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Item No. 12.1
Transportation Standing Committee
June 19, 2024

TO: Chair and Members of Transportation Standing Committee

SUBMITTED BY: -Original Signed-

Cathie O'Toole, Chief Administrative Officer

DATE: March 12, 2024

SUBJECT: Traffic Islands on Colby Drive

INFORMATION REPORT

ORIGIN

Item 14.1 of the December 12, 2023, special meeting of the Transportation Standing Committee:

MOVED by Councillor Cleary, seconded by Councillor Mason THAT the Transportation Standing committee direct the Chief Administrative Officer to prepare a staff report that measures the effectiveness and impacts of the traffic islands on Colby Drive and investigates any changes that may be necessary, which could include removal of the traffic islands.

MOTION PUT AND PASSED

LEGISLATIVE AUTHORITY

Halifax Regional Municipality Charter, Part XII, subsection 321(8) provides:

Traffic authority

321 (8) The traffic authority for the Municipality has, with respect to highways in the Municipality, excluding those for which the Provincial Traffic Authority has authority, the powers conferred upon a traffic authority by or pursuant to the Motor Vehicle Act.

Halifax Regional Municipality Charter, Part XII, subsection 322(1) provides:

Street related powers

322 (1) The Council may design, lay out, open, expand, construct, maintain, improve, alter, repair, light, water, clean and clear streets in the Municipality.

BACKGROUND

When the original Traffic Calming Administrative Order (Policy) was approved in 2016, the primary measure being installed for traffic calming projects were speed humps, since they were known to be effective in reducing vehicle speed while still allowing good accessibility and winter maintenance operations. Despite these benefits, standard speed humps do have a more pronounced impact on services such as transit operations and emergency response. As a result, installing traffic calming measures on streets with transit

service and those identified by emergency services as moderate/high importance for emergency response could not be considered.

At the time, the limitations related to the use of speed humps to reduce vehicle speeds in residential areas meant those streets with transit routes or identified as potential for low to moderate use by fire services, were coming to the top of the priority list for traffic calming due to increased and excessive speeding. As a result, staff undertook testing of speed tables in 2020 to determine their impact on transit and fire vehicles. Speed tables have a longer profile than standard speed humps, and have a lesser impact on larger, heavy vehicles. The testing resulted in approval to use speed tables as a vertical traffic calming feature on residential local or minor collector streets that have transit routes or potential for low to moderate use by emergency services, making speed tables the preferred option for traffic calming projects from 2020 onward.

DISCUSSION

In 2017, residents and the Councillor at the time, identified Colby Dr. as a location where vehicle speed was a concern and traffic calming measures were required. Staff undertook an assessment as part of the traffic calming request, confirming that speeding was occurring. Where Colby Dr. is a transit route, the use of speed humps (vertical deflections) as traffic calming measures could not be considered, as outlined in the background section of this report. As a result, median islands (horizontal deflections) were chosen instead and installed on the south loop of Colby Dr. (between Deerbrook Dr. and Greenwich Dr.) in 2019 as part of a road recapitalization (paving) project and approved traffic calming program.

Initial data collection was undertaken in 2017, before the installation of the traffic calming measures. Subsequent data was collected after installation in 2019, 2020, 2023, and most recently in 2024. Data is summarized in Table 1 and data collection locations are illustrated in Figure 1, below.

Table 1 – Speed Data (km/h)

| | Location | Year | 85 th Percentile Speed | Change from 2017 Data |
|--------|--------------|------|-----------------------------------|-----------------------|
| Before | 1 Civic 471 | 2017 | 54 | - |
| After | 2 Civic 478 | 2019 | 55 | +1 |
| | 3 Civic 486 | 2020 | 64 | +10 |
| | 4 Civic 491 | 2023 | 57 | +3 |
| | 5 Civic 464 | 2024 | 56 | +2 |
| | 6 Civic 455 | 2024 | 52 | -2 |
| | 7 Civic 434 | 2024 | 54 | 0 |
| | 8 Civic 410 | 2024 | 54 | 0 |
| | 9 Civic 386 | 2024 | 51 | -3 |
| | 10 Civic 370 | 2024 | 50 | -4 |

