



P.O. Box 1749
Halifax, Nova Scotia
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Item No. 7.10

Halifax Regional Council
September 22, 2020
September 29, 2020

TO: Mayor Savage Members of Halifax Regional Council

Original Signed

SUBMITTED BY:

Councillor Stephen D. Adams, Chair, Halifax and West Community Council

DATE: September 9, 2020

SUBJECT: Implementation of North End 'AAA' Bikeway Phase One and West End 'AAA' Bikeway (NEWEB)

ORIGIN

- September 8, 2020 special meeting of Halifax and West Community Council, Item 7.1.3.

LEGISLATIVE AUTHORITY

Halifax Regional Municipality Charter, Part 1, Clause 25(c):

The powers and duties of a Community Council include recommending to the Council appropriate by-laws, regulations, controls and development standards for the community.

RECOMMENDATION

Halifax and West Community Council recommends that Halifax Regional Council:

1. Approve the implementation of 2.4km of bicycle facilities and related changes to the right of way along the North End All Ages and Abilities (AAA) Bikeway route Phase One between North Ridge Road and Bloomfield Street as described in the 'Discussion' section of the staff report dated July 28, 2020.
2. Approve the implementation of 2.0km of bicycle facilities and related changes to the right of way along the West End All Ages and Abilities (AAA) Bikeway route between Windsor Street, Bayers Road, and the West End Mall as described in the 'Discussion' section of the staff report dated July 28, 2020.

BACKGROUND

Halifax and West Community Council received a staff recommendation report dated July 28, 2020 at their September 8, 2020 meeting to consider the implementation of bicycle facilities and related changes to the right of ways along the North End (AAA) Bikeway and the West End (AAA) Bikeway.

For further information refer to the attached staff report dated July 28, 2020.

DISCUSSION

Halifax and West Community Council considered the July 28, 2020 staff report dated and approved the motion outlined in this report.

FINANCIAL IMPLICATIONS

Financial implications are outlined in the attached staff report dated July 28, 2020.

RISK CONSIDERATION

Risk consideration is outlined in the attached staff report dated July 28, 2020.

COMMUNITY ENGAGEMENT

In accordance with the July 29, 2020 direction of the Minister of Municipal Affairs and Housing under section 14 of the Emergency Management Act, Community Council meetings are being held virtually. Community Council agendas and reports are posted on Halifax.ca, and draft minutes of the meeting will be made available on halifax.ca within three business days.

ENVIRONMENTAL IMPLICATIONS

Environmental implications are outlined in the staff report dated July 28, 2020.

ALTERNATIVES

Halifax and West Community Council did not provide alternatives.

Alternatives are outlined in the attached staff report dated July 28, 2020.

ATTACHMENTS

Staff recommendation report dated July 28, 2020.

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: Krista Vining, Legislative Assistant, Municipal Clerk's Office 902.490.6520



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

Item No. 7.1.3
Halifax and West Community Council
September 8, 2020

TO: Chair and Members of Halifax and West Community Council

Original Signed

SUBMITTED BY:

David Hubley, Acting Director, P.Eng, Transportation and Public Works

Original Signed

Jacques Dubé, Chief Administrative Officer

DATE: July 28, 2020

SUBJECT: **Implementation of North End ‘AAA’ Bikeway Phase One and West End ‘AAA’ Bikeway (NEWEB)**

ORIGIN

Halifax Integrated Mobility Plan (2017), Action #72: Deliver the Regional Centre all ages and abilities bicycle network by 2022.

Making Connections: 2014-2019 Halifax Active Transportation Priorities Plan (2014), Recommendation #20: To achieve the goal of doubling of AT mode share, the Municipality needs to focus AT plan implementation for cycling on the types of infrastructure preferred by new bicyclists.

LEGISLATIVE AUTHORITY

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

Administrative Order 2016-002OP Respecting the Implementation of Local Street Bikeways:

Section 6: Council shall consider whether to designate a Local Street Bikeway on its own motion or on the recommendation by a Community Council.

Section 7(1): Council may designate a Local Street Bikeway if:

- (a) The route is designated as a candidate route in the Active Transportation Priorities Plan or Council otherwise designates the route by resolution; and
- (b) Schedules 1, 2, and 3 have been followed.

RECOMMENDATIONS ON PAGE 2

Motor Vehicle Act, 90(3): The traffic authority may also mark lanes for traffic on street pavements at such places as they may deem advisable, consistent with this Act and may erect traffic signals consistent with this Act to control the use of lanes for traffic.

RECOMMENDATION

It is recommended that Halifax and West Community Council recommend that Regional Council:

1. Approve the implementation of 2.4km of bicycle facilities and related changes to the right of way along the North End All Ages and Abilities (AAA) Bikeway route Phase One between North Ridge Road and Bloomfield Street as described in the 'Discussion' section of this report.
2. Approve the implementation of 2.0km of bicycle facilities and related changes to the right of way along the West End All Ages and Abilities (AAA) Bikeway route between Windsor Street, Bayers Road, and the West End Mall as described in the 'Discussion' section of this report.

BACKGROUND

Policy Direction

These two corridors are part of the Regional Centre All Ages and Abilities (AAA) Bikeway Network. The North End (AAA) Bikeway and the West End (AAA) Bikeway represent two major north-south and east-west cycling corridors on the Halifax peninsula connecting urban neighbourhoods to shopping and service centres, and to routes that connect off-peninsula. The project aligns with the following HRM plans:

Integrated Mobility Plan (IMP): Novalea, Leaman, Isleville, and Maynard are identified as a 'candidate local street bikeway' corridor as part of the All Ages and Abilities (AAA) cycling network in the North End. In the West End, Liverpool, George Dauphinee, Peter Lowe, and Leppert are represented in a 'candidate local street bikeway' corridor of the AAA cycling network. Proposed bikeway treatments will also use an IMP 'Complete Streets' lens to incorporate improvements for all road users wherever possible, particularly those walking or taking transit.

Making Connections: A 2014-2019 Halifax Active Transportation Priorities Plan (AT Plan): The above described routes through the North End and West End of the Halifax peninsula are listed in this plan as "proposed local street bikeway".

These projects also enable broader AT destination connections by connecting elements of the Provincial Blue Route and linking the rails to trails corridors that extend east and west from the Regional Centre.

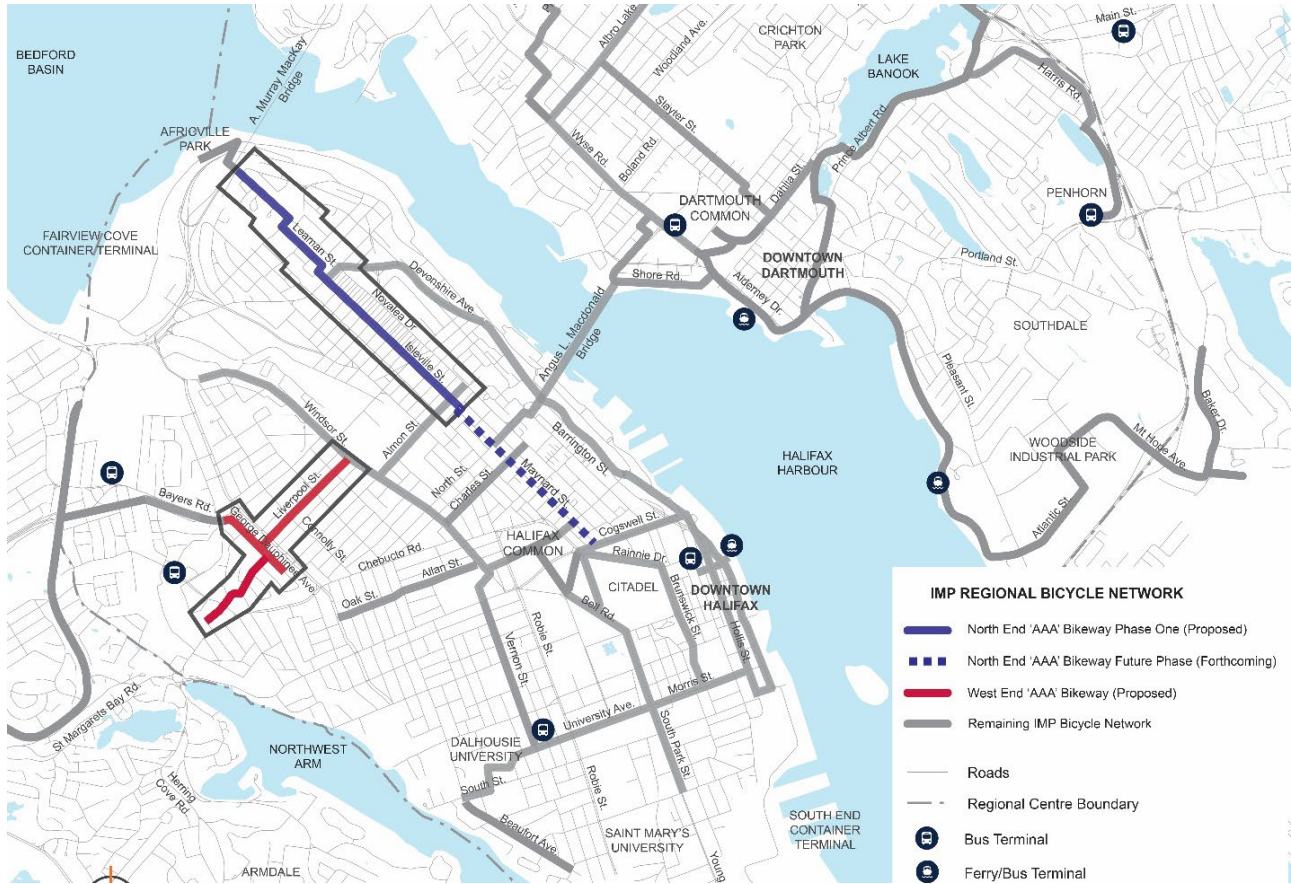


Figure 1: Proposed IMP Bicycle Routes with Network Context

Implementing All Ages and Abilities (AAA) Cycling Facilities

Professional associations such as the Transportation Association of Canada and the National Association of City Transportation Officials (NACTO) provide guidelines for bicycle facility-type selection and design. Criteria for implementing safer bicycling facilities include the volume and speed of motor vehicles and the complexity of intersections with major streets,

The majority of streets being considered for these two bikeway connections are low-volume, residential streets, most appropriate for a **local street bikeway** style facility. The aim is to create a street environment where bicyclists can comfortably share the road with motor vehicles in a shared, single file travel lane without the need for painted lanes or separation.

Features of Local Street Bikeways include:

- Pavement markings and wayfinding signage;
- Treatments to reduce motor vehicle speed;
- Treatments to reduce the number of vehicles using the street (particularly non-local shortcutting);
- Treatments to facilitate the crossing of major intersections for people bicycling; and,
- Additional bicycle amenities, streetscaping features and pedestrian enhancements where possible.

Administrative Order 2016-002OP regarding the *Implementation of Local Street Bikeways* (2016) outlines the process for establishing these facilities as well as some thresholds for where traffic calming and

diversion may be considered. Please refer to **Attachment A** for a detailed summary of facility selection considerations and criteria for local street bikeway planning.

Planning Process

The planning process can be summarized in the following sections which were used to inform the recommended design for each bikeway corridor:

- Review of context and existing conditions;
- Internal and external engagement; and,
- Analysis of routing and design options.

Description of the recommended design treatment for each corridor can be found in the Discussion section along with the anticipated impacts on road function for users of all modes.

Context and Existing Conditions: North End 'AAA' Bikeway Phase One

As seen in Figure 1, the proposed North End 'AAA' Bikeway connects the northern tip of the Halifax peninsula to Cogswell Street and the Halifax Common using a series of local streets like Leaman, Isleville, Fuller, Northwood, Maynard, and Creighton Streets.

The corridor of local streets serves as a north-south cycling link in between the major Gottingen/Novalea and Agricola Street corridors, providing nearby access to businesses and destinations along both corridors. The selected streets are primarily residential in nature, with some smaller-scale commercial at intersections. The corridor passes through the Hydrostone neighbourhood and intersects with the Hydrostone business district centred around the Young-Kaye-Isleville intersection. There are some industrial uses to the south (e.g. the Oland Brewery) as well as a significant amount of new residential development near Almon Street. See Figure 3 below for a breakdown of recorded traffic volumes and speeds along the corridor.

The baseline observations of existing conditions found that the corridors were suitable for designation as local street bikeway but would require consideration of traffic calming and traffic diversion measures, as well as measures to improve crossings of major streets. Depending on the segment, vehicle speeds averaged between 39 and 51 km/h and vehicle volumes ranges from under 1,000 to about 3,700. See **Attachment E** for a breakdown of recorded traffic volumes and speeds along the corridor.

North End Halifax has one of the higher rates of cycling in the Municipality where 7% of residents currently list bicycle as their primary commute mode (Statistics Canada, 2016). There is greater demand for cycling infrastructure in this community to support existing cyclists and attract new cyclists. With improvements, this area is poised to attract new riders based on the mid-high density of residents living within comfortable cycling distance of downtown (jobs) and a wide array of destinations and services.

The proposed North End 'AAA' Bikeway Phase One would connect to several existing and planned cycling facilities (subject to Council approval) as shown in Figure 1 and described below:

- Existing Devonshire Ave painted bicycle lanes (future improvements planned), with connection via Duffus Street;
- Proposed Almon Street protected bicycle lanes; and,
- Proposed Phase Two of the North End 'AAA' Bikeway with resulting connections to the Macdonald Bridge Connector (proposed), the redesigned Cogswell District with bidirectional bikeway on Cogswell (proposed), the Halifax Common pathway network (existing), and the institutional district (proposed).

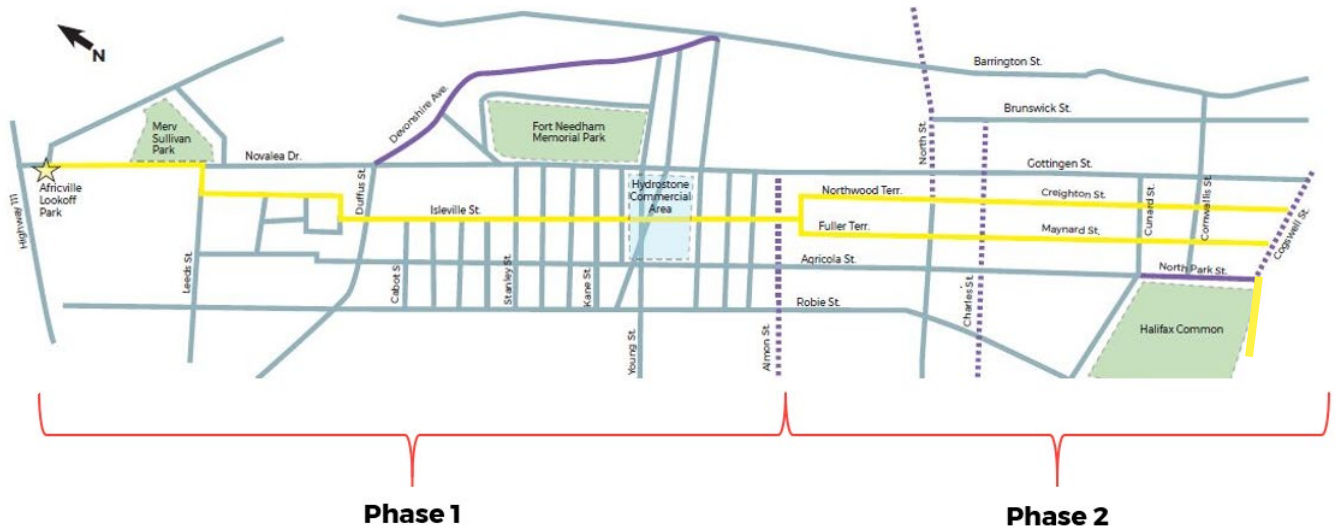
Ongoing North End 'AAA' Bikeway Route Planning (Almon Street to Bloomfield Street)

The North End 'AAA' Bikeway route between Africville Lookoff Park and Cogswell Street was initiated as one planning project but was divided into two segments with separate processes in September 2019 (Figure 2). The reason for this was because the first round of public engagement resulted in an inconclusive vision for these streets and staff realized that a different approach to engagement was required in this neighbourhood.

Phase One: North Ridge Rd to Bloomfield Street

Phase Two: Bloomfield St to Cogswell Street

Figure 2: Segmentation of North End 'AAA' Bikeway Route into Two Phases



The remainder of this report will refer to 'Phase One' of the North End AAA Bikeway between North Ridge Road and Bloomfield Street (Figure 1). A separate engagement process for the 'Phase Two' will take place in Summer 2020 to better respond to the unique needs of this neighbourhood as well as to address the cycling facility requirements around one-way streets.

Context and Existing Conditions: West End 'AAA' Bikeway

As seen in Figure 1 (p. 3), the proposed West End 'AAA' Bikeway aims to connect from Windsor Street at Almon, through the Westmount neighbourhood to reach Bayers Road and the West End Mall. While the Figure 1 map shows Liverpool Street as the candidate route identified in the Integrated Mobility Plan, this functional planning process investigates three parallel corridors to make this connection. Alternative routes of London Street and Almon Street as considered alongside Liverpool Street to determine which is the preferred route for the West End 'AAA' Bikeway. See Figure 3 below for a depiction of these routing options. Once the bikeway reaches the Westmount neighbourhood, the route continues up George Dauphinee Avenue to connect with Bayers Road, as well as down Peter Lowe Avenue, Stuart Graham Drive and Leppert Street to terminate at the West End Mall.



Figure 3: Three Route Options Considered for West End 'AAA' Bikeway

Liverpool and London are residential local streets with some small-scale commercial, particularly near the intersection with Oxford. Almon is a minor collector with higher traffic volume but mostly residential uses. All three major intersections on Almon Street are signalized, with heavier commercial uses near Windsor Street. Once the corridor reaches the Westmount neighbourhood at George Dauphinee Avenue, it transitions to low volume residential streets to make the connection through the community to West End Mall.

The baseline observations of existing conditions found that the Liverpool and London Street corridors as well as streets in the Westmount neighbourhood were suitable for designation as local street bikeways. Full implementation would require consideration of traffic calming and traffic diversion measures, as well as measures to improve crossings of major streets. Depending on the segment, vehicle speeds averaged between 42 and 47 km/h and vehicle volumes ranges from 500 to about 1,250. In contrast, higher vehicle volume and speed along Almon Street made this route more suitable for a protected bike lane facility. Depending on each segment, Almon street averaged between 6,400 and 8,300 vehicles per day at speeds between 52 and 53 km/h. Please refer to **Attachment E** for a breakdown of recorded traffic volumes and speeds along the corridor.

West End Halifax has one of the higher rates of cycling in the Municipality where 5-7% of residents currently list bicycle as their primary commute mode (Statistics Canada, 2016). There is greater demand for cycling infrastructure in this community to support existing cyclists and attract new cyclists. With improvements, this area is poised to attract new riders based on the moderate density of residents living within comfortable cycling distance of downtown (jobs) and a wide array of destinations and services.

The proposed West End 'AAA' Bikeway would connect to several existing and planned cycling facilities as shown in Figure 1 and described below:

- Existing Windsor Street painted bicycle lanes;
- Proposed Almon Street protected bicycle lanes; and,
- Proposed Bayers Road multi-use pathway with resulting connections to the Chain of Lakes Trail (COLT) with connections out to Lunenburg and beyond (Regional importance). Connection to the COLT will also enable cycling routes to Clayton Park and beyond via Dutch Village Road and Fairview. A connection to Spryfield via Dunbrack Street and Long Lake Provincial Park is in development.

Stakeholder and Public Engagement Overview

All residents and property owners within one block of the candidate routes were notified by mail about the functional planning project and offered opportunity to provide feedback on **two occasions**. In addition, meetings were held with various community stakeholder groups including: advocacy organizations, businesses, the Province, and educational leaders to provide input on the design and routing of the facility.

An overview of activities included:

- Aug 29, 2018 – community stakeholder meeting with advocacy groups [10 attendees]
- Oct 17 + 24 2018 – African Nova Scotian focus group with community leaders [0 participants]
- Oct 23, 2018 – afternoon + evening open house sessions at the Halifax Forum [115 attendees]
- Oct 25, 2018 – afternoon + evening open house sessions at the Community YMCA [72 attendees]
- Oct 24 to Nov 18, 2018 – online survey hosted on Shape Your City [301 participants]
- Dec 18, 2018 – presentation at Bloomfield neighbourhood association meeting [20 attendees]
- May 16, 2019 – presentation to Active Transportation Advisory Committee [10 attendees]

- Oct 22, 2019 – afternoon pop-up information session at Isleville Park [30 attendees]
- Oct 24, 2019 – afternoon + evening pop-up information sessions near Hydrostone [26 attendees]
- Nov 1, 2019 – stakeholder meeting with Hydrostone businesses [5 attendees]
- Nov 4, 2019 – stakeholder meeting with Oland's Brewing [2 attendees]
- Nov 5, 2019 – afternoon + evening pop-up information sessions at Westmount School and Halifax Forum [80 attendees]
- Nov 7, 2019 – participation in Halifax Cycling Coalition 'Ride the Route' event [10 participants]
- Nov 9, 2019 – morning pop-up information session at the Forum Farmer's Market [100 participants]

Please refer to the *Community Engagement* section toward the end of the report for more information including a summary of public and stakeholder feedback.

Internal HRM Engagement

An internal technical committee has been engaged throughout the process to provide input and review proposed designs for each bikeway. Collaboration between internal HRM business units is important towards meeting the objectives of multiple groups and ensuring that the recommended facilities can be built, maintained, and their continued use accommodated for all departments.

HRM representatives involved in reviewing this project include:

Active Transportation Planning, Strategic Transportation Planning, Traffic Management, Right of Way, Parking Services, Engineering Design, Road Operations and Construction, Halifax Transit, Halifax Regional Fire & Emergency, Civic Addressing, Urban Forestry, and Community Development.

DISCUSSION

Project Objectives and Scope

To support the Regional Council-approved policy directions as described in the "Origin" section of this report, AT staff initiated a functional planning process in 2018 to identify the preferred routing option and design for two important residential cycling corridors on the Halifax peninsula: the North End and West End 'AAA' Bikeways.

The objectives included:

- Developing a North End AAA cycling connection from the top of Novalea Drive to Cogswell Street, and a West End 'AAA' cycling connection from Windsor Street to Bayers Road and the Mumford Transit Terminal that support IMP objectives and can be implemented by 2022; and,

- Utilizing a 'Complete Streets' approach to accommodate all types of users and travel modes, incorporating pedestrian improvements into the design wherever possible.

WSP Canada was retained to complete the functional planning of these two AAA cycling facilities.

North End 'AAA' Bikeway Phase One: Recommended Design

The recommended design for this corridor would incorporate a variety of measures to facilitate a safer bicycle facility while maintaining access for neighbourhood residents and business customers.

The design would combine traffic calming treatments to reduce vehicular speed, intersection improvements to make it easier to cross major streets, and a potential traffic diversion measure at the Young-Kaye-Isleville intersection. A multi-use pathway in the place of sidewalk on Novalea Drive would complete the connection to Africville Lookoff Park. The following is a description of the specific features recommended for this bikeway corridor. These design features are subject to some change based on the final design process.

Vertical deflection: It is recommended that a series of vertical deflections be installed along the corridor to reduce vehicular speed. This includes Leaman Street and Isleville Street. An example of these vertical deflections could be a speed table or similar (see Figure 4 below), however, the exact specifications for these treatments will be determined upon review with Halifax Fire and Emergency (and other internal stakeholders) in the final stages of design.

Mini traffic circles aka neighbourhood traffic circles: It is recommended that mini traffic circles be installed along the corridor. Proposed locations include the intersections of Leaman-Normandy streets and Isleville-Stanley streets (see Figure 5 below). This will manage vehicular speed along the corridor and draw attention to the intersections where there are higher number of pedestrian crossings. More details will be confirmed (e.g. dimensions of circle, turning radius) through the final design process.

Curb extensions aka bump-outs: It is recommended that curb extensions be added to shorten the crossing distance and improve safety for people walking and cycling at major intersections of Isleville-Duffus, Isleville-Young-Kaye, and Isleville-Almon (see Figure 6 below). These treatments may be used elsewhere along the corridor, where appropriate, to be determined in the final design process.



From left to right: Figure 4: Sample image of a vertical deflection (speed table); Figure 5: Sample image of a mini traffic circle; Figure 6: Sample image of curb extensions aka bump outs

Trial intersection treatment at Young-Kaye-Isleville: Due to uncertainty about the impact of potential crossing treatments at this location the following trial option is proposed. The impact of this trial intersection treatment will be monitored in terms of safety, impacts to other road users and public and stakeholders' perspectives. Depending on the results of this trial, staff may recommend trialing other alternatives to determine the best solution. As per the AO, the trial period will be no less than six months and no more than three years. After the trial, staff will report back to Council to recommend a permanent option.

The alignment of this intersection presents a challenge for people cycling along the Isleville Street corridor to wait for gaps in traffic to cross approximately 18m of roadway. Additional improvements could be made to sightlines and pedestrian safety in this area. From a traffic volume management perspective, the number of daily vehicles travelling along Isleville Street on either side of this intersection is above the comfortable lane-sharing threshold in the Local Street Bikeway Administrative Order. This presents a unique opportunity to **trial** design solutions that address a number of factors at this location and improve the safety of bicycle crossings.

The trial option would be to install a raised intersection median refuge island extended across the intersection from Hydrostone Park (see Figure 7). This aims to reduce conflict for bicyclists and facilitate a safer, two stage bicycle crossing of this wide intersection. Gaps in the median will allow bicycles to pass straight through the intersection. Through movements by vehicles on Isleville Street and left hand turns from Young onto Isleville would be restricted. This median will be designed to be passable by emergency vehicles and snowplows in the winter.

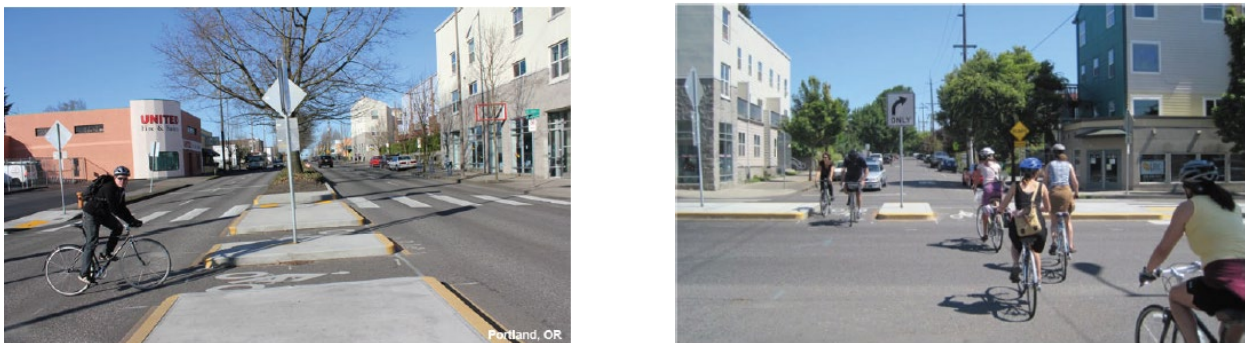


Figure 7: Sample images of raised intersection median refuge island (two perspectives)

Enhanced intersection crossing treatments: Three intersections were identified for the installation of enhanced crossing treatments: Isleville-Duffus, Isleville-Young-Kaye, and Isleville-Almon. Various treatments will be assessed to determine their impacts and will inform the final design. While the exact details will be finalized in the final design process, possible treatments could include signals, reduced crossing distance or refuges, and/or other measures that facilitate safer crossings for people on bikes and manage overall intersection movements and safety.

Multi-Use Pathway Connection to Africville Lookoff Park: It is recommended that a short segment of multi-use pathway be installed in place of the sidewalk on the west side of Novalea Drive between Leeds Street and North Ridge Road (see Figure 8). This will complete the AAA connection with Africville Lookoff Park (terminus of North End 'AAA' Bikeway) where there is higher traffic volume and transit stops along this section. There is anticipated impact to on-street parking on the west side of Novalea (low utilization) and numerous young street trees along the boulevard, which will likely need to be moved or re-planted based on the new arrangement. A detailed assessment will be conducted in the final design stages to confirm anticipated impacts to the right of way. New curb will likely be required in order to create a wide multi-use pathway with grassy buffer from the road. This is a long-term project requiring significant reconstruction, and the details will be confirmed through the final design process. The final design may also be influenced by a separate planning process related to AT access to Africville National Historic Site.



Figure 8: Proposed Multi-Use Pathway on Novalea Drive between Leeds Street and North Ridge Road

West End 'AAA' Bikeway: Recommended Route and Design

The planning process for the West End AAA Bikeway has two components: (1) considering three routing options, and (2) determining the recommended design elements for the preferred route.

Options' Evaluation

Evaluation criteria adapted from Attachment E of the AT Plan were used to compare the three routing options for the West End 'AAA' Bikeway between Windsor Street and George Dauphinee Avenue: Liverpool Street, London Street or Almon Street (p. 5). Criteria include street characteristics, connectivity, safety, accessibility, public and stakeholder feedback, internal review, ease of implementation, and other factors.

At an initial stage of comparison, a decision was made to eliminate London Street as Liverpool had advantages such as better access to the Oxford Street commercial area and a better opportunity to develop a safe crossing of Windsor Street (jug-handle, see design description below). Liverpool would move forward as the preferred local street bikeway option.

A detailed comparison of protected bike lanes on Almon Street and a local street bikeway on Liverpool Street was undertaken. Please refer to **Attachment B** for the full evaluation details.

While both routes offered advantages and disadvantages and both received public and stakeholder support, the Liverpool local street bikeway option is recommended due to the:

- Relative ease of implementation within IMP Regional Centre AAA Bikeway Network timeframes;
- Connectivity to neighbourhood destinations e.g. Oxford Street commercial hub;
- Benefits to the local neighbourhood (traffic calming) and alignment with new bike/ped crossings;
- Need to remove mature street trees on narrow section of Almon Street (Connolly to Connaught) and convert sidewalk to a substandard multi-use pathway towards achieving AAA bike connection;
- Accessible parking impact on Almon Street.

While it's acknowledged that 54% of public participants (31% of abutters) in round one of engagement were supportive of the Almon Street option as a protected bikeway, there was also significant neighbourhood support (40%) for a local street bikeway option. Public feedback is only one factor in decision-making and the summarized bullets above (as well as evaluation in Attachment B) led staff to recommending a **local street bikeway on Liverpool Street** at this time.

Staff acknowledge that constructing a local street bikeway on Liverpool Street does not preclude the municipality from the possibility of choosing to install a protected bikeway on Almon Street in the future.

Recommended Design

The recommended design for this corridor involves the creation of a local street bikeway on Liverpool Street between Windsor Street and Connaught Avenue, and then through the Westmount neighbourhood to reach Bayers Road and the West End Mall complex (future connection to Mumford Transit Terminal). The route would connect to the Almon Street protected bike lanes via the Windsor Street bike lanes. Local street bikeway elements along the corridor include traffic calming treatments to reduce vehicular speed and intersection improvements to make it easier to cross major streets. One major improvement is proposed at the Liverpool-Connaught intersection. The following is a description of the specific features recommended for this bikeway corridor. These design features are subject to change and will be confirmed based on the final design process.

Vertical deflection: It is recommended that a series of vertical deflections be installed along the corridor to reduce vehicular speed. This includes Liverpool Street, George Dauphinee Avenue, and Peter Lowe Avenue. An example of these vertical deflections could be a speed table or similar (see Figure 4), however, the details will be worked out upon review with Halifax Fire and Emergency in the final stages of design. In the Westmount neighbourhood, integration of these speed tables with raised crosswalks could be considered.

Mini traffic circles aka neighbourhood traffic circles: It is recommended that two mini traffic circles be installed along the corridor, the first at the Liverpool-Dublin intersection and the second at the Liverpool-Connolly intersection (see Figure 5). This will manage vehicular speed along the corridor and draw attention to the intersections where there are higher number of pedestrian crossings. The yield entry style of a mini traffic circle is better for people cycling than a stop sign as it allows continuous movement and maintained momentum. Additionally, Connolly Street is a future proposed local street bikeway in the AT Plan, so this mini traffic circle would serve as a transition between cycling facilities.

Curb extensions aka bump-outs: It is recommended that curb extensions be added to shorten the crossing distance for people walking and cycling at major intersections of Liverpool-Windsor, Liverpool-Oxford, and Liverpool-Connaught (see Figure 6).

Jug-handle transition at Windsor Street and Liverpool Street: It is recommended that a "jug-handle" transition be added for cyclists travelling northbound on Windsor Street to safely exit the bicycle lane and align themselves for the left-hand turn onto Liverpool Street (see Figure 9). This improves visibility, demonstrates intention, and will allow for a comfortable transition between east-west cycling facilities. This jug-handle aligns with the new Forum redevelopment plans and the creation of a new nearby entry plaza. However, the exact configuration will be determined during the final design process.



Figure 9: Jug-handle style transition from Oakland, CA

Enhanced intersection crossing treatments: Four intersections were identified for the installation of enhanced crossing treatments: Liverpool-Windsor, Liverpool-Oxford, Liverpool-Connaught, and Mumford-Stuart Graham. While the exact details will be finalized in the final design process, possible treatments could include signals, reduced crossing distance or refuges, and/or other measures that facilitate safer crossings for people on bikes and manage overall intersection movements and safety.

Implications of Proposed North End ‘AAA’ Bikeway Phase One and West End ‘AAA’ Bikeway

This section describes how the North End ‘AAA’ Bikeway corridor and West End ‘AAA’ bikeway corridor would change with implementation of the proposed bicycling facilities and what the implications of those changes would be for all users.

Figure 10: Anticipated Impact of Both Bikeways on All Road Users

User Group or Activity	Anticipated Impact
Changes for People Walking and Rolling	Proposed curb extensions and enhanced crossing treatments at major intersections would reduce crossing distance for pedestrians and make it easier for them to find gaps. Reduced vehicular speed and volume along the corridor would create a safer, more comfortable environment for walking.
Changes for People Cycling	Conditions for people cycling would improve significantly with the addition of local street bikeway treatments as described in this report. The corridors would become suitable for all ages and abilities (AAA) cycling and would connect into the AAA cycling network in the Regional Centre.
Changes for People Taking Transit	Although there’s no transit service along the corridor, pedestrian and bicycle improvements would improve access to nearby transit stops on Duffus, Novalea, and Young, Windsor, Oxford, and Mumford. Intersection treatments may introduce minor bus delay when actuated (e.g. full signals).
Changes for People Driving	People driving along the corridors would need to drive more slowly due to the proposed traffic calming treatments. Treatments at major intersections may stop traffic momentarily to facilitate bicycle crossing. Changes to vehicular access/egress could be impacted at intersections including Young-Kaye-Isleville and Liverpool-Connaught which add time and distance to each trip.

Changes for People Living in Immediate Neighbourhood	Proposed traffic calming features along both corridors, as well as the trial raised median refuge island at the intersection of Isleville-Young-Kaye Street would impact how neighbours move around their community to access their homes by vehicle. Slightly more circuitous routes are possible. The changes would create a people-oriented street that is safer and more comfortable for people of all ages and abilities to walk and cycle in their community.
Changes to Parking and Loading	Parking and loading would continue to be accommodated along each corridor comparable to today. Some design features may require the removal or relocation of parking spaces (e.g. for the addition of curb extensions). However, it is anticipated that this will be minimal. Final design will determine if and where a parking stall may be impacted.
Changes for Nearby Businesses	Business in close proximity to the cycling corridor may be impacted positively alongside any increases to the number of people walking and cycling along these routes. Studies show that people walking and cycling are more likely to stop and make impromptu visits to businesses. Nearby parking, transit, and vehicle access routes would be maintained. There may some slight changes to vehicle access (e.g. new routes) should traffic diversion measures be made permanent.
Changes to Emergency Access	Halifax Regional Fire and Emergency (HRFE) has reviewed and is in support of these plans in principle. The proposed vertical deflections (to be confirmed) and mini traffic circles will be passable by emergency vehicles. Additionally, the raised median refuge island at Isleville-Young-Kaye will be designed to be passable by an emergency vehicle when necessary. It is recognized that these features may introduce some small delay by reducing the speed of fire trucks. HRFE will continue to be consulted through the final design process.
Changes to Maintenance	The proposed bikeway designs take into account HRM's operational requirements for maintaining the street through all seasons, including street sweeping and winter snow clearing. These functions would continue to be accommodated. There are some anticipated costs to maintain the new features – see next page. Staff from Road Operations and Winter Works would continue to be involved in review through the final design process.
Changes to Civic Addressing	After review by the HRM Civic Addressing Public Safety Committee, the proposed traffic diversion treatment at Isleville-Young-Kaye is passable by people walking, cycling, and driving emergency vehicles and therefore does not require a street name change.

Permanent vs. Trial Implementation

The Local Street Bikeway AO dictates that the project be recommended for either permanent or trial implementation.

Trial implementation may be recommended when:

1. Analysis of proposed traffic calming and traffic diversion measures predicts the route elements may have significant impact on access by motor vehicles for people living along the Local Street Bikeway or adjacent streets, and/or significant impact on motor vehicle volumes on adjacent local streets;
2. Community engagement demonstrated significant uncertainty or opposition to traffic diversion or traffic calming, particularly by residents of the area; and/or,
3. The analysis about the possible impact is inconclusive and further analysis through trial implementation would provide the required information.

Based on the function planning, engagement, and analysis around these two projects, staff recommend permanent implementation of the local street bikeways and related design elements with the exception of one intersection at Young-Kaye-Isleville. It is recommended that HRM install trial measures at this intersection, with the opportunity to monitor and modify as required. Trial 1 proposes a median refuge island as described in the previous section (p. 7). Staff will monitor the resulting traffic patterns and collect more public feedback around this feature before recommending a permanent installation. Pending Council approval, Trial 1 would take place in summer/fall 2020. Another factor in implementing a permanent solution will be integrating with an anticipated Halifax Water infrastructure upgrade in the near future.

Anticipated Implementation Timelines

As each bikeway route is 2.0km or more in length (4.5km total), the implementation will likely take place over a few years. The anticipated construction timeline for the North End ‘AAA’ Bikeway Phase One and the West End ‘AAA’ Bikeway is targeted to take place between 2021 and 2023. The implementation will be phased in conjunction with proposed near-term street rehabilitation projects.

FINANCIAL IMPLICATIONS

The ‘Class D’ cost estimates (based on WSP and HRM estimates) for construction of the recommended bikeways and associated changes to the right-of-way are listed in the table below. The cost could vary in the final design stages depending on internal decisions about treatments selected to cross major intersections. For this situation, a low-cost estimate and a high cost estimate based on Class ‘D’ construction valuation is provided below:

Figure 11: Class D Cost Estimates for North End and West End AAA Bikeway Installation

	Lower Cost Estimate (excludes HST)	Higher Cost Estimate (excludes HST)
North End AAA Bikeway Phase 1	\$530,000	\$820,000
West End AAA Bikeway	\$290,000	\$580,000
TOTAL	\$820,000	\$1,400,000

These projects will be funded from Project Account CR200007 - Regional Centre AAA Bikeways and the ‘Investing in Canada Infrastructure Program’. As such, HRM’s share of project costs will be 17%, the Province’s will be 33% and the Federal government will cover 50%. HRM’s share of the total costs, at 17%, is estimated to be between \$139,400 and \$238,000. The bikeways are expected to be built in phases between 2021 and 2024. The costs are factored into the five-year Active Transportation plan and are included in the multi-year budget for Project Account CR200007 – Regional Centre AAA Bikeways.

The ongoing maintenance costs associated with 4.6km of new bikeway is also a consideration. These streets are currently cleared by snowplow as part of the road network. The addition of local street bikeway treatments such as vertical deflections, mini traffic circles, and curb extensions as well as new crossing treatments introduce new factors to manage snow clearing. However, the anticipated level of effort required to clear the streets should not change significantly and thus, should not require significant additional resources. The time and cost of snow clearing local street bikeways is significantly less than a separated cycling facility. Additionally, staff must consider maintenance costs for bikeway features like pavement markings, signage, and signals (if deemed appropriate) at an estimated cost in the range of \$2,000 per year. In the final design stages, staff could recommend the use of durable thermoplastic for all required pavement markings in effort to reduce the ongoing maintenance costs.

RISK CONSIDERATION

There are no significant risks associated with the recommendations in this Report. The risks considered rate Low. The proposed bikeways follow professional guidelines and are designed to manage risk between road users.

COMMUNITY ENGAGEMENT

All residents and property owners abutting the candidate routes, including those living within one city block of the routes, were notified by mail about the functional planning project and offered opportunity to provide feedback on **two occasions**. Staff contact information was included for those with questions or who wanted to discuss directly before the sessions. Approximately 1,480 dwellings were notified in the North End 'AAA' Bikeway Phase One area and approximately 1,130 dwellings notified in the West End 'AAA' Bikeway area.

Round One – Fall 2018

The first round of public engagement was open to residents (mailed invitations) and the general public through broader advertising strategies (e.g. targeted Facebook ads and newspaper ads). Four open house sessions were held in October 2018 in various locations close to the bikeway routes proposed. Participants were asked higher-level questions about desired routing options and their preferred tools for achieving safe, comfortable, and convenient cycling corridors. A parallel online survey was hosted for three weeks. Approximately 190 people attended the open house sessions and 301 people filled out the online survey. Sixty neighbourhood residents were in direct contact by phone and email.

In general, public feedback the first round of engagement was mixed. The majority of participants were in favour of creating safer conditions for walking and cycling around their neighbourhoods. However, there were different ideas of how this was to be achieved. Some said that extensive intervention and roadway changes are necessary to achieve a 'AAA' bikeway—go all in. A number of others had concerns about how these more significant interventions might impact the way they move around their neighbourhoods including access to on-street parking. A smaller cohort represented a middle ground solution, preferring a moderate-low intervention bikeway with a few changes to parking/access.

Support was demonstrated for traffic calming features such as speed humps, curb extensions, and mini traffic circles (to a lesser extent). However, there was a group of participants advocating for protected bike lanes, and a group advocating for no changes at all. This polarization signaled to staff that more engagement was required to build trust and consensus with the community.

Round Two – Fall 2019

The second round of public engagement was focussed on presenting revised design options, and building support for the recommended bikeway design treatments from neighbourhood residents. Staff distilled the public feedback from round one into location-specific design suggestions for what the bikeway treatments could look like. Six informal pop-up information booths were hosted along the route (three per bikeway) in October and November 2019. Questions asked included: are you supportive of this design treatment, do these measures meet the objectives of a safe and comfortable bikeway. Approximately 60 people attended the North End 'AAA' Bikeway Phase One sessions and approximately 200 people attended the West End 'AAA' Bikeway sessions. Seventy-four people (neighbourhood residents and other interested parties) were in direct contact by phone and email.

Public response was generally positive and in support of establishing these two Local Street Bikeway routes (65%), with suggestion of even greater protection for cyclists (11%). Some concerns were around safety (6%), neighbourhood traffic circulation (11%) and overall warrant for the facilities (2%). When discussing the location-specific features proposed for traffic calming and enhanced intersection crossings, 83% of votes cast were in support of installation of these features. Nineteen percent of participants in the West

End Bikeway engagements still voiced their preference for a protected bike lane on Almon Street. Staff has communicated that installing a local street bikeway on Liverpool Street does not preclude HRM from installing protected bike lanes on Almon Street in the future. However, this is the best solution to be achieved in the short term.

A full overview of results from of public engagement can be found in Attachment C and D.

ENVIRONMENTAL IMPLICATIONS

This project is supportive of the sustainability objectives of the municipality as it aims to make it safer and more comfortable for residents to choose sustainable transportation options for everyday transportation purposes. The construction of these two all ages and abilities bikeways are intended to increase bicycle ridership, reduce GHG emissions, and help HRM meet the mode share targets outlined in the Regional Plan and the Integrate Mobility Plan.

ALTERNATIVES

Halifax and West Community Council may recommend to Regional Council that some or all of the recommendations not be approved or be modified. Alternatives are presented as follows:

1. Halifax and West Community Council may recommend to Regional Council that they should not proceed with the proposed bikeway or some of the proposed design features that achieve safe and comfortable cycling. This is not recommended as the proposed bicycle facilities are critical to achieving the objectives of the Integrated Mobility Plan and the Active Transportation Priorities Plan.
2. Halifax and West Community Council may recommend to Regional Council that some bikeway design treatments be installed on a temporary basis rather than permanently to allow for monitoring of impact on surrounding streets. This would be in addition to the intersection at Young-Kaye-Isleville which is already proposed as a temporary feature. Alternative 2 is not recommended as it may compromise HRM's ability to achieve the all ages and abilities bikeway within the recommended IMP time frame (possibly impacted by COVID-19). Additionally, some measures (e.g. traffic signals) are difficult to install on a temporary basis.

ATTACHMENTS

Attachment A: Summary of Local Street Bikeway Administrative Order Lane-Sharing Thresholds
Attachment B: Evaluation of West End AAA Bikeway Route Options
Attachment C: What We Heard Report Round One Fall 2018
Attachment D: What We Heard Report Round Two Fall 2019
Attachment E: Existing Traffic Data and Bicycle Counts

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: Siobhan Witherbee, Active Transportation Planner, TPW, 902.490.6822

Attachment A

All Ages and Abilities (AAA) Facility Selection

The National Association of City Transportation Officials (NACTO) outlines vehicular volume and speed thresholds as rationale for selecting different types of facilities based on the context of the street to promote comfortable cycling for people of all ages and abilities. See below for simplified NACTO selection guide:

Target Vehicular Speed	Target Vehicular Volume	Motor Vehicle Lanes	AAA Facility
<= 20 m/h (32 km/h)	1,000 – 2,000 vpd **	No centreline or single lane one way	Bicycle boulevard (Local street bikeway)
<= 25 m/h (40 km/h)	500 – 1,500 vpd **		
	1,500 – 3,000 vpd	Single lane each direction or single lane one way	Conventional or buffered bicycle lane
	3,000 – 6,000 vpd		Buffered or protected bicycle lane
	Over 6,000 vpd		Protected bicycle lane
	Any	Multiple lanes per direction	Protected bicycle lane
Over 25 m/h (40 km/h)	Any	Any	Protected bicycle lane

** Under 50 vehicles per hour in peak direction at peak hour

Local Street Bikeway Considerations

Local Street Bikeways are designated streets with low motorized traffic volumes and speeds that have been modified to optimize bicycle travel. The aim is to create a street environment where bicyclists of all ages and abilities can comfortably share the road with motor vehicles in a shared lane, without the need for painted lanes or separation. These facilities are in use in other North American jurisdictions and are credited with helping to build out the bike route network and attracting more residents to bicycling.

Some major considerations are:

- Pavement markings and wayfinding signage;
- Treatments to reduce motor vehicle speed;
- Treatments to reduce the number of vehicles using the street (particularly non-local shortcutting);
- Treatments to facilitate the crossing major intersections for people bicycling; and,
- Additional bicycle amenities, streetscaping features and pedestrian enhancements where possible.

Administrative Order 2016-002OP regarding the *Implementation of Local Street Bikeways* (2016) outlines the process for establishing these facilities as well as some thresholds for where traffic calming and diversion may be considered. See table below for a summary of these thresholds:

	85 th percentile speed (*)	Vehicles per day (**)
Shall not require consideration of traffic calming (*) or diversion (**)	Under 30 km/h	Under 1,000 vpd
May require consideration of traffic calming (*) or diversion (**)	30 km/h to 44 km/h	1,000 to 2,999 vpd
Shall require consideration of traffic calming (*) or diversion (**)	45 km/h and over	3,000 vpd and over

The National Association of City Transportation Officials (NACTO) *Contextual Guidelines for Selecting All Ages and Abilities Bikeways* (2018) recommends an upper threshold of 2,000 vehicles per day with no more than 50 vehicles per hour in the peak direction at peak hour. Vehicular speed should be under 40 km/h if the street is below 1,000 vpd or below 32 km/h if the volume is between 1,000 and 2,000 vpd.

ATTACHMENT B: EVALUATION MATRIX OF WEST END ‘AAA’ BIKEWAY FACILITY OPTIONS (Adapted from Appendix E of AT Priorities Plan)

	LIVERPOOL STREET ROUTING OPTION (LOCAL STREET BIKEWAY)	ALMON STREET ROUTING OPTION (PROTECTED BIKE LANES)
Connectivity to Origins / Destinations		
Residences	Mid-low density residential.	Mid-low density residential.
Workplaces	Access to workplaces at Liverpool-Oxford intersection and in nearby commercial cluster along Oxford. Access to jobs at Forum and Westmount school and Halifax Shopping Centre/West End Mall on either end.	Fewer workplaces along route. Access to some workplaces at commercial cluster near Windsor-Almon intersection. Also aligns for Forum access. Farther from Westmount School. Access to workplaces at Halifax Shopping Centre/West End Mall.
Shops	Connectivity with destinations at commercial hub at Liverpool-Oxford intersection including Local Jo, Pharmacy, Cosy’s Snack Bar. Other shops and destinations within one block on Oxford e.g. yoga studio, gallery, daycare, other shops.	Shops near Almon-Windsor intersection, but less direct connections with shops along the route. Convenience store one block away on Oxford.
Community Facilities	Aligns with side entrance to Forum Rec Centre (rinks, community spaces) that may be enhanced to be a major entry point through redevelopment. Direct access to Westmount sports field, splash pad and playground. Close to Hindu Temple.	Connectivity with Ardmore Park with playground, playfield, courts, horseshoe pit, dog area. Aligns with parking lot access to Forum Rec Centre (rinks, community space) that may be improved through redevelopment. Less direct access to Westmount playground.
Schools	Direct connectivity to Westmount Schoolyard.	Nearby connectivity to Westmount School, but still 250m to travel on George Dauphinee to get there.
Other AT Infrastructure (bike lanes, local street bikeways, AT greenways)	Less direct connection with Almon protected bike lanes – 3 block jog before resuming east-west travel. Connection to Windsor future protected bike lanes and future Connolly local street bikeway route. Connects with future Bayers Road MUP	Improved connectivity with Almon protected bike lanes (proceeding in straight line along corridor) with direct connection to Windsor future protected bike lanes and future Connolly local street bikeway route. Connects with future Bayers Road MUP.
Street Characteristics		
Favourable grades (6% or less)	Comparable, accessible. Under 6%	Comparable, accessible. Under 6%.
Low volume of motor vehicle traffic	500 vehicles per day (suitable for local street bikeway).	6,400 vehicles per day (suitable for on-road protected).
Low volumes of large vehicles	Local street with less larger vehicles (garbage trucks and local deliveries only).	Major east-west collector street with greater potential for use by larger vehicles.
High volume of existing cyclists	Dawn to dusk bike counts from August 2018 show 43 cyclists on Liverpool just east of Dublin.	Dawn to dusk bike counts from August 2018 show 187 cyclists on Almon just east of Dublin.
Speed of traffic	85 th percentile speed 42 km/h. Proposed traffic calming measures would mitigate this with target of 30-35 km/h.	85 th percentile speed 53 km/h. Proposed protected bike lanes may reduce the travel lane width and promote slower vehicle speeds.
Few complex intersections	Requirement for jug handle left hand turn from Windsor onto Liverpool (signalized). Requires use of two-stage left left-hand turn box from Windsor southbound onto Almon eastbound (signalized). Crossing Liverpool at Oxford and Connaught could be challenging depending on the crossing treatment selected. New crossing infrastructure required.	Proceeding straight along the corridor is straightforward. Bikeway must cross three larger, signalized intersections with higher volumes and turning movements. Full signalization already in place to provide safety/priority however it may require bike signals or a protected intersection phase, no right turn on red signage on cross streets.
Safety issues	Sight lines at major cross streets (e.g. Oxford) have been identified as an issue for cyclist visibility. Trees and parked cars partially obstruct the view. This could be mitigated by installing curb extensions to move stop bars up and improve visibility.	Intersection of Almon and Connaught has a known history of vehicular collisions due to the geometry and unusual turning movements. Recent installation of peak hour turn restrictions could mitigate against this, with a future opportunity to modify the intersection/signals. Bicycle accommodations could be included at this time.

Impact on motor vehicle traffic (e.g. removing travel lanes or turn lanes)		Minimal impact on traffic flow along the corridor. Vehicles must proceed in a slower, single file configuration with bicycles. If higher order intersection treatments are selected (e.g. signals) there may be some delays to traffic on the cross street.		Some impact on traffic flow along the corridor. This option would require removing turn lanes at Oxford Street – traffic will proceed in one lane through intersection. Some impact from ‘no right turn on red’ signage on cross streets.
Available right-of-way width		Liverpool is roughly 8.8m wide – works for local street bikeway application with features to narrow travelway (e.g. curb extensions and on-street parking)		Almon is 11.2m near Windsor, but narrows to 9.3m between Connolly and George Dauphinee Ave – this is too narrow to fit two directions of on-road protected bikeway without changes to curbs, mature trees, street drainage and/or utility poles. Option to ramp westbound bikeway up to sidewalk level (multi-use pathway) however this has a constrained width.
Impact on green space		No impact on green space		Potential for loss of planting zone and 6-10 street trees with multi-use pathway option. Brings people cycling closer to green space in Ardmore Park
Impact on transit		Some interaction with shared bike lane bus stops on Windsor. Addition of new crosswalks and signals would have impact on Windsor (Route 4) and Oxford (Route 1). Curb extensions at Oxford could enhance bus stops, prevent merge delay.		No anticipated impact on Halifax Transit service.
Impact on commercial or residential on-street parking		Minimal or no impact on commercial or residential parking		Required loss of 3 accessible parking spaces on Almon near Windsor. Loss of approximately 80 on-street parking spaces with low utilization (30%).
The ability to mitigate losses to on-street parking	----	No removal of parking required, thus no need to mitigate.		There are side streets such as Deacon, Dublin, Connolly and Oxford that appear to have low occupancy rates and that could accommodate visitor parking demand for Almon street residents.
Public and Stakeholder Feedback				
Public support for the facility, abutting resident support for the facility		25% of participants prefer a route option that includes a parallel local street bikeway corridor. When segmenting out the neighbourhood residents, 40% prefer a local street bikeway route		54% of participants prefer a route option that includes protected bike lanes on Almon Street. When segmenting out the neighbourhood residents, 31% prefer protected bike lanes on Almon.
Stakeholder support for the facility		Some external stakeholders voiced preference for local street bikeway option for families with kids and people starting out (new riders). Must be slow, green, intuitive, like a path.		The majority of external stakeholders preferred directness of Almon Street option. Busier intersections, delay at signals not seen as issue. Only really busy at peak.
Internal HRM review of the facility		Preferred facility. See elaboration of discussion attached.		Not the preferred facility. See elaboration of discussion attached.
Other Factors				
Accessibility		Improves accessibility of road users with the installation of two new enhanced crossings at Oxford St and Windsor St (previously unmarked crosswalks), with possible conversion of RA-5 to half signal at Connaught. Possible conflict between users on street-to-street walkway between Connaught and George Dauphinee, which impacts accessibility.		Almon already has three accessible crossings at signalized intersections, which is a benefit. However, extending the bikeway on Almon would require removing or significantly moving (150m+) three accessible parking spaces on Almon near corner of Windsor Street. These currently serve a range of nearby businesses including physiotherapy / health clinic, two restaurants, flower shop, barber shop, lawn care store, daycare
Pedestrian co-benefits		Installation of two new enhanced crossings at Oxford St and Windsor St where there were no formal crossings before. Possible conversion of RA-5 to half signal at Connaught to ensure all lanes stop for duration of crossing.		Almon already has three signalized pedestrian crossings at signalized intersections, which is a benefit. Additional pedestrian benefits through installation of ‘no right turn on red’ signage at Almon-Oxford and Almon-Connaught intersection – reduces conflict
Ease of Implementation		Local Street Bikeway treatment requires addition of traffic calming features that are low cost and relatively simple to implement based on IMP timelines. Larger costs and challenges would be associated with chosen intersection designs to cross major intersections. Must invest in bicycle detection technology and calibrate at 3 intersections.		Protected bikeway treatment requires redistribution of ROW including installation of curbs and bollards to define bikeway. This, in combination with the major roadwork required to establish the MUP between Connolly and Connaught, would be the more expensive option. Frequency of driveways makes establishing a continuous barrier challenging. Large gaps may exist. Solution could be raising the bikeway which would involve significant curb/drainage work, adding to the overall cost of the project.

Pinch points	Approx. 70m of multi-use pathway (off-street) between Connaught and George Dauphinee. Substandard width of 2.2m with utility pole narrowing path to 1.8 metres. Preferred minimum 2.4m for constrained areas. Would investigate moving utility pole. Functioning currently as shared pathway. Could become congested pre/post school	Approx. 100 - 200m of multi-use pathway between Connolly and Connaught. Raised 3.0m pathway alongside roadway. Grade separated with no buffer, unless made 2.4m with a 0.6m buffer which is the minimum recommended width for constrained areas. Long, downhill segment with possibility of larger speed differential with pedestrians.
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Elaboration on major factors that influenced current direction to pursue Liverpool local street bikeway option as West End 'AAA' Bikeway connection:

1. Access to businesses for people with disabilities

At the corner of Windsor and Almon Streets there are numerous businesses e.g. physiotherapy, optometry, naturopath, two restaurants, flower shop, barber shop, lawn care centre, and daycare. There are three accessible parking spaces associated with providing access to these businesses. Installing protected bike lanes on Almon Street would require moving these accessible spaces around the corner onto Dublin Street which is over 150m away from their previous location. This is beyond the realm of what would be an accessible distance for someone to walk/roll to their appointment. Locating the accessible stalls across the street at the Forum parking lot has its challenges – the Forum is soon to be redeveloped and there's no guarantee that the parking lot will remain along that corner. In any case, where our focus is designing for people of all ages and abilities, the removal of this access for people with disabilities **is a significant consideration**.

2. Narrow road width on Almon between Connolly and Connaught

On Almon Street between Connolly and George Dauphinee, the available road width narrows to 9.3m. This makes it impossible to fit on-road protected bike lanes through this 270m segment without significant road reconstruction. Conversion to a multi-use pathway in place of the sidewalk for the westbound direction was explored, but would require the loss of between 6 and 10 street trees to make the connection. In addition, this multi-use pathway would be substandard (narrow, no buffer with roadway) and potentially lead to confusion around transitions, directionality and intersection crossings.

3. Frequent driveways on Almon

There are frequent residential driveways along the corridor, particularly between Windsor and Dublin and between Oxford and Connolly. This makes it challenging to present a continuous physical barrier protecting the bikeway from adjacent vehicles. Large gaps in the barrier protection would occur. A possible solution would be raising the bike lane to sidewalk height rather than putting curbs and bollards along the edge of the roadway. However, this option is much more costly as it would require moving the curbs in and reworking the stormwater drainage underneath. It could be considered in the future alongside major recapitalization of Almon Street but it would be unlikely that this could take place within the timeframe required of the IMP Regional Bikeway Network. Raising the bike lane still does not solve the challenges with accessible parking (near Windsor) and street tree loss (near Connaught).

4. Connecting destinations along Liverpool Street

The Liverpool corridor makes sense as it brings people closer to destinations along the route. The span is from the Westmount schoolyard to one of the (soon to be) major access doors of the Forum at Liverpool and Windsor as the redevelopment goes ahead. In the centre at Liverpool and Oxford is a destination highlighted by the public where there are a handful of popular shops and cafes for people to walk and cycle to visit e.g. Cosy's Snack Bar, a neighbourhood pharmacy, and Local Jo Cafe. There are at least two daycares within a block of the bikeway and a number of other small businesses as well as a Hindu Temple.

5. Opportunity to achieve safer intersection crossings with walkability improvements along Liverpool Street

Integrating the installation of two new enhanced ped/bike crossings at Windsor and Oxford which is a win for overall walkability/bike ability of the neighbourhood. New signals will be actuated by people walking and cycling. We heard that crossing intersection of Liverpool and Connaught was uncomfortable. The overhead flashing lights lead to unpredictable yielding behavior between the multiple lanes of traffic and issues with speed and sightlines.

6. Liverpool option is contingent on AAA transition to and from protected bike lanes on Almon west of Windsor

We can do that! HRM is currently in the process of designing one of the city's first partially protected intersections (pending Council approval) that allows off-street right hand turns from Almon onto Windsor northbound without coming in contact with traffic. Southbound transition is a two stage left hand turn box behind crosswalk on Almon eastbound.

7. Network connections require northward travel eventually

The network connections to reach Bayers Road, Chain of Lakes Trail, and West End Mall require people cycling to jog northward at some point – the choice to make the transition a bit earlier at Liverpool may be less of an inconvenience for people travelling to these destinations.

Attachment C

North End & West End Bikeway Facilities

**Public Engagement: What We Heard Report
December 13, 2018**

Report Prepared by: WSP Canada Inc.

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Introduction

Project Overview

Following the recommendation in the 2014-2019 AT Priorities Plan to install 15km of Local Street Bikeways and the Integrated Mobility Plan intent to establish an All Ages and Abilities ('AAA') bicycle 'minimum grid' facility by 2020, Halifax Regional Municipality (HRM) Staff are preparing a functional plan that recommends the preferred route with associated design for two 'AAA' bikeway facilities in the North End and West End of the Halifax Peninsula.

As part of this process, HRM has explored routing and functional plan options for both the facilities. These new bicycle facilities are intended for users of all ages and abilities ('AAA') and will be tied into existing and future AT network projects including the bicycle facility planned for the Macdonald Bridge.

For the purpose of the Public Open Houses, a series of general introductory boards were displayed. These include introductions to the project and helpful terminology. These boards can be found in Appendix A.

Public Engagement Overview

Four separate public open houses were held to engage the public on the proposed 'AAA' bikeway facilities. The first two were held on Tuesday, October 23rd at the Halifax Forum on Windsor Street from 12:00 pm – 2:00 pm, and 6:00 pm – 8:00 pm. The second two were held at the Community YMCA on Prince Albert Street on Thursday, October 25th, from 12:00 pm – 2:00 pm, and 6:00 pm – 8:00 pm. Information on the project and an online survey were also provided on the Shape Your City website from October 24 to November 18, 2018. Comments were also received by HRM staff through email and via telephone (a summary of which can be found in Appendix F).

As an avenue to aid public engagement for this project, print and social media tools were used to inform the public about the survey and the public open house meetings. These advertisements included:

- *Promotional ad in The Coast on October 18, 2018*
- *Promotional ad in the Star Metro on October 19, 2018*
- *Paid Facebook ad for the survey from October 30 – November 16 (reached 14,580 people and had 471 clicks)*
- *Paid Facebook ad to promote the October 23 public open house from October 17 – October 25 (reached 12,178 people, had 123 reactions, comments and shares, and 418 post clicks)*
- *Paid Facebook ad to promote the October 25 public open house from October 17 – October 25 (reached 12,592 people, had 89 reactions, comments, and shares, and 398 post clicks)*
- *Instagram promotional post on October 17 (generated 37 likes)*
- *Instagram promotional post on November 2 (generated 13 likes)*
- *A series of Tweets throughout the period from October 17 – November 16 with reminders about the engagement sessions and follow-up Tweets directing users to the online survey.*

There were two online surveys: one on the North End Bikeway project and one on the West End Bikeway project. These surveys were available to residents online at the Shape Your City project website from October 24th to November 16th. Together, there were 1,428 visitors to these pages.

The North End Bikeway survey consisted of 25 questions with multiple opportunities for participants to add comments and explain their selected answers. There was an 13% response rate to the survey, as compared to those who visited the Shape Your City page in this time period.

The West End Bikeway survey consisted of 18 questions with multiple opportunities for participants to add comments and explain their selected answers. There was an 8% response rate to the survey, as compared to those who visited the Shape Your City page in this time period.

On both the North End and West End Bikeways surveys, the questions were specific to proposed infrastructure, routes, and treatments. A full synopsis of the survey questions is presented below. For a better understanding of the questions and answers, refer to Appendices B and C to see the proposed designs.

Overall, input was submitted by approximately 570 participants and representatives of organizations, including:

- 301 people who responded to the online survey on Shape Your City
- 187 recorded sign-ins at the Public Open Houses
- 60 emails and phone calls
- 10 community stakeholders and/or organizational representatives
- 12 person HRM Internal Technical Committee

Overall, response to the project was mixed. A large segment of participants were in favour of extensive intervention and roadway changes in order to establish a 'AAA' cycling corridor. On the other hand, an equally large segment of participants were either a) opposed to the project/opposed to investment in cycling infrastructure, or b) have significant concerns about parking loss associated with creation of the bikeway. A smaller cohort represented a middle ground solution, preferring a low-intervention bikeway with a small amount of parking loss.

Positive comments related to the project included:

- *Streets are public space for public use, therefore loss of parking is an acceptable trade-off for more users to have access.*
- *Keep bike infrastructure protected and on main roads. More visibility for vulnerable users (i.e. cyclists) means that everyone is safer.*
- *Need to start linking more cycling with reducing our carbon footprint as a city. More protected facilities = more people feel safe cycling.*
- *City has been talking about this for years, please make it happen. Follow the IMP. Prioritize active transportation.*
- *Need a plan for snow clearance on protected bike lanes.*
- *Supportive of cycling options, especially options with multi-use paths or protected bike lanes.*
- *Would like to see the introduction of cross-rides at North End and West End crosswalks to allow for both pedestrians and cyclists to share the crosswalk safely.*

Top concerns of those not in support of the project included:

- *Objection to money being spent on the few who ride bikes.*
- *Traffic calming and loss of parking not needed, streets are "narrow enough".*
- *Not okay to impact parking until transit is improved.*
- *Concern about traffic calming and cycling infrastructure being an issue for emergency vehicles.*
- *Local Street Bikeways are only a half measure. Cycling infrastructure needs to make cycling safe for young children. Should be entirely protected bike lanes. Safety should take precedence over parking.*
- *Not in favour of restricted parking on Almon street, not effective for homeowners use of parking on this street. This is a burden on elderly residents whose visitors need to use street parking.*
- *"Necessary infrastructure" for congestion coming in from off of the Peninsula should be prioritized.*

At the public Open House on Thursday, October 25th, there was one participant who provided a significant amount of general feedback. Below is a summary of those comments:

- *The right information and discussion was not brought to the community. This is what was done to the Africville Community. Everything that nobody wants is dumped in this community. The government will continue to do this until we speak up and come together.*
- *If you did not grow up in this community, you should not have a say in changes to the community.*
- *Not enough people feel that this should be taking place at this time without speaking to those who live in the area first. Take a step back and have more input from the community and more of a government meeting instead of public gatherings.*

***Many of those who were unsupportive also indicated that they would like to better understand HRM's rationale for building cycling infrastructure.**

North End 'AAA' Bikeway

North End Bikeway Overview

The functional design options for the North End Bikeway are summarized below. Further visuals of each option are presented in Appendix B. In some cases, participants from the open houses commented specially on route options and proposed infrastructure for different sections of the North End Bike Way. Those results are presented with each section.

NORTH END SECTION 1: Novalea Drive to Cabot Street



Option 1: Local Street Bikeway on Novalea



Option 2: Divided multi-use pathway on Novalea

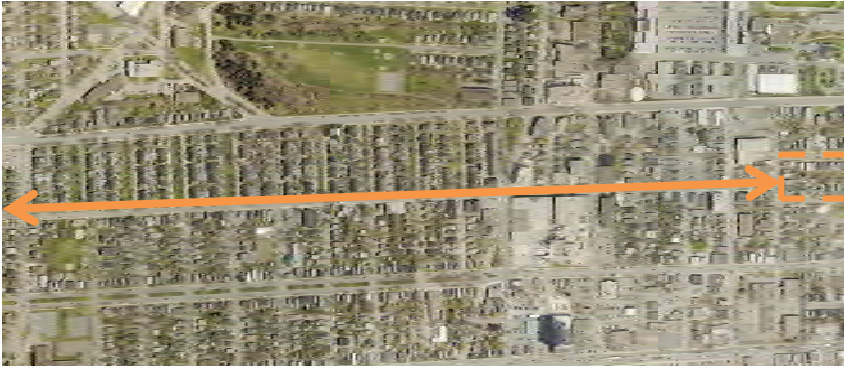
Comments from participants on North End Section 1 included:

- Happy to see improved sight-lines in these options
- Traffic calming is needed on Duffus Street
- Isleville/Duffus crossing requires more than just extension, very dangerous for all users
- Option two preferred: multi-use pathway provides protection from traffic
- Poor site lines at Leeds Street, should consider Normandy Street instead
- Connection to NSCC needed
- Crosswalk lines painted needed on all North-South routes
- Should avoid mixing pedestrian and cyclist traffic

When asked which option they preferred,

- 54% of respondents answered Option 1, multi-use pathway,
- 38% of respondents preferred no change to Novalea Drive,
- And 8% of respondents preferred Option 2, the local street bikeway.

