

## **Update on the Ontario Line Joint Corridor Noise Barrier and Retaining Walls**

**Date:** March 25, 2024

**To:** Toronto and East York Community Council

**From:** Executive Director, Transit Expansion Division

**Wards:** 14 - Toronto - Danforth

### **SUMMARY**

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As directed by the Toronto and East York Community Council on January 24, 2024 under *TE10.40 - Metrolinx's Ontario Line Construction within the Toronto and East York District - First Quarter Update*, the purpose of this report is to provide an update on the Lakeshore East Joint Corridor Noise Barrier and Retaining Wall that is currently being constructed by Metrolinx for the Ontario Line and the GO Expansion Program, including the approved designs, known costs, and estimated construction schedule.

### **RECOMMENDATIONS**

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The Executive Director, Transit Expansion Division, recommends that:

1. Toronto and East York Community Council receive this report for information.

### **FINANCIAL IMPACT**

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There are no financial impacts associated with this report. The Chief Financial Officer and Treasurer has reviewed this report and agrees with the financial impact information.

### **DECISION HISTORY**

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On May 10, 2023, City Council adopted TE4.70 Update on Metrolinx's Ontario Line Construction within the Toronto and East York District, which provided details on the current status of the Ontario Line project within the boundaries of Toronto East York Community Council (TEYCC).

Link: <https://secure.toronto.ca/council/agenda-item.do?item=2023.TE4.70>

On June 14, 2023, City Council adopted TE5.46 Report Back on Metrolinx's Ontario Line Construction within the Toronto and East York District, which provided additional details on the Ontario Line Construction requested by City Council.

Link: <https://secure.toronto.ca/council/agenda-item.do?item=2023.TE5.46>

On July 19, 2023, City Council adopted TM2.1 City of Toronto Recommendations for Metrolinx's Ontario Line Construction within the Toronto and East York District to fulfill the mandate of the Subcommittee on Metrolinx's Ontario Line Construction by consolidating City staff recommendations, public feedback and City Council directives to create recommendations on reducing the construction impacts, providing opportunities for residents and businesses and supporting the communities most impacted by the Ontario Line construction.

Link: <https://secure.toronto.ca/council/agenda-item.do?item=2023.TM2.1>

On October 11, 2023, City Council adopted TE7.81 Protecting and Upgrading Jimmie Simpson Playground due to Ontario Line Construction including a report from staff to provide an update on City Council's request for Metrolinx to replace the wading pool and playground in Jimmie Simpson Park and to provide details on the status of the license agreement for Metrolinx to access Jimmie Simpson Park to complete works related to the Ontario Line.

Link: <https://secure.toronto.ca/council/agenda-item.do?item=2023.TE7.81>

On January 24, 2024, City Council adopted TE10.40 Metrolinx's Ontario Line Construction within the Toronto and East York District - First Quarter Update, which provided an update on the current status of the Ontario Line construction within the boundaries of TEYCC and provided an update on the recommendations shared with Metrolinx as directed through TM2.1. Through this report, TEYCC directed City staff to provide an update on the construction, design and costs of the Lakeshore East Joint Corridor retaining walls and noise barriers.

