



Sam M. McCall, Ph.D., CPA, CGFM, CIA, CGAP
City Auditor

HIGHLIGHTS

Highlights of City Auditor Report #1220, a report to the City Commission and City management

WHY THIS AUDIT WAS CONDUCTED

The purpose of this audit was to evaluate the red light camera program. Specifically, the objectives for the audit were to determine: (1) whether the safety of the public has increased, (2) what the sources of revenues have been, (3) what are the amounts of the revenues and expenses of the program, and (4) whether the program as operated complies with applicable laws, policies, procedures and the terms of the contract with the red light camera system vendor.

WHAT WE RECOMMENDED

Management developed an action plan to address each of the recommendations made within the audit report. Some of the key action plan steps included:

- The Tallahassee Police Department (TPD) and Public Works will work to develop and implement a process to identify and report all employee time spent on the red light camera program.
- Annually, a report will be presented to the City Commission that summarized the activity of the red light camera program. The summary will address both the operational and financial aspects of the program.
- TPD will evaluate the violation review process and make changes to the process as deemed appropriate.
- Public Works and TPD will work together to develop a method to reduce the number of right turn on red violations that officers must review.
- Public Works will work with the red light camera vendor to develop and implement a process to ensure the City is notified when cameras are malfunctioning.

To view the full report, go to:

<http://www.talgov.com/auditing/auditreports.cfm>

For more information, contact us by e-mail at auditors@talgov.com or by telephone at 850/891-8397.

Red Light Camera Program

The City's red light camera program has succeeded in reducing the number of red light violations at intersections where cameras have been installed.

WHAT WE CONCLUDED

Based on our testing of the red light camera program, we:

- 1) Determined that incidents of red light running have decreased at intersections where the red light cameras have been installed. Reduced violations should lead to safer intersections. However, due to the lack of available data relating to accidents, traffic volume, and accident severity, we did not conclude as to the impact of the system on the number or severity of accidents at those intersections;
- 2) Concluded that the revenues of the program have been sufficient to cover the expenses of the program; however, City personnel costs were understated;
- 3) Determined that in excess of 50% of the monies collected through the program are remitted to the State of Florida, and that the City retains only approximately 15% of the total monies collected;
- 4) Estimate that the City has net revenues of \$672,726 out of the \$4.5 million collected over a 21 month period ending April 30, 2012;
- 5) Determined actual collections have been significantly less than budgeted;
- 6) Noted no violation of State law or instances of non-compliance with the terms of the contract between the City and the red light camera system vendor;
- 7) Did not identify any instances of violations being cited in error. However, there were instances where officers reviewing violations did not always issue notices of violations when they could have;

Issues and recommendations are provided in the report in five sections: 1) public safety; 2) revenues and expenses; 3) violation review process; 4) contract compliance; and 5) legal compliance.

Additionally, we have included an appendix that showed a history of red light violations since the inception of the program.

We would like to thank TPD, Public Works, Leon County Clerk of Courts, and the City Treasurer-Clerk's Office for their complete cooperation and support during this audit.

Red Light Camera Program

AUDIT REPORT #1220

September 28, 2012



Copies of this audit report #1220 may be obtained from the City Auditor's web site (<http://www.talgov.com/auditing/auditreports.cfm>), by telephone (850 / 891-8397), by FAX (850 / 891-0912), by mail or in person (City Auditor, 300 S. Adams Street, Mail Box A-22, Tallahassee, FL 32301-1731), or by e-mail (auditors@talgov.com).

Audit conducted by:
Dennis Sutton, CPA, CIA Senior IT Auditor
Sam M. McCall, Ph.D., CPA, CGFM, CIA, CGAP, City Auditor

Table of Contents

Executive Summary..... 5

Objectives and Scope5

Background.....6

Public Safety9

Revenues and Expenses.....10

Violation Review Process.....15

Contract Compliance17

Legal Compliance17

Inefficient Use of Check Requests18

Conclusion19

Objectives 21

Scope and Methodology..... 22

Background 23

Red Light Camera Overview23

Implementation of Red Light Cameras23

City’s Implementation of a Red Light Camera Program26

How Red Light Cameras Work.....27

Vehicle Detection27

Evidence of Violation.....28

Relevant Laws and Ordinances.....28

Implementation of the Red Light Camera Program32

Red Light Camera Program Business Rules.....32

Violation Process.....33

Analysis of Camera Actuations37

Analysis of Accidents.....43

Introduction 46

Public Safety 48

 Red light violations48

Revenues and Expenses..... 51

Program Revenues.....52

Expenses.....53

Payments to ACS.....53

Personnel Expenses.....54

Revenue vs. Expenses55

Distribution of all Revenues Generated by the Red Light Camera Program.....56

Budget Projections vs. Initial Program Expectations vs. Actual57

Revenue estimate on a camera by camera basis58

Violation Review Process 60

Officer Review of Violations61

Right Turn on Red.....62

Contract Compliance..... 65

***Legal Compliance* 67**
 ***Vehicles Not Registered to Individuals*69**
***Inefficient use of Check Requests* 70**
***Conclusion* 71**
***Appointed Official’s Response* 72**
***Appendix A - Action Plan*..... 73**
***Appendix B - Violation History By Intersection and Camera* 76**
***Appendix C - Detailed Disposition of Camera Actuations* 86**

Red Light Camera Program



Sam M. McCall, Ph.D., CPA, CGFM, CIA, CGAP
City Auditor

Report #1220

September 28, 2012

Executive Summary

We have concluded that the red light program has reduced the number of red light running incidents at intersections where cameras have been installed, that the revenues from fees and fines cover the expenses of the program, and the program has been implemented such that adequate controls are in place to provide reasonable assurance that only valid violations will be sent to registered vehicle owners. We also identified some items that will improve the program.

Objectives and Scope

The overall objective of this audit was to review the red light camera program that has been implemented to cite drivers for running red lights in the City. To accomplish this objective we identified several questions related to the red light camera program to answer.

Six specific questions were answered to address the audit objectives.

- What is the red light camera program?
- Has the safety of the public increased since the implementation of the program?
- What are the laws relative to the program, and has the City complied with those laws?
- What are the revenues and expenses of the program since the program's inception?
- How are the revenues of the program collected?

- Have both the City and the red light camera system vendor complied with the terms of the contract for the red light camera program?

The red light camera program was implemented on August 1, 2010.

Background

The red light camera program was implemented on a trial basis for 30 days beginning in July of 2010 and was implemented in full on August 1, 2010. The program began at two intersections and over the next six months was expanded to include an additional four intersections bringing the total number of intersections in Tallahassee with red light cameras to six. In March of 2012 one additional intersection was added to the program.

How the system works

The red light camera system works by detecting the approach of a vehicle to an intersection. If the vehicle's speed exceeds a predetermined limit, the system assumes the vehicle will not stop for the red light and will photograph the vehicle before entering the intersection and again when the vehicle is in the intersection. In addition to the still photographs, the system records high definition video of the violation. The evidence of the violation is then sent to the City's contractor, Affiliated Computer Services (ACS), who processes the violation evidence and sends it to the City for review and determination of whether or not a violation has occurred.

State Law

Chapter 316.0083 of the Florida Statutes governs the use of red light cameras in the state of Florida.

Effective July 1, 2010, the state of Florida enacted the Mark Wandall Traffic Safety Program (Chapter 316.0083, Florida Statutes) that authorizes and sets rules for the operation of a red light camera program within the state. The law sets the fee for a red light violation detected by an automated camera system at \$158 and the actions that must be taken for the violation to be enforced. If the fee for the violation is not paid within 30 days of the

issuance of the notice of violation, the violation becomes a uniform traffic citation (UTC) with a fine of \$271.

Violation process

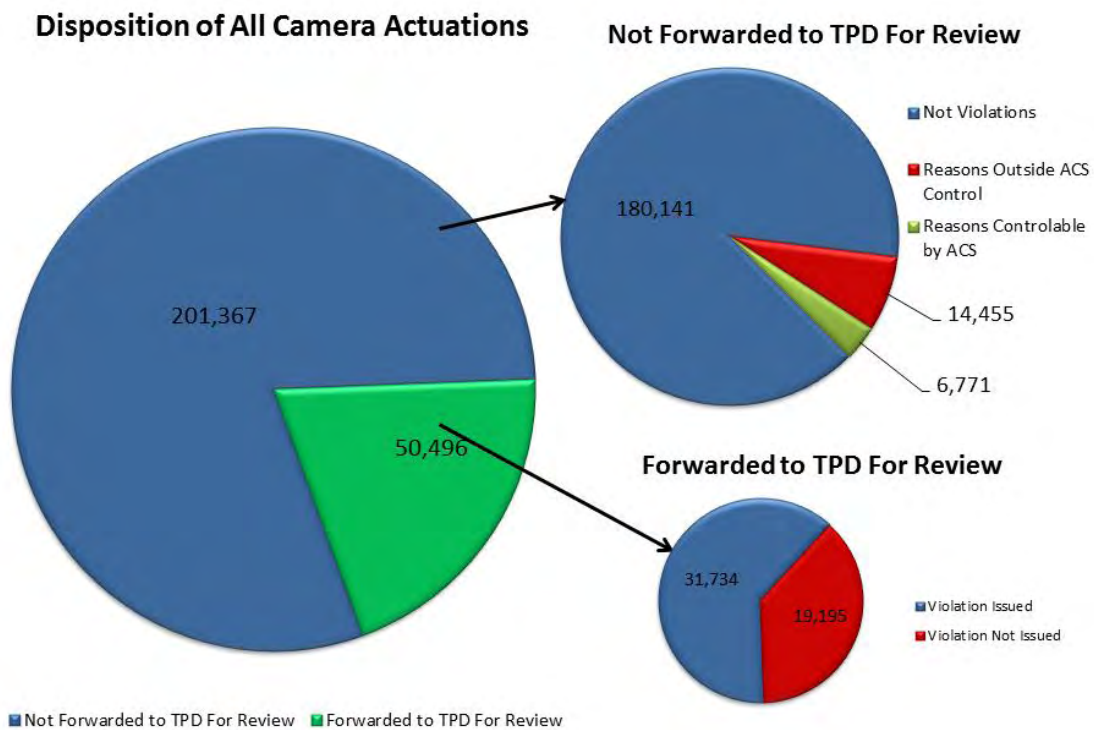
The process developed by the City and ACS (the City's red light camera system contractor/vendor) for the program is as follows:

- The red light camera system detects and records the evidence of a violation.
- The evidence is sent to ACS.
- ACS conducts two separate preliminary reviews of the evidence.
- Incidents that ACS considers to be violations are forwarded to the City as potential violations.
- TPD officers review the potential violations to ensure a violation has occurred and information relating the registered vehicle owner is completed.
- If a potential violation is approved it is sent back to ACS for the mailing of the Notice of Violation to the registered owner of the vehicle. If the potential violation is not approved the process stops.
- If the registered owner of the vehicle pays the fee the monies are collected by ACS and then remitted to the City.
- If the registered owner fails to pay the fee for the violation the incident is reviewed by the Tallahassee Police Department (TPD) a second time and after the officer's approval a uniform traffic citation (UTC) is issued. The fine for a UTC is \$271.
- After the UTC is approved by the officer ACS mails the citation to the registered vehicle owner by certified mail. Once the incident becomes a UTC Leon County Clerk of Courts takes control of the matter and handles collection and disposition of any monies collected.
- If the registered owner pays the fine, collection is made by the Leon County Clerk of Courts. On a monthly basis the Clerk remits to the City its portion of the fine.
- If the registered owner of the vehicle does not pay the fine, he/she is unable to renew his/her driver's license until the fine is paid.

Disposition of Camera Actuations

Every time a camera in the red light camera program takes a picture it is known as an actuation. Every actuation is tracked to its final disposition. We have categorized those actuations into two broad categories and smaller sub categories. Chart 1 below shows a breakdown of the actuations into the two broad categories.

Chart 1
Red Light Camera Actuations



This chart shows the majority of the camera actuations were never forwarded to TPD. Also a large percentage of potential violations forwarded to TPD were not cited as violations. In total during the 22 month period (6/2010-4/2012) we examined there were approximately 251,000 camera actuations, 201,000 (80%) of which

were not sent to TPD for review and 50,000 (20%) were sent for further review by TPD.

The chart also shows that 62% (approximately 32,000) of the actuations sent to TPD were associated with violations and were sent to registered owners of vehicles while 38% were (approximately 19,000) were not approved by TPD officers and were not considered red light violations.

Public Safety

We have concluded that red light violations have decreased.

We have concluded that the overall number of red light violations at intersections where the red light cameras have been installed has decreased which should lead to safer intersections. However, we did not make any conclusions relating to the red light camera's impact on accidents and how those accidents impact public safety. In order to reach a reasonable conclusion about accidents there are several factors which must be considered. We were not able to satisfy ourselves as to the completeness of the information available for three areas. Those areas were:

We did not make any conclusions relating to the impact of red light cameras on accidents.

- Accident information – TPD and Leon County Sheriff's Office are the main two law enforcement agencies that respond to accidents at the intersections where red light cameras have been installed. Due to differences in how the two agencies record and store accident data and reports we were not able to obtain information from the two agencies based on the same parameters (i.e., all accidents within a certain distance of the intersections).
- Traffic Volume – The number of cars traveling through the intersections where the red light cameras have been installed is a significant factor that will influence the number of accidents. We inquired of Public Works as to the availability of data relating to traffic volume and were told that traffic volume data is only collected on an as needed basis and had not been collected at the intersections where the red light cameras were installed. Therefore

traffic volume data was not available for our consideration in any analysis of accidents.

- Accident Severity – The severity of accidents at the intersections where the red light cameras have been installed is important when concluding as to whether the public is safer since the installation of the cameras. For example, an analysis of accidents may show an increase in accidents at one intersection; however, if those accidents are less severe it could lead to a conclusion that the public is safer in spite of the increase in accidents. As previously stated complete and comparable accident information was not available from TPD and LCSO.

Absent reliable information relating to accidents, traffic volume, and injury severity, we could not draw a conclusion as to the degree that red light cameras have impacted public safety in Tallahassee.

Revenues and Expenses

The stated goal of the red light camera program is to increase public safety. There is however a cost associated with operating the program and the fee/fine for violations does produce revenue. Therefore we have reviewed the revenues and expenses of the program.

Revenues

The revenues of the program are obtained through the payment of the fees associated with red light violations and the fines associated with UTCs. The following table shows the distribution of the fees and fines as prescribed by law.

Table 1
Violation Fee and UTC Fine Allocation

Violation Fee Allocation (if paid within 30 days)	Amount
State of Florida General Fund	\$ 70.00
State of Florida Dept. of Health Administrative Trust Fund	\$ 10.00
State of Florida Brain and Spinal Cord Injury Trust Fund	\$ 3.00
City of Tallahassee	<u>\$ 75.00</u>
Total Violation Fee	<u>\$ 158.00</u>

UTC Fine Allocation (if paid after 30 days)	Amount
Clerk of Courts Fine and Forfeiture Fund	\$ 35.00
Additional Court Costs Clearing Trust Fund	3.00
Dori Slosberg Drive Education Safety Act	3.00
State Law Enforcement Radio System Trust Fund	3.00
Law Enforcement Education Trust Fund – City	2.00
Law Enforcement Education Trust Fund - County	2.00
Criminal Justice Education - County	2.50
Teen Court	3.00
Surcharge – Fund State Court Facilities	30.00
Surcharge - Replacement of Fine Revenue	7.00
Article V Assessment – State Courts Revenue Trust Fund	5.00
Article V Assessment – State Attorney’s Revenue Trust Fund	3.33
Article V Assessment – Public Defender’s Revenue Trust Fund	1.67
Clerk of Courts Fine and Forfeiture Fund	12.50
State of Florida – Brain & Spinal Cord Injury Trust Fund	2.70
State of Florida – General Revenue	63.00
State of Florida – Dept. of Health Administrative Trust Fund	9.00
Clerk of Court – Public Record Modernization Fund	15.80
City of Tallahassee	67.50
Total Citation Fine	<u>\$ 271.00</u>

As can be seen in the above table the City receives \$75.00 of the \$158.00 fee from every violation and \$67.50 of the \$271.00 fine for every UTC.