NORTH END SECTION 2: Cabot Street to Bloomfield Street



Local Street Bikeway with potential traffic calming measures on Iseville Street

Comments from participants on North End Section 2 included:

- Need a cross-ride on East and West side of intersections
- Novalea at Stanley Street is dangerous for cycling
- Need to focus on connection to schools, i.e. continue on Novalea to Russell Street
- Median on Young Street should be extended much longer along the block to calm traffic

NORTH END SECTION 3: Bloomfield Street to Buddy Daye Street to Cogswell Street

Option A: Bi-directional Traffic Flow and Local Street Bikeway



Northwood Terrace looking Northbound



Creighton Street looking Northbound

Comments from participants on North End Section 3, Option A included:

- Please make it safe to get from Creighton to Rainnie on bicycle
- Opposition to active transportation infrastructure in North End community
- North Park & Cornwallis is not safe for cycling, there is no way to cross North Park Street
- Paint is not infrastructure

Option B: Local Street Bikeway and Contra-flow Bicycle Lane



Northwood Terrace looking Northbound



Creighton Street looking Northbound

Comments from participants on North End Section 3, Option B included:

- Like the local street and contra-flow bicycle infrastructure
- Close to Bike Again's new space, good for cyclists
- Do not require cyclists to dismount
- This is nothing more than sharrows, not a good option

Option C: 1-Way Couplets for Bicycle Flow and Traffic Flow on Maynard Street and Creighton Street with 2-Way Bicycle Flow and Traffic Flow on Northwood Terrace



Northwood Terrace looking Northbound



Creighton Street and Maynard Street looking Northbound

Comments from participants on North End Section 3, Option C included:

- Need a raised sidewalk
- Support for cycling on Creighton Street
- Need a safe and convenient crossing at North Street (very dangerous)
- Not supportive of bike infrastructure in the North End community
- Option of turning onto Charles is too forced
- Would prefer a bike lane on Maynard Street all the way down Fuller Terrace
- Option C is preferred option for Section 3 (for resident and cyclist)

NORTH END SECTION 4: Connection to the Commons (Options 1 & 2)



Option 1: Cunard Street Multi-Use Pathway



Option 2: Cornwallis Street Two-Way Protected Bicycle Facility

Comments from participants on Connection to the Commons

- Prefer Option 1 (because it gets you to existing bike facility quicker and more directly)
- Need a cross ride on the North side of the commons as well

North End 'AAA' Open House Comments

During the Public Open House, participants were asked questions specifically about route options and infrastructure treatments for the North End Bikeway.

The response from participants on the North End Bikeway was largely mixed. Many supported bicycle facilities and infrastructure in general, but some felt that introducing painted bike lanes or LSBs were 'not infrastructure' and want protected infrastructure while others felt fine with unprotected infrastructure. Those who were against cycling infrastructure in the North End were largely concerned about a loss of on-street parking near their homes.

When asked whether the proposed contraflow bikeway options for Creighton/Northwood and Maynard Street would be the preferred option, participants indicated that:

- *Some sort of physical barriers, like bollards or planters would be preferred (38%)*
- *a parking-protected contraflow lane would be preferred (21%)*
- *A contraflow bike lane 'could never be all ages and abilities' (21%)*

When asked which treatments would be preferred for intersections (i.e. cyclist actuation, cross rides, traffic signal, four way stop, bike boxes, no change), participants answered:

- *Creighton Street:*
 - *The preferred intersection treatment options were cross-rides, cyclist actuation, and curb bump outs. Some participants indicated that no change was desired (due to impact on parking)*
- *Maynard Street:*
 - *The preferred intersection treatment options were cyclist actuation (no button or dismount) and traffic signals, because Maynard causes difficulty with visibility due to parked cars close to corners.*
 - *Indicated that a better use of parking close to the corner would be for loading for the nearby businesses.*

When asked what traffic calming measures would be preferred for the North End Bikeway, participants answered:

- *The preferred traffic calming measures were speed bumps and curb extensions, and to a lesser extend, cross-rides and mini-roundabouts.*
- *Some mentioned that major traffic calming is needed if parking is removed, because otherwise the street becomes a "straight shot" for cars. Others related the presence of on-street parking with traffic calming.*

When asked whether a removal of between 15% to 50% of on-street parking would be an acceptable trade-off for a safer bike corridor,

- *53% said YES*
- *47% said NO*
- *Some participants noted that this might be acceptable if permit parking was made available on these streets only for residents of the streets, not for people commuting onto the peninsula.*

When asked how contraflow bike lanes can be made comfortable for all ages and abilities (AAA),

- *The top answer was physical separation and physical barriers, such as bollards.*
- *Other respondents indicated that “very clear” signage is necessary to prevent cyclists from using the contraflow lanes as bi-directional lanes.*
- *Other respondents answered that safe road crossings are crucial to making a AAA facility, i.e. it cannot be safe only “in the straight”.*
- *Some respondents disagreed with building safe (AAA) cycling infrastructure, and instead suggested:*
 - *Parking for seniors and handicapped people needs to remain*
 - *Cyclists need training on how to ride properly*
 - *License requirements for cyclists with training and insurance*

Finally, when asked their preference for the ‘AAA’ connection with the Halifax Common, respondents answered that:

- *Cornwallis was the preferred route option by most, but the crossing (across North Park Street) would need treatment to become safe. Participants asked that there be no dismounting or buttons to press in order to cross safely.*
- *Other mentioned that connecting the Commons to Agricola Street more safely should be made the priority.*

There were 203 participants in the North End Bikeway survey. Amongst those who responded, the same split, which shows slightly more than half in support of the project generally, and slightly less than half unsupportive of the project generally, held up in the survey as in the Public Open Houses. When asked in the survey whether a removal of parking between 15% and 25% (in different treatment scenarios) was acceptable,

- *52% said YES/MAYBE*
- *47% said NO*
- *The remaining 1% were unsure.*

Additionally, HRM received a series of emails from residents voicing concerns about or support for the proposed North End Bikeway. The majority of emails received were from residents adjacent to or near the proposed North End Bikeway who were concerned about parking loss. Many of the remaining emails were in support of the project but contained comments about the proposed routes or treatments. The complete text of these emails with names and personal information redacted can be found in Appendix B.

HRM received a series of phone calls about the North End Bikeway project as well. The transcripts of these phone calls with names and personal information redacted can also be found in Appendix B.

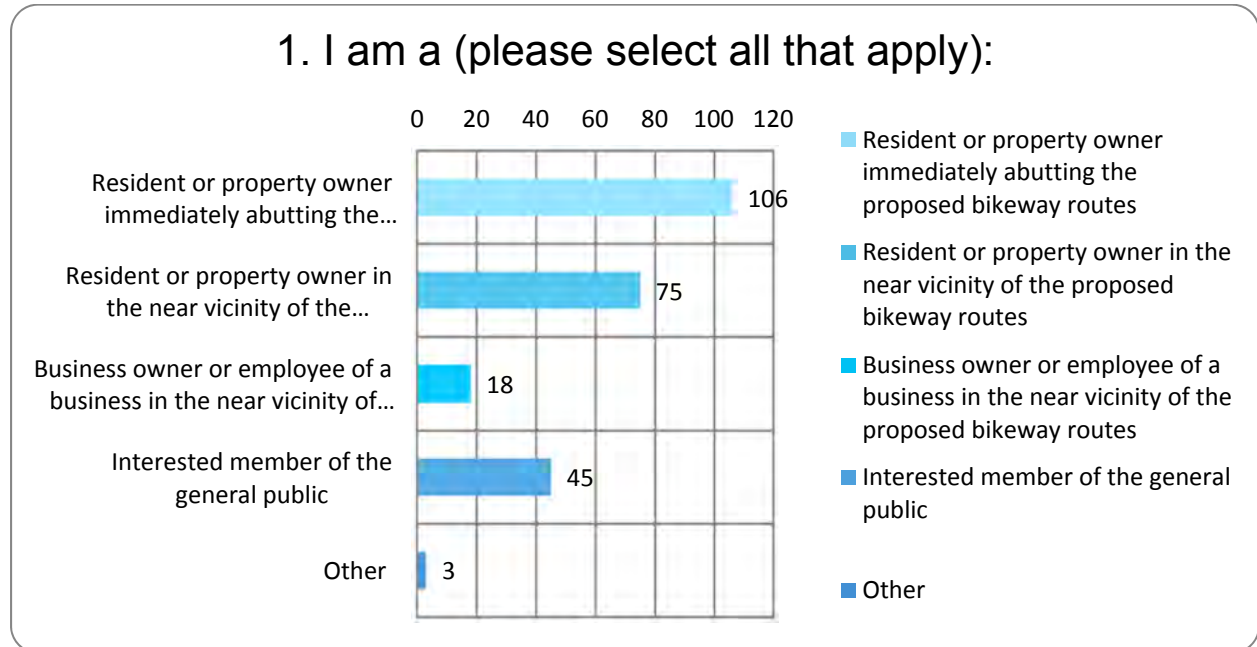
During the month of November 2018, it was brought to HRM’s attention that some residents from the North End initiated a “Save Our Parking” petition to HRM in response to the proposed bikeways project. As of publishing this report, nothing has been submitted to the Municipal Clerk’s Office.

North End 'AAA' Survey Comments

Participants were asked 25 questions as part of the online and paper survey. An unedited version of the North End 'AAA' Survey can be found in Appendix D.

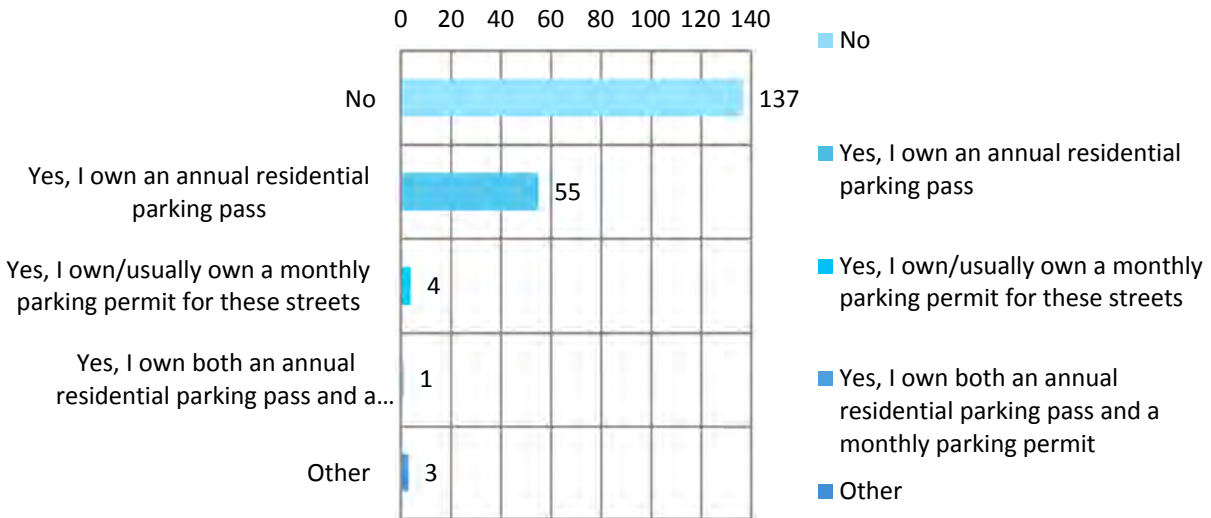
Qualifying Questions

Qualifying questions were asked to participants to understand who was taking part in the survey and what their interests may be.



Of the 184 participants, nearly 53% of respondents qualified themselves as residents or property owners immediately abutting the proposed bikeway routes. An additional 38% percent identified themselves as a resident or property owner in the vicinity of the proposed bikeway routes. Twenty-three percent identified themselves as interested members of the general public, 9% identified as business owners or employees of businesses in the vicinity, and 1.5% identified as "other".

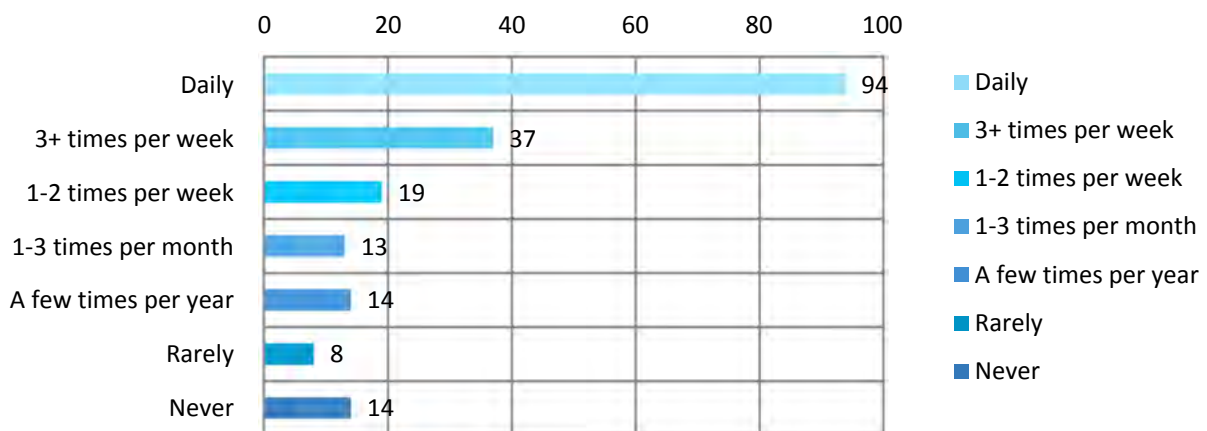
2. Do you own a parking pass on the following streets: Creighton, Maynard, Fuller, Northwood?



The second qualifying question was asked to gauge how many residents concerned with a loss of on-street parking were responding to the survey. Over 30% of respondents own one or more types of parking passes, while the remaining 69% do not. About 1.5% of respondents answered “other”, the detailed responses were:

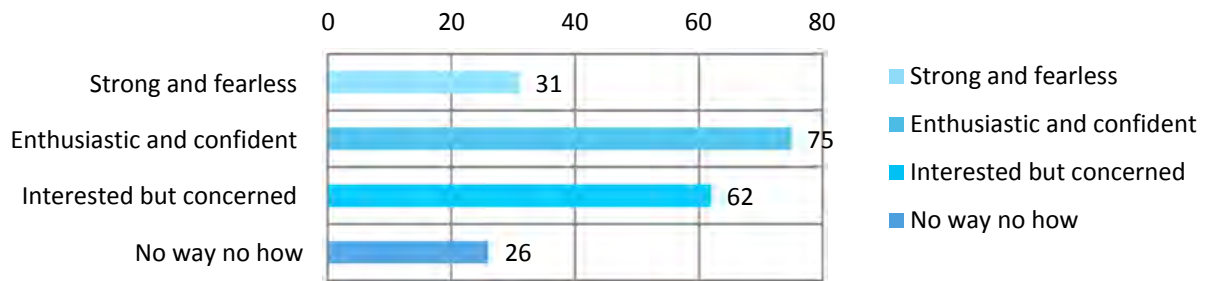
- *I use the free parking in the area (2)*
- *I would like a parking pass for visitor use*

3. How often do you walk or cycle along the proposed routes (or in the near vicinity)?



The third qualifying question aimed to gauge how often participants in the survey already used active transportation in this community. The findings were that 47% either walk or cycle along the proposed routes or in the vicinity daily and an additional 18.5% do so three or more times per week. On the other end of the spectrum, 4% indicated that they rarely use active transportation in this vicinity, and an additional 7% said they never do.

4. How would you describe your level of comfort with cycling?

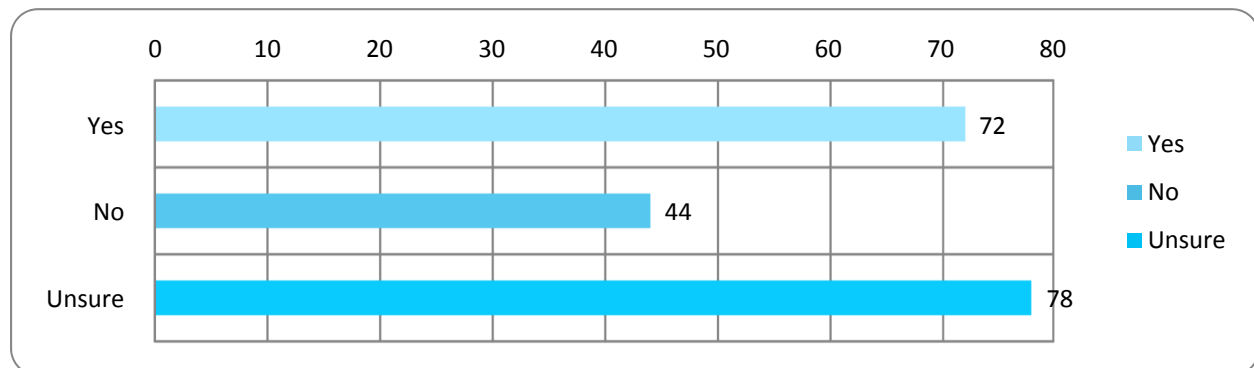


The final qualifying question asked participants what their comfort level with cycling is. This tool helps to understand what sort of facilities respondents might prefer (i.e. if answered ‘strong and fearless’, a facility shared with vehicular traffic comfortable; or if answered ‘interested but concerned’, a protected facility would likely be preferred), however this is not a direct correlation. To this question, only 23% of respondents indicated that they were strong and fearless, while 56% indicated they were enthusiastic and confident, and 46% said they were interested but concerned. About 19% said ‘no way no how’, indicating that they do not feel comfortable cycling whatsoever.

Survey Questions

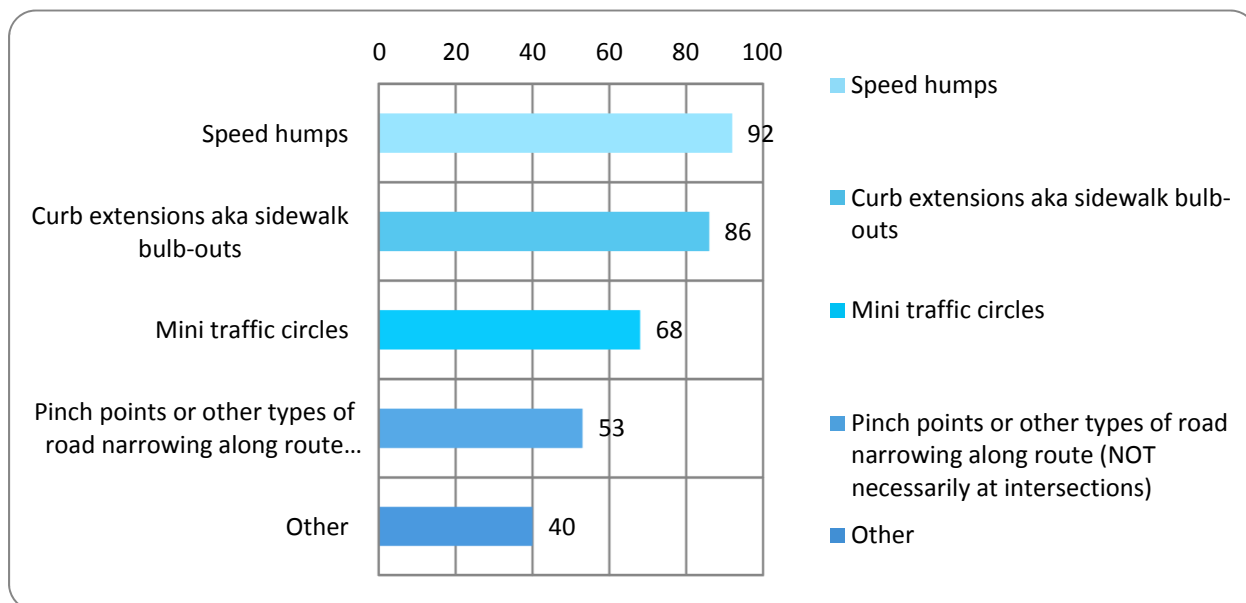
A total of 26 questions were asked as part of the online survey. The following section is a summary of responses received from participants for each question.

5. Does the section of North End Bikeway between Bloomfield and the top of Novalea (Africville Lookoff Park) meet the objectives of creating a safe and convenient cycling corridor?



When asked whether the proposed LSBs and traffic calming measures between Bloomfield and the top of Novalea meet safety and convenience objectives, 37% of respondents answered ‘yes’, while 23% answered ‘no’. The remaining 40% were ‘unsure’.

6. What is your preferred type of traffic calming (speed reduction measures) for the segment between Bloomfield and the top of Novalea? (check all that apply)



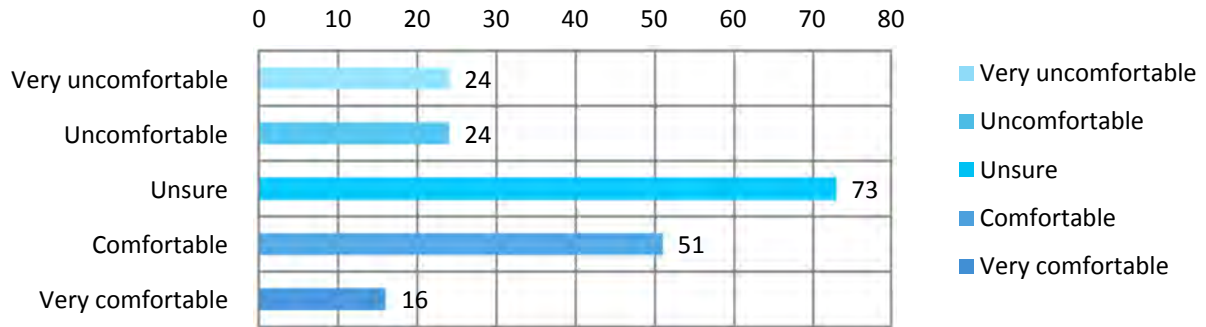
Speed humps were the preferred traffic calming option, having support from roughly 46% of respondents. However, curb extensions also gained support from 43% of respondents, and mini traffic circles had the support of 34% of respondents. Pinch points or other types of road narrowing were supported by 27% of respondents, and 20% indicated 'other', as well. The responses from those who answered 'other' included:

- Do not like curb extensions, dangerous to force cyclists into traffic (unless there is a gap for cyclists to ride through) (2)
- Protected bike lanes
- Prefer no traffic calming
- Prefer a combination of all these measures
- Reduce speed limits (2)
- Block the 'cut through' commuter traffic north of Young Street (redirect traffic from neighbourhood streets) (4)
- Bicycle priority signals at intersections
- Need better enforcement of existing laws (2)

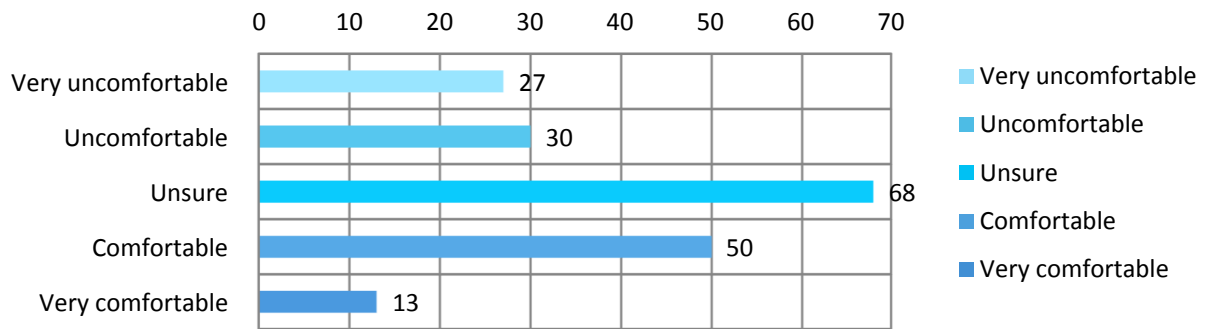
7. How comfortable are you with the proposed crossing treatments at the major intersections along the route:

The majority of respondents indicated that in the case of the above intersections, they are unsure about the proposed intersection treatments (see Appendix B, page 2). Respondents were 12% (Isleville-Duffus), 15% (Isleville-Young), and 10% (Isleville-Almon) 'uncomfortable' with the intersection treatments. On the other end, 26% (Isleville-Duffus), 25% (Isleville-Young), and 30% (Isleville-Almon) were 'comfortable' with these same intersection treatments.

Isleville - Duffus



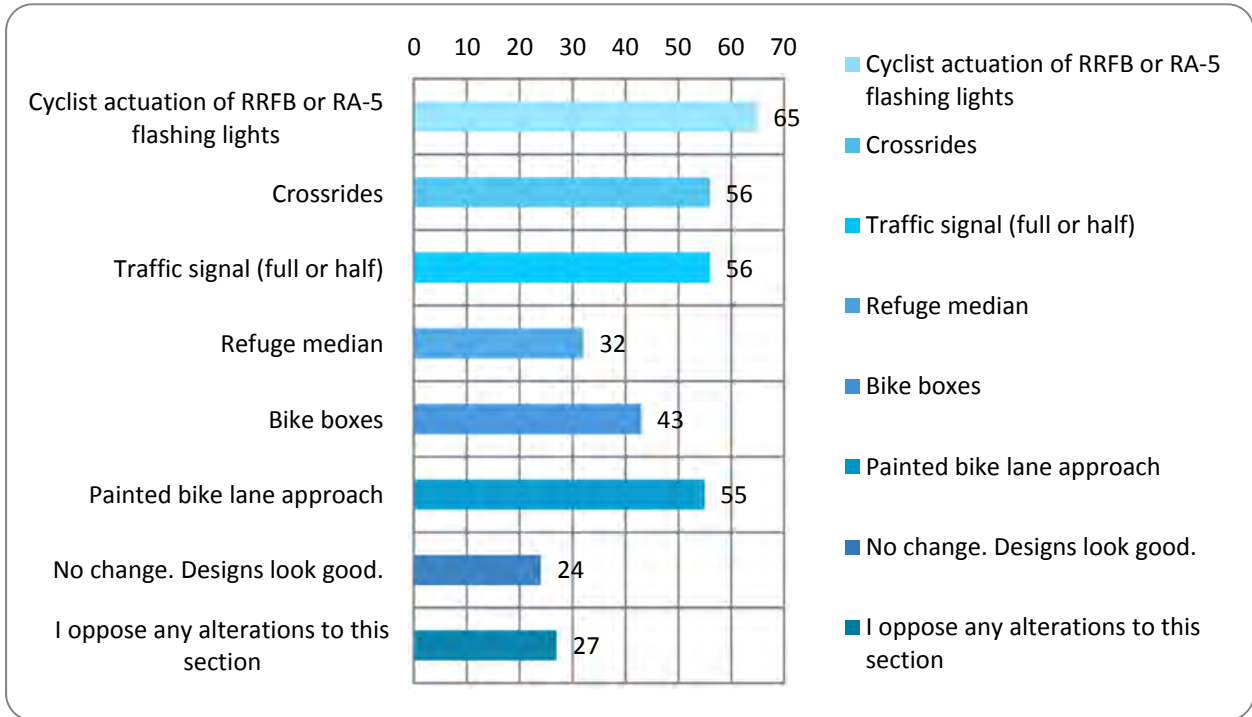
Isleville - Young



Isleville - Almon

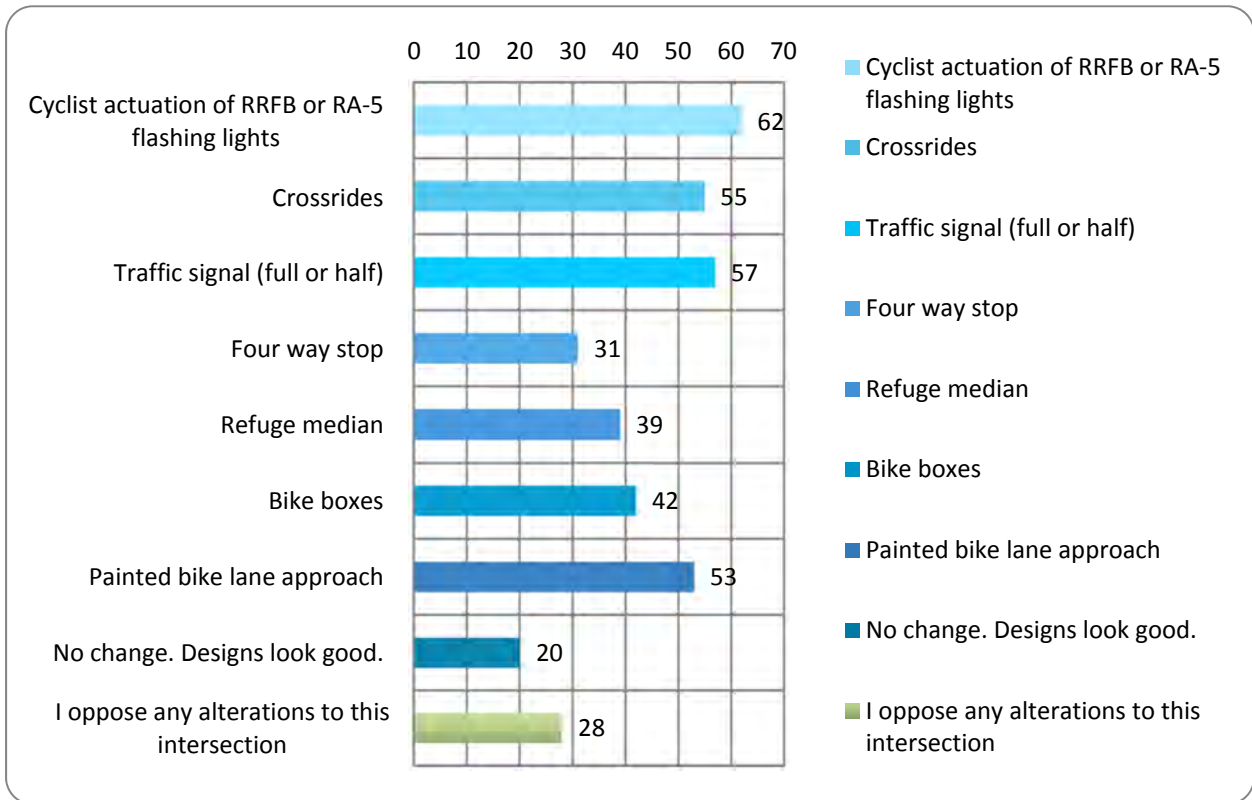


8. a) What changes to these designs are necessary to help facilitate the comfortable and convenient crossing of this major intersection on a bicycle? Isleville-Duffus. (Check all that apply)



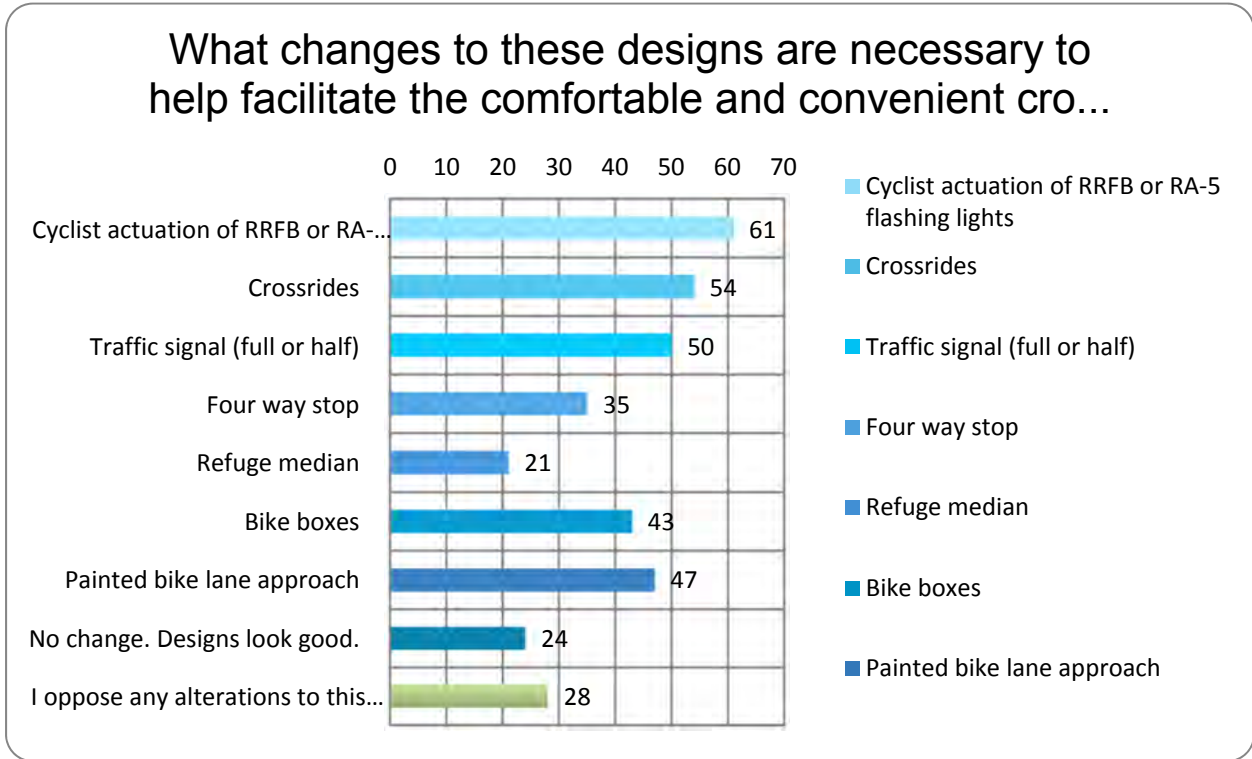
The preferred intersection treatment to facilitate a comfortable and convenient crossing at Isleville and Duffus is cyclist actuation of RRFB or RA-5 flashing lights, selected by 33% of respondents (see Appendix A for details on this treatment). The second most preferred options were crossrides and a traffic signal (full or half), while the third most preferred were painted bike lanes. An additional 13.5% of respondents oppose any changes to this intersection.

8. b) What changes to these designs are necessary to help facilitate the comfortable and convenient crossing of this major intersection on a bicycle? Isleville-Young. (Check all that apply)



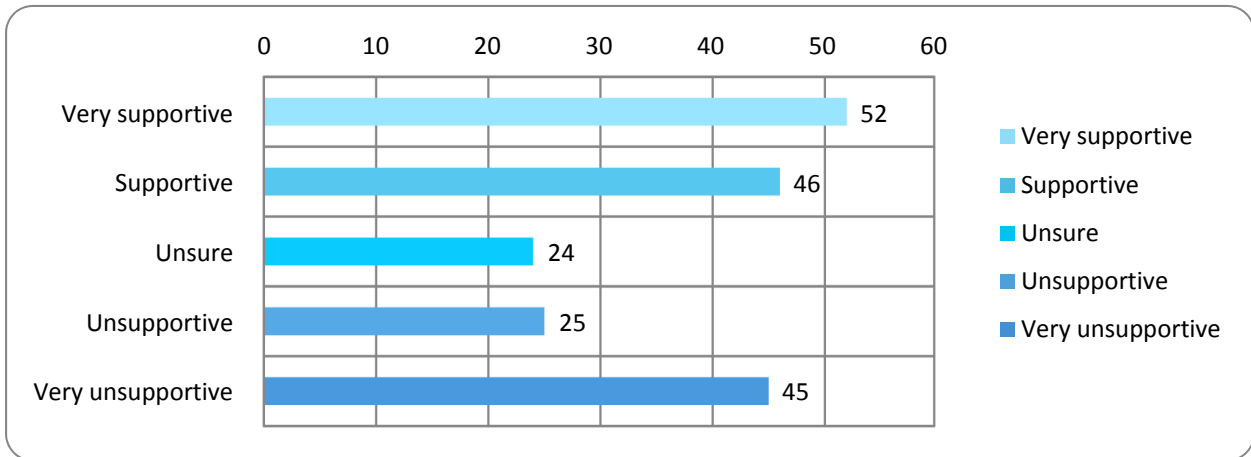
When asked the preferred intersection treatment for Isleville and Young, the most preferred option was cyclist actuation of RRFB or RA-5 flashing lights, selected by 31% of respondents. (see Appendix A). The second most preferred options were a traffic signal (full or half) and crossrides. The preferred option for 14% of respondents was ‘oppose any alterations’ at this intersection.

8. c) What changes to these designs are necessary to help facilitate the comfortable and convenient crossing of this major intersection on a bicycle? Isleville-Almon. (Check all that apply)



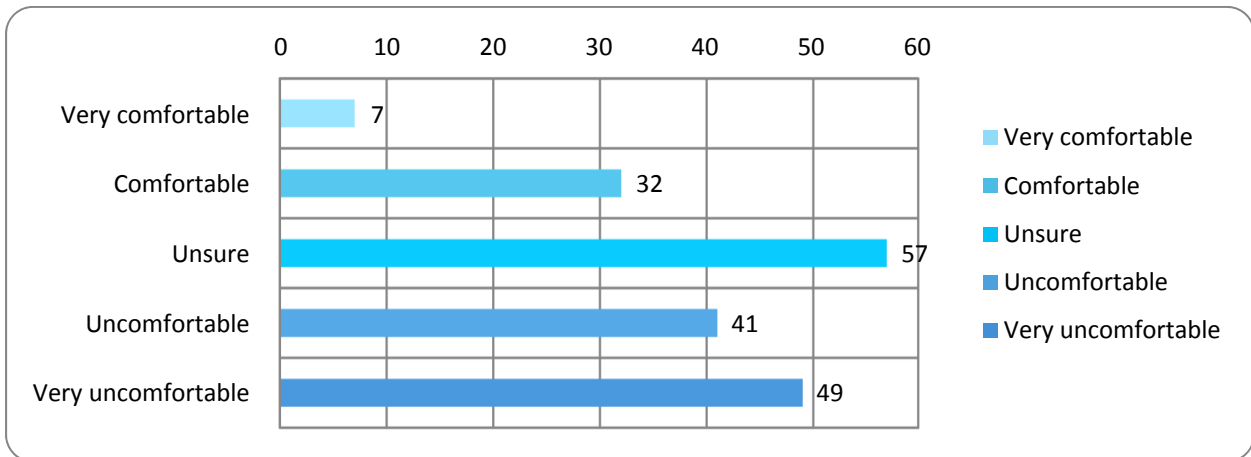
Finally, in the case of the Isleville and Almon intersection, once again the most preferred option was cyclist actuation of RRFB or RA-5 flashing lights, selected by 31% of respondents (see Appendix A), with the second most preferred choices being crossrides and a traffic signal (full or half). Once again, 14% of participants preferred no alterations to this intersection.

9. How supportive are you of replacing the sidewalk with multi-use pathway on the west side of Novalea between Leeds and Africville Lookoff Park? This may require the loss/moving of 10+ young street-trees to achieve the 3.5m width. Parking on the west side of Novalea may also need to be removed to support this pathway.



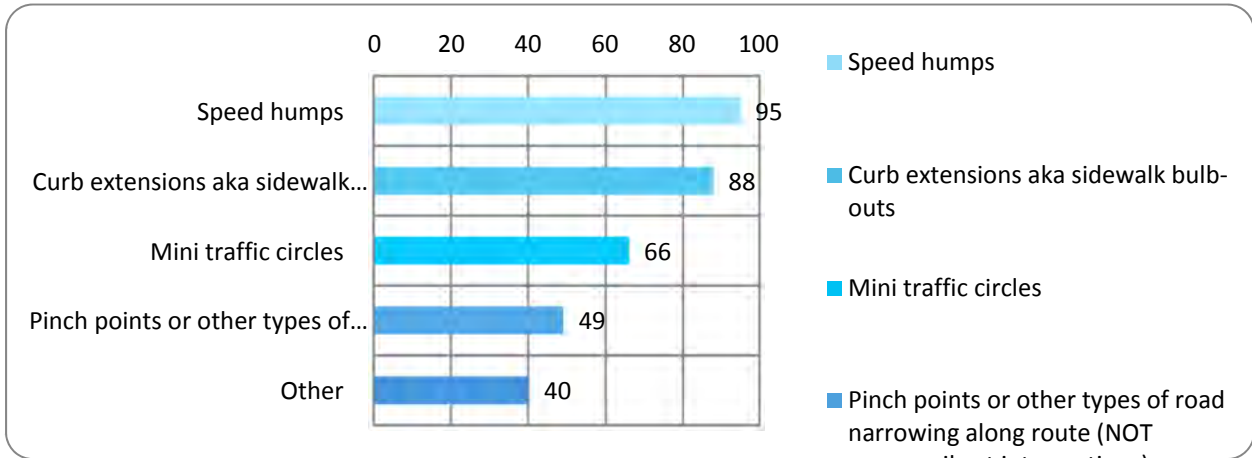
In order to achieve the multi-use pathway on the west side of Novalea, 26% of respondents were 'very supportive' and 23% of respondents were 'supportive' of possibly removing 10 or more street-trees and the possible removal of parking on the west side of Novalea. Meanwhile, 23% of respondents were 'very unresponsive' and 12.5% were 'unsupportive'.

10. As an alternative to this multi-use pathway on Novalea between Leeds and Africville Lookoff Park, traffic calming and design treatments along the lines of a local street bikeway could be used to establish this connection while cycling on the road. Keep in mind there are frequent (15 minute) buses along this segment. How comfortable are you with this as an all-ages-and-abilities connection?



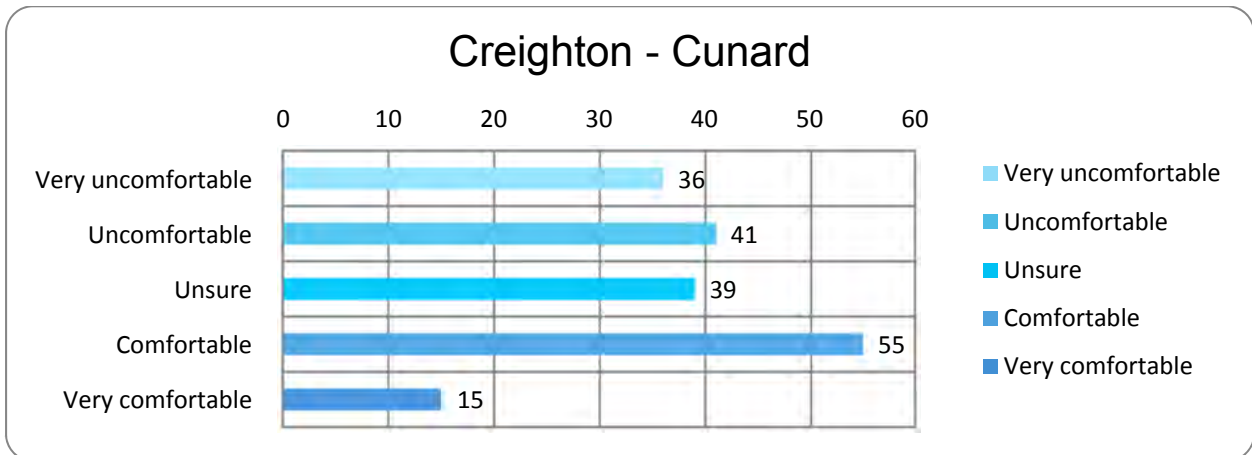
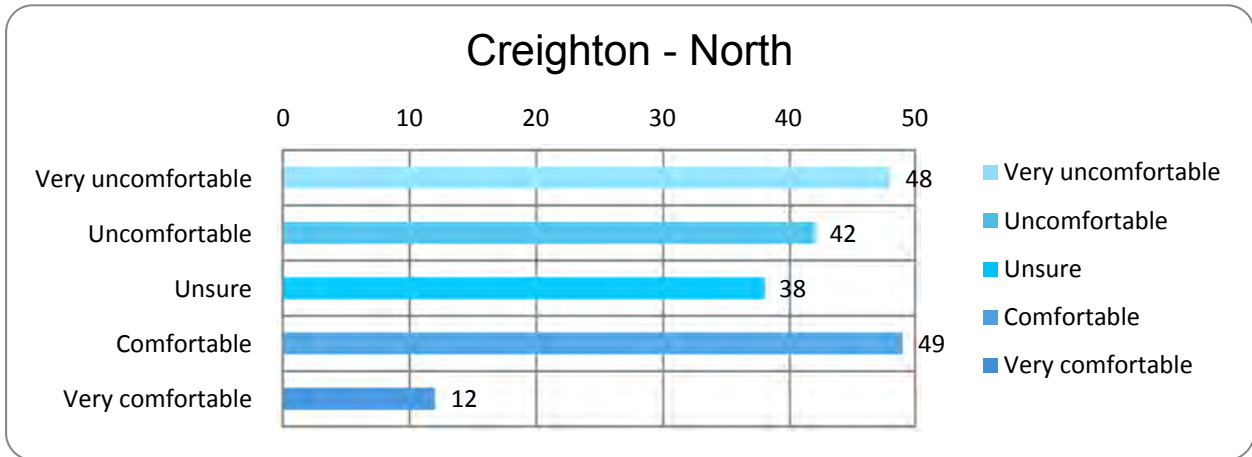
When asked whether traffic calming treatments similar to LSBs would be an acceptable 'AAA' substitution for the proposed multi-use path on Novalea, 45% of respondents were either 'uncomfortable' or 'very uncomfortable'. Those who indicated that they were 'very comfortable' or 'comfortable' with this option amounted to 19.5% of respondents. The remaining respondents were 'unsure'.

11. What is your preferred type of traffic calming (speed reduction measures) for this segment between Bloomfield and Cogswell? Check all that apply

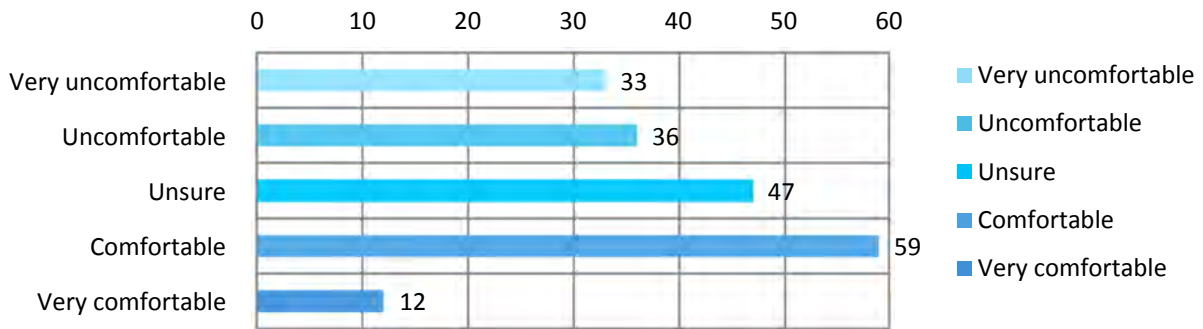


The most preferred option for traffic calming between Bloomfield and Cogswell (using either the Maynard or Creighton/Northwood options) was speed humps, with 48% of respondents indicating this preference. The second most preferred was curb extensions/sidewalk bulb-outs (44%) and the third most preferred was mini traffic circles (33%).

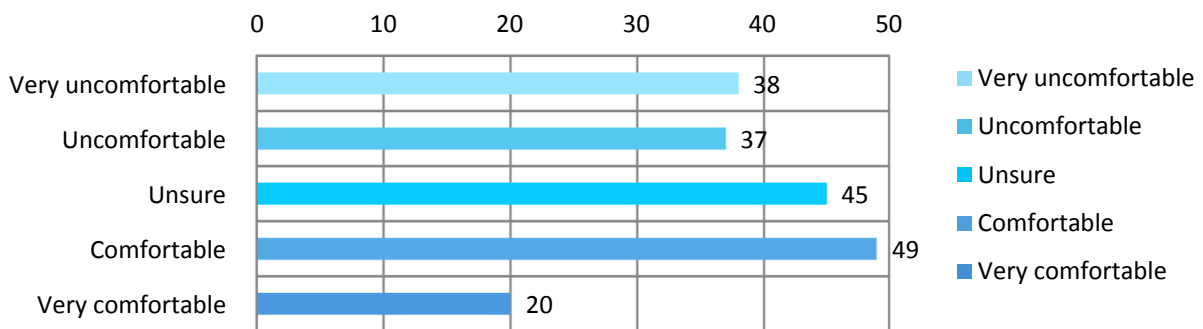
12. How comfortable are you with the proposed crossing treatments at the major intersections along the route: (see Appendix B, page 3-4)



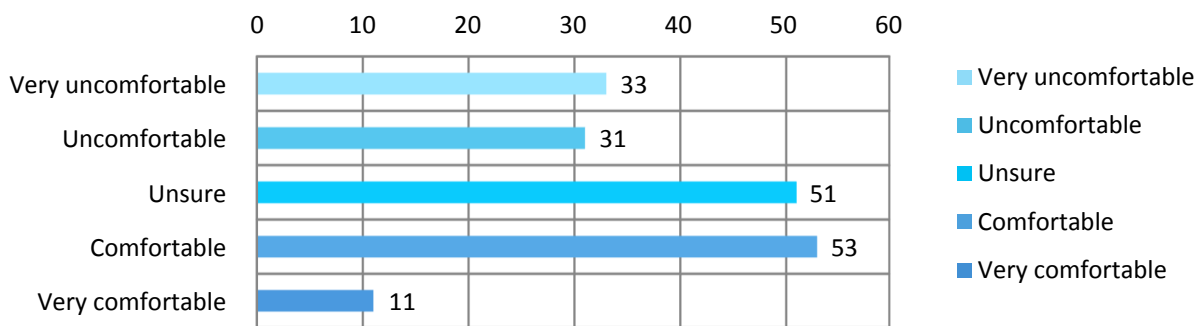
Maynard - Cunard



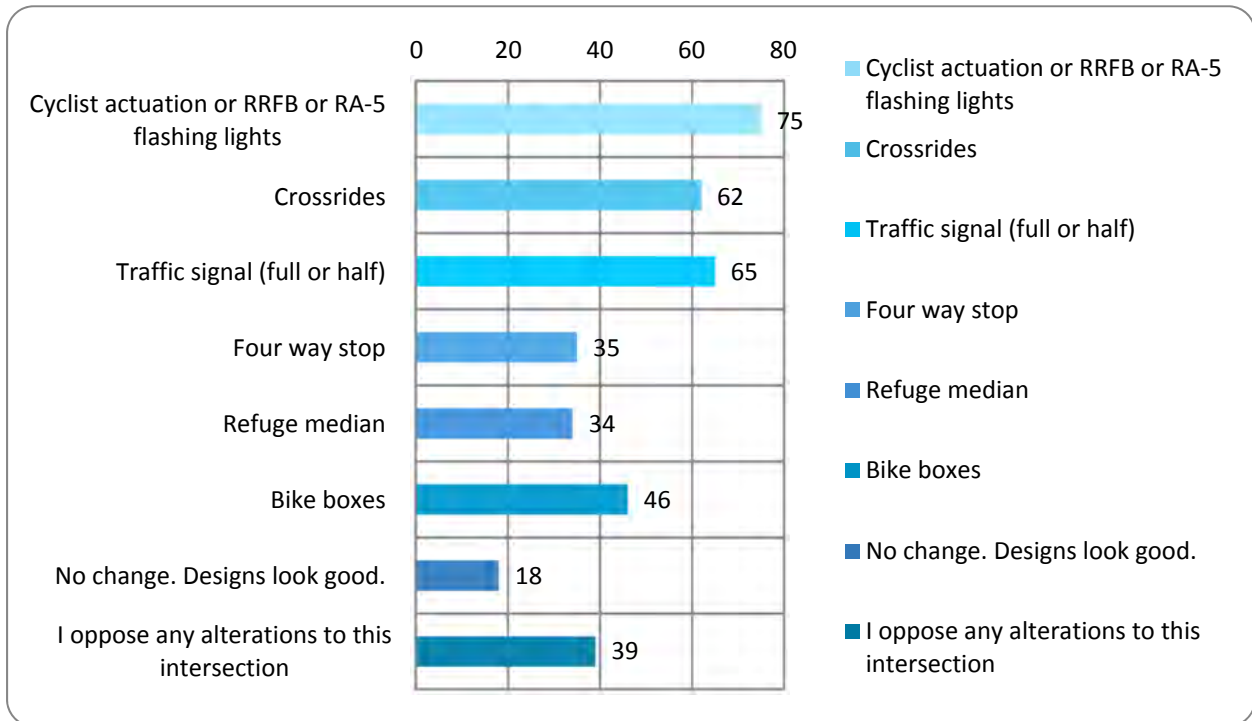
Creighton - Cornwallis



Maynard - Cornwallis

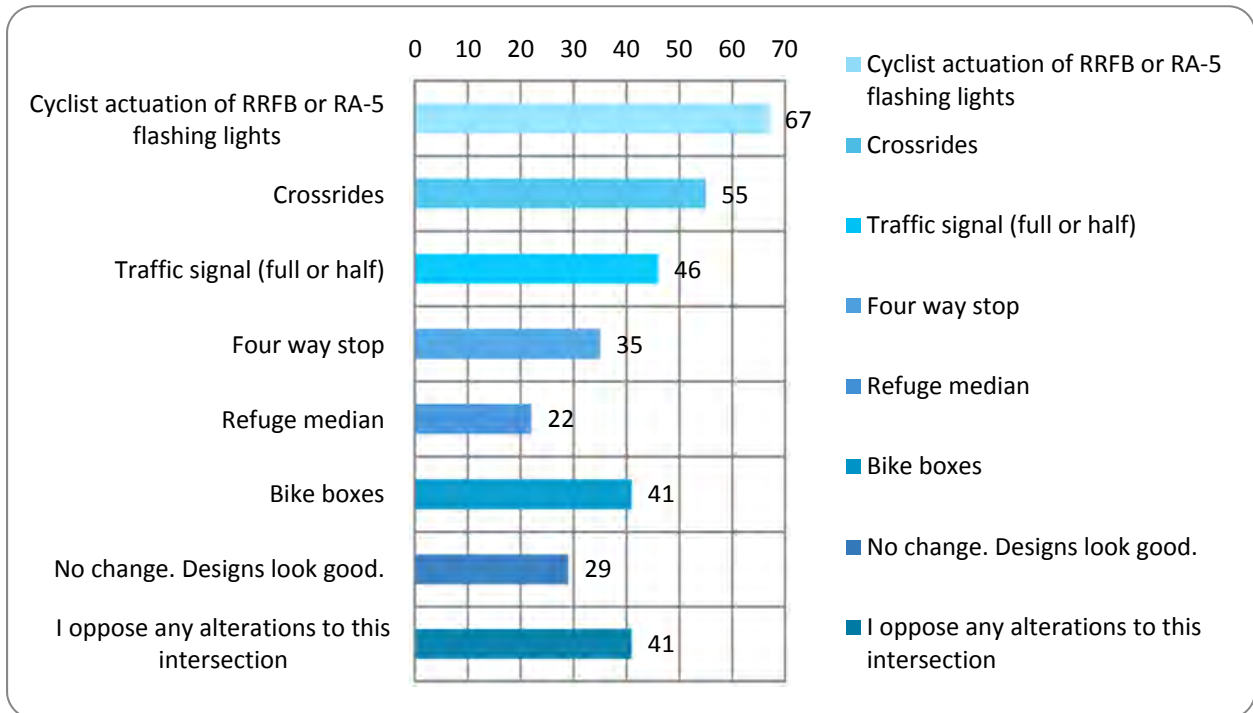


13. a) What changes to these designs are necessary to help facilitate the comfortable and convenient crossing of this major intersection on a bicycle? Creighton - North. Check all that apply



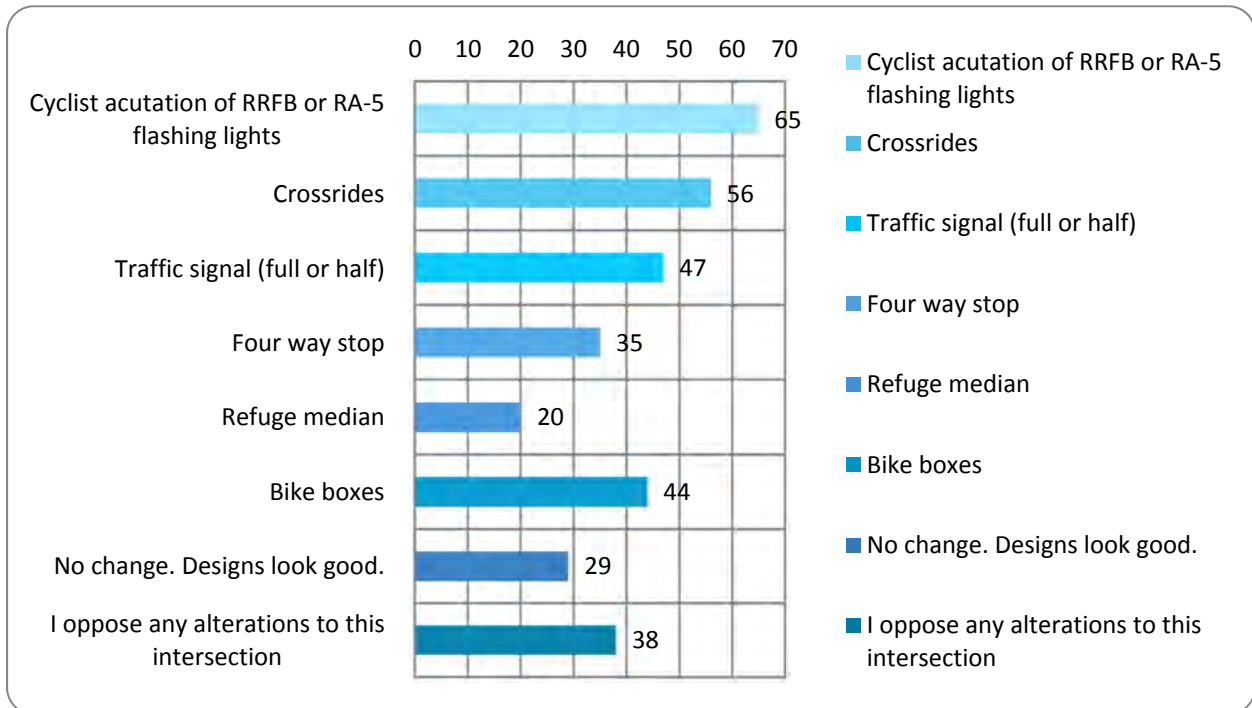
The most preferred option for the Creighton – North intersection crossing was cyclist actuation of RRFB or RA-5 flashing lights, preferred by 38% of respondents. The second most preferred option was a traffic signal (33%) and third most preferred was crossrides (31%). An additional 19.5% of respondents indicated that they oppose any alterations to this intersection.

13. b) What changes to these designs are necessary to help facilitate the comfortable and convenient crossing of this major intersection on a bicycle? Creighton - Cunard. Check all that apply



The most preferred option for the Creighton – Cunard intersection crossing was cyclist actuation of RRFB or RA-5 flashing lights, preferred by 34% of respondents. The second most preferred option was a crossride (28%), and the third was a traffic signal (23%). An additional 21% of respondents indicated that they oppose any alterations to this intersection.

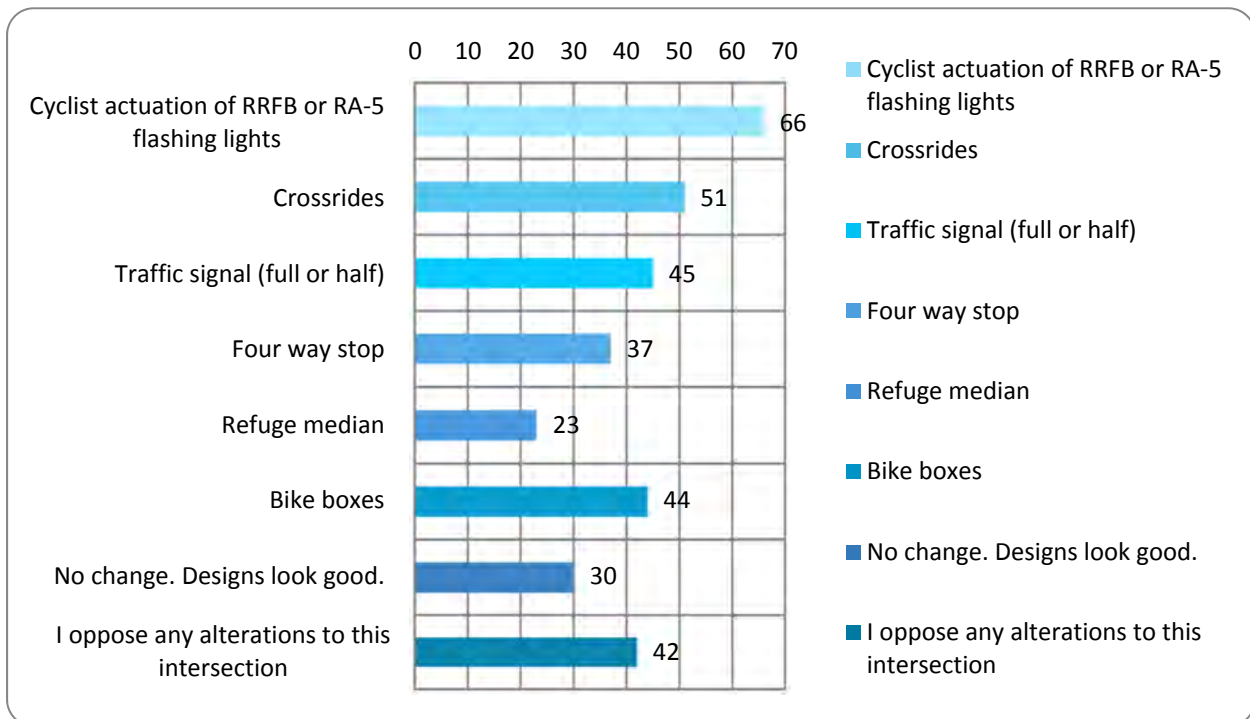
13. c) What changes to these designs are necessary to help facilitate the comfortable and convenient crossing of this major intersection on a bicycle? Maynard - Cunard. Check all that apply



The most preferred option for the Maynard - Cunard intersection crossing was cyclist actuation of RRFB or RA-5 flashing lights, preferred by 33% of respondents. The second most preferred option was a crossride (28%), and the third was a traffic signal (24%). An additional 19% of respondents indicated that they oppose any alterations to this intersection.

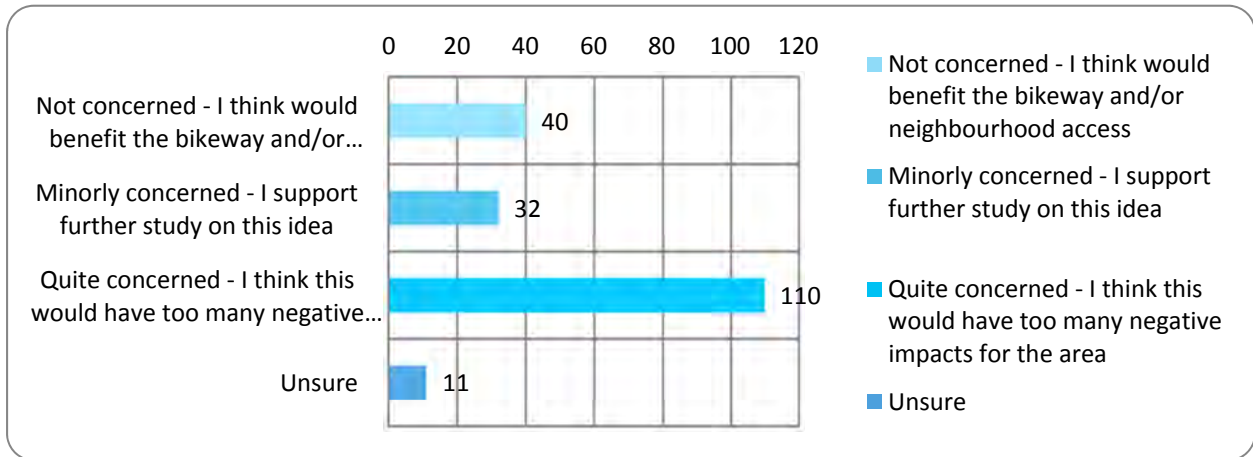
13. d) What changes to these designs are necessary to help facilitate the comfortable and convenient crossing of this major intersection on a bicycle? Creighton-Cornwallis. Check all that apply

13. e) What changes to these designs are necessary to help facilitate the comfortable and convenient crossing of this major intersection on a bicycle? Maynard - Cornwallis. Check all that apply



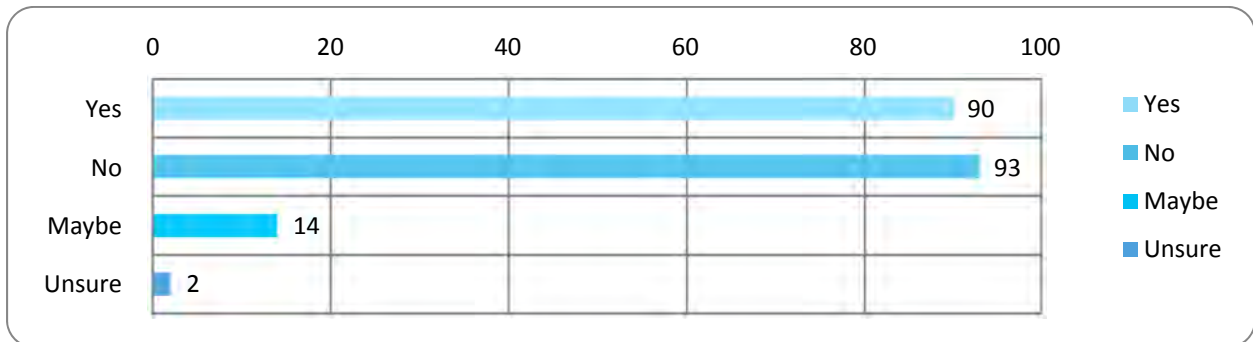
The most preferred option for the Maynard - Cunard intersection crossing was cyclist actuation of RRFB or RA-5 flashing lights, preferred by 33% of respondents. The second most preferred option was a crossride (26%), and the third was a traffic signal (21%). An additional 21% of respondents indicated that they oppose any alterations to this intersection.

14. Creighton Street and Northwood Terrace are currently one-way streets in the southbound direction, however, the streets are wide enough to accommodate two-way traffic. This would allow a two-way local street bikeway facility to be put on Creighton and Northwood. How concerned are you if both Creighton and Northwood were to become two-way for vehicles and bicycles?



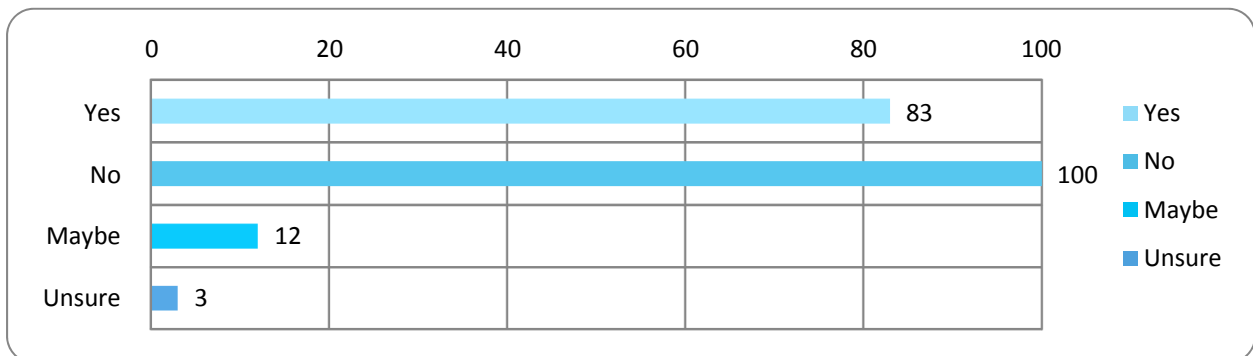
Respondents indicated that 55% would be ‘quite concerned’ about the negative impacts in the area of Creighton Street and Northwood Terrace were to become two-way vehicle and bicycle streets. Meanwhile, 20% indicated that they would not be concerned and would support this idea, and another 16% indicated that they would be minorly concerned but would support further exploration of this idea.

15. I am willing to consider bikeway treatments on Creighton/Northwood that require some parking loss (could mean a reduction of 15% - 25% of on-street parking).



