



## **Line 3 Bus Replacement Update**

**Date:** September 26, 2023

**To:** TTC Board

**From:** Chief Strategy and Customer Experience Officer

### **Summary**

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This report speaks to the Line 3 bus replacement service and is not the technical assessment of the Line 3 derailment investigation. On August 24, 2023, the TTC confirmed that train service on Line 3 would not restart, and a bus replacement service would operate for customers connecting between Scarborough Centre and Kennedy stations. As previously approved by the Board, the TTC had already been planning for the elimination of train service on Line 3 and implementing a bus replacement service with a suite of transit priority measures for November 19, 2023.

As a result of the derailment on July 24, 2023, the TTC is working with its contractor, and the City of Toronto, to accelerate the implementation of transit priority measures. These measures will establish transit signal priority, new bus stops and queue jump lanes, and dedicated transit lanes on Kennedy Road, Midland Avenue, Ellesmere Road, and Eglinton Avenue. In co-ordination with the City of Toronto, dedicated transit lanes have been established since August 26 with signage and temporary road markings; these will be upgraded to the RapidTO-style road markings, with red paint, by TTC contractors by the originally planned November 19, 2023 bus service replacement date.

### **Recommendations**

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It is recommended that the TTC Board:

1. Receive this report as an update on the Line 3 Bus Replacement project.

### **Financial Summary**

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The 2023 Operating Budget approved by the Board on January 9, 2023 and City Council on February 15, 2023 includes \$1.5 million to fund the cost of the full Line 3 Bus Replacement plan that was scheduled to be implemented on November 19, 2023, net of anticipated operating savings to be realized from the cessation of SRT operations.

With the Line 3 derailment on July 24, and the subsequent decision to cease Line 3 train operations, a shuttle bus service was immediately implemented and will continue to run until the full budgeted and planned bus service replacement begins on November

19. Cost of the shuttle bus service for the period up to November 19, net of savings from the SRT no longer operating, is estimated at \$5 million and will be accommodated within the approved 2023 Operating Budget, based on anticipated under expenditures in other areas of the TTC's Operating Budget.

As previously indicated in the Financial and Major Projects Update report for the Period Ended April 29, 2023, considered by the TTC Board at its June 12, 2023 meeting, Operator labour costs were forecasted to be higher than budgeted for the year based on additional Operator availability due to the elimination of the vaccine mandate and lower-than-anticipated construction shuttle service requirements. A portion of these additional available Operators are now being utilized to operate the SRT bus shuttle service.

The total capital project cost for the SRT Bus Replacement Infrastructure project is approximately \$96.2 million including costs to the end of 2022 of \$2.7 million as outlined in Table 1 below. Of the total capital project costs, \$37.7 million in approved funding is included in the TTC's 2023-2032 Capital Budget and Plan under the SRT Life Extension/Transition capital program, and was approved by the TTC Board on January 9, 2023, and by City Council on February 15, 2023.

With the approved funding, the TTC will complete the capital infrastructure to implement the bus replacement service, which includes the Kennedy and Midland SRT Replacement Transit Priority Measures work package, platform modifications at Scarborough Centre and Kennedy stations, and the temporary bus terminal at Kennedy Station. The approved budget also provides funding to complete the design of the Scarborough Rapid Transit busway conversion infrastructure. Of the total approved funding, approximately \$26 million has been committed to date for the SRT Bus Replacement Infrastructure project.

In addition to the \$37.7 million in approved funding, \$55.7 million is not funded in the TTC's 2023-2032 Approved Capital Budget and Plan. The entire unfunded amount is the estimated cost to complete the construction of the Scarborough Rapid Transit busway conversion infrastructure. However, this estimate is subject to finalization of the design, and may be higher.

