

- 3. 2019 Update - Pedestrian Crossover (PXO) Program in Ottawa**
Mise à jour 2019 – Programme de passages pour piétons d’Ottawa

COMMITTEE RECOMMENDATION

That Council approve the Pedestrian Crossover (PXO) Program, as described in this report.

RECOMMANDATION DU COMITÉ

Que le Conseil approuve le Programme de passages pour piétons d’Ottawa, décrit dans le présent rapport.

DOCUMENTATION / DOCUMENTATION

1. Director’s report, Traffic Services, Transportation Services Department, dated 18 April 2019 (ACS2019-TSD-TRF-0003)

 Rapport du Directeur, Services de la circulation, Direction générale des transports, daté le 18 avril 2019 (ACS2019-TSD-TRF-0003)
2. Extract of Draft Minute, Transportation Committee, 5 June 2019.

 Extrait de l’ébauche du procès-verbal de la Comité des transports, le 5 juin 2019.

Report to
Rapport au:

Transportation Committee
Comité des transports
5 June 2019 / 12 juin 2019

and Council
et au Conseil
12 June 2019 / 12 juin 2019

Submitted on April 18, 2019
Soumis le 18 avril 2019

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Ward: CITY WIDE / À L'ÉCHELLE DE LA File Number: ACS2019-TSD-TRF-0003
VILLE

SUBJECT: 2019 Update - Pedestrian Crossover (PXO) Program in Ottawa

OBJET: Mise à jour 2019 – Programme de passages pour piétons d'Ottawa

REPORT RECOMMENDATION

That the Transportation Committee recommend that Council approve the Pedestrian Crossover (PXO) Program, as described in this report.

RECOMMANDATION DU RAPPORT

Que le Comité des transports recommande au Conseil d'approuver le Programme de passages pour piétons d'Ottawa, décrit dans le présent rapport.

BACKGROUND

In September 2015, Council approved the [Pedestrian Crossing Treatments – Update to Ontario Traffic Manual \(OTM\) Report \(ACS2015-COS-PWS-0014\)](#). As a result, Council agreed to the reintroduction of the Pedestrian Crossover (PXO) as a crossing control treatment in Ottawa as part of a three-year PXO Program pilot. The pilot aimed to implement and evaluate the function, value and safety of new, simpler, less expensive forms of PXOs introduced by the Ontario Ministry of Transportation (MTO). These new PXO types would enable greater continuity of the pedestrian facility network linking pathways and sidewalks across streets in a host of road and traffic conditions. The pilot also aimed to evaluate a program to monitor and administer the PXO application.

PXOs are designated areas where vehicles must yield to pedestrians who are crossing or are waiting to cross the roadway, allowing pedestrians to cross the road in a safe manner. The crossings are identified by PXO signs, and a specific set of supporting pavement markings. In some cases, the crossings may also include pedestrian activated flashing beacons. Please see Document 1 – Pedestrian Crossovers for further details and images of the four PXO types: A, B, C and D.

As part of the Council-approved pilot, locations considered for the implementation of PXOs had to be reviewed and assessed. Each potential crossing location underwent a screening process to determine whether it met the necessary criteria (or warrants) for a PXO. Crossing locations that met the necessary criteria were then further reviewed to determine the appropriate type of PXO for installation. The crossing location screening process and the PXO type selection process, in addition to the conditions for design and implementation, are all defined in the MTO's Ontario Traffic Manual (OTM) Book 15 – Pedestrian Crossing Treatments.

Since January 2016, Traffic Services has developed, administered and managed the PXO Program pilot. The program has been assessed and evaluated to determine whether it should be adopted permanently in Ottawa, which types of PXOs should

continue to be utilized as crossing treatments, and whether program enhancements are required to ensure that the program remains sustainable and effective moving forward.

DISCUSSION

Program Pilot Evaluation and Results

The three predominant metrics used to measure the three-year PXO Program pilot's performance and effectiveness include: PXO installations, safety and cost.