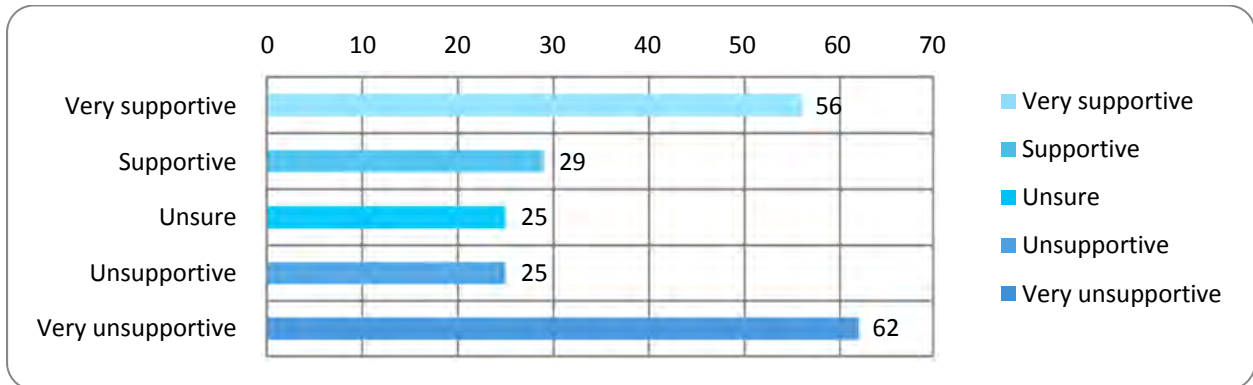
When asked whether a 15% - 25% reduction in parking should be considered in order to introduce bikeway treatments on Creighton/Northwood, 47% of respondents answered 'no', while 45% of respondents answered 'yes'. The remaining 7% were 'maybe' and 1% were unsure.

16. I am willing to consider bikeway treatments on Creighton/Northwood that require loss of parking on one side of the street (about 50%).



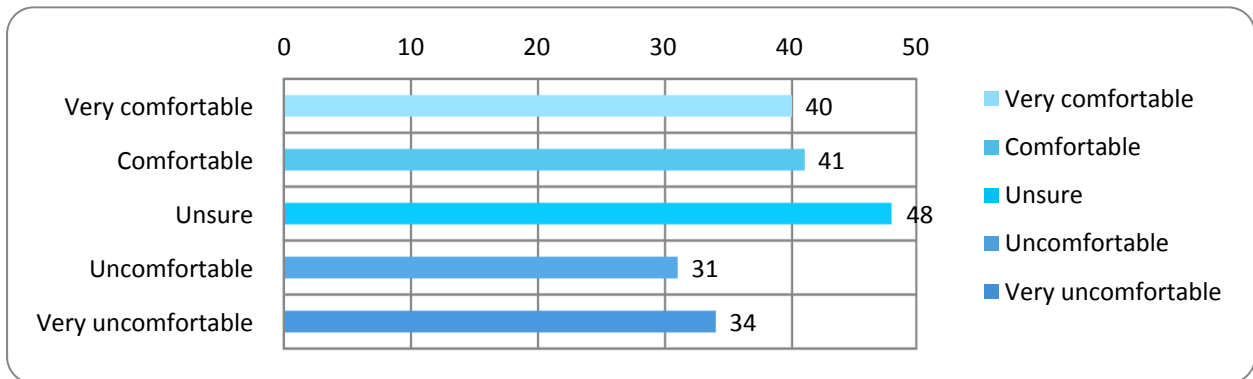
When asked whether a 50% reduction in parking should be considered in order to introduce bikeway treatments on Creighton/Northwood, 50% of respondents answered 'no', while 42% of respondents answered 'yes'. The remaining 6% were 'maybe' and 2% were unsure.

17. Converting Creighton/Northwood into a two-way Local Street Bikeway may require traffic diversion measures to minimize the resulting vehicular traffic volumes. Such measures improve safety and facilitate pedestrian and bicycle movements but can make accessing homes in this area more indirect. How supportive are you of potential traffic diversion measures on these streets?



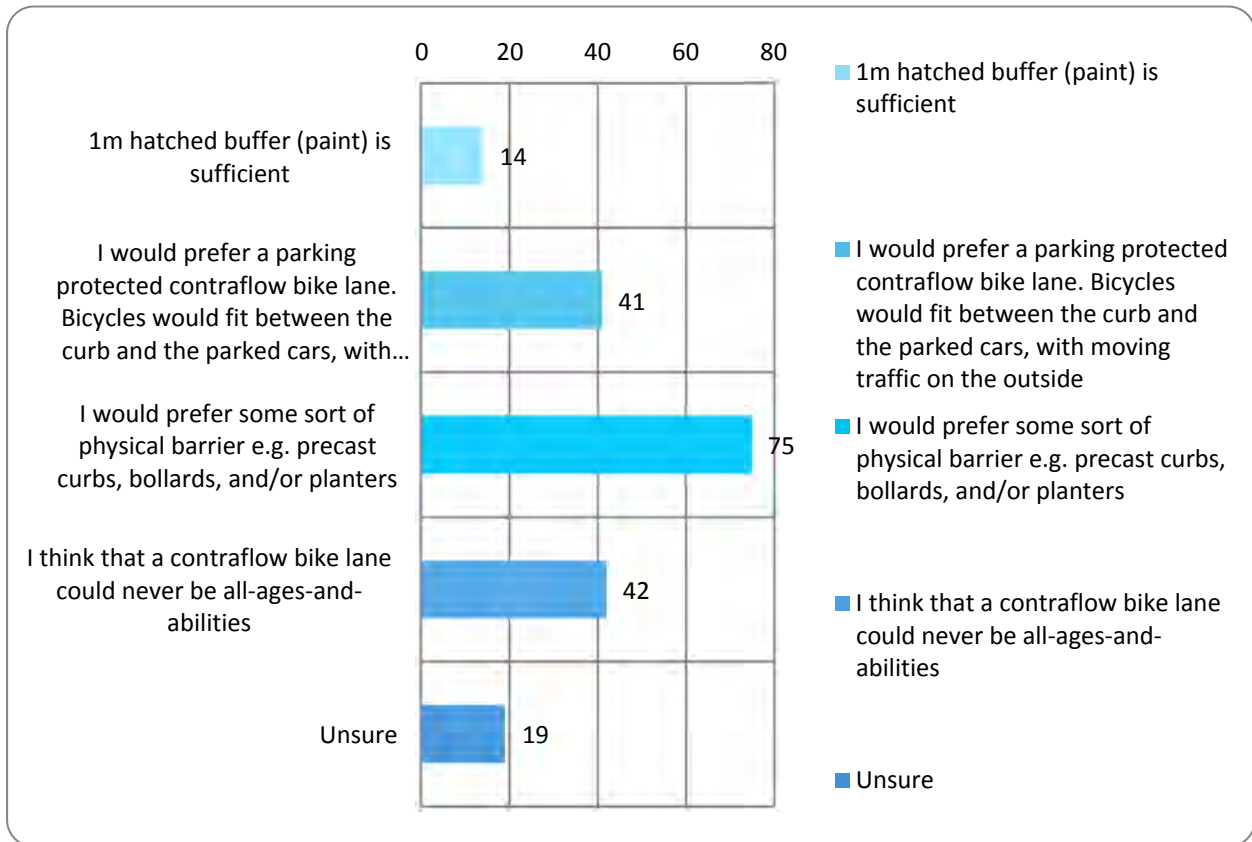
A total of 31% of respondents were ‘very unresponsive’ of traffic diversion in order to create a two-way local street bikeway at Creighton/Northwood, while 28% were ‘very supportive’ of this initiative. The remaining 14.5% were ‘supportive’, 12.5% were ‘unresponsive’, and 12.5% were ‘unsure’.

18. From the perspective of someone riding a bicycle, please rate your comfort level riding on a contraflow painted bike lane against the flow of traffic on Creighton St. or Northwood Terrace.



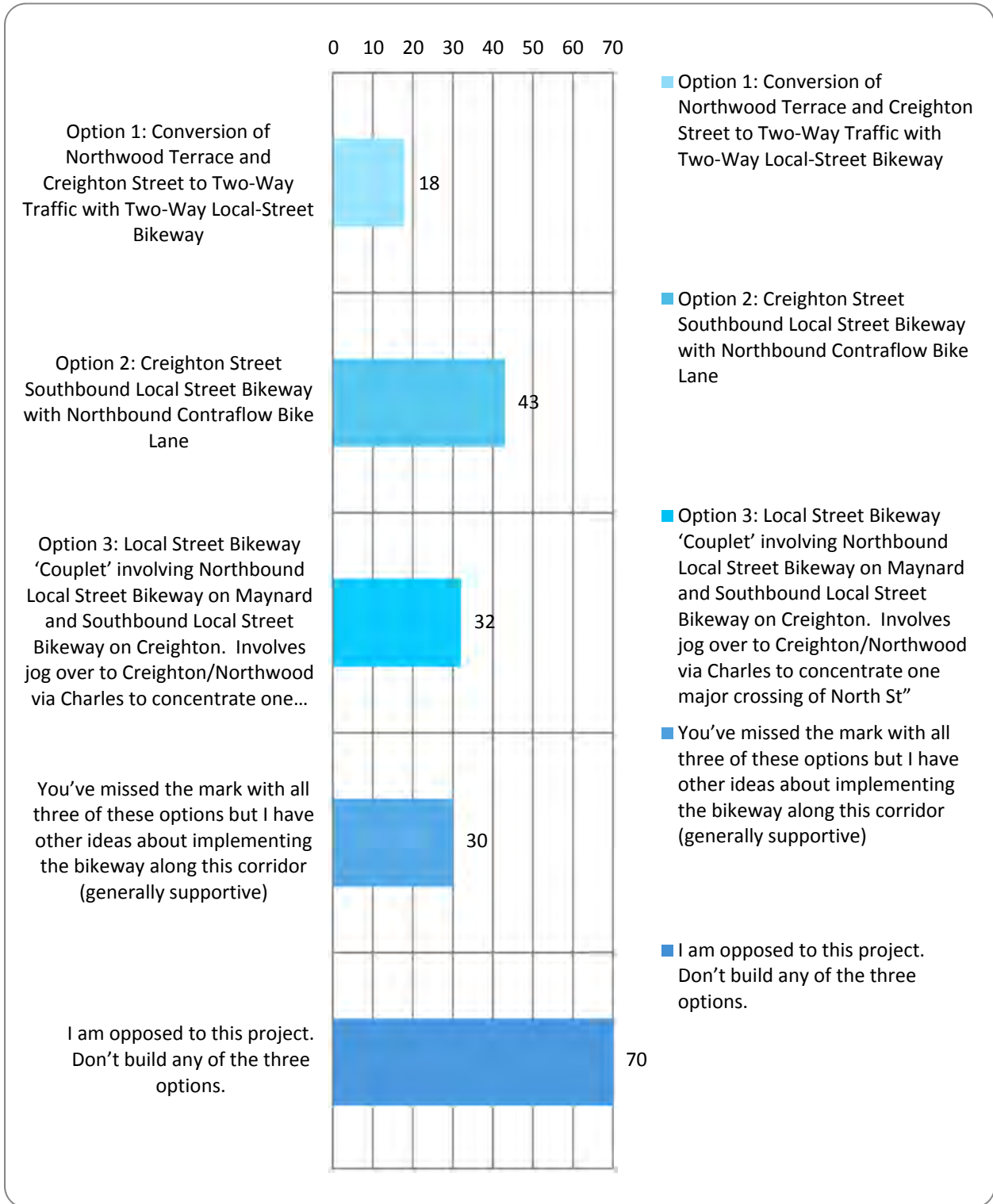
When asked how comfortable a contraflow painted bike lane would feel from the perspective of someone riding a bicycle, 24% indicated that they were ‘unsure’. Of those who answered positively or negatively, 17% said this would be ‘very uncomfortable’ for a person on a bike and 15.5% said it would be ‘uncomfortable’, while 20% said this would be ‘very comfortable’ and 21% said this would be ‘comfortable’.

19. The following treatments are necessary to make this contraflow painted bike lane comfortable for all-ages-and-abilities of people riding bicycles:



When asked which treatments would be comfortable for all ages and abilities, (i.e., a ‘AAA’ facility), 38% of respondents indicated that they would prefer some sort of physical barriers, like bollards or planters, and 21% said that parking protecting the contraflow lane would be preferred. On the opposite end of the spectrum, 7% of respondents indicated that a 1m hatched (painted) buffer is sufficient. A remaining 21% said that a contraflow bike lane ‘could never be all ages and abilities’.

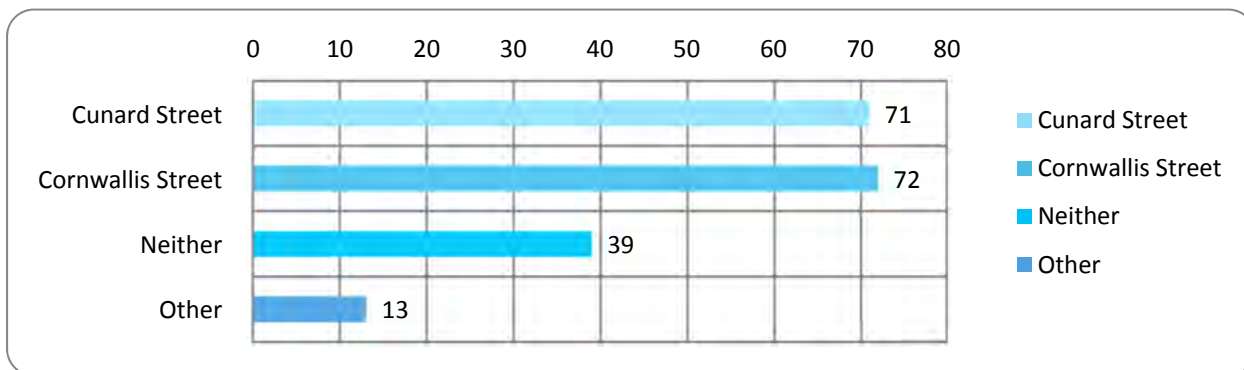
20. Which of the three routing options presented best meets the objectives of a safe, comfortable, and convenient cycling corridor? (See Appendix B)



When asked which routing option is preferred, 22% of respondents indicated that Option 2, the Creighton Street Southbound Local Street Bikeway with a northbound contraflow bikeway was their preferred option. Option 3, LSB couplets going northbound on Maynard Street and southbound on Creighton Street,

was the second most preferred option at 16% of respondents. Option 1 was only preferred by 9% of respondents. A total of 15% of respondents are generally supportive of building the bikeway but do not feel that any of these options meet their needs. The greatest number of respondents (35%) are opposed to the project entirely.

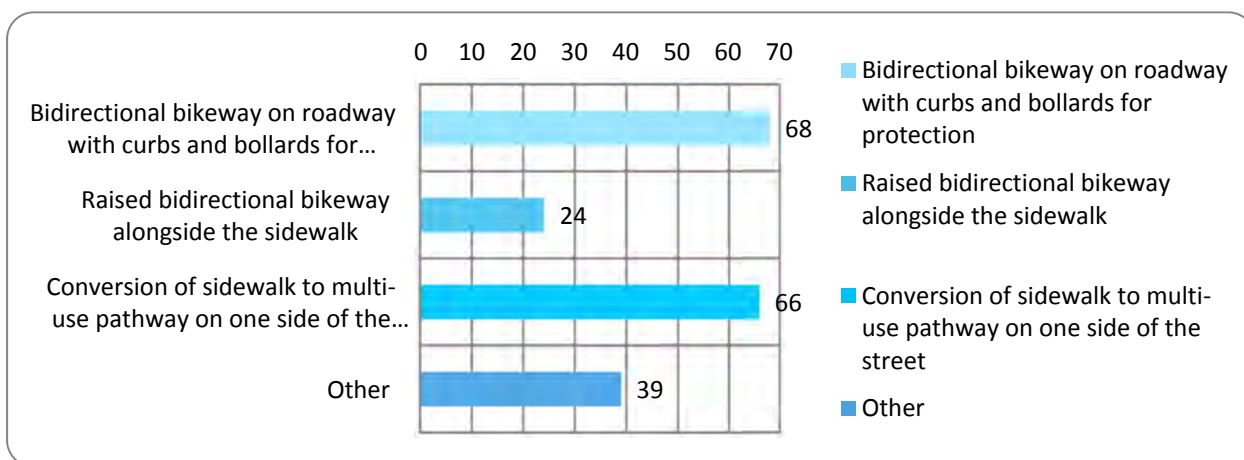
21. One aspect of this project includes consideration of an all-ages-and-abilities connection to the Halifax Common. Which road makes the most sense for comfort, convenience, and neighbourhood connections? (see Appendix B, page 9)



The preferred option for connecting the proposed bikeway to the Halifax Common is virtually tied, with 36.1% preferring Cornwallis Street and 35.6% preferring Cunard Street. A total of 19.5% prefer neither option, while 6.5% indicated ‘other’. Those who answered other gave the following responses:

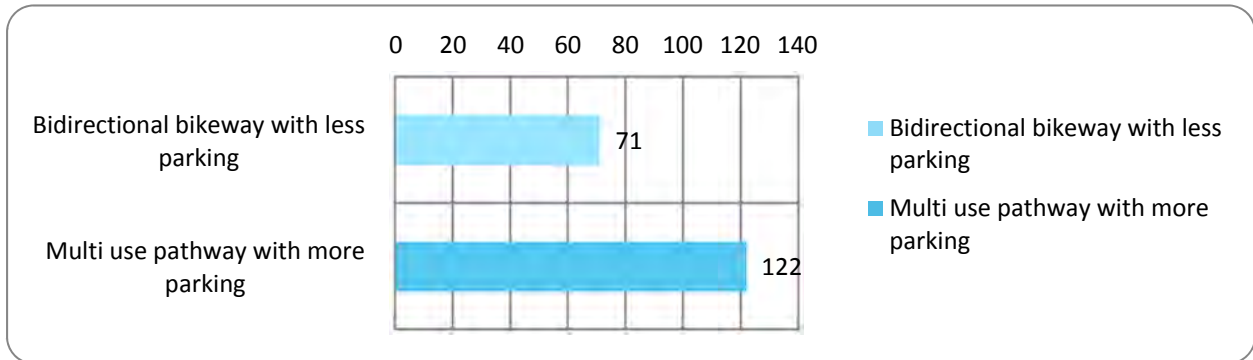
- Multi use pathway is safer, especially for children in the neighbourhood
- Commons should be connected at both Cunard and Cornwallis Streets
- Pursue only traffic calming in this area, that is sufficient
- Agricola Street should have a bike facility that connects to the Common

22. My preferred type of facility to make this connection (to the Halifax Common) is: (see Appendix B, page 9)



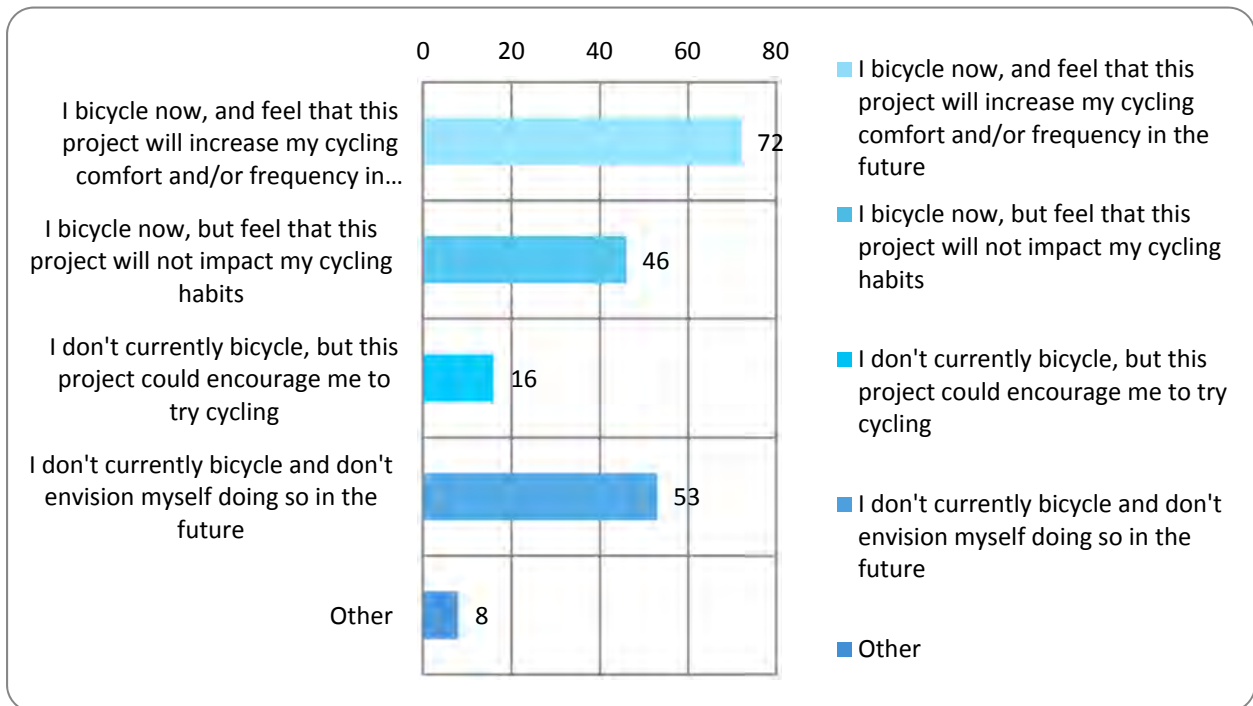
The most preferred facility option for the connection to the Halifax Common is the bidirectional bikeway on the roadway with curbs and bollards for protection (34%), while the second most preferred is the conversion of the sidewalk to a multi-use pathway (33%). A raised bi-directional bikeway along the sidewalk was the least-preferred option (12%), while 20% said ‘other’. Of those who said ‘other’, only one used the additional comment box to indicate that while they preferred the bidirectional bikeway option, they would support the multi-use path if necessary.

23. These different options have different impacts on parking and cyclist comfort. The bidirectional bikeway option (on the road or raised alongside the sidewalk) are more bicycle-specific but could have a greater impact on parking. The multi use pathway in place of sidewalk would involve interaction with pedestrians but could have less of an impact on parking. With this knowledge of trade-offs, which do you prefer:



When asked whether they prefer a bidirectional bikeway with less parking (for the connection to the Halifax Common) or a multi-use pathway with more parking, 63% of respondents preferred the latter option, while 37% of respondents preferred the former.

24. How do you anticipate that construction of the North End 'AAA' Bikeway will impact your cycling habits in the future?



When asked whether the North End 'AAA' Bikeway would impact their cycling habits, a total of 45% of respondents indicated that this facility would likely increase their cycling habits or encourage them to try cycling. Of those who currently bicycle, 23.5% indicated that this facility would not impact their cycling habits. Of those who do not current bicycle, 27% indicated that they do not believe this facility would encourage them to choose cycling. A remaining 4% also indicated 'other', and specified that:

- This project will enable me to cycle with my children and others in my family (2)

- *This proposal does not prioritize cyclists, if it did it might encourage me to cycle more*
- *Better to put bike lanes on Gottingen and Agricola where businesses are*
- *Don't want to share road with cars, would rather share paths with pedestrians*
- *Physical barriers are needed for me to feel comfortable taking my children cycling*
- *Remove commuter parking on Creighton/Maynard*

25. Please use the box below to communicate any other comments you may have about the project.

See Appendix G for a complete transcript of additional comments with personal information and identifying characteristics redacted.

West End 'AAA' Bikeway

West End 'AAA' Bikeway Overview

The functional design options for the West End Bikeway are summarized below. Further visuals of each option have been presented in Appendix C. In some cases, participants from the open houses commented specially on route options and proposed infrastructure for different sections of the West End Bike Way. Those results are presented with each section.

WEST END SECTION 1: West End Mall to Connaught Avenue

Local Street Bikeways and Potential Traffic Calming



Yellow LSBs and Pink Traffic Calming
(Dotted lines in Section 2)

There were no comments from participants specific to West End Section 1.

WEST END SECTION 2, Option 1: Local Street Bikeway on Liverpool Street



WEST END SECTION 2, Option 2: Local Street Bikeway on London Street



Comments from participants on West End, Section 2:

- Would prefer activated intersections where people do not need to dismount from their bikes
- Do not require pedestrians or cyclists to press a button to cross
- Do not require dismounting
- A bicycle detection/activation should be used here
- It is challenging to turn left at the Windsor intersections, this needs to be accounted for in design

WEST END SECTION 3, Option 3A: Extension of 'AAA' Facility Through Pinch Point



**Almon Street looking Eastward:
Protected Bicycle Facility through
Connaught Avenue Pinch Point**



**Connaught Avenue and Almon Street
Protected Section**

There were no comments from participants specific to West End Section 3, Option 3A.

WEST END SECTION 3, Option 3B: Connection to LSB Facility via Connolly Street



Almon Street looking Westward: Separated Bicycle Lanes in both directions



LSBs on Liverpool Street OR London Street, connecting to LSB on Connolly Street

There were no comments from participants specific to West End Section 3, Option 3B.

West End 'AAA' Open House Comments

During the Public Open House, participants were asked questions specifically about route options and infrastructure treatments for the West End Bike Way.

Response from participants at the Open House was generally positive to the West End Bikeway project, with the exception of some residents from the neighbourhood who were concerned about the loss of street parking for those visiting them or for deliveries. Some participants indicated that they felt it was unnecessary to build cycling infrastructure in these neighbourhoods since cyclists already use these streets. Others indicated that being a neighbourhood with many young families, it is important that infrastructure is safe for all ages and abilities 'AAA'.

When asked what traffic calming measures would be preferred for the West End Bikeway, participants answered:

- *Speed bumps was the top answer from participants, while many also highlighted that curb extensions are preferable.*
- *Many participants added that traffic calming should not inconvenience cyclists (i.e. they should be able to avoid speed bumps, should not have to dismount to press button to calm traffic, etc.)*
- *Some participants favoured traffic diversion and noted that few changes are needed if "commuter traffic" is diverted, because the streets are often calm in the West End.*
- *Some noted that a loss of parking is not desired, particularly near the Apostles Church.*

Participants were asked which West End Bike Way routing options best meet the objective of a safe, comfortable, and convenient cycling corridor.

- *The top answer was for Option 3A, the 'AAA' bike corridor from Connaught to Windsor on Almon Street, however some noted that Option 3B is preferable due to the loss of mature trees proposed in Option 3A.*
- *Respondents also felt positively about having LSBs introduced on Liverpool Street or London Street, with slightly more favouring the Liverpool Street option.*
- *It was noted by participants that if LSBs are used, the crossing treatment for cyclists turning left onto Windsor Street would need to be upgraded.*
- *One participant noted that an alternative option might be both Liverpool and London Streets, one for westward moving bicycles, and the other for eastward moving bicycles.*
- *Some respondents said that there is no need for any cycling infrastructure in the Westmount Subdivision. One concern is that fast moving bicycles might endanger children walking to school.*

There were 139 participants in the West End Bikeway Survey. Of these participants, roughly 75% are nearby or directly abutting residents to the proposed bikeway, while an additional 33% were interested members of the general public. The overall response to the proposed options was positive, however roughly 8%-12% of participants indicated that they did not want any change to occur on any of the proposed corridors.

Additionally, HRM received a series of emails from residents voicing concerns or support about the proposed West End Bikeway. These emails were predominantly from nearby residents and those who cycle in the West End and were mostly in opposition to the project due to not desiring traffic calming in the West End and concern about loss of parking. The complete text of these emails with names and personal information redacted can be found in Appendix B.

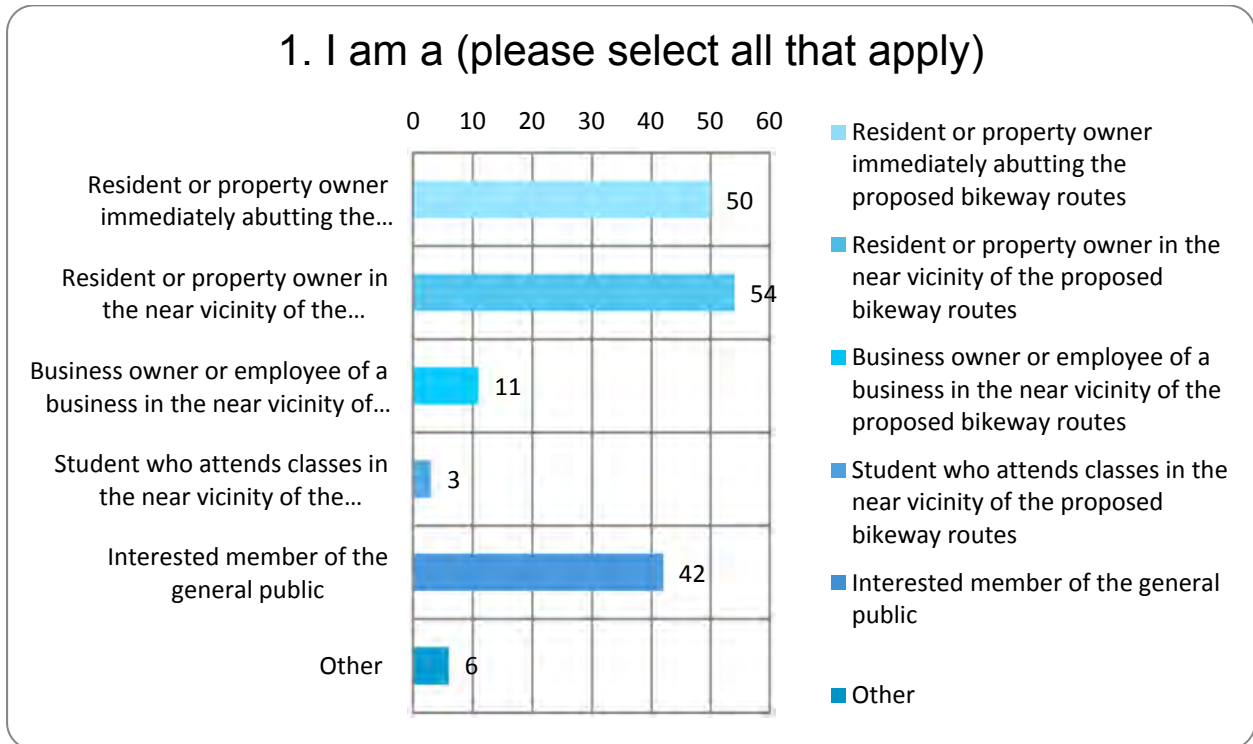
HRM received a series of phone calls about the West End Bikeway project as well. The transcripts of these phone calls with names and personal information redacted can also be found in Appendix D.

WEST END 'AAA' Survey Comments

Participants were asked 17 questions as part of the online and paper survey. An unedited version of the West End 'AAA' Survey can be found in Appendix E.

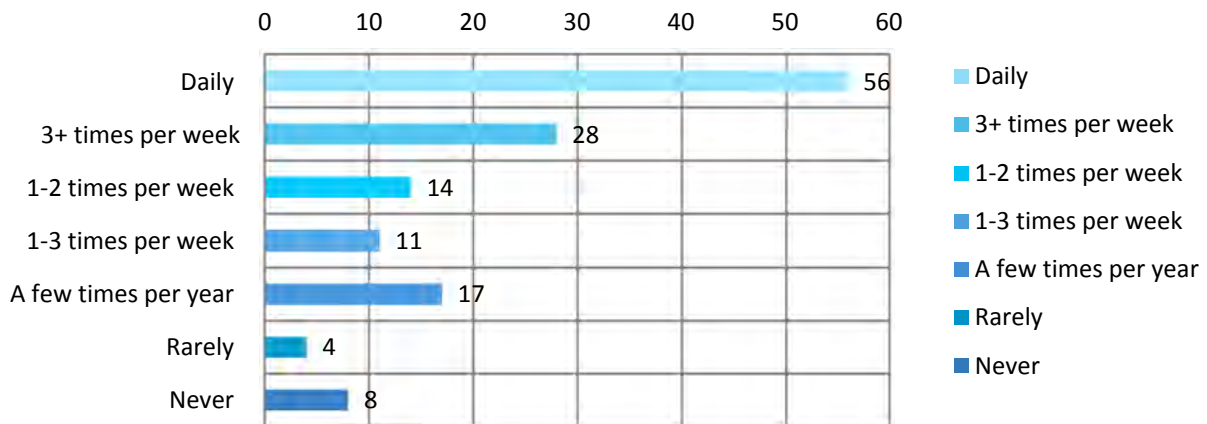
Qualifying Questions

Qualifying questions were asked to participants to understand who was taking part in the survey and what their interests may be.



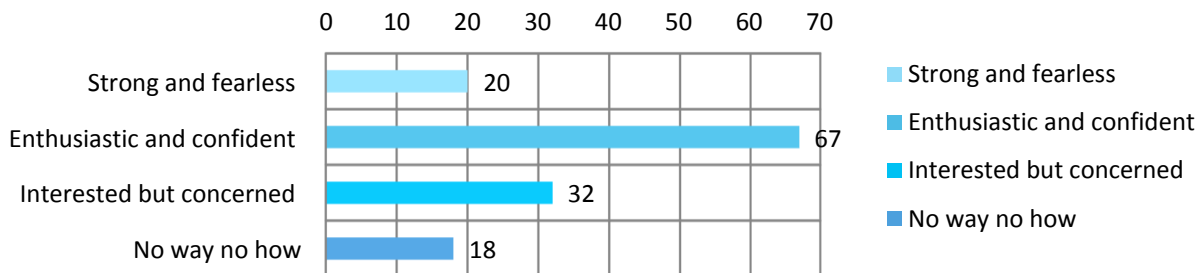
Of the 138 participants, about 36% of respondents qualified themselves as residents or property owners immediately abutting the proposed bikeway routes. An additional 39% identified themselves as a resident or property owner in the vicinity of the proposed bikeway routes. Thirty percent identified themselves as interested members of the general public, 8% identified as business owners or employees of businesses in the vicinity, 2% identified as students who attend classes in the vicinity, and 4% identified as "other".

2. How often do you walk or cycle along the proposed routes (or in the near vicinity)?



The second qualifying question aimed to gauge how often participants in the survey already used active transportation in this community. The findings were that 40.5% either walk or cycle along the proposed routes or in the vicinity daily and an additional 20% do so three or more times per week. About 12% only walk or cycle along this route a few times per year. On the other end of the spectrum, 2% indicated that they rarely use active transportation in this vicinity, and an additional 6% said they never do.

3. How would you describe your level of comfort with cycling?

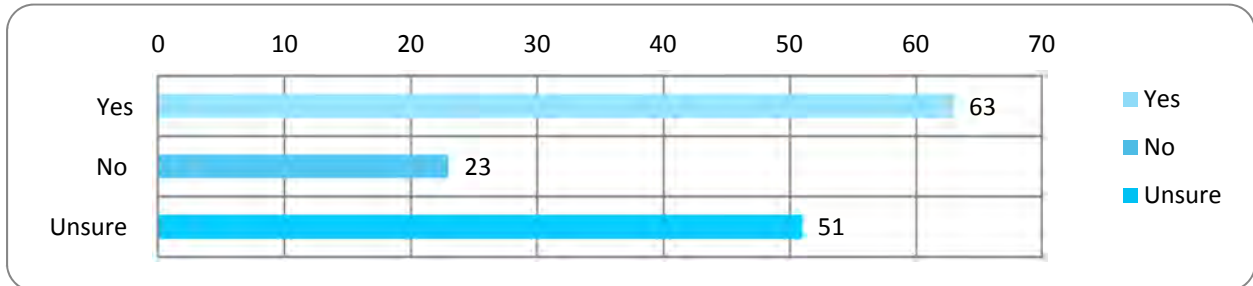


The final qualifying question asked participants what their comfort level with cycling is. This tool helps to understand what sort of facilities respondents might prefer (i.e. if answered 'strong and fearless', a facility shared with vehicular traffic comfortable; or if answered 'interested but concerned', a protected facility would likely be preferred), however this is not a direct correlation. To this question, only 14% of respondents indicated that they were strong and fearless, while 48.5% indicated they were enthusiastic and confident, and 23% said they were interested but concerned. The remaining 13% said 'no way no how', indicating that they do not feel comfortable cycling whatsoever.

Survey Questions

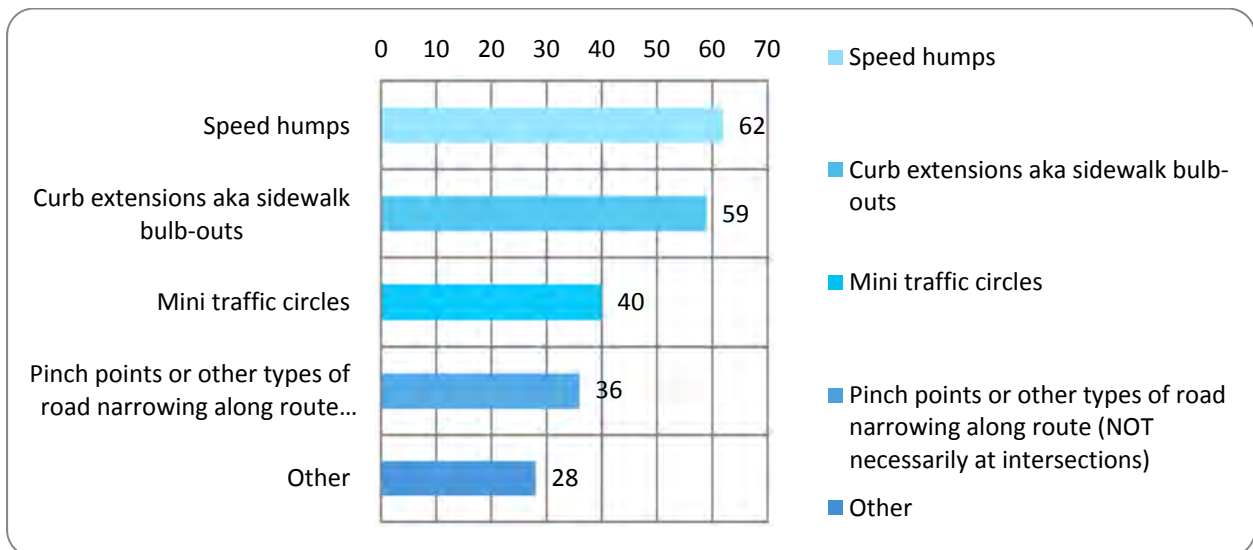
A total of 18 questions were asked as part of the online survey. The following section is a summary of responses received from participants for each question. For visual context to these questions, see Appendix C.

4. Does the section of West End Bikeway between West End Mall (Leppert St) and Connaught Ave meet the objectives of creating a safe and convenient cycling corridor? (See Appendix C)



When asked about the proposed Local Street Bikeway connection from the West End Mall eastward to Connaught Avenue meets the objectives of a safe and convenient cycling corridor, 46% answered 'yes', 16% answered 'no', and 37% were 'unsure'.

5. What is your preferred type of traffic calming (speed reduction measures) for this segment between West End Mall (Leppert St) and Connaught Ave? (Check all that apply)

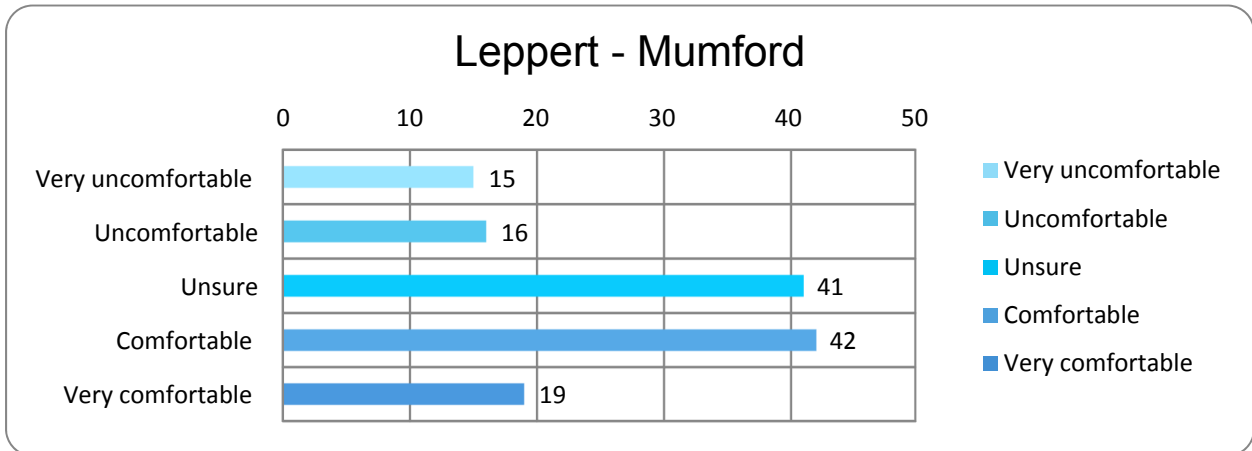


The preferred intersection treatment for the West End Bikeway segment between Leppert Street and Connaught Avenue was nearly tied between curb extensions/sidewalk bulb-outs (43%) and speed humps (45%). The second most preferred options were mini traffic circles (29%) and pinch points or other types of road narrowing (26%). Of the 20% of people who answered 'other', summarized responses included:

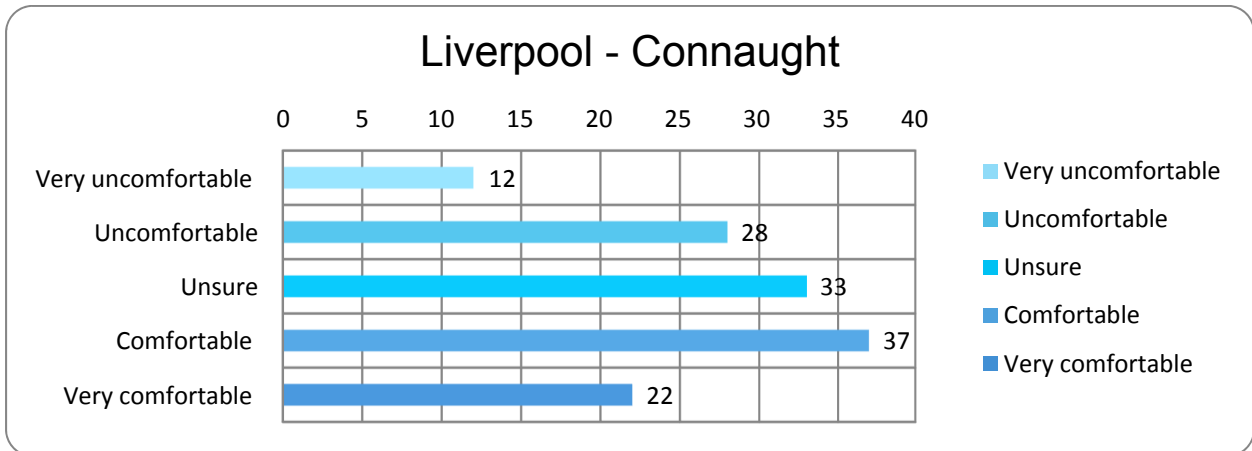
- No traffic calming needed (10)
- Painted bikeway/slowed traffic on Mumford Rd (2)

- Protected bicycle facilities (4)
- Traffic speed reduced to 30 km/hr (6)
- Not sure/does not affect me (2)
- Better speed enforcement (1)
- Signage to say 'share the road' (2)

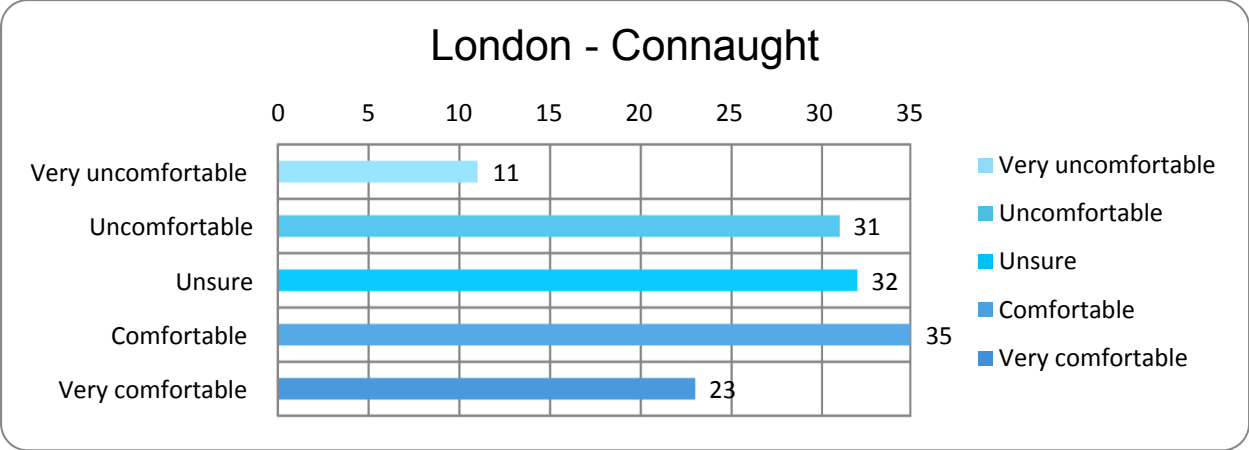
6. How comfortable are you with the proposed crossing treatments at the major intersections along the route: (See Appendix C)



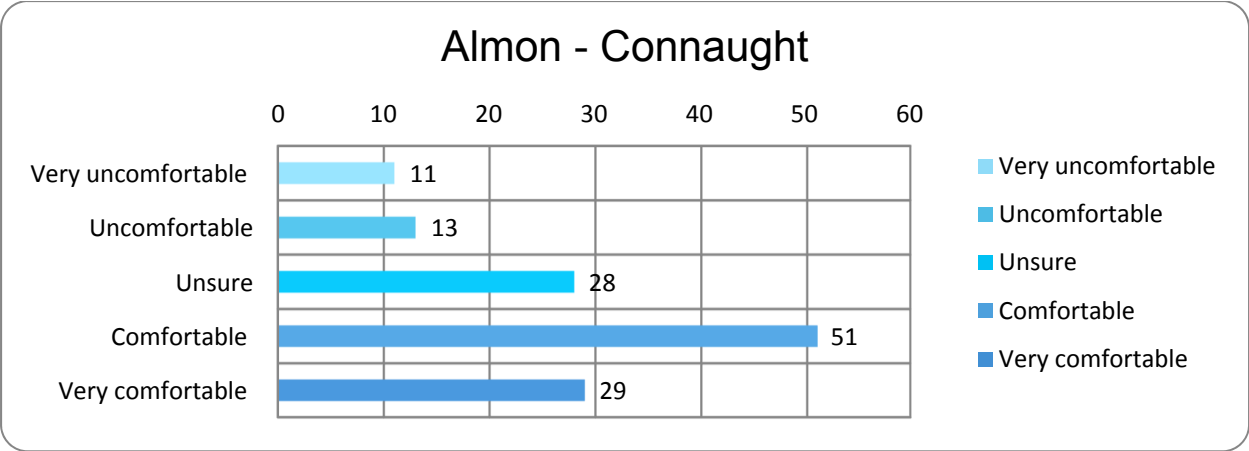
More than 30% of respondents indicated that they are 'comfortable' with the proposed Leppert - Mumford crossing treatment, which is a push-activated crosswalk where cyclists must dismount to cross. An additional 14% indicated that they are 'very comfortable' with this treatment, while 22% said they were either 'very uncomfortable' or 'uncomfortable' with this proposed treatment. Thirty percent were 'unsure'.



Twenty-seven percent of respondents indicated that they are 'comfortable' with the proposed Liverpool - Connaught crossing treatment, which is a push-activated crosswalk where cyclists must dismount to cross. An additional 16% indicated that they are 'very comfortable' with this treatment, while 29% said they were either 'very uncomfortable' or 'uncomfortable' with this proposed treatment. Twenty-four percent were 'unsure'.

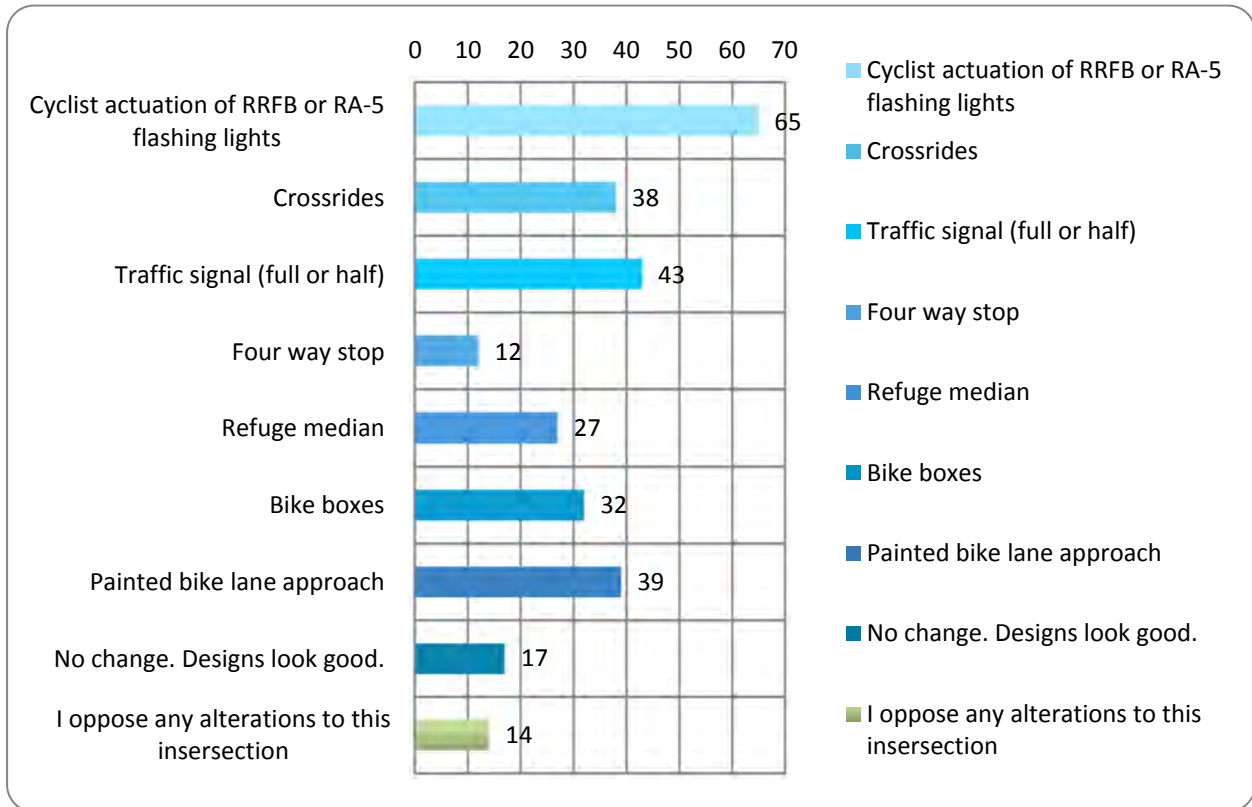


Twenty-five percent of respondents indicated that they are 'comfortable' with the proposed Liverpool - Connaught crossing treatment, which is a push-activated crosswalk where cyclists must dismount to cross. An additional 17% indicated that they are 'very comfortable' with this treatment, while 30% said they were either 'very uncomfortable' or 'uncomfortable' with this proposed treatment. Twenty-three percent were 'unsure'.



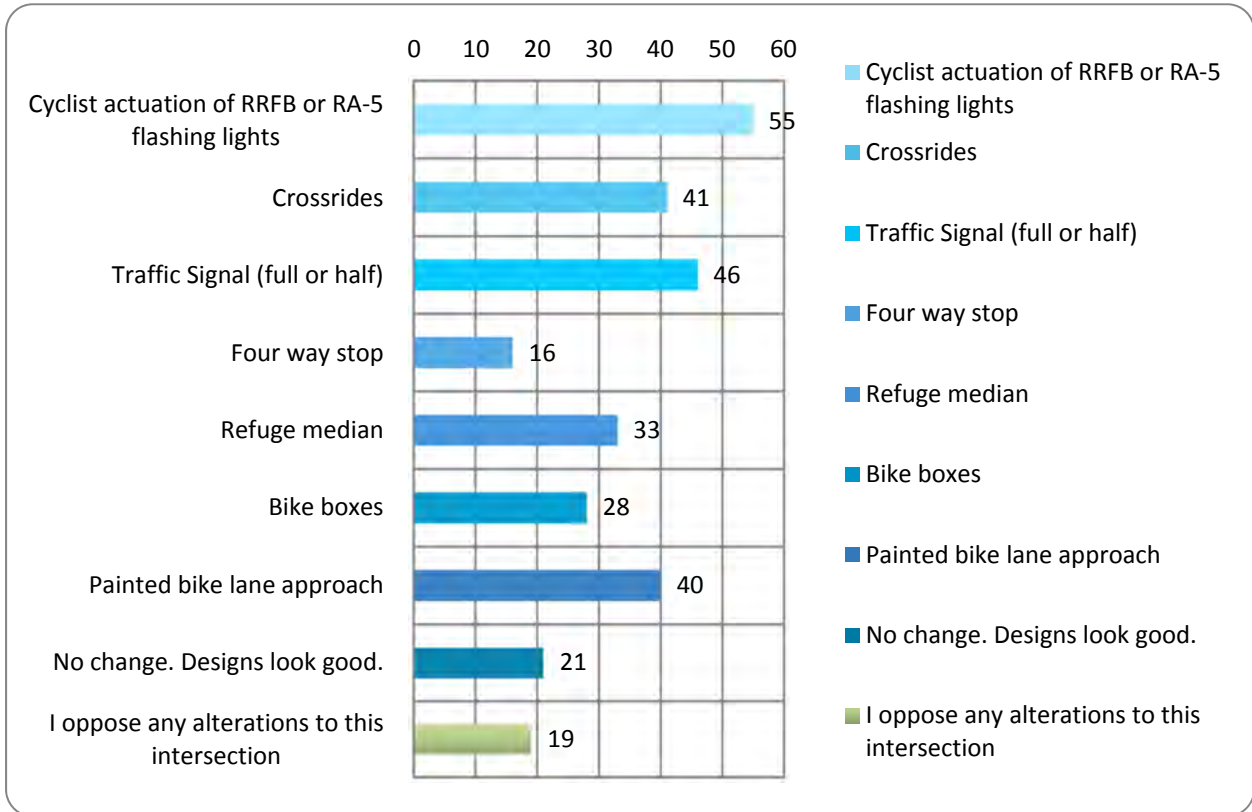
Thirty-seven percent of respondents indicated that they are 'comfortable' with the proposed Liverpool - Connaught crossing treatment, which is an RRFB pedestrian crossing to the protected facilities on Almon. An additional 21% indicated that they are 'very comfortable' with this treatment, while 17% said they were either 'very uncomfortable' or 'uncomfortable' with this proposed treatment. Twenty percent were 'unsure'.

7. a) What changes to these designs are necessary to help facilitate the comfortable and convenient crossing of this major intersection on a bicycle? Leppert - Mumford. (Check all that apply)



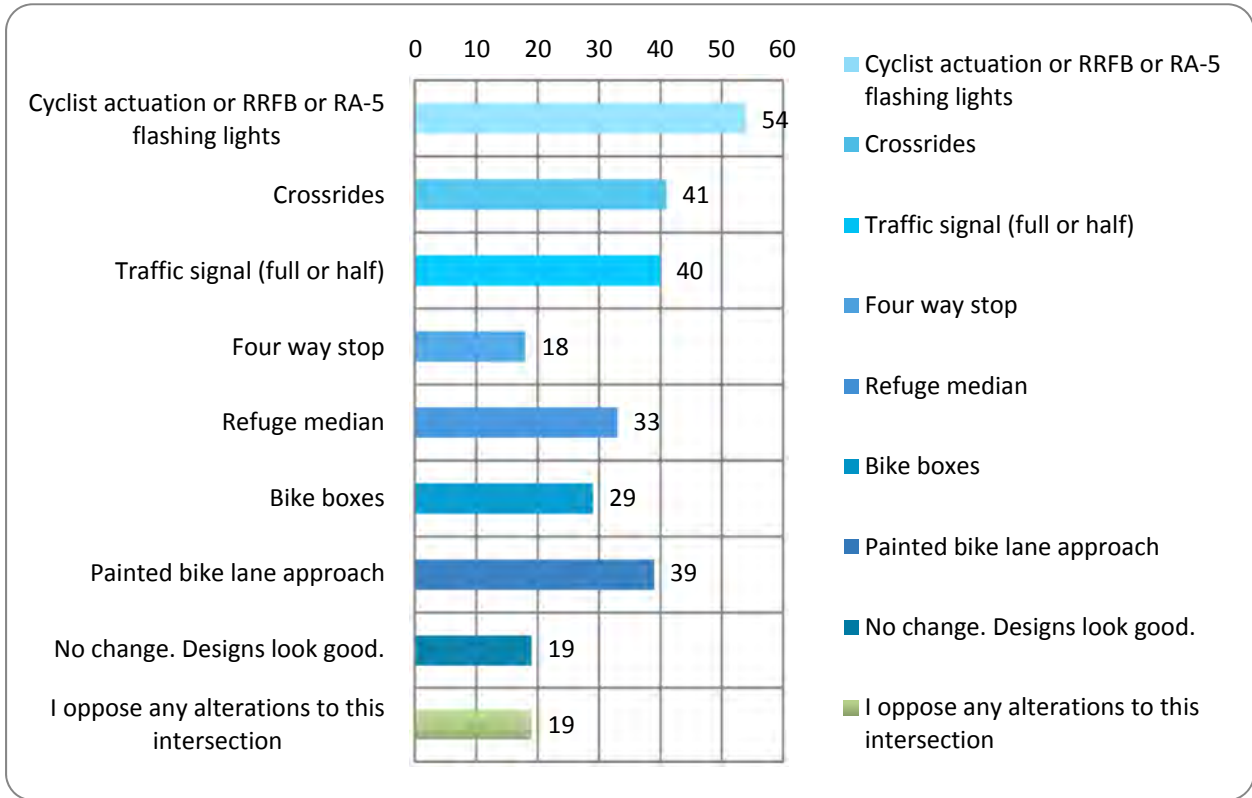
The most preferred design for the Leppert – Mumford intersection crossing is cyclist actuation of RRFB or RA-5 flashing lights, selected by 47% of respondents. The second most preferred options were a traffic signal (31%), a painted bike lane approach (28%), and crossrides (27.5%). About 10% of respondents indicated that they oppose any alterations to the intersection.

7. b) What changes to these designs are necessary to help facilitate the comfortable and convenient crossing of this major intersection on a bicycle? Liverpool - Connaught. (Check all that apply)



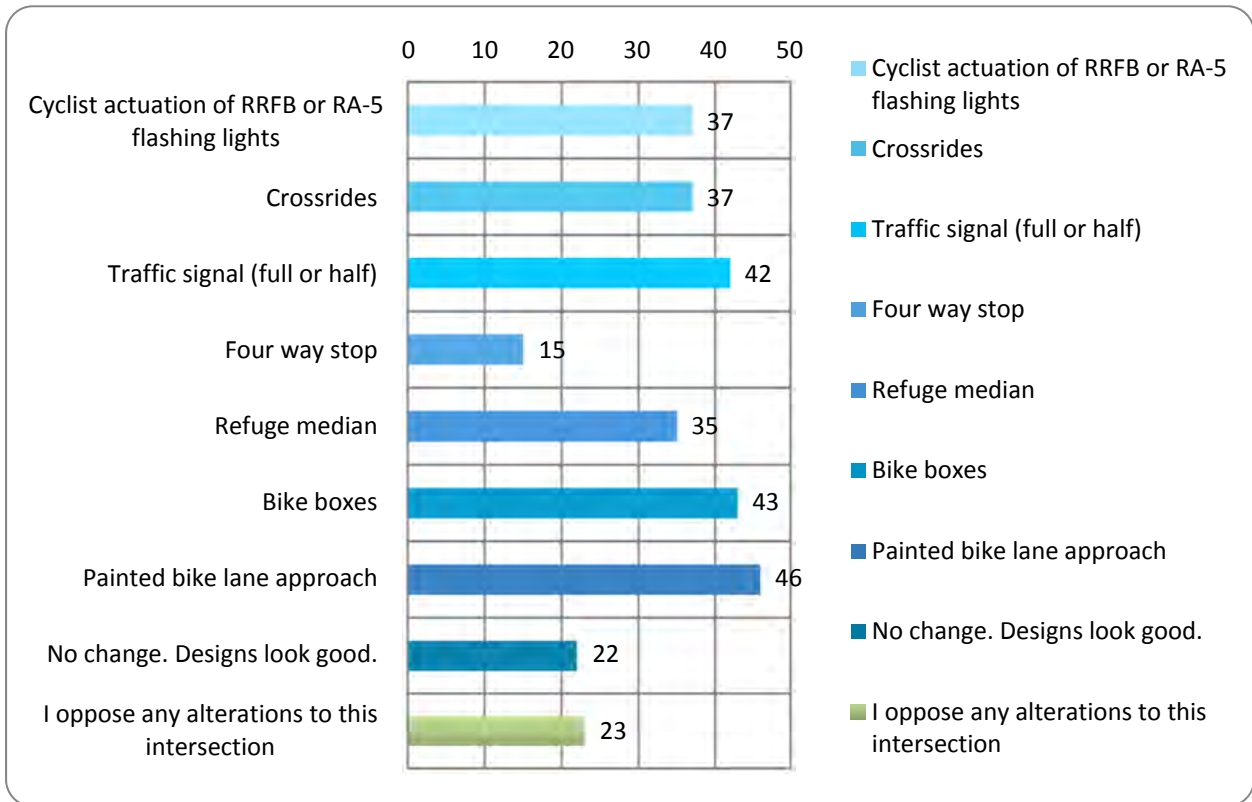
The most preferred design for the Liverpool - Connaught intersection crossing is cyclist actuation of RRFB or RA-5 flashing lights, selected by 40% of respondents. The second most preferred option was a traffic signal (33%) a traffic signal and the third was crossrides (30%). About 14% of respondents indicated that they oppose any alterations to the intersection.

7. c) What changes to these designs are necessary to help facilitate the comfortable and convenient crossing of this major intersection on a bicycle? London - Connaught. (Check all that apply)



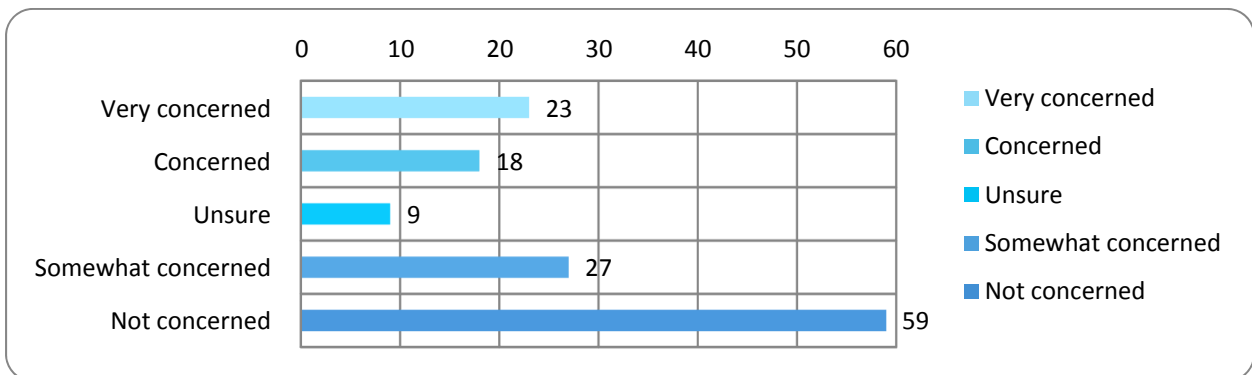
The most preferred design for the London - Connaught intersection crossing is cyclist actuation of RRFB or RA-5 flashing lights, selected by about 39% of respondents. The second, third, and fourth options were closely tied at painted bike lane approach (28%), traffic signal (29%) and crossrides (30%). About 14% of respondents indicated that they oppose any alterations to the intersection.

7. d) What changes to these designs are necessary to help facilitate the comfortable and convenient crossing of this major intersection on a bicycle? Almon - Connaught. (Check all that apply)



The most preferred design for the Almon - Connaught intersection is a painted bike lane approach, selected by about 33% of respondents. The second most preferred was bike boxes (31%), and third was a traffic signal (30%). About 17% of respondents indicated that they oppose any alterations to the intersection.

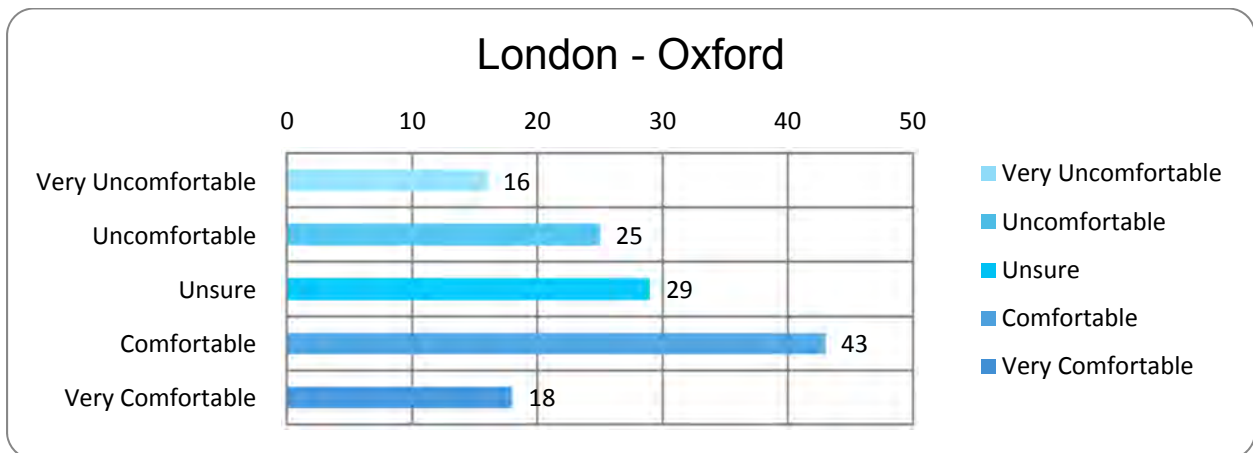
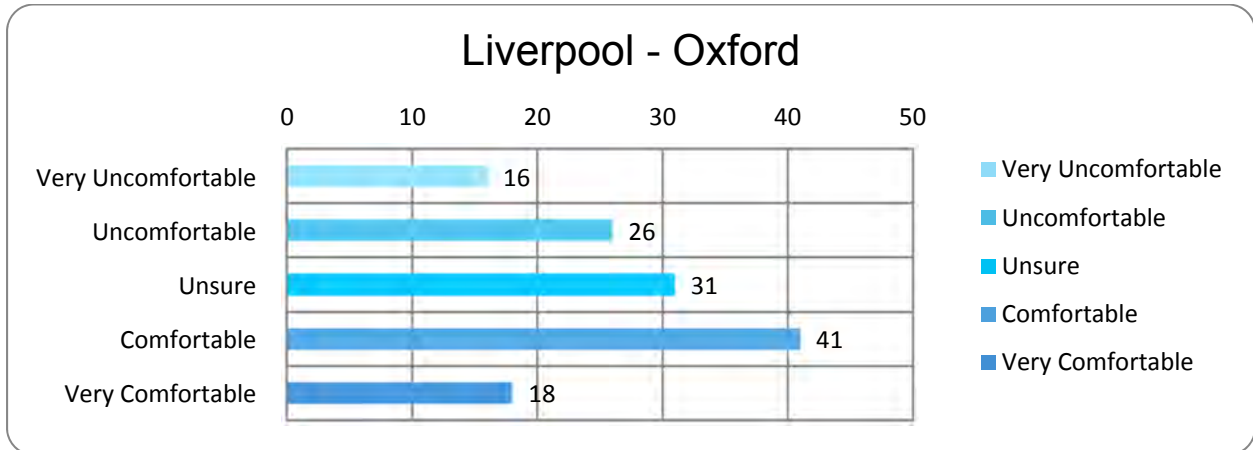
8. To establish a connection between George Dauphinee Ave and Connaught Ave, there are two 'street to street walkways' lining up with Liverpool and London Streets. These are narrow (under 2m) and constrained by homes on either side. These can be used by people walking and cycling. How concerned are you about the interaction between people walking and cycling on these pathways should one of these options be chosen?



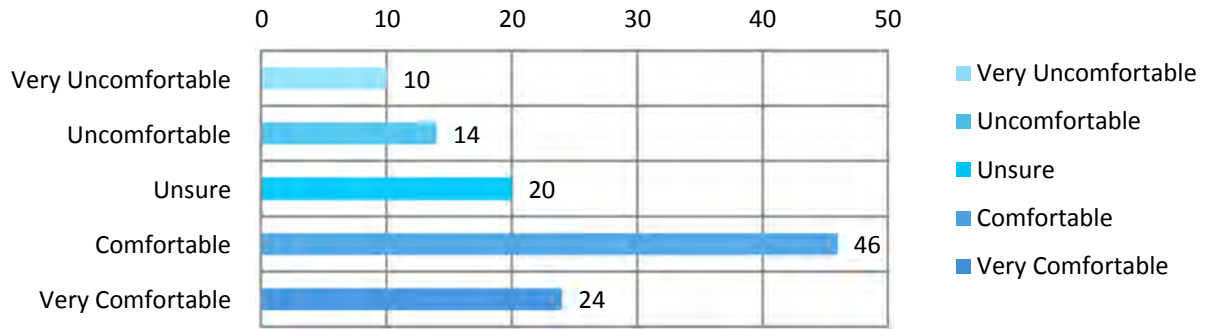
About 43% of respondents are 'not concerned' about the interaction between people walking and people biking on the pathways between George Dauphinee Avenue and Connaught Avenue, while an additional 19.5% are only 'somewhat concerned. Meanwhile, 17% are 'very concerned' and 13% are 'concerned'. The remaining respondents were 'unsure'.

