

HALIFAX

P.O. Box 1749
Halifax, Nova Scotia
B3J 3A5 Canada

Item No. 11.5
Halifax Regional Council
September 1, 2020
Transportation Standing Committee
September 17, 2020

TO: Mayor Savage and Members of Halifax Regional Council

SUBMITTED BY:

Original Signed _____
Brad Anguish, P. Eng., Director, Transportation and Public Works

Original Signed _____
Jacques Dube, Chief Administrative Officer

DATE: July 17, 2020

SUBJECT: Establishing a Crosswalk Location on the William Porter Connector Road

INFORMATION REPORT

ORIGIN

Item 15.4.4 of the September 17, 2019 meeting of Halifax Regional Council:

Motion passed that Halifax Regional Council request a staff report investigating the possibility of establishing a crosswalk location on the William Porter Connector Road in front of the Porter's Lake Elementary School.

LEGISLATIVE AUTHORITY

Motor Vehicle Act, R.S.N.S. 1989, c.293, subsection 90 (1) The traffic authority may establish and designate and may maintain, or cause to be maintained, by appropriate devices, marks or lines upon the surface of the highways, crosswalks at intersections where, in his opinion, there is particular danger to pedestrians crossing the highway, and at such other places as he may deem necessary.

BACKGROUND

William Porter Connector in front of the Porters Lake Elementary School (PLES) is owned and maintained by the Province. Thus, the authority to establish, maintain or remove a marked crosswalk resides with the Provincial District Traffic Authority.

Nova Scotia Transportation and Infrastructure Renewal's (NSTIR) policy for the installation of marked crosswalks on provincial roadways is included as Attachment A. The policy refers to the Pedestrian Crossing Control Manual which are guidelines published by the Transportation Association of Canada (TAC). These are the same guidelines used by the HRM Traffic Authority.

One of the policy requirements is that a municipal unit must agree to pay for all installation costs and ongoing maintenance should a marked crosswalk be warranted. Similar marked crosswalk requests within NSTIR jurisdiction have been addressed at the staff level. Typically, a request is made by a resident or the area Councillor which staff forwards to NSTIR. This request satisfies the policy provincial requirements, thus a direction from Council to request a crosswalk is not required.

DISCUSSION

The referenced section of William Porter Connector is in the community of Porters Lake. It is a two-lane roadway with a posted speed limit of 80 km/h. The Porters Lake Elementary School is located on Inspiration Drive which connects to William Porter Connector. There are existing sidewalks on the north side of Inspiration Drive connecting the Elementary School to William Porter Connector. However, there is no other pedestrian infrastructure in the area on either William Porter Connector or Sandy Point Road, which is located across from Inspiration Drive. The NSTIR policy allows for the installation of marked pedestrian or marked school crosswalks if certain criteria are met. Thus, HRM staff requested that both crosswalk treatments be reviewed.

Marked Pedestrian Crosswalk

Onsite observation carried out by NSTIR staff in the Spring of 2019 found that two children and one adult crossed William Porter Connector at the end of a school day. They also performed a 12-hour count in December 2019 that found no pedestrians crossing William Porter Connector. These are very low numbers as the TAC guidelines recommend a minimum of approximately 15 pedestrians per hour over a 7-hour period to warrant a crosswalk.

Based on this review, NSTIR staff determined that a marked pedestrian crosswalk is not warranted due to low pedestrian volumes.

Marked School Crosswalk

As per NSTIR policy, a marked school crosswalk could be considered but two primary criteria would have to be met: a commitment to provide a crossing guard would be required and HRM would be responsible to fund the purchase, installation and maintenance of the crosswalk. It has been determined by NSTIR that the appropriate treatment would be a pedestrian half signal and a refuge area on the west side of William Porter Connector. A pedestrian half signal provides a full red/amber/green signal display to vehicles approaching the crosswalk on the main road and walk/don't walk signals for pedestrians using the crosswalk. The estimated installation costs are \$70,000 which is based on a cursory review.

