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ONTARIO'S RED LIGHT CAMERA PILOT PROGRAM AND PHOTO RADAR

The Transportation and Works Committee recommends the adoption of the recommendations contained in the following report, August 22, 2003, from the Commissioner of Transportation and Works:

1. RECOMMENDATIONS

It is recommended that:

1. The Regional Clerk be directed to advise the Government of Ontario, through the Minister of Transportation, that the Council of the Regional Municipality of York supports the use of Red Light Camera Technology within the Province of Ontario and requests that the appropriate legislation be enacted and proclaimed to remove the pilot project status and allow permanent use of the Technology.
2. The Regional Clerk be directed to request the Minister of Transportation to grant York Region the authority to install and administer the use of automated speed enforcement technology (photo radar) to enforce traffic regulations.
3. The Transportation and Works Department, in consultation with the York Regional Police, further report on developing strict guidelines for the use of technological enforcement including, but not be limited to, site selection criteria, signage, a persistent public awareness and education campaign, and a process for regular evaluation to ensure that objectives continue to be met; and to develop a business case in support of the use of automated speed enforcement technology.
4. Copies of this report be sent by the Regional Clerk to the Clerks of the local municipalities.

2. PURPOSE

This report has been prepared in response to a request arising from York Regional Police to provide an update of the status of the Red Light Camera Pilot Project in the Province of Ontario and information regarding photo radar. It also recommends authorization to notify the Province of Regional Council's support of Red Light Camera's and requests approval from the Province to use Photo Radar.

3. BACKGROUND

On December 18, 1998, the *Red Light Cameras Pilot Projects Act, 1998, Bill 102* received Royal Assent. The Act amended the *Highway Traffic Act* to enable municipalities, for a period of two years, to use evidence obtained from red light cameras to issue violation notices. On November 20, 2000, Bill 102 was proclaimed by the Lieutenant Governor starting the two-year operational period for the use of red light cameras.

Six municipalities in Ontario were designated by the Ministry of Transportation, Ontario as red light camera pilot areas namely City of Toronto, City of Hamilton, City of Ottawa, Regional Municipality of Halton, Regional Municipality of Peel, and the Regional Municipality of Waterloo. The Regional Municipality of York made a decision to wait until the Province made a final decision as to the use of Red Light Camera technology.

The purpose of the pilot project was to conduct a comprehensive statistical evaluation study to assess the combined benefits that stepped-up police enforcement and red light cameras have on the frequency of red light running. The Ministry of Transportation retained a consultant to conduct the “before and after” evaluation study. The evaluation study included 58 sites in total throughout Ontario, with approximately equal numbers of red light camera sites, stepped-up police enforcement sites and control sites. “Before and after” data collected and analysed for the evaluation will include collision frequencies, traffic volumes and red light violations. Data relevant to other violations was collected at the stepped-up police enforcement sites. Annual totals of red light running convictions within the court districts of participating municipalities were also obtained.

On May 27, 1999, Regional Council adopted Clause 1 of Report No. 9, as amended, of the Transportation and Works Committee regarding the Region's position to not participate in the Provincial Red Light Camera Pilot Project for the following reasons:

1. The Police expressed concerns regarding the "quantum of staff resources required to meet the criterion of the legislation".
2. Ideal conditions for obtaining data to be used in the before scenario of the pilot project called for candidate intersections to remain operationally unmodified for the preceding three years. With the rate of development and traffic growth in York Region, it would have been difficult to find three intersections with similar characteristics and high collision rates that met the project requirement of no modifications over that time span.
3. With the Region's Centralized Traffic Control System, signal co-ordination was introduced for most traffic signals. The benefits of red-light cameras would have been difficult to assess independently of the effects of the new signal co-ordination.
4. Proclamation of the two-year Red Light Camera legislation was held until the majority of municipalities publicly committed to the pilot project finalized their implementation plans. As York Region was yet to commit to this initiative, the maximum participation period would have been considerably less than the two years. This shorter period would have reduced the Region's ability to offset the high initial capital and operating costs of the pilot project.

