



Bus Lane Implementation Plan

Date: July 14, 2020
To: TTC Board
From: Chief Strategy & Customer Officer

Summary

The COVID-19 pandemic has shown that the TTC is a vital service in Toronto providing transportation to essential destinations including employment, healthcare, groceries and pharmacies. Although TTC ridership may be down to 22% of pre-pandemic levels, the TTC continues to serve hundreds of thousands of customer-trips on a daily basis. We also have learned through this pandemic, that bus customers have relied on our services the most - 36% of the customers that used buses prior to COVID-19 are still using the system as compared to 19% of subway customers, as of the week ending June 26.

As the city and GTHA re-opens and recovery begins, it is expected that people who have the resources and option to, will return to private vehicles, taxis or private transportation companies (PTCs) more quickly than to transit in order to maintain physical distance from others. The TTC's surface transit network plays a critical role in moving people around Toronto and we must enhance its attractiveness to ensure it continues to provide a viable alternative to the automobile. A key initiative to achieve this is the implementation of bus transit lanes, which will provide customers with a safe, reliable and fast service.

The TTC's *5-Year Service Plan & 10-Year Outlook* identified a 20-point action plan including *Action 4.1 Explore Bus Transit Lanes*. The TTC has worked with partner divisions at the City to develop the following prioritization and implementation plan for the five corridors identified in the Plan. At the December 2019 and June 2020 Board meetings, motions were approved to include Lawrence East as a priority corridor. The review of Lawrence East is progressing and will be included in the City's Surface Transit Network Improvement Study that will be presented to Council in Q4 2020.

The purpose of this report is to present the prioritization of these five priority bus corridors, an accelerated integrated work plan and an implementation plan for the first priority: Eglinton East.

Priority	Corridor	Implementation
A	Eglinton East	2020
B	Jane Street	2021
C	Dufferin Street, Finch East, Steeles West	2022 and beyond (included in Surface Transit Network Improvement Study)

This report has been prepared in consultation with the General Manager, Transportation Services and the Chief Planner and Executive Director, City Planning Division.

Recommendations

It is recommended that the TTC Board:

1. Approve the recommended prioritization of the five priority bus corridors
 - a. Priority A: Eglinton East
 - b. Priority B: Jane Street
 - c. Priority C: Dufferin Street, Finch East and Steeles Avenue West

2. Approve the creation of a new capital project entitled Bus Lane Implementation at a cost of \$7.628 million with funding to be reallocated from the following capital projects:
 - a. \$6.98 million from the TTC’s 2020 Capital Budget Subway Asbestos Removal Program (IO 6068);
 - b. \$400,000 from the Construct BRT Lines on the Avenues – EA capital project (IO 6362); and
 - c. \$250,000 from the Opportunity to Improve Transit Services capital project. (IO6713)

3. Direct staff to report back in December 2020 on results of community consultations, a detailed design, implementation plan and capital costs for Jane Street.

4. Direct staff to forward this report to the City of Toronto and specifically, the City Clerk, the General Manager of Transportation Services Division and the Chief Planner and Executive Director, City Planning Division.

Financial Summary

The installation of transit priority treatments on Eglinton East are estimated at a total cost of approximately \$7.8 million, of which \$7.628 million are capital costs and \$155,000 are one-time operating costs, as outlined in the following table (**Table 1**).

Table 1: Summary of the estimated 2020 capital and operating costs

Capital budget		
Stop consolidation / relocation	\$650,000	Funding will be reallocated within the existing capital budgets as noted in Recommendation 2.
Priority treatments (pavement markings, signage, etc.)	\$6,977,644	Funding will be transferred from the TTC's 2020 approved Capital budget Subway Asbestos Removal Program as noted in Recommendation 2
Total capital costs	\$7,627,644	
Operating budget		
Marketing campaign	\$20,000	Funds have been budgeted in TTC's 2020 Operating Budget.
Promotional Bus Wraps (similar to Electric Bus)	\$135,000	This unbudgeted expenditure will be funded from the amount allocated for improvements to surface transit schedules in the 2020 Operating Budget.
Total operating costs	\$155,000	

Initially identified in TTC's 5-Year Service Plan as one of five priority bus lanes to be implemented beginning in 2021, these capital projects were not funded in TTC's 2020-2029 Capital Plan. As a result, funds must be reallocated from other capital projects with available funding in 2020 to enable the acceleration of the Bus Lane Implementation for Eglinton East capital project.

In order to proceed, a total of total of \$7.628 million in approved capital funding will be reallocated from the following capital projects: \$6.98 million from the *Asbestos Removal Program*; \$400,000 from to the *Construct BRT Lines on the Avenues – EA* and

\$250,000 from the *Opportunity to Improve Transit Services* capital projects to the new Bus Lane Implementation capital project. The Priority Bus Lane treatments such as pavement, marking and signage work will be undertaken by Transportation Services on behalf of the TTC.

The remaining \$0.16 million in one-time operating costs will be funded through the TTC's 2020 Operating Budget while on-going operating and maintenance costs, including snow removal, will be included in Transportation Services' operating budget as part of its responsibility for road maintenance.