**Table 1: Project Cash Flow for Line 3 Bus Replacement Infrastructure**

Line 3/SRT Bus Replacement Infrastructure (\$ Millions)	LTD Actuals to 2022	2023 Budget	2024	2025	2026	2027	2028-2032	10-Year Plan	TOTAL
Total Funded	2.7	16.2	21.5	-	-	-	-	37.7	40.5
Unfunded	-	1.5	8.6	23.0	12.0	10.6	-	55.7	55.7
<b>Total SRT Capital Requirement</b>	<b>2.7</b>	<b>17.7</b>	<b>30.1</b>	<b>23</b>	<b>12</b>	<b>10.6</b>	<b>-</b>	<b>93.4</b>	<b>96.2</b>

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

## **Equity/Accessibility Matters**

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The TTC is dedicated to promoting and supporting diversity, accessibility, and inclusion in all of its corporate policies, programs, and services. A cornerstone of the TTC's current Corporate Plan is universal accessibility, and as a proud leader in providing accessible public transit to Toronto residents and beyond, we are committed to ensuring reliable, safe, and inclusive transit services for all our customers.

Line 3 Scarborough is the main rapid transit line serving Scarborough, with six stations connecting Scarborough to the rest of the rapid transit network via Kennedy Station on Line 2 Bloor-Danforth. Over 60% of all bus routes in Scarborough connect to a Line 3 station, and many Scarborough customers use this service on a daily basis for their travel needs. Previously, Line 3 Scarborough was only partially accessible with elevators and other accessibility features provided at Kennedy and Scarborough Centre stations, and limited step-free access to southbound trains at Lawrence East Station. However, Ellesmere, Midland and McCowan stations were not accessible, as well as northbound service at Lawrence East Station. Accessibility improvements for these stations were removed from the scope of the TTC's Easier Access (EA) program in 2014 due to the expectation at the time that Line 3 would be upgraded or replaced by the provincially legislated Accessibility for Ontarians with Disabilities Act (AODA) deadline of 2025.

The Line 3 Bus Replacement project will replace Line 3 with an accessible bus service. In the interim, shuttle buses will operate, and by the November 19, 2023 board period, existing bus routes that terminate at Scarborough Centre Station will be extended to Kennedy Station. In all cases, all applicable AODA requirements, in terms of vehicles and accessible transit stops, are satisfied. This service will operate until the new fully accessible Line 2 East Extension (Scarborough Subway Extension project) is opened. This bus service will maintain frequent transit for numerous Neighbourhood Improvement Areas and equity-seeking groups in Scarborough.

The original plan was for a coordinated shutdown of Line 3 on November 19, 2023, and to formally replace it with an express bus service connecting Scarborough Centre and Kennedy stations. With the train derailment on July 24, 2023, emergency bus replacement service has been operating, and as of August 24, 2023, the decision was made to permanently cease train operations of Line 3. As a result, the implementation of transit priority measures for the bus replacement service are being accelerated.

## **Decision History**

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In the summer of 2019, the Province assumed responsibility for the delivery of the Line 2 East Extension (Scarborough Subway Extension project or SSE), and revised the scope of the project to a three-stop subway extension with a completion date of 2030. To ensure ongoing transit service is provided until the completion of the Line 2 East Extension in 2030, several options were reviewed to provide transit service along the corridor. The results of the options analysis were reported to the TTC Board in February 2021 and the Board approved a plan to end train service on Line 3 in 2023 and directed staff to begin developing plans for a bus replacement service and study potential future uses for the Line 3 right-of-way (ROW) and legacy structures.

## [SRT Life Extension Project Options Analysis](#)

An update was presented to the TTC Board in September 2021 and the Board approved the corridors for further analysis and the evaluation framework to establish routing options.

### [Line 3 Bus Replacement Study Update](#)

At its meeting on April 14, 2022, the TTC Board approved replacing the Line 3 train service with an express bus service by converting the Line 3 ROW between Kennedy Station and Ellesmere Station to a dedicated busway while operating an interim on-street express bus service, with transit priority measures, until the conversion of the Line 3 ROW is complete.