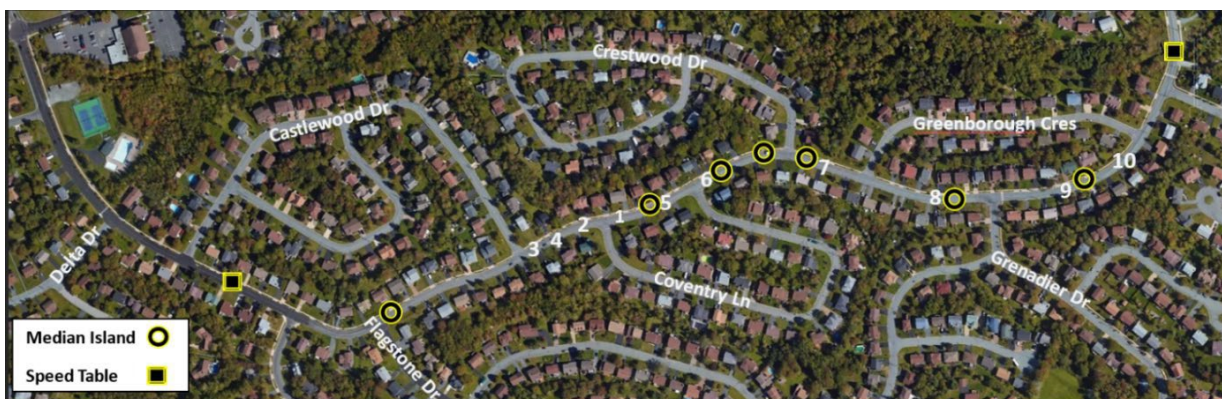


Figure 1 – Existing Median Islands & Data Collection Locations

Initial follow-up data (locations 2, 3 and 4 on Figure 1) was collected in the same general location as the data collected before installation (location 1 on Figure 1). The data showed that the installation of the median islands did not result in the desired reduction in vehicle speed. Additional follow-up data was collected in 2024 at locations in closer proximity to the islands (locations 5, 6, 7, 8, 9 and 10 on Figure 1) to determine if more localized impacts to vehicle operating speed may have been achieved. Based on the data presented in Table 1, apart from location 10, installation of the median islands does not appear to be providing the desired reduction in vehicle operating speed.

Section 26 of the existing Policy (Attachment 1) provides for the installation of additional traffic calming measures, if appropriate options can be identified, to an existing installation in situations where follow-up data collection shows that a vehicle speed reduction was not achieved with the original measures.

As noted in the background section of this report, where speed tables have been identified as a potentially acceptable vertical measure for transit routes and roads that might see low to moderate use by emergency services, potential changes to the existing measures on the section of Colby Dr. between Deerbrook Dr. and Greenwich Dr. could, in accordance with existing Policy, include:

Option A: Install Speed Tables to Augment Existing Median Islands (\$102,000) – Staff reviewed the section of Colby Dr. where the median islands are installed, and there is potential to add up to four speed tables to augment the islands. See Figure 2 for potential locations.

