

COMMUNICATION 131100

Received From: Guy Bourgon, Director of Public Works
Addressed To: Committee of the Whole
Date: September 08, 2020
Topic: OVRT Road Crossings

BACKGROUND

At the Committee of the Whole meeting on August 25th, 2020, the Notice of Motion tabled by Councillor Seccaspina regarding the OVRT road crossings was deferred to allow for an information report to be prepared by the Director of Public Works with respect to the crossings.

DISCUSSION:

The OVRT through Carleton Place has been a well-used trail since its opening in October 2018. The OVRT crosses nine (9) roadways at grade through Carleton Place:

- Coleman St.,
- Moore St.,
- Lake Ave. E.,
- Albert St.,
- Franklin St.,
- Rosamund St.,
- William St.,
- Townline Road (County Road); and
- Ramsay Conc. 8 (rural cross-section).

Of the urban roadways, the William Street crossing at the intersection of Mullett Street is the only controlled crossing with the recent introduction of a four-way stop and crosswalk. All other crossings are currently uncontrolled and pedestrians must yield the right-of-way to vehicles using these roads.

In the past, Carleton Place has installed “courtesy” crosswalks such as the ones located on Bridge Street in the downtown core. These crosswalks consist of a painted crossing and signage indicating the presence of the courtesy crosswalks. These crosswalks unfortunately do not require vehicles to yield the right-of-way to pedestrians under the Ontario Highway Traffic Act (HTA) and can result in a hazardous situation when a pedestrian incorrectly assumes that they have the right-of-way prior to vehicles stopping out of courtesy.

Installing mid-block traffic signals is very costly and causes an interruption in traffic flow for the duration of the cycle. Warrants for mid-block traffic signals are identified in Section 4.9 of OTM Book 12. Traffic signals are generally not used for trail crossings unless the volume of trail traffic is high or the speed and volume of traffic is high causing excessive delays or hazards to trail users.

A Pedestrian Crossover (PXO) is a less expensive alternative to traffic signals which require vehicles to yield to pedestrians under the HTA. There are several varieties of

PXOs which range in cost based on the features that are included. The selection of PXO's is outlined in Table 7 of OTM Book 15. The HTA limits the use of PXOs to roadways with posted speeds of 60 km/h or less.

Level 2 Type D PXO

Level 2 Type D PXOs are the least expensive option but are limited to use on roads with posted speeds of 50 km/h or less. It is recommended that their use be restricted to roadways with an Average Annual Daily Traffic (AADT) count of 9000 vehicles or less. They consist of a ladder crosswalk, "shark-teeth" stop bars and signage. An optional safety improvement is to include a collapsible bollard at the centreline of the roadway with a yield to pedestrian symbol. The bollard is removed yearly at the onset of winter and reinstalled in the spring. The estimated cost for such an installation is \$1,700 plus HST. A sample Type D installation in Ottawa is shown below.



Level 2 Type B and C PXOs

In addition to signage and painting, Level 2 Type B and C PXOs both incorporate pole mounted push button activated flashing LED signals on either side of the roadway to provide additional driver awareness to pedestrians crossing the road and the need to

stop. Type B differs from Type C only in the inclusion of an overhead pedestrian sign suspended over each lane of travel. Level 2 Type C is recommended for use on posted 50 km/h roads where the AADT is 12,000 vehicles or less, or on posted 60 km/h roads where the AADT is 9000 vehicles or less. Level 2 Type B installations are used where the AADT is up to 35,000 vehicles. The cost for a Level 2 Type B installation is approximately \$30,000. As there is little cost savings between Type B and Type C, most installations are typically Type B which provides an extra degree of safety with the overhead signage increasing driver awareness of the crossing. A sample Type B installation in Almonte is shown below.



Municipal traffic counts up to 2015 for Moore Street show AADTs ranging from 8300 to 9500 vehicles along this corridor. In comparison, municipal traffic counts up to 2013 indicate Lake Ave. E. had an AADT of between 5200 and 5600 vehicles along its corridor, and 2015 data for Coleman St. shows an AADT of 5023 vehicles in the area of the OVRT crossing.