Bus lanes on the Eglinton East corridor are anticipated to increase transit reliability and reduce transit travel time on average between two-to-five minutes per trip. These time and reliability savings present an opportunity to achieve operating budget savings of 500 fewer service hours per week, equivalent to about \$2.5 million per year and a capital cost avoidance of seven fewer peak buses equivalent to approximately \$6.3 million.

The allocation of the operating cost savings and capital cost avoidance from the implementation of bus lanes will be considered for inclusion in the 2021 Service Plan and Budget process.

Funding required for the remaining priority corridors identified in the TTC's 5-Year Service Plan & 10-Year Outlook, will be considered for inclusion in the 2021-2030 Capital Budget and Plan as part of the 2021 Budget process.

The Interim Chief Financial Officer has read this report and agrees with the financial impact information.

Equity/Accessibility Matters

The TTC is making Toronto's transit system barrier-free by implementing changes that will make all of its services and facilities accessible to all our customers. The TTC strongly believes that all customers should enjoy the freedom, independence and flexibility to travel anywhere on its transit system. The TTC's commitment to providing accessible transit is also at the forefront of its *2018-2022 Corporate Plan* and its *5-Year Service Plan & 10-Year Outlook*.

The improved speed, reliability and increased capacity on the transit priority corridors will increase economic opportunity for equity-seeking groups. Many of the priority corridors identified are home to more racialized peoples, people with low-income and those who are essential frontline workers. The bus lanes will positively impact these groups and improve their access to employment and healthcare services. This, in turn, helps all Torontonians during the coronavirus pandemic.

Having a fast and reliable transit network is critical for equity-seeking groups who need to get to work, school, health services, recreational and cultural services, etc. Studies have shown that individuals who have less access to resources and services typically have worse health outcomes. Ensuring that access is equitable as well as reliable, safe and timely supports population health overall in the city of Toronto.

Decision History

At the December 12, 2019 TTC Board meeting, the Board approved the *5-Year Service Plan & 10-Year Outlook*. The Plan included a 20-point action plan. Action 4.1 is to explore bus transit lanes in the city of Toronto. The Board directed staff to report back on a prioritization plan, implementation timeline and integrated work plan for the Proposed Enhanced Priority Corridors.

[https://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2019/December 12/Reports/Decisions/16 5 Year Service Plan and 10 Year Outlook Decision.pdf](https://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2019/December%2012/Reports/Decisions/16%205%20Year%20Service%20Plan%20and%2010%20Year%20Outlook%20Decision.pdf)

At the June 17, 2020 TTC Board meeting, the Board approved the following motion, requesting staff to identify transit priority measures on all five bus priority corridors in the TTC's 5-Year Service Plan (Section 4.1) with a recommended design and implementation plan for the Board's approval at its July 14, 2020 meeting, with targeted installation for September 1, 2020.

[http://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2020/June 17/Reports/12 Notice of Motion Fast Tracking Bus Priority Transit Lanes.pdf](http://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2020/June%2017/Reports/12%20Notice%20of%20Motion%20Fast%20Tracking%20Bus%20Priority%20Transit%20Lanes.pdf)

The TTC Board also adopted the following Member motion: That staff evaluate ridership and investigate the need and potential for priority transit measures on Lawrence Avenue East (east of Victoria Park to Rouge Hills Drive) and report back at the TTC Board's July 14, 2020 meeting.

Issue Background

Through its strategies, plans and policies, the City of Toronto recognizes the necessity of improvements to transit services in achieving the City's vision and goals for the future. Surface transit priority plays a key role in these improvements.

The COVID-19 crisis has shown that the TTC is vital to hundreds of thousands of customers who use our services to travel to essential destinations including grocery stores, pharmacies, healthcare facilities and employment. A recent University of Toronto survey of customer travel patterns during the pandemic indicated that 87% of customers deemed these four trip purposes as the most essential. Post COVID-19, a strong recovery plan will be needed to build ridership back. As the city and GTHA re-opens and recovery begins, it is expected that people will return to private vehicles, taxis or PTCs more quickly than they will to transit in order to maintain physical distance from others.

