Winnipeg

Photo Enforcement Program Review

Final Report
February 2006

Audit Department

Leaders in building public trust in civic government

Table of Contents

Executive Summary **4**
Police Chief's Comments **6**
Mandate of the City Auditor **8**
Audit Background **8**
Audit Objectives **8**
Audit Approach **8**
Audit Conclusions **9**
Acknowledgement **10**
History of the Photo Enforcement Program **12**
Program Information **13**
Organizational Structure and Complement 14
Financial Information 14
The Photo Enforcement Management Process 15
Key Risks of the Photo Enforcement Program **16**
Report on Performance **16**
Benefits of Performance Measurement 16
Financial Performance 17
Operational Performance 18
Summary of Performance Results 30
Observations and Recommendations **32**
Launching the Program 32
Managing the Program 47
Reporting on the Program 52
Summary of Observations 54
Appendix 1: Audit Process **56**
Appendix 2: Organizational Structure and Complement **57**
Appendix 3: Photo Enforcement Process **58**
Appendix 4: Risk Profile **60**
Appendix 5: Chronology of Significant Events **62**
Appendix 6 - Summary of Recommendations **63**

Executive Summary

The City launched the Photo Enforcement Program in late 2002, pursuant to an amendment to *The Highway Traffic* Act. The primary goal of the program is to improve traffic safety through reduction of red light running and speeding violations and collisions and injuries associated with these high risk driving behaviours. While enhanced public safety is the primary goal of the program, financial projections made at inception suggested that the program would also generate significant revenues for the City to help address current budget challenges. Over the first five years of operation, gross revenues were projected to exceed $95 million with the net revenue to the City expected to be over $65 million.

An audit of the Photo Enforcement Program was recommended in our *2004-2006 Audit Plan*, which was approved by the Audit Committee in September 2004.

The objectives of the audit were

- To determine if the Photo Enforcement Program is achieving its primary goal of improving public safety.
- To evaluate the financial performance of the program.
- To determine if the program is being managed in an efficient and cost-effective manner.
- To evaluate the effectiveness of the risk management and control processes.

The results of our audit work are provided in our *Photo Enforcement Program Review* report under two sections. In our *Report on Performance*, we examine performance information to determine whether we can conclude on operational and financial performance. In our *Observations and Recommendations* section, we analyze available performance information to identify factors that may have contributed to the level of performance.
Where appropriate, we also provide recommendations for improvement to current operations and to processes that may affect similar programs in the future. Results are briefly summarized below.

Report on Performance

Operational Effectiveness
Survey data indicates that citizens have a high level of acceptance of photo enforcement as a legitimate tool for promoting safe driving. Operational processes seem to be working well and are efficient. The WPS has reported preliminary data that demonstrates a positive impact on public safety by reducing speeding at monitored sites. A similar trend in red light offences has not yet been demonstrated.

After two years of operation, it is too early to expect the Photo Enforcement Program to have achieved its long-term goal of reducing collisions and injuries. Information gathered from two sources on the number of collisions at monitored intersections is not consistent and would lead to contradictory conclusions. A comparison of activity between monitored and non-monitored sites is required, along with a detailed analysis of available collision and injury data. As the program matures, better performance information needs to be gathered and analyzed to provide evidence that the program has achieved its intended long-term outcomes.

Financial Performance
The Photo Enforcement Program resulted in a net benefit to the City of $1,802,266 for 2003/2004. At the same time, the program has not achieved the financial results anticipated at inception. While the expenditure side has remained relatively static, revenues have failed to meet both original and revised projections. By the end of 2004, gross revenues fell short of initial projections by over $18 million: the gap was approximately $6 million in 2003 and $12 million in 2004.
Based on experience to date, the shortfall in anticipated revenue might reach $49 million dollars over five years. The primary reason

for the shortfall is the significantly lower number of offence notices issued than anticipated in launching the program.

Observations and Recommendations

In this section, we looked at the program from three perspectives: *Launching the Program, Managing the Program*, and *Reporting on the Program*.

In launching the program, we found that a lack of due diligence in the procurement process led to misleading and unsubstantiated information going forward to the Award Authority, City Council. The WPS Contract Administrator did not identify and address all significant risks associated with the procurement process. Materials Management Branch and Legal Services did not always provide appropriate advice to support the Contract Administrator and ensure that the City's interests were protected. In some cases, where advice was provided, it was not accepted. The level of oversight provided by Corporate Finance was inadequate given the financial significance of the proposed contract.

The weaknesses in the procurement process ultimately resulted in revenue projections that were unrealistic and a contract for the primary contractor that does not appear to be reasonably priced and adequate to protect the City's interests. The portion of the contract related to processing costs is significantly higher than a contract for similar services delivered to the City of Edmonton by the same vendor at the time of the procurement. We have not been provided with an explanation that justifies the large variation in price. In addition, the contract does not contain a clause that would allow the City to reduce costs except through mutual agreement. We have made several recommendations to improve the procurement process for significant contracts in the future.

We also found that on-going management of the program by the WPS has focused on operational performance. Because the contract was fixed, the cost of the program has received little attention from either the WPS or Corporate Finance. When it became clear that violation volumes were significantly less than projected, in addition to revising revenue estimates, we believe action should have been initiated to review the program's expenditures. Processing costs incurred by 2004, on a cost per offence notice basis, were more than double the original estimates.

The cost, on a fee per offence notice basis, is also more that 200% of the program cost for Edmonton, a city which employs the same contractor. We have estimated the cost savings to the vendor resulting from the significant reduction in processing capacity due to the lower than expected volume of offence notices to be in excess of $10 million over the life of the contract. It is unclear whether the City can benefit from any of these cost savings under the terms of the contract. We suggested that the City attempt to negotiate a reduction in future contract costs. We also made other recommendations to improve operational and financial management of the program.

With respect to performance reporting, we suggested that the WPS continue to work with the Province to obtain better data and to place more effort on analyzing data that is available. At the end of the day, while better performance information is needed, we believe that sufficient positive indicators exist to demonstrate that the Photo Enforcement Program has been a useful tool for the Winnipeg Police Service in achieving its goal of improving citizen safety. At the same time, while acknowledging that the program has not cost the City money to operate to date, our review clearly demonstrates that citizens deserve better stewardship of financial resources to ensure that the Photo Enforcement Program delivers a valuable service at a reasonable cost.

Police Chief's Comments

I welcome the Audit Report of City Auditor, Shannon Hunt, and recognize the thorough, objective efforts she and her team put into an independent review of Winnipeg's Photo Safety Technology program.

The Winnipeg Police Service initiated Photo Safety Technology with the primary focus of the program being safety. We acknowledge that the program must also be fiscally responsible in order to provide good value to the citizens of Winnipeg.

This program, though still in its infancy, has demonstrated considerable success in raising the community's awareness about the dangers of speeding and running red lights. As the first program of its type in the City and in Manitoba, we continue to learn about implementation and process issues. The technology itself has allowed us to gather better data on which to move forward.

I am encouraged that Winnipeggers continue to express overwhelming support for the program's goal of safer streets. We as a Police Service, in cooperation with the City Auditor, have already begun discussions to address some of the issues identified with the contract, and are confident that we will be able to implement all of the Audit recommendations in the near future.

This Audit has been an opportunity to review, from an independent perspective, what I believe to be an important safety initiative meant to encourage safe driving in our City.

Yours truly,

J.J. Ewatski
Chief of Police

September, 2005

Mandate of the City Auditor

The City Auditor is a statutory officer appointed by City Council under the *City of Winnipeg Charter*. The City Auditor reports to Council through the Audit Committee (Executive Policy Committee) and is independent of the City Administration. The City Auditor conducts examinations of the operations of the city and its affiliated bodies to assist Council in its governance role of ensuring Civic Administration's accountability for the quality of stewardship over public funds and for the achievement of value for money in City operations. Once an audit report has been communicated to Council, it becomes a public document.

Audit Background

The City launched the Photo Enforcement Program in late 2002, pursuant to an amendment to the *Highway Traffic Act*. The primary intent of the new legislation is to improve traffic safety through reduction of red light running and speeding violations and collisions and injuries associated with these high risk driving behaviours. While enhanced safety is the primary goal of the program, projections made at the launch of the program suggested that it would also help to address the City's budget challenges. Significant revenues were projected - over the first five years of operation, gross revenues were projected to exceed $95 million with net revenues expected to exceed $65 million. The actual revenues realized to date have been significantly less than projected.

An audit of the Photo Enforcement Program was recommended in our *2004-2006 Audit Plan*, which was approved by the Audit Committee in September 2004. Reasons for the inclusion of this program in the Audit Plan were

- the recent implementation of the Photo Enforcement Program;
- the potential for the program to make a positive impact on public safety; and
- the significant difference between projected and actual revenues in 2003 and 2004.

Audit Objectives

The objectives of the audit of the Photo Enforcement Program were

- To determine if the Photo Enforcement Program is achieving its primary goal of improving public safety.
- To evaluate the financial performance of the program.
- To determine if the program is being managed in an efficient and cost-effective manner.
- To evaluate the effectiveness of the risk management and control processes.

Audit Approach

The Audit Department conducted a performance audit of the Photo Enforcement Program. The scope of a performance audit can include the examination of

- the economy and efficiency of operations;
- the effectiveness in achieving desired results;
- accountability relationships;
- the governance function;
- protection of public assets;
- risk management strategies; and
- compliance with relevant policies, laws and regulations.

The audit process is broken down into three phases:

- Preliminary Survey Phase
- Fieldwork Phase
- Reporting Phase

In conducting our audit, we employed a variety of methods:

- We conducted interviews and/or discussions with staff and management from the Winnipeg Police Services (WPS), Corporate Finance, Legal Services, EPC Secretariat, Public Works, ACS Public Sector Solutions Inc. (the service provider), the Canadian Corps of the Commissionaires and EDS Canada (Inc.).

- We reviewed and analyzed relevant background information and documentation, operating information and processes, policies and procedures, and reports from other jurisdictions.

- We audited a sample of transactions and performed other tests to test the effectiveness of the processing controls.

- We communicated the results of our audit on an on-going basis and presented a formal report to the Staff Sergeant Division #26, Superintendent, Uniform Operations, Deputy Chief, Operations, the Chief of Police, the Chief Administrative Officer, Audit Committee, and Council at the end of the audit.

The audit has been conducted in accordance with generally accepted auditing standards. In preparing our report, we have relied upon extensive interviews and information, data, and other documentary evidence provided to us. The conclusions reached in this report are based upon information available at the time.

In the event that significant information is brought to our attention after completion of the audit, we reserve the right to amend the conclusions reached. (See **Appendix 1** for a flowchart of the audit process.)

Audit Conclusions

The audit work we performed led us to the following conclusions:

- Performance information has been reported by the WPS to demonstrate that the Photo Enforcement Program has improved public safety by reducing speeds at monitored sites. A similar reduction in red light offences has not yet been demonstrated. It is too early to expect the program to have achieved its long-term goal of reducing collisions and injuries associated with high-risk driving behaviours across the City. The performance information collected to date on collisions and injuries has been inconclusive.

- While it did produce a net benefit of approximately $1.8 million to the City in the first two years of operation, the Photo Enforcement Program did not meet the financial expectations established at inception. The revenues reported for the first two years of operation were $18 million less than initially projected.

- While operational delivery processes are efficient and effective, analysis suggests that the cost of the Photo Enforcement Program is not reasonable when compared to initial projections or similar programs in other jurisdictions.

- All significant risks associated with the procurement process were not identified and mitigated effectively. Controls over on-going management of the program also need to be strengthened.

Acknowledgement

The Audit Department wants to extend its appreciation to the many individuals who participated in the review and, in particular, the managers and staff of the Winnipeg Police Service, Corporate Finance Department, Legal Services, ACS Public Sector Solutions, and the Canadian Corps of Commissionaires.

Members of the Audit Team

Brian Whiteside, CA•CIA
Deputy City Auditor

Bryan Mansky, MBA, CMA, CIA
Audit Manager

Jason Egert, CA•CIA
Senior Auditor



Shannon Hunt, CGA, CFE
City Auditor

February, 2006
Date

History of the Photo Enforcement Program

The increasing incidences of motorists who disobey red traffic control lights and speed, resulting in human tragedy and increased healthcare and collision costs, has been identified as a major concern to the citizens of Winnipeg. Conventional enforcement of red light and speeding offences is less efficient, provides less coverage, and can pose a danger to the public and the police in some circumstances. In other jurisdictions photo radar is a proven tool for slowing people down and reducing collisions. Automated enforcement technologies, including photo radar, have been deployed around the world for more than thirty years and are used by law enforcement agencies in more than seventy-five countries.

The Winnipeg Police Service (WPS) first requested a legislative amendment to permit the use of photo radar in 1994. In 1997, the WPS again initiated discussions with the Province following a series of public forums at which traffic safety was identified as the primary safety concern of citizens in attendance. In May 2000, Council formally requested the enactment of provincial legislation to enable photo radar's use.

The Minister of Transportation and Government Services subsequently directed the creation of a working group to review the issue and prepare a comprehensive report outlining options and recommendations for the feasibility, development, implementation and evaluation of a photo radar enforcement program in Manitoba. The guiding principle for the program was "*the improvement and enhancement of traffic safety for Manitobans. The purpose of photo enforcement would be to aid law enforcement officers in addressing speed-related problems in high-risk areas where conventional enforcement is difficult or presents a risk to officers and other motorists. It is not intended to replace conventional speed enforcement…"* (Photo Radar Development Project, 2000*).* The City of Winnipeg had representation on both the project committee and steering committee. The *Photo Radar Development Project Report* was completed in May 2001 with a recommendation that *provincial approval be given to enable the implementation of photo radar initiative(s) in the province*. Specific guidelines, criteria and outcomes for the program were also stated in the report.

On October 19, 2001, the Winnipeg Police Service began a six-month pilot project of photo enforcement technology. A single Intersection Safety Camera (ISC) was installed at Sherbrook Street and Broadway Avenue. This intersection was chosen due to its comparatively high rate of collisions for the volume of traffic.

In anticipation of legislation to permit photo enforcement, a request for proposal (RFP) was issued on March 29, 2002 to select the contractor who would be responsible for the supply, installation and operation of the Photo Enforcement Program.

On May 22, 2002, subject to the anticipated legislation, ACS Public Sector Solutions Inc. (ACS) was awarded a contract to supply, install and operate the City's photo enforcement system. The contract was valued in excess of $30 million over five years.

On May 23, 2002, the Province of Manitoba amended the *Highway Traffic Act* with the *Highway Traffic Amendment and Summary Convictions Amendment Act*. This amendment provided authority for the use of image capturing enforcement systems by municipalities, where authorized by regulation, for enforcing red light offences and speeding offences. With respect to speeding offences, use of the technology is limited to violations that occur at intersections controlled by traffic lights or in construction zones, playground zones or school zones. Prescribed types of enforcement systems were intersection safety cameras (ISC), vehicle-mounted

photo radar systems and trailer-mounted photo radar systems. The latter systems are commonly referred to as mobile photo radar units (MPR).

A tender was issued on June 17, 2002 to select a contractor to supply MPR operators. The Canadian Corps of Commissionaires (Commissionaires) was awarded the contract on August 30, 2002. The Commissionaires are responsible for providing 18 staff to operate the mobile photo radar vehicles and equipment. The contract was for a five year period and was worth $2,085,806.

On December 11, 2002, the City entered into an agreement, the *Conditions of Authority*, with the Province. This agreement outlines the terms and conditions to which the City's authority for the program is subject. It includes requirements for signage, public awareness responsibilities, and annual reporting requirements. It also provides a provision for termination of the program by the Province and recognizes the consequences to the City in that event.

On December 16, 2002, the *Image Capturing Enforcement Regulation* came into force, authorizing the City of Winnipeg to commence its Photo Enforcement Program and prescribing terms related to the program.

On January 6, 2003, a two month warning phase of the Photo Enforcement Program at the City's twelve ISC locations concluded with over 15,000 violations.

On January 7, 2003, the WPS began issuing offence notices for speeding and red light running at the twelve ISC locations that were tested during the fall of 2002. Offence notices were also issued for speeding by the MPR, which are used in school or playground zones or construction sites.
Program Information

The Photo Enforcement Program plays a vital role in support of the Winnipeg Police Service's mandate, which is to ensure the safety of the lives and property of citizens, preserve peace and good order, prevent crimes from occurring, detect offenders and enforce the laws.

The Photo Enforcement Program's primary goal is to reduce collisions and injuries by reducing red light running and excessive speeding. The WPS has implemented a three pronged approach to achieving this goal that has proven to be successful in other cities:

- **Education**: Believing that once most drivers understand the consequences of driving at dangerous speeds and running red lights they will willingly modify their driving behaviour. WPS launched a major public education campaign about the dangers of aggressive driving habits.

- **Enforcement**: For those drivers who don't get the message, a regulated system of photo enforcement was implemented. This technology is placed at problem areas throughout the City based on collision data and other relevant criteria.

- **Engineering**: Using the photo enforcement technology, the City will be able to establish a comprehensive database that will allow City engineers to make modifications to move traffic more freely. For example, road configurations and speed zones can be changed or timing and length of red and yellow lights can be modified if data suggests that this would be advisable.

Some of the anticipated benefits of the Photo Enforcement Program for the City and its citizens include the following:

- saving lives and reducing the severity of injuries;
- savings on automobile insurance premiums;
- re-deployment of traffic officers to other traffic or police duties;
- fewer responses to collisions by fire, ambulance and police resources;
- decreased medical costs as a result of fewer collisions; and
- creation of a reliable traffic database for traffic engineers and police in designing roadways to improve traffic flow and the regulation of traffic.

Intersection Safety Cameras (ISC)
As of July 2005, there are 30 camera units rotating among 36 ISC locations. Cameras are in operation twenty-four hours a day, seven days a week.

