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Item No. Info 2
Transportation Standing Committee
January 23, 2025

TO: Members of Transportation Standing Committee
FROM: Brad Anguish, Commissioner of Operations
DATE: December 2, 2024
SUBJECT: Adjustments to Signs and Signals on Pedestrian Main Streets

INFORMATION REPORT

ORIGIN

July 25, 2024, Transportation Standing Committee motion (Item No 14.2)

MOVED by Councillor Cleary, seconded by Councillor Mason

THAT the Transportation Standing Committee direct the Chief Administrative Officer to prepare a staff report looking at adjustments to signs and signals that would truly prioritize pedestrians on streets that are designated as pedestrian-oriented main streets in our land use planning documents.

MOTION PUT AND PASSED

EXECUTIVE SUMMARY

Pedestrian-oriented commercial streets are identified and characterized in the Centre Plan. These are streets with specific controls on land use and building design to support commercial and pedestrian activity.

The report identifies pedestrian priority measures that can be considered to enhance the pedestrian experience on these street segments. The measures include changes to signal phasing, and installation or changes to crosswalks.

There are no immediate financial implications associated with this report. Additional resources, as identified in the report, would need to be identified in future capital and operating budgets to accommodate implementation of any of the options provided in the report.

BACKGROUND

Section 3.5 of the [Centre Plan](#) describes pedestrian-oriented commercial streets as: *streets that are characterized by a concentration of ground-level retail in close placement to the sidewalk with narrow shop fronts, and extensive clear glazing at sidewalk level. These streets support the clustering of businesses, create informal shopping and entertainment areas, and contribute to community character and sense of place. To support the continued development of pedestrian-oriented commercial streets, this Plan establishes controls on the design and use of buildings to support commercial and pedestrian activity.*

Essentially these areas have specific regulations to promote active streetscapes by requiring commercial, cultural, or institutional uses on the ground floor of new developments and associated built form requirements to ensure easy and comfortable pedestrian access.

Policy UD-22 as provided in the Centre Plan indicates *the Land Use By-law shall establish land use and built form regulations on lands abutting the Pedestrian-Oriented Commercial Streets identified on Map 19 by:*

- a) *limiting the uses permitted on the ground floor to active commercial, cultural and institutional land uses.*
- b) *requiring a minimum amount of transparent glass glazing on the ground floor.*
- c) *setting the maximum width of any grade-oriented premises to support the development of multiple pedestrian-oriented storefronts.*
- d) *requiring hard landscaping in the front or flanking yards that is complementary to the abutting sidewalk.*
- e) *setting minimum and maximum building setbacks that support pedestrian activity; and*
- f) *requiring canopies, awnings or other weather protection measures for pedestrians at the street level*

This policy is not intended to address traffic control measures regarding pedestrian safety. However, it is recognized that pedestrian mobility and safety measures contribute to comfortable pedestrian access.

DISCUSSION

Possible adjustments to signs which would prioritize pedestrians on the pedestrian-oriented commercial streets could include installation of signage for new marked crosswalks where warranted. Neither the Manual of Uniform Traffic Control Devices (Transportation Association of Canada) nor the Nova Scotia Traffic Signs Regulations include other signs that would be considered, in this context, to provide priority to pedestrians over other road users.

Signalized intersections within the area identified in the Centre Plan currently operate on automatic pedestrian recall between the hours of 6:00 am and 12:00 am. During this time, the traffic signals continually cycle to service all walk phases automatically, whether there is pedestrian demand or not, without the need for pedestrians to use the push button.

The above noted approach of including automatic pedestrian recall, as directed by Regional Council to prioritize pedestrian movements at signalized intersections, does require trade-offs and results in less efficient traffic signal operation. Fully actuated traffic signals allow the flexibility to manage demand at an intersection in the most efficient manner, increase safety, and reduce overall delay for all users. The use of push buttons for pedestrian signals is like the operation of vehicle phases where detectors are used to indicate to the signal controller that there is demand for that phase. If no vehicle is detected, the phase can be shortened or skipped which frees up time to more quickly serve those movements, pedestrian, transit, and vehicle, where there is identified demand. The use of pedestrian push buttons also enables alternative phasing to improve pedestrian safety which is otherwise not possible with automatic recall. For example, if there was a pedestrian phase activated with the push button, the controller could skip servicing a conflicting vehicle phase.

