

# Appendix B5

## Ontario Line Project

### Lower Don Bridge and Don Yard Early Works – Traffic and Transportation Early Works Report

Metrolinx

# Traffic and Transportation Early Works Report

## Ontario Line Lower Don Bridge and Don Yard Early Works

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**Project #:** 60611173

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# Executive Summary

## ES.1 Ontario Line Lower Don Bridge and Don Yard Early Works

The Ontario Line Project (the Project) is being assessed in accordance with Ontario Regulation 341/20: Ontario Line Project under the Environmental Assessment Act. Ontario Regulation 341/20: Ontario Line Project outlines a Project-specific environmental assessment process that includes an Environmental Conditions Report, Environmental Impact Assessment Report, and an opportunity for Early Works Report(s) for assessment of works that are ready to proceed in advance of the Environmental Impact Assessment Report. The Environmental Conditions Report documents the local environmental conditions of the Ontario Line Study Area and provides a preliminary description of the potential environmental impacts from the Project. Information outlined in the Environmental Conditions Report is used to inform the Early Works Report(s) and Environmental Impact Assessment Report, which study environmental impacts in further detail and confirm and refine preliminary mitigation measures identified in the Environmental Conditions Report.

Ontario Line early works are components of the Project that are proposed to proceed before the completion of the Ontario Line environmental impact assessment process. An overview of the Project is provided in **Section 1.2**. Early works are defined in Ontario Regulation 341/20: Ontario Line Project under the Environmental Assessment Act as follows:

“any components of the Ontario Line Project that Metrolinx proposes to proceed with before the completion of the Ontario Line assessment process, such as station construction, rail corridor expansion, utility relocation or bridge replacement or expansion.”

Lower Don Bridge and Don Yard early works are considered to be of strategic importance in enabling the timely implementation of the Project. The early works are being advanced where the Project interfaces with GO Expansion. Advancing early works and supporting environmental and technical studies in this area provides planning and design efficiencies for the Project and GO Expansion and facilitates the timely implementation of both.

AECOM Canada Limited (AECOM) was retained by Metrolinx and Infrastructure Ontario to complete the Ontario Line Final Lower Don Bridge and Don Yard Early Works Report for the Project. This Traffic and Transportation Early Works Report (this Report) supports the Ontario Line Final Lower Don Bridge and Don Yard Early Works Report

and has been prepared for the Project to document the traffic and transportation impact assessment of Lower Don Bridge and Don Yard early works (**Figure ES-1**).

The Lower Don Bridge and Don Yard early works will include:

- Construction of a new bridge north of the existing Lakeshore East rail corridor<sup>1</sup> bridge over the Lower Don River that will carry the Ontario Line tracks;
- Shift of the nearby Union Station and Lakeshore East rail corridor GO tracks, including tracks on the existing rail bridge, to accommodate Ontario Line infrastructure within the Union Station rail corridor<sup>2</sup> and Don Yard;
- Modifications to the existing Lakeshore East rail corridor bridge to accommodate Lakeshore East GO track shifts to accommodate Ontario line infrastructure; and
- Utility and signal infrastructure relocation or protection.

The Lower Don Bridge and Don Yard early works components and construction activities are further described in **Section 1.2**.

Active transportation access across the Lower Don River will be facilitated via a bridge that will provide a multi-use connection across the river. This bridge is not within the scope of these early works, and will be assessed as part of the Ontario Line Environmental Impact Assessment Report.

The purpose of this Report is to:

- Describe the local environmental conditions related to the identified transportation network and transit network within the Lower Don Bridge and Don Yard Study Area;
- Assess the potential impacts of Lower Don Bridge and Don Yard early works construction activities on the identified transportation network and transit network; and,
- Identify mitigation measures and monitoring activities for any potential negative impacts on traffic and transportation operations within the Lower Don Bridge and Don Yard Study Area.

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1. Lakeshore East rail corridor extends from the Lower Don River in the City of Toronto to the City of Oshawa.

2. Union Station Rail Corridor extends from approximately west of Bathurst Street to the Lower Don River in the City of Toronto.

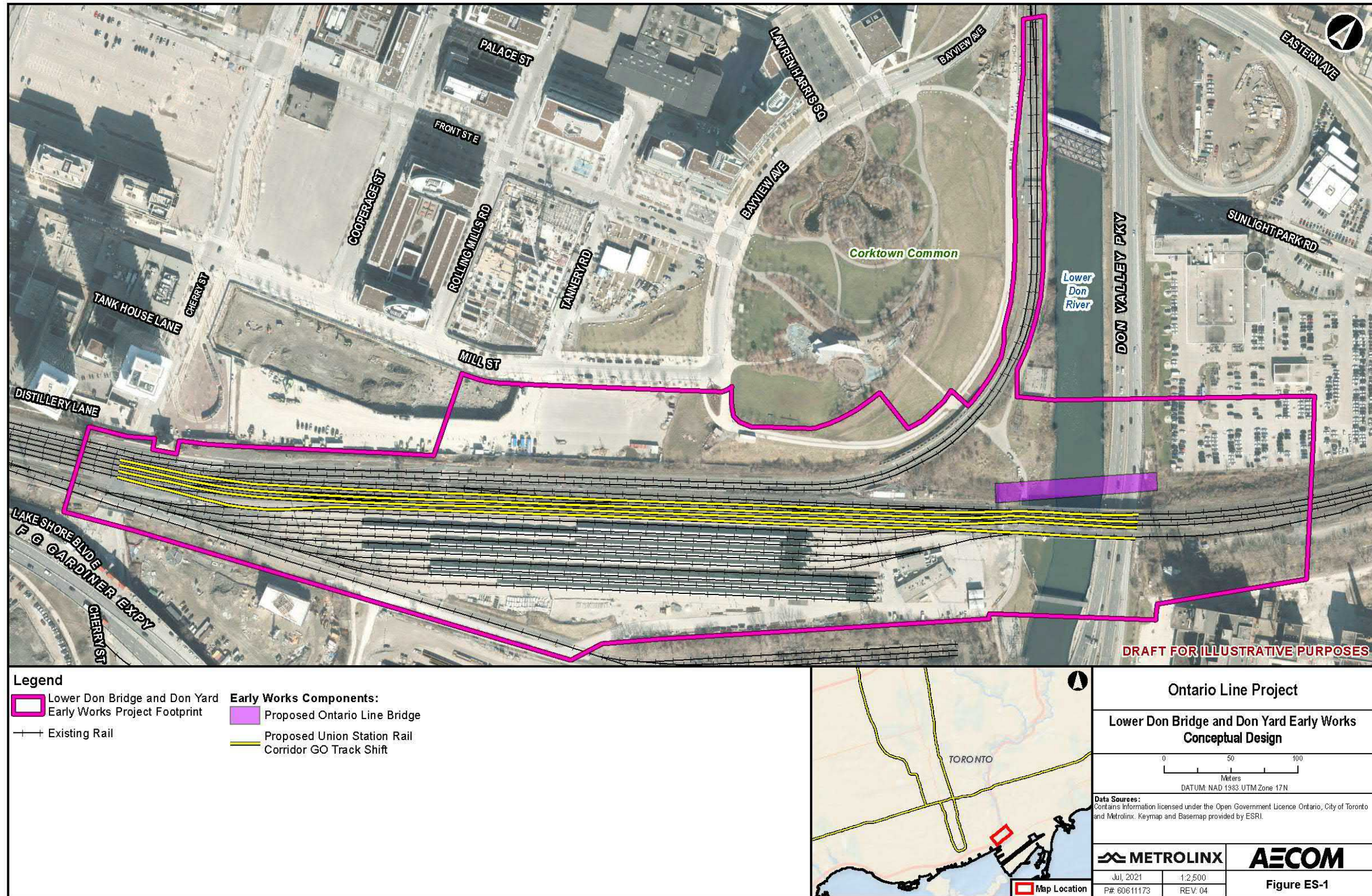
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Ontario Line Lower Don Bridge and Don Yard Early Works –Traffic and Transportation Early Works Report

This Report supports the Ontario Line Final Lower Don Bridge and Don Yard Early Works Report prepared in accordance with Ontario Regulation 341/20: Ontario Line Project.

