



Report: TES-TRP-20-08

Region of Waterloo

Transportation and Environmental Services

Transportation

To: Chair Elizabeth Clarke and Members of Regional Council

Date: July 15, 2020 **File Code:** T11-60/ASE

Subject: Automated Speed Enforcement – Recommended Implementation Plan

Recommendation:

That the Regional Municipality of Waterloo:

- a.) approve the operation of Automated Speed Enforcement on Regional roads and on area municipality roads on behalf of the area municipalities;
- b.) add the following speed limits within school zones by amending the Traffic and Parking By-law 16-023, as amended, to:
 - Add to Schedule 17, Rates of Speed, Maximum Speed of 50 km/h on Westmount Road (Regional Road 50) between 40 metres north of Ottawa Street (Regional Road 4) and 35 metres north of Dunsmere Drive;
 - Add to Schedule 17, Rates of Speed, Maximum Speed of 50 km/h on Victoria Street (Regional Road 55) between 120 metres west of Westforest Trail and 160 metres west of Eastforest Trail / Westforest Trail;
 - Add to Schedule 17, Rates of Speed, Maximum Speed of 50 km/h on Westmount Road (Regional Road 50) between 10 metres south of Greenbrook Drive and Gilmour Crecent;
 - Add to Schedule 17, Rates of Speed, Maximum Speed of 60 km/h on Snyder's Road (Regional Road 1) between 200 metres east of Nafziger Road (Regional Road 5) and 120 metres west of Brenneman Drive;
 - Add to Schedule 17, Rates of Speed, Maximum Speed of 50 km/h on Waterloo Street between 70 metres south of Victoria Street / Forrest Avenue and 20 metres north of Laschinger Boulevard;
 - Add to Schedule 17, Rates of Speed, Maximum Speed of 50 km/h on

Bridge Street between 30 metres east of Front Street and 50 metres east of Meadowbrook Court;

- Add to Schedule 17, Rates of Speed, Maximum Speed of 50 km/h on Lobsinger Line (Regional Road 15) between 140 metres west of Charles Street and Herrgott Road;

c.) authorize the Commissioner of Transportation and Environmental Services to execute all necessary agreements and renewals with Her Majesty the Queen in Right of Ontario, as represented by the Minister of Transportation, Redflex Traffic Systems (Canada) Limited, the City of Toronto, and local area municipalities to the satisfaction of the Regional Solicitor; and

d.) Increase the 2020 Transportation Capital Budget by \$360,000 for the implementation of Automated Speed Enforcement to be funded by the Transportation Capital Reserve,

as outlined in Report TES-TRP-20-08, dated July 15, 2020.

Summary:

Regional and area municipality staff seek to reduce traffic speeds to enhance user safety within school zones situated on Regional and local area municipality roadways through the application of Automated Speed Enforcement (ASE). The implementation of ASE in Waterloo Region would align with the Region's comprehensive Road Safety Program objective to eliminate road-related injuries and deaths that occur as a result of excessive speed.

Regional staff worked with municipalities outside of the Region and the Province on standards and procedures for the administration of an ASE Program through the Ontario Traffic Council (OTC) ASE Steering Committee. The OTC ASE Steering Committee agreed to establish an ASE Program similar to the successful Red-Light Camera (RLC) Program. Similar to the RLC Program, all offences would be processed at a Joint Processing Centre (JPC) managed by the City of Toronto.

At the local level, Regional and area municipal staff have collaborated extensively over the last two years to coordinate the implementation of ASE on Regional and area municipality roadways. All parties agreed on an operating model and implementation plan that involves Regional staff administering ASE on Regional roads and on area municipality roads on behalf of all area municipalities subject to Regional and local area municipality Council approvals and legal agreements.

As part of the recommended operating agreements, the Region would be responsible for all costs associated with the implementation and maintenance of all ASE site locations including all area municipality sites. All ASE tickets would be paid through the

Region's Provincial Offence Administrative (POA) court system. In accordance with the current memorandum of understanding between the Region and area municipalities, all revenue collected would be retained by the Region.

The recommended phased ASE program launch consists of the implementation of ASE within eight school zones (one school zone per municipality) using semi-fixed ASE sites across the Region (on both Regional and area municipality roadways). This phased approach would allow POA staff to monitor offence volume while assessing resource needs. Additional sites and cameras may be added to the program in future years based on available capacity and planned increases in staff resources, subject to Council approval.