Expenses

The expenses of the red light program consist of payment to ACS for the services related to the red light camera program, personnel costs for TPD’s review of potential violations, and Public Works’ costs for administration of the contract with ACS and oversight of the program.

We tested all payments to ACS and did not note any issues with the payment calculations or payment process. In total (through 4/30/2012) the City has paid ACS approximately \$1.2 million.

In our examination of personnel costs related to the red light camera program we noted that not all the time devoted to the red light camera program at neither TPD nor Public Works was being identified and recorded as such. Specifically, we noted TPD did not record the time officers spent reviewing the potential violations for the first six months of the program. We also noted that in some instances where the volume of potential violations is very large TPD must sometimes use additional officers to clear any backlogs of unreviewed violations and that the time of the additional officers is not being captured as being related to the red light camera program. Finally, we noted that Public Works was not capturing the time its' employees devoted to the program. When these concerns were brought to the attention of both TPD and Public Works neither was comfortable making an estimate of the additional time related to the red light camera program due to the amount of time that has passed since the program began. We recommend both TPD and Public Works track personnel time related to the red light camera program.

City Revenues vs. Expenses

Revenues of the program are adequate to cover the expenses of the program.

In total the red light camera program has generated sufficient revenues to cover the known costs of the program. The table below shows the gross revenues, expenses, and net revenues of the red light camera program.

Table 2
City Revenues vs. Expenses
August 1, 2010 – April 30, 2012

City Revenues		
Total Violation Fees Collected by ACS ⁽¹⁾	\$1,692,928	
Total UTC Receipts from Leon County ⁽²⁾	287,161	
Total Revenues		\$1,980,089
City Expenses		
Payments to ACS	\$1,231,601	
Personnel Expenses ⁽³⁾	55,765	
Total Expenses (est.)		\$1,287,363
Estimated Net Revenue		\$692,726
<p>⁽¹⁾This amount does not agree to the revenue amount shown in Table 3 due to the collection of an additional \$2.50 for each payment received by credit card. That \$2.50 is remitted to ACS and is included as part of the payments to ACS.</p> <p>⁽²⁾This amount does not include amounts the City receives as part of UTC fines that are not related to the red light camera program. For example, state law mandates that \$2.00 of each UTC fine be remitted to the City as part of a law enforcement education trust fund.</p> <p>⁽³⁾<u>Personnel expenses are understated</u> as reliable data relating to Public Works and additional TPD staff cost/time is not available and is not included. However, we have included the known personnel costs.</p>		

Distribution of Monies Collected Through the Red Light Camera Program

Table 2 above indicates that the red light camera program generated estimated net City revenues of \$692,726 which is about 35% of City program revenues. To obtain an estimate of how all monies collected through the red light camera program are distributed (i.e., City, state of Florida, and Leon County) we contacted the Leon County Clerk of Courts to obtain information on UTC fine collections by them and the distributions of such collections. The following table shows our estimate of the breakdown of how all revenues including the amount paid to the City’s red light camera vendor (as an amount separate from the amount retained by the City) are ultimately distributed.

Table 3
Distribution of Red Light Camera Collections
8/1/2010 – 4/30/2012

Distribution	Amount	Percentage
Total State Program Revenues	\$ 2,438,317	53.2%
Net City Program Revenues	692,723	15.0%
City - UTC Fines & Forfeitures Revenues ⁽¹⁾	105,333	2.2%
ACS	1,231,601	26.9%
Leon County – Sheriff	20,593	.4%
Leon County – Clerk of Courts	202,024	4.4%
Total Red Light Camera Program Revenues	\$ 4,585,258	100.0%

⁽¹⁾ When a violation becomes a UTC there are additional amounts beyond those attributable to the red light camera violation due the City. Those amounts are remitted to the City by Leon County and accounted for separately from the red light camera fine and as such have been shown separately in this table.

Revenue estimate on a per camera basis

The contract with ACS provides for a monthly payment of \$4,650 for each of the first 12 cameras and \$4,475 for any additional cameras. Therefore, on a per camera basis it requires collections for 62 violations for the first 12 cameras and 60 violations per month for all others in order for the fees from violations to cover the monthly cost of the camera.

Our analysis of violations showed that not all cameras are generating enough revenue to cover the amount due ACS for the camera (See Table 12). The trend of decreasing violations indicates that motorists are adjusting their driving at intersections with red light cameras, and as such some intersections may not justify the continued need for the camera. Therefore, we recommend management monitor violation levels and consider relocating the cameras at intersections with few violations per month to intersections where there are increased numbers of violations.

Budget Projections vs. Initial Program Expectations vs. Actual

When the red light camera program was initially proposed to the City Commission the estimate was for net revenues to exceed \$1 million annually. However, prior to the implementation of the program the Florida Legislature changed the law on how fees related to violations would be levied within the state of Florida. Rather than local governments paying red light camera vendors based upon violations cited, they are instead paid a fee for each camera installed.

Since the initiation of the program the City's budget has included red light camera program gross revenues of \$2.1 million each year for fiscal years 2011 and 2012. Our analysis of revenues shows that actual gross revenues have been \$1,196,000 million and \$708,000 (through 4/30/1012) respectively and have not met budgeted expectations.

Additionally, the expenses of the red light camera program are not specifically identified in the budget as attributable to the program. As such, it is not readily clear from the budget to what extent budgeted revenues exceed budgeted expenses.

We recommend that management periodically provide the City Commission information that compares revenues and expenses of the program as well as management's conclusions as to how well the program is meeting its objective of increasing public safety.

Violation Review Process

Approving or disapproving potential violations by TPD is a process that requires the use of judgment on the part of the reviewing officer as to whether a violation has occurred and officers have discretion as to whether a notice of violation will be issued. We selected and tested (for accuracy of officer reviews) a random sample of potential violations that were forwarded to the

We did not note any instances of officers approving violations in error.

Some violations were disapproved that should not have been.

City by ACS for review. In our testing we did not note any instances of officers approving violations that should not have been approved. We did however note instances where red light violations were disapproved that should not have been. As a result of the errors noted we expanded our testing and selected a random sample of disapproved potential violations and tested those items for the accuracy of the officer reviews. In that second testing we noted an additional seven errors out of sixty items tested. Those seven errors equated to approximately a 12% error rate. Which if considered from a statistical standpoint indicates a possible error rate of between 4% and 19%. If those error rates are extrapolated to the population of all disapproved violations (18,762) there could be as few as 751 or as many as 3,565 violations that should have been approved but were not. If we extend those projections to potential fees forgone, the City may have collected between \$56,325 and \$267,375 additional revenue. We recommend management reevaluate the violation review process.

In addition to the issue related to the review of potential violations, we noted officers devote a considerable amount of their effort to reviewing and disapproving violations related to vehicles making right turns on red. Specifically, instances where the right turns were made from lanes that are devoted to right turns only. The Mark Wandall Traffic Safety Program statute states, “*A notice of violation and traffic citation may not be issued for failure to stop at a red light if the driver is making a right hand turn in a careful and prudent manner.*” As a result officers typically do not approve violations related to right turns on red. In total there were 18,762 violations disapproved by TPD officers. Of those 18,762 disapprovals 16,892 (90%) were related to right turns on red. We recommend management consider altering the criteria on which the

program operates for right turn only lanes to reduce the number of potential violations that must be reviewed.

Contract Compliance

We reviewed the terms of the contract between the City and ACS for the red light camera program. In our review we did not note any instances of non-compliance by either party. However, we did note an issue with the contract language relating to repair and maintenance of the cameras.

We noted concerns with the contract language relating to repair and maintenance of the red light camera equipment.

The contract provides for ACS to normally respond to malfunctions within 24 hours and repair or replace inoperable equipment within 72 hours of detection or notification from the City. Our analysis of violations showed periods of dramatically fewer violations than normal, and we also noted instances where ACS did not bill the City for certain months for some cameras due to malfunctioning equipment. The language of the contract relating to equipment repairs is not clear and can be interpreted to mean that ACS is required to repair the malfunctioning equipment only after notification from the City. The issue is compounded because, based on the violation process, the City is dependent on ACS to know where equipment is malfunctioning and thereby unable to provide notice to ACS.

We recommend Public Works contact ACS and arrange a methodology whereby the red light camera equipment will be repaired timely and that ACS notify the City whenever it becomes aware of malfunctioning equipment within 24 hours. The City should not be required to pay ACS a full monthly camera fee when a camera does not operate for a significant portion of the month.

Legal Compliance

In the course of this audit we did not note any instances of where the City's red light camera program did not comply with the

provisions of the Mark Wandall Traffic Safety Program, Section 316.0083, Florida Statutes.

We did note a potential issue relating to the mechanism used to help ensure payment of the UTC fine. When the fine for a citation is not paid as required, the driver's license of the registered owner of the vehicle is suspended. This precludes the individual from renewing their driver's license and renewing their vehicle's license plates. This process works well for ensuring payment of fines by individuals, however not all vehicles are owned and registered by individuals. In instances where the vehicle is owned by a business (or some other entity) there is not a driver's license to suspend nor is there an alternative mechanism in place to preclude the business from ignoring the fine and continue to renew the vehicle's license plates.

To address the issue and provide a mechanism to help ensure collection of fines related to red light violations, we recommend the City work with the state of Florida to amend Section 316.0083, Florida Statutes to provide for the suspension of the license plate of the vehicle involved in the red light violation until the fine is paid.

Inefficient Use of Check Requests

In the course of our testing of payments made to ACS we noted that all payments to ACS were made by wire transfer and had been processed through the City's purchase order/requisition process in PeopleSoft Financials. However, we also noted that for each payment a check request was also prepared. The use of a check request is an alternative method of processing payment within the City. The use of both the purchase order/requisition and check request processes is redundant and not an efficient use of City resources. We recommend check requests no longer be completed

Check requests should not be used when requisitions and purchase orders have already been processed for payments.

when the purchase order/requisition process in PeopleSoft Financials is used for processing payments.

Conclusion

We have concluded the red light camera program has reduced the number of red light violations at intersections where the cameras have been installed which should lead to safer intersections. We can also provide assurance that: the program has been implemented such that there are adequate controls to provide assurance that violations are not issued in error, the revenues of the program have been adequate to cover the expenses of the program, both the City and ACS are complying with the terms of the contract for the program, and the program is being run in accordance with applicable laws.

As part of this audit we noted some areas where improvements could be made. Those areas include: monitoring the program to ensure the level of violations warrant the continued use of cameras at selected intersections, ensuring personnel costs related to the program are tracked, adjusting the prescreening of violations to reduce the number of right turn on red violations TPD officers must review, working with ACS to ensure equipment is repaired in a timely manner, and supporting legislation that would not allow a vehicle owner to renew their vehicle tags until UTC fines are paid.

We would like to thank both TPD and Public Works staff, ACS, and Leon County Clerk of Courts for their assistance in this audit.

This page intentionally left blank.

Red Light Camera Program



Sam M. McCall, Ph.D., CPA, CGFM, CIA, CGAP
City Auditor

Report #1220

September 28, 2012

Objectives

The overall objective of this audit was to review the electronic enforcement of traffic violations.

The overall objective of this audit was to review the electronic enforcement of traffic light violations (commonly known as red light cameras). Included was a review of the collection of the fees associated with red light violations; the process of violation determination; an analysis of the revenues and expenses of the red light camera program; and the adequacy and compliance with applicable policies, procedures and laws. Specifically, the audit objectives were to answer the following questions:

- 1) What is the red light camera program?
 - a. What exactly is “running a red light”?
 - b. Which intersections are monitored by red light cameras?
 - c. How do the cameras determine if there is a violation?
 - d. What is the review process for verifying a red light camera violation has occurred?
 - e. How many violations have occurred?
- 2) Has the safety of the public increased with the implementation of the red light camera program?
- 3) What laws are applicable to the red light camera program?
- 4) Has the City complied with those laws?
- 5) What are the expenses of the red light camera program?

Eight specific questions were answered to address the audit objectives.

- 6) How much revenue has been collected through the red light camera program?
- 7) What is the collection process for violation fees and fines?
- 8) Have the terms of the contract with the vendor supplying the red light camera program equipment and providing services related to the red light camera program been complied with by both the City and the vendor?

Scope and Methodology

In this audit we reviewed and evaluated the implementation of the red light camera program as it relates to the enforcement of traffic signals at certain intersections within the City. We did not reach any conclusions about accidents at intersections where red light cameras have been installed due to multiple factors including but not limited to how those accidents are documented in police reports, the lack of information on the severity of accidents, and lack of information about traffic volume at those intersections.

Applicable audit procedures were conducted to meet the stated audit objectives. Those procedures included conducting interviews of knowledgeable personnel and inspecting and analyzing various records and reports. Specific procedures included:

- Identifying and reviewing Florida Statutes that address or impact the red light camera program,
- Identifying and reviewing industry materials relating to the use of red light cameras,
- Identifying and learning how to use the red light camera vendor's on-line reporting system,
- Extracting, querying, and reviewing red light camera data,
- Observing TPD officer's reviews of potential red light violations, and
- Interviewing staff involved in the administration and management of the red light camera program.

Our procedures included interviewing knowledgeable staff, observing staff, and analyzing program data.

We conducted this audit in accordance with the International Standards for the Professional Practice of Internal Auditing and

Generally Accepted Government Auditing Standards. Those standards require we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

Red Light Camera Overview

The use of cameras in the enforcement of traffic signals and laws is not a new technology. Worldwide, cameras have been used for red light enforcement since the late 1960s and in the United States since the early 1990s.

