TORONTO

REPORT FOR ACTION

Cycling Network Plan: 2022 Cycling Infrastructure Installation - First Quarter and 2021 ActiveTO Cycling Network Expansion Project Updates

Date: March 15, 2022
To: Infrastructure and Environment Committee
From: General Manager, Transportation Services
Wards: 3, 6, 7, 9, 10, 11, 12, 13, 14, 18, and 23

SUMMARY

The Cycling Network Plan and the associated Near Term Implementation Plan, adopted by City Council in December 2021 seeks to build on the existing network of cycling routes to **Connect** gaps in the current network, **Grow** the network into new parts of the city, and **Renew** existing parts of the network to improve safety. This report recommends a number of bikeway projects that are proposed to be installed in the near term (2022 to 2024) for which design and consultation have been completed.

This report seeks Council authority to install 10 centreline kilometres of new bikeways on the following streets:

- Bartlett Avenue, Havelock Street, Gladstone Avenue and Lindsey Avenue: Davenport Road to College Street (contra-flow bike lane and cycle tracks, Ward 9)
- Knox Avenue: Eastern Avenue to Lake Shore Boulevard (bi-directional cycle tracks, Ward 14)
- The Queensway: the Humber Bridge to Burma Drive (cycle tracks, Ward 3)
- Sentinel Road: Dovehouse Avenue to Sheppard Avenue West (cycle tracks, Ward 6)
- Sheppard Avenue East: Bonnington Place to Clairtrell Road (cycle tracks, Ward 18)
- Steeles Avenue East: Midland Avenue to McCowan Road (cycle tracks, Ward 23)
- Wellington Street: Bathurst Street to Blue Jays Way (bi-directional cycle tracks, Ward 10)
- Willowdale Avenue: Empress Avenue to Sheppard Avenue East (cycle tracks, Ward 18)

This report also seeks Council authority to make improvements to 5 centreline km of existing cycling infrastructure on the following streets:

- Bloor Street West: Bartlett Avenue to Havelock St (cycle tracks to two-way cycle tracks, Ward 9)
- College Street: Bay Street to Manning Street (bicycle lanes to cycle tracks, Ward 11)

- Douro Street: King Street to Strachan Avenue (uni-directional cycle tracks to bi-directional cycle tracks, Ward 10)
- Sentinel Road: Lamberton Boulevard to Dovehouse Avenue (bicycle lanes to cycle tracks, Ward 6 and 7)
- Stephen Drive: The Queensway to Ringley Avenue (bicycle lanes to cycle tracks, Ward 3)
- Wellington Street: Strachan Avenue to Bathurst Street (bicycle lanes to bi-directional cycle tracks, Ward 10)

The changes proposed would improve safety and mobility options by providing improved cycling connections to transit, parks, local schools, businesses, and residences. Pedestrian improvements have also been included in the projects, wherever feasible, including curb extensions and new sidewalk installations, and motor vehicle lane adjustments.

In addition, this report summarizes a preliminary evaluation of the pilot 2021 ActiveTO Cycling Network Expansion projects on Midtown Yonge Street and Bayview Avenue south of River Street and recommends the temporary pilot periods of both installations be extended to July 2023, before which time Transportation Services will report to Infrastructure & Environment Committee and City Council on additional data, evaluation, and recommendations on the future of the two temporary ActiveTO Cycling Network Expansion projects installed in 2021.

The ActiveTO Cycling Network Expansion program dedicated road space on a temporary basis to facilitate cycling for essential trips and physical activity in order to support the city during the COVID-19 pandemic in 2020 and 2021. The program was highlighted in the City of Toronto's Office of Recovery and Rebuild's *COVID-19: Impacts and Opportunities Report*, which indicated that transportation infrastructure and programs will be critical for Toronto's recovery to build back better.

Seven of the temporary ActiveTO Cycling Network Expansion projects installed in 2020 were made permanent in December 2021. There were two additional corridors installed in 2021, Yonge Street from Davisville Avenue to Bloor Street and Bayview Avenue from River Street to Front Street East.

The ActiveTO Midtown Complete Street pilot on Yonge Street implemented cafés, cycle tracks and other streetscape elements in July 2021. The expanded CaféTO program provided urgent support to local restaurants, while the ActiveTO bikeways provided a new safe connection that mirrored the Line 1 subway line.

After less than a year and with the evolving COVID-19 pandemic and corresponding public health restrictions, the preliminary data demonstrates significant increases in cycling trips on the corridor and a reduction in motor vehicle operating speeds, as well as support for local business including an increase in the number of CaféTO patios on the corridor.

The preliminary data also indicates that motor vehicle travel times on Midtown Yonge Street have increased in comparison to the pre-pandemic baseline from Fall 2019. After

various adjustments to the pilot and with evolving pandemic restrictions, travel times have increased by up to 30 seconds in AM/PM peak periods (down from 90 seconds observed Fall 2021) and approximately 102 seconds midday (reduced from 150 seconds observed in Fall 2021). At this point, the motor vehicle impacts are within the scale of impacts of the other ActiveTO 2020 and permanent bikeway projects that removed motor vehicle travel lanes. The largest impacts have been observed in the northbound direction during the middle of the day. As a result of this data and follow-up field observations, signal coordination timing adjustments and a Corridor Traffic Management System project are being implemented to optimize traffic operations along the corridor.

Community consultation has taken place, both before and during the pilot, with local businesses, four Business Improvements Areas, several neighbourhood associations and area residents. Feedback for the ActiveTO Midtown Complete Street Pilot ranged from support for the project citing improved safety and experience for people walking and cycling because of the cycle tracks and complete street design, to requests to remove the cycle tracks due to concerns about motor vehicle congestion and increased travel time.

Additional data collection, monitoring, and evaluation is recommended as Toronto reopens and recovers from the on-going pandemic impacts, particularly to address impacts from changing volumes of motor vehicle traffic along the corridor.

The ActiveTO pilot on Bayview Avenue East was implemented between Front Street East and River Street to provide a safe and direct detour to the Lower Don Trail closures. While Waterfront Toronto has moved forward with closures of the trail south of Corktown Commons until at least 2024, the planned Parks, Forestry and Recreation project which was expected to close the trail in 2021 to widen and improve the trail between Riverdale Park and Corktown Commons has experienced a delay due to contractor issues. Construction of the Lower Don Trail project is now expected to start in 2022. Extending the pilot period to July 2023, would allow staff to monitor the status of the trail construction project and report back with recommendations based on those findings.

As such, Transportation Services recommends extending the pilot period and existing delegation of authority in place for the corridors below until July 2023:

- Bayview Avenue: River Street to Front Street East (multi-use trail, Ward 13); and
- Yonge Street: Davisville Avenue to 100 metres south of Bloor Street (cycle tracks, Ward 11 and 12).

Finally, this report seeks to make minor housekeeping amendments to existing bikeways and their associated traffic and parking by-laws on the following streets:

- Bloor Street West (bike lane by-laws and traffic and parking, Ward 9)
- Davenport Road (bike lane by-laws and traffic and parking, Ward 11)
- Danforth Avenue (traffic and parking, Ward 19)
- The Esplanade (bike lane by-laws and traffic and parking, Ward 10 and 13)

A map of the bikeway and ActiveTO projects proposed in this report is included as Attachment 1.

RECOMMENDATIONS

The General Manager, Transportation Services recommends that:

1. City Council authorize the installation of Bartlett-Havelock-Gladstone Cycling Connections project and all required Chapter 886, 903, 910, 925, and 950 by-law amendments on the following sections of roadway, as generally described in Attachment 2 - Bartlett-Havelock-Gladstone Cycling Connections By-Laws:
    a. Bartlett Avenue (Davenport Road to Bloor Street West);
    b. Bloor Street West (Bartlett Avenue to Havelock Street);
    c. Havelock Street (Bloor Street West to Sylvan Avenue);
    d. Lindsey Avenue (Havelock Street to Gladstone Avenue); and
    e. Gladstone Avenue (Sylvan Avenue to College Street).

2. City Council authorize the installation of College Street West Upgrades project between Manning Avenue and Bay Street and all required Chapter 886, 910, and 950 by-law amendments, as generally described in Attachment 3 - College Street Upgrades By-Laws.

3. City Council authorize the installation of Douro-Wellington Cycling Connections project and all required Chapter 886, 910, 925, and 950 by-law amendments, on the following sections of roadway, as generally described in Attachment 4 - Douro-Wellington Cycling Connections By-Laws:
    a. Bathurst Street (Front Street West to Richmond Street West);
    b. Clarence Square (Spadina Avenue to Wellington Street West);
    c. Douro Street (King Street West to Strachan Avenue); and
    d. Wellington Street West (Strachan Avenue to Blue Jays Way).

4. City Council authorize the installation of Knox Avenue Cycling Connections project between Eastern Avenue and Lake Shore Boulevard East and all required Chapter 886, and 950 by-law amendments, as generally described in Attachment 5 - Knox Avenue Cycling Connections By-Laws.

5. City Council authorize the installation of Sentinel Road Safety Improvements project and all required Chapter 886 and 950 by-law amendments, on the following sections of roadway, as generally described in Attachment 6 - Sentinel Road Safety Improvements By-Laws:
    a. Dovehouse Avenue (Sentinel Road and Keele Street);
    b. Grandravine Drive (A point 75 metres west of Sentinel Road and a point 40 metres east of Sentinel Road);
    c. Sentinel Road (Lamberton Boulevard and Sheppard Avenue West); and
    d. Sheppard Avenue West (Sunfield Road and a point 100 metres east of Sentinel Road).

6. City Council authorize the installation of Sheppard-Willowdale Road Resurfacing Opportunities project and all required Chapter 886, 910, and 950 by-law amendments on the following sections of roadway, as generally described in Attachment 7 - Sheppard-Willowdale Road Resurfacing By-Laws:

a. Hollywood Avenue (Willowdale Avenue and Longmore Street);
b. Greenfield Avenue (Willowdale Avenue and Wilfred Avenue);
c. Sheppard Avenue East (Bonnington Place and Clairtrell Road); and
d. Willowdale Avenue (Empress Avenue and a point 40 metres south of Sheppard Avenue East).

7. City Council authorize the installation of Steeles Avenue Complete Street project between Kennedy Road and a point 150 metres east of McCowan Road and all required Chapter 886 by-laws amendments, as generally described in Attachment 8 - Steeles Avenue Complete Street By-Laws.

8. City Council authorize the installation of The Queensway Complete Street project and all required Chapter 886, 910 and 950 by-law amendments on the following sections of roadway, as generally described in Attachment 9 - The Queensway Complete Street By-Laws:

a. Grand Avenue (The Queensway and a point 23 metres south);
b. High Street (The Queensway and Whitworth Avenue);
b. Park Lawn Road (Ringley Avenue and Lake Shore Boulevard West);
c. Stephen Drive (Ringley Avenue and The Queensway);
d. The Queensway (Burma Drive and a point 657 metres east of High Street); and
e. Woodford Park Road (The Queensway and a point 39 metres north).

9. City Council authorize the installation of a traffic control signal at the intersection of Bartlett Avenue and Davenport Road.

10. Subject to approval of and in conjunction with the installation of traffic control signals at Bartlett Avenue and Davenport Road identified in Recommendation 9, City Council authorize removal of the pedestrian crossover at Salem Avenue and Davenport Road.

11. City Council authorize the installation of a traffic control signal at the intersection of Bartlett Avenue and Dupont Street.

12. Subject to approval of and in conjunction with the installation of traffic control signals at Bartlett Avenue and Dupont Street identified in Recommendation 11, City Council authorize removal of the pedestrian crossover at Bartlett Avenue and Dupont Street.

13. City Council authorize the reduction of the speed limit from 40 kilometres per hour to 30 kilometres per hour on Wellington Street West between Bathurst Street and Portland Street.

14. City Council authorize the reduction of the speed limit from 60 kilometres per hour to 50 kilometres per hour on Steeles Avenue East between Brimley Road and McCowan Road

15. City Council amend cycling, traffic and parking regulations required in Chapter 886, Chapter 910 and Chapter 950, as generally described in Attachment 10- Technical Amendments, for the Danforth Avenue cycle tracks, Oakwood Cycling Connections project and Davenport Road upgrades project, Bloor Street West cycle tracks, and The Esplanade cycle tracks previously approved by City Council are enacted in phases aligned with the timing of implementation of the appropriate segments of the respective projects over 2022 - 2023 and by-law accuracy.

16. City Council authorize the continuation of the temporary ActiveTO 2021 Cycling Network Expansion Projects listed below to July 31, 2023, inclusive, in order to provide sufficient time for Transportation Services to undertake additional data collection, monitoring evaluation and report back with recommendations to Infrastructure and Environment Committee and Council prior to July 31, 2023 regarding these projects:

a. Bayview Avenue: River Street to Front Street East (multi-use trail, Ward 13); and

b. Yonge Street: Davisville Avenue to 100 m south of Bloor Street (cycle tracks, Ward 11 and 12).

17. City Council amend the various delegated authorities of the General Manager, Transportation Services, as adopted by City Council on April 7, 2021 in Item IE 20.12 - ActiveTO Lessons Learned from 2020 and Next Steps for 2021, which are currently in effect until April 30, 2022 to remain in effect until July 31, 2023, inclusive.

18. City Council authorize the appropriate City Officials to submit directly to City Council at the appropriate time any necessary Bills to amend the appropriate City of Toronto Municipal Code Chapter, and any Schedules to the Code, to reinstate the traffic and parking regulations to what they were immediately prior to the By-law amendments made in connection with the IE 20.12 report (March 9, 2021) from the General Manager, Transportation Services.