### [Line 3 Bus Replacement Study Final Recommendations.](#)

At its meeting on May 10, 2023, City Council approved on-street transit priority measures to support the Line 3 bus replacement service to provide best possible replacement service for our customers.

### [Transit Priority Measures to Support Scarborough SRT Bus Replacement](#)

At its meeting on June 12, 2023, the TTC Board approved the delegation of authority for the TTC to award the transit priority measures construction contract.

### [SRT Replacement Transit Priority Measures – Delegation of Authority](#)

## **Issue Background**

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On July 24, 2023, a southbound Line 3 train departing Ellesmere Station had its trailing car uncouple and it derailed. Since then, TTC staff have been working with external rail consultants to investigate the incident and shuttle buses have been operating as a replacement service for Line 3.

The TTC had already planned to replace the train service on Line 3 Scarborough. The last day for Line 3 train service was planned for November 18, and express buses were scheduled to start running the following day on November 19.

On April 14, 2022, the TTC Board approved the bus replacement plan to provide interim express bus service operating on-street via Kennedy Road and Midland Avenue, with operation via a dedicated busway between Kennedy and Ellesmere stations as the ultimate replacement service – subject to funding. The bus replacement plan was developed after thorough public consultations and stakeholder outreach with customers and communities in Scarborough.

As a result of the derailment, the TTC is working with its contractor, and the City of Toronto, to accelerate the implementation of transit priority measures for the Line 3 bus replacement service that City Council approved on May 10, 2023. This includes dedicated transit lanes on Kennedy Road, Midland Avenue, Ellesmere Road, and Eglinton Avenue.

## Comments

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Since the emergency shutdown of Line 3 Scarborough, TTC staff have been working on solutions to help the bus replacement service operate as effectively as possible for its customers. The service response was planned to roll out in four phases:

### **Phase 1 – Emergency response for shuttle bus service**

The TTC immediately responded to the emergency shutdown on Line 3 with a shuttle bus replacement that operates via Progress Avenue and Midland Avenue (see Figure 1). The City of Toronto adjusted the 15 traffic signals along this routing to improve the flow of buses by adding more green time to the north-south traffic lights and at left-turn intersections for transit customers. The shuttle bus replacement service initially operated with approximately 30 bus trips per hour during the peak periods to enable customers to travel between Scarborough Centre and Kennedy stations as expeditiously as possible. Since the September 3, 2023 board period, this service increased to approximately 45 trips per hour during peak periods.

### **Phase 2 – Kennedy Station improvements**

During the initial operation of the shuttle buses, the additional volume of buses from the shuttle service overwhelmed operations at Kennedy Station. The added volume of buses increased congestion in the terminal and slowed down operations for all customers connecting to/from bus services at Kennedy Station (see Figure 2). As part of the original bus replacement project, improvements were already planned for Scarborough Centre and Kennedy station to accommodate an increased volume of buses. While construction has started at both stations, the work at Kennedy Station to construct a temporary bus terminal in the south commuter parking lot will not be completed until October 2023 at the earliest. In order to relieve the severe bus congestion and improve customer experience, the north commuter lot at Kennedy Station closed on August 21 and was converted to an interim layover area for buses while the construction of the south commuter lot is underway. Figure 3 shows the new staging area for buses in the north commuter lot.

Platform improvements are largely completed at Scarborough Centre Station, and the terminal is functioning well for bus operations; the remaining improvements to the interior space are being accelerated to be completed by end of October 2023 to improve customer experience.

