Keep cabinet clean and free of dust and grime, which can contribute to blocking of ventilation system.		✓		Cabinet Maintenance Manual
Remove and Clean Glass from Front of Camera	Glass insert in view port requires regular cleaning to allow uninterrupted view for both cameras.	✓			Cabinet Maintenance Manual
Test Camera Remote Zoom and Focus	Establish that remote control functions are operating correctly.		✓		Camera Maintenance Manual
Test Camera Color Accuracy	Establish that CCD capture and algorithm interpretation are producing true color.			✓	Camera Maintenance Manual
Clean Flash Protective Screen	Remove protective screen and clean surfaces to ensure minimal obstruction to flash.	✓			Flash Maintenance Manual
Test Flash Response Time	Force flash to initiate to establish time interval between signal and flash response.			✓	Flash Maintenance Manual
Test Flash Illumination	Use meter to establish that LUX level of flash is within acceptable limits.			✓	Flash Maintenance Manual



City of Columbus  
Ohio Photo Red Light Enforcement System



JOB NO. \_\_\_\_\_

Site Report  
Date: \_\_\_\_\_

Project:		
Site Address:		
Invoice Address:		
Customer Contact:		Phone No.:
Tracking No.		Warranty:
Date Notified:	Time:	
Subcontractor:		
Purchase Order Number:		
Site Location:		Housing Serial No.
Computer Serial No.		Camera Serial No.
Flash Housing No.	Flash Controller Serial No.	
<b>Site Work Completed:</b> Detection loops Installed <input type="checkbox"/> M.H. Mounted on Pole <input type="checkbox"/> Computer/Data card Installed <input type="checkbox"/> Main System Installed <input type="checkbox"/>	Converter Installed <input type="checkbox"/> F.H. Mounted on Pole <input type="checkbox"/> Camera Installed <input type="checkbox"/> Flash System Operations <input type="checkbox"/>	Cables Run to MH <input type="checkbox"/> Flash Cont. Installed <input type="checkbox"/> Piezzo Cont. Installed <input type="checkbox"/> Left Working OK <input type="checkbox"/>
Write what additional work is to be carried out:		
Parts Required:		
Signature of Technician		
Project Manager Notified (time/date):		

**A site report is completed each time a FST visits a camera location to investigate a problem.**



---

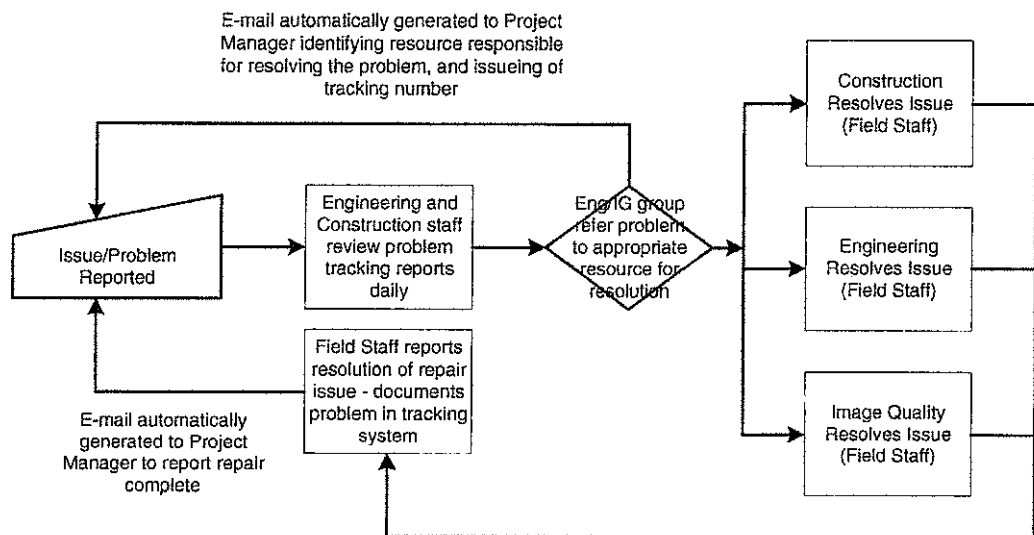
### ACS Tracking System

---

Underlying the project, regional, and national support is a web-based tracking system. This tracking system also provides the primary interface between the ACS Project Manager and ACS technical support. The tracking system is a tool for controlling the process, and provides a number of useful functions:

- Provides a mechanism for local project staff to request technical support for repairs
- Allows the project manager and others to track progress on resolution of repairs
- Enables engineering and construction management to allocate resources efficiently
- Records a complete history of all repairs at any given site
- Provides a record of a system failures and repairs for management reporting
- Gives engineering and construction management a tool for analyzing trends over time

### Functional Diagram – ACS RLC Problem Tracking System



Our web-enabled issue-tracking program is available in a secured, password-controlled environment for authorized technical staff users from virtually any web-enabled workstation. The information is captured on-line for each query. The system requires an assignment of responsibility for each item. Upon assignment, both the designee and their manager receive an automated email informing them that they have been assigned to attend to the issue. The New Entry screen located at the end of this section shows a typical entry for a repair issue. The locations automatically populate on the screen. Fields are table-driven, wherever possible.

---

Once a ticket is opened, it will be tracked and monitored through resolution. Only the project manager can close a ticket, after review of the actions taken and supporting information, including images captured during the corrective actions. At any time, users can view the status of a single item or multiple items. The search screen at the end of this section shows the inquiry screen where actions are accessed. Users can look at a variety of options to either narrow or widen the scope of their inquiry. Items matching their request are listed for review. This makes it easy for staff to quickly identify issues that still need resolution and for management to track progress of the issues.





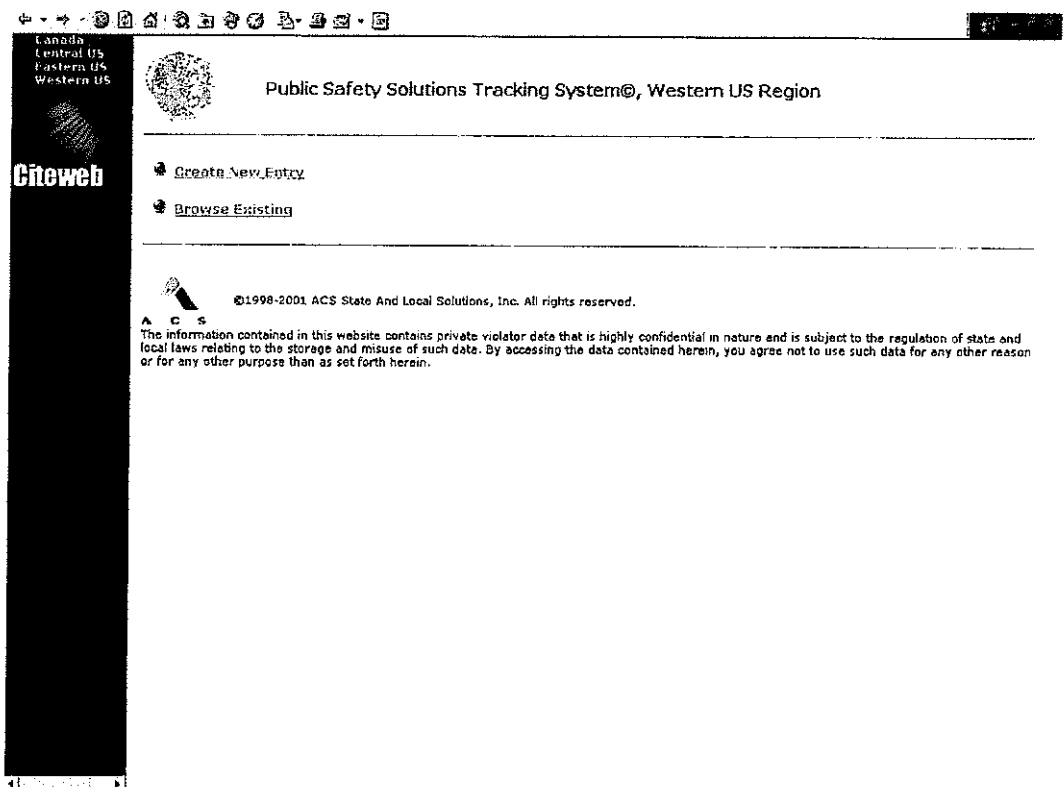
**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

From the City's perspective, this tracking system provides two benefits:

- It greatly enhances ACS' ability to respond to maintenance requests
- It provides a mechanism for the project manager and authorized City personnel to check the status of any repair at any time

Although the web-based tracking system greatly improves our ability to document problems and respond to maintenance issues quickly and efficiently, its primary function is to control the process. There is still a need for hard copy notes taken during field visits. All site visits are documented using the Site Report included at the end of this section. These Site Reports are analyzed periodically to identify trends and recurring problems, which may require attention from higher-level technical support resources. This report also provides an ongoing history of any repairs and modifications performed at the site.

Following screens provide an overview of the ACS full feature incident tracking system.



***Initial Incident Tracking screen allows users to create a new entry, opening a tracking record, or browse all existing tracking records.***



City of Columbus  
Ohio Photo Red Light Enforcement System



Public Safety Solutions Tracking System®, Eastern US Region

Name: janncotiel      Reported by: JFogg      Phone In: ▾  
Contract: BaltimorePLC      Location: Cooks Lane & Edmondson Ave.      ▾  
Camera #: 53      Pole/Equipment #: ▾

Problem Description: Camera pole was struck by a vehicle and bent over.

Corrective Action:

Status:

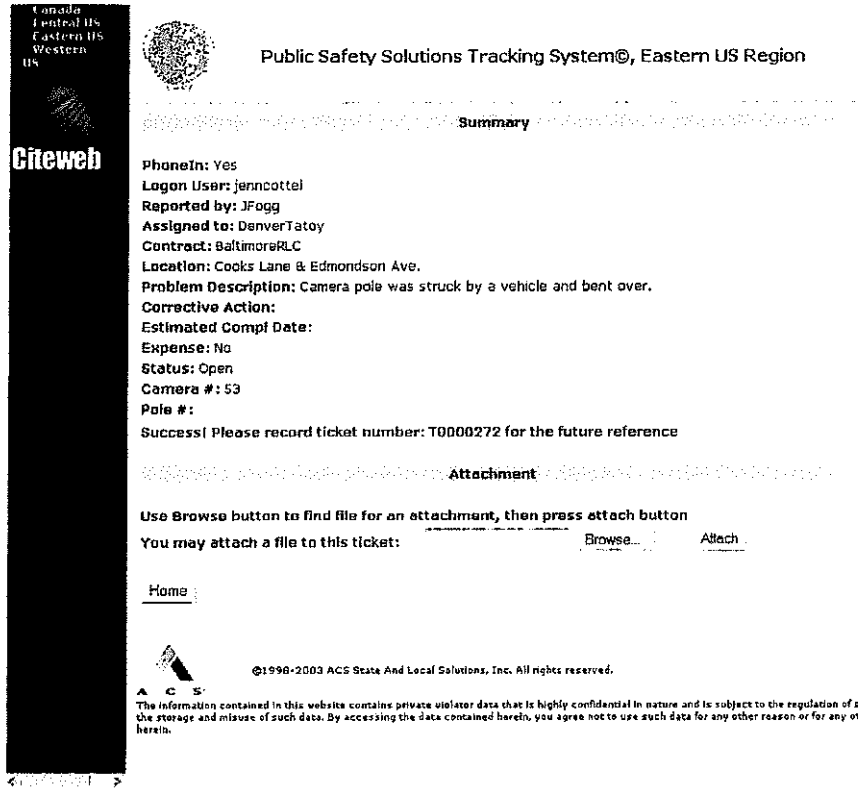
Assign to: DenverTatoy      Email: denvertatoy@acs-inc.com      Expense: ▾  
Estimated Completion Date: ▾

Save Back

*New entry screen creates tracking record, documents all contacts, and records proposed corrective action to be taken. Status is updated following each action, and can be tracked by all authorized users.*



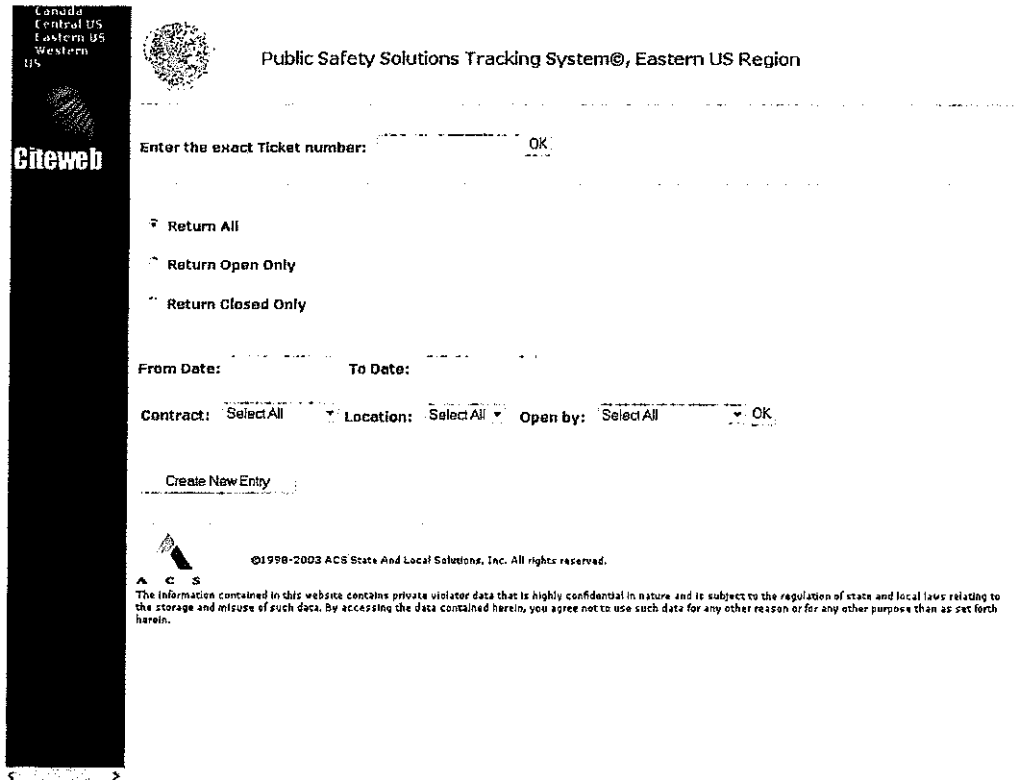
City of Columbus  
Ohio Photo Red Light Enforcement System



The screenshot shows a web interface for the Public Safety Solutions Tracking System. On the left is a vertical sidebar with the 'Citeweb' logo and regional navigation options: Canada, Central US, Eastern US, Western US, and US. The main content area is titled 'Public Safety Solutions Tracking System®, Eastern US Region' and features a 'Summary' tab. The summary text includes: 'PhoneIn: Yes', 'Logon User: jenncottei', 'Reported by: JFogg', 'Assigned to: DenverTatoy', 'Contract: BaltimoreRLC', 'Location: Cooks Lane & Edmondson Ave.', 'Problem Description: Camera pole was struck by a vehicle and bent over.', 'Corrective Action:', 'Estimated Compl Date:', 'Expense: No', 'Status: Open', 'Camera #: 53', and 'Pole #:'. A success message reads: 'Success! Please record ticket number: T0000272 for the future reference'. Below this is an 'Attachment' section with instructions to use a 'Browse' button to find a file and an 'Attach' button. A 'Home' link is also present. At the bottom, there is a copyright notice for ACS (©1998-2003 ACS State And Local Solutions, Inc. All rights reserved.) and a disclaimer: 'The information contained in this website contains private user data that is highly confidential in nature and is subject to the regulation of state and local laws relating to the storage and misuse of such data. By accessing the data contained herein, you agree not to use such data for any other reason or for any other purpose than as set forth herein.'

*Summary screen provides an overview of the problem, corrective action, and expected completion date.*

City of Columbus  
Ohio Photo Red Light Enforcement System



Canada  
Central US  
Eastern US  
Western US

**Citeweb**

Public Safety Solutions Tracking System®, Eastern US Region

Enter the exact Ticket number: \_\_\_\_\_ OK

Return All  
 Return Open Only  
 Return Closed Only

From Date: \_\_\_\_\_ To Date: \_\_\_\_\_

Contract: Select All Location: Select All Open by: Select All OK

Create New Entry

©1998-2003 ACS State And Local Solutions, Inc. All rights reserved.

**A C S**

The information contained in this website contains private violator data that is highly confidential in nature and is subject to the regulation of state and local laws relating to the storage and misuse of such data. By accessing the data contained herein, you agree not to use such data for any other reason or for any other purpose than as set forth herein.

***Search feature allows users to review open and closed tickets. Database of records can be searched by date range, contract and/or location.***

City of Columbus  
Ohio Photo Red Light Enforcement System



Public Safety Solutions Tracking System®, Eastern US Region  
Accessed on 02/20/2004 13:59:34

Ticket	Contract	Location	Open Date	Open by	Status
<a href="#">T0000142</a>	WDC	WB Constitution Avenue @ 15th Street	12/5/2003 3:22:43 PM	AndrewPinella	Open
<a href="#">T0000143</a>	WDC	NB Bladensburg Road @ New York Avenue	12/5/2003 3:24:27 PM	AndrewPinella	Open
<a href="#">T0000146</a>	WDC	SB N. Capital Street @ Gallatin Street	12/8/2003 3:21:52 PM	jenncottel	Open
<a href="#">T0000149</a>	WDC	EB E. Capital Street @ Texas Avenue	12/8/2003 3:43:23 PM	jenncottel	Open
<a href="#">T0000150</a>	WDC	SB So. Capital Street @ Eye Street	12/8/2003 3:57:20 PM	jenncottel	Open
<a href="#">T0000151</a>	WDC	NB Wisconsin @ Brandywine	12/8/2003 3:59:47 PM	jenncottel	Open
<a href="#">T0000152</a>	WDC	SB Georgia Avenue @ Missouri Avenue	12/8/2003 4:01:55 PM	jenncottel	Open
<a href="#">T0000178</a>	WDC	No location specified	12/16/2003 12:48:12 PM	AndrewPinella	Open
<a href="#">T0000210</a>	WDC	No location specified	1/26/2004 6:11:52 PM	jenncottel	Open
<a href="#">T0000252</a>	WDC	WB E. Capital Avenue @ Southern Avenue	1/29/2004 1:08:29 PM	AndrewPinella	Open
<a href="#">T0000262</a>	WDC	EB Mt. Olivet Street @ W. Virginia	2/10/2004 3:41:58 PM	AndrewPinella	Open

Refine Search    Create New Entry



©1998-2003 ACS State And Local Solutions, Inc. All rights reserved.

The information contained in this website contains private violator data that is highly confidential in nature and is subject to the regulation of state and local laws relating to the storage and misuse of such data. By accessing the data contained herein, you agree not to use such data for any other reason or for any other purpose than as set forth herein.

*Example of search result.*



City of Columbus  
Ohio Photo Red Light Enforcement System

Public Safety Solutions Tracking System®, Western US Region

**Citeweb**  
Lorado  
Central US  
Eastern US  
Western US

Name: AlexK      Reported by: AHughes      Phone In:

Contract: IndianWells      Location: EB Fred Weing Road @ Eldorado Drive

Camera #: 2525      Pole/Equipment #: 4542

**Problem Description:**  
Problem Description Information ....

**Corrective Action:**  
Corrective Action Information ....

**Status:**  
Status Information ....

Assign to: AlexK      Attach file      Email: alex.kushnir@acs-inc.com

Estimated Completion Date: 03/15/2003      Expense:

Save and Show Summary      Back



City of Columbus  
Ohio Photo Red Light Enforcement System



Public Safety Solutions Tracking System®, Eastern US Region

Ticket Details:

Ticket Number:	T0000272	Entered by:	jenncottel	Reported by:	JFogg
Date Entered:	2/20/2004	Phone In:	Yes	Assigned to:	DenverTotay
Contract:	BaltimorePLC	Location:	Cooks Lane & Edmondson Ave.		
Status:	Open	Expense:	No	Est.Completion Date:	2/23/2004
Camera #:	53	Pole #:			

Problem Description (history)

\*\*\*\*\* 02/20/2004, Entered by: jenncottel, Assigned to: DenverTotay \*\*\*\*\*  
Camera pole was struck by a vehicle and bent over.

Corrective Action (history)

\*\*\*\*\* 02/20/2004, Entered by: jenncottel, Assigned to: \*\*\*\*\*  
Called Calmi Electric and requested that emergency pickup be done to remove the damaged pole. Also requested quote to replace pole. Ordered the replacement pole.

Status (history)

\*\*\*\*\* null \*\*\*\*\*  
Waiting for quote from Calmi for replacement of camera pole.

Additional/New Ticket Information:

Problem Description:

Corrective Action

Example of screen showing full record of open ticket.



### 3.1.32 Client List and Qualifications

ACS has an extensive list of clients that exemplify our ability to smoothly implement and operate photo enforcement systems that achieve dramatic safety results and gain the public's trust and support. As detailed further in Section 7.0, Experience and Qualifications, ACS has more relevant big city photo enforcement experience than all other vendors combined. In fact, 15 of the 20 largest participating cities in North America contract with ACS for photo enforcement systems and services.

The following is a chart of our current clients and the services we offer them. For further information about our Photo Safety experience refer to Proposal Section 7.0, Experience and Qualifications.

CLIENT	EXPERIENCE
<p>City of Mesa, AZ            28 red light cameras            34 camera housings            10 speed enforcement cameras</p> <p>September 1996 – Present</p> <p>Detective Terry Dorn            480-644-3419            480-644-3419 Fax  <a href="mailto:terry.dorn@cityofmesa.org">terry.dorn@cityofmesa.org</a>            130 N. Robson            Mesa, AZ 85201</p>	<p>In 1996, after a competitive bid, ACS was selected by the City of Mesa, Arizona (the state's third largest city) to implement its new photo enforcement program. This turnkey program, the largest in Arizona, began with 12 Red Light Cameras (RLCs) and three photo radar units, as well as complete service and program support. Our community awareness work with the City of Mesa resulted in the city winning the prestigious "Silver Quill" award presented by the International Association of Business Communicators for the community education component of their photo enforcement program. Furthermore, due to the success of the program, the City of Mesa recently extended the contract to ACS after a competitive bid process for an additional three years, expanding enforcement to 20 intersections and five mobile photo radar units. The expansion makes it one of the nation's largest combined automated speed and intersection enforcement programs.</p>
<p>City of Phoenix, AZ            26 Red Light Cameras;            26 Housings;            4 Photo            Radar Units</p> <p>Decemeber 2001-Present</p> <p>Lt. Wayne Lorch            602-495-7804            602-534-3839 Fax  <a href="mailto:wayne.lorch@phoenix.gov">wayne.lorch@phoenix.gov</a>            3443 S. Central Ave            Phoenix, AZ 85040</p>	<p>ACS has been separately awarded the City's photo red light and photo radar program contracts. Today, ACS has installed, services, and maintains 26 red light cameras and four photo radar units.</p>





**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

CLIENT	EXPERIENCE
<p>Los Angeles County            10 Red Light            Cameras            15 Housings</p> <p>May 1999 – Present</p> <p>Mr. Guita Sheik            626-300-4712            626-300-4736 Fax  <a href="mailto:gsheik@ladpw.org">gsheik@ladpw.org</a>            P.O. Box 1460            Alhambra, CA 91802-1460</p>	<p>The first photo enforcement program managed by the California Highway Patrol in support of Los Angeles County's RLC program began in June 1999 after ACS won the competitive bid to provide a turnkey program to the county. The program includes enforcement at five intersections with 15 unattended housings and 10 rotating RLCs. In the summer of 2003, the County selected ACS over all other competition in a competitive rebid.</p>
<p>Los Angeles County—            Metropolitan            Transportation            Authority            16 Red Light            Cameras            33 Housings</p> <p>December 1992-Present</p> <p>Mr. Abdul Zohbi            213-922-7396            213-922-3879 Fax  <a href="mailto:zhobia@mta.net">zhobia@mta.net</a>            One Gateway Plaza            Mail Stop: 20-2-1            Los Angeles, CA 90012-2952</p>	<p>A very successful pilot project (resulting in a 92% reduction in violations and near 100% successful court conviction of all contested cases) led to our selection in 1995 after a competitive bid process for a program expansion to 33 monitored approaches with 16 RLCs in regular rotation. This project is ongoing, and ACS provides complete turnkey servicing of cameras and citation processing. This is presently one of the largest photo enforcement programs in California. Former U.S. DOT Secretary Pena has recognized it as a "National Model Program" in traffic safety.</p>
<p>City of Los Angeles            32 Red Light Cameras Installed; 32            Camera Housings</p> <p>December 2000-Present</p> <p>Sgt. Steve Foster            213-473-7796            213-473-7814 Fax  <a href="mailto:lapdtraffic@earthlink.net">lapdtraffic@earthlink.net</a>            419 S. Spring Street            Los Angeles, CA 90013</p>	<p>By the end of January 2003, ACS had installed and services 32 Red Light Cameras. ACS provides photo enforcement services to the City including payment processing, customer service, noticing, DMV lookup, evidence management maintenance and service, and installation.</p>
<p>City of West            Hollywood            16 Red Light Cameras &amp;            24 Approaches</p> <p>January 1999 – Present</p> <p>Mrs. Joyce Rooney            323-848-6370            323-848-6564 Fax  <a href="mailto:jrooney@weho.org">jrooney@weho.org</a>            8300 Santa Monica Blvd            West Hollywood, CA 90069</p>	<p>After contract award in January 1999, ACS was selected to provide the City of West Hollywood with a full service turnkey RLC program. The City's program began concurrently with a media conference in May along with the warning campaign. West Hollywood's program consists of monitoring four approaches at one intersection. A recently completed expansion has brought the city's total to 16 cameras and 24 approaches. ACS' track record for service resulted in the extension of our contract with the City.</p>
<p>City of San Francisco            27 Cameras            42 housings</p> <p>1998 – Present</p>	<p>ACS is responsible for all image processing and violation processing in support of the City's photo red light camera program. Currently, ACS is working to install the first digital camera in the City.</p>



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

CLIENT	EXPERIENCE
<p>Britt Thesen            415-252-3921            415-554-2352 Fax  <a href="mailto:britt.thesen@sfgov.org">britt.thesen@sfgov.org</a>            Department of Parking and Traffic            25 Van Ness Avenue, Suite 345            San Francisco, CA 94102</p>	
<p>MTA TraxGuard            16 cameras            42 housings</p> <p>Mr. Abdul Zohbi            (213) 922-7936            (213) 922-3879 Fax  <a href="mailto:zohbia@mta.net">zohbia@mta.net</a>            Metropolitan Transportation Authority            One Gateway Plaza            Mail Stop:20-2-1            Los Angeles, CA 90012-2952</p>	<p>The MTA contracted with ACS to provide 16 rail grade crossing cameras to be rotated amongst 42 housings. The MTA purchases all cameras, poles, and flashes. ACS is responsible for all camera maintenance and installation, violation processing, customer service, project management, evidence management, and expert testimony.</p>
<p>City of Beverly Hills            20 Red Light Cameras            20 Housings</p> <p>January 1997-Present</p> <p>Offcr. William Kirkpatrick            310-285-2195</p>	<p>In 1996, after reviewing bids from several vendors, ACS was selected by the City of Beverly Hills, California to provide a complete turnkey RLC system at some of the busiest intersections in Los Angeles County. This program began in April 1997. The first four cameras initially currently captured 60 violations per day, but are now currently averaging 8 violations per day, an 87% reduction, making this an important component of the city's "safe driving" campaign. We successfully worked with the Beverly Hills Municipal Court and established the electronic interface for the automated transfer of data, allowing the Court to process what is projected to be triple the number of its current volume of traffic violations. The program's success led to an expansion of four additional cameras and approaches at high traffic intersections in the city. ACS was recently reselected in a highly competitive rebid process, as a testament to the outstanding service we provide the City.</p>
<p>City of San Diego            19 Red Light Cameras            19 Housings</p> <p>June 1998 – Present</p> <p>Sgt. Ernest Adams            858-573-5067            858-495-7862 Fax  <a href="mailto:eba@pd.sannet.gov">eba@pd.sannet.gov</a>            9265 Aero Drive            San Diego, CA 92123</p>	<p>ACS provides RLC program services for San Diego, California. A total of 12 of 19 intersections have been installed over the first phase of our new contract. ACS is responsible for camera installation, camera service and maintenance, violation processing, customer service, and project management. The City was so satisfied with ACS service that the Council unanimously awarded ACS a five year sole source contract.</p>
<p>District of Columbia            39 Red Light Cameras            40 Housings            6 Photo Radar            1 Fixed Radar Camera</p> <p>March 1999 – Present</p> <p>Lt. Patrick Burke            202-727-4315</p>	<p>In 1998, ACS was selected by the District of Columbia to provide its comprehensive automated traffic enforcement services. The contract called for 40 RLCs with the potential for additional units in the future. The RLC program went live in June 1999. Tickets were issued beginning August 1, 1999. There has been a 64% decrease in violations since program inception, with some intersections experiencing a decrease in violations as high as 87%. Since August 1, ACS provides equipment and processing for six photo radar speed enforcement units (one fixed, five mobile units). In October 2000, the</p>



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

CLIENT	EXPERIENCE
202-727-4406 Fax <a href="mailto:Patrick.burke@dc.gov">Patrick.burke@dc.gov</a> 300 Indiana Ave Washington, D.C. 20005	city and ACS were given the National Council for Public Private Partnership Award for the success of the joint program.
City of Baltimore, MD 48 Red Light Cameras 48 Housings October 1998 – Present  Offcr. Joe Johnson 410-396-2371 Jo- <a href="mailto:seph.Johnson@baltimorepolice.org">seph.Johnson@baltimorepolice.org</a> Baltimore City Police Department 242 West 29 <sup>th</sup> Street Baltimore, MD 21211	ACS won the city's bid to provide comprehensive RLC systems and services at up to 48 intersections. This project began ahead of schedule in February 1999 when six cameras became operational, and the program went live issuing full-color citations. Baltimore police officers approve citations when they come into the ACS office in Baltimore. The city has experienced a 50% decrease in red light running since the program's inception.
Prince George's County, MD 22 Red Light Cameras 22 Housings  November 1999 – Present  Ms. Michelle Connolly 301-985-5982	In late 1999, ACS was selected by Prince George's County in a competitive procurement to provide a complete RLC program. The first camera went live in April 2000, and 21 more have since become operational, with up to 40 additional cameras throughout the contract term. ACS built and maintains all RLC systems as well as provides turnkey citation processing services for the county including citation mailing, customer service, hearing scheduling, and payment processing. The county has experienced a 45% reduction in red light running since November 1999.
Providence, RI 20 Digital Red Light Cameras 20 Housings  February 2004 – Present  Alan Sepe 401-421-7740 x300 401-273-2144 Fax <a href="mailto:ASEpe@Providenceri.com">ASEpe@Providenceri.com</a> Acting Director, Public Property 25 Dorrance Street, Room 407 Providence, RI 02903	ACS was awarded the City of Providence digital red light camera program in February 2004. ACS will install 20 digital red light cameras, provide camera maintenance and service, violation processing, collections, customer service, payment and mail correspondence processing, pay-by-phone, pay-by-web, integrated voice response, correspondence imaging, and integrated voice response for the City.
Raleigh, NC 15 Digital Red Light Cameras 15 Housings  Mike Kennon 919-890-3430 919-890-3786 Fax <a href="mailto:mike.kennon@ci.raleigh.nc.us">mike.kennon@ci.raleigh.nc.us</a> City Traffic Engineer PO Box 590	ACS was awarded the City's digital red light program in 2003. ACS has installed eight of the 15 required digital red light cameras, provides camera maintenance and service, violation processing, collections, customer service, payment and mail correspondence processing, pay-by-phone, pay-by-web, integrated voice response, and integrated voice response for the City. For calendar year 2004, ACS has exceeded our requirement to maintain a 90% issuance rate using our digital camera technology.
Raleigh, NC 27602 Insurance Corporation of British Columbia (Vancouver, British Columbia)	ACS won the contract to supply and maintain RLCs in the Province of British Columbia in November 1999. The program consisted of 30 RLCs and 90 decoy units at 120 installations throughout the Province. The program
30 Red Light Cameras 90 Red Light Camera Decoys 120 Housings  December 1999 – December 2004	operated in conjunction with the B.C. Attorney General, I.C.B.C., the B.C. Ministry of Transportation and Highways, the R.C.M.P., and Municipal Police throughout British Columbia. The City of Vancouver is a participant in the ICBC program.



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

CLIENT	EXPERIENCE
<p>Mr. Brian Wilson  604-952-3304  604-952-3328 Fax  <a href="mailto:brian.wilson@gems3.gov.bc.ca">brian.wilson@gems3.gov.bc.ca</a>  4450 Clarence Taylor Circle  Delta, BC V4K 3W3</p>	
<p>City of Winnipeg (Manitoba)  6 Photo Radar  24 Red Light Cameras  24 Housings</p> <p>June 1 2002 – May 31 2007</p> <p>Sgt. Jon Butcher  204-938-7602  P Sgt Jerry Munch  204-938-7602  204-928-7609 Fax  <a href="mailto:jmunch@winnipeg.ca">jmunch@winnipeg.ca</a>  1313 Kenaston Blvd  Winnipeg, Manitoba R3P 2P2</p>	<p>ACS won a competitive bid for the implementation of a five-year intersection Safety camera and mobile speed enforcement program throughout Winnipeg. In the first year of the program 12 intersection safety cameras were installed enforcing redlight running and speeding through the intersections and five photo vehicles were set up in school, playground and construction zones. This increased to six vehicles after the first six months. This program has been highly successful, and in the second year 12 more intersection safety cameras were installed. In the first year of enforcement over 170,000 citations were mailed. In the following years there will continue to be 12 new intersections installed each year. With the success of the reduction of speeding and collisions at the current intersections there is the possibility of adding more than the proposed 30 cameras. Plus the WPS is adding two more speed enforcement vehicles in 2004. The Winnipeg program, overseen by the Winnipeg Police Service, is a full turnkey service including training, maintenance, and supplies as well as community education all processed from the Winnipeg processing center</p>
<p>City of Toronto (Regional Municipality of Hamilton-Wentworth, Regional Municipality of Peel, Regional Municipality of Ottawa, Carlton, Regional Municipality of Waterloo)  10 Red Light Cameras  38 Housings</p> <p>November 2000- Present</p> <p>Mr. Michael Brady  416-397-5016  416-397-5011 Fax  <a href="mailto:mike_brady@city.toronto.on.ca">mike_brady@city.toronto.on.ca</a>  703 Don Mills Road, 6<sup>th</sup> Floor  Toronto, Ontario M3C 3N3</p>	<p>ACS won a competitive bid for the implementation of a two-year RLC pilot program throughout Ontario. At the request of the participating cities, the pilot was extended for an additional two years. An initial proof of performance phase was completed in September 2000. Today the program includes 10 red light cameras and 38 housings.</p>
<p>City of Edmonton  (Alberta, Canada)  6 Photo Radar  20 Red Light cameras  6 decoy units  45 Housings</p> <p>October 1992 – Present</p>	<p>The Edmonton Police Service (EPS) began their program with the purchase of a Gatsometer Photo Radar unit in 1993. In November of 1994, EPS contracted to use our back-office citation processing system. In May of 1996, through a competitive bid process, EPS completely outsourced this program and signed a turnkey contract with ACS. This program has been highly successful, and in September 1997 EPS added a second photo radar unit. To date, EPS has issued over 400,000 speeding</p>
<p>Sgt. Tom Bell  780-421-3304  780-421-2851 Fax  <a href="mailto:tom.bell@police.edmonton.ab.ca">tom.bell@police.edmonton.ab.ca</a></p>	<p>citations. In March 1999, a third photo radar unit was added to the program, and in January 2001 a fourth unit was added. In November 1998, we installed one RLC in Edmonton. In June 1999, the Edmonton contract was expanded to include five additional RLCs and six decoy</p>



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

<b>CLIENT</b>	<b>EXPERIENCE</b>
9620-103A Avenue Edmonton, Alberta T5H 0H7	units for a total of 12 intersections. In 2000, twelve intersections were added, and in 2001, an additional twelve RLCs and intersections have been added. In 2004, Edmonton will have a total of 23 RLCs and 40 Decoy Units at 60 sites, along with a total of 6 Photo Radar units in operation
City of Portland, OR 3 Mobile Radar Units 6 Red Light  October 1995 – Present  Sgt. Mark Kruger 503-823-2151 503-823-2153 Fax <a href="mailto:mkruger@police.ci.portland.or.us">mkruger@police.ci.portland.or.us</a> 1319 SE Martin Luther King Jr. BLVD Portland, OR 97204	In the fourth quarter 1995, ACS was awarded the contract for a turnkey photo radar program for the City of Portland. In a public opinion survey of citizens regarding the program, 88% expressed support for the city's photo radar campaign. In 1996, the Oregon legislature authorized the City of Portland to expand their current photo radar program based on the success of the program's first year results. Due to the success of the program Portland has since added another photo radar van to their fleet. In March 2001, the city awarded ACS a three-year sole source contract for both photo radar and red light camera services. The City is currently negotiating a sole source extension with ACS
City of Tempe, AZ 4 Photo Radar Mobile Units 4 Dual Red Light Camera Systems 4 Pairs of Housings  December 1996 – Present  Sgt. Mark Perkovich 480-858-2265 480-858-2128 Fax <a href="mailto:mark_perkovich@tempe.gov">mark_perkovich@tempe.gov</a> 120 E. 5 <sup>th</sup> Street Tempe, AZ 85280	ACS was selected in a competitive bid process by the City of Tempe, Arizona to provide a complete turnkey program, including both RLCs (four RLCs at two intersections initially) and photo radar (two units). This program has met with strong citizen support and is already credited by the police department for increasing traffic safety in the community. As a testament to program success, the City of Tempe recently extended the ACS contract for an additional year.
City of Garland, TX 4 Photo Red Light Cameras  2002-Present  Mr. Brad Neighbor 972-205-2380 972-205-2789 Fax <a href="mailto:bneighbo@ci.garland.tx.us">bneighbo@ci.garland.tx.us</a> 200 N. 5 <sup>th</sup> Street, Suite 416 Garland, TX 75040	The City of Garland and ACS have initiated and operate the first red light program in the State of Texas. In support of the City's four cameras, ACS is responsible for system construction and maintenance, violation processing, customer service, hearing scheduling, project management, evidence management, payment processing, and adjudication service.
City and County of Denver, CO 3 Photo Radar  September 1998-Present  Dep. Chief Mary Beth Klee 720-913-6530 720-913-7045 Fax <a href="mailto:kreem@ci.denver.co.us">kreem@ci.denver.co.us</a> 1331 Cherokee Street Denver, CO 80204	After winning a competitive bid in the City and County of Denver, ACS began implementation of the first photo radar program east of the Rocky Mountains. This large-scale, full-service turnkey contract consists of three mobile units known locally as "cam-vans". This speed enforcement program is expected to reduce dangerous driving throughout the city and serve as a model for the state. Warning notices were issued in
City of Boulder, CO 1 Mobile Photo Radar 6 Red Light Cameras	December 1998 and full enforcement began in January 1999. Following the program's success, the city expects to expand its photo enforcement efforts to include RLCs installed at high accident intersections. ACS processes approximately 10,000 violations per month for the City.
City of Boulder, CO 1 Mobile Photo Radar 6 Red Light Cameras	Boulder selected ACS in a competitive bid process to provide a complete turnkey program, including one photo radar van initially, phasing into a RLC program monitoring four



**City of Columbus  
Ohio Photo Red Light Enforcement System**

<b>CLIENT</b>	<b>EXPERIENCE</b>
<p>May 1998 – Present</p> <p>Mr. Michael Gardner-Sweeney 303-441-3266 303-441-4271 Fax <a href="mailto:sweeneym@ci.boulder.co.us">sweeneym@ci.boulder.co.us</a> Department of Public Works P.O. Box 791 1739 Broadway Boulder, CO 80306</p>	<p>intersections. Photo radar enforcement began in July 1998. The City added two new red light cameras and plans to add another mobile speed van in the coming year. Currently ACS processes approximately 4,000 photo enforcement violations per month for the City. The City was so satisfied with ACS' service, they awarded a contract extension in February 2004.</p>
<p>City of Lakewood, WA 4 Red Light Cameras 1 Mobile Unit</p> <p>2000-Present</p> <p>Mr. William Larkin 235-983-7795 235-983-7737 Fax <a href="mailto:mlarkin@lakewood.or.us">mlarkin@lakewood.or.us</a> 6000 Main Street Lakewood, WA 98433</p>	<p>The city selected ACS in a competitive bid to provide both photo radar and red light camera services under the state of Washington's Photo Enforcement Pilot Project. Photo radar began in April 2001 and the RLC program began in July 2001 commencement. Since the program's inception, average speeds have dropped an average of 15% at each of the enforced deployment zones.</p>
<p>City of Montebello, CA 4 Red Light Cameras 4 Red Light Housings</p> <p>February 200 – Present</p> <p>Sergeant Craig Powers 323-887-1335 323-887-1235 Fax <a href="mailto:cpowers@cityofmontebello.com">cpowers@cityofmontebello.com</a> City of Montebello Police Department 1600 West Beverly Boulevard Montebello, CA 90640</p>	<p>The City of Montebello and ACS entered into a three-year agreement beginning in February 2003.</p>
<p>City of Indian Wells 4 Red Light Cameras 4 Approaches</p> <p>December 1999 –Present</p> <p>Mr. Mel Windsor 760-776-0247 760-346-0407 Fax <a href="mailto:mwindsor@ci.indian-wells.ca.us">mwindsor@ci.indian-wells.ca.us</a> 44-950 Eldorado Dr Indian Wells, CA 92210-7497</p>	<p>Through sole source procurement, ACS provides the City of Indian Wells with a full service turnkey RLC program. Live enforcement began in February 2000.</p>
<p>Metrolink–Southern California Regional Rail Authority 2 Red Light Cameras 3 Housings</p>	<p>In 1998, Metrolink (Southern California's regional commuter rail service provider with tracks spanning five counties) selected us to provide turnkey photo enforcement services beginning at three intersections in Northern Los Angeles County. Enforcement began in</p>
<p>March 1998 – April 2001</p>	<p>March 1998. In March 1999 the program expanded to Orange County, California.</p>

**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

<b>CLIENT</b>	<b>EXPERIENCE</b>
<p>City of Sacramento            10 Red Light Cameras            14 Housings</p> <p>March 1999 – Present</p> <p>Lt. Richard Carlson            916-876-6604            916-876-6620 Fax  <a href="mailto:dcarlson@sacsheriff.com">dcarlson@sacsheriff.com</a>            Sacramento Sheriff's Office            903 Enterprise Drive            Sacramento, CA 95825</p>	<p>ACS initially signed a contract with the City of Sacramento to install and maintain a turnkey RLC program in California's State Capital. 10 cameras have been installed with the potential for expansion of up to 35 intersections. In 2003, the City signed ACS to a sole source five year extension. Today, the City works with Sacramento County, who has taken over their City program. This will be one of the largest RLC installations in California, as well as the Western region.</p>
<p>Sacramento County            12 Red Light Cameras            12 Housings</p> <p>January 2001 – Present</p> <p>Lt. Richard Carlson            916-876-6604            916-876-6620 Fax  <a href="mailto:dcarlson@sacsheriff.com">dcarlson@sacsheriff.com</a>            Sacramento Sheriff's Office            903 Enterprise Drive            Sacramento, CA 95825</p>	<p>ACS completed installation of the County's five red light camera units began program operations in January 2001. The County operates its photo red light program using ACS Citeware and Citeweb systems. The County signed a sole source contract extension with ACS in 2003.</p>
<p>Anne Arundel County, MD            5 Red Light Cameras            5 Housings</p> <p>January 2000 – Present</p> <p>Lt. Keith Williams            410-222-8578</p>	<p>ACS was selected by Anne Arundel County to provide a turnkey solution for RLC photo enforcement. ACS was responsible for intersection analysis and review. The County selected four sites for enforcement. ACS built and maintains all RLC systems as well as provides turnkey citation processing services for the County including citation mailing, customer service, hearing scheduling, and payment processing.</p>
<p>City of Alexandria, VA            3 Red Light Camera            3 Housings</p> <p>August 1997 – Present</p> <p>Cmdr. Dan Gollhardt            703-838-4511            703-838-6309 Fax  <a href="mailto:Daniel.Gollhardt@alexandriava.gov">Daniel.Gollhardt@alexandriava.gov</a>            Alexandria Police Department            2003 Mill Road            Alexandria, VA 22314</p>	<p>In August 1997, ACS was awarded the contract for the City of Alexandria's inaugural RLC program. The program began in November 1998 with a complete RLC turnkey program consisting of one camera rotating among three intersections. Alexandria is the second city in Virginia, following the City of Fairfax, to utilize RLCs to reduce dangerous red light running.</p>
<p>City of Fairfax, VA            6 Red Light Cameras            7 Housings</p> <p>May 1997 – Present</p> <p>Mr. Kevin Bowser            703-293-7102            703-359-2488 Fax  <a href="mailto:kevin4466@netzero.net">kevin4466@netzero.net</a>            3730 Old Lee Highway            Fairfax, VA 22030</p>	<p>In May 1997, ACS was selected by the Fairfax City council in a competitive procurement to provide the city with a complete RLC turnkey program, initially for three intersections. Fairfax was the first city in Virginia to utilize RLCs for enforcement and received highly favorable coverage on NBC's "Today Show" for this pioneering program. Based on the program's success, Fairfax expanded the program to seven intersections with six rotating cameras.</p>



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

<p>Fairfax County, VA  13 Red Light Cameras  13 Housings</p> <p>October 1999 – Present  Mr. Bruce Taylor  703-324-1158  703-324-1450 Fax  <a href="mailto:bruce.taylor@fairfaxcounty.gov">bruce.taylor@fairfaxcounty.gov</a>  12055 Government Center Parkway  Suite 1034, 10<sup>th</sup> Floor  Fairfax, VA 22035</p>	<p>ACS won another competitive bid in Northern Virginia to provide Fairfax County with 13 RLCs and services. All 13 intersections were video-validated by ACS, and the equipment is in place and operational.</p>
<p>Fayetteville, NC  7 Red Light Cameras  7 Housings  December 1999 – Present</p> <p>Mr. Rusty Thompson  910-433-1660  910-433-1647 Fax  <a href="mailto:rthompson@ci.fay.nc.us">rthompson@ci.fay.nc.us</a>  339 Alexander Street  Fayetteville, NC 28301-5797</p>	<p>Building on the successful SafeLight™ program in Charlotte, ACS was chosen to provide a turnkey RLC program in nearby City of Fayetteville. The first two cameras were operational in March 2000. Five additional cameras were installed in the summer of 2000, with three more cameras installed in fall 2000.</p>
<p>City of Wilmington, DE  Up to 10 Red Light Cameras  Up to 10 Housings</p> <p>2000 – Present</p> <p>Mr. Rhett Ruggerio  302-576-2103</p>	<p>ACS recently completed the installation of 10 red light cameras and has been operational since June 2001. The City has already achieved a 60% reduction in red light running and is seeking program expansion to 20 camera systems.</p>
<p>City of Camrose (Alberta, Canada)  1 Photo Radar</p> <p>August 1995 – Present</p> <p>Chief Marshall Chalmers  780-672-5940  403-672-2929 Fax  <a href="mailto:mchalmers@camrose.com">mchalmers@camrose.com</a>  6220-48 Avenue  Camrose, Alberta T4V 0K6</p>	<p>Camrose was ACS' second Canadian client jurisdiction, receiving complete turnkey processing services since 1995. The Camrose police service operates a Gatsometer Photo Radar unit and Lockheed Martin IMS Systems and Services Canada, a subsidiary of ACS State and Local Solutions, Inc., provides training, supplies, community awareness/public education, and complete processing services from our Edmonton processing center.</p>
<p>Strathcona County (Alberta, Canada)  2 Photo Radar  4 Red Light Cameras  6 Housings</p> <p>May 1996 – Present</p> <p>S/Sgt. Seppo Votkin  780-449-0103  780-449-1265 Fax  <a href="mailto:svotkin@rcmp.grc.gc.ca">svotkin@rcmp.grc.gc.ca</a>  911 Bison Way  Sherwood Park, Alberta T68 1S9</p>	<p>In 1996, the County contracted with ACS for a Gatsometer photo radar system and complete turnkey processing services. This program was the first Royal Canadian Mounted Police officially approved deployment of photo radar in the Province. In the second quarter of 1998 the county expanded its contract to install the province's first RLC program, thereby promoting passage of RLC enabling legislation, which the provincial government adopted in December 1998. In 1999 the RLC program expanded to six installations with two RLCs. Today the program has a total 4 red light cameras, 6 housings and 2 photo radar units. The county has tested a "speed on green" initiative whereby the RLC is being used to issue warning notices to violators who speed through the green phase at the intersection.</p>





**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

<p>City of Medicine Hat (Alberta, Canada)  1 Photo Radar</p> <p>July 1997 – Present</p> <p>Sgt. James Balmer  403-529-8471  403-529-8444 Fax  Traffic@city.medicine-hat.ab.ca  884 2<sup>nd</sup> Street Southeast, Medicine Hat, Alberta T1A 8H2</p>	<p>In 1997, the city contracted with ACS for complete turnkey processing services, including one Gatsometer photo radar unit, installation, training, supplies, and complete processing services from our Edmonton processing center.</p>
<p>City of Red Deer  1 Photo Radar  1 Red Light Camera  4 Housings</p> <p>January 2000 – Present</p> <p>Inspector Peter Calvert  403-341-2008  403-346-1365 Fax  jim.steel@rcmp-grc.gc.ca  P.O. Bag 5033  Red Deer, Alberta T4N 6A1</p>	<p>The Red Deer program, overseen by the Royal Canadian Mounted Police, is a full turnkey service including training, maintenance and supplies, as well as community education, all from our Edmonton processing center.</p>
<p>City of Regina  2 Red Light Camera  5 Housings</p> <p>November 1999 – Present</p> <p>Sgt. Brent Schmidt  306-777-6384  306-777-6360 Fax  bschmidt@police.regina.sk.ca  1717 Olster Street  Regina, Saskatchewan S4P 3W3</p>	<p>The City of Regina selected ACS for a six-month turnkey pilot project. The program's success initiated an expansion into a full-blown contract.</p>
<p>City of St. Albert (Alberta)  2 Photo Radar  4 Red Light Camera  4 Housings</p> <p>May 2001– Present</p> <p>Cpl. Claude Coupal  780-458-4343  780-459-9425 Fax  claudio.coupal@rcmp-grc.gc.ca  25 Sir Winston Churchill Avenue  St. Albert, Alberta T8N 2S7</p>	<p>The St. Albert program, overseen by the Royal Canadian Mounted Police, is a full turnkey service including training, maintenance and supplies, as well as community education, all from our Edmonton processing center.</p>



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

<p>City of Jackson, MI  1 Red Light Camera  2 Housings</p> <p>February 1992 – Present</p>	<p>ACS' first RLC installation in the United States, in February 1992, when Jackson, Michigan purchased two permanent unattended housings for two intersections with a single camera system. ACS provides maintenance and support as requested by the city (Note: in more than eight years of operation, the city has required only one repair on its RLC). After installation of this system, the city recorded a 67% decline in the number of red light violations at the mounted intersections.</p>
<p>Minnesota Department of Transportation  1 Red Light Camera  1 Housing</p> <p>August 1998</p>	<p>Initiated by a 1998 research project awarded to ACS, the Minnesota DOT is currently conducting traffic safety research using four of our applications: photo radar for speed enforcement, RLC for intersection enforcement, Traxguard™ for grade crossing enforcement, and our digital camera for bus lane only enforcement.</p>
<p>Northeast Illinois  Regional Rail  Authority – METRA  1 Traxguard™ Camera  1 Housing</p> <p>Summer 1999 –Present</p>	<p>ACS was proud to be awarded Illinois' first photo enforcement program at the state's most dangerous grade crossing. The full service turnkey program is in response to the rail tragedies that have occurred along Illinois' METRA rail line. The monitored rail crossing will be located in the City of Wood Dale, Illinois. The program analyzes approximately 500 triggering events per month.</p>
<p>Hanson Permanente  Cement  1 Photo  Radar  Camera  2 Fixed Installation Posts</p> <p>March 1994-Present</p> <p>John Giovanola  408-996-4158  408-996-4028 Fax  Hanson Permanente Cement  24001 Stevens Creek Blvd  Cupertino, CA 95014</p>	<p>ACS implemented North America's first unmanned Automated Speed Enforcement Program in 1994. Hanson Permanente Cement (formerly Kaiser Cement Corp.) operates one of the largest construction rock and cement plants in Northern California. The City of Cupertino, where the plant is located, was considering action against the plant due to the speeds associated with trucks going to and from the plant. In 1994, Kaiser, the city, and Santa Clara County Sheriff's Department agreed to contract for a Photo Radar Truck Speed Reduction program including the purchase and installation of a Photo Radar unit (camera), one stand-alone speed display, and one fixed installation post. The success of the program has led to an expansion with one additional fixed installation post. ACS provides all supplies, film viewing, DMV access, printing, and mailing of warning notices and plant suspension notices, and management reports for the various parties involved.</p>



### 3.1.33 | Acceptance and Disbursement of Funds

*ACS is pleased to offer the City of Columbus the two options: (1) the current PVB full range of services (2) the ACS standalone model that shares a common database with the City's PVB with full capacity to provide all the services that currently exist with PVB model.*

#### 3.1.33.1 ACS Standalone Model

*ACS has developed processing methods and procedures that have resulted in one of the most accurate and efficient lockbox operations for processing parking citation payments in any city. Our use of the latest mailroom and payment processing technology allows us to provide an exceptional payment processing system.*

In our view, mail-in payment processing (lockbox) is one of the most important functions in a comprehensive payment processing program. Handling of public revenues must be beyond reproach. Thoroughly documented procedures and time honored auditing and accounting methods are critical when the public trust is at hand. The system must be verifiable and capable of processing in excess of three million payment transactions annually.

Processing payments for clients throughout the country has allowed us to develop specialized processing and reconciliation procedures that guarantee timely and accurate processing of payments received through the mail. On an annual basis, ACS processes more than \$450 million in public sector violation payments. Over the years, we have developed strict accounting practices that go beyond the norm, mastered municipal revenue distribution rules, and developed software to provide fail-safe accurate financial records and activities. We use the most advanced equipment available to guarantee precise payment processing.

#### *Remittance processing solution designed for efficiency and productivity*

In this proposal, we are offering a remittance processing solution that offers the full functionality to read, encode, microfilm and sort payments in various processing modes. The microfilm units within the TRPs are able to microfilm high quality microfilm blips of payment documents, including checks, money orders, citations, or notices. The microfilm units will ensure that high quality images of payment documents are captured and indexed.

---

#### *Over 20 years payment processing experience ensures a full understanding of policies and procedures*

---

ACS fully understands the importance of processing payments received by mail as the principal link in the process between initial citation issuance and subsequent additional enforcement actions such as application of added penalties, and delinquent noticing.

---

Our lockbox payment processing service fully complies with the City's requirements and includes the following functions and services:

- Highly trained staff with specific local experience
- Automated system for batch control, reconciliation, citation, payment control, data entry, check processing, encoding, and imprinting
- System redundancies to ensure performance standard compliance
- Comprehensive eTIMS<sup>SM</sup> security and tested financial control system
- Daily preparation of non-cash deposits transported to the City's designated bank by armored courier service
- Daily preparation of cash deposits transported to the City's designated bank by armored courier service
- Complete detailed policies and procedures manual for all lockbox functions with specific procedures for each area available to employees at their workstation for reference and review
- Daily Activity Report records daily volume of payments received and processed
- Daily Operator Production Report to measure the efficiency of the operators to maintain high production standards.

#### **A. Post Office Boxes**

All mailed parking fine payments, violation complaint correspondence and hearing requests are forwarded to a post office box. On each business day our Post Office courier service makes the daily post office box pick-ups in the morning with delivery to lockbox by the time specified by the City. The Courier Services' assigned driver, as our designated representative, is the only person outside our office with authority to remove mail from our post office boxes. This ensures full safety of all payments.

#### **B. Batch Date Procedures**

Mail received from the Post Office is counted and separated into batches according to batch date and type of mail. All payments are separated from the correspondence and hearing requests. A batch header is then attached to each batch stating the batch date, batch count and batch number. The batch date is the day prior to the date the mail is removed from each post office box.

---

---

#### **C. Mail Sorting and Special Handling**

*Our lockbox procedures allow special payments to be processed using the same stringent performance standards as regular payments.*

---

---

Lockbox staff will use eTIMS<sup>SM</sup> to post special types of payment records such as cash correspondence with payments, payments requiring research because citation and/or license plate information is missing. After posting, online payments can be accessed in



the same manner as batch payments. The user ID, and the date the transaction was entered online are also shown on the Payment Inquiry screen. These payments, which require special handling, are then entered into the Online Payment Log. The Online Payment Log records the citation and check amount. All online payments are then stamped and endorsed for deposit. All payments of citations will be included into the primary database within two business days after receipt by ASC at the lockbox. Any payments that require further investigation are posted within four days of receipt. Daily reports will be provided to the City that include copies of all supporting documentation. Our customized systems ensure the proper handling of the City's cash payments and unprocessable payments.

ACS also processes checks drawn on accounts with insufficient funds, checks where the payment has been stopped, or payments where the account has been closed. ACS identifies and processes these returned items online through eTIMSSM within five days of receipt of the notice from the bank. ACS includes a digital image of the returned check that is indexed and available online through eTIMSSM. NSF and returned check penalties approved by the City are added and an automated correspondence letter, asking for full payment by cashier's check or money order, is mailed to the sender the day following the check's processing. The database file is then marked with a permanent indicator that the citizen has had a bad check processed against their plate entity. All returned checks are accounted for online and are documented in eTIMSSM.

ACS provides a weekly list of all returned checks that are approved by the City.

---

#### **Batch Count Procedures**

---

*Our batch counting process ensures all mail received is processed within performance standards.*

To provide a verified batch count of all incoming mail throughout its processing cycle, we use a series of control steps from the moment mail is received through the preparation of the deposit of funds and/or batching of correspondence received. The first step is the batching of incoming mail for opening on our Opex Model 51 mail extraction machines. These machines begin by slitting open each piece of mail, extracting its contents, and passing the empty envelope over a light panel for verification that nothing has been left inside. By maintaining a count of each envelope that is opened, the Opex machine will provide a beginning count for the operators who process the mail, while batching similar documents and separating items determined inappropriate for automated processing (i.e., items requiring special handling). This origin count is noted on each mail clerk's log as the base count of mail received for that batch. A batch header that identifies the batch type, date and item count then accompanies each completed batch.

---

---

As each mail clerk completes the batching of their mail, the mailroom Lead verifies each batch prior to forwarding for correspondence and/or payment processing.

---

---

#### **Copying Documents and Establishing Complete Audit Trails**

---

*TRP technology provides high quality payment document microfilming.*

The successful operation of the Columbus lockbox operation requires a high-volume automated payment processing configuration integrated with the eTIMS<sup>SM</sup> and the document imaging system. Through years of experience in lockbox processing for citation payments, we have tested and evaluated several different processes for automation. The most efficient machine for this type of processing that we have found is the Banctec 9500 Total Remittance Processor (TRP).

We have developed a customized solution to ensure that payment instruments and supporting documentation in the form of checks, money orders, citations, and notices are microfilmed for all mail-in payments. The microfilm units are capable of capturing high quality images in the high-speed payment processing environment of the TRP, thus ensuring no workflow interruption and 100 percent capture rate of payment. This process includes the use of the Optical Character Recognition (OCR) scan lines to capture citation or notice reference data. An end-of-day process will automatically check the number of payment documents against the number of indexed microfilm images. Detailed listings of payment documents and image file index numbers for each batch ensure that any discrepancies can be quickly identified and corrected.

Utilization of the fully automated TRP technology ensures efficient mail-in payment processing. We take advantage of TRP capabilities by printing optical scan lines on notices to ensure that payments are applied to the correct citation. This approach eliminates the potential for human keying error on those citation payments. The TRP equipment offers the following:

- Reading and processing OCR scan lines
- Citation key document processing for handheld payments
- Encoding checks with magnetic ink character recognition (MICR) for subsequent bank processing
- Complete audit trail print on each check including citation number, license plate number (if applicable), receipt date, batch number, sequence number and operator ID
- Microfilming of each source document and payment
- Detailed journal tape of all transactions processed
- A medium for updating payments to the citation database

---

*Our TRP Banctec 9500 technology automatically endorses, MICR-encodes, and microfilms payment and source documents as they are processed to eliminate manual processing and reduce errors.*

---

~~ACS has customized the TRP equipment. As the mail is opened, the source documents are placed face up followed by the check or money order. Once all payments are prepared in this manner, the stacks are placed on the autofeeder of the TRP. The TRP feeds each document and reads either the citation number (in cases of payment off windshield) or the scan line (when paying from a notice or letter stub). The operator then en-~~

ters the dollar value of the payment and the source document and the payment document are fed into the printer unit.

The TRP prints an audit trail sequence on the back the check and automatically endorses the check with the City bank endorsement information, the check or money orders are then MICR encoded with the dollar value. Upon completion of the MICR encoding, the document and check are moved to the microfilm unit for final processing.

Each document and check or money order is filmed. After processing by the microfilm camera, the source documents are then automatically separated from the payments to be prepared for storage. The payment documents are balanced and prepared for bank deposit.

*The eTIMSSM history retains a full record of every payment processed to provide a complete audit trail.*

As endorsement and audit information is imprinted on the payment documents, these control numbers are recorded in the payment batch to be updated to the database file. At the close of the processing shift, source documents totals are compared to check documents, and then all batches are balanced and prepared for deposit. The transaction file is transmitted for update to the database. The payment transactions go through a series of edits as well as full batch balancing procedures prior to update. Once updated, these control sequences are a permanent part of the citation record.

The eTIMSSM History Record provides the user with the following information regarding every payment:

- Payment process date
- Batch number
- Unique sequence number
- Type of payment (cash, check, money order, or credit card)
- Location of payment (lockbox, service center, Pay-by-Phone, or BMV)

*All deposits and payment updates will be reconciled daily to the Revenue Distribution Report (RDR).*

As a batch is completed we verify that all payments are reconciled and balanced by running an additional adding machine tape. If the totals agree, the batch is released for deposit. If a discrepancy exists, the batch will be further reconciled. ACS feels this additional adding machine tape is a necessary quality assurance measure that is critically ~~important because we are handling public funds and reduces the error rate upfront,~~ rather than resolving cases that would otherwise be identified at a later time and require a greater effort to reconcile.

~~At the completion of batch reconciliation, the payment processing log, TRP document,~~ and payment tapes are balanced in preparation for deposit. A TRP Batch Summary report is produced at the TRP and attached to the individual payment items. The TRP Batch Summary report is then used to confirm payment batch totals prior to the actual deposit. This report provides the reconciliation tool that is verified to the actual deposit



batches. A data file of all edited payment batches is then transmitted to the remote Data Center for update.

Our System Batch Summary Report was created to verify actual deposit batches. When reconciliation to the actual deposit amount is completed, the batch is authorized for transmission and eTIMSSM update.

---

### **Deposit of Funds**

---

The high volume of payments, combined with the sensitive nature of red light enforcement, require absolute adherence to the stringent performance standards set for lockbox processing. A delay of just one day can increase complaints and significantly impact the public.

*All payments will be processed within two business days of receipt to ensure all enforcement actions are appropriate.*

The lockbox unit will prepare, balance, and deposit all payments within two business days of receipt in lockbox. Separate deposits will be prepared for cash, checks, and money orders. Cash deposits will be counted twice before filling our deposit slips and an adding machine tape will be run twice on the checks and money orders. All checks and money orders processed by this department will be MICR-encoded, allowing expeditious bank clearing and, as a result, fund availability to the City. Additionally, this encoding process reduces the City's cost for processing.

All deposit citations and backups are retained in storage for audit and research. Subsequent reconciliation will occur the next business day, when updating is completed and the Revenue Distribution Report is produced from the system. This ensures a balancing of deposit to update totals.

---

### **Update of Payments**

---

When payments are processed on the TRP, they are first sorted into certain job types. There are four TRP job types as follows: single payments accompanied by citations or which include a citation reference number on the check; payments received with the initial notice of violation; payments received with overdue and collection notices; and multiple citation payments. These job types reflect unique TRP programming for each of these types of payments in order to maximize efficiency and accuracy during processing. For example, payments received with citations utilize the OCR feature of the TRP to capture the citation number from the citation. Payments received with overdue

---

and collection notices contain reference numbers that allow payment data to both accurately update the citation record and update payment statistics within the eTIMSSM Notice Management subsystem.

---

As each batch of payments is processed on the TRP, files with all pertinent payment data are created on each TRP workstation. When the TRP operator completes their shift, these files are transferred via a local network within lockbox to the TRP Data Management System (DMS) where all payment files are then checked for errors or miss-



ing data. The DMS workstation requires the TRP Lead to edit and correct any payment records that are missing, then displays and prints a report showing all batches received. Once verified, the payment batches are consolidated into a file in preparation for transmission and upload into the eTIMS<sup>SM</sup> database. Payment files are transmitted from the TRP DMS workstation to a local ACS file server at the end of each workday. From the local service, payment files are transmitted to the ACS Data Center via nightly update cycles that post payment records to citation records overnight to ensure that payments processed are available for inquiry the next morning.

---

### Physical Security

---

*ACS' lockbox solution offers full protection for the City with no risk of loss.*

Procedural controls must be complemented by physical security to ensure full protection of City funds during lockbox processing.

In addition to our stringent system security features, ACS has added additional protection to its lockbox process through the use of both physical security of the facility and supervisory monitoring. With physical security, we consider our ability to effectively control all documents from the moment of pick up at the post office through the time of delivery to the armed car service. To protect the process of payment handling, we have designed staffing arrangements to ensure full supervision over every function in the lockbox area. The combination of system security, physical security and functional supervision ensures full protection of the City's funds at all times.

### 3.1.33.2 PVB Model

The City of Columbus PVB already processes parking violation processing payments using ACS' Ticket Information Management System. Today, ACS also provides the City with a Pay-by-Web system, Pay-by-Phone system, and Integrated Voice Response System that can be integrated and used for the City's photo red light program. As an option, the City's PVB can use ACS' TIMS system and become a one stop payment processing center for both red light and parking ticket violations.

ACS can easily integrate our existing parking database with the new red light camera enforcement program database allowing existing PVB staff to accept both walk in and batch red light and parking violation payments. ACS believes this solution is optimal for the City because:

- 1) A one stop payment center is created for citizens, improving service. Under this scenario, citizens of Columbus will have one phone number to call to make a pay-by-phone payment, one P.O Box number to send mail payments, one web site to visit to make online payments, and one location to make walk in payments for all red light and parking violations.
- 2) A one stop payment center will improve City collections. Citizens visiting our online pay-by-web site or our pay-by-phone site will be prompted, after paying their initial fine, to pay any and all other outstanding fines recorded in their name in our database. Because red light and parking ticket data will reside on one integrated

database, citizens will be prompted to pay outstanding parking tickets if they visit pay-by-web or pay-by-phone to make a red light payment. As a result, our experience as shown that the average amount paid per visit on both pay-by-web and pay-by-phone systems are 15% higher than typical mail payments.

- 3) City costs will be reduced. By leveraging existing City infrastructure and staff to facilitate payment processing, the City will realize significant cost savings.

In the remainder of this section, ACS details our existing PVB payment processing solution, currently provided to the City.

ACS uses a flexible, industry-standard environment that offers the City broad programming and communication capabilities. This state of the art environment allows us to maintain the full functionality of all cashiering applications.

*Current online cashiering functionality exceeds all payment processing requirements.*

The Columbus point-of-sale (POS) system accommodates those citizens who wish to pay their citations, fees, and surcharges in person. It is especially convenient for those persons who are near the PVB location, already on-site for a hearing, or who need to have their payments entered into the system immediately, whether to avoid penalties, pay fees, or to obtain vehicle release. Our cashiering component can accommodate numerous transactions such as the payment of an individual citation; payment of selected citations issued to a given license plate; and payment of all citations issued to a given license plate with a single entry for both parking citations and red light citations. This functionality allows service to the public that is expeditious, comprehensive, and efficient.

Our flexible equipment, combined with specialized software, allows City employees the ability to offer a full range of services to customers at the PVB. Our software, matched with direct access to the eTIMSS<sup>SM</sup> database, allows cashiers to call up screens, retrieve all file information from eTIMSS<sup>SM</sup>, apply payments to the citation database and its subsystems, and generate a customer receipt—in most cases with a single key stroke or standard set of routines.

Our online payment processing system provides the cashier with several options for applying a payment, such as:

- Payment of red light citations
- Payment of red light penalties
- ~~Pay individual parking citation, by citation number~~
- Pay selected citations issued to a given state plate
- Pay all transactions on a specific state plate with a single transaction entry
- Pay parking meter card fees
- ~~Pay selected fees, such as those for towing and storage~~
- Apply adjustments to amounts paid
- Print a receipt which displays citation number(s) and amount(s), specified fees and their amount, as well as the standard date and time of the payment transaction
- Make additional inquiries by citation, citation, and state plate

At the PVB, cashiers use our system to access database information, apply and adjust payments, and provide citizens with receipts. Our system generates a customer receipt, which is printed by a unit linked to our PC-based cashiering workstation, for each payment transaction. This receipt includes the following information: payment date and time, method of payment, and registration state and number. It also includes the totals due and the totals paid for all fines, fees, and penalties, as well as a vehicle release number for cars that are currently impounded. In addition, each payment transaction is recorded on a local journal file which is stored in the workstation's memory. This file, which can be printed on command, provides an audit trail for the transactions from a processing day or shift. This journal file includes the amount and method of payment, the transaction number, the operator ID, and the date and time of entry.

---

### Types of Funds Received

---

Additionally, our online system allows the PVB to accept the following distinct forms of payment, and records the method of payment on the citation database:

- Cash
- Personal check
- Money order
- Credit card

eTIMS<sup>SM</sup> maintains a full audit trail of every payment processed. The Citation Detail screen provides a record of processed payments and displays information such as method of payment, amount, date, and cashier ID. When partial payments are processed, eTIMS<sup>SM</sup> displays the payment amount and automatically calculates the remaining outstanding balance. If multiple payments have been made on a citation, the Payment History Screen can be retrieved by clicking on the Payment History link on the Citation Detail screen. The Citation History Screen displays a detailed record of every payment transaction. The history screen also includes both the payment effective (batch) date used for penalty application logic, as well as the date the transaction was updated to the citation. The Payment Detail Screen, as shown in Exhibit 3-100, provides the user with a detailed listing of payments on all citations for a given entity.

*ACS provides the City with the ability to process payments in batches for overnight update to eTIMS<sup>SM</sup>.*

ACS provides the City with effective software necessary for processing payments in batches for overnight eTIMS<sup>SM</sup> update. This Lockbox processing option is currently installed at the PVB and can be used should payment volumes or procedures warrant its use. ~~This system enables operators to enter a payment batch with a target envelope count and dollar amount. Users can then proceed to key payment transactions which the system will balance to the target counts and amounts. Upon reconciliation and error correction, PVB staff may verify the totals and transmit the payment data to the ACS mainframe. All transmitted batch payment transactions will be updated to the citation database during the nightly processing cycle. Payments are credited to a motorist's record utilizing the batch (receipt) date to ensure proper evaluation of next action activity, such as penalty application and notice generation.~~

**City of Columbus  
Ohio Photo Red Light Enforcement System**

**Citation Summary**

- All: 0 (\$0.00)
- Open Citations: 0 (\$0.00)
- Boat Eligible Citations: 0 (\$0.00)
- Marked/Held Citations: 0 (\$0.00)
- Case Citations: 0 (\$0.00)
- IPP Citations: 0 (\$0.00)

**Customer**

Orlando Gonzeles  
318 N Mariposa Ave 103  
Los Angeles, CA 90004  
714-555-1212

**Financial Summary**

- Ticket Amt: \$0.00
- Interest Amt: \$0.00
- Fees: \$0.00
- Total Due: \$8.88**
- Unapplied Amt: \$0.00

**Customer Status**

- SP
- Previously Marked
- Archived
- Term

**Payment Detail Table**

Citation #	Last Transaction	Amount Paid	Method	Payment Batch	Account	Process Date
<a href="#">857368223</a>	Payment	\$40.00	Credit Card	05/22/02	Pay-By-Phone	05/22/02
<a href="#">913948840</a>	Payment	\$40.00	Credit Card	05/22/02	Pay-By-Phone	05/22/02
<a href="#">910768075</a>	Payment	\$25.00	Credit Card	05/22/02	Pay-By-Phone	05/22/02
<a href="#">910769064</a>	Payment	\$40.00	Credit Card	05/22/02	Pay-By-Phone	05/22/02
<a href="#">500148486</a>	Payment	\$40.00	Check	05/03/02	Lockbox	06/03/02
<a href="#">913521775</a>	Payment	\$40.00	Check	12/31/01	Lockbox	12/31/02
<a href="#">855188438</a>	Payment	\$25.00	Credit Card	12/12/01	Pay-By-Phone	12/12/01
<a href="#">911925385</a>	Payment	\$40.00	Check	12/10/01	Lockbox	12/10/01

**Exhibit 3-100. The Payment Detail page allows users to view the most recent payment and adjustment transaction data. Proprietary Information**

ACS also provides the City the ability to make payments through the Internet. Pay-by-Web allows citizens the ability to pay a violation from the comfort of their own home or office. The payment is instantaneously processed and a confirmation of the payment is provided to the citizen at the time of payment. More information regarding Pay-by-Web is available in Proposal Section 3.1.34.

**Reconciliation Process**

*Revenue reconciliation and exception reporting permits complete balancing and tracking of all payment transactions.*

eTIMS<sup>SM</sup> online payment processing system produces two comprehensive activity reports available on command, in real-time, to support all auditing, accounting, and reconciliation functions. These reports can be generated directly from the PC hard drive to reflect all activity performed on a particular workstation for a given day. These reports include:

**Payment Activity Report**—Our journal printout, which is generated from each cashiering station, includes information on the payment transactions that occurred during a cashiering shift or processing day. It lists detailed information associated with each payment transaction handled by a given cashier ID, which help control closing procedures.



**Payment Summary Report**—Our cashiering totals report, which is also generated at the processing site on a real-time basis, summarizes the daily cashiering activity for the transactions handled by each cashier ID. This report summarizes, by cashier ID, all payment and adjustment transactions processed. This summary includes sub-totals based on method of payment for the following:

- Citations
- Penalties
- BMV fees
- Tow fees
- Storage fees
- Bad check fees
- Labor fees
- Sub totals
- Grand totals

This report is used to track daily processing statistics and to reconcile all funds to be deposited at the end of the day.

eTIMSS<sup>SM</sup> payment processing system also produces next day reports which account for all payment transactions, both online and batch, applied to the citation database. These reports allow for reconciliation between the various modes of payment application and the funds physically posted to the database to ensure the integrity of all financial transactions. These reports include:

**Online Cashiering Report**—This report details all cashiering activity for the prior workday, organized by user ID, and lists every payment transaction in chronological order.

**Production Control Report (PCR)**—This report details online and batch payments and then segregates online payments by location. This allows a comparison between the daily deposit slips to the dollar amounts updated on the system.

**Overpayment Report**—This report provides a list of citations with an overpayment resulting from the prior day's payment transactions for investigation by the PVB.

**Daily Payment report**—This report lists the payment transaction by citation that reflects the amount due on the citation, the amount paid, and any errors on the payment transaction.

These reports ensure the accuracy of all cashiering procedures, provide an end-to-end audit trail, and enable the City to manage and protect all revenues. With these reports, the City is able to monitor daily cashiering performance and track the flow of all payments, from the moment of collection to the time of deposit, as well as investigate and resolve any discrepancies. The City will also be able to utilize these reports to identify overpayments and underpayments flagged by the system for further investigation.

*Specialized tracking report ensures accurate separation of City fees and penalties.*



The eTIMSS<sup>SM</sup> payment processing system and associated reporting is flexible, and can be designed to meet all requirements as specified by the City. In accordance with the levy of red light citation penalties, registration hold and parking citations fees which are tracked separately from City reporting purposes.

To accommodate the City's requirements, these fees are itemized separately on the Cashiering Payment Summary and the Online Payment Reports. In addition, ACS produces a Penalty/Fees Detail Report. This report details all citations with penalties and parking citations in registration hold, which have been paid on the prior day. The report serves to separate and reconcile total monies owed to the City.

*eTIMSS<sup>SM</sup> next action logic accommodates exception payment processing, such as bad checks, and allows payment grace periods.*

eTIMSS<sup>SM</sup> payment processing system utilizes next action logic based on City specific rules. This table driven element allows timing criteria and subsequent actions to be easily modified to accommodate the City's requirements. This capability allows a citation to be properly evaluated for penalty application with consideration to predetermined payment "grace" periods. These grace periods, as specified by the City, are programmed into the next action logic and prevent penalty application on payments that fall within the defined time frame.

Another example of ACS' ability to accommodate exception payment processing is our eTIMSS<sup>SM</sup> online payment adjustment feature. When checks are returned from the bank as uncollectible, a "bad check" adjustment can be made. This online function debits the funds on all associated citation payments and creates a bad check fee, as specified by the City. In addition, citations that have been reinstated as a result of a bad check adjustment are immediately eligible for noticing.

*Offline processing allows continued payment collection in the event of system downtime.*

The eTIMSS<sup>SM</sup> cashiering system exceeds the 95 percent availability requirement. In the event that communication between the cashier workstations and the mainframe computer is interrupted, all PC-based cashier devices have an offline mode. With this feature, PVB can continue to accept and process payments, maintain accurate audit trails and records, produce customer receipts, and provide efficient service to the public.

All payment transactions processed in an offline mode are captured on the PC-based cashiering PC hard disk and can be transmitted to the eTIMSS<sup>SM</sup> database when communications are restored. All payment activity is updated to the citation the same as if the ~~payment had been processed online. Our system produces a comprehensive report detailing all payment transactions processed and funds collected while in an offline mode.~~

---

*Restricted cashier terminal access ensures only authorized users can process payments.*

---

A key component to any payment processing function is the ability to restrict unauthorized access and provide a full audit trail of all payment transactions. ACS recognizes the importance of administrative controls and safeguarding the payment processing

function. Cashier security is controlled by the system utilizing "TOP SECRET" software which determines user access based on ID profiles. All user ID's are established with access levels that allow and prohibit the various eTIMSSM transactional functions. Transactions such as payments, adjustments, suspends, correspondence, scheduled hearings, are restricted by user ID, as determined and approved by the City. The use of TOP SECRET also ensures that only the Administrator can grant dismissals, abatements, extensions, or settlements.

Payment processing activity is further restricted and limited to the PC-based workstations. All cashiering ID profiles contain an internal table of the point-of-sale terminal which prohibit the ability to perform payment transactions from a general inquiry terminal.

To obtain access to eTIMSSM, users are required to enter a password upon signing-on the system. TOP SECRET requires that passwords be changed every 60 days, while also providing the ability to change a password at any time to prevent unauthorized use. In addition, a separate security sign-on is required to obtain access to any point-of-sale cashiering devices.

*Online hearing process allows authorized users to schedule hearing and automatically suspend citation activity.*

The ability to process online hearing transactions is restricted by user ID preventing unauthorized access. Hearing transactions, similar to other eTIMSSM online functions, have an associated suspend period, during which time all activity is postponed. eTIMSSM next action logic is re-evaluated on citations under administrative suspend preventing activities such as penalty assessment and noticing.

---

### **Additional Cashiering Features**

---

The most beneficial part of the cashiering system is the utilization of simple menus for use by cashier and supervisory staff. The eTIMSSM General Processing System is used to make payments and adjustments. The cashiering system allows users to highlight the desired menu option and then sign on to eTIMSSM.

All payment and adjustment functions in eTIMSSM are accessed from either a plate or citation inquiry. Upon completion of a payment transaction, the cashier drawer is automatically opened and the amount paid and the change due appear on the receipt. If there is no change due, that fact is printed on the receipt.

When a payment is made for a citation, the system validates the payment on the citation document. The system prompts the user to insert the document that should be validated and proceed with the validation on the attached printer. Once the document is released from the print validator, the Endorsement Selection Screen automatically appears, allowing a user to repeat the validations, if necessary.

---

---

---

### Additional Printing Features

---

The eTIMSS<sup>SM</sup> Cashiering system provides functions for the printing of totals and journal reports for any or all users. These reports are produced from the PC hard drive, and are output from the attached system impact printer.

The menu provides a selection to print a cashier's Transaction Journal for a given day. This journal can be printed from three options, either: 1) directly from the Cashiering Function Selection Menu or 2) from the Cashier Management facility, via the Print Options Menu; or 3) printed at the time of each transaction. It is printed on the cashier terminal receipt printer and is used as an audit trail to list every transaction for every operator made on a cashier terminal. To produce the printout from the Cashiering Function Selection Menu, a user may easily highlight the "Journal Print" option to begin the production of a detailed transactional journal. The Transaction Journal Printout consists of the following items:

- Operator logon information
- Payments: citations, penalties, and special fees
- Adjustments: citations, penalties, and special fees
- Totals reset
- The time that offline payment transactions were transmitted

For each transaction, per operator, the report columns show the date, time sequence number, type of payment, payment account number, and method of payment.

The cashiering system provides a Print Options Menu, from which users can perform the following:

- Print Cash Totals For Current Operator
- Print Cash Totals For All Operators
- Print Transaction Journal
- List Operator Ids with Current Balances

When the "Print Cash Totals Current Operator" option is selected, the system displays the Print Current Operator COMBINE/OFFLINE Screen, giving users the option to send the selected category of "totals" to either the screen or the printer. The Cash Totals Listing of all monies collected shows numerous data fields of cashier information. The totals are organized into three major categories of transactions:

---

**Payment**—Lists amounts collected for citations, penalties, and special fees for each of the four payment methods: Cash, Check, Money Order, and Credit Card.

---

**Adjustment**—Lists amounts adjusted for the citations, penalties, and special fees collected.

---

**Total**—Reflects the number of payments minus the number of adjustments (the net dollar amount received) for the citations, penalties, special fees, and totals collected.

---





Each transaction category (Payments, Adjustments, and Total) is broken down into the following subcategories:

**Citations**—For each payment method, the amount of money received or adjusted for citation payments.

**Penalties**—For each payment method, the amount received or adjusted for penalties.

**Fees**—For each payment method, the amount received or adjusted for penalties and fees (such as Boot Fees, Tow Fees, Storage Fees, BMV Fees).

**\*TOTAL\***—For each payment method, the total amount paid or adjusted for citations, penalties, and fees.

The **\*TOTAL\*** subcategory fields contain the totals for each payment method (the sum of the amounts in the citations, penalties, and spec fees fields).

Across the top of the Cash Totals Screen or printout are the four payment methods and a subtotal: CASH, CHECK, MONEY ORD (Money Order), CRED CD (Credit Card), and **\*TOTAL\***. To the left of the CHECKS, MONEY ORD, and CRED CD fields is a '#' field which shows the total number of cash, checks, money orders, and credit card payment transactions received, respectively.

A reset function resets the totals for all cashiers on the terminal or for the current operator only. This "RESET" function may be selected from the Cashier Management Selection Menu.

---

### Changing Configuration

---

One of the most useful benefits for the PVB is the cashiering option of changing the City's configuration. This allows authorized staff to make changes to various items in the cashiering system. The user must enter the correct password to gain access to the configuration. To initiate Change Configuration, the option can be selected on the Cashiering Function Selection Menu. Authorized staff may select the specific function for which access is desired. The System Configuration attributes are normally set during system installation and include fields such as client name, client ID, state, and application ID. Steps are provided for maintaining or changing the following cashiering-related facilities/tables:

- System Configuration—Specific software values for the operating system.
- Fee Entries—The system currently maintains up to ten different fee types, which are automatically displayed as default values on the payment and adjustment screens.
- Adjustment Reasons—Up to nine adjustment reason codes can be maintained using this screen.
- Endorsement Titles—The endorsement titles are used by the system to endorse documents during validation and are maintained via the Endorsement Titles screen.

**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

---

Up to 10 lines of information are maintained for endorsements, with the first four lines being free form containing city title, account number and address information. The remaining six lines contain optional print parameters for endorsements.

- Receipt Headings—Receipt headings are maintained using the Receipt Headings screen. Up to six lines are available for printing receipt information, with at least one line being required to print a receipt heading.
- Features—System features of the cashiering software can be maintained using this screen.
- Non-Citation Screen—Parameters for non-citation payments, such as parking permits or copies of citations, can be maintained from this screen.

---

**Summary**

---

Selecting either model will allow the City to take advantage of ACS extensive possesses, knowledge, and expertise in the area of funds acceptance, distribution, and payment processing. Our unparalleled experience is demonstrated in the complexity and integrity of our system and ensures the City a compliant payment processing system. ACS will continue to upgrade our cashiering and lockbox applications as new needs, fees, or payment fields arise. Our software and equipment will allow for continued efficiency and ease of use in accordance with the City required process for funds acceptance and distribution.



### **3.1.34 | Payment Processing and Collections**

*ACS proposes two options for the City in this section, the current PVB full range of services or the ACS standalone model. The standalone model shares a common database with the City's PVB with full capacity to provide all the services that currently exist with PVB model. As discussed in section 3.1.33 ACS will meet and exceed the requirements of the RFP with either model.*

*As the nation's largest provider of photo enforcement and parking ticket services, ACS continues to offer a comprehensive set of in-depth technical skills and management expertise in the area of payment processing.*

As a recognized leader in public sector cash management services, we continue to offer vast processing resources, specialized staff abilities, and proven and precise control mechanisms. Our eTIMSSM cashiering capability provides payment-processing functionality through two venues, online point-of-sale cashiering, and batch cycle payment processing. This flexibility allows the PVB to accurately and efficiently process payments received by mail and to support in-person payments for quality public service. See our proposed PVB solution in section 3.1.33.

*In both proposed options an integrated database will allow citizens the ability to utilize both pay-by-phone and pay-by-web. The following section provides a more in-depth overview of ACS pay-by-phone and pay-by-web payment options.*

#### **3.1.34 1 Pay-By-Web**

Our Pay-by-Web application provides a user-friendly series of Web pages that promote the expansion of citizen self-service transactions.

Citizens who wish to pay citations online are presented with a Web page that prompts them to enter their citation number (See Exhibits 3-101 and 3-102). When the user enters the citation number, it is sent over the Internet to the Tarrytown Web server. The application creates a transaction based on the citation number. The transaction data is passed through a firewall into the trusted network to a secure server running the Pay-by-Web application.

Once the Pay-by-Web application receives the transaction, a request is sent to the eTIMSSM host system to retrieve the account information. Once received, the account information is processed and returned to the application server, and converted into HTML where it is passed back through the internal firewall to the Web server. This information is presented to the citizen in the form of a Web page.

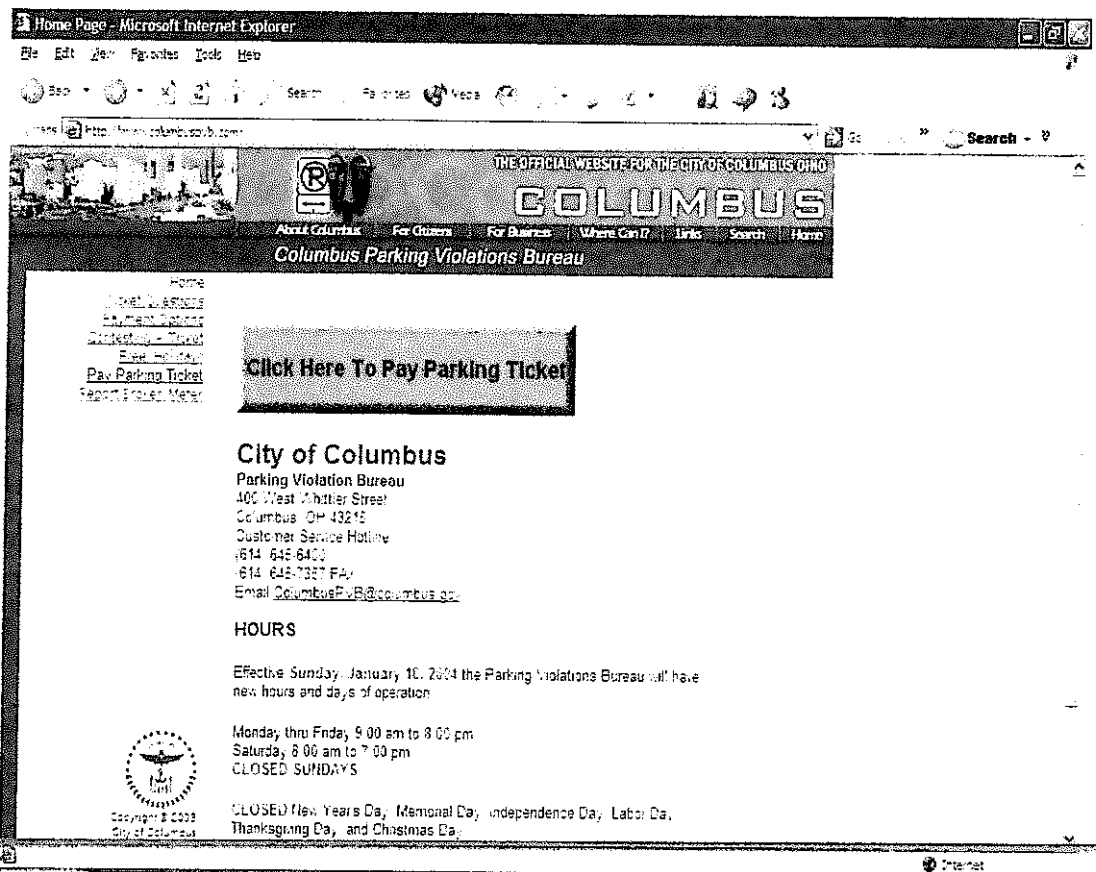
The citizen is presented with the total due for the citation they entered, the total amount due on their account, and the total number of outstanding red light citations and parking tickets. The citizen can pay the citation they entered, the total amount due on their



**City of Columbus  
Ohio Photo Red Light Enforcement System**

account, or select and pay individual citations. The amount paid can include a convenience fee that the City may wish to pass on to the citizen to cover the charges associated with credit card processing. Because of the easy-to-use "Pay All" function (which promotes payment of multiple citations), the average Pay-by-Web payment we receive is five percent to eight percent higher than the average mail-in or walk-in payment. Not only will this increase convenience for citizens, but it should increase the City's revenues.

The citizen enters their credit card information on the Web page and "submits" the information for processing. In order to reduce the "discount fee" paid by our Pay-by-Web clients, ACS has negotiated an exceptionally low rate based on our large national transaction volume and our implementation of the Security Code feature found on new credit cards. (Since Pay-by-Web transactions are processed without physical presentation of the card, credit card clearinghouses typically charge higher discount rates for these transactions.) However, we reduce these rates by requesting the entry of the three or four digit security code on the back of the card and the zip code of the cardholder.



**Exhibit 3-101. ACS has built a Pay-by-Web System for the PVB that can easily integrate red light violations, creating a single, online service site for City tickets.**



City of Columbus  
Ohio Photo Red Light Enforcement System

ACS - Pay by Web - Microsoft Internet Explorer

File Edit View Favorites Tools Help

http://www.columbus.gov/online/ticketpayment.jsp

### Online Ticket Payment

Welcome to the City of Columbus Pay-By-Web Service. We hope you find this service helpful and would appreciate any questions, comments or feedback at [ColumbusPVB@columbus.gov](mailto:ColumbusPVB@columbus.gov).

To pay parking tickets online please follow these directions:

1. Enter the ten digit ticket number or plate number in the box below. If you don't know your ticket number, please call 614-645-6400 for assistance.
2. Select the **Submit** button to begin the secure credit card payment process\*. This link will take you to a secure site.
3. Follow the directions on the secure site to walk through the payment process.
4. Wait for a confirmation page. The confirmation page should be printed for your records.

**Ticket Number**  
(10 characters only, no dashes) OR **State Plate Number**

**Please Note:**  
Internet payments are not available for:

- Tickets issued to vehicles that have been impounded
- Tickets issued to vehicles that are on Registration Hold with the Ohio Bureau of Motor Vehicles
- Tickets may not be immediately available for payment after issuance. Please check back each day or contact customer service at (614) 645-6400 for further assistance.
- If you would like to contest this ticket, please request a form here.
- Pursuant to Ohio Revised Code, Persons with 3 or more unpaid tickets are subject to Registration Hold prohibiting you from renewing your license tags

Please call Customer Service at 614-645-6400 if you need further assistance, or email us at [ColumbusPVB@columbus.gov](mailto:ColumbusPVB@columbus.gov)

**Exhibit 3-102. After entering ticket or plate information, citizens will be prompted to make payment for all outstanding tickets.**

*Secure Internet protocols ensure citizen credit card confidentiality.*

Credit card information is sent securely via the HTTPS protocol to the Tarrytown Web server. Using HTTPS, it is virtually impossible for the credit card information to be intercepted as it travels across the Internet. A VeriSign security certificate maintains this security. The certificate can be verified by clicking on the VeriSign graphic that appears on the Website.

The Web server sends transaction data to the application via the Proxy Servlet. The document information (along with the credit card information) passes through the firewall to the application. The Pay-by-Web server issues a payment transaction to eTIMSSM, which sends the credit card information to our credit card clearinghouse, Fifth Thirds Bank. The clearinghouse validates the credit card information. If the information is valid, payment is authorized.

Once the payment has been approved and recorded, the application passes the document number to the eTIMSSM host system and the citizen's account is updated. For logging and reporting purposes, the Pay-by-Web application records each payment to a separate journal database in the Tarrytown Data Center. This allows for tracking of any

payment discrepancies that may arise. If the payment was successful, the application generates an HTML page, which informs the citizen that the charge was posted and provides them with an authorization code. If an e-mail address was provided, an e-mail confirmation is also sent to the user.

If eTIMS<sup>SM</sup> rejects the credit card transaction, it is assumed the citizen mistyped their credit card information, and they are presented with the opportunity to resubmit their information.

Each night, all authorized transactions are electronically batched and sent to the clearinghouse to capture the previously authorized payments. The funds are then automatically transferred to the City's designated bank account, Fifth Third's. Using reports created in the Pay-by-Web application, ACS production control staff balance the transactions and deposits and resolve any discrepancies.

The ACS Pay-by-Web application has proven to be a high-volume, production application, which employs a secure, distributed environment, utilizing the power of multiple processors and data sources to provide clients with a rich user experience. Utilizing the existing eTIMS<sup>SM</sup> application installed to provide account data will save a tremendous amount of development time and effort, and keep all account data in a secure, centralized location. The benefits of Pay-by-Web include increased collections, higher average payments made by citizens, fewer notices mailed out, and less staff time spent processing payments.

### 3.1.34.2 IVR with Pay-By-Phone Capabilities

Callers to the PVB customer service telephone number will be greeted by the IVR and asked to select red light citation or parking ticket option. The caller will select one of several offered options to proceed. Once the caller selects the payment option, he/she may choose the Pay-by-Phone preference. The IVR informs the caller of the types of credit cards accepted and of the processing fee assessed for using Pay-by-Phone. Exhibit 3-103 depicts ACS current IVR information options.

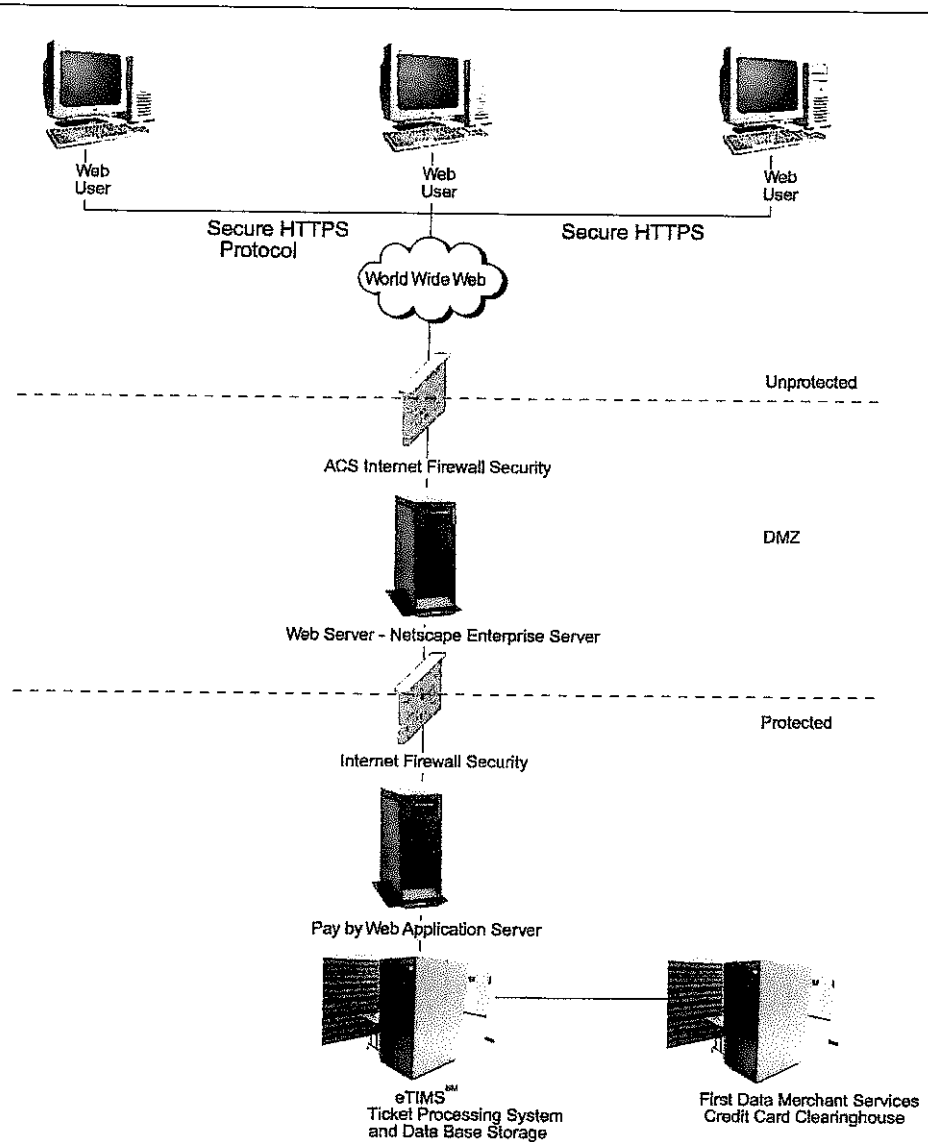
As the caller elects to proceed with the Pay-by-Phone transaction, the IVR then prompts the caller for the citation number. After verbally confirming the citation number entered by the caller on a touch-tone phone keypad, the IVR interfaces with eTIMS<sup>SM</sup> citation database to verify the citation number. If the citation number is validated on the database, the caller is given an option to pay one or all the citations listed to the vehicle. When the caller makes this decision, the amount due along with the processing fee is then repeated to the caller. If the citation number is not validated by the database, the caller is forwarded to a customer care representative.

---

The caller is prompted to enter a credit card number and the expiration date. The Pay-by-Phone system accepts Visa and Mastercard credit cards. The IVR automatically contacts ACS' credit card clearinghouse to authenticate the credit card number and confirm that sufficient funds are available for the account. This validation process is instantaneous and is transparent to the caller. If the City elects to have ACS perform all customer service and payment processing, we will allow citizens to use the existing IVR system to

make payments online. However, citizens calling the IVR system to receive customer service will be prompted to call ACS customer service representatives directly.

### ACS Pay-by-Web Architecture



131.CPRL04

**Exhibit 3-103. The ACS Pay-by-Web system provides a secure and scalable architecture.**

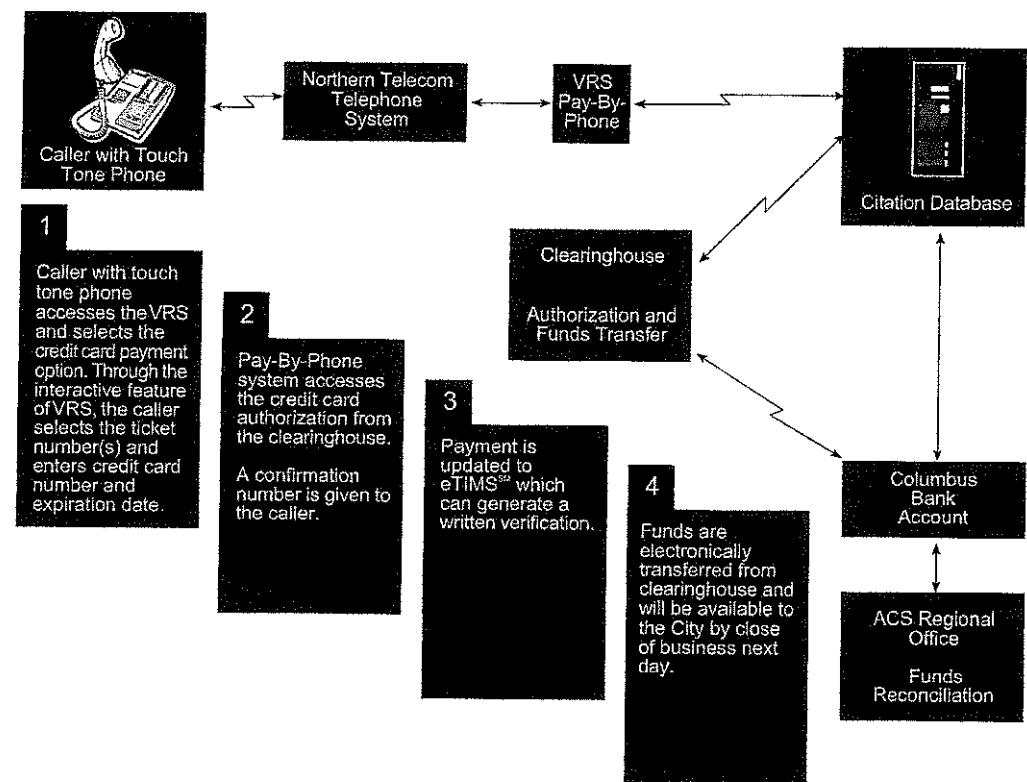
~~All Pay-by-Phone payments will be processed within 24 hours of receipt.~~

As with all online payments in eTIMS<sup>SM</sup>, Pay-by-Phone payments are recorded immediately on eTIMS<sup>SM</sup> once an acknowledged authorization is received from the credit card clearinghouse. ~~At the same time, the caller hears a message that the payment transaction was successful, and is given a reference number for future inquiry. The same reference number appears on the caller's credit card statement with a company name reference. If the credit card clearinghouse does not approve the payment transac-~~



tion, the caller is so informed and given the option to proceed with another credit card or return to the main menu.

Each day, at a time specified by the clearinghouse, ACS transmits a file of that day's authorized payments to the clearinghouse for reconciliation. That same night, ACS receives acknowledgment of the payments processed. The clearinghouse electronically transfers the related funds into the City's bank account with Fifth Third's the following day. Exhibit 3-104 depicts the Pay-by-Phone workflow.



135 CPR04

**Exhibit 3-104. By instantly authorizing credit card payments, ACS Pay-By-Phone feature provides next-day transfer of funds to Columbus' bank account.**

*Daily processing cycle includes full reconciliation of each payment made.*

As part of the daily batch processing cycle, ACS runs a series of jobs to reconcile each day's authorizations with the credit card clearinghouse. For each payment transaction that has received a valid authorization, the following activities are performed:

- ACS captures credit card information and the amount to be paid for each authorized payment. Records are formatted and transmitted to the clearinghouse host computer.
- The clearinghouse collects the valid payments for deposit. Deposit and discount fee amount totals are produced for the transmittal payment records.



- Payment information transmitted to the banking system is maintained in a Payment Application File at ACS for subsequent reporting, reconciliation, and audit purposes.
- The clearinghouse verifies the payment information against its files and transmits acknowledgment data back to ACS with the assigned reference number.
- The received acknowledgment file is reviewed to ensure that the clearinghouse accepted the transaction. The authorization code is extracted and updated on ACS' Payment Application File.

Credit card transaction data is retained for up to one year from the transaction date in the Payment Account file and is used for reconciling daily deposits with the clearinghouse. Detailed information recorded for each credit card payment transaction processed includes such information as:

- Credit card number and expiration date
- Transaction date and time
- Authorization code
- Amount of transaction
- State plate

*A comprehensive set of balancing reports aid in reconciliation.*

Payment balancing is performed daily. In each daily cycle, the following reports are produced:

- Deposits Requested
- Deposit/Acknowledgment Transmission Comparison
- Acknowledgements/Payments Application Audit
- Payment Back-out Report

All reports generated within a single batch processing cycle are checked to ensure that they balance to each other for the total number of transactions and the dollar amounts. Exhibit 3-105 illustrates a sample Pay-by-Phone Report.

**City of Columbus  
Ohio Photo Red Light Enforcement System**

[04-19-02 RFP]										
File Edit Options View Window Help										
PROGRAM: PUCIT005										
CLIENT : Columbus, OH										
MERCHANT NUMBER: 568200001994										
04/18/02 THRU 04/18/02 TRANSACTION DATE-TIME SEQUENCE										
TRANS DATE	TRAN TIME	AUTH CODE	AUTH DATE	PAID AMOUNT	FEE AMOUNT	DEPOSIT AMOUNT	REFERENCE NUMBER	STATE NUMBER	PLATE NUMBER	MESSAGE
04/18/02	00 05	018920	04/18/02	\$60.00	\$2.00	\$62.00	17 509996	OH	4RUC312	
04/18/02	00 13	000164	04/18/02	\$80.00	\$2.00	\$82.00	17 509997	OH	3PCK930	
04/18/02	00 14	015736	04/18/02	\$40.00	\$2.00	\$42.00	17 509998	OH	3WDC668	
04/18/02	00 22	985101	04/18/02	\$357.00	\$2.00	\$359.00	17 510000	OH	4RBT289	
04/18/02	01 02	036820	04/18/02	\$40.00	\$2.00	\$42.00	17 510001	OH	4RUC274	
04/18/02	01 07	10E735	04/18/02	\$40.00	\$2.00	\$42.00	17 510002	OH	2XDC214	
04/18/02	01 21	099546	04/18/02	\$190.00	\$2.00	\$192.00	17 510003	OH	3PCK438	
04/18/02	03 32	136621	04/18/02	\$35.00	\$2.00	\$37.00	17 510004	OH	2YZH203	
04/18/02	05 08	015112	04/18/02	\$289.00	\$2.00	\$291.00	17 510005	OH	3WDC208	
04/18/02	05 16	006194	04/18/02	\$40.00	\$2.00	\$42.00	17 510006	OH	3FKE985	
04/18/02	06 18	144672	04/18/02	\$60.00	\$2.00	\$62.00	17 510007	OH	4PVC036	
04/18/02	06 58	018185	04/18/02	\$65.00	\$2.00	\$67.00	17 510008	OH	5L02420	
04/18/02	07 11	018402	04/18/02	\$25.00	\$2.00	\$27.00	17 510009	OH	4KER165	
04/18/02	07 16	510486	04/18/02	\$40.00	\$2.00	\$42.00	17 510010	OH	RUK699	
04/18/02	07 25	624718	04/18/02	\$30.00	\$2.00	\$32.00	17 510011	OH	4VNE238	
04/18/02	07 29	156697	04/18/02	\$60.00	\$2.00	\$62.00	17 510012	OH	4VNE238	
04/18/02	07 30	359508	04/18/02	\$53.00	\$2.00	\$55.00	17 510013	OH	4HLC091	
04/18/02	07 31	085448	04/18/02	\$83.00	\$2.00	\$85.00	17 510018	OH	4HHA232	
04/18/02	07 37	174414	04/18/02	\$35.00	\$2.00	\$37.00	17 510016	OH	3R5K384	

**Exhibit 3-105. ACS' Deposits (Pay-by-Web) Report is one of many detailed Pay-by-Web reports that will be made available to the City.**

*The Pay-by-Phone system includes a secured online inquiry function for research.*

ACS maintains an online inquiry function for research and reversal purposes. Due to the highly sensitive nature of the data on the file, access is limited to a very small number of users. The online function also displays the transaction reference number, which can be used to research issues with the clearinghouse, credit card company or bank. Display of specific credit card information is subject to an additional layer of security access as a secondary safeguard.

**Payment Reconciliation**

*ACS has provided the City of Columbus with several financial control reports to assist in balancing the daily receipts to the bank deposits.*

In the area of PVB revenue collection and processing, a primary financial concern is the daily and monthly balancing of monies collected to the bank deposits. To this end, ACS currently provides the City with several specific revenue tracking reports. As described below, each of these reports serves a purpose in ensuring control and accuracy of all PVB revenues.



### **Online Cashiering Report**

The Online Cashiering Report is a daily journal listing of all online cashiering activity. This report, sorted by cashier ID, lists payment transactions in time order providing state plate number, citation number, payment type, payment method, amount paid, and time of transaction. Grand totals for all payment categories i.e., cash, check, money order, and credit card are provided on the last page of the report.

### **Production Control Report (PCR)**

The Production Control Report provides a daily record of all update activity including online transaction totals, mail transactions, name and address requests and changes, scheduled hearings, dispositions, and the total number and dollar amount of payments, adjustments, and fees processed. Total counts and amounts of seizure requests, penalties added, and notices sent are all summarized on this report. Counts and amounts for skeletal transactions added each update and resolved each update are displayed. Beginning and ending balances are provided, as well as the net change from one cycle to the next. The PCR serves as a summary reconciliation tool for all online and batch activity processed for the City of Columbus red light program.

These reports are currently used by the City to reconcile the daily receipts processed by the cashiers to the daily bank deposits. The Online Cashiering Report provides totals by cashier that can be balanced to the daily totals obtained from the PC cashiering equipment for each cashier. The Online Cashiering Report can then be compared and matched to each cashier's deposit made to the City's bank account. The totals on the Online Cashiering Report can then be traced to the PCR, which summarizes the total payments and adjustments posted to the system.

### **3.1.34.3 Collections**

*ACS has the proven capability and experience to provide a successful and efficient collections program for the City.*

The presence of an effective collections system plays a major role in the enforcement of red light citations, parking tickets and the collection of monies owed to the City. The ability to accurately and efficiently produce notices is essential to ensuring no disruption to the City's revenues. ACS has developed a sophisticated and multi-faceted noticing system for the City of Columbus PVB that increased outstanding parking ticket collections from under \$1M to nearly \$5 million annually. Our proposed noticing and collections strategies have been in place in Columbus for more than 20 years, generating an 80% collection rate.

---

---

Further, ACS can substantiate our claim that no other vendor provides citation systems and services to more major cities in the United States. For our parking collections contracts alone, we collected \$450 million for our clients last year. ACS has the extensive experience and the proven ability to provide the City of Columbus with a notice generation process that maximizes potential revenue, ensures accuracy, and meets the City's requirements.

*Fully automated subsystem allows up-to-date selection of tickets eligible for noticing.*

Timing and accuracy are critical to the successful enforcement and collection of unpaid red light citations through noticing.

One of the keys to ACS' collections success is the ability of eTIMSSM to provide up-to-date selection of tickets eligible for various notices. Criteria for noticing is accomplished through eTIMSSM table-driven, next action logic and automated scheduling of events, applied either individually or in combination. eTIMSSM noticing programs allow specific criteria to automatically identify citations to be noticed and determine which notice is to be generated. Such criteria may include the status of an individual citation or entire plate; a specific event, activity or condition; or a series of conditions defined by the City. Any citation that has received a notice will have a recorded notice transaction history. Each citation in the system has a record of all notices that have been applied to the citation in the Citation History Screen as seen in Exhibit 3-106.

Since notice logic and timing are table-driven, our system is inherently flexible to expeditiously implement revisions to the noticing process due to changing circumstances, new legal requirements or simply to improve customer service. Our eTIMSSM solution provides the City with a fully automated, customized noticing program.

Notices are produced on a daily basis throughout the life cycle of a citation. Today on behalf of ACS, the City of Columbus, mails three standard notices, a Registration Hold notice and one special collections or, SWEEP notice.

**City of Columbus  
Ohio Photo Red Light Enforcement System**

eTIMS City of Los Angeles		CITATION HISTORY			
<b>Citation Number:</b> 762264322 <b>Violation:</b> 5204A Expired Tags <b>Plate:</b> CA 1BSU202		<b>Issued on:</b> 04/30/97 12:15pm <b>Location:</b> 2605 Broadway N		<b>Date Added:</b> 05/02/00 <b>Ticket Status:</b> Open	
Comment Type	Date	Time	Details	Clerk	Trans Date
External	07/01/98	03:07 pm	R/O Expired Tags 1/97 N/W Current temporary registration displayed City Lot 65	LACOMUPD	07/01/98
Suspend	06/01/98	02:06 pm	Schedule hearing — suspend until 07/17/98 Case #: 768915711	L63CL07	06/01/98
Hearings	06/01/98 06/03/98	02:08 pm 09:05am	BTVN 06/02/98 08:30am Disposition: Not Bootable \$0.00 Case #: 68915711	L63CL07 L63PC03	06/01/98 06/03/98
Correspondence	05/29/98	03:45 pm	PhoneMark Not sent Tele	L63TP25	05/29/98
Notice	07/02/97		Mail Type: Delinquent	SYSTEM	07/02/97
Notice	05/28/97		Mail Type: Overdue	SYSTEM	05/28/97

CLOSE THIS WINDOW · ADD A COMMENT      ◀ PREVIOUS | START | END | NEXT ▶

**Exhibit 3-106. The Citation History Page displays all the transactions processed for a citation. Proprietary Information**

**Notices**

- Parking tickets issued and remaining unpaid 10 days from date of issuance will receive a Notice of Parking Infraction as displayed in Exhibit 3-107.
- Parking tickets remaining unpaid 30 days after issuance of the first notice will receive an Impending Judgment Notice as displayed in Exhibit 3-108.

Parking tickets remaining unpaid 20 days after issuance of the second notice will receive a Pre-Judgment Notice, to be mailed at the City's option as seen in Exhibit 3-109.

ACS recommends mirroring this noticing stream for the photo red light enforcement program. Obviously, the first notice will include color violation images and the ~~wording and language will be customized for photo enforcement and the City's local ordinance.~~ Further, the timing of all notices will be modified to maximize service and enforcement. Section 3.1.7 provides more detail about our proposed noticing strategy. In the remainder of this section, ACS details our proposed collections noticing strategy ~~that, like our initial notice strategy, is based on our proven PVB collections model.~~ Again, timing, notice language, and notice content will be modified slightly to meet the unique needs of photo red light enforcement.



City of Columbus  
Ohio Photo Red Light Enforcement System

# 3.0 SPECIFICATIONS



### 3.1.1 How System Photographs Vehicles

#### HIGHLIGHTS

- Best blending of technologies – digital still cameras, digital video, and digital vehicle detection to fit any myriad of intersections
- Front and rear photography combinations available
- Latest generation camera system providing highest collective resolution at over 18 million pixels six times the image processing power of next closest camera competitor
- Six times the image processing power of the next closest camera competitor
- Video replay of every violation
- 100% vehicle detection with the most accurate speed
- Gatsometer – most experienced automated enforcement technology manufacturer – 50% of all world's cameras are provided by Gatso
- ACS – most experienced integrator with constant access to latest enforcement technologies

---

#### Overview

---

*The ACS system blends still digital cameras, video, and digital loop detection to enable the City to detect, capture, and issue more violators than any other system. Our digital multi-cam system offers 12 bit CCD device and collectively more than 18 million pixels of resolution at every enforced approach.*

To maximize enforcement and change driver behavior, citizens must know they will be held accountable for every violation, regardless of time of day, weather, or temperature. The City must select the digital red light enforcement system that will maximize detection and issuance under any environmental condition or hour of day.

Detecting and capturing prosecutable images on a clear, sunny day is not a difficult task. However, detecting and capturing prosecutable images in darkness, in the cold, or in rainy weather is much more difficult. The small and varied characters on American license plates require high-resolution camera technology. The equipment a vendor provides directly affects the outcome of detection or non-detection and prosecutable images from poor image quality.

---

Video based systems may eliminate the need for in ground loop detectors, but a video based detection and violation capture system has limited effectiveness due to:

---

- 1) low resolution of the video cameras,
- 2) reliance on video and images for violation detection, and
- 3) problems with overcoming low ambient light conditions, rain, fog, shadows, and shiny road surfaces



**City of Columbus  
Ohio Photo Red Light Enforcement System**

Video based violation detection systems rely on their ability to "see" or "predict" vehicles. Even the human eye has limited ability to see vehicles in various light conditions, rain, fog, and shadows (especially when the cars are dark). Video based violation detection systems, which are far inferior to the human eye in recognizing vehicular patterns, will naturally have a higher number of "missed" violations and poorer image quality due to these issues and the inherent lower resolution power of the system.

ACS offers the City of Columbus digital camera and detection alternatives that overcome the issues associated with video-only systems, laser based detection systems, and radar based detection systems. Near 100% digital vehicle detection is offered and the result is the highest possible violation issuance rate.

ACS recognizes the City is interested in all possible enforcement options, including front and rear photography, and offers the City numerous approach configurations. Highlights of our proposed solution and our configuration options include:

Front and Rear Photography Configurations Maximize Enforcement Options for City of Columbus. ACS can provide the City any equipment and configuration option desired. The many options for enforcement include:

- 1) Rear Cameras Only - 3 photographs show the offending vehicle from the back taken before and after the point of violation with the illuminated red signal head in both photographs and a close up of the license plate
- 2) Rear Cameras w/video - same as above but in addition to the 3 still photographs a 12 second video clip initiating on yellow is added (video is included in our base, rear photography-only price)
- 3) Front and Rear Cameras - 3 photographs from the rear showing the offending vehicle taken from the back before and after the point of violation with the illuminated red signal head in both photographs and a close up of the license plate plus up to 2 photographs from the front taken before and after the point of violation and a close up of the license plate and driver if desired (currently, driver images are not required by the City)
- 4) Front and Rear Cameras w/video - same as above but in addition to the 4-5 still photographs a 12 second video clip from the rear initiating on yellow is added (video is included in our base front and rear price).

---

Please see Section 3.1.1.5 for a depiction of our camera configurations.

---

***100% vehicle detection accuracy through Gatsometer digital inductive loops at all times of day, under any weather conditions.***

---

ACS offers Columbus the world's most widely used and tested red light camera detection system. Key features of our proposed inductive loop detection system include:





**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

---

- Do not rely on any visual identification of vehicles. Instead, the loops rely on magnetic fields for detection and are unaffected by the weather, time of day, lighting, shadows, or temperature.
- Do not suffer from vehicle misses that laser based systems often due because their pinpoint lasers missed their target or were affected by wind or other environmental conditions.
- Offer the City truly automated detection of violations – if a car crosses the loops regardless of any other environmental factor – the vehicle will be detected.
- Only ACS can offer 100% vehicle detection under any environmental condition.
- + or – 1mph speed accuracy – most accurate speed detection in industry allows for future speed on green, yellow, and red program

Using Gatsometer's digital loop detectors, ACS can detect more violations than any other vendor in the industry. Even with its detection successes, ACS continues to research and evaluate non-invasive detection systems. Many of the non-invasive detection technologies discussed earlier are continually being worked on and tested jointly by ACS and Gatsometer's R & D Departments. When these detection technologies have been improved to match in-ground loops for accuracy and reliability under all environmental conditions, ACS will offer the City a free pilot to compare the new technology against loops.

The in-ground loops installed by ACS do not interfere with the City of Columbus's traffic signal control infrastructure. The loops only connect to the cameras and in fact the only required inputs to the Photo Red Light Enforcement system are 110VAC and yellow and red traffic phase. More on these connections can be found in Section 3.1.21.

*The highest resolution digital cameras in the industry combined with motion video to maximize violation issuance and provide the best blend of primary and secondary evidence.*

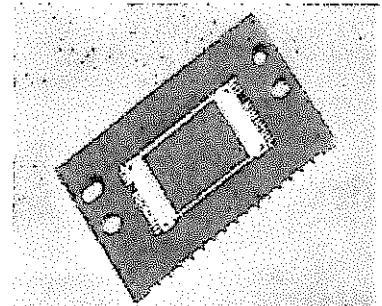
ACS is pleased to offer the City of Columbus the industry's next generation, most advanced, and highest resolution digital multi-camera solution, which includes:

- Up to nine (9) individual high resolution digital cameras per typical four lane, front and rear photography, intersection approach (5 front and 4 rear cameras)
- Two million pixels per individual camera (next closest vendor offers only 1.45 million ~~mega-pixels per individual camera~~)
- One high resolution video camera per approach to provide a 12 second "instant replay" of each violation and optional live traffic surveillance
- The only provider with combined camera units that enable a potential for more than 18,000,000 pixels on target, providing the leading image clarity in the industry



**City of Columbus  
Ohio Photo Red Light Enforcement System**

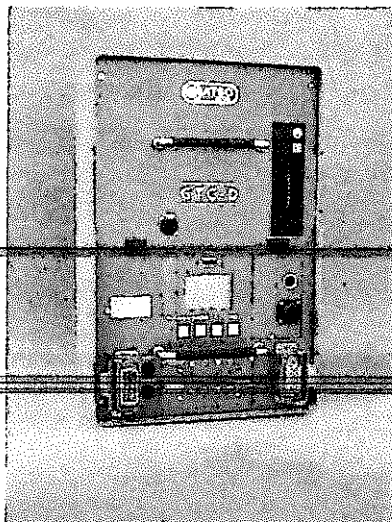
- The only provider in the industry offering 12 bit CCD chip technology (see Exhibit 3.1) (RGB) providing more than 6.8 billion levels of gray scale, producing six times the image processing power of our nearest competitor.



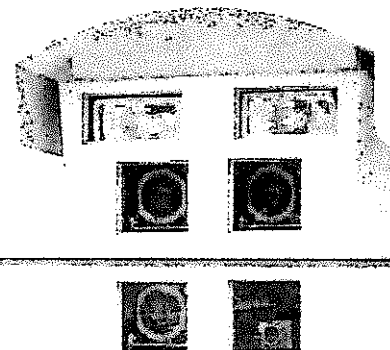
**Exhibit 3-1. 12 bit CCD device**

Supplier	Pixel Count	Sensor Type	Levels of Gray Scale
ACS	2 million	12-bit	6.87 billion
Next closet competitor	1.54 million	10-bit	1 billion

ACS offers three unique camera configurations to meet the unique issuance challenges presented by every intersection approach, to meet the unique aesthetic needs of each intersection approach and its surroundings, and to meet the unique rotational enforcement goals of the Police. Every intersection approach presents unique challenges. Some approaches are extremely wide, making rendering curbside photography, even in multiple camera configurations, ineffective. Other approaches have extremely high truck traffic volumes, requiring an overhead view to ensure all plates from violating vehicles are not blocked. Many approaches may be in historic or tourist areas where minimization of street furniture and aesthetics are critical. For example, in historic Old Town, Alexandria, per our client's request, ACS designed and built colonial lamppost style camera poles and housings to blend in with the environment. There is no one single configuration that will meet the unique challenges and issues present at every approach in Columbus. With this understanding, Gatsometer offers the city three unique camera configurations all using Gatso's core digital cameras, that address the needs of two lane, three-four lane, and four or more lane approaches.



**Two lane digital camera configuration**



**Multi-cam digital configuration**



**City of Columbus  
Ohio Photo Red Light Enforcement System**



***Overhead multi-cam configuration***

Because ACS is the only vendor to offer a camera configurations to meet, match, and overcome the unique image capture and quality challenges of every possible intersection approach, we can issue more violations than any other vendor.

**Twelve second video clip and live video surveillance for traffic management**—ACS believes the City should enjoy the benefits of video, such as the instant replay of each violation and the ability to dial into the camera for live video surveillance over the internet without suffering from video's inherent detection and resolution shortcomings. ACS will complement our high resolution digital camera systems and inductive loops with secondary video clip "replays" of every violation and allow the City the option of live video surveillance at every enforced approach (See Exhibit 3-2).



City of Columbus  
Ohio Photo Red Light Enforcement System

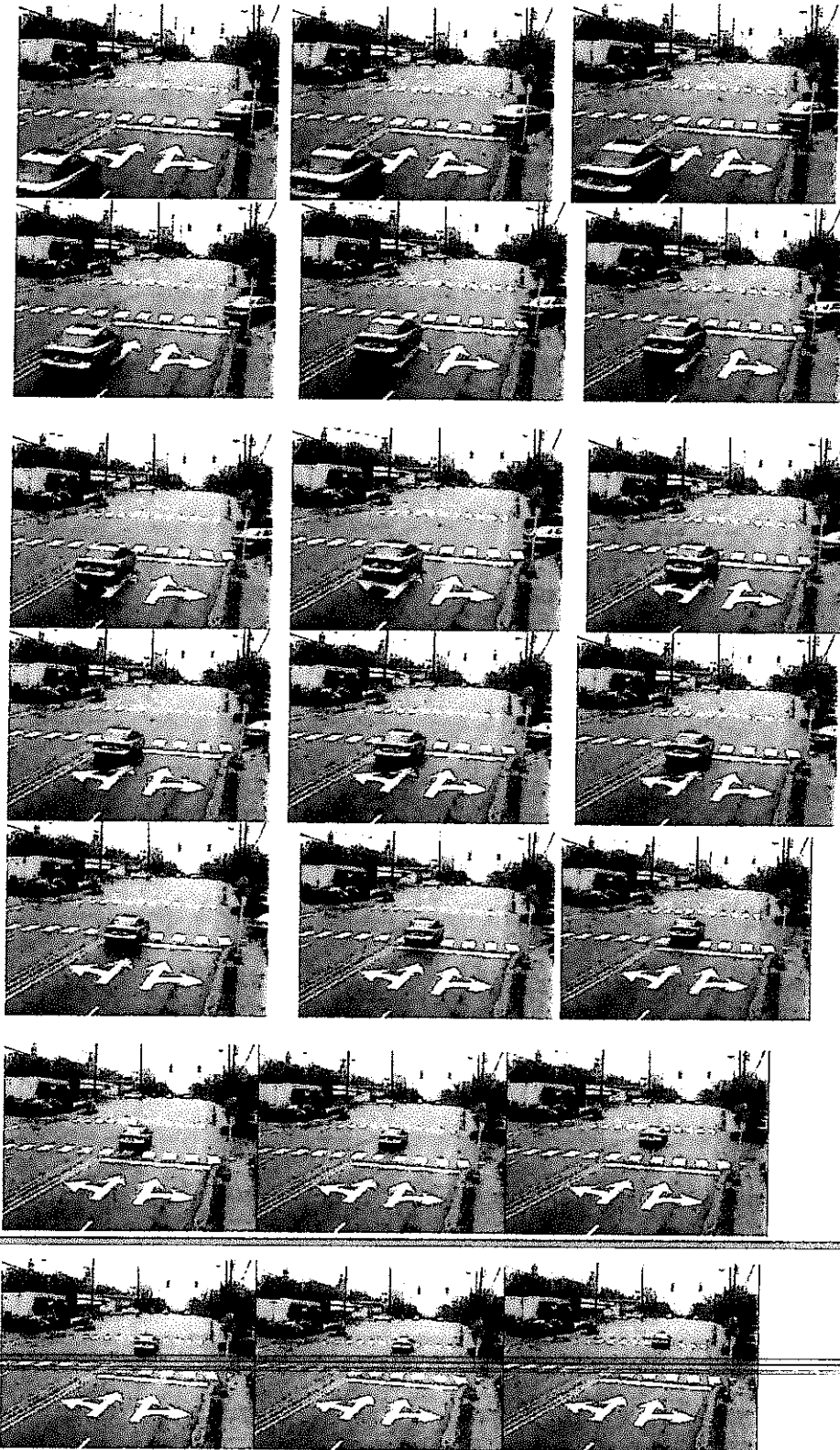


Exhibit 3-2. Showing 21 frames of possible 360 frames captured in every 12 second video clip.



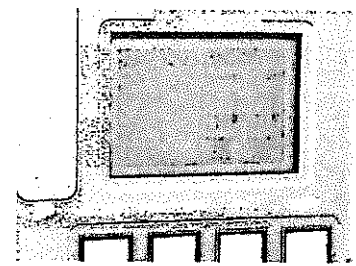
**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

**Gatsometer – the world’s most widely used and tested photo enforcement manufacturer**—Today, no company in the world has a more established name and reputation for making the most advanced, accurate, and high quality photo enforcement products than Gatsometer. Gatsometer built more than 50% of all photo enforcement products in use today, many still functioning for more than 30 years. In fact, more than 6,500 Gatsometer photo enforcement cameras are operational in more than 40 countries worldwide. Gatsometer is clear on its business focus and core competency – they assemble and manufacture the world’s best photo enforcement camera systems. As technology has evolved over the last 30 years, so too has Gatsometer. As their film cameras are known as the best throughout the world, Gatsometer’s digital cameras are fast becoming the benchmark for the photo enforcement industry. Gatsometer’s digital cameras were built with the same care, accuracy, and reliability as their film products.

ACS will provide any and all equipment required to install a fully functional Automated Red Light Enforcement system at all selected intersection approaches. Equipment to be delivered and installed in Columbus includes the digital cameras with necessary operational software, required auxiliary flash units, vehicle detection system, telecommunications lines, all connection cabling, pullboxes, etc. Additionally, as required in the RFP ACS will supply the Court and Police with a minimum of one workstation per department and HP printers to facilitate violation approval, notice printing, account inquiry, and account update.

**3.1.1.1 Digital Camera Capabilities**

Gatsometer’s digital cameras incorporate a large LCD (Exhibit 3-3) immediately visible upon opening their housing. On the display the date including day, month, and year and the 24-hour time in hours, minutes, and seconds are displayed. The date and time information is maintained from a real time clock integrated circuit chip and is accurate to a few seconds per month. A daylight savings time (DST) option can be turned on or off to move the time an hour ahead or behind automatically two times per year. Should the time or date require manual changing, the simple 4-button keypad below the LCD allows the visiting Field Service Technician to make any changes.



**Exhibit 3-3. 3 DIGI-CAM  
Time and date setting  
screen programmed for 2  
lanes**

---

Our digital camera systems provide three digital images of a violation event plus video. The first image is an overview clearly showing the violating vehicle prior to the point of violation with the red signal illuminated. The second image is another overview showing the violating vehicle continuing through the intersection. The third image is a close up of the violating vehicles license plate. In addition, a twelve second video clip beginning when the traffic signal turns yellow is also supplied.

---

Multiple violations can be captured including both dedicated left-hand and right-hand turn lanes. Both digital camera systems can accept more than one set of red and yellow traffic phase inputs. This allows both a turn arrow and ball signal to be monitored. For example, the systems can be programmed for a four lane approach where two lanes are



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

left turn lanes and two are through lanes or only one lane is a left turn lane and the remaining three are through lanes.

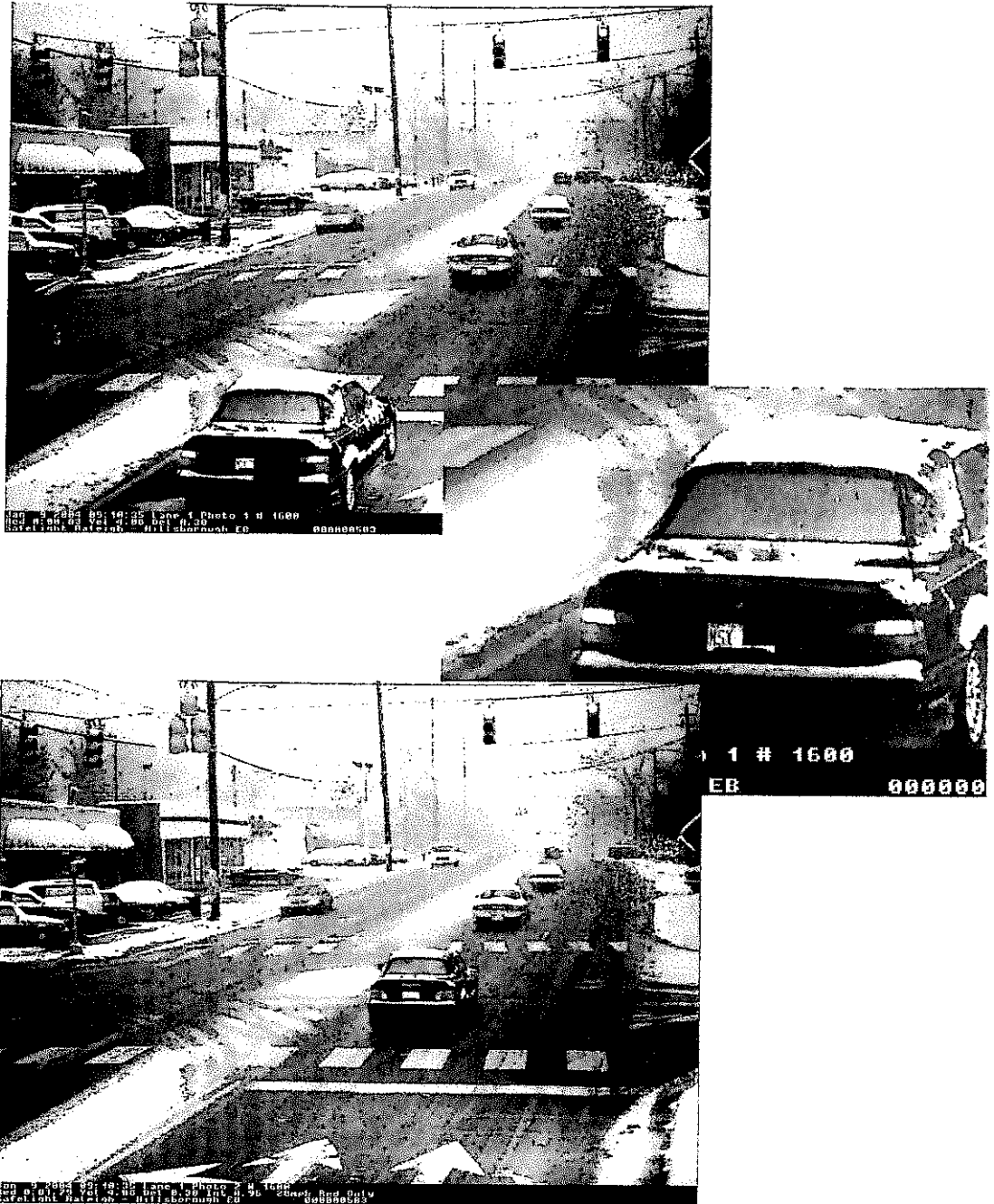
Multi-axle vehicles can be captured by both systems. The use of in-ground inductive loops connected to the Gatsometer exclusive GLD4 loop detector module allows detection of all vehicles. More information on the uniqueness of this device is explained in Proposal Section 3.1.15, Violation Detection and Photographs.

Speeds up to 144 mph are easily handled by the two digital systems proposed. Extensive testing has been performed by the United Kingdom Home Office, the Netherlands Measurement Institute, and the German Approval Institute with speeds accurately recorded to +/-0.5 mph.

Gatsometer's digital camera systems capture images of multiple violators at all speeds and all lighting and weather conditions. As described earlier, neither low nor high speeds prevent vehicle capture. It is also known red light violations occur at night as well as during the daylight hours. During evening hours integrated flash units provide the necessary lighting to both identify the license plate information and the vehicle model and color. These flash units are designed to recharge rapidly providing the correct amount of light each and every time. ACS has installed automated enforcement systems in both temperature extremes. Cold weather and snow plagued cities such as Edmonton, Winnipeg, Minneapolis, Denver, etc. all use Gatsometer systems. To the other extreme, the desert cities of Phoenix, Tempe, and Mesa, Arizona utilize camera systems from Gatsometer. Rain and fog conditions do not hinder violation capture and identification. Snow (Exhibit 3-4) will not typically hinder violation capture unless the flakes actually stick to and obstruct a vehicles license plate.



**City of Columbus  
Ohio Photo Red Light Enforcement System**



**Exhibit 3-4. Snow Images**

The red and yellow traffic signal phase signals must be monitored by a camera system in order to know when the intersection should not be violated. Some vendors choose not to monitor the yellow light at all. Other vendors try to determine if the light is red by pointing a video camera at the red light. These systems are simply not reliable nor do they meet proper minimum standards for traffic signal monitoring. ACS and Gat-someter believe the only correct way to monitor the traffic signal phase condition is to connect to it. The use of video sensors or non-physical links does not occur. However, understanding city traffic engineers are not typically favorable to a direct connection,





**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

the systems proposed are optically isolated from the city's traffic controller. Built into every system Gatsometer produces are four optically isolated inputs. Two are for the yellow phase inputs and two are for the red phase inputs. Two of each allows both an arrow phase and ball phase to be monitored simultaneously. By using optical isolation, the signal path is always only one way into the camera system. At no time can the camera system ever send a signal back to the city traffic controller. In addition to this built-in optical isolation ACS also makes available magnetic coupling using a device commonly referred to as a "wedding ring." This donut shaped device goes around the red and amber traffic phase wires. As current is drawn through the wires when the traffic signal bulbs become illuminated, this signal is picked up by the device and communicated to the camera system. Using the device adds a second level of isolation but a slight delay is also induced. Beyond these traffic phase conditions, the only other requirement is 120VAC power.

Without any moving parts, Gatsometer's digital camera systems require little maintenance. Fans must be kept working and free of debris. All electrical conditions are regularly checked for soundness. Maintenance and downtime reports will be provided. Additional information on this subject including ACS' exclusive on line CiteTrak failure monitoring program will be described on Proposal Sections 3.1.3, System Interface and 3.1.21, Traffic Signal Integrity.

Multiple lane coverage, secure data, and vandal resistance are all important necessities in a automated enforcement system. However, if the images the system produces are not clear and legible and the system is not robust and all these other factors mean nothing. As earlier stated, the actual digital camera component is definitely not a consumer grade product. Quite the contrary, it is built to withstand high and low temperature extremes and the required 24/7 operation routinely associated with automated enforcement. At 2 million pixels, each individual camera provides the highest resolution digital images possible. Gatsometer's digital camera systems properly illuminate their subjects via a built-in Xenon flash and related circuitry. As illumination for digital photography does not require the high power flash units used by wet film camera, Gatsometer developed a new flash dedicated around the characteristics of the digital camera. Other vendors may propose higher resolution cameras but, these cameras are not industrial/scientific grade. Instead they are consumer grade available from your local camera store. Not only are these consumer cameras not able to withstand 24/7 operation, they also do not have the burst rate required to handle multiple violations. The City of Columbus should proceed with caution considering a digital camera system which incorporates a consumer grade camera. When a violation occurs the camera system must be ready to record the event. The system should not be in the middle of storing to its buffer or not functioning at all due to an overly warm day. The camera's ability to handle different levels of light is also another important factor to be considered. License plate reflective-ness varies from State to State. ACS partners with County and City governments in 17 different States and Provinces across North America. The vastness of the programs we maintain has exposed us to a huge multitude of different license plates used both reflective and non-reflective. The use of camera filters, just the right flash intensity, and the chosen camera device itself all have contributed to the quality images ACS can offer. Proposal Section 3.1.34, Payment Processing and Collections explains some exciting information on a new camera device from Gatsometer.

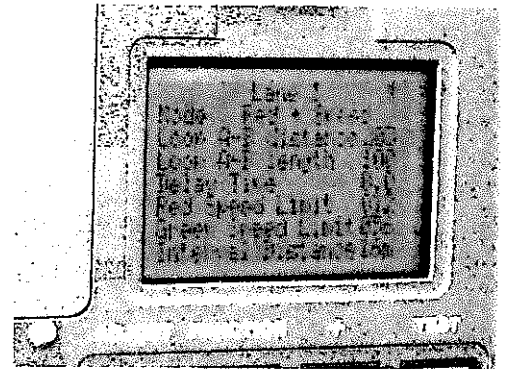




**City of Columbus  
Ohio Photo Red Light Enforcement System**

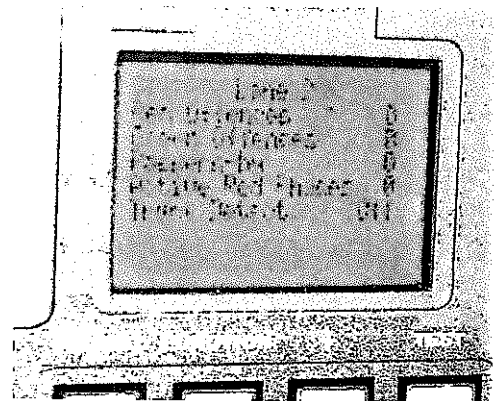
Gatsometer's digital camera systems offer possibly the simplest methods of programming whether on-site or remotely via telecommunications line.

- 1) Red delay time can be programmed by individual lane (Exhibit 3-5). This unique feature allows a different red delay setting for each lane. A red delay time setting is a feature of the Gatsometer Digital red light camera systems. The setting range is quite wide going from 0.0 to 9.9 seconds. It can be adjusted in 0.1 second increments. The feature can be used in many ways. One example allows a City to set a higher minimum trigger speed in the right turn lane. This action allows vehicles which do not come to a complete stop when turning right on red to not falsely activate the camera.



**Exhibit 3-5. DIGI-CAM Lane 1 individual lane setting screen**

- 2) Each lane has two display screens. Exhibit 3-5 shows the first programming screen for Lane 1. Exhibit 3-6 shows the second screen but this time for Lane 2. The second lane screen displays the number of offenses and vehicle passes which have been recorded and allows the option to record trucks separately from passenger cars.



**Exhibit 3-6. DIGI-CAM Lane 2 2<sup>nd</sup> individual lane setting screen**

- 3) The pitch setting of the loop detectors can be programmed for each individual lane. This unique feature allows different loop spacing in each lane. This is a useful tool in cases where a road surface obstruction in a particular lane can cause a different loop spacing than the other lanes. After the loops have been installed, a loop pitch calculation sheet is completed typically with the client in attendance. The loop pitch setting is then entered into the red light camera unit. The range for this setting goes from a low of 200 centimeters to a maximum of 500 centimeters per lane and can be entered in 1 cm increments.

- 
- 
- 4) The second photograph can be triggered either by a specific time after the first photograph or via a specific distance from the leading edge of the second loop. If distance is used the range goes from 5 to 99 meters and data can be entered in 1 meter increments. If time is used the range goes from 0.2 to 5.9 seconds and data can be entered in increments of 0.1 seconds.
- 
- 

- 5) The date, day, and time is readable on the LCD screen and is easily set on-site.

- 6) Minimum red speed threshold can be programmed by individual lane. This unique feature allows a different minimum speed to be programmed in each lane. Minimum



**City of Columbus  
Ohio Photo Red Light Enforcement System**

red threshold speed is easily adjustable via the LCD screen. The range for minimum red speed to activate the camera device is 1 to 33 mph. This range has proved to be sufficient in reducing false activations by vehicles approaching the loops at higher speeds but not continuing through the intersection. The ability to set individual speeds per lane is an important feature. In cases where rolling stops on red are not enforced, a programmed higher red speed in a combined through, right hand turn lane will prevent non-enforceable camera triggers.

- 7) Both digital camera systems contains a Sleep Timer. This feature allows programming prior to a special event (parades, etc.) whereas the device will go to sleep during the programmed period and awaken after the period has expired.
- 8) Maximum speed threshold (for speeding enforcement) can be programmed by individual lane. This unique feature allows each lane to have it's own speed limit.
- 9) Four modes of operation Red Only, Speed Only, combined Red and Speed, and data collection can be selected with no need to load up additional software. The inclusion of all four mode selections offers the City of Columbus great flexibility should it choose to enforce speed violations at a later date.

**3.1.1.2 Digital Images**

Each of the digital images produced by Gatsometer's digital camera systems contain all the required data information in the databar as outlined in the RFP. See Exhibit 3-7.

```
Jan 9 2004 09:10:35 Lane 1 Photo 1 # 1600  
Red 0:00.83 Yel 4.08 Del 0.30  
SafeLight Raleigh - Hillsborough EB 000000503
```

```
Jan 9 2004 09:10:35 Lane 1 Photo 2 # 1600  
Red 0:01.79 Yel 4.08 Del 0.30 Int 0.96 28mph Red Only  
SafeLight Raleigh - Hillsborough EB 000000503
```

**Exhibit 3-7. Databars from first and second images**

- 1) Violation Number - Each set of digital images displays it's own violation number. Both the first and second image contain the same violation number allowing the two images to be legally connected.
- 2) The date with the month completely spelled out and a four digit year are displayed in both the first and second image.
- 3) A running clock is displayed in both the first and second images using military time.
- 4) The amber time is displayed in both the first and second images and carried out to two decimal places to hundredths of a second.
- 5) The amount of red time elapsed when the violation occurred is displayed in both the first and second images. The time is carried out to two decimal places or hundredths of a second.



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

- 6) An unique location code appears in both the first and second image. Additionally, forty-two characters of free text in the third line of the databar allow street names, city program name, etc. to be displayed.
- 7) The accurate speed of the red light violating vehicle is displayed in the second digital image.
  - 1st line - Displays an easy to read date (Jan 9 2004) with the month name versus month number and the year in 4 digits, the time (09:10:35) out to hundreds of a second, the lane number (Lane 1) where the violation occurred, the photo number (Photo 1), and the violation number (# 1600).
  - 2nd line - Displays the red time ( Red 0:00.83 1st image, 0:01.79 2nd image) elapsed when the violation occurred out to hundreds of a second, yellow (Yel 4.08) counted to hundreds of a second, red delay (Del 0.30) programmed and counted out to hundreds of a second, speed (28mph) of the violator(2nd photo only), and enforcement mode (Red Only) which can be red only, speed only, red and speed, or data collection.
  - 3rd line - Allows 42 character of free text (Safelight Raleigh - Hillsborough EB) typically used for entering the program name, cross streets, etc followed by a unique nine character (000000503) unique location code.

In a rear photography only environment, Gatsometer digital camera units capture two high resolution (1200 x 1600) images (Exhibit 3-8 and 3-9) when a vehicle violates the red signal indication. Both images contain the vehicle violating with the first image capturing the vehicle prior to the point of violation and the second image capturing the vehicle after it has crossed the point of violation and entered the intersection. The exact position of the vehicle in the second image can be determined by the City. Additional violation images are contained in Sections 3.1.16 through 3.1.19.



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**



**Exhibit 3-8. Rainy digital image**



**Exhibit 3-9. Day digital image**

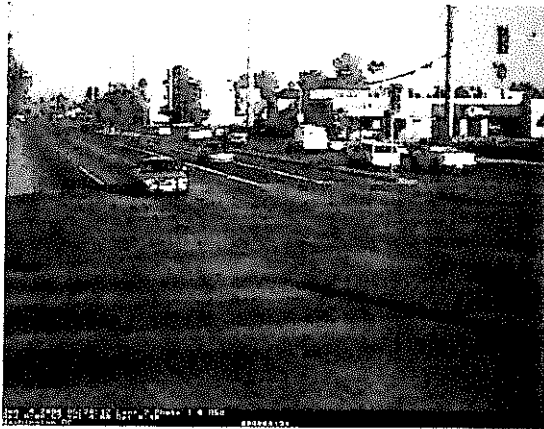


## City of Columbus Ohio Photo Red Light Enforcement System

Also contained in both images will be at the red illuminated traffic signal light which the violating driver sees. The camera device is triggered by the detection device. The criteria shown must be met for a two image violation set to commence.

- The traffic signal must be red
- Any programmed red delay or grace period must have expired
- Any programmed minimum speed threshold must have been exceeded

If the City elects to use frontal photography, our camera system will include both front and rear cameras, simultaneously taking violation images of the violation event. In addition to the three digital images produced by the rear camera (first shot, second shot, and plate closeup) our system will record a first and second violation image set from the front, similar Exhibit 3-10 and 3-11.



**Exhibit 3-10. First frontal image**



**Exhibit 3-11. Second frontal image**

If our dual, front and rear photography setup is used, we will produce a minimum of five violation images. ACS can also add a sixth image - a license plate closeup from the front - and a seventh image - the driver's face - at the City's request.

The individual 2 million pixel digital cameras in Gatsometer's camera systems provide high-resolution images allowing the person viewing the images to easily extract the rear of the vehicle to gather the license plate information. Gatsometer's digital camera systems can be configured to easily capture four or more lanes of traffic.

Gatsometer's digital camera systems are microprocessor controlled automated enforcement systems. Once the system is connected to power, the yellow and red phase, and programmed, it is completely automatic with everything controlled by an internal microprocessor. Photographing a fast moving object is not a simple task. Gatsometer has solved this problem with an extremely fast shutter speed of 5/10,000 of a second. The internal and external flashes are synchronized to the camera shutter and a flash duration of 5/100 of a second is used. Vehicles violating red lights whether driving at the posted speed limit or extremely exceeding the limit will be frozen in time in the two still images taken.

- 1) The first image is triggered by a vehicle activating the in-ground loop detectors.



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

- 2) The digital camera(s) within the red light camera system are automatically controlled by an auto iris unit specifically designed for digital imaging. The device incorporates an electronic photocell which measures the amount of ambient light available. Using commands from the microprocessor, the device opens and closes the lens aperture controlling the amount of light entering the camera. Additionally, the flash units operation is also controlled.
- 3) In order to freeze action, the digital camera unit is set at 5/10,000 second.
- 4) The flash unit internal to the red light camera unit and the external auxiliary flashes are completely synchronized to the camera shutter. Double images cannot occur.
- 5) The digital camera can capture an image every 0.1 seconds.

Gatsometer wanted to provide a digital camera device which was similar to the film based camera units used successfully for so many years with the full acceptance of the courts. In these cameras the data was burned into the film negative at the exact same time the scene was captured. This provided a single photograph with both the full intersection scene but, also the databar. To match this within the digital cameras, Gatsometer built the databar electronics right into the digital camera. When a violation occurs and the scene is captured, the databar is created at the exact same time. There is no lag time and the databar is immediately part of the image. Other contractors do not add the databar until much later. This can be anywhere from a few minutes to a few days. This lag time may not be acceptable to the courts as it opens the door to multiple opportunities for the wrong violation data to be matched to the image. The City of Columbus should be highly cautious of these systems.

### **3.1.1.3 CAMERA HOUSING**

The camera housings for Gatsometer's digital camera systems are robust items.

- 1) The double skinned cabinet prevents any liquid spray from entering the cabinet which could damage the electronic unit. The access door on the rear of the cabinet seals with a rubber gasket making this area spray resistant also.
- 2) The camera housing is double walled steel. The inner cabinet is stainless steel with welded joints which fully protect the red light camera unit from vandalism and adverse weather conditions. The outer panels are galvanized steel protecting them from chemical corrosion and extreme environmental conditions. The outer panels also serve as deflection shields protecting the inner cabinet from a ballistic attack.
- 3) An enamel powdercoat tan paint color is recommended for it's superior reflective qualities and ability to blend in with the environment or existing infrastructure. However, should the City desire another color, arrangements can be made to satiate the City. The paint selected is applied to the cabinet and baked to produce a durable industrial quality finish. The use of stainless steel and galvanized steel combined with a powdercoat finish provides a long lasting rust-proof finish.
- 4) Bullet resistant glass is always used.

**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

- 5) Each unattended housing cabinet is compliant with the National Electronics Manufacturer's Association (NEMA) Type 3R standard for quality materials. Model 460 continues our product history of providing an extremely secure housing that maintains camera operations regardless of weather conditions. The ground based unit is also housed in it's own NEMA cabinet.
- 6) The camera housing can be attached to any size diameter steel pole. A flange supporting the housing comes in various inside diameters. The flange secures to the poles via eight Allen screws. Before tightening these screws allow horizontal and vertical adjustments to the housing. Once tightened, a security collar is locked in place over these screws eliminating their accessibility.

Each camera housing is constructed to withstand the extreme cold and snow of Edmonton, Canada, the extreme heat and Sun of Phoenix, Arizona, and the fog and moisture conditions of San Francisco, CA and Raleigh, NC to name a few.

To eliminate fogging of the glass portals in the housing a 10 watt heater is installed just below the windows. ACS stocks and maintains higher wattage heaters for extreme environments but, has found the ten watt unit to work well in the six hundred plus housings currently maintained in North America.

#### **3.1.1.4 POWER SUPPLY**

Each pole and cabinet assembly comes pre-wired to accept all leads from a 120VAC power supply. Also pre-wired are yellow and red traffic phase inputs, loop detector connections, and the telecommunications line. All connections are made at the time of initial installation to a simple labeled terminal block located in the bottom of the pole. Once installation has been completed, each intersection will have been configured to allow a Gatsometer red light camera unit to operate by sliding the unit into the cabinet and connecting four electrical connectors which attach the power, traffic signal light phasing, in-ground loops, and telecommunications line.

Low voltage conditions can often occur at an intersection. The Gatsometer digital camera systems proposed by ACS easily handle low intersection voltage supplies down to 70VAC without affecting operation. On the other end of the spectrum, high-voltage spike suppression is incorporated into the camera system power supply preventing the possibility of any damage.

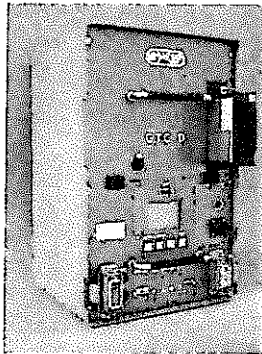
All violation images and data saved to the removable hard drive will remain indefinitely even with power removed. The system date and time is supplied from a integrated circuit with internal battery rated by the manufacture to operate for ten years.

To circumvent possible delays from the local telephone company the proposed digital camera systems incorporate a removable hard drive unit (See Exhibits 3-12, 3-13 and 3-14). Should the telephone line installation time be lengthy or after installation has been completed should an outage occur, the removable drive allows a technician to visit the camera unit and easily exchange the hard drive. This allows the violation

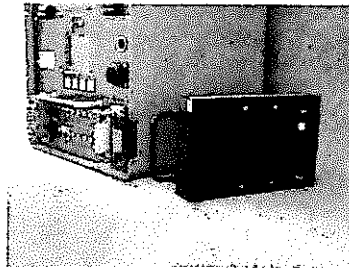
**City of Columbus  
Ohio Photo Red Light Enforcement System**

images and data to be brought back to the local office and processed even when a power or telecommunications breakdown exists. Violation information can also be copied to a laptop if AC power exists.

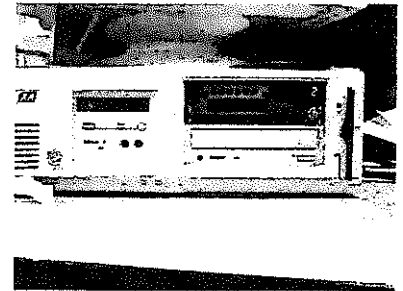
ACS will install DSL communication links from the intersections to the Processing Center. To eliminate the security threat of an open line, a firewall will be installed between the telephone line and the DSL router. In areas where DSL may not yet be available an ISDN line will be used. This will provide acceptable data transfer rates with the greatest reliability. A DSL line can be installed at most of the enforced intersections due to the availability of telephone poles and lines nearby.



*Exhibit 3-12. DIGI-CAM with removable hard drive partially removed*



*Exhibit 3-13. Removable hard drive shown removed*



*Exhibit 3-14. Desktop workstation configured to accept removable hard drive*

Gatsometer digital camera systems contain several defaults should a malfunction occur.

The Field Service Technician can activate a self-test each time he visited the camera device. On the camera unit are only 4 simple buttons that allow all programming and testing to be carried out. One of the buttons "test" when pressed ignores the traffic signal light status and simulates a vehicle passing over the loops on red. A two image set commences and concludes. In the databar of the image set will appear the word "TEST" letting the viewer know this was a manual test and not an actual violation.

Warning lights and error messages warning of malfunctions are an important feature of the digital camera systems. Besides monitoring of the green, yellow, and red traffic signal phases on the LCD panel, a red LED for each traffic loop illuminates each time a vehicle passes over the loop. Further, a "stop" message signals the device has not gone into enforcement while all internal tuning and calibration are performed. Error messages of potential electrical component malfunction are displayed on screen such as a failure of the real time clock will halt operation and display on the LCD "replace DS 12887". These and other safeguards are built into each unit.

Should the device go into stop, the Field Service Technician will find displayed on the LCD screen "stop" with the date and time shown. The FST can connect to the unit via





**City of Columbus  
Ohio Photo Red Light Enforcement System**

crossover or serial cable. Images on the hard drive can then be viewed as can pertinent data about the unit.

The cameras are checked daily via the telecommunications line and any violations downloaded remotely. Additionally, a Field Service Technician (FST) personally visits the camera on a schedule mutually agreed upon with the City. In both instances, a log is created which is delivered to the City which contains information on system health.

The removable hard drive is capable of storing 30,000 violation images and data. All information is automatically downloaded daily for processing but, should downloading not occur, even for several days, the large storage medium will easily retain all information. Upon transfer of all images and data, this information will be stored on secure, fire walled, and dedicated computer servers located in the ACS Data Center. This underground bunker like facility is manned 24 hours/day and served by electrical power from three separate power grids with a fourth power source supplied via an on-site diesel powered generator. No other vendor can supply the type of data security and retention available from ACS.

From motorized poles to automatic camera apertures to simple set up via laptop monitors, ACS can supply the City of Columbus with the highest quality digital automated enforcement systems available. ACS provides enforcement equipment from the inventor of automated enforcement equipment in Gatsometer. The most experienced and successful manufacturer of automated enforcement equipment in the world with over 6000 systems installed worldwide. ACS has been partnered with Gatsometer for almost 15 years and has installed over 750 camera systems in the U.S. and Canada. With in-house engineering, construction, and implementation ACS can supply the City of Columbus the smoothest on time, quality installation of automated enforcement systems at all intersections the City selects.

### **3.1.1.5 MULTIPLE CAMERA CONFIGURATIONS**

As mentioned earlier in this section, Gatsometer's digital camera systems can be configured in three unique configurations (including both rear only photography or front and rear photography) to meet the specific challenges presented by every intersection type in Columbus. In the remainder of this section, ACS discusses each camera configuration, highlighting the unique features of each.

---


#### **Single Side Fire Configuration**

---

---

The Single Side Fire configuration uses just one Gatsometer digital camera in a single, all encompassing portable cabinet unit (Exhibits 3-15 and 3-16) Using this single Gatsometer camera system, this unit is exclusively for automated enforcement of two or fewer lane approaches. The Side Fire unit is installed in a bullet and vandal-proof housing atop a motorized up/down pole located on the roadside. The actual digital camera component is definitely not a consumer grade product. Quite the contrary, it is built to withstand high and low temperature extremes and the required 24/7 operation routinely associated with automated enforcement. The camera properly illuminates its subjects via a built-in Xenon flash and related circuitry. As illumination for digital photography does not require the high power flash units used by wet film camera, Gatsometer

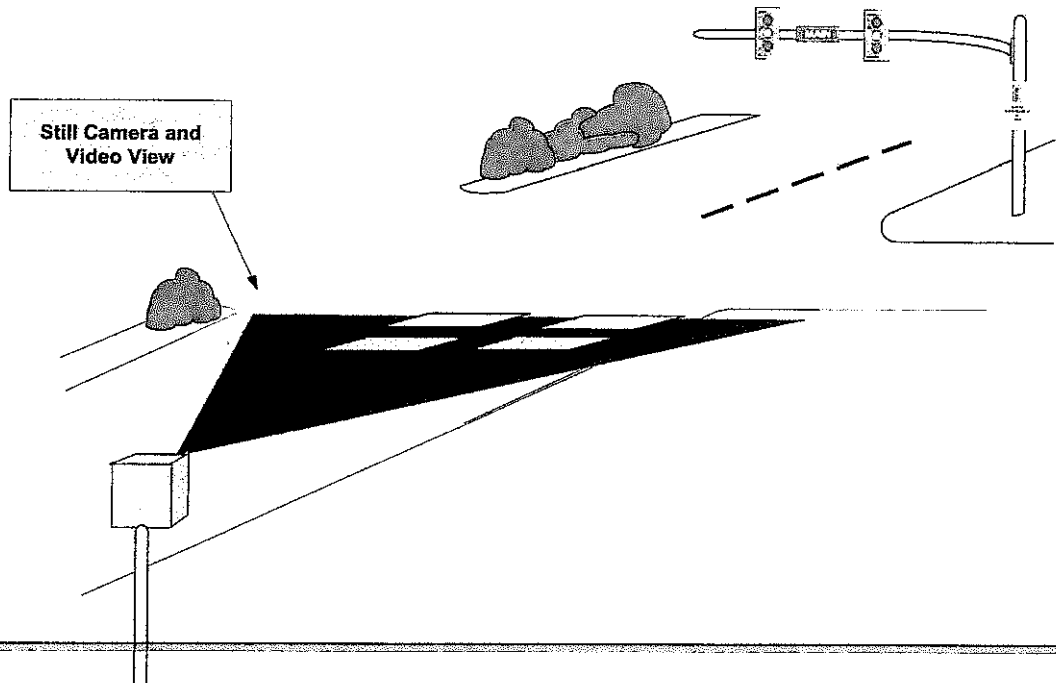
---



**City of Columbus  
Ohio Photo Red Light Enforcement System**

developed a new flash dedicated around the characteristics of the digital camera. Commands and programming of the Digi-Cam unit are performed via a simple four-button keypad located on the unit's front panel. The four-button keypad has become a tradition Gatsometer. The Type 36 wet film camera unit first utilized the four-button keypad thirty years ago. The simplistic design has been retained for its ease of use and is now proudly part of the Digi-Cam also. Each time a violation occurs two still digital images are created with an attached informational databar. In addition to the still digital camera a video camera is also part of the system. The video camera evidence supplements the still digital images by continually recording approximately 12 seconds of video. If a violation does not occur, the video clip continues to record over itself. If a violation does occur, the clip is saved to memory and becomes part of the evidence file.

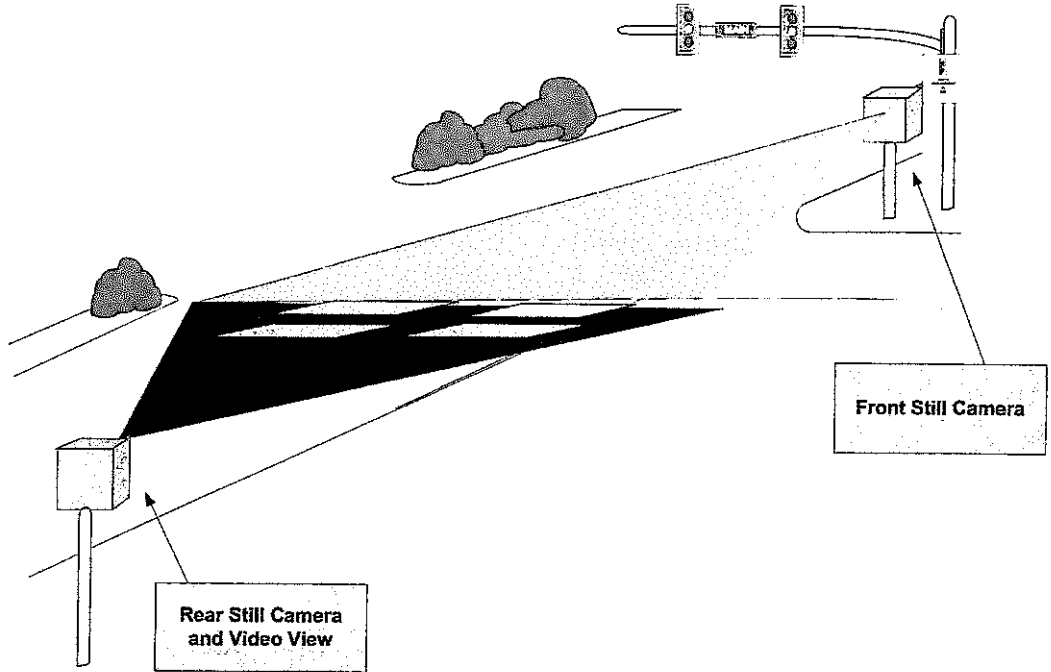
The Side Fire Digi-Cam configuration meets the enforcement need of typical 2 lane sized intersection approaches while providing complete portability. The Digi-Cam configuration uses a single 2 mega-pixel digital camera to monitor two to three lanes of traffic. License plate information is obtained from the overview image by zooming. A video camera programmed to continually produce a short video clip provides supplemental evidence to the two digital still images. The resulting evidence package available contains three (Exhibit 3-17) digital still images - two environmental violation images, a close up of the license plate - and the video clip.



**Exhibit 3-15. Rear Photography Only Side Fire Digi-Cam providing two lane enforcement.**



City of Columbus  
Ohio Photo Red Light Enforcement System



*Exhibit 3-16. Rear & Frontal Photography Side Fire Digi-Cam providing two lane enforcement.*



City of Columbus  
Ohio Photo Red Light Enforcement System



Exhibit 3-17. Three digital images supplied, Multi-Cam Features: Side Fire and Overhead.



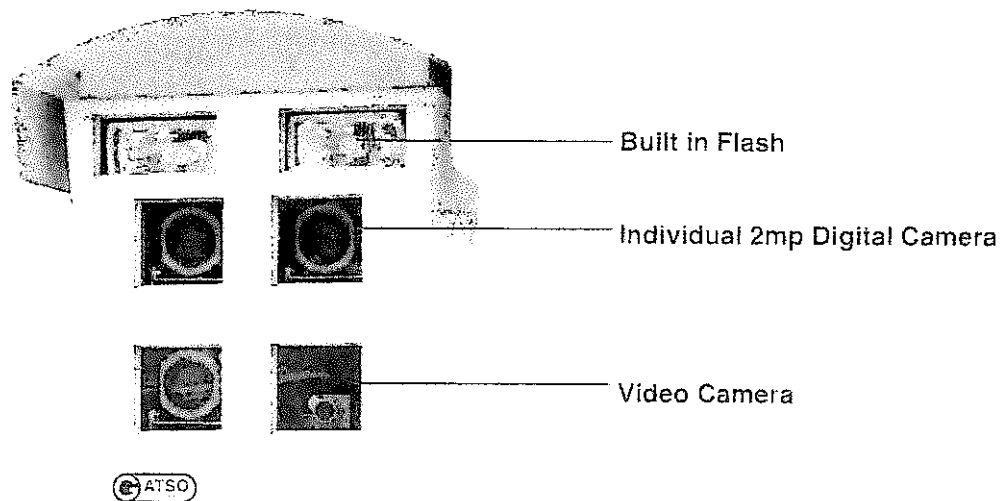
---

### Multi-Cam Configurations

---

ACS has found that in many instances, one Gatsometer digital camera cannot adequately enforce approaches with three or more lanes. To enforce more than two lanes, Gatsometer offers multi-camera configurations that use multiple digital cameras in a single camera housing (Exhibits 3-18, 3-19 and 3-20) or on an overhead mast arm (Exhibits 3-21, 3-22 and 3-23). These multi camera configurations share the same technical features as our individual camera configuration. This includes the method of telecommunicating via DSL, AES encryption, video clips, etc. The main feature which separates the two systems is the increased number of digital cameras used. For a typical four lane intersection approach, up to 10 cameras may be used (for front and rear photography). The result is an astonishing 18 million pixels! No other vendor of automated enforcement equipment provides this amount of firepower offering the City of Columbus the highest quality prosecutable image evidence and the highest issuance rate in the industry.

When used in a curbside configuration four lanes of traffic can be monitored. Most other vendors typically choose the curbside installation method. But in fact, most other vendors' equipment cannot effectively monitor four or more lanes. Their limit is only three lanes or four narrow lanes. The Overhead Multi-Cam configuration goes one step further.



---

**Exhibit 3-18. Curbside Digital Multi-Cam**

---



City of Columbus  
Ohio Photo Red Light Enforcement System

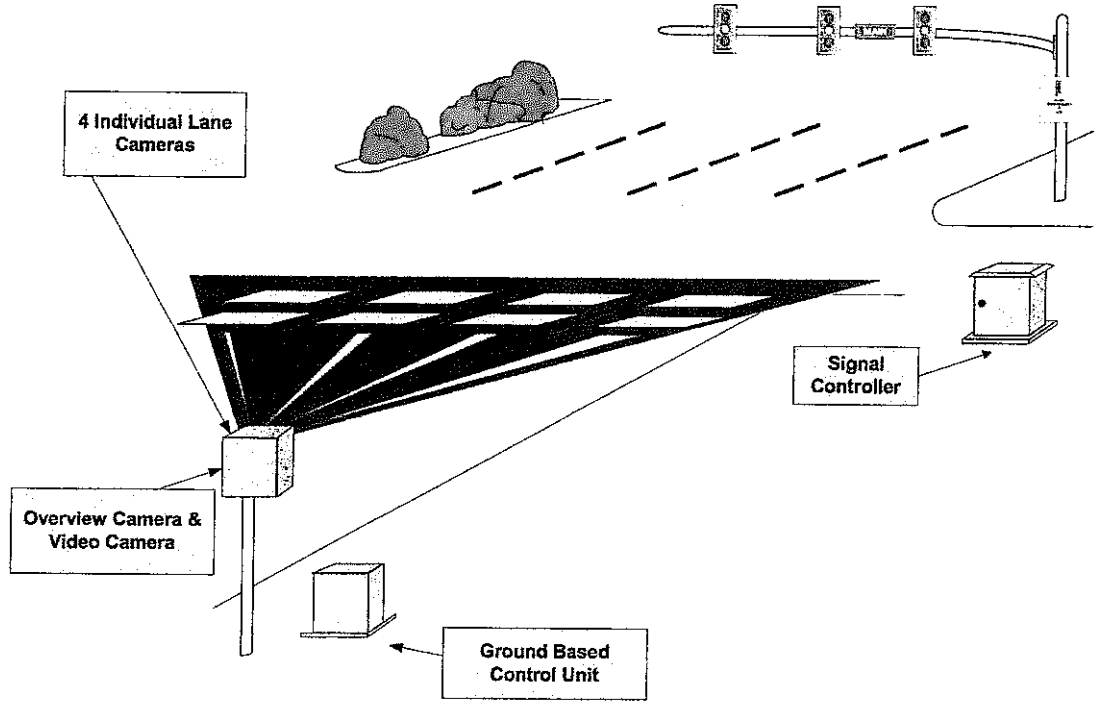


Exhibit 3-19. Rear-Only Photography Side Fire Multi Cam Configuration

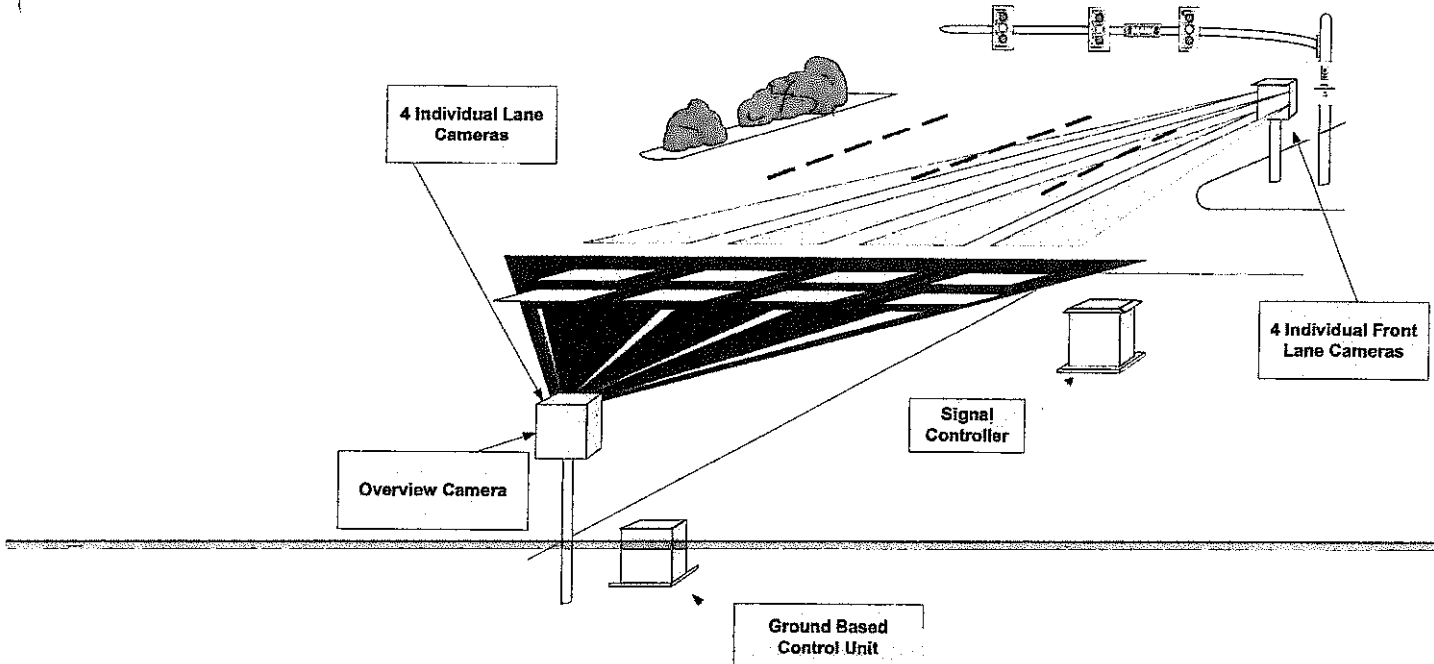


Exhibit 3-20. Rear and Front Photography, Side Fire Multi Cam Configuration

City of Columbus  
Ohio Photo Red Light Enforcement System



***Exhibit 3-21. Rear Only Photography - Overhead Multi-Cam Configuration***

When installed on a horizontal mast arm it provides the highest degree of lane coverage available. Four or more lanes are easily monitored even when a dedicated right hand turn lane is present. In this case, the Overhead Multi-Cam configuration is actually shooting over this extra lane and still capturing four lanes of traffic.

The Overhead Multi-Cam configuration can accomplish license plate capture of traffic lanes even when far from the curbside. By placing the individual lane cameras along a horizontal mast arm, the concentration of one camera and flash on its particular lane allows very near 100% capture and identification rate. This very high success rate is only possible because vehicles in adjoining lanes no longer can block the camera's view of the offending vehicle.



City of Columbus  
Ohio Photo Red Light Enforcement System

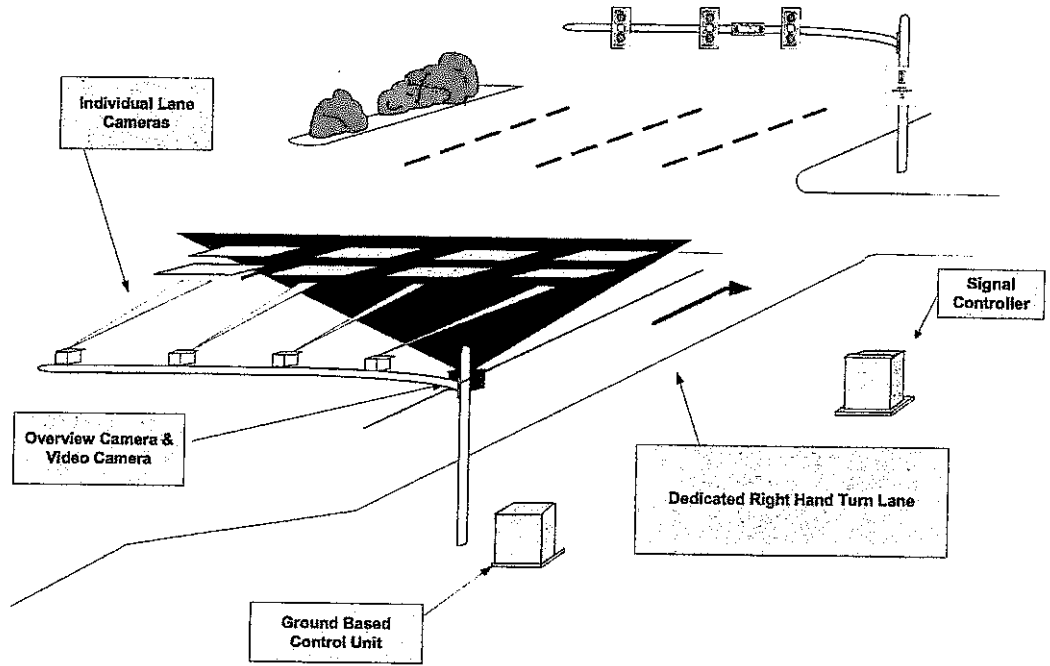


Exhibit 3-22. Rear Only Photography, overhead Multi-cam configuration

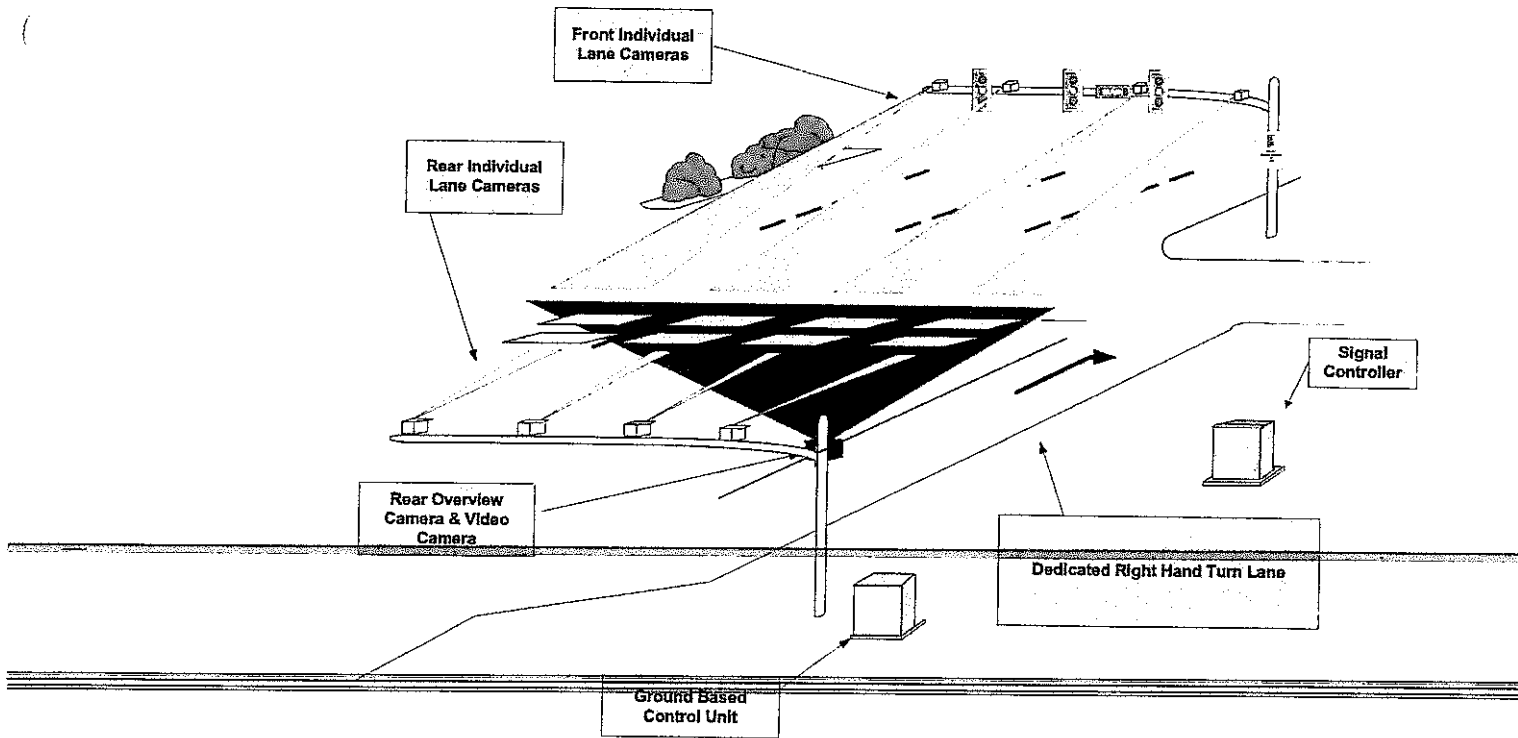


Exhibit 3-23. Rear and Frontal Photography, overhead Multi-cam configuration





**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

Additionally, the recent popularity of license plate covers to obscure a vehicles plate become worthless from the overhead position. While the individual lane cameras concentrate on their lanes, a single overview camera captures the scene which includes the offending vehicle prior to the point of violation with the red traffic signal light clearly illuminated. The multiple images are linked with the same violation number in their databars and encrypted before storing.

Also incorporated into the Multi-Cam configuration is a video system. While video is not recommended for use as primary evidence, video is an excellent supplement to the primary still digital images. The video system works with the Multi-Cam configurations whether mast arm or curbside installation is used. The high resolution, extreme low light camera begins recording upon the yellow light illuminating. It is typically programmed to record for twelve seconds. In an example where the yellow signal supplied by the traffic signal controller is four seconds, the resulting video clip would contain all four seconds of yellow as well as eight seconds of red. Since the majority of red light running occurs within the first 3 seconds of red, this is more than enough coverage to capture most violators. The video clip is only saved when a violation occurs. If no violation takes place, it continues to record over itself without saving. This method was chosen to prevent the unnecessary taping of law-abiding motorists.

---

**Flash Illumination**

---

The Gatsometer Side Fire Digi-Cam digital red light camera unit contains an internal flash unit. The flash bulb, reflector, wiring and power supply are all included. This integration allows the red light camera unit to easily move from housing to housing taking the complete system with in each move. The reflector used spreads the light generated at a slightly wider angle than the lens allowing maximum coverage of the potential violation. Separate, auxiliary flash units are available and through the use of various different degreed reflectors can place this auxiliary light only where it is needed.

---

**Adequate Light in all Ambient Light Conditions**

---

The overall size of an intersection greatly affects the amount lighting required to produce two clear photographs of a violation at night. The built-in flash unit in the red light camera device does an excellent job of capturing the license plate of a violating vehicle in the first photograph. Since flash illumination trails off greatly as it gets further away from the source it is necessary to add an auxiliary flash unit(s) to capture the model and color of vehicle in the first and second photographs. Nighttime photography in particular requires an auxiliary flash unit to completely identify the violating vehicle.

- The flash unit internal to the Digi-Cam red light camera combined with auxiliary flash(s) can be set up to properly illuminate up to four lanes of traffic up to 50 feet wide and a distance going away of 150 feet.
- The auto iris assembly of the Digi-Cam constantly monitors the ambient light conditions advising the flash units when they are needed. From no moon nights to bright sunlight, the system can adjust itself to provide clear photographs.



**City of Columbus  
Ohio Photo Red Light Enforcement System**

---

**Automatic and Manual Flash Control**

---

The internal flash unit of the Digi-Cam can be set to either a manual or automatic mode.

- In the automatic mode the auto iris of the digital camera assembly controls the flashes via photocell.
- In the manual mode the auto iris still measures the ambient light adjusting the lens aperture appropriately, but the flashes are independent and fire each and every time.

---

**Flash Intensity**

---

Digital photography does not require the huge amount of light wet film units use. The internal flash of the Digi-Cam is set for 7 watts. The auxiliary flash units available from ACS are not used above 200 watts, but have the ability to be set higher.



**Exhibit 3-24. Auxiliary Flash Unit**

---

**Auxiliary Flash Units**

---

ACS provides auxiliary flash units see (Exhibit 3-24) to assist the main flash in the red light camera. They are housed in their own aluminum cabinet and are synchronized to the shutter of the camera.

Both the flash unit internal to the red light camera unit and the auxiliary flash units have a full recharge time of less than 0.5 seconds. Should the flash be needed prior to the full recharge time it will flash at a reduced light level. The internal flash of the red light camera device is of small power.

---

**Multi-Cam Flashes**

---

The Multi-Cam unit when installed curbside includes in the cabinet 2 flash units for illuminating the license plate. Additional external flashes provide illumination to determine vehicle make and color. When the Multi-Cam has its cameras mounted on a mast arm, typically individual lane flashes are also mounted there with external flashes on the roadside for identifying make and color of the vehicle.

---

---



### 3.1.2 Registration Information

#### HIGHLIGHTS

- Redundant name and address acquisition capabilities maximize issuance
- Over 13 million registered owner requests processed annually
- More than 20 year working relationship with Ohio's BMV
- 23 years experience in name and address acquisition processing with 51 DMVs and select Canadian provinces
- Automated NLETS interface to expedite out-of-state requests
- Proven OHIO BMV registration hold interface, including a non-renewal hit rate in excess of 95 percent (available when legislation is passed)

*We have successfully processed more DMV requests and non-renewal marks/clears, than all other competitors combined for 23 years.*

ACS realizes the success of City's photo red light enforcement program and subsequent collections enforcement is largely dependent on the ability to obtain and apply correct registered owner information. The accurate and timely acquisition of this information is essential to the entire photo red light enforcement program. The lack of this information makes sending notices and imposing enforcement sanctions virtually impossible, leading to decreased collections and a proliferation of red light scofflaws.

We have successfully processed more DMV requests and non-renewal marks/clears, than all other competitors combined for 23 years. Clearly, we are the industry leader in the name and address acquisition and registration non-renewal business (ACS recognizes that registration non-renewal is not yet authorized for photo red light. However, we believe the State will pass enabling legislation in the future that will authorize "registration hold.")

Our in-depth knowledge about each state's specific interface requirements, plate type, series issuance, and registration renewal update schedules, as well as other critical DMV processing issues, makes ACS' interface successful. The ability to access registered owner information for Ohio as well as out-of-state violators is critical to the success of the City's Photo Red Light Enforcement program. Our ability to obtain registered owner information and maintain DMV relationships sets ACS apart from every other vendor.

---

For over 23 years, ACS has developed and maintained relationships with all DMVs throughout the country and select Canadian provinces. To maintain these relationships it takes commitment, credibility, and a complete understanding of each state's policies, laws, and system components. We maintain a dedicated support staff of DMV experts whose sole responsibility is to maintain these vital partnerships.

*Our greater than 20 year relationship with the Ohio BMV will be a critical success factor to achieve and maintain the highest issuance and compliance rates for Columbus.*



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

ACS has had a strong, established relationship with the Ohio BMV for over 20 years. ACS has, by far, the largest volume of name and address acquisition transactions annually with the Ohio Bureau of Motor Vehicles (BMV) of any private company in the country, and is the only private company that has ever processed non-renewal transactions in the state of Ohio. The non-renewal interface that ACS maintains with the Ohio BMV generates over \$275,000 annually for the City of Columbus. This same non-renewal program can be easily implemented for the City's red light program once statewide enabling legislation is passed.

Name and address acquisition is a crucial component of any parking management program. Without the name and address, a notice cannot be mailed. ACS' hit rate in Ohio is over 97 percent. It is unlikely that any other company can document a significant track record of acquisition in Ohio, nor an out-of-state registry system to compare with ours.

Further, if the Ohio BMV makes system changes, without an experienced company to identify issues and recommend solutions, there could be a severe negative impact on the City's photo red light program. Because we have had an established, cooperative relationship with the Ohio BMV, we will be able to work with them to resolve issues quickly, minimizing the potential disruption to the City's program. Establishing this type of relationship, built on credibility and partnership, requires an ongoing dedication of resources specializing in this process, which ACS has always maintained.

*Currently, we have relationships with 51 state DMVs, more states than any other vendor in the photo enforcement industry.*

Limited state interfaces and systems capabilities have a devastating impact on enforcement and collections. Without attempting to obtain registered owner information from as many states as possible, a municipality cannot realize its full enforcement and collection potential. ACS' primary solution for maximizing revenues and collections is to focus on consistent, quality DMV relationships.

In 2003, we processed over 12 million name and address requests for more than 70 clients throughout the country.

*ACS maintains a dedicated registry group devoted to the name and address acquisition process and the maintenance and development of our MOVERS product.*

---

---

ACS continuously monitors the success of our name and address acquisition process. For over 21 years, we have maintained an internal registry group and developed its Motor Vehicle Registry System (MOVERS) to provide our court management clients with the names and addresses of their out-of-state violators. To maximize its functionality, we developed software to allow MOVERS to interface with all types of systems, from automated to manual interfaces.

Our registry group is a team of experienced professionals dedicated to maintaining and improving ACS' relationships with each DMV, overseeing the operations of requesting and processing returned name and address data, and maintaining the high quality of the



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

MOVERS product. This staff is in continuous contact with all DMVs. By constantly monitoring the return process, this team is alert to any changes in hit rate, which may indicate a change or problem at a DMV. The registry group is consistently refining MOVERS to better meet the changing needs of our clients as well as the changes in the state DMVs.

*MOVERS allows DMV processing capabilities unsurpassed by any other vendor.*

This complex system contains all state level edits required by each DMV across the country, which enables us to provide the City with registered owner information and ensure proper ownership upon its return. MOVERS contains all of the crucial data edits and elements necessary to properly request and return name and address information from the respective DMVs. MOVERS allows ACS to provide the most accurate data, process it in the most timely fashion, track hit and error rates, and return the name and address data to eTIMSSM for identification and update.

---

**Manipulation and/or Interpretation of Data**

---

*eTIMSSM in-depth ownership determination has grown from our understanding of each state's registration issuance patterns.*

The first step in identifying the owner of a vehicle is determining to which plate record a single violation should be attached. When a new violation transaction comes into eTIMSSM, it determines which account this violation should reside on by looking at the plate and plate type on the violation and comparing it to plate/plate type records on eTIMSSM.

eTIMSSM is designed to keep all violations issued against a unique plate/type/owner together. If that plate/plate type combination exists on eTIMSSM, the issue date of the violation is compared to the effective date on the eTIMSSM plate record. The violation will be placed on the record with the same plate and plate type and the latest effective date earlier than the violation issue date. For example, if a violation is issued 9/1/2002 and two records exist, one with a 6/1/2000 effective date and one with a 9/1/2001 effective date, the violation will be placed on the 9/1/2001 record.

If no record exists for the plate/plate type combination, or the violation is earlier than any existing effective date, eTIMSSM will create a plate record using the violation issue date as the effective date. When a return from the DMV yields the correct effective date, it will be modified on the eTIMSSM record.

---

~~*eTIMSSM and MOVERS have both been specifically designed to be flexible and to account for variations between states in plate issuance procedures.*~~

---

The eTIMSSM system and the MOVERS name and address acquisition system were specifically designed to interface with one another. Both eTIMSSM and MOVERS take into account plate type requirements. For example, in New York State, the DMV requires a plate type for each request made. Because New York has minimal duplication between series, MOVERS can successfully verify the plate type based on plate configuration, and correct it, if needed before the request goes to the New York DMV. In this way, we can achieve a better hit rate for our clients without jeopardizing the integrity of the data requested.



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

After a violation is updated to eTIMSSM, a name and address request is cut to our MOVERS product. MOVERS ensures that the request contains all the data required by that particular state's DMV, formats it, and sends it to the correct DMV. When the return is received, MOVERS verifies the data, and if correct, returns it to eTIMSSM. The eTIMSSM product determines where and how the ownership data is applied to the system. Using violation number, plate and plate type, the initial match is done. From this point, the logic becomes more complex and tailored to the type of state that is being processed.

*eTIMSSM effectively determines ownership if the plate is re-issued to a new owner.*

In states where the plate can be re-issued to a new owner, effective date is used in conjunction with name, date of birth, and driver's license. In a state where there is no re-issuance, the rules can be less stringent. In some DMVs the effective date may be the last change date or status date rather than the issue date of the plate. Therefore, it is important to look at both effective date and ownership information in determining whether the owner has changed for a vehicle.

Name alone is not a good indication of ownership since changes due to misspelling, the inclusion or exclusion of an initial for a new registration, or a name change due to marriage can all change the owner's name record. In addition, suffixes, such as Jr. or III, need to be taken into account. Therefore, ACS' eTIMSSM considers effective date, name, driver's license, and date of birth in determining whether a name return is showing a new owner for that registration or if the owner, in whatever variation, has remained the same.

---

**Multiple Owner and Re-Issued License Plate Requirement**

---

*ACS' experience and specific knowledge of each DMV allows us to tailor the eTIMSSM processes for each state's unique requirements.*

Through our experience working with DMV processing, we know that the rules for each state's re-issuance of plates are different. eTIMSSM was developed to process name and address returns factoring in the parameters that make each state unique. Each state's unique rules are contained in the MOVERS system tables. These tables are shared by eTIMSSM, which uses these rules to determine how to process a return for a given state. States like Massachusetts, which re-issue plates, have more complex rules than states that do not, such as New York and Pennsylvania.

In states where the plates can be re-issued, a check is performed against effective date. If the effective date has changed, eTIMSSM needs to do further checking to see if this is a new owner, or the same owner with an updated effective date. eTIMSSM determines whether this is a new owner by looking at the return information. A combination of name, driver's license (or Federal ID number) and birth date are used in determining whether this is the same owner or a different owner. None of these criteria alone will give a complete picture. Name variations are common due to differences in spelling or marriage. For a state which re-issues plates or a state where the plate stays with the vehicle when sold, eTIMSSM will create a new plate owner if the name/driver's license/birth date combination shows a new owner.



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

In states where plates are never re-issued, the plate stays with the owner, and there is no duplication between series, the eTIMSSM logic is more liberal in keeping an entity together. We are able to tailor the logic in this way by using flexible tables within MOVERS to determine the type of state being processed. As the registry group is alerted to changes in a state's processing rules, they respond by updating these tables which determine how eTIMSSM will process the return.

---

**Splits and Combines**

---

*eTIMSSM was designed to effectively determine changes in ownership and to separate each new owner on its own plate record.*

When a new owner is determined for an existing plate in eTIMSSM, in a state where re-issuance occurs or the plate stays with the vehicle, eTIMSSM creates a new record for that plate/plate type/effective date combination. All violations written on or after the effective date of this new plate are transferred to the new plate. This situation is referred to as a split plate.

When the driver's license (or Federal ID number) and the date of birth are available, as well as the name, the split process works very well. However, in some states name must be solely relied upon. Even if the state provides full information on most recent registration for certain classes of registration, such as commercial registrations, the information may be limited. In these cases, splits sometimes occur even when the owner stays the same, but the name contains some variation.

*eTIMSSM provides a paper audit trail of all splits that occur in the system.*

eTIMSSM provides a number of tools to minimize the effects of these types of split records. The first of these is a daily report which shows any splits which occurred as a result of name and address returns being applied to eTIMSSM. This report, displayed in Exhibit 3-25 allows personnel to quickly identify any split records which may require further investigation and human judgment to resolve. If such cases are discovered, authorized personnel can use the eTIMSSM online combine function to merge these two records back together.

*eTIMSSM combine function was built at the request of our clients and designed for ease of use.*

---

The eTIMSSM combine function is an easy-to-use facility specifically designed to merge two records with the same state plate. From the multiple plate page, the user chooses a 'master' record. The master is the record that contains the correct name and address information. The record to be combined with it is selected and the records are merged into one record and all totals are combined. The eTIMSSM inquiry page clearly display that this record is the result of a combine.

---

The combine facility provides a complete audit trail. A daily report of combines processed that eTIMSSM produces each day in its daily update cycle. In addition, a record is written to the Plate History file. The combine action is displayed on both plate history page and the plate detail history page.



**City of Columbus  
Ohio Photo Red Light Enforcement System**

PROGRAM: TV6020		AGE		RUNDATE: 10/17/				
CLIENT : Providence, RI		SPLIT PLATE REPORT		RUNTIME: 00:14:				
CLIENT : Providence, RI		SPLIT PLATE REPORT		PAGE NO:				
PROCESS DATE: 10/16/03 USER ID: 032TC13 - JOHN SMITH								
TICKET NUMBER	STATE	PLATE TYPE	EXP DATE	FULL NAME	ADDRESS	AMT DUE	MOLE	TRAN
---OLD---	LV10111	LV	01/01/00	TRUSTEES OF BOSTON UNIVERSITY	965 COMMONWEALTH	0.00	3	02
---NEW---	LV10111	LV	06/28/03	TRUSTEES OF BOSTON UNIVERSITY	905 COMMONWEALTH	0.00		
TOTAL FOR 032TC13						# OF TRANSACTIONS		1
PROGRAM: TV6020						RUNDATE: 10/17/		
CLIENT : Providence, RI						RUNTIME: 00:14:		
CLIENT : Providence, RI						SPLIT PLATE REPORT		
CLIENT : Providence, RI						SPLIT PLATE REPORT		
TOTAL FOR 10/16/03						# OF TRANSACTIONS		1

003.CPR104

**Exhibit 3-25. Split Plate Report**

**Request and Processing of, and Edits and Controls for Ohio Vehicle Owner Information**

*eTIMSSM next action logic controls the automatic generation of name and address requests.*

eTIMSSM automatically produces a name and address request after an event is reviewed and processed and a license plate is keyed in by our staff.

Name and address requests are sent from eTIMSSM to MOVERS where they are collected by state, edited and formatted to state requirements. The request is produced according to the state's specifications. These specifications might include a minimum or maximum number of requests allowed, whether the request is on online, cartridge, tape, diskette, FTP (File Transfer Protocol), or paper, and deadlines which must be met.

*All requests and returns are logged and formatted by MOVERS.*

MOVERS is the primary control of all requests going out and all returns coming in. Before requests go out, MOVERS ensures that they are valid and formatted to each DMV's specification. Requests, which do not meet state specific criteria, are rejected and a no-hit transaction is created for eTIMSSM with an error code meaning 'load reject'. The edits may include missing information such as issue date or may be the result of invalid plate type.

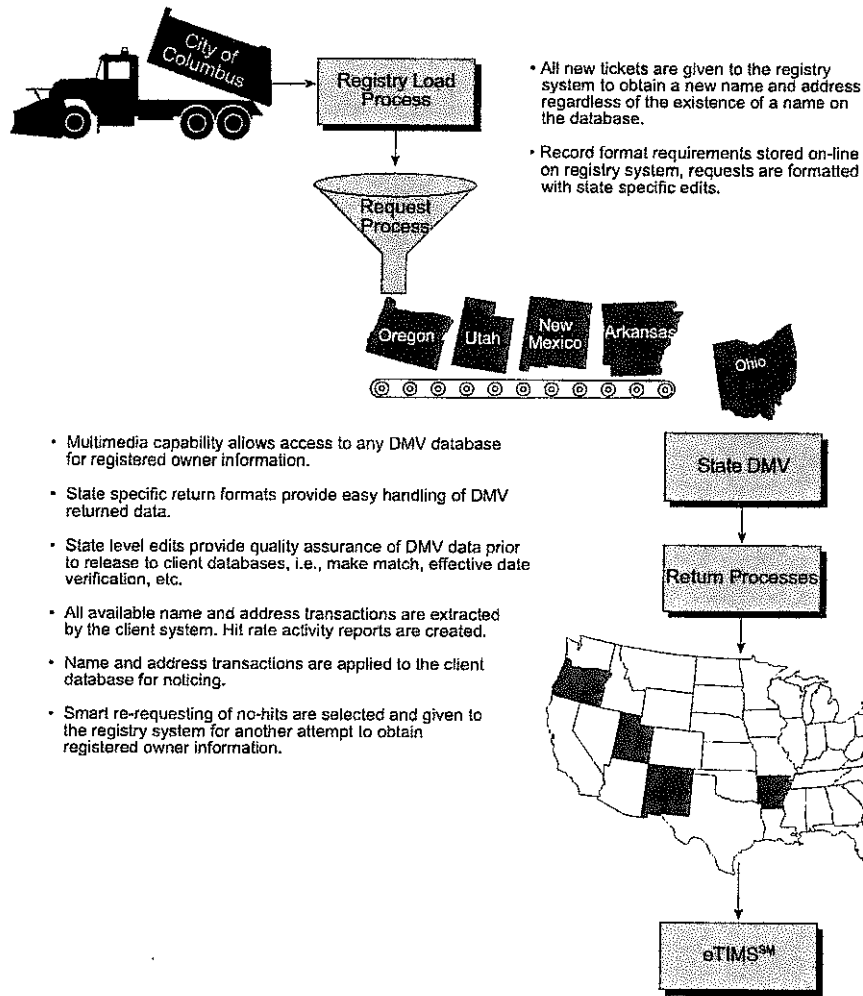
When returns are processed, MOVERS conducts rigorous edits to ensure the data returned is valid. Many states require issue date on a request, which they will match against effective date or title date. If the violation is issued before an effective date, the state may return a no-hit or may return a name with an error code indicating a title date mis-match. MOVERS recognizes and interprets these, sending only valid name and address data on to eTIMSSM. Some states do not provide title date or effective date checking, so MOVERS will provide this edit if the effective date is provided by the DMV. If the DMV provides a name and address for a violation which can be identified as a title date failure, MOVERS will send to eTIMSSM a no-hit transaction with an error code meaning title date mis-match. Exhibit 3-26 illustrates the MOVERS request and return process.





**City of Columbus  
Ohio Photo Red Light Enforcement System**

**MOVERS Process Flow**



**Exhibit 3-26.**

004 CPRL

The MOVERS edit process validates the data coming in from the DMV. The data is formatted to eTIMSSM specifications and sent to eTIMSSM where it is updated in the daily cycle. This data contains the following fields, although not every DMV returns each of these fields:

- Name and address
- Vehicle make
- Driver's license
- Date of birth
- Effective date, title date or plate issue date
- Expiration date of the registration
- Confirmation date (received date)
- DMV error code
- Special indicator such as corporate name or lessee indicator



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

- New plate (swap) information

The eTIMSSM product utilizes this information through its name and address update. The fields above are updated on the database. Some of these, as mentioned previously, are critical in determining ownership, noticing schemes or additional processes such as swaps. All data is stored on the eTIMSSM database, either at the violation or plate level, and are displayed on the online system on such pages as plate detail, violation detail or on one of the various pages such as the registry data detail page. Because many of these processes are table-driven, changes in criteria, such as different request logic or different noticing selection is easy and can be turned around quickly.

*MOVERS is able to tailor edits or formats to a specific state's requirement without time-consuming or difficult programming changes.*

MOVERS, like eTIMSSM, is table-driven, so minor changes to an DMV's record format is easy. Throughout the years a multitude of DMV's changed the format of the request and return record. This change impacted not only the records themselves, but also additional parameters for DMV's requests changed, such as limiting the number of records on a single tape/cartridge. Because of the flexible nature of MOVERS, ACS is able to implement the necessary changes quickly and efficiently with no impact to the City operations.

---

**NLETS – Faster, Alternative Out of State Name and Address Acquisition**

---

*ACS has developed an alternative name and address acquisition software application that can provide 24 hour registry information return.*

As illustrated in Exhibit 3-27, ACS has a 90% overall hit rate for all its DMV interfaces. It is important for the City to note the timeliness of the DMV return data from each DMV. Not all DMV's return information to ACS within a very short time window. As a result, if ACS uses our MOVERS DMV interfaces for out of state name and address acquisition, it will be difficult to mail notices out within a few business days of the violation event. ACS understands the time sensitive nature of red light violations and the need to mail them as quickly as possible. As a result, ACS has developed an alternative name and address acquisition software application that can provide 24 hour registry information return. This proprietary software applications works in conjunction with NLETS to dramatically reduce notice turnaround time.

---

ACS pioneered the automated use of NLETS to obtain registered owner data for out-of-state violators, beginning with Alexandria, VA in 1997. Our program requires minimal human intervention and its on-line interface with NLETS dramatically reduces the turnaround time for registered owner information over manually keypunching the tags and the returned data. Although other programs use NLETS, their approach typically consists of single-entry manual look-up and keypunching the returned data by police department officials and clerks. Our proprietary system maintains all of the security required by NLETS with none of the manual work involved in traditional approaches. Our clients throughout the Mid-Atlantic successfully use it to process thousands of requests each week.

