



**City of Kingston
Report to Council
Report Number 21-133**

To: Mayor and Members of Council
From: Sheila Kidd, Commissioner, Transportation & Public Works
Resource Staff: Ian Semple, Director, Transportation Services
Date of Meeting: May 18, 2021
Subject: Red Light Camera Program Update

Council Strategic Plan Alignment:

Theme: 3. Improve walkability, roads and transportation

Goal: 3.2 Enhance public safety through active transportation and a focus on pedestrian access and enforcement.

Executive Summary:

On December 3, 2019, Council approved the implementation of a Red Light Camera (RLC) program for the City to start in 2022 with a minimum of ten locations. Since the program was approved, staff has been completing the technical and safety analysis to determine a candidate list of RLC intersections, while finalizing the execution of agreements with the RLC Contractor, Ministry of Transportation Ontario (MTO), and the City of Toronto.

Through the technical and safety analysis, staff has identified a pre-screened list of intersections as potential candidates for RLC implementation. Under the terms of the RLC contract, the City must pre-commit to the number of camera locations that will be installed ahead of work by the RLC Contractor that specific locations are suitable.

While the pre-screening completed by City staff is robust, there may be unforeseen site-specific constraints based on the technical requirements for the equipment and installations that may deem some candidate locations ineligible by the RLC Contractor. Staff also note that some of these pre-screened locations are relatively close to one another and would typically be considered as an either/or for implementation in an RLC program to achieve geographic distribution and improved driver behaviour more broadly throughout the city.

May 18, 2021

Page 2 of 12

Based on the technical analysis and terms of the RLC contract, staff is recommending a phased approach with the City initially entering the program with seven cameras to maximize the safety benefits of the RLC program and reduce the risk of contract commitments for equipment that cannot be installed. Additional cameras can be added throughout the term of the contract and staff will continue to assess any remaining candidates from the pre-screened list and monitor new candidate intersections for installation at a future date.

As the recommended implementation reduces the number of initial site installations from a minimum of ten to seven, Council approval is required to proceed with this approach. The City will work with the RLC Contractor to confirm the final list of intersections based on the City's recommendations and RLC Contractor's screenings, and will update Council when the locations have been finalized.

Since Council approval of the program, a new contract option also became available that allows the City to enter the RLC program under an initial term of three years (Q1 2022 to Q2 2025), with an option to extend a further two years through Q2 2027 at the City's discretion. Under this new contract option, the City would benefit from improved equipment technology and a lower annual cost of \$24,557 per camera versus \$44,690 per camera under the previous contract modeled in [Report Number 20-009](#). The annual cost per camera is further reduced to \$11,932 during the optional two-year extension.

These new contract terms and pricing results in an updated program cost, once variable and administrative costs are taken into account, estimated at approximately \$1.7 million over the five-year period for seven cameras. The previous report estimated \$3.2 million for ten cameras under the previous RLC vendor contract.

Per previous Council direction, staff is formalizing agreements with the Ministry of Transportation Ontario (MTO), City of Toronto, and RLC Contractor, and target to execute the agreements in Q2 and Q3 of this year. Final intersection reviews with the RLC Contractor will be completed once the contract is in place and installation of the RLC equipment is targeted for Q4 2021.

Concurrently, education and communications related to red light running and the RLC program will be developed to support the launch of the program, and the local Provincial Offences Court will prepare for the intake and administration of appeals of red light camera violations.

The program is on track to begin operation in Q1 2022.

Recommendation:

That based on the technical analysis and updated contract terms of the Red Light Camera program, staff be directed to modify implementation of the Red Light Camera program to an initial seven intersections in the City of Kingston for operation beginning in 2022, with an option to implement additional intersections through the term of the contract.

May 18, 2021

Page 3 of 12

Authorizing Signatures:

ORIGINAL SIGNED BY COMMISSIONER

**Sheila Kidd, Commissioner,
Transportation & Public Works**

ORIGINAL SIGNED BY CHIEF
ADMINISTRATIVE OFFICER

**Lanie Hurdle, Chief
Administrative Officer**

Consultation with the following Members of the Corporate Management Team:

Paige Agnew, Commissioner, Community Services Not required

Peter Huigenbos, Commissioner, Business, Environment & Projects Not required

Brad Joyce, Commissioner, Corporate Services

Jim Keech, President & CEO, Utilities Kingston Not required

Desirée Kennedy, Chief Financial Officer & City Treasurer

May 18, 2021

Page 4 of 12

Options/Discussion:

The Red Light Camera (RLC) program has been operating in Ontario since November 2000, and all participating municipalities that operate RLCs are part of a common program that standardizes the equipment, violation criteria, violation processing, and prosecution process. For legal and practical reasons, all components of the program, from the equipment used through to the processing of the violations, are identical for all participating municipalities in Ontario. All municipalities operate the program identically and follow the same rules and processes.