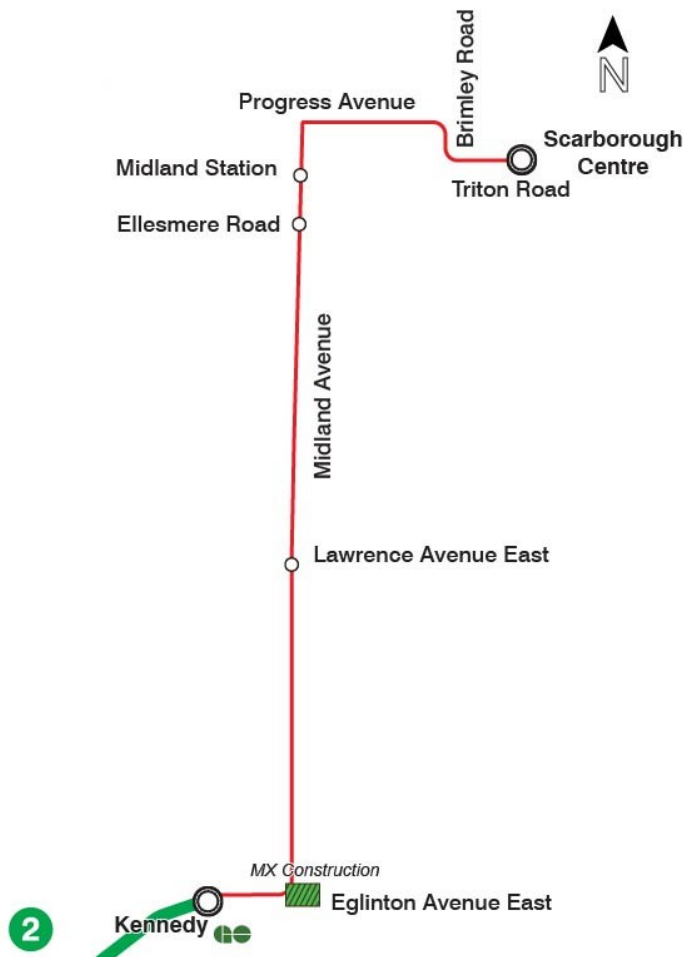


Figure 1. Map of Phase 1 and 2 Shuttle Bus Routing via Midland and Progress



Figure 2. Shuttle Bus Operation and Congestion at Kennedy Station





**Figure 3. Kennedy Station North Commuter Lot converted to Bus Layover Area**

### **Phase 3 – Temporary bus lanes**

Concurrently, the TTC is working with its contractor to accelerate the implementation of transit priority measures to establish the bus priority lanes, among other improvements, that had already been approved by City Council. While this work is ongoing, the TTC collaborated with the City of Toronto and its contractors to install temporary bus lanes, including the appropriate signage, on Midland Avenue and Kennedy Road, between Ellesmere Road and Eglinton Avenue East (see Figure 4). As a result, approximately 7.8km of dedicated transit lanes were created. Since August 26, the temporary priority lanes have been operational and they display lane markings and symbols as well as the permanent signage (see Figure 5). The City of Toronto has also made similar, interim, adjustments to the 11 traffic signals on Kennedy Road to improve traffic flow for bus customers.