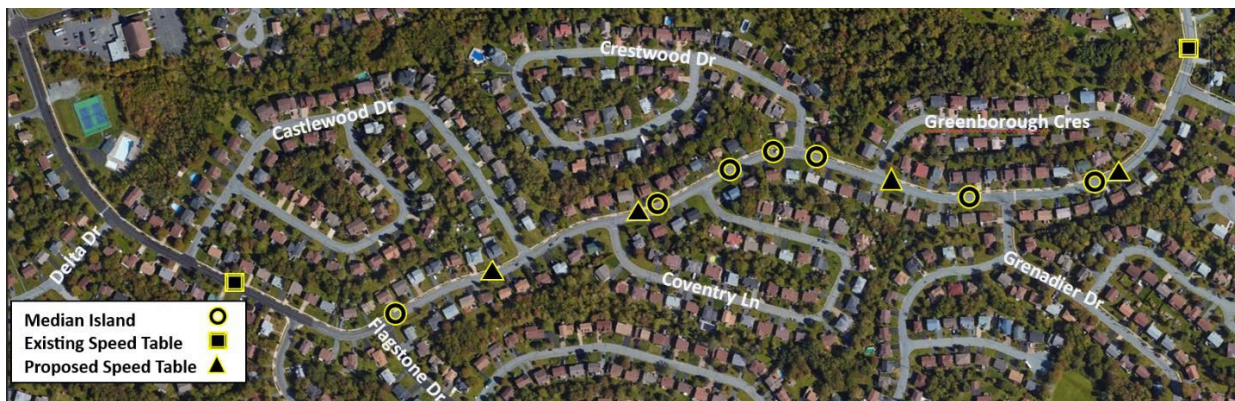


Figure 2 – Option A, Existing Median Islands Augmented with Speed Tables

Option B: Replace Existing Median Islands with Speed Tables (\$200,000) – The 7 median islands could be removed and replaced with up to 5 speed tables. The approximate layout is shown in Figure 3.

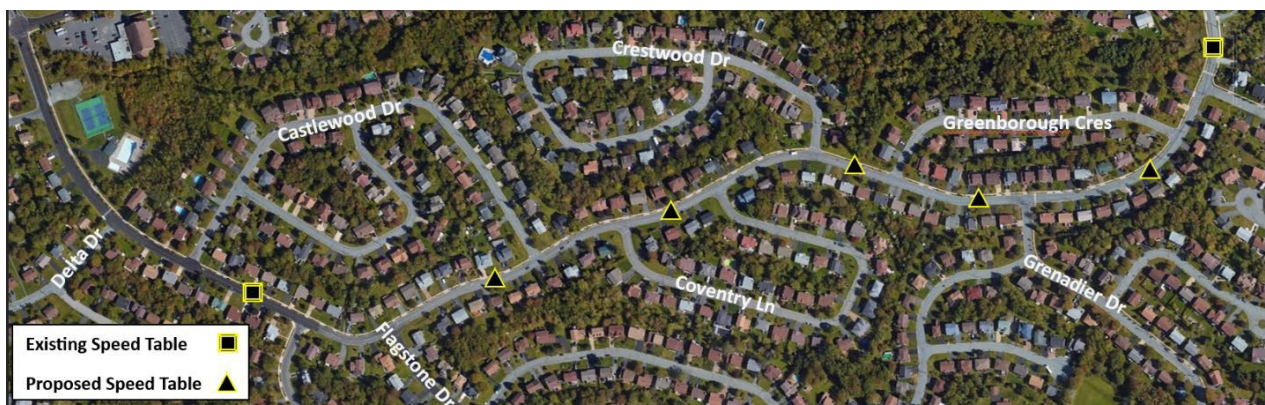


Figure 3 – Option B, Replacement of Existing Median Islands with Speed Tables

Option C: Removal of Existing Median Islands (\$106,000) – Removal of all existing median islands with standard reinstatement of the road surface and no traffic calming infrastructure.

None of the above options are included in the proposed 2024/2025 capital budget and each would require varying degrees of detailed field scoping and design before they could be implemented. Final number and placement of speed tables as identified in Option A or Option B would be dependent on the design, which would include collaboration with, and input from, HRM Fire Services. As a result, undertaking any of these options would require inclusion in a future capital program beyond 2024/2025.

As noted previously, Section 26 of the Policy does provide for additional measures to be added to existing traffic calming installations if follow-up data collection shows that the desired vehicle speed reduction was not achieved. This would apply to Option A and would allow for this option to be pursued as a future stand-alone project without the need to integrate with another road recapitalization project occurring on Colby Dr.

Further to the overall budget and design requirements identified above, since both Option B (replacement) and Option C (removal) involve the complete removal of the existing traffic calming measures, they would be subject to Section 28 of the Policy which does provide an avenue for the complete removal of traffic calming measures. To pursue this, policy requirements include the submission of a resident led petition showing the support of at least 75% of the residents within the original study area. If the required support is received, the removal would only be done as part of another road recapitalization (paving) project on Colby Dr. where the median islands are located.