4. ANALYSIS AND OPTIONS

4.1 Red Light Camera Pilot Project

The red light camera pilot project includes 18 red light cameras, which are routinely rotated among 68 sites within the six participating municipalities.

The “before and after” evaluation study includes data collected from 19 red light camera sites and 17 stepped-up police enforcement sites located within the six participating municipalities. The “before and after” evaluation study also includes 22 control sites, 12 of which are located within the six participating municipalities and an additional 10 which are located within the Cities of London and Windsor, Ontario. The distribution of red light cameras, police enforcement, and control sites is listed in Table 1 below.

Table 1
Red Light Camera and Evaluation Intersection Site Distribution

Red Light Camera Distribution			“Before and After” Evaluation Study Site Distribution		
Municipality	# of Red Light Cameras	# of Camera Sites	# of Camera Sites	# of Police Enforcement Sites	# of Control Sites

Toronto	10	38	7	4	6
Hamilton	2	8	1	2	2
Ottawa	2	8	5	2	0
Halton	1	4	3	3	4
Peel	2	6	2	5	0
Waterloo	1	4	1	1	0
Windsor	0	0	0	0	4
London	0	0	0	0	6
Total	18	68	19	17	22

In the first year of operation, approximately 21,800 violation notices were issued Province wide for red light running at red light camera sites.

The preliminary results from the study sites of the charges in red light running violations indicate that the frequency of red light running has decreased at those red light camera sites being evaluated by more than 40 per cent on average. At the same time, the preliminary results indicate virtually no spillover effect in reduced violations at those intersections without cameras. The real measure of the benefit of the project, however, is in the safety improvement as expressed by collision reduction. The collision analysis for the two-year project has been completed and will be available by the fall of 2003.

4.1.1 Red Light Camera Pilot Project Extension

In the early part of 2002, Councils of five of the six participating municipalities passed resolutions petitioning the Province to extend the Red Light Camera Pilot Project for an additional two years.

There were three reasons for recommending the project extension, namely:

1. Initial results from the first year of operating the red light camera pilot program show a reduction in the frequency of red light running.
2. There is strong public support for camera enforcement of red light running.
3. It permitted municipalities to continue operating red light cameras beyond November 20, 2002, while waiting for the Government of Ontario's decision, expected in the fall of 2003, regarding the continuation of the project and thereby avoid a period of non-operation which may then be unnecessary.

The Region of Halton excluded themselves from being involved in the project extension for the following reasons:

- The low number of violations occurring in the Region has not contributed significantly to the overall database of the pilot project.
- Safety has not been an issue at the locations where the cameras are in place.
- The additional \$125,000 to \$150,000 in additional funding for each year that the pilot program is extended can be better utilised towards other safety initiatives.

On November 19, 2002, the Government of Ontario gave Royal Assent to Bill 149 which extended the Red Light Camera Pilot Project until November 20, 2004.

A revised timetable for the pilot project is outlined in Table 2 below.

Table 2
Red Light Camera Project Extension Timetable

Date	Event
May, 2003	Collision data received from police.
Fall, 2003	Final evaluation study report completed and submitted.
Fall, 2003	Ministry of Transportation completes review.
December, 2003	Government of Ontario decides future of red light camera legislation.
	If the Government of Ontario decides in favour to allow the use of red light cameras, all municipalities will be allowed to use the device.
	If the Government of Ontario decides not to allow red light cameras the project will cease.

If the Province decides to allow red light cameras, staff will bring a report forward to the committee with a recommendation regarding the use of red light cameras in York Region.

4.2 Photo Radar

A photo radar program on Provincial Highways was started on August 15, 1994 and continued until July 5, 1995. On August 15, 1994, Bill 47 was proclaimed into law, which amended the *Highway Traffic Act* to permit the use of photo radar. The photo radar project ended on July 5, 1995 when Cabinet passed Ontario Regulation 333/95 revoking Section 2 of the Photo Radar System Regulation (500/94), which designated where photo radar could be used. The remaining sections of the Photo Radar System Regulation (500/94) are still in force.