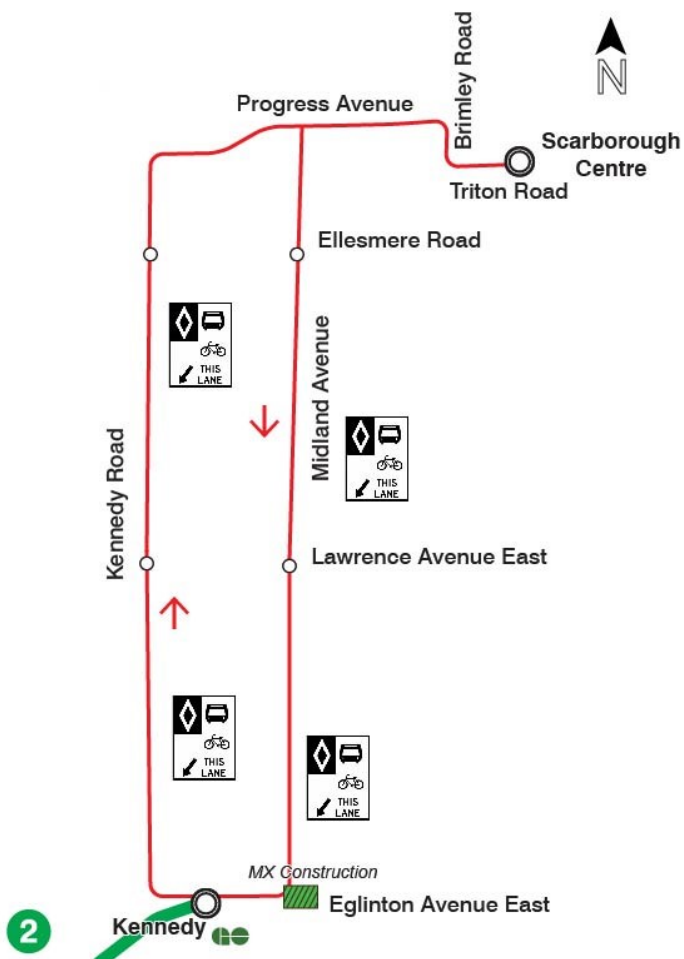


Figure 4. Map of Phase 3 Shuttle Bus Routing via Kennedy, Midland, and Progress





Figure 5. Kennedy Road with Signs for Bus Priority (Queue Jump and Transit Lane)

#### Phase 4 – Full transit priority measures

While the temporary bus lanes are implemented by the City, the TTC will continue to work with its contractors to accelerate the transit priority measures as originally planned for the interim bus replacement service, including the bus terminal modification work at Scarborough Centre Station and construction of a temporary bus terminal in the south commuter lot at Kennedy Station. Along with the traffic signal coordination plan that is being developed by the City, the complete suite of transit priority measures should be delivered in advance of the original Line 3 train service elimination date of November 19, 2023.

The transit priority measures contract was awarded and plans are being made with the contractor to accelerate the work. The priority for the contractor will be to complete the red-painted dedicated bus lanes, similar to RapidTO Eglinton East, on Kennedy Road, Midland Avenue, and Ellesmere Road, and the installation of new bus pads and shelters (see Figure 6). In total, approximately 9.6km of dedicated transit lanes will be complete after this phase. These priority measures are required to help the effective operation of the bus replacement service for customers, where peak bus volumes are planned to increase to approximately 55 buses per hour once the bus network changes are made.