Colby Drive between Deerbrook Dr and Greenwich Dr was repaved in 2019 and currently rates in very good condition. The typical lifespan of the mill and overlay treatment used, on this type of road is 8-12 years. No work would be anticipated to be needed here until sometime near 2030. Based on this, if existing policy is followed and supported by the appropriate petition, removal of the median islands (Option C) or removal & replacement with speed tables (Option B), could not be done until the next paving project is undertaken in approximately 6-7 years.

If Option C was to be pursued, and the existing traffic calming measures were to be removed, in accordance with Section 29 of the Policy, any subsequent requests for traffic calming on this section of Colby Dr could not be considered for a period of at least 10 years.

Given the complaints related to vehicle speed on Colby Drive that led to the installation of the traffic calming measures, it is not recommended that Option C be pursued. Considering the data outlined in Table 1, Option B would be the most appropriate approach. This option would be in keeping with the approach taken when the chicanes that were in place for many years on Romans Ave. (Halifax) were removed and replaced with speed tables as part of a road recapitalization project.

FINANCIAL IMPLICATIONS

If the current policy is followed for the removal of traffic calming measures as outlined in sections 27-29 (inclusive) of the Traffic Calming Administrative Order (AO 2021-005-OP), there would be no immediate financial implications.

Undertaking any of the options identified in the Discussion section of the report would require the identification of additional capital budget, in future years, as follows:

| | |
|--|------------|
| Option A – Augment Existing Median Islands | \$ 102,000 |
| Option B – Replace Existing Median Islands | \$ 200,000 |
| Option C – Remove Existing Median Islands | \$ 106,000 |

Above noted budget amounts are high level estimates only, based on current material and labour rates, and would be subject to change dependant on timing of actual project design / construction activities.

COMMUNITY ENGAGEMENT

Community engagement was not required/undertaken as this report was generated because of community input and public presentation provided at the December 12, 2023, meeting of the Transportation Standing Committee.

ATTACHMENTS

Attachment 1 – Traffic Calming Administrative Order (AO 2021-005-OP)

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: Roddy MacIntyre, P.Eng., Manager – Traffic Services & Road Safety, Public Works

**ADMINISTRATIVE ORDER NUMBER 2021-005-OP
RESPECTING TRAFFIC CALMING**

BE IT RESOLVED AS AN ADMINISTRATIVE ORDER of the Council of the *Halifax Regional Municipality* under the authority of the *Halifax Regional Municipality Charter* and the *Motor Vehicle Act*, as follows:

Short Title

1. This Administrative Order may be cited as the “*Traffic Calming Administrative Order*”.

Purpose

2. The purpose of this Administrative Order is to:

(a) establish the process for residents to make requests to have a street assessed for installation of traffic calming measures;

(b) provide clear and concise criteria and method for assessing Municipal streets in order to determine the need and suitability of implementing traffic calming measures; and

(c) provide information to the Traffic Authority for consideration when assessing applications for the installation of traffic calming measures.

Application

3. This Administrative Order applies only to streets owned by the Municipality that meet the following conditions:

(a) are within neighbourhoods that are primarily residential in character or contain school areas;

(b) are classified as

(i) local streets;

(ii) minor collector streets; or

(iii) major collector streets at the discretion of the Engineer, where they are functioning as a minor collector street;

(c) are not multi-lane roads;

(d) have a posted speed limit not greater than 50 kilometres per hour;

(e) are greater than 150 metres in length; and

(f) do not provide direct access to an emergency services building.

Interpretation

4. In this Administrative Order,

(a) “85th percentile speed” means the speed at, or below which, 85 percent of vehicles on a roadway are travelling;

(b) “95th percentile speed” means the speed at, or below which, 95 percent of vehicles on a roadway are travelling;

(c) “emergency services building” means any fire station, police station, ambulance depot, or hospital;

(d) “Engineer” means the Engineer as defined in section 3(ac) of the *Halifax Regional Municipality Charter, S.N.S. 2008, c. 39*;

(e) “key corridor” means for the purpose of assessment and evaluation, the street within a neighbourhood that is considered by the Engineer to be of the highest concern relative to others within the neighbourhood as defined by the Engineer;

(f) “local street” means a street, as classified by the Municipality, in a primarily residential area, designed and constructed with the primary purpose of providing access to properties directly fronting the street;