19. City Council authorize and direct the appropriate City Officials to take the necessary action to give effect to City Council's decision, including the introduction in Council of any and all Bills that may be required.

FINANCIAL IMPACT

The estimated cost to implement the bikeways recommended in this report is $12 million. Funding is available in the approved 2022-2031 Capital Budget and Plan for Transportation Services.

The removal of approximately 145 pay and display on-street parking spaces proposed in this report would reduce annual revenues generated by the Toronto Parking Authority (TPA) on behalf of the City of Toronto by approximately $453,000, based on 2019 revenues prior to the COVID-19 pandemic. This reduction in revenue includes estimated revenues to be generated by the introduction of 43 new on-street pay and display parking spaces included as part of the projects within this report. Transportation Services continues to work with the TPA to identify additional pay and display parking

spaces that could be added in the areas impacted which in turn will help to support local businesses, business improvement areas and the local community.

Costs to implement on-street pay and display parking changes, including new on-street signage and the removal of machines and relocation of P&D machines as well as the programming of new rates and hours of operation are estimated at $83,000. All implementation costs will be borne by Transportation Services.

The funding required to maintain the new cycling infrastructure in 2022 is expected to be approximately $100,000 for sweeping and $215,000 for winter maintenance. Funding for this maintenance can be accommodated within the approved 2022 Operating Budget for Transportation Services. Funding required for ongoing maintenance costs would be considered as part of future operating budget submissions for Transportation Services.

The Chief Financial Officer and Treasurer has reviewed this report and agrees with the financial impact information.

DECISION HISTORY

Cycling Network Plan
On December 15, 2021, City Council adopted, in principle, the 2021 Cycling Network Plan Update including a Near Term Implementation Program (2022-2024). The implementation of individual projects is subject to the completion of feasibility assessments, design, consultation, and future City Council approval.
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2021.IE26.9

ActiveTO
On April 7 and 8, 2021, City Council adopted recommendations from ActiveTO - Lessons Learned from 2020 and Next Steps for 2021. The ActiveTO temporary cycling network, in response to the COVID-19 pandemic, aims to allow people on bikes to move around Toronto safely, to better connect the city, and to mirror major transit routes. (http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2021.IE20.12)

In October 2020, City Council approved the report which provides an update on the work undertaken by the Toronto Office of Recovery and Rebuild (TORR), information on the response to COVID-19 by the City including coordination with our federal and provincial partners, and a roadmap towards recovery and rebuild. The report includes recommendations for areas necessary for effective recovery including municipal services that benefit the region, province and country, such as newcomer integration, poverty reduction, climate resilience, transportation and public transit.
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.EX17.1

In September 2020, City Council requested the City Manager to report to City Council on lessons learned from this year's CafeTO, CurbTO and ActiveTO programs, and, in consultation with residents and businesses, to include recommendations for modifications to these programs for 2021.
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.EX16.27

In April 2020, City Council requested the General Manager, Transportation Services and the Medical Officer of Health to pursue opportunities to provide, where possible and under the advice of public health and through the City-wide recovery planning process, more space for pedestrians, cyclists and public transit riders to allow for better physical distancing, and for the General Manager, Transportation Services to report back to City Council on the possibility of fast-tracking projects within the 10 Year Capital Plan for Vision Zero and cycling infrastructure.
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.CC20.2

Borden - Brunswick Cycling Connections Project
In April 2020, City Council approved the installation of contra-flow bike lanes on Borden Street, Ulster Street and Brunswick Street and a bi-directional cycle track on College Street between Borden Street and Bellevue Avenue
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.IE12.8

Douro - Wellington Cycling Connections Project
In April 2020, City Council approved the installation of cycle tracks and bike lanes on Douro Street and Wellington Street between King Street and Niagara Street.
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.IE12.8

Downsview Cycling Connections
In June 2018, City Council approved the installation of bike lanes on Sentinel Road and Dovehouse Avenue, and a cycle track on Sheppard Avenue West.
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2018.PW30.6

Willowdale Avenue Cycle Tracks
In July 2019, City Council approved the installation of cycle tracks on Willowdale Avenue between Empress Avenue and Bishop Avenue
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.IE6.12

Sheppard-Willowdale Secondary Plan
In February 2022, City Council adopted the Sheppard Willowdale Secondary Plan.
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2022.NY29.4

COMMENTS

Toronto's Cycling Network Plan

The goals of the Cycling Network Plan are to Connect, Grow, and Renew Toronto's bikeways, with corresponding objectives and indicators for measuring and evaluating success. The objectives and indicators are aligned with a multitude of City policies including the Official Plan, TransformTO Climate Action Strategy, and the Vision Zero Road Safety Plan.

Through this report, Transportation Services is seeking authority for this initial group of bikeway projects that are proposed to be installed in the near term (2022-2024) for which design and consultation have been completed. New and/or improved bikeways

are proposed through the following projects: Bartlett-Havelock-Gladstone, College Street West, Douro Street-Wellington Street, Knox Avenue, Sentinel Road, Sheppard Avenue East-Willowdale Avenue, Steeles Avenue East, and The Queensway.

Bartlett-Havelock-Gladstone Cycling Connections

Creating a safe and comfortable cycling route along the Bartlett-Havelock-Gladstone corridor was included in the Council-adopted Cycling Network Plan's 2022-2024 Near-Term Implementation Program. As such, Transportation Services is proposing cycling, pedestrian, and road safety upgrades on Bartlett Avenue, Havelock Street, and Gladstone Avenue from Davenport Road to College Street, as well as associated changes to short sections of Bloor Street and Lindsey Avenue.

This 3.5 km bikeway project includes design features focused on lowering motor vehicle travel speed, prioritizing people walking and cycling, and reducing local traffic infiltration. The project would expand the local cycling network and connect to existing bikeways on Davenport Road, Bloor Street, Havelock Street, Lindsey Avenue, Waterloo Avenue, and Argyle Street.

An important aspect of this project is the desire to create a safe north-south cycling corridor parallel to Dufferin Street.

Existing Conditions
Bartlett Avenue from Davenport Road to Bloor Street, Havelock Street from Bloor Street to Lindsey Street and Gladstone Avenue from Sylvan Avenue to College Street are generally local roadways. There is no transit service on the corridors.

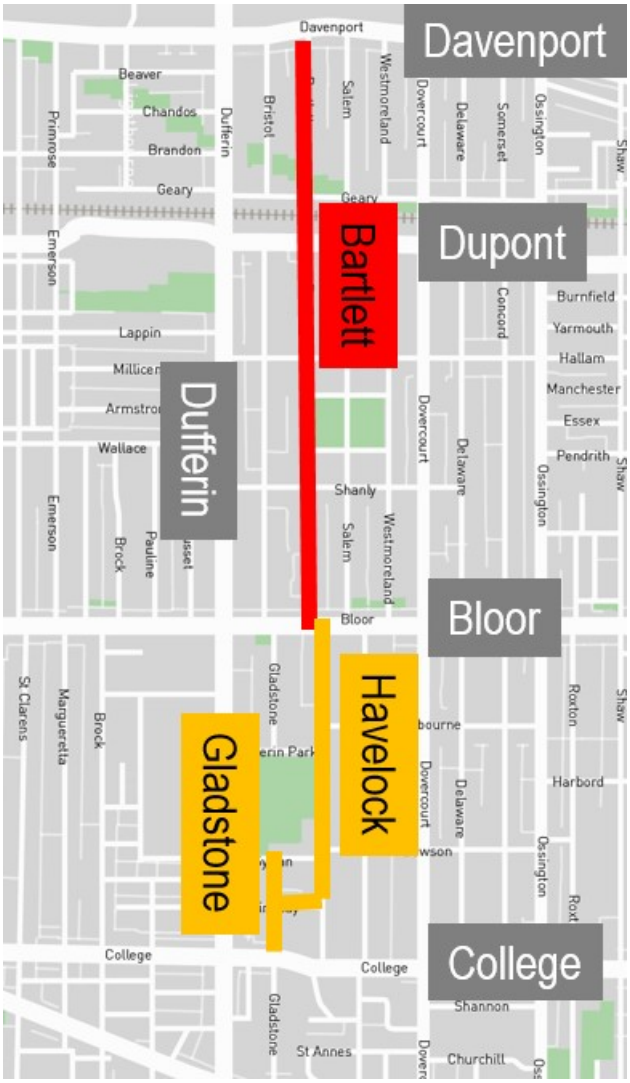

Figure 1: Map of the Bartlett-Havelock-Gladstone project limits.

In the last five years, there have been 168 reported collisions in the project area. Five (5) collisions involved a pedestrian and 14 collisions involved a person cycling.

Project Goals and Objectives
The goals of the Bartlett-Havelock-Gladstone project are to improve safety for people walking, cycling, and driving, encourage cycling by connecting existing bikeways, allow people cycling to travel two-ways along the corridor, and reduce traffic infiltration while also minimizing parking impacts and maintaining local access for people driving. This project has been prioritized within the Cycling Network Plan to create a comfortable and safe alternative parallel to Dufferin Street for people cycling in the area.

Proposed Design
The project recommendations include traffic calming features such as two-way to one-way street conversions, turn and through restrictions, a contra-flow bike lane in all the one-way sections of the corridor, cycle tracks in segments where motor vehicle volumes are higher and where space allows, traffic signal modifications at Bloor Street West, a new traffic signal at Bartlett Avenue and Davenport Road, and the conversion of a pedestrian crossover to a traffic signal at Bartlett Avenue and Dupont Street.

Through the public consultation process, the corridor was broken down into two segments: Bartlett Avenue from Davenport Road to Bloor Street West and Havelock Street from Bloor Street West to College Street. Within each segment, different options were considered.

Bartlett Avenue between Davenport Road and Bloor Street West
The recommended design in this section includes:

- Parking made permanent on the east side, except between Hallam Avenue and Shanly Street, where it would be on the west side;
- From Geary Avenue to the CP Rail Tracks, parking maintained and bike lanes added;
- Two-way driving maintained and sharrows added between 40m north of Geary Avenue and Dupont Street and between Boilermaker Lane and Bloor Street West;
- Ten (10) minute parking added on the west side between Southview Avenue and Shanly Street during pick-up/drop-off hours;
- Bike Share stations added near Dupont Street and Davenport Road intersections and Bloor Street West; and
- A new traffic signal at Bartlett Avenue and Davenport Road, which would require relocation of the TTC bus stop from Salem Avenue to Bartlett Avenue and prohibition of northbound right-turn-on-red signal movements.

In keeping with best practice design criteria, shared-lane markings are generally proposed on segments of streets that fall below the threshold of 75 motor vehicles an hour. Motor vehicle speed and volume are the most important criteria in identifying the appropriate bikeway design for

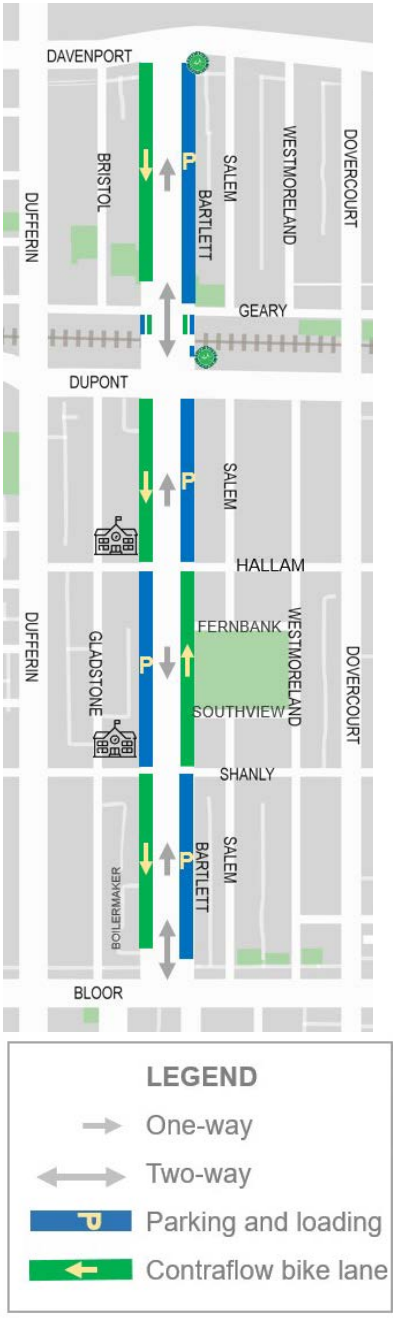

Figure 2: The proposed design of Bartlett Avenue from Davenport Road to Bloor Street West retains parking and adds contra-flow bike lanes.

streets. Sharing the roadway between people cycling and driving can be appropriate if the motor vehicle volume and speed are sufficiently low to be safe.

The proposed design on Bartlett Avenue would have some impact to on-street parking in the area including the removal of three (3) one-hour parking spaces just north of Dupont Street; six (6) three-hour parking spaces on Dupont Street; and three (3) permit parking spaces in area 3G. Two (2) permit parking spaces are proposed to be added in Area 3F.

Bloor Street West and Bartlett Avenue and Havelock Street Intersection
The intersections of Bloor Street West, Bartlett Avenue and Havelock Street are off-set with only the Havelock Street intersection signalized. This project includes changes at the intersection to create a continuous north-south connection. A two-way cycle track would be installed on the north side of Bloor Street West from Bartlett Avenue to Havelock Street along with new signal heads and pavement markings.

A similar intersection configuration was installed in 2021 at Richmond Street/Brant Street and Davenport Road/Shaw Street. The proposed design requires the removal of two (2) pay and display parking spaces, both of which are proposed to be relocated on Bartlett Avenue, along with a dedicated commercial loading zone. To reduce traffic infiltration, westbound right-turns would be restricted during peak periods (7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m., Mon. to Fri. with bicycles excepted) and right-turn-on-red signal movements are proposed to be prohibited.