9. How comfortable are you with the proposed crossing treatments at the major intersections along the route: (see Appendix C)

The responses to this question are split roughly 35-45% comfortable/very comfortable and 30-35% either uncomfortable/very uncomfortable, and the remaining 10-20% unsure. What is true for all intersections is that the most common answer was that respondents are 'comfortable' with the proposed intersection treatments.



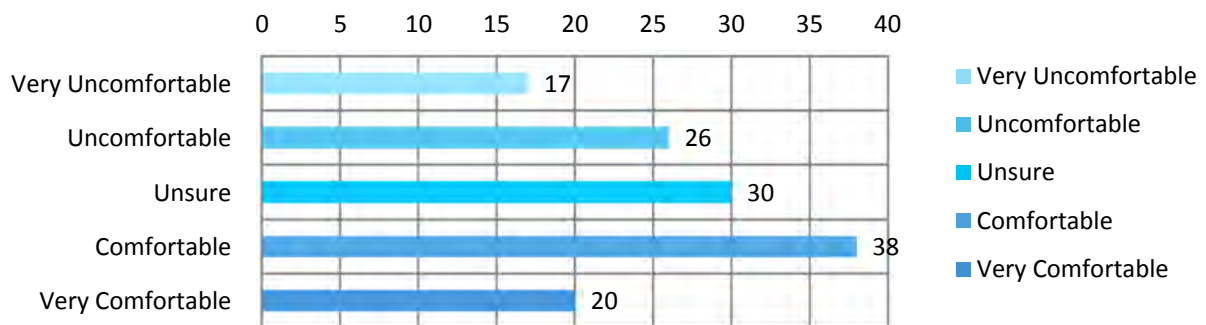
Almon - Oxford

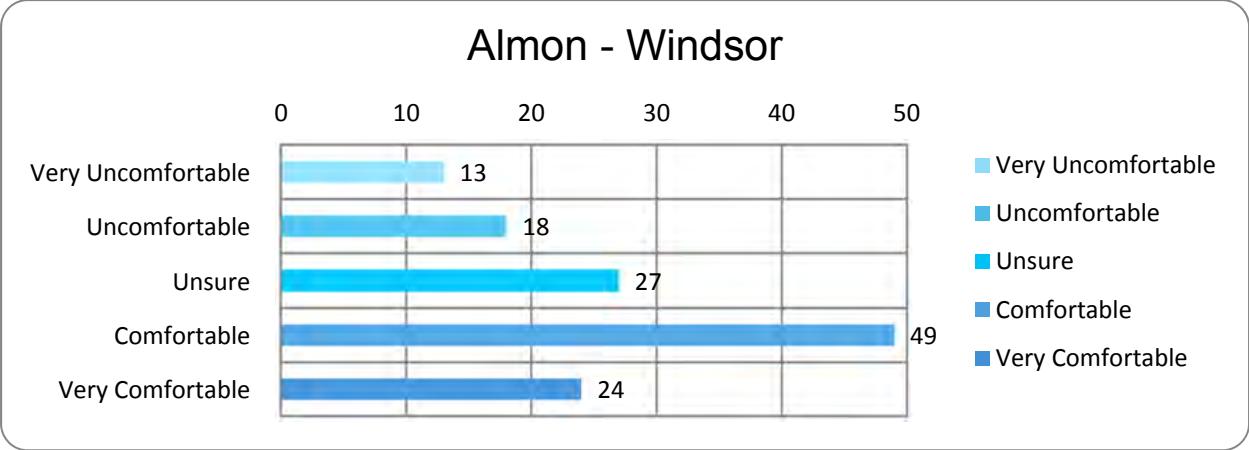


Liverpool - Windsor

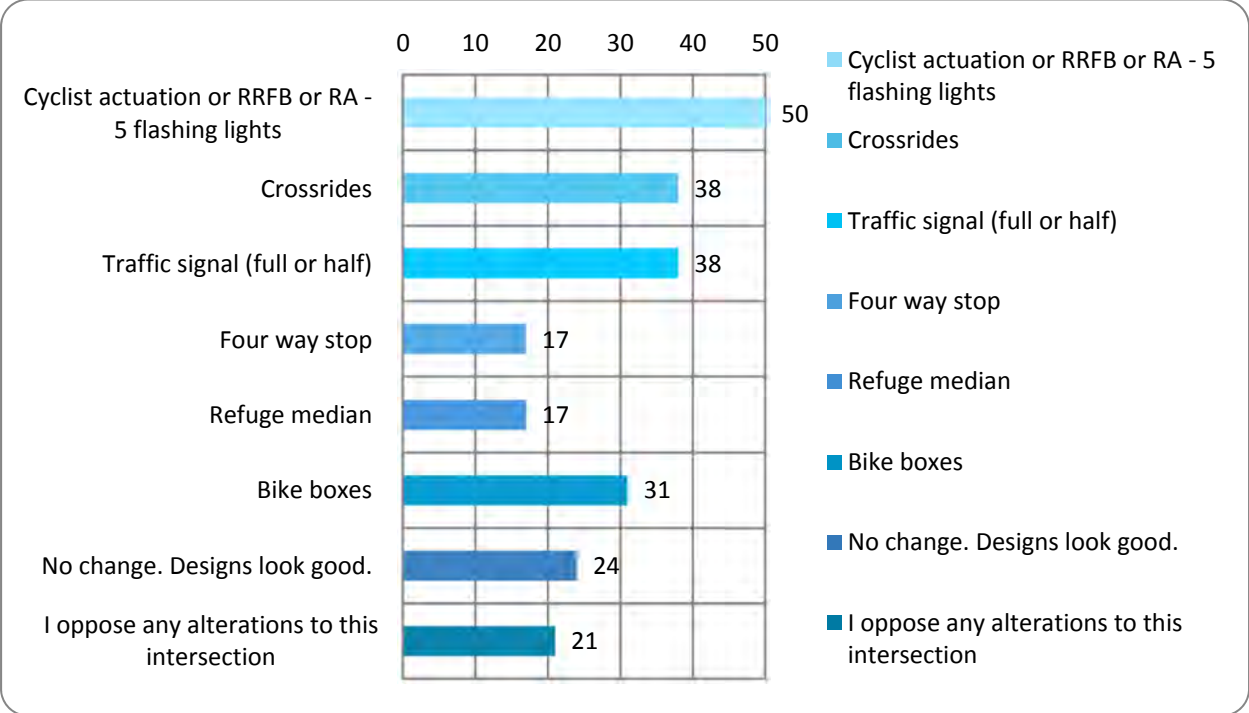


London - Windsor



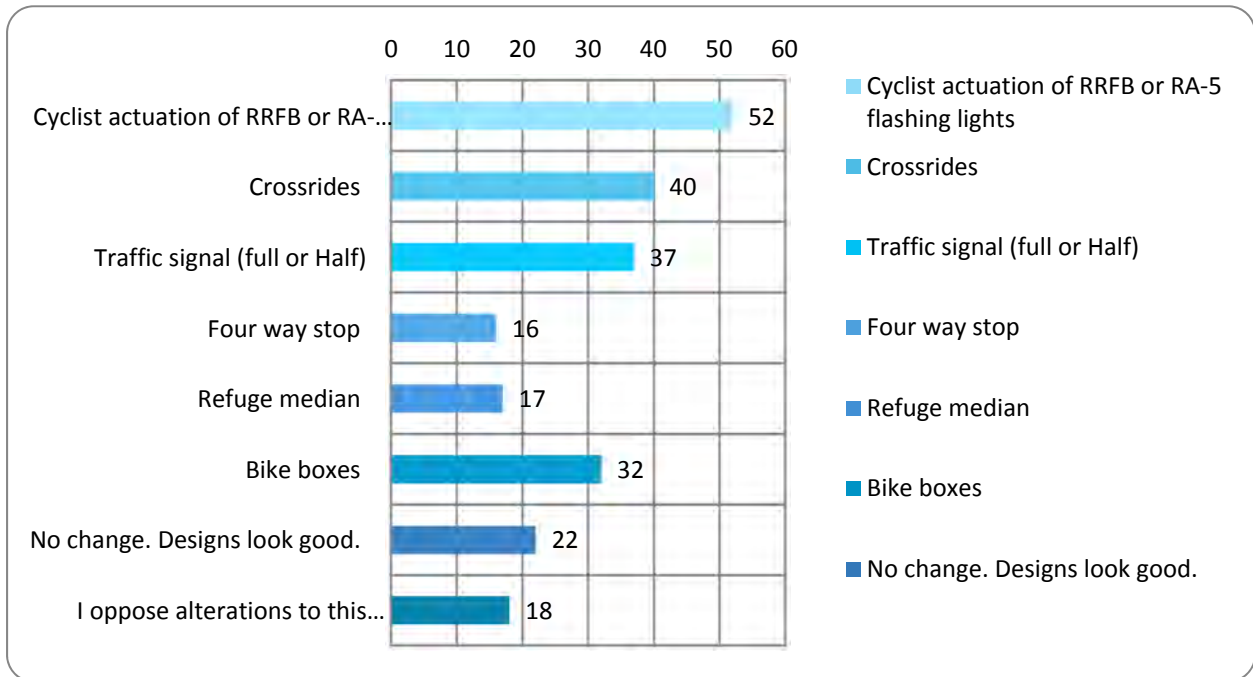


10. a) What changes to these designs are necessary to help facilitate the comfortable and convenient crossing of this major intersection on a bicycle? Liverpool - Oxford. (Check all that apply)



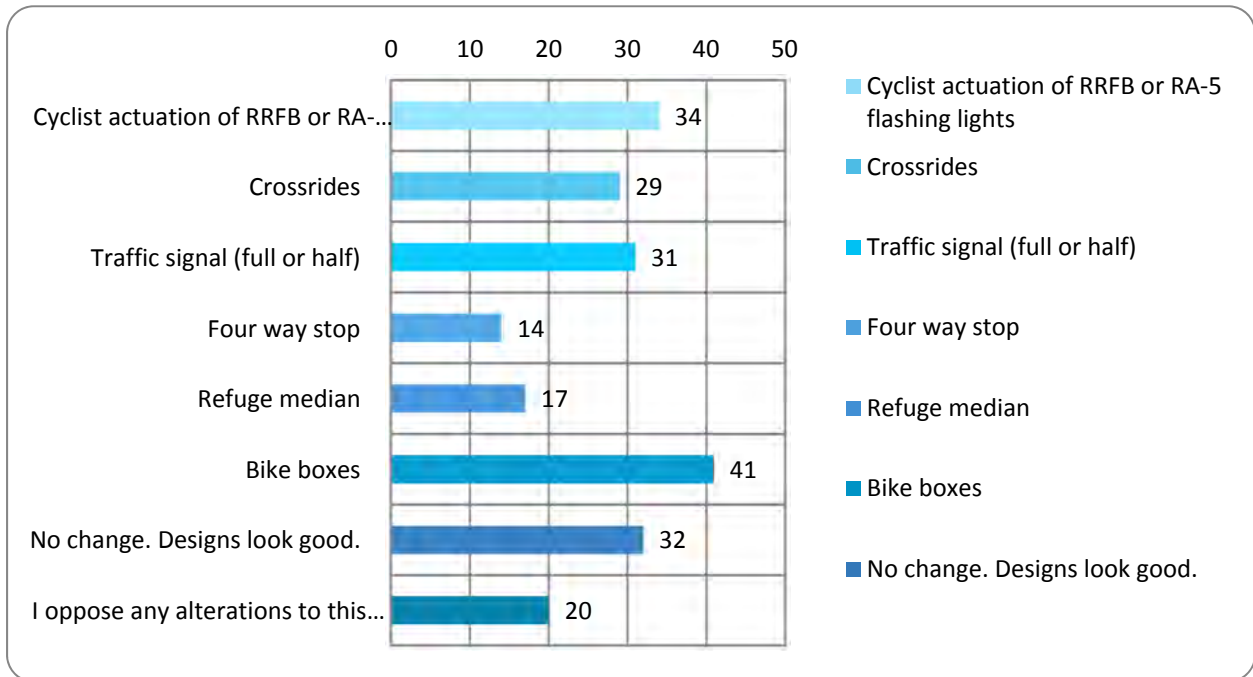
The most preferred design for the Liverpool - Oxford intersection crossing is cyclist actuation of RRFB or RA-5 flashing lights, selected by 36% of respondents. The second most preferred options were a traffic signal (27.5%) and crossriders (27.5%). About 15% of respondents indicated that they oppose any alterations to the intersection.

**10.b) What changes to these designs are necessary to help facilitate the comfortable and convenient crossing of this major intersection on a bicycle? London - Oxford.
(Check all that apply)**



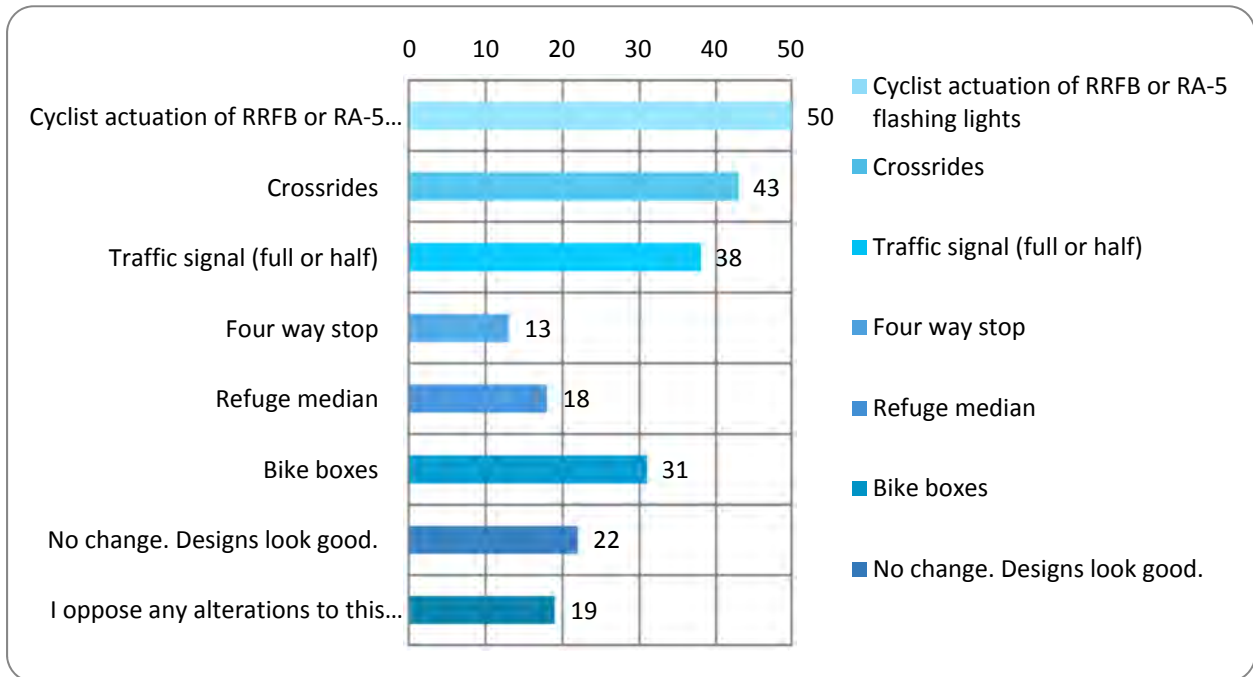
The most preferred design for the London - Oxford intersection crossing is cyclist actuation of RRFB or RA-5 flashing lights, selected by 38% of respondents. The second most preferred options were a crossrides (29%) and a traffic signal (27%). About 13% of respondents indicated that they oppose any alterations to the intersection.

10.c) What changes to these designs are necessary to help facilitate the comfortable and convenient crossing of this major intersection on a bicycle? Almon - Oxford. (Check all that apply)



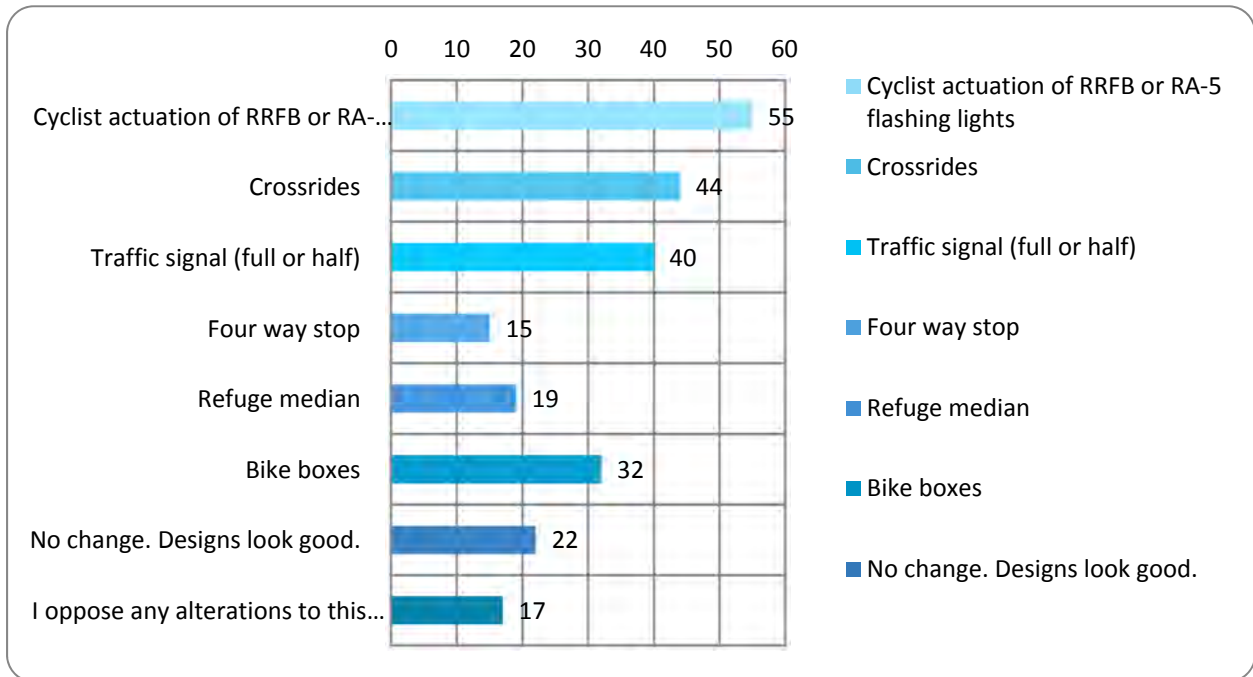
The most preferred design for the Almon - Oxford intersection crossing is bike boxes, selected by 30% of respondents. The second most preferred option was cyclist actuation (25%) and the third most preferred was a traffic signal (22%). About 14% of respondents indicated that they oppose any alterations to the intersection.

10.d)What changes to these designs are necessary to help facilitate the comfortable and convenient crossing of this major intersection on a bicycle? Liverpool - Windsor. (Check all that apply)



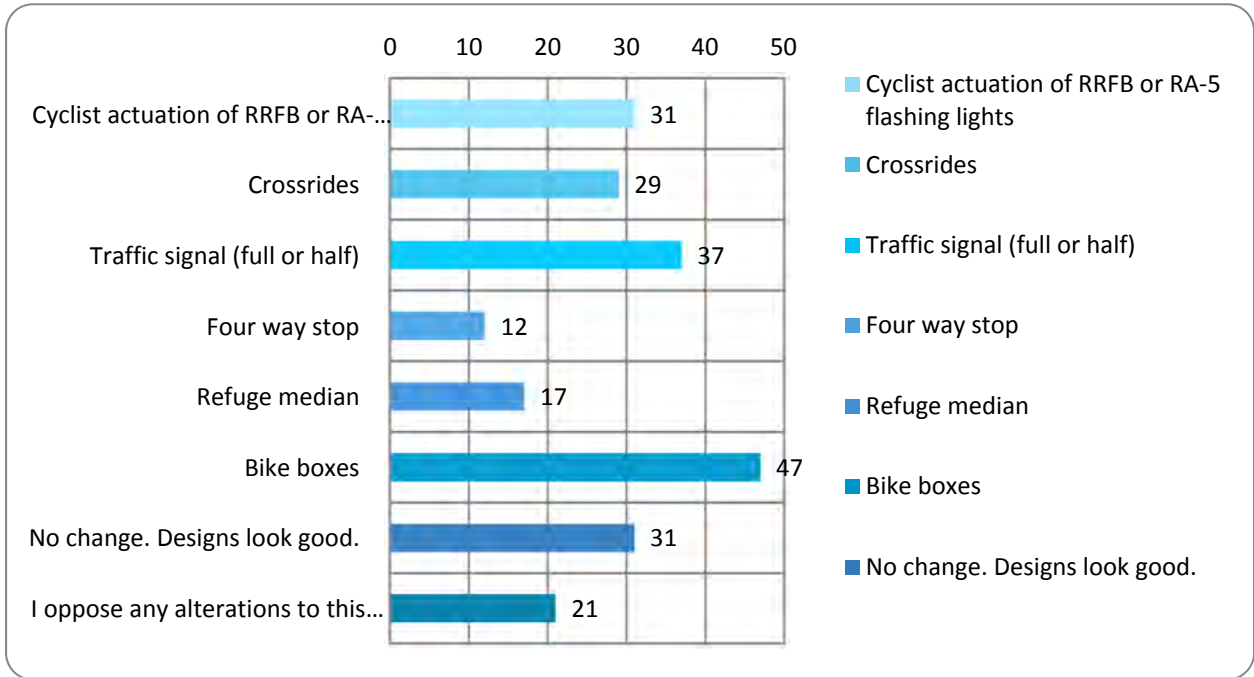
The most preferred design for the Liverpool - Windsor intersection crossing is cyclist actuation of RRFB or RA-5 flashing lights, selected by 36% of respondents. The second most preferred option was crossrides (31%) and the third most preferred was a traffic signal (27.5%). About 14% of respondents indicated that they oppose any alterations to the intersection.

10.e) What changes to these designs are necessary to help facilitate the comfortable and convenient crossing of this major intersection on a bicycle? London - Windsor. (Check all that apply)



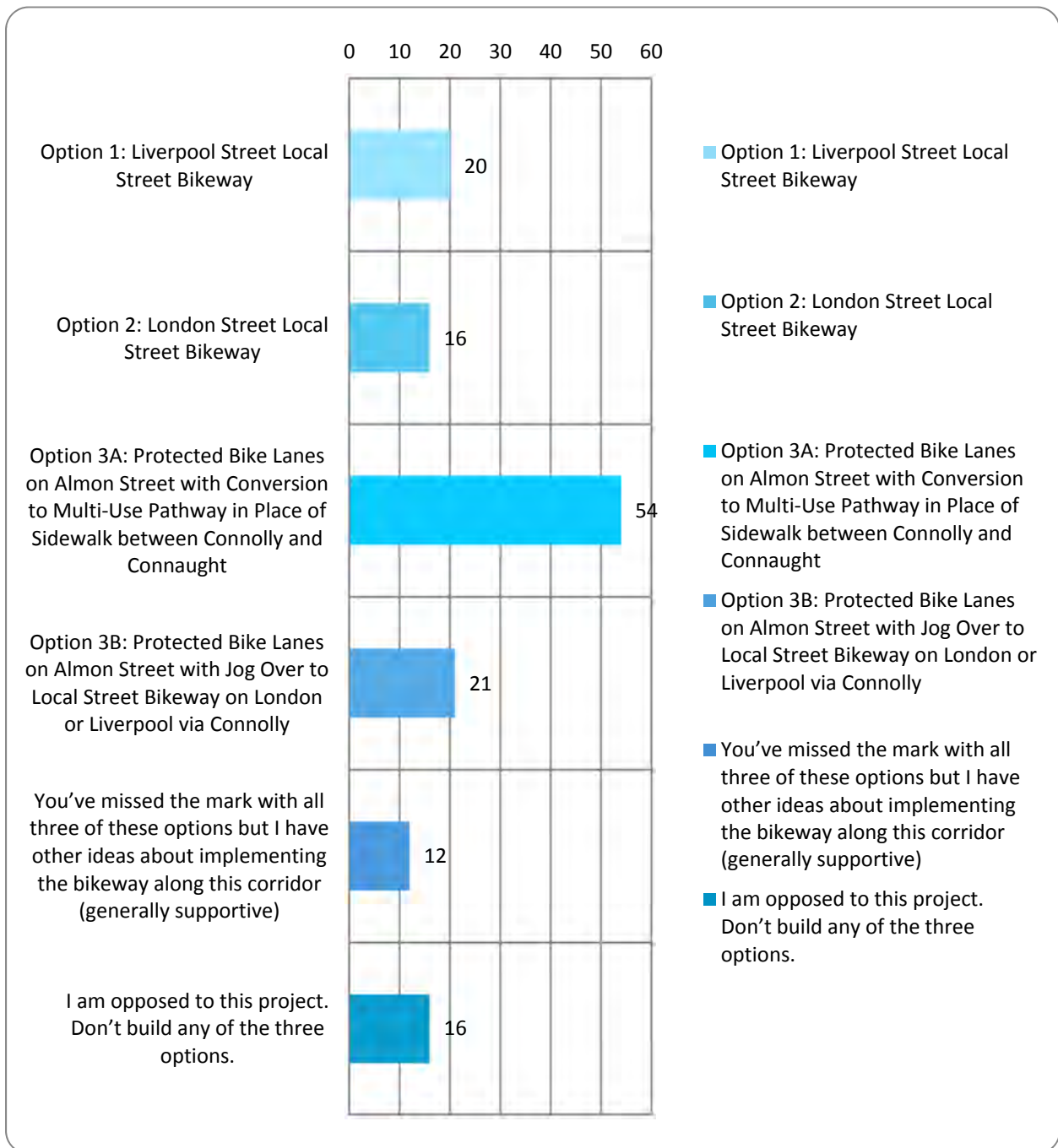
The most preferred design for the London - Windsor intersection crossing is cyclist actuation of RRFB or RA-5 flashing lights, selected by 40% of respondents. The second most preferred option was crossrides (32%) and the third most preferred was a traffic signal (29%). About 12% of respondents indicated that they oppose any alterations to the intersection.

10.f) What changes to these designs are necessary to help facilitate the comfortable and convenient crossing of this major intersection on a bicycle? Almon - Windsor. (Check all that apply)



The most preferred design for the Almon - Windsor intersection crossing is bike boxes, selected by 34% of respondents. The second most preferred option was a traffic signal (27%) and the third most preferred was cyclist actuation of RRFB or RA-5 flashing lights (22%). About 15% of respondents indicated that they oppose any alterations to the intersection.

11. Which of the four routing options best meets the objectives of a safe, comfortable, and convenient cycling corridor?



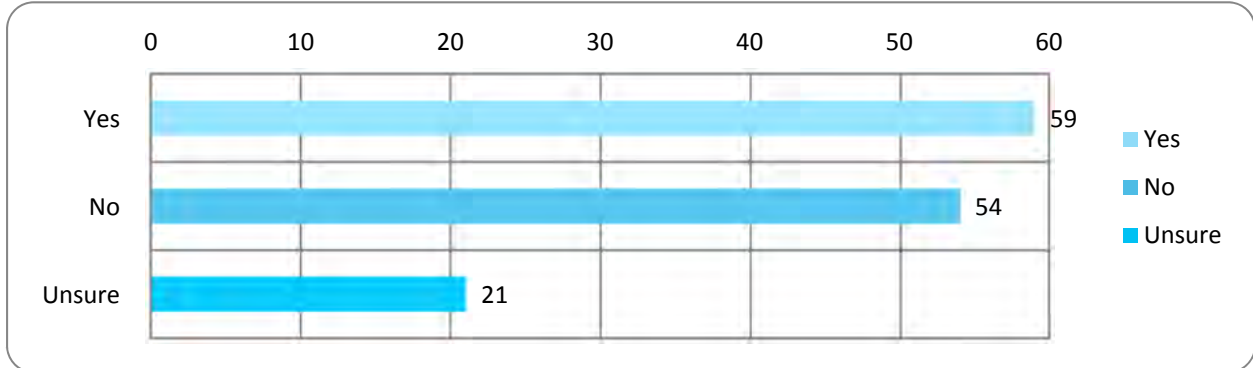
About 39% of respondents preferred option 3A, the protected bike lanes on Almon Street and Multi-use pathway between Connolly and Connaught. Both the local street bikeways on London (11.5% of respondents) and Liverpool (14% of respondents) were not widely preferred options. Option 3B which offered protected bike lanes on Almon and LSBs on London or Liverpool via Connolly were preferred by 15%. Roughly 9% of those supportive of the West End Bikeway project felt that none of these options were preferred, and 11.5% are opposed to the project entirely.

12. Options 3A and 3B (Protected Bike Lanes on Almon Street) would require significant loss of on-street parking (current utilization around 30%). Are the trade offs worth it towards establishing a direct, convenient cycling connection?



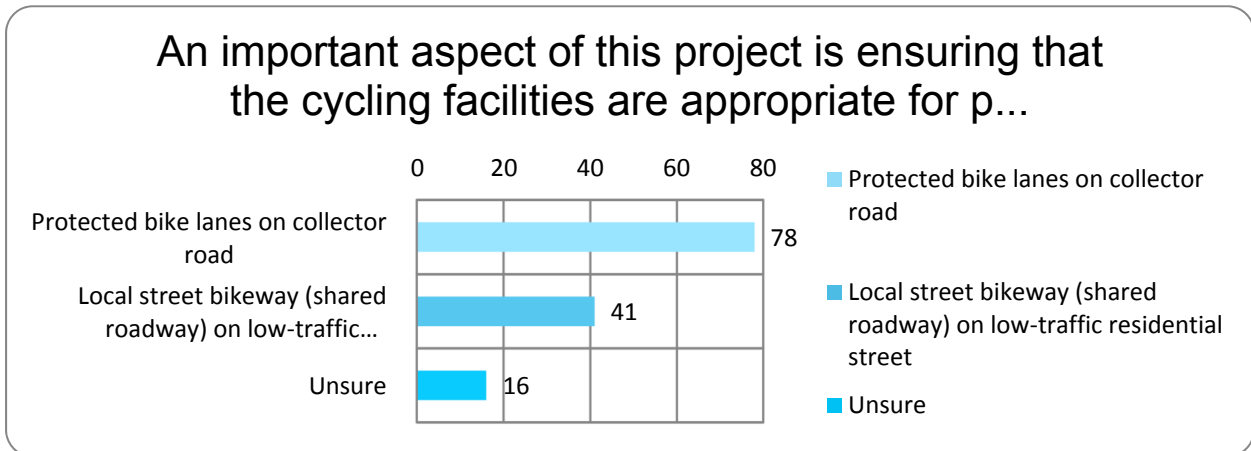
When asked to weigh establishing a direct and convenient cycling connection against a loss of on-street parking on Almon Street, 66% of respondents answered 'yes', the loss of parking is acceptable. Another 25% of respondents answered 'no', and the remaining respondents (6%) were 'unsure'.

13. Option 3A involves converting sidewalk on the north side of Almon between Connolly and Connaught into a multi-use pathway. This is the only way that an all-ages-and-abilities connection can be made through this segment of Almon St due to narrow road width. To achieve the desired width, the mature street trees along this one-block segment would need to be removed. Are these trade-offs worth it towards establishing a direct, convenient cycling connection?



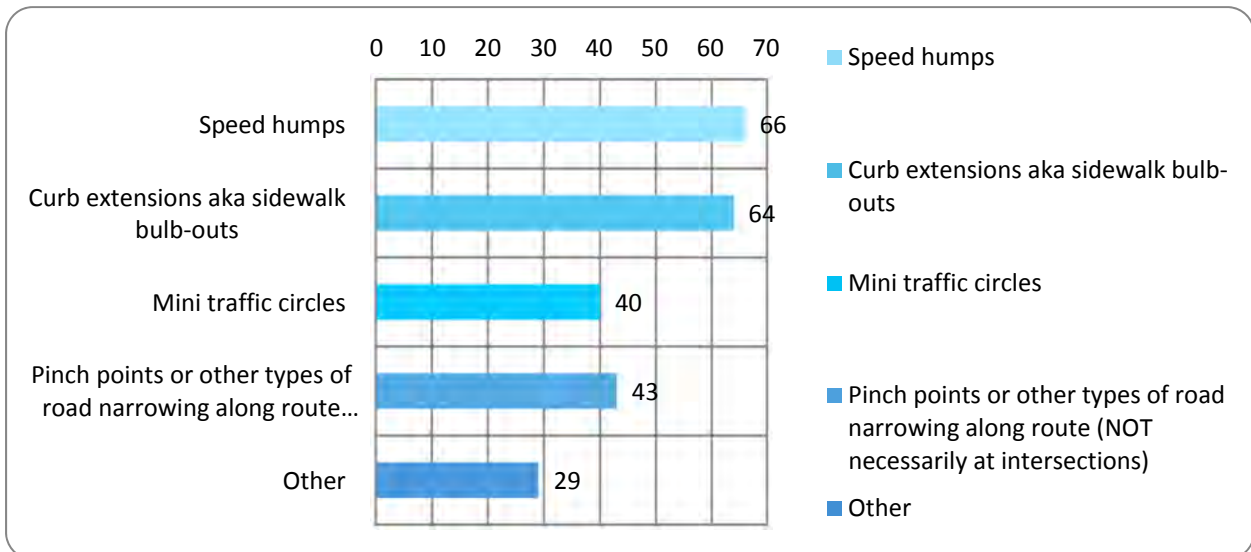
When asked whether the loss of mature street trees was acceptable to implement option 3A, the multi-use pathway between Connolly and Connaught, 43% of respondents said 'yes', 39% of respondents said 'no', and 15% were 'unsure'.

14. An important aspect of this project is ensuring that the cycling facilities are appropriate for people of all-ages-and-abilities. For new or nervous cyclists, which do you think would be the most comfortable type of facility?



Over half of respondents (57%) felt that protected bike lanes on collector roads are the most comfortable facility for new or nervous cyclists. Local Street Bikeways on low-traffic residential streets were thought to be the best option by 30% of respondents, and the remaining 12% were 'unsure'.

15. If a local street bikeway option is chosen, what is your preferred type of traffic calming (speed reduction measure) for these segments between Connaught and Windsor? (Check all that apply)

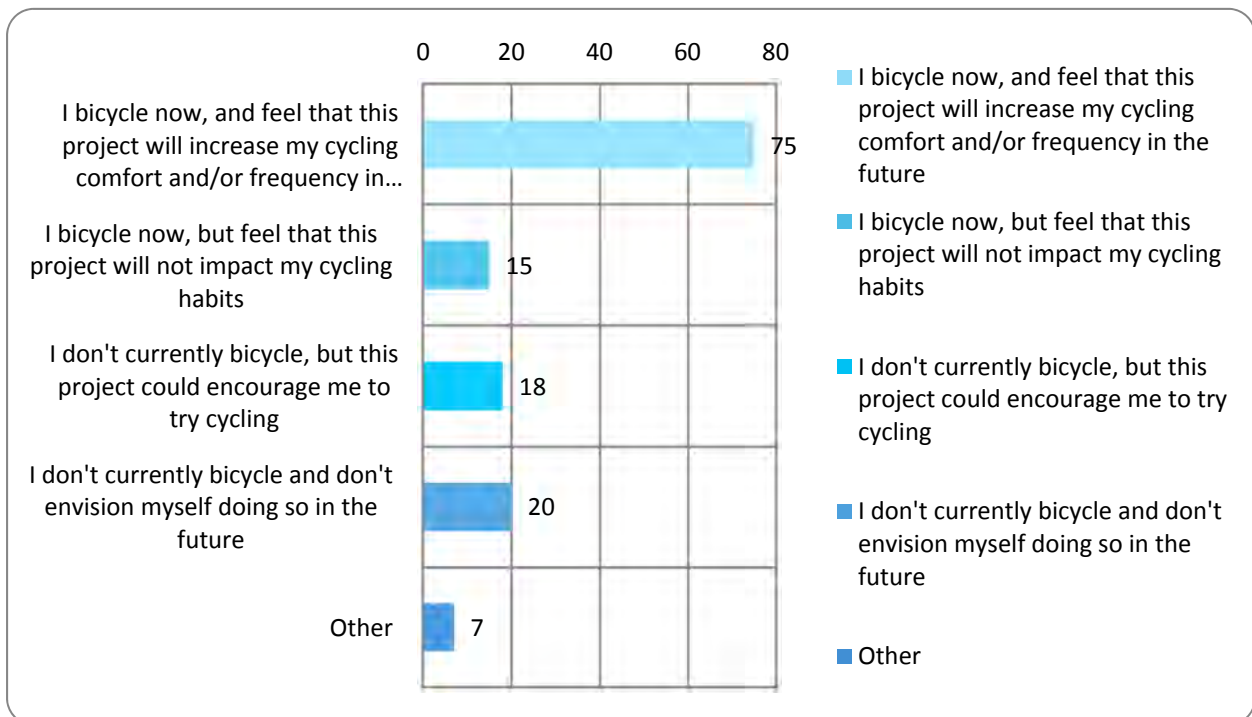


The most preferred traffic calming treatment was close, between speed humps (48%) and curb extensions/sidewalk bulb outs (46%). The second most preferred option was pinch points or other types of road narrowing along route, selected by 31% of respondents. Of the 21% of respondents who selected 'other', detailed responses included:

- Lower the speed limit (3)
- Introduce speed radars
- No more bikes on the road/bicycles should be illegal after dark (2)
- Protected bike facilities (2)

- Signage indicating 'cyclist right of way'
- Flashing lights or signals needed for crossing
- A combination of methods but with accommodation for cyclists (i.e. gaps in speed bumps, ways to avoid pinch points, etc.) (2)
- Four way stops at all intersections
- Raised crosswalks
- Also consider what best for pedestrian crosswalks

16. How do you anticipate that construction of the West End 'AAA' Bikeway will impact your cycling habits in the future?



Amongst those who currently cycle, 83% feel that this project will increase the comfort and frequency of their cycling, while 16% believe this will have no impact on their cycling habits. Amongst those who do not currently bicycle, 47% believe this will encourage them to try cycling while 53% believe it will not encourage them to try cycling. Amongst the 5% who answered 'other', the responses included:

- Project will allow me to cycle with my children / allow my children to cycle (2)
- Too slow for commuting cyclists speeds
- Only Option 3 will increase likelihood of cycling

17. Please use the box below to communicate any other comments you may have about the project.

See Appendix H for a complete transcript of additional comments with personal information and identifying characteristics redacted.

APPENDIX A:

Introductory Boards

NORTH END AND WEST END BIKEWAYS (NEWEB)

What are the North End and West End Bikeway Projects?

HRM is investigating available options for providing two key connections to the core cycling network on the Halifax Peninsula. The West End Bikeway will connect existing and current bicycle facility projects from the West End Mall to the existing Windsor Street Bicycle Facilities, while the North End Bikeway will create an AT spine from Africville Lookoff Park to the future Cogswell Interchange Greenway Project. Both of these bikeway projects are meant to:

- create **safe, comfortable, and convenient** cycling corridors for users of **all and abilities ('AAA')**, and
- **connect the existing and planned future bicycle facility projects** on the Halifax Peninsula in a north-south, and east-west direction.

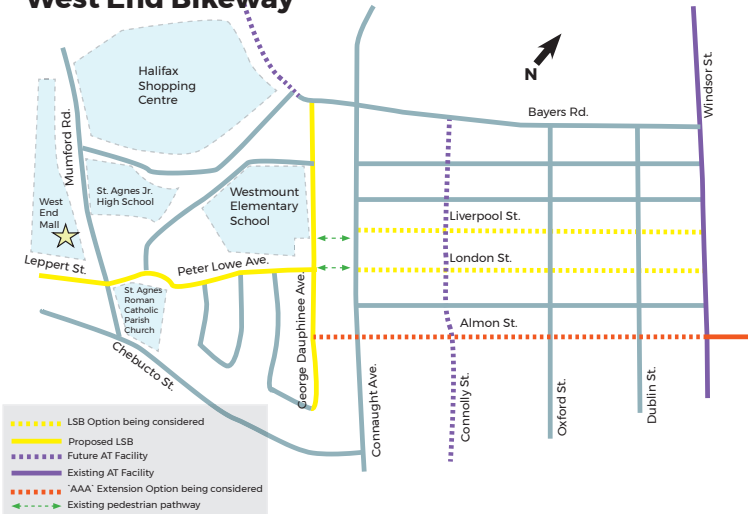
The Bigger Picture

HRM has been working to implement the various AT facility projects identified in the **2014-19 Active Transportation Priorities Plan** which identifies candidate routes and facility types across the entire HRM. Together, these AT facility projects will create a safe, convenient, and connected network for cyclists to travel to and from common origins and destinations in the city.

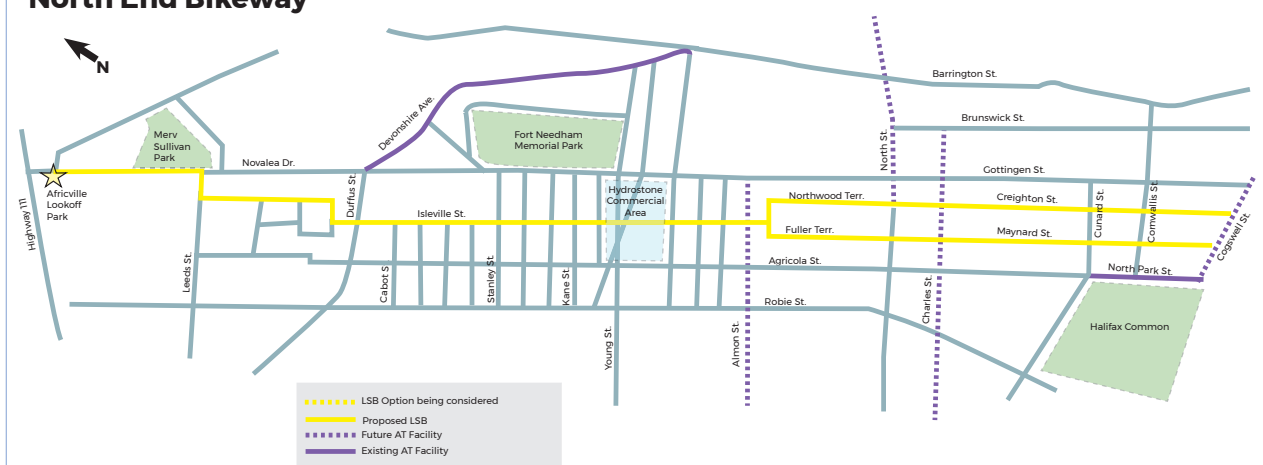
The **Integrated Mobility Plan (IMP)** sets a goal to deliver an all ages and abilities (AAA) bicycling network in the Regional Centre by 2022. The IMP identifies the need for AT facility connections on a number of residential streets including those highlighted on the map to the right.



West End Bikeway



North End Bikeway



What's next for the NEWEB projects?

The public input will be discussed and the preferred design options be selected. A **functional design report** will be prepared for these two corridors which will identify the opportunities and constraints for the Design Options.

How can you participate?

Your input is an important part of the design process. We invite you to review the options being considered and provide your feedback. Tell us about your experiences in each of the areas, and how the design concepts might impact you. Let us know if you have any ideas or concerns. Your feedback will be very important during the next stages of the project.

- The **functional design report** will include
- conceptual options for each corridor as well
- as a summary of what we heard from public
- engagement events. Feedback will be used
- to inform a preferred design option that will
- be advanced to the functional design phase
- as part of the final report.

www.shapeyourcityhalifax.ca/NWbikewayconnections

Next Steps

1. Analyze public input and select preferred designs.
 2. Finalize functional design reports (end of 2018).
 3. Bring preferred option to Council for design approval (Early 2019).
 4. Complete detailed design of selected option (2019)*.
 5. Position selected option for phased construction between 2019 and 2022*.
- (*pending Council approval)

NORTH END AND WEST END BIKEWAYS (NEWWEB)

HRM's Administrative Order for Local Street Bikeways

A key objective of a Local Street Bikeways (LSB) is to prioritize bicycle traffic and to create a street that is continuous and comfortable for cyclists of all ages and abilities. Intersections can be challenging and uncomfortable for cyclists as they are often forced to be integrated with moving traffic. To provide the level of comfort that is needed for a LSB, traffic calming and/or diverting measures are often put in place.

HRM Council has adopted an **Administrative Order (2016-002OP)** which provides guidance on when and where traffic calming and/or diverting measures are needed:



Vehicle Volume Thresholds:

- < 1,000 vpd – shall not require consideration of diversion of traffic
- 1,000 to 3,000 vpd – may require consideration of diversion of traffic
- > 3,000 vpd – shall require consideration of diversion of traffic

Vehicle Speed Thresholds:

- < 30 km/hr – shall not require consideration of traffic calming
- 30 to 45 km/hr – may require consideration of traffic calming
- > 45 km/hr – shall require consideration of traffic calming

To successfully calm/divert traffic on a LSB, alterations to high-volume intersections are often implemented. Examples of intersection traffic calming/diverting that are proposed for these bikeway corridors include:

Rectangular Rapid Flashing Beacons



Rectangular Rapid Flashing Beacon (RRFB) pedestrian crossings control the flow of traffic with the use of a pedestrian push-button or cyclist sensor that activate flashing lights on the side of the road.

How do they work?

Similar to crosswalks with overhead flashing beacons (RA-5), a pedestrian or cyclist arrives at an RRFB crosswalk and pushes a button that activates the flashing beacon to alert drivers to yield at the crosswalk.

Why are they useful?

RRFB's are typically considered on roadways with 3 or fewer lanes. By placing the beacons on the side of the road they are closer to driver eye height and have been found to improve driver yielding, however, on wider roads overhead beacons are used. In 2016, HRM began trialling RRFB crosswalks at four locations throughout the Municipality.

Overhead Flashing Beacons Pedestrian Crossing



Overhead Flashing Beacons pedestrian crossings control the flow of traffic with the use of a pedestrian push-button or cyclist sensor that activate flashing lights above the road.

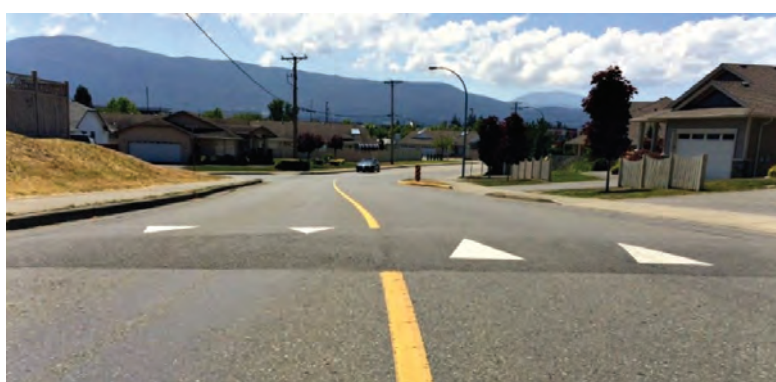
How do they work?

Similar to RRFB's crosswalks, a pedestrian or cyclist arrives at an overhead flashing beacon crosswalk and pushes a button that activates the flashing beacon to alert drivers to yield at the crosswalk.

Why are they useful?

Overhead flashing beacons pedestrian crossings are typically considered on roadways with 4 or more lanes. By placing the beacons above the road they provide better visibility for larger roadways.

Speed Humps



Speed Humps are traffic calming devices that use vertical deflection to slow motor-vehicle traffic in order to improve safety conditions.

How do they work?

Speed humps are rounded traffic calming devices used to reduce speed and volume on residential streets. Speed humps are placed across the road and are often installed in a series of several humps to prevent cars from speeding before and after the speed hump.

Why are they useful?

Speed humps typically limit vehicle speeds to approximately 30-35 km/h at the speed hump and 40-50 km/h at the midpoint between speed humps.

Curb Extensions



Curb extensions are a traffic calming measure primarily used to extend the sidewalk, reducing the crossing distance and providing better visibility of the pedestrian.

How do they work?

Curb extensions narrow the roadway and widen the sidewalk and are typically accompanied by a RRFB pedestrian crossing control.

Why are they useful?

They decrease the crossing distance and increase the visibility of pedestrians.

APPENDIX B:

North End Bikeway Boards

NORTH END BIKEWAY: NOVALEA DRIVE TO CABOT STREET

LEGEND

- Future or Existing Bicycle Facility project
- Bike Flow via Local Street Bikeway Facility
- Location for potential traffic calming
- Existing Bus Stop
- Stop Sign Reversal
- Destinations/ Activity Generators

NOVALEA DR. TO CABOT ST.

Improved bicycle flow on Leaman St., and Isleville St. through stop sign reversal. Improved crossing of Duffus Street with RRFB pedestrian crossing.

Realigned pedestrian crossing at Duffus St. and Isleville St. and the existing pedestrian crossing to be replaced with an RRFB pedestrian crossing.

No impact. Traffic flow remains unchanged

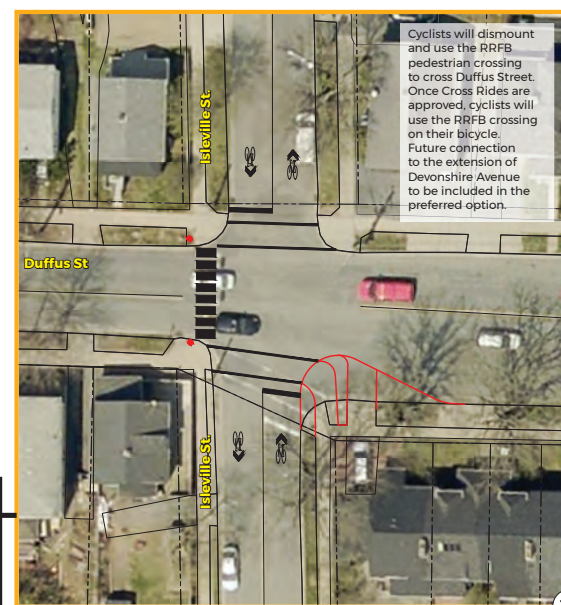
No impact for cross section #1. For cross section #2, parking may be affected on the west side of Novalea Dr. between Leeds St. and North Ridge Rd.

For the cross section with on-street bicycle facilities (see image #1) buses and cyclists would share the lane. For the cross section with the multi-use pathway, a separate concrete waiting pad or a shared bike lane bus stop treatment would be incorporated.

For the cross section with on-street bicycle facilities (see image #1) no trees would be impacted. For the cross section with the multi-use pathway, the trees on the west side would be removed and replaced in the new median area.



OR







Future Bicycle Facility - Extension of Devonshire Facility


Existing Bicycle Facility - Painted Bicycle Lanes


NORTH END BIKEWAY: CABOT STREET TO BLOOMFIELD STREET


LEGEND


-  Future or Existing Bicycle Facility project
-  Bike Flow via Local Street Bikeway Facility
-  Location for potential traffic calming
-  Destinations/ Activity Generators


CABOT ST. TO BLOOMFIELD ST.


 Improved safety and convenience for crossing of major intersections such as Young Street and Almon St.

 Shorter pedestrian crossings at curb extensions.

 Traffic flow direction remains unchanged. Reduced speeds from traffic calming measures.

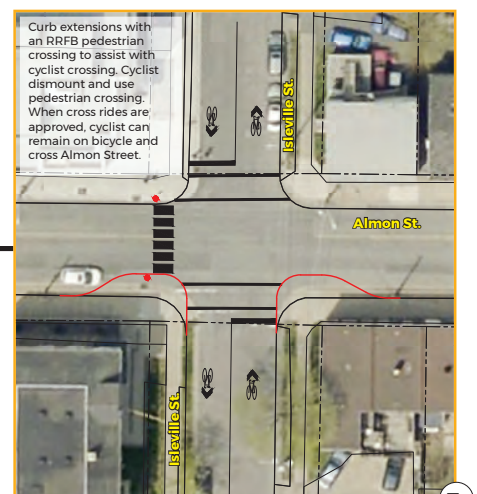
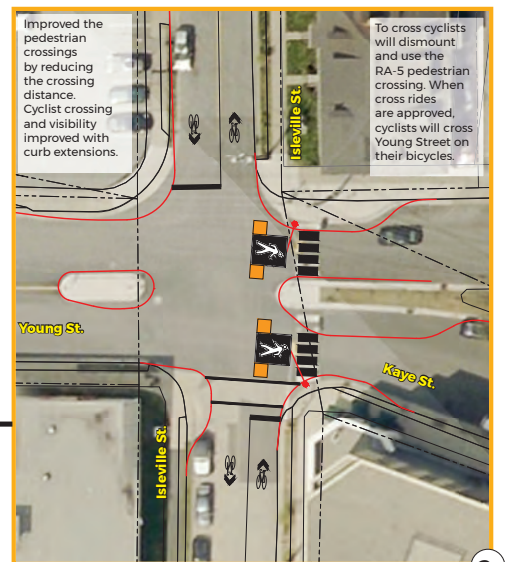
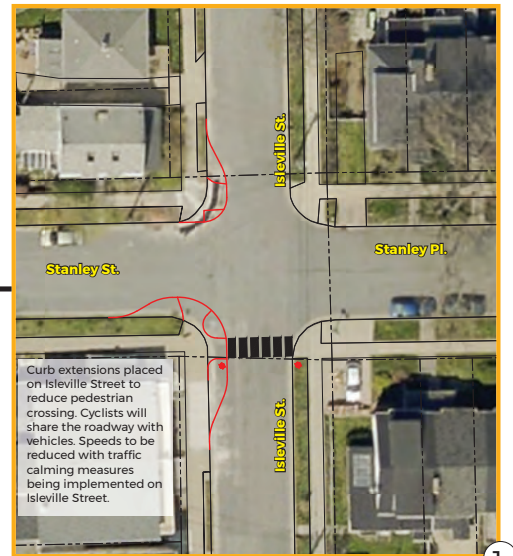
 No impact.

 No impact.

 Traffic calming measures to be implemented along Isleville St.



Existing Bicycle Facility - Painted Bicycle Lanes



Future Almon St. Bikeway Facility Project

Routing Design Options. See other boards.

NORTH END BIKEWAY: BLOOMFIELD STREET TO BUDDY DAYE STREET

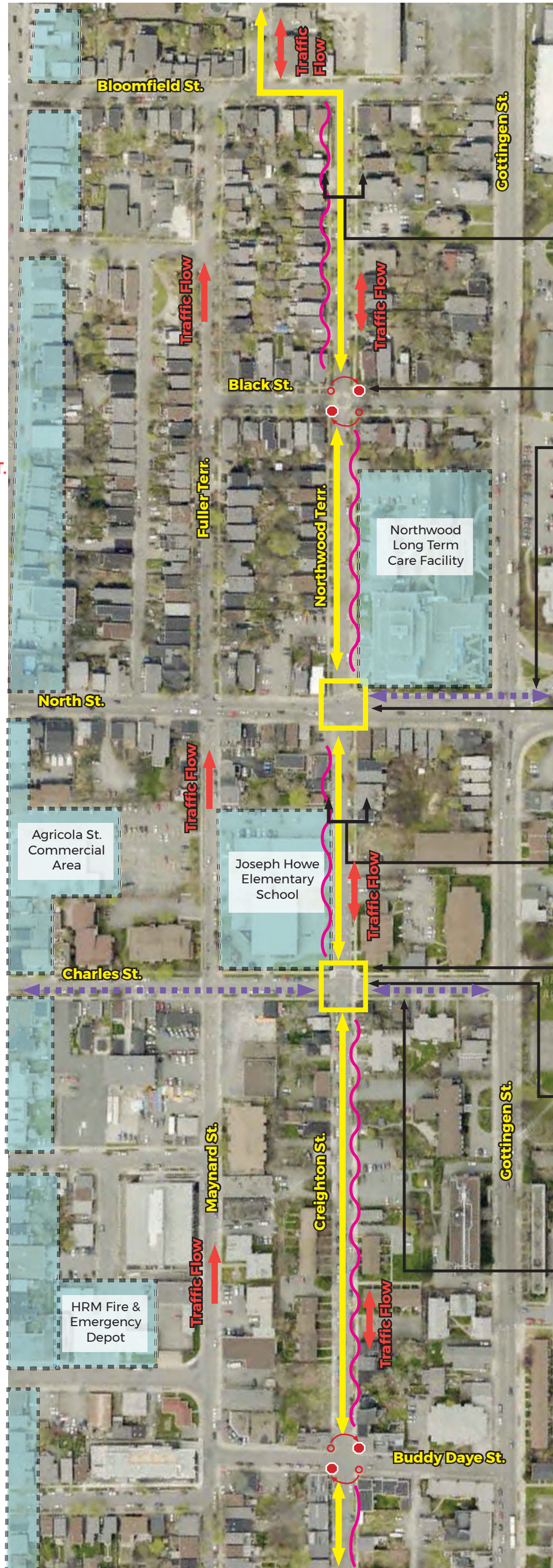
OPTION A: 2-WAY BICYCLE AND TRAFFIC FLOW ON NORTHWOOD TERRACE AND CREIGHTON STREET

LEGEND

- Future or Existing Bicycle facility project
- Traffic Flow
- Bike Flow via Local Street Bikeway Facility
- Location for potential traffic calming
- Stop Sign Reversal
- Destinations/ Activity Generators

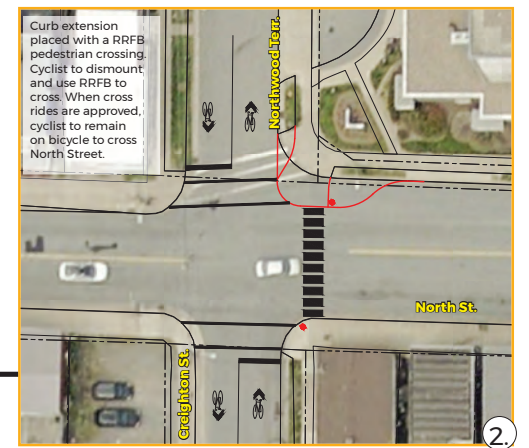
BLOOMFIELD ST. TO BUDDY DAYE ST.

- Improved bicycle flow on Northwood Terr. and Creighton St. through stop sign reversal. Improved safety and convenience for crossing at major intersections.
- Shorter pedestrian crossing with curb extensions and enhanced facility at North St. and Creighton St. intersection.
- Two-way traffic flow on Northwood Terr. and Creighton St. All other traffic flow conditions on other streets remain unchanged.
- Loss of parking on the west side of Northwood Terr. and loss of parking on the east side of Creighton St.
Possibility of retaining parking on 1.5 sides (yielding treatment required).
- No impact
- Traffic calming measures to be implemented along Northwood Terr. and Creighton St.

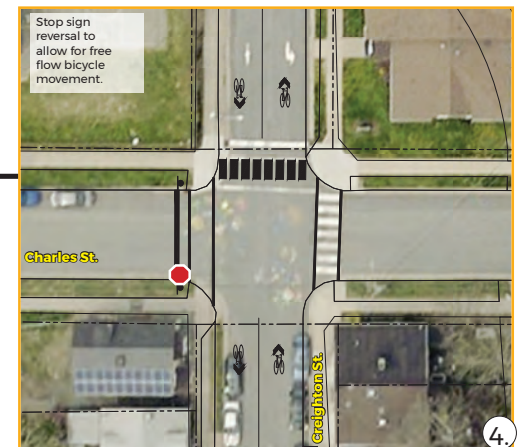


Community Mural

Future project: Macdonald Bridge Bicycle Facility connection



Community Mural



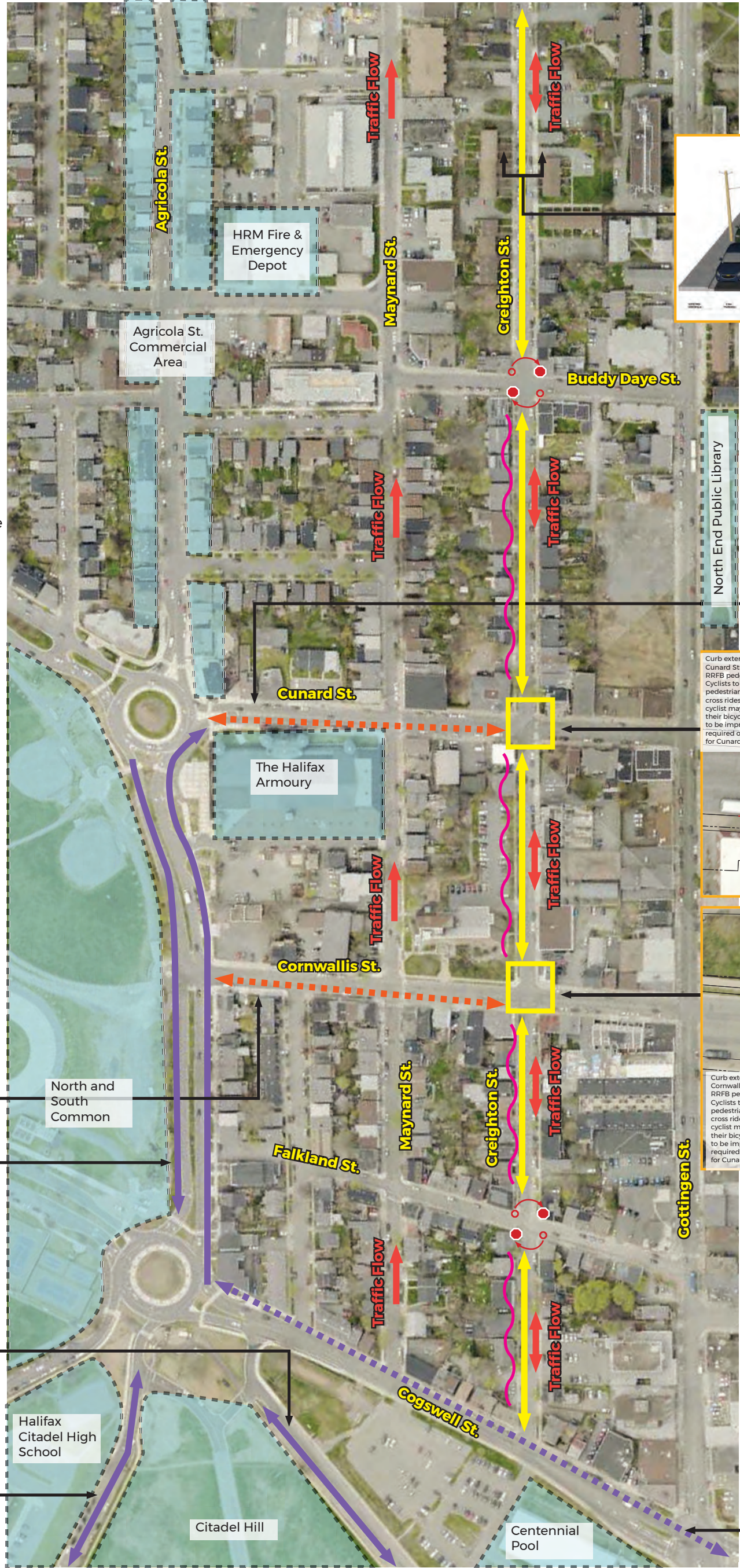
Potential Future Local Street Bikeway project

NORTH END BIKEWAY: BUDDY DAYE STREET TO COGSWELL STREET

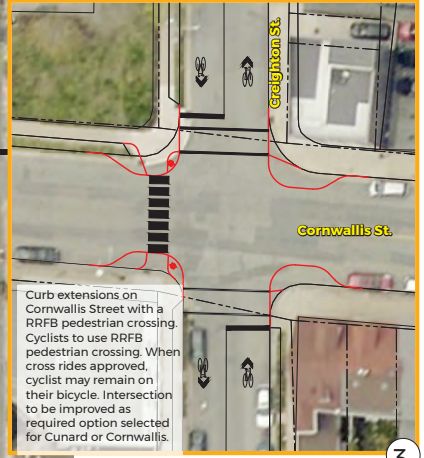
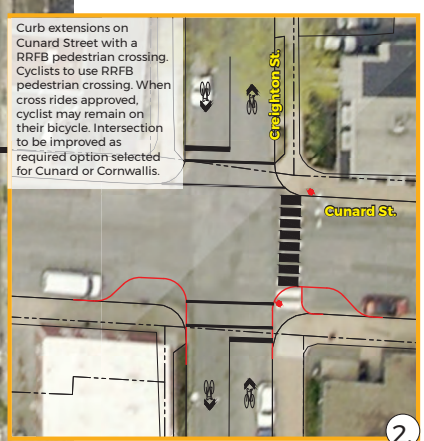
OPTION A: 2-WAY BICYCLE AND TRAFFIC FLOW ON NORTHWOOD TERRACE AND CREIGHTON STREET

LEGEND

- Future or Existing Bicycle Facility
- Traffic Flow
- Bike Flow via Local Street Bikeway Facility
- Bicycle facility connection option
- Location for potential traffic calming
- Stop Sign Reversal
- Destinations/ Activity Generators



- BUDDY DAYE ST. TO COGSWELL ST.**
- Improved bicycle flow on Creighton St. through stop sign reversal. Improved safety and convenience for crossing at major intersections.
 - Shorter pedestrian crossings with curb extensions and improved crossing control.
 - Two-way traffic flow on Creighton St. Reduced speeds from traffic calming measures.
 - Possible loss of parking on east side of Creighton St. Further parking consideration being done.
 - No impact.
 - Traffic calming measures to be implemented along Creighton St.



- See Cunard St. vs. Cornwallis St. Board
- North and South Common
- Existing bicycle facility on North Park (painted uni-directional bike lanes)
- Existing bicycle facility on Rainnie Dr. (protected, bi-directional bikeway)
- Halifax Citadel High School
- Current project: Ahern Ave. (bi-directional bike path)
- Citadel Hill
- Centennial Pool

See Cunard St. vs. Cornwallis St. Board

Curb extensions on Cunard Street with a RRFB pedestrian crossing. Cyclists to use RRFB pedestrian crossing. When cross rides approved, cyclist may remain on their bicycle. Intersection to be improved as required option selected for Cunard or Cornwallis.

Curb extensions on Cornwallis Street with a RRFB pedestrian crossing. Cyclists to use RRFB pedestrian crossing. When cross rides approved, cyclist may remain on their bicycle. Intersection to be improved as required option selected for Cunard or Cornwallis.

Future project: Cogswell AT Greenway

NORTH END BIKEWAY: BLOOMFIELD STREET TO BUDDY DAYE STREET.

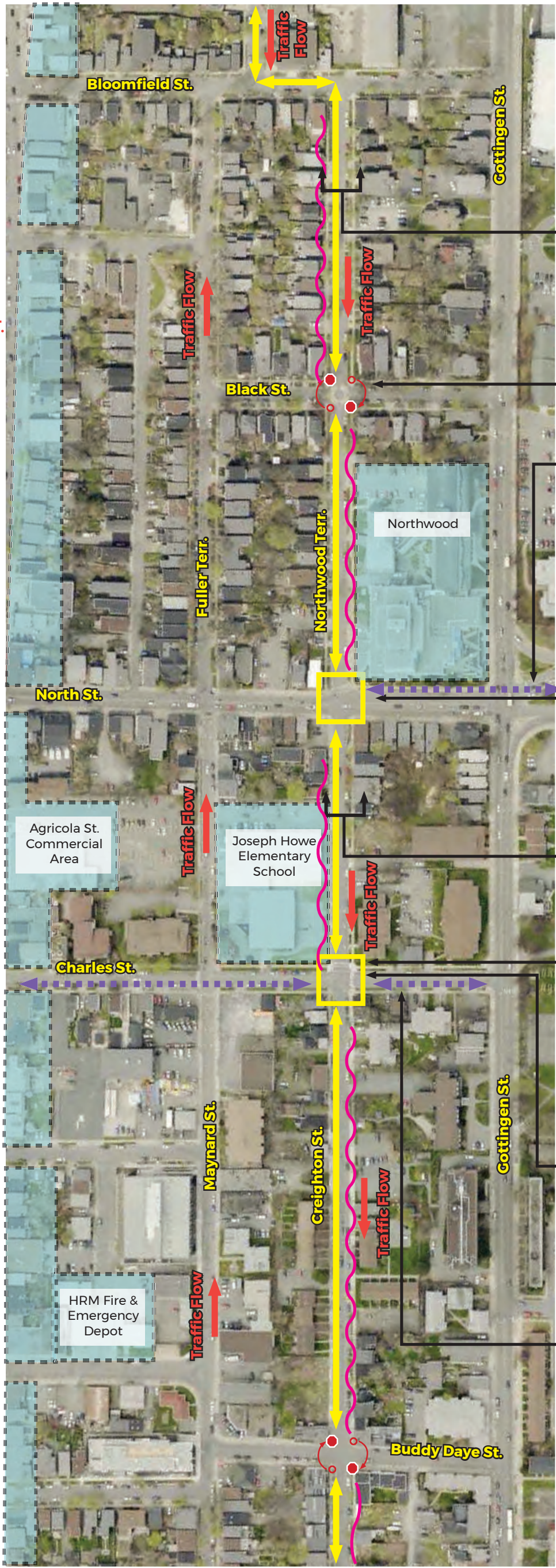
OPTION B: LSB AND CONTRA-FLOW BICYCLE LANE ON NORTHWOOD TERRACE AND CREIGHTON STREET

LEGEND

-  Future or Existing Bicycle facility project
-  Traffic Flow
-  Bike Flow via Local Street Bikeway Facility
-  Location for potential traffic calming
-  Stop Sign Reversal
-  Destinations/ Activity Generators

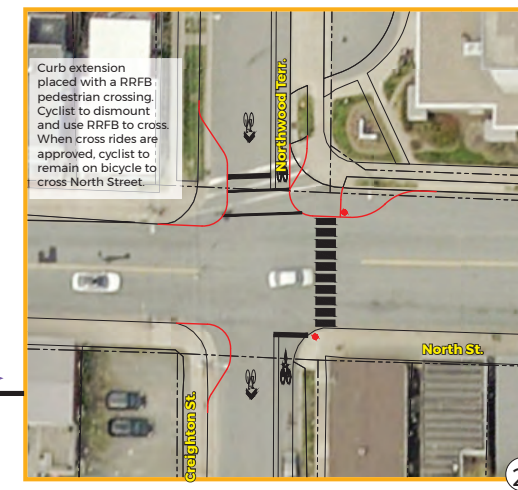
BLOOMFIELD ST. TO BUDDY DAYE ST.