On December 3, 2019, City Council passed the following amended motion as part of [Report Number 20-009](#):

That staff be directed to implement a red light camera program at a minimum of 10 intersections in the City of Kingston for operation beginning in 2022; and

That the Mayor and Clerk be authorized to sign all agreements, in a form satisfactory to the Director of Legal Services, required to implement the red light camera program by the first quarter of 2022, including the contract with the red light camera vendor selected by the partnership of Ontario municipalities that are currently participating in the red light camera program; and

That staff include as part of the 2021 and ongoing annual municipal operating budgets the costs and related revenues for the red light camera program; and

That staff be directed to create a reserve from the net revenue from the red light camera program to fund the setup, launch, and operation of the red light camera program through the 5-year contract period; and

That the intersections selected for red light cameras be fitted with pedestrian countdown devices prior to the red light cameras being installed at the intersections.

Based on this direction, staff initiated the planning and pre-work for the implementation of the RLC program in early 2020. This report provides Council with an update on progress to date on the RLC program implementation and information on changes to the program and contract terms with the RLC provider. This report also recommends that the City start the program with seven sites versus ten based on technical analysis, more favourable contract terms and pricing, and opportunities to lower the risk of the program startup.

The program operating parameters, processing, and enforcement remain the same as outlined in [Report Number 20-009](#) and explained in the accompanying [Frequently Asked Questions](#).

May 18, 2021

Page 5 of 12

Based on the updated information and technical analysis, the following highlights the next steps and actions required for the City to finalize implementation of this program.

1. Execution of the RLC contract under the updated contract terms and pricing.
2. Confirmation of the intersection approaches with the RLC Contractor for installation of the RLCs.
3. Amendment of the Highway Traffic Act of Ontario (Regulation 277/99) to identify the intersections that will operate with RLCs, which is undertaken through the Ministry of Transportation.
4. Execution of agreements with the Ministry of Transportation Ontario and the City of Toronto.
5. Installation of the RLC equipment at the committed intersections by the contractor.
6. Start-up, commissioning, and operation of the RLC program.

The updated contract terms, intersection candidate selection process, progress on the contract executions with government agencies, and other action items are discussed further below.

Agreement with RLC Contractor

The equipment installation, operation, and maintenance of the existing RLC program in Ontario is provided through a common contracted service, Traffipax, which was selected through a competitive procurement managed by the City of Toronto. In early 2020, the City of Toronto issued a Request for Proposals for a new RLC contract which incorporated updates for new equipment technology available for this program and new pricing. The existing RLC program contractor, Traffipax, was the successful proponent of this new contract and the City of Toronto signed a new contract with the vendor with the terms available to all municipalities in Ontario that choose to operate a RLC program. The previous contract continues to be in place for existing RLC programs which continues on a 5-year renewal cycle, with the next renewal in 2022, and municipalities have the option of entering the program for new installations through either contract type.

Staff has reviewed the new contract and note that it includes improved equipment technology, a lower unit cost per camera, and a contract term that will initially be three years in length based on the timing when Kingston will enter the contract (Q1 2022 to Q2 2025) with an option, by the City, to extend a further two years versus an initial fixed five-year term. Going forward, it is anticipated that the new contract terms will cycle as five-year terms with an option to extend by five years, consistent with the previous contract terms/program.

As per previous Council approval, staff has initiated the process of executing the contract with the RLC Contractor with a target to finalize this in Q2 2021.

May 18, 2021

Page 6 of 12

RLC Intersection Selections

Following Council’s approval of the RLC program, the City initiated the selection process for RLC sites by assembling and reviewing updated collision data for all of the City’s signalized intersections and shortlisting intersections with identified safety benefits for detailed study.

Table 1 summarizes the studies/screenings that were conducted to shortlist and assess intersections for viability of an RLC.

Table 1 – Studies Conducted to Assess Candidate Intersections for Red Light Cameras

Study/Screening	Criteria/Assessment Description
Safety Analysis	A safety analysis was conducted to review locations with combinations of angle collisions and lower numbers of rear-end collisions, which would provide the highest likelihood of positive change associated with the installation of red light cameras.
Engineering Studies	Engineering studies were conducted on candidate intersections to confirm that an RLC system is technically feasible and suitable at these locations, based on geometric reviews and existing equipment and signal timings.
Geographic Distribution	<p>Sites were reviewed for geographic distribution.</p> <p>RLC programs typically target to achieve a widespread change in driver behaviour at signalized intersections across the municipality, known as a “halo” effect. This is typically sought through balancing the quantity and location of cameras across a geographical area, spread of information/awareness of the program through the community and time for the effect to take hold.</p> <p>Distribution of the cameras throughout the jurisdiction is desired to seek improved driver behaviour throughout the jurisdiction, and not solely in concentrated areas.</p>
Violation Studies	<p>Violation studies were conducted to consider the frequency of red light running violations at select locations.</p> <p>Studies were conducted in the fall of 2020 during a period that schools, facilities, and businesses had resumed some</p>