Refer to **Section 1** of this Report for more information related to the Project and a detailed early works description.

Figure ES-1: Lower Don Bridge and Don Yard Early Works Conceptual Design





## **ES.2 Methodology**

This Report documents the assessment of Lower Don Bridge and Don Yard early works construction impacts related to traffic and transportation operations. Impacts associated with Project operations will be addressed as part of the Environmental Impact Assessment Report, under a separate cover. Detailed methodology is provided in **Section 1.3.3**.

### Local Environmental Conditions

The following traffic and transportation elements within the Lower Don Bridge and Don Yard Study Area were assessed:

- Transportation network:
  - Roads
  - Active Transportation
  - Rail
- Transit network.

The following secondary sources were used to conduct the background information review as part of the Ontario Line Final Environmental Conditions Report (AECOM, 2020)<sup>3</sup>:

- City of Toronto’s website:
  - Open Data Portal (City of Toronto, no date);
  - Road Classification System Update (City of Toronto, 2018); and
  - Vision Zero Mapping Tool (City of Toronto, 2020).
- Transit schedule and route information:
  - GO Transit (GO Transit, 2020);
  - VIA Rail (VIA Rail, 2020); and
  - Toronto Transit Commission schedules (Toronto Transit Commission, 2020).

The Ontario Line Final Environmental Conditions Report (AECOM, 2020) notes that turning movement counts and signal timing plans were not available at some intersections within the Ontario Line Study Area, and were not collected through new traffic surveys considering the uncharacteristic traffic conditions as a result of the COVID-19 pandemic. As a result of the data limitations related to the identified road

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3. The Ontario Line Final Environmental Conditions Report (AECOM, 2020) was published on November 30, 2020 in accordance with Ontario Regulation 341/20: Ontario Line Project.

network within the Lower Don Bridge and Don Yard Study Area, a quantitative level of service assessment is not included in this Report.

A quantitative impact assessment was not completed at this stage as the detailed construction staging schemes that describe the potential modifications to the existing transportation network were not available. Quantitative impact assessment will be completed, if required, as detailed design progresses and this information becomes available. The quantitative impact assessment may include a larger study area.

### Impact Assessment

This early works impact assessment and development of mitigation measures and monitoring activities considered the following in accordance with Ontario Regulation 341/20: Ontario Line Project under the Environmental Assessment Act:

- Lower Don Bridge and Don Yard early works components as described in **Section 1.3.1**;
- The Lower Don Bridge and Don Yard Early Works Project Footprint and Lower Don Bridge and Don Yard Study Area as described in **Section 1.3.2**;
- Lower Don Bridge and Don Yard construction activities as described in **Section 1.3.3**; and,
- Local environmental conditions within the Lower Don Bridge and Don Yard Study Area as described in **Section 3**.

### **ES.3 Local Environmental Conditions**

Existing elements of the transportation and transit networks within the Lower Don Bridge and Don Yard Study Area include:

- A north-south expressway (i.e., Don Valley Parkway), three north-south collector roads (i.e., Bayview Avenue, Cherry Street, and Don Roadway), an east-west expressway (i.e., Gardiner Expressway), an east-west arterial road (i.e., Lake Shore Boulevard East), and an east-west local road (i.e., Mill Street);
- Two major multi-use pathways (i.e., Lower Don Trail and Martin Goodman Trail), a minor multi-use pathway which connects the two major trails, as well as on-street bike lanes and sidewalks that run along Bayview Avenue, Mill Street, and Cherry Street;
- Metrolinx-owned rail tracks that service commuter trains operated by Metrolinx (i.e., Lakeshore East, Stouffville, and Richmond Hill GO lines) and VIA Rail (i.e., Toronto-Ottawa and Toronto-Montreal lines) and freight trains operated by Canadian National Railway and Canadian Pacific Railway; and

- Two bus routes operated by Toronto Transit Commission (i.e., bus routes #72 and #121) and the Richmond Hill GO bus service operated by Metrolinx.

Local environmental conditions are further described in **Section 3**.

#### **ES.4 Potential Impacts, Mitigation Measures and Monitoring Activities**

**Section 4** includes information related to potential impacts, mitigation measures, and monitoring activities for the Lower Don Bridge and Don Yard early works. Potential impacts may result from early works construction activities, including temporary closures and realignment of transportation network components (i.e., lanes, the Lower Don Trail, and rail tracks) and increased traffic within the Lower Don Bridge and Don Yard Study Area. Mitigation measures and monitoring activities are recommended to minimize the potential impacts during construction.

Refer to **Table ES-1** for a complete list of potential impacts, mitigation measures, and monitoring activities for the Lower Don Bridge and Don Yard early works.

#### **ES.5 Permits and Approvals**

**Section 5** notes that federal or provincial permits and approvals related to traffic and transportation are not required for the Lower Don Bridge and Don Yard early works. Metrolinx will co-ordinate with the City of Toronto for transportation-related permits and approvals (e.g., street occupation permit) prior to construction, as required.

**Table ES-1: Potential Impacts, Mitigation Measures and Monitoring Activities for the Lower Don Bridge and Don Yard Early Works**