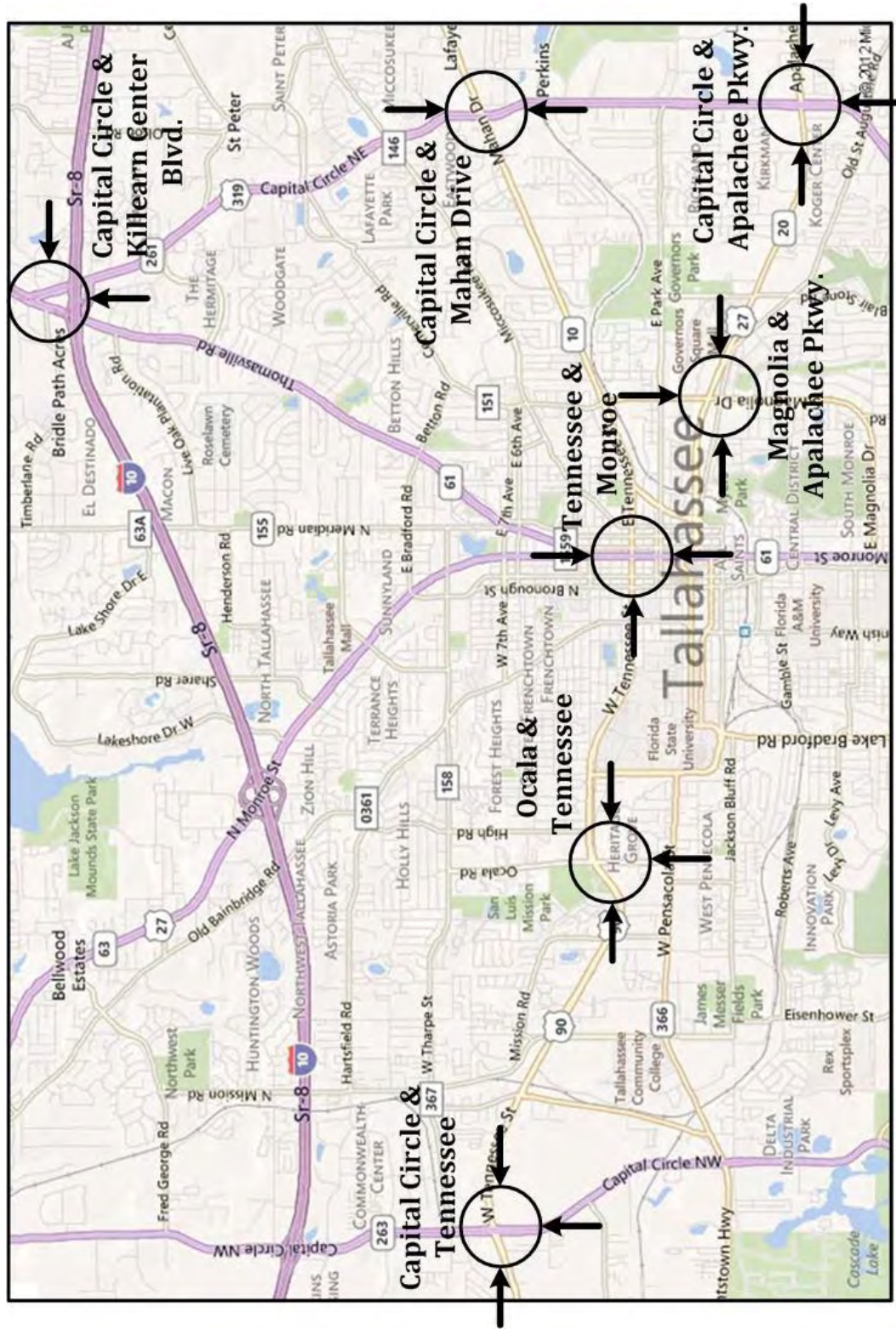
Implementation of Red Light Cameras

The City began its use of cameras for red light enforcement in June of 2010 with a pilot period where warnings were issued rather than violations. On August 1 of that same year the program was officially launched at two intersections, Tennessee Street & North Monroe Street for traffic eastbound on Tennessee Street and Capital Circle & Killlearn Center Boulevard for traffic west bound on Killlearn Center Boulevard. Over the following six months an additional 15 cameras were installed at four more intersections. In March of 2012 an additional two cameras were installed at Capital Circle and Mahan Drive for north and south bound traffic on Capital Circle. This brought the current number of intersections in the program to seven with a total of 19 red light cameras at those intersections. The following table shows a listing of the intersections, cameras, and the month of implementation of the cameras. Additionally, a map of Tallahassee showing the intersections and direction of the cameras has been included as Illustration 1.

Table 4
Red Light Camera Activations

Intersection / Camera	Month of Activation
Tennessee St. and Monroe St.	
Tennessee St. Eastbound	August 2010
Monroe St. Northbound	November 2010
Monroe St. Southbound	November 2010
Capital Circle and Killearn Center Blvd.	
Killearn Center Blvd. Westbound	August 2010
Capital Circle Northbound	October 2010
Ocala Rd. and Tennessee St.	
Ocala Rd. Northbound	September 2010
Tennessee St. Westbound	October 2010
Tennessee St. Eastbound	September 2010
Capital Circle and Tennessee St.	
Capital Circle Northbound	December 2010
Tennessee St. Eastbound	December 2010
Tennessee St. Westbound	December 2010
Magnolia Dr. and Apalachee Pkwy.	
Magnolia Dr. Southbound	December 2010
Apalachee Pkwy. Westbound	December 2010
Apalachee Pkwy. Eastbound	January 2011
Capital Circle and Apalachee Pkwy.	
Capital Circle Northbound	January 2011
Apalachee Pkwy Eastbound	January 2011
Apalachee Pkwy Westbound	January 2011
Capital Circle and Mahan Dr.	
Capital Circle Northbound	March 2012
Capital Circle Southbound	March 2012

Illustration 1
Map of Camera Locations



City's Implementation of a Red Light Camera Program

In April of 2009 the first presentation relating to the idea of implementing a red light camera program in Tallahassee was made to the Financial Viability Committee of the City Commission. In that presentation the following were provided to the committee:

- a summary of the extent of red light camera usage in the United States and in Florida,
- a summary of a public opinion poll that showed red light running was a concern across the United States and in Florida,
- examples of red light camera programs shown to reduce the number of red light running incidents,
- a basic summary of how a red light camera program could operate,
- the results of a survey of red light violations at three intersections in Tallahassee, and
- visual examples of what comprises a red light camera system.

On May 27, 2009 an ordinance governing red light camera in Tallahassee was adopted.

Based on that presentation the proposal for the implementation of a red light camera program was brought forward to the full City Commission and on May 27, 2009, an ordinance was adopted to allow for and govern the implementation of a red light camera program in Tallahassee.

The City issued an RFP for the selection of a vendor to implement a red light camera program and in September of 2009 ACS was selected as the City's vendor for implementing the program. In December of 2009 the contract with ACS was finalized and executed.

In May of 2010 (prior to the installation of the first cameras in the City's program) Section 316.0083, Florida Statutes, was enacted (which governs the operation of red light cameras in the state of Florida and will be discussed in greater detail later in this report).

In response, the City revised the red light camera ordinance to comply with the statute and amended the contract with ACS accordingly.

How Red Light Cameras Work

The City's red light camera system works by anticipating or predicting when a vehicle will run a red light. In general, the red light camera system makes this prediction by detecting the vehicle's speed when approaching an intersection when the traffic signal is yellow or red. When the vehicle's rate of travel is above a pre-set speed, the system predicts the vehicle will not stop for the traffic signal and photographs the vehicle as well as records the vehicle's actions on video. This system is not foolproof in that the vehicle may still stop prior to entering the intersection. Therefore, photographs and videos are reviewed by both staff of ACS and TPD officers prior to the issuance of a notice of violation.

Vehicle Detection

Vehicles are detected by either in-ground sensors or lasers.

The City's red light camera system uses two different methods of detecting vehicles and determining their speeds. The first and most used method utilizes in-ground sensors, known as Sensys Virtual Loop while the second method of vehicle detection uses lasers.

The Sensys Virtual Loop works by embedding two sensors in the roadway for each lane of an intersection monitored by red light cameras. The sensors detect the passing of a vehicle by detecting the change in the magnetic field near the sensor as the vehicle passes. Based on the time the vehicle takes between the two sensors embedded in the monitored lane, the vehicle's speed is determined.

The second system of violation detection used in Tallahassee uses lasers to determine vehicle speed. Two laser beams (per ACS documentation the lasers are "eye safe" and specifically designed

for vehicle detection) are used to detect the vehicle approaching the intersection. The time the vehicle takes to travel the distance between the two lasers is used in calculating the speed of the vehicle.

Evidence of Violation

When a vehicle approaches an intersection where the red light camera system has been installed the speed of the vehicle is determined, as described above. If the approach speed of the vehicle exceeds 15 mph the system records a high definition video and takes a photograph of the vehicle prior to the vehicle entering the intersection and seconds later a second photograph is taken with the vehicle in the intersection. These two photographs and the video serve as the evidence that a violation has occurred.

Relevant Laws and Ordinances

Chapter 316.0083 of the Florida statutes authorizes the use of red light cameras in the state of Florida.

Chapter 316.0083 of the Florida statutes is the law relating to the operation of red light cameras in the state of Florida. The statute, known as the Mark Wandall Traffic Safety Program was signed into law on May 13, 2010, and became effective July 1, 2010.

The law provides for the authorization of Florida counties and municipalities to utilize traffic infraction detectors (i.e., red light cameras). The law has several specific provisions that must be met.

Those provisions are as follows:

- The notification of violation must be sent to the registered owner of the vehicle within 30 days of the violation.
- The penalty for a violation is \$158 if paid within 30 days of the notice of violation. The \$158 fee is allocated as follows:

Violation Fee Allocation (if paid within 30 days)	Amount
State of Florida General Fund	\$ 70.00
State of Florida Dept. of Health Administrative Trust Fund	\$ 10.00
State of Florida Brain and Spinal Cord Injury Trust Fund	\$ 3.00
City of Tallahassee	\$ 75.00
Total Violation Fee	\$ 158.00

- If the violation is not paid within 30 days of notification, the violation becomes a traffic citation and the fine for the citation is \$271 distributed as follows:

Citation Fine Allocation(if not paid within 30 days)	Amount
Clerk of Courts Fine and Forfeiture Fund	\$ 35.00
Additional Court Costs Clearing Trust Fund	3.00
Dori Slosberg Drive Education Safety Act	3.00
State Law Enforcement Radio System Trust Fund	3.00
Law Enforcement Education Trust Fund – City	2.00
Law Enforcement Education Trust Fund - County	2.00
Criminal Justice Education - County	2.50
Teen Court	3.00
Surcharge – Fund State Court Facilities	30.00
Surcharge - Replacement of Fine Revenue	7.00
Article V Assessment – State Courts Revenue Trust Fund	5.00
Article V Assessment – State Attorney’s Revenue Trust Fund	3.33
Article V Assessment – Public Defender’s Revenue Trust Fund	1.67
Clerk of Courts Fine and Forfeiture Fund	12.50
State of Florida – Brain & Spinal Cord Injury Trust Fund	2.70
State of Florida – General Revenue	63.00
State of Florida – Dept. of Health Administrative Trust Fund	9.00
Clerk of Court – Public Record Modernization Fund	15.80
City of Tallahassee	67.50
Total Citation Fine	\$ 271.00

- When a traffic citation is issued it must be sent to the registered owner of the vehicle within 60 days of the occurrence of the violation.
- The violation notification must include notice that the registered owner of the vehicle has the right to review the photographic or video evidence that supports the notice of violation.
- The owner of the vehicle is responsible for paying the penalty for failing to stop at a traffic signal unless the owner can establish one of the following:
 - The vehicle passed through the intersection to yield right of way to an emergency vehicle or as part of a funeral procession,
 - The vehicle passed through the intersection at the direction of a law enforcement officer,
 - The vehicle was in the care, custody or control of another person, or

- A traffic citation was issued by a law enforcement officer.
- Counties or municipalities that operate traffic infraction detectors must submit a report (by October 1, 2012, and annually thereafter) to the department which details the results of using the infraction detectors and the procedures for enforcement.
- An individual may not receive a commission from any revenue collected from violations detected through the use of a traffic infraction detector.
- A manufacturer or vendor may not receive a fee or remuneration based upon the number of violations detected through the use of a traffic infraction detector.

The statute also references the statute (FS 316.075, Traffic Controls Signal Devices) applicable to defining what is required for obeying a red light. Specifically the statute states, “Vehicular traffic facing a steady red signal shall stop before entering the crosswalk on the near side of the intersection, or if none, then before entering the intersection and shall remain standing until a green indication is shown.” Illustration 2 shows an example of a vehicle that has complied with the law.

Illustration 2
Vehicle Stopped at a Red Light



Illustration 2 shows the traffic light is red and the near vehicles have stopped before entering the crosswalk and the far vehicles have stopped before entering the intersection where there is no crosswalk.

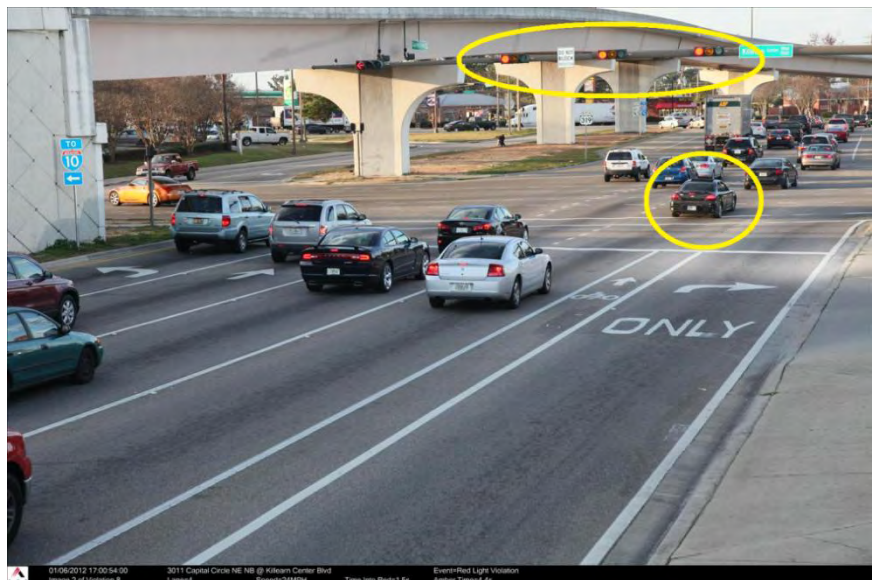
Illustration 3 shows an example of a red light violation. The first photograph clearly shows the highlighted vehicle has not yet entered the intersection and that the traffic light is red. The second photograph shows that traffic light is still red and the vehicle has continued through the intersection.

Illustration 3
Running a red light

Prior to the highlighted vehicle entering the intersection.



The same highlighted vehicle running the red light.



Implementation of the Red Light Camera Program

The City began implementing a red light camera program prior to the state of Florida passing the Mark Wandall Traffic Safety Program. As previously described the City began the implementation process in April 2009 by establishing Ordinance 09-O-22AA Section 20-50 “Intersection Safety Using Red Light Cameras.” That ordinance provided for the authorization for the use of red light cameras in Tallahassee as well as laying out the business rules for the operation of the red light camera program.

The first ordinance relating to red light cameras was passed in April 2009.

However, prior to the installation of the first camera the previously described Florida Statute was passed which rendered some of the provisions of the ordinance unlawful. In response, the ordinance was revised by deleting the previous language of the ordinance and replacing it with the following:

- a) The City Manager or his/her designee is authorized to implement a system utilizing traffic infraction detectors pursuant to section 316.0083 FS.
- b) The City Manager or his/her designee shall have the authority to select locations within the city for the installation, operation, and maintenance of the traffic infraction detectors, including on rights-of-way owned or maintained by Leon County or the state within the city pursuant to section 316.0776 FS.

With the guidance of the ordinance in place separate business rules for the red light camera program were developed.

Red Light Camera Program Business Rules

The City’s business rules for the red light camera program were based on the standard template developed by the City’s vendor and then modified to fit the City’s needs.