Figure 3 : Artist rendering of Bloor Street West at Havelock Street, facing west.

Havelock Street from Bloor Street West to Dewson Street
The recommendation design in this section includes:
- Parking made permanent on the east side; and
- Contra-flow bike lanes installed on the west side.

The main change in this segment is that parking would be made permanent on the east side, rather than alternate sides.

Havelock Street from Dewson Street to College Street, Lindsey Avenue, Sylvan Avenue and Gladstone Avenue

The most significant changes to the corridor are proposed on Havelock Street south of Dewson Street. There is strong cycling demand in this section travelling north-side and east-west, along with motor vehicle volumes above shared-lane thresholds.

At the time of consultation, two different design options were proposed. This report recommends Option 1, which was the preferred option through the lens of safety. The recommended design section includes:

- Cycling only block on Havelock Street from Dewson Street to Sylvan Avenue;
- Contra-flow bike lanes installed on Gladstone Avenue from Sylvan Avenue to 15m north of Sylvan Avenue; two (2) parking spaces would be removed;
- Contra-flow bike lanes installed on Gladstone Avenue from Lindsey Avenue to College Street;
- Seven (7) parking spaces removed on Gladstone Avenue south of Lindsey Avenue;
- Lindsey Avenue from Gladstone Avenue to Havelock Street would be made one-way eastbound for motor vehicle traffic, parking would be made permanent on the south side, and a contra-flow bike lane would be installed on the north side; and
- A diagonal diverter would be installed using pavement markings and bollards at the intersection of Lindsey Avenue and Gladstone Avenue, four (4) parking spaces would be removed to accommodate truck turns through this intersection.

Figure 4: Option 1 on Havelock Street, Lindsey Street, and Gladstone Avenue includes a traffic diverter at Dewson Street and a diagonal diverter at Lindsey Street and Gladstone Avenue.

Option 2 also included a diagonal diverter at the intersection of Lindsey Avenue and Gladstone Avenue, but proposed converting Havelock Street between Dewson Street and Sylvan Avenue to one-way southbound and converting Sylvan Avenue between Gladstone Avenue and Havelock Street one-way eastbound. Option 2 was similar to Option 1, but was not preferred because it was anticipated to be less effective in reducing traffic infiltration and would have the potential for poor compliance with the short one-way block on Havelock Street.

In both options, there would be no impact to existing sidewalks or posted speed limits and all local driveway access would be maintained. City services, including fire, emergency medical services, waste pick-up, and snow clearing, would continue as usual.

Public Consultation
Public consultation for the Bartlett-Havelock-Gladstone Cycling Connections Project was split into two phases: phase one is from Davenport Road to College Street and phase two (forthcoming) is from College Street to Peel Avenue.

During phase one, stakeholders, residents and community members were asked to provide feedback on the proposals for Bartlett Avenue, Havelock Street and Gladstone Avenue; on small sections of Bloor Street West, Lindsey Avenue and Sylvan Avenue; as well as at the Davenport Road, Dupont Street and Bloor Street West intersections. In addition, feedback was collected on two proposed options between Dewson Street and College Street.

Eight (8) one-on-one stakeholder meetings were conducted with local community groups and representatives. In addition, a stakeholder meeting was held on January 27, 2022 with nine (9) participants in attendance. Stakeholders, including local schools, businesses and Business Improvement Areas (BIAs), were consulted to identify loading, access and parking needs to refine the proposed design.

For the broader community, 13,887 notices were delivered by Canada Post and 175 people participated in the virtual public meeting on February 10, 2022. Public comments and feedback were collected from 667 online survey submissions, 10 phone calls, and 72 emails.

From the survey, 81% of respondents strongly support the proposed changes on Bartlett Avenue from Davenport Road to Bloor Street; 85% of respondents strongly support the proposed changes on Havelock Street from Bloor Street to Dewson Street; and 75% strongly support Option 1 while only 23% strongly support Option 2 for Dewson Street to College Street.

The community is generally in support of the proposed road safety measures and addition of cycling infrastructure. General concerns were expressed about potential conflict with pick-up and drop-off near local schools, loss of parking, and issues related to the steepness of the road near Davenport Road. In relation to Option 1 and 2, the community expressed concerns about parking loss, and maintaining access to the neighbourhood and their homes by motor vehicle.

Further to the improvements recommended within this report, a new traffic signal has been approved by City Council at Lindsey Avenue and Dufferin Street. This new signalized intersection will allow for safe east-west crossing and aid in supporting Bartlett-Havelock as a safe alternative to Dufferin Street.

Subject to Council approval, Transportation Services will monitor the project following the installation to determine if additional modifications are recommended to improve safety. A similar approach was taken on Shaw Street, where contra-flow bike lanes were initially installed in 2013, and later in improved in 2019-2020.

A detailed summary of the public consultation feedback and more information on the project can be found at toronto.ca/bartletthavelockgladstone. The local Councillor has been consulted on the proposed project.

College Street Upgrades

Toronto Transit Commission (TTC) has planned streetcar track replacement on College Street from Bathurst Street to Bay Street in 2022. The track replacement work is required to ensure the longevity of the streetcar system and it is essential for the work to happen in 2022 due to planned work on parallel corridors including Ontario Line construction closure of Queen Street and the reconstruction of Bloor Street West from Avenue Road to Spadina Avenue in 2023.

As part of the track replacement, Transportation Services is recommending several road safety and streetscape improvements including upgrading the existing bicycle lanes

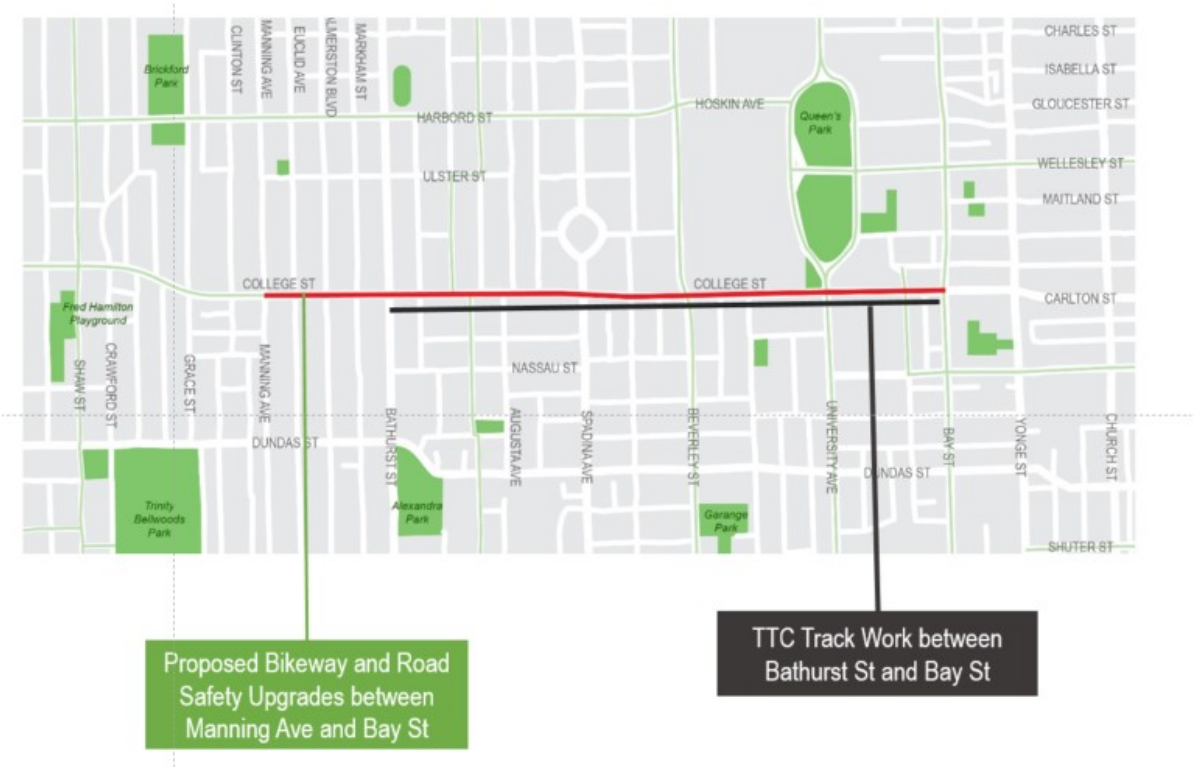

Figure 5: Map of project area of the College Street bikeway and road safety updates and the TTC Track Work.

from Manning Avenue to Bay Street to uni-directional cycle tracks. Where possible, Transportation Services is also proposing to install raised crossings, planted bulb-outs and improved conditions for existing trees on the corridor.

Existing Conditions
College Street was identified as a priority for road safety improvements for pedestrians and people cycling. In the past ten years, 25 people have been seriously injured and three (3) people have been killed on College Street. The loss of life and serious injury on the corridor are unacceptable and the track replacement in 2022 has provided an opportunity to take a Vision Zero approach.

The existing bicycle lanes do not meet today's standards for bikeway design. College Street carries approximately 24,000 motor vehicle trips per day, which is well beyond the generally accepted threshold for paint-only bicycle lanes. The Transportation Association of Canada Geometric Design Guide and the Ontario Traffic Manual both recommend cycle tracks on corridors with volumes over 10,000 motor vehicle trips per day. Further, the existing parking lay-bys between Manning Avenue and Spadina Avenue create challenges for winter maintenance and cycling.

Figure 6: During the winter, windrows of snow are in the parking lay-by which pushes parked vehicles into the bicycle lanes.

Proposed Design
Manning Avenue to Spadina Avenue
College Street from Manning Avenue to Spadina Avenue has two motor vehicle lanes in each direction with streetcar tracks in the centre lanes, bicycle lanes and parking lay-bys. Transportation Services is recommending converting the parking lay-bys into raised cycle tracks and new streetcar platforms, while allowing people to park in the

curb-lane in off-peak hours. Peak hour times when parking will be restricted and No Stopping will be permitted are from 7:00 a.m. to 10:00 a.m. on the south side (eastbound direction) and from 3:30 p.m. to 6:30 p.m. on the north side (westbound direction).

Raised crosswalks will be installed at Bellevue Avenue, Brunswick Avenue, Major Street and Robert Street and planted bulb outs will be installed at Palmerston Avenue, Lippincott Street, and Brunswick Avenue.

In April 2020, City Council approved the Borden-Brunswick Cycling Connections Project. Through this project, a segment of Borden Street will be reconstructed with a raised intersection at Ulster Street and the approved bi-directional cycle track on College Street between Bellevue Avenue and Borden Street will be implemented.

Figure 7: Artist rendering of College Street to the west of Spadina Avenue.

There are currently 144 on-street parking spaces, which are proposed to be reduced to approximately 105 on-street parking spaces. The reduction in parking is mostly attributed to the requirement for new 30 metre long TTC streetcar platforms for accessibility. Today, the streetcar stops provided very limited pedestrian queuing space. Parking will no longer be 24 hour parking, but rather curb-lane parking will be provided outside the peak hours in the peak direction, similar to the current conditions west of Manning Avenue.

Spadina Avenue to Bay Street
College Street from Spadina Avenue to Bay Street has two motor vehicle lanes in each direction with streetcar tracks in the centre lanes, and bicycle lanes. Parking is prohibited along the corridor. Transportation Services is recommending narrowing the motor vehicle curb lanes and installing pre-cast curbs to provide physical separated cycle tracks. Due to utilities and the width of the street, there is limited opportunity to make further improvements. The cycle tracks will be 1.6 metres wide, which will make passing other people cycling more challenging, but the concrete curbs will aid in improving safety by reducing illegal parking and loading along the corridor.

Figure 8: Artist rendering of College Street to the east of Spadina Avenue, South side.

Public Consultation
Public and stakeholder consultation for the proposed College Upgrades was carried out November 1, 2021 – November 29, 2021. Consultation activities included stakeholder meetings, a public meeting and following up communications via email and telephone.

A variety of methods were used to communicate the project to the public, providing information on expected changes and offering an opportunity for response and feedback.

- A public meeting notice was delivered to 44,277 households through Canada Post direct mail. The notification area was Harbord Street on the north to Dundas Street on the south, Grace Street on the west to Yonge Street on the east.

- A virtual stakeholder meeting took place on November 2, 2021, from 6:00pm – 8:00pm, with 14 participants. Twenty-seven (27) stakeholder groups had been invited to participate.
- A virtual public meeting took place on Monday November 15, 2021, from 6:00pm – 8:00pm, and was attended by 40 people.
- An online comment form was available from November 5, 2021 – November 29, 2021, and received 1,100 responses.

The proposed upgrades received broad support. While safety upgrades are a recognised need, there was considerable dialogue on the best barrier treatment for cycle tracks.

While the project proposal generally received support, there are several concerns including: business parking and loading, CaféTO patio placement on the opposite side of the bikeway, and construction impacts. The Harbord Village Residents Association and the Palmerston Area Resident Association brought forward a design recommendation to consider the removal of the curb lanes, reducing College Street to one lane in each direction shared by TTC streetcars and motor vehicles in order to expand the pedestrian public realm, place future cafés adjacent to the sidewalk and improve cycling conditions. City services, including fire, emergency medical services, waste pick-up, and snow clearing, would continue as usual.

In response to the concerns expressed, Transportation Services expanded the number of raised crossings, planted bulb outs, and incorporated permeable pavers into the design.

To address the concern about the location of the CaféTO patios between the general travel lane and the bikeway, Transportation Services is open to considering the placement of CaféTO locations on the raised bikeway and installing a temporary cycle track on blocks where continuous curb lane café requests are submitted. This could alleviate the concern of crossing the bikeway to access the patios at some locations.