| Environmental Component                               | Potential Impacts   | Mitigation Measure(s)   | Monitoring Activities  |
|---|---|---|--|
| <b>Transportation Network – Roads</b>                 | <ul style="list-style-type: none"> <li>■ If required, temporary lane closures along the Don Valley Parkway may result in impeding traffic flow and increased average delay of vehicles, including emergency vehicles.</li> <li>■ Construction vehicle traffic may impact traffic operations resulting in increased vehicular delays and queue lengths, especially at intersections where construction traffic is required to make left-turning movements (e.g., the intersection of Cherry Street and Lake Shore Boulevard East).</li> <li>■ Potential overlapping construction timelines with other planned projects (e.g., capital projects, local development, etc.) nearby may result in impacts to the transportation network and its road users.</li> </ul> | <ul style="list-style-type: none"> <li>■ A quantitative traffic impact assessment will be completed, if required, as project planning progresses to consider vehicular traffic impacts as a result of the Lower Don Bridge and Don Yard early works.</li> <li>■ Develop and implement a transit and traffic management plan(s), which could include temporary changes to intersection lane configurations, traffic signal timing optimization, modifications to existing signal timing plans, etc. The transit and traffic management plan(s) will also address specific emergency services requirements in consultation with the City of Toronto.</li> <li>■ Traffic signal timing optimization may be assessed/implemented to increase capacity of affected intersections and to aid in the movement of traffic. Traffic signal timing adjustments would require coordination between Metrolinx and City of Toronto, and will be undertaken if required, to determine appropriate changes to traffic signal timings.</li> <li>■ Consider scheduling construction activities during off-peak periods and weekends to minimize disruptions to road users during the critical peak periods.</li> <li>■ Co-ordinate with the City of Toronto regarding other ongoing construction projects when scheduling the early works activities to maintain the mobility of road users</li> </ul> | <ul style="list-style-type: none"> <li>■ The effectiveness of the transit and traffic management plan(s) will be monitored throughout the construction period and adjustments will be made based on actual field observations, as needed.</li> </ul>   |
| <b>Transportation Network – Active Transportation</b> | <ul style="list-style-type: none"> <li>■ Temporary closure of the Lower Don Trail underneath and/or in proximity to the rail corridor may be required. This would result in temporary discontinuation of the Lower Don Trail which may impact the convenience of pedestrians and cyclists and disrupt trail connectivity.</li> </ul>  | <ul style="list-style-type: none"> <li>■ Ensure that appropriate signage and notifications are provided to direct pedestrians and cyclists around the closed section of the Lower Don Trail. The potential detour routes include the Corktown Common Trail and the sidewalks and bike lanes along Bayview Avenue, Mill Street, and Cherry Street.</li> <li>■ Reduce interference with pedestrians and cyclists. This may include fencing, hoarding, shared-lane markings, signals, wayfinding signs, and lighting as required to provide pedestrians and cyclists with safe, accessible, and continuous routes.</li> <li>■ If required, co-ordinate with the City of Toronto to ensure any modifications to pedestrian crossing distances at signalized intersections are reflected in revised pedestrian clearance timings.</li> <li>■ Any temporary pedestrian facilities including temporary or relocated Toronto Transit Commission transit stops will be designed to meet Toronto Transit Commission accessibility standards.</li> <li>■ Implement flagging where construction vehicles are present to ensure construction vehicle operators are aware of pedestrian and vehicular traffic within the construction area.</li> </ul>  | <ul style="list-style-type: none"> <li>■ The effectiveness of the transit and traffic management plan(s) will be monitored throughout the construction period and adjustments will be made based on actual field observations, as needed.</li> </ul>   |
| <b>Transportation Network – Rail</b>                  | <ul style="list-style-type: none"> <li>■ Early works construction may require temporary full or partial closure of existing rail tracks, which may disrupt existing commuter and freight rail operations.</li> <li>■ Partial or full closures and/or modification of the train storage tracks at the Don Yard as required. The extent of track closures is dependent on the type of equipment used and construction sequencing.</li> </ul>  | <ul style="list-style-type: none"> <li>■ Consult with rail operators with current service along the rail corridor (i.e., VIA Rail, Canadian National Railway, and Canadian Pacific Railway) to assess how track closures would impact their service and co-ordinate temporary schedules to accommodate all rail services on the open tracks.</li> </ul>   | <ul style="list-style-type: none"> <li>■ The effectiveness of the transit and traffic management plan(s) will be monitored throughout the construction period. Adjustments to the construction staging plans and transit and traffic management plan(s) will be made based on actual field observations, as needed.</li> </ul> |
| <b>Transit Network</b>                                | <ul style="list-style-type: none"> <li>■ Potential increase of construction vehicles traffic, specifically at the intersection of Cherry Street and Lake Shore Boulevard East, could result in travel time delays to existing surface transit routes (i.e., Toronto Transit Commission bus route #72 Pape and #121 Fort York-Esplanade) that pass through the intersection.</li> <li>■ Potential temporary lane restrictions on the Don Valley Parkway, could result in travel time delays to GO Bus #61 travelling within the Lower Don Bridge and Don Yard Study Area.</li> </ul>   | <ul style="list-style-type: none"> <li>■ Co-ordinate with local transit operators and notify transit users regarding travel delays to the bus services in advance.</li> <li>■ Consider scheduling construction activities during off-peak periods and weekends to minimize delays to bus services during the critical peak periods.</li> </ul>  | <ul style="list-style-type: none"> <li>■ Transit services will be monitored through actual field observations throughout the construction period and additional mitigation measures will be considered, as needed.</li> </ul>  |

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# 1. Introduction

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## 1.1 Purpose of the Ontario Line Early Works

The Ontario Line Project (the Project) is being assessed in accordance with Ontario Regulation 341/20: Ontario Line Project under the Environmental Assessment Act. Ontario Regulation 341/20: Ontario Line Project outlines a Project-specific environmental assessment process that includes an Environmental Conditions Report, Environmental Impact Assessment Report, and an opportunity for Early Works Report(s) for assessment of works that are ready to proceed in advance of the Environmental Impact Assessment Report. The Environmental Conditions Report documents the local environmental conditions of the Ontario Line Study Area and provides a preliminary description of the potential environmental impacts from the Project. Information outlined in the Environmental Conditions Report is used to inform the Early Works Report(s) and Environmental Impact Assessment Report, which study environmental impacts in further detail and confirm and refine preliminary mitigation measures identified in the Environmental Conditions Report.

Ontario Line early works are components of the Project that are proposed to proceed before the completion of the Ontario Line environmental impact assessment process. An overview of the Project is provided in **Section 1.2**. Early works are defined in Ontario Regulation: 341/20: Ontario Line Project under the Environmental Assessment Act as follows:

“any components of the Ontario Line Project that Metrolinx proposes to proceed with before the completion of the Ontario Line assessment process, such as station construction, rail corridor expansion, utility relocation or bridge replacement or expansion.”

Lower Don Bridge and Don Yard early works are considered to be of strategic importance in enabling the timely implementation of the Project. The early works are being advanced where the Project interfaces with GO Expansion. Advancing early works and supporting environmental and technical studies in this area provides planning and design efficiencies for the Project and GO Expansion and facilitates the timely implementation of both.

Lower Don Bridge and Don Yard early works are described in detail in **Section 1.2**.

### 1.1.1 Purpose of this Report

AECOM Canada Limited (AECOM) was retained by Metrolinx and Infrastructure Ontario to complete the Ontario Line Lower Don Bridge and Don Yard Early Works Report for the Project. This Traffic and Transportation Early Works Report (this Report) supports the Ontario Line Final Lower Don Bridge and Don Yard Early Works Report and has been prepared for the Project to document the traffic and transportation impact assessment of Lower Don Bridge and Don Yard early works (**Figure 1-1**). The early works components and construction activities are described in **Section 1.2**.

The purpose of this Report is to:

- Describe the local environmental conditions related to the identified transportation network and transit network within the Lower Don Bridge and Don Yard Study Area;
- Assess the potential impacts of Lower Don Bridge and Don Yard early works construction activities on the identified transportation network and transit network; and
- Identify mitigation measures and monitoring activities for any potential negative impacts on traffic and transportation operations within the Lower Don Bridge and Don Yard Study Area.