By the end of 2007, the 30 camera units will rotate among 60 ISC sites. ISC locations are determined in accordance with the following criteria:

- collision data
- speed data
- public input
- technical ability to install a camera
- distribution across the City

Mobile Photo Radar Units (MPR)
There are currently 6 MPR in use. Cameras operate between 07:00 hours and 21:00 hours, seven days a week.

In accordance with the legislation, units can only be deployed in the following locations:

- school zones
- playgrounds
- construction sites

Organizational Structure and Complement

The Photo Enforcement Program is part of the Traffic Unit (Division #26) that reports to the Deputy Chief, Operations. The Staff Sergeant is acting as the Contract Administrator and is responsible for overseeing the operations of the Photo Enforcement Program, in particular, all aspects that have a clear linkage to improving public safety. Responsibility for tracking and reporting on financial information is primarily the responsibility of the Finance Division (Division #35) of the WPS. The authorized WPS complement dedicated to the program for 2005 is five full-time permanent positions.

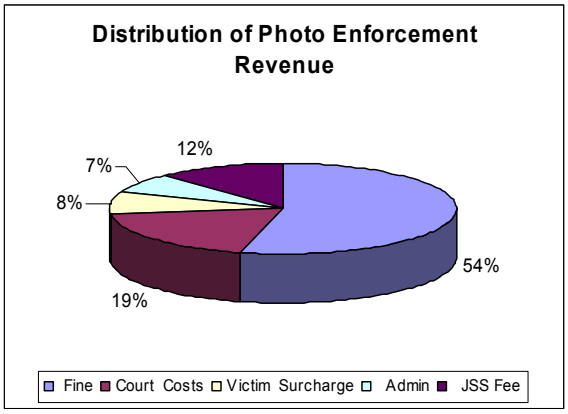
ACS currently employs thirteen staff to operate the photo enforcement system which involves responsibility for ensuring that offense notices are processed and issued within contractual timeframes.

The Corps of Commissionaires employs 18 staff to support the delivery of this program. Their primary responsibility is to operate the mobile photo radar units.

Appendix 2 provides a breakdown of the staff complement for each organization.

Financial Information

The City is entitled to all fine revenue generated from Photo Enforcement offences. The Province's Department of Justice adds a number of charges to the offence notice that are intended to cover court costs, a surcharge for victims of crime, administrative costs and a justice service surcharge (JSS). The chart on the next page indicates the relative portion of the total revenue retained by the City and Province for photo enforcement activities conducted since the inception of the program to May 2005.



The City's portion was 54% of the total revenue generated in this period. Where fine revenue exceeds the cost of the program, the *Highway Traffic Act* requires that the surplus revenue be used for safety or policing purposes.

The City of Winnipeg's revenue and expenditures related to the Photo Enforcement Program for 2003 and 2004 are shown in the chart below.

Program Revenue and Expenditures

Year	**2003**	**2004**
Revenue	$9,686,408	$7,975,228
Expenses		
WPS Salaries and Benefits	305,739	429,617
Canadian Corp of Commissionaires	333,919	396,008
ACS Public Sector Solutions	6,466,212	6,623,568
Amortization of 2002 expenses	614,469	600,000
Other	7,963	81,875
Total Expenses	$7,728,302	$8,131,068
Surplus/Deficit	**$1,958,106**	**($155,840)**

As indicated, in 2003, the Photo Enforcement Program realized a surplus of $1,958,106 and, in 2004, a deficit of $155,840.

The Photo Enforcement Management Process

The Winnipeg Police Service is responsible for the management of the Photo Enforcement Program and the related contracts with ACS and the Commissionaires.

The process of capturing a traffic violation on film, processing it, verifying it and issuing an offence notice, after a Peace Officer approves the offence notice, is the prime responsibility of ACS. (A Peace Officer may be an officer with the Winnipeg Police Service or a member of the Corps of Commissionaires.) The process for issuing an offence notice begins with a traffic violation at one of the ISC or MPR sites that triggers a series of photos to be taken of the offence. The traffic violation data is recorded on a data card and the photographic film is sent to a developer for processing. The developed film and the data card are retrieved and are processed through Citeware, which is a proprietary software program developed and used by ACS. This information is first reviewed by ACS staff to verify the information and decide whether the event meets the criteria to be processed as a potential offence notice. Any one that does not meet the criteria is erred out and then reviewed by more senior ACS staff to ensure that it should be erred out.

For a potential offence notice, the offence notice number and license number are sent to the Manitoba Department of Transportation and Government Services in order to obtain the registered owner's name and other vehicle information. Once this information is received, ACS must review

the potential offence notice to ensure there is a vehicle match. If there is, the offence notice is accepted; if not, the violation is erred out. The erred out violation is again reviewed by a more senior ACS staff to ensure that it should be erred out. The approved offence notice can now be accessed by a Peace Officer to verify the vehicle information is correct and that a traffic violation has occurred. If the Peace Officer agrees, an electronic signature is mapped to the offence notice and the offence notice is processed by ACS. An offence notice is sent to the registered owner and an electronic copy is provided to the WPS and the Province. If the violation is not approved, it is erred out and then reviewed by a WPS staff person to ensure that it should be erred out.

Once the offence notice has been sent, the Department of Justice is responsible for adjudicating the offence notices and collecting the fines. For offence notices that are being contested by the registered owner, ACS provides the Province with a detailed court package to assist in the support of the offence notice. A Peace Officer will attend the court proceedings to appear as a witness. Fines are collected by the Department of Justice and are paid to the City on a monthly basis. (A flowchart of the process can be found in **Appendix 3.)**

Key Risks of the Photo Enforcement Program

We used a risk-based approach to perform this audit. This approach involved looking at the program's key goals and documenting the potential risks that could impact the achievement of these key goals. Risk is defined as any circumstance or event that will have an impact on the achievement of business objectives.

In conjunction with the Staff Sergeant, Division #26, we developed a listing of potential risks.
We reviewed the information and developed a *Preliminary Risk Profile*, which was used to focus our resources on specific areas for the audit. (**Appendix 4** provides the risk profile for the Photo Enforcement Program.)

The key risks we identified for the Photo Enforcement Program are

- the perceived fairness of the Photo Enforcement Program by the public;
- the terms of contracts with vendors;
- compliance with external authorities;
- continued political support by City Council and the Province; and
- availability of information from Manitoba Public Insurance and Manitoba Justice.

Report on Performance

Benefits of Performance Measurement

Citizens expect to be informed about the results of programs implemented with their tax dollars. Municipal managers want to be efficient and deliver value for their services. There are four main reasons why performance measurement is important:

Enhances accountability
In today's environment, it is important that citizens are informed about what the expected program results are, what is actually achieved and what the program costs. Measuring and reporting on performance provides the basis for understanding between staff and Council of the expected results and actual results for the program. It helps focus Council's decision making and helps staff better manage the program. Performance information enables citizens to understand whether the program has been effective and what value they are receiving for their tax dollars.

Helps to improve performance

The analysis of performance results identifies opportunities for the City to improve the quality, efficiency and cost-effectiveness of a program.

Stimulates productivity and creativity
Performance measures can be used to create new incentives and rewards to stimulate staff creativity and productivity.

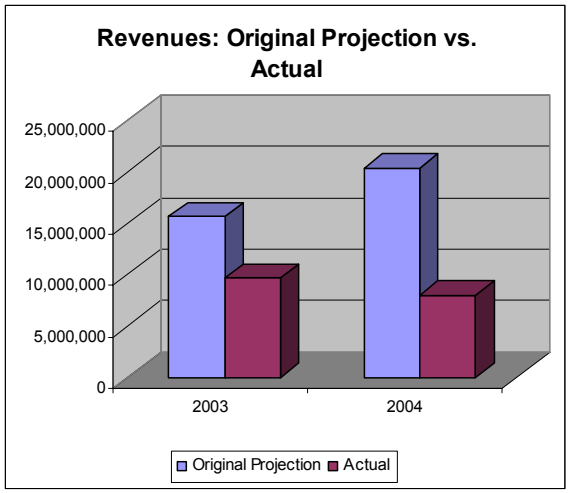
Improves budget processes
Performance measures can help municipalities develop budgets that are based on realistic costs and benefits, not just historical patterns. Performance measurement can also inform the budget monitoring process by providing information on whether the level of expected outputs and the expected program outcomes are being achieved.

In support of these principles, the WPS has collected and reported on performance information internally and externally through their annual reports to the Province and on their website. We will review the performance information compiled by the WPS to support this program in the following sections. In addition, the Audit Department has supplemented the WPS information by gathering and analyzing additional operational and financial data to provide a more comprehensive perspective on the program's performance to date.

Financial Performance

While the primary goal of the Photo Enforcement Program is to enhance safety, in initiating the program, the City anticipated that significant revenues would be generated that could be used for safety related initiatives and help to offset other budget challenges. The City had originally anticipated gross revenue of approximately $95 million over the first five years of the program.

In fact, in the first two years of operation, these revenues were not realized. The graph below illustrates the significant shortfall in actual program revenue from what was originally projected at the inception of the program.



	2003	2004	Total
Projection	$15,652,091	$20,390,195	$36,042,286
Actual	$9,686,408	$7,975,228	$17,661,636
Shortfall	$5,965,683	$12,414,967	$18,380,650
Actual to Projection	**62%**	**39%**	**49%**

The total shortfall in gross revenue for 2003 and 2004 exceeded $18 million, which means that the average actual revenue for the two years only represents about 49% of the projected gross revenue. In fact, when the 2004 budget projection was decreased by $5 million after the 2003 results were known, the City still realized a shortfall of almost $7 million dollars. In addition, revenues were lower in 2004 than in 2003. Extrapolating the average percentage shortfall for 2003 and 2004 (51%) means that the City may experience a shortfall in projected gross revenue of over $49 million during the five years of the contract with ACS.

We were advised that the shortfall in revenue related primarily to a significantly lower volume of offence notices issued than anticipated, particularly from the mobile units. For 2004, there were also challenges related to staffing the mobile units. We will examine the possible reasons for the inaccurate projections as well as the related impacts of the significant decrease in revenue later in the report.

Operational Performance

Monitoring and Evaluation

Monitoring refers to the relatively short-term observation of program outputs for the purpose of determining whether the program is being delivered as planned and whether changes are required to improve the effective delivery or efficiency of the program. Monitoring outputs (number of offence notices generated per unit, for example) might indicate that photo enforcement cameras or units are more effective at some locations than others.

Evaluation, on the other hand, implies a determination as to whether the program is effective, in other words, that it is achieving its stated goals. Evaluation generally focuses on measuring outcomes. In the shorter-term, an outcome could be lower speeds at monitored sites. In the mid-term, speeds may be lower across the City as drivers change their behaviour. The longer term anticipated outcome of the Photo Enforcement Program is a reduction in serious collisions and injuries. The assumption is that an overall reduction in speeding and red light running will lead to the desired long-term outcome.

We would not expect a program of this scope to achieve its long-term objectives for several years. We would expect, however, data to be collected and analyzed, trends identified and evaluated, and progress to be measured and reported on as the program matures.

Annual Report to the Province

Under the *Conditions of Authority* agreement with the Province, the City is required to submit an annual report by April 1st of each year outlining the status and effectiveness of the Photo Enforcement Program. The WPS report must contain information on the following:

(a) Amount of surplus fine revenue derived from the use of photo enforcement, and the specific purposes for which the surplus revenue has been used.

(b) Effectiveness of photo enforcement initiatives:

Program Outputs

- locations of units
- deployment criterion
- hours of operation
- number of offences
- number of not guilty pleas, acquittals or stays, and convictions
- number of offence notices issued for speeding and red light violations detected by conventional means
- all public awareness initiatives

Program Outcomes

- a controlled study evaluating the impact of photo enforcement on speed and red light violations including average speeds at locations with and without photo enforcement
- 85th percentile speeds at both (speed at which 85% of traffic is travelling at or below)
- proportion of speeding vehicles by speed range
- speed adjustments resulting from the analysis of data arising from photo enforcement activities
- an analysis of the effect of the photo enforcement on traffic safety including annual statistics and year to year variance in traffic collisions, traffic injuries and collision severity

Performance Information Reported

The WPS has provided annual reports on the program to the Province for 2003 and 2004. Performance information captured in these reports is provided in this section.

Surplus Revenue

In accordance with reporting requirements under the *Conditions of Authority* agreement, in the *2003 Annual Report*, the WPS advised that the surplus revenue generated was used to fund Public Safety initiatives within the WPS during the year. In 2004, the program did not generate a surplus.

Program Outputs

In the *2003 Annual Report* and *2004 Annual Report*, the WPS provided information on the location of photo enforcement units, the general deployment criteria, and the hours of operation. (See *Program Information* section.)

Photo Enforcement Deployment

The numbers of ISC cameras and sites and mobile units and sites in use at year end are shown below:

Deployment			
	2002	**2003**	**2004**
ISC Cameras	12	24	30
ISC Sites	12	24	36
Mobile Units	---	5	5
Mobile Sites	---	234	171
Mobile Deployments*	---	3,604	3,120

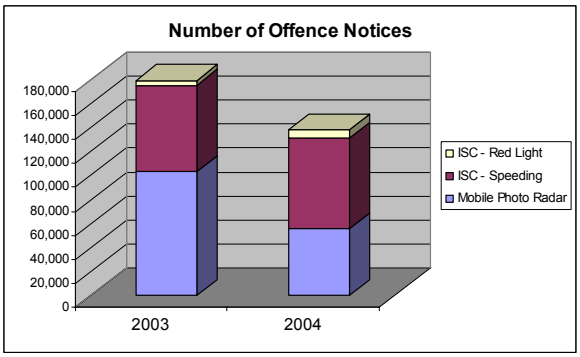
* There are two deployment shifts per day.

In 2004, the WPS adjusted the number of mobile sites to focus on those locations where enforcement was not as effective in changing driver behaviour. The ISC cameras and mobile units rotate among their respective sites.

Photo Enforcement Offences

The number of offences for 2003 and 2004 were reported as follows:

Photo Enforcement Offences		
	2003	**2004**
Mobile Radar	103,183	56,032
ISC-Speeding	72,173	75,119
ISC-Red Light	4,066	6,812
Total Offences	**179,422**	**137,963**



The performance information indicates that the number of offences generated through the Photo Enforcement Program has increased for intersection safety cameras but decreased for mobile radar cameras from 2003 to 2004. On the surface, this appears consistent with the increased number of ISC cameras and decreased deployment of mobile cameras.

Offences Notices per Vehicles Monitored

Another perspective is the number of offence notices per vehicles monitored by mobile photo radar as shown below:

Offence Notices per Vehicle Monitored			
	2003	**2004**	**Change**
# Vehicles Monitored	6,311,414	5,752,613	
# of Offence Notices	103,183	56,032	
% Offences per Vehicles Monitored	1.635%	0.974%	**-40%**

The number of drivers monitored that committed an offence decreased 40%, a good indication that driver behaviour appears to be changing when it comes to speeding at monitored sites.

Convictions and Acquittals/Stays
The disposition of offences provided by the Province is shown below:

Disposition of Offences		
	2003	**2004**
Convictions	175,603	135,768
Acquittals/Stays	635	801
No Disposition*	712	1,394

* Pending court appearance. Any difference between the total number of offence notices for a year and the number of dispositions is due to the timing of issuance of an offence notice. Some offence notices may be issued but are still within the time limit to pay or contest and, therefore, will not yet be classified.

Offences by Conventional Means
While changing driver behaviour at monitored locations is a positive step, it might be the case that drivers are changing behaviour only where they know that the likelihood of detection is high. While this is still important from a safety perspective, the broader test is whether driver behaviour has changed at sites that are not monitored. Looking at unmonitored sites will be part of the controlled study. At this point in time, the data that is available for comparison is minimal. The next chart indicates the number of offences reported for the two years that arose from conventional policing methods:

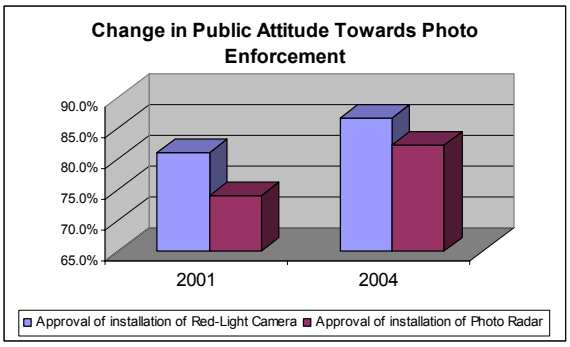
Conventional Offences		
	2003	**2004**
Speeding	13,924	10,757
Red Light	1,242	1,430
Total	15,166	12,187

There were fewer speeding offences arising from conventional policing methods in 2004. It should be noted, however, that there was also a significant reduction in the number of officers dedicated to this function.

The Traffic Division was re-structured during 2004, and resources were redeployed to the Districts where traffic enforcement is only one of many duties. Since the WPS is not tracking the daily assignments of the redeployed officers, trends in speeding offences cannot be identified. Despite the decrease in officers deployed, however, red light offences increased, indicating that more drivers who commit this offence are being identified.

Public Awareness Initiatives
One of the initial concerns in establishing the program was the degree of public acceptance for photo enforcement. This was a legitimate concern given the experience in other jurisdictions where the program was cancelled because of the public's disapproval. The *Conditions of Authority* agreement requires a rigorous and continuous public awareness program to ensure that the public is fully educated about the program and its safety benefits. In implementing the program, funds were identified as part of the contract to be used for public awareness and education. In both the 2003 and 2004 annual reports, the WPS reported on several public awareness initiatives including a trial period prior to enforcement, multi-media campaigns, establishment of a website, and speed events held at various locations. In 2004, for example, the WPS advertised for 36 out of 52 weeks and employed a former World Racing Champion to be the safe driving spokesperson.

The graph below illustrates the effectiveness of the program's communication strategies in terms of gaining public acceptance of the program. The statistics shown are the responses to two questions posed to the public in surveys conducted by the WPS in 2001 and 2004.