-  Improved bicycle flow on Northwood Terr. and Creighton St. through stop sign reversal. Improved safety and convenience for crossing at major intersections.
-  Shorter pedestrian crossings with curb extensions and enhanced crossing control.
-  Reduced speeds from traffic calming measures.
-  Possible loss of parking on the west side of Northwood Terr. and east side of Creighton St. Further parking consideration being done.
-  No impact.
-  Traffic calming measures to be implemented along Northwood Terr. and Creighton St.

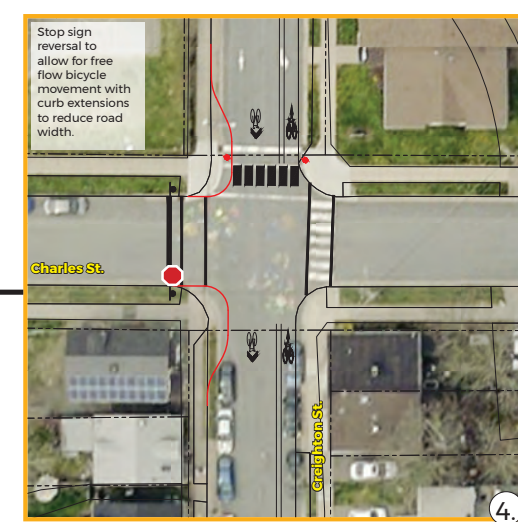


Community Mural

Future project: Macdonald Bridge Bicycle Facility connection



Community Mural



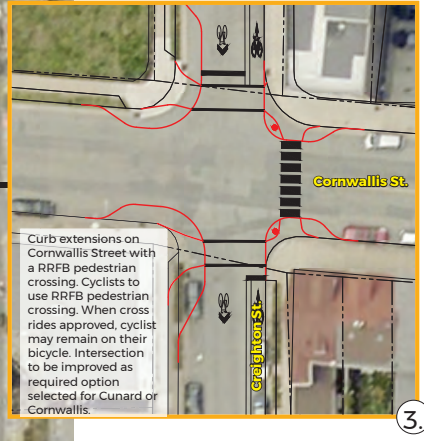
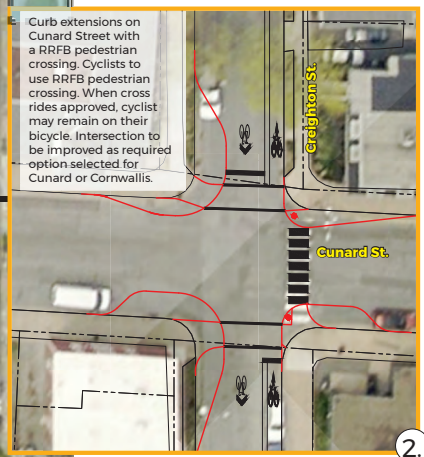
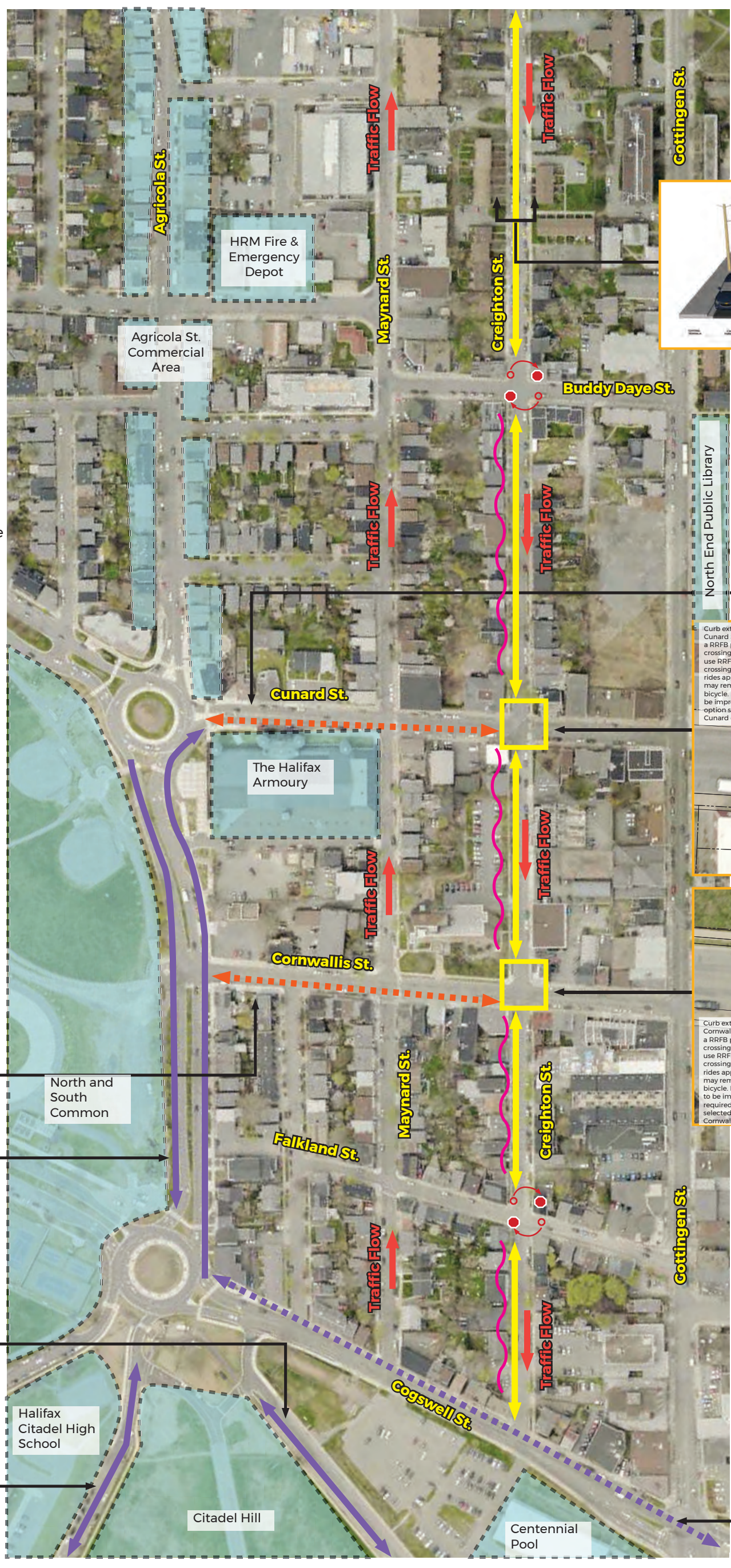
Potential future Local Street Bikeway project

NORTH END BIKEWAY: BUDDY DAYE STREET TO COGSWELL STREET

OPTION B: LSB AND CONTRA-FLOW BICYCLE LANE ON NORTHWOOD TERRACE AND CREIGHTON STREET

LEGEND

- Future or Existing Bicycle Facility
- Traffic Flow
- Bike Flow via Local Street Bikeway Facility
- Bicycle facility connection option
- Location for potential traffic calming
- Stop Sign Reversal
- Destinations/ Activity Generators



BUDDY DAYE ST. TO COGSWELL ST.

- Improved bicycle flow on Creighton St. through stop sign reversal. Improved safety and convenience for crossing at major intersections.
- Shorter pedestrian crossings with curb extensions.
- Reduced speeds from traffic calming measures.
- Possible loss of parking on east side of Creighton St. Further parking consideration being done.
- No impact
- Traffic calming measures to be implemented along Creighton St.

See Cunard St. vs. Cornwallis St. Board

Existing bicycle facility on North Park (painted uni-directional bike lanes)

Existing bicycle facility on Rainnie Dr. (protected, bi-directional bikeway)

Current project: Ahern Ave. (bi-directional bike path)

See Cunard St. vs. Cornwallis St. Board

Future project: Cogswell AT Greenway

NORTH END BIKEWAY: BLOOMFIELD STREET TO BUDDY DAYE STREET

OPTION C: 1-WAY COUPLETS FOR BICYCLE FLOW AND TRAFFIC FLOW ON MAYNARD ST. & CREIGHTON ST. WITH 2-WAY BICYCLE FLOW & TRAFFIC FLOW ON NORTHWOOD TERR.

LEGEND

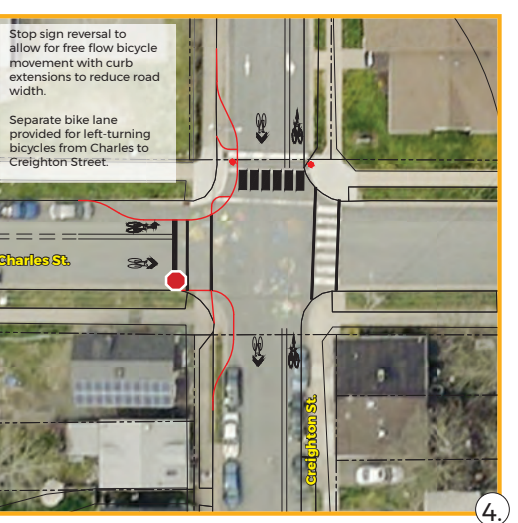
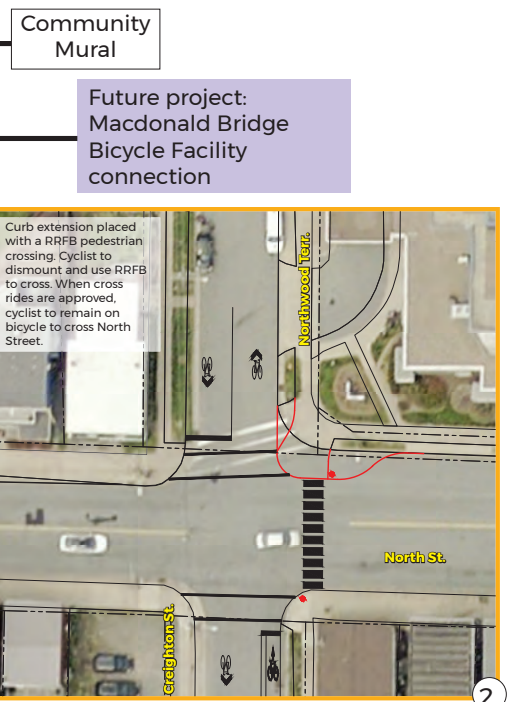
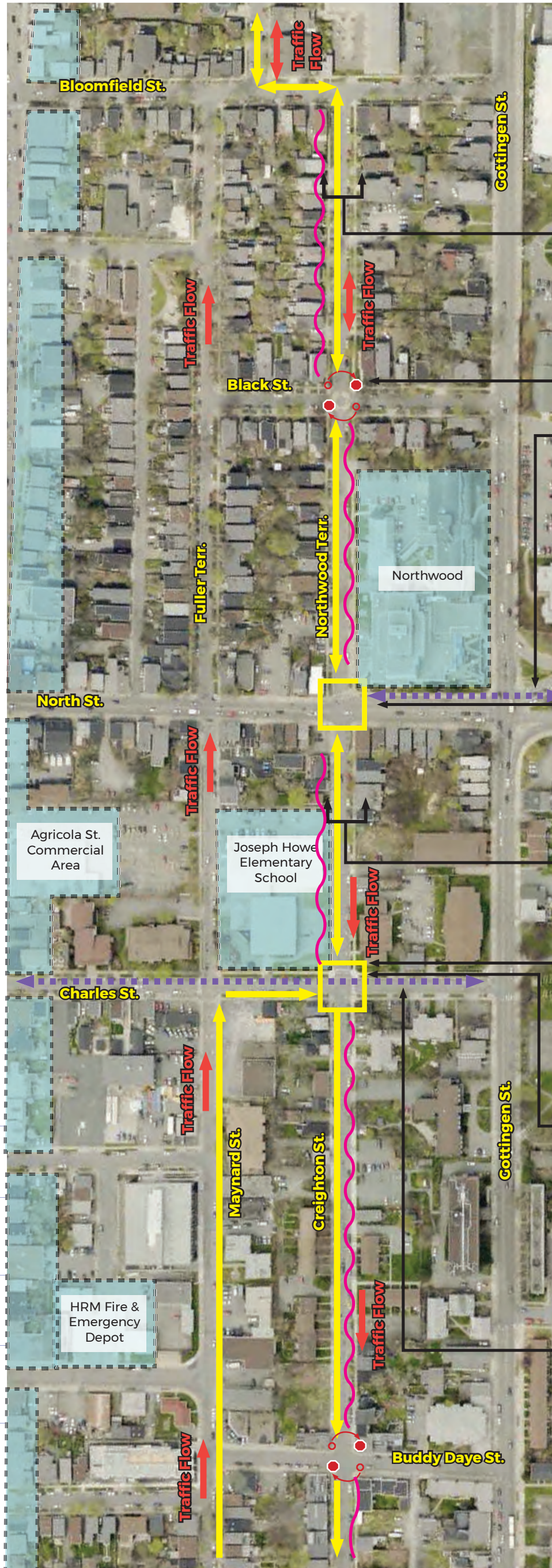
- Future or Existing Bicycle facility project
- Traffic Flow
- Bike Flow via Local Street Bikeway Facility
- Location for potential traffic calming
- Stop Sign Reversal
- Destinations/ Activity Generators

BLOOMFIELD ST. TO CHARLES ST.

- Improved bicycle flow on Northwood Terr. and Creighton St. through stop sign reversal. Improved safety and convenience for crossing at major intersections.
- Shorter pedestrian crossings with curb extensions and enhanced crossing controls.
- Two way traffic flow on Northwood Terr. Reduced speeds from traffic calming measures.
- Possible loss of parking on the west side of Northwood Terr. and east side of Creighton St. Further parking consideration being done.
- No impact.
- Traffic calming measures to be implemented along Northwood Terr. and Creighton St.

CHARLES ST. TO BUDDY DAYE ST.

- Improved bicycle flow on Creighton St. and Maynard St. through stop sign reversal. Improved safety and convenience for crossing major intersections.
- Shorter pedestrian crossings with curb extensions.
- Reduced speeds from traffic calming measures.
- No impact.
- No impact.
- Traffic calming measures to be implemented along Maynard St. and Creighton St.



Community Mural

Future project: Macdonald Bridge Bicycle Facility connection

Community Mural

Potential future Local Street Bikeway project

NORTH END BIKEWAY: BUDDY DAYE STREET TO COGSWELL STREET

OPTION C: 1-WAY COUPLETS FOR BICYCLE FLOW AND TRAFFIC FLOW ON MAYNARD ST. & CREIGHTON ST. WITH 2-WAY BICYCLE FLOW & TRAFFIC FLOW ON NORTHWOOD TERR. WITH 2-WAY BICYCLE FLOW & TRAFFIC FLOW ON NORTHWOOD TERR.

LEGEND

- Future or Existing Bicycle Facility
- Traffic Flow
- Bike Flow via Local Street Bikeway Facility
- Bicycle facility connection option
- Location for potential traffic calming
- Stop Sign Reversal
- Destinations/Activity Generators

BUDDY DAYE ST. TO COGSWELL ST.

Improved bicycle flow on Creighton St. and Maynard St. through stop sign reversal. Improved safety and convenience for crossing major intersections.

Shorter pedestrian crossings with curb extensions.

Reduced speeds from traffic calming measures.

No impact.

No impact.

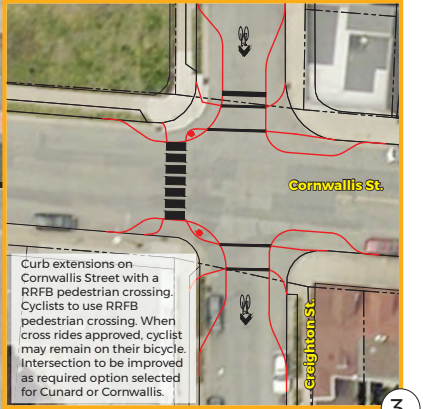
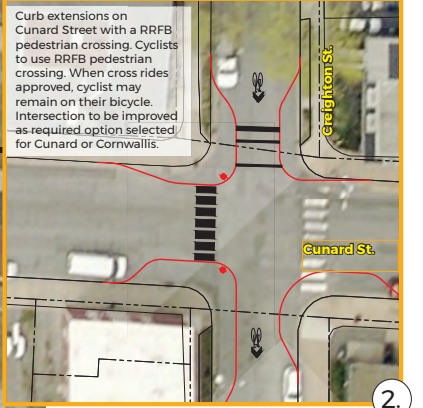
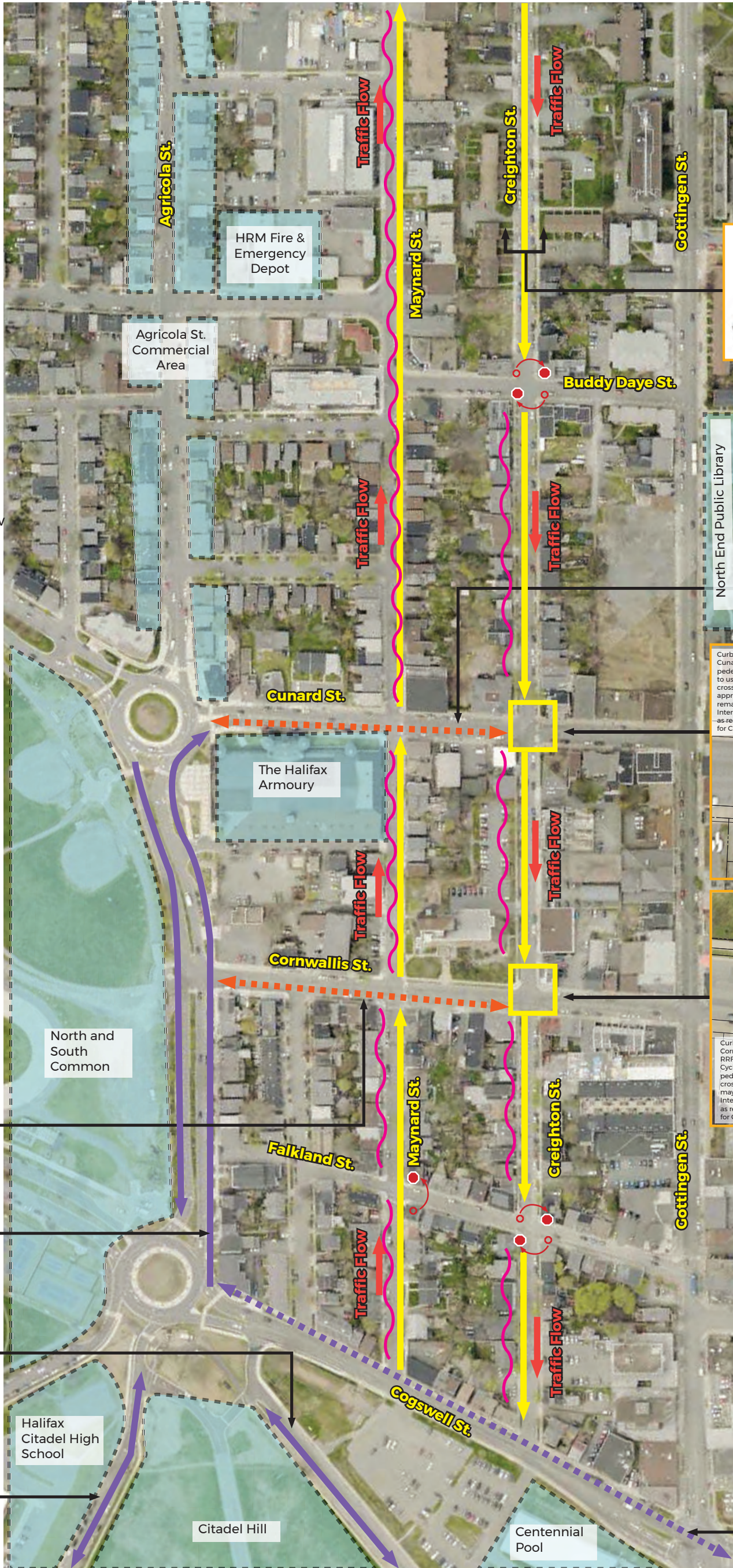
Traffic calming measures to be implemented along Creighton St. and Maynard St.

See Cunard St. vs. Cornwallis St. Board

Existing bicycle facility on North Park (painted uni-directional bike lanes)

Existing bicycle facility on Rainnie Dr. (protected, bi-directional bikeway)

Current project: Ahern Ave. (bi-directional bike path)



See Cunard St. vs. Cornwallis St. Board

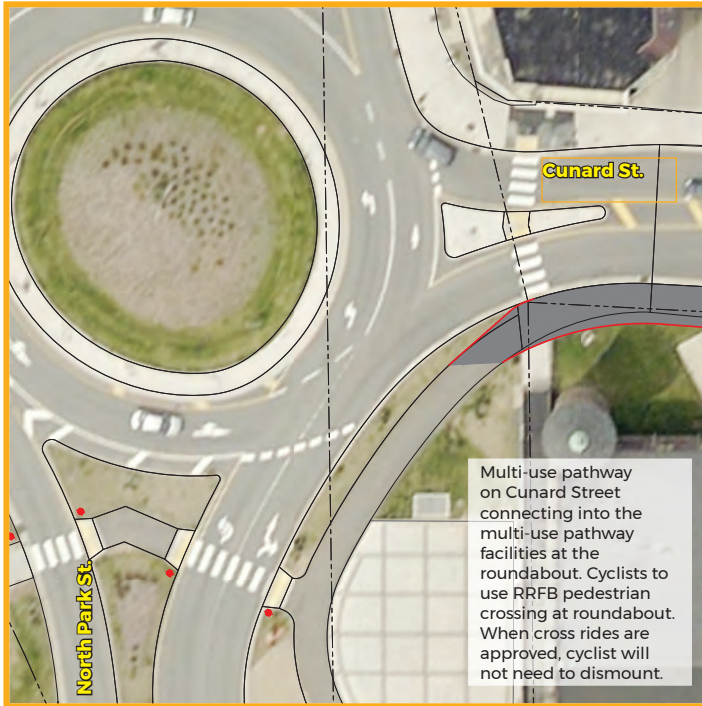
Curb extensions on Cunard Street with a RRFB pedestrian crossing. Cyclists to use RRFB pedestrian crossing. When cross rides approved, cyclist may remain on their bicycle. Intersection to be improved as required option selected for Cunard or Cornwallis.

Curb extensions on Cornwallis Street with a RRFB pedestrian crossing. Cyclists to use RRFB pedestrian crossing. When cross rides approved, cyclist may remain on their bicycle. Intersection to be improved as required option selected for Cunard or Cornwallis.

Future project: Cogswell AT Greenway

NORTH END BIKEWAY: CONNECTION TO THE COMMONS

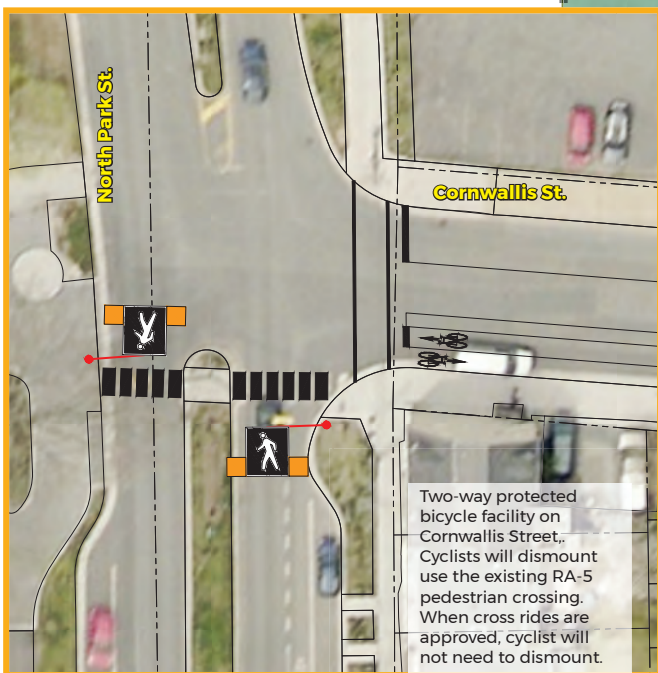
OPTION 1: CUNARD STREET



The design option at the intersection of Cunard Street, as a multi-use pathway, with Creighton Street and/ or Maynard Street will be designed according to the route options selected.

OPTION 2: CORNWALLIS STREET

Existing bicycle facility on North Park (painted uni-directional bike lanes)

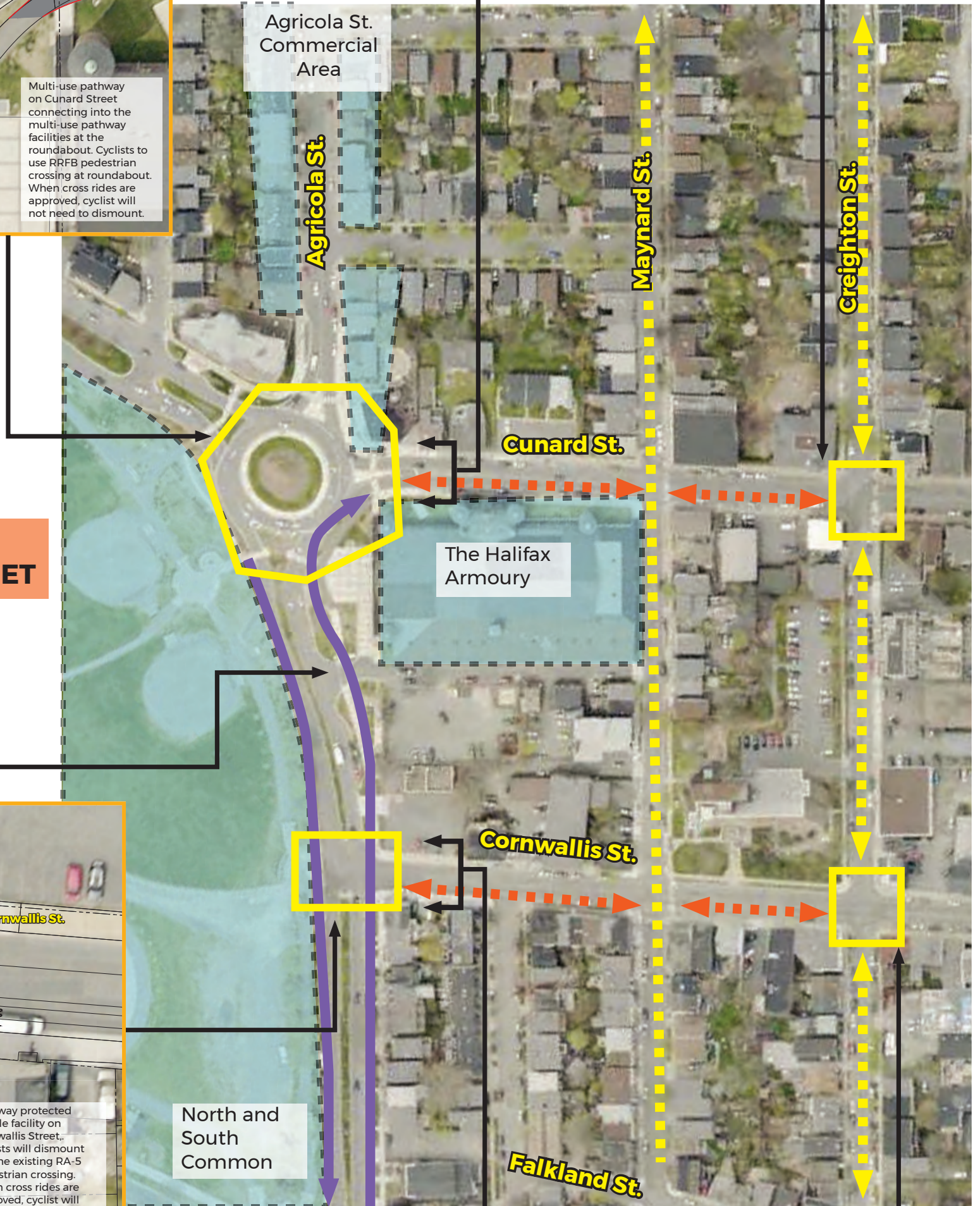


LEGEND

-  Future or existing bicycle facility
-  Bicycle connection option
-  Bike Flow via Local Street Bikeway Facility



The design option at the intersection of Cornwallis Street, as a two-way protected bicycle facility, with Creighton Street and/ or Maynard Street will be designed according to the route options selected.

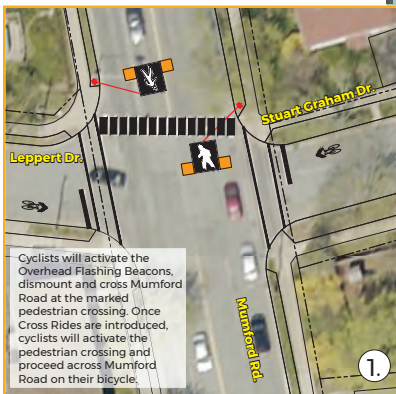


APPENDIX C:

West End Bikeway Options

WEST END BIKEWAY: WEST END MALL TO CONNAUGHT AVE.

- LEGEND**
- Future Bicycle Facility Project
 - Bike Flow via Local Street Bikeway Facility
 - Bike Flow via Protected 'AAA' Facility
 - Location for potential traffic calming
 - Signalized Intersection
 - Destinations/ Activity Generators



Cyclists will activate the Overhead Flashing Beacons, dismount and cross Mumford Road at the marked pedestrian crossing. Once Cross Rides are introduced, cyclists will activate the pedestrian crossing and proceed across Mumford Road on their bicycle.



No through vehicle access. Bicycles and pedestrians can proceed.

LEPPERT ST. TO PETER LOWE AVE.

- Local Street Bikeway facility connection from West End Mall area to Westmount neighbourhood.
- No impact.
- Traffic flow remains unchanged. Road closure remains at Stuart Graham Dr. and William Hunt Ave.
- No impact.

Future Project: Bayers Road Greenway (connection to Chain of Lake Trail).

GEORGE DAUPHINEE AVE.

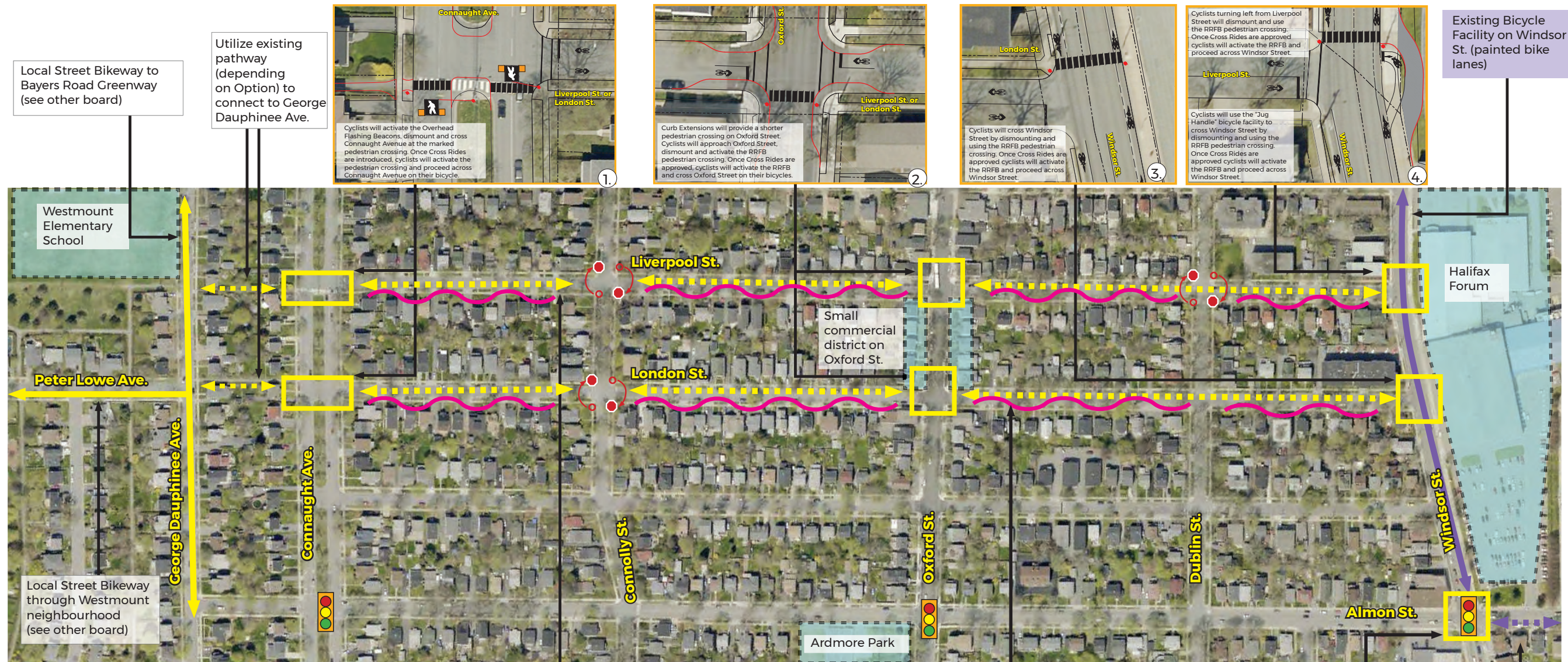
- Local Street Bikeway facility connection from Bayers Rd. to Almon St. via George Dauphinee Ave.
- Reduced vehicle speeds with traffic calming measures.
- Traffic flow remains unchanged. Some calming measures to be implemented on George Dauphinee Ave.
- No impact.
- Traffic calming measures to be implemented along George Dauphinee Ave.

West End LSB Facility connection options (see other boards).

West End 'AAA' Facility connection option (see other boards).

OPTIONS 1 AND 2: LOCAL STREET BIKEWAY VIA LIVERPOOL ST. OR LONDON ST.

WEST END BIKEWAY: CONNAUGHT AVE. TO WINDSOR ST.



OPTION 1: LIVERPOOL STREET (LOCAL STREET BIKEWAY)

OPTION 2: LONDON STREET (LOCAL STREET BIKEWAY)

LOCAL STREET BIKEWAY (LSB) OPTIONS



Local Street Bikeway facility connection from Windsor St. to Westmount neighbourhood via London St. or Liverpool St.



Pedestrian crossing on Connaught Ave. to remain at Liverpool St. if option is selected, if not, pedestrian crossing to move to London St. Either option will provide an enhanced crossing.



Traffic flow remains unchanged. Some calming measures to be implemented on London St. or Liverpool St.



No impact.

OPTION 1: LSB VIA LIVERPOOL STREET

- Liverpool St. is less steep than London St.
- Crossing at Windsor St is assisted with a jug handle turn and a RRFB pedestrian crossing (see image #4 above).
- Stop sign reversal at the intersections of Dublin St. and Connolly St. with Liverpool St. providing a free flow movement along Liverpool St.
- Connection to Westmount neighbourhood via a push-button activated crossing for both cyclists and pedestrians. A refuge island will be added to provide a break in the long pedestrian crossing. The transition to the pathway to George Dauphinee Ave. will be enhanced to accommodate cyclists.
- Speed management may be provided on Liverpool Street.

VS. OPTION 2: LSB VIA LONDON STREET

- London St. is more steep than Liverpool St.
- Crossing at Windsor St. has very little space for modifications to turn left from Windsor St. (see image #3 above).
- Stop sign reversal at Connolly St./ London St. to provide free flow along London St.
- Connection to Westmount neighbourhood would be improved similar to existing push-button activated crossing at Liverpool St. If London St. option is selected, the existing push-button crossing would be moved from Liverpool St. to London St. with the same enhancements.
- Speed management may be provided on London St. as the existing speeds are nearing the criteria threshold for traffic calming.

HRM Almon Street Bikeway project anticipated to accommodate bicycle connections between Windsor and Almon Streets. Design to be completed further in project once options have been selected.

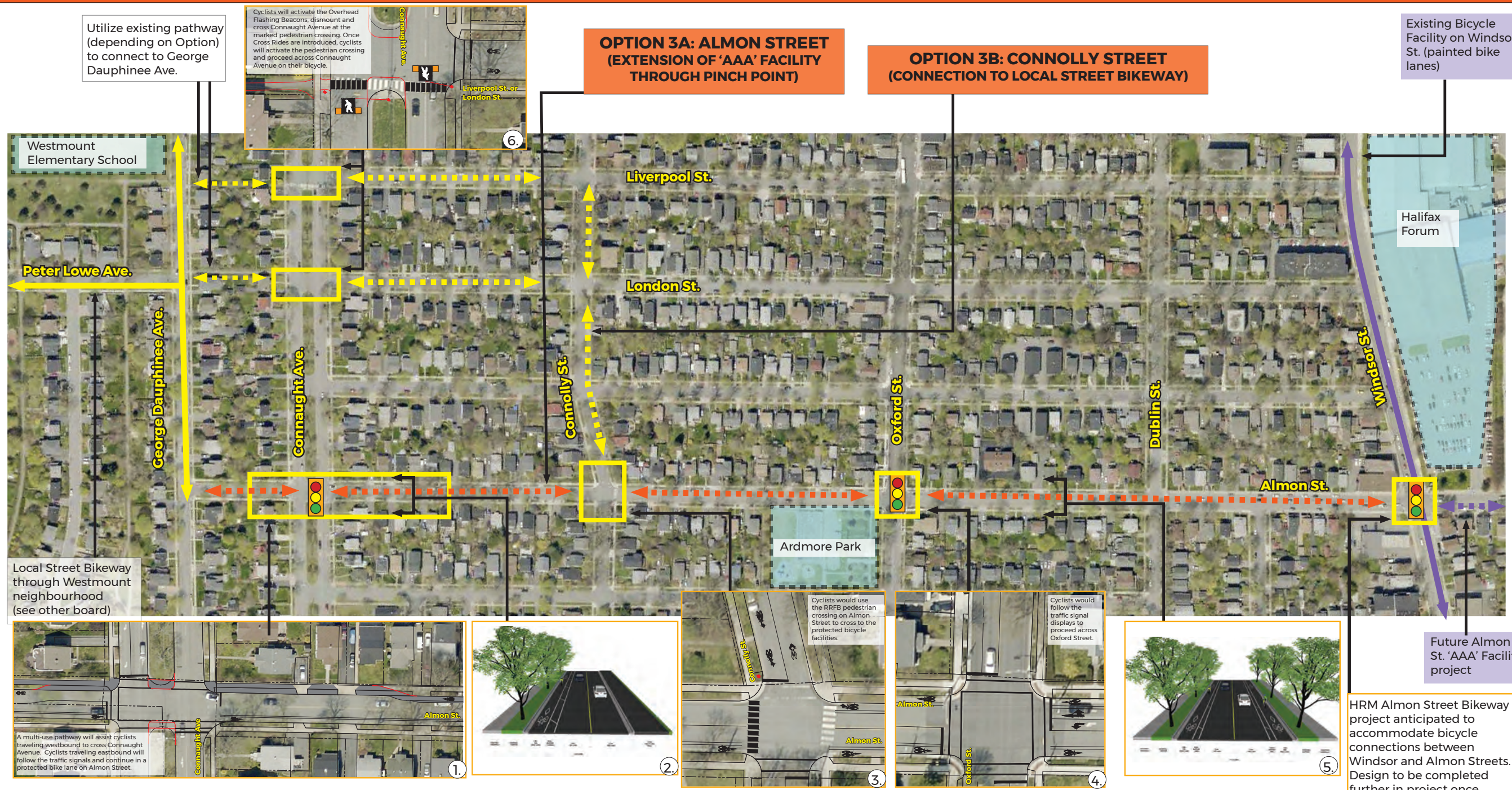
Future Almon St. 'AAA' Facility project

LEGEND

- Future Bicycle Facility Project
- Bike Flow via Local Street Bikeway Facility
- Location for potential traffic calming
- Stop Sign Reversal
- Signalized Intersection
- Destinations/ Activity Generators

OPTIONS 3A OR 3B: ALMON ST. 'AAA' FACILITY EXTENSION

WEST END BIKEWAY: CONNAUGHT AVE. TO WINDSOR ST.



'AAA' FACILITY EXTENSION (VIA ALMON STREET) OPTION

- Extending 'AAA' protected facility along Almon St. from Windsor St. to Westmount neighbourhood. Considerable pinch point restriction from Connolly St. to George Dauphinee Ave. (see image #1 and #2 above).
- If Option 3A is the preferred option, there will be a mixing area of both pedestrians and cyclists along Almon Street on the approach to Connaught Avenue. No impact if Option 3B is the preferred option.
- Traffic flow remains unchanged. Some calming measures to be implemented on London St. or Liverpool St., depending on option selected.
- Impact to approximately 80 parking spaces with utilization around 30%. (Parking data acquired in 2018)

OPTION 3A: EXTENSION OF 'AAA' FACILITY THROUGH PINCH POINT

- A multi-use pathway provides a protected bicycle facility, mixed with pedestrians, through the pinch point on Connaught Ave.
- Loss of trees on Almon St. between Connolly St. and Connaught Ave. in order to extend protected bicycle facility (see image #1).
- Provides direct routing across Connaught Ave. compared to Option 3B.
- More expensive to include asphalt pathway with removal of trees and sidewalk in pinch point.

VS. OPTION 3B: CONNECTION TO LSB FACILITY VIA CONNOLLY ST.

- Requires re-routing up Connolly St. (via LSB facility to either London St. or Liverpool St.), which results in less direct connection to Westmount neighbourhood.
- Fewer physical impacts to right-of-way (compared to Option 3B).
- Avoids signalized intersection at Connaught Ave.
- Connolly St. is a proposed future Local Street Bikeway and can be utilized for re-routing cyclists.

LEGEND

- Future or Existing Bicycle Facility project
- Bike Flow via Local Street Bikeway Facility
- Bike Flow via Protected 'AAA' facility
- Signalized Intersection
- Destinations/ Activity Generators

APPENDIX D: North End Survey

PUBLIC SURVEY – NORTH END

Public Engagement Sessions: North End and West End ‘AAA’ Bikeways

Tuesday, October 23rd, 2018 noon – 2pm and 6 – 8pm

Thursday, October 25th, 2018 noon – 2pm and 6 – 8pm

Thank you for participating in this survey to gather feedback on the functional planning of the North End ‘AAA’ Bikeway. These questions will focus on the routing options and cycling facilities necessary to make the connection from the top of Novalea Drive (Africville Lookoff Park) down to Cogswell Street. There will also be some early-stage discussion of traffic calming features and the treatments at major intersections to facilitate comfortable crossing on a bicycle. A separate survey is available for the West End ‘AAA’ Bikeway route. Please refer to information panels on www.shapeyourcityhalifax.ca/NWbikewayconnections for conceptual designs and descriptions of each routing option / facility type.

Your survey responses will be used to inform the preferred route and facility type for further study, eventually resulting in the preliminary (30%) design of this facility by consultants at WSP. These designs will be included as part of a final report which will inform recommendations to Regional Council in Spring 2019. If approved, the construction will be phased between 2019 and 2022.

Approximate time to complete survey: 10 minutes

1. I am a (please select all that apply):

- Resident or property owner immediately abutting the proposed bikeway routes
- Resident or property owner in the near vicinity of the proposed bikeway routes
- Business owner or employee of a business in the near vicinity of the proposed bikeway routes
- Student who attends classes in the near vicinity of the proposed bikeway routes
- Interested member of the general public
- Other _____

2. Do you own a parking pass on the following streets: Creighton, Maynard, Fuller, Northwood?

- No
- Yes, I own an annual residential parking pass
- Yes, I own/usually own a monthly parking permit for these streets
- Yes, I own both an annual residential parking pass and a monthly parking permit
- Other _____

3. How often do you walk or cycle along the proposed routes (or in the near vicinity)?

- Daily
- 3+ times per week
- 1-2 times per week
- 1-3 times per month
- A few times per year
- Rarely
- Never

4. How would you describe your level of comfort with cycling?

- Strong and Fearless
- Enthusiastic and Confident
- Interested by Concerned
- No Way No How

SECTION ONE: BLOOMFIELD TO TOP OF NOVALEA

5. Does the section of North End Bikeway between Bloomfield and the top of Novalea (Africville Lookoff Park) meet the objectives of creating a safe and convenient cycling corridor?

- Yes
- No
- Unsure

6. What is your preferred type of traffic calming (speed reduction measures) for this segment between Bloomfield and the top of Novalea? (check all that apply)

- Speed humps
- Curb extensions aka sidewalk bulb-outs
- Mini traffic circles
- Pinch points or other types of road narrowing along route (NOT necessarily at intersections)
- Other: _____

7. How comfortable are you with the proposed crossing treatments at the major intersections along the route:

Intersection	Very Uncomfortable	Uncomfortable	Unsure	Comfortable	Very Comfortable
Isleville - Duffus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Isleville - Young	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Isleville - Almon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. What changes to these designs are necessary to help facilitate the comfortable and convenient crossing of these major intersections on a bicycle?

Intersection	Cyclist Actuation of RRFB or RA-5 Flashing Lights	Crossrides	Traffic Signal (Full or Half)	Four Way Stop	Refuge Median	Bike Boxes	No change. Designs look good.	I oppose any alterations to this intersection
Isleville - Duffus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Isleville - Young	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Isleville - Almon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. How supportive are you of replacing the sidewalk with multi-use pathway on the west side of Novalea between Leeds and Africville Lookoff Park? This *may* require the loss/moving of 10+ young street trees to achieve the 3.5m width. Parking on the west side of Novalea *may* also need to be removed to support this pathway.

- Very supportive
- Supportive
- Unsure
- Unsupportive
- Very unsupportive

10. As an alternative to this multi-use pathway on Novalea between Leeds and Africville Lookoff Park, traffic calming and design treatments along the lines of a local street bikeway could be used to establish this connection while cycling on the road. Keep in mind there are frequent (15 minute) buses along this segment. How comfortable are you with this as an all-ages-and-abilities connection?

- Very comfortable
- Comfortable
- Unsure
- Uncomfortable
- Very uncomfortable

SECTION TWO: BLOOMFIELD TO COGSWELL

11. What is your preferred type of traffic calming (speed reduction measures) for this segment between Bloomfield and Cogswell?

- Speed humps
- Curb extensions aka sidewalk bulb-outs
- Mini traffic circles
- Pinch points or other types of road narrowing along route (NOT necessarily at intersections)
- Other: _____

12. How comfortable are you with the proposed crossing treatments at the major intersections along the route:

Intersection	Very Uncomfortable	Uncomfortable	Unsure	Comfortable	Very Comfortable
Creighton - North	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Creighton - Cunard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maynard - Cunard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Creighton - Cornwallis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maynard - Cornwallis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13. What changes to these designs are necessary to help facilitate the comfortable and convenient crossing of these major intersections on a bicycle?

Intersection	Cyclist Actuation of RRFB or RA-5 Flashing Lights	Crossrides	Traffic Signal (Full or Half)	Four Way Stop	Refuge Median	Bike Boxes	No change. Designs look good.	I oppose any alterations to this intersection
Creighton - North	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Creighton - Cunard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maynard - Cunard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Creighton - Cornwallis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maynard - Cornwallis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

14. Creighton Street and Northwood Terrace are currently one-way streets in the southbound direction, however, the streets are wide enough to accommodate two-way traffic. This would allow a two-way local street bikeway facility to be put on Creighton and Northwood. How concerned are you if both Creighton and Northwood were to become two-way for vehicles and bicycles?

- Not concerned – I think this would benefit the bikeway and/or neighbourhood access
- Minorly concerned – I support further study on this idea
- Quite concerned – I think this would have too many negative impacts for the area
- Unsure

15. I am willing to consider bikeway treatments on Creighton/Northwood that require some parking loss (could mean a reduction of 15% - 25% of on-street parking).

- Yes
- No
- Maybe
- Unsure

16. I am willing to consider bikeway treatments on Creighton/Northwood that require loss of parking on one side of the street (about 50%).

- Yes
- No
- Maybe
- Unsure

17. Converting Creighton/Northwood into a two-way Local Street Bikeway may require traffic diversion measures to minimize the resulting vehicular traffic volumes. Such measures improve safety and facilitate pedestrian and bicycle movements but can make accessing homes in this area more indirect. How supportive are you of potential traffic diversion measures on these streets?

- Very supportive
- Supportive
- Unsure
- Unsupportive
- Very unsupportive

18. From the perspective of someone riding a bicycle, please rate your comfort level riding on a contraflow painted bike lane against the flow of traffic on Creighton St or Northwood Terrace.

- Very comfortable
- Comfortable
- Unsure
- Uncomfortable
- Very uncomfortable

19. The following treatments are necessary to make this contraflow painted bike lane comfortable for all-ages-and-abilities of people riding bicycles:

- 1m hatched buffer (paint) is sufficient
- I would prefer a parking protected contraflow bike lane. Bicycles would fit between the curb and the parked cars, with moving traffic on the outside
- I would prefer some sort of physical barrier e.g. precast curbs, bollards, and/or planters
- I think that a contraflow bike lane could never be all-ages-and-abilities
- Unsure

20. Which of the three routing options presented best meets the objectives of a safe, comfortable, and convenient cycling corridor?

- Option 1: Conversion of Northwood Terrace and Creighton Street to Two-Way Traffic with Two-Way Local-Street Bikeway
- Option 2: Creighton Street Southbound Local Street Bikeway with Northbound Contraflow Bike Lane
- Option 3: Local Street Bikeway 'Couplet' involving Northbound Local Street Bikeway on Maynard and Southbound Local Street Bikeway on Creighton. This also requires two blocks of contraflow painted bike lane to jog from Maynard over to Creighton and conversion of Northwood Terrace to two-way traffic with two-way local street bikeway.
- You've missed the mark with all three of these options but I have other ideas about implementing the bikeway along this corridor (generally supportive)
- I am opposed to this project. Don't build any of the three options.

21. One aspect of this project includes consideration of an all-ages-and-abilities connection to the Halifax Common. Which road makes the most sense for comfort, convenience, and neighbourhood connections?

- Cunard Street
- Cornwallis Street
- Neither
- Other: _____

22. My preferred type of facility to make this connection is:

- Bidirectional bikeway on roadway with curbs and bollards for protection
- Raised bidirectional bikeway alongside the sidewalk
- Conversion of sidewalk to multi-use pathway on one side of the street.
- Other: _____

23. These different options have different impacts on parking and cyclist comfort. The bidirectional bikeway option (on the road or raised alongside the sidewalk) are more bicycle-specific but could have a greater impact on parking. The multi use pathway in place of sidewalk would involve interaction with pedestrians but could have less of an impact on parking. With this knowledge of trade-offs, which do you prefer:

- Bidirectional bikeway with less parking
- Multi use pathway with more parking
- Unsure
- Other: _____

SECTION THREE: GENERAL QUESTIONS

24. How do you anticipate that construction of the North End ‘AAA’ Bikeway will impact your cycling habits in the future?

- I bicycle now, and feel that this project will increase my cycling comfort and/or frequency in the future
- I bicycle now, but feel that this project will not impact my cycling habits
- I don't currently bicycle, but this project could encourage me to try cycling
- I don't currently bicycle and don't envision myself doing so in the future
- Other: _____

25. Please use the box below to communicate any other comments you may have about the project:

Thank you for your participation! Your comments will be used to inform the preferred routing and design for the North End ‘AAA’ Bikeway. Stay tuned for the “What We Heard” report form this session in the next few weeks.

Please return completed surveys to:

Siobhan Witherbee
Halifax Regional Municipality
PO Box 1749
Halifax, NS B3J 3A5

Or call (902) 490-6822 with any questions.

This survey is also available online at www.shapeyourcityhalifax.ca/NWbikewayconnections from October 24th through November 16th

APPENDIX E: West End Survey

PUBLIC SURVEY – WEST END

Public Engagement Sessions: North End and West End ‘AAA’ Bikeways

Tuesday, October 23rd, 2018 noon – 2pm and 6 – 8pm

Thursday, October 25th, 2018 noon – 2pm and 6 – 8pm

Thank you for participating in this survey to gather feedback on the functional planning of the West End ‘AAA’ Bikeway. These questions will focus on the routing options and cycling facilities necessary to make the connection from the intersection of Windsor and Almon Street to the West End Mall / Mumford Transit Terminal. There will also be some early-stage discussion of traffic calming features and the treatments at major intersections to facilitate comfortable crossing on a bicycle. A separate survey is available for the North End ‘AAA’ Bikeway route. Please refer to information panels on www.shapeyourcityhalifax.ca/NWbikewayconnections for conceptual designs and descriptions of each routing option / facility type.

Your survey responses will be used to inform the preferred route and facility type for further study, eventually resulting in the preliminary (30%) design of this facility by consultants at WSP. These designs will be included as part of a final report which will inform recommendations to Regional Council in Spring 2019. If approved, the construction will be phased between 2019 and 2022.

Approximate time to complete survey: 10 minutes

1. I am a (please select all that apply):

- Resident or property owner immediately abutting the proposed bikeway routes
- Resident or property owner in the near vicinity of the proposed bikeway routes
- Business owner or employee of a business in the near vicinity of the proposed bikeway routes
- Student who attends classes in the near vicinity of the proposed bikeway routes
- Interested member of the general public
- Other _____

2. How often do you walk or cycle along the proposed routes (or in the near vicinity)?

- Daily
- 3+ times per week
- 1-2 times per week
- 1-3 times per month
- A few times per year
- Rarely
- Never

3. How would you describe your level of comfort with cycling?

- Strong and Fearless
- Enthusiastic and Confident
- Interested by Concerned
- No Way No How

SECTION ONE: WEST END MALL (LEPPERT ST) TO CONNAUGHT AVE

4. Does the section of West End Bikeway between West End Mall (Leppert St) and Connaught Ave meet the objectives of creating a safe and convenient cycling corridor?

- Yes
- No
- Unsure

5. What is your preferred type of traffic calming (speed reduction measures) for this segment between West End Mall (Leppert St) and Connaught Ave? (check all that apply)

- Speed humps
- Curb extensions aka sidewalk bulb-outs
- Mini traffic circles
- Pinch points or other types of road narrowing along route (NOT necessarily at intersections)
- Other: _____

6. How comfortable are you with the proposed crossing treatments at the major intersections along the route:

Intersection	Very Uncomfortable	Uncomfortable	Unsure	Comfortable	Very Comfortable
Leppert - Mumford	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Liverpool - Connaught	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
London - Connaught	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Almon - Connaught	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. **What changes to these designs are necessary** to help facilitate the comfortable and convenient crossing of these major intersections on a bicycle?

Intersection	Cyclist Actuation of RRFB or RA-5 Flashing Lights	Crossrides	Traffic Signal (Full or Half)	Four Way Stop	Refuge Median	Bike Boxes	No change. Designs look good.	I oppose any alterations to this intersection
Leppert - Mumford	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Liverpool - Connaught	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
London - Connaught	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Almon - Connaught	<input type="checkbox"/>	<input type="checkbox"/>	XXX	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. **To establish a connection between George Dauphinee Ave and Connaught Ave, there are two 'street to street walkways' lining up with Liverpool and London Streets. These are narrow (under 2m) and constrained by homes on either side. These can be used by people walking and cycling. How concerned are you about the interaction between people walking and cycling on these pathways should one of these options be chosen?**

- Very concerned
- Concerned
- Unsure
- Somewhat concerned
- Not Concerned

SECTION TWO: CONNAUGHT TO WINDSOR

9. **How comfortable are you with the proposed crossing treatments at the major intersections along the route:**

Intersection	Very Uncomfortable	Uncomfortable	Unsure	Comfortable	Very Comfortable
Liverpool - Oxford	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
London - Oxford	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Almon - Oxford	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Liverpool - Windsor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
London - Windsor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Almon - Windsor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. What changes to these designs are necessary to help facilitate the comfortable and convenient crossing of these major intersections on a bicycle?

Intersection	Cyclist Actuation of RRFB or RA-5 Flashing Lights	Crossrides	Traffic Signal (Full or Half)	Four Way Stop	Refuge Median	Bike Boxes	No change. Designs look good.	I oppose any alterations to this intersection
Liverpool - Oxford	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
London - Oxford	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Almon - Oxford	<input type="checkbox"/>	<input type="checkbox"/>	---	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Liverpool - Windsor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
London - Windsor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Almon - Windsor	<input type="checkbox"/>	<input type="checkbox"/>	---	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. Which of the four routing options presented best meets the objectives of a safe, comfortable, and convenient cycling corridor?

- Option 1: Liverpool Street Local Street Bikeway
- Option 2: London Street Local Street Bikeway
- Option 3A: Protected Bike Lanes on Almon Street with Conversion to Multi-Use Pathway in Place of Sidewalk between Connolly and Connaught
- Option 3B: Protected Bike Lanes on Almon Street with Jog Over to Local Street Bikeway on London or Liverpool via Connolly
- You've missed the mark with all three of these options but I have other ideas about implementing the bikeway along this corridor (generally supportive)
- I am opposed to this project. Don't build any of the three options.

12. Options 3A and 3B (Protected Bike Lanes on Almon Street) would require significant loss of on-street parking (current utilization around 30%). Are the trade offs worth it towards establishing a direct, convenient cycling connection?

- Yes
- No
- Unsure

13. Option 3A involves converting sidewalk on the north side of Almon between Connolly and Connaught into a multi-use pathway. This is the only way that an all-ages-and-abilities connection can be made through this segment of Almon St due to narrow road width. To achieve the desired width, the mature street trees along this one-block segment would need to be removed. Are these trade-offs worth it towards establishing a direct, convenient cycling connection?

- Yes
- No
- Unsure

14. An important aspect of this project is ensuring that the cycling facilities are appropriate for people of all-ages-and-abilities. For new or nervous cyclists, which do you think would be the most comfortable type of facility?

- Protected Bike Lanes on Collector Road
- Local Street Bikeway (shared roadway) on Low-Traffic Residential Street
- Unsure

15. If a local street bikeway option is chosen, what is your preferred type of traffic calming (speed reduction measures) for these segments between Connaught and Windsor?

- Speed humps
- Curb extensions aka sidewalk bulb-outs
- Mini traffic circles
- Pinch points or other types of road narrowing along route (NOT necessarily at intersections)
- Other: _____

16. If a local street bikeway option is chosen, a transition will need to be made to safely and comfortably connect to the protected bike lanes on Almon east of Windsor Street. On Liverpool there is space for a 'jughandle' to realign bicycles before crossing Windsor. A two-stage left turn box is also being considered for Southbound bicycles on Windsor Street to turn left onto Almon. Do you think this is accessible? How else can we facilitate and enhance comfort of this transition?

SECTION THREE: GENERAL QUESTIONS

17. How do you anticipate that construction of the North End 'AAA' Bikeway will impact your cycling habits in the future?

- I bicycle now, and feel that this project will increase my cycling comfort and/or frequency in the future
- I bicycle now, but feel that this project will not impact my cycling habits
- I don't currently bicycle, but this project could encourage me to try cycling
- I don't currently bicycle and don't envision myself doing so in the future
- Other: _____

18. Please use the box below to communicate any other comments you may have about the project:

Thank you for your participation! Your comments will be used to inform the preferred routing and design for the West End 'AAA' Bikeway. Stay tuned for the "What We Heard" report from this session in the next few weeks.

Please return completed surveys to:

Siobhan Witherbee
Halifax Regional Municipality
PO Box 1749
Halifax, NS B3J 3A5

Or call (902) 490-6822 with any questions.

This survey is also available online at www.shapeyourcityhalifax.ca/NWbikewayconnections
from October 24th through November 16th

APPENDIX F: Transcripts of Phone Calls and Emails

West End Bike Ways communications:

We spoke on the telephone this morning. I live [REDACTED] Edinburgh Street between Dublin and Oxford. In our block parking is not permitted from Monday to Friday between the hours of 8 am and 4 pm unless you have a permit. In the block above us between Windsor and Oxford parking is not permitted at any time. The problem is after 4pm during Monday to Friday and particularly on Saturday and Sunday when most of the events are held at the Forum. I have included a picture of what I am faced with on a regular basis. Several times I have been unable to get out of my driveway until someone returns to their vehicle. It would be great for consistency if no parking at any time could be extended from Dublin to Oxford (south side) similar to what exists now between Windsor and Dublin Streets. When there is an event at the Forum people don't generally park below Oxford Street. The heavy parking is between Windsor and Oxford. Thanks for your consideration.

As discussed, I am writing you in opposition to the proposed bike lane along Almon Street as it is currently configured.

I am the owner of [REDACTED] multi-unit apartment buildings along Windsor Street.

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
Along with [REDACTED] houses along Windsor Street bounded by Liverpool and Almon [REDACTED]

There is a lack of on street parking due to the DOUBLE BIKE LANE down Windsor Street, and other area factors. The bike lane proposal as it currently stands further impedes my tenants adequate access to their homes and commercial services.

My commercial tenants at [REDACTED] Windsor Street currently have access to on street parking and accessible parking along Almon Street, directly in front of the building. This is beneficial as it provides those with disabilities access to vital health services. Should this parking be taken away, these patients will not have access to their care providers.

I would suggest that both sides of Almon Street retain the current on street parking, and the bike lane be integrated. Removing on street parking to this immediate area hinders the commercial viability of local business owners. As well, it severely limits home owners from having adequate parking for various needs.

I believe bike travel is a great benefit to any city, but it cannot be mandated by eliminating essential services, such as on street parking.

As I am unable to attend the feedback sessions, I am giving my observations regarding the West End Bikeway via this email.

I live [REDACTED] Connaught between Edinburgh and London [REDACTED]
[REDACTED]

My concerns are for the safety of the cyclists. I include the following observations:

1) Traffic buildup during rush hour.

Between 4 pm and 6 pm traffic is grid locked from Bayers Road to Chebucto, sometimes at an impatient stand still. It is impossible to safely cross at London to George Dauphinee. However, at Liverpool there is a flashing crosswalk with flags which drivers do respect, making it a safer option.

2) The intersection at Almon and Connaught is not safe to cross to George Dauphinee despite the traffic lights.

My neighbours and I are all too familiar with the heart stopping crunch of vehicles turning left from Connaught on to Almon, and turning left from Almon on to Connaught. Please check the history of accident reports for that intersection. As dog walkers who use the Westmount trails, we know it is safer to cross at Liverpool, regardless the time of day.

3) The intersection at Almon and Connaught has lane confusion.

Travelling west on Connaught, there is a dedicated right turn lane on to Almon. It is supposed to end there, however traffic continues to use three lanes instead of the two all the way to Bayers Road during rush hours. At London it is particularly dangerous to cross as two lanes may stop for pedestrians, but we can't see the cars sneaking up the 'third' illegal lane.

4) Connaught is the major route for emergency vehicles on and off the peninsula, almost hourly (I know because my dog howls in sympathy each time!)

My concern is for cyclists crossing on the light (for they do not dismount) and being unaware of the direction and closeness of these speeding vehicles.

I hope my observations have contributed to making a much needed bikeway a safer and user friendly option.

I spoke to you briefly at the above session. As I mentioned I was pleasantly surprised at the information and the presentation.

My reference points were the meeting for the proposed bike lanes on Almon St. which seemed to already be a done deal at the start of the meeting and the Windsor St. Bike lanes which seemed to just appear. A "Special Event" as it was called. Your session by comparison was more "transparent", not to overuse that word.

I cycled in HRM for over 20 years, mainly in the South and West end areas of the peninsula so I'm in favour of bike lanes. I'm also over 60 so I'm sure I'm in the minority taking that position. Still it seems that The Cycling Coalition is writing the game plan, not HRM. The other concern is that parking spaces are disappearing a few at a time. I guess the assumption is that every one lives on the peninsula. I live on Oxford St. so it won't impact me very much but obviously if I drive in from say St. Margaret's Bay to go to a restaurant downtown or a concert it's going to be an issue.

Further I think that any bike lanes shouldn't eliminate parking in front of small businesses as they did on Almon St. This also happened on the West side of Vernon St at Quinpool Rd. Incredibly after approving a condo project with main floor commercial spaces

the prime parking disappeared. That's exactly the type of situation where new parking should be located. I spoke to Victoria Horne as well so I realize parking utilization is not as simple as it looks on the surface...to say the least. I'm not sure gathering parking data from 6:30 PM to 6:30 PM is the best interval. When I park near my buildings on Fuller Terrace or Cornwallis St. there is virtually no parking available so perhaps 8:30AM to 4:30PM might give a different picture.

One last point. Is there any data to support bike lane usage in specific areas or estimate the increased usage once a bike lane is established? I walk in the Spring Garden Rd. , South Park St almost every day. Even at peak times I don't see a lot of cyclists using the bike lanes. There just seems to be a lot of assumptions regarding anything to do with cycling and bike lanes. Cyclists have a lot of enthusiasm for what they do , and the Coalition is well organized so their position is well represented. All I'm saying is I'd like to see some data. I'm concerned that the bike lane issue is becoming one sided in favour of cyclists. It doesn't seem that either side is willing to compromise which concerns me.

I don't feel like registering to the website in order to complete the survey.

But I do want to give my definition of a bike friendly city:

To your Question sawn on the street:

What does a comfortable and convenient bike-way look like to you?

My Answer is:

A bike-way with the minimum of interactions with petrol and electric cars and trucks.

That you know where it starts and how to join it. Shouldn't have a start or an end.

Generally thinking, this bike-way is part of a city that has a vision for mobility, as including the smallest common denominator (reduced mobility people like parents with their babies, people carrying heavy stuffs like luggage, delivery, moving... wheelchairs, elders, or injured people). Reduced mobility, can be occasional, as much as lifelong and is the matter of everyone, from the shop that leave's a pancake on the sidewalk, to the one who *forgets* it's old mattress, or couch in front of its door, to the dog owner who forgets it's dog waste, to the person who drank a refreshing and throw the bottle on the road, that ends up flat blocking a door that has no automatic opening...etc and of course the infrastructure's; architectures, facilities, garbage's, and the services that goes with it.

Thanks for your time and consideration.

I reside in Westmount subdivision.

I see part of your proposal for the west end bikeway indicates a possible bike route via the intersection of **Almon and Connaught**. Any addition of more traffic or moving parts (bikelane, bikes, or otherwise), and/or complexity, to that intersection is an obvious and major mistake, likely to be tragic (ie. serious injuries and /or death will result). There is already constant confusion there by motorists, it's got very impatient fast moving (ie. Connaught) traffic on it, and accidents already regularly happen there (and more "close calls" than you can imagine..), and you are undoubtedly going to be putting bikers and others into harm's way should you decide to route them through this intersection. Trust me, do not do it.

Walkway at London between Connaught and Geo D is wider than at Liverpool -- Liverpool has a post that gets in the way. Possibly more dangerous. London may be the way to go. Have you considered Edinburgh?

Owns property on Liverpool Street [REDACTED] If the bikeway goes in and the street is repaved [REDACTED]

In favour of this bicycle infrastructure -- it's the healthy thing to do. Concern re: hills for AAA. Hills are difficult for young and old. Alternatives for the area: use Sander Park alongside Chebucto Road. This park is underutilized and there are already paths here. Room for more. Connects in similar way to Mumford. Much more flat than Leppert and Stuart Graham. Safer off road in park. Almon is also too hilly and the cars drive too fast.

Lives on Leaman. Most people have two cars, need to park one on the street. Don't remove parking from Leaman Street

North End Bike Ways communications:

Hello, a short time ago I received a letter about bike lanes. I live at [REDACTED]. I travel a lot in the city centre by foot and by bicycle. We have a car, mostly used by my wife to get out to Bedford for work or for out of town travel.