(g) “major collector street” means a street, as classified by the Municipality, designed and constructed with the primary purpose of providing traffic movement, with limited access to properties directly fronting the street;

(h) “minor collector street” means a street, as classified by the Municipality, in a primarily residential area, designed and constructed with the intended purpose of providing traffic movement into and out of an area, with equal importance of providing access to properties directly fronting the street;

(i) “multi-lane road” means a street having more than one lane of travel per direction;

(j) “Municipality” means the Halifax Regional Municipality;

(k) “neighbourhood” means a group of nearby and/or connecting streets;

(l) “school zone” means a school area as designated pursuant to the *Motor Vehicle Act*;

(m) “staff” means employees of the Municipal department in which the Engineer is situated;

(n) “street” means a public street as defined in section 3(bu) of the *Halifax Regional Municipality Charter, S.N.S. 2008, c. 39*;

(o) “Traffic Authority” means the Traffic Authority of the Municipality appointed by the Council pursuant to the *Halifax Regional Municipality Charter* and the *Motor Vehicle Act*;

(p) “traffic calming” means a combination of primarily physical measures that reduce the negative effects of motor vehicle use, alter driver behaviour, and improve conditions for all street users; and

(q) “vpd” means vehicles per day.

Initiation of Traffic Calming Assessments on Municipal Streets

5. Requests to initiate a traffic calming assessment for a street may be made by:

(a) residents who live on the street, or section thereof, for which traffic calming measures are being requested;

(b) Councillor(s), on behalf of a resident or residents who reside on a particular street, or within a particular neighbourhood, for which traffic calming measures are being requested;

(c) resident associations on behalf of residents who live on a particular street, or within a particular neighbourhood, for which traffic calming measures are being requested; or

(d) a school principal for the school zone in which their school is located.

6. Upon initiation, the time frame to complete a full project assessment will depend on the timing of the request, availability of staff resources, complexity of the subject street(s) and project area, measures identified for implementation, and available funding.

Process for Undertaking Traffic Calming Assessments on Municipal Streets

Screening

7. Upon receipt of a request, staff shall undertake a screening process in order to determine if the requested street would be eligible for consideration of traffic calming measures based on the conditions identified in Section 3, Application, of this Administrative Order.

8. If, based on the screening process, it is determined that the street is not eligible for traffic calming measures, staff shall provide notification to the requestor and the process is complete.

Assessment

9. If the request passes the screening process, an assessment shall be conducted by staff and shall include:

- (a) identification of site-specific areas of concern;
- (b) identification of appropriate project limits based on the surrounding and connecting roadway network; and
- (c) a review of speed and volume data. If there is no recent data on file that meets the needs of the request, data collection equipment shall be installed at locations within the identified project limits such that the resulting data will provide a representative indication of typical traffic conditions and shall be left in place to collect a minimum of seven (7) days of continuous data.

10. As part of the assessment, staff will classify the request as one of the following three project types, based on the site-specific areas of concerns identified in the assessment:

(a) Street Assessment – a project will be assessed as a street if the area of concern is limited to one street and there is minimal potential for unintended negative impact on nearby or parallel streets;

(b) Neighbourhood Assessment – a project will be assessed as a neighbourhood if the area of concern extends beyond one particular street, and staff identifies that installing measures on one street could negatively impact vehicle speed and volumes of nearby streets in the same neighbourhood, subject to the following conditions:

(i) the neighbourhood is contained within major collector or arterial streets, or within geographic boundaries;

(ii) the overall size of the neighbourhood is limited and avoids the inclusion of multiple minor collector streets; and

(iii) a key corridor within the neighbourhood is identified by staff to be used for assessment and ranking; or

(c) School Zone Assessment – a project will be assessed as a School Zone if the area of concern is within a school zone.

11. (1) For a request classified as a street assessment under section 10, the project is defined as the street that is the area of concern.

(2) If the 85th percentile speed identified as part of the assessment on the project street is above 45km/hr, the request shall be carried forward for project ranking;

(3) If the 85th percentile speed identified as part of the assessment on the project street is equal to or below 45km/hr, the project street does not qualify for further consideration of traffic

calming measures. Notification of the results shall be provided to the requestor and the process is complete.