Change in Approval Ratings			
% Approval	**2001**	**2004**	**Change**
Red Light Cameras	81%	87%	**+6%**
Photo Radar	74%	83%	**+9%**

The results show an increase in the acceptance of the use of both red light cameras and mobile photo radar between 2001 and 2004. Through better education about the risks associated with speeding and red light running, the public is clearly more accepting of the use of photo enforcement to reduce the incidence of these driving behaviours.

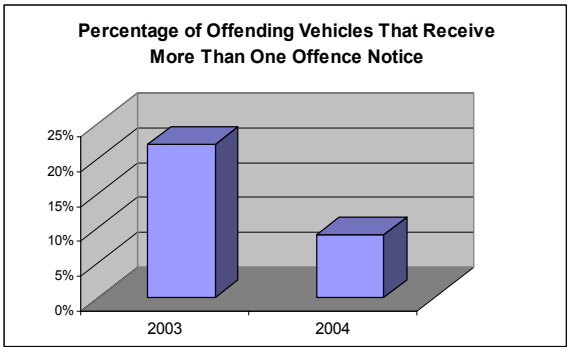
Program Outcomes

The *Conditions of Authority* agreement contemplates a controlled study which would evaluate the impact of photo enforcement initiatives on speed and red light violations. The Province also requires an analysis of the effect of photo enforcement on traffic safety as indicated by the number of collisions and injuries.

The WPS is in the process of initiating a study led by an independent consultant to provide this information in an objective and comprehensive format. At the same time, some preliminary data has been reported that may provide an early indication of the effectiveness of the program, keeping in mind that the program was not fully implemented until 2004.

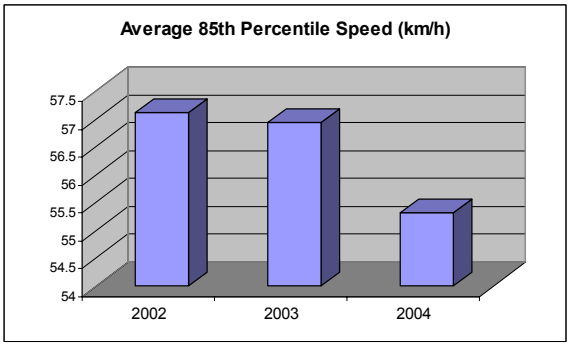
Rate of Re-Offending

The following graph illustrates that violators seem to be getting the message that if they speed, they will get caught. This is demonstrated by the reduction from 22% in 2003 to 9% in 2004 of those motorists who re-offend.



85th Percentile Speed

The 85th percentile speed represents the speed at which 85% of drivers are traveling at or below. The *2004 Annual Report* notes that 96 out of 106 MPR deployment sites had 85th percentile speeds that exceeded the posted speed limit. Over the two years of enforcement, 80 of the 96 showed a decrease in speed. The average reduction in the 85th percentile speed was 3%.



While this trend is noteworthy, once again, it only demonstrates a change of driver behaviour at monitored sites. The *Conditions of Authority* agreement also requires information from the City-wide perspective. The WPS intends to obtain this information through the controlled study.

Speeding Offences by Speed Range
Both the Province and the WPS are particularly interested in the number of speeding offences where the speed is at or over 25 kilometers above the speed limit. This is a concern because the extent of injury and damage related to collisions is more severe at higher speeds. Therefore, it is important to track this ratio and determine the effect photo enforcement is having on driver behaviour at the higher speed levels.

Speeding Offences 25Km and Over			
Mobile	**2003**	**2004**	**Change**
# Offences	3,070	1,551	
# Vehicles	6,311,414	5,752,613	
% Offences	.05%	.03%	**-40%**
ISC	**2003**	**2004**	
#Offences	2,392	2,376	
# Cameras	19	26.7	
Offences/Camera	126	89	**-29%**

*ISC cameras were weighted over the year.

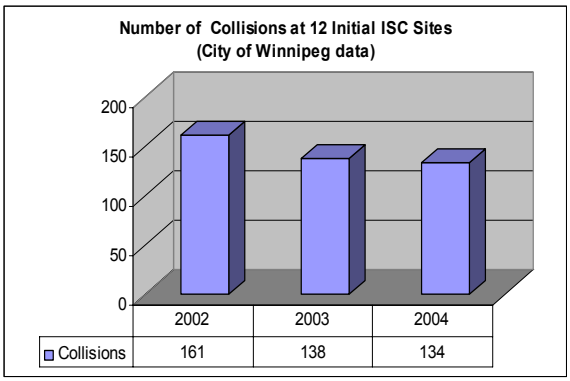
This chart suggests that the program has positively changed the behaviour of drivers who speed excessively at monitored locations.

Speed Adjustments resulting from Photo Enforcement Data Analysis
Information on any re-engineering done as a result of analysis of data obtained through the Photo Enforcement Program is to be provided to the Province. Such actions are also the intent of the third piece of the WPS's three pronged approach to improving traffic safety. The WPS has reported that actions will be taken after completion of the controlled study.

Traffic Collisions
The long-term goal of the Photo Enforcement Program is to realize a reduction in collisions and injuries associated with high risk driving behaviours such as speeding and red light running. In particular, the program is targeting collisions that result in severe injuries or significant vehicular damage.

At this early stage in the program, the WPS has provided some information on collisions from accidents that are reported to the Police and compiled by the Public Works Department. The WPS has tracked the number of reported collisions at the 12 original ISC sites since 2002 (before the cameras were operational).

The graph below illustrates that, according to WPS data, the number of traffic collisions at the initial 12 ISC locations has decreased.



While the apparent trend in the number of collisions is positive, it has to be recognized that this source of information may not capture the total number of collisions since drivers may be reluctant to report accidents to the Police that may result in traffic related charges being laid. So there is no assurance that all collisions have been reported.

Summary of Information Reported
The WPS has met most of the Provincial reporting requirements. The additional information will be obtained through the controlled study currently being planned.

The information reported to date by the WPS suggests that the program is achieving some success at the monitored locations. Overall, the number of speeding offence notices have decreased, along with

the 85th percentile speed and the number of speeders who travel at excessively high speeds. These are positive trends for a program that is in its third year of operation. Red light offences captured through both the photo enforcement program and conventional means have not yet demonstrated the same results.

Additional Performance Information Compiled by the Audit Department

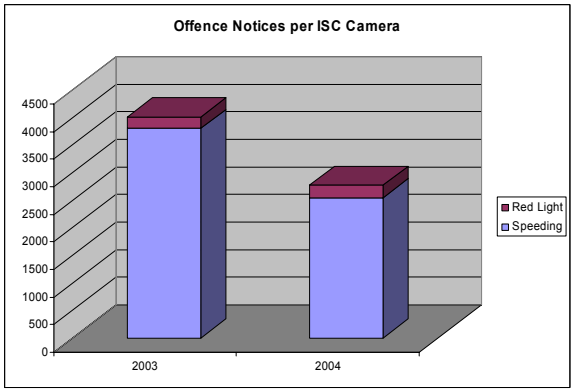
While the information reported to date provides an excellent first step, more information is required before the WPS can be confident that the program has achieved its intended long-term outcomes. The Audit Department performed further analysis on data compiled by the WPS to provide a more comprehensive perspective on the program's performance to date. We also gathered data from external sources to supplement the WPS information.

Program Outputs

The WPS reported that, overall, the number of speeding offence notices issued by intersection cameras, MPR units and conventional means has decreased while red light offence notices have increased slightly. This analysis is not complete, however, without considering other relevant factors. In the following section, we further analyze the available information.

Offence notices per ISC Camera

To provide a consistent basis for comparison of offence notices over a period of years, it is more meaningful to compare the offence notices by ISC camera.



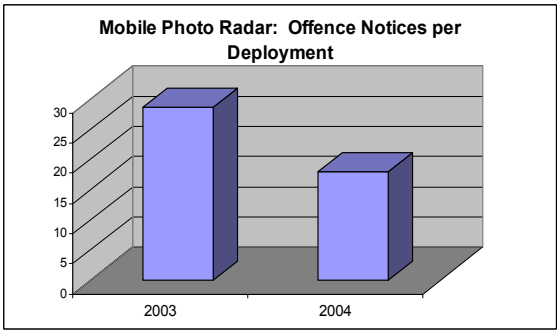
	2003	2004	% Change
Speeding	3,799	2,813	-26%
Red Light	214	255	+19%

*ISC cameras were weighted over the year. Cameras are rotated among the sites.
2003: 12 + (12 x 7/12) = 19
2004: 24 + (6 x 5.5/12) = 26.7

When analyzed from this perspective, it suggests that intersection safety cameras are having a positive deterrent effect on the driving behaviour of speeders. Once again, there does not appear to be a deterrent effect for drivers who commit red light violations.

Offence notices per MPR Deployment

The WPS reported that the number of offence notices issued through mobile photo radar enforcement was significantly less in 2004 (56,032) than in 2003 (103,183). This information did not take into account the related decrease in deployments (i.e. work shifts) in 2004.



	2003	2004	Change
Offence Notices per Deployment	29	18	**-38%**

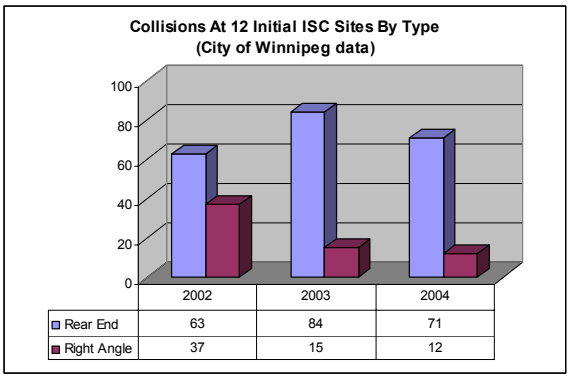
With the deployment information considered, the chart confirms that speeding offences related to mobile enforcement did decrease from 2003 to 2004, indicating the potential effectiveness of this tool if this trend continues.

Program Outcomes

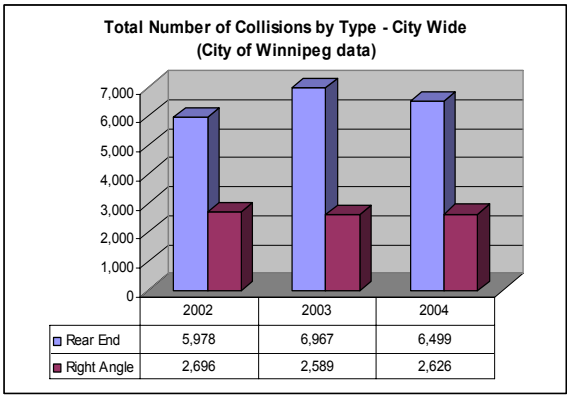
The WPS reported to the Province on the number of collisions at the twelve initial ISC sites based on information collected by the WPS and compiled by Public Works. The WPS, however, did not report on the types of collisions that occurred. In addition, the WPS did not obtain collision or injury information from Manitoba Public Insurance (MPI). Providing information from an independent source lends credibility to the reported performance information.

Traffic Collisions and Injuries

The Audit Department was able to obtain additional collision information from Public Works that denotes the type of collision. The chart below illustrates the trend in the two main collision types associated with Photo Enforcement. The first is rear end collision, which tends to increase over the short term at ISC sites and then level off as drivers become more familiar with the operation of the cameras. The graph confirms that this is, in fact, what has occurred at the initial twelve ISC sites. The second type of collision monitored is right angle collision. One of the objectives of the Photo Enforcement program is to decrease the occurrence of this type of collision since it tends to result in more serious injuries. The graph does indicate a reduction (from 37 to 12) over the two years. This information suggests that the program is resulting in safer driving behaviour at monitored intersections.

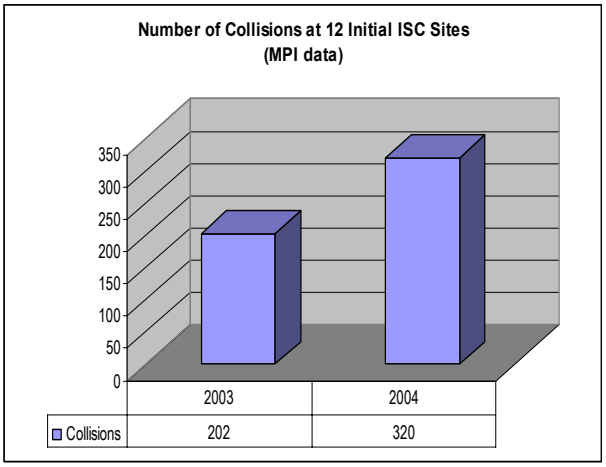


Through the WPS data, we were also able to obtain information on collisions for the entire City. The chart below shows that rear end collisions initially increased after the introduction of photo enforcement and have subsequently started to decrease. This is consistent with program expectations. At the same time, the graph shows that the volume of right angle collisions, for the entire City, has remained relatively steady from 2002 to 2004. This indicates that the change in driver behaviour observed at the original sites has not yet resulted in a change of behaviour at unmonitored sites.

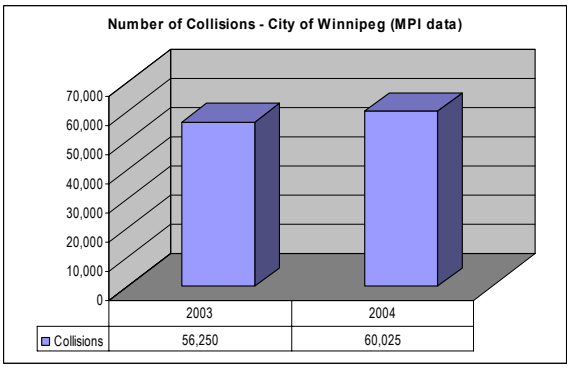


During the audit, we contacted Manitoba Public Insurance (MPI) and were able to obtain some preliminary data on collisions and injuries. The information received is useful since it came from an independent source. At the same time, it may not represent all collisions that occurred because drivers may not always submit minor claims that may have an impact on their insurance rates.

The data provided, as illustrated in the graph below, shows the change in the number of traffic collisions from 2003 to 2004 at the original 12 sites.



The graph shows an increase of 58% in the number of traffic collisions from 2003 to 2004. This appears to contradict the WPS data. It is also a greater increase than the 7% increase that occurred city-wide as shown in the chart below.



A key limitation of the MPI data is that there is no information on the collision configuration, so we are unable to determine the impact the program has had on the volume of rear end and right angle collisions. We were able, however, to obtain data on the value of claims resulting from collisions at the 12 original monitored sites.

MPI Claims related to Collisions at 12 Original Sites				
Claim Amount	**2003**	**2004**	**# Change**	**% Change**
$0-$5000	447	717	+270	**+60%**
$5000-$10,000	23	43	+20	**+87%**
$10,000-$15,000	8	17	+9	**+113%**

* Note: One collision can result in multiple claims as more than one vehicle can be involved.

Contrary to long-term expectations, the chart shows an increase in claims at each level of damage with the largest percentage increase appearing at the highest dollar value. For claims at that level, the city-wide increase was only 4% according to MPI.

In addition, we were able to obtain some preliminary data from MPI on injuries that occurred at the original 12 sites, which also appears to be contrary to program expectations for the longer term.

Injuries at 12 Original Intersections		
Year	**2003**	**2004**
# Injuries	81	133
# Change		+ 52
% Change		**+ 64%**

At this point in the program, we would not expect to be able to conclude that the program has achieved its long-term objectives. Data has been provided by the WPS that suggests some positive trends at monitored sites. The data relates to a relatively short period of time and external factors, such as weather, have not been considered in determining their impact on the number of collisions reported. We also found that data from two sources, the WPS and MPI, was contradictory in some cases. The controlled study will focus on such variables and provide more accurate information. We can conclude that the discrepancies in the data and trends warrant further analysis and interpretation as the program matures.

Efficiency and Cost-effectiveness

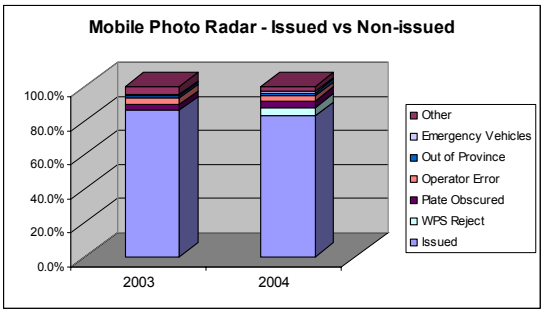
While the Province is interested in the effectiveness of the Photo Enforcement Program, the City also has an interest in how efficient and cost-effective the program is. Measures should be designed to indicate how efficiently resources allocated to a program are being utilized and whether the program is producing outputs at a reasonable cost.

The WPS had compiled some performance information to support management in evaluating the efficiency of the program. This information was limited to offence notices generated and MPR deployments. The Audit Department took the WPS information and analyzed it further to provide a more in-depth perspective on the efficiency and cost-effectiveness of the program at this point in time.

Issuance of Offence Notices
Provincial legislation requires that offence notices be sent to citizens within 14 days of the violation. After this time, a notice cannot be issued which means the loss of any deterrent effect as well as the associated fine revenue. The chart below indicates that the notices are being issued on time.

Issuance of Offence Notices		
	2003	2004
% of Notices "Timed out"	0.69%	0.10%

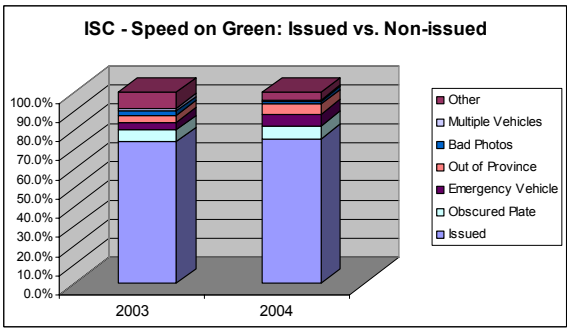
Efficiency of Photo Enforcement Process
Another measure of the efficiency of the program is the rate of violations that result in offence notices. The next three graphs illustrate the percentage of violations that result in offence notices and also illustrate the top reasons that the violations have not resulted in an offence notice. The first chart relates to mobile photo radar.