---



City of Columbus  
Ohio Photo Red Light Enforcement System

State DMV Rules and Edits

State	Veh. vs Owner	Split Data	Auto / Manual	Dur. Of Relation	Pi. Trans. Per Year	Hit Rate	User Agree	Freq. Of Trans.	Info. To DMV	Info. From DMV
AL	O	E	F	19	12,000	80%	N	Bi-monthly	Plate, make, summons date	N/A, make, reg-exp-date, color, VIN
AK	V	N	F	19	2,100	70%	N	Bi-monthly	Plate, make, summons date	N/A, make, veh-yr, color, bod-style, VIN, reg-exp-date
AR	V-PASS O-COMM	T	F	14	4,300	83%	N	Bi-monthly	Plate, make, summons date	N/A, make, veh-yr, bod-style, VIN, color, reg-exp-date
**AZ	No data can be secured by State law									
CA	V	E	F	19	3,544,000	92%	Y	1-Daily	Plate, make, summons date	N/A, make, bod-style, reg-exp-date, VIN
CO	O	E	A	15	490,000	96%	Y	Daily	Plate, make, summons date	N/A, make, type, bod-style, VIN, reg-exp-date
CT	O	N	F	18	115,000	87%	Y	Monthly	Plate, plate type, summons ID	N/A, make, veh-yr, VIN, reg-exp-yr
DC	O	E	T	19	480,000	95%	N	Daily	Plate, summons date	N/A, make, bod-style, veh-yr, DOB, VIN
DE	V	E	A	16	280,000	93%	Y	Weekly	Plate	N/A, make, bod-style, veh-yr, VIN
FL	O	N	F	17	110,000	90%	N	Monthly	Plate, summons ID	N/A, make, veh-yr, bod-style
GA	No data can be secured by State law									
HI	V	T	T	15	1,000	70%	Y	Monthly	Plate	N/A, make
IA	O	T	A	17	4,500	85%	N	Bi-monthly	Plate, summons date	N/A, make, bod-style, reg-exp-date, VIN
ID	O-PASS V-TRKS	E	F	15	3,000	83%	Y	Weekly	Plate, make, summons date	N/A, make, veh-yr, bod-style, VIN, color, reg-exp-date, type
IL	O	N	F	19	11,000	87%	Y	Monthly	Plate, reg-exp-yr	N/A, make, bod-style, VIN, lic
IN	V	N	A	13	3,200	77%	Y	Monthly	Plate, type, reg-exp-yr	N/A, make
KS	O	E	A	16	6,000	77%	Y	Bi-monthly	Plate	N/A, make, bod-style, veh-yr, VIN
KY	V	T	F	10	52,000	88%	Y	Bi-monthly	Plate, make, summons date	N/A, make
LA	V	N	A	15	420,000	95%	Y	3-weeks	Plate, summons no.,	N/A, make, bod-style, veh-yr, VIN, lic summons date
MA	O	E	A	21	2,000,000	97%	N	Weekly	Plate, plate color, plate type, summons ID	N/A, make, lic, DOB, VIN, reg-exp-date
ME	V	N	F	17	21,000	88%	Y	Monthly	Plate	N/A, make, bod-style, reg-exp-date, VIN, DOB
MD	O	N	F	20	610,000	90%	Y	Daily	Plate	N/A, make, bod-style, veh-yr
MI	O	N	A	19	21,000	90%	N	Monthly	Plate	N/A, make, bod-style, veh-yr, lic
MN	V	T	A	17	6,100	83%	N	Bi-monthly	Plate, make, summons date	N/A, make, veh-yr, bod-style, VIN, color, reg-exp-date, type
MS	O	T	T	14	34,000	67%	N	Bi-weekly	Plate, summons date	N/A, make, bod-style, reg-exp-date, VIN, veh-yr
MO	O	T	T	12	10,000	60%	Y	Monthly	Plate	N/A, make, bod-style, veh-yr
MT	O	T	F	15	4,000	72%	Y	Bi-monthly	Plate	N/A, make
NE	O	T	F	15	2,900	82%	N	Bi-monthly	Plate, make, summons date	N/A, make, bod-style, VIN, color, veh-yr, reg-exp-date
NJ	O	N	F	20	290,000	91%	Y	Weekly	Plate, summons ID	N/A, make, VIN, lic, veh-yr
NV	O	T	A	16	17,000	88%	Y	Monthly	Plate, make, summons date	N/A, make, bod-style, veh-yr, VIN, reg-exp-yr
NH	O	E	A	20	65,000	85%	Y	Bi-weekly	Plate, summons date	N/A, make, reg-exp-yr, bod-style, VIN
NM	O	N	F	15	7,700	86%	Y	Monthly	Plate, summons date	N/A, make, reg-exp-date, bod-style, VIN, veh-yr, type
NC	O	N	A	19	315,000	89%	N	Weekly	Plate	N/A, make
ND	OPT. BY OWNER	N	F	16	13,000	76%	Y	Monthly	Plate	N/A, make, bod-style, veh-yr, VIN
NY	O	N	A	19	280,000	91%	Y	Weekly	Plate, summons ID, plate type	N/A, make, VIN, veh-yr



City of Columbus  
Ohio Photo Red Light Enforcement System

State DMV Rules and Edits

State	Veh. vs Owner	Split Data	Auto/Manual	Dur. Of Relation	Pl. Trans. Per Year	Hit Rate	User Agree	Freq. Of Trans.	Info. To DMV	Info. From DMV
OH	O	E	F	21	406,000	96%	Y	Weekly	Plate, type	N/A, make, bod-style, veh-yr, VIN, lic
OK	V	T	F	16	7,200	81%	Y	Bi-monthly	Plate, make, summons date	N/A, make, veh-yr, bod-style, VIN, type, reg-exp-date
OR	V	T	F	18	16,000	87%	Y	Monthly	Plate	N/A, make, veh-yr, DOB
PA	O	T	A	21	2,500,000	90%	Y	Weekly	Plate, summons ID	N/A, make, VIN, reg-exp-yr
RI	O	N	F	21	31,000	88%	Y	Monthly	Plate, type	N/A, make, VIN
SC	OPT. BY OWNER	E	A	19	11,000	73%	Y	Monthly	Plate	N/A, make, VIN
SD	V	T	F	15	3,000	66%	N	Bi-monthly	Plate, summons date	N/A, make, veh-yr
TN	O	T	F	12	10,000	72%	N	Monthly	Plate	N/A, make, VIN
TX	V	T	A	21	43,000	84%	Y	Weekly	Plate, summons date	N/A, make, veh-yr, reg-exp-mo, VIN
UT	O	T	F	16	3,700	86%	N	Bi-monthly	Plate, make, summons date	N/A, make, bod-style, veh-yr, VIN, reg-exp-date
VA	O	T	A	16	670,000	89%	Y	Weekly	Plate, summons ID	N/A, make, VIN, bod-style, plate-yr
VT	O	N	F	18	9,000	88%	N	Bi-monthly	Plate, make, summons date	N/A, make, veh-yr, bod-style, VIN, type, color
WA	V	E	F	16	21,000	91%	Y	Monthly	Plate	N/A, make, bod-style, veh-yr, VIN
WI	O-PASS V-COMM	N	F	14	21,000	96%	Y	Weekly	Plate, type, reg-exp-yr	N/A, make, veh-yr, VIN
WV	O	T	A	18	8,500	87%	Y	Monthly	Plate	N/A, make
WY	O	N	T	12	3,000	80%	Y	Weekly	Plate, summons date	N/A, make
ONT	O	N	A	12	9,000	95%	Y	Weekly	Plate	N/A, make, VIN, veh-yr
PQ	O	N	A	10	3,000	86%	Y	Monthly	Plate	N/A, make, VIN, veh-yr
<b>Total</b>	N/A	N/A	N/A	N/A	12,000,000	90% overall	N/A	N/A	N/A	N/A

Vehicle vs. Owner State:

- Vehicle State - Plate is issued to the vehicle and remains with the vehicle upon title transfer
- Owner State - Plate is issued to owner and follows owner upon transfer of title
- Split Data - E - Registration effective date provided
- T - Title date provided
- N - No date provided

Automated vs. Manual:

- A - Automated tape to tape swapping
- T - Database of entire state registration file is maintained in-house
- M - Manual listings are provided by state
- F - Acquisition is accomplished via FTP (File Transfer Protocol)

User Agreement

- Some state require a user agreement between the DMV and the contractor

\*\* Arizona law prohibits access to their database for third-party use UNTIL 2003. Testing of FTP acquisition complete, in contract negotiations.

\*\*\* Georgia prohibits acquisition of registration information for uses other than criminal investigations which excludes parking violations until 2003, contract negotiations underway.

**Exhibit. 3-27. ACS has proven interface capabilities with state DMV's across the country and select Canadian provinces.**



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

Files with tag and ticket numbers are developed automatically. The only handling that may be required at the NLETS workstation is to insert the diskette and select a single icon on the desktop to start the application. Even this portion can be automated, depending on the NLETS interface requirements. All security is built into the process and all transactions are tracked and can be reported on for audits. Once the file shows that it has been processed on the screen, the user simply takes out the diskette, which now contains all of the captured name and address information, and returns it to our office for upload to TIMS.

The file that is returned from NLETS contains a great wealth of data, most of which is not used in red light violation processing. Some indicators, such as those for stolen vehicles, can be tagged and reported. Each state has a different return file format. We have programmed the editing of the return data to enable virtually all of the required return data to be automatically extracted from the file.

It has validation and rule checking built into the process to maximize the hit rates. For example, Maryland requires a vehicle type to be entered with the tag request or a no hit is returned. We have built this table and the tag configurations that match each type into our software. We continue to monitor and refine our logic to maximize our hit rates.

We work with our initial review staff to ensure that they are fully trained on the different tag types to maximize the accuracy of the initial data capture. Further, ACS employs edits which compare ticket issue date, effective date of vehicle ownership, and plate type to ensure accurate identification of every vehicle owner. These edits are especially critical for "plate states," like Delaware, where a license tag remains with the vehicle after transfer of ownership. Once the return is captured, our verification staff also use returned data to ensure that the correct vehicle has been identified.

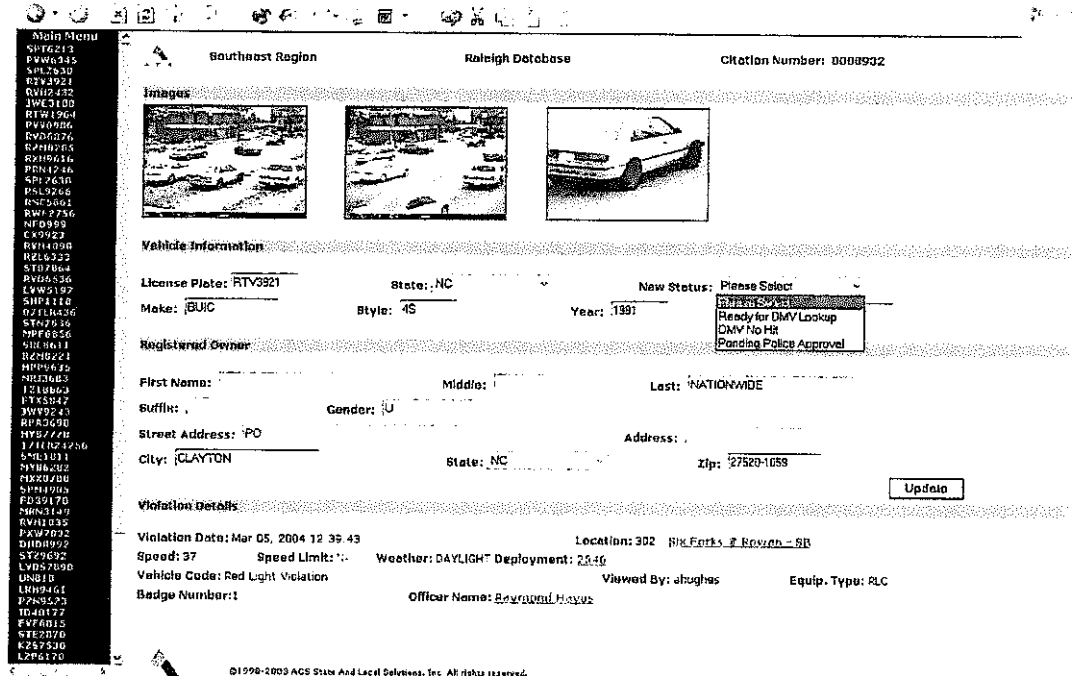
Any returns that cannot be read by the program are printed for review and manual keypunching. Automated reports detail any no hits, which are reviewed for data entry errors or tag type issues and are recaptured the same day. Exhibit 3-28 shows an example of the No Hit Research screen. This is essential to maximize the hit rates and is fully auditable.

Besides mis-keyed tag numbers, there are two other reasons that a plate returns a "no hit". The first is when the tag number is unclear and cannot be identified. In this case, the researcher would notify the supervisor to determine if the tag clarity issue was an anomaly or if the location needed field support. The second type of "no hit" return involves a perfectly clear tag. In these cases, the BMV usually has not updated their files, or the tag could belong to an undercover police vehicle or be in some other file not released through the normal inquiry paths. These are all accounted for in our reporting.

Due to the security restrictions inherent in handling NLETS-obtained data, everyone associated with our program will successfully complete the day-long FBI-mandated NLETS training and will be fingerprinted, in addition to a required police background check. We will maintain the training, repeating every two years as required. We agree to comply fully with standards and procedures dictated by access to this data, such as ensuring that no terminals are left unattended with systems onscreen, no printed names



**City of Columbus  
Ohio Photo Red Light Enforcement System**



**Exhibit 3-28.** Our No Hit Review screens allow trained, experienced users to review the images and integrate names and addresses obtained from a variety of sources to maximize the City's issuance rate

and addresses are thrown away (these will be shredded), and that no unauthorized access is allowed. Our certificates of training, fingerprinting, and background checks will be available for review upon request by City program management.

*Our proven exception processing for fleet, rental, and governmental tickets can greatly improve the safety of the citizens and visitors to the City of Columbus.*

During the review process after obtaining the name and address, our verifiers identify records where the vehicle is a fleet, rental, or government vehicle. Based on the law and processing rules of the jurisdiction, if allowed, our system produces separate notices that have different language from the routine first notices, specifying that the group owning the vehicle can identify the driver of the vehicle. These notices are tracked separately to identify payment and adjudication rates. In some jurisdictions, the governmental notices are delivered separately to the owning agency, so the public safety agencies can determine if the vehicle was on official duty at the time of the violation. In Virginia, where rental and fleet vehicles are exempt from the red light law, Alexandria and other cities have instituted a courtesy notice to these owners, which results in a closure rate of 60-70 percent. In Washington, DC, where the parking program has an established rental and fleet program, ACS has been authorized to utilize those records to identify the tags with the owning agency to minimize work on the part of the city staff.

Only ACS has the experience working with a wide variety of programs throughout the nation to ensure that the City has the best possible hit rates for in-state, out-of-state, and rental, government, and fleet vehicles. Only by issuing the greatest number of citations



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

can the City ensure the broadest possible enforcement and thereby reduce its red light running problem significantly.



### 3.1.3 Camera System Interface with Traffic Controller

#### HIGHLIGHTS

- Optical isolation built into every camera system to protect the City's traffic signal infrastructure
- Additional protection available to the City infrastructure via magnetic coupling
- Provided equipment and process creates no liability to City nor it's Traffic Engineers
- Simple 110 VAC powers the entire camera
- Easy power disconnect in the event of a crash
- Camera system telecommunications separate from any City connection

*ACS installed camera systems provide the highest degree of isolation from the City of Columbus infrastructure never compromising safety*

The Engineering staff of ACS understands the concern associated with any device interfacing with the City of Columbus's traffic control infrastructure. City Traffic Engineers spend countless hours designing their systems with the goal to make the most efficient use of one to two minutes of time for each traffic cycle. This time must be properly distributed amongst four directions of travel, multiple through and dedicated turn lanes, and most importantly provide an adequate amount of time to allow the slowest walking pedestrian to safely cross the street. This signal timing should never be compromised. It's not just about traffic flow at stake but the lives of both motorist and pedestrians.

#### Isolation



**Exhibit 3-29. Optical Isolators**

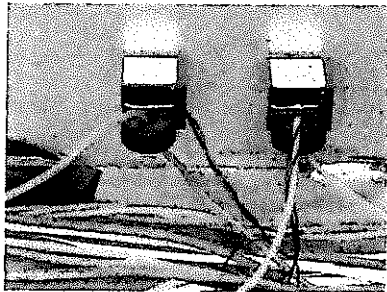
The cities of Raleigh and Fayetteville, NC and Winnipeg in Canada are partners in safety with ACS. These cities to name a few were extremely concerned about the interfacing of Photo Red Light Enforcement equipment and their traffic signal infrastructure. To satisfy their concerns, ACS installed two different methods of isolation when the cameras were installed. The first method is

built into every Gatsometer system and is optical isolation. Inside the Photo Red Light Enforcement System are four integrated circuits (Exhibit 3-29). Two are for the yellow signal phase and the other two for the red. Two of each exist so two separate signal phases may be monitored. This allows the City to capture violation events for both through and left turn lanes even though their signal phase may be different. Internal to these IC's the 110VAC yellow or red signal turns on light emitting diode (LED). Positioned next to the LED is an electrical device sensitive to light called a photo-diode. The photo-diode activates when it sees the LED illuminate and tells the camera system computer the light is yellow or red. There is no electrical connection between the LED and photo-diode. This method creates a non-electrical or optical oneway path into the Photo Red Light Enforcement System but not vice versa. This means the City can send us the red and yellow phase signal but the camera system cannot send anything back.





**City of Columbus  
Ohio Photo Red Light Enforcement System**



**Exhibit 3-30. Wedding Rings for red and yellow phases**

This makes it impossible for any malfunction which could occur in the camera system to ever talk back or interfere with the City's traffic control infrastructure.

The second method installed were magnetic coupling devices commonly referred to as a "wedding ring" (Exhibit 3-30). Up to four of these donut shaped devices per intersection approach are supplied. One (two if 2 phases are being monitored) is for the yellow phase and the other for the red. No electrical connection is made. Instead, the City traffic technician temporarily disconnects the yellow wire from the terminal bar inside the traffic controller. He passes the wire through the donut and reconnects it to the terminal bar. When the traffic controller sends its 110 VAC signal to the yellow lamps, the current passing through the wire creates a magnetic field which is detected by the coupler and the camera system goes into yellow mode. The same procedure happens for the red phase.

The internal optical isolation device provides all the isolation the City should require however, at the City's request, the magnetic couplers can also be installed. These two proven technologies provide the highest forms of isolation.

*With all the efforts just discussed to ensure the camera system is isolated from the City traffic control system, the City should be cautious of Photo Red Light Camera Systems which directly connect and in fact "take control" the city's system.*

Commonly referred to and marketed as "Collision Avoidance," these Photo Red Light camera systems actually connect and assume control of the traffic controller when a potential red light runner triggers the system. ACS disapproves of this action for several reasons:

- Collision avoidance creates huge liability and risk for the City and its Traffic Engineers
  - Collision avoidance disrupts the timing at the affected intersection and often along the entire corridor - false avoidance triggers are frequent and will tie up traffic flow
  - Collision avoidance places the camera company in a role it should not be - if the vendor can hold the red, some protestors will ask, why can't the vendor shorten the yellow to issue more tickets
- 
- Collision avoidance accommodates the bad driving behavior of the public - drivers may be more willing to run red lights if they believe collision avoidance will hold the signal for them to make it across

---

If the City insists on implementing a collision avoidance system, ACS will work with the City in developing a system that minimizes risk to the City while enhancing the intended safety benefits. Our technology can easily accommodate collision avoidance.



## City of Columbus Ohio Photo Red Light Enforcement System

An alternative solution ACS offers is the accumulated data captured by the Photo Red Light Enforcement System at the intersection. This data can tell the City Traffic Engineer many things such as:

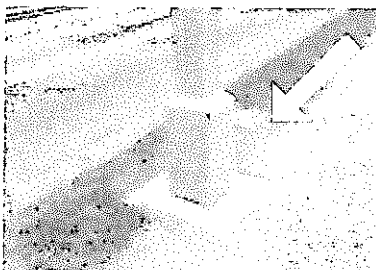
- Day of week when most violations occur
- Time of day when most violations occur
- How long the light is red when most vehicles violate
- What lane drivers most violate from
- Speed of violators

This and other accumulated data from the camera system provided the City Traffic Engineer the needed tools to make decisions about changing timing. For example: The all hold red time could be adjusted using the cameras systems data on average time into red when vehicles violate. While this change will not stop drivers from violating the intersection, it will hopefully allow enough clearance time so another car is not in the intersection when the violator passes through.

---

### City Friendly System

---



*Exhibit 3-31. Accessible pullbox with in-line fuses*

Understanding a pole could be knocked down in the late hours of the night and present a traffic hazard to the City's late night traffic signal techs, an in-ground pullbox will be installed next to the red light camera pole (Exhibit 3-31) containing in-line fuses for both signal phases and the power to the system. This installation allows the technician to quickly disconnect all electrical connections so the damaged pole to be safely hauled away. Accessing the pullbox and simply opening the fuse holders disconnects all power signals to the pole. Wires can then be cut and the

damaged equipment easily removed.

---

### Voltage Requirement

---

The entire camera system including flashes operates on readily available 110 VAC. Many other camera systems require 220 VAC power for their consumer flash units in order for them to recycle fast enough. Running two separate power sources can be dangerous and confusing to a City Signal Technician who may be called during the late hours of the morning to disconnect power due to a vehicle crash. Understanding this, Gatsometer developed industrial flash units especially for North America which quickly recharge using 110 VAC.

---

### Telecommunications

---

Telephone communications to the camera system is provided via DSL (if available) or ISDN. Even if available, it is not necessary to connect to the telephone line in the traffic controller. The nearest telephone demark will be located and connection to it will be installed by ACS.



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

---

**Supplied Labor and Equipment**

---

ACS will supply all equipment and labor to install automated enforcement equipment at all intersection approaches selected by the City of Columbus. All equipment is defined as cameras, housings, poles, sensors, related wiring, communication links, computer interfaces, and any ancillary equipment necessary to make the equipment operational at an intersection. Labor is defined as technicians, electricians, photographers and management necessary to install a working automated enforcement system.



### 3.1.4 Photograph Visibility

#### HIGHLIGHTS

- ACS provides qualified, trained personnel to enter all appropriate fields
- Double blind data entry ensures only accurate violations are mailed
- All images are clearly readable to the naked eye
- Three color images, two environmental and one close-up of the vehicle tag, are printed on the citation and two frontal environmental images can also be captured and included on the notice

*ACS, processing more than 14 million public sector violations annually, possesses the proven ability to meet the processing needs of the City of Columbus.*

Due to the sensitive nature of automated red light enforcement programs, it is not only imperative that the cameras take clear and convincing photographs, but also that the violation processing center operations be timely and sensitive to the needs of the City and the public. Our proposed program provides the City the opportunity to use ACS' extensive experience in automated red light enforcement as well as violations processing in other arenas such as parking tickets to ensure accurate and timely processing of the violations.

In the following sections, ACS will explain how our solution for the City of Columbus not only meets the needs of the program, but also is sensitive to the needs of the citizens of Columbus.

*ACS will provide qualified personnel to view all recorded event images, view violation video clips and enter appropriate data to ensure the highest levels of accuracy and quality.*

After a camera has taken a picture of a potential violation, each event is reviewed by properly trained employees who use the business rules set forth by the City to determine if the photograph taken meets the criteria to be a violation. Once the determination has been made, proper data entry of appropriate fields must occur.

---

---

ACS trains all staff to the needs of each of our individual clients. Proper training in each step of the process is critical to effective enforcement and accurate issuance of citations to violators. **Our training solution is the culmination of years of practical experience providing** technical and operational training to hundreds of employees, both public and private sector, in enforcement-specific disciplines. We will train not only ACS staff involved with the program but also all involved City staff, providing a working knowledge of the red light photo enforcement system's underlying technology, its operation and how it conforms to the appropriate laws.



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

Additionally, ACS understands that even the most well trained staff can makes mistakes. As a result, ACS' solution automates as much of the violation review process as possible to minimize data entry errors. In our solution, staff members are only required to manually enter the following information for all events viewed:

- The vehicle license plate alpha-numeric characters
- The state of issue for the license plate

The following information is downloaded directly from the digital camera and is automatically populated into the ACS system, eliminating the need for any manual data entry:

- The speed of the vehicle
- The date of the violation event
- The time of the violation event
- The location of the violation event
- The length of the red light at time of violation
- The length of the yellow light at time of violation

Since the date, time and location of the violation event is automatically provided to the ACS system at the time of transmission, there is no need to manually enter these fields. However, in the very rare occurrence where the data from these fields must be manually entered, ACS' system is flexible enough to allow designated personnel to manually enter violation event data.

### **3.1.4.2 Initial Image Review and Verification**

*ACS provides the most complete processing solution with the easiest possible user interface.*

To have an effective red light camera system, accurate and high quality images must be produced. The initial review step takes place once the data and images are downloaded from the digital camera. The event images captured are initially viewed using our Cite-ware.net application to determine their viability as a violation based on the City's established business rules.

ACS understands the City is interested in exploring all possible image configurations, including both frontal and rear photography. ACS has the proven ability to capture simultaneous front and rear violation images or just rear violation images, based on the final decision of the City (throughout our technical camera discussion later in our proposal, ~~ACS provides extensive discussion of both configurations, including numerous violation images from front and rear combinations).~~

~~Our system is able to obtain images of the tag that not only are clearly readable to the average naked eye but that also incorporate recognizable features of the vehicle and environment, thereby ensuring that the viewer can determine that the plate image was created from either of the environmental images. Further, we understand that in a digital environment where the images are prima facie evidence, the images must clearly relate to each other and the violation for evidentiary purposes.~~



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

In a rear only configuration, the digital camera captures two environmental images and a tag close-up for each triggering event; the first environmental image shows the vehicle prior to the stop bar approaching the intersection, the second environmental image shows the vehicle past the established violation point proceeding through the intersection while the light is red, the third violation image is a close-up of the tag. In a rear and frontal photography image configuration, these exact rear images are also captured along with two frontal violation images showing the vehicle before the stop bar and continuing through the intersection from the front view. Frontal license plate close-ups can also be obtained through our camera system. Regardless of whether the City chooses to use front and rear or rear only photography, ACS' camera system also captures a 12 second video clip of every violation, showing the last six seconds of the yellow phase and the first six seconds of the red phase, providing an instant replay of every violation event for review. These images and the associated violation video and data are transmitted during the download from the camera to the ACS system.

ACS will follow the business rules and standard procedures for violation review and determination set by the City. ACS will use our internal procedures and the technical features of our initial review software application, Citeware.net (a subsystem of our Ticket Information Management System) to ensure maximum tag capture and the maximum number of tickets are issued. By simply clicking on the tabs above the violation review window in Citeware.net, the Image Review Clerk can view all violation images and violation video. By scrolling along the initial Citeware.net review screen, the Initial Review Clerk can review all related violation data. Using the images, video, and data, our staff can easily (1) determine if a violation occurred based on the City's business rules and (2) ensure all required data fields are populated. If the violation fails to meet the City's issuance criteria or is un-issuable due to image quality problems, the Image Review Clerk enters an appropriate reject code. To ensure complete accountability for images where the tag or violation data cannot be captured, ACS validates the findings and makes corrections where possible.

Our system is designed to reduce the amount of typing required, to minimize data entry errors. Virtually all of the data entry fields use pull-down menus with allowable entries already coded. A vendor without this type of system would increase the amount of time spent reviewing images to ensure that they are correct prior to mailing.

We work with our initial review staff to ensure that they are fully trained on the different tag types to maximize the accuracy of the initial data capture that is sent for name and address acquisition. Further, ACS employs edits which compare ticket issue date, effective date of vehicle ownership, and plate type to ensure accurate identification of every vehicle owner. These edits are especially critical for "plate states," like Delaware, where a license tag remains with the vehicle after transfer of ownership. Once the return is captured, our verification staff also use tag type and return DMV data to ensure that the correct owner has been identified.

---

---

*ACS' proprietary system provides the necessary controls to easily view the image of the registration plate with the naked eye.*

For our digital solution, the initial step takes place once the data, images, and video are downloaded from the camera system nightly to our data center and made available

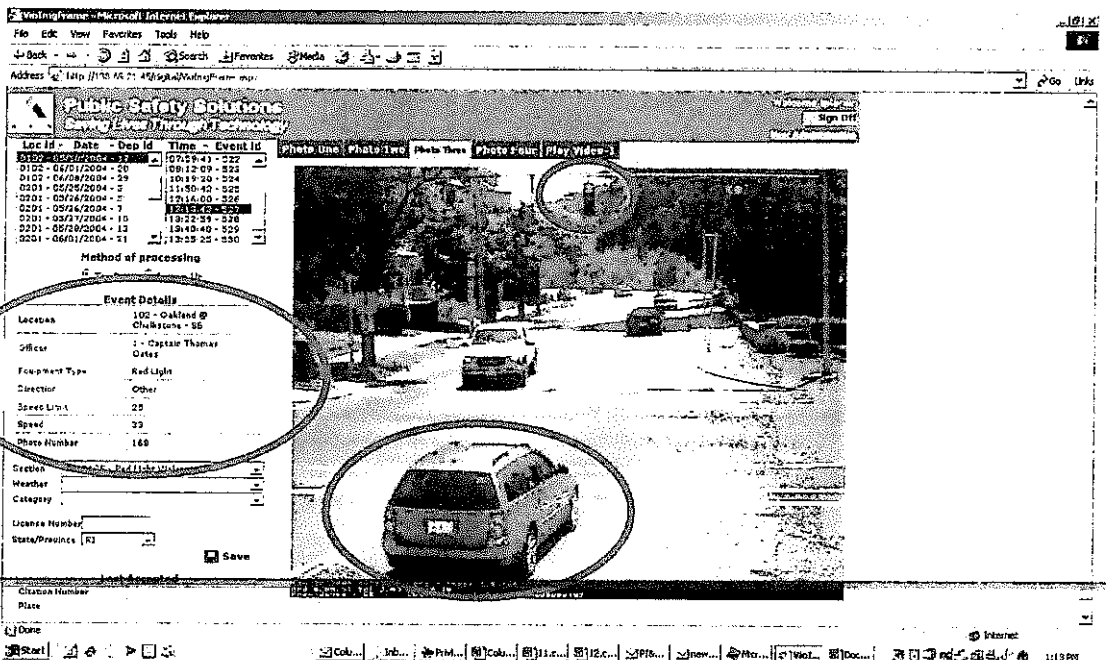
**City of Columbus  
Ohio Photo Red Light Enforcement System**

online for our staff the next business morning. Our Initial Review staff will review all recorded violation images, review the video clip, and review all violation data to determine if a violation occurred based on the City's business rules. Our Image Review Clerks use the functions built into the Citeware.net application to adjust for clarity and lighting to optimize the violation images for review and plate identification. However, the original digital images, are never altered and are protected from any changes within our database. This feature enables our system to obtain images of the tag that are clearly readable to the average naked eye.

As shown in the following exhibits, Citeware.net allows the following functions on an image to ensure the highest level of clarity under a variety of lighting and weather conditions:

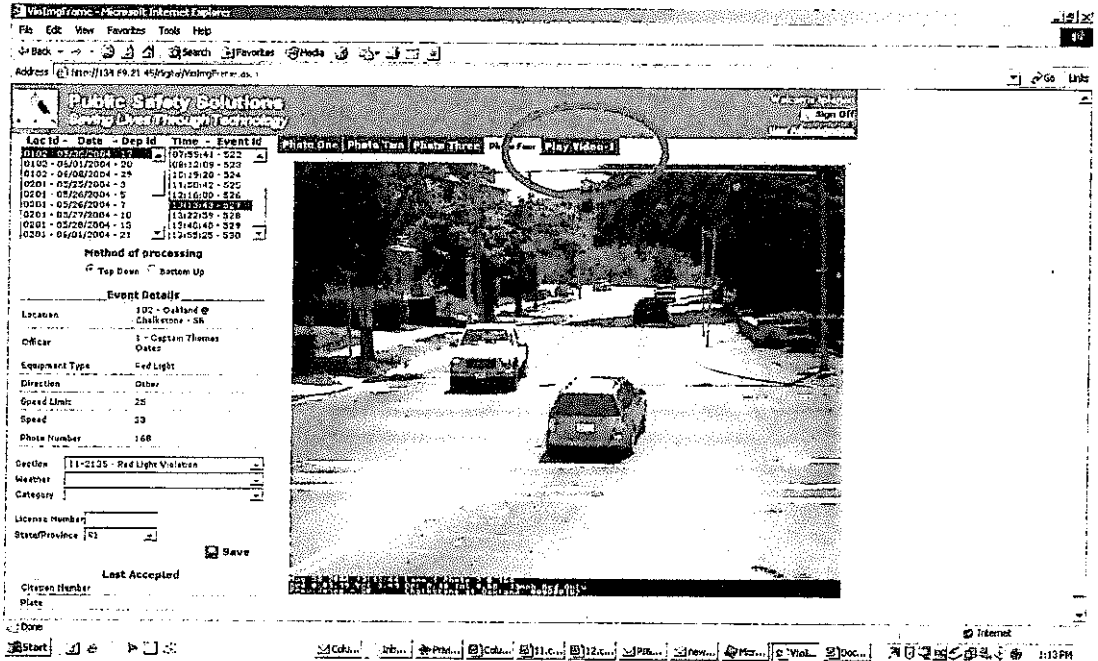
- Zoom on any area of the picture to magnify and save the sub-image of the tag and rear of the vehicle
- Invert and Gray can be used to provide a clearer image when brightness obscures the tag number
- Bright can be used to lighten a tag for optimal readability

ACS further describes the features of Citeware.net and our initial review methodology in the following Exhibits 3-32 - 3-42.

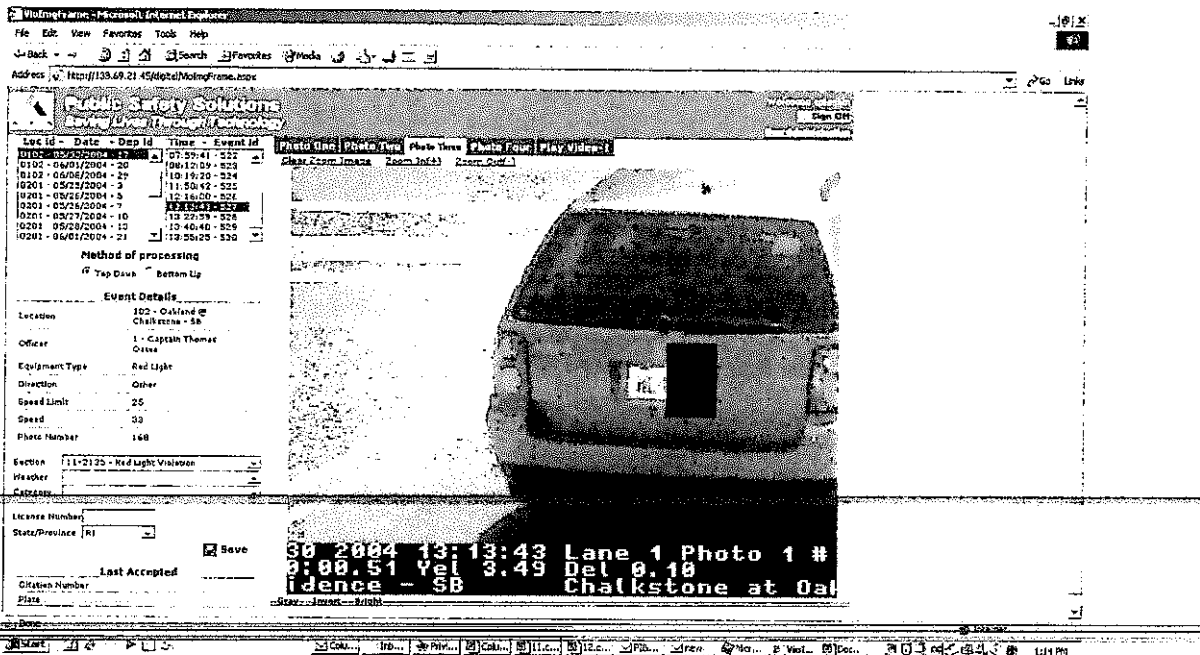


**Exhibit 3-32** As mentioned earlier, all event details are already downloaded from our camera system, minimizing data entry required from staff. The first review step is to determine if a violation occurred. The vehicle in this first environmental photo is clearly behind the stop bar and the light is clearly red.

City of Columbus  
Ohio Photo Red Light Enforcement System



**Exhibit 3-33.** In the second violation image, the vehicle clearly continues through the intersection after the light was red. To be sure a violation has occurred, the Initial Review Clerk will click on the “Play Video” tab to view the 12 second recorded instant replay of the violation. This video playback features is especially useful for validating right on red and left turn violations.



**Exhibit 3-34.** After confirming a violation has occurred, our staff will review the tag close-up image to ensure we are able to clearly identify the license plate.



City of Columbus  
Ohio Photo Red Light Enforcement System

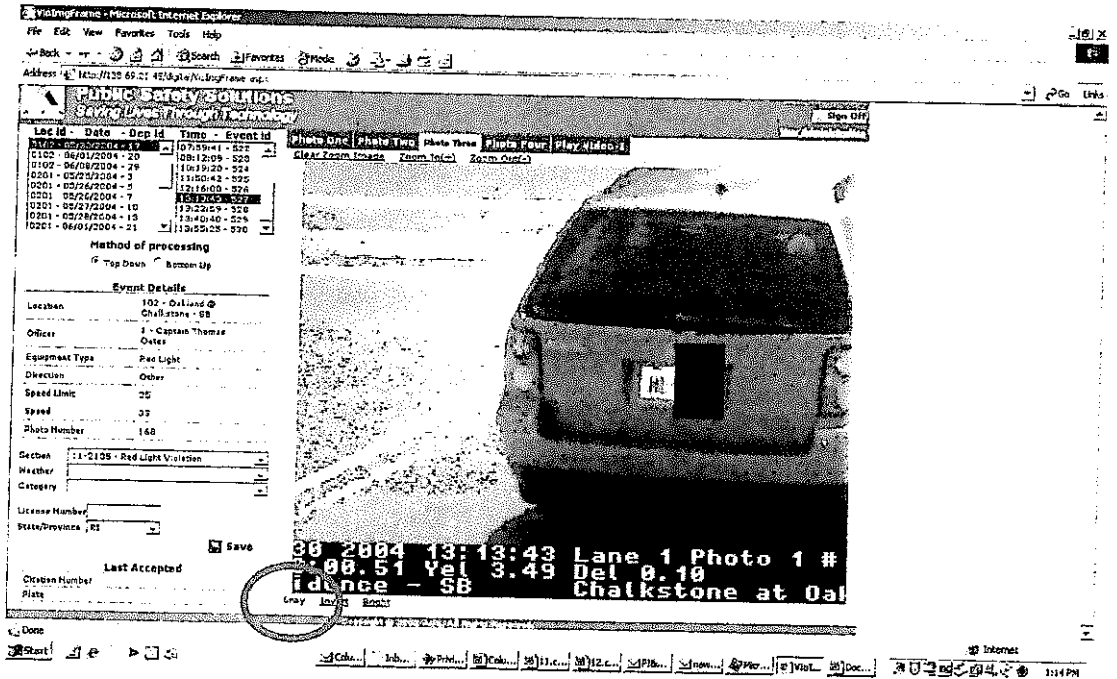


Exhibit 3-35. Citeware.net software allows our staff to enhance the license plate close-up images in a number of ways, as will be seen in the following screen images. In this screen image, we have “clicked” the gray scale option to enhance the image.

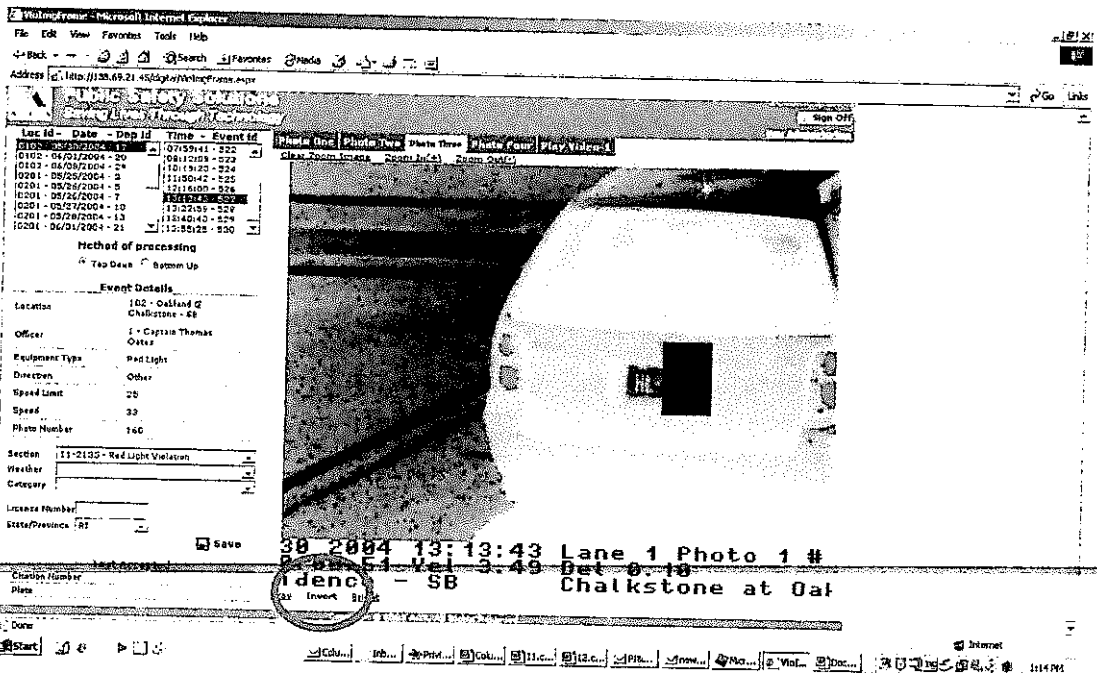


Exhibit 3-36. In this screen image, we have selected the “invert” option, providing a very clear license plate image for our review.

City of Columbus  
Ohio Photo Red Light Enforcement System

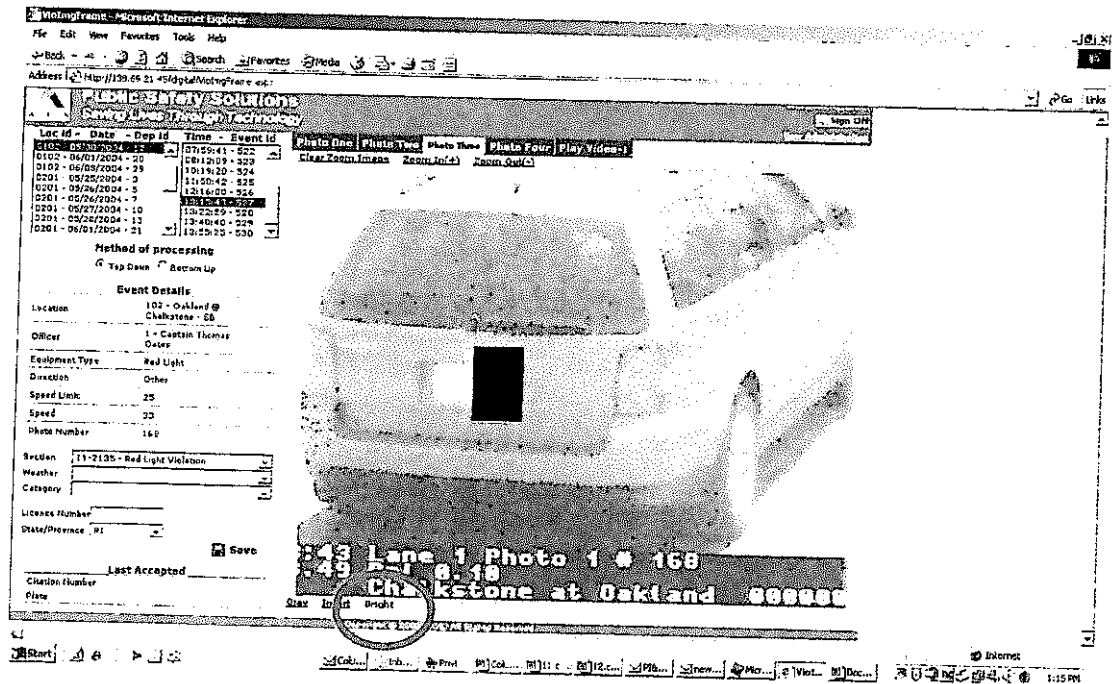


Exhibit 3-37. In this screen image, our staff has selected the “bright” feature. In this particular case, brightening the image did not add any clarity. However, the bright feature is very helpful at night or during dusk.

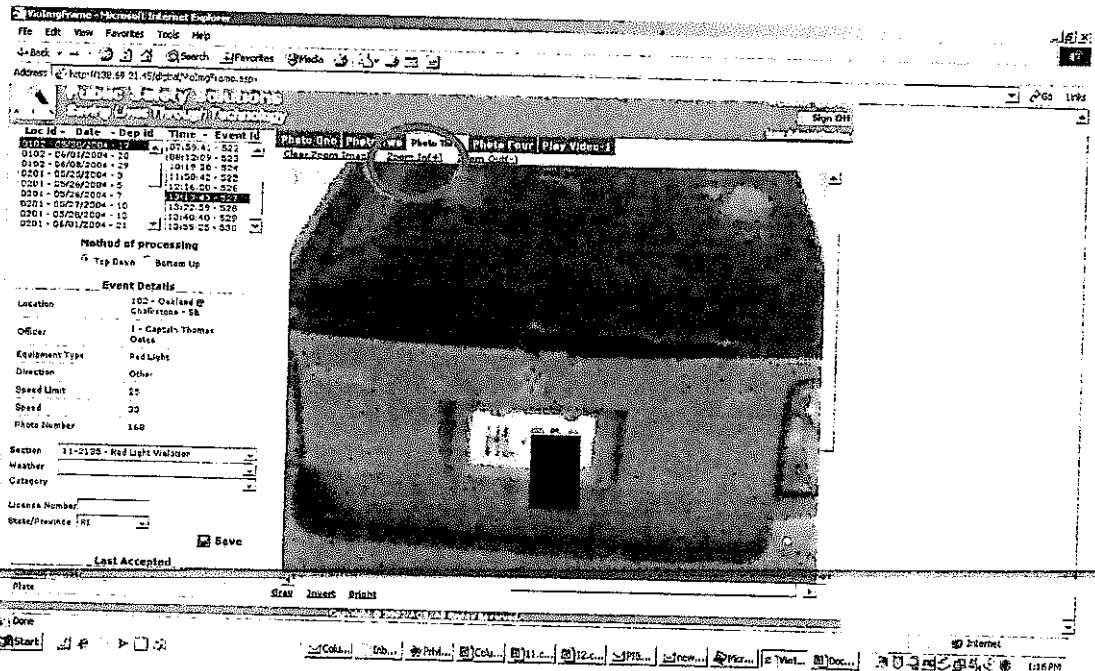
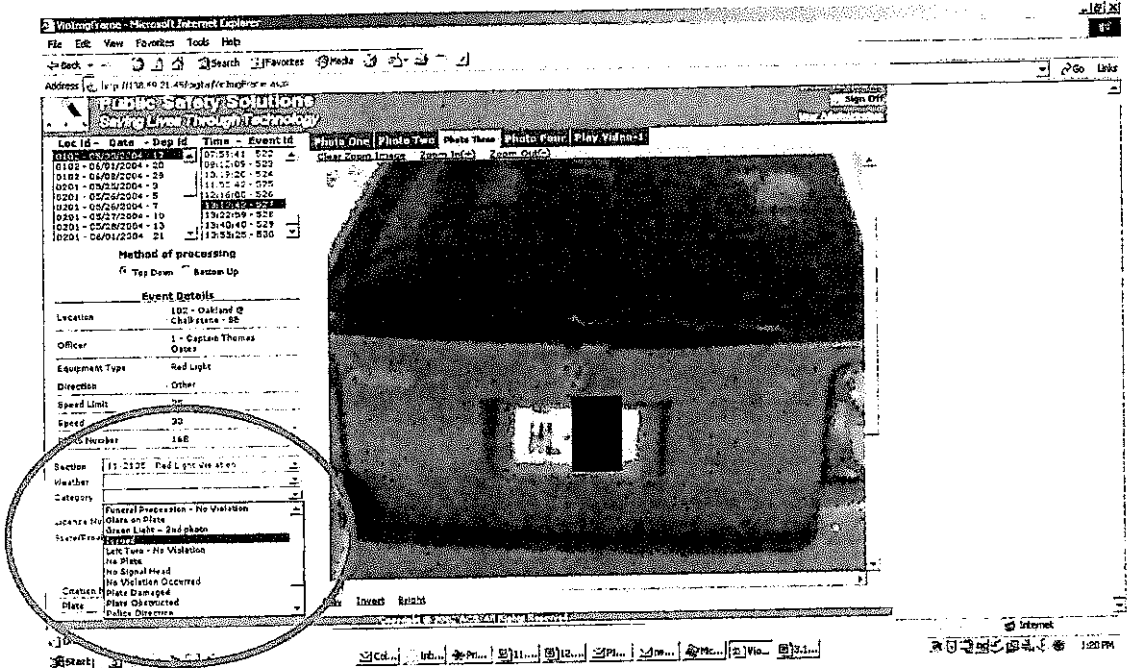
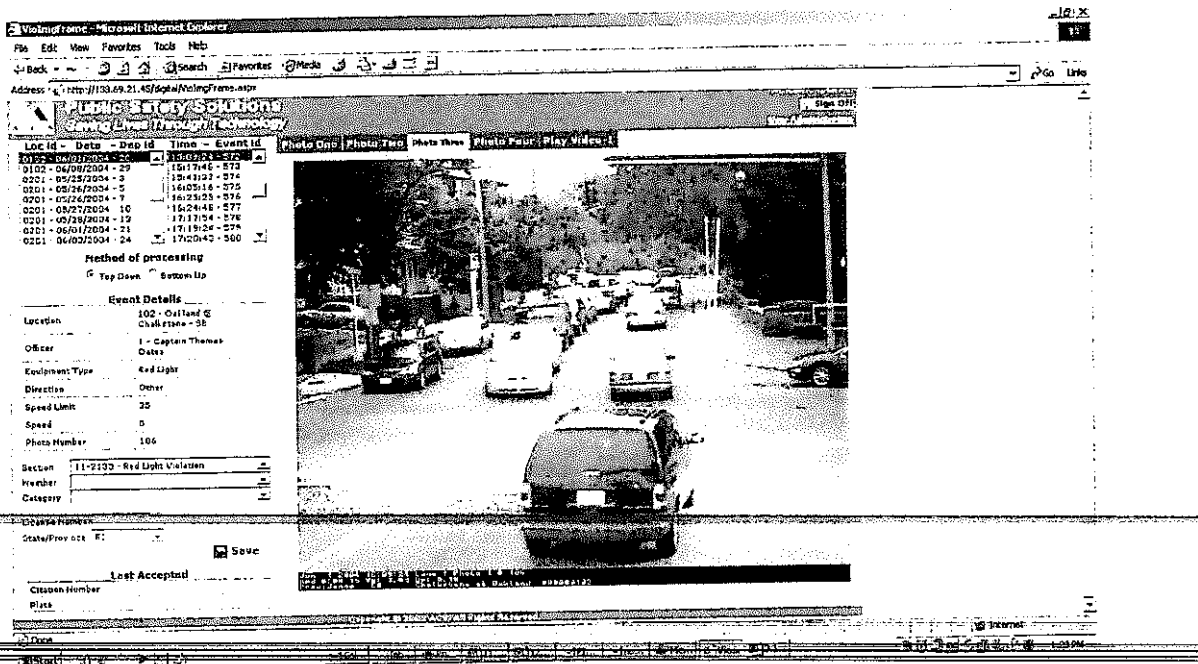


Exhibit 3-38. Our staff can also enlarge the license plate image by selecting “Zoom In (+)”.

**City of Columbus  
Ohio Photo Red Light Enforcement System**

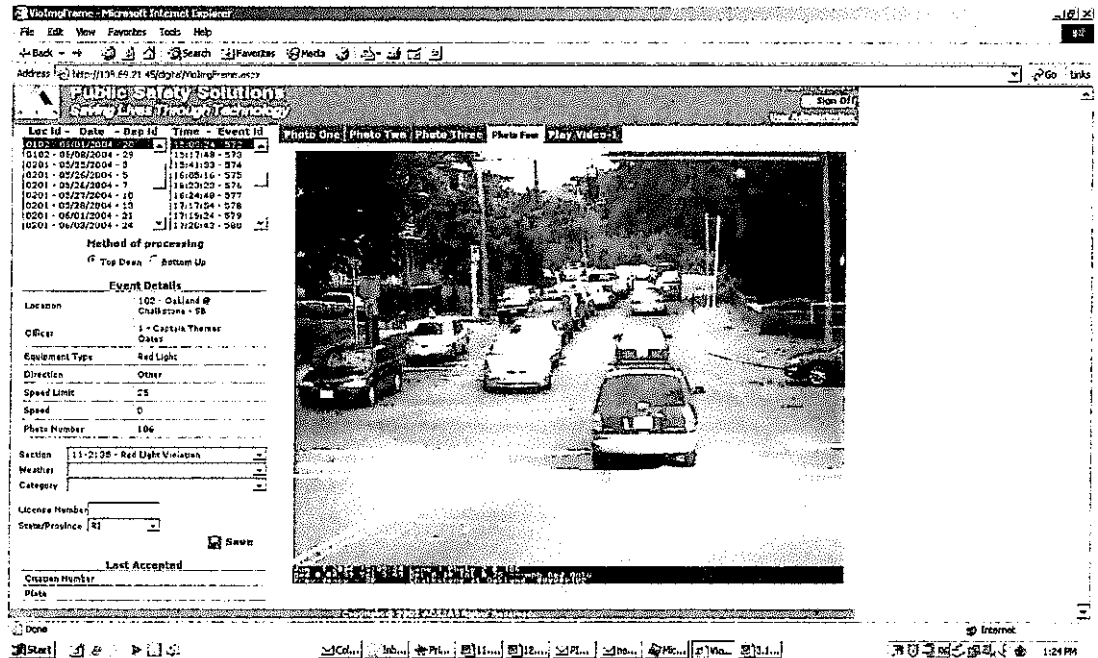


**Exhibit 3-39.** If the violation meets all City-designated criteria and the license plate is clearly legible, the clerk will key in the plate and scroll down the violation "Category" bar and select "Issued". This event will next be sent for name and address acquisition.

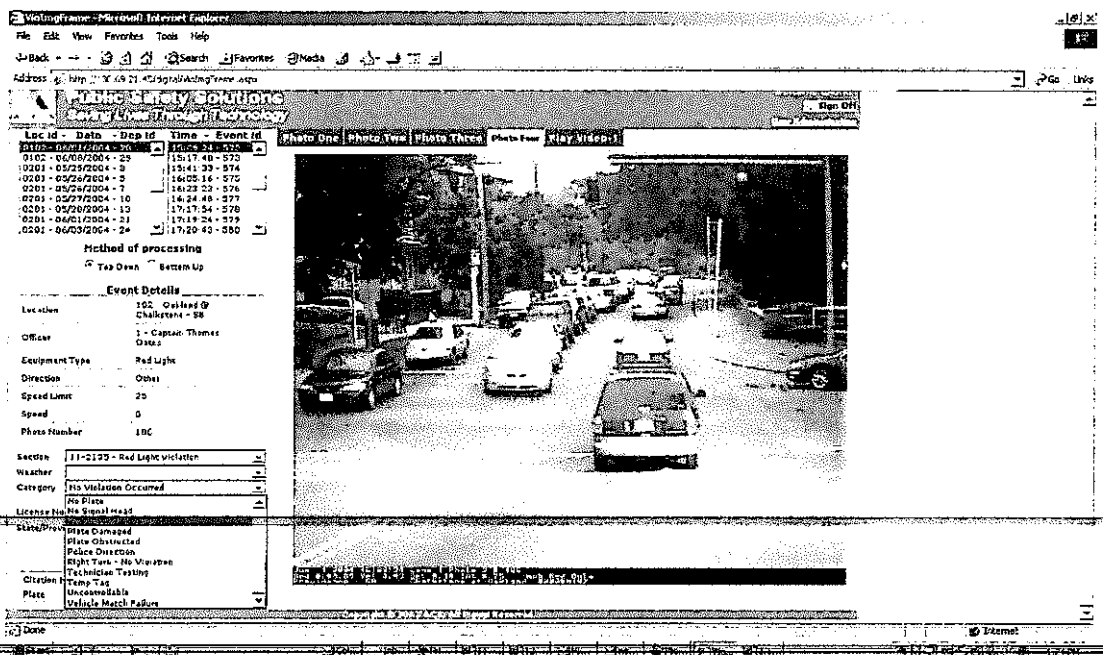


**Exhibit 3-40.** Not all recorded and captured events are actual violations. In this example, the car is clearly behind the stop bar when the light was red. The next photo, as seen in the following screen image, will tell the story about whether a violation occurred.

City of Columbus  
Ohio Photo Red Light Enforcement System



**Exhibit 3-41.** In this instance, the vehicle did not proceed through the intersection. Rather, the driver hit the brakes and stopped the vehicle on the crosswalk. The clerk will click on the “Play Video” tab to review the video clip and confirm the vehicle did in fact stop.



**Exhibit 3-42.** The video confirmed what the still images displayed. This event was not a violation, per this City’s business rules. As a result, our staff will select “No Violation Occurred” in the Event Category bar, indicating this event should not be sent any further in the violation process.

**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

Once all possible violation events are reviewed, all accepted violation events will be sent for name and address acquisition, as detailed in the following section.



### 3.1.5 Make and Model Match

#### HIGHLIGHTS

- Clearly readable registration plate images to the naked eye
- Zoom capability up to 11 times the original size
- ACS software has all necessary controls to optimize the registration plate image regardless of the weather or time of day

After our staff completes the initial review process, all violations that meet the City's business rules for issuance are sent to the next violation processing stage, name and address acquisition and vehicle make/model verification. ACS facilitates more than 13 million name and address requests annually. Our name and address acquisition procedures and policies have been in place for more than 20 years. We have learned that to minimize errors, it is best to maximize automation.

ACS' system automates the process by coding to recognize each state's particular codes for vehicle registration type, such as sport utility vehicles (SUVs) in the state of Maryland have an "M" and 6 numeric values with the "M" placed either in the beginning, middle or end of the sequence. When our system sees the state of Maryland entered as the vehicle registration plate, with 6 numeric values and an "M" in the appropriate field, the system will automatically know that appropriate code for SUV must be entered for the registration plate type.

Following registered owner data acquisition, our staff performs an online review of the violation data, the registry data, and the violation images prior to submitting the violation to the Police for their review. At this step, they are not only looking to see that the vehicle pictured in the images matches the vehicle make on the registry return, they are taking the additional step of re-validating the initial issuance of the violation. Each violation is either validated for final police review or is given a specific reject code to identify the reason that it cannot be processed. If, during this verification step, the tag number or state is determined to be in error, it can be corrected online, and the violation is automatically sent back to the name and address acquisition processing step. This reduces the time necessary to process the citation.

Whenever a citation has a "no hit" return for the name and address, reports are generated and research is conducted to identify the reason that the license plate number did not return a name and address. Besides mis-keyed tag numbers, there are two other reasons that a plate returns a "no hit". The first is when the tag number is unclear and cannot be identified. In this case, the researcher would notify the supervisor to determine if the tag clarity issue was an anomaly or if the location needed field support. The second example of a "no hit" return involves a perfectly clear tag. In these cases, the particular state DMV usually has not updated their files, or the tag could belong to an undercover police vehicle, or be in some other file not released through the normal inquiry paths. We also understand that we will get a "no-hit" for vehicle registrations with existing administrative flags.

**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

Please see Section 3.1.2 Registration Information for a detailed discussion of our name and address process and make match procedures.



### 3.1.6 system Quality Control

#### HIGHLIGHTS

- Web-enabled police secondary review
- Customized reject codes
- Multiple reviewer capability
- 12 second video clip available for online review
- Location images online for comparison
- License plate update
- Full quality control procedures for each step of the process

*ACS provides fully web-enabled police approval and access to minimize the impact of this program on their operations and staffing while providing unmatched security and control.*

We are proposing CiteWeb, our web-based, secure access portal for Police access to the citation database. Citeweb, a subsystem of our Ticket Information Management System (TIMS), can be used on any web-enabled workstation by authorized Police or PVB users in Columbus. Exhibit 3-43 and 3-44 depict the approval screens used by officers in both "front and rear photography" and "rear photography only" environments. If the City elects "front and rear photography" the approval screen will appear similar to Exhibit 3-44. If the City elects "rear photography only" the approval screen will appear similar to Exhibit 3-43.

If a citation does not merit approval, the police representative enters the specific reject reason and can even change the tag number in a dynamic entry if required. If a new license plate number is entered by a police officer, next action logic in TIMS immediately initiates a re-request from the DMV for a registered owner record for the corrected tag number. All activity in the police review process is stringently controlled and captured for audit and review, as is all activity on the citation database.

Before the Police are provided with potential violations for online review, our staff performs an online review of the violation data, the registry data obtained from BMV or NLETS, and the violation images and video. At this step, our verification staff are not only looking to see that the vehicle pictured in the images matches the vehicle make on the registry return, they are taking the additional step of re-validating the initial issuance of the violation. The staff member has to perform a "blind verify" whereby they type in the tag number as they read it from the image. If their entry matches the tag number originally captured during the first review, the DMV acquired data is displayed for verification. If the tag number is different, they can either correct their error or type in the correct tag number, which will automatically generate a new DMV request. This reduces the time necessary to process the citation. Once the data is displayed, each violation is either validated for final police review or is given a specific reject code to identify the reason that it cannot be processed.

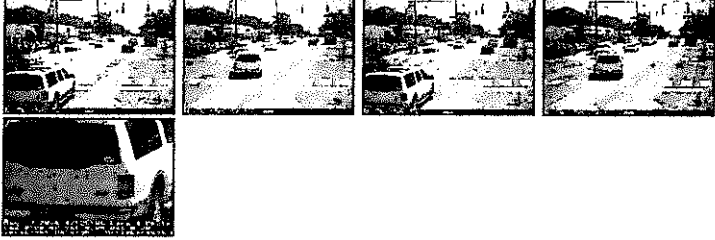


City of Columbus  
Ohio Photo Red Light Enforcement System

Main Menu 0012251

Southeast Region Raleigh Database Citation Number: 0012251

Images



First Summons

Approve Disapprove Disapproval Reason Please Select a Reason View Video

Violation Information

License Plate: [REDACTED] State: NC Deployment: 3366 Status: Pending Police Approval  
 Violation Date: May 07, 2004 12:26:06 Issue Date: May 13, 2004 Speed: 0 Limit: 40 Weather: DAYLIGHT  
 Fine: 50 Vehicle Code: Red Light Violation Viewed By: lesic Verified By:  
 Yellow Time: 4.0 Red Time: 0.4  
 Location: 503 Hillborough Rd, Friendly - FD Equip. Type: RLC Court: 1 Raleigh Municipal Court  
 Appearance Date: Badge Number: 1 Officer Name: Raymond Hayes

Vehicle Information

Make: FORD Style: MP Year: 2006 Color:  
 Name: [REDACTED]  
 Address: [REDACTED]

Driver Information

DL Number: State: Priors: 0 Lic. Class:  
 Name: [REDACTED]  
 Address: [REDACTED]  
 DOB: Gender: Eyes: Hair: Height: Weight: Race:

There are no contacts for this Citation.

©1998-2003 ACE State And Local Solutions, Inc. All rights reserved.  
 The information contained in this website contains private violator data that is highly confidential in nature and is subject to the regulation of state and local laws relating to the storage and misuse of such data. By accessing the data contained herein, you agree not to use such data for any other reason or for any other purpose than as set forth herein.

**Exhibit 3-43. Reviewing Police Officers can click on each thumbnail image to enlarge plus view the actual video replay of the violation by clicking "View Video." If the officer approves the violation, he/she selects "Approve." If he/she rejects the violation, "Disapprove" is selected and a reject reason is selected.**

City of Columbus  
Ohio Photo Red Light Enforcement System

**Exhibit 3-44. If the City elects to use frontal photography, front and rear images along with the tag closeups are provided for the officers review online.**

The system is dynamic, in that as soon as an event is validated by our staff, it is available for online review by the police. Multiple officers can review simultaneously. Once the police officer clicks on the ACCEPT button, the images and data for the next event appear automatically. We will also provide an option whereby the officer can forward the record to a supervisor for their approval.

*Our approach to quality assurance is fairly simple: put procedures in place that make it easy to monitor and report on every step of the process.*

As the industry leaders in photo enforcement, we have established a fairly rigorous approach to what we consider to be risk management, managing the risks that are inherent in this business. First, we build our systems to minimize risk, using the highest quality technology and closely monitoring construction and installation of the field work. Next, we insist on thorough training and testing of our staff and hire only seasoned professionals at the managerial and analytical levels. Finally, we have designed our systems to provide easy-to-manage and understand feedback at every step of our process, with special attention paid to items or situations that require immediate action.



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

We have established a national-level senior manager position specifically responsible for ensuring that all of our programs are adhering to our risk management guidelines and to provide training and documentation where needed. This position is held by one of our most experienced managers, Lisa Sutter, who has implemented a variety of photo enforcement and ticket processing programs.

For our digital image verification solution, the initial step, prior to actually viewing the images, is an automated statistical analysis of the data returned for the site to identify potential issues. Based on historical data for each site and data captured electronically from the field staff during their visits to the cameras, it is easy for our system to immediately determine if one of the lanes is suffering any type of degradation in capture rate, to validate the settings of the camera against the data returned (such as minimum speed and red phase settings) and to ensure the capture of the test shots framing all of the events for the deployment. Reports are generated and are available online for management review (and for review by our National Engineering Support Center and City program management) before a single image is verified. This provides the fastest possible way of identifying issues with the cameras and lanes so down time is minimized.

Our staff are thoroughly trained, tested and certified on the business rules for their program and on our operations. Based on our training and documentation, our processing center staff is expert in the art of decoding states and tag numbers from electronic images. In processing centers located in states with a predominance of one or two types of license plates (and very small out-of-state populations), the staff members wouldn't have an opportunity to become familiar with the variety of license plate types that is found in large metropolitan areas with a sizable visitor population, such as Columbus. Part of our routine training for our digital image verification specialists includes training on license plate styles and numbering schemes. Our training ensures that our staff knows, for example, that you have to key "HP" before the numbers on a Virginia handicapped vehicle, and that DC clergy tags should have "CL" keyed before the numbers to get a hit.

Vehicle license plate recognition is such a critical element of our operations that we have developed a system capability that allows new staff to forward a record to a supervisor if they don't recognize the tag or plate configuration sufficiently to determine the issuing state, and more importantly, how to record the tag number to ensure that the record will be returned from the relevant RMV with an accurate hit on the registered owner information. These are marked for priority processing by the supervisor, who can then forward the record to the next processing step. A vendor whose staff are less trained at deciphering tags might be inclined to reject the event as an unclear tag or possibly would guess at the tag number, which would require a substantial effort on the City's behalf to track and correct those records.

---

---

*To ensure complete accountability for images where the tag or violation data cannot be captured, ACS has an automated supervisory review process for every rejected event.*

---

---

ACS has established standard procedures for violation determination and tag capture to ensure the maximum number of tickets is issued. The image review clerk views the images and validates the violation data, ensuring that all mandatory fields are completed. If the tag number cannot be determined from the image (e.g., if there is a trailer hitch



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

that obscures the tag in the picture), the image review clerk enters an appropriate reject code. Each non-issued event has a specific reason that it is not a violation. These are given a unique reject code, so the occurrences can be tracked, validated, and reported.

The supervisor signs on using a special user ID and is provided access to all of the rejected events. The screen shows all three images, the specific reject code provided by the specialist, and the clerk's name. The supervisor can accept the reject as is, assign a different reject code to the record, or approve the record to be sent to the City as a viable violation. If the vehicle license plate number is recorded incorrectly, the supervisor can change that at this point in the process. The supervisor can forward images to our local image quality specialists for review and/or to our National Engineering Support Center for review by the image quality supervisors. Any issues will be logged in our web-enabled issue tracking and reporting system. Only ACS has this separate reject review process where every reject is validated by a supervisor, providing a thoroughly auditable procedure for determining the accuracy of the digital image verification.

Whenever a citation has a "no hit" return for the name and address, reports are generated and research is conducted to identify the reason that the license plate number did not return a name and address. Besides mis-keyed tag numbers, there are two other reasons that a plate returns a "no hit". The first is when the tag number is unclear and cannot be identified. In this case, the researcher would notify the supervisor to determine if the tag clarity issue was an anomaly or if the location needed field support. The second example of a "no hit" return involves a perfectly clear tag. In these cases, the particular state DMV usually has not updated their files, or the tag could belong to an undercover police vehicle, or be in some other file not released through the normal inquiry paths. We sometimes get a "no-hit" for vehicle registrations with existing administrative flags. We also perform re-requests to maximize the hit rates.

Our front-end system security limits access to the database and ensures user accountability. An additional component of the ACS solution that accommodates total accountability for all transactions is our system access procedures. Systems security is restricted through the use of individual security profiles that define functions and features that can be accessed by each user. An enhanced feature of our user access security requires independent users to conduct the initial digital review and the DMV verification. A user who processed events in the digital review stage will not be given access to any of the same events when they are in the DMV verification stage of the processing. The system captures the ID of all users who make online updates, as well as the date and time of the transaction. This information becomes a permanent part of the record. The audit trail is always present.

---

---

The function of our production control coordinator is to ensure full accountability and full compliance with all program requirements. This ACS staff member performs and monitors all activity for the project. A complete audit trail of all records will be maintained in the system.

---

---

ACS is committed to providing the highest level of verifiable quality assurance procedures at every step of the process, from the initial data from the field to notice mailing. Tracking is provided to ensure that all images are identified as rejected or accepted



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

through final mailing. ACS is the only vendor that can provide the combination of a superior processing system with the automated functional controls required to ensure that every possible citation is issued.



### **3.1.7 | citation Generation**

#### **HIGHLIGHTS**

- ACS has successfully mailed more than two million notices on behalf of the Columbus Parking Violations Bureau (PVB) since 1983
- In 2003 alone, ACS mailed more than 182,500 notices on behalf of the PVB generating more than \$4.7M in revenue for the City
- ACS notices have generated nearly \$70 million in revenue for the City of Columbus and an 80% collection rate since the program's inception
- Nationwide, ACS mails over 15 million notices annually
- ACS has the ability to handle large notice volumes

*No company has more experience managing and generating millions of public sector violation notices each year. Our 20+ year partnership with the City positions ACS to expand our already successful notice generation capability for the City's photo red light enforcement program.*

The presence of an effective noticing system plays a major role in the enforcement of red light tickets and the collection of monies owed to the City. ACS has developed a sophisticated and multi-faceted noticing system that has ensured accuracy and fully met all the City's requirements for over 21 years.

ACS has been the City's parking violation processing partner since 1983. Over the course of the past 20+ years, ACS has successfully provided the PVB with our Ticket Information Management System and notice generation/ mailing services. Recent innovations, such as pay-by-web, pay-by-phone, integrated voice response, and correspondence imaging have all been seamlessly integrated in recent years. Since 1983, ACS has helped the City to continuously increase revenue and improve customer service. We also have an unmatched record of consistently meeting deadlines and providing a superior violation processing service to the City of Columbus.

It was no accident that City parking revenues went from \$350,000 in 1982 to more than \$4.7M in 2003, an increase of more than 1,000 percent. ACS has worked closely with the PVB to optimize notice generation, implement ticket processing efficiencies, implement collection strategies and activities, and provide quality service to the public.

---

The notice generation solution detailed in this section is proven in the City of Columbus. In 2003 alone, ACS, on behalf of the PVB and City of Columbus, mailed more than 180,000 notices, as follows:

---

▪ Notice 1:	81,659
▪ Notice 2:	44,066
▪ Notice 3:	35,579
▪ Notice 4:	4,211
▪ Sweep:	17,007
▪ TOTAL:	182,522

---



## **City of Columbus Ohio Photo Red Light Enforcement System**

---

ACS can easily customize these existing notices to meet the unique needs of our photo red light enforcement program and begin accurate noticing almost immediately.

*The depth of our experience and knowledge in noticing is demonstrated in the immense volume of notices we print annually. ACS is the largest producer of public safety, parking and moving violation notices in the country.*

In addition to the notice generation experience we bring from our City of Columbus experience, ACS is also brings the experience as the largest violation processor in the US and Canada for red light, parking, and moving violations. For example, ACS has the most notice generation experience in photo enforcement, serving 15 of the largest 20 participating North American cities and mailing over two million notices annually – more than all other vendors combined. Overall, ACS processes more than 15 million public sector violations annually. ACS has the proven ability to handle the notice volume and capacity for a City the size and magnitude of Columbus – the 15th largest city in the United States.

Our program's success is largely due to our constant and continual tracking of complex processes that generated exceptional compliance for our clients. Technology linked with skilled citation management professionals has created a highly effective processing system.

---

### **Fully automated subsystem allows up-to-date selection of tickets eligible for noticing.**

---

ACS fully understands the City's desire to continue to generate timely and accurate citation mailings, a critical component of effective notice management and a successful enforcement program.

ACS currently mails three notices on behalf of the City's PVB, meeting their specified criteria. The actual text of the notices conforms to all applicable laws and has been approved by the City. ACS' current experience in Columbus and nationwide provides an in-depth understanding of how to craft notice language to maximize understanding and elicit payment. Our eTIMS<sup>SM</sup> solution provides the City with a fully customized system.


Currently PVB notices are produced on a weekly basis throughout the life cycle of a ticket. eTIMS<sup>SM</sup> has the capability of sending both plate and ticket level notices as indicated below:

- 
- Parking tickets issued and remaining unpaid 10 days from date of issuance receive a **Notice of Parking Infraction** as displayed in Exhibit 3-45
  - Parking tickets remaining unpaid 30 days after issuance of the first notice receive an **Impending Judgment Notice** as displayed in Exhibit 3-46
  - Parking tickets remaining unpaid 20 days after issuance of the second notice receive a **Pre-Judgment Notice**, to be mailed at the City's option as seen in Exhibit 3-47
- 



**City of Columbus  
Ohio Photo Red Light Enforcement System**

**Notice of Parking Infraction**



**PARKING VIOLATIONS BUREAU  
CITY OF COLUMBUS, OHIO**

OH-ARR6095 06/05/01  
 JOHN DOE  
 123 MAIN STREET  
 DELEWARE, OH 43015-1622

**RE: Notification of Parking infraction**

Dear Sir or Madam:

The records of the Parking Administrator indicate that you have failed to respond to the Parking Ticket Infraction issued to a vehicle registered in your name and as identified below. You must pay the total due, or deny the Parking Infraction; explain the circumstance of the Parking Infraction; and/or request a hearing in writing.

If you fail to answer or request a hearing within 30 days, an additional \$10 penalty will be added and a default judgment may be entered against you. This judgment will include all fines, penalties, fees and costs according to law as well as the possibility of a registration hold being imposed upon your vehicle.

You may pay in person by check, money order, Visa, MasterCard, or Discover at the address listed above. The hours of operation are Monday thru Saturday 8:00 A.M. to 9:00 P.M., Sunday 8:00 A.M. to 6:00 P.M.

NOTE: A \$15.00 return check fee will be charged for all checks returned by your bank.

Ticket Number	Issue Date	Violation	Time	Location	Fine	Penalty	Amount Due
5536713261	02/01/01	OVERTIME METER	02:56PM	FRONT	\$15	\$5	\$20

**Total Due: \$20**

City of Columbus Parking Violations Bureau, 44 W. White Street, Columbus, Ohio 43215  
 Make Check/Money Order Payable to: City of Columbus and WRITE YOUR PLATE NUMBER ON YOUR PAYMENT

5536713261

State/Plate OH ARR6095 Amount Due: \$20  
 John Doe

**IF PAYING BY MAIL, PLEASE DO NOT SEND CASH.**


153.CPR04

**Exhibit 3-45. A Notice of Parking Infraction is sent to parking citations that are left unpaid after ten days from the date of issuance.**



**City of Columbus  
Ohio Photo Red Light Enforcement System**

**Impending Judgement Notice**



**PARKING VIOLATIONS BUREAU  
CITY OF COLUMBUS, OHIO**

OH-CAT3908 06/05/01  
 JOHN DOE  
 123 MAIN STREET  
 DELEWARE, OH 43015-1622 **RE: Impending Judgment Notice**

Dear Sir or Madam:

Failure to answer Parking infractions within 10 days may result in the imposition of an additional penalty and shall be considered an admission of guilt. A Default Judgment in the amount of all fine, penalties, fees and costs due may be entered against you.

**WARNING:** A law has been passed allowing for the Bureau of Motor Vehicles to hold the renewal of your license plates if you have outstanding parking tickets. To prevent further legal action you should take immediate action to pay your fines.

You may pay in person by check, money order, Visa, MasterCard, or Discover at the address listed above. The hours of operation are Monday thru Saturday 8:00 A.M. to 9:00 P.M., Sunday 8:00 A.M. to 6:00 P.M.

**NOTE:** A \$15.00 return check fee will be charged for all checks returned by your bank.

OH-CAT3908		Issue	Violation	Time	Location	Fine	Penalty	Amount
Ticket	Date							Due
5536983682	03/21/01		OVERTIME METER	08:55AM	STATE	\$15	\$15	\$30

**Total Due: \$30**

**5536983682**

State/Plate OH CAT3908 Amount Due: \$30  
 John Doe


**IF PAYING BY MAIL, PLEASE DO NOT SEND CASH.**

1654PRL04

**Exhibit 3-46. After 30 days from the issued date of the Notice of Infraction, an Impending Judgement notice is sent if the ticket remains unpaid.**

City of Columbus  
Ohio Photo Red Light Enforcement System

**Pre-Judgement Notice**



**PARKING VIOLATIONS BUREAU**  
CITY OF COLUMBUS, OHIO

OH-AVT2220 07/03/01  
 JOHN DOE  
 123 MAIN STREET  
 COLUMBUS, OH 43201-2773 **RE: Pre-Judgment Notice**

Dear Sir or Madam:

Records of the Parking Violations Bureau indicate that you have ignored previous notice(s) of delinquent parking violations for a vehicle registered in your name, or failed to appear for a scheduled hearing.

**WARNING:** Your failure to respond within ten days as prescribed by law can now be considered an admission of guilt. This could then cause the Bureau of Motor Vehicles to not allow you to renew your license plates and assess an additional penalty due to these outstanding parking tickets. To prevent this occurrence you should take immediate action to pay your fines.

You may pay in person by check, money order, Visa, MasterCard, or Discover at the address listed above. The hours of operation are Monday thru Saturday 8:00 A.M. to 9:00 P.M., Sunday 8:00 A.M. to 6:00 P.M.

**NOTE:** A \$15.00 return check fee will be charged for all checks returned by your bank.

OH-AVT2220							
Ticket Number	Issue Date	Violation	Time	Location	Fine	Penalty	Amount Due
5536990380	03/22/01	OVERTIME METER	10:07AM	LYNN	\$15	\$15	\$30
5536963360	03/20/01	OVERTIME METER	11:13AM	PEARL	\$15	\$15	\$30

**Total Due: \$60**

---

Make Check/Money Order Payable to: City of Columbus and WRITE YOUR PLATE NUMBER ON YOUR PAYMENT

5536990380 5536963360

**Amount Due: \$60**

State/Plate OH AVT2220  
 JOHN DOE

**IF PAYING BY MAIL, PLEASE DO NOT SEND CASH.**

**Exhibit 3-47. 20 days after the Impending Judgement Notice is sent, a Pre-Judgment Notice is sent to any unpaid parking ticket. This notice is mailed at the City's option.**



**City of Columbus  
Ohio Photo Red Light Enforcement System**

Since notice logic and timing are table-driven, our system is inherently flexible enough to add red light citation enforcement to the existing database with a mere flick of the switch, which will alleviate the need to develop and test a standalone database for the red light program. Ultimately, ACS will hit the ground running, immediately after intersection construction and installation is complete. ACS can also expeditiously implement revisions to the noticing process due to changing circumstances, new legal requirements or simply to improve customer service. Our eTIMS<sup>SM</sup> solution provides the City with a fully automated, customized noticing program. Obviously, ACS will work with the City to customize the most effective Notices for the Red light Program, to include violation images and required language. Exhibit 3-48 included at the end of this section (this will be hard copy notice) depicts our current notice 1 for the City of Raleigh's red light program (which uses our proposed digital red light camera system). In the example provided from Raleigh, ACS includes three images on the notice (1st environmental image showing the car behind the stop bar and the light red, 2nd environmental image showing the vehicle passing through the intersection, and a license plate close-up). ACS will customize the final number of images on the notice based on the final direction the City chooses regarding the number of cameras and frontal and rear photography.

---

**eTIMS<sup>SM</sup> Notice Management Subsystem provides online inquiry and online notice tracking and inquiry.**

---

ACS developed the Notice Management Subsystem to enhance the ability to monitor and control noticing efforts. The Notice Management Subsystem provides important information about a mailing including notice count, ticket count, and the total amount due for a specific notice type and date (Exhibit 3-49). This eTIMS<sup>SM</sup> subsystem provides online details of the generation of notices by the following methods of inquiry:

- By notice date, listing all notices in notice type order, generated for the specific date entered up to and including current date
- By notice type, listing all notices of the specified type and the date of their generation
- By registration number (state/plate), listing all notices generated for a specific plate

If a notice is destroyed during the printing process and cannot be mailed, the ability to back out the notice record is crucial. Although this function is not frequently required, the absence of this ability would result in the associated tickets being erroneously viewed as eligible for the next stage of noticing and enforcement activity. This essential back out capability exists on eTIMS<sup>SM</sup> and removes the notice from all associated tickets on the database, allowing them to be selected again for the same notice during the next notice generation process. This capability ensures proper notice sequencing and efficient customer service.

---

---

The eTIMS<sup>SM</sup> Notice Management Subsystem also provides the City with an online representation of ticket status and registration information as it was at the time of notice creation. The ability to view both previous and current ticket conditions on-line as well as to verify the name and address the notice was mailed to be critical for responding to

**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

Type	Date	Ticket Count	Notice Count	Page Count	Total Due	Sequence
<input type="checkbox"/> 001 CURR Overdue	03/04/02	14,823	13,367	13,400	\$560,941.00	
<input type="checkbox"/> 001 CURR Overdue	03/05/02	5,985	5,486	5,469	\$227,980.00	
<input type="checkbox"/> 001 CURR Overdue	03/06/02	6,096	5,607	5,613	\$231,545.00	
<input type="checkbox"/> 001 CURR Overdue	03/07/02	6,128	5,601	5,606	\$232,806.00	
<input type="checkbox"/> 001 CURR Overdue	03/11/02	15,372	13,802	13,829	\$593,604.60	
<input type="checkbox"/> 001 CURR Overdue	03/12/02	5,748	5,285	5,271	\$216,775.00	
<input type="checkbox"/> 001 CURR Overdue	03/13/02	5,824	5,167	5,170	\$214,375.00	
<input type="checkbox"/> 001 CURR Overdue	03/14/02	5,620	5,156	5,157	\$214,227.00	
<input type="checkbox"/> 001 CURR Overdue	03/16/02	10,339	9,414	9,424	\$388,677.00	
<input type="checkbox"/> 001 CURR Overdue	03/19/02	5,953	5,444	5,453	\$233,199.50	
<input type="checkbox"/> 001 CURR Overdue	03/21/02	7,543	3,984	4,079	\$354,890.70	
<input type="checkbox"/> 001 CURR Overdue	03/22/02	12,367	9,762	7,564	\$221,879.50	

**Exhibit 3-49. The Notice Management Summary Page displays relevant information pertaining to notice mailings. Proprietary Information**

violator inquiries. This "snapshot" capability provides the City with an extremely useful tool for rendering the best possible customer service.

**Notice design flexibility ensures superior customer service and allows for the implementation of various collection strategies.**

ACS has performed numerous test mailings and notice design adjustments for its clients nationwide which have shown that more citizens respond, whether by inquiry or payment, when information is provided on a clearly formatted, color enhanced notice. We have evaluated and implemented effective noticing strategies which include laser printed letters, colored notices, various stocks of envelopes, and the inclusion of a "stuffer" card with special wording or warnings to complement various notices. To further compliment this effort ACS added the made further progress in notice mailings by switching mail house vendors. Barton and Cooney is a mail house vendor that provides professional looking color notices printed on high quality laser printers. Changes to notices can be made and implemented in a timely manner with the new vendor ensuring the City will have greater flexibility in the noticing system.

As shown at the end of this section, we have included several different types of citations. In addition to providing violation images, each citation gives the date and time of the violation, location of the intersection, the amount of the civil penalty including the due date of the fine. Please refer to Proposal Section 3.1.6 to read about our Police No-



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

tice approval system. ACS will never mail a red light notice unless it has been approved by a City of Columbus official.





**CITY OF RALEIGH**  
**SAFETY CAMERA PROGRAM**  
 300 Blake St., Raleigh, NC 27601 (919) 833-2549



**NOTICE OF CITATION**

MAIL DATE: 06/07/2004

Citation Number: S0400134955

Violation Location:

Rock Quarry @ Proctor NB - NB

020200415900000240017 S040013490005000 0



SafeLight Program  
 PO Box 28448  
 Raleigh, NC 27611-8448

Payment Due Date: 07/07/2004

Amount Due: \$50

Amount Paid:

Detach and return the above portion with your payment in the return envelope.

**Violation Location:** Rock Quarry @ Proctor NB - NB  
**Citation Number:** S0400134955  
**Plate:**   
**Mail Date:** 06/07/2004



Jun 3 2004 16:42:27 Lane 1 Photo  
 Red 0:00.68 Yel 4.66 Del 0.30  
 SafeLight Raleigh - Rock Quarry NB

On 06/03/2004 at 4:42 PM your vehicle was photographed (copies are shown below) driving through an intersection in which the traffic signal was red, in violation of Raleigh City Code Section 11-2135. At the time of the violation, your vehicle was traveling at 46 MPH. No points will be assessed against your driving record or insurance as a result of this violation. See Data Blocks below pictures for more information on the violation.



**FIRST PHOTO DATABAR DESCRIPTION**  
 LINE 1: DATE: Jun 3 2004 TIME: 16:42:27 LANE: 1 PHOTO 1 # 4043  
 LINE 2: RED SECS: 0.68 YEL SECS: 4.66 DELAY: 0.3  
 LINE 3: City of Raleigh PROGRAM NAME: SafeLight LOC #: 000000901

**SECOND PHOTO DATABAR DESCRIPTION**  
 LINE 1: DATE: Jun 3 2004 TIME: 16:42:28 LANE: 1 PHOTO 2 # 4043  
 LINE 2: RED SEC: 1.27 YEL SEC: 4.66 DELAY: 0.3 INT 0.59 SPEED 46 mph.  
 LINE 3: City of Raleigh PROGRAM NAME: SafeLight LOC #: 000000901



**CITY OF RALEIGH**  
**SAFETY CAMERA PROGRAM**  
 300 Blake St., Raleigh, NC 27601 (919) 833-2549



**NOTICE OF CITATION**

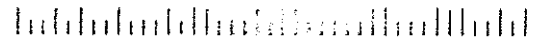
**MAIL DATE:** 05/12/2004

**Citation Number:** S0400122530

**Violation Location:**

020200413300000070016 S040012250005000 5

Hillsborough @ Friendly - EB



SafeLight Program  
 PO Box 28448  
 Raleigh, NC 27611-8448

**Payment Due Date:** 06/11/2004

**Amount Due:** \$50

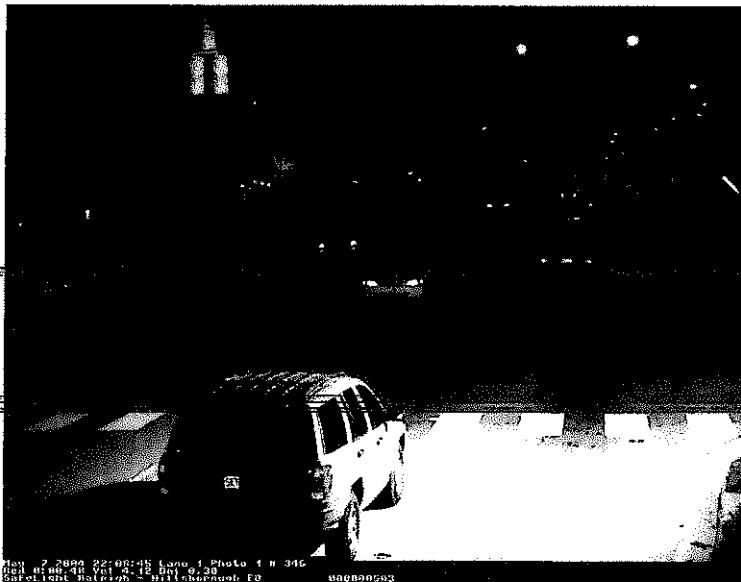
**Amount Paid:**

Detach and return the above portion with your payment in the return envelope.

**Violation Location:** Hillsborough @ Friendly - EB  
**Citation Number:** S0400122530  
**Plate:**   
**Mail Date:** 05/12/2004



On 05/07/2004 at 10:08 PM your vehicle was photographed (copies are shown below) driving through an intersection in which the traffic signal was red, in violation of Raleigh City Code Section 11-2135. At the time of the violation, your vehicle was traveling at 31 MPH. No points will be assessed against your driving record or insurance as a result of this violation. See Data Blocks below pictures for more information on the violation.

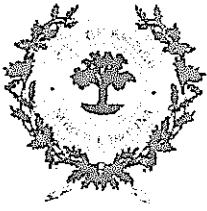


**FIRST PHOTO DATABAR DESCRIPTION**

LINE 1: DATE: May 7 2004 TIME: 22:08:45 LANE: 1 PHOTO 1 # 346  
 LINE 2: RED SECS:0.48 YEL SECS: 4.12 DELAY: 0.3

**SECOND PHOTO DATABAR DESCRIPTION**

LINE 1: DATE: May 7 2004 TIME: 22:08:46 LANE: 1 PHOTO 2 # 346  
 LINE 2: RED SEC: 1.35 YEL SEC: 4.12 DELAY: 0.3 INT 0.87 SPEED 31 mph.



**CITY OF RALEIGH**  
**SAFETY CAMERA PROGRAM**  
 300 Blake St., Raleigh, NC 27601 (919) 833-2549



**NOTICE OF CITATION**

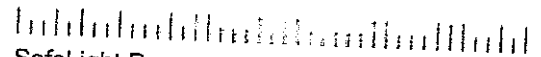
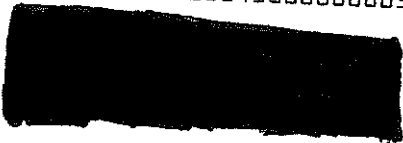
MAIL DATE: 06/04/2004

Citation Number: S0400134333

Violation Location:

Dawson @ Morgan - SB

020200415600000030014 S040013430005000 3



SafeLight Program  
 PO Box 28448  
 Raleigh, NC 27611-8448

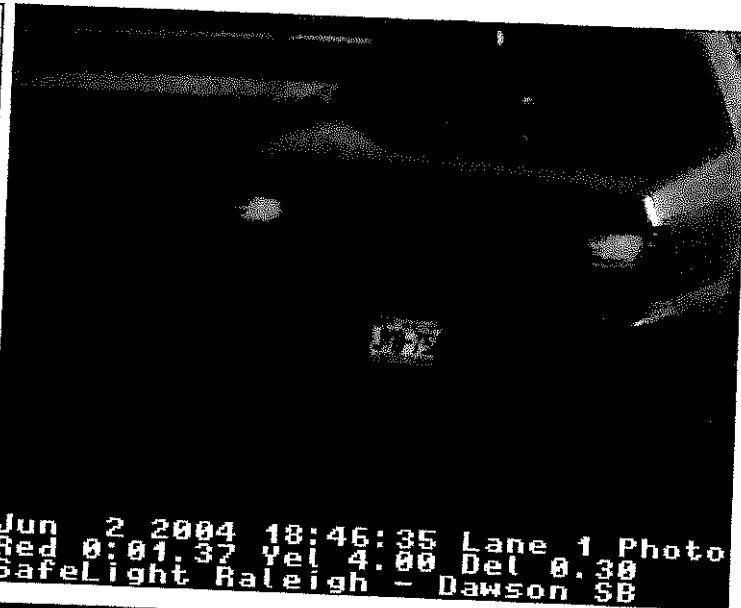
Payment Due Date: 07/04/2004

Amount Due: \$50

Amount Paid: [ ]

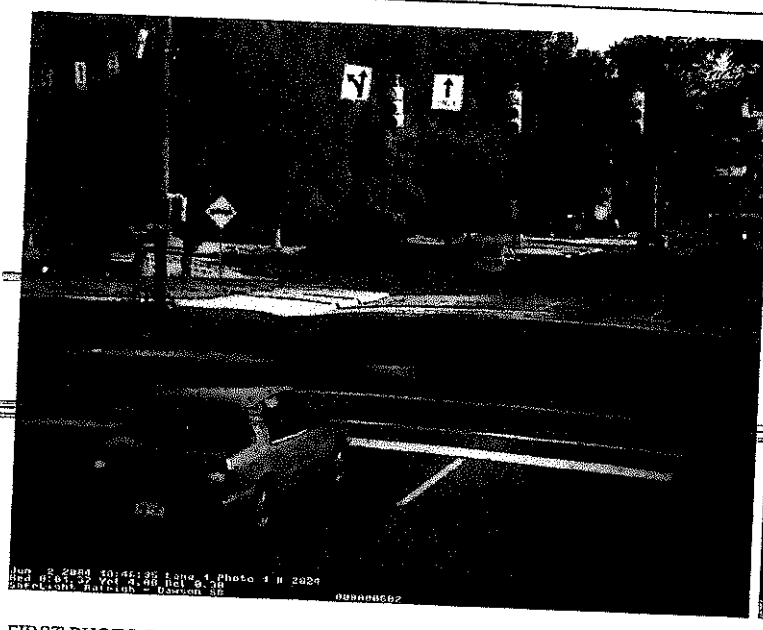
Detach and return the above portion with your payment in the return envelope.

**Violation Location:** Dawson @ Morgan - SB  
**Citation Number:** S0400134333  
**Plate:** [REDACTED] NC  
**Mail Date:** 06/04/2004



Jun 2 2004 18:46:35 Lane 1 Photo  
 Red 0:01:37 Yel 4:00 Del 0.30  
 SafeLight Raleigh - Dawson SB

On 06/02/2004 at 6:46 PM your vehicle was photographed (copies are shown below) driving through an intersection in which the traffic signal was red, in violation of Raleigh City Code Section 11-2135. At the time of the violation, your vehicle was traveling at 43 MPH. No points will be assessed against your driving record or insurance as a result of this violation. See Data Blocks below pictures for more information on the violation.



Jun 2 2004 18:46:35 Lane 1 Photo 1 # 2824  
 Red 0:01:37 Yel 4:00 Del 0.30  
 SafeLight Raleigh - Dawson SB



Jun 2 2004 18:46:36 Lane 1 Photo 2 # 2824  
 Red 0:02:00 Yel 4:00 Del 0.30 Int 0.63 43mph Red Only  
 SafeLight Raleigh - Dawson SB

**FIRST PHOTO DATABAR DESCRIPTION**  
 LINE 1: DATE: Jun 2 2004 TIME: 18:46:35 LANE: 1 PHOTO 1 # 2824  
 LINE 2: RED SECS: 1.37 YEL SECS: 4 DELAY: 0.3

**SECOND PHOTO DATABAR DESCRIPTION**  
 LINE 1: DATE: Jun 2 2004 TIME: 18:46:36 LANE: 1 PHOTO 2 # 2824  
 LINE 2: RED SEC: 2 YEL SEC: 4 DELAY: 0.3 INT 0.63 SPRED 43 mmh



### 3.1.8 Audit Requirements

#### HIGHLIGHTS

- SAS-70 approved controls and safeguards for hosting and processing data.
- ACS streamlines customer audit requirements.
- As a US based company, ACS is also in full compliance with Sarbanes/Oxley.

*One of the most effective ways a service organization can communicate information about its controls is through a Statement on Auditing Standards (SAS) No. 70. By adhering to proper control standards in its system design and development procedures, ACS will provide the best service possible to the City of Columbus.*

In today's global economy, service organizations or service providers must demonstrate that they have sufficient controls and protections in place when hosting or processing critical customer data. SAS No. 70 ensures that these controls and protections follow authoritative guidelines, allowing service organizations to easily disclose such methods to its customers and their customers' auditors in a uniform reporting format. In addition, the requirements of Section 404 of the Sarbanes-Oxley Act of 2002 make SAS 70 audit reports even more important to the process of reporting on the effective internal controls of service organizations. ACS understands the magnitude of compliance with all standards and controls underlined in SAS No. 70 and is well positioned to leverage the benefits of these standards and controls on the photo red light enforcement systems it proposes to provide to the City of Columbus.

Undergoing a SAS No. 70 audit distinguishes a company over its competitors, particularly when a company operates in an industry with many start-ups, such as photo enforcement, or competes with companies that tend to maintain poor control environments.

Our most recent SAS No. 70 report provides invaluable information regarding our controls and the subsequent compliance of those controls within the realm of information technology (see Appendix A for a copy of this recent SAS No. 70 report). Per the findings of the report, ACS effectively abided with the tenants of SAS No. 70 based on thorough examinations of our methodologies coupled with an independent, unbiased assessment of whether these controls were suitably designed, implemented and operating effectively. As a result, ACS accomplished all objectives within SAS No. 70 and will continue our compliance with the City of Columbus.

Without a current SAS-70 compliant Service Auditor's Report, any photo red light enforcement program vendor will most likely entertain multiple audit requests from the City of Columbus and their respective auditors during the life of the contract. Multiple visits from City auditors would place a strain on any service providers' resources and an unnecessary strain on City personnel. With the completion of our most recent SAS-70 audit report, ACS can ensure that the City of Columbus and their auditors have ac-



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

cess to the same, uniform information, confidently satisfying most City auditing requirements.

Furthermore, to ensure current and future management audit reporting needs are met, the City of Columbus must select a vendor who is committed to, capable of, and willing to produce ad hoc and special reports as required. For over 19 years, ACS has committed to producing timely, comprehensive, and accurate reports to all of our clients. Our demonstrated management commitment and our proven System reporting capability guarantee the City of Columbus' ongoing audit needs will always be met.

Overall, through our SAS No. 70 approved technical designs, development, and reporting procedures, ACS is able to provide the City of Columbus with the best possible systemic controls and standards on our photo red light enforcement system and is pleased to provide a comprehensive, standardized way to communicate that compliance to the City of Columbus.

### 3.1.9 Electric File Transfer

#### HIGHLIGHTS

- Hourly Auto-FTR transmission will facilitate processing, quick issuance and timely data transfers to the City's courts.
- Full controls at all levels provide a secure, stable, file transfer solution.
- 24/7 monitoring of FTP transaction by our Network Operations Center.

*ACS' proven track record of successful file transfer and network implementations & integrations in other large cities throughout the country supporting critical functions that require a reliable performing data communications network will ensure the highest level of data availability for the City of Columbus' photo red light enforcement program.*

When automated file transmissions and the data communications networks they run on are unstable, unavailable, or poorly designed, City of Columbus employees can be inconvenienced at best. At worst, operations, revenue and court operations can be disrupted. Our nation-wide file transmission and data communications solution is in place and fully operational and has been designed to meet the following objectives:

- Provide reliable and secure file transmission backbone between ACS and the City of Columbus.
- Provide comprehensive network support through a national help desk teamed with local technicians and vendor maintenance.
- Provide scalability.
- Provide the most cost effective solution.

File Transfer Protocol (FTP) is our standard file transmission method from one system to another. ACS has automated this process using standard communication internet-working protocols, while minimizing the need for manual intervention and monitoring. Currently, our architecture allows for automated FTP downloads from the cameras to our databases and from our databases to client systems such as the existing City courts system at any time. We anticipate scheduling the photo red light enforcement system downloads to take place hourly to facilitate processing and transmission of data to the City of Columbus but can modify the schedule to meet any City requirement.

ACS anticipates that during the initial implementation of the photo red light enforcement system, we will work with the City of Columbus' technical team to establish the ~~handshakes between our systems on our secure network and the City's court system on~~ the City WAN. First we will determine the appropriate protocol, which is more than just a handshake, but includes the timing and speed of the interaction between the two systems. This interaction is necessary to define acceptable security, methodologies, and testing protocols prior to placing the processes into production. Currently we employ the industry-standard TCP/IP protocol to secure and perform its FTP functions, but we

**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

are open to other methodologies at the City of Columbus' direction. Please see Exhibit 3-50 for a graphical representation of our overall proposed communications and processing infrastructure.

ACS has been using FTP for fifteen years, and we automated the process approximately 6 years ago for our red light clients. We successfully use this interface with all of our red light and ticket processing contracts across the country, and have built the necessary infrastructure to handle large volumes of data transfer customized for state and local government contracts. Exhibit 3-51 details our proposed FTP linkages and Exhibit 3-52 is a sample of our automated FTP process and its integrated file processing and error checking capabilities.


To ensure that all of the data that was available is downloaded, the FTP process contains control file records that include the file size to the byte level, quantity of records, and an algorithm that calculated a unique result based on the contents of the file. The control file records that are sent with the file are compared on the receiving end to ensure that all of the data and images were transmitted correctly. If the records do not match the data and images, the file is rejected and the entire process is restarted immediately. Additionally, to ensure that previously transmitted data is not overwritten by the current data transmission transaction, transmitted files are archived and only the current data files maintain operational file extensions during the transmission process.

Our NOC will monitor the FTP process on a 24/7 basis and will intervene if the file transfers do not conclude successfully. Any errors are reported to the technical support staff immediately for their review.

Within the internal, private ACS networks, file transmission is guaranteed by utilizing a redundant communications platform that automatically fails over in the event of a communications outage. The AT&T Frame Relay and ISDN back-up design incorporates a robust, reliable network providing alternate routes should the frame-relay PVC fail. If a data circuit PVC fails, or the physical access line is disrupted, Our Cisco 2621 series routers will automatically, and without human intervention, establish a direct ISDN BRI dial connection to the Cisco 7500 series router in the Tarrytown Data Center. These communications links are secured by AT&T's standard internal internet networking security on the circuit-side and by Cisco routers utilizing the latest Internet Operating System (IOS), firewall software and IP address access listing on the routing side. This multiple tiered security prohibits and prevents unauthorized access to citation data and images.

---

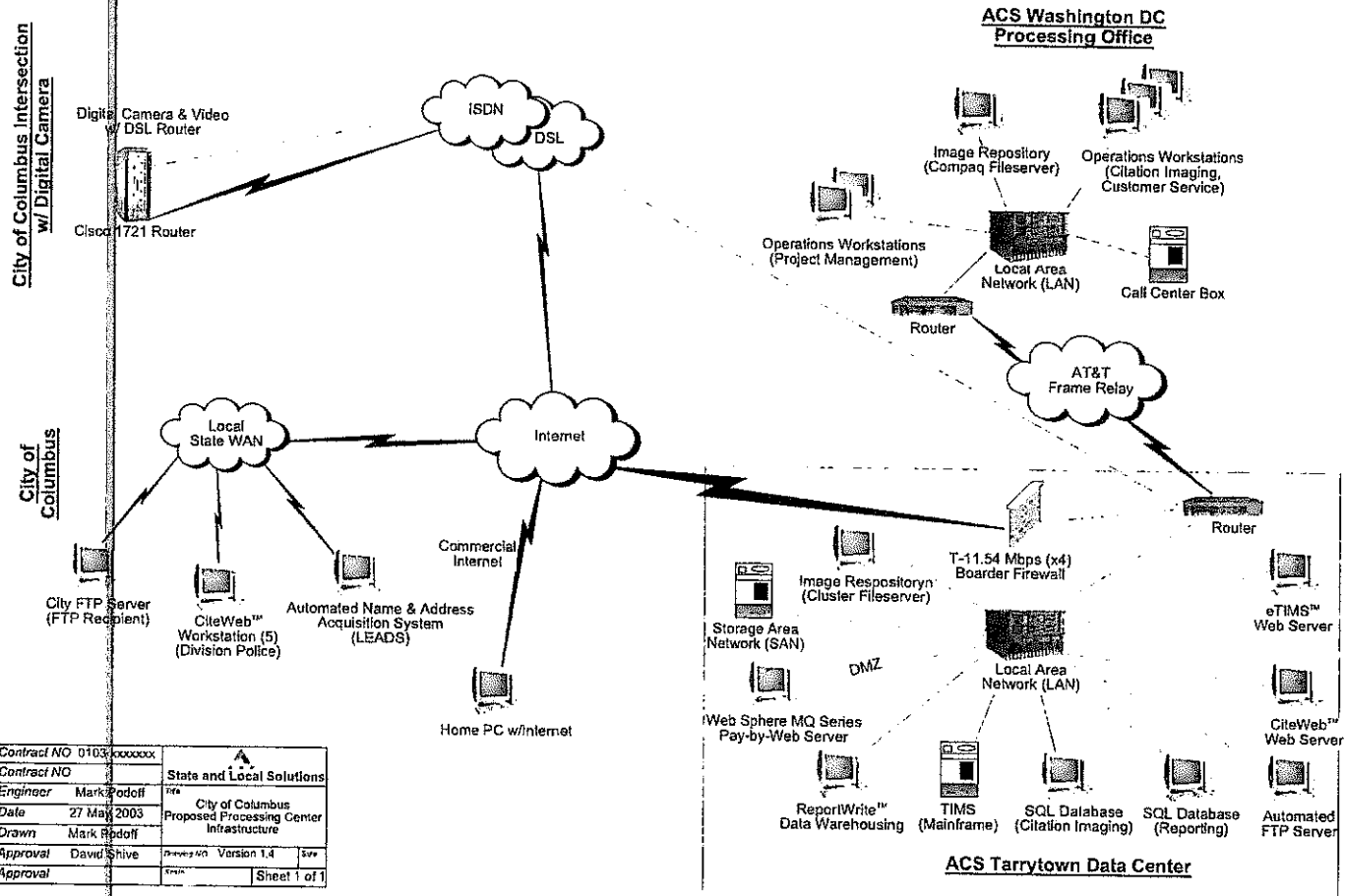
We also understand that this solution is based on our understanding of the City of Columbus' WAN and court system, and that there may be additional security concerns or issues that need to be addressed at implementation time, or in the future. ACS expects the City of Columbus to provide a secure user ID and password along with the IP address of the host courts system that will be used by Auto-FTP for data transmissions and retrieval. The user ID provided must have the ability to rename files and provide file scan capability. Our electronic file transmission solution is flexible, and can be refined to meet specific requirements of the City of Columbus. As such, we can support the implementation of firewalls, proxy servers, DHCP servers and Virtual Private Networking (VPN) as may be required by the City during the implementation



**City of Columbus  
Ohio Photo Red Light Enforcement System**

working (VPN) as may be required by the City during the implementation of the photo red light enforcement system.

**City of Columbus Red Light Camera System (RLCS)  
Proposed Processing Center Infrastructure (ver 1.4)**

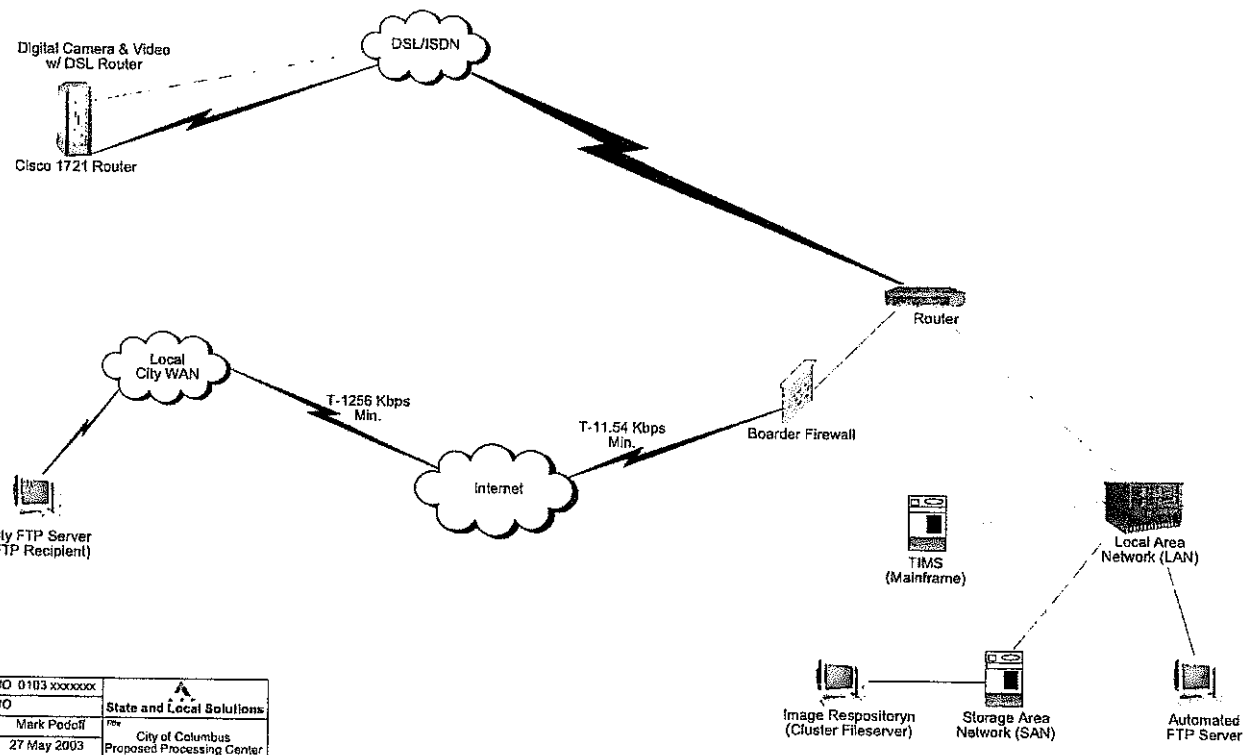


Contract NO	0103-0000000	
Contract NO		State and Local Solutions
Engineer	Mark Podoff	City of Columbus
Date	27 May 2003	Proposed Processing Center Infrastructure
Drawn	Mark Podoff	
Approval	David Shive	Version 1.4
Approval		Sheet 1 of 1

Exhibit 3-50.

City of Columbus Photo Red Light Enforcement Program  
Proposed FTP (ver 1.2)

City of Columbus Intersection  
w/ Digital Camera  
Columbus



Contract NO 0103 xxxxxxxx	State and Local Solutions
Contract NO	City of Columbus Proposed Processing Center Infrastructure
Engineer Mark Podoff	Rev
Date 27 May 2003	Version 1.2
Drawn Mark Podoff	Scale
Approval David Shive	Sheet 1 of 1

Exhibit 3-51.

ACS Tarrytown Data Center

City of Columbus  
Ohio Photo Red Light Enforcement System

ACS - Automated FTP File Transfer

File Transfer List

- RECEIVE GENESIS: PC: \\toim HOST: c:\ftp\phillyems\import
- RECEIVE NT: PC: /emsbilling/billing/\*.txt HOST: c:\ftp\phillyems\import
- SEND MVS: PC: c:\ftp\phillyems\import\emsbill\\*.dat HOST: c:\ftp\phillyems\import

Status

- 2031 - Auto FTP Connected to host = 198.220.150.100 successfully.
- 5011 - Begin <RECEIVE>: PC File -> /emsbilling/billing/\*.txt
- 5021 - <CHANGEDIR>: Directory -> /emsbilling/billing/
- 5041 - <GETDIRLIST>: Directory to Recieve -> /emsbilling/billing/
- 5061 - <RENAME> .dat file renamed.ems01152003.bak
- 5081 - <RECEIVENTTP> Finished FTP from Host. Total files Transferred: 1
- 2041 - Auto FTP disconnected from host = 198.220.150.100 successfully.
- 2001 - <CREATERJE> RJE transaction TXT count = 18
- 2071 - <RECEIVE> Total RJE Transactions: 18
- 2081 - <CREATERJE> RJE xmit file created.c:\ftp\phillyems\logs\A011503090953.rje
- 2031 - Auto FTP Connected to host = 138.69.20.241 successfully.
- 8091 - 215 MVS is the operating system of this server. FTP Server is the C-server running on OE.
- 8101 - 200 Site command was accepted
- 8111 - 200 Site command was accepted

Start Auto

Stop Auto

Configure

ACS

Clear Status

Close

Exhibit 3-52.

### 3.1.10 Unanswered Mailings

#### HIGHLIGHTS

- ACS offers proven collection notices and strategies in the City of Columbus today
- Our PVB parking violations program has achieved an 80% collection rate, generating more than \$4.7 million in revenue in 2003
- Single parking and red light database will create single collection notices with both delinquent debts listed, increasing collections for the City
- ACS-provided pay-by-phone, pay-by-web, and integrated voice response systems already up and running in City – will be used for photo red light, creating the most convenient one stop payment and customer service options for citizens and increases the average fine amounts paid
- Fleet and rental program maximizes response and collection

*ACS' proposed solution for unanswered mailings has helped generate an 80% collection rate for all City of Columbus parking tickets. ACS recommends leveraging our already in place and successful PVB noticing and collections strategy for the City's photo red light program.*

Citizens will only change their driving behavior in response to the City's red light enforcement program if they are held accountable for their red light violations. The same truth applies to the City's parking ticket enforcement program – citizens will only comply with the City's parking laws if they are held accountable for their actions. ACS has spent twenty years working side by side with the Columbus Parking Violations Bureau to develop the most efficient and effective noticing and collections methodology for the City. Our methodology, which combines carefully timed delinquent notices with more targeted and aggressive collection notices, has generated an 80% collection rate and, in 2003, more than \$4.7M in City revenue. We suggest that the City closely mirror this already proven noticing and collection strategy for the photo red light enforcement program.

ACS currently mails three violation notices, a fourth registration non-renewal notice, and if the account is still delinquent, mails a series of specialized collections notices. ACS recommends the same notice cycle for the City's photo red light enforcement program. Obviously, registration hold has not yet been state enabled and cannot currently be used for the City's photo red light program. However, when the state does pass enabling legislation, ACS can integrate red light tickets in to our existing registration non renewal program. ACS can provide collections for unanswered mail by using our existing PBV notice generation and collections infrastructure and implement special collections for the violator who fails to respond as we currently do for the PVB. Section 3.1.34 details our collections plan for the City, based on our proven and successful PVB collections model

*Our proven exception processing for fleet, rental, and governmental tickets can greatly improve the safety of the citizens and visitors to the City of Columbus.*





**City of Columbus  
Ohio Photo Red Light Enforcement System**

Based on the law and processing rules of the jurisdiction, ACS' system produces separate notices that have different language from the routine first notices, specifying that the group owning the vehicle can identify the driver of the vehicle. These notices are tracked separately to identify payment and adjudication rates. In some jurisdictions, the governmental notices are delivered separately to the owning agency, so the public safety agencies can determine if the vehicle was on official duty at the time of the violation. In Virginia, where rental and fleet vehicles are exempt from the red light law, Alexandria and other cities have instituted a courtesy notice to these owners, which results in a closure rate of 60-70 percent. In Washington, DC, where the parking and red light program has an established rental and fleet program, ACS has been authorized to utilize those records to identify the tags with the owning agency to minimize work on the part of the city staff. ACS recommends the City consider a similar process for the red light program, where three notices are mailed; the initial citation, follow-up reply, a pre-judgment, and registration hold, although we realize this notice type is not allowed for the red light program.

*Combining our PVB parking and photo red light databases creates convenience for the citizens and increased collections for the City.*

With the City's approval, ACS will integrate the photo red light enforcement program data with the existing PVB parking violations program data, creating a single, integrated database for both projects. By creating this single database, ACS can immediately offer the citizens of Columbus one phone number to call to make a phone payment and one web site to visit to make online payments. If the City elects to have the PVB provide the telephone customer service, citizens will have one number to call to receive phone service and a central service office to make walk-in payments.

In addition to these customer conveniences immediately created by our integrated parking and red light database, the City will also enjoy higher collections. Because parking and red light data will reside on the same database, ACS will be able to send targeted collection notices, informing citizens that they have, in some cases, delinquent parking and red light tickets outstanding. Citizens with red light and parking tickets will often pay off both debts from these single, targeted notices, increasing the average fine amount paid by each citizen. Further, the City could review its business rules for boot eligibility of vehicles and include photo red light tickets in the methodology. For example, a person with one outstanding parking ticket and one outstanding red light ticket may not be boot eligible if the information was kept on separate databases. However, with ACS, the two tickets would be included together and their total may push a violator into boot eligibility, creating more enforcement teeth for both programs and increasing collections. Lastly, our pay-by-phone and pay-by-web systems are set up to prompt citizens who have paid off one violation to consider paying off all other outstanding violations. For example, if a citizen has one parking and one red light ticket outstanding and they go online to pay off the parking ticket, our pay-by-web system will ask them if they wish to pay off their outstanding red light ticket while they are on line. Our his-

**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

torical data shows that, on average, because of this feature, average online payment amounts are typically 15% higher than mail in payments.

Please turn to Section 3.1.34 for a detailed discussion of our collections methodology for this program.



### 3.1.11 Court Testimony

#### HIGHLIGHTS

- ACS will provide all required expert testimony and evidence
- All violation images, account data, and violation video available online for hearings
- One stop adjudication center for all parking and red light hearings possible through PVB and ACS
- Administrative adjudication eliminates burden on court and leverages existing PVB resources
- ACS administrative adjudication system already in-place and operating at Columbus PVB today

*ACS will provide the City of Columbus with the most comprehensive adjudication support system possible, thereby maximizing the closure rate for photo enforced violations.*

---

#### City of Columbus Options

---

To be successful, the City of Columbus' Photo Red Light Enforcement Program must achieve two key goals:

- Create certainty of enforcement
- Create a certainty of a fairness

If driver behavior is to change in the City, violators must believe if they run a red light, the camera system will detect and capture their violation, the violation processing system will obtain an accurate name and address, diligent noticing and collections will hold them accountable, and camera evidence will hold up in a court of law.

Certainty of enforcement will ensure violators are held accountable and promote change in driver behavior. However, to achieve program support and acceptance from the public, the City's program must also create a certainty of fairness. Citizens must know the City is not operating its program to generate revenue, but rather to dramatically improve public safety. ACS' proposed public information and education campaign will support the City in ensuring this message is heard. To ensure citizens believe they are being treated fairly by the program, convenient and high-quality customer service must be provided.

---

---

ACS details its technical solution throughout this proposal, discussing our camera and violation processing solution that will ensure certainty of enforcement is achieved. Further, our proposal details our public information and education plan and customer service solution that will contribute to a perception of fairness for the City's program.

**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

A citizen's ability to conveniently schedule a hearing and the City's ability to (1) quickly and fairly administer that hearing and (2) produce conclusive and credible evidence and expert testimony will also contribute to the public's perception of program fairness.

ACS is prepared to support the City's Photo Red Light Enforcement Program in the event the City chooses to:

- Schedule and facilitate hearings through the Court
- Schedule and facilitate hearings through the Parking Violations Bureau

If the City schedules and facilitates hearings through the Court, ACS will develop the required interfaces with the Court's information management system, ensuring all disposition status is updated nightly. We will also provide the Court with a PC workstation to allow judges and other authorized personnel to view all violation data, images, and violation video online during hearings. We will also provide the Court with all required expert testimony and evidence, as required by the RFP.

If the City elects to administratively adjudicate red light tickets through the Parking Violations Bureau (PVB) rather than the Court, ACS is best positioned to support the PVB as the PVB currently uses our proposed Ticket Information Management System (eTIMSSM) today to schedule every parking hearing, review all account data, enter dispositions, enter payments, and process all violations. With ACS, the City and the PVB can create a single, one stop customer service and adjudication center for both parking and red light violations. With ACS, citizens will only have one number to call to schedule hearings for violation and one center to visit for hearings - contributing to the public's perception of program fairness. Further, the PVB staff will benefit from their current working knowledge and expertise with eTIMSSM adjudication subsystem. There will be a very short training and learning curve for the PVB administrative adjudication staff. ACS recommends administrative adjudication and use of the PVB staff over Court for these reasons. In addition, administrative adjudication would remove the program's hearing burden from the Court.

Our comprehensive adjudication system enables scheduling; preparation of case files; notification of hearing dates, times and locations; and maintains statistics on performance. ACS designed and implemented review features into eTIMSSM and built our adjudication hearing subsystem to meet the precise needs of the citation-hearing environment in the City of Columbus. We have modified this system to meet the photo enforcement arena, with its requirements for documentation to support the violation such as field service maintenance logs and image evidence of the violation. Authorized City staff will be able to access all adjudication information and as changes or additions occur, the system will automatically update the files.

As mentioned earlier, our eTIMSSM adjudication system is already proven and in place in the City of Columbus. We encourage the evaluation committee members that have not visited the PVB to conduct a site visit and tour of this facility and observe our adjudication system.

---

### **Court Evidence Package**

---

*ACS will perform all functions related to the intake and preparation of court requests effectively and in a timely manner to provide the best level of customer service.*

ACS will meet with the City to tailor appeal packages to include all detail and items necessary for the Solicitor to properly conduct hearings. Our proposed services for adjudication support include:

- Receiving the initial appeal request
- Scheduling the appeal hearing between the citizen and the hearing board of the City
- Providing the Solicitor of the City Court with all background materials pertinent to the appeal
  - A copy of the citation under appeal
  - Clear digital images of the first and second violation photographs and close-up of license plate tag
  - Field service technician logs documenting that the red light camera was in proper working order at the time of violation
  - Any written correspondence received from the violator
  - Any other additional information that the Solicitor requests

In addition, judges or administrative hearings examiners will have PC workstation access to eTIMS<sup>SM</sup>, allowing violation account data lookup, violation image review, and violation video review online during hearings.

#### **3.1.11.1 Expert Testimony**

*ACS offers the experience and support of an expert witness to ensure that court cases are defended vigorously and successfully.*

ACS will always provide a strong presence in support of the adjudication process for the Columbus Red Light Traffic Signal Enforcement Program. No other vendor has as much experience with providing testimony support for adjudicating red light violations as ACS. Our technician(s) will provide expert testimony as to the accuracy, calibration, maintenance, repair documentation, technical operation, and equipment effectiveness of the technology and system of inquiry to support the City's prosecution of contested violations. To obtain this designation, the technician must complete a rigorous set of training in the operation, maintenance, and scientific principles behind the camera, flash unit, detection loops, and the connection to the City's Intersection Controllers. All expert witnesses will be provided by ACS to the City of Columbus at no additional expense.

---

---

As was previously discussed, eTIMS<sup>SM</sup> has the functionality to notify operators and technicians of the date and time of adjudications.



### 3.1.12 Service Center Facility

#### HIGHLIGHTS

- Established City of Columbus Office currently up and running
- Easy and convenient client access
- ACS understands the importance of a local presence
- A more expeditious program start-up

ACS understands the importance of a local presence in the City of Columbus. Not only does opening a local office allow for a closer partnership with the customer, but it also signifies the vendor's commitment to become an active participant in the city's community. ACS already has a fully staffed and functional operations office in the City of Columbus, located at 2222 Dividend Drive. This office is currently home to our City of Columbus Emergency Medical Service program and our International Registration Plan contract with the State of Ohio's Department of Public Safety.

ACS' Ohio Cities Manager, John Lane, will be based out of our 2222 Dividend Drive project office along with our Digital System Technician responsible for routine and non-routine camera maintenance.

Because our proposal local project office is already up and operational, ACS is placed in a unique position to ensure on-time startup of the City of Columbus Red Light operation at the lowest possible cost to the City.

In the event that the City elects to use the Parking Violations Bureau (PVB) for all violation processing and customer service, ACS will also continue to provide, support, and maintain our Ticket Information Management System along with all other required technology at the PVB as we do today for the City's parking violations processing services contract.

ACS' Staffing and Organization Plan for Implementation and Ongoing Operations are described in Section 3.1.14.2, Staffing and Organization.



### 3.1.13 Reports

#### HIGHLIGHTS

- Hundreds of standard reports
- Most flexible ad hoc reporting system available
- Web-based parameter-driven reporting
- Web-based tracking and review programs simplify oversight
- Specialized training maximizes issuance and minimizes City review
- Quality control checks and reporting for every step ensure auditability

*ACS has made a substantial investment in the hardware, software, and support staff to design, develop, implement and maintain a flexible, scalable, secure, and comprehensive reporting infrastructure to provide a robust framework for program managers to easily evaluate and monitor the success of their program and contract.*

We will provide the City of Columbus with our easy-to-use on-line eTIMSSM production reporting tool combined with our web-based real-time reporting tools to optimize the City managers' decision making tools.

The eTIMSSM Management Reporting subsystem utilizing Report Web, provides an extensive library of comprehensive, detailed, accurate, and timely management, financial, and operational reports to assist the City in managing its red light operations. Authorized users can view a full complement of eTIMSSM operational and statistical reports online through our customized Report Web software. The Report Web software has been designed to seamlessly fold into the City's overall report management solution. Now a standard eTIMSSM product, Report Web is an important tool in making information available to authorized City management and personnel.

The strength of the ACS reporting solution is that it will enable management to gain a comprehensive overview of system performance across all functional areas of the project. By fully integrating all project information systems through eTIMSSM, our solution provides for consolidated, reliable reporting of all citation processing activities.

Anticipation of the City's future needs is a key aspect of delivering high quality service in the red light arena. ACS' Report Web tool was developed to meet the needs of Columbus.

---

*Production of detailed reports by category will provide for meaningful dissemination of information to report recipients.*

---

~~Over the years, our team has worked with government officials to develop hundreds of~~ new reports to satisfy specific operational, management, and legislative needs. The current report library encompasses all aspects of program operations and analysis, with reports separated into distinct categories for management efficiency including:



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

- Program management
- Performance standards
- Operational statistics
- Revenue and financial reporting
- Management summary
- Transactional reports
- Reconciliation reports
- Contract compliance

Many of the reports will satisfy program needs as they currently exist; others can be easily tailored. New reports will be developed as necessary, at no additional cost to the City of Columbus.

Within each report group, data will be collated in three high-level categories: detail, summary, and management overview. The detail level reports will provide complete transaction information at the lowest functional level. These reports can be used for the reconciliation, control, and monitoring of daily transactions and day-to-day operations. Management overview reports provide department managers with key program data relevant to their areas of responsibility. This may include analysis of customer service data, receipts from ticket or out-of-state collections, or time of day activity. As needed, these reports will be provided to officials on a weekly or monthly basis for executive analysis.

Users can review and select an individual report within any of the categories. Reports are displayed in their entirety, and users can scroll through the various pages of data. Each selection is presented with a summary page highlighting total activity, and is followed by the detailed listing of all transactions. Any portion of the data, or the report in whole, can be saved to disk, transferred to another WAN user, or printed in hard copy.

*A history of reports is maintained, allowing users to access current reports for daily balancing or previous reports for research purposes.*

Once the user determines the desired category of reports, Report Web presents a list of all available reports within that category. From this list, the appropriate data is selected and the report is displayed. These simple steps provide rapid and efficient access to report data from any PC with access to the ACS wide area network. The access to historic data facilitates research and problem solving efforts.

*Online, web-based electronic reporting provides for the flexible and efficient dissemination of information, allowing the City of Columbus access to their data at their convenience.*

---

Virtually all reports are maintained online, via the web, allowing authorized users access to current reports for daily balancing or previous reports for research purposes. Exhibits 3-53 and 3-54 show examples of this powerful tool.

---

---



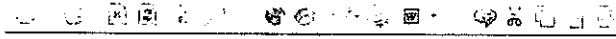


City of Columbus  
Ohio Photo Red Light Enforcement System

The screenshot displays the CiteWeb application interface. On the left is a vertical navigation menu with the following items: Canada, Maryland, Midwest, Boulder, Chicago, Denver, Metro, Northeast, Northern CA, Northwest, Southeast, Southern CA, and Southwest. The 'Midwest' region is selected, and the 'Chicago Database' is active. The main content area is divided into sections: 'Reports' with options for 'Location Issuance Analysis Report' and 'Approach Analysis Report'; 'Report Parameters' with 'Start Date (mm-dd-yyyy): 05-12-2003' and 'End Date (mm-dd-yyyy):' fields; and a 'Generate Report' button. A 'Calendar' window is open, showing the month of May 2003 with dates 1 through 31. A 'Generate Report' button is also visible next to the calendar. At the bottom, a status bar shows 'Start' and a series of small icons.

Exhibit 3-53. Using CiteWeb, authorized users select the report, data range, and location to view standard reports.

**City of Columbus  
Ohio Photo Red Light Enforcement System**



<b>Total Events</b>	<b>13153</b>	<b>100%</b>
<b>Non Citables</b>	<b>5716</b>	<b>43.5%</b>
Right Turn - No Violation	756	6%
Technician Testing	440	3%
No Violation Occurred	4215	32%
Emergency Vehicle	180	1%
Dealer Tag	12	less than 1%
Funeral Procession - No Violation	113	1%
<b>Total Possible violations</b>	<b>7437</b>	<b>56.5%</b>
<b>Initial rejects</b>	<b>1598</b>	<b>22.6%</b>
<b>Controllable</b>	<b>393</b>	<b>5.3%</b>
Dark Environment	54	less than 1%
Equipment Malfunction	43	less than 1%
Clarity of Plate	283	2%
No Signal Head	2	less than 1%
Exposed	11	less than 1%
<b>UnControllable</b>	<b>1305</b>	<b>17.5%</b>
No Plate	62	less than 1%
Glare on Plate	388	3%
Plate Obstructed	385	3%
Green Light -- 2nd photo	244	2%
Uncontrollable	2	less than 1%
Plate Damaged	17	less than 1%
Car Obstructed	103	1%
Temp Tag	103	1%
DMV No Hit	1	less than 1%
<b>Total Issued</b>	<b>5739</b>	<b>77.2%</b>
<b>Total Issued as % of Controllable Only</b>	<b>5739</b>	<b>53.6%</b>



©1998-2003 ACS State And Local Solutions, Inc. All rights reserved.

The information contained in this website contains private violator data that is highly confidential in nature and is subject to the regulation of state and local laws relating to the storage and misuse of such data. By accessing the you agree not to use such data for any other reason or for any other purpose than as set forth herein.

**Exhibit 3-54. Reports can be viewed online or written to a variety of formats, including HTML and .pdf and imported into Excel and Word.**



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

Our system easily generates histograms, which shows frequency of data, such as the number of violations per hour per intersections or the number of violators going specific speeds. We will work with the City to develop specific reports for submission at hearings and other purposes as required. See example histograms and reports that are available to the City online in Exhibits 3-55 through 3-59). The data parameters of each of these reports is set online by the City user.

We will work with the City program managers to ensure that they are 100 percent satisfied with the type, format, and content of our powerful reporting tools.

City of Columbus  
Ohio Photo Red Light Enforcement System

Graphical Speed Distribution  
WinnipegPR  
For 1/1/2004 to 1/31/2004  
All Locations  
All Lanes

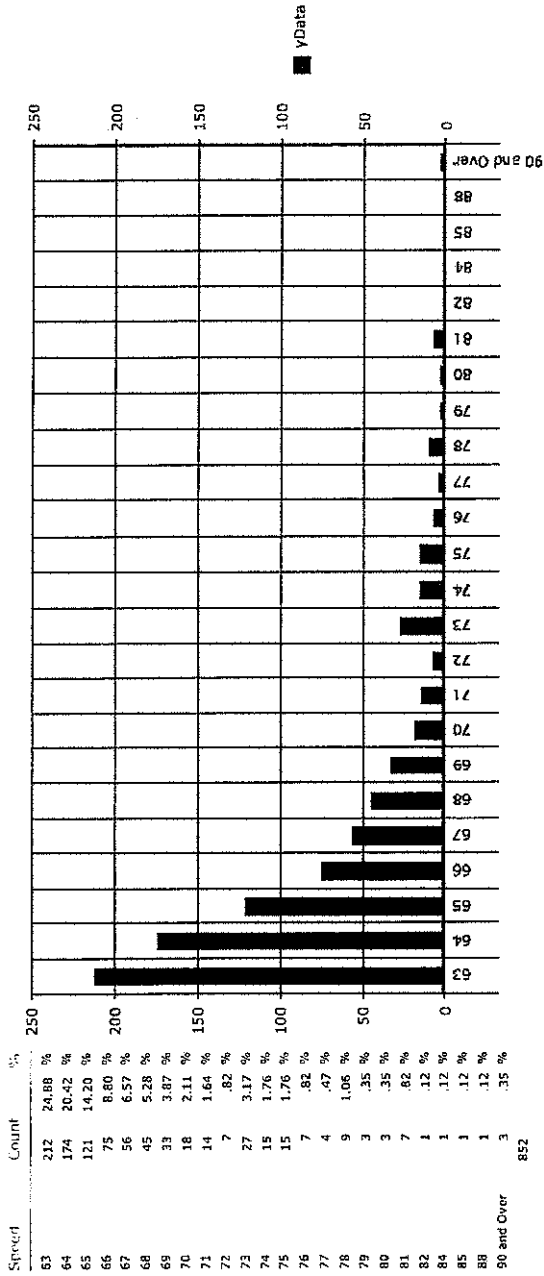


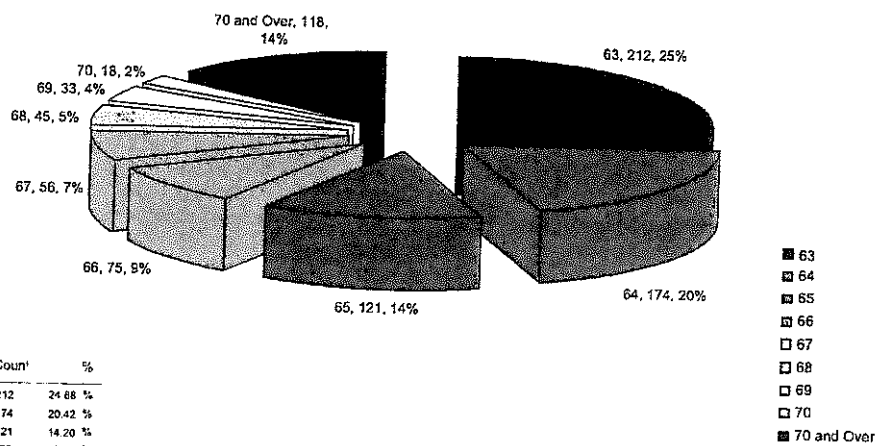
Exhibit 3-55. Diagram data can be displayed in a number of charts and graphs.



**City of Columbus  
Ohio Photo Red Light Enforcement System**

**Graphical Speed Distribution**

WinnipegPR  
For 1/1/2004 to 1/31/2004  
All Locations  
All Lanes



Speed	Count	%
63	212	24.88%
64	174	20.42%
65	121	14.20%
66	75	8.80%
67	59	6.97%
68	45	5.28%
69	33	3.87%
70	18	2.11%
70 and Over	118	13.85%
<b>Total</b>	<b>852</b>	<b>100%</b>

*Exhibit 3-56. Pie charts displaying graphical program data are just a click away.*

### Graphical Hour Distribution

Raleigh  
For 1/1/2004 to 1/31/2004  
All Locations  
All Lanes

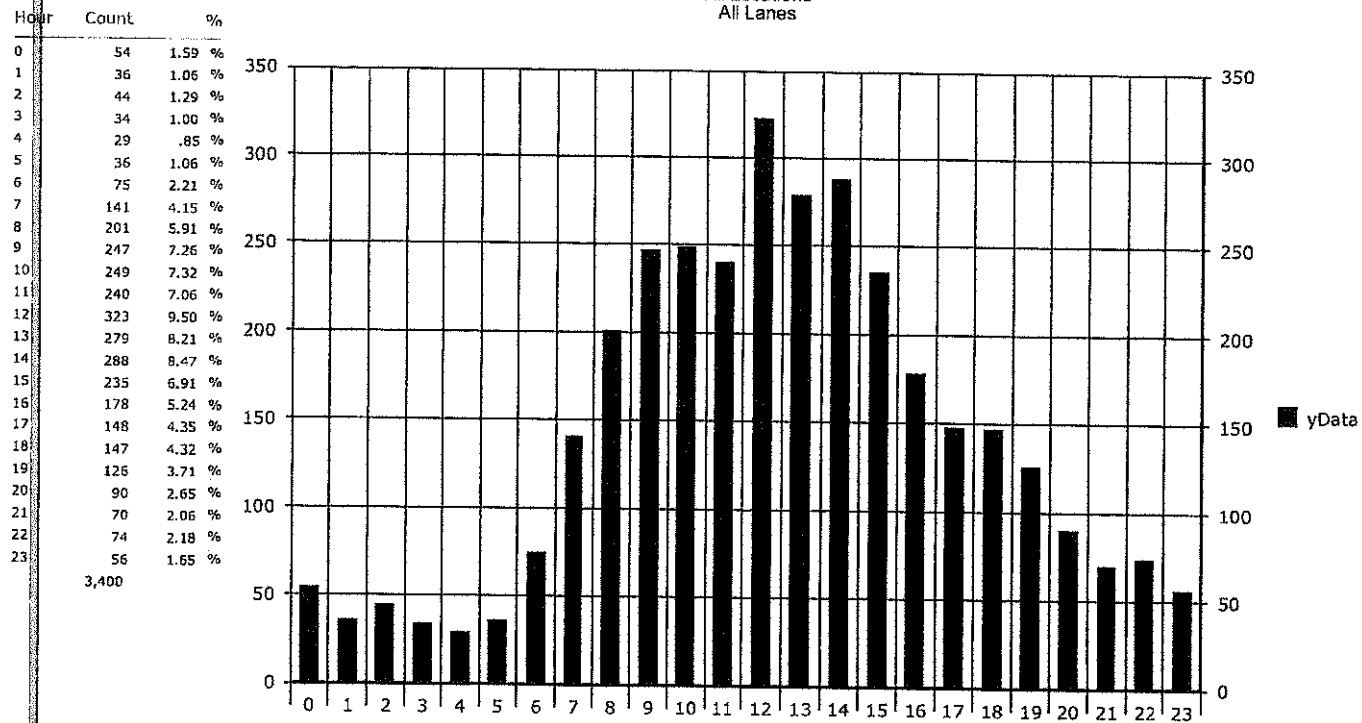


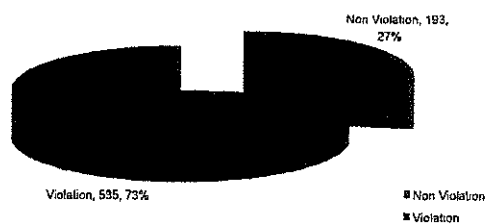
Exhibit 3-57. Graphical view of all violations during January by number and time of day.

City of Columbus  
Ohio Photo Red Light Enforcement System

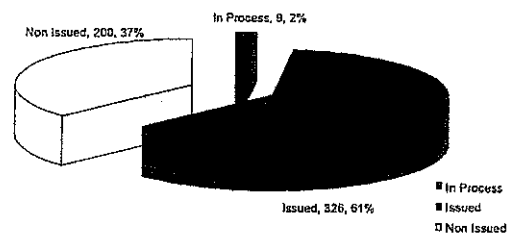
Graphical Client Summary

WinnipegRL  
For 5/1/2004 to 5/31/2004  
All Locations

Events Count: [Violations] vs. [Non Violation]



Violations Count: [Issued] vs. [Non Issued] vs. [In Process]



023 CPRL04

Exhibit 3-58. Event and Violation Counts available in any date range selected by the city using our on-line reporting system.



City of Columbus  
Ohio Photo Red Light Enforcement System

Graphical Speed Distribution

WinnipegRL  
For 1/1/2004 to 1/31/2004  
All Locations  
All Lanes

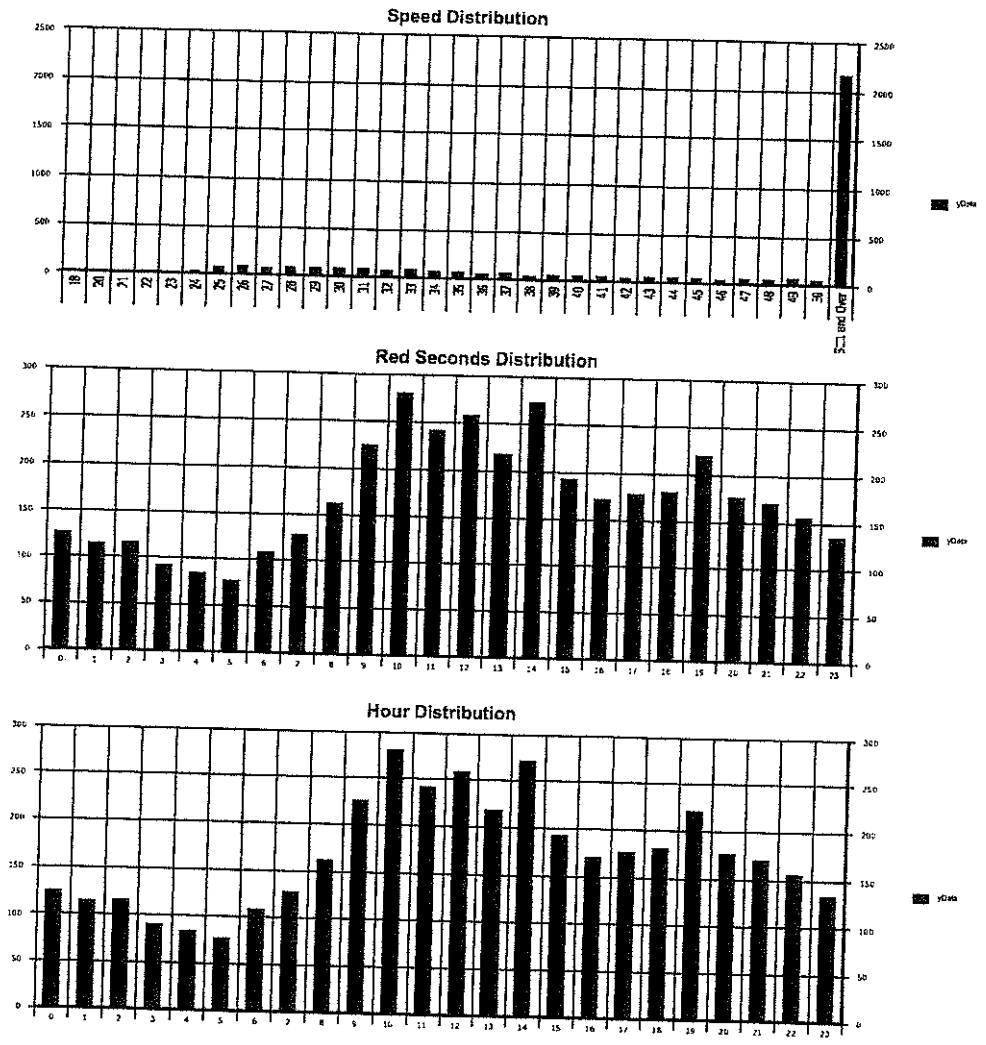


Exhibit 3-59. ACS online reporting systems allow City employees access to powerful graphs and data displaying key program data.





### 3.1.14 Equipment Service Level Agreements

#### HIGHLIGHTS

- ACS will have five cameras up and running within 90 days of notice to proceed
- ACS is the most experienced vendor in the photo enforcement industry, with over 750 site approaches installed
- ACS has the proven ability to submit quality drawings and receive permits in a timely fashion, assuring the integrity of the existing traffic signal system
- ACS has committed a team with unmatched experience to implement the City's Photo Red Light Enforcement Program
- The ACS Quality Control solution assures that all systems adhere to design and performance standards at project launch
- ACS leverages existing violations processing and management infrastructure for fastest possible program startup
- ACS has assembled a project team of professionals having extensive experience in the design and installation of communications systems and traffic control equipment in the City of Columbus

ACS is the leading provider of photo enforcement systems and services in North America, and has successfully installed photo enforcement systems for more than 750 approaches across the U.S. and Canada. We bring the City of Columbus unmatched expertise and experience in site analysis, drawing specification, permitting, and installation of camera systems.

As the only photo enforcement company that maintains an in-house staff of Construction and Intersection Planning experts, ACS is able to respond promptly to our client's requests. In addition, our proven ability to manage working relationships with service contractors provides assurance of our ability to deliver to the highest quality professional services.

---

#### Site Selection

---

*By leveraging our extensive experience in engineering analysis at over 4,000 intersection approaches nationwide, ACS has developed a proven decision support methodology. Our expertise is available to the City of Columbus to aid in the selection of appropriate, at risk locations for their red light cameras.*

---

According to a recent report by the Institute for Transportation Research and Education at North Carolina State University, "cameras will invariably reduce red light running violations," and "in some cases, cameras should also reduce crashes, if camera locations are chosen properly." To maximize the safety impact of its Photo Red Light Enforcement Program, it will be critical for the City to properly and accurately identify the most at-risk intersections.

No single factor will provide a completely accurate assessment of an intersection's suitability for photo enforcement. In order for the City to select the most optimal intersections and approaches, a number of factors must be taken into account. These factors include:



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

- Angle accident data history
- Traffic volume at the approach
- Citation history
- Traffic signal cycle information
- Posted speed
- Topography
- Intersection geometry
- Type of environment (commercial, residential, urban, rural, etc.)
- Usage patterns
- Actual violations observed during the initial phase of the project

It is our understanding that the City of Columbus will be solely responsible for selection of intersections for the Photo Red Light Enforcement Program. However, ACS is prepared to provide comprehensive decision support services for the site selection process as an optional service. A sample report based on this optional service is included in Appendix B for your reference.

---

**Design Approvals and Submission of As-Built Drawings**

---

ACS refuses to take short cuts in the site selection, drawing, or installation process. We have learned the importance and value of submitting high quality, detailed drawings to city and state agencies. These agencies will not accept anything less than accurate plans drawn to their specifications—delays will be lengthy for poor submissions. It is ACS' policy to retain a local engineering firm thoroughly familiar with all codes, ordinances, and standards for providing drawings on all contracts. ACS is pleased to include on our team the well established firm of M•E Companies to provide engineering services for the Photo Red Light Enforcement Program. Prior to developing any plans, ACS engineering staff and the selected engineering firm will meet with City engineering and planning staff to ensure that when plans are submitted for approval, they are in accordance with established City design standards, format and protocols. Following construction, ACS will provide stamped as-built drawings to all agencies as required.

**Installation**

*ACS, leveraging its experience, dedicated implementation team, and existing infrastructure, will complete installation and commence live operations of the first five red light enforcement cameras within 90 days of Notice to Proceed (site approval).*

---

The City of Columbus seeks a vendor with the financial resources and capability to ensure the successful start up of its Photo Red Light Enforcement Program. ACS is confident in its ability to meet an aggressive implementation schedule for a number of key reasons, including:

---

*Proven Track Record/Experience Throughout North America*—ACS has successfully installed more than 750 automated red light camera system approaches and completed intersection analysis on more than 4,000 intersection approaches throughout North America. Projects of comparable scope to the City's include the following major cities, whose programs were at times implementing concurrently:



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

- **Washington, DC**—Installed 40 cameras in four months, including all site analysis and video validation
- **Los Angeles**—Working directly with the Department of Transportation, evaluated over 300 intersections with video validation at 70; supervised DOT construction of 32 camera systems
- **San Francisco**—Installed 38 systems with very complicated construction issues, including site analysis and video validation
- **Baltimore**—Installed 48 cameras based on two-year program of site evaluation and video analysis at over 100 intersections

ACS has a clear understanding of every critical step required to ensure successful analysis, design, and installation of equipment in the field and successful build-out, training, systems design, and violations processing startup activities in the office. In this proposal section, ACS provides a detailed linear responsibility matrix, implementation organization chart, functional organization chart. At the end of this Section, we provide a detailed Microsoft Project work schedule to demonstrate our knowledge of all critical startup activities. These sections provide a comprehensive schedule and plan for ensuring that implementation occurs on time. We are confident that our performance will exceed the City's expectations.

*Proven, Local Construction and Engineering Partners*—Because of the aggressive implementation schedule, it is important to bring experienced professionals to the implementation team with solid experience in the local environment. ACS will assemble a team of highly qualified, professional firms to design and install equipment for the Photo Red Light Enforcement Program. ACS is pleased to offer M•E Companies to provide engineering and permit processing services. M•E Companies, with six offices located throughout Ohio, including Columbus, is a full service consulting engineering and construction management firm specializing in public transportation and traffic management projects. ACS is also pleased to offer McDaniels Construction to provide electrical installation services. McDaniels Construction, one of Ohio's most respected contractors, has been providing transportation infrastructure construction services since 1985. McDaniels has provided services to the City of Columbus on numerous projects, and a solid understanding of the local codes and city policies necessary to bring the Photo Red Light Enforcement System into service on time. It is ACS's policy to always use local subcontractors to take advantage of their knowledge of City ~~planning and inspection policies and procedures, assuring the City of a smooth program start-up.~~



~~*Ability to leverage existing City of Columbus and PVB violation processing and management infrastructure*—ACS has served as the City's parking violation processing vendor for more than 20 years. Today, our Ticket Information Management System, noticing and collection strategies and procedures, pay-by-web, pay-by-phone, and integrated voice response systems, and local management team are already in place and successfully operating in the City. As discussed throughout this proposal and in this section, ACS offers the City two distinct program options (1) ACS provides a stand-alone, turnkey photo red light pro-~~



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

gram where we are responsible for all camera and processing functions, with the exception of final notice approval (which will be handled by the police) and (2) the City elects to leverage the existing Parking Violations Bureau staff and system infrastructure, integrating the red light program into the parking ticket processing operation. In either case, so much of the infrastructure required to implement and operate back office processing is in place that program startup will be dramatically simplified.

*Dedicated, Stand Alone Implementation Team Separate from Ongoing Project Team*—Based on our implementation experience, we understand the enormous level of effort required to meet the City's timeline. ACS has learned the importance of deploying a focused and dedicated implementation team to ensure the successful startup of its projects. Implementation efforts require a unique set of skills and an incredible amount of dedicated focus from a team of implementation professionals. ACS offers the City an implementation team rich in experience to focus solely on ensuring that the first five cameras and all back office functions are ready and operational within 90 days of Notice to Proceed.

Our implementation plan, including our implementation project team, responsibility matrix and proposed schedule, are detailed in the following sections.

---

**ACS Implementation Project Team**

---

ACS is dedicating its most experienced implementation team to this project, as shown in Exhibit 3-60 - 3-61. This exhibit demonstrates our understanding of the functions to be performed by each team member. Michael Schlei will head the ACS implementation team. Mr. Schlei is currently the Director for the Implementation Group for ACS Public Safety Solutions. He has been directly responsible for successful new program startups, which included new processing centers, in Providence, Baltimore and Hawaii, all of which were launched on time. He also oversees approximately 125 new camera installations each year. The following experienced ACS photo enforcement team members will assist Mr. Schlei.

**Lisa Sutter**—Senior Manager for ACS Public Safety Solutions will lead the processing and production operations group. Lisa has been the Program Manager for the Washington, D.C. red light camera program, and assisted with the implementation of programs in Alexandria, Virginia and Arlington, Virginia.

**Andrea Hughes**—Senior Operations Manager for our largest processing center in Washington, DC. Responsible for processing almost a million events a year for 12 clients in 3 states, Andrea has fine-tuned all aspects of our daily operations. She will serve as the interim Program Manager until a local, Columbus-based Project Manager is identified and fully trained.

---

**David Shive**—Senior Systems Manager will oversee all aspects of the network, FTP, and communications elements of this implementation. Responsible for every large-scale implementation and on-going operations for all of our clients in the Mid-Atlantic Region, David is uniquely qualified to work with the City's technology team to maximize uptime and communications for the cameras and our operations center in Columbus.

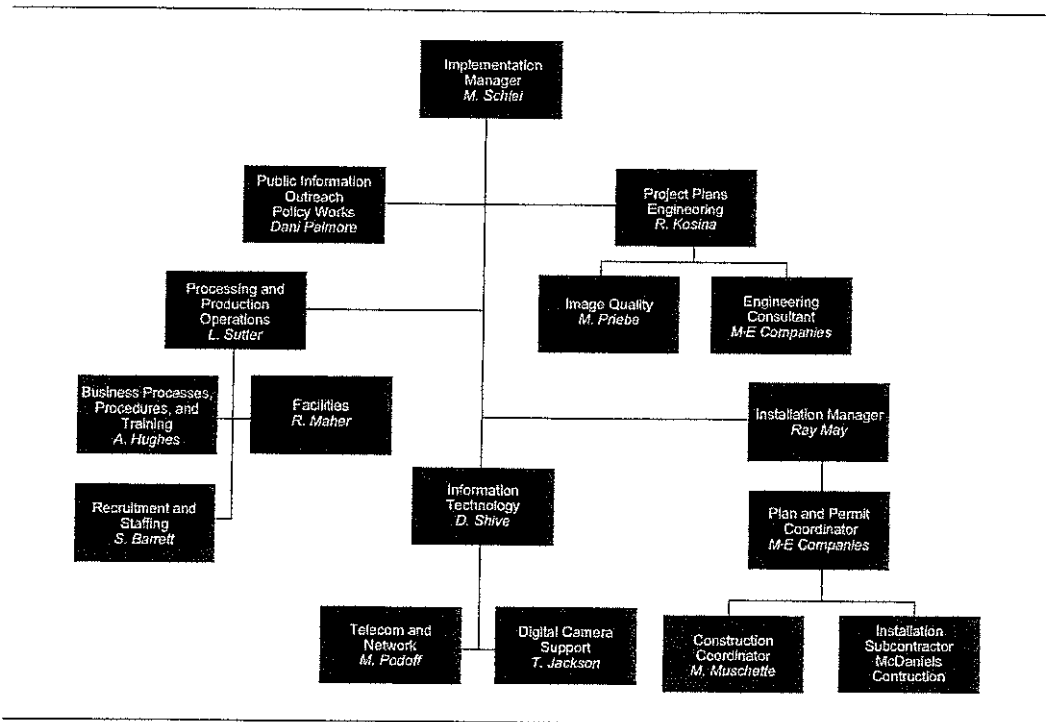
---

---



**City of Columbus  
Ohio Photo Red Light Enforcement System**

**Implementation Team**



053 CPRL04

**Exhibit 3-60. ACS Implementation team combines our national photo enforcement expert with local, seasoned City of Columbus professionals.**

Functional Organization Chart

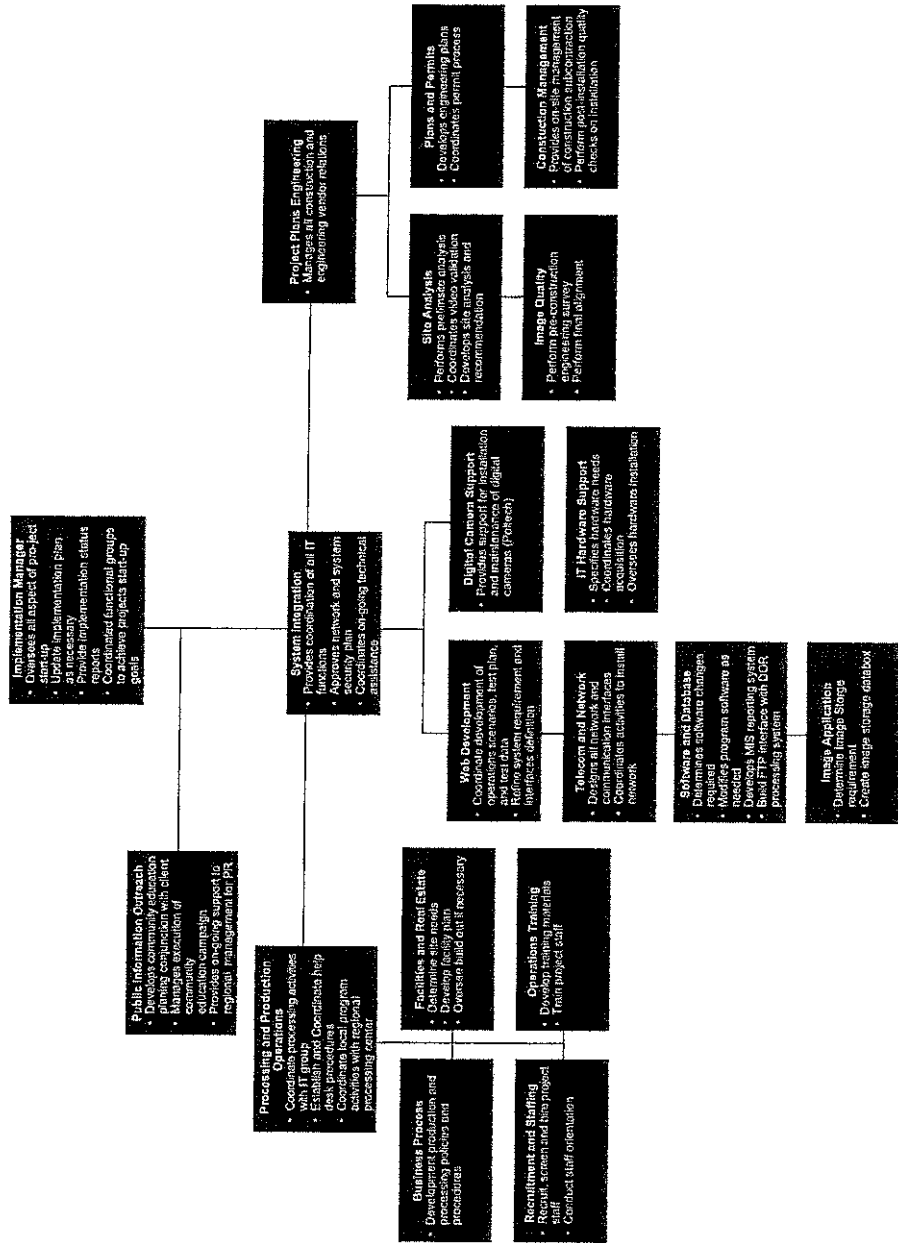


Exhibit 61 ACS' experienced team will ensure a seamless implementation.

054 CIPRL04

Ray May – Manager of Construction for ACS Public Safety Solutions. Ray will lead the construction and engineering group. Ray has personally overseen more than 400 red light camera installations, and is the subject matter expert on construction issues for ACS Public Safety Solutions.

ACS is proud to be able to offer this level of experience and expertise to the City of Columbus. ACS is well aware that this is a major, high profile project being implemented in an important metropolitan city. There is no room for inexperience or time to get over



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

any learning curve. This project will challenge experienced professionals. No other vendor has our experience with large, complex project implementations, nor can they match the range of capabilities and depth of experience being assembled by ACS for the Columbus Photo Red Light Enforcement System. Resumes of all key implementation team members are included at the end of Section 3.1.14.2.

---

**Construction**

---

ACS is prepared to provide 5 working camera systems at intersections approved by the City within 90 days of final site selection. ACS maintains a highly experienced, in-house construction management staff that will work closely with our electrical subcontractor to install all equipment. ACS is pleased to include on our implementation team McDaniels Construction, a leading construction firm with extensive experience working on transportation infrastructure projects for the City of Columbus, to install all image capture systems at the selected intersections.

For a detailed explanation of construction tasks and schedules, please see the implementation timeline and linear responsibility table included at the end of this section.

---

**Operations Facility**

---

ACS has an established operations center in downtown Columbus at 2222 Dividend Drive. Within the Columbus Operations Center, ACS will facilitate:

- Management
- Business operations analysis
- Field maintenance and repair
- Communications and network support

For a detailed explanation of processing operations tasks and schedules, please see the implementation timeline and linear responsibility tables.

---

**Quality Control**

---

A high profile project such as the Photo Red Light Enforcement Program demands a robust quality control program. It is critical for the initial public acceptance of the program that systems be installed on time, and work properly from the beginning. Delays and poorly implemented processes will undermine public confidence and raise questions as the legitimacy of the program. ACS is highly sensitive to these issues.

---

The ACS solution is designed around a system of weekly implementation team conference calls, and eight rigorous, predetermined quality control reviews. Weekly implementation team conference calls provide management with progress reports on each phase of the implementation. Any slippage in schedules is identified, and adjustments made so that the overall project timeline is not compromised. The eight quality control review points (see Project Work Plan) are designed to manage the implementation process on a modular basis. Upon completion, each module is reviewed for performance and adherence to design standards. Quality control reports are written for each



**City of Columbus  
Ohio Photo Red Light Enforcement System**

module, upon completion, and a complete quality control report, including all documentation is compiled for inclusion in the Technical Manual produced at the completion of the project implementation.

---

**Transition and Service Options**

---

Among the many lessons ACS has learned in becoming the leading provider of photo enforcement services is that it is important to consider the transition from implementation phase to production phase during the initial program planning process. Unless this transition is part of the plan, there will be no operational continuity and an increased likelihood of enforcement and/or processing disruptions during the program launch. ACS has planned for the transition in two ways:

- 1) Much of the implementation team has been assembled from the Mid-Atlantic regional staff. This means that start-up personnel will already be familiar with the Columbus Photo Red Light Enforcement Program operations and will be available on an ongoing basis to provide support in the post-implementation (production) phase.
- 2) ACS, as noted throughout this document, offers the City of Columbus several processing options for the Photo Red Light Enforcement Program. Both of these options take advantage of existing operations, greatly simplifying the implementation component of the project.
  - In the first option, compliant with the RFP specifications, ACS offers the City a stand-alone, turnkey solution. Under this turnkey, stand-alone option, ACS provides all camera technology and maintenance and processes all violations, mail, and payments – City staff will only be responsible for approving citations over the internet. ACS will provide management and technical support functions from our existing Columbus, OH office at 2222 Dividend Drive. While this option requires some additional staffing and build-out of existing facilities, it takes advantage of a number of established resources, simplifying the implementation process. For example, if allowed, ACS would integrate red light and parking tickets into a single database. As a result, ACS could use our existing City of Columbus pay-by-web and pay-by-phone systems for the red light program with just a few system modifications. Further, the City would have the benefit of local management, the responsiveness of local technical support, and the operational strength of a regional processing center.
  - The second option, recommended by ACS, is the integration of processing activities into the existing Columbus Parking Violations Bureau (PVB). The Columbus PVB already uses the ACS ticket processing and database software. Integration of the Photo Red Light Enforcement Program into this existing operation would require little more than modification of existing functions, training of staff already familiar and experienced with the basic software system, and modification of existing IVR and pay-by-web functions. Under this scenario, the implementation involves primarily installation of the image capture systems at the intersections. The processing operation is already in place.





**City of Columbus  
Ohio Photo Red Light Enforcement System**

3) Whichever option best meets the needs of the City, Chad Collins, proposed project manager, and John Lane, ACS Ohio Cities Manager, will work directly with Michael Schlei, Implementation Team Leader, and Andrea Hughes, Senior Operation Manager, and will have a thorough understanding of all operations prior to program launch.

**Implementation Timeline and Responsibility Assignments**

Following is a linear responsibility matrix showing responsibility for each task by functional area. A Microsoft Project Gantt chart (at the end of this section), together with the organizational charts provided above, provide a detailed plan that includes:

- Definition of the Implementation Team
- Designation of tasks and assignment of responsibility
- The schedule under which ACS proposes to execute the implementation plan

The implementation timeline assumes a notice to proceed issued by September 2004, with the first five cameras installed and processing facilities operational by the first week in February. ACS proposes to have all support functions operational in Columbus by mid-January. Obviously, a much quicker start up is possible if notice to proceed is moved to an earlier date.

<b>Linear Responsibility Table</b>										
	Regional Management	Implementation Team Leader	Operations & Procedures	Recruitment And Staffing	Facilities	Training	Information Technology	Construction/Implementation	Engineering	Community Education
<b>Recruiting and Hiring</b>										
Draft Employment Advertisements	✓	✓		✓					✓	
Place Employment Advertisement				✓						
Perform Initial Screening				✓						
1st Interviews				✓						
Hiring Decisions	✓		✓	✓						
Reference Checks										
Drug Tests				✓						
Offers Made				✓						
Notify Benefits Coordinator				✓						
<b>Training / Orientation</b>										
Staff Orientation	✓	✓				✓				
Image Viewer			✓			✓				
FST/Digital Tech						✓			✓	
<b>Intersection analysis and design</b>										



City of Columbus  
Ohio Photo Red Light Enforcement System

**Linear Responsibility Table**

	Regional Management	Implementation Team Leader	Operations & Procedures	Recruitment And Staffing	Facilities	Training	Information Technology	Construction/Implementation	Engineering	Community Education
Review Initial Intersection Analysis		✓						✓	✓	
Determine Initial Installation Sites	✓	✓						✓	✓	
Finalize Specifications Including Color		✓						✓	✓	
Order Equipment								✓		
<b>Construction and Camera Installation phase I (5 cameras)</b>										
Plan Development								✓	✓	
Obtain Necessary Permits								✓		
Receive Equipment								✓		
Construction (5 Sites)		✓						✓		
Alignment And Testing									✓	
Final Sign-Off	✓	✓						✓	✓	
Test Period (30 Days)	✓	✓						✓	✓	
<b>Construction And Camera Installation Phases II-IV</b>										
Plan Development								✓	✓	
Obtain Necessary Permits		✓						✓		
Receive Equipment								✓		
Construction (2 Sites)		✓						✓		
Alignment And Testing									✓	
Final Sign-Off	✓	✓						✓	✓	
<b>Technical Solution</b>										
ID Operational Architecture						✓				
Operational Flow Chart		✓				✓				
Network Design Document						✓				
Finalize System Requirements		✓				✓				
Hardware/Software Requirements						✓				
Submit Equipment List						✓				
Hardware/Software CAPX Submitted	✓	✓								
Hardware/Software CAPX Approved	✓	✓								
Order Equipment		✓						✓		
Receive Equipment								✓		
Configure Equipment								✓		
Install Equipment								✓		



City of Columbus  
Ohio Photo Red Light Enforcement System

<b>Linear Responsibility Table</b>										
	Regional Management	Implementation Team Leader	Operations & Procedures	Recruitment And Staffing	Facilities	Training	Information Technology	Construction/Implementation	Engineering	Community Education
Test Equipment			✓				✓			
<b>Software Modification/Development</b>										
Evaluate CITEWARE Mods Needed			✓				✓			
Modify CITEWARE As Required			✓				✓			
Dry Run Operations With Test Data		✓	✓				✓			
Operational Test		✓	✓							
Go Live	✓	✓	✓				✓			
<b>Client Training</b>										
Establish Client Groups To Be Trained	✓	✓	✓			✓				
Management Team		✓	✓			✓				
Police Department			✓			✓				
DOT			✓			✓				
Court Personnel			✓			✓				
Design Training Material			✓			✓				
Establish Training Schedule		✓	✓			✓				
Conduct Training			✓			✓				
<b>Contract Issues</b>										
Copies Of Signed Contract Distributed	✓									
Confirm Certification To Conduct Business In City		✓								
Obtain Required Licenses And Permits		✓								
Business License		✓								
Post Required Bonds And Surety	✓	✓								
Obtain Required Insurance		✓								
Ensure Doing Business As Forms Filed		✓								
Register For Payroll Taxes			✓							
Confirm Excise Tax Requirements			✓							
<b>Operations</b>										
Solution	✓	✓	✓							
Violation Volumes	✓	✓	✓							
Timeline		✓	✓							
Approval Process			✓							



City of Columbus  
Ohio Photo Red Light Enforcement System

<b>Linear Responsibility Table</b>										
	Regional Management	Implementation Team Leader	Operations & Procedures	Recruitment And Staffing	Facilities	Training	Information Technology	Construction/Implementation	Engineering	Community Education
Storage Requirements			<				<			
Evidence	<	<	<							
Data			<				<			
Images			<				<			
<b>Vehicles</b>										
Determine Type Of Vehicles		<								
Identify Source		<								
Order Vehicles		<								
Vehicle Insurance		<								
Establish Gas Accounts	<									
Get Commercial Tags		<								
<b>Business Rules</b>										
Work With Client To Define Rules		<								
<b>MIS Reporting</b>										
Establish List And Samples Of Existing Reports		<								
Determine With Client Which To Produce		<								
Determine If Custom Reports Are Required		<								
Develop Specification For Reports		<								
Develop Run Schedule For Reports		<	<							
Develop Any Required Reports							<			
Test Reports Using Test Data		<					<			
Make Modifications As Needed		<					<			
Implement New Reports	<						<			
<b>Public Information Campaign</b>										
Determine Timing, Format, Content Of PR Components		<								<
Review With Client		<								<
Implement PR Components										<
Kickoff/Press Conference	<	<								<
<b>FTP Integration</b>										
Meet with City staff to determine data transfer protocols	<	<	<				<			



City of Columbus  
Ohio Photo Red Light Enforcement System

<b>Linear Responsibility Table</b>										
	Regional Management	Implementation Team Leader	Operations & Procedures	Recruitment And Staffing	Facilities	Training	Information Technology	Construction/Implementation	Engineering	Community Education
ID Operational Architecture		✓	✓				✓			
Operational Flow Chart		✓	✓				✓			
Network Design Document		✓	✓				✓			
Finalize System Requirements		✓	✓				✓			
Modify Communications Software as Needed		✓	✓				✓			
Test FTP Integration			✓				✓			
<b>Violations Processing/Customer Service</b>										
Integrated Voice Response (IVR) System	✓	✓	✓				✓			
Pay-by-Web	✓	✓	✓				✓			
Online Cashiering	✓	✓	✓				✓			
TIMS Database Configuration	✓						✓			
Notice Design		✓								
Collections Strategy Design	✓	✓								
Customer Service Scripts	✓									



**City of Columbus  
Ohio Photo Red Light Enforcement System**

**Project Work Plan**



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

The chart below shows a side by side comparison of the two program/staffing options offered to the City.

<b>Columbus Program/Staffing</b>		
<b>Scope of Work</b>	<b>The ACS Model (responsible party)</b>	<b>The PVB Model (responsible party)</b>
Installation Schedule	ACS	ACS
Ongoing Maintenance	ACS	ACS
Initial Review	ACS	ACS
DMV and Verify/Reject Review	ACS	ACS
Secondary Review	ACS	ACS
Final Violation Approval (online)	Columbus Police Department	Columbus Police Department
Notice Generation	ACS	ACS
Collections	ACS	ACS
Telephone Customer Service	ACS	PVB
Mail and Payment Processing	ACS	PVB
Correspondence Imaging	n/a	PVB
Pay-by-Web**	ACS	ACS
IVR**	ACS	ACS
Online Cashiering**	PVB*	PVB
Hearing Scheduling	Court	PVB
Evidence Preparation	ACS	ACS
Expert Testimony	ACS	ACS
Public Information and Education	ACS & City	ACS & City
Hearings	Court	PVB Administrative Review

**Columbus Scope of Work and Responsibility Options.**

\* If PVB agrees, ACS will combine parking and red light databases, allowing the PVB to accept and process real-time walk-in payments.

\*\*ACS currently provides the PVB with pay-by-web, pay-by-phone, integrated voice response, online cashiering, and a correspondence imaging system. These systems can be used for the City's red light program almost immediately.

Regardless of the option the City chooses, our proposed team for the City's Photo Red Light Enforcement system will have the required skills, abilities, experience, and can-do attitude to perform project services. ACS' experienced personnel are extensively familiar with the intricacies of project start-ups and photo red light programs thereby minimizing risks inherent to operating a highly visible program. ACS offers a highly qualified staff to implement, operate, and maintain the City's Photo Red Light Enforcement program. Each staff member has the education and relevant past experience to enable him/her to provide the full range of services required. Resumes for the following key staff members are included at the end of this section.

**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

**Chad Collins, Project Manager, ACS**—Mr. Collins has over five years experience in program management, including his experience as ACS' current PVB project manager. He is already familiar with many Columbus business policies and rules and communicates with various project leaders allocated to Columbus PVB tasks to assure that they are completed expeditiously. He will be responsible for the day-to-day Columbus photo enforcement operations. He will track issuance analysis trends and develop strategies to assure that system uptime and violation issuance is maximized

**John Lane, Ohio Cities Manager, ACS**—Mr. Lane has over 19 years experience in violations processing management contract support and large-city violations processing management consulting. He assists the Director of both the Columbus and Cleveland PVB in ticket writing procedures, management communications with ticket writers, and budget development. Mr. Lane works with City officials to resolve day-to-day concerns and issues, conduct parking studies, develop ticket writer routes, and act as a liaison with our corporate officers. Mr. Lane will be available to the City on a daily basis to help resolve any program issues or concerns.

**Michael Schlei, Implementation Manager** - Mr. Schlei is one of our most senior implementation managers. He has directly overseen four project implementations and supervised over 200 camera installations. This experience, in conjunction with his broad management background, qualifies him to direct the efforts of the implementation team. He will develop and maintain the project schedule, monitor the team's efforts, and mobilize and deploy whatever resources are required to deliver a well functioning organization to the County.

**Johnny Whitehead, ACS Regional Manager**—Mr. Whitehead will have oversight responsibility for this project from implementation through ongoing operations. Mr. Whitehead, based out of our Mid Atlantic Regional Operations Center in Washington, DC brings more than 27 years in state and local government, including 21 years in law enforcement in the Baltimore County police department. Mr. Whitehead held various positions of increasing responsibility where he directed the activities of 1,300 employees in eight patrol precincts. Mr. Whitehead also served as Director of Operations, Maryland Department of Transportation, Motor Vehicle Administration for four years where he managed a staff of 900 employees working across 25 branches.

**Andrea Hughes, ACS Operations Manager**—Ms. Hughes brings more than 10 years of operations management experience to this project, including more than five years in photo red light violation processing experience. Ms. Hughes has been a key member of implementation teams responsible for starting up more than seven photo enforcement programs along the East Coast, including Washington, DC, Fairfax County, Providence, Raleigh, Baltimore, and Annapolis, and Wilmington, DE. Today, Ms. Hughes manages more than 15 full time staff that process more than 600,000 photo enforcement violations annually. Ms Hughes will oversee all ACS staff assigned to this project responsible for customer service, initial event review, secondary review, violation processing, first notice mailing, and payment and mail correspondence processing.

**Thomas Larkin, IT Support/LAN Administrator**—Mr. Larkin has over 15 years of experience in systems design, development, and programming. As a project leader for ACS, he is responsible for day-to-day management of the team supporting ACS' Photo



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

Red Light Enforcement Program contracts. Mr. Larkin is proficient in DMV interfaces and has experience implementing and supporting programs for Photo Red Light Enforcement Program contracts.

**Corporate Oversight**

Finally, it should also be noted that this project will not operate in isolation. ACS' best practices include assigning a corporate oversight team to ensure project accountability and quick response to project issues escalated by our local project personnel, the City.

Although the individuals selected for this team—Maury Hannigan, Eric Hunn, and Richard

Kosina—are not directly assigned to the contract, they will provide policy guidance to the implementation team managers and permanent project managers, monitor performance through weekly reports and internal project status meetings; and periodically interface with the City and senior management to assess our overall program performance to ensure we are meeting expectations. These individuals represent ACS, and are leaders in the public sector services industry. Summaries of their credentials follow.

**Maury Hannigan**—ACS' Public Safety Solutions Vice-President and Managing Director. Mr. Hannigan brings over 40 years of experience in law enforcement, with 12 years in administrative roles in the California Highway Patrol and extensive knowledge of traffic safety. He currently manages all photo enforcement contracts within ACS. He will ensure the application of photo enforcement best practices to ensure the City's Photo Red Light Enforcement Program remains at the forefront of our nation's traffic safety programs.

**Rich Kosina**—Brings to this project over 24 years of service management and technical support experience with large electronics and photographic technology firms. His contribution to our efforts for the City's Photo Red Light Enforcement program will be to manage all camera and related equipment, inventory management, preventative maintenance, repair, certification, installation, and construction. Mr. Kosina currently serves as an advisor and contributor to a variety of national service organizations and associations. He has become a national authority on red light camera installation service and support.

**Eric Hunn**—Vice President, Business Development, Mr. Hunn is responsible for business development for our violation processing sub-line of business. He possesses project management experience for major government systems integration and consulting contracts. He has violations processing experience in the areas of payments, hearings, public service, collections and reconciliation. Mr. Hunn is the former Columbus Parking Violations Processing Services project manager supporting many of the PVB's revenue and technology initiatives since 1992. Due to his long history with the PVB, Mr. Hunn is aware of many of the City's business procedures and rules. His role on this project will be to help integrate the Photo Red Light Enforcement System and Parking Violations Processing Services should the City elect the PVB model.

**City of Columbus  
Ohio Photo Red Light Enforcement System**

**Additional Staffing**

*The actual staffing levels will vary over time. ACS will match its staffing resources with the projected workload.*

As previously shown in the organization chart in Exhibit 3-62 some positions are currently unfilled. Over the term of the contract, staffing levels are dynamic and allow for readily shifting personnel among varied functions to ensure the appropriate coverage for each task area. From the very first day of the "active" program, we want to ensure we have a sufficient number of personnel on-hand to meet program needs and success in all performance criteria related to this program. In determining staffing levels for this project over the contract term, ACS will use industry-standard sizing tools to anticipate the levels of effort that will be required. Using such tools as the Erlang calculator for sizing and staffing customer service representatives, we are confident that our staffing levels will meet all of the City's system requirements. In addition, our staffing solution has taken into consideration the variables that could jeopardize the timely implementation of a project. ACS believes in this approach as photo red light project implementations require a set of unique skills, focused attention, and a high level of resources.

**3.1.14.2.a Subcontractors**

*ACS is proud to bring three Columbus-based subcontractors to serve key roles for our photo red light enforcement program in the City.*

In addition to ACS staff, subcontractor PolicyWorks - will work with us to deliver a solid public education and community awareness program.

PolicyWorks evolved from 30 years of public, private, and community service. Known regionally and locally for public/private issue campaigns, PolicyWorks also brings a national reputation for political campaigns. Led by Dannette "Dani" Palmore, PolicyWorks associates possess a wealth of knowledge and experience in public outreach, community organization, public relations, and marketing.

PolicyWorks recognizes that clients have diverse objectives and welcome the opportunity to strategize and implement action steps that will produce solid deliverables. PolicyWorks believe that these deliverables will set the stage for responsible decisions that influence the way that policy works.

---

Dani Palmore will interact with ACS key staff to lead, manage, and deliver our successful implementation of the City of Columbus Photo Red Light Enforcement public awareness campaign.

---

ACS brings M•E Companies to provide all engineering services required for installation of all cameras. M•E Companies, with six offices located throughout Ohio, including Columbus, is a full service consulting engineering and construction management firm specializing in public transportation and traffic management projects. ACS is also pleased to offer McDaniels Construction, a Columbus-based minority owned business, to provide electrical installation services. McDaniels Construction, one of Ohio's most respected contractors, has been providing transportation infrastructure construction

**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

services since 1985. McDaniels has provided services to the City of Columbus on numerous projects, and brings a solid understanding of the local codes and city policies necessary to bring the Photo Red Light Enforcement Program into service on time. It is ACS's policy to always use local subcontractors to take advantage of their knowledge of City planning and inspection policies and procedures, assuring the City of a smooth program start-up.

**3.1.14.2.b Backup Plan**

*As a nearly \$4 billion corporation with 40,000 employees worldwide, ACS can draw on our tremendous technical, human, and financial resources to ensure the City's program is fully staffed and supported at all times.*

Any management level positions that must be backfilled at any point during the program will be immediately filled with existing ACS managers on a temporary basis until a full time replacement is identified, approved, and hired. Clerical staff positions will immediately be filled with temporary labor or existing clerical staff from ACS.

---

**Conclusion**

---

In summary, ACS brings highly qualified staff to implement, operate, and maintain the City of Columbus's Photo Red Light Enforcement System. We have the proven capability to provide the full range of services needed by this program. ACS proposes a group of individuals who possess the right mix of violation processing knowledge and red light camera experience. The program will have the support of individuals who have the knowledge of government processes, problem solving experience, and proactive management foresight to ensure success for the City's photo red light enforcement program

---

---

**City of Columbus  
Ohio Photo Red Light Enforcement System**

<b>RESUME</b>	<p><b>CHAD COLLINS</b> Project Manager City of Columbus Red Light Photo Enforcement System</p>
<b>Qualifications</b>	<p>Mr. Collins has direct experience with the Columbus Parking Violations branch for over six years. He implemented the City's Pay-by-Web and Pay-by-Phone applications as well as the hand held issuance devices currently being used by the Parking Enforcement Officers. Mr. Collins is the primary point of contact for the PVB and works with them to develop new collection strategies.</p>
<b>Experience</b>	
2004 - Present	<p><i>Project Manager, ACS State and Local Solutions</i> Responsible for day-to-day management of the Columbus parking contract. Works with clients on a daily basis to service report requests, provides support on eTIMS<sup>SM</sup> system issues, and handles special inquiries. Works with upper management to develop client revenue enhancement and customer service maximization strategies. Reconciles daily eTIMS<sup>SM</sup> transactional and financial information processed by clients and ensures data integrity using various quality assurance techniques. Liaison between eTIMS<sup>SM</sup> users and Tarrytown programmers to resolve system issues and facilitate improvements or modifications. Responsible for the implementation and training of new system features and enhancements, such as new Report Write application. Works with clients to develop and implement new enforcement and collection strategies.</p>
1999 - 2004	<p><i>Network Administrator, ACS State and Local Solutions (Formerly Lockheed Martin IMS)</i> Provide clients such as Los Angeles, Washington DC, and Philadelphia with support for mobile computing devices in Boot Trucks with wireless CDPD on-line access to eTIMS<sup>SM</sup>. Designed and Implemented Tow Lot Inventory tracking application which utilizes Symbol 8100 devices and its bar code scanner to keep track of cars on City lots. Responsible for Area Networks including Wilmington, Trenton, Philadelphia, Cleveland, and Columbus that accounts for 24 sites 23 servers and over 450 users which includes numerous mobile devices, Windows 98, NT4, and 2000 Workstations.</p>
1997 - 1999	<p><i>Network Engineer, Lockheed Martin IMS</i> Responsible for a City-wide network in Philadelphia for the Philadelphia Parking Authority. This network consists of over 150 workstations and seven servers spanned across nine locations in different areas of the city. Imaging is one of the major facets of this WAN in its ability to handle our large-scale system which includes multiple scanners and dozens of imaging and indexing workstations. Implemented PC LAN/WAN infrastructure for Cleveland Parking Violations Bureau and Vehicle Impound Unit. Implemented software such as Report View, Report Write, Online Cashiering, and Document Imaging. WAN Infrastructure includes Cisco Routers, Frame-Relay PVC's, T1's, ISDN Lines, Servers and Workstations.</p>
<b>Education</b>	
	<p>Pennsylvania State University Computer Learning Center, Certified Network Administrator</p>

**City of Columbus  
Ohio Photo Red Light Enforcement System**

<b>RESUME</b>	<b>MAURY HANNIGAN</b> Corporate Oversight City of Columbus Photo Enforcement System
<b>Qualifications</b>	Mr. Hannigan has more than 40 years of experience in law enforcement, with 12 years in administrative roles in the California Highway Patrol. As the vice president and managing director of ACS' Public Safety Solutions group, he has direct responsibility for managing all photo enforcement contracts.
<b>Experience</b>	
2001 - Present	<i>Vice President and Managing Director, Public Safety Solutions Group, ACS</i> Direct responsibility for managing all photo enforcement contracts. Oversees all aspects of Public Safety Solutions group. This includes ensuring that projects are progressing according to plan; working with state and local government officials in resolving outstanding issues; and coordinating staff work on varied activities. Provides marketing support and ensures that all development initiatives are met on time and within budget.
2000 - 2001	<i>Advisory Board Member, Law Enforcement Television Network</i>
1999 - 2000	<i>Board of Directors Member, Centurion Solutions</i>
1998 - 2001	<i>Spokesman/Consultant, Ulico Insurance Group</i>
1998 - 2001	<i>Spokesman/Consultant, National Safety Council</i>
1998	<i>Supporting Role, Westbay Entertainment</i>
1964 - 1995	<i>California Highway Department (CHD)</i>
1989 - 1995	<i>Commissioner, Chief Executive Officer, CHD Headquarters</i> Responsible for the administration of 6,500 sworn and 2,500 non-sworn employees; 114 commands; and an annual budget of \$760 million. Coordinated public safety issues and activities with the Governor's Office, the State's Legislator, and public and private agencies.
1983 - 1989	<i>Deputy Commissioner, CHP Headquarters</i> Administered day-to-day operations of CHP. Took command of department in Commissioner's absence.
1979 - 1982	<i>Captain, CHP Headquarter</i>
1973 - 1979	<i>Lieutenant, CHP Headquarters</i>
1970 - 1973	<i>Field Sergeant</i>
1964 - 1970	<i>Field Patrol Officer</i>
1962 - 1964	<i>Reserve Police Officer</i>
<b>Education</b>	B.A., Administration of Justice/Public Administration, Golden Gate University, San Francisco, California Executive Institute, University of California, Davis

**City of Columbus  
Ohio Photo Red Light Enforcement System**

<b>RESUME</b>	<p><b>ANDREA J. HUGHES</b>  <b>Business Process/Operations Training</b>  <b>City of Columbus Photo Enforcement System</b></p>
<b>Qualifications</b>	<p>Ten years experience managing high volume transaction processing in both BPO and retail sales environments. Possess extensive experience in operational staff management, training and development, Human Resources, and customer service. Responsible for the implementation of several photo enforcement programs including Washington, DC Photo Radar, Fairfax County Red Light, Fairfax City Red Light, Prince George's County Red Light, and Anne Arundel Red Light. Manages staff of nearly 20 professionals in support of 12 contracts along the East Coast.</p>
<b>Experience</b>	<p><i>1999 - Present</i>     <i>Senior Operations Manager Eastern Region Photo Enforcement Programs, ACS State and Local Solutions</i>  Developed and implemented business processes, job descriptions, standard operating procedures and performance metrics for violation processing staff resulting in a productivity increase in excess of 100%. Responsible for all operational aspects of new contract implementations and day-to-day processing. Perform Human Resource and Payroll functions for work force of (40) employees. Implemented performance standards.</p> <p><i>1998 - 2000</i>     <i>Lead Vault Associate, The Home Depot</i>  Responsible for reconciliation of all cash, check and media deposits and research of paperwork discrepancies</p> <p><i>1991 - 1998</i>     <i>Operations Manager/Asst. Store Manager, The Sports Authority, Inc.</i>  Directed all operations for high volume sporting goods retail store with annual revenue of \$16M. Responsible for Human Resources, Payroll, facilities maintenance, shipping &amp; receiving, and all front-end operations / customer service.</p>
<b>Education</b>	<p>B.S., Criminal Justice, Virginia Commonwealth University  A.A.S., Police Science, Northern Virginia Community College</p>

### 3.1.14.1 Local Management

#### HIGHLIGHTS

- Columbus is already familiar with ACS' highly skilled and experienced management
- Local program office already operational
- ACS will provide two dedicated managers with a full complement of operations staff to benefit City operational success
- Project management brings more than 20 years of Columbus-specific violations processing experience
- Proposed management team already has existing working relationships with PVB
- Local Digital System Technician supports all camera technology from existing 2222 Dividend Drive project office

*ACS understands that the Photo Red Light Enforcement Program will be a cooperative effort between ACS and the City of Columbus.*

ACS has built our reputation and record of performance not just by providing effective technology and a high quality processing system, but also by employing talented managers, supervisors, and photo enforcement personnel. The successful operation of any program is dependent upon the strength of the project management. This demands individuals with program knowledge and local experience. Since ACS believes this factor to be critical to the success of the City's Photo Red Light Enforcement project, we are providing Columbus with two seasoned project managers. ACS' Chad Collins will be the project point of contact for all daily program responsibilities. It is his responsibility to ensure the overall success of the City's photo enforcement program. In addition to Mr. Collins, ACS will provide local project oversight management from John Lane, our Ohio Cities Manager. This proposed management structure has proven extremely successful for the City and ACS' partnership in support of the Parking Violations Bureau.

As project manager, Mr. Collins is the point of contact for all contract responsibility and oversees all operational, personnel, and quality assurance functions. He will exercise supervision of each functional area within the organization and reports to our Regional Vice President. In this role he serves as the final point of responsibility for program performance, and for the proper development and enforcement of program policies and procedures. He will ensure that performance standards are clearly developed, that each operational manager understands the level of performance required, and that all contractual requirements are met. Mr. Collins's responsibilities include managing all staffing requirements, creating a processing work-flow to meet the expectations of the City of Columbus, ongoing quality control, and improvement strategies to assure the program maintains high standards necessary for a successful Photo Red Light Enforcement Program. Mr. Collins will also serve as a liaison with Columbus' Court/Administrative adjudicators and Police Department personnel assuring that any and all client issues are addressed timely and to the satisfaction of all parties involved. In the event the City elects to integrate the red light program in to the existing PVB parking operation, Mr. Collins will also be responsible for ensuring all technology and services required of the PVB for this project is provided at all times.



**City of Columbus  
Ohio Photo Red Light Enforcement System**

If for any reason Mr. Collins is not able to attend a meeting in person, John Lane, ACS' Ohio Cities Manager will serve as the interface for the City of Columbus. Mr. Lane is ACS' proven liaison with the City of Columbus and possesses strong knowledge of the City's government processes. He is a resident of Columbus and will be available five days a week from our 2222 Dividend Drive, Columbus, Ohio office. He is dedicated to serving the Columbus photo enforcement program and brings his problem solving experience and proactive management foresight to help manage our service delivery solution. Mr. Lane serves in this exact capacity in support of ACS' PVB contract.

The City of Columbus, with more than 700,000 residents, is the 15<sup>th</sup> largest City in the US and is the highest profile City in the State of Ohio. ACS is assigning two dedicated and seasoned managers to this program in addition to our operations staff to ensure the City receives the level and quality of service befitting a City of Columbus' size and profile. We believe any attempt to manage this program with fewer management resources will result in inferior performance. ACS believes this approach has worked successfully over the last twenty years in support of our Columbus Parking Violations Bureau contract.

ACS will also provide a full time, dedicated Digital System Technician to the City of Columbus. Our Digital System Technician, to be recruited from Columbus after contract award, will report directly to our project manager and will be available 24 hours a day, seven days a week to respond to any technical problems that occur in the lanes and perform routine maintenance.

With ACS, the City will have two seasoned manager and a highly skilled Digital System Technician directly assigned to this project in addition to the operational staff that will support day to day activities.

### **3.1.14.2 Staffing**

#### **HIGHLIGHTS**

- As Columbus' partner for the last 19 years, ACS has built a stable relationship with the City
- Dedicated key personnel knowledgeable in red light enforcement programs
- Subject matter experts
- Three local subcontractors serve key roles
- Experienced personnel to ensure successful implementation of our revolutionary solution
- Alternative solution allows City to leverage existing PVB staff by integrating red light and parking ticket processing programs

---

---

*ACS offers a highly qualified staff to implement, provide ongoing operational, management, and technical support to establish the City's Photo Red Light Enforcement System. Our staff members have the relevant experience and education to enable them to expertly provide the full range of services required by the City.*





**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

ACS' comprehensive solution for the City of Columbus' Photo Red Light Enforcement program is based upon two very distinct and different plans. One is the ACS Stand Alone solution. The other is the PVB Model solution. Both ensure that the appropriate number and type of project personnel will address every project task, activity, and service. Furthermore, our staffing plan leverages ACS' subject matter expertise in the traffic enforcement industry and draws upon best practices developed in our more than 50 red light enforcement contracts with more than 750 cameras systems installed throughout North America.

**The ACS Stand Alone Approach**

ACS, understanding the tremendous effort required to start up photo red light enforcement programs, offers the City a unique approach to creating its Photo Red Light Enforcement Program. As illustrated in Exhibit 3-62 ACS combines both the experience and niche skills of our dedicated implementation team with the strength of an ongoing organization to ensure a successful and smooth operation. Our implementation team will work side-by-side with our project team to ensure the City's implementation is complete and running properly. ACS will provide a full-service solution to the City for this program. This solution entails everything from camera installation to customer service and back-office processing. ACS will provide project management, camera maintenance, and all violations processing systems and services. The only staff required by the City for ongoing operations will be the Columbus Police staff that approve all citations online.

**The PVB Model**

The other option we present for the City of Columbus' review is the Parking Violations Bureau (PVB) model. This option allows the City to leverage existing technology and services already provided by ACS to the City and existing PVB staff that are responsible for processing and servicing all parking ticket violations. Under this plan, the photo red light program and database would be fully integrated with our joint and existing PVB program and Ticket Information Management System. By allowing the PVB to handle all red light and parking related violations processing, the City will create a one stop center that:

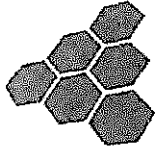
- Improves service to the public as citizens will have one phone number to call to schedule hearings and receive service, one pay-by-web site to visit, one pay-by-phone number, one service center for all inquiries, one P.O box to mail payments to, and one single point of contact for all city issued tickets
- Improves City revenues and collections as ACS can send targeted collection notices to scofflaws for that incorporate both red light and parking ticket debts, merge red light and parking debt to expedite boot and tow eligibility, and encourage payment of all outstanding red light and parking fines via pay-by-web increasing average amount paid



**City of Columbus**  
**Ohio Photo Red Light Enforcement System**

**Project Work Plan**





**Transsol  
USA**

*John Gaydeski  
Area Director  
12056 West 75<sup>th</sup> Lane  
Arvada, CO 80005*

Tuesday, June 15, 2004

City of Columbus  
Purchasing Office  
1<sup>st</sup> Floor, 50 West Gay Street  
Columbus, Ohio 43215

Attn: Jack Yost

Re: Solicitation No.: SA 001147 JY/FM  
Late receipt of Addenda #2 and #3

Dear Mr. Yost:

As I explained to you in a June 15, 2002 phone message, we received addenda #2 and #3 after we mailed our bid proposals to you. I suspect the down day for the U.S. Postal Service, in observance of the passing of President Reagan, played at least some part in the delay. The envelopes I received on June 15 were postmarked June 9 and June 10.

My solution to this technical dilemma is to hand deliver this letter, with the appropriate number of copies of both addenda attached, for inclusion with our bid package on the morning of June 17, prior to the 11:00 a.m. deadline. I trust this will satisfy the literal requirements of the RFP, and avoid any appearance of an irregularity.

Thank you for your cooperation and assistance during this process. I will see you on the 17<sup>th</sup>.

Sincerely,

John Gaydeski  
Area Director

*Accepted as  
indicated by the  
time on the attached  
Envelope*

---

Attachments

---

---





City of Columbus  
Mayor Michael B. Coleman

Finance Department  
Joel S. Taylor, Director

## Purchasing Office

Barbara R. Johnson, Procurement Manager

50 West Gay Street, 1st Floor  
Columbus, Ohio 43215-9036  
614/645-8315 Fax: 614/645-7051

TO: OFFERORS OF PHOTO RED LIGHT ENFORCEMENT SYSTEM  
FROM: JACK YOST AND FRED MYERS  
SUBJECT: ADDENDUM – SA001147/JY/FM  
DATE: JUNE 9, 2004

### ADDENDUM 3

Reference Proposal Submission Requirements 4.2.5 on page 4G, where we require that you include a Delinquent Personal Property Tax Affidavit. This particular affidavit is not required as part of your submission and is only required to be completed as a condition of contracting with the successful supplier.

Please attach this third addendum, in addition to the prior addendums, to your RFP response and make it a part thereof.

---

---



City of Columbus  
Mayor Michael B. Coleman

Department of Finance  
Joel S. Taylor, Director

## Purchasing Office

Barbara R. Johnson, Procurement Manager

50 W. Gay Street, 1<sup>st</sup> Floor  
Columbus, Ohio 43215-9036  
(614) 645-8315 Fax: (614) 645-7051

TO: OFFERORS OF PHOTO RED LIGHT ENFORCEMENT SYSTEM  
FROM: JACK YOST AND FRED MYERS  
SUBJECT: ADDENDUM – SA001147/JY/FM  
DATE: JUNE 8, 2004

## ADDENDUM 2

Note that a typographic error appears on the cover sheet for the addendum you recently received. Section 3.1.35 (not 3.35.1) has been removed from the Request for Proposal.

Please attach this second addendum, in addition to the first addendum, to your RFP response and make it a part thereof.



RFP MASTER COPY

**Proposal to the  
City of Columbus, OH**

**Photo Red Light  
Enforcement System  
SA 00147 JY/FM**

June 14, 2004

stop for safety

Helping to keep your community *safe*

© 2004 and produced by Transol Multimedia

William (Bill) Kroske, Ph.D., Vice President Business Development, Transol USA, Inc. Tel: (480) 895-4211 Fax: (480) 895-9969  
Email: [billk@transolgroup.com](mailto:billk@transolgroup.com) Website: [www.transolgroup.com](http://www.transolgroup.com)

**STATEMENT OF COPYRIGHT**  
Transol-produced contents of the Proposal are submitted as ©  
COPYRIGHT 2004 of Transol USA Inc ('Transol').

**Issued June 15, 2004.**



## Table of Contents

<b>1</b>	<b>LETTER OF SUBMITTAL</b>	<b>A</b>
1.1	Summary of proposed services	1
1.2	Introducing Transol	3
1.3	Expert program partner	4
1.4	Experienced installer: U.S. Utility Contractor Co.	4
1.5	Photo enforcement leadership since 1989	5
1.6	Team transol organization structure	6
1.7	Project Team leaders	6
1.8	Transol program services	8
1.8.1	Professional project management services	8
1.8.2	TRANSOL-VP™ violation processing services	9
1.8.3	Public awareness services	10
1.8.4	Training services	11
<b>2</b>	<b>CITY RFP</b>	<b>13</b>
2.1	Addenda received.	14
	<b>PRE-BID QUESTIONS &amp; ANSWERS</b>	<b>15</b>
<b>3</b>	<b>RESPONSE TO SPECIFICATIONS</b>	<b>20</b>
3.1	Turnkey program offering	20
3.1.1	Photographing vehicles	21
3.1.2	Obtaining vehicle registration information	23
3.1.3	Interface to the traffic signal control equipment	23
3.1.4	Review of image evidence	24
3.1.5	Matching to DMV information	26
3.1.6	Quality control process	26
3.1.7	Generating citations and mailing	26
3.1.8	Compliance with SAS 70 requirements	27
3.1.9	Transfer of files between the Courts and Transol-VP	28
3.1.10	Second notice processes	28
3.1.11	Court testimony and evidence packages	28
3.1.12	Service center facility	30
3.1.13	System reports	30
3.1.14	Service level agreements	31



3.1.15	Violation detection and imaging	32
3.1.16	Driver identification	33
3.1.17	Rear license plate image capture and quality	34
3.1.18	Image visibility and clarity	37
3.1.19	Consistent imaging capability	37
3.1.20	Internal calibration	-----
3.1.21	Maintaining the integrity of CoC's traffic signal system	38
3.1.22	Computer data capture and analysis	38
3.1.23	Monitoring multiple traffic lanes, vehicle types and managing ambient weather and light conditions	39
3.1.24	Automated setup	41
3.1.25	Night operations and variable weather conditions	41
3.1.26	Time to capture images after onset of the 'red' phase	41
3.1.27	90% or better capture rates	41
3.1.28	Communications re repair of damaged traffic control systems	42
3.1.29	Reimbursement to CoC for employee time during cabinet installation or repairs	42
3.1.30	Non-emergency site works/24 hours notice	42
3.1.31	Managing emergency maintenance	42
3.1.32	Current client list	43
3.1.33	Process for acceptance and disbursement of funds	45
3.1.34	Payments and collections options	46
3.1.35	Integration with alternative provider	46
<b>4</b>	<b>COST PROPOSAL</b>	<b>47</b>
<b>5</b>	<b>NON-COLLUSION AFFIDAVITS</b>	<b>49</b>
<b>6</b>	<b>ATTACHMENT 1: CV DETAILS, TRANSOL PROJECT PERSONNEL</b>	<b>50</b>
<b>7</b>	<b>APPENDIX 1: SAMPLE NOTICE FORMATS</b>	<b>57</b>
<b>8</b>	<b>APPENDIX 2: SAMPLE REPORT FORMATS</b>	<b>59</b>
<b>9</b>	<b>APPENDIX 3: SAMPLE PROJECT MANAGEMENT PLAN</b>	<b>62</b>
<b>10</b>	<b>APPENDIX 4: SAMPLE SITE PLAN, REAR PHOTOGRAPHY</b>	<b>63</b>
<b>11</b>	<b>APPENDIX 5: BANK ONE LOCKBOX SERVICES AND FEES</b>	<b>64</b>
<b>12</b>	<b>APPENDIX 6: TRANSOL INSURANCES</b>	<b>87</b>



**1 LETTER OF SUBMITTAL**

**Transol USA Inc.**  
1815 W 205th Street,  
Suite 106  
Torrance, CA 90501  
Tel: 310-533-8237  
Fax: 310-533-0391  
Email:  
usa@transolgroup.com

www.transolgroup.com

June 15 2004

Purchasing Office  
50 W. Gay Street, 1<sup>st</sup> Floor,  
Columbus, Ohio, 43215

Attention: Jack Yost/Fred Myers

Dear Mr Yost and Mr Myers  
**RE: Solicitation No.: SA 001147 JY/FM**

Transol thanks the City for this opportunity to offer a 'turn-key' photo red enforcement solution with advanced technical features that directly enable the City's stated public safety objectives.

**Technical advantages**

In particular, we note that the multiple-images sets captured by our residual-imaging cameras will give the City unmatched ability to prosecute red light running, and particularly violations by drivers of long-wheel base vehicles and turning vehicles.

The City's clear goal of reducing the **number of collisions, deaths and injuries caused by red light running will be best served by our technologies** which, uniquely, do not use detection 'triggers' that rely on estimated vehicle speed to start image capture. By definition, these other 'speed-trigger based' systems just cannot detect and record red light running by 'creeping violators' or turning vehicles that are travelling below the system's 'threshold speed' for detection. As a result these major classes of violators (which Transol data at Appendix 4 shows can constitute 75% of violations at a site) escape ticketing and continue to run lights and pose major safety risks.

Drivers learn by experience. To meet its stated safety objective, the City must select systems that are technically capable of teaching drivers that *'if you run on red - in any lane, at any speed - you will be ticketed'*.

With Transol, this is achieved using non-intrusive violation detection systems that **detect and record violations on straight-through, left and right-turning lanes.**

**The need to cut invasive loops or sensors into the city streets is completely avoided** (as are the associated maintenance disruptions caused when loops bubble or drift and require regular replacement, particularly on routes with heavy traffic flows or a high incidence of trailer traffic as is likely in Columbus).

Appreciating the City's understandable to protect its intersection traffic controllers, our solution offers alternative, non-intrusive phase detection systems also. We confirm that these do not need to be connected into the intersection controllers (although we would use opto-isolated one-way connection if so directed by the City).

Transol's fully Internet-enabled Transol-VP evidence management system gives important advantages too.

Robust security protocols mean that any authorized user can login on the Web using their unique password and ID. This automatically controls their level of access into the system consistent with their predefined authority level so that any user may only access information that is relevant to their particular role. There is **no need to install Transol software on the City's IT systems**. All required functionality is delivered via the Web.

Authorizing Officers and courts officials can **'play' multiple image event sets as movies, or review high-resolution image frame by frame (with data-bars showing full violation details on each frame)** if they want to establish the exact context of any violation for fair ticketing or to support accident investigations.

Similarly, **if the City elects, violators could login on Transol-VP** using a password supplied with and related uniquely to the details of their citation notice. This facility allows for **on-line viewing** of evidence relating to a particular citation, and if the City desires, **on-line credit card payments**.

#### **Experience and expertise**

With 2003/2004 awards to operate photo red programs for seven cities in four states Transol is a relatively new provider offering innovative and already well-proven technologies.

For example, our November 2003 project for Baltimore MD project was implemented within the City's 30 day installation timeline and **won the technical evaluation phase for the RFP**. Its advanced, non-intrusive, red/speed solution clearly proved the system's capability for very **high issuance against both straight and turning violators** (Refer Appendix 2 for System Reports).

The advanced technical features that enabled this result were specified by our President and key systems designers who wanted to overcome operating limitations that they had experienced **over the past 15 years** using older technologies applied in other photo enforcement programs.

For Columbus, Transol's two key implementation managers are already completely familiar with Ohio's operating models and its engineering and permits processes and resources having already **designed and implemented camera sites and processing systems used for both Toledo's and Dayton's red light camera programs**. Similarly, Transol's selected installation contractor, U.S. Utility Contractor Co., has already installed red light camera sites in both Toledo and Dayton working with (now) Transol's Construction Manager.

In addition to this State specific experience, Transol is able to offer the City access to the very substantial program expertise of Tenix Solutions Ltd ([www.tenix.com](http://www.tenix.com)) through our collaborative relationship with that entity. Tenix' United States advisory board comprises Admiral Steve Abbot, recently retired as the President's Homeland Security Advisor, Admiral Leighton W. Smith, former Commander-in-Chief Allied Forces, Southern Europe and the Honorable Arthur L. Money, a former US Assistant Secretary of Defense for Command, Control, Communications and Intelligence.

---

---

Tenix has completed series of **technical evaluations of the majority of world's photo enforcement technologies** and has decided to partner with Transol for this project. It is a

1. The first part of the text discusses the importance of maintaining accurate records in a laboratory setting.

2. It highlights the role of these records in ensuring the reproducibility and reliability of experimental results.

3. The text also mentions the legal implications of poor record-keeping practices in scientific research.

4. Furthermore, it emphasizes the need for clear and concise documentation to facilitate collaboration and knowledge sharing.

5. The document concludes by stating that proper record-keeping is a fundamental aspect of good scientific practice.

6. It also notes that regular training and supervision are essential for ensuring that all personnel adhere to the required standards.

7. The text further discusses the importance of maintaining a secure and accessible database for all recorded information.

8. It also mentions the need for regular audits and reviews to ensure the integrity and accuracy of the records.

9. The document concludes by stating that maintaining accurate records is a critical component of any scientific investigation.

10. It also notes that proper record-keeping practices can help to prevent errors and ensure the highest quality of research.

11. The text further discusses the importance of maintaining a clear and organized filing system for all records.

12. It also mentions the need for regular backups and secure storage of all recorded information.

13. The document concludes by stating that maintaining accurate records is a fundamental aspect of good scientific practice.

14. It also notes that regular training and supervision are essential for ensuring that all personnel adhere to the required standards.

15. The text further discusses the importance of maintaining a secure and accessible database for all recorded information.

**trusted partner and world leader in the provision of fully integrated traffic enforcement and parking management services and as the largest traffic enforcement organisation in the Southern Hemisphere, processing over 4.5 million notices per year, and can make invaluable program design and operating experience available to the City.**

Tenix (original Lockheed Martin Tenix) has operated **one of the world's leading photo enforcement programs for the State of Victoria, Australia** as well as other programs in the UK as well as extensive USA defence contracts. With more than 80 red light/speed intersection cameras and 100 plus scheduled, as well as fixed and mobile speed and toll enforcement, Victoria's program established the public value of consistent photo enforcement operations as early as 1992 with high quality research programs conducted by the Monash University Accident Research Centre.

The program is **widely recognized as a 'world best-practice' photo enforcement site.** Transol's senior executives have been associated with its operation since 1989 when Rob Ciolli, (now) President Transol USA Inc, supplied the image management solutions that enabled processing of (then) some 3,500 red light and speed violation events daily. Rob also managed supply of processing systems upgrades in 1999 that took its daily event capacity to 6000 while CEO of Redflex. Other senior Transol staff have also worked with the Tenix program in Victoria including Claire Hunter Transol's V.P. Operations and Transol's software developers who designed and built the 1999 Tenix processing systems.

#### **Information requested at RFP 4.2.1 I**

With respect to information requested at RFP 4.2.1 I confirm that:

- Bronwen Coulstock, VP Business Communication working in co-operation with John Gaydeski, Transol's Area Director for Ohio and myself, has prepared this proposal.
- Further inquiries relating to Transol's Technical and Cost Proposals should be directed to me, Bill Kroske, Vice President Business Development at 2145 E San Carlos Place, Chandler AZ 85249 or via Email: [billk@transolgroup.com](mailto:billk@transolgroup.com). or Telephone: (4880) 895-1211.
- If selected by Columbus Transol will take sole and complete responsibility to perform the tasks and services described in this Proposal with the benefit of support from its
- Persons who are Officers or have an interest in the Company are:
  - Rob Ciolli, President and Director, Transol USA, Inc.: 32 Wallace Avenue, Toorak, Victoria, Australia, 3142
  - Bronwen Ciolli, Director and Secretary Transol USA, Inc.: 32 Wallace Avenue, Toorak, Victoria, Australia, 3142
  - William (Bill) Kroske, Vice President, Transol USA, Inc., 2145 E San Carlos Place, Chandler AZ 85249
  - Transol Corporation Ltd, Level 1, 300 Flinders Street Melbourne, Vic. Australia: 100% shareholder.
- ~~This Proposal is valid for 180 days from the date of submittal to the City.~~
- As required I attach a Board Resolution authorizing me to bind the company in respect of this Proposal.

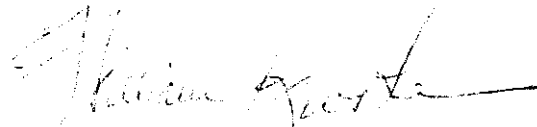
**Additional information**

Immediately following please find a brief introduction to key technologies that enable our advanced service capability.

You will find our specific responses to the City's Section 3.0 specifications at Section 3.

Transol will be delighted to make a personal presentation to the City's Evaluation Committee and looks forward to working with the City to implement and operate a photo red enforcement program that will place it at the forefront of photo enforcement in Ohio and in the USA. Please do feel free to contact me for any additional information or clarification you may require. We will be delighted to assist.

Sincerely



William (Bill) Kroske Ph.D  
Vice President  
Transol USA Inc.

### 1.1 SUMMARY OF PROPOSED SERVICES

Transol's Program Solution integrates our latest, Year 2003/2004 digital camera and secured citation-processing technologies. Our proposed program services and technologies include:

- **Program design and scoping** in co-operation with the City's Police, Engineering and Finance Departments together with the local Courts.
- **Camera site selection.** Transol Engineers are available to work with the City's PD and Traffic Engineering, to select the optimal sites for program installations. Selection will evaluate traffic flow and accident data at candidate intersections.
- **Supply, installation, operation and maintenance** of Transol RI-RLC™ camera systems. The system's **non-intrusive technologies:**
  - Avoid unnecessary damage to City streets by eliminating in-ground loops
  - Minimize disruption to traffic and pedestrians by simplifying construction works.
  - Allow immediate, remote system support and the option of emergency intersection monitoring with remote 'viewing' through installed cameras.
  - Support relocation of installed systems if needed and/or progressive program expansion at the City's discretion.
  - Use lo-lux imaging to capture comprehensive pictorial records of violation events over 24 hours (without needing 'white-light' flash systems).
- Recommend **street signage** placements.



Figure 1: rear-shot Scene and Plate camera system.



- Subcontract a **licensed electrical contractor** for site installation works, and to provide first-level maintenance service and site inspections. The first red light camera site will be fully installed and supported with a City customized processing solution **so that the Warning Letters or Citation issuance phase can begin within 120 days** of permits issuance.
- Deliver **complete citation processing services** using Transol's secure, Web-enabled Transol-VP™ processing system to print and mail Warning Letters, Notices and Summons on the City approved format.