Future Projects on College Street
While Transportation Services incorporated a number of design recommendations from stakeholders and the public as part of this project, there are a number of future projects planned along College Street which represent opportunities to improve the design of the corridor over time.

College Street was identified as one of Toronto's Great Streets in the TOCore Parks and Public Realm Plan. As part of the YongeTOmorrow Environmental Assessment approved by Council in February 2021, the College Street bikeways are to be extended from Bay Street to Yonge Street. Watermain replacement is programmed within the next five years on College Street west of Manning Avenue.

Through public feedback, input from TTC to improve surface transit priority along the corridor, and additional programmed projects mentioned above, Transportation Services is committed to opportunities for additional improvements on College Street in the next five-to-ten years, including future public consultation.

A detailed summary of the public consultation feedback and more information on the project can be found at www.toronto.ca/CollegeUpgrades. The local Councillor has been consulted on the proposed project.

Douro Street and Wellington Street Road Safety and Bikeway Improvements

In 2020, Transportation Services installed new uni-directional bike lanes and associated traffic changes on Douro Street and Wellington Street from King Street to Niagara Street, with strong support of the project from local residents. A detailed overview of the previous Douro Street & Wellington Street project can found at: https://www.toronto.ca/wp-content/uploads/2020/01/93e7-Douro-Wellington-Consultation-Summary-v2.pdf

In 2022-2023, watermain replacement and resurfacing is programmed on Wellington Street from Strachan Avenue to Draper Street and from Spadina Avenue to Blue Jays Way. Creating a safe and comfortable cycling route along Douro Street and Wellington Street was included in the Council-adopted Cycling Network Plan's 2022-2024 Near-Term Implementation Program.

This work presents the opportunity to make pedestrian safety improvements including accessibility upgrades along with improvements to the existing bikeways along Douro Street and Wellington Street.

Existing Conditions
Douro Street east of Shaw Street and Wellington Street west of John Street are collector roadways and no transit currently operates on this corridor. The corridor is occupied by townhouses and condominiums, some low density offices and services and two hotels. There are two major developments along Wellington Street that will add over 2,000 residential units, retail and office space within the next two years.

Over the last decade, there have been 510 collisions, with two (2) people seriously injured, and 47 involving people walking or cycling.

Proposed Design
Transportation Services recommends a bi-directional cycle track on the south side of Douro Street from King Street to Strachan Avenue, on the south side of Wellington Street from Strachan Avenue to Portland Street, and Spadina Avenue to Blue Jays Way, and on the north side of Wellington Street from Portland Street to Spadina Avenue.

Figure 9: Map of Douro Street and Wellington Street Road Safety and Bikeway Improvements Project.

A bi-directional bikeway is proposed on Wellington Street because the street is too narrow to accommodate a physically separated uni-directional cycle track. While the traffic volumes on Wellington Street range from 2,000-6,000 per day are within an acceptable range for painted bike lanes, there is a high demand for curb-side parking and loading in the area. The parking and loading demand has led to issues with illegal stopping with the existing sections of bike lanes, which can pose a danger to people cycling.

Further improvements will be made across the corridor for pedestrian safety including accessibility upgrades at all intersections and curb radii reductions.

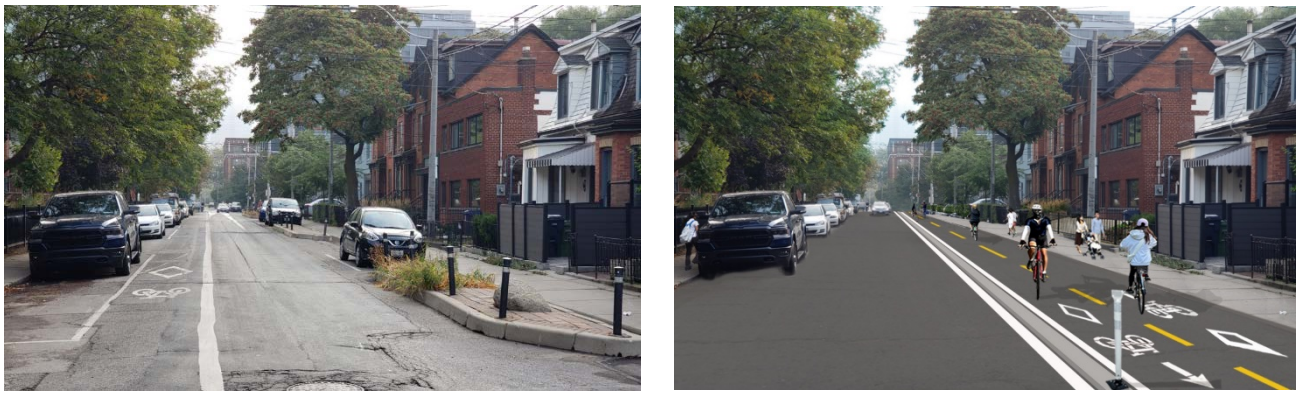

Figure 10: Artist rendering of before and after of Wellington Street East of Tecumseth Street.

Figure 11: Artist rendering of before and after of Wellington Street along Victoria Memorial Park.

On-street parking would be impacted as part of this project. 42 out of 57 pay and display parking spaces are proposed to be removed between Bathurst Street and Spadina Avenue and 10 permit parking spaces would be removed between Tecumseth Street and Bathurst Street. Wellington Street belongs to permit parking area 4i. Between Bathurst Street and Niagara Street there are 50 spaces and 22 permits have been issued (parking utilization of 44%). To offset the loss of the on-street pay and display parking spaces, 16 pay and display parking spaces would be introduced on the south leg of Clarence Square and 20 permit parking spaces would be converted to day-time pay and display parking spaces between Niagara Street and Bathurst Street. The hotel loading zone for the 1 Hotel at 550 Wellington Street would be relocated from Wellington Street to Bathurst Street.

Public Consultation
There were various opportunities for the public and stakeholders to ask questions and provide feedback on the proposed changes along this corridor through the consultation process.

In November 2021, over 20,000 flyers were distributed to the project area to inform community members of the proposed changes and to invite them to use a virtual mapping tool to provide feedback between December 2, 2021 and January 9, 2022.

On December 7, 2021, Transportation Services presented the proposed design to local stakeholders for feedback. Additional one-on-one meetings were held with the 1 Hotel and the Shell Gas Station to better understand their operations and inform the bikeway design. The designs have been revised based on feedback received.

The designs have been revised based on feedback received, including introducing a commercial loading zone for delivery vehicles west of Bathurst Street, simplifying the intersection design at Wellington Street and Portland Street, and modifying the crossing treatment for people cycling at Spadina Avenue.

The results of the survey indicate that 78% of participants are in strong support of the proposed changes, while 12% supported the proposed changes. 8% of participants

strongly do not support the proposed changes, while 1% do not support them and another 1% are unsure. Overall, many responses indicated support for the project because of the proposed road safety improvements for people cycling. At the same time, there is a fair degree of anticipation about other proposed north-south cycling projects that will link to the Douro Street and Wellington Street corridor.

To further strengthen the cycling network and public realm in that area and improve north/south connectivity, Transportation Services will be reviewing opportunities for bikeways on Portland Street and Dan Leckie Way as part of future projects.

Details on the project, including public consultation materials and summaries, can be found at toronto.ca/Wellingtonbikelanes. The local Councillor has been consulted on the proposed project.

Knox Avenue Cycling Connections

In 2022, road reconstruction is planned on Knox Avenue between Eastern Avenue and Lake Shore Boulevard East. The roadwork provided the opportunity to improve safety for all road users and create a connection between the existing multi-use trail on Lake Shore Boulevard East and the existing Knox Avenue contra-flow bike lane north of Eastern Avenue.

Creating a safe and comfortable cycling route along Knox Avenue was included in the Council-adopted Cycling Network Plan's 2022-2024 Near-Term Implementation Program.

Figure 12: Map of the Knox Avenue Bikeway Project Area and surrounding bikeway projects.

Existing Conditions
Today, Knox Avenue south of Eastern Avenue is a local street that has one motor vehicle lane in each direction, no parking, and a sidewalk on the west side.

While Knox Avenue north of Eastern Avenue is a residential area, the southern section of the project area is light industrial. On the east side there are driveways to a Canada Post employee parking lot and service access road, and on the west side there is a City of Toronto Fire and EMS Training Centre.

Proposed Design
Transportation Services is recommending the installation of a bi-directional cycle track on the west side of the street, which eliminates conflicts with the Canada Post driveways and service road. The sidewalk on the west side is proposed to be widened, along with new seating at the connection between the Lake Shore Boulevard East multi-use trail and new two way cycle track and sidewalk.

The bi-directional cycle track on Knox Avenue south of Eastern Avenue would transition to the existing uni-directional bikeways on the north side through a signalized bike crossing on the south side of intersection.

Public Consultation
Public consultation was conducted from February 8 to February 28, 2022. Through 3,217 mailed public notices, the community was invited to review the consultation materials on the project web page and provide feedback through email and phone.

Feedback was received from members of the public through nine emails. Feedback was received directly from the two key stakeholders - the Canada Post's South Central Letter Processing Plant (through one virtual meeting and follow-up emails), as well as Toronto Fire Services EMS Training Centre and Fire Station 326 (through email).

Overall, the proposed design received broad support from the respondents, with safety for all road users identified as a top priority for the project. Members of the public were appreciative of the safety upgrades, but also suggested additional improvements such as a raised cycle track instead of a street-level cycle track and improved bicycle detection at the Knox Avenue/Eastern Avenue intersection.

Stakeholders were generally supportive of the proposed changes, but were also concerned that encouraging more people to use Knox Avenue would also increase the risk of collisions, since heavy trucks and emergency vehicles already use the roadway at all hours of the day. Both members of the public and stakeholders suggested installing signage and pavement markings to remind all road users to exercise caution, especially near the Toronto Fire Station 326 and Canada Post driveways. This feedback has been incorporated into the design.

While acknowledging this project as a welcome improvement, many people who cycle in the neighbourhood expressed support for additional bikeway projects in the community.

Details on the project, including public consultation materials and summaries, can be found at toronto.ca/WoodfieldMonarchKnox. The local Councillor has been consulted on the proposed project.

Sentinel Road Safety Improvements

In 2023-2024, road reconstruction is planned on Sentinel Road between Lamberton Boulevard and Sheppard Avenue West. The road reconstruction provides a once in a generation opportunity to make changes to improve safety for all road users. Road reconstructions are also the most cost-effective time to incorporate changes.

Creating a safe and comfortable cycling route along Sentinel Road was included in the Council-adopted Cycling Network Plan's 2022-2024 Near-Term Implementation Program.

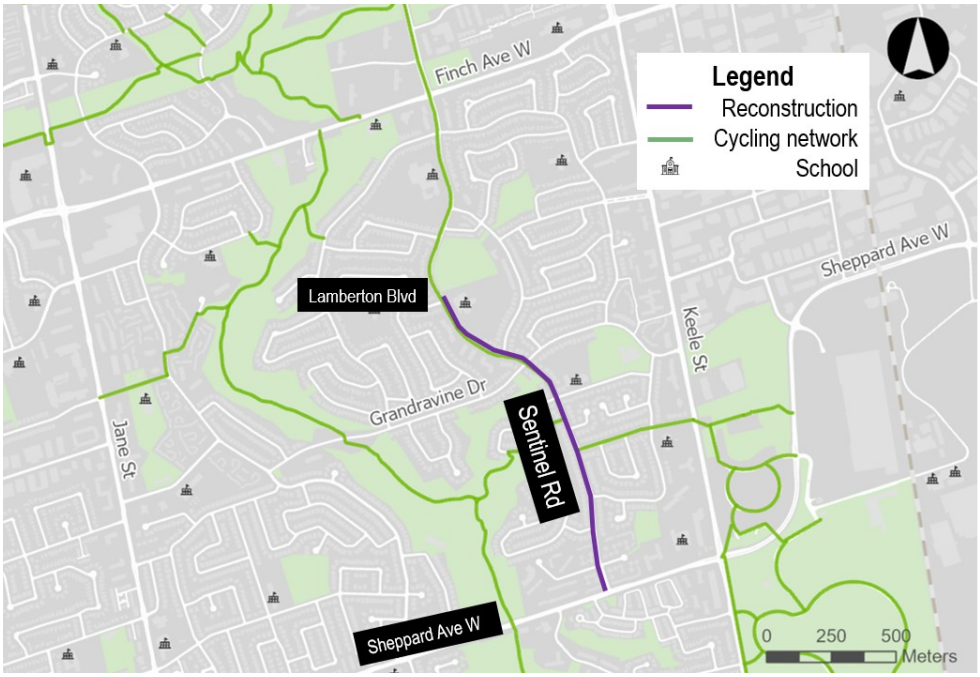

Figure 13: Map of Sentinel Road Reconstruction Project Limits.

Existing Conditions
Sentinel Road in the project area is a collector roadway with 6,000-8,000 motor vehicle trips/day with a speed limit of 40 km/hr. The 106 Sentinel TTC operates service on Sentinel Road every eight (8) to 20 minutes. There are three schools within 250 metres of the corridor. There are existing bike lanes on Sentinel Road between The Pond Road and Dovehouse Avenue, but south of Dovehouse Avenue no bikeways exist. While most of the corridor is 26 metres wide, there are two pinch points where the corridor is only 20 metres wide including Dovehouse Avenue to Sharpecroft Boulevard and Fredrick Mowat Lane to Streamdale Court/Brookwell Drive.

The road reconstruction is necessary. Today, the sidewalks are in poor condition, are narrower than City standard, and do not meet accessibility guidelines. The roadway asphalt is also in poor condition and there are drainage issues.