The estimated capital cost to initially launch ASE as proposed has a maximum value of approximately \$360,000. The estimated annual operating cost of the ASE program as proposed would be approximately \$135,000. A very preliminary estimate of fine revenue is in the range of \$200,000 to \$400,000 but is subject to variability based on driver compliance.

Subject to approval of the implementation of ASE by Regional Council and the completion of all necessary legal agreements, staff will continue to expedite this process to be ready to implement ASE as soon as possible after students return to area schools and when there is sufficient capacity in the Region's POA court systems per COVID-19 recovery. Based on timing required for these actions, ASE is anticipated to be operational in late 2020, at the earliest.

Report:

1.0 Legislative Background

In January 2019, the provisions of Bill 65, the Safer School Zones Act, that amended the Highway Traffic Act to permit municipalities to use automated speed enforcement (ASE) to improve road safety, were proclaimed in force. ASE, also previously known as photo radar, involves the use of cameras triggered by speed sensors that take photographs of the license plates of vehicles that are travelling in excess of the posted speed limit. This legislative amendment allows municipalities to enact by-laws to permit the use of ASE exclusively in school zones and community safety zones.

The owners of the motor vehicle are liable for the infraction as set out in the provincial offence notice (commonly referred to as a "ticket"). Owners disputing the alleged infraction have the options of paying the provincial offence notice, asking for a resolution (settlement) meeting with a prosecutor or having a trial before a Justice of the Peace. Convicted owners will not be subject to demerit points. The drivers of the motor vehicle are not liable for the infraction because of the limitations of the camera technology to establish identity.

The main objective of ASE is to lower operating speeds in school and community safety

zones to be more in line with the posted speed limits. Lower operating speeds would reduce the likelihood and severity of collisions in those areas. Another objective would be to influence the driving “culture” on all roads in the region whereby more drivers tend to drive at speeds closer to the posted speeds. This could be accomplished by increased awareness of ASE by drivers and also through education and communication of ASE that emphasizes its benefits including the reduced risk of deaths to pedestrians and cyclists at lower driving speeds.

In addition, as per this legislative amendment, municipalities are responsible for the site selection and installation of cameras and signage, infraction processing and public communications.

2.0 Development of the ASE Program in Ontario

Similar to how the current Red-light Camera (RLC) program was developed, the administrative framework of an ASE program had to be established before municipalities could begin using ASE as a road safety countermeasure.

Regional staff worked on standards, practices, and procedures for the acquisition and processing of an ASE system in partnership with other participating municipalities and the Province as part of an ASE Steering Committee chaired by the Ontario Traffic Council. Municipalities planning to launch ASE initially in Ontario include the Cities of Toronto, Ottawa, Hamilton and London and the Regions of York, Durham and Peel.

The ASE Steering Committee explored potential technologies and administrative approaches with the goal of adopting a province-wide approach for this new system. General consensus among the ASE Steering Committee members was to set up an ASE program similar to the successful RLC program.

Similar to the RLC program, the proposed ASE program would:

- involve the joint procurement of a single vendor to supply and maintain all equipment within each participating municipality;
- require that all photographs be processed by a Joint Processing Centre (JPC) administered by the City of Toronto on behalf of all the participating municipalities;
- involve the Region paying the vendor a daily rate to maintain all equipment and to transfer the offence data to the Toronto JPC;
- involve the payment of all tickets through the Region’s Provincial Offence Administrative (POA) court system; and
- involve the Region paying a portion of the JPC administration costs based on the Region’s share of this program.

The City of Toronto, with assistance from participating municipalities including the Region of Waterloo, tendered and awarded a joint contract in 2019 to Redflex Traffic Systems

(Canada) Limited to operate ASE technology in the partnering municipalities in Ontario.

3.0 Automated Speed Enforcement Equipment

Redflex Traffic Systems (Canada) Limited provides three forms of Automated Speed Enforcement systems that come in the following forms:

- Fixed;
- Semi-fixed; and
- Mobile.

3.1 Fixed Automated Speed Enforcement

Fixed sites consist of concrete footings, a pole and housing set approximately 3.0 metres above the ground. A camera system is permanently hosted within the housing.

3.2 Semi-fixed Automated Speed Enforcement

Semi-fixed sites consist of concrete footings, a pole and housing set approximately 3.0 metres above the ground. A camera system is not permanently hosted within the housing and can be rotated by the vendor among several ASE sites.

3.3 Mobile Automated Speed Enforcement

Mobile sites consist of a movable tripod, ballast and housing set approximately 1.5 metres above the ground. These sites are intended to be temporary and may be rotated by the vendor amongst several predetermined locations.