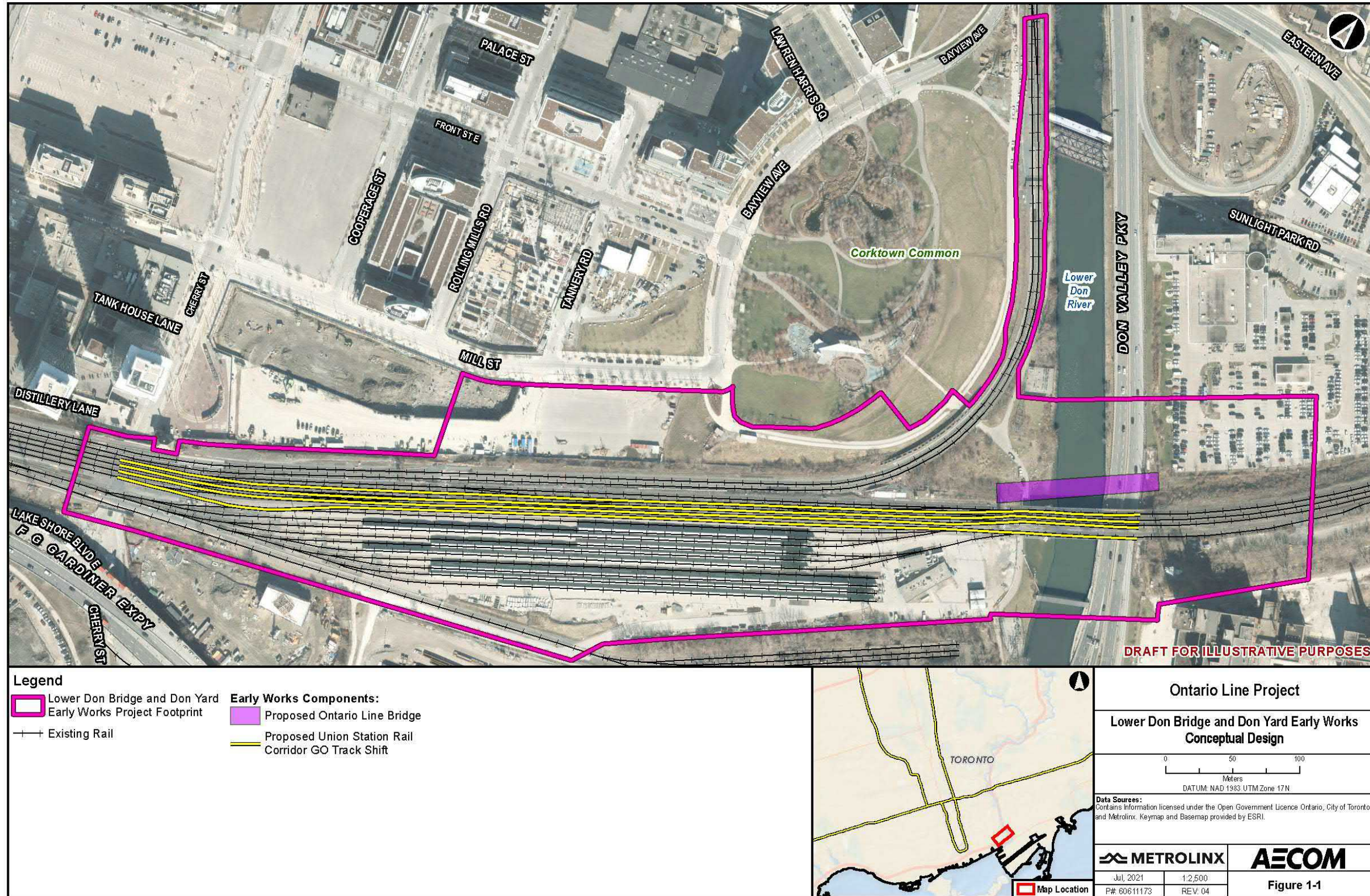
This Report has been prepared in accordance with Ontario Regulation 341/20: Ontario Line Project and contains the information outlined in **Table 1-1**.

**Table 1-1: Report Contents in Accordance with Ontario Regulation 341/20: Ontario Line Project**

| <b>Reg. Section</b> | <b>Requirement</b>   | <b>Report Section</b> |
|---------------------|--|-----------------------|
| Section 8(2)2       | The rationale for proceeding with the early works.   | <b>Section 1.1</b>    |
| Section 8(2)4       | A description of the local environmental conditions at the site of the early works.  | <b>Section 3</b>      |
| Section 8(2)6       | Metrolinx’s assessment and evaluation of the impacts that the preferred method of carrying out the early works and other methods might have on the environment, and Metrolinx’s criteria for assessment and evaluation of those impacts. | <b>Section 4</b>      |
| Section 8(2)7       | A description of any measures proposed by Metrolinx for mitigating any negative impacts that the preferred method of carrying out the early works might have on the environment.   | <b>Section 4</b>      |
| Section 8(2)8       | A description of the means Metrolinx proposes to use to monitor or verify the effectiveness of mitigation measures proposed.   | <b>Section 4</b>      |
| Section 8(2)9       | A description of any municipal, provincial, federal or other approvals or permits that may be required for the early works.  | <b>Section 5</b>      |



Figure 1-1: Lower Don Bridge and Don Yard Early Works Conceptual Design



## 1.2 Ontario Line Project Overview

Metrolinx, an agency of the Province of Ontario, is proceeding with the planning and development of the Ontario Line, extending from Exhibition/Ontario Place to the Ontario Science Centre in the City of Toronto.

The Project is a new approximately 15.6-kilometre subway line with connections to Line 1 (Yonge-University) subway service at Osgoode and Queen Stations, Line 2 (Bloor-Danforth) subway service at Pape Station, and Line 5 (Eglinton Crosstown) light rail transit service at the future Science Centre Station. Fifteen stations are proposed, with additional connections to three GO Transit lines (Lakeshore East, Lakeshore West and Stouffville), and the Queen, King, Bathurst, Spadina, Harbourfront, and Gerrard/Carlton streetcar routes. The Project will reduce crowding on Line 1 and provide connections to new high-order rapid transit neighbourhoods. The Project will be constructed in a dedicated right-of-way with a combination of elevated (i.e., above existing rail corridor/roadway), tunnelled (i.e., underground), and at-grade (i.e., at grade with existing rail corridor) segments at various locations.

## 1.3 Early Works Description

### 1.3.1 Project Description

The Lower Don Bridge and Don Yard early works will include:

- construction of a new bridge north of the existing Lakeshore East rail corridor<sup>4</sup> bridge over the Lower Don River that will carry the Ontario Line tracks;
- shift of the nearby Union Station and Lakeshore East rail corridor GO tracks, including tracks on the existing rail bridge, to accommodate Ontario Line infrastructure within the Union Station rail corridor<sup>5</sup> and Don Yard;
- modifications to the existing Lakeshore East rail corridor bridge to accommodate Lakeshore East GO track shifts to accommodate Ontario line infrastructure; and
- utility and signal infrastructure relocation or protection.

The Lower Don Bridge and Don Yard early works components are shown in **Figure 1-1**.

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4. Lakeshore East rail corridor extends from the Lower Don River in the City of Toronto to the City of Oshawa.

5. Union Station Rail Corridor extends from approximately west of Bathurst Street to the Lower Don River in the City of Toronto.

Active transportation access across the Lower Don River will be facilitated via a bridge that will provide a multi-use connection across the river. This bridge is not within the scope of these early works, and will be assessed as part of the Ontario Line Environmental Impact Assessment Report.

Rail corridor and third-party utility relocations and protection will be completed to facilitate the work described above as well as the future Ontario Line tunnel facilities. Utilities to be relocated include, but are not limited to, Bell 360 and existing Canadian National/GO signal underground fibre optic cables.

### **1.3.2 Early Works Project Footprint and Study Area**

The Lower Don Bridge and Don Yard Early Works Project Footprint, shown in **Figure 1-2**, is defined as the area of direct disturbance associated with the early works construction activities, including anticipated required construction staging and laydown areas<sup>6</sup> and construction access. Construction is anticipated to occur primarily within the existing Metrolinx right-of-way. The extent of lands anticipated to be temporarily impacted by construction staging/laydown and access will continue to be refined and reduced to the extent feasible as project planning progresses.