	2003	2004
Violations*	120,181	67,571
Offence notices	103,183	56,032
Percentage	86%	83%

* - Number of violations supplied by ACS.

The next chart illustrates the results related to intersection cameras for speed on green:

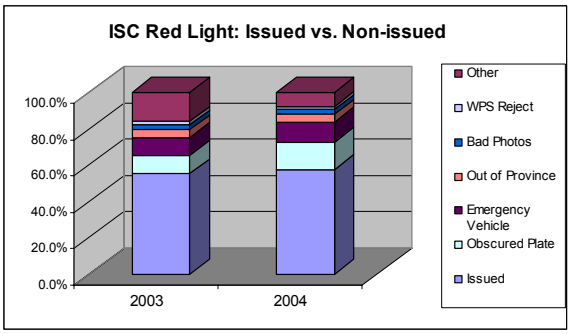


	2003	2004
Violations*	97,261	99,614
Offence notices	72,173	75,119
Percentage	**74%**	**75%**

* - Number of violations supplied by ACS.

These charts indicate that mobile enforcement is a more efficient process than intersection safety cameras for generating speeding offence notices. Possible explanations for this are that mobile units are not deployed in the high traffic areas and primary roadways to the same extent and that manned mobile units incorporate a judgment component. Therefore, it is possible that emergency vehicles are captured more frequently at ISC sites but these violations do not result in offence notices being issued.

The statistics with respect to the offence rate arising from red light camera enforcement are shown on the chart below.



	2003	2004
Violations*	7,134	11,881
Offence notices	4,066	6,812
Percentage	**56%**	**57%**

* - Number of violations supplied by ACS.

It appears that the photo enforcement program is least efficient with respect to generating red light offence notices. Only 56% (2003) and 57% (2004) of violations resulted in the issuance of an offence notice. Again, emergency vehicles accounted for a high number of erred out offence notices. Obscured plates also accounted for a high number of violations that did not result in offence notices.

Capturing and analyzing such statistics can be useful to the WPS in evaluating the relative efficiency of the mobile and intersection site programs and determining whether program adjustments can be made to make the program more efficient. For example, trends in controllable categories such as "operator error" and "bad photos" can alert the WPS to operational issues that require attention.

Mobile Photo Radar Deployment

The next chart indicates actual versus potential mobile photo radar deployment.

Mobile Photo Radar Deployment		
	2003	**2004**
Potential	4,128	3,844
Actual	3,604	3,120
Difference	524	724
Percentage	**-12.7%**	**-18.8%**

We were advised that deployment was less than optimal due, in part, to the time required for Commissionaires to appear as witnesses in court and because of the difficulty the Corps had in fully staffing the positions. A contributing factor to the staffing shortfall was a union challenge to employing Commissionaires to perform this work, which resulted in the WPS implementing a hiring freeze on MPR operators for a portion of the year.

The chart below indicates the potential gross revenue lost.

Potential Gross Revenue Lost		
	2003	**2004**
Shortfall in Deployments	524	724
Average number Offence Notices per Deployment	29	18
Average Fine	$62.47	$68.17
Potential Lost Revenue	**$949,294**	**$888,391**

The chart indicates that the City lost almost $2 million in potential gross revenue in 2003 and 2004 because mobile photo radar was not deployed to the full capacity. Net revenue would have to take into account savings in salaries.

Deployment of Officers

One positive impact of the Photo Enforcement Program has been the ability to monitor traffic without utilizing police officers who can then be redeployed to perform other types of duties both within and outside of the Traffic Unit. In 2004, 46 officers were redeployed from the Traffic Division to other divisions to continue to conduct traffic enforcement but also to perform other law enforcement duties.

Cost of the ACS Contract

The major expense of the Photo Enforcement Program is the contract with ACS (close to 90% of the program budget). While the City's actual revenues to date

have been significantly less than projected because of the shortfall in the number of offence notices issued, the contract costs for the ACS contract are fixed at approximately $6 million a year. The Audit Department was interested in the effect this has had on the cost per offence notice and how that cost compares to the original projections by the City.

Cost per Offence Notice for 2003*

	Projected	Actual
ACS Contract Cost	$6,466,212	$6,466,212
# Offence Notices	302,028	179,422
Cost per Offence Notice	**$21.41**	**$36.04**

*Does not include costs for the Corps of Commissionaires, WPS staff or amortization of 2002 expenses.

With a fixed cost contract for ACS, the reduced volume of offence notices has increased the cost per offence notice from the City's original projection of $21.41 to $36.04 in 2003. This is a 68% increase.

The 2004 results vary even more since the City's projections did not anticipate a decline in the number of offence notices issued over the five year contract.

Cost per Offence Notice for 2004*

	Projected	Actual
ACS Contract Cost	$6,623,568	$6,623,568
# Offence Notices	382,224	137,963
Cost per Offence Notice	**$17.33**	**$48.01**

*Does not include costs for the Corps of Commissionaires, WPS staff, or amortization of 2002 expenses.

In 2004, the ACS contract costs remained fixed except for a cost of living adjustment. With the lower volume of offence notices, the cost per offence notice increased significantly from the projected $17.33 to $48.01, an increase of 177%.

For comparison purposes, we noted that the *Photo Radar Development Project Report* had cited that research conducted in 2000 had reported the following fees paid to outsourced vendors for a photo radar program. Vendors were paid on a fee per offence notice processed basis.

Vendor Fees

Police Service (Alberta)	Fee Per Violation
Edmonton	$17
Sherwood Park	$16
Red Deer	$25

We note that these fees are in line with the City's original projections, but may not have been relevant if the program or cost structure differed significantly.

The Audit Department also looked at the current contract costs for Edmonton which also employs ACS as its primary contractor. Edmonton's contract budget in 2002 was $3.2 million. This did not include construction costs or the cost of mobile vans. For 2003 and 2004, Edmonton paid ACS on a fee for offence notice basis. While the program is different, the volume of offence notices processed was very similar to the volume in Winnipeg. (For 2003, 172,901 offence notices and, for 2004, 145,585.)

To make a realistic comparison, we adjusted the annual $6 million contract for Winnipeg by eliminating ACS's costs related to construction, mobile vans, and communications. We also adjusted the costs associated with the number of cameras to reflect the lower number of units deployed in Edmonton. With these adjustments, the annual cost of the ACS contract for the City of Winnipeg is approximately $4.8 million. This is 50% more than the Edmonton budget of $3.2 million. Edmonton's actual cost for the ACS contract was approximately $2.6 million in 2003 and $2.3 million in 2004.

The chart below indicates the impact on a cost per offence notice basis.

Processing Cost per Offence Notice Comparison with Edmonton*		
	2003	2004
Winnipeg	$26.75	$34.79
Edmonton	$15.25	$15.75
$ Difference	+$11.50	+$19.04
Winnipeg Cost / Edmonton Cost	**+175%**	**+221%**

*Only includes costs for the primary contractor, ACS. Does not include costs for Police Service members or other contractors.

To obtain a precise comparison of costs to other jurisdictions, the WPS would have to do a more comprehensive analysis to account for differences in the programs. From the information that we have available at this point in time, it appears that Winnipeg's cost per offence notice is excessive. For 2004, the cost of the City's program was 221% of Edmonton's. Based on this, we would expect that more analysis would be conducted before the WPS enters into a new contractual relationship with a vendor. We will discuss possible remedies with respect to the current contract later in the report.

Summary of Performance Results

From a financial perspective, the Photo Enforcement Program has not met expectations. Over two years, the program did result in a net benefit of $1,802,266 to the City. At the same time, the program has fallen short of its original revenue projections by a considerable margin. Based upon this experience, the City is looking at a potential shortfall in gross revenue from original estimates of approximately $49 million dollars. To put this in perspective, if the City had been unable to meet its original revenue projections through other sources in 2004, the $12 million shortfall would have required a property tax increase to citizens of over 3%. In fact, the estimate was subsequently revised in the 2004 budget, yet there was still a shortfall of approximately $7 million. If this had not been offset by other revenues or cutbacks in services, the tax increase would have been almost 2%.

From an operational perspective, the results are significantly better, particularly in view of the relative immaturity of the program. For example, information gathered from a 2004 WPS survey indicates that public acceptance of the Photo Enforcement Program is high. This is a testament to the success of the educational initiatives conducted by the WPS. There is also some early data that suggests that speeding behaviour is changing at monitored sites: lower speeding levels and fewer speeding violations and repeat offenders. At this point in time, however, while red light violators are being caught in increasing numbers, there is no evidence that photo enforcement has had a positive impact in changing this driver behaviour.

To demonstrate overall program effectiveness, comparative performance data must be gathered on sites which are not now subject to photo enforcement. It is too early to expect to be able to conclude that the Photo Enforcement Program has been effective in reducing injuries and collisions associated with high risk driving behaviours throughout the City. More information is required on the history of collisions and injuries and their severity, both at monitored and unmonitored locations. Preliminary data is contradictory. Clearly, the data requires more analysis and interpretation and needs to be tracked more closely as the program matures. The controlled study should also provide better information. Without this key performance information in the future, the WPS will not be able to demonstrate that the Photo Enforcement Program has achieved its stated outcomes.

With respect to the costs of the program, there is evidence to suggest that the Photo Enforcement issuance process is efficient and is meeting contractual obligations. The costs associated with the ACS contract, however, which account for almost 90% of the program budget, appear to be excessive. On a cost per offence basis, the City's expenditure is significantly higher than the WPS's original projections and the current cost data from Edmonton, a city that also employs ACS as its contractor. At this date, we cannot conclude that the Photo Enforcement Program is being delivered to citizens at a reasonable cost.

Observations and Recommendations

Photo Enforcement programs are not new in North America, but there have been problems in initiating and managing the programs in some jurisdictions. Insufficient political support, negative public perception and an inability to properly control costs are some of the more common issues that have plagued other photo enforcement programs.

In relation to the City of Winnipeg's program, we reviewed three critical aspects of the management of the program and asked the following questions:

1. Was the degree of planning that went into launching this initiative sufficient?
2. Is the City managing the program in an effective and efficient manner?
3. Are decision makers getting the information they need to make informed business decisions?

If the answer to each of these questions is affirmative, then we would expect the City to be able to avoid many of the pitfalls encountered in other jurisdictions. As our observations will indicate, however, this did not always prove to be the case.

This section of the report will look at Photo Enforcement from three perspectives:

- Launching the Program
- Managing the Program
- Reporting on the Program

We will also provide some information and analysis that will help to explain some of the results identified in our *Report on Performance*. Finally, this section will suggest specific recommendations that should be implemented to improve the development and implementation of similar programs in the future and strengthen the on-going management of the Photo Enforcement Program today.

Launching the Program

A chronology of significant events related to the development and establishment of the Photo Enforcement Program can be found in **Appendix 5**. In the next several sections, we will review and comment on the events in some detail.

Sole sourcing the pilot project restricted the delivery options considered.
For a program of this scope with the associated political and public sensitivity, we expected that the WPS would have adequately explored all feasible delivery models prior to launching the program.

In 1999, prior to the design of the current photo enforcement program, the WPS had requested proposals for delivery of a red light camera program. Several vendors were identified but responded that a program limited to red light enforcement would not be a viable business proposition. The vendors declined to participate but did express interest in making a proposal if the program were expanded. One of these vendors was Lockheed Martin IMS Systems and Services Canada, now known as ACS, the current service provider.

According to information contained in the *Award Report* for the pilot project, the WPS talked only with Lockheed Martin during the two-year period preceding the issuance of the request for proposal. While proceeding with a sole source contract for a pilot project was in compliance with City policy, we believe that the lack of consideration of other vendors may have limited the parameters for the subsequent implementation of the photo enforcement program.

One goal of the pilot project was 'to demonstrate to Provincial legislators that PST is a legitimate method of enhancing traffic safety that is acceptable to citizens'. If the pilot project proved to be successful in achieving this goal, it would be reasonable

to model the full scale program on the pilot project. Limiting the pilot project to the proposal of only one vendor restricted the delivery models and technologies reviewed. Options such as a mobile red light program or the use of digital cameras were not considered to the degree necessary. Both of these have been used successfully in other jurisdictions. We were informed that WPS representatives did visit other jurisdictions to observe both in-house and outsourced processing centres. The WPS also conducted research that highlighted the fact that digital formats were being challenged in some jurisdictions. We did not find evidence, however, that sufficient analysis was conducted locally on these alternatives to determine whether the solution proposed by the single vendor for the pilot project would be the optimal solution for Winnipeg. These alternative models and technologies may have proven to be more effective for the City from both an operational and financial perspective.

Request for proposal (RFP) Development Process

Key factors pertaining to the planning and timing of the RFP were not adequately considered.

The timing of the RFP was driven by the desire to begin construction of the first twelve ISC sites in the summer and fall of 2002. In order to accomplish this, RFP 160-2002 was issued on March 29, 2002, and the intent was to enter into a contract in May 2002. At this point in time, the pilot project launched on October 19, 2001 had not been completed, resulting in an inability to fully evaluate the results. Without the evaluation of the pilot project, the City had limited information to use to accurately predict or estimate the number of offence notices that could be issued during the first five years of the proposed program.

Furthermore, at this time, the Province had not proclaimed the enabling legislation, creating a level of political uncertainty on whether the program would, in fact, be implemented. Developing a comprehensive bid submission to respond to an RFP of this length and complexity is a considerable undertaking for a proponent. Expecting proponents to undertake this amount of work in an atmosphere of political uncertainty may have limited the number of responses to the RFP.

The use of photo enforcement technology could not proceed without the enabling legislation and regulations. The risks associated with proceeding before this occurred were communicated to the CAO by Legal Services. In fact, the amendment to *The Highway Traffic Act* to permit photo enforcement in Manitoba did not receive royal assent until May 23, 2002. The regulations to permit photo enforcement in the City of Winnipeg did not come into force until December 2002, resulting in a delay in issuing offence notices until January 2003. The delay resulted in the City incurring six months of contract costs without the offsetting revenues.

We believe that the RFP could have been issued later in the summer of 2002. At that time, the pilot project would have been completed and the full evaluation available. The legislation would have been proclaimed, providing proponents with certainty that the program was proceeding (even though it could not commence until the regulation had come into force). We believe that the construction of eleven additional sites still could have been accomplished in the latter part of the construction season.

The selected procurement model was not ideal for this type of business initiative.

A range of procurement models exists to satisfy various business needs. Legal Services advised that the procurement model that was chosen, and which is commonly used by the City, is designed to replace negotiation with competition. Clarification is restricted to minor administrative items because significant

negotiations with one proponent could have an impact on other respondents and would violate the principles of fair competition. This type of RFP is best suited to circumstances where there is an obligation or desire to engage in a competitive procurement process, obtaining a final and binding price is a critical issue, and the definition of services and/or work is well developed.

While the City required a competitive process and desired cost certainty, the delivery options and volume of work were not well developed at this stage. We believe that a more flexible procurement process that would have allowed for negotiation with multiple vendors would have been more suitable in this situation. The Provincial legislation had not been passed, casting some doubt on the scope of the program; there was still an opportunity to explore alternative delivery options; and there was considerable uncertainty surrounding the volume of offence notices to be generated, which would have a significant impact on the costs of the program.

The Contract Administrator incorrectly held the belief, based on his experience with the Pilot Study procurement, that any problems with the RFP and subsequent bid proposals could be resolved through negotiations. Given the uniqueness and complexity of the proposed program, we believe that Materials Management Branch (MMB) should have informed the Contract Administrator about the possibility of utilizing a different procurement model. The preferred model would have explicitly allowed for negotiation on contract terms and price with one or more respondents. It would have recognized that there could be significant differences in potential service delivery models and volume estimates that would not enable a true comparison among the bid proposals without clarification and/or negotiation. Ultimately, it may have provided better information and more choice for decision-makers.

The RFP did not contain or require sufficient information to enable comparison of the cost component of bid submissions.

A key success factor for procurement through an RFP is the provision of all relevant information about the business requirements to potential bidders so that they may submit their best proposal. The WPS did clearly specify the qualifications expected of the offerors and detailed 211 functional requirements. The cost component of the RFP, however, did not provide sufficient information upon which to base a realistic price estimate. With the information contained in the RFP, construction costs to be incurred under the contract could be reasonably determined, but the variable costs associated with processing offence notices were left to each proponent to estimate.

We believe that there were sources of information available that could have been used to provide guidance to potential respondents for initial volume processing estimates. The Provincial Steering Committee report, *Photo Radar Program Development Project,* was completed in May 2001 and contained estimates of the number of offence notices from both the City and the Province. The WPS also had several months of data collected from the pilot site. If an assumption could be made that the future sites would have similar characteristics to the pilot site, an estimate of processing volumes could have been provided to bidders in the RFP. In fact, the WPS did subsequently communicate the interim pilot project results upon the request of one of the bidders.

The WPS wanted a fixed price quote for the program and would not consider a fee per offence pricing structure. In some other jurisdictions, a focus on this type of pricing model had been misconstrued by the public to mean that the program's primary objective was revenue generation, not public safety.

Maintaining the program focus on public safety was appropriate, but created uncertainty for potential respondents over the processing costs to be incurred during the contract term. While the RFP process chosen required a fixed price with no negotiation, we believe the WPS could have required a tiered pricing schedule that would have better served their needs. Respondents would have been required to provide cost estimates at various offence notice volumes and the contract fee would then be based on the actual volume attained. While this would not have provided absolute cost certainty, it would have allowed for a more fair comparison of proposals and provided more realistic information for decision-makers at this stage of the program.

The WPS, however, was focused on obtaining cost certainty for the contracted services. The Contract Administrator stated that the WPS wanted to ensure that the cost of the program would be less than the anticipated revenue. By focusing on cost certainty, the City made a decision to transfer the risk associated with the uncertainty that existed over the number of offence notices to be processed to the contractor. This decision, in effect, signaled to proponents that their proposal should be based on assumptions for processing that would be on the upper end of the range of estimates to ensure that the contract price would cover their costs. The cost submissions were based on each offeror's estimate of offence notices to be processed, but they did not have to disclose or support their estimated volumes. This made it difficult to compare the cost of processing and to determine the reasonableness of the contract price for each bidder.

