

DECISION/DIRECTION NOTE

Title: Pedestrian Signal Operations recall

Date Prepared: August 10, 2022

Report To: Committee of the Whole

Councillor and Role: Councillor Maggie Burton, Transportation & Regulatory Services

Ward: N/A

Decision/Direction Required:

This Decision Note provides an overview of the city's pedestrian signals, including the Accessible Pedestrian Signals (APS), and their operation strategies.

Discussion – Background and Current Status:

Signalized intersections are designed with a pedestrian walk signal for the safety of pedestrians. There are a total of 113 signalized intersections in the city programmed with pedestrian walk signal.

Pedestrian Signal Operation

The pedestrian signal at signalized intersections can be configured in two ways:

- 1) pedestrian actuation mode
- 2) pedestrian recall (automated) mode.

During pedestrian actuation, the walk light is activated when a person pushes the button. During pedestrian recall, a call for walk signal is placed automatically in every cycle without a need for pressing the push button. Pedestrian recall improves the pedestrian experience in busy pedestrian areas and improves accessibility for all pedestrians. However, it may negatively impact operation of road network if not used appropriately. Some of the potential drawbacks of pedestrian recall are listed below.

- May increase delays to vehicles and transit
- May impact fire emergency response time
- May increase congestion and vehicle idling resulting in more GHG emissions
- May create safety issues due to driver frustration

In general, pedestrian recall is appropriate in areas with high pedestrian volume where someone is crossing the street at almost every light cycle. For crossings with an

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intermediate/low level of pedestrian demand, it is important that pedestrian recall be implemented with a careful consideration to have a balanced approach considering impact to all road users.

Recent History of Pedestrian Recall

Prior to the COVID-19 response in May of 2020, pedestrian recall was used only where required based on high pedestrian volumes and at some locations in the winter if the pushbuttons are inaccessible due to snow accumulation. This strategy attempts to provide the least delay to all users of the intersection regardless of the mode.

At the outset of the COVID-19 response in May of 2020 the city implemented pedestrian recall full time at all signalized intersections. The main objective of this strategy was to reduce transmission of the virus.

In November 2020, a pedestrian “core” area was identified to remain on full time pedestrian recall. Shown in Figure 1, the “core” was defined by a line starting at Springdale Street and Water Street then following Springdale Street, Lemarchant Road, St. Clare Avenue, Campbell Avenue, Ropewalk Lane, Empire Avenue, Stamps Lane, Freshwater Road, Elizabeth Avenue, Rennie’s River, Portugal Cove Road, Rennie’s Mill Road, Military Road, Cavendish Square, and ending at Cavendish Square and Duckworth Street.

The pedestrian core area includes 30 signalized intersections, of which 29 are on pedestrian recall. The intersection of Harvey Road/Long’s Hill/LeMarchant Road was switched back to its normal timing plan to facilitate transit operations.

Outside the pedestrian core there are 83 signalized intersections. 30 of these switch to recall for the winter season.

