Subject: Delegated Authority for the Installation of All-Way Stop Controls

Associated to In-Service Road Safety Reviews and Installation of an

All-Way Stop Control at 8th Line Road and Parkway Road

File Number: ACS2023-PWD-TRF-0006

Report to Transportation Committee on 22 June 2023

and Council 28 June 2023

Submitted on June 13, 2023 by Carol Hall, Associate Director, Traffic Services,
Public Works Department

Contact Person: Cathy Kourouma, Program Manager, Road Safety

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Ward: Citywide

Objet : Pouvoirs délégués d'installation de panneaux d'arrêt toutes directions suivant un examen de la sécurité des routes en service, et installation de panneaux à l'intersection des chemins 8th Line et Parkway

Dossier: ACS2023-PWD-TRF-0006

Rapport au Comité des transports

le 22 juin 2023

et au Conseil le 28 juin 2023

Soumis le 13 juin par Carol Hall, directrice adjointe, Services de la circulation, Direction générale des travaux publics

Personne ressource : Cathy Kourouma, gestionnaire de programme, Sécurité routière

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Quartier : À l'échelle de la ville

REPORT RECOMMENDATION(S)

That Transportation Committee recommend that Council approve:

- 1. The General Manager, Public Works Department, and the Director, Traffic Services be delegated the authority to install unwarranted All-Way-Stop-Controls within the conditions outlined in this report;
- 2. The use of Delegation of Authority be reported annually to the Transportation Committee by the Public Works Department; and,
- 3. The installation of an All-Way Stop Control at the intersection of 8th Line Road and Parkway Road, as described in this report.

RECOMMANDATION(S) DU RAPPORT

Que le Comité des transports recommande au Conseil d'approuver ce qui suit :

- 1. Que le directeur général des Travaux publics et le directeur des Services de la circulation se voient déléguer le pouvoir de faire installer des panneaux d'arrêt toutes directions aux intersections ne répondant pas aux critères justificatifs, aux conditions énoncées dans le présent rapport;
- 2. Que la Direction générale des travaux publics rende compte chaque année au Comité des transports de l'exercice de ce pouvoir délégué;
- 3. Que des panneaux d'arrêt toutes directions soient installés à l'intersection des chemins 8th Line et Parkway, comme il est décrit dans le présent rapport.

BACKGROUND

The implementation of All-Way Stop Controls (AWSC) is subject to a Council approved warranting process (Intersection All-Way Stop Control Warrant Review, ACS# ACS2020-TSD-TRF-0002). A specific set of criteria, which varies based on road classification, must be met for staff to implement AWSC at a given intersection. The warranting process approved in 2020 serves as an update to a previous process established in 2006. The recent updates to the AWSC warrant are specifically applicable to urban intersections and rural village intersections. In the case of rural arterial roadways, the 2006 warrant criteria still applies.

An all-way stop control, also known as a four or three-way stop as appropriate, manages traffic such that vehicles on all approaches must stop prior to crossing the intersection. AWSC is first and foremost a traffic control device, however, in certain

instances, when recommended through an In-Service Road Safety Review, it can also be deemed an appropriate safety improvement. Such a countermeasure can help reduce angle collisions at the intersection in question.

An in-service road safety review is an in-depth engineering study of an existing road. The aim of the review, while using road safety principles, is to identify cost-effective countermeasures to improve road safety and operations for all road users. Locations are identified and prioritized for In-Service Road Safety Reviews through annual collision data monitoring and network screening to identify locations with a high occurrence (or risk) of collisions resulting in fatal and/or major injuries that are likely to benefit the most from safety improvements.

Currently, the Department of Public Works does not have delegated authority to implement AWSC where a location does not meet the Council-approved warrant criteria for an AWSC. This also applies in situations where AWSC has been recommended as an appropriate traffic control measure through an In-Service Road Safety Review at an unwarranted location. This report will serve to provide a concrete example, such as in the case of 8th Line Road and Parkway Road, as to instances in which the use of Delegated Authority should be granted for installation of unwarranted AWSC. The report will further serve to summarize conditions moving forward for the appropriate use of delegated authority by the Public Works Department related to AWSCs.