Figure 14: Existing conditions photos of Sentinel Road. The photos show the poor asphalt and sidewalk conditions.

Proposed Design
Transportation Services recommends that the sidewalks be widened to 2.1 metres where feasible, raised uni-directional cycle tracks, twelve (12) raised crosswalks at all local intersection crossings, and the relocation of four (4) TTC bus stops to improve bus travel times and reliability.

The existing bike lanes from Lamberton Boulevard to Dovehouse Avenue are proposed to be upgraded to cycle tracks and new cycle tracks extended from Dovehouse Avenue to Sheppard Avenue West. This project also connects to the 2018 Downsview Cycling Connections project, which is currently under construction. Together, the new and proposed bikeway improvements will create a nearly five (5) km continuous bikeway connection between Downsview Park and Steeles Avenue West.

Figure 15: Artist rendering of the proposed design changes on Sentinel Road including raised cycle tracks, new trees and wider sidewalks.

Two protected intersections are proposed, one at Dovehouse Avenue and one at Grandravine Drive. The intersection at Dovehouse Avenue would connect the Sentinel cycle tracks with the existing bikeway on Dovehouse Avenue toward Downsview Park. Grandravine Drive scored "high" in the Council-approved long-term cycling network vision. The proposed intersection design includes a short segment of cycle track on Grandravine Drive on either side of Sentinel Road.

In the 26-metre sections of the corridor, the bikeway is proposed to be adjacent to the sidewalk and set-back from the roadway in most locations - where necessary to avoid tree removals and utility conflicts, the bikeway will be adjacent to the street. In the 20-metre sections, the bikeways will be adjacent to the roadway.

The project has been designed to limit impacts on the local tree canopy with guidance from Urban Forestry. On Sentinel Road, there is a mix of healthy and poor condition trees of various ages and sizes. Of the 151 trees on the corridor, approximately 50% of the trees are young, 27% are semi-mature and 23% are mature.

In the corridor's 26-metre sections, the construction will require the removal of 4-9 trees with 72-77 trees preserved and room for 19-22 new trees.

In the 20-metre sections, from Dovehouse Avenue to Sharpecroft Boulevard, and from Fredrick Mowat Lane to Brookwell Drive / Streamdale Court, the recommended design is to shift the roadway centerline to preserve trees on one side of the street. In these segments, 25 trees would be preserved, 18 would be removed and 12-15 would be planted.

Figure 16: An example of the hydro-pruned trees between Hucknall Road and Stilecroft Drive.

From Hucknall Road to Stilecroft Drive, additional tree removal is recommended to improve the long-term growing conditions for trees. The existing trees are planted directly under the hydro wires and have been aggressively pruned over time. Four (4) trees are recommended to be removed in this section (included in above) so that eight (8) to ten (10) new trees can be planted avoiding the hydro conflict.

There is no impact to motor vehicle travel lanes or parking.

Technical amendments to existing bikeways and associated traffic and parking by-laws related to the nearby Downsview Cycling Connections projects are included to ensure by-law accuracy and a seamless connection between the Sentinel Road reconstruction and the on-going construction of the Downsview Cycling Connections projects.

Public Consultation

During public consultation, residents, stakeholders and the wider community were asked to provide feedback on the proposed changes to Sentinel Road between Lamberton Boulevard and Sheppard Avenue West. Initial feedback was gathered through three individual meetings with stakeholder groups in fall 2021.

Over 9,000 flyers were distributed to the project area in January 2022 to inform community members of the changes and to invite them to participate in the public meeting. Ten (10) people attended the public meeting on February 9, 2022. One phone

call and three emails were received. 61 responses were collected from the online feedback form.

Feedback received was largely supportive. From the online survey the majority of respondents (91%-97%) strongly support or support the proposed changes. A relatively more modest majority (76%) strongly support or support the proposed changes to bus stops. Those in support of the proposed changes noted that the project would improve safety of vulnerable road users through the proposed cycle tracks and narrowed vehicle lanes; that the project would benefit those who travel to and from York University; and that the project should consider further widening the cycle tracks to make room for passing.

Those concerned with the changes brought up issues related to the existing congestion on Sentinel Road, the current use of Sentinel Road for drivers as a north-south alternative to Keele Street, and the lack of people cycling on the road today. Through detailed design, Transportation Services will continue to review opportunities to improve traffic and operations including reviewing bus stop locations.

Details on the project, including public consultation materials and summaries, can be found at toronto.ca/yorkudownsview. The local Councillors have been consulted on the proposed project.

Sheppard Avenue East and Willowdale Avenue - Road Resurfacing Opportunities

In 2022-2023, road resurfacing work is planned on Sheppard Avenue East from Bonnington Place to Bayview Avenue. In 2023-2024, road reconstruction is programmed on Sheppard Avenue East from Bayview Avenue to Leslie Street. The roadwork provides a once in a lifetime opportunity to review and make changes to Sheppard Avenue East to improve safety for all road users.

Sheppard Avenue is identified in the Council-adopted Cycling Network Plan as a Major City-Wide Cycling Route making it a priority corridor for cycling connectivity. Creating a safe and comfortable cycling route along both Sheppard Avenue East and Willowdale Avenue was also included in the Council-adopted Cycling Network Plan's 2022-2024 Near-Term Implementation Program.

In an effort to consult with the public in a comprehensive manner and to ensure capital project coordination that limits impacts to the public, the Sheppard Avenue East project includes three main segments:

- A. Sheppard Avenue East: Bonnington Avenue to Bayview Avenue - Road Resurfacing (2022-2023)
- B. Sheppard Avenue East: Bayview Avenue to Leslie Street - Road Reconstruction (2023-2024)
- C. Willowdale Avenue: Empress Avenue to Sheppard Avenue East - Cycle Track Extension (2022-2023)

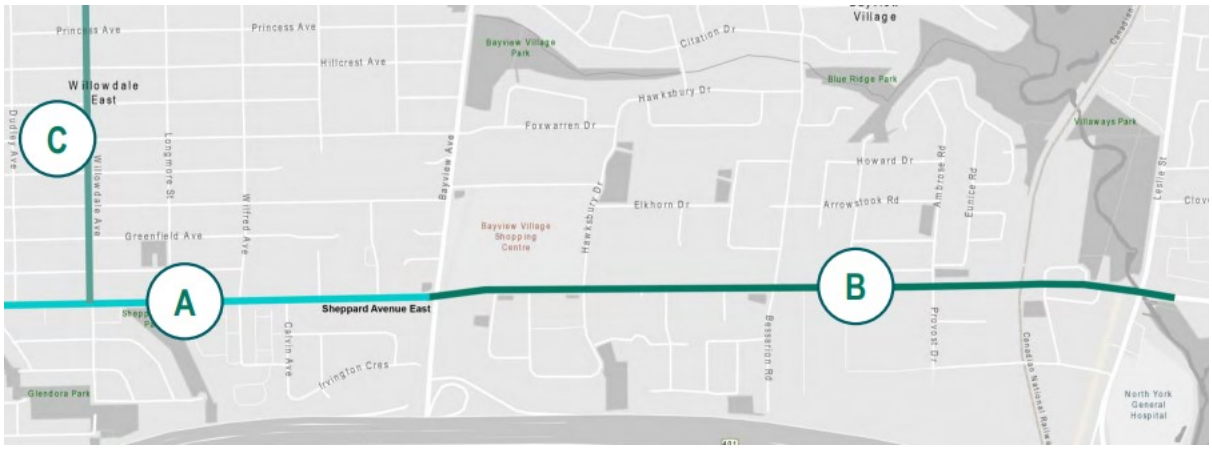

Figure 17: Map of three segment project areas on the Sheppard Avenue East project

While this report makes reference to elements of Segment B: Sheppard Avenue East road reconstruction from Bayview Avenue to Leslie Street, no recommendations are being made to City Council for this segment as public consultation is on-going. This report contains recommendations to City Council for Segment A and Segment C.

Existing Conditions
Sheppard Avenue East is a high volume major arterial roadway that carries approximately 40,000 motor vehicles trips per day. Bayview Avenue and Leslie Street are the heaviest volume cross streets and carry similar volumes of motor vehicle trips, making these two intersections key to vehicular mobility in the area. Sheppard Avenue East carries the 85 Sheppard East TTC bus, which operates every 15 to 22 minutes within the study area, as well as the 385 Sheppard East night bus. The Line 4 Sheppard subway runs underneath the corridor, with stations at the intersections with Yonge Street, Bayview Avenue, Bessarion Road, and Leslie Street.

Willowdale Avenue is a minor arterial roadway that carries approximately 16,000 motor vehicles per day and is a key north-south link in the transportation network. The 98 Willowdale-Senlac TTC bus operates every 20 to 25 minutes along Sheppard Avenue East between Yonge Street and Willowdale Avenue, then on Willowdale Avenue north of Sheppard Avenue East.

The area around Sheppard Avenue East and Willowdale Avenue is nearby several multi-use trails, but there are few on-street bikeway connections. In 2020, cycle tracks were installed on Willowdale Avenue from Empress Avenue to Bishop Street to provide one of the first on-street connections to the Finch Hydro Corridor multi-use trail.

Sheppard Avenue has narrow sidewalks with limited to no buffer from the high speed / high volume roadway, and long intersection crossings, making walking conditions uncomfortable. In some areas, the sidewalks are experiencing major cracking and heaving, creating an uneven surface, and there is a need for accessibility improvements.

Collision data demonstrates a need to improve the street with a Vision Zero road safety approach. For Segment A on Sheppard Avenue from 2010-2019, there was one

pedestrian fatality. For Segment C on Willowdale Avenue, there was were two (2) serious injuries of pedestrians and one person driving.

The surrounding area is experiencing population growth along the Sheppard Subway Line, with thousands of housing units under construction or proposed. Many key neighbourhood destinations and places of employment are along the broader Sheppard Avenue corridor, such as restaurants, community or personal services, North York Centre, the Bayview Village shopping centre and North York General Hospital. With Sheppard Avenue East already carrying a high volume of motor vehicle trips and at/over capacity at key intersections in peak periods, walking, cycling and transit need to become safe, comfortable and competitive options to sustain further growth in the area.

Project Goals and Opportunities
The Sheppard Avenue East and Willowdale Avenue project's goals are to:

- improve safety, especially for children and older adults;
- enhance the walking and cycling experience;
- increase the number of trees and planted areas along the corridor;
- better manage local traffic operations for people who drive and take surface; transit including for deliveries, shopping and commuting; and,
- better manage access to Highway 401 for longer distance trips.

This project aims to create a cohesive streetscape and cycling network in the area, consistent with the vision and policies of the Sheppard Willowdale Secondary Plan and leveraging future opportunities such as REimagining Yonge approved by Council in December 2020, the Doris Avenue Extension, and future programmed roadwork in the area.

Figure 18: There are many opportunities to connect the Sheppard Avenue East and Willowdale Avenue project to future work and already approved near term projects. This map displays a number of opportunities in the project area.

Proposed Design

Sheppard Avenue Resurfacing

In 2022-2023, Sheppard Avenue between Bonnington Place and Bayview Avenue is programmed for road resurfacing. The proposed design reflects the need to improve safety for people of all ages and abilities no matter how they move around, while maintaining operations for people who drive.

The road resurfacing will include the replacement of the asphalt surface and damaged sections of the sidewalks, curb and gutters, along with the following proposed changes:

- Intersection safety measures including corner radii reductions, pedestrian head-start signals, and right-turn-on-red restrictions;
- Maintaining two vehicular travel lanes per direction, narrowed to City lane width guidelines to encourage improved speed limit compliance in off-peak hours;
- Accessibility measures at all transit stops and intersections, including new accessible pedestrian signals at the intersections with Kenneth Avenue / Leona Drive and Wilfred Avenue;
- Uni-directional cycle tracks, including raised and accessible sidewalk-level platforms at all bus stops and bicycle left-turn waiting areas at signalized intersections;
- A protected intersection at Sheppard Avenue and Willowdale Avenue (to be confirmed through detailed design); and
- Boulevard improvements, potentially including wider sidewalks, replacement of asphalt boulevard with pavers or concrete, and new or improved tree planting areas (to be confirmed through detailed design).

Cycle tracks are proposed at either sidewalk or street level in various segments based on available space and existing conditions in the boulevard. The cycle tracks would be protected throughout: they would be separated from vehicle lanes with a fixed curb or raised concrete median, and separated from sidewalks with a curb or tactile unit pavers. The cycle tracks would discourage sidewalk cycling and increase the distance between the sidewalks and the curb lanes — presently as narrow as 0.2 metres — providing a more comfortable pedestrian experience along the corridor

The existing two motor vehicle lanes per direction between Bonnington Place and Clairtrell Road would be maintained, along with left-turn lanes at all signalized intersections. The design of the section between Clairtrell Road and Bayview Avenue will be confirmed through preliminary design and public consultation with recommendations to follow in a future report to Infrastructure and Environment Committee.

Two segments of the centre-turn lane between Kenneth Avenue and Wilfred Avenue, totalling approximately 520 metres, are proposed to be removed in order to gain space to implement a continuous bikeway. The existing boulevards in these segments are narrower and more constrained than along the rest of the corridor. Maintaining the centre-turn lane and constructing boulevard cycle tracks in these segments would require significant utility relocation; more extensive tree removal; and/or removal of boulevard parking for adjacent properties.