4.0 Proposed Regional and Area Municipal ASE Operating Model

Regional staff consulted with area municipalities, Waterloo Regional Police Services (WRPS) and the Region's POA staff regarding various potential ASE operating models. These operating models were presented to Regional Council as part of Report TES-TRP-19-05, dated March 19, 2019. All parties agreed on an operating model that involves Regional staff administering ASE on Regional roads and on area municipality roads on behalf of all area municipalities subject to Regional and local area municipality Council approvals. All parties agreed that a key benefit of this proposed operating model is that the ASE program would be implemented and administered consistently throughout all municipalities. This consistency was considered to be critical to the successful launch and administration of this ASE program.

As part of the proposed operating model, the Region would be responsible for all costs associated with the implementation and maintenance of all ASE site locations including all area municipality sites. All ASE tickets would be administered through the Region's POA court system. In accordance with the current memorandum of understanding between the Region and area municipalities, all revenue collected would be retained by the Region.

5.0 Proposed ASE Program Launch

The proposed phased ASE program launch consists of the implementation of ASE within eight school zones (one school zone per municipality) using semi-fixed ASE sites across the Region (on both Regional and area municipality roadways). The Region would also consider adding full time or temporary staff. This would require Council approval. Additional sites and cameras may be added to the program based on available capacity and planned increases in staff resources, subject to Regional Council approval.

Regional and area municipality staff agreed that the initial launch of ASE would only include School Zones and not Community Safety Zones as the limits of School Zones are more clearly defined. A School Zone is defined under the Highway Traffic Act (HTA) as a portion of a roadway within 150 metres of the property limits of a school to which an access to said roadway exists. It is recommended that, if desired by Regional or area municipality Councils, the inclusion of ASE sites in Community Safety Zones would be considered as part of future expansions of the ASE program.

Regional staff are aware of the potential sensitivity related to the timing of the launch of ASE during the COVID-19 pandemic. For this reason, staff delayed the timing of this report. Should Regional Council approve ASE for use in the Region per this report, staff would monitor the COVID-19 situation and only launch ASE in coordination with the Province authorizing the return of students to school and in coordination with the Region's POA court system reaching sufficient capacity as part of the COVID-19 recovery.

6.0 Site Selection Criteria

Criteria used to prioritize sites was based on but not necessarily limited to speed limit compliance, historical pedestrian collisions, traffic volume, presence of sidewalk, boulevard space to install the equipment, and student demand walking to school.

Area municipality staff, at their discretion, selected four school zone sites on area municipality roadways most in need of ASE. Area municipalities having only a limited number of school zones along municipal roadways had the option to consider and select school zones situated on Regional roads within their respective municipality. In addition to area municipality selected locations, Regional staff selected four school zones situated on Regional roads within the Region. From this initial list of 32 sites, staff will work area municipality staff to develop a "short-list" of eight sites for the initial program launch.

7.0 Proposed ASE Sites

Regional staff has identified four potential ASE sites on Regional roads as noted in Appendix A. These locations are subject to Regional Council approval.

Area municipality staff have also identified potential ASE sites on area municipality or

Regional roads as noted in Appendix B. These locations are subject to the approval of respective area municipality councils (for sites that are situated on area municipal roadways) and Regional Council (for sites situated on Regional roads as recommended by area municipality staff).

As noted in Section 5.0 Regional staff are recommending an initial program launch to include eight ASE sites and that the program be expanded incrementally subject to Council approval.

Speeding is a priority issue for the City of Cambridge staff and Council and City of Cambridge staff intends to fully participate in the ASE program. City staff will be seeking City Council endorsement of the recommended ASE sites prior to providing that information to the Region. Staff will work with City of Cambridge staff to implement the City of Cambridge selected site as soon as this information is available.

8.0 Proposed ASE Site Speed Limits

Regional staff recommends that the current speed limits at proposed ASE sites on Regional roads be maintained. The primary reasons for maintaining speed limits in effect today include:

- Speed limits were originally set based on the average speed of drivers which helps to produce uniformity in speed;
- With uniform traffic speeds, drivers are less impatient, pass less often, and are less likely to tailgate, which reduces both head-on and rear-end collisions;
- Safe drivers are not penalized;
- Speed limits are not seen as being set arbitrarily too low; and
- Integrity of the program is maintained.

Area municipality staff have opted to maintain existing speed limits in effect today as well for similar reasons.