DISCUSSION

8th Line Road and Parkway Road Intersection – Safety Improvements

As part of the Council-approved 2020-2024 Strategic Road Safety Action Plan (ACS2019-TSD-TRF-0009) under the "Rural Areas" emphasis area, 8th Line Road and Parkway Road was identified through a network screening process for safety improvements. The results of a network screening exercise, using 5-year collision data recorded between 2015-2019, ranked the intersection in the top 10 of all rural unsignalized intersections with respect to the potential for safety improvements. Further, in August 2021, Councillor George Darouze issued a formal inquiry at Transportation Committee about a safety review at this same intersection, in response to a series of collisions.

In response to the network screening exercise and to Councillor Darouze's inquiry, <u>TRC 02-21 - Road Safety of the Intersection at 8th Line Rd. and Parkway Rd.</u>, an In-Service Road Safety Review (ISRSR) was initiated with a 3rd party consultant. The ISRSR was completed in March 2023 and included a comprehensive desktop review, a detailed

field study, as well as a review of video conflict data. A set of recommendations for safety improvement was provided as the project's output.

The City's previous efforts in implementing countermeasures to address the occurrence of angle collisions at this intersection included the implementation of oversized signage, transverse pavement markings, stop ahead warning signs, 'Cross Traffic Does Not Stop' warning signs, as well as overhead flashing beacons. The consultant, as part of their review, acknowledged these enhancements and given that collisions continued to persist, provided the following short-term recommendation:

"Consider converting the intersection to all-way stop control. This change in traffic control is expected to be an effective countermeasure to significantly minimize conflict risk."

As the intersection of 8th Line Road and Parkway Road does not meet the Councilapproved warrant criteria for the installation of an AWSC, staff do not have delegated authority for its installation.

All-Way Stop Control (AWSC) Warrant Process

The rural arterial warrant (applicable to 8th Line Road and Parkway Road) is based on three main criteria: collisions, visibility, and traffic volumes. At least one of the three criteria must be met to warrant an AWSC intersection.

- 1. Collisions: the intersection is to have experienced an average of 3 (preventable, *turning movement type*) collisions over the most recent 3-year period.
- 2. Visibility: minimum stopping sight distance is not achievable at the intersection.
- 3. Or, all three of the following volume criteria must be met:
 - a. Total vehicle volume for all approaches (combined volume) which is greater than or equal to an **average** of 350 vehicles per hour over the peak 8-hour period;
 - b. Total minor street volume equal to or greater than an **average** of 140 vehicles per hour over the same 8-hour period; and,
 - c. Minimum directional volume split (Major Street /Minor Street) of 65/35 for Four-Legged Intersections or 75/25 for Three-Legged Intersections.

All-Way Stop Control (AWSC) Assessment – 8th Line Road & Parkway Road

In unique instances, the use of AWSC can be appropriate when the City of Ottawa warrants are not met. The intersection of 8th Line Road and Parkway Road is an example of this. The recommendation for consideration of AWSC at this intersection was carried forward through the In-Service Road Safety Review (ISRSR) conducted by the consultant.

The recommendation for AWSC as part of the ISRSR was accompanied by an acknowledgement that the intersection does not meet warrant guidelines as established in the Ontario Traffic Manual - Book 5 Regulatory Signs (OTM Book 5). More specifically, the consultant noted:

"In this case, reducing the conflicting vehicles speeds and providing right-of-way for eastbound and westbound motorists is expected to help reduce the frequency and severity of conflicts. While not generally installed at unwarranted intersections, all-way stop-control would be an effective countermeasure to significantly minimize conflict risk.

Therefore, the City should consider converting the intersection to an all-way stop controlled intersection."

Given the consultant's recommendation for AWSC was acknowledged not to meet minimum AWSC warrants as established by the City of Ottawa, guidelines established by the Ministry of Transportation of Ontario, and available engineering guidance, a further internal review was completed by Public Works' Traffic, Safety and Mobility staff. The internal review served to confirm whether the 8th Line Road and Parkway Road intersection would be suitable for AWSC.