Other adjustments to signals could include implementation of a leading pedestrian interval (LPI) where applicable and where it doesn't already exist, and extensions to walk times. Implementing protected-only

turning phases to separate pedestrians from turning vehicles is not feasible at any of the signalized intersections within this dense, urban context based on the overall delay that would be experienced for all road users including transit and pedestrians. There would also be significant property and budget impacts associated with the infrastructure required to implement protected-only turn phasing.

Though not explicitly included in the motion, adjustments to pavement markings could also be considered to draw attention to pedestrian movements in these commercial areas. These may include converting parallel crosswalks at signalized intersections to high visibility zebra markings; including advance yield lines at multi-lane Ra-5 crosswalks; and including parallel crosswalk markings at stop-controlled crosswalks where they don't exist.

A map of the streets identified in the Centre Plan as Pedestrian-Oriented Commercial Streets is included in Figure 1. Table 1 includes the list of these street segments. Staff cross-referenced existing pedestrian infrastructure with the list of identified street segments to determine if additional pedestrian priority measures could contribute to improved pedestrian access.

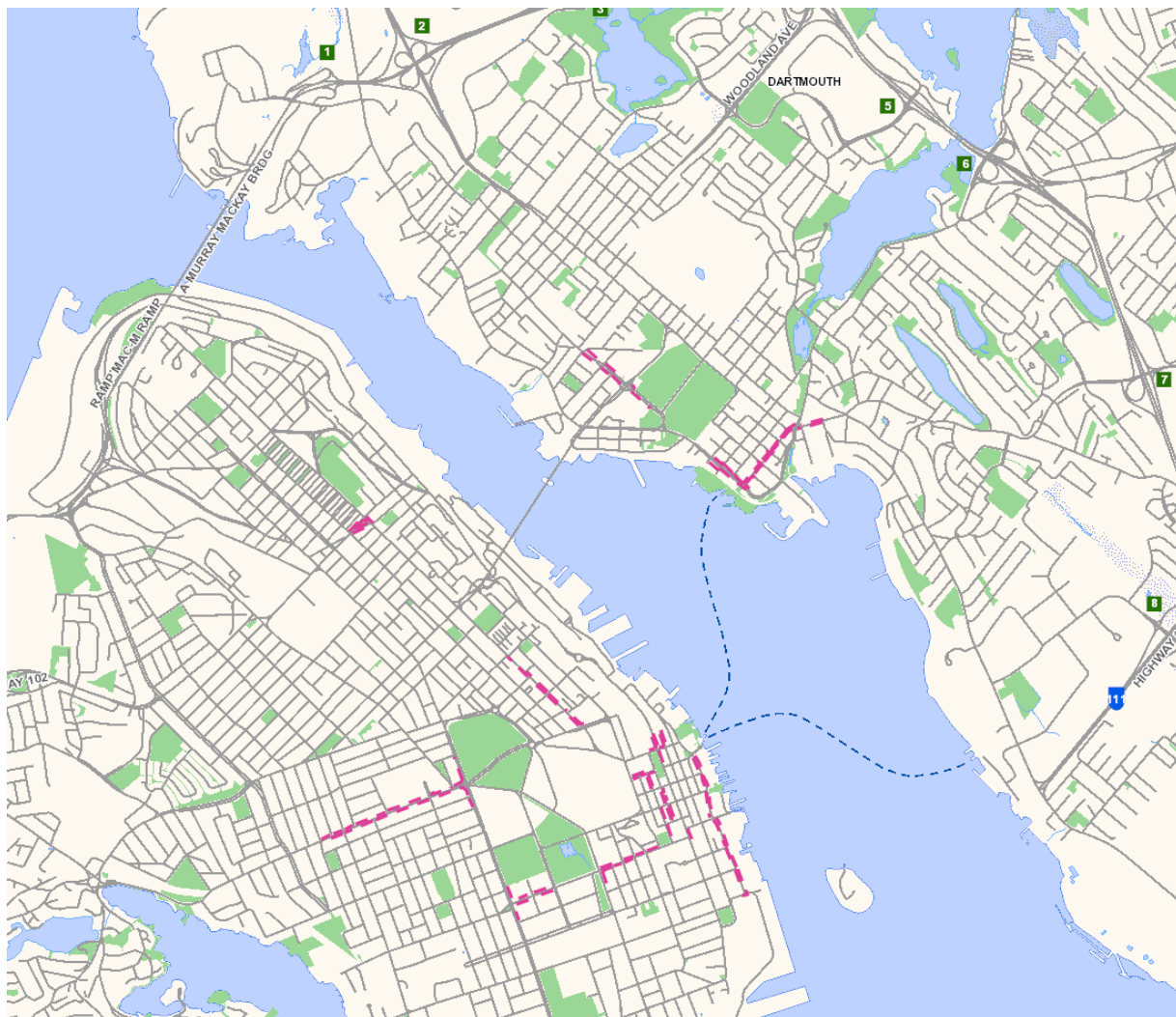


Figure 1: Pedestrian Oriented Commercial Streets (Source: Regional Centre Secondary Municipal Planning Strategy, Map 19)

Table 1: Pedestrian Oriented Commercial Streets

Street Name	Segment Limit
Alderney Dr – both sides	North St to Portland St
Portland St – both sides	Alderney Dr to Skokolmul St
Wyse Rd – both sides	Pelzant to Nantucket
Wyse Rd – south side	Nantucket to Thistle
Argyle St – both sides	Prince St to Blowers St
Barrington St – east side	Salter St to SGR
Barrington St – east side	Duke St to George St
Barrington St – both sides	Transit Terminal to Duke St
Carmichael St – both sides	Brunswick St to Argyle St
Duke St – north side	Argyle to Granville St
Gottingen St – west side	Buddy Daye St to Prince William St