The Lower Don Bridge and Don Yard Early Works Project Footprint extends from approximately 150 metres east of the Don Valley Parkway in the east to approximately 400 metres west of the Lower Don River in the west, and from south of Eastern Avenue along the Richmond Hill rail corridor in to approximately 100 metres south of the Lakeshore East rail corridor.

For the purpose of this Report, the Lower Don Bridge and Don Yard Study Area, also shown in **Figure 1-2**, includes the Lower Don Bridge and Don Yard Early Works Project Footprint and adjacent road segments and intersections. The adjacent road segments and intersections within the Lower Don Bridge and Don Yard Study Area were identified as they meet either of the following criteria:

- Directly impacted by the early works activities within the Lower Don Bridge and Don Yard Early Works Project Footprint (i.e., construction of one new rail bridge over the Lower Don River is anticipated to result in potential lane closures along Don Valley Parkway and the designation of Mill Street and Cherry Street as active transportation detour routes); or,
- Provide connection to the Lower Don Bridge and Don Yard Project Footprint (i.e., Lake Shore Boulevard East, Cherry Street, Bayview Avenue, and Don Roadway) and therefore may be considered as a route for construction vehicles.

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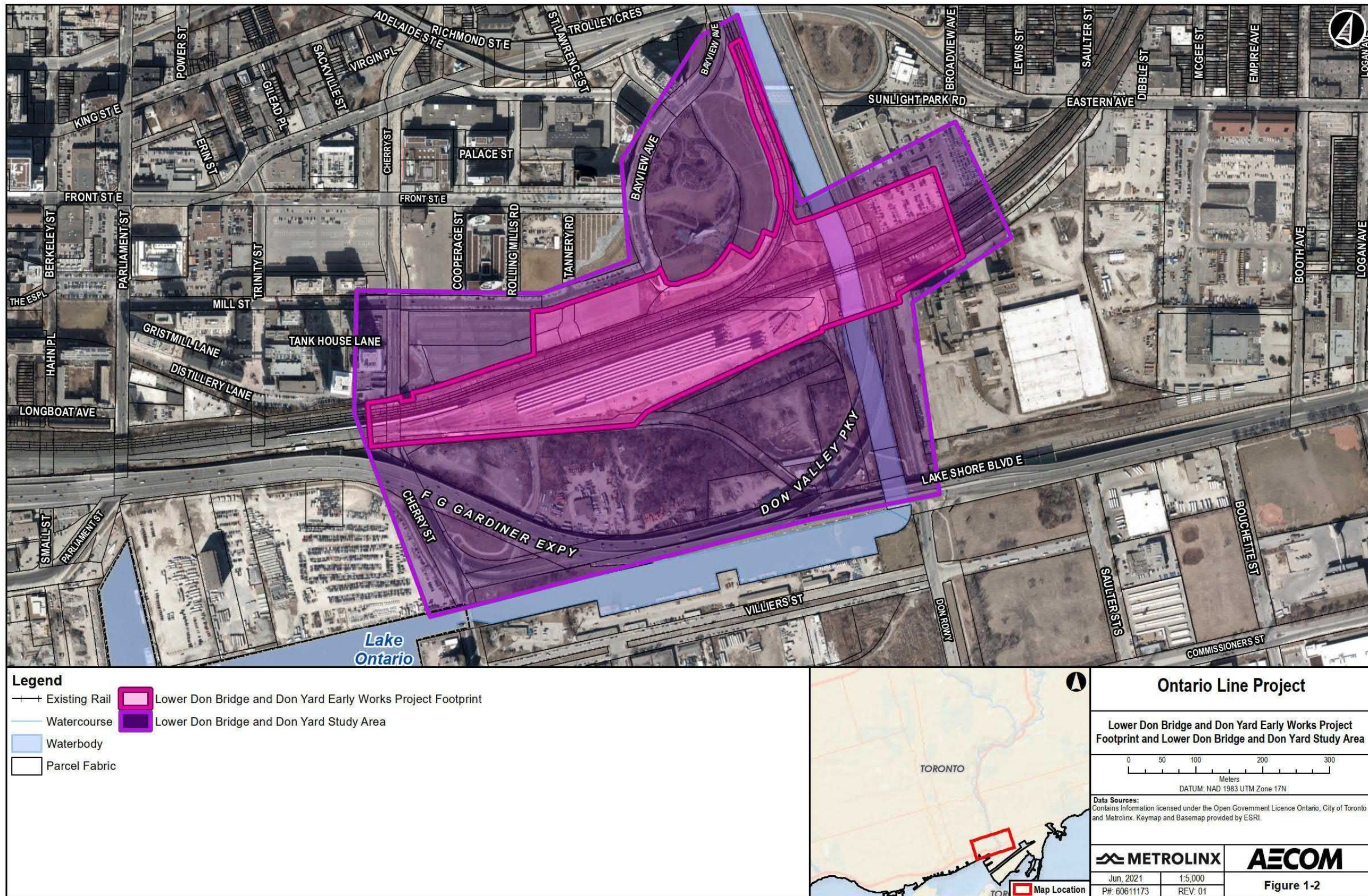
6. Staging and laydown areas are areas for the temporary storage of construction equipment and materials.

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Ontario Line Lower Don Bridge and Don Yard Early Works –Traffic and Transportation Early Works Report

The Lower Don Bridge and Don Yard Study Area assessed in this Report is specific to the traffic and transportation impact assessment. The study areas for other environmental disciplines are outlined in the Ontario Line Final Lower Don Bridge and Don Yard Early Works Report.

Figure 1-2: Lower Don Bridge and Don Yard Early Works Project Footprint and Lower Don Bridge and Don Yard Study Area



### **1.3.3 Construction Activities**

**Table 1-2** provides a description of the anticipated construction activities for the Lower Don Bridge and Don Yard early works. These typical activities serve as the basis for the assessment of construction-related potential environmental impacts. These activities may be expanded, further refined, or found to be unnecessary as the Project progresses through detailed design and construction.

**Table 1-2: Anticipated Construction Activities for the Ontario Line Lower Don Bridge and Don Yard Early Works**

| Anticipated Construction Activity             | Description   | Associated Equipment  |
|---|---|---|
| <b>Site Preparation</b>                       | <ul style="list-style-type: none"> <li>■ Mobilization of equipment and temporary facilities to the site.</li> <li>■ Clearing and grubbing of vegetation, tree removal and protection.</li> <li>■ Erection of temporary and permanent fences.</li> <li>■ Installation of environmental management features (e.g., erosion and sediment controls).</li> <li>■ Dewatering works.</li> </ul>  | <ul style="list-style-type: none"> <li>■ Site compaction equipment and grading equipment.</li> <li>■ Vegetation removal equipment.</li> <li>■ Excavation equipment.</li> <li>■ Haulage/dump trucks.</li> </ul>  |
| <b>Site Servicing / Removals / Demolition</b> | <ul style="list-style-type: none"> <li>■ Relocation and/or extension of services and utilities on the site; which may include both underground and aerial services and utilities (e.g., sewers, water, electrical, communications, gas). This may also involve installation of utilities within the site. Includes utilities on the rail corridor and off the rail corridor.</li> <li>■ Demolition and removal of Metrolinx owned buildings in Don Yard.</li> <li>■ Removal and reinstatement of railway track.</li> </ul>  | <ul style="list-style-type: none"> <li>■ Excavation equipment including backhoe, dump trucks, spoil removal equipment, jackhammers.</li> <li>■ Track stabilizer.</li> <li>■ Hand tools.</li> <li>■ Mobile crane.</li> <li>■ Flatbed trucks.</li> <li>■ Boom truck.</li> <li>■ Spreader for track work.</li> </ul> |
| <b>Excavating and Grading</b>                 | <ul style="list-style-type: none"> <li>■ Excavation and grading activities may involve earth-moving activities and stockpiling, as applicable. Excavated material will be accommodated on-site on the degree practicable; however, where necessary, surplus material will be disposed of off-site at an approved facility.</li> <li>■ Any off-site disposal shall be done in compliance with applicable regulations, including as it relates to contaminated material that may be encountered.</li> <li>■ Any groundwater encountered will be managed and disposed of in accordance with applicable regulations.</li> </ul> | <ul style="list-style-type: none"> <li>■ Site compaction equipment and general grading equipment, dump trucks, soil removal equipment.</li> <li>■ Groundwater pumping equipment.</li> <li>■ Excavation equipment including backhoe, dump trucks, soil removal equipment, jack hammers.</li> </ul>                 |