Link: <https://secure.toronto.ca/council/agenda-item.do?item=2024.TE10.40>

## COMMENTS

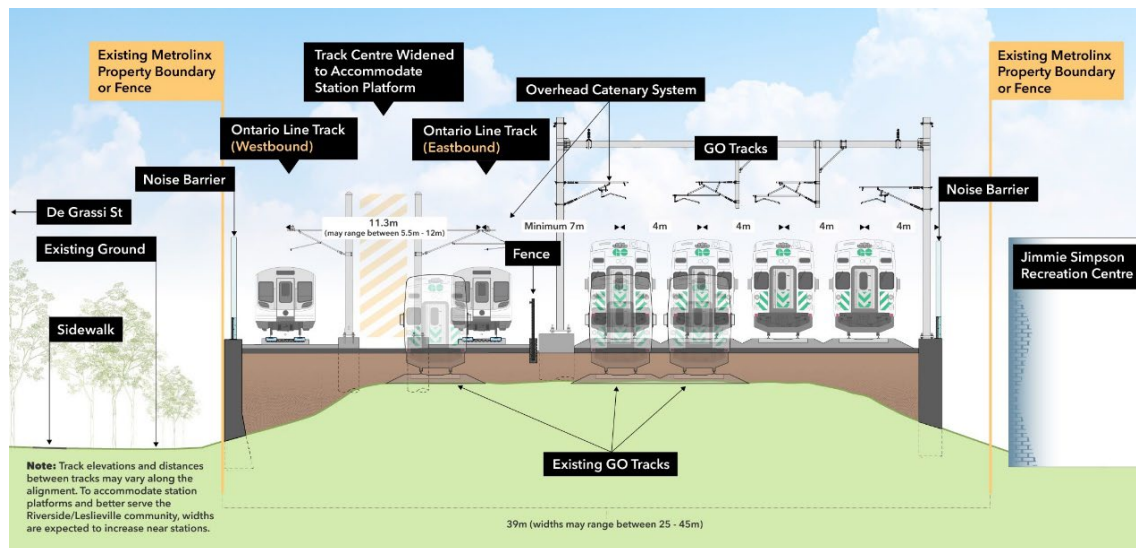
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### Current Status

The scope of the Ontario Line includes an at-grade segment that will operate along the existing Lakeshore East (LSE) GO corridor approximately between Tannery Road west of the proposed East Harbour Station and the proposed Gerrard Station at Gerrard Street and Carlaw Avenue. As the rail corridor will serve both GO trains and Ontario Line trains, it is referred to as the Joint Corridor. To facilitate the Ontario Line and GO Expansion projects, the Joint Corridor is being widened to accommodate six tracks. Four tracks will serve GO trains on the southeast side, and two tracks will serve Ontario Line trains on the northwest side (see Figure 1).

The existing bridge crossings at Eastern Avenue, Queen Street, Dundas Street, and Logan Avenue will also be replaced and updated through the Metrolinx advanced works project (see Figure 2). Retaining walls will generally be required along both sides of the

corridor and will replace the embankments currently being used to retain the rail corridor. Once retaining wall construction is complete, noise barriers will be constructed by Metrolinx above the retaining walls to mitigate the impact of sound emanating from trains to the surrounding communities.



**Figure 1: Cross section north of Queen Street at the north end of Jimmie Simpson Recreation Centre (Source: Metrolinx)**



**Figure 2: Overview map of the bridges to be reconstructed for the Ontario Line and GO Expansion projects in the LSE Joint Corridor (Source: Metrolinx)**

### *Construction Schedule on the Lakeshore East (LSE) Joint Corridor*

Construction of the LSE Joint Corridor is being primarily delivered through the LSE Joint Corridor Early Works (Early Works) contract, however future contracts, as determined by Metrolinx, will address later-stage design elements such as landscaping. The Early Works contract was awarded to Dufferin Construction and construction began in April 2023. The scope of the early works includes utility relocations, upgrades to the existing rail corridor, upgrading the bridges at Queen Street East, Logan Avenue, and Dundas Street East, realigning GO tracks, and constructing the noise barrier and retaining walls to help prepare for construction of Riverside-Leslieville and Gerrard Ontario Line stations. Work performed so far includes demolition of the eastern half of the Queen

Street East, Dundas Street East and Logan Avenue bridges, creation of 7 access roads, relocation of utilities, excavation and the commencement of retaining wall removals. Construction on the retaining walls along the east side of the Joint Corridor began in Summer 2023 (see below) and the Early Works are expected to be completed by January 2026.

Table 1 below provides a summary of the work underway and planned by Metrolinx in the LSE Joint Corridor.