Gottingen St – both sides	Prince William St to Cogswell St
Gottingen St – both sides	Young St to Kaye St
Grafton St – east side	Sackville St to SGR
Grafton St – both sides	Carmichael St to Prince St
Granville St – both sides	End to Duke St
Kaye St – both sides	Isleville St to Gottingen St
Lower Water St – both sides	George St to Terminal Rd
Quinpool Rd – both sides	Beech St to Robie St
Robie St – west side	Welsford St to Shirley St
Robie St – east side	Bliss St to College St
South Park St – east side	Spring Garden Rd to Clyde St
Spring Garden Rd – north side	Birmingham St to Brunswick St
Spring Garden Rd – both sides	South Park St to Birmingham St
Spring Garden Rd – both sides	Robie St to Summer St
Young St – both sides	Isleville St to Gottingen St

(Source: Regional Centre Secondary Municipal Planning Strategy, Map 19)

A total of 20 signalized intersections are within the limits of the Pedestrian Oriented Commercial Streets. The following table provides a summary of the assessment of signalized intersections within this scope.

Table 2: Pedestrian Priority Measures at Signalized intersections within Pedestrian Oriented Commercial Streets

Location	Push Buttons	APS	LPI E-W	LPI N-S	Zebra Markings
Alderney Dr at Ochterloney St	Yes	Yes	Yes	N/A	No
Alderney Dr at Queen St	Yes	Yes	Yes	No	No
Alderney Dr at Portland St (W)	Yes	No	Yes	No	Yes
Portland St at Alderney Dr/Prince Albert Rd	No*	No*	No*	No*	No*
Wyse Rd at Nantucket Ave	Yes	Yes	N/A	N/A	Partial
Wyse Rd at Thistle St	Yes	Yes	Yes	N/A	No
Barrington St at Duke St	No	Yes	N/A	N/A	No*
Barrington St at Spring Garden Rd	No	Yes	Yes	Yes	Yes
Gottingen St at Nora Bernard St	No	No	No	No	No
Gottingen St at Cogswell St	No	Yes	No	N/A	No
Gottingen St at Young St	No	No	No	No	No
Lower Water St at George St	No	Yes	No	N/A	No
Quinpool Rd at Oxford St	No	No	Yes	N/A	Yes
Quinpool Rd at Preston St	Yes	Yes	No	No	No
Quinpool Rd at Vernon St	No	No	No	No	No
Quinpool Rd at Robie St/Bell Rd/Cogswell St	No	No	N/A	N/A	No
Robie St at Spring Garden Rd/Coburg Rd	Yes	Yes	Yes	N/A	No
South Park St at Spring Garden Rd	Yes	Yes	Yes	Yes	No
Spring Garden Rd at Summer St	Yes	Yes	N/A	Yes	No
Spring Garden Rd at Queen St	Yes	Yes	No	No	No

*These items will be addressed with ongoing capital projects.