9.0 Legal Agreements

Similar to the Region's Red-light Camera Program, in order to operate an ASE program in the Region of Waterloo, the Region is required to enter into necessary agreements with the following agencies:

- Ministry of Transportation Ontario to use automated speed enforcement on Regional and area municipality roadways and to access license plate registry;
- Reflex Traffic Systems (Canada) Limited to supply, install, operate and maintain ASE sites within the Region of Waterloo based on the semi-fixed equipment described above;
- City of Toronto to operate and cost-share the joint municipal processing centre which issues the certificate of offence; and

- All participating local area municipalities having the Region administer ASE on their behalves based on the costing and site selection criteria described above.

Staff has already commenced work on these agreements and will make best efforts to complete the agreements as soon as possible after Regional Council approval of the ASE program.

10.0 Education on Enforcement

Subject to receiving Council approval, Regional staff will post on-street signs at all selected school zone sites planned for ASE in accordance with the pending Ministry of Transportation agreements that require three-months advance notification. In addition to providing advanced notice at selected sites, Regional staff will update the Region's website to provide information about ASE and its intended objective to improve road safety in school zones. The Ontario Traffic Council (OTC) is also developing a website that will provide comprehensive information about the ASE program and its participating municipalities. This OTC website would likely be the focal point of public education.

11.0 Anticipated Benefits of ASE

ASE is anticipated to encourage drivers to slow down and abide by the prescribed speed limit within school zones. This behavior, in turn, is likely to:

- Reduce collisions within school zones;
- Reduce injuries and fatalities within school zones;
- Enhance walkability in school zones; and
- Encourage active transportation within school zones for youth.

The Highway Safety Manual documents that automated speed enforcement cameras can reduce fatal, serious, minor and possible injury collisions by approximately 17%.

12.0 Next Steps

Subject to receiving approval from Regional Council, Regional staff will complete the required applicable legal agreements with MTO, Redflex, the City of Toronto and area municipality partners. It is expected that the negotiation and execution of ASE legal agreements will take up to six months to complete. Staff will continue to expedite this process to be ready to implement ASE as soon as possible after students return to area schools and when there is sufficient capacity in the Region's POA court systems per COVID-19 recovery. Based on timing required for these actions, ASE is anticipated to be operational in late 2020, at the earliest.

Corporate Strategic Plan:

This report supports Strategic Objective 2.3 Increase participation in active forms of transportation (cycling and walking), Strategic Objective 2.4 Improve road safety for all

users/drivers, cyclists, pedestrians, horse and buggies and Strategic Objective 4.1 Improve child and youth wellbeing in Waterloo Region.

Financial Implications:

The estimated start-up capital cost for the proposed ASE program launch, including eight semi-fixed sites would have an estimated cost of approximately \$360,000, which consists of an installation cost of approximately \$38,000 per site and a one-time start-up cost of \$55,000 for the Toronto Joint Processing Centre (JPC).

There is currently no provision for these expenditures in the 2020-2029 Transportation Capital Plan. It is recommended that the capital cost be funded from the Transportation Capital Reserve. Through the budget process, the Transportation Capital Reserve has been fully committed and debentures have been forecasted to be required as part of the overall funding strategy. Unplanned use of funds will likely lead to an earlier issuance of long-term debt for other road projects.

The estimated annual operating cost under the proposed contract, based on the recommended initial program launch is \$135,000. This includes \$35,000 for management of the cameras in use and \$100,000 for the Region's share of costs for the Toronto JPC. Based on the proposed contract with Redflex Canada, additional cameras can be added; however, the annual operating cost per camera increases for each subsequent year of the contract. The annual contract cost per unit escalates to \$107,000 by 2024. Regional staff time for program administration and POA processing would be additional to this contract amount. The annualized operating costs will be brought forward through the 2021 Budget process.

Annual Operating Costs Based on Implementation Year

	2020	2021	2022	2023	2024
Cost Per Camera	\$35,000	\$40,000	\$44,000	\$54,000	\$107,000
Toronto Joint Processing Centre	100,000	100,000	100,000	100,000	100,000
Total	\$135,000	\$140,000	\$144,000	\$154,000	\$207,000

Given the level of POA charges processed in 2019, staff anticipate that there is some

capacity (once pre-COVID capacity is restored) to process additional ASE charges (up to approximately 5,000 charges annually) without needing to increase staff resources in POA. Subject to the scope of a future ASE Program expansion, additional staff resources will be required to manage the program especially if there is no way to transfer charges electronically. There would also be additional impacts to in-court resources such as court-room availability and Justice of the Peace resources. Any additional staff requirements would be determined as part of future budget processes, as required.