Materials Management Branch was not as involved in the development of the RFP as it should have been.

MMB staff are the procurement specialists for the City of Winnipeg. The Branch's mandate is to ensure compliance with *Council Policy—-Materials Management Policy* and facilitate an efficient procurement process through the provision of key functions in the procurement chain. Beyond acting as a facilitator, the MMB acts in an advisory capacity to assist departments in receiving value for products or services purchased. The MMB also informs decision-makers, such as the CFO, CAO or Council, of any important, outstanding issues associated with a significant procurement.

1. The City's needs must be met in an effective and efficient manner.
2. The taxpayers of the City are entitled to the best value for their taxes.
3. All businesses are entitled to fair and ethical treatment.

Guiding Principles
Council Policy – Materials Management Policy

Although the format chosen for the RFP was not ideal, we believe that there were actions that could have been taken to make the process used more effective. For example, MMB could have informed the WPS Contract Administrator of the option of issuing a request for interest (RFI) to allow industry experts to comment on the proposal prior to issuing the formal RFP. This may have allowed the WPS to have communicated a more flexible RFP to the business community, possibly prompting more vendors to submit a proposal. In the absence of an RFI, MMB should have advised the Contract Administrator to hold a bidders conference. Interested proponents would have been invited to seek clarification and raise concerns before the submission deadline. This would have allowed the Contract Administrator to answer questions and address identified deficiencies by issuing addenda to the RFP.

The lack of information about the expected number of offence notices in the RFP required proponents to independently estimate the volumes to be processed. MMB did suggest the use of a fee per

offence method which would not require a proponent to estimate volume levels; however, as previously noted, the WPS had concerns over the perception created through this structure. Nevertheless, we believe that the financial risks associated with the absence of the expected number of offence notices to be processed should have been communicated by MMB to the Award Authority since it created a significant problem in comparing the costs of the proposals.

Proponents also had to respond to 211 requirements in the proposal. The complexity and size of the proposal should have been sufficient for MMB staff to recommend a submission deadline beyond the typical three-week timeframe used for routine RFPs to enable the proponents to submit high quality proposals for consideration by the City. For complex RFPs, a four to six week period for response would have been more realistic.

We were advised that the relationship between the MMB and WPS had become strained during the process to enter into a sole source contract for the pilot project. Despite this, MMB did make several attempts to provide guidance to the WPS throughout the development of the subsequent RFP. In some instances, the WPS did accept MMB's advice and, in other cases, did not because of time pressures or a difference in opinion. We believe that MMB should have provided the WPS with more value-added guidance and, in areas where advice was ignored, the risks associated with those issues should have been communicated to the Award Authority.

Key clauses to protect the City's interest were not included in the RFP or tender. An initial RFP or tender document forms the basis for the contract that will be signed with the successful vendor. Both RFPs and tenders may contain a large variety of general conditions and clauses intended to protect the City's interests. Depending upon the procurement model initially selected, the City may not be able to add any additional conditions or clauses once the procurement has closed. Therefore, we believe it is critical that the City have a set of standard procurement templates which contain a set of mandatory conditions and clauses that are designed to adequately protect the City's interests.

At the time the photo enforcement program was being initiated, the City did have a set of standard templates for RFPs and tenders. Today, the MMB continues to provide a series of procurement templates, which have been reviewed by Legal Services, on their webpage for departments to access. We have been informed by the MMB that for any procurement over $5,000 (excluding consulting services), staff ensure that the appropriate RFP or tender template is utilized. However, departments are allowed to change the templates by deleting or modifying certain conditions or clauses.

Specific to the photo enforcement RFP, Legal Services was actively involved in the development of the document. The RFP template that was used, the RFP that was issued and the resulting contract, did not contain a liquidated damages clause. While the City does have remedies under the contract for non-performance, such as contract termination, a liquidated damages clause makes it easier and less costly to collect damages resulting from minor breaches in service delivery. For example, if ACS were to miss the deadline for issuing a court package, the City loses that fine revenue and has no recourse to recoup that loss from the vendor. A review of contracts for similar programs in other jurisdictions did reveal that this clause is included and does detail specific damages for a variety of events.

Experience in other jurisdictions also suggested that there is a significant degree of uncertainty surrounding the volume of offence notices that will be processed under this type of program. In our review, we did not find any clause in the RFP, or the

resulting contract, that dealt with this uncertainty or would allow the City to unilaterally re-negotiate price if actual volumes differed significantly from the estimated volumes. When the WPS chose to focus on cost certainty by establishing a ceiling for the cost of the contract, Legal Services should have recognized the risk that if the expected volumes did not materialize, the City might not be paying a reasonable amount for the services provided. We believe that the Contract Administrator should have been advised to incorporate appropriate clauses in the RFP and the proposed contract to mitigate this risk.

We were informed that the Contract Administrator rejected the recommendation for any wording that could be construed as suggesting that costs were based upon a fee per offence structure. While Legal Services staff can only advise their business clients, not require compliance with their suggestions, in the role of advisor to Senior Administration and Council, Legal Services has a responsibility to identify any significant, outstanding issues and associated risks to the Award Authority for consideration in the decision-making process. The mechanism for submitting this advice is the *Award Report.* Our review disclosed that no issue or risk was identified by Legal Services although they reviewed and signed off on the document. To date, the number of offence notices has been significantly lower than estimated, and the City's recourse to deal with the costs of the program is limited by the contract.

In the case of the tendering process that resulted in the hiring of the Commissionaires, Legal Services was not involved. The tender template used by the WPS did not include a liquidated damages clause. In this case, we identified potential lost revenue of approximately $2 million dollars (before costs) that resulted partly from non-performance by the Commissionaires when they failed to fully staff the mobile units. There would have to be more analysis to determine the amount that could be attributed fairly to the Commissionaires. Nevertheless, a portion of this lost revenue may have been recoverable through a liquidated damages clause.

An objective of both the MMB and Legal Services in a procurement is to protect the City's interests and reduce risks associated with the contract that would be subsequently signed. They must ensure that the procurement templates, which form the basis of the resulting contract, do not expose the City to any unnecessary risk or limit our ability to recover monies from vendors due to minor breaches of contract terms. We believe that the procurement templates should contain mandatory conditions and clauses that departments are not allowed to delete or modify. If a department does not comply with this requirement or provide a sound business reason for the non-compliance, the MMB and/or Legal Services should notify the Award Authority of any significant risk created by the absence of the conditions or clauses in the contract. The deficiencies noted in the photo enforcement contracts have resulted in lost revenue and hindered the City's ability to reduce costs incurred by the program.

RFP Evaluation Process

The evaluation team did not possess the requisite skills to perform a thorough analysis of all aspects of the bids.
The WPS RFP evaluation team was comprised of two officers from the Traffic Division who possessed technical expertise related to radar equipment but who did not have any financial or engineering expertise. They did receive some support from the WPS Controller; however, this individual was not a formal member of the team and did not participate in the decision making process.

Considering the nature, complexity and size of the planned procurement, we expected to

find an evaluation team comprised of the necessary expertise to perform a comprehensive review of the proposals. We believe that the concerns associated with shortfalls in revenue and the costs of the program identified in the *Report on Performance* might have been avoided if staff with appropriate competencies had been included on the evaluation team.

The decision to proceed to evaluate both proposals was based upon an inappropriate determination of the responsiveness of the bidders.

On April 18, 2002, the closing date for RFP 160-2002, the MMB received two proposals: one from ACS Public Sector Solutions Inc. (ACS) and the other from EDS Canada Inc. (EDS). On April 19, 2002, the MMB advised the Contract Administrator that both proposals were non-responsive. The term 'non-responsive' is used for proposals that do not meet the mandatory requirements contained in the RFP. The Contract Administrator disagreed with this interpretation, and the matter was referred to Legal Services. On April 30, 2002, it was decided by the three parties (MMB, Legal Services, and the Contract Administrator) to defer the decision regarding responsiveness and to evaluate each proposal with 'equal thoroughness'. The decision to recommend the award would then be based upon the results of that review. We believe that this decision implied that both bidders could potentially be awarded the contract. Throughout this preliminary evaluation process it did not appear that the three groups were using a consistent basis for making the determination of non-responsiveness.

The City policy governing procurement in place at the date that the RFP was issued defined the term 'non-responsive' as a bid which fails to conform in such a manner as "to materially affect the contractual relations of the parties or the performance by the Contractor or whose waiver or correction would reasonably be expected to prejudice other bidders". It is left to individuals to determine what conditions must exist to decide that a proposal is non-responsive. The determination of 'material' is subjective and applied on a case by case basis. In addition, at the time of the proposal, City Policy dictated that the determination of responsiveness was the responsibility of the Award Authority, in this case, City Council. Therefore, it was argued that there was no need to make a formal determination at the time that the bids were opened. Since only two bids were received, it was believed that the best course of action was to evaluate both bids to provide the Award Authority with as much information as possible upon which to base a decision on awarding the contract.

While there is no legal prohibition to evaluating a non-responsive proposal, the problem, in our view, is that under Canadian law, in a public procurement process, a contract cannot be properly awarded to a non-responsive bid if at least one responsive bid has been received. The determination of responsiveness would be a matter of fact if the decision were to be challenged in court. Implying to the Award Authority that the contract could be awarded based upon the evaluation of components of the two proposals is inappropriate if the facts determine that there is only one responsive proposal. There is no discretion to decide in favour of the other proponent if their proposal is non-responsive.

We believe that the facts clearly suggest that the EDS proposal was non-responsive. The RFP required a *"total evaluated cost"* which included *"a schedule of prices for all equipment, software and services necessary to meet the mandatory requirements of the specifications.* The EDS proposal contained assumptions that had to be validated to enable the City to determine the total cost of the proposal. The proposal required further negotiation to take place in the event that EDS was required to process offence notices in excess of the volume estimated in the proposal. Since the City had been unable to determine the future

volume of offence notices at that time, the inclusion of this condition meant that the total cost associated with the proposal could not be calculated. Because the City could not conduct further negotiations without potentially harming the other respondent (or other potential respondents), the City could not accept the EDS proposal. During our review, Legal Services agreed that the EDS proposal was non-responsive.

The facts also demonstrate that the ACS proposal was responsive. While the ACS proposal included minor suggested changes to the terms and conditions and a draft contract for consideration, these changes were not material, and the City was not obligated to accept any of the suggestions.

We acknowledge that, technically, the process followed at the time did comply with the policy in place. Nevertheless, we believe that a more appropriate approach would have been to determine the responsiveness of the bids as soon as the facts were known. If this approach had been followed, we believe that the EDS proposal would have been determined to be non-responsive very early in the review process. The EDS proposal would not have been evaluated further and rated, although the proposal could have been reviewed solely to provide perspective for the evaluation of the one responsive ACS bid.

The evaluation team did not exercise adequate due diligence in their evaluation of the bids.

We believe that the correct advice to the Contract Administrator would have been to review the EDS proposal for information only. The sole responsive proposal that could be evaluated and potentially awarded the contract was the one submitted by ACS. However, despite the evidence to suggest a different approach, the City decided to conduct a 'full evaluation' of both bids. Based upon that assumption and our own review of the two proposals, we believe the evaluation conducted was not as thorough as it could have been, and that an inconsistent approach was utilized in evaluating components of the two bids. We have been advised that the evaluation team was given five days to evaluate the two proposals. We do not believe that this timeframe was realistic, given the number and complexity of the requirements to be evaluated. We also expected that, for each of the evaluation criteria, the evaluation team would have established a basis for awarding points within each category. The evaluation team could not provide any documentation nor could they provide a detailed basis for the awarding of points within each of the categories evaluated.

Evaluation of Proposals

Award of this contract will be based on the following evaluation criteria:

1. Conformance with mandatory requirements – pass/fail
2. Qualifications of offeror – 50%
3. Features and functionality of the proposed system and work schedule – 30%
4. Total evaluated cost – 20%

Section 27.1
RFP # 160-2002

Qualifications of the offeror accounted for 50% of the evaluation; the RFP required five references to be provided for experience in utilizing intersection safety cameras and mobile radar units and two that related to processing offence notices. No documentation supporting reference checks was produced, and the evaluation team advised that they did not contact all of the required references. We would have expected a more thorough review of the references to be conducted given the weighting attached to this criterion.

The features and functionality portion of the bid submissions accounted for 30% of the evaluation and contained many technical features of the various pieces of hardware. We found that deficiencies that were

identified were not followed up consistently. In some cases, there was no attempt made to clarify contradictions in the information submitted although we were informed that this would have been allowable under this type of proposal. In other cases, there was no follow-up on the lack of supporting documentation for some of the technical specifications.

The final 20% of the evaluation related to the cost of the proposal. With respect to the cost component, direct comparison of the bids could not be made. The ACS bid provided a fixed cost to the City in the amount of approximately $30 million that was not conditional on the volume of offence notices to be processed. The EDS proposal provided a cost of approximately $19 million up to a certain volume of offence notices. The full cost could not be determined because of the condition that required pricing negotiations to be undertaken if assumed numbers of offence notices were exceeded (which made the bid non-responsive). Although not a member of the evaluation team, the WPS Controller estimated the volume of offence notices to be processed under the ACS bid to be more than double that to be processed under the EDS bid over the five years of the contract. Since the potential volume of offence notices was uncertain, and the EDS proposal was only costed to a certain volume, the total cost of the two bids could not be evaluated and compared.

Nevertheless, we believe that the material difference between the volume estimates developed by the WPS Controller from the information in the two proposals and the associated costs should have prompted questions about the reasonableness of the ACS proposal. The evaluation team indicated that their evaluation of the ACS proposal was limited to an assessment of reasonableness of costs identified for the technology to be used and that processing costs for a program of this size “seemed reasonable”.

Furthermore, throughout the development of the RFP, Edmonton was used as a comparison city because ACS is the service provider for the Edmonton program. During the evaluation of the cost of the contract, however, the Edmonton experience was not considered. We noted, upon our review of Edmonton’s contract with ACS, that Edmonton was paying considerably less at the time that the WPS entered into the contract with ACS. The ACS proposal was for approximately $6.2 million per year whereas Edmonton had budgeted for $3.2 million, a difference of $3 million per year. While we did note that there were some differences in the scope and magnitude of the programs that would explain a portion of the difference, we would have expected that the significantly higher proposed cost would have prompted a more detailed analysis. At a minimum, this comparison would have provided additional information to help in evaluating the reasonableness of the ACS bid.

In the end, we believe that more due diligence in the evaluation process would not have changed the outcome for EDS since the proposal was non-responsive. With respect to accepting the ACS contract at the proposed cost, however, the City may have reached a different conclusion since there was no obligation to accept any proposal if it were not in the City’s interests. The Award Authority may have chosen to issue a revised request for proposal that would have facilitated bids with more complete and comparable costing information.

Awarding of the Contract

The *Award Report* did not provide decision makers with all of the relevant facts to make a fully informed decision. We believe that the *Award Report* to Council contained information that was misleading or unsubstantiated.

The *Award Report* to City Council recommended that the contract be awarded

to the "lowest evaluated responsive bid…" This statement is misleading. It implied that there was more than one responsive bid and that the recommended bidder offered the lowest cost proposal. Neither of these statements is true. EDS's proposal was non-responsive, and the total cost could not be determined because of the assumptions required to be validated. (The latter point is made in the body of the report.) During our discussions, Legal Services acknowledged that the wording of the recommendation was inappropriate in the circumstances. The recommendation was also confusing to EDS who could not understand how a $30 million bid could be lower than their bid at $19 million. Since proponents cannot be advised until the decision is made by the Award Authority, EDS was unaware of the issue regarding the cost component of the proposal.

The *Award Report* also questioned the acceptability of some of EDS's technical components. It is not clear that sufficient work had been conducted by the evaluation team to come to the conclusions stated in the report. Since the EDS bid was non-responsive in any case, these details provided no relevant information to Council. Nevertheless, EDS disagreed with the details released and documented the concerns in a letter to the former Mayor. This led to negative media attention and a subsequent administrative review by the previous Chief Administrative Officer.

The *Award Report* also stated that "ACS's bid price ($30 million) was found to be well within the industry's standard." In the absence of any documentation, we asked the Contract Administrator to provide support for this statement. He could not identify an industry standard cost. His support for the statement was that he had expected that, for this size of contract, the price should be in the "tens of millions of dollars". He did say that he was aware of a similar contract in Washington for $23 million. We believe that a $7 million difference is significant and should have merited further analysis. He further stated that he understood his direction to be to ensure that the City would break even over the term of the contract. Given that the estimated revenue for the first five years of the Photo Enforcement Program was $95 million, a proposed cost of $30 million did not seem to him to provide a significant risk to the City.

It is our view that the *Award Report* should have identified only that the EDS proposal was non-responsive; no further details should have provided regarding any evaluation of that bid. Based upon the evaluation that was conducted, we were advised that the appropriate wording in the *Award Report* should have been to recommend accepting the proposal from ACS since it was a "responsible and qualified offeror whose proposal is determined to be the most advantageous to the City". Ideally, we believe that the *Award Report* should have contained sufficient information to solicit two questions from the Award Authority:

1. Is the sole responsive bidder technically qualified and experienced?
2. Given that there is only one responsive bid, can the City be confident that the cost of the proposal is reasonable?

While there is nothing to suggest that the first question could not be answered in the affirmative, there is little to support a positive answer to the second question.

The role of both Legal Services and MMB is to provide comments on the *Award Report*, or directly to the Award Authority, on any significant, outstanding issue. In this instance, we believe that Council should have been informed that EDS was non-responsive, that there were significant risks associated with entering into a fixed price contract based on considerable uncertainty over processing volumes, and that the ACS contract provided limited recourse to protect the City from financial risk. Both departments relied on the Contract

Administrator to assess the technical components of the bids and did not challenge the financial assumptions or process for assessing the proposed contract costs. The absence of any comments from Legal Services and MMB indicated concurrence with the *Award Report* to the CFO and Award Authority.