PXO Installations

Since the introduction of new types of PXOs in the *Highway Traffic Act* in 2016, Ottawa has been the leader, not only in PXO implementation in Ontario, but in the development and implementation of associated awareness and education campaigns. Since January 2016, a total of 140 PXO crossings (types B, C and D) have been implemented city-wide, with Councillors actively involved in selecting preferred warranted locations within their wards. A breakdown on the year and type of PXOs installed can be found in the attached Document 2 – Pedestrian Crossovers Installed by Year and by Type / Recorded Compliance by Road Type.

The number of PXOs installed throughout the pilot is directly related to installation costs and available funding resources. Given increased contractor rates, seasonal cost variations and actual costs to meet the *Design of Public Spaces Standards of the Accessibility for Ontarians with Disabilities Act (AODA)*, 2005, where applicable, the installation costs per type of PXO were higher than first anticipated prior to the start of the pilot in 2016.

The high number of PXO installations was meant to benefit a greater number of pedestrians using the crossings while also increasing awareness of, and exposure to, the devices by all road users. A cultural shift in the realm of mobility was sought; the value of walking as a mode of transportation would be prioritized given the transition of the right-of-way of certain crossings from drivers to pedestrians. The driver compliance rate to PXOs during the pilot proved to be reasonably high indicating both driver buy-in and acceptance of the new crossing facilities. Overall, the pilot has demonstrated a greater acceptance of and inclusion of pedestrians in the transportation network, which is positively affecting Ottawa's driving culture.

Assessment of Safety

To assess safety associated with the implementation of PXOs, a review of collisions at all locations, and a review of compliance at a sample of representative locations, was completed.

Collisions

Post installation collision data for each location is only available for one to three years depending on the PXO's installation date. Although it is preferred to have up to three years of data for a more thorough safety assessment, the limited collision data available shows promising results. Since the introduction of PXOs in Ottawa, only three collisions involving a vehicle and a pedestrian or cyclist have been reported at the crossings and none of these resulted in serious injury. Furthermore, the overall number of reported collisions in the area of PXO installations have diminished.

Compliance

Compliance relates to a driver yielding the right-of-way to a pedestrian at a PXO location. Compliance data from a sample of 30 of the 140 PXO crossings has been reviewed to complete the assessment. The sample locations represent various road conditions, type of crossings and crossing configurations. The analysis has shown that, on average, approximately 80 per cent of drivers yield to pedestrians at PXOs. A breakdown of compliance by road type is presented in Document 2 under Section B, Recorded Compliance by Road Type. Further analysis showed that compliance averaged 95 per cent, at a sample of three roundabouts having PXOs, notably higher than compliance at intersection or midblock PXOs.

Although overall driver compliance at PXOs is not 100 per cent, this has not resulted in a collision issue. Pedestrians are exercising caution when crossing at a PXO, hence avoiding collisions and injury especially where drivers have failed to yield. Program education and awareness initiatives have played an important role in facilitating the messaging that safe crossings are a joint responsibility between all road users at PXOs.

The outcome of the safety assessment, based on a review of collisions and compliance, data is encouraging. Staff are confident that PXO crossings enhance the overall safe crossing of our roads and streets by pedestrians.

PXO Pilot Program Costs

The costs to install the three types of PXOs varied depending on the extent of work required in terms of streetlighting needs, as well as sidewalk and curb modifications where required by the *Accessibility for Ontarians with Disabilities Act* (AODA). The average cost for a simple installation of Type D PXOs, where only signs and pavement markings are required, typically ranged between \$2,000 to \$3,000 per location. Where curb and sidewalk modifications were required to meet AODA standards, the average cost for each type of PXO is noted below:

- Type B PXO average cost \$56,000;
- Type C PXO average cost \$53,000; and,
- Type D PXO average cost \$11,000.