Based on Table 7 of OTM Book 15, Level 2 Type D PXO's would therefore be appropriate for the following urban roads which are under the 9000 AADT threshold:

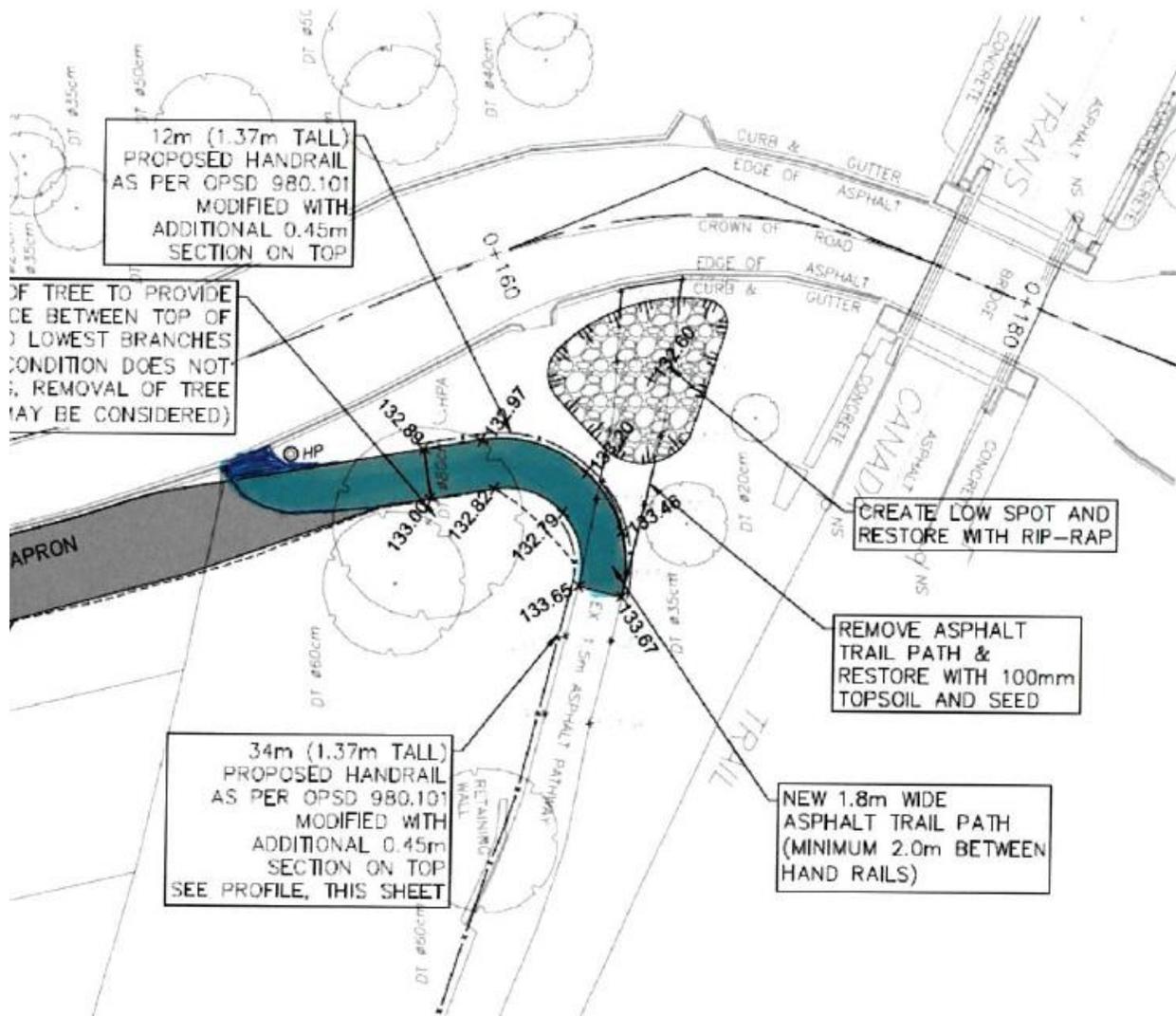
- Lake Ave. E.,
- Coleman St.,
- Albert St.,
- Franklin St.,