This technology gives authorized **City personnel and Police 24 X 7 access** from any internet-enabled PC for reports/inquiries and/or notice authorization as desired. User passwords and robust security insure access at only the appropriate level of authority for each individual. All transactions on the system are automatically tracked to provide a **complete electronic Audit Trail** (superior to the hand-logged Chain of Evidence that is necessary with older film-based systems).

- **Operate a Warning Letter phase** if the City desires to give the local community a 'grace period' during which they become familiar with Program's safety rational and operations.
- Supply of **public awareness and education services** to build community awareness, acceptance and compliance. With our own expert, in-house multimedia team, Transol is uniquely positioned to enhance the City's ongoing traffic safety education programs.

Transol will offer a **model public education strategy for customization** by the City/ Police Public Information Officer and will supply a comprehensive range of program support materials for optional use. Draft materials will include sample Media Releases, Web-site text and images and prepared editorials for City Newsletters for City customization.

- **Expert training and support services** to key City Police and Courts personnel drawing on Transol's 13-year background as an expert multimedia education services unit of the Victoria University of Technology.
- **Courts Evidence Packages** via Internet enabled PCs in the Courts from simple drop-down click menus. Packages (including multiple images sets for the entire violation sequence) may be displayed in court to give the complete context of violation and/or supplied as high quality printed materials.

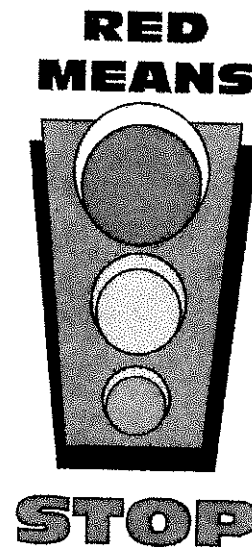


Figure 2: Transol's multimedia team works with the City to create high quality community education materials.



**BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH**

---

- **Expert Witness testimony** services if required and support for the adoption of Judicial Notice.
- Ongoing **City Support Services** through our local Program Office and technical support crew with additional support from Transol's expert engineering teams.

**1.2 INTRODUCING TRANSOL**

Transol is a specialist developer, integrator and operator of advanced traffic safety technologies. It was created to bring innovative systems into the areas of photo enforcement and other safety related programs. The Group's core technologies capitalize expertise and experience in leading photo enforcement, multimedia and Internet projects since the mid 1980's.

Rob Ciolli, Group CEO and President Transol USA, Inc., is a **pioneer of digital photo enforcement in the U.S.A.** His first USA project, in 1989, involved trial of traffic camera applications for heavy vehicle monitoring for DOT Oregon. In 1998, as (then) CEO Redflex Traffic Systems, Inc., he was invited by the Federal Highways Authority to participate in its 1999 trial of digital red light cameras in Howard County MD.

Rob is also an **experienced USA photo enforcement program technology provider and operator** having worked with city programs in AZ, CA, CO, OH and OR since 1996 (including Toledo's program).

Transol's innovative 'residual-imaging' traffic camera and Internet-based processing technologies reflect his lengthy industry involvement. They are **purpose-built to address known client preferences and overcome performance limitations** that he has experienced with earlier-version camera and processing systems.

The Group's major **automated driver license testing systems (CLTNet®)** projects have supplied driver license testing solutions for state transportation authorities (with individual projects integrating more than 400 test kiosks on state-wide WAN/LANs serving populations of some 4 million people each).

The **Transol Group** of companies is headed by the publicly listed Transol Corporation Ltd (ACN 089 224 402). Transol USA Inc (EIN 81-0553053) was incorporated in Nevada in May 2002.

Expert technical personnel based in the company's Operations Center (in Torrance CA) and secure Data Center (in Phoenix, AZ) support program operations in partnership with local technical and program office personnel.

Transol's key business partnerships and alliances include:

- 
- **IBM Business Partner** – enable high performance hardware and network solutions
  - **Laser Technology Inc** – enables joint R&D and project collaboration for ~~advanced imaging, laser speed detection and enforcement processing~~ projects
  - **Philips Professional DVD Partner** – enables advanced DVD development and hardware solutions



- **Macromedia Alliance Partner** – supports Internet driven database and Web site content management projects.

### **1.3 EXPERT PROGRAM PARTNER**

Transol is also pleased to confirm that through its collaborative relationship with Tenix Solutions Ltd ([www.tenix.com](http://www.tenix.com)) we can offer the expertise of one of the **world's leading photo enforcement agencies** to Columbus' program. Tenix Solutions is a member of the Tenix Group, one of Australia's largest privately owned companies delivering technologically innovative solutions to commercial and defence sectors in Australia, New Zealand, the United States, South Pacific and East Asia.



Tenix has completed a series of technical evaluations of the majority of world's photo enforcement technologies and has decided to partner with Transol for this project. It is a **trusted partner and world leader in the provision of fully integrated traffic enforcement and parking management services.**

As the largest traffic enforcement organisation in the Southern Hemisphere, Tenix **processes over 4.5 million notices per year.**

Tenix was contracted to operate the State of Victoria's photo enforcement program in 1997 (as then a member of the Lockheed Martin Tenix entity). As the now sole operator for Victoria, Tenix's program operates **than 80 red light/speed intersection cameras with 100 plus scheduled, as well as fixed and mobile speed and toll enforcement cameras.** Tenix manages all camera operations, all evidence review and ticketing as well as payments and courts operations for this major program. The company also operates other photo enforcement and parking management projects internationally and has substantial defence industry operations.

### **1.4 EXPERIENCED INSTALLER: U.S. UTILITY CONTRACTOR CO.**

With City approval Transol proposes utilizing the services of U.S. Utility Contractor Co. for site construction works and local technical support services to camera sites. Headquartered in Perrysburg, OH, the company employs approximately 85-100 people in Ohio and Pennsylvania.

The Project Manager will be J. P. McKeown (District Manager) with General Foreman being Don Taylor.

**Working with Eric Makepeace (above) previously, the company has installed red light camera systems for the Cities of Toledo and Dayton.**

It has a current contract for traffic signal intersection for ODOT in 5 counties in Central Ohio and has worked on several City of Columbus "phase" projects installing a coax cable system for the City's coordinated signal system linking several hundred intersections with the main computer. In Central Ohio we have worked in Columbus, Groveport, Grove City, Westerville, Clayton, Springfield and Hebron as well as for ODOT in various counties.



**BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH**

---

Company details are:

- Address: 3115 E. 17<sup>TH</sup> Ave., Columbus, OH 43219
- PH 614-471-7559 Fax: 614-471-7560
- Federal ID: 34-1606689.
- Certified electrical contractor in Ohio: License #24800
- Pre-qualified with the Ohio Department of Transportation for signal, lighting, telephone and underground and overhead system. (ODOT #6571)
- Certified FBE (WBE) with ODOT and the City of Columbus and various states.
- Columbus EEO Contract Compliance number is 341606689 (Expires: 3/11/06).

**1.5 PHOTO ENFORCEMENT LEADERSHIP SINCE 1989**

Transol's photo enforcement expertise derives from the extensive program experience of its key personnel and leading consultants. Rob Ciolli, Transol USA's President, has worked with **world leading photo enforcement programs over the past 15 years**. Transol's key executives and consultants have more than 60 years photo enforcement experience worldwide.

Rob Ciolli's involvement in photo enforcement programs began in 1989 when he developed the **high-volume automated processing technologies** that enabled issue of some 3000 citations weekly from the inaugural Victoria Police Traffic Camera Office (now operated by Tenix, see above). This massive, consistent, enforcement effort helped cut fatalities on the State's roads by half within five years and established the program as a **world-class reference site for advanced traffic law enforcement**.

Rob then founded **Redflex Traffic Systems** in 1996, was President and CEO of that group to 2001 and is a registered co-inventor of several of its core technologies.

**Rob Ciolli's key technical achievements** include:

- **1990: Inventor, Iconix image processing systems to digitize film-camera images** for high-volume violation processing (since applied in leading traffic processing centers world-wide).
- **1997: Inventor, Redflex SMARTcam digital red light and speed traffic camera technologies.**
- ~~**1999: Inventor, Redflex' centralized digital image processing**~~ allowing violation images and data to be communicated remotely from cameras into a centralized processing facility.
- ~~**2001: Inventor, Transol's RI™ (Residual Imaging) red light and speed camera systems.**~~
- **2003: Inventor, Transol-VP™ fully Internet-enabled violation processing systems.**

### 1.6 TEAM TRANSOL ORGANIZATION STRUCTURE

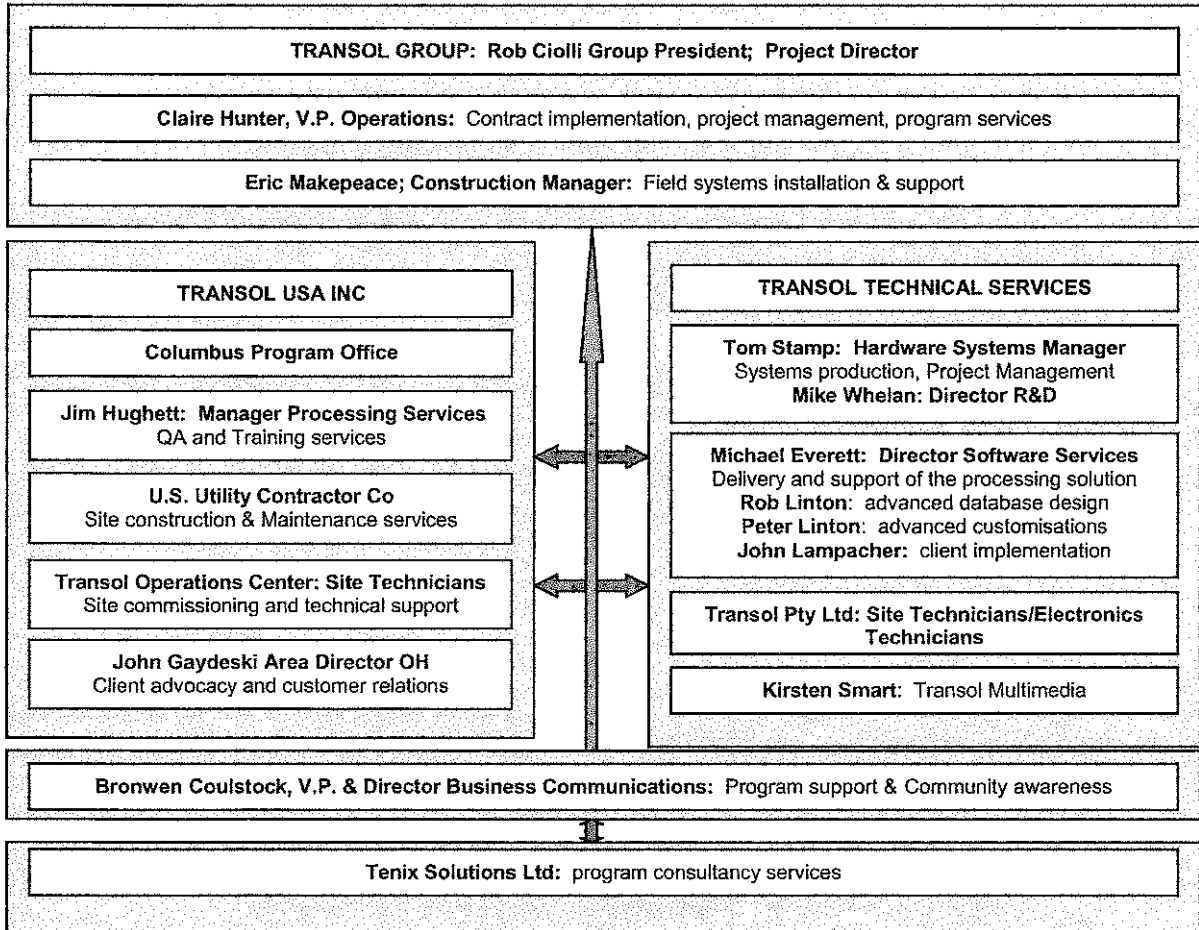


Figure 3: Project Team Organization Structure



### 1.7 PROJECT TEAM LEADERS

An executive team with more than 60 years of practical experience in traffic law enforcement and photo enforcement program operations and directly applicable program experience will supply Transol's technical solution for the City **with photo red programs in Ohio.**

**Transol's key implementation managers for Columbus, Claire Hunter and Eric Makepeace, have each had significant experience**

**implementing existing red light camera programs in Ohio. Transol's Technical Managers and service personnel will support them.**



As (then) Business Analyst for Redflex, Claire Hunter, Transol's VP Operations was responsible for **gathering the business requirements for both Toledo and Dayton's programs and for developing the systems specifications** on which their respective violation processing solutions were built.

Likewise, Transol's Construction Manager Eric Makepeace was (originally) Assistant to the Redflex Construction Manager responsible for installation of **red light cameras at the first 20 approaches for the City of Toledo.**



Later Eric was sole Construction Manager responsible for installation of red light cameras for the **City of Dayton's** program and managed construction for the first 12 approaches, and designed the next 4.

As a result Eric knows most parties involved in implementation of Toledo's program and all parties involved in Dayton. He has 4 contractors set ready to work in Ohio and is **very familiar with Ohio engineering, construction and permit processes.**



**Jim Hughett, Data Center Manager and John Lampacher, Senior Transol-VP Developer** will implement the City's agreed processing rules on the Transol-VP processing solution. They work under the direction of Transol's Software Manager **Michael Everett** and our two leading Systems Designers, **Robert Linton and Peter Linton** (who built the core Transol-VP system and who also worked on Redflex's implementation for the **City of Toledo** as well as other world-leading systems including the 1999 upgrade to the State of Victoria's system to allow processing of 6000 traffic violation events daily).

**Detailed CV information** on Rob Ciolli, Claire Hunter, Eric Makepeace, Jim Hughett, John Lampacher and other members of the Transol Project Team for Columbus is supplied at Attachment 1.

## 1.8 TRANSOL PROGRAM SERVICES

### 1.8.1 Professional project management services

Transol applies formal project management methodologies (business requirements specification, role and responsibility identification, systems specification, Microsoft Project Scheduling, formal Documentation Control and issues resolution/escalation procedures) to ensure detailed planning and delivery of the various, parallel, tasks and services required for timely, coherent program implementation.

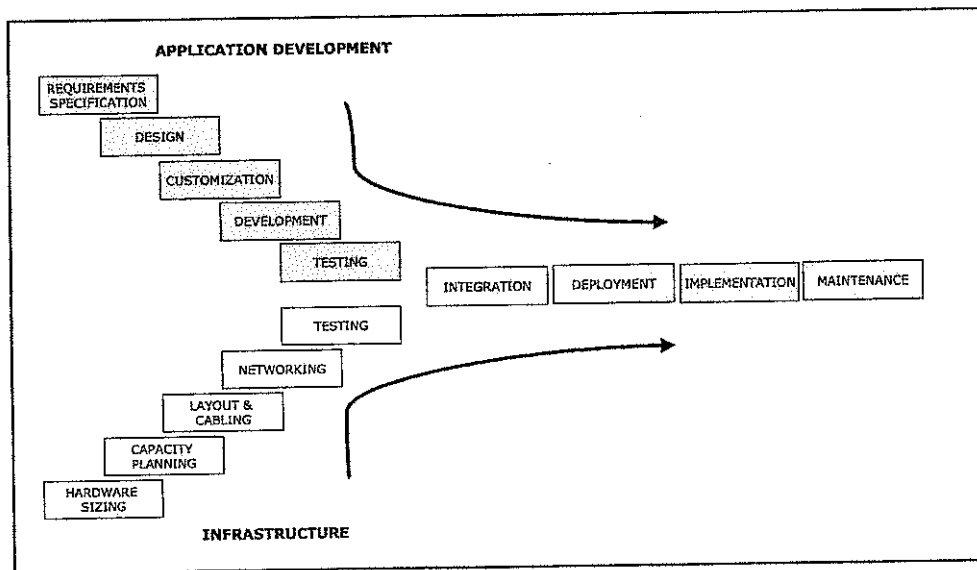


Figure 4: diagrammatic representation of Transol's approach to progressive of project completion

From the date of Contract Award, Transol's VP Operations, Claire Hunter will work closely with the City's Project Manager as the City determines its business requirements and detailed systems specifications. She will establish Transol's program office in Franklin County and recruit and train our program officers there.

Claire will have overall responsibility to direct systems planning and implementation, and in particular, for design of the customized violation processing solution and staff training.

Eric Makepeace our Construction Manager will manage procurement, construction, testing, installation, commissioning and rollout with the support of Transol USA and Transol Pty Ltd's technical teams. Eric will also manage local contractors and recruit and train local Support Technicians.

Each of the key steps necessary for program implementation - site analysis, production of the camera systems, site installation planning and construction, customization of Transol-VP processing software and scheduling of program implementation support services for training and public awareness - will be

scoped and scheduled using Transol's established project management methodologies.

Wherever possible, activities will be conducted in parallel for prompt program delivery. A **detailed Project Management Schedule will be submitted for City approval**. A sample concept schedule is provided at Appendix 3.

Key processes include:

- **Kick Off Planning and Contract Review** - clear understanding of the City's requirements will be obtained through project planning visits with the City's nominated Project Manager and the City's various nominated Departmental representatives as specified. Meeting with relevant City personnel will ensure that the scope of our services and Project Methodology is clearly agreed with the City.
- **Planning and Resource Allocation.** Based on meetings with the City above, Transol will finalize Project Plans. The high level Work Plan provided at Appendix 3 will be refined to create a series of detailed plans (GANNT Project Plans) to show proposed milestones and timelines for each element of program implementation.
- **Analysis and Design.** Transol's project team will define agreed program business requirements after collecting relevant City documentation. Transol will also develop detailed systems specifications to govern production of the customized Transol-VP solution for the City, working with City IT and Courts and the OH DMV.
- **Systems Installation and Configuration.** Team Transol experienced OH engineers and subcontractors will perform the site construction and install the various system technologies (prior to commissioning and testing of the field camera systems by Transol technicians).
- **Systems Testing.** Team Transol will rigorously test all field sites and program technologies covering all hardware, software and service components.
- **Progress Tracking** -Transol's Project Managers (Customer Service and Hardware Systems) will track task completion. If/where any need for variation is identified proposed variation will be documented for the City and formal project variations agreed.
- **Information Control** - information will be controlled to ensure that the correct information is collected, used and issued. Transol's VP Operations will nominate Transol's primary point of Project communication for all incoming information to facilitate subsequent document control.

---

### **1.8.2 TRANSOL-VP™ violation processing services**

The TRANSOL-VP™ Violation Processing system is a secure, Web-enabled, processing solution that provides the functionality for **all violation processing requirements**. User-friendly screen interfaces, drop-down menus and single 'click' commands minimize data entry and support 'error-free' operation even by users who may have limited computer skills.

Transol processing services deliver:



- **First-level Operator review** of stored images and data for violations with **license plate entry** (or event rejection with rejection reason tracking)
- **Automated DMV look-up** to obtain registered vehicle owner information
- Second-level **Quality Assurance** review
- Supply of screened events for **Police Authorization** of event evidence before Notice issuance
- Allocation of **unique citation numbers** to Citations
- **Notice printing and mailing**
- **Payments** tracking
- **Inquiries** tracking
- Production of **Court Evidence packages**
- Comprehensive **Reporting**



Figure 5 Transol-VP™ is designed for easy, error-free use.

At the City's discretion, additional modules can be enabled to support:

- **On-line public viewing.** The alleged violator uses an ID and password (that is derived uniquely from their own mailed notice details) to log-in and review images of their violation event
- **On-line credit card payment** (which may be supplied as an option with or without on-line review)

The application is **completely secure** and uses robust user management and Internet security protocols.

Any authorized user can **login on the Web 24 X 7 as convenient** using their unique password and ID. Secure access control automatically recognizes the user's predefined authority level so that they may **only access information that is relevant to their particular role** eg an individual wanting to view violation evidence can only see records pertaining to their particular citation, whereas a Chief of Police may see any record for their own City's program.

### 1.8.3 Public awareness services

Transol well understands the importance of high quality public information programs to educate and reinforce local community understanding of the Program's safety rationale. Such programs have been found to generate

**BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH**

continued public support for photo enforcement at around 80 percent or higher.

Accordingly, Transol will provide a range of **community awareness master materials** for the City's customization and use.

Masters will be refined after discussion with City officials to establish the City's preferred Program Spokesperson(s), its usual public information strategies and vehicles, and to research any City/Police traffic or accident data that can be incorporated to localize and strengthen the impact of the campaign.

**Master materials for use by the City may include:**

- A series of **draft Media Releases** that are prepared to publicize program milestones e.g. Contract Award, Installation Commencement, Start of the Warning Letter "Grace Period" and the onset of Notice Issuance
- **Media Information Kits** that may include a description of Program technologies; public safety research findings; sample Letter/Notice formats; sample violation images; list of installations sites etc.
- **Editorial content and images** for City Newsletters, City mailers e.g. water bills
- City **Web site** materials
- **Sample Artwork** for cable television slides, promotional products etc.
- Sample **Public service announcements** (radio and television).



©Transol Multimedia 2003

Figure 6: program logos are designed by Transol's award-winning multimedia services team.

**1.8.4 Training services**

Transol Corporation is an expert provider of training materials and services (with Transol Multimedia operating from 1987 until September 2001 as a business service unit of the Victoria University of Technology). The group's expertise is applied to develop high quality training programs and resource materials.

Training for City Officers and personnel will be delivered by expert Transol Trainers who are familiar with the program technologies and the results of similar, successful programs in other jurisdictions.



**BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH**

---

**Customized training programs will be supplied for the following groups of City personnel as follows:**

- **Police:** assigned Police Officers will be offered a one (1) day training program to familiarize them with Program technologies so that they may authorize violation events and testify in Court as to system operations if required. Training on the Transol-VP™ processing technology will cover:
  - System access and security
  - Overview of violation processing operations (by approved Transol Operators)
  - Use of the Police Authorization functions
  - Reports generation
  - Ad-hoc (case) inquiries.
  
- **Judges:** will be offered a customized program to enable informed consideration of violation evidence against the requirements of state law. The program will cover:
  - Program rationale and public safety objectives
  - Program camera and processing technologies
  - Electronic Audit Trail data (equivalent to 'Chain of evidence'), security of primary evidence and system quality assurance provisions
  - Secure Web-enabled Courts display of violation files and records.
  
- **Courts Officers:** will be offered a 1 day training program to familiarize them with the operation of the Transol-VP™ processing solution, and specifically with the functions directly relevant to their role i.e.:
  - Payments updates (if Transol-VP's Courts function is to be used by the City)
  - Generating Court Evidence Packages
  - Generating Reports (standard and user-defined) and ad-hoc (case) inquiries
  - Generating Summons requests.
  
- Optionally **City Public Information personnel** may attend any/all of the scheduled training sessions to facilitate their delivery of public information on the Program's operations (using Transol supplied masters as a base for City customization).
  
- Detailed **User Manuals** support the programs.



BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH

---

**2 CITY REP**

See attached.

**2.1 ADDENDA RECEIVED.**



City of Columbus  
Mayor Michael B. Coleman

Department of Finance  
Joel S. Taylor, Director

**Purchasing Office**

Barbara R. Johnson, Procurement Manager

50 W. Gay Street, 1st Floor  
Columbus, Ohio 43215-9036  
(614) 645-8315 Fax: (614) 645-7051

TO: OFFERORS OF PHOTO RED LIGHT ENFORCEMENT SYSTEM

FROM: JACK YOST AND FRED MYERS

SUBJECT: ADDENDUM – SA001147JY/FM

## ADDENDUM

The attached Addendum contains the Questions and Answers from the Pre-Bid Conference dated June 2, 2004.

Section 3.35.1 has been removed from the Request for Proposal.

Please attach this Addendum, to include the Questions and Answers and the revised page 4E to your response and make it a part thereof.



Transol-VP™

# Police Authorization

**Transol Violation Processing System**

Current Jurisdiction: Whittier | Current User: TextBoxUserName

**Violations List:**

Date/Time	Status	Location	Action/Comments
2004-05-15 15:15:00	SENT TO CITY		
2004-05-15 15:20:15	EXPIRE UNPROCESSED		
2004-05-15 15:25:00	EXPIRE ALLEGED		
2004-05-15 15:30:00	ACCIDENT ONLY LOGGING		
2004-05-15 15:35:00	INCOMPLETE		
2004-05-15 15:40:00	ACCIDENT		

**High Resolution Image:**

AID: [redacted] EID: [redacted] Camera Reference: [redacted]  
 Date: [redacted]  
 TLP: [redacted] TR: [redacted] Lane Number: [redacted]

**Vehicle Information:**

Color: P  
 Color: [redacted]  
 Body Type: UTILITY  
 Year: 2002

**Officer Information:**

Officer Name: [redacted]  
 Badge Number: [redacted]

**Violation Details:**

Violation Code: [redacted]  
 Date entered: 2004-05-15 15:45:51 GMT-8  
 Date of Issue: [redacted]  
 Date of Release: [redacted]  
 City: [redacted]  
 Zip code: [redacted]  
 State: CA  
 Country: USA

Easy internet access

Automatic image & data display

Play 'movie' option

- 'real-time' event display



- full violation context



Or scroll 'frame by frame' details

Select alternative scene images

Unique 'stop-bar' presence view

Single 'click' enlarges any image

for high resolution view

Full data-bars on ALL images

Robust security protocols

- ID controls access & authority level

- automatic Audit Log tracking

NO report delays

200 image back-up per event

NO program software on City PCs

Immediate use of system upgrades.

Transol's SAFE-CITY™ service covers all photo enforcement requirements

Contact: Bill Kroske, VP Bus. Development

Transol USA Inc. Tel: (480) 895-1211

Email: billk@transolgroup.com

www.transolgroup.com



**PRE-BID QUESTIONS & ANSWERS  
SA001147 – PHOTO RED LIGHT ENFORCEMENT SYSTEM**

Page 1 of 3

- Q: Is the Ordinance written? If so, what is the fine amount? Will speed enforcement be allowed? Are there penalties for non-compliance, registration lock out, etc?
- A: No the Ordinance is not written at this time. The fine amount cannot be commented on at this time. Speed enforcement will not be addressed at this time but may be considered later. There will be penalty clause for non-compliance.
- Q: Do you plan for front photography? If yes what is its intended use? Are we to photograph the driver?
- A: The Committee will look at proposals from all Vendors, this has not been decided on yet. Not important to photograph the driver of the vehicle.
- Q: Can contract term be defined as 3 years from date of installation instead of execution of the contract?
- A: To be determined during negotiations.
- Q: 1.2.4 - Is it correct to interpret this section to mean all hardware necessary for the system to be fully functional? Recognizing that technologies vary in terms of hardware requirements?
- A: Yes
- Q: 3.1.10 – Are there any specific service of citation processes that the City desires?
- A: Propose what you (Vendor's) have and the Committee will evaluate.
- Q: 3.1.12 – Are there any specific service center facility requirements that the City desires?
- A: Local office in Franklin County, the City of Columbus.
- Q: 3.1.16 & 3.1.19 – Will the citation be issued to the registered owner of the vehicle according to the DMV registered owner information? If so, is a driver image required to issue a citation?
- A: Yes, the citation will be issued to the registered owner of the vehicle, the driver image is not necessary.
- Q: 3.1.21.1 – According to 1.1.4, the goal of the Columbus Ohio Division of Police is to reduce the number of collisions and related deaths and injuries. In keeping with this objective, there are optional safety features that can help avoid a crash, but 3.1.21.1 would prevent this feature from being implemented. Would the City be willing to re-evaluate this section on an intersection by intersection basis?
- A: ~~Propose what you have and the Committee will evaluate.~~
- Q: 3.1.21.3 – Do we have to reimburse City of Columbus Transportation Department personnel, if it is not necessary to access the traffic signal control box?
- A: ~~Dependent upon the situation, possibly.~~
- Q: 3.1.21.4 – Is City of Columbus Department of Transportation personnel needed on-site if the contractor will not be accessing the traffic signal box.
- A: Yes, an inspector will need to be on site and pay for Police Officer if needed. (only for non-emergency situations). Permits possibly will be required.



**BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH**

---

Page 2 of 3

Q: 3.1.29 & 3.1.30 – Is notice to City of Columbus Transportation Department personnel needed on-site if the contractor will not be accessing the traffic signal box?

A: Yes, advisement would be necessary due to potential of interoperability and/or malfunction.

Q: 3.1.35 – What type of equipment/software is currently being used? Do you have an existing provider in place or will a new RFP be issued for this service?

A: 3.1.35 has been eliminated from this RFP document.

Q: 1.2.2 – Does the City of Columbus have a list of intersections to be surveyed/prioritized that will be made available to the selected vendor? Is there data available for these intersections?

A: Yes, the City does have a list of intersections that would be priority. The data will be made available to the selected Vendor.

Q: 1.2.5 – Should pricing be quoted on a lease basis (per approach) or on a per-ticket basis? Should purchase option be quoted?

A: Vendors can put in their proposal all 3 ways.

Q: 3.1.9 – Are there limitations on what types of electronic files the court system can accept?

A: At this time hard copies will be used if necessary in Municipal Court.

Q: 3.1.12 – Do you require the Vendor to establish a physical local office?

A: Yes.

Q: 3.1.14 – Will you require front and rear images of each violation?

A: Undetermined at this time.

Q: 6.1 – Does the City maintain a listing of businesses covered under this section?

A: Yes, contact George Harper for more information.

Q: If you are aware of how court adjudication data will be provided to the Vendor, would you describe that please, or will this be worked out with the Vendor?

A: This will be worked out with the selected Vendor.

Q: The RFP refers to City of Columbus court system. Is this Franklin County Municipal Court? Do you contemplate coordination with Muni Court?

A: Yes. Have met with administrative judge Brandt and will develop system for Municipal Court review if the hearing officer cannot settle the ticket dispute.

Q: Will the City consider eliminating requirement for face photography?

A: Vendors should submit whatever technology they have concerning the recording of the violator vehicle.

Q: What is the anticipated fine amount?

A: Undetermined at this time.





**BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH**

---

Page 3 of 3

- Q: Has the City identified all approaches to be enforced? If not, what will role of vendor be in site selection?
- A: The site selection committee will review data and responses from Precinct regarding intersections, selected Vendor will have input.
- Q: What is the hourly rate for City engineers that will visit traffic controllers at Vendor's expenses?
- A: Electronics maintenance personnel rates as of today 6-3-2004, \$42.30 per hour (subject to rise). Vehicle charge is \$40.36 per hour. Police rate \$32.50 per hour, Sergeant rate \$38.00. Car rental \$15.00 per hour.
- Q: Does the City want Vendor's to submit financial statements with their bids? If yes, which statements are requested?
- A: Yes, most recent Audited statements or at least Un-Audited statements. We prefer that they meet Statement of Auditing Standards (SAS70) requirements.
- Q: Can Vendor share conduit with the City for installation?
- A: This would have to be negotiated and looked at for each site. Probably not.
- Q: City has requested histogram reports for court proceedings. What information is to be provided in the histograms?
- A: Vendor is to provide answer to this question as to what they can provide. Reference 3.1.22.
- Q: Will City use registration hold to enforce citations?
- A: No, not at this time.
- Q: Will Committee consider rear image only (owner identification) solution?
- A: Yes.
- Q: Will you allow bidders to submit a proposed front and rear image (driver identification) system and a rear image only (owner identification) system as an alternative?
- A: Yes.

- 3.1.29 Please describe how the CoC is to be reimbursed whenever a CoC employee is needed to be at any one cabinet during installation or repair.
- 3.1.30 For non-emergency situations, there shall be a minimum of twenty-four (24) hours advance notice to the CoC and the work will be performed during normal CoC working hours.
  - 3.1.30.1 In the course of daily activity emergency situations will occur. The definition of emergency and how each party responds to that emergency shall be part of the contract negotiations.
- 3.1.31 Please describe how you handled emergency maintenance situations with cities of comparable size or larger than Columbus, Ohio.
- 3.1.32 Offerors are required to submit a current client list with company names, addresses, appropriate contacts and associated phone, fax and e-mail addresses.
- 3.1.33 Please describe your process for acceptance and disbursement of funds (i.e., the CoC's share of the revenue generated).
  - 3.1.33.1 This is to include but not limited to the following:
    - ❖ timing of funds remitted to CoC (from receipt from offeror to CoC);
    - ❖ reconciling funds for penalties to the number of violations;
    - ❖ process for NSF situations;
    - ❖ types of funds that can be received (i.e., cash, check, etc);
    - ❖ Process used to reconcile the account;
    - ❖ Costs associated with funds remittal;
    - ❖ Banking institution(s) used to funds deposited.
- 3.1.34 Please describe options for payments and collections.
- 3.1.35 **(Deleted)**

**2.1 ADDENDA RECEIVED.**



City of Columbus  
Mayor Michael B. Coleman

Department of Finance  
Joel S. Taylor, Director

**Purchasing Office**

Barbara R. Johnson, Procurement Manager

50 W. Gay Street, 1st Floor  
Columbus, Ohio 43215-9036  
(614) 645-8315 Fax: (614) 645-7051

TO: OFFERORS OF PHOTO RED LIGHT ENFORCEMENT SYSTEM

FROM: JACK YOST AND FRED MYERS

SUBJECT: ADDENDUM – SA001147JY/FM

## ADDENDUM

The attached Addendum contains the Questions and Answers from the Pre-Bid Conference dated June 2, 2004.

Section 3.35.1 has been removed from the Request for Proposal.

Please attach this Addendum, to include the Questions and Answers and the revised page 4E to your response and make it a part thereof.

**3 RESPONSE TO SPECIFICATIONS****3.1 TURNKEY PROGRAM OFFERING**

Transol's 'turnkey' solution will provide the City with:

- All required field systems and services including:
  - Advanced RI-RLC cameras systems that capture multiple view image sets to provide unmatched quality of evidence as well as unique capability to enforce against turning violators, 'creeping stoppers' and long, multiple-axle vehicles that are likely to be missed completely by conventional technologies.
  - Images are recorded at 30 frames per second, databars are embedded on all images (not just two pre and post stopbar images with a single-shot plate image) and images and data are encrypted to protect the primary evidence of violation before it is transmitted for processing
  - Site construction works, systems installation testing and commissioning, and subsequently site maintenance services
- **Violation processing** services including:
  - Submittal of pre-screened event evidence for police authorization, notice printing and mailing, and production of second and third notices as required
  - Courts evidence packages
  - System reports
- Professional program support services including:
  - Project management
  - Site evaluation
  - Staff training
  - Public education and awareness services and materials production
  - Optionally, lockbox and collections services at the City's discretion.
- **Additional technical or service options** that may be implemented to our core Transol Solution include:
  - **Intersection Accident Detection** Systems
  - **On-line** violation viewing
  - **On-line** credit card payments
  - **Lockbox** service operations
  - **Fixed speed** detection, that upgrades the core RI-RLC red light camera to a **intersection red and speed enforcement** system
  - **Wanted vehicle** detection systems.

### 3.1.1 Photographing vehicles

Transol's residual imaging red light camera systems take full advantage of digital photography to capture multiple-image sets that:

- Give unmatched quality of evidence and which
- **End reliance on single shot photography** to establish vehicle presence in relation to the stop bar, or for licence plate imaging.

Unlike competitor systems, Transol cameras do not have to rely on estimated vehicle speed to 'predict' vehicle position for focussed, single-shot photography. Instead, Transol cameras image continuously and when their non-intrusive detection camera confirms that a vehicle is crossing the stopbar, they capture and store separate, multiple-image sets with which to 'prove' the violation (the Scene-Camera and Detection-Camera views) and to establish license plate image details (the Plate Camera views). All irrelevant images are automatically deleted.

The multiple image 'Scene' set provides objective eyewitness to each red light running/turning violation. Authorizing Officers or courts officials may 'play' this set as a movie to gain 'real-time' view of the whole violation event, or examine any image in high resolution to confirm the exact details of violation.

The matching multiple-image 'Presence' set verifies exact vehicle position if the Scene view is blocked eg by heavy traffic, while the multiple plate set gives a series of plate records. For example, if plate characters are partially obscured by a bike-rack in one image, they can be read from other, un-obscured, images in the plate series for that event.

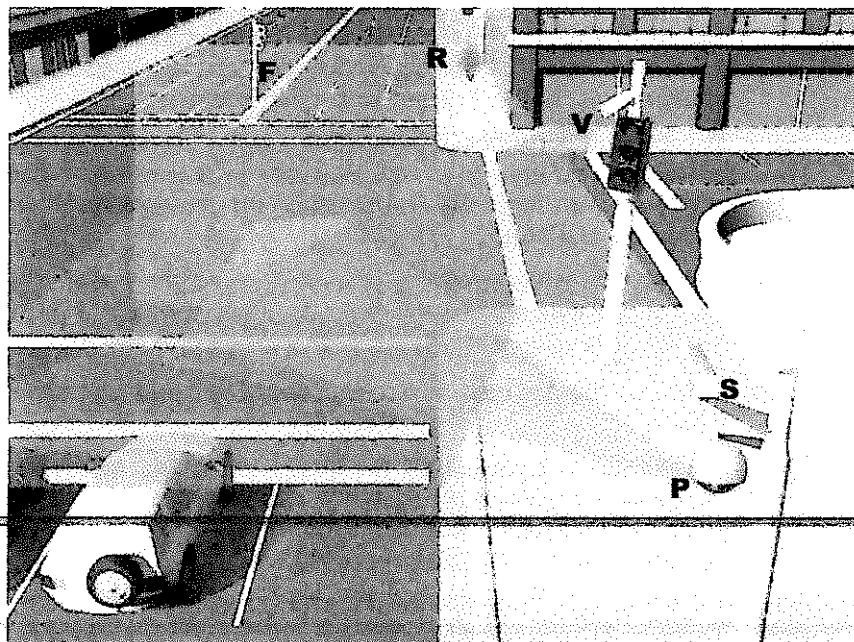


Figure 7: Transol RI-RLC™ dual (front and rear imaging) camera system installation (not to scale)

- **Non-intrusive phase detection** systems detect and notify the **start and end of each signal phase (R)** to the rest of the system technologies (without connecting into the traffic signal controller).

- Vehicle movement into the intersection is detected by a lane-specific **vehicle detection system (V)** that continuously monitors along the length of the stop bar perpendicular to the direction of travel. Any such movement detected during the 'red' phase constitutes a potential red light violation and is immediately notified to the site Controller.



Figure 8: Transol's unique 'Look-down' View, along the stopbar, captured by the Violation Detection System (V)

- Uniquely with Transol, the **violation detection camera view** gives clear visual records to prove the violation if the rear-view of the vehicle's approach to the stop bar is obscured for any reason (e.g. by heavy traffic, a bus following immediately behind etc.)
- A **Scene Camera (S)** is focused across the whole intersection (usually in the direction of travel so that the red signal head is clearly visible in captured images). It acquires a sequence of Scene Images for each potential violation - including the image of the vehicle before the stopbar after the signal is 'red' and the image of the vehicle inside the intersection that is printed to the Notice.
- The **Plate Camera (P)** records a similar series of images of the rear of the vehicle to give the multiple-plate image set. The best license plate image is printed to the Notice while others provide 'back-up' to maximize ticketing.
- If the city requires both rear-shot scene photography, and driver's face imaging, a **Face Camera (F)** is located across the intersection to record multiple images of the front of the oncoming vehicle.
- Each recorded image is stamped with GPS-derived time and location details
- A **databar is embedded on every violation image** to display captured violation data eg time, date, location, lane, signal phase, time period of the yellow light, 'time into red' of the event etc. The databar is configurable to City requirements.

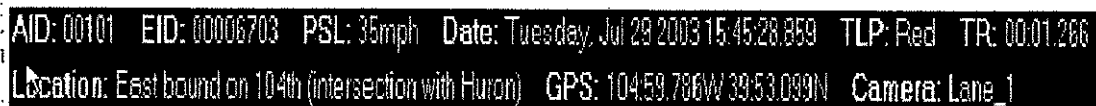


Figure 9: Sample of databar that is embedded onto the base of each violation image. Contents and design are configurable to specific City requirements.

- Unobtrusive infrared illumination is used to **optimize plate and face image quality** and avoid the risk of white-flash induced litigation.
- All images and data are **encrypted to protect primary evidence** against tampering.
- Encrypted evidence is communicated within minutes to a secured central server for storage and prompt violation processing.

### **3.1.2 Obtaining vehicle registration information**

Transol currently operates two models. The most appropriate solution for Columbus will be determined in consultation with the City.

In Colorado we have a direct interface via FTP connection into the Colorado DMV. On a daily basis the Transol-VP transmits a text file containing license plate details on detected violations and the DMV responds via FTP with a file that provides the matching registered owner details.

In California, we utilize the services of American Driving Records (ADR) for DMV interfacing. This model can be implemented for any/all states. Transol-VP transmits a batch file on a configurable schedule via FTP in an XML formatted file that contains license plate details on detected violations. ADR responds via FTP with an XML formatted file that provides the matching registered owner details including driver's license information and vehicle details. If multiple owners are registered for a vehicle multiple owner information is returned.

It should be noted that this second model supplies extensive information on registrations eg expiry date of vehicle registration, that the City may or may not elect to incorporate for its program. It should be noted also that different DMV's record variable information categories and so a particular set of information may not be uniformly available from all state DMVs.

### **3.1.3 Interface to the traffic signal control equipment**

Transol recognizing that cities may already be understandably leery of the risk that the red light camera system could interfere with signal controller functioning and thus expose the City to legal action and its program to media controversy,

Accordingly, Transol R&D has produced two alternative methodologies for non-intrusive phase detection to minimize those risks i.e.:

- **Electrical contact-free inductive sensors** may be placed around the cables running to the signal heads in order to sense current changes and thus detect the relevant light phase, or
- ~~Transol's proprietary vision-based imaging systems use a camera to 'watch' the traffic signal head and identify the red phase using image computing technology.~~

~~If the City requires direct connection, we employ opto-isolated one-way connection to completely pre-empt any possibility that our systems could alter, interfere with or even temporarily control signal phase length.~~

Similarly we do not employ any 'collision avoidance' type systems for the similar reasons i.e.

1. By definition they can be effective for a **very short period ONLY** (i.e. the actual 'all-red' period). There is thus no possible gain throughout most of the signal phase period, and there may be **distinct disadvantages** as follow.
2. The vendor **MUST HAVE direct connection to and the ability to control the City's traffic signal controllers**. This introduces:
  - Risks of **interference with signal sequencing** (over and above the 'collision avoidance'). Transol considers that traffic signal phasing is a precise process that should be scheduled to meet local traffic flow conditions etc. Vendor control has the potential to destabilize that.
  - **Public opinion/legal/political risks** (e.g. the CA court challenge around vendor induced changes in the amber phase whether deliberate or accidental).
  - **Legal exposure for the City and vendor**; an intersection crash victim may argue that Collision Avoidance-induced changes in signal phasing were a contributing factor to their injury e.g. because of driver confusion etc.
3. To the best of our knowledge after 15 working with leading programs and public safety researchers, **no research has substantiated any safety benefit**. In fact, to the best of our knowledge, there has not even been an **attempt to objectively evaluate this**. So it while 'collision avoidance' may seem attractive on first pass, it remains an untested proposition.
4. There is a risk that **driver's will come to expect a 'hold on red' and will continue to 'run'** (with the expectation that a system-induced 'all-red' phase will protect them). This can **undermines the whole logic and credibility of a program**.
5. Available systems rely on predicted speed of travel – if actual speed varies from the predicted speed they may fail or they may work inappropriately. Where in ground loops are used for violation detection they may also fail if the vehicle travels below the set Vehicle Threshold Speed.

#### **3.1.4 Review of image evidence**

For the City's Program, Transol's Data Center will regularly, automatically, poll each installed camera system and download violation images and records via a secure Internet connection.

Events (violation images and data) captured by the each of installed camera systems will be automatically uploaded via VPN to the fully Internet-enabled TRANSOL-VP system for pre-screening review.

This first level **review is conducted by trained, certified Transol Operators who will apply** a detailed set of City approved business rules.



**BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH**

For example, the City may elect to require that the entire vehicle is behind the stop line (as for our CA projects) or simply that its front wheels are (as for our Northglenn project).

Transol's Technical Review insures that data shown on each image databar is consistent with the visual record of the event. For example, Operators will **'play' the event to confirm that the signal turns red before** the vehicle crosses the stop bar.

They then review the multiple images sets frame by frame to confirm that **signal phase information shown on the databar record of any image to confirm that is consistent** with the visual record.

Frame by frame review also allows Operators to select **the optimal images to 'prove' the violation** using the Scene set, and uniquely with Transol, confirmation from the 'look-down' Presence image sets. The best plate area image, and optionally the best driver's face area image, is then 'cut' from the respective multiple images sets for the violation.

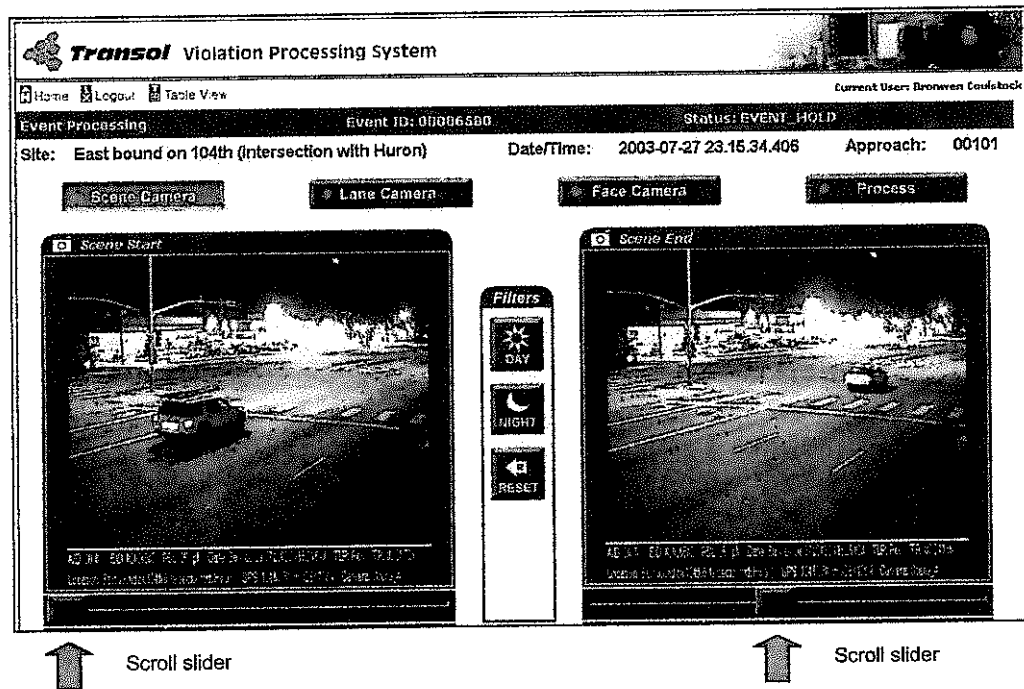


Figure 10: Transol Operators 'scroll' the multiple-image Scene Set to select optimal pre-stopbar and mid intersection images to 'prove' the violation under law.

**License plate details are entered** at this stage also.

Operators may 'accept an event, 'hold' it for supervisor review, or 'reject' it if it fails to meet the City's acceptance rules. The reason for rejecting any event is logged for Transol's quality performance analysis and for City reports.

'Accepted' events are reclassified as Incidents by the Operator and are then **immediately available for DMV data look-up.**

### 3.1.5 Matching to DMV information

During pre-screening Transol's Processing Operators make a visual check to identify and enter license plate details (characters, numerals and state).

When the DMV information is returned, Transol's second-stage Quality Assurance Review compares the DMV returned details (registered owner, vehicle make and model as a minimum) against the visible vehicle image. If there is a discrepancy, Transol QA may reject the event, or enter updated details and resubmit the incident for a further DMV look-up. When that data is returned, the QA process is repeated.

### 3.1.6 Quality control process

As immediately above, Transol QA compares DMV returned details with the visual images (scene and/or lane/plate) of the vehicle. In the event of discrepancy, the incident may be rejected (with reject reason tracking) or re-entered for DMV look-up. If the DMV data and visual information is consistent, Transol QA approves the incident and it is **immediately automatically available for Police Authorization**.

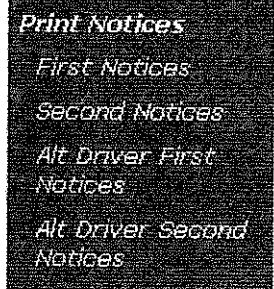
Accepted Incidents are presented for Police Authorization in order of age, although Officers can override this and select any incident in the queue. When an incident is 'opened', the four (or five) optimal images pre-selected by the Operator will be automatically presented on screen together with all required vehicle owner and license data. Officers may 'play' the incidents or review image sets frame by frame if they wish to confirm the exact context of violation eg for accident investigation or to answer an inquiry.

### 3.1.7 Generating citations and mailing

The City's Notice and envelope formats will be customized to City requirements and may display two color scene images with the red signal head clearly showing, the license plate image and the driver's face image (if applicable) as well as payment instructions etc. If the City elects to adopt frontal imaging, passenger images will not appear on the printed notice.

Transol-VP allows Authorizing Officers to review the pre-screened images and DMV data for any event prior to notice issuance using the options of movie 'play' or screen-by-screen scrolling. If the Officer approves the event for ticketing, he/she clicks 'accept', it's status immediately changes to 'Ready Notice' and it is held in the Transol-VP system database until the Processing Administrator instructs creation of a batch file of notices for printing which includes a report that details each Notice Print run and shows details of citation number, date/time of event capture and date/time Notices printed.

Turnaround time between event capture and notice printing may be as little as 12 hours and is generally less than 2 days provided that the Police Authorization is completed promptly.






**BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH**

Transol operates an automated mailing machine to fold and envelope printed Notices for mailing. Notice formats will allow display of addressee and return address details in the relevant envelope windows and all other details are shielded.

US Post Certificates of Mailing may record all mailing details.

Note: an identical process applies to the production and mailing of Warning Letters if the City elects to operate a Warning Letter phase for public education purposes at the commencement of its program.

Sample Notices are provided at Appendix 1.



**City of Davenport**  
Red Light Photo Enforcement Program


**NOTICE OF VIOLATION**

The City of Davenport has a red light photo enforcement program as provided by law with the goal of increasing safety, reducing accidents and increasing compliance with traffic laws. Your vehicle was photographed by an automated camera system positioned at the red light at a portion of Davenport City, Davenport, IA. The notice of violation is being mailed to you. You are responsible for the fine indicated.

NAME: JANE DOE 123 MARKET ST DAVENPORT IA 52801	City: IA Zip: 52801
LICENSE: 1993 REGISTRATION: 07/09 EXPIRES: 07/09	Driver: JANE DOE License Number: 12345 Registration Number: 67890
Vehicle: PASSENGER VEHICLE Make/Model: 2008 Honda Civic Color: Silver	Camera Location: 225 W. 9th St. Camera Name: 225 W. 9th St. Camera 1

26 May 2008 07:00:00A

Failure to respond to this notice will result in a Civil Citation being mailed to you. You will then be required to appear in person in Court and will incur an additional charge of at least \$50. Failure to file the fine or appear in court will result in a judgment being mailed against you and liens registered in State County Court.



Three photographs showing a vehicle at a red light intersection, with a red light camera mounted on a pole overlooking the intersection.

**Questions and Answers Regarding This Notice**

**A: Why did I get this notice?**  
 A: Vehicle registered in leased to you was photographed by an automated camera system monitoring an intersection controlled by a red light. Vehicles crossing the stop bar after the light turns red are automatically photographed. Images are on each photo is a data bar indicating the date, time and location of the violation. An example of a data bar is shown below.

**A: Is this notice a "Traffic Ticket"?**  
 A: No. This notice is not considered a moving violation. It is a civil violation holding the registered owner or lessee responsible for the violation (see fine in parking ticket). No points can be assessed against your driving record and it will not raise your insurance rates.

**A: If someone else was driving my car, am I still responsible to pay the?**  
 A: Yes. Davenport City Ordinance 10.16.70 holds the registered owner of the vehicle responsible for the fine. It is similar to a situation where another person uses your car and you are responsible for illegally parking in a handicapped parking space.

**A: Can I contact this notice of violation?**  
 A: Yes. To do so, you must appear in person at the Traffic Bureau of the Davenport Police Department at 830 Harrison St. between the hours of 9:00 a.m. and 4:00 p.m. Monday thru Friday and request a hearing before a judge. You should do so at least 5 business days before the due date listed on this notice. If you request the violation in court, \$50 in court costs are added to the fine. If you are found guilty of a failure to appear, you will be responsible for that cost. If you are found not guilty, the City pays that cost.

**A: What if this vehicle is owned by a rental or leasing agency, was not being driven by one of our employees, and was being leased or rented to a business or person?**  
 A: If the vehicle was leased or rented, the leasing agency should go to the Police Department's web site www.citydavenport.com and get instructions on how to make notification with the right lessor.

**A: What happens if I ignore this notice?**  
 A: You will be issued a Civil Citation and will be given a court date at which you must appear. If you do not appear in court, a judgment will be mailed against you and liens may be registered against you at State County Court.

**A: Can I contact someone if I have questions about this notice?**  
 A: You will be mailed a Civil Citation Card and will be given a court date at which you must appear. If you do not appear in court, a judgment will be mailed against you and liens may be registered against you at State County Court.

**Example Data Bar**

Unique location and incident codes	Exact date and time that the incident occurred	Traffic light phase	Time into red phase
AND 225 W. 9th St. 07:00:00A Location: 225 W. 9th St. Incident: 07:00:00A Camera Name: 225 W. 9th St. Camera 1 Camera Location: 225 W. 9th St. Camera 1	Date: 20080526 Time: 07:00:00 Vehicle Speed: 0.7 mph Lane Number: 1	Light Phase: 1 Time into Red: 0.7	Time into Red: 0.7

Camera Name: 225 W. 9th St. Camera 1  
 Camera Location: 225 W. 9th St. Camera 1  
 Posted Speed Limit: 35  
 Measured Vehicle Speed at the time of the incident: 0.7 mph  
 Intersection Lane Number: 1  
 GPS position: 41.7281, -87.8299

**Admission of Guilt or Liability**

I have read or been advised of the rights described in this notice. I hereby waive these rights and voluntarily admit that my vehicle was involved with this violation. I agree to pay the fine indicated on the reverse side of this notice with the understanding that this violation will not be a part of my driving record and this information will not be submitted to my insurance company.

Signature: \_\_\_\_\_ Name: \_\_\_\_\_

Address: \_\_\_\_\_

License plate: \_\_\_\_\_ Violation Number: \_\_\_\_\_ Date: \_\_\_\_\_

Figure 11: Sample Notice Format, Rear-Photography RI-RLC program

**5.1.3 Compliance with SAS 70 requirements**

Transol's Independent Auditor, DFK International, will confer with the City to insure compliance with SAS 70 requirements.

Transol confirms that all records and data in its Transol-VP system are protected by rigorous security and tracking protocols and that any change in status for any violation is automatically logged and must appear on the Electronic Audit Log for the violation. Transol confirms also that it follows



## BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH

SAS accounting standards, that it is a publicly listed company, and that as such, it must lodge quarterly reports and an annual certified audit.

### 3.1.9 Transfer of files between the Courts and Transol-VP

Transol will develop a process for transfer of files containing citation information in consultation with the City.

Existing models include:

- In California, consistent with the requirements of the LA Courts, all details pertaining to each printed notice are transferred as an ASCII text file to the courts. Each month, the Court transmits a disposition file via FTP detailing payment records for each notice and that information is then used to update the event status in the Transol-VP database.
- In Northglenn Colorado (where the court had no internal system to escalate overdue citations) courts officers record fines payments on a specifically built Transol-VP courts interface.

If no payment is recorded within 30 days of citation issuance, the Transol-VP system automatically generates a second notice for printing and mailing and these details are recorded in the system.

### 3.1.10 Second notice processes

As immediately above (3.1.9), Transol will work with the City to determine the required business rules for second Notice issuance and will then implement these within its Transol-VP automated processing system.

If additional notices are required (eg first, second, final as for Davenport) the appropriate business rule will be created and implemented for production of additional notices in the Transol Data Center. However, if the City elects to control its own third notice or Summons process (for physical serving as for Northglenn, CO) Transol-VP allows this to be printed locally eg in the Police Department.

### 3.1.11 Court testimony and evidence packages

#### Courts testimony

Transol will supply **Expert Witnesses** to testify on the various detection, imaging and processing technologies applied for Columbus and will facilitate implementation of Judicial Notice (if desired by the City). **Expert Witness testimony** may be supplied by Senior Engineers/Technicians or by Transol's local program staff. Transol will provide expert training for City Police officers also so that they may testify effectively as to the operation of program technologies.

**Courts Evidence Packages** will be generated using Transol-VP™. Transol may provide them as print packages, or Courts personnel can take advantage of Transol-VP's Courts module to generate Packages as required by logging

#### Courts Menu

*Enter payments*

*Reverse payment*

*Enter alternate driver nomination*

*Enter waivers received*

*Enter court dates*

*Enter pending case details*

*Print summons*

*Enter notice serving details*

*Enter court verdicts*

*Print court packs*

#### Courts Quick View

*View single case details*

*Multi Select*

#### Reports

**BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH**

into the Courts module on Transol-VP. Courts generated Packages may thus comprise sets of **printed documents or onscreen displays on the Courts computer.**

**Packages** may comprise:

- A copy of the **first Notice** (or first Notice with amended driver details)
- (At least) **two full-color, full-size 'scene' violation images**, showing the violating vehicle just prior to entering the intersection during the red light phase, and a second image depicting the same vehicle in the intersection in order to confirm the violation under law. Embedded Databars document all violation details.

- Optionally, a set of additional scene images may provide **complete context** for the violation. These may be 'played' as a movie in Court if desired.

- The 'lane image' showing the front or rear of the vehicle (with full databar details) and **'cut' license plate image area** that was printed to the notice.

- (Optionally) a **'cut' driver's-face image** as well as the full frontal-shot image from which the 'cut' image was derived.

- Complete **violation data** comprising the data transmittal sheets.

- **Statement of Technology** describing the camera system's operation.

- **Electronic Audit Log** that records every status change for an event in the life of evidence from its point of capture onwards. (The Audit Log thus supersedes conventional film-camera 'Chain of Custody' which had to rely on personal testimony and manual systems.)

- Certificate of **Mailing.**

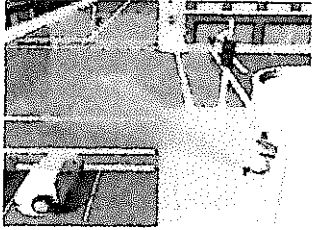
- **Maintenance logs.**

- **Other information** as defined in consultation with the City and Courts including correspondence regarding the violation.

**Statement of Technology: RI-RLC™ red light cameras**

Vehicle movement into an intersection after the traffic signal has turned 'red' constitutes a potential red light running violation. For these events RI-RLC™ systems record:

- **Multiple Scene, License Plate and Face Images** and
- **Violation data** including date, time and location details that are derived from the system's GPS technology, the detected traffic light phase, and the time into red. This data is embedded on a Databar displayed on each violation image.



**SYSTEM OPERATIONS**

The RI-RLC™ system monitors the traffic signal phase in the direction of travel. Its phase detection system instantly detects each change in the status of the green, amber or red traffic lights and records the time each change occurs. Immediately after the red phase is detected this is notified to the Controller computer that manages all system technologies. Vehicle movement into the intersection is also continuously monitored by a computer vision system (CV). Any such movement detected during the red phase is recorded as a potential red light violation and is immediately notified to the Controller.

The RI-RLC™ system provides digital cameras that continuously record images as follows:

- The **Scene Camera (S)** is focused across the whole intersection in the direction of travel. It requires a sequence of Scene Images for each potential violation - including the image of the vehicle before the stopbar after the signal is red and the image of the vehicle inside the intersection that are printed to the Notice.
- A similar series of more narrowly focused images of the rear of the vehicle is acquired to the **Plate Camera (P)**. These provide the license plate image that is printed to the Notice.
- A **Face Camera (F)** located across the intersection records another series of images of the front of the oncoming vehicle that provides the driver's face image that is printed to the Notice.

As each image is saved, data calculated by the GPS and the detection systems is used to create the **Databar** and the system calculates a unique MD5 digital signature for the event to safeguard the primary evidence against any possible alteration.

Transmission from the camera site to the processing facility is via a secure Virtual Private Network.

The original evidence is then stored securely and may only ever be viewed (not altered) during any subsequent process (eg Processing review, Notice issuance, Police Authorization etc).

DATABAR	
1	Unique site ID
2	License plate ID
3	Posted Speed Limit
4	Date and time
5	Traffic light phase
6	Time elapsed
7	Location (lat/long)
8	GPS location
9	Site Camera

AIC: 10069R062V1 Doc ID: 10069R062V1 PGL: 10069R062V1 Data: 10069R062V1 PGL: 10069R062V1 TLP: 10069R062V1 TR: 10069R062V1

Location: 10069R062V1 GPS: 10069R062V1

Camera: Scene A

Figure 12: A Statement of Technology is available for courts and for community awareness

### 3.1.12 Service center facility

Transol will establish a local program service facility in Franklin County. The Center will be staff by Transol Technicians during standard office hours and will be located by agreement with the City. Center staff will be trained to insure they are competent to provide Expert Witness testimony, and to support City Program and the local site maintenance technicians.

Local staff will have immediate access to telephone and on-line support from Transol's expert Operations and Data Center Engineers. Additional support (outside Ohio business hours) is available from Transol's R&D Center also.

### 3.1.13 System reports

During program implementation, the City's requirements for standard systems report will be scoped and implemented with the Transol-VP system.

Reports are created in pdf format and may display data in standard text/table formats or graphical formats. Examples of available Report formats are provided at Appendix 2.

Each user's ability to access standard system reports and to generate non-standard reports is **automatically controlled** by Transol-VP's screening of user ID and password at login.

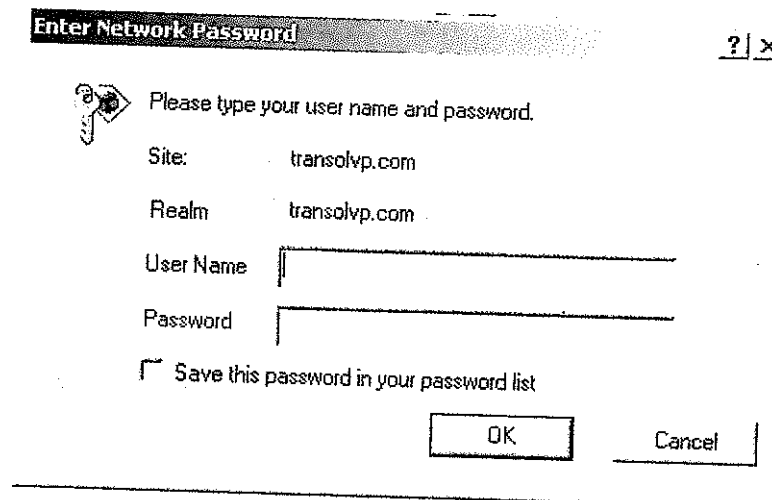


Figure 13: User login provides robust security protocols and defines 'authority level' i.e. access rights within the Transol-VP system.

Authorized City users will then be able to **access Reports 24 x 7 at their pre-defined authority level** via the Internet (instead of having to request reports issue from the vendor and wait for their delivery).

**Standard Reports** may contain information on total system performance (and breakdown by each camera location) such as:

- Condensed Police Clerk view (summarizing individual citation data)
- The total number of violations recorded for the month

**BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH**

- The number of Warning Letters/Citations issued
- The number of events rejected at any stage in the system, with rejection reasons
- Payments records
- Violation (case) status.

In addition, Transol-VP allows authorized users to create **non-standard reports using the system's 'multi-select' function**. For example, this would allow authorized personnel to request a report on the number of events recorded at any site in a defined time period.

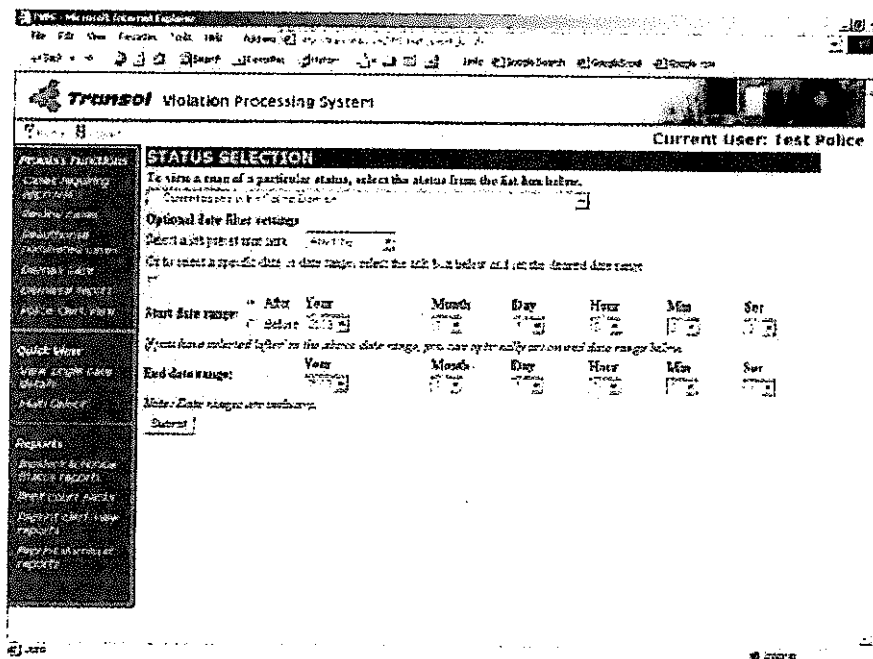


Figure 14: Authorized personnel will be trained to use Transol-VP's non-standard reports function.

### 3.1.14 Service level agreements

Transol advises that under its other photo red contracts it takes full responsibility to install, test, support and maintain and de-install all program systems.

In Columbus, Transol's Program Office staff will be available to meet with and support the City as reasonably required. Regular program review meetings may be held at the City's discretion.

Local service level support and response times will be identical irrespective of whether the City elects to have Transol operate a full 'turn-key' program service, or if it decides to purchase site technologies (with a supporting Transol maintenance contract).

In-brief:

- All Transol field systems are subject to a remote status check every day to confirm correct systems operations, and remote access by Transol

**BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH**

Engineers allows immediate remote support for software-driven maintenance and site upgrades.

- The systems automatically log and notify any malfunction to the Transol Operations Engineers.
- All field systems will be physically inspected on an agreed Site Schedule. Inspections may be by Transol Program Officers, or by approved contractors (see section 1.4).
- Response time for site attendance by trained local support technicians will be 24 hours.

**3.1.15 Violation detection and imaging**

Transol's non-intrusive violation and unique 'residual imaging' camera operations are described at Section 3.1.1.

To recap briefly, Violation detection is achieved with Transol's non-intrusive Presence Camera operating proprietary Transol vision computing software. The Presence Camera continuously monitors lane specific areas along the length of the stop bar perpendicular to the direction of travel. Any vehicle presence and movement detected in a lane area during the 'red' phase constitutes a potential red light violation event and is immediately notified to the site Controller which instructs retention of the relevant image series.

Transol's Scene, Plate (and optionally Face) cameras continuously monitor their areas of interest and buffer images captured at 30 frames per second. Each image is stamped with GPS time and data, temporarily stored in electronic form in a residual imaging buffer for a very short period (around 2 secs) and is only saved when the Violation Detection system notifies a potential violation.

When a potential violation is notified the system retains existing images in the buffer and captures additional images to complete the stored record for the violation:

Key advantages of the Transol Solution thus include:

- **Non-intrusive** signal and violation detection



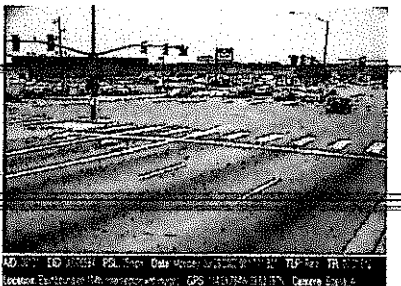
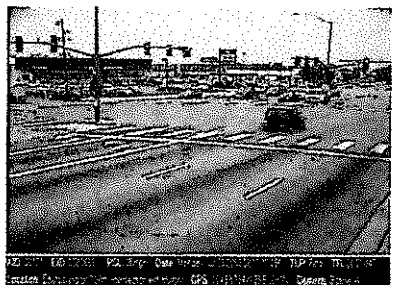
Figure 15:  
Non-intrusive vision-based  
signal phase detection systems  
(top camera) & presence detection  
systems (angled camera and  
'presence view' below).





**BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH**

- **30 frames per second, continuous**, imaging (compared to rates that can be as low as two (2) frames per second)
- **Residual Imaging** (Transol's 'RI' patent) that gives the ability to retain series of multiple 'still' violation images (providing objective eye witness to each red light running/turning violation) and to automatically discard irrelevant images.
- **Unique 'look-down' presence views** for violation verification
- **Multiple image records from each camera.** Advantages include conclusive evidence for fair ticketing, no 'single-shot' photography risks and high issuance rates.
- **No white-flash distraction or litigation risks** (with invisible IR illumination systems securing high quality plate and (optionally) face imaging if required).
- **Independent GPS-accurate time, date and location data** stamped onto each record and shown on the databar.



**3.1.16 Driver identification**

As previously (Section 3.1.1) Transol can apply frontal-only photography or 'dual' (front and rear) photography to capture **multiple-image sets of clearly visible driver's face images.**

Transol-VP lets Operator's **'cut' a driver's-face only image** from the best available frontal shot image in the series in order to **protect passenger privacy.**

The following points may assist the City's consideration of alternative photography options (rear-only, frontal-only, dual):

- Local citizens may already be familiar with and accepting of Ohio's existing rear-shot photography programs
- Rear-shot programs produce scene images with the 'red' signal head clearly visible. In Transol's experience, this helps limit objections and inquiries and protects against possible litigation such as recent CA actions that argued that the signal status seen by drivers was not visible on captured evidence.

## BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH

- Frontal-only photography programs are subject to unavoidable ticketing losses if vehicles do not carry front plates.
- Use of face imaging may prompt allegations of infringement of privacy (although Transol's system prevents any release of passenger images)
- Dual photography identifies offending drivers (not just owners). However a mandatory requirement for a clear face record will introduce some inevitable ticketing losses that cannot be overcome by system design if the driver's face is consistently obscured for any reason.

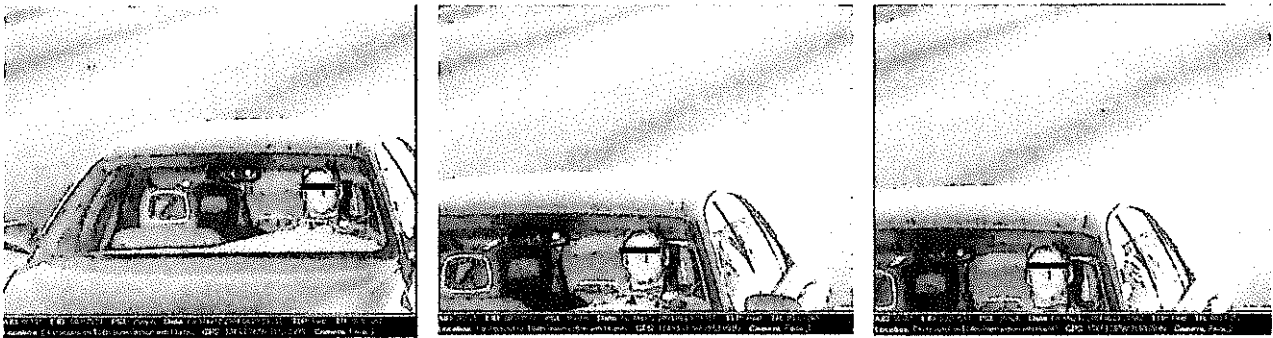


Figure 17: Transol's residual-imaging face cameras capture multiple face images for a violation to support successful driver ID. The 'face-area' image is 'cut' from the best image in the set.

### 3.1.17 Rear license plate image capture and quality

Transol's residual-imaging cameras were specifically designed to overcome the ticketing losses experienced with:

- 'Single-shot' plate photography.
- Cameras that rely on 'estimated vehicle speed' to trigger imaging and which therefore fail to detect violations where vehicles are travelling more slowly than the pre-set 'threshold speed' for violation detection.

As described at 3.1.15 above, Transol's residual imaging plate camera system is set to monitor a defined area in the vehicle's lane of travel and capture images of this area at 30 frames per second.

So instead of waiting for a 'trigger' to start imaging, the system effectively just waits for the vehicle to pass through the lane area it is monitoring. The camera captures multiple, lane-specific images of the vehicle as it travels through this area and each image is stamped with GPS time and location information that is displayed on the data bar and allows the plate image set to be associated with other sets for that event.

By capturing a multiple-image plate series for every potential violation event, Transol's systems thus have a **unique capability to successfully enforce against long/multi-axle vehicles** (which are typically missed by single-shot systems that assume a conventional vehicle length and consistent speed as thus trigger too early to actually record the plate area).

Similarly Transol's cameras have **very high enforcement capability against turning violators, or 'creeping' violators** (both of which tend to be 'missed' by conventional systems that only detect and enforce against vehicles that are travelling above their pre-set threshold speeds).

**BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH**

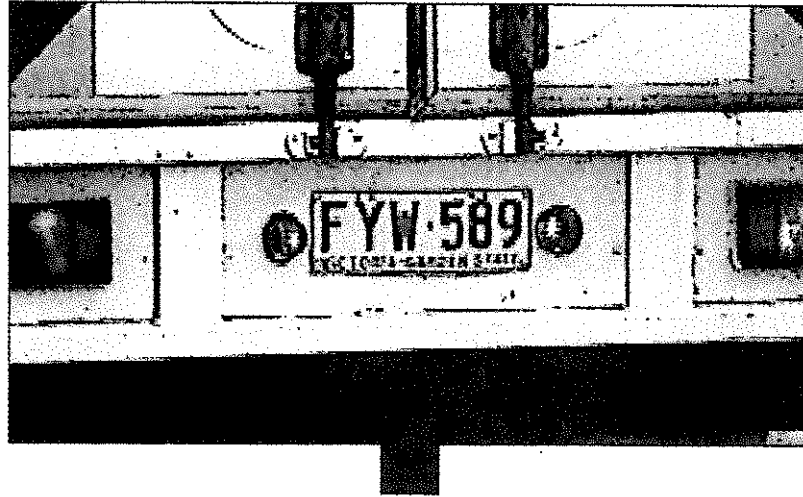
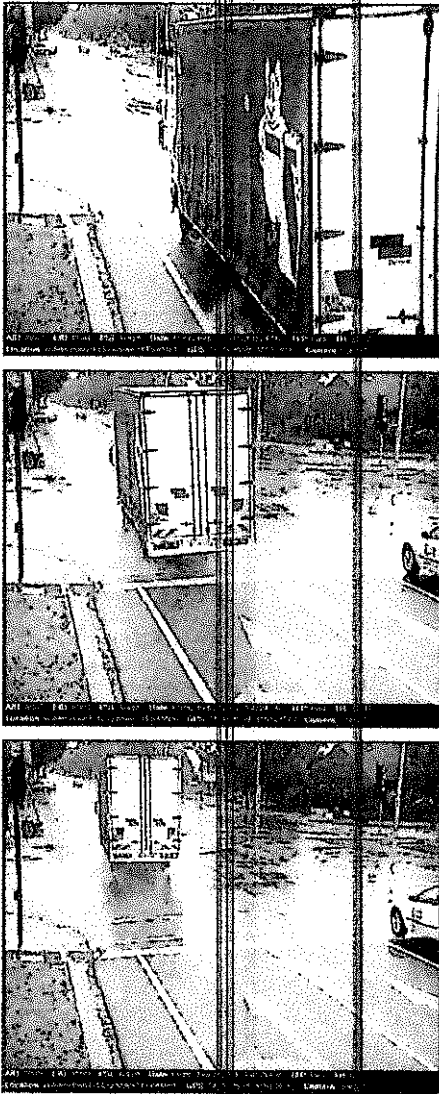


Figure 18: Transol's multiple-plate sequence gives successful plate captures for long vehicles.

By comparison, conventional systems may 'miss' the plate shot on long vehicles because their single-shot plate image is captured too early to 'view' the plate area (illustrated below)

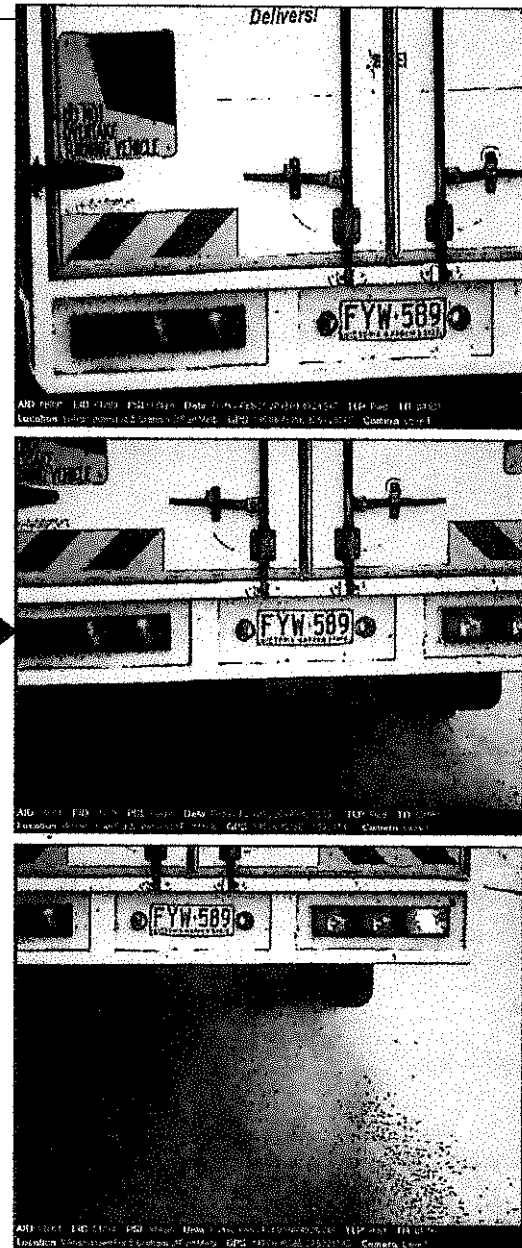
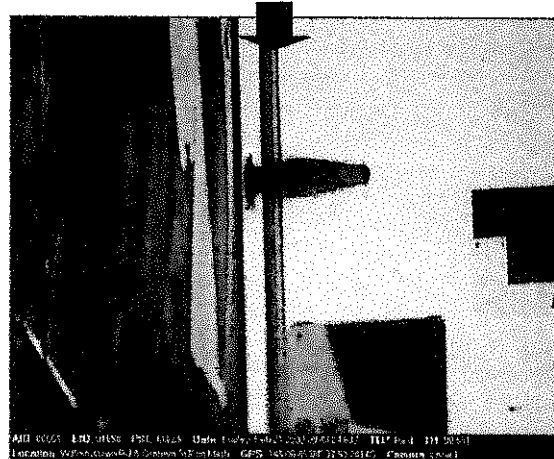


Figure 1: 3 images from Transol's 40 shot Scene sequence (long vehicle)

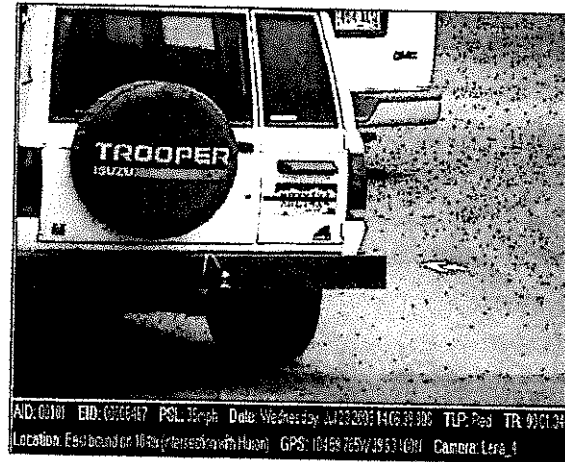
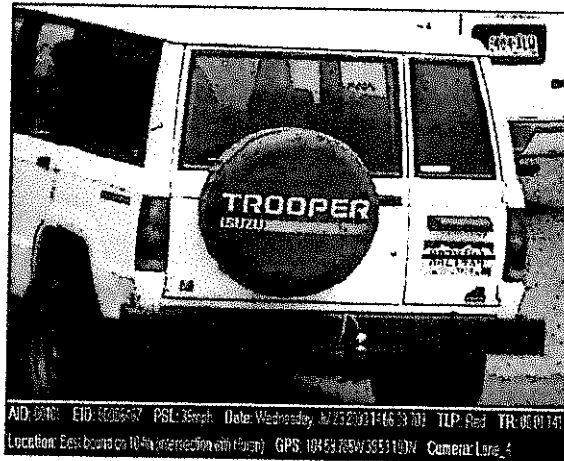
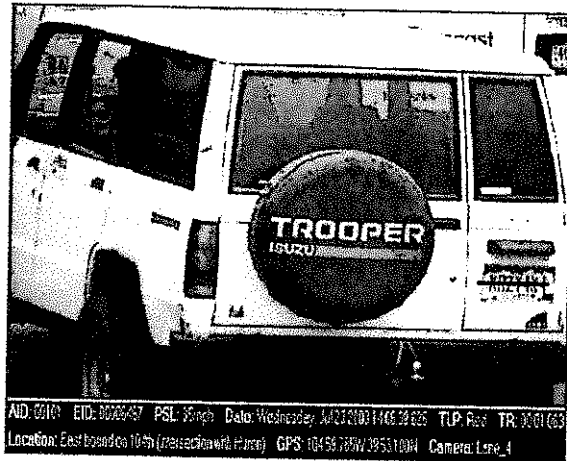
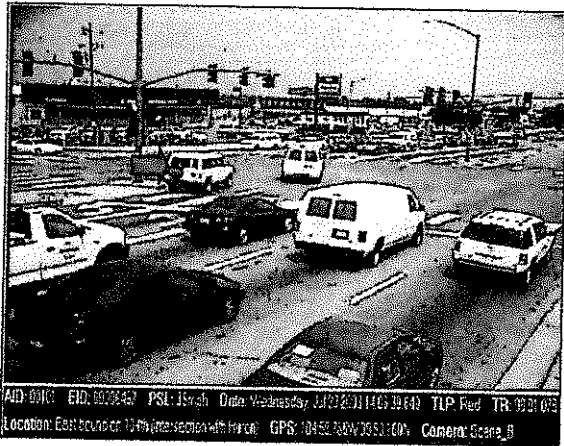


Figure 19: Scene and Plate Images Selected from the Multiple Scene and Plate Image sets successful document Turning Violations

### 3.1.18 Image visibility and clarity

The image quality achieved with Transol's cameras is illustrated by the sample images sets provided immediately above (Sections 3.1.16 and 3.1.17).

During pre-processing all images in any of the multiple image sets for the violation (Scene, Presence, Plate and optionally face) may be:

- 'Played' as real-time movie presentation, or
- Viewed 'frame by frame' with option to 'click' onto any frame for a
- High-resolution image display.

Databars giving complete data details for violation are embedded on ALL images for a violation (not just the 3 or 4 still images that are printed to the notice).

Likewise during Police Authorization all images in each of the Scene or Presence image sets for the violation may be 'played' for a real-time display. They may also be viewed 'frame by frame' or as an enlarged high-resolution view (as can the 'cut' plate and face images).

Finally, if the conventional Scene image of the vehicle's approach to the stop bar is blocked, eg by heavy traffic, Transol's unique set of 'presence' views is available to verify the vehicle's exact position in relation to the stop bar (with time into red clearly identified on the databar). This cancels out a significant reason for ticketing loss that would be experienced with competitor systems that have only (usually one) scene image to rely on.

### 3.1.19 Consistent imaging capability

Transol's RI-RLC system applies lo-lux cameras with invisible IR illumination for high quality plate (and optionally face) imaging over 24 hours in all ambient weather conditions except if snow or fog is so thick that it effectively occludes the camera view. (This limitation applies to all available camera systems).

Multiple-image plate records also support more effective vehicle ID and hence higher ticketing rates because if a character is obscured or overexposed in any frame it may still be read from others in the set for that event.

Additionally while characters can unreadable in single-shot plate photography because of glare or flare off part of the plate, with Transol, as the vehicle changes position, the flaring is reduced or removed altogether allowing the characters to be read from other shots in the series.

Similarly multiple image face records allow the face area image to be selected from the best face image in the face set. For example, even if the driver's face is substantially occluded eg by an objects hanging from the rear-view mirror in some frames, as the vehicle changes position, other face views are available for ticketing.

Finally it should be noted that if the rear plate image is blocked – for example by a bus or high vehicle travelling close and immediately behind the violating vehicle, if Transol's dual-photography cameras are in use, the plate can often

be extracted from the series of frontal images that are used to obtain the driver's face.

### **3.1.20 Internal calibration**

Transol notes that the concept of 'calibration' applies to conventional camera systems that use detection loops to detect vehicle speed for the purpose of 'triggering' camera operations.

This is not applicable with Transol's systems.

Nevertheless, Transol's systems do provide for automatic diagnostic, error checking and analysis on all system operations in order to detect any malfunction in their imaging, image management, communications or detection systems.

If such a malfunction occurs it is logged by the system and automatically notified through to Transol maintenance. The camera system may not shut down (so that remote support can be carried out) any violations captured are automatically flagged as occurring during a malfunction period to prevent processing or ticketing.

### **3.1.21 Maintaining the integrity of CoC's traffic signal system**

Refer Section 3.1.3 for a discussion of Transol's non-intrusive traffic signal phase detection systems that have been developed by Transol R&D in response to City concerns that photo red systems could interfere with correct operation of the signal controller.

We will be please to supply further details of our:

- Non-intrusive phase sensors, that are installed to detect changes in current flowing to the signal heads, and which do not require direct connection into the controller
- Non-intrusive vision-based systems, that continuously monitor the status of the signal heads and which are completely independent of the controller.

Transol confirms its understanding of Items 3.1.21.1 to 3.1.21.4 inclusive, and confirms that it's program will comply with all of these requirements.

### **3.1.22 Computer data capture and analysis**

Transol's proposed photo red solution comprises a fully integrated distributed system with all camera systems and site technologies operating on a VPN to our central Data Center.

Any change in the status of any violation event at any time during its life in the Transol System from time of capture onwards, is automatically logged by agent, time and location and this information automatically compiles to create and Electronic Audit Log for evidentiary purposes.

So whenever a user logs-in to the Transol-VP event management system, their ID is automatically registered and from then on, any action or decision

affecting the system is recorded in the system's central database and is available for subsequent reporting and analysis.

**3.1.22.1 Monthly reports** may be prepared according to the city specified requirements and schedules. They will be presented in the City's preferred formats (text, table or graphical/histogram formats). Refer Sample Reports at Appendix 2.

**3.1.23 Monitoring multiple traffic lanes, vehicle types and managing ambient weather and light conditions**

A single Transol RI-RLC red light camera system will enforce violations in up to **four (4) lanes of travel in a single direction** eg eastbound. The lanes may be straight through, left-turn, or right-turn.

**No additional fees are charged to monitor left or right turning lanes** provided that the total number of lanes to be enforced by a single system does not exceed 4.

Additionally, Transol systems deliver very **strong enforcement performance against long vehicles, slow vehicles and turning vehicles** because they are 'presence-based' not 'prediction-based'.

As discussed at Section 3.1.1 and 3.1.17, the Transol plate camera is set to capture multiple license plate images for any violation event irrespective of a vehicle's travel speed. Unlike conventional cameras they do not need to estimate vehicle speed for the purpose of 'triggering' a single plate shot at a position for focussed photography (which may or may not actually occur).

Instead, when the violation detection system detects a vehicle crossing into the intersection on 'red' in a particular lane, the Transol plate system is set to monitor an area of that lane. As the vehicle moves through the detected lane area, the **plate camera captures multiple vehicle images from which the 'best' plate area shot is 'cut'** during processing.

By capturing a multiple-image plate series for every potential violation event, Transol's systems thus have a **unique capability to successfully enforce against long/multi-axle vehicles – see Figure 14 next page**. These events are typically missed by single-shot systems that assume a conventional vehicle length and consistent speed and so may trigger too early to actually record the plate area.

Similarly Transol cameras deliver **unmatched performance against turning violators and slow vehicles because they do not, by default, exclude slow moving vehicles from detection** (whereas conventional systems assume that a vehicle which is travelling below their 'threshold speed' will not continue into the intersection on 'red'). As a result conventional systems **can completely fail to detect turning vehicles and creeping violators**. Even if detection is triggered, the plate camera shot may be poorly focussed or missed altogether because the vehicle will not be positioned as predicted.

---

Refer **Figure 19 earlier** for an example of Transol imaging on turning violators. **Figure 20 (next page)** shows how Transol's lo-lux cameras are effective against long vehicle violators, even when plates are located in the shadow below the trailer because the system uses a combination of lo-lux photography and **infrared-based illumination to enhance image performance**.



BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH



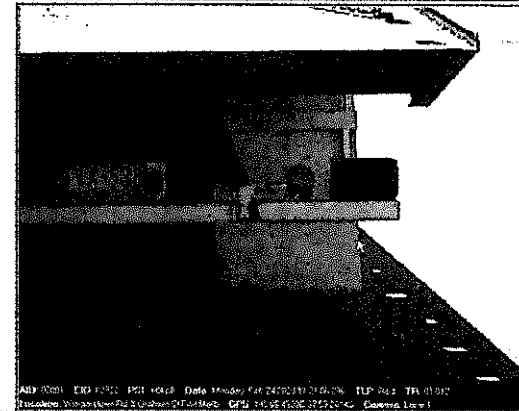
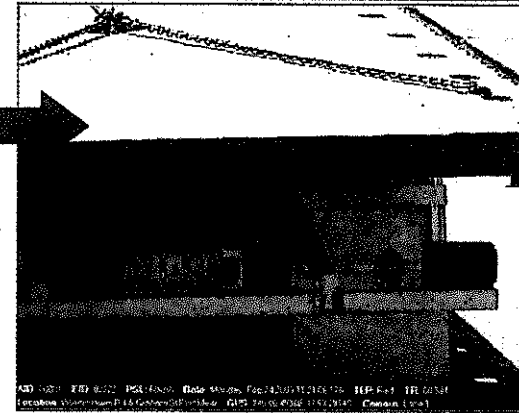
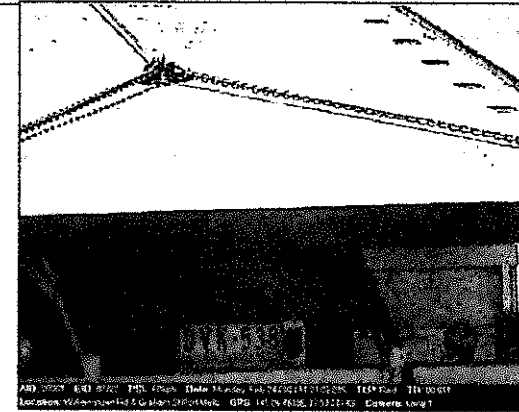
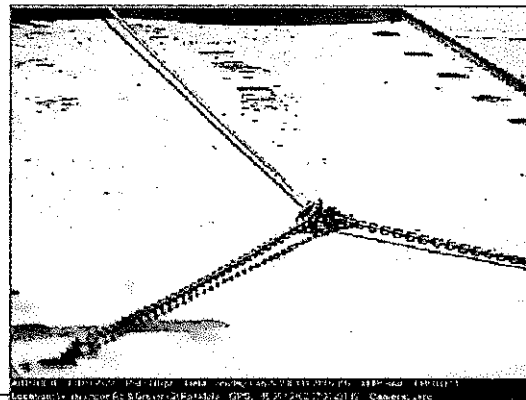
Figure 3: 3 images from Transol's 40 shot Scene sequence,

(long vehicle)



Figure 20: Transol's multiple-plate sequence gives successful plate capture even where the plate is positioned deep under the brightly-lit tray top - is the most difficult plate imaging position.

By comparison, conventional systems may 'miss' the plate shot on long vehicles because their single-shot plate image is captured too early (as below) to 'view the plate area'





### 3.1.24 Automated set-up

During systems commissioning Transol technicians optimise system performance using a systematic of performance testing regime. Once the system is operating, Transol engineers who access the systems remotely perform system enhancements, tuning, and adjustments.

Captured images and data are encrypted and then transmitted via secure VPN to the Transol Data Center. There is no requirement to manually intervene to download or upload images.

### 3.1.25 Night operations and variable weather conditions

Infrared illumination systems are supplied to support high quality license plate (and optionally face) **image capture in all ambient light conditions over 24 hours**. As noted at 3.1.19, the only circumstance where imaging may fail or degrade is where the camera's 'line of sight' is blocked by some intervening object or condition.

### 3.1.26 Time to capture images after onset of the 'red' phase

This concept is not applicable to Transol systems because they do not rely on a 'trigger' to start imaging so they do not experience any delay in or 'latency risk' to effective image capture.

As noted at 3.1.15, the systems continuously monitor their areas of interest and buffer images captured at 30 frames per second that are temporarily stored in electronic form in a residual imaging buffer for a very short period (around 2 secs) and are only saved when the Violation Detection system notifies a potential violation.

If however, the City determines that, for example, it wishes to allow a 0.05sec 'time into red' before enforcement commences, that 'required delay' is programmed into violation detection system and images will only be retained and stored for events that occur at least 0.05sec. into the 'red' phase.

### 3.1.27 90% or better capture rates

Please refer to Sections 3.1.15 through to 3.1.19 for discussion of Transol's:

- Superior detection systems (that **do not 'miss' slow vehicles**) and
- **Residual imaging** technologies (that yield multiple-image scene, plate and optionally face image sets) and **capture 'long' vehicles**
- As well as our unique 'presence view' that allows **violation verification for events that would otherwise have to be rejected** (because conventional scene views cannot definitively establish the vehicle's position in relation to the stop bar),

---

These operating advantages, and reference to our most comparable reference site (Transol's Phase 2 Evaluation Technical Trial for the City of Baltimore), show clear ability to meet the City's 90% target. This project had to be planned, installed and operational within 30 days of go-ahead. Transol was the winning Trial vendor against other finalists ACS/Nestor.

In Baltimore, over the required 12 operating days, Transol's System detected **752 events** from four (4) traffic lanes i.e. 63 violations daily on average from 4 lanes or **15 plus violations daily on average per lane.**

Ticket issuance rates for this first, 12-day operating period (without the benefit of Transol's normal system testing and commissioning protocols because of the aggressive project timeline) was 82% on the two left-turn lanes, and 81% on the two straight through lanes. Transol is very confident that with some minor further adjustments, issuance at that site would have been maintained at 90% or higher within one month of installation.

### **3.1.28 Communications re repair of damaged traffic control systems**

Transol does not anticipate having to meet this requirement as it offers **non-intrusive traffic signal phase technologies and does not implement 'collision avoidance' for reasons outlined earlier. Refer discussion at Section 3.1.3 and 3.1.21.**

In the event that the City elects for Transol to use direct connection we would recommend opto-isolated one-way direct connection to pre-empt any risk of inadvertent interference with the signal controller operations.

We trust the City will be reassured by our selection of US Utility Contractor Co. for site works. With current contracts for traffic signal intersection for ODOT in 5 counties in Central Ohio and a successful project record working on several City "phase" projects installing a coax cable system for the City's coordinated signal system linking several hundred intersections with the main computer, the company is well known to our Construction Manager through earlier installation of systems in both Toledo and Dayton (while he managed these projects for Redflex).

Nevertheless we will be please to reach agreement on appropriate inspection and report systems with City Engineering on contract award.

### **3.1.29 Reimbursement to CoC for employee time during cabinet installation or repairs**

Transol will meet the salary and other incurred costs for any attendance by City personnel at camera sites for the purpose of supervising installation or repairs to City cabinets.

### **3.1.30 Non-emergency site works/24 hours notice**

Transol understands and will comply with City requirements as agreed in contract negotiations.

### **3.1.31 Managing emergency maintenance**

Transol will train its local technical contractors to perform emergency maintenance on a 24-hour response time. The local office will be resourced with a full stock of system spares and operating manuals and will have access to remote support from Transol's Operations Center in the first instance, or on-site support for complex technical assistance. Transol notes that it's modular system design and non-intrusive technologies directly facilitate parts swap out and replacement for rapid recommissioning.



3.1.32 Current client list

- **STOPforSAFETY Red Light Camera Program for the City of Northglenn, CO.** 3 Year Term contract for supply, installation, operation, maintenance and upgrades of dual (rear and face) imaging RI-RLC red light camera systems and processing services for the City. 24-hour Internet-enabled Police Authorization, City case inquiries and City access to system reports.  
**CONTACT NAME:** Sgt Jim May  
**TITLE:** Red Light Camera Program Manager  
**EMAIL:** [JMay@northglenn.org](mailto:JMay@northglenn.org)  
**STREET ADDRESS:** Community Center Drive, Northglenn, CO 80233-8061  
**PHONE NUMBER:** (303) 450-8967  
**FAX NUMBER:** 303-450-8948  
**PROJECT TITLE:** **Stop for Safety Red Light Camera program**  
**PROJECT DATES:** Operating from July 2003. System upgrades.
  
- **Red Light Camera Program for the City of Whittier, CA.** 5 Year Term contract for supply, installation, operation, maintenance and upgrades of dual (rear and face) imaging RI-RLC red light camera systems and processing services for the City. 24-hour Internet-enabled Police Authorization, City case inquiries and City access to system reports.  
**CONTACT NAME 1:** Lt Wyatt Powell,  
**TITLE:** Red Light Camera Program Manager  
**EMAIL:** [wpowell@whittierch.org](mailto:wpowell@whittierch.org)  
**CONTACT NAME 2:** Sgt. Dan Lowe  
**EMAIL:** [dlowe@whittierch.org](mailto:dlowe@whittierch.org)  
**STREET ADDRESS:** Whittier Police Department, 7315 Painter Avenue, Whittier, CA 90602  
**PHONE NUMBER:** (562) 945-8256  
**PROJECT TITLE:** Red Light Camera Program  
**PROJECT DATES:** Operating from February 2004 (one month Warning Letter phase. Ticketing from March 2004.
  
- **CITY OF BALTIMORE, MD.** Technology demonstration to the City requiring installation of a rear-shot digital red light camera system to monitor four lanes (two straight and two left-turn lanes) within 30 days of city notification, and operation of the system for two weeks to demonstrate effectiveness of the Transol-VP processing system including generating sample Notices and System Reports.  
**CONTACT NAME:** Mike Krupnick, MSEE, MBA, CPPB, Baltimore City Department of Finance  
**TITLE:** RFP Bid Manager  
**EMAIL:** [Michael.Krupnik@baltimorecity.gov](mailto:Michael.Krupnik@baltimorecity.gov)  
**STREET ADDRESS:** 231 East Baltimore Street, Baltimore, MD, 21202  
**PHONE NUMBER:** (410) 396-9538  
**FAX NUMBER:** (410) 396-2997  
**PROJECT TITLE:** Technology Evaluation Phase: Phase 2



**BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH**

---

**PROJECT DATES:** October-December 2003 (Completed/ Winner Technical Evaluation Phase).

- **CITY OF BERKELEY, CA.** 5 Year Term contract for supply, installation, operation, maintenance and upgrades of dual (rear and face) imaging RI-RLC red light camera systems and processing services for the City. 24-hour Internet-enabled Police Authorization, City case inquiries and City access to system reports.

**CONTACT NAME 1:** Peter Hillier, Program Director  
**TITLE:** Asst. City Manager, Office of Transportation,  
**EMAIL:** [phillier@ci.berkeley.ca.us](mailto:phillier@ci.berkeley.ca.us)  
**CONTACT NAME 2:** Hamid Mostowfi  
**TITLE:** Program Manager  
**EMAIL:** [hmostowfi@ci.berkeley.ca.us](mailto:hmostowfi@ci.berkeley.ca.us)  
**STREET ADDRESS:** 1947 Center St., 3rd Floor, Berkeley, CA 94704  
**PHONE NUMBER:** (510) 981-7010 / (510) 981-6403  
**FAX NUMBER:** (510) 981-7060  
**PROJECT TITLE:** Red Light Camera Program  
**PROJECT DATES:** implementation underway. Full operation scheduled for Q3 2004. Five year contract: 'turn-key' red light photo enforcement program.

- **CITY OF SANTA FE SPRINGS, CA.** 5 Year Term contract for supply, installation, operation, maintenance and upgrades of dual (rear and face) imaging RI-RLC red light camera systems and processing services for the City. 24-hour Internet-enabled Police Authorization, City case inquiries and City access to system reports.

**CONTACT:** Fernando Tarin  
**TITLE:** Director of Police Services  
**EMAIL:** [FernandoTarin@santafesprings.org](mailto:FernandoTarin@santafesprings.org)  
**STREET ADDRESS:** 11576 Telegraph Road, Santa Fe Springs, CA 90670  
**PHONE NUMBER:** (562) 409-1850 x3301  
**FAX NUMBER:** (562) 4091854  
**PROJECT TITLE:** Red Light Camera Program  
**PROJECT DATES:** implementation underway. Full operation scheduled for Q3 2004. Five year contract: 'turn-key' red light photo enforcement program.

- **CITY OF ROSEVILLE, CA.** 5 Year Term contract for supply, installation, operation, maintenance and upgrades of dual (rear and face) imaging RI-RLC red light camera systems and processing services for the City. 24-hour Internet-enabled Police Authorization, City case inquiries and City access to system reports.

**CONTACT 1:** Chief Joel Neves  
**TITLE:** Chief of Police ,  
**EMAIL:** [ineves@roseville.ca.us](mailto:ineves@roseville.ca.us)



**BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH**

---

**STREET ADDRESS:** 1051 Junction Blvd., Roseville  
**PHONE NUMBER:** (916) 774-5010,  
**CONTACT 2:** Mike Allison  
**TITLE:** Program Manager  
**EMAIL:** [mallison@roseville.ca.us](mailto:mallison@roseville.ca.us)  
**PHONE NUMBER:** (916) 774 5043  
**PROJECT TITLE:** **Red Light Camera program**  
**PROJECT DATES:** implementation underway. Full operation scheduled for Q3 2004. Five year contract: 'turn-key' red light photo enforcement program.

- **CITY OF DAVENPORT, IOWA.** 5 Year Term contract for supply, installation, operation, maintenance and upgrades of rear imaging RI-RLC red light camera systems and processing services for the City. 24-hour Internet-enabled Police Authorization, City case inquiries and City access to system reports.

**CONTACT:** Lt Michael Venema  
**TITLE:** Program Manager  
**EMAIL:** [p8202@ci.davenport.ia.us](mailto:p8202@ci.davenport.ia.us)  
**STREET ADDRESS:** 226 W. 4th Street Davenport, Iowa 52801  
**PHONE NUMBER:** 563-326-6199  
**PROJECT TITLE:** **Red Means Stop Program**  
**PROJECT DATES:** implementation underway. Full operation scheduled for Q3 2004. Five year contract: 'turn-key' red light photo enforcement program.

- **CITY OF DALTON, GEORGIA.** 5 Year Term contract for supply, installation, operation, maintenance and upgrades of rear imaging RI-RLC red light camera pilot and processing services for the City with options to extend the number of camera sites. 24-hour Internet-enabled Police Authorization, City case inquiries and City access to system reports.  
(Awarded June 9 2004. Contact details to be supplied on request).

- Information on Transol's international contracts may be obtained from [www.transolgroup.com/PublicAnnouncements](http://www.transolgroup.com/PublicAnnouncements). Contract details and additional entity references for Rob Ciolli's earlier USA program experience from 1996 - 2001 will be supplied on request to [info@transolgroup.com](mailto:info@transolgroup.com).

---

**3.1.33 Process for acceptance and disbursement of funds**

3.1.33.1. as follows:

- Transol may operate the payments function for the City by contracting ~~to an agreed Lockbox provider, and at the City's discretion, enabling on~~ line payments using the functionality of the Transol-VP system.



**BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH**

---

Payments deposited to the program account in the previous month will be remitted to the City within 7 days of the end of month.

- Transol-VP's Courts module allows for tracking of payments received against citation number (or cited name or license details) and provides for payments reporting.
- If Transol operates the payments function for the City, the Lockbox provider will provide the NFS process.
- If Transol operates the payments process for the City, checks and money orders will be received by mail to the nominated POBox and managed by the Lockbox Service provider, while credit-card payments may be made via the Internet using Transol-VP at the City's discretion. Transol will consult with the City and the service bank to establish acceptable cash receipts procedures.
- Reconciliation procedures for Lockbox and on-line payments will be agreed between the approved banking provider, Transol's CFO and Auditor and the City finance.
- Transol recommends that costs associated with funds remittal be accounted in the Lockbox process. If on-line payments are enabled and deposited to a Transol-operated account, credit card fees will be on billed to the City. If on-line payments go direct to a City operated account, the City will be responsible for those fees.
- Transol has attached a Bank One Proposal for provision of Lockbox services for the City's review and information at Appendix 5.

**3.1.34 Payments and collections options**

**Lockbox Services:** Refer Appendix 5 for a detailed description of services offered through Bank One Lockbox services, and applicable fees. Payments records will be entered on Transol-VP to update and close case histories in the Transol-VP database.

**On-Line payments:** At the City's discretion, modules in the Transol-VP system can be enabled to support:

- **On-line public viewing.** The alleged violator uses an ID and password (that is derived uniquely from their own mailed notice details) to log-in and review images of their violation event
- **On-line credit card payment** (which may be supplied as an option with or without on-line review). Approved On-line payments will be entered on Transol-VP to update and close case histories in the Transol-VP database.

**Collections Service**

Outstanding fines payments will be referred for Collection by a reputable Collections Agency (approved by the City). Payments records will be entered on Transol-VP to update and close case histories in the Transol-VP database.

**3.1.35 Integration with alternative provider**

Clause cancelled, Addenda 1.



**4 COST PROPOSAL**

Transol offers four alternative fee options.

**Options 1-3 are all inclusive** of the supply, operation and maintenance of all technologies and services required for a 'turn-key' program service (other than payments and collections management as below).

**Option 4 allows for City purchase of site systems**, with Transol providing site maintenance and supporting program services (for processing, courts packages, reports, training and public awareness consultancy services) under an additional 'Violation Processing' services fee per notice issued.

Note: there are no **price increases to enforce left or right turning lanes** provided that these lanes are within the 4-lane limit for a system.

	REAR IMAGING ONLY \$	FRONT IMAGING FOR FACE & FRONT PLATE \$	DUAL IMAGING SHOWING REAR PLATE & FACE \$
<b>OPTION 1</b>			
Monthly Fixed Fee Per Approach Up to 4 lanes (Comprising through lanes and or turning lanes)	3,210.00	4,015.00	5,350.00
<b>OPTION 2</b>			
Per Paid Citation (Comprising through lanes and or turning lanes)	30.00	36.00	48.00
<b>OPTION 3</b>			
Per issued notice (Comprising through lanes and or turning lanes)	24.00	28.80	38.40
<b>OPTION 4</b>			
Purchase of System per Approach of up to 4 lanes (Comprising through-lanes and/or turning lanes Including the supply, site construction, installation Commissioning of camera systems).	84,000.00	94,500.00	126,000.00
System Maintenance Per Approach Per Month	831.60	935.55	1,247.40
Violation Processing fee per issued notice	5.00	5.00	5.00

**ADDITIONAL SERVICES**

<b>Accident Detection System Upgrade</b>	1,470.00	Per Approach per month
<b>Transol-VP On-Line Payment Services</b>	3.00	Per Transaction
		PLUS card fees if applicable

**Lock Box Services:** See Fee schedule at Appendix 4.

# PROPOSAL

To the Finance Director of the City of Columbus, Ohio:

We (I) propose to furnish the following article(s) and/or service(s) at the price(s) and terms stated subject to all instructions, conditions, specifications and all attachments hereto. We (I) have read all attachments including the specifications and fully understand what is required.

Prices are to be quoted F.O.B.:

See Page 5

Delivery: Upon permit approval calendar day(s) after receipt of order.

Terms: monthly lease per installed system

Company Name or Bidder's Name: TRANSOL USA Inc

Business Address of Bidder: 2145 E. San Carlos Pl., Chandler,  
85224

## REQUIRED Company Employee Information:

Total number of company employees = 10 - USA

Total number of company employees working in Columbus = 0

Additional number of employees that will be working in Columbus in the event this contract is awarded to your company = 1 or 2

The full name and residence of all persons and parties interested in the foregoing bid are: (If a corporation, give the name and address of the president and secretary; if firm or partnership, the names and address of the members or partners.)

Name

Address

William Kroske, VP

2145 E San Carlos Place, Chandler, AZ

Rob Cielli, CEO

1815 W. 205th St., #106, Torrance, CA

85224

9050

Authorized Signature X

William Kroske  
(SIGNATURE MUST IN WRITING IN OTHER THAN BLACK INK)

Title: X

Vice President

(TITLE MUST BE GIVEN)

Q:/POPPED/DOCUMENTS & FORMS/SIGNATURE PAGE 6 REVISED 02-09-04



**THIS PAGE WAS INTENDED TO BE BLANK**



**5 NON-COLLUSION AFFIDAVITS**

ONE ORIGINAL AND TEN COPIES  
OF THIS BID MUST BE SUBMITTED

Bidder submitting this Bid should check the appropriate box.

This is:  The Original

This is:  One of the Copies

THIS IS A TWO SIDED BID



## Request for Proposal (RFP)

City of Columbus, Ohio  
Purchasing Office  
1<sup>st</sup> Floor, 50 West Gay Street  
Columbus, Ohio 43215  
614/645-8315

SOLICITATION NO.: SA 001147 JY/FM

Coop Yes Ends Date

Years Left

PHOTO RED LIGHT ENFORCEMENT SYSTEM

(Item)

SAFETY

(Department)

POLICE

(Division)

Bid Opening Date and Time (due date and time)

JUNE 17, 2004 11:00 AM LOCAL TIME  
PRE BID CONFERENCE JUNE 2, 2004

NOTE: FAILURE TO RETURN THIS BID PROPOSAL INTACT MAY BE CAUSE FOR REJECTION.

Bid Proposal Submitted By:

TRANSOL USA Inc.

Company Name

2142 E. San Carlos Place

Street Address

Chandler, AZ

City

State

85249

Zip

81-0553052

810553052

Federal I.D. No.

Contract Compliance No.

William Kroske

480 895-1211

480 895-9969

Contract Person

Phone No.

Fax No.

FAILURE TO RESPOND MAY RESULT IN YOUR NAME BEING REMOVED FROM BID LIST.  
RETURNING THIS PAGE ONLY MARKED "NO BID" COUNTS AS A RESPONSE.

**THIS PAGE WAS INTENDED TO BE BLANK**



CITY OF COLUMBUS  
EQUAL BUSINESS OPPORTUNITY COMMISSION OFFICE  
109 N. Front Street, 4th Floor  
Columbus, Ohio 43215-9020

Michael B. Coleman, *Mayor* • Melinda Carter, *Executive Director*

614/645-4764  
Fax 614/645-6664  
TDD 614/645-6204  
e-mail: eboco@cmhmetro.net  
Contract Compliance 645-5444

April 30, 2004

BILL KROSKE VP  
TRANSOL USA INC  
2145 E SAN CARLOS PL  
CHANDLER, AZ 85249

Dear BILL KROSKE VP:

The Equal Business Opportunity Commission Office (EBOCO) has approved your request to obtain a contract compliance number with the City of Columbus. The contract compliance number assigned to your company is 810553052. This contract compliance number is valid for the period of three years, from April 28, 2004. On the expiration of your contract compliance number, a new application will be sent to your company for completion and renewal.

The contract compliance number should be utilized each time your company participates in the bidding process for the City of Columbus projects. In the event of changes in company name; change in ownership and/or structure of company; address; telephone number and any pertinent information, you are required to submit the changes to our office in writing.

If your company is a minority, female, small and/or emerging business enterprise, please contact our office to receive an application for inclusion in the appropriate program(s). Thank you for your interest in doing business with the City of Columbus. If the Office of Contract Compliance can be of any further assistance please call (614) 645-4764.

Sincerely,

Ginger Cunningham



# 1. Non-Collusion Affidavit

(This affidavit must be executed for the proposal to be considered)

State of ARIZONA)

County Maricopa)

William KROSKE, being first  
duly sworn deposes and says that he is, Vice President, (sole  
owner, a partner, president, secretary, etc.) of the party making the foregoing  
proposal or bid; that such bid is genuine and not collusive or sham; that said bidder  
is not financially interested in, or otherwise affiliated in a business way with any  
other bidder on the same Contract; that said has not colluded, conspired, connived  
or agreed, directly or indirectly, with any bidder or person, to put in a sham bid, or  
that such other person shall refrain from bidding, and has not in any manner  
directly or indirectly, sought by agreement or collusion, or communication or  
conference, with any person, to fix the bid price of affiant or any other bidder or to  
secure any advantage against the City of Columbus, Ohio or any person or persons  
interested in the proposed Contract; and that all statements contained in said  
proposal or bid are true; and further, that such bidder has not directly or indirectly  
submitted this bid, or the contents thereof or divulged information or data relative  
thereto to any association or to any member or agent thereof.

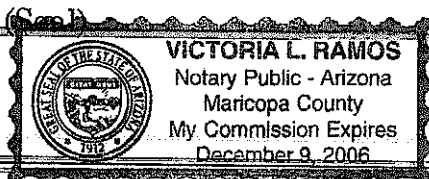
William Kroske  
Signature of Affiant

Sworn to and subscribed before me this 12 day of June, 2004.

Victoria L Ramos Notary public in and for

Maricopa  
(county)

Arizona  
(state)



My commission expires: Dec. 9, 2006

**THIS PAGE WAS INTENDED TO BE BLANK**



**MINUTES OF THE MEETING OF  
THE BOARD OF DIRECTORS OF  
Transol USA Inc.**

The Meeting of the Directors of Transol USA Inc., a Nevada Close corporation, was held on Wednesday, 9<sup>th</sup> June 2004 at 12.15 pm at Level 11, 300 Flinders Street Melbourne, Victoria 3000, Australia, pursuant to the call and to the forgoing of Waivers of Notice and Consent to the holding of the said meeting, signed by all Directors of the said corporation.

1. **Meeting and Quorum.** The Directors named in the Articles of Incorporation of Transol USA Inc., Robert Ciolli and Bronwen Ciolli, and constituting the Board of Directors of the corporation, took the following actions on the 9<sup>th</sup> June, 2004:
2. **Authority to Execute** It was agreed and resolved that William Kroske, PhD, Vice President Business Development, Transol USA Inc. be and is hereby authorised to execute all documents on behalf of Transol USA Inc. relating to the Proposal of Transol USA Inc. in response to the request for Proposals RFP No. 03-332-003, Automated Photo Red Light Enforcement Program for the Los Angeles Police Department as issued by the Los Angeles Police Department, Traffic Coordination Section, Special Operations Support Division, May 2004.
3. **Authority to Execute** It was agreed and resolved that William Kroske, PhD, Vice President Business Development, Transol USA Inc. be and is hereby authorised to execute all documents and bind the corporation relating to the Proposal of Transol USA Inc. in response to the Request for Proposals Solicitation No. SA 001147 JY/FM, Photo Red Light Enforcement System for the Safety department, Police Division of the City of Columbus, Ohio as issued by the Purchasing Office.
4. **Meeting Closed**

ALL OF THE ABOVE IS HEREBY AGREED, RESOLVED AND APPROVED

June 9, 2004

  
\_\_\_\_\_  
**Rob Ciolli**  
President, Transol USA Inc.

  
\_\_\_\_\_  
**Bronwen Ciolli**  
Secretary, Transol USA Inc.



**Signature Affidavit**

(To be filled in and executed if the contractor is a corporation.)

County of Maricopa

State of ARIZONA

Sara A. Kroske, being duly sworn, deposes and says that he/she is  
(Name of Affiant)\*

bookkeeper  
Secretary of TRANSOL USA INC.

A corporation organized and existing under and by virtue of the laws of the

State of Nevada and having its principle office at

2145 E. San Carlos Place Chandler, AZ 85249  
(Number and Street) (City/State) (Zip Code)

Affiant further says that he/she is familiar with the records, minute books and

by-laws of TRANSOL USA INC. affiant further says

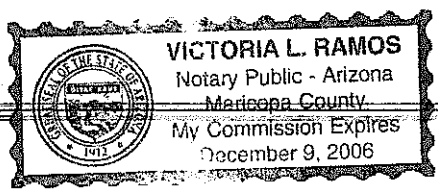
That William Kroske is Vice President  
(Name of person signing proposal/contract) (Title)

Of the corporation, is duly authorized to sign the contract for the red light  
photo enforcement for Columbus, OH, for said corporation by virtue of

Board of Directors Resolution dated June 9th, 2004  
(State whether a provision of by-laws or a resolution of the Board of Directors.  
If by resolution, give date of adoption.)

Sara A Kroske  
Signature of Affiant\*

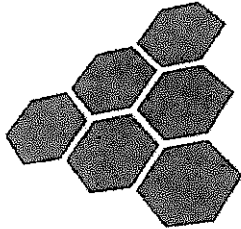
Sworn to before me this 12 day of June, 2004.



Victoria L Ramos  
Notary Public in and for

Maricopa Arizona  
(County) (State)

\*Affiant must be someone other than the signer of proposal/contract.



***Transsol***  
***USA***

---

## **Attachments and Appendix**

- 6. ATTACHMENT 1: CV DETAILS, TRANSOL PROJECT PERSONNEL**
  - 7. APPENDIX 1: SAMPLE NOTICE FORMATS**
  - 8. APPENDIX 2: SAMPLE REPORT FORMATS**
  - 9. APPENDIX 3: SAMPLE PROJECT MANAGEMENT PLAN**
  - 10. APPENDIX 4: SAMPLE SITE PLAN, REAR PHOTOGRAPHY**
  - 11. APPENDIX 5: BANK ONE LOCK BOX SERVICES AND FEES**
  - 12. APPENDIX 6: TRANSOL INSURANCES: Liability and E&O**
- 
- 
-



**6 ATTACHMENT 1: CV DETAILS, TRANSOL PROJECT PERSONNEL**

**ROB CIOLLI, GROUP CEO AND PRESIDENT**

**Education/Training** B Marketing

**Industry experience:** World-leading photo enforcement and digital traffic law enforcement projects in Australia, Canada, the USA (various states and cities) and Bahrain: 15 years  
**28 years** IT and image management applications: 13 years

**Project role** Program Director

**Major projects record** Rob Ciolli, CEO, formed Transol in 2001 in partnership with Bronwen Coulstock, VP Communications and is an acknowledge world leader in the development of automated photo enforcement technologies and solutions.

He is the registered inventor of all patented Transol technologies RI-RLC™ red light, RI-FSC™ fixed speed and RI-MSD™ mobile speed digital camera systems and the company's Transol-VP™ violation processing technologies.

His involvement in world-leading photo enforcement projects dates from 1989.

He implemented Australia's first digital traffic camera project - the 1989 SAFE-T-CAM heavy vehicle monitoring system. The project was awarded a Federal Innovation in Technology Award (1989) and is still operating on State highways.

That same year Rob was invited to supply a trial digital camera technologies for a similar heavy vehicle-monitoring project by DOT Oregon.

In 1990 he supplied the image-processing systems for the inaugural State of Victoria Police Traffic Camera Office (to process infringements generated by 35 film-based red light cameras and 54 film-based speed cameras). At that time this was the largest photo enforcement project in the world and it is widely credited with establishing the public safety value of photo red light and speed enforcement programs.

In 1995 Rob founded Redflex Traffic Systems (Australia) and Redflex Traffic Systems, Inc. (USA) in 1998 and remained President and CEO to 2001.

He is a pioneer of digital red light photo enforcement in the USA – with the 1999 FHWA sponsored Howard County Maryland Digital Red Light Camera Trial. Rob is the registered co-inventor of many Redflex's core photo enforcement technologies including its SMARTCAM digital traffic camera technology.

With Redflex Rob managed the implementation and operation of the company's red light and/or speed photo enforcement operating contracts for 11 USA cities/counties; and product sales into for the Province of British Columbia, Canada; and for the Kingdom of Bahrain.

**CLAIRE HUNTER: VP OPERATIONS**

**Education and Training** Master of Business Administration (completing) – RMIT University  
Dip. Frontline Management – Swinburne University

**Industry experience:** Photo Enforcement Program/Services management: 6 years  
**10 years** Quality Systems management: 4 years

---

**Role in project** Claire is already well familiar with existing red light camera program models for Ohio in both Toledo and Dayton having been responsible for working with both cities for gathering the processing systems requirements gathering and specifications as (then) ~~Business Analyst for Redflex.~~

---

As Transol's VP Operations Claire is responsible for the quality and performance of Transol's photo enforcement project implementation and customer support teams.

For each new project she manages project scoping and requirements analysis, defines and



**BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH**

specifies client business rules to the Transol-VP software development team, delivery of customer training and then ongoing support to the customer.

She is supported by Eric Makepeace, Construction Manager (for site systems and services and construction subcontractor management) and Jim Hughett (for Data Center Management and notice services). Claire is based in Transol's Operations Center in Torrance, CA, and heads up the technical staff working out of that office.

**Key project record**

Claire has superlative practical experience in implementing and managing photo enforcement programs in the USA and Australia and has managed Transol contract implementations for cities in CA, IA and MD.

Before joining Transol she was **Photo Enforcement Business Analyst for Redflex Traffic Systems** between 2000 and 2003. Her major tasks during this period included:

- Client representative for Redflex's largest customer (State of Victoria, Australia 'Compliance Victoria' TCO **processing 6000 violations weekly**) see below for LMT
- Coordination of the on-site software development team assigned to **Redflex Scottsdale Processing Center** during the upgrade of its processing center.
- Managing a range of **processing upgrades** to enable client contracts:
  - Analysis and reporting on camera faults
  - Development of Processing Operator Guidelines
  - System enhancements to improve ticket processing turnaround time.
- **Business requirements analysis** for processing implementation for various City contracts in Arizona, California, Ohio, Oregon and North Carolina
- **Product specification documents** and writing **User Manuals**.
- **Systems testing management** (processing and mobile speed camera systems)
- Delivery of **client training** to Police and Courts personnel.

Earlier she was the **Verifications Manager** for the 'Compliance Victoria' Traffic Camera Office for the State-wide network with (then) some 34 red light cameras and 55 mobile speed cameras (generating 6000 violation events weekly) for citation and payments management.

**ERIC MAKEPEACE, CONSTRUCTION MANAGER**

**Education/Training**

University of Phoenix – MBA 2003  
Massachusetts Institute of Technology, Cambridge, MA  
Sloan School of Management - BS - Management: Information Technology 1995  
Harvard University cross enrollment - concentration in economics, literature, 1995

**Industry background:**  
**8 years**

Photo enforcement: 5 years  
IT project management/testing/training: 3 years

**Project Role**

Eric is very familiar with Ohio law, engineers and permits processes having been Assistant to Redflex's Construction Manager for installation of red light cameras at the first 20 approaches for the City of Toledo.

Later he was sole Construction Manager for installation of red light cameras for the City of Dayton's program and managed construction for the first 12 approaches, and designed the next 4.

As a result Eric knows most parties involved in implementation of Toledo's program and all parties involved in Dayton. He has 4 contractors set ready to work in Ohio.

With Transol Eric is responsible for providing site analysis and evaluation services; preparing site design and permits submittals; selecting and managing local site construction sub contractors; managing the fitting, testing and commissioning of field camera systems; and establishing and training field maintenance support technicians.

Eric is based in Transol's Operations Center in Torrance CA and manages our fulltime Installation/Support Technicians who work out of that office as well as local site contractors and maintenance personnel.

**Key project record**

As (former) Construction Manager with Redflex Eric was Responsible for design of over 200 site specifications involving electric, civil, traffic signal, construction, and change



**BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH**

---

**order engineering.** He developed design specifications that have become the standard for all Redflex photo enforcement site constructions.

Earlier, working with Redflex Project Management Eric was responsible for all **IT implementations and software builds for 20 city contracts**, gathering requirements and scope from customers, and writing specifications for the software development team.

His previous appointments include:

- Systems Engineer with Command Technologies Inc, working on testing for Y2K anomalies in the Air Force AFTAC operation center
- USA Army Military Battalion Training Officer

**JAMES (JIM) HUGHETT, DATA CENTER MANAGER**

**Education/Training** Computer Science Degree equivalent University of Wyoming, Laramie, Computer Science in Data Structures, PASCAL, LISP, PL/1 and SNOBOL  
Associates Degree, Computer Information Systems, Laramie County Community College.  
Bachelor of Business Administration Degree, University of Wisconsin-Milwaukee.

**Industry background:** Photo enforcement: 6 years  
**15 years** Network /Systems administrator: 15 years

**Project Role** Jim will be responsible for:  
▪ Liaison for program scoping and design of processing systems  
▪ Configuration and networking site systems  
▪ Training deliveries, Transol-VP™ processing.

**Key project record** Jim is a professional network and systems manager with over 15 years of hands-on data processing training and experience, including Windows 2000, Windows NT 4.0, Windows 95 & 98, Windows 3.1, DOS, Linux, Novell, Macintosh, VMS and UNIX.  
Before joining Transol he was WAN Administrator for Redflex's Scottsdale Processing Center and implemented the VPN solution to link its USA and Australian offices.  
Jim has implemented **Transol projects in CO and CA** and was formerly **WAN Administrator for Redflex Traffic Systems** and the Data Processing Manager, Laramie County Sheriff's Department.

**MICHAEL (MIKE) WHELAN, SENIOR ENGINEER, R&D**

**Education/Training** Radio Tradesman (Digital Electronics) Moorabin TAFE and  
Radio Tradesman (Digital Electronics) Moorabin TAFE and

**Industry background:** Photo enforcement; 3 years  
**13 years** Security industry video imaging technologies: 10 years

**Project Role** Customization of core Transol RI-RLC™ hardware systems to implement project operating specifications, and oversight of site installation designs, equipment manufacture, testing and quality control.

**Key project record** With Transol, Mike has led R&D projects that have developed the company's unique **RI-RLC (red light), RI-FSC (fixed speed), RI-MSC (mobile speed) multiple imaging traffic camera systems.**  
Mike is also responsible for progressive iteration of associated image illumination, communication and systems installation technologies.



**BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH**

He installed Transol's first USA photo red project for the **City of Northglenn, CO** and was the **lead Field Systems consultant, working with Laser Technology Inc. for Transol's City of Baltimore Technology Trial**. There Mike successfully implemented a complete red light camera site monitoring 2 straight and 2 turning lanes within 30 days of notification and achieved the highest technical evaluation score. Mike is currently producing the V2 RI-RLC to yield further performance improvements and site operating advantages under Transol patent.

**MICHAEL EVERETT, DIRECTOR SOFTWARE SYSTEMS DEVELOPMENT**

<b>Education/Training</b>	Ass Dip Computing, B Science (Computing & Information Science) Victoria University of Technology.
<b>Industry background:</b> 7 years	Photo enforcement specific roles; 3 years. Multimedia Programming, hardware and software development: 4 years
<b>Role responsibilities</b>	Management, customization and contract implementation of Transol RI-RLC™ software (detection and imaging systems) and Transol-VP violation processing systems client specifications.
<b>Key project record</b>	Michael has contributed system design, specification and programming elements for many of the company's software development projects in recent years. His major projects with Transol include: <ul style="list-style-type: none"><li>▪ <b>Software Manager, Transol-RI traffic camera systems</b> (image capture, management, encryption and communications systems for Transol's RI-RLC™ red light cameras and RI-FSC™/MSC™ fixed/mobile speed cameras).</li><li>▪ <b>Software Manager Transol R&amp;D Non-intrusive phase detection</b> (vision imaging applications)</li><li>▪ <b>Software Manager Transol R&amp;D Non-intrusive red light violation detection</b> (vision imaging applications)</li><li>▪ <b>Software Manager and Team Leader, Web-based ADLTS Elites solution</b> for the Singapore Police Service (2004)</li><li>▪ <b>Senior Software Developer 'ADLTS' contracts for the States of Victoria and New South Wales, Australia</b>. These projects involved operation of automated knowledge testing systems with advanced multimedia capabilities on statewide networks of up to 400 PC's linked to central Administrator Servers.</li></ul>

**ROB LINTON, TRANSOL-VP™ SYSTEMS ARCHITECT**

<b>Education/Training</b>	B. Applied Science, (Charles Sturt University Oracle Masters Accreditation Program (ongoing)
<b>Industry background:</b> 10 years	Photo enforcement specific: 6 years Other database design applications: 4 years

---

<b>Project role</b>	<b>Design of project database storage and retrieval solutions within the Transol-VP™ violation processing technology.</b>
---------------------	---

---





**BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH**

**Key project record** Rob Linton is one of the world's most experienced photo enforcement processing systems developers having worked on major international Traffic Camera Office projects and having led software teams for the implementation of 11 USA cities/county photo enforcement projects including for Toledo Ohio. Rob Linton is the Systems Architect for the Transol-VP™ Processing System.

He was previously employed as the Software Manager for Redflex Traffic Systems and was the Systems Architect responsible for upgrades to enable centralized photo enforcement processing through Redflex's Scottsdale, AZ, Processing Center. This required systems design to manage images and data captured by RTS digital camera systems (and the facility's conversion from film-based operations only) and for subsequent upgrades to accommodate additional city contracts.

Prior to this he had been Redflex's Software Team Leader for the 1999 processing systems upgrade for the Victoria Police Traffic Camera Office (to manage some 6000 events daily from the statewide network of traffic cameras.)

**PETER LINTON, PRINCIPAL DEVELOPER TRANSOL-VP™**

**Education/Training** Microsoft Certified Professional, 2002  
Master's Computer & Communication Engineering, 1996, Qld University of Technology.  
Graduate Diploma of Management, 1991, Swinburne University of Technology  
Bachelor of Engineering (Honors), 1991, Swinburne Institute of Technology

**Industry background:** Photo enforcement specific: 6 years  
6 years Other IT development projects: 4 years

**Project role** Implementing advanced business and reporting requirements within the Transol-VP™ violation processing solution.

**Key project record** Peter specializes in architecture and design of complex systems requiring and accuracy and attention to detail over a wide range of technologies. With his brother (Rob Linton) he one of the world's most experienced photo enforcement processing systems developers having worked on major international Traffic Camera Office projects in Australia and the USA including for Toledo Ohio.

He is the principal architect of the Transol-VP™ violation processing solution.

Previously, in 2001, he was principal consultant for the task force upgrade of Redflex's Scottsdale AZ Processing Center Evidence Management System and wrote modules to facilitate product expansion. The Project required successful implementation of three new City photo enforcement contracts under aggressive deadlines and required development of new middleware architecture that successfully increased performance by a factor of 3.

Earlier he was the Technical Team Leader for the major upgrade to the State of Victoria's Traffic Camera Office (to enable processing of 6000 red light running, speeding and toll infringement events daily).

**JOHN LAMPACHER, SENIOR TRANSOL-VP DEVELOPER**

**Education and Training** Masters Diploma Mechanical Engineering  
Certificate IV - Programming Technology, Interim Technology Training Institute.

**Industry background:** Photo enforcement specific: 2 years  
2 years IT/systems engineering: 13 years

**Project role** As-Transol Senior VP Developer John is responsible for implementing agreed processing system specifications and business rules for new client cities on the Transol-VP violation processing system. This requires close understanding of each city's noticing requirements, courts processes, reporting and payments management systems.

**Key project record** John has implemented client processing solutions for the cities of Northglenn CO and Whittier CA into Transol-VP and managed systems upgrades for these clients. He is



**BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH**

currently implementing four additional cities in California and Iowa into Transol-VP.

As Transol's Senior Multimedia Programmer John has developed and produced advanced multimedia software solutions. He is an expert Macromedia Director programmer with particular skills in Macromedia Lingo programming and prior strengths in Visual Basic and Cold Fusion.

In 2002 John took primary responsibility for programming Transol's major multimedia project for the year - production of two interactive self-paced CD-ROM training products for the Commonwealth Department of Defence (Army).

Immediately prior to joining Transol John was employed as lead programmer at Fun-Ed, a new division of the International Learning Foundation, Perth - specialist producer of innovative educational computer games endorsed by the State Education Department of Western Australia. During his two year term with Fun Ed, John co-coordinated the Divisions' entire programming effort, personally designed and programmed 16 individual games, programmed installation scripts (Windows and Macintosh) and master hybrid gold master CD ROMs, and executed internal and external testing product regimes and e-commerce applications.

Earlier John held various Mechanical Design Engineering positions with specialist responsibilities for Quality Assurance and IT Support.

John was initially employed as a technical researcher with the South African Council for Scientific and Industrial Research.

**BRONWEN COULSTOCK, VP BUSINESS COMMUNICATIONS**

<b>Education/Training</b>	B A (Economics and Psychology)
<b>Photo enforcement industry background:</b>	Photo enforcement: 7 years Communications consultancy and public relations: 18 years
<b>Project role</b>	Working with the company's internal Multimedia team, Bronwen manages delivery of the <b>community awareness and public relations consultancy services for Transol's photo enforcement programs</b> . This normally involves developing a communications strategy in cooperation with the City and producing Media Releases, logo design/graphics materials and Web site content.
<b>Key project record</b>	Prior to forming Transol with Rob Ciulli in 2001, Bronwen was Director, Corporate Affairs, Redflex Traffic Systems USA, Inc, and developed and supplied that company's <b>community education materials and consultancy services for its USA photo enforcement contracts 1998-2001</b> . These core materials are still used by Redflex. Bronwen has a 25-year background in social research, state and federal politics, journalism, media affairs and general management. She was a <b>Press Secretary to a State Premier (Governor)</b> and a principal consultant responsible for providing training and management consultancy services to Australia's top 100 corporations and major government authorities. Her <b>valuing diversity communications and training programs</b> have won national awards including Ford Australia's Zero Tolerance program that was subsequently adopted as the operating model of parent company Ford USA.

**KIRSTEN SMART: GRAPHICS DESIGNER/MULTIMEDIA PRODUCER**

<b>Education and Training</b>	Dip. Arts (Design), Advanced Dip. Arts (Electronic Design and Interactive Multimedia), Chisholm Institute
<b>Industry background</b>	Photo enforcement: 2 years Multimedia training and education services: 4 years



## **BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH**

---

### **Responsibilities**

Kirsten creates customized program logos and artwork used for community education and public awareness in each of Transol's USA photo enforcement projects.

She also creates the GUI screens and multimedia assets for Transol-VP Web interface and for Transol's camera system applications.

Kirsten is primarily responsible for producing Multimedia software to create finished product in the chosen medium i.e. kiosk, CD-ROM, DVD or Web.

Her versatile skills and software knowledge are key elements in Transol's multimedia project team performance. Following project specifications and creative direction established by the project team leader, she uses software tools including Macromedia Director and Flash to sequence multimedia applications by combining existing voice-over, images, video and text. Her Dreamweaver skills are applied in Transol's Web site production.

Kirsten uses her design background and expertise in Adobe Photoshop, Illustrator, and Fireworks to create images, line art and 3-D animations.

Prior to joining Transol Kirsten ran her own freelance graphic design consultancy.

### **Key Projects**

With Transol Multimedia, Kirsten has created many educational CD-ROM products for users ranging from kindergarten-aged children to adults. Several titles have involved language training, literacy or numeracy skill development.

Kirsten is regularly retained by the State Department of Education to produce tools for school's programs in topics ranging from science to indigenous languages.

Her most recent Multimedia services project required production of a CD based training package (with additional video, text and learning assessment modules) for the Country Fire Authority of the State of Victoria.



**7 APPENDIX 1: SAMPLE NOTICE FORMATS**

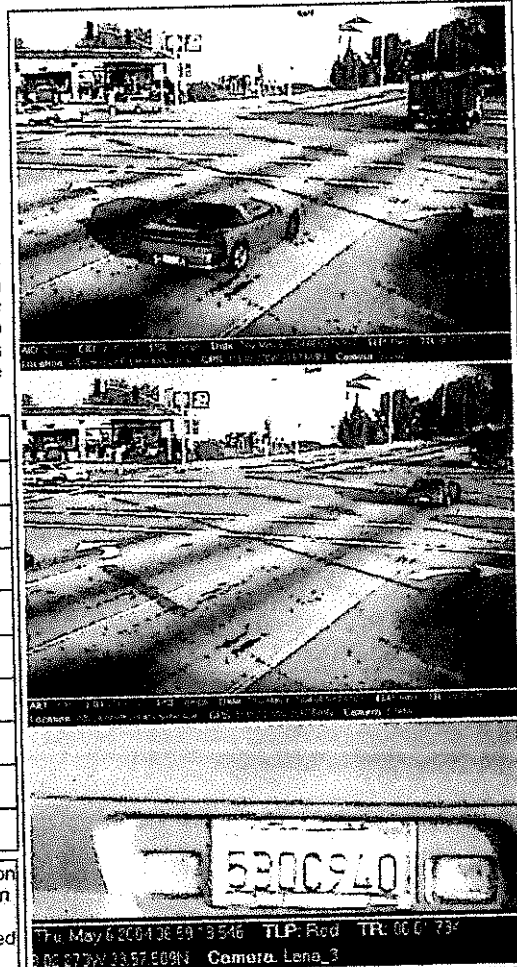


City of Davenport

Red Light Photo Enforcement Program

**NOTICE OF VIOLATION**

The city of Davenport has a red light photo enforcement program as provided by law, with the goals of increasing safety, reducing accidents, and increasing compliance with traffic laws. Your vehicle was recorded by an automated camera system proceeding through a red light in violation of Davenport City Ordinance 10.16.70. This notice of violation is being issued to you. You are required to pay the fine listed below.



Full Name <b>JANE DOE</b>		
Address <b>123 MARKET ST</b>		
City <b>DAVENPORT</b>	State <b>IA</b>	Zip <b>12345</b>
Vehicle License Number <b>5B0C940</b>		State <b>CA</b>
Year <b>1993</b>	Make <b>MITZ</b>	Model/Style <b>PASSENGER VEHICLE</b>
Location of Offense <b>WB Lambert Rd at Painter Ave</b>		
Date of Offense <b>05/06/2004</b>	Time of Offense <b>07:59</b>	
Complaint Officer <b>Sgt John Doe</b>	Badge Number <b>12345</b>	
Traffic Code Section Number <b>603</b>	Nature of Offense <b>Red light violation</b>	
Mail Date <b>26-May-2004</b>	Violation Number <b>DV000001A</b>	

Failure to respond to this notice will result in a Civil Infraction Citation being issued to you. You will then be required to appear in person in court and will incur an additional charge of at least \$50. Failure to pay the fine or appear in court will result in a judgement being issued against you and liens registered in Scott County Court.

**PAYMENT COUPON**

Violation Number: DV000001A

Remove and include this portion with your payment

Amount Due: \$65.00  
Mail Date: 05/26/2004  
Due Date: 06/25/2004

Please remit payments to:  
City of Davenport Finance Dept.  
226 W. 4th St.  
Davenport, IA 52801

JANE DOE  
123 MARKET ST  
DAVENPORT IA 12345



BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH



## NOTICE OF VIOLATION

Automated Red Light Enforcement Program

**Whittier  
Police  
Department**

**Harry Gregory Van Der Merver**  
507 Grenville Ave  
Whittier, CA 123456

Citation Number **123456WH**

**Citation Information**

Mailing Date: 01/11/2003  
Payment Due: 28/11/2003  
Amount Due: \$341.00  
Payable to: Whittier Superior Court  
7339 South Painter Avenue  
Whittier, CA 90602

**Violation:**  
**Red Light**  
**Code and Section:**  
**CVC 21453(a)**  
**Description of Violation:**  
**Arrow and Hastings Street**  
**City of Occurrence:**  
**Whittier, CA**  
**Violation Date:**  
**01/11/2003**  
**Time of Day:**  
**23:59:59**



NO. VIOL. ED. NO. VIOL. PSL. Date Time Date Time Date Time Date Time Date Time Date Time Date Time Date Time Date Time Date Time Date Time Date Time  
Location: Arrow and Hastings Street, GPS: 33°43'N 118°02'W, Camera: 2003

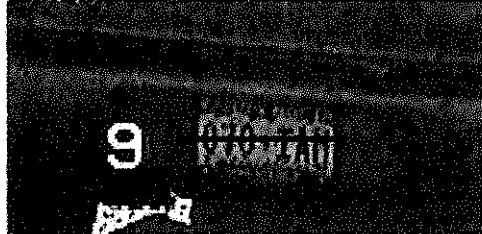
Vehicle behind stop bar, light is red.



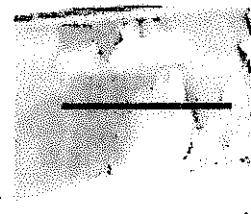
NO. VIOL. ED. NO. VIOL. PSL. Date Time Date Time Date Time Date Time Date Time Date Time Date Time Date Time Date Time Date Time Date Time Date Time  
Location: Arrow and Hastings Street, GPS: 33°43'N 118°02'W, Camera: 2003

Vehicle within intersection, light is red.

**Vehicle License No:**  
**3B1FG1**  
**State:**  
**CA**



Close up of license plate



Close up of driver

<p>NOTICE TO APPEAR Appearing Party: Edward S. Van Der Merver</p>		<p>Case No: 123456WH</p>	
<p>Violator: Harry Gregory Van Der Merver</p>		<p>City: Whittier, CA</p>	
<p>Vehicle: 2003 Toyota Camry</p>		<p>Plate: 3B1FG1</p>	
<p>Color: Silver</p>		<p>Year: 2003</p>	
<p>Make: Toyota</p>		<p>Model: Camry</p>	
<p>Registration: 123456</p>		<p>Insurance: ABC Insurance</p>	
<p>Address: 507 Grenville Ave, Whittier, CA 90602</p>		<p>Phone: 562-123-4567</p>	
<p>Violation: Red Light</p>		<p>Amount Due: \$341.00</p>	
<p>Payment Due: 11/28/2003</p>		<p>City: Whittier, CA</p>	
<p>Case No: 123456WH</p>		<p>Vehicle No: 3B1FG1</p>	
<p>Vehicle No: 3B1FG1</p>		<p>Plate: 3B1FG1</p>	
<p>Color: Silver</p>		<p>Year: 2003</p>	
<p>Make: Toyota</p>		<p>Model: Camry</p>	
<p>Registration: 123456</p>		<p>Insurance: ABC Insurance</p>	
<p>Address: 507 Grenville Ave, Whittier, CA 90602</p>		<p>Phone: 562-123-4567</p>	



BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH

**8 APPENDIX 2: SAMPLE REPORT FORMATS**

**Incident Report**



From 5th November 2003  
 To 16th November 2003  
 Location North bound on Presidential Street (intersection with Lombardi)

Events Captured	Lane 1 93	Lane 2 125	Lane 3 217	Lane 4 464	TOTAL 879
<b>Non-Prosecutable</b>					
Straight through from turn lane	0	0	9	0	9
Emergency Vehicle	2	0	2	1	5
Vehicle stopped over stopbar	6	6	42	59	113
Sub total	8	6	53	60	127
<b>Prosecutable Events</b>					
	85	99	164	404	752
<b>Non-System Related Rejects</b>					
No plate/paper plate	1 1.18%	0 0.00%	2 1.22%	6 1.49%	9 1.20%
Camera Obscured	2 2.35%	3 3.02%	1 0.61%	1 0.25%	7 0.93%
Vehicle plate obscured/dirty	2 2.35%	1 1.01%	0 0.00%	3 0.74%	6 0.80%
Vehicle obstruction	0 0.00%	1 1.01%	0 0.00%	0 0.00%	1 0.13%
Sub total	5 5.88%	5 5.05%	3 1.83%	10 2.48%	23 3.01%
<b>System Rejects</b>					
Database problem/incorrect	0 0.00%	0 0.00%	2 1.22%	0 0.00%	2 0.27%
Plate Unclear	9 10.59%	8 8.08%	13 7.93%	32 7.92%	62 8.24%
Plat Not available	3 3.53%	3 3.03%	11 6.71%	21 5.20%	38 5.05%
Plate Burnt	2 2.35%	3 3.03%	4 2.44%	6 1.49%	15 1.99%
Other system Fault	1 1.18%	0 0.00%	0 0.00%	1 0.25%	2 0.27%
Sub total	15 17.68%	14 14.14%	30 18.29%	60 14.85%	119 15.82%
<b>Notices Printed</b>	<b>65 76.47%</b>	<b>60 80.81%</b>	<b>131 79.88%</b>	<b>334 82.67%</b>	<b>610 81.12%</b>

Printed on 17th November 2003

Page 1 of 1

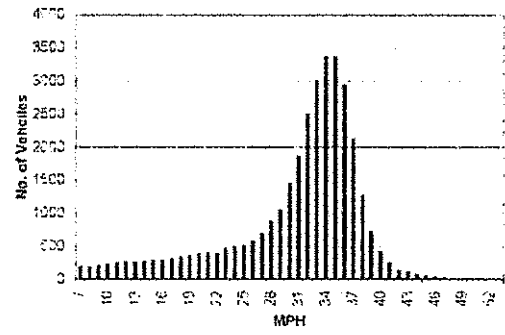
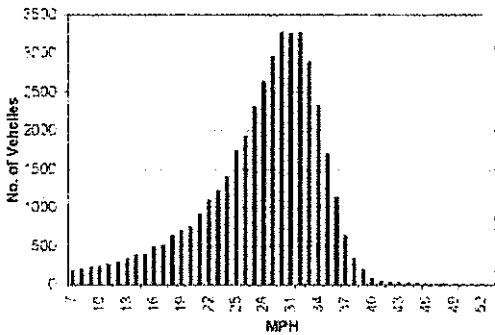
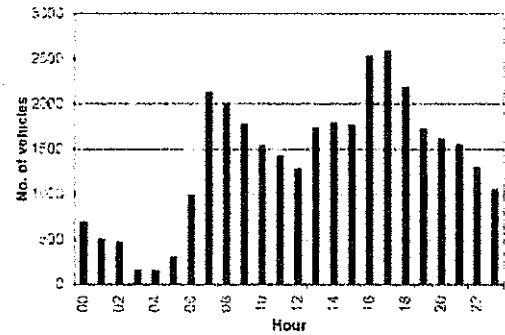
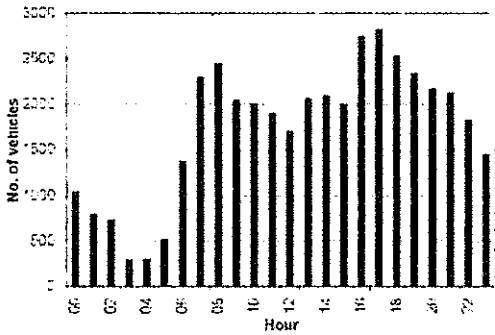
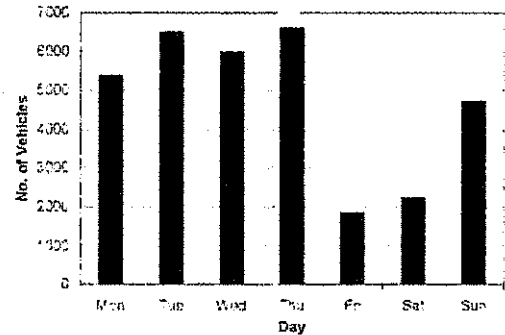
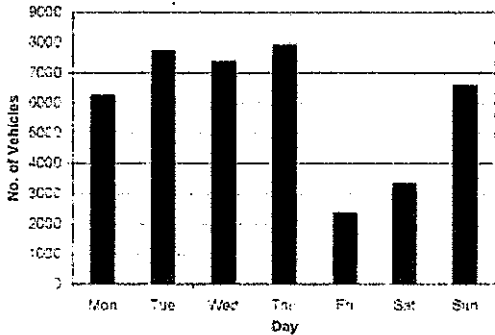
### Weekly Traffic Statistics

From: 10th November 2003  
 To: 16th November 2003  
 Location: North bound on President Street (intersection with Lombard)



**Lane 1** Total Vehicles  
**41751**

**Lane 2** Total Vehicles  
**33427**

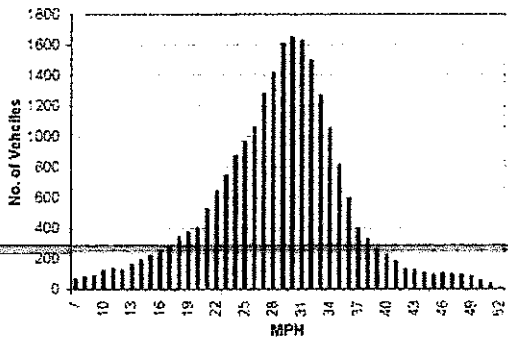
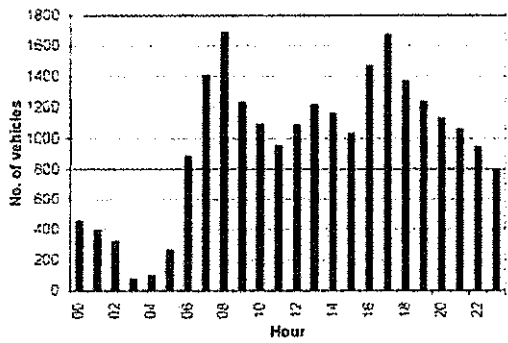
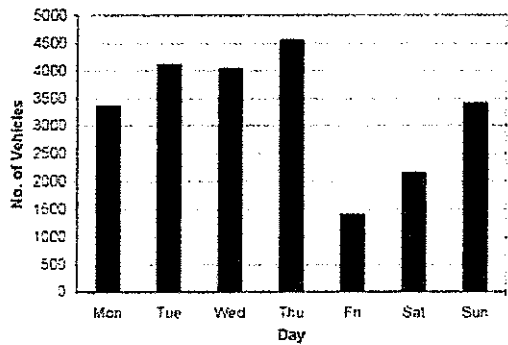


### Weekly Traffic Statistics

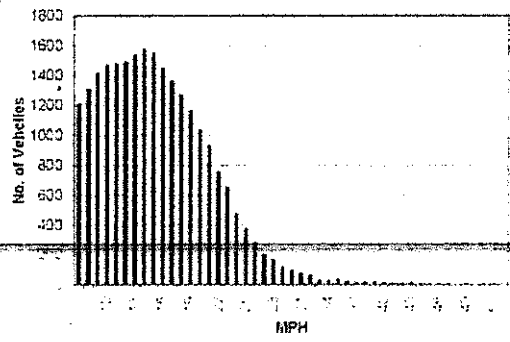
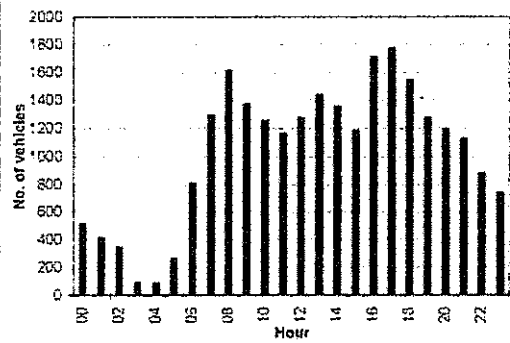
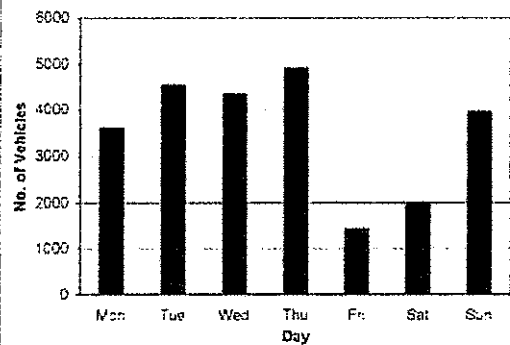
From: 10th November 2003  
 To: 16th November 2003  
 Location: North bound on President Street (intersection with Lombard)



#### Lane 3 Total Vehicles 23104



#### Lane 4 Total Vehicles 24879





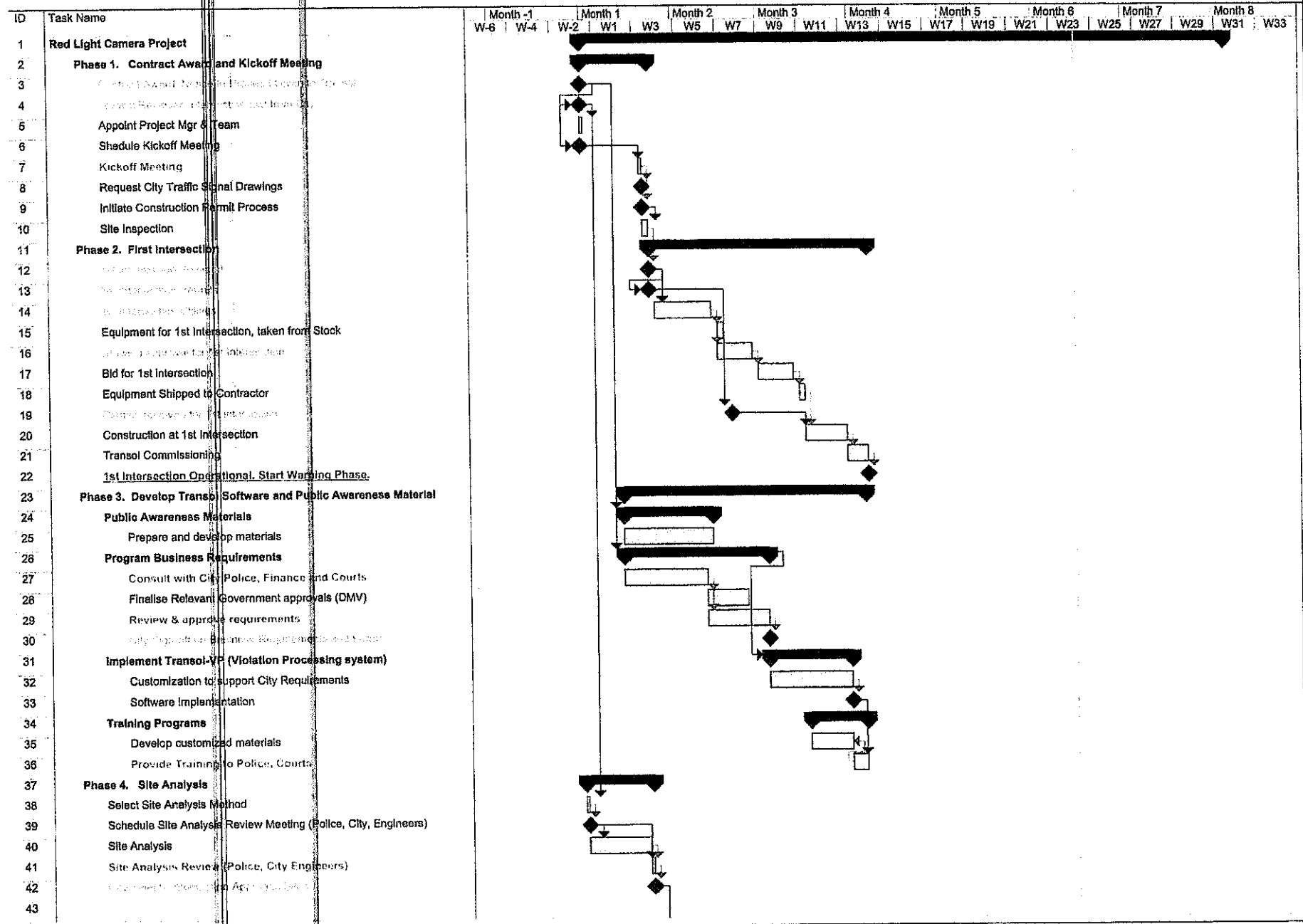


BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH

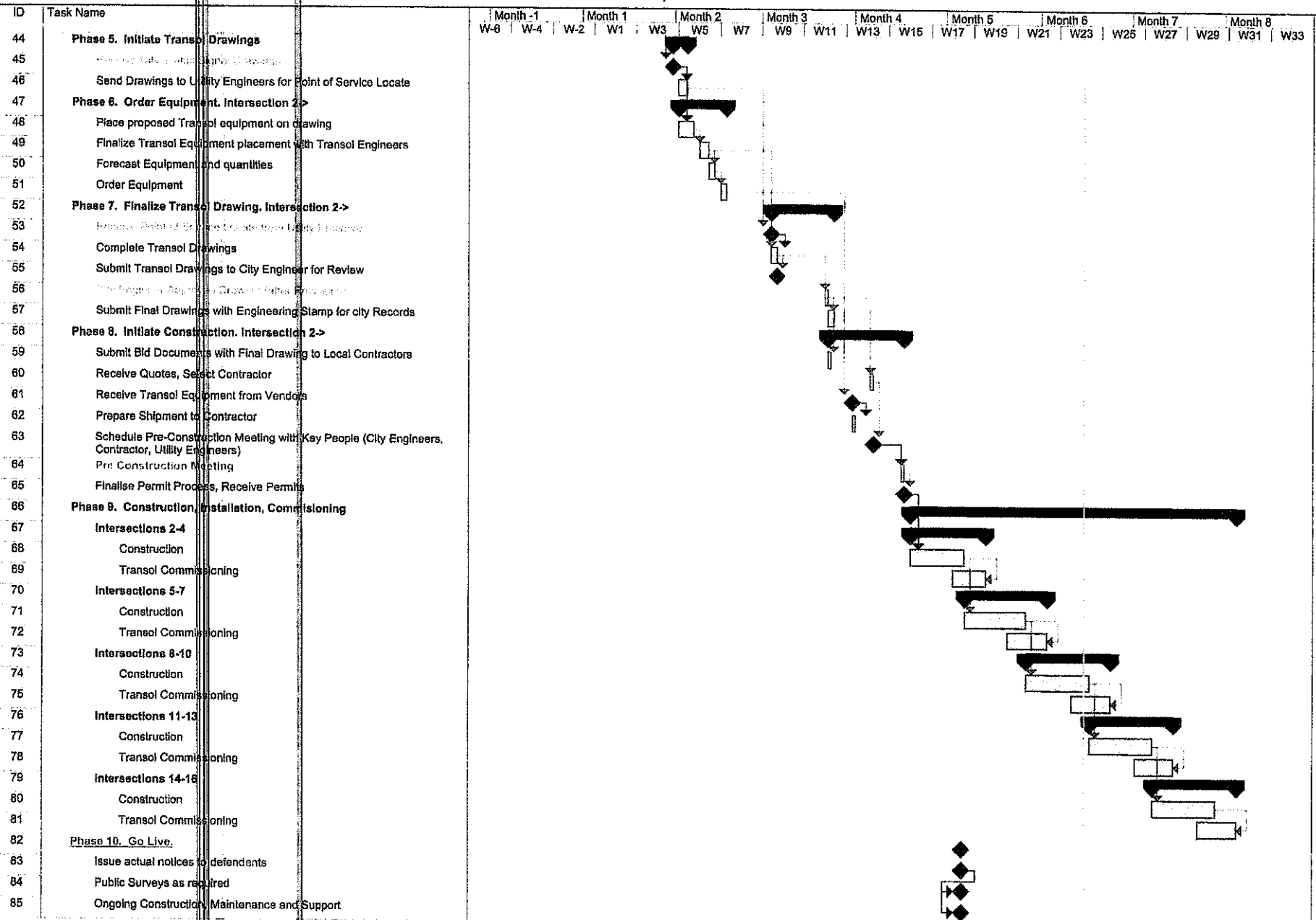
---

**9 APPENDIX 3: SAMPLE PROJECT MANAGEMENT PLAN**

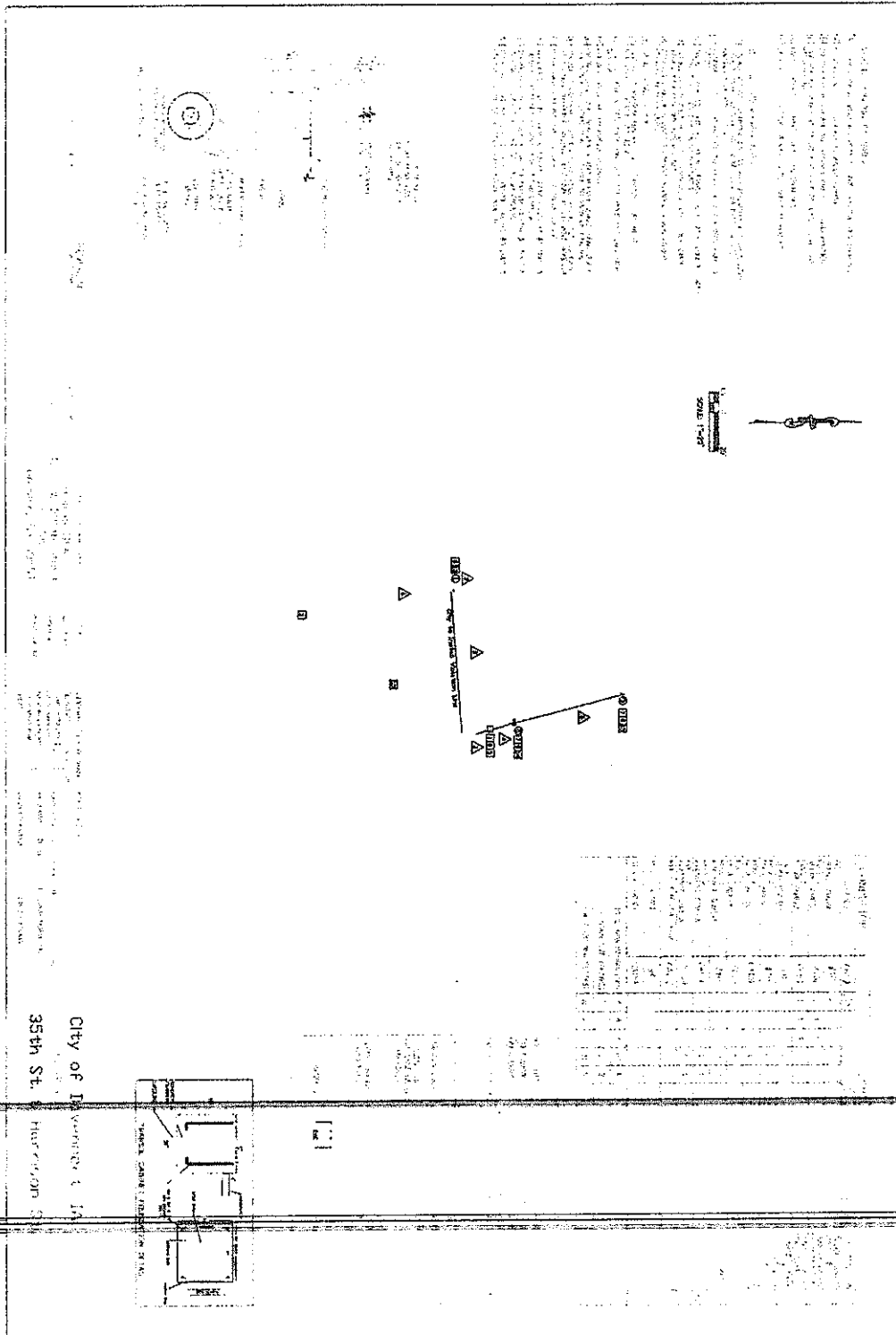
Transol Project Plan



Transol Project Plan



**10 APPENDIX 4: SAMPLE SITE PLAN, REAR PHOTOGRAPHY**



**Wholesale Lockbox Proposal -  
Columbus, Ohio  
Lockbox Site**

**Note: The various service marks and trademarks are the property of Bank One Corporation or the respective owners thereof.**

The information furnished herein by Bank One is CONFIDENTIAL and is distributed for the exclusive use of *Transol USA* in evaluating Bank One programs and shall not be duplicated, published, or disclosed in whole or part, to any other person other than those individuals with the organization indicated on the cover page, or used for other purposes, without the prior written permission of Bank One.

## I. BANK BACKGROUND

With a history dating back to 1863, Bank One Corporation has grown from a modest midwestern bank to a leading financial service provider. This allows us to focus on serving our diverse customer base — consumers, small businesses, medium-sized companies and large corporations both nationally and internationally, and industry segments that include colleges and universities, government entities, health care organizations and correspondent banks.

Currently we are the nation's sixth-largest bank holding company, with assets of nearly \$320 billion. We have more than 51 million credit cards issued, nearly 7 million retail households and more than 20,000 middle market customers. We also manage more than \$188 billion of clients' investment assets. Bank One operates national lines of business including commercial banking, retail, investment management and credit card organizations. We have the financial strength to provide our customers with an unequaled selection of products and services, such as cash management, lending, investment management, international, corporate finance, private banking, shareholder and many other financial solutions.

Our leadership position is illustrated by our top five ranking in the following areas: commercial banking, Visa<sup>®</sup>/MasterCard<sup>®</sup> issuance, home equity lender, bank-owned insurance company, bank-owned mutual fund families and ATM distribution. We also are ranked in the top five in ACH Debit Origination, Lockbox, Check Clearing, Sweep Accounts, Account Reconciliation, Controlled Disbursement, Information Reporting, EDI, Small Business Lending, Commercial Card Issuance and Syndicated Loan Volume.

As of March 31, 2004 Bank One has:

- More than 71,000 full-time employees worldwide
- Deposits of \$166 billion
- Loans of \$138 billion
- Nearly 51 million credit cards issued
- Non-performing assets to related assets of 1.42 percent
- Allowance for loan losses of nearly \$4.5 billion or 2.63 percent of total loans

~~Tier 1 and total risk-based capital ratios were 10.2 percent and 13.8 percent, respectively. These ratios remain very strong and above the "well-capitalized" regulatory guidelines.~~

~~On January 14, 2004, Bank One Corporation and J. P. Morgan Chase and Co. entered into an agreement to merge Bank One into J.P. Morgan Chase with a vision of bringing together two companies of complementary strengths and forging an organization of tremendous balance, reach and depth of product. The proposed merger envisions an organization that will be a leader in many global financial services including credit cards,~~

investment banking, asset management, private banking, treasury and securities services, middle market and private equity.

- Additionally, our strengths shine in some of our recent achievements:
- Fortune magazine's ranking of America's Most Admired Companies placed Bank One fourth among nine large banks in their 2002 survey.
- We were cited for "Best Financial Reporting" among the 27 banks in the S&P 500 by the Financial Services Analyst Association. The association, comprised of more than 300 institutional analysts and investors who focus on the financial services industry, annually recognizes companies for the quality and transparency of financial disclosures.
- Family-friendly policies and benefits, plus widespread female representatives among senior leadership earned Bank One a place on Working Mother magazine's list of "100 Best Employers for Working Mothers."
- "Resilient Workplace Honors" were given to Bank One as one of the nation's top companies for admirable business practices following the September 11 terrorist attacks. We were recognized for providing employee support including continuous communications from leadership and a strong Employee Assistance Program.
- Morningstar, one of the leading global investment research firms, named Bank One CEO Jamie Dimon their 2002 CEO of the Year.
- Forbes magazine cited Bank One as one of the 10 best employers for reservists. Our benefits include paying differential between military and civilian pay, health plan coverage, life insurance coverage and guarantee of an identical or similar job upon return to work.
- Bank One received Training magazine's Best in Class ranking among banks at its recent awards program, placing 15th overall in 2003, up from 17th in 2002.
- Bank One received the "Best Depository Partner" award from Wal-Mart, the world's largest retailer. As Wal-Mart's second largest depository bank, Bank One was awarded this distinction in June 2003 from among the 800 banks Wal-Mart uses for their deposits.

Our Web site is [www.bankone.com](http://www.bankone.com).

## II. MAIL PROCESSING

Below are the pickup schedules for wholesale lockbox mail. Mail deliveries on days observed as national holidays utilize the Saturday and Sunday mail schedule.

The Columbus processing center receives mail from the Columbus Post Office according to the following schedule:

<b>Monday-Friday</b>	<b>Saturday/Sunday</b>
<u>Columbus</u>	<u>Columbus</u>
12 a.m.	5:30 a.m.
2 a.m.	7:30 a.m.
4 a.m.	9 a.m.
5 a.m.	10:30 a.m.
7:30 a.m.	12:30 p.m.
11 a.m.	
12 p.m.	
5 p.m.	

- 1. Who performs the fine sort per box number, the bank or the post office? If you sort the lockbox mail, describe the mail sorting operation. Include manual and automated handling, ability to read bar codes, peak volume and contingency plans. Do you sort by mail delivery or group of deliveries?**

Each delivery of incoming mail is sorted by box number by our mail services department on automated reader equipment\*. The Lockbox department completes the fine sort of mail not read by the automated sorter. We utilize standard mail bins with adjustable shelving. Each bin is labeled with the box number processing desk to provide quick access. By using these standard bins, supervisory staff can easily ensure that all available mail is processed within the appropriate deadlines.

Staff hours and staffing levels are determined by the availability of mail, peak mail volumes, historical data and staff forecast models. Regular and part-time employees augment the sorting process when necessary. Our contingency plan calls for the incoming mail to be delivered to an alternate location with continued manual sorting.

---

\*New Orleans and Phoenix sort manually /receive pre-sorted mail.



**2. Describe the receipt and handling of remittances delivered by private services (e.g., UPS) to the lockbox for processing.**

As part of the lockbox implementation process, we:

- Give you a street address to use for private delivery services that will not or cannot deliver to a lockbox P.O. Box address.
- Ask you to put the box number on the outside of the delivery envelope to help speed up the handling of the package.

Any courier or messenger package delivered to the lockbox site by 12 p.m. local time will be deposited for same-day ledger credit, assuming you have no conflicting deposit or information reporting deadlines.

There must be:

- A minimum of four hours between courier package receipt and your reporting deadline
- A minimum of four hours when manually data keyed information (for example, invoice number and remitter name) is to be included in the scheduled report.

Also, if the items received by way of a courier package require more than 10,000 keystrokes to capture the data, we may not be able to process them for same-day ledger.

### III. LOCKBOX PROCESSING

1. **Describe the lockbox department's processing work flow. Highlight your quality control checkpoints and the components that are directly controlled by the lockbox manager. Include a schematic or flow chart of the processing procedures.**

Bank One uses state-of-the-art automation to achieve highly efficient and high-quality lockbox processing. Our wholesale lockbox system utilizes complete online processing profiles for each account, including customer contact information, mailing addresses, depository account number, listing of acceptable payees, required data capture fields, processing deadlines and special handling requirements.

A team approach is used for lockbox processing at Bank One. Each team is assigned specific lockbox accounts and trained in the unique processing requirements for those accounts. This approach ensures that the team consistently delivers high quality by providing processing continuity and establishing account ownership.

Each lockbox processor undergoes extensive training and is tested prior to working on any of our account teams. This quality-focused training program ensures that each new processor can consistently meet our high performance standards of quality processing.

The wholesale lockbox processing workflow is as follows:

- The incoming mail is sorted by lockbox number and delivered to the appropriate team.
- The processor inspects each envelope to verify the lockbox number as he/she works on an account.
- Each envelope is opened, the contents extracted and checks reviewed for the following:
  - Acceptable payees (an acceptable payees list is maintained in the account profile).
  - Written legal amount and courtesy amount agreement.
  - ~~Payor's signature.~~
- The invoices are unfolded, check stubs are detached from the check and both are attached to the envelope.
- ~~Correspondence and nonprocessable items are out-sorted.~~
- Remittance invoices/envelopes and the out-sorted correspondence and nonprocessable items are set aside.

- Each batch is logged into the system, a system-generated control document is placed on top of the checks, and checks are delivered to the check transport operator.
- Each batch of checks is processed on the high-speed transport in two passes. During the first pass, or capture pass, the MICR line of each check is read, digitized images of the checks are generated and audit trail information is sprayed on the back of the checks.
- The check images are displayed online for dollar amount entry, and each check amount is keyed two separate times by two different operators. A systematic reconciliation is then performed to compare the amounts keyed. A team leader must resolve any amount discrepancies within a batch prior to further processing.
- The reconciled check batch is processed through a second pass, or encode pass. During this pass, the MICR line of each check is read and matched back to the capture pass file, the amount is encoded, and each check is endorsed. A deposit ticket is generated and encoded with the batch total.
- The encoded checks and deposit ticket are forwarded to the Item Processing area, which is located in the same building. The proximity of the Item Processing area ensures timely delivery, which supports an aggressive check collection schedule.
- Data entry of remittance invoice information can be done either during the check amount entry step or after check processing has been completed. The flexibility in timing, along with the robust data entry system, allows us to fulfill customer-specific requirements and clear checks without data entry delays.
- Deposit summary reports, mailing address labels and required data entry reports are systematically generated and printed.
- The check images are reassociated with the appropriate remittance invoices and/or envelopes and then packaged with correspondence, nonprocessable items, summary reports and data entry reports (if data entry is required) and then forwarded to you according to your instructions.

Systematic and manual quality control measures are inherent at each Bank One processing step to ensure that customer requirements are followed and quality standards are met. Our daily quality steps include:

- Sorted mail is reviewed twice to ensure accuracy in the sort process.
- Payees are reviewed for acceptability a second time at the first amount entry step.
- Out-of-balance conditions are systematically identified at the transaction and batch levels to prevent encoding errors.

- During the reassociation step (check images are paired with the appropriate remittance invoices and/or envelopes), each check copy is accounted for and reviewed for clarity.
- Prior to sealing the outgoing envelopes, a second review is conducted to verify that all processed batches, reports and image copies are included.
- All outgoing packages are logged within the Lockbox department and then logged a second time in the mailroom or by the courier.

**2. What controls does the bank have in place to ensure accurate processing per customer specifications?**

During our lockbox implementation process:

- A dedicated implementation consultant works closely with you to document your processing requirements. We maintain detailed service request workbooks that help us understand your needs and capture your requirements accurately.
- We create a unique customer outline, a written set of processing instructions that is based on the completed service request workbook for each lockbox.
- We develop a second set of instructions if manual data capture is required (for example, invoice numbers and amounts are to be keyed from remittance documents).
- The clerks refer to the customer outline, which supplements the standard operating procedures they learned in their initial training, as they work on each account.

All reported errors can be tracked to the individual responsible so that corrective action can be taken (for example, clarification of language on the outline, additional training for the clerk and modification of procedures).

**3. If changes are made to the company's processing instructions, how are these changes communicated? How does the bank ensure that specifications are adhered to when assigned persons are unavailable?**

You make all requests for changes to processing instructions to your customer service consultant. Your service consultant will:

- Talk with you to be sure he/she understands the requested change and, if appropriate, suggest an alternative way of meeting your need that may be more accurate and/or more efficient and, therefore, less costly for you.

- Forward the change to our Product Support (or Systems) staff, which is responsible for making all changes to processing (and data keying) instructions within the lockbox operating system. Every time a First Outline is changed, the lockbox number will appear on a daily production management report that shows all changes.

Our Production Management staff will:

- Print new outlines at the end of the day.
- Alert the clerks to changes, starting with the third (night) shift, then first shift, then second shift.

Generally speaking, the same clerk on each shift will handle the same set of lockboxes on an ongoing basis. On simpler accounts (those requiring no special exception handling), clerks occasionally will be rotated to foster a working familiarity with each account and to vary the clerks' experience.

In all cases, however, clerks review each outline prior to beginning processing the lockbox. This helps ensure adherence to your instructions even when the regular clerk is absent because of illness or vacation.

**4. What are the deposit times for the customer's lockbox, and how are they determined?**

Check deposit times occur throughout the day depending on customer requirements. The account posting occurs when the Demand deposit account System updates are completed each night.

**5. Can the bank combine multiple deposits to a single daily ledger credit for statement purposes?**

Bank One can combine multiple deposits into a single daily ledger credit for statement purposes.

**6. What is the bank's ledger cutoff time for lockbox deposits? Include weekends and holidays. What is the latest mail pickup to be included in the last deposit? Will the bank process and deposit all of the customer's payments on the same ledger day as received? If not, when are these items deposited?**

Bank One's cutoff time for same-day ledger credit is 4 p.m. local time. The final mail pickup to be included for same-day ledger credit is 12 p.m. local time. All payments will be processed and deposited on the same ledger day as received unless the client requires an early cutoff time to meet reporting or delivery requirements. Items not included in the current day's deposit will be part of the first deposit of the next day.

**7. Describe any priority handling of items for certain lockbox customers (e.g., large-dollar volume customers). How is priority handling determined, and is this a negotiable feature of lockbox processing?**

All customers benefit from Bank One's processing environment. Our multi-shift, seven-day operation uses unique ZIP codes, extensive mail sorting schedules, multiple check deliveries and check processing procedures that guarantee priority treatment of each account.

Priority handling is determined by customer profile, reporting and deadline requirements and is a negotiable lockbox feature. Examples of work prioritization are:

- All "flats" (oversized envelopes — full-page size and larger) received can be given priority processing at your request, on the assumption that the larger envelopes contain greater amounts of invoice information and, therefore, checks of higher dollar value.
- All items delivered by messenger or overnight courier are handled on a priority basis

**8. When are the bank's peak periods (weekly and monthly), and what arrangements are made to handle the increased volume?**

The peak lockbox periods are Monday and any day following a bank holiday. Bank One uses flexible staffing to handle these peak times. We continually monitor the volume processed through the lockbox department and use forecasting models to ensure appropriate staff levels. Additionally, we encourage our customers to notify us of expected volume increases over 10 percent of normal volume.

**9. Describe the bank's procedures for processing foreign checks received in the lockbox. What float period is assigned to foreign items? Are procedures/float assignments different for Canadian or Mexican items? Are foreign checks converted into U.S. dollars?**

Our wholesale lockbox can accept Canadian checks drawn in U.S. dollars at face value. ~~Canadian checks drawn on Canadian banks will be converted to U.S. funds based on current exchange rates. The net proceeds will then be credited to the lockbox Demand Deposit Account (DDA) on a same-day basis.~~

~~All foreign items not included on the approved list of foreign countries will be processed on a collection basis through International Check Collections. Credit will be posted upon receipt of payment, less any fees.~~

10. **Are separate ledger credits made for weekend and holiday work? If not, how can these credits be identified? Is the output (details of payments received) distributed to the company that day or the next business day?**

Separate ledger credits are made for deposits processed on weekends and holidays. The details for these deposits are distributed with the next business day's work.

11. **Provide a list of your bank's and lockbox department's holidays.**

<b>Holiday</b>	<b>Day Observed</b>
New Year's Day	January 1
Dr. Martin Luther King Jr. Day	Third Monday in January
Memorial Day	Last Monday in May
Independence Day	July 4
Labor Day	First Monday in September
Thanksgiving Day	Fourth Thursday in November
Christmas Day	December 25

12. **In the case of an automated system failure, what backup arrangements are in place for lockbox processing?**

We have an extensive Disaster Recovery Plan, which we use in the event of an automated systems failure at any of our sites. Because of our six-site network configuration, we can respond quickly to any disaster with ample internal and external backup arrangements. For example, our Chicago site is the backup location for our other wholesale lockbox processing sites.

Each site can serve as a backup to any other site. The site to which work is directed depends on the:

- Expected recovery time
- Processing and transmission requirements of the affected lockboxes
- Available capacity at the alternative sites at the time of the disaster

For example, if the Chicago facility were to become unusable, we would courier all work to other sites within the network for processing. Volume would be distributed among the sites based on available capacity at the time of the disaster.

For all sites, the backup equipment for the Unisys mainframe resides at Sungard, Inc. in Warminster, Pennsylvania, which is just outside of Philadelphia. The

Sungard backup system is fully tested annually, and we would expect to be fully operational within 24 hours of the decision to activate the Disaster Recovery Plan.

- 13. Does the bank use a third-party processor for any part of this service? If yes, explain.**

Bank One utilizes the services of third parties for inbound and outbound courier runs and for trash and document destruction.

- 14. Does the bank have the capability to enter credit card information to process deposits based upon record of charges mailed to the lockbox? If so are these charges recorded as a separate deposit, or are they included in the deposit with other checks received that day?**

We can process credit card payments through wholesale lockbox. These payments can be recorded as separate deposits or included in the overall deposit, based on your requirements.



#### **IV. CHECK PROCESSING AND FUNDS AVAILABILITY**

- 1. Describe the major functions of the transit department's procedures and how they interface with the lockbox department. Which department encodes checks processed by lockbox?**

Prior to the delivery of lockbox checks to the transit department, the checks are encoded, endorsed and balanced in the lockbox department. Block tickets and internal cash letters are generated and delivered with the checks to the transit department.

Upon delivery to the transit area, the lockbox items are given priority processing due to the significant average check size and the importance of expedited collection to our commercial customers. The checks are processed on the IBM 3890 transports, where the following high-speed functions are performed:

- The MICR information from deposit tickets and checks is captured.
- The front and back of each item is microfilmed.
- The checks are sorted based on the endpoint.

Information captured from the checks and deposit tickets is transferred to the check processing control system, where availability is assigned on a per-check basis. The availability assignment is calculated according to the time of day, day of week and the location of the drawee bank. A fractional availability schedule is used.

Outgoing cash letters with detailed item listings are created and the checks are dispatched for collection via a correspondent bank, direct send point, local clearinghouse or Federal Reserve Bank.

- 2. Describe how the bank will compute the availability that is passed to the customer's lockbox (e.g., by item, fractional availability, float factor or other). Which department is responsible for the assignment of availability?**

We compute availability on a per-check basis based on the time of day, the day of week and the location of the drawee bank. A fractional availability schedule is used and maintained by our national float department. This schedule is updated each calendar quarter.

## V. DATA TRANSMISSION

1. **Describe the bank's procedures for the capture and transmission of remittance detail, such as account or invoice number, MICR line or other data for automated posting of accounts receivable records.**

Bank One's Automated Data Transmission Service provides prompt and accurate reporting of receivables information to facilitate immediate posting to the accounts receivable system. By using our services, you can receive same-day notification of remittance information. We have the capability to transmit this information directly to your PC or mainframe, a pooling bank or a third-party designate.

The automated capture of check MICR line information occurs during the capture pass during lockbox processing. If no additional data is required, this information is formatted and transmitted in accordance with customer specifications. If additional data is required, the invoices are used as source documents and the information is key entered. Field edits and quality checks are performed to ensure data accuracy. The keyed information is merged with the MICR line information.

**a. Describe methods to assure validity of data.**

Files requiring MICR data are automatically captured and generated by the lockbox processing system. This system performs edits, including check digit verification routines. If additional data fields are required, edits and field validations are performed as required to ensure the quality of the information. Additionally, Bank One utilizes job control language (JCL) and other authentication procedures to ensure the integrity and accuracy of the entire transmission process.

**b. Do you retain the actual check in the lockbox department until data capture is completed or send the check for collection prior to data capture?**

Bank One has the capability to perform data capture at various stages in the lockbox process. This allows flexibility in check processing delivery. Generally, checks are released to the Check Processing area prior to data entry to expedite the collection process. If multiple check balancing and/or invoices are required, data entry will be performed prior to the release of the checks.

Checks are released to the Check Processing area prior to data entry in order to expedite the collection process. If multiple check balancing and/or invoices are required, data entry will be performed using image copies of the checks.

**c. What backup arrangements exist should the system fail?**

Backup arrangements in the case of system failure are based on Business Continuity and Disaster Recovery plans in effect for each site. Highlights include:

- Diversion of incoming work to the nearest operational facility in the event of a major catastrophic failure
- Duplicate account profiles that are created and maintained as part of our account setup procedures.
- Redundant components applied in the system to minimize the impact of device failure.

**2. In what standard formats do you transmit? Will you customize?**

There are several structured format alternatives for electronic transmissions:

- The Bank Administration Institute (BAI) Lockbox Specifications
- American National Standards Institute (ANSI) X12 823 Lockbox Transaction
- ANSI X12 820 Payment Order/Remittance Advice

Custom transmission formats can be provided, however, the setup time frames and costs will vary based on the complexity of the requirements involved.

**3. What is the earliest transmission time we can have without affecting the bank's ability to deposit all mail received for a ledger credit day? Describe your procedures if we were to choose an earlier transmission time.**

The data transmission time is a function of check and invoice volume as well as the complexity and amount of required data entry.

Bank One can:

- Generally transmit by 6 p.m. CT while depositing all mail received for a ledger credit day.
- Accommodate an earlier transmission time depending on the volume and complexity of your lockbox account. Since the majority of the mail arrives in the morning, an earlier transmission time usually has only a minor impact on our ability to deposit remittances received for a ledger credit day. Remittances that cannot be processed for inclusion in the same day's transmission will be included in the next day's deposit and data file.
- Provide data transmissions between the hours of 7 a.m. and 12 a.m. CT at a predesignated, mutually agreed-upon time. We generally request a two-hour transmission window.

**4. What is the minimum lead time to initiate a daily tape/data transmission output?**

The minimum lead time to initiate data transmission output is two to four weeks from the date Bank One receives complete specifications and sample documents. This time frame includes the initiation of test transmissions.

**5. Describe procedures to ensure that transmissions are received successfully and contain all remittance payment detail.**

After data file creation, record counts and dollar amounts are balanced prior to the transmission initiation. Bank One's sophisticated software continually monitors transmissions to detect any errors. These errors are reviewed to determine the source and appropriate resolution steps are initiated. At the successful completion of a transmission, an acknowledgment is generated.

## VI. DEPOSIT AND BALANCE REPORTING

1. **Describe the different systems and methods by which the bank makes deposit and balance reporting information available. Include abilities to report through systems operated by another bank or non-bank vendor, and/or directly to our computer or treasury management workstation.**

Bank One has a variety of systems for deposit and balance reporting.

- The One Connection<sup>®</sup>, another terminal-based reporting system, reports intraday and previous-day balance and transaction reporting. BAI information in The One Connection may be downloaded to interface with your treasury workstation.
  - You may access the same intraday and historical deposit and balance information available on The One Connection via the Internet through The One Net Information Reporting<sup>SM</sup> module.
  - We can provide your various banks or non-bank vendors with deposit and balance information manually or through a direct transmission.
  - We can provide you with lockbox deposit totals (and availability breakdown) by e-mail or fax.
2. **For a given day's lockbox activity, at what time of day can you report the total amount that will be credited to our account? If multiple deposits are made during the day, do you report these deposits same-day or is there a reporting cutoff during the day?**
    - **One Net/The One Connection.** Lockbox deposits with float post to The One Connection at 8:30 a.m., 10:30 a.m., 12:30 p.m. and 2 p.m. CT.
    - **Electronic mail or Autofax.** You may also access same-day float information by electronic mail at a predetermined time set by you during the implementation of business.

Any balance, float and transaction information reported *intraday* is subject to final verification.

3. **Does the customer's deposit reporting deadline determine lockbox receipt processing cutoff for same-day ledger credit?**

Lockbox deposit reporting deadlines may affect the cutoff for the same-day processing and ledger credit if the reporting deadline is earlier than 4 p.m. local time.

4. **Does the bank's balance reporting system provide the capability to report other deposit types (electronic, over-the-counter, etc.)?**

Yes, our reporting system, The One Net/ One Connection:

- Is a comprehensive cash management balance and transaction reporting system
- Can report Lockbox deposits, ACH and Electronic Data Interchange (EDI) transactions, wire payments and any over-the-counter activity
- Gives you the option of receiving full wire payment and ACH/EDI transaction detail
- Reports Lockbox and over-the-counter deposit activity at the deposit level, not at the check level
- Identifies activity by type (lockbox versus ACH credits) and can be reported on a same-day and/or previous-day basis

The One Connection are terminal-based reporting systems. You have the option of accessing the same information via the Internet by using The One Net Information Reporting module.

**5. Does the bank have the capability to provide same-day float information for lockbox deposits? If yes, at what time(s) is it available?**

Yes, we can provide same-day float information for lockbox deposits. We have a variety of systems for deposit and balance reporting including:

- **The One Net/The One Connection.** Lockbox Deposits with float post to The One Connection at 8:30 a.m., 10:30 a.m., 12:30 p.m. and 2 p.m. CT.
- **Electronic mail or Autofax.** You may also access same-day float information by electronic mail at a predetermined time set by you during the implementation of business.

All systems report float information on an aggregate basis per lockbox account (rather than per check), and any balance information reported intraday is subject to final verification. At the end of the day and after final verification, deposit information is passed to our analysis system.

---

The paper detailed listing accompanying each batch of work, which is returned to you in your daily lockbox package, indicates the availability assigned to each check. The deposit advice shows the average availability for each deposit and the total day's activity.

---

---

## VII. IMPLEMENTATION

1. **Provide a detailed description of the implementation process, including testing, and a sample implementation schedule.**

An Implementation Specialist gathers your requirements and coordinates all aspects of the lockbox service implementation process. If a transmission is required, a Systems Implementation Consultant will also work with you to coordinate all the technical aspects of the transmission setup. There are no material differences in the major steps for your wholesale or retail lockbox solution. Of course, the final schedule and project components will be driven by your specific requirements.

2. **What is the average lead time for implementation? What are the critical factors that may impact that lead time?**

The lead-time for implementing your lockbox depends on the complexity of your service requirements. Implementation time for:

- **Basic lockbox** without any kind of data capture or transmission is approximately two weeks following receipt of your signed service agreement and completed implementation questionnaire.
- **Data capture or a BAI or ANSI transmission\*\*** is typically six to eight weeks to allow for the necessary computer programming and communications testing.
- **ReceiptStream** (the integration of electronic and check payment information) varies widely depending on the advising format you require. We can set up a paper-based receivables system (e.g., paper advices of ACH payments) in about two weeks. The setup for an electronic receivables system using the BAI or ANSI 820/823 format can take six to eight weeks because of the programming and telecommunication testing requirements.
- **Lockbox Image Services** can be set up in approximately four weeks if you elect to use the Lockbox Online Internet Service (LOIS). If you are interested in receiving a transmission or images to be imported into your internal image software, allow a lead-time of approximately 12 weeks.

\*\* A one-time implementation programming fee may be assessed upon the completion of business setup if we need to perform significant custom programming to meet your data capture or transmission requirements. We will try to estimate one-time implementation fees as early in the sales process as possible. However, an accurate determination can't be made until we have reviewed all of your detailed specifications, which may not occur until the implementation process begins.

**3. Describe support provided during implementation, including training, technical assistance, user manuals and on-site visits. Does the bank assign an implementation team?**

Once you choose Bank One for lockbox services, you are assigned the following:

- **Implementation Manager** who is responsible for coordinating the implementation of your services, with the exception of data transmission services
- **Systems Implementation Specialist** who:
  - Implements your lockbox services if you require a data transmission or image transmission and works with the Product Implementation Manager to ensure that all setup activities are properly coordinated.
  - Assembles a team of production and systems experts to help implement and works closely with you throughout the process

The Implementation Manager serves as your main contact throughout the implementation, handling the setup of compensation arrangements, demand and zero balance accounts, basic lockbox processing and other services. The Systems Implementation Specialist focuses on the technical transmission setup, including data capture instructions.



<p>BANK ONE, NA - Ohio Market Business Banking Lockbox Fee Schedule</p>
---

**Economy Lockbox**

ELB Monthly Maintenance	\$105.00 per box
ELB Items (0 - 100)	\$ 0.00 per item
ELB Items (101+)	\$ 1.00 per item

**Wholesale (Shared) Lockbox**

WLB Monthly Maintenance	\$105.00 per box
WLB Item without Photocopy	\$ N/A
WLB Item with Photocopy	\$ 0.45 per item
WLB Unprocessables	\$ 0.30 per item
WLB Postage	\$ 0.06 per item
WLB Postage - Envelopes Returned	\$ 0.19 per item
WLB Correspondence	\$ 0.10 per item
Lockbox Setup/ Implementation (one-time fee)	\$ 75.00 per box

**Wholesale Lockbox Processing Options**

Additional Photocopy	\$ 0.07 per copy
Duplicate Deposit Advice	\$ 10.00 per copy
Credit Card Payments	\$ 0.75 per item
Check MICR Capture	\$ 0.15 per check
Data Capture	\$ 0.0075 per keystroke
Transmission	\$ 10.00 per box
Special Processing	\$ 20.00 per box
Branch Delivery	\$ 21.00 per box
Deposit Reporting Total - Fax	\$ 1.50 per page
Deposit Reporting Fax Detail	\$ 0.20 per item
Deposit Reporting Total - Phone	\$100.00 per box
Cash Processing	\$ 3.00 per occurrence
Third Party Courier	At Cost

**\*\*All fees stated above are billed monthly via analysis, unless otherwise noted\*\***

Rev 06/04

BANK ONE, NA - Ohio Market  
Regional Wholesale Lockbox On-Line Image  
Services (LOIS) Fee Schedule

**Image Capture Fees**

Image Capture Maintenance	\$ 25.00 per box
Check Image Processing (front only)	\$ 0.12 per check
Document Image Processing (assumes front only)	\$ 0.20 per doc page
MICR Capture (if not already provided)	\$ 0.15 per item

**Archive/ On-Line/ Internet Services Fees**

Image Archive Maintenance	\$ 25.00 per box
Image Storage (first month)	\$ 0.03 per image page
Image Storage (optional additional month)	\$ 0.01 per image page
Same Day View (optional)	\$ 0.03 per image page

**CD ROM Services Fees**

CD Media Charge	\$ 20.00 per CD
CD Recreate	\$100.00 per CD

Please note: CD Shipping is via courier paid by the customer

**Remitter Name Capture Fee (Optional)**

Data Keying - Alphanumeric	\$ 0.0075 per keystroke
----------------------------	-------------------------

**Image Reference Service Fees (Optional)**

Image Reference Service	\$ 50.00 per box
Image Reference Detail (keystroke fees are additional)	\$ 0.005 per invoice

**\*\*All standard LOIS fees stated above are billed monthly via analysis,  
unless otherwise noted\*\***

04/04

BANK ONE, NA - Ohio Metro Market Business Banking Account Analysis Fees
--

**Depository Services**

Account Maintenance (acct)	\$17.00
Debits Posted (item)	\$ 0.17
Banking Center Deposit (item)	\$ 0.55
Other Deposits (item)	\$ 0.25
Stop Payments (item)	\$30.00
Official Checks (item)	\$ 5.00
Photocopies (item)	\$ 4.00
Overdraft - NSF Item Paid/ Returned (item)	\$30.00

**Deposited Items**

On Us (item)	\$ 0.10
Local city/clearings (item)	\$ 0.12
Transit A (item)	\$ 0.12
Transit B (item)	\$ 0.12
Deposited Items Returned (item)	\$ 7.00
Deposited Item Return - Phone Notification (item)	\$ 3.00
Deposited Item Return - Fax Notification (item)	\$ 2.00
Deposited Item Return - Redeposit Reclear (item)	\$ 5.00

Rev 6/04



BETWEEN TRANSOL AND THE CITY OF COLUMBUS, OH

**12 APPENDIX 6: TRANSOL INSURANCES**

<b>ACORD. CERTIFICATE OF LIABILITY INSURANCE</b>		CSR KM TRANS-8	DATE (MM/DD/YY) 03/19/04
PRODUCER Crist Elliott Machette Ins. License #OB17224 2201 Broadway, Suite 725 Oakland CA 94612 Phone: 510-832-8000 Fax: 510-832-5054		THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.	
INSURED		INSURERS AFFORDING COVERAGE	
Transol USA, Inc. 2145 San Carlos Place Chandler AZ 85249		INSURER A	The Travelers Indemnity Co.
		INSURER B	Lloyds of London Insurance
		INSURER C	
		INSURER D	
		INSURER E	

**COVERAGES**

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN. THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS

INSURER LETTER	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
A	<input checked="" type="checkbox"/> GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EEL GENL. AGGREGATE LIMIT APPLIES PER <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC	Y6307849A571	07/25/03	07/25/04	EACH OCCURRENCE \$ 1,000,000 FIRE DAMAGE (Any one fire) \$ 300,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 Emp Ben. 1,000,000
	<input type="checkbox"/> AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS	Y8107849A571	07/25/03	07/25/04	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ AUTO ONLY - EA ACCIDENT \$ OTHER THAN AUTO ONLY EA ACC \$ AGG \$
A	<input type="checkbox"/> GARAGE LIABILITY <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT \$ OTHER THAN AUTO ONLY EA ACC \$ AGG \$
A	<input checked="" type="checkbox"/> EXCESS LIABILITY <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> DEDUCTIBLE <input checked="" type="checkbox"/> RETENTION \$ 0	YSMCP111D0309	07/25/03	07/25/04	EACH OCCURRENCE \$ 4,000,000 AGGREGATE \$ \$ \$ \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY				<input type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER E L EACH ACCIDENT \$ E L DISEASE - EA EMPLOYEE \$ E L DISEASE - POLICY LIMIT \$
B	<input type="checkbox"/> OTHER <input checked="" type="checkbox"/> Errors & Omissions Liability <input checked="" type="checkbox"/> CLAIMS MADE COVERAGE	ME002310100	02/20/04	02/20/05	Prof. Liab 1,000,000 Deduct. 5,000

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/EXCLUSIONS ADDED BY ENDORSEMENT/SPECIAL PROVISIONS

Evidence of coverage

CERTIFICATE HOLDER	<input checked="" type="checkbox"/> ADDITIONAL INSURED; INSURER LETTER:	CANCELLATION
BLANK-1		SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.
		AUTHORIZED REPRESENTATIVE <i>Robert M. Mamone</i>

ACORD 25-S (7/97)

© ACORD CORPORATION 1998



**Transol**

Transol improves photo enforcement results with:

**Residual image capture.** Transol cameras shoot 30 images per second to build a complete event record of each violation.

**Multiple license-plate and multiple face-image sets.** Programs are no longer dependent on single-shot driver or vehicle ID systems.

**Non-intrusive detection.** Transol does not cut loops into city streets, so road damage and maintenance issues are avoided.

Nor do systems connect into traffic signal controllers, so there is no risk of phase interference.

**White-flash free imaging.** Even momentary driver distraction is avoided.

**Flexible installation designs.** Transol's small, aesthetically unobtrusive cameras may be fixed to existing poles or street infrastructures. Bulky camera boxes and unnecessary poles are avoided.

**Fully internet enabled systems** mean that any security-cleared client can access program images and data via any PC browser anywhere at anytime.

**Complete security** on Transol's communications, storage, processing and authorization systems protects primary evidence.

**Emergency crisis monitoring** is enabled by the camera's remote zoom, pan and tilt capabilities.



**Advanced  
traffic  
safety  
solutions**

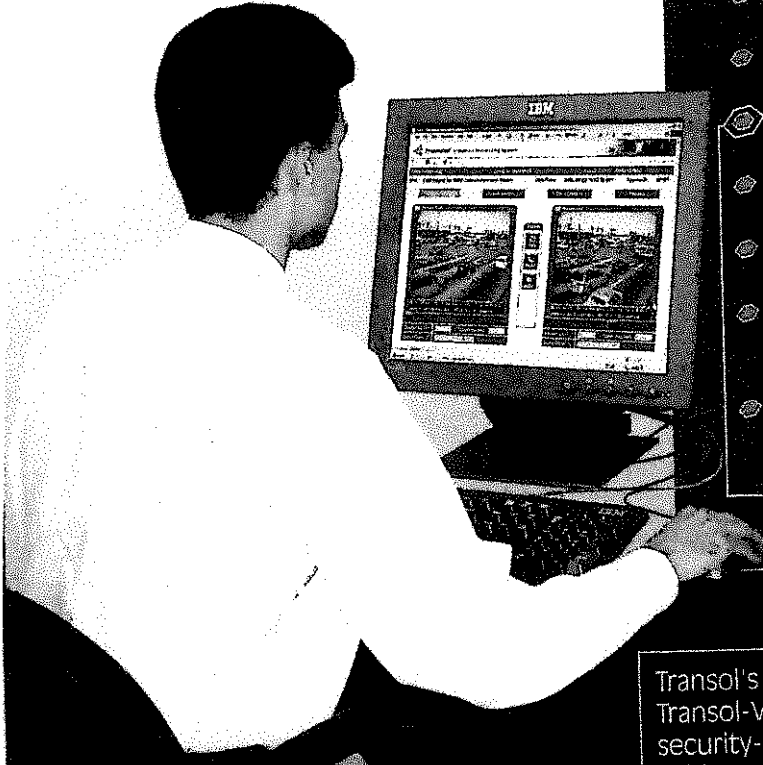




# Transol

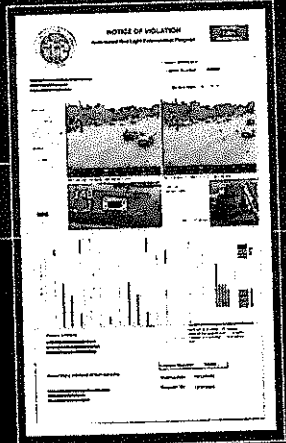
## PROGRAM SERVICES

Transol's Safe-City™ services package delivers integrated 'turn-key' photo enforcement under client direction. Alternatively, selected technologies may be supplied and supported for locally-operated programs.



In addition to advanced technologies, the Safe-City™ package delivers:

- Site analysis and selection
- Camera systems installation, operation and maintenance
- Evidence review and verification
- DMV interrogation for vehicle owner details
- Internet-enabled police authorization before citation printing
- Full color citation printing, mailing and follow-up
- Detailed system reports and data analysis
- Courts packages and expert witness services
- Training and customer support to city, police and courts personnel
- Community education strategy, materials and consultancy



Transol's unique, fully-Internet enabled Transol-VP™ processing solution gives security-controlled access to violation evidence, system records, reports, statistics and performance data. Authorized personnel can use Transol-VP™ to 'view' intersections for crisis monitoring.

Event Number: 00101-000-10000		Location: East bound on 104th	
Status: EVENT_HOLD	Lane No.: 4	Date/Time: 2004-01-06 14:37:21.125 GMT-7	
<input type="radio"/> Scene Camera	<input type="radio"/> Presence Camera	<input type="radio"/> Lane Camera	<input type="radio"/> Face Camera
<input checked="" type="radio"/> Scene Start	<input checked="" type="radio"/> Scene End	<input checked="" type="radio"/> Presence	<input checked="" type="radio"/> Plate Image
		 AID: 05191 EID: 0015500 Camera Presence Date: Tuesday, Jan 6 2004 14:37:21.125 GMT-7 TLP Res TR: 0900032 Lane Number 4	
		Details License No: 01-J State: CO Country: USA	

Authorized users access Transol-VP™ at any time with complete security using any PC with an Internet connection. Every access and action is automatically tracked and logged by the system.



## RI-RLC RED LIGHT CAMERA SYSTEMS

Transol's RI-RLC™ camera systems provide highly effective rear-only or front-and-rear photo red enforcement.

Multiple-image sets for scene, plate and face evidentiary records, unique stop-bar views and detailed data records yield unmatched evidence of violation.

Detailed image sequences document the entire violation event - from the vehicle's approach to the stop bar through to its exit from the intersection.

Added options for crisis monitoring and intersection accident alerts utilize our unique, fully Internet-enabled Transol-VP™ technology.

**Non-intrusive**

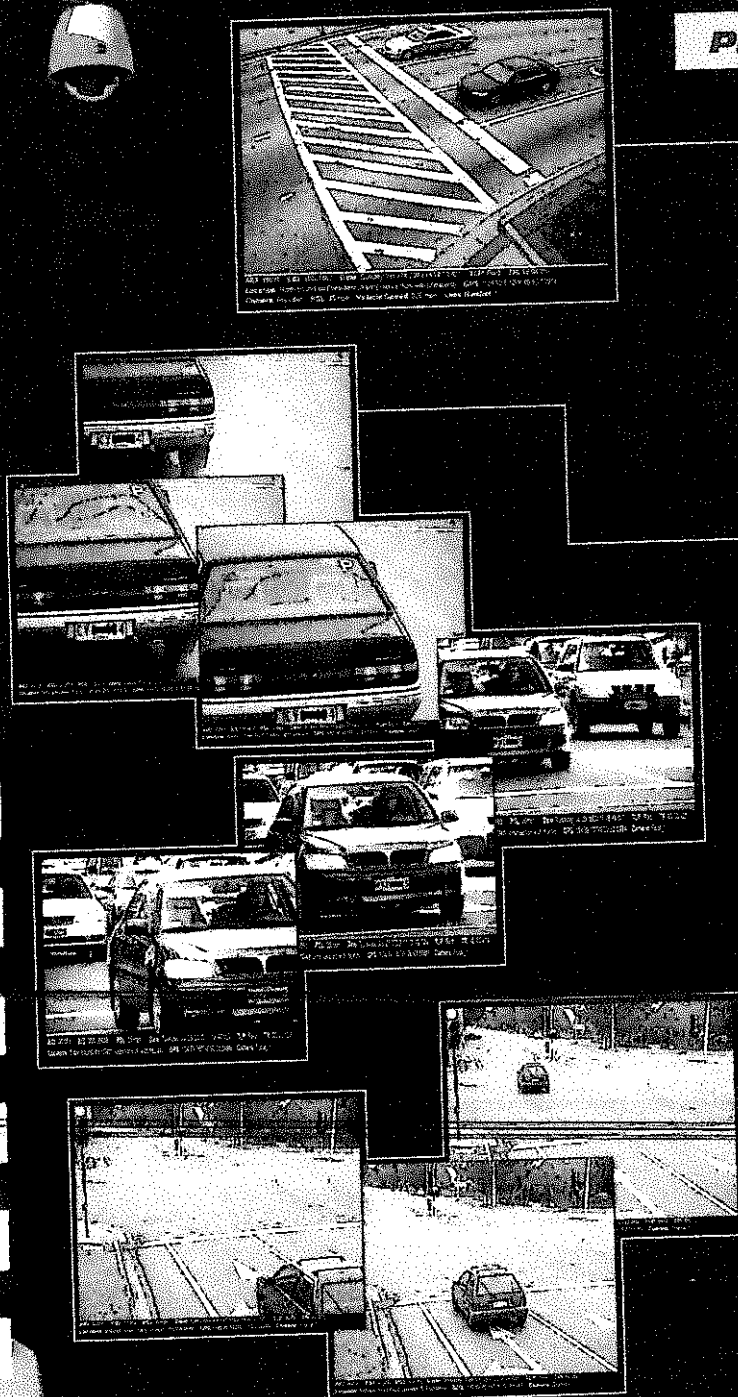
**Superior evidence**

**Simplified installation & maintenance**

**Accident alerts & crisis monitoring options**

### PROGRAM DIFFERENTIATORS

- ◆ Non-intrusive signal phase detection means there is no phase interference risk
- ◆ Loops-free violation detection - road damage, loops interference and recurrent loops maintenance are completely avoided
- ◆ Unique 'look-down' imaging along the stop bar
- ◆ Continuous imaging at 30 frames per second - effective even against left or right turn violators
- ◆ Multiple license-plate sets and multiple driver-image sets
- ◆ Sequences of up to 40 high quality rear-shot intersection images for each violation, each with the signal status clearly visible
- ◆ Detailed violation data, including independently verifiable GPS time and location details, printed to the image databars
- ◆ NO risk of 'white-flash' induced litigation
- ◆ Small cameras that minimize site aesthetic impact and reduce site infrastructure, installation times and associated traffic disruption
- ◆ Secured evidence capture, storage and communications
- ◆ Optional Intersection Accident Detection system
- ◆ Optional Crisis Monitoring mode



**USA** telephone: +1 480 895 1  
**AUSTRALIA** telephone: +61 3 9248 1

Transol's mobile and fixed-site speed camera systems integrate non-intrusive laser speed detection and residual imaging technologies.

Speed detection is lane-specific and accurate to +/- 1mph at 200mph. With Transol's multiple-image license plate records it generates conclusive proof of violation. Encrypted evidence is stored to removable media or downloaded for immediate processing using high-speed VPN and the Internet.

Small RI-FSC™ fixed-site cameras are fitted to existing road infrastructures wherever possible. With optical character recognition upgrades they provide average route interval speed monitoring and/or 'vehicle of interest' enforcement.