Unfortunately almost all the new cycling interventions have been unsatisfactory except for longer trails etc. leading outside the city, which are wonderful. The current bike lanes of this city which mysteriously start and then disappear are a nod in the right direction but until they are set up to follow known paths (not ones chosen by planners) and are maintained over significant distance, not just stop and start, they will just be a gesture.

The inner city track by the university for instance may be a failure. This seems to show low usage with significant disruption of an already stressed parking area in the city. During the time classes are on the few cyclists have as much trouble as drivers. And I don't use it as it takes me down to Summer Street which going north is a disaster for cyclists (narrow lane). Easier to go along Vernon and cut down Jubilee. In my discussion with Wayne Mason, I got the feeling that this path was really meant for Sunday cyclists. For them it made total sense. But not for the regular cyclist going to and from the university.

Another problem path: I have never seen a bicycle on the long Hollis street trail (which in some areas with recent construction was actually be a dangerous route).

Most people are not following the city designated tracks as they can never take you where you are going ... the whole point of a bike is to give you freedom and choice of movement. And unfortunately designated tracks give you a false sense of security because a driver's right hand turn or a cyclist going left will always be a challenge, especially without fourway stops which may be the best system for bikes and drivers and pedestrians because they force attention.

Now, to [REDACTED] I would not choose to travel north on Maynard by bike or by car as there are no lights and no stop signs at many of the east west intersections. I just head up to North Park and Agricola. Lights and stops all the way. More traffic, but I would argue, it's actually safer. If you can have four way stops or lights on Falkland, Creighton, North etc at ALL relevant corners I could see a bike path working. But no reliance on pedestrian cross walks. Forcing cyclists onto pedestrian crosswalks causes problems for pedestrians (cyclists rarely get off their bikes) as well as for cyclists. And a pedestrian crosswalk gives a totally false sense of safety for the cyclist who wrongly expects instant obedience from the car traffic.

If east-west problem is solved I hope the planned lanes will not in any way disrupt street parking which is a serious problem in our neighbourhood because there is minimal offstreet parking with the older attached houses. The parking problem does not just apply to residents but also to workers in residences, deliveries, guests, etc. Removing parking will generate great hostility towards cyclists, who after all are a tiny minority in this city.

So far as I know, no one would choose to travel north by Maynard because of the east west challenge. And even if the street is marked and the stops provided, will cyclists choose Maynard? Without the data on actual preferred or needed travel routes it's hard to tell.

Though I appreciate the effort to improve the paths, it is, as I say, being done for a small minority of this city. I appreciate the effort, but I acknowledge I am in the minority. You will not get people to switch to bicycles in this city or this culture. The hills are a challenge. Also there is a sense of danger on a bicycle and quite frankly with the condition of some of the streets, it is hazardous for inexperienced people to get out there. We also have some of the worst drivers in Canada. Still, we should be striving for any improvement, if it's well considered and found to work.

Thanks for the opportunity to provide a reaction.

I have been looking at the bike lane options and am very concerned as someone who lives on Creighton Street between Falkland and Cogswell that they will be less safe not more if the proposed changes are made...I have lived also on West 10th in Vancouver on a bike corridor, but unfortunately I don't think Creighton street has the same capacity for traffic calming, two way traffic, no parking and/or bikes! I live in a [REDACTED] with limited driveway space but up to [REDACTED] people that need parking. We also frequently have repairs done and tradespeople need to get to the house easily/have access to parking. I currently bike in the neighbourhood and find it very safe to bike on Creighton and Falkland as it already is.

I hope that the proposal can shift so that some of these concerns are addressed.

I received a description of proposed bike lane down Maynard and have already written [REDACTED] who is collecting comments etc. (See below for my letter and her gracious response). Like many of my neighbours we are acutely aware of the limited parking along our street, because most houses do not have driveways. The lack of parking also affects any tradespeople coming in as well as guests. So any attempt to do a Dalhousie type lane will be seen as a hostile act.

The other problem with Maynard that I also pointed out to [REDACTED] is that east-west traffic must be stopped at the junction with Maynard (eg Creighton, Cunard etc). if this lane is to be in any sense meaningful. Pedestrian crosswalks don't cut it for cyclists because of the requirement to dismount.

Why not simply designate Maynard as a bike friendly route, put in serious east-west stop signs so north-bound cyclists can travel easily and safely, and leave it at that. As a cyclist I would find that to be entirely sufficient and safe. No need to remove parking or to force cyclists into narrow paths (the condition of the

streets, drains, etc cause us to favour the middle of the road anyway).

I wrote you quite a while ago about Dal, to which I used to cycle regularly. Recent rides or walks up University avenue show me clearly that this route is under utilized by cyclists. I thought and still think these fancy bike lanes are a useless gesture to cyclists.

I know ... "there is a master plan". Of course that fills me with dread. I am about to witness a multi year reconstruction of that master plan of Cogswell undergo an expensive and drawn out removal. I am sure it looked like a great idea at the time. So does the idea of a master plan of bike lanes to the master planners of today. I wonder how many of them actually ride a bike?

I wrote you when I first heard of the bike routes (needed, I think) and suggested that perhaps making Maynard and Creighton 'local traffic only' streets might be the best option. I have since received a circular from a resident of the area which points out that bikes already (myself included) use these streets safely, and with no restriction of parking. The circular also points out that the changes on Gottingen Street (which don't seem sustainable to me) has already restricted parking in the area, so this seems like a double onslaught. I agree, and feel even more that the best option is to restrict automobile traffic flow on Maynard and Creighton, not parking.

This brings me to an observation I have made since returning to Halifax after a 40 year absence. My home city seems filled with people who feel entitled - entitled to cross streets without looking to see if it is safe (I have friends who fear driving here because of this - but it was worse a few years ago); entitled to sole occupancy of a crosswalk; entitled to cut in front of cars without using a turn signal, and such like. This is in strong contrast to what happens in most of the rest of the world, where meshing is practised - and where meshing is practised, accident rates are lower. Haligonians need to learn this for their own safety - I was tooted at angrily by a car when I entered a rotary just after it had, 180° away from me: that driver thought he/she had sole right to the rotary since he/she was on it - and further sped up to enforce that right, but of course didn't come close.

Good luck finding a solution to this!

If it is on Almon – be careful of Speed. Wants to see traffic calming and/or four way stops to slow traffic to slow down if bike lane goes on. If no parking, then cars will go faster.

Less concerned about parking, but it is a concern. E.g. wheels on meals deliveries for seniors.

I write today to respectfully submit to you and the HRM that the proposed changes to Creighton St and the neighbourhood of Creighton Fields do very little, in my opinion to address mutual safety for pedestrians, cyclists and motorists in fuel driven vehicles.

How so, you might ask?

Very little is known about the volumes of all of these participants in moving from areas west to east on the peninsula. Very little seems to be known about the current status on the issues surrounding these participants as they are currently moving in these areas.

It appears the HRM has had a thought that this improves the safety of these participants; however, I truly believe that with the volume of fuel driven vehicles coming onto and departing from the peninsula at peak times it would behoove the HRM to create environments where that is reduced, through various measures, none of which I am paid to project, but, it would seem to me that these are objectives that should be sought primarily and only then, upon achieving more safety through a lesser pressure upon

streets, sidewalks and designated cycling lanes, would there be a valid argument for what is being proposed right now.

The changes you propose do not make sense and they appear to be short sighted and a bandaid approach to a situation that is greater than what the residents of the north end should bear. If you restrict the parking on the street through reducing the number of non-resident permits, why not try that first? For example, are all of the available parking spots in the downtown core, in designated and specifically built parking sites fully booked during the normal peak times for parking throughout the day? If not, then the pressure to use them will increase if you remove those permit options for non-residents of those streets.

If you limit and remove parking on Creighton St., where will visitors to my property park their vehicles? If there is no parking, then that interferes with visitors being able to reasonably park close to my location, meaning, I am creating the solution for HRM, not HRM creating a solution for me. Do you plan to build, for instance a municipal parking location, multi tiered or not, to accommodate this that is reasonably close?

I truly believe that changes to the flow, direction, and parking on Creighton and in the Creighton Fields neighbourhood should definitely be looked at, primarily, through one that is suited for the neighbourhood first and foremost, not the way that you propose, which is to use the neighbourhood as a throughway for people moving. When HRM addresses the volume of fuel driven vehicles that come onto the peninsula which creates those peak demands for the space, then, I believe that real and improved safety for all of these stakeholders exists. You don't have permission, it would appear to me, to enact these changes until you have exhausted all other measures and it is the only thing that our neighbourhood can do, but, to participate in the fix, because all other HRM residents have engaged in the modifications and paid for them.

Once again to talk about parking.

The new bike ways being proposed by Active Transportation Planner [REDACTED] for Creighton and Maynard Streets involves the potential loss of parking from 15-50%.

This is a big concern for residents as we continue to struggle with parking, newly highlighted by the changes on Gottigen Street.

The concept of going back to two way traffic is also concerning for traffic flow and safety concerns. Likewise a contra-flow bicycle lane.

I am writing you because I think bicycle and vehicle traffic should be managed together.

Does the Transportation Dept support two way traffic, and /or contra flow bicycle lanes on such narrow streets?

If not, can these two suggestions please be removed from the proposals.

First let me say I understand the growth of Halifax - we are most certainly on the move. [REDACTED], I am not in agreement with bicycle lane on Creighton St. nor Maynard Street as these streets are small, traffic moves in only 1 way, as for Maynard Street parking is on one side of the street only.

Most persons live in houses where there is no garage, we cannot park the car in the driveway not garage. We already pay the HRM fee of \$35.00 per year to park our car on the street, in hope of being able to park in front of your door.

You see, for many years now folks who work downtown park their cars either in Creighton it Maynard Street.

We had no place to park, if we went to the grocery store or wherever, upon our return there was no place to park.

[REDACTED] even now, the city has allowed these folks to continue to park on these streets, they just pay the yearly fee.

It is not fair, does not work at all for those of us who live here.

Please know many of us have nothing against bicyclists, my son is a bicyclist; however there is just no room to have bike lanes in either one of these streets.

Streets are too small, not enough parking, and homeowners are continually feeling put upon.

We are asking our Councillor, [REDACTED] to hear our plea, our concern and stand strong for us.

Thank you.

Attended the session yesterday re bike lanes. I am not confident that my comments will reach City Hall so am sending them to you as well.

- How does the city plan to handle snow clearance (already questionable) on protected bike lanes?
- What is the Forum's plan to handle decreased neighbourhood parking? The area is already challenged on regular days and especially during special events such as Christmas at the Forum, Jehovah Witness conference, Cheer Festival, and graduations. Those of us who live here have learned to not plan to get groceries during these events as the lots are full. It is a small inconvenience I anticipated when I bought here.
- Are there statistics on anticipated increase in attendance by bike riders to the special events mentioned? And how many parents will bring children and hockey equipment on bikes?
- How is the city planning to reduce traffic volumes and congestion coming onto the peninsula from the Larry Utek/Kearney Lake area - what infrastructure will be put in place BEFORE bike lanes?
- With decreased parking on Isleville, what plans are in place to handle the Stadacona parkers who use this area?
- Will bike riders assist with the cost of the bike lanes by being licensed? Which will also enable us to report offenders?

And finally - where does the City get its bike rider date from? If it is compiled by the very militant Bike Coalition, this is definitely suspect and not good practice.

Rest assured, I fully support safer biking in this city but remain convinced that reduced traffic volumes would go a long way to accomplishing this.

Thank you immensely for taking the time to read and then reply to my email. I really appreciate your time and want to reiterate my gratitude for the work you [REDACTED] do on council to serve our community.

If I am confused, I apologize, but after attending the feedback session and speaking to staff at the session, the design boards at the session now available in PDF format lead me to conclude the following is proposed:

1) NorthEnd Bikeway Buddy Daye to Bloomfield that all three options (A, B, and C say: "possible loss of parking on the west side of Northwood Terr. and loss of parking on the east side of Creighton Street". Option B and C say "further parking consideration being done". This wording, I believe, gives staff the mandate to eliminate parking in all three options, which I am wholeheartedly against.

and 2) NorthEnd Bikeway Buddy Daye to Cogswell Street options A and B say "possible loss of parking on east side of Creighton St. Further parking consideration being done. After talking with staff at the session I was also led to believe that even with Option C that the "shorter pedestrian crossing with curb extension" will lead to parking spots being lost. I feel that no parking at all should be lost so I reject all three proposed options.

I have reached out to [REDACTED] Active Transportation Planner, HRM to clarify the above, as at the session I was admittedly in shock that HRM is proposing more losses to parking after losing half of the parking on Gottingen. I haven't heard back from [REDACTED]

[REDACTED], Harris Street [REDACTED] voted against any permit parking but despite this permit parking got added after Harris East condo was built. I'm not sure why this happened. I understand this is now happening on Bauer Street too. It's next to impossible to find parking for my tradespeople on Harris now. I feel, the loss of parking on Gottingen, and now with the loss as proposed with the Bikeway will put even more pressure on this tiny street (Creighton). I ask for your support to not put any more parking pressure on this street.

In [REDACTED] area, the block on Creighton from Cornwallis to Falkland, the residents also voted against permit parking and asked for the status quo. (1 hour parking in the mornings). It's my hope this won't change and ask for your support.

I hope no more parking is lost in the North End and ask for your support in this. The parking situation as it is, is causing difficulty to my business, and this was before the loss of half the parking on Gottingen.

We've lived in our own house at [REDACTED] Creighton for [REDACTED] I was a serious bike user. We have observed in this short time a tremendous new demand for parking on our street both night and day.

There is also increased morning traffic as it is a good short cut around Gottingen.

This parking demand is, you know, due to increased commercial activity on Gottingen, namely 5 new restaurants, nightclubs and many new commercial enterprises.

Here are 4 photos that illustrate the problems that exist and the problems that could occur with the proposed traffic flow between Cogswell and Cornwallis.

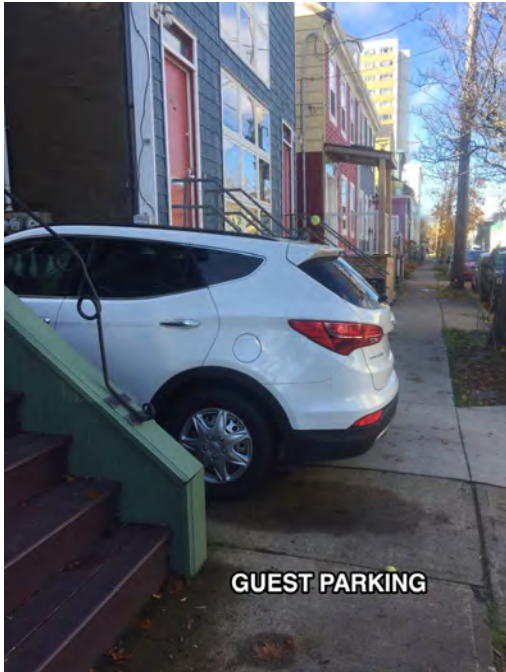
1. two way traffic with loss of up to 12 residential parking places.



2. Typical traffic block for delivery and garbage collection. Impossible during the winter.



3. Current visitor parking when all 24 street places are taken.



Summary

Option one- two way traffic----unrealistic for narrow street!!

Option two- bidirectional bike lane---loss-12 residential parking

Option three- shared lanes cars and bkes, calming curbs to slow car speed.

acceptable-with fewer parking spaces lost.

I am a home owner on Falkland Street with no driveway. I am writing to you tonight to voice my concerns about the proposed bike lanes on Creighton, Northwood, and Maynard. I am not opposed to better routes for cyclists however I am opposed to a loss of parking in an area where parking is already limited and the majority of residents do not have parking.

I currently pay over 3500.00 a year in taxes to HRM (and based on news reports the rate is about to be increased) and I would hope that the City Council will take into consideration not only cyclists but the residents of this neighbourhood. Funny enough I see lots of plans for new bikeways but I do not see any options for parking for those of us who have a home without a driveway.

I am emailing you because I have received two unaddressed and unsigned flyers in the mail regarding the SAVE OUR PARKING petition that I imagine you are aware of by now. I find the fact that this petition prioritizes parking over pedestrian safety upsetting. I have had friends hospitalized for being hit by cars in this neighbourhood, lost two cats to speeding cars, and I am extremely concerned about the 150+ or so children who live in our neighbourhood (plus many more in other areas).

I wanted to make it clear that I am definitely NOT in favour of this petition for a number of reasons. I know you are busy so narrowing it down to my #1 reason is that I agree with the traffic calming solutions that are put forward.

one thing that could be considered (if not already) is 15 minute parking for service vehicles and more local parking permits for local residents that have proof of address. Northwood/Fuller/bloomfield currently is a free for all, leaving much of our street parking being used by commuters who work downtown or at Statacona. Since parking at Stad has been taken away, pressure for parking in this neighbourhood has increased. Perhaps local residence parking permits (like what i think already exists on creighton and maynard) combined with 15 min parking for service vehicles may help?

Just my two cents!

Many thanks [REDACTED] for all your hard work lately, and looking forward to seeing more traffic calming solutions in the neighbourhood! It's great to see some plans for this.

I was receiving letters about saving parking in the North end and as I live on Northwood Terrace I wanted to send my support to the new bikeway project. Although I enjoy having convenient space for guests, tradespeople etc. to park, don't feel its fair to reserve our road space as a place to keep private vehicles at the expense of communal use. I worry somewhat about the ability for Northwood Seniors to get safely out of their cars etc., but I feel confident that the city will come up with a terrific design that will retain some parking. More importantly, the bikeway will give the opportunity for those who like to bike to do so safely with their family.

I have lived on Creighton Street [REDACTED] [REDACTED] for more than [REDACTED]
[REDACTED]

Can you please clarify what the options are for this section of Creighton Street?

I was unable to attend either public session, and I'd like to be better informed before I fill out the survey.

I am bike-commuter, car driver and pedestrian/runner in equal measure. I am one of the many cyclists that finds HRM a fairly unsafe place to ride compared with some other more bike-friendly Canadian cities, and on many occasions have opted not to ride bike because I feel unsafe. So I fully support HRM creating bikeways. As well, I have concerns about traffic speed on Creighton Street, and traffic volume, but I am also concerned about the potential to create a lack of street parking in this block. Not many houses here have driveways and residents require close by and safe parking. My ability to rent to tenants is often contingent on them having access to reliable street parking. The permit parking has worked out great. But often in the evenings when all the cars come home for the night, the street is packed. And it's hard to find parking. I don't want my tenants who are often single females to have to walk very far from their front doors.

I want to be careful in what I recommend so that an innovative solution can be found to meet our needs as a safe, bike-friendly city without negatively affecting the people who live on this section of Creighton Street.

I've looked at the map and one of the things I don't understand is why it would be good idea to make Creighton St a two-way car traffic street. I love the traffic calming though. And I love the idea of this being a bike street (either one way or two-ways). But two way car traffic? I don't see how that would be a good idea.

Also to keep in mind, in the wintertime if there is snowfall this street gets very narrow, and we often lose one side of the parking on the street because it's no longer wide enough for firetrucks to get through.

My ideal solution would be to not affect permit parking on both sides of the street, calm and slow the car traffic, keep it one-way for cars, and one or two ways for bikes. Could it simply be that bikes set the speed for this street? So message to drivers: don't bother coming down this street unless you are ready to ride the speed of the cyclists.

And I would add that I do not think it is coincidence that Creighton and Maynard Streets are disproportionately African Nova Scotian and low income communities. Halifax has a long history of trampling over the rights of those communities for the 'common good.'

Resisting the loss of parking is not an issue of promoting 'car culture' over active transportation. Many of us who live on Creighton and Maynard walk or bike everywhere. Physical activity, reducing environmental effects - those are good things right? But, for example, let's say kids on Creighton St need a quieter place to play street hockey. So for the common good we are going to make all driveways on some South End streets into public parking, to get the cars off the streets and provide a place for street hockey. No worries, South Enders, you can still park in your driveways, unless someone else gets there first. But surely you'll find parking within a few blocks.

Or let's say those of you in Sackville, or Clayton Park, who happen to have front yards: Those of us on Creighton do not have front yards. So if it is all right with you, can we just use your yards for camping in the summer? No? Don't you support being outdoors, in nature, physical activity and such? Would you really prioritize your right to private property over those things?

In several recent public talks in Halifax, geographer Ted Rutland spoke about his book Displacing Blackness, which traces how urban planning in Halifax has for decades advanced the health and wellness of higher income and white Haligonians at the expense of lower income and Black Haligonians. Africville was just the best-known incident. This sure seems like another such instance -- making life far more complicated for citizens in one neighbourhood so those from other areas can pass through it more easily. Surely it is not just for costs to all be borne by one group while benefits go to another group.

Thanks for your letter of [REDACTED] about proposed new bikeways in west and north Halifax.

I don't participate in online surveys that require me to disclose my name and/or other personal data, so thought I'd take the liberty of directly dropping you a line about the North End proposal. (People care about their privacy all the more as they lose it these days, so the city might consider making surveys or feedback forms anonymous in future.)

My family and I have lived throughout the Hydrostone for nearly forty years. Currently [REDACTED] live [REDACTED] just east of Isleville Street, where you're proposing to build a leg of the north end bike lane. We own our house. In what was once a legendarily quiet neighborhood, much desired for its calm, charm, and village "feel," over the past several years it's become hard for homeowners to park on the boulevards, hard to get into our back lanes from Isleville and Novalea, and hard to drive in and out of the neighborhood at all.

It's equally hard to bike in and out, and far more dangerous. Perhaps this proposal for a bike lane comes at the suggestion of someone who recalls the Hydrostone and Isleville Street as they were twenty or thirty

years ago, and hasn't seen it since? Please, come down and have a look. Drive up and down Isleville during any weekday and see for yourself.

Every time I've driven down Isleville since I received your letter, I've shuddered at the thought of a bike lane dropped into the congestion of this tiny thoroughfare, constantly lined with cars on both sides so that traffic has to pull over whenever a vehicle approaches. Additionally, a Mom & Pop store about half-way down Isleville creates a chokepoint that can take several minutes to clear. Now, more storefronts and condos are opening on the west side of the street. These will add even more traffic and even greater demand for parking and even double-parking, especially near the store.

As it is now, Isleville Street between early morning and mid-evening is functionally a single lane street. It would be MADNESS to insert a bike lane into this mess. Traffic will NOT be "calmed"; quite the opposite as drivers try to thread their way, at speed, through cyclists, too, as they do now to get past cars in their way. People could be hurt and even killed, since no one drives slowly around this neighborhood, not even on the obstacle course Isleville has already become without a bike lane. Instead, the congestion appears mostly to generate aggressive driving and hostility.

We ourselves are cyclists and wouldn't dream of biking down Isleville, at least during the day. It's dangerous. We are enthusiasts of cycling and all forms of "active transportation." But while we want to encourage cycling, we don't want to see cyclists and pedestrians hurt. Cyclists know better than to use Isleville. Instead, they use Novalea on the Hydrostone's east edge and, on the west edge, the Isleville sidewalks, which pedestrians are forced to share with them. We would all prefer that, though, to bicycle-vehicle collisions.

A bike lane on Isleville will patently not constitute an "AAA" corridor since, by your definition, "AAA" designates corridors that are "comfortable, convenient, and safe." That won't describe a bike lane on Isleville.

Build this lane on Novalea instead, please. That's where we need traffic "calming"----Novalea has been a speedway for as long as I can remember, but it's nonetheless really wide with plenty of breadth to accommodate a bike lane that will be safe, much safer than cyclists and pedestrians (and even drivers) will be on Isleville.

We implore you, don't do this. We've recently had to prevail in a vote to avoid having the city meter our Hydrostone boulevards for paid parking. This bike lane proposal can't help but feel to our community like yet one more plan by the city to infringe on the peace we used to enjoy here.

I'd also point out that a proposal like this threatens our property values, perhaps ironically, since bike lanes located sensibly can of course increase property values. But that won't happen here. The Hydrostone is already suffering a hit to its reputation for charm. Don't make it worse. But more than anything, don't put cyclists in danger.

I am writing you regarding the proposed Bikeway and related parking loss on Creighton St, specifically the projected loss south of Buddy Daye Street to Cogswell.

I own a home on Maynard Street that, like most homes in my neighbourhood, has no driveway. It is a row house, in a lovely neighbourhood of historic importance to Halifax. I purchased this home with the understanding that there would be reasonable on-street, permit parking for residents of the neighbourhood. The proposed elimination of 50% of the parking on Creighton Street will significantly decrease total neighbourhood parking.

It is my request that HRM consider the following:

- There is already a shortage of residential parking, in particular on the two designated street-sweeping nights. On those days, parking is reduced by 50% and we are often required to park 2-3 blocks away. 50% parking elimination on Creighton will exacerbate this situation.
- The recent loss of parking on Gottingen St is already impacting our ability to park within a reasonable distance of our homes, as parking availability has compressed.
- We have dwindling access to contractors due to dwindling parking spaces. Contractors won't take jobs if they have to haul their equipment and supplies multiple blocks.
- Its already challenging to invite anyone to our homes, for lack of parking.
- We already have to walk blocks late at night.

Further parking reductions will only make these matters worse. The needs of the residents who bring life to the neighbourhood should take priority over the needs of people passing through on bicycles. Cyclists can use our residential streets, quite safely, without spending taxpayer money on a bike lane that removes parking and negatively impacts residents.

Does HRM not want residents to move into downtown locations and invest in properties (while raising housing assessments)? Property values will drop and people will stop investing in the area, if there is not a reasonable plan for residential parking. I already feel a fool for purchasing my home, trusting that the parking that has been in place would remain.

I cannot support the Bikeway plan. As a resident, it will have negative impacts on my quality of life, the enjoyment I take in my neighbourhood, the safety of my teenage daughter, the quality of life of my senior neighbours, the general stability of my neighbourhood and the social health / liveliness of my neighbourhood. (People can't come to the neighbourhood if they cannot park.) Not everyone rides a bike, especially year-round. Not everyone can ride a bike.

HRM's proposal seems to be one-sided and aligned with the vocal minority. I ask that HRM seriously consider the opinions of neighbourhood residents before making this very important and expensive decision.

I think that one way vehicle and bicycle traffic should continue along Creighton Street and Maynard Street without any parking loss.

Enhancement with lane painting, trees, and curb extensions would be desirable and complementary to the street scape and road safety.

The current intersection 10 metre parking restriction should allow for the curb extensions without taking away any parking spaces.

I received my notice of the North End Biking Project - good idea - but I wonder if it will affect parking on the involved streets. I live on Maynard St. myself, [REDACTED] the majority of owners and residents in the area have to park on the street, and cutting the parking by 50% just won't work. Better to turn the whole street into a bike-friendly area, and permit 'local traffic only' so residents can get to and fro from their residences. I think that would make for a happier city.

I have been made aware about proposed bikeways in my neighbourhood by a flyer from a concerned fellow resident that was placed in my mailbox.

I have lived on Cornwallis St [REDACTED] am both a cyclist and a car owner, and reside [REDACTED]

As previously with the Halifax Cycling Coalition cycle corral that reduced parking on Cornwallis, the bikeway proposals that eliminate parking on Maynard and Creighton streets will cause problems for local residents.

As a cyclist, I often use these quiet streets and I don't feel that there needs to be parking removed to make them safer.

Perhaps speed bumps would be useful, but cars already travel quite slowly due to their narrow width.

Please feel free to ask any questions and keep up the hard work to make our neighbourhood liveable for local residents.

I have provided my input on the shape your city website, however more awareness and consultation by public officials and not only concerned residents would be beneficial.

I am writing about the proposed new bike route in the north end.

I live on a corner property that would be on the proposed route.

I was wondering just a few things about this proposal, prior to providing feedback.

What side of the road will the proposed bike lane be installed on? (East side of Isleville or West side?) I'd recommend the East side would be safer for the children playing at the Isleville water park, and it would be on the same side of the street as the larger crosswalk on Young street.

Are there any traffic calming measures proposed for our street? (Corner of Isleville and Drummond Court). Would the city consider blocking traffic from turning onto Isleville from Duffus Road? Would the city consider changing the crosswalk onto the other side of the street, and inserting those harsher flashing lights? I would note that the traffic has continued to increase along Duffus/Lady Hammond, and the cars don't stop for the current cross walk, especially during rush hours.

There is a lot of people currently parking on our street (both sides) by customers buying pizza from the big Wedge. How will street parking be affected?

Will the bike lanes be plowed for snow removal in the winter time?

I have been following the North End bicycle/parking issue quite closely and have to say that I appreciate and support the city's efforts to integrate vehicle and bike traffic and parking - with two conditions.....

- 1) Maynard and Creighton Streets are perfectly situated as one-way for both cars and bicycles and must remain that way, and
- 2) Any local street parking places that are removed for street beautification and safety upgrades should be made up for by removing an equal number of non-resident commuter monthly parking

passes from Creighton and Maynard and adjacent streets (now that area permit parking will help alleviate the pressure for transient renters).

While the concept of any parking loss raises the ire of all those local business people and owners of homes with no parking (of which I am one), it seems important to me that our neighbourhoods be more than building fronts and barren streets of parking. I believe in international research which has shown that attractive places to live, as our North End is becoming, actually attract more people than do fast flowing traffic and plentiful parking. I suggest that streets with trees, defined biking lanes, and easily functioning four-way intersections actually minimize the visual and physical impact of parked cars and make a community more 'liveable'. More local residents, more local business.

I also believe that active transportation concepts, when coupled with improved public transport and centralized public parking areas, are key to reducing city traffic and parking demands.

Hence, I am strongly in favour of city attempts make our local communities more liveable and attractive by further enabling active transportation, improving public transit, making intersections safer and easier to use for all, and planting trees, while, in the short term, minimizing the loss of parking spots that are so important to so many.

Thank you for your detailed, personal response to our earlier communication. While we recognize that the designing of prospective routes for the safe, accessible, least disruptive transit of cyclists both within and through North End Halifax, to be highly challenging, the central issue we raised regarding the critical shortage of available parking spaces among area residents, visitors, service and personal delivery personnel, and temporary-user purchasers. remains of vital concern. We appreciate, however, that the three currently proposed designs are clearly mapped out on your website and that each is accompanied by helpful notes and considerations. We will be completing the provided on-line survey.

Thank you again for your timely response.

Thank you for your response. I'm happy to hear that [REDACTED] is even on the radar for your plans. We often don't get a lot of feedback from those that who do not need the services that we provide so it's great to hear your keeping the impact as minimal as possible.

I looked at the designs and they all seem to be improving bike flow. My only concern remains the parking around Maynard St. I had contacted the parking division a number of months ago and they have actually implemented a change from the all-day parking to a one-hour parking. I had originally asked for a two-hour parking and a week ago or so they actually called saying that they had heard a complaint from a visitor to [REDACTED] and that they are now looking into and likely changing it to a two-hour parking on the street in front of the food bank.

I believe that this change is necessary to allow those that we help to access the food bank properly while allowing a change throughout the day and avoiding the all-day scenarios that we had previously.

Thank you to you and your team for your consideration.

None of the options work for me or my tenants. I would like an option D where 0% of the parking in this neighbourhood is lost. Parking is vital to my business and the businesses my tenants work at and frequent (Edna for instance). I pay \$27,000 in property taxes and for this I expect (because of no

driveways, which you noted) that my tenants and I can park here, a delivery van to be able to pull up on my block, a tradesperson can park and unload heavy tools, an oil man can deliver oil, visitors can visit, people who support local businesses can park here and local businesses can thrive. This is already a calm street and over the past almost 20 years of living /owning here I have seen bikes and cars successfully share this street. We as a block voted for the status quo (no outside permit parking for downtown workers) several years ago and I want that decision for the status quo respected. Sure you can add traffic calming speed bumps, etc. (as long as no parking is lost), but doing anything in my opinion is a waste of tax payers money. I have had one tenant move out saying that the parking situation in this neighbourhood was too hard to handle and more recently another well qualified prospective tenant (a med student) filled out an application, then withdrew the application after hearing the parking situation in this neighborhood was difficult. And this was before half the parking was removed on Gottingen to accommodate suburban bus commuters. Please no more parking losses for our neighbourhood.

Thanks for the opportunity to comment on the North End - West End Bikeway options. I found the open house at the Community Y and the 'boards' etc. on Shape Your City very helpful.

As a North End resident, I wanted to write to you to express my concern for family & friends who live in the Creighton/Maynard area that will be negatively impacted by the North End Bikeway as result of a loss of street parking. Street parking in this neighbourhood is already at a stress point as many homes in this neighbourhood do not have driveways. Challenges already exist with residents trying to find parking during street cleaning and overnight parking bans. I know personally the challenges as result of pet & housing sitting for my family and friends, and I am able bodied.

Imagine the difficulties that residents with no driveways would face if they had young children. Walking blocks with infant in a baby carriage, diaper bags and a screaming toddler, perhaps in inclement weather, finally making it to your car, getting your children strapped in, loading your car and then realizing you've forgotten something in the house.

Imagine the difficulties of a resident with no driveway who is a senior citizen and/or a person with a disability having to walk blocks on icy sidewalks. Even if they have someone driving them, that person would have to illegally park blocking traffic in order order to get them safely into their home to try to avoid the resident facing serious injury.

Imagine what it would be like to have a parent who suffers from Alzheimers housed at Northwood. You only have 60 minutes for lunch and you want to make sure your Mum eats her lunch, but it takes you 10 minutes to get to Northwood from your workplace and then you can't find a parking spot.

I don't have to imagine these scenarios, because these are real life situations for my family and friends. Only they are further complicated by Gottingen St bus express lanes, and not you want to take away further parking for a bike lane.....on a street where bikes and cars have successfully co-existed for decades!! Aside from the hassles to residents, how are businesses supposed to survive??

Please don't move forward with a plan that takes away parking spots in an already stressed community.

My strong preference would be for either of the following treatments.

Option 1 [Rue Saint-André]: Signage and markings to indicate that bicycles and cars must proceed single file, with bikes able to set the pace. Painted buffers in the "door zone" narrow the effective width of the

street while not impeding emergency vehicles. Bump-outs at intersections would be the only potential parking impact, I think, at most 1–2 spaces per block.



Option 2 [Avenue de l'Hotel-de-Ville]: Painted lane carves out space for bikes, slowing traffic by narrowing the effective width of the street. Again, very limited parking impacts. Definitely could include bump-outs as well. [Side note: I saw an elderly woman with a walker crossing Fuller at North St. yesterday; it literally took her an entire minute. I stayed and made sure she got across safely. Narrowing crosswalks in the vicinity of The Northwood will really help the old people in the area!]



I actually like Option 1 a little better than Option 2. Just seems a little less likely that I'd get a driver trying to squeeze by me.

In Montreal, there are speed humps every block as well. Also note the 30 km/h speed limits. (If there's any time to request a street-specific speed limit reduction from the NS Traffic Authority, it's now, fresh on the heels of the province's refusal to allow municipal discretion.)

For this to work for all ages/abilities, I think it really needs to emphasize cyclists' right to space on the road. Both these options do that, in my opinion. However, because it's just paint, they still leave open the possibility that an impatient driver will try to drive around a cyclist, or pass too close, or follow a slow cyclist down the street while revving their engine.

So, to minimize these unpleasant interactions, any of these treatments would need to be accompanied by traffic re-routings. I put this in my survey, but the AM peak on Creighton is terrible (people avoiding Gottingen), and the PM peak on Maynard is similarly bad (people avoiding Agricola). To entice AAA users to use these new routes, rat running has to be significantly curtailed, because rush hour is when people would want to be biking on them. I'd really like to see some diagonal diverters and/or bike-permeable barriers at strategic locations.

I spoke to you briefly at the above session. As I mentioned I was pleasantly surprised at the information and the presentation.

My reference points were the meeting for the proposed bike lanes on Almon St. which seemed to already be a done deal at the start of the meeting and the Windsor St. Bike lanes which seemed to just appear. A "Special Event" as it was called. Your session by comparison was more "transparent", not to overuse that word.

I cycled in HRM for over 20 years, mainly in the South and West end areas of the peninsula so I'm in favour of bike lanes. I'm also over 60 so I'm sure I'm in the minority taking that position. Still it seems that The Cycling Coalition is writing the game plan, not HRM. The other concern is that parking spaces are disappearing a few at a time. I guess the assumption is that every one lives on the peninsula. I live on

Oxford St. so it won't impact me very much but obviously if I drive in from say St. Margaret's Bay to go to a restaurant downtown or a concert it's going to be an issue.

Further I think that any bike lanes shouldn't eliminate parking in front of small businesses as they did on Almon St. This also happened on the West side of Vernon St at Quinpool Rd. Incredibly after approving a condo project with main floor commercial spaces

the prime parking disappeared. That's exactly the type of situation where new parking should be located. I spoke to Victoria Horne as well so I realize parking utilization is not as simple as it looks on the surface...to say the least. I'm not sure gathering parking data from 6:30 PM to 6:30 PM is the best interval. When I park near my buildings on Fuller Terrace or Cornwallis St. there is virtually no parking available so perhaps 8:30AM to 4:30PM might give a different picture.

One last point. Is there any data to support bike lane usage in specific areas or estimate the increased usage once a bike lane is established? I walk in the Spring Garden Rd. , South Park St almost every day. Even at peak times I don't see a lot of cyclists using the bike lanes. There just seems to be a lot of assumptions regarding anything to do with cycling and bike lanes. Cyclists have a lot of enthusiasm for what they do , and the Coalition is well organized so their position is well represented. All I'm saying is I'd like to see some data. I'm concerned that the bike lane issue is becoming one sided in favour of cyclists. It doesn't seem that either side is willing to compromise which concerns me.

Resident of Fuller Terrace for 40+ years. Street is always packed with parked cars. Don't take away any parking. There is a church nearby -- jammed solid on Sunday mornings during services. There is also parking demand from workers of Northwood, visitors. Don't do it. Put the bikes on the sidewalk, most people won't mind.

Where do visiting vehicles park? Where do Northwood family members park? Sad, no more visitors. Gottingen parkers are coming. High schools and daycares. Will not work as a 2-way street. Want speed humps and SLOW speeds. Bikers currently use this street and it works well. Bikers should be licensed and registered. North End survey registration not working -- won't send activation link to email. Creighton Street cannot lose parking. 65 units, 8 driveways. Disruption of 25 spots 2x per week for street cleaning. Snow banks in the winter further reduce parking. new zone parking rules are an issue -- Maynard residents come down to Creighton. Too many monthly passes granted to non-residents.

Live on Creighton Street. Shared street is preferred -- putting lines down to take away parking is "bananas". Most don't have driveways. Traffic calming is fantastic, there are very high speeds here

APPENDIX G: General Comments from the North End Bikeway Survey

- The North South proposition misses the mark completely. It will not serve to increase cycling or cycling safety. The residents don't want it. Cyclists want bike lanes where they cycle and that is Agricola Street. Please stop building "cycling" infrastructure that won't get used and no one wants. Build real lanes where they are wanted and needed -- Agricola Street!
- Agricola -- traffic calmed. Very important in connectivity! Stop and start bike lanes lead to accidents.
- I support traffic calming on Agricola St. This is where people choose to ride and will continue
- Encouraging poor ability cyclists to feel they are safer is a bad idea. It will not be a magic shield to protect them. Cutting trees for bikes is not a green move that's for sure. Visibility is key. Increase use of flashing lights
- Train bikers properly. License them. Proper equipment, mirror, lights, clothing. Cars are here to stay. The genie is out of the bottle. When there is room, put all of the bike lanes you wish. Halifax is hilly, narrow streets. Not good for bike lanes. Do not penalize the residents. 40+ year resident. Flashing lights, better painted lines. Do not cut trees to accommodate bikes. We are green on Novalea. Not worth it -- train bikers. I am 70!

- I'm concerned that these pathways being on sidestreets that cross a number of main roads will greatly slow down the flow of bike traffic. To be attractive to cyclists of all levels, paths should be protected, and free flowing. Having traffic lights at all main street crossings would be the safest option for cyclists. Ideally, cycle tracks should be on a main street, so that already existing traffic lights could be used, whereas a cycle path on a side street would cause more impediments for main cross streets. With the addition of the Gottingen St. transit corridor, a cycle track there may not be possible. Ideally a transit corridor would be on Barrington, and a cycle track on Gottingen to enable free flowing cycle traffic. I hope this is still an option. A free flowing, protected, city spanning cycle network is the goal, I hope we arrive at that goal as quickly as we can.

- I am curious why the VERY wide Novalea was not considered for a protected bike lane option. I live on Novalea and would welcome this not only as a means of improving the quality of cycling and increasing cycling, but to decrease speed on the street. The stretch of Novalea from Young to Africville is used by many for extreme speed. (People call it the "Hydrostone Highway" because it's so easy to go so fast.) It strikes me that this is a better option than Ilseville, because it is wider, and has the broader community benefit of introducing measures to slow car speed on the street.

- My input is on the Novalea to Young or Almond, via Ilseville.

I live on Ilseville between Duffus and Young and cars drive EXCEPTIONALLY fast. The street is also in dire need of re-paving, so cars drive quickly, while swerving the many pot-holes and pedestrians (the demographic is young couples with baby-carriages/dogs, or older adults with dogs).

I was happy to see proposed use of speed humps on this stretch. PLEASE keep that in the plan. I also believe this street could easily be converted to a one-way (there are many alternatives between Agricola and Novalea), and would benefit from a protected multi-use path. There are few that park on this street, so creating one-side of parking, a single (preferred) car lane, and a WIDE MARKED BIKE-SPECIFIC path would be of great value. Myself, my husband, and many of my neighbors (young and elderly) bike. In the current state, avoiding the parked cars, potholes, and fast traffic on this strip is challenging.

- Please do not make Northwood and Creighton a two way street for cars. The fact that they are one way reduces traffic and keeps a residential feel to the streets rather than being a city thoroughfare. With the construction of a high-rise building on the corner of Bloomfield and Gottingen, with garage access on Bloomfield, Northwood would become the preferred thoroughfare. As a seasoned cyclist who lived in many major cities, the biggest fear I have is being squeezed by cars who misjudge the width of their vehicle. By making these two streets two ways with parking on one side, drivers will err on to the right side of the road to avoid clipping an oncoming car and will therefore squeeze cyclists. Add to that the risk of a parked car opening the door without properly checking for oncoming cyclist. This plan does not meet the AAA criteria you laid out.

As a resident of Northwood, I would propose putting a protected (divided from car traffic with a barrier, not a painted line) bike lane which is bi-directional (use Maisonneuve blvd. in Montreal as an example) rather than having one protected direction, and the blending of cars and bicycles in the other direction. This would result in a very safe feeling for cyclist along with a safe environment for pedestrians and children playing in the street by creating specific lanes where the direction of traffic is known to all.

- I am concerned about the cross-rides at the major intersections. Travelling in one direction would be fine as the cross-ride is on the same side as you direction of travel, but on the other side of the street you would have to cut across traffic to actuate the cross-ride and cross the street, then cross traffic again to be on the correct side of the street. Maybe I am missing something but that seems to be a cumbersome and dangerous maneuver.
- I cycle this route daily (From Agricola just north of Young past the commons). I have concerns about crossing major intersections. I currently use Agricola St because of the lights for crossing major intersections such as North, Almon and Young. I will not make use of a path that requires me to dismount from my bicycle at every major intersection. Signals linked to the other lights might allow cyclists and pedestrians to safely cross without affecting traffic adversely. The bike lane against traffic will need a lot of signage at intersections to make cars aware. Therefore having the lane protected by parked cars may be risky if it affects visibility, not to mention the risk of dooring (passengers more likely not to check for cyclists before opening the door).
- Creighton St.-Between Buddy Daye and Cunard St. Lack of parking is a huge problem for residents on this block. We have permit parking during the day, great, which is the hours you research was done I believe. Evening & night is when there is an issues with parking, street cleaning 2 nights/wk and Maynard St parks on this block when their only 1 side parking has street cleaning. This block of Creighton has 53 houses, several multi units, 68 in total and only 8 with driveways, and some so narrow the residents can't get their cars in. Taking parking from these residents, should not even be an option. HRM has issued permits to homeowners to make at least 8 homes to be made into 2-3 units per home in the past 5 years this has had a negative impact for me and others on this block who have been homeowners for years. 4 out of the last 8 street cleaning nights I have not been able to park my car on my block. During winter the city only allows parking on 1side of the street already causing for more stress and nightmares during that time of year. Having a car is a job requirement for me. We can't loose parking this will have a signitively negative impact on the residents that has lived here for years and on property value as well, impacting property taxes. Find another option to meet HRMs goal.
- This project does not make sense to anyone who bikes on a daily basis in the areas in question. During peak commuting times, morning and evening, biking across any of the intersections mentioned (Young, North etc) is next to impossible and completely unsafe. Without traffic stops, this won't change and likely won't happen. Asking riders to dismount their bikes to cross will not happen. Adding in curb extensions does not help. Curb extensions do not slow traffic but in my experience, only force cars and cyclists closer together. A great example of this is the curb extension that was added at Novalea and Hennessey. Curb extensions only help crossers, not cyclists.

Greater study needs to look at where cyclists currently bike - where they travel to and from and which routes are used and why. Agricola and Gottingen are the most used cycling routes and for good reason - traffic lights at every intersection! This is also where all the amenities are and where people work.

- This survey seems geared solely to cyclist and not the residents who live in the areas to be affected.
Creighton St. cannot support two way traffic, parking and bikeways. In the winter the streets are barely cleared enough for one lane of traffic even with parking restriction on one side. How is an emergency vehicle going to get through.
If this goes ahead, the sale of parking permits to non-residents must be stopped.
It seems to be a lot of inconvenience and expense for a bikeway that will hardly be used for many months of the year
I fear, as a home owner and a landlord, that this will decrease property values.
Currently my husband and I pay \$11,000 in property tax for our properties on Creighton St. What are the cyclists' contribution.
Cyclists should have to have mandatory education, licencing and insurance.
This would teach them the rules of the road and perhaps make them more confident. It would also hold them accountable for poor driving practices and help temper the feelings of other people on the road. I frequently (daily) see cyclists going the wrong direction on my street, not signalling and going through stop signs.
I drove my bike in Toronto summer and winter for years with no bike lanes.
If people are uncomfortable on the streets perhaps they shouldn't be there.
- Making cyclists dismount to cross a street is a really bad idea. It slows down the cycles, makes them cross in front of traffic 1/2 the time to get to the cross walk, and is so awkward that most cyclists won't use it. That, in turn, will just make drivers angry because the "bikes aren't following the rules."
- Leaving the streets one way with the bicycle traffic flowing in same direction was best option in my opinion. Also, I don't think there would be enough bicycle traffic on Novalea to warrant the removal of trees and parking for a protected bike lane.
- I do not understand why there are no traffic calming measures for Isleville between Young and Almon.
- Two way traffic on Creighton & Maynard is totally untenable. Residents on Creighton St already are struggling with non residents using the parking spaces, so any reduction of parking spaces would be very problematic for residents. Would it be possible for someone to meet with some of the Creighton street residents, here right on the street one afternoon (between Falkland & Cornwallis). I would set it up as I know people are very concerned.
- I hate dismounting my bike. When using RRFB, cyclist should not have to dismount.
- Loss of ANY parking will make the area unbearable! We do not have enough parking after 5pm as it is. Also the street cleaning is weds & thurs nights which means all residents must move from one side of the street to the other 2x a week! There are 65+ dwelling and ONLY 8 driveways. Please do not lower the parking in the area. Please do not cause my house without parking to lose value! Please do not enforce any bike lane! Think of the residents that live in the area being affected!. We pay for parking passes to park on the street where we live. Do you have a driveway? WE DON'T!
- I'd bike more if i felt safe. As it is, our streets are too narrow and too congested for me to bother trying. I'm entirely in favour of as much development that creates dedicated bike-lane-like things (barriers and such) even if it means a loss in parking. Do everything you can to keep cars and cyclists separate.

- Safety first for cyclists and even walkers in a dominant car culture almost predicated the use of bollards to ensure cars don't park in a cycling lane, and cars don't weave around. European cities that have these structures boast less accidents than those who simply use painted areas. Do it right the first time and we all save time and \$.
- Please continue to bring an intergrated bike network to this city.
- The convenience store on Isleville (Hydrostone Groceteria) has lots of car traffic throughout the day. Customers are often park on both sides on Isleville causing the street to become very narrow. The proposed bump out on Stanley might cause this section of Isleville to feel even more narrow. This would leave little room for cyclists and motorist to ride side-by-side for a couple hundred meters.
- Replace the lead pipes before planning new infrastructure. Stop wasting time. Measure air quality for the safety of pedestrians
- I'm unsure about the Cunard/almond/young crossings because as a cyclist I'd have to cross the street 3 times if the crosswalk is not on my side.

Maynard street is a godsend on my northbound commute vs Agricola.

- I feel this project has missed the mark in the creighton street area. There are no driveways here and we pay for of residential passes and still have issues finding parking. This bike lane is going to cause issues for residents and is best left alone
- As a home owner on this route I am very opposed to changes that will impact my street parking and access to my residence. The benefit does not outweigh the cost of this project. There is very little need for changes at the north end of Novalea. There is no bike traffic and no need for dedicated routes paths and other changes. This plan benefits very few while impacts many people negatively. No changes from Leeds to Northridge given that this is a dead end and has very little bike traffic as It stands now. Bike lanes will not increase bike usage at this end of the city.
Please do not change this end of Novalea.
- Simplify! I felt as though I needed a degree in urban planning to understand the questions (and I have a post-secondary degree!)
The trade-off's between option A, B and C could be shown more efficiently and clearly.

I DO NOT think having cyclists cross with pedestrians, regardless of RRFB or RA-5, and then merge back into the flow of traffic (cross rides) is safe for anyone other than car traffic.

The survey as as is, is confusing and difficult to follow even with both the Design Board and Intro Boards open in separate tabs. Options A, B and C at times unclear with no opportunity to provide input on preference.

- Your survey has numerous bugs. Questions 20 does not have any options to check off, while questions 24 and 25 are repeated. These issues should have been caught prior to release. Furthermore, you're questions ask the user how they feel about all these intersection interventions, however you've provided 2-3 options (A, B, C) but the questions do not distinguish between these options. You do not allow the user to accurately provide their perspectives by melding the 3 options into one overarching question. It leaves the user feeling like they could not communicate their opinions and perspectives in a complete manner. The issues you are covering are hot topics in the HRM and people are going to be very passionate on both sides. You need to provide a much more complete and effective survey. All the same, keep doing this work, it is much needed!

- I am generally supportive of improving the comfort & safety for cyclists in Halifax (I am an enthusiastic cyclist, who also uses the car when needed). I am, however, weary of approaches that seek this improvement exclusively in the implementation of safe corridors; education and enforcement of traffic rules on the side of cyclists and motorized vehicle drivers is equally important.

I frequent Creighton & Maynard Street, typically between Cogswell and North St by foot and bike; and with the exception of crossings of Cornwallis and Cunard, I see little reason to change the layout of these streets (beyond signage and painted symbols; maybe narrowing for traffic calming) to improve safety/comfort of cyclists on these streets. If recent traffic flow measurements have shown vehicle speeds close to the allowed maximum, I could see an improvement of the situation, by lowering the speed limit and/or traffic calming measures (narrowing).

Regarding the parking situation on Creighton/Maynard between Cogswell & North: despite owning a street-parking permit, it is already impossible on some days, to find parking in the designated area. This not only poses an inconvenience, but also devalues the properties in this neighborhood. With additional parking being reduced due to a bike-lane project, this situation will necessarily worsen.

I can offer only little opinion about the project anywhere north of North St.

- Bikes use Creighton quite safely now and I think parking in this dense area is crucial so would hate to lose on-street parking
- Please refrain from taking away any more parking in this area. Businesses moved to the North End as you created a pedestrian only zone near Argyle Street, then you remove parking from one side of Gottigen. There are no decent parking areas in the north end for restaurant customers, homeowners without driveways or people at the retail shops. Being one block up from Gottigen, customers might have a chance for find a space to park on Creighton for places like EDNA, the Foggy Google etc. There are numerous rental properties in the area that have tenants that require parking as well and would rather pay an HRM annual pass fee to park on the street than 110 to 150 per month for parking multiple blocks away. The area between Centennial pool and Buddy Daye has improved significantly over the past 5 years with properties being upgraded and well maintained. The bulk of these have no driveways so homeowners are forced to park on the street. For the few cyclists that actually do travel the route as opposed to the number of vehicles that park on the street I sincerely hope you reconsider this project.
- Please ensure that you have provided all impacted communities an opportunity to provide feedback.
- Creighton Street is a high residential area with almost no parking available aside from street parking. The street is lined nightly with parking-pass paying residents. We cannot afford to give up this space. This will also affect local businesses further than it already has on Gottingen street. If this project goes forward, will compensation be given to those with with parking passes? How will it be decided who is entitled to keep their pass and who loses? What of the people with leases on the street who need a vehicle to get to work and can't afford to move, what of them? Creighton Street is a quiet, low traffic, neighbourhood all day and is hardly a threat to any cyclist as is. Please reconsider this project.
- I'm mostly worried about Northwood Seniors facility ([REDACTED]) and could not imagine with the amount of pedestrian traffic on the street that it would be safe to cycle on a bike lane going the opposite way of traffic.) I think that people would be pulling over to let out handicapped seniors etc and the lane would be very difficult to use.
- I am very supportive of any bike infrastructure.

I am against infrastructure that requires a cyclist to dismount their bikes, as it is very

inconvenient, and will often be just ignored by many people.

I am also against contraflow travel lanes. They require very odd methods of getting over to the "wrong" side of the road and require car drivers to change their habits, watching for cyclists coming from both directions, decreasing safety. Travelling in the contraflow lane on a bicycle can often make you feel "pinched" and uncomfortable.

- As a resident of the north end with no driveway, I'm extremely concerned about the possibility of losing even 15% of spots on Creighton. With spots recently lost on Gottingen the pressure for parking on side streets will certainly increase. Already patrons of the Gottingen businesses use side streets for parking. Please don't eliminate parking along Creighton Street. Reduce speeds, sure and employ traffic calming and bikes and cars can continue to share this street safely.
- I am happy to see any bike infrastructure at all. As a basic concept I like crosswalks and crossrides, but am concerned that there is a trend for motorists to ignore them. At this point, 4 way stops are safer. That said, if there was stricter enforcement or better motorist awareness, then the former could be a reasonable option. Even years ago, when most motorists respected the MVA, pedestrians were sometimes hit in crosswalks. Lights help, but are not enough if motorists think they can ignore them.
- Please consider transitions from one path to another: for example, the proposed almon st lane needs a safe way to turn into isleville lane as necessary.
- I am opposed to changes that will reduce the amount of available parking on Creighton St.
- A lot of the changes to the city are happening in the North end. Why are you not considering other areas of the city, such as the streets above Robie. North End residents are being inconvenienced and they are not the ones requiring the bike lanes. I would like to know what percentage of Haligonians actually bike, because for 5 months of the year we cannot bike, yet our parking and streets won't be used for those months if they are designated for biking. We want to encourage biking, but removing parking and spending millions on biking lanes doesn't help to fix our social problems, how about creating some spaces where homeless insecure folks feel like we give a damn as a city. I want to know how this is solving any of our social problems? We could be using our resources better and serving a larger population not just the well off.
- My biggest concern is parking on Creighton Street. I live in a 6 unit housing co-op and we already struggle to have trades people come to our building because there is not enough parking...I can't imagine not having any street parking. I already find Creighton a good street for biking, even though I am not a super confident biker.

1. In general, I am disappointed by what is being proposed. I had high hopes for an ambitious, bold, AAA plan that could act as a prototype for future changes elsewhere. To me, all of the proposals represent little more than a slightly improved status quo.

With a unanimously adopted IMP and Mayor Savage quoted as saying, "Come hell or high water, we are going to be a bike-friendly community," you have the mandate to do this properly. BE BOLD and make this the showpiece. You can always peel it back later, but don't start timidly.

I genuinely do not believe that what you are proposing will get more people, the "interested but concerned" and kids and the elderly, to ride a bike in Halifax.

Please listen to what people are telling you when they say this is not "All Ages and Abilities", i.e., not safe enough to use with their kids. What is your precise definition of AAA? (I think as soon as a kid is too big to ride in a cargo bike or bike trailer, they should be able to use an AAA facility.) Please recall the story of Xavier Morgan, a five-year-old who crashed his bike in Toronto, fell into traffic, and was killed. You really must do better than sharrows.

2. This project represents your chance to respond to numerous prior requests for traffic calming in these North End neighbourhoods. Please review all the previous traffic-calming requests for Fuller Terrace, etc.; they should be on file. You may learn about additional residents' concerns that way, too.

I was hoping the proposals would contain an ambitious plan to re-route traffic away from these residential streets. Why not aim to eliminate through-traffic on these quiet streets? What would be the downside? If not part of this project, then when?

Assuming you will consider Fuller Terr. as a bike route as well (more on that later), here are some concrete traffic re-routing suggestions that I suggest you evaluate as part of this project, either in combination or each on their own merit.

- a. Divert Fuller Terr. right onto Black St., except for bikes.
- b. Dead-end Ontario St. at Fuller Terr., except for bikes. Adjacent to a park where young children play, this scenario should be the goal:
https://twitter.com/play_future/status/1058696328669261824
- c. Divert Northwood Terr. left onto Black St., except for bikes
- d. Install diagonal diverters at every intersection all along Maynard St./Fuller Terr. and Creighton St./Northwood Terr.
- e. Make Northwood Terr. two-way for the portion between North St. and Black St. only, with a dead-end at Black St. (Allow bikes to permeate.) All vehicles, trucks, ambulances, transit buses, Sysco delivery trucks, etc. that service Northwood's buildings should enter and exit from North St. and no longer need to travel on quiet residential streets.
- f. Except for bikes, prohibit dangerous straight-throughs and left turns from Maynard St. at North St. (Here is an example from Ottawa: <https://www.google.com/maps/@45.4132836,-75.6765382,3a,77.5y,138.29h,88.96t/data=!3m6!1e1!3m4!1sQeVTCdPqNc6TQVgupgT04g!2e0!7i1331218i6656!5m1!1e3?hl=en>) More than one collision has been caused by people inching out into rush-hour traffic on North St. from Maynard.

3. I am disappointed not to see any "option" that includes cycling facilities and traffic calming on Fuller Terrace. Here is a video showing Fuller Terr. at rush hour:
<https://drive.google.com/open?id=1FHumutom7M132T9IXLJbcC2xa62iaK6a>. If you make Northwood Terr. two-way, you'll merely create a similar problem on that street as well.

As shown, Fuller Terrace is a rat run at rush hour. As traffic backs up from Agricola along North St., drivers start turning onto Fuller, then left at Ontario or Bloomfield. Creighton south-bound is the same in the AM peak, with drivers trying to avoid Gottingen Street and speeding past a school. Rat-running is dangerous because the people who do it are impatient and unwilling to abide by social norms. Having to share the road with rat-running drivers disqualifies any attempts at AAA, so if you're not going to take measures to eliminate this driving behaviour, with re-routings, there's no point in doing anything else.

4. The potential elimination of a crosswalk at North/Fuller/Maynard is extremely worrying. Near North St. along Maynard and Fuller, there is a school, church, convenience store, pizza joint, laundromat, park, and low-income housing. This intersection must retain its crosswalk (and the case for traffic calming is obvious, too). The existing crosswalk plays a role in the social fabric of the neighbourhood; do not remove it — improve its signalization instead, with a flashing red light activated by a push-button accessible to cyclists.

Add another crosswalk at Northwood/Creight, if you like, but do not remove any. Crosswalks decisions are not for the technocrats, and arguing against two crosswalks is nothing more than capitulation to obsolete, car-centric engineering standards. (Not to mention, any crosswalk at Northwood would need to be up to 50% wider than one at Fuller, with more lanes to cross — and therefore less safe.)

5. Streets without a lot of driveways (e.g., Fuller Terrace) need more curb cuts near intersections to make crossings easier for people with strollers, walkers, and wheelchairs. The west side of Fuller Terrace at Black Street is one example.

Even better, please consider raised crosswalks, particularly across Fuller at North, across Fuller at Black, and at various other points along these bike routes. This would slow traffic and benefit people with mobility issues, of which there are many in the Bloomfield Neighbourhood.

There are 120 children and 850 people ages 65+ in the Bloomfield Neighbourhood. Because of Northwood, elderly people in particular are a constant presence. Many are out and about walking every day.

Therefore, other traffic-calming measures should include:

- a. Painting all unmarked crosswalks along any Local Street Bikeway route. (Ottawa: <https://www.google.com/maps/@45.4101582,-75.7021008,3a,75y,333.86h,86.15t/data=!3m6!1e1!3m4!1s1oi9Kfj62p2SwpwKUHWOUg!2e0!7i13312!8i6656!5m1!1e3?hl=en>)
- b. Shortening all crosswalks (unmarked and marked) along any Local Street Bikeway route, which benefits elderly people as well. (Montreal: <https://www.google.com/maps/@45.5281237,-73.5884287,3a,75y,317.35h,84.85t/data=!3m6!1e1!3m4!1sHDWUFOH-y60sbqUCUY-r2w!2e0!7i13312!8i6656?hl=en>)
- c. Speed humps for cars, with gaps for bikes to pass through at speed. (Consider how these affect trikes and trailers in your design as well.)
- d. Deterrent signs warning drivers of a "traffic-calmed neighbourhood", and restrictions on trucks, at least at certain times of day (e.g., <https://www.google.com/maps/@45.5365142,-73.5711573,3a,54.8y,127.29h,81.03t/data=!3m6!1e1!3m4!1s2IGbY5kGE4q4IZ7z3tjudA!2e0!7i13312!8i6656?hl=en>)
- e. Advisory (yellow) speed 30 km/h until you get permission from the NS Traffic Authority to post 30 km/h legal limits on all Local Street Bikeway streets.
- f. "BICYCLE PRIORITY - DO NOT PASS" signage, or some other means to eliminate cyclists being passed by cars on any local street bikeway. Bicycles should have the priority, and the ability to set the pace of traffic, on these streets. Avoid this, which is frightening for even an experienced cyclist:
<https://drive.google.com/file/d/1kW8z7kKHY5XXOhaZfaJ7WTySnEdff1tB/view>

At the same time, one need only spend 5 minutes by the yellow "visually impaired person" sign on Fuller Terr. to see how meaningless it is. Do not rely on signage for anything in this project, because it has no effect on driver behaviour.

6. Create "gateways" to each neighbourhood along the bikeway, at every major external intersection. Make crosswalks narrow, forcing drivers to navigate the gateways slowly and carefully. Here are some examples:

- a. Montreal: <https://www.google.com/maps/@45.5346972,-73.5826287,3a,75y,24.54h,76.03t/data=!3m6!1e1!3m4!1sJ8PsG4kfyvDrvcD5wPh0Fg!2e0!7i13312!8i6656?hl=en>
- b. Ottawa: <https://www.google.com/maps/@45.4017293,-75.7000969,3a,75y,70.58h,79.87t/data=!3m6!1e1!3m4!1si0RCFuQUa5XSGTqXcZ5UWQ!2e0!7i13312!8i6656!5m1!1e3?hl=en>
- c. Ottawa: <https://www.google.com/maps/@45.4010634,-75.6995105,3a,75y,55.62h,75.84t/data=!3m6!1e1!3m4!1sD7rRB1XbP82m1hrA5zAfXg!2e0!7i13312!8i6656!5m1!1e3?hl=en>

7. Avoid eliminating parking — you will lose support for this project if you do. I don't own a car and I have a driveway, but those statements don't apply to most people in these neighbourhoods. I believe there are win-win solutions that can benefit cyclists and pedestrians without unnecessarily penalizing drivers. Almost every street on the Plateau in Montreal is one-way, with

permit parking both sides, speed humps, and a 30 km/h speed limit. Wouldn't retaining parking on both sides reduce the effective width of the street, and help to slow traffic? Why not do that and paint some "door zone" buffers to further narrow the perceived width of the travel area? I suggest going to residential parking permits for the entire area covered by the LSB project. (Northwood and Deep Water Church need to solve their own parking issues, rather than outsourcing them to the municipality/neighbourhood. If challenged, you must strongly assert HRM's right to allocate public land as the municipality sees fit, including to safety improvements for vulnerable road users.)

Also be aware that bike lanes, while providing an efficient means of transportation for those who can't afford cars, also act as harbingers of gentrification (see: <http://tram.mcgill.ca/Research/Publications/Cycling%20Gentrification.pdf>). Removing parking in areas historically and still occupied by people with lower incomes, who may depend on their cars to access far-flung contracting and industrial jobs, is inequitable.

8. Do not propose "dismount to cross" signage or situations. These discriminate against those who use bicycles as mobility aids. Would such a requirement even stand up to human rights/accessibility challenges?

9. I approve of the stop sign reversals along Maynard/Creighton. The current stop signs mean a lot of starting and stopping for bikes, which seems wrong.

10. What are your plans to connect these routes to the improved Macdonald Bridge bikeway?

11. I see Local Street Bikeways as an extremely valuable amenity for our neighbourhood, for many reasons. I want this project to succeed. When you have incorporated the public's feedback on these proposals and made some changes, please meet with the community again and tell us what you have changed, what you haven't, and why.

- Thanks for all your hard work in building these bikeway concepts! They're greatly appreciated and will help make Halifax a much more liveable and active city!
- Parking in these neighbourhoods is already very hard to come by. Removing parking options (that residents have to pay for through residential parking permits and aren't even guaranteed) will have an extremely detrimental impact on residents.
- What % of population are currently riding bikes in Halifax. It is way too expensive to make the changes for such a small amount of people riding bikes. It is an inconvenience for way too many people for nothing. The bike lanes we have now are rarely used. Can you please tell me the cost of these projects. please put my money in projects that are beneficial to all of us. what is the cost. please email me the answer
- As a resident of Creighton street parking is already difficult, as we have to compete with non residents for parking now. With a bike lane, we lose parking and the majority of the houses on this street do not have driveways! Creighton Street is already an easy bike friendly street as is, why not leave it alone and put bike lanes on Agricola which would make WAY MORE SENSE. Putting a bike lane on a quiet residential street is pointless. Agricola is very scary on bike on, Creighton and Maynard are both a dream without bike lanes. A bike lane on Agricola would be excellent! This is from someone who is already an avid cyclist.
- This neighborhood is primarily rental units ALREADY struggling to find enough reasonable parking. Please do not limit residents even more by building bike lanes.
- Creighton Street has minimal traffic day today and is perfectly safe for biking as is. The loss of parking will seriously harm all the home owners as the parking is already becoming more difficult as businesses bring more and more people to the area. Most homes don't have a driveway and asking homeowners to park 2+ blocks from thier home isnt right. The benefit really doesn't

outweigh the cost especially when people can only bike a few months of the year.

- Support increased cycling in the city but parking is challenging enough for area residents as things stand. One suggestion is to have designated parking spaces for area residents and eliminate day parking passes on these streets for out of area commuters. Also think it would be an asset to have at least one parking spot per block designated for service vehicles.
- I have a problem with people driving bicycles wearing dark clothing especially at night with no reflective materials and poor lights on bicycles. A lot of cyclists presently pass cars stopped at intersections on the inside of the lane and pay no attention to people walking especially at intersections. Cyclists need to know and use the rules of the road possibly even a license and registration similar to motor vehicles
- Wish there was as much work put into the bridge connections as worrying about the north end
- Build a bike lane on Agricola St! I am very supportive of bike lanes, but Maynard and Creighton are already calm enough and easy to bike on. The worst parts of biking along these streets is crossing North St., which is difficult in heavy traffic. I worry about bikes and pedestrians on Maynard St. because of the cars that intentionally go the wrong way down the street (near Buddy Daye).
- I live near the commons already, so unless I was traveling to the north end I wouldn't likely use these paths. But in all likelihood I would probably still go north on Agricola much of the time.
- The loss of so much parking on Gottingen street due to the bus lane already has put a strain onto local businesses. Customers are unable to find parking close to the businesses. This makes having Halifax be an accessible city near impossible. People with wheel chairs or limited mobility will no longer be comfortable or able to shop or eat at any of the small local businesses in the area. The neighbourhood is just now coming out of decades of economic downturn, and making the neighbourhood unfriendly to clients, able bodied, or not, is likely to affect this recent economic growth. and I fear it will not be in a positive way. This project is short sighted, and will be seen as a blunder. Let alone taking parking away from the residents of the area. This is a working class neighbourhood, and I feel like these changes are being pushed through because of that exact reason. The city does not care about poor working class people, or people of colour. They are happy to walk all over these people, and I can only assume its to please property developers who want to further gentry the area with over priced condos.
- Residents on my street lost parking when city council approved the development of a large apartment building on Gottingen, right across from the North End library. Parking is a nightmare, and is a MAJOR issue. I oppose ANY plan that reduces the amount of parking for residents. Every single one of YOU have a car. Why? Because Transit is not efficient enough to use for getting groceries, get to appointments, meetings, etc. But you expect US to live without vehicles and don't think we need parking. I have nurses that need to come and park on my street, and it's a CONSTANT NIGHTMARE. I am so disgusted and angry with city council over the lack of parking and EFFICIENT transit in my area.
- Any decision to take away parking in the northwood area will affect the visitors to the Northwood Seniors home dramatically and catastrophically. There is not enough parking for them now. And those of us who live in houses here will not be able to have visitors either. Not everyone bikes!!!!
- I live and walk at the north end of Novalea Drive between Leeds and Africville Look Off. I see bike traffic at about one per hour. Before spending the money on the options for that section why not do a bike traffic count? Moving trees, curbs, etc. is extravagant for that section with dubious benefit.
- I require street parking on Creighton street for my vehicle. I've paid for an annual pass so if this is implemented before May 2019 how will I be reimbursed for the pass. It is often difficult to find

parking as is right now ,so cutting half of the available spots is not a good idea. Also, street parking is noted in my lease so this would essentially break my lease if I am unable to park on my street.