- Rosamund St.; and

With respect to Moore Street, as traffic volumes will have increased since 2015 based on growth and will continue to increase based on projected growth, it can be assumed that the 9000 vehicle AADT threshold will be exceeded at this location in which case Table 7 recommends moving up to Level 2 Type B or C with flashing LED signals.

Mill Street OVRT crossing

Another concern brought forward by members of Council is the access ramp from Mill Street to the OVRT. Specifically, it is felt that the access ramp is too close to the narrow OVRT trestle and restricts sightlines with respect to oncoming vehicles. The Mill Street works associated with the upcoming combined tender for Gillies Bridge, Bell Street, Central Bridge Reconstruction and Bridge Street Reconstruction will see this issue rectified in 2021 by turning the ramp to run alongside the south side of Mill Street. It is possible to address the concern earlier without incurring significant throwaway costs by advancing a portion of the pathway realignment on municipal lands in the fall of 2020 as per the below sketch. These works are estimated to be under \$10,000 to complete utilizing a combination of municipal labour and equipment for clearing, removals, earthworks, grading and granular preparation, and contracted work for paving.



12m (1.37m TALL)
 PROPOSED HANDRAIL
 AS PER OPSD 980.101
 MODIFIED WITH
 ADDITIONAL 0.45m
 SECTION ON TOP

OF TREE TO PROVIDE
 CE BETWEEN TOP OF
) LOWEST BRANCHES
 CONDITION DOES NOT
 ; REMOVAL OF TREE
 MAY BE CONSIDERED)

CREATE LOW SPOT AND
 RESTORE WITH RIP-RAP

REMOVE ASPHALT
 TRAIL PATH &
 RESTORE WITH 100mm
 TOPSOIL AND SEED

34m (1.37m TALL)
 PROPOSED HANDRAIL
 AS PER OPSD 980.101
 MODIFIED WITH
 ADDITIONAL 0.45m
 SECTION ON TOP
 SEE PROFILE, THIS SHEET

NEW 1.8m WIDE
 ASPHALT TRAIL PATH
 (MINIMUM 2.0m BETWEEN
 HAND RAILS)

FINANICAL IMPLICATIONS

Option 1

In Fall 2020, construct Level 2 Type D PXOs at the OVRT crossings at Lake Ave. E., Coleman St., Albert St., Franklin St., and Rosamund St.:

Total Cost 5 x \$1700 = \$8,500

Funds to come from 2020 Traffic & Roadside Operating Budget 10-35-000-325-7511.

In Fall 2020, construct modified trail connection from OVRT to Mill Street.

Total Cost <\$10,000

Funds to come from account 20-32-426-441-7511 as the construction of this project (incorporated as part of the Gillies Bridge works in 2020) was deferred to 2021 and is to be incorporated with the tender for Gillies Bridge, Bell Street, Central Bridge Reconstruction and Bridge Street Reconstruction to be let in November 2020.

Include an amount of **\$30,000 in the 2021 Budget** for the construction of a Level 2 Type B PXO at the Moore Street OVRT crossing.

Option 2

Include an amount of $\$8,500 + \$30,000 = \$38,500$ in the 2021 Budget for the construction of 5 Level 2 Type D PXO's and 1 Level 2 Type B PXO at the locations noted above.

Trail relocation work from OVRT to Mill Street to remain in combined tender document for the works associated with the Central Bridge, Bridge Street, Gillies Bridge, Bell Street, and Mill Street.

STAFF RECOMMENDATION

THAT Council direct staff to proceed with **Option 1** (a combination of works to be completed in 2020 and 2021) as outlined in the report prepared by the Director of Public Works dated September 8, 2020.