By comparison, the mobile RI-MSC™ speed unit is fully portable and may be configured for either in-vehicle or roadside deployment.

Purpose built for easy, error-free operation it features fast, 3-step set-up procedures, 'live' field of view displays and storage for many successive operator sessions.



## PHOTO ENFORCEMENT

### The problem.

In the USA, red light running results in as many as 220,000 crashes each year causing approximately 181,000 injuries and 880 fatalities with a societal cost that has been estimated at about \$14 million annually.

According to the FHWA, reducing the number of red light running crashes is especially important as these are, on average, more deadly and damaging than other types of crashes at signalized intersections.

Yet red light runners know that the risk of being caught by traditional programs is low.

### The solution.

Good photo enforcement reverses those odds. It changes driving behavior and that translates into crash reduction, whether it applies to red light running or speeding.

It also frees officers for more serious crime prevention and puts the cost of programs onto violators. Squad efficiency and safety are improved too; high speed chases reduce, as do call-outs for accident clean-ups, investigations and courts evidence.

"When you put all the available research together, the evidence indicates that red light cameras reduce injury crashes by about 25 to 30 per cent...automated enforcement cameras work, and the international evidence is consistent..." IHS Status Report, May 4 2002.

### The community.

"The National Safety Council supports authorizing legislation for proper assessment and implementation of red light camera enforcement programs to reduce incidences of red light running and the crashes, deaths and injuries that it causes."

"NOW, THEREFORE, BE IT RESOLVED, that The U.S. Conference of Mayors supports state enactment of legislation enabling cities to implement photo enforcement programs for red light running, speed, and public highway rail grade crossing violations."

A 2001 Harris Poll showed that 83 per cent of Americans wanted the budget for highway and auto safety increased; 78 per cent wanted intersection safety improved; 73 per cent wanted more attention to reducing red light running and 77 per cent wanted more attention on the problem of speeding, especially in neighborhoods.

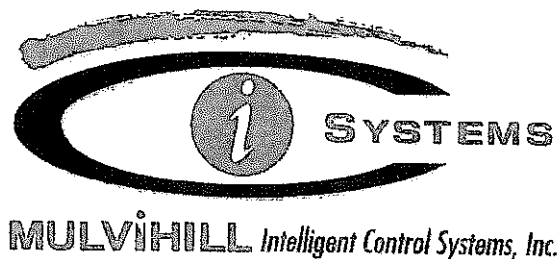
**Transol** Transol Corporation Limited.

Photo enforcement has operated worldwide for decades and has produced dramatic safety results. Transol's technologies and service offering take advantage of its team's experience working with many programs over the past 15 years. Our latest solutions are innovative, effective and respond directly to client and community needs.

[www.transolgroup.com](http://www.transolgroup.com)

USA telephone: +1 480 895 1211  
AUSTRALIA telephone: +61 3 9248 1090





MULVIHILL ICS, INC  
503 CARY AVENUE  
STATEN ISLAND, NY 10310  
PHONE : 718-448-7000  
FAX : 718-816-7267  
WWW.REDLIGHTCAMERA.COM  
INFO@REDLIGHTCAMERA.COM

June 16, 2004

City of Columbus, Ohio  
Purchasing Office  
1<sup>st</sup> Floor, 50 West Gay St.  
Columbus, OH, 43215

To Whom It May Concern:

Please accept this revision to page 63 cost proposal. This sheet will replace the existing list. Thank you, in advance, for your attention to this matter.

Sincerely,

John Petrozza

President

---

---

Jg:lm  
enc

ONE ORIGINAL AND TEN COPIES  
OF THIS BID MUST BE SUBMITTED

Bidder submitting this Bid should check the appropriate

This is:  The Original

This is:  One of the Copies

THIS IS A TWO SIDED BID



## Request for Proposal (RFP)

City of Columbus, O  
Purchasing Office  
1<sup>st</sup> Floor, 50 West Gay Str  
Columbus, Ohio 43215  
614/645-8315

SOLICITATION NO.: SA 001147 JY/FM

Coop Yes Ends Date

Years Left

PHOTO RED LIGHT ENFORCEMENT SYSTEM

(Item)

SAFETY

(Department)

POLICE

(Division)

**Bid Opening Date and Time (due date and time)**

JUNE 17, 2004 11:00 AM LOCAL TIME  
PRE BID CONFERENCE JUNE 2, 2004

**NOTE: FAILURE TO RETURN THIS BID PROPOSAL INTACT MAY BE CAUSE FOR REJECTION.**

**Bid Proposal Submitted By:**

MULVILL INTELLIGENT CONTROL SYSTEMS

Company Name

503 CARY AVENUE

Street Address

STATEN ISLAND

NEWYORK

10310

City

State

Zip

13-4139454

13-4139454

Federal I.D. No.

Contract Compliance No.

JOHN PETROZZA

718-448-7000

718-816-7267

Contract Person

Phone No.

Fax No.

**FAILURE TO RESPOND MAY RESULT IN YOUR NAME BEING REMOVED FROM BID LIST.  
RETURNING THIS PAGE ONLY MARKED "NO BID" COUNTS AS A RESPONSE.**

**THIS PAGE WAS INTENDED TO BE BLANK**

**PROPOSAL**

To the Finance Director of the City of Columbus, Ohio:

We (I) propose to furnish the following article(s) and/or service(s) at the price(s) and terms stated subject to all instructions, conditions, specifications and all attachments hereto. We (I) have read all attachments including the specifications and fully understand what is required.

Prices are to be quoted F.O.B.: Revision 2 See Page 5

Delivery: 45 calendar day(s) after receipt of order

Terms: Net 30

Company Name or Bidder's Name: Mulvihill ICS, Inc.

Business Address of Bidder: 503 Cary Avenue  
Staten Island, NY 10310

**REQUIRED Company Employee Information:**

Total number of company employees = 31

Total number of company employees working in Columbus = 0

Additional number of employees that will be working in Columbus in the event this contract is awarded to your company = 8 for 6 months / then 2 for 3-4 years

The full name and residence of all persons and parties interested in the foregoing bid are: (If a corporation, give the name and address of the president and secretary; if a firm or partnership, the names and address of the members or partners.)

Name

Address

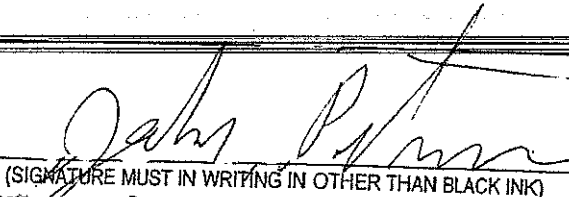
John Petrozza

315 Maine Avenue. S.I., NY 10314

Hollis Mulvihill Petrozza

315 Maine Avenue. S.I., NY 10314

Authorized Signature X



Title: X

President

(SIGNATURE MUST IN WRITING IN OTHER THAN BLACK INK)

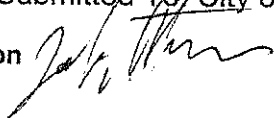
(TITLE MUST BE GIVEN)

**4. Cost Proposal**

**Photo Red Light Enforcement System**

RFP No. SA 001147 JY/FM Submitted To: City of Columbus, Ohio

COST PROPOSAL / 2nd Revision



Mulvihill ICS, Inc.

Option 1		
ALL INCLUSIVE / FIXED PRICE		
<b>All inclusive price per approach per month / Rear Photography</b>		
All proposed camera equipment, hardware, installation, management Violation processing, reporting, lockbox, and DMV access	\$4,395	per approach per month
<b>Optional 1B</b>		
<b>Axsis Frontal Photography Option</b> includes a 2nd camera and strobe per direction of travel w/installation	\$345	additional, per approach per month
<b>Optional 1C</b>		
<b>Axsis Live adjunct digital video and playback</b> includes one Axsis live controller per intersection with four cameras	\$295	additional, per <u>intersection</u> per month
<b>Optional 1D</b>		
<b>Exchange triggering from Dual Loop to Piezo Loop</b> includes two Piezos and one loop per lane / includes installation	\$95	additional, per approach per month

Option 2		
ALL INCLUSIVE / PRICE PER COLLECTED CITATION		
<b>All inclusive price per Collected Citation</b>		
All proposed camera equipment, hardware, installation, management Violation processing, reporting, lockbox, and DMV access	\$29.00	per collected citation
<b>Optional 2B</b>		
<b>Axsis Frontal Photography Option</b> includes a 2nd camera and strobe per direction of travel w/installation	\$3.00	additional, per collected citation
<b>Optional 2C</b>		
<b>Axsis Live adjunct digital video and playback</b> includes one Axsis live controller per intersection with four cameras	\$2.50	additional, per collected citation
<b>Optional 2D</b>		
<b>Exchange triggering from Dual Loop to Piezo Loop</b> includes two Piezos and one loop per lane / includes installation	\$1.00	additional, per collected citation
<i>Per collected citation fee can be significantly discounted to accommodate high volumes</i>		

Option 3		
ALL INCLUSIVE / HYBRID / MONTHLY LEASE + FEE /CITATION		
<b>All inclusive Hybrid / lease + fee</b>		
All proposed camera equipment, hardware, installation, management Violation processing, reporting, lockbox, and DMV access	\$17.14	per approach per month per collected citation
<b>Optional 3B</b>		
<b>Axsis Frontal Photography Option</b> includes a 2nd camera and strobe per direction of travel w/installation	\$97 \$1.77	additional, per approach per month additional, per collected citation
<b>Optional 3C</b>		
<b>Axsis Live adjunct digital video and playback</b> includes one Axsis live controller per intersection with four cameras	\$77 \$1.77	additional, per <u>intersection</u> per month additional, per collected citation
<b>Optional 3D</b>		
<b>Exchange triggering from Dual Loop to Piezo Loop</b> includes two Piezos and one loop per lane / includes installation	\$25 \$0.77	additional, per approach per month additional, per collected citation
<i>Per collected citation fee can be significantly discounted to accommodate high volumes</i>		

ONE ORIGINAL AND TEN COPIES  
OF THIS BID MUST BE SUBMITTED

Bidder submitting this Bid should check the appropriate

This is:  The Original

This is:  One of the Copies

THIS IS A TWO SIDED BID



## Request for Proposal (RFP)

City of Columbus, O  
Purchasing Office  
1<sup>st</sup> Floor, 50 West Gay Str  
Columbus, Ohio 43215  
614/645-8315

SOLICITATION NO.: SA 001147 JY/FM

Coop Yes Ends Date

Years Left

PHOTO RED LIGHT ENFORCEMENT SYSTEM

(Item)

SAFETY

(Department)

POLICE

(Division)

**Bid Opening Date and Time (due date and time)**

JUNE 17, 2004 11:00 AM LOCAL TIME  
PRE BID CONFERENCE JUNE 2, 2004

**NOTE: FAILURE TO RETURN THIS BID PROPOSAL INTACT MAY BE CAUSE FOR REJECTION.**

**Bid Proposal Submitted By:**

MULVILL INTELLIGENT CONTROL SYSTEMS

Company Name

503 CARY AVENUE

Street Address

STATEN ISLAND

NEW YORK

10310

City

State

Zip

13-4139454

13-4139454

Federal I.D. No.

Contract Compliance No.

JOHN PETROZZA

718-448-7000

718-816-7267

Contract Person

Phone No.

Fax No.

**FAILURE TO RESPOND MAY RESULT IN YOUR NAME BEING REMOVED FROM BID LIST.  
RETURNING THIS PAGE ONLY MARKED "NO BID" COUNTS AS A RESPONSE.**

**THIS PAGE WAS INTENDED TO BE BLANK**

# PROPOSAL

To the Finance Director of the City of Columbus, Ohio:

We (I) propose to furnish the following article(s) and/or service(s) at the price(s) and terms stated subject to all instructions, conditions, specifications and all attachments hereto. We (I) have read all attachments including the specifications and fully understand what is required.

Prices are to be quoted F.O.B.: Revision 2 See Page 5

Delivery: 45 calendar day(s) after receipt of order

Terms: Net 30

Company Name or Bidder's Name: Mulvihill ICS, Inc.

Business Address of Bidder: 503 Cary Avenue  
Staten Island, NY 10310

## REQUIRED Company Employee Information:

Total number of company employees = 31

Total number of company employees working in Columbus = 0

Additional number of employees that will be working in Columbus in the event this contract is awarded to your company = 8 for 6 months / then 2 for 3-4 years

The full name and residence of all persons and parties interested in the foregoing bid are: (If a corporation, give the name and address of the president and secretary; if a firm or partnership, the names and address of the members or partners.)

Name

Address

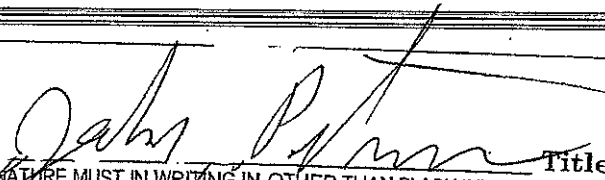
John Petrozza

315 Maine Avenue. S.I., NY 10314

Hollis Mulvihill Petrozza

315 Maine Avenue. S.I., NY 10314

Authorized Signature X

  
(SIGNATURE MUST BE IN WRITING IN OTHER THAN BLACK INK)

Title: X

President



4. Cost Proposal

**Photo Red Light Enforcement System**

RFP No. SA 001147 JY/FM Submitted To: City of Columbus, Ohio

**COST PROPOSAL / 2nd Revision**

Mulvihill ICS, Inc.

Option 1		
ALL INCLUSIVE / FIXED PRICE		
<b>All inclusive price per approach per month / Rear Photography</b>		
All proposed camera equipment, hardware, installation, management Violation processing, reporting, lockbox, and DMV access	\$4,395	per approach per month
<b>Optional 1B</b>		
<b>Axis Frontal Photography Option</b>	\$345	additional, per approach per month
includes a 2nd camera and strobe per direction of travel w/installation		
<b>Optional 1C</b>		
<b>Axis Live adjunct digital video and playback</b>	\$295	additional, per <u>intersection</u> per month
includes one Axis live controller per intersection with four cameras		
<b>Optional 1D</b>		
<b>Exchange triggering from Dual Loop to Piezo Loop</b>	\$95	additional, per approach per month
includes two Piezos and one loop per lane / includes installation		

Option 2		
ALL INCLUSIVE / PRICE PER COLLECTED CITATION		
<b>All inclusive price per Collected Citation</b>		
All proposed camera equipment, hardware, installation, management Violation processing, reporting, lockbox, and DMV access	\$29.00	per collected citation
<b>Optional 2B</b>		
<b>Axis Frontal Photography Option</b>	\$3.00	additional, per collected citation
includes a 2nd camera and strobe per direction of travel w/installation		
<b>Optional 2C</b>		
<b>Axis Live adjunct digital video and playback</b>	\$2.50	additional, per collected citation
includes one Axis live controller per intersection with four cameras		
<b>Optional 2D</b>		
<b>Exchange triggering from Dual Loop to Piezo Loop</b>	\$1.00	additional, per collected citation
includes two Piezos and one loop per lane / includes installation		
<i>Per collected citation fee can be significantly discounted to accommodate high volumes</i>		

Option 3		
ALL INCLUSIVE / HYBRID / MONTHLY LEASE + FEE /CITATION		
<b>All inclusive Hybrid / lease + fee</b>		
All proposed camera equipment, hardware, installation, management Violation processing, reporting, lockbox, and DMV access	\$1,714 \$17.14	per approach per month per collected citation
<b>Optional 3B</b>		
<b>Axis Frontal Photography Option</b>	\$97	additional, per approach per month
includes a 2nd camera and strobe per direction of travel w/installation		
	\$1.77	additional, per collected citation
<b>Optional 3C</b>		
<b>Axis Live adjunct digital video and playback</b>	\$77	additional, per <u>intersection</u> per month
includes one Axis live controller per intersection with four cameras		
	\$1.77	additional, per collected citation
<b>Optional 3D</b>		
<b>Exchange triggering from Dual Loop to Piezo Loop</b>	\$25	additional, per approach per month
includes two Piezos and one loop per lane / includes installation		
	\$0.77	additional, per collected citation
<i>Per collected citation fee can be significantly discounted to accommodate high volumes</i>		

Tuesday, June 15, 2004

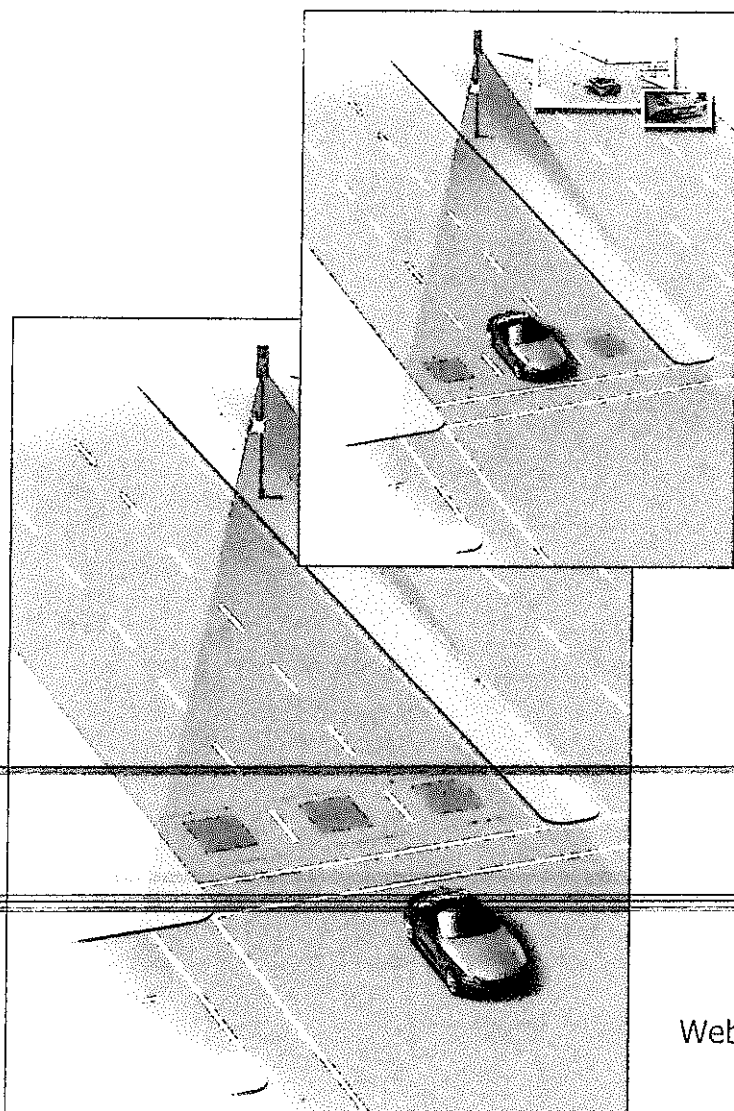
---

# Proposal

## Photo Red Light Enforcement System

*RFP No. SA 001147 JY/FM Submitted To:*

City of Columbus, Ohio  
Division of Police



**MULVIHILL** *Intelligent Control Systems, Inc.*

503 Cary Avenue  
Staten Island, New York 10310  
Phone: 718.448.7000  
Fax: 718.816.7267  
Web Site: [www.redlightcamera.com](http://www.redlightcamera.com)

This proposal or quotation includes data that shall not be discussed outside the City of Columbus, Ohio (CoC) and shall not be duplicated, used, or disclosed (in whole or in part) for any purpose other than to evaluate this proposal or quotation. If, however, a contract is awarded to this offeror or quota as a result of--or in connection with--the submission of this data, the CoC shall have the right to duplicate, use or disclose the data to the extent provided in the resulting contract. This restriction does not limit the CoC's right to use Information contained in this data if it is obtained from another source without restriction. This data subject to this restriction are contained in every sheet.

---

## Table of Contents

1.	Transmittal Letter.....	1
1.1.	Executive Summary.....	2
1.2.	RFP Scoring Criteria.....	3
2.	RFP No: SA 001147 JY/FM.....	7
3.	Technical Response .....	9
3.1.	RFP Requirements .....	9
3.1.1.	describe how your system photographs vehicles allegedly not stopping .....	9
3.1.2.	describe how your system obtains vehicle registration information.....	12
3.1.3.	describe, in detail how your system will interface with the CoC traffic.....	13
3.1.4.	describe how your system reviews each photograph for visibility .....	13
3.1.5.	describe how your system matches the make and model .....	15
3.1.6.	describe how your system performs quality control.....	16
3.1.7.	describe how your system generates a citation with photograph.....	17
3.1.8.	describe how your company will meet SAS 70 requirements .....	19
3.1.9.	describe how your system transfers electronic files of citation information .....	19
3.1.10.	describe how your system processes service of citations not responded .....	19
3.1.11.	describe how you system provides court testimony of contested citations .....	20
3.1.12.	describe how your system provides for a service center facility .....	21
3.1.13.	describe how your system will provide reports to CoC.....	23
3.1.14.	provide detailed information on your service level agreements .....	28
3.1.15.	describe how your photo red light system is equipped to detect .....	31
3.1.16.	describe how your system is capable of photographing the front of a vehicle.....	33
3.1.17.	describe how your system's cameras will obtain a clear image of the rear .....	34
3.1.18.	demonstrate how your systems images are clearly discernable.....	34
3.1.19.	describe how your system is capable of consistently photographing. ....	37
<del>3.1.20.</del>	<del>describe how your system is capable of performing internal calibration .....</del>	<del>37</del>
3.1.21.	describe how you will maintain the integrity of the CoC traffic signal system.....	37
3.1.22.	describe how your system is capable of gathering detailed.....	38
3.1.23.	describe how your system is capable of accurately monitoring multiple .....	38
3.1.24.	describe how your system is automated with regards to setup .....	38
3.1.25.	describe how your system's cameras have the ability to operate .....	38
3.1.26.	describe the time it takes for your system to take photographs .....	39

3.1.27. describe how your system will capture violators at a minimum of 90%..... 44

3.1.28. describe the process used to communicate to the DoT ..... 44

3.1.29. describe how the CoC is to be reimbursed whenever a CoC employee ..... 45

3.1.30. Non-Emergency Notification..... 45

3.1.31. describe how you handled emergency maintenance..... 45

3.1.32. Client List..... 46

3.1.33. describe your process for acceptance and disbursement of funds ..... 46

3.1.34. describe options for payments and collections ..... 48

3.2. Additional Information ..... 50

3.2.1. Mulvihill’s Proposed Staffing..... 50

3.2.2. Mulvihill’s Team Experience ..... 54

3.2.3. Public Awareness..... 59

3.2.4. Emerging Business..... 61

4. Cost Proposal ..... 63

*Proposal*



**1. Transmittal Letter**

*Mulvihill Intelligent Control Systems, Inc.* (Mulvihill) is pleased to submit this response to the City of Columbus, Ohio request for proposal (RFP No. SA 001147 JY/FM) to provide a Photo Red Light Enforcement System which we are confident will meet or exceed the requirements stated in your RFP.

Mulvihill's solution will provide Automated Red Light Camera Enforcement systems and services through our exclusive Axisis™ suite of integrated safety products to automatically detect violations, record violation evidence (stills, video, and data), transmit violation data and images securely to our violation processing center, coordinate DMV registration data, pre-review violations for approval, and provide integration to the court system.

Our proposed solution will decrease the number of red light violations, and reduce the number of dangerous intersection related collisions, making for a safer City of Columbus.

Mulvihill has been a pioneering provider of large-scale automated digital and film-based red light camera enforcement programs for over 12 years. Our largest and most notable implementation has been the deployment and management of New York City's Red Light Camera Program. We have more than a decade of direct, relevant experience with red light camera programs, including one of the largest programs in the country. During our history, Mulvihill has built a robust and seasoned organization which consistently delivers superior Red Light Camera systems and violation processing services.

Mulvihill and its team offer a compelling and high value solution for today's red light camera enforcement requirements. Our solutions offer innovative, leading edge technology, backed by an experienced team with a consistent track record of performance and excellent customer service.

We are pleased to confirm that our solution is in full compliance with the RFP's stated requirements and offer the following proposal highlights for your review:

- Mulvihill's extensive red light camera deployment and field operations experience will insure an on-time construction and installation.
- Mulvihill has developed a strong Equal Business Opportunity focused local team including Ohio's Triumph Communications and Prime Engineering & Architecture, Inc.
- ~~We provide the Axisis™ RLC 300 Red Light Camera system, which provides a high violation yield, flexible installation and low cost.~~
- Mulvihill has been in business for over 80 years with a consistent record of profitability.
- Mulvihill is bonded by St. Paul's Surety and insured by The Traveler Group with a AAA rating.

- Mulvihill Intelligent Control Systems (ICS) is incorporated in the State of New York with headquarters in Staten Island, New York City at 503 Cary Avenue. Our main telephone number is 718.448.7000 and our main fax number is 718.816.7267. Inquires regarding this proposal should be sent to John T. Petrozza at the preceding address/phone number. Mulvihill takes complete responsibility for the performance of all aspects of this project.
- Officers of Mulvihill are: John Petrozza and Hollis Mulvihill Petrozza.
- This proposal has been prepared by John Petrozza, Steve Brooks, Mark Alexander and Bob Greenhut—all employed by Mulvihill. Additional support was provided by Adam Tuton of American Traffic Solutions, Inc.
- This proposal and the information contained herein is and will remain valid for a period of 180 days from the date of submittal.
- The Equal Business Opportunity Commission Office (EBOCO) has approved our request to obtain a contract compliance number with the City of Columbus. The contract compliance number assigned to our company is 13-4139454.

### 1.1. Executive Summary

Mulvihill Intelligent Control Systems, Inc. (Mulvihill) is pleased to submit this response to the City of Columbus' request for proposals (RFP) to provide a Photo Red Light Enforcement System which we are confident will meet or exceed the requirements stated in Part III of your RFP.

Mulvihill's solution will provide Automated Photo Red Light Enforcement System and services through our exclusive Axis™ suite of integrated safety products to automatically detect violations, record violation evidence (stills, video, and data), transmit violation data and images securely to our violation processing center, coordinate DMV registration data, pre-review violations for city approval, and provide integration to the City's police, court and traffic systems.

Our proposed solution will decrease the number of red light violations, and reduce the number of dangerous intersection related collisions, making Columbus a safer community with a higher quality of life. Our solution offers the exclusive line of Axis™ Automated Enforcement Technology and support services, which includes the following:

- **Axis™ Red Light Camera Systems (RLCs)**—Accurate intersection violation detection and high resolution imaging system;
- **Axis™ Violation Incident Monitoring System (ViMS)**—Video based site selection tool;
- **Axis™ Live Intersection Video Evidence (LIVE)**—Video evidence and observation system;
- **Axis™ Violation Processing System (VPS)**—Web enabled image review, citation processing, adjudication, collections and reporting system;

Mulvihill has built a robust and seasoned organization which consistently delivers superior Red Light Camera systems and violation processing services. Mulvihill and its team offer a compelling and high value solution for today's red light camera enforcement requirements. Our solutions offer innovative, leading edge technology, backed by an experienced team with a consistent track record of performance and excellent customer service.

We are pleased to confirm that our solution is in full compliance with the City's stated requirements and offer the following proposal highlights for your review:

- Mulvihill's extensive red light camera deployment and field operations experience, along with the strength of our local and minority owned construction partner, Advanced Federated Protection Inc., will insure an on-time construction and installation.
- Our exclusive Axis™ ViMS will provide key data and intelligence that will enable quick and accurate identification of the most dangerous intersections for camera enforcement.
- The Axis™ VPS System is a powerful, web enabled citation processing and adjudication package designed to increase efficiency, versatility and eliminate the City's exposure to privacy or security issues.
- The optional Axis™ LIVE integrated video feature captures a short video clip of the violation event to enhance the Court Adjudication process. The Axis™ LIVE system offers real time web access enabling live viewing of four directions of travel per intersection with up to a 240-day archive and retrieval feature to support adjudication and/or criminal investigations and/or traffic flow evaluation.
- We have retained a Columbus-based public relations firm familiar with Columbus' unique demographic needs for an effective, city-wide community outreach and awareness program to ensure public acceptance.
- Mulvihill is a North East Coast company which has been in business for over 80 years with a consistent record of profitability, a strong balance sheet and no debt.
- Mulvihill is bonded by St. Paul's Surety and insured by The Traveler Group with a AAA rating.
- Mulvihill has achieved an impressive record of delivery and contract compliance and on-time delivery. None of our projects have ever been cancelled, downsized, subject to liquidated damages, or embroiled in controversy.

## **1.2. RFP Scoring Criteria**

### **Competence**

Mulvihill has been designing, installing and maintaining red light camera systems since our pilot projects in 1985, then subsequently the country's first active red light camera program in 1992. ATS has been developing and producing leading edge automated enforcement camera systems and image based violation processing applications since 1987. This combined experience represents the greatest depth of direct relevant experience in this industry. Our implementation staff has an average of 11 years each of experience with automated enforcement systems.

After the implementation is complete, Mulvihill will have two full time employees in our Columbus office, with on site spares to take care of the system on a seven day a week, twenty four hour a day basis. ~~This staff will be experienced Mulvihill employees, not a subcontractor.~~

### **Quality / Feasibility**

The solution Mulvihill has proposed for the Columbus project has been developed and perfected over the past 15 years. Our photo technology offers the highest available resolution imaging at the greatest pixel depth.



Our new camera, controller, and strobe housings offer unparalleled flexibility of location, offering the ability to be placed on existing polls or other non intrusive locations. Minimizing the visual impact of the solution, allows for more seamless integration with the existing infrastructure.

Mulvihill can offer service level agreements that guarantee a 95% successful capture rate. We also offer a guaranteed 70% conversion rate; factoring for missing plates, emergency vehicles, no DMV match, blocked plates, etc. In other words, 70% of the captured violations will be converted to an issue able ticket.

Our Axis powered back end is 100% web enabled, which allows for simple integration with existing computer systems from the city. There are no stand alone systems or software necessary to implement our solution; all that is required is a personal computer with a connection to the internet and a web browser.

### **Ability**

Mulvihill has installed and maintained red light camera solutions for 15 years. Our staff is the most experienced in the country. We have provided a short list of references of our past and current implementations. Included in our response is a proposed timing for the project roll out, this time can be compressed or expanded based on the city's requirements.

With our vast experience, Mulvihill has deployed several projects, on time and always on budget. Our references are impeccable and we have never lost a governmental contract for performance or any other reason.

Mulvihill will dedicate staff to the Columbus project. We will dedicate a project manager and local implementation staff. When the project is complete, the local people who implemented the solution will also maintain it in the future.

### **Past Performance**

The Mulvihill team has been involved in several major projects over the years. Every project we have implemented has been successful, and we have the references to back it up. No city has ever canceled a Mulvihill contract for any reason.

Our biggest and most successful project has been New York City. We have implemented, maintained, and upgraded, this, the longest running, most profitable, and massively successful project in the United States. What Mulvihill has done for New York has been perfected over the years and is 100% repeatable for the city of Columbus.

### **Pricing**

There are many different ways to price a project of this scope; and as such we have provided a pricing menu to the city. Our Axis back ends minimal system requirements, coupled with our high tech controllers, cameras, and strobes, gives Mulvihill a price advantage against our competitors. The city will find that Mulvihill offers the widest array of options, with the highest performance systems, along with an unmatched service level agreement, the longest experience in the market, and the best price.

### **Conclusion**

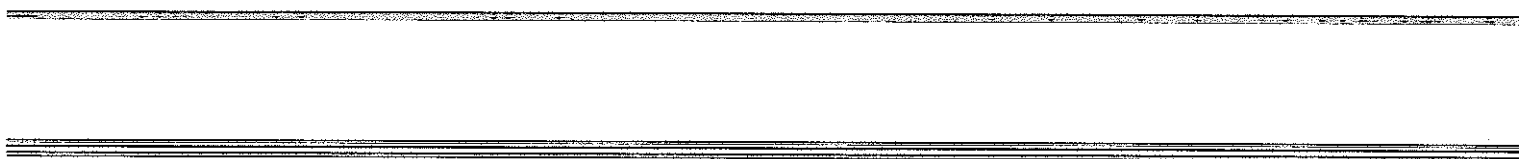
We are aware and understand the changes in the requirements as outlined in Addendums one through three. Mulvihill is both comfortable and capable of delivering all the requested services to Columbus.

We are excited about this important project and look forward to the opportunity to work with the City of Columbus in a joint effort to combat dangerous driving, increase compliance and reduce the number and severity of crashes throughout Columbus.

Sincerely,



John T. Petrozza  
President  
Mulvihill ICS, Inc.



MULVIHILL Intelligent Control Systems, Inc.

City of Columbus  
**Red Light Camera Program Proposal**

2. RFP No: SA 001147 JY/FM

MULVIHILL Intelligent Control Systems, Inc.

*City of Columbus*  
*Red Light Camera Program Proposal*

ONE ORIGINAL AND TEN COPIES  
OF THIS BID MUST BE SUBMITTED

Bidder submitting this Bid should check the appropriate box.

This is:  The Original

This is:  One of the Copies

HIS IS A TWO SIDED BID



## Request for Proposal (RFP)

City of Columbus, Ohio  
Purchasing Office  
1<sup>st</sup> Floor, 50 West Gay Street  
Columbus, Ohio 43215  
614/645-8315

SOLICITATION NO.: SA 001147 JY/FM

Coop Yes Ends Date

Years Left

PHOTO RED LIGHT ENFORCEMENT SYSTEM

(Item)

SAFETY

(Department)

POLICE

(Division)

Bid Opening Date and Time (due date and time)

JUNE 17, 2004 11:00 AM LOCAL TIME  
PRE BID CONFERENCE JUNE 2, 2004

NOTE: FAILURE TO RETURN THIS BID PROPOSAL INTACT MAY BE CAUSE FOR REJECTION.

Bid Proposal Submitted By:

MULVILL INTELLIGENT CONTROL SYSTEMS

Company Name

503 CARY AVENUE

Street Address

STATEN ISLAND

NEWYORK

10310

City

State

Zip

13-4139454

13-4139454

Federal I.D. No.

JOHN PETROZZA

Contract Compliance No.

718-448-7000

718-816-7267

Contract Person

Phone No.

Fax No.

FAILURE TO RESPOND MAY RESULT IN YOUR NAME BEING REMOVED FROM BID LIST.  
RETURNING THIS PAGE ONLY MARKED "NO BID" COUNTS AS A RESPONSE.

**THIS PAGE WAS INTENDED TO BE BLANK**

**LEGAL NOTICE**

**PROFESSIONAL SERVICES  
Request For Proposal (RFP)  
Request for Statements of Qualifications (RFSQ)**

Sealed proposals for the following item(s) will be received by the Purchasing Office at 50 West Gay Street, 1st Floor, Columbus, Ohio 43215, **until 11:00a.m. Local Time** on JUNE 17, 2004 and at that time will be publicly opened and read. Proposals received after the time of opening will be returned to the offeror unopened. The City will not be responsible for late mail or other deliveries.

**Envelopes must be plainly marked: POLICE**

**PROPOSALS FOR PHOTO RED LIGHT ENFORCEMENT SYSTEM, PROPOSAL NO. SA 001147 JY/FM in accordance with specifications on file in the Purchasing Office.**

**PRE-BID CONFERENCE JUNE 2, 2004 10:00AM LOCAL TIME**

**FOR COPIES OF ANY OF THE FOLLOWING BID PROPOSAL CALL (614)645-7599**

Each proposal shall contain the full name and address of every person, firm or corporation interested in the same, and if a corporation, the name and address of the President and Secretary.

**EQUAL OPPORTUNITY CLAUSE:**

Each responsive bidder shall submit, with its bid, a contract compliance certification number or a completed application for certification. Compliance with the provisions of Article 1, Title 39, is a condition of the contract. Failure to comply with this Article may result in cancellation of the contract.

**WITHHOLDING OF INCOME TAX:** All bidders are advised that in order for a contract to bind the City, each contract must contain the provisions found in Section 361.34 C.C.C. with regard to income taxes due or payable to the City of Columbus for wages, salaries and commissions paid to the contractor's employees as well as requiring those contractors to ensure that subcontractors withhold in a like manner.

**DELINQUENT PERSONAL PROPERTY TAX:** All bidders are charged with notice of Section 5719.042 of the Ohio Revised Code and agree that if this contract is awarded to them, the successful bidder, prior to the time the contract is entered into, will submit to the City Auditor the affidavit required by said section of the Ohio Revised Code. Said affidavit, when filed with City Auditor, is thereby incorporated into and made a part of this contract and no payment shall be made with respect to this contract unless such statement has been so incorporated as a part thereof.

**LOCAL CREDIT:** For all contracts except professional service contracts: In determining the lowest bid for purpose of awarding a contract not exceeding \$20,000.00, a local bidder shall receive a credit equal to five percent (5%) of the lowest bid submitted by a non-local bidder. In determining the lowest bid for purposes of awarding a contract in excess of \$20,000.00, a local bidder shall receive a credit equal to one percent (1%) or \$20,000.00, whichever is less, of the lowest bid submitted by a non-local bidder. A local bidder is a person, corporation or business which (a) has listed its principal place of business as being located within the corporation limits of the City of Columbus or the County of Franklin in official documents filed with Secretary of State, State of Ohio, or a valid vendor's license which indicates its place of business is located within the corporation limits of the City of Columbus or County of Franklin.

**JOEL S. TAYLOR**  
Finance Director

cc: CITY CLERK(2)/FINANCE DIR./BUYER/FISCAL OFFICER/FILE

**CITY BULLETIN ADVERTISEMENT DATES  
MAY 22, 2004**



**THIS PAGE WAS INTENDED TO BE BLANK**

**CONTACTS FOR INFORMATION  
CONCERNING THIS BID PROPOSAL**

**Solicitation No.:** SA 001147 JY/FM

**Title:** PHOTO RED LIGHT ENFORCEMENT SYSTEM

**Department/Division or Agency:** SAFETY/POLICE

Contact the following individuals on questions regarding:

	<u>NAME</u>	<u>PHONE NO.</u>
<b>Specifications:</b>	LT. FRED BOWDITCH	(614)645-4813
<b>Delivery:</b>	LT. FRED BOWDITCH	(614)645-4813
<b>Payment:</b>	ERIKA STANLEY	(614)645-5874

**Purchasing Office**

	<u>NAME</u>	<u>PHONE NO.</u>
<b>Procurement Specialist:</b>	JACK YOST/FRED MYERS	(614)645-8315
<b>Expediter:</b>	CINDY WHITE	(614)645-8315

**Equal Business Opportunity Commission Office**

For assistance with questions regarding *Contract Compliance*, telephone (614)645-5448.

Contact George Harper (614)645-8549 for assistance from an Equal Business Opportunity Specialist.

## EQUAL OPPORTUNITY CLAUSE

- (1) The contractor will not discriminate against any employee or applicant because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: employment upgrading, demotion, or termination; rates of pay or other forms of compensation; and selection for training. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices summarizing the provisions of this Equal Opportunity Clause.
- (2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that the contractor is an equal opportunity employer.
- (3) It is the policy of the City of Columbus that business concerns owned and operated by minority and female persons shall have the maximum practical opportunity to participate in the performance of contracts awarded by the city.
- (4) The contractor shall permit access to any relevant and pertinent reports and documents by the Executive Director for the sole purpose of verifying compliance with this article, and with the regulations of the Equal Business Opportunity Commission Office. All such materials provided to the Executive Director by the contractor shall be considered confidential.
- (5) The contractor will not obstruct or hinder the Executive Director or her deputies, staff, and assistants in the fulfillment of their duties and responsibilities imposed by Article I, Title 39.
- (6) The contractor and each subcontractor will include a summary of this Equal Opportunity Clause in every subcontract. The contractor will take such action with respect to any subcontract as is necessary as a means of enforcing the provisions of the Equal Opportunity Clause.
- (7) The contractor agrees to refrain from subcontracting any part of this contract or contract modification thereto to a contractor not holding a valid contract compliance number as provided for in Article I, Title 39.
- (8) Failure or refusal of a contractor or subcontractor to comply with the provisions of Article I, Title 39, may result in the cancellation of this contract.

**ALL CONTRACTORS MUST HOLD A VALID CONTRACT COMPLIANCE  
CERTIFICATION NUMBER ISSUED BY THE EBOCO EXECUTIVE DIRECTOR.**

**For information regarding contract compliance or to receive an application, please contact the  
Equal Business Opportunity Commission Office at (614) 645-4764 or [EBOCO@cmhmetro.net](mailto:EBOCO@cmhmetro.net).**

*Applications are also available at the following locations:*

<http://eboco.ci.columbus.oh.us/>

Bid Opportunity Fax Line (614) 645-6996 (Option 4)

## INFORMATION FOR OFFERORS (RFP)

### SPECIAL CONDITIONS

Special conditions included in the specifications, if inconsistent with provisions included in "Information for Offerors (RFP)", shall take precedence over any provisions in "Information for Offerors (RFP)" to the extent inconsistent.

### PERSONAL EXAMINATION

Offerors are required to satisfy themselves by personal examination of the proposed contract documents and investigation of the conditions at the site of the work in order that they may be fully informed of the contract requirements, the conditions existing, and the difficulties likely to be encountered in the execution of the work.

### SUBMISSION OF RESPONSE

Responses must be submitted as specified in this RFP and enclosed in a sealed envelope marked as specified in the legal notice. If the potential offeror does not wish to respond, the RFP document should be so marked and returned. Offerors are invited to be present at the opening of the responses.

All proposals and other material submitted in response to this Request for Proposal (RFP) become the property of the City of Columbus. The City may choose to retain or return these materials to the offeror, at the offeror's expense.

The City is not liable for any cost associated with the preparation of the proposal or any other costs incurred by any bidder prior to the execution of the contract. The rejection of any proposal in whole or in part, at its discretion, will not render the City liable for incurring any cost or damage.

at any time prior to the closing date the invited offeror decides not to provide a proposal, the City will appreciate that a letter to that effect be supplied to the City prior to the deadline.

### ACCEPTANCE AND REJECTION

This response submitted by the offeror to the City of Columbus will be accepted or rejected within a period of 180 days from due date. The City reserves the right to waive technicalities, and to cancel and renew the request on the required service. If more than one service, prices shall be quoted on the services requested. However, each service may be considered a separate offer and the City reserves the right to award a contract on each service separately or on all services as a whole or any combination thereof. Offerors whose proposal is made on an "All or None" basis must clearly state such fact in their written responses.

Each invitation for Bids, Request for Statements of Qualifications, and Request for Proposals issued by the City shall state that the Bid or Request may be cancelled and that any bid or proposal may be rejected in whole or in part when it is for good cause and in the best interests of the City.

---

### WITHDRAWAL OF RESPONSE PROPOSALS

~~Offerors may withdraw their responses at any time prior to the time specified in the advertisement as the closing time for the receipt of responses. However, no offeror shall withdraw or cancel a proposal for a period of 180 calendar days after said advertised closing time for the receipt of the proposals.~~

## **INFORMATION FOR OFFERORS (RFP)**

### **SIGNATURE REQUIRED**

The responses must be signed in ink. If the offeror is a firm or corporation, insert the corporate name followed by the signature of a person authorized to sign said response; if a partnership, indicate partnership name followed by the signature of one of the partners; if a sole proprietorship the signature of the owner is required. Where the person signing for a corporation is other than the president, an affidavit or a resolution of the Board of Directors showing the authority of that person to bind the corporation must be furnished.

### **DEFAULT PROVISION**

In case of default by the offeror or the contractor, the City of Columbus may procure the articles or services from other sources and hold the offeror or contractor responsible for any excess costs occasioned or incurred thereby.

### **CONTRACT AND BOND**

The offeror to whom an award is made will be required to execute a written contract with the City of Columbus, Ohio within ten days after receiving such contract for execution, and if specified in the legal notice, furnish a good and approved bond conditioned upon the faithful performance of the same. The proposal, contract, proposal bond, (if applicable), and performance bond (if applicable) shall be in the form herein specified.

If, at any time during the continuance of the Contract, any surety shall, in the opinion of the contracting agent of the City, become irresponsible, then said agent shall have the right to require additional and sufficient surety or sureties. The Contractor shall furnish the surety or sureties to the satisfaction of the said agent, within ten (10) days after notice. In default thereof the default provision herein shall apply.

### **LIABILITY, INSURANCE, LICENSES AND PERMITS**

Where offerors are required to enter or go onto City of Columbus property to deliver materials or perform work or services as a result of contract award, the offeror will assume full duty, obligation and expense of obtaining all necessary licenses, permits, and insurance when required. The offeror shall be liable for any damages or loss to the City occasioned by negligence of the offeror (or his agent) or any person the offeror has designated in the completion of his contract as a result of his response.

Particular attention is directed to the statutory requirements of the State of Ohio relative to the licensing of corporation organized under the Laws of any other State.

### **TAXES**

The City, being a municipality, is tax exempt and will provide appropriate artifact upon request. Federal and/or State Taxes are not to be included in prices quoted. The successful offeror will be furnished an exemption certificate if needed.

### **PRICING**

Offerors are to quote firm or fixed prices for the duration of any contract, which may be a result of the proposal unless otherwise noted in the specifications. In case of discrepancy in computing the amount of the cost, the **UNIT PRICE** quoted will govern. In the event of a conflict between the price in numbers and the price in words, the price in words will control.

## INFORMATION FOR OFFERORS (RFP)

### DELIVERY

Time will be of the essence for any orders placed as a result of this response. Purchaser reserves the right to cancel such orders, or any part thereof, without obligations if delivery is not made within the time(s) specified. Delivery shall be made during normal working hours and to the destination shown on the proposal.

### QUALITY

Unless otherwise stated by the offeror, the proposal will be considered as being in strict accordance with the specifications outlined in this RFP document.

### SAMPLES

Samples, when requested, must be furnished free of expense to the City and if not destroyed, will upon request be returned at the bidder's expense.

### CHANGES AND ADDENDA TO RFP DOCUMENTS

Each change or addenda issued in relation to this document will be on file in the Office of the agency requesting responses no less than five (5) working days prior to the scheduled RFP due date. In addition, to the extent possible, copies will be mailed to each person registered as having received a set of the RFP documents. Total RFP inquiry or specific item cancellations may be issued later than that time specified above.

### REPUDIATION OF AGREEMENT

The liability of the City for repudiation of any agreement which might result from this request shall be limited to the difference between the market price at the time and place for tender of the service and the unpaid sales price together with any incidental damages, but less expenses paid in consequence of the breach by the City. The liability of the city shall not be measured by the profits or overhead of seller.

### CONTRACT MODIFICATION

An agreement which may result from this request shall not be modified or altered by any subsequent course of performance between parties or by additional terms contained in any subsequent documents unless said additional or differing terms are incorporated by contract modification authorized to be entered into by ordinance.

### DELINQUENT PERSONAL PROPERTY TAX

All offerors are charged with notice of Section 5719.042 of the Ohio Revised Code and agree that if this contract is awarded to them, the successful offeror, prior to the time the contract is entered into, will submit to the City, as directed, the affidavit required by that section of the Ohio Revised Code. Said affidavit, when submitted to the City, is thereby incorporated into this Contract unless such statement has been so incorporated.

~~Section 5719.042 of the Ohio Revised Code. After the award by a taxing district of any contract let by competitive bid and prior to the time the contract is entered into, the person making a bid shall submit to the district's fiscal officer, a statement affirmed under oath, that the person with whom the contract is to be made was not charged at the time the bid was submitted with any delinquent personal property taxes on the general tax list of personal property of any county in which the taxing district has territory or that such person was charged with delinquent personal property taxes on any such tax list, in which case that statement shall also set forth the amount of such due and unpaid delinquent taxes and any due and unpaid penalties and interest thereon.~~

The statement indicated that the taxpayer was charged with any such taxes, a copy of the statement shall be transmitted by the fiscal officer to the County Treasurer within thirty (30) days of the date it is submitted. A copy of the statement shall also be incorporated into the contract and no payment shall be made with respect to any contract to which this section applies unless such statement has been so incorporated as a part thereof.

## **INFORMATION FOR OFFERORS (RFP)**

### **APPLICABLE LAWS**

The Revised Code of the State of Ohio, the Charter of the City of Columbus, and all City ordinances insofar they apply to the laws of competitive bidding, contracts, and purchases, are made a part hereof.

### **REMEDIES**

All claims, counterclaims, disputes and other matters in question between the City, its agents and employees, and the Contractor arising out of or relating to this agreement or its breach will be decided in a court of competent jurisdiction within the County of Franklin, State of Ohio.

### **OFFERORS TERMS AND CONDITIONS**

Terms and conditions, submitted with this proposal, which are contrary to City Code or Charter shall be disregarded for the purpose of any subsequent contract. The successful offeror shall be notified as to which terms and conditions, if any, have been deleted or changed.

### **PUBLIC RECORDS REQUESTS**

The City of Columbus, as a political subdivision of the State of Ohio, is subject to Ohio Revised Code Chapter 149, known as the Ohio Public Records Law. Consequently, the Offeror understands that ALL documents submitted in response to this RFP are considered public records and WILL be released when a public records request is made by news media, competitors, or other interested parties, in accordance with the law. If you contend that certain CLEARLY MARKED portions of your response constitute an exception to Ohio's public records law, you MUST submit your legal basis in support of that assertion with your response.

If a public records request is made for any portion of the documents that you have submitted and you have NOT clearly marked such documents as information constituting an exception to Ohio's public records law, your information will be released immediately.

If a public records request is made for such information and you HAVE clearly marked portions of your response as information constituting an exception to Ohio's public records law, AND you have submitted the legal basis supporting such claim, the City will release a redacted version of your information to the requestor and notify you that a request was made and that a redacted version of your response was released. Should the requestor indicate that the redacted version is not sufficient for their purposes, you then will be IMMEDIATELY responsible for obtaining an order from a Court of competent jurisdiction in Franklin County, Ohio enjoining release of your clearly marked information constituting an exception to Ohio's public records law.

If a public records request is made for such information and you HAVE clearly marked portions of your response as information constituting an exception to Ohio's public records law, but you have NOT submitted the legal basis supporting such claim, the City WILL RELEASE your information to the requestor and notify you that a request was made and that your response was released.

DO NOT mark your entire response/submittal as information constituting an exception to Ohio's public records law. If your entire response/submittal is so marked, the City of Columbus will not consider your offer.

## INFORMATION FOR OFFERORS (RFP)

### **COSTS INCURRED FOR PROPOSAL SUBMISSIONS**

The City is not liable for any cost associated with the preparation of the proposal or any other costs incurred by any offeror prior to the execution of the contract. The rejection of any proposal in whole or in part, at its discretion, will not render the City liable for incurring any cost or damage.

### **WITHDRAWAL OF PROPOSALS**

If at any time prior to the closing date the invited offeror decides not to provide a proposal, the City will appreciate that a letter to that effect be supplied to the City prior to the deadline.

### **CITY IS TAX EXEMPT**

The City, being a municipality, is tax exempt and will provide appropriate certification upon written request.

### **SAFETY REQUIREMENTS**

Successful vendor shall at all times while performing duties, adhere to all rules of their particular industry, with regard to mandates by the Environmental Protection Agency (EPA) and/or Occupational Safety and Health Administration (OSHA), and any other regulation applicable to the circumstance.

### **NON-COLLUSION AFFIDAVIT**

Each respondent is required to submit with his proposal an affidavit stating that neither he nor his agents, nor any other party for him, has paid or agreed to pay, directly or indirectly, any person, firm or corporation any money or valuable consideration for assistance in procuring or attempting to procure the Contract herein referred to, and further agreeing that no such money or regard will be hereafter paid. This affidavit must be on the form required, titled "Non-Collusion Affidavit."

---

---



## **INFORMATION FOR OFFERORS (RFP)**

### **ADDITIONAL CONTRACT TERMS AND REQUIRED DOCUMENTS IN THE EVENT OF A CONTRACT**

This section sets forth contract terms and the required contract documents that the successful offeror must execute following the award of the contract by the contracting authority.

#### **PUBLICATIONS**

The Contractor agrees to submit to the City's Contract Administrator all advertising, sales promotion, and other publicity matters relating to this Contract wherein the City's name is mentioned or language used from which the connection of the City's name therewith may, in the City's judgment, be inferred or implied. The Contractor further agrees not to publish, or use such advertising, sales promotion, or publicity matter without the prior written consent of the City except that may be required under law.

#### **TERMINATION FOR CONVENIENCE**

The City upon thirty days written notice may terminate this agreement at its convenience. The party providing goods or services shall be entitled compensation for goods provided or services rendered under the terms of this contract up to the date of notification of termination.

#### **TERMINATION FOR DEFAULT**

If either the City or the Contractor violates any material term or condition of this Contract or fails to fulfill in a timely and proper manner its obligations under this Contract, then the aggrieved party shall give the other party written notice of such failure or violation. The responsible party shall give the other party written notice of such failure or violation. The responsible party will correct the violation or failure within thirty (30) calendar days or as otherwise mutually agreed. If the failure or violation is not corrected, this Contract may be terminated immediately by written notice from the aggrieved party to the other party. The option to terminate shall be the sole discretion of the aggrieved party. If it determined for any reason the failure to perform is without the defaulting party's control, fault, or negligence, the termination shall be deemed to be a Termination for Convenience.

#### **APPLICABLE LAW, REMEDIES**

This agreement shall be governed in accordance with the laws of the State of Ohio. All claims, counterclaims, disputes and other matters in question between the City, its agents and employees, and the Contractor arising out of or relating to this agreement or its breach will be decided in a court of competent jurisdiction within the County of Franklin, State of Ohio. The remedies provided for in this Contract shall not be exclusive but are in addition to all other remedies available under law.

#### **ASSIGNMENT**

This agreement may not be assigned or otherwise transferred to others by the contractor without the prior written consent of the City.

#### **SAVE HARMLESS**

Contractor shall protect, indemnify and save the City harmless from and against any damage, cost, or liability, including reasonable attorneys' fees resulting from claim, by third parties for any or all injuries to persons or damage to property arising from the acts or omissions of the Contractor, its officers, employees, agents, or Subcontractors in providing goods or services under the terms and conditions of this contract.

## INFORMATION FOR OFFERORS (RFP)

### **BE HARMLESS DISCLOSURE OF PROPRIETARY INFORMATION**

The Contractor agrees to indemnify and hold harmless the City of Columbus, Ohio and their respective officials, employees and other agents and representatives, against loss, claim, liability in tort or by statute imposed, charge, cost or expense, including without limitation, attorneys fees to the extent permitted; by law, which may be incurred in connection with, or in any manner of any damage or loss arising from disclosure of proprietary information.

### **PROPRIETARY INFORMATION INDEMNIFICATION**

The Contractor agrees to indemnify and hold harmless the City of Columbus, Ohio and their respective officials, employees and other agents and representatives, against loss, claim, liability in tort or by statute imposed, charge, cost or expense, including without limitation, attorneys fees to the extent permitted; by law, which may be incurred in connection with, or in any manner of any damage or loss arising from disclosure of proprietary information.

### **CONFIDENTIAL INFORMATION**

The director of the agency requesting proposals may choose to keep RFP information in confidence during the evaluation process and until the time a contract is executed. This information may include all proposal documentation, notes, including detailed prices, references, resumes, technical and cost information, etc. Thereafter, proposals and all submissions will become public information, as the City is subject to R.C. 149.43, the Public Records Act.

### **CONTRACTOR'S PROPRIETARY INFORMATION**

Contractor acknowledges that the City is subject to chapter R.C.149.43, the State of Ohio Public Records Law. The City agrees to keep any information confidential except as otherwise required to be disclosed by law including but not limited to the contract.

### **INDEPENDENT CONTRACTOR STATUS**

The Contractor shall perform its duties as an independent contractor and not as an employee. Neither the contractor nor any agent or employee of the contractor shall be or shall be deemed to be an agent or employee of the City of Columbus. The Contractor shall pay when due all required employment taxes and income tax on any monies paid pursuant to the contract. Contractor shall acknowledge that the contractor and its employees are not entitled to unemployment insurance benefits unless the contractor or a third party provides such coverage and that the City does not apply for or otherwise provide such coverage. Contractor shall have no authorization, express or implied, to bind the City to any agreements, liability, or understanding except as expressly set forth in the contract. Contractor shall provide and keep in force worker's compensation (and ~~show proof of such insurance) and unemployment compensation insurance in the amounts required by law, and shall be solely responsible for the acts of the contractor, its employees and agents.~~

---

---

## **INFORMATION FOR OFFERORS (RFP)**

### **PROTECTION OF CITY'S CONFIDENTIAL INFORMATION**

The contractor shall acknowledge that some of the material and information which may come into its possession or knowledge in connection with the contract or its performance, may consist of confidential information, the disclosure of which to, or use by, third parties could be damaging. Therefore, access to information concerning individual recipients of the City's services to individual clients, among other items, shall not be granted except as authorized by law or agency rule. The contractor shall agree to hold all such information in strictest confidence, not to make use thereof for other than the performance of the contract, to release it only to authorized employees or subcontractors requiring such information, and not to release or disclose it to any other party. The contractor shall agree to release such information or material only to subcontractors who have signed a written agreement expressly prohibiting disclosure. The contractor shall further agree to either destroy or return all such information at the end of the term of the contract.

This section does not impose any obligation on the contractor if the information is: (1) publicly known at the time of disclosure; (2) already known to the receiving party at the time it is furnished to the contractor; (3) furnished by the City to others without restrictions on its use or disclosure; or (4) independently developed by the receiving party without use of the proprietary information.

### **WITHHOLDING OF CITY INCOME TAX**

Pursuant to Section 361.34 Columbus City Codes, 1959: "Said Contractor hereby further agrees to withhold all City income tax assessment due or payable under the provisions of Chapter 361, Columbus City Codes for wages, salaries and commissions paid to its employees and further agrees that any of its subcontractors shall be required to agree to withhold any such City income tax assessments due under said chapters for services performed under this Contract."

### **WORKER'S COMPENSATION INSURANCE**

The contractor shall take out and maintain, during the life of the contract, adequate worker's compensation insurance for all his employees employed at the site of the project and, in case any work is sublet, the contractor shall require the subcontractor similarly to provide worker's compensation insurance for the latter's employees, unless such employees are covered by the protection afforded by the contractor. The contractor shall furnish three (3) copies of the worker's compensation certificate showing that the contractor has paid his industrial insurance premium.

### **SIGNATURE AFFIDAVIT**

To be completed if contractor is a corporation.

### **DELINQUENT PERSONAL PROPERTY TAX AFFIDAVIT (SEE Page 3B)**

Rev. 09/25/02

## INFORMATION FOR OFFERORS (RFP)

### PUBLIC LIABILITY INSURANCE

The contractor shall take out and maintain during the life of the contract, such public liability (bodily injury and property damage) Insurance as shall protect him from claims from damages for personal injury, including accidental death, as well as from claims for property damage which may arise from operations under the contract, whether such operation be by himself or any subcontractor or by anyone directly or indirectly employed by either of them. Such insurance policy shall include the City as named insured. The contractor shall maintain coverage of the types and in the amounts specified below. Proof of such insurance coverage shall be evidenced by submitting a certificate of insurance. A contractor's "umbrella" type policy with limits specified below may be submitted for this requirement with the City as named insured.

The amount of such insurance shall be as follows:

#### Bodily Injury Liability:

Each Person	\$ 500,000.00
Each Accident	1,000,000.00

#### Property Damage Liability:

Each Person	\$ 500,000.00
All Accidents	1,000,000.00

Such insurance shall remain in full force and effect during the life of the contract.

Insurance may not be changed or cancelled unless the insured notifies the City in writing not less than thirty days prior to such change or cancellation. If any part of the contract is sublet, the contractor is responsible for the part sublet being adequately covered by insurance hereinabove described.

Contractor assumes all risk of loss and damage to the equipment provided unless loss or damage occurs at the time the operator and equipment are being operated for the purpose designated by the City and such loss or damages is caused by an act of the City or its employee which constitutes gross negligence or wanton misconduct.

---

---

**THIS PAGE WAS INTENDED TO BE BLANK**

**PROPOSAL** This proposal is bidder's offer to sell the item(s) set forth on the bid proposal sheet at the prices(s) quoted by bidder thereon, under the terms and conditions of these bid documents. An estimated quantity is set forth on the bid quotation sheet. Bidder is to take notice that the City makes no warranties or representations that the estimated quantity, or any quantity at all, will be ordered by the City even though the bidder's proposal is accepted by the City and a firm offer for sale executed.

If bidder's proposal is accepted by the City and the firm offer for sale is executed the bidder is to take further notice that no act, failure to act, or order placed by the City or by any official, employee or agent of the City shall constitute an order or contractually bind the City without the proper certificate by the City Auditor that funds sufficient for full payment due on any order are available. Each order placed under the firm offer for sale shall require execution of a purchase order.

### **LENGTH OF CONTRACT**

The contract shall be in effect from the date of execution by the City to and including August 31, 2007. There will be an option, by mutual agreement of the City and the contractor, to renew for one, one year period.

### **QUANTITY ESTIMATES**

All quantities shown on this proposal are estimates of the annual needs of the City and are for bidding purposes only. These quantity estimates are not to be construed as representing an actual order for the amount or as a guarantee that any minimum amount will actually be purchased. The City reserves the right to buy up to twice the estimated quantity.

### **ORDERING PROCEDURE**

Blanket order will be established for various City agencies in the form of a written purchase order signed by the Finance Director referencing the terms of this contract and specifying the delivery locations. Actual quantities will be determined at the time orders are placed by various City agencies (referencing their purchase order number) based on the needs of the agency and funds availability.

### **PRICING**

Bidders are requested to bid firm or fixed prices.

## PHOTO RED LIGHT ENFORCEMENT PROGRAM

### 1.0 Scope and Classification:

#### 1.1 Scope:

1.1.1 The City of Columbus (CoC), Division of Police (DoP) is seeking Request for Proposals (RFP) for a Photo Red Light Enforcement Program (program). The DoP is interested in exploring all available options comprising the makeup of a Photo Red Light Enforcement Program.

1.1.1.2 The contract will be for a period of three years and, given agreement by parties, one, one-year extension

1.1.2 The program shall include an education and awareness segment for the public, installation and testing of the system, and the issuance, collection, and appeal segment for the citations.

1.1.3 The purpose of the program is increased public safety through the enforcement of traffic laws associated with the red light traffic signal violations.

1.1.4 To this end, the goal of the Columbus Ohio Division of Police is to reduce the number of collisions and related death and injuries within the City of Columbus.

#### 1.2 Classification

1.2.1 The enforcement segments will consist of red light camera systems. These systems may be digital or video, or any combination of any of the aforementioned.

1.2.2 The areas of enforcement will be prioritized and shall be based on accident location data, causative factor of the accident, and volume of traffic.

1.2.3 The system will operate in conjunction with existing CoC traffic signals.

1.2.4 Required hardware for the system shall include, at a minimum, all computer interfaces, software, cameras, flash strobes, sensor arrays or loops, wiring, and any necessary appurtenances to provide a fully functional system.

1.2.5 It is anticipated that the CoC will utilize, at a minimum, 10 intersections, most with multiple approaches. If the project proves successful, the CoC envisions additions in the number of intersections/approaches.

1.2.6 There shall be no minimum number or quota of violations to be generated through the use of this system.

1.2.7 The offeror's employee shall testify in any and all court proceedings at no additional cost to the CoC, whether subpoenaed by the plaintiff or the defendant.

1.2.8 The offeror will provide the staffing for this system excluding the DoP reviewer staff.

2.0 Applicable Publications

2.1 All installations and repairs must meet the Americans with Disabilities Act (ADA) and all relevant CoC requirements.

3.0 Requirements

3.1 The CoC expects each proposal to be based upon a turnkey operation, which shall mean the offeror shall provide all the necessary equipment associated with the system, and all necessary staff to install, operate and maintain same as well as providing all necessary services including, but not limited to the following. Consequently:

3.1.1 Please describe how your system photographs vehicles allegedly not stopping for a red light traffic signal.

3.1.2 Please describe how your system obtains vehicle registration information.

3.1.3 Please describe, in detail, how your system will interface with the CoC traffic signal control equipment.

3.1.4 Please describe how your system reviews each photograph for visibility.

3.1.5 Please describe how your system matches the make and model with the obtained registration information.

3.1.6 Please describe how your system performs quality control in the form of a second opinion as to the violation (this will be DoP review).

3.1.7 Please describe how your system generates a citation, with photograph, and mailing to the registered owner of the vehicle that performed the violation.

3.1.8 Please describe how your company will meet Statement of Auditing Standards (SAS) 70 requirements for this project.

3.1.9 Please describe how your system transfers electronic files of citation information between the CoC's court system and the offeror.

3.1.10 Please describe how your system processes service of citations not responded to after the mailing.

3.1.11 Please describe how your system provides court testimony of contested citations.



- 3.1.12 Please describe how your system provides for a service center facility.
- 3.1.13 Please describe how your system will provide reports to CoC and describe those reports.
- 3.1.14 Please provide detailed information on your service level agreements for maintenance, installation, de-installation, repairs and response.
- ❖ Please describe how you will be able to locally manage our project on a day-to-day basis (attend meetings, deal with problems, make expeditious decisions, etc.).
- 3.1.15 Please describe how your Photo Red Light system is equipped to detect a violating vehicle, activate the camera system, and produce color images of the vehicle front and rear.
- 3.1.16 Please describe how your system is capable of clearly photographing and recording the identification of the driver of the vehicle that is reasonably believed to be operating the vehicle that violated the red traffic signal.
- 3.1.17 Please describe how your system's cameras will obtain a clear image of the rear of the vehicle so as to clearly identify the rear license plate.
- 3.1.18 Please demonstrate how your system's images are clearly discernible and visible to the naked eye without the use of enhancement equipment.
- 3.1.19 Please describe how your system is capable of consistently photographing drivers and license plates regardless of weather conditions, glare, materials used to obscure the license plates from clear view at various viewing angles or any other means used for interference or avoidance.
- 3.1.20 Please describe how your system is capable of performing internal calibration tests for accuracy and functionality.  
The CoC is desirous of the following:
- ❖ Test failures must prevent further operation of the unit.
  - ❖ The internal test should provide a visual and/or auditory signal clearly indicating the operational accuracy or lack thereof.
  - ❖ A series of error messages must be displayed to inform the operator of the problem/s with the system, while in the deployment mode.

- 3.1.21 Please describe how you will maintain the integrity of CoC's traffic signal system.
- 3.1.21.1 Traffic signal operation shall not be modified.
  - 3.1.21.2 Supplier is responsible for any damage and must provide a cost reimbursement program.
  - 3.1.21.3 Supplier is responsible for all permits, plans, modifications of existing infrastructure and associated costs to include CoC personnel necessary for traffic control and installation/removal.
  - 3.1.21.4 The City requires that personnel from the City Transportation Department be on site for any occasion when the supplier will need access to the City's traffic signal control box.
- 3.1.22 Please describe how your system is capable of gathering detailed computer data for statistical analysis and histograms for submission at hearings.
- 3.1.22.1 The offeror will be required to produce monthly reports of activity and individual histograms for court purposes.
- 3.1.23 Please describe how your system is capable of accurately monitoring multiple traffic lanes at once with vehicles of various types, heights and lengths under various weather and light conditions.
- 3.1.24 Please describe how you system is automated with regards to set up, i.e., aperture settings, focusing, leveling and ease of loading and unloading images.
- 3.1.25 Please describe how your system's cameras have the ability to operate effectively during periods of nighttime operation and in all weather conditions.
- 3.1.26 Please describe the time it takes for your system to take photographs of vehicles entering the intersection after the signal has turned red.
- 3.1.27 Please describe how your system will capture violators at a ~~minimum of 90% of the time or more.~~
- 3.1.28 Please describe the process used to communicate to the Division of Transportation, Traffic Engineer's staff that any ~~and all repairs to any damaged traffic control systems have~~ been repaired to the satisfaction of aforementioned.
- 3.1.28.1 Any and all installations and/or repairs shall be made according to the original working order unless CoC authorizes a change.

- 3.1.29 Please describe how the CoC is to be reimbursed whenever a CoC employee is needed to be at any one cabinet during installation or repair.
- 3.1.30 For non-emergency situations, there shall be a minimum of twenty-four (24) hours advance notice to the CoC and the work will be performed during normal CoC working hours.
- 3.1.38.1 In the course of daily activity emergency situations will occur. The definition of emergency and how each party responds to that emergency shall be part of the contract negotiations.
- 3.1.31 Please describe how you handled emergency maintenance situations with cities of comparable size or larger than Columbus, Ohio.
- 3.1.32 Offerors are required to submit a current client list with company names, addresses, appropriate contacts and associated phone, fax and e-mail addresses.
- 3.1.33 Please describe your process for acceptance and disbursement of funds (i.e., the CoC's share of the revenue generated).
- 3.1.33.1 This is to include but not limited to the following:
- ❖ timing of funds remitted to CoC (from receipt from offerer to CoC);
  - ❖ reconciling funds for penalties to the number of violations;
  - ❖ process for NSF situations;
  - ❖ types of funds that can be received (i.e., cash, check, etc);
  - ❖ Process used to reconcile the account;
  - ❖ Costs associated with funds remittal;
  - ❖ Banking institution(s) used to funds deposited.
- 3.1.34 Please describe options for payments and collections.
- 3.1.35 Should the CoC determine to use a provider (other than the one described in your turnkey system) to send violators citations, collect fines and disburse monies to the CoC, please describe how your system shall integrate with the provider. If necessary, please provide cost proposal information as described in 4.0.

- 3.1.29 Please describe how the CoC is to be reimbursed whenever a CoC employee is needed to be at any one cabinet during installation or repair.
- 3.1.30 For non-emergency situations, there shall be a minimum of twenty-four (24) hours advance notice to the CoC and the work will be performed during normal CoC working hours.
- 3.1.30.1 In the course of daily activity emergency situations will occur. The definition of emergency and how each party responds to that emergency shall be part of the contract negotiations.
- 3.1.31 Please describe how you handled emergency maintenance situations with cities of comparable size or larger than Columbus, Ohio.
- 3.1.32 Offerors are required to submit a current client list with company names, addresses, appropriate contacts and associated phone, fax and e-mail addresses.
- 3.1.33 Please describe your process for acceptance and disbursement of funds (i.e., the CoC's share of the revenue generated).
- 3.1.33.1 This is to include but not limited to the following:
- ❖ timing of funds remitted to CoC (from receipt from offerer to CoC);
  - ❖ reconciling funds for penalties to the number of violations;
  - ❖ process for NSF situations;
  - ❖ types of funds that can be received (i.e., cash, check, etc);
  - ❖ Process used to reconcile the account;
  - ❖ Costs associated with funds remittal;
  - ❖ Banking institution(s) used to funds deposited.
- 3.1.34 Please describe options for payments and collections.
- 3.1.35 ,

**Deleted:** Should the CoC determine to use a provider (other than the one described in your turnkey system) to send violators citations, collect fines and disburse monies to the CoC, please describe how your system shall integrate with the provider. If necessary, please provide cost proposal information as described in 4.0.



## 4.0 Proposal Submission Requirements

### 4.1 RFP Submission:

4.1.1 The RFP shall consist of a technical and cost proposal with financial statements provided separately. The financial statements are to be enclosed in separate envelopes that accompany your proposals and clearly marked "Confidential" with your company name and address on the outside of the envelope. The financial statements are to be the most recent financial auditing statements for your company. One original and ten (10) copies shall be submitted no later than Thursday, June 17, 2004 at 11:00 AM Local time to:

4.1.1.1 Purchasing Office  
City of Columbus  
50 W. Gay St.  
Columbus, Ohio 43215

### 4.2 The document should be organized into tabbed sections as follows:

4.2.1 First tabbed section shall have a Letter of Submittal that shall include:

- ❖ The names of the individuals involved in the preparation of the proposal and their relationship with the Vendor.
- ❖ The name, title, address, email address and telephone number of the person to whom inquiries related to the technical and cost proposals should be directed.
- ❖ A statement confirming that the Vendor has sole and complete responsibility to perform the tasks and services described in your proposal.
- ❖ A list of all persons by name and address being officers or having an interest in your company.
- ❖ A statement that that the proposal is valid for 180 days from the date it was submitted to the City of Columbus.
- ❖ The Letter of Submittal may also include any information the Vendor wishes to add in order to clarify any area of the Proposal.

---

---

### ~~4.2.2 The second tabbed section shall include:~~

---

---

- ❖ A complete unaltered copy of this entire RFP document including Attachments, Exhibits, and any Addenda.

4.2.3 The third tabbed section shall respond to all Specifications cited in Sections 3.0 of this RFP. Detailed descriptions of the requested information are expected. While the Vendor may cite references to literature provided in Section 3 in order to clarify a point of discussion, the explanation provided must be in sufficient detail to fully explain the questions at hand.

4.2.4 The fourth tabbed section shall be the Cost Proposal. Full disclosure of all costs, including optional features that may be suggested by the Vendor, is required. THE SIGNED AUTHORIZED SIGNATURE PROPOSAL PAGE 5 FROM THE BID DOCUMENT SHALL IMMEDIATELY FOLLOW THE COST PROPOSAL AND BE A PART OF FOURTH TAB.

4.2.5 The fifth tabbed section shall include:

- ❖ The Non-Collusion Affidavit
- ❖ Delinquent Personal Property Tax Affidavit

4.2.6 The Police Records Check may be required of the Vendor if a contract is entered into with the City of Columbus.

## 5.0 Delivery

5.1 Delivery shall be F.O.B. Destination Prepaid and Allowed.

## 6.0 Notes

6.1 The City of Columbus's Mayor, Michael D. Coleman, Covenant states in part "to provide an atmosphere that promotes job creation and economic growth in existing and emerging industries". To that end please describe how your company could sub-contract with emerging businesses in central Ohio. For information please contact the City of Columbus's Equal Business Opportunity Commission Office.

- ❖ George Harper, Equal Opportunity Business Specialist – (614)645-8549

6.2 Periods of time, stated as a number of days, shall be calendar days.

6.3 It is the responsibility of all offerors to examine the entire proposal package and seek clarification of any items or requirements that may not be clear and to check all responses for accuracy before submitting the proposal. Negligence in preparing an offer confers no right of withdrawal after the due time and date.

6.4 Pre-Bid Conference.

6.4.1 A pre-bid conference will be held. The date, time and location follow:

❖ June 2, 2004 at 10:00AM, Local Time

City of Columbus, Division of Police  
First Floor Auditorium  
120 Marconi Blvd.  
Columbus, OH 43215

❖ The purpose of this conference will be to clarify the contents of this proposal in order to prevent any misunderstanding of the CoC's position. This conference will also give the offerors an opportunity to submit any questions.

6.5 Offerors' Presentation

6.5.1 Offerors may be invited to make a presentation of their proposal. If invited, there will be a segment that involves questions from the CoC regarding the submitted proposal.

6.6 Late Proposals

6.6.1 Late proposals will not be considered. An offeror submitting a late proposal shall be so notified by the CoC.

6.7 Addenda

6.7.1 All addenda shall be made part of the appropriate addenda acknowledgment section as identified in 4.2.2.

➤ Failure to include the addenda with your bid response may result in a proposal being rejected as non-responsive.

6.8 Award of Contract:

➤ Notwithstanding any other provision in this proposal, the CoC expressly reserves the right to:

- ❖ Waive any immaterial defect or informality; or
- ❖ Reject any or all proposals, or portions thereof; or,
- ❖ Reissue a new proposal.

6.9 A response to this RFP is an offer to contract with the CoC based upon the ~~terms, conditions, scope of work and specifications contained in the CoC's RFP.~~

❖ A contract will be formed when the CoC's City Council ~~authorizes the Professional Services contract executed~~ by the selected offeror.



6.10 Contract Document:

- ❖ The final contract between the CoC and the successful offeror shall consist of the final form of the contract and any scopes of work incorporated therein, the offeror's submitted proposal, and any executed contract amendments attached thereto.

6.11 Obligations:

- ❖ The issuance of this proposal does not obligate the CoC to pay any costs incurred in the preparation, submission, or, if needed, presentation of the proposal.

6.12 Duration of proposal

- ❖ Timely submitted proposals shall be irrevocable for a period of one hundred eighty (180) days following the proposal due date, as may be modified by addenda.

6.13 Acceptance contract/agreement

- ❖ Any contract/agreement made pursuant to this RFP must be accepted in writing by the offeror.
- ❖ If for any reason the offeror should fail to accept, in writing, any conduct by offeror that recognizes the existence of a contract/agreement pertaining to the subject matter hereof shall constitute acceptance by the offeror of the contract/agreement and all its terms and conditions.
- ❖ Any terms proposed in the offeror's acceptance of the CoC's contract which adds to, varies from or conflicts with the terms herein are objected to.
- ❖ Any such proposed terms shall be voided and the terms herein shall constitute the completed and exclusive statement of the terms and conditions of the contract/agreement between the parties and may hereafter be modified only by written instrument executed by the authorized representatives of both parties.

6.1.14 Contract applicability:

- ❖ The offeror shall substantially conform to the terms, conditions, specifications and other requirements found within the text of this specific RFP. All previous agreements, contracts, or other documents, which have been executed between the offeror and the CoC, are not applicable to this proposal or any resultant contract.

- 6.1.15 The City reserves the right to modify the negotiated agreement, in part or whole, to a Universal Term Contract (UTC) that will permit the addition of more intersections as the project may expand without the need for City Council approval for expenditures under \$100,000.00 per fiscal year.
- 6.1.16 The CoC, at its sole discretion, reserves the right to reject any equipment that does not meet adequate technical standards.
- 6.1.17 The following evaluation criteria will be the criteria used by the evaluation team to determine with whom the Director of Public Safety shall negotiate:

**Rating Key:** Unacceptable = 0   Poor = 1   Fair = 2   Good = 3   Excellent = 4   Superior = 5

Criterion (Shaded) & Measures (Un-shaded)	Rating	Weight / Factor		Score
<p>1. <u>Competence</u> - the competence of the offeror to perform the required services as indicated by the technical training, education, and experience of the offeror's personnel who would be assigned to perform the work.</p> <p>Work experience of any personnel to be assigned by the offeror to this project, in performing similar projects. Particular attention will be paid to proposed team members experience in, the specific areas defined in the requirements section (Section 3).</p> <p>Specific professional qualifications of the firm demonstrating the firm's ability to provide backup and support for the personnel selected to perform the specified job responsibilities including the overall qualifications of additional personnel available for special assignments and potential replacements.</p> <p>Experience of the offeror in successfully providing professional services similar to those needed for this project.</p>	<p>_____</p> <p>X</p> <p>_____</p> <p>X</p> <p>_____</p> <p>X</p>	<p>25%</p> <p>2</p> <p>1.5</p> <p>1.5</p>	<p>=</p> <p>=</p> <p>=</p>	<p>Section Score</p> <p>_____</p>
<p>2. <u>Quality and Feasibility</u> – the quality and feasibility of the offeror's proposal.</p> <p>The degree to which the proposal response demonstrates the Offeror's understanding the scope of the project, the objectives, the benefits to be obtained and the outcomes to be achieved. Offeror's understanding of the functional/technical requirements and the functionality, and appropriateness of the proposed solution.</p> <p>Practicality of the proposal response as demonstrated by a high degree of reliability and/or accuracy in successful completion of project work. (The offeror's past projects, as described in written responses and oral presentation)</p>	<p>_____</p> <p>X</p> <p>_____</p> <p>X</p> <p>_____</p> <p>X</p>	<p>20%</p> <p>1.5</p> <p>1</p> <p>1.5</p>	<p>=</p> <p>=</p> <p>=</p>	

**Rating Key:** Unacceptable = 0 Poor = 1 Fair = 2 Good = 3 Excellent = 4 Superior = 5

Criterion (Shaded) & Measures (Un-shaded)	Rating	Weight / Factor	Score
<p><b>3. Ability</b> - ability of the offeror to perform the required services competently and expeditiously as indicated by the offeror's workload and the availability of necessary personnel, equipment, and facilities.</p> <p>Offeror's ability to provide the scope of services (strategic, analytical, technical) needed to satisfactorily perform all services of this project.</p> <p>Ability to staff this project with continuity.</p> <p>Proposed ability to rapidly develop and deploy project deliverables.</p> <p>Consultant's current workload &amp; impact it has on ability to service the City. Document the number and type of similar projects your firm is currently involved with and a description of the current status of these projects.</p>		20%	Section Score
	X	1	=
	X	1	=
	X	1	=
	X	1	=
<p><b>4. Past Performance</b> - past performance of the offeror as reflected by the evaluations of the Department of Technology, other City agencies and other previous clients of the offeror with respect to such factors as quality of work, success in controlling costs, and success in meeting deadlines.</p> <p>Offeror's proven track record of success in providing quality services.</p> <p>Provided current contact name, title, e-mail address, street address, phone number, fax number, project title, and project dates.</p> <p>Overall rating of past references with respect to such factors as quality of work, success in meeting deadlines, maintaining costs, ability to adapt to technology, overall project success, etc...</p> <p>Overall similarity and applicability of work performed for references.</p>		30%	Section Score
	X	1.5	=
	X	1	=
	X	2	=
	X	1.5	=
<p><b>5. Pricing Structure</b> - the cost or pricing structure of the offeror's proposal</p>		5%	Section Score

**Rating Key:** Unacceptable = 0   Poor = 1   Fair = 2   Good = 3   Excellent = 4   Superior = 5

Criterion (Shaded) & Measures (Un-shaded)	Rating		Weight / Factor		Score
The perceived reasonableness of the cost proposal.	_____	X	1	=	_____
			<b>Total Score</b>	=	_____

### ESCALATOR CLAUSE

No price adjustment shall be granted during the first year (12) months duration of an awarded contract. Thereafter, the price increase(s) shall not exceed five percent (5%) over the ensuing year (12) months, not to exceed one increase per year during the duration of the contract. In the event the supplier receives a general price increase due to increases in the cost of raw materials, labor, freight, etc., upon giving thirty (30) days prior notice and if proper documentation is submitted as proof, said increase in addition to the unit price quoted herein, may be permitted, subject to the sole discretion of the City of Columbus Finance Director or his designee. In the event any such increase is granted, no price adjustment will be permitted prior to the effective date of any purchase orders that are already being processed, or have been filled and are awaiting shipment.

The supplier shall submit the following documentation with each request for price increase:

- (1) Copies of the old and the current price lists or similar documents which indicate the original base cost of the product to the supplier and the corresponding increase; and/or
- (2) Copies of correspondence sent by the supplier's aggregator/manufacturer on the aggregator's/manufacturer's letterhead, which contain the above price information and explains the source of the increase in such areas as raw materials, freight, fuel, labor, etc., and/or
- (3) Copies of excerpts from business publications, market quotations or trade journals recognized as being representative of their particular trade or industry, that indicates a trend toward an increase in the current market for commodities under the contract.

### DEESCALATOR CLAUSE

Should there be a decrease in the cost of the finished product, the Finance Department/Purchasing Division shall be notified immediately and the resulting price adjustment will be incorporated into the awarded contract and made a part thereof.

### **Cooperative Purchasing**

The successful bidder may also make available item(s) under the terms, conditions and pricing of the proposed contract to agencies sanctioned by the City in its cooperative purchasing efforts. Any agency which is not subject to a City of Columbus purchase order must be invoiced directly by the vendor.

Sanctioned agencies' participation is subject to a credit approval by the vendor, as the City of Columbus is in no way obligated by those agencies' financial commitments. Sanctioned agencies include members of the Central Ohio Organization of Public Purchasers (COOPP), members of the Southwest Ohio Purchasers 4 Government (SWOP4G), members of the Ohio, Indiana Northern Kentucky Chapter of NIGP (OINK), and members the Franklin County Fire Chief's Association in addition to any agencies specifically mentioned in this bid.

**1. Non-Collusion Affidavit**

**(This affidavit must be executed for the proposal to be considered)**

State of \_\_\_\_\_ )

County \_\_\_\_\_ )

\_\_\_\_\_, being first duly sworn deposes and says that he is, \_\_\_\_\_, (sole owner, a partner, president, secretary, etc.) of the party making the foregoing proposal or bid; that such bid is genuine and not collusive or sham; that said bidder is not financially interested in, or otherwise affiliated in a business way with any other bidder on the same Contract; that said has not colluded, conspired, connived or agreed, directly or indirectly, with any bidder or person, to put in a sham bid, or that such other person shall refrain from bidding, and has not in any manner directly or indirectly, sought by agreement or collusion, or communication or conference, with any person, to fix the bid price of affiant or any other bidder or to secure any advantage against the City of Columbus, Ohio or any person or persons interested in the proposed Contract; and that all statements contained in said proposal or bid are true; and further, that such bidder has not directly or indirectly submitted this bid, or the contents thereof or divulged information or data relative thereto to any association or to any member or agent thereof.

\_\_\_\_\_  
Signature of Affiant

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Notary public in and for

\_\_\_\_\_  
(Seal)

\_\_\_\_\_  
(county)

\_\_\_\_\_  
(state)

\_\_\_\_\_  
My commission expires: \_\_\_\_\_



**THIS PAGE WAS INTENDED TO BE BLANK**

**PROPOSAL**

To the Finance Director of the City of Columbus, Ohio:

We (I) propose to furnish the following article(s) and/or service(s) at the price(s) and terms stated subject to all instructions, conditions, specifications and all attachments hereto. We (I) have read all attachments including the specifications and fully understand what is required.

Prices are to be quoted F.O.B.:

See Page 5

Delivery: \_\_\_\_\_ calendar day(s) after receipt of order.

Terms: \_\_\_\_\_

Company Name or Bidder's Name: \_\_\_\_\_

Business Address of Bidder: \_\_\_\_\_

**REQUIRED Company Employee Information:**

Total number of company employees = \_\_\_\_\_

Total number of company employees working in Columbus = \_\_\_\_\_

Additional number of employees that will be working in Columbus in the event this contract is awarded to your company = \_\_\_\_\_

The full name and residence of all persons and parties interested in the foregoing bid are: (If a corporation, give the name and address of the president and secretary; if firm or partnership, the names and address of the members or partners.)

Name

Address

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Authorized Signature X \_\_\_\_\_ Title: X \_\_\_\_\_

(SIGNATURE MUST IN WRITING IN OTHER THAN BLACK INK)

(TITLE MUST BE GIVEN)

**THIS PAGE WAS INTENDED TO BE BLANK**

**Signature Affidavit**

*(To be filled in and executed if the contractor is a corporation.)*

( County of \_\_\_\_\_

State of \_\_\_\_\_

\_\_\_\_\_, being duly sworn, deposes and says that he/she is  
(Name of Affiant)\*

Secretary of \_\_\_\_\_

A corporation organized and existing under and by virtue of the laws of the

State of \_\_\_\_\_ and having its principle office at

\_\_\_\_\_  
(Number and Street) (City/State) (Zip Code)

Affiant further says that he/she is familiar with the records, minute books and

by-laws of \_\_\_\_\_ affiant further says

That \_\_\_\_\_ is \_\_\_\_\_  
(Name of person signing proposal/contract) (Title)

Of the corporation, is duly authorized to sign the contract for \_\_\_\_\_

\_\_\_\_\_, for said corporation by virtue of

\_\_\_\_\_  
**(State whether a provision of by-laws or a resolution of the Board of Directors.  
If by resolution, give date of adoption.)**

\_\_\_\_\_  
Signature of Affiant\*

Sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Notary Public in and for \_\_\_\_\_

\_\_\_\_\_  
(County)

\_\_\_\_\_  
(State)

( \*Affiant must be someone other than the signer of proposal/contract.

**THIS PAGE WAS INTENDED TO BE BLANK**

TO: OFFERORS OF PHOTO RED LIGHT ENFORCEMENT SYSTEM

FROM: JACK YOST AND FRED MYERS

SUBJECT: ADDENDUM – SA001147JY/FM

## **ADDENDUM**

The attached Addendum contains the Questions and Answers from the Pre-Bid Conference dated June 2, 2004.

Section 3.35.1 has been removed from the Request for Proposal.

Please attach this Addendum, to include the Questions and Answers and the revised page 4E to your response and make it a part thereof.

-----

)

)

)

**PRE-BID QUESTIONS & ANSWERS  
SA001147 – PHOTO RED LIGHT ENFORCEMENT SYSTEM**

Page 1 of 3

- Q: Is the Ordinance written? If so, what is the fine amount? Will speed enforcement be allowed? Are there penalties for non-compliance, registration lock out, etc?
- A: No the Ordinance is not written at this time. The fine amount cannot be commented on at this time. Speed enforcement will not be addressed at this time but may be considered later. There will be penalty clause for non-compliance.
- Q: Do you plan for front photography? If yes what is its intended use? Are we to photograph the driver?
- A: The Committee will look at proposals from all Vendors, this has not been decided on yet. Not important to photograph the driver of the vehicle.
- Q: Can contract term be defined as 3 years from date of installation instead of execution of the contract?
- A: To be determined during negotiations.
- Q: 1.2.4 - Is it correct to interpret this section to mean all hardware necessary for the system to be fully functional? Recognizing that technologies vary in terms of hardware requirements?
- A: Yes
- Q: 3.1.10 – Are there any specific service of citation processes that the City desires?
- A: Propose what you (Vendor's) have and the Committee will evaluate.
- Q: 3.1.12 – Are there any specific service center facility requirements that the City desires?
- A: Local office in Franklin County, the City of Columbus.
- Q: 3.1.16 & 3.1.19 – Will the citation be issued to the registered owner of the vehicle according to the DMV registered owner information? If so, is a driver image required to issue a citation?
- A: Yes, the citation will be issued to the registered owner of the vehicle, the driver image is not necessary.
- Q: 3.1.21.1 – According to 1.1.4, the goal of the Columbus Ohio Division of Police is to reduce the number of collisions and related deaths and injuries. In keeping with this objective, there are optional safety features that can help avoid a crash, but 3.1.21.1 would prevent this feature from being implemented. Would the City be willing to re-evaluate this section on an intersection by intersection basis?
- A: Propose what you have and the Committee will evaluate.
- Q: 3.1.21.3 – Do we have to reimburse City of Columbus Transportation Department personnel, if it is not necessary to access the traffic signal control box?
- A: Dependent upon the situation, possibly.
- Q: 3.1.21.4 – Is City of Columbus Department of Transportation personnel needed on-site if the contractor will not be accessing the traffic signal box.
- A: Yes, an inspector will need to be on site and pay for Police Officer if needed. (only for non-emergency situations). Permits possibly will be required.



.....

)

)

)

- Q: 3.1.29 & 3.1.30 – Is notice to City of Columbus Transportation Department personnel needed on-site if the contractor will not be accessing the traffic signal box?  
A: Yes, advisement would be necessary due to potential of interoperability and/or malfunction.
- Q: 3.1.35 – What type of equipment/software is currently being used? Do you have an existing provider in place or will a new RFP be issued for this service?  
A: 3.1.35 has been eliminated from this RFP document.
- Q: 1.2.2 – Does the City of Columbus have a list of intersections to be surveyed/prioritized that will be made available to the selected vendor? Is there data available for these intersections?  
A: Yes, the City does have a list of intersections that would be priority. The data will be made available to the selected Vendor.
- Q: 1.2.5 – Should pricing be quoted on a lease basis (per approach) or on a per-ticket basis? Should purchase option be quoted?  
A: Vendors can put in their proposal all 3 ways.
- Q: 3.1.9 – Are there limitations on what types of electronic files the court system can accept?  
A: At this time hard copies will be used if necessary in Municipal Court.
- Q: 3.1.12 – Do you require the Vendor to establish a physical local office?  
A: Yes.
- Q: 3.1.14 – Will you require front and rear images of each violation?  
A: Undetermined at this time.
- Q: 6.1 – Does the City maintain a listing of businesses covered under this section?  
A: Yes, contact George Harper for more information.
- Q: If you are aware of how court adjudication data will be provided to the Vendor, would you describe that please, or will this be worked out with the Vendor?  
A: This will be worked out with the selected Vendor.
- Q: The RFP refers to City of Columbus court system. Is this Franklin County Municipal Court? Do you contemplate coordination with Muni Court?  
A: Yes. Have met with administrative judge Brandt and will develop system for Municipal Court review if the hearing officer cannot settle the ticket dispute.
- Q: Will the City consider eliminating requirement for face photography?  
A: Vendors should submit whatever technology they have concerning the recording of the violator vehicle.
- Q: What is the anticipated fine amount?  
A: Undetermined at this time.

.....

.

)

)

)



City of Columbus  
Mayor Michael B. Coleman

Department of Finance  
Joel S. Taylor, Director

## Purchasing Office

Barbara R. Johnson, Procurement Manager

50 W. Gay Street, 1<sup>st</sup> Floor  
Columbus, Ohio 43215-9036  
(614) 645-8315 Fax: (614) 645-7051

TO: OFFERORS OF PHOTO RED LIGHT ENFORCEMENT SYSTEM  
FROM: JACK YOST AND FRED MYERS  
SUBJECT: ADDENDUM – SA001147/JY/FM  
DATE: JUNE 8, 2004

## ADDENDUM 2

Note that a typographic error appears on the cover sheet for the addendum you recently received. Section 3.1.35 (not 3.35.1) has been removed from the Request for Proposal.

Please attach this second addendum, in addition to the first addendum, to your RFP response and make it a part thereof.

.....

)

)

)



City of Columbus  
Mayor Michael B. Coleman

Department of Finance  
Joel S. Taylor, Director

## Purchasing Office

Barbara R. Johnson, Procurement Manager

50 W. Gay Street, 1<sup>st</sup> Floor  
Columbus, Ohio 43215-9036  
(614) 645-8315 Fax: (614) 645-7051

TO: OFFERORS OF PHOTO RED LIGHT ENFORCEMENT SYSTEM  
FROM: JACK YOST AND FRED MYERS  
SUBJECT: ADDENDUM - SA001147/JY/FM  
DATE: JUNE 9, 2004

### ADDENDUM 3

Reference Proposal Submission Requirements 4.2.5 on page 4G, where we require that you include a Delinquent Personal Property Tax Affidavit. This particular affidavit is not required as part of your submission and is only required to be completed as a condition of contracting with the successful supplier.

Please attach this third addendum, in addition to the prior addendums, to your RFP response and make it a part thereof.

.....

)

)

)

### 3. Technical Response

#### 3.1. RFP Requirements

*NOTE:* Our solution is presented in this section, starting with paragraph 3.1.1. Each of the paragraph numbers in this response “mirror” the paragraph numbers of the requirements of the RFP. For example: paragraph 3.1.11 of the RFP asks for a description of how our proposed system will provide for court testimony of contested citations. The paragraph numbered 3.1.11 in this section of our response will answer that question.

#### *Project Understanding of Scope, Classifications and Applicable Publications*

The following points present Mulvihill’s understanding of the project scope and classifications put forth in the City of Columbus RFP:

- The Division of Police of the City of Columbus, Ohio is interested in exploring all options comprising the makeup of a Photo Red Light Enforcement Program. The contract will extend for three years with a one year extension if agreed upon by all parties.
- The project shall include a public awareness program, installation and test of the equipment and the issuance, collection and appeal process of the resulting citations.
- The purpose of the program is increased public safety and reduction of collisions resulting in injuries/deaths through better enforcement of traffic laws.
- The enforcement segment of the program will consist of digital/video or any combination of red light camera systems working in conjunction with existing CoC traffic signals.
- Installation locations shall be prioritized based on accident location data, cause of accident and traffic volume. It is initially anticipated that the program will utilize 10 intersections—most with multiple approaches. Should the project be successful—more intersections may be added.
- The system shall include all hardware and software necessary to provide a fully functional system.
- There shall be no quota or minimum number of violations generated.
- Mulvihill shall provide expert testimony in any and all court cases and fully staff the project *excluding* DoP review staff.
- All work shall be performed in accordance with the Americans with Disabilities Act.
- ~~Mulvihill will provide a complete “turnkey” solution~~

#### **3.1.1. Please describe how your system photographs vehicles allegedly not stopping for a red light traffic signal.**

The RLC-300 uses a combination of vehicle sensors and internal logic to interpret the status of the red light phase, identify the positioning of vehicles and trigger the camera and flash system.

In typical installations, the violation detector is connected by loops that are buried in the pavement near the cross-walk or the point of violation. When the signal turns red, the camera system becomes



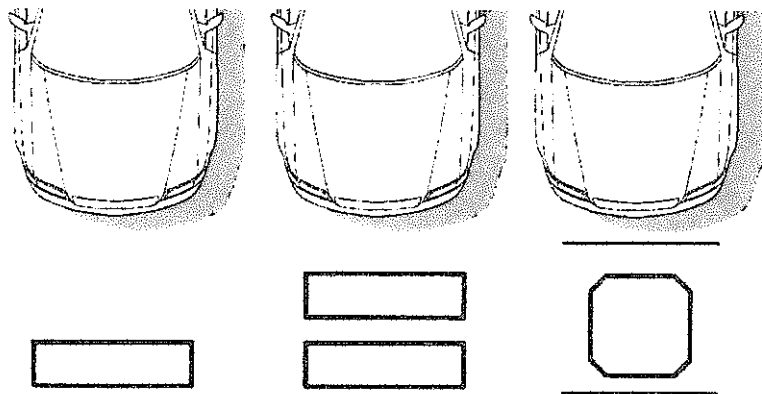
sensitive to violations. If certain conditions are met by a vehicle passing over the sensors after the signal has turned red and the prescribed red delay time has expired the camera will be triggered. The cameras will not capture images of those who enter intersections when the signal is yellow. A common "grace" period is one-tenth to three-tenths of a second.

The first picture (The "A shot") shows that the vehicle is not yet into the intersection while the traffic signal is already red. This picture must show the pavement marking defining the intersection (usually the stop bar or the crosswalk), the traffic signal displaying a red light, and the vehicle in question. The second picture (the "B shot") then captures the vehicle continuing through the intersection a short time later (0.5 to 1.5 seconds, depending the vehicles speed). It's important to get two pictures of the car to show that it entered the intersection when the light was red and then proceeded into the intersection.

In addition, due to the advanced technology and sophistication of the embedded software logic running the on the "ColdFire" multithreaded & multitasking processor of the Axis RLC-300 controller, the system is able to precisely track groups of vehicles that "platoon" rapidly through the intersection at the very end of a yellow phase. These are the violators that tend to cause some of the worst collisions because they are actually speeding up while also reducing their attention to other drivers in a dash to get through the intersection. Many other systems are ineffective against "platooning" vehicles due to inherent technological limitations in their systems.

The Axis™ RLC-300 monitors up to four (4) lanes per controller, each lane independently. Its new processor and advanced vehicular tracking logic enables it to capture more total violation events and

allows for true simultaneous four-lane detection capability and false trigger rejection.



	ONE INDUCTIVE LOOP	TWO INDUCTIVE LOOPS	PIEZO LOOP ARRAY
Precision Level	Low	Medium	High
Sensitivity	Low	Medium	High
Speed Accuracy	N/A	Low	High

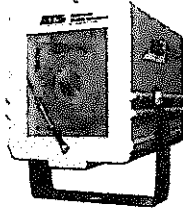
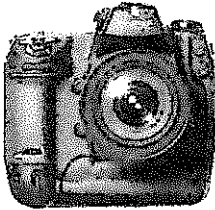
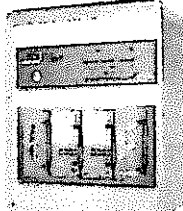
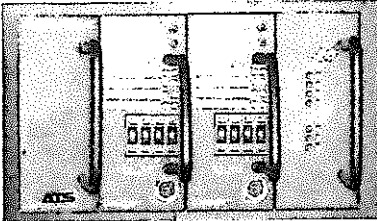
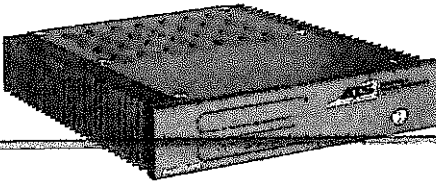
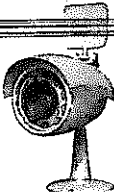
Mulvihill has direct experience with nearly all red light camera detection

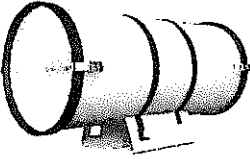
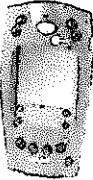
methodologies, i.e. dual and single loops, piezos, piezos with loops, radar, video, sonic, and laser. Mulvihill can provide triggering based on loops, piezos, laser, or

radar if required. Our experience has shown that use of a piezo-loop-piezo (PLP) configuration offers a greater positioning precision compared to any other system known to Mulvihill at this time, with dual loops nearly as precise. In the interest of economy and for this cost proposal we have accommodated a standard dual loop configuration, however piezos can be negotiated.

The Axis RLC-300 red light camera system is a modular, portable unit that can be rotated among any number of existing or new locations. The cameras and electronics are housed within small portable enclosures as illustrated in Figure 1.

Figure 1. – Axis Components

Component	Component Description
	<p>The Axis™ RLC-300 weather and vandal proof camera enclosure. This is an easy to install and maintain housing. This housing is usually installed on the same pole as the controller housing. System flexibility allows installation on another existing pole or structure that is already available. A built in glass wiper option is available.</p>
	<p>The Axis™ RLC-300 Camera is an Ultra High Resolution Digital 2,464 x 1,632 (3000 x 2000 option is available) camera with advanced traffic capture features: Eight frames per second; ultra high dynamic range to capture the brightest whites along with the darkest blacks; wide range of available high resolution lenses; industrial construction and reliability.</p>
	<p>The Axis™ VRLC System weather and vandal proof controller cabinet. This versatile cabinet can be mounted at technician height to allow for easy maintenance. This cabinet configuration has the Axis™ LIVE and Axis™ RLC-300 controller mounted into it. It has built-in heating and cooling for year-round trouble free operation.</p>
	<p>The Axis™ RLC controller, can interface with loops, piezos, radar, and other technologies. The RLC-300 controller has an Ethernet interface for remote network data transmission to the Axis™ VPS servers. Data is also temporarily stored locally should there be any connection problems. Speed enforcement option is available.</p>
	<p>The Axis™ LIVE controller manages up to four (4) intersection scene cameras. This controller interfaces the High Speed Internet connection, the LIVE Video Cameras, and Ultra Large Capacity local disk storage. Through the Axis™ LIVE controller any direction of travel can be viewed live, or recorded video can be recalled.</p>
	<p>The Axis™ LIVE Wireless Camera makes complete intersection video affordable and practical. The Axis™ LIVE Wireless Camera only needs a power connection to communicate with the controller, while the single Axis™ LIVE Camera on the same pole as the controller connects directly.</p>

Component	Component Description
	<p>The Axis™ Strobe is a Precision Focused Industrial Grade Strobe. The Strobe has an Ultra Fast Recycle; a perfect complement to the Axis™ RLC-300 Camera. The flash is so brief it will not affect the driver's vision.</p>
	<p>The Axis™ RLC-300 utilizes a ruggedized handheld IR interface for wireless control when on-site maintenance is required. It is the only system known to support this unique and flexible user interface for on-site setup, calibration and maintenance. For remote access, the Ethernet port is used.</p>

**3.1.2. Please describe how your system obtains vehicle registration information**

All DMV data is obtained automatically and without manual intervention by CoC officials.

In-state DMV data will be provided directly from the State of Ohio. We have already contacted the Department of Motor Vehicles to establish the requisite connections if selected for award. In the interim, we have existing access to in-state data through one of our existing third party providers. As such, this element will not present any implementation time constraint.

In addition to in state data, we obtain data from approximately 40 out of state and Canadian provincial DMV's through direct means or third parties. Data from a minimum of the following states is routinely provided.

- |                      |                 |
|----------------------|-----------------|
| Alabama              | Mississippi     |
| Arkansas             | New Jersey      |
| California           | New Mexico      |
| Colorado             | New York        |
| Connecticut          | North Carolina  |
| Delaware             | Ohio            |
| District of Columbia | Oklahoma        |
| Florida              | Ontario, Canada |
| Georgia              | Quebec, Canada, |
| Idaho                | Oregon          |
| Illinois             | Pennsylvania    |
| Indiana              | Rhode Island    |
| Kentucky             | South Carolina  |
| Louisiana            | Tennessee       |
| Maine                | Texas           |
| Maryland             | Utah            |
| Michigan             | Virginia        |
| Massachusetts        | Washington      |
| Minnesota            | West Virginia   |
| Missouri             | Wisconsin.      |

The same services have been very successful with the City of New York Red Light Camera program, where the first year of out-of-state DMV services provided an additional 40,000 registered owner records and \$2 million in additional revenue for the City. Typically, we are able to locate over 80% out-of-state plate records.

**3.1.3. Please describe, in detail how your system will interface with the CoC traffic signal control equipment**

The Mulvihill signal interface, due to its power isolation, can not and will not cause any malfunction of the CoC signal controllers and thus will not present a liability to the CoC.

Mulvihill will use optically isolated relays or equivalent to protect traffic signal equipment from noise, transient voltage, and any related remote interconnect or interference problems in accordance with the National Electrical Manufacturers Association ("NEMA") standard.

The Axis™ RLC-300 provides a fast, safe and convenient disconnect from the traffic signal system. The Axis™ System monitors status of the traffic signal via field terminals at 120 VAC.



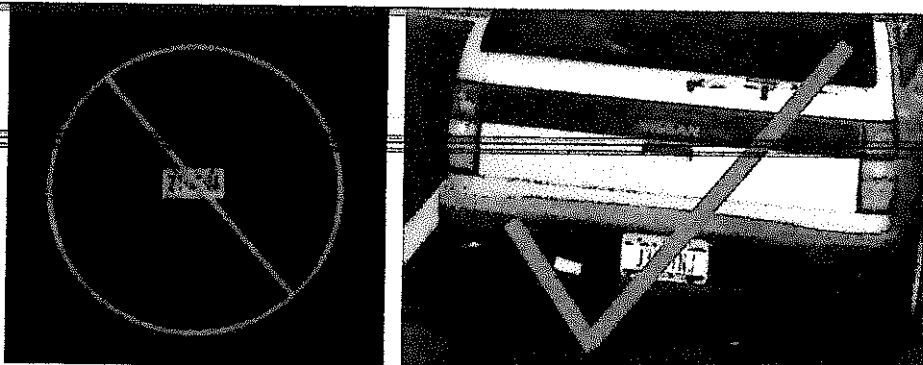
**3.1.4. Please describe how your system reviews each photograph for visibility**

The process for reviewing the camera images follows a carefully constructed and time tested quality process. The first step actually starts at the camera.

The Axis™ camera is an ultra-high resolution industrial digital camera with over four million pixels of true color resolution. Where other systems use multiple cameras to "piece together a violation" the Axis™ RLC system captures the scene with highly legible plate numbers in the same image across multiple lanes. The Axis™ RLC imaging component capability is fully illustrated in the series of violation image sets in Figures 13 and 14. As you can see, Mulvihill's Axis™ RLC solution provides images of superior clarity and illumination.

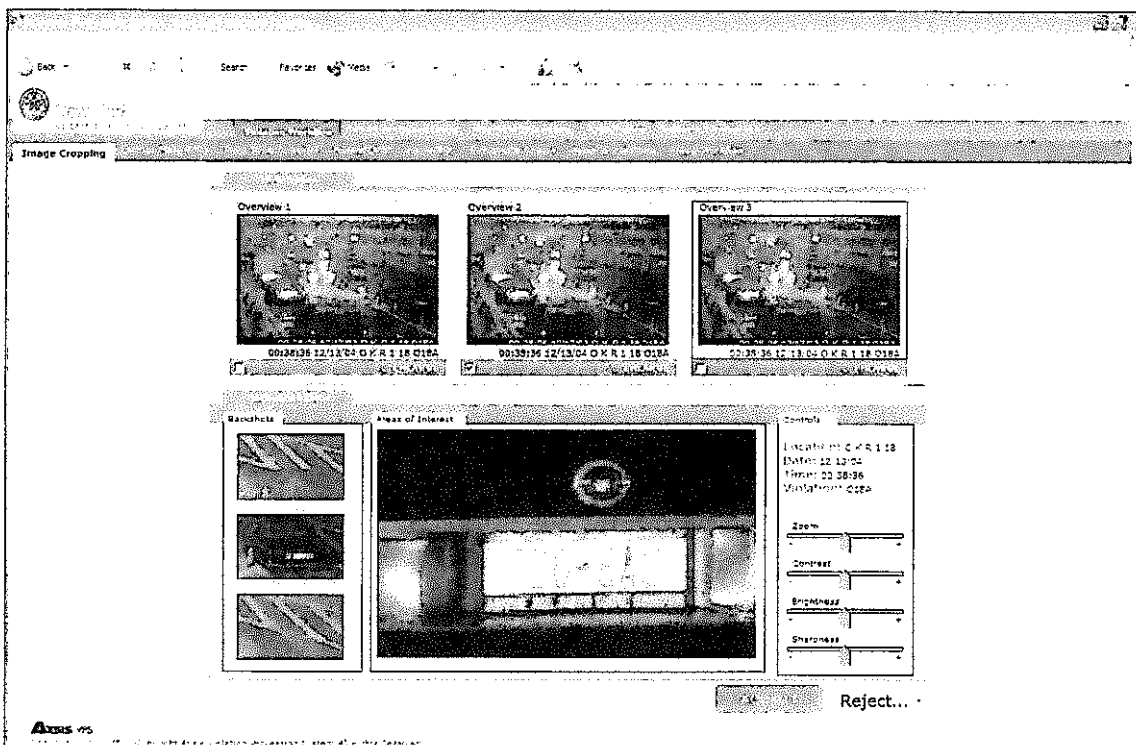
Most significantly, the resulting third sub-image of the license plate clearly shows plate and car details **simultaneously**. This clarity proves the license plate was attached to the violating vehicle and the image sequence alone is in fact complete *prima facie* evidence. This is a major public confidence boost, and it prevents accidental plate zooming of the wrong vehicles' license plate which could result in citations issued to incorrect owners. Instead of a white dot, Mulvihill solution provides complete detail in the third image (see Figure 2)

**Figure 2. Mulvihill Imaging**



The second step in the carefully constructed and supervised quality control process is the image loading and cropping step. This step is where an Image Review Specialist has the opportunity to look at images from the field, select the best images and then adjust brightness, contrast, sharpness, hue and color as needed to obtain the best representation for the CoC violation notice. The following screen (Figure 3A) shows how this is accomplished using the web-based Axis VPS system.

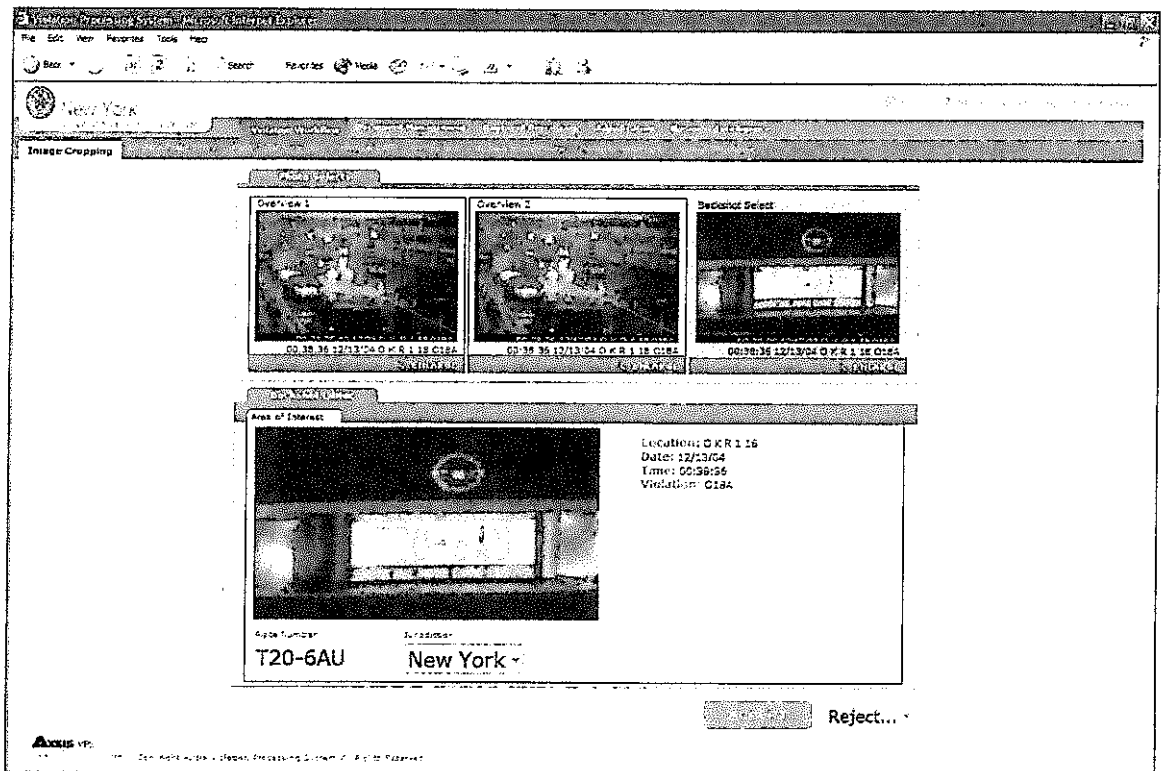
**Figure 3A. Violation Images**



The next step in the image review process is called First Review and is performed by a Violation Data Entry Specialist, whose job it is to review the selected and perfected images and to verify and or correct the license plate number, jurisdiction and plate type of the subject vehicle. The images are automatically forwarded to the reviewer by the Axis system on a first in first out basis.

Using the Axis Image Review screens, (see Figure 3B), the Violation Data Entry Specialist must also verify that the violation rules established between the CoC and Mulvihill are verified and compliance is met. For example, the Violation Data Entry Specialist will look to be sure that the violation data on the image is valid and that the red light indicator is illuminated in both images. The Violation Data Entry Specialist will also check to see if the current set of images also portrays more than one violation.

Figure 3B. Violation Images



The next step is described below.

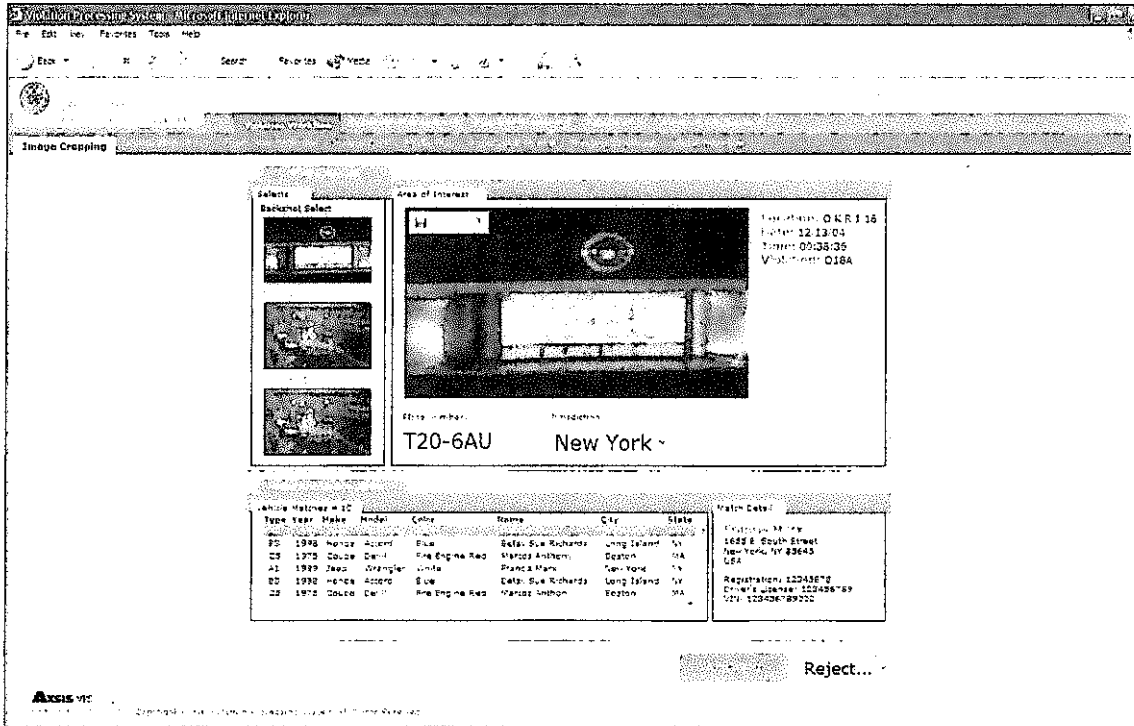
**3.1.5. Please describe how your system matches the make and model with the obtained registration information**

The third step in the review process is called Final Review. In this step a Quality Assurance Specialist performs a final review of the violation rules established between the CoC and Mulvihill and verifies that compliance is met. In addition, the Quality Assurance Specialist compares the returned registration data with the details of the vehicle visible in the image.

Because the Axis RLC-300 camera captures data with such high resolution and color, day or night, the make and model information is more easily apparent on the captured photos. If Columbus is also using front images, vehicle identifying information will be enhanced further. Quality Assurance Specialists have access to decision support tools such as image databases that show every type of license plate from every state and also the front and rear of every vehicle brand and make.

Sometimes, the DMV will return multiple registrations (see Figure 3C) for a single plate and the Axis VPS system allows the Quality Assurance Specialist to select the appropriate registration or to revise and resubmit incorrect information.

Figure 3C. Violation Images



**3.1.6. Please describe how your system performs quality control in the form of a second opinion as to the violation (this will be DoP review)**

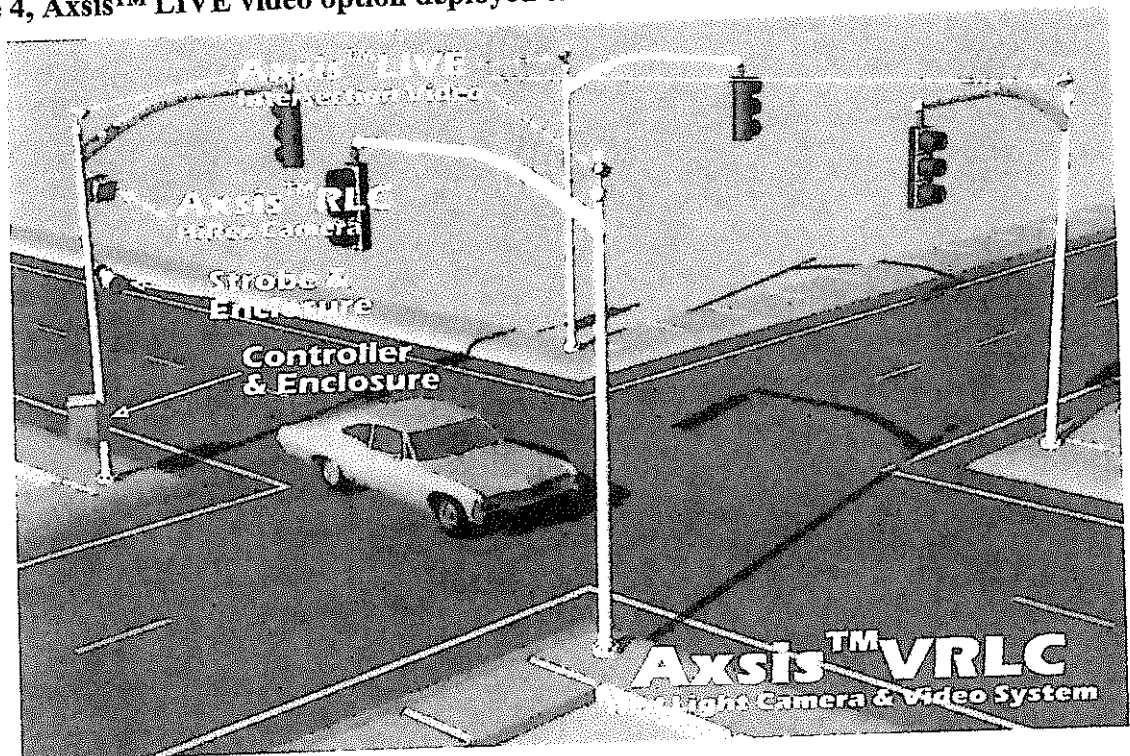
In the Police Final Verification step, DoP staff who are authorized to perform the violation charging function will be provided with a username and password. The users will sign on to the Axsis web and will immediately be presented with violations that have passed through the carefully constructed and supervised quality control process described above. The police user will be able to select individual images for enlargement, if needed, or simply approve or reject violations using the computer mouse. All of the violation information is presented to the user just like it is presented to the Quality Assurance Specialist in the previous step.

Because the Axsis system is web-based, the user can use any computer connected to the internet. System security is provided through the SSL standard, utilizing high bit encryption, so the City can be confident that no unauthorized tampering or usage is possible.

As an additional level of system integrity assurance Mulvihill offers its Axsis LIVE adjunct video solution option. Although not stated as an RFP requirement, the City may desire the Axsis™ LIVE video option (see Figure 4) which stores a video clip of the violation event at the camera site for later retrieval and review over a secure internet connection. The Axsis™ LIVE system locally stores separate video-based violation scene data on industry standard Ultra-Large Capacity Hard Drives. This capacity allows for the following possible storage configurations:

- Constant Capture of 4 directions of travel – 10 days
- Active Capture of 4 directions of travel – 60 days
- Constant Capture of 1 directions of travel – 40 days
- Active Capture of 1 directions of travel – 240 days

Figure 4, Axis™ LIVE video option deployed on all intersection approaches



**3.1.7. Please describe how your system generates a citation with photograph and mailing to the registered owner of the vehicle that performed the violation**

Once an authorized DoP user has approved a violation, the Axis™ VPS System automates the processing, printing and mailing of approved citations. Our system creates a violation document and forwards the information to the printing system. For each violation printed, the Axis database must receive a reconciliation record. Based on our carefully constructed and supervised quality control process the reconciliation record proves that the notice was printed and inserted into a properly metered envelope and mailed. If the Axis system does not obtain a reconciliation record for each approved notice, the notice is resubmitted to the printing system until a proper reconciliation is received.

The system can also be configured to issue citations for related offenses such as expired registration. First citations will include color images, like the sample citation provided in Figure 5. Each citation will contain an electronic signature of the officer that approved the citation.


The first image will show the offending vehicle's front tire prior to crossing the marked stop line and at least one of the governing traffic signal heads with the light showing red. The violation data line below the image will also show the duration of time that the red signal was illuminated.

Notice/Citation design and programming will be provided as part of our service.


Whereas we typically issue two to three total notices prior to initiating 3<sup>rd</sup> party collections activities we would like to discuss the process with the City. It may be sensible to coordinate the noticing escalation of the Red Light Camera Program with the CoC Parking Enforcement Program to maintain enforcement policy consistency.



Figure 5. Sample Citation



**New York City**  
**Department of Finance**  
 Red Light Violations Monitoring Program  
 66 John Street, 2nd Floor, New York, NY 10038  
 Tel: 1-212-361-1290



**NOTICE OF LIABILITY**

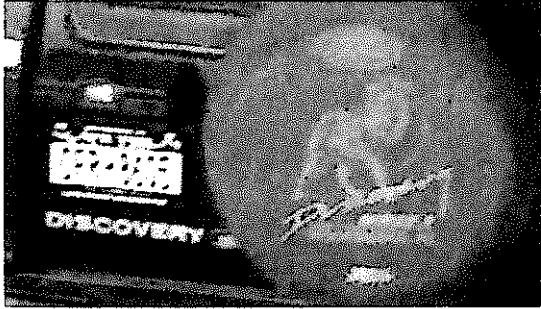


**THE CITY OF NEW YORK**  
VS.

Joe Smith  
123 Richmond Ave.  
Staten Island, NY 10312


NOL Date: 02/20/03  
Violation Date: 02/13/03  
Location of Violation:  
NYC Staten Island: Hylan Blvd. @ Tysens Ln. (S-7)

NOL # 5003123188  
Violation Time: 03:08 PM

Please take notice as the Registrant of the vehicle described below which was operated in violation section 1111(d) of the Vehicle and Traffic Law (VTL) at the place, date and time below: because the driver did not stop for the red light at the stop line, or before entering the crosswalk, You are liable to pay a fine within thirty (30) days after the date of this notice in the amount shown below pursuant to section 1111-a of the VTL section 19-210 of the Administrative Code and the Rules of the Parking Violations Bureau. One or more photographs evidencing the violation are shown.

Detach here and return bottom portion with payment.



**NOTICE OF LIABILITY**

**THE CITY OF NEW YORK**

VS.

Joe Smith  
123 Richmond Ave  
Staten Island, NY 10312

NOL Date: 02/20/03      Amount Due: \$ 50.00


NOL #:      

State/ License #: NY CFR 8605

Type:

Date/ Time of Violation: 2/13/03 03:08 PM

Location of Violation:  
NYC Staten Island -Hylan Blvd @ Tysens Ln. -- S-7



To avoid possible legal costs  
follow the directions on reverse side.

**3.1.8. Please describe how your company will meet SAS 70 requirements for this project**

Whereas SAS70 audits are most common with large public companies, we believe that our processes and procedures are robust and repeatable. As such, we believe that we would meet them. Mulvihill is a private company and has not been required to undertake a SAS70 audit. If the CoC requires a SAS 70 audit of company procedures for this program, Mulvihill proposes that the CoC and Mulvihill determine the scope of the audit including which elements of the system and service are relevant and to be the subject of such an audit.

**3.1.9. Please describe how your system transfers electronic files of citation information between the CoC court system and the offeror**

Based on the discussions held at the pre-bid conference, at this time the CoC anticipates that files transferred between Mulvihill and the CoC's court system will be hard copy format. However, Mulvihill can provide electronic transfer of this data, if desired. Several options are available; however a simple automated file transfer protocol (FTP) will be standard for most information technology organizations. Mulvihill's Team can accommodate most any file transfer protocol.

**3.1.10. Please describe how your system processes service of citations not responded to after the mailing**

Whereas we typically issue two to three total notices prior to initiating 3<sup>rd</sup> party collections activities, we would like to discuss the process with the City. It may be sensible to coordinate the noticing escalation of the Red Light Camera Program with the CoC Parking Enforcement Program to maintain enforcement policy consistency.

We propose to issue up to three notices prior to initiating third party collections activity.

**Second Notice Design**

The second notice is a notice and payment reminder with payment coupon and dispute instructions. The notice will indicate the methods of payment by check, over the phone or using the Axis payments web site (which can and should for consistency be integrated to a link on the CoC web site, see Figure 18). The notice will indicate the time requirements for reply and forfeiture of right to dispute as well as cost escalations for failure to act prior to the final notice.

**Final Notice Design**

The final notice will indicate that the notice fee has escalated (as allowed by the City ordinance) and that dispute eligibility has been forfeited (as allowed by the City ordinance). The notice will indicate the methods of payment by check, over the phone or using the Axis payments web site (which can and should for consistency be integrated to a link on the CoC web site, see Figure 18). The notice will indicate the time requirements for reply prior to pursuit of payment using collections.

**Collections Processing**

Collections services are provided by our collections provider, Professional Account Management, which has developed a proprietary collection system and methodology specifically designed to address the nuances of collecting delinquent municipal fines. Our comprehensive collection program includes mailing collection notices, answering inbound calls, and the use of aggressive skip tracing technology to locate and collect from even the most difficult to locate debtors.

The Automated Citation Collection System (ACCS) is the heart of the PAM collection system. Every action taken in the ACCS system is clearly and accurately recorded and is available to provide a complete audit trail for every account. The ACCS provides clear and easy to understand standard reports, plus an integrated ad hoc report writer enabling real-time, fast and accurate specialized report preparation.

An important part of our collection program is our use of predictive outbound calling technology. Statistics show that payment activity increases by 40% when collection notices are followed up with phone calls.

Our auto-dialing system uses three phone lines per agent for placing collection calls. Its features include smart-dialing, call blending, unattended messaging and automated follow up scheduling. As a result, debtor contact is virtually guaranteed. Calling patterns are established based on previous calling history. If a debtor is unable to be reached during the day, the system learns from previous attempts and schedules alternative hours or weekend calls. Additionally, our system is front-ended by an Integrated Voice Response system through which telephone payments can be made by check or credit card 24-hours per day, 7-days per week.

Our investment in state of the art hardware and software, combined with highly trained and motivated collections delivers both increased collection rates and exceptional municipal and citizen service.

Our Automated Collection System will provide:

- DMV registered owner look-ups where required
- State of the art skip-tracing – proprietary software & proven methodologies
- Three (3) notices per account, sent sequentially
- Follow up noticing (promises to pay, broken promise)
- Debtor correspondence
- Ability to accept, administer and enforce debtor payment plans
- Inbound 800 number available 24 hours a day / 7 days a week
- Integrated Voice Response (IVR) telephone system
- Outbound calls to debtors (attended and unattended)
- Ability to accept all forms of payment (Visa, MC, WU Check-by-phone)
- Compliance with all ACA and FDCPA laws and regulations
- The ability to accurately document all contacts with debtor
- Comprehensive management reporting
- End of month reconciliation and monthly activity statements
- Professional, experienced collection counselors continually trained on the nuances of municipal citation debt collection and conflict resolution
- Optional Credit Bureau listing

**3.1.11. Please describe how your system provides court testimony of contested citations**

Mulvihill supports this requirement in a combination of system functions and personal support functions. The Axis system maintains all of the data needed to prosecute a particular red light offense. For each scheduled hearing, the system produces an electronic "Evidence Package" which includes the violation images and data, a violator history, violation history, payment history and any

other documents (such as letters from the defendant) that may be included in the file. The Evidence Package is an Adobe PDF file that can be viewed electronically or printed from any computer. These are available on an automatic basis prior to hearing or on demand at a hearing.

The Axis VPS Hearing and Adjudication Module provides for the ability to set-up and define the hearing schedule, to schedule hearings, and to enter the results of the adjudication process using web browser screens. This can be performed by any authorized user on any computer with an Internet connection.

For any hearing requiring testimony, a Mulvihill employee will be provided. This testimony may include insight to equipment operation, maintenance, or back office data processing standards. Mulvihill will provide expert witness testimony for all contested citations that go to court as well as fully prepared court package.

---

**3.1.12. Please describe how your system provides for a service center facility**

---

Mulvihill will provide a local service center in Columbus staffed with trained project management, technical and service center personnel to support the daily needs of the CoC. At least one staff member will be present at CoC project meetings.

**Figure 6. Proposed Columbus Office**



Proposed service center facility located as 1480 Dublin Road, Columbus, Ohio 43215

The back office service center is operated upon the Axis VPS system and service center that provides the following functions. In addition, using Axis, the CoC could choose an option to operate the program using CoC staff.

---

**System Capabilities**

---

The Axis™ VPS system is a full featured red light camera violation processing solution capable of supporting the full range of processing functions and services required by the City of Columbus and to the proposed service center. These capabilities include, but are not limited to:

- Digital image loading, image cropping, and enhancement.
- Initial image review and license plate entry.
- Database query, violation classification.

- Extensive US and Canadian DMV accessibility.
- Quality control image review.
- Notice letter printing and mailing (including follow up notices).
- Mail in or online (Web) payment processing and tracking.
- Flagging of unpaid records.
- Delinquency collections.
- Inbound and outbound customer correspondence management.
- Customer call handling, hearing scheduling, transfers of liability and automated evidence package output.
- Accounting and reporting.
- Archiving, data management, and security.
- Financial and statistical report generation.
- System Security
- Axis™ VPS provides multiple levels of security.

From a Web perspective Axis™ VPS uses the Secure Socket Layer (SSL) standard for Web site access and security. The transactional integrity is assured through VeriSign, Inc., the largest and most trusted name in e-commerce solutions for System Security.

By using an SSL Certificate you are enabling your site to conduct authenticated, encrypted on-line commerce. Users visiting your site will be able to submit credit card numbers or other personal information to your site, with assurance that they are doing a transaction with the City and not an impostor. Encrypted data can not be intercepted or decrypted by anyone other than the intended recipient, which is the City.

From a data security perspective, all customer data, programs, tools, databases and back end systems are secured behind robust and redundant firewall technology with triple encryption. These systems are secure from hackers.

From a business process perspective, user passwords expire on a regular basis to ensure that unauthorized usage is prevented.

### **System Capacity**

The Axis™ VPS system has unlimited capacity to support CoC's requirement. The architecture of the back-office processing operations infrastructure is horizontally scalable to accommodate rapid growth, though only as needed to reduce initial costs.

### **System Features and Modules**

The following provides a summary level description of the Axis™ VPS system features and modules.

#### **Core Workflow Module**

The Core Workflow for a violation event starts with the determination of the enforceability of the violation and ends with the issuance of a notice to the violator. It also includes notice re-issuance as a result of non-payment, returned mail processing, letters, dispute processing and a customer service interface for the Violation Processing Center operations staff.

#### **Payment Module**

The Payment Module manages all financial elements including:

- Payment Transactions
- Chart of Accounts
- Ledger Detail and Balance Due
- Order of Payments
- Automated Payments
- Web Payments
- Financial Reports

### **Hearing and Adjudication Module**

The Hearing and Adjudication Module provides for the ability to set-up and define the hearing schedule, to schedule hearings, and to enter the results of the adjudication process using Web browser screens. This can be performed by any authorized user on any computer with an Internet connection.

### **Scanning Module**

The Scanning Module enables the violation processing center to create digital images of inbound customer mail and other paper originals that need to be indexed to a violation event file and acted upon by staff members.

This module also makes it possible for City personnel to access all details about a specific case without a special request from Mulvihill.

### **IVR Module**

The Interactive Voice Response (IVR) Module provides the interface between the IVR system and Axis™ VPS, allowing for the automation of specified features such as hearing scheduling, credit card payments by phone, balance inquiry, and call direction.

### **Reporting**

Axis™ VPS reports provide summary and detailed information on a wide range of management, operational, and financial data. Since the system is online (provided that the user has appropriate security access privileges), the City has immediate access to them from any existing terminal with internet access.

### **System Support**

Columbus will have immediate system support from 8:00AM to 5:00PM Monday through Friday and 4-hour response support outside the primary business support window. During training, authorized users will be provided with a step-by-step guide to System Support. The guide will also include detailed instructions on how to obtain service and technical support.

#### **3.1.13. Please describe how your system will provide reports to CoC and describe those reports**

~~The Axis™ VPS System application provides a wealth of statistical data for the long-term analysis of violations and violation trends. The reports are grouped by Statistical, Financial, and Operational data types. The client can receive reports by email or directly through the web interface. In fact, CoC may want to have certain people receive certain reports only by email, while the CoC manager has direct access. This is configurable and negotiable.~~

The following is a brief description of some of the more commonly used client reports.

***Violation Document Summary Report***

This report provides a summary of the total number of violation documents issued and the total original dollar amounts of the notices.

***Violation Events by Location Summary***

This report displays the number of violations for each intersection by district in the Axis™ VPS System.

***Daily Issuance of Events***

This report gives a total of all violations issued. It is segmented between Notices and Exceptions, including the percentage of events that were issued as notices.

***Daily Clerk Detail***

This report shows payment processing activity by user for different payment types for a particular date range.

***Daily Deposit Summary***

Lists all payments received by document type for the date range specified.

***Program Statistics Report***

This report provides a breakdown of all notices issued for each month of a given year by Issuance Date, Violation Date, Average by Location by Violation Date, Adjudication, and Revenue. It is an excellent executive level management report which summarizes the monthly historical program results in one page

***Location Reject Statistics Report***

This report provides a count of rejected violations by city, intersection, and reject codes based on the date range.

***Violation Data Report***

For the selected document number, this report provides all detailed information associated with the violation, the document, the registered owner of the vehicle, the amount, the violation image, and the operator history and the Officer's signature. This is typically included in the Evidence Package along with a copy of the notice(s).

***Evidence Package Contents***

The Evidence Package includes the following:

- Cover Sheet: Lists contents of Evidence Package.
- Citation: Exact duplicate
- Violation Data Report: This single page report details all information associated with the violation and the registered owner of the vehicle, along with a license plate image.

- Technicians Certificates: This report shows the Technician's Certificate.
- Scanned Documents: All sent/received documents from City/Violator associated with the triggering document.

**Program Statistics Report**

This report provides a breakdown of all notices issued for each month of a given year by Issuance Date; Violation Date; Average by Location; Violation Date; Adjudication; and, Revenue. It is an excellent executive level management report which summarizes the monthly historical program results in one page.

**Location Reject Statistics Report**


This report provides a count of rejected violations by intersection, with reject codes based on any date range. Refer to the following Figures for a sample set of Axisis™ VPS reports.


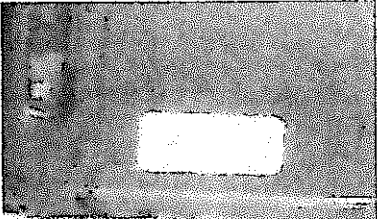
Figure 7. Sample Reports

New York City Department of Finance Red Light Violations Monitoring Program 137 Centre Street, 4th Floor, New York, NY 10013 Tel: 1-212-343-3200									
<b>Daily Clerk Detail</b>									
Submission Criteria									
From Transaction Date: 02/01/2002			To Transaction Date: 02/25/2002			Username: ALL			
Username	Payment Method	Date/Time	Document Number	Violation ID	Account Number	Amount (\$)	Transaction Type	Notes	
MSAVACE	Cash	02/18/2002 12.42.45	5000000020	4		19.99	Payment	TESTING A REPORT	
		02/25/2002 10.58.07	5000000057	3		5.00	Overpayment		
		02/25/2002 10.58.07	5000000057	3		55.00	Payment		
Payment Type Sub-total:						<b>\$79.99</b>			
MasterCard		02/25/2002 09.50.31	5000000020	4	AFDSA	5.01	Payment	SDFA	
						Payment Type Sub-total:			
Username Total:						<b>\$85.00</b>			
Report Total:						<b>\$85.00</b>			


New York City Department of Finance Red Light Violations Monitoring Program 137 Centre Street, 4th Floor, New York, NY 10013 Tel: 1-212-343-3200									
<b>Daily Deposit Summary</b>									
Submission Criteria									
Deposit Number:		From Deposit Date: 02/01/2002		To Deposit Date: 02/25/2002		Order By: Document Number			
Document Number	Deposit Date	Plate	Jur	Plate Type	Registered Owner	Account Number	Transaction Type	Amount (\$)	Notes
5000000020	02/18/2002	003000L	NY	16	JULIE S. ROBERTS		Payment	19.99	TESTING A REPORT
5000000020	02/25/2002	003000L	NY	16	JULIE S. ROBERTS	AFDSA	Payment	5.01	SDFA
5000000057	02/25/2002	AFP6382	NY	16	CORP		Overpayment	5.00	
5000000057	02/25/2002	AFP6382	NY	16	CORP		Payment	55.00	
No. of Documents: 4							Regular Subtotal:		<b>\$5.00</b>
							Total:		<b>\$5.00</b>



New York City Department of Finance Red Light Violations Monitoring Program 66 John Street, 2nd Floor New York, NY 10038 Tel: 1-212-343-3200			
<b>Violation Events By Location Summary</b>			
<b>Submission Criteria</b>			
From Violation Date: 03/01/2002	To Violation Date: 03/25/2002	Borough: ALL	
<b>Borough</b>	<b>Intersection</b>	<b>Violation Count</b>	
QUEENS	CROSSBAY BLVD (W/E) @ 165TH AVE -02-14	112	
	L.I.E. N. SVL. ROAD (W/E) @ COLLEGE PT. BLVD -08-12	184	
	METROPOLITAN AVE (W/B) @ FRESH POND RD -02-12	116	
	NORTHERN BLVD (W/B) @ DOUGLASSON FKWY -02-14	152	
	QUEENS BLVD. (E/B) @ 56TH ST -01-13	64	
	QUEENS BLVD (W/B) @ 71ST AVE -08-13	90	
	ROCKAWAY BLVD. (E/B) @ N. CONQUIT AVE -09-12	51	
	<b>Total Borough Violations</b>		<b>868</b>
	STATEN ISLAND	RICHMOND AVE (N/B) @ DRAPER PL -53-13	46
		RICHMOND AVE (N/B) @ W. CASWELL AVE -53-12	75
VICTORY BLVD (E/B) @ MORRIS ST -53-12		47	
<b>Total Borough Violations</b>		<b>168</b>	
<b>Total Facility Violations</b>		<b>2,828</b>	

New York City Department of Finance Red Light Violations Monitoring Program 66 John Street, 2nd Floor, New York, NY 10038 Tel: 1-212-343-3200			
<b>Violation Data</b>			
<b>Submission Criteria</b>			
Document Number: 500000110			
<b>Violator Information:</b> Name: KENNETH L. METER Address: 110 KELLY BLVD STATEN ISLAND, NY 10314	<b>Plate:</b> CM573A <b>Jur:</b> NY <b>Plate Type:</b> Passenger	<b>Document Information:</b> Document Type: NOTICE OF LIABILITY Issue Date: 02/15/2002 Due Date: 03/04/2002	<b>Ledger Information:</b> Original Required: \$50.00 Penalty Amount: \$0.00 Payments as of: 02/26/2002 \$0.00 Balance due on: 500000110 \$50.00
<b>Image Information:</b> 	<b>Violation Information:</b> Location: NYC Brooklyn Hmstr Ave (N) @ Clinton Ave -K3-23 Date: 01/01/2002 Time: 06:49:56 <b>Operator Information:</b> Verification Station: YJONES DMV Type Selection: YSMITH Notice Of Liability: KMARSHALL Manual DMV: N/A Supervisor Review: N/A		
			<b>Operator Certification:</b> <div style="border: 1px solid black; padding: 5px; text-align: center;">                     X                      I am employed by the New York City Department of Transportation as an Image Reviewer for the Red Light Violation Monitoring Program. I have been trained to examine and identify images which have violated section 11(d) of the VTL and whose registrations are therefore liable in accordance with the provisions of section 11(a) of the VTL and section 19-210 of the Administrative Code.                 </div>
Violation Enforcement System		Report Run Time: 02/26/2002 04:47 P.M.	Page 1 of 1

**New York City**  
Department of Finance  
Red Light Violations Monitoring Program  
137 Centre Street, 4th Floor, New York, NY 10013  
Tel: 1-212-343-3200



**Daily Deposit Summary**


Submission Criteria

Deposit Number: \_\_\_\_\_ From Deposit Date: 02/01/2002 To Deposit Date: 02/28/2002 Order By: Document Number

**Report Summary**

Document Type	Number of Documents	Deposit Amount(\$)
NOTICE OF LIABILITY	4	85.00
<b>Regular Total:</b>		<b>85.00</b>
<b>Reversal Total:</b>		<b>0.00</b>
<b>Report Total:</b>	<b>4</b>	<b>85.00</b>

**New York City**  
Department of Finance  
Red Light Violations Monitoring Program  
88 John Street, 2nd Floor, New York NY 10038  
Tel: 1-212-361-1290



**Program Statistics**

Submission Criteria

Total Locations: 50  
Maximum Event Date Loaded: 12/31/2002

Program Statistics Year: 2002

Period	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Y-T-D TOTAL	PROGRAM TO-DATE	
Days	31	28	31	30	31	30	31	31	30	31	30	31		716	
<b>NOLS By Issuance Date</b>															
NOLS Issued	0	4,269	9,885	40,819	41,325	41,962	24,073	30,825	23,474	38,727	29,944	8,038	312,352	603,671	
Exceptions	1,447	7,805	7,066	20,339	12,393	14,501	14,669	14,572	12,717	13,686	6,707	9,872	147,666	294,416	
Total Events	1,447	12,174	36,971	61,158	53,718	56,463	38,682	45,397	36,191	52,413	37,651	27,930	460,018	898,087	
% NOLS	0.00%	35.07%	53.79%	66.74%	75.33%	74.22%	62.08%	67.80%	64.86%	73.89%	75.87%	84.55%	67.86%	87.22%	
<b>NOLS By Violation Date</b>															
NOLS	27,156	25,241	31,441	50,085	54,061	54,251	36,274	27,907	27,342	25,555	22,421	21,967	338,627	603,671	
Exceptions	15,425	12,451	14,231	12,372	14,197	14,073	14,375	14,323	11,174	10,651	9,731	10,803	153,547	294,416	
Violations in Queue	0	0	11	17	25	33	44	68	76	54	91	79	526	15,451	
Total Events	42,584	39,692	45,683	62,474	68,283	68,357	50,691	42,298	38,592	36,260	32,291	32,869	492,702	917,547	
% NOLS	63.78%	57.82%	69.84%	70.95%	70.54%	70.87%	58.11%	56.06%	70.95%	70.57%	69.73%	67.05%	68.90%	67.22%	
<b>Avg. By Loc by Violation Date</b>															
														Event Days	712
NOLS/Location/Day	17.52	18.74	20.28	20.25	21.54	22.52	19.53	16.00	16.23	16.47	14.95	14.19	15.51	16.96	
Exceptions/loc/day	5.95	6.89	9.18	6.21	5.16	5.38	5.15	5.24	7.45	6.97	5.49	6.97	6.44	8.27	
Events/loc/day	27.47	27.64	29.47	28.28	31.11	32.22	28.71	27.26	26.73	23.41	21.49	21.21	27.57	25.77	
<b>Adjudication</b>															
Guilty	0	0	167	264	658	474	647	600	600	592	49	360	1,156	8,404	
Guilty with Reduction	0	0	1	42	184	378	647	580	379	349	308	379	3,257	8,034	
Not Guilty	0	0	24	115	140	155	197	211	172	165	176	159	1,513	3,197	
=Total Hearings	0	0	176	518	877	1,007	1,384	1,457	1,084	1,045	942	903	9,506	20,572	
Percentage Guilty	0.00%	0.00%	66.36%	81.35%	84.04%	84.61%	85.77%	85.62%	84.13%	84.23%	81.45%	82.39%	84.08%	84.46%	
<b>Revenue</b>															
Received (\$)	0.00	0.00	210,950.00	328,895.56	1,967,230.77	1,828,185.90	1,784,942.10	1,554,136.25	1,309,076.59	1,392,143.25	1,444,895.75	1,221,758.08	13,042,214.35	26,544,585.51	
# of Payments	0	0	4,218	6,570	36,119	34,862	33,695	29,511	24,542	26,171	27,432	22,835	247,955	497,967	

Violation Enforcement System Report Generated as of: 12/18/2003 09:58:57 Report Run Time: 12/18/2003 09:58 A.M. Page 1 of 1

**3.1.14. Please provide detailed information on your service level agreements for maintenance, installation, de-installation, repairs and response**

**Installation/De-Installation Service Levels**

Mulvihill will complete its site analysis within thirty (30) days of Agreement award and will install the first camera system within forty five (45) days of final City site selection.

All other cameras will be installed in increments of six (6) every sixty (60) days, *or faster*, until all systems are installed.

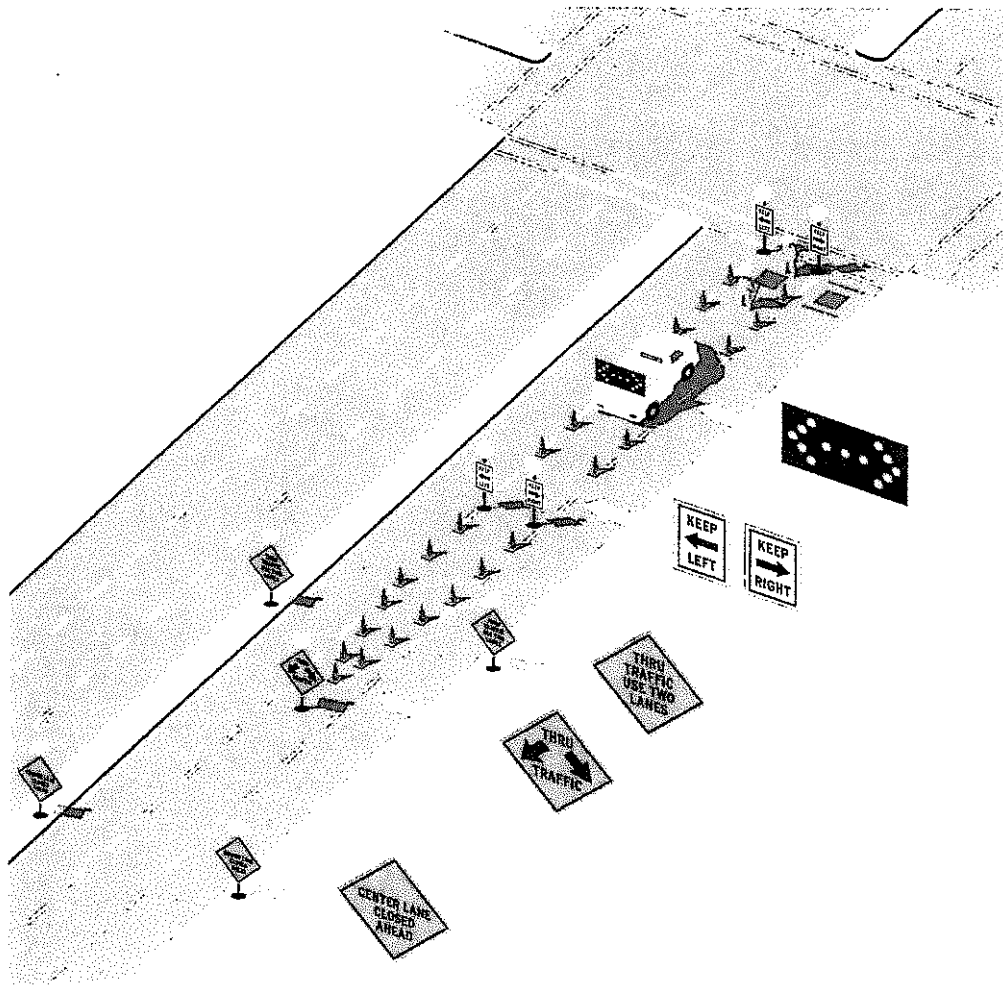


National  
Electrical  
Installation  
Standards

Mulvihill civil engineers have in-house capabilities to render all drawings and to obtain all necessary and required approvals for installation of cameras at the proposed locations.

Mulvihill has permit and engineering experience in many states and cities and will bring specific experience to bear for Columbus. Mulvihill has a formal method and approach to the installation process that enables rapid, safe and effective installation of cameras suited to busy urban environments. Figure 8 illustrates a typical traffic control configuration during installation.)

**Figure 8. Traffic Control**



Mulvihill insures safe and continuous traffic flow during all phases of installation. As an extra measure, Mulvihill has teamed with the local MBE engineering firm, Prime Engineering and Architecture, to assist with the local permit process, drawing review, and to provide final engineering stamps for the approved sites. Prime Engineering is a State of Ohio licensed engineer.

Mulvihill has been directly responsible for over 500 intersection construction permits throughout the country and abroad, complete with subsequent and approved "as-built" drawings. These installations range from Red Light Cameras to Traffic Signal Controllers. We have extensive camera system construction experience and our Subcontractor for this part of the program has direct experience with the City of Columbus.

Mulvihill will provide all equipment, materials, supplies, and labor necessary to install and calibrate all cameras for operation. A complete and detailed installation schedule will be delivered as a formal deliverable to the City's Project Manager. We are prepared to perform all construction, street, and electrical work safely, efficiently, and with minimal impact to the public. Our construction protocols will insure the City of Columbus that all installation work will be performed to the highest standards and present a trouble-free interface with all traffic and electrical panels.

Summary of Site Construction Procedures:

- Interface with CoC to define project, roles and expectations.
- Perform intersection traffic surveys and site selections.
- Conform to all city, state, and federal codes.
- Submit detailed site plans to CoC / other necessary authorities.
- Submit specifications and/or tear-sheets for all pertinent material and equipment, as needed and if necessary.
- Upon approval, obtain all necessary road and construction permits.
- Verify underground history and dangers.
- Establish Critical Path - convey schedule to all proper authorities.
- Mobilize personnel, materials, and equipment.
- Secure proper traffic management to provide maximum safety and minimum impact to existing traffic patterns.
- Perform construction work.
- Conform to regulations of the various authorities; including but not limited to, construction during specified hours only, safe work and site environment (proper staging, excavation protection, warning barriers and pedestrian management).
- Display proper permit and warning signs.
- ~~• Test and review site construction and camera calibration~~
- Adjust equipment as necessary.
- Create and provide as-built drawings for CoC.
- Issue official on-line notification of camera readiness.

Mulvihill is a member of The National Electrical Contractors Association (NECA) and is proud of its construction achievements and safety record. We will extend the same high standards to the City of Columbus.

Mulvihill will use its standard and accepted project management methodology to plan, monitor and complete the implementation. This includes preparation maintenance of Microsoft Project Work Plans with implementation timelines for all items in the scope of the project including dependencies on City resources and other third parties.



The Work Plan will describe project management methodology and activities needed to complete total project implementation. Mulvihill's Work Plan is normally presented in chart form and indicates weekly and monthly activities in support of the implementation, including quality control reviews and participation of Subcontractors. Additionally, Mulvihill's plans provide key project milestones, anticipated completion dates, and all events required.

#### **Maintenance/Repairs/Response Service Levels**

Our field team responds within three (3) hours of an issue report. Reported issue-events are logged into our database (see Figure 9) and assigned for resolution within 24 hours - Monday through Friday during normal business hours. The City will always have a Mulvihill contact for use during normal operation and for emergency use (on week-ends and holidays) as well.

#### **Pro-Active Maintenance**

Mulvihill pro-actively provides quality control procedures to verify and optimize installed RLC programs by deploying specially trained quality control technicians to the site.

We stock spare equipment to ensure that each camera system operates well within the contract-mandated parameters.

In addition to the responsive maintenance plan mentioned above, we will incorporate a proactive preventive maintenance plan by swapping complete camera systems with previously maintained and inspected camera systems throughout the course of the maintenance route. When a swapped camera system is brought to our service department, our complete 23-point inspection and re-calibration procedure is performed and the system is made ready for reintroduction into the field.

Figure 9. Sample Maintenance Report

<b>MULVIHILL RLC ROUTE MAINTAINANCE REPORT</b>								
DATE by Day	SITE-ID	DATE	TIME	FRAMES	SERVICE	Total Events	Total Traffic	MEMO
Wednesday, April 22, 1998	HC01	4/22/98	4:52 AM	59	Standard Check 23	1541	735649	Changed Flash #2 from 4 to 4.5 and checked that Green s;
	HC02	4/22/98	4:39 AM	42	Standard Check 23	765	739268	Changed Flash #1 from 1.5 to 2, per John.
	HC03	4/22/98	4:28 AM	24	Standard Check 23	163	1318028	Changed Flash #1 from 2 to 1, Flash #2 from 4 to 3, per Jo afternoon new check digit EPROM installed by John, 1:20 F Shots, location code was changed from 6048049 to 60204;
	HC04	4/22/98	4:21 AM	23	Standard Check 23	783	382154	In afternoon new check digit EPROM installed by John, 1:3 Testshots.
	HC05	4/22/98	4:12 AM	22	Standard Check 23	591	402145	Changed Flash #1 from 1 to 1.5, per John.
	HC06	4/22/98	4:05 AM	26	Standard Check 23	306	377326	Changed Flash #1 from 1 to 2, per John.
	HC07	4/22/98	3:54 AM	8	Standard Check 23	118	79998	Changed Flash #1 to 1.5, #2 to 3.5, / then in afternoon New EPROM by John, 2:30 PM.-8 Test shots. / John corrected i designation
Sum	204			Avg 29.14286	Min 8		Max 59	
Thursday, April 23, 1998	HC01	4/23/98	4:43 AM	78	Standard Check 23	1580	755987	
	HC02	4/23/98	4:32 AM	27	Standard Check 23	779	753204	
	HC03	4/23/98	4:35 AM	29	Standard check 23	12	6722	Verified location code was changed from 6048049 to 6020
	HC04	4/23/98	4:30 AM	39	Standard check 23	7	5102	
	HC05	4/23/98	4:22 AM	28	Standard check 23	665	417891	
	HC06	4/23/98	4:16 AM	26	Standard check 23	319	382980	
	HC07	4/23/98	4:05 AM	22	Standard Check 23	7	4353	
Sum	248			Avg 35.57143	Min 22		Max 78	
Friday, April 24, 1998	HC01	4/24/98	4:43 AM	83	Standard Check 23	1622	776298	
	HC02	4/24/98	4:32 AM	20	Standard Check 23	789	768934	

**Please describe how you will be able to locally manage our project day to day**

Mulvihill will provide a local service center in Columbus staffed with trained project management, technical and service center personnel to support the daily needs of the CoC. At least one staff member will be present at CoC camera project meetings. The local Mulvihill project manager will have authority to make decisions regarding matters within the scope of the CoC contract and budget.

**3.1.15. Please describe how your photo red light system is equipped to detect a violating vehicle activate the camera and produce color images of the vehicle front and rear**

The Axis RLC-300 is comprised of three main components which achieve the requirement above. These are:

1. RLC-300 Violation Detector
2. Axis Color Digital Camera
3. Axis Fast Recycle Strobe

Each lane to be monitored is equipped with a sensor array consisting of two (2) loop sensors or a piezo-loop-piezo configuration (see Figure 10). These sensors are connected to an Axis Detection controller unit which can monitor up to 4 lanes across two separate signal phases. The Detection unit is also interfaced to the Traffic Signal controller to sense the red signal governing the approach(es)

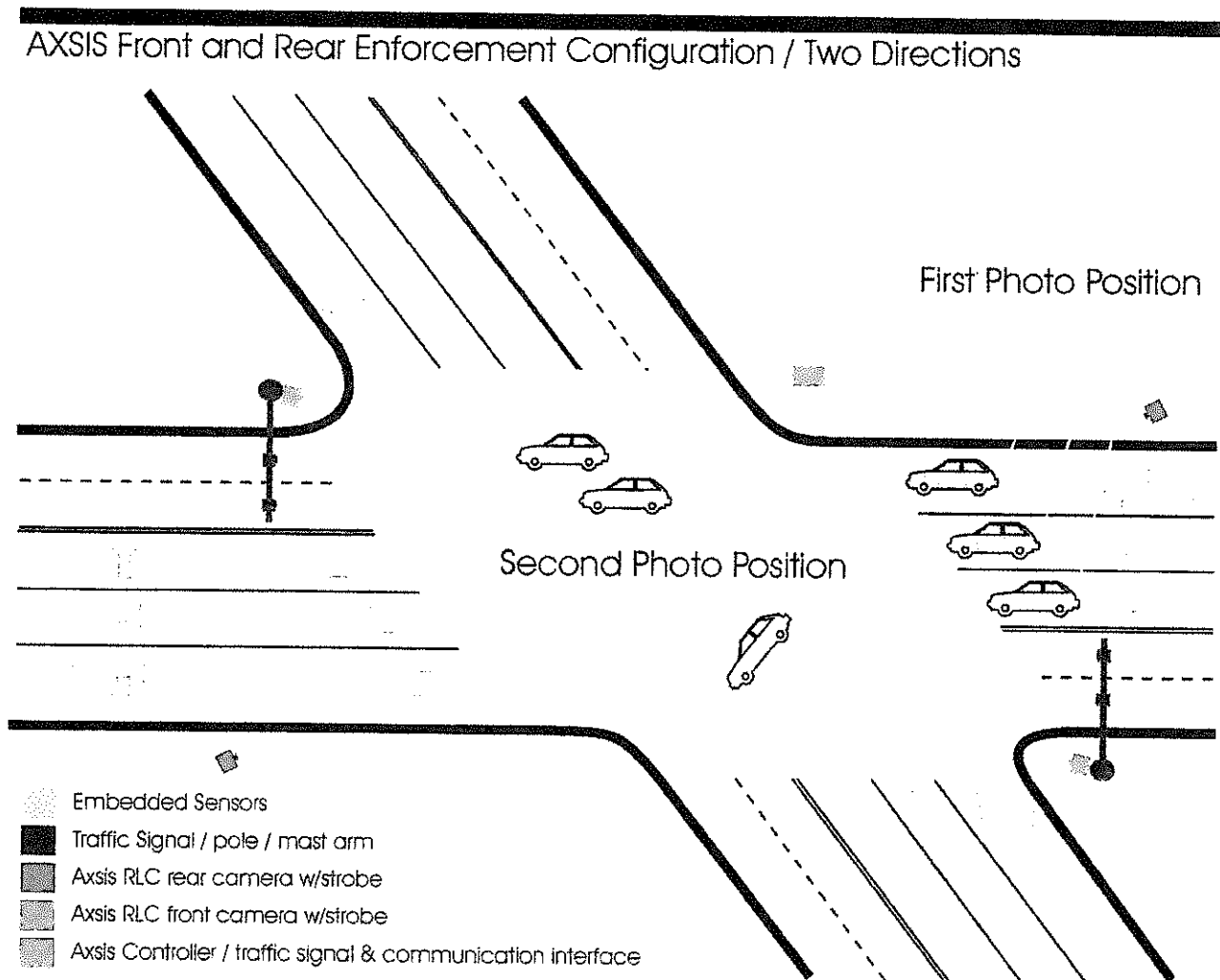
and to the camera(s) monitoring this lane. When the red signal activates, the detector is enabled to start sensing vehicles that cross the sensors. As the vehicle crosses the sensor array but prior to the stop line the rear camera is activated and snaps a photo of the vehicle before the stop line with the red light showing. Then when the vehicle is in the middle of the intersection with the red light on a second image is captured. These two images comprise the red light running event.

**Frontal Camera option**

The use of a second frontal image camera can be set to capture two identical images from the front or a single image of the violator when the vehicle is in the intersection. The RLC-300 can control up to four (4) cameras and four (4) strobes using only one Axis RLC-300 violation controller. The frontal camera is simple to install and can be placed on the existing signal mast at the far side of the intersection or on a separate pole.

All data is captured and integrated onto the photos at the RLC-300 controller (date, time, lane, speed, time into red cycle). These three or four images comprise the red light running event.

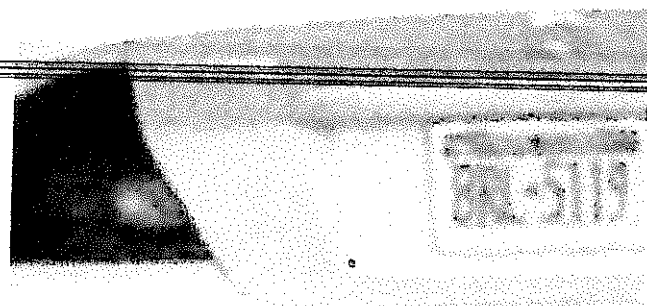
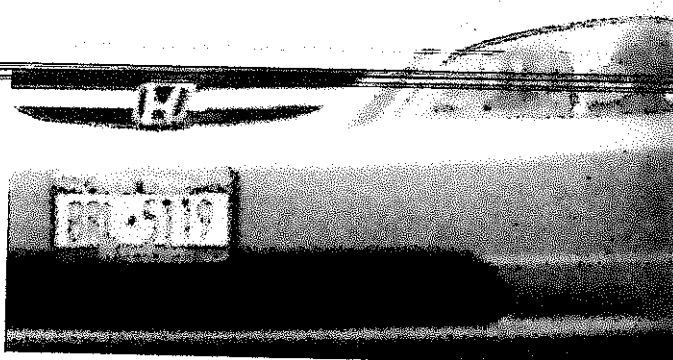
**Figure 10. Typical Twin Camera Configuration**



**3.1.16. Please describe how your system is capable of photographing the front of a vehicle to obtain the front license plate if the rear plate image is blocked**

Axis cameras can be easily deployed based to capture photos from the rear and front of vehicles committing red light running events. See Figure 11. We understand that the requirement is to be able to capture front plates for vehicles where the rear image was blocked by some obstruction or where the rear image is taken of a tractor trailer and the trailer is not able to be ticketed. The versatility of Axis RLC-300 system supports this requirement easily and without extra detection equipment. The only additional requirement is for another Axis camera and strobe component.

**Figure 11. Front and Rear Images**





**3.1.17. Please describe how your system's cameras will obtain a clear image of the rear of the vehicle so as to clearly identify the rear license plate**

Rear cameras are placed in position and focused so as to be able to clearly create the photo of the vehicle before the stop line and in the middle of the intersection from the rear. Because of the high resolution of the RLC 300 cameras either of these photos can be viewed to obtain the rear license plate information. (See Figure 12)

In addition and perhaps more important for the CoC, the Axis RLC-300 camera is designed with deployment flexibility in mind. For example, while most competing cameras need to be installed in a particular spot in order for all of the systems components to work, the Axis camera can be mounted in a separate location from the controller and at a variety of distances and heights from the violation line.

If there are obstructions common on one side of the road, Axis can be installed in a raised median, on a different pole, or higher on a pole, on a mast arm, or any combination to obtain the best results for the CoC.

Because the camera is of such high quality and resolution and has a series of high quality lens options, our system can adjust to even the most demanding and challenging intersection. The result with Axis is that the CoC can enforce the intersections it wants enforced, not just the ones the vendor can install!

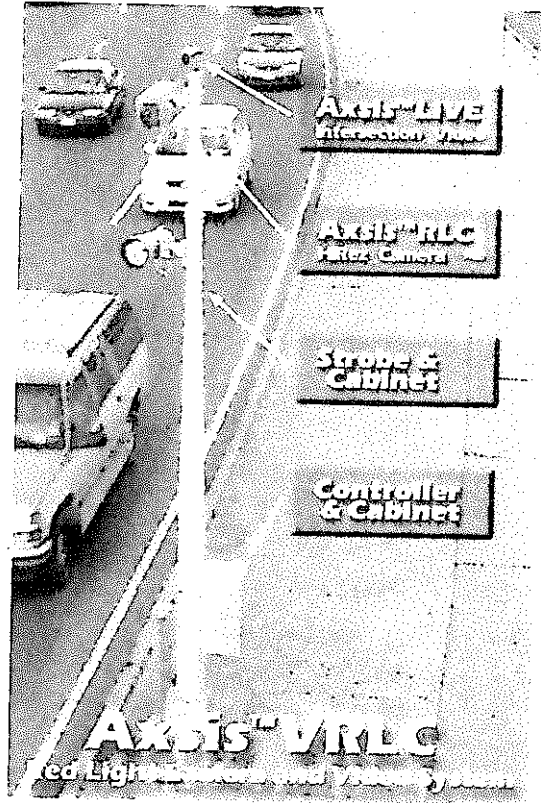


Figure 10. Typical Installation

**3.1.18. Please demonstrate how your systems images are clearly discernable and visible to the naked eye without use of enhancement equipment**

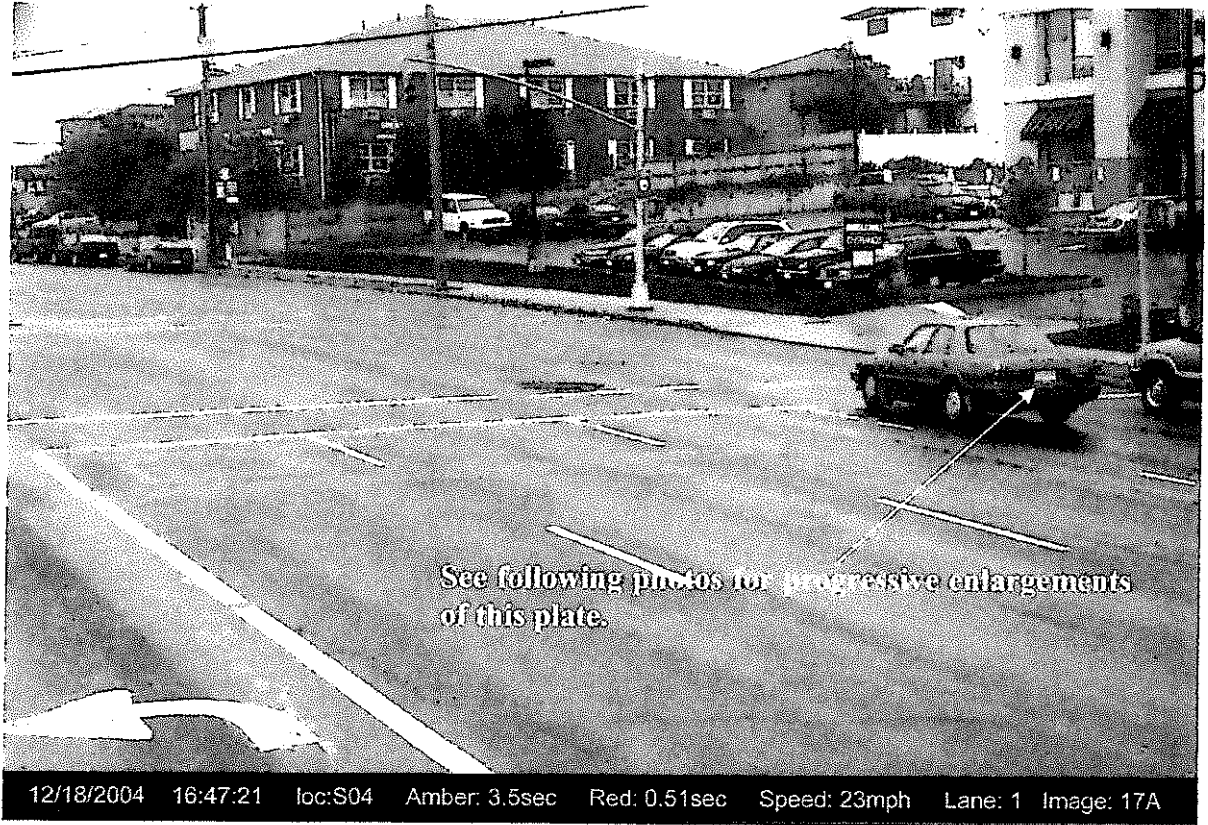
The Axis camera provides an image that contains all of the information needed to prosecute a violation including one or more visible red light signals, the vehicle and the scene, and the ability to identify the license plate of the offending vehicle from the base image.

This proves the license plate was attached to the violating vehicle and the image sequence alone is in fact complete prima facie evidence. This is a major public confidence boost, and it prevents accidental plate zooming of the wrong vehicles' license plate which could result in citations issued to incorrect owners.

Some competing systems use a low resolution scene camera combined with a multiple license plate cameras. As such, there can be no guarantee that the license plate image from one of the lane cameras is the correct license plate from the actual violator in the scene images. **This not a problem for the Axis system where all the evidence is contained in the main image.** Additionally, Axis image clarity leads to much higher citation issuance and payment rates.

The following is a sample day time sequence – the violator is five lanes away from the camera.

Figure 13. Resolving license plate details five (5) lanes out!





**3.1.19. Please describe how your system is capable of consistently photographing license plates regardless of weather conditions, glare, or materials used to obscure license plates from clear view.**

The RLC sealed-access housing is vandal-proof and weatherproof for dust, salt and sanded slush. The Axis™ RLC camera housing is fitted with special environmental shade to protect the lens area from rain, snow, sleet and other effects that can cause lost violations. This proprietary housing prevents commonly lost violations due to stains, dirt, debris, rain, and snow. Enclosures are fitted with heating or cooling elements where necessary. A built in wiper option is available.

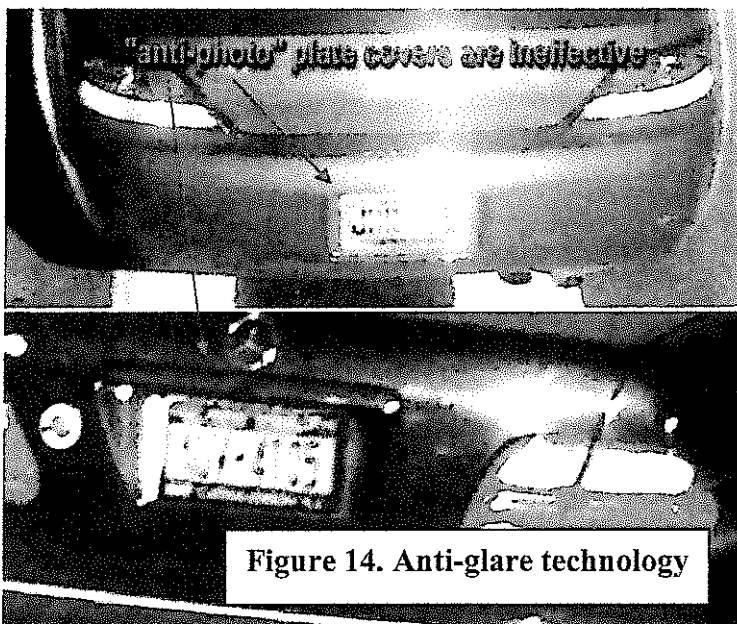


Figure 14. Anti-glare technology

**Anti Plate Blocker Solution**

The proliferation of plate covers or “anti-red light camera products” have begun to impact many automated enforcement programs. However, in response to the increasing use of these illegal devices, Mulvihill has used it’s deep understanding of digital imaging, photography, physics, and its resourcefulness to develop proprietary techniques to significantly reduce the effects of license plate-covers/blockers. Tested and substantiated by “FOX-5 News”, our proprietary camera configuration and patent pending “anti-glare polarizing technology” nearly eliminates the loss of camera violations due to these devices. (See Figure 14)

**3.1.20. Please describe how your system is capable of performing internal calibration tests for accuracy and functionality.**

The RLC performs a comprehensive self-test and calibration sequence at start-up and prints the results to the test image. The red light camera checks all vital functions of the system including the camera, aperture, light meter, internal clocks, and internal diagnostic tests. If either the comprehensive self-test, or the internal calibration test fails a LED (Light Emitting Diode) display on the unit will turn red and operation of the system will be automatically suspended. The unit will automatically report the failure to the operator (if onsite) and/or post the results to an error log. The camera attendant performs further redundant checks and logs the results on-site. The camera can be configured to perform self check diagnostics at any regular interval.

**3.1.21. Please describe how you will maintain the integrity of the CoC traffic signal system**

~~The Mulvihill signal interface can not and will not cause any malfunction of the CoC signal controllers and thus will not present a liability to the CoC.~~

Mulvihill will use optically isolated relays or equivalent to protect traffic signal equipment from noise, transient voltage, and any related remote interconnect or interference problems in accordance with the National Electrical Manufacturers Association (“NEMA”) standard.



**3.1.22. Please describe how your system is capable of gathering detailed computer data for statistical analysis and histograms for submission at hearings**

Axis™ VPS reports provide summary and detailed information on a wide range of management, operational, and financial data. These reports are stored in a very flexible and powerful data warehouse which provides the user with the flexibility to drill into summary level data by a wide variety of dimensions including time (day, month year), location (intersection, district, region, city), volume, percentage, etc. Since the system is online (provided that the user has appropriate security access privileges), the City has immediate access to them from any existing terminal with internet access.

As discussed earlier in Requirement 3.1.11, the Evidence Package includes all of the information needed to support hearings including the histogram.

**3.1.22.1 The offeror will be required to produce monthly reports of activity and individual histograms for court purposes**

Mulvihill will provide regular monthly reports and individual histograms (evidence packages) for submission at hearings.

**3.1.23. Please describe how your system is capable of accurately monitoring multiple traffic lanes at once with vehicles of various types, heights and lengths**

Due to the microprocessor design in the Axis RLC-300, it is able to monitor each lane independently as if there were four unique detectors. This design, with its new generation processor and advanced vehicular tracking logic enables it to capture more total violation events and allows for true simultaneous four-lane detection capability and false trigger prevention. The system is capable of differentiating a long tractor-trailer from a sedan and adjusting the image capture logic to maintain imaging consistency and high license plate readability percentages.

**3.1.24. Describe how your system is automated with regards to setup, i.e. aperture settings, focusing, leveling and ease of loading and unloading images**

Once installed, the functions indicated in this requirement are fixed or automatic. The camera has automatic aperture control and dynamic image computing based on available light. The focusing is set during installation and locked. The camera is leveled and fixed upon installation and the images are automatically downloaded by the system. The system was designed for automatic unattended operation.

**3.1.25. Please describe how your system's cameras have the ability to operate effectively at night and in all weather conditions**

Whereas the Axis camera CCD has an extremely wide dynamic range like traditional film, traffic violation imaging is enhanced significantly using high speed strobe light. The Axis RLC-300 features an ultra high speed strobe which provides the necessary lighting to capture stunning night time images without damaging license plate bloom and ultra crisp daytime images. (See Figures 15, 16.)

Imaging during periods of extreme snow blizzard, very heavy (torrential) rain or intense fog may be impacted if the area between the camera and the subject is not clearly visible to the average human eye.

Environmental Enclosure

The Axis RLC-300 unit is vandal resistant and designed for normal operation in environmental conditions of extreme heat, wind, rain, snow, and freezing weather.

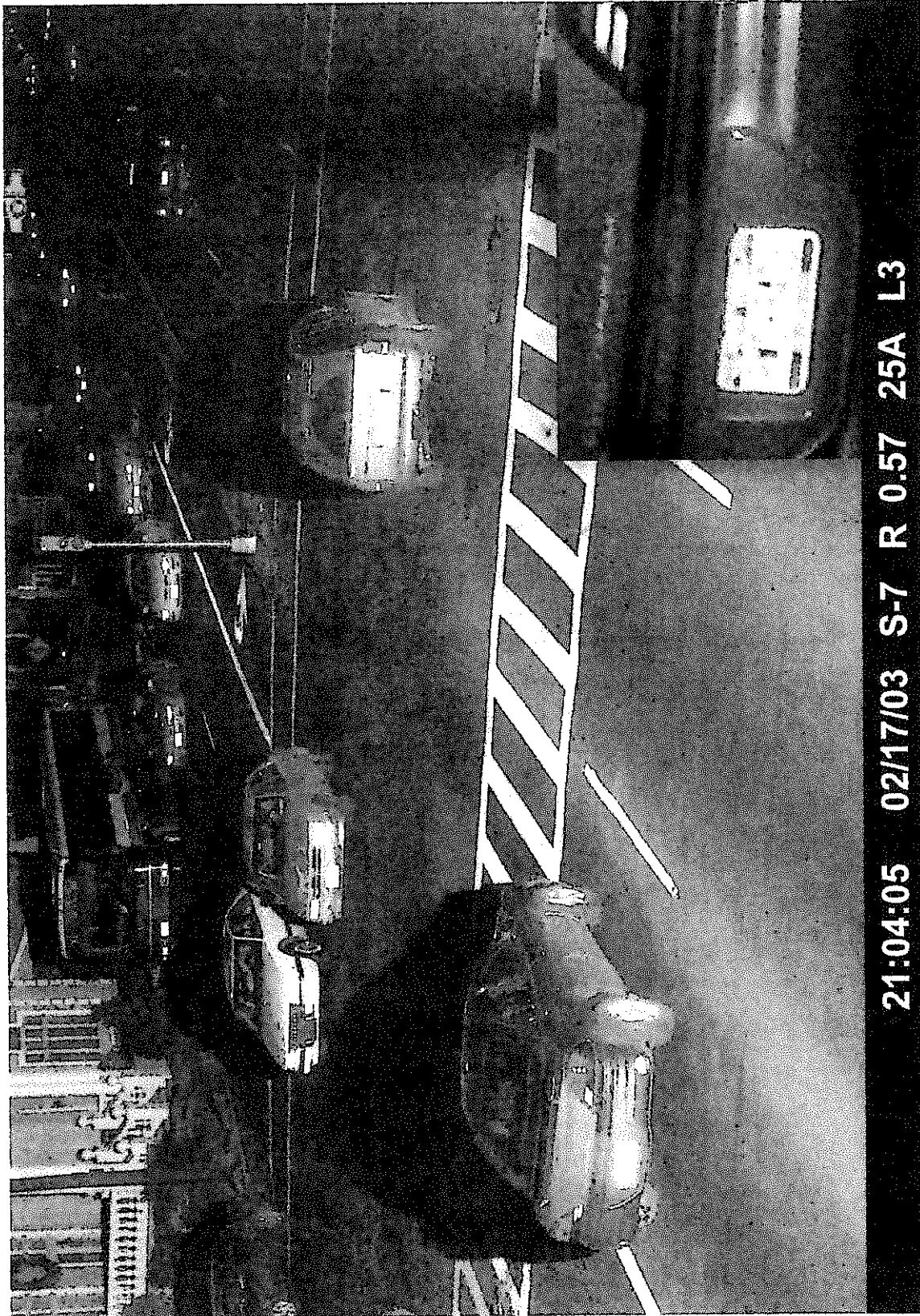
The unit consists of robust electronic devices designed for extreme temperature and humidity ranges. Aside from the camera lens focus ring, there are no moving parts in the Axis™ RLC-300 camera solution.

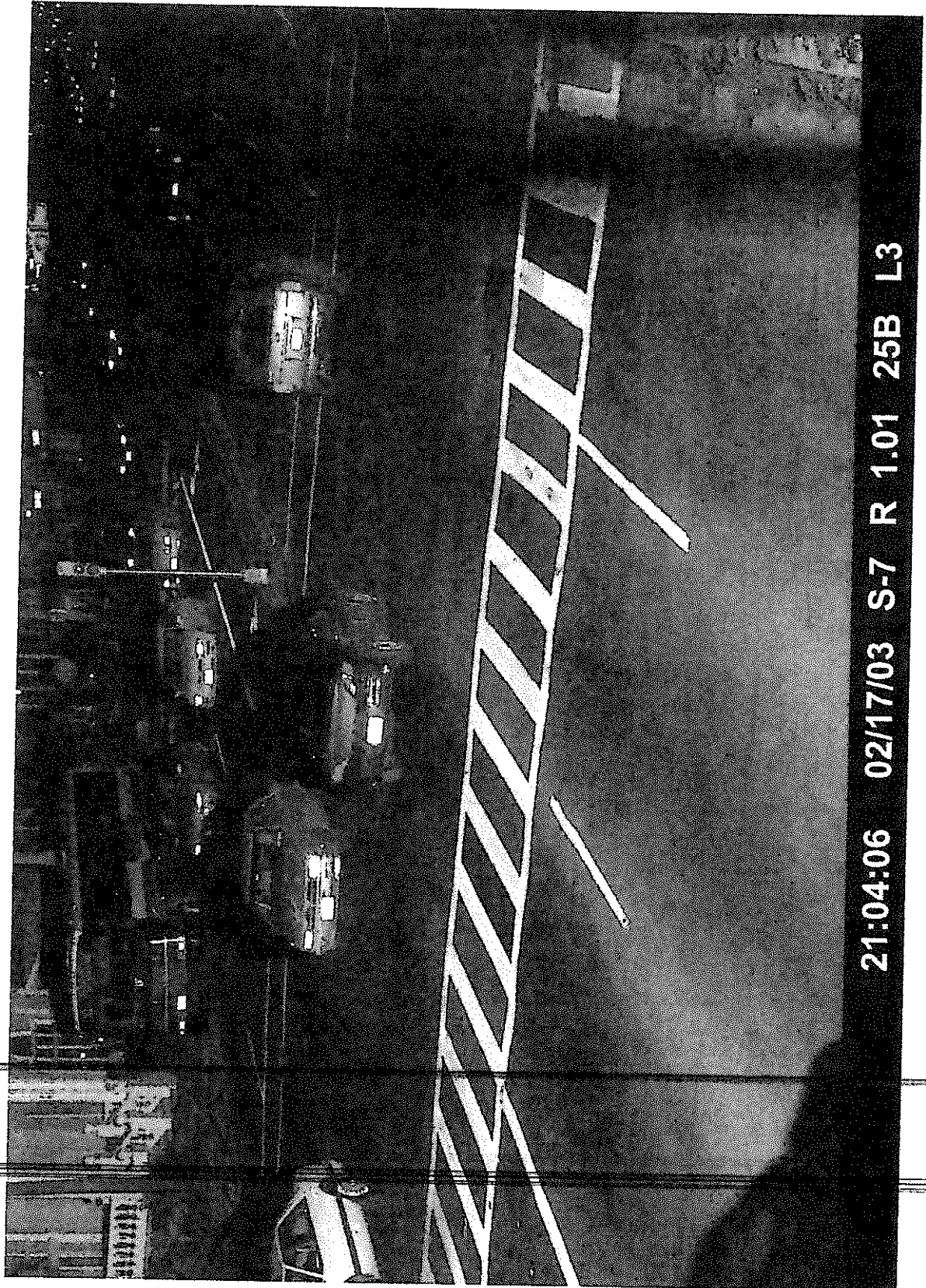
**3.1.26. Please describe the time it takes for your system to take photographs of vehicles entering the intersection after the signal turns red.**

The Axis camera captures violations immediately upon receipt of a trigger command from the detector. However, the CoC may choose to implement a 1/10 second optional grace period after the signal turns red. Such a delay is common among cities using red light cameras.

After a red light, the Axis camera is capable of rapidly capturing eight (8) full resolution images per second. Whereas this level of speed is more than is typically needed, when vehicles platoon through an intersection at the onset of a red signal phase, the Axis is ready to capture all who try to break the law.

Figure 15. Image Sets 1





21:04:06 02/17/03 S-7 R 1.01 25B L3



Figure 16. Image Sets 2



10:19:42 02/17/03 S-7 R 0.41 07A L2

MULVHILL Intelligent Control Systems, Inc.

City of Columbus  
Red Light Camera Program Proposal



10:19:42 02/17/03 S-7 R 0.95 07B L2

**3.1.27. Please describe how your system will capture violators at a minimum of 90% of the time or more**

The design objective of the Axis RLC-300 is to be in compliance with future red light camera standards being developed between the National Institute of Standards and Technology (NIST) and the international Association of Chiefs of Police (IACP). We strive to capture 100% of violations that occur and this is more possible due to the microprocessor design in the Axis RLC-300 which is able to monitor each lane independently as if there were four unique detectors.

This design, new generation processor and advanced vehicular tracking logic enables it to capture more total violation events and allows for true simultaneous four-lane detection capability and false trigger prevention. As such Mulvihill's Axis solution will offer the highest yield possible, above any known competitor; proven in real world demanding conditions like in New York City and Buenos Aires.

**3.1.28. Please describe the process used to communicate to the DoT, Traffic Engineer's staff that any and all repairs have been completed**

The process used to communicate completion of repairs is by means of email and formal project memorandum within one business day of completion. (See Figures 17A, B)

**Figure 17A. Project Memos**

Subject: S5 red phase 3-22-04

Attachments: image002.jpg (50 KB)

**MULVIHILL** Intelligent Control Systems, Inc.

3/22/04

Mr. John Tipaldo  
N.Y.C.D.O.T.  
34-02 Queens Blvd.  
L.I.C., N.Y. 11101

**Re: No red phase at S5**

Dear John,

This memo is to inform you about a red phase problem at S5, N/B Richmond Ave. @ Draper Pl. There was construction work done at this intersection by another contractor and our red phase wire was not properly re-connected. This resulted in no red phase detection and no events for load dates 3/17 and 3/18. We troubleshot the problem and completed repair on 3/19/04.

Please contact me immediately with any questions or comments.

Very truly yours,

Anthony Gargano  
Field Operations Manager  
Mulvihill ICS, Inc.

CC: Steve Galgano, Manny Rodriguez

**Figure 17B. Project Memos**

Subject: X2 onging power problem 3-22-04

Attachments: image002.jpg (50 KB)

**MULVIHILL** Intelligent Control Systems, Inc.

---

3/12/04

Mr. John Tipaldo  
N.Y.C.D.O.T.  
34-02 Queens Blvd.  
L.I.C., N.Y. 11101

**Re: Power problem at X2**

Dear John,

This memo is to inform you about an ongoing power problem at X2, Pelham Pkwy @ Stillwell Ave. This site has been offline due to poor neutral phase power at the intersection. I have been troubleshooting this with the City traffic engineer, George Bernudez, but we have not been able to resolve the problem. We have also had Con Edison visit the intersection, but it seems that the problem is with the city wiring. This site will remain offline until this problem is resolved and we will await further direction.

Please contact me immediately with any questions or comments.

Very truly yours,

Anthony Gargano  
Field Operations Manager  
Mulvihill ICS, Inc.

CC: Steve Galgano, Manny Rodriguez

**3.1.29. Please describe how the CoC is to be reimbursed whenever a CoC employee is needed to be at any one cabinet during installation or repair.**

Mulvihill will reimburse the city for its engineering time based on agreed upon rates and activities warranting CoC attendance. We propose to develop a mechanism to capture CoC staff hours and to offset those charges against monthly Mulvihill invoices.

**3.1.30. Non-Emergency Notification**

Mulvihill will provide a minimum of 24-hours notice to the CoC of repair work to be performed.

**3.1.31. Please describe how you handled emergency maintenance situations with cities of comparable size or larger than Columbus, OH**

~~In Mulvihill ICS's more than 12 years of Red Light Camera maintenance experience, significantly~~  
with the large and difficult NYC program (50 approaches); we have handled a multitude of emergency situations. When an emergency call is made during normal business hours, our daily management and staff will respond accordingly dispatching the appropriate resources to quickly and safely remedy the emergency or priority problem... The project manager will monitor this process from notification, to field technician or the bench tech action, to final resolution. If the City is

needed, calls are also made to the appropriate officials and or governmental agencies to coordinate the response. Emergency calls are responded to in less than 2 hours.

When the emergency call comes in during off hours, our on call management and staff will respond as professionally as our daily staff. Twenty four (24) hour access is given to the city to key Mulvihill employees via cell phone and home phone access. The same chain of events for response is followed differing only in the time of day and nature of the call. Also, our optional AXSIS™ Live feature will allow for a live preview of the troubled intersection through an internet connection and will sometimes cut response time and resolution dramatically depending on the nature of the call.

**3.1.32. Client List**

During the past 15 years our team has delivered or been involved with many large-scale traffic camera and violation processing projects in the United States and Canada. This direct operable experience has enabled us to develop and refine proprietary products, technologies, and business solutions.

Our team’s background and qualifications include delivery and/or operation of some of the world’s largest red light camera and toll enforcement systems. Relevant team project descriptions include the delivery of the City of New York’s Red Light Camera Program, which is the nation’s first and longest running program. Additional traffic law enforcement project experience, as follows:

- City of Calgary, Alberta, Canada
- Province of British Columbia
- New Zealand National Police
- City of Buenos Aires, Argentina
- City of Scottsdale, Arizona
- City of Ft. Collins, Colorado
- City of Riverside, California
- City of Minneapolis, Minnesota

The following are some relevant contacts with related contact information:

Client	Project	Description	Completion Date	Reference
City of New York	NYC Red Light Camera Program	200 dummy cameras, 75 red light camera installations, 50 active cameras, violation processing and management	On going	Mr. Steve Galgano, P.E. Executive Director of Engineering NYC Department of Transportation (718) 786-3550 sgalgano@dot.nyc.gov
Buenos Aires, Argentina	Buenos Aires Traffic Safety Program	2 red light camera installations, 9 photo radar patrol cars and service	On going	Mr. Pablo Mato + 54-11-4346-5850 Pablo.Mato@siemens-iron.com.ar
City of Calgary	Calgary Red Light Camera Program	36 red light camera installations and services	On going	Sergeant Clive Marsh Calgary Police Services 403-295-7903

**3.1.33. Please describe your process for acceptance and disbursement of funds (i.e. the CoC’s share of the revenue generated)**

Mulvihill follows a simple and uncomplicated payment and disbursement process. The process is facilitated using the Axis VPS Payment Module.

The Payment Module manages all financial elements including:

- Payment Transactions
- Chart of Accounts
- Ledger Detail and Balance Due
- Order of Payments
- Automated Payments
- Web Payments
- Financial Reports

**Timing of funds remitted to the CoC**

Funds shall be swept to a CoC nominated account on a periodic basis, to be negotiated with the CoC, but not less than monthly.

**Reconciling funds for penalties to the number of violations**

To reconcile funds for penalties to the relevant violations, Mulvihill will provide the CoC with a reconciliation report that provides a summary of the total amount of paid notices compared to the total amount expected for the same notices.

An aging report of all notices will also be provided.

**Process for NSF funds**

Mulvihill will provide accounting for all credit card charge-backs and NSF occurrences. These will be included on the Ledger Adjustment Report.

Violator accounts will be marked and additional fees will be added to future violator notifications.

**Types of funds that can be received**

Mulvihill will work with the CoC to establish the acceptable forms of payment. However, typically we will accept checks through a local lockbox banking provider and credit card payments by mail, phone or over the internet. If the City desires cash as an option, it can be accommodated at the local service center or in association with an existing CoC fine or fee collection point.

**Process used to reconcile the account**

Mulvihill will provide periodic (monthly) reconciliation for notices issued, payments entered and payments received. This will include copies of relevant banking statements related to the CoC red light program. The banking and internal reports shall reconcile to the satisfaction of the CoC.

**Costs associated with funds remittal**

~~The Mulvihill proposal includes payment processing fees except refunds related to charge-backs and NSF occurrences and related fees.~~

**Banking institution(s) used to deposit funds**

Mulvihill will use Huntington Bank as our preferred bank partner for lockbox and credit card processing.

3.1.34. Please describe options for payments and collections

Subject to agreement with the CoC we intend to provide for the following methods of payment: by mailed check, by credit card over the phone or using the Axisis payments web site (which can and should for consistency be integrated to a link on the CoC web site, as illustrated below).

Figure 18. CoC Web site suggestion

Address | http://www.columbus-treasurer.com/

**Treasurer: Mr. Tom Isaacs**  
 90 West Broad Street  
 Room 111  
 Columbus, Ohio 43215

Office: (614) 645-7729  
 Fax: (614) 645-3874

Hours of Operation:  
 Monday - Friday  
 8:00 a.m. - 4:30 p.m.

**Mission Statement**  
*To Assist, Direct, and Maintain the fiscal integrity of the City of Columbus, Ohio*

**On-Line Payments:**

The Columbus City Treasurer is appointed by the Columbus City Council and is the custodian of all city funds. The Treasurer is responsible for:

- 1) The receipt of all city funds;
- 2) The disbursement of city funds upon warrant of the City Auditor and Sinking fund, and also payroll checks;
- 3) The investment of all excess funds not needed for daily operations to earn income for the city and its citizens.

Recreation & Parks Fees  
 Traffic Citations (Moving)  
 Red Light Camera Citations  
 Water & Sewer

**On-Site or Mail-In Payments:**

**Payment of Bills:**  
 Most payments to the City of Columbus are made to the department providing the service.

Collections Processing

Collections services are provided by our collections provider, Professional Account Management, which has developed a proprietary collection system and methodology specifically designed to address the nuances of collecting delinquent municipal fines. Our comprehensive collection program includes mailing collection notices, answering inbound calls, and the use of aggressive skip tracing technology to locate and collect from even the most difficult to locate debtors.



The Automated Citation Collection System (ACCS) is the heart of the PAM collection system. Every action taken in the ACCS system is clearly and accurately recorded and is available to provide a complete audit trail for every account. The ACCS provides clear and easy to understand standard reports, plus an integrated ad hoc report writer enabling real-time, fast and accurate specialized report preparation.

An important part of our collection program is our use of predictive outbound calling technology. Statistics show that payment activity increases by 40% when collection notices are followed up with phone calls.

Our auto-dialing system uses three phone lines per agent for placing collection calls. Its features include smart-dialing, call blending, unattended messaging and automated follow up scheduling. As a result, debtor contact is virtually guaranteed. Calling patterns are established based on previous calling history. If a debtor is unable to be reached during the day, the system learns from previous attempts and schedules alternative hours or weekend calls. Additionally, our system is front-ended by an Integrated Voice Response system through which telephone payments can be made by check or credit card 24-hours per day, 7-days per week.

Our investment in state of the art hardware and software, combined with highly trained and motivated collections delivers both increased collection rates and exceptional municipal and citizen service.

Our Automated Collection System will provide:

- DMV registered owner look-ups where required
  - State of the art skip-tracing – proprietary software & proven methodologies
  - Three (3) notices per account, sent sequentially
  - Follow up noticing (promises to pay, broken promise)
  - Debtor correspondence
  - Ability to accept, administer and enforce debtor payment plans
  - Inbound 800 number available 24 hours a day / 7 days a week
  - Integrated Voice Response (IVR) telephone system
  - Outbound calls to debtors (attended and unattended)
  - Ability to accept all forms of payment (Visa, MC, WU Check-by-phone)
  - Compliance with all ACA and FDCPA laws and regulations
  - The ability to accurately document all contacts with debtor
  - Comprehensive management reporting
  - End of month reconciliation and monthly activity statements
  - Professional, experienced collection counselors continually trained on the nuances of municipal citation debt collection and conflict resolution
  - Optional Credit Bureau listing
- 
-



**3.2. Additional Information**

**3.2.1. Mulvihill's Proposed Staffing**

The following section on Key Personnel includes resumes of the Mulvihill team as required.

Name and title	<b>Mr. John T. Petrozza, Project Executive</b>
Personnel Billing Category	Executive / Project Manager
Professional Background	President of a traffic technology company and COO of an electrical contracting company. Mr. Petrozza has designed and implemented large scale photo enforcement programs.
Current and Past Relevant Employment	1999-present, Mulvihill ICS, Inc., President 1995-present, Mulvihill Electrical, COO 1990-1995, Quest Media, President
Education	1982 - 84 N. J. Institute of Technology, New Jersey Electrical Engineering / Physics 1984 - 86 College Of Staten Island, Staten Island, NY Electrical Engineering / Computer Technology
Certifications;	Camera Technology Training and Certifications from: Traffipax, Robot, Traffic Safety Systems, American Traffic Solutions, TransCore, and Sensys Traffic.
Availability during project	75% -100% for first 3 months during transition to local on-site Columbus-based Project Manager. Mr. Petrozza will remain active in the Columbus project for the entire term.

**List of Relevant Projects for John Petrozza**

Client	Project	Description	Role	Completion Date	Reference
City of New York	NYC Red Light Camera Program	200 dummy cameras, 75 red light camera installations, 50 active cameras, violation processing and management	Executive manager	On going	Mr. Steve Galgano, P.E. Executive Director of Engineering NYC Department of Transportation (718) 786-3550 sgalgano@dot.nyc.gov
Buenos Aires, Argentina	Buenos Aires Traffic Safety Program	2 red light camera installations, 9 photo radar patrol cars and service	Technical manager	On going	Mr. Pablo Mato + 54-11-4346-5850 Pablo.Mato@siemens-itron.com.ar

Name and title	<b>Mr. Adam E. Tuton</b> , Violation Processing Executive
Personnel Billing Category	Executive / VPS Project Manager
Professional Background	<p>Mr. Tuton has worked in the photo enforcement industry for over 11 years. He has implemented violation processing operations in Alaska, Arizona, California, Colorado, Florida, Illinois, Kansas, Minnesota, New Jersey, New York, Tennessee, Texas, Utah, British Columbia, Calgary, Canada, and New Zealand. Mr. Tuton understands all aspects of traffic enforcement program implementation and operation, including:</p> <ul style="list-style-type: none"> <li>▪ Violation processing operations</li> <li>▪ Camera technology (design and manufacture)</li> <li>▪ Violation processing software systems</li> <li>▪ Business establishment</li> <li>▪ Construction and installation</li> <li>▪ Public awareness and education</li> </ul>
Current and Past Relevant Employment	<p>10/2003 to present - American Traffic Solutions, Inc. Executive Vice President / COO</p> <p>6/2000 - 10/2003 - TransCore, Inc., Vice President and Chief Operating Officer, Violation Transaction Processing Group</p> <p>1/1993 - 6/2000 - Executive Vice President / Chief Operating Officer - American Traffic Systems, Inc.</p>
Education	B.A. University of Arizona - 1986
Certifications;	Project Manager Training Course
Availability during project	75%-100% for first 3 months during transition to local on-site Columbus-based Project Manager. Mr. Tuton will remain active in the Columbus project for the entire term.

**List of Relevant Projects for Adam Tuton**

Client	Project	Description	Role	Completion Date	Reference
City of Calgary	Calgary Red Light Camera Program	36 red light camera installations and services	Project manager	On going	Sergeant Clive Marsh Calgary Police Services 403-295-7903
City of Scottsdale	Focus on Safety	4 speed cameras, 9 red light cameras, turn key processing.	Project manager	1999	Lt. Micheal Keeley (Ret.) Scottsdale Police (480) 551-8250
Province of British Columbia	Speed Management Project	35 speed cameras, fully automated turn key violation processing solution and hardware and software and hardware maintenance services.	Project support and design consultant	1999	Inspector Mike Clarabut (ret) Royal Canadian Mounted Police (613) 345-0660 ext 3181
Harris County Toll Road Authority	Toll Violation Processing System	Fully automated digital toll violation hardware and software processing system and maintenance services.	Project manager	1999-2003	Ms. Tracy Smith EZ Tag Manager (832) 601-7949



**List of Relevant Projects for Phil Simone**

Client	Project	Description	Role	Completion Date	Reference
New York City, NY	NYC Red Light Camera Program	200 dummy cameras, 75 red light camera installations, 50 active cameras, violation processing and management	Project manager	On going	Mr. Steve Galgano, P.E. Executive Director of Engineering NYC Department of Transportation (718) 786-3550 sgalgano@dot.nyc.gov
New York City, NY	NYC Red Light Camera Program	30 red light camera installations and services	Project manager	Dec-00	Mr. Rudy Popolizio Chief, Systems Engineering Management retired NYC DOT Project Manager (718) 225-3963 home
Howard County, MD	Howard County	27 red light camera installations and service	Project manager	Dec-98	Jeanne Upchurch Howard County Dept. of Police (410) 313-3200
Culver City & San Juan Capistrano, CA	Red Light Camera Program	8 radar based red light camera installations and service	Field manager	Dec-99	Mr. Sean Gunderson Project Manager (602) 363-9400 / sean@gndrsn.c
San Francisco, CA	Pilot Red Light Camera Program	5 red light camera installations and service	Field manager	Dec-97	N/A

**3.2.2. Mulvihill's Team Experience**

<p>1. <i>The name of the project owner and, and the project location</i></p>	<p>Mulvihill ICS, Inc.                  The five Boroughs of the City of New York:                  1. Manhattan County (population 1.5 million) 17 intersections                  2. Kings County (population 2.5 million) 19 intersections                  3. Queens County (population 2.25 million) 21 intersections                  4. Richmond County (population 0.5 million) 7 intersections                  5. Bronx County (population 1.4 million) 11 intersections                  City of New York – Red Light Camera Program</p>
<p>2. <i>A description of the project</i></p>	<p>New York City Red Light Camera Program Expansion                  The program requires 50 active RLCs across 75 sites along with 200 dummy cameras installed in the five boroughs of New York, i.e. Manhattan, Brooklyn, Queens, The Bronx, and Staten Island. An additional 50 red light cameras are scheduled for installation September 2004.                  Mulvihill supplies and executes around all services including: project management; custom design and fabrication; construction, installation and maintenance; digital/analog film; supply, development, support, installation; engineering; technology updates, software/hardware updates, back-end violation processing, reporting; DMV registration lookup, reporting; sales/service support. Quality performance, public approval rate is over 80%.                  On an ongoing basis, Mulvihill demonstrates and installs newer technologies for the City of New York which greatly assists in their evaluation for future legislative support and ancillary considerations such as radar, video, and laser triggering; photo bus-lane enforcement; mobile and fixed site photo speed enforcement to name a few.</p>
<p>3. <i>The dates of major project milestones including the date of completion and the date on which each milestone was actually achieved.</i></p>	<p>12/00 – new digital and film RLC program started                  03/01 to 09/01 – built and activated 50 intersections                  09/01 to 12/01 – built 25 spare sites                  01/02 to 02/02 – installed and activated new Violation Processing System                  06/02 – activated nationwide DMV lookup                  07/02 – 12/02 – installed 200 dummy cameras                  01/03 – new yearly records: 330,000 citations / \$15,000,000 collected / 88% collection rate / highest yield from camera events</p>
<p>3. <i>The original contract amount and the actual sum paid. Contact name, position, address, telephone, and fax number. Staff member who was in charge of the project.</i></p>	<p>\$30,000,000 (excluding two pending 3-year extensions). All amounts have been paid with no liquidated damages.                  John T. Petrozza, President                  Mulvihill ICS, Inc.                  503 Cary Avenue                  Staten Island, NY 10310                  Telephone: (718) 448-7000</p>

**Project Reference #2**

<p>1. <i>The name of the project owner and, and the project location</i></p>	<p>Siemens-Itron &amp; Mulvihill ICS (Joint Venture): Buenos Aires Road Safety Program <b><i>Buenos Aires, Argentina</i></b></p>
<p>2. <i>A description of the project</i></p>	<p>Installation, maintenance and operation of 9 photo radar automobile 2 red light cameras and 2 fixed photo speed sites. Fully integrate support system comprised of image solutions, innovative in-house processing, citation generation, lock-box management and citatic aging and collection processes. This is a turnkey project. The Mulvihill team provides all camera technologies, staffing, computing infrastructure, image and violation processing services as well as payment processing and reporting.</p> <p>Mulvihill is the technical lead on the project and works in conjunction with Siemens. We have processed over 1,200,000 citations in a single year.</p> <p>The project reached its safety objectives as red light violation decreased by 60%; and, speeding violations decreased by 42%.</p>
<p>3. <i>The dates of major project milestones including the date of completion and the date on which each milestone was actually achieved. Explain the reason for any significant schedule differences; and</i></p>	<p>Contract Start Date: June 1999 Commence Operations: January 2000 Contract Completion: Ongoing, due to expire December 2005</p>
<p>4. <i>The original contract amount and the actual sum paid. Contact name, position, address, telephone, and fax number. Staff member who was in charge of the project.</i></p>	<p>6,000,000 Pesos per year. All amounts have been paid with no liquidated damages.</p> <p>Pablo Mato Division Manager - Public Sector Siemens Itron Business Services S.A. Balcarce 683 - (C1064AAM) Buenos Aires, Argentina + 54-11-4346-5850 Pablo.Mato@siemens-itron.com.ar</p>
<p></p>	<p></p>

**Project Reference #3**

<p>1. <i>The name of the project, the owner and the project location</i></p>	<p>American Traffic Solutions, Inc. (formerly American Traffic Systems, Inc.)  Provincial Speed Management Program  <i>British Columbia, Canada</i></p>
<p>2. <i>A description of the project</i></p>	<p>This project included the design, procurement, implementation, operation and maintenance of British Columbia's "Speed Management Program". The project included supply of 35 radar speed camera systems, a complete back office processing environment, business process design, and camera operator training for 140 Royal Canadian Mounted Police. The program included on-site software, hardware and camera maintenance for the three-year contract period. It was the largest speed camera program ever implemented in North America to date. Cameras were deployed in hundreds of locations throughout the province in a province-wide safety program.</p>
<p>3. <i>The dates of major project milestones including the date of completion and the date on which each milestone was actually achieved. Explain the reason for any significant schedule differences; and</i></p>	<p>Contract Signature - November 1995  Start of Operations - March 1996  Completion of Contract - January 2000</p>
<p>4. <i>The original contract amount and the actual sum paid. Contact name, position, address, telephone, and fax number. Staff member who was in charge of the project.</i></p>	<p>\$15.0 million; all amounts were paid with no liquidated damages.  Staff contact:  James D. Tuton Project Executive 8601 N. Scottsdale Road Suite 125 Scottsdale, AZ 85253 Telephone: (480) 368-0900 ext.206 Fax: (480) 607-0901</p>

Project Reference #4

<p>1. The name of the project, the owner and the project location</p>	<p>American Traffic Solutions, Inc. (formerly American Traffic Systems, Inc.) Scottsdale Focus on Safety Program Scottsdale, Arizona</p>
<p>2. A description of the project</p>	<p>The Scottsdale Focus on Safety Program involves design, procurement, implementation, operation and maintenance. The project included supply of 4 Red Speed Camera systems and 9 red light camera turnkey violation processing for the City, camera operators, and City staff to support adjudication at hearings with the Scottsdale City Court.</p> <p>The project also featured a comprehensive Community Outreach and Public Awareness Campaign which generated public support for the program. The safety objectives were met in the first year of the program in the following significant way Collisions were reduced by 20%.</p>
<p>3. The dates of major project milestones including the date of completion and the date on which each milestone was actually achieved. Explain the reason for any significant schedule differences; and</p>	<p>Contract Signature - January 1996 Installation Complete - March 1996 Start of Operations - March 1996 Completion of Contract - March 1999</p>
<p>4. The original contract amount and the actual sum paid. Contact name, position, address, telephone, and fax number. Staff member who was in charge of the project.</p>	<p>The original contract was based on a fee per notice paid. Contract was valued at \$3.0-4.0 million; and all amounts were paid.</p> <p>Staff contact: Adam E. Tuton Project Manager 8601 N. Scottsdale Road</p>
	<p>Suite 125 Scottsdale, AZ 85253 Telephone: (480) 368-0900 ext. 206 Fax: (480) 607-0901</p>



**Project Reference #5**

<p>1. <i>The name of the project, the owner and the project location</i></p>	<p>American Traffic Solutions, Inc. (formerly American Traffic Systems, Inc.) New Zealand Traffic Camera Program <i>Country of New Zealand</i></p>
<p>2. <i>A description of the project</i></p>	<p>The New Zealand Traffic Camera Program involved the design and implementation of a comprehensive national "speed" camera program for the New Zealand National Police which was comprised of 31 radar speed camera systems, 67 fixed cameras with complete software and local support services. The cameras still operate in every New Zealand city.</p>
<p>3. <i>The dates of major project milestones including the date of completion and the date on which each milestone was actually achieved. Explain the reason for any significant schedule differences; and</i></p>	<p>Contract Signature - August 1993 Installation complete - March 1994 Completion of contract - 1999 Cameras are still in use today</p>
<p>4. <i>The original contract amount, and the actual sum paid. Explain the reason for any significant differences. The reference should include a contact name, position, address, telephone, and fax number. This reference should be the owner's staff member who was in charge of the project for the owner.</i></p>	<p>The contract amount was valued at \$3.0-\$4.0 million. Staff contact: James D. Tuton Project Executive 8601 N. Scottsdale Road, Suite 125 Scottsdale, AZ 85253 Telephone: (480) 368-0900 ext.206 Fax: (480) 607-0901</p>

### **3.2.3. Public Awareness**

Mulvihill understands the city's need to provide accurate and complete public awareness information in the form of public relations, advertising and other relevant support collateral to gain acceptance and promote the RLC program in Columbus, ultimately resulting in great traffic law compliance.