| Anticipated Construction Activity                                      | Description   | Associated Equipment   |
|--|---|--|
| <p><b>Construction, Rehabilitation and/or Alteration of Bridge</b></p> | <ul style="list-style-type: none"> <li>■ All structures will be constructed using standard civil construction techniques.</li> <li>■ In-water works/works below high-water mark may be required.</li> <li>■ Includes grounding and bonding.</li> <li>■ Pile installation, foundations, abutments, retaining walls, bridge girders, decking, backfilling, concrete demolition.</li> <li>■ Driving / Installing Rock Bolts.</li> <li>■ Compaction / Backfilling / Grading.</li> </ul> | <ul style="list-style-type: none"> <li>■ Foundation placement equipment.</li> <li>■ Augured piles or rammed aggregate piers.</li> <li>■ Drill rigs.</li> <li>■ Mobile cranes and hoists.</li> <li>■ Concrete trucks, pumps and vibrators.</li> <li>■ Mobile cranes and hoists.</li> <li>■ Flatbed trucks, cranes.</li> <li>■ Augured piles or rammed aggregate piers.</li> <li>■ Drill rigs.</li> <li>■ Bulldozer and excavator.</li> <li>■ Jackhammer.</li> <li>■ Front End Loaders.</li> <li>■ Triaxles Dump Trucks.</li> <li>■ Concrete Trucks.</li> <li>■ Rock Bolt Equipment.</li> <li>■ Hydrovac Equipment.</li> </ul> |
| <p><b>Construction of Ancillary Facilities</b></p>                     | <ul style="list-style-type: none"> <li>■ Ancillary facilities may include electrical transformer/supply equipment.</li> </ul>   | <ul style="list-style-type: none"> <li>■ Flatbed trucks, cranes, concrete trucks.</li> <li>■ Backhoe, pavement excavation equipment.</li> <li>■ Mobile cranes and hoists.</li> <li>■ Concrete trucks, pumps and vibrators, skid steer.</li> <li>■ Office trailers, generators, temporary hygienic facilities.</li> </ul>   |
| <p><b>Temporary Track Diversion / Permanent Track Shifts</b></p>       | <ul style="list-style-type: none"> <li>■ Grading.</li> <li>■ Temporary drainage.</li> <li>■ Relocation/installation of tracks, as required.</li> <li>■ Temporary relocation of signals, as required.</li> <li>■ Clear delineation and protection between active rail service and construction work zones.</li> <li>■ Provision of GO signal overhead bridge support/protection and temporary GO ballast track protection.</li> </ul>  | <ul style="list-style-type: none"> <li>■ Site compaction equipment and general grading equipment, dump trucks, spoil removal equipment.</li> <li>■ Thermal welding.</li> <li>■ Tie placement (cranes, lifting equipment).</li> <li>■ Ballast placement equipment.</li> <li>■ Temporary concrete barriers.</li> <li>■ Surfacing Equipment, Stabilizers, Tampers</li> </ul>  |



| <b>Anticipated Construction Activity</b>                     | <b>Description</b>  | <b>Associated Equipment</b>   |
|--|---|---|
| <p><b>Temporary Road / Trail/Multi-Use Path Closures</b></p> | <ul style="list-style-type: none"> <li>■ Temporary road/trail/multi-use path closures, as required.</li> </ul>  | <ul style="list-style-type: none"> <li>■ Temporary traffic control devices such as signs, signals, barriers, traffic barrels, plate tampers.</li> </ul> |
| <p><b>Management of Stormwater</b></p>                       | <ul style="list-style-type: none"> <li>■ All precipitation falling within the site will be managed as stormwater within a designed system of collection, conveyance, retention and discharge features. The system will be designed and operated in compliance with applicable standards and regulatory requirements. Surface flows within the site will be managed within the site to ensure discharge to off-site receivers (i.e., municipal storm sewers) is appropriate in terms of water quantity and quality.</li> </ul> | <ul style="list-style-type: none"> <li>■ Site compaction equipment and general grading equipment.</li> <li>■ Groundwater pumping.</li> </ul>            |

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## 2. Methodology

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This Report documents the assessment of Lower Don Bridge and Don Yard early works construction impacts. Impacts associated with Project operations will be addressed as part of the Environmental Impact Assessment Report, under a separate cover.

### 2.1 Local Environmental Conditions

The following traffic and transportation elements within the Lower Don Bridge and Don Yard Study Area were assessed:

- Transportation network:
  - Roads
  - Active Transportation
  - Rail
- Transit network.

The types and sources of traffic data collected for the above-noted transportation elements are summarized in **Section 2.1.1**.

Background information and documentation relevant to the Lower Don Bridge and Don Yard Study Area is contained within the Ontario Line Final Environmental Conditions Report (AECOM, 2020)<sup>7</sup> prepared for the Project and was reviewed prior to commencing the traffic and transportation assessment within this Report. Desktop resources were reviewed to qualitatively determine the potential impacts on the transportation and transit networks from proposed construction activities related to the early works, which included:

- Review of City of Toronto's Open Data Portal (City of Toronto, n.d.) to obtain mapping data related to roads, pedestrian and cyclist routes related to the Lower Don Bridge and Don Yard Study Area;
- Review of City of Toronto's Road Classification System Update (City of Toronto, 2018) and Vision Zero Mapping Tool (City of Toronto, 2020) to obtain road classification and speed information related to roads within the Lower Don Bridge and Don Yard Study Area; and,

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<sup>7</sup> The Ontario Line Final Environmental Conditions Report (AECOM, 2020) was published on November 30, 2020 in accordance with Ontario Regulation 341/20: Ontario Line Project.

- Review of the GO Transit website (GO Transit, 2020), VIA Rail website (VIA Rail, 2020), and Toronto Transit Commission website (Toronto Transit Commission, 2020) to obtain transit schedule and route data related to the Lower Don Bridge and Don Yard Study Area.

The Ontario Line Final Environmental Conditions Report (AECOM, 2020) notes that turning movement counts and signal timing plans were not available at some intersections within the Ontario Line Study Area, and were not collected through new traffic surveys considering the uncharacteristic traffic conditions as a result of the COVID-19 pandemic. As a result of the data limitations related to the identified road network within the Lower Don Bridge and Don Yard Study Area, a quantitative level of service assessment is not included in this Report.