**Table 1: 2024 Future Milestones and In-Corridor Construction Timeline**

Approximate Timeline	Activity
<b>Ongoing until mid-May 2024</b>	<b>Excavation and shoring</b> <ul style="list-style-type: none"> <li>Complete major excavation and shoring work on the east side of the rail corridor to prepare for retaining wall installation.</li> <li>Timber shoring walls and steel rods (tiebacks) will be installed to support excavation.</li> <li>This work is being done to prepare for retaining wall and bridge construction.</li> </ul>
<b>Ongoing until August 2024</b>	<b>Retaining wall and fence removals</b> <ul style="list-style-type: none"> <li>Removal of the existing retaining walls and fencing along the east side of the rail corridor from Gerrard Street East to Jones Avenue.</li> <li>Vegetation, shrubs, and trees will be removed along the fence line within the rail corridor.</li> <li>New noise barriers and fencing will be installed once the removals are completed.</li> <li>See Figure 3 below for more specific retaining wall work schedule.</li> </ul>
<b>April – December 2024</b>	<b>Bridge demolition and construction</b> <ul style="list-style-type: none"> <li>Complete the demolition of the bridges on the east side of the rail corridor and start constructing the new bridges, including the abutments and piers between April – June 2024.</li> <li>Complete construction of the new bridge piers and abutments between July – September 2024.</li> <li>Complete construction of the new bridges on the east side of the rail corridor by December 2024.</li> </ul>
<b>April 2024 – September 2024</b>	<b>Retaining wall and noise barrier installation</b> <ul style="list-style-type: none"> <li>Pre-cast concrete block retaining walls will be installed on the east side of the rail corridor.</li> <li>Noise barriers will be installed on top of retaining walls and steel beams.</li> </ul>

Approximate Timeline	Activity
<b>April 2024 – Late 2024</b>	<b>Track relocation and train signal installation</b> <ul style="list-style-type: none"> <li>• Installation and commissioning of new train signals within the rail corridor east of First Avenue.</li> <li>• Relocation of two rail tracks and installation of one new track line.</li> </ul>
<b>Fall 2024</b>	<b>Preparation work on the west side of the corridor</b> <ul style="list-style-type: none"> <li>• Construction of six new access roads on the west side of the corridor.</li> <li>• Removal of vegetation and trees along the perimeter of the rail corridor.</li> <li>• Clearing and grubbing to start in September 2024 to provide space for major construction activities.</li> <li>• Work also includes preparing for bridge construction on the west side of the rail corridor.</li> </ul>
<b>November – December 2024 and onwards</b>	<b>Construction of retaining and noise walls on the west side of corridor and design competition elements</b> <ul style="list-style-type: none"> <li>• Construction on the west side of the corridor is targeted to commence in late 2024 and is tracking to be completed by January 2026.</li> <li>• The newly installed retaining walls will include the architectural features (surface treatments) selected by the Joint Corridor design competition's community jury (as detailed below). The tentative installation date for these architectural features (i.e., decorative bridge fascia and landscaping) is December 2025.</li> </ul>

(Source: Metrolinx, February 29, 2024, Riverside-Leslieville open house presentation boards; March 21 Joint Corridor CLC; correspondence with Metrolinx dated February 1, 2024)



**Figure 3: East of corridor Retaining Wall Construction 2024 Timeline Update (Source: Metrolinx, March 21 Joint Corridor CLC)**

### *Jimmie Simpson Park*

Work by Metrolinx contractors at Jimmie Simpson Park began on November 10, 2023, to remove the existing, aging retaining wall and build the new retaining wall. Removal of the existing retaining wall will also provide up to three metres of additional linear park space. Construction is currently occurring from Monday to Friday between 7AM and 5PM, with limited overnight work and is estimated to take eight months (June 2024) to complete. A three-metre-high barrier has been installed to separate the work zone from the playground area for the duration of construction. Metrolinx has completed removal of the existing retaining walls located along the corridor edge at Jimmie Simpson Park to the satisfaction of the City. Noise barriers will be constructed once the retaining wall is complete.

## **Community Engagement**

### *LSE Joint Corridor Early Works Construction Liaison Committee (CLC)*

Metrolinx currently has eight CLCs for the Ontario Line which meet on a monthly-basis: King-Bathurst Station; Queen-Spadina Station; Osgoode Station; Queen Station; Moss Park Station; Corktown Station; Lakeshore East Joint Corridor Early Works; and Pape Avenue Junior Public School. These CLCs were created to be a forum for two-way communication between the Metrolinx project team and the local community, and timely sharing of information related to Ontario Line construction activities for each specified area. CLC Members include local community groups and organizations, elected officials, City staff, and Metrolinx project team members.