Pedestrian Crossover Program Moving Forward

The majority of PXOs will be installed through, and funded by, the base program, as described below, but they may also be installed through other City programs or projects, as well as part of new developments. PXOs can be identified in project scoping exercises, including where the project is a road rehabilitation effort, related to a temporary or permanent area traffic calming initiative. New developments also implement PXOs that support a subdivision pedestrian plan when a pathway system needs to link across a road.

Given the approval of \$500,000 in Capital funding for PXOs as part of the 2019 budget, Traffic Services staff are looking to operationalize the program. Certain aspects of the program will be modified to better align with lessons learned during the pilot project. Indications are that PXO crossings are desired by both Councillors and the public alike and this has been made apparent by the list of locations identified during the pilot for PXO assessment. Currently, there are over 100 locations that meet the volume criteria for a PXO crossing and are awaiting final safety review prior to installation. This list will be shared with Ward Councillors when selecting preferred locations and prioritizing installations within their wards.

Moving forward, the Pedestrian Crossover Program will consider the following themes to improve on program delivery, efficiency and cost, as well as on safety.

Types of PXO / Program Application

Prior to the MTO's pedestrian crossing treatment update, only one PXO existed, which is now referred to as Type A. The PXO at the time was designed for minor arterial road conditions and was not appropriate for other road type needs due to its cost and configuration. Although the PXO served a function, in the mid-1980s Regional and Local Councils decided that PXOs would no longer be installed in Ottawa; existing PXOs were either removed or replaced with pedestrian traffic signals. By the early 1990s, there were no longer any PXOs in the city. The Type A PXO ban remained in place up to and during the pilot, with a commitment to reflect on its future use after the pilot concluded.

The permanent PXO program will continue to include the implementation of all three new types of PXO crossings, Types B, C and D. The application of PXOs will continue to align with applicable guidelines and procedures as defined in the MTO's OTM Book 15 – Pedestrian Crossing Treatments. This is further defined in Document 3 – Traffic Services Guideline – Pedestrian Crossover Program. The program will not reintroduce the use of Type A PXO crossings in Ottawa at this time.

Program Adjustments

Although it is recognized that the program should continue on a permanent basis, it is also recognized that adjustments should be made to improve on the program. The program should be as efficient and effective as possible while continuing to improve pedestrian safety. The program adjustments listed and described below will be implemented as part of the permanent program.

PXO Awareness and Education

Improving on pedestrian safety, comfort and convenience relies heavily on PXO compliance by both drivers and pedestrians. An increased focus on PXO awareness and education is key to achieving full compliance. An awareness strategy applied during the pilot was to implement as many crossings as possible with the goal of establishing heightened awareness through exposure to drivers. Drivers would learn to see the crossovers as commonplace and would become accustomed to their presence, purpose and operation. As part of the permanent program, as many crossovers as possible will be installed within the program budget in support of this strategy.

The education campaign developed for the pilot program was extremely beneficial in helping make all road users aware of and understand the purpose and function of PXO

crossings. The campaign was quite significant in the first year of the pilot, however, it tapered off during the following two years. Moving forward, the program would see a more locally focused and active education campaign which would use existing materials developed to date for the program and also include communication tactics that would leverage social media and Councillor connections to community members where new crossings are installed.

Police enforcement is also a key element in awareness and education. The program would continue to seek police enforcement for targeted PXO locations; recognizing availability of resources.

Administration and Delivery of Program

The administration and delivery of the program will be made more efficient once the program is operationalized. During the pilot, there were no dedicated staff resources for the program. The intake of program-related service requests, inquiries, their response, the assessment and evaluation of the locations, and the overall coordination of the program were assigned to existing Traffic Services staff, supplemented by temporary student staff. All responsibilities and tasks associated with the PXO program were in addition to existing staff work prior to the pilot.