- I prefer creating a bicycle path between the parked cars and the sidewalk.

I live a block away from Northwood terrace and its already very difficult to find parking as a resident (especially every sunday during church, or other events are happening in the area). Most of my neighbors and myself dont have driveways so this will likely be mayhem for the community - especially as winter approaches.

- I am very supportive of a bikeway, I don't feel two way traffic is necessary, but there are lots of homes without driveways that need to have street parking.
- As a 3 year resident of creighton street, I love this neighbourhood but disagree with the proposed bikeway changes for this street. Most residences do not have driveways and this would create difficult issues for those who rely upon on street parking daily. The creighton and Charles intersection is also always busy with young kids and already people drive too fast on this street. Opening our already narrow street up to two way traffic would provide so many more challenges than solutions!
- I am strongly opposed to the proposed two traffic on Creighton and Northwood. The street is not wide enough to accommodate two lanes of traffic, bike lanes, and parking. We and our neighbors depend on street parking and would have to move if this project were to proceed.
- I appreciate the concept of a bikeway. I do not think it is reasonable to remove street parking in residential neighbourhoods where street parking is essential. I do not support, or understand, the concept of turning Creighton street into a 2-way traffic flow area as a component of constructing a bikeway. I would gladly discuss my opinions, should someone care to contact me to discuss.
- I am thrilled this project is going ahead and koudos that this is happening. I know a lot of hard work has gone into this. Here are my thoughts on what will make this a good bike lane and safer for pedestrians. Creighton Street from North to Buddy Daye is extremely fast b/c of cars trying to avoid traffic. Drivers floor it here, despite it being a school zone. I've been observing traffic, as well as driving, biking and walking on this section for 13 years.

1. It is imperative that the long sight line of cars on this street is interrupted with speed bumps/raised and coloured crosswalks, traffic circles, much larger bumpouts at all corners, and chicanes at North & Creighton (local street bikeways in Vancouver have chicanes and traffic circles). Switching stop signs and removing parking will make it a clearer shot straight down the street for cars. If stop signs are switched MUCH MORE MUST BE DONE TO SLOW TRAFFIC IN ADDITION TO BUMP OUTS (which also need to be much bigger at all 4 corners of Creighton/Charles to slow down the traffic going straights and turning left onto charles in this section). Remember, this is a school zone. It needs to be slowed starting at Creighton/North so that cars are slowed down before they get to the Creighton-Charles intersection.

2. Would it be possible to have parking on both sides of the street from Creighton to BD and Maynard to BD and use traffic circles and speed bumps and make it a super-slow 1-lane but 2-way local street? With bike markings down the middle? Just a thought...

3. Block shortcut traffic entirely from shortcutting at North/Creighton and only allow local traffic to get there to park/etc.

4. Why not do a protected bike lane on Crieghton and on Maynard? And do a solid intersection with raised ped crossing and crossride at both North/Northwood and Fuller/North. Both intersections need the crosswalk desperately, it makes no sense to only have one. At peak times traffic here is slow because of cars, another crosswalk isn't going to make it any slower. And

Spring Garden Rd has many cross walks very close together - so I don't buy the argument that Northwood and Fuller crosswalks on North are too close. It needs two so pedestrians can move safely and conveniently in this neighborhood. Period.

5. If you're going to use a bidirectional bikelane it would be better if parking is on outside of bike lane

I have to reiterate what I said to some of HRM staff at the consultation: It is disappointing that it has taken a bike lane to address the traffic calming issues of this neighbourhood - rather than concern for pedestrian safety due to it's use as a short cut. It is important that HRM recognize that the traffic calming needs of residents in this area - particularly in the lower income section between North and Cunard - have been ignored until now. Consider how that makes residents of this area feel: HRM does not address this neighbourhood's very real safety concerns for our kids until the white yuppies want to bike through it to get downtown.

Overall it will be a great leap forward in terms of safety to residents and school kids so, again, I am very happy this is moving forward. But there is implicit classism and, I daresay, systemic racism of traffic/planning over the years vis a vis it's failure to provide pedestrian safety solutions in the area. I strongly encourage HRM's traffic and planning offices to consider how they can do better and what it would take for all staff to understand traffic and planning decisions can contribute to systemic social problems - even if they don't mean to - the infrastructure in this neighbourhood is a stark example of that. What are the plans for Uniacke Street? It is another shortcut on far too wide of a street. Or the crosswalk at Uniacke and Gottingen? There are speed bumps and other traffic calming on much quieter streets in the south end/Dal area. Why?

Also - is this survey really accessible to many of the residents in this area? Many of the options are difficult to understand - even for someone who is familiar with many of these concepts. It takes WAY too long (34 pages WHAT?) and there aren't examples of what you mean (i.e. RRFB, Crossrides, half traffic signals, ACTUATE? come on! some plain language editing was needed and some clear examples of each of the types of options for those of us who aren't traffic planners). When someone doesn't understand the question or examples the quality of their responses may not be useful. Or they just won't do the survey because they don't understand.

HRM this stuff is important! You need to get better at these or hire a company who is good at creating something more user-friendly. I doubt you are going to get the feedback this project deserves if user comprehension is low.

- Creighton and Maynard Streets should remain one-way. Many of the properties along these street do not have driveways and removing parking would hurt local residents. It is difficult enough now and we do not need the city to worsen the situation. These streets are very narrow and dangerous in the winter after a storm and I cannot imagine how the city plans to have two-way traffic and bike lanes. If you want to improve traffic flow to/from the downtown core, reverse the stop signs so traffic / cyclists can easily flow to/from downtown without impacting the parking for local residents.
- DO NOT CONVERT CREIGHTON ST AND NORTHWOOD TERRACE TO TWO WAY TRAFFIC.
- I am extremely supportive of these projects. Really excited to see AAA facilities coming to HRM! Looking at these designs though, I do feel like cyclist needs are not being prioritized, and too many concessions are being given to parking and motorist travel. These are some general comments:

1. Cyclists should never have to dismount on a bikeway. It's inconvenient, slows cyclists down, and can actually be physically difficult/awkward to do if you're loaded down (for ex. carrying a child in a bike trailer).

2. Please don't use multi-use paths. Pedestrians are much slower than cyclists and less predictable in their movements (for ex. they can unexpectedly move over). Multi-use paths slow

cyclists down and reduce pedestrian comfort. There has even been research out there to show that they are less safe than bicycle-specific facilities (see the Cycling in the Cities program). In their All Ages and Abilities guidance, the City of Vancouver specifically states that they will no longer consider multi-use paths as AAA facilities.

3. Using traffic diversion along the bicycle boulevard would be great. I've ridden on a fantastic bicycle boulevard in Vancouver (Point Gray Road) that seemed to impose alternating one-way traffic for motorists, while cyclists travelled two-way. I would love to see two-way bicycle traffic on Creighton and Northwood, with car travel similarly restricted to alternating one-ways.

- In full support!
- Very bad idea with poor planning. Parking is hard enough on my street (Maynard). Even with a permit it is very hard to find parking on a daily basis. The areas are not regularly enforced so non-permit members are able to park there without repercussion; not to mention how difficult it is to park at night when permits are not required. This project would minimize parking even further. We have no other option than to park on the street. Please think of the home owners in the area and reconsider.
- Leave well enough alone, please :)
- i think that separated pathways for bikes should be implemented wherever necessary even if street parking needs reduced. also, regardless of the bike implementation the crosswalks at Isleville-Duffus (both across Duffus and across Isleville) should be changed to a pedestrian/cyclist activated red-light. That corner is dangerous for pedestrians!
- I'm very supportive of this project. Please make this bikeway happen!
- I am generally opposed to this initiative, where it will eliminate on-street residential parking. HRM should be considering the needs of local residents. Parking is a fundamental requirement for those of us who live in these targeted neighbourhoods. HRM is benefitting from increased housing prices in this neighbourhood, as people are moving and upgrading properties. Assessments are increasing. Removing parking spaces will ultimately reduce property values and act as a deterrent vs an attractor to the neighbourhood. Permitted street parking, sufficient to accommodate the local population should take priority over the needs of cyclists who are simply passing through. Despite the phrasing in this survey, it is not my belief that HRM is installing the cycling pathway to provide for the cycling needs of the neighbourhood residents. I am deeply concerned.
- I live below Novalea and often go to businesses downtown or on Gottingen. I will likely continue to cycle on Gottingen, as it is more effort to go up to Isleville and then come back down to Gottingen. It is also slower, with more intersections. I love the new bike / bus lane on part of Gottingen and feel this has increased my safety. I think cyclists most need pathways on Gottingen and Agricola, but I'm excited that this is happening and will likely still benefit from it.
- What makes the North End Community unique is the mix of residents and business. While the project is very worth while, when taken in conjunction with other IMP initiatives (e.g., Bus Priority Corridor) HRM is removing a substantial amount of street parking from our community. Many houses in this area do not have parking on their properties. HRM needs to understand the impact of all of its initiatives and ensure that mitigation strategies are in place before more parking is removed. bikes and buses should take priority, but the changes to parking need to be slowly introduced otherwise businesses will fail, and homeowners who require cars may have to move.
- As a resident on Creighton I already struggle to find street parking on the nights when there's street cleaning. As a cyclist, I've never felt in danger when biking on any of these residential streets. Having bike lanes on busier streets like Gottingen, Agricola and Robie would be much more beneficial and would make me feel safer as a cyclist. Also, as a cyclist, it's important for us to act as cars, so to implement a two way (North/south) bike path on a one way street seems

backwards. But if you were to, Maynard would be the better option because there's parking on only one side anyway.

- I support this project as a way of making a better choice the easier choice, and as a way of making it safer for me to cycle through the neighbourhood with our children on their own bikes.
- This proposal clearly will affect residents property values and future saleability. Many residents already have homes with no parking available and this project will do nothing to support their requirements except of course increase their tax rate in order to pay for the luxury of a chosen few. This is a pretty seasonal use case that would be extremely disruptive to all the property owners along this route.
- Any plans suggested should aim to INCREASE, not decrease, parking for local residents, merchants and their customers, etc. We are in big danger of losing this with HRM development plans, as well as developer initiatives. Parking is now at a premium where I live (Cornwallis St). Please ensure parking is maintained, while aiming to create accessways for pedestrians, bikers.
- As a resident on Northwood Terrace and a frequent cyclist in the North End in general, thank you for this project.
I strongly opposed making Northwood and Creighton two-way streets for car traffic, and having taken a detailed look at all the plans, I see no benefit in doing so. A contra-flow bike lane makes a lot more sense.
I suppose this idea is off the table now, but I would actually much rather see protected bike lanes on Agricola street, and leave maximum parking in the neighbourhoods rather than on the main streets. Creighton and Maynard are already very bike friendly, but Agricola is where people will actually need to GO on their bikes, as this is where shops, cafes, etc. are located. I would much rather retain parking in residential neighbourhoods and make cycling safer on the roads like Agricola which is definitely not AAA friendly, rather than messing up parking in a residential neighbourhood on what is already a relatively safe cycling street. This seems like a big mistake, and not a courageous move. I am sure that businesses on Agricola would appreciate the increase of business that statistically speaking often comes with bike lanes, once they get used to it. Agricola has become far too busy with vehicular traffic since the roundabouts went in, and has become much less safe for pedestrians and cyclists. However it has the potential to be a fantastic people-centred street, with many small businesses, colourful shops, etc. Let's invest in bike lanes there. It will be a far better planning decision for the city in the long run.
- Leave Creighton and Maynard streets the way they are, we have little enough parking now and with Gottingen losing parking, it will become worse. I realize this is the North End and no one on council does or ever has cared about this part of town, but to try and turn Creighton street into two way traffic means loss of parking for a part of the city that has very few driveways and this will mean no parking for people who live here. To make it worse, this street is turning into flats with two or three in most houses, and a large number of the tenants own cars. Where are they supposed to find parking if you take away parking on one side of the street? It is bad enough as it is with the city renting out parking during the day.
- I think it is fairly ridiculous to expect most of the residents of these proposed areas, who already have little parking, to completely move their lives around a bicycle corridor. When it is late at night, it is NOT reasonable to expect residents of ANY neighbourhood to have to park blocks away from their own home and walk - this is hugely inconvenient for anybody, regardless of ability. Also, these spots are necessary for the elderly and/or disabled, people delivering things, or people doing repairs on houses. Also, there are multiple local businesses that will be impacted by these proposed lanes, many of which do not have any parking available except for the street. While I understand the proposed ideas and their expected impacts, I am unsatisfied with the plan to lose how little parking already exists in the North End. If people cannot bike on the roadways like expected, they should not be biking. Children can learn on the commons, or on less busy streets. Halifax is the only city I can think of that would do something as ridiculous as this.

- The North end community near Cunard, Cornwallis, Gottingen, etc. has such a need for extra parking, not less. I have people park across the front of my driveway all the time because there is not enough parking. My friends hate to visit because there is no parking. It gets even worse when there are events on the Common, Citadel Hill, Scotiabank Centre, and other events downtown.
- As mentioned earlier in the survey, cars do not need to access the section of Ilsville that connects to Drummond Court via Duffus St. Only bicycles should be able to access this section of Ilsville to then connect onto Leaman. The homes in this area are accessible via Normandy Dr. The access point via Duffus onto Ilsville isn't needed for cars. Currently, Leaman St is a cut through street for traffic, and reducing this cut-through traffic is very necessary in order to have a bike lane along Leaman. Blocking car access to the small segment of Ilseville from Duffus would rectify this. Our family lives on Leaman St, and I would be happy to discuss this with staff if that would be helpful.
- I am generally supportive of improving biking options. However, the proposed street for the bikeway (Creighton Street) is not suitable due to already very limited street parking (and also very limited off-street parking for residents/homeowners on this street). In addition, the recent loss of parking on Gottingen Street has moved parking to neighboring streets, including Creighton. I would rather not oppose improved biking options, but the proposal will significantly disadvantage homeowners on Creighton Street. If the street was wider (in comparison to other streets), then incorporating a biking option would be ok. I am not at all convinced that the proposed options are suitable for this street.
- The whole project is inherently flawed and would disrupt heritage neighborhoods that have issues of traffic and parking that would be exacerbated by this mindless attempt to create bicycle routes which would most mainly be used by non-residents. The taxes paid by residents of these neighborhoods are meant to ameliorate problems such as street parking, not make them worse.
- There a couple of things that could use greater attention in this survey, first it would be nice to have some definitions and pictures while completing the survey, I looked at the documents, but remembering the difference between the options and streets being discussed was not that easy. Having said that I think there are a number of additional factors that need to be considered.
 1. The Normandy/Leaman intersection should a be 4 way. There are kids going to and from the school and play ground all the time. Switching the stop signs may be useful, but not for the kids... I would think that same principles should apply around most schools.
 2. The roads at the intersections between young and isleville are not wide enough, especially near the oland brewery. Currently when cars are parked on the starbucks side, and oland brewery side, there is not enough room for 2 cars to say nothing of bikes. It may be some of the cars are parked illegally, but some of those spaces will have to be removed to facilitate turning cars and safe cycling.
 3. I do not like two way cycling and driving, both when I am a cyclist and a driver. As a driver, especially at intersections, there are too many cyclists moving at various speeds and then the other cars and pedestrians. As a cyclist, especially given how narrow these streets are, I do not like the idea of cycling into traffic. When driving I have passed a cyclist, while a jogger ran the other way on the road, he glared and swore, and while at no time was the jogger in danger, there was not a lot of space, and not the amount of space required by young bicyclers. I know I will cycle with traffic on the one way regardless of where the path is. As someone who cycles the one way everyday not sure why the two way streets are preferred.
 4. I think that adding crossings at both intersections at north would be appropriate. During busy times, the lights at Agricola and gottigen, create breaks in the traffic, that permit experienced cyclists with many opportunities to cross. I think cities should be more cycling friendly, but having to wait at an intersection should be accepted. I know that putting lights in here, would draw cars, but there are two one way streets with relatively little traffic. Truthfully painting one side of those one way streets, would go on long way to ensuring cyclists felt comfortable and motorists would realize it is a shared space.
 5. As a commuter I do not care about the commons. I think that having access to the commons is great, but that residents in the area will use the most convenient way to reach it. I also think that serious commuters will stay on the street. In addition during peak traffic during popular

events, cyclists would be forced on the streets as there would be too much foot traffic. In a similar manner crossing streets is pretty easy, except during high traffic, yet no questions about rush hour, and the common issue is really important for events, where mixed use is great for low traffic but not useful during peak use.

6. I am surprised there is nothing about lighting as additional lighting at intersections may be helpful.

7. On city signs, it would generally be helpful if bikes could sometimes be added as a way to put greater attention that bikes are on the road. There are signs saying bikes not allowed on highway, that bikes should take a space behind cars (approaching round about at commons), but nothing giving bikes positive attention. For example no right on red except for bikes, must turn right, except for bikes.

- PLEASE do not make Creighton Street and Northwood Terrace two way traffic for cars. Creighton is residential with lots of young kids and a school. The elderly in Northwood Manor need to be protected from two way traffic. I am comfortable with bikes flowing in one direction with the cars, or have bikes travel both directions. Creighton as a two way vehicular is a less safe in an area with a young/elderly citizens. It also means that people who are not residents will use the street and I believe car traffic will increase.
- As a Creighton street resident, who both drives a car and rides a bicycle, my biggest concern is that Creighton not become a two-way car street. This is a very dense residential area with many wee ones. Making Creighton a two-way car street seems an option that gives very little consideration to the demographic that actually lives on the street between North and Buddy Daye. Additionally, having a two-way street by the Elementary school, simply to facilitate cyclists, is a tad irresponsible, in my opinion.

The bike-ways makes things great for those people biking through the area (who are a different demographic), but for those who do not bike and actually live in the area, I am not so sure. Please keep in mind that I am an avid cyclist.

- I'm very happy to see that Halifax is expanding its cycling spine and further exploring ways to incorporate local bikeways as a part of that project. Great job! I hope the ATC will continue to fight for adaptive and interconnected cycling infrastructure throughout the municipality!
- I don't think that Northwood Terrace is wide enough to support two way vehicular traffic as well as 2 way bike traffic. I am a resident on this street and it is the one street I actually feel safe biking on as it is wide and I don't have to worry about getting doored. The only safe bike lanes are those separated from vehicular traffic. Painted lanes on streets are an illusion of safety. I am not concerned about losing parking, I just want to make sure that these proposed changes are actually in the best interest of pedestrian / cyclist and car safety.
- Dismounting is unacceptable and does not accommodate "all abilities". The survey was hard to complete due to the inconsistencies between it and the labelling of the information boards. The crossing at North St needs to be absolutely perfect. Getting to the Commons from Cornwallis St needs to be perfect (without dismounting!). Why make two-way vehicle traffic on Creighton/Northwood? Keep it as one-way and introduce two-way bike traffic, if needed. Be wary of the Northwood/Bloomfield intersection.
- I think that the best way to make it safe for all age is forget about sharing the road . We need to start to share the sidewalk with pedestrian like the rest of the world does and when possible make multi path outside of the street
- We need improvements here before 2022. Isleville between Duffus and Bloomfield is very problematic currently, I have regular incidents with drivers passing too fast and close, skipping stop signs, etc. Need more diversions and interventions along that stretch. The crossing at North needs to be very good and truly prioritize people walking and riding bikes. Same for Young and

Isleville.

- Please reduce speed limit in Halifax urban areas to 30 km or less.
Please make crosswalks safer.
Please provide barriers to separate bicyclists from automobile traffic.
- I can't wait to see more of this on Fuller as well! Is this coming next? Why wasn't Fuller included in this survey? It desperately needs traffic calming.
- please just make cycling safer in halifax. i stopped cycling because car, bus, and tractor-trailor drivers endangered my life on more than one occasion. I would love to be able to cycle safely in Halifax.
- I think as many physically protected bike lanes the better. Please integrate with the commons, and also with the bridge.
- On Creighton St from Buddy Daye to Cunard St, there are 47 houses, 8 houses have parking and there are 65 units. We struggle to find parking NOW and with the Wed and Thurs Street cleaning (that I pay property taxes for this service) it is very difficult to find parking as cars from other streets come and park on Creighton Street. I am a prisoner in my own home on these 2 days. If I have to run to the grocery store for something, you can believe that when I return, the spot where I was parking is now gone and I have no where to park. Now with parking being taken from Gottingen Street on one side completely and limited parking on the other side of Gottingen Street at certain times, they come and park on Creighton Street. We CAN NOT LOSE ANY PARKING ON CREIGHTON STREET! We require parking for contractors, family/friends, VON and Northwood for residents that require those services and for local businesses. Use Agricola Street for bike lanes. Currently, we are respectful of cyclist and those that use an electronic wheelchair and we will continue to do so but we can't lose any parking on this section of Creighton Street.

Speed humps YES, bump outs YES...NO LOSS OF PARKING!!!

**From North St to Charles St (on Creighton), there is a school and Apt building and they all have access to parking.

**From Charles St to Buddy Daye St, most of this section is Halifax Regional Housing and they all have access to parking.

**From Buddy Daye to Cunard St - see above

**From Cunard St to Cornwallis St, there is the senior building that takes up most of this section and the other houses in this section all have parking.

**From Cornwallis St to Cogswell St, they have the same problem as we do....they require parking.

Creighton, Maynard Streets and the surrounding area are all houses that were built over 100 years ago when home owners required horse and buggies and not cars. Now when homes get renovated, they make them into more than one unit but the owners of the homes do not live here and rent out the appts to make money to pay for the homes they live in outside of this community.

As for the yearly parking pass that residents can purchase, I am told that it is now an area that we/they can park at.

It is not safe to do this, trust me, I was raised in this community all of my life.

Please consider those that live here for the long haul and not just renting in this area for a short period of time.....NO LOSS OF PARKING!

- More protected bike lanes would be great for encouraging cycling in Halifax
- I live on Cornwallis and Bauer, and this bikeway would greatly increase my safety when commuting by bike, which I do daily. Please enact these changes.
- For me, its a balance of parking and cycling. We do know that the city is low on parking, but biking is also not accessible to all (which is part of the reason I don't bike regularly - it can be very scary!). Though I do currently drive and know some parking is being lost on Gottingen due to the new priority bus lane, I wouldn't want to lose as much parking in that area. However, for further north end (Africville Lookoff park, Leeds, etc.) this area is primarily residential and there is a load of on-street parking and I'm more open to further enhancements to bike lanes that could lose some parking. I really like the idea of multi-shared pathways as these mean less parking access but safer cycling.
- I think bike lanes can be just as dangerous for both vehicles and bikers. If you are on the roads you have to respect and follow the rules. Education and licensing for bikers. If people are not confident or incapable to handle the streets, then they should not be on the roads same as a bad driver. Also two way traffic would create more congestion and make it more unsafe for elderly and children. Lots of elderly in our neighborhood.
- Imagine coming home to your house in the middle of a rain or a snow storm with your groceries and dog in the car and you have to park 3 or 4 blocks away because there is no available parking near your driveway. Less home that you pay 3500.00 per year in taxes for.
- I am opposed to this plan because in an area where the majority of residents do not have parking this plan will decrease parking even more. I pay over 3500 per year in taxes ,and from what I hear on the radio this is going to increase, I do not feel like I should have to park blocks away from my home this is unsafe. I would be very interested in what HRM's plans are for parking in this area, because from what I have seen with recent construction in the area taking a parking lot and a loss of parking on Gottingen this is not a concern of HRM. With the revitalization of Gottingen street and ever increase events at the Scotia Bank Centre parking has become more and more difficult with each passing year.
- As a worker and a friend of someone who lives there parking is already very hard to find any reduction of parking Would definitely not be beneficial
- Do not take away streets for cyclists - the city is too congested as it is. Have street signs that say we share the road both cars and cyclists. I will be losing valuable parking for family and friends to visit. I am not happy. It is making it difficult on a peninsula to find parking and there is no concern for the homeowner who already lives there.
- With very limited parking as is in the north end to block of several streets to parking is ridiculous and will impact many local business'
- Where will tenants park
- The questions about the Maynard intersections were confusing as there was nothing specific to Maynard/Cornwallis or Maynard/Cunard in the PDF.
As well, this survey seemed to mostly skip changes to Isleville between Duffus and Young. As long as parking is not impacted and no speed humps are added, I am okay with what I saw in the diagrams. Changes to reduce speeds would not be a bad thing, given the speeds at which some people drive down that street, as long as something like corner extensions are used and not speed humps or lane reducers. I do have concerns about the impacts to snow clearing though, especially if things like lane reducers (like on Romans Ave) are added, which will really cause a lot of issues as Isleville is heavily used by service vehicles that need to access the Hydrostone back lanes.
One item I am thrilled about is the intersection of Duffus and Isleville. This is a heavily used pedestrian crossing that sees cars fly through it without stopping. As well, turning left onto Duffus

when going north on Isleville is dangerous due to being far back and having a large fence blocking views of eastbound traffic. Moving the crosswalk out will help alleviate that, and hopefully the flashing lights will help get drivers to stop

The Young/Isleville intersection is already a bottleneck and can be dangerous at times. The addition of the islands causes choke points that seems to frustrate drivers and cause impatience. The expansion of the western island could cause significant traffic backups if someone is turning left onto Isleville during rush hour, when that intersection can get blocked with westbound traffic. However, a 4-way stop or traffic lights is not warranted. Maybe if there is a way to do temporary control lights during rush hour only or some other way to avoid backups, then that could help prevent issues

- As a daily cycle commuter, I think this project is a complete waste of time.

Any 'bikeway' or bike route that has stop signs pretty much every block is, in my view, stupid. I will continue to cycle along Agricola or Gottingen because they are quicker, and as currently constructed, no less safe than the proposed bikeways (if anything, I would argue the new alignment on Gottingen makes it the safest option).

Were proper cycling infrastructure to be installed (i.e. fully protected bike lane) I would likely change my habits. Where proper infrastructure exists, I will use it. However, the proposals amount to, in some cases, literally no infrastructure. Painting sharrows is counterproductive, and I would rather nothing be done than sharrows painted. Painting sharrows is the municipal equivalent of virtue signalling.

I find it very ironic that on the one hand, you talk about building "AAA" infrastructure, but on the other hand, you then propose infrastructure that is woefully inadequate. The proposed changes, in my view, do nothing to make this bike corridor safer or more convenient to cycle.

Put a damn bike lane on Agricola or Gottingen. Oh, and while I am here, I live on Creighton Street, and the speed limit is way too high. People RIP down here. And I own a car, and park it on the street. I would happily eliminate dozens upon dozens of street parking spots if it meant a protected bike lane. Bike lanes and proper active transportation is the way of the future. Halifax has wasted decades. Starting to catch up now, but a lot of lost time to make up for.

- Would love to feel safe biking in Halifax: I walk and drive and this would help with accessibility immensely. (Parking is not a concern for me, as I use CarShare. Walkability and safety are the two biggest concerns.)
- I think that the survey was confusing to use. It would be better to have diagrams of the intersections and facilities above applicable questions. This would help visual learners to understand what you are talking about in your questions. I also think that cross-walks where cyclists go should be cross-rides from the get go. This will make it so much more convenient for people riding their bikes.

Firstly, Your method of delivering this survey was not user friendly at all! It was an uncomfortable and annoying process that caused a visceral actions. Please inform your it team!

Secondly, how does putting painted charrows on a street do anything. I would prefer either a protected or painted bike lane throughout.

Next, all interestions need to have the option of riding across them. I'm not getting off of my bike to walk it across the street. I do not trust the city to make pressing the cross walk button to ride across the street in the crosswalk legal. Council will probably promise to do this and then make me get off my bike. Just put traffic lights.

Lastly, your presentation was not for all ages and reading abilities. I had to create an index of definitions to complete this survey. How would someone without a university education be able to

complete this? Please design better.

On top of your poor survey design, why do you ask the same question over and over and over and over again for each intersection. It is the same design! Could you just ask the question ONCE so I don't have to waste a half hour giving you feedback. I hope you designed the West end survey better! If not, I am copying and pasting this feedback on that survey!!!

All harsh feedback aside, I appreciate your creation of more bikeways. Just make it easier to participate in the process!

- Great design solutions. Build it soon please! In choosing between Cornwallis and Cunard st: they are both fine. Not sure about the bi-directional lanes and pathways proposed: they seem forced. I might actually prefer a one direction painted lane in these cases. Paint zebra crosswalks on all 4 sides of the intersections all along these routes please! They remind drivers that all unmarked crosswalks are still crosswalks. And visually take up space in the intersection and contribute a bit more to encourage drivers to slow down.
- I am very concerned, as a resident of Northwood Terrace, that two way traffic would negatively impact our neighborhood. I feel that the best option would be to leave car traffic as one way, but implement the two-way bike flow A long Northwood and Creighton with a physical barrier From traffic or a multi use sidewalk path.
- This is a great project but it has to be about the residents, the pedestrians, the cyclists and not the car or suburban commuters. Make the parking residents only on Creighton and Maynard especially during the day. I am in my [REDACTED] year but I have an E-bike pedal assist bicycle and am enjoying cycling like I did in my 20's and 30's. We should never make car traffic two way again. All of these streets should be traffic calmed. I strongly believe the compromise is to have parking on one side of the street only, next to a curb with a bike lane between the parked cars and the sidewalk. This would be super safe for all the cyclists, both young and old. This would result in a loss of parking on these streets but elimination of the non resident parkers who hog the parking between 7:30 am and 5:30 pm would create livable neighbourhoods and a super north south bike experience. In the winter these streets do not function well as double sided parking roads due to snow accumulation. Often with the accumulation there is barely enough room to have a single car pass, let alone a fire truck. Lets build a great city made for the people who live in it. These streets should not be for commuters to park or the try to shortcut commuter streets. Great pedestrian and bikeways combined with gentle densification will allow lots more people to live in the core. Instead of jamming our streets with commuter buses lets have a great service in the core areas and have commuters dropped off at bus terminals such as Mumford and Dartmouth where they can transfer to frequent and efficient local service in the core. Lets stop making decisions in silos. Active transportation, transit and proposed development controls should be developed together. We have to realize that Charles Morris laid out the city more than 250 years ago. The street grid is narrow and was not made in contemplation of 50 kilometre speeds and high loads of commuter car and bus traffic. On these narrow old streets we cannot have it all!
- I strongly oppose any project that will take away parking on Creighton St.
- Make wider sidewalks, not narrower streets.
- I feel as though you need to be more ambitious with this. Almost all elements of this plan still clearly prioritize vehicular traffic, especially at major intersections. There is also no mention of having clear, dedicated signage that informs drivers they are on a designated, high volume bike route. I think you need to recognize that people will not bike if you shove them on secondary road with some painted symbols and make them dismount every time they want to cross the street. The dismounting part in particular is very foreign to me. Why should we get off our bikes when we are ostensibly the same as a motor vehicle under the law? There should be a bicycle priority traffic signal that stops vehicles with a red light when there are cyclists or pedestrians waiting to cross. Either that, or make the RRFB crossings multi-use, easy to trigger from the roadway/bikeway, and usable without dismounting. I have bicycle commuted in Calgary,

Vancouver and Ottawa and they are all lightyears ahead of Halifax in terms of making it safe and easy to ride a bike. People will always, always complain about changes to roads, but if you're going to do it, be bold.

- one way streets are safe for both bikes and cars. Speed doesn't seem to be an issue on Northwood or Fuller. Parking is already tricky, to lose more would seriously affect homeowner day to day operations.
- I'm very concerned about parking on Creighton street near Cogswell, which is already quite limited for the number of residents there are. We have to compete with people parking to go to businesses on Gottingen and at night to sports events at the Scotiabank Centre. I support biking, but find that Creighton is a nice quiet street that feels safe for bikes, without a new bike lane. Thanks!
- I am a daily bike commuter and believe that cars and bicycles can co-exist on roads without loss of vital parking spots for the residents of HRM. Simple traffic calming measures like roundabouts, painted bike ways can slow down traffic without disrupting parking for neighbourhoods that are already strapped for parking.
- I am generally disappointed with the presented options for crossing intersections. It is not "AAA" to have to dismount and walk my bike at an intersection. I know that crossrides, when finally legal, will make this easier, they need to be available to cyclists in BOTH directions - we should not have to cross to the other side of the street to access the one crossing available to us. In many of these cases, a 4-way stop or a traffic light would be a better option. On North Street in particular, the only acceptable solution to me would be crossrides for both directions of bicycle traffic, where I just have to press a button to make traffic stop and let me across the street (without getting off my bike). Dismounting is neither convenient, nor accessible (for those who cycle with a disability who have a more difficult time walking their bike than riding it).

I would support a contra-flow bike lane on Northwood and Creighton, but not two-way traffic on these streets. We absolutely should not encourage more vehicular traffic on these streets. And on that note, I also feel it is unacceptable to only consider bike/pedestrian crossings of North Street at EITHER Northwood/Creighton or Maynard/Fuller Terrace. BOTH streets absolutely need safe crossing for cyclists and pedestrians. If the municipal engineers have a problem with crosswalks/crossrides so close together, they must be reminded that complete streets are for everyone, not just drivers/cars.

As a resident on Fuller Terrace, I was hoping for much bolder plans for traffic calming in our neighbourhood (which has been requested time again by local residents). During rush hour, cars speed northbound on our otherwise quiet residential street to beat the traffic on Agricola. For this reason, I rarely, if ever, bike with my child on my OWN street during rush hour. I am also much less likely to even walk in my neighbourhood during this time. We desperately need traffic calming measures (and obviously, a reduction of the speed limit to 30km/hour) in the Bloomfield neighbourhood. Any attempt at improving cycling infrastructure on these streets will be useless if cars continue to speed through at rush hour. Unless we do everything possible to slow the cars down, no cycling infrastructure will be "AAA". In addition to what you propose for traffic-calming, I would like to see all unmarked crosswalks painted, and as many shortened and raised crosswalks as possible.

Thanks for all your hard work on this - the cycling community is grateful for your support. BUT these proposals weren't as bold or exciting as I had hoped for. We should be using every tool in the toolbox to make these routes as safe as possible for vulnerable road users, and if we don't ask for it now, our chance may not come again.

- Do not take parking away. I have lived here for 5 years and I am not even able to get a permit because my address is on north st. We all accumulate tickets as it is due to the city not allowing

us parking as is. Everyone on this street is vehemently opposed to less parking for any reason.

- There is very limited parking for us residents in the community, these homes were not built with driveways, and with current real estate trends for a resident to pay a monthly parking pass at an average of \$80 in a near by location doesn't make sense. We love our homes and won't plan on moving. So why force us to lose parking on OUR street for the past 40 years. To cyclist who do not live and have to deal with a parking issues. Our property taxes aren't getting lower so we should have our parking spots available.!
- You have not addressed how you propose to accommodate the parking crisis that this could cause. Stating that parking could be cut by 20-50% on Creighton St. without explaining the current state of parking in that area does not provide people with the relevant information required for making an educated decision on this matter. Many people may not be aware of the number of spaces 20-50% equates to, or of the parking troubles that currently exist in the area including the lack of driveways.

2. I would have like to have read some information on winter cycling and how severe weather may impact cycling. If the bike lanes are being proposed where cars would normally have been parked, which is where snow is often piled in the winter months during parking bans, where would the cyclists go? What is the plan to keep the lanes free? Will this cut into already stressed road clearing resources?

3. This survey used complex terminology that was at times difficult to understand. I had to refer to the [North.End.Bikeway.Design.pdf](#) to make sense of any of it, which was still complicated. I have two university degrees and found this survey to be rather inaccessible. The questions should have diagrams and should use plain language.

- As a cyclist, I am not sold on the idea of making Creighton/Northwood or Fuller/Maynard dedicated bike lanes. It is a good idea to encourage bikers to use them, but they are already safe, not too busy and I don't feel endangered using them. Quite the reverse in fact. The busy streets are the ones that need bike lanes.

Removing parking from neighbourhood roads is a huge issue. These residential streets are high density and many rely on street parking (as do I). HRM sells permits to non-residents for work parking. Some of the newer buildings do not have enough parking spaces for their residents. The street is the only place to go. Residents, couriers, delivery trucks, visitors – they all need parking and the pressure on local streets will only increase. Removing parking is not the answer. There must be alternative solutions.

- I bike up and down Bayers Road on a fairly regular basis (over 30 times to and from work this year) and consistently have issues with vehicles passing 0.25 to less than 1m, including being cut off by a Metro Transit bus on one occasion - Bayers Road needs a bike lane
- Why not a protected lane on both Creighton and Maynard? You've shown there is room for both.
- There is a problem with parking in the area. Please do not remove any parking. Residents need parking not only for their cars, but also for service vehicles, visitors, etc.
- We have to build separated infrastructure on arterials. LSBs and alternate routes are not a substitute for treatments on direct routes that also have services (Agricola). We must be willing to give up parking. The IMP should trump the loud NEBA voices. Curb extensions without cycle infrastructure put cyclists after parking by forcing them to ride with heavy and congested traffic, this is contrary to the IMP. Urban business will benefit more from increased cycling and livability than they would lose with a reduction in parking. Traffic calming in ALL off-arterial urban residential needs attention.
Many of your illustrations, and lanes already built (Devonshire) have cyclists riding in the door zone - a very dangerous practice that becomes an expectation from motorists.

- This sounds good in theory but at night when we have street cleaning and when my tenants have to walk home late at night from blocks away those commuters wouldnt have been there anyway so at night we'd actually be down one spot (that the commuter left) so this is not a fair trade. And No traffic calming. I choose an Option D - No loss of parking (zero Percent) just a Multi-use Pathway with no parking loss everywhere. I was able to gather 261 signatures in just two short weeks 150 at <https://www.change.org/p/save-our-parking> and the remainder [REDACTED] [REDACTED] (Bikes and cars in the same street in tandem (as it already is). Creighton/Maynard is a defacto bike route anyway without any alterations (except you cant cross at North at Creighton very easy but have to go up to Maynard and you can cross- put flashing lights on it). People and cars have been sharing these streets safely since the invention of the automobile. They already are calm "as-is" as they are narrow and narrower one way streets with cars parked on both sides naturally slow the traffic without all the expensive traffic calming you propose. Cars and bikes need to learn to use the streets together. If this became an exclusive bikeway (OptionB) the minute you had to leave the bikeway you'd have to share the road anyway. HRM put a multi use bike and bus lane (in tandem) on one side on Gottingen to sell local businesses on the bus corridor project. If its good enough for Gottingen then its good enough for Creighton. Bikes sneak up to the lights on the right of cars and this is dangerous. Start educating people young, during drivers training about the shoulder check (done as a matter of course in Europe) and educate about the "1 meter - I share the road" Maybe HRM could supply these bumper stickers to people. These bikeways with 15 to 50 percent parking loss is a waste of tax payers money in my opinion. Save the money and use on something that will actually help all traffic like a light rail. A recent HRM Citizen Survey says people want Commuter rail ahead of active transportation. If HRM wants to stop cars from going downtown, stop issuing permits to developers for buildings with parking, dont destroy a neighbourhood with no driveways.

- As a house owner on Creighton Street, we rely on street parking for our own vehicle, for visitors, shipments and deliveries, services at our home, moving, and so much more. Losing street parking on Creighton would be a massive day-to-day burden to all residents on the street, and long-term, would have negative impacts on property values. Traffic on Creighton Street is low as-is, so it presents an already safe pathway for bikers and pedestrians alike without any of the proposed changes. As a homeowner on Creighton, I implore the city not to move ahead with this detrimental change to our neighbourhood.

- Many of the home owners along these routes do not have drive ways and rely on street parking. This proposal with impact all individuals who live on these routes, not just individuals who have car but people who are having deliveries to their homes, people who are having work done in their home, sick and elderly in need of home care. The government are urging elderly to stay in their homes due to a lack of space in nursing homes but how can one stay in their own homes when home care workers cannot come to their home due to no parking? This is just one example and I can assure you there are many other things that would also be impacted. By removing some or all of the street parking in the areas it will negatively impact all who live in these areas more than anyone who does not live here, could ever understand! I strongly urge you to reconsider your proposal that would result in lose of parking, as homeowners who pay property taxes we need to be heard. This will impact us and our property values significantly.

- I am totally opposed to two way traffic on Creighton Street and taking away the residents parking under the guise of making the city better. I do not want a bike lane on Creighton at the expense of the residents who live there. Agricola is a great big wide street, lots of room for a bike lane.Put it there.

- Biking season is so short here. Why does the minority drive this process? Many residential houses require parking in the areas you propose. Loss of parking in these areas is short sighted.

- I'm in favour of a bikeway, and on the street where I own and live. I feel like these options may be overcomplicating things.

My mind turns toward the bike highway in Vancouver, running through residential neighbourhoods. The basis of that bike path was to slow down vehicle traffic to the point where it's no longer a danger. To me, that seems very, very sane. It also doesn't need to reduce parking as these plans do.

APPENDIX H: General Comments from the West End Bikeway Survey

- *I believe bikeways should be pathways from vehicle traffic. We would have to sacrifice some trees on one side of streets. Then the big project would only be to find safe ways for cyclists to cross intersections where many accidents happen. Halifax is too small for accommodating cyclists every wish while treating people who have vehicles as second class citizens. Anyone who drives a bike in the winter in nova scotia is very foolish. Bicycles should be registered with a plate. Motorists are not the only ones who drive foolishly, I see many cyclists who do not obey the rules of the road. Of course it's impossible identifying some who drives so fast, weaving in and out of traffic as if they are on a suicide mission. I find this whole things is upsetting vehicle owners and cyclists.
CYCLISTS NEED THEIR OWN PATHWAY AWAY FROM VEHICLES.*

- *Traffic needs to slow down in this city. I am all for more people biking. I don't like seeing mature trees cut down unless absolutely necessary. More people biking will make our city a better place.*
- *A east-west cycle corridor is necessary. As with the north-south corridor, it should be protected, along a main street, so that traffic lights can be used when crossing main streets. On a local bikeway, more traffic lights would need to be added, so would further disrupt main street cross traffic. A cycle track on a main street (Almon St.) is preferred.*

I am quite concerned about the destination of this route to West-End mall. If there are no plans for this path to connect to other parts of the cycle network, a path to a dead-end would be under-used. A route going to west-end mall is pointless, unless it connects to the network. And there is no where here that indicates this route will be connected in the future. This needs to be thought about and planned, otherwise a otherwise useful bike path becomes a path to nowhere. Connected to the Chain of Lakes Trail should be the goal, and I hope this is discussed and achieved.

- *Stop wasting money on 1% of the population and can only be used for 6 months. Put that money into other forms of transportation that the whole city will benefit from.*
- *A painted line on the road does not "protect" a bike lane. Please ensure there is a barrier of some sort which prevents cars from encroaching on the bike lanes at all times, otherwise they will never feel safe.*
- *Bicycle crossing at Liverpool Commought is much more dangerous than London because of Hill on Connought. Almon is safer and more convenient. Slope of Liverpool and London are similar. London would have little adjacent business impact as would Liverpool at Oxford. London seems wider, with fewer cars parked than Liverpool. Almon is most convenient. Pedestrian issues should also be considered, as a Wibdsor St. crosswalk is needed at the Forum, nearer London, not Liverpool. Traffic lights are already in place on major intersections on Almon. The slope on Almon is best for cycling.*
- *It's about time!
I have been commuting by bicycle (George Dauphinee - Almon- Gottingen - North - bridge to Dartmouth) for over 20 years. I welcome any improvements that will encourage more active transportation
Thank you!*

- *I think this project looks fantastic. However, cyclists interested in connecting to the multi-use path parallel to Joseph Howe Drive must continue to navigate the (dangerous feeling) Mumford Rd. The path along Joseph Howe Drive is a wonderful resource. The lack of a safe feeling connection to the piece of infrastructure from the West End feels like an oversight.*
- *Your survey is rather biased toward those who might bike. There is an assumption that making whatever changes will result in safe biking. What will be done to stop bikers from running stop signs (the sign at Almon and George Dauphine is ignored by bikers coming down Almon on a regular basis - driving along GD I have almost had head-ons with people on bikes several times in the last couple of months.*
- *Please don't put bike lanes on Almon St. It will take away the on street parking leaving myself and my guests to walk. I grew up on this street my entire life and I love those mature trees that stand above my house and I will cry if you guys tear them down to put in bike lanes :(pls. Also the connaught-almon intersection is a death trap for bikers they're constantly in my blind spot and I'm sure I'm not the only person. London st or Liverpool have a crosswalk with a button and lights that have drivers attention.*
- *None*
- *I am very supportive of any measures to increase the safety of cycling in Halifax. I cycle everyday from Westmount to downtown, and have had too many scary interactions with wreckless drivers driving too fast or too close to me, or making right hand turns in front of my bike, or having parked cars open doors without looking for oncoming cyclists. Any measures to increase awareness of cyclists, and ensure safer passage will be very appreciated. I do fear that having shared bike and traffic painted roads will not necessarily make cycling safer. I would MUCH rather protected and dedicated bike lanes to ensure safety and make the rules of the road very clear. Thank you for this proposal!*
- *Almon St is already a busy traffic area, bike lanes on less busy streets ie London or Liverpool would make far more sense*
- *Be bold Halifax! The benefits of supportive AAA infrastructure is immense. You'll always have people complaining about losing space that has been given over to drivers, but the amount of space that drivers/cars gets is unfairly high anyway. Just do it - for a healthier population and a healthier planet!*
- *Please listen to the residents in the area. Your survey asked a lot about cycling, but little to get the voice of the renters and home owners in the affected neighbourhoods. We all want more density on the peninsula, it makes environmental and economic sense. Reducing parking for renters in west-end, multi-use properties such as those on Almon Street is not the answer.*
- *Thank you for the effort to improve cycling safety in this area.*
- *I think local streets are the safest option for cyclists as vehicle traffic generally flows slower. I believe with increased bicycle traffic, less vehicle traffic will be interested in those streets also benefiting residents. I believe vehicle roads are still necessary and so is streets with parking so local streets work for this also.*
- *I currently live on Almon Street and have a tenant that uses the street parking, I know many of my neighbours also have tenants that utilize street parking, this would be very disruptive to the renters/tenants that use on street parking. I think it makes more sense to use a less busy street to implement bike lanes on, rather than take away parking on a major street and take away*

sidewalks and beautiful trees to accommodate those bikers. Another option would be to remove parking on one side of the street on a less busy street and create a two lane bike lane on the side with no parking, so as to not interfere with parking on the street, but still provide a safe biking lane.

- *Using London St for any portion of the bikeway seems impractical. Almon St. makes considerably more sense, as the cyclists currently use this street, and they are going to continue to regardless of whether you put a bikeway on London or Liverpool. And if you don't use Almon St., it seems like a waste of money to move the crosswalk at the bottom of Liverpool to London just to make it one block closer to Almon. In general, if the goal is to make it easier to bike, half-measures (like LSBs) are not going to accomplish that.*
- *I used to bike until I was doored and fell and broke my arm. Then 4 years later I had the courage to bike and was hit by a car. Halifax peninsula is too busy. You are allowing too many highrises which increases the population. Our streets are too busy. We do not have room for bicycles. Keep building bike trails outside of the city. Not in Halifax.*
- *I am encouraged by the initiative to create more convenient and safer active transportation pathways. I cycle to work one or two times per week and most routes require navigating challenging areas that are not safe for cyclists. I am interested to know more about how the new North and West end corridors are going to help cyclists connect off the peninsula. I think the most dangerous connections are along the limited options of the Bedford Highway, Dutch Village Road, Mumford Road, etc. Thank you*
- *The Intersection at Almon and Connaught is currently very dangerous with weekly near misses between cars. Bringing bikes in an already confusing intersection might increase the risks- unless it gets redesigned to make it safer for everyone. Speed reduction on local street bikeways is a necessity to allow cyclists to ride safely on either Peter Lowe or George Dauphnee. The current speeds could reach 60-70km/hr from in- traffic, especially in the morning kids drop-off times - 8:40-9:00 and pick-up times 3:00-3:30pm and then through traffic from people crossing through the neighborhood to avoid traffic on Chebutco and Connaught Ave. between 4:30 and 5:30pm. Also people do not respect the STOP signs at Almon and George Dauphnee and Peter Lowe and William Hunt. To "calm traffic" people tend to bike their extra cars, even boats close to the intersections so cars can drive slow around them. If this continues, cyclists will not be visible enough to be avoided in curves.*
- *Almon St. makes the most sense if the 'protected bikeway' is actually separate from the traffic with an actual barrier. The bike lanes that are just painted at the side of the street don't feel even slightly safe. Make one side of the sidewalks multi-use all over the city - especially on Quinpool road from Connaught to the Rotary, and also all the approaches to the Rotary.*
- *How does adding bikelanes that are generally used less than 6months a year add to anything? At present the bike coalition (which seems to have an established lobby group) seem to want to take over streets so maybe in the future we all will bike. But really will we? How many bikers are expected to be biking in January? Vs how many cars? Would it be better to add public transport to allow people to get around?*
- *I don't like multi-use pathways because they send a message to motorists that bicycles belong on sidewalks. In the case of the proposed multi-use pathway along Almon Street it would significantly change the feel of the neighbourhood because the houses are quite close to the street. Please do not build this here.*

- *While HRM is introducing safe cycling in a city that is old and cyclist culture is still in its adolescence, every km preserved for cyclists promotes a greener healthier community. Excellent work - keep it up. Thank you.*
- *Safer biking on the peninsula would be greatly enhanced by dealing with the exponential increase in the volume and speed of traffic coming onto the peninsula from the huge increase in development outside the city. Perhaps the city could consider a bus lane/car pool only lane coming down the 102 at peak morning and late afternoon hours. The day I am completing this survey is dark and rainy - on my outing this morning, I saw 5 bikers - all were wearing dark clothes and non had lights on - on a day when car drivers were being requested to turn on extra lights.*
- *Great project. A linked bike network is important. The progress so far has been wonderful and I hope it continues in the future.*
- *I bike and feel the project should not happen. The area is already great for biking. No need to destroy the road. The bike lanes in Halifax are under used. The small group that complain should not have such a large say on the way Halifax is run. If this project happens, it will be under used. The negatives will outway any positives.*
- *There needs to be a curb ramp installed where London Street ends at Connaught and where a cyclist would use the paved walkways through the Westmount neighbourhood.*
- *save our tax money for better things, Bicycle riders can dismount and use crosswalks if they find it scary to cross intersections when riding.*
- *I live at the top of Liverpool St, we have major issues crossing Windsor Street at the top of Liverpool. I walk to London to cross. We have major issues during events at the Forum, our streets are too narrow for bike lanes. We have major issues in the Winter with snow on the right side of the street coming down to Dublin, we get all of Windsor Streets snow mountains. Would HRM remove all the snow after every storm? Would HRM stop all parking on both sides of the street? If there was parking, frequent fast bikes with bikers who would not slow down to let cars out of driveways - it would be too dangerous. Our street at Windsor is very narrow as it is, it is not a spot for bump outs.*
- *I like the idea of using cross walks or cross rides but currently many drivers no longer respect crosswalks, and that is getting worse, so they are no longer a safe option. The best option is stop signs or lights with signs telling drivers to give right-of-way to cyclists (treat them like a motor vehicle).*
- *Without protected bike lanes and logical straight lines these projects will not significantly improve the comfort and safety of the average cyclist. I have tried the Windsor/London and Liverpool options and they are horrible. The level of traffic going both directions on Windsor is intimidating for an experienced person who cycles like myself...they are terrible for the less confident person or family. Halifax counselor need to put on their adult pants and do this right...enough half measure for active transportation. Stop building more roads and build an effective active transportation network and culture. It is not up to the city to provide parking for people who bought homes with none. A connected, protected active transportation network is more important than parking spots for cars.*
- *Barrierbike lanes are necessary*

- *I am very supportive of any increase to bicycling infrastructure. However, I am generally against infrastructure that requires a cyclist to dismount their bike. Doing so is very inconvenient, and will likely be ignored by many people.*
- *I love that you give us input on these projects and I go to the meetings and appreciate your hard work. I find the questions are so specific and often I feel like I could study these designs for hours and could not give the best answers possible for these questions as my level of understanding of the concept isn't perfect. I feel like I am just guessing if that makes any sense.*
- *Full disclosure: I live on Almon St and own a car. I commute by bike year around, and ride my bike for shopping at the Halifax Shopping Centre. I have also been biking with my daughter (she is [REDACTED] and we have been biking over the last 3 years) on Almon St toward and from Westmount subdivision. There are several challenges on Almon St for cyclists. The first is traffic speed: according to the latest HRP counts that I am aware of, speeds at or above 70km/hr constitute about 30% of the vehicle traffic. The second is on-street parking. For Connolly-Connaught section on Almon, my preferred option would be "single file" signage, with raised cross-walk at Connolly-Almon intersection. The remaining section of the road is short. I recognize that this may not qualify as AAA, but it is better than cutting down mature trees (unsightly and may increase vehicle speeds), and asking pedestrians and cyclists suddenly share a multi-purpose trail and for very briefly at a sloped down segment of the road.*

Whatever is the final decision for this segment of the bikeway, I suggest that you seriously consider calming traffic on Almon St. Documents circulated by the municipality in the past stated that on-street parking calms traffic. On-street parking should solely be used for its intended purpose - providing parking. If the municipality wants to calm traffic on Almon St (and I think they should), they should narrow the street (revert it back to its original design or consider alternatives). On-street parking does not achieve this (again please refer to the HRP count), and makes it extremely dangerous for cyclists to negotiate Almon St. There is no evidence that I am aware of which shows that cyclists prefer on-street parking to narrower streets or protected bike lanes. Moreover, your data suggests that on-street parking on Almon is only 30% utilized, suggesting that it serves little purpose for traffic calming. It simply creates haphazard risks for cyclists.

Finally, stop reversals that are considered at London and Liverpool-Connolly intersections would reduce the effectiveness of the proposed cycling connection for Connolly, as it will require cyclists on Connolly to come to a complete stop two times (Almon, London/Liverpool) within 100m or so.

- *Take a lesson from other parts of the world and use specific traffic signals for pedestrians, bikes and cars. Convert sidewalks to multi use paths where the cyclist travels on the left.*
- *I bicycle now but I plan my trips based on how unsafe I'll feel. I avoid certain trips because of the lack of facilities (including the mall) and choose to drive my car instead. I'm not a fearless cyclist, so this bikeway is important to me. Protected, well designed direct routes are better than local street bikeways, especially until cross rides are approved. I also own a home on Almon street and 100% support the loss of on-street parking to implement protected bike lanes.*
- *I am excited about the potential of making biking an easier option for those in the west end.*
- *Once cross rides are allowed, please install appropriately placed traffic control buttons so cyclists can reach them without dismounting or bothering pedestrians. Using the existing pedestrian signals means riding on the sidewalk.*
- *London Street has a fair amount of street parking regularly due to events being held at the Forum. This may be unsafe for cyclists, as drivers open their car doors and pull in and out of*

spots. I find they're often in a rush too to get to and leave the event, so can be careless. Liverpool may be the same with event parking, but I'm not certain. Speed bumps are hard on cars and bikes. Prefer lowering of speed limits achieved using signs. Almon is my preference out of the three streets proposed for the connection, IF it is to be done, as it goes the full length, is already used more for 'vehicle' travel, and is wider. I don't actually see many cyclists in Halifax. The few I do see are mainly downtown or close to downtown. I'm not sure this project is necessary considering the numbers of cyclists versus costs, maintenance, inconveniences for residents, etc. Do many persons actually bike to and from Mumford? What are the daily numbers? If trees were removed from a street, could new smaller ones be planted at least. Seems a shame to remove mature trees.

- Intersection treatments are the primary area for improved safety for people on bikes. please consider ideas like one-way choker or median opening allowing bicycles to cross arterial. Really anything along the LSB to keep the traffic low
- I would like to see additional details for your plans in the Westmount area, including traffic-calming near Westmount School/parks/splash pad, connections to the main Halifax Shopping Centre, etc. It is likely people riding bikes will want to access these more than they will want to access things on Leppert St. (Also, I couldn't believe my ears when I heard somebody arguing AGAINST traffic calming near Westmount School at one of the public meetings. Unbelievable, and I hope you won't listen to such nonsense.)

2. The narrow paths connecting George Dauphinee to London/Liverpool make me a little nervous, with the potential for collision/friction between pedestrians, dog walkers, and cyclists. I don't know what you can do about this, however. I wouldn't suggest any property takings!

3. Forcing bikes to make a left turn across Windsor St. (Options 1/2) seems very poor planning, and not very AAA. At minimum, the jug handle is better than needing to veer out into traffic with one's left arm extended. I would much prefer to go straight across Windsor on Almon and, if the decision is made to use London/Liverpool, make my left turn somewhere safer and quieter, such as on Connolly. Plus, then you can put bike boxes in every direction at Almon/Windsor so that cyclists can turn from one major bike route to another. You lose this possibility with Options 1/2.

4. Parking is much less of an issue along Almon St. or indeed in any of these newer neighbourhoods where nearly every house has a driveway. While I believe retention of parking is important to the success of the NORTH End bikeways, I hope you feel empowered to push back against WEST End residents who feel entitled to storing their private property (cars) on public land, for free. Here's a quote for you to use: "Your desire for extra free parking for your cars doesn't outweigh my and my child's right to safety as vulnerable road users."

- I don't think cross-rides are a good idea, they blur the line between cyclists on the road and pedestrians on the sidewalks, which is a common complaint by motorists that cyclists can't be both "vehicles" and "pedestrians". I cycle like I am a vehicle.
- Need to consider the connections on either end, to the bridge and north st, and to the chain of lakes trail. Without those, this bikeway will be largely unused
- I bicycle fairly often from Summit & Dublin to Bayer's Road to donate plasma. I use George Dauphinee & Vaughan Ave. The connection between those 2 is very bad of course. I currently walk my bike between the 2. It is also dangerous going from Romans to Bayers Rd Shopping Ctr (the old name) on Bayers Road. The "Future Project: Bayers Road Greenway" (connection to Chain of Lake Trail) shown on West End Bikeway Design Board is a very important project from my point of view. It would make that trip much easier and safer. And I'd use the Chain of Lakes

Trail much more often if there was a safe route to it. Thanks for your work on all this - I'm very very glad to see it being done!

- *The streets you have selected such as Liverpool, Connolly, and London are generally quiet. Connolly Street was narrowed when the curbs were replaced and putting a bike lane will just make it worse. The bump outs will force the cyclists and vehicles to compete for the same space. Almon St. is narrow now bike lanes will make it worse. The walkways between Goerge Dauphinee and Connaught are narrow and I can foresee a cyclist hitting a pedestrian. Another option was to reverse the stop sign either at London or Liverpool at Connolly. Vehicles go through these stops signs now travelling in the east to west direction. Reversing the stop signs will allow them to speed up even more. Most of the pedestrian traffic during the school hours on Connolly are students walking in the north south direction to 2 schools, reversing the stop signs will put them at risk.*
- *I think these plans are well thought out and provide options that should appease everyone: local residents, cyclists, and drivers.*
- *I am in full support of this project. I would love to see it extended into a bike path that provided a safe and convenient way for cyclists to connect from Mumford Road to the start of the BLT Trail on Joseph Howe Dr. Currently it is very awkward and unsafe to cycle from central Halifax to the BLT Trail.*
- *London & Liverpool experience high traffic volumes during the supper peak traffic times. Cars turn off Oxford and Almon and cut through London, Liverpool and Cork to connect to Connaught Ave, avoiding the congestion on Connaught and Bayers. There are quite a few children who walk the Connolly route from St. Catherine's School and Westmount School. I don't agree with changing the direction of the stop signs.*
- *Thank you for doing this! I own a company that does bicycle deliveries and I meet people regularly who want to cycle but are afraid to. I am excited to see more cyclists getting out as it becomes safer for everyone.*
- *If you chose a local street (london or liverpool), removal of parking on one side could work but only if parking is maintained on the other side of the street. where will moving vans, UPS trucks, etc park to service these larger buildings?*
- *Oxford St has become problematic with big Trucks using areas prohibited by bylaw. Cars speed and even illegally pass other 'slower' cars. You will need to move bus stops that will have buses blocking car views of crosswalks at both sides of Oxford and Liverpool. Liverpool has cars parked in much higher density with Cosy's restaurant, Local Joe Cafe, 4Cats Studio and On the Mat Yoga. This will increase issues with traffic and bikes as street made very narrow by density of cars parked on both sides of Liverpool/Oxford. I doubt removing parking will matter as we already know cars will park in undesignated spots if more convenient. London St. likely better route. I know this as I have lived between London and Liverpool on Oxford for the last 15 years and have seen a dramatic increase in aggressive driving in this time period. Decrease the speed limit like a school zone from Bayer's Rd to Almon St. on Oxford St. Use the daycares on Oxford St. near Liverpool as a school zone reason to allow for a 30 km speed limit. Thanks*
- *I am concerned about the intersections that cross Connaught. That's a very busy road. I think it's best to have cyclists cross at Almon Street, where there is an existing traffic stop light, and traffic comes to a halt already. Perhaps the light sequence can be modified to give bike the opportunity to go first, before car traffic goes. As a frequent cyclist, this option would make me much more comfortable than hitting a flashing light beacon on London or Liverpool streets and hoping the highway traffic on Connaught sees it and stops.*

Also, in general, I think it is better to put protected bikeways on corridor streets, rather than routing them through neighbourhoods. It makes it harder for people to navigate the city if they have to take less-familiar roads. And it's a real statement to prioritize bike traffic on the best connections. Almon's not that busy, compared to some other streets, and it's a great connector.

- *It seems to me that the city wants to push the shared bikeways, which can be a useful means of increasing ridership. At the same time, simply painting sharrows and putting in a few traffic calming measures is not likely to make cycling any safer and will certainly not make it any more convenient. I can think of places where local bikeways are successful (Berkeley, Portland, some parts of Vancouver), and all of these places have substantial interventions for traffic calming, interventions that do not require vehicles and bicycles to merge into a single lane at intersections or elsewhere along the route. Instead, they typically separate bikes and vehicles at danger points (intersections), and privilege both pedestrians and cyclists at these intersections (mini traffic circles, marked cross walks, speed bumps or bump-outs for cars but not for bikes, etc.). Such an approach would make local bikeways attractive and safer here, but from what I can see elsewhere in the city at the moment (Vernon; Spring Garden), i am not sure that this is the approach that we are taking. In the end, a protected bike lane on a road like Almon is likely safer than the proposed local bikeways (due to the presence of parked cars, narrow roads, and the mixing of cars and bikes). Also, and this has nothing directly to do with the proposal, reduce speed limits on residential streets and enforce them.*
- *During peak times of craft shows etc., at the forum there is no place to park now and everyone in neighborhood are inconvenienced now where will everyone park for these functions after these changes are made? Record keeping of parking spaces used during the week on Almon and surrounding streets were taken before losing empty parking lot on corner of Almon and Windsor St. now all those cars that used to use that lot now park all day long on Almon and surrounding streets. One side of Almon is already 2 hour parking. The best solution is to put bike lane on Liverpool Street and not lose parking on Almon. Lower traffic on that street is a better choice not on a busy street.*
- *The requirement to dismount if unacceptable. For a bikeway to be accessible for all abilities, you cannot require people with disabilities to dismount. To be a truly AAA facility, it all needs to be fully protected.*
- *Don't even think about 4-way stops for bikes - motorists don't use them properly at the best of times, and then often freak out when there's a cyclist. They lose the ability to understand the rules of a 4-way stop and either don't give you right of way or wave you on in defiance of the rules of the road, which can be seriously misinterpreted.*
-
- *Dismounting cannot be required, don't think a route can be "AAA" if it is. For the Almon shared path option, concerned about it being on the side where people on bikes will be going downhill and thus faster. Can it be on the south side? It seems like these projects are chasing pavers, and Almon has recently been repaved. Why are we waiting until 2022 to complete? Let's get something implemented now and iterate. The paths off Connaught for Liverpool and London are too narrow for shared cycling/walking use.*
- *Please build protected bike lanes everywhere possible in Halifax. Please make pedestrian crossings safer.*
- *I am VERY STRONGLY opposed to implementing traffic calming measures along George Dauphinee Avenue. This presentation appears to show speed bumps as a done deal - no consultation. There is insufficient traffic or speed on this stretch of road to warrant traffic calming. This is one of few options to access homes in this area. I drive this stretch of road numerous*

times a day, do not have other options and DO NOT want to be bumping over speed bumps continuously. I would be interested to know the estimated volume of cyclists this will benefit compared to the number of drivers that it will significantly inconvenience. I intend to follow up with my Councillor as well to express my significant concern with this aspect of the proposal.

- In intersections where there is a bike lane, and there are left, straight, and right lanes to choose from, I would like cyclists to be able to proceed through the intersection using the right lane to go right or go straight. That leaves only the cyclists turning left who have to merge/change lanes, and I think it's generally a safe/convenient practice. There shouldn't be a need for cyclists going straight to merge into a new traffic lane.
- I like the idea of this project, I already use this route (or something very similar to it) to get to work at Bayers Road Centre. I would like further study/options on ways to connect the end of this route to the Chain of Lakes trail, or reworking Bayers to allow bikes
- These types of projects are done in major cities across the world. Just do it already. People will always whine but we desperately need transportation infrastructure that isn't supporting the Irvings.
- Increased monitoring of phone use in vehicles is required to protect cyclists.
- Lets respect adjacent home owners and business this is a residential area Peter Lowe and George dauphinee have numerous young people now cycling here no changes are needed if u want go across westmount field to St Agnes field and look u are at the transfer point
- I live on Almon Street, and there is not enough bike traffic in a day to require protected bike lanes (Even during the warmest months). I don't believe that many more people would bike, even with protected lanes. Painted bike lanes, and share the road signs are all that is needed to be done.
- Please do it take up our roads for parking to build bike lanes. Use bike path ways separate from the roads
- Do not take away streets for cyclists - the city is too congested as it is. Have street signs that say we share the road both cars and cyclists.
- Question 1 asked whether I walk or cycle; there is no relationship between the two; no changes need to be made to any infrastructure to allow cyclists on the roads; HRM is being lead by special interest groups and continues to ignore the needs of the small businesses and residents of the neighbourhoods; legislate and enforce safety - helmets, lights, safety vests for cyclists; cyclists fail to stop at intersection; small number of cyclists to not support the extensive financial cost for upgrades.
- It is unrealistic to expect cyclists to dismount and press a button at any intersection.
- Many of these streets are quiet areas with already calm traffic; bike routes along local streets work fine without having to take trees and parking away from local residents. Encouraging cycling is great; let's just make sure that that is the real goal here, and not build a bike route with all the bells and whistles (invasive and expensive) just because it will look good on paper. As a cyclist, I most appreciate bike routes along quiet streets with trees and few hills, and with push buttons to cross major intersections; also, only speed humps where really necessary, please. Thank you for considering these points.
- Thanks for your efforts on this. I have been biking for decades and its becoming increasingly dangerous on major arteries. For example Chebucto, herring cove. Cars generally give a meter

only when it means they don't have to slow down to do so. So alternatives are welcome. As you know, people prefer the most direct route. So there is a risk that putting cycling infrastructure on unused routes (e.g. Creighton) won't attract traffic from the current route (i.e. Agricola) where the cycling route should be ideally located

- *I feel very strongly that changing the stop signs on Liverpool or London Streets would cause a great danger to the children living on these streets.*
- *We need a network of protected bike lanes, and their success will, in my opinion, be down to how well they are connected at intersections and path junctions/turnoffs. It's inconsequential what type of road they are responsible on if your painted (or protected) bike lane just stops dead at an intersection when you need it most. Windsor St and Chebucto Southbound is an example where you are left to fend for yourself in the lane with minimal signage telling the weary cyclist how to behave in the intersection.*
- *This survey was much better designed than the north end one. Whoever designed this one should provide supervision to the person who designed the north end one. Honestly the only thing that will make me happy is protected bike lanes on Almon with traffic lights. I never want to get off of my bike and don't trust the city to approve me pressing a button and cross riding. I love the cool jug handle on Liverpool and Windsor*
- *I liked how you designed this survey much more than the north end bikeways survey. It was a lot easier to follow.*

I am always a much bigger fan of protected bike way options which have been proven to support more vulnerable populations. I look forward to seeing what bike way option is chosen.