The LSE Joint Corridor Early Works CLC was established in May 2023, with a focus on the Riverside-Leslieville Station and Gerrard Station areas (collectively known as the



“LSE Joint Corridor”), and generally meets once a month. Ten meetings have been held to date, with the most recent one being March 21, 2024<sup>1</sup>. The next meeting is scheduled for April 11, 2024.

### *Joint Corridor Design Excellence Working Group*

In 2022, Metrolinx established the Joint Corridor Design Excellence Working Group (Working Group) to collaborate with the Riverside and Leslieville community members on design elements that will be introduced in the joint Lakeshore East GO rail corridor as part of future Ontario Line construction, namely the retaining wall and noise barriers. The group included local community members and organizations, elected officials and project team members that met regularly to discuss design elements such as retaining and noise walls, landscaping and vegetation plans. The Working Group held nine meetings between January 24, 2022, and April 4, 2022.

In addition, between April 2021 and October 2021, Metrolinx hosted four Virtual Open Houses and created a design survey to receive feedback from the Riverside and Leslieville community on the design of the new noise walls, retaining wall options and vegetative landscaping.

### **Design Excellence in Riverside and Leslieville**

As a result of community input from the Working Group, Metrolinx held a design competition to mitigate concerns related to noise, vibration and to enhance the design for the retaining walls and public spaces along the rail corridor in Riverside and Leslieville. The competition, which began June 2022, focused on soliciting design solutions for Metrolinx-funded public realm features, such as retaining walls, noise barriers, and bridges.

The community jury, which consisted of local community leaders, BIA board members, and architects, carefully reviewed proposals. Canadian design firm O2 Planning and Design Inc. was chosen by the community jury in July 2023<sup>2</sup>. On July 27, 2023, Metrolinx also hosted a community open house at the Jimmie Simpson Recreation Centre where residents learned more about the design competition, the winning designs and construction in the area<sup>3</sup>. Materials were also posted online and include presentation boards with O2's design renderings that detail the design strategy<sup>4</sup>, planting strategy and renderings of the Riverside-Leslieville Station Plaza<sup>5</sup>.

Elements from the design competition such as the retaining wall finishes, noise walls, bridge cladding/fascia and under bridge lighting are being completed as part of the LSE Joint Corridor Early Works construction, as outlined earlier in this report. Some

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<sup>1</sup> <https://www.metrolinx.com/en/projects-and-programs/ontario-line/community-meetings/lse-jc-clc>

<sup>2</sup> [https://assets.metrolinx.com/image/upload/v1690561966/Images/Metrolinx/Community\\_bulletin\\_LSE\\_design\\_competition\\_updated.pdf](https://assets.metrolinx.com/image/upload/v1690561966/Images/Metrolinx/Community_bulletin_LSE_design_competition_updated.pdf)

<sup>3</sup> <https://www.metrolinx.com/en/projects-and-programs/ontario-line/events/lakeshore-east-joint-corridor-open-house>

<sup>4</sup> [https://assets.metrolinx.com/image/upload/v1690481837/Images/Metrolinx/2022-01-04\\_O2\\_Metrolinx\\_PresentationBoards.pdf](https://assets.metrolinx.com/image/upload/v1690481837/Images/Metrolinx/2022-01-04_O2_Metrolinx_PresentationBoards.pdf)

<sup>5</sup> [https://assets.metrolinx.com/image/upload/v1690815044/Images/Metrolinx/2023.07.25\\_-\\_Plaza\\_Board.pdf](https://assets.metrolinx.com/image/upload/v1690815044/Images/Metrolinx/2023.07.25_-_Plaza_Board.pdf)

additional design work, including landscaping and station plazas, will be completed as part of future Ontario Line contracts, as determined by Metrolinx.