The crossing guard program in HRM is managed by Halifax Regional Police (HRP). They use approved criteria by the Board of Police Commission for recommending the staffing of crosswalks which include the following:

- Utilized in relation to elementary schools and their students

- A minimum of 10 students and 200 vehicles during peak hour (this would be independent of other factors)
- Collision history of greater than one collision per year over last three years where the actions of a crossing guard may have prevented same
- Traffic speeds, understanding that no crossing guard will be placed at any location with a speed limit of higher than 60 km/h

A crossing guard would not be recommended based on several of the current criteria not being met:

| HRP Criteria | Criteria Satisfied |
|---|---|
| Utilized in relation to elementary schools. | Yes. |
| A minimum of 10 students and 200 vehicles during peak hour. | No – only two students observed crossing during one peak period. On another day, no students observed crossing during an entire 12-hour period. |
| Collision history of greater than one collision per year over the last three years. | No - there have been no reported collisions over the last three years where the actions of a crossing guard may have prevented same. |
| No crossing guard will be placed at any location with a speed limit of higher than 60 km/h. | No – the posted speed limit is 80 km/h. |

Summary

Based upon reviews by NSTIR and HRM staff, a marked pedestrian or school crosswalk is not appropriate at this location. With respect to school related crossings, in a December 2019 e-mail to area parents, the PLES indicated that there is a new courtesy bus that is providing students who live in the Sandy Point Road area with pick-up and drop-off service across Williams Porter Connector. This enables students to get back and forth to school without crossing William Porter Connector.

HRM staff has received feedback that pedestrians do make use of the shoulder of the William Porter Connector to travel back and forth to the community centre at various times throughout the day. Although the road has a posted speed limit of 80 km/h, it is signed as a School Area for most of its length, which requires drivers to slow to 50 km/h when children are present. Based on this, staff have submitted a request to the Province to review the speed limit and to reduce the posted speed to 60 km/h or less, which would be more in keeping with the 50 km/h School Area speed limit when children are present (at all times of the day). The Province has responded to the request and has agreed to undertake the review.

FINANCIAL IMPLICATIONS

There are no financial implications associated with this report.

COMMUNITY ENGAGEMENT

There was no need for community engagement as this report is in response to questions raised by the public.

ATTACHMENTS

Attachment A: Provincial Policy for Marked Crosswalk Installation

A copy of this report can be obtained online at halifax.ca or by contacting the Office of the Municipal Clerk at 902.490.4210.

Report Prepared by: Hugh Morrison, P.Eng., Traffic Services Supervisor 902.490.5018

Attachment A

Division: Highway Programs
Section: Engineering & Construction
Function: Traffic Management (HP 2.23.39)
Policy Number: PO1005

Marked Crosswalk Installation

Policy Statement

The Department may install crosswalks on provincial highways if specific criteria are met to provide for a safe location. With the exception of signalized intersections, roundabouts and stop or yield controlled intersection approaches, the Department will only consider the installation of a crosswalk following a request from a Municipal Unit or School Board as detailed in this policy.

Rationale

The Motor Vehicle Act (MVA) authorizes a Traffic Authority to establish a marked crosswalk on a highway. Deputy Provincial Traffic Authorities are responsible for provincial highways and therefore must approve any crosswalk installed on these highways.

The cost of installation and maintenance of the crosswalk is dependent on the type and location of the crosswalk as further outlined in this policy.

Policy Objectives

To ensure that crosswalks installed on provincial highways are done so only in safe locations and are installed and maintained in a consistent and uniform manner by those responsible.

Application

This policy applies directly to staff of the Department and indirectly to staff of the Municipal Units.

Accountability

Area Managers (AM) are responsible for processing requests for marked crosswalks and ensuring crosswalks are removed if maintenance or supervision commitments by the municipality or school board are not upheld.

District Traffic Supervisors (DTS) are responsible for investigating requests for marked crosswalks to determine if requested crosswalks are warranted and if the

requested location is suitable. The DTS is also responsible for determining the appropriate traffic control device placement for the crosswalk.