## **2.2 Impact Assessment**

The early works impact assessment and development of mitigation measures and monitoring activities considered the following:

- Lower Don Bridge and Don Yard early works components as described in **Section 1.3.1**;
- The Lower Don Bridge and Don Yard Early Works Project Footprint and Lower Don Bridge Study Area as described in **Section 1.3.2**;
- Lower Don Bridge and Don Yard construction activities as described in **Section 1.3.3**; and,
- Local environmental conditions within the Lower Don Bridge and Don Yard Study Area as described in **Section 3**.

Mitigation measures and monitoring activities have been recommended for each of the transportation and transit network components within the Lower Don Bridge and Don Yard Study Area. The results of the impact assessment are provided in **Section 4**.

A quantitative impact assessment was not completed at this stage as the detailed construction staging schemes that describe the potential modifications to the existing transportation network were not available. Quantitative impact assessment will be completed, if required, as planning progresses and this information becomes available. The quantitative impact assessment may include larger study area. Prior to construction, Transit and Traffic Management Plan(s) shall be developed to provide more specific mitigation measures and monitoring activities. Transit and Traffic Management Plan(s) will outline the potential haul routes, staging and laydown areas, construction access, and road closures and potential detour routes.

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## 3. Local Environmental Conditions

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### 3.1 Transportation Network

#### 3.1.1 Roads

An overview of the roads located within the Lower Don Bridge and Don Yard Study Area is described below. All the described roads are under the jurisdiction of the City of Toronto and are classified according to the City of Toronto's Road Classification System Update (City of Toronto, 2018). As part of the City of Toronto's Vision Zero strategy, the City has been implementing speed reductions for several streets within the City (City of Toronto, 2020). Posted speed reductions that have already been implemented on the roads located within the Lower Don Bridge and Don Yard Study Area, if any, are reflected in the description below.

**Gardiner Expressway** is an east-west expressway running immediately south of the rail tracks with an eight-lane cross-section and a posted speed of 90 kilometres per hour. Gardiner Expressway provides a connection from/to Don Valley Parkway and Lake Shore Boulevard.

**Don Valley Parkway** is a north-south expressway with a six-lane cross-section under the rail bridge and a posted speed of 90 kilometres per hour.

**Lake Shore Boulevard East** is an east-west major arterial road with a six-lane cross-section and a posted speed of 60 kilometres per hour.

**Bayview Avenue** is a north-south collector road with a two-lane cross-section and a posted speed of 40 kilometres per hour.

**Cherry Street** is a north-south collector road with a two-lane cross-section and a posted speed of 40 kilometres per hour north of Lake Shore Boulevard East. Cherry Street intersects with Lake Shore Boulevard East at two locations. At the south intersection with Lake Shore Boulevard East, Cherry Street branches off in the northeast direction as a service road to the Don Yard.

**Don Roadway** is a north-south collector road with a four-lane cross-section. It extends between Commissioners Street and the Don Valley Parkway and has a posted speed of 50 kilometres per hour.

**Mill Street** is an east-west local road with a two-lane cross-section and a posted speed of 30 kilometres per hour.

### **3.1.2 Active Transportation**

Pedestrians and cyclists are accommodated through major multi-use pathways<sup>8</sup> provided along the Lower Don Trail and the Martin Goodman Trail and through a minor multi-use pathway which passes across the intersection of Lake Shore Boulevard East and Cherry Street and connects both trails. In addition, the Mill Street, Cherry Street, and Bayview Avenue sections within the Lower Don Bridge and Don Yard Study Area provide pedestrians and cyclists with sidewalks and on-street bike lanes that run along both sides of the roads.

**Figure 3-1** and **Figure 3-2** illustrate the location and type of pedestrian and cycling facilities provided within the Lower Don Bridge and Don Yard Study Area, respectively.

### **3.1.3 Rail**

There are multiple existing rail tracks within the Lower Don Bridge and Don Yard Study Area. These rail tracks are owned by Metrolinx and currently service the following commuter train lines:

- Lakeshore East, Stouffville, and Richmond Hill GO lines; and
- VIA Rail Toronto-Ottawa and Toronto-Montreal lines.

The identified commuter train routes are further described in **Section 3.2**. Canadian National Railway and Canadian Pacific Railway freight trains also operate on these rail tracks.

Metrolinx's Don Yard, located west of the Don River, is within the Lower Don Bridge and Don Yard Study Area. Don Yard provides train storage capacity in proximity to Union Station and currently has 10 tracks.

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8. Major multi-use pathways connect different parts of the city and collect traffic from minor pathways. Minor multi-use pathways are local connections. (City of Toronto, 2020).

Figure 3-1: Existing Pedestrian Network Within the Lower Don Bridge and Don Yard Study Area

