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Item No. 8.2
Transportation Standing Committee
February 25, 2019
March 28, 2019

TO: Chair and Members of Transportation Standing Committee

SUBMITTED BY: **Original Signed**

Brad Anguish, P. Eng., Director, Transportation and Public Works

Original Signed

Jacques Dubé, Chief Administrative Officer

DATE: December 6, 2018

SUBJECT: **Sidewalk Solutions for Winter Street and Crown Drive**

ORIGIN

Item 12.2.1 of the June 28, 2018 meeting of the Transportation Standing Committee.

MOVED by Councillor Cleary, seconded by Deputy Mayor Mason THAT the Transportation Standing Committee request a staff report to assess a pilot project of painted and possibly protected “sidewalks” on Winter Street and Crown Drive within the roadway.

MOTION PUT AND PASSED

LEGISLATIVE AUTHORITY

Halifax Regional Municipality Charter:

- s. 79(1)(aa) - “The Council may expend money required by the Municipality for ... streets, culverts, retaining walls, sidewalks, curbs and gutters”
- s. 322(1) – “The Council may design, lay out, open, expand, construct, maintain, improve, alter, repair, light, water, clean, and clear streets in the Municipality.”

Motor Vehicle Act:

- s. 2(bl) – ““sidewalk” means that portion of a highway between the curb line and the adjacent property line or any part of a highway especially set aside for pedestrian travel and separated from the roadway;
- s. 127(3) – “Where sidewalks are not provided, any pedestrian walking along and upon a highway shall, when practicable, walk only on the left side of the roadway or its shoulder facing traffic which may approach from the opposite direction.”

RECOMMENDATION

It is recommended that the Transportation Standing Committee recommend that Regional Council direct Planning & Development staff to undertake data collection and an assessment of Winter Street under the new Tactical Urbanism Program in order to consider potential treatments that may be appropriate for the street.

BACKGROUND

The Halifax Regional Municipality (HRM) has many streets that were built prior to amalgamation and before there was an emphasis on pedestrians and standards requiring pedestrian infrastructure. As a result, many of the streets in some older neighbourhoods, depending on when they were built and where they are located, were built without sidewalks. This has led to a great demand from various communities to have sidewalks added to their neighbourhoods and created a lengthy list of locations where sidewalks have been requested.

When requests for new sidewalks are received, the requested road segments are evaluated based on several criteria including; proximity to schools, daycares, seniors' homes, commercial and high-density residential areas, parks, and transit stops. The evaluation also considers if the sidewalk fills a gap by connecting two areas with existing sidewalk or if there are safety concerns resulting from poor sightlines, high vehicle volume or speed. Each request is scored based on the noted criteria and placed on a list to be prioritized for potential construction. The sidewalk priority list currently has over 400 locations and based on funding availability and project integration opportunities, approximately 5-10 sidewalk projects are constructed annually.

Winter Street is a local, residential street that runs between Springvale Avenue and Downs Avenue in the Fairmount area of Halifax. It is approximately 300 m long overall and is broken into four 75 m long "blocks" at stop controlled intersections at Arlington Avenue, Piers Avenue and Doull Avenue. The road is approximately 9.2 metres wide (average of the four segments) and is straight with no sightline obstructions. Parking is permitted on both sides of the street and there are driveways accessing Winter Street in each of the four blocks. Based on the current sidewalk rating criteria, Winter Street ranks "below average" on the prioritization list for construction of a new sidewalk.

Crown Drive is a local residential street that runs for approximately 1.2 km from St. Margaret's Bay Road to a dead end just beyond Coronet Avenue. The road has good visibility along its entire length with no major sightline obstructions, except for one location near Keating Avenue; however, the road is quite narrow with an average width of approximately 7 m. Parking is prohibited along most of the length of Crown Drive, on both sides in some places, and there are many driveways and open frontages over the length of the road. Based on the current sidewalk rating criteria, Crown Drive ranks "low" on the prioritization list for construction of a new sidewalk.