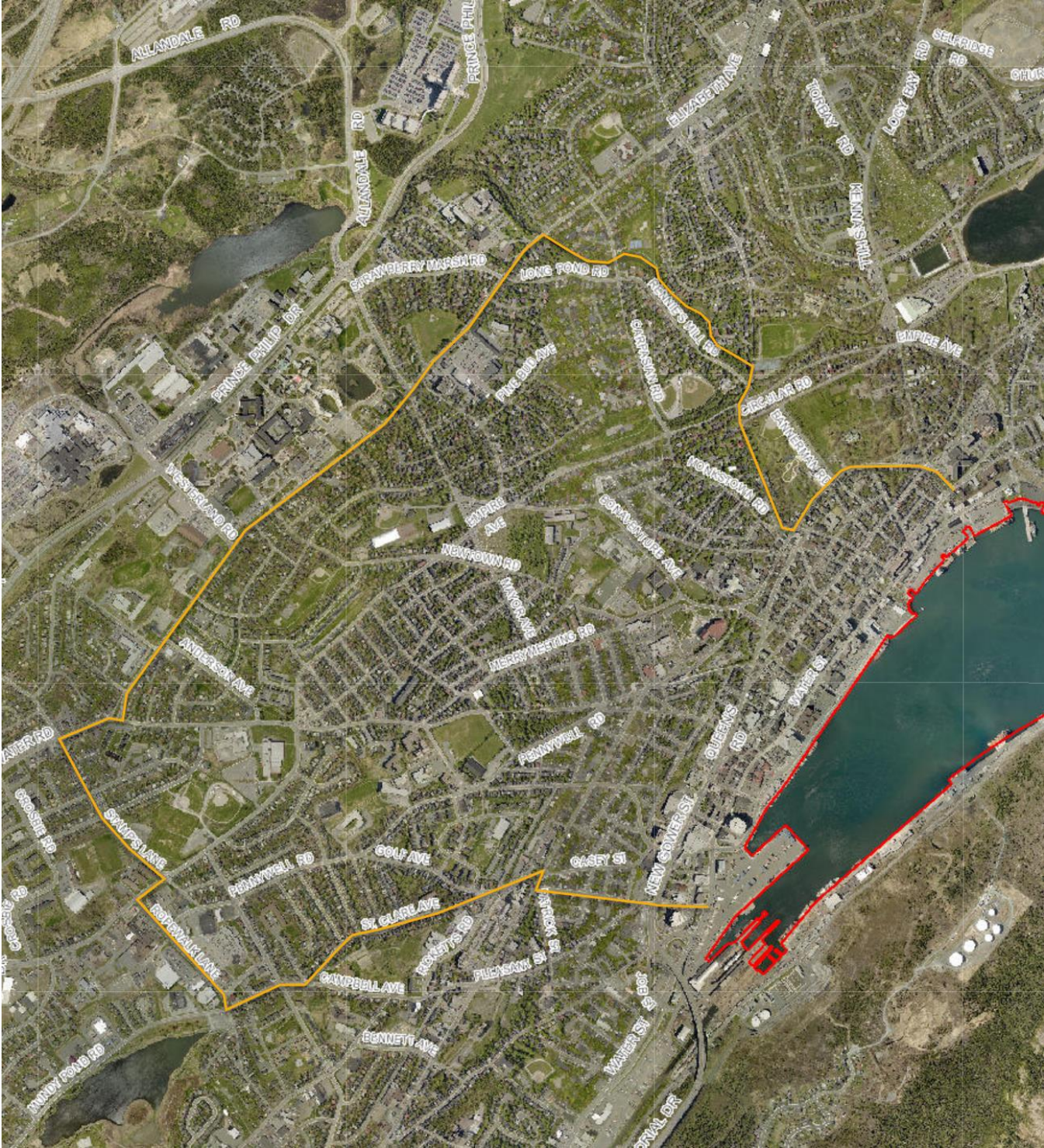


Figure 1: Pedestrian “Core” Area

Accessible Pedestrian Signals

To improve accessibility for people with vision loss, traditional traffic signals can be equipped with additional features known as Accessible Pedestrian Signals (APS). Typically, APS provide audible and vibrotactile indications that act as the walk signal for people with vision loss. The APS walk sound is activated once a pedestrian presses a push button and holds it for 3 seconds installed as part of the pedestrian signal. The city has so far installed APS at 21 intersections dispersed across the city as shown in Figure 2: Location of Accessible Pedestrian Signals (APS) in the city, 2022.