Figure 4a-4b below are mock ups of the retaining wall panels with winning designs from the design competition, which currently are being fabricated. Figure 4c-4f are examples of artist renderings, which are conceptual and subject to change in the final design as noted by Metrolinx.



**Figure 4a: Mock up of Joint Corridor retaining wall panels (Source: Metrolinx, March 21 Joint Corridor CLC)**



**Figure 4b: Fabrication of the Joint Corridor retaining wall system (Source: Metrolinx, March 21 Joint Corridor CLC)**





**Fig. 4c: Artist's rendering of the future retaining wall and noise barrier along the rail corridor in the Saulter Street Parkette. Additional park amenities pictured are conceptual. (Source: Metrolinx)**



**Fig. 4d: Artist's rendering of proposed future landscaping in Bruce Mackey Park to help conceal the visual impacts of the noise barriers and passing trains. (Source: Metrolinx)**



**Fig. 4e: Artist's rendering of the future Ontario Line Riverside-Leslieville Station. (Source: Metrolinx)**



**Fig. 4f: Artist's rendering of the noise barrier on Gerrard Street (Source: Metrolinx)**

## Construction Costs

Metrolinx has advised that the value of the Early Works contract awarded to Dufferin Construction is \$328 million and is fully funded by the Province. Within the contract, Metrolinx advised the cost specifically associated with the retaining wall construction (excluding existing retaining wall removals, grading and drainage) is approximately \$39 million, and approximately \$40 million for noise wall construction, for a total of \$79 million. Both these costs are exclusive of the treatments required for both the retaining and noise walls (custom form liner, etc.). The costs for the design competition elements in the LSE Joint Corridor Early Works is estimated to be an additional \$4.2 million on top of the \$79 million but is pending the final design. These costs are also funded fully by Metrolinx and the Province.

Metrolinx has also agreed to contribute \$170,000 in funds to deliver enhanced playground equipment at Jimmie Simpson Park as part of the Community Benefits delivered by the Ontario Line as noted in TE10.40.

## Next Steps

### *OL South Segments*

Major construction is underway for the southern portion of the Ontario Line, including utility relocations, excavation and demolition works, and works to prepare for delivery of new bridges along the LSE Joint Corridor. The construction to replace the old retaining walls and install noise barriers on the east side of the corridor will be complete by September 2024. Retaining and noise wall construction on the west side of the corridor is targeted to begin at the end of the year and be completed by January 2026.

### *OL North Segments*

Infrastructure Ontario (IO) and Metrolinx announced on January 17, 2024, that Pape North Connect was selected to deliver the Pape Tunnel and Underground Stations contract for the northern portion of the Ontario Line. The development phase for this segment is anticipated to take approximately two years to complete. To prepare and

facilitate for further development of the Ontario Line, construction around Pape Station such as demolition of buildings and vegetation began in February 2024<sup>6</sup>. By the end of March 2024, construction is expected to begin at Pape Station<sup>7</sup>.

### *OL Thorncliffe Drive Segments*

IO and Metrolinx selected Trillium Guideway Partners to deliver the Ontario Line Elevated Guideway and Stations contract On February 20, 2024. The development phase for this segment is expected to take approximately 20 months to complete. Once the design development phase is completed, Metrolinx will execute contracts for the delivery of the projects included in the OL Elevated Guideway and Stations contract. More details will be shared by Metrolinx on upcoming construction milestones for the Ontario Line once they are available. Metrolinx has agreed to continue to meet with all the CLCs on a monthly basis and keep the community informed of developments.

## **CONTACT**

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## **SIGNATURE**

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Derrick Toigo  
Executive Director, Transit Expansion Division

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<sup>6</sup> [https://assets.metrolinx.com/image/upload/v1710181994/Images/Metrolinx/Oline\\_-\\_Pape\\_Bus\\_Bay\\_Construction.pdf](https://assets.metrolinx.com/image/upload/v1710181994/Images/Metrolinx/Oline_-_Pape_Bus_Bay_Construction.pdf)

<sup>7</sup> <https://www.ttc.ca/riding-the-ttc/Updates/Pape-Station-construction>