

THE CORPORATION OF THE MUNICIPALITY OF MISSISSIPPI MILLS

STAFF REPORT

DATE: June 20, 2023
TO: Committee of the Whole
FROM: Cory Smith, Director of Public Works
SUBJECT: Pedestrian Crossovers Downtown Core

RECOMMENDATION:

THAT Committee of the Whole recommends that Council direct staff to complete a fulsome review process as per Section 4.12 of Ontario Traffic Manual Book 12 to determine if one or both PXO crossings on Mill Street are candidates for removal;

AND THAT Committee of the Whole recommends that Council direct staff, upon completion of the review to provide a report to Council with options for both PXO crossings on Mill Street.

BACKGROUND:

On June 6, 2023, direction was provided from Council to investigate the removal of 1 or both of the Pedestrian Cross Overs (PXO's) on Mill Street and provide a report back to Council with Options.

DISCUSSION:

Staff have completed a preliminary review of the PXO's on Mill Street including consultation with design engineers and industry experts, as well as, a review of the governing documents in Ontario including both Ontario Traffic Manual for Traffic Signals known as OTM book 12, and Ontario Traffic Manual for Pedestrian Crossing Treatments known as OTM Book 15. Both governing documents are fulsome documents, developed to provide interpretation of legal framework and consistency in the application and design of traffic signals and pedestrian crossings respectively.

The process for making determinations on the requirement for a pedestrian crossing and the appropriate selection of the pedestrian crossing device are determined in OTM book 15, with reliance on OTM book 12 to determine additional warrants on the necessity of the crossing. OTM book 12 provides 6 justifications for a crossing that should be reviewed. OTM book 12, also provides a framework for investigating the potential to remove pedestrian crossings.

Section 4.12 of OTM book 12 states the following;

4.12 Removal of Existing Signals

If the conditions under which a signal was installed change significantly and concerns arise that the signal is no longer justified, the need may be analyzed using Justifications 1 to 6 as if the signal were a “new” installation.

The change in width of the crossing reducing both time of crossing and also acting as a traffic calming measure may be considered as a change in condition to trigger this review.

The review to determine the warrants of removal are based on Justifications 1 to 6 of Book 12 as follows;

1. Minimum Eight-Hour Vehicle Volume
 - a. This is an evaluation of the total intersection volume and the total minor road volume. The eight hours reviewed should be the highest traffic levels for the day.
2. Delay to Cross Traffic
 - a. This review is applicable to intersections where there is significant traffic volume in one direction and the cross direction has limited access as a result.
3. Combination Warrant
 - a. This is a justification used when Justification 1 and Justification 2 do not warrant the works but are both close.
4. Minimum Four-Hour Vehicle Volume
 - a. This is a justification used when the 8 hour levels are not triggered, but crossings experience high volumes for 4 hours per day. It is primarily used for smaller municipalities
5. Collision Experience
 - a. This is a review of collision history to justify signalization when collisions at an unsignalized intersection are unusually high.
6. Pedestrian Volume
 - a. Pedestrian Volume conditions are reviewed where traffic volumes on a main road are so heavy that pedestrians experience excessive delay or hazard in crossing.

Upon review of the justifications as prescribed in OTM Book 12, a review of the warrants determine if there is a requirement for a controlled crossing. Should a controlled crossing be warranted, the selection process for the most appropriate crossing design is determined through OTM book 15. Should it be determined that a

crossing under review is not warranted, the owner would enter into the second stage of the review to determine if the removal of the crosswalk can be completed.

Key steps for the second stage that should be followed for traffic signal removal after it is determined that none of the justifications are met, and are not likely to be met for a considerable period of time, are:

- A. Determine the appropriate traffic control to be used after removal of the signal.
- B. Remove any sight-distance restrictions as necessary.
- C. If the public has not been informed through a public consultative process or formal public meeting, notify the public of the pending removal by installing an informational sign (or signs) with the legend TRAFFIC SIGNAL UNDER CONSIDERATION FOR REMOVAL (or similar) at the signalized location in a position where the sign is visible to all road users.
- D. Deactivate the signal and remove the above-ground hardware. Secure and make any underground plant safe. Add sunburst "NEW" signs along with the appropriate warning signs to indicate the new form of traffic control. Monitor the new operation and make modifications to signing if required.

The process for review requires the Municipality to complete traffic and pedestrian counts, as well as, obtain accident history. A review of the geometry and confirmation of other conditions such as separation distance from other controlled intersections need to be reviewed. In consulting with industry experts and design engineers, as well as a review of both OTM book 12 and OTM book 15, it is not recommended to remove the PXO's at either location on Mill Street at this time. It is recommended that an appropriate review as per section 4.12 of OTM book 12 be completed to determine the warrants of the crossings. At this time, staff do not have current pedestrian counts, traffic counts or collision history, for either PXO location on Mill Street. Collecting the data before the completion of the works on Mill Street will result in skewed results. It is recommended that a review occur after the completion of construction in August to obtain accurate results. During that period of time, collision data, a review of the geometry and other conditions could be completed appropriately. Upon review, alternative solutions that may include removal, replacement with alternative devices, or recommendation for the crossings to remain in place can be made based on appropriate information. Should the recommendation be for the works to remain in place, alternative posts and decorative bases can be better reviewed and options come forward at the same time.

The works to remove or replace the PXO's can take place outside of the downtown core renewal project and it is felt there is sufficient time to complete an appropriate review in August report back to Council and complete any required corrective actions before the winter season.

OPTIONS:

1. Council directs staff to complete a review as per section 4.12 of OTM book 12 and provide a report with recommendations after the review is completed
2. Council direct staff to leave the PXO's on Mill Street as is.

FINANCIAL IMPLICATIONS:

The works related to the review and report will have no financial implications. The works related to the recommended actions resulting from the review will be accompanied by the financial implications and sources of funding at that time.

SUMMARY:

A review of the pedestrian crossings for removal or changes to the type of crossing devices used should be completed within the prescribed framework and there is sufficient time to complete the review in August when it will not be skewed by construction and have any corrective actions completed before winter.

Respectfully submitted by,

Reviewed by:

Cory Smith,
Director of Public Works

Ken Kelly,
CAO