

Subject: Pedestrian Crossing on Pelham Street**Recommendation:**

THAT Committee receive Report #2019-0125, with reference to the Signalized Pedestrian Crossings on Pelham Street for information.

Background:

In 2009 The Town of Pelham initiated a town wide traffic study which included the review of intersections and pedestrian crossings. Based on the recommendations of this report Council directed staff to investigate the creation of a signalized pedestrian intersection at Pelham Street and Churchill Street. In addition to the signalized intersection at Pelham Street and Churchill Street, consideration was given to signalized intersections at Pelham and Bacon Lane/Spruceside Crescent and at Pelham Street and Pancake Lane/John Street.

In 2013, Council passed a resolution to install PPS crossings at the above locations. The PPS's were installed between 2013 and 2014.

In addition, in 2013, Council passed a resolution to install a PPS at Pelham Street and Fallingbrook Crescent. This PPS has not been installed yet due to the fact that development in this area is not complete. Staff will make consideration towards a safe pedestrian crossing at this location during the Pelham Street Reconstruction project and will report back to Council with recommendations.

Pedestrian safety is a concern at the three 'Pedestrian Priority Signal' (PPS) locations on Pelham St. The three locations are at the following locations: (1) Pelham Street and Churchill; (2) Pelham Street and Pancake Lane / John Street; and (3) Pelham Street and Bacon Lane/Spruceside Crescent. (See Appendix A for a map indicating the locations of the PPS). Note: There are two additional PPS crossings at Pelham Town Square adjacent to the Fonthill Library entrance and on Haist Street in front of A.K. Wigg Public School. These PPS locations were not included as part of this current safety review.

These PPS's are controlled crossings, which are considered the most complex type of crossings under the Ontario Traffic Manual. In accordance with Council's instruction Staff retained the services of Associated Engineering (AE) to investigate whether the intersection pedestrian signals are warranted and whether there are any operational or safety issues associated with them. The report completed by AE in the winter of 2019 is included in Appendix B.

Previous Council reports in 2017 and 2018 looked at the requirement and justification for the PPS's at the locations along Pelham Street. These reports are attached for reference.

Analysis:

A review of the warranting conditions for the three PPSs indicates that they are not currently warranted based on the November 2018 traffic counts. In addition, the gap analysis that was completed indicates that there is a sufficient amount of available safe gaps for pedestrians to cross the roadway without intersection pedestrian signals. Given the capital investment put into their installation and upgrades to date, it is the consultant's recommendation to leave the PPSs in place; however, undertake measures to improve their safety and conformance to current standards. In addition, it is further recommended that action be taken to educate the public on the correct use of the PPSs.

In general, the recommended safety improvements with the PPS's include:

- (1) Investigate the possibility of prohibiting vehicle parking within 30 m of the crossing to improve sightlines for both pedestrians using the crossing and for vehicles approaching the intersection.
- (2) Remove the existing crosswalk markings and replace with markings specified in Section 6.2.4.5 Figure 12 of Book 15 (ladder markings for increased awareness).
- (3) Install Ra-9a signs to direct pedestrian to the proper crossing location.
- (4) Ensure that during snow clearing operations that the areas around the pedestrian push buttons poles are cleared adequately and remain accessible to all users; and

(5) Develop an education program for the public regarding the proper use of the intersection pedestrian signals.

Financial Considerations:

The PPS crossings were installed in 2013 at cost of between \$30,000 to \$50,000 each.

In addition, there have been several traffic signal design improvements that have occurred since the original installation of the PPSs including AODA regulation compliance upgrades and the standard inclusion of Uninterruptable Power Supplies (UPS) to the signals.

There will be limited financial impacts as the improvements being recommended in the consultant's report will be absorbed as part of the 2020 Public Works operating budget.

Alternatives Reviewed:

The installation of regular traffic signals was investigated as part of previous studies. Traffic signal warrant studies showed that regular traffic signals are not warranted at these locations.

Improved sightlines could be achieved at the Pelham Street and Churchill PPS by removing a limited number of parking stalls adjacent to the intersection (within 10 m of the approach), specifically on the north west approach to the PPS. This would result in the loss of approximately two parking stalls but would increase the sightlines and make it safer for pedestrians. The approximate cost for the removal of the two parking stalls is estimated at \$3000.

Further, traffic calming measures such as the installation of raised crosswalks could be installed to slow traffic and clearly identify the safe location for pedestrians to cross. The approximate cost for installation of the raised crosswalk is roughly estimated at \$30,000.

In lieu of the current PPS crossing staff could consider the implementation of a PXO (Pedestrian Crossover) crossing. In consultation with the Region's transportation safety staff, converting the signals to the newer 'PXO' (pedestrian crossover) style is possible. The PXO style involves rapid flashing lights mounted on the poles, not the overhead arms, visible from all directions. The crossover also requires specific signs and pavement markings. Legislation about these crossovers changed in January 2016, and resulted in the improved crossing design, seen most recently in

the area in West Lincoln. This would likely improve the capacity of drivers to be able to see the activated lights, at a reasonably low cost, since the lights would be mounted on both the east and west poles, rather than on the overhead arms. New PXO installations are estimated at \$12-\$15K. This is currently an unbudgeted item.

Finally, left turns from Churchill Road into Pelham Street could be restricted which would mitigate unsafe traffic movements at the intersection and improve pedestrian safety at the crosswalk.

Strategic Plan Relationship: Strong Organization

Providing safe pedestrian crossings for the public and promoting active transportation is critical to fostering a strong organization and safe community.

Consultation:

Although staff recognizes that the recommendations made by the consultant would help improve safety at the intersection, the root cause analysis completed identifies the poor visibility of the traffic signals, especially from Church Hill, as one of the root causes of safety concerns.

Other Pertinent Reports/Attachments:

Appendix A – Location Map of PPS's Included in AE Safety Study

Appendix B – 2019 AE Report – Review of Intersection Pedestrian Signals

2017 Report to Council – Safer Pedestrian Crossing on Pelham Street

2018 Report to Council – Church Hill Pelham Intersection Update

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