May 18, 2021

Page 7 of 12

	in-person operations, however traffic patterns may have been impacted by COVID-19.
Site Suitability Review	<p>Candidate intersections were reviewed relative to recently completed and upcoming capital improvement projects, utility, and property constraints.</p> <p>Capital improvements were considered on a case by case basis as construction at these locations may have potential impacts on the placement of the RLC and/or the safety benefits anticipated to be achieved from an RLC.</p>

The City has 191 existing signalized intersections that were considered for the RLC program. Of these locations, 63 of these intersections had zero angled collisions over the last five years, and 37 intersections only had one angled collision. These locations were screened out as RLC candidates based on this safety information.

A further 17 intersections which had multiple angled collisions were screened out due to high instances and proportions of rear-end collisions as RLC can increase the number of rear-end collisions at implemented intersections. Some highly-ranked intersections based on the initial safety analysis were also screened out due to proximity of existing utilities as site suitability for an RLC camera is particularly sensitive to proximity to existing overhead power/cables.

Additional intersections were screened out due to capital improvements or other changes in the area that may have impacts on the geometry, traffic patterns, or operation of the intersection. Geographic factors were also considered to promote the desired halo effect.

Based on this technical review staff has identified the following 13 intersections as pre-screened candidates for RLC installation:

- Sydenham Road at Unity Road
- Perth Road at Unity Road
- County Road 2 at Princess Mary/Craftsman Boulevard
- John Counter Boulevard at Sir John A. Macdonald Boulevard
- John Counter Boulevard at Leroy Grant Drive
- Johnson Street at Barrie Street
- Johnson Street at Bagot Street
- Brock Street at Division Street
- Taylor-Kidd Boulevard at Milford Drive
- Princess Street at Bayridge Drive
- Princess Street at Centennial Drive

May 18, 2021

Page 8 of 12

- Centennial Drive at Wheathill Street
- Division Street at Concession Street

Under the terms of the RLC contract, both existing and new, the City must pre-commit to the number of camera locations that will be installed ahead of confirmation by the RLC vendor that the locations are suitable.

The 13 pre-screened candidate intersections have been assessed for obvious obstructions and conflicts (e.g. proximity of existing utilities and property constraints), however the sites will undergo further review by the RLC Contractor and may be deemed ineligible based on technical requirements for the equipment installations and site constraints. Staff also note that some of these pre-screened locations are relatively close to one another and would typically be considered as an either/or for implementation in an RLC program to achieve geographic distribution and a halo effect of improved driver behaviour more broadly throughout the city.

Given that any of the pre-screened candidate locations could be deemed ineligible by the RLC vendor, coupled with the relatively close geographic proximity of some of the locations selected, staff is recommending that the City commit to seven sites for initial deployment of the program. The pre-screened candidate list will be used as the basis for the selection of the seven sites and final selection, pending confirmation with the RLC vendor, will be shared back to Council ahead of the equipment installations.

This phased approach is intended to maximize the safety aspects of the RLC program while reducing the risk of contract commitments for equipment that cannot be installed. The new contract terms allow for additional sites to be added at any point in the contract, and staff will monitor for consideration of new candidate intersections for intake at future dates.

This approach is also consistent with the approach of other Ontario municipalities entering the program or adding additional sites – municipalities enter a contract with the vendor for a committed number of cameras and then the RLC vendor works through site selections with the municipalities thereafter. The four other municipalities scheduled to join the program by 2022 include the Regional Municipality of Niagara and City of Windsor who are implementing ten cameras each, and the City of Guelph and City of Greater Sudbury who are each implementing six cameras.

As the recommended implementation reduces the number of initial site installations from a minimum of ten to seven, Council approval is required to proceed with this approach.

Once the agreement is executed, the RLC Contractor will schedule assessments of the City's shortlisted intersection candidates to finalize the locations for installation, and schedule equipment installations thereafter. The City is targeting for the assessments to be completed by the RLC Contractor in Q3 and for installations to be completed in Q4.