The proposed four-lane cross section is consistent with several other arterials in the area, including Doris Avenue, Sheppard Avenue west of Beecroft Road, Finch Avenue East between Willowdale Avenue and Bayview Avenue, and Steeles Avenue East between Yonge Street and Bayview Avenue, all of which have many unsignalized driveways and local street intersections without a centre-turn lane. Removal of the centre-turn lane is not expected to affect corridor motor vehicle capacity, since corridor capacity is controlled by the signalized intersections, which will all have left-turn lanes maintained. There may be some increased delay for people driving exiting driveways and side streets, since the centre-turn lane is informally used to facilitate two-stage left-turns. Collision data will be monitored to identify any potential change in collision patterns or frequency along the corridor.

No impacts to parking or loading are anticipated in this section, as on-street parking is currently prohibited and existing boulevard parking would be maintained.

At this time, 13 trees are proposed for removal, subject to further refinement in detailed design. Opportunities for new tree planting in the short-term are being explored. Longer-term, redevelopment of adjacent properties will provide opportunities for reconstructed boulevards (often enlarged through right-of-way dedication), new trees and green infrastructure, consistent with the vision and policies of the Sheppard-Willowdale Secondary Plan.

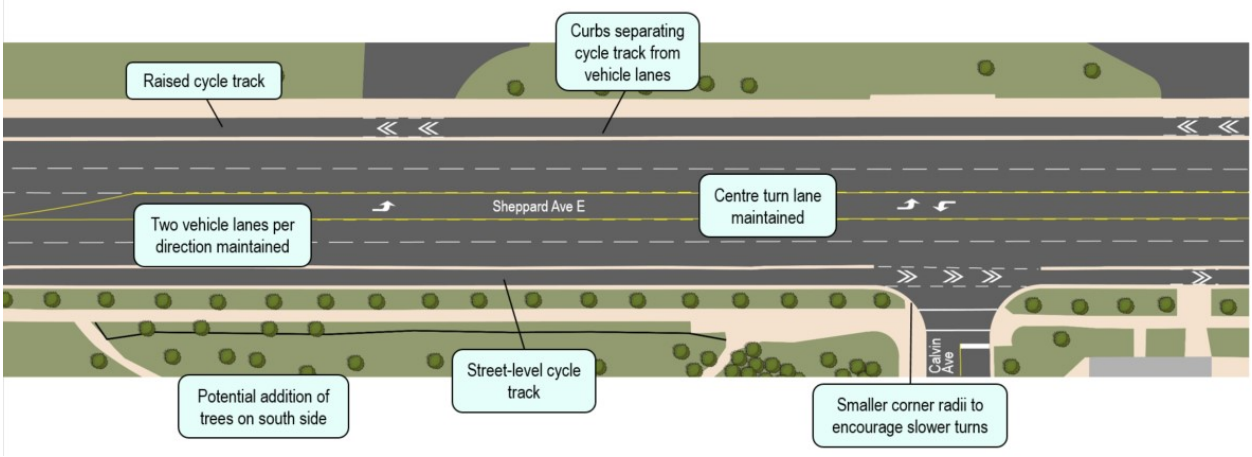

Figure 19: A plan view of the proposed Sheppard Avenue East design east of Wilfred Avenue.

Willowdale Avenue

The addition of a bikeway along Sheppard Avenue East creates an opportunity to extend the existing Willowdale Avenue cycle tracks from Empress Avenue to Sheppard Avenue East. This extension would provide near-term connectivity between the Sheppard bikeway and the existing Willowdale bikeway, with onward connection to the Finch Hydro Corridor Trail.

Transportation Services is proposing the installation of quick-build uni-directional street-level cycle tracks, using a design and materials (pavement markings, precast curbs, and bollards) consistent with the existing cycle tracks on Willowdale Avenue north of Empress Avenue. The existing one motor vehicle lane per direction would be maintained and narrowed to current lane width guidelines and the left-turn lanes at Spring Garden Avenue are proposed to be removed.

The installation of cycle tracks would require the removal of on-street parking along the corridor. Parking on both sides of the street would need to be removed including 25 pay and display spaces on the east side between Craigmore Crescent and Hollywood Avenue. The parking demand today is moderately low with an approximate utilization rate of 33%. Given the low utilization, the Toronto Parking Authority is not recommending that replacement pay and display parking be identified. Weekday daytime parking is currently prohibited along the west side of Willowdale Avenue between Sheppard Avenue East and Empress Avenue and is proposed to be converted to a 24-hour no stopping area.

Since weekday daytime parking is prohibited on most side streets along the corridor, two (2) new areas of unpaid 1-hour weekday daytime parking are proposed as replacement parking for the existing pay and display spaces: three (3) spaces along the south side of Hollywood Avenue immediately east of Willowdale Avenue, and four (4) spaces along the north side of Greenfield Avenue immediately east of Willowdale Avenue. Evening and weekend parking is permitted on most side streets and would be maintained.

Public Consultation
Public consultation for Road Resurfacing & Reconstruction Opportunities on Sheppard Avenue East & Willowdale Avenue took place from November 25, 2021 – January 7, 2022. Consultation activities included stakeholder and public meetings, comment tracking via phone, email, an online survey, and direct outreach to impacted property owners. Over 160 people attended the virtual public meeting, 491 people submitted feedback via the online survey.

There is overall support for the project with 66% of survey respondents expressing support. Responses from the comment form show 61% overall support for proposed changes on Sheppard Avenue East. The top priorities for those who provided feedback using the comment form were greater separation between people cycling and driving, improved safety at intersections, and greening opportunities

Among the open comments and feedback received, the greatest issues were regarding planning and intensification along the corridor, and the current level of traffic on Sheppard Avenue. The challenge with transformation is meeting the needs of today while planning for the future, being cognizant that the opportunities with road resurfacing and reconstruction are generally once in a lifetime and generation, respectively.

There was a communicated preference for maintaining all vehicle travel lanes, increased turning capacity at Bayview Avenue and Leslie Street, as well as requests for greater vehicle capacity in the corridor to accommodate new developments. Some participants found the value of losing dedicated turning lanes in exchange for cycle tracks questionable, due to the low volume of cycling trips today.

The projected outlook for this area of the city requires balancing competing needs for increased residential development, climate change measures, increased mobility for all

road users, and optimization of current traffic flow. The policy directives of the City are partially descriptive, describing the development context for Toronto as large and growing urban city, as well prescriptive, prescribing sustainable approaches to transportation and land development. Phase 1 consultation was designed to gauge the level of support for proposed changes to Sheppard Avenue East between Bonnington Place and Bayview Avenue during road resurfacing and to gauge the level of support for the proposed cycle track extension along Willowdale Avenue. Phase 2 consultation is planned for spring 2022 and is designed to gauge the level of support for the preferred road reconstruction design for Sheppard Avenue East between Bayview Avenue and Leslie Street.

Details on the project, including public consultation materials and summaries, can be found at toronto.ca/SheppardAvenueEast. The local Councillors have been consulted on the proposed project.

Steeles Avenue East Complete Street

In 2023, road resurfacing is planned on Steeles Avenue East from Midland Avenue to Brimley Road and new complete street elements are proposed between Midland Avenue and McCowan Road.

The roadwork provides an opportunity to improve safety for all road users and create a cycling connection between the new bikeways on Steeles Avenue from Kennedy Road to Midland Avenue as part of the Metrolinx GO grade separation project and the existing bike lanes east of McCowan Road and Milliken District Park. The Chapter 886 - Cycle Track by-laws for the Metrolinx GO grade separation project cycle tracks are included within this report.

Figure 20: Artist rendering of Metrolinx's grade separation project which includes wider sidewalks, raised cycle tracks, and new tree plantings on Steeles Avenue East from Kennedy Road to Midland Avenue.

Existing Conditions
Steeles Avenue East is an arterial roadway with two motor vehicle lanes in each direction, dedicated turn lanes at intersections, 50 km/hr speed limit and over 35,000 motor vehicle trips per day. The corridor has narrow sidewalks, insufficient drainage issues, and no bikeways. TTC operates high frequency (5-15 min service) including the 53A, 53B, 953A and 953B bus lines. Trees along the corridor range in size, age, and health.

Figure 21: Key challenges and opportunities on Steeles Avenue East can be seen in this photos include narrow sidewalks, drainage issues and a healthy canopy of new trees.

Over the past ten years, there have been more than 500 collisions, one of which resulted in a fatality and seven (7) serious injuries.

Proposed Design
Transportation Services recommends the installation of wider sidewalks and uni-directional raised cycle tracks, while maintaining two motor vehicle travel lanes in each direction. The motor vehicle lanes would be narrowed to the City's lane width guidelines in order to improve safety and provide additional space for the sidewalks and cycle tracks. Asphalt will be replaced on Steeles Avenue East from Midland Avenue to Brimley Road. The westbound right-turn lane at Midland Avenue is proposed to be removed in order to improve the public realm. Finally opportunities for green infrastructure to capture storm water are being considered and will be confirmed through detailed design.

The cycle tracks are proposed to travel alongside the roadway in the midblock sections and be further set-back at intersections to create protected corners. Set-back cycle tracks were explored, but it was not feasible in most sections due to existing mature and healthy trees and above ground and underground utilities. While it is anticipated there will be minor tree impacts, all efforts will be made through detailed design to minimize impacts to trees.

Figure 22: Artist rendering of Steeles Avenue East including two motor vehicle lanes in each direction and new uni-directional raised cycle tracks.

Public Consultation
As part of the project, 23,500 public notices were mailed to the area defined by Birchmount Road to the west, Denison Road to the north, Markham Road to the east and McNicoll Avenue to the south in English and Simplified Chinese.

A concern was raised about congestion and the impact of the removal of the right-turn lane at Midland Avenue. Traffic analysis has demonstrated that there is sufficient capacity at the intersection without the right-turn lane.

Subject to Council approval, Transportation Services will continue to work with a few properties that have minor impacts to their frontages in order to minimize those impacts in the design. Further information will be provided to residents through pre-construction and construction notices and the project website.

Details on the project can be found at toronto.ca/SteelesAvenueEast. The local Councillor has been consulted on the proposed project.

The Queensway Complete Street

In 2023-2024, parts of The Queensway between Mimico Creek and the Humber River will be reconstructed and the watermain will be replaced. The roadwork provides a once in a generation opportunity to make changes to improve safety for all road users. Road reconstructions are also the most cost-effective time to incorporate changes.

Figure 23: Map of The Queensway Project area from the Humber River to Burma Drive.

As part of The Queensway Complete Street project, Transportation Services has set out to improve safety, enhance the walking, cycling and transit experience, maintain and/or enhance greening, while also maintaining the roadway for transit, goods movement, shopping and commuting and to incorporate public feedback into the design.

Existing Conditions
The Queensway is a major arterial roadway with over 30,000 motor vehicle trips/day and a speed limit of 50 km/hr. The corridor is also an essential truck movement corridor, particularly between Stephen Drive and Park Lawn Road. Many of these truck trips serve the Ontario Food Terminal, the largest wholesale fruit and produce distribution centre in Canada. TTC operates the 80, 66 and 76B bus routes along The Queensway. There is fairly limited bikeway connectivity in the area. East of High Street, The Queensway has painted bike lanes, which are currently being extended to Glendale Avenue as part of the King-Queen-Roncesvalles project. The sidewalks along the corridor are narrow and there is a need for accessibility improvements.
There are long crossing distances for pedestrians at major intersections and at industrial driveways. There is no sidewalk on the south side of The Queensway between the Humber Bridge and the Humber Bay Loop.

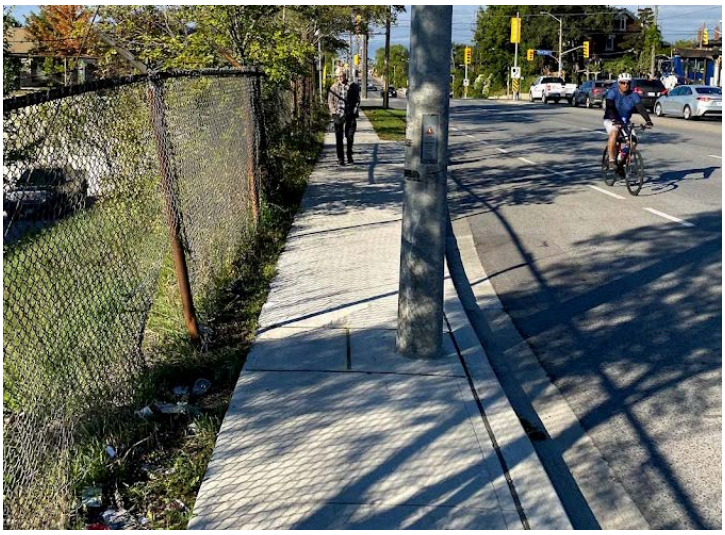

Figure 24: Sidewalks in certain sections of The Queensway are below accessibility standards. This photo is from a location where due to a fence and a utility pole, there is only a 1.0 metre wide sidewalk.

Between 2015 and 2019, there were 338 collisions, 64 of those collisions resulted in injuries. In November 2021, a recent collision in this segment resulted in one fatality and one serious injury.

Proposed Design
The road reconstruction presents an opportunity to reduce speeding and conflicts at intersections, improve the public realm by enhancing the streetscape and widening sidewalks, improve accessibility as well as the experience for people walking, cycling, walking and taking transit.

Transportation Services is proposing a number of improvements including separated uni-directional raised cycle tracks, wider sidewalks, a new centre median, smart and coordinated signals, protected intersection features and truck aprons at intersections. Two motor vehicle lanes in each direction will be maintained. Right-turn lanes at High Street are proposed to be removed in order to widen sidewalks.

Figure 25: Artist rendering of The Queensway and Park Lawn Road Intersection. A new median, cycle tracks, protected intersection features, truck aprons, improved bus stops, new planted areas and wider sidewalks are proposed on The Queensway.