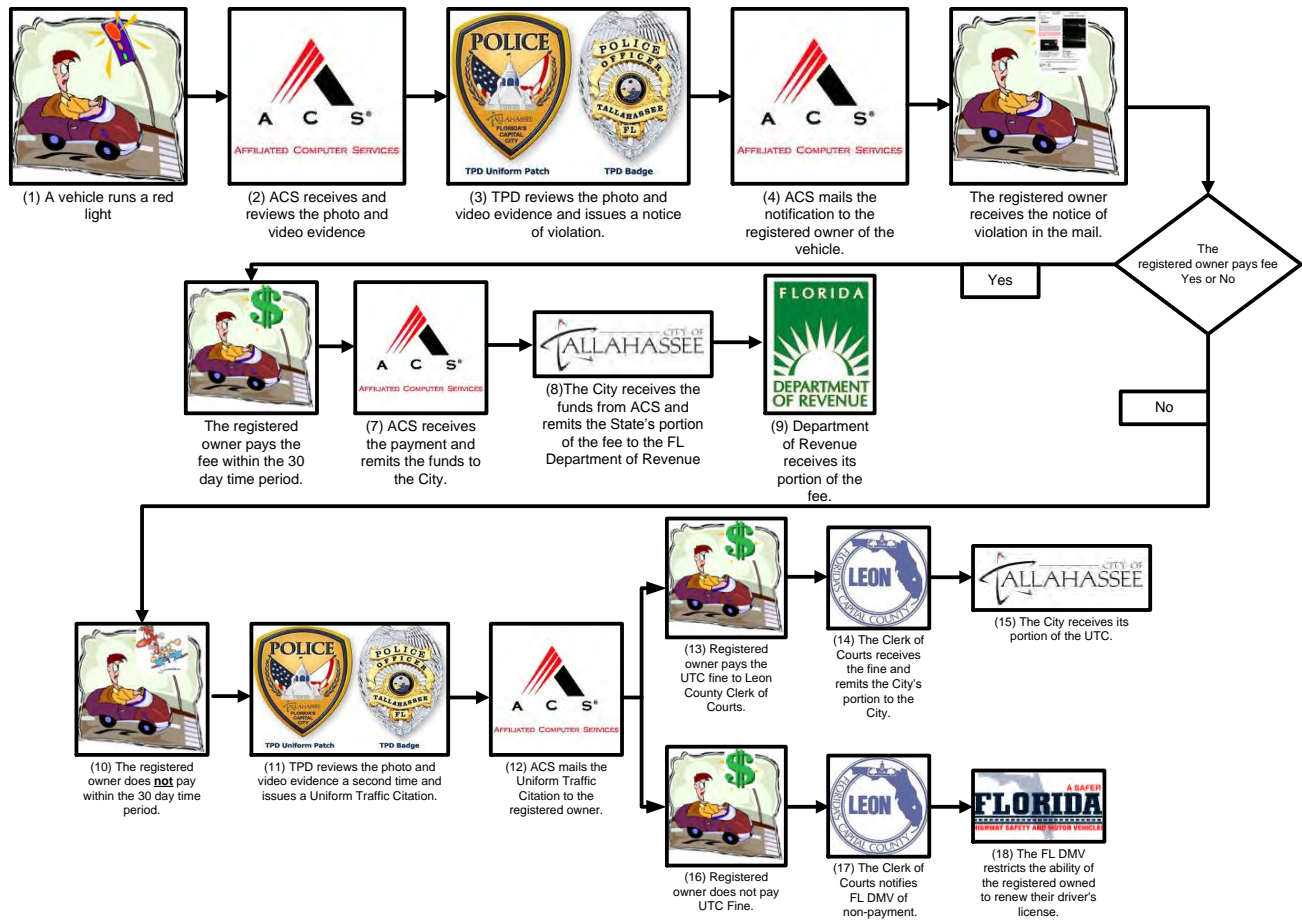
The key parts of the business rules include:

- Key individuals with the City and ACS that are involved in the administration and operation of the red light camera program,
- Identification of the intersections with red light cameras and the date the cameras were activated,
- The criteria on which ACS would review potential red light violations,
- The standards of operation for ACS when processing violations,
- The process ACS will use for handling payment of red light violations, and
- The standards for red light camera data retention.

Violation Process

When a red light violation occurs there is a specific process that a violation follows. Illustration 4 shows the different steps in the red light violation process, which includes all the steps from the violation to the final disposition of the UTC. Subsequent to the illustration is a description of each of the steps.

Illustration 4
Red Light Violation Process



1. A vehicle runs a red light at one of the seven intersections in the City where a red light camera has been installed and the red light camera system captures two still photographs and a video clip of the incident.
2. The City's vendor for the red light camera system, ACS, receives the photographs and video. Based on the license plate obtained from the photographs, ACS queries the state of Florida database of registered vehicles and obtains the needed data relevant to the vehicle (i.e., make and model of the vehicle, registered owner and owner's address). Additionally, ACS conducts two separate reviews of the photographic evidence and concludes as to whether the

photographic and video evidence supports the issuance of a notice of violation.

3. Once ACS has reviewed and prescreened the evidence, the potential violations (prior to a TPD officer's verification of the incident as running a red light, the incident is known as a potential violation) are forwarded to TPD for review and verification. In the review process the officer pulls up the potential violation and (1) verifies that a violation has occurred based on the photographic and video evidence, and (2) verifies the vehicle and owner information (entered by ACS) is correct and complete. The officer also verifies the vehicle license plate has not been misread by ACS during the initial screening. If there is a discrepancy or incomplete information (vehicle make, model, color, or owner name/address) associated with the violation, the officer attempts to correct the error using TPD's access to multiple state vehicle databases. In the event that the vehicle/owner information cannot be obtained or corrected, the violation is not approved by the officer.
4. After the violation is reviewed and approved by TPD, ACS generates and mails the notice of violation to the registered owner of the vehicle by first class mail. The violation must be mailed within 30 days of the incident of red light running.
5. The owner receives the notice of violation and can then either pay the violation fee or refuse to make payment within the 30 day period. (If the owner pays the fee proceed to # 6, if the owner does not pay the fee proceed to #10.)
6. The owner of the vehicle is responsible for paying the fee for the red light running violation. The fee of \$158.00 is paid to ACS. The fee can be paid by money order, cashier's

- check, cash, or credit card (if paid by credit card an additional \$2.50 surcharge is required).
7. ACS receives the payment and remits the funds to the City. ACS remits collections to the City on a daily basis with a listing of the violations that were paid.
 8. The City Treasurer-Clerk's Revenue Division receives the funds from ACS, and on a weekly basis forwards the state of Florida's portion of the fee to the Florida Department of Revenue.
 9. The Department of Revenue receives \$83.00, the state's portion of the \$158.00 violation fee.
 10. The failure to pay the red light violation fee within the required 30 day time period triggers an escalation of the incident from a violation to a uniform traffic citation (UTC), which would include the assessment of points on the owner's driver's license and the addition of court costs and other fees.
 11. Prior to the issuance of a UTC the TPD reviews the violation data a second time and then approves the issuance of the UTC.
 12. With the approval by TPD, ACS mails the UTC by certified mail to the address of the registered owner of the vehicle. The UTC must be mailed within 60 days of the incident of running the red light.
 13. The registered vehicle owner then has to decide whether to pay the UTC fine, appeal the fine in court or not pay the fine. If the owner does not pay the UTC he/she will be unable to renew their driver's license until the fine is paid. If the owner pays the fine, \$271.00, it is collected by Leon County Clerk of Courts.

14. The Clerk of Courts for Leon County collects the fine for the UTC (using the same process as they would for other traffic tickets) and remits the City's portion of the fine (\$67.50) to the City Treasurer-Clerk's Revenue Division. The remainder of the fine is distributed by Leon County according to the applicable laws (see citation fine allocation table above).
15. The City Treasurer-Clerk's Revenue Division receives the funds from Leon County on a monthly basis. The Revenue Division receives and handles the funds using the same process as other monies collected.
16. As with #13 above the registered vehicle owner has to decide whether to pay the UTC fine, appeal the fine in court or not pay the fine. In this instance the registered owner does not pay the UTC fine.
17. Without payment from the registered owner, the Clerk of Court forwards the UTC fine amount to a collection agency and notifies the Florida Department of Highway Safety and Motor Vehicles (FL DMV) of the outstanding fine.
18. The, FL DMV suspends the driver's license of the vehicle's registered owner and places a notation in their computer system to prevent the registered owner from renewing the license plate of their vehicle.

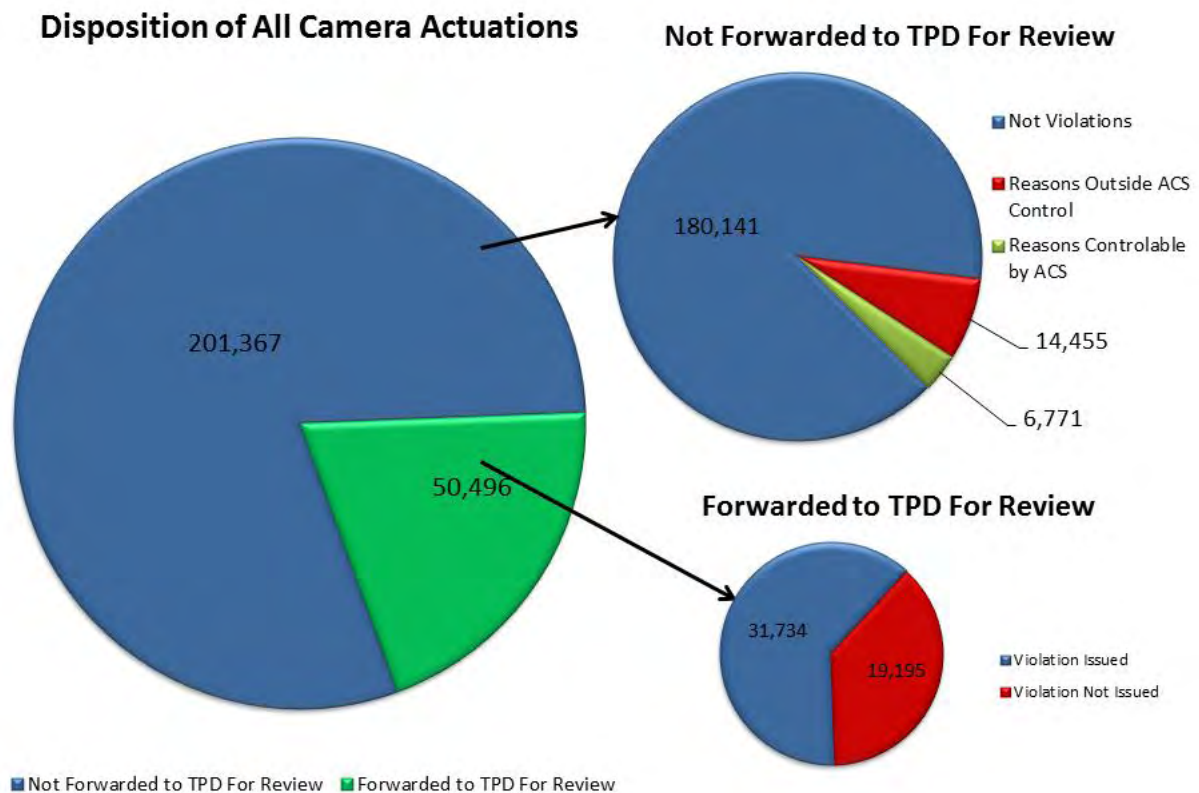
Analysis of Camera Actuations

Every time a camera in the red light camera system takes a photograph it is known as an actuation. As part of this audit we tracked the disposition of every actuation.

Since the inception of the red light camera program there have been approximately 252,000 actuations. For purposes of this audit we have grouped them into two broad areas, those forwarded to TPD

for further review (potential violations), and those not forwarded to TPD. We then broke those two broad categories into more detailed subcategories that provide detailed explanations of the disposition of the actuations. Chart 2 below shows the broad categorization of the actuations.

Chart 2
Broad Categorization of Camera Actuations



This chart shows the two broad categories into which we have divided all camera actuations; not forwarded to TPD for review and forwarded to TPD for review. Of the 252,000 camera actuations, approximately 201,000 were filtered out of further consideration by ACS and not forwarded to TPD for further review consideration as a violation and approximately 51,000 were forwarded to TPD for review as potential violations.

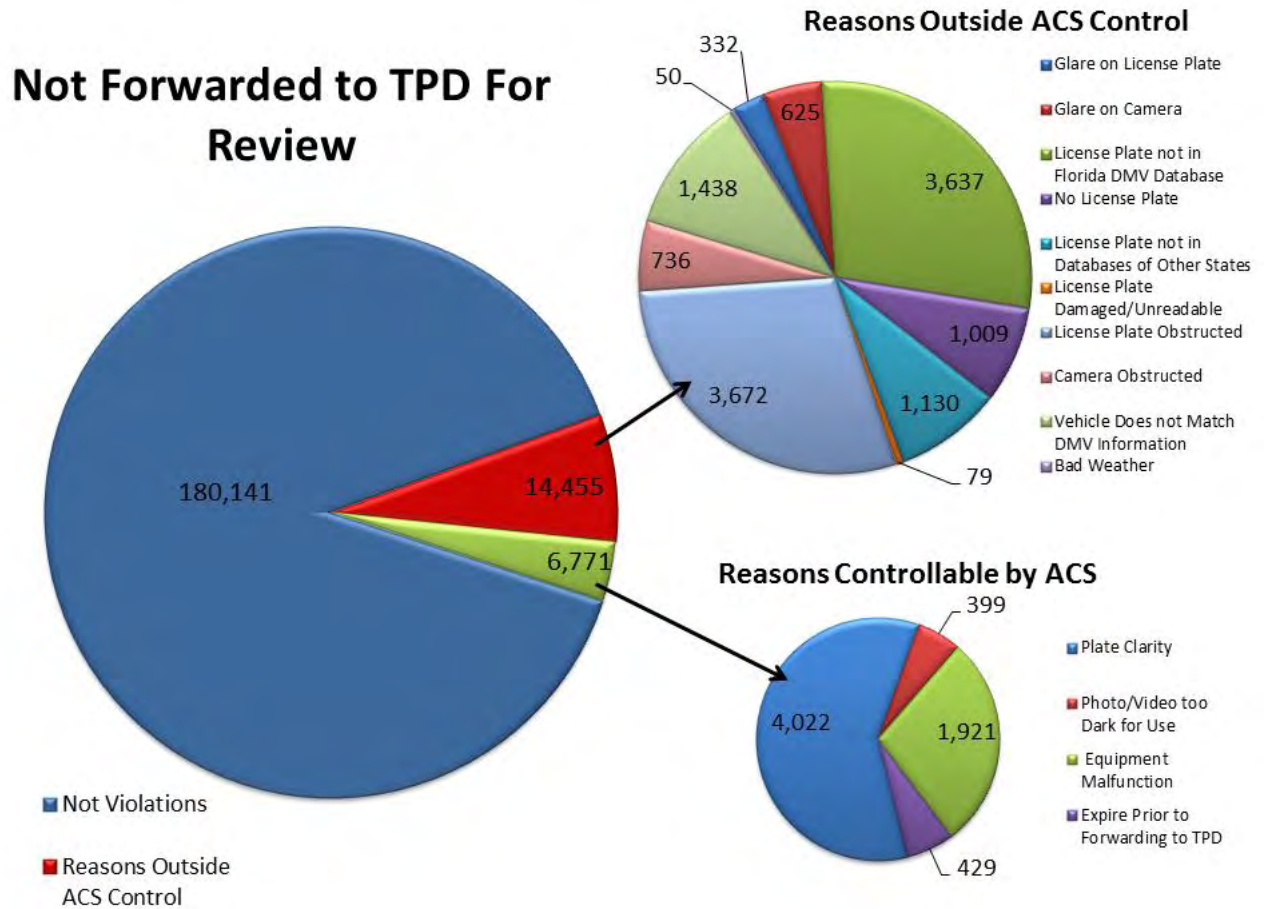
We have further subdivided the broad category of actuations not forwarded to TPD for review into three areas and the broad category of actuations forwarded to TPD for review into two subcategories. Table 5 below explains the descriptions used in Chart 2 above.

Table 5
Explanation of Descriptions

Description	Explanation
Not Violations	These are actuations that were not red light violations, such as the traffic light was green or yellow, there was a funeral procession, or an emergency vehicle with lights flashing.
Reasons outside the control of ACS	These are actuations that the red light system detected as a violation but could not be attributed to a specific vehicle for reasons that were outside the controls of ACS. Examples of reasons include, glare on the license plate or camera, no license plate on the vehicle, or license plate was damaged and unreadable.
Reasons controllable by ACS	These are actuations where the red light camera system detected a violation but could not be attributed to a specific vehicle for reasons that ACS could potentially have controlled. Examples of items include, the photo was not of sufficient quality to read the license plate, or a malfunction of the equipment.
Violations Issued	These are actuations where the red light camera actuations were forwarded to TPD as a potential violation and TPD reviewed and approved the violation for issuance.
Violations Not Issued	These are actuations where the red light camera actuations were forwarded to TPD but were not approved by TPD. The reasons for disapproval include, the incident not being a violation, the incident was a right turn on red, or other reasons.

In order to provide more detailed information about the disposition of camera actuations than the broad categorizations shown; we created Charts 3 and 4 (below) which further breaks down the subcategories of the actuations not forwarded to TPD for review and forwarded to TPD for review.

Chart 3
Breakdown of Actuations Not Forwarded to TPD for Review



Appendix C at the end of this report includes a numerical breakdown of the disposition of the camera actuations not forwarded to TPD for review. Table 6 below explains the descriptions used in Chart 3 above.