While both photo radar and red light camera programs use photo enforcement technology, each program required independent legislation to amend different sections of the *Highway Traffic Act* and create independent Provincial Regulations.

4.2.1 Photo Radar Approval Process

The speeds of vehicles have been a growing concern in the Province of Ontario, as well as across North America for a number of years. Police Services and the Engineering community are continually trying various enforcement and education strategies in an attempt to direct the public to drive at or close to posted speed limits with limited success. Photo radar is an enforcement tool that is used in other countries throughout the World. If the Legislative Assembly and/or the Government of Ontario consider the introduction of new photo radar legislation, Transportation and Works, Legal and York Region Police Services staff should initiate research and develop a business case for a York Region photo radar program.

Should Regional Council wish to request that the Province of Ontario amend the *Highway Traffic Act* to permit the use of photo radar in York Region, The most expedient process would be as follows:

“Petition the Legislative Assembly of Ontario to introduce new legislation, permitting York Region to operate photo radar on its streets and requesting that York Region be consulted during the development of any new legislation.

Regional Council may petition the Legislative Assembly of Ontario to introduce photo radar legislation, as it is within the jurisdiction of the Legislative Assembly of Ontario to do so. Petitions may be presented in the Legislative Assembly the next day the House meets. Further, the Government

is required to file a response to the petition with the Clerk of the House within 24 days of the date the petition was presented.”

The petition process is the most direct process available, which would result in a publicly recorded government position on new legislation introducing Photo Radar in York Region. The purpose of the request that York Region be consulted during the development of any proposed new legislation is to provide an opportunity for Regional staff to contribute to the legislation ensuring that it reflects the speed compliance interests of York Region.

In submitting a petition to the Legislative Assembly of Ontario, Regional Council should request totally new legislation rather than requesting an amendment of the existing photo radar legislation for the following two reasons:

1. The *Provincial Offences Act* (POA) was amended in 1998. However, the POA references contained in the Photo Radar regulations were not amended at the same time. Consequently, the POA references contained in Ontario Regulation 500/94 are out of date.
2. The photo radar system used in 1994 – 1995 is named as the “designated system” in Ontario Regulation 500/94.

A request for new legislation would require the entire scheme to be reviewed to ensure it is current and reflects all applicable laws and current legal procedures of the Province of Ontario. In addition, the selection of photo radar equipment, to be designated by new regulations, if deemed required, should be subject to a public tender process including a system testing procedure.

To develop a York Region program to initiate, operate and maintain a photo radar program, there is a significant amount of work to be done, such as:

- Researching the history of photo radar in Ontario.
- Identification of the legislative process and legal aspects.
- Conducting a speed related collision analysis for York Region.
- Researching photo radar programs in Canada and other jurisdictions.
- Identification of available system technologies and establishment of a procurement process.
- Identification of costs, resources and project partners.
- Investigation of a public awareness plan.

Staff should develop a detailed work program for a York Region photo radar program only following an indication that the Legislative Assembly and/or the Government of Ontario are considering the introduction of new photo radar legislation. At that point, Transportation and Works, Legal and York Region Police staff should initiate research and develop a business case for a York Region photo radar program.

Both of these initiatives have a direct link to two road safety strategies, namely the “Save A Life” program and “Save A Street” program. The three key components of each of these strategies are Engineering, Enforcement and Education. Each of these components will be fully researched and addressed to ensure that all photo enforcement initiatives are co-ordinated through both of these strategies.

The use of photo technology for the purpose of aiding agencies to make roads safer for all road users including pedestrians and cyclists has become more acceptable to the residents of Province of Ontario over the last few years. In addition, the technology has proven to be defensible in court systems across the Province. Therefore, it is appropriate that the use of photo enforcement for red light runners and speeding motorists be considered at this time.