A raised median from Park Lawn Road to Stephen Drive with a break at Aldgate Avenue is also proposed. The median is proposed due to a high concentration of left-turn collisions that resulted in injury in this section of the corridor. The median will limit direct access from The Queensway for people driving eastbound to approximately 24 private property lots - people driving will be able to continue to access these properties by traveling westbound on The Queensway as well as via Park Lawn Road and Ringley Avenue.

Currently, parking is allowed on the north side of The Queensway between Stephen Drive and Aldgate Avenue in parking lay-bys. The parking lay-bys are proposed to be retained, but the size of the each lay-by will be adjusted. From Aldgate Avenue to Park Lawn Road, the area fronting the driveways on the north side is paved and is sometimes used as informal parking despite being signed as a “no parking” zone. The proposed design formalizes this zone as no parking by replacing the mountable curb with a full curb and using the space to install the cycle track between the sidewalk and the roadway.

Improvements to some intersecting streets in the area are also proposed as part of this project. Transportation Services is proposing wider sidewalks and converting the existing bike lanes to cycle tracks on Stephen Drive, wider sidewalks and new cycle tracks on Park Lawn Road between The Queensway and Ringley Avenue, as well as new sidewalks on Woodford Park Road to close the gap in the sidewalk network between The Queensway and approximately 30 metres north of the intersection.

Figure 26: Map of proposed median location on The Queensway between Park Lawn Road and Stephen Drive.

Minimizing impacts to existing trees has been a key design principle as part of this project. In order to address significant safety issues and maintain two motor vehicle travel lanes in each direction, approximately 68 to 85 trees will need to be removed. Transportation Services has worked with Urban Forestry to review the proposed removals and employ strategies to preserve as many healthy mature trees as possible. Over 130 new trees are proposed to be planted along the corridor in new and improved soil conditions, while preserving over 280 existing trees along the corridor. The total number of tree removals will be confirmed in the next phase of the detailed design process.

In addition to new trees and improved soil conditions, green infrastructure is proposed to be included in this project. Rain gardens and new planters are proposed to improve the streetscape and absorb and clean rainwater runoff before heading to the City's stormwater system.

Each block of The Queensway from the Humber Bridge to Burma Street has unique features based on the existing conditions, public feedback and overall context. Further details on the design for each section can be reviewed at in The Queensway Complete Street presentation.

Public Consultation

During the public consultation process, residents, stakeholders and the wider community provided feedback on the proposed changes to The Queensway between Humber River and Mimico Creek. Initial feedback was gathered through a site walk at the Ontario Food Terminal and a follow-up meeting with the Ontario Food Terminal management in fall 2021; and two stakeholder meetings on December 1 and 2, 2021. A total of 15 participants attended these stakeholder meetings.

Over 22,200 flyers were distributed in the project area in November 2021 to inform community members of the changes and to invite them to participate in the Virtual Public Meeting. 57 people attended the Virtual Public Meeting on December 7th, 2021. One letter and 28 emails were received. 295 responses were collected from the online feedback form.

Feedback received to-date has been largely supportive. From the online feedback form, the majority of respondents (89%-91%) strongly support or support the proposed changes across all segments of the project area. Those in support of the proposed changes noted that the project would improve safety of vulnerable road users through the proposed cycle tracks and narrowed vehicle lanes.

Most comments received were related to incorporating physical barriers to further protect people cycling and reducing the width of the centre median to create more space for the cycle tracks and sidewalks.

Those concerned with the changes brought up issues related to the existing traffic congestion on The Queensway and further congestion that they were concerned would be brought about by future development in the area. Some respondents indicated they thought cycle tracks were not necessary since there is parallel cycling infrastructure approximately 1 km south with the Martin Goodman Trail and bike lanes on some sections of Lake Shore Boulevard.

Transportation Services staff are committed to continuing public communications to build awareness about the changes, as well as monitoring the project to ensure the design meets the established goals and making adjustments if required post-installation.

Details on the project, including public consultation materials and summaries, can be found at toronto.ca/thequeensway. The local Councillor has been consulted on this project.

ActiveTO 2021 Midtown Yonge Street Cycling Network Expansion Project

In April 2021, Council approved the installation of a temporary Complete Street pilot on Yonge Street between Bloor Street and Davisville Avenue/Chaplin Crescent as part of the ActiveTO program and COVID-19 pandemic response, to help create a safer street for pedestrians, people cycling, people driving and those riding transit, create more beautiful and liveable spaces for residents, and support businesses through expanded dining options. Installation of the summer configuration of the pilot was completed from July to September 2021.

Figure 27: A photo of Yonge Street transformation in Summerhill.

This section of the report summarizes a preliminary evaluation of the pilot project on Midtown Yonge Street, a summary of public consultation to-date, and recommended next steps.

Monitoring and Evaluation
Preliminary data to monitor pedestrian and cycling counts and motor vehicle travel time before and after installation of the pilot is summarized within this report. The evolving public health regulations during the COVID-19 pandemic since the time of installation has impacted data collected. Preliminary findings were initially reported to Council in December 2021, and updated preliminary findings are summarized here.

Cycling Volumes[1]
Data collected in 2021 shows that while cycling volumes have changed as can be expected with seasonal patterns, more people were cycling along the Midtown Yonge Street corridor where the new bikeway was installed in September 2021 relative to the period just prior to installation.

Table 1: Two-Way Cycling Volumes[2] (7 a.m. - 11 p.m.) - May 2021 vs. July 2021 vs. September 2021

Count Location on Yonge Street	Before (May 2021)	After (July 2021)	After (Sept 2021)	Change (from May 2021 to September 2021)
Weekday				
Bloor St	870	740	650	-25%
Davenport Rd / Church St	420	1,250	1,280	+205%
Rowenwood Ave / Macpherson Ave	600	1,530	1,190	+98%
St Clair Ave	730	1,150	1,000	+37%
Davisville Ave / Chaplin Cres	300	770	480	+60%
Weekend				
Bloor St	600	760	650	+8%
St Clair Ave	570	730	600	+5%
Davisville Ave / Chaplin Cres	150	460	300	+100%

1 Volumes have been adjusted (where indicated) to reflect differences in seasonality and weather patterns between days on which these counts were conducted.
2 These adjustments have been made using a newer model, resulting in minor changes to previously reported numbers.

Pedestrian Volumes

Data collected in 2021 shows that there continue to be more people walking along the Midtown Yonge Street corridor relative to the period just prior to installation. There is most likely a higher correlation between the relaxation of COVID-19 restrictions and the changes in volumes below. The data highlights that the impact of the project on the growth in walking has generally been neutral and that the business corridor has been exposed to more pedestrian traffic in July and September 2021 after installation, than in May 2021 before installation. Estimated daily weekday volumes of people walking along the corridor is shown in Table 2 below.

Table 2: Total Pedestrian Volumes at Intersections (7 a.m. - 11 p.m.) - May 2021 vs. July 2021 vs. September 2021

Count Location on Yonge Street	Before (May 2021)	After (July 2021)	After (Sept 2021)	**Change** (from May 2021 to September 2021)
Weekday				
Bloor St	15,300	27,600	22,500	+47%
Davenport Rd / Church St	6,300	10,300	6,300	-
Rowenwood Ave / Macpherson Ave	4,400	7,600	3,300	-25%
Davisville Ave / Chaplin Cres	13,000	14,100	15,900	+22%
Weekend				
Bloor St	16,200	26,200	26,000	+60%
St Clair Ave	13,600	11,700	15,900	+17%
Davisville Ave / Chaplin Cres	13,200	11,700	15,900	+20%

Motor Vehicle Travel Time

As shown in in Table 3, preliminary data demonstrates that motor vehicle travel times on Midtown Yonge Street have fluctuated, but somewhat increased in comparison to the pre-pandemic baseline in Fall 2019. After various adjustments to the pilot, and with evolving pandemic restrictions, travel times have increased by up to 30 seconds in AM/PM peak periods (down from 90 seconds observed Fall 2021) and approximately 102 seconds midday (reduced from 150 seconds observed in Fall 2021). The impacts to motor vehicle travel time could further increase with the lifting of COVID-19 pandemic restrictions. At this point, the motor vehicle impacts are within the scale of impacts of the other ActiveTO 2020 and permanent bikeway projects that removed motor vehicle travel lanes.

Travel times in both directions along Midtown Yonge Street during most times of the day are now slightly above the pre-pandemic baseline (Fall 2019), with the exception of the weekday AM southbound peak travel time. The largest impacts have been observed in the northbound direction during the middle of the day. The entirety of this increase from prior to installation can't be attributed solely to the pilot, as they happened against the backdrop of increasing travel times across the city as COVID-19 pandemic restrictions have lifted.

As a comparison, Table 4 includes preliminary travel time data on Avenue Road and Mount Pleasant Road. There has been minimal change on these corridors in the peak periods, but the midday travel times have also increased on these corridors.

Table 3: Average Before and After Travel Times on Yonge Street (minutes of delay)

Period	Fall 2019	Before (May 2021)	After - Summer 2021 (Jul/Aug 2021)	After - Fall 2021 (Sep/Oct 2021)	After - Fall 2021 (Nov/Dec 2021)	After - Winter 2022 (Jan/Feb 2022)	**Change** Fall 2019-Winter 2022 Before and After
Average Travel Times **(in Minutes)**							
Yonge St. Northbound (Bloor St. to Davisville Ave.)							
Weekday - AM Peak	7.5	6.2	7.8	8.7	8.0	8.0	**+0.5**
Weekday - Midday	8.7	7.6	10.1	11.3	11.2	9.7	**+1.0**
Weekday - PM Peak	8.6	6.5	8.6	10.0	9.6	8.7	**+0.1**
Weekend - Midday	7.3	6.5	8.2	9.3	9.0	9.0	**+1.7**
Yonge St. Southbound (Davisville Ave. to Bloor St.)							
Weekday - AM Peak	9.0	7.1	7.2	8.1	8.1	7.9	**-1.1**
Weekday - Midday	9.2	8.2	9.5	10.0	10.3	9.3	**+0.1**
Weekday - PM Peak	8.4	6.7	8.2	8.8	8.9	8.6	**+0.2**
Weekend - Midday	7.8	7.5	8.0	8.8	8.9	8.7	**+0.9**

Table 4: Average Before and After Travel Times on Avenue Road and Mt. Pleasant Road

Period	Fall 2019	Before (May 2021)	After - Summer 2021 (Jul/Aug 2021)	After - Fall 2021 (Sep/Oct 2021)	After - Fall 2021 (Nov/Dec 2021)	After - Winter 2022 (Jan/Feb 2022)	**Change** Fall 2019-Winter 2022 Before and After
Average Travel Times in Minutes of Delay							
Avenue Rd. Southbound (Chaplin Cres. To Bloor St. W) - Alternate Corridor							
Weekday - AM Peak	10.2	6.2	6.9	7.7	8.2	9.0	**-1.2**
Weekday - Midday	9.4	7.2	7.7	8.0	8.0	8.3	**-1.1**
Weekday - PM Peak	8.6	6.7	7.3	7.7	7.9	7.8	**-0.8**
Weekend - Midday	7.9	5.2	5.8	7.3	7.5	7.7	**-0.1**
Mount Pleasant Rd. Northbound (Bloor St. E to Davisville Ave.) - Alternate Corridor							
Weekday - AM Peak	5.5	4.9	5.0	5.1	5.1	5.5	**0.0**
Weekday - Midday	5.5	4.9	5.0	5.6	5.4	5.6	**+0.1**
Weekday - PM Peak	6.6	5.0	5.0	5.7	6.0	6.0	**-0.6**
Weekend - Midday	4.8	4.3	4.7	4.9	5.0	4.8	**0.0**
Mount Pleasant Rd. Southbound (Davisville Ave. to Bloor St. E) - Alternate Corridor							
Weekday - AM Peak	5.7	4.4	4.3	4.8	5.1	5.0	**-0.6**
Weekday - Midday	4.7	4.7	4.5	4.8	4.7	4.9	**+0.2**
Weekday - PM Peak	4.9	4.3	4.5	4.9	4.8	4.9	**0.0**
Weekend - Midday	4.4	4.1	4.3	4.4	4.5	4.5	**+0.1**

Operating Speed

Preliminary data collected demonstrates a reduction in motor vehicle operating speeds along Midtown Yonge Street, which is an important contributor to road safety. There has been a slight reduction in the 85th percentile operating speed of people driving by approximately 10% at some locations along Yonge Street during both summer and fall periods. The reduction in speed is mainly observed at those segments where the Complete Street pilot and CaféTO patios were installed while at other locations, the 85th percentile of speed remained unchanged.

CaféTO Accommodations
The ActiveTO Midtown Complete Street pilot project created additional opportunities to accommodate more CaféTO applications compared to 2020. In 2021, 26 CaféTO applications were accommodated along this corridor, compared to 17 in 2020, representing a 53% increase.

While some of the increase in the number of CaféTO restaurants is likely related to the overall growing popularity and awareness of the program, it is also noted that the pilot project provided opportunities to add additional cafés in locations that were not possible in the pre-pilot configuration.

Bike Share Data
Transportation Services received Toronto Bike Share data through the Toronto Parking Authority for their stations on Yonge Street within the pilot area. The number of bike share trips that started or ended on the pilot project corridor increased by 32% after the install of the pilot project between May 2021 and July 2021. This increase is similar to growth of bike share trips across the Bike Share system.

Public Intercept Surveys[3]
Public intercept surveys, overseen by Park People and The Centre for Active Transportation (TCAT), were completed before and after the installation of the pilot project to assess perceptions of the pilot. The public intercept survey gathered information from all road users within the study area, collecting 599 responses during the pre-install survey and 547 responses during the post-install survey. The majority (72%) of survey respondents live in the vicinity of Yonge Street.