Despite the lack of sidewalks on either of these roadways, neither have been identified as priority locations for infrastructure in either of the Active Transportation Priorities Plan or the Integrated Mobility Plan (IMP). It is worth noting, however, that staff is currently developing a Tactical Urbanism Program intended to identify a toolbox of materials and designs that can be implemented on a temporary basis to test new infrastructure designs until more permanent infrastructure can be built. This new program will directly support Actions 38 and 48 of the IMP, which state:

Action 38: Rehabilitate streets based on their intended functions and using the Complete Streets approach, with first priority given to improving safety and comfort for pedestrians through design treatments such as barrier free routes, visual and sensory cues, curb extensions, widened sidewalks, street trees, traffic calming and benches in mixed use commercial areas or adjacent parks.

Action 48: Support pilot projects for creative street uses, such as community events or temporary infrastructure to test new ideas for how streets can function.

DISCUSSION

The following provides information on alternatives considered to provide pedestrian space within an existing roadway. Two general approaches are discussed, one involving paint only and one involving some type of physical barrier.

Painted "Sidewalks"

A "painted sidewalk" would be a treatment where pedestrian space is provided along the side of a road by applying a painted line or buffer area, essentially creating a shoulder within the existing vehicle travel way.

Although the approach would be easy to implement, the use of paint only would not provide / create a legal sidewalk reserved for pedestrian use. Under the Nova Scotia Motor Vehicle Act, a sidewalk must be separated from the roadway, and this would not be accomplished simply by applying a painted line (or area).

A single painted line could be applied some distance from the curb or edge of the roadway to create a shoulder where pedestrians could walk; however, bicycles and vehicles could still drive in that space and without associated controls, vehicles could also park there. It is also worth noting that in the absence of sidewalks, pedestrians are required to walk on the left side of the roadway, facing traffic, which would require the installation of the shoulder on both sides of the road to ensure pedestrians would have the space to walk facing traffic at all times. Providing the shoulder on one side of the road only could encourage pedestrians to use that space regardless of their direction of travel and walking with their back to traffic.

The application of painted lines on a roadway may help to delineate a pedestrian walking area from a vehicle travel lane and could provide narrower travel lanes. However, given the lack of any physical separation it would provide little protection to pedestrians.

When considering the use of a painted shoulder for Winter Street, assuming a width of 1 m for each side of the street, the remaining travel way would be approximately 7.2 m. This would leave adequate room for two-way traffic; however, to ensure the space would be available for pedestrians, it may be necessary to remove all on-street parking from both sides of the street to avoid situations where pedestrians would be required to walk around parked vehicles and into the narrowed vehicle travel way.

Crown Drive is a more challenging situation to consider. Since the road width is currently only 7 m, providing a painted shoulder on both sides of the road, even one as narrow as 1 m, would leave only 5 m of travel way. This width is inadequate for two-way traffic and would result in vehicles continually encroaching into the shoulder area created for pedestrian use.

Protected "Sidewalks"

Using physical barriers to define the pedestrian area within the roadway would be more effective than paint in providing separation between pedestrians and vehicle traffic. Treatments such as delineators, bollards, jersey barriers, curb/parking stops or pre-cast concrete curb would provide the separation required to create an actual sidewalk for pedestrian use only. This would remove the need to provide the "sidewalk" on both sides of the road.

Physical barriers, although more effective in providing the desired vehicle / pedestrian separation, would still have challenges in implementation. Since the space would be physically separated from the vehicle travel way, the walkway would have to be a minimum of 1.8 m wide to ensure snow removal equipment could clear the space. The overall space required to create the protected walkway would depend on the type of barrier used. Jersey barriers would require the most space, 0.6 m, with pre-cast concrete curb or concrete curb/parking stops requiring approximately 0.3 m. Assuming the smaller curb type barriers are used, creating the protected walkway would remove a minimum of 2.1 m from the existing roadway width.