Table 6
Explanation of Descriptions

Description	Explanation
Glare on License Plate	The sun or headlights of other vehicles created a glare on the license plate that made the plate unreadable.
Glare on Camera	The sun was shining directly on the camera and “washed out” the photographs and video such that the license plate of the vehicle could not be read.
License Plate not in Florida DMV database	The license plate number on the vehicle was not in the state of Florida DMV database; as such the owner of the vehicle could not be determined.
License plate not in DMV databases of other states	The license plate belonged to an out of state vehicle and the license plate number could not be retrieved from that state’s DMV database.
No License Plate	A license plate could not be seen on the vehicle.
License Plate Damaged/Unreadable	The license plate was damaged or otherwise rendered unreadable.
License Plate Obstructed	The view of the vehicle’s license plate was obstructed to where it could not be read.
Plate Clarity	The photograph of the vehicle’s license plate was not of sufficient clarity to determine the license plate number.
Photo/Video too Dark for Use	The flash used by the camera was not sufficient to properly light the license plate to the point where it could be read.
Equipment Malfunction	There was a malfunction in the equipment, malfunctions include things such as only one photo was taken or the video did not record.
Expire Prior to Forwarding to TPD	In order for a violation to be valid it must be approved by an officer within 30 days of the occurrence of the violation. These are instances where the violation was not forwarded to TPD within the 30 day time period.

Appendix C at the end of this report includes a numerical breakdown of the disposition of the camera actuations forwarded to TPD for review. Table 7 below explains the descriptions used in chart 3 above.

Chart 4
Breakdown of Actuations Forwarded to TPD for Review

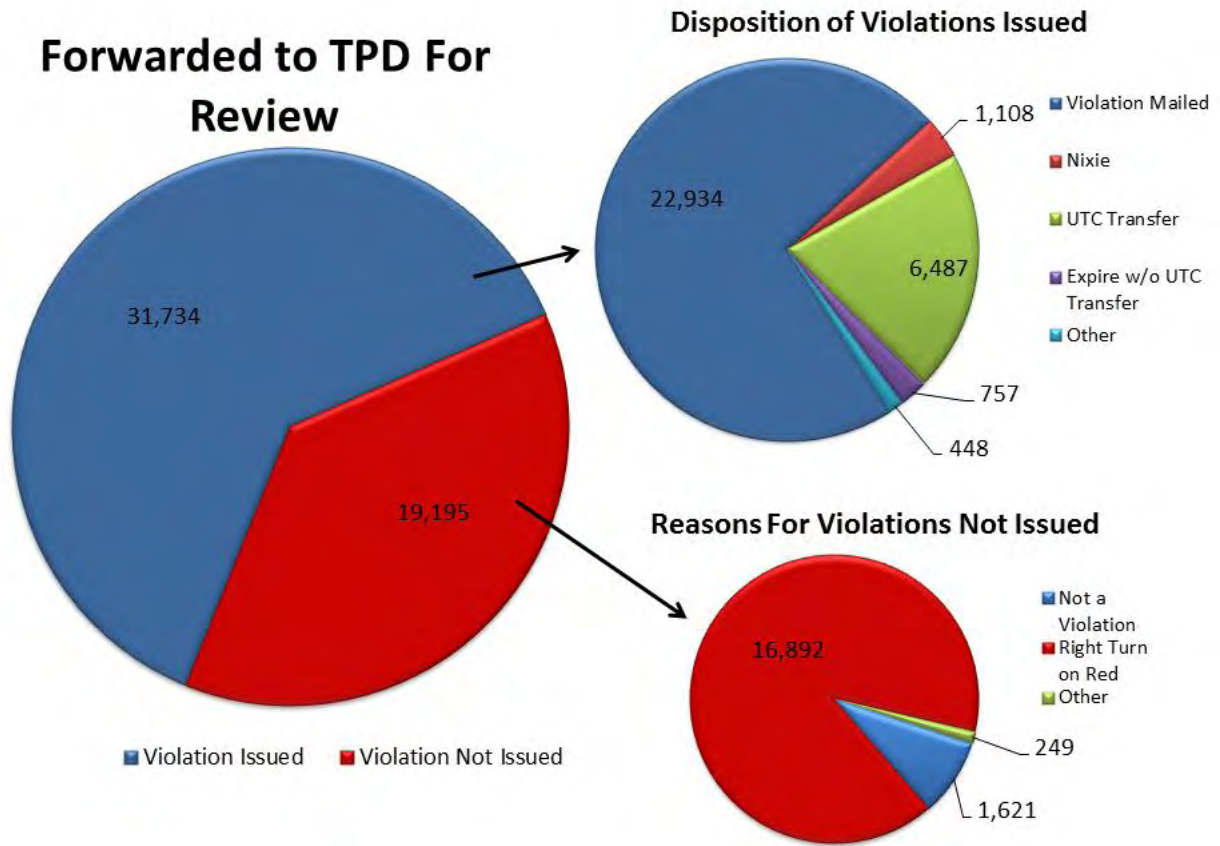


Table 7
Explanation of Descriptions

Description	Explanation
Violation Mailed	The registered owner of the vehicle was mailed a notice of violation by ACS after the violation was approved by a TPD officer.
Nixie	Nixie is a term used in the postage industry (and by ACS) to identify mail that has been returned undeliverable. In this case, it refers to notices of violation that were mailed but returned as undeliverable by the US Postal Service.
UTC Transfer	A UTC transfer denotes violations that were not paid within the required 30 day time period and were changed to a uniform traffic citation and referred to Leon County Clerk of Courts for prosecution/collection.

<p>Expire w/o UTC Transfer</p>	<p>By Florida law, violations must be converted to UTCs by a TPD officer within 60 days of the occurrence of the violation (if the fee for the violation has not been paid). Expire without UTC transfer refers to violations that were not converted by a TPD officer within the 60 day time period. In those instances where the violation is not converted they are no longer able to be prosecuted.</p>
<p>Not a Violation</p>	<p>These are potential violations that, after review by a TPD officer, are determined to not be a red light violation.</p>
<p>Right Turn on Red</p>	<p>TPD officers typically do not approve violations based on right turns on red if the turn appears to have been made in a safe manner.</p>

From the above charts we can see:

- A large majority of camera actuations in the red light camera program are not referred to TPD for further consideration as a potential violation.
- There are a large number of reasons that ACS does not refer camera actuations to TPD. The largest being:
 - The license plate number not being in the Florida DMV database, and
 - The license plate being obstructed from the camera’s view.
- The majority of the potential violations referred to TPD are approved as violations.
- The vast majority of the potential violations not approved by TPD relate to right turns on red (see comment below relating to right turn on red as a potential for increased efficiency in the review process).

Analysis of Accidents

One of the objectives of this audit was to comment on whether the safety of the public has increased since the inception of the program.

There are many factors that need to be considered when reviewing and analyzing accident data in relation to the impact red light cameras may or may not have on public safety. For example:

- Multiple law enforcement organizations are involved in reporting accidents and information from the various organizations may not be comparable.
- Traffic volume is not consistent over time and without accurate information about the number of vehicles passing through the intersections with red light cameras incorrect conclusions may be reached.
- The severity of accidents is not captured in a consistent manner and accident severity is a key way of analyzing and describing accidents.

Based on our analysis, we concluded the red light camera program has reduced the number of red light violations at intersections where cameras have been installed which should lead to safer intersections. However, concluding on the degree to which the cameras have had an impact on public safety is affected by the following:

Accident Reports

During our inquiry into accident information we learned that there are three law enforcement agencies with responsibility for responding to accidents at the locations where red light cameras have been installed. Tallahassee Police Department (TPD) and Leon County Sheriff's Office (LCSO) are the primary responders to accidents at red light camera intersections and the Florida Highway Patrol (FHP) may also respond. Discussions with both TPD and LCSO led us to believe FHP generally did not respond to accidents within the City limits of Tallahassee and if they had handled any accidents it would be very few and the total number would be immaterial compared to the number of accidents handled by TPD and LCSO.

We met with TPD to discuss what information was available relating to accidents at the intersections where red light cameras have been installed. We were informed that accident reports are not recorded by location but the records management system was designed such that a listing of accident reports within a certain distance of selected location could be generated. We then contacted LCSO in an attempt to obtain accident information (of a nature comparable to that available from TPD) at the applicable intersections. We were informed by LCSO that their records management system was not able to provide information comparable to that available from TPD.

Traffic Volume

The number of traffic accidents at a location can and will fluctuate up and down due to changes in the volume of traffic at the location. In order to be able to make sound conclusions as to reasons why accidents at intersections where red light cameras have been installed traffic volume should be considered. We inquired of the City's Public Works department as to what information relating to traffic volume was available for the intersections where the red light cameras have been installed. It was reported to us that traffic volume has not been captured for those intersections and is generally only captured when needed for a specific purpose. Therefore such information was not available for our use in analyzing accidents and the impact red light cameras may or may not have had on the number of accidents.

Accident Severity

While knowing the number of accidents is very important, it is not the only factor that should be considered when analyzing the impact of red light cameras on accidents. For example, an accident analysis may show an increase in number of accidents but that the

accidents were less severe leading to a conclusion that the public is safer in spite of an increase in the number of accidents.

Our inquiry into information relating to severity of accidents showed that accident reports included information as to whether there were injuries as part of the accident or not and in some instances there was an estimate by the officer responding to the accident of the cost of the property damages. However, as previously stated, complete information relating to accidents (through accident reports from TPD and LCSO) could not be obtained and therefore accident severity information relating to all accidents at the applicable intersections was unavailable.

Introduction

Based on our audit, we concluded the City's red light camera program has reduced the number of incidents of red light running at intersections where the cameras have been installed. As described in the background section, we did not draw any conclusions as to the impact the installation of red light cameras may have on accidents at the intersections where the cameras have been installed.

Overall, we found the red light camera program has reduced the number of incidents of red light running at intersections where cameras have been installed.

During the course of this audit we reached several conclusions and identified issues which have been grouped into five areas: (1) public safety; (2) the revenues and expenses of the program; (3) the processing of violations; (4) compliance with, and administration of, the contract between the City and ACS; and (5) compliance with the Florida statute relating to red light cameras.

From a public safety standpoint we concluded that from the time red light cameras were first installed to the current period, red light violations at these intersections have decreased.

We noted the revenues of the program, as a whole, are covering the cost of the contract for the program. However, there are several intersections where it does not appear the number of violations justify the need for red light cameras. We also noted that not all the

costs of the program are being tracked and/or attributed to the program, specifically in the area of personnel costs.

We concluded the process for reviewing violations includes adequate controls to ensure violations are not being issued in error. However, we did note several instances of officers not approving red light violations that were incidents of drivers running the red light. Additionally we noted that officers devote a large amount of time to reviewing and disapproving potential violations that are related to “right hand turns on red” that could be filtered out by changing certain criteria used to determine when a potential violation has occurred and a vehicle is photographed.

Both the City and ACS are complying with the terms of the contract for the red light camera program.

In our audit we noted that both the City and ACS are complying with the terms of the contract for the red light camera program. We did note though that there are certain changes that should be made to the contract. Those changes relate to requiring ACS to notify the City when it comes to their attention that a camera is malfunctioning.

We found the City’s red light camera program is being operated in compliance with Florida Statute 316.0083, the “Mark Wandall Traffic Safety Program.” Finally, we noted where one change to the statute could be made to improve the collection of fines associated with the statute.

An additional item relating to efficiency of City payment processing came to our attention in the course of this audit. We noted that check requests were being completed even though the payment to ACS was being processed through the City’s requisition/voucher process. This results in a duplication of effort and inefficient use of City resources.

Public Safety

The first question we addressed was, has the red light camera program increased public safety?

The first question we addressed was, has public safety increased since the inception of the red light camera program? Based on our review of red light violation data from the red light camera system, we conclude that, at intersections where cameras have been installed, the number of incidents of red light running from the time of installation to the current period has decreased which should lead to safer intersections. However, due to the lack of consistent and reliable data we have not concluded as to the impact the red light camera program has had on public safety at the applicable intersections.

Red light violations

Prior to the installation of the red light cameras there was no reliable data on the number of incidents of drivers running red lights. Therefore we were unable to prepare a direct comparison of the number of violations prior to the installation of the cameras to the number of violations after the installation.

However in the presentation to the Financial Viability Committee when the red light camera program was proposed, we noted the results of a survey of red light violations at three City intersections. The presentation reported that over an eight hour period surveyed during the week of 1/18/09 the following number of red light violations were identified.

Table 8
Red Light Violations

Intersection	Number of Violations
Capital Circle & Killearn Center Blvd.	262
Magnolia Drive & Park Ave.	58
Monroe St. & Tennessee St.	270

In addition to the survey of violations that was presented to the Financial Viability Committee of the City Commission, a second survey of violations was conducted in February of 2010. From that survey the City has reported that over a 16 hour period there were over 450 violations at the intersection of Tennessee and Monroe Streets.

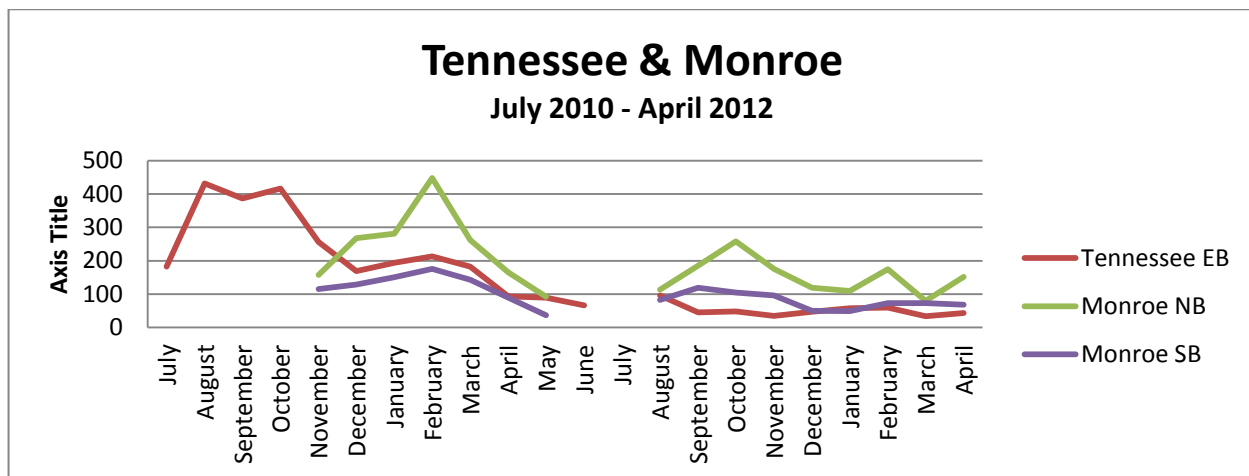
Based on the reported number of violations it appeared that drivers running red lights was a problem at the intersections surveyed.