We have selected Triumph Communications, a well respected Columbus-based Public Relations firm, specializing in creating and cultivating strategic political and community alliances on issues such as public awareness and public safety.

Implementation of a red light camera surveillance solution in the City of Columbus must be adopted through positive outreach with community stakeholders in the process.

Initially from natural alliances with primary groups that have a stake in reducing traffic injuries and most interested in positive adoption of the RLC program such as local government officials, local law enforcement officials, public safety officials, public health professionals, school officials, businesses, health care providers, civic and community leaders.

We would recommend a program that would entail close coordination with the Columbus Police Department and any other City staff as public meetings will be critical in the RLC awareness program.

#### **Assessment-Due Diligence**

- The City of Columbus is interested in saving lives by increasing safety and awareness. Perform 'due diligence' to establish/connect with government oversight committees and stakeholder groups.
- Determine the specifics of guidelines to implement the program.
- Determine legal requirements relevant to public information and awareness programs to publish, print, and post signage and display messages about RLCs.
- Identify areas of commonality and interdependencies with communities and stakeholders at large.
- Ensure that the program achieves a 'comfort level' with the community to limit the amount of possible hostility and negative feelings towards RLC program.

#### **Planning: Media & Community Outreach Program**

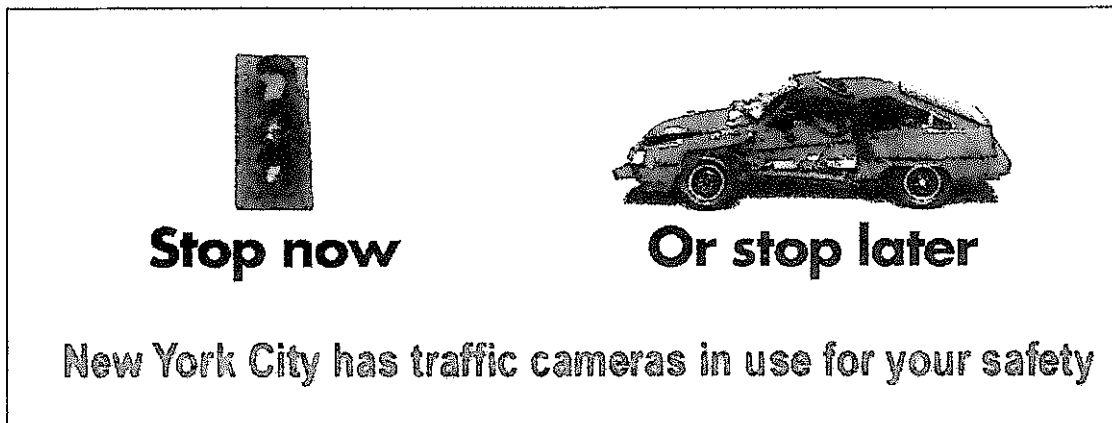
- Develop timeline for public surveys, program implementation, evaluation and follow-up
- Develop community implementation strategies and objectives
- ~~• Identify and engage in existing community activities and events~~
- Create a community partners' coalition from and with existing community groups and stakeholders.

Initial focus is to engage the community through public meetings and surveys to not only get a true gauge of public knowledge and understanding about RLC program but also use these instruments to educate about RLC program to ensure that the City is prepared for any potential misinformation or negativity that the community and its stakeholders might have.

We would stress in all of our community outreach efforts the benefits of increasing public safety to mitigate opposition to RLCs.

### Implementation

- Increase community involvement and media engagement
- Include “ethnic-specific” community outreach and public relations
- Official campaign launch
- Ongoing awareness, information flow, and education



The community outreach and engagement will continue after the official campaign kick-off to ensure that the public is fully aware of RLC infrastructure and that it is being used *fairly and consistently*.

### Evaluation

- Analysis of implemented program and direct feedback
- Summary report and recommendations to stakeholders.

Triumph Communications has fostered and maintained strong ties to all communities and continues to play an active role in community development through cultural specific outreach, marketing and public relations.

### Deliverables

Our team will produce for the city: three P.S.A. 30 second videos, three P.S.A. 60 second radio announcements, program web site, newspaper display ads, utility bill information inserts, press releases, opinion polls, and movie theater information screen slides.



### **3.2.4. Emerging Business**

Mulvihill has partnered with best of breed local vendors for site engineering and public communications. Although Mulvihill has the required skill sets in house to perform these duties, we believe no one knows Columbus better than a local company. With that in mind, we will use these suppliers as sub-contractors and assume full responsibility for their performance to the city.

#### **3.2.4.1. Prime Engineering Background**

Founded in 1992 as a Columbus based engineering design firm, Prime Engineering & Architecture, Inc. (PRIME) has compiled a proven track record of successful project completion for numerous public and private sector clients. The company has become a leader in providing a wide variety of integrated design services including Civil/Structural Engineering, Roadway Design, Bridge Design, Geotechnical Engineering and Soil Testing Services, Construction Administration / Inspection, Architectural Design Services, and Environmental Consulting. PRIME is a privately held corporation that is certified by the City of Columbus as a Female Business Enterprise (FBE). The firm is also pre-qualified by the Ohio Department of Transportation (ODOT) to provide several services including:

- Non-complex Roadway Design
- Level 1 Bridge Design
- Geotechnical Engineering
- Geotechnical Laboratory Services

PRIME's geotechnical testing laboratory has received full certification under the ODOT/AASHTO Materials Reference Laboratory (AMRL) soils testing laboratory certification program.

Currently, PRIME operates from offices located in Columbus, Ohio and Akron, Ohio. Their staff of 41 includes professional engineers, design engineers, registered architects, geologists, and material testing technicians. These personnel have extensive hands-on experience with numerous civil, structural, and geotechnical engineering projects as well as construction administration, construction inspection, and environmental projects. This experience is used to provide their clients with high quality engineering, architectural, environmental, material testing, and construction inspection services that are completed on time and within the established budget. PRIME's corporate motto, "Quality Product, On-Time Service, and Cost Effective Solutions" is practiced on a daily basis by all of their personnel.

#### **3.2.4.2. Triumph Communications Background**

Triumph Communications develops and implements public and private sector communication ~~strategies aimed at affecting positive outcomes for their clients. With all services under one roof, the~~ partners at Triumph have extensive experience in all forms of communication ranging from message development, media production, and grassroots campaigning to public, government and community relations.

Established in Columbus, Ohio in 1999, the company specialized in local government activities with an emphasis on community, public and government relations. In April 2002, Triumph Communications moved to new facilities in central Ohio and expanded to a full service communications company bringing together a creative team that has decades of experience in various disciplines. With all services under one roof, the partners at Triumph bring expertise in all

forms of communication ranging from advertising, public, government and community relations. Additionally, with in-house production studios, Triumph has the ability to produce media services including film, video, audio, business theatre and print and multi-media services.

The skill, vision, creativity, commitment and experience Triumph offer clients are a hallmark of their success. Triumphs "hands on" philosophy ensures that every project receives the attention of the best, brightest and most seasoned talent. They assemble the best team of professionals available to respond to every situation. Triumphs team concept and desire to work cooperatively makes them the right choice for our red light camera community awareness program.

#### **3.2.4.3. Huntington National Bank Background**

The Huntington National Bank is the principal subsidiary of Huntington Bancshares Incorporated, (NASDAQ:HBAN), a \$31 billion regional bank holding company headquartered in Columbus, Ohio.

Through its affiliated companies, Huntington has more than 138 years of serving the financial needs of its customers. Huntington provides innovative retail and commercial financial products and services through more than 300 regional banking offices in Indiana, Kentucky, Michigan, Ohio and West Virginia. Huntington also offers retail and commercial financial services online at [www.huntington.com](http://www.huntington.com); through its technologically advanced, 24-hour telephone bank; and through its network of more than 700 ATMs. Selected financial service activities are also conducted in other states including: Dealer Sales offices in Florida, Tennessee, Pennsylvania and Arizona; Private Financial Group offices in Florida; and Mortgage Banking offices in Florida, Maryland and New Jersey. International banking services are made available through the headquarters office in Columbus and additional offices located in the Cayman Islands and Hong Kong.

#### **3.2.4.4. Advanced Federated Protection Inc.**

Advanced Federated Protection Inc. is a full service minority owned construction company headquartered in Cleveland, which specializes in the implementation of cameras and video systems. AFP has been in business in Ohio for over twenty years, and they are excited to bring their expertise to the Columbus Red Light Camera project.

Advanced Federated Protection Inc. recently completed a project for the Department of Homeland Defense where they installed a sophisticated surveillance system watch the lake Erie Port of Cleveland. Other large customers of note include: Cleveland Public Schools, State of Ohio, Shell Oil, McDonald's Corporation.

# PROPOSAL

To the Finance Director of the City of Columbus, Ohio:

We (I) propose to furnish the following article(s) and/or service(s) at the price(s) and terms stated subject to all instructions, conditions, specifications and all attachments hereto. We (I) have read all attachments including the specifications and fully understand what is required.

Prices are to be quoted F.O.B.:

See Page 5

Delivery: 45 calendar day(s) after receipt of order

Terms: Net 30

Company Name or Bidder's Name: Mulvihill ICS, Inc.

Business Address of Bidder: 503 Cary Avenue  
Staten Island, NY 10310

## REQUIRED Company Employee Information:

Total number of company employees = 31

Total number of company employees working in Columbus = 0

Additional number of employees that will be working in Columbus in the event this contract is awarded to your company = 8 for 6 months / then 2 for 3-4 years

The full name and residence of all persons and parties interested in the foregoing bid are: (If a corporation, give the name and address of the president and secretary; if firm or partnership, the names and address of the members or partners.)

Name

Address

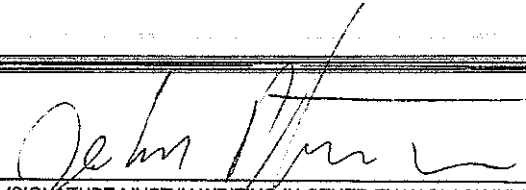
John Petrozza

315 Maine Avenue. S.I., NY 10314

Hollis Mulvihill Petrozza

315 Maine Avenue. S.I., NY 10314

Authorized Signature X

  
(SIGNATURE MUST IN WRITING IN OTHER THAN BLACK INK)

Title: X

President

(TITLE MUST BE GIVEN)

**THIS PAGE WAS INTENDED TO BE BLANK**

**4. Cost Proposal**

**Photo Red Light Enforcement System / City of Columbus, Ohio**  
RFP No. SA 001147 JY/FM Submitted To:

**COST PROPOSAL**

Mulvihill ICS, Inc.

<b>Option 1</b>		
<b>ALL INCLUSIVE / FIXED PRICE</b>		
All inclusive price per camera per month	\$4,395	per camera per month
All proposed camera equipment, hardware, installation, management Violation processing, reporting, lockbox, and DMV access		
<b>Optional 1B</b>	\$95	additional per camera per month
<b>Exchange triggering from Dual Loop to Piezo Loop</b> includes two Piezos and one loop per lane / includes installation		
<b>Optional 1C</b>	\$295	additional per intersection per month
<b>Axis Live adjunct digital video and playback</b> includes one Axis live controller per intersection with four cameras		
<b>Optional 1D</b>	\$345	additional per camera system per month
<b>Axis Frontal Photography Option</b> includes a 2nd camera and strobe per direction of travel w/installation		

<b>Option 2</b>		
<b>ALL INCLUSIVE / PRICE PER COLLECTED CITATION</b>		
All inclusive price per Collected Citation	\$29.00	per collected citation
All proposed camera equipment, hardware, installation, management Violation processing, reporting, lockbox, and DMV access		
<b>Optional 2B</b>	\$1.00	additional per collected citation
<b>Exchange triggering from Dual Loop to Piezo Loop</b> includes two Piezos and one loop per lane / includes installation		
<b>Optional 2C</b>	\$2.50	additional per collected citation
<b>Axis Live adjunct digital video and playback</b> includes one Axis live controller per intersection with four cameras		
<b>Optional 2D</b>	\$3.00	additional per collected citation
<b>Axis Frontal Photography Option</b> includes a 2nd camera and strobe per direction of travel w/installation		
<i>Per collected citation fee can be significantly discounted (50%) at volumes over 3500 collected citations per month</i>		

<b>Option 3</b>		
<b>ALL INCLUSIVE / HYBRID / MONTHLY LEASE + FEE /CITATION</b>		
All inclusive Hybrid / lease + fee	\$1,714	per camera per month
All proposed camera equipment, hardware, installation, management Violation processing, reporting, lockbox, and DMV access		
<b>Optional 3B</b>	\$25	additional per camera per month
<b>Exchange triggering from Dual Loop to Piezo Loop</b> includes two Piezos and one loop per lane / includes installation		
<b>Optional 3C</b>	\$0.77	additional per collected citation
<b>Axis Live adjunct digital video and playback</b> includes one Axis live controller per intersection with four cameras		
<b>Optional 3D</b>	\$97	additional per camera system per month
<b>Axis Frontal Photography Option</b> includes a 2nd camera and strobe per direction of travel w/installation		
	\$1.77	additional per collected citation
<i>Per collected citation fee can be significantly discounted (50%) at volumes over 3500 collected citations per month</i>		



-----

)

)

)



Nigel P. Hebborn, *Chief Executive Officer*

June 15, 2004

Lieutenant Fred Bowditch  
City of Columbus, Ohio  
Purchasing Office  
1<sup>st</sup> Floor, 50 West Gay Street  
Columbus, OH 43215

**RE: Solicitation SA 001147 JY/FM**

Dear Lieutenant Bowditch:

Nestor Traffic Systems (NTS) is pleased to submit a proposal in response to the City of Columbus' request for proposals for a Photo Red Light Enforcement System. We appreciate the opportunity to become a partner with the City of Columbus for this important public safety program. NTS is proposing CrossingGuard; our industry leading solution that has effectively decreased the number of red light violations and the number of accidents caused by red light violators at many dangerous intersections across the country. Our system will help reduce the red light running problem in your community and raise public awareness, making your streets safer for both residents and visitors.

Using proprietary digital video technology coupled with video-based detection and recording, NTS offers the most advanced technology, yielding the most comprehensive evidence, and the most customer oriented system available in the industry. Since 1999, our video-based CrossingGuard solution has been successfully implemented at over 90 approaches in seven states, with another 70 approaches in process. The results:

***The most infrastructure-friendly*** – No need for in-ground loops, no damaged roads, and no traffic rerouting

***The most comprehensive evidence*** – Digital images provide a full motion video "replay" showing exactly what happened from multiple angles

***The most reliable data processing*** – Real-time secure transfer of data over a high-speed network without delay

***The most reliable system*** – Minimal downtime due to CS Monitor, our automated system monitoring utility that works 24/7/365 and alerts staff immediately to any system need

***The most convictions*** – The most convincing evidence packages in the industry with few court challenges and dismissals, resulting in a 99% conviction rate

CrossingGuard also offers a unique safety option called Collision Avoidance. Using this patented feature, the system predicts red light violations before they happen, and can signal the traffic controller to briefly extend the all-red phase for cross traffic, reducing the chances of a collision. Because NTS is devoted to making intersections safer, we developed this feature after learning that more than 70% of red-light violations occur within 1.5 seconds of the light change. While this feature is not required by this RFP, we are prepared to deliver it should the City desire.

)

)

)

NTS is offering to expand the benefits of our red light enforcement services by developing strategic alliances with local businesses to offer the City enhanced features and functionality. The first proposed alliance is with Intellinetics, a Columbus based company that currently provides the Intellivue® advanced document management system to the Columbus Division of Police. If approved by the City, NTS will provide red light data to Intellivue, enabling the City to expand its data research and intelligence capabilities.

Also, given the City's desire to improve and expand the capabilities of the communications infrastructure throughout the city, NTS is proposing a partnership with Columbus based, Mobile Broadband Networks, Inc. (MBN). In coordination with the MBN and the City, NTS will assist in the deployment of a citywide 4G Wireless Network by installing communication hubs at CrossingGuard enforced intersections, thereby providing an initial base of linked wireless sites for the network.

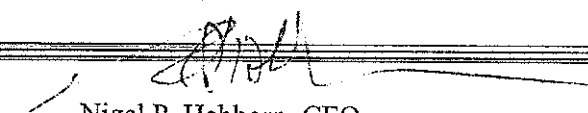
Knowing that this high quality system is only as effective as NTS' ability to implement it, I want to assure you that the Columbus project will receive the highest placement and visibility within the NTS corporate organization. I have specifically chosen our Program Manager and he will report directly to me throughout the program. This will ensure that he and the program receive complete and timely support from all our corporate resources. Moreover, the Program Manager and his team will be fully dedicated to this project during its entire implementation and will work closely with the City of Columbus Police Department, the Department of Public Service, the City Engineer, and other organizations as needed to ensure a smooth and effective implementation.

In addition to our commitment to fully support this program on all levels, NTS will work with the City of Columbus to ensure that the program will be operated on a cost-neutral basis to the City. We understand this is being run as a safety program and not a revenue program, but we also understand the challenges faced recently just to assemble a budget that would maintain the essential city services such as police and fire. In addition, we understand that the City continues to look for ways to create efficiencies and control spending. For these reasons, NTS will perform scheduled financial reviews of the program and is prepared to renegotiate its service fees if it is determined that program-operating costs exceed gross program revenues.

Finally, NTS understands that if selected, we will in effect be one of the City's ambassadors to the general public. With that role comes an added responsibility of full compliance with applicable laws and policies at all levels of government and to serve as a good corporate citizen. In that spirit, NTS will assist with a thorough public awareness campaign and proactive customer service program that is compatible with and fair to the public. We will also support Columbus' commitment to promoting equal opportunity for all business seeking to work with the city.

NTS has bid what we believe to be the best value solution for the City of Columbus. We look forward to oral presentations and the opportunity to further demonstrate how Nestor Traffic Systems and CrossingGuard can help the City improve traffic safety for its citizens and its visitors.

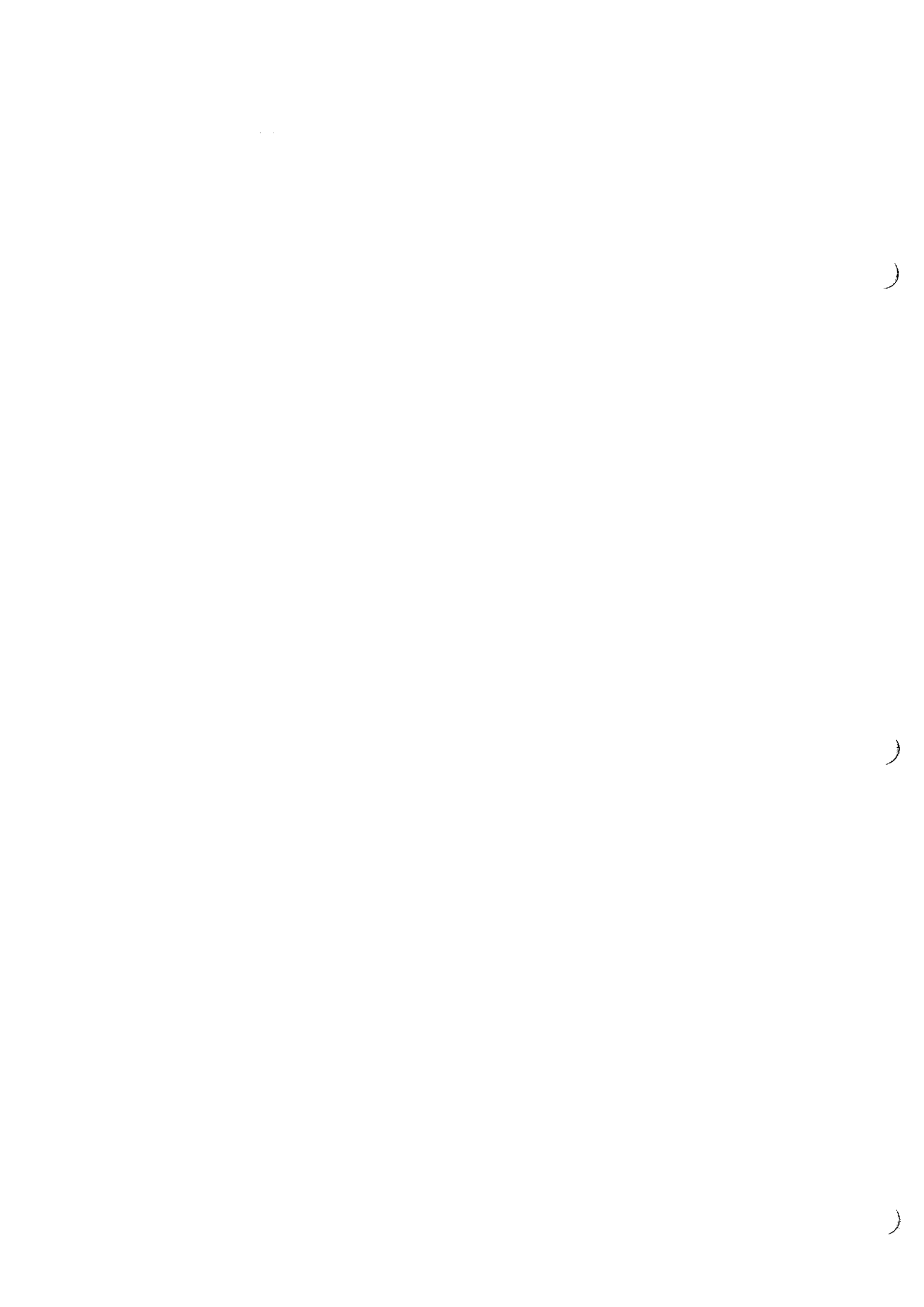
Sincerely yours,



---

Nigel P. Hebborn, CEO  
Nestor Traffic Systems, Inc.

Encl: NTS Proposal to Columbus, OH – Photo Red Light Enforcement System



## EXECUTIVE SUMMARY

---

### A. INTRODUCTION

The City of Columbus has taken deliberate steps over the past several years to move towards becoming "America's 21st Century City". An energized city government and proactive mayoral administration have made sweeping changes to improve the quality of life for its citizens and the business community. As Mayor Coleman embarks on his second term, many challenges still lie ahead. Despite a series of budget cuts dating back to 2001, actions have been taken to provide a more responsive and accessible government, a safer city, and an infrastructure that is strong and efficient for the future. This is the environment in which the City will implement its Photo Red Light Enforcement Program.

Nestor Traffic Systems, Inc. (NTS) is pleased to submit our proposal for this important project and we appreciate the opportunity to be an integral partner with the City as it moves forward. Our industry leading solution, CrossingGuard, will provide the City with an effective tool to combat red light running and improve intersection safety. CrossingGuard is a turnkey solution that includes site planning and installation, user training, maintenance and support, and violation processing services. CrossingGuard truly provides states, counties, and municipalities with the full turnkey solution they need to decrease the number of red light violations and the number of accidents caused by red light violators.

The organizations most directly involved with the Photo Red Light Enforcement System are themselves key players in the City's strategic vision:

**Department of Public Safety** – As part of the City of Columbus' mission to provide essential services to its neighborhoods, the Department of Public Safety has been the only department not to receive a budget cut in recent years. This department, encompassing the City Police Department as well as other key safety departments will play a vital role in the successful implementation of this red light enforcement program.

**The Division of Police** – The City already understands the benefits of merging technology with police enforcement and the efficiencies it creates. In doing so, however, the City will need the strong support of its citizens. By assuring the

community that this program is about safety and part of the overall effort to improve the quality of life for residents, the Division of Police will get this support. NTS understands this program will be a reflection on law enforcement agencies; for that reason, NTS designs and implements our programs with the utmost attention to system quality and integrity, legal compliance, and fairness to the public.

**Division of Communication** – Having the primary responsibility of overseeing the communications systems in the City, this division plays an integral role in the transfer of information and data throughout the City. As technology continues to make new and more efficient means of communication available, the City must consider how it will meet its future needs. For this reason, NTS offers a solution that encompasses next generation communication technology that will help the City plan for the future.

**Department of Public Service** – Amongst its many responsibilities, the Department of Public Service, Transportation Division oversees the City's traffic control systems and is responsible for managing the safe flow of traffic in the City of Columbus. NTS understands that citizens are concerned about traffic congestion and dangerous driving habits in the city. We also understand that unnecessary traffic disruptions and messy excavation work during implementation are the last things that city employees and commuters want to deal with. That's why NTS' approach virtually eliminates both.

**Franklin County Municipal Court System** – From the mission statements of each division of the Municipal Court System comes a resounding theme of fairness and objectivity. In order to ensure the success of the red light enforcement program, it too must uphold these same tenets of fairness and objectivity. With multiple videos of each violation, CrossingGuard was developed based on being able to provide comprehensive, objective evidence. CrossingGuard is the only system that truly provides officers and court officials the information they need to make objective, informed decisions.

NTS is committed to offering the City of Columbus a superior system and well-thought-out program approach. As an integral part of that approach, our plan calls for us to actively engage the City's Equal Business Opportunity Commission Office to maximize participation of minority and disadvantaged businesses throughout the life of the contract. In addition, NTS will sub-contract with local businesses to promote job

creation and economic growth for the City. NTS has been involved in discussions with two local companies, Mobile Broadband Networks, Inc. (MBN) and Intellinetics, to determine how best to provide the City of Columbus with those features that are most important. Together with MBN, we can provide the City the foundation for an advanced 4G wireless network, offering numerous communication, security, and safety features not available under the City's existing infrastructure. This, coupled with Intellinetics advanced data management system can enable the City to take information technology to the next level. If approved by the City, NTS will work with Intellinetics to provide all red light violation data for convenient access, searching, and archiving.

## B. NTS BACKGROUND

Nestor Traffic Systems, Inc. is a wholly-owned subsidiary of Nestor, Inc., a publicly held corporation (NESO: NASDAQ:OTCBB) incorporated in the State of Delaware and headquartered in Providence, Rhode Island. Founded in 1975 by Brown University physics professors as a neural network research partnership, NTS is a pioneer in the commercial application of neural network technology and holds 15 patents worldwide. NTS' primary business focus is to provide the highest levels of service and satisfaction to our government customers while employing proven effective solutions for red light enforcement and intersection safety.



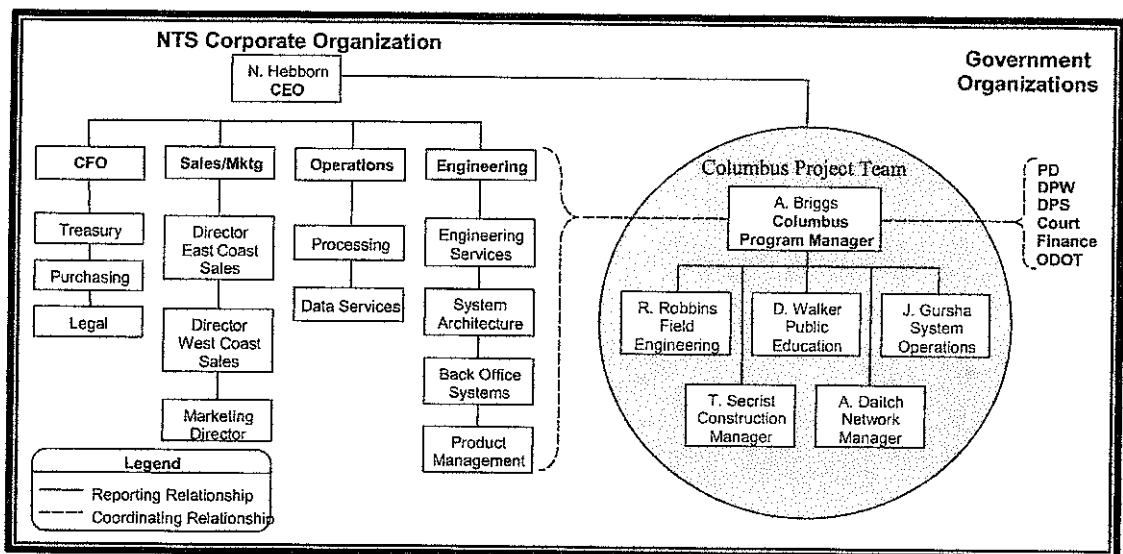
)

)

)

*i. ORGANIZATIONAL STRUCTURE*

Due to its magnitude and importance, the Columbus project will receive high placement within the NTS corporate organization coupled with an experienced management team on the ground. Our organization chart, showing both the corporate and program structure is shown in the figure below.



Mr. Briggs, the Columbus Program Manager will report directly to Mr. Nigel Hebborn, NTS' Chief Executive Officer. Mr. Briggs is a seasoned program manager bringing over 10 years technology support services and program management experience. Mr. Briggs will be fully dedicated to the project during all stages of implementation to ensure that all program milestones are achieved. He is the primary NTS focal point for the program and the key management interface with both the NTS corporate organization and all applicable organizations within the City of Columbus.

- **Engineering & Development** – Project team supported by Corporate Engineering Department
- **System Operations/Maintenance** – Project team supported by Corporate Operations Department
- **Public Education** – Project team supported by Corporate Marketing Department
- **Training** – Project team supported by Program Management Team
- **Administration & EBO Objectives** – Program Manager supported by CEO and CFO

*ii. EXPERIENCE AND ABILITY TO PERFORM*

NTS has the excellent credentials and proven experience to provide the City of Columbus with this important Red Light Enforcement Program. This includes a proven effective solution and an experienced project team. The following matrix shows NTS' project experience versus the types of technical and program disciplines important to the Columbus program.

NTS Program \ Discipline	Intersection Analysis & Design	Site Installation	User Training	Public Education	Processing Services	DMV Access	Citation Printing & Mailing
Falls Church, VA	●	●	●	●	●	●	●
Germantown, TN	●	●	●				
Costa Mesa, CA	●	●	●	●	●	●	●
Vienna, VA	●	●	●	●			●
Delaware, DOT	●	●	●		●	●	●

**Many important factors contribute to our ability to perform. Highlights include:**

**Proven Solution (CrossingGuard)** – First installed in the town of Vienna, Virginia in 1999; CrossingGuard became the first video based red light enforcement system in the country. CrossingGuard has now been successfully implemented at over 90 approaches in seven states. As a testament to NTS' success and customer satisfaction, we have never lost a customer to a competitor and never had any programs cancelled: In fact, many of our current customers are expanding their programs. This, coupled with the recent statewide contract with Delaware, brings our total approaches under contract to over 160.

**Seasoned Project Team** – The key members of the Columbus project team have both industry experience and experience working with each other. This team has worked together over the past several years on projects in Virginia, Delaware, California, Maryland, and Tennessee. They have a proven track record of reliability, timely delivery, outstanding customer support, and above all, integrity.

**Adherence to Schedules via Controlled Growth and Operational Discipline** – NTS bids on and accepts only a limited number of new programs in order to ensure that commitments to new and existing customers are met on time, without delays, and that delivery of the CrossingGuard System will never be delayed due to an excessive unfulfilled backlog. Combined

with our team’s organization into well-defined functional units with clear responsibilities for product support, field support, and client/program management, our approach ensures on-time delivery while providing superior customer service.

**Stable Financial Condition** – NTS is a financially secure public company that has been in business in Rhode Island since 1975. Our firm has both ample financial resources as well as strategic financial relationships to support its growing customer base. As a demonstration of this stability, NTS has partnered with GE Capital Public Finance to offer clients alternative financing options, enabling the City of Columbus to install CrossingGuard with no upfront costs, if it so chooses. With this financial relationship in place, NTS assures that CrossingGuard delivery will never be delayed due a lack of capital. NTS’ financial strength is further discussed in the body of the proposal.

### C. TECHNICAL APPROACH

CrossingGuard is a non-invasive, video-based traffic monitoring system. It is part of our overall technical solution that will also include site planning and installation, and equipment maintenance and support. This innovative and proven system will be installed by a project team with a remarkable history of on-time delivery and quality.

#### i. THE MOST EFFECTIVE TECHNOLOGY

With its proprietary digital video imaging technology and advanced digital video-based detection and recording, CrossingGuard is the most effective solution commercially available. How do we measure effectiveness?

Measure of Effectiveness	Explanation and Benefit
The most <i>infrastructure-friendly</i> solution with no need for in-ground loops	Columbus’ roadways won’t need to be dug up, minimal lane closures and no detours required, and finally, no need to rule out sites where there are existing intersection control loops
The most effective process for capturing violation data – <i>full-motion digital video simultaneously recorded from multiple viewpoints</i>	CrossingGuard provides a video "instant replay" producing an unbiased look at exactly what happened from multiple perspectives throughout the entire event. Police and violators get complete evidence package for fair and accurate program operation

Measure of Effectiveness	Explanation and Benefit
<i>Real-time transfer of data</i> over high-speed communications network to a central processing facility	The real-time transmission of digital violation video eliminates time delays and risks associated with alternate violation retrieval methods such as wet-film, batch or periodic transmission
<i>Minimal downtime</i> due to constant remote monitoring	CS Monitor – our automated equipment monitoring utility works 24/7. If a problem develops, personnel are alerted immediately through e-mail and pager notification for rapid problem diagnosis and repair
The <i>most convincing evidence packages in the industry</i> with 99% conviction rates and few court challenges/dismissals	The dramatic evidence is hard to refute, as the multiple camera views show what happened in each fraction of a second, frame by frame. CrossingGuard recreates the entire event in its original context with 30 frames per second digital video evidence

NTS CrossingGuard solution represents the most advanced technology, yielding the most comprehensive evidence, and the most client oriented system available in red light enforcement industry today. In 1999, NTS became the first company to install a red light enforcement system based solely on video detection. Since then, NTS has been committed to advancing the state of the industry from an educational, a technology and a process perspective. As technologies allow, NTS will continue to be in the forefront of these advancements, offering the best solutions to our government customers. For example:

**Optional Safety Feature** – Although not required by this RFP; as a continuing commitment to safety, we offer *Collision Avoidance*, a unique safety feature that actually helps prevent intersection collisions. Through patented video detection technology, CrossingGuard predicts red light violations before they happen, and can signal the traffic controller to briefly extend the all-red light for cross traffic to reduce the chances of a collision. Studies have shown that more than 70% of red light violations occur within 1.5 seconds of the light change. Predicting such violations and invoking an all-red extension can help prevent these right-angle crashes. By installing a system that not only catches violators but also has the unique ability to help prevent collisions, the City of Columbus can send a strong message to the community that its enforcement program is about safety, not revenue. Collision Avoidance can be deployed at the City's option, on an intersection-by-intersection basis.

)

)

)

## *ii. SITE SELECTION METHODOLOGY*

The success of any automated enforcement program is measured in large part by community acceptance. By identifying those intersections with the greatest safety risks, the City will demonstrate its commitment to providing safer roads for its residents and visitors. To help with this process, NTS will perform CrossingGuard VIP services. With quick, temporary installations and no disruption to traffic flow, CrossingGuard VIP provides the City with critical information needed to help identify the most dangerous intersections. Upon completion of the study, NTS will deliver a comprehensive report including: number of violations observed, time-after-red of violations, time of day, direction of travel, and lane of travel.

## *iii. INSTALLATION METHODOLOGY*

The NTS team will work with the City to install all CrossingGuard equipment including pan-tilt-zoom cameras, supplementary lighting (if needed), camera poles and extensions (where needed) and a roadside equipment cabinet with minimum disruption to traffic and the environment. Our non-invasive solution means no City roads will be damaged during installation. Through effective communication and clearly defined installation plans, NTS will guarantee timely installation while addressing specific City requirements and maintaining intersection aesthetics.

## D. VIOLATION PROCESSING SERVICES AND PUBLIC EDUCATION

A high quality system, such as CrossingGuard, is only as effective as the vendor's ability to make it work effectively and fairly in each community. Our commitment to quality, integrity, and the highest level of customer care makes NTS' CrossingGuard a "total solution".

---

---

Electronic enforcement programs are sometimes controversial to the general public. While the majority applaud government's efforts to crack down on traffic violations, others claim it violates their rights to due-process, denies them the right to confront their accuser, and leaves them at the mercy of electronic devices that have no ability to

)

)

)



exercise judgment and discretion. The best way to mitigate the controversial fallout is to select a vendor who has demonstrated its commitment to providing a system that is objective and fair; and NTS' CrossingGuard system is the only system available that provides complete objective video evidence. As a testament to the high public acceptance of our system, less than 1% of all CrossingGuard citations is ever contested in court.

NTS will provide the City of Columbus with a total solution for its Red Light Enforcement System. This means that, in addition to providing the industry's best technology, we offer a complete suite of services that will ensure that the program succeeds. Our service and support plan helps us build close relationships with our government customers. For Columbus, it includes:

- Assistance with a thorough public awareness and education campaign
- Ample training for government personnel who will interact with the program
- A proactive customer service program that is compatible with and fair to the public
- A well-defined operational plan executed by skilled personnel, and
- Full compliance with applicable laws and policies at all levels of government

NTS' violation processing services, public education techniques, and overall operational philosophy is based on a combination of industry-best practices and customer-driven lessons learned. The result is a program that maximizes program effectiveness while always maintaining the highest integrity and legal compliance.

## E. COMMITMENT TO EQUAL BUSINESS OPPORTUNITY

Most progressive and proactive cities in America, such as Columbus, have embraced the commitment to promote equal opportunity for all business seeking to work with the City. NTS is committed too. Our program implementation will show a time-phased EBO plan for maximizing the participation of socially and economically disadvantaged businesses throughout the life of the contract. We will work closely with the City's Office of Contract Compliance and its Minority/Female Business Enterprise Registry to identify and select subcontractors and vendors.

)

)

)

## F. THE BEST VALUE SOLUTION

NTS has bid what we believe is a fair and realistic price for the solution we propose. Our offering and its price are designed to represent the best value for the City of Columbus. When evaluating the difference in prices between prospective vendors, the City should consider several factors:

- What is the cost to the City for the disruption of the vendor having to dig up and repave roads after installing in-ground loops?

**NTS' solution requires no loops**

- What is the cost to the court system for contested violations and low conviction rates due to inferior evidence packages?

**NTS' solution averages a 99% conviction rate and minimal contests**

- What is the cost to the City of negative attention and negative press?

**Neither NTS, nor any of its CrossingGuard programs have ever been the subject of a political or social attack**

- What is the cost of terminating a program already in place or under construction?

**NTS has never had to cease operating a CrossingGuard program during installation or implementation.**

NTS offers the City of Columbus a "solution", not just a system. We will combine the best technology with best-in-breed industry practices driven by lessons-learned to provide the City with a red light program that is efficient, cost effective, and fair.

## G. ROADMAP TO THE PROPOSAL

We have submitted a proposal that is complete, compliant with RFP instructions, and is organized to make the selection committee's job a little bit easier. For example: as we address each and every technical requirement prescribed by the RFP, we have included (unmodified) the actual RFP text in our proposal, just before our response so that the evaluator can easily determine compliance and responsiveness. Also, we take no exception to contract requirements. NTS' proposal is organized as follows:

**Volume I**

1. Letter of Submittal
2. Original RFP
3. Technical Response
4. Cost Proposal
5. Required documents
6. Additional Information



)

)

)

2. *Optional Services Offered by NTS*..... IV-55

    A) **CrossingGuard VIP** ..... IV-55

    B) **Collision Avoidance**..... IV-55

    C) **Real-time Traffic Monitoring Capabilities** ..... IV-56

    D) **Driver Image** ..... IV-56

    E) **4G Wireless Network with Mobile Broadband Networks, Inc.**..... IV-56

    F) **Intellinetics: Advanced Data Management**..... IV-57

3. *Responsibilities Of The City Under This Proposal*..... IV-57

**V. REQUIRED FORMS** ..... **V-58**

    A. **NON-COLLUSION AFFIDAVIT**..... V-59

**VI. ADDITIONAL INFORMATION**..... **VI-60**

    A. **CONTRACT COMPLIANCE**..... VI-60

    B. **CONTRACTOR INFORMATION AND LOCATION** ..... VI-61

    C. **LETTER FROM MBN** ..... VI-62

    D. **LETTER FROM INTELLINETICS**..... VI-63

    E. **CROSSINGGUARD VIP** ..... VI-64

    F. **SAMPLE VIOLATION**..... VI-68

## I. LETTER OF SUBMITTAL

---

Nestor Traffic Systems, Inc. (NTS) is pleased to submit a response to the City of Columbus Request for Proposal for a Photo Red Light Enforcement System. The following information is in response to the specific requirements set forth in the RFP for the Letter of Submittal.

1. The following individuals have either directly or indirectly contributed to the creation of this formal proposal:

Nigel P. Hebborn	Chief Executive Officer, NTS
Claire Iacobucci	Chief Financial Officer, NTS
Richard Robbins	Senior Engineer, NTS
James Gursha	Operations Manager, NTS
Deborah Walker	Director of East Coast Sales, NTS
Andrew Daitch	Network Manager, NTS
Daniel Borkat	Director of Marketing, NTS
Mary Ann Branin	Executive Administrator, NTS
Adam Briggs	Program Manager, NTS
Jerry Ferreira	Document Manager, NTS

2. All inquiries relating to the technical and cost proposals should be directed to Nigel Hebborn, Contact Person for the City of Columbus:

Nigel P. Hebborn, Chief Executive Officer  
Nestor Traffic Systems, Inc.  
400 Massasoit Ave, Suite 200  
East Providence, RI 02914  
401-434-5522 ext 714  
401-434-5809 fax  
[hebborn@nestor.com](mailto:hebborn@nestor.com)

3. Nestor Traffic Systems, Inc. has the sole and complete responsibility to perform (or have performed on its behalf) all tasks and services described in this proposal.

)

)

)



4. Nestor Traffic Systems, Inc. is a wholly owned subsidiary of Nestor, Inc., a publicly held Delaware Corporation located in East Providence, Rhode Island. The following is a complete list of all officers of Nestor Traffic Systems, Inc.

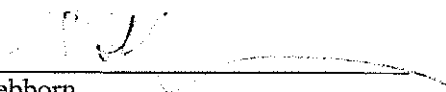
William B. Danzell                      Chairman  
400 Massasoit Avenue  
Suite 200  
East Providence, RI 02914

Nigel P. Hebborn                      President, CEO  
400 Massasoit Avenue  
Suite 200  
East Providence, RI 02914

Claire Iacobucci                      Treasurer, CFO  
400 Massasoit Avenue  
Suite 200  
East Providence, RI 02914

Benjamin Alexander                      Corporate Secretary  
180 S. Main Street  
Providence, RI 02903

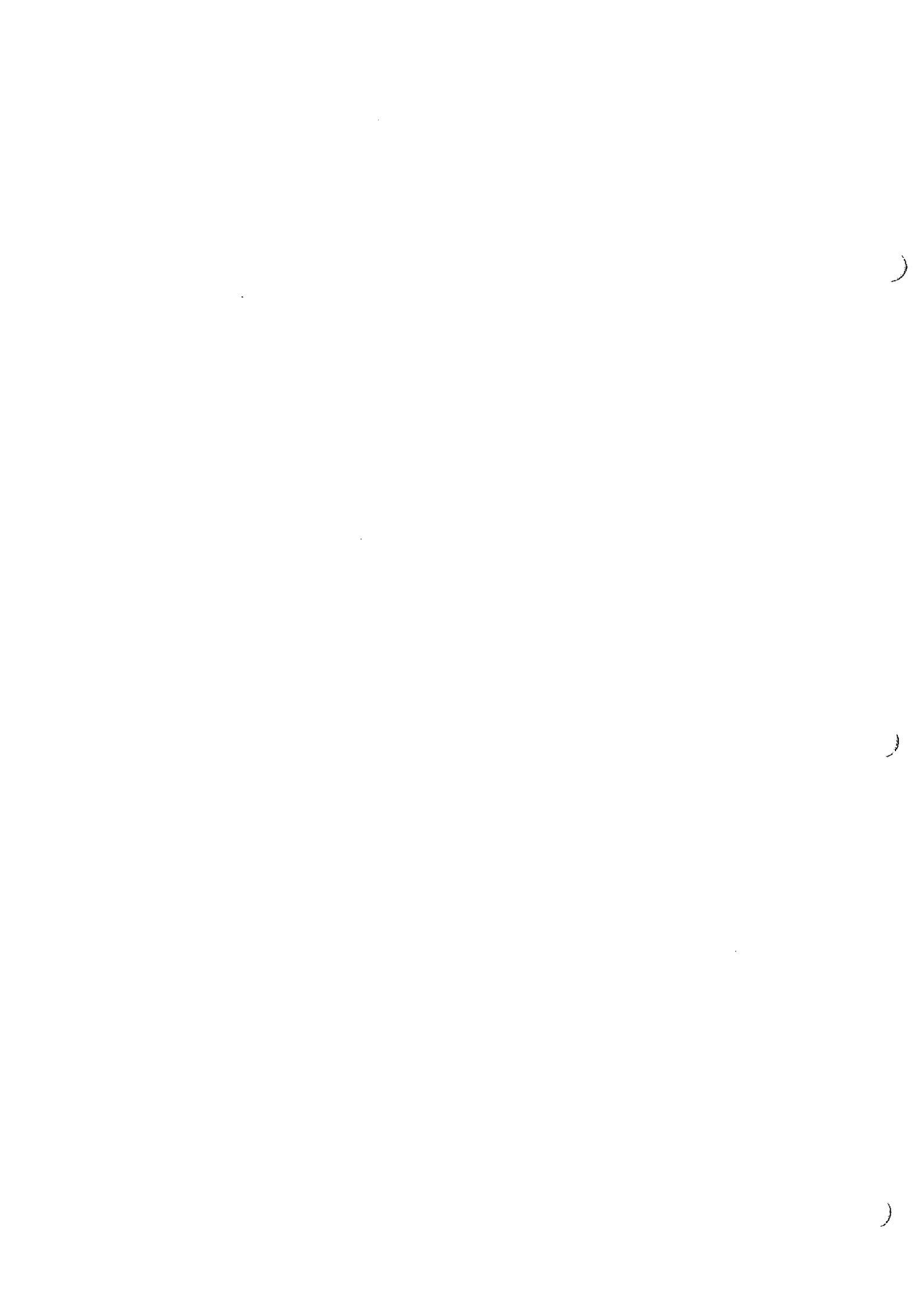
5. This Proposal takes no exception to any of the requirements set forth by the City of Columbus and remains valid for 180 days from the date of submission.

  
\_\_\_\_\_  
Nigel P. Hebborn,  
Chief Executive Officer

\_\_\_\_\_  
June 14, 2004

## II. ORIGINAL RFP

---



ONE ORIGINAL AND TEN COPIES  
OF THIS BID MUST BE SUBMITTED

Bidder submitting this Bid should check the appropriate box.

This is:  The Original

This is:  One of the Copies

THIS IS A TWO SIDED BID



## Request for Proposal (RFP)

City of Columbus, Ohio  
Purchasing Office  
1<sup>st</sup> Floor, 50 West Gay Street  
Columbus, Ohio 43215  
614/645-8315

SOLICITATION NO.: SA 001147 JY/FM

Coop Yes Ends Date

Years Left

PHOTO RED LIGHT ENFORCEMENT SYSTEM

(Item)

SAFETY

(Department)

POLICE

(Division)

Bid Opening Date and Time (due date and time)

JUNE 17, 2004 11:00 AM LOCAL TIME  
PRE BID CONFERENCE JUNE 2, 2004

**NOTE: FAILURE TO RETURN THIS BID PROPOSAL INTACT MAY BE CAUSE FOR REJECTION.**

Bid Proposal Submitted By:

NESTOR TRAFFIC SYSTEMS

Company Name

400 Massasoit Avenue, Suite 200

Street Address

East Providence

Rhode Island

02914

City

06-1470869

State

06-1470869

Zip

Federal I.D. No.

Nigel P. Hebborn

Contract Compliance No.

401-434-5522

401-434-5809

Contract Person

Phone No.

Fax No.

**FAILURE TO RESPOND MAY RESULT IN YOUR NAME BEING REMOVED FROM BID LIST.  
RETURNING THIS PAGE ONLY MARKED "NO BID" COUNTS AS A RESPONSE.**

**THIS PAGE WAS INTENDED TO BE BLANK**

LEGAL NOTICE

**PROFESSIONAL SERVICES**  
**Request For Proposal (RFP)**  
**Request for Statements of Qualifications (RFSQ)**

Sealed proposals for the following item(s) will be received by the Purchasing Office at 50 West Gay Street, 1st Floor, Columbus, Ohio 43215, **until 11:00a.m. Local Time** on JUNE 17, 2004 and at that time will be publicly opened and read. Proposals received after the time of opening will be returned to the offeror unopened. The City will not be responsible for late mail or other deliveries.

Envelopes must be plainly marked: POLICE

**PROPOSALS FOR PHOTO RED LIGHT ENFORCEMENT SYSTEM, PROPOSAL NO. SA 001147 JY/FM**  
in accordance with specifications on file in the Purchasing Office.

**PRE-BID CONFERENCE JUNE 2, 2004 10:00AM LOCAL TIME**

**FOR COPIES OF ANY OF THE FOLLOWING BID PROPOSAL CALL (614)645-7599**

Each proposal shall contain the full name and address of every person, firm or corporation interested in the same, and if a corporation, the name and address of the President and Secretary.

**QUAL OPPORTUNITY CLAUSE:**

Each responsive bidder shall submit, with its bid, a contract compliance certification number or a completed application for certification. Compliance with the provisions of Article 1, Title 39, is a condition of the contract. Failure to comply with this Article may result in cancellation of the contract.

**WITHHOLDING OF INCOME TAX:** All bidders are advised that in order for a contract to bind the City, each contract must contain the provisions found in Section 361.34 C.C.C. with regard to income taxes due or payable to the City of Columbus for wages, salaries and commissions paid to the contractor's employees as well as requiring those contractors to ensure that subcontractors withhold in a like manner.

**DELINQUENT PERSONAL PROPERTY TAX:** All bidders are charged with notice of Section 5719.042 of the Ohio Revised Code and agree that if this contract is awarded to them, the successful bidder, prior to the time the contract is entered into, will submit to the City Auditor the affidavit required by said section of the Ohio Revised Code. Said affidavit, when filed with City Auditor, is thereby incorporated into and made a part of this contract and no payment shall be made with respect to this contract unless such statement has been so incorporated as a part thereof.

**LOCAL CREDIT:** For all contracts except professional service contracts: In determining the lowest bid for purpose of awarding a contract not exceeding \$20,000.00, a local bidder shall receive a credit equal to five percent (5%) of the lowest bid submitted by a non-local bidder. In determining the lowest bid for purposes of awarding a contract in excess of \$20,000.00, a local bidder shall receive a credit equal to one percent (1%) or \$20,000.00, whichever is less, of the lowest bid submitted by a non-local bidder. ~~A local bidder is a person, corporation or business~~ which (a) has listed its principal place of business as being located within the corporation limits of the City of Columbus or the County of Franklin in official documents filed with Secretary of State, State of Ohio, or a valid vendor's license which indicates its place of business is located within the corporation limits of the City of Columbus or County of Franklin.

**JOEL S. TAYLOR**  
Finance Director

cc: CITY CLERK(2)/FINANCE DIR./BUYER/FISCAL OFFICER/FILE

**CITY BULLETIN ADVERTISEMENT DATES**  
**MAY 22, 2004**

**THIS PAGE WAS INTENDED TO BE BLANK**

## CONTACTS FOR INFORMATION CONCERNING THIS BID PROPOSAL

Solicitation No.: SA 001147 JY/FM

Title: PHOTO RED LIGHT ENFORCEMENT SYSTEM

Department/Division or Agency: SAFETY/POLICE

Contact the following individuals on questions regarding:

	<u>NAME</u>	<u>PHONE NO.</u>
<b>Specifications:</b>	<u>LT. FRED BOWDITCH</u>	<u>(614)645-4813</u>
<b>Delivery:</b>	<u>LT. FRED BOWDITCH</u>	<u>(614)645-4813</u>
<b>Payment:</b>	<u>ERIKA STANLEY</u>	<u>(614)645-5874</u>

---

### Purchasing Office

	<u>NAME</u>	<u>PHONE NO.</u>
<b>Procurement Specialist:</b>	<u>JACK YOST/FRED MYERS</u>	<u>(614)645-8315</u>
<b>Expediter:</b>	<u>CINDY WHITE</u>	<u>(614)645-8315</u>

---

### Equal Business Opportunity Commission Office

For assistance with questions regarding *Contract Compliance*, telephone (614)645-5448.

Contact George Harper (614)645-8549 for assistance from an Equal Business Opportunity Specialist.

---

---

---



## EQUAL OPPORTUNITY CLAUSE

(1) The contractor will not discriminate against any employee or applicant because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: employment upgrading, demotion, or termination; rates of pay or other forms of compensation; and selection for training. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices summarizing the provisions of this Equal Opportunity Clause.

(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that the contractor is an equal opportunity employer.

(3) It is the policy of the City of Columbus that business concerns owned and operated by minority and female persons shall have the maximum practical opportunity to participate in the performance of contracts awarded by the city.

(4) The contractor shall permit access to any relevant and pertinent reports and documents by the Executive Director for the sole purpose of verifying compliance with this article, and with the regulations of the Equal Business Opportunity Commission Office. All such materials provided to the Executive Director by the contractor shall be considered confidential.

(5) The contractor will not obstruct or hinder the Executive Director or her deputies, staff, and assistants in the fulfillment of their duties and responsibilities imposed by Article I, Title 39.

(6) The contractor and each subcontractor will include a summary of this Equal Opportunity Clause in every subcontract. The contractor will take such action with respect to any subcontract as is necessary as a means of enforcing the provisions of the Equal Opportunity Clause.

(7) The contractor agrees to refrain from subcontracting any part of this contract or contract modification thereto to a contractor not holding a valid contract compliance number as provided for in Article I, Title 39.

(8) Failure or refusal of a contractor or subcontractor to comply with the provisions of Article I, Title 39, may result in the cancellation of this contract.

**ALL CONTRACTORS MUST HOLD A VALID CONTRACT COMPLIANCE  
CERTIFICATION NUMBER ISSUED BY THE EBOCO EXECUTIVE DIRECTOR.**

**For information regarding contract compliance or to receive an application, please contact the  
Equal Business Opportunity Commission Office at (614) 645-4764 or [EBOCO@cmhmetro.net](mailto:EBOCO@cmhmetro.net).**

*Applications are also available at the following locations:*

<http://eboco.ci.columbus.oh.us/>

Bid Opportunity Fax Line (614) 645-6996 (Option 4)

## INFORMATION FOR OFFERORS (RFP)

### SPECIAL CONDITIONS

Special conditions included in the specifications, if inconsistent with provisions included in "Information for Offerors (RFP)", shall take precedence over any provisions in "Information for Offerors (RFP)" to the extent inconsistent.

### PERSONAL EXAMINATION

Offerors are required to satisfy themselves by personal examination of the proposed contract documents and investigation of the conditions at the site of the work in order that they may be fully informed of the contract requirements, the conditions existing, and the difficulties likely to be encountered in the execution of the work.

### SUBMISSION OF RESPONSE

Responses must be submitted as specified in this RFP and enclosed in a sealed envelope marked as specified in the legal notice. If the potential offeror does not wish to respond, the RFP document should be so marked and returned. Offerors are invited to be present at the opening of the responses.

All proposals and other material submitted in response to this Request for Proposal (RFP) become the property of the City of Columbus. The City may choose to retain or return these materials to the offeror, at the offeror's expense.

The City is not liable for any cost associated with the preparation of the proposal or any other costs incurred by any bidder prior to the execution of the contract. The rejection of any proposal in whole or in part, at its discretion, will not render the City liable for incurring any cost or damage.

At any time prior to the closing date the invited offeror decides not to provide a proposal, the City will appreciate that a letter to that effect be supplied to the City prior to the deadline.

### ACCEPTANCE AND REJECTION

This response submitted by the offeror to the City of Columbus will be accepted or rejected within a period of 180 days from due date. The City reserves the right to waive technicalities, and to cancel and renew the request on the required service. If more than one service, prices shall be quoted on the services requested. However, each service may be considered a separate offer and the City reserves the right to award a contract on each service separately or on all services as a whole or any combination thereof. Offerors whose proposal is made on an "All or None" basis must clearly state such fact in their written responses.

Each invitation for Bids, Request for Statements of Qualifications, and Request for Proposals issued by the City shall state that the Bid or Request may be cancelled and that any bid or proposal may be rejected in whole or in part when it is for good cause and in the best interests of the City.

---

### WITHDRAWAL OF RESPONSE PROPOSALS

Offerors may withdraw their responses at any time prior to the time specified in the advertisement as the closing time for the receipt of responses. ~~However, no offeror shall withdraw or cancel a proposal for a period of 180 calendar days after said advertised closing time for the receipt of the proposals.~~

## **INFORMATION FOR OFFERORS (RFP)**

### **SIGNATURE REQUIRED**

The responses must be signed in ink. If the offeror is a firm or corporation, insert the corporate name followed by the signature of a person authorized to sign said response; if a partnership, indicate partnership name followed by the signature of one of the partners; if a sole proprietorship the signature of the owner is required. Where the person signing for a corporation is other than the president, an affidavit or a resolution of the Board of Directors showing the authority of that person to bind the corporation must be furnished.

### **DEFAULT PROVISION**

In case of default by the offeror or the contractor, the City of Columbus may procure the articles or services from other sources and hold the offeror or contractor responsible for any excess costs occasioned or incurred thereby.

### **CONTRACT AND BOND**

The offeror to whom an award is made will be required to execute a written contract with the City of Columbus, Ohio within ten days after receiving such contract for execution, and if specified in the legal notice, furnish a good and approved bond conditioned upon the faithful performance of the same. The proposal, contract, proposal bond, (if applicable), and performance bond (if applicable) shall be in the form herein specified.

If, at any time during the continuance of the Contract, any surety shall, in the opinion of the contracting agent of the City, become irresponsible, then said agent shall have the right to require additional and sufficient surety or sureties. The Contractor shall furnish the surety or sureties to the satisfaction of the said agent, within ten (10) days after notice. In default thereof the default provision herein shall apply.

### **LIABILITY, INSURANCE, LICENSES AND PERMITS**

Where offerors are required to enter or go onto City of Columbus property to deliver materials or perform work or services as a result of contract award, the offeror will assume full duty, obligation and expense of obtaining all necessary licenses, permits, and insurance when required. The offeror shall be liable for any damages or loss to the City occasioned by negligence of the offeror (or his agent) or any person the offeror has designated in the completion of his contract as a result of his response.

Particular attention is directed to the statutory requirements of the State of Ohio relative to the licensing of corporation organized under the Laws of any other State.

### **TAXES**

The City, being a municipality, is tax exempt and will provide appropriate artifact upon request. Federal and/or State Taxes are not to be included in prices quoted. The successful offeror will be furnished an exemption certificate if needed.

### **PRICING**

Offerors are to quote firm or fixed prices for the duration of any contract, which may be a result of the proposal unless otherwise noted in the specifications. In case of discrepancy in computing the amount of the cost, the **UNIT PRICE** quoted will govern. In the event of a conflict between the price in numbers and the price in words, the price in words will control.

## INFORMATION FOR OFFERORS (RFP)

### DELIVERY

Time will be of the essence for any orders placed as a result of this response. Purchaser reserves the right to cancel such orders, or any part thereof, without obligations if delivery is not made within the time(s) specified. Delivery shall be made during normal working hours and to the destination shown on the proposal.

### QUALITY

Unless otherwise stated by the offeror, the proposal will be considered as being in strict accordance with the specifications outlined in this RFP document.

### SAMPLES

Samples, when requested, must be furnished free of expense to the City and if not destroyed, will upon request be returned at the bidder's expense.

### CHANGES AND ADDENDA TO RFP DOCUMENTS

Each change or addenda issued in relation to this document will be on file in the Office of the agency requesting responses no less than five (5) working days prior to the scheduled RFP due date. In addition, to the extent possible, copies will be mailed to each person registered as having received a set of the RFP documents. Total RFP inquiry or specific item cancellations may be issued later than that time specified above.

### REPUDIATION OF AGREEMENT

The liability of the City for repudiation of any agreement which might result from this request shall be limited to the difference between the market price at the time and place for tender of the service and the unpaid sales price together with any incidental damages, but less expenses paid in consequence of the breach by the City. The liability of the city shall not be measured by the profits or overhead of seller.

### CONTRACT MODIFICATION

An agreement which may result from this request shall not be modified or altered by any subsequent course of performance between parties or by additional terms contained in any subsequent documents unless said additional or differing terms are incorporated by contract modification authorized to be entered into by ordinance.

### DELINQUENT PERSONAL PROPERTY TAX

All offerors are charged with notice of Section 5719.042 of the Ohio Revised Code and agree that if this contract is awarded to them, the successful offeror, prior to the time the contract is entered into, will submit to the City, as directed, the affidavit required by that section of the Ohio Revised Code. Said affidavit, when submitted to the City, is thereby incorporated into this Contract unless such statement has been so incorporated.

~~Section 5719.042 of the Ohio Revised Code: After the award by a taxing district of any contract let by competitive bid and prior to the time the contract is entered into, the person making a bid shall submit to the district's fiscal officer, a statement affirmed under oath, that the person with whom the contract is to be made was not charged at the time the bid was submitted with any delinquent personal property taxes on the general tax list of personal property of any county in which the taxing district has territory or that such person was charged with delinquent personal property taxes on any such tax list, in which case that statement shall also set forth the amount of such due and unpaid delinquent taxes and any due and unpaid penalties and interest thereon. If the statement indicated that the taxpayer was charged with any such taxes, a copy of the statement shall be transmitted by the fiscal officer to the County Treasurer within thirty (30) days of the date it is submitted. A copy of the statement shall also be incorporated into the contract and no payment shall be made with respect to any contract to which this section applies unless such statement has been so incorporated as a part thereof.~~

## **INFORMATION FOR OFFERORS (RFP)**

### **APPLICABLE LAWS**

The Revised Code of the State of Ohio, the Charter of the City of Columbus, and all City ordinances insofar as they apply to the laws of competitive bidding, contracts, and purchases, are made a part hereof.

### **REMEDIES**

All claims, counterclaims, disputes and other matters in question between the City, its agents and employees, and the Contractor arising out of or relating to this agreement or its breach will be decided in a court of competent jurisdiction within the County of Franklin, State of Ohio.

### **OFFERORS TERMS AND CONDITIONS**

Terms and conditions, submitted with this proposal, which are contrary to City Code or Charter shall be disregarded for the purpose of any subsequent contract. The successful offeror shall be notified as to which terms and conditions, if any, have been deleted or changed.

### **PUBLIC RECORDS REQUESTS**

The City of Columbus, as a political subdivision of the State of Ohio, is subject to Ohio Revised Code Chapter 149, known as the Ohio Public Records Law. Consequently, the Offeror understands that ALL documents submitted in response to this RFP are considered public records and WILL be released when a public records request is made by news media, competitors, or other interested parties, in accordance with the law. If you contend that certain CLEARLY MARKED portions of your response constitute an exception to Ohio's public records law, you MUST submit your legal basis in support of that assertion with your response.

If a public records request is made for any portion of the documents that you have submitted and you have NOT clearly marked such documents as information constituting an exception to Ohio's public records law, your information will be released immediately.

If a public records request is made for such information and you HAVE clearly marked portions of your response as information constituting an exception to Ohio's public records law, AND you have submitted the legal basis supporting such claim, the City will release a redacted version of your information to the requestor and notify you that a request was made and that a redacted version of your response was released. Should the requestor indicate that the redacted version is not sufficient for their purposes, you then will be IMMEDIATELY responsible for obtaining an order from a Court of competent jurisdiction in Franklin County, Ohio enjoining release of your clearly marked information constituting an exception to Ohio's public records law.

If a public records request is made for such information and you HAVE clearly marked portions of your response as information constituting an exception to Ohio's public records law, but you have NOT submitted the legal basis supporting such claim, the City WILL RELEASE your information to the requestor and notify you that a request was made and that your response was released.

DO NOT mark your entire response/submittal as information constituting an exception to Ohio's public records law. If your entire response/submittal is so marked, the City of Columbus will not consider your offer.

## **INFORMATION FOR OFFERORS (RFP)**

### **COSTS INCURRED FOR PROPOSAL SUBMISSIONS**

The City is not liable for any cost associated with the preparation of the proposal or any other costs incurred by any offeror prior to the execution of the contract. The rejection of any proposal in whole or in part, at its discretion, will not render the City liable for incurring any cost or damage.

### **WITHDRAWAL OF PROPOSALS**

If at any time prior to the closing date the invited offeror decides not to provide a proposal, the City will appreciate that a letter to that effect be supplied to the City prior to the deadline.

### **CITY IS TAX EXEMPT**

The City, being a municipality, is tax exempt and will provide appropriate certification upon written request.

### **SAFETY REQUIREMENTS**

Successful vendor shall at all times while performing duties, adhere to all rules of their particular industry, with regard to mandates by the Environmental Protection Agency (EPA) and/or Occupational Safety and Health Administration (OSHA), and any other regulation applicable to the circumstance.

### **NON-COLLUSION AFFIDAVIT**

Each respondent is required to submit with his proposal an affidavit stating that neither he nor his agents, nor any other party for him, has paid or agreed to pay, directly or indirectly, any person, firm or corporation any money or valuable consideration for assistance in procuring or attempting to procure the Contract herein referred to, and further agreeing that no such money or regard will be hereafter paid. This affidavit must be on the form required, titled "Non-Collusion Affidavit."

---

---

## **INFORMATION FOR OFFERORS (RFP)**

### **ADDITIONAL CONTRACT TERMS AND REQUIRED DOCUMENTS IN THE EVENT OF A CONTRACT**

**This section sets forth contract terms and the required contract documents that the successful offeror must execute following the award of the contract by the contracting authority.**

#### **PUBLICATIONS**

The Contractor agrees to submit to the City's Contract Administrator all advertising, sales promotion, and other publicity matters relating to this Contract wherein the City's name is mentioned or language used from which the connection of the City's name therewith may, in the City's judgment, be inferred or implied. The Contractor further agrees not to publish, or use such advertising, sales promotion, or publicity matter without the prior written consent of the City except that may be required under law.

#### **TERMINATION FOR CONVENIENCE**

The City upon thirty days written notice may terminate this agreement at its convenience. The party providing goods or services shall be entitled compensation for goods provided or services rendered under the terms of this contract up to the date of notification of termination.

#### **TERMINATION FOR DEFAULT**

If either the City or the Contractor violates any material term or condition of this Contract or fails to fulfill in a timely and proper manner its obligations under this Contract, then the aggrieved party shall give the other party written notice of such failure or violation. The responsible party shall give the other party written notice of such failure or violation. The responsible party will correct the violation or failure within thirty (30) calendar days or as otherwise mutually agreed. If the failure or violation is not corrected, this Contract may be terminated immediately by written notice from the aggrieved party to the other party. The option to terminate shall be the sole discretion of the aggrieved party. If it determined for any reason the failure to perform is without the defaulting party's control, fault, or negligence, the termination shall be deemed to be a Termination for Convenience.

#### **APPLICABLE LAW, REMEDIES**

This agreement shall be governed in accordance with the laws of the State of Ohio. All claims, counterclaims, disputes and other matters in question between the City, its agents and employees, and the Contractor arising out of or relating to this agreement or its breach will be decided in a court of competent jurisdiction within the County of Franklin, State of Ohio. The remedies provided for in this Contract shall not be exclusive but are in addition to all other remedies available under law.

#### **ASSIGNMENT**

This agreement may not be assigned or otherwise transferred to others by the contractor without the prior written consent of the City.

#### **SAVE HARMLESS**

Contractor shall protect, indemnify and save the City harmless from and against any damage, cost, or liability, including reasonable attorneys' fees resulting from claim, by third parties for any or all injuries to persons or damage to property arising from the acts or omissions of the Contractor, its officers, employees, agents, or Subcontractors in providing goods or services under the terms and conditions of this contract.

## **INFORMATION FOR OFFERORS (RFP)**

### **HAVE HARMLESS DISCLOSURE OF PROPRIETARY INFORMATION**

The Contractor agrees to indemnify and hold harmless the City of Columbus, Ohio and their respective officials, employees and other agents and representatives, against loss, claim, liability in tort or by statute imposed, charge, cost or expense, including without limitation, attorneys fees to the extent permitted; by law, which may be incurred in connection with, or in any manner of any damage or loss arising from disclosure of proprietary information.

### **PROPRIETARY INFORMATION INDEMNIFICATION**

The Contractor agrees to indemnify and hold harmless the City of Columbus, Ohio and their respective officials, employees and other agents and representatives, against loss, claim, liability in tort or by statute imposed, charge, cost or expense, including without limitation, attorneys fees to the extent permitted; by law, which may be incurred in connection with, or in any manner of any damage or loss arising from disclosure of proprietary information.

### **CONFIDENTIAL INFORMATION**

The director of the agency requesting proposals may choose to keep RFP information in confidence during the evaluation process and until the time a contract is executed. This information may include all proposal documentation, notes, including detailed prices, references, resumes, technical and cost information, etc. Thereafter, proposals and all submissions will become public information, as the City is subject to R.C. 149.43, the Public Records Act.

### **CONTRACTOR'S PROPRIETARY INFORMATION**

Contractor acknowledges that the City is subject to chapter R.C.149.43, the State of Ohio Public Records Law. The City agrees to keep any information confidential except as otherwise required to be disclosed by law including but not limited to the contract.

### **INDEPENDENT CONTRACTOR STATUS**

The Contractor shall perform its duties as an independent contractor and not as an employee. Neither the contractor nor any agent or employee of the contractor shall be or shall be deemed to be an agent or employee of the City of Columbus. The Contractor shall pay when due all required employment taxes and income tax on any monies paid pursuant to the contract. Contractor shall acknowledge that the contractor and its employees are not entitled to unemployment insurance benefits unless the contractor or a third party provides such coverage and that the City does not apply for or otherwise provide such coverage. Contractor shall have no authorization, express or implied, to bind the City to any agreements, liability, or understanding except as expressly set forth in the contract. Contractor shall provide and keep in force worker's compensation (and show proof of such insurance) and unemployment compensation insurance in the amounts required by law, and shall be solely responsible for the acts of the contractor, it's employees and agents.

---

---



## **INFORMATION FOR OFFERORS (RFP)**

### **PROTECTION OF CITY'S CONFIDENTIAL INFORMATION**

The contractor shall acknowledge that some of the material and information which may come into its possession or knowledge in connection with the contract or its performance, may consist of confidential information, the disclosure of which to, or use by, third parties could be damaging. Therefore, access to information concerning individual recipients of the City's services to individual clients, among other items, shall not be granted except as authorized by law or agency rule. The contractor shall agree to hold all such information in strictest confidence, not to make use thereof for other than the performance of the contract, to release it only to authorized employees or subcontractors requiring such information, and not to release or disclose it to any other party. The contractor shall agree to release such information or material only to subcontractors who have signed a written agreement expressly prohibiting disclosure. The contractor shall further agree to either destroy or return all such information at the end of the term of the contract.

This section does not impose any obligation on the contractor if the information is: (1) publicly known at the time of disclosure; (2) already known to the receiving party at the time it is furnished to the contractor; (3) furnished by the City to others without restrictions on its use or disclosure; or (4) independently developed by the receiving party without use of the proprietary information.

### **WITHHOLDING OF CITY INCOME TAX**

Pursuant to Section 361.34 Columbus City Codes, 1959: "Said Contractor hereby further agrees to withhold all City income tax assessment due or payable under the provisions of Chapter 361, Columbus City Codes for wages, salaries and commissions paid to its employees and further agrees that any of its subcontractors shall be required to agree to withhold any such City income tax assessments due under said chapters for services performed under this Contract."

### **WORKER'S COMPENSATION INSURANCE**

The contractor shall take out and maintain, during the life of the contract, adequate worker's compensation insurance for all his employees employed at the site of the project and, in case any work is sublet, the contractor shall require the subcontractor similarly to provide worker's compensation insurance for the latter's employees, unless such employees are covered by the protection afforded by the contractor. The contractor shall furnish three (3) copies of the worker's compensation certificate showing that the contractor has paid his industrial insurance premium.

### **SIGNATURE AFFIDAVIT**

To be completed if contractor is a corporation.

### **DELINQUENT PERSONAL PROPERTY TAX AFFIDAVIT (SEE Page 3B)**

Rev. 09/25/02

## INFORMATION FOR OFFERORS (RFP)

### PUBLIC LIABILITY INSURANCE

The contractor shall take out and maintain during the life of the contract, such public liability (bodily injury and property damage) Insurance as shall protect him from claims from damages for personal injury, including accidental death, as well as from claims for property damage which may arise from operations under the contract, whether such operation be by himself or any subcontractor or by anyone directly or indirectly employed by either of them. Such insurance policy shall include the City as named insured. The contractor shall maintain coverage of the types and in the amounts specified below. Proof of such insurance coverage shall be evidenced by submitting a certificate of insurance. A contractor's "umbrella" type policy with limits specified below may be submitted for this requirement with the City as named insured.

The amount of such insurance shall be as follows:

#### Bodily Injury Liability:

Each Person	\$ 500,000.00
Each Accident	1,000,000.00

#### Property Damage Liability:

Each Person	\$ 500,000.00
All Accidents	1,000,000.00

Such insurance shall remain in full force and effect during the life of the contract.

Insurance may not be changed or cancelled unless the insured notifies the City in writing not less than thirty days prior to such change or cancellation. If any part of the contract is sublet, the contractor is responsible for the part sublet being adequately covered by insurance hereinabove described.

Contractor assumes all risk of loss and damage to the equipment provided unless loss or damage occurs at the time the operator and equipment are being operated for the purpose designated by the City and such loss or damages is caused by an act of the City or its employee which constitutes gross negligence or wanton misconduct.

---

---

---

**THIS PAGE WAS INTENDED TO BE BLANK**

Bidders are requested to bid firm or fixed prices.

**PRICING**

Blanket order will be established for various City agencies in the form of a written purchase order signed by the Finance Director referencing the terms of this contract and specifying the delivery locations. Actual quantities will be determined at the time orders are place by various City agencies (referencing their purchase order number) based on the needs of the agency and funds availability.

**ORDERING PROCEDURE**

All quantities shown on this proposal are estimates of the annual needs of the City and are for bidding purposes only. These quantity estimates are not to be construed as representing an actual order for the amount or as a guarantee that any minimum amount will actually be purchased. The City reserves the right to buy up to twice the estimated quantity.

**QUANTITY ESTIMATES**

The contract shall be in effect from the date of execution by the City to and including August 31, 2007. There will be an option, by mutual agreement of the City and the contractor, to renew for one, one year period.

**LENGTH OF CONTRACT**

If bidder's proposal is accepted by the City and the firm offer for sale is executed the bidder is to take further notice that no act, failure to act, or order placed by the City or by any official, employee or agent of the City shall constitute an order or contractually bind the City without the proper certificate by the City Auditor that funds sufficient for full payment due on any order are available. Each order placed under the firm offer for sale shall require execution of a purchase order.

**PROPOSAL** This proposal is bidder's offer to sell the item(s) set forth on the bid proposal sheet at the prices(s) quoted by bidder thereon, under the terms and conditions of these bid documents. An estimated quantity is set forth on the bid quotation sheet. Bidder is to take notice that the City makes no warranties or representations that the estimated quantity, or any quantity at all, will be ordered by the City even though the bidder's proposal is accepted by the City and a firm offer for sale executed.

## PHOTO RED LIGHT ENFORCEMENT PROGRAM

### 1.0 Scope and Classification:

#### 1.1 Scope:

1.1.1 The City of Columbus (CoC), Division of Police (DoP) is seeking Request for Proposals (RFP) for a Photo Red Light Enforcement Program (program). The DoP is interested in exploring all available options comprising the makeup of a Photo Red Light Enforcement Program.

1.1.1.2 The contract will be for a period of three years and, given agreement by parties, one, one-year extension

1.1.2 The program shall include an education and awareness segment for the public, installation and testing of the system, and the issuance, collection, and appeal segment for the citations.

1.1.3 The purpose of the program is increased public safety through the enforcement of traffic laws associated with the red light traffic signal violations.

1.1.4 To this end, the goal of the Columbus Ohio Division of Police is to reduce the number of collisions and related death and injuries within the City of Columbus.

#### 1.2 Classification

1.2.1 The enforcement segments will consist of red light camera systems. These systems may be digital or video, or any combination of any of the aforementioned.

1.2.2 The areas of enforcement will be prioritized and shall be based on accident location data, causative factor of the accident, and volume of traffic.

1.2.3 The system will operate in conjunction with existing CoC traffic signals.

1.2.4 Required hardware for the system shall include, at a minimum, all computer interfaces, software, cameras, flash strobes, sensor arrays or loops, wiring, and any necessary appurtenances to provide a fully functional system.

1.2.5 It is anticipated that the CoC will utilize, at a minimum, 10 intersections, most with multiple approaches. If the project proves successful, the CoC envisions additions in the number of intersections/approaches.

1.2.6 There shall be no minimum number or quota of violations to be generated through the use of this system.

1.2.7 The offeror's employee shall testify in any and all court proceedings at no additional cost to the CoC, whether subpoenaed by the plaintiff or the defendant.

1.2.8 The offeror will provide the staffing for this system excluding the DoP reviewer staff.

2.0 Applicable Publications

2.1 All installations and repairs must meet the Americans with Disabilities Act (ADA) and all relevant CoC requirements.

3.0 Requirements

3.1 The CoC expects each proposal to be based upon a turnkey operation, which shall mean the offeror shall provide all the necessary equipment associated with the system, and all necessary staff to install, operate and maintain same as well as providing all necessary services including, but not limited to the following. Consequently:

3.1.1 Please describe how your system photographs vehicles allegedly not stopping for a red light traffic signal.

3.1.2 Please describe how your system obtains vehicle registration information.

3.1.3 Please describe, in detail, how your system will interface with the CoC traffic signal control equipment.

3.1.4 Please describe how your system reviews each photograph for visibility.

3.1.5 Please describe how your system matches the make and model with the obtained registration information.

3.1.6 Please describe how your system performs quality control in the form of a second opinion as to the violation (this will be DoP review).

3.1.7 Please describe how your system generates a citation, with photograph, and mailing to the registered owner of the vehicle that performed the violation.

3.1.8 Please describe how your company will meet Statement of Auditing Standards (SAS) 70 requirements for this project.

3.1.9 Please describe how your system transfers electronic files of citation information between the CoC's court system and the offeror.

3.1.10 Please describe how your system processes service of citations not responded to after the mailing.

3.1.11 Please describe how your system provides court testimony of contested citations.

- 3.1.12 Please describe how your system provides for a service center facility.
- 3.1.13 Please describe how your system will provide reports to CoC and describe those reports.
- 3.1.14 Please provide detailed information on your service level agreements for maintenance, installation, de-installation, repairs and response.
- ❖ Please describe how you will be able to locally manage our project on a day-to-day basis (attend meetings, deal with problems, make expeditious decisions, etc.).
- 3.1.15 Please describe how your Photo Red Light system is equipped to detect a violating vehicle, activate the camera system, and produce color images of the vehicle front and rear.
- 3.1.16 Please describe how your system is capable of clearly photographing and recording the identification of the driver of the vehicle that is reasonably believed to be operating the vehicle that violated the red traffic signal.
- 3.1.17 Please describe how your system's cameras will obtain a clear image of the rear of the vehicle so as to clearly identify the rear license plate.
- 3.1.18 Please demonstrate how your system's images are clearly discernible and visible to the naked eye without the use of enhancement equipment.
- 3.1.19 Please describe how your system is capable of consistently photographing drivers and license plates regardless of weather conditions, glare, materials used to obscure the license plates from clear view at various viewing angles or any other means used for interference or avoidance.
- 3.1.20 Please describe how your system is capable of performing internal calibration tests for accuracy and functionality. The CoC is desirous of the following:
- ❖ Test failures must prevent further operation of the unit.
  - ❖ The internal test should provide a visual and/or auditory signal clearly indicating the operational accuracy or lack thereof.
  - ❖ A series of error messages must be displayed to inform the operator of the problem/s with the system, while in the deployment mode.

- 3.1.21 Please describe how you will maintain the integrity of CoC's traffic signal system.
- 3.1.21.1 Traffic signal operation shall not be modified.
  - 3.1.21.2 Supplier is responsible for any damage and must provide a cost reimbursement program.
  - 3.1.21.3 Supplier is responsible for all permits, plans, modifications of existing infrastructure and associated costs to include CoC personnel necessary for traffic control and installation/removal.
  - 3.1.21.4 The City requires that personnel from the City Transportation Department be on site for any occasion when the supplier will need access to the City's traffic signal control box.
- 3.1.22 Please describe how your system is capable of gathering detailed computer data for statistical analysis and histograms for submission at hearings.
- 3.1.22.1 The offeror will be required to produce monthly reports of activity and individual histograms for court purposes.
- 3.1.23 Please describe how your system is capable of accurately monitoring multiple traffic lanes at once with vehicles of various types, heights and lengths under various weather and light conditions.
- 3.1.24 Please describe how your system is automated with regards to set up, i.e., aperture settings, focusing, leveling and ease of loading and unloading images.
- 3.1.25 Please describe how your system's cameras have the ability to operate effectively during periods of nighttime operation and in all weather conditions.
- 3.1.26 Please describe the time it takes for your system to take photographs of vehicles entering the intersection after the signal has turned red.
- 3.1.27 Please describe how your system will capture violators at a minimum of 90% of the time or more.
- 3.1.28 Please describe the process used to communicate to the Division of Transportation, Traffic Engineer's staff that any and all repairs to any damaged traffic control systems have been repaired to the satisfaction of aforementioned.
- 3.1.28.1 Any and all installations and/or repairs shall be made according to the original working order unless CoC authorizes a change.



3.1.29 Please describe how the CoC is to be reimbursed whenever a CoC employee is needed to be at any one cabinet during installation or repair.

3.1.30 For non-emergency situations, there shall be a minimum of twenty-four (24) hours advance notice to the CoC and the work will be performed during normal CoC working hours.

3.1.38.1 In the course of daily activity emergency situations will occur. The definition of emergency and how each party responds to that emergency shall be part of the contract negotiations.

3.1.31 Please describe how you handled emergency maintenance situations with cities of comparable size or larger than Columbus, Ohio.

3.1.32 Offerors are required to submit a current client list with company names, addresses, appropriate contacts and associated phone, fax and e-mail addresses.

3.1.33 Please describe your process for acceptance and disbursement of funds (i.e., the CoC's share of the revenue generated).

3.1.33.1 This is to include but not limited to the following:

- ❖ timing of funds remitted to CoC (from receipt from offerer to CoC);
- ❖ reconciling funds for penalties to the number of violations;
- ❖ process for NSF situations;
- ❖ types of funds that can be received (i.e., cash, check, etc);
- ❖ Process used to reconcile the account;
- ❖ Costs associated with funds remittal;
- ❖ Banking institution(s) used to funds deposited.

3.1.34 Please describe options for payments and collections.

3.1.35 Should the CoC determine to use a provider (other than the one described in your turnkey system) to send violators citations, collect fines and disburse monies to the CoC, please describe how your system shall integrate with the provider. If necessary, please provide cost proposal information as described in 4.0.

## 4.0 Proposal Submission Requirements

### 4.1 RFP Submission:

4.1.1 The RFP shall consist of a technical and cost proposal with financial statements provided separately. The financial statements are to be enclosed in separate envelopes that accompany your proposals and clearly marked "Confidential" with your company name and address on the outside of the envelope. The financial statements are to be the most recent financial auditing statements for your company. One original and ten (10) copies shall be submitted no later than Thursday, June 17, 2004 at 11:00 AM Local time to:

4.1.1.1 Purchasing Office  
City of Columbus  
50 W. Gay St.  
Columbus, Ohio 43215

### 4.2 The document should be organized into tabbed sections as follows:

4.2.1 First tabbed section shall have a Letter of Submittal that shall include:

- ❖ The names of the individuals involved in the preparation of the proposal and their relationship with the Vendor.
- ❖ The name, title, address, email address and telephone number of the person to whom inquiries related to the technical and cost proposals should be directed.
- ❖ A statement confirming that the Vendor has sole and complete responsibility to perform the tasks and services described in your proposal.
- ❖ A list of all persons by name and address being officers or having an interest in your company.
- ❖ A statement that that the proposal is valid for 180 days from the date it was submitted to the City of Columbus.
- ❖ The Letter of Submittal may also include any information the Vendor wishes to add in order to clarify any area of the Proposal.

~~4.2.2 The second tabbed section shall include:~~

- ❖ A complete unaltered copy of this entire RFP document including Attachments, Exhibits, and any Addenda.

4.2.3 The third tabbed section shall respond to all Specifications cited in Sections 3.0 of this RFP. Detailed descriptions of the requested information are expected. While the Vendor may cite references to literature provided in Section 3 in order to clarify a point of discussion, the explanation provided must be in sufficient detail to fully explain the questions at hand.

4.2.4 The fourth tabbed section shall be the Cost Proposal. Full disclosure of all costs, including optional features that may be suggested by the Vendor, is required. THE SIGNED AUTHORIZED SIGNATURE PROPOSAL PAGE 5 FROM THE BID DOCUMENT SHALL IMMEDIATELY FOLLOW THE COST PROPOSAL AND BE A PART OF FOURTH TAB.

4.2.5 The fifth tabbed section shall include:

- ❖ The Non-Collusion Affidavit
- ❖ Delinquent Personal Property Tax Affidavit

4.2.6 The Police Records Check may be required of the Vendor if a contract is entered into with the City of Columbus.

## 5.0 Delivery

5.1 Delivery shall be F.O.B. Destination Prepaid and Allowed.

## 6.0 Notes

6.1 The City of Columbus's Mayor, Michael D. Coleman, Covenant states in part "to provide an atmosphere that promotes job creation and economic growth in existing and emerging industries". To that end please describe how your company could sub-contract with emerging businesses in central Ohio. For information please contact the City of Columbus's Equal Business Opportunity Commission Office.

- ❖ George Harper, Equal Opportunity Business Specialist – (614)645-8549

6.2 Periods of time, stated as a number of days, shall be calendar days.

6.3 It is the responsibility of all offerors to examine the entire proposal package and seek clarification of any items or requirements that may not be clear and to check all responses for accuracy before submitting the proposal. Negligence in preparing an offer confers no right of withdrawal after the due time and date.

6.4 Pre-Bid Conference.

6.4.1 A pre-bid conference will be held. The date, time and location follow:

❖ June 2, 2004 at 10:00AM, Local Time

City of Columbus, Division of Police  
First Floor Auditorium  
120 Marconi Blvd.  
Columbus, OH 43215

❖ The purpose of this conference will be to clarify the contents of this proposal in order to prevent any misunderstanding of the CoC's position. This conference will also give the offerors an opportunity to submit any questions.

6.5 Offerors' Presentation

6.5.1 Offerors may be invited to make a presentation of their proposal. If invited, there will be a segment that involves questions from the CoC regarding the submitted proposal.

6.6 Late Proposals

6.6.1 Late proposals will not be considered. An offeror submitting a late proposal shall be so notified by the CoC.

6.7 Addenda

6.7.1 All addenda shall be made part of the appropriate addenda acknowledgment section as identified in 4.2.2.

➤ Failure to include the addenda with your bid response may result in a proposal being rejected as non-responsive.

6.8 Award of Contract:

➤ Notwithstanding any other provision in this proposal, the CoC expressly reserves the right to:

- ❖ Waive any immaterial defect or informality; or
- ❖ Reject any or all proposals, or portions thereof; or,
- ❖ Reissue a new proposal.

6.9 A response to this RFP is an offer to contract with the CoC based upon the ~~terms, conditions, scope of work and specifications contained in the CoC's RFP.~~

❖ A contract will be formed when the CoC's City Council ~~authorizes the Professional Services contract executed~~ by the selected offeror.

6.10 Contract Document:

- ❖ The final contract between the CoC and the successful offeror shall consist of the final form of the contract and any scopes of work incorporated therein, the offeror's submitted proposal, and any executed contract amendments attached thereto.

6.11 Obligations:

- ❖ The issuance of this proposal does not obligate the CoC to pay any costs incurred in the preparation, submission, or, if needed, presentation of the proposal.

6.12 Duration of proposal

- ❖ Timely submitted proposals shall be irrevocable for a period of one hundred eighty (180) days following the proposal due date, as may be modified by addenda.

6.13 Acceptance contract/agreement

- ❖ Any contract/agreement made pursuant to this RFP must be accepted in writing by the offeror.
- ❖ If for any reason the offeror should fail to accept, in writing, any conduct by offeror that recognizes the existence of a contract/agreement pertaining to the subject matter hereof shall constitute acceptance by the offeror of the contract/agreement and all its terms and conditions.
- ❖ Any terms proposed in the offeror's acceptance of the CoC's contract which adds to, varies from or conflicts with the terms herein are objected to.
- ❖ Any such proposed terms shall be voided and the terms herein shall constitute the completed and exclusive statement of the terms and conditions of the contract/agreement between the parties and may hereafter be modified only by written instrument executed by the authorized representatives of both parties.

6.1.14 Contract applicability:

- ❖ The offeror shall substantially conform to the terms, conditions, specifications and other requirements found within the text of this specific RFP. All previous agreements, contracts, or other documents, which have been executed between the offeror and the CoC, are not applicable to this proposal or any resultant contract.

- 6.1.15 The City reserves the right to modify the negotiated agreement, in part or whole, to a Universal Term Contract (UTC) that will permit the addition of more intersections as the project may expand without the need for City Council approval for expenditures under \$100,000.00 per fiscal year.
- 6.1.16 The CoC, at its sole discretion, reserves the right to reject any equipment that does not meet adequate technical standards.
- 6.1.17 The following evaluation criteria will be the criteria used by the evaluation team to determine with whom the Director of Public Safety shall negotiate:

Rating Key: Unacceptable = 0 Poor = 1 Fair = 2 Good = 3 Excellent = 4 Superior = 5

Criterion (Shaded) & Measures (Un-shaded)	Rating	Weight / Factor	Score
<p>1. <u>Competence</u> - the competence of the offeror to perform the required services as indicated by the technical training, education, and experience of the offeror's personnel who would be assigned to perform the work.</p> <p>Work experience of any personnel to be assigned by the offeror to this project, in performing similar projects. Particular attention will be paid to proposed team members experience in, the specific areas defined in the requirements section (Section 3).</p> <p>Specific professional qualifications of the firm demonstrating the firm's ability to provide backup and support for the personnel selected to perform the specified job responsibilities including the overall qualifications of additional personnel available for special assignments and potential replacements.</p> <p>Experience of the offeror in successfully providing professional services similar to those needed for this project.</p>	<p>_____ X</p> <p>_____ X</p> <p>_____ X</p>	<p>25%</p> <p>2</p> <p>1.5</p> <p>1.5</p>	<p>Section Score</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p>2. <u>Quality and Feasibility</u> – the quality and feasibility of the offeror's proposal.</p> <p>The degree to which the proposal response demonstrates the Offeror's understanding the scope of the project, the objectives, the benefits to be obtained and the outcomes to be achieved.</p> <p>Offeror's understanding of the functional/technical requirements and the functionality, and appropriateness of the proposed solution.</p> <p>Practicality of the proposal response as demonstrated by a high degree of reliability and/or accuracy in successful completion of project work. (The offeror's past projects, as described in written responses and oral presentation)</p>	<p>_____ X</p> <p>_____ X</p> <p>_____ X</p>	<p>20%</p> <p>1.5</p> <p>1</p> <p>1.5</p>	<p>_____</p> <p>_____</p> <p>_____</p>

**Rating Key:** Unacceptable = 0 Poor = 1 Fair = 2 Good = 3 Excellent = 4 Superior = 5

Criterion (Shaded) & Measures (Un-shaded)	Rating		Weight / Factor		Score
<p><b>3. Ability</b> - ability of the offeror to perform the required services competently and expeditiously as indicated by the offeror's workload and the availability of necessary personnel, equipment, and facilities.</p> <p>Offeror's ability to provide the scope of services (strategic, analytical, technical) needed to satisfactorily perform all services of this project.</p> <p>Ability to staff this project with continuity.</p> <p>Proposed ability to rapidly develop and deploy project deliverables.</p> <p>Consultant's current workload &amp; impact it has on ability to service the City. Document the number and type of similar projects your firm is currently involved with and a description of the current status of these projects.</p>	<p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>X</p> <p>X</p> <p>X</p> <p>X</p>	<p>20%</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>	<p>=</p> <p>=</p> <p>=</p> <p>=</p>	<p>Section Score</p> <p>_____</p>
<p><b>4. Past Performance</b> - past performance of the offeror as reflected by the evaluations of the Department of Technology, other City agencies and other previous clients of the offeror with respect to such factors as quality of work, success in controlling costs, and success in meeting deadlines.</p> <p>Offeror's proven track record of success in providing quality services.</p> <p>Provided current contact name, title, e-mail address, street address, phone number, fax number, project title, and project dates.</p> <p>Overall rating of past references with respect to such factors as quality of work, success in meeting deadlines, maintaining costs, ability to adapt to technology, overall project success, etc...</p> <p>Overall similarity and applicability of work performed for references.</p>	<p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>X</p> <p>X</p> <p>X</p> <p>X</p>	<p>30%</p> <p>1.5</p> <p>1</p> <p>2</p> <p>1.5</p>	<p>=</p> <p>=</p> <p>=</p> <p>=</p>	<p>Section Score</p> <p>_____</p>
<p><b>5. Pricing Structure</b> - the cost or pricing structure of the offeror's proposal</p>	<p>_____</p>	<p></p>	<p>5%</p>	<p></p>	<p>Section Score</p> <p>_____</p>



Rating Key: Unacceptable = 0 Poor = 1 Fair = 2 Good = 3 Excellent = 4 Superior = 5

Criterion (Shaded) & Measures (Un-shaded)	Rating	Weight / Factor	Score
The perceived reasonableness of the cost proposal.	<u>        </u>	$\bar{X}$ 1	= <u>        </u>
		<b>Total Score</b>	= <u>        </u>

### **ESCALATOR CLAUSE**

No price adjustment shall be granted during the first year (12) months duration of an awarded contract. Thereafter, the price increase(s) shall not exceed five percent (5%) over the ensuing year (12) months, not to exceed one increase per year during the duration of the contract. In the event the supplier receives a general price increase due to increases in the cost of raw materials, labor, freight, etc., upon giving thirty (30) days prior notice and if proper documentation is submitted as proof, said increase in addition to the unit price quoted herein, may be permitted, subject to the sole discretion of the City of Columbus Finance Director or his designee. In the event any such increase is granted, no price adjustment will be permitted prior to the effective date of any purchase orders that are already being processed, or have been filled and are awaiting shipment.

The supplier shall submit the following documentation with each request for price increase:

- (1) Copies of the old and the current price lists or similar documents which indicate the original base cost of the product to the supplier and the corresponding increase; and/or
- (2) Copies of correspondence sent by the supplier's aggregator/manufacturer on the aggregator's/manufacturer's letterhead, which contain the above price information and explains the source of the increase in such areas as raw materials, freight, fuel, labor, etc., and/or
- (3) Copies of excerpts from business publications, market quotations or trade journals recognized as being representative of their particular trade or industry, that indicates a trend toward an increase in the current market for commodities under the contract.

### **DEESCALATOR CLAUSE**

Should there be a decrease in the cost of the finished product, the Finance Department/Purchasing Division shall be notified immediately and the resulting price adjustment will be incorporated into the awarded contract and made a part thereof.

---

---

### **Cooperative Purchasing**

The successful bidder may also make available item(s) under the terms, conditions and pricing of the proposed contract to agencies sanctioned by the City in its cooperative purchasing efforts. Any agency which is not subject to a City of Columbus purchase order must be invoiced directly by the vendor.

Sanctioned agencies' participation is subject to a credit approval by the vendor, as the City of Columbus is in no way obligated by those agencies' financial commitments. Sanctioned agencies include members of the Central Ohio Organization of Public Purchasers (COOPP), members of the Southwest Ohio Purchasers 4 Government (SWOP4G), members of the Ohio, Indiana Northern Kentucky Chapter of NIGP (OINK), and members the Franklin County Fire Chiefs Association in addition to any agencies specifically mentioned in this bid.

**1. Non-Collusion Affidavit**

**(This affidavit must be executed for the proposal to be considered)**

State of \_\_\_\_\_)

County \_\_\_\_\_)

\_\_\_\_\_, being first duly sworn deposes and says that he is, \_\_\_\_\_, (sole owner, a partner, president, secretary, etc.) of the party making the foregoing proposal or bid; that such bid is genuine and not collusive or sham; that said bidder is not financially interested in, or otherwise affiliated in a business way with any other bidder on the same Contract; that said has not colluded, conspired, connived or agreed, directly or indirectly, with any bidder or person, to put in a sham bid, or that such other person shall refrain from bidding, and has not in any manner directly or indirectly, sought by agreement or collusion, or communication or conference, with any person, to fix the bid price of affiant or any other bidder or to secure any advantage against the City of Columbus, Ohio or any person or persons interested in the proposed Contract; and that all statements contained in said proposal or bid are true; and further, that such bidder has not directly or indirectly submitted this bid, or the contents thereof or divulged information or data relative thereto to any association or to any member or agent thereof.

\_\_\_\_\_  
Signature of Affiant

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Notary public in and for

\_\_\_\_\_  
(Seal)

\_\_\_\_\_  
(county)

\_\_\_\_\_  
(state)

\_\_\_\_\_  
~~My commission expires~~

**THIS PAGE WAS INTENDED TO BE BLANK**

**PROPOSAL**

To the Finance Director of the City of Columbus, Ohio:

We (I) propose to furnish the following article(s) and/or service(s) at the price(s) and terms stated subject to all instructions, conditions, specifications and all attachments hereto. We (I) have read all attachments including the specifications and fully understand what is required.

Prices are to be quoted F.O.B.:

See Page 5

Delivery: \_\_\_\_\_ calendar day(s) after receipt of order.

Terms: \_\_\_\_\_

Company Name or Bidder's Name: \_\_\_\_\_

Business Address of Bidder: \_\_\_\_\_

**REQUIRED Company Employee Information:**

Total number of company employees = \_\_\_\_\_

Total number of company employees working in Columbus = \_\_\_\_\_

Additional number of employees that will be working in Columbus in the event this contract is awarded to your company = \_\_\_\_\_

The full name and residence of all persons and parties interested in the foregoing bid are: (If a corporation, give the name and address of the president and secretary; if firm or partnership, the names and address of the members or partners.)

Name

Address

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Authorized Signature X \_\_\_\_\_ Title: X \_\_\_\_\_

(SIGNATURE MUST IN WRITING IN OTHER THAN BLACK INK)

(TITLE MUST BE GIVEN)

**THIS PAGE WAS INTENDED TO BE BLANK**

**Signature Affidavit**

*(To be filled in and executed if the contractor is a corporation.)*

( County of \_\_\_\_\_

State of \_\_\_\_\_

\_\_\_\_\_, being duly sworn, deposes and says that he/she is  
(Name of Affiant)\*

Secretary of \_\_\_\_\_

A corporation organized and existing under and by virtue of the laws of the

State of \_\_\_\_\_ and having its principle office at

\_\_\_\_\_  
(Number and Street) (City/State) (Zip Code)

Affiant further says that he/she is familiar with the records, minute books and

by-laws of \_\_\_\_\_ affiant further says

That \_\_\_\_\_ is \_\_\_\_\_  
(Name of person signing proposal/contract) (Title)

Of the corporation, is duly authorized to sign the contract for \_\_\_\_\_

\_\_\_\_\_, for said corporation by virtue of

\_\_\_\_\_  
**(State whether a provision of by-laws or a resolution of the Board of Directors.  
If by resolution, give date of adoption.)**

\_\_\_\_\_  
Signature of Affiant\*

Sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Notary Public in and for

\_\_\_\_\_  
(County)

\_\_\_\_\_  
(State)

( Affiant must be someone other than the signer of proposal/contract.



**THIS PAGE WAS INTENDED TO BE BLANK**

## A. ADDENDUM



City of Columbus  
Mayor Michael B. Coleman  
Department of Finance  
Joel S. Taylor, Director

### Purchasing Office

Barbara R. Johnson, Procurement Manager

50 W. Gay Street, 1<sup>st</sup> Floor  
Columbus, Ohio 43215-9035  
(614) 645-8315 Fax: (614) 646-7051

TO: OFFERORS OF PHOTO RED LIGHT ENFORCEMENT SYSTEM

FROM: JACK YOST AND FRED MYERS

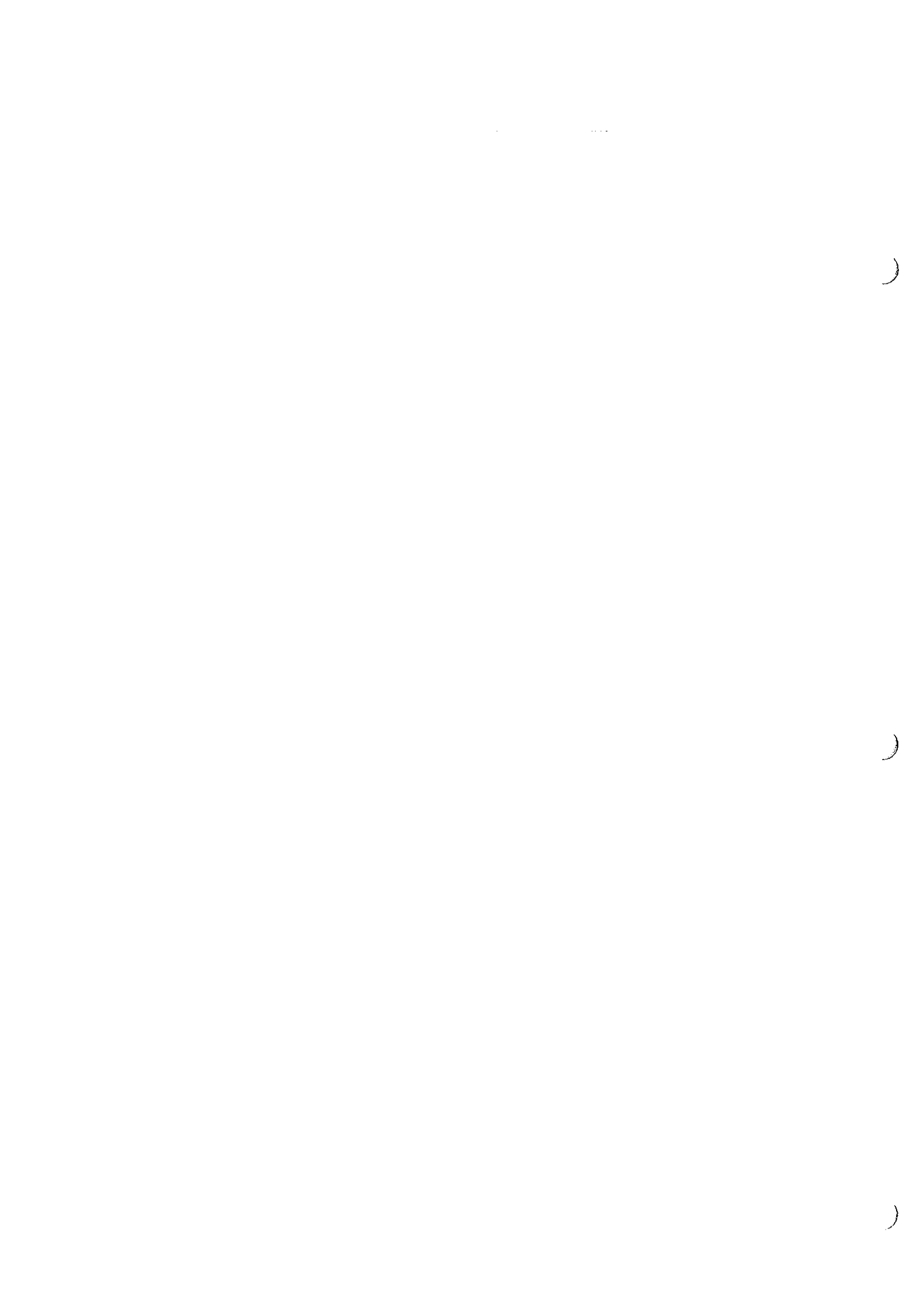
SUBJECT: ADDENDUM - SA001147JY/FM

## ADDENDUM

The attached Addendum contains the Questions and Answers from the Pre-Bid Conference dated June 2, 2004.

Section 3.35.1 has been removed from the Request for Proposal.

Please attach this Addendum, to include the Questions and Answers and the revised page 4E to your response and make it a part thereof.



- 3.1.29 Please describe how the CoC is to be reimbursed whenever a CoC employee is needed to be at any one cabinet during installation or repair.
- 3.1.30 For non-emergency situations, there shall be a minimum of twenty-four (24) hours advance notice to the CoC and the work will be performed during normal CoC working hours.
- 3.1.30.1 In the course of daily activity emergency situations will occur. The definition of emergency and how each party responds to that emergency shall be part of the contract negotiations.
- 3.1.31 Please describe how you handled emergency maintenance situations with cities of comparable size or larger than Columbus, Ohio.
- 3.1.32 Offerors are required to submit a current client list with company names, addresses, appropriate contacts and associated phone, fax and e-mail addresses.
- 3.1.33 Please describe your process for acceptance and disbursement of funds (i.e., the CoC's share of the revenue generated).
- 3.1.33.1 This is to include but not limited to the following:
- ❖ timing of funds remitted to CoC (from receipt from offerer to CoC);
  - ❖ reconciling funds for penalties to the number of violations;
  - ❖ process for NSF situations;
  - ❖ types of funds that can be received (i.e., cash, check, etc);
  - ❖ Process used to reconcile the account;
  - ❖ Costs associated with funds remittal;
  - ❖ Banking institution(s) used to funds deposited.
- 3.1.34 Please describe options for payments and collections.
- 3.1.35 ~~Should the CoC determine to use a provider (other than the one described in your turnkey system) to send violators citations, collect fines and disburse monies to the CoC, please describe how your system shall integrate with the provider. If necessary, please provide cost proposal information as described in 4.0.~~



**PRE-BID QUESTIONS & ANSWERS**  
**SA001147 – PHOTO RED LIGHT ENFORCEMENT SYSTEM**

Page 1 of 3

- Q: Is the Ordinance written? If so, what is the fine amount? Will speed enforcement be allowed? Are there penalties for non-compliance, registration lock out, etc?
- A: No the Ordinance is not written at this time. The fine amount cannot be commented on at this time. Speed enforcement will not be addressed at this time but may be considered later. There will be penalty clause for non-compliance.
- Q: Do you plan for front photography? If yes what is its intended use? Are we to photograph the driver?
- A: The Committee will look at proposals from all Vendors, this has not been decided on yet. Not important to photograph the driver of the vehicle.
- Q: Can contract term be defined as 3 years from date of installation instead of execution of the contract?
- A: To be determined during negotiations.
- Q: 1.2.4 - Is it correct to interpret this section to mean all hardware necessary for the system to be fully functional? Recognizing that technologies vary in terms of hardware requirements?
- A: Yes
- Q: 3.1.10 – Are there any specific service of citation processes that the City desires?
- A: Propose what you (Vendor's) have and the Committee will evaluate.
- Q: 3.1.12 – Are there any specific service center facility requirements that the City desires?
- A: Local office in Franklin County, the City of Columbus.
- Q: 3.1.16 & 3.1.19 – Will the citation be issued to the registered owner of the vehicle according to the DMV registered owner information? If so, is a driver image required to issue a citation?
- A: Yes, the citation will be issued to the registered owner of the vehicle, the driver image is not necessary.
- Q: 3.1.21.1 - According to 1.1.4, the goal of the Columbus Ohio Division of Police is to reduce the number of collisions and related deaths and injuries. In keeping with this objective, there are optional safety features that can help avoid a crash, but 3.1.21.1 would prevent this feature from being implemented. Would the City be willing to re-evaluate this section on an intersection by intersection basis?
- A: Propose what you have and the Committee will evaluate.
- Q: 3.1.21.3 – Do we have to reimburse City of Columbus Transportation Department personnel, if it is not necessary to access the traffic signal control box?
- A: Dependent upon the situation, possibly.
- Q: 3.1.21.4 – Is City of Columbus Department of Transportation personnel needed on-site if the contractor will not be accessing the traffic signal box.
- A: Yes, an inspector will need to be on site and pay for Police Officer if needed. (only for non-emergency situations). Permits possibly will be required.

---

The City of Columbus is an Equal Opportunity Employer

)

)

)

Page 2 of 3

- Q: 3.1.29 & 3.1.30 – Is notice to City of Columbus Transportation Department personnel needed on-site if the contractor will not be accessing the traffic signal box?  
A: Yes, advisement would be necessary due to potential of interoperability and/or malfunction.
- Q: 3.1.35 – What type of equipment/software is currently being used? Do you have an existing provider in place or will a new RFP be issued for this service?  
A: 3.1.35 has been eliminated from this RFP document.
- Q: 1.2.2 – Does the City of Columbus have a list of intersections to be surveyed/prioritized that will be made available to the selected vendor? Is there data available for these intersections?  
A: Yes, the City does have a list of intersections that would be priority. The data will be made available to the selected Vendor.
- Q: 1.2.5 – Should pricing be quoted on a lease basis (per approach) or on a per-ticket basis? Should purchase option be quoted?  
A: Vendors can put in their proposal all 3 ways.
- Q: 3.1.9 – Are there limitations on what types of electronic files the court system can accept?  
A: At this time hard copies will be used if necessary in Municipal Court.
- Q: 3.1.12 – Do you require the Vendor to establish a physical local office?  
A: Yes.
- Q: 3.1.14 – Will you require front and rear images of each violation?  
A: Undetermined at this time.
- Q: 6.1 – Does the City maintain a listing of businesses covered under this section?  
A: Yes, contact George Harper for more information.
- Q: If you are aware of how court adjudication data will be provided to the Vendor, would you describe that please, or will this be worked out with the Vendor?  
A: This will be worked out with the selected Vendor.
- Q: The RFP refers to City of Columbus court system. Is this Franklin County Municipal Court? Do you contemplate coordination with Muni Court?  
A: Yes. Have met with administrative judge Brandt and will develop system for Municipal Court review if the hearing officer cannot settle the ticket dispute.
- Q: Will the City consider eliminating requirement for face photography?  
A: Vendors should submit whatever technology they have concerning the recording of the violator vehicle.
- Q: What is the anticipated fine amount?  
A: Undetermined at this time.

---

The City of Columbus is an Equal Opportunity Employer



Page 3 of 3

Q: Has the City identified all approaches to be enforced? If not, what will role of vendor be in site selection?

A: The site selection committee will review data and responses from Precinct regarding intersections, selected Vendor will have input.

Q: What is the hourly rate for City engineers that will visit traffic controllers at Vendor's expenses?

A: Electronics maintenance personnel rates as of today 6-3-2004, \$42.30 per hour (subject to rise). Vehicle charge is \$40.36 per hour. Police rate \$32.50 per hour, Sergeant rate \$38.00. Car rental \$15.00 per hour.

Q: Does the City want Vendor's to submit financial statements with their bids? If yes, which statements are requested?

A: Yes, most recent Audited statements or at least Un-Audited statements. We prefer that they meet Statement of Auditing Standards (SAS70) requirements.

Q: Can Vendor share conduit with the City for installation?

A: This would have to be negotiated and looked at for each site. Probably not.

Q: City has requested histogram reports for court proceedings. What information is to be provided in the histograms?

A: Vendor is to provide answer to this question as to what they can provide. Reference 3.1.22.

Q: Will City use registration hold to enforce citations?

A: No, not at this time.

Q: Will Committee consider rear image only (owner identification) solution?

A: Yes.

Q: Will you allow bidders to submit a proposed front and rear image (driver identification) system and a rear image only (owner identification) system as an alternative?

A: Yes.

---

The City of Columbus is an Equal Opportunity Employer

---

)

)

)

## B. ADDENDUM 2



City of Columbus  
Mayor Michael B. Coleman  
Department of Finance  
Joel S. Taylor, Director

### Purchasing Office

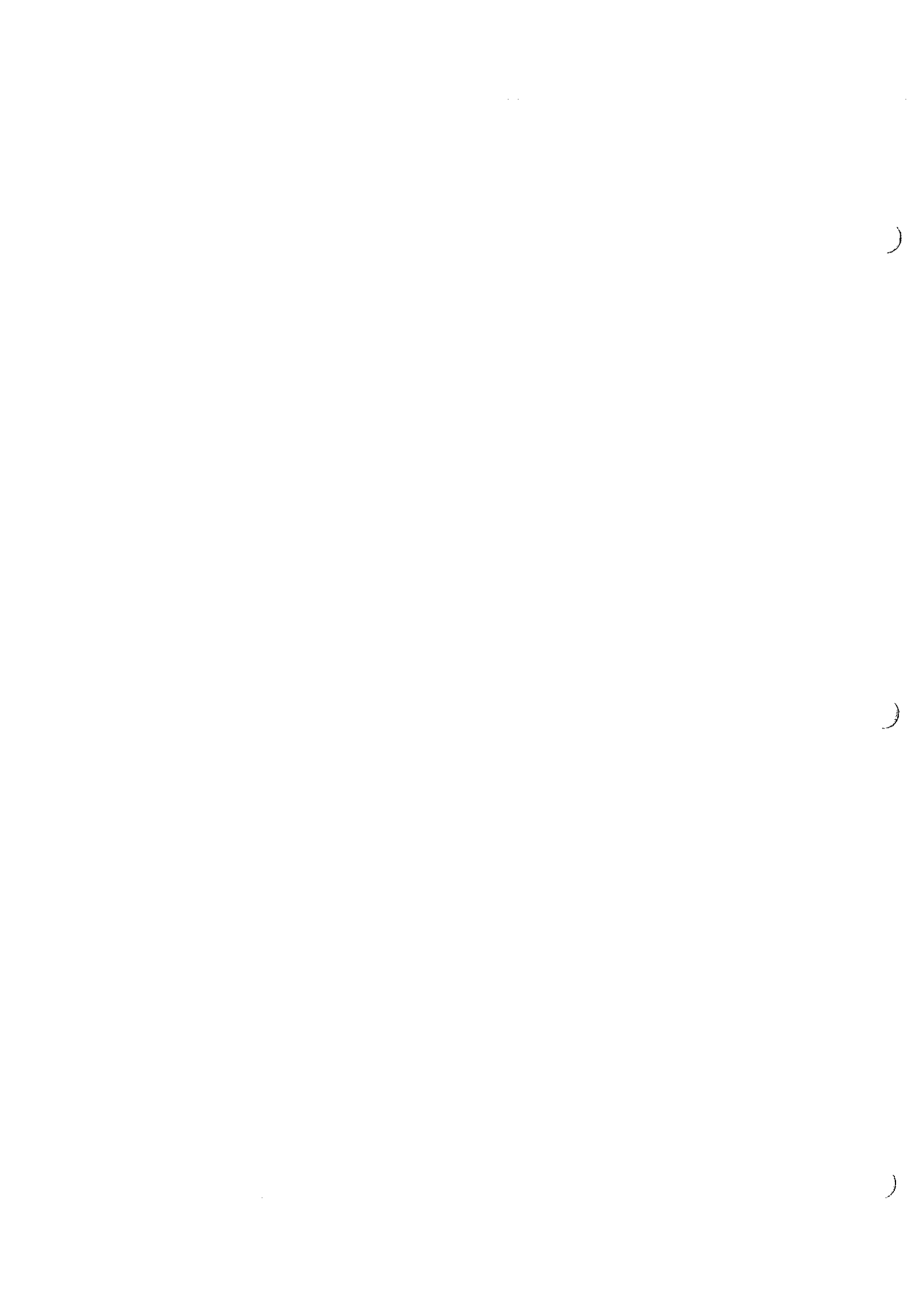
Barbara R. Johnson, Procurement Manager  
50 W. Gay Street, 1<sup>st</sup> Floor  
Columbus, Ohio 43215-9036  
(614) 645-8315 Fax: (614) 645-7051

TO: OFFERORS OF PHOTO RED LIGHT ENFORCEMENT SYSTEM  
FROM: JACK YOST AND FRED MYERS  
SUBJECT: ADDENDUM - SA001147/JY/FM  
DATE: JUNE 8, 2004

## ADDENDUM 2

Note that a typographic error appears on the cover sheet for the addendum you recently received. Section 3.1.35 (not 3.35.1) has been removed from the Request for Proposal.

Please attach this second addendum, in addition to the first addendum, to your RFP response and make it a part thereof.



## C. ADDENDUM 3



City of Columbus  
Mayor Michael B. Coleman  
Department of Finance  
Joel S. Taylor, Director

### Purchasing Office

Barbara R. Johnson, Procurement Manager  
50 W. Gay Street, 1<sup>st</sup> Floor  
Columbus, Ohio 43215-9036  
(614) 645-8315 Fax: (614) 645-7051

TO: OFFERORS OF PHOTO RED LIGHT ENFORCEMENT SYSTEM  
FROM: JACK YOST AND FRED MYERS  
SUBJECT: ADDENDUM - SA001147/JY/FM  
DATE: JUNE 9, 2004

## ADDENDUM 3

Reference Proposal Submission Requirements 4.2.5 on page 4G, where we require that you include a Delinquent Personal Property Tax Affidavit. This particular affidavit is not required as part of your submission and is only required to be completed as a condition of contracting with the successful supplier.

Please attach this third addendum, in addition to the prior addendums, to your RFP response and make it a part thereof.

### III. TECHNICAL SPECIFICATIONS

Nestor Traffic Systems has a thorough understanding of the requirements outlined in the City's Request for Proposals for a Photo Red Light Enforcement System and is confident that our CrossingGuard Automated Red Light Enforcement System will meet or exceed all of the City's expectations. Outlined below is an overview of the equipment and services that NTS will provide, followed by detailed responses to the specific requirements of the City's RFP.

#### A. TECHNICAL OVERVIEW

Using three high-speed video cameras installed at the intersection, CrossingGuard records multiple, time-synchronized video sequences of a red light violation, showing the violation from several different vantage points. This multiple video evidence ensures that CrossingGuard captures all of the evidence necessary to issue a citation without the City, its reviewing officers, or its judges wondering what actually happened at the intersection. Any extenuating circumstances are clearly shown with CrossingGuard's multiple angle videos, enabling the City to make fair, objective decisions and issue citations only when they are truly warranted.

To monitor each intersection approach, CrossingGuard uses three high-speed video cameras:

**Tracking Camera** ----- Detects and monitors (tracks) vehicles as they approach the intersection.

**Signal Camera** ----- Records the red signal phase as the violator sees it before entering the intersection.

**Violation Camera** ----- Records a high-resolution close-up of the vehicle and license plate.

The Tracking Camera is pole-mounted above the intersection to provide an overview of oncoming traffic (up to 6 lanes) in the monitored direction. The Signal Camera is usually mounted upstream from the traffic light and is oriented to show the traffic light and the vehicle's position behind the violation line at the time the light was red. The Violation Camera is typically mounted above the roadway and just beyond the intersection in the direction of the vehicle travel. The Violation Camera is used for close-ups of the front and rear of the vehicle (and driver if required). Each of these cameras is intentionally mounted out of reach of pedestrians to discourage vandalism and tampering.

#### The Process

~~CrossingGuard detects and continuously tracks the location of each vehicle approaching~~ the intersection as it appears in the Tracking Camera field of view. When CrossingGuard predicts that a violation is about to occur, CrossingGuard begins recording intersection video sequences showing the vehicle as it approaches the intersection, crosses the violation line and proceeds through the intersection. Recording from the Tracking Camera view shows the overall context of the violation (and a view of the vehicle from

the front), while the Signal Camera shows a rear view of the vehicle approaching the intersection, clearly showing the traffic signal as the driver sees it. These time-synchronized recordings of the vehicle from the front and rear provide clear visual evidence establishing whether or not the vehicle entered the intersection after the light turned red.

The Violation Camera is automatically controlled by CrossingGuard to aim at a particular lane where the violation is occurring and to “zoom-in” on the violating vehicle, capturing close-up color frames of the vehicle’s front license plate. Under software control, this same camera subsequently swings around to capture close-up images of the rear of the vehicle, showing the rear license plate, as the vehicle drives off. A second Violation Camera may be deployed on the cross street to catch left turn violators. The dynamic “aim-and-zoom” capability puts a large number of camera pixels on the vehicle license plate, effectively producing an “ultra-high-resolution” image of the plate that, together with the front/rear capture capability, can provide clear images of the plate, even in cases where these images may be otherwise blurred. Capturing both front and rear images can address the problem of a missing or partially obscured plate.

*Additionally, because flash lighting is not used for plate capture, “Photo Stop Sprays” are not effective at preventing our system from capturing clearly readable license plate images under all lighting conditions.*

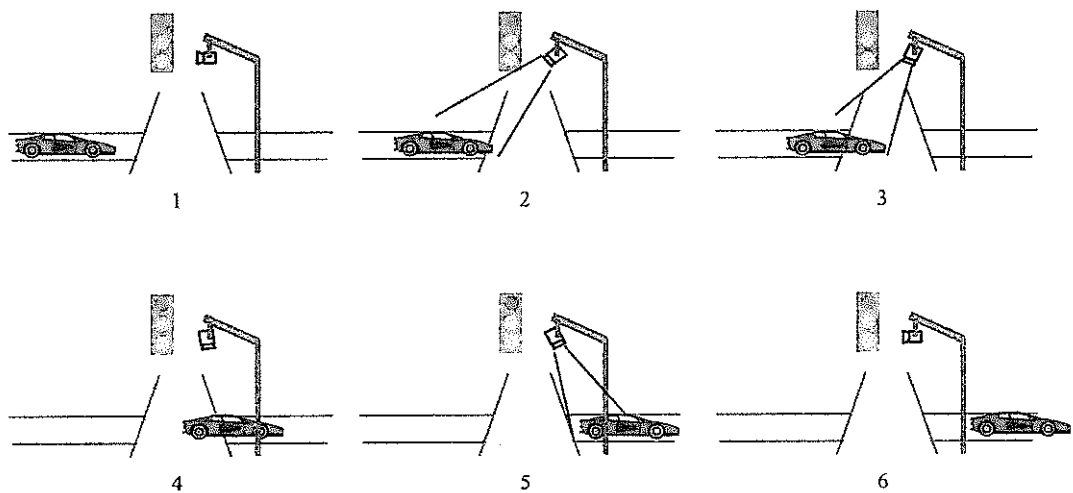


Figure 1 Illustration of CrossingGuard Fast-Tracking PTZ Violation Camera Capturing Front & Rear Vehicle Images

- (1) Vehicle approaches intersection. (2-3) Fast PTZ Violation Camera automatically moves to zoom in on the front of the vehicle and capture multiple video images of front license plate. (4) As vehicle moves through intersection, camera moves to acquire target as it recedes. (5) Violation Camera captures multiple rear plate video images. (6) Violation Camera repositions for next violation.

CrossingGuard’s use of video to capture multiple images of the violation, and its ability to control a camera to capture close-up violation views, virtually guarantee that the information needed to document the violation is visible in the captured footage. By controlling the camera to put the camera pixels on the violating vehicle itself, CrossingGuard ensures that the recorded video images have the necessary resolution to provide clear, readable license plate without the need for any image enhancement techniques. This ensures the complete integrity of the information against any suggestions that the images have been altered or manipulated in order to “fill in the blanks” to add missing information.

)

)

)





Figure 2 Software-Controlled Close-Up Camera Captures Clear Images

Day and Night Violation Video Samples. Images showing clarity of license plate images produced by software-controlled Close-Up camera.

Video has another important advantage. By providing more pictures, video increases the chance of capturing the right information even in cases where the violation is difficult to observe because of obscured views, lighting, or traffic conditions. While glare or shadows may prevent clear imaging at one point in the road, they do not prevent it at all points. By capturing images at 30 frames per second, CrossingGuard creates a more complete visual record of the violation that has a better chance of containing at least one frame where the license plate is clearly visible.

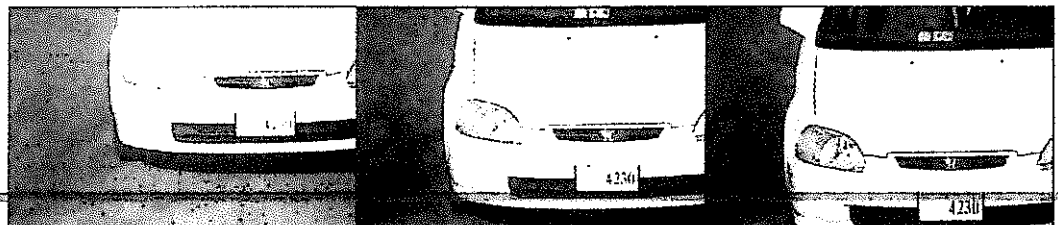


Figure 3 Video Sequence Provides Multiple Opportunities To Capture Clearly Readable License Plate Images

~~To reassure communities that this program is truly about safety, and to alleviate concerns~~  
 that this system is just another form of surveillance, CrossingGuard records video only when the system detects a vehicle about to violate the red light and stops recording immediately after the violation. This precise recording capability is performed by vehicle tracking functions operating on images provided by the Tracking Camera. When a

violation is predicted, CrossingGuard simultaneously begins recording from the Tracking Camera, the Violation Camera, and the Signal Camera.

In addition to the multiple, time-synchronized video clips provided, CrossingGuard also measures and records the speed of the vehicle at multiple points throughout the violation, the date and time of violation, the preceding programmed yellow-phase time, the elapsed time between the onset of the red light and the time of violation.

A "data packet" of the violation videos and corresponding date/time data is temporarily buffered to the disk of the PC RoadSide Station until it can be successfully transmitted over NTS' secure high-speed communications network.

CrossingGuard protects against data loss due to temporary interruptions in communications.

From the roadside, the data is transmitted to a secure server at the Nestor Traffic Systems where it can then be reviewed by certified NTS processors. Once transferred (usually within 5 minutes of the violation), the data is erased from the RoadSide Station, so that the violation data only exists within a central, secure facility. With CrossingGuard, communication interruptions don't mean data loss: By temporarily buffering violation data to a 36 gigabyte hard drive, CrossingGuard can store hundreds of violations, even if communications are down for long periods of time.

At the NTS processing center, violation video data is stored in a database, accessible only through CrossingGuard CitationComposer software. CitationComposer provides computer-based time-synchronized display of these multiple

Citation images are extracted directly from recorded video frames.

violation recordings, with convenient VCR-like controls to step through each recording frame-by-frame and to select frames to be used to populate the required image fields of an electronic citation form. The selected images will clearly show the critical information necessary to document the violation. This information consists of:

- A color image of the vehicle shown before entering the intersection
- A synchronized image of the traffic signal head visible to the driver
- A color image of the vehicle in the intersection
- The vehicle in violation, clearly identifiable by color, make, and model of vehicle
- One or more clearly identifiable images of the front and/or rear license plate of the vehicle (and driver image, if required)

Without obstructing the images of the vehicle or license plate, the system will provide a customizable "data box" containing at least:

Violation data can be printed anywhere on the citation without blocking critical violation image information.

- Violation number
- Date and time of the violation
- A unique identifier linking back to the digital video sequence used to create the citation
- Identification of the intersection, specified by the names of intersecting streets or appropriate location code

- Amount of time, in tenths of second, of the amber/yellow phase immediately preceding the violation
- Amount of time, in tenths of seconds, from the time the signal turned red until the time of the violation
- Speed of the vehicle at the time of the violation

The evidence presented on the citation is backed up by the full time-synchronized video sequences. The full video sequences are stored in CitationComposer as part of the violation record. These violations are available for review by the violator and can be viewed on the CitationComposer laptop in court, should the violator choose to contest the citation.

Violation video data available for violator review and as evidence in court

CrossingGuard's advanced use of multiple video recordings of a violation provides customers with the highest levels of citable violations (percent of violations for which citations may be issued). In similar programs, where citations are issued to the registered owner of the vehicle, citation issuance rates often exceed 90%.

The camera and video equipment will produce clear and readable video images both day and night, and in all weather conditions. Standard CrossingGuard features, such as 30 frames-per-second video, reduce plate glare and blurred images; and customizable camera settings such as variable exposure and aperture enable us to capture in clear images even in the most challenging lighting and weather conditions, including bright sun, rain, and overcast days.

Image clarity under all weather and lighting conditions

To provide extremely high image clarity, even at night, NTS uses a unique combination of the latest in visible-light camera technology together with proprietary adaptive software control of camera functions. CrossingGuard uses dual mode video camera technology that can operate either in color or in monochrome (black and white) image capture. When operating in black-and-white mode, the cameras are sensitive to as little as 0.015 lux.

In cases where ambient intersection nighttime lighting is inadequate to view the stop line or license plates at night, NTS may install outdoor narrow 120W spotlights to illuminate lanes of receding traffic to capture the rear license plate of a violator. These lights are computer controlled and activated for several seconds only when a violation event is detected. Unlike bright obtrusive strobe lighting, these lights are only used to increase the ambient intersection lighting and do not create the distracting "flash" created by other lighting methods.

**Equipment**

The principal components of a CrossingGuard installation at an intersection include pan-tilt-zoom weather-dome cameras, supplementary intersection lighting (as needed), camera poles and extensions (as needed) and a secure roadside equipment cabinet containing the CrossingGuard roadside computers and communications equipment.



Figure 4 Image of Vehicle License Plates Captured under Dark Night Conditions

CrossingGuard records multiple time-synchronized violation video sequences from cameras at various locations in the intersection to show the violation from several different vantage points. To monitor an intersection approach, CrossingGuard uses one video camera for vehicle detection/tracking (the Tracking Camera shown in Figure 5), one camera for recording the red traffic signal as the violator sees it prior to entering the intersection (the Signal Camera), and one camera for close-up recording of the vehicle, and license plate (the Violation Camera).

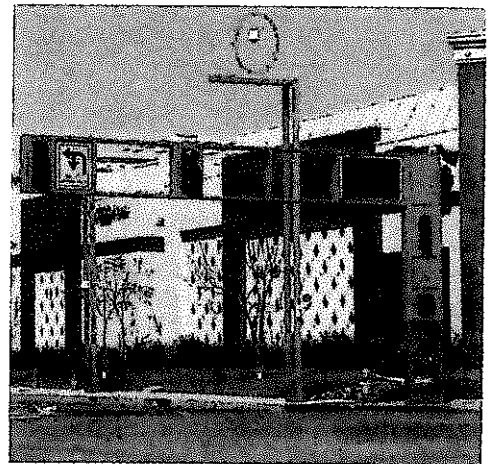


Figure 5 Tracking Camera

The Tracking Camera is pole-mounted above the intersection to provide an overview of oncoming traffic (up to 6 lanes) in the monitored direction.

In addition to using the Tracking Camera view for target tracking, CrossingGuard records video from the Tracking Camera to show the overall context of the violation. An example view from a tracking camera is shown in Figure 6.

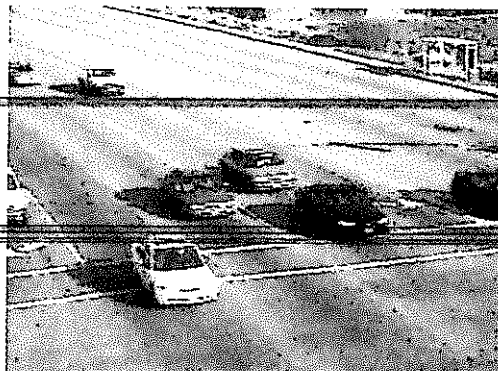
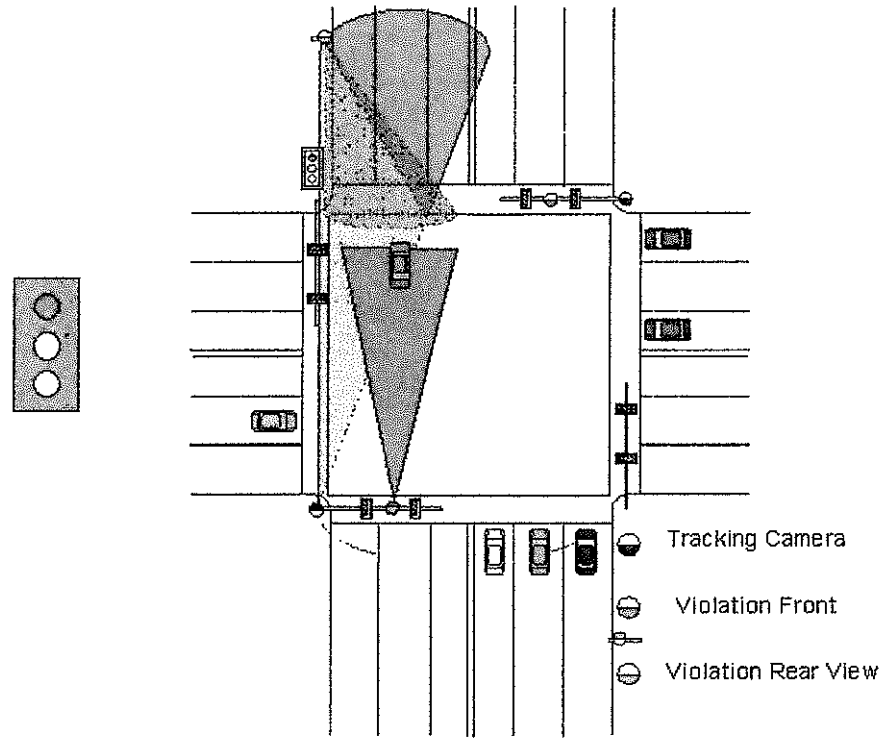


Figure 6 Tracking View



To configure the violation tracking component of CrossingGuard, an operations technician at a remote location uses a graphical interface to superimpose the virtual travel lanes as well as the virtual stop line and virtual confirmation line on a current view from CrossingGuard's tracking camera as shown in **Figure 7**.

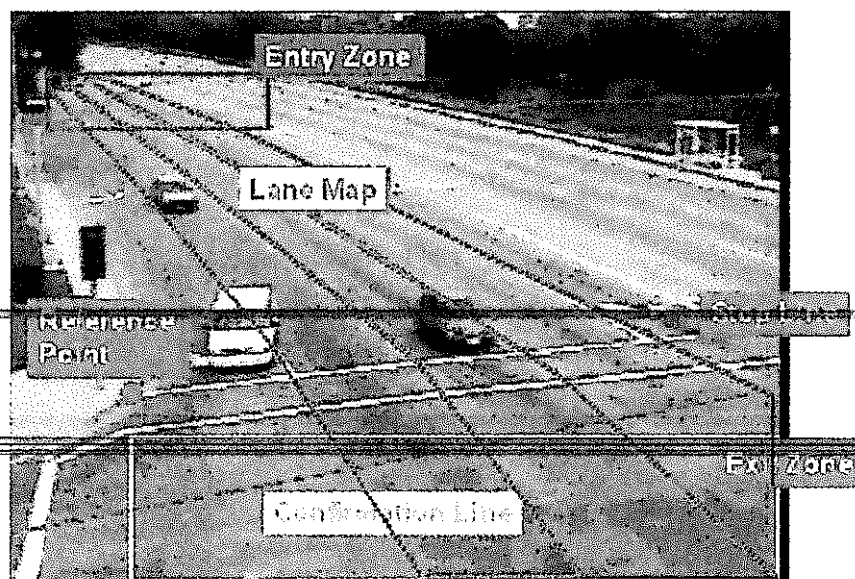
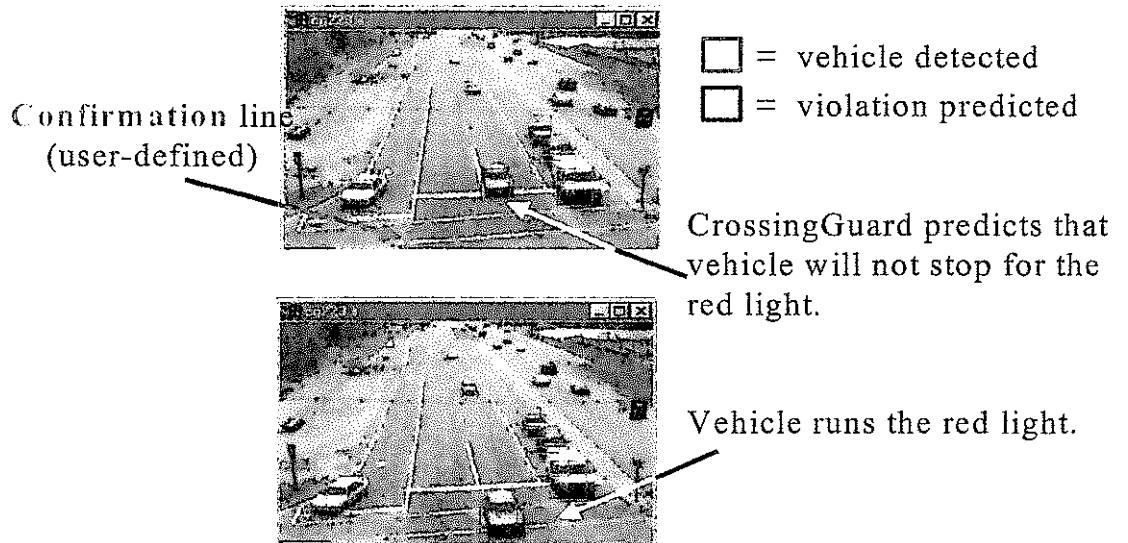


Figure 7 Multiple Lane Tracking

Once configured, the tracking component of CrossingGuard continuously monitors the approach for movement of vehicles in the virtual lanes. CrossingGuard also monitors the state of each phase of the traffic signals via connections to the 110V circuits powering the traffic signals. It is important to note that this signal sensing is non-invasive and can be accomplished outside of the City's traffic control cabinet. With its ability to track vehicles as they move in the virtual lanes, its understanding of the position of the stop and confirmation lanes in 3D space, and its real-time monitoring of the signal phases, CrossingGuard can discern red-light violations by detecting vehicles which crossed the virtual stop line after the traffic signal has turned red, and continued through the intersection and crossed the virtual confirmation line.

All aspects of the CrossingGuard configuration are user defined based on the specific requirements of the City. The operations technicians work with local law enforcement to configure the position of the stop line, the position of the virtual confirmation line, the minimum amount of time after red to begin enforcement (e.g. 0.0, 0.1, or 0.2 seconds after red), and the minimum speed of the vehicle as it crosses the stop line (1-99 miles/hour) which constitute a violation. Once configured, these calibrations are stored permanently on the RoadSide station, and checked daily (via remote connection) by an operations technician.





In addition to detecting violations in real-time as they occur, CrossingGuard's target tracking capability coupled with its ability to measure vehicle speed allows CrossingGuard to actually predict violations shortly before they occur. Violation prediction enhances CrossingGuard's patented **Collision Avoidance** feature, which if used by the City, will extend the red phase in the opposing directions when a violation occurs.

The Signal Camera (**Figure 8**) is mounted above the roadway and located approximately 100 feet before the stop line and is positioned to give a **full view of up-to six lanes** of travel from the rear as the vehicles are approaching and crossing the stop line, along with a clear view of the signal heads:

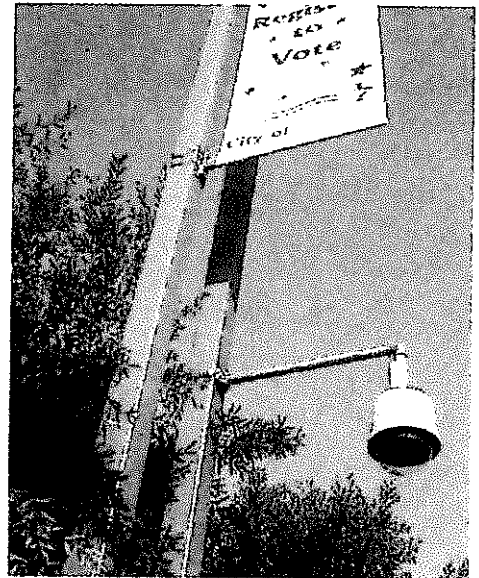


Figure 8 Signal Camera

The Signal Camera view (**Figure 9**), also known as the Receding View, records in a continuous loop. Only when CrossingGuard detects a violation, is a short video clip of the recording permanently captured which clearly depicts the vehicle approaching the intersection, crossing the stop line while the traffic signal is red, and continuing into and through the intersection. When viewed side-by-side with the Context View (recorded in similar fashion from the Tracking Camera), the violation is shown from two perspectives for additional detail:

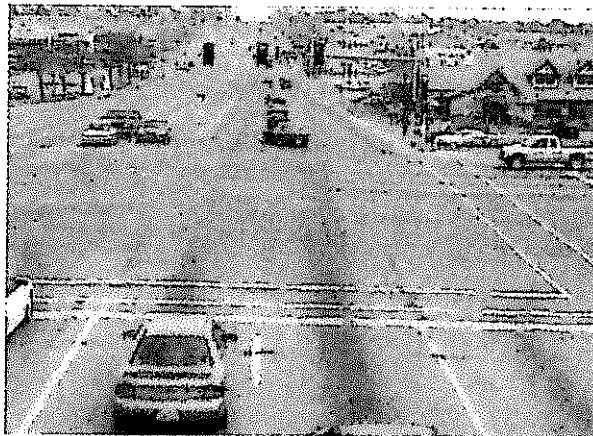
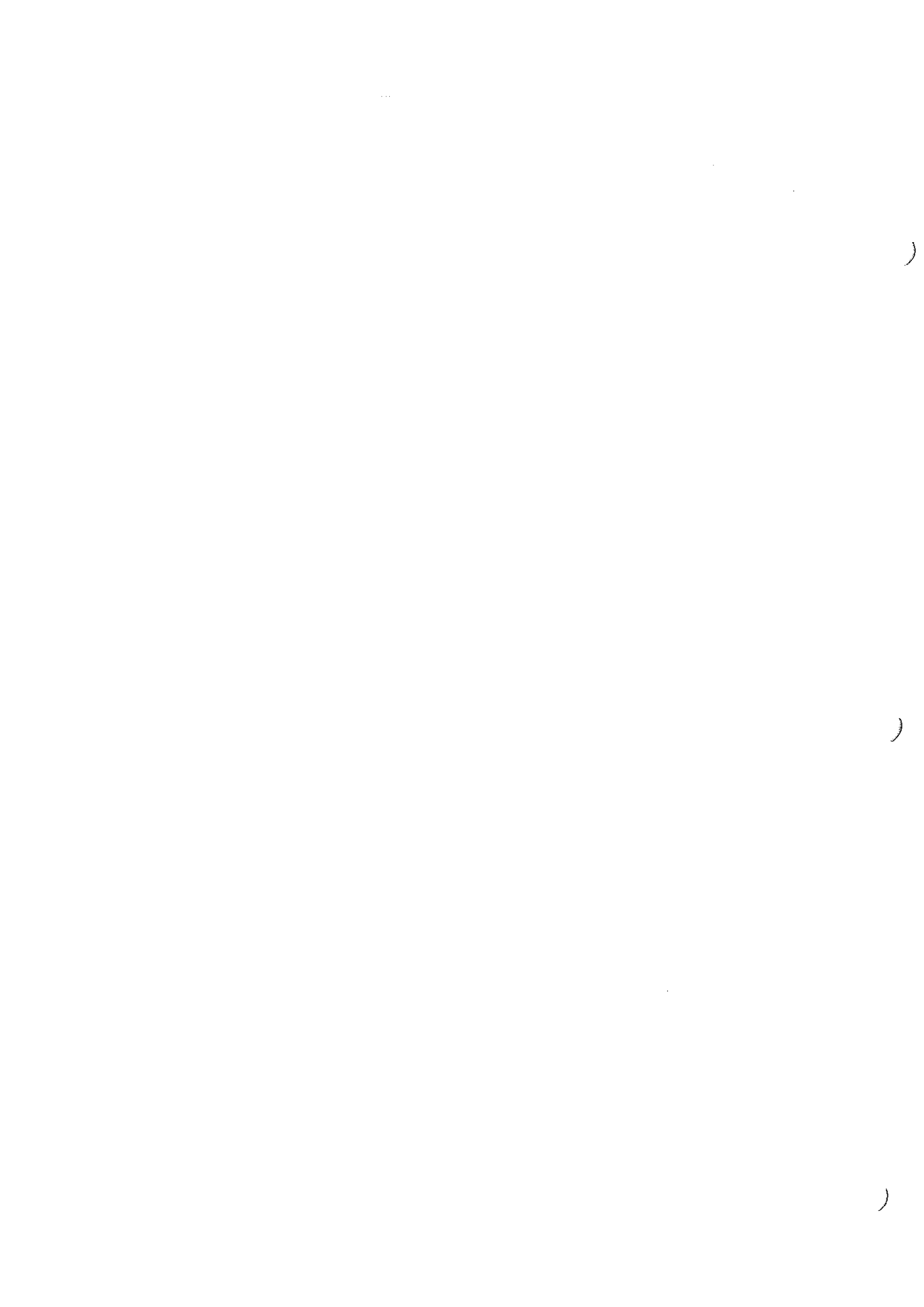
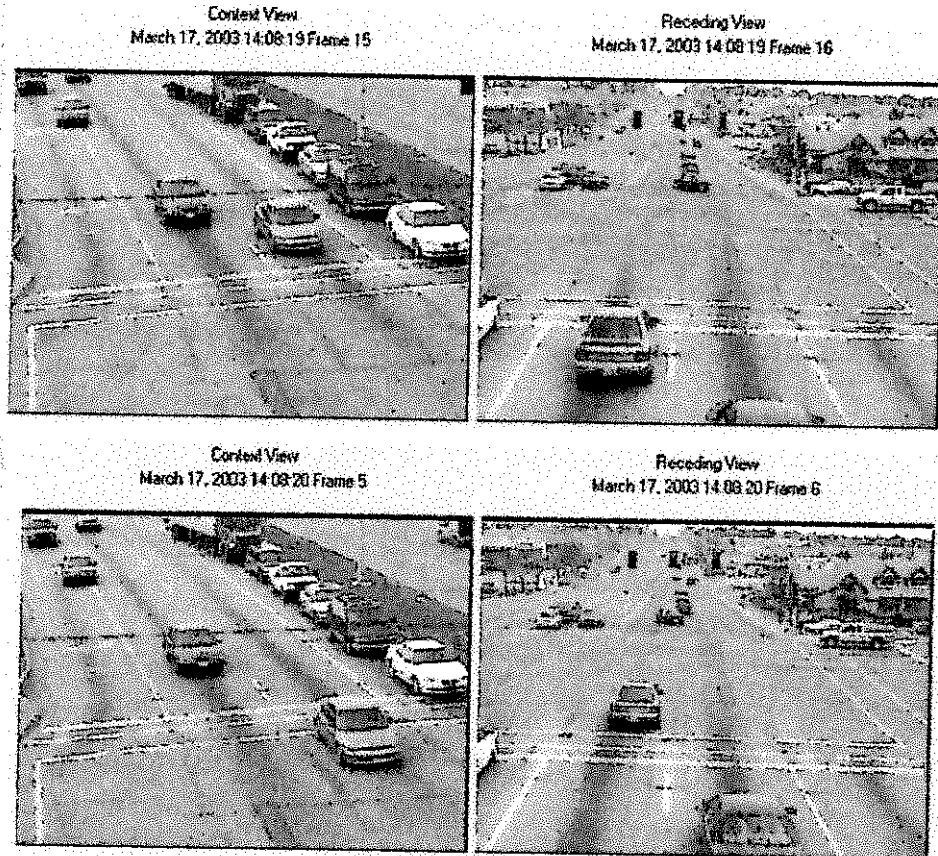


Figure 9 Signal Camera View





The Violation Camera, usually mounted at a height of 16-22 feet above the roadway and just beyond the intersection in the direction of the vehicle travel, is automatically controlled by CrossingGuard to aim at a particular lane where the violation is occurring and to “zoom-in” on the violating vehicle, capturing close-up color frames of the

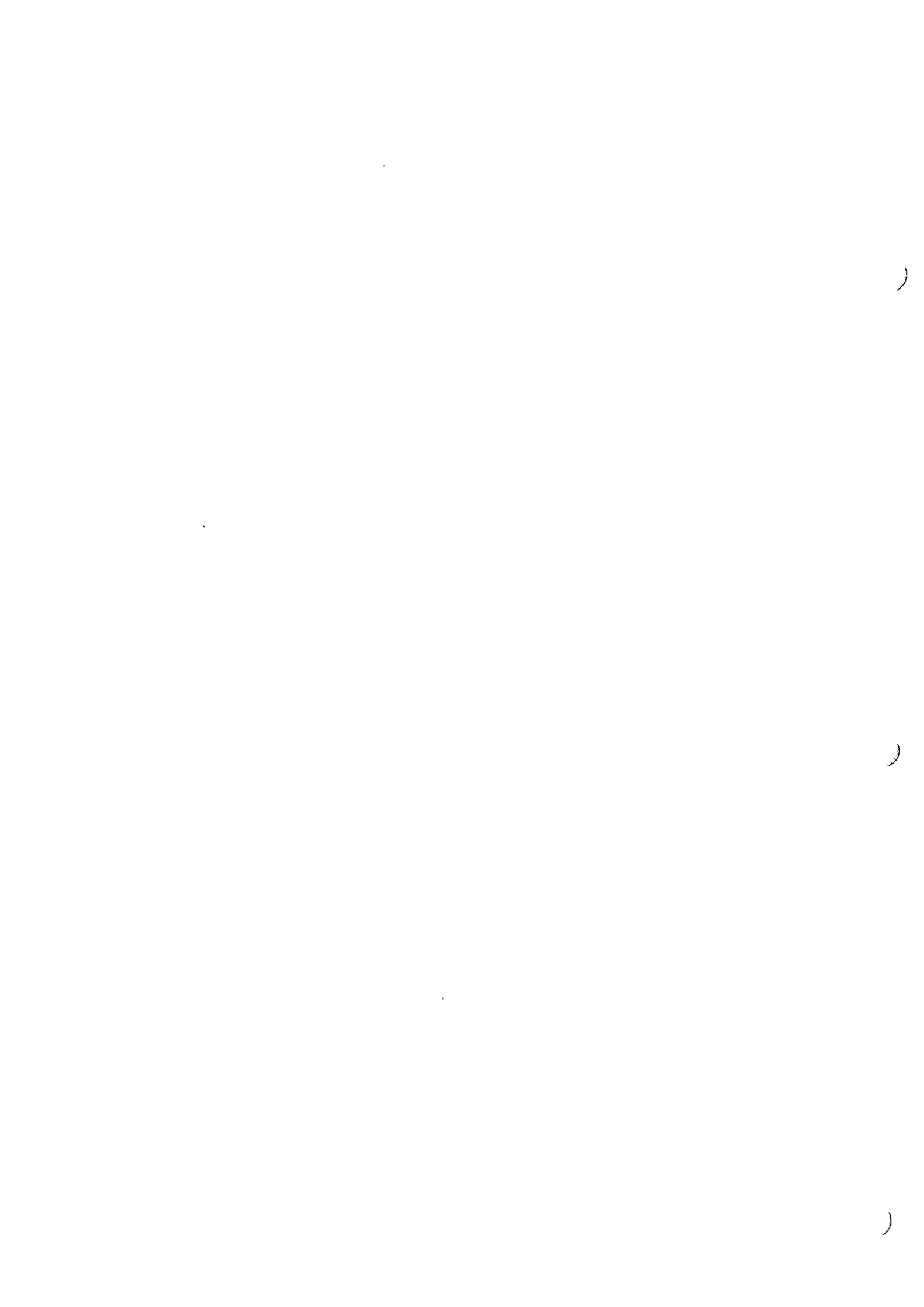


vehicle’s license plate, first front (if required) and then rear. (The camera swings around to capture an image of the rear plate as the vehicle drives off. In states with no front plate, the system may be configured to only capture a close-up of the rear.)

The CrossingGuard system does not force its customers to select either front *or* rear images. Instead, by utilizing one camera to capture both the front and rear of the offending vehicle, CrossingGuard ensures that license plate images are captured even for cars with no front plate and for tractor-trailer trucks.



**CrossingGuard is the only available system that has the flexibility of capturing both the front and rear plate images without having to install additional cameras.**



## **Specific Responses to Section 3.0 Requirements**

The following pages include specific responses to the City of Columbus' Requirement Section 3.0 of the RFP.

### **3.1.**

*The CoC expects each proposal to be based upon a turnkey operation, which shall mean the offeror shall provide all the necessary equipment associated with the system, and all necessary staff to install, operate, and maintain same as well as providing all necessary services including, but not limited to the following. Consequently:*

#### **3.1.1.**

*Please describe how your system photographs vehicles allegedly not stopping for a red light traffic signal.*

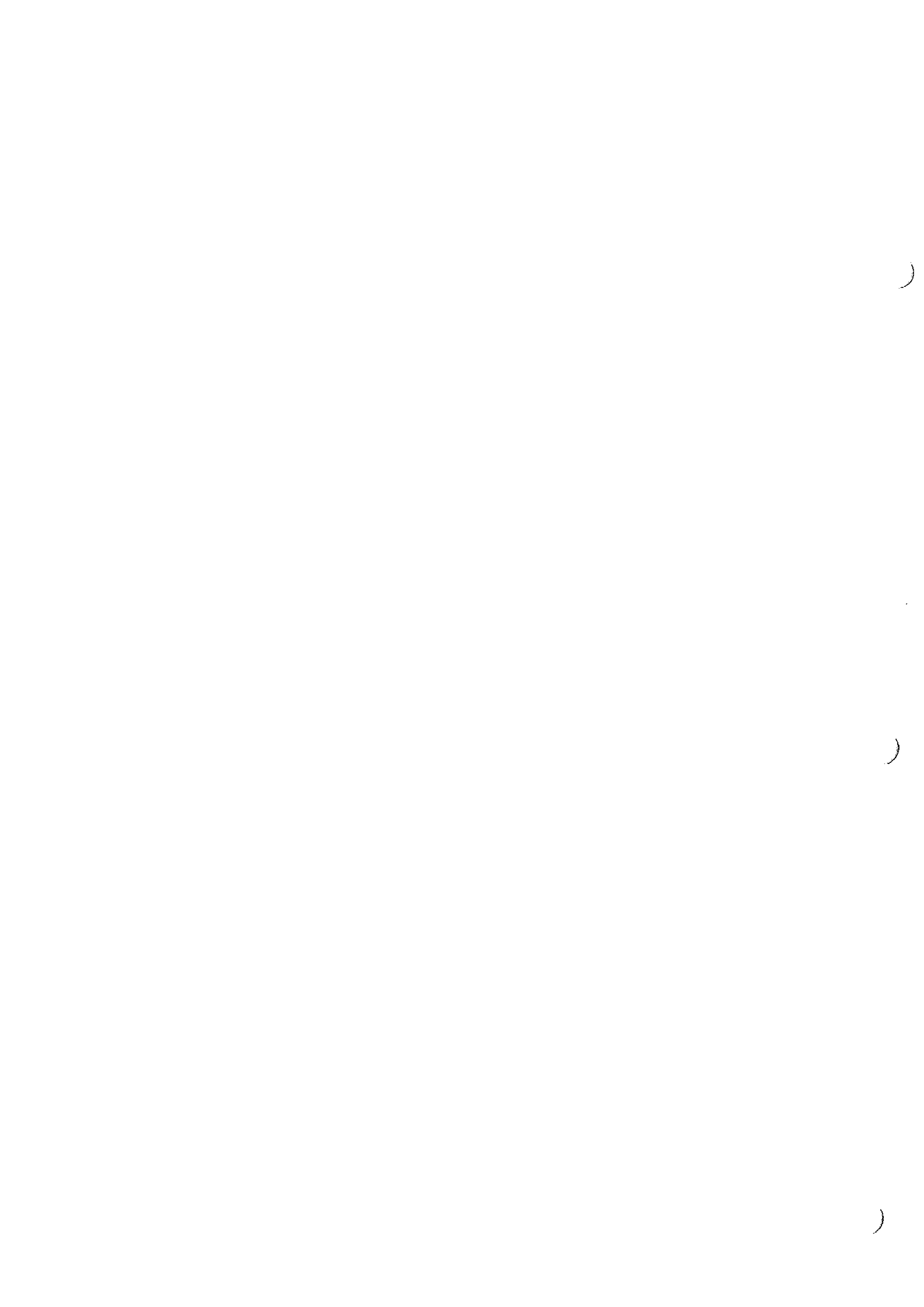
With its first installation in 1999, the CrossingGuard system is the longest running video based red light enforcement system available. As the pioneer in video-based red light enforcement, NTS continues to use only the highest quality Pan-Tilt-Zoom video systems from such industry leaders as Cohu and Ultrak. While other systems may add interlaced video cameras, CrossingGuard has *progressive scan* video cameras at the heart of its system. The difference: progressive scan cameras reduce image blur, offer twice the resolution of standard video cameras, and provide more complete video evidence.

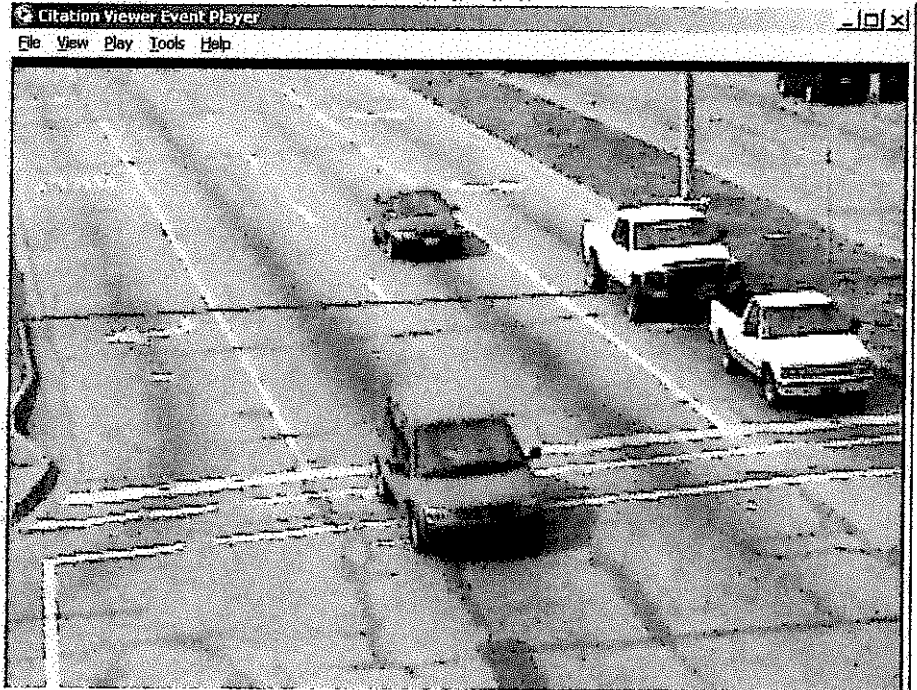
### **Photographing Violations**

CrossingGuard incorporates three high-speed Pan-tilt-zoom cameras to catch red light runners: the Tracking Camera, the Signal Camera, and the Violation Camera. Each of these cameras, operating at thirty frames-per-second, records a time synchronized video clip of the violation from a different angle, resulting in as many as 500 digital images of each violation. The various angles provide the full context of the violation and the large number of images ensures that all necessary information is captured, regardless of lighting or weather conditions. CrossingGuard's unique camera configuration provides a complete evidence package that gives officers the ability to make objective decisions about whether or not to issue a citation. The result is the industry's highest compliance rates and less than 1% of all CrossingGuard citations being overturned or dismissed.

### **Tracking Camera**

The tracking camera continuously monitors vehicles as they approach the intersection, sending critical information to a roadside computer that calculates speed and distance from the stop line. Once the system predicts that a violation will occur, the system begins recording from the tracking camera (producing the "context view"), and simultaneously activates two additional cameras.





**Signal Camera**

Having received input from the roadside computer, the signal camera then begins recording a time-synchronized video of the violation from a second angle. Positioned behind the stop line, the signal camera captures images of the rear of the vehicle as it approaches and proceeds through the intersection. The resulting video shows the vehicle behind the stop line with the red signal clearly displayed followed by images of the vehicle in the intersection with the red signal displayed.



### Violation Camera

The violation camera, time-synchronized with the other cameras in the system, is positioned to capture critical vehicle and license plate information. In addition, this same camera can be configured to capture driver images if required by the City. Positioned on the exiting side of the intersection, this camera dynamically aims at the front of the violating vehicle, capturing license plate and driver images (if required). The camera then quickly swings around to capture the rear plate of the violating vehicle (see **Figure 10**). The use of video for capturing this critical violation data means CrossingGuard has as many as twenty opportunities to capture clear, usable images of the front plate, rear plate, and driver. In addition, by capturing all of this information with one camera, CrossingGuard limits the infrastructure needed for its system: **No additional cameras, No additional cost to the city.**

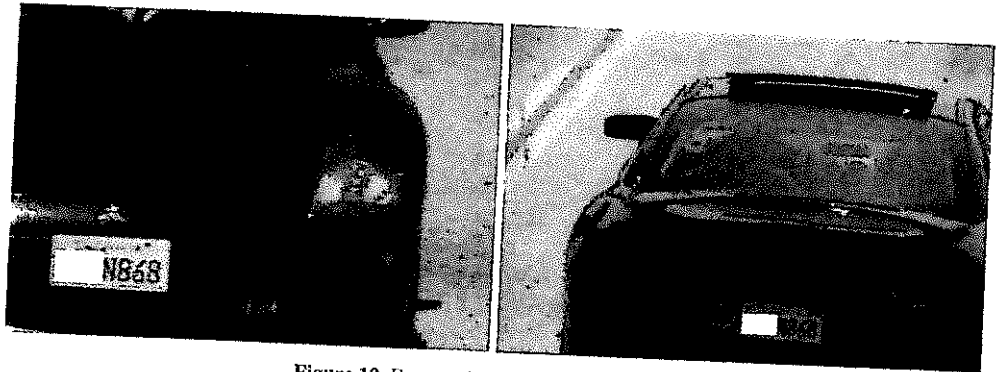


Figure 10 Front and Rear Captured Images

#### 3.1.2.

*Please describe how your system obtains vehicle registration information.*

NTS has extensive experience interfacing with various City databases and information systems. For each CrossingGuard program our team has implemented, NTS has worked with the City to determine the level of access that we will have to BMV records. NTS will design customized interfaces to ensure that our system will securely communicate and transmit all of the necessary information regardless of the City's existing information systems or database formats. NTS will customize this process so that the City can be confident that the process is in compliance with any applicable state laws, regulations or City Ordinances.

In existing programs information access levels, existing database formats and levels of process automation vary. For this reason, NTS Programmers begin working immediately to establish a common interface method and processes for information retrieval. If Ohio BMV will not authorize NTS to access the registered owner information directly, NTS will work with the Police Department to develop an electronic transfer of information. There are various options available including using Web Services technology to communicate the critical BMV information. The following table highlights several approaches NTS has taken to address the differences in existing information systems.

Location	Restrictions/Challenges	Court Scheduling & Disposition	NTS Solution
Delaware DOT	No Direct DMV Access	NTS performs all court scheduling, violation tracking, and disposition tracking. Information is communicated via SFTP	NTS and the Delaware DOT information systems utilize Web Service Technology to communicate critical DMV information. To accomplish this, the Delaware DOT responds to specific inquiries made through a secure website accessible only to NTS. NTS developed an interface to accept this data and format it into recognizable information. NTS has no direct access to the DE DMV record database
California	Direct connection to existing Mainframe database. State provides no data formatting.	NTS performs all court scheduling, violation tracking, and disposition tracking. Information is communicated via FTP	NTS has direct access to the CA DMV Database. However, NTS must extract information in its existing format directly from the DMV mainframe computer. This was accomplished through the use of a direct connect modem and an NTS interface designed to query the DMV records and convert to an NTS recognizable format.
Virginia	No Direct DMV Access	All court scheduling is performed manually by the City. Records and dispositions are reported to NTS for tracking and reporting purposes.	NTS created an interface to query the State DMV Record Database and retrieve appropriate DMV information. A diskette requesting specific registration information is physically sent to the State DMV. NTS has no direct access to the VA DMV record database.

From a processing perspective, NTS reviews the violation video files and enters the vehicle registration plate with exact letters and number sequence and state from the violator's vehicle. The registration origin state determines the procedure for obtaining the registered owner's information. For violators registered in-state, the owner information can be obtained from the state's BMV database. As noted above some states allow us direct access to the BMV information based on the City's authorization. The license plate information is requested as a read-only query. The data is then imported into the citation record in CitationComposer. If online access cannot be obtained, then NTS will work with the police department to develop a custom interface to access this information.

For violators with out-of-state license plates NTS contracts with Law Enforcement Systems (LES), to provide this service for us. LES accepts an electronic file of batched records from NTS and returns the registered owner information to NTS with the correctly formatted information. This data is then



)

)

)

automatically imported directly into CitationComposer and the registered owner information automatically populates the database. As not all state BMV information is available through LES, the Police Department also has the option of manually entering the information directly.

### 3.1.3.

*Please describe, in detail, how your system will interface with the CoC traffic signal control equipment.*

CrossingGuard does not connect directly to the City's traffic controller. Signal sensing is done by measuring the presence (or absence) of 110V AC power to each signal indication for every signal phase. The connection to the 110V AC feeds for the signal indicators can be made in a junction box outside of the cabinet; or it can be made in the City's traffic controller cabinet if preferred by the City. The primary advantage of having the connections inside the City's traffic controller cabinet is that City personnel have the easiest access to connect and disconnect from here.

Nestor's signal sensing connections use in-line fused disconnects that feed a sensing module in the Nestor cabinet. The sensing module is optically isolated to 3,000 Vrms and is rated for a working voltage of 250 Vrms, designed per IEC 1010 as double insulated. The input current to the sensing modules is limited to 1.5 mA.

The accuracy at which CrossingGuard monitors signal changes is a configurable option. It can be configured to measure signal changes to an accuracy of 10 milliseconds (0.01 seconds) and normally runs at an update rate of 30 milliseconds.

The duration of every signal indication for each phase is logged in the CrossingGuard system log. This means CrossingGuard provides a permanent record of every signal indication change for every phase for a monitored approach from the time the CrossingGuard system is installed until the time that the CrossingGuard system is removed. In other words, the exact signal indication changes (including durations to the 0.1 second) can be researched for any particular intersection for any particular day from the start of the program. This is particularly useful for providing documentation to show normal signal operation (or any anomalies), whether needed for a violation court case or just to verify the correct operation of the traffic controller and the CrossingGuard system. A monthly report, called the "Yellow-Time" report is typically provided to the client each month that notes the average yellow time measured for each signal phase for each day of the month.

In conjunction with the City, NTS will develop a protocol to notify the City personnel if CrossingGuard detects a signal sensing error.

### 3.1.4.

*Please describe how your system reviews each photograph for visibility.*

The CrossingGuard System is a full turnkey solution for red light enforcement. As such, our system has incorporated proprietary software and a systematic

approach for reviewing each image captured at the intersection. Once data packets are received at the central processing facility, NTS processors use CitationComposer software to review each set of violation data. Based on specific criteria established by the City of Columbus, the processors will perform a preliminary screen of each alleged violation to determine if all of the elements needed to issue a citation are present. Every alleged violation will be viewed from each of the multiple camera angles to ensure that there were no extenuating circumstances that would exonerate the motorist. Events that would cause a citation to be dismissed, such as yielding to emergency vehicle or being part of a funeral procession, are clearly visible with CrossingGuard. Other systems, lacking this comprehensive evidence, would cause a citation be issued only to be discarded later. Provided all of the required elements are present, the NTS reviewer will then identify and extract the best still images from a set of 300 to 500 candidate images.

Given the large number of images captured by the CrossingGuard video system, processors are able to scan through all of the images looking for the ones that provide the clearest, most compelling evidence of the violation. Key images included are:

- Clearly identifiable license plate image
- Clear image of the violating vehicle behind the stop line when the traffic signal is red
- Clear image of the violating vehicle in the intersection (traffic signal still red)
- Clear image of the front and/or rear plate of the violating vehicle
- Clear image of the driver's face (if required by the City)

NTS' systematic approach to event review ensures that if extenuating circumstances exist, citations are not issued. Our methodology results in less than 1% of all issued citations being dismissed or overturned in court. In addition, the City can be sure that this program is objective and fair to its citizens.

#### 3.1.5.

*Please describe how your system matches the make and model with the obtained registration information.*

Understanding how critical it is to accurately match vehicle make and model of the violator with the existing state BMV records, NTS dedicates a separate processing step to this procedure. After the initial event review has occurred and BMV records have been obtained, the process of "BMV Review" begins.

The first step in the BMV review process is for a second NTS reviewer to "redo" the initial event review, checking for accuracy. In this step, the BMV reviewer is confirming that all of the necessary elements are present- vehicle clearly behind the stop line with traffic signal red, no extenuating circumstances, clear images of license plate, etc. Next, the BMV Reviewer will enter the license plate as he/she sees it from the video images. Provided the plate information matches the initial

review, the associated BMV records will be displayed. It is then the responsibility of the BMV reviewer to determine if the year, make, and body type of the vehicle in the video matches the associated BMV record.

To ensure that this critical step is performed with the utmost accuracy, only an NTS Certified BMV Reviewer can perform this procedure. To complete certification, a processor must demonstrate a high level of accuracy in initial event review and pass a series of tests demonstrating their ability to identify vehicles by shape, emblem, size, etc. As an additional safeguard, NTS requires that initial event review and BMV review be performed by two different processors.

Only after all of the above criteria have been met, does NTS send the violation data to the City for approval. Maintaining such high processing and reviewing standards, the CrossingGuard system further demonstrates our commitment to the City by ensuring that City personnel time is not wasted reviewing events only to later be discarded.

#### 3.1.6.

*Please describe how your system performs quality control in the form of a second opinion as to the violation (this will be DoP review).*

NTS processors undergo an extensive training program to ensure that all critical steps in reviewing and preparing a citation are followed. In addition to the overall training program, the processors identified for specific programs must be intimately familiar with the City approved Policies and Procedures Document.

An important component of the Quality Control process is to ensure that each violation is reviewed by four different processors during various stages of the process. The first stage is the initial review of the event from roadside. The second stage is the BMV Review, which is performed by a different processor than the initial review. During this stage, the processor performs a visual check of the video and cropped images, which will be displayed on the printed citation, as well as a check of the BMV information. The processor verifies the violator's vehicle and pertinent information matches the BMV vehicle information. The third stage is the Officer Review, which is performed by a police officer. The officer performs the same check as during BMV Review. Once an officer approves a citation, the information is electronically transmitted back to the NTS processing center. The last stage of the QC check is a visual check of the actual printed citation, including the pictures and BMV information before it is mailed to the violator. This final stage QC check is performed by a different person than the three previous stages.

#### 3.1.7.

*Please describe how your system generates a citation, with photograph, and mailing to the registered owner of the vehicle that performed the violation.*

When a new event is generated from roadside, it is electronically transferred immediately in real time to the NTS processing facility, where it placed in a "new event" queue. The NTS processors use the Citation Composer Summary Screen (which tracks all events and the status) to consistently check for new

events. The processor then reviews the violation data in the new event queue, which is called the initial review. Once an event is deemed a citable violation it then goes to the BMV Export queue and waits for BMV information. Once the BMV information is obtained, the violation moves to the BMV Review queue. Once the violation is approved in this stage, it moves to the Officer Review queue. After the Officer approves the violation, it moves to the Ready for Mailing queue, where it resides until it is printed. Once the citation is printed, it is then reviewed for accuracy and then mailed. The violation then moves to the Await Response queue, where it resides until a response is received from the violator. Once each step in the process is completed the event/violation automatically moves to the next queue. Citation processing is a seamless process that is facilitated by CitationComposer software. The automation of many of the steps ensures that NTS processes all events in a timely manner. **NTS processes events 7 days a week, enabling most events to be processed within 16 hours**, the majority being processed within only 4 hours. The processing flow chart in **Figure 11** in paragraph 3.1.9 identifies the major processing steps and the order in which they occur.

### 3.1.8.

*Please describe how your company will meet Statement of Auditing Standards (SAS) 70 requirements for this project.*

NTS is the principal operating subsidiary of Nestor, Inc., a publicly traded U.S. based company. Nestor is subject to a consolidated audit by independent auditors annually, and a copy of the company's most recent audited statements is attached to this proposal. Management certifies to the SEC as to the adequacy of the company's internal controls annually and quarterly, and independent auditors review these controls annually. The company has not been found to have any material weaknesses in its internal control procedures.

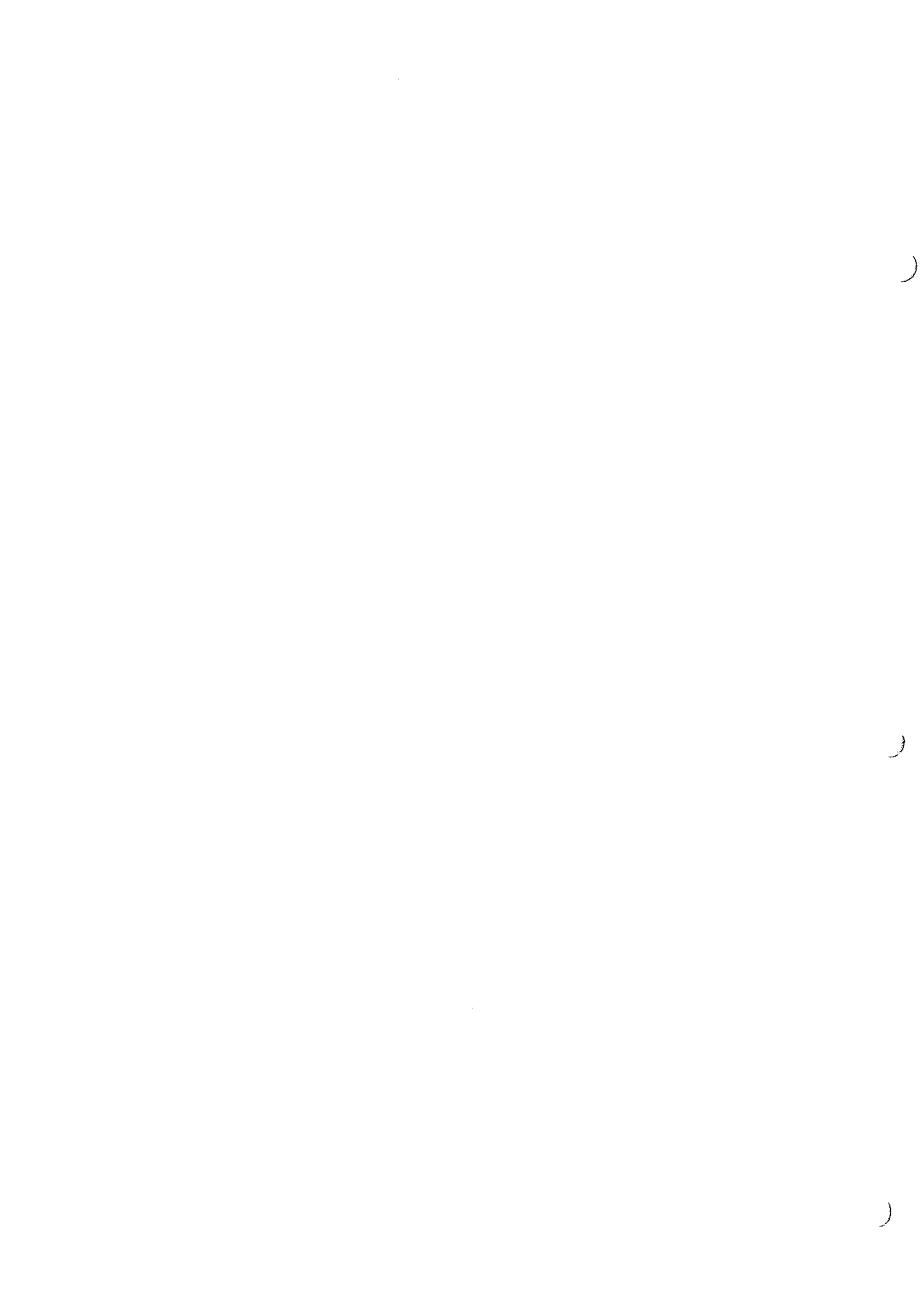
In addition, the company has begun implementing additional internal control procedures as required under the Sarbanes Oxley Act and will be fully compliant by the deadline in 2005.

If the parties determine that any additional procedures are required for NTS or the City to comply with SAS 70 as regards this program, NTS will work with the City to accomplish those requirements. NTS will welcome an internal audit by City officials or the State Auditor of all operations and processes relating to the CrossingGuard system.

### 3.1.9.

~~*Please describe how your system transfers electronic files of citation information between the CoC's court system and the offeror.*~~

~~Critical to the success of any red light program is the effective transfer of violation data from the intersection where it originates to the various locations required for processing, review, and adjudication. Unlike wet-film processing systems of the past, which required manual retrieval and transport, today's digital systems require rapid, secure transfer of critical violation data. Nestor understands the importance of safeguarding this sensitive information. For this reason NTS has built an extensive secure communications network referred to as~~



the Nestor Communications Network (NCN). From the moment data is captured at the roadside, it is accessible only by authorized NCN users.

### **Nestor Communications Network**

The Nestor Communications Network (NCN) is a secure, high-speed communications network that links CrossingGuard equipment at the intersection with NTS processing centers, both local and remote, as well as any CrossingGuard workstations. This communications network uses the latest telecommunications and computer technology to deliver digital video and data securely in real-time, where it is needed. The NCN is completely scalable to accommodate any number of intersections which the client may choose to equip, and can grow as the need arises in the future. The NCN provides not only real-time violation video and data transfer, but also remote monitoring and control of all CrossingGuard field equipment from NTS' headquarters in Rhode Island.

The NCN is built on top of the Qwest national fiber-optic communications backbone. As a private communications network, the Qwest IP network enjoys inherent security against unauthorized access, and the Nestor Communications Network is a private circuit within this private network. Over this network, intersection violation video and data flow securely and swiftly from each CrossingGuard-equipped intersection to NTS' Processing Operations Center, which is a node on the network. Within a few minutes after a violation occurs, complete violation video and data are automatically forwarded over the NCN from the intersection to the processing center.

CrossingGuard equipment at the intersection is connected to the Qwest network through any of a variety of means: high-speed land based phone lines (offered through arrangement with the local telephone provider), wireless LAN's or even spare capacity on client owned "interconnect" between intersections can be used to connect the CrossingGuard equipment at the intersection.

NTS is alternatively offering a partnership with Columbus based, Mobile Broadband Networks (MBN) to provide a secure, wireless last mile solution. MBN will use their patented 4G wireless system to transfer critical information from the roadside to local routers where they will then be transferred to the NTS processing facility. The technology provided by MBN is recognized as the next generation in wireless communications and will offer the City of Columbus a foundation on which they can build a truly state of the art communications network. A further description of the benefits provided by the MBN system is provided in the cost section of this proposal.

---

### **Equipment**

---

A desktop CrossingGuard Workstation for violation review will be installed at the police department(s) and/or local traffic management center(s). In addition, NTS will provide the City with a laptop CrossingGuard workstation for use in court hearings. These workstations will be additional nodes on the CrossingGuard network, with user-access privileges that provide real-time access to violation video and data. An additional workstation will also be located at the

NTS Customer Service Center. NTS will provide these workstations at no additional cost to the City.

### **Workstation Features**

These machines are Intel-based PC's running Microsoft Windows 2000 (or Windows NT) and NTS' CrossingGuard Windows-based CitationComposer software. Workstations are configured with a minimum 2.2 Gigabyte Pentium 4 processor, 20 Gigabyte hard drive, and 256 Megabytes RAM. CitationComposer provides violation database support functions for violation data review, citation preparation, citation review, electronic citation authorization, citation printing, and program management reports. Security is handled through Windows NT and Windows 2000 functions and the CrossingGuard application itself, preventing access by unauthorized users and setting user privilege levels so that authorized users have access only to functions for which they have prior clearance. As needed, the client's CG Laptops can be disconnected from the NCN for the purpose of transporting them to court to present evidence for adjudication of contested citations.

### **Information Flow**

All necessary information to capture red light violators, issue citations, and track citation resolution is transmitted securely over the NCN. The typical flow of information is as follows:

1. Violation data is sent from roadside to NTS Processing Center over the NCN (typically within 5 minutes of violation).
2. After review by NTS processors, violations are sent to Police Department for officer review.
3. After officer approval, violations are transmitted back to NTS for citation printing and mailing.
4. If a violator requests a viewing of the violation video, NTS will send the data packet either to a Customer Service center or to the City Police Department based on established procedure.
5. If the violator requests a court hearing, NTS will send the data packet to the laptop CrossingGuard Workstation.

In addition to the transmission of violation data, NTS will transmit on a daily basis to the City of Columbus Court system all information regarding the status of violations, including event aging, citation status, citation resolution, payment information, delinquent status, etc.



)

)

)

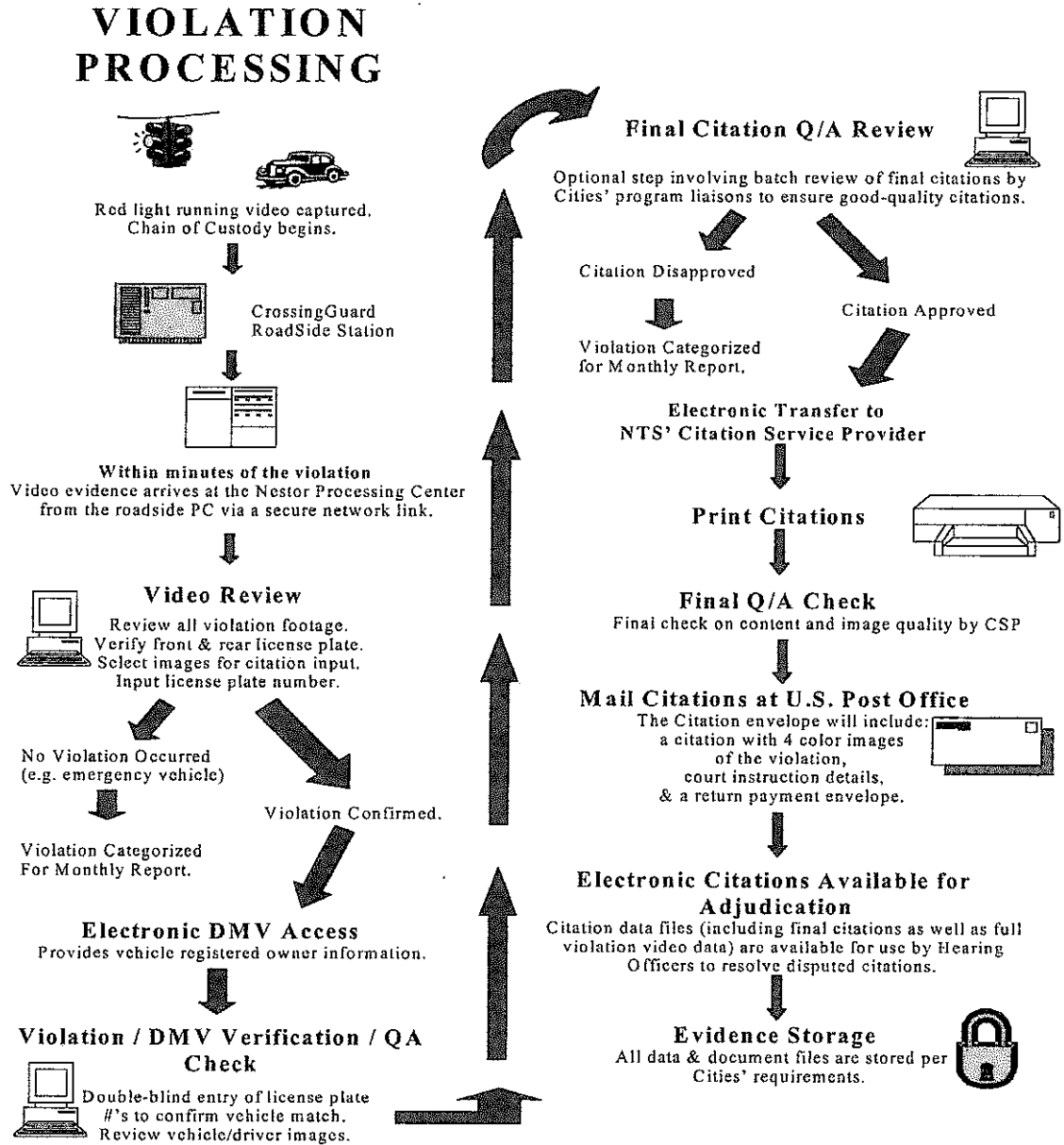
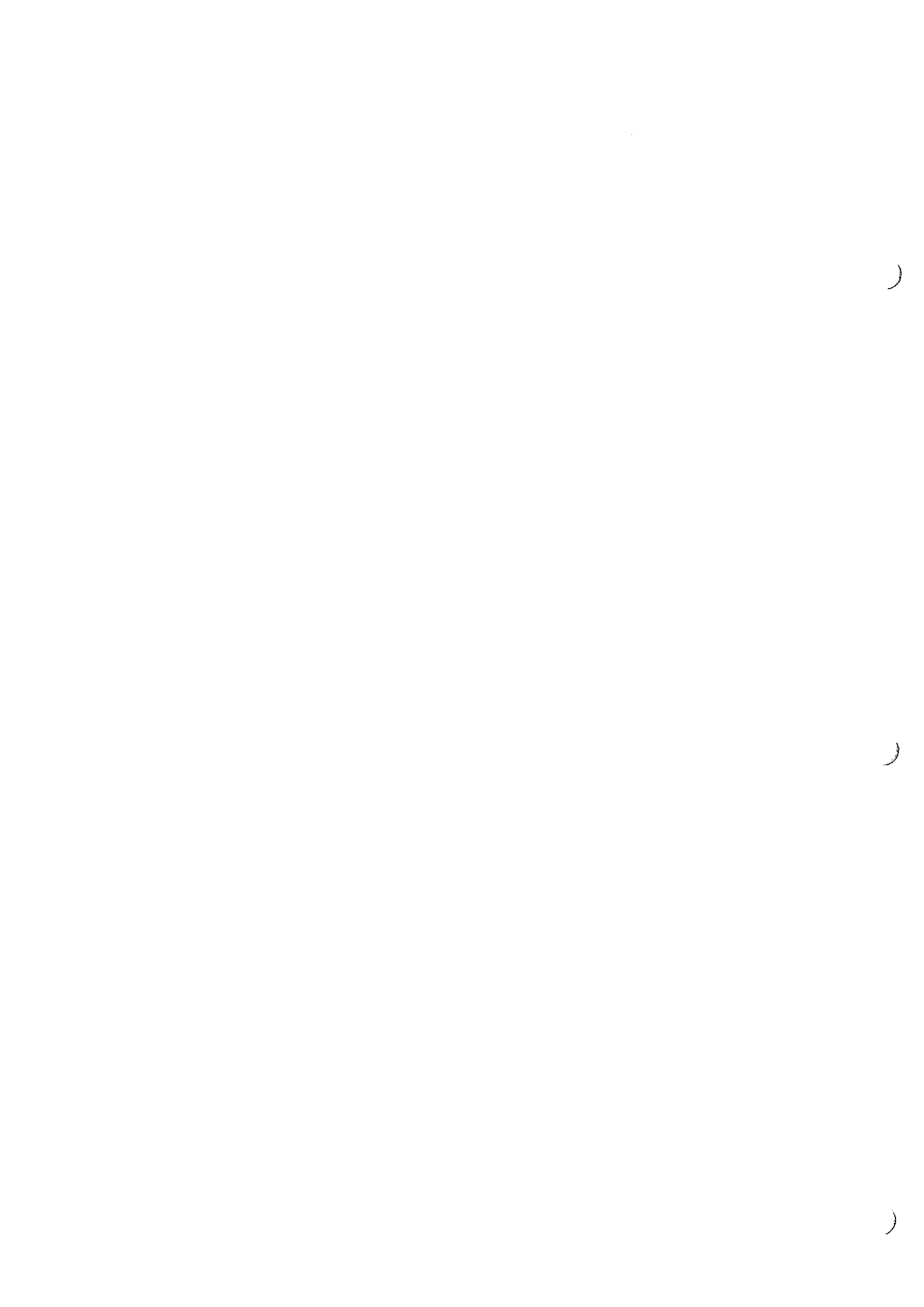


Figure 11 Violation Flowchart

3.1.10.

Please describe how your system processes service of citations not responded to after the mailing.

The process for collections is developed in conjunction with the City of Columbus and in compliance with any specific requirements in the City Ordinance. This process could be similar to your existing parking code and procedures. The City Ordinance determines how many days a violator has to pay a citation before it is considered delinquent. NTS would recommend that a late penalty be incurred if the citation is not paid within a certain numbers of days,



usually 30 days from the date of mailing, which allows sufficient time for the citation to be received and paid.

The Policies and Procedures Document would specify the steps for handling delinquent notices. Normal processes require that if payment is not received within the required timeframe, a second citation will automatically be generated and mailed to the violator. This citation would have the wording "Second Notice or Final Notice" printed in red on the top of the citation. Each citation would include information regarding any penalties for late payment. Some cities also require a third notice to be mailed. All envelopes are printed with "Law Enforcement Notice" in red ink. If there is any additional provision in the ordinance to penalize the violator if the citation is not paid, NTS will develop a special insert highlighting those penalties and include it with the Final Notice.

One of our customers in Virginia has instituted an additional process for delinquent violators, which has worked very effectively. If the citation is not paid or the violator has not appealed after receipt of the Final Notice, the City sends out a letter on Police Department letterhead in a police envelope stating the citation is delinquent. This extra step has resulted in an increase in payments and the City has shown payment rates in the 90+ percentile.

Additionally, if the City of Columbus desires, NTS will subcontract with LES to provide contingency collection services depending on volumes. This contractor would take a percentage of the amount collected on delinquent citations. The City may also decide to use your existing contractor for collections. If so, NTS could develop a process to interface with this provider. Depending on the specific interface requirements this could incur additional charges.

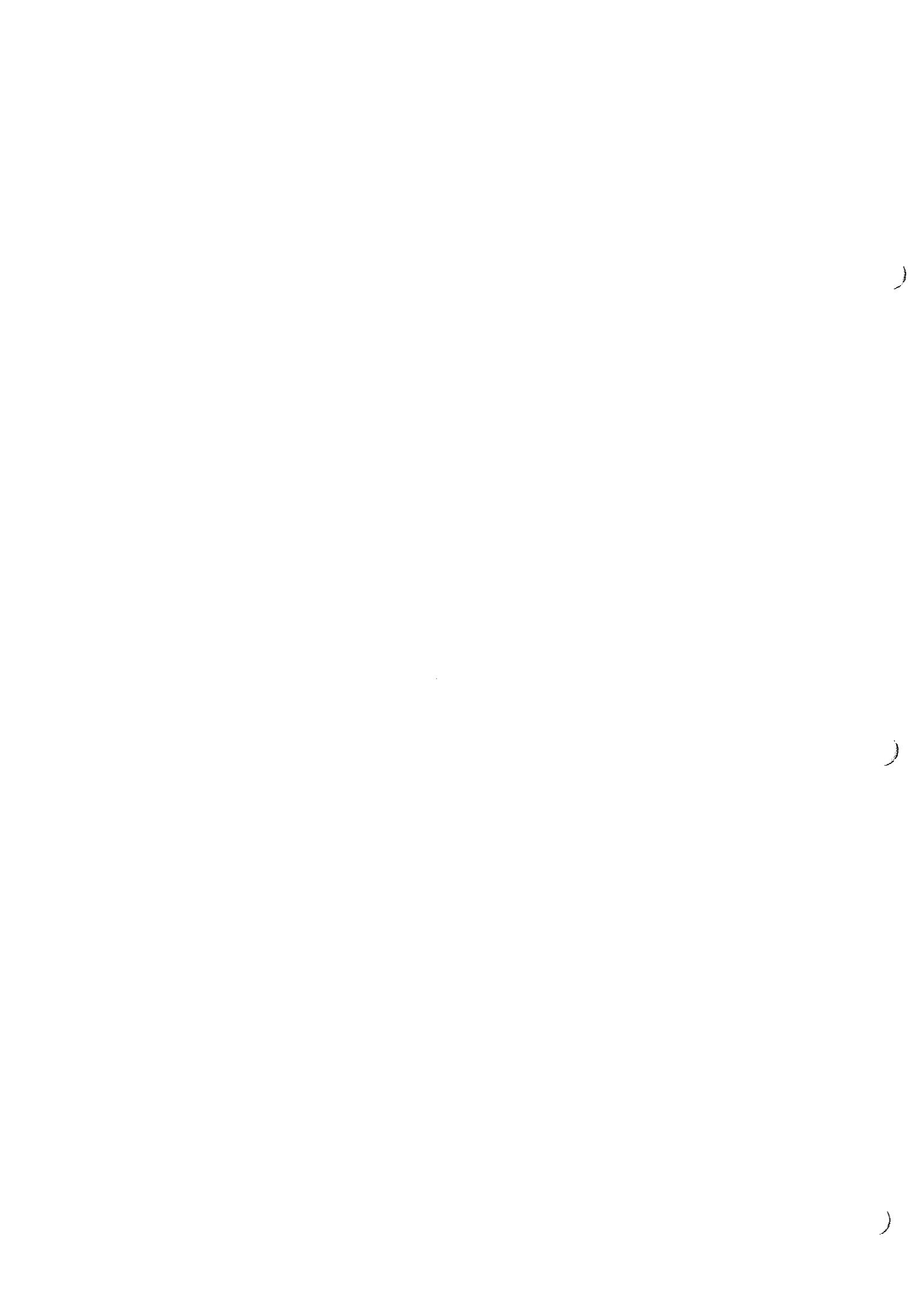
NTS customers encourage the violators to view the video evidence if they have any questions. Past history has shown that when the public knows there is video evidence available, a larger percentage of violators pay. By having the full story surrounding the violation it is obvious to the violator that the City of Columbus is committed to fairness to the violator.

### 3.1.11.

*Please describe how your system provides court testimony of contested citations.*

NTS is prepared to provide expert witness testimony on CrossingGuard at any time throughout the program should the City require. It should be noted however that due to the comprehensive nature of the evidence packages provided by CrossingGuard, in states that issue citations to registered owners, less than 1% of all citations are ever contested in court. Under most circumstances after viewing the multiple time-synchronized videos of the violation, the violators will realize that indeed they did run a red light and simply pay the fine. However, that being said, if an alleged violator chooses to contest the citation, CrossingGuard will provide the courts with the most compelling evidence of any red light enforcement system in the industry.

NTS will actually send the corresponding violation videos to the CrossingGuard laptop workstation so that the judge, the reviewing officer, the alleged violator, and anyone present in the courtroom can view the actual violation and the



circumstances surrounding it. From these objective videos, a fair decision can be made.

In addition to the video evidence provided for court hearings, for each court case, NTS will also provide printed copies of the original citation and other corresponding paperwork as required.

As part of our standard training procedures, NTS will educate any City personnel who will be testifying in court on the operation of the system. In addition, NTS provides education on the CrossingGuard System to Court officials responsible presiding over the hearing process. As required by the City, NTS will send a qualified technician or engineer to court to testify on the reliability or accuracy of the system.

Court Evidence Packages used in the Program will consist of the following components and may be modified as needed to meet City requirements:

- Copy of the Citation mailed
- Electronic copy of video files taken from at least three views documenting the vehicle's movement approaching and traveling through the intersection, light phase during the approach and entry, and close-up of vehicle identifying information.
- Citation Composer Log showing chain of custody data regarding the violation evidence, including when and who performed actions with the data such as initial reviews, BMV input, officer approvals, printing, etc.
- System Operations Log showing system operation at time of violation included signal light sequence data.
- Affidavit or other correspondence received regarding the citation in question.

#### 3.1.12.

*Please describe how your system provides for a service center facility.*

NTS understands that strong community support is necessary for a truly successful program. For this reason, NTS will set up a local Customer Service Center in Columbus that will be professionally staffed and equipped to provide information and services regarding the City's Automated Red Light Photo Enforcement Program. The office will be open to the public during normal business hours and qualified personnel will be available to answer questions and distribute educational materials. In addition, alleged violators will be able to make payments (cash, credit card, and check), view violation images, and request a court date at this location. This Customer Service Center will provide the highest level of quality service to ensure all customers have a prompt, accurate, and courteous resolution to any inquiry.

NTS will keep a record of all citizen complaints, their resolution, and the action taken to re-contact the complainant. These records will be maintained for the duration of the project. Monthly reports summarizing all activities including the number of complaints, type, location, and resolution are available to the City's

)

)

)

Project Manager. Upon completion of the project all records will be forwarded to the City for disposition of the remaining cases.

Nestor-trained employees will staff the walk-in center. All employees will be provided customer service training and will be instructed on the City of Columbus' principles on quality customer service, media relations and other relevant policies or standard procedures as provided by the City. NTS prides itself on excellent customer service and will work closely with the City to ensure the Customer Service Center exceeds the City's quality requirements.

One of the locations being considered for the Customer Service Center is 81 South Fifth Street (see **Figure 12**), which is situated conveniently near the City municipal offices with easy access to the facility. A final location will be determined based on availability at the time of contract award and after further discussion with City officials. The identified location of the Customer Service Center will conform to all local, state, or federal zoning requirements. The facility as well as all parking will conform to ADA requirements for access to disabled individuals and shall conform to local and federal guidelines.

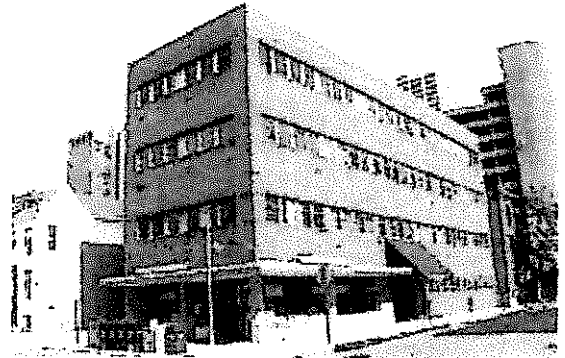


Figure 12 Proposed Customer Service Center

### 3.1.13.

*Please describe how your system will provide reports to CoC and describe those reports.*

To enable customers to measure the performance and effectiveness of the Red Light Camera program, NTS has developed numerous standard reports that are available both on a scheduled basis, and on demand. In addition to the standard reports offered, NTS will work with the City of Columbus to ensure that any customized reports that are specifically required by Columbus are included in the application at the time of program launch. Also, CitationViewer provides the capability of extracting statistical information from the database and storing it locally so that Columbus personnel can format their own reports using tools such as Microsoft Excel.

---

### **Program Data, Management Reports, and Record Keeping**

---

The CrossingGuard Server software and CitationComposer software maintain a database of vital statistics to characterize system operation. CrossingGuard logs the results of system self-monitoring tests performed throughout the day, creating a record that establishes proper system operation in support of citation challenges in court. Equipment downtime reports document the level of reliability in compliance with target program service standards.



)

)

)

CrossingGuard maintains a database of information that provides a complete record of the facts and processing trail associated with each violation. Included in this information is a flag indicating whether or not the violation was certified for citation preparation, and if so, the reviewer ID and time/date of the review, the frames selected for citation processing and the unique name of the digital video sequence recorded for the violation. Further, the vehicle license-plate information (number and state) is also stored with the violation record, along with any information retrieved from the BMV that relates to the vehicle and driver registration information (name and address, as well as a match/no-match flag). Citation issuance information (citation number, issue date and time, mailing date(s) of first and second citation/notices, etc.) as well as payment information (amount and dates received) will also be stored and available in the CrossingGuard database.

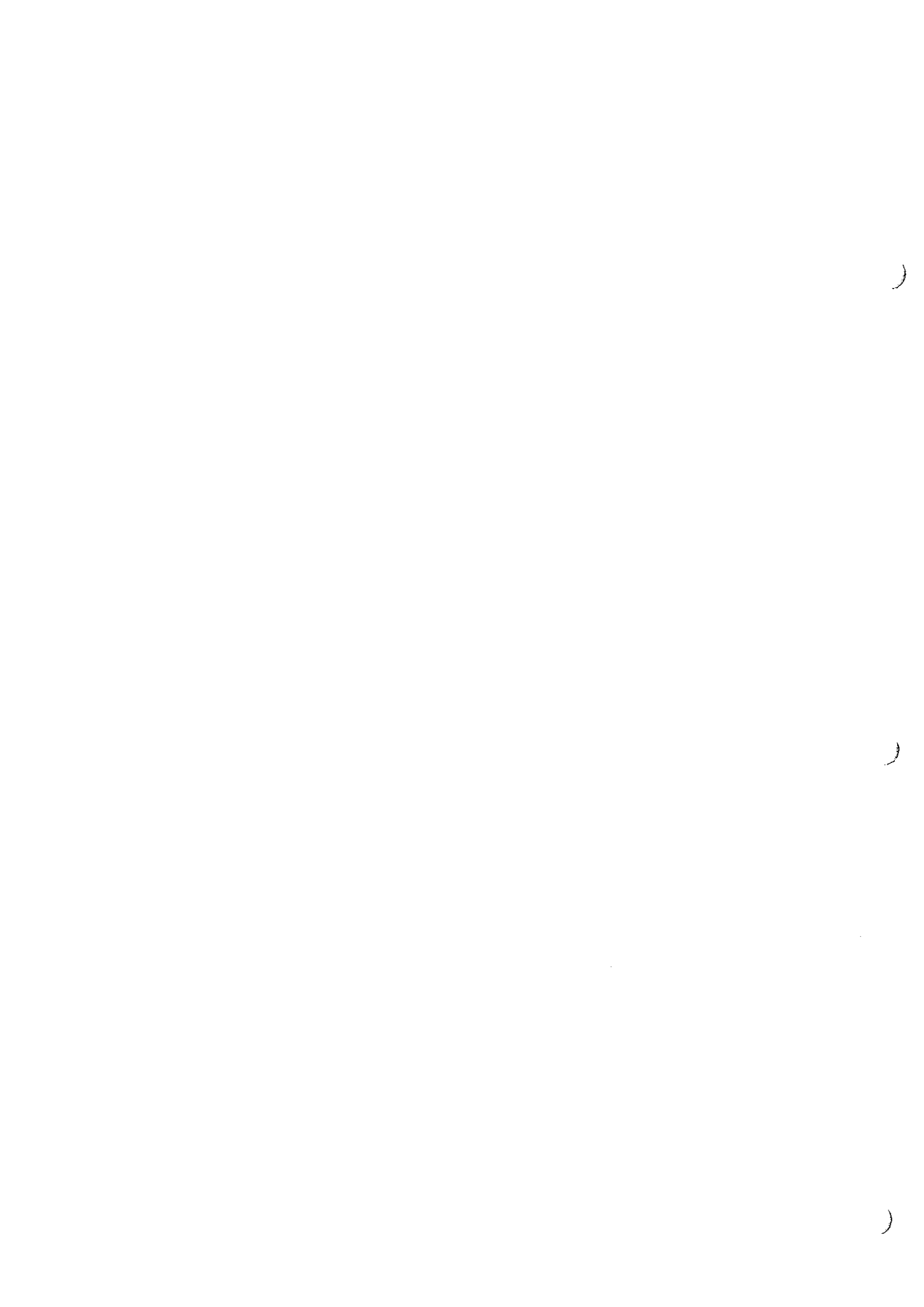
In addition to supporting a range of performance-related analyses and reports, the violation/citation database maintained by CrossingGuard can be queried to provide a chain of evidence for each citation. Each violation is identified by a unique number as well as the time/date of the violation and location information identifying where the violation occurred. Each action taken to review violation data, reject or approve the data for citation preparation, and if approved, to prepare, authorize and issue a final citation, is recorded to the database, along with the ID of the user who initiated the action and the time/date of the action. This processing "audit-trail" is available as a chain of evidence to substantiate each step of the process leading up to the issuance of a citation.

CrossingGuard logs violation and citation data to support a range of performance-related analyses and reports. In addition to the audit-trail information listed above, each violation is stored along with the type of violation (if certified), the State Vehicle Code section violated by the vehicle, the reviewing officer ID and time/date of the officer review (as applicable), reason for rejection (if rejected), and the unique identifier of the digital video sequence recorded for the violation. Other database violation record fields contain the vehicle license plate tag information (number and state) and fields storing information retrieved from the BMV relating to the vehicle registration information (name and address, as well as a match/no match flag) and any other associated information as required to prepare a citation. The CitationComposer database also includes information related to the issuance of citation (citation number, issue date and time, mailing date(s) of first and second citation/notices, etc.) as well as payment information (amount and dates received).

NTS provides regular reports on program operations to the client, including a ~~Monthly Financial Report, Status Performance Report, Completed Citation Summary Report, Non-Issued Citation Summary Report, and Violations Sorted By Time Report.~~ These reports are available as part of the citation preparation and processing services provided to the client by NTS, or the client can directly generate them if they choose to install and operate CrossingGuard's back-office citation software.

CG Financial Report

The *CrossingGuard Financial Report* lists, per intersection, the financial statistics of the CrossingGuard system. These include the Violation Amount (total dollars in issued citations during the period specified at the time the report was



generated), Amount Collected (total dollars which were paid by violators who were issued citations), and the Amount Outstanding (total dollars of issued citations for which payment has not yet been received by the date the report was printed).

CG Status  
Performance Report

The *Status Performance Report* lists, by intersection, the quantity of citations in various stages of the citation review process. These include: new citations, officer review, deferred, BMV export, BMV import, BMV review, ready for mailing, await response, delinquent, court date pending, re-opened, complete, citations and the no-citation percentage.

CG Completed  
Citation Summary  
Report

The *Completed Citation Summary Report* lists, by intersection, the quantity of citations in the following categories of payment status: paid, court upheld, court dismissed, delinquent paid, uncollectible, invalid information, jurisdiction, refunded, citation processor dismissed, other, delinquent write-off, unknown, and the totals of completed citations.