May 18, 2021

Page 9 of 12

Updated RLC Program Costs and Resourcing

The City has updated the estimate of fixed and variable costs based on the new contract that is available with the RLC Contractor and a reduced number of cameras upon launch of the program. Based on seven cameras, the City estimates that it would cost approximately \$356,900 per year for fixed and variable costs. The updated estimated costs are outlined in Table 2 below:

Table 2 – Updated Estimated Annual Costs of Red Light Camera Program

Cost	Components	Estimate
Fixed annual costs for 7 cameras	<ul style="list-style-type: none"> Camera hardware, installation and maintenance provided by the contracted service 	\$171,900
Variable costs (depending on number of violations)	<ul style="list-style-type: none"> Violation processing fees provided by the City of Toronto, which is completed on a cost recovery basis MTO processing and administration fees related to accessing registered owner information 	\$85,000
City administration costs	<ul style="list-style-type: none"> Management and administration of the red light camera program, including implementation and ongoing day-to-day operation Ongoing information and education about the red light camera program Legal and prosecution support for violation appeals 	\$100,000
Total Estimate of Annual Costs	<ul style="list-style-type: none"> RLC Program with 7 Cameras (from Q1 2022 to Q2 2025) 	\$356,900

For the purpose of this estimate, the fixed annual costs for seven cameras are based on the initial agreement execution up to May 2025 which includes an annual per camera cost of \$24,557 versus \$44,690 per camera under the previous contract modeled in [Report Number 20-009](#). The costs for seven cameras will be further reduced to \$83,523/year for the optional extension of the agreement by two years, from May 2025 to May 2027, as the annual unit price per camera will be reduced to \$11,932.

The total costs of the program for a five-year term are estimated to be \$1.7 million for seven cameras under the new contract available as of 2020 (based on a three-year initial agreement and a two-year extension). The previous estimate for ten cameras and based on the original

May 18, 2021

Page 10 of 12

contract term was \$631,900 per year, which equated to approximately \$3.2 million for a five-year term.

As the City receives \$260 per violation, it would require approximately 0.6 tickets per camera per day for the program to cover all operating costs of the program, including additional staff time, communications, and education through May 2025.

Agreement with MTO and Amendment of Highway Traffic Act

In February 2020, the City submitted formal notification to the MTO of intent to establish a RLC Enforcement Program. In order to establish this program under the MTO, an amendment to Ontario Regulation 277/99 is required and, once approved, the amended Ontario Regulation will designate the City as a municipality authorized to establish an RLC Enforcement Program and prescribes intersection codes for the City to use when issuing red light camera offence notices.

As part of this process, the MTO posted the City's notification of intent to establish a RLC Enforcement Program to its Regulatory Registry for a mandatory comment period in November 2020, and the regulation was amended to include Kingston in March 2021.

As per previous Council approval, staff has initiated the process of drafting the agreement with the MTO and anticipate the execution of this agreement in Q3 2021.

Agreement with City of Toronto/Joint Processing Centre

In Ontario, the RLC program violation processing is completed at a centralized location provided by the City of Toronto with support from the MTO. As such, the City is required to execute an agreement with the City of Toronto/Joint Processing Centre.

As per previous Council approval, staff has initiated this process and expect to execute this agreement in Q3 2021.

Start-up, Commissioning, and Program Operation

Staff continue work on draft agreements with the stakeholders noted above, with targets to execute all required agreements in Q2 and Q3 of this year.

Installations of the RLC equipment are targeted for Q4 2021, following execution of this agreement with the RLC contractor. The program is targeted to launch in Q1 2022, with program costs and associated revenue included as part of the 2022 operating budget.

The local Provincial Offences Court is preparing for the intake and administration of appeals of red light camera violations upon launch of the RLC program in the city.

Education and communications related to red light running and the RLC program will be developed this year to support the launch of the program in Kingston.

May 18, 2021

Page 11 of 12

Automated Speed Enforcement Program

Staff are bringing forward a report in Q2 2021 on information available on the Automated Speed Enforcement (ASE) program that launched in Ontario in 2020. The report will provide an overview of ASE, the approach to ASE that has been developed for Ontario municipalities, a summary of any available information on the programs that are being implemented in Ontario, along with any available information on program costs and resourcing.

Existing Policy/By-law:

None

Notice Provisions:

None

Accessibility Considerations:

None

Financial Considerations:

The total costs of the program are estimated to be \$356,900 per year, or \$1.7 million for a five-year term for seven cameras under the new contract available as of 2020 (based on a three-year initial agreement and a two-year extension). The costs and associated revenues will be included as part of the 2022 operating budget and subsequent operating budgets thereafter.

Contacts:

Ian Semple, Director, Transportation Services, 613-546-4291 extension 2306

Marissa Mascaro, Manager, Transportation Infrastructure, 613-546-4291 extension 3125

Other City of Kingston Staff Consulted:

Matt Kussin, Manager, Transportation Policy and Programs, Transportation Services

Tyler Lasko, Manager, Corridor Control and Development, Transportation Services

Matt Wood, Project Manager, Transportation Services

Sarah Gareau, Senior Legal Counsel

Wendy McCafferty, Court Administrator, Legal Services

Lana Foulds, Director, Financial Services

May 18, 2021

Page **12** of **12**

Exhibits Attached:

None