Corporate Finance also relied on the WPS Contract Administrator and Controller to assess the reasonableness of the cost of the contract. No review was undertaken nor assumptions challenged, even though the amount of the contract was material.

In the end, the *Award Report* submitted by the CFO implied a level of due diligence and financial analysis that was not performed to the degree necessary. This resulted in Council making a decision to enter into a $30 million, five-year contract based on misleading and unsubstantiated information.

There was a lack of adequate due diligence performed on the *Financial Impact Statement* attached to the *Award Report*.

The development of reasonable revenue estimates for the program was a challenge. The City had no experience with this type of program so was unable to base revenue projections on historical data. The program implemented in Winnipeg also had two unique features that made it difficult to compare to other jurisdictions: the restrictions placed on the mobile photo radar units and the implementation of speed on green enforcement for intersection cameras.

The WPS Controller relied on the estimates of offence notices provided in the ACS proposal. The ACS proposal only provided estimates for the first year of the program. The WPS Controller took the estimates for the number of offence notices that would be generated by each ISC for red light running and speeding and each MPR unit and developed annual estimates based on the deployment of units in each year of the contract. He assumed that each device would generate the same number of offence notices per year throughout the contract term. He provided the estimates to the Contract Administrator to review for reasonableness and was advised that the estimates were reasonable. No further work was done to validate these revenue estimates.

We would have expected the WPS to also consider other information to validate the revenue estimates. Other information was available at the time that could have been used to test the reasonableness of the estimates. There were estimates made in the 2001 Provincial Steering Committee report, *Photo Radar Program Development Project* and in the EDS proposal. Both of these sources provided estimates that were considerably lower than what the WPS Controller had prepared. In addition, there was a difference of more than one million offence notices between the WPS projection and the EDS estimates for the five year term of the contract. The major reason for this difference was an assumption made by EDS that the number of offence notices would go down over time as drivers became aware of the location of the ISCs and the program in general. This has been the experience in other jurisdictions and, in fact, for the City of Winnipeg under the current program. The revenue estimates prepared by the WPS Controller did not take this factor into account. Given the uncertainty associated with the estimate of offence notices, we expected that comparisons would have been made to other sources and that the projected revenues would take into account a change in driver behaviour.

We also expected, given the degree of uncertainty surrounding the revenue projections, that the WPS would have been much more conservative in the determination of the revenue estimates that were included in the *Financial Impact Statement*.

In fact, MMB had provided some advice, in this regard, in a memorandum to the Contract Administrator, copied to Legal Services. MMB suggested that the report identify an account number because "there were no guarantees on the revenue, but there was a certainty of expenditure". The Contract Administrator rejected this advice and no comments to this effect were provided in the *Award Report* by MMB or Legal Services. We believe that the uncertainty surrounding these estimates should have been clearly noted and supported by a sensitivity analysis to provide decision-makers with complete information.

The *Financial Impact Statement* attached to the *Award Report* estimated, for the period 2002 to 2006, gross revenue of approximately $86 million and net revenue of approximately $56 million (not including the costs for WPS members or the Corps of Commissionaires). The CFO told us that he had been advised by the Contract Administrator that the projected revenues were conservative. The revenue estimates provided by the WPS were not challenged by Corporate Finance

For a new, complex program with a financial impact of this magnitude, we believe that the CFO and Corporate Finance should have exercised a financial oversight role. Finance staff should have reviewed, analyzed and challenged the assumptions and calculations made in the development of the revenue estimates to ensure overly optimistic revenue projections were not approved. Rather, the anticipated revenues were incorporated into the City's Budget. As discussed in our *Report on Performance*, while the program has not lost money to date, the reality is that revenues have fallen short of original projections by over $18 million in the first two years of operation. Revised projections have also led to shortfalls. Over the five years of the contract, the revenue shortfall may reach $49 million based upon the initial estimates.

Audit Recommendations

We will discuss potential actions that might be initiated with respect to the current contract in the next section of the report. To prevent similar problems for future contracts of this size and significance, we believe the following recommendations should be implemented:

Recommendation 1

We recommend that the Corporate Controller remind the Materials Management Branch of its responsibility to provide support to contract administrators to ensure that the procurement process used for the purchase of goods and services is appropriate in the circumstances.

Management Response

The Administration is committed to providing quality support to departments in the procurement and contract administration process. Beginning in 2003, Corporate Finance implemented a comprehensive range of process improvements with organizational, technological, and educational components.

Reporting relationships have been strengthened and clarified. In 2003, the City appointed a new Manager of Materials, who meets bi-weekly with the Corporate Controller to review operations and customer service. The Manager of Materials attends all Controllers' meetings, a regular forum in which she is available to provide support with respect to purchasing issues.

In 2003, the Administration implemented PeopleSoft and the related purchasing model, which clearly places responsibility for purchasing, and for compliance with the Materials Management Policy, with the Departmental Controllers. With this accountability clarified, the Materials Management Branch, in conjunction with Legal Services, has been providing enhanced education with respect to all aspects of procurement and contract administration. The Branch has been working to enhance understanding of the Materials Management Policy in every department, and to offer departments timely support as Bid Opportunity documents, including Requests for Proposals, are prepared and evaluated.

All of these measures are helping the Administration address this recommendation, and improve purchasing decisions.

Recommendation 2

We recommend that the Materials Management Branch draft an amendment to Administrative Directive FM-002 Materials Management Policy for the consideration of the Chief Administrative Officer to require that the team developing and evaluating any complex and/or significant RFP be comprised of staff with the appropriate competencies. At a minimum, the team should include a technical expert and a financial representative, and have access to a specific lawyer. We would expect that each team member's involvement be limited to those areas where their requisite skills are required.

Management Response

The Materials Management Branch will explore changes in policies and procedure and will make appropriate recommendations to the Chief Administrative Officer for consideration to address this recommendation. Materials Management is working to ensure that departments are aware of, and access, the corporate resources available to assist them in the procurement process. The Branch is updating the contract administration manual to offer guidance, in this regard. In addition, the City does involve a multi-disciplinary team in the monitoring of capital projects over $10 million.

Recommendation 3

We recommend that the Materials Management Branch draft an amendment to

the Administrative Directive FM-002 for the consideration of the Chief Administrative Officer to require the submission of a Summary Evaluation Report to MMB to provide evidence that an appropriate level of due diligence has been performed in the evaluation process.

Management Response

The Administration agrees. A recent revision to the procurement practices has made this a requirement. Pursuant to evaluations, the Materials Management Branch will continue to request the scoring matrix to ensure that the evaluations were performed appropriately, and that all evaluation criteria were addressed.

Recommendation 4

We recommend that, for significant contracts, Legal Services and the Materials Management Branch obtain reasonable assurance that the statements made by a contract administrator and contained in an *Award Report* can be supported. In the absence of such assurance, Legal Services and the Materials Management Branch should communicate their concerns in the comments section attached to the *Award Report*.

Management Response

The Administration agrees that there are opportunities for improvement in this area. While the Materials Management Branch presently reviews all evaluations prior to award, and Legal Services presently questions any statements made by a contract administrator in an Award Report that appear to be unsupported, it may be appropriate to further formalize these processes for significant contracts.

Legal Services will implement the further control measure of obtaining a copy of the evaluation matrix for all contracts having a cost or involving payment to the City of more than $5 million, in order to better provide comments regarding the Award Report. (Note that where the Award authority is Council, EPC or a standing committee, Legal Services would provide advice regarding any concerns at an "In Camera" meeting, in order to protect solicitor-client privilege.)

Recommendation 5

We recommend that Legal Services and the Materials Management Branch clearly state their opinions on whether a bid submission is non-responsive in the comments that are attached to the *Award Report*.

Management Response

The Administration agrees. The guidelines for preparing award reports that are now part of Administrative Directive FM-002 require formal determination of non-responsiveness for all non-responsive bids received in response to a Request for Proposals. For other types of bid opportunities, formal determination of non-responsiveness is required for bids submitted with a bid price lower than the recommended Bid. Bids that are not lower than the recommended Bid do not require a formal determination of non-responsiveness. However, the Award Report must detail the reasons that the Bid(s) may have been determined to be non-responsive. In the event that these matters are not appropriately addressed in the Award Report, Materials Management and Legal Services will provide their opinion to the award authority about Bids which they are aware may be non-responsive, either through comments in their award report memos or in another appropriate manner.

Recommendation 6

We recommend that the Chief Financial Officer ensure adequate due diligence has been performed on all financial aspects of *Award Report*s. When considerable uncertainty exists over the revenue or cost components, this should be noted on the *Financial Impact Statement* and be supported by a sensitivity analysis to provide decision makers with a possible range of outcomes.

Management Response

The departmental controllers are responsible for preparing the financial impact section in all reports, and accurately reflecting financial decisions relating to options considered during the evaluation process. Since 2003, Materials Management has worked to provide controllers with improved resources to enhance their effectiveness in the procurement and contract administration process. These efforts will continue, and the Chief Financial Officer will request further review of Award Reports where necessary, and this may include a sensitivity analysis.

Recommendation 7

We recommend that the MMB, in consultation with other City departments, identify mandatory conditions and clauses within the procurement templates that departments are not allowed to delete or modify without prior written approval by the Manager of Materials. We recommend that a liquidated damages clause be included in this mandatory set.

Management Response

While the City's templates presently do include an optional liquidated damages clause, the Administration will explore additional control measures which will meet the intent of the recommendation of the City Auditor. As well, Materials Management and Legal Services will continue to provide training with respect to effective use of the City's templates.

Managing the Program

In this section, we will discuss on-going management of the program, issues of concern and recommendations for improvement.

No attempt had been made to re-negotiate the contract with ACS to reflect lower processing costs and mitigate revenue shortfalls incurred by the City. Upon inception, it was anticipated that the Photo Enforcement Program would generate surplus revenue for the City of approximately $11 million a year. In fact, the program reported a surplus of $1.96 million in 2003 and a deficit of $155,840 in 2004.

The ACS contract is fixed at approximately $6 million a year. The cost of the contract assumed a much larger volume of offences to be processed than proved to be the case. While the fixed costs of the program (construction, etc.) would not be affected by the lower volume of offences, the variable costs related to processing would decrease. Based on our analysis, our estimate of the structure of the contract is shown on the next chart:

Breakdown of ACS Contract Cost

	Total	Monthly
Total Variable - Processing Capacity	$10,420,821	$173,680
Total Variable - Processing	$6,631,008	$110,517
Total Variable	$17,051,829	$284,197
Total Fixed	$12,703,165	$211,719
Total Cost	$29,754,993	$495,916

According to our estimate, 58% of the contract costs are variable. The variable costs consist of $10,420,821 in processing capacity costs (staff facility, computers, software and workstations) and $6,631,008 in processing costs (photo developing, postage, and supplies). These variable costs are directly related to the number of offence notices processed.

To date, the City has paid significantly more per offence notice for the services of ACS than was expected because of the lower volumes being processed. In 2003 and 2004, the number of offence notices processed was 59% and 36%, respectively, of the original volume estimate. This resulted in a cost per offence notice to the City of two and almost three times the original estimate as shown below:

Actual Unit Cost of ACS Contract

	Original Estimate*	Actual 2003	Actual 2004
Cost per offence notice	$17	$36	$48
Cost as multiple of estimate		2.1	2.8

* Total contract cost / WPS estimate of offence notices for the five-year contract. ACS projected the first year only.

We have developed potential estimates of the cost savings to the vendor that relate to the variable cost components resulting from the significantly lower than anticipated offence notices generated. This essentially represents the excess costs to the City of a fixed versus variable cost contract for the first three years of the contract term. We based our estimates on the difference between actual and projected offence notices processed and the known difference in the current and proposed staffing level at ACS:

Estimated Cost Savings to Vendor

	2002	2003	2004
Processing Capacity			
Monthly Cost	$173,680	$173,680	$173,680
Number of Months	6	12	12
% Reduction *	64%	64%	64%
Total Reduction (A)	$665,775	$1,331,549	$1,331,549
Processing			
Monthly Cost	$110,517	$110,517	$110,517
Number of Months	6	12	12
% Reduction **	100%	41%	64%
Total Reduction (B)	$663,101	$538,362	$847,512
Total Potential Reduction (A)+(B)	$1,328,875	$1,869,911	$2,179,061

* Based on actual number of staff compared to estimated
** Based on actual offence notice volumes compared to estimated

We estimate that the potential cost savings to the vendor were $1.3 million in 2002; no offence notices were issued because the required provincial regulations were not in place to operate the program. Because of the decrease in processing volumes of offence notices, in 2003, we estimate the cost savings to be $1.87 million and, for 2004, $2.18 million. The vendor's costs savings were not passed along to the City because of the fixed cost nature of the contract.

If offence notices remain at this level for the duration of the contract, we estimate that the vendor's cost savings in 2005 and 2006 will be $2 million each year and, for the portion of 2007, $1 million. This represents total cost savings for the vendor of $10.35 million over the term of the contract, or 34% of the total contract price. While clearly beneficial for the vendor, from the perspective of the City, the contract is not reasonably priced for the volume of offence notices processed.

The contract with ACS does not have a clause which would allow the City to require a reduction in the cost of providing the service if there are significant changes in the volume of work performed. There is, however, a clause (Clause 30.1) that allows for modifications to the contract where there is mutual agreement on the part of the City and the contractor.

Despite indicators being present to identify this situation since 2003, neither the WPS or Corporate Finance has monitored this aspect of the contract and, as a result, there has been no attempt by the City to contact ACS to modify the terms of the contract to be more reflective of the actual processing costs and/or to discuss recovery of excess costs related to prior years. We would have expected the Contract Administrator, with support from the WPS Controller and Corporate Finance, to have identified, followed up, and resolved the issues concerning the cost of the contract. Rather, the WPS and Corporate Finance have focused solely on the revenue forecasts and shortfalls; we found no evidence that any individuals responsible for financial management recognized the skyrocketing unit costs or initiated any action to resolve them.

Recommendation 8

We recommend that the WPS use Clause 30.1 of the City's contract with ACS to enter into discussions with ACS as soon as possible to negotiate more favorable contract terms.

The Contract Administrator should monitor both the operational and financial aspects of the contract to ensure that it provides value to the City. The WPS Controller should provide appropriate support and advice. Related to this program, Corporate Finance needs to provide the necessary oversight to ensure that the financial issues identified are appropriately resolved.

Management Response

The WPS has initiated contact with ACS to begin discussions regarding the current contract.

The contract administrator will work closely with the WPS Controller to improve the monitoring of the financial aspects of the contract. The WPS Controller is in regular communication with the Corporate Controller and the Chief Financial Officer of the City of Winnipeg.

Financial management of the Photo Enforcement Program has been inadequate.

The WPS Traffic Unit is responsible for the on-going management of the Photo Enforcement Program. Effective program management encompasses technical, operational, and financial components. It is clear from our *Report on Performance* that, to date, management of the Photo Enforcement Program has focused almost entirely on the operational and technical components. For the most part, these aspects of the program have been a

success. The program is up and running; offenders are being caught; and offence notices are being issued on time.

From a financial perspective, however, the program has not met expectations. The *Report on Performance* identified both shortfalls in revenue and concerns with the reasonableness of the cost the program. While the financial results were unexpected, of equal concern was the fact that although the program administrators, WPS Finance and Corporate Finance analyzed the factors contributing to the lower revenues and adjusted subsequent budgets accordingly, they were not aware of the issue relating to the cost of the program.

In trying to determine the reason for the lack of an appropriate attention to financial management, we found several contributing factors. First, it became clear in interviews that WPS staff involved in managing and operating the program believe that their focus should be on implementing the program and educating the public on its merits for enhancing public safety. Staff believe that the financial aspect of the program is not their concern; in fact, they suggested that a focus on revenue generation would taint the public perception of the program. In terms of the costs of the program, staff believe that the direction they were given was to make the program "revenue neutral". Beyond this parameter, financial matters, they believe, are the responsibility of the WPS Finance Division.

This perception is reinforced by the position description for the Contract Administrator (Patrol Sergeant). The focus of the responsibilities of the position is on technical operations (50%) and communications and education (35%). Only 10% of the responsibilities relate to administration of outsourced contracts. There are no specific duties related to financial management. Furthermore, the qualifications for the position do not include experience in financial management and we found no evidence of formal financial training being provided to incumbents.

There has also been limited opportunity for the program administrators/managers to develop the appropriate competencies on the job. We found that the management of the program has suffered from a lack of continuity, both at the contract administrator level and at the overall management level, since its inception. A program of this size and complexity requires continuity of managers who are qualified in all aspects of program management including financial management. We believe that prudent financial management is the responsibility of all municipal program managers.

Recommendation 9

We recommend that WPS Senior management ensure that there is continuity in the management roles associated with the program. This includes a commitment to ensure that all critical positions are staffed with qualified personnel or to provide training where gaps exist in required competencies.

We also recommend that WPS Senior Management ensure that the Contract Administrator understands that financial management is an important component of program administration. The position description should also be revised to include duties associated with financial management.

Management Response

The Administration agrees that continuity of the management of this program is a valid goal. The staffing structure for this unit currently requires a Police supervisor. The WPS notes that it must work within the reality of its current staffing policies and Collective Agreement. The WPS has implemented regular Photo Safety Technology team meetings that include the WPS Controller to address any gaps in financial competencies.

The WPS has not fully utilized contract funds for educational purposes.
Under the terms of the contract, the City pays ACS which, in return, provides the WPS with $750,000 to run an educational campaign over the five years of the contract. The intent was to spend $150,000 per year. We noted, however, that these funds are not being monitored or reported on by the WPS. We determined that the WPS has spent $303,035 to the end of May 2005, leaving $446,965 for the final two years of the contract. This amount is significantly greater than the planned budget for this period. If the WPS does not utilize the funds allocated for public education, it is not clear that the City can recover these unspent funds from the contractor.

Recommendation 10
We recommend that the Contract Administrator take an active role in managing the financial aspects of the public education element of the program to ensure the City is receiving full value for the funds dedicated to this purpose.