5. FINANCIAL IMPLICATIONS

5.1 Red Light Camera Costs/Revenues

The costs to install operate and maintain a red light camera system involving a single camera circulated through four intersections, is estimated as outlined in Table 3 below.

Table 3
Red Light Camera Costs – One Camera, Rotated Through Four Intersections

Component	Start Up Costs	Annual Costs
Contracted Services		
- camera and associated hardware	\$225,000	
- maintenance (camera rotation and film collection)	\$0	\$70,000
Processing Centre (utilising City of Toronto's existing facility)		\$60,000
Other Regional Costs		
Site Preparation	\$80,000	
Public Awareness Program	\$20,000	\$20,000
Total Program Costs	\$325,000	\$150,000

The potential increase in *Provincial Offences Act* revenue, for a single camera rotated through four intersections, is estimated at \$200,000 in the first year of operation with a 10% reduction in each subsequent year.

5.2 Other Cost Considerations

The costs for both the Red Light Camera and Photo Radar initiatives involve a substantial investment from both capital and on-going maintenance perspectives. In addition, due to the expected increase in the number of charges issued in either initiative, there will be cost implications in administration of the Regional court system for such items as an increase in staff, additional computer hardware and software, office space etc. Some of these costs have the potential to be offset from the revenues generated by each initiative. In the event that these initiatives generate a surplus, the proceeds should be used for the purpose of further improving road safety.

If any local municipality implemented either initiative, there would be an impact on the Regional court system.

6. LOCAL MUNICIPAL IMPACT

A copy of this report should be circulated to each of the local municipalities for their information. If either or both of these initiatives were to proceed, Regional staff would work with local municipal staff to co-ordinate the implementation of either initiative.

7. CONCLUSION

On November 20, 2002, Bill 102 was proclaimed by the Lieutenant Governor starting the two-year operational period for the use of red light cameras. Six municipalities in Ontario were designated by the Ministry of Transportation, Ontario as red light camera pilot areas namely City of Toronto, City of Hamilton, City of Ottawa, Regional Municipality of Halton, Regional Municipality of Peel, and the Regional Municipality of Waterloo.

On November 19, 2002 the province of Ontario gave Royal Assent to the extension of the Red light Camera Pilot Project for the period of November 20, 2002 to November 20, 2004. The extension was to permit municipalities to continue operating red light cameras beyond November 20, 2002, while waiting for the Government of Ontario's decision, expected in the fall of 2003, regarding the continuation of the project and thereby avoid a period of non-operation which may then be unnecessary.

Of the six municipalities, only five requested to be involved in the extension of the pilot project. The Region of Halton exercised its right to opt out of the projects extension due to the low number of violations occurring in the Region, and that the additional \$125,000 to \$150,000 in additional funding for each year that the pilot program is extended could be better utilised towards other safety initiatives.

The Province has indicated that the decision on whether or not to retain the use of red light cameras will be forthcoming in December 2003.

If the Province decides to allow red light cameras staff will bring a report forward to the committee with a recommendation regarding the use of red light cameras in York Region.

A photo radar program is similar to a red light camera program as they both use photo enforcement technology. However, each program requires independent legislation to amend different sections of the *Highway Traffic Act* and create independent Provincial Regulations. Photo radar is not available at the present time for use in the Province of Ontario.

Should Regional Council wish to request that the Province of Ontario amend the *Highway Traffic Act* to permit the use of photo radar in York Region, the most expedient process would be to petition the Legislative Assembly of Ontario to introduce new legislation, permitting York Region to operate photo radar on its streets and requesting that York Region be consulted during the development of any new legislation.

A request for new legislation would require the entire scheme to be reviewed to ensure it is current and reflects all applicable laws and current legal procedures of the Province of Ontario. In addition, the selection of photo radar equipment, to be designated by new regulations, if deemed required, should be subject to a public tender process including a system testing procedure.

To develop a York Region program to initiate, operate and maintain a photo radar program, there is a significant amount of work to be done, such as:

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The Senior Management Group has reviewed this report.