12. (1) For a request classified as a neighbourhood assessment under section 10, the project is defined as the streets that fall within the project limits as determined under section 9.

(2) Staff will identify a key corridor from the streets included in the project, which will be used to represent the project for the purposes of ranking.

(3) If the 85th percentile speed identified as part of the assessment of the key corridor is above 45km/hr, the request shall be carried forward for project ranking.

(4) If the 85th percentile speed identified as part of the assessment of the key corridor is equal to or below 45km/hr, the project street does not qualify for further consideration of traffic calming measures. Notification of the results shall be provided to the requestor and the process is complete.

13. (1) For a request classified as a school zone assessment under section 10, the project is defined as the street within a school zone.

(2) If the school zone is on a local street or minor collector street, it will be automatically considered for vertical deflections, without being carried forward for project ranking.

(3) If the school zone is on a local street or minor collector street but vertical deflections are not viable:

(i) if the 85th percentile speed during the school arrival and dismissal times is greater than 30km/hr, the project street will be carried forward for project ranking;

(ii) if the 85th percentile speed during the school arrival and dismissal times is equal to or below 30km/hr, the project street does not qualify for further consideration of traffic calming measures.

14. Requests to reassess a project street that did not pass the assessment will not be considered until:

(a) a minimum of 5 years from the date that determination was made; or

(b) staff determines there have been significant changes to the street characteristics.

Project Ranking

15. (1) If a request passes the assessment, staff shall rank the project based on the criteria outlined in Table 1:

Table 1 – Priority Points for Ranking Traffic Calming Projects

| Criteria | Measure | Maximum points available | Point Allocation |
|-----------------------|--------------------------|--------------------------|---|
| Vehicle Speed | 85th percentile speed | 20 | All streets: 1 point for each km/h that the 85th percentile speed exceeds 45 km/h |
| | | | Streets within a school zone: 1 point for each km/h that the 85th percentile speed exceeds 30 km/h during arrival and dismissal times |
| | 95th percentile speed | 5 | 5 points if 95th percentile speed exceeds 55km/h |
| Vehicle Volume | Daily Traffic Volume | 10 | Local Streets: 1 point for every 500 vpd over 500vpd |
| | | | Collector Streets: 1point for every 500 vpd over 1000 vpd on collectors |
| Collisions | Number of Collisions | 20 | 2 points for each reported collision that occurred in the previous 3 year period preceding the request. |
| | | | 2 additional points for each injury collision. |
| Pedestrian Generators | Nearby Facilities | 15 | 1 point for each walkable pedestrian generator within 500 m of the project area (parks, senior’s facilities, community centres, etc.) |
| | | | 5 points for each walkable playground within 500 m of the project area. |
| Infrastructure | Sidewalks | 10 | 5 points for each missing sidewalk (standard is sidewalk on one side for local streets, sidewalk on both sides for collector streets) |
| Cycling Facilities | Suggested Cycling Routes | 5 | 5 points if the street is a suggested cycling route or candidate cycling route |
| | | | 2 points if the street directly connects to a secondary travel way (such as a MUP, an existing bikeway or a future bikeway) |
| Mode Share | Commuter Data | 5 | 5 points if 25% of trips are made by walking, cycling or Transit |
| Equity | | 10 | Staff shall consider the Canadian Index of Municipal Deprivation or such other equity lens as may be identified by the Engineer from time to time, and assign a score of 1-10 based on socio-economic conditions of the area of concern |

(2) If the project street is classified as a school zone assessment, staff shall review the 85th percentile speed during the school arrival and dismissal times, and shall calculate the number of points awarded under the criteria for “vehicle speed” for both “all streets” and “within a school zone”, and shall use the greater of the two numbers in calculating the ranking score.

(3) If the project is classified as a neighbourhood assessment, only the key corridor will be ranked.

(4) The ranking score shall be the sum of the number of points awarded under each criteria in Table 1.

16. (1) Subject to subsection (2), each project shall be included on a prioritized list, based on its ranking score, for implementation as part of the annual Capital Works Program to be approved by Council.

(2) Projects that have a ranking score that is less than 10 points will not be included on the prioritized list.