Management Response
The Contract Administrator is a member of the Photo Safety Technology Communications Strategy Committee. The current campaign ends February 2006 and the Photo Safety Technology Communications Strategy Committee is now drafting objectives and a preliminary budget for the 2006/2007 education campaign.

A formal contract should be signed between ACS and the photo developer.
The contract with ACS requires them to "enter into contracts or written agreements with his Subcontractors to require them to perform their work in complete conformance with and subject to the terms and conditions of the Contract". By not having a contract or written agreement with the Photo Developer, ACS may not have recourse in the event that there are service interruptions or other types of non-performance on the part of their agent. The impact on the City could be a loss of program effectiveness and/or revenue.

Furthermore, the City's contract with ACS states that ACS must ensure that "each employee and agent sign a pledge of confidentiality in a form satisfactory to the City and Department of Driver and Vehicle Licensing". The Photo Developer is considered an agent and, as such, should be required to sign a pledge of confidentiality. Without evidence that an agent has understood and accepted the responsibilities relating to the confidentiality of the information handled, there exists a risk that the agent will knowingly or unknowingly breach confidentiality rules. In fact, this has happened in other jurisdictions. Such an occurrence could damage the program's reputation and expose the City to unnecessary lawsuits.

Recommendation 11
We recommend that the WPS ensure that ACS obtains a contract or written agreement with the Photo Developer that defines performance requirements, terms and conditions and recourse in the event of service interruptions.

Management Response
The WPS has initiated discussions with ACS to make them aware of the requirements under the contract and will follow-up to ensure that they are in compliance with the terms of the contract with respect to this matter.

Site selection process should be formally documented.
The enabling legislation for the Photo Radar Program restricts the use of Mobile Photo Radar to school zones, playground zones or construction sites. Mobile units are deployed on a rotational basis throughout all feasible sites. The selection criteria for ISC sites were developed by the WPS as noted in the chart below.

ISC Site Selection Criteria

- collision data
- speed data
- technical ability to install at a particular location
- equal distribution through out the city
- public input

It is important to the achievement of the goals of the program that the process for selecting photo enforcement sites is transparent to ensure that criteria have been applied consistently. We observed that there is limited documentation on file to support why certain locations were selected or why others were not selected when the criteria seemed to apply. When queried, however, staff were able to clearly explain the rationale for each Photo Enforcement Program site selection.

The absence of adequate documentation to support the selection or exclusion of a specific site makes it difficult for the WPS to properly defend its site selection process under public scrutiny. It could also result in the criteria being applied inconsistently, resulting in inappropriate sites being selected.

Recommendation 12

We recommend that the WPS formally document the site selection process and decisions.

Management Response

Completed.

Evidence of WPS oversight of the Contractor's operational controls requires improvement.

The WPS are traffic law enforcement experts, and they have focused on the traffic safety aspect of the Program. From our review and analysis of the available performance information, it is evident that most of the traffic enforcement aspects of the program are working effectively. ACS is fulfilling most of the terms of their contract with the City in providing the necessary photo enforcement technology and processing expertise to ensure the program is meeting its operational goals.

Under the terms of the contract, ACS is responsible for collecting and processing the potential violations as captured on their photo radar technology and then issuing offence notices to valid offenders. During our review of their processes, we observed that, overall, ACS has sufficient practices, policies and procedures in place to ensure that only offenders of the enforced traffic laws (speeding and red light running) are being photographed and issued offence notices. We did note, however, some areas where the process could be improved.

An erred image is a photograph of a potential offence that does not meet the criteria for a valid offence. Currently, ACS performs two levels of review of the image before it is permanently erred. In the Edmonton program, a Police Service staff person reviews the erred out image and file before it is officially erred out. WPS opted not to require this step which could result in violations being erred out that are not consistent with WPS's guidelines. Any misinterpretation by ACS staff would be very difficult for the WPS to detect in a timely manner.

The contract requires the contractor to provide qualified personnel and supervision. During our review, it was evident that the Program Manager and Operations Manager reviewed the electronic files containing potential offence notices. However, when we reviewed the electronic records we noted that there was no evidence of this review; the file clearly identified who processed the file but not who reviewed the file.

We also observed that ACS's standard practice for preparing court case files is to use a checklist to ensure that all required items are on the file. When the file had been

completed, the checklist was reviewed by the Program Manager or Operations Manager and then discarded, leaving no permanent evidence of this review on file.

Failure to provide evidence of supervisory review makes it difficult for the WPS to ensure that adequate supervision and review is being performed. In order to effectively manage the contract, the WPS must be reasonably assured that there is adequate supervision and oversight by senior ACS personnel.

Recommendation 13

We recommend that the WPS conduct periodic audits of ACS practices to ensure compliance with policy and guidelines and the adequacy of supervisory review practices.

Management Response

The ACS business rules have been reviewed and revised. The review process will be conducted semi-annually or more frequently as required.

Reporting on the Program

Complete and accurate reporting on the Photo Enforcement Program is essential for on-going management of the program and to demonstrate the achievement of safety goals and cost effectiveness. Issues and recommendations with respect to reporting are discussed below.

WPS does not know the financial disposition of all issued offence notices.

In order for the WPS to accurately account for the program's revenue, information is required on the disposition of all issued offence notices. The WPS relies on the Courts Division of Manitoba Justice to supply them with this information. To date, the City has received incomplete information from the Province on the disposition of offences and collection of fines. Without this information, the WPS cannot determine if the City has received all the fine revenue that it is owed, make accurate estimates of the fine revenue to be accrued and the allowance for doubtful accounts, or make the necessary changes to their process to improve the conviction rate.

WPS and Corporate Finance staff have had several meetings with the Executive Director, Court Services. Partial summary information was received in the spring of 2005. Supporting details, however, have still not been provided.

Recommendation 14

The WPS and Corporate Finance should continue to work with the Province to obtain the information required from Manitoba Justice to properly manage the program. In addition, the WPS should identify this issue in the annual report to the Minister of Transportation.

Management Response

The Province has now agreed to share financial and disposition information electronically. Computer programming by ACS is pending.

Performance reporting needs to be improved to fully comply with Provincial requirements and to demonstrate that the program has achieved its goals.

The goal of the Photo Enforcement Program is to reduce collisions and injuries by reducing red light running and excessive speeding. Determining the progress made towards achievement of this goal is critical to the on-going management of the program and to demonstrate to citizens the benefit of the program.

The Province of Manitoba, as specified in the *Conditions of Authority Agreement*, requires the City to submit an annual report outlining the status and effectiveness of the Photo Enforcement Program. The specific requirements have been identified in our

Report on Performance, and much of the information has been provided.

The WPS has interpreted the wording in the Province's reporting requirements for "a controlled study" to mean that the City must complete an independent and comprehensive study of driving behaviours. The WPS has made a request to Manitoba Public Insurance (MPI) to allow an independent evaluator to gain access to MPI information and data to conduct the study. MPI is still evaluating this request due, in part, to privacy concerns.

In the absence of the ability to proceed with this study, minimal information has been collected by the WPS on City-wide trends. While we believe that an independent study is desirable, in the interim, the WPS could conduct periodic traffic studies on selected streets that are not photo enforced. This would provide some information upon which to evaluate city-wide trends. The results would also provide information to support any changes needed to speed limits on certain streets and to report such changes to the Province.

But the most important evidence that the program is effective is a reduction in injuries and damage associated with collisions. The collection and analysis of WPS and MPI collision data can provide part of this information. (See our *Report on Performance.*) To date the WPS has not collected or analyzed MPI data due in part to a lack of available staff to perform this task. Furthermore, as noted in our *Report on Performance*, the collision information from MPI appears to contradict the information gathered by the WPS. The data from both sources has not been analyzed to the extent necessary to identify trends or to determine the underlying causes and any contributing factors. The information that is collected and reported will need to be enhanced since it is fundamental to concluding on program effectiveness in the long term.

In addition to performance information on program effectiveness, the City needs better information on the costs of the program. As identified in the *Report on Performance*, we were unable to conclude that the program is provided at a reasonable cost. The WPS had not identified or initiated actions to deal with concerns in this area. We believe that the costs of the program have to be monitored more closely to ensure achievement of its financial objectives and to satisfy the City's fiduciary duty to citizens.

Recommendation 15

We recommend that the WPS improve performance reporting by:

- conducting periodic traffic studies on selected streets that are not photo enforced;
- working with MPI to provide better information on the impact of the program on collisions and injuries;
- completing an independent and comprehensive study to determine the effect the program has had on driving behaviour; and
- monitoring and reporting on the costs of the program.

Management Response

Agreed. Staffing is being revised to facilitate enhanced studies. Negotiations are ongoing with MPI to increase information exchange. Comprehensive study is under negotiation. Financial monitoring is done by WPS Finance Unit.

Summary of Observations

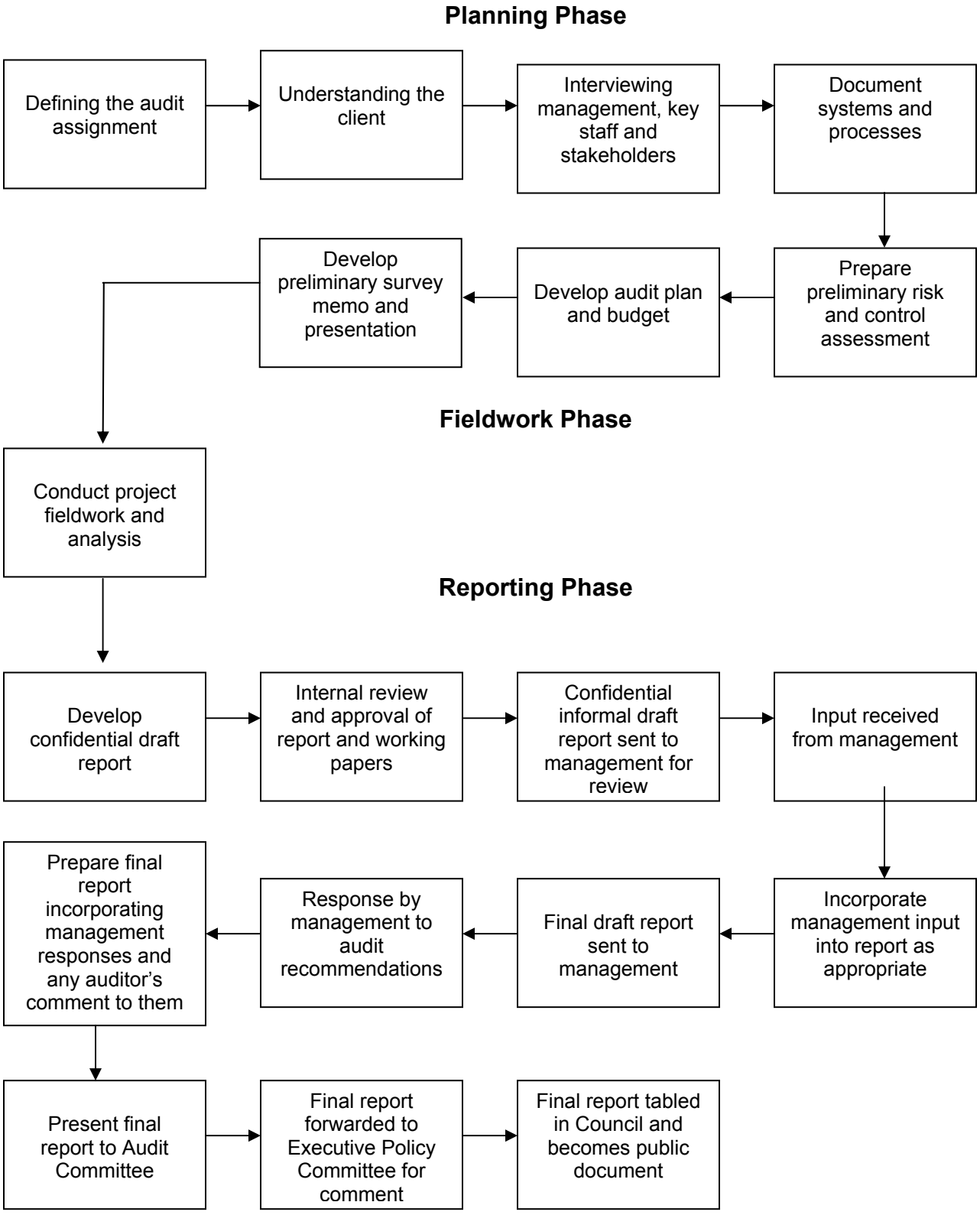
At the beginning of this part of the report, we asked three critical questions regarding the initiation and management of the Photo Enforcement Program. Below we have summarized our responses:

1. ***Was the degree of planning that went into launching this initiative sufficient?***
   We believe that the procurement method utilized was not the most appropriate in the circumstances. The evaluation team did not possess all of the skills necessary to review the complex submissions and, given the significance of this initiative, the support provided to the WPS Contract Administrator by the Materials Management Branch, Legal Services and Corporate Finance was inadequate. The lack of due diligence in the evaluation process allowed misleading and unsubstantiated statements to go forward to the Award Authority, City Council. The end result was revenue projections that were significantly overstated; costs that do not appear reasonable for the service delivered; and contracts that do not adequately protect the City from financial risk.

2. ***Is the City managing the program in an effective and efficient manner?***
   From an operational standpoint, the Program is successful. ISC sites were completed according to the work plan, and the processing of offence notices is within legislative standards. However, WPS staff were not prepared or equipped to manage the financial aspects of this program. Financial oversight from the WPS and Corporate Finance has been weak. We have estimated that the vendor will save approximately $10 million over the term of the contract due to a significant reduction in the number of offence notices processed. From the City's perspective, the cost of processing offence notices has more than doubled. The vendor's cost savings have not been passed along to the City because of the fixed cost nature of the contract. No attempt had been made to initiate a reduction in future costs through discussions with the vendor.

3. **Are *decision makers getting the information they need to make informed business decisions?***
   At this point in time, the WPS has reported some preliminary information to decision makers which suggests positive trends in speeding behaviour at monitored sites. As expected at this early stage of the program, sufficient information is not available to report that the program is achieving its long-term goal of reducing collisions and injuries across the City. The City has also been unable to demonstrate that the program is being delivered at a reasonable cost. For the future, increased effort and better cooperation is required both within the City and with the Province to improve analysis of the data that is currently available and to obtain and analyze additional data to enhance reporting to decision makers on program results.

Appendix 1: Audit Process



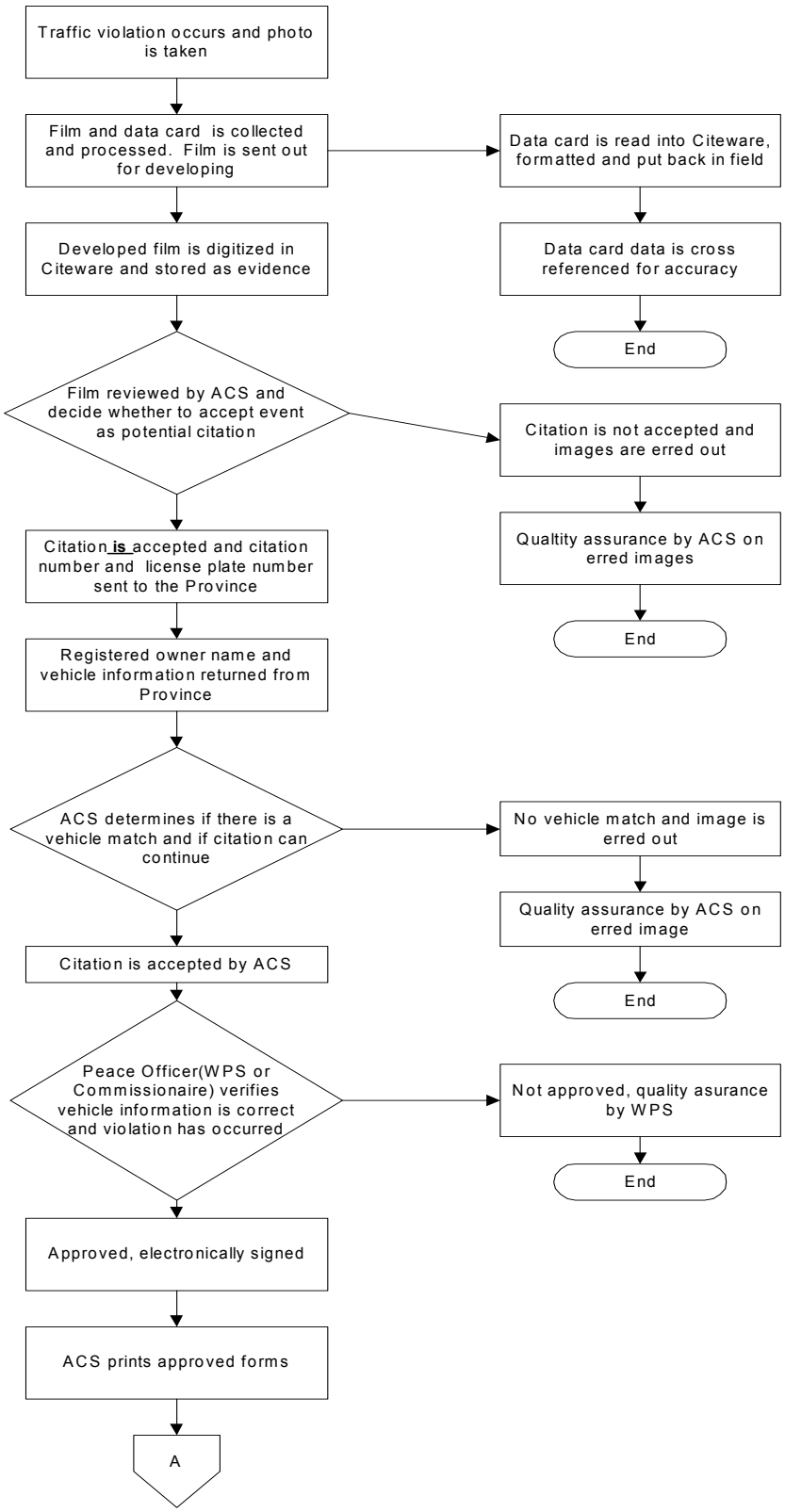
Appendix 2: Organizational Structure and Complement

WPS Photo Enforcement Positions		
Position	No.	Duties
Staff Sergeant – Division #26	1	• Directs the Photo Enforcement Program in addition to other areas within the Traffic Unit. • Interacts with Provincial and Local Government representatives regarding scope of the program.
Sergeant – Division #26	1	• Manages the program which includes supervising staff, scheduling, handling major service issues, etc.
Patrol Sergeant – Division #26	1	• Administers and manages the contracts. • Manages the programs day-to-day operations. • Follows-up on complaints/inquiries as required.
Constable (2 positions vacant)	4	• Day-to-day operations of the program. • Oversee process and final approval on offence notices issued. • Follow-up on complaints/inquiries. • Collect and interpret program data.