CG Non-Issued  
Violation Summary  
Report

The *Non-Issued Violation Summary Report* lists, by intersection, the quantity of detections for which no citations were issued, in a number of categories; among them: emergency vehicle, no license plate, vehicle obstructed, plate obstructed, plate illegible, state illegible, BMV mismatch, funeral procession, officer directing traffic, lease vehicle, other, and the totals for these events.

CG Violations Sorted  
By Time Report

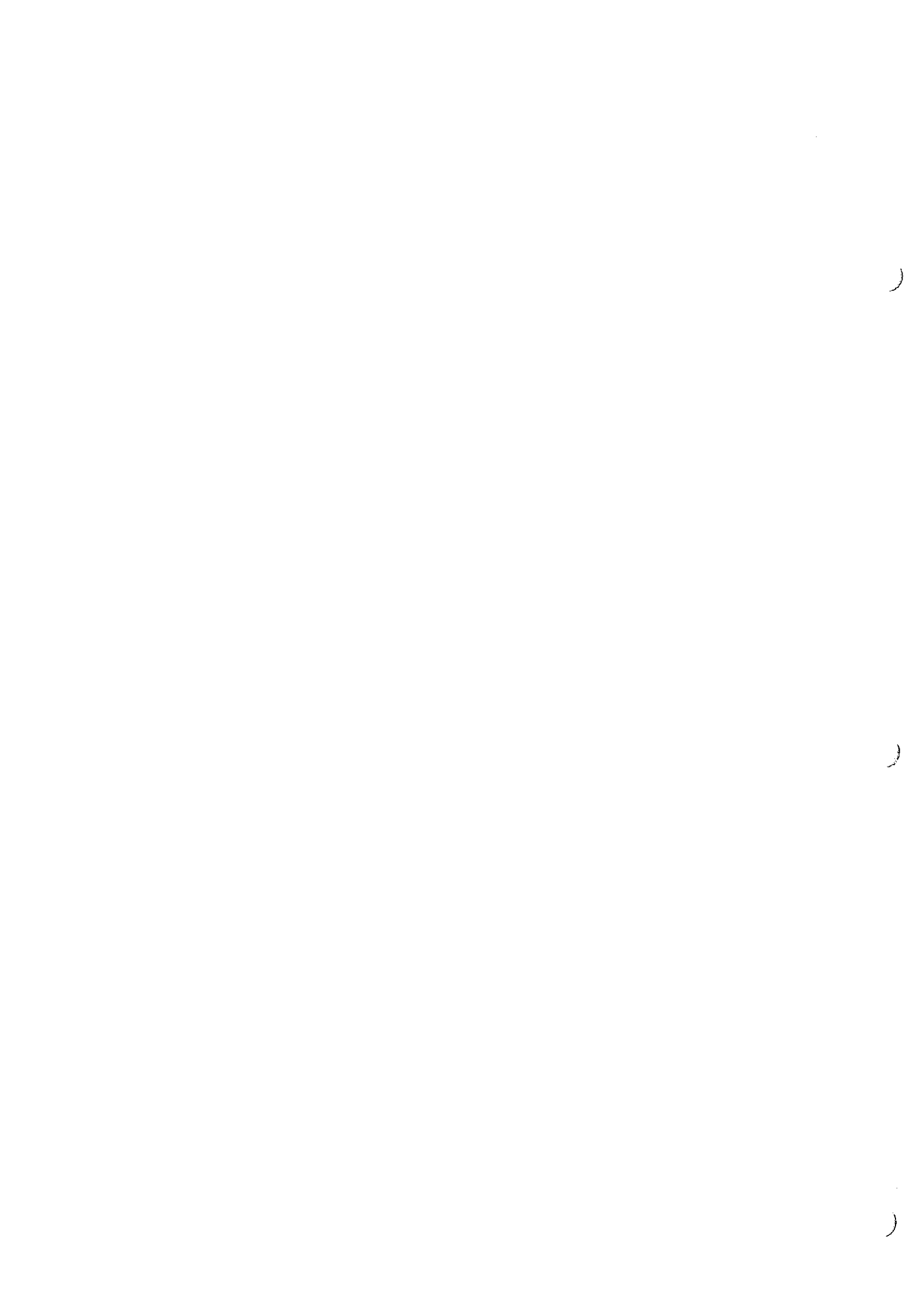
The *Violations Sorted by Time Report* lists, per intersection, the number of violation events (all violation events, not just citable offenses) recorded on the roadside and reported to the CitationComposer database. These are cumulative counts, reported in hourly intervals. The reports lists all events (possible violations) in the database which occurred between 7:00am and 8:00am, between 8:00am and 9:00am, between 9:00am and 10:00am, etc. in hourly intervals for 24 hours. The user may specify a date range to be used in determining these counts, (e.g. from 1/1/2003 to 1/15/2003) and the counts in the report would reflect only those events occurring during that time period. This report provides the information needed to profile violation distributions to determine those times of day with the most violation occurrences.

CG Operations  
Report

Additionally, an overall *Operations Report* is available and can be generated on a regular (weekly, monthly or quarterly) or as-needed basis, profiling operations activities over a user-specified time period. Among the information contained in the report is a log, both by intersection and totaled, of the number of violations recorded and the number of violations for which citations were not issued. An analysis is provided for the violations for which citations were not issued, broken down into reason categories. For all citations issued, a breakdown is provided showing the status of the citations (e.g., unpaid, paid, cancelled, delinquent, BMV hold, etc.). Each citation can be listed showing the number of days elapsed between the violation date and the issuance of a citation or delinquent notice. The report also shows the average number of days between violation detection and citation issuance for citations listed in the user-selected period.

3.1.14.

Please provide detailed information on your service level agreements for maintenance, installation, de-installation, repairs, and response.



NTS will ensure that the CrossingGuard system is operating on a daily basis. All CrossingGuard systems are continuously monitored, 24 hours a day, 7 days a week, by a central system at NTS known as CSMonitor. CSMonitor is able to correct most problems automatically (without human intervention); therefore any such problems are resolved within 15 minutes of their occurrence. CSMonitor will notify our Customer Services operations staff (via email and pagers) within 30 minutes of any problems that cannot be resolved automatically such as a power outage or a communication outage.

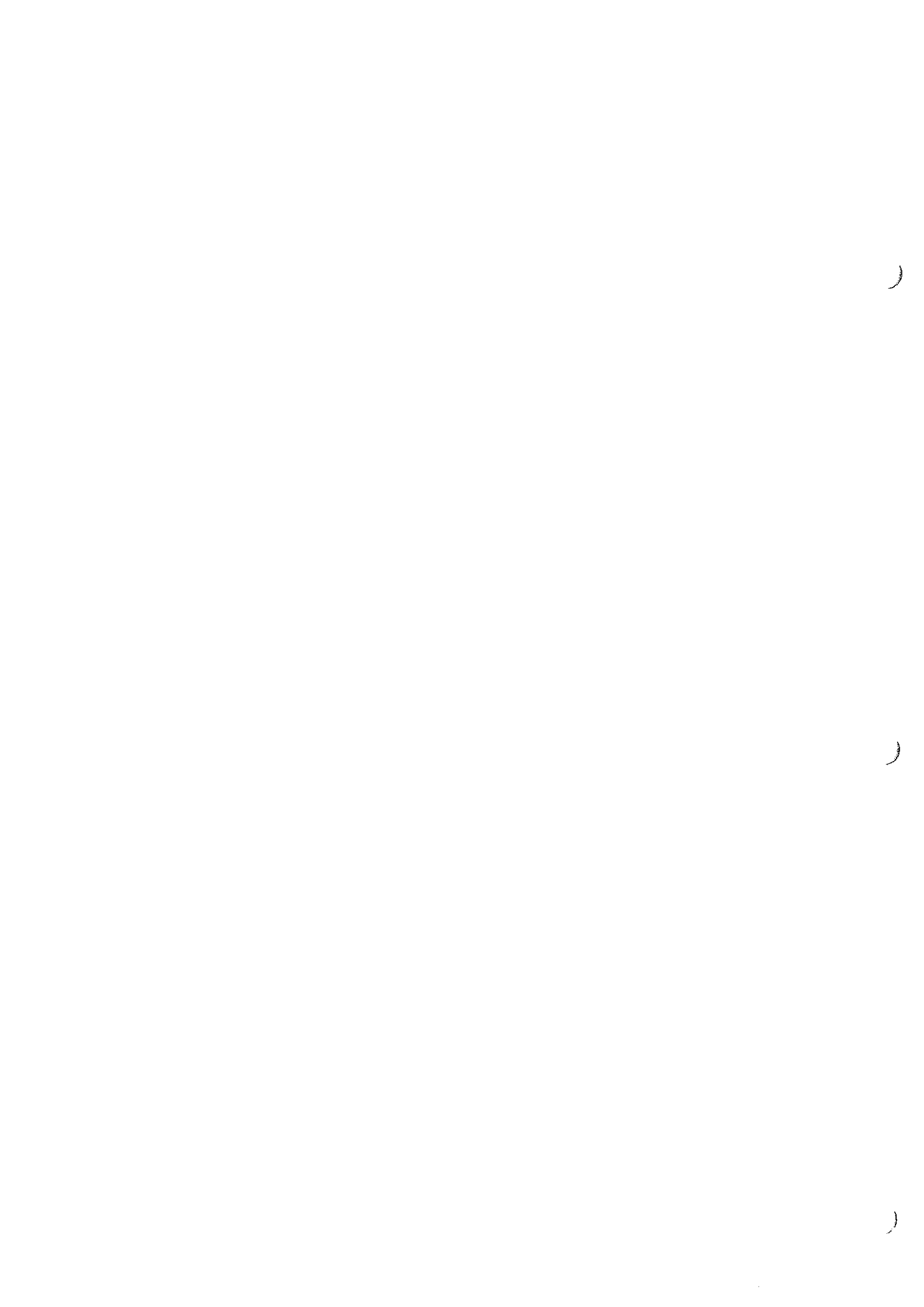
In addition to CSMonitor, NTS' citation processing staff is also on the lookout for sub-optimal performance and if detected, notifies our Customer Services staff via email and pagers. Unlike systems that only process violations on business days, **NTS' processing staff processes events 7 days a week (and most holidays), resulting in immediate problem identification, even on weekends.** Most such problems can be resolved remotely by Customer Services' personnel (over NTS' private wide area network), and are almost always resolved within 3 hours (7 days a week). In some cases, problems may require on-site support from our local support personnel and/or support from our Product Engineering staff. Problems such as these are typically resolved within two business days of their occurrence (if not sooner). The following table summarizes NTS issue resolution.

Percentage of Problems	Time to Fix	Procedure
85%	15 minutes	Automatic diagnosis and fixed by CSMonitor remotely
10%	3 business hours	CSMonitor notifies Customer Services within 30 minutes if not automatically fixed. Customer Service makes remote fix
5%	2 business days	On-site support from local support personnel fixes the problem

In addition to reacting to issues reported by CSMonitor and our processing staff, our Customer Services personnel take proactive steps to ensure optimal system performance by performing daily checks on every intersection. These check are performed remotely over the network and ensure that all cameras are functioning properly and are optimally aligned.

Local support and inventory also provides for minimal downtime. Specialized 3rd party contractors, trained by NTS technicians, will be available when needed for on-site service as well as performing on-site inspections and preventative maintenance on a routine basis, including cabinet and camera dome cleaning. Because of our ability to perform system and camera adjustments remotely, however, a majority of our support can be done without going on-site. This is also true of roadside computer maintenance and upgrades.

Every human intervention, whether on-site or over the network, corrective or preventative, is logged in our online maintenance log. In addition, a system downtime log is maintained automatically by CSMonitor. These logs can be provided to our clients on a monthly basis by our program manager. We also provide a "yellow-time" report that shows the duration of the yellow-time indication for each approach for each day of the month. While the "yellow-time"



does not typically change, this report is useful for making a permanent record of intentional changes by the City's Transportation Engineers as well as proving that the "yellow-time" did not change otherwise.

- ❖ *Please describe how you will be able to locally manage our project on a day-to-day basis (attend meetings, deal with problems, make expeditious decisions, etc.).*

NTS has a proven methodology for program management during both the implementation phase as well as throughout the operation of the CrossingGuard program. During the implementation phase, full support and cooperation of the CEO, Program Manager, and Senior Engineer ensure that all City requirements and expectations are understood. From this point, the NTS Program Manager works directly with the City Program Manager to coordinate all aspects of the CrossingGuard program, including intersection design, construction, development of policies and procedures, warning period, etc. The NTS' designated program manager will attend scheduled meetings in person and will be available to address any immediate City concerns. All other NTS individuals needed to participate in meetings will be available by teleconference, or in person as reasonably required by the City.

### 3.1.15.

*Please describe how your Photo Red Light system is equipped to detect a violating vehicle, activate the camera system, and produce color images of the vehicle front and rear.*

As described more fully in Section 3.1.23, NTS uses a fully video-based method for tracking approaching vehicles, detecting potential violations, and capturing violation video data. Unlike inductive loop-based sensors that prove to be unreliable in detecting vehicles at speeds under 12 mph, our video detection method has been proven accurate at all speeds ranging from 1 mph to 99 mph. This low speed threshold enables CrossingGuard to effectively detect slower moving left and right-turning vehicles. To ensure reliability of this method, NTS performs regular "groundtruthing" of the system. This is a manual process by which an actual VHS recording is made of the intersection as viewed from the CrossingGuard signal camera. The VHS tape is then manually reviewed and compared to the computer-generated violation reports. This entire process is invisible to the customer and does not require entry into the City traffic control cabinet. The results of the groundtruth, however, are made available to the customer for confirmation purposes.

~~The effective tracking of vehicles as they approach the intersection, allows CrossingGuard to measure approaching vehicle speed and distance from the stop line and then calculate the probability of a red light violation. Once a violation is predicted, the CG Roadside computer sends a signal that activates all three cameras and begins recording simultaneous videos, capturing the violation and the events surrounding it.~~

The **tracking camera** captures an overview of the front of the vehicle as it approaches the intersection



)

)

)

The **signal camera** captures the rear of the vehicle as it approaches and proceeds through the intersection; and

The **violation camera** pans and tilts to capture the front and rear of the violating vehicle, providing clear color images of the front and rear license plate, as well as images of the driver if required.

These multiple, simultaneous videos give officers, processors, and judges the full picture of the event enabling them to make fair, objective decisions. Other systems simply don't tell the whole story, leaving officers and judges guessing as to what may really have happened at the intersection.

#### Advantages of Video Detection

- Reliability at all speeds
- Minimal or No damage to roadways during installation
- No interference with existing loops
- Lower maintenance costs
- Fewer lane closures during installation

#### 3.1.16.

*Please describe how your system is capable of clearly photographing and recording the identification of the driver of the vehicle that is reasonably believed to be operating the vehicle that violated the red traffic signal.*

As referenced in Section 3.1.15, CrossingGuard uses high quality progressive scan cameras, each with the ability to dynamically pan, tilt and zoom to capture each violation. In states that require an image of the driver, our system is configured to first aim the violation camera at the vehicle and then zoom in on the driver, resulting in high quality driver images.

Unlike wet-film or digital still cameras that capture many extraneous details, later requiring extensive zooming and cropping, CrossingGuard cameras actually pan around to the position of the vehicle and zoom in to capture close-up images of the driver. During a typical violation, our system captures between 12 and 14 images of the driver, ensuring that at least one image is of sufficient clarity to issue a citation (see **Figure 13**). Additionally, because our system captures multiple video images, we reduce the number of violations that have to be discarded due to windshield glare, obstructed face, and missed driver image. To improve the quality of



Figure 13 Image of Driver

the driver images, NTS may install additional lighting to illuminate the interior of the violating vehicle.

### 3.1.17.

*Please describe how your system's cameras will obtain a clear image of the rear of the vehicle so as to clearly identify the rear license plate.*

CrossingGuard uses high quality progressive scan cameras, each with the ability to dynamically pan, tilt and zoom to capture each violation. The Violation Camera is automatically controlled by CrossingGuard to aim at a particular lane where the violation is occurring and to zoom in on the violating vehicle, capturing close-up color frames of the vehicle's license plate, first front (if required) and then rear. (The camera swings around to capture an image of the rear plate as the vehicle drives off).

**CrossingGuard is the only available system that has the flexibility of capturing both the front and rear plate images without installing additional cameras, enabling the City to capture the front plate of tractor trailer trucks without additional cost.**

A second Violation Camera can be deployed on the cross street to catch left turn violators. The dynamic "aim-and-zoom" capability puts a large number of camera pixels on the vehicle license plate, effectively producing an "ultra-high-resolution" image of the plate that, together with the front/rear capture capability, can provide a clear image even in cases where the plate may be otherwise blurred. Capturing both front and rear plates can address the problem of a missing or partially obscured plate, thereby increasing the overall citation rate. Capturing the front plate also increases the citation rate for tractor-trailer trucks and other vehicles with trailers in tow.

Additionally, since the front and rear recordings are actually 2-4 second video clips recorded at 30 frames per second, there are 60-120 candidate images from which the best image of the plate can be captured. This significantly reduces the loss of a citation due to glare, shadows, and obstructions. Also, because the video cameras operate in low-light situations, flash lighting is not needed and this further reduces the loss from glare, over-exposed plates, and plate-image-blocking treatments. The citation rates from CrossingGuard-enforced intersections in states with Registered Owner legislation are frequently above 90%.



Figure 14 - Rear Capture of Plates

)

)

)

3.1.18.

*Please demonstrate how your system's images are clearly discernible and visible to the naked eye without the use of enhancement equipment.*

As noted in 3.1.17, our system captures video at 30 frames per second, resulting in clear, color violation images that require no image enhancement equipment. Occasionally, "standard" adjustments may be necessary such as brightness control, contrast, and gamma adjustments.

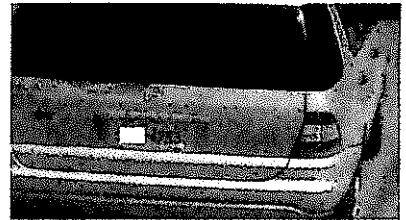
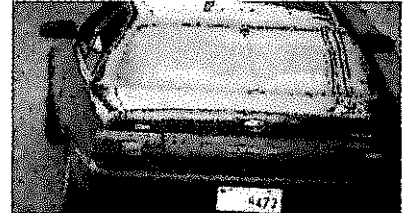


Figure 15 Unadjusted Captured Images

The images in **Figure 15** are samples taken directly from our video evidence package with absolutely **no adjustments made**.

3.1.19.

*Please describe how your system is capable of consistently photographing drivers and license plates regardless of weather conditions, glare, materials used to obscure the license plates from clear view at various viewing angles or any other means used for interference or avoidance.*

Our system is capable of capturing clear, identifiable images of license plates under all weather and lighting conditions (see **Figure 16** and **Figure 17**). In addition,

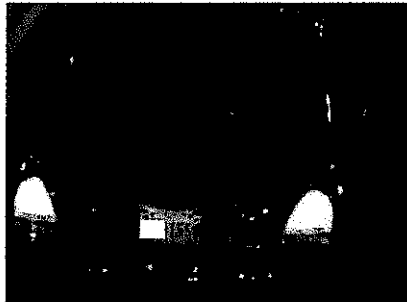


Figure 16 Image Captured At Night

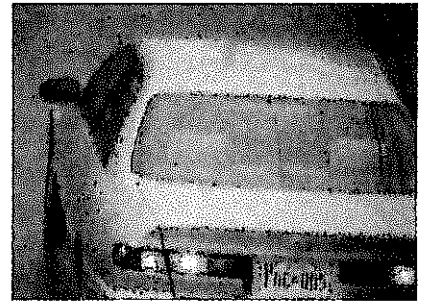


Figure 17 Image During Heavy Rain

tion, because CrossingGuard does not use any type of flash lighting to capture plate images, "photo-stop" sprays, and plate covers have been tested and are ineffective against CrossingGuard. The following images represent unaltered images captured by CrossingGuard under varying weather and lighting conditions.

If it is determined that driver images are required to issue citations, NTS may install additional lighting to illuminate the interior of the violating vehicle (see **Figure 18**).

The following images are samples taken directly from our video evidence package with absolutely **no adjustments made**.



Figure 18 Driver Image



*3.1.20.*

*Please describe how your system is capable of performing internal calibration tests for accuracy and functionality. The CoC is desirous of the following:*

Internal checks and calibrations are done continuously on all of the roadside equipment. An internally developed program called Customer Service Monitor (CSMON) monitors all of the critical components of the system. **CSMON remotely checks the integrity of the system 4 times every hour.** CSMON has advanced capabilities to resolve and intelligently report issues when needed. It can also automatically page the appropriate Field Engineer who can respond when needed. CSMON also has the capabilities of monitoring, responding, documenting, and paging for the following systems and functions:

1. Signal Sensing
2. Changes to yellow time
3. Network interruptions
4. Violation transfer issues
5. Police Department's laptop issues
6. Roadside computer functions
7. Individual camera functions

CSMON is able to shut down and/or take appropriate corrective action on any roadside system in the event that a serious malfunction is detected and notify the local Nestor Field Engineer as well as the Nestor Central Monitoring office by email as well as by text pages to individual cell phones.

*3.1.21.*

*Please describe how you will maintain the integrity of CoC's traffic signal system.*

The standard CrossingGuard installation does not connect directly to the City's traffic controller; thereby, in no way will it compromise the integrity of the City of Columbus' traffic signal system. A full description of the CrossingGuard's signal sensing can be found in Section 0 of this proposal. In addition, NTS will monitor and maintain a record of the duration of each yellow phase at every CrossingGuard monitored approach for the duration of the program

*3.1.21.1.*

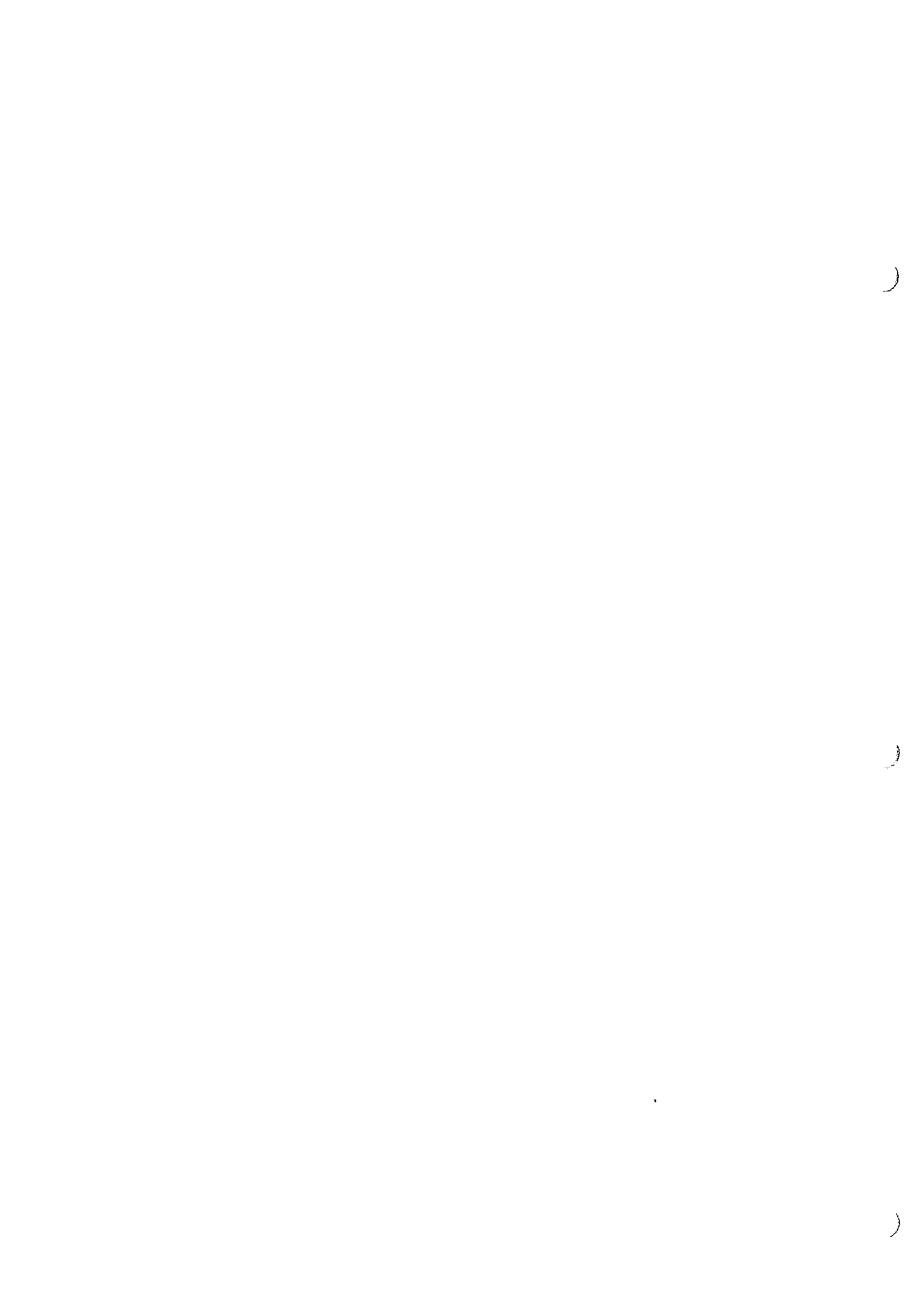
*Traffic signal operation shall not be modified.*

NTS will in no way modify or otherwise disturb the normal traffic signal operation.

*3.1.21.2.*

*Supplier is responsible for any damage and must provide a cost reimbursement program.*

NTS will be responsible for any damage caused to City property by either an NTS employee or an NTS subcontractor.





NTS will agree to repair or replace any such damaged item, or to provide cost reimbursement as agreed to by both the City and NTS.

3.1.21.3.

*Supplier is responsible for all permits, plans, modifications of existing infrastructure and associated costs to include CoC personnel necessary for traffic control and installation/removal.*

NTS will be responsible for all permits, plans, modifications, and associated personnel costs as defined by the Master Agreement between the City and NTS.

3.1.21.4.

*The City requires that personnel from the City Transportation Department be on site for any occasion when the supplier will need access to the City's traffic signal control box.*

NTS will ensure that the City is notified in advance if there will be an occasion that an NTS employee or subcontractor should have a need to access to the City traffic Signal control box.

3.1.22.

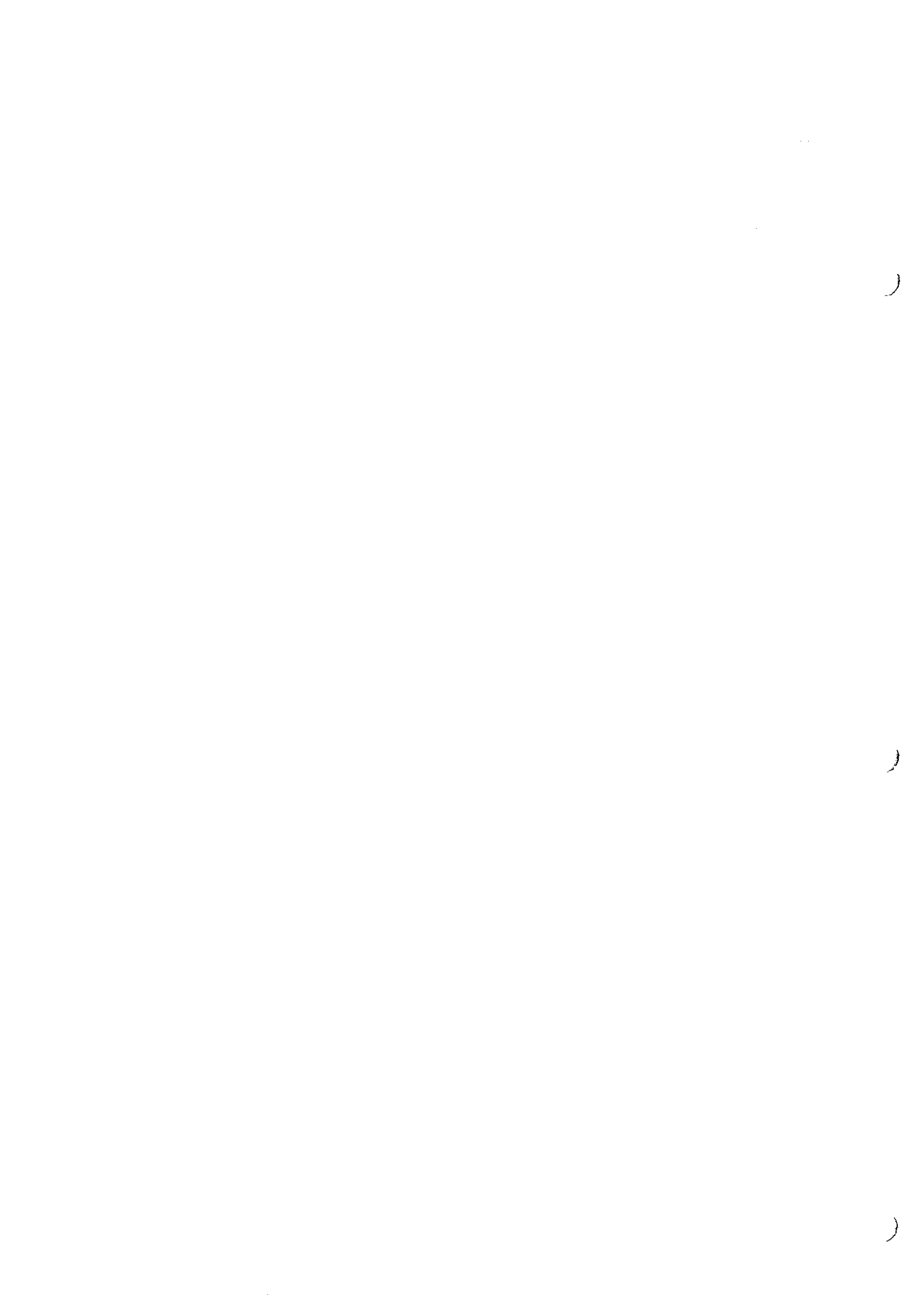
*Please describe how your system is capable of gathering detailed computer data for statistical analysis and histograms for submission at hearings.*

CrossingGuard makes an internal log of all system activity, including every signal indication change, every violation that is predicted, and every violation that is confirmed. These detailed logs are stored automatically in the citation database on a daily basis along with all video and data pertaining to each violation event. Should the City choose, they may review and print the daily CrossingGuard system log directly from CitationComposer.

In addition, as further described in Section 3.1.130, the CrossingGuard System makes available a variety of reports and forms to meet customer needs. In addition to the standard reports and forms available through CitationComposer software, NTS maintains a database of raw data for each violation that can be queried to extract specific information to create custom reports. If the City determines that none of the standard reports meets its specific needs for court hearings, NTS will design custom reports and histograms as needed that meet the City of Columbus' specific needs for use in court proceedings.

~~NTS will adopt specific data retention policies as set forth in the policies and procedures document (P & P) that will be drafted by the City and NTS. This P & P document spells out what specific violation data is to be retained by the system and the length of time that it should be retained. Once the citation data has passed all required issuance and adjudication phases, the data is stored on a secure server at NTS' central processing facility until such time when the record is purged (as established by P & P document, City Ordinance, or state law).~~

For security purposes, only authorized NTS employees have access to the violation data mentioned above. Each employee of NTS is held to a strict Acceptable



Computer and Network Usage policy that enumerates our position on the sensitivity of the data.

3.1.22.1.

*The offeror will be required to produce monthly reports of activity and individual histograms for court purposes.*

NTS will produce and deliver on a scheduled basis all monthly reports required by the City of Columbus. In addition, the City will have access to all of these reports “on demand” through CitationComposer software.

3.1.23.

*Please describe how your system is capable of accurately monitoring multiple traffic lanes at once with vehicles of various types, heights, and lengths under various weather and light conditions.*

Unlike traditional red light camera systems that require the use of additional cameras and infrastructure to enforce more than two lanes of traffic, the **CrossingGuard system is designed to monitor up to six lanes of traffic under its normal configuration** (as seen in the tracking view image **Figure 19**). The placement of the tracking camera enables differentiation between vehicles and provides for accurate tracking and monitoring regardless of size or shape.

For enforcement purposes, our camera’s ability to rotate at a rate of 250 degrees per second enables enforcement of multiple lanes with only one enforcement camera. If for example, the CrossingGuard tracking camera predicts a violation in lane one, the roadside computer will send a signal to the enforcement camera to aim at a predetermined point in lane one to capture the front plate (and driver if required). This same camera then swings around to capture the rear of the violating vehicle.

CrossingGuard has the ability to monitor more lanes simultaneously than any other system, and **CrossingGuard is the only system that can capture front and rear license plates without additional cameras.**

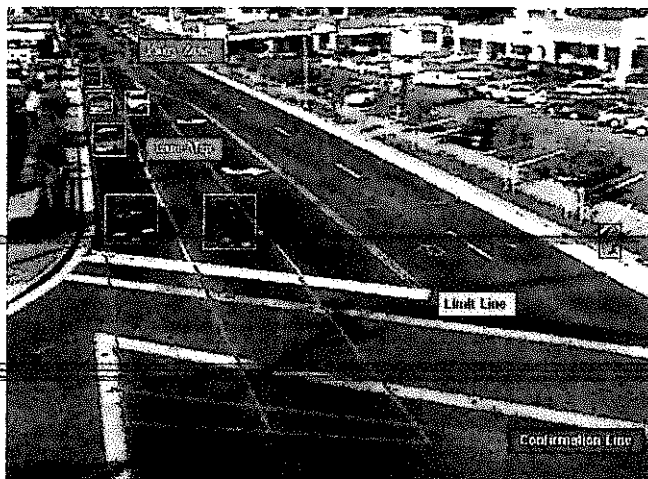


Figure 19 Multiple Lane Monitoring

)

)

)

*3.1.24.*

*Please describe how your system is automated with regards to set up, i.e., aperture settings, focusing, leveling, and ease of loading and unloading images.*

The Nestor CrossingGuard system runs with an internal day/night almanac that adjusts camera settings according to the date and time. The cameras generally are PTZ domes where the camera is controlled for each internally recorded pre-shot location as to a specific pan, tilt, zoom, and focus settings. The cameras run at 1/1000-second shutter speed with automatic exposure control (shutter priority). This insures that as the light changes, the camera automatically compensates. The confirmation of the pre-shot settings is handled as part of the daily preventive maintenance and event review procedures. The CrossingGuard system is designed to automatically startup after a power failure cycle. The restart is entered in the log and monitoring begins. All pre-shot information is retained in the camera in flash memory. Event packages, consisting of data and video recordings, are retained on the computer hard drives until moved into data center database storage. In the event of communications failure, CrossingGuard can retain at least several days worth of event packages at roadside until communications are re-established and the packages are moved to the database at the NTS processing center. The database files are backed up daily.

*3.1.25.*

*Please describe how your system's cameras have the ability to operate effectively during periods of nighttime operations and in all weather conditions.*

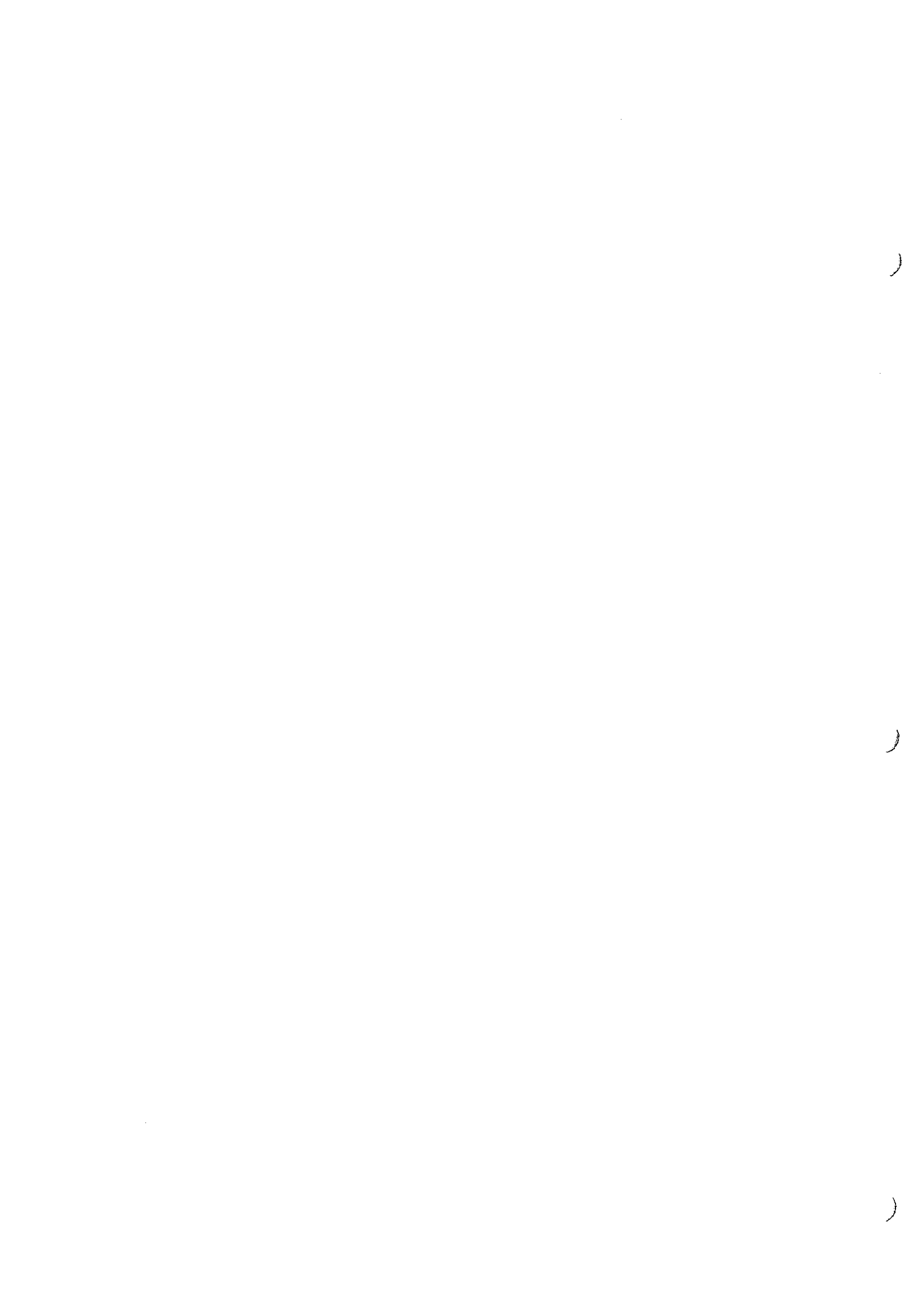
The CrossingGuard system has been tested and proven in all weather and lighting conditions. The ability of our system to perform reliably under all conditions is critical, and as such, we use cameras and housings designed specifically for this type of application.

CrossingGuard camera units are high-resolution analog color video cameras with a 23X zoom lens integrated into an all-weather dome. During the day, the cameras require only 3.0 lux @ 1/60-second exposure, hence no flash or auxiliary lighting is required. The cameras also have a low-light monochrome mode for use at night which only requires 0.3 lux @ 1/60 second. Flash is neither required nor desirable at night.

In areas where ambient light is not sufficient at night for the video that captures the rear plate, NTS may install 1 or 2 small incandescent floodlights near the downstream violation camera, aimed at the rear of the vehicle. These floodlights have 90 or 120-watt bulbs depending on the requirements and would activate ~~only for the duration of the downstream video (2-4 seconds)~~

~~Camera domes are sealed, weatherproof enclosures equipped with heater-blowers that will activate automatically to eliminate any fogging on the dome that may obscure the view of the camera. In addition, by automatically controlling the internal temperature of the camera housing, proper camera and PTZ control operation under even the most extreme weather conditions is ensured.~~

The camera enclosures' small size (11" x 13") makes them unobtrusive and unlikely to attract attention from a passerby. NTS uses PTZ camera systems



from Cohu, Inc. and Ultrak, Inc., both well-established manufacturers of high quality PTZ surveillance systems for the security and traffic markets, serving both outdoor as well as indoor surveillance needs.

The camera housings, as mounted, are water and spray resistant and the internal components are sealed within the housing. The housing has a rustproof finish and is securely mounted atop a vendor-supplied or existing pole, which allows horizontal and vertical adjustments at each intersection.

3.1.26.

*Please describe the time it takes for your system to take photographs of vehicles entering the intersection after the signal has turned red.*

Since *video* is at the core of CrossingGuard, there is no "photographic" delay time from when a vehicle enters the intersection to the time our system begins capturing images. Instead, our system actually captures continuous video evidence (30 frames per second) of the violation before the vehicle crosses the stop line and as it continues into the intersection.

CrossingGuard does not rely on the proper placement of inductive loops and correct timing of fixed cameras to capture violation evidence. Through proprietary software, our system tracks the vehicle as it approaches the intersection and if a violation is predicted, the system begins recording a four to six second video of the violation from multiple angles. This method provides officers, processors, and court officials complete evidence of each violation, not just a "snapshot" in time.

3.1.27.

*Please describe how your system will capture violators at a minimum of 90% of the time or more.*

CrossingGuard's proven system effectively captures violators over 90% of the time. NTS regularly confirms this level of accuracy through a manual process referred to as "groundtruthing". A detailed explanation of this process can be found in Section 3.1.15 of this proposal.

3.1.28.

*Please describe the process used to communicate to the Division of Transportation, Traffic Engineer's staff that any and all repairs to any damaged traffic control systems have been repaired to the satisfaction of aforementioned.*

---

~~CSMON, our internal system monitoring program checks the operation of the CrossingGuard system at least 4 times each hour. If any damage were to occur to the traffic control system that would affect the normal operation of CrossingGuard or alter the timing of the yellow phase, our system would send a series of emails and pager alerts to key NTS personnel.~~

---

As part of the establishment of the policies and procedures document (P & P), NTS will work with the City to establish a standard protocol for notifying City personnel of any changes to the traffic control system. Based on the P & P, we

will call, email, or page the appropriate City official in the event of damage to the system.

3.1.29.

*Please describe how the CoC is to be reimbursed whenever a CoC employee is needed to be at any one cabinet during installation or repair.*

NTS will fully reimburse the City of Columbus whenever NTS requires that a city employee be at any traffic control cabinet during installation or repair. NTS will reimburse the City according to the terms set forth in the Master Agreement between the City and NTS.

3.1.30.

*For non-emergency situations, there shall be a minimum of twenty-four (24) hours advance notice to the CoC and the work will be performed during normal CoC working hours.*

NTS will fully comply with this requirement. For a further description of our maintenance and issue resolution procedures, please refer to Section 0 of this Proposal.

3.1.30.1.

*In the course of daily activity, emergency situations will occur. The definition of emergency and how each party responds to that emergency shall be part of the contract negotiations.*

NTS will fully comply with this requirement.

3.1.31.

*Please describe how you handled emergency maintenance situations with cities of comparable size or larger than Columbus, Ohio.*

For programs of similar size, NTS has trained field engineers who are available for quick responses to all emergency situations. These field engineers are available for quick response to any hardware issues. In addition, we maintain a "hot-swap" policy, so that any critical components are available without delays. Spare system components are warehoused conveniently for quick equipment exchange when needed.

In addition, NTS utilizes the services of local subcontractors who are familiar with the City and its policies and procedures. By using local contractors who are experienced in the City, NTS can facilitate rapid repairs for almost any problem that arises. NTS anticipates using the services of Columbus based, M.P. Dory Company. M.P. Dory is a 20-year-old company that has served primarily Ohio State and municipal customers. M.P. Dory has been in charge of the signal maintenance for Franklin County since 1995. NTS will base the final selection of a subcontractor with input from the City of Columbus.

Most adjustments and malfunctions can be resolved remotely as we have full access to all onsite computers and installed equipment. Nestor is capable of



adjusting all of our cameras and lights using our VPN secure network. Our roadside computer is also maintained with this VPN secure access.

### 3.1.32.

*Offerors are required to submit a current client list with company names, addresses, appropriate contacts, and associated phone, fax, and e-mail addresses.*

The following is a complete list of NTS customers. Please note that the first five customers in the list represent programs that issue citations to the Registered Owner of a vehicle. The customers in California issue citations to the driver of the vehicle, requiring the additional element of a driver image.

#### **Contact information:**

City of Falls Church  
300 Park Avenue  
Falls Church, VA 22046  
Captain Daniel Ellis  
Telephone: (703) 248-5058  
Fax: (703) 248-5158  
Email: delis@ci.falls-church.va.us

#### **Description of Program**

In December 1999, Falls Church, VA contracted with NTS to install CrossingGuard and to provide citation-processing services at three intersections. CrossingGuard currently monitors two directions of travel at two of the intersections and four directions of travel at the third intersection. At the City's request NTS installed fiber optics to transmit violations from the roadside to the police department at two of the intersections. The decision to install fiber optics was made in an effort to maintain the aesthetics of the intersection and to limit the number of poles and equipment needed at the roadside. NTS installed CrossingGuard in coordination with extensive city construction efforts at the proposed intersections and went live in October 2001. The last approach came on line in May 2002.

#### **Contact information:**

Delaware Department of  
Transportation  
Mr. Michael Svaby  
800 Bay Road  
P.O. Box 778  
Dover, DE 19903  
Telephone: (703) 255-6390  
Fax: (302) 739-4329  
Email:  
msvaby@mail.dot.state.de.us

#### **Description of Program**

NTS signed a contract in February 2004 with the Delaware Department of Transportation (DeIDOT) to implement a statewide program for a minimum of 20 intersections, each with multiple approaches, becoming the first statewide DOT program in the country. Three intersections have already been installed and DeIDOT will provide NTS a list of the additional 17 intersections in June for further analysis and approval. At each intersection NTS is responsible for engineering designs, installation of all equipment, communications and system maintenance. NTS also handles all citation processing including event review, DMV review, printing, mailing and lockbox processing. To access DE DMV records NTS developed an automated DMV and court interface mechanism using an intranet DMZ to maintain separation (security) of the State and NTS Systems. This program is a model for other cities whose core objective is improving intersection safety and reducing crashes.

**Contact information:**

Germantown Police Department  
1830 South Germantown Road  
Germantown, TN 38138  
Commander Rodney Bright  
Telephone: 901-757-7321  
Fax: (901) 757-7303  
Email:  
rbright@ci.germantown.us

**Description of Program**

At the end of 2001, NTS signed a contract with the City of Germantown, Tennessee to install and maintain CrossingGuard enforcement systems at two intersections (4 approaches). Germantown elected to perform its own citation processing services, so NTS installed and trained police department personnel in all aspects of CrossingGuard CitationComposer software. Construction began at the first intersection in May 2002 and both intersections were issuing tickets by the beginning of September 2002.

**Contact information:**

Vienna Police Department  
215 Center Street South  
Vienna, VA 22180  
Chief Robert Carlisle  
Telephone: (703) 255-6390  
Fax: (703) 255-5732  
Email: chief@ci.vienna.va.us

**Description of Program**

The CrossingGuard system for automated red light enforcement and collision avoidance was installed at three intersections for the Town of Vienna, Virginia in 1999. At each intersection, NTS installed all cameras, camera mounting equipment, communications equipment, CrossingGuard Roadside Stations, and CrossingGuard Server and CrossingGuard CitationComposer software at the City's facility. Vienna reviews their own events and electronically sends the information to NTS for printing and mailing. To accomplish this, NTS created an interface to access registered owner information from the Virginia Department of Motor Vehicles. Citation issuance began in May 1999. Since then, town construction has required that two of the original intersections be decommissioned and relocated. NTS actively worked with the city of Vienna to identify new locations for CrossingGuard. Construction of four new approaches at two intersections was recently completed.

**Contact information:**

City of Overland Park  
8500 Sante Fe Drive  
Overland Park, KS 66212  
Mr. Brian Shields  
City Traffic Engineer  
Telephone: 913-895-6024  
Fax: (913) 895-5055  
Email: beshield@opkansas.org

**Description of Program**

In June 2001, Nestor signed a contract to install and operate CrossingGuard at one approach as part of a pilot program evaluating automated enforcement for the City of Overland Park, Kansas. The approach became operational in March 2002, but since Kansas state law does not currently permit issuing tickets for violations detected with automated enforcement systems, no tickets were issued from this installation. However, based on the positive experience of this pilot, the City intends to pursue state legislation for automated enforcement in 2004. The pilot program was completed in March 2003, at which time, the City elected to purchase the system from NTS.

)

)

)

**Contact information:**

Costa Mesa Police Department  
Sgt Dave Andersen  
99 Fair Drive  
Costa Mesa, CA 92628  
Telephone: (714) 754-4963  
Fax (714) 754-5002  
Email:  
ander\_d@ci.costa-mesa.ca.us

**Description of Program**

NTS signed a contract to provide CrossingGuard services to the City of Costa Mesa, CA in June of 2002. The CrossingGuard program is a three-phase approach, the first phase involving the installation of systems at eight approaches. The first intersection (Harbor & Adams) kicked off the mandatory 30-day warning period in May 2003. Costa Mesa has progressively installed 13 approaches within 6 months, including two Caltrans-monitored intersections. The Caltrans intersections are some of the busiest in California and NTS provides left turn and straight-through enforcement for the City of Costa Mesa.

**Contact information:**

Long Beach Police Department  
100 Long Beach Blvd #818  
Long Beach, CA 90802  
Detective David Lauro  
Telephone: (562) 570-6554  
Fax (562) 570-5519  
Email:  
David\_Lauro@ci.long-beach.ca.us

**Description of Program**

The City of Long Beach, CA contracted with NTS to provide CrossingGuard red light enforcement at four intersections throughout the City. The first intersection, 7th & Redondo began the mandatory warning period in October 2001. As of April 2002, three of the four intersections were live and issuing tickets. In June and July of 2003 Long Beach began enforcement at two additional intersections.

**Contact information:**

Cerritos Sheriff's Department  
18135 S. Bloomfield Ave  
Cerritos, CA 90703  
Deputy Tim Britt  
Telephone: (562) 860-0044  
Fax (562) 916-1379  
Email: tlbritt@lasd.org

**Description of Program**

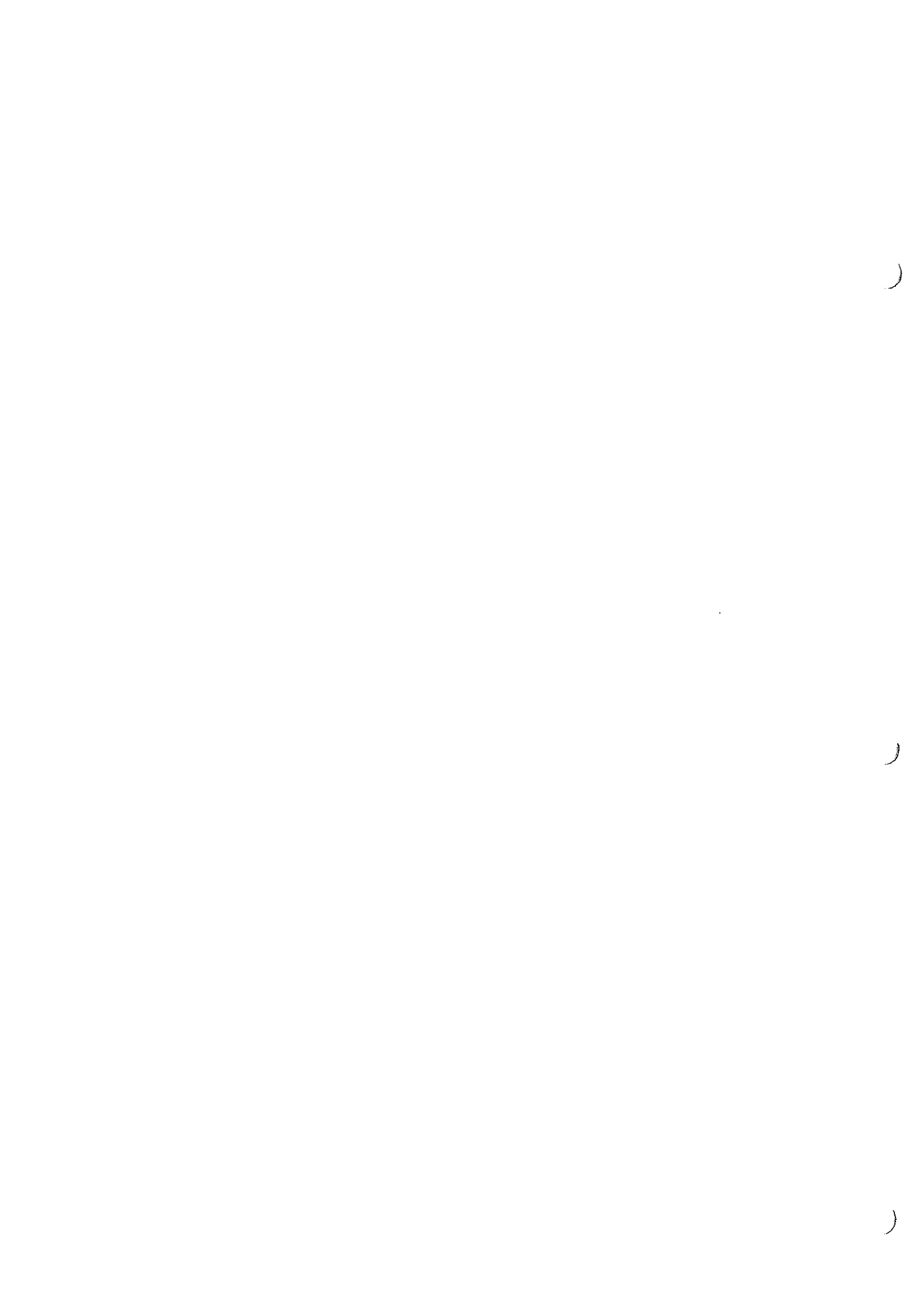
In August of 2002, NTS signed a contract with the City of Cerritos, CA to install CrossingGuard at eight (8) approaches in the City. VIP intersection studies were completed prior to the signing of the contract in order to confirm intersection selections. City approvals for the first intersection were received in early December and construction began late December 2002. This first intersection entered the warning period in February 2003. Construction on two additional intersections began in March 2003. Enforcement started in June 2003 for one of the intersections and the other intersection will begin enforcement by September 2003.

**Contact information:**

Fullerton Police Department  
237 W. Commonwealth Ave.  
Fullerton, CA 92832  
Sergeant Don Pearce  
Telephone: (714) 738-5313  
Fax (714) 773-5751  
Email: dpearce@fullertonpd.org

**Description of Program**

A contract was signed in June of 2002 with the City of Fullerton to install CrossingGuard at 16 approaches throughout the City. The first phase of intersection violation studies using Nestor's VIP systems was completed in September. Construction began at the first intersection in December and the warning period at this intersection began in February 2003. The first tickets were issued early in March 2003. May 2003 two additional CrossingGuard installations were completed and began enforcement. October 2004 Fullerton will install at additional intersections.



**Contact information:**

City of Rancho Cucamonga  
10500 Civic Center Drive  
Rancho Cucamonga, CA 91730  
Mr. Duane Baker, Red Light  
Camera Project Coordinator  
Telephone: (909) 477-2700  
Fax (909) 477-2846  
Email:  
Dbaker@ci.rancho-cucamonga.ca.us

**Description of Program**

In 2001, Nestor signed a contract with the City of Rancho Cucamonga, CA to install CrossingGuard at two intersections in the City. Construction began at the first intersection in March 2002 and tickets were issued beginning in April 2002. The second intersection finished construction in November 2003, where thereafter entered a 30 day warning period before proceeding with enforcement.

**Contact information:**

Pasadena Police Department  
207 N. Garfield Ave  
Pasadena, CA 91101  
Lieutenant Eric Mills  
Telephone: (626) 744-7159  
Fax (626) 744-3982  
Email:  
emills@ci.pasadena.ca.us

**Description of Program**

In July 2002, Nestor signed a contract with the City of Pasadena, CA to install CrossingGuard at 10 intersections. Phase one of the CrossingGuard program calls for installation at four approaches. Warnings were issued at the first intersection in May 2003, and enforcement began in June 2003. VIP studies were done at additional intersections earlier this year and a second intersection went live for enforcement in December 2003.

**Contact information:**

Fresno Police Department  
2323 Mariposa Mall  
Fresno, CA 93721  
Sergeant John Chandler  
Telephone: (559) 621-6507  
Fax (559) 228-6838  
Email:  
John.Chandler@ci.fresno.ca.us

**Description of Program**

The City of Fresno, CA contracted with NTS to install CrossingGuard at twelve approaches throughout the City. The first intersection was installed and began issuing warnings in September 2001. As of August 2003, all contracted approaches were operational and issuing tickets.

**Contact information:**

Montclair Police Department  
5111 Benito Street, PO Box  
2308 Montclair, CA 91763  
Captain Kevin Piper  
Telephone: (909) 625-9476  
Fax (909) 621-4413  
Email:  
kpiper@ci.montclair.ca.us

**Description of Program**

In September 2001, Nestor signed a contract with the City of Montclair, CA to install CrossingGuard at 2 intersections. April 2003 construction at the first intersection was completed and the intersection went into warnings. June 2003 the first intersection entered into enforcement. Construction at the second intersection was completed in July 2003 and the intersection started enforcement. August 2003 CrossingGuard Collision Avoidance was installed at the first intersection.

**3.1.33.**

*Please describe your process for acceptance and disbursement of funds (i.e., the CoC's share of the revenue generated).*

If requested by the City, Nestor will perform payment processing, application and reconciliation services as described below in conjunction with the City's Photo Red Light Enforcement Program.

Nestor will first work with the City and a bank of mutual selection (NTS currently works with Wachovia Bank for these services) to establish a City bank account for the deposit of all payments.

The violator, the court, and the Police Department will be directed to mail all payments with the remittance stub from the citation to the designated post office box. On a daily basis at a minimum, the bank will collect all mail from the post office box and process the payments received. Processing will include entering the citation number from the remittance stub, the payee name and check amount. They will prepare a deposit slip and deposit the monies received to the designated bank account. On a daily basis, the bank will provide Nestor with an electronic transmission of the checks processed and deposit made. Additionally, the bank will prepare a copy or image of each payee check and attach it to the corresponding remittance stub for mailing to Nestor with a copy of the deposit slip for the batch.

Nestor will upload the electronic batch transmission on a daily basis and update the CitationComposer database for the payments received. If desired, Nestor will send a daily batch deposit summary via email to City. A report will be generated to highlight any differences between the CitationComposer database update and the deposit made. The differences will be researched and reconciled. Subsequent action i.e. follow-up letter with overpayment refund check, underpayment notice, bounced check notice, or other payment irregularity will be performed by Nestor within reasonable processing thresholds (minimum \$15 disparity).

If desired, the account can be used to process debit and credit card payments made by the violator over the phone, via the web, or in person at the service center.

After receiving the bank statement for the deposit account, Nestor will reconcile bank activity for the month and generate check requests to disburse funds to the account(s) designated by City on a monthly basis.

#### 3.1.34.

*Please describe options for payments and collections.*

Payment options include: cash payments (if made at NTS service center in the City), credit or debit card payments over phone, web, or in person, and check payment in person or through the mail. Also, procedures can be established to accept payments acceptable to the City at City locations, including the police department, court, before being forwarded through the payment processing process described in 3.1.33 above.

Collection options include NTS processing initial and subsequent citation payment notices, with return payment coupon and envelope. NTS can interface with ~~other City collection systems if other processes are desired. NTS can contract~~ with third party collection services for past due citations, and process any net proceeds recovered through the process described in 3.1.33 above.

)

)

)



## IV. COST PROPOSAL

The following information provides the City of Columbus, Ohio with pricing for the installation of CrossingGuard. This proposal is for enforcement of signalized directions of travel (approaches) at a minimum of ten (10) intersections. Pricing also applies if the City elects to add new locations during the term of the contract.

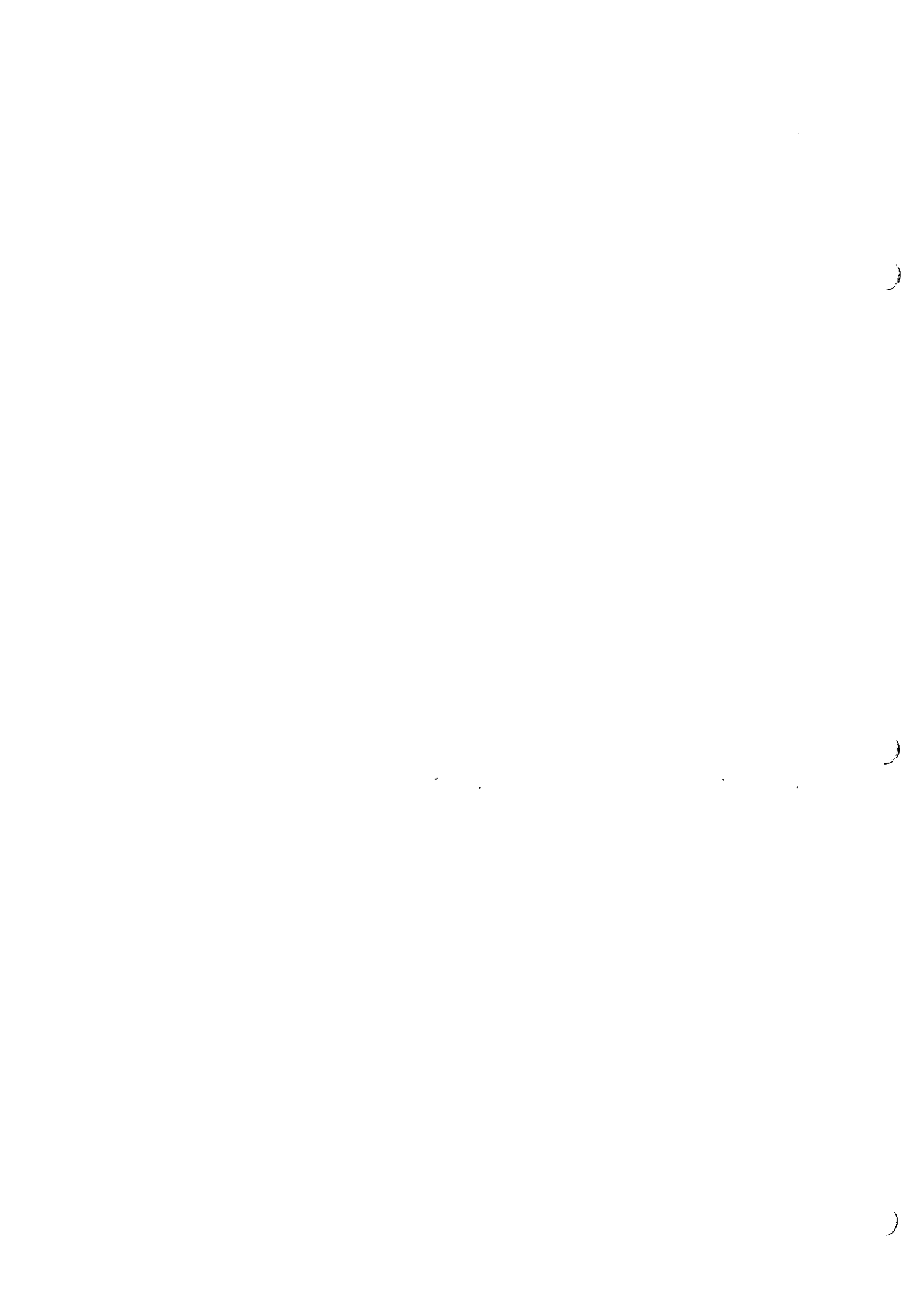
Pricing is proposed based upon the following components:

1. Installed Equipment Cost – includes the cost of designing the intersection, equipment located at the intersection and police department (including court laptop), installation costs, telecommunication and electrical connections, and lease of CrossingGuard Roadside software.
2. Citation Processing Services – includes the transfer of events from the roadside to the NTS processing facility, initial review of data and formatting of citation, transfer of initial citations to police department CrossingGuard system for review, BMV information, and approval by the police, license of CitationComposer and Viewer software, return of approved citations to NTS for printing and mailing, 800 phone support for violator questions, preparation of evidence packages for legal proceedings, payment processing services, and expert witness testimony as needed.
3. Annual Maintenance Contract – includes routine maintenance of all equipment, repairs, system tuning, and adjustments as needed, and updated software revisions for CrossingGuard Roadside software.

Unless specifically stated, the following quote includes all fees for CrossingGuard equipment and services described in the proposal. Any fees for optional services, if any, including the interface and download of information to the Intellinetics Intellivue product used by the Columbus Division of Police and the installation of Mobile Broadband Networks, Inc. advanced wireless communications equipment at CrossingGuard enforced intersections to facilitate a City wireless network application, are noted separately.

### A. NTS AUTOMATED ENFORCEMENT PROGRAM – TEN INTERSECTION PROGRAM

NTS will monitor and enforce red light running violations at intersections designated by the City. NTS will be responsible for supplying the equipment and installation at the designated intersection. A computer system capable of reviewing citations at a designated customer location and providing documentation for the court on any appeals will be provided. NTS will provide workstations to the City as necessary to accommodate actual citation volumes at no additional cost to the City. NTS provides software licensing and a full maintenance program including on-line system monitoring,



hardware maintenance, software support, fully staffed help desk support, and as-needed an ongoing roadside maintenance program.

The following pricing is estimated based upon standard intersection equipment installations, including use of existing traffic signal poles where appropriate and no special landscape or design requirements. Any Program changes that introduce additional requirements may be subject to additional fees. Fees are based on an initial contract term of 36 months for approaches installed, with annual renewal options, and are fixed for the term of the agreement. If applicable, sales, use, property, or similar taxes assessed against NTS have not been included in the following quote and will be passed through to the City as incurred.

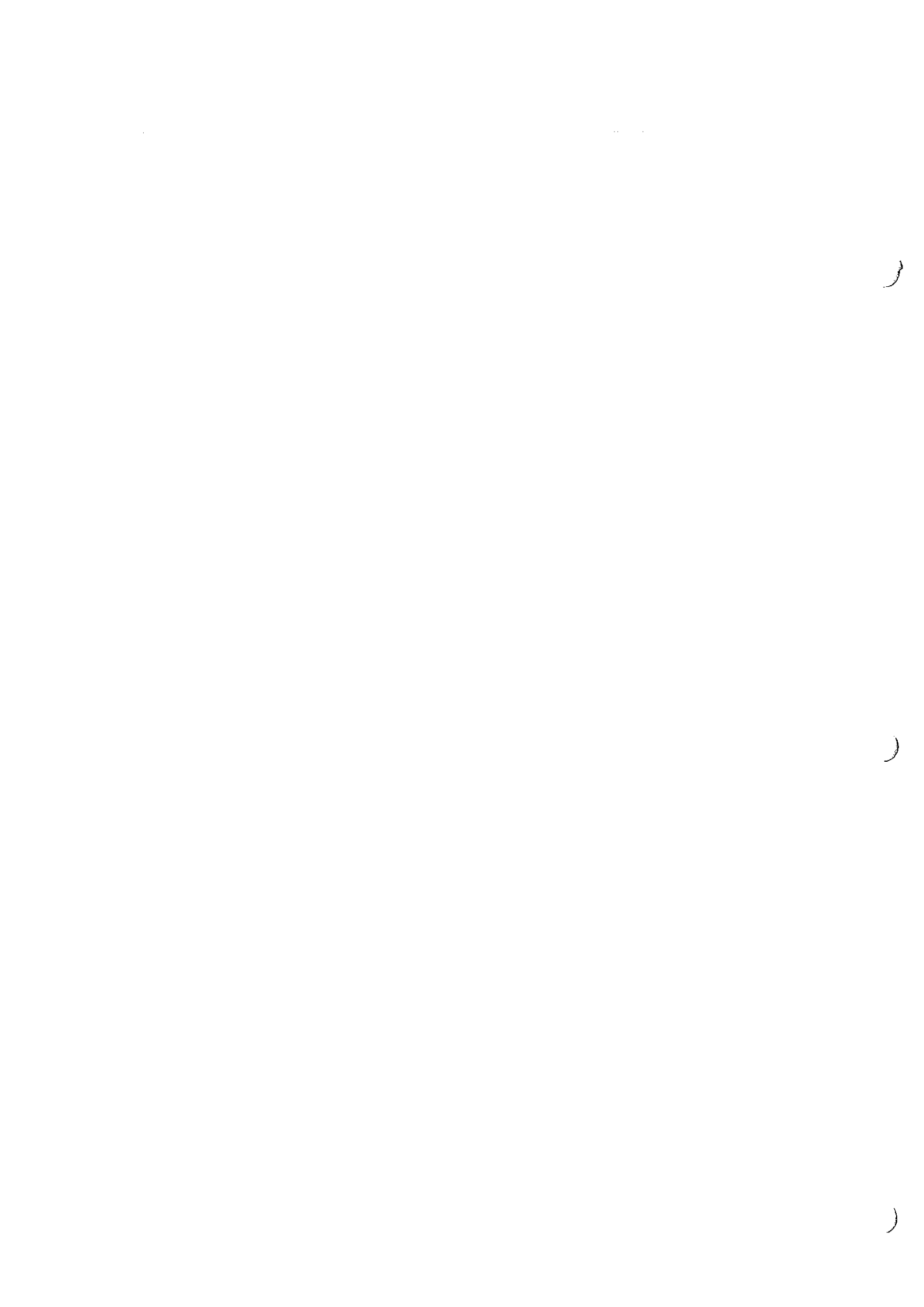
1. PRICING

A) COST FOR COMPLETE SYSTEM

	<u>Purchase Price Option</u>	<u>Lease Fee Option</u>	<u>Variable Fee Option</u>	<u>Combined Lease &amp; Variable Fee Option</u>
<b>Installed Equipment Costs:</b>				
Initial Approach at Intersection	\$90,000	\$2,750 per month	\$14.00 per citation	\$2,750 per month
Each Additional Approach (Same intersection)	\$60,000	\$1,835 per month	\$11.00 per citation	\$1,835 per month
<b>Citation Processing Services – monthly fee per approach or fee per citation</b>	\$1,950	\$1,950	\$10.00 per citation	\$10.00 per citation
<b>Annual Maintenance Contract monthly fee per approach or fee per citation</b>	\$760	\$760	\$3.00 per citation	\$3.00 per citation
<b>Total Monthly or Per Citation Fee:</b>	Equipment Price Plus:			
Initial Approach at Intersection	\$2,750	\$5,500	\$27.00 per citation	\$2,750 plus \$13.00 per citation or,
Each Additional Approach	\$2,750	\$4,585	\$24.00 per citation	\$1,835 plus \$13.00 per citation

Monthly fees for equipment costs are based upon the assumption that Installed Equipment Costs per approach are leased under a three-year lease agreement. Citation processing services and maintenance support services are as described in the Proposal.

**Relocation Fee** to be paid by the City is subject to actual costs incurred by NTS based, in part, on the alternate intersection agreed to, but in any



**Additional intersections** – The pricing indicated above will apply to any additional intersections if ordered within 24 months of contract signing.

**Additional training** – All initial training as well as any ongoing training relating to system upgrades or enhancements made by NTS will be conducted on an as needed basis at no additional charge.

## 2. OPTIONAL SERVICES OFFERED BY NTS

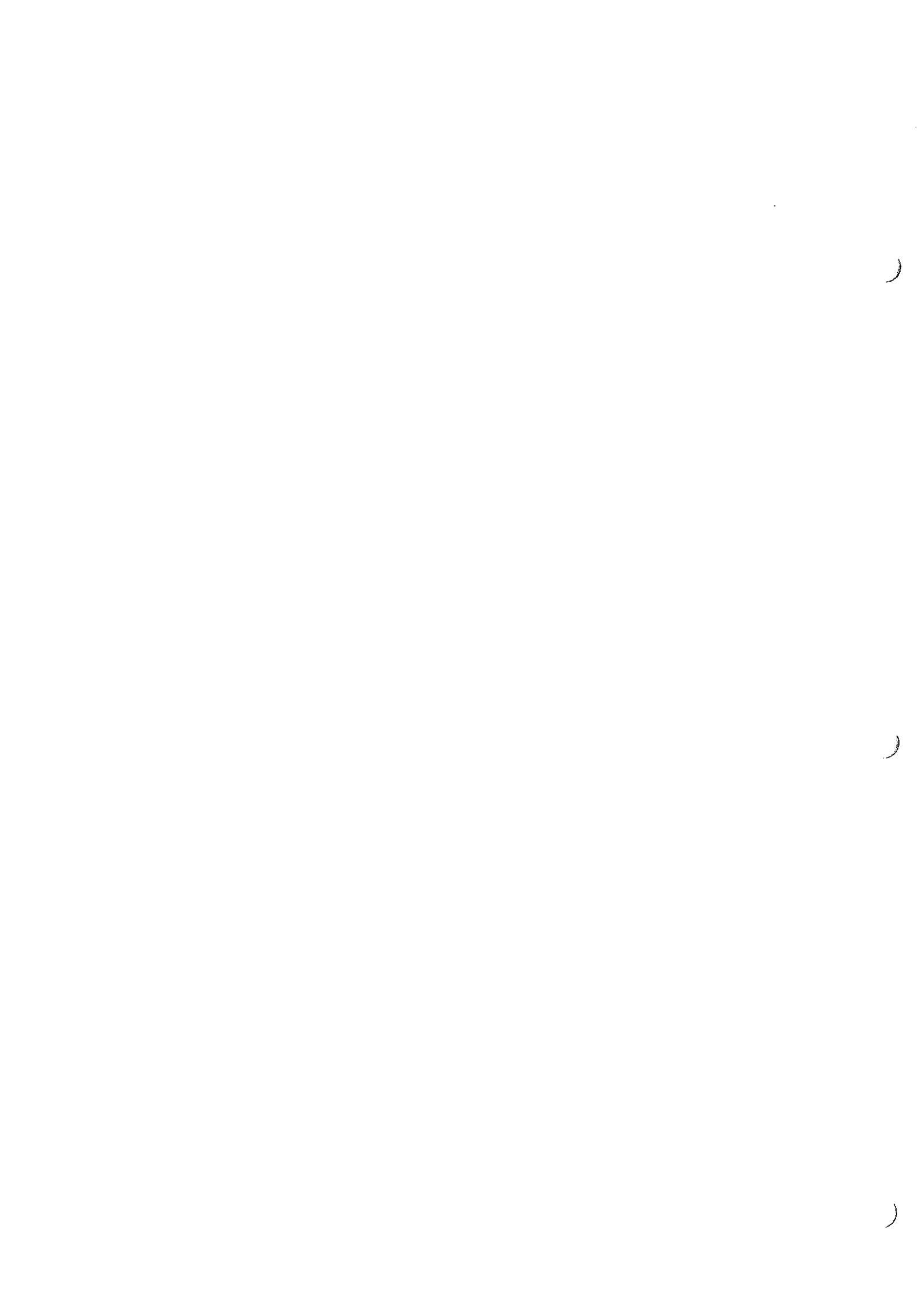
### A) CROSSINGGUARD VIP

If requested by the City, and to assist the City with the selection of each intersection to be equipped with the CrossingGuard system, NTS will utilize CrossingGuard VIP to conduct a comprehensive intersection analysis. The City will determine at which intersections, and at which approaches the VIP analysis will be conducted. Upon receiving the results of the analysis, if the City decides not to proceed with a CrossingGuard installation at an analyzed approach, the City will reimburse NTS' VIP costs of \$850 per approach. Additional information on VIP is located in Section VI "Additional Information".

### B) COLLISION AVOIDANCE

Even the most effective automated enforcement system can only discourage red light violations; it cannot, in fact, prevent them. But, unlike any other automated enforcement system, CrossingGuard can help reduce the risk of red light running collisions through its unique **Collision Avoidance** feature. Using its advanced ITS-based video processing technology, CrossingGuard tracks vehicles approaching the intersection like targets in the camera's field of view. By detecting vehicle locations and measuring vehicle speeds, CrossingGuard applies laws of physics to predict red light violations before they happen. Based on vehicle speed, acceleration, and distance from the stop line, the system predicts whether or not a vehicle will stop for the red light. If the system predicts that the vehicle will run the red light, not only do the cameras begin recording the full violation video sequence, but **CrossingGuard can optionally send an emergency request to the traffic controller to briefly extend the red light for cross traffic to reduce the chances of a broadside collision.** The signal timing in the direction of the violator is not altered; therefore CrossingGuard is able to record the violation as it occurs so that a citation can be issued.

Because NTS is committed to traffic safety, we offer CrossingGuard's collision avoidance as an **optional functionality** to the client **at no additional cost.** A client's traffic engineers have the flexibility of choosing the intersection approaches at which the function is enabled and the amount of red extension for each. NTS will install the Collision Avoidance interface in the City's traffic controller under the supervision of the City Traffic Engineer and/or City subcontractors. Additionally if the City would like to test the Collision Avoidance interface unit in a Traffic



Engineering Laboratory prior to installation, NTS will provide the unit in advance of installation.

### C) REAL-TIME TRAFFIC MONITORING CAPABILITIES

Because video is at the core of NTS' CrossingGuard system, we are able to offer real-time video monitoring capabilities to our customers. More and more cities are beginning to realize the rapid response and planning benefits offered by real-time monitoring equipment. Not only does it enable the analysis of current traffic situations at the location, often it can also act as a deterrent to unwanted behavior. Because NTS is truly committed to safety, **if the City elects, NTS will deliver an internet accessible video-streaming interface on its tracking and signal view cameras at each enforced intersection at no additional cost to the City.**

If the City would like traffic monitoring capability, but would prefer a more interactive system not limited to existing camera views, NTS will gladly provide a user-controlled Pan-Tilt-Zoom camera at the intersection for a one-time installation cost of \$5,100 per intersection.

### D) DRIVER IMAGE

Although unclear at this time whether the City will require that a driver image be captured as part of the red light camera system, NTS is prepared to include this in the CrossingGuard System if the City chooses. Offering multiple progressive scan images of each violation, NTS has the best solution in the industry to provide clear, identifiable driver images. If the City elects to include driver images, the service fees noted in the Pricing Section, A. 1., will be increased by 25%.

### E) 4G WIRELESS NETWORK WITH MOBILE BROADBAND NETWORKS, INC.

NTS is prepared to offer the City the opportunity to begin installing an advanced, 4G Wireless Communications Network at no cost. Many communities are beginning to realize the benefits of improved secure communications in the day-to-day activities of City departments including police, fire, and other early responders. Mobile Broadband Networks, Inc. (MBN) is offering the next generation in communications networks. See additional description of this technology in Exhibit VI. If the City elects to deploy this technology, NTS will upgrade its communication equipment at enforced intersections to support this wireless network at no additional fee to the City. These intersections will then become fixed nodes in the new wireless architecture.

)

)

)



## F) INTELLINETICS: ADVANCED DATA MANAGEMENT

Intellinetics, Inc. of Columbus, Ohio provides advanced document and image management systems to the City of Columbus Police Department. Intellivue, a document imaging solution, is deployed at seven divisions and over 1,300 desktops in the department. If approved by the City, NTS and Intellinetics will work together to deliver data generated in the red light program into the Intellivue system for broader, integrated data analysis and management purposes. See additional information on Intellinetics in Section VI.

### 3. RESPONSIBILITIES OF THE CITY UNDER THIS PROPOSAL

The City shall be responsible for providing NTS with current "as built" drawings in electronic form required by NTS for the preparation of drawings for the installation of the System and will process NTS' engineering drawings without unusual cost or delay.

The City shall not levy any permit fees or, if municipal ordinance requires the assessment of fees, the City shall pay for such fees associated with the installation of the System.

The City will provide all electrical connections and power required by the Systems, except that NTS shall be responsible for connecting the System to the source of the electrical power at the intersection. In the event that NTS utilizes any portion of the existing infrastructure, the City shall bear any franchise fees associated with this use.

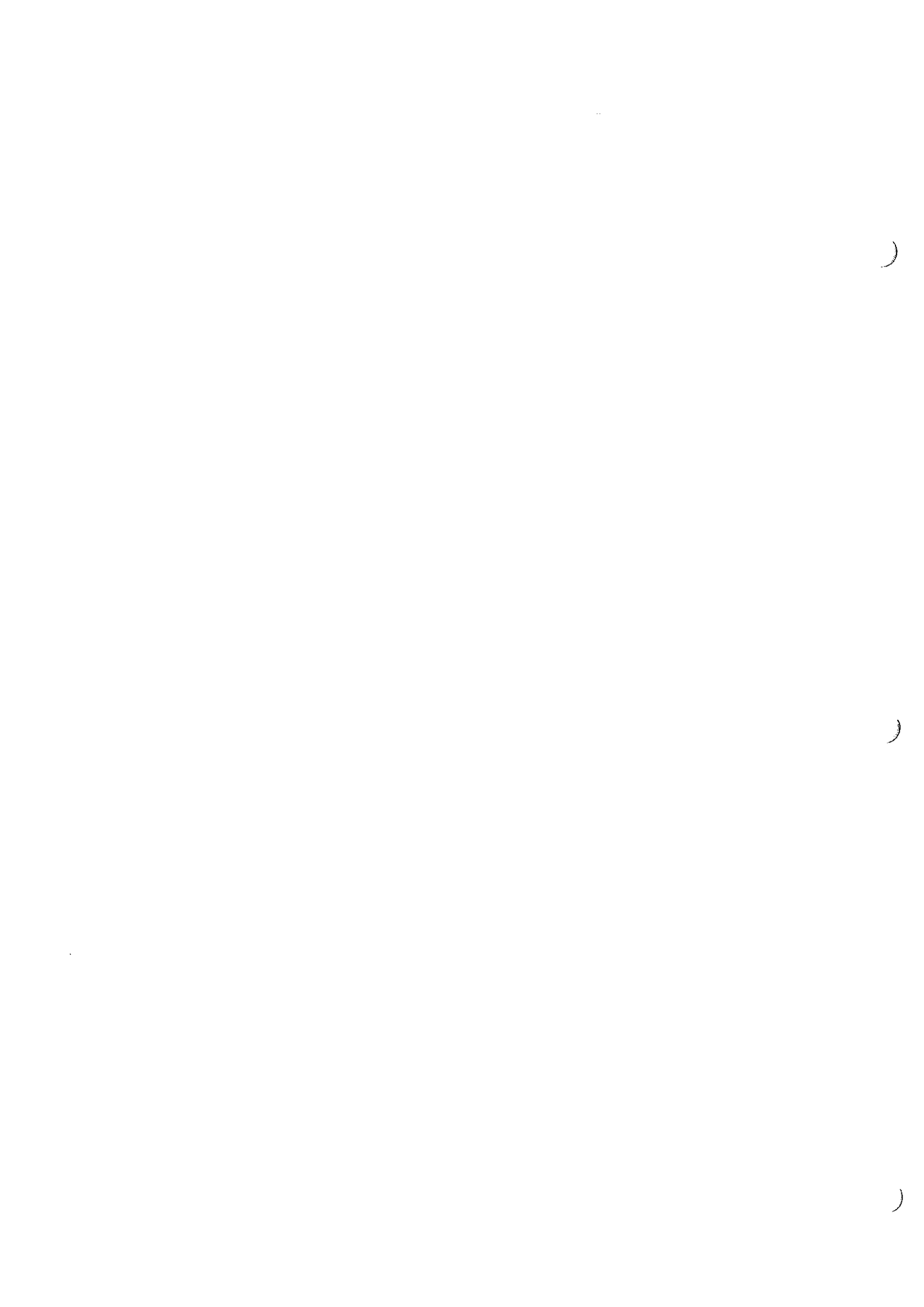
The City shall provide NTS with advance written notice of any modifications proposed to intersections, including traffic signal operations, after installation of a System. In the event of any such intersection modification, the City shall pay the costs reasonably incurred by NTS to adapt the affected Installed Approach to make such Installed Approach compatible therewith. Notwithstanding the above, NTS makes no guarantee that it will be able to make any such adaptation. In addition, NTS does not, and will not, make recommendations or otherwise manage the configuration or operation of the intersection traffic light system.

---

If NTS is unable to access BMV data electronically and at no additional fee to NTS, the City will obtain and provide the necessary BMV data to NTS for the processing of approved citations in a timely manner.

---

During the term of this Agreement or any extension thereof, the City agrees that it will not use the System, or allow the System's use by a third party, for enforcement or studies without the prior written permission of NTS. In addition, NTS will not process nor support any Notices for Violations not captured by NTS.



# PROPOSAL

To the Finance Director of the City of Columbus, Ohio:

We (I) propose to furnish the following article(s) and/or service(s) at the price(s) and terms stated subject to all instructions, conditions, specifications and all attachments hereto. We (I) have read all attachments including the specifications and fully understand what is required.

Prices are to be quoted F.O.B.:

See Page 5

Delivery: Sixty (60) calendar day(s) after receipt of order.

Terms: Nestor invoices at end of service month, due net 30 days.

Company Name or Bidder's Name: Nestor Traffic Systems, Inc.

Business Address of Bidder: 400 Massasoit Avenue; Suite 200  
East Providence, RI 02914

## REQUIRED Company Employee Information:

Total number of company employees = 54

Total number of company employees working in Columbus = 0

Additional number of employees that will be working in Columbus in the event this contract is awarded to your company = Minimum - two (2) employees

The full name and residence of all persons and parties interested in the foregoing bid are: (If a corporation, give the name and address of the president and secretary; if firm or partnership, the names and address of the members or partners.)

Name

Address

Nigel P. Hebborn

14 Hamilton Hill Rd.; Harmony, RI 02829

Claire M. Iacobucci

8 Trout Brook Lane; Hope, RI 02831

Authorized Signature X 

Title: X President

(SIGNATURE MUST BE IN WRITING IN OTHER THAN BLACK INK)

(TITLE MUST BE GIVEN)

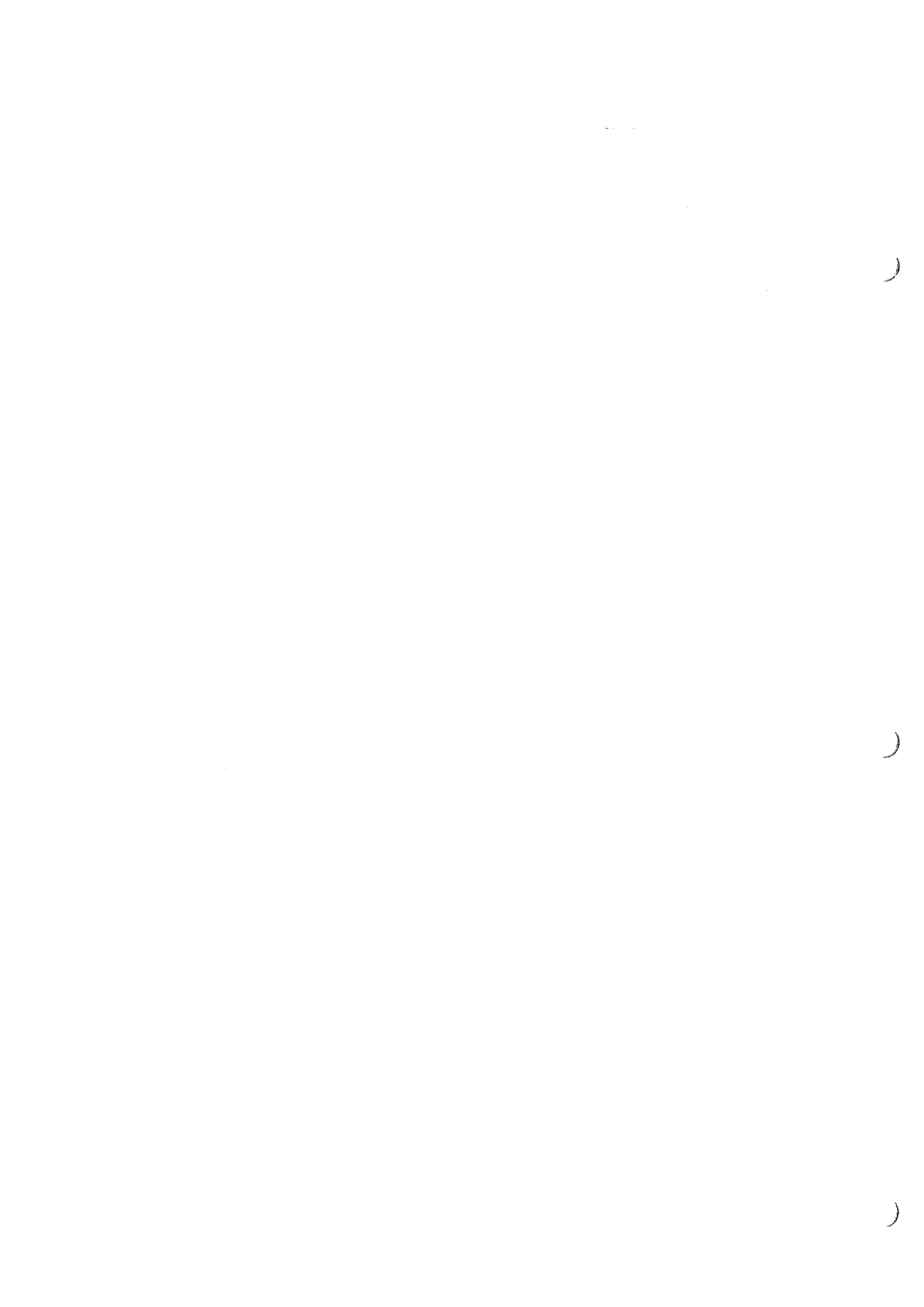
POPPED/DOCUMENTS & FORMS/SIGNATURE PAGE 6 REVISED 02-09-04

(1) Order means city approved intersection plans.

**THIS PAGE WAS INTENDED TO BE BLANK**

## **V. REQUIRED FORMS**

---



# A. NON-COLLUSION AFFIDAVIT

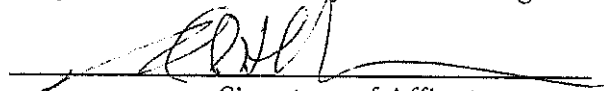
## 1. Non-Collusion Affidavit

(This affidavit must be executed for the proposal to be considered)

State of Rhode Island )

County of Providence )

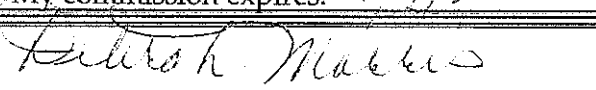
Nigel P. Hebborn, being first duly sworn deposes and says that he is, President, (sole owner, a partner, president, secretary, etc.) of the party making the foregoing proposal or bid; that such bid is genuine and not collusive or sham; that said bidder is not financially interested in, or otherwise affiliated in a business way with any other bidder on the same Contract; that said has not colluded, conspired, connived or agreed, directly or indirectly, with any bidder or person, to put in a sham bid, or that such other person shall refrain from bidding, and has not in any manner directly or indirectly, sought by agreement or collusion, or communication or conference, with any person, to fix the bid price of affiant or any other bidder or to secure any advantage against the City of Columbus, Ohio or any person or persons interested in the proposed 'Contract; and that all statements contained in said proposal or bid are true; and further, that such bidder has not directly or indirectly submitted this bid, or the contents thereof or divulged information or data relative thereto to any association or to any member or agent thereof.

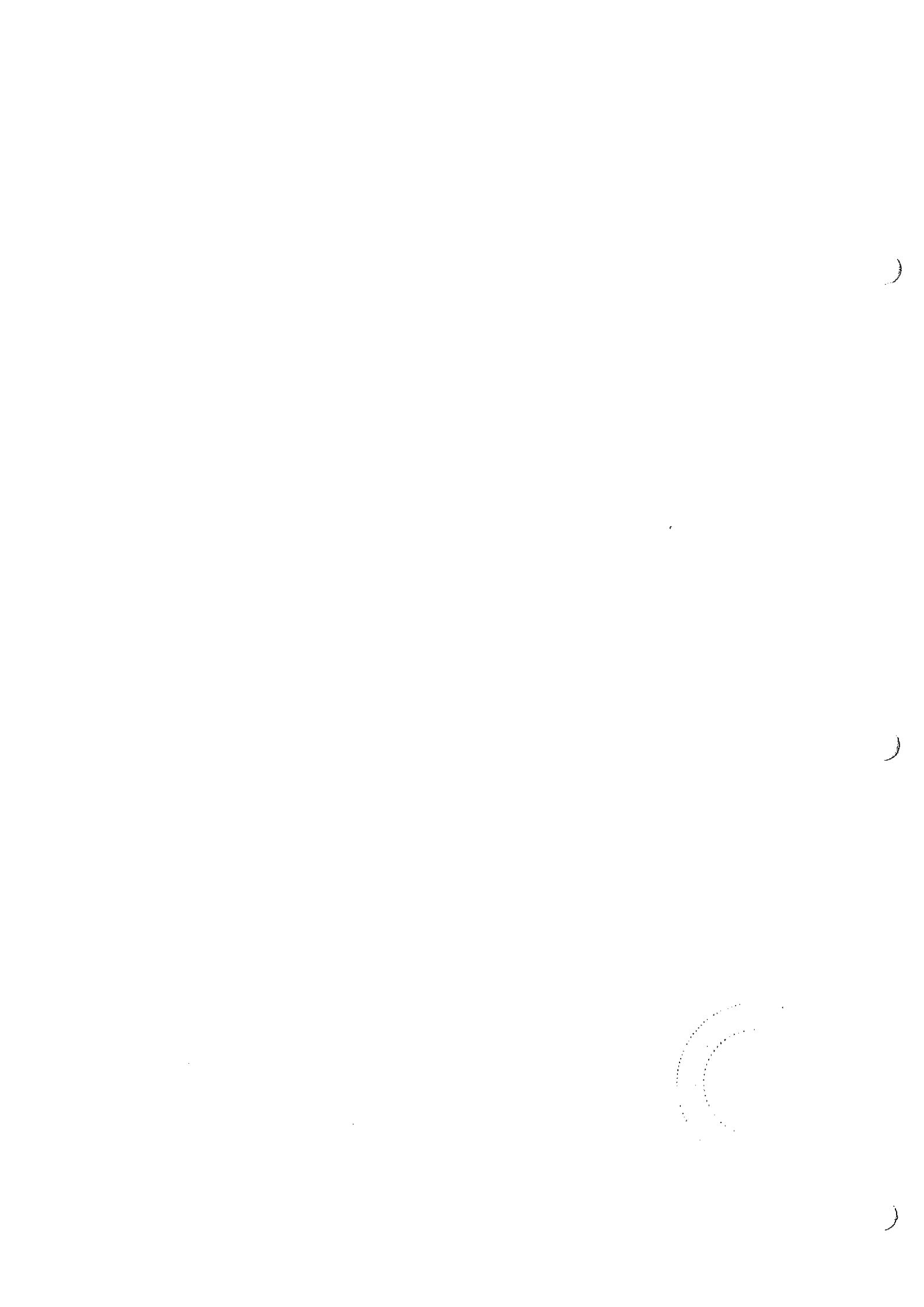
  
Signature of Affiant

Sworn to and subscribed before me this 15<sup>th</sup> day of June, 2004.

Notary public in and for

(Seal) \_\_\_\_\_ (county) PROVIDENCE (state) R.I.

My commission expires: 1/4/2005  






## B. CONTRACTOR INFORMATION AND LOCATION

In keeping with the Mayor's commitment "to provide an atmosphere that promotes job creation and economic growth in existing and emerging industries", NTS has contacted businesses in the Columbus area to participate in this project. NTS will be the prime contractor for the Crossing-Guard project, but will actively work with local contractors during the design and installation phases. Outlined below is a list of proposed subcontractors, in the Columbus area, to assist NTS with overall design and program implementation.

### *Engineering Subcontractor*

It is proposed that NTS will be assisted in the project by Burgess & Niple, Inc. (B&N), who is headquartered in Columbus, OH. B&N was established in 1912 and now has 15 offices around the country, with 5 offices in Ohio. B&N is an emerging national transportation leader having completed projects in over twenty-seven states. They have the engineering expertise to provide engineering designs and detailed construction plans for the CrossingGuard monitored systems.

B&N was recently selected as the lead consultant to evaluate current downtown traffic circulation in Columbus. A broad range of policies and programs are being evaluated with a task force of government and downtown business representatives in order to develop a wide range of operational alternatives to meet anticipated transportation needs and promote the economic vitality of downtown Columbus.

Contact information for Burgess & Niple, Inc. is provided below:

***Burgess & Niple, Inc.***  
5085 Reed Road  
Columbus, Ohio 43220  
Contact: Steve Thieken, PE, PTOE  
Transportation Engineer  
Telephone: 614 459-7272 ext. 356

### *Construction Subcontractor*

NTS is also in discussion with M. P. Dory Company as a possible construction contractor for this project. M. P. Dory was established in 1984 and is headquartered in Columbus. They employ 140 people and primarily participate on Ohio Department of Transportation and municipal signal projects across the state. M. P. Dory has been responsible for maintaining the traffic signals in Franklin County since 1995. The company also has on staff Level 2 IMSA Certified Signal Technicians to ensure a high level of expertise to their customers.

As a proposed subcontractor to NTS, M. P. Dory Company would provide the expertise and skill necessary to install the CrossingGuard system. Their existing working relationship with City personnel and knowledge of the City's standards and method of operation will provide valuable assistance during installation. On completion of the installation, NTS would have discussions with M. P. Dory regarding a routine maintenance contract.

Contact information for M. P. Dory Company:

***M. P. Dory Company***  
2001 Integrity Drive  
Columbus, Ohio 43209  
Contact: Chris Cebull  
Telephone: 614-444-2138

)

)

)

C. LETTER FROM MBN

3246 West Henderson Rd., Suite A  
Columbus, Ohio 43220  
(614) 340-0300



June 9, 2004

Nestor Traffic Systems, Inc.  
Mr. Nigel P. Hebborn, President & CEO  
400 Massasoit Ave., Suite 200  
East Providence, RI 02914

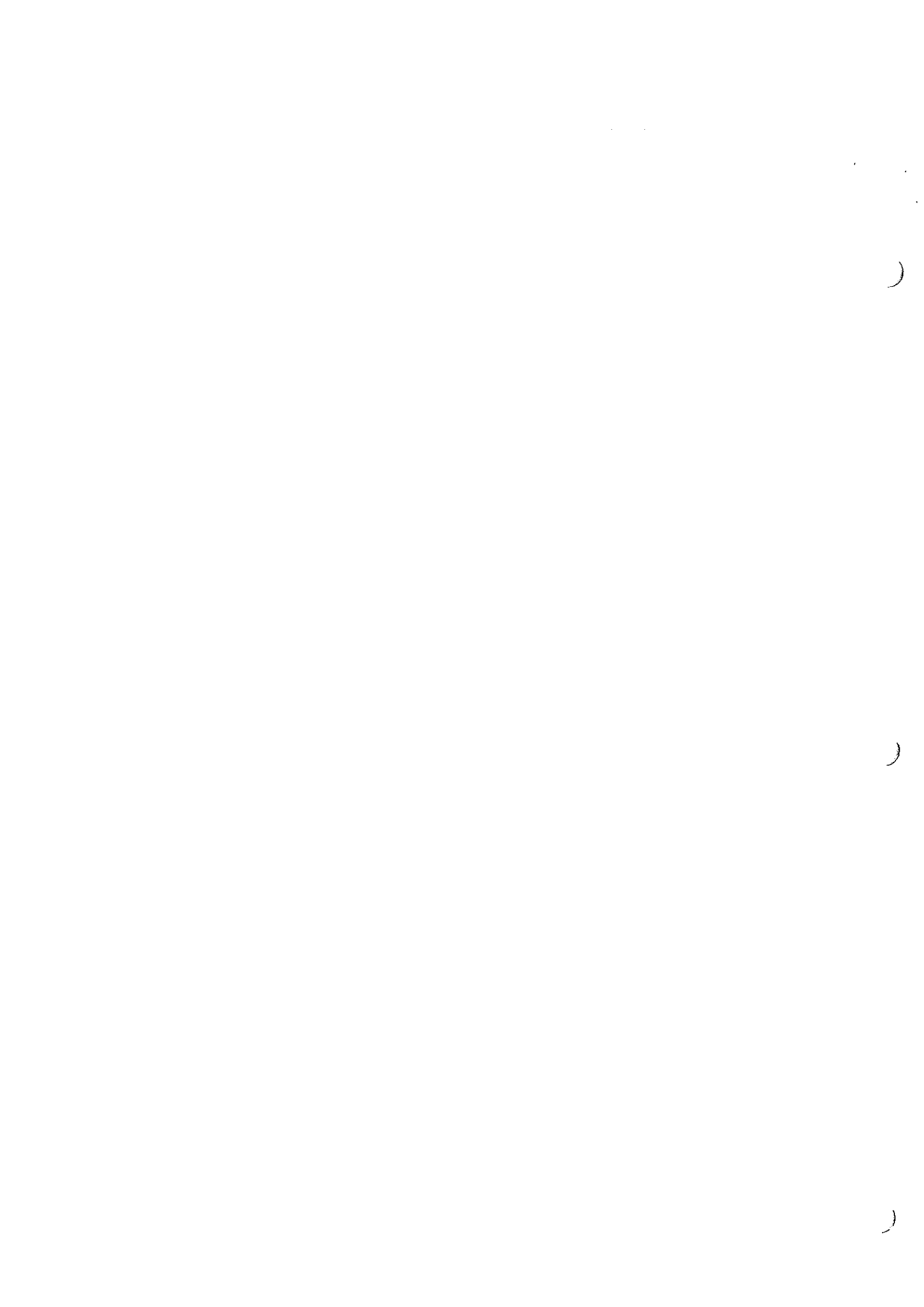
Re: Columbus, Ohio  
Photo Red Light Enforcement System  
Proposal No. SA 001147 JY/FM

Dear Mr. Hebborn:

Mobile Broadband Networks, Inc. (MBN) is pleased to align itself with Nestor Traffic Systems to provide the City of Columbus, Ohio a wireless network infrastructure for data and video streams from the Nestor Traffic System's Red Light Enforcement technology. The MBN wireless network is fully capable of supporting speed detection devices and audio detection devices which can be used to triangulate "shots fired" incidents located anywhere in the network, once deployed.

Mobile Broadband Networks also provides the City of Columbus a cost effective and secure wireless broadband communications technology that can be deployed quickly on existing structures such as street lights, traffic lights, and buildings. Initial infrastructure deployment for the wireless network would be confined to the intersections chosen by the City of Columbus upon consultation with Nestor Traffic Systems. In addition to transmitting the Nestor Traffic Systems data, an MBN network provides many added benefits for the City of Columbus such as:

- Consolidated data, video and voice capabilities onto a single, secure, high-speed wireless network infrastructure.
- Personal communication devices that allow first responders (and other public service personnel) the ability to place and receive phone calls through the network, thereby eliminating or substantially reducing monthly cell-phone bills.
- Area wide wireless broadband mobile access to data at sustained throughput rates from 600 kilobits per second up to 2 mega bits per second, while traveling at transit speeds over 200 MPH. MBN can provide immediate access to data such as hazmat and criminal database information such as the IDentivue system by Intellinetics® that until now, was only available at the first responder's desk thereby improving productivity and other public service personnel. This capability also enables the City of Columbus Division of Police to implement bio-metric devices such as finger print and retinal scanners recently put into service by Homeland Security.
- A scalable, tower-free communication solution with no single point of failure inherent in tower or cell-based implementations. Typically, voice and data are provided over separate networks. Voice is generally provided via radio and data (if implemented) is handled over CDPD or GPRS – both cell-based systems. CDPD has very low data rates and is being phased out and GPRS, while offering a faster data rate than CDPD, is generally one-tenth as fast as an MBN system. Radio systems frequency bands are freed up to provide other valuable services such as asset management or remain in use for agency communications thereby preserving the investment – there is no forced obsolescence.



- MBN Mobile Service provides data rates at up to 2 Mbps as opposed to the 19 Kbps offered by CDPD or 144 Kbps offered by GPRS. MBN Mobile Service offers the same data rates both upstream and downstream, while cellular-based systems restrict data rates in the upstream direction to a small fraction of the downstream (advertised) rates. Because MBN's wireless services are symmetrical and provide the same broadband data rate in both directions, new applications are possible, such as high-quality live video from a vehicle at an incident scene or on-the-move, back to a headquarters location or to other authorized network devices.
- Precise non-satellite derived geo-location services for all MBN devices allowing for asset management and tracking. Location data is determined by triangulation utilizing the network infrastructure,
- Display screen modules can also be deployed allowing for the dissemination of critical information to the public in times of emergency or crises. These same screens can be used to deliver narrowcast advertising and promotions thereby offsetting the Total Cost of ownership.

A mobile broadband network from MBN resolves the City of Columbus' current communications technology limitations and provides a complete robust communications system that enables Columbus to protect their communities and neighborhoods as well as their first responders. What's more, the MBN network can be deployed to augment existing systems rapidly at a fraction of the cost of other communications networks.

**MBN Intelligent Services™** provides mobile, broadband, wireless services for traffic management and Departments of Transportation (DOT's) to meet Intelligent Transportation System (ITS) needs, code enforcement, permitting, and health care institutions for mobile telemedicine.

MBN's services can be combined to create unique solutions for many community problems. For example, **MBN Alert Display Services™** may be combined with **MBN Intelligent Services™**, and COTS 802.11 equipment for deployment on all modes of public transportation to create a **Mobile Internet island™** that Transit Authorities can offer at low or no cost to the passengers, thereby increasing rider-ship, offsetting deployment costs through advertising, providing a benefit the consumer by turning commute time into productive time and keeping the public informed by providing them with critical information during their commute.

MBN's Solution Has Many Facets which provide real benefits to the City of Columbus:

- It supports high quality secure voice communications. As outlined above, an MBN network can provide personal communication devices that allow first responders (and other public service personnel) the ability to place and receive phone calls through the network and communicate in traditional 2-way (push-to-talk) fashion.
- It provides broadband data rates up to 2Mbps sustained (600Kbps to 1.5Mbps typical) to the end user. It provides the ability to provide streaming video to/from vehicles traveling at highway speeds or in aircraft (over 200 MPH) while maintaining connectivity.
- ~~It supports peer-to-peer ad-hoc communications – for example, all units at an incident scene are able to communicate directly with other team members without relying on radio or cell towers,~~
- ~~It is a self-forming self-healing network; units are automatically added when entering the network and removed when leaving the network. This makes it ideal for mobile units such as SWAT teams that need a means of communicating both audibly and visually over a secure medium without the requirement for fixed infrastructure equipment. The network is multi-tenant, in other words, various agencies can share the network without interfering or knowledge of the other unless and until such cross or interagency communication is desired.~~



Once the network is deployed (partially or fully), communities can add expansion modules to enhance the network with public service options, such as:

### **MBN Display Services**

MBN can expand the network with dynamic video displays to inform the mobile public. The system is display agnostic, the system works equally well with Plasma, LCD, or LED technology devices. The choice of screen technology is application not system dependent.

MBN display services encompass two types of display networks:

**Dynamic Alert Display** systems that are deployed in those venues (concourses, parks, plazas, shopping malls, office building lobbies, elevator banks, etc.) desiring to provide the public with news, weather, public service announcements, and alert information (Amber Alerts, Homeland Security Alerts) on a timely basis.

**Dynamic Advertising Display** systems can also be deployed in various venues to deliver dynamic narrowcast advertising to the consuming public. While they are capable of delivering alert and public service information, they do so only at the request of the advertisers or managing entity. MBN's advertising model generates significant revenue to defray the total cost of ownership of the system. Net revenue generated from these displays can provide substantial monthly revenue sharing with the local government.

### **Security**

Security is an important component of MBN Network. Due to number of external integration points, web based access to user functions, integration of financial and other functions, the transporting of sensitive data; the system will provide security at multiple levels. The system will accommodate this requirement at all external level of access through the use and implementation of database security, application security, VPN's, and firewall technologies. Internally to the network, security is rendered through the use of proprietary protocols, ad hoc routing, and other inherent system attributes.

We look forward to working with Nestor and the City of Columbus on this exciting project.



D. LETTER FROM INTELLINETICS

)

)

)



**Date/Time:** 6/7/04  
**Client:** Nestor c/o Columbus Division of Police  
**From:** Matt Chretien  
**Purpose:** To provide a description of the value of using CPD's existing Intellivue system as a repository for violation data.

#### **Optional Intellivue Research and Intelligence Violation Package**

Nestor's partnership with Intellinetics offers the City the ability to significantly extend the value of the Red Light Enforcement System (RLES) beyond violator processing. The data collected by the RLES contains a wealth of information with uses in addition to violator processing, including:

- ✓ **Research** – historical analysis of the detailed properties of the violations database may provide insight into patterns otherwise difficult to see:
  - Frequency / time of day
  - Direction(s) / time of day
  - Frequency / day of week
  - Event distribution by season, etc.
- ✓ **Intelligence** – study of the violations database, linked to other sources of investigative data, may reveal valuable information otherwise difficult to connect:
  - Specific vehicle location / time of day
  - Specific vehicle direction / time of day

The Columbus Division of Police (CDP) already has Intellinetics' advanced document management platform, Intellivue. Intellivue is designed to manage large volumes of documents and related index information and enables these documents to be easily searched, shared, and analyzed. As a result, Intellivue is an optimal choice to archive all RLES violation data to support research and intelligence analysis.

With this option, Intellinetics will create a new application to manage violation data on CDP's Intellivue system. The Violations application will be configured to automatically import complete violation packages collected by the City's new (Nestor) RLES. Each package will contain both descriptive index information and digital photographs taken from violation video feed. Once in Intellivue, the data will be available for searching, analysis, and sharing by authorized CDP personnel.

This unique option empowers the City to harness the research and intelligence value of RLES violation data using its Intellivue system. We are pleased to present this as a value added option to this proposal.

**NOTE:** Completion of this option will require project support from CDP's Policenet Operations personnel. A mutually agreed upon method for secure transmission of the violation data packages to CDP's network (from Nestor) must be established, in addition to training for select personnel with rights to access violations data.

#### **Intellinetics References**

In addition to the City of Columbus, Ohio police department, Intellinetics brings to the City additional experience gained in working with other best-practice organizations:

- ✓ Savannah, GA police Department
- ✓ Arlington County, VA Police Department
- ✓ Milwaukee, WI Police Department

)

)

)

## E. CROSSINGGUARD VIP

NTS will provide important site analysis assistance to the City to facilitate the selection of the most desirable locations to implement CrossingGuard. Using a comprehensive and logical process of data gathering and analysis followed by a final report, NTS will present a clear analysis and summary of findings to the City that will allow the City's traffic, law enforcement and other officials to determine which intersections have a red light running problem, assess the magnitude of risk and have the most impact on improving intersection traffic safety. Our methodology, which is provided below, has been applied to every NTS project and is an important and NTS-unique capability to ensure resources are deployed where they are most needed and will achieve the greatest benefit.

NTS offers CrossingGuard Video Intersection Profiling (VIP) red light running assessment services as a service to help identify the extent of the red light running problem at selected intersections. NTS provides detailed reports for each intersection and for each direction of travel documenting hourly violation rates. Of paramount importance, this unit is installed and removed without any disruption or interference to normal traffic controller operation. CrossingGuard VIP services include intersection site surveys, equipment installation, field operation for violation data collection, equipment removal, data reduction, data analysis, program management, and Final Report preparation.

The CrossingGuard VIP system can be easily and rapidly deployed (temporarily) at multiple intersections to record traffic movement and signal information. CrossingGuard VIP equipment consists of a small video camera and VCR, wireless communications devices, a custom electronics unit to sense traffic signal status, an equipment cabinet, and associated mounting hardware. CrossingGuard VIP has the unique ability to record a video overview of traffic in all four-approach directions of an intersection at the same time, clearly showing red light violations as they occur. NTS reviews the intersection video to identify and log all instances of violations.



Figure 20 Camera and Equipment Cabinet Temporarily Mounted on Traffic Pole

Left turn and straight through violations are identified, and a sample of right-turn violations can be logged if requested. The recorded violation data is subsequently analyzed to identify red light running characteristics. NTS delivers all recorded data to the client along with a Final Report containing the results of data analysis. NTS provides a com-

prehensive set of services to support the study, including all equipment and videotapes, site installation surveys, equipment installation and removal, videotape review, data analysis, program management, and Final Report preparation.

At each intersection to be monitored, NTS will deploy an NTSC video camera, 1-2 VCR's, a wireless transmitter/ receiver unit, a traffic signal encoding device, and rechargeable batteries. The camera is a small (2.8" h x 2.5" w x 1.5" d), light-weight (~ 8 oz.), wide-angle lens video camera positioned on top of a camera mounting pole that is strap-mounted to an existing traffic signal pole. On the pole where the video camera is mounted, NTS will strap-mount a lightweight equipment cabinet. The cabinet will contain 1-2 VCR's (depending on the amount of data to be recorded each day) and a set of rechargeable batteries.

Inside the traffic controller cabinet, a traffic signal encoder device is installed to sense the phase of the traffic lights in each direction of travel. (This unit can be installed and removed without any disruption to normal traffic controller operation.) The encoder box uses clip-on inductive sensors to sense the traffic signal phase and convert this information into a set of audio tones that can be recorded on the VCR.

The VCR records video from the cameras and audio from the encoder box, wirelessly transmitted from the controller cabinet to the CrossingGuard VIP equipment box. The video shows traffic movement in all four directions of travel at the intersection. The audio captures signal phase information and can be decoded to recover and display the phases of the traffic lights at a standard intersection.

Once videotape has been recorded (a "field videotape"), it is retrieved and processed at NTS' facility to decode the recorded audio tones and create a second videotape (the "composite tape") that shows the traffic movement with an image overlay that graphically depicts the status of the traffic signals in all directions. This display uses color-coding of the stop bar for each direction of travel. The color of each stop bar is either green, yellow, or red, depending on the phase of the traffic light.

In addition to the colored stop bars showing the traffic signal phase information, the overlay image also shows, to the side of the display, the duration of each red light, accurate to hundredths of a second. A sample composite image and corresponding data display are shown in **Figure 21**. This composite image tape facilitates review to identify red light violations.



Figure 21. Composite Image of Traffic Activity

)

)

)

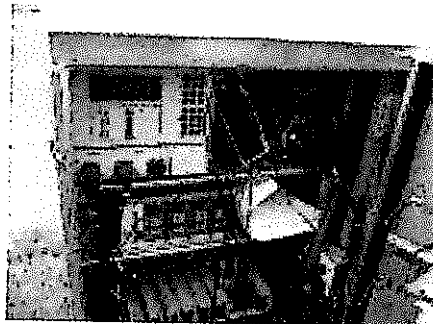


Figure 22 Traffic Signal Encoder Device

A violation is identified when the reviewer determines that a vehicle has entered the intersection after the stop bar for its direction of travel has turned red. (NTS can accommodate the City's particular requirements for defining the "violation line" of an intersection, based on using the stop bar, crosswalk, or other locations on the roadway.) Each violation is noted along with the name of the intersection where the violation occurred, the date and time of the violation, the time after onset of the red light, direction of travel and violation type (straight through, left turn, right turn).

**Videotape Processing and Review**

Once a videotape has been recorded in the field, it is retrieved and sent to NTS' facility for processing and review. Reviewers view each tape, recording and logging the following data (into a spreadsheet) for each observed violation:

- name of the intersection
- date and time of the violation
- phase in which the violation occurred
- time after red of the violation
- direction and lane of travel
- violation type (left turn, straight through or right turn)

After the tapes have been reviewed and logged into spreadsheets, the VIP manager then performs a series of Quality Assurance tests to ensure accuracy of the data before compiling the Final Summary Report.

**Data Analysis**

NTS analyzes the detailed violation data to summarize violation rates and present charts plotting the number of violations against different violation characteristics. In particular, the analysis for a given intersection will present hourly violation rates for each day of recording, and averaged rates for all weekdays and, separately, weekend days. Further, the following charts will be developed and presented to the City.

- Average Hourly Violation Rate (by direction of travel and for all directions)
- Analysis of Violations by Approach
- Analysis of Violations by Type
- Analysis of Violations by Time-After-Red
- Summary of Results for All Intersec-

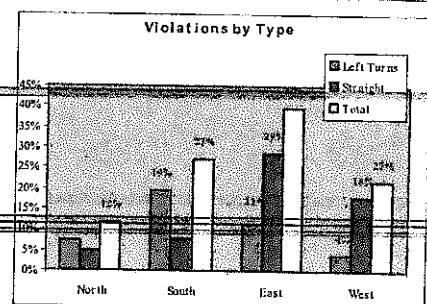
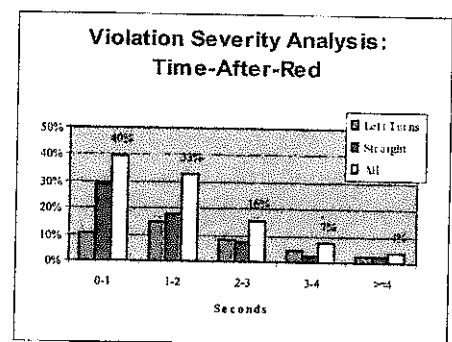


Figure 23 Sample charts included in the CrossingGuard VIP Final Report



)

)

)

tions including a table listing the total observation period for each intersection

### **Final Report**

NTS documents its findings in a Final Report that includes a description of the methodology and equipment used in the study, analysis charts for all intersections, summary intersection analysis, and tables containing all the identified red light violation instances with the corresponding violation detail data.

NTS' mission is to provide the City with the information needed to assess the severity of its red light running problem. The comprehensive data analysis and documentary video evidence, a daily count of red light violations, and a percent breakdown of red light violations as a function of time after red, will be used to profile the magnitude of the problem. Presented in this fashion, the data will give the City's traffic, law enforcement and other officials the information required to determine which intersections have a red light running problem, assess the magnitude of risk and have the most impact on improving intersection traffic safety.

)

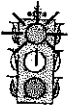
)

)

F. SAMPLE VIOLATION



# TOWN OF VIENNA, VIRGINIA RED LIGHT TRAFFIC CAMERA NOTICE OF VIOLATION



<b>Citation Number</b>	<b>102990682</b>
------------------------	------------------



REGISTERED OWNER INFORMATION:



RED LIGHT VIOLATOR  
1234 Main Street  
Vienna VA 22180

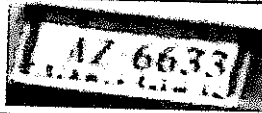
PLEASE SEE INSTRUCTIONS ON REVERSE SIDE

Citation Information	
CITATION NUMBER:	<b>102990682</b>
MAILING DATE:	<b>09/25/2000</b>
PAYMENT DUE DATE:	<b>11/09/2000</b>
<b>AMOUNT DUE &gt;&gt;</b>	<b>\$50.00</b>

### Violation Images and Vehicle Registration Information

VEHICLE TAG  
**AZ 6633**

STATE: VA      YEAR: 1999      EXP: JANUARY 15, 2002  
MAKE: Nissan      TYPE: Maxima



LOCATION OF OFFENSE:  
**Nutley, Courthouse**

DATE/TIME OF OFFENSE:  
**09/23/2000 13:53:27**

ISSUING OFFICER:  
**Murphy, Tom**

VEHICLE CROSSED STOP  
LINE **1.45** SECONDS  
AFTER SIGNAL TURNED RED

VEHICLE SPEED: 37 MPH



Video of this offense is available for review at the Vienna Police Department by appointment only. For more information about viewing the video from your citation, please call 703-255-6392.



Please return this portion with your payment -- Use the enclosed envelope

<b>Citation Number</b>	<b>102990682</b>
------------------------	------------------

<b>AMOUNT DUE &gt;&gt;</b>	<b>\$ 50.00</b>
----------------------------	-----------------

For general information, or to contest this violation, please see the instructions on the reverse side of this Notice.



Payments may be made by calling:  
(800) 554-1403

**PAY BY 11/09/2000**

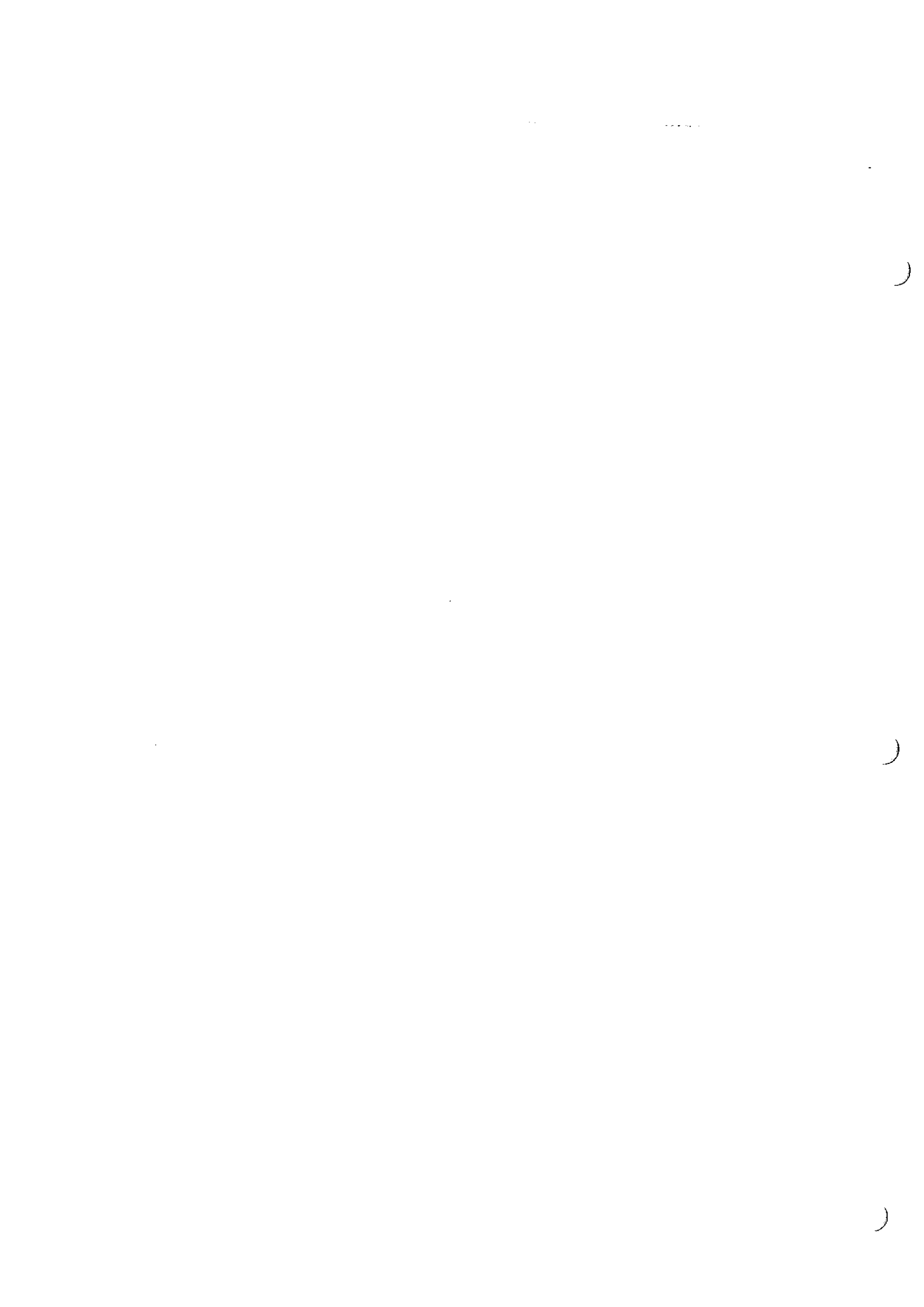
**DO NOT SEND CASH! (U.S. FUNDS ONLY!)**  
**Make check or money order payable to:**

**TOWN OF VIENNA**  
**P O BOX 2081**  
**Tustin, CA 92781-2081**

**RED LIGHT VIOLATOR**  
 1234 Main Street  
 Vienna VA 22180

SAMPLE







TOWN OF  
**VIENNA**  
VIRGINIA

Fairfax County General District Court  
for the Town of Vienna  
127 Center Street, South  
Vienna, VA 22180

**TO THE ACCUSED:**

The Town of Vienna has initiated a Computerized Photo Red Light enforcement program, as allowed by State law, in an effort to increase roadway safety, reduce accidents and increase the compliance level of motorists concerning traffic light signals.

This notice has been issued to you as a result of your vehicle being photographed by the computerized red light monitoring system which monitors the traffic signal at the intersection listed on the front of this Notice. The photographs on the front of this notice were taken when your vehicle went through the intersection after the signal had turned red. You are hereby notified that the vehicle identified herein Failed To Comply With A Traffic Light Signal in violation of Ordinance #9-19.4 of the Town of Vienna.

You may fulfill your legal obligations and avoid a court summons being issued against you by making prepayment to the Town of Vienna by following the Instructions on this Notice, by signing the Waiver of Trial and by enclosing that Waiver of Trial along with Payment prior to the due date as specified in this Notice.

- Imposition of a penalty pursuant to this section shall not be deemed a conviction as an operator and shall not be made part of the operating record of the person upon whom such liability is imposed nor shall it be used for insurance purposes in the provision of motor vehicle insurance coverage. No monetary penalty imposed under this section shall exceed \$50.00 nor shall it include court costs. Ordinance #9-19.4 of the Town of Vienna.
- The final outcome of your case rests with the Court and is a matter over which neither the arresting officer nor the Police Department has any control.
- You are presumed innocent until proven guilty beyond a reasonable doubt.
- You have the right to hire an attorney.
- You have the right to plead guilty or not guilty or nolo contendere to any charge placed against you.
- If convicted you have the right to appeal within ten (10) days after the trial.
- If you fail to enter a written or court appearance, you may be tried in your absence. If found guilty, the Court will impose sentence.
- In the prosecution of an offense established under this section, prima facie evidence that the vehicle described in the summons issued pursuant to this section was operated in violation of this section, together with proof that the defendant was at the time of such violation the registered owner of the vehicle, shall constitute in evidence a rebuttable presumption that such registered owner of the vehicle was the person who committed the violation. Such presumption shall be rebutted if the registered owner of the vehicle (i) files an affidavit with the Clerk of the General District Court that he or she was not the operator of the vehicle at the time of the alleged offense or (ii) testifies in open court under oath that he or she was not the operator of the vehicle at the time of the alleged violation. Such presumption shall also be rebutted if a certified copy of a police report, showing that the vehicle had been reported to the police as stolen prior to the time of the alleged violation of this section, is presented, prior to the return date established on the summons issued pursuant to this section. Ordinance #9-19.4 of the Town of Vienna.

**PAYMENT INSTRUCTIONS:** If you are an adult charged with a traffic infraction for which you can waive trial and pre-pay the monetary penalty and wish to do so, you may avoid coming to Court by signing and mailing the WAIVER OF TRIAL portion of this NOTICE, along with your Pre-payment Amount of \$50.00, within 15 days of the Mailing Date on the reverse side of this form. **NOTE:** Payment date is recorded as the date postmarked on the envelope containing Payment. Timely delivery by mail is the responsibility of the sender. Failure to submit your Payment by the Payment Due Date may incur legal action between the Town of Vienna and the Accused.

**PAYMENT OPTIONS:** Please make check or money order payable to the **Town of Vienna**. Print citation number(s) on your payment. To insure proper credit, return the bottom portion of this Notice with your payment. Major credit cards are also accepted. To pay by credit card (Visa, MasterCard, American Express) please call 1-800-555-1403, have your credit card and this Notice available, and follow the instructions from the auto-attendant. **DO NOT SEND CASH.**

**COURT INFORMATION:** Should you desire to appear in Court to contest this Notice of Traffic Violation, please call the Town of Vienna Police Department at 703-555-6366 and have your Citation number available (on reverse side of this Notice).

**GENERAL QUESTIONS?** Call Toll Free: 1-800-555-1403. You may call 24 hours a day, 7 days a week. To avoid peak hours, call after 5:00 pm EST or on weekends.

Please place a checkmark by one of the following and complete all of the requested information:

**INTENT TO CONTEST VIOLATION**

By placing a checkmark in this box and by signing this form, I certify that I have read the notice and understand that I have the right to a trial. Therefore, I am entering a written acknowledgement of my intent to contact the Town of Vienna Police Department in order to schedule a hearing to appear in Court to contest this Notice of Traffic Violation. I understand that it is my responsibility to contact the Town of Vienna in order to schedule a hearing, and, if failing to do so, I may be summoned to court regarding my failure to respond to this Notice.

**WAIVER OF TRIAL**

By placing a checkmark in this box and by signing this form, I certify that I have read the notice and I am entering a written rather than personal appearance in the court case resulting from the violation charged on this summons. I understand that I have the right to a trial which I am giving up. I understand that my plea of guilty will also have the same force and effect as a finding of guilty by a judge. Understanding all of this, I plead guilty to the violation charged, waive my right to a court hearing, and enclose payment in the amount of \$50.00 as prescribed by law.

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
DATE

\_\_\_\_\_  
MAILING ADDRESS

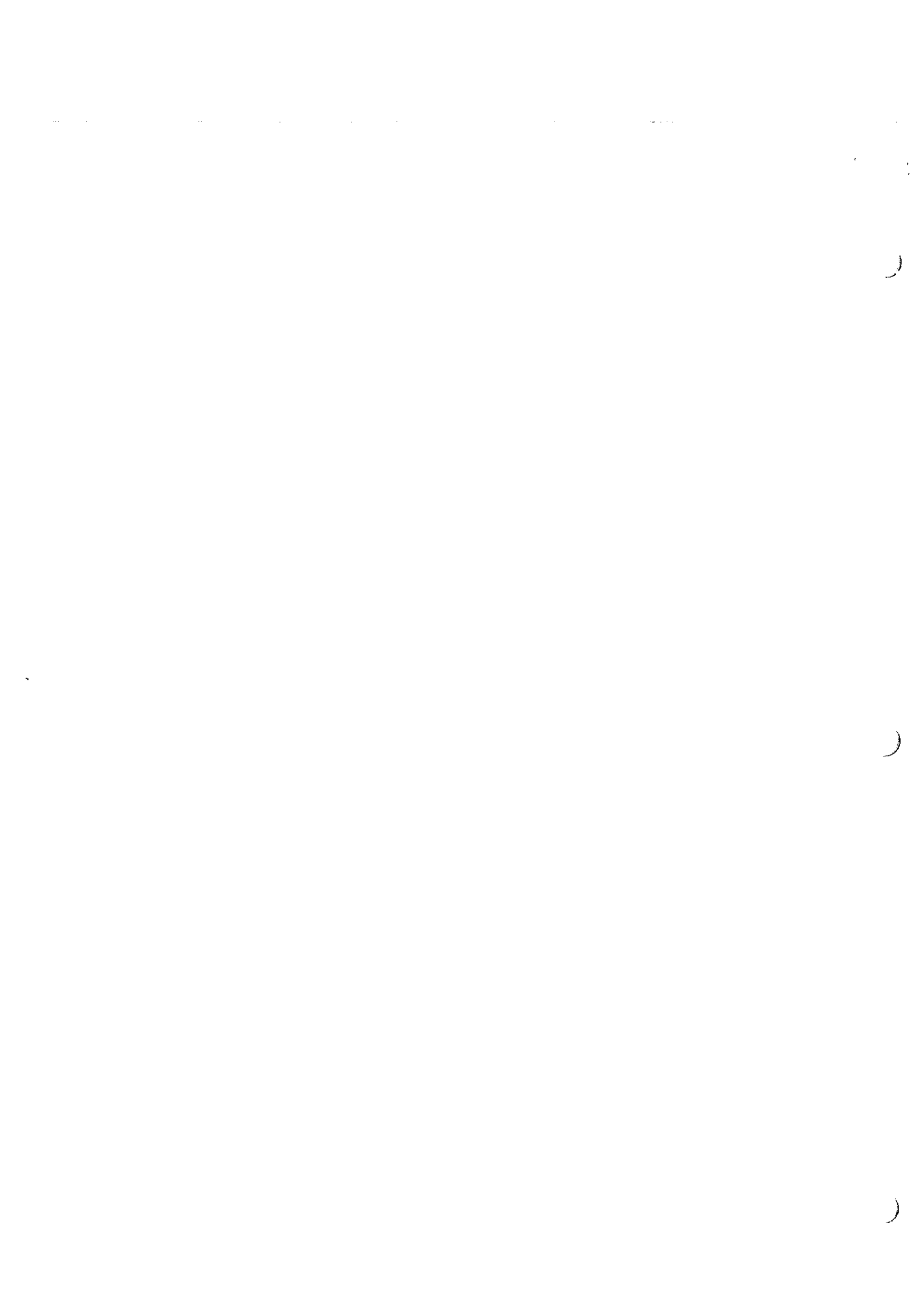
(\_\_\_\_)\_\_\_\_\_  
DAYTIME PHONE

\_\_\_\_\_  
CITY

\_\_\_\_\_  
STATE

\_\_\_\_\_  
ZIP

(\_\_\_\_)\_\_\_\_\_  
EVENING PHONE

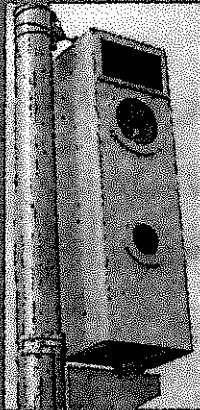
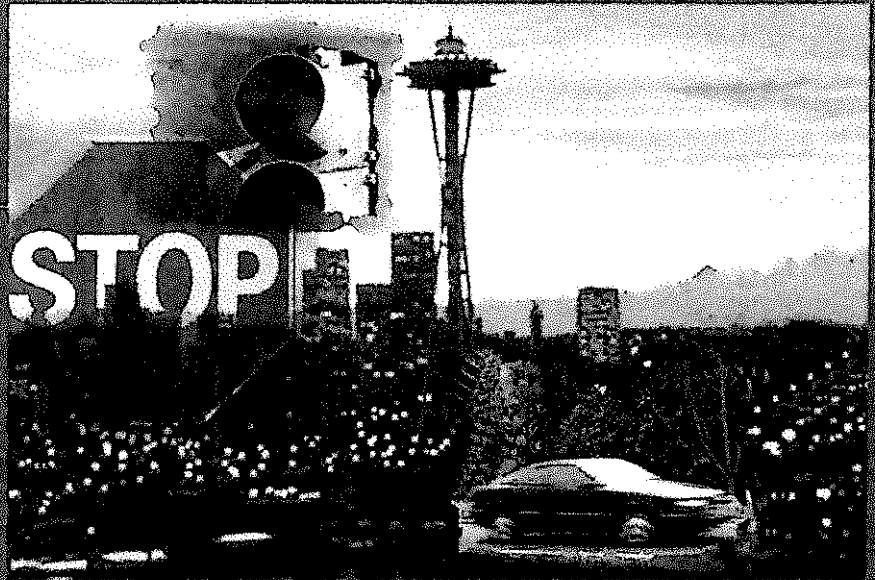






2511 Corporate Way  
Palmetto, FL 34321  
Tel: 841 841 1700  
Fax: 841 841 1707

**ORIGINAL**



*Safer Communities*

*One Image at a Time*



## COLUMBUS, OHIO



### PHOTO RED LIGHT ENFORCEMENT SYSTEM

PROPOSAL NO. SA001147 JY/FM

June 17, 2004



2511 Corporate Way  
Palmetto, FL 34221

Tel: 941.845.1200  
Fax: 941.365.0837

June 16, 2004

Messrs. Jack Yost & Fred Myers  
Purchasing Office  
**City of Columbus**  
50 West Gay Street  
Columbus, OH 43215

Re: Letter of Submittal: Photo Red Light Enforcement System (SA 001147 JY/FM)

Dear Selection Committee Members:

Thank you for considering Peek Traffic as a partner in the design and installation of the City of Columbus' Red-Light Running Photo Enforcement Program. As you read through this proposal, I hope you get a true sense of Peek Traffic's commitment to Automated Red Light Enforcement Safety programs.

Peek Traffic's commitment to Automated Enforcement began with the first digital camera solution installed in the United States. Peek Traffic continues this commitment with the first web-enabled citation processing system and the most accurate dual Doppler radar camera on the market. We are the only supplier worldwide that has been in the transportation industry for over 80 years and has experience in offering complete transportation solutions. These solutions range from digital camera enforcement systems to a full line of traffic control equipment. Combining technology with an experienced, professional staff, we have developed a reputation for flexibility, accuracy and personalized attention.

***Individuals Involved in Proposal Preparation***

The following individuals, all Peek Traffic full-time employees, assisted with the writing of this proposal:

- 
- 
- Todd Eikinas, Director of Automated Traffic Enforcement
  - Glenn Hansen, Government Safety Solutions Manager
  - Russ Colthorpe, Business Development / Projects Manager
  - ~~Neil Brussard, System Implementation Manager~~
  - Terry Hamrick, Operations Manager
  - Vivian Wessel, Back Office Supervisor



Letter to the City of Columbus, Ohio  
Re: Photo Red Light Enforcement System (SA 001147 JY/FM)  
June 16, 2004  
Page 2



***The Primary Point of Contact at Peek Traffic***

I will be your primary point of contact throughout the bid process and, if the contract is awarded to Peek Traffic, throughout the contract term.

Todd Eikinas, Director	Mobile Ph: 941.650.5072
Peek Traffic Corporation	Office Ph: 941.845.1241
2511 Corporate Way	Fax: 941.365.0837
Palmetto, FL 34221	

***Peek Traffic's Sole & Complete Responsibility***

Upon award of contract, Peek Traffic Corporation will perform all necessary tasks and services to provide the City of Columbus with a turnkey solution as agreed upon in an executed contract for A Photo Red Light Enforcement System. These tasks and services shall include (but or not limited to) the following:

- Install all Intersection Red Light Camera Systems
- Provide, staff, and train a fully operational Customer Service Center
- Provide trained field technicians to service the Red Light Camera Systems
- Provide solutions managers to assist with all aspects of a start up Red Light Program
- Provide on-going training or City Personnel and Court Personnel – as needed
- Provide supervisory and management services to the program
- Provide citation mailing and collections services

***Peek Traffic's Corporate Officers***

Peek Traffic Corporation is a wholly owned subsidiary of publicly traded Quixote Corporation (Nasdaq: QUIX) and is headquartered in Palmetto, Florida (Tampa Bay metro area). Peek Traffic Corporation's Officers are:

Leslie J. Jezuit	CEO & Chairman
Timothy M. O'Leary	President
Daniel P. Gorey	Vice President & Treasurer
Joan Riley	Secretary
Anne Hamblin Schiave	Assistant Secretary
Russell A. Colthorpe	Assistant Secretary

---

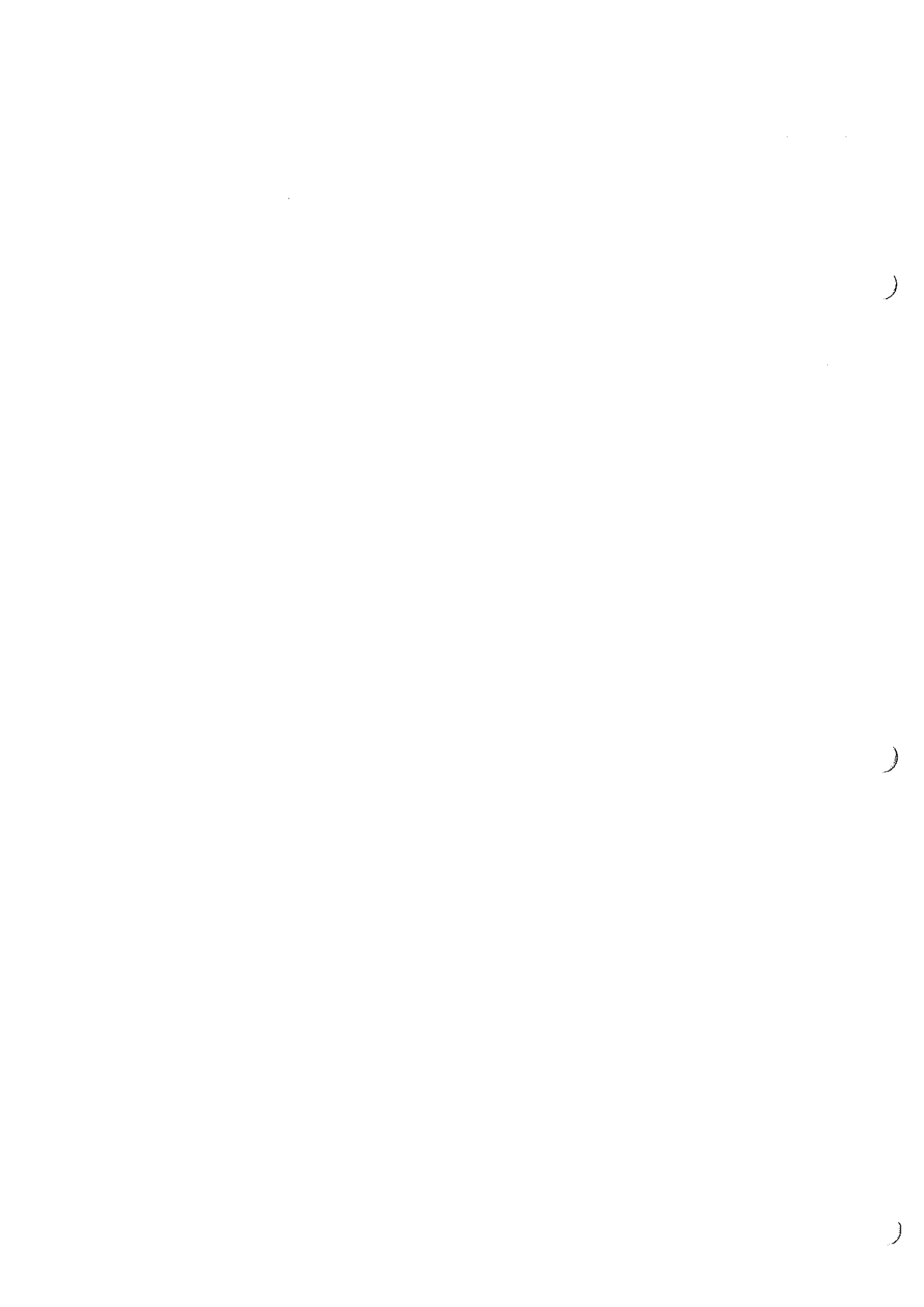
***Proposal Valid for 180 Days***

As noted on the proposal cover, this proposal, submitted and due on June 17, 2004 at 11:00AM, shall remain valid for one hundred-eighty (180) days from the submitted date of June 17, 2004.

---

***A Turnkey Solution***

In this proposal, the Peek Traffic Team will describe why the City of Columbus can count on us as partners to develop an effective intersection safety program with no financial risk to the City.



Letter to the City of Columbus, Ohio  
Re: Photo Red Light Enforcement System (SA 001147 JY/FM)  
June 16, 2004  
Page 3



- Our Team has successful automated red light camera experience from the private and government perspectives. We are very well qualified to do the type of work the City is requesting because of this perspective and experience. We encourage the City to contact our current customers to verify the quality of work we perform.
- We have the strong financial support required to ensure success in this effort. We have the staff ready to rapidly develop and deploy this safety program with the City.
- We offer a greater scope of services than requested in the RFP. For example, we offer an increased ability to identify the intersections that have the greatest need for red light cameras. We use a sophisticated DVD video surveillance tool to provide solid data to the City. We realize that proper site selection is important to maximize the safety impact of the program and to maintain public support.
- We have included a list of recommendations for consideration by the City based on our breadth of experience in this field. We hope that this list is of value to you no matter which vendor you may chose to partner with in this effort.
- We have the ability and the motivation to custom build the safety program that the City of Columbus desires. Our list of recommendations is intended to generate thought and be used as a starting point to consider. We have a wide array of options available for the City to consider now or at some future date. We will join with the City to build the best possible program.
- We offer a cost structure that allows the City to benefit from the public relations benefit of a flat lease arrangement but still minimize financial risk to the City. As red light violations fall, revenue to the City will fall. We offer discounts to the City to ensure revenues never fall below our fee.

We look forward to you carefully evaluating our proposal, checking our references and interviewing our key personnel. We are confident that you will be impressed by our ability to serve you. Please feel free to contact me if you have any questions, or if you require any additional information.

---

~~For your convenience, an Executive Summary of our proposal is provided as an enclosure with this submittal letter.~~

Sincerely,

---

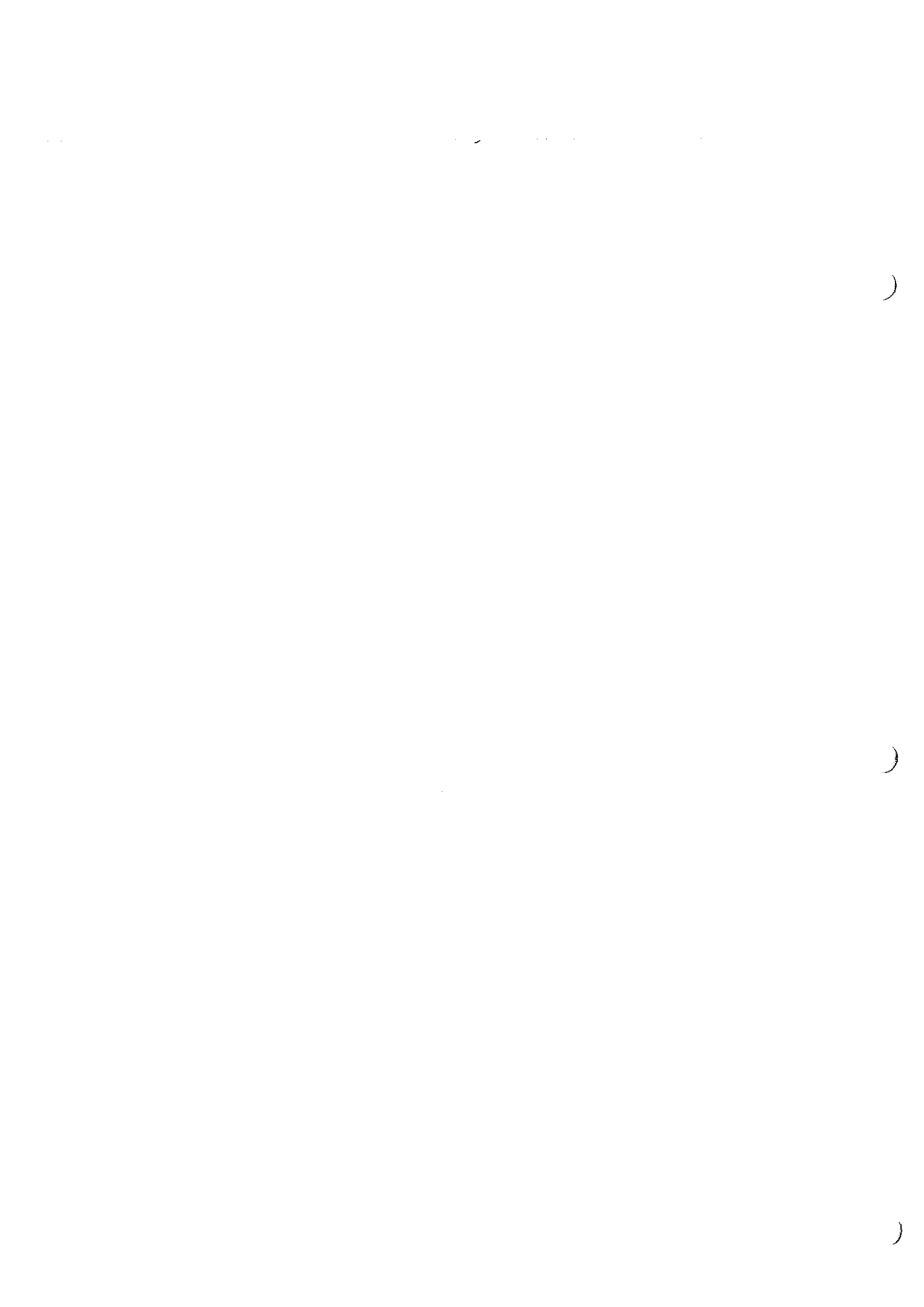
---



Todd A. Eikinas

Director, Automated Enforcement Systems

Enclosure: Proposal Executive Summary





## Executive Summary

**Peek Traffic's Commitment** to Automated Enforcement began in Europe over 10 years ago. Since then, Peek Traffic developed and installed the first digital camera automated enforcement system in the United States. Peek Traffic continues this commitment with the installation of Web-enabled software for citation processing - the *SafeStreet* Automated Red Light Enforcement Program.

**Committed to Automated Enforcement for Red Light Speed Temporary Speed Zones**

Peek Traffic is the prime contractor on projects for North Carolina's *SafeLight* program in the cities of Charlotte, Wilmington, High Point, Greensboro, and Rocky Mount. The program has been operating successfully for the past 3 years and has resulted in 40% to 60% reduction in red light violations throughout these Cities. We have also seen a 25% reduction in violations at adjacent intersections caused by the halo effect. The participating cities have seen a 26% decrease in right-angle accidents at the camera monitored intersections.

**26% Decrease in right-angle collisions**

*Peek Traffic's most recent automated enforcement award was for the addition of mobile speed enforcement to the already successful red light enforcement program operating with 20 cameras in the City.*

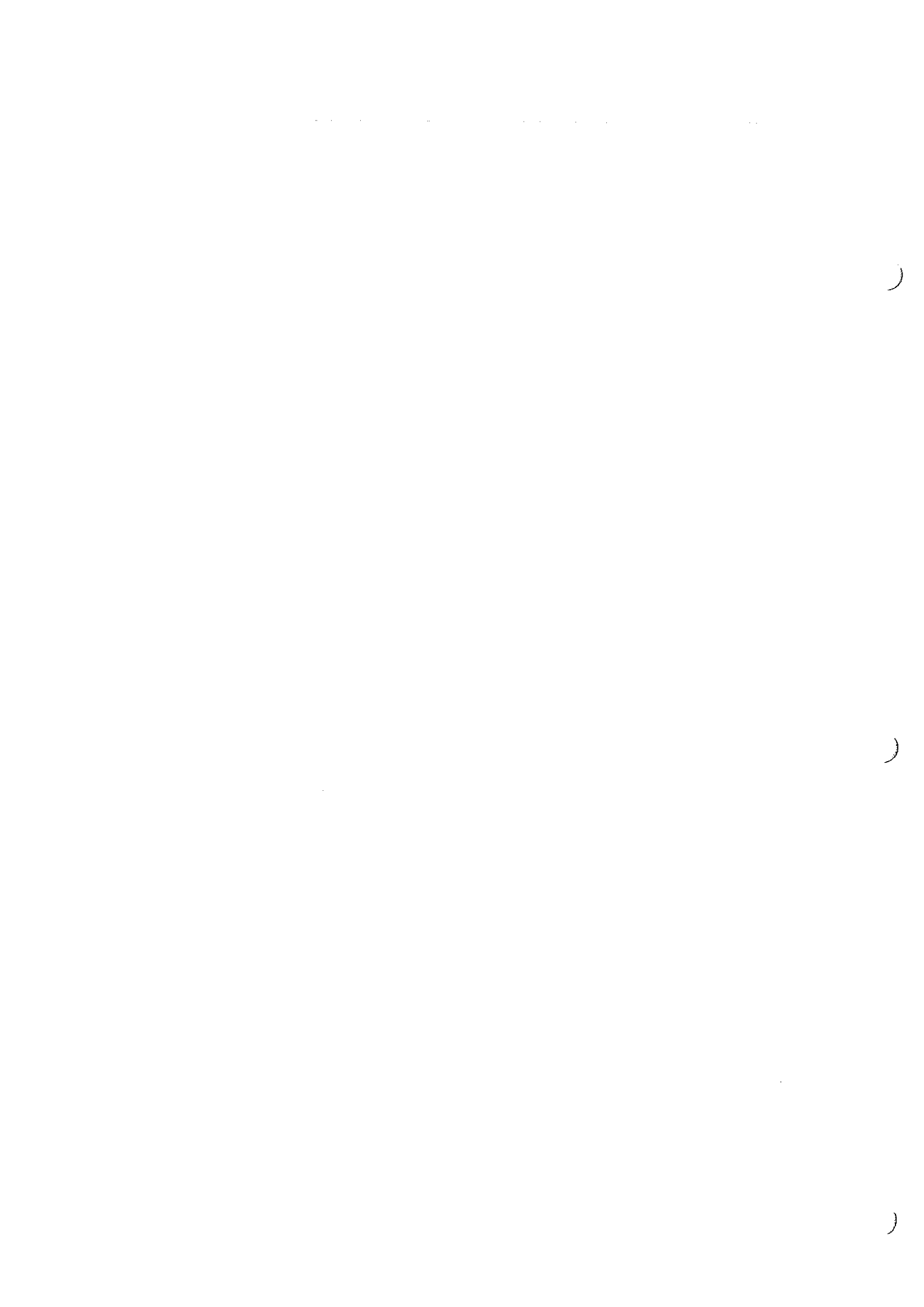
**The Charlotte contract was awarded in favor of Peek Traffic ... over the incumbent.**

Peek Traffic is currently operating 70 red light enforcement cameras.

### **The Peek Traffic Comprehensive Approach:**

- Diversified Experience
- Advanced Technology
- Close Partnership with our Municipality Partners
- Traffic Safety Background
- Available & Accountable to the Public







Columbus, Ohio  
 Photo Red Light Enforcement System  
 Proposal No. SA 001147JY/FM



**Peek Traffic's Camera System Advantages:** Peek Traffic is a forerunner of advanced traffic enforcement technologies. We continually strive to integrate the latest reliable technologies into our product lines. The camera system we are proposing is an excellent example of our dedication to responsible development.

This mature camera system, which is currently installed in Charlotte, NC, and from Sweden to the Middle East, has proven to be highly reliable, weather impervious, and practically maintenance free.

The Peek Traffic solution is the only digital Red Light Enforcement Camera System that provides a high-resolution (5.4 megapixel) commercial digital camera – far exceeding the industry standard of 2 megapixel resolution. One still camera and one optional video camera provide coverage of most intersection approaches, while competing systems require as many as four cameras for the same coverage. Toroid signal sensing using small, high quality current transformers allows our system to know precisely when the signal is illuminated.

**Signal sensing with toroids ensures that the enforcement system only monitors the light but cannot control it in any way – even by accident or system failure.**

**Peek Traffic's Vehicle Detection Advantages:** Peek Traffic uses a dual Doppler radar for sensing of vehicle position, speed and direction. This not only avoids the troublesome "permanent" installation of loops in the roadway, it allows the system to be reconfigured for roadway changes or be moved easily to generate maximum benefit from a given amount of hardware. Peek Traffic is the only company authorized by the manufacturer to supply this radar in the U.S., despite claims by some of our competitors that they can supply this state-of-the-art radar.

**The ONLY authorized supplier of the industry's leading radar sensor for vehicle detection!**

**Peek Traffic's Citation Processing Advantages:** Peek Traffic's *SafeStreet* web-based citation processing system provides full functionality at multiple user levels with necessary reporting and supervisory control, all in a hosted solution that minimizes the need for IT infrastructure at each customer location.

**Web-enabled citation processing for easy IT installation and maintenance.**

)

)

)



Columbus, Ohio  
Photo Red Light Enforcement System  
Proposal No. SA 001147JY/FM



**Peek Traffic Maintains Strong Customer Relationships:** Peek Traffic prides itself on strong relationships with our City customers. To provide the absolute best program, Peek Traffic continually upgrades technology and enhances program operations at no cost or interruption in services to our City Partners. We urge you to please contact any of our operations for references. You'll find that they see us as strong, proactive partners in their Automated Red Light Enforcement Safety Programs.

**Highly rated by both city project managers and citizens.**

**Peek Traffic's Team Specializes in Turnkey Red Light Enforcement Programs:** Peek Traffic's team has experience on both sides of red light camera public-private partnerships. We recognize the need to work as partners and not just as a technology provider.

**Two former law enforcement officers on the Peek Traffic team.**

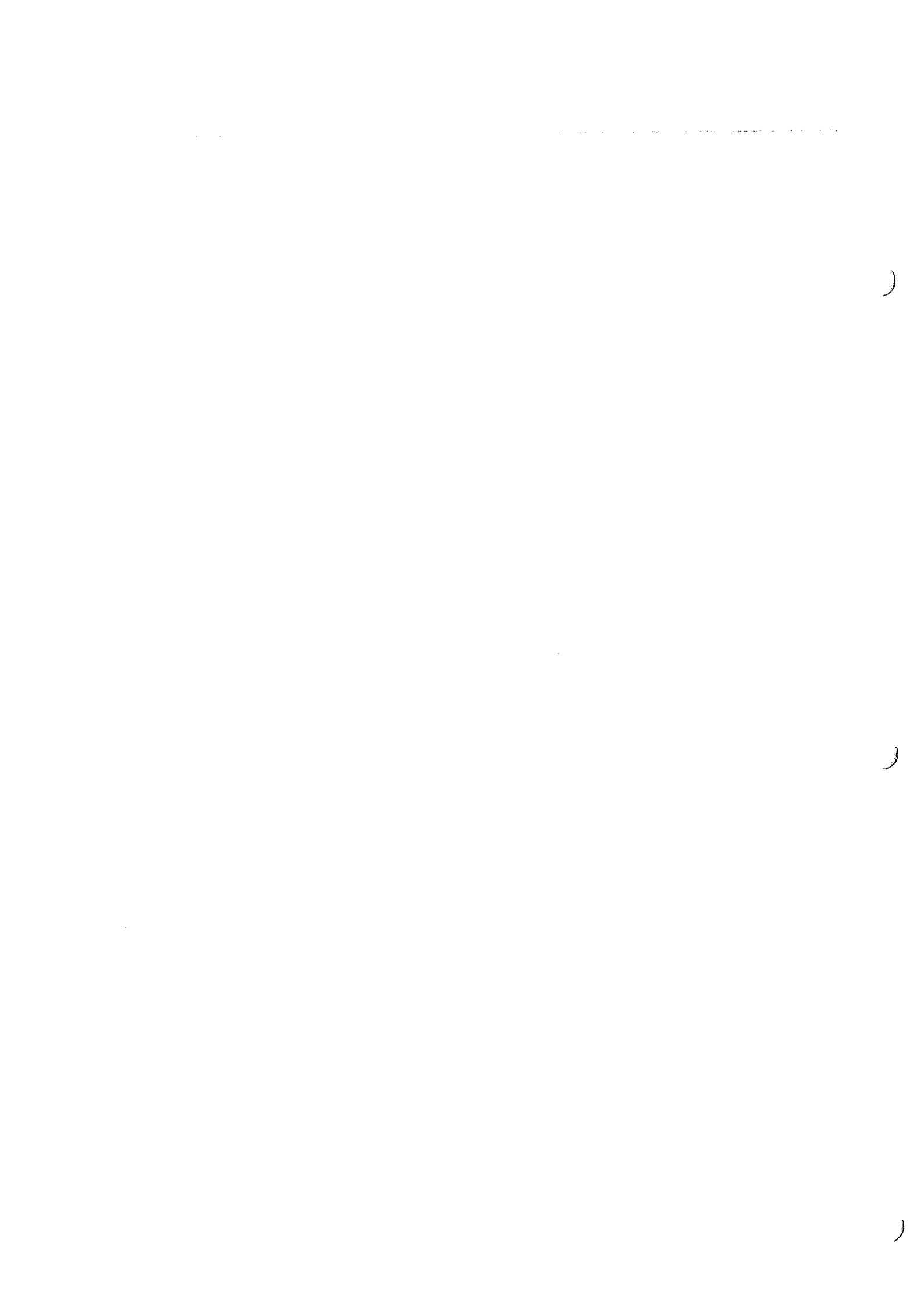
Peek Traffic's Implementation Manager, Mr. Neil Brussard, implemented the first ever all-digital automated enforcement program in the U.S., and brings the operational experience required to create the best solutions for our customers. Mr. Brussard was a law-enforcement officer in New Hampshire for several years, providing him a unique perspective on automated enforcement systems.

The tasks for Automated Enforcement Red Light Programs that Peek Traffic performs include:

- Intersection Site Survey & Evaluations
- Complete Camera System Installation
- Monitoring & Maintaining Camera Systems
- Daily Incident Data Collections
- Developing & Maintaining the *SafeStreet* Office
- Assisting Cities in Public Awareness Campaigns

We recognize that a red light camera program is a great deal more than a camera system alone. As part of a well designed traffic safety program, the camera system will amplify public education efforts while it increases enforcement efficiency. We intend to work side by side with Columbus officials to facilitate the building of a comprehensive Engineering, Enforcement and Education (3E) program.

**3E =  
Engineering  
Enforcement  
Education**





Columbus, Ohio  
Photo Red Light Enforcement System  
Proposal No. SA 001147JY/FM



Mr. Glenn Hansen of Peek Traffic, a retired Captain of the Howard County Police Department in Maryland, will be working very closely with Columbus Officials to design a program that is operationally, economically and socially feasible to the community. Mr. Hansen began working on automated enforcement programs in 1993. His work on an FHWA funded pilot program was instrumental in gaining the public support required to pass legislation for automated red light camera enforcement in Maryland. He designed and implemented the Regional Automated Enforcement Center in Maryland. He managed a red light camera program with more than 100 cameras as a partnership with 14 other agencies and nine private companies working together. The Maryland State Highway Administration examined the social cost of crashes at intersections before and after these red light cameras were installed. This safety program was found to have resulted in a societal monetary savings to the motoring public of an average of \$196,000 to \$254,000 per intersection<sup>1</sup>. Public support for this program continues to be high.

***An industry leader is part of the Peek Traffic Team.***

***The Peek Traffic Team experience includes a program identified as a model by the Federal Highway Administration, the Institute of Transportation Engineers, the Automobile Association of America, and others.***

For the last ten years, Mr. Hansen has examined different automated enforcement programs in the United States and abroad to identify the elements that make them successful. As chairperson of the Transportation Research Board's Traffic Law Enforcement Committee he is able to constantly learn the latest improvements in the field. He has conducted presentations and workshops internationally about establishing successful red light camera programs in the United States. Mr. Hansen will work closely with Columbus Officials to ensure that this program is successful.

---

***Peek Traffic Industry Experience:*** Peek Traffic has long been at the forefront of technology for a variety of products ranging from inductive loop detectors to complete traffic management systems. In fact, Peek Traffic is the only automated enforcement supplier that has been in the traffic and transportation industry for

---

<sup>1</sup> Maryland State Highway Administration Evaluation, Maryland's Accident Experience at Locations having Red Light Running Detection Cameras, May 3, 2002.

.....

)

)

)



Columbus, Ohio  
Photo Red Light Enforcement System  
Proposal No. SA 001147JY/FM



over 80 years and has experience in offering complete transportation solutions. These solutions range from digital camera enforcement systems to a full line of traffic control equipment, including NEMA TS-1 and TS-2 controllers and cabinets, signal heads, radar sensors, loop detectors and machine vision vehicle tracking technologies. Combining technology with experienced, professional staff, we have developed a reputation for flexibility, accuracy and personalized attention.

***A predecessor of Peek Traffic installed the first electric traffic signal in North America.***

As an example of our considerable experience with vehicle detection, *Peek Traffic has supplied over 2.4 million inductive loop detectors worldwide.*

***2.4 million inductive loop detectors worldwide***

Peek Traffic develops products and systems in five traffic market segments:

- **Automated Traffic Enforcement**
- Traffic Control
- Data Collection
- Tolling
- Detection

***Peek Traffic Organization:*** Peek Traffic Corporation is a subsidiary of Quixote Transportation Safety, Inc. and is headquartered in Palmetto, Florida (Tampa Bay metro area). Peek Traffic is an integral part of a growing family of Quixote companies that supply advanced traffic mobility products, systems and services. Peek Traffic employs approximately 120 personnel at the 50,000 sq. ft. headquarters and manufacturing facility pictured at right, and at facilities in Pennsylvania and North Carolina.



---

---

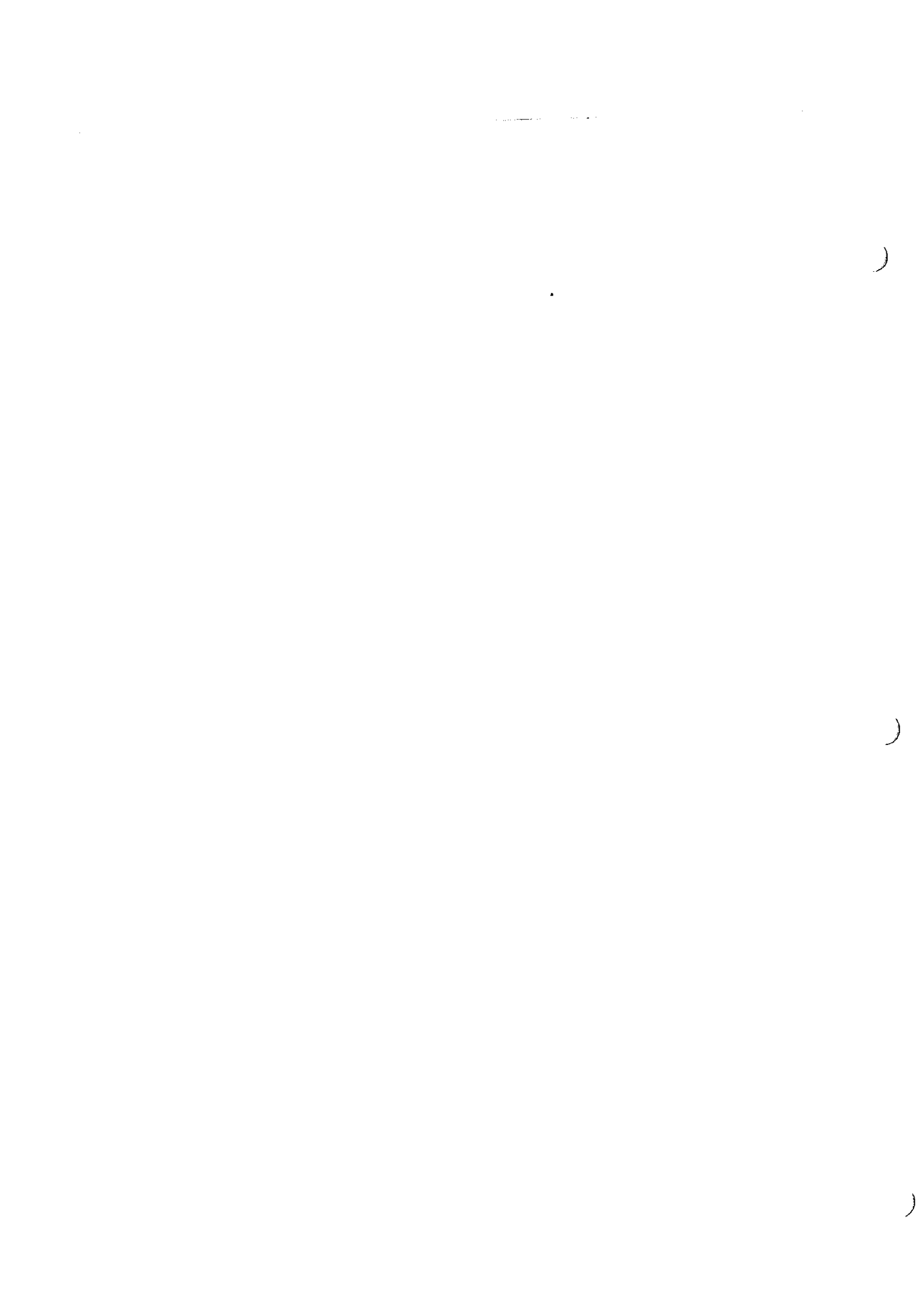
The Automated Enforcement support team includes staff in Florida and North Carolina including *SafeStreet* citation processing reviewing administrators, field technicians, developers, engineers and project managers. Together, Peek Traffic and its business partners stand behind all Peek Traffic solutions to ensure they meet and exceed the needs and expectations of *our* customers.

---

---

***Peek Traffic Financial Backing:*** Peek Traffic Corporation was established October 20, 2003, incorporated in the State of Delaware, when the US assets of worldwide Peek Corporation







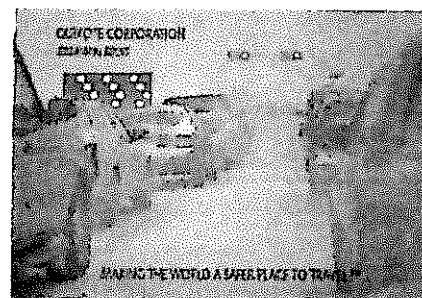
Columbus, Ohio  
 Photo Red Light Enforcement System  
 Proposal No. SA 001147JY/FM



were acquired by Quixote Corporation. The predecessor, Peek Traffic, Inc. was incorporated in 1973, and has roots in the traffic industry dating back to 1921.

Quixote Corporation is a publicly traded company (Nasdaq: QUIX) that for over three decades has been a leader in meeting the rising public demand for greater transportation safety through innovative technologies that save lives and prevent injuries by protecting, directing, and informing.

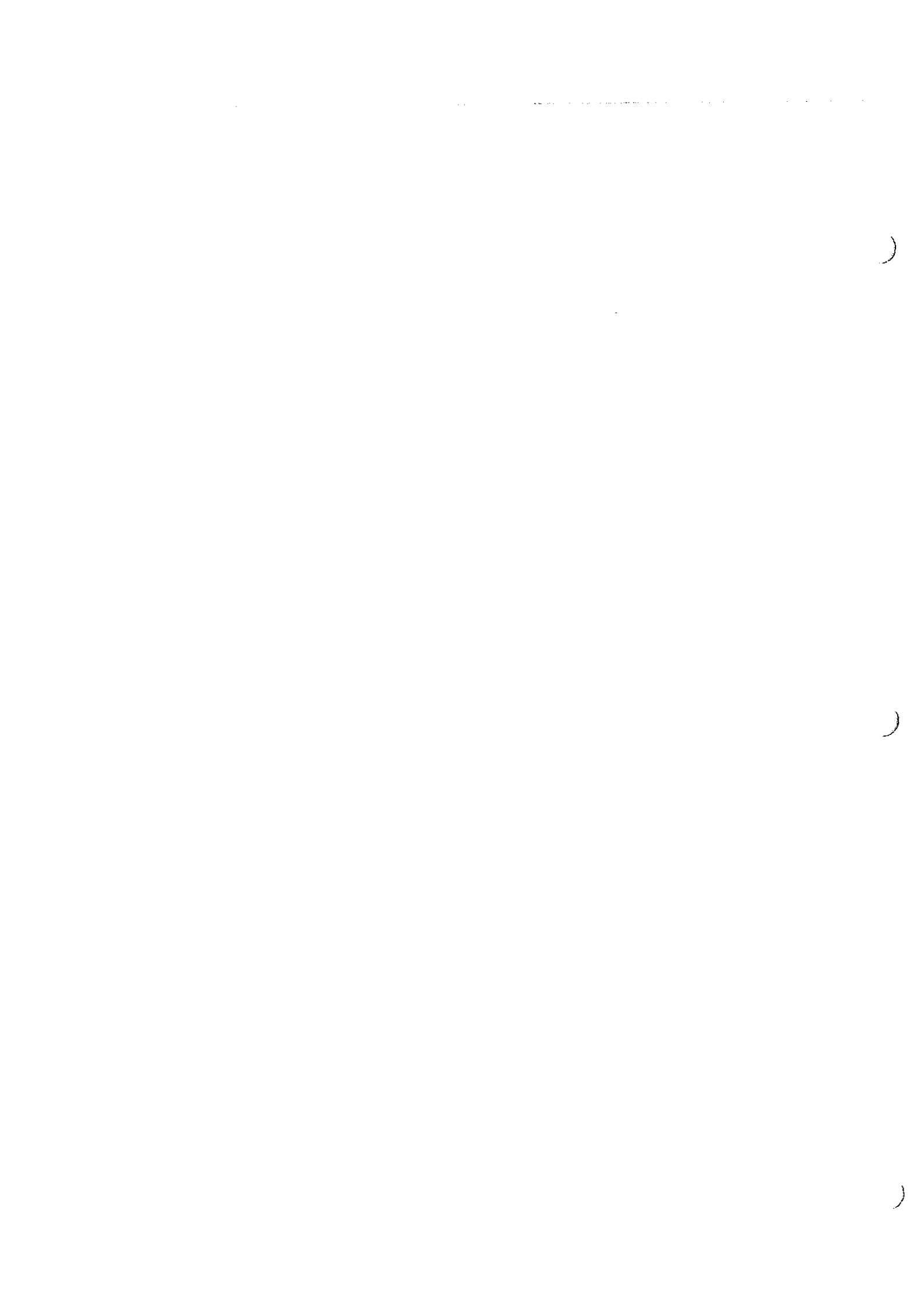
Quixote is the world's leading manufacturer of energy-absorbing highway crash cushions, electronic wireless measuring and sensing devices, intelligent intersection control systems, weather forecasting stations, computerized highway advisory radio, electronic variable message signs, flexible post delineators and other transportation safety products and services. Quixote has been named to Forbes 200 America's Best Small Companies in 2003 and Fortune's 100 Fastest Growing Small Companies in 2002.



While some competitors may claim strength in that automated red light enforcement is their only product, this also means red light enforcement is their only source of income. Only Peek Traffic can claim such widespread financial and technical backing from a company whose very motto is "Making the world a safer place to travel." That's what red light enforcement is all about.

***Making the world a safer place to travel.***

***Peek Traffic Improving Safety – Saving Lives:*** We look forward to working with the City of Columbus in seeing this project through to a successfully operating automated enforcement program, while improving safety and more importantly – saving lives.



ONE ORIGINAL AND TEN COPIES  
OF THIS BID MUST BE SUBMITTED

Bidder submitting this Bid should check the appropriate box.  
This is:  The Original  
This is:  One of the Copies

THIS IS A TWO SIDED BID



## Request for Proposal RFP

City of Columbus, Ohio  
Purchasing Office  
1st Floor, 50 West Gay Street  
Columbus, Ohio 43215  
614/645-8315

SOLICITATION NO.: SA 001147 JY/FM

Coop Yes Ends Date

Years Left

PHOTO RED LIGHT ENFORCEMENT SYSTEM

(Item)

SAFETY

(Department)

POLICE

(Division)

Bid Opening date and Time (due date and time)

June 17, 2004 11:00AM LOCAL TIME  
PRE BID CONFERENCE JUNE 2, 2004

**NOTE: FAILURE TO RETURN THIS BID PROPOSAL INTACT MAY BE CAUSE FOR REJECTION.**

Bid Proposal Submitted By:

PEEK TRAFFIC CORPORATION

Handwritten signature of Timothy M. O'Keefe in black ink.

Company Name

2511 CORPORATE WAY

Street Address

PALMETTO

FLORIDA

34221

City

State

Zip

20-0348594

Application Enclosed

Federal I.D. No.

Contract Compliance No.

~~Todd Ekins~~

~~941-650-5072~~

~~941-365-5072~~

Contract Person

Phone No.

Fax No.

**FAILURE TO RESPOND MAY RESULT IN YOUR NAME BEING REMOVED FROM BID LIST.  
RETURNING THIS PAGE ONLY MARKED "NO BID" COUNTS AS A RESPONSE.**



City of Columbus, Equal Business Opportunity Commission Office  
**CONTRACT COMPLIANCE APPLICATION**

**SECTION A: COMPANY IDENTIFICATION INFORMATION**

*Complete all sections. Please type or print legibly. Incomplete applications will be returned.*

1. Peek Traffic Corporation 20-0348594  
 Company Name Federal Tax Id or Social Security Number
2. Corporation Oct. 20, 2003  
 Type of Business (Corporation, Partnership, Sole Proprietorship) Date company was established
3. 120 What is the approximate number of employees working for the company at any peak point during a 12 month period? This includes all locations.

4. Type of Industry, (Please check all that apply):  Construction Goods  Professional Services Miscellaneous

5. Please describe the major activity of the company. Please be specific: Manufacture of vehicular traffic control, counting, tolling and enforcement products.

6.  Check box if Company is a Non-profit organization. (Non-profit organizations are exempt from Section B)

7. 2511 Corporate Way  
 Business Address (location)  
Palmetto  
 City FL 34221-8478  
 State Zip

8. Russ Colthorpe  
 Contact Person (941) 845-1335 (941) 365-0837  
russ.colthorpe@peekglobal.com Phone Number Fax Number  
www.peek-traffic.com  
 (e-mail address) (business web-site address)

9. Bid Mailing address (if different from above): Same as above  
 Address  
 City State Zip

**10. Ownership Disclosure (Attach additional sheets if necessary):**

Owner(s) Name	Percentage of Ownership	Race: (White, Black, Hispanic, Asian, American Indian)	Gender: (Male or Female)
<u>Quixote Transportation Safety Inc.</u>	<u>100%</u>	<u>NA- Publicly traded company (NASDAQ 'QUIX')</u>	

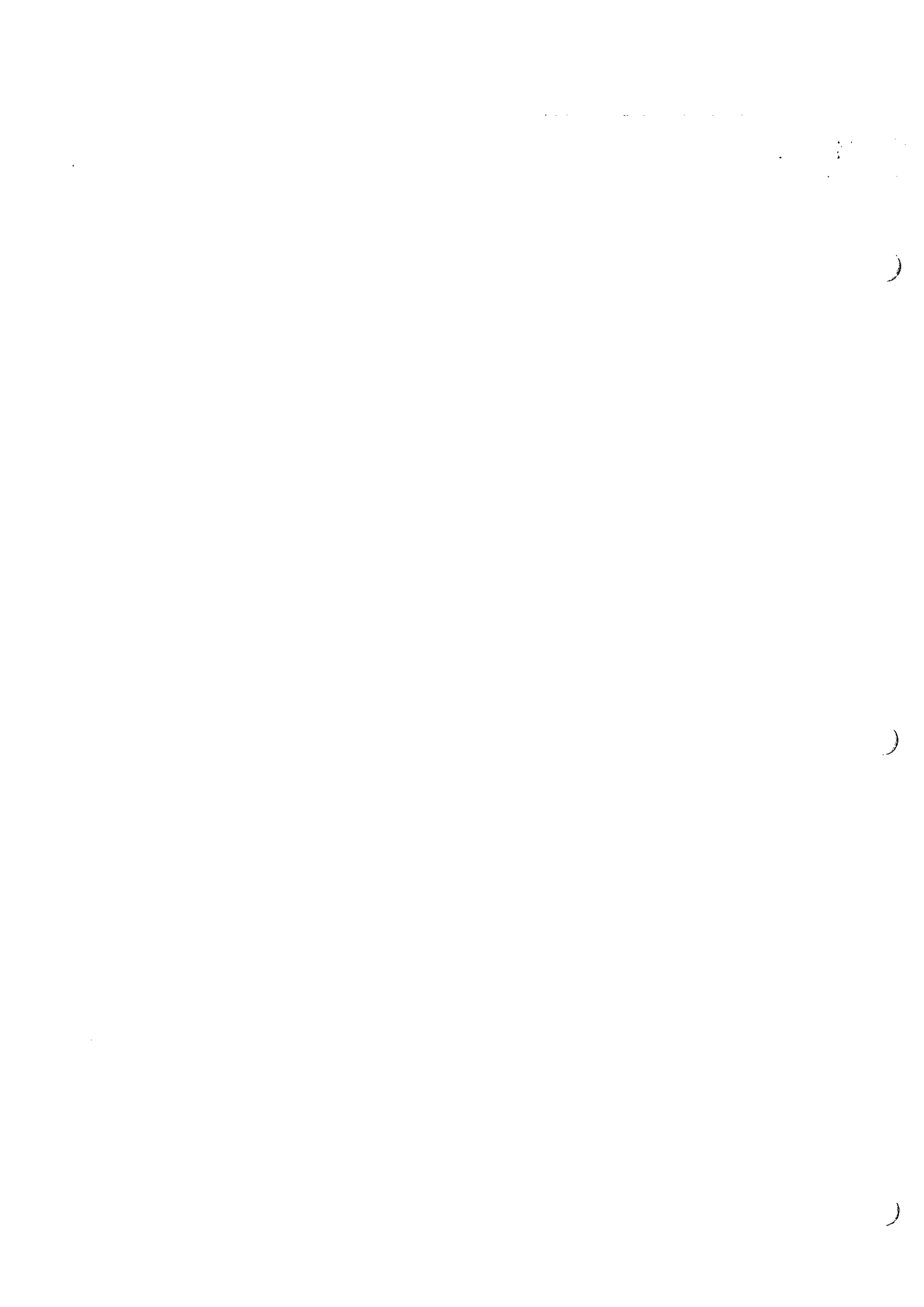
11. Has this company ever conducted business under another name? YES \_\_\_\_\_ NO ✓

If yes, please state former names (s): Note: New company was established upon acquisition by Quixote, so legally the answer is No.

12.  Please check box if you are not interested in receiving information about the Mbe/Fbe program for the city.

For Office use only:

Date Received:	Certification Expires:	Certified By:
----------------	------------------------	---------------



**SECTION B: TITLE CODE 39 COMPLIANCE**

Complete all section. Please type or print legibly. Incomplete Applications will be returned

1. Has this company ever undergone an EEO or Contract Compliance Review by any other governmental agency (federal, state, municipal, etc...)? YES \_\_\_\_\_ NO

If yes, please complete the following:

Agency Name \_\_\_\_\_ Year \_\_\_\_\_

Company's EEO Officer \_\_\_\_\_ Phone Number \_\_\_\_\_

Results (compliance/non-compliance) \_\_\_\_\_

2. Is this company presently debarred or suspended from doing business with any governmental agency?

YES \_\_\_\_\_ NO

If yes, provide the following information:

Agency Name \_\_\_\_\_ Address \_\_\_\_\_

Reason \_\_\_\_\_

3. Does the company have an affirmative action plan? YES  NO \_\_\_\_\_

4. Are notices summarizing the provisions of the Equal Opportunity Clause posted in conspicuous places and available to employees and applicants for employment? YES  NO \_\_\_\_\_

5. Does the company use any solicitations or advertisements for new employees? YES  NO \_\_\_\_\_  
If yes, does it specify that the company is an Equal Opportunity Employer? YES  NO \_\_\_\_\_

6. Have all hiring sources been notified that the company will consider all qualified applicants with out regard to race, color, religion, sex, national origin, or ancestry? YES  NO \_\_\_\_\_

7. Does the company use subcontractors? YES  NO  For red light enforcement installa  
If yes, has the company notified all of its subcontractors of their obligations to comply with Equal Employment Opportunity Clause either in writing or by including of the provisions in the subcontracts or purchase orders? YES  NO \_\_\_\_\_ only. 6/15/06  
IN subcontracts. 6/15/06

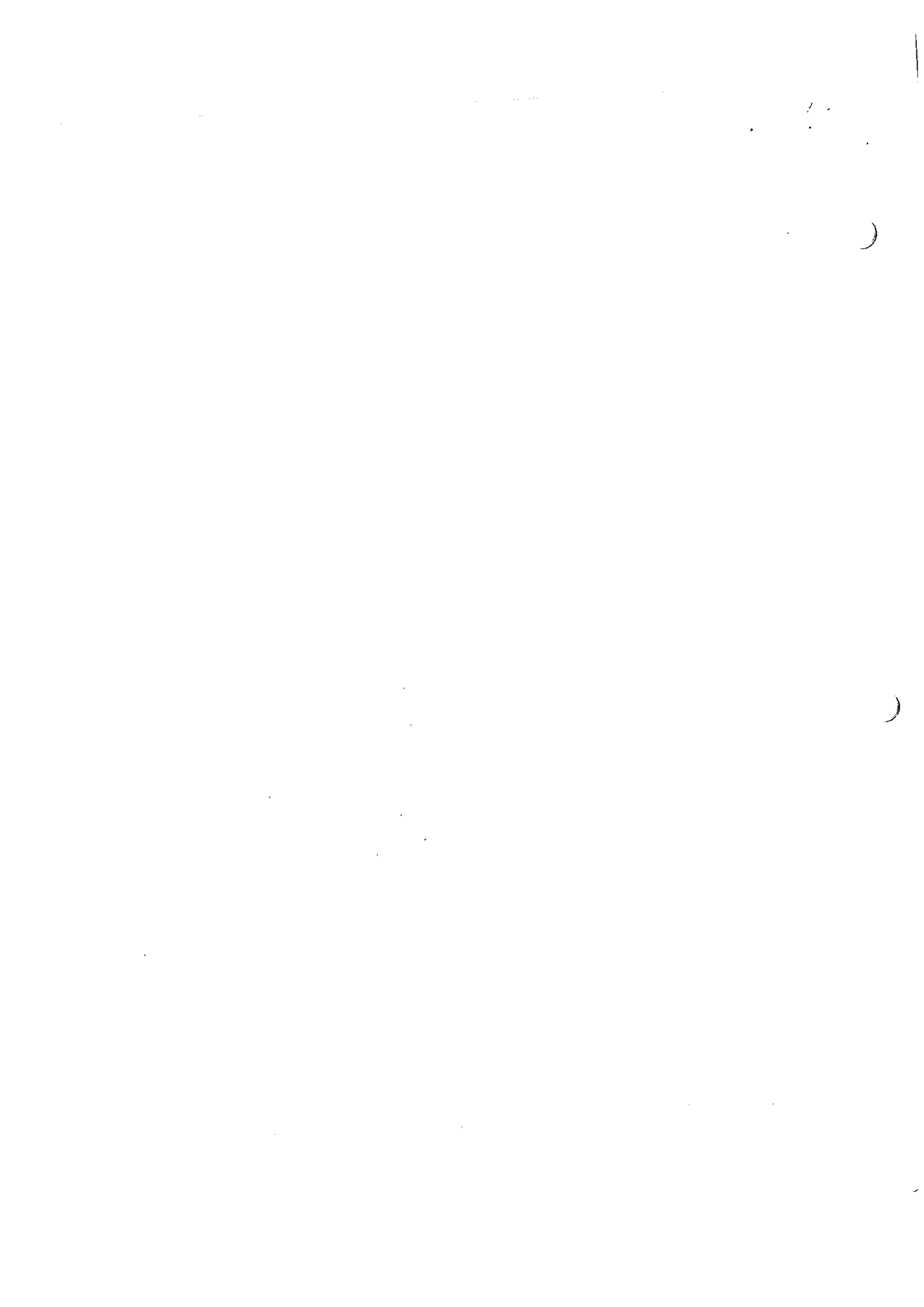
8. Does the company have bargaining agreements with employee organizations? YES \_\_\_\_\_ NO   
If yes, Please identify the employee organizations (continue on a separate sheet of paper if additional space is needed):

Local Union Number \_\_\_\_\_

International Union \_\_\_\_\_

9. MIRIAM BIZZARRO Miriam Bizzarro, HR Mgr (844) 845-1282  
Name of person completing this application Phone





City of Columbus, Equal Business Opportunity Commission Office, Compliance Application

**SECTION C: EMPLOYMENT DATA**

Complete all sections. Please type or print legibly. Incomplete applications will be returned.

Report the number of all permanent full-time and part-time employees, including apprentices and on-the-job trainees. Please see page iii for description of the job categories. No person should be counted in more than one race/ethnic group. FEDERAL FORM EEO-1 MAY BE SUBSTITUTED FOR THIS SECTION.

Job Categories	Total of all employees by category	Male					Female				
		White	Black	Hispanic	Asian	American Indian	White	Black	Hispanic	Asian	American Indian
Officials and Managers	13	10					3				
Professionals	22	18				1	3				
Technicians	25	20	2				3				
Sales Workers	4		3					1			
Office and Clerical	25	8	3				11	2	1		
Skilled Craft Workers (Specify):	17	5	2	2	1		7				
Operatives (Semi-Skilled)	14	2			2		6	1	1	2	
Laborers (Unskilled)											
Service Workers											
Totals											

Numbers represent employment data as of: 6/14/04 Date

*White (not of Hispanic origin)*: All persons having origins in any of the original peoples of Europe, North Africa, or the Middle East.

*Black (not Hispanic origin)*: All persons having origins in any of the Black racial groups of Africa.

*Asian or Pacific Islander*: All persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands.

*American Indian or Alaskan Native*: All persons having origins in any of the original people of North America, who maintain cultural identification through tribal affiliation or community recognition.

11

)

)

)

**SECTION D: AFFIDAVIT**

Complete all sections. Please type or print legibly. Incomplete applications will be returned.

***A NOTARY PUBLIC MUST WITNESS SIGNATURE OF COMPANY OFFICIAL***

The undersigned, as a duty authorized company official, certifies that the foregoing statements are true, correct and accurately identify and explain the operation of \_\_\_\_\_ as well as the ownership thereof, and understands that any material misrepresentation will be grounds for terminating any contract which may be awarded. The undersigned agrees to permit access to any relevant and pertinent reports and documents by the Executive Director of the Equal Business Opportunity Commission Office, City of Columbus, or her designee, for the sole purpose of verifying compliance with Title Code thirty-nine (39) of the Columbus City Code. The undersigned also agrees that if there is any significant change in the operation submitted, the Equal Business Opportunity Commission Office will be notified within sixty (60) days, in writing, of said change.

**Company Official's Signature and Title:**

Signature Timothy M. O'Leary Date 6-15-04


Print Name and Title Timothy M. O'Leary President

State of Florida

County of Alachua

Sworn to before me and subscribed in my presence on this 15<sup>th</sup> day of June, 2004.  
The affiant did state that he/she was properly authorized to execute the affidavit and did so of his/her own free will.

State Seal Vivian Wessel  
Notary Public

 Vivian Wessel  
MY COMMISSION # CC786111 EXPIRES  
December 5, 2004  
BONDED THROUGH FARM INSURANCE, INC.

December 5 2004  
My Commission Expires

**NOTE: NOTARIZATION REQUIRED**

12.12.2019

)

)

)

**Request for Taxpayer  
 Identification Number and Certification**

Give form to the requester. Do NOT send to the IRS.

Name (If a joint account or you changed your name, see Specific Instructions on page 2.)  
Peek Traffic Corporation

Business name, if different from above. (See Specific Instructions on page 2.)

Check appropriate box:  Individual/Sole proprietor  Corporation  Partnership  Other

Address (number, street, and apt. or suite no.)  
2511 Corporate Way

City, state, and ZIP code  
Palmetto FL 34221-8478

Requester's name and address (optional)

**Part I Taxpayer Identification Number (TIN)**

Enter your TIN in the appropriate box. For individuals, this is your social security number (SSN). However, if you are a resident alien OR a sole proprietor, see the instructions on page 2. For other entities, it is your employer identification number (EIN). If you do not have a number, see How to get a TIN on page 2.

Note: If the account is in more than one name, see the chart on page 2 for guidelines on whose number to enter.

Social security number  
 | | | + | | |

OR

Employer identification number  
20103418594

List account number(s) here (optional)

**Part II For Payees Exempt From Backup Withholding** (See the instructions on page 2.)

**Part III Certification**

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN. (See the instructions on page 2.)

Sign Here      Signature Ronald U. [Signature] Asst. Corp. Secy      Date June 10, 2004

**Purpose of form.** A person who is required to file an information return with the IRS must get your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9, if you are a U.S. person (including a resident alien), to give your correct TIN to the person requesting it (the requester) and, when applicable, to:

- Certify the TIN you are giving is correct (or you are waiting for a number to be issued).
- Certify you are not subject to backup withholding, or
- Claim exemption from backup withholding if you are an exempt payee.

If you are a foreign person, IRS prefers you use a Form W-8 (certificate of foreign status). After December 31, 2000, foreign persons must use an appropriate Form W-8.

Note: If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

**What is backup withholding?** Persons making certain payments to you must withhold and pay to the IRS 31% of such payments under certain conditions. This is called "backup withholding." Payments that may be subject to backup withholding include interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

If you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return, payments you receive will not be subject to backup withholding. Payments you receive will be subject to backup withholding if:

- You do not furnish your TIN to the requester, or
- You do not certify your TIN when required (see the Part III instructions on page 2 for details), or
- The IRS tells the requester that you furnished an incorrect TIN, or
- The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or
- You do not certify to the requester that you are not subject to backup withholding under 3 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See the Part II instructions and the separate Instructions for the Requester of Form W-9.

**Penalties**

**Failure to furnish TIN.** If you fail to furnish your correct TIN to a requester, you are subject to a penalty of \$50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

**Civil penalty for false information with respect to withholding.** If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a \$500 penalty.

**Criminal penalty for falsifying information.** Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

**Misuse of TINs.** If the requester discloses or uses TINs in violation of Federal law, the requester may be subject to civil and criminal penalties.

100

)

)

)

Q: Has the City identified all approaches to be enforced? If not, what will role of vendor be in site selection?

A: The site selection committee will review data and responses from Precinct regarding intersections, selected Vendor will have input.

Q: What is the hourly rate for City engineers that will visit traffic controllers at Vendor's expenses?

A: Electronics maintenance personnel rates as of today 6-3-2004, \$42.30 per hour (subject to rise). Vehicle charge is \$40.36 per hour. Police rate \$32.50 per hour, Sergeant rate \$38.00. Car rental \$15.00 per hour.

Q: Does the City want Vendor's to submit financial statements with their bids? If yes, which statements are requested?

A: Yes, most recent Audited statements or at least Un-Audited statements. We prefer that they meet Statement of Auditing Standards (SAS70) requirements.

Q: Can Vendor share conduit with the City for installation?

A: This would have to be negotiated and looked at for each site. Probably not.

Q: City has requested histogram reports for court proceedings. What information is to be provided in the histograms?

A: Vendor is to provide answer to this question as to what they can provide. Reference 3.1.22.

Q: Will City use registration hold to enforce citations?

A: No, not at this time.

Q: Will Committee consider rear image only (owner identification) solution?

A: Yes.

Q: Will you allow bidders to submit a proposed front and rear image (driver identification) system and a rear image only (owner identification) system as an alternative?

A: Yes.

---

---

---



100

)

)

)

3.1.29 Please describe how the CoC is to be reimbursed whenever a CoC employee is needed to be at any one cabinet during installation or repair.

3.1.30 For non-emergency situations, there shall be a minimum of twenty-four (24) hours advance notice to the CoC and the work will be performed during normal CoC working hours.

3.1.30.1 In the course of daily activity emergency situations will occur. The definition of emergency and how each party responds to that emergency shall be part of the contract negotiations.

3.1.31 Please describe how you handled emergency maintenance situations with cities of comparable size or larger than Columbus, Ohio.

3.1.32 Offerors are required to submit a current client list with company names, addresses, appropriate contacts and associated phone, fax and e-mail addresses.

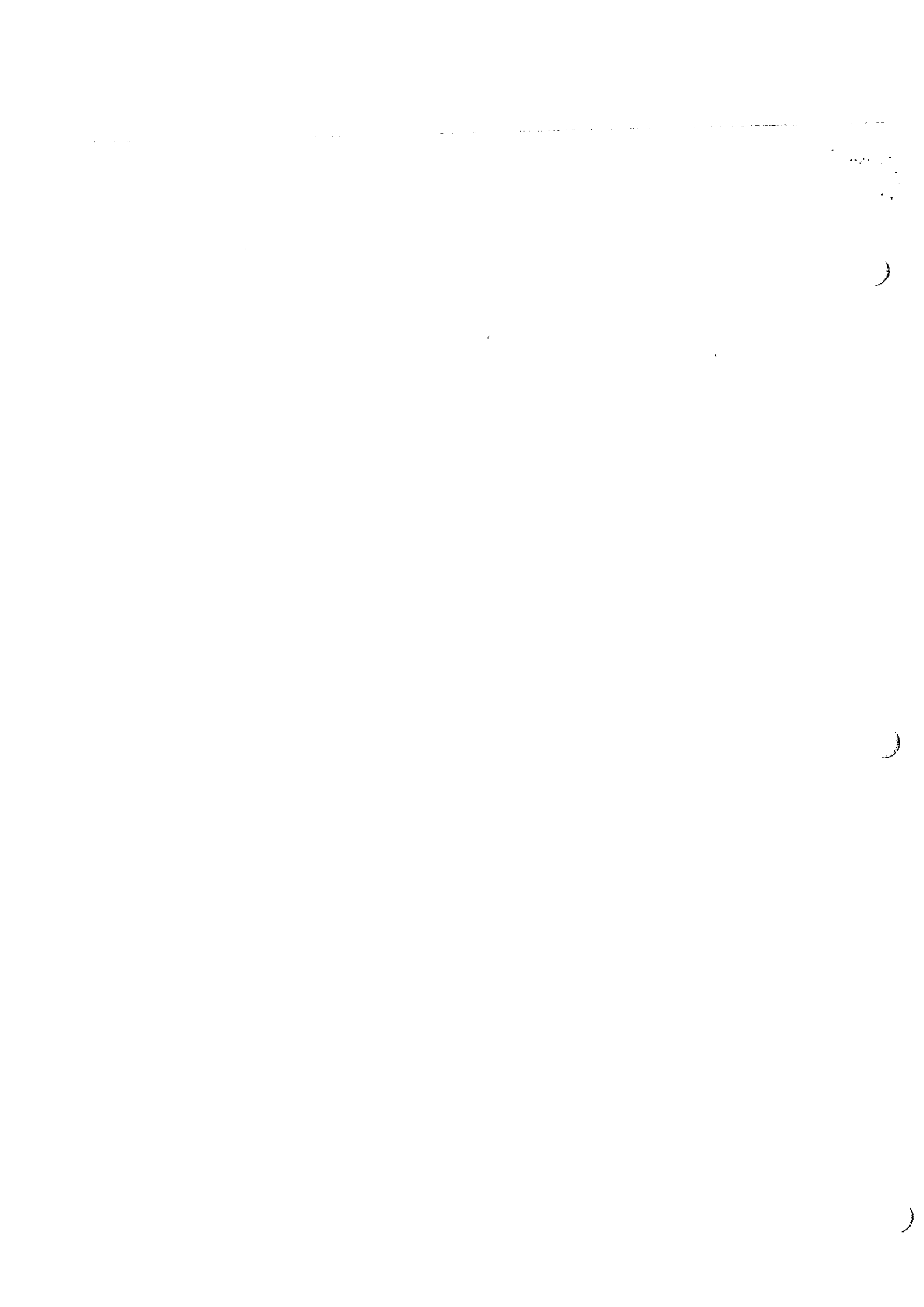
3.1.33 Please describe your process for acceptance and disbursement of funds (i.e., the CoC's share of the revenue generated).

3.1.33.1 This is to include but not limited to the following:

- ❖ timing of funds remitted to CoC (from receipt from offerer to CoC);
- ❖ reconciling funds for penalties to the number of violations;
- ❖ process for NSF situations;
- ❖ types of funds that can be received (i.e., cash, check, etc);
- ❖ Process used to reconcile the account;
- ❖ Costs associated with funds remittal;
- ❖ Banking institution(s) used to funds deposited.

3.1.34 Please describe options for payments and collections.

~~3.1.35 Should the CoC determine to use a provider (other than the one described in your turnkey system) to send violators citations, collect fines and disburse monies to the CoC, please describe how your system shall integrate with the provider. If necessary, please provide cost proposal information as described in 4.0.~~





City of Columbus  
Mayor Michael B. Coleman

Department of Finance  
Joel S. Taylor, Director

## Purchasing Office

Barbara R. Johnson, Procurement Manager

50 W. Gay Street, 1<sup>st</sup> Floor  
Columbus, Ohio 43215-9036  
(614) 645-8315 Fax: (614) 645-7051

TO: OFFERORS OF PHOTO RED LIGHT ENFORCEMENT SYSTEM  
FROM: JACK YOST AND FRED MYERS  
SUBJECT: ADDENDUM – SA001147/JY/FM  
DATE: JUNE 8, 2004

## ADDENDUM 2

Note that a typographic error appears on the cover sheet for the addendum you recently received. Section 3.1.35 (not 3.35.1) has been removed from the Request for Proposal.

Please attach this second addendum, in addition to the first addendum, to your RFP response and make it a part thereof.

THE UNIVERSITY OF CHICAGO

)

)

)



City of Columbus  
Mayor Michael B. Coleman

Finance Department  
Joel S. Taylor, Director

## Purchasing Office

Barbara R. Johnson, Procurement Manager

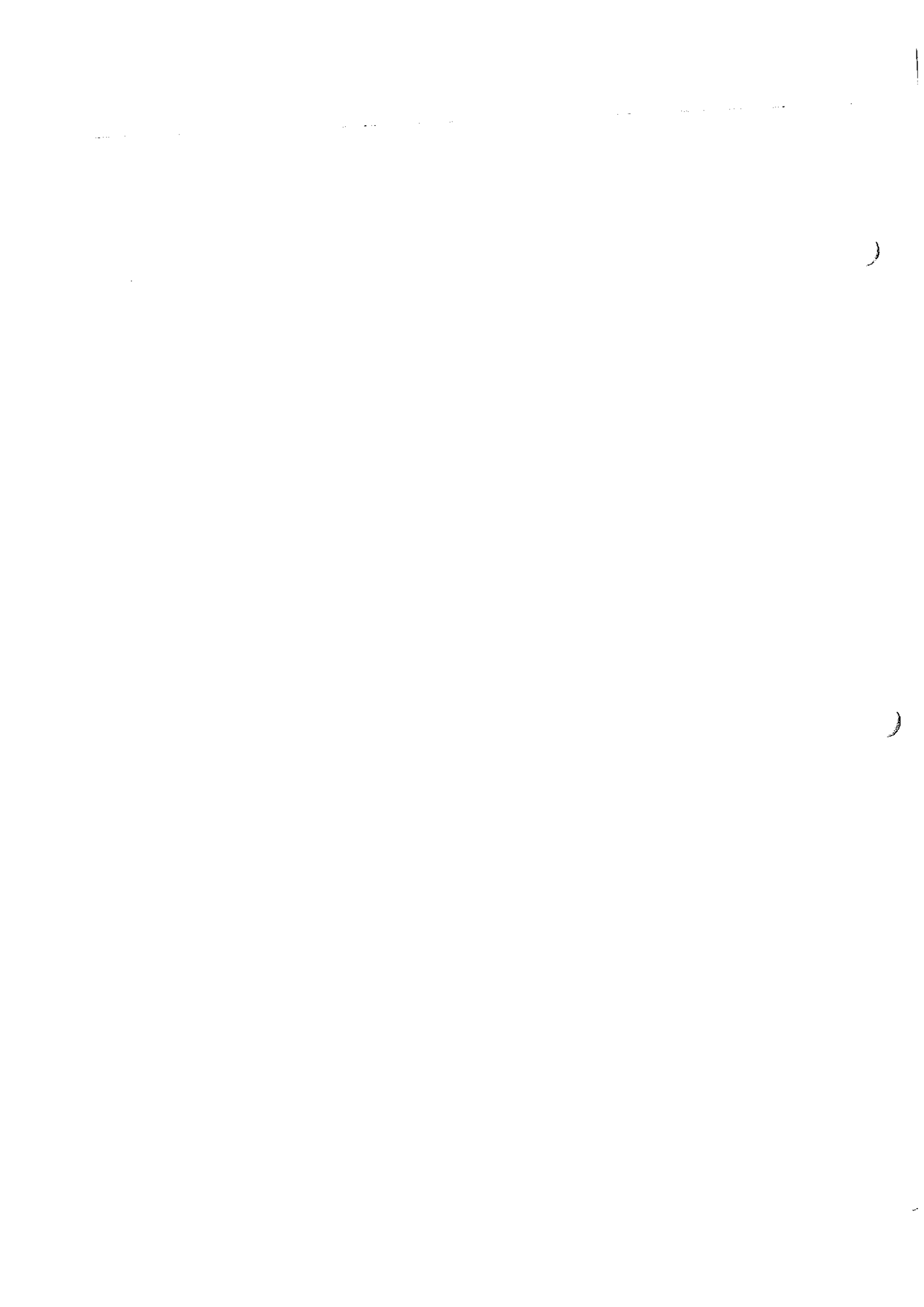
50 West Gay Street, 1st Floor  
Columbus, Ohio 43215-9036  
614/645-8315 Fax: 614/645-7051

TO: OFFERORS OF PHOTO RED LIGHT ENFORCEMENT SYSTEM  
FROM: JACK YOST AND FRED MYERS  
SUBJECT: ADDENDUM – SA001147/JY/FM  
DATE: JUNE 9, 2004

### ADDENDUM 3

Reference Proposal Submission Requirements 4.2.5 on page 4G, where we require that you include a Delinquent Personal Property Tax Affidavit. This particular affidavit is not required as part of your submission and is only required to be completed as a condition of contracting with the successful supplier.

Please attach this third addendum, in addition to the prior addendums, to your RFP response and make it a part thereof.





**SECTION 3**

**SPECIFICATIONS**

**TABLE OF CONTENTS**

Peek Traffic's Recommendations ..... 1

Camera Equipment.....4

*Advanced Vehicle Sensing – Radar*.....5

*Sensor Description & Operation*.....5

*Inductive Loops – Not Recommended*.....7

*Video Detection: VideoTrak Plus® .Not Recomend*.....7

*Camera Description:* ..... 10

*Flash:* ..... 10

*Toroid Traffic Signal Monitor:*..... 11

*Advanced Image Capture:* ..... 11

*Video Witness (Option)* ..... 13

*Citation Experience:*..... 13

*Image Control and Storage:*..... 14

*Maintenance* ..... 15

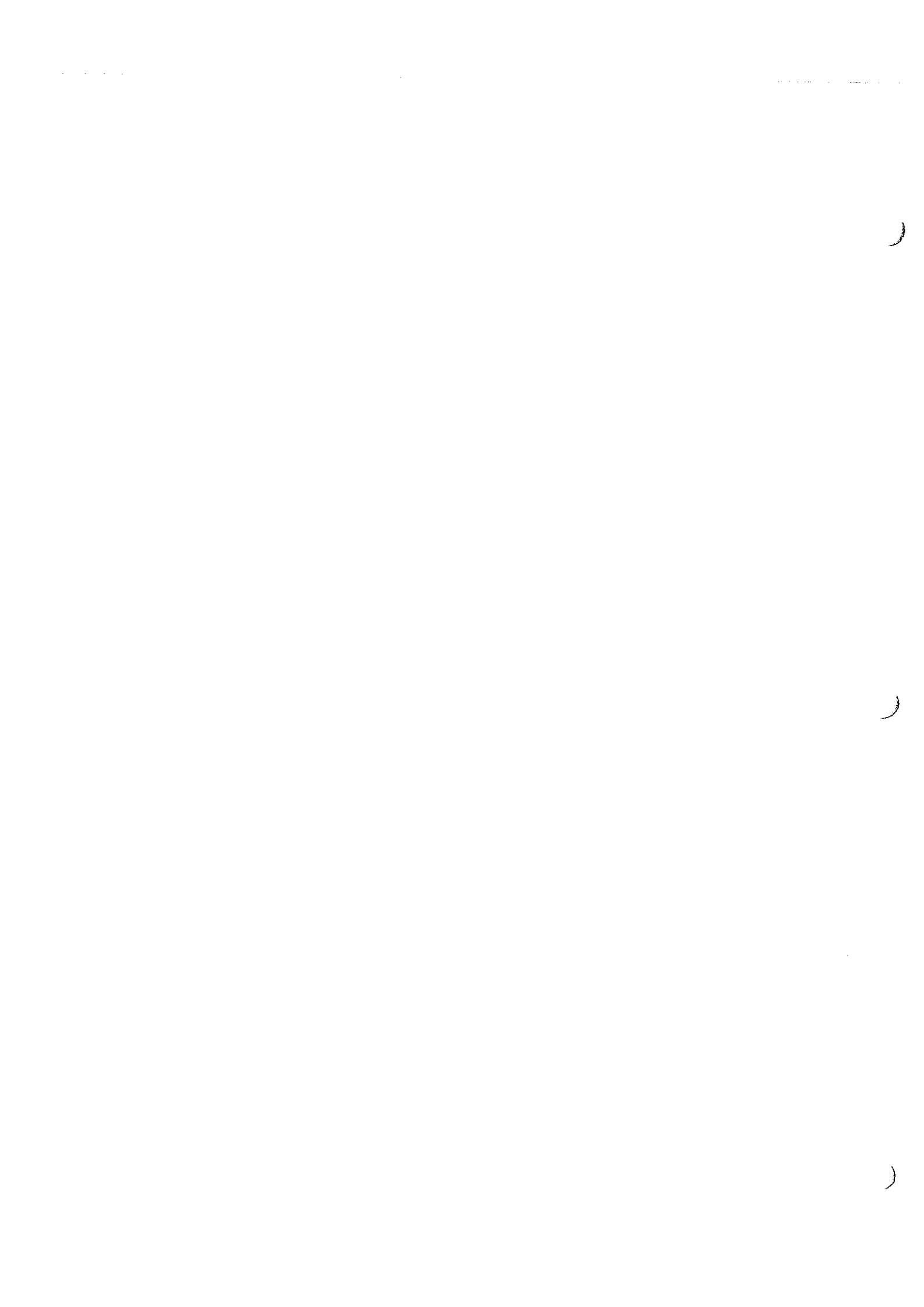
The SafeStreet Back-Office Operation ..... 17

Training.....33

Public Information and Education ..... 34

Point-by-Point Answers from the Columbus RFP ..... 35







## Peek Traffic's Recommendations

The Peek Traffic team will work very closely with City personnel to custom build the intersection safety program that will work best for the Columbus, Ohio community. We offer several different options to allow the City flexibility in design and to allow future customization if so desired. Throughout this proposal, we will discuss alternatives to be considered by the City. We will build the system that the City feels is best. We have provided several suggestions, as a starting point to build your program.