LPI items marked as 'No' could be included at their respective locations as resources permit. Locations identified with N/A include signal phasing which either doesn't support or doesn't warrant an LPI. Phasing changes to include an LPI would have no budget impacts. The inclusion of push buttons would be considered only if HRM were to remove automatic pedestrian recall at those locations in favour of more efficient signal phasing; or if adding an accessible pedestrian signal (APS) requires push buttons to be installed. The addition of push buttons and APS could cost between \$15,000 and \$150,000 per location, depending on the condition of existing infrastructure.

HRM has moved towards including high visibility zebra crosswalk markings at all signalized intersections as a pedestrian safety countermeasure. This initiative is currently being implemented through integration with capital paving projects and through stand-alone pavement marking projects at locations where there is an over-representation of collisions involving pedestrians. Converting other isolated locations such as those included in Table 1 to zebra markings could also be considered. Initial installation costs range between \$1000 and \$3600 depending on the size of the intersection. Pavement marking maintenance costs would also be increased.

The Pedestrian Oriented Commercial Streets segments were assessed to determine if additional crosswalks may be appropriate. On streets where minimum vehicle volumes and the presence of pedestrian generators exist to support crosswalk installation, the crosswalk spacing is typically not more than 200 metres to provide a comfortable, convenient level of access. Only two street segments were identified with crosswalk spacing exceeding 200m; Portland St between King St and Prince Albert Rd, and Quinpool Rd between Vernon St and Robie St. Spacing exceeding 200 metres does not indicate that a crosswalk should be installed. Site characteristics and geometric conditions would be determining factors on whether a new crosswalk should be installed. Installation of a new marked crosswalk has a budget impact between \$1000

and \$10,000 depending on the location selected, site conditions and the required infrastructure (i.e. pedestrian ramps). There would also be an increase to annual maintenance costs.

Locations where the pedestrian oriented street crosses a stop-controlled side street may be considered for a marked crosswalk where one does not exist. Table 3 includes the assessment of stop-controlled locations without marked crosswalks. The assessment shows 15 locations where parallel crosswalks could potentially be added. This would involve installation costs averaging \$220 per crosswalk, plus an increase in the pavement marking maintenance budget.

Table 3: Locations for Stop-Controlled Marked Crosswalk Consideration

Location	Stop Controlled Crosswalk Not Painted
Portland St	Prince St
Gottingen St	Prince William St
Gottingen St	Cunard St
Gottingen St	Falkland St
Gottingen St	Portland Pl
Quinpool Rd	Beech St (north side)*
Robie St	Welsford St
Robie St	Pepperell St
Robie St	Shirley St
Spring Garden Rd	Carlton St (both sides)

*Included with capital paving project

FINANCIAL IMPLICATIONS

There are no immediate financial implications associated with this report. Additional resources, as identified in the report, would need to be identified in future capital and operating budgets to accommodate implementation of any of the options provided in the report.

COMMUNITY ENGAGEMENT

None required

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.

Nova Scotia Motor Vehicle Act, R.S.N.S. 1989, c.293, subsection 89 (1) provides:

89 (1) Subject to such authority as may be vested in the Minister, the Registrar or the Department, traffic authorities in regard to highways under their respective authority may cause appropriate signs to be erected and maintained designating business and residence districts and railway grade crossings and such other signs, markings, and traffic control signals as may be deemed necessary to direct and regulate traffic and to carry out the provisions of this act.

Section 4(g) of the Terms of Reference for the Transportation Standing Committee provides that the duties and responsibilities of the Committee include “providing input and review of road and pedestrian safety”.

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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