The preliminary estimate for ASE revenue is in the range of \$200,000 to \$400,000 per year, subject to variability based on ASE operating parameters and driver compliance. All revenue received through the ASE program would be retained by the Region. At this time, when one considers the direct operating cost from the vendor and the Toronto JPC and the Regional staff time for program administration and POA processing, staff anticipate that revenues generated from the ASE program are not likely enough to offset increased annual operating costs. Staff; however, will be monitoring the charge volume, staff costs and revenue received as the program progresses.

The COVID-19 pandemic is putting significant financial pressure on 2020 tax supported operating budgets at this time. As reported in COR-FSD-20-17 dated June 24, 2020, the Region of Waterloo experienced a year to date tax supported operating deficit of \$3.8 million to the end of April 30, 2020 and is estimated to have a net 2020 operating shortfall between \$13 million and \$17 million, due predominantly to COVID-19.

Given the significant financial challenges resulting from the COVID-19 Pandemic, staff considered various options to help mitigate the capital cost of this project in 2020. Staff did revise the phased ASE program launch by reducing the number of sites from the initial plan of 32 sites to only 8 sites in 2020. This reduced the initial capital cost from \$1.27 million to \$360,000.

Given the difficult financial situation caused by the COVID pandemic, Council may want to consider deferral of the program launch. Should deferral of program launch be desired by Council, staff recommend that the implementation plan be approved as presented but that the anticipated capital and operating costs be brought forward as an issue paper in the 2021 budget process and considered in the context of all financial pressures. Timing of the program launch and the number of initial locations would be reconsidered in the issue paper.

Other Department Consultations/Concurrence:

Staff within Planning, Development and Legislative Services and within Corporate Services have been consulted and are in agreement with this report.

The Council and Administrative Services Division will be required to prepare the amending by-law.

Attachments

Appendix A - Regional Staff Recommended ASE Sites on Regional Roads

Appendix B – Area Municipality Staff Recommended ASE Sites on Municipality and Regional Roads

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Approved By: **Thomas Schmidt**, Commissioner, Transportation and Environmental Services

Appendix A - Regional Staff Recommended ASE Sites on Regional Roads

School	Street	Municipal Jurisdiction
Laurentian Public School	Westmount Road	Region of Waterloo
Sandhills Public School	Victoria Street	Region of Waterloo
Forest Hill Public School	Westmount Road	Region of Waterloo
Conestogo Public School	Sawmill Road	Region of Waterloo

Appendix B – Area Municipality Staff Recommended ASE Sites on Area Municipality and Regional Roads

School	Street	Municipal Jurisdiction
Keats Way Public School	Keats Way	City of Waterloo
Sir Edgar Bauer Catholic School	Glen Forest Boulevard	City of Waterloo
Lester B. Pearson / St. Lukes Catholic School	Chesapeake Drive	City of Waterloo
Elizabeth Ziegler Public School	Moore Avenue	City of Waterloo
Sir Adam Beck Public School *requires joint approval	Snyder's Road	Township of Wilmot / Region of Waterloo
Waterloo Oxford S.S. *requires joint approval	Snyder's Road	Township of Wilmot / Region of Waterloo
New Dundee Public School *requires joint approval	Bridge Street	Township of Wilmot / Region of Waterloo
Forest Glen Public School *requires joint approval	Waterloo Street	Township of Wilmot / Region of Waterloo
New Jerusalem Parochial School	New Jerusalem Road	Township of Woolwich
Clearview Mennonite School	Three Bridges Road	Township of Woolwich
Mennonite Parochial School	Floradale Road	Township of Woolwich
Foundation Christian School	Katherine Street	Township of Woolwich
Franklin Avenue Public School	Franklin Avenue	City of Kitchener

Speeding is a priority issue for the City of Cambridge staff and Council and City of

School	Street	Municipal Jurisdiction
Lackner Woods Public School	Zeller Drive	City of Kitchener
St. Anne Catholic Elementary School	East Avenue	City of Kitchener
St. John's Catholic Elementary School	Strange Street	City of Kitchener
Wellesley Public School	Queen's Bush Road	Township of Wellesley
St. Clements Catholic School *requires joint approval	Lobsinger Line	Township of Wellesley / Region of Waterloo
Cedar Creek Public School	Hilltop Drive	Township of North Dumfries
Ayr Public School	Hall Street	Township of North Dumfries
St. Brigid Catholic School	Broom Street	Township of North Dumfries

Cambridge staff intends to fully participate in the ASE program. City staff will be seeking City Council endorsement of the recommended ASE sites prior to providing that information to the Region. Staff will work with City of Cambridge staff to implement the City of Cambridge selected site as soon as this information is available.