The design and implementation of PXOs was completed by Infrastructure Services consultants and tendered contractors. There could be efficiency gains if the design, implementation and maintenance of all types of PXOs are completed within Traffic Services with a delivery approach that aligns with the traffic control signal delivery model where no roadway modifications are required outside of curb and sidewalk work. In these instances, a construction standing offer would be utilized to help address seasonal cost variations. Such an approach will ensure a timely response to Councillor needs and lower overhead costs. Complex PXOs and those that would be more efficiently delivered, due to infrastructure coordination needs, included as part of a capital project will continue to be designed and implemented by Infrastructure Services.

In order to achieve the efficiency improvements associated with the sustainment of an ongoing program, two FTEs will be required with operating funding to support the program. One FTE will be responsible to manage the overall program and undertake the intake, warrant and PXO type selection process. The second FTE will be responsible for managing and executing the tasks associated with design, construction,

and maintenance. The Transportation Services Department will submit an operating budget request to fund the FTEs as part of the 2020 Budget process.

Adopting a permanent program shows an ongoing commitment by the City of Ottawa to support walking as an alternative form of transportation and supports the safe crossing of roadways by all residents, including our most vulnerable residents such as children and seniors. Adopting a permanent program also helps address the goal of providing a linked and a continuous pedestrian network City-wide.

RURAL IMPLICATIONS

The Pedestrian Crossover Program is applicable citywide.

CONSULTATION

The Pedestrian Crossover (PXO) Program as a pilot offered opportunities for consultation between affected stakeholders on a regular basis. Throughout the pilot, consensus on the program being extended on a permanent basis has been evident. The program as proposed in this report addresses issues and concerns raised during the pilot.

ADVISORY COMMITTEE(S) COMMENTS

Not Applicable.

LEGAL IMPLICATIONS

There are no legal impediments to implementing the recommendation in this report.

RISK MANAGEMENT IMPLICATIONS

There are no risk management implications associated with this report or its recommendations.

ASSET MANGEMENT IMPLICATIONS

Comprehensive Asset Management (CAM) is an integrated business approach involving planning, finance, engineering, maintenance and operations geared towards effectively managing existing and new infrastructure to maximize benefits, reduce risk and provide safe and reliable levels of service to community users. This is

accomplished in a socially, culturally, environmentally and economically conscious manner. The recommendations documented in this report are consistent with the City's Comprehensive Asset Management (CAM) Program (City of Ottawa Comprehensive Asset Management Program) objectives. The implementation of the CAM program results in timely decisions that minimize lifecycle costs and ensure the long-term affordability of assets. To fulfill its obligation to deliver quality services to the community, the City must ensure that assets supporting City services are managed in a way that balances service levels, risk and affordability.

As outlined in the report, this crossing treatment will allow pedestrians to cross with the right-of-way under a greater number of conditions than before and will provide municipalities with a more cost effective solution to ensure pedestrian safety. The program supports CAM's forward-looking approach to enable assets to meet future challenges, including customer expectations, legislative requirements and environmental factors.

FINANCIAL IMPLICATIONS

The financial implications are outlined in this report and the funding requirements will be considered as part of Traffic Service's 2020 annual budget process.

ACCESSIBILITY IMPACTS

Pedestrian crossovers installed under the Pedestrian Crossover Program will be designed to meet the AODA Integrated Accessibility Standards Regulation Design of Public Spaces Standards and the City of Ottawa Accessibility Design Standards.

TERM OF COUNCIL PRIORITIES

The 2019 Update: Pedestrian Crossover Program in Ottawa aligns with the Transportation and Mobility Priority in the City of Ottawa 2015-2018 City Strategic Plan.

SUPPORTING DOCUMENTATION *(Held on file with the City Clerk)*

- Document 1 - Pedestrian Crossovers;
- Document 2 - Pedestrian Crossovers Installed by Year and by Type / Recorded Compliance by Road Type; and,
- Document 3 - Traffic Services Guideline - Pedestrian Crossover Program.

DISPOSITION

The Transportation Services Department will implement the Pedestrian Crossover Program in Ottawa as supported and approved by Council.