The Provincial Traffic Authority (PTA) or Deputy Provincial Traffic Authorities (DPTA) are responsible for approving the marked crosswalk. Operations Supervisors (OS), Maintenance Supervisors (MS) and Project Engineers (PE) are responsible for ensuring that crosswalks are constructed in accordance with policy, plans and specifications.

OS's and MS's are responsible for ensuring that crosswalks are maintained in accordance with the Department's Maintenance Standards.

Monitoring

The Manager of Traffic Engineering and Road Safety will monitor the effectiveness of this policy.

Definitions

Marked Pedestrian Crosswalk - A marked crosswalk that does not fall under the definition of a marked school crosswalk.

Marked School Crosswalk - A marked crosswalk that primarily serves a student walking population to and from a school where some or all of the student population includes any children in Grade 8 or lower. A marked crosswalk that falls within a school area is assumed to be a marked school crosswalk unless it can be proven that it does not primarily serve a student walking population.

Reasonable Approach Speed (RAS)- The expected speed of a vehicle, selected directionally and rounded up to the nearest 5 km/h increment, approaching a location based upon the posted speed zone or geometric features. RAS is often determined from the posted speed; however, if the DTS believes that the posted speed is not representative of prevailing speeds, they may determine the RAS by obtaining the 85th percentile speed. If the location being evaluated is not conducive to a spot speed study, the DTS may determine the RAS by conducting a number of test runs in their vehicle and averaging the results.

Pedestrian Generators and Attractors- Facilities and developments that produce or attract numbers of pedestrians. This can include, but is not limited to bus stops, schools, community centres, retail/commercial centres, and residential communities.

Pedestrian Desire Lines- The path that pedestrians typically will take, barring any controls or obstacles, to move from an origin to a destination.

Directives

1.0 Marked Pedestrian Crosswalks

- 1.1 The Department may install and maintain marked pedestrian crosswalks at signalized intersections and roundabouts.
- 1.2 The Department may install and maintain crosswalk lines across the mouth of a stop-controlled approach to an intersection.
- 1.3 At locations on provincial highway other than signalized intersections, roundabouts and stop-controlled approaches, the Department will install a pedestrian crosswalk when all of the following conditions have been met:
 - 1.3.1 The AM has received a request to install a marked crosswalk from a Municipal Unit which has agreed to pay the cost of installation and maintenance.
 - 1.3.2 The need for the crosswalk has been confirmed by the DTS, in consultation with the AM, taking into consideration:
 - the volume of pedestrian crossing demand,
 - the vehicle volumes on the section of highway approaching the crosswalk location,
 - the presence of pedestrian generators and attractors and/or desire lines,
 - the proximity of the proposed crosswalk to other existing crosswalks, and
 - the overall connectivity of the walking network.
 - 1.3.3 The crosswalk location has been approved by the DTS, who has verified the location meets the requirements for available stopping sight distance for the location's reasonable approach speed and grades.

1.4 Costs to the municipality to install each new pedestrian crosswalk consisting of two painted lines across the road and four ground-mounted (RA-4) signs are:

- Highways with two or fewer lanes \$500.00
- Highways with more than two lanes \$750.00

1.5 Annual costs to the municipality to maintain each new pedestrian crosswalk consisting of two painted lines across the road and four ground-mounted (RA-4) signs are:

- Highways with two or fewer lanes \$300.00
- Highways with more than two lanes \$500.00

1.6 Should the Department's investigation prove that there is a need for additional traffic control devices at the crosswalk such as extra signs, overhead beacons, etc., the municipality must agree to bear the costs for purchase, installation and maintenance for such devices. These costs will be determined based on the site conditions and the equipment required.

2.0 Marked School Crosswalks

2.1 The Department will install and maintain, at its cost, pavement markings and four ground-mounted (RA-3) signs to establish a school crosswalk if the following conditions are met:

2.1.1 The crosswalk has been requested by a municipality or school board that has agreed to fund and supply an adult crossing guard during the times that children are going to and leaving from the school. These times include the lunch break for schools with a walking population. The request by the school board is made to the Area Manager using the *School Crosswalk Request and Supervision Declaration* form.