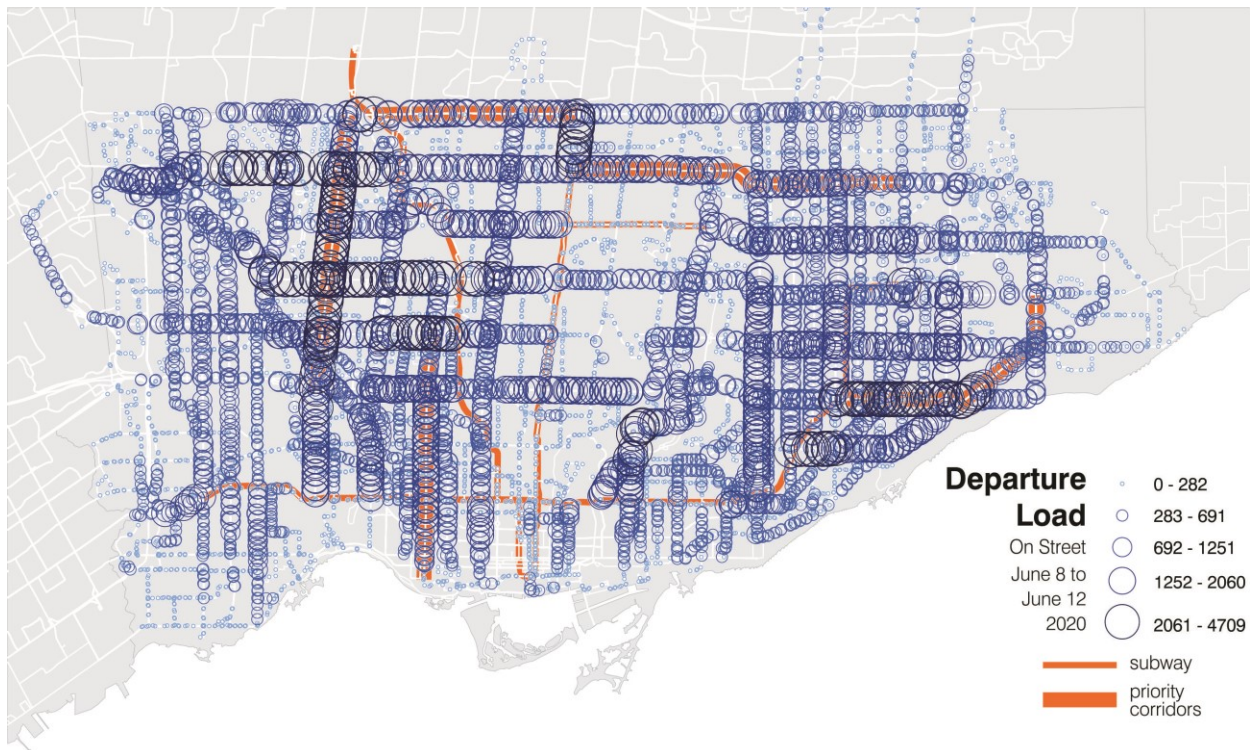
The TTC's surface transit network plays a critical role in moving people around Toronto and we must enhance its attractiveness to ensure it continues to provide a viable alternative to the automobile as the city and region re-opens. This will support economic recovery, environmental sustainability and social vibrancy. Bus lane implementation is a key part of the TTC's recovery planning.

This report focuses on a near-term priority bus lane implementation plan. The TTC's *5-Year Service Plan & 10-Year Outlook* identified a 20-point action plan, including *Action 4.1 Explore Bus Transit Lanes*. Action 4.1 identified exploring bus transit lanes on five priority bus corridors:

- Dufferin Street
- Eglinton Avenue East
- Finch Avenue East
- Jane Street
- Steeles Avenue West

These are some of the TTC's most heavily used bus corridors, where nearly a quarter of a million customers travel every weekday (pre-COVID conditions). Transit on these corridors plays a significant role in moving large volumes of people and, given priority, could move even more. Even during COVID-19, these corridors continue to play a significant role in moving people around the city. **Figure 1**, shown below, illustrates the bus departure loads across the city.

Figure 1: Bus departure loads - June 8, 2020 – June 12, 2020



These corridors have a high through-put of buses all day, seven days a week. These roadways experience heavy vehicle traffic (particularly during peak hours), carry high volumes of transit passengers, service a variety of destinations and land uses, and are well-connected to other major transit corridors.

Throughout the public and stakeholder consultations for the *5-Year Service Plan & 10-Year Outlook*, participants said they would like the TTC to:

- Deliver reliable and frequent service;
- Enhance transit priority on the bus and streetcar network;
- Integrate surface transit with new rapid transit lines, regional transit partners and other transportation modes;
- Identify local service improvement opportunities with community groups; and
- Improve the overall transit rider experience, from beginning to end.