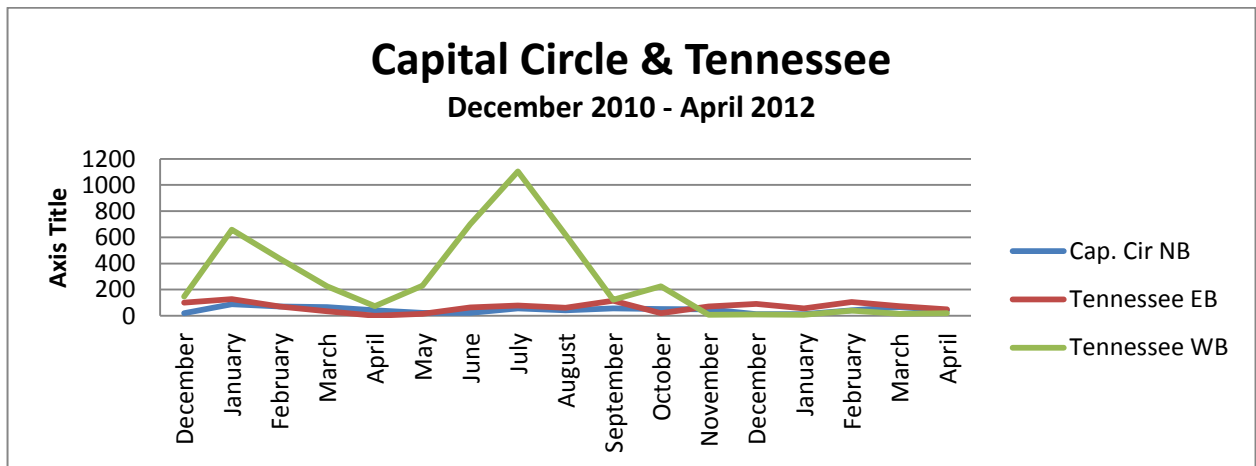
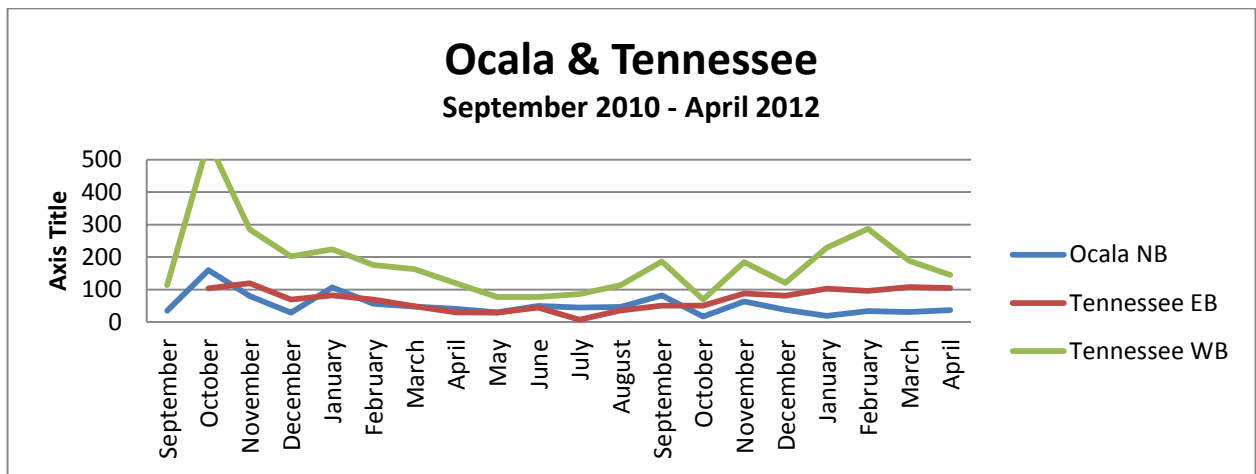
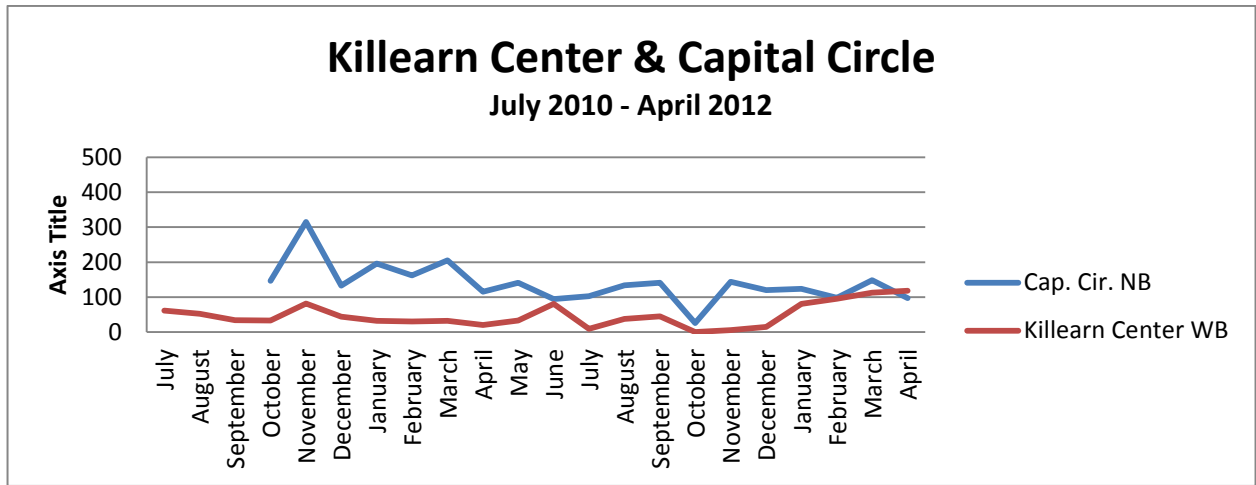
As part of this audit we examined the violation data at each of the intersections where cameras were installed and noted a general trend of decreased violations over time at the intersections where cameras were installed. The following charts show the violation trend at each of the intersections where cameras have been installed.

(Note: Gaps in the lines of the following charts represent time period where the red light camera equipment was not operating properly, either due to road construction or equipment malfunction.)

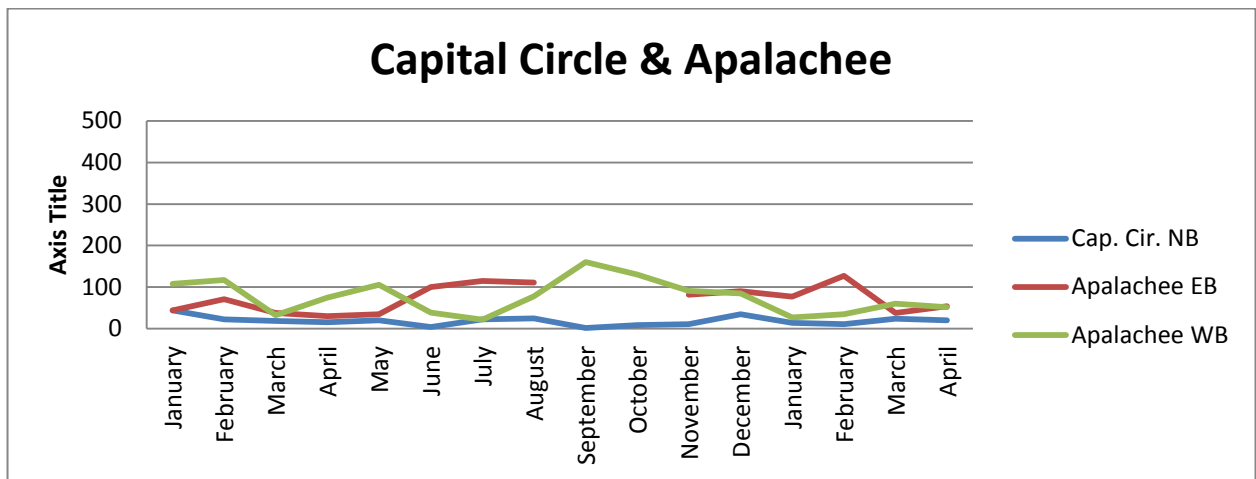
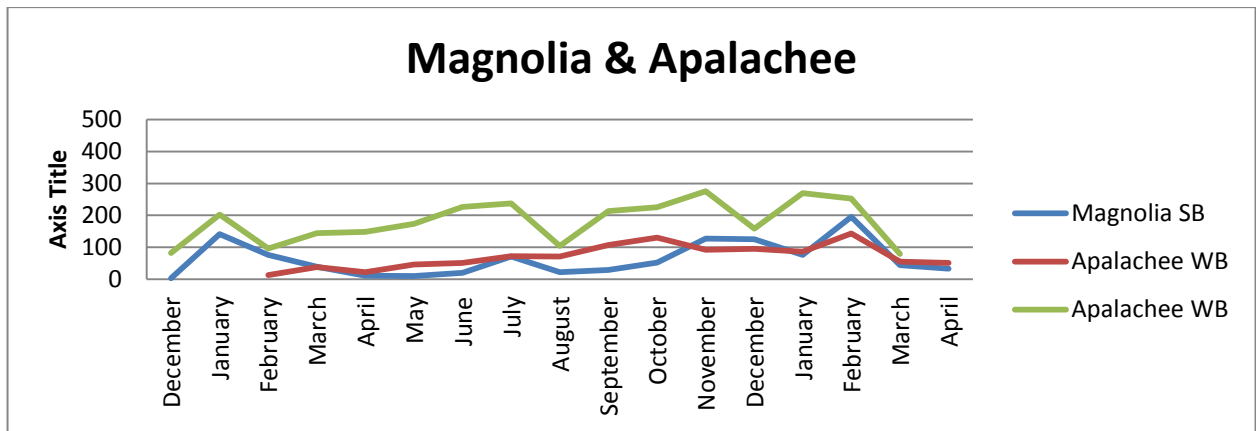
For the July of 2010, the first month of the program, only warnings were issued and not notices of violations.)

Chart 5
Red Light Violations





(Note: The significant increase and subsequent decrease in violations from May 2011 to September 2011 is primarily attributable to drivers making right turns onto Capital Circle from West Tennessee. In September 2011, the City altered the traffic pattern at that intersection to address the issue of drivers making improper right turns on red.)



(Note: The intersection of Capital Circle and Mahan Drive has been omitted as the time since installation is too short to provide a meaningful illustration of violation history.)

While not all the intersections (as seen in the above graphs) show a dramatic decrease in red light violations, they do show an overall downward trend in red light running at the intersections where cameras have been installed.

Revenues and Expenses

The stated goal of the red light camera program is to increase public safety; however there is also a cost associated with the operation of the program and the fees from violations are sources of revenue for the City. Therefore we have reviewed and analyzed the revenues and expenses of the program.

Program Revenues

The red light camera program produces revenues through fees for red light violations or fines in instances where the violation has become a citation. The revenue can be collected in two different ways, (1) fees for violations of running a red light, and (2) the fine associated with a uniform traffic citation that is issued when the fee for the violation is not paid within the required 30 day time period.

As previously described, violation fees are collected by ACS and transferred directly to the City on a daily basis. With each daily transfer the City receives a listing of the violations that have been paid, the method of payment, the amount paid, payment date, and information relating to previous payments that have been reversed to the payment being by check with insufficient funds. In addition, violations that result in citations are collected by Leon County and amounts due the City for its share of the fine are periodically remitted to the City by the County.

For fees collected by ACS and remitted directly to the City, a portion of the fee is due to the state of Florida. The following table shows fees for red light violations collected by the City (through ACS) and the allocation of those fees between the City and the state of Florida. Additionally, the table shows the amount collected by Leon County Clerk of Courts (and remitted to the City) for fines from violations that were not paid in a timely manner and were converted to UTCs.

Table 9
Red Light Camera Program Revenue
8/1/2010 – 4/30/2012

Violation Fees		
Number of Violations Paid to City	22,154	
Violation Fee Remitted by ACS to City	\$158.00	
Total Violation Fees Remitted by ACS to the City		\$3,500,332.00
Less Allocation of Fees to Others		
State Portion of Fees	\$1,550,780.00	
State Department of Health Administrative Trust Fund Portion of Fees	221,540.00	
Brain and Spinal Injury Trust Fund Portion of Fees	66,462.00	
Total Fees Not Retained by the City		(1,838,782.00)
Total Fees Retained by the City		\$1,661,550.00
UTC Fines Remitted by Leon County to the City		287,161.00
Total Program Revenue for the City		<u>\$1,948,711.00</u>
Note: Adjustments for NSF payments have been omitted as they are immaterial.		

Expenses

The expenses of the red light camera program primarily consist of the cost of the contracted services from ACS and personnel costs of TPD and Public Works.

Payments to ACS

We tested the payments made to ACS since the beginning of the contract (December 15, 2009) through April 30, 2012. During that time period there were 15 payments made to ACS which represented 19 separate invoices and \$1.2 million. During our testing we noted that all payments were; in accordance with the terms of the contract with ACS, properly budgeted, made in accordance with applicable procurement policies, properly recorded in the City’s financial records, and served an authorized and necessary purpose for the City. We did note however an issue with

the payment process relating to supporting documentation. That issue is discussed in a subsequent section of this report.

Personnel Expenses

The second area of direct expenses associated with the red light camera program is personnel expenses. Those expenses are primarily incurred in TPD and the Public Works Department.

TPD is responsible for reviewing and approving or disapproving all potential violations, attending traffic court when a violation/citation is disputed by a citizen, and approving the issuance of a UTC when the fee for a red light violation is not timely paid. Primarily, TPD utilizes reserve officers in the red light camera program. However, it was reported to us that when there are an abnormally large number of potential violations to be reviewed, officers assigned to the traffic division sometimes assist in clearing the backlog of potential violations and that time is not attributed to the red light camera program nor is it tracked as such. We examined the time sheets of the reserve officers involved in the violation review process and noted that a separate tracking of the time for the red light camera program did not begin until October of 2010, approximately four months (June – September) after the initiation of the program. Therefore there is not a complete record of the time for TPD personnel devoted to the red light camera program.

Public Works manages the contract with ACS and was instrumental in getting the program started. As such, Public Works staff devoted a considerable amount of time to the red light camera program when it began. However, it has had a reduced but still important role in the program since its inception. Per Public Works staff involved in the program, the time employees devote to the program has not been tracked and management was not comfortable trying to estimate the amount of time that has been devoted to the program since its inception.

Without a tracking or an estimate of the personnel time related to the red light camera program, we were unable to calculate a reasonably accurate estimate of the personnel cost associated with the red light camera program. In response to the issue with calculating personnel costs related to the red light camera program, we make two recommendations to ensure costs of the program are fully captured for use in future analysis of the red light camera program. First, we recommend TPD have all officers track their time related to involvement in the red light camera program, including officers of the traffic division that are not reserve officers and are periodically called upon to assist in the red light camera program. Secondly, we recommend Public Works begin tracking the staff time devoted to the red light camera program.

Revenue vs. Expenses

The red light camera program revenues have covered the total costs of the program. We have prepared an analysis to show the calculation of net revenues based on the best information available. As previously described in the expense section above, complete and reliable information relating to personnel expenses for Public Works and TPD is not available. Neither department was willing to make an estimate as to what the actual time and cost for personnel the City has incurred for the program in their respective departments.

Table 10
City Revenues vs. Expenses
8/1/2010 – 4/30/2012

<i>Revenues</i>		
Total Fees Retained by the City ⁽¹⁾	\$1,692,928	
UTC Fines Remitted by Leon County to the City ⁽²⁾	287,161	
Total Program Revenues for the City		\$1,980,089
<i>Expenses</i>		
Payments to ACS	\$1,231,601	
Personnel Expenses ⁽³⁾	55,765	
Total Expenses (est.)		\$1,287,363
Estimated Net Revenue		\$692,726
<p>⁽¹⁾This amount does not agree to the revenue amount shown in Table 5 due to the collection of an additional \$2.50 for each payment received by credit card. That \$2.50 is remitted to ACS and is included as part of the payments to ACS.</p> <p>⁽²⁾This amount does not include amounts the City receives as part of UTC fines that are not related to the red light camera program. For example, state law mandates that \$2.00 of each UTC fine be remitted to the City as part of a law enforcement education trust fund.</p> <p>⁽³⁾<u>Personnel expenses are understated:</u> reliable data relating to Public Works and additional TPD staff cost/time is not available and as such not included. However, we have included the known personnel costs.</p>		

Distribution of all Revenues Generated by the Red Light Camera Program

Table 10 above indicates that the red light camera program generated estimated net City revenues of \$692,726 which is about 35% of City program revenues. However, this does not show how all the monies collected through the red light camera program are ultimately distributed. Monies collected through the red light camera program ultimately are distributed to the state of Florida, the City of Tallahassee, ACS (the red light camera vendor), and Leon County. To obtain an estimate of how all monies collected through the red light camera program are distributed, we contacted the Leon County Clerk of Courts to obtain information on UTC fine collections by them and the distributions of such collections. The following table (Table 11) shows our estimate of the breakdown of

how all revenues, including the amount paid to the City's red light camera vendor (as an amount separate from the amount retained by the City), are ultimately distributed.