2.1.2 The DTS has determined that the predominant users of the crosswalk are elementary or middle school age children going to or leaving the school.

2.1.3 The crosswalk location has been approved by the District Traffic Supervisor, who has verified the location meets the requirements for available stopping sight distance for the location's reasonable approach speed and grades.

- 2.2 Should the Department's investigation prove that there is a need for additional traffic control devices at the crosswalk, such as additional signs, overhead beacons, etc., the Municipal Unit or School Board must agree to bear the costs for purchase, installation and maintenance of these devices. These costs will be determined based on the site conditions and the equipment required.
 - 2.3 If a marked school crosswalk is established on a section of highway, outside of the boundaries of a typical school area that is adjacent to a school, a school area must be established around the school crosswalk. Refer to PO1054 *Establishment of School Areas on Provincial Highways* for further details.
 - 2.4 Annually, before the school year begins, the Municipality or School Board must recertify that an adult crossing guard will be provided for the school crosswalk for the upcoming school year. This is done using the *School Crosswalk Request and Supervision Declaration* form (Appendix A).
 - 2.5 It is the responsibility of the School or School Board to ensure the adult crossing guard is competent and trained in accordance with the *Nova Scotia Crossing Guard Training Manual*.
 - 2.6 If the AM becomes aware that either the adult crossing guard is no longer being supplied, or the school is closed (other than during the summer), the AM will request the DTS to arrange for the removal of the crosswalk.
- 3.0 All Marked Crosswalks
- 3.1 Marking and signing of crosswalks must conform to the Department standard drawings for Marked Crosswalks.
 - 3.2 Installation and maintenance of marked crosswalks, including any additional traffic control devices at the crosswalk such as overhead beacons, etc., must be completed by either Department forces or a contractor working for the Department. Municipalities are not permitted to install or maintain marked crosswalks on provincial highways.
 - 3.3 Stopping sight distance for marked crosswalks is to be measured using a 150 mm object height and 1.05 m eye height.
 - 3.4 Crosswalks must be avoided at:
 - 3.4.1 Locations with restricted stopping sight distance.
 - 3.4.2 Locations in close proximity to signalized intersections.

Guidelines

1.0 Marked Pedestrian Crosswalks

- 1.1 To determine the need for a pedestrian crosswalk, the DTS should consider:
 - 1.1.1 The volume of pedestrians crossing the road at or near the desired crosswalk location.
 - 1.1.2 Traffic volumes on the highway approaches.
 - 1.1.3 The available crossing opportunities.
 - 1.1.4 The proximity to pedestrian traffic generators such as shopping centres, recreational complexes, post offices, etc.
 - 1.1.5 Pedestrian facility connectivity (termination points of sidewalks, etc.).
 - 1.1.6 The proximity of existing pedestrian crossing facilities.

2.0 All Marked Crosswalks

- 2.1 Marked crosswalks should be located at intersections where practicable and mid-block locations should be avoided unless there is no practical alternative.
- 2.2 Guidelines contained in the Pedestrian Crossing Control Manual should be used to select the appropriate treatment system to use at a given location.

References

- *Motor Vehicle Act, s.90(1)*
- PO1054 *Establishment of School Areas on Provincial Highways*, Department Policy Manual
- *Crossing Guard Training Manual*, Nova Scotia Transportation and Public Works, February 2001
- *Crossing Guards Handbook*, Nova Scotia Transportation and Public Works, 2002
- *Pedestrian Crossing Control Guidelines for Canada*, Transportation Association of Canada, December 2012
- *Manual of Uniform Traffic Control Devices for Canada*, Transportation Association of Canada

Enquiries

District Traffic Supervisor
Traffic Engineering and Road Safety Staff

Appendices

Appendix A - *School Crosswalk Request and Supervision Declaration form*

Approved by: Bruce Fitzner, CEHP
Approval date: 15-MAR-2002
Effective date: 15-MAR-2002

Transportation & Infrastructure Renewal
Manual of Policies and Procedures
Revision date: 12-NOV-2014