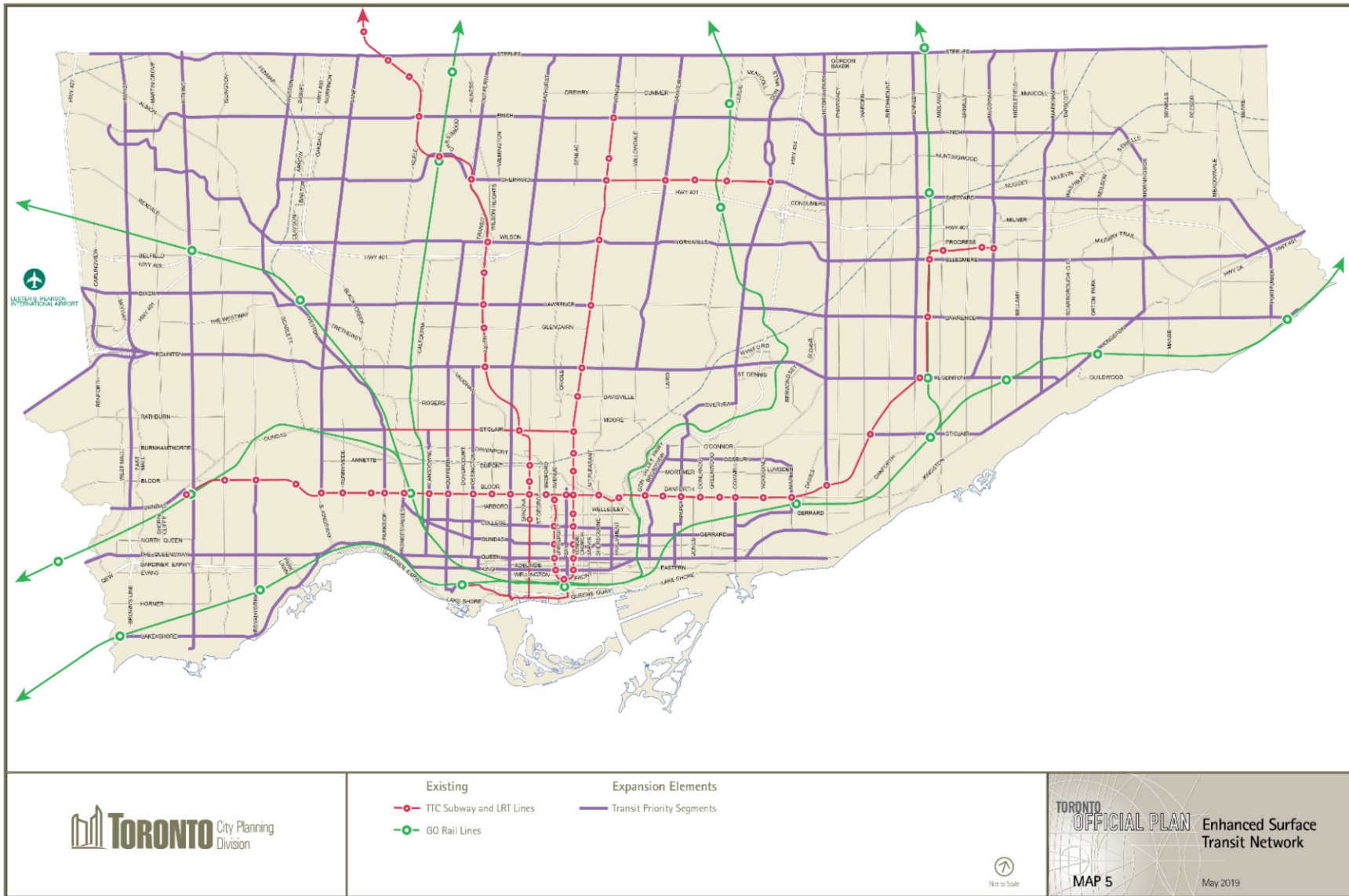
Implementation of bus lanes is about moving people more efficiently on transit by improving reliability, speed and capacity on the busiest surface transit routes in the city. This will ensure that resources are being used more efficiently to provide the same level of service or better.

In parallel to the *5-Year Service Plan & 10-Year Outlook*, the City has been working on the Surface Transit Network Implementation Study (STNIS). STNIS recognizes the importance of prioritizing surface transit as a key step in congestion management moving forward to 2025 and beyond.

STNIS, led by Transportation Services, in collaboration with City Planning and the TTC, provides the foundation and governance framework for planning, developing, prioritizing, funding, delivering and monitoring of transit priority measures within the city of Toronto. STNIS identifies a multi-year transit priority implementation program to be included in Transportation Services' 10-Year Budget and Capital Program. The study recognizes that the *5-Year Service Plan & 10-Year Outlook* is a plan to fast-track the implementation of bus lanes on five priority corridors and serves as a precursor to near- and long-term surface transit projects. The STNIS study will be presented to City Council in Q4 2020. **Figure 2**, shown below, is Map 5 of the Official Plan Amendment that was presented to City Council in February 2020. The map identifies corridors that have been selected for enhanced transit priority measures. The map will serve as the foundation for the STNIS program. Lawrence East is included and will be considered for priority measures as part of STNIS.

The TTC has worked with partner divisions at the City to develop a prioritization and implementation plan for bus lanes on the five corridors identified in the Plan. This report presents the results of that analysis.

Figure 2: City of Toronto Official Plan - Map 5



Comments

Priority bus lane objectives

The transit network plays a critical role in meeting Toronto's transportation needs, moving 1.8 million people a day (pre-COVID conditions). The TTC operates an extensive surface transit network that is exceptional by North American standards. The TTC operates 13 of the 24 busiest bus routes in Canada and the United States¹. The majority of these routes operate in mixed-traffic conditions. Over the years, increases in traffic congestion have resulted in a decrease in the speed and reliability of these heavily used bus routes on busy streets.

Improvements to surface transit are critical over the next five years to ensure that the TTC is doing its part in achieving the City's vision and goals for the future. Across North America, it has been demonstrated that tactical implementation of transit priority measures can be achieved quickly, at relatively low cost, and can have a major impact on the speed, reliability and overall attractiveness of the transit system when compared to more resource-intensive measures, such as LRT and other fixed guideway systems. These tactical projects more often than not lead to permanent solutions.