The supplementary internal staff-led review consisted of a:

- Review of approach grades;
- Review of sightlines; and,
- Review of recent collision history.

Review of Approach Grades

Approach grades were verified to confirm the suitability of stop control for both the northbound and southbound 8th Line Road. The standard desirable limit for stop-controlled approach grades is +/-3% as per the <u>Transportation Association of Canada's Geometric Design Guide for Canadian Roads (TAC GDGCR)</u>. Staff confirmed through

site levelling survey that the approach grades are within the desirable range as per the TAC GDGCR).

Review of Sightlines

A minimum stopping sight distance is recommended for stop-controlled intersections. Sight distances were observed, both by the independent consultant and the Traffic, Safety and Mobility staff, to meet minimum requirements as per the TAC GDGCR.

Review of Recent Collision History

A detailed review of the latest collision data was undertaken by Traffic, Safety and Mobility staff to confirm the findings of the independent ISRSR. Staff's review concluded that an average of **2.7 collisions/year over the last 3 years (2019-2021)** was recorded at this intersection - one collision in 2019, four in 2020 and three in 2021. The warranted rate per OTM Book 5 and the City of Ottawa's warrant criteria is 3 collisions per year in the latest 3 years.

Based on the outcome of the internal staff-led review, the Traffic, Safety and Mobility staff conclude that the intersection of 8th Line Road and Parkway Road is suitable for the implementation of an AWSC. Review findings align with and support the ISRSR's recommendation for the implementation of an AWSC. For this reason, a temporary multi-way stop control has been implemented at the intersection to help reduce the risk of collisions. The temporary measure will be in place until Council-approval is granted to install permanent AWSC.

Request for Delegated Authority to Install AWSC Under Specific Conditions

As evident through the In-Service Road Safety review of the 8th Line Road and Parkway Road Intersection, in addition to staff's internal review for suitability of the recommended traffic control measures, there are instances where an All-Way Stop Control is deemed an effective safety enhancement to help prevent the risk of collisions resulting in serious injuries or fatalities. In such instances, it would be appropriate for Public Works to have delegated authority for its installation when the AWSC does not meet the Council-approved warranting process.

Through this report, staff are requesting Delegated Authority for the GM of Public Works, and the Director of Traffic Services, to implement unwarranted AWSC for the purpose of safety improvements under specific conditions. These include:

- All-way stop control is deemed appropriate to help reduce frequency and/or severity of collisions at the intersection in question based on the recommendations of an In-Service Road Safety Review (ISRSR);
- The location was identified and prioritized for an ISRSR by Traffic Services within the Public Works Department. It was selected through annual collision data monitoring and network screening as one with a high risk of collisions resulting in fatal and/or major injuries likely to benefit most from safety improvements; and,
- The intersection must be deemed suitable by Traffic Services staff for the implementation of an AWSC, and internal reviews, where considered appropriate, must align with the ISRSR findings.

Granting delegated authority would permit staff to install permanent unwarranted AWSC, as soon as practicable, when deemed an appropriate safety enhancement to help reduce the risk of collisions leading to serious injury or fatalities.

FINANCIAL IMPLICATIONS

There are no financial implications associated with the report recommendations.

LEGAL IMPLICATIONS

There are no legal impediments associated with the implementation of the recommendations of this report.

The following information is provided for reference.

The Integrated Accessibility Standards Regulation (the "IASR"), being Ontario Regulation 191/11, passed under the Provincial Accessibility for Ontarians With Disabilities Act, 2005 ("AODA") contains the Design of Public Spaces Standard, which applies to the City of Ottawa. This Standard, in effect for the City since January 1, 2016, prescribes certain standards for "new" or "redeveloped" public spaces and various elements such as exterior paths of travel and pedestrian crossings. In particular, when a new pedestrian crossing is implemented at an intersection, the IASR requires the pedestrian crossing to meet certain accessibility standards such as the requirement for a depressed curb or a curb ramp and the placement of tactile walking surface indicators. The City's own Accessibility Design Standards further reinforce these requirements for pedestrian crossings.

