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RED LIGHT CAMERA

The Transportation and Works Committee recommends the adoption of the recommendations contained in the following report, April 21, 2004, from the Commissioner of Transportation and Works:

1. RECOMMENDATIONS

It is recommended that:

1. This report be received for the information of Committee and Council.
2. Copies of this report be sent by the Regional Clerk to the Clerks of the local municipalities

2. PURPOSE

This report provides an update of the status of the Province of Ontario's Red Light Camera Pilot Project and information regarding the associated costs with the potential implementation of a red light camera program in The Regional Municipality of York.

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 Region 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 analyzed for the evaluation included 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.

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:

1. The low number of violations occurring in the Region did not contribute significantly to the overall database of the pilot project.
2. Safety was not an issue at the locations where the cameras were in place.
3. The additional \$125,000 to \$150,000 in additional funding for each year that the pilot program is extended is better utilized towards other safety initiatives.

On November 19, 2002, Bill 149 received Royal Assent extending the Red Light Camera Pilot Project to November 2004. Bill 149 provides the Lieutenant Governor the authority to extend the Red Light Camera Pilot Project legislation indefinitely, by proclamation, before November 20, 2004.

In September 2003, a report was submitted to Transportation and Works Committee regarding the status of the Red Light Camera Pilot Program and the discussions around the use of photo radar in the Province of Ontario. The recommendations contained within the report are as follows:

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.

3. 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.
4. 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.
5. Copies of this report be sent by the Regional Clerk to the Clerks of the local municipalities.

4. ANALYSIS AND OPTIONS

The purpose of the Red Light Camera 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 48 sites in total throughout Ontario, with approximately equal numbers of red light camera sites, stepped-up police enforcement sites and control sites. The total number of sites to be evaluated was reduced in part from 58 to 48 due to the Region of Halton withdrawing from the study.

4.1 Safety Effectiveness of Red light Cameras

In order to measure the combined effectiveness of red light cameras and police enforcement, with statistical significance, a robust statistical tool known as the “Empirical Bayes” method was used to conduct the safety evaluation. Collision, traffic volumes and red light violation data for the years 1995 to 1999, representing the period “before” red light cameras were introduced, were used to develop an average safety performance curve for the 48 study sites. Similar data were collected for the years 2001 and 2002, representing the period “after” red light cameras and police enforcement were introduced. The safety performance for the “before” and “after” periods was compared to provide the basis of the safety evaluation for the 48 study sites.

Of all collisions that occur at signalized intersections, angle type collisions are the most indicative of red light running. The preliminary results of the consultants report indicate that angle collisions resulting in fatalities and personal injury were reduced by 25.3 percent and those resulting in property damage were reduced by 17.9 percent as a result of the pilot project.

Once the Government reviews the consultants report, it is expected that they will make a decision on whether or not to extend the red light camera legislation indefinitely. This decision is required before November 20, 2004.

5. FINANCIAL IMPLICATIONS

The costs to implement a red light camera program can be separated into two areas. One is the cost to install, operate and maintain a system and the second is the cost implications to the Regional Court system due to the new technology and staffing resources required to process the violation notices using photographic evidence. Each of these areas are further addressed below.

It should be noted that some of these costs have the potential to be offset from the revenues generated by the red light camera initiative. In the event that this initiative generates a surplus, the proceeds should be used for the purpose of further improving road safety.

5.1 Red Light Camera Costs

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 1 below.

Table 1		
Red Light Camera Costs – One Camera, Rotated Through Four Intersections		
Component	Start Up Costs	Annual Costs
Contracted Services		
- Camera and associated hardware	\$250,000	
- Maintenance (camera rotation and film collection)	\$0	\$150,000
Other Regional Costs		
- Site Preparation	\$80,000	
Total Program Costs	\$335,000	\$150,000

The costs outlined in Table 1 above only address the in-field components.

5.2 Other Costs

As explained in the previous report, that was presented at the Transportation and Works Committee on September 3, 2003, due to the expected increase in the number of charges issued, 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. as well as for any media campaign to educate the public of the need for and use of red light cameras. These costs can be estimated at \$200,000 to \$300,000 annually

depending on the extent of the program, the need for additional courtrooms and Justices of the Peace. Further discussions and input will be required with Legal Services and in particular Court Services. Court Services has indicated that further investigation will be required before costs can be determined.

No specific funding approvals are being requested at this time. If the Government extends the red light camera legislation indefinitely, staff will report to Transportation and Works Committee on the necessary steps and approvals required by Regional Council to initiate the use of red light cameras in the Region. This report will provide information on intersections to be considered, site selection criteria, optional operational models, funding requirements and approvals required, if any, to use red light cameras.

6. LOCAL MUNICIPAL IMPACT

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

If any of the local municipalities implemented this initiative, there would also be an impact on the Regional Court system.

7. CONCLUSION

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. The Ministry of Transportation retained a consultant to conduct the “before and after” evaluation study.

On November 19, 2002, Bill 149 received Royal Assent extending the Red Light Camera Pilot Project to November 2004. Bill 149 provides the Lieutenant Governor the authority to extend the Red Light Camera Pilot Project legislation indefinitely, by proclamation, before November 20, 2004.

The consultant’s report on the safety evaluation of red light cameras has been completed and is before the Government for review.

The preliminary results of the consultants report indicate that angle collisions resulting in fatalities and personal injury were reduced by 25.3 percent and those resulting in property damage were reduced by 17.9 percent as a result of the pilot project.

Once the Government reviews the consultants report it is expected that they will make a decision on the whether or not to extend the red light camera legislation indefinitely. This decision is required before November 20, 2004.

If the Government extends the red light camera legislation indefinitely, staff will report to Transportation and Works Committee on the necessary steps and approvals required by Regional Council to initiate the use of red light cameras in the Region. This report will provide information on intersections to be considered, site selection criteria, optional operational models, funding requirements and approvals required, if any, to use red light cameras.

The Senior Management Group has reviewed this report.