The following outcomes (**Table 2**) were used to guide the prioritization of the top five corridors identified in the *5-Year Service Plan & 10-Year Outlook*:

Table 2: Priority bus lane objectives – Target outcomes

Target outcome	Description
Tactical transit improvements	This allows the City and the TTC to try out new ideas, relatively quickly and at minimal cost. The bus lanes should be safe, feasible and simple to implement.
Real improvements for existing customers	The bus lane should provide real benefits, such as improving bus reliability, speed and capacity for a better customer experience.
Improve transit speed	The bus lane should provide net travel time savings over general purpose traffic, making surface transit a more attractive choice for trip making.
Increased access	The bus lane should improve people's ability to reach desired services and activities, taking into account both mobility (travel speed) and travel distances required to reach destinations.

¹ Based on a high-level peer review of Canadian and US transit agencies including: Atlanta (MARTA), Boston (MBTA), Chicago (CTA), New York (NYCT), Washington (WMATA), San Francisco (MTA), Vancouver (Translink), York Region (YRT/Viva)

Target outcome	Description
Advance equity initiatives	The bus lane should help advance equity initiatives identified in the City’s Poverty Reduction Action Plan and improve overall transit access for equity-seeking communities.
Advance approved strategic documents and action plans	The bus lane should help advance the goals and objectives identified in Council-approved strategic documents and action plans.

Prioritization plan

Related to the objectives above, TTC staff worked in partnership with City Planning and Transportation Services to complete an evaluation based on the criteria identified in **Table 3**. This assessment helped determine a prioritization plan for the top five corridors.

Table 3: Assessment criteria

Criteria	Description
Transit characteristics	Existing ridership, travel time, service reliability and frequency of service.
Policy framework	Alignment with the Regional Transportation Plan, Official Plan, Congestion Management Plan, STNIS, TTC Corporate Plan and other strategic documents.
Equity	Neighbourhood Equity Index.
Ease of implementation	Right-of-Way availability and parking by-law review.
Existing traffic conditions and network impact of bus lane	Review existing studies that have been completed, traffic and transit data, regional travel demand model.
Safety impacts	Collision history data and Vision Zero initiatives.
Existing capital projects	Opportunity investment – what work is already being planned on these corridors: <ul style="list-style-type: none"> • State of Good Repair Projects • Cycling Network Plan • Utility Works • Development Plans • Queue Jump Lane Projects

The results of the evaluation can be found in **Attachment 1**.

Table 4 summarizes the recommended prioritization.

Table 4: Assessment results

Priority	Corridor	Description
A	Eglinton East (Kennedy to UofT Scarborough via Kingston Road and Morningside)	This corridor is the easiest to implement with minimal impacts on other lanes of traffic. The section along Eglinton Avenue East already includes an HOV lane. Extensive consultation has already been completed on the corridor for the future Eglinton East LRT. There is support for improving transit services. A bus lane would help build ridership for a future LRT alignment. The majority of the corridor falls within Neighbourhood Improvement Areas (NIAs). In addition, as construction for the Scarborough Subway Extension is expected to begin in 2021, dedicated lanes for transit vehicles will help minimize the negative impacts of long-term construction in the area.
B	Jane Street (Steeles to Eglinton)	This corridor has one of the slowest operating speeds. It provides an important north-south connection between Line 1 Yonge-University and future Line 5 Eglinton. It also traverses through many Neighbourhood Improvement Areas. Implementing a bus lane requires re-purposing of the existing curb lanes for transit. There would be no adverse impacts to on-street parking. Effects on other road traffic at the inter-change with Highway 401 and Highway 400 requires further additional analysis and consultation with MTO.
C	Steeles West (Pioneer Village Station to Yonge)	This corridor would provide a faster connection to either side of Line 1 and would serve York University. York Region would also benefit from the bus lane. The City has approval to initiate a Municipal Class Environmental Assessment study to widen Steeles between Bathurst and Hilda. Widening this section of Steeles Avenue West would facilitate the operations of the proposed bus lane by eliminating this existing bottleneck.
C	Finch East (Finch Station to McCowan)	This corridor shows significant growth in developments that are planned or under review. There are also important connections to post-secondary institutions. Effects on other road traffic at the inter-change with Highway 404 requires further additional analysis and consultation with MTO.
C	Dufferin Street (Wilson to Dufferin Gate)	This corridor has the slowest operating speeds, however, it also has the greatest challenges for implementation. South of Rogers Road, Dufferin Street has a very narrow right-of-way and a lot of on-street parking. Additional analysis is needed to ensure impacts are minimized.

As a result of the evaluation, staff had identified the following timeline:

- Eglinton East and Jane Street – spring and fall of 2021
- Steeles West, Finch East and Dufferin Street – 2022 and beyond

In June 2020, TTC Board requested that staff fast track the priority bus lane program. Of the two scheduled projects, both have been accelerated by six months. Eglinton East corridor will be implemented in fall 2020 followed by Jane Street in spring 2021. Below is a description of the proposed work plan for both of these corridors.