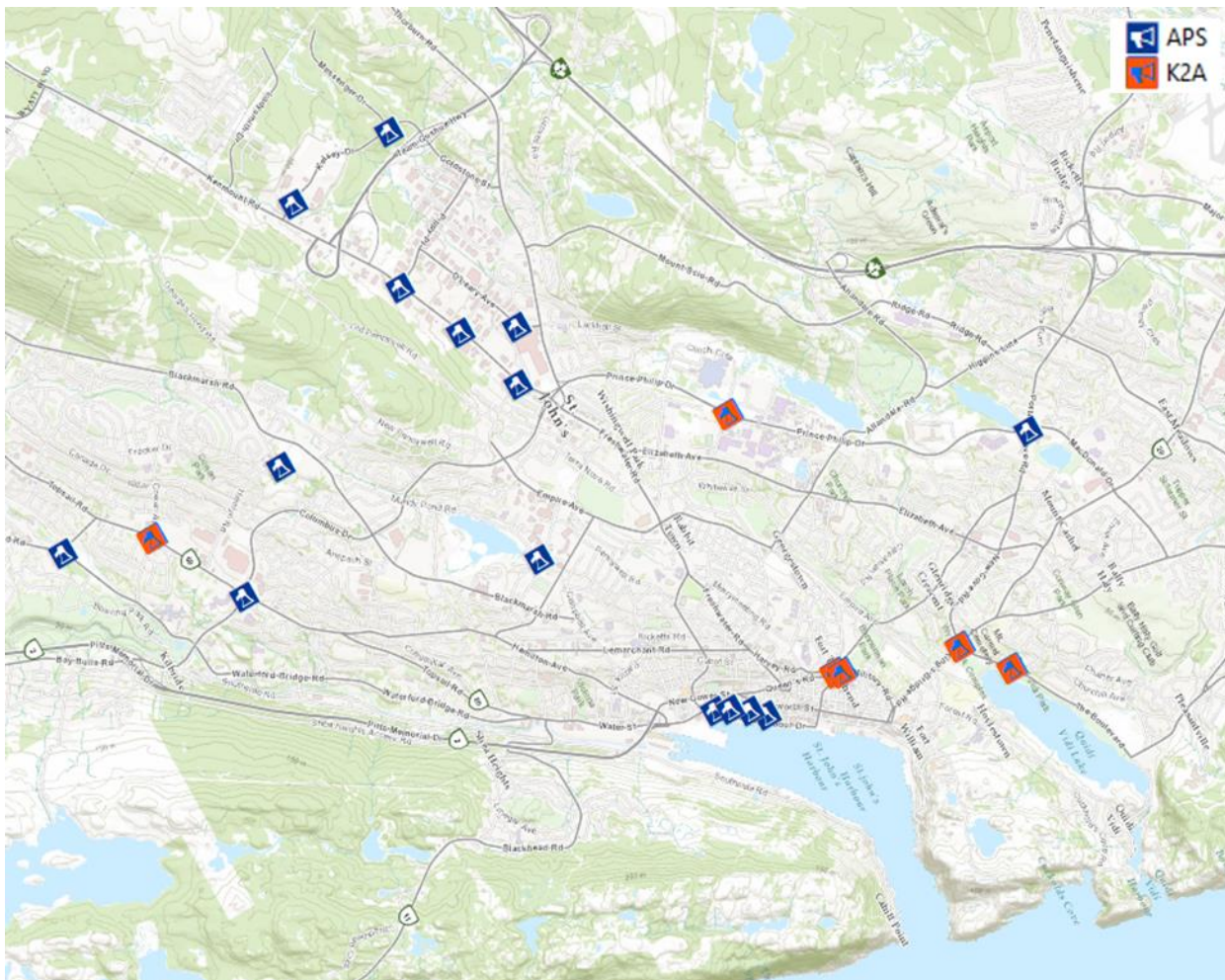


Figure 2: Location of Accessible Pedestrian Signals (APS) in the city, 2022

In addition to regular press and hold actuation, Key2Access includes use of mobile apps or fobs programmed to activate crossing signals without having to press push button. Key2Access is used at 6 intersections city wide.

All APS in the city need to be activated by a pedestrian. No audible indications of the walk signal are on recall.

To expand the installation of APS at signalized intersections, the city has allocated a separate fund under the Annual Accessible Pedestrian Program. Currently, there is a \$86,190.62 available under this program. The target is to install APS technology at two to three new intersections each year. Whenever feasible, other funding opportunities, including development work and capital funding, are used to install APS signals. Moving forward APS will be installed at all new intersections and when we upgrade or rehab existing intersections.

Where do we go from here?

Staff is considering the following approach and looking for feedback from the Inclusion Advisory Committee prior to making any recommendations to council.

- Pedestrian core would remain on full time recall
- Outside the pedestrian core, pedestrian recall would be based on vehicle and pedestrian volumes, and feedback from Metrobus and other stakeholders including working group as recommended by Inclusion Advisory committee
- Seasonally, some intersections outside the pedestrian core would be switched to recall for winter with dates aligning with public works parking ban

Key Considerations/Implications:

1. Budget/Financial Implications:
There is currently \$86,190.62 remaining in the APS budget.
2. Partners or Other Stakeholders:
Inclusion Advisory Committee, CNIB, Transit, Fire Department
3. Alignment with Strategic Directions:

Pedestrian signal operations are integral part of the strategic direction "A City that Moves." This direction is described as follows with emphasis added on mode share related language:

Changing demographics mean the way people move around the city is shifting. Our transportation network needs to provide all people and businesses access to options for travelling where they want to go. By focusing on safety and balance this direction attempts to make a safer transportation network for everyone, regardless of their mode of travel.

A City that Moves: Expand and maintain a safe and accessible active transportation network.

A Connected City: Increase and improve opportunities for residents to connect with each other and the City.

- 4. Alignment with Adopted Plans:
N/A
- 5. Accessibility and Inclusion:
N/A
- 6. Legal or Policy Implications:
N/A
- 7. Privacy Implications:
N/A
- 8. Engagement and Communications Considerations:
N/A
- 9. Human Resource Implications:
N/A
- 10. Procurement Implications:
N/A
- 11. Information Technology Implications:
N/A
- 12. Other Implications:
N/A

Recommendation:

That Council provide direction to staff to operate Pedestrian Signals on recall in pedestrian core area and any expansion of pedestrian recall will be carried out by working group formed with Inclusion Advisory Committee.

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Report Approval Details

Document Title:	Pedestrian Signal Operations.docx
Attachments:	- Overview of City's Pedestrian Signals_Final.pdf
Final Approval Date:	Aug 3, 2022

This report and all of its attachments were approved and signed as outlined below:

Scott Winsor - Aug 3, 2022 - 9:08 AM

Jason Sinyard - Aug 3, 2022 - 12:30 PM