Table 11
Distribution of Red Light Camera Revenues
8/1/2010 – 4/30/2012

Distribution	Amount	Percentage
Total State Program Revenues	\$ 2,438,317	53.2%
Total City Program Revenues ⁽¹⁾	692,723	15.0%
ACS	1,231,601	26.9%
Leon County – Sheriff	20,593	.4%
Leon County – Clerk of Courts	202,024	4.4%
Total Red Light Camera Program Revenues	\$ 4,585,258	100.0%

⁽¹⁾ The amount shown as City revenue does not include an additional \$105,333 received from Leon County as part of UTC fines that are recognized by the City as fines and forfeitures rather than relating to the red light camera program.

From this table we can see that more than half (53.2%) of all monies collected through the red light camera program are ultimately received by the state of Florida and that over one quarter (26.9%) of the funds are paid to ACS with 15% being retained by the City.

Budget Projections vs. Initial Program Expectations vs. Actual

When the red light camera program was initially proposed to the City Commission the estimate was for net revenues to exceed \$1 million annually. However, prior to the implementation of the program the Florida Legislature changed the law on how fees related to violations would be levied within the state of Florida. Rather than local governments paying red light camera vendors based upon violations cited, they are instead paid on a fee for each camera installed. As a result, previously estimated net revenues for the City were reduced and budgeted revenues were adjusted accordingly.

Since the initiation of the program the City's budget has included red light camera program gross revenue of \$2.1 million each year for fiscal years 2011 and 2012. Our analysis of revenues shows that actual gross revenues have been \$1,196,000 and \$708,000 (through 4/30/2012) respectively and not met budgeted expectations.

Additionally, the expenses of the red light camera program are not specifically identified in the budget as attributable to the program. As such, it is not readily clear from the budget to what extent budgeted revenues exceed budgeted expenses.

We recommend that periodically management provide the City Commission information that compares budgeted revenues and expenses of the program to actual revenue and expenses as well as management's conclusions as to how well the program is meeting its objective of increasing public safety.

Revenue estimate on a camera by camera basis

The contract with ACS provides for the City to pay ACS a monthly fee of \$4,650 for each of the first 12 cameras and \$4,475 for each additional camera. Therefore, it requires 62 violations per month to be identified (and paid) per camera in order for the camera to cover the cost of the payment to ACS for the first 12 cameras, and 60 violations per month for all other cameras. The following table shows the average number of violations by camera by month for each year the cameras have been active.

Table 12
Average Violations Per Month By Camera

Camera	Month of Activation	Avg. # of Violations Per Month (calendar year)		
		2010	2011	2012
Tennessee & Monroe				
Tennessee EB	8/2010	307	93	49*
Monroe NB	11/2010	213	191	129
Monroe SB	11/2010	122	96	66
Killearn Center & Cap. Cir				
Cap. Cir. NB	10/2010	198	132	117
Killearn Center WB	8/2010	51	28	102
Ocala & Tennessee				
Ocala NB	9/2010	76	52	30*
Tennessee EB	10/2010	98	52	103
Tennessee WB	9/2010	289	133	213
Cap. Cir. & Tennessee				
Cap. Cir NB	12/2010	19	48	40*
Tennessee EB	12/2010	100	62	70
Tennessee WB	12/2010	147	368	20*
Magnolia & Apalachee				
Magnolia SB	12/2010	3	60	87
Apalachee WB	12/2010	4	67	84
Apalachee WB	1/2011		178	190
Cap. Cir. & Apalachee				
Cap. Cir. NB	1/2011		19	17*
Apalachee EB	1/2011		65	74
Apalachee WB	1/2011		87	44
Cap. Cir. & Mahan				
Cap. Cir. NB	3/2012			63
Cap. Cir. SB	3/2012			44

* These camera locations should be reviewed by management and considered for relocation or elimination.
Note: See appendix B for a breakdown of violations by intersection, camera, and month.

As can be seen from the above table, most cameras (i.e., intersections) have had a reduction in the average number of violations. Additionally, it can be seen that several cameras, on average, do not generate enough revenue to cover the amount due ACS for the camera. To cover that cost, the first 12 cameras in the red light camera program would need to record 62 violations per month and any additional cameras would need to identify 60 violations per month.

The decreased number of red light violations indicates that the intersections with the red light cameras have improved compliance, and in some instances may no longer need automated monitoring (i.e., red light cameras). We recommend management track the number of red light camera violations on a monthly basis at the individual camera locations and periodically reassess the need for red light cameras at intersections where they have been installed. As part of that periodic reassessment, when management deems appropriate, consider having the cameras moved from intersections where there has been a dramatic reduction in red light running to intersections where red light running and traffic volume is more prevalent and by inference more dangerous.

***Violation Review
Process***

We examined the process of reviewing potential violations. In our examination of the process we sat with a TPD officer and observed the review and approval or disapproval of potential violations identified by ACS.

As described in the background section, ACS “pre-screens” all potential violations and eliminates those they do not consider a violation from further consideration. Therefore, if ACS determines, in their judgment, a violation has not occurred, the City will not have an opportunity to review the photographic evidence. We noted there is a possibility that ACS could incorrectly reject a

potential violation. We also noted there is not a control in place to review the quality of the pre-screening process conducted by ACS to help ensure potential violations are not improperly rejected by ACS. This is a control weakness that was considered by management during the implementation of the red light camera program and management accepted the risk of improper violation rejection by ACS.

After the prescreening, by ACS potential violations are forwarded to TPD for review and approval by a sworn officer. The review process conducted by the officer is described in detail in the background section of this report. We did not note any control weaknesses in the review and conclude there are adequate controls in place to ensure only valid violations are approved and issued. However, as subsequently discussed we did note some instances of red light violations that should have been issued but were not.

Officer Review of Violations

Whether or not a violation has occurred is sometimes a very close decision and as such is up to the judgment of the officer conducting the review. The purpose of our testing was not to question the judgment of the reviewing officer.

As part of our testing of the violation process we randomly selected 60 potential violations that were forwarded to the City for review by ACS. In our testing of those 60 items we noted that, in general, the review process was functioning as intended. We did not note any instances of potential violations that were approved but should not have. However, we did note three instances where a violation occurred but was disapproved by the reviewing officer.

In response to the identification of those exceptions, we tested an additional 60 violations (randomly selected) that were not approved by the reviewing officer. In that additional testing we identified an

additional seven potential violations that were not approved but appear to have been red light violations. These seven errors indicate an error rate of approximately 12%, which if considered from a statistical standpoint indicates the true error rate is between 4% and 19%.

There were a total of 18,763 potential violations that were disapproved by TPD officers. If the above noted error rates are extrapolated to the population of disapproved potential violations, there could be as few as 751 and as many as 3,565 violations that were disapproved in error; with a point estimate of 2,189 based on an 11.67% error rate. If that error rate is further extrapolated to potential fines, there is between \$56,325 and \$267,375 of fine revenue that have been foregone.

While these may have been isolated incidents, we believe the issue should be brought to the attention of management to allow for an evaluation of the officer review process by management and allow management to take actions as deemed appropriate.

Right Turn on Red

In the course of our examination of the violation process we did note one other issue with the review process. That issue related to officers disapproving potential violations relating to vehicles making right turns on red.

The Mark Wandall Traffic Safety Program statute states, *“A notice of violation and traffic citation may not be issued for failure to stop at a red light if the driver is making a right hand turn in a careful and prudent manner.”* As a result of this language in the statute, TPD officers are, in general, not approving violations for right turns on red as long as the turn does not blatantly interfere with the traffic from another direction proceeding through the intersection with the green signal.

Illustration 5 below shows an example of a typical right turn on red at the Capital Circle and Killearn Center Blvd, intersection that has been described above.

Illustration 5
Disapproved Potential Violation



Photo 1, this photo was taken prior to the vehicle in the right turn only lane entering the intersection and shows the vehicle about to make a right turn on red.



Photo 2, this photo shows the vehicle has continued and made a right turn on red from the right turn only lane without interfering with traffic from another direction. In this example, the vehicle never stopped and continued through the intersection at 15 mph or less. In the reviewing officer's judgment this was a right turn that was made in a careful and prudent manner and therefore was not cited for a violation.

The decision to not approve most right turn on red violations has resulted in officers devoting a large amount of time to reviewing potential violations that could be pre-screened out of further consideration by the red light camera system or by ACS.

Table 13 below shows the number of violations disapproved due to right turn on red, violations disapproved for all other reasons combined (i.e., plate clarity, no violations, etc.) and total number of disapproved violations.

Table 13
Right Turn on Red Disapprovals vs. Total Disapprovals
8/1/2010 – 4/30/2012

Month / Year	Right Turn on Red	Other Reason for Disapproval	Total	Right on Red as a percent of Total
2010				
July	642	10	652	98%
August	586	11	597	98%
September	471	12	483	98%
October	457	70	527	87%
November	359	38	397	90%
December	357	37	394	91%
2011				
January	368	36	404	91%
February	445	73	518	86%
March	473	120	593	80%
April	521	723	1244	42%
May	727	240	967	75%
July	508	54	562	90%
August	1,049	94	1,143	53%
September	1,371	102	1,473	92%
October	2,176	49	2,225	98%
November	544	39	583	94%
December	185	32	217	85%
2012				
January	214	12	226	95%
February	1,372	13	1,385	99%
March	2,491	20	2,511	99%
April	1,510	28	1,538	98%
Total	16,892	1,870	18,762	90%

From this table we can see that typically over 90% of the disapprovals by TPD officers each month are related to right turns on red.

To decrease the amount of time officers are devoting to reviewing potential violations that are not being approved, we recommend TPD and Public Works (and ACS as needed) work together to develop a method to better filter right turns on red thereby decreasing the number of potential violations officers must review. One possible solution suggested by Public Works staff when this issue was brought to their attention was to increase the speed threshold to 20 miles per hour for only the right turn lane. This proposed solution appears reasonable as it only impacts the right turn lane and should filter many of the right turns that have been disapproved in the past.

Contract Compliance

We reviewed the terms of the contract between the City and ACS for the installation, maintenance, and operation of the red light camera system. In the course of conducting this audit we noted that both the City and ACS have complied with the terms of the contract. We did note however the contract was amended due to a change in the laws related to red light cameras. We also noted one part of the contract language that was unclear and could lead to issues with timely repair of the equipment.

In our review of the contract we noted that between the date of the execution of the contract and the installation of the first red light camera the state of Florida enacted Section 316.0083, Florida Statutes to govern the operation of red light cameras in the state. In response to the enactment of that statute, the contract with ACS was amended to revise key portions of the contract for the red light camera program.

The key provision of the contract that was changed related to how the fee for ACS’s services would be determined. Specifically we noted the payment structure for ACS was changed whereby it would no longer provide for payment amount to be determined based on the number of violations and payment would be based on a fixed fee for each camera. The following table shows the change in payment structure.

Table 14
Change in ACS Payment Determination

Prior to contract amendment		Subsequent to contract amendment	
Tier 1: 1-30 citations	\$35.00 per citation	Fixed fee, cameras 1-12	\$4,650 per camera
Tier 2: 31-110 citations	\$33.00 per citation	Fixed fee, cameras 13+	\$4,475 per camera
Tier 3: 110+ citations	\$17.00 per citation		

As noted above in the revenues and expenses section of this report, the payments to ACS are in compliance with the amended contract and are based on fixed fees for cameras.

In the course of our testing violations and contract payments, we noted time periods where either (1) no or very few violations were recorded during an entire month, or (2) when the invoice from ACS was received by the City it was for an amount less than expected because one or more cameras were inoperative during the applicable month.

Our review of the contract showed there was a provision in the contract relating to maintenance of equipment that makes up the red light camera system. The contract states, “ACS response to equipment malfunction will normally occur within 24 hours and ACS will repair or replace inoperable Vendor System Equipment within 72 hours of detection or notification of the City.” Based on our observation of violation history noted above, and reductions in ACS billing due to inoperative cameras, it appears the red light

camera system equipment may not be being repaired in accordance with the terms of the contract.

However, the language in the contract is not clear in that it can be interpreted to mean that ACS is required to repair or replace the malfunctioning equipment within the stated time periods only when notified by the City that the equipment is inoperative. The issue is compounded because (based on the manner in which the red light program operates) the City is dependent on ACS to know when the equipment is malfunctioning. This could create a situation where ACS is not required to repair the equipment in a timely manner unless notified by the City, and the City is unable to notify ACS of the malfunctioning equipment because it has no way to know the equipment is malfunctioning except by notification from ACS. To address this issue we recommend Public Works contact ACS and arrange a methodology whereby red light camera system will be repaired (when needed) in accordance with the timelines identified in the contract with or without notification from the City of a malfunction. Additionally, we recommend Public Works request ACS notify the City of equipment malfunctions as soon as they are identified by ACS. In the event the situation cannot be resolved amicably, we recommend the contract with ACS be revised to clarify the City's need to be notified when equipment malfunctions when the contract is next amended or extended.

***Legal
Compliance***

As described in the background section of this report, the state of Florida enacted a statute titled the Mark Wandall Traffic Safety Program, FS 316.0083, on May 13, 2010. Our review of the City's red light camera program showed the program is being operated in compliance with the requirements of the statute. Specific applicable provisions of the statute and our comments are included in Table 15 below.

Table 15
Requirements of FS 316.0083

Statutory Requirement	Compliance
The fee for a violation will be \$158.00	✓ The fee imposed by the City for a red light violation detected by the red light camera program is \$158.00.
The notification of violation must be sent to the registered owner of the vehicle within 30 days.	✓ Our testing did not identify any notices of violation that were mailed more than 30 days after the date of the violation.
If the violation is not paid within 30 days of notification, the violation becomes a traffic citation.	✓ We noted violations not paid within 30 days of notification were issued traffic citations.
The violation notification must include notice that the registered owner of the vehicle has the right to review the photographic or video evidence that supports the notice of violation.	✓ Our examination of the violations issued showed that the language relating to the registered owners right to review the evidence was included.
An individual may not receive a commission from any revenue collected from violations detected through the use of a traffic infraction detector.	✓ No individuals receive a commission for the collection of violation fees.
A manufacturer or vendor may not receive a fee or remuneration based upon the number of violations detected through the use of a traffic infraction detector.	✓ ACS, the City's red light camera vendor, does not receive payments based on the number of violations issued.
Of the \$158.00 fee for a violation, \$83.00 must be remitted to the state of Florida for allocation to the State's general fund, the Department of Health's Administrative Trust Fund, and The Brain and Spinal Cord Injury Trust Fund, weekly.	✓ The City has remitted the required portion of the violation fee to the state of Florida as required.
Traffic citations must be mailed no later than 60 days after the date of the violation.	✓ Our review showed no instances of traffic citations being issued more than 60 days after the date of the violation.
<p>The owner of the vehicle is responsible for paying the penalty for failing to stop at a traffic signal unless the owner can establish one of the following:</p> <ul style="list-style-type: none"> • The vehicle passed through the intersection to yield right of way to an emergency vehicle or as part of a funeral procession, • The vehicle passed through the intersection at the direction of a 	✓ The notice of violation that is sent to the registered owner of the vehicle includes the notice that the violation will be voided if any one of the identified conditions has been met.

<p>law enforcement officer,</p> <ul style="list-style-type: none"> • The vehicle was in the care, custody or control of another person, or • A traffic citation was issued by a law enforcement officer for the violation. 	
<p>Counties or municipalities that operate traffic infraction detectors must submit a report (by October 1, 2012, and annually thereafter) to the department which details the results of using the infraction detectors and the procedures for enforcement.</p>	<ul style="list-style-type: none"> ○ The date for submission of the report detailing the results of the red light camera program has not yet occurred; as such the report has not been submitted.
<p>✓ Requirement complied with</p>	<p>○ Requirement not yet applicable</p>

In summary, our examination of the red light camera program and testing of violations did not identify any instances of non-compliance with Chapter 316.0083, Florida Statutes, the Mark Wandall Traffic Safety Program.