Eglinton East Corridor

The following section presents the proposed service concept, example cross-sections and benefits of bus lanes on the Eglinton East corridor.

The Eglinton East corridor is 10.9-km in length and runs from Kennedy Station to the University of Toronto Scarborough Campus (UTSC). It follows three major streets: Eglinton Avenue East, Kingston Road and Morningside Avenue. The service would be an interim solution to the future Eglinton East LRT service. The existing HOV lanes would be converted to priority bus lanes, while curbside general purpose lanes on Kingston Road and Morningside Avenue would be converted to priority bus lanes.

Through the implementation of the bus lane on the corridor, stops would also be consolidated to speed up service and mimic the proposed LRT stops. **Figure 3** shows the proposed service and stops on the corridor. Local services operating on this corridor will stop at the proposed stop locations only. Express services operating on this corridor will not change. Consultation on the service concept will be completed over the summer as part of the TTC's Annual Service Plan process. The service concept is subject to change as a result of consultation. **Figures 4** through **7** present cross-section samples of key segments on the corridor. These configurations will be confirmed during detailed design.

Table 5 summarizes the projected benefits of bus lanes on the corridor. Bus lanes on the Eglinton East corridor is anticipated to increase transit reliability and reduce transit travel time on average between two-to-five minutes per trip. These time and reliability savings are expected to result in an operating cost avoidance of 500 fewer service hours per week, equivalent to about \$2.5 million per year and a capital cost avoidance of seven fewer peak buses equivalent to approximately \$6.3 million.

The disposition of the operating cost savings and capital cost avoidance to be realized from the implementation of bus lanes will be considered for inclusion in the 2021 Service Plan and Budget process.

Note, that at this time, bus lanes will only be implemented from Brimley Road to Ellesmere Road. Construction of the Scarborough Subway Extension by Metrolinx is expected to start in spring 2021, which will require lane closures from Kennedy Station to Brimley Road. Once construction is complete, it is anticipated that bus lanes will be extended west to Kennedy Station. During the Scarborough Subway Extension

Figure 4: Eglinton Avenue East – 4 General Purpose Lanes + 2 Bus Lanes Cross-Section

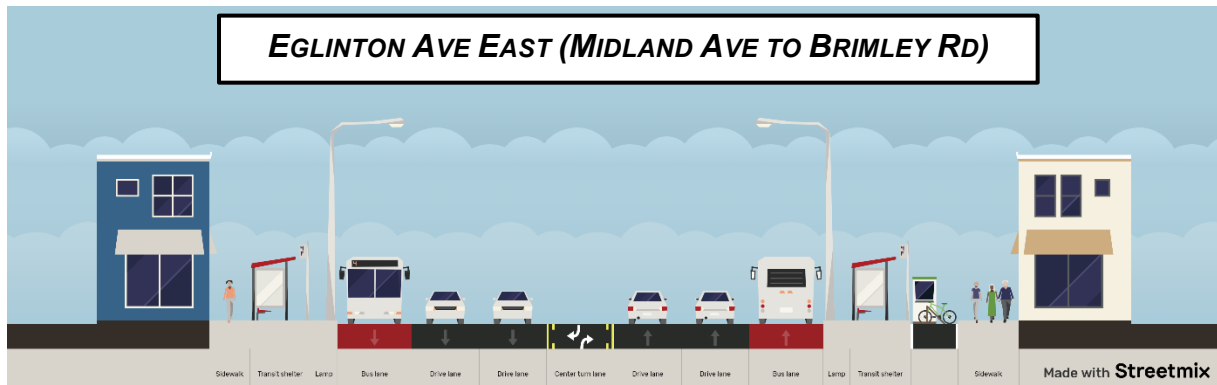


Figure 5: Eglinton Avenue East – 2 General Purpose Lanes + 2 Bus Lanes Cross-Section