The City is required to submit an accessibility compliance report to the provincial Accessibility Directorate every two years to confirm that it has met its current accessibility requirements under the *AODA*, which will include compliance with the

Design of Public Spaces Standard. Should the City report non-compliance in the accessibility report, the Accessibility Directorate may further require an explanation for the non-compliance and will likely expect the City to develop a plan to achieve compliance. Non-compliance with the *AODA* is subject to review by the provincial director designated under the legislation, and enforcement actions may include inspections and the issuance of orders to produce accessibility reports or to rectify the non-compliance. Such orders are appealable to the designated provincial tribunal. Non-compliance with an order may incur the imposition of administrative penalties or charges.

For further clarity, neither Committee nor Council have the authority to provide an exemption from *AODA* requirements for exterior paths of travel and pedestrian crossings, given that the *AODA* is provincial law.

COMMENTS BY THE WARD COUNCILLOR(S)

As outlined within this report, this has been a long process and one that I am happy to be supportive of. Safety issues at the intersection of Parkway and 8th Line have existed far before my time as Councillor, and I have worked with staff and submitted inquiries to ensure that a solution was identified. Although there will be no solution that satisfies everyone, I am glad to see that one is being brought forward. I was unable to read the findings of the third-party review due to privacy reasons, and questions regarding the findings must be directed to the Information and Protection of Privacy Office. I am thankful for the work that has been done between myself, City staff, local residents near the intersection, and the community association in order to get to this report, and, look forward to this safety enhancement.

ADVISORY COMMITTEE(S) COMMENTS

Not Applicable

CONSULTATION

Extensive consultation took place with Councillor Darouze's Ward Office, residents, and the local community association throughout the In-Service Road Safety Review process.

ACCESSIBILITY IMPACTS

Measures, including the installation of traffic controls, implemented as part of the Strategic Road Safety Action Plan Program, where applicable, are implemented

according to the <u>Integrated Accessibility Standards Regulation (IASR)</u> of the <u>Accessibility for Ontarians with Disabilities Act, 2005, (AODA)</u> in addition to the City's <u>Accessibility Design Standards (ADS)</u>.

ASSET MANAGEMENT IMPLICATIONS

Not Applicable

CLIMATE IMPLICATIONS

Not applicable

ECONOMIC IMPLICATIONS

Not Applicable

ENVIRONMENTAL IMPLICATIONS

Not Applicable

DELEGATION OF AUTHORITY IMPLICATIONS

The report seeks delegated authority by the General Manager, Public Works and the Director, Traffic Services to implement unwarranted All-Way Stop Controls (AWSC) under the conditions described in the report.

The use of delegated authority to install unwarranted AWSC will be captured part of the annual report to Transportation Committee on the Use of Delegated Authority by the Public Works Department related to By-law N° 2023-67.

INDIGENOUS GENDER AND EQUITY IMPLICATIONS

The delivery of the Strategic Road Safety Action Plan aligns with helping build a safe and inclusive city. The program helps to address barriers for equity seeking groups by prioritizing vulnerable road users. The implementation of measures to improve safety and reduce collisions resulting in fatalities and major injuries are applied evenly and consistently throughout Ottawa and are not biased towards or against any sector of the population.

RISK MANAGEMENT IMPLICATIONS

Not Applicable

RURAL IMPLICATIONS

This report applies to the entire city with an emphasis on mitigating fatal and major injury collisions on rural roadways.

TECHNOLOGY IMPLICATIONS

Not Applicable

TERM OF COUNCIL PRIORITIES

The report aligns with the Integrated Transportation Priority in the City of Ottawa's 2019-2022 Strategic Plan.

SUPPORTING DOCUMENTATION

N/A

DISPOSITION

The Public Works Department will take appropriate action based on the recommendations made by the Committee and Council.