Vehicles Not Registered to Individuals

Based on Section 318.15, Florida Statutes, when a violation is not paid it becomes a traffic citation and if the citation is not paid the driver’s license of the registered owner of the vehicle is suspended. This precludes the individual from renewing their driver’s license. In addition, and at the same time, the State reporting system is updated so tag agencies are aware the individual’s driver’s license has been suspended and therefore the vehicle’s license plate should not be renewed. This process serves as a good mechanism to help ensure that fines from UTCs are ultimately paid. However, not all vehicles are registered to individuals; often vehicles are owned by businesses or some other entity and registered with the state Department of Highway Safety and Motor Vehicles as such.

In instances where vehicles registered to businesses or governments are cited for red light violations and the fines are not paid in a timely manner there is no driver’s license to be suspended. Since

there is no driver's license to associate with a business or government owned vehicle, this eliminates a key mechanism that ensures fines for red light violations are ultimately paid.

To address this issue and provide a mechanism to help ensure the collection of fines related to red light violations cited by red light cameras, we recommend the City work with the state of Florida to amend Chapter 316.0083, Florida Statutes to provide for the suspension of the renewal of the license plate of the business or government vehicle that is involved in the red light violation until the fine is paid.

***Inefficient use
of Check
Requests***

In our testing of payments to ACS we noted that the City's PeopleSoft requisition/purchase order process was used for approving and making those payments. We noted that manual check requests were also being completed for each payment, a duplicative and time consuming process.

The typical method for making payments for goods and services in the City is through the use of the requisition/purchase order process in the PeopleSoft Financials system. This process provides adequate internal controls and documented support for the payments. An alternative method for initiating the payment process in the City is through the use of a check request. Typically check requests are used in relation to payments for specific types of goods and/or services that have been delineated by Procurement Services.

We inquired of both Procurement Services and the Treasurer-Clerk's Asset/Liability Management Division to why check requests were being completed when the PeopleSoft requisition/purchase order process (the preferred and more efficient method for making the payments to ACS) was already being used. We were told by Procurement Services the check requests were required by the Treasurer-Clerk's Office because the payments

were made by wire transfer and the Asset/Liability Management Division requires the use of check requests for *all* wire transfers made by the City. Further inquiry of the Treasurer-Clerk’s Office showed that the Treasurer-Clerk’s Office considers themselves as “the last line of defense” for preventing improper payments, and due to the large amounts involved in wire transfers the division requires a clear “paper trail” to show that the payee, amount as well as the approvals are correct and the check request serves as that paper trail.

We commend the Asset/Liability Management Division for taking extra care in reviewing wire transfers prior to the disbursement, however requiring the completion of a check request when the PeopleSoft requisition/purchase order process has already been used is redundant and not an efficient use of City resources. We recommend the Asset/Liability Management Division review the disbursement details (i.e., payee, amount, approvals, etc.) for wire transfers within PeopleSoft and generate the amount/level of paper copies of support they need to support those payments.

Conclusion

We have concluded that the red light program has reduced the number of incidents of red light running at intersections where cameras have been installed and that this decrease in the number of red light violations has increased the safety of those intersections. Additionally we have concluded: the program has been designed and implemented such that there are adequate controls in place to ensure notices of violation are not issued in error, the revenues of the program cover the costs of the program, both the City and ACS are complying with the terms of the contract for the red light camera program, and finally we have concluded the program is being operated in accordance with FS 316.0083.

We did however note some areas where improvements could be made to the red light camera program. Those areas are as follows:

- Violation levels should be reviewed on a monthly basis to determine if violation levels at intersections have decreased to the point where monitoring by red light cameras is no longer warranted,
- Personnel costs of the program should be tracked on a consistent basis,
- Changes to the program should be made to reduce the number of right turn on red potential violations officers must review,
- Issues relating to repairs of malfunctioning equipment should be addressed and resolved, and
- The City should work with the state of Florida to revise Chapter 316.0083, Florida Statutes to provide for the prevention of the renewal of license plates for business or government owned where the fines for red light violations are not paid.

We would like to thank staff in Public Works, TPD, ACS, and the Leon County Clerk of Courts for their assistance during this audit.

***Appointed
Official's
Response***

City Manager: I am pleased with the results of the audit and the finding that the City has complied with all State and local ordinances in administration of The Red Light Camera Program. The findings reflect a high level of professional cooperation between Public Works, Tallahassee Police Department and The Revenue Division in the implementation of the program. The City will move forward with the implementation of the proposed action plan to strengthen an already well-managed program. I would like to thank the City Auditor's Office as well as all the departments for their hard work on this audit and the Red Light Camera Program in general.

Appendix A - Action Plan

Action Steps		Responsible Employee	Target Date
A. Objective:	Track all costs associated with the red light camera program.		
	1. Develop a method for non-reserve officers and administrative personnel to use to allow them to track their time devoted to the red light camera program.	Cpt. Audrey Smith	3/31/2013
	2. TPD will require personnel involved in the red light camera program to track their time devoted to the program.	Cpt. Audrey Smith	3/31/2013
	3. TPD will periodically accumulate and summarize all the time and personnel costs devoted to the red light camera program by TPD employees.	Cpt. Audrey Smith	3/31/2013
	4. The information relating to TPD personnel time and costs will be communicated to City staff responsible for the periodic reporting on the red light camera program to the City Commission.	Cpt. Audrey Smith	3/31/2013
	5. Public Works will develop a method for its employees to track their time devoted to the red light camera program.	Greg Wilkerson	1/1/2013
	6. Public Works will require its employees to track the time they devote to the red light camera program using the method developed in action plan step A5 above.	Greg Wilkerson	1/1/2013
	7. Public Works will periodically accumulate and summarize all the time and personnel costs devoted to the red light camera program by Public Works employees.	Greg Wilkerson	1/1/2013
	8. The information relating to Public Works personnel time and costs will be communicated to City staff responsible for the periodic reporting on the red light camera program to the City Commission	Greg Wilkerson	1/1/2013
B. Objective:	Improve oversight of the red light camera program.		
	1. Annually report the activity of the red light camera program to the City Commission.	Gabe Menendez	10/1/2013

Action Steps	Responsible Employee	Target Date
2. TPD will prepare a portion of the presentation relating to the success of the program in achieving its goal of increasing public safety. Included in this portion of the presentation will be an analysis of the number of violations by intersection and camera as well as TPD's assessment as to whether the continued use of a red light camera at each location is justified.	Cpt. Audrey Smith	3/31/2013
C. Objective:	Improve the accuracy of the review process for red light violations.	
1. TPD management will review and evaluate the process used by TPD officers when reviewing potential red light camera violations.	Cpt. Audrey Smith	3/31/2013
2. Changes will (or will not) be made to the violation review process as deemed appropriate by TPD management.	Cpt. Audrey Smith	3/31/2013
D. Objective:	Decrease the number of right turn on red potential violations that must be reviewed by TPD officers.	
1. Public Works (as the City's liaison with ACS) and TPD will work together to identify the intersections where right turn on red violations are most prevalent.	Cpt. Audrey Smith Allen Seceast	3/31/2013
2. Once the intersections are identified, Public Works (as the City's liaison with ACS) and TPD will consider options for reducing the number of right on red violations that must be reviewed by officers.	Cpt. Audrey Smith Allen Seceast	3/31/2013
3. Public Works will work with ACS to implement the option deemed best for reducing the number of right turn on red violations that must be reviewed by officers.	Allen Seceast	3/31/2013
E. Objective:	Ensure the City is made aware of malfunctioning cameras so that notice to ACS can be made in accordance with the contract for the red light camera system and ACS can be held to the terms of the contract for system malfunction response times as laid out in the contract.	
1. Public Works will work with ACS to develop a method whereby ACS notifies the City (Public Works and TPD) of instances where the red light camera system is not functioning as intended.	Allen Seceast	1/1/2013
2. Public Works will notify ACS of the need to repair the red light camera system in accordance with the terms of the contract to help ensure system down time is kept to a minimum.	Allen Seceast	1/1/2013

Action Steps		Responsible Employee	Target Date
F. Objective:	Improve the efficiency of making payment to vendors by wire transfer of funds.		
1.	The Asset/Liability Division will no longer require City departments to complete a check request for wire transfers when the payment was approved and processed through the PeopleSoft requisition/purchase order process.	Kent Olson	1/1/2013

Appendix B - Violation History By Intersection and Camera

Monroe & Tennessee			
Tennessee East Bound	2010	2011	2012
January		194	58
February		213	60
March		182	34
April		93	43
May		89	
June		66	
July	182	8	
August	432	96	
September	387	45	
October	416	48	
November	256	35	
December	169	47	
Total	1842	1116	195

Monroe & Tennessee			
Monroe North Bound	2010	2011	2012
January		281	109
February		448	175
March		262	80
April		165	152
May		92	
June			
July			
August		113	
September		185	
October		258	
November	157	176	
December	268	119	
Total	425	2099	516

**Appendix B -
Violation History By Intersection and Camera (cont.)**

Monroe & Tennessee –			
Monroe South Bound	2010	2011	2012
January		151	49
February		176	73
March		143	73
April		89	68
May		37	
June			
July			
August		83	
September		119	
October		105	
November	115	96	
December	129	50	
Total	244	949	263

Killearn Center Blvd & Capital Circle			
Capital Circle North Bound	2010	2011	2012
January		196	124
February		162	98
March		205	148
April		115	97
May		141	
June		94	
July		103	
August		134	
September		141	
October	147	26	
November	315	144	
December	133	120	
Total	595	1,581	467

Appendix B - Violation History By Intersection and Camera (cont.)

Killearn Center Blvd & Capital Circle			
Killearn Center West Bound	2010	2011	2012
January		32	81
February		30	95
March		32	113
April		20	118
May		33	
June		81	
July	61	9	
August	52	38	
September	34	45	
October	33	0	
November	82	6	
December	44	15	
Total	306	341	407

Ocala & Tennessee			
Ocala North Bound	2010	2011	2012
January		107	19
February		57	34
March		48	31
April		41	37
May		30	
June		50	
July		45	
August		47	
September	35	82	
October	160	17	
November	80	63	
December	29	38	
Total	304	625	121

**Appendix B -
Violation History By Intersection and Camera (cont.)**

Ocala & Tennessee			
Tennessee East Bound	2010	2011	2012
January		82	103
February		69	96
March		49	108
April		30	105
May		29	
June		45	
July		7	
August		36	
September		51	
October	104	51	
November	120	88	
December	69	81	
Total	293	618	412

Ocala & Tennessee			
Tennessee West Bound	2010	2011	2012
January		224	229
February		176	287
March		163	189
April		120	145
May		77	
June		77	
July		86	
August		114	
September	114	187	
October	556	69	
November	285	185	
December	202	121	
Total	1,157	1,599	850

**Appendix B -
Violation History By Intersection and Camera(cont.)**

Capital Circle & Tennessee			
Capital Circle North Bound	2010	2011	2012
January		87	11
February		71	41
March		66	67
April		42	41
May		22	
June		23	
July		55	
August		42	
September		57	
October		52	
November		48	
December	19	12	
Total	19	741	160

Capital Circle & Tennessee			
Tennessee east Bound	2010	2011	2012
January		128	56
February		70	104
March		33	72
April			49
May		15	
June		64	
July		78	
August		61	
September		115	
October		19	
November		70	
December	100	91	
Total	100	744	281

**Appendix B -
Violation History By Intersection and Camera(cont.)**

Capital Circle & Tennessee			
Tennessee West Bound	2010	2011	2012
January		659	8
February		439	38
March		224	14
April		74	19
May		231	
June		700	
July		1103	
August		619	
September		123	
October		225	
November		8	
December	147	10	
Total	147	4,415	79

Magnolia & Apalachee Pkwy			
Magnolia South Bound	2010	2011	2012
January		141	76
February		76	195
March		39	44
April		11	33
May		10	
June		20	
July		71	
August		22	
September		29	
October		52	
November		127	
December	3	125	
Total	3	723	348

Appendix B - Violation History By Intersection and Camera(cont.)

Magnolia & Apalachee Pkwy			
Apalachee West Bound	2010	2011	2012
January			86
February		13	143
March		38	55
April		22	51
May		46	
June		51	
July		72	
August		71	
September		107	
October		130	
November		92	
December	4	95	
Total	4	737	335

Magnolia & Apalachee Pkwy			
Ocala & Tennessee	2010	2011	2012
January		82	158
February		203	270
March		96	253
April		144	79
May		148	
June		173	
July		227	
August		238	
September		104	
October		214	
November		226	
December		276	
Total		2,131	760

**Appendix B -
Violation History By Intersection and Camera (cont.)**

Capital Circle & Apalachee Pkwy.			
Capital Circle North Bound	2010	2011	2012
January		44	14
February		23	11
March		19	24
April		16	20
May		20	
June		4	
July		23	
August		25	
September		2	
October		9	
November		11	
December		35	
Total		231	69

Capital Circle & Apalachee Pkwy			
Apalachee Pkwy East Bound	2010	2011	2012
January		44	77
February		71	127
March		38	38
April		30	54
May		35	
June		100	
July		115	
August		111	
September			
October		2	
November		82	
December		90	
Total		718	296

**Appendix B -
Violation History By Intersection and Camera(cont.)**

Capital Circle & Apalachee Pkwy			
Apalachee Pkwy West Bound	2010	2011	2012
January		108	158
February		117	270
March		33	253
April		75	79
May		106	
June		173	
July		227	
August		238	
September		104	
October		214	
November		226	
December		276	
Total		1,897	760

Capital Circle & Mahan			
Capital Circle North Bound	2010	2011	2012
January			
February			
March			48
April			77
May			
June			
July			
August			
September			
October			
November			
December			
Total			125

**Appendix B -
Violation History By Intersection and Camera(cont.)**

Capital Circle & Mahan			
Capital Circle South Bound	2010	2011	2012
January			
February			
March			24
April			63
May			
June			
July			
August			
September			
October			
November			
December			
Total			87

Note: The shaded area represents the time when the red light cameras were either not installed, inoperative, or the month has not yet occurred.

Appendix C - Detailed Disposition of Camera Actuations

Chart 2

Camera actuations not forwarded to TPD	201,367
Camera actuation forwarded to TPD	50,929
Total Camera Actuations	251,863
Not Violations	180,141
Reasons outside ACS control	14,455
Reasons controllable by ACS	6,771
Total Not Forwarded to TPD	201,367
Violations Issued	31,734
Violations not Issued	19,195
Total Forwarded to TPD	50,929

Chart 3

Not Violations	180,141
Reasons outside ACS control	14,455
Reasons controllable by ACS	6,771
Total Not Forwarded to TPD	201,367
License Plate Obstructed	3,672
License Plate not in FL DMV Database	3,637
Vehicle Obstructed	1,747
Vehicle Does not Match DMV Information	1,438
License Plate not in Databases of Other States	1,130
No License Plate	1,009
Camera Obstructed	736
Glare on Camera	625
Glare on License Plate	332
Other	129
Total Reasons Outside ACS Control	14,455
Plate Clarity	4,022
Equipment Malfunction	1,921
Photo/Video too Dark for Use	399
Expiration prior to Forwarding to TPD	429
Total Controllable by ACS	6,771

Appendix C - Detailed Disposition of Camera Actuations Chart 4	
Violations not issued	19,195
Violations issued	31,734
Total Forwarded to TPD	50,929
Right turn on red	16,892
Not a violation	1,621
Expired awaiting TPD review	433
Other	249
Total Violations not Issued	19,195
Violation Mailed	22,934
UTC transfer	6,487
Nixie	1,108
Expired awaiting UTC approval	757
Other	448
Total Violations Issued	31,734