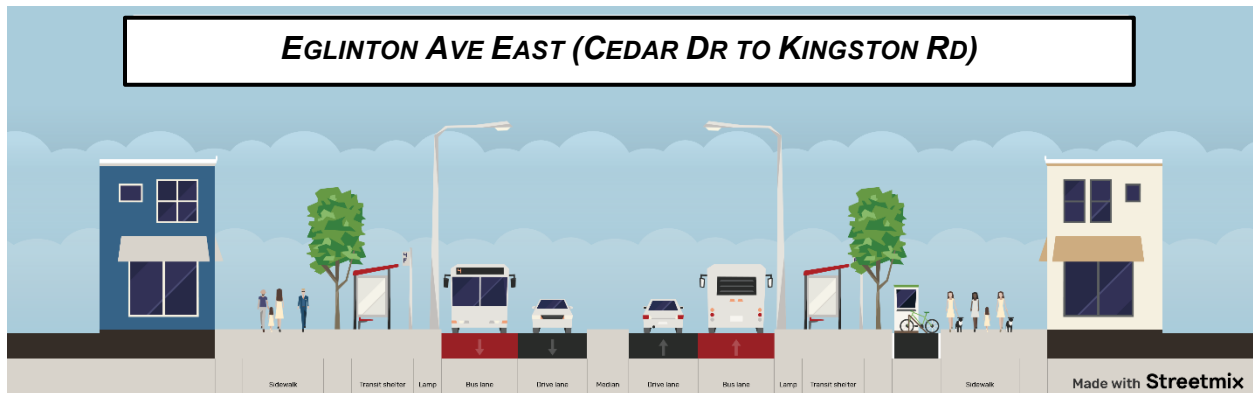


Figure 6: Kingston Road – 4 General Purpose Lanes + 2 Bus Lanes Cross-Section

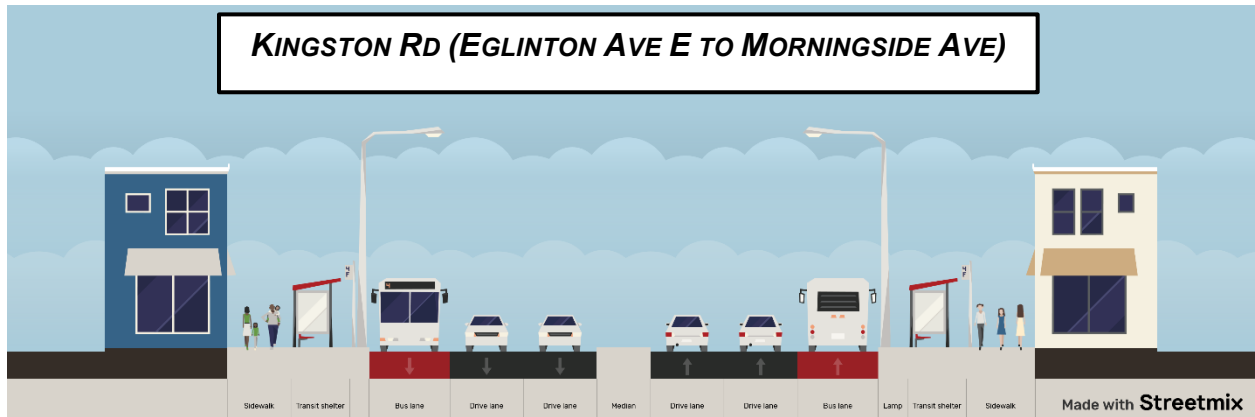


Figure 7: Morningside Avenue – 2 General Purpose Lanes + 2 Bus Lanes Cross-Section

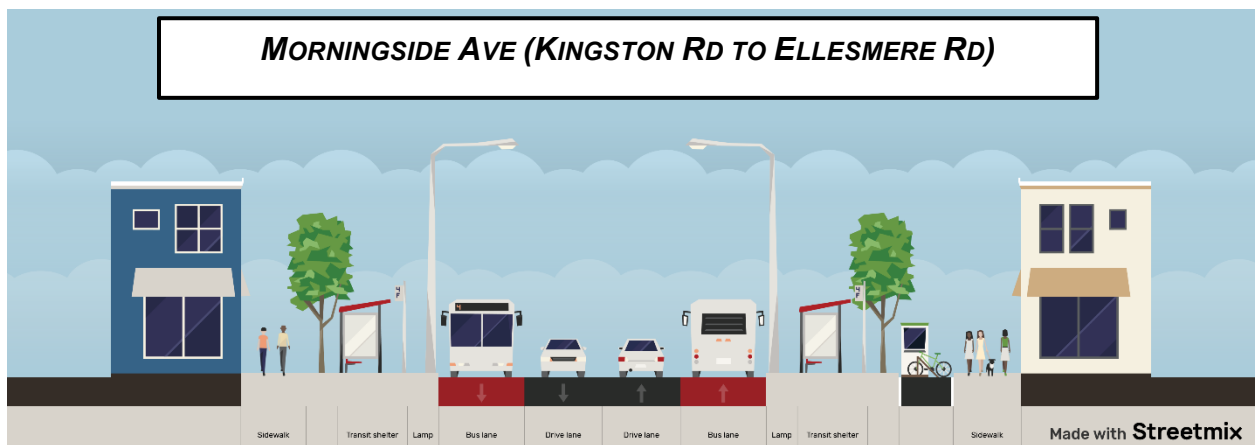


Table 5: Eglinton East benefits

Target outcome	Projected benefit
Tactical transit improvements	Converting existing HOV lanes and general purpose lanes with red paint, pavement markings and signage makes this a simple and cost-effective solution.
Real improvements for existing customers	It is anticipated that the bus lane will improve reliability and speed of existing services, which will allow the TTC to increase capacity on the corridor. This will impact the existing 47,000 customers who use the corridor daily.
Improve transit speed	It is anticipated that the bus lane will result in an average travel time savings of 16.5% for local services (two-to-five minutes per trip).
Increased access	The increase in speed and reliability will allow customers to travel longer distances at a faster speed, reaching new destinations and services.
Advance equity initiatives	The corridor serves seven of Scarborough’s eight NIA’s and advances Action 7.2.1 of the City Council-approved Poverty Reduction Strategy 2019-2022 Term Action Plan.
Advance approved strategic documents and action plans	Advances strategies and actions identified in: <ul style="list-style-type: none"> • Transform TO • Resilience Strategy • Corporate Strategic Plan • Poverty Reduction Strategy 2019-2022 Term Action Plan • TTC Corporate Plan

City staff have prepared a report for Executive Committee: Eglinton East Corridor – Priority Bus Lanes. TTC staff support this report, which outlines the proposed bus lanes on the Eglinton East corridor with a connection to the University of Toronto Scarborough Campus. The report seeks Council authority to proceed with implementation and monitoring of the project in late fall 2020. **Figure 8** shows the anticipated project schedule.