Application of a protected sidewalk on Winter Street would reduce the vehicle travel way to approximately 7 m. This would still provide adequate width to support two-way vehicle traffic; however, on-street parking would have to be removed from one side, and potentially both sides of the street, to maintain appropriate access.

Providing a protected sidewalk on Crown Drive would not be possible given the current width of the road. Constraints associated with adjacent properties and available right of way makes it very difficult to achieve any additional space by widening.

Moving Forward

There are benefits, drawbacks and limitations to both approaches (painted vs. protected) to provide a pedestrian area within the existing roadway space on Winter Street and Crown Drive. While the painted option would be easier to implement and require less space, it would not provide the separation and protection for pedestrians that the protected approach does and there would also be the difficulty in keeping vehicles from driving/parking in the pedestrian area. The protected option would provide for better accessibility in winter as it would be cleared in the same manner as traditional sidewalks while the painted pedestrian area is likely to be impacted by snow banks. Some design work would be required for the protected option to determine any impacts to drainage, driveway access, transitions at intersections, etc. The painted option would require on-going maintenance to ensure the markings are visible and both options would have an impact to on-street parking.

Although there is no approved budget to implement either the painted or protected option, based on available unit prices, it is estimated that for Winter Street the potential cost would be approximately:

- **Painted** – \$1,400 for initial installation, assuming a shoulder is provided on both sides of the road, and there are no parking restrictions put in place. On-going maintenance for this option would involve annual re-painting of the lines. The associated maintenance cost would be minimal and could be absorbed within existing budgets.
- **Protected** - \$12,000 for initial installation using concrete curb / parking stops placed continuous with delineators placed on top at approximately 10 m intervals. This would represent material cost only. Installation cost would vary depending on whether internal staff could do the work or if an external contractor is required. On-going maintenance for this option would include the repair / replacement of damaged delineators and concrete curb / parking stops as well as winter maintenance costs for snow removal in the protected walkway. Assuming the need to repair / replace 6 delineators (1-2 per block) and 4 concrete curb / parking stops (1 per block), repair costs are estimated at approximately \$950 / year (materials only). Estimated snow removal cost would be approximately \$1,500 per year. This results in a total estimated on-going maintenance cost of approximately \$2,450 per year for material costs and snow removal. These costs are not currently identified in any capital or operating budgets.

An estimate was not considered for Crown Drive as neither of these treatments are recommended given the existing space limitation of the road does not support the implementation of either treatment.

Based on this initial assessment of Winter Street and Crown Drive, it has become apparent that the physical space limitations on Crown Drive makes it very difficult to implement either the painted or protected option. Winter Street, at a high-level, appears to be able to support either option; however, the question is whether they are necessary on this particular road given its current characteristics. The road serves only local traffic (low volume), is broken into short blocks of approximately 75 m each with stop control on both ends of each block (low speed) and has a wide travel way of over 9 m that provides plenty of space for pedestrians and vehicles to safely share the road. All of this being said, moving forward with data collection (vehicle speed, volume and pedestrian volume) and assessing Winter Street for the potential to pilot a tactical urbanism treatment to provide pedestrian space may have some merit.

FINANCIAL IMPLICATIONS

There are no immediate financial implications associated with the recommendation of this report.

If a decision is made to pursue either the “painted” or “protected” sidewalk option, funding will be required in future budgets as the cost associated with installation and maintenance of either option is not currently identified in existing or proposed capital and operating budgets.

RISK CONSIDERATION

There are no significant risks associated with the recommendations put forward in this report.

COMMUNITY ENGAGEMENT

Community engagement was not undertaken at this time as options / approaches have not yet been identified.

ENVIRONMENTAL IMPLICATIONS

There are no environmental implications identified.

ALTERNATIVES

The Transportation Standing Committee could choose to forward a recommendation to Regional Council to direct staff to plan and budget for implementation in 2019, one of the identified approaches on one or both streets in this report; however, based on the assessment outlined in this report, this is not recommended at this time.

ATTACHMENTS

None

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.

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