Based on Peek Traffic's experience we suggest the following key program elements be considered by the City:

### Ordinance

We propose to work closely with the City in drafting an ordinance that is acceptable to the community and will support an effective safety program. Mr. Glenn Hansen of the Peek Traffic Team participated in the drafting and legislative development process for the automated red light camera enforcement law in Maryland. He was part of the work groups that developed model legislation for the National Commission on Uniform Traffic Laws and Ordinances (NCUTLO) and the Institute of Transportation Engineers (ITE). He will share the thought process and issues that were raised during these efforts as the City develops their ordinance.

We suggest an Owner Onus based ordinance with a \$95 civil penalty and \$50 late fee. Holding the owner of a vehicle accountable for an automated red light traffic violation has been endorsed by NCUTLO, ITE and many U.S. jurisdictions. Actual work experience has demonstrated that these types of programs can be effective in reducing crashes and receive greater public support than automated driver accountability programs. Holding the owner accountable for the violation eliminates the need to take a photograph of the driver and results in fewer privacy concerns by the public. This type of ordinance is currently in use in Toledo, Ohio and Dayton, Ohio.

Other ordinance issues to be considered include the transfer of liability, rental vehicles, and fleet vehicles. Peek proposes to provide the City with lessons learned from the experience of others. *Our cost proposal assumes the recommended civil penalty amount of \$95, and a late fee of an additional \$50 when 30 days past due.*

---

### Comprehensive Intersection Safety Program

Ideally, red light camera systems are only one part of a well designed program to reduce crashes at intersections. Peek Traffic proposes to work closely with City officials to ensure that an effective 3 E (Engineering, Enforcement and Education) program is developed that takes advantage of lessons learned from other jurisdictions.

### Site Selection

One of the most important elements of a successful crash reduction program is selecting the proper locations to install red light cameras. Peek Traffic will provide the





City with detailed video analysis of potential red light camera locations to allow the City to determine where their biggest problems are located.

### **Rear Images Only**

Holding the owner of the vehicle responsible for the red light violation eliminates the need for a front image of the offending vehicle. Eliminating the front image greatly reduces public concerns of a privacy invasion. Public support is important for the success of the program.

### **Radar Detection**

Peek Traffic offers several forms of violation incident detection. We recommend the use of our radar sensing technology. The radar unit is highly reliable, small in size, quick to install or relocate and easy to adjust. Unlike loop detectors, this system does not require cutting into the road surface and can be used where loops can not.

### **Fee Structure**

While a shared revenue fee structure is attractive to many cities, since it eliminates financial risk, it has been a source of public concern. Some groups feel that payments based on the number of citations issued could cause vendors to want to have more violations occurring instead of less. A monthly lease is the cleanest pay structure but the City would then face the risk of paying more for the lease than revenue can cover as violation rates fall.

Peek Traffic offers the City the best of both worlds. Peek Traffic recommends that the City pay a monthly lease for each camera system put into operation but **Peek Traffic will discount the monthly lease cost as needed to ensure that the City never has to pay more for the lease than the violation revenue will cover.**

### **Digital Images**

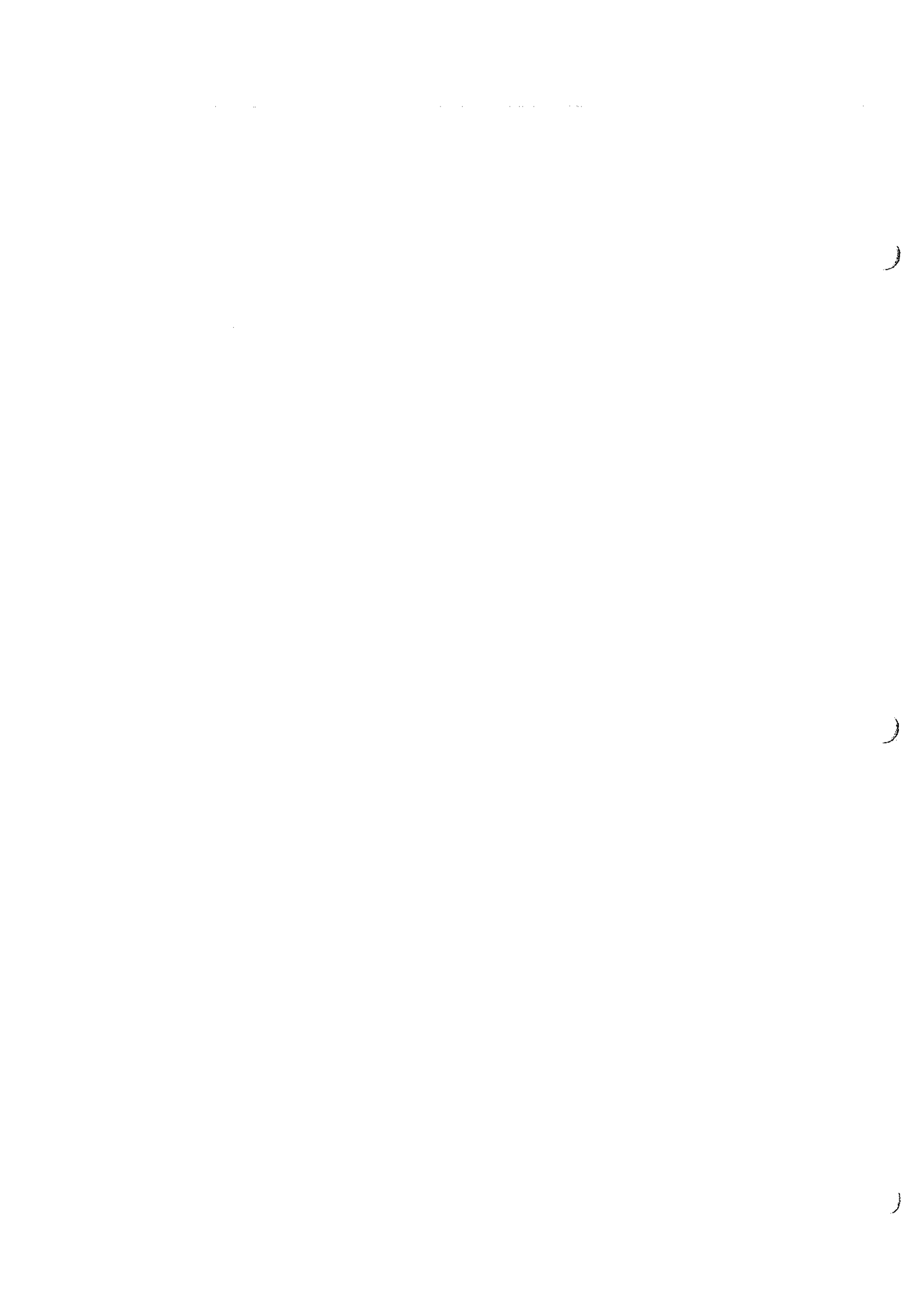
Digital cameras can be tested and maintained remotely, allowing for better dependability than wet film systems. A digital camera system allows for the potential of expanded capabilities in the future. The ability to receive real time data from a camera at a high crash location can assist the city with incident detection and/or verification.

### **All Color Images**

Color images represent the most accurate representation of the violating vehicle's appearance. ~~While black and white images are cheaper to produce they do not build the public's support of the program as well as color images do.~~

### **Turnkey Solution**

Selecting a single vendor for the red light camera program allows for proper accountability. If you select Peek Traffic to be your partner in this safety effort and a problem develops with a citation payment not being accounted, collections not being managed properly or whatever, it would be Peek Traffic's responsibility to correct. In the unlikely event that any problems like these develop, Peek Traffic would step forward



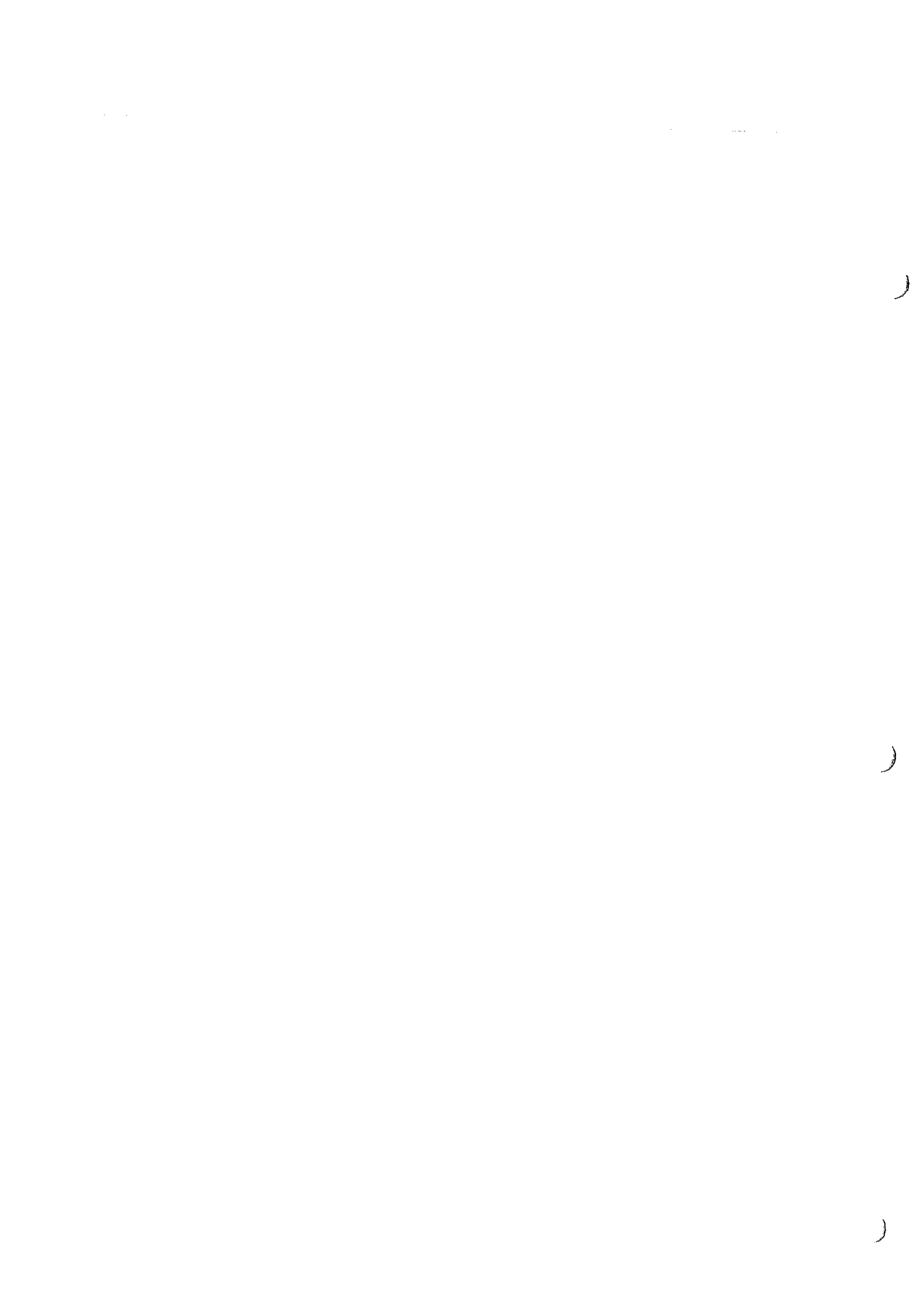


Columbus, Ohio  
Photo Red Light Enforcement System  
Proposal No. SA 001147JY/FM



to be held accountable immediately. If one vendor provides the camera systems and another vendor provides back office services, it becomes much more difficult to determine which vendor made the error. Using an existing fee processing vendor creates significant technical challenges as well. While there are some similarities in managing fee payments, there are many differences between processing red light violations and parking violations, for example.

Peek Traffic will custom build a system to meet the needs of Columbus, Ohio. We hope that these recommendations are helpful to the City, no matter which vendor is selected to do this work.





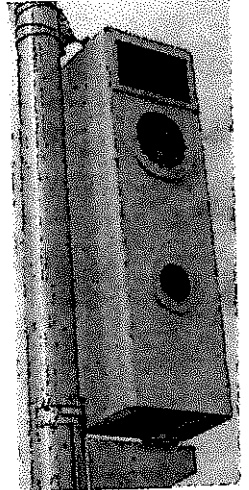
## Camera Equipment

***Peek Traffic's Camera System Uses Unique Camera and Sensing Technology.*** Peek Traffic is at the forefront of the growing market for automatic camera systems for the detection of speeding vehicles and red light violations. These systems have propelled the company into the area of high-resolution digital camera technology. Overall, Peek Traffic has a unique mix of real transportation products, worldwide expertise providing the most sophisticated and innovative technology allowing us to provide the most flexible and cost-effective solution for this important application.

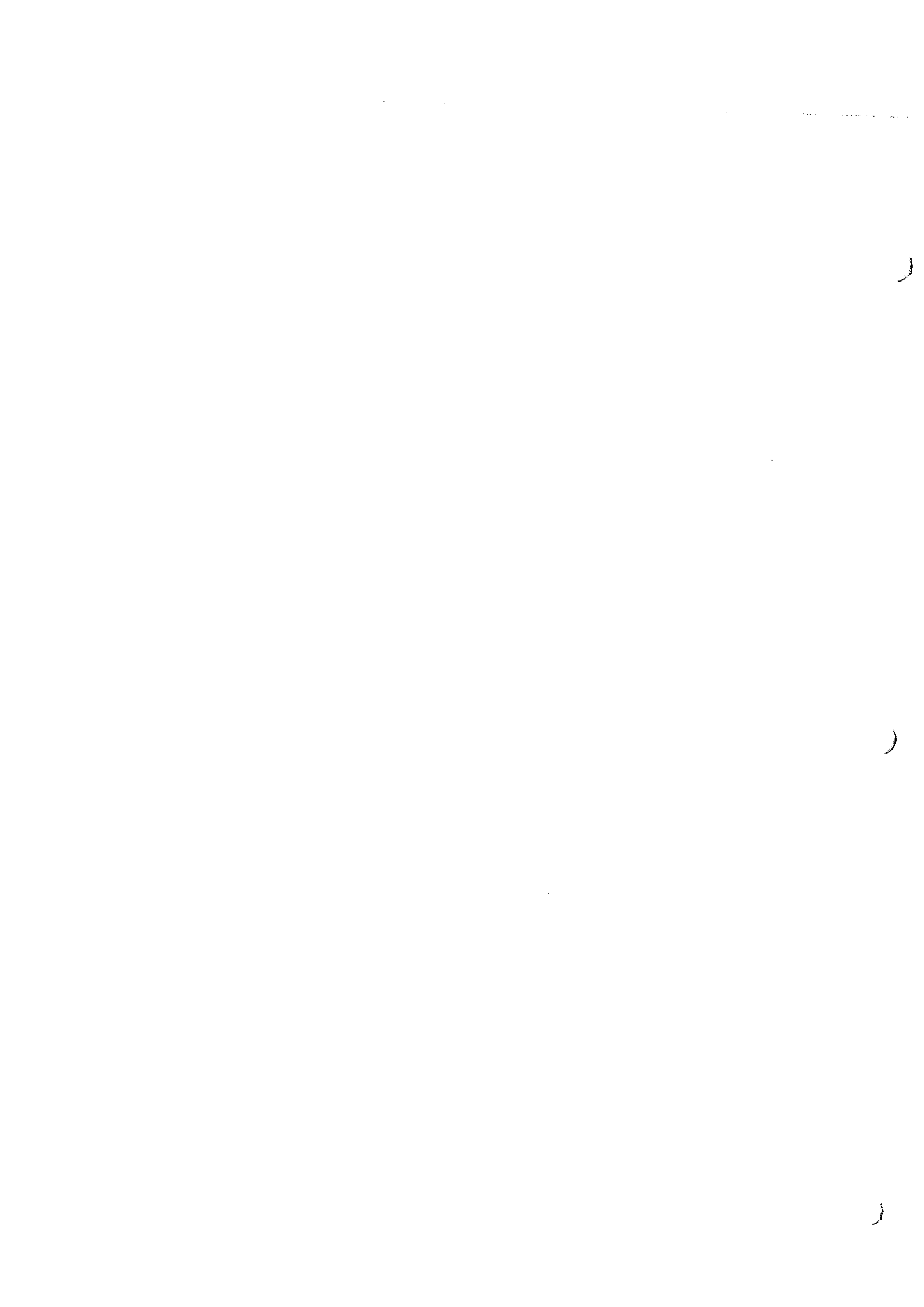
To-date, enforcement activities have been more costly than necessary through the use of conventional 35mm film-based cameras in which film needs to be loaded and retrieved from the site before processing. Market demand and state of the art technology have enabled the transmission of pictures using secure digital images to allow the system to be operated at significantly lower cost. In addition, enforcement authorities are seeking more flexible equipment in order to reduce capital costs in extending their activities and to use a variety of sensors including radar. Peek Traffic has developed a range of camera-based enforcement products that address the market need for digital image capture and newly improved sensing, providing a high standard of operational efficiency.

*Peek Traffic's Camera System* captures the original photographic evidence. Functions include sensing the traffic light, vehicle speed and position, triggering the cameras, and recording the images and associated data. *Peek Traffic's Camera System* exports photographic evidence to the *SafeStreet* citation processing system. The *SafeStreet* citation processing system allows for image review and citation processing.

Digital images are transmitted electronically and directly to a central processing facility. This allows images to be viewed immediately or on a batch schedule best suited to the customer, resulting in a significant reduction in time from the infraction to the time the citation is mailed. Collecting the images electronically eliminates the possibility of images getting damaged accidentally during the wet film retrieval and developing process. Digital technology increases safety for field technicians, efficiency of the process, and it expedites the issuance of citations. In addition, digital cameras eliminate the cost of film, processing, and personnel required for daily film handling.





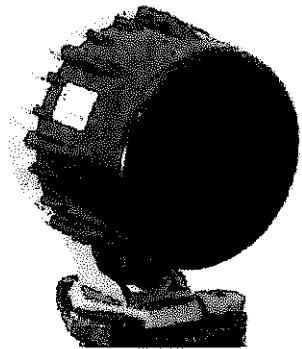




***Advanced Vehicle Sensing – Radar***

Recommended Solution for Northern Latitudes with Adverse Conditions

While Peek Traffic is the leader in inductive loop technology, we recognize that it is not the only solution for vehicle detection. In fact, advanced radar sensing offers several advantages over loops in many cases. Peek Traffic has the exclusive rights in the U.S. to offer this radar sensor with its Automated Red Light Enforcement system. A short list of advantages follows:



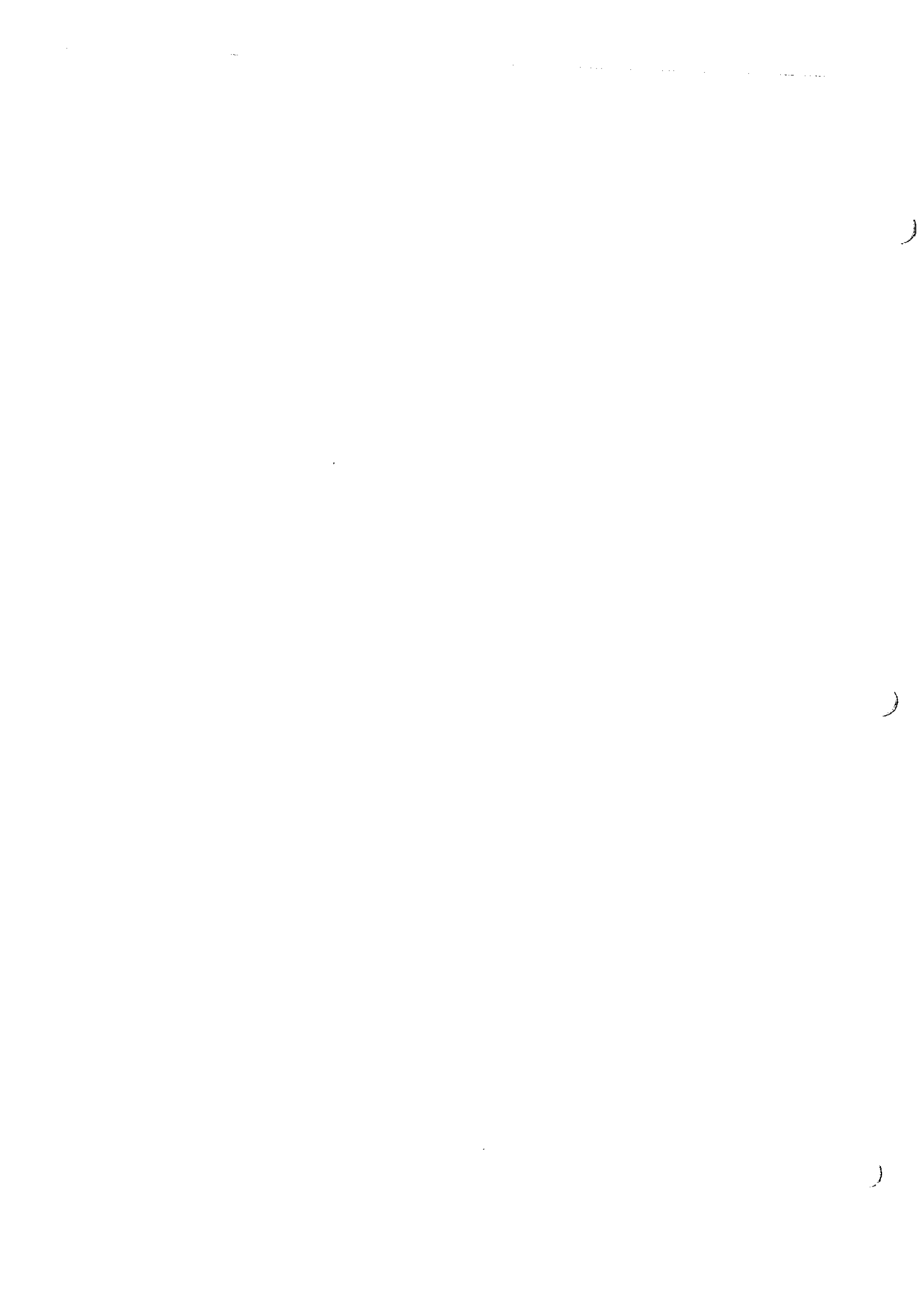
- Non-Intrusive (no cutting into road surface)
- Can be installed where loops cannot (some bridges, ramps, and city streets where steel or other installations preclude loops.) Also existing loops do not have to be re-installed when the radar sensor is used on the same approach.
- Small size (about the size of a softball)
- Quick to Install or Relocate (usually attaches to existing pole or mast arm, only one small cable to interface)
- Easy to adjust (point & go, simple type-ins set detection points)
- Easy to relocate
- Adapts quickly to changes in road markings
- Highly accurate (self calibrates before each measurement)

*Radar sensing has many advantages and Peek Traffic is the only authorized supplier in the United States of the radar described in this proposal.*

***Sensor Description & Operation***

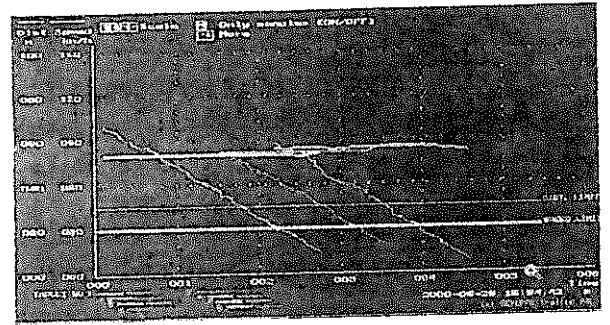
The vehicle detector/sensor is a RS 240 dual Doppler, tracking, 24 GHz radar, and is usually mounted on the traffic signal mast arm or a pole facing the approaching traffic. This non-invasive sensor has proven exceptionally accurate and reliable in severe weather conditions ranging from tropical to desert to near arctic latitudes. The radar system eliminates the need for intrusive loops and all the associated costs and problems of installation

The sensor tracks up to eight vehicles at the same time. It keeps track of Time, Speed, ~~Distance and Direction (the basic parameters) for each vehicle. Report Lines (similar to~~ a detection zones) are used to determine if and when to take the photograph. The sensor has two Report Lines. Each Report Line is a configurable distance from the radar sensor. When a target reaches a Report Line, a message containing the basic parameters is sent to the camera system's computer. This is used to initiate an image capture sequence when specific criteria are met. Report Lines can be easily adjusted.



Adjustment range is 30 - 245 feet in 3 ft. increments. This enables the system to be configured optimally, as the City prescribes. Speed measurement thresholds can be set for 10 to 155 mph in 0.6 mph increments.

Peek Traffic has learned through operational experience that speed thresholds below 12 mph are not effective indicators of a driver's intention or ability to stop. In fact, extremely few vehicles actually commit violations below this speed. The vast majority of vehicles traveling at this speed do stop before crossing the stop bar entirely. Additionally, the system captures many useless (unenforceable) photographs if low speed thresholds are used. Peek Traffic customizes the speed threshold at each intersection depending upon many factors. Ideal speed settings are closer to the 15 - 27 mph range.



While the radar sensor constantly monitors all traffic flow, the enforcement function remains dormant until the signal is actually red. After the signal has been red for a configurable amount of delay time (0.1 to 0.9 seconds), the system is enabled to capture violation images.

➤ Configurable Parameters:

In order to support different applications, certain qualifiers can be applied to sensor reporting. One restriction is the vehicle direction, arriving or departing vehicles. Another is the speed limit. Only those vehicles above a certain speed will be reported. The position of the report lines is configurable.

➤ Calibration:

The RS240 is designed with an internal calibration function to ensure correct measurements at all times. The automatic calibration verifies all the signal paths in the low frequency band and the signal processing. This function is active continuously during measurement and all reports will contain calibration result information.

➤ Installation:

~~An easy installation procedure is crucial when installing in a traffic environment, especially for mobile applications. The RS240 is extremely simple to install, just aim it towards the chosen report line and start the measurement. A mobile application is up and running in minutes.~~

.....

)

)

)

### ***Inductive Loops – Not Recommended***

Due to Frost Heaves and Pavement Cracking in Northern U.S. Latitudes  
Peek Traffic's experience with the manufacturing and installation of inductive loop detector cards and the technology encompassing them is second to none. To-date, Peek Traffic has sold over 60,000 loop detector cards in the U.S. market alone. Needless to say, we are the premier U.S. manufacturer in this market.

Although we can provide and integrate inductive loops with our Red Light enforcement systems, it is not recommended. We have performed extensive side-by-side comparisons between inductive loop, radar, and video detection systems and have found loops to be not only more prone to failure over the course of a multi-year contract but less accurate for left and right turn enforcement. Because our radar (SafeStreet RS240 Long Range) and video-based technologies (VideoTrak®) track the vehicle through the intersection, not just predict its location (as loop technology does) we can demonstrate less false triggers if the car manages to stop before entering the intersection. Additionally, knowing exactly where the car is at all times gives our camera system more accurate distances for clearer images.

Some competitors need to use secondary video evidence to ensure the car in question did not actually stop after leaving their loop based systems. Although we can offer video-based secondary evidence (VideoWitness™) for adjudication purposes, our system inherently does not use this technology as a crutch.

### ***Video Detection: VideoTrak Plus® . Not Recommended***

Due to Machine Vision Video Performance in Adverse Weather Conditions in Northern Latitudes  
Peek Traffic's VideoTrak Plus product can be integrated into the Red Light Enforcement Program. The multi-resolution processor provides efficient analysis of real-time video input in order to identify traffic conditions, adapt to various environments, monitor for adequate image quality, and verify proper camera operation. While low sun angles and shadows can be compensated for by careful installation and proprietary algorithms, the radar is a simpler solution if red light enforcement is the only objective of the installation.

Video detectors are designed primarily to detect stopped vehicles at an intersection for input to the traffic controller. This is the opposite of the radar, which is designed primarily to detect moving vehicles. While video detection can also detect moving vehicles and speed, its discrimination for speed when the vehicle speed is likely to be changing is not as accurate as the RS-240 radar.

---

---

---

)

)

)



While VideoTrak can provide the additional information below, Peed Traffic does not recommend any hardware with direct interface to the traffic controller.

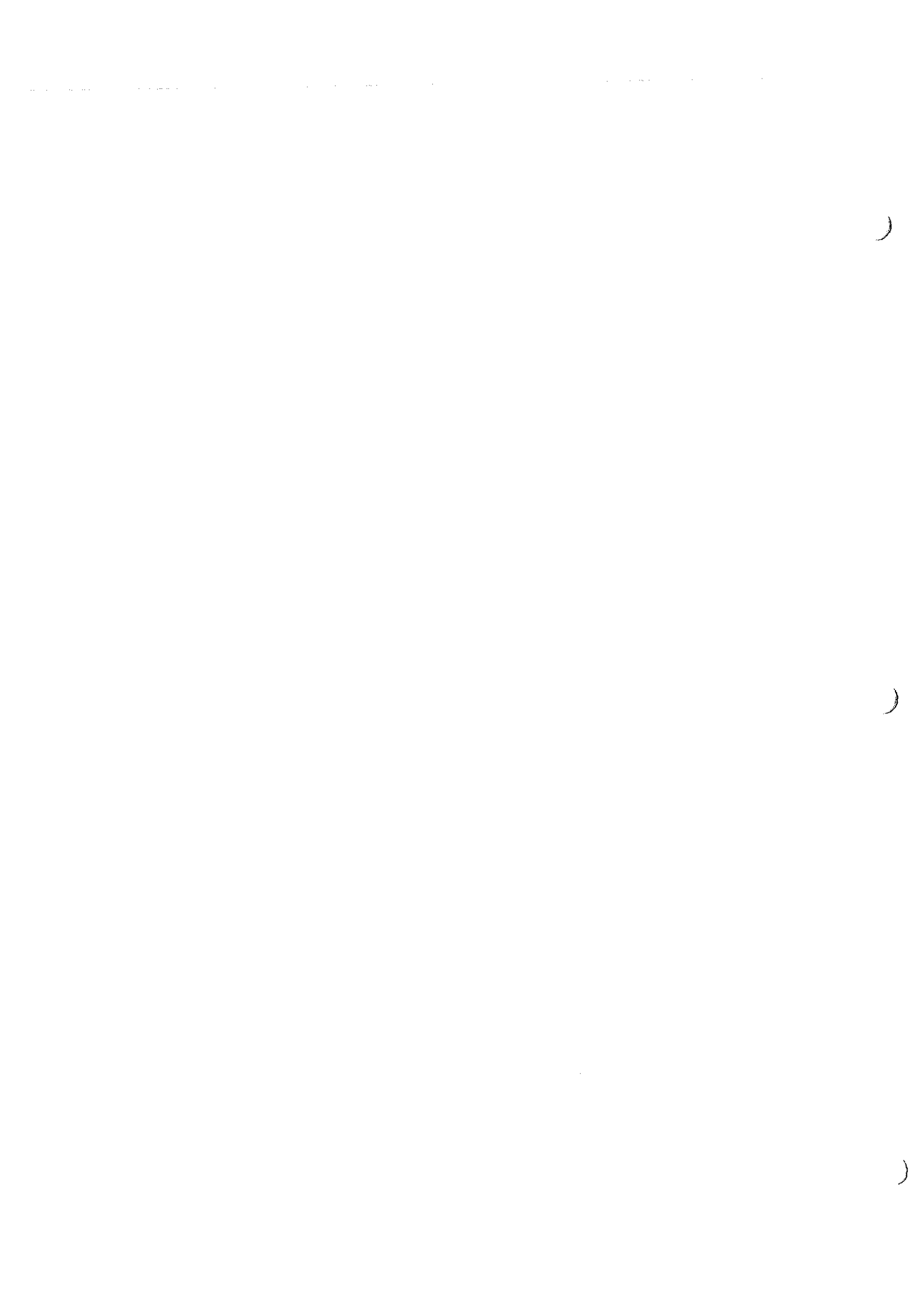
- Number of vehicles (volume/counts)
- Lane occupancy (% time lane is occupied)
- Density (volume/speed)
- Headway (avg. in seconds)
- Delay (avg. delay in seconds)
- Queue length (foot/meters)
- Vehicle length (avg. in ft/meters)

The screenshot shows the VideoTrak software interface. The main window is titled "Watch Video" and contains a video feed from "Analog Camera #1 [57.15]". The video shows a multi-lane road with traffic. To the right of the video feed is a data table titled "Zone #8 Detector". The table has columns for "Volume", "Occupancy", "Speed", "Density", "Headway", "Delay", "Length", "Queue Length", "Bin #1 Volume", "Bin #2 Volume", "Bin #3 Volume", "Bin #4 Volume", "Bin #5 Volume", "# of Incidents", "Average Flow", "Flow Rate", and "Level of Service". The data values are as follows:

Zone #8 Detector	Period	Current
Volume	: 7	10
Occupancy	: 81	
Speed	: 19	14
Density	: 22	
Headway	: 12	
Delay	: 6	
Length	: 15	6
Queue Length	: 0	0
Bin #1 Volume	: 0	
Bin #2 Volume	: 0	
Bin #3 Volume	: 0	
Bin #4 Volume	: 0	
Bin #5 Volume	: 0	
# of Incidents	: 0	
Average Flow	: 210	
Flow Rate	: 420	
Level of Service	: F	

At the bottom of the interface, there is a status bar with the following information: "V: 0016", "F: 1", "CAM 1", and "ON-LINE @ 57600".







**Camera System Field Unit:**

The Camera System Field Unit installed at the intersection is comprised of the following hardware and systems:

- Housing/Enclosure
  - Image Capture hardware
  - Sensing/Measurement hardware
  - Control & Storage hardware
  - UPS system
  - Communications
- The system consists of a slim-line, pole-mounted cabinet, integrating a high-resolution commercial (5.4 mega pixel) digital camera, variable power Elinchrom flash, mounted externally for image optimization, signal interfaces, communications and control subsystems. One system enforces one approach.
  - The system monitors the Red light by sensing the current flowing through the traffic signal itself. Toroids, (small, high quality current transformers) allow Peek Traffic to know precisely when the signal is illuminated. The toroid ensures that the enforcement system only monitors the light but cannot control it in any way – even by accident or system failure.

Like the radar sensor, all external equipment has been designed to withstand extreme environmental and local conditions. *Peek Traffic's Camera System* has been tested in a wide range of operating conditions, including the extreme weather conditions of the desert and in near arctic latitudes. All cabinets are fitted with tamperproof locks and hinges and the exclusive windows are constructed of armored glass. Enclosures for camera equipment and other hardware are made of aluminum and steel. Enclosures have fans, thermostats, and if necessary, heaters to ensure proper operation in all weather conditions. All wires and connections terminate inside the housing. Camera system components, including computer, storage and interface subsystems, are mounted in the enclosure on poles for safety and protection. *Peek Traffic's Camera System* equipment has a small footprint to minimize environmental impact and reduce construction costs.

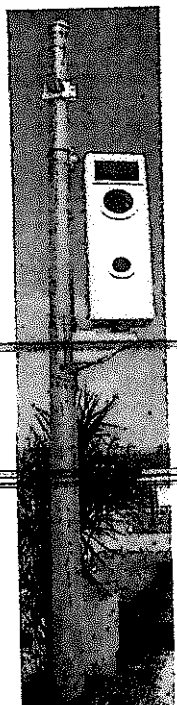
All equipment has been designed to minimize maintenance time while maximizing safety.

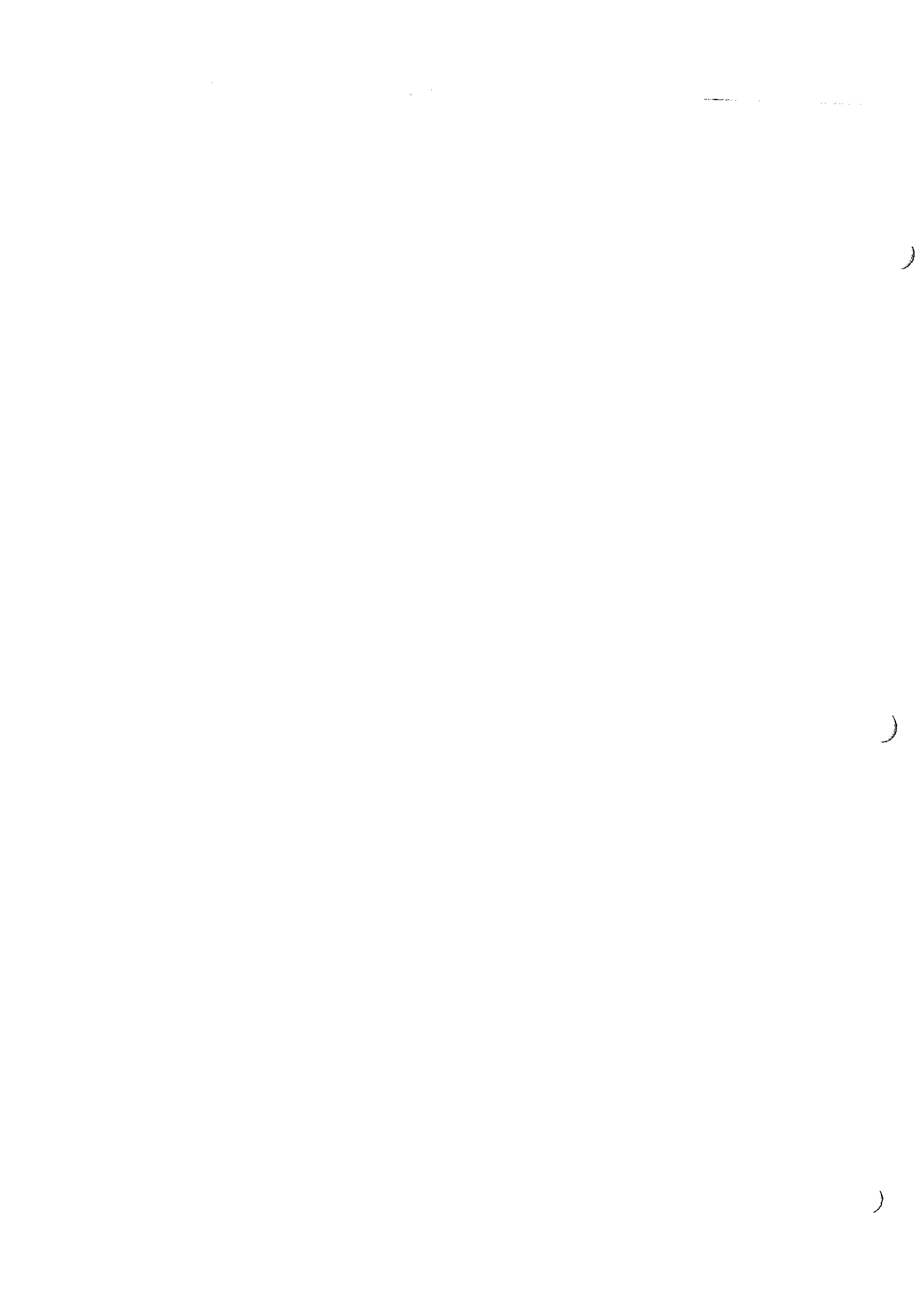
The Camera System has four major functions:

- Monitoring the traffic signal
- Detecting/sensing vehicles moving towards and into the intersection
- Photographing the violation
- Storing and forwarding the digital photographs, along with other violation data, to Peek Traffic's central office Instation

Central Office Instation:

- Image collection from Camera Systems
- Data/Image Handling Sub-system







- Initial Screening of Images
- Final review incidents and printing of citations

The Camera System transfers images and data to the Instation using Secure FTP over the Internet or dedicated line/frame relay.

**Camera Description:**

The camera system field unit contains a state-of-the-art commercial Nikon D1X (5.4 Megapixel) camera that is fully configurable, including interchangeable lenses. It is easily removed from the cabinet for relocation, maintenance or upgrade. FireWire type interface facilitates rapid picture transfer allowing numerous pictures to be taken during a red phase. The high-resolution camera and interchangeable lens subsystem facilitates ease of positioning to ensure the maximum number of violations can be successfully photographed. The cameras are configured to provide the optimum depth of field, which minimizes focus problems.



Two images are captured for each violation, one showing the vehicle before the Stop Bar and showing the light is red, and a second showing the vehicle in the intersection with the light still red. Both photographs have violation data imbedded in the image file, detailing the date, time, location and other evidence particulars. These images/data are encrypted and transmitted to the central office at regular intervals each day. The third image is generated for the plate close-up. This image contains the original imbedded data that was recorded during the violation. The photographs coupled with the data provide comprehensive judicial evidence.

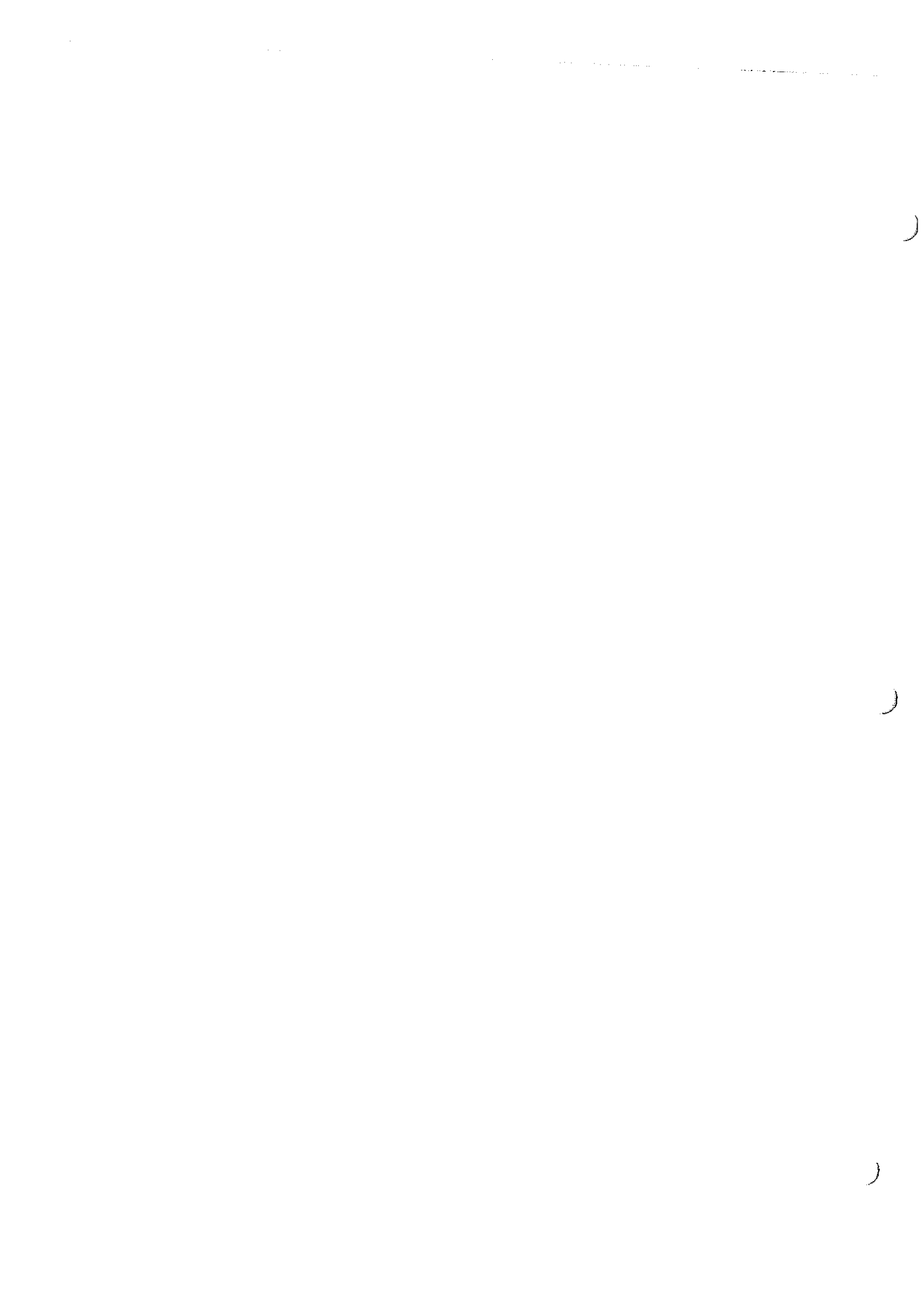
*Peek Traffic's Camera System* is capable of being deployed in a wide range of operating conditions. The optical arrangement proposed would allow extended use in adverse weather conditions while the synchronized illumination and camera configuration is most adaptable to a range of road speeds from 20 to 70 mph. Once installed, the equipment would not require alteration of such features as aperture and focus. *Peek Traffic's Camera System* products are provided with telemetry controls to allow remote configuration of camera settings, if required, by qualified staff.

**Flash:**

Flash units are used with each camera system to provide illumination under any light and weather conditions, and to optimize the quality of the picture taken. The flash unit can be mounted externally to achieve ideal results.



An Elinchrom RX-600 electronic flash unit supplies optimum illumination. This unit has adjustable output power and is rated at 600 watts maximum. Sufficient illumination is normally achieved at the middle of its power range. The flash operates for each photo, in all conditions, and can effectively illuminate four lanes wide and up to 200 feet. The flash can be set to operate in automatic or manual modes, and can flash before it is fully





recharged. Due to its high speed, the dissipation of light intensity with the square of the distance involved, and the directed line of illumination for best illumination of the vehicle license plate that is set at commissioning, the flash is not a distraction to drivers.

**Toroid Traffic Signal Monitor:**

The toroid is a simple means of interfacing to the signal controller for red light applications using a current transformer to sense the current to the lamps or LEDs in the signal head.

The primary advantages of this method are:

- It prevents the enforcement system from exerting any control over the traffic signal, even in the event of an enforcement system malfunction.
- Since current flows only when the signal light is illuminated, the light will only be "seen" as red by the camera system, when it can be seen by the driver of the vehicle.
- It reduces exposure to hazardous voltages in the controller cabinet and cable routes, as well as in the enforcement system.
- There is no need to disconnect this interface when doing any maintenance of the enforcement system or of the controller cabinet, as the electrical signals are in the (harmless) millivolt range and can have no adverse effect on either system.

THE TOROID ALLOWS THE CAMERA SYSTEM TO INTERFACE WITH THE CONTROLLER CABINET SIGNAL OUTPUTS IN SITUATIONS WHERE TRAFFIC DEPARTMENTS WILL NOT ALLOW WIRING INTO THE BACK-PANEL.

Other methods, such as relays, do not provide these advantages. The Toroids are installed in the controller cabinet and will work with both incandescent and LED signal heads.

**Advanced Image Capture:**

At Peek Traffic, we understand the importance of quality images in the detection of speeding vehicles and red light violations. That's why we use high-resolution digital camera technology for image capture. High-resolution digital cameras provide great detail of the vehicle license plate and other necessary features of the image. All image capture devices allow for information to be superimposed on each frame or picture, showing the information required by the agency, such as date, time, speed, location, violation number, red time, direction, and so forth. All information is uniquely embedded in each image file separately and cannot be removed or modified without corrupting the file. ~~Flash units are added to each camera system to provide adequate illumination under any light and weather conditions, and to optimize the quality of the picture taken. The flash unit power output is adjustable based on the vehicle's distance from the camera.~~

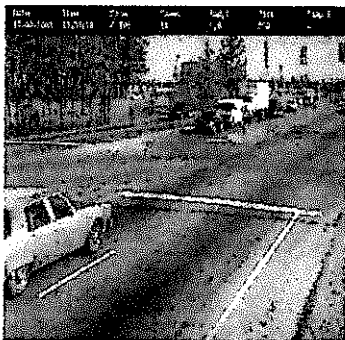




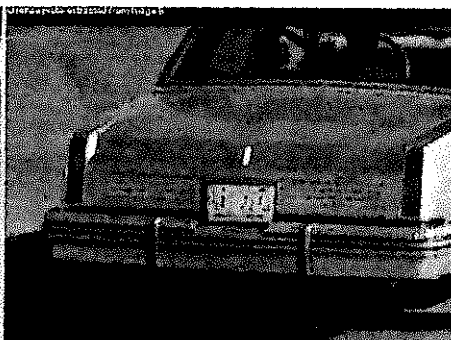
The camera subsystem has a state of the art image sensor and processor providing integral storage, digitization, compression, encryption and transmission (ISDN, PSTN, DSL or dedicated line options) for images and data. Upon determination of a violation by the sensor, an image is taken and stored immediately for later retrieval.

Peek Traffic can provide a delay time after the signal turns red before a violation can be recorded, as required in most cities. The red light camera system must take at least two color images of each violation. Peek Traffic proposes that the first image is taken at or around the point of violation, prior to the stop bar, at each intersection, with a subsequent image taken once the vehicle has entered the intersection. The time taken between images will be site specific and adjustable. Triggering the system will utilize the RS-240 radar sensor and proprietary algorithms to ensure a high percentage of enforceable images. Each citation will have three color images, one of the vehicle before entering the intersection showing the signal light red, one of the vehicle in the intersection showing the light still red, and a third close-up image of the vehicle's license plate. The system will produce images to include:

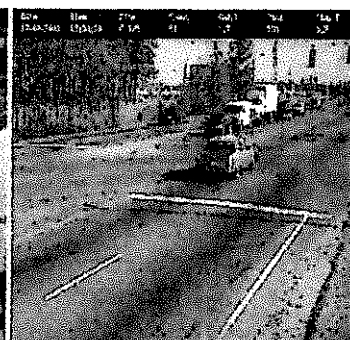
- Location details
- Minimum of 2 color images of contextual information on offending vehicles
- Image of rear license plate of vehicle
- Violation Number
- Day, month, and year of violation
- Time of each violation in hours, minutes, & seconds
- Elapsed time since start of red signal when violation occurred
- Vehicle speed
- Location identification (up to 10 characters)



Initial View



License Close Up



Final View



)

)

)

**Video Witness (Option)**

Although the dual Doppler radar and digital camera system Peek Traffic proposes to the City of Columbus is superior in image quality – with 5.3 megapixel imaging – we realize there is an advantage to video streaming in preventing contested violations. Peek Traffic has developed **Video Witness**, a streaming video for secondary evidentiary verification of any given violation, to enhance our Automated Red Light Enforcement Program to it's fullest potential. This real-time video stream is viewable through secure username & password to authorized police and city reviewers.

**Citation Experience:**

The screen capture at right shows images vs. issued citations as a percentage from one of our NC operations. It shows only 31 images out of 2,867 that were "spoiled" or of insufficient clarity to make a judgement. This is a 98.9% capture rate. Even when out-of-scope vehicles and in-scope vehicle exceptions are removed, the Peek system citation rate is still 97.5% of incidents (31 missed out of 1257 possible citations).

Intersection	Site Name	Incidents	Out of Scope Exceptions	In Scope Incidents	In Scope Exceptions	Spoiled Citations	Issued Citations	IS Efficiency	AVG Citations Per Day
17th Street At Dawson Street	W601	89	21	68	3	3	62	95.59%	2.07
Dawson Street At 3rd Street	W602	325	122	203	31	3	169	84.73%	5.63
College Road At Clearster Drive	W603	565	607	48	9	2	47	84.38%	1.57
Wooster Street At 3rd Street	W604	507	175	332	27	5	300	91.87%	10
Shipyards Blvd. At 17th Street	W605	148	81	67	16	0	51	76.12%	1.7
Wooster Street At 17th Street	W606	650	354	296	24	11	261	91.89%	8.7
College Road At 17th Street	W607	200	48	152	19	3	130	87.50%	4.33
Market St. At Martin Luther King	W608	152	44	106	17	3	88	84.26%	2.93
SB Dawson Street at 16th Street	W609	219	84	135	22	1	112	83.70%	3.73
Market Street At Gordon Road	W610	12	3	9	3	0	6	66.67%	0.2
<b>Totals</b>		<b>2867</b>	<b>1439</b>	<b>1428</b>	<b>171</b>	<b>31</b>	<b>1226</b>	<b>84.68%</b>	<b>4.09</b>

**Chain of Evidence:**

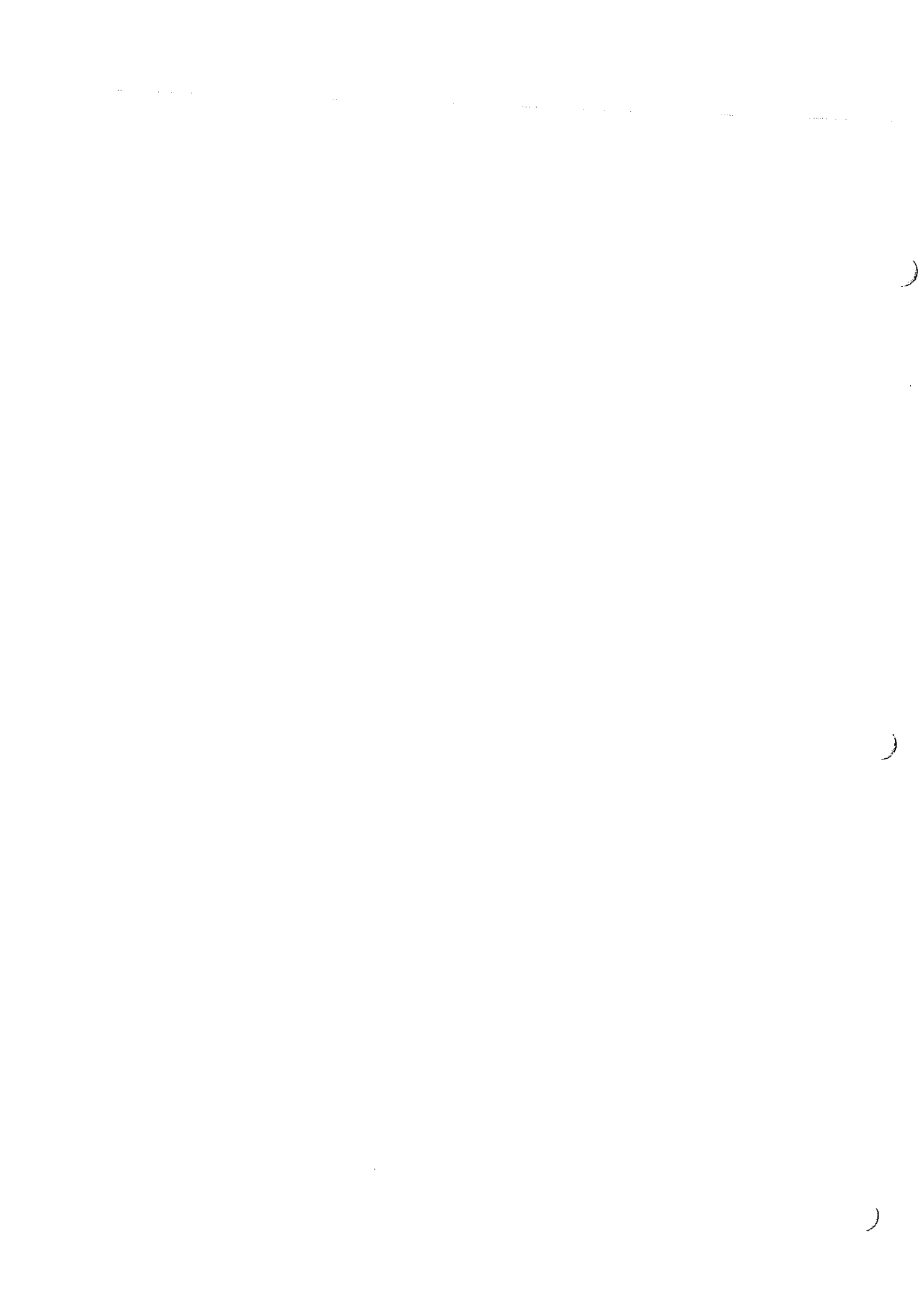
An important aspect of the *Peek Traffic Camera System* technology is its rigorous attention to providing a secure chain of evidence. *Peek Traffic's Camera System* ensures this chain of evidence by embedding identification data in the picture file, using triple DES encryption error protection during transmission and recording the evidence on Write Once, Read Many (WORM) media. The evidence cannot be altered when this method is used. This ensures the courts will look favorably on digital images as meeting evidentiary requirements.

To secure the chain of evidence, *Peek Traffic's Camera System* stores all violations as encrypted images on WORM media. This type of storage medium cannot be changed, altered, or tampered with. If a citation is in question, the images from the WORM media can be viewed remotely via a computer link, or the WORM media can be carried to Court and installed on a computer for viewing by a Judge.

The data protection method used is modeled on standard security measures used by international financial institutions and would be readily understood by the courts. The data protection system provides three levels of security:

Authentication:

Authentication is the main element in establishing the integrity of the evidence; that is, that the image has not been modified in any way since it was first recorded. A Message Authentication Code (MAC) is computed and appended to the image. The MAC is



based on a secret 56-bit encryption key. The integrity of a recorded image is verified by re-computing the MAC using the same keys at the in-station.

Encryption:

Encryption transforms the image into random data. The scrambled image would then be unrecognizable to an unauthorized person. The image cannot be edited or viewed in part. The encryption is based on a second 56-bit encryption key.

Error Protection:

A 16-bit Cycle Redundancy Check (CRC) is deployed for error correction when transmitting images to ensure that no accidental errors are introduced. The check includes the image and the appended MAC.

With such protection, data can be safely transmitted over any network, whether private or public.

***Image Control and Storage:***

All information, including pictures, signal data, speed, time, and location, can be transmitted to a central instation computer immediately upon the system detecting and recording a violation. The information is permanently recorded on the WORM media, making it impossible to alter once it is recorded. Each WORM media can record a minimum of 5,000 images before it has to be changed, compared to 400 images on a roll of 35mm film.

Since the information is digitally recorded, transmission and/or retrieval is possible through secured interconnect lines. All information sent or retrieved electronically is encrypted for security. Once the information is collected at the central office(s), the central computer processes all the information, processes the license plate information through the DMV, prints the citations and envelopes, and records the data for any required documentation or reports.

***Optimal Storage and Transmission:***

Digital cameras can generate large file sizes, which can consume memory and communications bandwidth. *Peek Traffic's Camera System* technology optimizes storage and transmission resources. Peek Traffic engineers formulated the optimum mix between resolution and file size. Image resolution is enough to ensure a high percentage of enforceable images, yet keep the file size small, allowing short transmission times and efficient storage with clear images. Because *Peek Traffic's Camera System* uses small files, the system is not down while it is storing images. This allows *Peek Traffic's Camera System* to take multiple sequential images within seconds to catch multiple car violations.

.....

)

)

)



### ***Communications Interface***

Each Peek Traffic Camera System will be fitted with an ISDN, DSL, cable or dedicated line to transmit evidential data back to a control-processing center. All transmitted data will be suitably encrypted to allow full integrity of data as described under Chain of Evidence.

### ***Maintenance***

Peek Traffic developed and typically uses a web-based technical information system to manage maintenance on its Red Light Programs. This on-line approach assures that all technical personnel, whether they are managers or technicians, have continuous (24-hour) access to current maintenance status and activity at every camera system. Peek Traffic also develops good working relationships with its contractors, providing immediate payback as they have responded quickly to the unexpected in returning a system to operation (*i.e.*, cables accidentally cut by a third party).

### **Daily Operation**

Peek Traffic's Automatic Red Light Enforcement camera system operates 24-hours a day, seven days a week. All equipment has been designed to minimize maintenance time while maximizing safety.

### **Procedures**

Reported failures and anomalies are logged and acknowledged within two hours of notification or discovery during normal business hours. Peek Traffic guarantees operational restoration of a system malfunction within 48 hours after notification, unless extreme weather conditions prevent safe transit to site location. The Operations Manager on a 24/7 basis will coordinate all emergency responses. Any other significant concern (such as an imminent data problem) will be addressed next day.

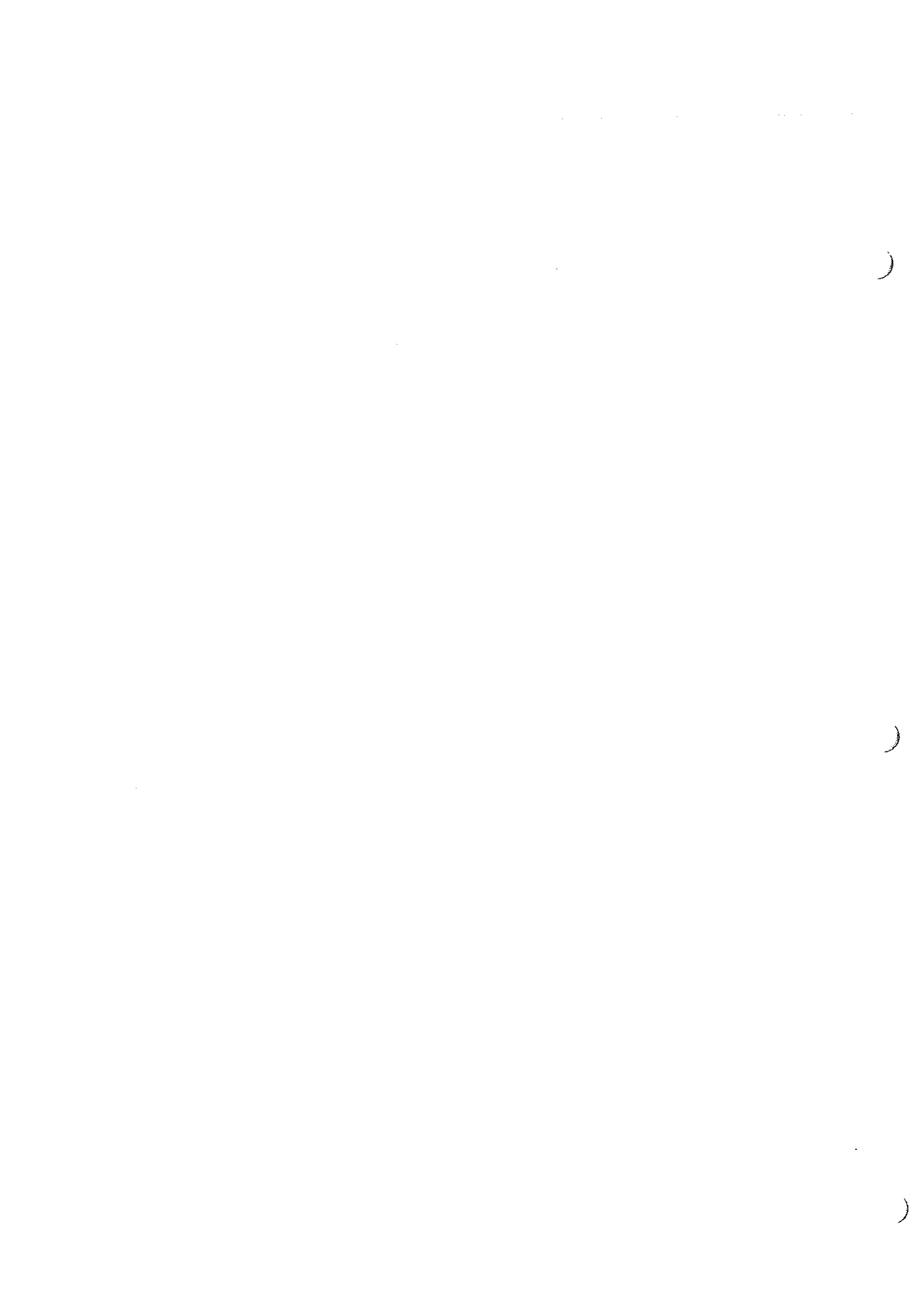
### **Calibration & Maintenance:**

Peek Traffic's Camera System equipment communicates continuously with the central office servers. The maintenance technician monitors camera system operations and documents any problems in an on-line log. The technician then coordinates with the field engineer to resolve any issues. Additionally, the centralized software continually & remotely monitors, through the use of SMTP and MIB's, the health of the camera system.

System calibrations are performed annually. The sensor is automatically calibrated before each measurement. Log sheets will be available to the City to substantiate contested citations. Maintenance reports contain the following data:

- 
- Time of service
  - Date of service
  - Red Light Camera unit number
  - Physical location (intersection) of the Red Light Camera unit
  - Repairs made or parts replaced
  - Name of maintenance technician
- 

These reports will provide Peek Traffic and the City with the information necessary to control and maintain the Camera System integrity.





Peek Traffic's enforcement system will adhere to a maintenance program to assure accurate operation. The maintenance program is divided into two parts, preventive and corrective. Routine scheduled maintenance attempts to prevent failures and abnormal operation, while corrective measures are implemented to restore system operation. An example of Peek Traffic's Preventive Maintenance plan is provided below.

PREVENTIVE MAINTENANCE & CALIBRATION SCHEDULE		
Reference No.	Name	Frequency
PGPM-0	Operational Ability	Daily
PGPM-1	Inspect/replace Air Filter	Quarterly (every 3 months)
PGPM-2	Indicators, switches & connectors	Quarterly (every 3 months)
PGPM-4	Verify Red Light indicators	Quarterly (every 3 months)
PGPM-5	Illuminator operation	Quarterly (every 3 months)
PGPM-6	Time Synchronization	Monthly (every month)
91-441	Field Calibration	Yearly (every year)

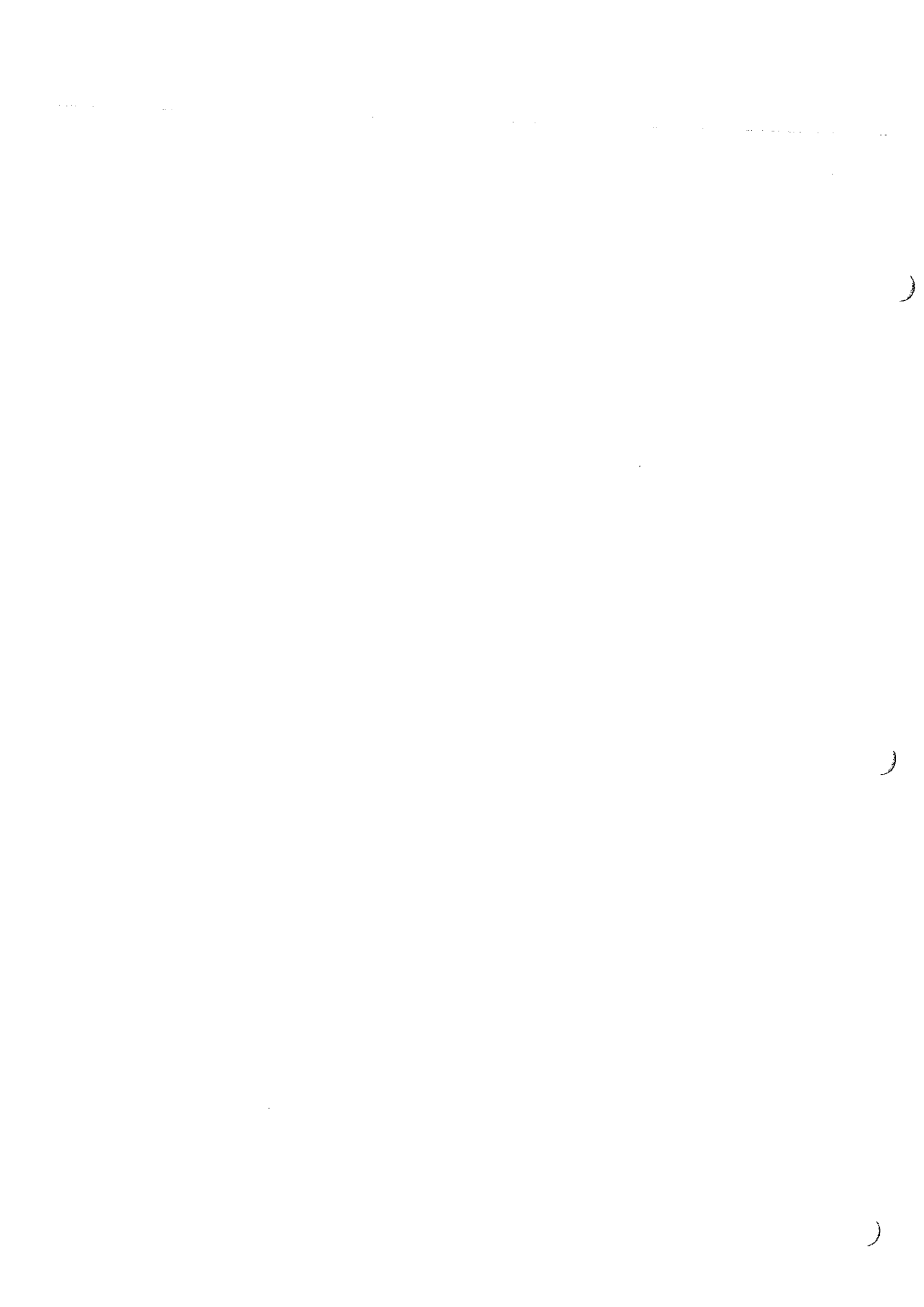
**POWER SUPPLY**

Camera System power requirements: 110VAC – 15 amp service, provided from the traffic signal cabinet with dedicated breaker at the camera system enclosure. A UPS is included in the enclosure in the event of total power failure.

**TELECOMMUNICATIONS**

The Peek Traffic telecommunications requirements: DSL or Cable Modem.







## The SafeStreet Back-Office Operation A Full Turn Key Solution

### Citation Processing Using the SafeStreet System

Peek Traffic appreciates that every municipality has different requirements to managing citation processing. As the SafeStreet System is a modular web-based application, the approach is completely flexible to the requirements of your municipality. The customization of the SafeStreet System will be determined and implemented upon award of contract.

The material covered below is Peek Traffic's "standard" approach to current citation processing programs but will be modified per the City of Columbus's requirements.

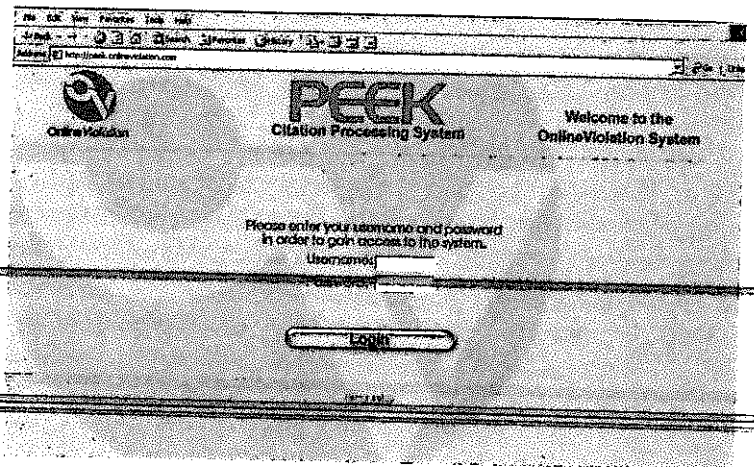
The SafeStreet system would be used by Peek Traffic and an individual appointed by the City of Columbus to process and manage all violation data and images captured by the Peek Traffic cameras and computers. This system allows for maximum secure access to all parties involved in the use of the system while requiring minimal administration and hardware/software. The SafeStreet system is integratable with third party systems i.e. State and DMV information stores.

### **Web-Based Processing:**

The citation processing system used by Peek Traffic, is operated as a hosted solution - completely on the Internet. Proprietary software is not necessary. Users of the SafeStreet system need just a user name and password to begin processing citations.

SafeStreet handles the process by which images and data are converted into potential violations, securely stored, and ready to process. All images are redundantly stored in the original files in which they were received from Peek Traffic's systems. All data is redundantly stored in the latest relational databases. Access to this data/information is strictly limited and supervised. All actions in the application are audited and fully reportable at any time.

Processors, trained in the handling of the specific types of violations, view the potential violations and either, reject the cases for a specified and audited reason, or request DMV information in the situation of a valid potential violation. Once matched DMV information is secured, the information in the database is updated and the processors continue the process of approving the violation.







**Multiple Review Levels:**

A flexible progression of reviews is the next step in the *SafeStreet* system. Peek Traffic's standard is to have an Initial Viewer ("Processor") perform the first review session followed by an additional but different "Reviewer." At this point, the City of Columbus would have authorized personnel review the approved violations.

These review steps are intended to provide a "checks and balances" process where reliance is not on one individual but rather on several individuals for the review processes.

SUGGESTED REVIEW LEVEL SCENARIO:

Level 1:	PEEK	PROCESSOR
Level 2:	PEEK	1 <sup>st</sup> REVIEWER
Level 3:	CITY	2 <sup>nd</sup> REVIEWER
Level 4:	PEEK	CITATION CREATED & MAILED

*The standard levels of review are modular and can be easily customized for each city installation.*

After approval of the case, the violations are automatically printed and are then mailed to the citizens.

When it comes to a response to this violation, the citizens have a choice of reply methods. They can manually mail a response back, securely use the *SafeStreet* system through the Internet by logging in with the violation number and password from the violation, or visit the City or Auburn, or Lewiston or City of Columbus's Office – however the determined structure will be. The citizens can plead guilty and pay their fine in full - or plead innocent and schedule a hearing date/time.

Level 5:	CITIZEN:	RECEIVES CITATION (via USPS) ENTERS A PLEA (either online or in person) If "NOT GUILTY," schedules a hearing
Level 6:	JUDGE:	DETERMINATION

It is understood that the City of Columbus's desire is to issue Warning Citations only during the Red Light Pilot Program. It may desirable to set up a telephone line or customer service center to answer questions about the Red Light Program and the purpose of the Warning Citations.

Revenue Reports

Upon award of contract Peek Traffic will meet with the City of Columbus's to determine and establish required report formats.

)

)

)



### Record Keeping

The City of Columbus can attain copies of all financial reports from the web-based system at any time. The types of Financial Reports will be mutually agreed upon and determined upon award of contract. Information and data collected shall be stored in an indexed database to enable tracking of citations and the capability to print statistical reports as needed. Other non-financial information as it relates to the project, and as mutually agreed upon, will also be available to the City of Columbus through the web-based system. All citation images will be stored no longer than six months or until final disposition of citation, whichever is later, on reproducible CD format or equivalent and accessible on request by the City's Project Manager. Information will be destroyed after this time period.

### Reports:

*SafeStreet* reports are available online, 24/7/365 without delay. There is never a delay for data compilation or preparation. Reports can be emailed, printed or copied into any application for local analysis. Reports can be automatically emailed.

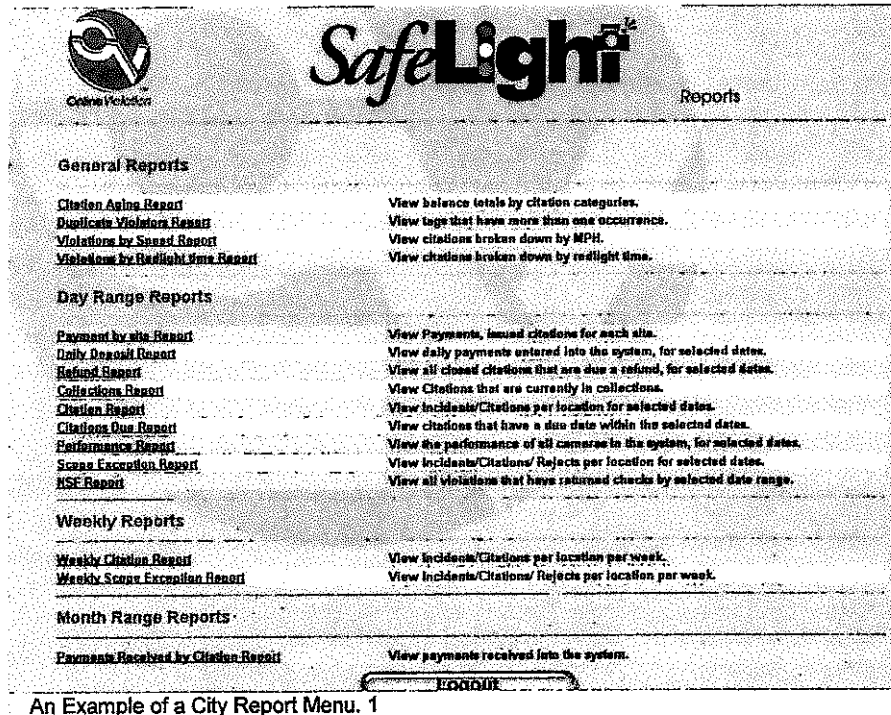
Overall, the *SafeStreet* system is the easiest, most flexible and most economical system available to handle your automated traffic enforcement needs.

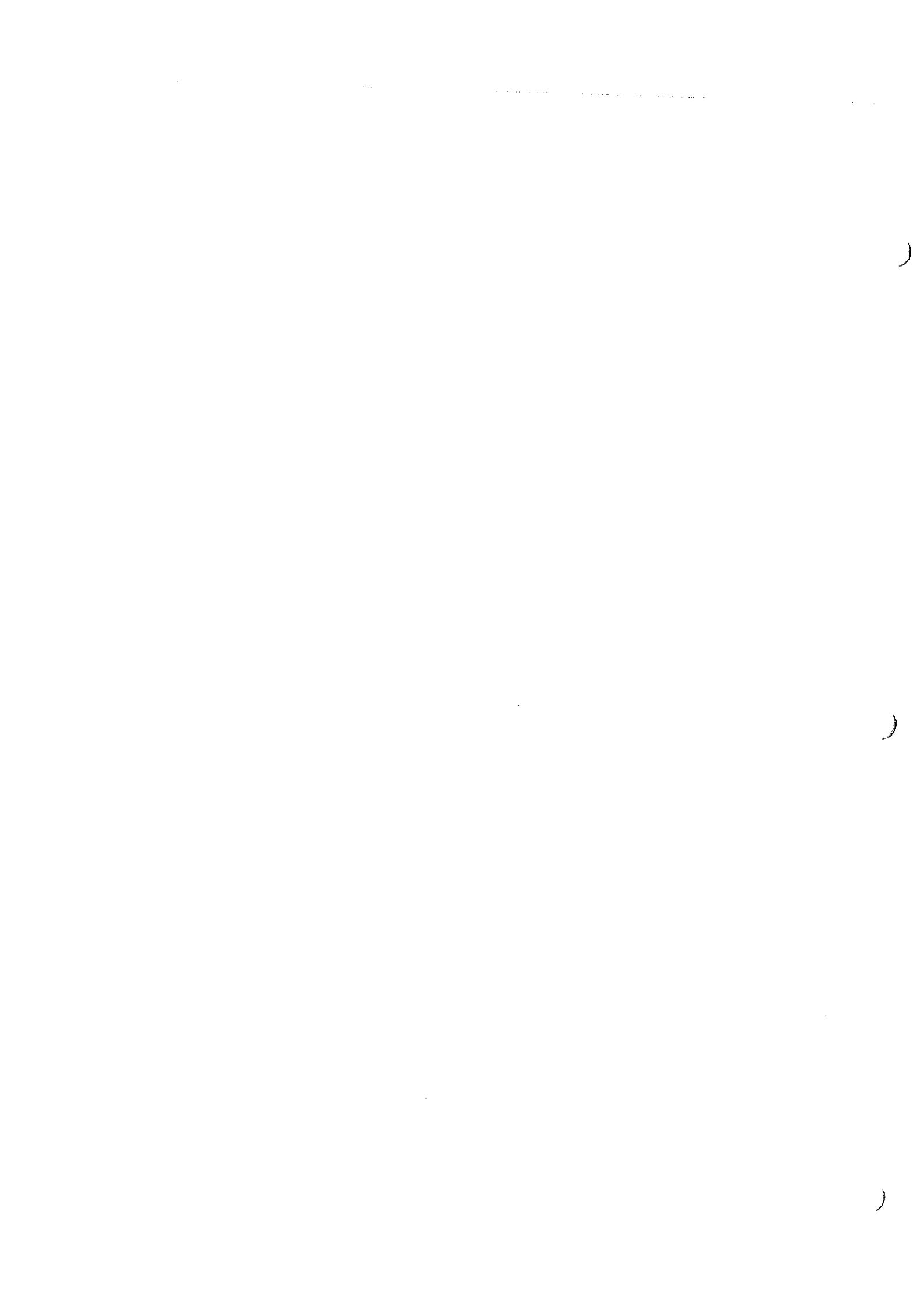
### Data Process Flow:

The following series of figures and descriptions show the flow of data and information through the *SafeStreet* System. The users who control the cases are discussed in detail.

The adjudication process also uses the flexibility and ease of use of the *SafeStreet* system by accessing its schedule of hearings and allowing the hearing officer to review each violation, pronounce judgment or delay judgment with all decisions being fully audited.

Automatic printings of any additional late notices, hearing schedule assignments and changes as well as adjudication judgments and administrative dismissals are all handled by Peek Traffic's *SafeStreet* Office system without user intervention but is totally controlled by the administration screens available to the system administrators.







**Case Creation:**

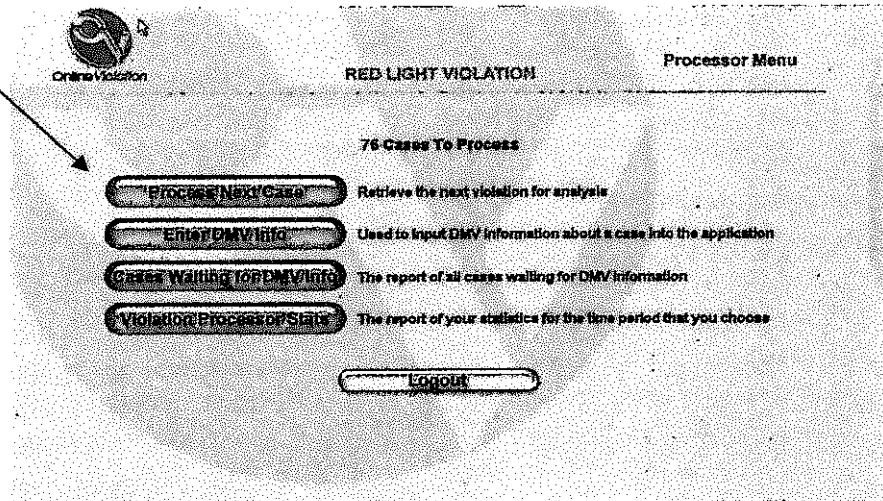
A case is created in the *SafeStreet* system after the images and data are transferred from the data collection center and processed by the back-end programming. All camera and location data are managed by the administrators of the system, allowing for self-management and a minimum amount of interaction with *SafeStreet* personnel. Any data that does not correspond to a valid camera or location is documented in the *SafeStreet* database and saved for possible reprocessing after the control data is manipulated.

Valid cases represent potential violations and are now immediately available to all appropriate personnel for review and approval or rejection. No one person "owns" any location (intersection) or camera allowing for a minimum of backlog as all personnel can be actively and safely working on all unprocessed cases. All images and data are stored with triple redundancy to ensure accessibility to the information at all times.

**Level 1: Peek Traffic Initial Viewer / Reviewer:**

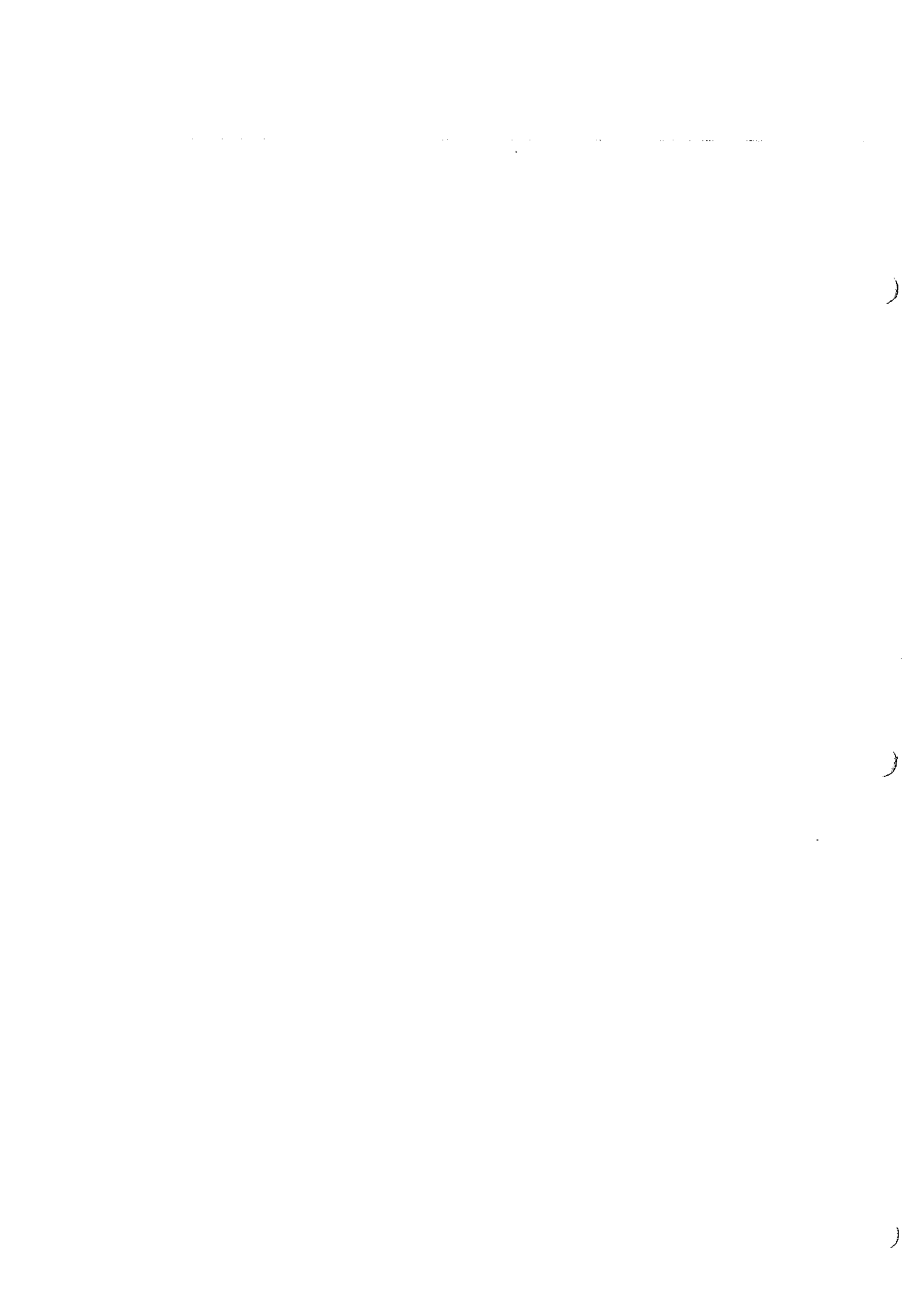
**"Process Next Case"**

*SafeStreet* allows for the flexible use of reviewers to determine the validity of a potential violation, to request DMV information for a valid violation, and to update that information in the *SafeStreet* database. From one level of review up to one hundred, our system provides your city with the choice to accept our standard implementation or create a solution flow that best suits your individual needs.



Each reviewer has access to all cases that have not been processed at their level yet. Once a reviewer starts the *SafeStreet* review process, no other system user can access that case until the reviewer either finishes their work on the case, the case is returned to the queue for someone else to process, or the system returns the case to the queue as part of its constant "cleanup" effort. This provides for data security ensuring no one overwrites another person's work.

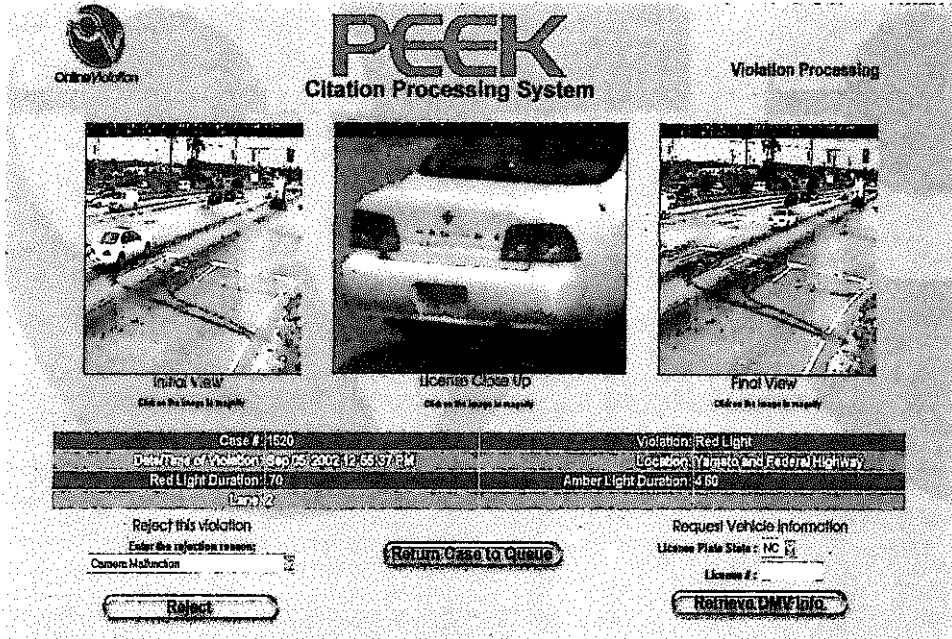






**Level 2: Case Review:**

The reviewer sees the color image of the vehicle before it entered the intersection and another color image after the vehicle has passed into the intersection. A third color close up image of the license plate is also seen between the two color images. Each image has the ability to be enhanced through many different methods such as brightness, gamma, invert color, and contrast. The enhanced image can be saved as secondary evidence. *SafeStreet* will not save another image but will store in its database the parameters that you used to view this enhanced image. This allows for recreation of the secondary evidence based on the original, untouched evidence without producing more images. This preserves the integrity of the evidence in the system.



If the evidence supports a valid violation and the license plate is legible, the reviewer can request DMV information to complete the violation and confirm the vehicle. This can be done in one of four modes.

**DMV Queries:**

Mode 1: Direct access to DMV. A query on our system will directly request information from the DMV of Columbus and a response is immediately recorded in the *SafeStreet* system. Both in-state and out-of-state licenses can be queried. Decisions on a plate/vehicle match can be made while the reviewer is on the case without delay. The *SafeStreet* system can optionally maintain a limit as to how many times the DMV can be queried for each potential violation before an automatic rejection is forced. Every query against the DMV is recorded in an audit trail in order to support abuse prevention.

Mode 2: Direct access to DMV through a terminal and not through the application. All in-state and out-of-state licenses can be pulled up through this terminal. The *SafeStreet* system allows for the manual entry of the matching results into the application for storage in the database.





**Mode 3:** No direct access to DMV information is available. All DMV requests are queued in the *SafeStreet* database for reporting to the local police department. The police officer can either be permitted to have an account in the *SafeStreet* System or can fill out the request form manually - for the purpose of retrieving requests in the system and entering in the results. If the report is filled out, *SafeStreet* personnel can then enter the information into the system.

**Mode 4:** DMV access through a terminal on site is present, however out-of-state licenses are still queued in the system for police inquiry.

The screenshot shows the PEEK Citation Processing System interface. It features two main sections: "Owner's Information" and "Vehicle Information".

**Owner's Information:**

- \* First Name: [Frank]
- \* Last Name: [Smith]
- \* Address: [1234 Main Street]
- Address 2:
- \* City: [Anytown]
- \* State: [North Carolina]
- \* Zip Code: [12345]
- \* County: [Anycounty]

**Vehicle Information:**

- License Plate: [PST1234]
- \* State: [North Carolina]
- \* Make: [Honda]
- \* Model: [Accord]
- \* Year: [1998]
- \* Color: [Blue]

At the bottom of the form are two buttons: "OK" and "Cancel".

This mixed mode combines Modes 2 and 3 to offer this solution when needed.

Due to increased personal privacy and security concerns, it has been Peek Traffic's experience that in-state DMV look-ups are best performed using the City's existing account. Therefore, our proposal assumes that the City of Columbus will request real-time access for Peek Traffic to the Ohio Department of Motor Vehicles (OH DMV) database.

If the evidence does not support a valid violation or if the DMV information cannot match the tag/vehicle, the reviewer can reject the violation using one of the rejection reasons maintained in the system by the administrator.

**Enter DMV Info:**

This functionality allows the reviewer or the police officer (optional) to enter into the *SafeStreet* system the data that is returned by an offsite DMV search. This is supported in modes 2, 3 and 4, but is part of the processing flow in mode 2.

All activity performed by the reviewers and all personnel in the *SafeStreet* system are audited to prevent abuse in the system. All reviewers may view the statistics of what they've done over a specific time period.

1. The first part of the document is a list of names and addresses.

)

)

)



**Cases Waiting for DMV:**

This functionality allows the reviewer to print out a form on which to write the DMV results for the police to investigate. This step is necessary for modes 3 and 4.

**Violation Processor Stats:**

This functionality allows a reviewer to view their performance statistics for a given date range. Any cases opened or acted upon are recorded in the data warehouse and reported here.

Type	Total	Percentage
Cases Opened	176	
Cases Rejected	64	30.66%
Violations Generated	0	0%
DMV Requests	117	68.66%
DMV Information entries	0	0%

**Level 3: City Approver:**

Once a *SafeStreet* violation is approved by the Reviewers, the City Approvers have the opportunity to review the violations and either reject or accept the violation. Any

secondary evidence is available to the City Approvers for review. The City Approver can also further enhance the original evidence but cannot save this secondary evidence.

Case #: 1663  
Date/Time of Violation: Nov 09, 2002 11:28:26 AM  
Red Light Duration: 70  
Lane: 2  
Violation: Red Light  
Location: Lyons and Sample  
Yellow Light Duration: 10

Reject this violation  
Enter the rejection reason:

Approve This Violation  
License State: NC  
License Number: PST1234  
Make: Honda  
Model: Civic  
Year: 1998  
Color: Blue

Buttons: **Reject**, **Return Case to Citator**, **Create Violation**

.....

)

)

)



**Level 4: Supervisor Level:**

The Supervisor has a great deal of functionality at their disposal.

**PEEK**  
Citation Processing System  
Supervisor Menu

- Case Search**: Display violation details based on Citation number, or Citizen's name or Citizen's address.
- View Cases**: Report of all active violations in the system.
- Extend Violation Deadline**: Extend the Due Date for a specific Citation.
- Transfer of Liability**: Transfer of Liability. Assign the citation to a another person.
- Reject Previous Transfer**: Reject a previous Transfer of Liability.
- Violation Dismissal**: Dismiss an already accepted Citation.
- Change Address**: Change Address information on a citation.
- Reprint Notifications**: List of the days printed notifications, allows reprint of selected notification.
- Returned Check**: Enter a returned check and perform needed options on the violation.
- Late Fee Adjustment**: Adjust any late fees on the selected violation.
- Reports**: View System Reports.
- Refund Batch Viewer**: View all city refund batches.
- Violation Processor Stats**: The report of your statistics for the time period that you choose.
- System Messages**: Review system information messages.
- Logout**

**View Cases:**

This functionality allows the supervisor to see the general status of all potential violations in the system. Clicking on the link in each category shows the individual cases and the current level of review.

Viewing the individual potential violation brings up the common review screen allowing the supervisor to take over the violation and immediately approve or reject the violation along with all the functionality present for the reviewers including creation of secondary evidence and DMV information access.

**PEEK**  
Citation Processing System  
Supervisor Menu

Ready to Process	Peak Review	Supervisor Review	Accepted	Rejected	Decision Required	In state DMV	Out of state DMV	Waiting to Print
0	0	0	48	1	0	0	5	0

**Final Reviewer Menu**



.....

)

)

)



**Extend Violation Deadline:**

This functionality allows the Supervisor to extend the first notification deadline for a violation. Once a valid violation number is entered, the *SafeStreet* system asks the user for a number of days to extend the initial due date for the violation. This function can be used multiple times to infinitely extend a deadline, however every alteration of the due date is audited for abuse prevention.

**Transfer of Liability:**

The *SafeStreet* system has the functionality to transfer liability of the violation to the driver where permissible by law.

This functionality allows the Supervisor, to transfer the liability of the violation to the person who was actually operating the vehicle, if so allowed by State Law. The original violation is closed and a new violation is automatically accepted and printed with the new citizen receiving the violation. This new violation references the original violation in the database and references all evidence from the original.

**Reject Previous Transfer:**

This functionality pairs with the previous item as it allows the Supervisor to reject a transfer. This action will close the new transferred violation and open a new violation again referencing the original violation but preventing any further transfers. All due dates start over once a new violation is opened/created.





**Violation Dismissal:**

This functionality allows a Supervisor to dismiss a violation. A dismissal can be authorized either by Peek Traffic or by the City. All dismissals are audited and reported for abuse prevention. A dismissal can only be issued for non-pled violations that have no judgment recorded for them.

**SafeLight<sup>®</sup> RED LIGHT VIOLATION** Supervisor Menu

**Violation Dismissal**

Client Number:	7635 <a href="#">Related Citations</a>	Owner's Name:	All Laundry
Violation Date:	11/19/2002	Address:	557 East 54 Street
Violation Status:	Active	City:	New York
Plea Status:	Open	State:	NY
Violation Notice:	Add Note	Zipcode:	10001

---

Charges and Adjustments:				
Amount	Date	Type	Fee Type	Adjustment type
\$50.00	12/10/2002	Fee	Initial Fee	N/A

---

Payments:						
Amount	Payment Date	Payment Type	Check Number	Check Account Number	Credit Card Number	City Date Status
None						

---

Amount Due: \$50.00			
Notices Sent	Notice Type	Print Date	Due Date
1	First Notice	12/19/2002	03/19/2003

---

Enter the Dismissal Type:    
 Enter the Dismissal Reason:

**Reprint Notifications:**

This functionality allows a Supervisor to reprint a violation notification. This may be due to printer problems, a citizen's request for another copy, or other reasons. The violation in question is displayed in the browser and can be printed directly from the browser.

**Violation Management:**

At this point the violation is created and needs to be managed by the citizens receiving the violations, the clerks who assist in the phone calls and walk-up situations, and the hearing officers.

**Creation:**

Initial violations are automatically created after a set time period, which can be adjusted as necessary. This allows the Supervisor time to correct a mistake before the violation is printed. Second and third notices as well as hearing schedule reminders and judgment records are all created automatically in the *SafeStreet* system without intervention from the operators, whether through the actions of the citizen or their inaction.

**Printing and Mailing:**

Violations, hearing schedule notifications, and judgment records are all printed automatically by the *SafeStreet* system. This printing can occur locally at the *SafeStreet* office or at the *SafeStreet* headquarters and then shipped to the Columbus Office.

.....

)

)

)



Columbus, Ohio  
 Photo Red Light Enforcement System  
 Proposal No. SA 001147JY/FM



Printing of violations is done on pre-printed paper that has all the information regarding the violation that is static (doesn't change with the violation) on the back while the front of the violation is created dynamically by the *SafeStreet* system.

**Citation Back:**

This information will provide the citizens with basic instructions in regard to their citations, such as: how to contact the *SafeStreet* or Columbus Central Office for further information, how to view the citation on-line, other citation viewing information, adjudication scheduling, basic court proceedings, and payment processes.

A toll-free number will also be provided on the back of the citation for citizen call-ins.

**Citation Front:**

The front of the citation will be developed as directed by the City of Columbus.

A sample of a *SafeStreet* generated Citation is provided in Appendix V of this proposal.

**Methods of Citizen Access**

Once the citizen receives the violation, they can respond to the notice in one of three ways: access the *SafeStreet* system through the Internet, mail their response to the City Office, or visit the County Office in Columbus - in person. No matter the method, the *SafeStreet* system will record the activity whether pleading, paying or scheduling \*.

The screenshot shows the 'PEEK Citation Processing System' website. At the top right, it says 'Step 1 Login'. The main heading is 'Please log into the site by entering the citation number and the password.' Below this is a text input field for the citation number and a 'Enter' button. To the right, there is a 'NOTICE OF CITATION' section with details about a violation on '12/22/2002' at '1700 W. Broad St'. There is also a 'SafeLight' logo and a small image of a traffic light. At the bottom, there is a note: 'As you enter the password, be aware that it is easy to mistake a letter "1" for a number "0" and vice versa. Only uppercase letters and numbers are used. If you have a problem with the login, check the password again.'

\* Note: This is the "Standard" process for an active Automated Traffic Enforcement System – Payments would not be handled during the Columbus Pilot Program.





**Citizen Internet Access:**

The citizen can access their information online and review all details. The information displayed on the browser is simple and easy to understand, explaining why they received the violation, what all the facts are and what choices they have, which include continuing to plead online or to pay manually through the mail or in person. The *SafeStreet* system is very easy to use and the citizen can stop using it at any time and continue manually.

**Citizen Mailing:**

As always, the citizen can mail in their plea. Their request for a hearing date, if they plead innocent, can be handled by the City's Customer Service Office by using the *SafeStreet* system. This is handled by the Clerk functions (outlined below).

**Citizen Walkup / Phone-call:**

Instead of mailing in or using the *SafeStreet* system online, the citizen can visit or call a *SafeStreet* Office or the Columbus Central Office in person to plead or pay. Again, this is handled under the Clerk function in the *SafeStreet* system.

**Pleading:**

The two options are guilty or not guilty. These options are again available in the three methods of communication.

**Guilty:**

If the citizen fails to plead either guilty or not guilty in the time frame set up by the city, the judgment is automatically guilty. After the due date has passed, a citizen can plead guilty online, through the mail or in person. In order to plead guilty, a citizen must pay the fine in order to close the case and avoid late fees and a second notice. Using *SafeStreet* online, you cannot plead guilty unless you pay your fine as well.

If paying with check, money order, or cash, the citizen is instructed to either mail in their payment or bring it to the Columbus Office. Only credit cards are accepted online through secure payment pages and a secure payment gateway.

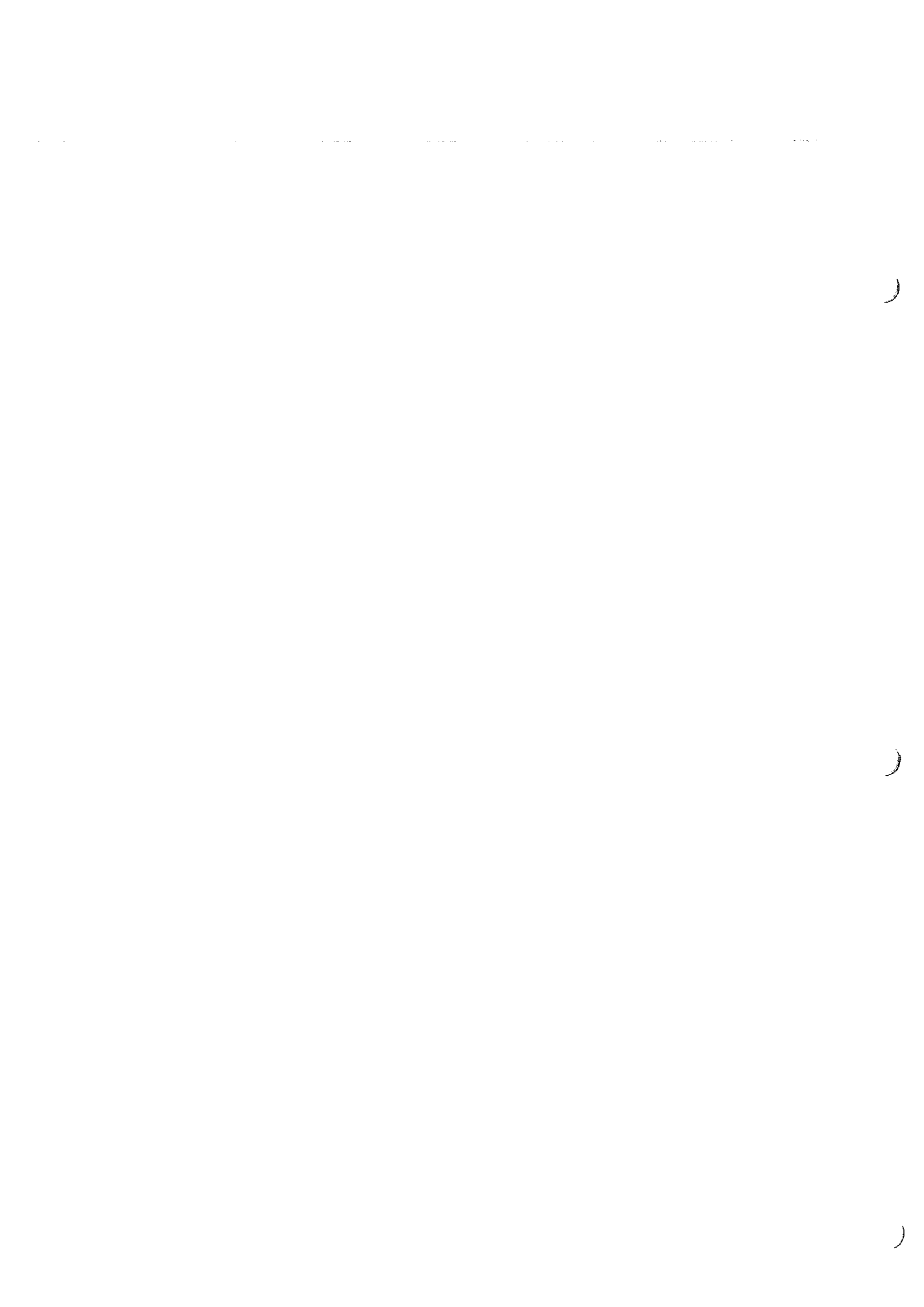
**Online Violation** **PEEK Citation Processing System** **Step 6 - Entering a Plea**

This page explains your pleading options, and the steps involved with each choice.

GUILTY	NOT GUILTY
<p><b>Explanation:</b> By pleading guilty, you are admitting liability and agreeing to pay the citation and any fine.</p> <p><b>Procedure:</b></p> <ol style="list-style-type: none"> <li>Click the button below labeled "I want to plead GUILTY"</li> <li>Pay your fine of \$20.00 using your preferred payment method.</li> </ol> <p><small>Please use the online payment option - you can avoid the entire transaction queue this way. Once your action is complete, you will be notified. Once payment is received, your case will be CLOSED.</small></p>	<p><b>Explanation:</b> By pleading not guilty, you are denying liability and requesting a hearing to determine your innocence or guilt.</p> <p><b>Procedure:</b></p> <ol style="list-style-type: none"> <li>Click the button below labeled "I want to plead NOT GUILTY"</li> <li>Determine the Citation Office nearest to you.</li> <li>Choose the hearing date and schedule your hearing.</li> </ol> <p><small>After scheduling your hearing, you will not be able to change your plea. You will be subject to the rules and guidelines of the hearing process.</small></p>

**Back**



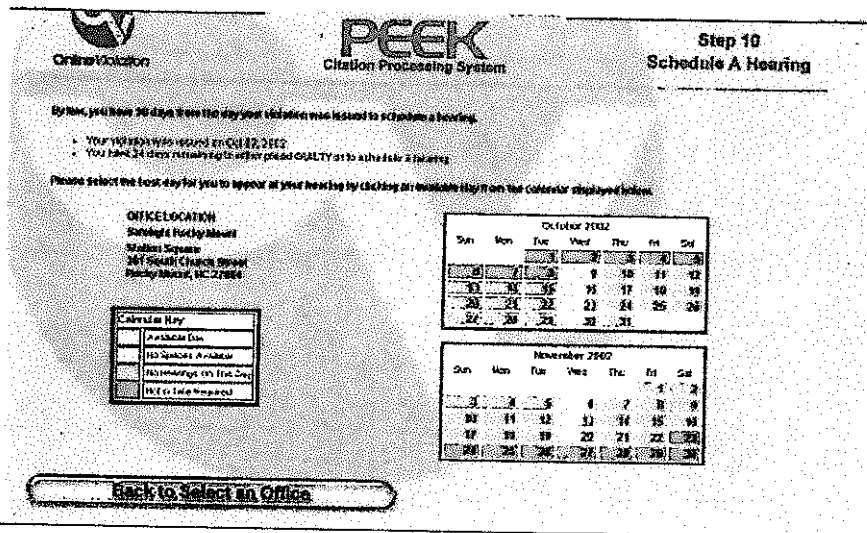
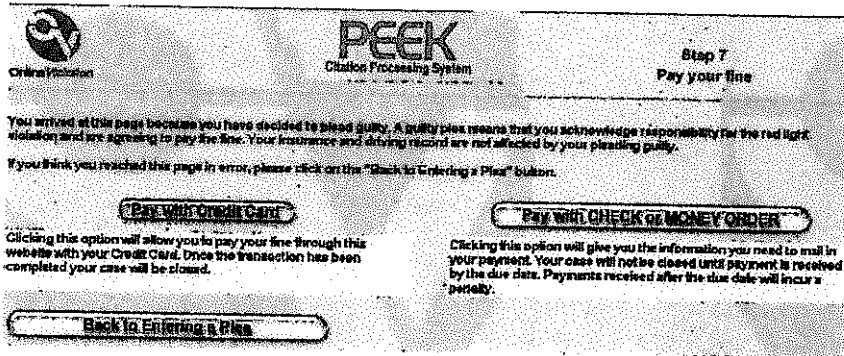




Not Guilty:

A citizen can plead "not guilty" online, in person or by mail or phone. All methods use the *SafeStreet* system.

Optionally, the citizen can offer an explanation for pleading innocent online. This will be shown to the hearing officer during the hearing, whether the citizen appears or not.



The citizen must then schedule a hearing to determine the outcome of the violation.

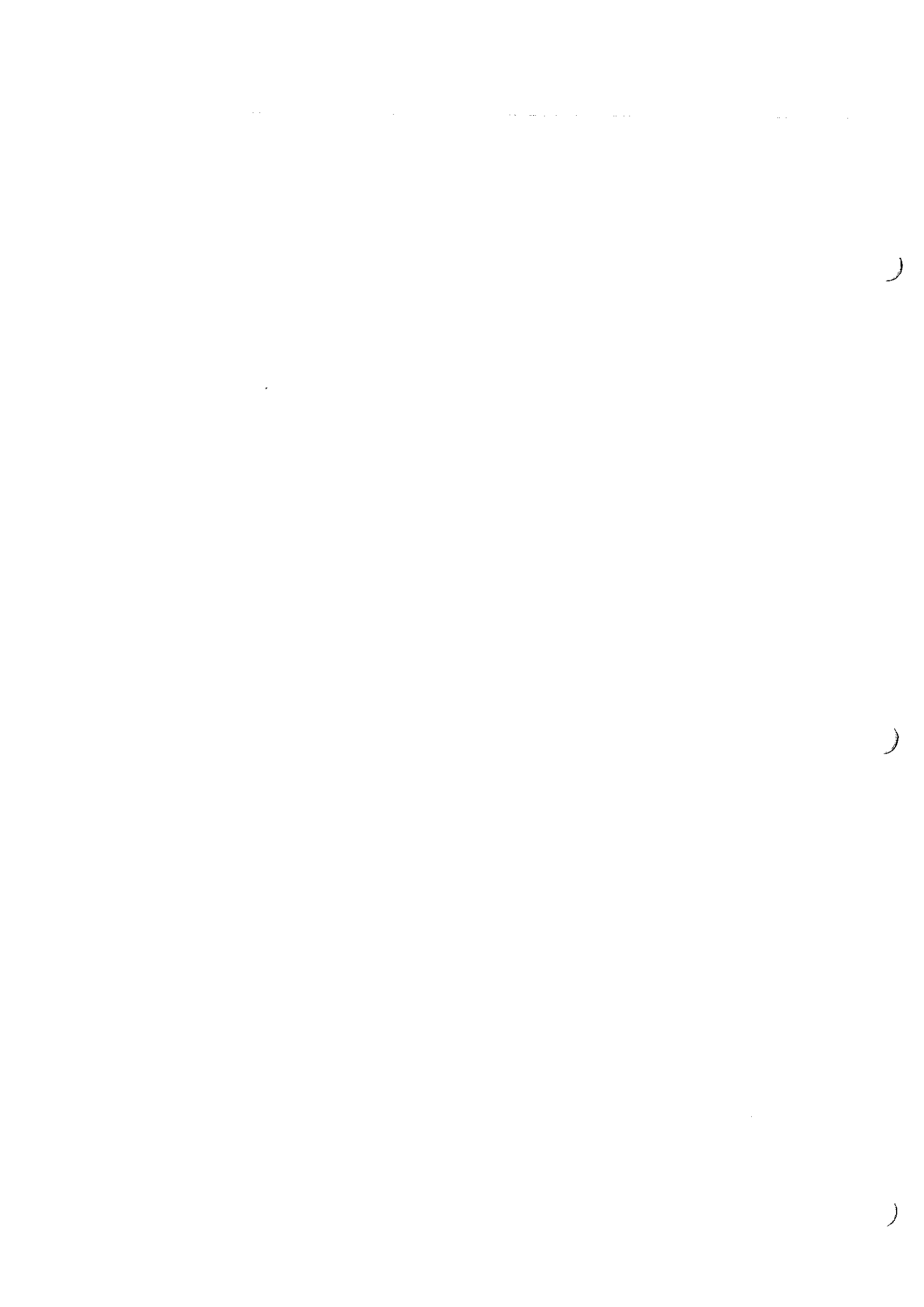
Then the citizen chooses the date. The citizen must plead before their due date but they can schedule their hearing up to their due date and beyond using a configurable number of days.

Change Hearing Date/Time:

Once a citizen has pled innocent, they may either return to the *SafeStreet* system or contact the City's Office in order to change the date of their hearing. The date of the hearing must follow the same rules as the original hearing scheduled. A hearing may only be rescheduled a certain number of configurable times before the reschedule is rejected.

Change Plea:

Once a citizen has pled innocent, they may choose to change their plea to guilty but only if the hearing date has not arrived. The citizen may do this using the *SafeStreet* system over the Internet or by calling or visiting the City's Office. Once the plea has been changed to guilty, the citizen may not change their plea again. No further payments are required, as the citizen's bond will be transferred in the General Ledger to a payment of their fine.





**Hearings:**

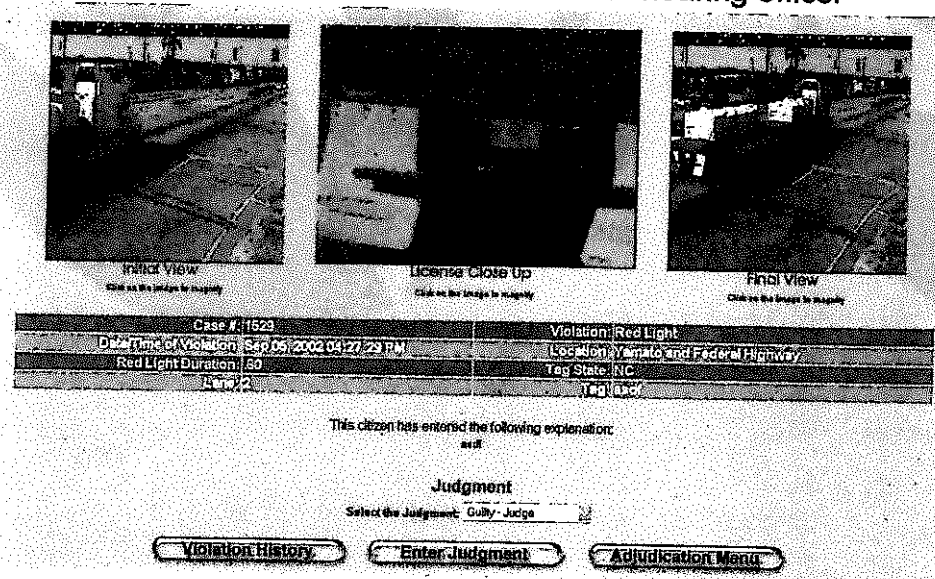
At the hearing, the hearing officer logs into the *SafeStreet* system with the assigned username/password.

The day's schedule is displayed. The hearing officer can then select cases to view.

The evidence is presented as it was to the reviewers and to the citizens viewing their case online. The ability to view the secondary evidence is included in the hearing officer functionality. The hearing officer is also presented with any innocence explanation that the citizen might have given online.

The ability to review online provides the necessary evidence for court.

The hearing officer can also view the history of the violation which includes any citizen logins, who approved the citation, and the various date information for the violation. At this point, the hearing officer can either enter a judgment from the list of valid judgments and reasons or they can return to the adjudication menu and enter a judgment at a later time.



Receipts for judgment are not given by the hearing officer but are automatically generated by the system and printed automatically in the appropriate location for mailing to the citizen.

**The City's SafeStreet Office:**

The City's *SafeStreet* office staff also handles an additional functionality for all mailed-in, called-in, and in-person visits and performs other various support functions.

The staff can handle walk-in and call-in pleading through the case search functionality, which prompts for a single case and offers the choice of pleading guilty or not guilty.

Pleading Guilty requires payment, although payment can be made through credit card, cash or check or money order. Only credit card payments are audited through the General Ledger while all payments are recorded in the General Ledger.

)

)



The mailed-in pleadings can be handled in batch mode, rather than single searches through the use of the last three functions. Presorting the mailed-in pleadings will allow for easiest use of these functions which take the staff through the process of recording each citizen's plea with the method of payment and storing certain important pieces of information.

**Dismissals:**

Dismissals are, in essence, not guilty judgments occurring after the issuance of a violation. Dismissals are authorized either by the City or a *SafeStreet* Supervisor. This functionality is only available for citations that are not pled.

***Reports:***

Various reports are available in the *SafeStreet* system and many more can be added as the need arises. The standard reports are:

<b>Daily Deposit Report</b>	This report shows all daily and date-ranged monetary deposits made to the authorized merchant account. Deposits are broken down by payment method (credit card, check, or cash)
<b>Performance Summary</b>	This report shows statistical information regarding in- and out-of-scope rejections for the population of possible violations over a given date range. The report has drill down capabilities that provide a scientific means for optimizing camera output.
<b>Issued Citations Report</b>	This report shows totals of citations issued and citations rejected and breaks down into individual active locations for a given date range.
<b>Billing &amp; Collections Rpt</b>	This report shows all citations for a given year or month and the percentage of fines and penalties that have been paid, giving percentages and dollar amounts. It also lists all citations sent to the authorities for collections after the final notice due date has passed.
<b>Payments by Citation No.</b>	A comprehensive report of all payments made by citation number for a given time period.
<b>Overpayments &amp; Innocent Refund Report</b>	This report documents all monies due to citizens from either overpayment or from not guilty judgments. This acts as instructions to the City for check cutting.



.....

)

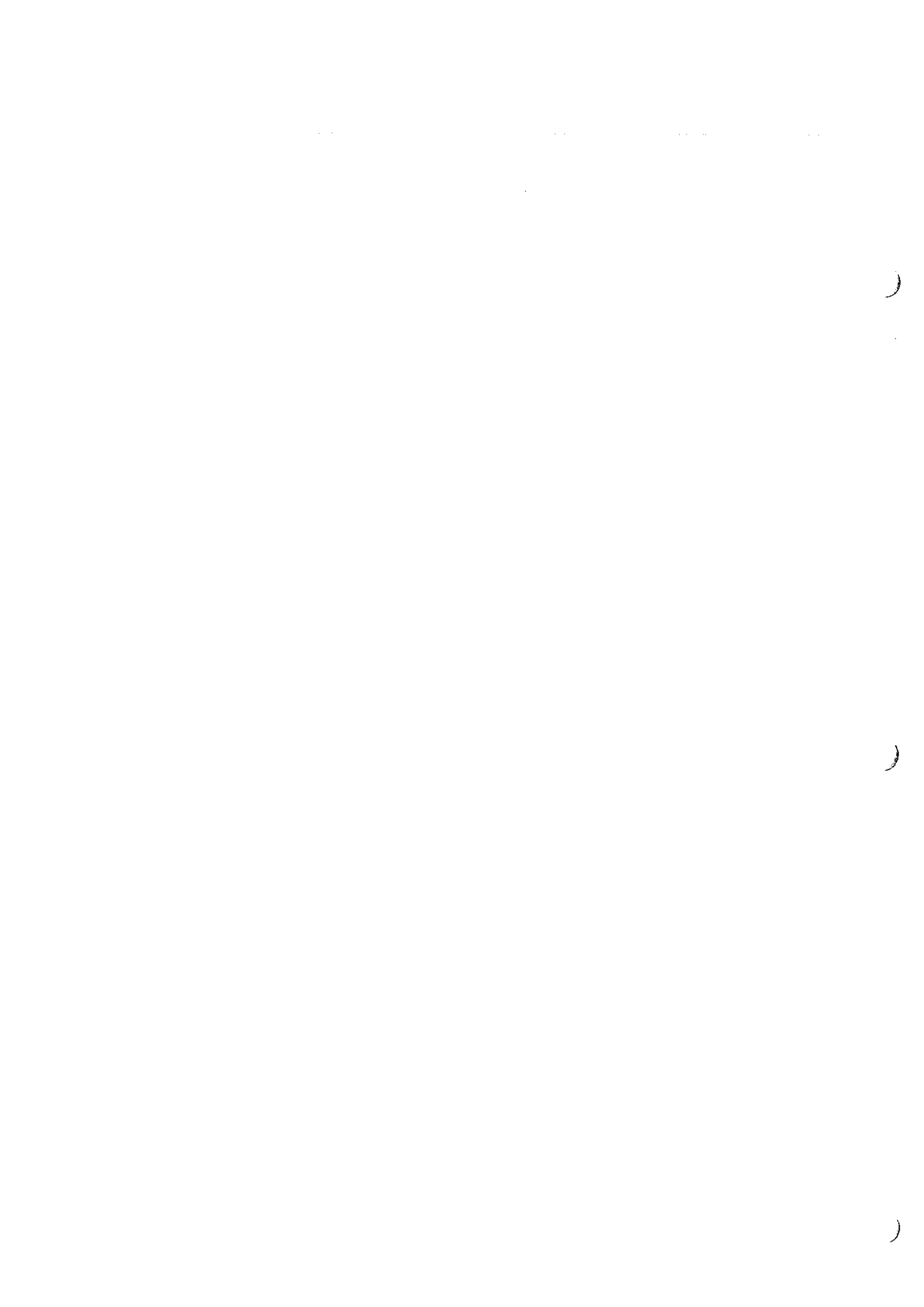
)

)



 <b>Online Violation</b>	 <b>Citation Processing System</b>	<b>Reports</b>
<b>General Reports</b>		
<a href="#"><u>Supervisor Reversal Report</u></a>		View incidents that have been changed by the supervisor.
<a href="#"><u>Duplicate Violators Report</u></a>		View tags that have more than one occurrence.
<a href="#"><u>Violations by Speed Report</u></a>		View citations broken down by MPH.
<a href="#"><u>Violations by Redlight time Report</u></a>		View citations broken down by redlight time.
<b>Financial Reports</b>		
<a href="#"><u>Daily Deposit Detail Listing</u></a>		View payments and payment details by date range.
<a href="#"><u>Daily Adjustment Report</u></a>		View all adjustment details by date range.
<a href="#"><u>Incident Register Listing</u></a>		View all incidents received by date range.
<a href="#"><u>Citation Aging Report</u></a>		Citation aging.
<b>Collection Reports</b>		
<a href="#"><u>OV Batch Report</u></a>		View OV generated batches. (OV to PAM).
<a href="#"><u>Collection Agency Activity Report</u></a>		View PAM to OV activity.
<a href="#"><u>Collection Aging Report</u></a>		View balance totals by date categories
<a href="#"><u>Collection Performance Report</u></a>		View what has happened to a citation sent to collections
<b>Day Range Reports</b>		
<a href="#"><u>Daily Deposit Report</u></a>		View daily payments entered into the system, for selected dates.
<a href="#"><u>Payment by site Report</u></a>		View Payments, issued citations for each site.
<a href="#"><u>Refund Report</u></a>		View all closed citations that are due a refund, for selected dates.
<a href="#"><u>Collections Report</u></a>		View Citations that are currently in collections.
<a href="#"><u>Citation Report</u></a>		View Incidents/Citations per location for selected dates.
<a href="#"><u>Citations Due Report</u></a>		View citations that have a due date within the selected dates.
<a href="#"><u>Performance Report</u></a>		View the performance of all cameras in the system, for selected dates.
<a href="#"><u>Scope Exception Report</u></a>		View Incidents/Citations/Rejects per location for selected dates.
<a href="#"><u>Activity Audit Report</u></a>		View activity by date or by person.
<a href="#"><u>Adjudication Activity Report</u></a>		View cases heard, cases that need to be heard for selected dates.
<a href="#"><u>NSF Report</u></a>		View all violations that have returned checks by selected date range.
<b>Weekly Reports</b>		
<a href="#"><u>Weekly Citation Report</u></a>		View Incidents/Citations per location per week.
<a href="#"><u>Weekly Scope Exception Report</u></a>		View Incidents/Citations/Rejects per location per week.
<b>Month Range Reports</b>		
<a href="#"><u>Payments Received by Citation Report</u></a>		View payments received into the system.







## Training

Peek Traffic will develop and administer a customer service and technical training program for Peek Traffic employees on the project and City personnel. Training will be provided as needed to the City of Columbus personnel.

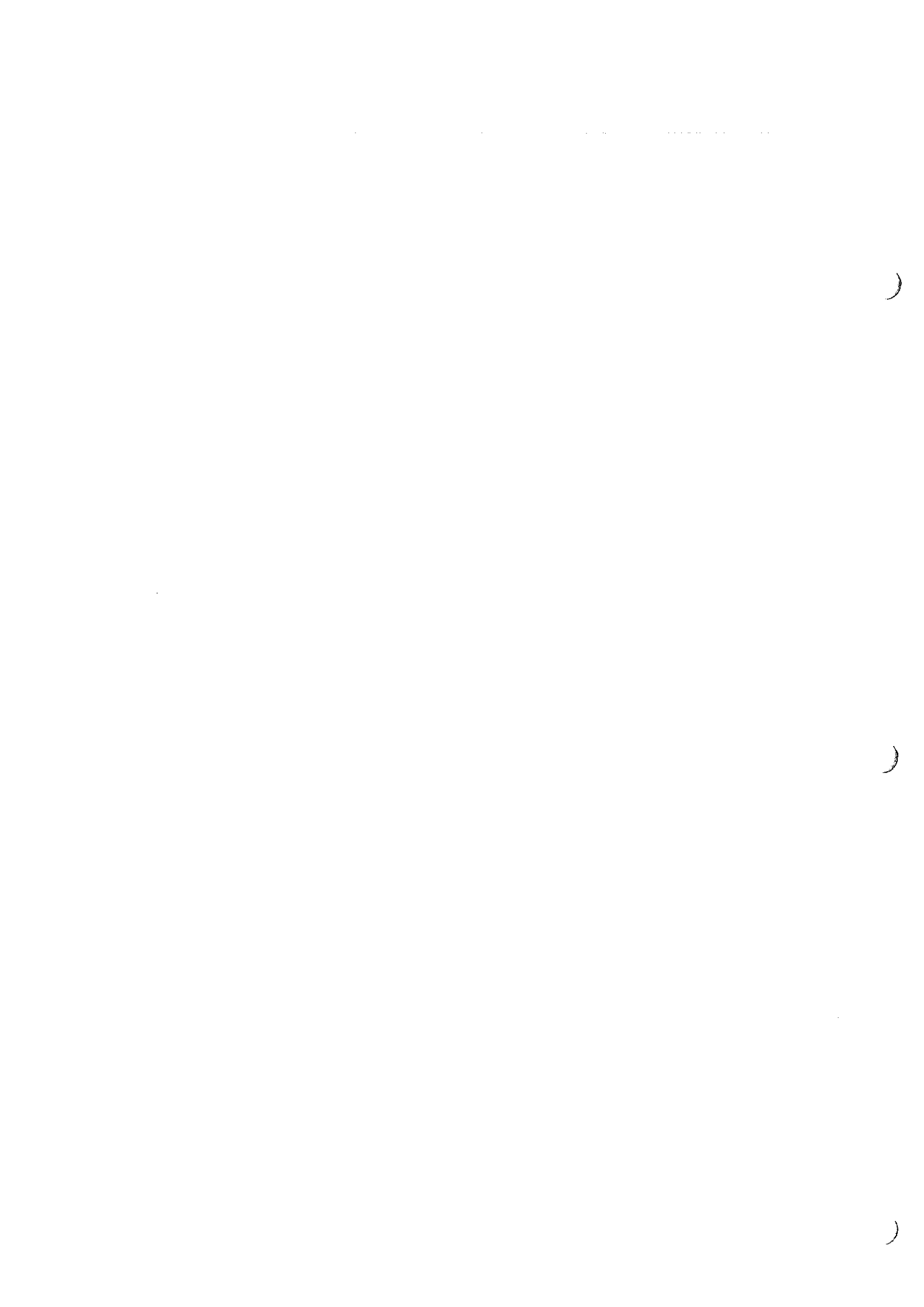
Peek Traffic will train City managers, supervisors, operators and maintenance personnel. In summary, the training provides an Overview of Automated Red Light Enforcement Operations, which includes: history, effectiveness, operating principles, advantages and limitations.

Peek Traffic draws upon its experience and provides real life examples of the issues that personnel can expect to face while operating the program. Next, Peek Traffic gives detailed training to appropriate personnel on how to interpret images and image data to ensure a high degree of accuracy is achieved in processing violations. Identification and recognition of the necessary features of an image and matching image elements to data is an integral part of this training.

Peek Traffic also trains supervisors and operators on the correct classification of exceptions that may preclude issuing a citation, and feedback methods to Peek Traffic management and maintenance personnel. Training is accomplished in phases, from the top down.

### Training will include:

- Camera Equipment Orientation
  - Academic & Field Training
  - On-line Citation Processing Methodology & Procedures
  - Adjudication On-line Training
  - Adjudication Real-time Training
    - Citation Viewing & Documentation
  - Lessons Learned from other Programs
  - The Red Light Camera as Part of a 3E Safety Approach
    - Enforcement
    - Engineering
    - Education
- 
- Ways to Keep Public Informed and Supportive
- 
-





## Public Information and Education

One of the most important factors in a red light enforcement program is wide spread public acceptance. The Peek Traffic team has experience developing programs that have received exceptional levels of public support. Organizations such as the AAA have criticized Red Light Programs but have commended the Howard County, Maryland Program – in which, a Peek Traffic team member developed – and will assist the City of Columbus with implementation of their Red Light Program.

This is best achieved with an active, ongoing public awareness program. Peek Traffic works closely with each red light enforcement city to develop a public awareness program prior to the Red Light Safety Program “going live.” Peek Traffic’s team has supported similar, successful public information programs, including programs for Charlotte, Wilmington, High Point, Greensboro, and Rocky Mount, North Carolina. Peek Traffic can develop a public relations program that may perform the following components of this program:

- Work with City of Columbus Officials, or the appropriate City Officials, the Police Department, and the City’s Public Relations staff to ensure that all PR materials deliver a consistent message that the City is implementing the Red Light Program to make streets and driving safe for its’ citizens.
- Develop a brochure with the City/County’s logo that can be incorporated in the County/City’s mailings to citizens as well as used as handouts at any municipality-sponsored functions. Printing and mailing of brochures will be the responsibility of the municipality – unless the City would like Peek Traffic to provide this service – in which case, additional funding for the additional costs will have to be provided.
- Prepare a News Release for the City’s kickoff campaign for the new cameras - as the first Red Light Enforced Intersection becomes operational.
- Provide the City of Columbus with a static web page explaining the benefits of a Red Light Enforcement System in an educational format for citizens to understand the entire process from the capturing of a violation through the payment and appeals process.
- Provide a short video presentation describing the program.

---

### Additional Options:

The following Public Relations activities can also be provided, although they are not covered by the pricing in this proposal.

- 
- ~~The creation and hosting of a dedicated website describing the overall program and statistical data.~~
  - Presentations at Local Civic gatherings, High Schools and recommended Drivers-Ed courses.
  - Distributions of program awareness printed materials.



## Point-by-Point Answers from the Columbus RFP

### 3.0 Requirements

3.1 The CoC expects each proposal to be based upon a turnkey operation, which shall mean the offeror shall provide all the necessary equipment associated with the system, and all necessary staff to install, operate and maintain same as well as providing all necessary services including, but not limited to the following.

3.1.1 Please describe how your system photographs vehicles allegedly not stopping for a red light traffic signal.

#### Toroid Sensor:

The system monitors the red light by sensing the current flowing through the traffic signal itself. Toroids, (small, high quality current transformers) allow Peek Traffic to know precisely when the red signal is illuminated. The toroid ensures that the enforcement system only monitors the light but cannot control it in any way – even by accident or system failure.

#### Radar:

Triggering the system will utilize the RS-240 radar sensor and proprietary algorithms to ensure that all vehicles that violate the red signal are identified.

This unit has been successfully deployed worldwide in all weather conditions and has shown to be more reliable than loop based technologies. The multi-vehicle targeting (21 times per second) allows for extreme accuracy in open road multi-lane environments. The radar system can be optionally configured for dedicated right or dedicated left turn enforcement. Additionally, because it is a true tracking system it is capable of monitoring through the turn allowing for less false triggers than traditional loop based technologies.

Each citation will have three color images, one of the vehicle before entering the intersection showing the signal light red, one of the vehicle in the intersection showing the operator of the vehicle, and a third close-up image of the vehicle's license plate.

The Peek Traffic Team can also deliver reliable detection using inductive loops or video track technology.

#### Rear Image Only:

The toroid detecting the red signal and the RS240 radar sensor detecting the violating vehicle are wired to a single red light camera. The camera unit is a Nikon D1X (5.4 Megapixel) camera. The camera is positioned on the approach to the intersection and is placed in a location designed to optimize effective rear registration plate capture.

)

)

)



Peek Traffic can provide a City defined delay time after the signal turns red before a violation can be recorded, as required in most cities. The red light camera system will take two high resolution color images of each violation. Peek Traffic proposes that the first image is taken at or around the point of violation, prior to the stop bar, at each intersection, with a subsequent image taken once the vehicle has entered the intersection. The time taken between images will be site specific and adjustable. Triggering the system will utilize the RS-240 radar sensor and proprietary algorithms to ensure a high percentage of enforceable images. Each citation will have three color images, one of the vehicle before entering the intersection showing the signal light red, one of the vehicle in the intersection showing the light still red, and a third close-up image of the vehicle's license plate.

#### **Front & Rear Imaging:**

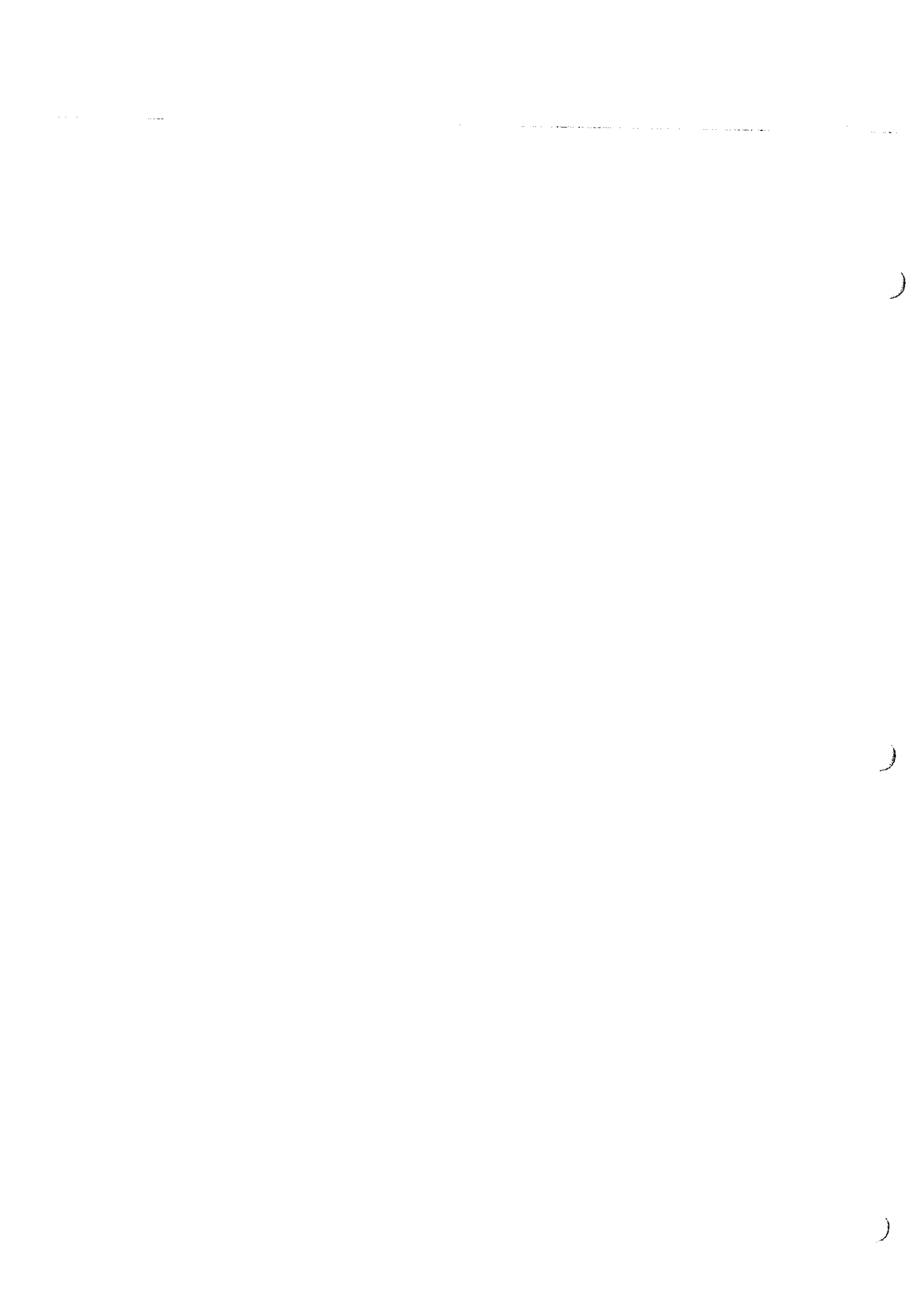
If the City of Columbus prefers to use a front and rear image system, PEEK Traffic can deliver this type of system as well. The toroid detecting the red signal and the RS240 radar sensor detecting the violating vehicle are wired to the two red light cameras. In this configuration the two Nikon D1X cameras are positioned for optimal image capture. The front camera system is fully capable of capturing license plate close-up and driver image close-up. The camera is positioned on the approach to the intersection and is placed in a location designed to optimize effective rear registration plate capture.

Peek Traffic can provide a time delay after the signal turns red before a violation is recorded as a violation, as required in most cities. The red light digital camera system must take at least two color images to provide evidence a violation has taken place. A third image will be taken of the front of the violating vehicle for driver image and front license plate close-ups.

Peek Traffic proposes that the first image is taken from the rear of the vehicle, at or around the point of the violation, prior to the stop bar, at each intersection – with the red phase of the traffic signal in the image. A second image taken from the rear of the vehicle, identifying the violation has taken place - after the rear of the vehicle has cleared the stop bar and entered into the intersection (also in view of the red phase of the traffic signal). From either/both of these images, a secondary “close-up” image can be created - as evidence of the tag information from the rear license plate tag.

The third photo will then be taken with a frontal view of the vehicle in violation, in the intersection. From this image, secondary “close-up” images can be created – providing evidence of the license tag and the person behind the wheel of the vehicle in violation.

The time taken between images will be site specific and adjustable.







3.1.2 Please describe how your system obtains vehicle registration information.

Processors, trained in the handling of the specific types of violations, view the potential violations and either, reject the cases for a specified and audited reason, or request DMV information in the situation of a valid potential violation. Once matched DMV information is secured, the information in the database is updated and the processors continue the process of approving the violation.

*SafeStreet* allows for the flexible use of reviewers to determine the validity of a potential violation, to request DMV information for a valid violation, and to update that information in the *SafeStreet* database. From one level of review up to one hundred, our system provides your city with the choice to accept our standard implementation or create a solution flow that best suits your individual needs.

If the evidence supports a valid violation and the license plate is legible, the reviewer can request DMV information to complete the violation and confirm the vehicle. This can be done in one of four modes.

**DMV Queries:**

**Mode 1:** Direct access to DMV. A query on our system will directly request information from the DMV of Columbus and a response is immediately recorded in the *SafeStreet* system. Both in-state and out-of-state licenses can be queried. Decisions on a plate/vehicle match can be made while the reviewer is on the case without delay. The *SafeStreet* system can optionally maintain a limit as to how many times the DMV can be queried for each potential violation before an automatic rejection is forced. Every query against the DMV is recorded in an audit trail in order to support abuse prevention.

**Mode 2:** Direct access to DMV through a terminal and not through the application. All in-state and out-of-state licenses can be pulled up through this terminal. The *SafeStreet* system allows for the manual entry of the matching results into the application for storage in the database.

**Mode 3:** No direct access to DMV information is available. All DMV requests are queued in the *SafeStreet* database for reporting to the local police department. The police officer can either be permitted to have an account in the *SafeStreet* System or can fill out the request form manually - for the purpose of retrieving requests in the system and ~~entering in the results. If the report is filled out, *SafeStreet* personnel can then enter the~~ information into the system.

**Mode 4:** DMV access through a terminal on site is present, however out-of-state licenses are ~~stilled~~ queued in the system for police inquiry. This mixed mode combines Modes 2 and 3 to offer this solution when needed.

Due to increased personal privacy and security concerns, it has been Peek Traffic's experience that in-state DMV look-ups are best performed using the City's existing

)

)

)



account. Therefore, our proposal assumes that the City of Columbus will request real-time access for Peek Traffic to the Ohio Department of Motor Vehicles (OH DMV) database.

If the evidence does not support a valid violation or if the DMV information cannot match the tag/vehicle, the reviewer can reject the violation using one of the rejection reasons maintained in the system by the administrator.

**Enter DMV Info:**

This functionality allows the reviewer or the police officer (optional) to enter into the *SafeStreet* system the data that is returned by an offsite DMV search. This is supported in modes 2, 3 and 4, but is part of the processing flow in mode 2.

All activity performed by the reviewers and all personnel in the *SafeStreet* system are audited to prevent abuse in the system. All reviewers may view the statistics of what they've done over a specific time period.

- 3.1.3 Please describe, in detail, how your system will interface with the CoC traffic signal control equipment.

**Toroid Traffic Signal Monitor:**

The toroid is a simple means of interfacing to the signal controller for red light applications using a current transformer to sense the current to the lamps or LEDs in the signal head.

The primary advantages of this method are:

- It prevents the enforcement system from exerting any control over the traffic signal, even in the event of an enforcement system malfunction.
- Since current flows only when the signal light is illuminated, the light will only be "seen" as red by the camera system, when it can be seen by the driver of the vehicle.
- It reduces exposure to hazardous voltages in the controller cabinet and cable routes, as well as in the enforcement system.
- ~~There is no need to disconnect this interface when doing any maintenance of the enforcement system or of the controller cabinet, as the electrical signals are in the (harmless) millivolt range and can have no adverse effect on either system.~~

~~Other methods, such as relays, do not provide these advantages. The Toroids are installed in the controller cabinet and will work with both incandescent and LED signal heads.~~

.....

)

)

)



**Power Supply:**

Camera System power requirements: 110VAC – 15 amp service, provided from the traffic signal cabinet with dedicated breaker at the camera system enclosure. A UPS is included in the enclosure in the event of total power failure.

**Telecommunications:**

The Peek Traffic telecommunications requirements: DSL or Cable Modem.

- 3.1.4 Please describe how your system reviews each photograph for visibility.
- 3.1.5 Please describe how your system matches the make and model with the obtained registration information.
- 3.1.6 Please describe how your system performs quality control in the form of a second opinion as to the violation (this will be a DoP review).

**Multiple Review Levels:**

A flexible progression of reviews is the next step in the *SafeStreet* system. Peek Traffic’s standard is to have an Initial Viewer (“Processor”) perform the first review session followed by an additional but different “Reviewer.” At this point, the City of Columbus would have authorized personnel review the approved violations.

These review steps are intended to provide a “checks and balances” process where reliance is not on one individual but rather on several individuals for the review processes.

**SUGGESTED REVIEW LEVEL SCENARIO:**

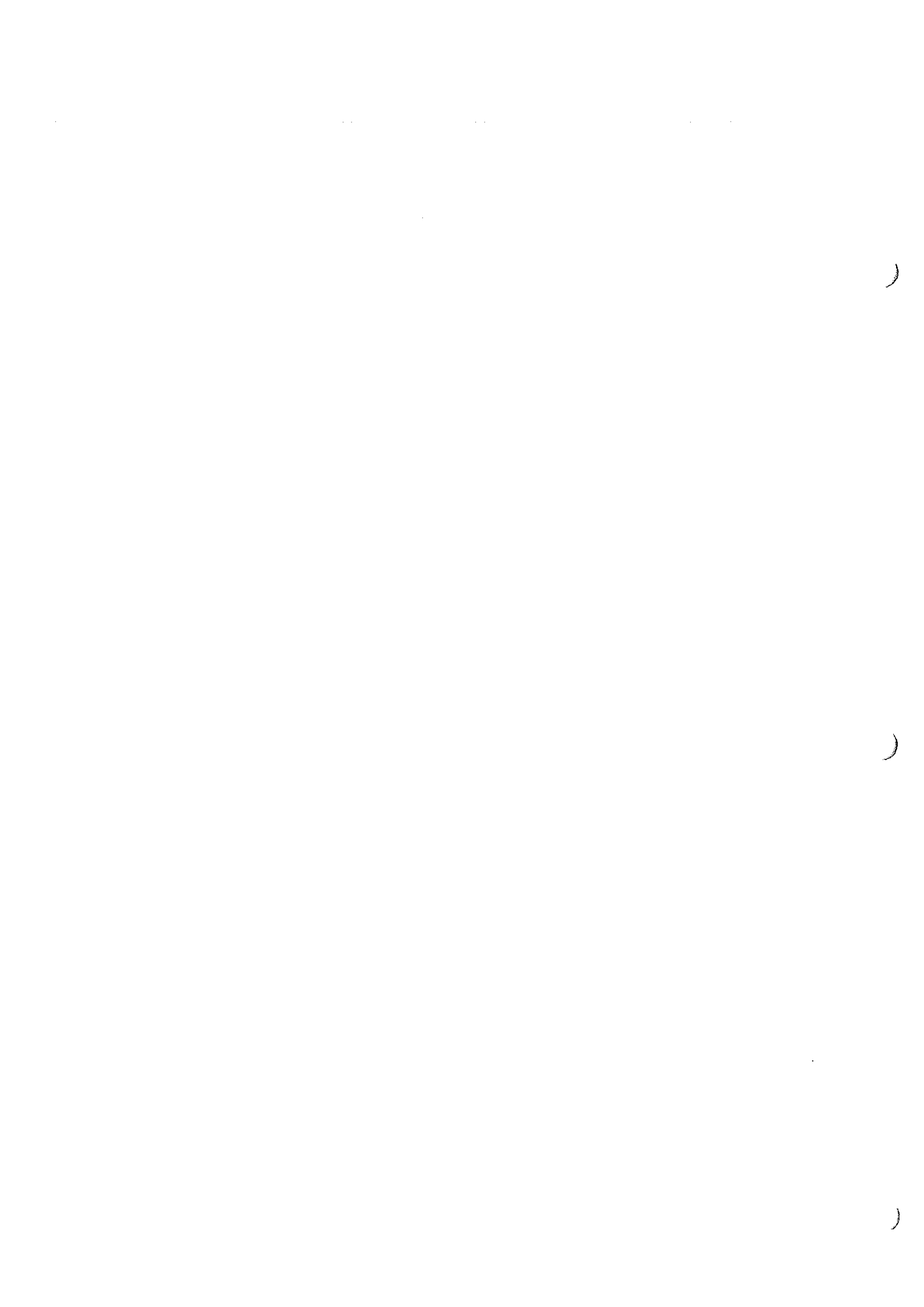
Level 1:	PEEK	PROCESSOR
Level 2:	PEEK	1 <sup>st</sup> REVIEWER
Level 3:	CITY	2 <sup>nd</sup> REVIEWER
Level 4:	PEEK	CITATION CREATED & MAILED

*The standard levels of review are modular and can be easily customized for each city installation.*

The initial Processor (Level 1) determines if the incident meets violation criteria. If the images support a violation, the Processor enters the tag number and state, obtains the DMV information and enters the make and model associated with the DMV record.

This case moves on to Level 2 (the 1<sup>st</sup> Reviewer). The Reviewer then visually matches the Make & Model of the vehicle in the images with Make & Model obtained from the Ohio DMV. If it is a match, the case then goes to the 2<sup>nd</sup> Reviewer (Level 3).


Depending on contract, the 2<sup>nd</sup> Reviewer is normally a police officer (or other city appointed official) to authorize the violation and create a citation. The authorization of the violation would include 1) Confirm violation criteria is met, and 2) Confirm Make & Model match (visually).





Columbus, Ohio  
 Photo Red Light Enforcement System  
 Proposal No. SA 001147JY/FM






# SafeLight<sup>SM</sup>

## Charlotte


**Supervisor Menu**

Current Status: Waiting for a Decision



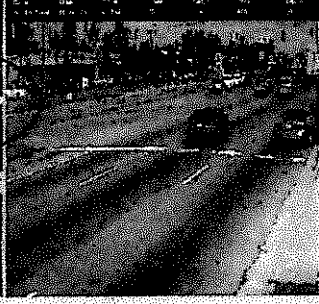
Initial View  
Click on the image to magnify

**Create Closeup**



License Closeup  
Click on the image to magnify

**Create Closeup**



Final View  
Click on the image to magnify

**Create Closeup**

Case #: 3052930	Violation: Red Light
Date/Time of Violation: Jun 13 2011 09:09 AM	Location: Independence, Atlanta
Red Light Duration: 40	

Reject this violation

Enter the rejection reason:

**Reject**

**Add Note**

Previous Searches

Approve This Violation

License State : NC

License Number :

Make : HONDA  
Model : CIVIC  
Year : 2000  
Color : W/A

**Create Violation**

**Return Case to Queue**

Request Vehicle Information

License Plate State : NC

License # :

**Retrieve DMV Info**

**Violation History**

)

)

)





- 3.1.7 Please describe how your system generates a citation, with photograph, and mailing to the registered owner of the vehicle that performed the violation.

After approval of the violation by the City Reviewer (Level 3), the citations are automatically printed and are then mailed to the citizen. If the City Reviewer process the case before 3:00 PM, the citation will go out the same day (provided it is not a USPS holiday).

Please see Appendix II for Citation Examples.

- 3.1.8 Please describe how your company will meet Statement of Auditing Standards (SAS) 70 requirements for this project.

Although Peek Traffic has developed extensive procedural guidelines for the SafeStreet Customer Service Office and the SafeStreet Field Technicians, the existing contracts Peek Traffic currently has in place with other cities do not require adherence to SAS 70 requirements. As the City of Columbus will require the Red Light vendor awarded this contract to adhere to the requirements as set forth by the Statement of Auditing Standards (SAS) 70 guidelines, Peek Traffic will implement SAS 70 procedures if awarded the Red Light contract with the City of Columbus when so mandated. In addition, Peek Traffic's contract with the City may specify right of audit for the City and its auditors to address this requirement.

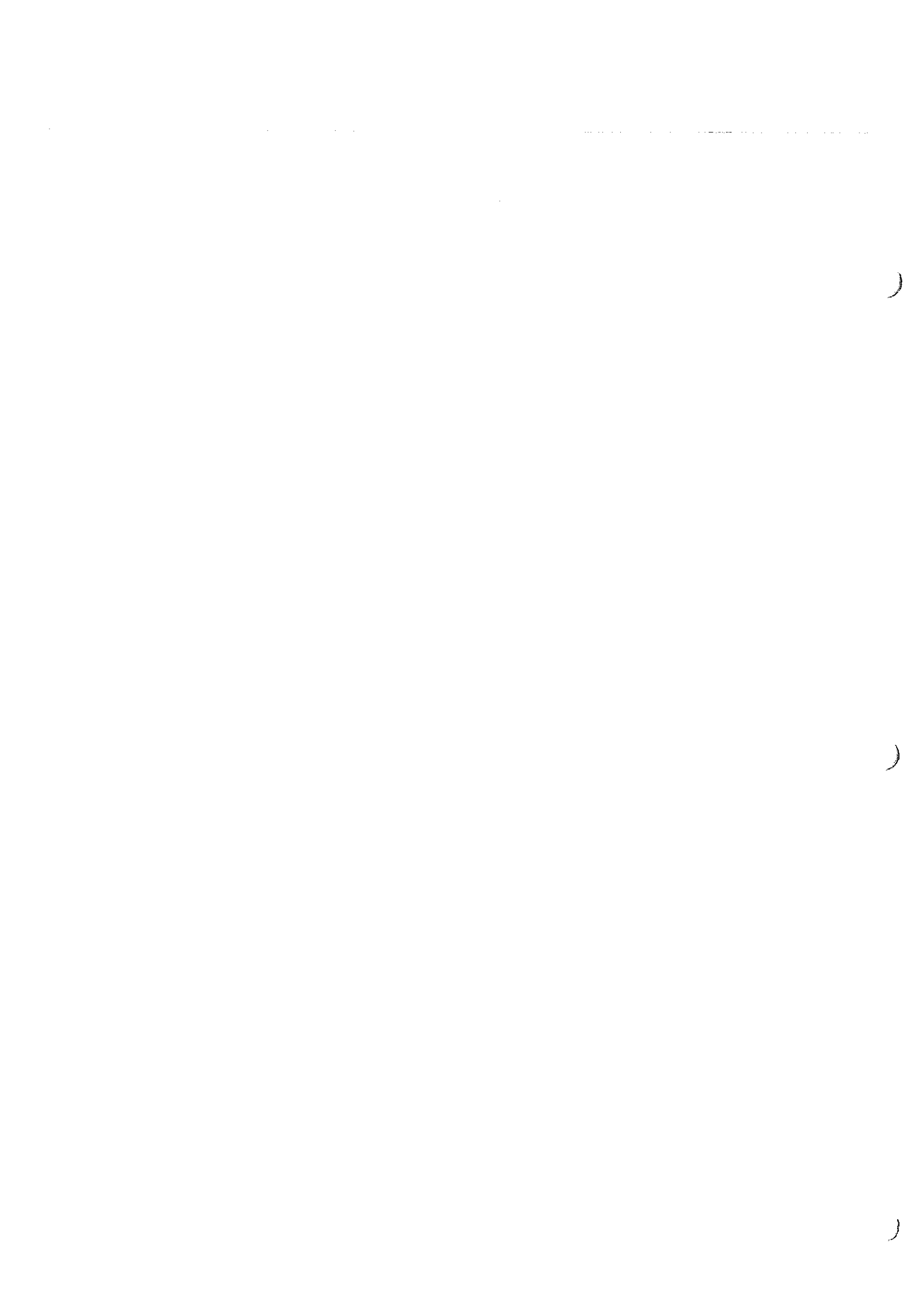
- 3.1.9 Please describe how your system transfers electronic files of citation information between the CoC's court system and the offeror.

The adjudication process also uses the flexibility and ease of use of the *SafeStreet* system by accessing its schedule of hearings and allowing the hearing officer to review each violation, pronounce judgment or delay judgment with all decisions being fully audited. The court schedule in *SafeStreet* will be linked to the City's system so that data entered into either system will be visible to all users. It is also recommended that Peek Traffic installs a dedicated PC for court use. This would better facilitate the presentation of evidential materials.

- 
- 3.1.10 Please describe how your system processes service of citations not responded to after the mailing.

---

Currently the system is designed to generate two follow-up notices after the original citation has been sent to the citizen. The citizen is given 30 days after the original citation and another 30 days for notice to respond. If after 3 attempts (90 days), there continues to be no response from the citizen, the case goes to "Collections."





The exact structure of citation and notices and the number of days per notice is determined by the city. Peek Traffic then adjusts the system to automatically generate each level accordingly.

- 1) Original Citation (30 days)
- 2) "Failure to Comply Notice" (30 days)
- 3) "FINAL NOTICE" (30 days)
- 4) Sent to Collections

3.1.11 Please describe how your system provides court testimony of contested citations.

Peek Traffic normally uses its own personnel for this function, and will provide personnel whenever direct testimony is required. However, it is almost never required once police and court personnel are adequately trained in evidence packages.

The Peek Traffic Team includes experts on the camera system operation, telecommunication issues, encryption issues, procedural issues. We have Information technology experts and law enforcement professionals available to support the City in court.

Peek Traffic will provide the City with training for police and court personnel. This training will ensure that City personnel thoroughly understand how the system works, how evidence integrity is maintained and will prepare personnel for red light camera issues raised in other courts.

Please see Appendix III for a Sample Court Evidence Package.

3.1.12 Please describe how your system provides for a service center facility.

To ensure a high level of customer service for the citizens of the City of Columbus and to minimize the City personnel's day-to-day involvement in the management of the *SafeStreet* program, the following staffing resources will be available to administer the *SafeStreet* program in the City of Columbus:

---

**Peek Traffic's SafeStreet Office Process:**

- 1 - A Peek Traffic Processor processes the violation
- 2 - A Peek Traffic Reviewer views the violation & obtains DMV Info
- 3 - A City Official views the violation
- 4 - A Peek Traffic Supervisor views the violation
- A Citation is created & mailed to registered vehicle owner
- Time-frame from violation-to-mailing is 24 - 48 hours

.....

)

)

)



**SafeStreet Office Personnel:**

Citation Processing Analysts: Daily Citizen Calls, Payments, Mail, Citation Viewing, Processing, and DMV Searches

Citation Processing Supervisor: Final Citation Reviewer & Citation Processor

Field Technicians: Site Installation, Daily System Maintenance (for all Cameras)

Program Supervisor: Daily Supervision of Clerical & Technical Staff, Liaison to the City of Columbus, Provide Testimony for Adjudications ~ (as required)

**SafeStreet Office Hours:**

The days and hours of the *SafeStreet* office operations will be finalized upon award of contract. The expected hours of operation are:

Monday through Friday: 8:00 AM to 5:00 PM  
 Excluding Ohio State Observed Holidays

3.1.13 Please describe how your system will provide reports to CoC and describe those reports.

*SafeStreet* reports are available online, 24/7/365 without delay. There is never a delay for data compilation or preparation. Reports can be printed directly from any web-enabled PC, emailed or copied into any application for local analysis. Reports can be automatically emailed.

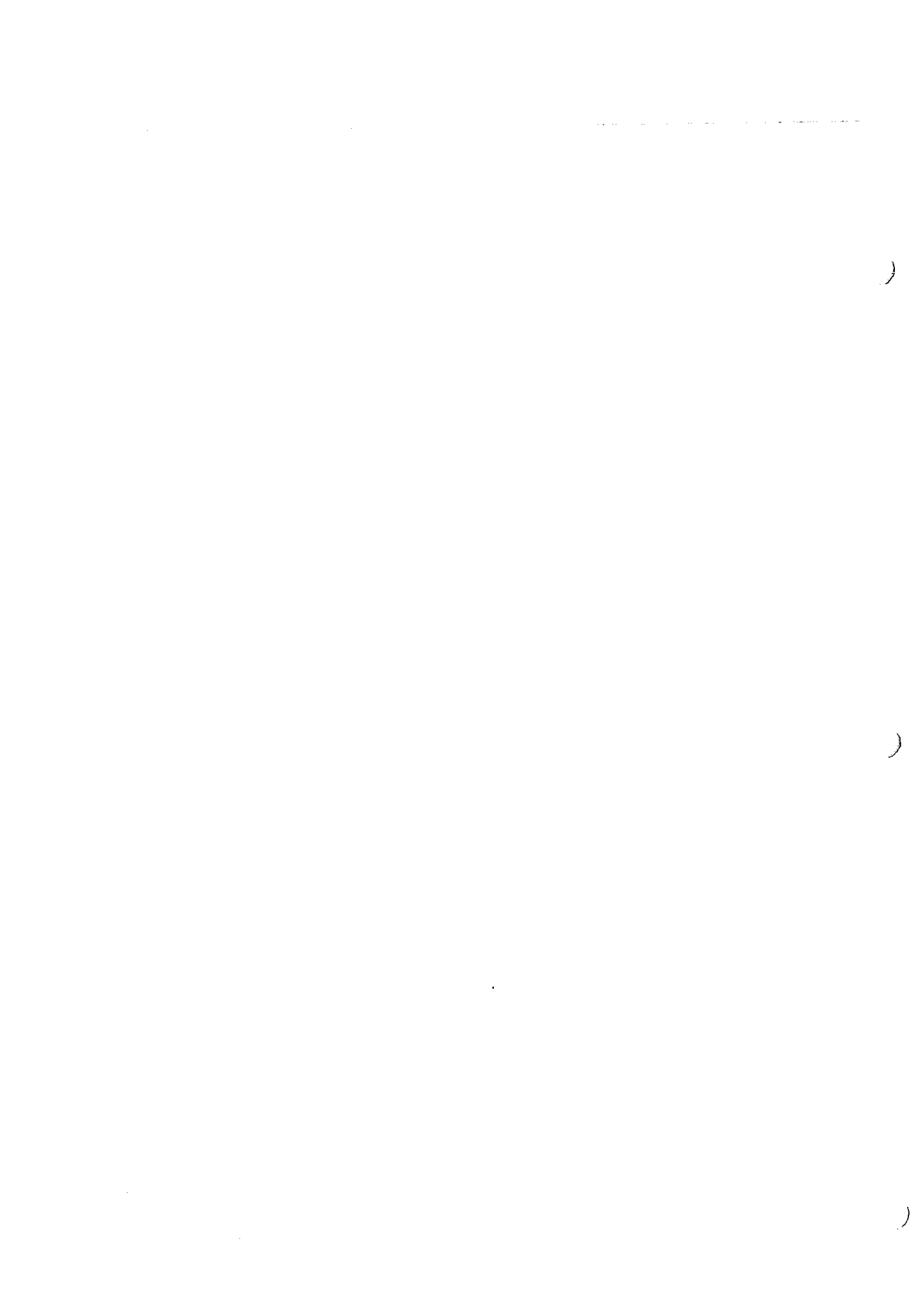
Overall, the *SafeStreet* system is the easiest, most flexible and most economical system available to handle your automated traffic enforcement needs.

There are many types of reports generated by Peek Traffic's *SafeStreet* system. These reports are described in detail under the appropriate areas earlier in this section.

Reports include (but are not limited to):

- ~~Maintenance Logs~~
- Operational Reports
- Accounting / Revenue Reports

~~Please Note: The City of Columbus can attain copies of all financial reports from the web-based system at any time. The types of Financial Reports will be mutually agreed upon and determined upon award of contract.~~





3.1.14 Please provide detailed information on your service level agreements for maintenance, installation, de-installation, repairs and response.

Peek Traffic's local distributor is Traffic Control Products, 4565 Glen Brook Road, Willoughby, Ohio 44094 (Phone: 937.416.2676). Upon award of contract, Peek Traffic will be staffing a permanent technical support center in the City of Columbus.

**Maintenance:** Peek Traffic developed and utilizes a web-based technical information system to manage maintenance on its Red Light Camera Programs. This on-line approach assures that all technical personnel, whether they are managers or technicians, in Columbus or in other program offices, have continuous (24-hour) access to current maintenance status and activity at every camera system. Peek Traffic has had to respond to equipment damaged by vehicular crashes and from vandalism. Peek Traffic also develops good working relationships with its contractors, providing immediate payback as they have responded quickly to the unexpected in returning a system to operation (e.g., cables accidentally cut by a third party).

Camera Relocation:

***The radar camera system was designed for ease of relocation. If the intersections have similar lane configurations, the unit could be moved and fully operational in less than one workday.***

Quick to Install or Relocate (usually attaches to existing pole or mast arm, only one small cable to interface)

- Easy to adjust (point and go, simple type-ins set detection points)
- Easy to relocate
- Adapts quickly to changes in road markings
- Highly accurate (self calibrates before each measurement)

Daily Operation

Peek Traffic's Automatic Red Light Enforcement camera system operates 24-hours a day, seven days a week. All equipment has been designed to minimize maintenance time while maximizing safety. Since the Peek Traffic Camera System uses fewer cameras than most systems, overall reliability and simplicity is improved.

Procedures

~~The Peek Traffic system has proven to be extremely reliable. Our experience has shown the Peek Traffic cameras have proven to have a greater than 99% up-time. Due to remote diagnostics and notification capabilities of our camera systems on the few occasions that the cameras have needed physical repair, our response time through resolution has been under three (3) hours. Reported failures and anomalies are logged and acknowledged within two hours of notification or discovery during normal business hours. Peek Traffic guarantees operational restoration of a system malfunction within 48 hours after notification, unless extreme weather conditions prevent safe transit to site location. Our pricing model includes manpower, a maintenance van, and spare parts~~

)

)

)





appropriate for the number of sites installed for maintenance and camera moves to shell sites. If troubleshooting indicates equipment replacement is required, spare parts are available within 24 hours.

The Operations Manager on a 24/7 basis will coordinate all emergency responses. Any other significant concern (such as an imminent data problem) will be addressed in priority as judged by the Operations Manager.

Please describe how you will be able to locally manage our project on a day-to-day basis (attend meetings, deal with problems, make expeditious decisions, etc.).

An Operations Manager will be assigned to work closely with the City of Columbus and the *SafeStreet* Customer Service Center employees to ensure that the daily management operations are handled, employees are trained and issues are either handled or escalated properly.

Scheduled meeting will be attended by the appropriate personnel. This may include the Director, Operations Manager, Government Safety Solutions Manager, Field and/or Office Supervisor – as appropriate.

3.1.15 Please describe how your Photo Red Light system is equipped to detect a violating vehicle, activate the camera system, and produce color images of the vehicle front and rear.

**The SafeStreet Camera System is equipped with:**

- RS-240 Radar Sensor (for vehicle detection)
- Toroid Sensor (for traffic signal detection)
- Commercial 5.4 megapixel Digital Camera (for two color images of the violation)

Should the City of Columbus desire both front and rear photography, the first camera is located prior to the traffic signal (for rear photography) and another camera system is placed after the traffic signal – facing the traffic (for frontal photography).

Pricing has been provided (in Section 4) for both scenarios.

3.1.16 Please describe how your system is capable of clearly photographing and recording the identification of the driver of the vehicle that is reasonably ~~believed to be operating the vehicle that violated the red traffic signal.~~

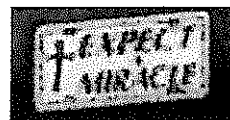
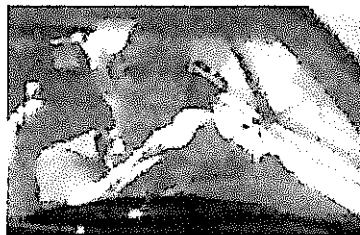
The camera system that is placed after the traffic signal and facing the oncoming traffic is placed to specifically capture the frontal view image of the tracked vehicle. Close-ups are then generated from this image to “zoom in” on the desired part of the image. This could be either the driver or the front license plate.

.....

)

)

)



3.1.17 Please describe how your system's cameras will obtain a clear image of the rear of the vehicle so as to clearly identify the rear license plate.

The Peek Traffic SafeStreet Camera System is placed prior to the traffic signal facing away from oncoming traffic (the rear of violating vehicles) to capture the two violation criteria images. The first photo is taken of the vehicle before the front tires cross the stop bar. The second image is taken after the entire vehicle has passed over the stop bar and is in the intersection. Both photographs will show that the traffic signal is red.

A third "tag shot" image is then created by Peek Traffic's *SafeStreet* Level 1 Processor from either Image A or Image B.

.....

)

)

)



Columbus, Ohio  
 Photo Red Light Enforcement System  
 Proposal No. SA 001147JY/FM



3.1.18 Please demonstrate how your system's images are clearly discernible and visible to the naked eye without the use of enhancement equipment.

The initial view for the *SafeStreet* Level 1 Processor begins with Images A & B in place. After determining that the case meets violation criteria, a tag close-up is created from either Image A or Image B. After creating the close-up "tag shot" image, the processor enters the tag information into the field provided – as shown in the series of images below.

Initial View:

The screenshot shows the 'SafeLight Charlotte' interface for 'RED LIGHT VIOLATION'. It features two main image panels: 'Initial View' on the left and 'Final View' on the right. Below each image is a 'Create Closeup' button. A central text prompt reads 'Please create the license closeup'. At the bottom, there is a data entry section with a table of violation details and several action buttons.

Case #: 3360799	Violation: Red Light
Date/Time of Violation: Apr 07, 2014 11:23:39 AM	Location: 11th & Brevard
Red Light Duration: 7.90	

Buttons and fields include: 'Reject this violation', 'Enter the rejection reason:', 'Return Case to Queue', 'Request Vehicle Information', 'License Plate State: [NC]', 'License #:', 'Retrieve DMV Info.', 'Reject', and 'Add Note'.

.....

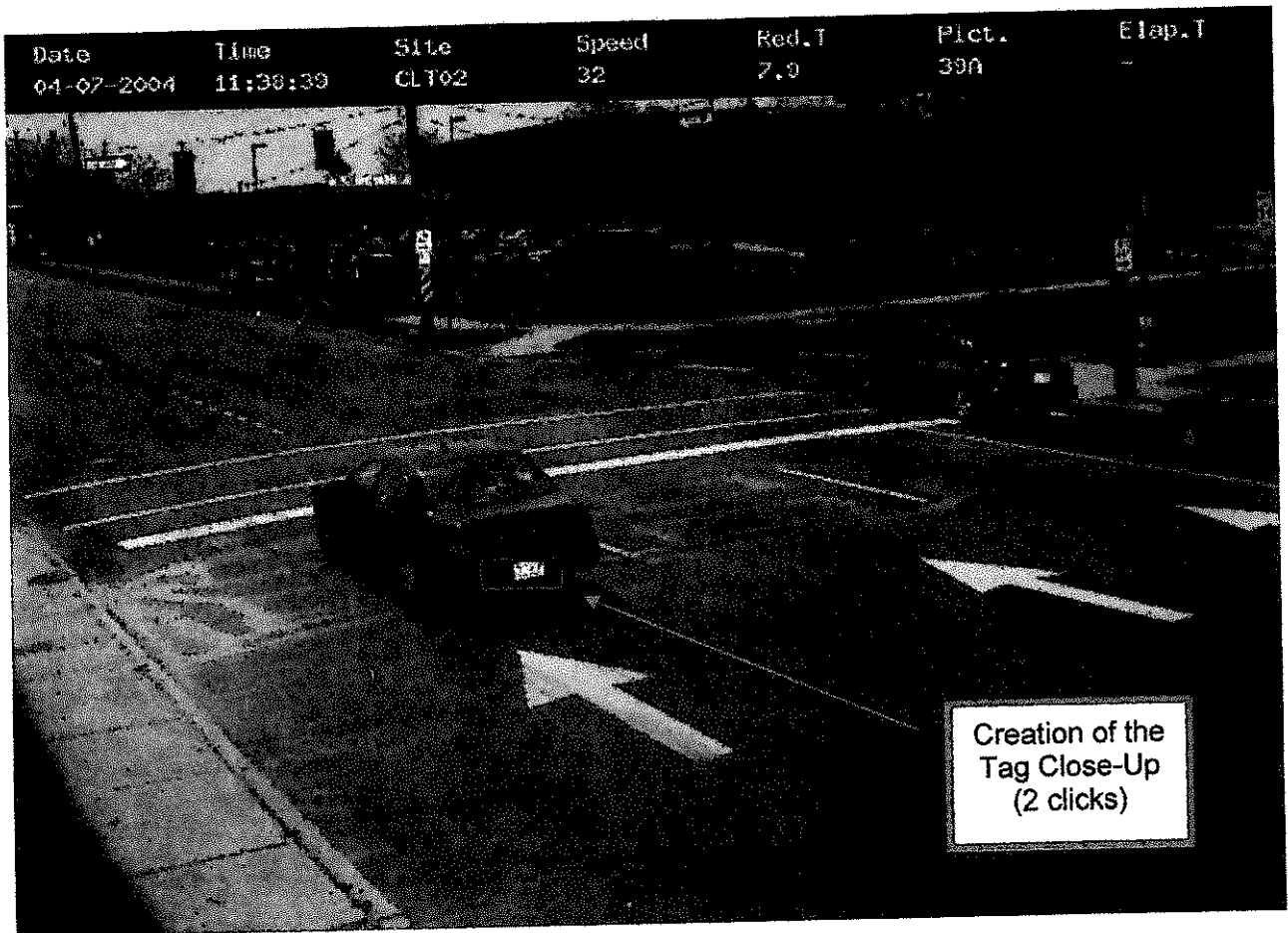
)

)

)



Tag Close-up Creation:



.....

)

)

)





Columbus, Ohio  
 Photo Red Light Enforcement System  
 Proposal No. SA 001147JY/FM



Images A & B, Tag Close-Up and License Plate Information Entered:

**SafeLight Charlotte**  
 RED LIGHT VIOLATION

Online Violation      Violation Processing

**Initial View**      **License Close Up**      **Final View**  
 Click on the image to magnify      Click on the image to magnify      Click on the image to magnify

**Create Closeup**      **Create Closeup**

Case # 5368798	Violation: Red Light
Date/Time of Violation: APR 07 7:01:11 AM	Location: I-75 & I-87/85
Red Light Duration: 7.90	

Reject this violation  
 Enter the rejection reason:

**Reject**      **Add Note**      **Return Case to Queue**

Request Vehicle Information  
 License Plate State:       **Retrieve DMV Info**  
 License #:

The camera system proposed for Columbus Ohio is currently achieving a 93% in scope issuance rate in Charlotte, North Carolina. The high issuance rate is achievable due to the high reliability of the camera system and pixel density of the images.

)

)

)



- 3.1.19 Please describe how your system is capable of consistently photographing drivers and license plates regardless of weather conditions, glare, materials used to obscure the license plates from clear view at various viewing angles or any other means used for interference or avoidance.

The Peek Traffic Camera System is designed to operate in all expected weather from desert heat to arctic conditions, and is condensation resistant. Currently, the camera system is in operation from northern Sweden to the Middle East and has not suffered any environmental issues. Additionally, the Peek Traffic camera uses commercially available polarizing and ultra violet to reduce reflective glare.

Site setup is also a critical factor in its effectiveness. Intersection geometry, including road width, lane configuration and speed limit, general traffic flow patterns (such as turning vehicles) are the initial factors. Construction issues such as available real estate, power, existing poles, buildings, private property, overhead and underground restrictions due to existing installations, and future approved construction are mitigating factors.

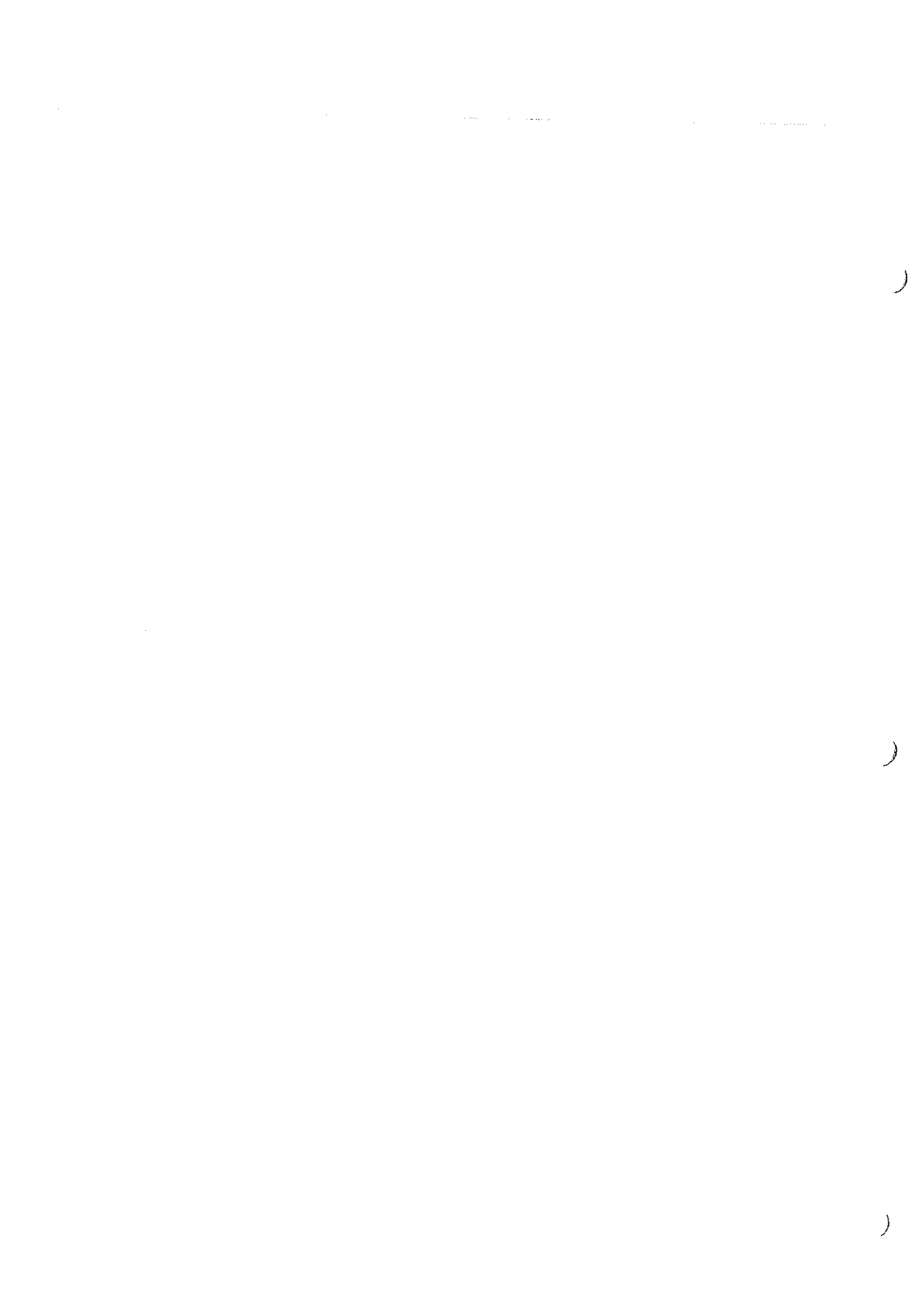
Additionally, changing lighting conditions influence photographic images and picture background scenes must be considered to determine correct camera placement and setup. Each site is different and will require the application of a particular solution set (combining camera and flash position, image and exposure settings, and various optical filters).

***Peek Traffic Solutions minimize nearly all the issues noted above. Expert equipment placement, setup and operation are keys to success. The high quality images can be brightened, darkened, color balanced and otherwise adjusted for viewing to yield the best chance of detecting the necessary features of the photographic evidence.***

High resolution digital photography – Although wet film has historically produced crisp images, the latest digital cameras produce such high-resolution images that it is indisputably the best choice.

Additional features that a digital image gives you include:

- The ability to transfer digitally
- Continuous 7 X 24 uptime
- ~~• No need to change film magazine – eliminating potential traffic and safety issues~~
- The ability to digitally enhance photos to reduce the effects of environmental conditions (i.e. sun glare, snow, rain, fog)
- ~~• Faster citation issuance – no need to process film. Citation processing can usually be reduced to a 24-hour issuance time.~~





3.1.20 Please describe how your system is capable of performing internal calibration tests for accuracy and functionality. The CoC is desirous of the following:

Test failures must prevent further operation of the unit.

The internal test should provide a visual and/or auditory signal clearly indicating the operational accuracy or lack thereof.

A series of error messages must be displayed to inform the operator of the problems with the system, while in the deployment mode.

Peek Traffic's dual Doppler radar Camera System equipment communicates continuously with the central office servers. The maintenance technician monitors camera system operations and documents any problems and repairs in an on-line log. Additionally, the centralized software continually & remotely monitors, through the use of SMTP and MIB's, the health of the camera system.

All information, including pictures, signal data, speed, time, location, etc., is stored for later retrieval. *Since the information is digitally recorded, transmission and retrieval is possible through secured communications lines. Images are transmitted at predetermined scheduled times throughout the day.* The images are encrypted and transferred via high-speed data lines to the *SafeStreet* Office; which is, the central citation processing system.

**Calibration & Maintenance:**

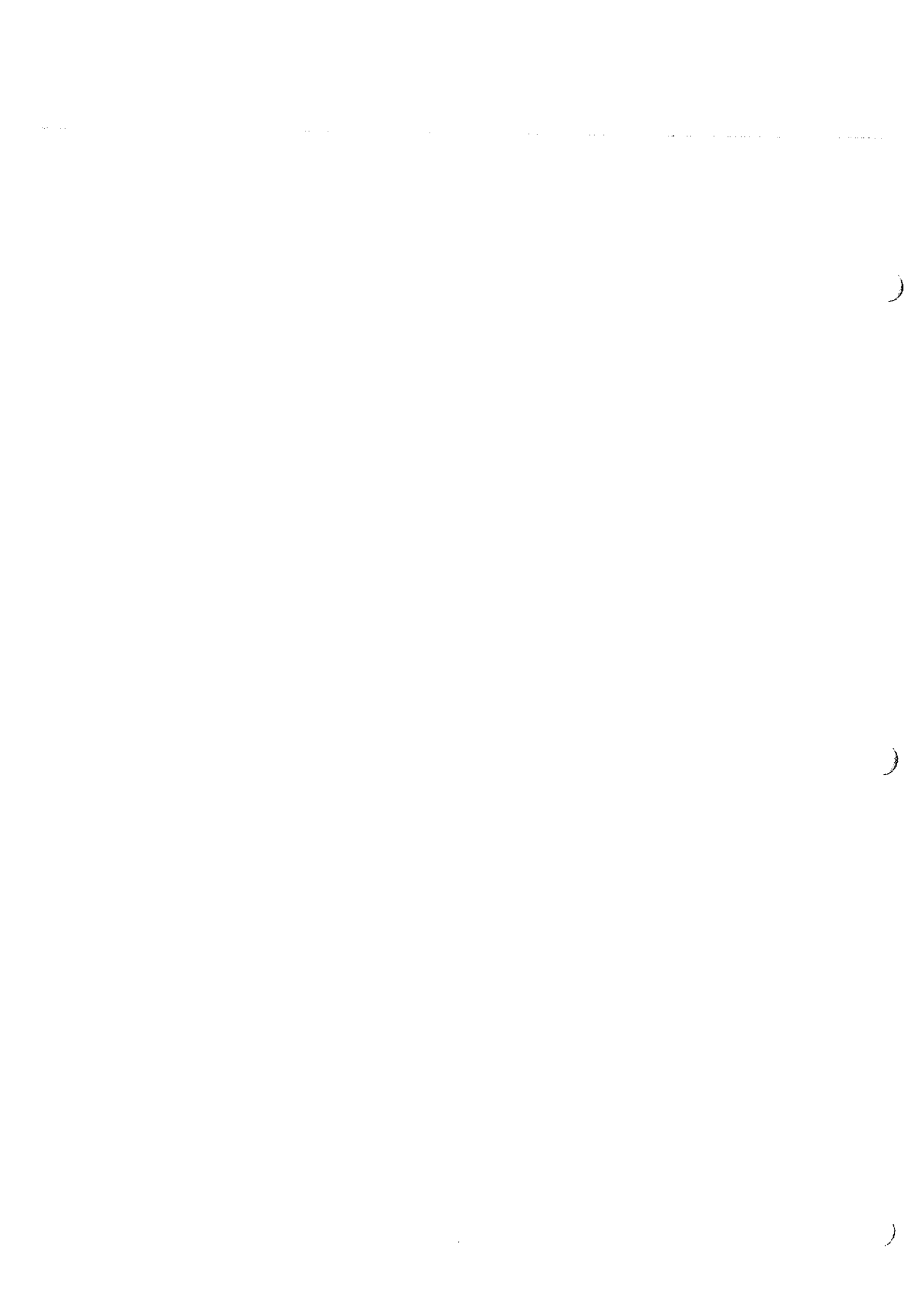
Peek Traffic's Camera System communicates hourly with the central office server and automatically logs all errors. The maintenance technician monitors camera system operations and documents any problems and repairs in an on-line log.

Peek Traffic will stock replacements components at our office location in the City of Columbus.

System calibrations are performed annually, which include simulating violations. The sensor is automatically calibrated before each measurement. If this self-test fails, the violation is marked with the error and rejected and the error logged. Peek Traffic will make the log sheets available to the City of Columbus to substantiate contested citations. Maintenance reports contain the following data:

- Time of service
- Date of service
- Red Light Camera unit number
- Intersection location of the Red Light Camera unit
- ~~Repairs made or parts replaced~~
- Name of maintenance technician

These reports will provide Peek Traffic and the City with the information necessary to control and maintain the Camera System integrity.





3.1.21 Please describe how you will maintain the integrity of the CoC's traffic signal system.

**Toroid Traffic Signal Monitor:**

The toroid is a simple means of interfacing to the signal controller for red light applications using a current transformer to sense the current to the lamps or LEDs in the signal head.

The primary advantages of this method are:

- It prevents the enforcement system from exerting any control over the traffic signal, even in the event of an enforcement system malfunction.
- Since current flows only when the signal light is illuminated, the light will only be "seen" as red by the camera system, when it can be seen by the driver of the vehicle.
- It reduces exposure to hazardous voltages in the controller cabinet and cable routes, as well as in the enforcement system.
- There is no need to disconnect this interface when doing any maintenance of the enforcement system or of the controller cabinet, as the electrical signals are in the (harmless) millivolt range and can have no adverse effect on either system.

Other methods, such as relays, do not provide these advantages. The Toroids are installed in the controller cabinet and will work with both incandescent and LED signal heads.

The system monitors the Red light by sensing the current flowing through the traffic signal itself. Toroids, (small, high quality current transformers) allow Peek Traffic to know precisely when the signal is illuminated. The toroid ensures that the enforcement system only monitors the light but cannot control it in any way – even by accident or system failure.

3.1.21.1 Traffic signal operation shall not be modified.

~~The recommended Peek Traffic's *SafeStreet* Camera System does not effect traffic signal operations in any manner whatsoever.~~

~~The intersection collision avoidance option is capable of holding the red signal for cross traffic if a pending red light violation is detected. We are not recommending this option at this time since it would modify the traffic signal operation.~~

)

)

)





3.1.21.2 Supplier is responsible for any damages and must provide a cost reimbursement program.

Peek Traffic will pay for any damages we cause to our own equipment at no cost to the City. If Peek Traffic causes damage to any City equipment, Peek Traffic will reimburse the City upon invoice.

3.1.21.3 Supplier is responsible for all permits, plans, modifications of existing infrastructure and associated costs to include CoC personnel necessary for traffic control and installation/removal.

**Intersection, Equipment, Installation and Operation:**

Peek Traffic will provide, install and operate cameras and all other necessary field equipment at all locations for the length of contract and extensions (as required).

As the City of Columbus & Peek Traffic identify camera location sites, Peek Traffic will develop an intersection drawing to equip the sites. Each intersection drawing shall show location of existing traffic signal equipment and any utilities plus the proposed location and placement of the Red Light camera pole, housing, detectors, range, interface with existing traffic controller and cabinet, conduit and wiring schematic, and proposed detection zones. Peek Traffic will determine where the pole and equipment shall be placed and it will be Peek Traffic's responsibility to verify information shown on the drawing.

Peek Traffic will obtain approval from the City of Columbus of plans, drawings and locations for installation of camera equipment, poles, flash units, and detectors prior to installation. Peek Traffic will construct and install vehicle detection in the proper location to operate the system. If required, Peek Traffic will supply conduit and shall connect the 120V red and amber phase to the terminal block in the vendor's pole. Copies of as-built intersection drawings will be supplied to the City of Columbus by the vendor within 90 days after installation is complete. Drawings will become property of the City. Peek Traffic will supply appropriate supplies and services including:

- Camera Systems
- Housings
- ~~Poles and foundations~~
- Conduit
- Vehicle detection equipment
- ~~Paving and construction materials (as required)~~
- Field personnel & permits for maintenance of traffic during construction
- Personnel to maintain camera systems
- Comprehensive written documentation on system operation
- Communication infrastructure (as needed)



3.1.21.4 The City requires that personnel from the City Transportation Department be on site for any occasion when the supplier will need access to the City's traffic signal control box.

Peek Traffic will notify the City of Columbus when access to the City's traffic signal control box will be needed. (We will provide a minimum of 72 hours of prior notification for any routine matter and as much notice as possible in case of an emergency)

3.1.22 Please describe how your system is capable of gathering detailed computer data for statistical analysis and histograms for submission at hearings.

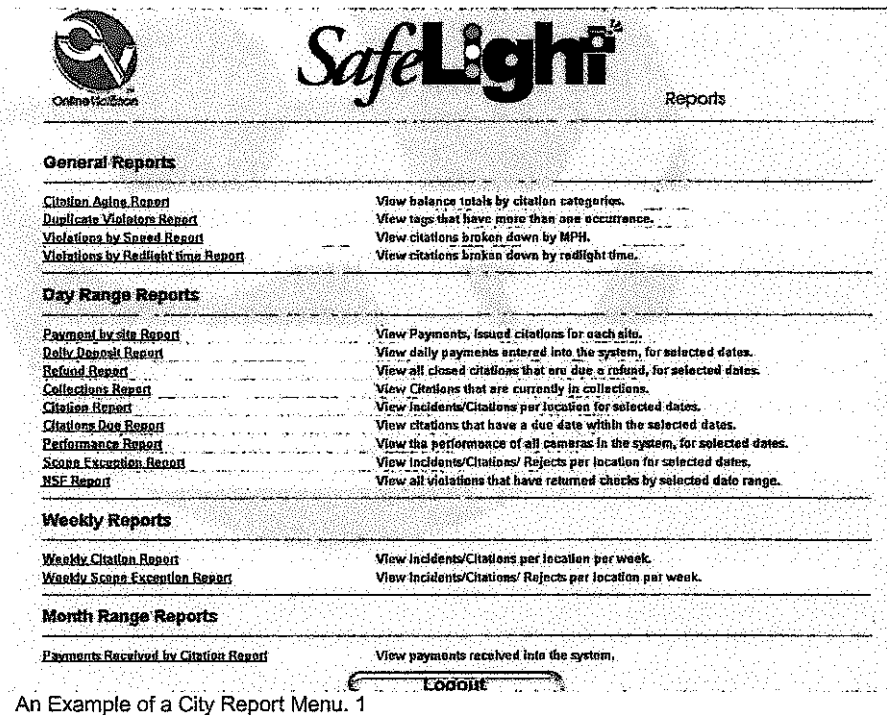
Peek will work with the city to develop a standard for the package supporting the hearing process. This package will include statistical data to address the appellant's challenge.

**Reports:**

*SafeStreet* reports are available online, 24/7/365 without delay. There is never a delay for data compilation or preparation. Reports can be emailed, printed or copied into any application for local analysis. Reports can be automatically emailed.

Overall, the *SafeStreet* system is the easiest, most flexible and most economical system available to handle your automated traffic enforcement needs.

The *SafeStreet* back office is explained in full detail in Section 3 (pages 17-32). For greater detail on the entire process, please refer to Section 3 – "Specifications."



An Example of a City Report Menu. 1



3.1.22.1 The offeror will be required to produce monthly reports of activity and individual histograms for court purposes.

A variety of reports can be made available or developed for the City of Columbus and will be determined upon award of contract. Peek Traffic will work with the City to develop the reports required to meet either the City or the Court's needs. Below is a view of the most commonly used reports by the city.

**Reports:**

Various reports are available in the *SafeStreet* system and many more can be added as the need arises. The standard reports are:

<b>Daily Deposit Report</b>	This report shows all daily and date-ranged monetary deposits made to the authorized merchant account. Deposits are broken down by payment method (credit card, check, or cash)
<b>Performance Summary</b>	This report shows statistical information regarding in- and out-of-scope rejections for the population of possible violations over a given date range. The report has drill down capabilities that provide a scientific means for optimizing camera output.
<b>Issued Citations Report</b>	This report shows totals of citations issued and citations rejected and breaks down into individual active locations for a given date range.
<b>Billing &amp; Collections Rpt</b>	This report shows all citations for a given year or month and the percentage of fines and penalties that have been paid, giving percentages and dollar amounts. It also lists all citations sent to the authorities for collections after the final notice due date has passed.
<b>Payments by Citation No.</b>	A comprehensive report of all payments made by citation number for a given time period.
<b>Overpayments &amp; Innocent Refund Report</b>	This report documents all monies due to citizens from either overpayment or from not guilty judgments. This acts as instructions to the City for check cutting.

The image on the following page is a view of the Reports that are currently available in the *SafeStreet* online system (and would be available from any PC with internet access with a secured username & password). This is currently the method being used by our City partners. Upon award of contract, Peek Traffic will work with the City of Columbus to determine and develop the reports required by the City or the Courts in Columbus.



Reports currently available:



Online Violation

# PEEK

## Citation Processing System

Reports

### General Reports

- [Supervisor Reversal Report](#)
- [Duplicate Violators Report](#)
- [Violations by Speed Report](#)
- [Violations by Redlight time Report](#)

- View incidents that have been changed by the supervisor.
- View tags that have more than one occurrence.
- View citations broken down by MPH.
- View citations broken down by redlight time.

### Financial Reports

- [Daily Deposit Detail Listing](#)
- [Daily Adjustment Report](#)
- [Incident Register Listing](#)
- [Citation Aging Report](#)

- View payments and payment details by date range.
- View all adjustment details by date range.
- View all incidents received by date range.
- Citation aging.

### Collection Reports

- [OV Batch Report](#)
- [Collection Agency Activity Report](#)
- [Collection Aging Report](#)
- [Collection Performance Report](#)

- View OV generated batches. (OV to PAM).
- View PAM to OV activity.
- View balance totals by date categories
- View what has happened to a citation sent to collections

### Day Range Reports

- [Daily Deposit Report](#)
- [Payment by site Report](#)
- [Refund Report](#)
- [Collections Report](#)
- [Citation Report](#)
- [Citations Due Report](#)
- [Performance Report](#)
- [Scope Exception Report](#)
- [Activity Audit Report](#)
- [Adjudication Activity Report](#)
- [NSF Report](#)

- View daily payments entered into the system, for selected dates.
- View Payments, issued citations for each site.
- View all closed citations that are due a refund, for selected dates.
- View Citations that are currently in collections.
- View Incidents/Citations per location for selected dates.
- View citations that have a due date within the selected dates.
- View the performance of all cameras in the system, for selected dates.
- View Incidents/Citations/ Rejects per location for selected dates.
- View activity by date or by person.
- View cases heard, cases that need to be heard for selected dates.
- View all violations that have returned checks by selected date range.

### Weekly Reports

- [Weekly Citation Report](#)
- [Weekly Scope Exception Report](#)

- View Incidents/Citations per location per week.
- View Incidents/Citations/ Rejects per location per week.

### Month Range Reports

- [Payments Received by Citation Report](#)

- View payments received into the system.



- 3.1.23 Please describe how your system is capable of accurately monitoring multiple traffic lanes at once with vehicles of various types, heights and lengths under various weather and light conditions.
- 3.1.24 Please describe how your system is automated with regards to set up, i.e., aperture settings, focusing, leveling and ease of loading and unloading images.
- 3.1.25 Please describe how your system's cameras have the ability to operate effectively during periods of nighttime operation and in all weather conditions.
- 3.1.26 Please describe the time it takes for your system to take photographs of vehicles entering the intersection after the signal has turned red.
- 3.1.27 Please describe how your system will capture violators at a minimum of 90% of the time or more.

The combination of the dual-Doppler radar sensor, the Elinchrom Flash and the 5.4 megapixel digital camera provides our City partners with the most effective and accurate system available in Red Light Enforcement.

The triggering system will utilize the RS-240 radar sensor and proprietary algorithms to ensure a high percentage of enforceable images. The radar sensor is capable of monitoring up to four straight through lanes and has options to monitor and enforce right and left turn lanes.

The Elinchrom RX-600 electronic flash operates for each photo, in all conditions, and can effectively illuminate four lanes wide and up to 200 feet.

Peek Traffic's camera system contains several microprocessors. The controller is a PC104+ industrial computer and manages system operational functions. The advanced image capture subsystem can operate in automatic exposure modes at up to 1/16000 shutter speed and auto aperture. Peek Traffic's implementation of camera, lens and flash optimizes picture quality with the use of empirically proven setting combinations. These provide sharp, excellent quality images under all conditions.

The camera system can take pictures at 300-millisecond spacing and due to its high resolution is fully capable of enforcing up to four lanes with a single camera unit. If ~~greater than four lanes of enforcement is needed, additional slave cameras can be utilized.~~

Peek Traffic estimates that less than one percent of vehicles will escape detection. In ~~Peek Traffic's experience, most violations happen within the first five seconds of the Red, and in the last second of the Red (just before it turns green). System design enables Peek Traffic's camera system to capture both simultaneous violations (side by side), and those in rapid sequence (in any or all lanes) as long as there are 300~~



milliseconds or more between the sequential violations. These simultaneous and rapid sequence violations are difficult for many systems to capture.

It can happen when a sequential violation is just less than 300 milliseconds behind a previous one. Note that if it is only a few milliseconds behind, it is captured in the same photo as the first, and treated as a simultaneous violation. This captures violations even less than 0.2 seconds.

Peek Traffic's camera system has demonstrated in scope issuance rates greater than ninety percent (90%). Other incidents, we call "Out of Scope" are generally not violations or impossible to turn into citations. These include vehicles without license tags, emergency vehicles, funeral processions, and other instances where it is unreasonable to expect a citation to be issued.

Additionally, changing lighting conditions influence photographic images and picture background scenes must be considered to determine correct camera placement and setup. Each site is different and will require the application of a particular solution set (combining camera and flash position, image and exposure settings, and various optical filters).

3.1.28 Please describe the process used to communicate to the Division of Transportation, Traffic Engineer's staff that any and all repairs to any damaged traffic control systems have been repaired to the satisfaction of aforementioned.

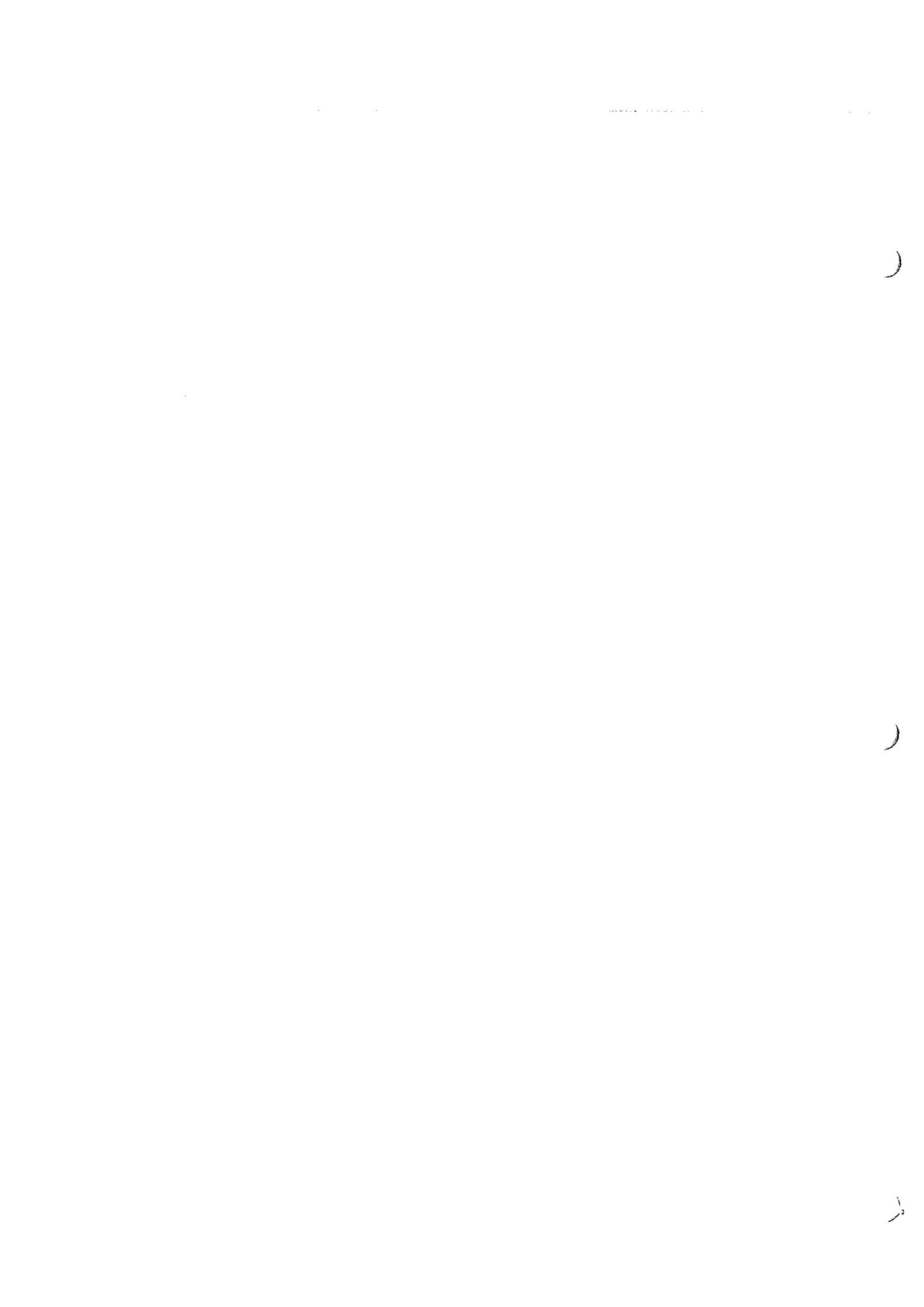
Our Operations Manager will follow and adhere to any communication methods as set forth by the City.

3.1.28.1 Any and all installations and/or repairs shall be made according to the original working order unless CoC authorizes a change.

Peek Traffic proposes a professional "partnering" solution with the City of Columbus. An Installation Project Plan is developed at the onset of the contract - by both parties to encompass the Scope of Work. Any changes to the Scope of Work will require a formal Change Order – to be agreed upon by both parties. In the event when repairs are needed, Peek Traffic will propose a solution to the City, and await approval from the City before proceeding. It is recommended that a mutually agreed upon Repair Project Plan be developed in the contract.

3.1.29 Please describe how the CoC is to be reimbursed whenever a CoC employee is needed to be at any one cabinet during installation or repair.

When City personnel are required during installation and/or repair to the Red Light enforced intersections, Peek Traffic will reimburse the City for maintenance personnel and/or police personnel as required. Peek Traffic will reimburse the City of Columbus the actual costs incurred, upon receipt of invoice.





3.1.30 For non-emergency situations, there shall be a minimum of twenty-four (24) hours advance notice to the CoC and the work will be performed during normal CoC working hours.

Peek Traffic will notify the City of Columbus a minimum of twenty-four (24) hours notice prior to the beginning of any work to be performed on any given camera system.

3.1.38.1 In the course of the daily activity emergency situations will occur. The definition of emergency and how each party responds to that emergency shall be part of the contract negotiations.

Peek Traffic will negotiate with the City to reach mutual agreeable terms for the definition of an emergency and the response to any identified emergency. We stand behind the quality and reliability of our equipment and are confident in pricing this proposal to cover situations reasonable within our control at no added cost to the City. Situations beyond our control, such as damage to equipment caused by a motor vehicle crash, for example, will be worked out in advance with the City.

3.1.31 Please describe how you handled emergency maintenance situations with cities of comparable size or larger than Columbus, Ohio.

Emergency maintenance situations are handled on a 24/7 basis. The camera systems run hourly diagnostics and escalate a central operational center when a issue arises. The on-call technician is automatically notified of the issue via a GPS enabled cell phone.

The on-call technician remotely assess the site condition and responds accordingly. If the issues have been successfully resolved under normal service level agreements, the issue is logged and closed.

If the issue exceeds or is projected to exceed service level agreements, the Operational Manager is notified via on-call cellular phone. The Operational Manager calls and emails the designated City or County personnel of the issue and estimated resolution time frame.

---

Upon successful completion of repairs, an incident report is generated and forwarded to the appropriate City or County personnel. If resolution is deemed to exceed service level agreements (i.e.: complete camera knock-down), the Operations Manger will directly contact appropriate City or County personnel to review issue and determine resolutions. All communications to City / County personnel are normally made 8:00AM – 6:00PM, seven days a week.





3.1.32 Offerors are required to submit a current client list with company names, addresses, appropriate contacts and associated phone, fax and e-mail addresses.

Peek Traffic is the principle contractor for the Automated Enforcement Systems for the entities named below. Peek Traffic was responsible for the implementation for the Camera System and the SafeLight Office Citation Processing systems. All operations are currently in operation.

**City of Wilmington**

SafeLight – Wilmington  
**Mr. Jim Fletcher, PE**  
 Senior Engineer III  
 P.O. Box 1810  
 Wilmington, NC 28402  
 PH: 910.341.7888  
 FX: 910.341.4695

Contract Inception: March 2000  
 Camera Systems: Fifteen (15)

**City of Rocky Mount**

SafeLight – Rocky Mount  
**Mr. Jonathan Boone**  
 Transportation Engineer  
 P.O. Box 1180  
 Rocky Mount, NC 27802  
 PH: 252.972.1123  
 FX: 252.972.1173

Contract Inception: September 2002  
 Camera Systems: Five (5)

**City of Charlotte**

SafeLight – Charlotte  
**Ms. Doreen Szymanski**  
 229 South Brevard Street  
 Suite 102  
 Charlotte, NC 28202

Contract Inception: August 2003  
 Camera Systems: Twenty (20)

**City of High Point**

SafeLight – Piedmont  
**Mr. Phil Wylie**  
 Transportation Engineer  
 P.O. Box 230  
 High Point, NC 27261  
 PH: 336.883.3231  
 FX: 336.883.8568

Contract Inception: January 2001  
 Camera Systems: Ten (10)

**City of Greensboro**

SafeLight – Greensboro  
**Mr. Michael Cramer**  
 Transportation Operations Analyst  
 P.O. Box 3136  
 Greensboro, NC 27402  
 PH: 336.412.6312  
 FX: 336.412.6187

Contract Inception: January 2001  
 Camera Systems: Eighteen (18)

---

Peek Traffic's North Carolina operations have been a "model for success," providing Peek Traffic a means to quickly establish new projects that are fully functional, successful, and mutually beneficial relationships between Peek Traffic and our city partners. Peek Traffic's dedication to responsive customer service and responsible technology advancements are the reasons for our successful business model and excellent partnering relationships ~ *a formula that works.*

)

)

)



3.1.33 Please describe your process for acceptance and disbursement of funds (i.e., the CoC's share of the revenue generated).

3.1.33.1 This is to include but not limited to the following:

Timing of funds remitted to CoC (from receipt from offerer to CoC);

Reconciling funds for penalties to the number of violations;

Process for NSF situations;

Types of funds that can be received (i.e., cash, check, etc);

Process used to reconcile the account;

Costs associated with funds remittal;

Banking institution(s) used to funds deposited.