Jane Street - Proposed work plan and implementation timeline

In order to implement bus lanes on Jane Street, the following work plan has been developed:

- Phase One: Develop goals and prioritization plan for top five corridors (complete)
- Phase Two: Focus on Jane Street – evaluate corridor designs, select preferred design, consult the public and begin assembling baseline data
- Phase Three: Implement and monitor Jane Street

Figure 9 below depicts the proposed work plan and timeline.

Figure 8: Eglinton East - Accelerated implementation timeline

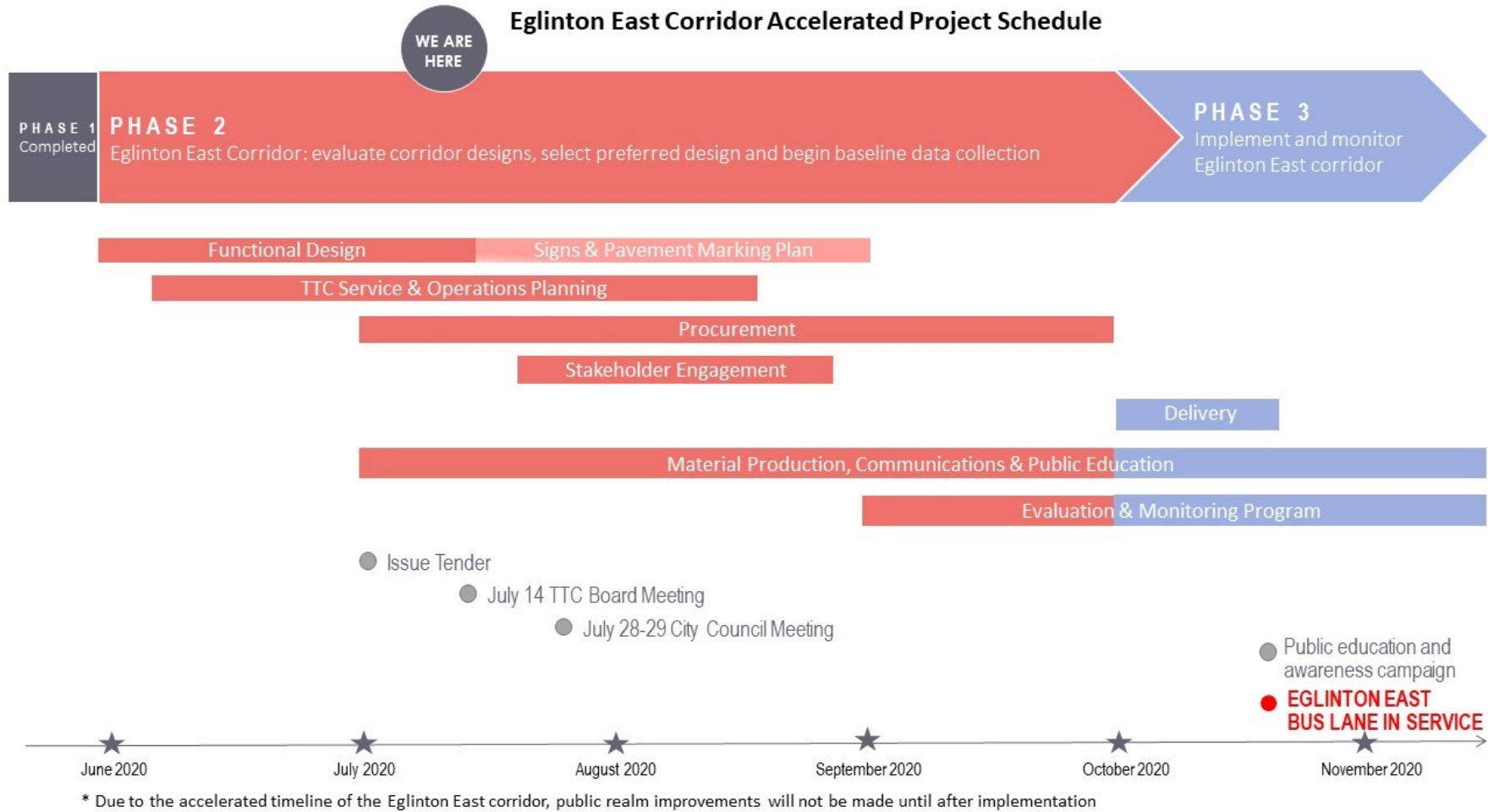


Figure 9: Jane Street - Implementation timeline