17. (1) Where there is an integration opportunity with another scheduled street recapitalization project with a design component under the Capital Works Program, that project will take priority, regardless of its position on the prioritized list.

(2) All scheduled street recapitalization projects with a design component under the Capital Works Program will be evaluated in accordance with section 15, and if they achieve a ranking score of 10 points or more, traffic calming measures will be installed during the street recapitalization project.

18. Where possible, streets within close proximity to each other in a neighbourhood will be implemented together.

19. The number and timing of projects implemented shall be subject to capital budgets.

Traffic Calming Plan Development

20. Upon approval of the Municipality’s annual capital budget, staff shall create a proposed implementation list and identify potential traffic calming measures to be considered for installation.

21. (1) Staff shall prepare a traffic calming plan for each project on the annual proposed implementation list and shall consider the physical characteristics of each street.

(2) In developing a traffic calming plan, staff shall consult with Fire Services, Police, Road Operations & Construction, Project Planning & Design, Strategic Transportation and Planning, Emergency Health Services and Halifax Transit in order to gather input and identify any

specific concerns based on their operational requirements, and shall work to modify the design as necessary to address those concerns.

(3) Where specific concerns cannot be addressed to the satisfaction of all parties consulted, no further action will be taken, and the street shall be removed from the implementation list.

22. (1) Staff shall submit the traffic calming plan for approval by the Traffic Authority.

(2) If the Traffic Authority approves the traffic calming plan, staff shall move the traffic calming plan forward for implementation.

(3) If the Traffic Authority does not approve the traffic calming plan, no further action will be taken, and the street shall be removed from the implementation list.

Installation and Monitoring

23. Installations of traffic calming measures approved by the Traffic Authority shall proceed under the Capital Works Program.

24. Beginning no earlier than one month following the installation of traffic calming measures on a street, staff shall collect additional traffic data in order to determine their effectiveness.

25. (1) If data collection results indicate a vehicle speed reduction has been achieved, no further action is required and the process is completed.

(2) If the process is completed in accordance with subsection (1), any future request to initiate further traffic calming measures shall be considered as a new request.

26. If data collection results indicate a vehicle speed reduction was not achieved, staff may consider additional measures. If there are no appropriate measures identified, staff may contact Police to discuss potential enforcement alternatives if deemed appropriate, and the process is complete.

Removal of Traffic Calming Measures

27. The Traffic Authority or the Engineer may order the removal of any traffic calming measures if, in their opinion, the installation of such measures resulted in an unforeseen operational or safety issue not identified through the development of the traffic calming plan carried out as part of this Administrative Order.

28. If a request is received to remove traffic calming measures installed on a street as a result of a completed project carried out under this Administrative Order, removal shall be considered only:

(a) after receipt of a petition containing support for removal by a minimum of 75 percent of civic addresses within the original study area; and

(b) if there is a capital works project being undertaken by the Municipality on that portion of the street where the traffic calming features are installed.

29. If traffic calming measures are removed from a street in accordance with section 28, subsequent traffic calming requests shall not be considered for the particular street for a period not less than ten years.

Transition

30. The prioritized list of streets under Administrative Order 2015-004-OP existing prior to the coming into force of this Administrative Order shall be used to select projects for the 2022-23 Capital Works Program.

31. Upon adoption of this Administrative Order, staff shall apply sections 9-19 of this Administrative Order to the streets listed on the prioritized list of streets under Administrative Order 2015-004-OP that exists prior to the coming into force of this Administrative Order, and a new prioritized list shall be created.

32. Any requests to initiate a traffic calming assessment that are in process at the time of the coming into force of this Administrative Order shall be assessed in accordance with this Administrative Order.

Repeal

33. Administrative Order 2015-004-OP Respecting Traffic Calming is repealed.

Done and passed in Council this 14th day of June, 2022.

Mayor

Municipal Clerk

I, Iain MacLean, Municipal Clerk of the Halifax Regional Municipality, hereby certify that the above noted Administrative Order was passed at a meeting of the Halifax Regional Council held on June 14, 2022.

Iain MacLean, Municipal Clerk

Notice of Motion:
Approval:

December 7, 2021
June 14, 2022