- *For the Almon street option 3a: I am concerned about the multi-use pathway portion replacing the sidewalk. Would it be possible for the south side of the street to be converted to multi-use instead? If the pathway is on the north side of the street, cyclists will be going down hill, and mixing downhill bike traffic with pedestrians is a bad plan. Mixing uphill eastbound cyclists with pedestrians is a much better plan. I bike up Almon street very slowly, sometimes slower than pedestrians.*

I suspect that the north side was chosen due to trees/driveways, etc. But, as a cyclist going westbound on Almon st, I would choose to be on the road rather than on the path, as I would not want to collide with a pedestrian, or get clotheslined by a dog's leash

- *Protected bike lanes on main corridors are required to increase comfort and efficiency of commuting. The end goal is to have nervous cyclists confident enough in an appropriate and efficient route that they may choose to cycle instead of drive. Local roads are already quiet and appropriate for new cyclists; the next step is to provide a comfortable route that hooks into the cycling network. Cyclists need to get from the west end down to the Bridge, and based on what you've indicated as possible future work, Almon makes the most sense for that. Coming off London or Liverpool and turning right on Windsor and then turning left onto Almon would be difficult for new cyclists. The corridor should also be as close to North St as possible, so that other cyclists in the area that are perhaps a little bit south of the route will see it as an efficient alternative to North St, which is narrow, and a transit bus corridor.*

Crossings that require dismounting are not appropriate for a cycling route; we need to be sure that crossrides will be approved, and implemented quickly.

Even as a pedestrian, I prefer to cross at intersections with traffic lights rather than an activated crossing, especially when crossing multiple lanes, as I feel safer. I am concerned about crossings

of major roads (Mumford, Connaught) during rush hour using the existing activated pedestrian crossing infrastructure.

- *Keep fighting the good fight. :) And don't forget the inverted priority pyramid with cars on the bottom!*
- *It is not "AAA" to have to dismount to cross intersections at a pedestrian crosswalks. Crossrides can't come soon enough! But they have to be on both sides of the intersection to allow both directions of bicycle traffic to use them - it would be unacceptable to have to cross the street just to use the crossride.*
- *Please look into adding Lloyd Fox Avenue to the local street bikeway network. If the fence is removed from the sidewalk/curbcut it would provide a safe access to the Halifax Shopping Centre that is at grade (does not require going down stairs) and avoids Bayers Road. It could also help provide a connection to the Romans Ave. neighbourhood.*
- *I'm tired of having to share the road constantly with massive vehicles who don't always play nice. Let's please hurry up and make protected bike lanes wherever we can :) You guys are awesome and doing a great job showing all the options available. Really thorough work. Keep it up!*
- *I wondered why bikeways on quieter streets were being dealt with initially, when it's Oxford St, Robie, Young, North, Chebucto etc busy streets that are the hardest to manoeuvre. But if an obvious bike route is established and this can get more people out of their cars, then I'm all for it. I like the idea of improving traffic and parking conditions on Liverpool. However, a bike lane alone would not improve anything. Reduced traffic and parking would go a long way to making Liverpool safer, both on a bike and in a vehicle.*
- *I see no reason not to implement a combination of the AAA options on Almon AND a LSB on London. A LSB on Liverpool has constraints at Oxford that cannot be overcome without negatively impacting local businesses (parking). Traffic calming measures will be required on Oxford to reduce the speed of vehicles using as shortcut to Windsor.*
- *Liverpool parking congestion is unsafe for cyclists. Like the way this consultation is being done!*
- *Comments placed on sticky notes re: issues such as snow clearance re: protected bike lane. Who compiles/collects the data re: bikeway numbers? If only the bike coalition, this seems fishy.*
- *All of this seems to mean home owners lose and cyclists win. I have seen bicycle riders break every rule of the road. They have no plates on the back so they could be reported. They cause accidents and have no insurance. They have all the rights and no responsibilities!!*
- *I enjoy biking and would bike more if Halifax were more bike-friendly. I understand the challenge of retrofitting a very old city. Why not make sidewalks on one side of a street for pedestrians, and the other side for bikes? Simple, cheap, used widely in other countries*
- *There seems to be some type of preference in material on meeting story board to promote Liverpool Street bikeway over other options. I even heard a staff member leading people to this preference at Forum meeting. London has the same slope, overall as Liverpool. London is better to serve pedestrians crossing at the Forum main doors. London impacts business on Oxford less (parking). London has less dangerous crossing at Connaught (better visibility). Liverpool crosswalk at Connaught is dangerous. Almon is the best overall - also if a pedestrian crosswalk is put at London.*

- *Excellent option 3A. Real bike lanes are what is needed*
- *Excellent info, people!! Public org very well set up at the Forum. Thanks!*
- *I support this project! Parking less is fine (I drive as well). Love bike lanes.*
- *Consider busy streets and major roads to have more flashing crosswalks to protect cyclists and pedestrians, especially for visibility*
- *I bike mainly to get to work and home. My time is money and I can't afford to take routes that require me to dismount and walk my bike. I say f*** the province and install crossrides. It's our city, not the province's.*
- *Need to include barriers (concrete curb or planters) to protect bike lanes. Diverting traffic onto other streets may be necessary. Crossrides need to be made legal. 30 kph speed limits need to be made legal + implemented. On street parking is lower priority compared to safe cycling and walking. Priority should be (1) walking (2) street trees (3) biking (4) cars movement and (5) parking. Don't require cyclists to dismount at intersections. Use button-actuated crossrides with lights along bike route.*
- *100,000km in the city by bicycle, use the area all the time*

WHAT WE HEARD

North End 'AAA' Bikeway Phase
One and West End 'AAA' Bikeway
Functional Planning Project

ROUND TWO ENGAGEMENTS FALL 2019

Prepared by:

Active Transportation Planning Staff
Transportation & Public Works
December 2019

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North End ‘AAA’ Bikeway Phase One & West End ‘AAA’ Bikeway Engagement – Round Two – WHAT WE HEARD

Introduction

Following the recommendation in the 2014-2019 AT Priorities Plan to install 15km of Local Street Bikeways and the Integrated Mobility Plan intent to establish an All Ages and Abilities (‘AAA’) bicycle ‘minimum grid’ facility by 2022, planning is underway to prepare a functional plan that recommends the preferred route with associated design for two ‘AAA’ bikeway facilities in the North End (NEB) and the West End (WEB) of the Halifax Peninsula. The former to service travel from Africville Lookoff Park to Cogswell Street and the latter from Windsor Street to Bayers Road and the West End Mall.

North End ‘AAA’ Bikeway

The North End ‘AAA’ Bikeway was initiated as one planning project, but was divided into two segments with separate processes in September 2019 (Figure 1). As part of functional planning, it was identified that there were factors related to community feedback polarization and the design options around one-way streets that necessitated further planning work south of Almon. It was decided to proceed with Phase One of the bikeway as its design is more straightforward with two-way streets and there is a greater community consensus about the proposed treatments.

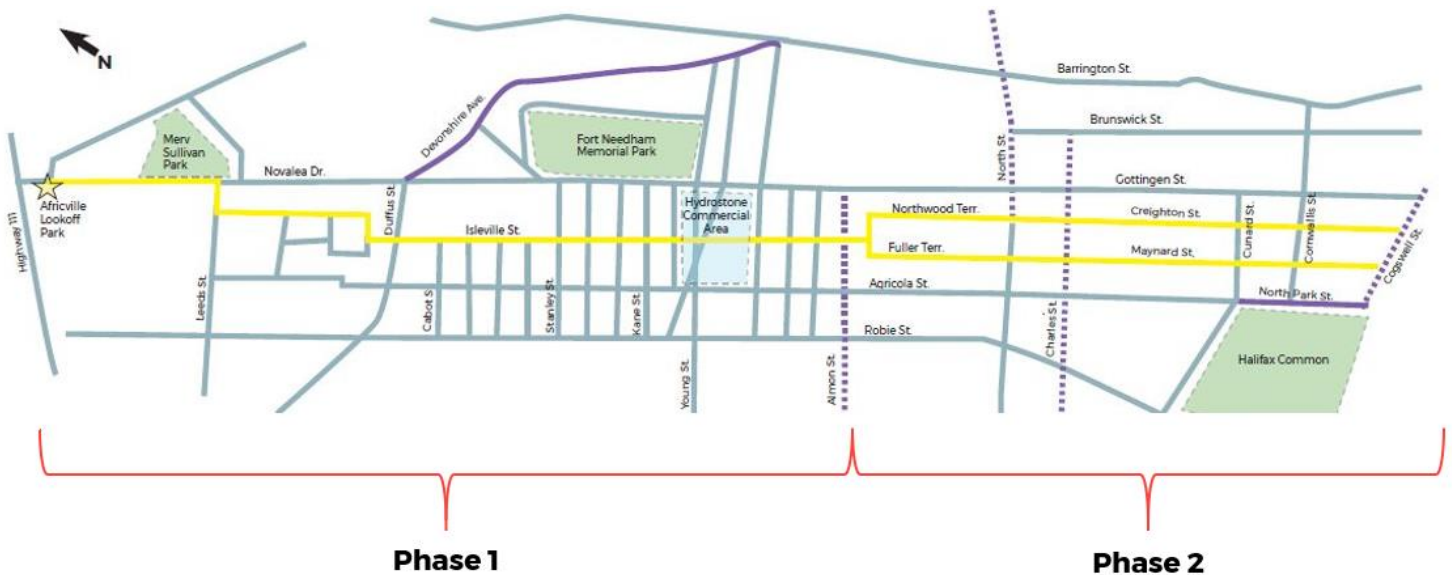


Figure 1: Segmentation of North End Bikeway Route into Two Phases

The following engagement phases and discussion this report will refer to ‘Phase One’ of the North End AAA Bikeway between North Ridge Rd and Bloomfield St (Figure 1). A separate engagement process for the ‘Phase Two’ will take place in Summer 2020 to better respond to the unique needs of this neighbourhood as well as to address the cycling facility requirements around one-way streets.

West End 'AAA' Bikeway

Evaluation criteria adapted from Appendix E of the AT Plan were used to compare routing options of Almon, London, and Liverpool Streets. These 26 criteria include street characteristics, connectivity to origins and destinations, public and stakeholder feedback, internal review, and other factors.

While it's acknowledged that 54% of public participants (31% of abutters) in round one of engagement were supportive of the Almon Street option as a protected bikeway, there was also significant neighbourhood support (40%) for a local street bikeway option. Public feedback is only one factor in decision-making and internal review of feasibility led staff to recommend a **local street bikeway on Liverpool Street** at this time (Figure 2).

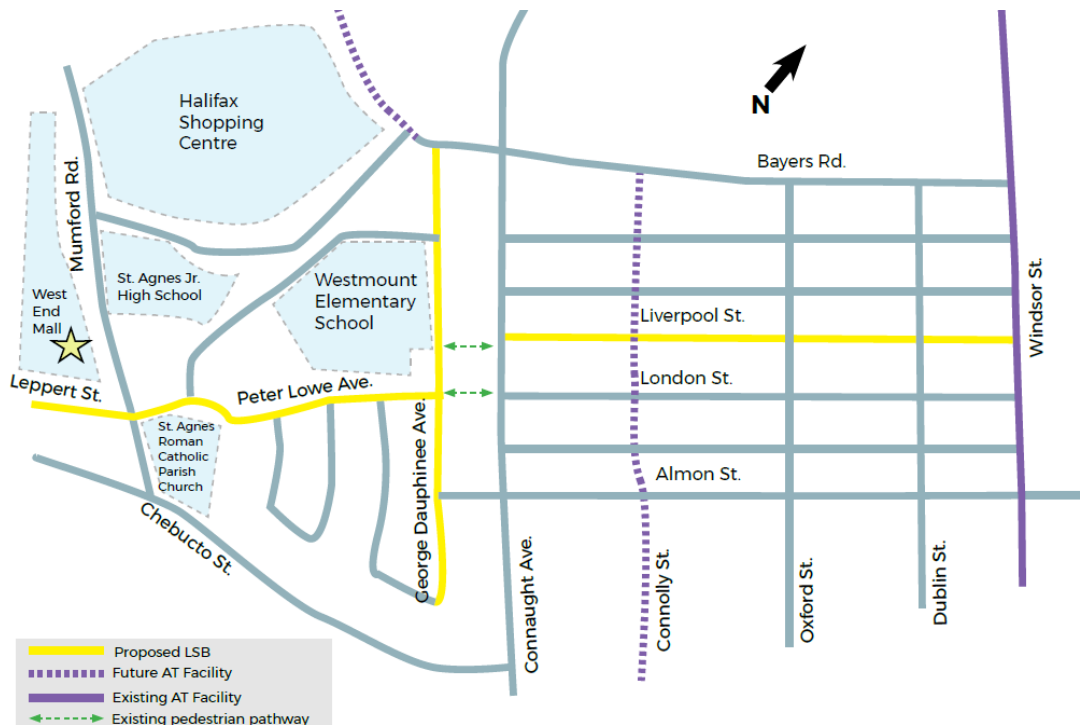


Figure 2: Recommended Route of West End 'AAA' Bikeway

Please refer to project documentation for detailed analysis and evaluation of route options. Staff acknowledge that constructing a local street bikeway on Liverpool Street does not preclude the municipality from choosing to install a protected bikeway on Almon Street in the future.

Local Street Bikeway Considerations

Local Street Bikeways are routes optimized for people on bicycles involving local streets with low traffic volume and speed. The aim is to provide convenient routes for cyclists of all ages and abilities to comfortably share the road with motor vehicles without the needs for separated bicycle lanes or paths. Local Street Bikeways are critical links to establish a connected bicycle network in the Regional Centre.

Design treatments may include:

- *Wayfinding and route identification signage;*
- *Pavement markings (typically sharrows);*

- *Treatments to modify motor vehicle speeds as required (e.g. curb extensions, speed humps);*
- *Treatments to modify motor vehicle volume as required (e.g. traffic diversion measures);*
- *Treatments to facilitate the crossing of major and minor streets (e.g. refuge medians, bike boxes);*
- *The addition of bicycle amenities, streetscaping, and pedestrian enhancements where possible.*

Administrative Order 2016-002OP regarding the *Implementation of Local Street Bikeways* (2016) outlines the process for establishing these facilities as well as some thresholds for where traffic calming and diversion may be considered. See table below for a summary of these thresholds:

	85th percentile speed (*)	Vehicles per day (**)
Shall not require consideration of traffic calming (*) or diversion (**)	Under 30 km/h	Under 1,000 vpd
May require consideration of traffic calming (*) or diversion (**)	30 km/h to 44 km/h	1,000 to 2,999 vpd
Shall require consideration of traffic calming (*) or diversion (**)	45 km/h and over	3,000 vpd and over

The National Association of City Transportation Officials (NACTO) *Contextual Guidelines for Selecting All Ages and Abilities Bikeways* (2018) recommends an upper threshold of 2,000 vehicles per day with no more than 50 vehicles per hour in the peak direction at peak hour. Vehicular speed should be under 40 km/h if the street is below 1,000 vpd or below 32 km/h if the volume is between 1,000 and 2,000 vpd.

Functional Planning and Engagement Overview

Staff have recruited consultants at WSP to assist with the functional planning of these Local Street Bikeway corridors. The first round of public engagement took place from October to November 2018 in the form of four public open houses and an online survey. Overall, input was received from 570 participants and organization representatives. Staff used the feedback from this engagement to refine route options and determine a preferred design for each bikeway route. A copy of the What We Heard Report for Phase 1 of the North End-West End Bikeway Local Street Bikeway project can be found here: <https://www.shapeyourcityhalifax.ca/NWbikewayconnections>.

In October and November 2019, a second round of public engagement was completed to gather feedback on the refined designs, including which traffic calming and intersection treatments are suggested to help achieve the objectives of a comfortable walking and cycling corridor and what trade offs residents are willing to consider in terms of neighbourhood traffic circulation. This report will summarize the feedback received from round 2 of public engagement.

Public input will be used to select a preferred design for each Local Street Bikeway corridor. Additional features (beyond the above listed options) may also be incorporated based on feedback received. A report will be submitted to Community Council and then to Regional Council for approval in early 2020 to seek approval of the recommended design.

Public Engagement Overview

The second round of public engagement for the North End-West End 'AAA' Bikeways project took place in late-October to early-November 2019. Engagement for the NEB consisted of three pop-up engagement sessions held on October 22nd at Isleville Park from 3pm – 5pm and October 24th at Hydrostone Park from 3pm – 5pm and Ward 5 Neighbourhood Centre from 6pm – 8pm. A separate stakeholder meeting took place for the Hydrostone area businesses to gather feedback on how the proposed changes could affect their operations.

Engagement for the WEB also consisted of three pop-up engagement sessions but held on November 5th from 2pm – 4pm at Westmount School, 5pm – 7pm at Maritime Hall in the Forum and November 9th at the Forum Farmer's Market from 8am – 1pm.

Due to the nature of a pop-up engagement session, recording exact participant counts was challenging, but it is estimated that approximately 236 people participated in the pop-up engagement overall. About 76% of these participants attended the WEB-focused sessions, while 24% attended NEB sessions.

Attendees were given opportunity to view and comment on preliminary design options presented on panel displays. A 'dotmocracy' exercise was created to get a better idea of which LSB features or routes would be preferred by participants by allowing them to cast a vote with stickers. Eighty-three percent of the overall votes cast as part of this exercise were in support of the proposed LSB features.

Public response was generally positive and in support of establishing these two Local Street Bikeway routes (65%), with suggestion of even greater protection for cyclists (11%). Some concerns were around safety (6%), neighbourhood traffic circulation (11%) and overall warrant for the facilities (2%).

Main concerns relate to the impact on traffic patterns, the lack of need for these facilities and whether the proposed WEB route is compatible with AAA guidelines. Nineteen (19) percent of the general comments written from participants of the WEB pop-up sessions described their preference for a protected bike lane on Almon Street as opposed to the traffic calming facilities proposed on Liverpool Street.

North End Bikeway

Summary of Pop-Up Engagement Sessions

Three pop-up engagement sessions were held specifically for the North End 'AAA' Bikeway Phase One project north of Almon Street. They took place October 22nd at Isleville Park from 3pm – 5pm, October 24th at Hydrostone Park from 3pm – 5pm and Ward 5 Neighbourhood Centre from 6pm – 8pm.

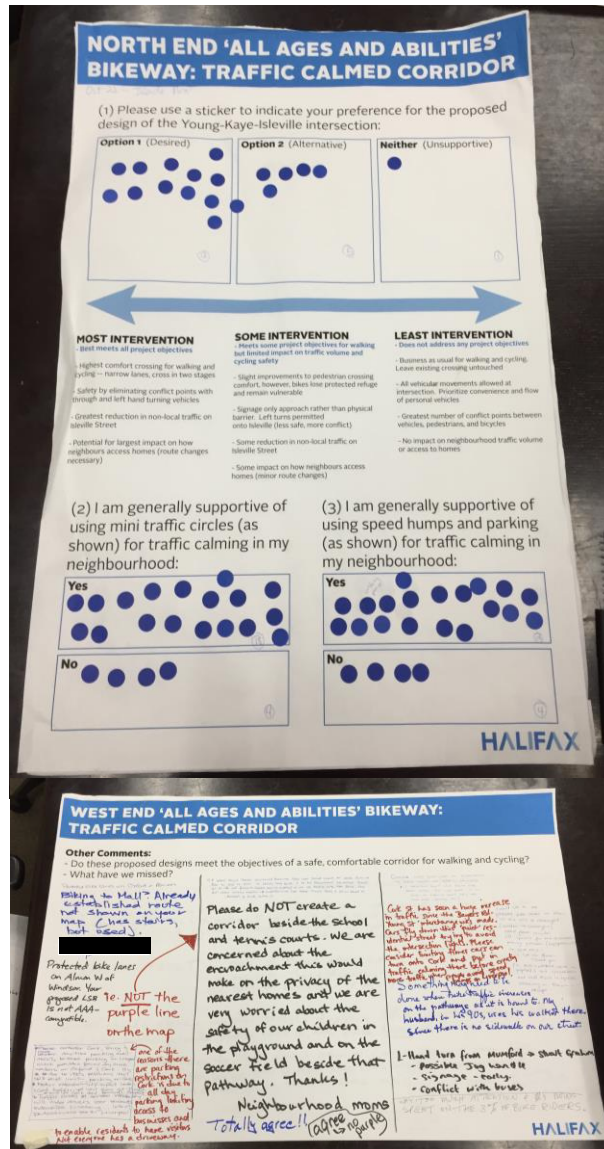
The sessions consisted of browsing display boards, informal discussions with two staff members and other residents, casting votes for various route options and AT facilities through a 'dotmocracy' exercise and leaving general comments on a blank board. Approximately 56 people participated in the pop-up sessions, of which 30 (54%) attended at the Isleville Park location, 20 (36%) at Hydrostone Park and 6 (11%) at Ward 5 Neighbourhood Centre.

To ensure that all abutting residents and property owners on Novalea, Duffus, Isleville, Young, and Kaye were aware of the pop-up sessions, each dwelling was notified with a letter in their mail box. This included dwellings within one block of the bikeway route on either side. As there is a high proportion of rentals along these streets, tenants within this notification area were also mailed a letter explaining the purpose of Local Street Bikeways and inviting them to participate in the pop-up engagement sessions. Staff contact information was also provided for those who could not attend the sessions.

Pop-up Engagement Questions

Participants were given the opportunity to provide feedback on three questions via a "dotmocracy" exercise, as seen in the figure below. Participants were able to vote on which intersection treatment they would prefer at Young-Kaye-Isleville (see Appendix A), whether they generally supported mini traffic circles and whether they generally supported speed humps and on-street parking for traffic calming purposes.

There was also a separate comment board which asked participants, "Do these proposed designs meet the objectives of a safe, comfortable corridor for walking and cycling?" and, "What have we missed?" with a designated area for participants to provide more general written feedback on the local street bikeway designs or intersection in question. Sometimes, if a participant agreed with a comment that has already



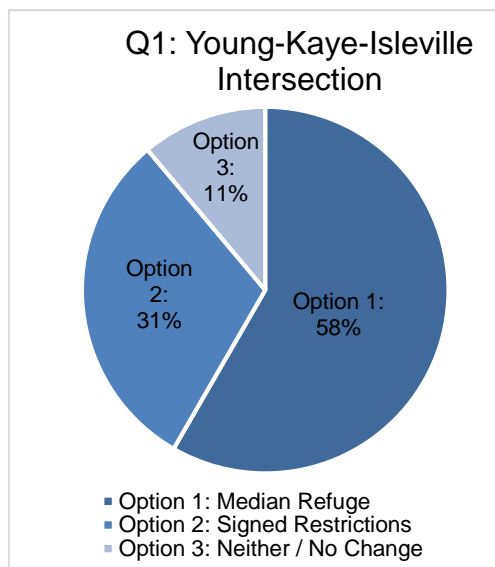
been made, they would add a check mark to 'second' the opinion. There were 18 individual comments submitted from the NEB pop-up engagement sessions (**Appendix A**).

Question 1: Young-Kaye-Isleville Intersection

"Please use a sticker to indicate your preference for the proposed design of the Young-Kaye-Isleville intersection."

The following number of stickers were placed in each feedback column: Option 1 – 21 votes (58%), Option 2 – 11 votes (31%), and Option 3 – 4 votes (11%). The three options can be found in Appendix A.

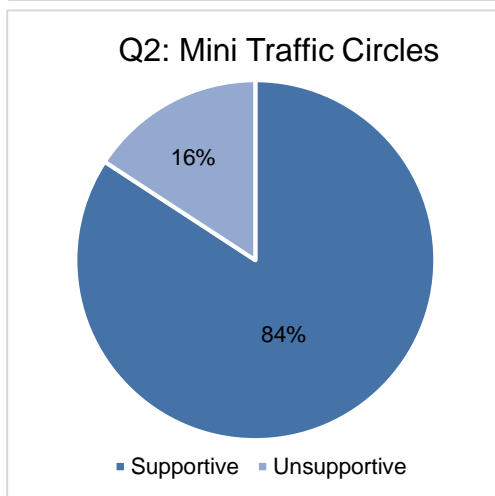
One sticker was placed between Options 1 & 2, which was not counted in either category. This could mean the participant supports Option 1 or 2 but needs more information, prefers one over the other but is tempering their vote to represent others in the neighbourhood who may be inconvenienced, or just misplaced their sticker.



Question 2: Mini Traffic Circles

"I am generally supportive of using mini traffic circles (as shown) for traffic calming in my neighbourhood."

The following number of stickers were placed in each feedback column: Yes (supportive) – 32 votes (84%) or No (unsupportive) – 6 votes (16%).

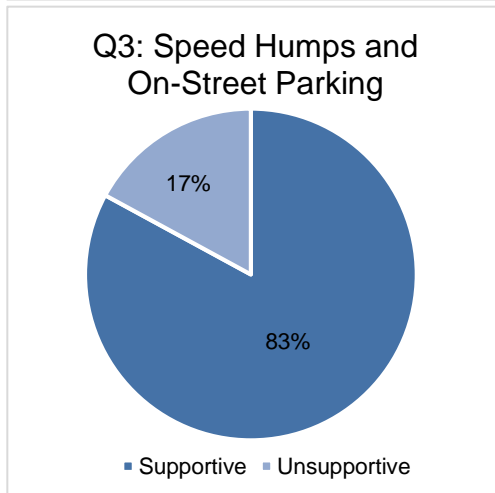


Question 3: Speed Humps & On-Street Parking

"I am generally supportive of using speed humps and parking (as shown) for traffic calming in my neighbourhood."

The following number of sticky notes were placed in each feedback column: Yes – 34 votes (83%), No – 17 comments (17%).

Two comments were written in beside a sticker. One said, "Speed cushions please" on a supportive vote and the other, "Speed humps no, parking yes" on an unsupportive vote. As staff deemed the feedback about speed humps to take priority over on-street parking, these stickers were still counted under their respective boxes.



Summary of Stakeholder Meeting – Hydrostone Businesses

A separate stakeholder meeting was hosted for owners and/or employees of the Hydrostone area businesses to gather feedback on the proposed bikeway designs and how their business might be impacted. While an overview of the route was provided, the meeting focussed on design options of the intersection of Young-Kaye-Isleville. There was also a representative from HRM Parking Services to talk about some changes to on-street parking in the nearby area, including the trial of back-in-angle parking on Kaye Street between Gottingen St and Isleville St.

Approximately 30 letters were hand delivered to businesses within one block of the Young-Kaye-Isleville intersection. The letter included details about the North End 'AAA' Bikeway project, and the proposed changes at this major intersection. Business representatives could attend a stakeholder feedback session or send their thoughts to the HRM Project Manager at their convenience.

The stakeholder meeting with the Hydrostone area businesses was hosted from 2:30pm – 4pm on Friday, November 1st. There were six attendees representing four nearby businesses. The area Councillor, Lindell Smith, was also present.

Overview of Feedback from Nov 1st Meeting

Salvatores:

- Permit parking (on Kane and Hennessey) has disrupted parking availability for staff and customers. This is an issue because there are often empty streets.
- “Costco circle” is a good way to re-educate the public about the real distance that is considered “walkable” in terms of finding a parking space.
- Likes option two with the wider median that keep parked cars.
- Admit that the No Stopping zone near their store is 100% ignored and abused
- More enforcement is needed. Cars are parking right to the edge of the curb due to lack of available parking and “squeezing” in
- Salvatores has concerns about the ability to turn left onto Isleville as a business owner. Feels strong about that. Coming from behind the building.
- Wants access for cars through Young-Kaye-Isleville. Okay with no through-car traffic.
- Supportive of better facilities for biking.
- Sees lots of near misses.
- Likes traffic calming, but not necessarily speed humps
- Sight line concerns on Isleville at Young-Kaye.

Larex Properties Inc:

- Doesn't want to eliminate left hand turns onto Isleville
- It is about access to behind the building. It's almost entirely staff that parks back there. However, some people come and go multiple times per day to go to the store, the banks etc.
- Happy about addition of back-in angle parking. Businesses need to have parking to be accessible to customers.
- “90% of people who come to the Hydrostone come by car” [Don't have any surveys or evidence of this]
- Like the calming on Isleville (not humps).
- Concerned about garbage truck movements.
- Winter conditions make access from Novalea difficult to the lane behind.

Four Bells Art Gallery:

- Concerns about parking

- Can new residential developments have public parking as well.
- Can Isleville be changed to a one way street? Preferably southbound on Isleville. This would give more room for the bikeway. Right now it's very narrow when there's parking on two sides. Sometimes you need to wait or move over to allow cars to get through (only room for 1 car at a time to drive through pinch points).
- Isleville too narrow for two way traffic and parking one both sides?
- Like the idea of traffic calming on Isleville including speed humps.
- Can there be a roundabout at Young/Kaye/Isleville?
- Would like HRM to consider the new construction and developments that are going in when we create our parking and traffic demand numbers

Alliance Francaise:

- Corner of Gottingen and Kaye St is tough for pedestrians. Wide crossing, multiple lanes, offset, buses.
- Supportive of no throughway traffic at Young Kaye Isleville – Option 1
- Supportive of measures to make it safer for walking and cycling
- Possibility to renew conversation around making Young Street pedestrian-only (in front of Hydrostone Market businesses)? Make it a destination, more people-friendly, room for patios. Remainder of the group was not fond of this idea at this time citing reasons of accessibility and parking.

General:

- Some talk about delivery vehicles, snow clearing, and access to the back lanes
- Openness to trial measures
- Seem open to parking management approaches (e.g. monthly permit sales for employees on area streets, possible addition of back in angle parking on Novalea that seems wide enough)

Overview of Other Correspondence

Three emails were received from Hydrostone business representatives who could not attend the session. Some common themes included access to parking, traffic/sightline issues on Young Street, and an emphasis on pedestrian safety. One owner questioned how many of their customers actually arrived by bicycle and stated that it is a more vehicle and pedestrian-oriented area. Any traffic calming or diversion should be approached with care as it has the potential to cause confusion. Significant changes to access could impact how many people can arrive and shop at their business. There was a general willingness to consider some improvements to the median refuge island at Young-Kaye-Isleville. Respondents were heavily in favour of the back-in-angle parking proposal for Kaye Street, and even suggested parking metres be installed to help with turnover. Some suggested the new permit parking on side streets be reconsidered.

Overview of Meeting with Oland Brewery

Staff were in contact with representatives from the Oland Brewery who requested a separate meeting with the project team. A presentation was given to two members on Monday, November 4th from 3 – 4pm.

While their large delivery trucks do not use Isleville Street, Oland's priority was maintaining emergency access to all sides of their building. Some smaller trucks may need to occasionally access the side doors on Isleville, but speed tables shouldn't impact their use of these doors. In terms of the Young-Kaye-Isleville intersection design -- it is mostly staff using Isleville Street to access the on-site parking lots. The impact is that their routes may have to be changed to use Agricola Street instead. This was seen as a minor issue that could add a bit of time to their commutes. Oland is also supportive of providing safe places for their staff to walk as many access the nearby Hydrostone businesses for lunch and coffee.

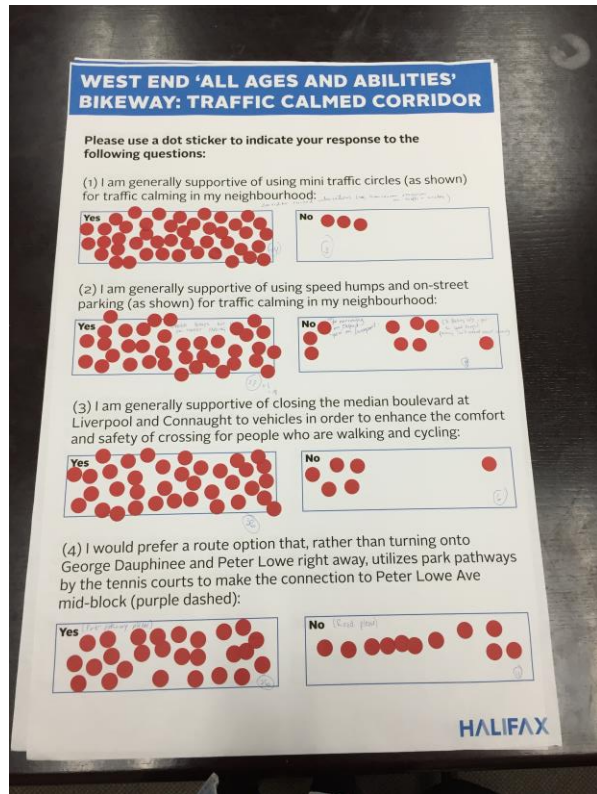
West End Bikeway

Summary of Pop-up Engagement Sessions

Engagement for the WEB also consisted of three pop-up engagement sessions but held on November 5th from 2pm – 4pm at Westmount School, 5pm – 7pm at Maritime Hall in the Forum and November 9th at the Forum Farmer’s Market from 8am – 1pm.

Participants were given the opportunity to provide feedback on four questions via a “dotmocracy” exercise, as seen in the figure to the right. Participants were able to vote on which intersection treatment they would prefer at Liverpool and Connaught, whether they generally supported mini traffic circles, speed humps and on-street parking for traffic calming purposes and whether they would prefer to travel on-street or on an upgraded pathway to connect to Peter Lowe Avenue.

There was also a separate comment board which asked participants, “Do these proposed designs meet the objectives of a safe, comfortable corridor for walking and cycling?” and, “What have we missed?” with a designated area for participants to provide more general written feedback on the local street bikeway designs or intersection in question. Sometimes, if a participant agreed with a comment that has already been made, they would add a check mark to ‘second’ the opinion. There were 59 individual comments submitted from the WEB pop-up engagement sessions (Appendix B).



Pop-up Engagement Questions

Question 1: Mini Traffic Circles

“I am generally supportive of using mini traffic circles (as shown) for traffic calming in my neighbourhood.”

The following number of stickers were placed in each feedback column: Yes (supportive) – 71 votes (76%), No (unsupportive)– 23 votes (24%).

Two comments were written beside unsupportive votes which said, “Definite no – large trucks won’t fit” and “Consider raised intersections – see Vancouver research on traffic circles”.

Question 2: Speed Humps & On-Street Parking

"I am generally supportive of using speed humps and parking (as shown) for traffic calming in my neighbourhood."

The following number of stickers were placed in each feedback column: Yes (supportive) – 84 votes (84%), No (unsupportive)– 16 votes (16%).

One sticker was placed between 'Yes' and 'No', making their intent unclear.

Parking was a controversial topic at these sessions. In the 'Yes' column, the following comments were written in:

- "No parking" x3
- "Yes to park"
- "Speed humps but not on-street parking"

The 'No' column included comments:

- "No parking additions"
- "Stay as is for one side parking only"
- "No parking at top of Liverpool, remains as-is"
- "No to narrowing on Oxford, yes on Liverpool."
- "No to parking, yes to speed bumps"
- "Parking isn't enforced enough currently"

Question 3: Liverpool & Connaught Intersection

"I am generally supportive of closing the median boulevard at Liverpool and Connaught to vehicles in order to enhance the comfort and safety of crossing for people who are walking and cycling."

The following number of stickers were placed in each feedback column: Yes (supportive) – 77 votes (87%), No (unsupportive)– 12 votes (13%).

In the 'Yes' column, a participant wrote in "London", likely referring to their preference of the LSB being installed on London Street instead of Liverpool Street. Two comments were written in the "No" column, including, "No congesting traffic more" and "Concerned fire trucks up street from Connaught if they come up from Bayers."

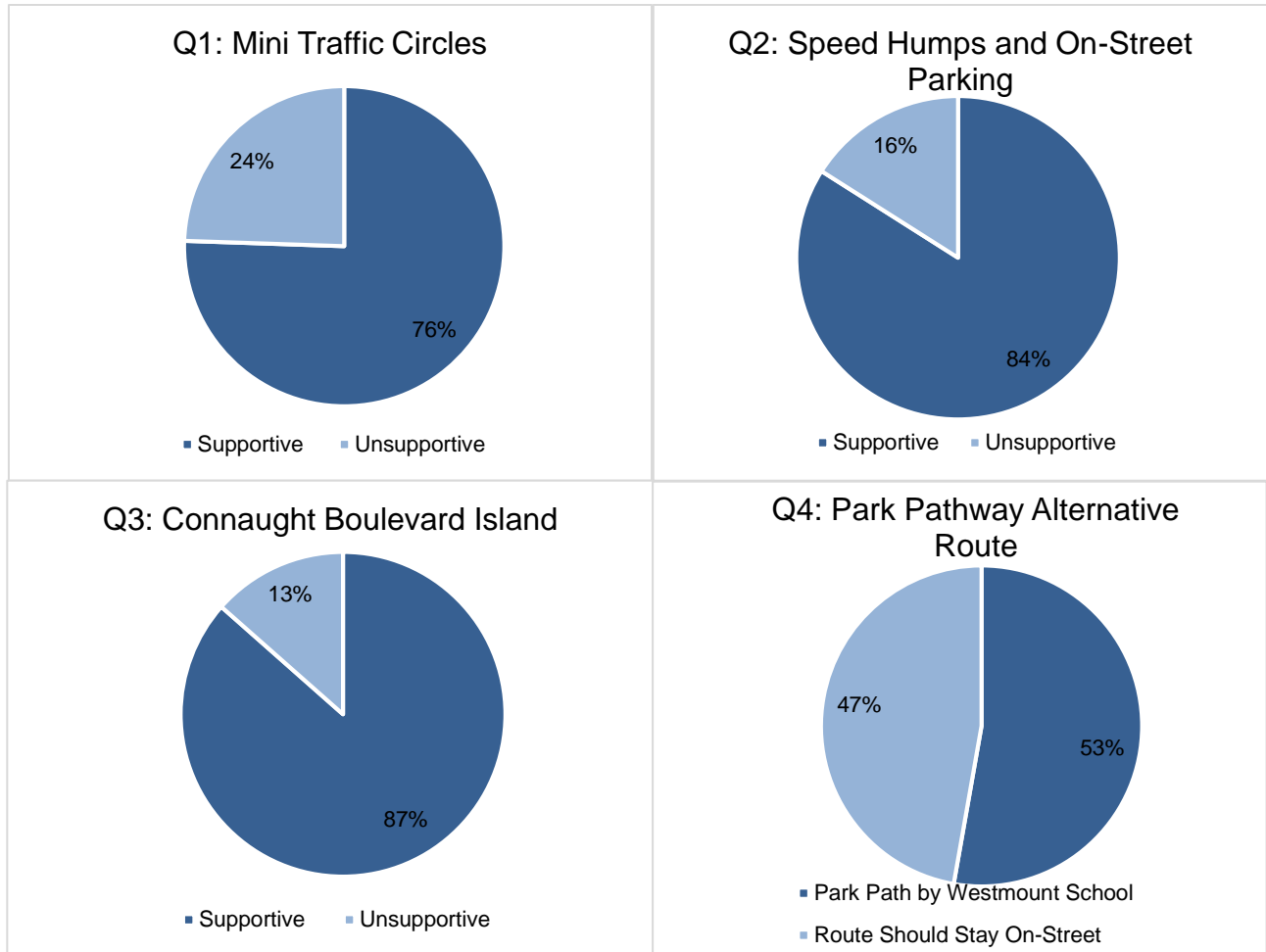
Question 4: Peter Lowe Avenue Connection

"I would prefer a route option that, rather than turning onto George Dauphinee and Peter Lowe right away, utilizes park pathways by the tennis courts to make the connection to Peter Lowe Ave mid-block (purple dashed)"

For this question, participants had the opportunity to vote for their preferred route option. The LSB could either go off street for a short time at George Dauphinee, to connect to Peter Lowe Drive mid-block or it can stay on street the entire time. A diagram was created to help participants visualize the two options (see Appendix #).

The following number of stickers were placed in each feedback column: Park Path – 38 votes (53%), Route Should Stay on Street – 34 votes (47%).

One sticker was placed in between the two options with a written comment which read, “Connection for whom?”. The intention of this vote was not clear and therefore not counted in the values above.



Appendix A – North End Bikeway Phase One Boards

NORTH END 'ALL AGES AND ABILITIES' BIKEWAY: TRAFFIC CALMED CORRIDOR



Novalea Dr (N. Ridge to Leeds)

- Multi-use pathway on west side of street in place of sidewalk (for walking and cycling)
- Narrowing street, moving curb
- Parking on east side
- Long term solution with next road recap

Leaman St (Leeds to Drummond) Drummond Ct (Leaman to Isleville)

- Series of speed humps or cushions
- Parking on both sides of street in alternating, yield style (minimal changes to current)
- Speed reduction feature



Leaman St at Normandy St

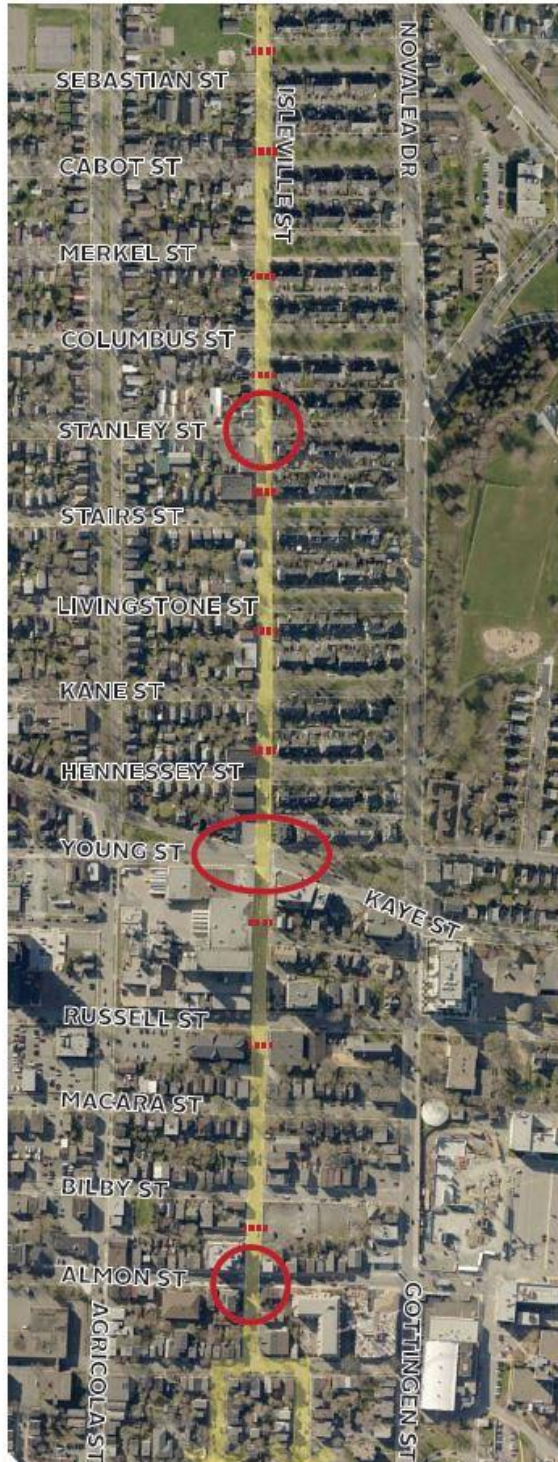
- Mini traffic circle aka traffic button
- Yield entry with painted crosswalks
- Feature is intended to reduce vehicular speed on both streets

Isleville St at Duffus St

- Curb extensions
- Pedestrian push-button and cyclist actuated signal (radar detection)
- Added safety of signal, possible delay



NORTH END 'ALL AGES AND ABILITIES' BIKEWAY: TRAFFIC CALMED CORRIDOR



Isleville St (Duffus to Almon)

- Series of speed humps or cushions
- Parking on both sides of street in alternating, yield style (addition of parking spaces)
- Features are intended to reduce vehicular speed



Isleville St at Stanley Pl

- Mini traffic circle aka traffic button
- Yield entry with painted crosswalks
- Higher volume side street w/o boulevard park
- Feature is intended to reduce vehicular speed on both streets

Isleville St at Young / Kaye St

- Measures to reduce non-local traffic volume on Isleville and make it safer and more comfortable to cross by foot + bike
- Option 1: Raised Intersection Median
- Option 2: Signed Traffic Diversion



Isleville St at Almon St

- Curb extensions, possible traffic signal



- Consideration of traffic diversion signage at PM peak hours

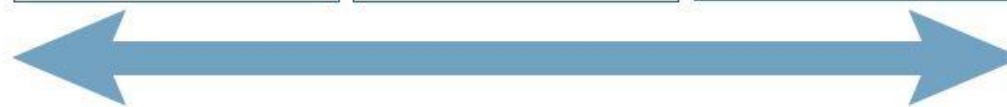
E.g. no left turns from Almon onto Isleville

HALIFAX

NORTH END 'ALL AGES AND ABILITIES' BIKEWAY: TRAFFIC CALMED CORRIDOR

(1) Please use a sticker to indicate your preference for the proposed design of the Young-Kaye-Isleville intersection:

<p>Option 1 (Desired)</p>	<p>Option 2 (Alternative)</p>	<p>Neither (Unsupportive)</p>
----------------------------------	--------------------------------------	--------------------------------------



MOST INTERVENTION

- Best meets all project objectives

- Highest comfort crossing for walking and cycling -- narrow lanes, cross in two stages
- Safety by eliminating conflict points with through and left hand turning vehicles
- Greatest reduction in non-local traffic on Isleville Street
- Potential for largest impact on how neighbours access homes (route changes necessary)

SOME INTERVENTION

- Meets some project objectives for walking but limited impact on traffic volume and cycling safety

- Slight improvements to pedestrian crossing comfort, however, bikes lose protected refuge and remain vulnerable
- Signage only approach rather than physical barrier. Left turns permitted onto Isleville (less safe, more conflict)
- Some reduction in non-local traffic on Isleville Street
- Some impact on how neighbours access homes (minor route changes)

LEAST INTERVENTION

- Does not address any project objectives

- Business as usual for walking and cycling. Leave existing crossing untouched
- All vehicular movements allowed at intersection. Prioritize convenience and flow of personal vehicles
- Greatest number of conflict points between vehicles, pedestrians, and bicycles
- No impact on neighbourhood traffic volume or access to homes

(2) I am generally supportive of using mini traffic circles (as shown) for traffic calming in my neighbourhood:

Yes

No

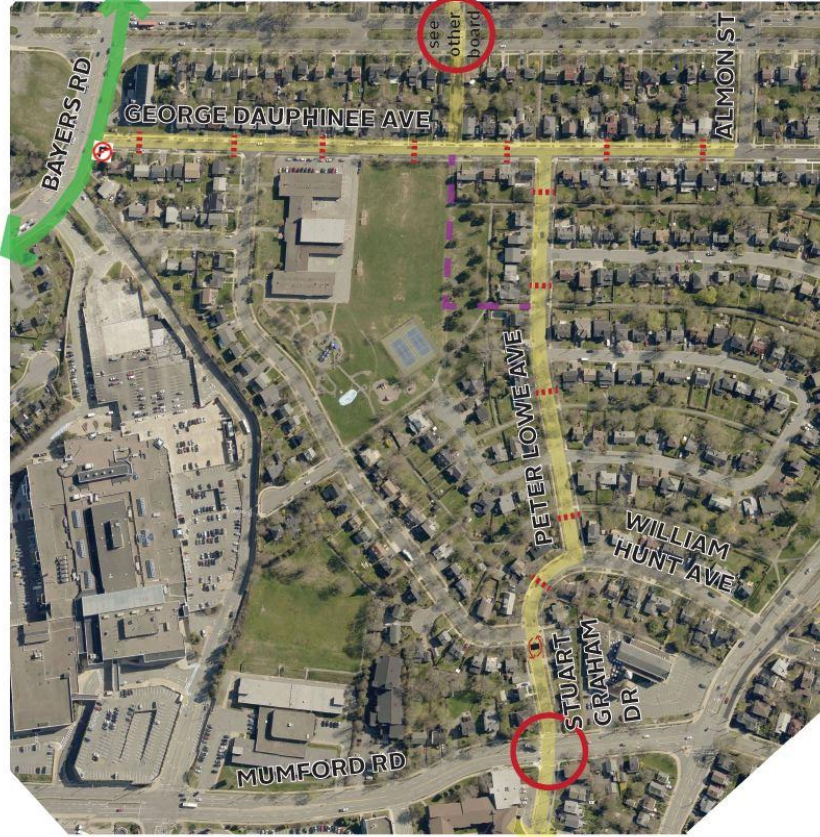
(3) I am generally supportive of using speed humps and parking (as shown) for traffic calming in my neighbourhood:

Yes

No

Appendix B – West End ‘AAA’ Bikeway Boards

WEST END ‘ALL AGES AND ABILITIES’ BIKEWAY: TRAFFIC CALMED CORRIDOR THROUGH WESTMOUNT



George Dauphinee at Bayers Rd
 - Connection to multi-use pathway on Bayers Rd that connects to Chain of Lakes Trail
 - Turn restrictions on Bayers: no right turn onto George Dauphinee. Effectively exit only



Connaught to George Dauphinee
 - Connection from Liverpool to Westmount neighbourhood using existing walkway. Treat as multi-use pathway for walking and cycling
 - Trim back bushes and greenery to achieve maximum available width (around 2.0m)



Routing Option Through Park
 - Possibility to enhance park pathway and connect to Peter Lowe mid-block

Stuart Graham Dr Barricade
 - Modification of barricade to allow gap for cyclist to fit through without dismounting

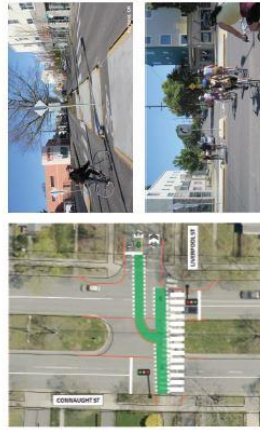


Stuart Graham Dr at Mumford
 - Cannot install half signal due to near proximity of major Mumford-Chebucto signalized intersection
 - Pedestrian actuation of flashing beacon
 - Cyclist dismount or wait for gap

**George Dauphinee Ave
 Peter Lowe Ave
 William Hunt Ave**
 - Installation of speed management features to create slow, shared roadway



WEST END 'ALL AGES AND ABILITIES' BIKEWAY: TRAFFIC CALMED CORRIDOR ON LIVERPOOL



Liverpool St at Connaught St

- Extend median boulevard across intersection for pedestrian and bicycle refuge, two stage crossing
- Half signal installed to stop traffic on Connaught and create reliable gaps for crossing major street
- Pedestrian push button and cyclist actuated
- Curb extensions on Connaught to improve visibility, reduce speed, narrow crossing distance
- Some changes to neighbourhood access off-peak

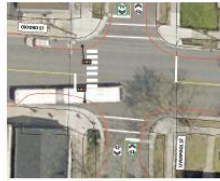
Liverpool St at Dublin St Liverpool St at Connolly St

- Mini traffic circle aka traffic button
- Yield entry with painted crosswalks
- Feature is intended to reduce vehicular speed on both streets



Liverpool St at Oxford St

- Curb extensions to reduce speed, narrow crossing distance, improve visibility and sightlines
- New painted crosswalk on N side
- Pedestrian push-button and cyclist actuated half signal or flashing beacons (radar detection)
- Added safety of signal, possible delay
- Improvements to adjacent bus stops



Liverpool St at Windsor St

- "Jug handle" to provide safe waiting space outside bike lane, align people cycling at 90° for optimal views
- New painted crosswalk on N side
- Pedestrian push-button and cyclist actuated half signal or flashing beacons (radar detection)
- Added safety of signal, possible delay



WEST END 'ALL AGES AND ABILITIES' BIKEWAY: TRAFFIC CALMED CORRIDOR

Please use a dot sticker to indicate your response to the following questions:

(1) I am generally supportive of using mini traffic circles (as shown) for traffic calming in my neighbourhood:

Yes

No

(2) I am generally supportive of using speed humps and on-street parking (as shown) for traffic calming in my neighbourhood:

Yes

No

(3) I am generally supportive of closing the median boulevard at Liverpool and Connaught to vehicles in order to enhance the comfort and safety of crossing for people who are walking and cycling:

Yes

No

(4) I would prefer a route option that, rather than turning onto George Dauphinee and Peter Lowe right away, utilizes park pathways by the tennis courts to make the connection to Peter Lowe Ave mid-block (purple dashed):

Yes

No

Appendix C – Hydrostone Stakeholder Emails

Email 1

To: Siobhan Witherbee (project manager)
From: [redacted]
Sent: October 31st 2019 at 9:08pm

Hi Siobhan,

I'm one of the owners of [redacted] at [redacted] Young street in The Hydrostone Market. I am unfortunately unable to attend the meeting tomorrow but I wanted to pass along our thoughts on the parking issues we're facing at this location.

Our sales have significantly dropped at this store since the parking was taken away in the streets behind the shops. We're hearing from customers that they are unable to park so they are not shopping here. Customers are unable to buy large items (i.e. lucrative) as they can't easily walk to their cars. These are only those we hear from. How many others have driven around and been unsuccessful in finding parking so they leave?

I hope the meeting goes well and that there are positive steps put in place to rectify the citation that make the Hydrostone more accessible.

Regards,
[redacted]

Email 2

To: Siobhan Witherbee (project manager)
From: [redacted]
Sent: November 1st 2019 at 4:53pm

Hello Siobhan:

Although we had a small chat the day you were in the shop, I am writing to make a few further comments re the parking issues in the area.

I have read the comments sent by [redacted] and do not disagree, but would like to add if the issue really is gaining access for emergency vehicles, maybe it could be small car parking only, including residents. A large truck owned by a resident blocks access in the same way one owned by a visitor does. It is reasonable to restrict parking to 2-3 hours though to keep the streets from becoming a parking lot for those going elsewhere.

Another issue is the taking away of parking to allow some restaurants to have the whole sidewalk for seating; it means too much parking is lost and customers complain about it every day. I am not against the use of half the sidewalk for seating as [redacted] does. Yes, it restricts the space for pedestrians, strollers, walkers, etc but it seems a good compromise to me.

I think the on street parking on both Young and Kaye Streets could be tweaked a bit to get more cars in.

Also, the [redacted] parking lots in the area are underused - perhaps a deal could be struck with them? metered parking in there?

Thank you for your attention
[redacted]

Email 3

To: Siobhan Witherbee (project manager)
From: [redacted]
Sent: November 4th 2019 at 9:32pm

Hello Samantha,

Thank you so much for dropping off information regarding the stakeholders' meeting on Friday the 1st. Unfortunately, I was unable to attend since the meeting was held during the hours that my shop is open.

Parking and traffic in the Young Street area has become increasingly difficult. My store, [redacted], is located next to [redacted] on Young Street. I also live on [nearby street], so I have a very intimate knowledge of traffic and parking issues in the area.

The loss of street parking in the Hydrostone has been nothing short of disastrous for the businesses in the area. At least every second customer in my store has something to say about the lack of parking in the area, and I regularly receive messages from customers stating that they tried, but were unable to make it into the store due to traffic/construction/parking.

The changes to residential parking restrictions on the adjoining streets in the Hydrostone were not made due to resident complaints - I have heard many versions of why this happened, none of which make sense to either the residents or businesses. An easy solution to the parking issues would be to reinstate the previous parking regulations, with the required space that fire trucks might need in order to access the area; we regularly have moving trucks, garbage trucks, and oil delivery trucks that are able to access houses from both the front and the laneways without issue.

Many of my customers are 'older', and have shopped at my store for over ten years. They are dismayed to find that their regular and expected parking areas are now blocked, and that their nearby parking only allows for thirty minutes at most, which is not enough time to shop the length of Young Street and the surrounding areas.

The BIAP parking plan is brilliant - thank you very much for thinking outside the box and advocating for this.

In terms of changes to Young/Kaye/Isleville, as both a business owner and resident I feel that speed reduction and traffic diversion measures should be developed with care. Right now, Young Street between Robie and Gottingen is a heavy traffic area that rivals downtown streets. From four o'clock onward there are speeding cars, honking horns, and frustrated drivers trying to make their way to the Bicentennial Highway. While I acknowledge the importance of bike lanes, I also acknowledge that very few of my customers ride their bikes to my store. Attempts to add 'slow, low-volume roadways without designated lanes of travel' in an area where buses and traffic from both Stadacona and Irving stream during rush hours appears to me to be asking people to not walk or bike in the area - if cars and pedestrians cannot access the business district of Young Street, then I will look at closing within the next year.

The Hydrostone area relies on foot traffic, visitors from other parts of HRM and beyond (who require parking spaces) and tourists, who tend to visit via tour bus or by car. Biking, while often cited as a priority, is not necessarily a priority in this area; making sure that pedestrians are safely able to cross Young/Kaye at Isleville is far more important. Changes such as the suggested 'local traffic only' or changes to neighborhood circulation are likely to cause more problems than they solve; possibly the refuge islands might make a difference. The island that currently sits at this intersection is more of a hindrance to traffic than a help, but something that is more developed would likely be workable.

Please do keep me informed of future meetings or discussions around these issues.

Best,
[redacted]

Appendix D – General NEB Comments

Isleville Park

- Signs now say no parking because of street cleaning on Novalea Drive from Leeds to North Ridge. Where will cars on East side park? Are no parking enforced, if not, get rid of signs.
- No need for half signal at Isleville-Duffus – curb extension only
- Yes to curb extension on Isleville-Duffus. Owner of 5552 Duffus who fights multiple accidents and two people who have crashed into his house with their cars.
- Prefer turn restriction signs for trucks and non-local vehicles off Duffus and Young.
- Bump outs at Duffus and Isleville and second zebra – no extra signals
- Put zebra crosswalk on other side of Isleville at Duffus?
- Signal timing at Agricola and Young (crossing Agricola). Also Bell-Trollope-Summer. Need to be adjusted. (pedestrian signals need to be lengthened)
- Please no traffic signal at Almon and Isleville!!!! We need bike routes and walking routes with crosswalks for folks who prefer to dismount and cross on demand rather than waiting forever for a light to change. There are lights at Almon and Agricola and Almon and Gottingen now too. If people want to cross at a light, they can go there! Please give us a choice.
- Visibility at laneways on Isleville – people are parking too close to them that limits sightlines
- The beauty of Halifax for active transport is its crosswalks. It gives us a sense of priority over cars, it makes our commute quiet, and wait free, it keeps drivers alert.
- Can you please first try overhead beacons, curb bumps outs, flags, and safety improvements before putting traffic lights everywhere – if it doesn't improve things, then fine. Put in a full traffic light but please start with less and prioritize walkers and see how it goes. (or at Young or at Duffus, at least for now)
- Using Drummond and Leaman for the multi-use pathway seems like it would be too congested because people park on both sides and drive slow already. Adding cyclists seems narrow and dangerous. Would be better to get cyclists from Isleville to Novalea sooner and more direct via Duffus.
- Novalea and Duffus multi-use pathway instead of Drummond and Leaman.
- Would avoid traffic circle on Leaman and Normandy.

Hydrostone Park

- Curb extension instead of speed humps (x2 people). How will speed humps be adequately/safely managed in winter? Option 1 is a concern to me for emergency vehicle access to neighbourhood
- More traffic circles, yes! Crosswalks on all corners!

Ward 5 Neighbourhood Centre

- Curb extension dangerous to cyclists – consider channel
- Consider 4 way stop at Leaman and Normandy – young students walking to school. Lights or 4 way stop at Isleville and Duffus is essential for traffic calming. Traffic on Duffus is too fast and many cars do not observe crosswalk. Overall very positive to see the bikeway planned

Appendix E – General WEB Comments

Forum Farmers' Market

- Protected on Oxford and Almon
- Biking to mall? Already established route not shown on your map (has stairs, but used)
- Ralph Devlin
- Protected bike lanes on Almon west of Windsor. Your proposed LSB is not AAA compatible
- Please consider Cork, Young, and London daytime parking availability to ease parking on Liverpool which provides for all daytime workers on Oxford and Cork. Its due to 1970's petitions that still exist limiting parking on Cork. Median extension will impact London and Cork traffic yet won't slow cut-through at end of work day towards Bayers. Traffic circles at narrow intersections will make drivers veer towards sidewalks and crossing lots of pedestrians too on Liverpool.
- One of the reasons there are parking restrictions on Cork is due to all day parking limiting access to businesses and to enable residents to have visitors. Not everyone has a driveway.
- I would much prefer continues protected bike lane beyond Windsor. My normal route on bike is west on Almon to Oxford, then south. I do not realistically see myself biking out of the way (north on Windsor, west on Liverpool) to use the proposed route. That being said, any traffic calming measures or infrastructure that makes cycling safer I am in favour of. – Resident of 5600 block, Almon Street.
- Please do not create a corridor beside the school and tennis courts. We are concerned about the encroachment this would make on the privacy of the nearest homes and we are very worried about the safety of our children in the playground and on the soccer field beside that pathway. Thanks! – Neighbourhood moms (whole comment x4)
- Consider curb bump outs as alternative to speed humps for traffic calming. I personally don't love biking over speed humps (especially with gear i.e. en route to COLT for long rides / camping etc.).
- Cork Street has seen a huge increase in traffic since the Bayers Rd – Young St since the Bayers Rd – Young St interchange was made. Cars fly down this "quiet" residential street trying to avoid the intersection lights. Please consider limiting times cars can turn onto Cork and put in traffic calming there before creating more traffic where people avoid speed bumps on Liverpool.
- I would like to see protected bike lanes on Almon all the way to Connaught (Windsor to Connaught). Please please consider all options for the accessible parking problem (expropriation?) to solve this. I live on Almon, thank you. PS – the Liverpool route as proposed is not convenient and would results in cyclists continuing on Almon, unsafe.
- Something may need to be done when bike traffic increases on the pathways as it is bound to. My husband in his 90s uses his walker there since there is no sidewalk on our street.
- Left hand turn from Mumford to Stuart Graham:
 - Possible jug-handle
 - Signage early
 - Conflict with buses
- Way too much attention and dollars being spent on the 3% of bike riders
- Training to drivers on sharing the road with cyclists. More separate bike lanes!
- Training of bike riders to obey traffic rules!
- There's currently not enough monitoring for parking which is a huge reason it is not safe at crosswalks and street corners with cars parking illegally and too close to the curb / corners. If you are able to stop all the illegally parked cars, safety would increase. Also very concerned for ability for snow removal, which (especially paired with illegal parking) is difficult enough for snow plows so the circles

add another layer of complications. Parking enforcement is an easy, inexpensive, and logical step first.

- Leppert Street – not a great idea with nursing home apartments on one side. Busy street with medical people accessing the home and overflow St Agnes church
- Liverpool already relatively minimal traffic, turning left from Windsor terribly unsafe, don't believe even the jug handle solution would be AAA. Utilize Almon all the way!
- Please consider how to keep leaves clear of leaves, snow, and ice. Halifax can be a decent winter biking city if these are considered (intersections are the worst for snow plows – deposit snow in the bike lanes here).
- Leaves – yes, Windsor bike lane is often full of leaves to the point that I just use the road.
- High contrast road marking and large signs at different heights to accommodate visually impaired.

Forum Maritime Hall

- You should put in more protected bike lanes. The best thing for everyone is protected and dedicated infrastructure for people walking and cycling. This is clearly what the evidence says. Half measures don't work.
- There should be a formal presentation with a Q and A opportunity. Please drop the Liverpool idea, as a cyclist, I will never use it but will continue down Almon. Putting poor infrastructure on Liverpool will anger resident and do nothing for cyclists. Let's fight for real lanes!
- Great plan for George Dauphinee Ave. Can you put a physical barricade to prevent right turn from Bayers Rd? There's a lot of through traffic into neighbourhood from Bayers Rd.
- I like the idea of speed bumps to slow traffic. There are a lot of toddlers on Liverpool Street. Cycling should involve the riders following the rules of the road (stopping at red lights too).
- Very excited to get bike infrastructure and calming on Liverpool. We love our street, but this would make it better.
- Don't build infrastructure that won't get used. AAA means accessible to all. This (Almon) is the only useful path to follow – we need to sacrifice a bit of parking
- No additional parking (no Liverpool)
- Speed bumps, yes! The rest, no! Waste of money
- There are a lot of kids on Liverpool St. I like the idea of slowing down traffic :)
- Proposed number of speed bumps on George Dauphinee is excessive. If needed, speed tables / raised crosswalk preferred. Would extra stop signs be an alternative? Much of car volume is due to school and events at school, drops offs / pick up
- Speed humps are okay – no bump outs! Ok mini circle.
- Bump outs cause cars to line up and make a long queue on the street – it doesn't keep cars away
- Very supportive of a safe bike / pedestrian connection to Chain of Lakes
- Preferred bike lane route is Almon Street.
- Traffic calming on Liverpool is badly needed. But it can't replace physically separated bike lanes on Almon. Only an AAA lane on Almon will successfully create a way to ride from the North End to the West End that's safe, easy to navigate, and encourages lots of diverse cyclists
- Please don't cater to cars – it's nice that you're thinking of bikers and walkers. Great idea with the crosswalks (jughandle). Traffic button is a great idea / attract bees with planting.
- You are not considering how much you will block traffic on quiet side streets just to accommodate bicycles. Large vehicles will have issues. Please consider that! The city need to fix all the other streets that have potholes!

Westmount School

- Licenses – identify illegal biking – questionable percentage of bicyclists – question mark seniors
- For good bike commuting (A to B) there should be a separated bike lane on Almon. Traffic calming on Liverpool makes a useless zig-zag. As planned, need a light for crossing Mumford.
- Like: the curbing idea on Oxford and Liverpool. Will also improve visibility for vehicles and pedestrians. Like: Connaught suggestion and Windsor
- 4/5 businesses and apartment Liverpool currently no parking
- Parking both sides of Liverpool between Connolly and Oxford causes congestion, still speeding, one lane for two way traffic. Have seen garbage / recycle trucks stuck and having to back up because of one lane. Need one side parking here. (x2)
- London Street is direct and will sue natural human nature to move towards downtown, as opposed to Liverpool that moves away from downtown
- Congestion currently caused by parking on both sides of Liverpool – would be relieved by this change, if parking was only on one side
- Need a crosswalk on the south side of Oxford by Liverpool also. Bus stop there. We are currently forced to cross 3 crosswalks to head west to our house
- More community consultation / surveys needed to inform this planning (x2)
- Connaught the most hazardous / dangerous problem to solve. Great idea to slow down traffic but need to leave access from Bayers Rd to George Dauphinee.
- Need to keep access to George Dauphinee from Bayers Rd – heavily used! Also need to consult neighbourhood fully on this.
- Cyclists and pedestrian – not share. London / Liverpool – share – no businesses on London
- Hours -- Nights? Weekends? Snow removal? Handicap? Real estate value and no parking on Liverpool.
- No! We need a continuous protected bike lane on Almon.
- Mountable boulevard on Connaught and Liverpool for emergency vehicles. Good idea.
- Not sure if block between Connaught and George Dauphinee (Almon St) could handle additional traffic at rush hour
- Crosswalk at Windsor-Liverpool should be a priority and not held up by bikeway
- Concerned about turns onto and off of Liverpool St – bike lane protected and separated on Almon all the way! Separated infrastructure for people on bikes. Not good to share Liverpool St with vehicles. Not good to share crosswalks and local pathway (the path Connaught to George Dauphinee) with people walking or rolling – not enough space for people walking!
- Contaminated soil (underneath Liverpool Street – can't dig down without hitting. Careful with recap). Drainage curbs. Transit sight lines from buses on Oxford
- Crossing guard is at Connaught and Liverpool for kids walking to/from Westmount School. Kids use the pathway to get to school. How will this work with kids and bikes together

Attachment E

North End AAA Bikeway (Phase One)

Figure 1: Traffic Volume and 85th Percentile Speed Along North End AAA Cycling Corridor

Road Segment	Extent	Date of Data Collection	85 th percentile speed	Vehicles per day
Novalea Dr	N Ridge Rd to Leeds St	Nov 2015	51 km/h	3,720
Leeds St - Leaman St – Drummond Ct	Novalea Dr to Isleville St	Oct 2012	42 km/h	Under 1,000
Isleville St	Duffus St to Young St	Oct 2012	45 km/h	1,235
Isleville St	Young St to Almon	Oct 2017	39 km/h	2,010

Bicycle counts from August 2018 reveal approximately 150 people per day are choosing to cycle along this corridor as it stands today.

West End AAA Bikeway

Figure 2: Traffic Volume and 85th Percentile Speed Along West End AAA Cycling Corridor

Road Segment	Extent	Date	85 th percentile speed	Vehicles per day
Liverpool St	Windsor St to Connaught Ave	Nov 2016	42 km/h	500
London St	Windsor St to Connaught Ave	Sept 2014	47 km/h	600
Almon St	Windsor St to Oxford St	April 2017	52 km/h	8,290
Almon St	Oxford St to Connaught Ave	April 2017	53 km/h	6,430
George Dauphinee Ave	Bayers Rd to Almon St	Oct 2015	42 km/h	1,250
Peter Lowe Ave – William Hunt Ave – Stuart Graham Ave	G. Dauphinee Ave to Mumford St	Oct 2015	Under 39 km/h	Under 700

Bicycle counts from August 2018 reveal approximately 50 people per day are choosing to cycle along the Liverpool Street corridor as it stands today, and approximately 190 people per day are choosing to cycle on Almon Street.