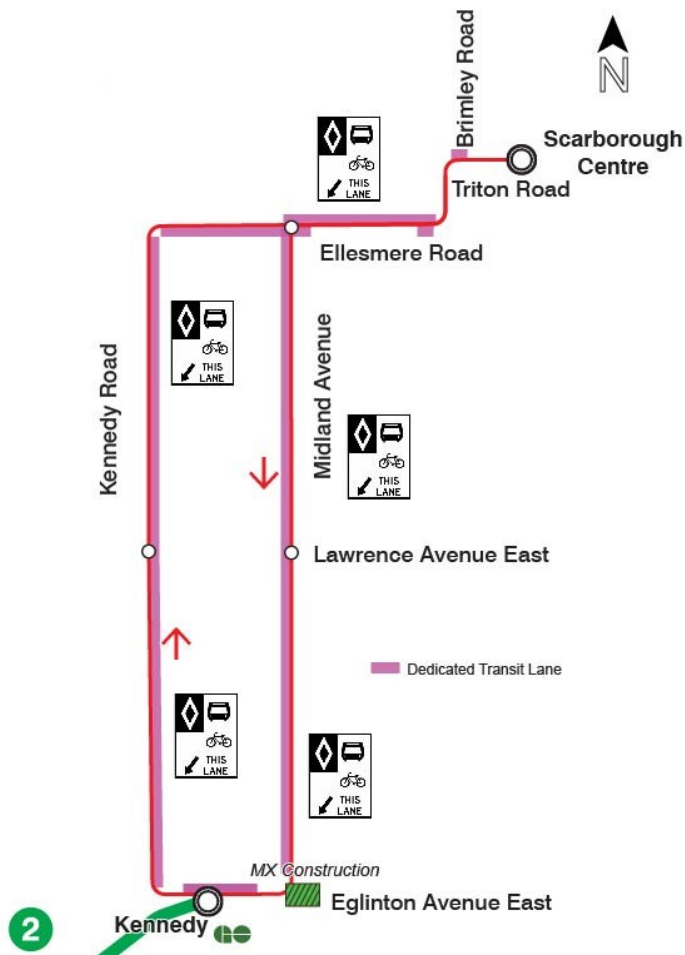


Figure 6. Map of Phase 4 Bus Replacement Routing via Kennedy, Midland, and Ellesmere

## Busway Update

At its May 10, 2023 meeting, City Council requested the TTC Board to direct the TTC to complete the design for the dedicated busway and report back on the updated design, estimated cost, and any progress on funding discussions with the Province in Q4 2023. The TTC will be re-engaging with the local community and stakeholders as part of this report back. Design work has restarted and will be sufficiently progressed to provide an updated cost estimate in Q4 2023 with the final design to be completed by Q2 2024.

The busway would operate in the existing Line 3 corridor between Ellesmere and Kennedy stations, and would operate on the priority lanes on Ellesmere Road, between Ellesmere and Scarborough Centre stations. Stops are planned at Kennedy Station, Tara Avenue, Lawrence East Station, Ellesmere Station, and Scarborough Centre Station (see Figure 7). The current estimate of \$55.7 million (Class 3) required for the construction of the right-of-way conversion to a busway is currently unfunded, as is the demolition and decommissioning of the rest of the Line 3 infrastructure.

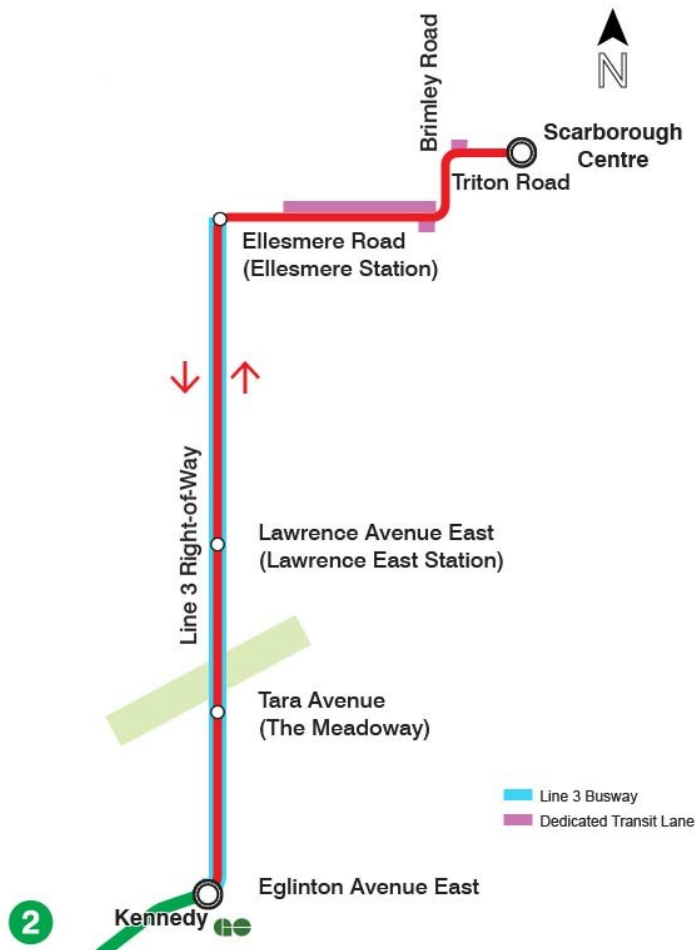


Figure 7. Map of Future Busway Routing

## Contact

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## Signature

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