3.1.34 Please describe options for payments and collections.

Peek Traffic will collect and deposit payments on civil penalties, issued pursuant to the City Code. All payments will be mailed to a local Post Office Box, dropped off at the contractor's customer service center, or made by credit card on the Internet web site. Forms of payment will include:

- Cash,
- Personal Check, payable to the City
- Money Order, payable to the City
- MasterCard ®
- Visa ®

***All revenue from citations will be deposited in an account designated by the City, so the city will receive funds no later than the next business day after payment is received from the violator.***

---

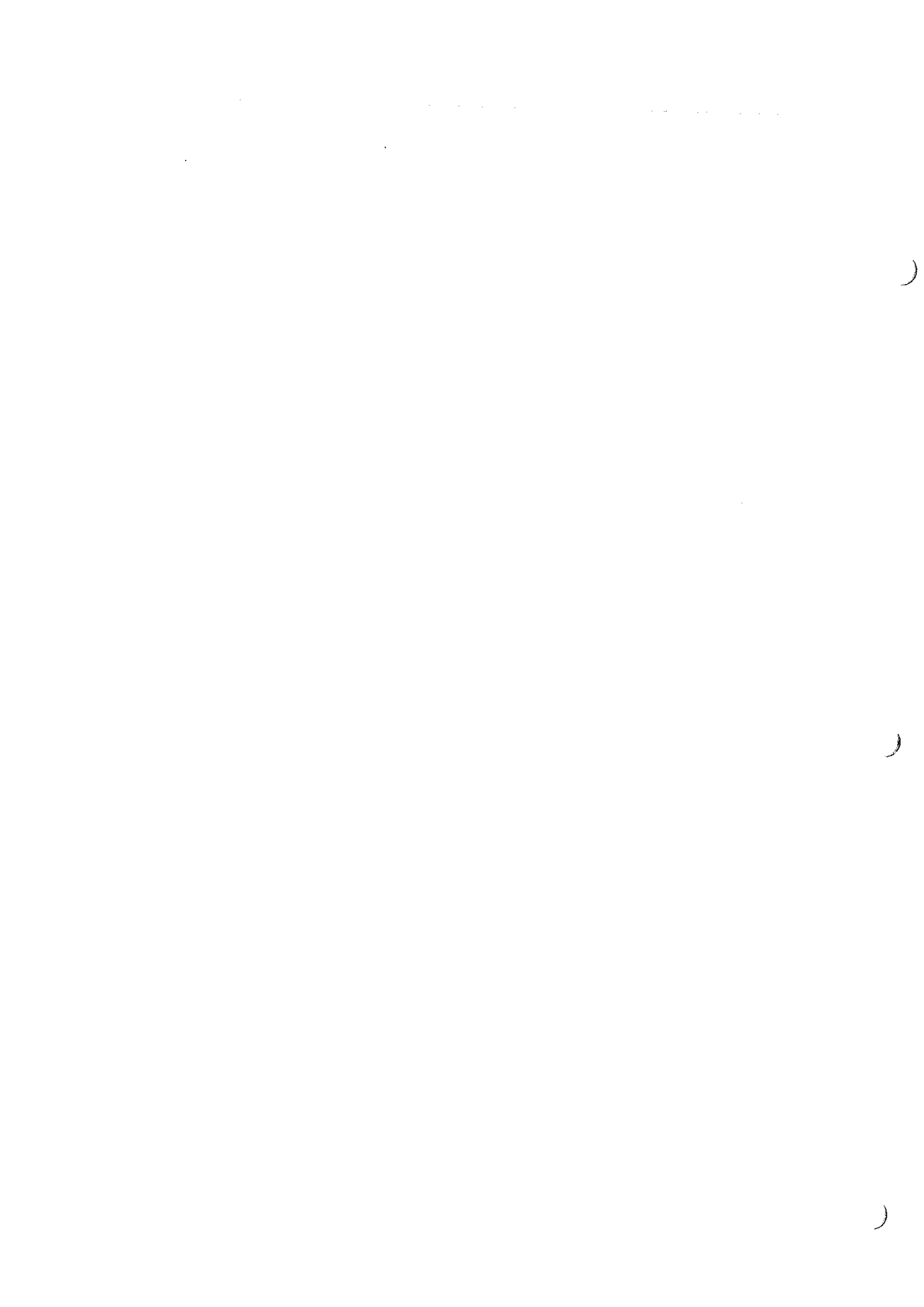
Collections will include referral to a collection agency and the filing of a civil action for collection in the nature of a debt, in accordance with City directed procedures.

---

**Daily Deposit Procedures**

Payment Processing:

- Walk-up or call-in payments will be processed immediately using the appropriate "Clerk" functions in the system, insuring the citizen signs a file copy of the receipt and receives a copy of the receipt





Columbus, Ohio  
Photo Red Light Enforcement System  
Proposal No. SA 001147JY/FM



- Internet Payments may be made by the Citizen following steps guided by the online payment system
- Mail-in payments:
  - Stamp date received on the envelope
  - Open envelopes & staple check/money order to the citation payment slips
  - Segregate appeals from Guilty Payments
  - Enter check/money order payments into the system using the "Clerk Batch Checks" function
  - Remove staples from the checks
  - Stamp back of checks "For Deposit Only" with the City's Bank authorized stamp.
  - Complete the deposit slip
  - Go to Balance Payments
  - File the envelopes in the appropriate month's file

Balance Payments & Make Deposits:

- Calculate the total of all checks, money orders and cash received during the day using the Deposit Log.
- Count all cash and checks.
- Run the "Daily Deposit Report" from the system and determine the system figures for cash and checks received (money orders report as checks).
- Insure all three of the above match. Initial the Report and the Log
- Second person validates that all three counts match and initials the Report and Log
- Enter the correct amount of cash funds on the bank deposit slip.
- Enter the correct amount of check funds on the deposit slip.
- Add the total.
- Proceed to the bank and make the deposit

By the 10<sup>th</sup> business day of the following month, Peek Traffic shall provide a statement to the City detailing the number of citations issued and collected during the preceding month and the amount deposited into the City's account on behalf of the City. Peek Traffic will invoice the City for its fee, payable net 30.



Daily Deposit Report



Reports

Daily Deposit Report

From: Oct 10 2003  
To: Oct 10 2003  
Please select the office: All Offices

**Create Report**

Date	Citation #	Amount Paid	Method	Office Name
10/10/2003	3127374	50.00	Cash	Wilmington
10/10/2003	3127771	50.00	Cash	Wilmington
10/10/2003	49076	100.00	Cash	Wilmington
10/10/2003	3129250	50.00	Cash	Wilmington
10/10/2003	3126945	50.00	Cash	Wilmington
10/10/2003	3127627	50.00	Cash	Wilmington
10/10/2003	48146	100.00	Cash	Wilmington
Subtotal Cash		\$450.00		
10/10/2003	3128841	50.00	Check	Wilmington
10/10/2003	3130399	50.00	Check	Wilmington
10/10/2003	3129332	50.00	Check	Wilmington
10/10/2003	3129038	50.00	Check	Wilmington
10/10/2003	3128082	50.00	Check	Wilmington
10/10/2003	44096	100.00	Check	Wilmington
10/10/2003	3128566	50.00	Check	Wilmington
10/10/2003	49653	100.00	Check	Wilmington
10/10/2003	3128962	50.00	Check	Wilmington
10/10/2003	3129894	50.00	Check	Wilmington
10/10/2003	3129792	50.00	Check	Wilmington
10/10/2003	3128033	50.00	Check	Wilmington
10/10/2003	3127546	50.00	Check	Wilmington
10/10/2003	3129111	50.00	Check	Wilmington
10/10/2003	3130222	50.00	Check	Wilmington
10/10/2003	3129869	50.00	Check	Wilmington
10/10/2003	3130180	50.00	Check	Wilmington
10/10/2003	3128666	50.00	Check	Wilmington
10/10/2003	3128107	50.00	Check	Wilmington
10/10/2003	3127569	50.00	Check	Wilmington
10/10/2003	3129300	50.00	Check	Wilmington
10/10/2003	3128997	50.00	Check	Wilmington
10/10/2003	3129106	50.00	Check	Wilmington
10/10/2003	3130268	50.00	Check	Wilmington
10/10/2003	3127773	50.00	Check	Wilmington
10/10/2003	3128200	50.00	Check	Wilmington
10/10/2003	3128241	50.00	Check	Wilmington
Subtotal Check		\$1,450.00		
10/10/2003	15504	100.00	Collections Payment	PAM - Collection Agency
10/10/2003	17197	100.00	Collections Payment	PAM - Collection Agency
10/10/2003	29409	100.00	Collections Payment	PAM - Collection Agency
10/10/2003	32446	100.00	Collections Payment	PAM - Collection Agency
10/10/2003	35336	50.00	Collections Payment	PAM - Collection Agency
10/10/2003	39487	100.00	Collections Payment	PAM - Collection Agency
10/10/2003	26344	50.00	Collections Payment	PAM - Collection Agency
10/10/2003	27312	100.00	Collections Payment	PAM - Collection Agency
10/10/2003	39469	50.00	Collections Payment	PAM - Collection Agency
10/10/2003	35312	50.00	Collections Payment	PAM - Collection Agency
Subtotal Collections Payment		\$800.00		
10/10/2003	3127970	50.00	Credit Card	Wilmington
10/10/2003	3128336	50.00	Credit Card	Wilmington
10/10/2003	3128167	50.00	Credit Card	Wilmington
Subtotal Credit Card		\$200.00		
Total Deposit		\$2,900.00		

**Return to Menu**



**Columbus, Ohio**  
Photo Red Light Enforcement System  
Proposal No. SA 001147JY/FM



- 3.1.35 Should the CoC determine to use a provider (other than the one described in your turnkey system) to send violators citations, collect fines and disburse monies to the CoC, please describe how your system shall integrate with the provider. If necessary, please provide cost proposal information as described in 4.0.

Per Addendum 1 (dtd 06/02/04) and Addendum 2 (dtd 06/08/04) from the City of Columbus; this question has been eliminated from the Columbus RFP (No. SA001147/JY/FM).



Columbus, Ohio  
 Photo Red Light Enforcement System  
 Proposal No. SA 001147JY/FM



**SECTION 4 - COST PROPOSAL**

TITLE: Photo Red Light Enforcement System  
 OPENING: June 17, 2004 TIME: 11:00 AM  
 TO: City of Columbus, Ohio

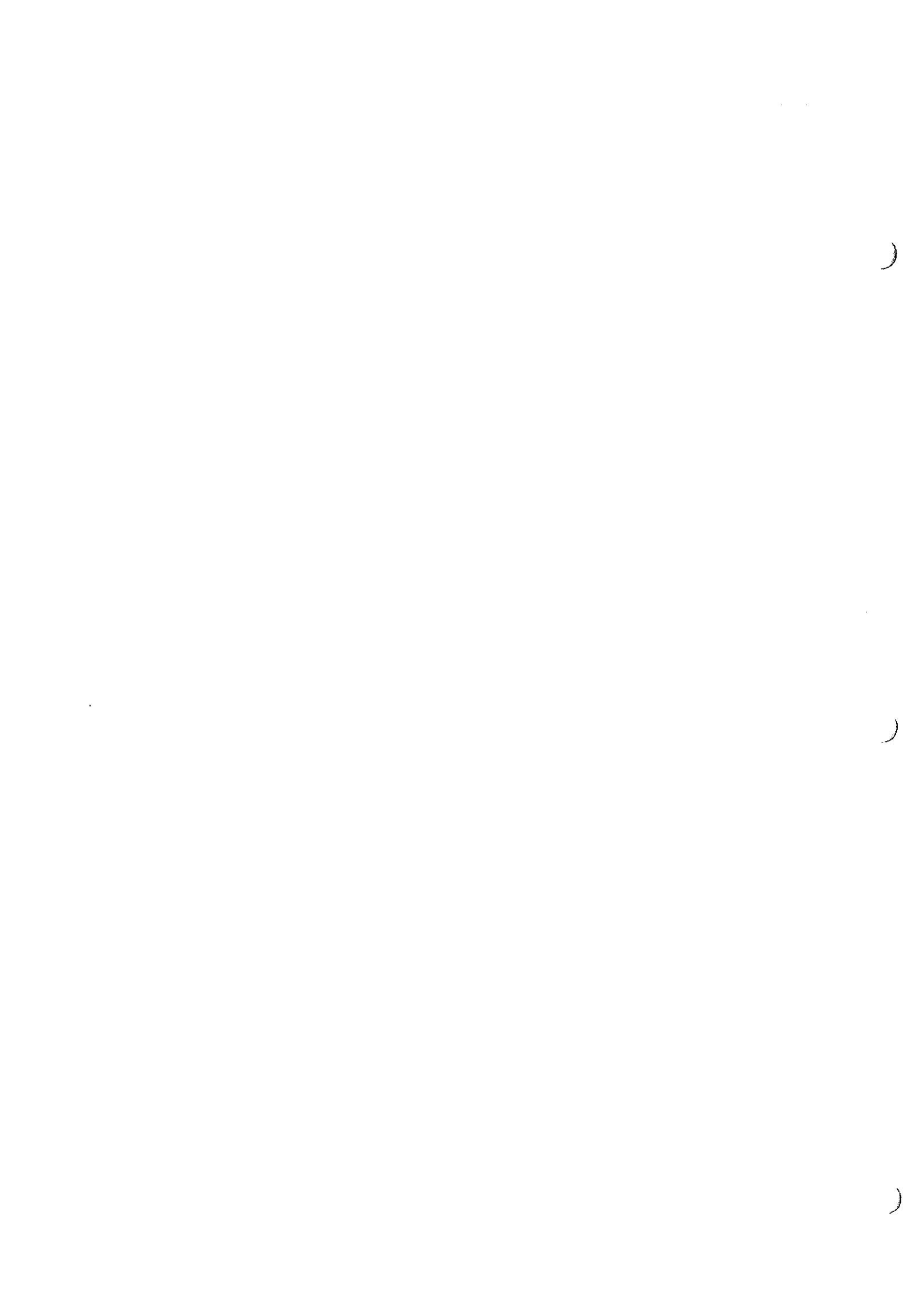
Peek Traffic Corporation agrees to furnish and deliver the above titled item in accordance with the specifications issued for same, and subject to all terms, conditions, and requirements provided therein, and in the Peek Traffic proposal documents including stated exceptions or exclusions, for the following price options.

**\*\* ALL OPTIONS INCLUDE NO UP FRONT FEES TO THE CITY.** Any monthly fees due are only payable after City has collected sufficient citation gross revenue to pay the fee, as determined by system financial reports. For example, if the total monthly fee for *all* cameras is \$45,000, but only \$40,000 in citation revenue is collected from *all* cameras, Peek Traffic will discount the monthly fee to \$40,000. Invoices for the optional PR Program will be due and payable when the city has sufficient program revenue to pay the fee in addition to all camera fees or after remittance of shared revenue to Peek Traffic.

**OPTION 1: Fixed Fee per Approach per Month, Back Photo Only (Registered Owner Cited)**

Fixed Fee (per intersection approach)	\$4,500 per month **
Video Witness Camera Option (per intersection approach)	\$100 per month additional
Public Relations Program with printing & mailing to each household	\$198,000
Public Relations Program with no printing & mailing to each household	\$49,000
Relocation Fee (per intersection approach, to move existing camera to new approach)	\$15,000
Removal Fee (per intersection approach)	\$2,000 (abandon underground in place) OR \$5,000 (complete removal)







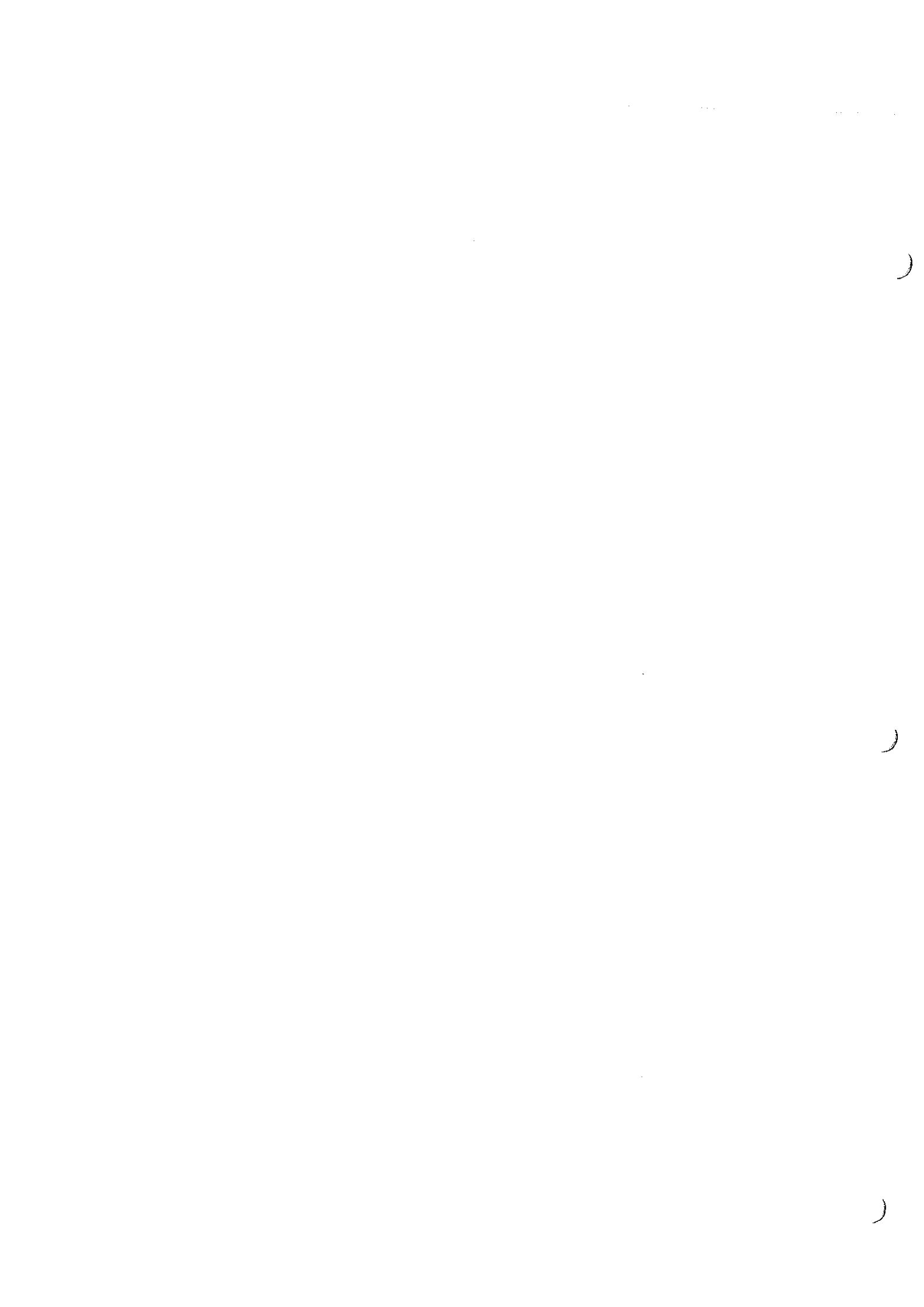
**OPTION 2: Fixed Fee per Approach per Month, Back & Front Photo (Driver Cited)**

Fixed Fee (per intersection approach)	\$6,000 per month **
Video Witness Camera Option (per intersection approach)	\$100 per month additional
Public Relations Program with printing & mailing to each household	\$198,000
Public Relations Program with no printing & mailing to each household	\$49,000
Relocation Fee (per intersection approach, to move existing camera to new approach)	\$16,500
Removal Fee (per intersection approach)	\$2,000 (abandon underground in place) OR \$5,000 (complete removal)

**OPTION 3: Shared Revenue, Back Photo Only (Registered Owner Cited)**

Shared revenue fee per citation paid (minimum of 10 cameras), billable monthly. The fee shall be based on the total number of citations issued by Peek Traffic during each monthly period of the contract starting from the first date of full camera operation with citations issued (*i.e.*, the warning period is not included in citation totals). The average number of citations per camera per day shown below is for information only to indicate the approximate basis for the monthly total in the event the City elects to install additional cameras.

Average # of citations per day per camera	Monthly Aggregate # of citations for 10 cameras	Peek Traffic Share of \$95 Citation	City Share of \$95 Citation	Peek Traffic Share of \$50 late fee	City Share of \$50 late fee	Peek Traffic Share of \$50 Late Fee when Collection Agency Req'd	City Share of \$50 Late Fee when Collection Agency Req'd
0 to 5	0 to 1500	\$45	\$50	\$25	\$25	\$49	\$1
More than 5	More than 1500	\$35	\$60	\$25	\$25	\$49	\$1





Columbus, Ohio  
 Photo Red Light Enforcement System  
 Proposal No. SA 001147JY/FM



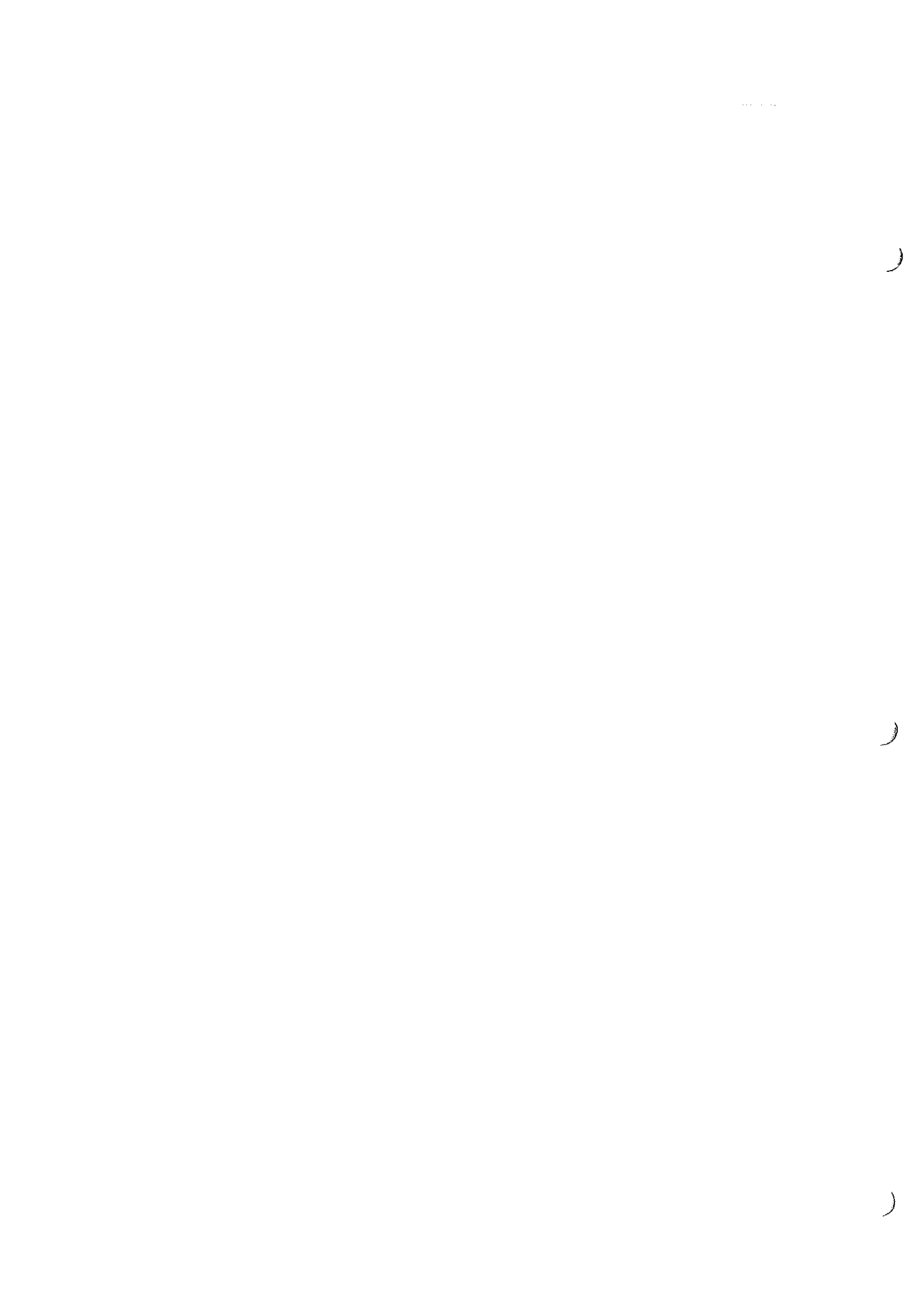
Video Witness Camera Option (per intersection approach)	\$1 per first 5 citations additional
Public Relations Program with printing & mailing to each household	\$198,000
Public Relations Program with no printing & mailing to each household	\$49,000
Relocation Fee (per intersection approach, to move existing camera to new approach)	\$15,000
Removal Fee (per intersection approach)	\$2,000 (abandon underground in place) OR \$5,000 (complete removal)

**OPTION 4: Shared Revenue, Back & Front Photo (Driver Cited)**

Shared revenue fee per citation paid (minimum of 10 cameras), billable monthly. The fee shall be based on the total number of citations issued by Peek Traffic during each monthly period of the contract starting from the first date of full camera operation with citations issued (i.e, the warning period is not included in citation totals). The average number of citations per camera per day shown below is for information only to indicate the approximate basis for the monthly total in the event the City elects to install additional cameras.

Average # of citations per day per camera	Monthly Aggregate # of citations for 10 cameras	Peek Traffic Share of \$95 Citation	City Share of \$95 Citation	Peek Traffic Share of \$50 late fee	City Share of \$50 late fee	Peek Traffic Share of \$50 Late Fee when Collection Agency Req'd	City Share of \$50 Late Fee when Collection Agency Req'd
0 to 5	0 to 1500	\$49	\$46	\$25	\$25	\$49	\$1
More than 5	More than 1500	\$39	\$56	\$25	\$25	\$49	\$1

Video Witness Camera Option (per intersection approach)	\$1 per first 5 citations additional
Public Relations Program with printing & mailing to each household	\$198,000
Public Relations Program with no printing & mailing to each household	\$49,000





Columbus, Ohio  
 Photo Red Light Enforcement System  
 Proposal No. SA 001147JY/FM



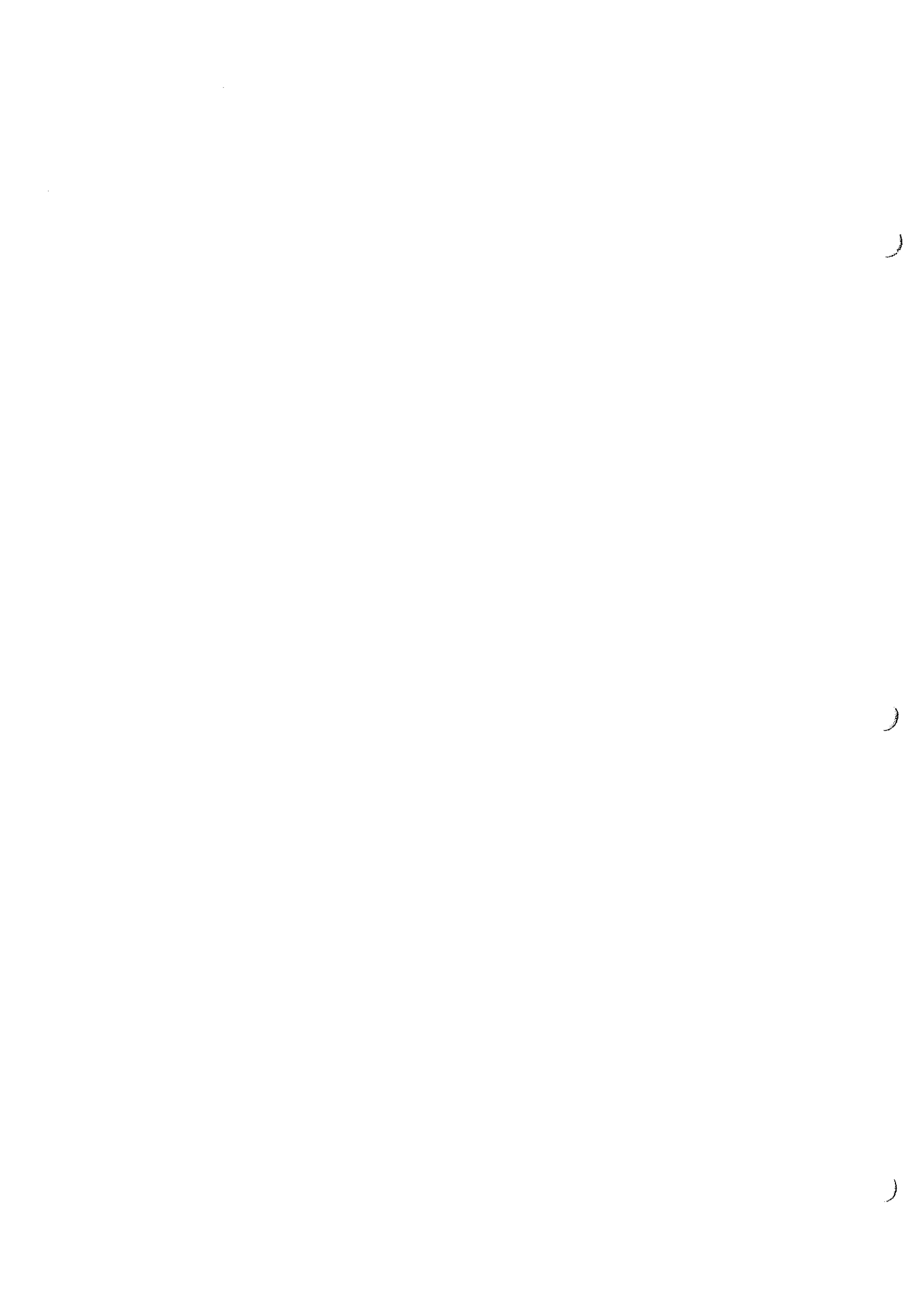
Relocation Fee (per intersection approach, to move existing camera to new approach)	\$16,500
Removal Fee (per intersection approach)	\$2,000 (abandon underground in place) OR \$5,000 (complete removal)

**EARLY TERMINATION FEES**

In the event the contract is terminated prematurely without cause, due to factors beyond the control of Peek Traffic Corporation, Peek Traffic will be entitled to recover their investment in time, installation costs and capital equipment from the City, in accordance with the schedule below as "outstanding charges and fees for products actually delivered."

<u>Year</u>	<u>Termination Fee</u>	
1	\$ 50,000 per approach	subject to cap below
2	\$ 25,000 per approach	subject to cap below

In no event shall the termination payment exceed 80% of the net share of revenue from civil violations collected by the City through the operation of the Red Light Enforcement Program. The 80% will be calculated based on the total revenues collected less the amount paid to Peek Traffic Corporation. Revenue shall consist of moneys collected from all citations issued prior to the termination date and paid either prior to or after the termination date.



PROPOSAL

To the Finance Director of the City of Columbus, Ohio:

We (I) propose to furnish the following article(s) and/or service(s) at the price(s) and terms stated subject to all instructions, conditions, specifications and all attachments hereto. We (I) have read all attachments including the specifications and fully understand what is required.

Prices are to be quoted F.O.B.:

Please see the proceeding pages for pricing options. See Page 5

Delivery: First Camera w/in 60 Days of Contract. calendar day(s) after receipt of order.

Terms: Net 30 – subject to no financial risk clause of RFP.

Company Name or Bidder's Name: Peek Traffic Corporation

Business Address of Bidder: 2511 Corporate Way, Palmetto, Florida 34221

REQUIRED Company Employee Information:

Total number of company employees = Current U.S. employees: 120

Total number of company employees working in Columbus = Currently: Zero (0)

Additional number of employees that will be working in Columbus in the event this contract is awarded to your company = Est. Four (4) Additional Personnel

The full name and residence of all persons and parties interested in foregoing bid are: (If a corporation, give the name and address of the president and secretary; if firm or partnership, the names and address of the members or partners.)

Name

Address

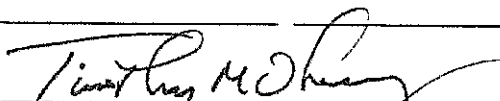
Timothy M. O'Leary, President

2511 Corporate Way, Palmetto, Florida 34221

Joan R. Riley, Secretary

35 E. Wacker Drive, Chicago, Illinois 60601

Authorized Signature X



Title: X President

(SIGNATURE MUST IN WRITING IN OTHER THAN BLACK INK)

(TITLE MUST BE GIVEN)



)

)

)

**1. Non Collusion Affidavit**

**(This Affidavit must be executed for the proposal to be considered)**

State of FLORIDA)

County MANATEE)

Timothy M. O'Leary, being first duly sworn deposes and says that he is, President, (sole owner, a partner, president, secretary, etc.) of the party making the foregoing proposal or bid; that such bid is genuine and not collusive or sham; that said bidder is not financially interested in, or otherwise affiliated in a business way with any other bidder on the same Contract; that said has not colluded, conspired, connived or agreed, directly or indirectly, with any bidder or person, to put in a sham bid, or that such other person shall refrain from bidding, and has not in any manner directly or indirectly, sought by agreement or collusion, or communication or conference, with any person, to fix the bid price of affiant or any other bidder or to secure any advantage against the City of Columbus, Ohio or any person or persons interested in the proposed Contract; and that all statements contained in said proposal or bid are true; and further, that such bidder has not directly or indirectly submitted this bid, or the contents thereof or divulged information or data relative thereto to any association or to any member or agent thereof.

*Timothy M. O'Leary*  
Signature of Affiant

Sworn to and subscribed before me this 16<sup>th</sup> day of June, 2004.

Notary public in and for *Vivian Wessel*



(Seal)

Vivian Wessel  
MY COMMISSION # CC986111 EXPIRES  
December 5, 2004  
BONDED THRU TROY FAIN INSURANCE, INC.

*Manatee*  
(county)

*Florida*  
(state)

My commission expires: December 5, 2004

)

)

.....

)

### Signature Affidavit

(To be filled in and executed if the contractor is a corporation.)

County MANATEE

State of FLORIDA

Jon R. Riley, being duly sworn, deposes and says that he/she is  
(Name of Affiant)\*

Secretary of Peek Traffic Corporation

A corporation organized and existing under and by virtue of the laws of the

State of Delaware and having its principle office at

2511 Corporate Way Palmetto, Florida 34221  
(Number and Street) (City/State) (Zip Code)

Affiant further says that he/she is familiar with the records, minute books and

by-laws of Peek Traffic Corporation affiant further says

That Timothy M. O'Leary is President  
(Name of person signing proposal/contract) (Title)

Of the corporation, is duly authorized to sign the contract for Photo Red Light

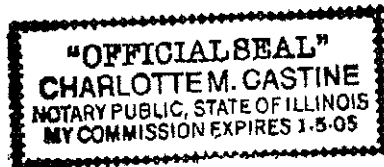
Enforcement System – RFP No. SA 001147JY/FM, for said corporation by virtue of

By-Laws

(State whether a provision of by-laws or a resolution of the Board of Directors.  
If by resolution, give date of adoption.)

*Jon R Riley*  
Signature of Affiant

Sworn to before me this 16<sup>th</sup> day of June, 2004



*Charlotte M. Castine*  
Notary Public in and for  
COOK IL  
(County) (State)

\*Affiant must be someone other than the signer of proposal/contract.

.....

.....

.

)

.

.

)

)

WRITTEN CONSENT OF THE DIRECTORS OF  
VISION ACQUISITION CORPORATION  
(t/b/k as PEEK TRAFFIC CORPORATION)

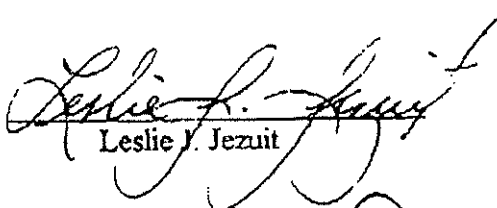
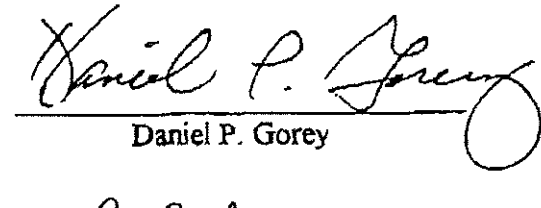
The undersigned, being all of the Directors of Vision Acquisition Corporation, to be known as Peek Traffic Corporation, have executed this written consent in lieu of a meeting to take the following action:

RESOLVED, that each of the following named persons is hereby elected to the office set forth opposite his name until the next annual meeting or until a successor is elected and qualified:

Leslie J. Jezuit	Chief Executive Officer & Chairman
Timothy M. O'Leary	PRESIDENT

This Consent may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one instrument.

IN WITNESS WHEREOF, this Consent was executed as of the 10<sup>th</sup> day of December, 2003.

	
Leslie J. Jezuit	Daniel P. Gorey

  
Joan R. Riley

---



---





## APPENDIX I

### ORGANIZATION CHART & RESUMES

#### TABLE OF CONTENTS

Responsibility & Role of Key Personnel .....	1
Key Personnel .....	3
Responsibility & Role of Key Personnel .....	12



)

)

)



Columbus, Ohio  
 Photo Red Light Enforcement System  
 Proposal No. SA 001147JY/FM



## Responsibility & Role of Key Personnel

Key personnel who will participate in the *SafeStreet* project (upon award of contract) include the following:

Mr. Tim O'Leary  
 President  
 Peek Traffic Corp.  
 941-835-1200

Location:  
 2511 Corporate Way  
 Palmetto, FL 34221

Responsibility to the City of Columbus:  
 Not Dedicated to the Columbus Contract,  
 but shoulders corporate responsibility.

Corporate Officer

Mr. Todd Eikinas,  
 Automated Enforcement Program Director  
 Peek Traffic Corp.  
 941-650-5072

Location:  
 5 Bradley Park Drive  
 Hingham, MA 02043

Responsibility to the City of Columbus:

Contract Officer

Mr. Glenn Hansen,  
 Government Safety Solutions Manager  
 Peek Traffic Corp.  
 410-982-1057

Location:  
 2662 Melba Road  
 Ellicott City, MD 21042

Responsibility to the City of Columbus:

Project Liaison

Mr. Neil Brussard,  
 Red Light Enforcement Project Manager  
 Peek Traffic Corp.  
 941-845-1228

Location:  
 2511 Corporate Way  
 Palmetto, FL 34221

Responsibility to the City of Columbus:

Program Implementation

Mr. Terry Hamrick  
 Red Light Operations Manager  
 Peek Traffic Corp.  
 910-279-5652

Location:  
 229 S Brevard St, Ste 102  
 Charlotte, NC 28202

Responsibility to the City of Columbus:

Operations Manager

Ms. Vivian Wessel  
 Citation Processing Manager  
 Peek Traffic Corp.  
 941-845-1232

Location:  
 2511 Corporate Way  
 Palmetto, FL 34221

Responsibility to the City of Columbus:

Manage Citation Review Team

)

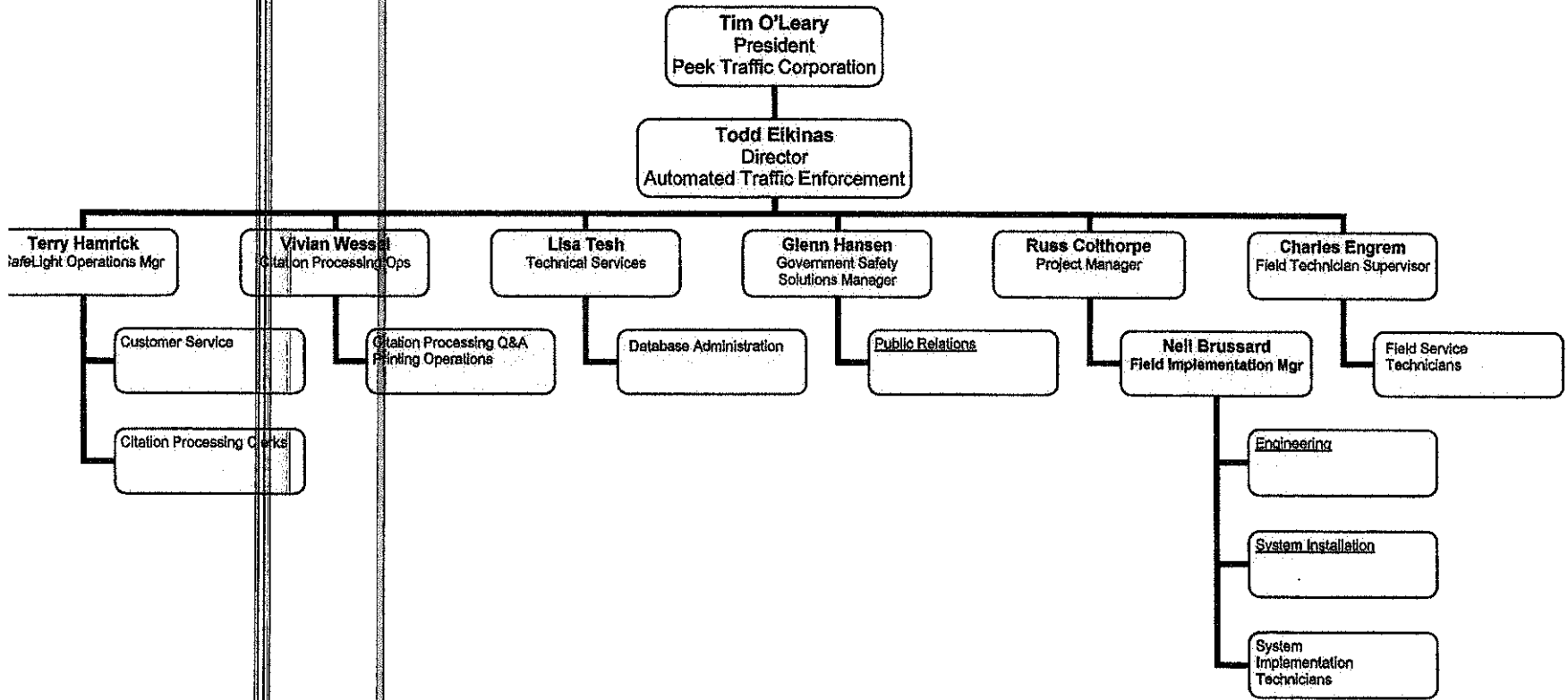
)

)



**d. Organization Chart of the Proposed Team:**

*Peek Traffic Corporation  
 Digital Automated Red Light Enforcement Program  
 Organizational Structure*



**e. Backup Personnel Plan:** In the event key Team members must be replaced, Peek Traffic has an ongoing recruiting program for its rapidly growing Automated Enforcement operation.





## Key Personnel

### RÉSUMÉ of TODD EIKINAS

**TITLE:** Director, Automated Enforcement Program  
**PROFESSION:** Engineer

#### PROFESSIONAL BACKGROUND:

As Peek Traffic's Automated Enforcement Program Director, Mr. Eikinas, not only guides strategic direction, but also utilizes his vast project management and technology background to take an active role in enhancing perspective and insight of client projects.

Mr. Eikinas holds a BS and a MS in Electrical Engineering. Mr. Eikinas has over 13 years of experience in building, implementing and supporting large-scale systems integration projects with a strong emphasis on managing the installation and operation of red light enforcement programs. Prior to his current role, Mr. Eikinas was the Director of Information Technology at Arthur Andersen, Citizens Bank, State Street Corporation, and Stone and Webster Engineering. In this role, he was responsible for major technology development and mission-critical implementation projects. He brings this expertise to his current role in managing Red Light programs on behalf of Peek Traffic Corporation, and has gained extensive experience successfully managing enforcement and traffic management systems.

#### EMPLOYMENT HISTORY:

2001 - Peek Traffic Corp. Director, Systems Integration & Red Light Enforcement Program	PALMETTO, FL
2001 Arthur Andersen, LLP Director – Americas Technology Operations	SARASOTA, FL
2000 - 2001 KFORCE.COM Director - Information Systems & Technology	TAMPA, FL
1999 - 2000 Citizens Bank CTO/Director – Information Technology	PROVIDENCE, RI
1995 - 1999 State Street Corporation, Financial Markets Group AVP - Technical Operations Manager	BOSTON, MA
1990 - 1995 Stone & Webster Engineering Corporation Electrical Engineer, Experimental Fusion power generation	BOSTON, MA

#### EDUCATION:

)

)

)



Columbus, Ohio  
Photo Red Light Enforcement System  
Proposal No. SA 001147JY/FM



Northeastern University, Boston, MA  
Bachelor of Science, Electrical Engineering

Worcester Polytechnic Institute, Worcester, MA  
Master of Science, Electrical Engineering

Professional Training  
MIT, Sloan School of Management







## RÉSUMÉ of GLENN HANSEN

PROFESSION: Law Enforcement  
 POSITION: Government Safety Solution Manager

### PROFESSIONAL BACKGROUND:

Mr. Hansen received his MS Degree in Applied Behavioral Science from the Johns Hopkins University. He has over 20 years of law enforcement experience in Maryland and spent most of his career managing traffic safety programs.

In 1993, he began working on comprehensive red light running countermeasures in Howard City, Maryland, and authored several grant applications and received funding to address the red light running problem in a comprehensive approach. Mr. Hansen worked on the final legislative language that passed and permitted red light cameras to be used for enforcement in Maryland. He has worked out legal agreements with many agencies (including the MD State Highway Administration, the MD Motor Vehicle Administration, the Maryland State Police, and the Maryland District Court) and gained an appreciation of the policy and legal implications of automated enforcement that are relevant to this project. When U.S. Representative Dick Armey requested hearings based on his documented concerns about red light camera programs, FHWA identified the Howard City program as a model and asked Mr. Hansen to testify.

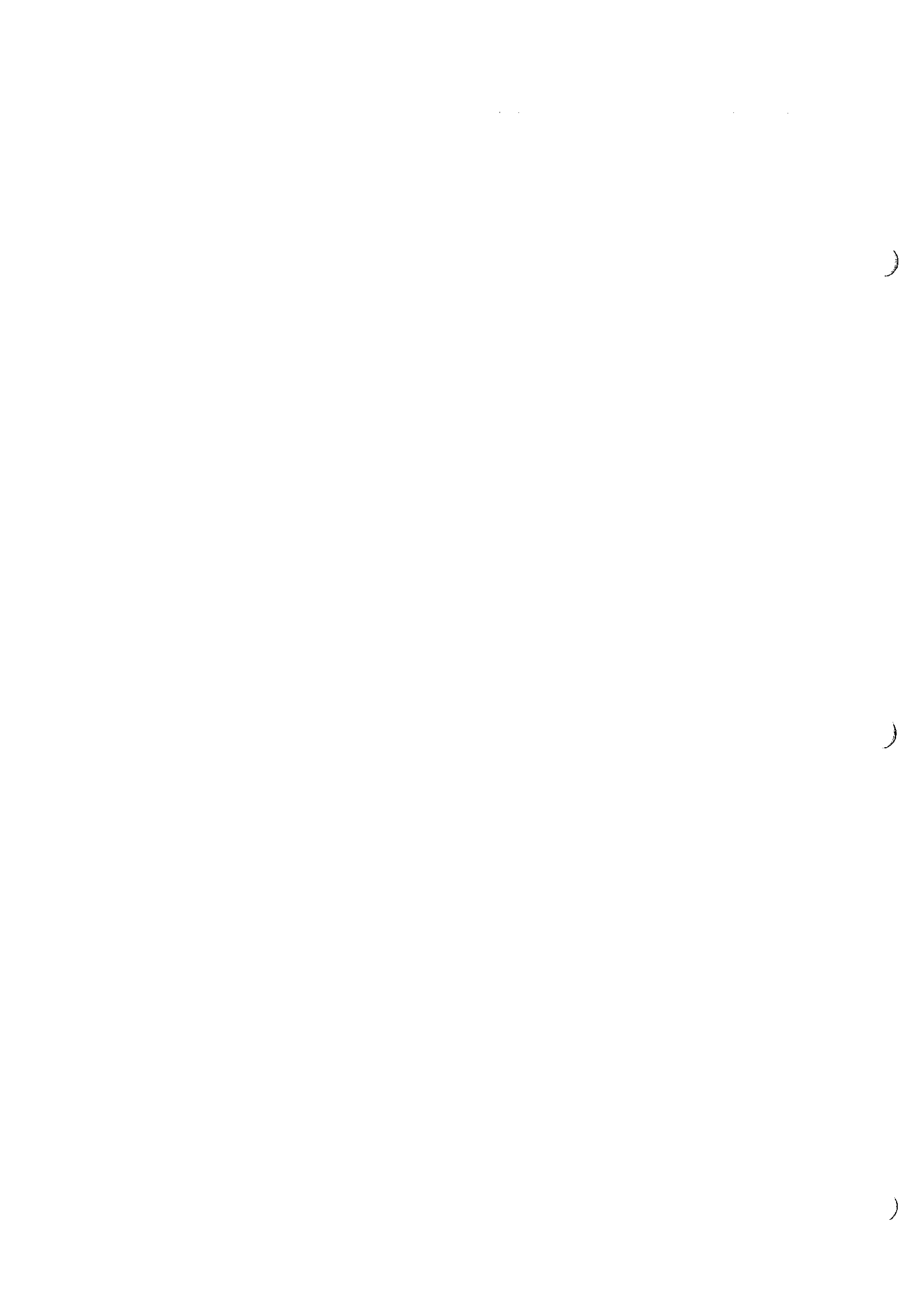
As Commander of the Regional Automated Enforcement Center, Mr. Hansen directed the operation of police personnel from 16 different agencies and personnel from nine different companies.

Mr. Hansen has written several articles on automated traffic law enforcement policy, public acceptance, technology, and court decisions since 1997, reviewed all automated traffic law enforcement related articles submitted to the Transportation Research Board for publication consideration since 1999, and provided comments on many draft documents dealing with issues related to automated traffic law enforcement. He was on the project review committee for *Making Intersections Safer: A Toolbox of Engineering Countermeasures to Reduce Red Light Running* published by the FHWA and ITE and on the editorial board for *Stop on Red=Safe on Green: A Guide to Red Light Camera Programs*.

---

Mr. Hansen has attended and made presentations on automated traffic law enforcement issues in a variety of venues including ITS World Congresses, ITS of America Congresses, European Congresses on ITS, InterTraffic, AASHTO Committee Meetings, the ITE and International Association of Chief's of Police Annual Conferences. He has evaluated automated traffic law enforcement programs in California and North Carolina to provide local government agencies with advice on improvements that could be made.

CURRENT EMPLOYMENT: Peek Traffic Corporation





Columbus, Ohio  
 Photo Red Light Enforcement System  
 Proposal No. SA 001147JY/FM



2511 Corporate Way  
 Palmetto, Florida 34221

TEL: 941.845.1200 CELL: 410.982.1057

FAX: 941.365.0837

E-MAIL: glenn.hansen@peekglobal.com

**EMPLOYMENT HISTORY:**

2004 - Peek Traffic Corp. Government Safety Solution Manager	PALMETTO, FL
2003 - Daniel Consultants, Inc. Transportation Specialist Automated Enforcement Programs, Evacuation Planning	COLUMBIA, MD
2001 – 2003 Traffic Safety Solutions LLC General Manager Automated Enforcement program Evaluations	ELLICOTT CITY, MD
1986 – 2004 Howard City Police Department Commander of Information & Technology Management Bureau Designed and implemented the Regional Automated Enforcement Center Managed operation of 98 red light cameras Coordinated personnel from 16 agencies and nine private companies	ELLICOTT CITY, MD
1983 – 1986 Ocean City Police Department Police Officer Traffic Collision Reconstructionist	OCEAN CITY, MD

**EDUCATION BACKGROUND:**

Johns Hopkins University, Baltimore MD Master of Science, Applied Behavioral Science	Police Executive Leadership Program
University of the State of NY, Albany, NY Bachelor of Science, Economics & Business Management	NW University Police Traffic Services Training
FBI - National Academy	Institute of Police Technology & Management: Selective Traffic Enforcement Program

)

)

)



Columbus, Ohio  
 Photo Red Light Enforcement System  
 Proposal No. SA 001147JY/FM



## RÉSUMÉ of NEIL BRUSSARD

**TITLE:** Operations Manager  
**PROFESSION:** Program Administrator

### PROFESSIONAL BACKGROUND:

In his role at Peek Traffic, Mr. Brussard leads the Field Operations team in assisting clients with the successful installation and operation of red light enforcement programs. Mr. Brussard holds over 30 years experience as a Program, Project, and Operations Manager both as a self-employed entrepreneur, as well as for large corporations such as Digital Equipment Corporation. At Digital, he served as Chief Facilities Manager, managing over 1 million square feet of office space. Prior to his work at Digital, Mr. Brussard led sales efforts and managed communications infrastructure projects for a large network integrator where he provided network solutions for global customers.

Mr. Brussard has been with Peek Traffic since the installation of the first all digital red light program in Wilmington, NC, and has been instrumental in expanding Peek Traffic's customer base by creating and maintaining working relationships with numerous counties and government agencies. He has extensive field operations expertise that includes the following areas:

- Project Management
- Cost Control
- Managing Technical and Administrative Resources
- Customer Service

Mr. Brussard has the proven ability to lead a diverse array of project teams and initiatives in the successful deployment of automated enforcement systems. He has built an enviable reputation on providing leadership in the design, development and implementation of system and process initiatives that support our clients' strategic goals.

**CURRENT EMPLOYMENT:** Peek Traffic Corporation  
 2511 Corporate Way  
 Palmetto, Florida 34221, USA

TEL: 941.845.1229      FAX: 941.365.0837  
 E-MAIL: neil.brussard@peekglobal.com

### EMPLOYMENT HISTORY:

2000 - PEEK TRAFFIC CORP.  
 Implementation Manager

PALMETTO, FL



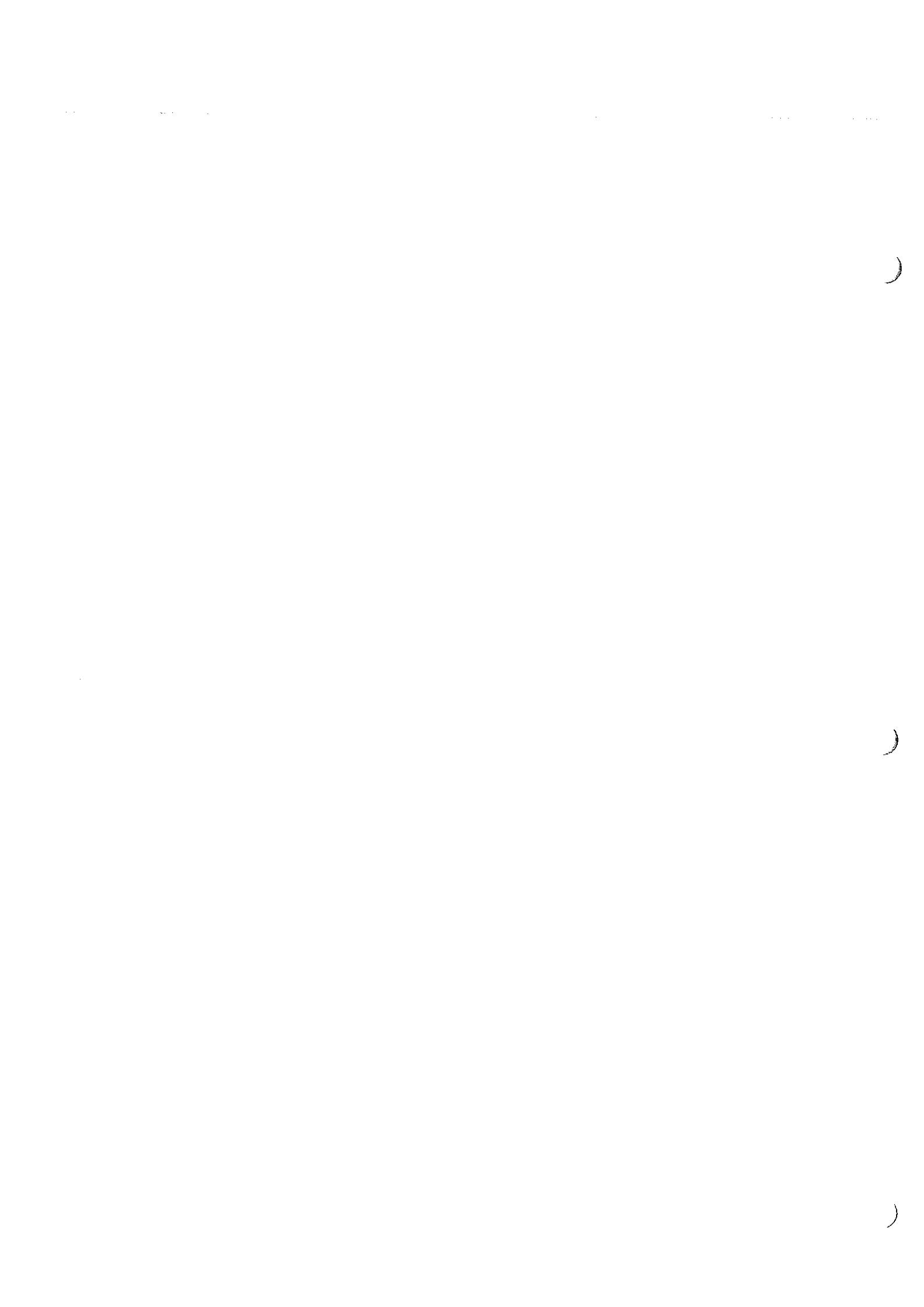


Columbus, Ohio  
Photo Red Light Enforcement System  
Proposal No. SA 001147JY/FM



1999 - 2000 Self Employed Program Manager	PORT CHARLOTTE, FL
1995 - 1999 CONNECTIVITY, INC. Account Manager	HUDSON, NH
1992 - 1995 DSC INTERNATIONAL Project Manager	MARBLEHEAD, MA
1973 - 1992 DIGITAL EQUIPMENT CORP. Network Planning Consultant Facility Manager Planning Manager	MERRIMACK, NH







Columbus, Ohio  
 Photo Red Light Enforcement System  
 Proposal No. SA 001147JY/FM



**RÉSUMÉ of TERRY HAMRICK**

**TITLE:** Operations Manager  
**PROFESSION:** Engineering  
**CURRENT EMPLOYMENT:** Peek Traffic Corporation  
 2511 Corporate Way  
 Palmetto, Florida 34221, USA

TEL: 910.279.5652 FAX: 941.365.0837  
 E-MAIL: terry.hamrick@peekglobal.com

**PROFESSIONAL BACKGROUND:**

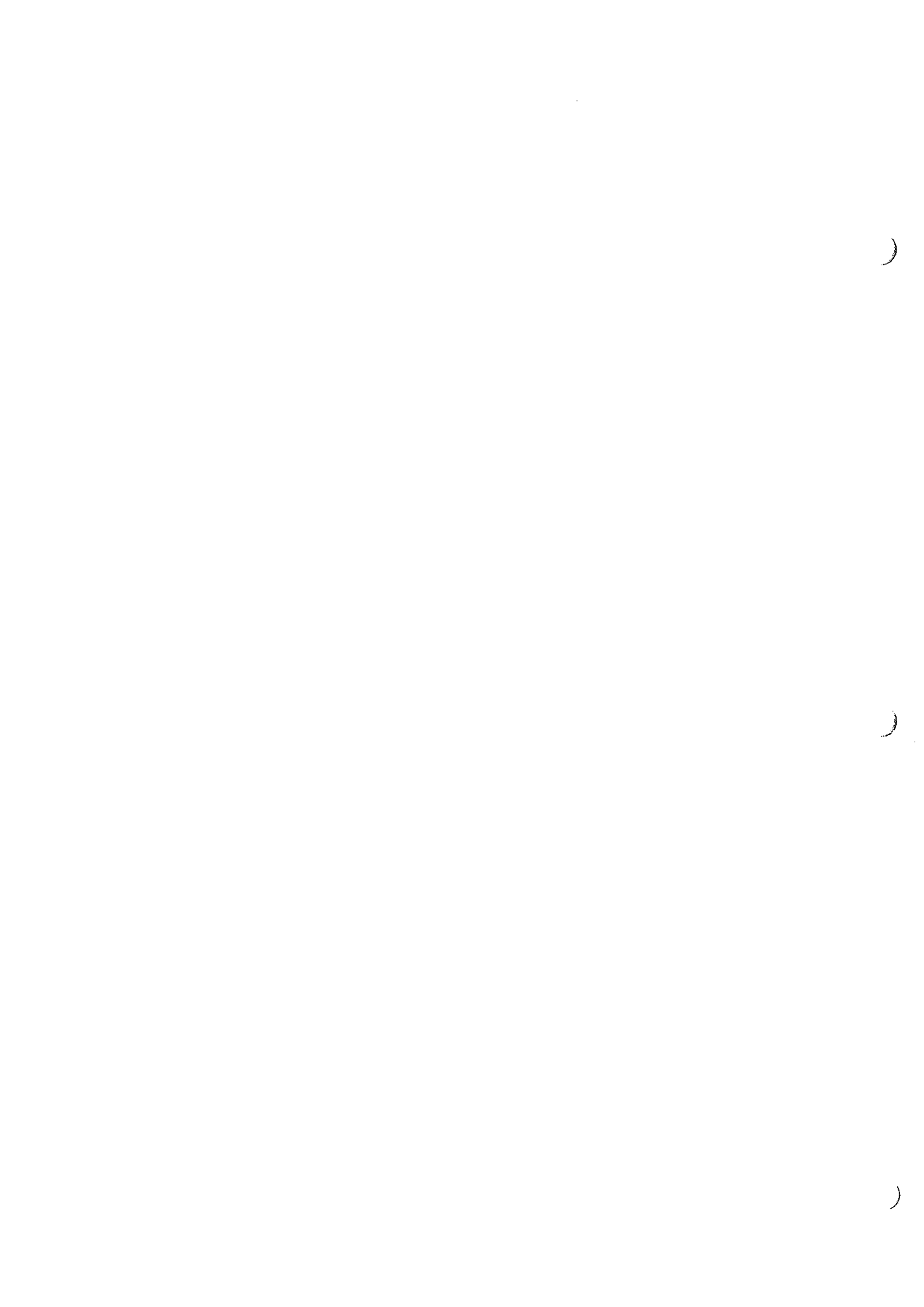
Terry leads very successful Customer Service and Operations teams. His global experience leading multi-site teams and building excellence into business processes insures mature business practices and high levels of Customer Satisfaction.

**EMPLOYMENT HISTORY:**

- 2002 - PEEK TRAFFIC CORP. PALMETTO, FL  
 Operations Manager, Red-light Camera Enforcement
- 2002 – 2002 Investment Advisor, 2002 – 2002 Raleigh, NC, U.S.A.
- 1981 - 2001 Nortel Networks
- 1999 - 2001 Director Global Network Solution Engineering RTP, NC, U.S.A.
- 1998 - 1999 General Manager South Africa Johannesburg, South Africa
- 1996 - 1998 Director Planning & Process Singapore
- 1994 - 1996 Project Director Viet Nam/India Joint Ventures Ho Chi Minh City, Viet Nam
- 1993 - 1994 Director Global Engineering Process RTP, NC, U.S.A.
- 1991 - 1993 Staff Senior Manager Product Support RTP, NC, U.S.A.
- 1990 - 1991 Director Japan Technical Service Tokyo, Japan
- 1989 - 1990 Senior Manager International Technical Service RTP, NC, U.S.A.
- 1987 - 1989 International Product Marketing RTP, NC, U.S.A.
- 1981 - 1987 Technical Support Manager RTP, NC, U.S.A.; Peru; Turkey; China
- 1973 - 1981 U.S. Air Force Global Project and Operations Manager

**EDUCATION:**

- Pennsylvania State University \*Managing the Global Enterprise
- ~~North Carolina Wesleyan College \*Business Communications~~
- Nortel Networks \* Senior Leadership Forums \*Facilitation \*Managing within the Law  
 \*DMS Product Engineering \*DMS Product Support
- United States Air Force \*Project Management \*Team Leadership \*Engineering Principles \*Telephony Engineering & Installation \*Electronics





Columbus, Ohio  
 Photo Red Light Enforcement System  
 Proposal No. SA 001147JY/FM



**RÉSUMÉ of VIVIAN WESSEL**

**TITLE:** ATE Marketing & Citation Processing Operations  
**PROFESSION:** Sales & Marketing and Operations

**PROFESSIONAL BACKGROUND:**

Ms. Wessel holds a dual role in the Automated Traffic Enforcement field at Peek Traffic facilitating both potential new business and the creation & implementation of Citation Processing procedures. Ms. Wessel leads the Citation Processing Operations team in Florida, overseeing and facilitating the individual city clients continuous image review and citation creation operations. In her Marketing role, Ms. Wessel reviews new RFP's, facilitates Proposal creation, and researches existing Red Light opportunities in the US.

Ms. Wessel holds over 15 years experience in growth opportunity research and the implementation of operational procedures in her experiences. Her diverse background began with her family's distribution business of winter tire studs (for safer winter driving). As Facilities Manager & Special Projects Manager for Hitachi Computer Products, Ms. Wessel managed the facilities and staff of a satellite computer center which operated as both showcase and as a disaster recovery center for the banking industry in New York. As Sales & Marketing Coordinator for Arthur Andersen's tax return software development team, Ms. Wessel's role was to seek new opportunities with high-end banks in the US for the Trust Accounting System software bridge and related Fiduciary tax return market.

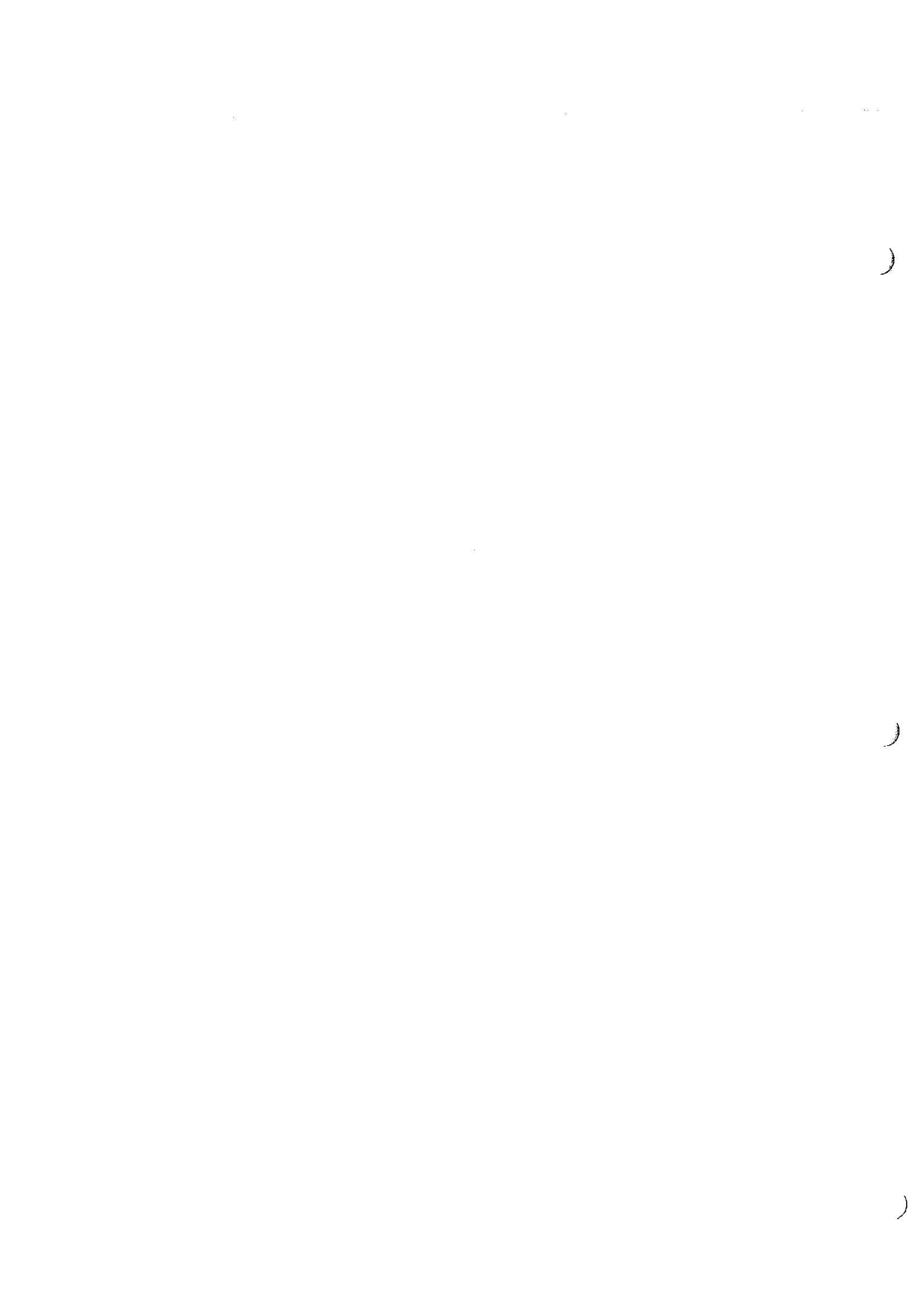
Ms. Wessel has been with Peek Traffic since late 2002 and has been a valuable team member in expanding Peek Traffic's opportunities with the new Red Light opportunity in Charlotte, North Carolina, and facilitating the newly developed centralized Citation Processing Team in Florida.

**CURRENT EMPLOYMENT:** Peek Traffic Corporation  
 2511 Corporate Way  
 Palmetto, Florida 34221, USA

TEL: 941.845.1232 FAX: 941.365.0837  
 E-MAIL: vivian.wessel@peekglobal.com

**EMPLOYMENT HISTORY:**

2002	PEEK TRAFFIC CORP	PALMETTO, FL
	Implementation Manager	
1999 - 2002	ICARD, MERRILL, et. al.	SARASOTA, FL
	Paralegal	





Columbus, Ohio  
Photo Red Light Enforcement System  
Proposal No. SA 001147JY/FM



1995 - 1999 ARTHUR ANDERSEN LLP Sales & Marketing Coordinator	SARASOTA, FL
1989 - 1991 HITACHI COMPUTER PRODUCTS Facilities Manager	PURCHASE, NY
1987 - 1989 NESTLE FOODS CORP. Buyer	PURCHASE, NY
1980 - 1995 BRUNO WESSEL, INC. Manager	NEW YORK & FLORIDA

)

)

)

## Responsibility & Role of Key Personnel

Key personnel who will participate in the *SafeStreet* project (upon award of contract) include the following:

Mr. Tim O'Leary  
 President  
 Peek Traffic Corp.  
 941-835-1200

Location:  
 2511 Corporate Way  
 Palmetto, FL 34221

Responsibility to the City of Columbus:  
 Not Dedicated to the Columbus Contract,  
 but shoulders corporate responsibility.

Corporate Officer

Mr. Todd Eikinas,  
 Automated Enforcement Program Director  
 Peek Traffic Corp.  
 941-650-5072

Location:  
 5 Bradley Park Drive  
 Hingham, MA 02043

Responsibility to the City of Columbus:

Contract Officer

Mr. Glenn Hansen,  
 Government Safety Solutions Manager  
 Peek Traffic Corp.  
 410-982-1057

Location:  
 2662 Melba Road  
 Ellicott City, MD 21042

Responsibility to the City of Columbus:

Project Liaison

Mr. Neil Brussard,  
 Red Light Enforcement Project Manager  
 Peek Traffic Corp.  
 941-845-1228

Location:  
 2511 Corporate Way  
 Palmetto, FL 34221

Responsibility to the City of Columbus:

Program Implementation

Mr. Terry Hamrick  
 Red Light Operations Manager  
 Peek Traffic Corp.  
 910-279-5652

Location:  
 229 S Brevard St, Ste 102  
 Charlotte, NC 28202

Responsibility to the City of Columbus:

Operations Manager

Ms. Vivian Wessel  
 Citation Processing Manager  
 Peek Traffic Corp.  
 941-845-1232

Location:  
 2511 Corporate Way  
 Palmetto, FL 34221

Responsibility to the City of Columbus:

Manage Citation Review Team



)

)

)



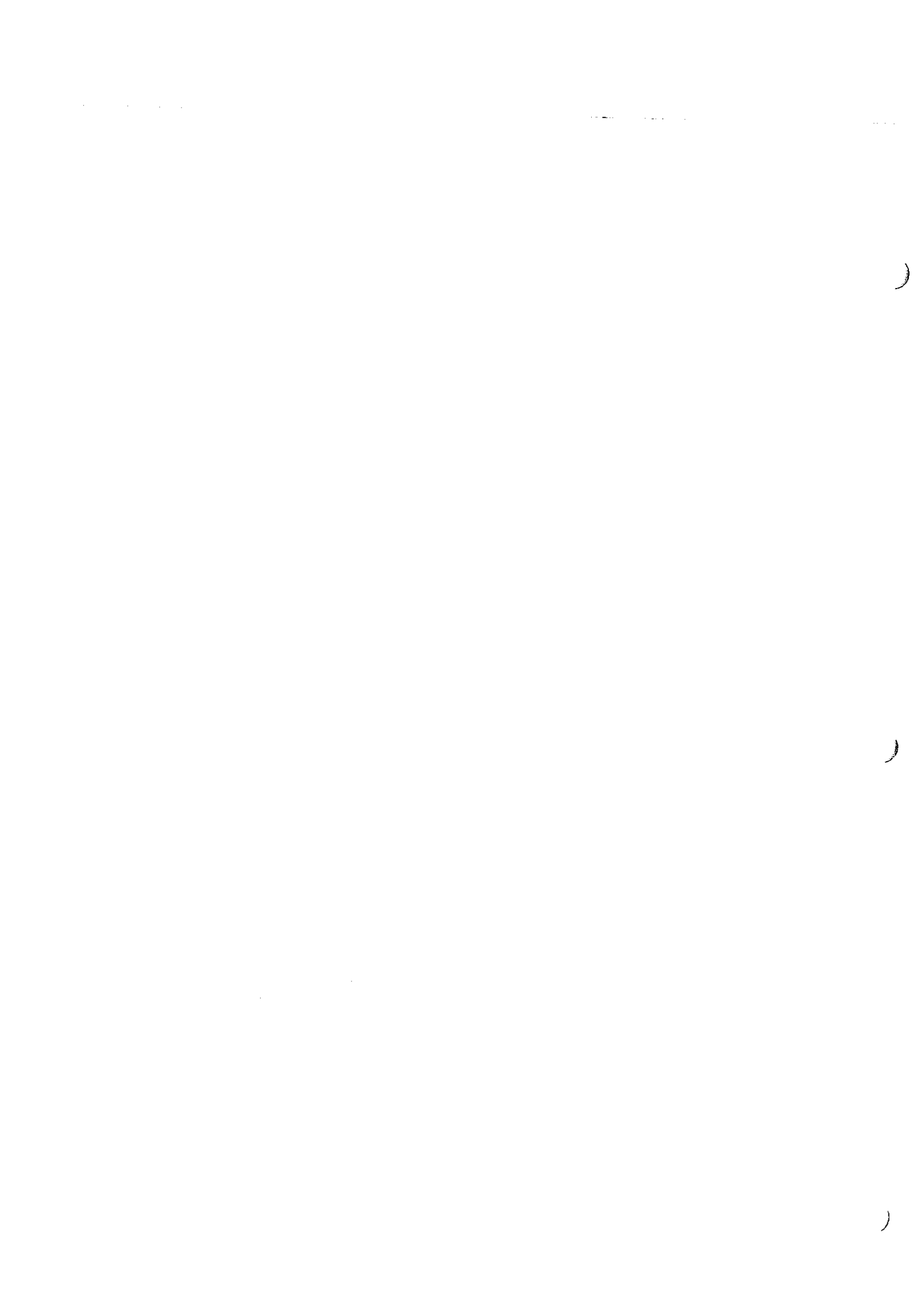
## Contents of Appendix II

### Sample Citations

- 1.) Tag: SNCxxxx – M/M: White Chevrolet Tahoe C1500 – 20 mph
- 2.) Tag: RWJxxxx – M/M: Grey 1993 Honda Accord LX – 39mph

### Sample Images

- 1.) Bright Daylight Images A & B with tag close-up
  - 2.) Rainy / Dark Images A & B with tag close-up
  - 3.) Tractor Trailer (Oversized Vehicle) Images A & B with tag close-up
  - 4.) Fog / Grey Day Image with tag close-up  
(Front View: Example to show adverse weather - only)  
*(not recommending front view photography)*
  - 5.) Winter / Snow Night Image with tag close-up  
(Front & Rear View: Example to show adverse weather - only)  
*(not recommending front view photography)*
  - 6.) Twilight Image with tag close-up
- 
- 
-





City of Charlotte  
**RED LIGHT CAMERA PROGRAM**  
 229 South Brevard Street, Suite 102, Charlotte, NC 28202  
 (704) 375-3177



**CHARLOTTE.**

MAIL DATE: 03/00/2004

**NOTICE OF CITATION**

Citation Number 1234567890

Internet Password: XXXX0XXX

Payment Due Date: 04/13/2004 Amount Due: \$50.00

Amount Paid: \$

John Q. Public  
 123 Main Street  
 Mytown, CA 00000

Contact us on the Internet for  
 citation information and payments at:

<https://onlineviolation.com/charlottenc>

City of Charlotte  
 229 South Brevard Street, Suite 102  
 Charlotte, NC 28202

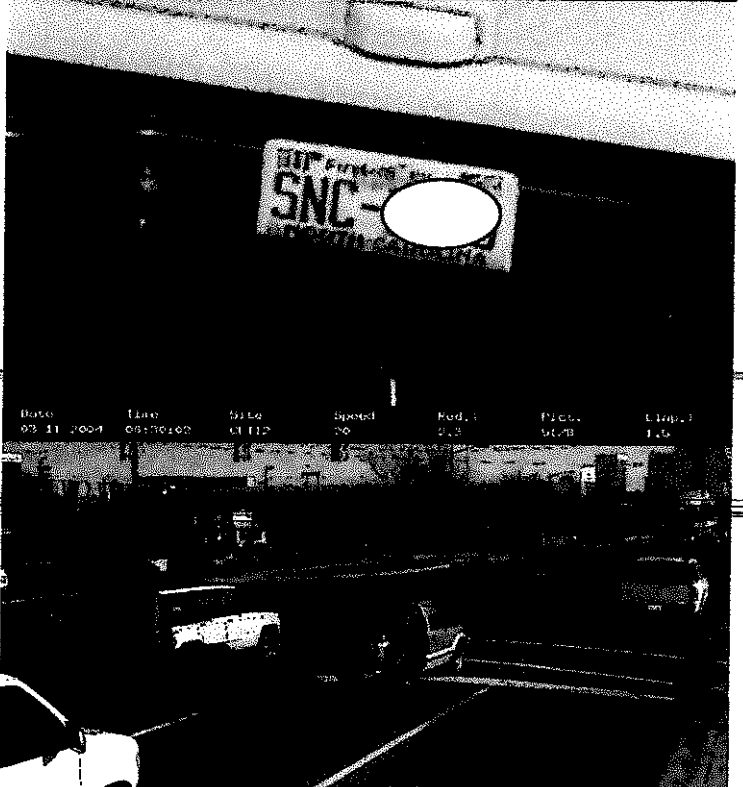
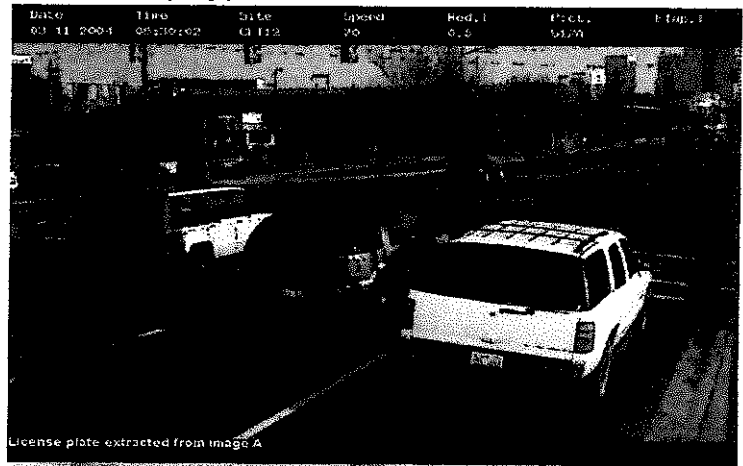
Detach here and return the above portion with your payment

Citation Number: 1234567890  
 Plate: SNC0000 NC

On 03/00/2004 at 08:30 AM your vehicle was photographed (copies are shown to the right) entering an intersection in which the traffic signal was red, in violation of Charlotte City Code Section 14-228. The civil penalty for this violation is \$50.00. No points will be assessed against your driving record or insurance as a result of this violation. Please see reverse side for payment options and for a description of the information in the Data Block shown above the photographs.

This program has been initiated to increase roadway safety, reduce red light violations and prevent injuries. If you have any questions regarding this citation, please visit our Internet site or call the office at (704) 375-3177.

**Important Notice:** Failure to pay the civil fine by the due date shown above will result in an additional late penalty of \$50.00. Request for appeals and transfer of responsibility must also be received by the due date above or your right to appeal will be waived. For your convenience, you may pay, appeal, or transfer your citation via the internet at <https://onlineviolation.com/charlottenc>. Please be sure to use the internet password provided above to access your citation.



Red Time	Vehicle Tag No
.80	SNC0000

Date/Time	Location of Violation
03/00/2004 08:30 AM	South Blvd. and East Blvd.

**FOR A SAFER COMMUNITY  
 STOP ON RED**

**Questions & Answers Regarding This Notice**

- Q. Why did I get this notice of citation?
- A. A vehicle registered or leased to you was photographed running a red light by a traffic control photographic system.
- Q. Is this notice a moving violation infraction?
- A. No, this citation is not considered to be a "traffic infraction". Instead, it is a non-criminal violation for which civil penalties are assessed. No points will be assessed for this violation and it will not affect your insurance.
- Q. What are my options?
- A. You have the following four options:
- (1) You may accept responsibility and pay the civil penalties (see "Payment Options");
  - (2) You may contest (appeal) the citation by posting a \$50 "bond" and requesting an administrative hearing (see "Appeal Request")
  - (3) If you were not driving the vehicle at the time of the violation, you may submit a notarized affidavit stating that you were not driving and identifying the individual who had possession or was driving at the time. If you choose this option, a new citation will be issued to the individual that you identify (see "Transferring Responsibility"); or
  - (4) If the vehicle was stolen at the time of the violation, you may submit a notarized affidavit stating that the vehicle was, at the time, stolen and supporting information such as an insurance or police report (see "Reporting Vehicle Stolen").

If you do not exercise one of the four options within thirty (30) days from the date of the citation, you will be assessed an additional \$50.00 late payment penalty.

- Q. How do I arrange for accommodations for persons with disabilities?
- A. Any reasonable accommodation for persons with disabilities will be made. Requests should be made prior to visiting the facility by calling (704) 375-3177.

**PAYMENT OPTIONS**

Checks or money orders should be made payable to the City of Charlotte. Do not send cash. If you fail to remit payment or contest the citation within 30 days of the date of the citation, a penalty \$50.00 will be added to the total amount due.

Make sure your name, address, license number and citation number are on your check or money order.

**Mail check or money order to:**

City of Charlotte  
229 South Brevard Street  
Suite 102  
Charlotte, NC 28202

**Walk-in payments may be made at:**

229 South Brevard Street, Suite 102  
Charlotte, NC 28202  
(MasterCard and Visa accepted)

**APPEAL REQUEST**

An appeal request must be accompanied by a deposit of \$50, which shall constitute a bond. You will be contacted to schedule a hearing before a hearing officer. If the hearing officer upholds the citation, your bond will be used to satisfy your civil penalty obligation. If the citation is dismissed, your bond will be returned.

Basis for contesting citation (only those reasons stated in this appeal request may be argued at the hearing. You may attach a separate document if the space provided is not sufficient.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Your Signature \_\_\_\_\_

Telephone (\_\_\_\_\_) \_\_\_\_\_

**AFFIDAVIT TRANSFERRING RESPONSIBILITY\***

I \_\_\_\_\_ (print or type name), being duly sworn, state that I was not driving the vehicle identified in this Notice of Citation at the time of the violation. The name and address of the person or company who had the care, custody and control of the vehicle at the time of the violation is:

Name \_\_\_\_\_  
Address \_\_\_\_\_

I understand that a new Notice of Citation will be issued to the person I identified.

Your Signature \_\_\_\_\_

Sworn to and subscribed before me this \_\_\_\_ day of \_\_\_\_\_, 200\_\_.

Notary Public

My Commission Expires: \_\_\_\_\_

**AFFIDAVIT REPORTING VEHICLE STOLEN\***

I \_\_\_\_\_ (print or type name), being duly sworn, state that the vehicle identified in this Notice of Citation was, at the time, stolen. (You must attach supporting evidence such as a copy of an insurance or police report.)

Your Signature \_\_\_\_\_

Sworn to and subscribed before me this \_\_\_\_ day of \_\_\_\_\_, 200\_\_.

Notary Public

My Commission Expires: \_\_\_\_\_

**\* Submission of a false affidavit constitutes perjury punishable as a Class F felony.**

For further information about the SafeLight Program:

**Telephone:** (704) 375-3177

**Write:** 229 South Brevard Street  
Suite 102  
Charlotte, NC 28202

**Internet:** <http://www.ci.charlotte.nc.us/Home.htm>

**E-Mail:** [safelight@ci.Charlotte.nc.us](mailto:safelight@ci.Charlotte.nc.us)



City of Charlotte  
**RED LIGHT CAMERA PROGRAM**  
 229 South Brevard Street, Suite 102, Charlotte, NC 28202  
 (704) 375-3177



**CHARLOTTE.**

MAIL DATE: 03/00/2004

**NOTICE OF CITATION**

Citation Number 1234567890

Internet Password: XXXX0XXX

Payment Due Date: 04/06/2004

Amount Due: \$50.00

Amount Paid: \$

Jane Q. Public  
 123 Main Street  
 Mytown, CA 00000

Contact us on the Internet for  
 citation information and payments at:  
<https://onlineviolation.com/charlottenc>

City of Charlotte  
 229 South Brevard Street, Suite 102  
 Charlotte, NC 28202

Detach here and return the above portion with your payment

Citation Number: 1234567890  
 Plate: RWJ0000 NC

On 02/00/2004 at 12:31 PM your vehicle was photographed (copies are shown to the right) entering an intersection in which the traffic signal was red, in violation of **Charlotte City Code Section 14-228**. The civil penalty for this violation is \$50.00. No points will be assessed against your driving record or insurance as a result of this violation. Please see reverse side for payment options and for a description of the information in the Data Block shown above the photographs.

This program has been initiated to increase roadway safety, reduce red light violations and prevent injuries. If you have any questions regarding this citation, please visit our Internet site or call the office at (704) 375-3177.

**Important Notice:** Failure to pay the civil fine by the due date shown above will result in an additional late penalty of \$50.00. Request for appeals and transfer of responsibility must also be received by the due date above or your right to appeal will be waived. For your convenience, you may pay, appeal, or transfer your citation via the internet at <https://onlineviolation.com/charlottenc>. Please be sure to use the internet password provided above to access your citation.



Red Time	Vehicle Tag No
.40	RWJ0000

Date/Time	Location of Violation
02/00/2004 12:31 PM	Beatties Ford and Hoskins

**FOR A SAFER COMMUNITY  
 STOP ON RED**

**Questions & Answers Regarding This Notice**

- Q. Why did I get this notice of citation?
- A. A vehicle registered or leased to you was photographed running a red light by a traffic control photographic system.
- Q. Is this notice a moving violation infraction?
- A. No, this citation is not considered to be a "traffic infraction". Instead, it is a non-criminal violation for which civil penalties are assessed. No points will be assessed for this violation and it will not affect your insurance.
- Q. What are my options?
- A. You have the following four options:
- (1) You may accept responsibility and pay the civil penalties (see "Payment Options");
  - (2) You may contest (appeal) the citation by posting a \$50 "bond" and requesting an administrative hearing (see "Appeal Request");
  - (3) If you were not driving the vehicle at the time of the violation, you may submit a notarized affidavit stating that you were not driving and identifying the individual who had possession or was driving at the time. If you choose this option, a new citation will be issued to the individual that you identify (see "Transferring Responsibility"); or
  - (4) If the vehicle was stolen at the time of the violation, you may submit a notarized affidavit stating that the vehicle was, at the time, stolen and supporting information such as an insurance or police report (see "Reporting Vehicle Stolen").

If you do not exercise one of the four options within thirty (30) days from the date of the citation, you will be assessed an additional \$50.00 late payment penalty.

- Q. How do I arrange for accommodations for persons with disabilities?
- A. Any reasonable accommodation for persons with disabilities will be made. Requests should be made prior to visiting the facility by calling (704) 375-3177.

**PAYMENT OPTIONS**

Checks or money orders should be made payable to the City of Charlotte. Do not send cash. If you fail to remit payment or contest the citation within 30 days of the date of the citation, a penalty \$50.00 will be added to the total amount due.

Make sure your name, address, license number and citation number are on your check or money order.

**Mail check or money order to:**

City of Charlotte  
229 South Brevard Street  
Suite 102  
Charlotte, NC 28202

**Walk-in payments may be made at:**

229 South Brevard Street, Suite 102  
Charlotte, NC 28202  
(MasterCard and Visa accepted)

**APPEAL REQUEST**

An appeal request must be accompanied by a deposit of \$50, which shall constitute a bond. You will be contacted to schedule a hearing before a hearing officer. If the hearing officer upholds the citation, your bond will be used to satisfy your civil penalty obligation. If the citation is dismissed, your bond will be returned.

Basis for contesting citation (only those reasons stated in this appeal request may be argued at the hearing. You may attach a separate document if the space provided is not sufficient.)

Your Signature \_\_\_\_\_

Telephone (\_\_\_\_) \_\_\_\_\_

**AFFIDAVIT TRANSFERRING RESPONSIBILITY\***

I \_\_\_\_\_ (print or type name), being duly sworn, state that I was not driving the vehicle identified in this Notice of Citation at the time of the violation. The name and address of the person or company who had the care, custody and control of the vehicle at the time of the violation is:

Name \_\_\_\_\_  
Address \_\_\_\_\_

I understand that a new Notice of Citation will be issued to the person I identified.

Your Signature \_\_\_\_\_

Sworn to and subscribed before me this \_\_\_\_ day of \_\_\_\_\_, 200\_\_.

Notary Public

My Commission Expires: \_\_\_\_\_

**AFFIDAVIT REPORTING VEHICLE STOLEN\***

I \_\_\_\_\_ (print or type name), being duly sworn, state that the vehicle identified in this Notice of Citation was, at the time, stolen. (You must attach supporting evidence such as a copy of an insurance or police report.)

Your Signature \_\_\_\_\_

Sworn to and subscribed before me this \_\_\_\_ day of \_\_\_\_\_, 200\_\_.

Notary Public

My Commission Expires: \_\_\_\_\_

**\*Submission of a false affidavit constitutes perjury punishable as a Class F felony.**

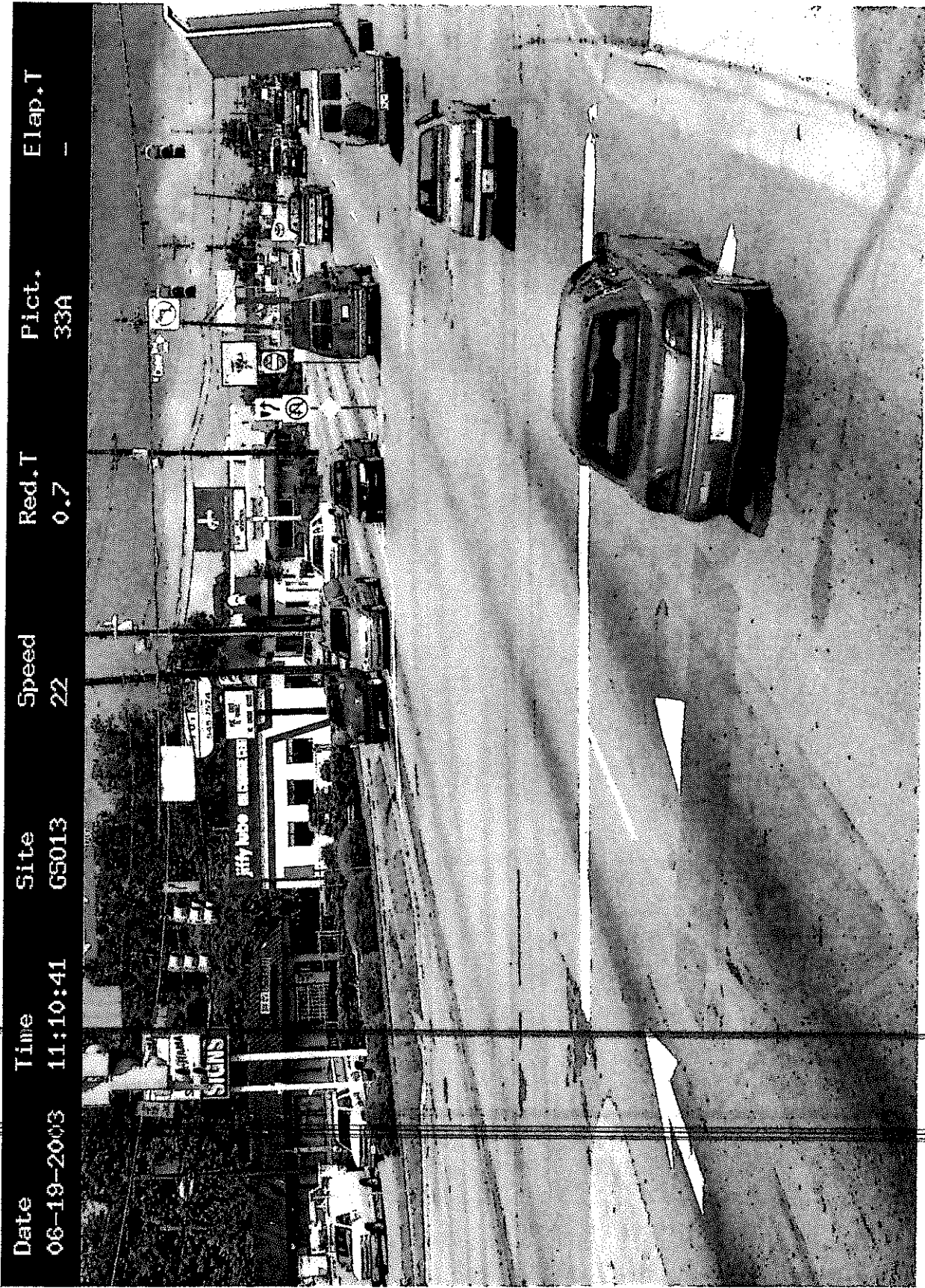
For further information about the SafeLight Program:

**Telephone:** (704) 375-3177

**Write:** 229 South Brevard Street  
Suite 102  
Charlotte, NC 28202

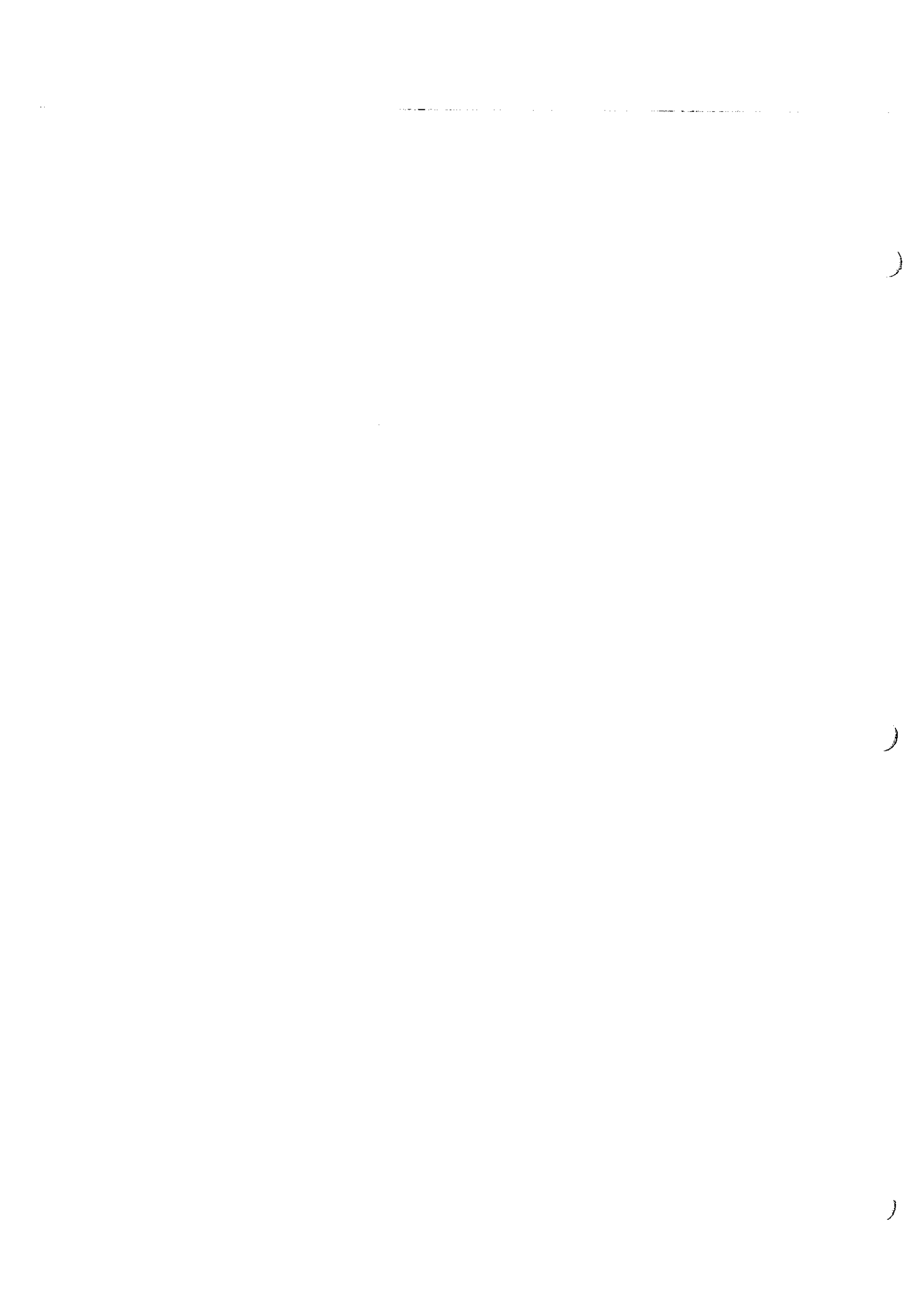
**Internet:** <http://www.ci.charlotte.nc.us/Home.htm>

**E-Mail:** [safelight@ci.Charlotte.nc.us](mailto:safelight@ci.Charlotte.nc.us)

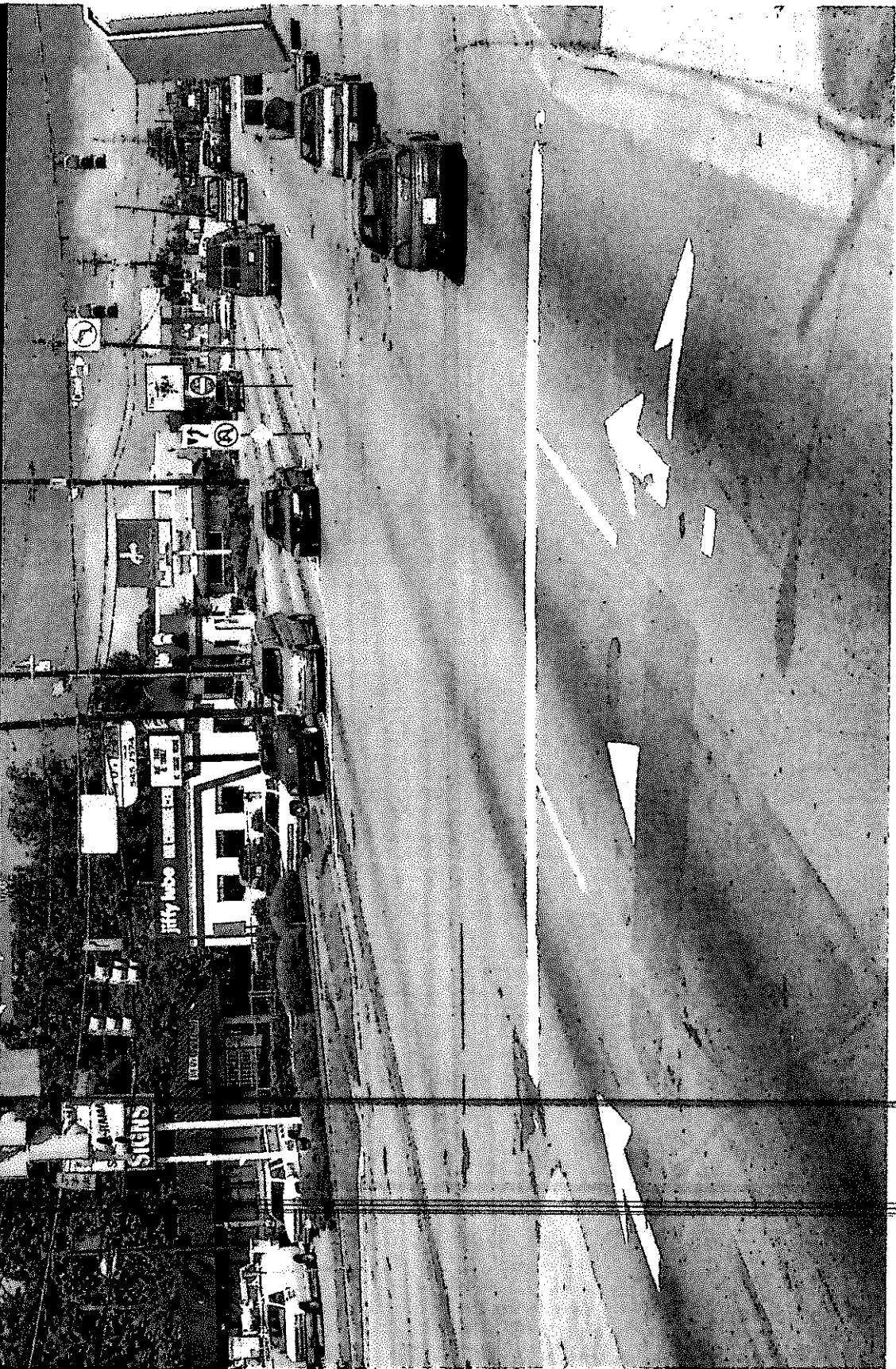


Bright Daylight Image A

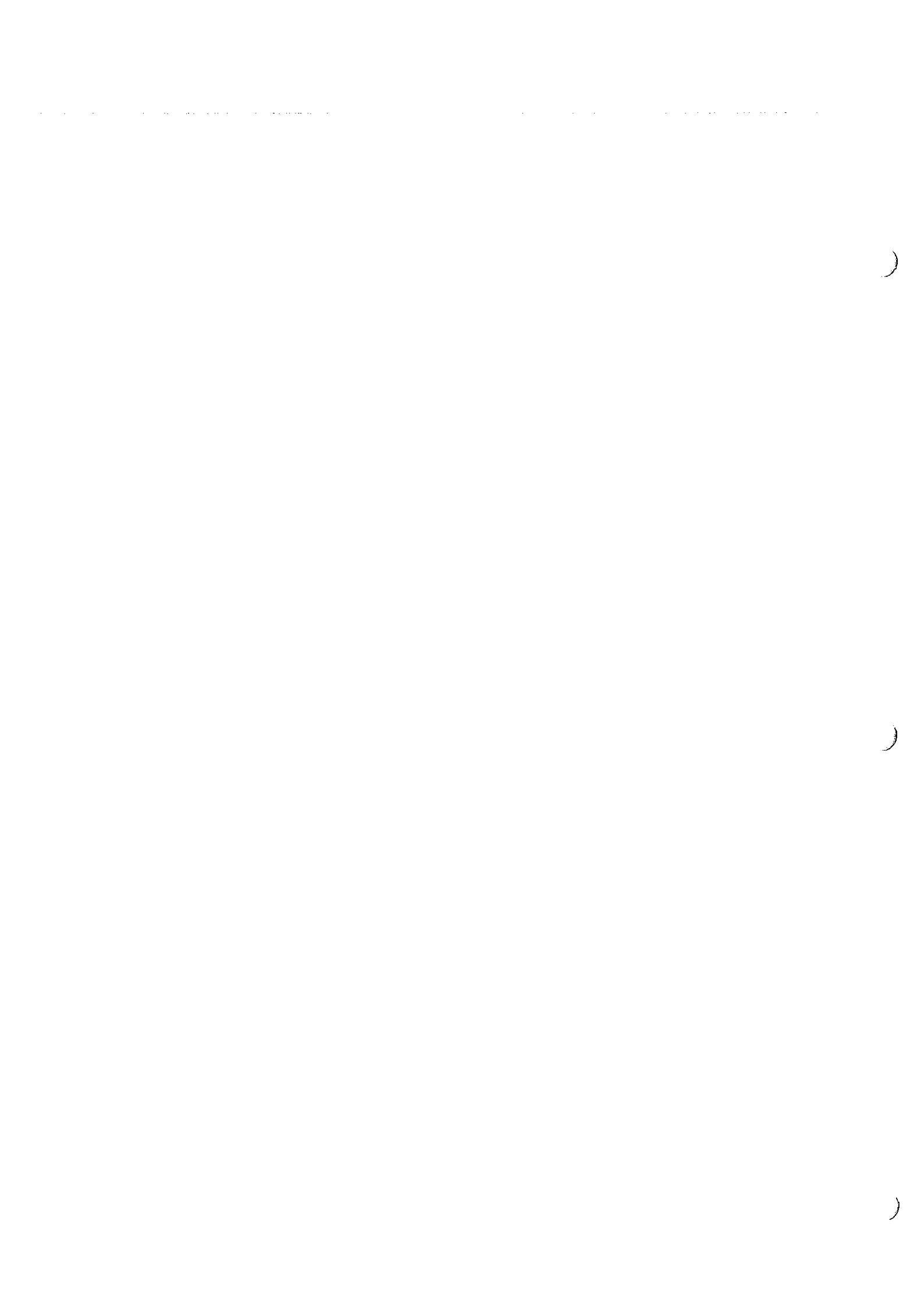




Date 06-19-2003 Time 11:10:41 Site GS013 Speed 22 Red.T 2.0 Pict. 33B Elap.T 1.3

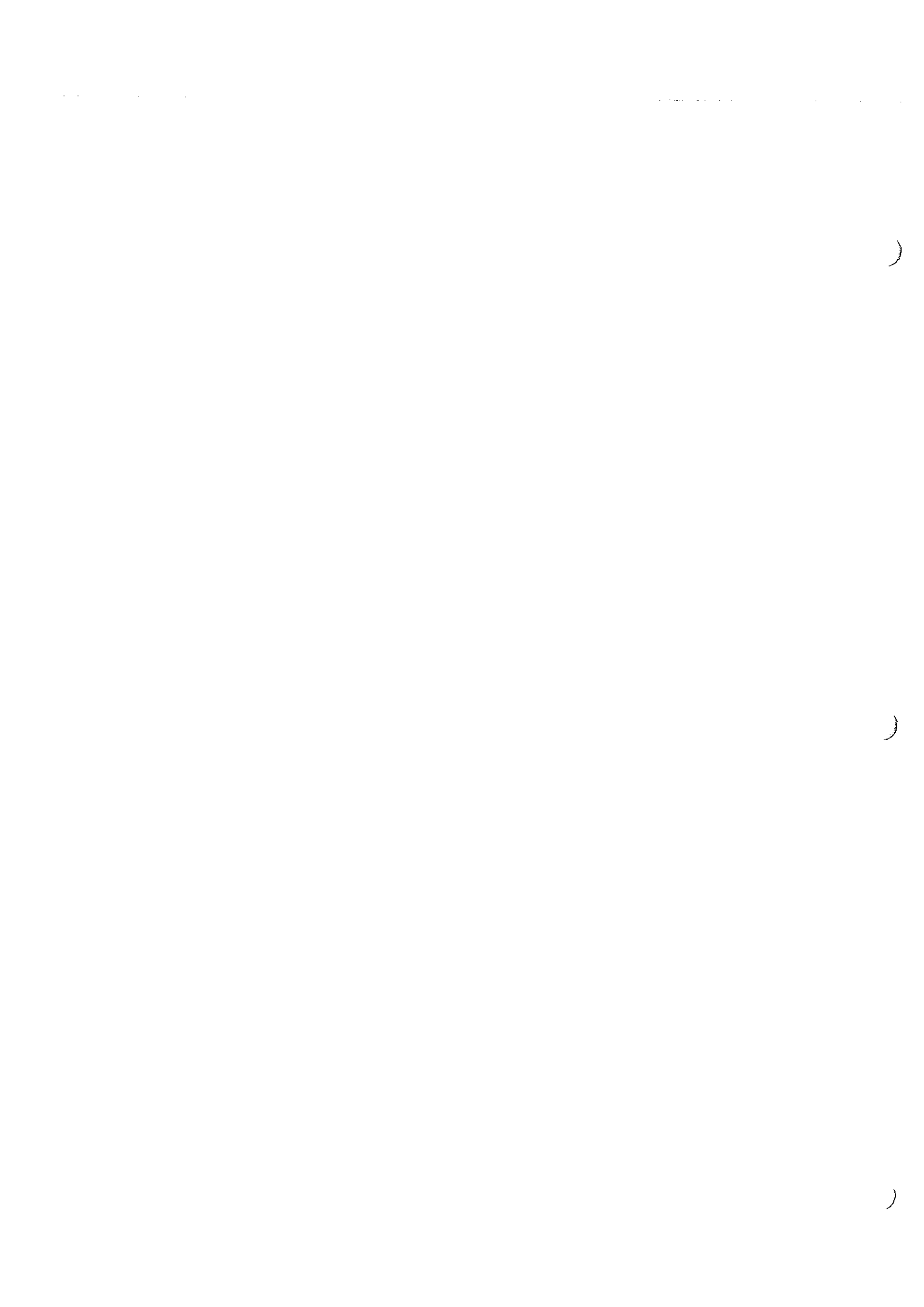


Bright Daylight Image B

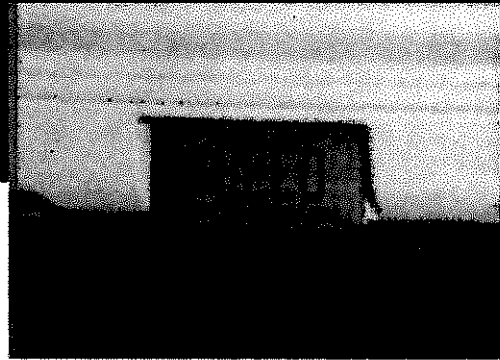




Bright Daylight Tag Close-up Image



Date	Time	Site	Speed	Red.T	Pict.	Elap.T
06-19-2003	14:52:10	G5013	33	1.3	1A	-



Rainy / Dark Image with tag close-up (Image A)

Date	Time	Site	Speed	Red.T	Pict.	Elap.T
06-19-2003	14:52:10	GS013	33	2.2	1B	0.9



Rainy / Dark Image with tag close-up (Image B)

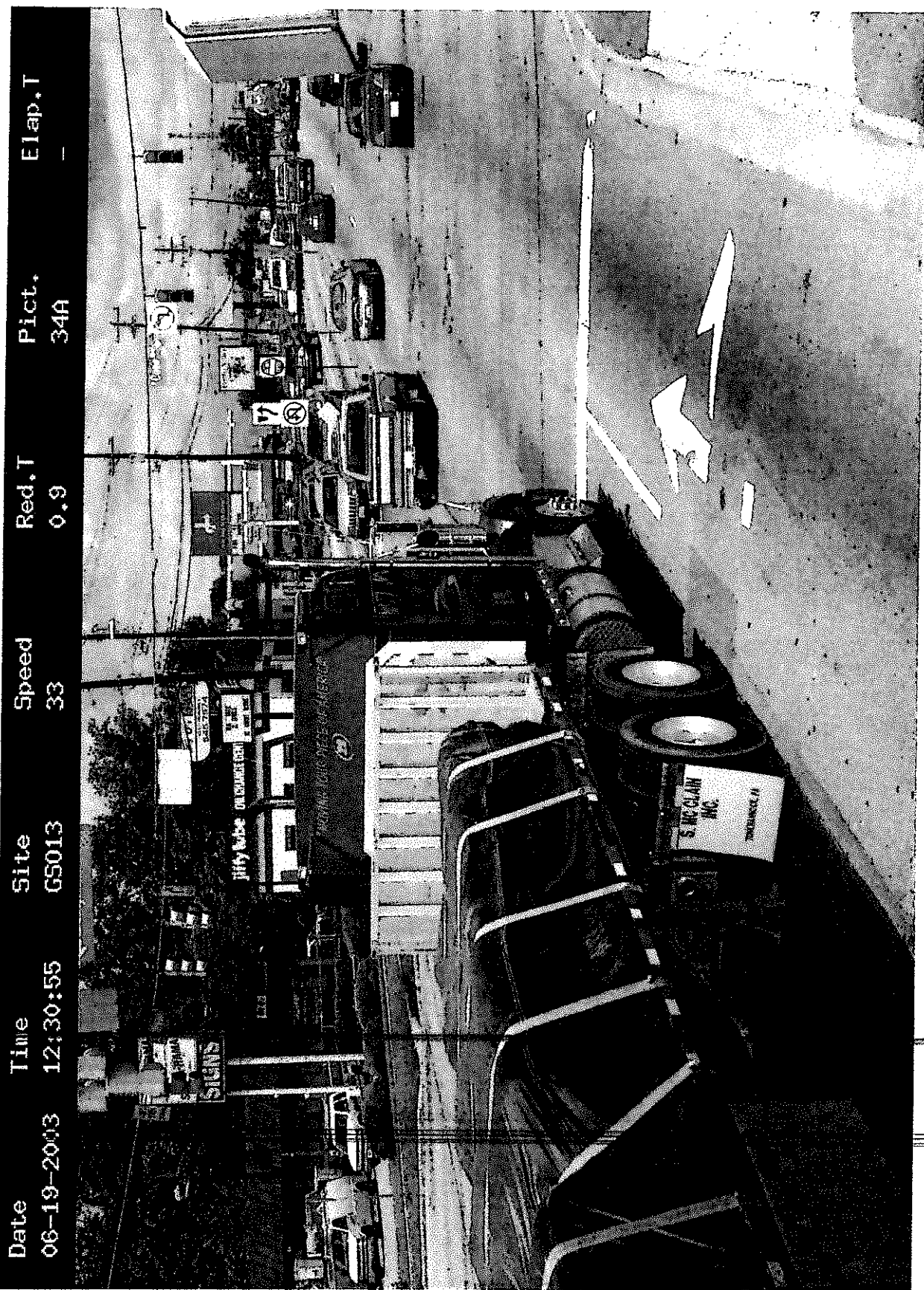
.....

)

)

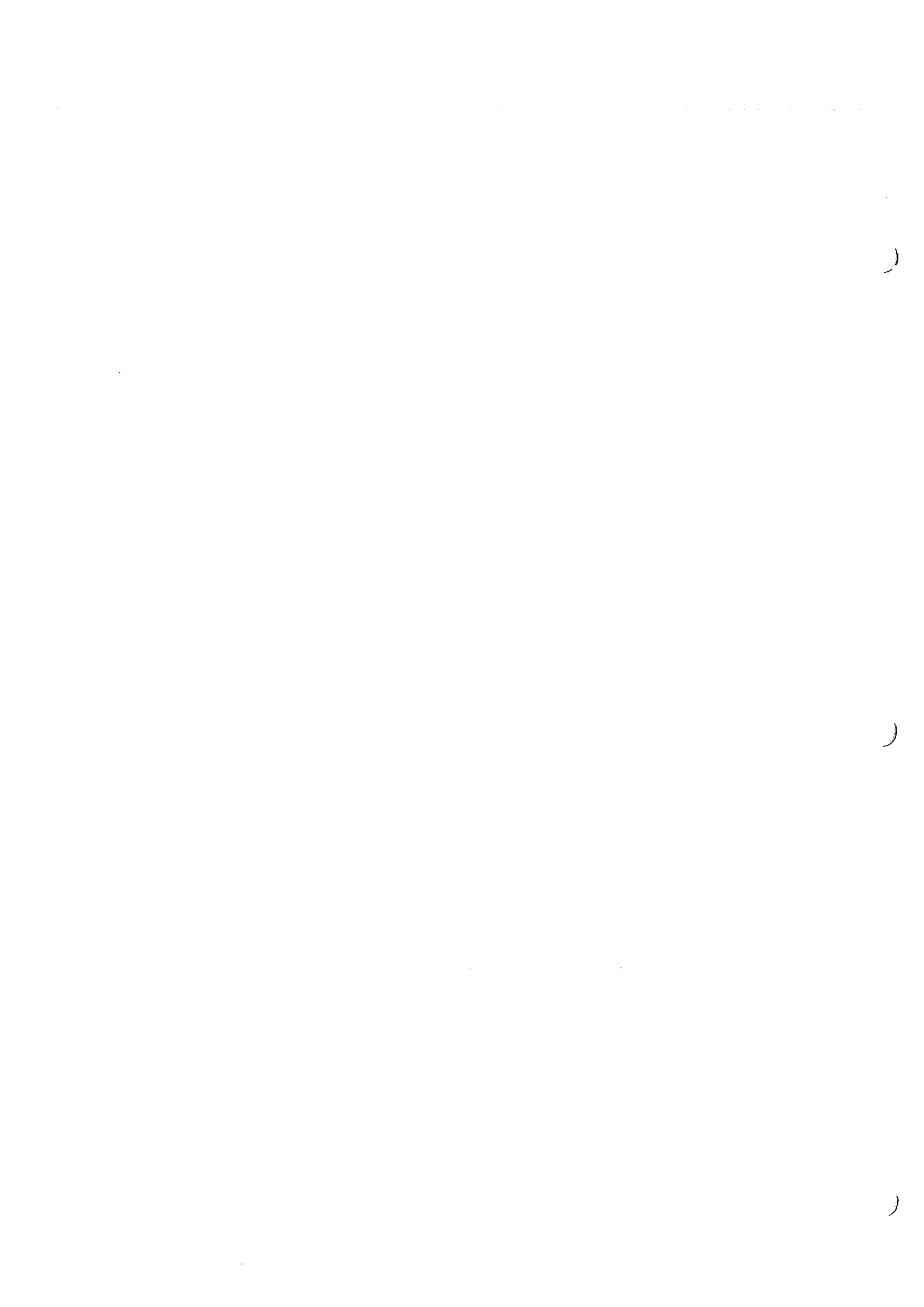
)



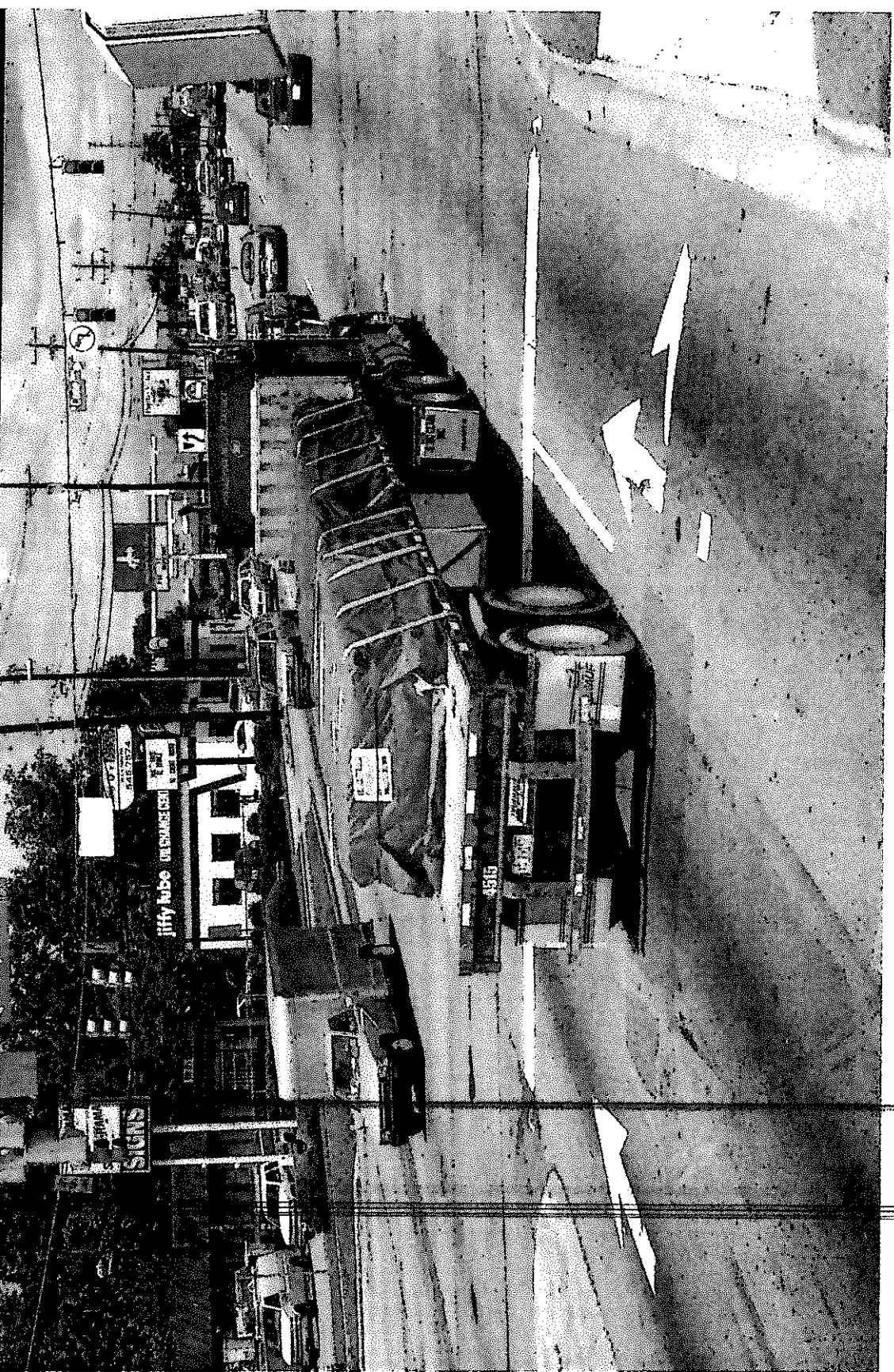


Date 06-19-2003 Time 12:30:55 Site GS013 Speed 33 Red. T 0.9 Pict. 34A Elap. T -

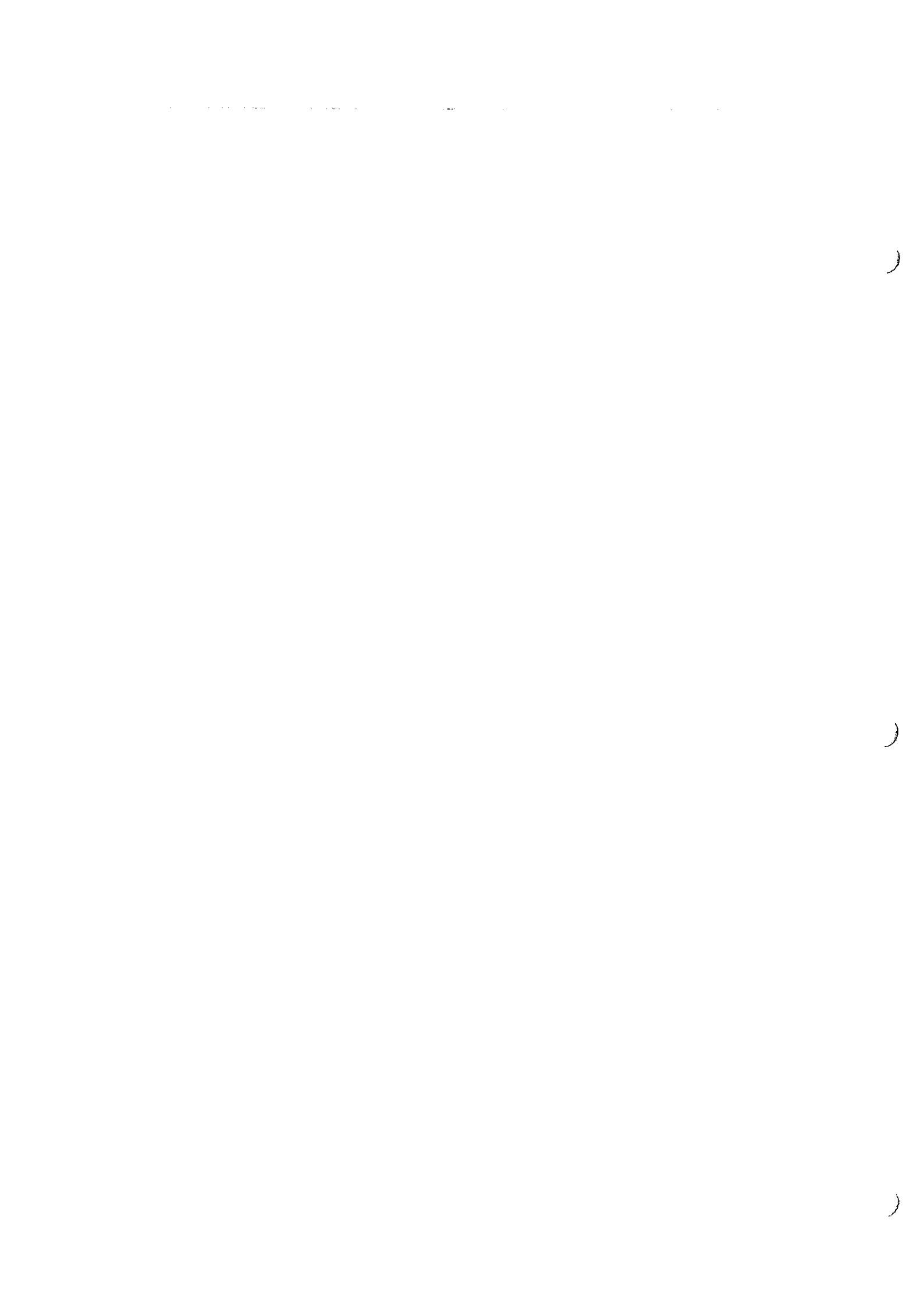
Tractor Trailer (Oversized Vehicle) Image A



Date 06-19-2003 Time 12:30:55 Site 05013 Speed 33 Red.T 1.8 Pict. 34B Elap.T 0.9

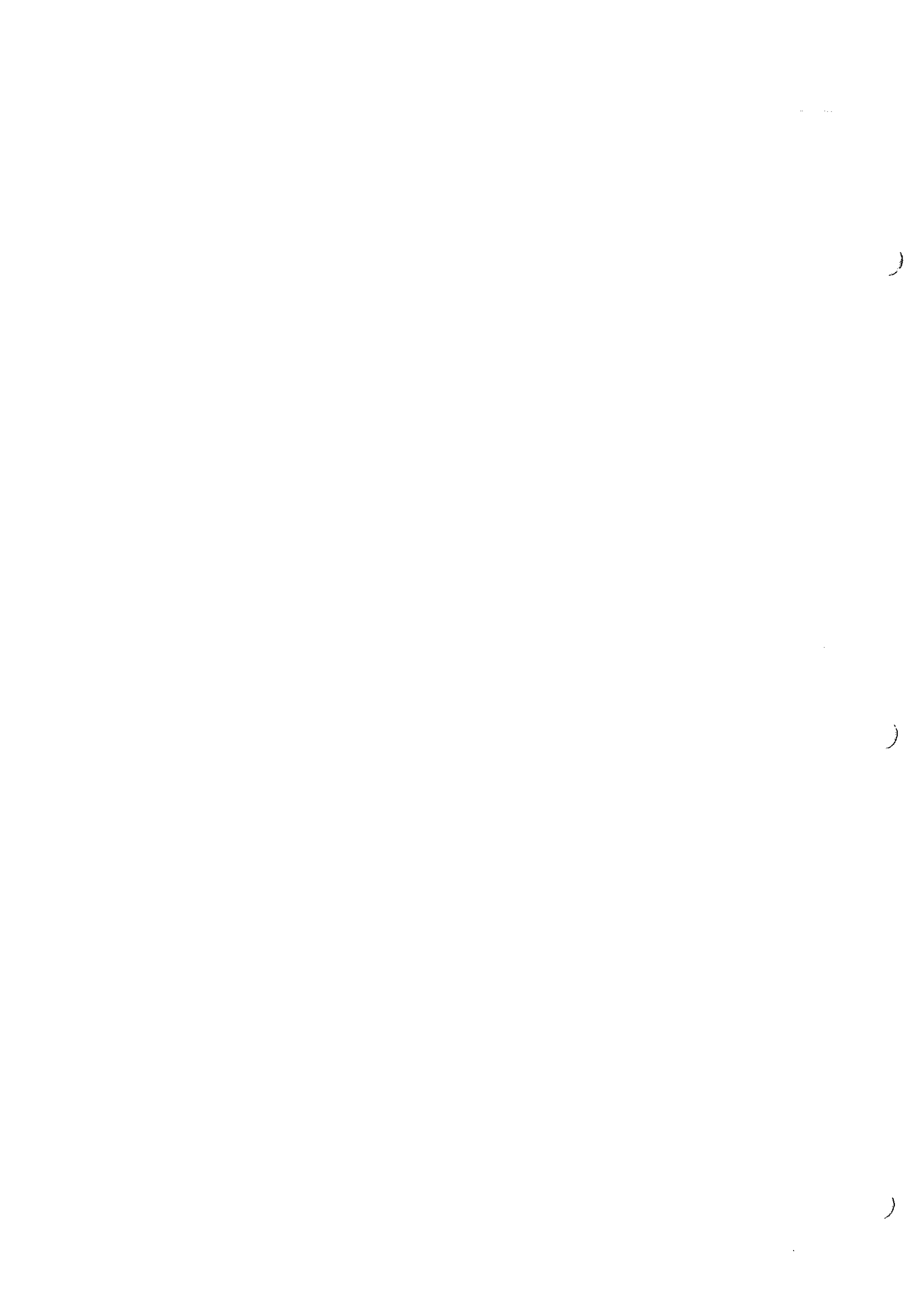


Tractor Trailer (Oversized Vehicle) Image B

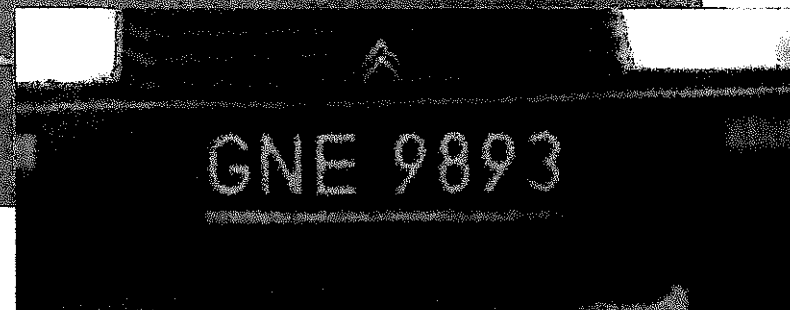




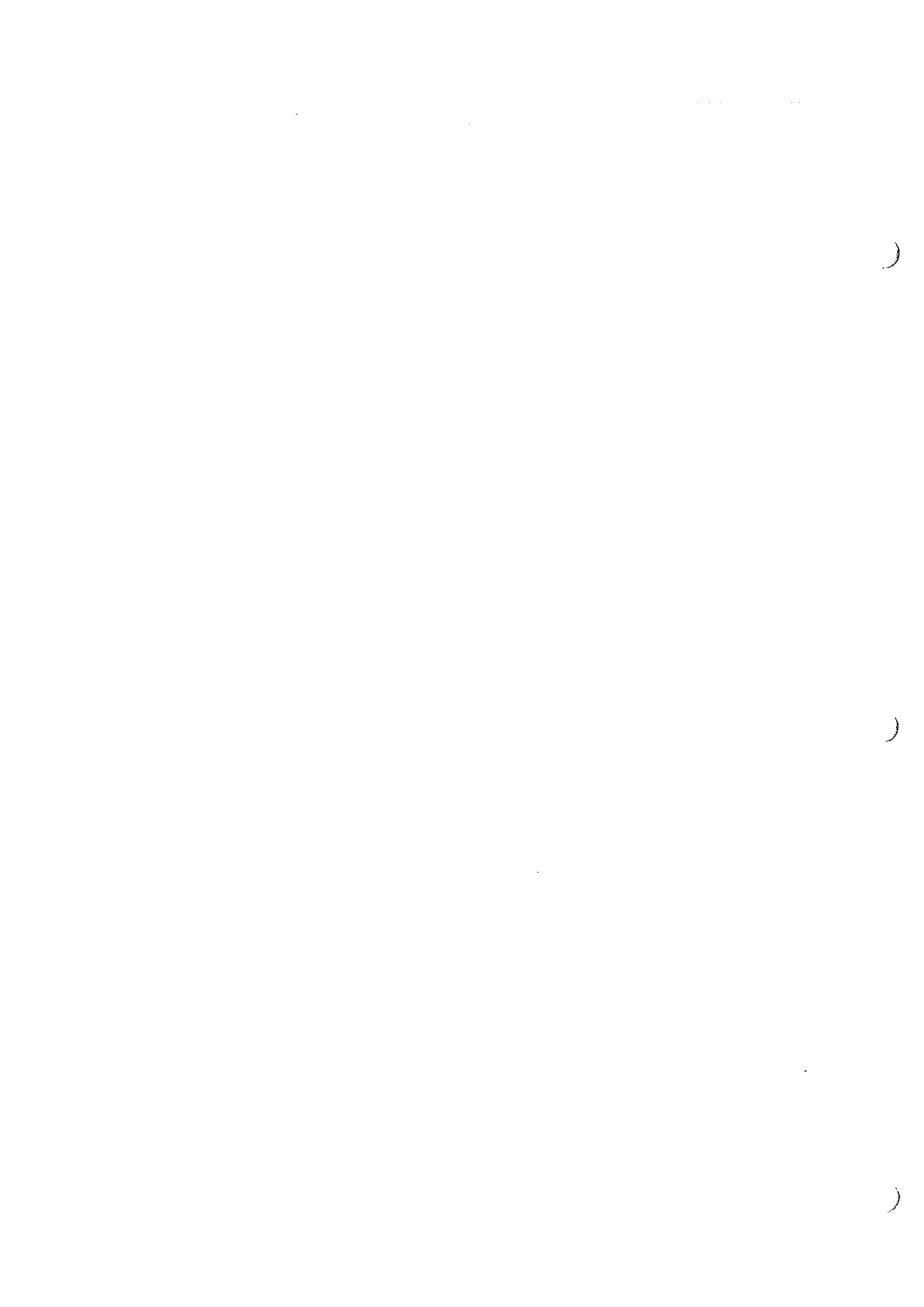
Tractor Trailer (Oversized Vehicle) Tag Close-up Image



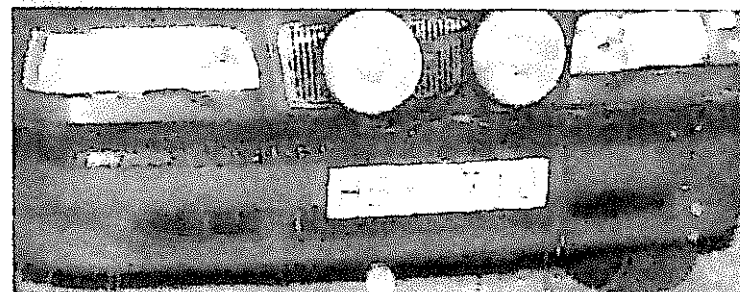
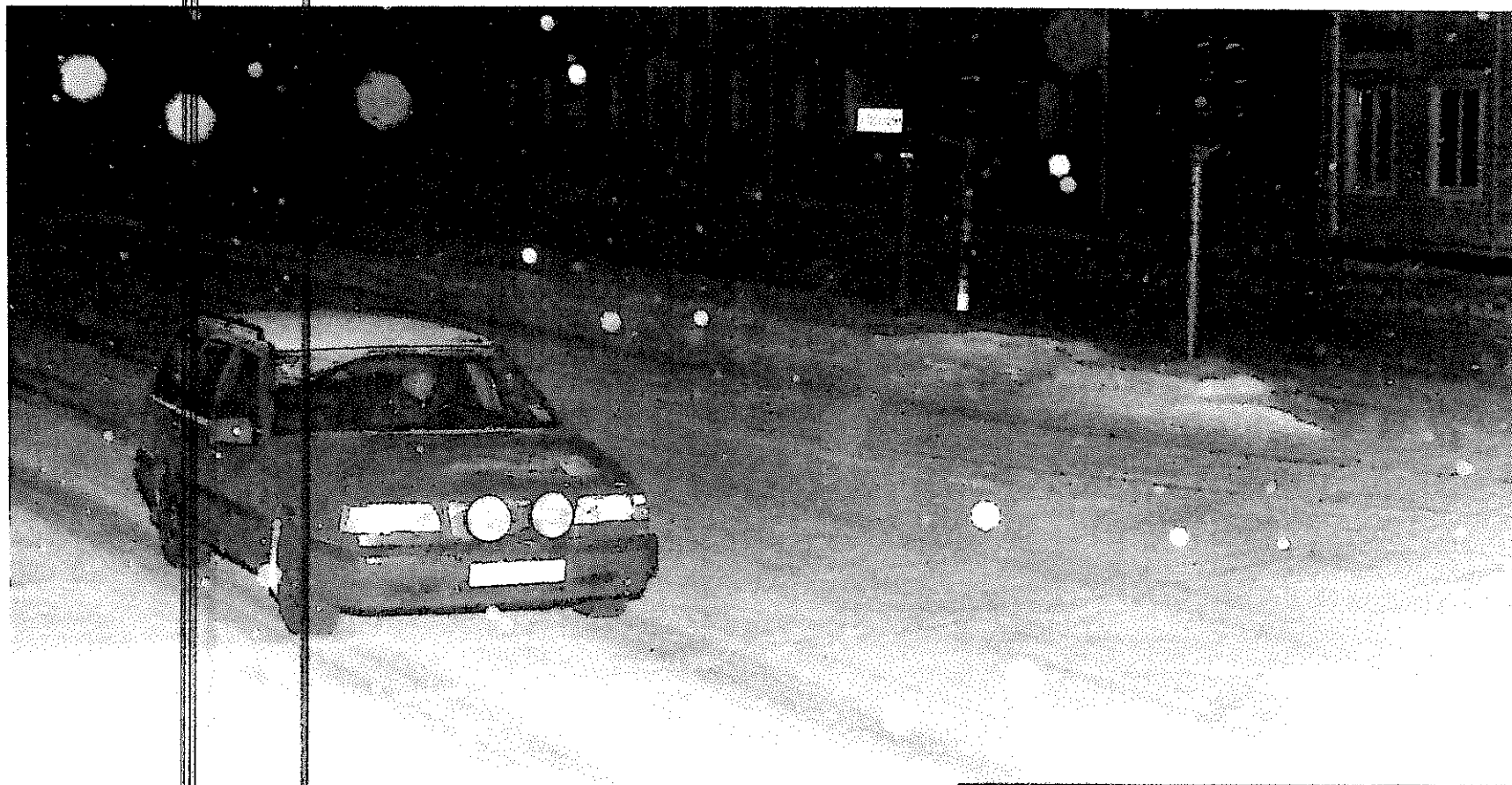




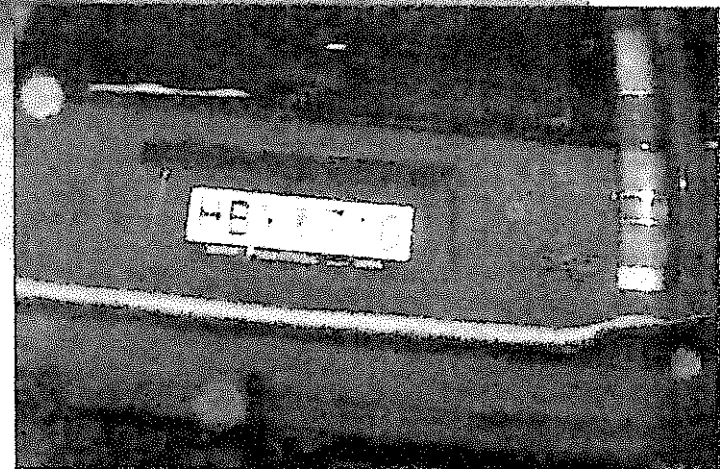
Fog / Grey Day Image with tag closeup



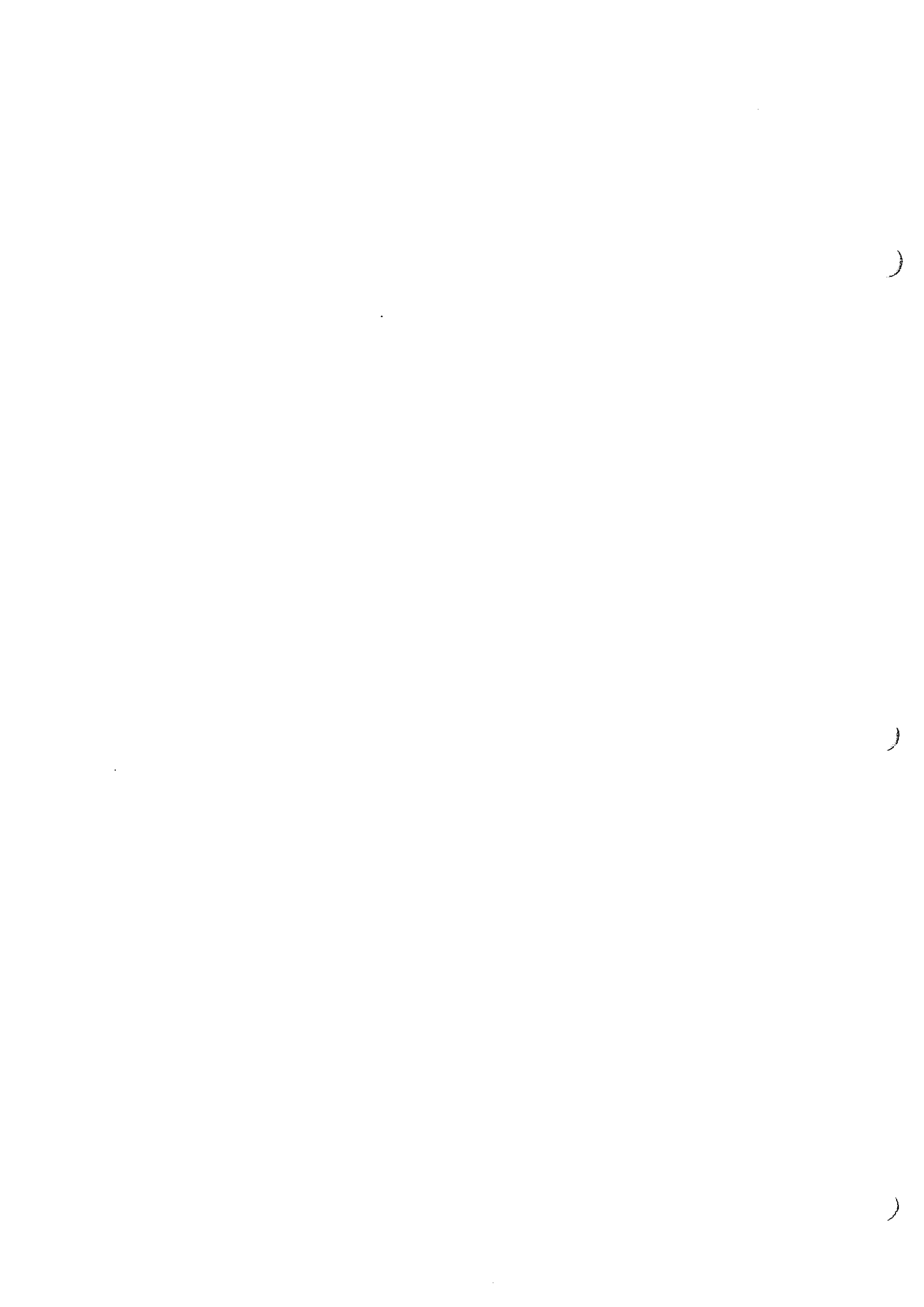


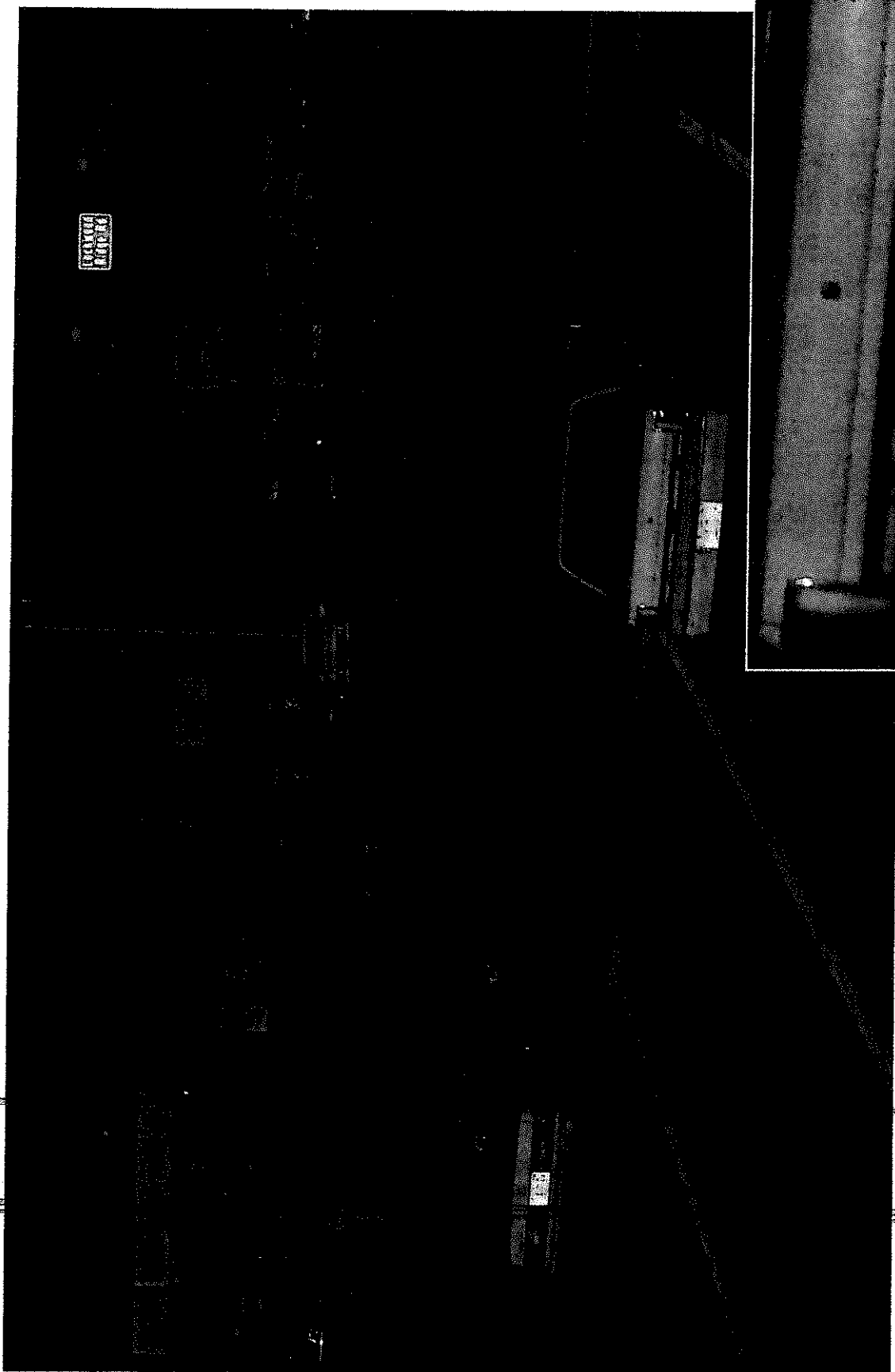


Filtered: Winter / Snow Night Image with tag close-up (front view)



Winter / Snow Night Image with tag close-up (rear view)





Twilight Image with tag close-up



**APPENDIX III**

**COURT PACKAGE**

**TABLE OF CONTENTS**

Explanation of City Court Requirements..... 1

COURT PACKAGE:

- 01 Copy of Citation
- 02 DMV Printout Sheet
- 03 Close-ups of Image 1 (from instation)
- 04 Close-ups of Image 2 (from instation)
- 05 Close-ups of Tag Shot (created)
- 06 Hearing Letter
- 07 Hearing Schedule
- 08 Miscellaneous Materials sent in by Citizen



## Explanation of City Court Requirements

Peek Traffic can provide a full turn key solution (camera system and back-office processing combined). Peek Traffic can initially provide one PC workstation for court personnel.

If the City of Columbus would require that Peek Traffic handle the *SafeStreet* Violation Processing solution, Peek Traffic would then provide all the functionality needed by court personnel to schedule hearings, view citation records, and enter the results.

Peek Traffic's citation processing system may be accessed from any PC using standard browser software. All access to the system is by password and a higher level of security may be achieved through limiting system access to specific IP addresses.

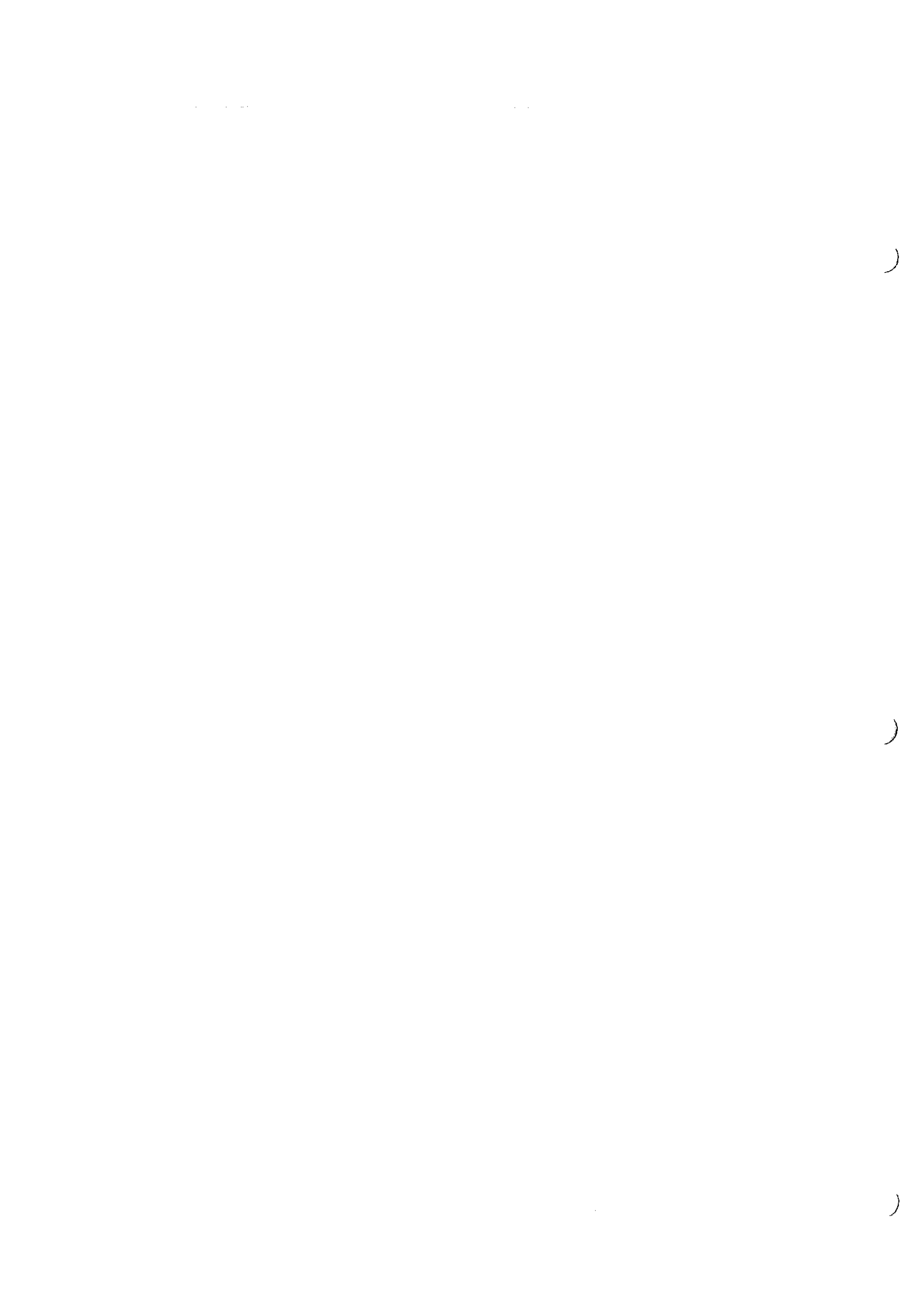
Our processing system is currently providing excellent access and high levels of customer satisfaction in all Peek Traffic's partnering cities in North Carolina.

The Peek Traffic Team is quite capable of providing the technological interface between the *SafeStreet* System and the municipality's court system.

We recognize that interfacing with existing City system is more than just a technological challenge. Policies and procedures must be agreed upon. A clear line of accountability must be drawn between parties. As with many Intelligent Transportation System projects, the institutional hurdles are often more difficult to overcome than the technological. The Peek Traffic Team advantage plays a critical role in this area. We have members of our team that have been on both sides of red light camera public-private partnerships. When Mr. Hansen designed and implemented the Howard County Maryland Police Department's red light camera program, establishing effective interfaces between systems was a critical component. Multiple issues had to be resolved and agreements had to be written to address; Motor Vehicle Administration records access, updating records based on adjudication of citations in court, managing payments made in court for people that appeared in court but decided to pay at the last minute instead of being heard, isolating accountability of problems within a function that could have occurred in a private company system or a government system and a wide array of other issues related to system interfaces. By facilitating City workgroups to address Androscoggin-specific issues, Mr. Hansen can ensure that lessons learned from other experience are considered.

---

---





**Court Requirements**

Peek Traffic, via the court workstation and the *SafeStreet* Violation Processing System, will enable court personnel to prepare evidence packages as required.

The standard items used for court use is:

- |                       |  |
|-----------------------|--|
| Personal Computer     | To review the violation images on-line.<br>To enhance the images (zoom) for close-up views.                  |
| The Original Citation | A reprinted one can be obtained with the appropriate court personnel's access codes if the original is lost. |
| Close-up Images       | Printed out from the on-line violation system<br>(Optional – If required by the City.)                       |

The determination is entered into the on-line system by court personnel and the (upheld/dismissed) determination letter is generated automatically by the on-line citation processing system for printing and mailing.

A sample of the court evidence materials follows. Peek Traffic will provide the item or the means to obtain the required materials for court evidence packages.

Expert Testimony

Peek Traffic normally uses its own personnel for this function, and will be provided by Peek Traffic whenever direct testimony is required. However, it is almost never required once police and court personnel are adequately trained in evidence packages.



)

)

)



City of Charlotte  
**RED LIGHT CAMERA PROGRAM**  
 229 South Brevard Street, Suite 102, Charlotte, NC 28202  
 (704) 375-3177



**CHARLOTTE.**

MAIL DATE: 03/00/2004

**NOTICE OF CITATION**

Citation Number 1234567890

Internet Password: XXXX0XXX

Payment Due Date: 04/13/2004 Amount Due: \$50.00

Amount Paid: \$

John Q. Public  
 123 Main Street  
 Mytown, CA 00000

Contact us on the Internet for citation information and payments at:  
  
<https://onlineviolation.com/charlottenc>

City of Charlotte  
 229 South Brevard Street, Suite 102  
 Charlotte, NC 28202

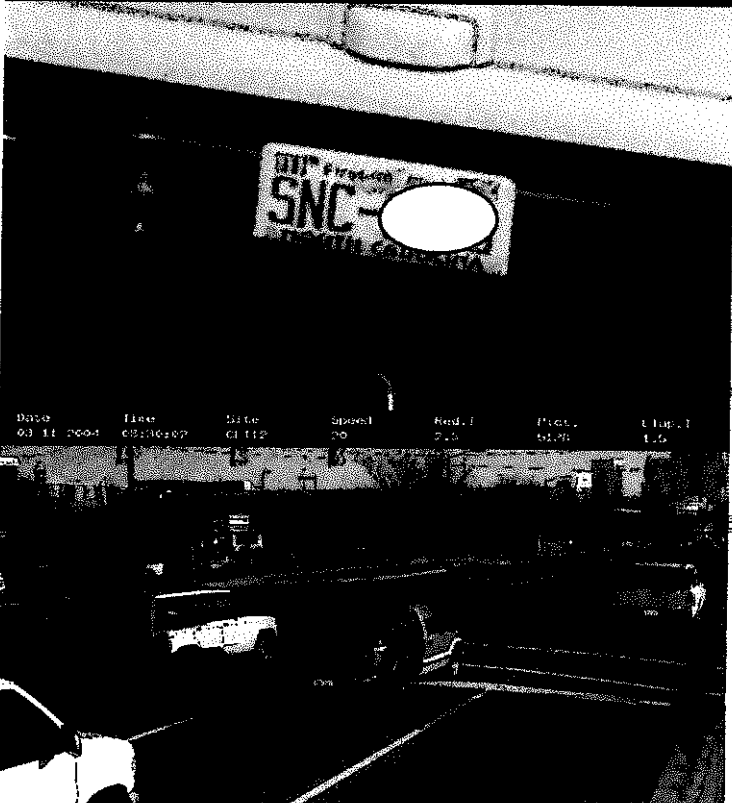
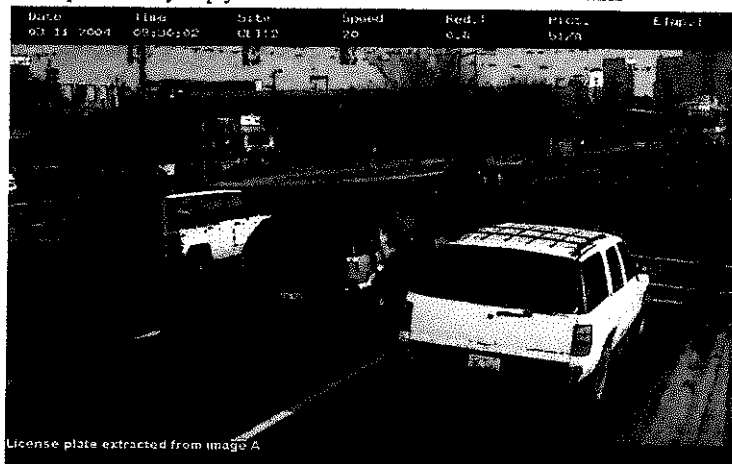
Detach here and return the above portion with your payment

Citation Number: 1234567890  
 Plate: SNC0000 NC

On 03/00/2004 at 08:30 AM your vehicle was photographed (copies are shown to the right) entering an intersection in which the traffic signal was red, in violation of **Charlotte City Code Section 14-228**. The civil penalty for this violation is \$50.00. No points will be assessed against your driving record or insurance as a result of this violation. Please see reverse side for payment options and for a description of the information in the Data Block shown above the photographs.

This program has been initiated to increase roadway safety, reduce red light violations and prevent injuries. If you have any questions regarding this citation, please visit our Internet site or call the office at (704) 375-3177.

**Important Notice:** Failure to pay the civil fine by the due date shown above will result in an additional late penalty of \$50.00. Request for appeals and transfer of responsibility must also be received by the due date above or your right to appeal will be waived. For your convenience, you may pay, appeal, or transfer your citation via the internet at <https://onlineviolation.com/charlottenc>. Please be sure to use the internet password provided above to access your citation.



Red Time	Vehicle Tag No
.80	SNC0000

Date/Time	Location of Violation
03/00/2004 08:30 AM	South Blvd. and East Blvd.

**FOR A SAFER COMMUNITY  
 STOP ON RED**

**Questions & Answers Regarding This Notice**

- Q. Why did I get this notice of citation?
- A. A vehicle registered or leased to you was photographed running a red light by a traffic control photographic system.
- Q. Is this notice a moving violation infraction?
- A. No, this citation is not considered to be a "traffic infraction". Instead, it is a non-criminal violation for which civil penalties are assessed. No points will be assessed for this violation and it will not affect your insurance.
- Q. What are my options?
- A. You have the following four options:
- (1) You may accept responsibility and pay the civil penalties (see "Payment Options");
  - (2) You may contest (appeal) the citation by posting a \$50 "bond" and requesting an administrative hearing (see "Appeal Request")
  - (3) If you were not driving the vehicle at the time of the violation, you may submit a notarized affidavit stating that you were not driving and identifying the individual who had possession or was driving at the time. If you choose this option, a new citation will be issued to the individual that you identify (see "Transferring Responsibility"); or
  - (4) If the vehicle was stolen at the time of the violation, you may submit a notarized affidavit stating that the vehicle was, at the time, stolen and supporting information such as an insurance or police report (see "Reporting Vehicle Stolen").

If you do not exercise one of the four options within thirty (30) days from the date of the citation, you will be assessed an additional \$50.00 late payment penalty.

- Q. How do I arrange for accommodations for persons with disabilities?
- A. Any reasonable accommodation for persons with disabilities will be made. Requests should be made prior to visiting the facility by calling (704) 375-3177.

**PAYMENT OPTIONS**

Checks or money orders should be made payable to the City of Charlotte. Do not send cash. If you fail to remit payment or contest the citation within 30 days of the date of the citation, a penalty \$50.00 will be added to the total amount due.

Make sure your name, address, license number and citation number are on your check or money order.

**Mail check or money order to:**

City of Charlotte  
229 South Brevard Street  
Suite 102  
Charlotte, NC 28202

**Walk-in payments may be made at:**

229 South Brevard Street, Suite 102  
Charlotte, NC 28202  
(MasterCard and Visa accepted)

**APPEAL REQUEST**

An appeal request must be accompanied by a deposit of \$50, which shall constitute a bond. You will be contacted to schedule a hearing before a hearing officer. If the hearing officer upholds the citation, your bond will be used to satisfy your civil penalty obligation. If the citation is dismissed, your bond will be returned.

Basis for contesting citation (only those reasons stated in this appeal request may be argued at the hearing. You may attach a separate document if the space provided is not sufficient.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Your Signature \_\_\_\_\_

Telephone (\_\_\_\_\_) \_\_\_\_\_

**AFFIDAVIT TRANSFERRING RESPONSIBILITY\***

I \_\_\_\_\_ (print or type name), being duly sworn, state that I was not driving the vehicle identified in this Notice of Citation at the time of the violation. The name and address of the person or company who had the care, custody and control of the vehicle at the time of the violation is:

Name \_\_\_\_\_  
Address \_\_\_\_\_  
\_\_\_\_\_

I understand that a new Notice of Citation will be issued to the person I identified.

Your Signature \_\_\_\_\_

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_\_\_.

Notary Public

My Commission Expires: \_\_\_\_\_

**AFFIDAVIT REPORTING VEHICLE STOLEN\***

I \_\_\_\_\_ (print or type name), being duly sworn, state that the vehicle identified in this Notice of Citation was, at the time, stolen. (You must attach supporting evidence such as a copy of an insurance or police report.)

Your Signature \_\_\_\_\_

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_\_\_.

Notary Public

My Commission Expires: \_\_\_\_\_

**\*Submission of a false affidavit constitutes perjury punishable as a Class F felony.**

For further information about the SafeLight Program:

**Telephone:** (704) 375-3177

**Write:** 229 South Brevard Street  
Suite 102  
Charlotte, NC 28202

**Internet:** <http://www.ci.charlotte.nc.us/Home.htm>

**E-Mail:** [safelight@ci.Charlotte.nc.us](mailto:safelight@ci.Charlotte.nc.us)

Sample of the DMV Printout Sheet

VQ12 @448

GENERAL VEHICLE DETAIL

05/17/04 16:37:55

STATUS CURRENT TITLE, NOT HELD

TITLE 779293303300414

2002 CHEV TAHOE C1500 MP OD

31296

INGCE31Z28J517201

DEALER

0060386FUEL G

ACT DT 112603 TITLE DT 110503

TRF DT 110503

APPL DT 112603

PRNT DT 120203Y

OWNER ID 000062859785

OWNERS 2

LIENS 1

EQUIP

TAX CNTY MECKL

N JANE Q. PUBLIC

N JOHN Q. PUBLIC

11435 123 MAIN STREET

CR

MYTOWN CA 00000

LESEE ID

LESSEES

CONTROL

PLATE NO SNC2483

85043460

ISS DT 112603

EXP DT 113004

WEIGHT

FHVUT DT

CAT PRIVAE AUTO

USE

PASS DRAFT

N

S28 - STATE FARM MUTUAL AUTOMOBILE P#WILL BROOKS

STATUS ACTIVE

11/26/2003

CERT DT 112603

CERT TYPE

FR2

PF1/HELP

PF2/IMAGE

PF3/RETURN

PF4/

PF5/LESSEES

PF6/OWNERS

PF7/HOLD CD

PF8/

PF9/PRINT

PF10/DRAFTS

PF11/ADDINFO

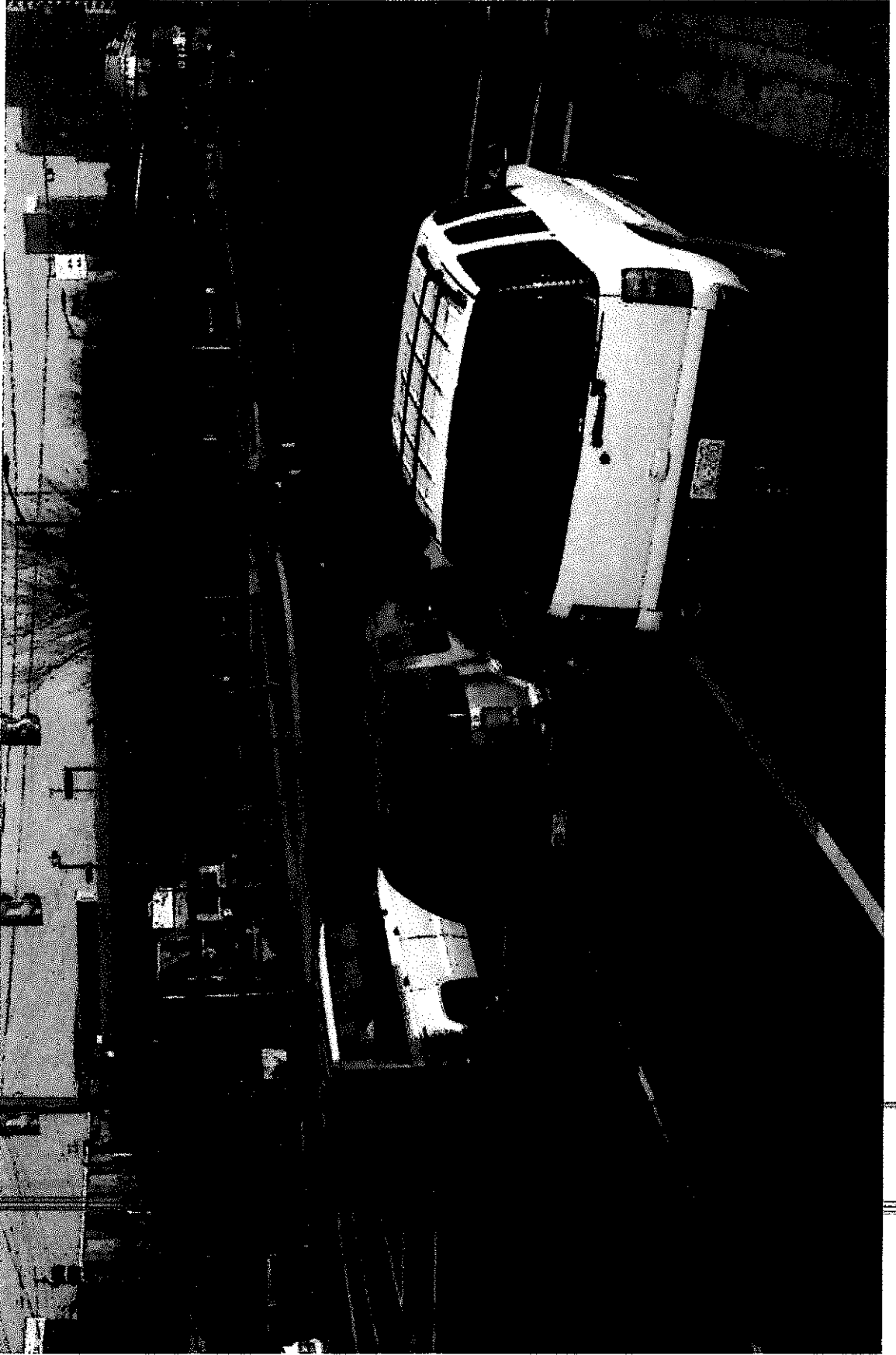
PF12/MENU

)

)

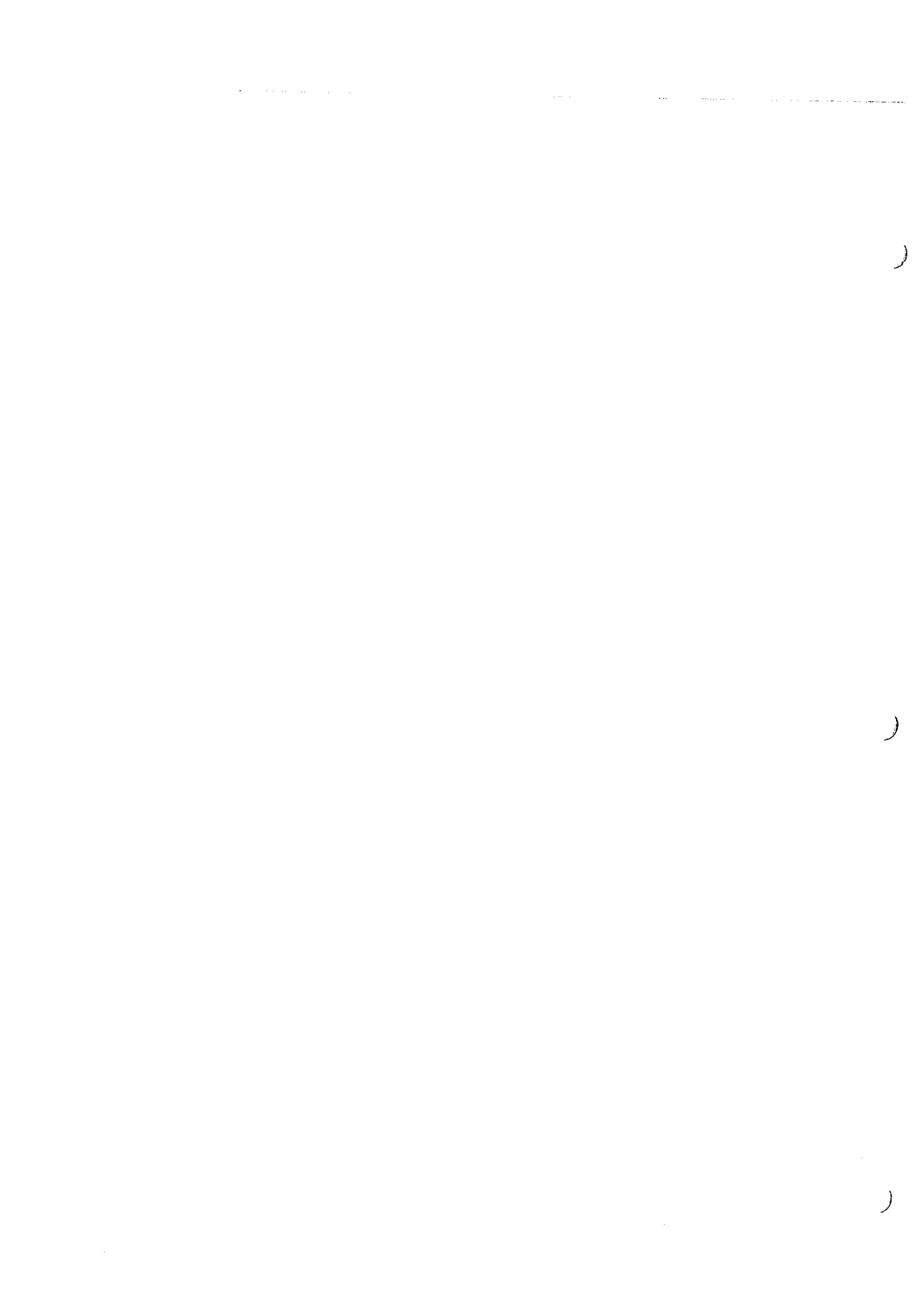
)

A Image:



B Image:

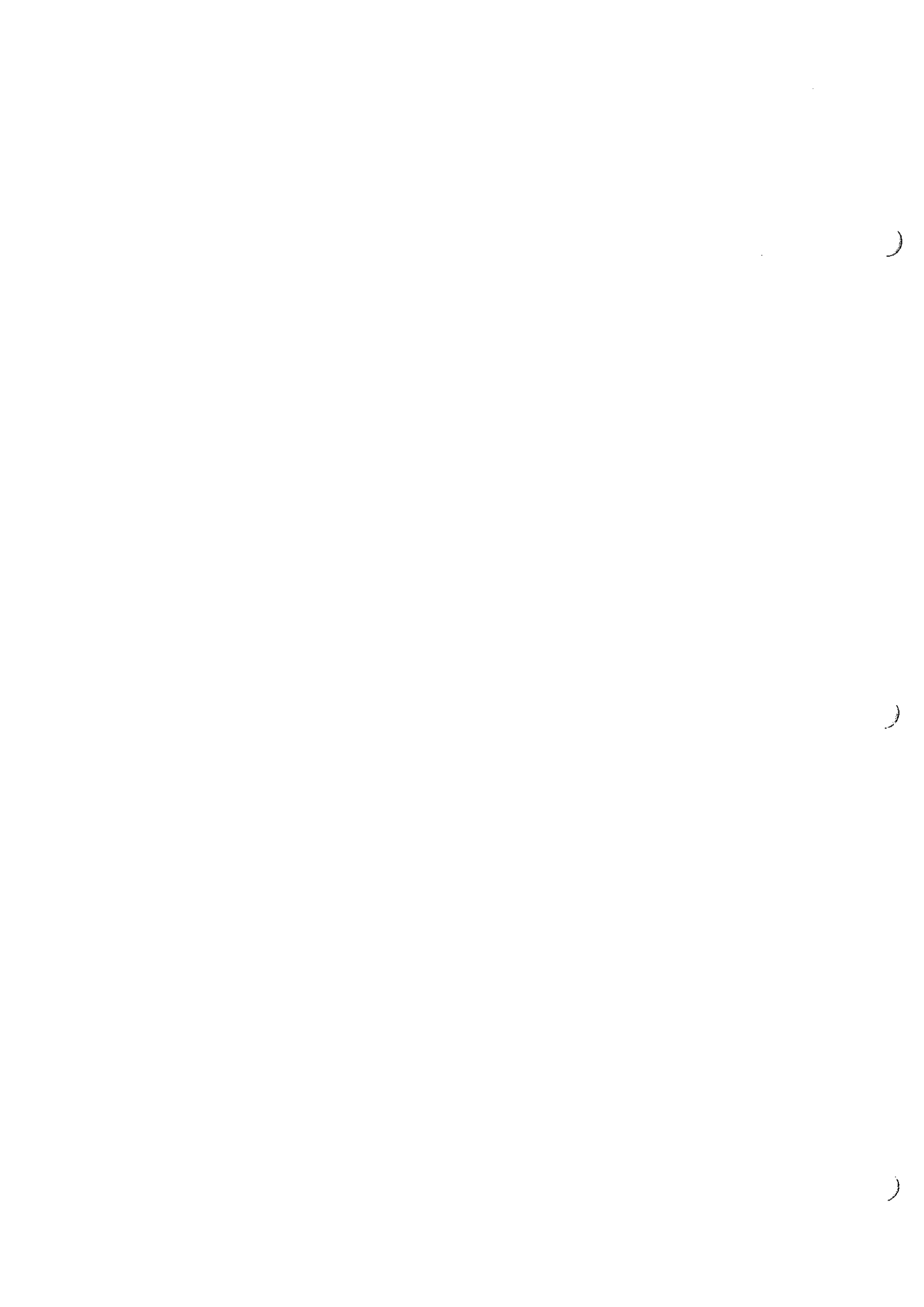






C Image (Tag Close-Up):







**SafeLight**  
Charlotte

**SafeLight Program**  
229 South Brevard Street, Suite 102  
Charlotte, NC 28202

May 5, 2004

JOHN Q. PUBLIC  
123 MAIN STREET  
MYTOWN, CA 0000

Dear JOHN Q. PUBLIC:

The appeal hearing for Citation Number 3339487 will be held on 06/08/04 at 04:00 PM. The hearing will be held in our office located at:

*229 South Brevard Street, Suite 102  
Charlotte, NC 28202*

You may bring supporting material or have witnesses to present information.

If you are unable to attend, you may send written documentation. A rescheduling request must be submitted prior to your scheduled date, by notifying the business office two days prior to your scheduled hearing. Otherwise, the Hearing Officer's decision will be final.

If you have any questions regarding the appeal hearing, you may call the office at (phone).

Thank you,

City of Charlotte

---

---

)

)

)

Example of a Hearing Schedule:



# Safelight<sup>SM</sup> Charlotte

Hearing Schedule

Hearings Scheduled for Tuesday Jun 08, 2004

Hearing office: Safelight Charlotte

Appointment Time
04:00 PM - 04:15 PM
04:30 PM - 04:45 PM
05:00 PM - 05:15 PM
05:30 PM - 05:45 PM

Citizen's Name

JOHN G. PUBLIC

Explanation

Display explanation  
Display explanation  
Display explanation  
Display explanation

Citation Number

3359487  
3375611  
3374839  
3359095

[Back](#)

[Main Menu](#)

**F**

**From:** Whitfield, Mark A. [MWhitfield@columbuspolice.org]  
**Sent:** Monday, June 28, 2004 5:11 PM  
**To:** Harper, George H.; Stephenoff, Mark S.; Ford, Amanda  
**Subject:** RFP Evaluation meeting

Lt. Blackwell is requesting that you have your evaluations on the RFP'S completed by Wednesday June 30<sup>th</sup>. That is the date of a 9:00 am meeting he is asking you to attend, which will be held in the 3<sup>rd</sup> floor conference room at Central Police Headquarters. Shortly after this meeting he will get with Director Holland with the Committees recommendations. If there are any questions please contact me or Lt. Blackwell @4661. Thanks so much.

**G**



DIVISION OF POLICE

Intra-Divisional

July 28, 2004

TO: Photo Red Light Committee Members

FROM: Evaluation Subcommittee

SUBJECT: Vendor Selection

Sir/Ma'am:

The Evaluation Subcommittee has met several times after having perused the REQUEST FOR PROPOSAL submitted by the six interested vendors for the City of Columbus contract.

The vendors who have submitted R.F.P's are as follows:

- Redflex
- ACS
- Nestor
- Mulvihill
- Peek
- Transol

The evaluation team, consisting of George Harper, City of Columbus Equal Business Opportunity officer, Amanda Ford, Safe Communities Coordinator for the Department of Health, City Engineers Mark Stephenoff and David Krier, Sherry Mercurio, Division of Police Public Information Assistant, Patrol Zone 2 Lieutenant Ty Brust, and myself, Lieutenant Jeffrey Blackwell, Traffic Operations, reviewed the proposals from the below listed six companies and rated them according to anchors listed on a grid matrix.

The following table reflects the final tally of the committee. It should be noted that Redflex and ACS ranked significantly higher than the other companies, with Redflex being the clear leader. All of the committee members felt that either company would do an adequate job if selected to partner with the City of Columbus.

Company	Competence	Quality & Feasibility	Ability	Past Performance	Totals
Redflex	139	119	114	179.5	551.5
ACS	137	112	110	175.5	534.5
Nestor	112.5	99	94	150	455.5
Mulvihill	110.5	91	86	138	425.5
Peek	99.5	97.5	84	134	415
Transol	86.5	92.5	76	126.5	381.5

Vendor Selection  
July 28, 2004  
Page 2

It is the hope of the Evaluation Subcommittee that the entire Photo Red Light Committee can reach a consensus on the vendor we would recommend to the Director of Public Safety.

Respectfully submitted,

Lieutenant Jeffrey Blackwell #5051  
Traffic Bureau

JB/ml

Н

DIVISION OF POLICE . . . . ROUTING SHEET FOR CORRESPONDENCE

SUBJECT: PHOTO RED LIGHT VENDOR RECOMMENDATION

ORIGINATOR: Lieutenant Jeffrey Blackwell #5051 ASSIGNMENT Traffic Bureau DATE 7-29-04  
\*\*\*\*\*

FORWARD TO: Commander Richard L. Crosby #5018 ASSIGNMENT Traffic Bureau

REMARKS: Lt. Blackwell has done an outstanding job as chairman of the Photo Red Light Committee. The Photo Red Light Committee thoroughly evaluated each company's proposal in order to identify and select one vendor. The Committee recommends Reflex; I support that recommendation.

SIGNATURE: (mod. R. Crosby #5018) DATE REC'D 8-25-04 /FORWARDED 8-25-04

FORWARD TO: Deputy Chief Stephen P. Gammill #5009 ASSIGNMENT Patrol West Subdivision

REMARKS: CONCUR WITH RECOMMENDATION FOR REFLEX TO BE USED? RECOMMEND FORWARDING TO DIR. BROWN FOR FINAL SELECTION.

SIGNATURE: DC Stephen P. Gammill DATE REC'D \_\_\_\_\_ /FORWARDED 8-25-04

FORWARD TO: Chief James G. Jackson ASSIGNMENT Chief of Police

REMARKS: Concur with recommendation

SIGNATURE: JG Jackson DATE REC'D \_\_\_\_\_ /FORWARDED 8-27

FORWARD TO: Dir Brown ASSIGNMENT \_\_\_\_\_

REMARKS: \_\_\_\_\_

08-30-04 8:04:40 IN

SIGNATURE: \_\_\_\_\_ DATE REC'D \_\_\_\_\_ /FORWARDED \_\_\_\_\_

FORWARD TO: \_\_\_\_\_ ASSIGNMENT \_\_\_\_\_

REMARKS: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_ DATE REC'D \_\_\_\_\_ /FORWARDED \_\_\_\_\_

FORWARD TO: \_\_\_\_\_ ASSIGNMENT \_\_\_\_\_

REMARKS: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_ DATE REC'D \_\_\_\_\_ /FORWARDED \_\_\_\_\_

\*\*\*\*\*  
FINAL DISPOSITION: \_\_\_\_\_

ORIGINATING PERSON ADVISED BY: \_\_\_\_\_  
NAME NOTIFIED BY WHAT MEANS DATE





Department of Public Safety  
**Division of Police**

James G. Jackson, Chief of Police

120 Marconi Boulevard  
P.O. Box 15009  
Columbus, Ohio 43215-0009



City of Columbus  
Mayor Michael B. Coleman

**TO: Director Mitchell Brown, Department of Public Safety**

**FROM: Lieutenant Jeffrey Blackwell #5051, Traffic Bureau**

**DATE: July 29, 2004**

**SUBJECT: PHOTO RED LIGHT VENDOR RECOMMENDATION**

Sir:

The Photo Red Light Committee has been working for the past eight months to bring photo red light technology to Columbus, Ohio. The Photo Red Light Committee, consisting of members from various fields in city government, has attempted to decipher all of the technological aspects of the photo red light industry, as well as the legal ramifications and issues surrounding the ticketing of red light violators in a civil fashion, as opposed to the existing criminal infraction. The committee members have met diligently and discussed all of the pertinent issues with the vendors who showed interest in the city contract. We have had public forums, informational dissemination and done tremendous research to effectively choose the best "fit" for the city of Columbus.

The vendors who have submitted Request For Proposals (R.F.P.'s) are as follows:

- Redflex
- ACS
- Nestor
- Mulvihill
- Peek
- Transol

Each of the aforementioned companies presented proposals for our perusal, with the objective to:

- Stop dangerous driving behaviors
- Reduce crashes
- Save lives
- Prevent injuries
- Lower health care costs
- Respond to community concerns.

Director Brown  
July 29, 2004  
Page 2

Additionally, the focus of moving traffic and people to their destinations as effectively and efficiently as possible, while obtaining voluntary driver compliance is paramount.

Red light cameras can help communities enforce traffic laws by automatically photographing vehicles whose drivers run red lights. A red light camera system is connected to the traffic signal and to sensors buried in the pavement at the crosswalk or stop light. The system continuously monitors the traffic signal, and the camera itself is triggered by any vehicle passing over the sensors after a specified time wherein the signal has turned red. A second photograph is taken that typically shows the red light violator in the intersection, the camera records the date and time of day, and time elapsed since the beginning of the red signal, as well as the speed of the vehicle. High tech digital cameras produce clear images of vehicles under all light and weather conditions. Each of the vendors has systems in place to mail violations to registered owners of the vehicles **based on the independent police review and approval of the citation.**

Each year, more than 900 people die in nearly 200,000 are injured in crashes that involve red light running. The city of Columbus shares the nation's problem in this area. Red light running in Columbus is one of the most frequent types of police-reported urban crashes. The Committee convened a sub-committee consisting of city engineers and police personnel to identify the most problematic intersections in the city of Columbus that would be suitable candidates for the installation of the red light camera system. Empirical evidence, as well as anecdotal testimony from precinct police officers, is currently being studied and reviewed in the process of final site selection. The final list, however, is not fixed in concrete, but rather the companies have been asked to provide for the mobility of these camera systems to be moved as the interest and needs of the citizens of Columbus change. Additionally, the company will be asked to install "dummy" cameras at several intersections throughout the city in an effort to increase the deterrent level for violators, while minimizing costs.

The evaluation team, consisting of George Harper, City of Columbus Equal Business Opportunity officer, Amanda Ford, Safe Communities Coordinator for the Department of Health, City Engineers Mark Stephenoff and David Krier, Sherry Mercurio, Division of Police Public Information Assistant, Patrol Zone 2 Lieutenant Ty Brust, and myself, Lieutenant Jeffrey Blackwell, Traffic Operations, reviewed the proposals from the below listed six companies and rated them according to anchors listed on a grid matrix.

The following table reflects the final tally of the committee.

Director Brown  
July 29, 2004  
Page 3

Company	Competence	Quality & Feasibility	Ability	Past Performance	Totals
Redflex	139	119	114	179.5	551.5
ACS	137	112	110	175.5	534.5
Nestor	112.5	99	94	150	455.5
Mulvihill	110.5	91	86	138	425.5
Peek	99.5	97.5	84	134	415
Transol	86.5	92.5	76	126.5	381.5

The Evaluation Committee has discussed the various vendor proposals extensively and has selected **Redflex** as the company that would do the best job for the city of Columbus. This opinion is based on many variables, namely the company's relationship with sister communities (Toledo and Dayton), and their overall technological advantages with the digital stream video. Consequently, it is our recommendation that Redflex receive the bid from the City. Each of the evaluation team members was polled regarding their overall choice and each member felt that Redflex could do a superior job if chosen by the City of Columbus, Department of Public Safety. Additionally, the entire Photo Red Light Committee was requested to meet on Wednesday, July 28, 2004 to discuss the Evaluation Team's recommendations. In attendance were:

Deputy Director Gary Holland, Department of Public Safety  
Lieutenant Jeff Blackwell #5051, Traffic Bureau  
Lieutenant Ty Brust #5074, Patrol Bureau, Zone 2, L-2-A  
Jack Yost, Purchasing  
Sherry Mercurio, Public Information Assistant  
Wendy Kane, Legal Advisor  
Amanda Ford, Safe Communities  
David Krier, Transportation Division

The Committee members present were informed of the Evaluation Subcommittee's recommendation/choice of Redflex. Members initially discussed the selection process, namely A.C.S. and their strong showing in the rating process. Ultimately, however, the Committee endorsed **REDFLEX** as the choice to be recommended to the Director of Public Safety.

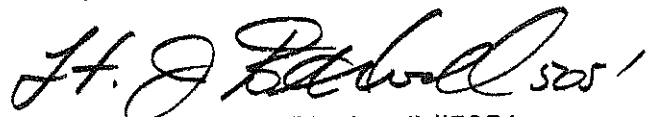
Redflex Traffic Systems currently supports over 300 operated photo enforcement systems, and appears financially viable and solvent. Redflex Traffic Systems currently has sufficient cash to successfully install, support and service the Columbus program. Supporting the only two programs in full operation in the state of Ohio (Dayton and Toledo), Redflex is uniquely positioned and experienced to deal with local and state requirements which will aid in the efficient implementation process.

Director Brown  
July 29, 2004  
Page 4

The minutes from the previous 8 months of meetings will be kept for review by you and any other interested party wishing to view those items. I will inform you of the final site selection list upon completion by the committee. It is my hope to have this done by September 13, 2004 at which time the committee will endeavor to further educate the communities where these intersections exist.

It has been a pleasure to serve as chairman of this committee. I hope that each of the committee members' hard work would be recognized by you and the Mayoral staff for they have shown a dedication to duty and an admirable commitment to the city of Columbus.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "J. J. Blackwell #5051". The signature is written in a cursive style.

Lieutenant Jeffrey Blackwell #5051  
Traffic Bureau, Operations

JB/ml





**Tyre, Evelyn M.**

---

**From:** Holland, Gary L.  
**Sent:** Monday, October 18, 2004 11:54 AM  
**To:** Brown, Mitchell J.; Schwarzwald, Michael  
**Cc:** Seckler, Barb  
**Subject:** Photo Red Light Oral Presentations  
**Follow Up Flag:** For Your Information  
**Flag Status:** Flagged

The Evaluation Committee meets this date, Tuesday, 10/26, to receive an oral walk through of vendor proposals.

All six offerors were notified of the opportunity; however, three were advised by Lt. Blackwell that they are not among the finalists but can make a business decision about traveling to Columbus. This can save them considerable expense.

No new information is allowed. Vendors can only take 45 minutes to present their written proposals. This is basically a Q&A session for clarification and explanation of program components already expressed in the responses.

**From:** Blackwell, Jeffrey [JBlackwell@columbuspolice.org]  
**Sent:** Wednesday, October 13, 2004 3:11 PM  
**To:** Harper, George H.; Krier, David C.; Stephenoff, Mark S.; Ford, Amanda; Mercurio, Sherry L. (Police); Brust, Ty (Police)  
**Cc:** Crosby, Richard (Police); Foor, Roger (Police)  
**Subject:** Photo-Red Light

I have been instructed to hold 'post' RFP presentations with the vendors in the photo red light project. Roger Foor is notifying the interested vendors to see which ones want to participate. I am looking at getting this over as quickly as possible, therefore I will be scheduling these presentations for either late next week, Oct 21<sup>st</sup> or 22<sup>nd</sup>. Or Monday Oct 25<sup>th</sup>. Please advise if you are unavailable for any of these dates. The vendors will be given ½ hour with a 15 min Q@A period immediately following. :) we're almost done!

Lt. Jeffrey Blackwell #5051

**From:** Holland, Gary L.  
**Sent:** Monday, October 18, 2004 4:45 PM  
**To:** McSweeney, Kate; Wentzel, Steve J.; Mesirow, Keith S; Soble, Steve; Stephenoff, Mark S.  
**Subject:** FW: Vendor Presentation

**Importance:** High  
**Sensitivity:** Personal

**Follow Up Flag:** For Your Information  
**Flag Status:** Flagged

I received an error message because the email was forwarded via "cmhmetro.gov" rather than "columbus.gov."

-----Original Message-----

**From:** Holland, Gary L.  
**Sent:** Monday, October 18, 2004 4:27 PM  
**To:** Hertenstein, Donna M.; Moallim, Abdi I.; Ford, Amanda; Johnson, Barbara; Blackwell, Jeffrey; Bowditch, Fred; Brust, Ty; Crosby, Richard; Krier, David C.; Foor, Roger; Hoar, Donald; Yost, Jack A; Kate McSweeney; Keith Mesirow; Kutney, Leonard G.; Mark Stephenoff; Mercurio, Sherry L.; Mull, Brenton S.; Myers, Fred; Steve Soble; Steve Wentzel; Kane, Wendy S; Whitfield, Mark A.; Dorrian, Hugh J.  
**Cc:** Gammill, Stephen P.  
**Subject:** RE: Vendor Presentation  
**Sensitivity:** Personal

So that no member feels omitted, please be advised that each Committee member is invited to sit in on the oral presentations, if you so choose. However, as the lieutenant noted, a full committee meeting will occur shortly after the 10/26 session with the vendors to review any additional findings and approval for a final report to the Director of Public Safety.

Gary L. Holland, Deputy Director  
Department of Public Safety  
50 West Gay Street, 2<sup>nd</sup> Floor  
Columbus, OH 43215  
614/645.8210  
[glholland@columbus.gov](mailto:glholland@columbus.gov)

-----Original Message-----

**From:** Hertenstein, Donna M. [<mailto:DHertenstein@columbuspolice.org>]  
**Sent:** Monday, October 18, 2004 3:43 PM  
**To:** Abdi Moallim; [aford@columbus.gov](mailto:aford@columbus.gov); Barbara Johnson; Blackwell, Jeffrey; Bowditch, Fred; Brust, Ty; Crosby, Richard; David Krier; Deborah Ickes; Foor, Roger; Gary Holland; Hoar, Donald; Jack Yost; Kate McSweeney; Keith Mesirow; Leonard Kutney; Mark Stephenoff; Mercurio, Sherry L.; Mull, Brenton S.; Roger Myers; Steve Soble; Steve Wentzel; Wendy Kane; Whitfield, Mark A.  
**Cc:** Crosby, Richard; Gammill, Stephen P.  
**Subject:** Vendor Presentation

Sir/Ma'am:

The Photo Red Light Selection Committee has been asked by the Director's office to allow for a second round of Vendor presentations commencing Monday, October 25<sup>th</sup>. Your presence is required at 8:45AM in the Chief's Conference Room on the 8<sup>th</sup> floor of Police Headquarters. The Committee will entertain presentations from 3-Vendors beginning promptly at 8:45AM. Be prepared to be at the meeting until approximately 12:30PM. This notice only applies to members of the Vendor Selection Sub-Committee and not to the Photo Red Light Committee as a whole.

- Lt. Jeff Blackwell
- Lt. Ty Brust
- Sherry Mercurio
- Dave Krier
- Mark Stephenoff
- Amanda Ford
- George Harper

The Selection Committee will schedule a full committee meeting sometime the following week to discuss the status of the Photo Red Light Project.

Thanks in advance for your cooperation and diligence.

Lieutenant Jeffrey Blackwell #5051

J



Department of Public Safety  
**Division of Police**

James G. Jackson, Chief of Police

120 Marconi Boulevard  
P.O. Box 15009  
Columbus, Ohio 43215-0009



City of Columbus  
Mayor Michael B. Coleman

DATE: November 2, 2004  
TO: Director Mitchell J. Brown, Department of Public Safety  
FROM: Lieutenant Jeffrey Blackwell #5051, Traffic Bureau  
SUBJECT: PHOTO RED LIGHT VENDOR RECOMMENDATION

04 NOV 28 AM 2:35  
RECEIVED  
TRAFFIC BUREAU

Sir:

The Photo Red Light Evaluation Committee met on Tuesday, October 26, 2004, with vendors interested in the City of Columbus' bid for photo red light technology. All six companies were notified of the opportunity to review and clarify program components which were previously submitted to the Committee. Four of the six vendors chose to participate:

- ◆ Nestor
- ◆ A.C.S.
- ◆ Mulvihill
- ◆ Redflex

The vendors were allotted 45 minutes for their review presentations, including a question and answer period. The entire Committee was notified to attend these sessions. Members of the selection committee were the only ones who attended. They are as follows:

- Lt. Jeffrey Blackwell, Columbus Police
- Lt. Ty Brust, Columbus Police
- Amanda Ford, Columbus Health Department
- Sherry Mercurio, Spokesperson, Columbus Police
- Mark Stephenoff, City Engineer
- David Krier, City Engineer

Lt. Ty Brust was present for all of the presentations, with the exception of Redflex who presented last. Consequently, Lt. Brust did not have a vote/recommendation to the Committee.

FINDINGS/RECOMMENDATIONS:

The selection committee members were independently queried to give their recommendation. This process insured independent thought, reasoning, and objectivity. There was no "group persuasion", or "go along to get along" pressure. Additionally, each member was asked to defend or expound on his/her rationale for selection. The members' recommendations are as follows:

Lt. Jeffrey Blackwell	-	<b>Redflex</b>
Amanda Ford	-	<b>Redflex</b>
Sherry Mercurio	-	<b>Redflex</b>
David Krier	-	<b>Redflex</b>
Mark Stephenoff	-	<b>Redflex</b>


I am solid in my recommendation that **Redflex** is the best company to receive the bid from the City of Columbus, as are my counterparts on the committee. Each member favored Redflex over all of the competition. Mark Stephenoff and David Krier, both City engineers, felt that Redflex possessed superior technology with non-intrusive sensors, color high resolution skills and color full motion video. Amanda Ford commented on the apparent integrity of the company and their record of renewed contracts and metropolitan relationships, particularly the partnerships that exist in Toledo and Dayton. Sherry Mercurio liked the "ease of use" that Redflex offered not only for the cities (customers), but the public (violators) as well. I concur with each comment and also like the access to reports, real time data and concurrent "live" traffic monitoring. I also felt strongly about the Redflex lineage of:

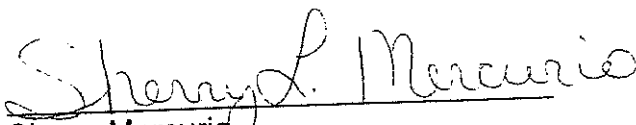
- ✓ No judgments
- ✓ No refunds
- ✓ No shut-downs
- ✓ No decommissions
- ✓ 100% contract renewal
- ✓ Issue of safety and crash education emphasized

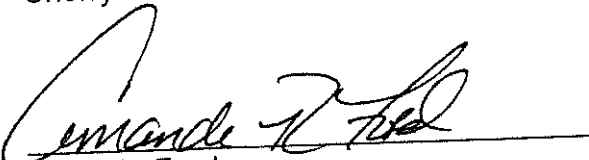
Redflex currently supports two Ohio cities, Toledo and Dayton, as well as 55 other cities across the United States. During the month of September alone, Redflex installed 26 camera systems throughout the country. There are many other factors or nuances used to formulate our opinion—far too many to list. The Committee will make themselves available, as a whole, to discuss our decision with you.



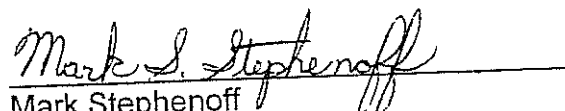
It is our hope that the City of Columbus has photo-red light technology as part of our safety strategy installed as soon as possible. The benefits to our community will be great; lives will be saved, injuries will be reduced, and property damage and accident delays will subside significantly.

  
Lieutenant Jeffrey Blackwell

  
Sherry Mercurio

  
Amanda Ford

  
David Krier

  
Mark Stephenoff

JB/ml

Photo Red Light Selection - Final

**K**

December 09, 2004

To: Photo-Red Light Vendors  
From: Lt. Jeffrey Blackwell #5051, Committee Chairman  
Re: City of Columbus Selection

---

Sir/Ma'am,

The Photo-Red light committee was formulated at the direction of Executive Staff in January 2004. Over the course of the last year, the committee studied the various aspects of the photo red light industry to determine the suitability of the technology in our city. We appreciate the learning opportunity provided by you, the vendors. Your enthusiasm for safety is shared by our City leaders. The vendors the city of Columbus considered were:

- ACS
- REDFLEX
- NESTOR
- MULVIHILL
- PEEK
- TRANSOL

Each company was professionally represented and had strengths in the emerging industry. Our mission was to interpret the data, summaries, and other anecdotal information and choose who we felt would best partner with the City of Columbus. The choice was difficult, however, REDFLEX has been chosen by the Committee. Chain of command review concurred, and the Director of Public Safety gave final approval on November 29, 2004. Again I want to express my sincere gratitude to all of you who participated in this process, the City of Columbus is better because of it.

Thank you,

---

Lieutenant Jeffrey Blackwell

---

Commander Richard Crosby

---

Deputy Chief Stephen Gammill

**L**

**Tyre, Evelyn M.**

---

**From:** Holland, Gary L.  
**Sent:** Wednesday, December 01, 2004 9:54 AM  
**To:** Brown, Mitchell J.  
**Subject:** FW: Photo red light Committee

**Follow Up Flag:** For Your Information  
**Flag Status:** Flagged

Its on paper now. Let me know if we have to cancel this organizing meeting.

Gary

-----Original Message-----

**From:** Blackwell, Jeffrey [mailto:JBlackwell@columbuspolice.org]  
**Sent:** Tuesday, November 30, 2004 4:04 PM  
**To:** Krier, David C.; Stephenoff, Mark S.; Dorrian, Hugh J.; Yost, Jack  
A; Bowditch, Fred; Harper, George H.; Mesirow, Keith S; Brust, Ty;  
Holland, Gary L.  
**Cc:** Gammill, Stephen P.  
**Subject:** Photo red light Committee

You have each been selected to participate in the negotiation phase of the Photo red-light committee with the selected vendor-REDFLEX. Director Holland wants us to move on this, therefore we will meet Friday, December 10th at 900am in the third floor conference room of CPD HQ. Plan on being here for at least 2 hours. From there, we will meet with the representatives from Redflex and hash out the actual working contract between them and the City of Columbus, sometime the following week. The process is almost over, hang in there with me. Thanks

Lt. Jeffrey Blackwell #5051

**Tyre, Evelyn M.**

---

**From:** Holland, Gary L.  
**Sent:** Sunday, May 22, 2005 10:32 AM  
**To:** Distelzweig, Walter (Police); Gammill, Stephen P. (Police)  
**Cc:** Crosby, Richard (Police); Shafer, Kent H. (Police); Blackwell, Jeffrey (Police); Bowditch, Fred (Police); Dennis, Ekow; Clay, Mitchell (Police)  
**Subject:** RE: Photo Red Light Initiative Contract Requirements  
**Importance:** High  
**Follow Up Flag:** Follow up  
**Due By:** Wednesday, May 25, 2005 5:00 PM  
**Flag Status:** Flagged

Gentlemen:

Did we address and resolve this request? If so, please report outcome. Additionally, the Division needs to expedite the contract authorization ordinance in Legistar quickly. There is a small 1-3 week window before the General Assembly speaks on Am. HB 56 which essentially prohibits the technology unless a police officer is at the intersection.

Please make this an administrative priority this week, preferably by Wednesday, 5/25 close of business.

Gary

-----Original Message-----

**From:** Holland, Gary L.  
**Sent:** Tuesday, May 17, 2005 5:14 PM  
**To:** Distelzweig, Walter (Police); Gammill, Stephen P. (Police)  
**Cc:** Crosby, Richard (Police); Shafer, Kent H. (Police); Blackwell, Jeffrey (Police); Bowditch, Fred (Police); Brown, Mitchell J.  
**Subject:** Photo Red Light Initiative Contract Requirements

The revised language for the proposed Redflex contract is being hammered out by the vendor's representatives, Lt. Blackwell, Lt. Bowditch and Office Foor. The City Attorney's Office strongly recommends that the Division of Police assign a contract administrator to review the elements of the contract and the detailed features of the Redflex proposal. The individual should be charged with an ongoing responsibility to oversee the contract — in the manner of Nappy Hetzler, the Division of Fire Business Manager. While TCU Lt. Blackwell has stepped in to lead this effort for the Division, both Assistant City Attorney Jenny Gams and I feel that someone with proximate expertise should be assigned to oversee the remaining phases of contract development.

My suggestion is to use an individual selected from our Business and Personnel Bureau staff, either a uniformed officer or a civilian with related experience.

Please give immediate consideration to appointing someone to this position as he/she must be specifically named in the contract. Redflex and the Division are working toward a work product no later than next Wednesday, 5/25 with a follow on conference call with the assistant city attorneys on Friday, 5/27. Time is of the essence and thank you.

*Gary L. Holland*

Gary L. Holland, Deputy Director

5/23/2005

**Holland, Gary L.**

---

**Subject:** Photo Red Light Meeting (Media)  
**Location:** Director's Conference Room, 50 W. Gay Street, 2nd flr.  
**Start:** Wed 10/19/2005 1:00 PM  
**End:** Wed 10/19/2005 1:30 PM  
**Recurrence:** (none)  
**Meeting Status:** Meeting organizer  
**Required Attendees:** Webster, Mary; Blackwell, Jeffrey (Police); Seckler, Barb

MSB - Cont. conv w/ ~~A~~ Redflet > signature

## Holland, Gary L.

---

**Subject:** Redflex Contract Implementation Mtg  
**Location:** Safety Conf Rm  
**Start:** Mon 10/24/2005 3:00 PM  
**End:** Mon 10/24/2005 4:00 PM  
**Recurrence:** (none)  
**Meeting Status:** Meeting organizer  
**Required Attendees:** ~~Holland, Gary L.~~; Crosby, Richard (Police); Blackwell, Jeffrey (Police); ~~Sumner, John H.~~; ~~Furbee, Jeffrey (Police)~~  
**Importance:** High

### Agenda:

- Review of Ordinances 0958-2005 and 1015-2005 *▷ New included with.*
- Contract finalization: next steps
- Schedule kick-off meeting with Redflex by 10/31
- Schedule meeting with City Auditor and City Treasurer re account and lock box issues
- Timeline requirements to activate program by 01/01/06
- Identify other issues, concerns and implementation steps
- Anything else?
- Adjournment

Boyle  
Duffin  
Tom G...  
N... Evans

① Appeals process - hearing officer?



**EXHIBIT "D"**  
**COMPENSATION & PRICING**

The Contractor's compensations here under shall consist of a variable per citation paid basis.

The City and Redflex have agreed to the following pricing schedule based on a full turnkey 20-system program:

**Variable Fee Model**

Tier	Violations Paid Per Month	% Paid To Reflex	\$ Paid to Redflex	% Paid to City	\$ Paid to City
1	0 – 1000	75%	\$71.25	25%	\$23.75
2	1001 – 2000	65%	\$61.75	35%	\$33.25
3	2000+	50%	\$47.50	50%	\$47.50

**Optional Pricing Schedules**

At the commencement of each year from two through five, the City at its option may change from the Variable Fee Model to either the Fixed Fee Schedule or Combination Model.

**Fixed Fee Schedule:**

Redflex shall provide a full turnkey program with a fixed monthly fee of \$5,170.00 per system. The City shall keep 100% of all revenue received from the program.

**Combinations Model:**

Redflex shall provide a full turnkey system with pricing on both a variable and fixed schedule as follows:

- \$2,500 Fixed Monthly Fee per System
- Redflex to keep 40% of the citations paid.
- City shall get 60% of the citations paid.

**BUSINESS ASSUMPTIONS FOR ALL PRICING OPTIONS:**

---

1. Redflex construction will be able to utilize existing conduit for installation where space is available.
2. Decommissioning/Relocation of constructed approaches: The Customer hereby acknowledges and agrees that the construction of the Designated Intersection Approaches pursuant to this Agreement shall require a significant investment by Redflex. In the event that the Customer wishes to decommission or relocate an existing approach, Customer agrees to compensate Redflex a one-time lumps sum payment of \$16,000 (or such mutually agreed alternative amount) for each such decommissioned or relocated Intersection Approach. The two parties shall mutually agree to any decommissioning or relocation prior to any construction or deconstruction”