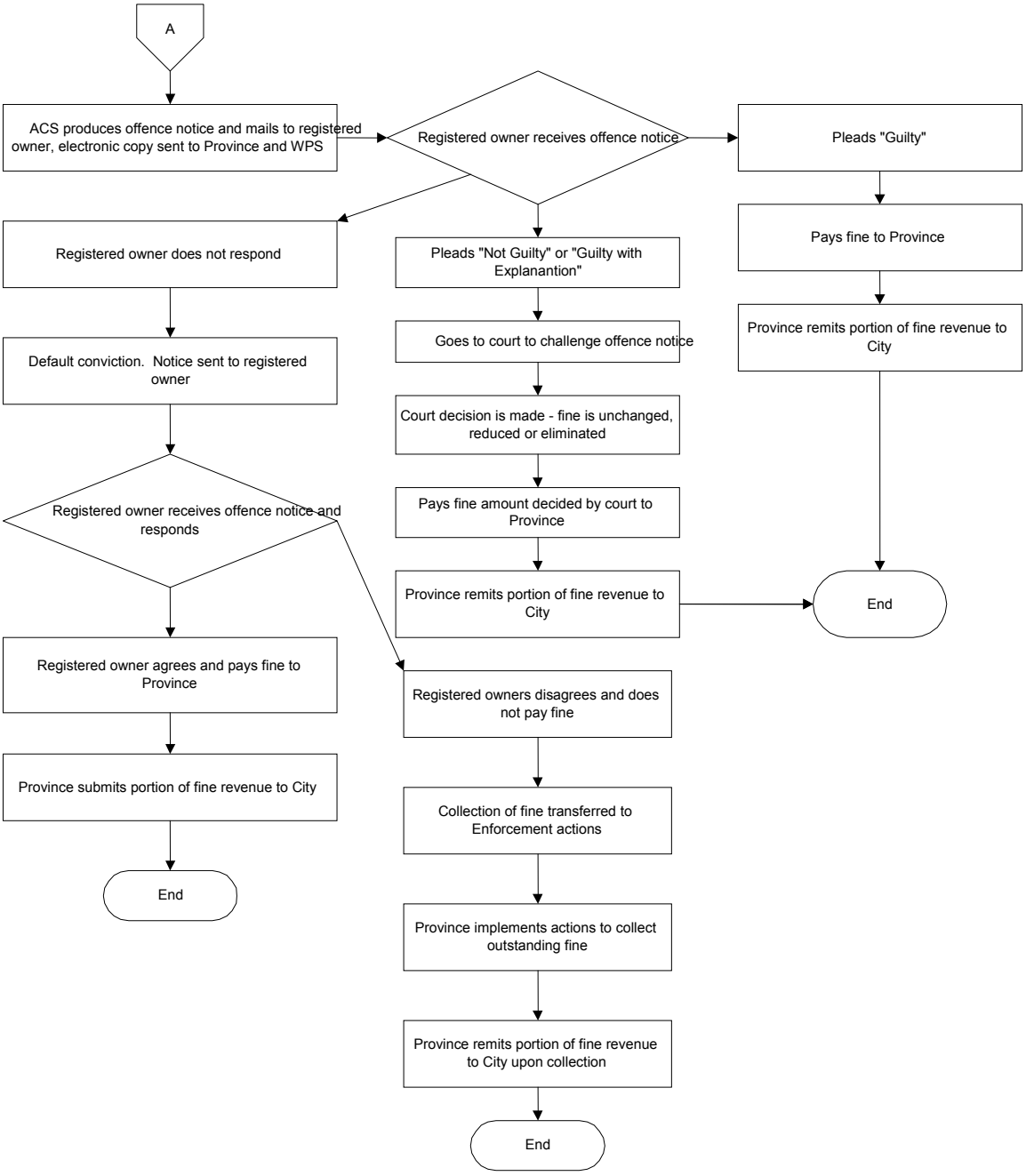
ACS Public Sector Solutions Inc.		
Position	No.	Duties
Program Manager	1	• Oversees all aspects of the operation.
Operations Manager	1	• Oversees day-to-day operations of the processing centre. • Responsible for ensuring offence notices are issued within contractual timeframes. • Completes required and ad hoc reporting for WPS.
Field Service Technician	2	• Change film from the ISCs. • Troubleshoot equipment problems and make simple repairs to equipment. • Deliver the mobile speed trailer to location chosen by WPS. • Fuel and wash photo radar vehicles daily.
Senior Customer Service Representative (SCSR)	1	• Oversees the day to day duties and training of CSRs.
Customer Service Representative (CSR)	7	• Handle the processing of photo enforcement violations. • Handle telephone queries from the public regarding their traffic offences.
Receptionist/ Administrative Assistant	1	• At disposal of Program Manager and WPS to answer and direct phone calls. Accept courier packages, direct customer traffic and respond to correspondence.

The Canadian Corps of Commissionaires		
Position	No.	Duties
Sergeant	1	• Oversees day to day duties and training of Photo Radar Operators. • Appear in court when necessary.
Corporal	4	• Provide on-street and shift supervision. • Operate the mobile photo radar units. • Appear in court when necessary.
Photo Radar Operators (full time)	11	• Operate the mobile photo radar units. • Appear in court when necessary.
Photo Radar Operators (part time)	2	• Operate the mobile photo radar units. • Appear in court when necessary.

Appendix 3: Photo Enforcement Process



Appendix 3 cont'd: Photo Enforcement Process



Appendix 4: Risk Profile

The Risk Profile is a map that indicates the most significant risks facing the Photo Enforcement Program at this point in time. We have used *The City of Winnipeg Corporate Risk Framework* to categorize risks by source. However, the Risk Profile has value beyond the conduct of the audit. Management can use the Risk Profile to identify where their resources should be focused to effectively manage the key risks associated with the Photo Enforcement Program.

Context Risks **These risks relate to internal and external factors that impact the environment in which the organization operates or business processes are conducted.**			
External Environment	Compliance	Organizational Culture	Business Process
Mixed acceptance and perceived fairness of photo enforcement technology by the public	Compliance with Highway Traffic Act	Mixed acceptance of photo enforcement technology by police officers	Ensuring that only traffic violators are issued an offence notice
Challenges to the legislation	Compliance with Conditions of Authority	Relationship with Public Works – Traffic division	Effectiveness of photo enforcement process (site selection, testing, education) in improving safety
Vandalism of photo enforcement technology	Compliance with Tri Party agreement (Province of Manitoba, ACS and City)	Mixed acceptance from Council and Administration	Use of photo enforcement may increase the incidence of rear-end collisions
Weather conditions (resulting in voided photographs)			Budget process/ revenue projection process not effective
Court challenges regarding legitimacy of traffic violation/ fine/ identification			Administration of contracts with ACS and/ or Commissionaires
Fair allocation of revenue (Province's surcharge and court admin fees)			May not issue offence notices in sufficient timeframe (14 days) thereby voiding violation.
Relationship with Province (Justice department info.)			Effectiveness of communications strategy
Relationship with Province (Transportation and Govt Services)			
Relationship with Province (MPI)			

Legend

- Critical risk: CAO involvement essential, inform committee of Council.
- High risk: Senior management involvement essential, inform CAO.
- Moderate risk: management mitigation & monitoring required, inform senior management.
- Low risk: manage by routine procedures.

Appendix 4 cont'd: Risk Profile

Resource Risks These risks relate to the resources used by the organization to accomplish its objectives			
Human Resources	Financial Resources	Information Resources	Physical Assets
Lack of experience and skilled staff due to limited availability of training	Opportunity to recover costs and fund other safety initiatives	Adequacy of performance measures	Reliability of technology
Job action – challenges by the WPA	Adequacy of external and internal funding (budget, Province's share of surplus)	Adequacy of photo enforcement technology	Maintenance and testing of technology
Insufficient staff to operate at full capacity	Terms of contract with ACS and Commissionaires equitable to the WPS and City	Adequacy of reporting (internal and external)	Maintenance and testing of traffic signals
ACS site management (continuity of senior management, adequacy of succession plan)		Insufficient information received from the Provincial Courts re: fines	
		Mixed message regarding goals of the program by various stakeholders	

Legend

Critical risk: CAO involvement essential, inform committee of Council.
High risk: Senior management involvement essential, inform CAO.
Moderate risk: management mitigation & monitoring required, inform senior management.
Low risk: manage by routine procedures.

The Risk Profile of the Photo Enforcement Program will change due to changes in the operating environment or as management initiates changes in processes or policies that support the Photo Enforcement Program.

Implementation of the audit recommendations will also change the risk profile as risk management practices are strengthened. The recommendations contained in the report are intended to provide management with actions that will assist in the mitigation of the significant risks or control gaps identified during the audit.

Appendix 5: Chronology of Significant Events

Date	Event
November 19, 1999	The Corporate Finance Department's Materials Management Branch issued RFP 16-99, an invitation for the supply, installation and operation of a red light camera enforcement system. The RFP is a joint venture between the City of Winnipeg and the City of Brandon. No responses were received.
May 1, 2001	A joint steering committee comprised of member from the Brandon Police Service, Province of Manitoba, Manitoba Public Insurance, RCMP and Winnipeg Police Service issued a report on photo enforcement technology. The report reviewed the feasibility, development, implementation and evaluation of a Manitoba photo radar enforcement program and provided recommendations.
August 15, 2001	The Chief of Police forwarded an administrative report to the Chief Financial Officer. The report recommended the WPS be authorized to negotiate a contract with Lockheed Martin IMS Systems and Services Canada Inc. for the supply of equipment and services for a six-month period in order to conduct a photo safety technology pilot project.
August 28, 2001	The Chief Financial Officer approved the recommendation forwarded by the Chief of Police.
November 28, 2001	The City of Winnipeg issued a sole source contract to Lockheed Martin IMS Systems and Services Canada Inc. to provide equipment, construction, oversight, processing services and evaluation reports in relation to a six month photo enforcement technology pilot project.
March 6, 2002	The first draft of RFP 160-2002 was completed by the WPS and forwarded to Materials Management and Legal Services for review and comment.
March 29, 2002	The Corporate Finance Department's Materials Management Branch issued RFP 160-2002, an invitation for the supply, installation and operation of a photo enforcement program.
April 18, 2002	The City of Winnipeg received two submissions related to RFP 160-2002. One submission was from ACS Public Sector Solutions Inc. and the other was from EDS Canada Inc.
April 19, 2002	Materials Management Branch communicated to the WPS that, based on their review of the proposals, certain statements made by the offerors rendered both offers non-responsive. Legal Services was asked to provide an opinion.
April 30, 2002	Materials Management and Legal Services meet with the Contract Administrator. The decision was made to defer the decision on responsiveness and to evaluate each proposal with equal thoroughness and make a determination for award based on that evaluation.
May 6, 2002	Lockheed Martin IMS Systems and Services Canada Inc. sold its subsidiary IMS Corp. to Affiliated Computer Services. It formally became ACS Public Sector Solutions. (The date of sale was July 19, 2001.)
May 8, 2002	A Draft *Award Report* was forwarded from the Chief of Police to Materials Management and Legal Services for review and comment.
May 16, 2002	The *Award Report* for the supply, installation and operation of photo enforcement program, RFP 160-2002 was forwarded from the Chief Financial Officer to the Standing Committee on Protection and Community Services.
May 22, 2002	City Council approved the award of contract to ACS.
May 23, 2002	The Province of Manitoba amended the *Highway Traffic Act* to include image capturing enforcement systems. The *Summary Convictions Act* is also amended to include evidentiary procedures related to image capturing enforcement systems.
May 24, 2002	EDS Canada Inc. forwarded a letter of complaint to the former Mayor. EDS highlighted issues they had with the process and selection of the winning bid. They requested a review of the process.
May 29, 2002	A debriefing was held with EDS. Representatives from the Materials Management Branch and WPS were present to meet with EDS and discuss their concerns.
June 19, 2002	The former Chief Administrative Officer responded to the EDS complaint letter. She addressed their concerns and stated that the Administration had spent considerable time looking into all aspects of this procurement and that she was satisfied that the City used a fair, transparent and equitable process of evaluation and award.
December 16, 2002	The Province of Manitoba issued *Image Capturing Enforcement Regulations* that defined the types of systems that can be implemented, the location of those systems and the authorized municipalities.
January 7, 2003	The first photo enforcement offence notice was issued.

Appendix 6 - Summary of Recommendations

Recommendations for Corporate Finance

Report Recommendation Number	
1	We recommend that the Corporate Controller remind the Materials Management Branch of its responsibility to provide support to contract administrators to ensure that the procurement process used for the purchase of goods and services is appropriate in the circumstances.
2	We recommend that the Materials Management Branch draft an amendment to Administrative Directive FM-002 Materials Management Policy for the consideration of the Chief Administrative Officer to require that the team developing and evaluating any complex and/or significant RFP be comprised of staff with the appropriate competencies. At a minimum, the team should include a technical expert and a financial representative, and have access to a specific lawyer. We would expect that each team member's involvement be limited to those areas where their requisite skills are required.
3	We recommend that the Materials Management Branch draft an amendment to the Administrative Directive FM-002 for the consideration of the Chief Administrative Officer to a require the submission of a Summary Evaluation Report to MMB to provide evidence that an appropriate level of due diligence has been performed in the evaluation process.
4	We recommend that, for significant contracts, Legal Services and the Materials Management Branch obtain reasonable assurance that the statements made by a contract administrator and contained in an Award Report can be supported. In the absence of such assurance, Legal Services and the Materials Management Branch should communicate their concerns in the comments section attached to the Award Report.
5	We recommend that Legal Services and the Materials Management Branch clearly state their opinions on whether a bid submission is non-responsive in the comments that are attached to the Award Report.
6	We recommend that the Chief Financial Officer ensure adequate due diligence has been performed on all financial aspects of Award Reports. When considerable uncertainty exists over the revenue or cost components, this should be noted on the Financial Impact Statement and be supported by a sensitivity analysis to provide decision makers with a possible range of outcomes.
7	We recommend that the MMB, in consultation with other City departments, identify mandatory conditions and clauses within the procurement templates that departments are not allowed to delete or modify without prior written approval by the Manager of Materials. We recommend that a liquidated damages clause be included in this mandatory set.
14	The WPS and Corporate Finance should continue to work with the Province to obtain the information required from Manitoba Justice to properly manage the program. In addition, the WPS should identify this issue in the annual report to the Minister of Transportation.

Recommendations for Legal Services

Report Recommendation Number	
4	We recommend that, for significant contracts, Legal Services and the Materials Management Branch obtain reasonable assurance that the statements made by a contract administrator and contained in an Award Report can be supported. In the absence of such assurance, Legal Services and the Materials Management Branch should communicate their concerns in the comments section attached to the Award Report.
5	We recommend that Legal Services and the Materials Management Branch clearly state their opinions on whether a bid submission is non-responsive in the comments that are attached to the Award Report.
7	We recommend that the MMB, in consultation with other City departments, identify mandatory conditions and clauses within the procurement templates that departments are not allowed to delete or modify without prior written approval by the Manager of Materials. We recommend that a liquidated damages clause be included in this mandatory set.

Appendix 6 cont'd- Summary of Recommendations

Recommendations for the Winnipeg Police Service

Report Recommendation Number	
8	We recommend that the WPS use Clause 30.1 of the City's contract with ACS to enter into discussions with ACS as soon as possible to negotiate more favourable contract terms. The Contract Administrator should monitor both the operational and financial aspects of the contract to ensure that it provides value to the City. The WPS Controller should provide appropriate support and advice. Related to this program, Corporate Finance needs to provide the necessary oversight to ensure that the financial issues identified are appropriately resolved.
9	We recommend that WPS Senior management ensure that there is continuity in the management roles associated with the program. This includes a commitment to ensure that all critical positions are staffed with qualified personnel or to provide training where gaps exist in required competencies. We also recommend that WPS Senior Management ensure that the Contract Administrator understands that financial management is an important component of program administration. The position description should also be revised to include duties associated with financial management.
10	We recommend that the Contract Administrator take an active role in managing the financial aspects of the public education element of the program to ensure the City is receiving full value for the funds dedicated to this purpose.
11	We recommend that the WPS ensure that ACS obtains a contract or written agreement with the Photo Developer that defines performance requirements, terms and conditions and recourse in the event of service interruptions.
12	We recommend that the WPS formally document the site selection process and decisions.
13	We recommend that the WPS conduct periodic audits of ACS practices to ensure compliance with policy and guidelines and the adequacy of supervisory review practices.
14	The WPS and Corporate Finance should continue to work with the Province to obtain the information required from Manitoba Justice to properly manage the program. In addition, the WPS should identify this issue in the annual report to the Minister of Transportation.
15	We recommend that the WPS improve performance reporting by: • conducting periodic traffic studies on selected streets that are not photo enforced; • working with MPI to provide better information on the impact of the program on collisions and injuries; • completing an independent and comprehensive study to determine the effect the program has had on driving behaviour; and • monitoring and reporting on the costs of the program.