Surveys were conducted with members of the public using a randomized methodology at select locations along Yonge Street from Bloor Street to Davisville Avenue. Surveyors had equal chance to approach pedestrians (who also represent drivers after parking, transit riders, and rideshare users), as well as cyclists when stopped at a red light. Intercept surveys were conducted during weekdays and weekends.

The comprehensive results of the public intercept survey can be found here: https://www.toronto.ca/community-people/get-involved/public-consultations/infrastructure-projects/activeto-midtown-complete-street-pilot-project/

Key findings of the public intercept survey were:

Complete Street Goals:
- 76% of respondents agree that the ActiveTO Midtown Complete Street Pilot met its goals of providing support for local businesses and surrounding communities by expanding outdoor patio areas, improving safety and comfort for everyone, and providing a safe and protected bike lane along the Line 1 subway.

3 The stay-at-home order in place during the post-installation public intercept survey may have reduced the number of people present on Yonge Street during collection days. To address this, data was collected on additional days to achieve a comparable dataset.

- 78% of those driving cars agreed or strongly agreed that the pilot provides support for local businesses, improves safety and comfort for everyone, and provides a safe and protected bike lane.

Visits to the Street:
- 31% of respondents visited more often following the installation, including 40% of immediate area residents and 65% of cyclists visiting more often.
- Those aged 30 and under and those who identify as black, indigenous, or people of colour are also more likely to visit more often.

Perception of Safety:
- Sense of safety for cyclists travelling on Yonge Street more than doubled from 36% feeling 'safe or very safe' pre-installation to 76% post-installation.
- 3% fewer drivers felt safe travelling on Midtown Yonge, citing a fear of collisions with cyclists as a key concern.
- Some respondents expressed feeling safer on the street due to the slower speeds of vehicular traffic.

Accessibility:
- 42% of respondents with accessibility needs felt the pilot improved accessibility and 37% felt there was no change.
- Some suggested that accessible pick-up and drop-off zones could be improved and harmonized, better communicated to Wheel-Trans drivers and passengers, and more clearly marked for cyclists.

Perception of Traffic Congestion:
- When asked if they noticed a change in traffic congestion since the installation, 40% of respondents had not noticed an impact on congestion one way or the other. 28% felt congestion was much worse and 26% felt congestion was a little worse. 6% noticed a decrease in congestion.

Food Delivery Workers:
Food Delivery Workers (using bicycles, e-bikes, etc.) account for an estimated 20% of all bike lane traffic in the study area, rising as high as 40% at peak delivery times. As their work is dependent on use of the cycling infrastructure, and they were underrepresented in intercept survey responses, a focus group was hosted to hear directly from food delivery workers, and the following perspectives arose:
- Bike lanes have greatly increased their sense of safety using the road.
- There is some confusion about where e-scooters should ride, since they are too slow for the car lane, but too fast for the bike lane. [Note: e-scooters are not permitted on City streets.]
- Most use Yonge Street as a safer option than parallel routes like Avenue Road or Mount Pleasant Road because of the new separated cycle tracks. Some still avoid Yonge, particularly during the day when bike lanes are busy, as it can be difficult to safely pass slower cyclists.

Impacts to Surface Transit and Ongoing Engagement with TTC
Transportation Services and the TTC continue to collaborate on the ActiveTO Midtown Yonge Street pilot. TTC operates four types of services on Yonge Street (subway, shuttles, bus and Wheel-Trans) that have been monitored to understand the impacts to transit users.

Travel time data from before and after the modifications of the street have been reviewed for the 97 Yonge and Line 1 Shuttle Bus, however at this point in time the TTC is unable to make firm conclusions around the impacts to service due to the impacts of the pandemic – particularly the loosening and tightening of restrictions and resulting fluctuations in ridership and general traffic volumes. Due to these significant confounding forces, TTC is aligned with Transportation Services' recommendations for an extension of the pilot period. TTC will continue to monitor the corridor as conditions return to a sustained normal condition, which will provide critical insights to operate their services efficiently.

Impacts on Emergency Services
Toronto Fire Services and Toronto Paramedic Services have each conducted analysis to assess the impact of the ActiveTO Midtown Complete Street Pilot on their respective operations. Neither service has found evidence of any impact on emergency response as a result of the ActiveTO installation.

Public Consultation
Community consultation has taken place, both before and during the pilot, with local businesses, including four Business Improvements Areas (BIAs), several neighbourhood associations and area residents. Stakeholder representatives and members of the public were invited to share comments.

Two virtual stakeholder meetings specifically with local BIAs took place on March 5, 2021 and March 31, 2021 with site walks taking place on April 12-13, 2021.

Five virtual stakeholder meetings were held March 15, 2021, April 9, 2021, May 11, 2021, July 2021, and October 18, 2021. From an overall list of 30 invited stakeholder organizations, representatives from 27 local organizations participated online at various meetings.

A virtual public event took place on April 27, 2021, and was attended by over 300 people. To provide additional feedback opportunity, an online comment form was available from April 27, 2021 to May 10, 2021 that received 338 responses.

A variety of methods were used to notify stakeholders and members of the public:
- Canada Post direct mail (April 12, 2021 over 33,000 information brochures were mailed to addresses between Davisville Avenue, Bloor Street, Avenue Road and Mount Pleasant Road which included a website link and invitation to the public meeting held on April 27, 2021);
- Email to project list (900 contacts);
- Email to stakeholder list including representatives of residents associations, community groups, institutions and local elected officials (60 contacts and 35

organizations represented with varying levels of participation in stakeholder meetings);
- Social media posts to Instagram, Facebook and Twitter; and
- A folded brochure printed and distributed during 2021 summer months via BIAs and City staff.

Feedback for the ActiveTO Midtown Complete Street Pilot ranged from supportive comments, to requests to remove the cycle tracks. A number of site specific requests and concerns were also received.

Members of the public who supported the project cited improved safety and experience for pedestrians and people cycling because of cycle tracks, slower motor vehicle speeds, and complete street design features (e.g. painted curb extensions), along with requests to extend the pilot further along Yonge Street. Support for the CaféTO program and added curbside patio space was also consistently shared throughout the pilot. People also pointed out the role of the pilot as an actionable item to address climate change, public health and road safety policy goals.

Members of the public who requested to remove the cycle tracks on Yonge Street expressed frustration with motor vehicle congestion and increased travel times. Some people expressed that they felt less safe citing confusion with the street design and a perception that Emergency Service response times may have been negatively affected. There was doubt about the volume of cycling trips using the cycle tracks. Challenges with parking and pick-up and drop-off options for residents and servicing for businesses were also a cause for concern.

Next Steps
Transportation Services recommends that the pilot period for this project be extended to July 2023 to allow for further data collection, continued monitoring, and evaluation. It is proposed that a report be brought forward to Infrastructure & Environment Committee in late spring 2023 with recommendations for the future of the temporary Complete Street pilot on Midtown Yonge Street.

Additional data collection and monitoring is recommended while Toronto recovers from on-going COVID-19 pandemic impacts, particularly to address impacts that may arise from changing volumes of motor vehicle traffic along the corridor.

Throughout the pilot, Transportation Services has continued to work to resolve site related concerns which generally involved requests for more formalized and accessible loading, curb side pick-up opportunities, parking options, discussions about turning lanes and modifying design features (i.e. bollards, planters, pavement markings) to improve sight-lines and access including:
- the addition of a loading zone on Collier Street to facilitate restaurant deliveries;
- planter removal and adjustments for improved sight-lines at Birch Avenue and Gibson Avenue;
- the addition of planters to visually narrow the road south of Merton Street;
- winter planter reconfiguration for additional pedestrian clearway; and

- the addition of loading pavement markings at accessible platforms for better visibility.

Should the pilot be extended, work would continue on traffic signal coordination; improvements to the CaféTO program to provide a better balance of curb lane cafés, parking and loading in 2022, and the installation parking on the west side of Yonge Street south of Lawton Street to provide better access to businesses in the summer 2022.

Field observations indicate that the vehicle throughput and travel times on Yonge Street are affected by left-turn movements and mid-day traffic from construction vehicles for private development underway. When multiple left-turning vehicles are queued at an intersection waiting for gaps in motor vehicle, cycling, and pedestrian traffic, they can block the through movement for the entire green phase of the traffic signal for that direction. This was noted, for example, in the northbound direction at the intersection of Roxborough Street and Yonge Street. Changes to the intersection configurations and traffic signal timing are currently being assessed and based on the findings, changes could occur in spring 2022.

Transportation Services is also moving forward with actions to improve the level of traffic management support that can be provided through this area by implementing a Corridor Traffic Management System. This new system would provide real-time travel times, corridor-level traffic cameras as well as automatic and real-time multi-modal counts necessary to manage traffic flow.

This system would enable active monitoring of traffic conditions and allow staff to intervene when necessary to remotely adjust traffic signal times. Given the close proximity of the traffic signals through this corridor and the dynamic nature of traffic patterns that occur particularly mid-day, manual intervention could help minimize travel time delays.

The Corridor Traffic Management System would also include arterial travel and incident advisory variable message signs along this corridor. These signs could provide travel times and offer people driving an opportunity to divert from the area if necessary. Also based on current travel times, signal coordination timing will be adjusted.

Future Projects
The Council-approved Cycling Network Plan 2022-2024 Near-Term Implementation Plan includes the following projects north and south of Midtown Yonge Street:

- Towards the north, Yonge Street and Duplex Avenue are both identified to be studied as a potential northern extension of the ActiveTO Midtown Complete Street Pilot - study to begin in 2023; and
- Towards the south, a design for Yonge Street from Carlton Street to Queen Street East as part of YongeTOmorrow was approved by Council in February 2021 for future implementation (2025+) and Yonge Street from Bloor Street to Carlton Street is to be studied as part of a Phase 2 of the YongeTOmorrow Municipal Class Environmental Assessment process.

ActiveTO 2021 Lower Don Trail Construction Closure Detour on Bayview Avenue

The ActiveTO pilot on Bayview Avenue was implemented between River Street and Front Street East to provide a safe and direct detour to the Lower Don Trail closures.

While Waterfront Toronto has moved forward with closures of the Lower Don Trail south of Corktown Commons which will continue until at least 2024, the planned Parks, Forestry and Recreation project to widen the trail between Riverdale Park and Corktown Commons which was expected to close the trail in 2021 has experienced a delay due to contractor issues and is now expected to start in 2022.

Transportation Services recommends the pilot period of the project be extended to July 2023 to allow staff to monitor the status of the trail construction project and report back with recommendations based on those findings.

Technical Amendments to By-Laws

Bloor West Bikeway Extension
In summer 2020, the Bloor West Bikeway Extension was installed between Shaw Street and Runnymede Road. Staff have received concerns have right-turning motor vehicle sight-lines. After additional study, parking by-law amendments are required to improve sight-lines.

Danforth Avenue Complete Street
In December 2021, City Council directed staff to implement cycle tracks and other improvements on Danforth Avenue between Dawes Road and Victoria Park Avenue. The extension was approved before 100% design was complete. Now that design has progressed, changes to the traffic and parking by-laws are needed.

Oakwood Cycling Connections
At Davenport Road and Shaw Street, a bi-directional cycle track was installed in fall 2021, as part of the Oakwood Cycling Connections project. The addition of a right-turn-on-turn red prohibition by-law amendment is needed.

The Esplanade
In June 2021, City Council authorized the installation of bikeways and associated road safety improvements on The Esplanade. Phase 1 of the project, including a bi-directional cycle track and changes to traffic patterns, was implemented east of Lower Sherbourne Street in October-November 2021. City Council approved technical amendments in December 2021 to ensure the by-law amendments associated with Phase 1 could be enacted.

Due to ongoing coordination with other infrastructure projects in the vicinity, further changes to the limits and timing of the remaining phases have been made. Phase 2A is planned in spring 2022 to extend the cycle track west to George Street South and associated traffic and parking changes to Lower Jarvis Street. As a result, technical amendments to Chapters 886, 910, 925 and 950 are required in order to ensure the bills

associated with the by-law amendments are enacted to support the implementation of Phase 2A. Further phases will extend the project to Yonge Street in 2023 and 2024.

To address community concerns raised during and after the public consultation process, changes to parking regulations are proposed along a portion of Jenoves Place. New accessible loading, commercial loading, and accessible parking spaces are proposed on Jenoves Place to offset the removal of curbside activity on The Esplanade in Phase 2A. The local Councillors have been consulted on the proposed changes.

Davenport Road
In July 2021, Council authorized the installation of bikeways and associated road safety improvements on Davenport Road between Bay Street and Yonge Street. In September 2021, cycle tracks were installed and the existing bike lanes between Bay Street and Dupont Street are planned to be upgraded to cycle tracks in 2022.

As a result of the planned phasing of implementation over 2021-2022, Chapter 886. Chapter 910 and Chapter 950 by-law amendments are required in order to ensure the bills associated are enacted in phases aligned with the timing of implementation of the appropriate segment.

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ATTACHMENTS

Attachment 1: Proposed First Quarter 2022 Cycling Network Installation Location Map
Attachment 2: Bartlett Havelock Gladstone Cycling Connections By-Laws
Attachment 3: College Street Upgrades By-Laws
Attachment 4: Douro Wellington Cycling Connections By-Laws
Attachment 5: Knox Avenue Cycling Connections By-Laws

Attachment 6: Sentinel Road Safety Improvements By-Laws
Attachment 7: Sheppard Willowdale Road Resurfacing Opportunities By-Laws
Attachment 8: Steeles Avenue East Complete Street By-Laws
Attachment 9: The Queensway Complete Street By-Laws
Attachment 10: Technical Amendments