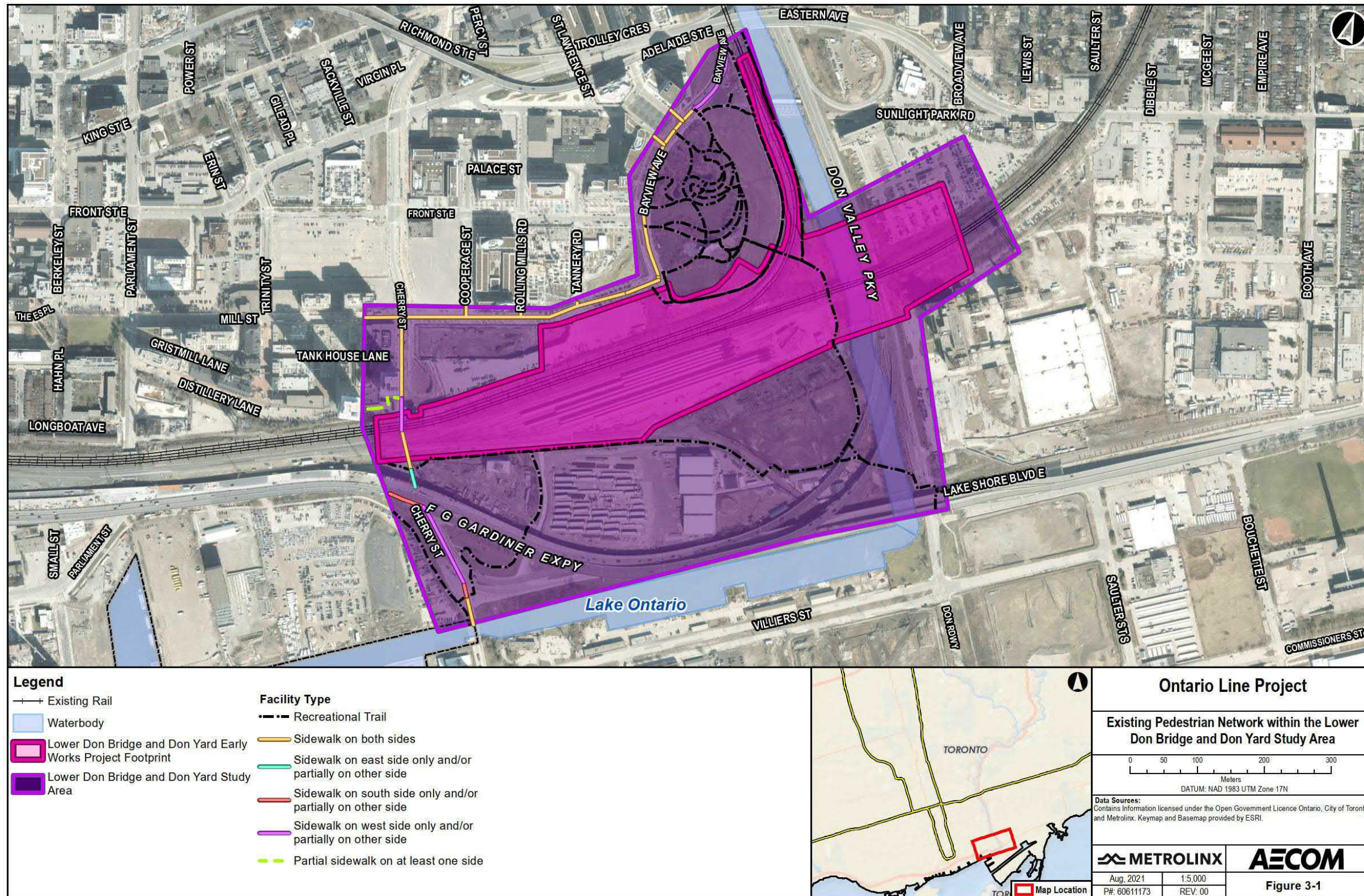
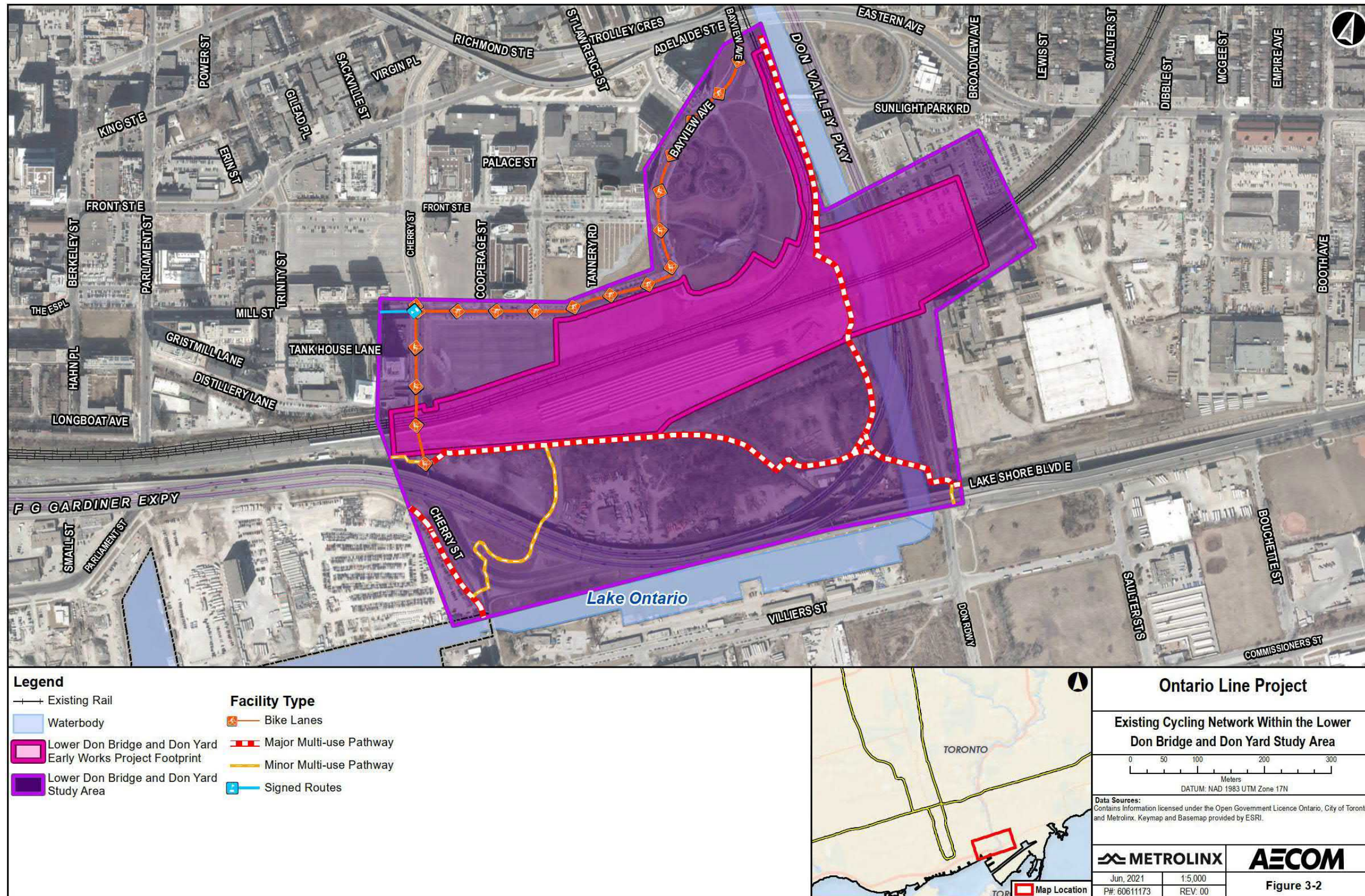


Figure 3-2: Existing Cycling Network Within the Lower Don Bridge and Don Yard Study Area



## 3.2 Transit Network

The existing transit routes that operate within the Lower Don Bridge and Don Yard Study Area are summarized in **Table 3-1** and illustrated in **Figure 3-3**. All transit routes described in **Table 3-1** are operated by the Toronto Transit Commission, with the exception of the Lakeshore East, Stouffville, and Richmond Hill GO lines operated by Metrolinx and the Toronto-Ottawa and Toronto-Montreal lines operated by VIA Rail.

The service headways provided in **Table 3-1** represent the hours of peak transit service within the AM peak period (6:00 AM to 9:00 AM) and PM peak period (4:00 AM to 7:00 PM). Off-peak transit services are generally less frequent than AM and PM peak period services; therefore, only AM and PM peak period service headways are provided in **Table 3-1** to represent the maximum transit service that could be impacted by construction to form the transit impact assessment.

**Table 3-1: Existing Transit Routes Within the Lower Don Bridge and Don Yard Study Area**

| Route Number – Name and Description  | Service Headway during Peak Periods  |
|--|--|
| <p><b>Lakeshore East GO</b> line operates between Union Station in Toronto and Oshawa GO Station in Oshawa, generally in an east-west direction. The train service operates seven days a week between 5 AM and 2 AM. The line does not have any designated stops at the rail tracks section within the Lower Don Bridge and Don Yard Study Area, but the eastbound and westbound trains pass through the noted rail tracks section shortly after each scheduled departure from Union Station and shortly before each scheduled arrival at Union Station.</p>   | <p>15-minute for the peak direction (i.e., westbound in the AM peak hour and eastbound in the PM peak hour)<br/>30-minute for the non-peak direction</p>   |
| <p><b>Stouffville GO</b> line operates between Union Station in Toronto and Lincolnville GO Station in Whitchurch-Stouffville, generally in a north-south direction. The train service operates seven days a week between 9 AM and 7 PM. A bus service complements the train service by operating from 5 AM to 9 AM and from 7 PM to 2 AM. The Line does not have any designated stops at the rail tracks section within the Lower Don Bridge and Don Yard Study Area, but the eastbound and westbound trains pass through the noted rail tracks section shortly after each scheduled departure from Union Station and shortly before each scheduled arrival at Union Station.</p> | <p>30-minute for the peak direction (i.e., southbound in the AM peak hour and northbound in the PM peak hour)<br/>60-minute for the non-peak direction</p> |

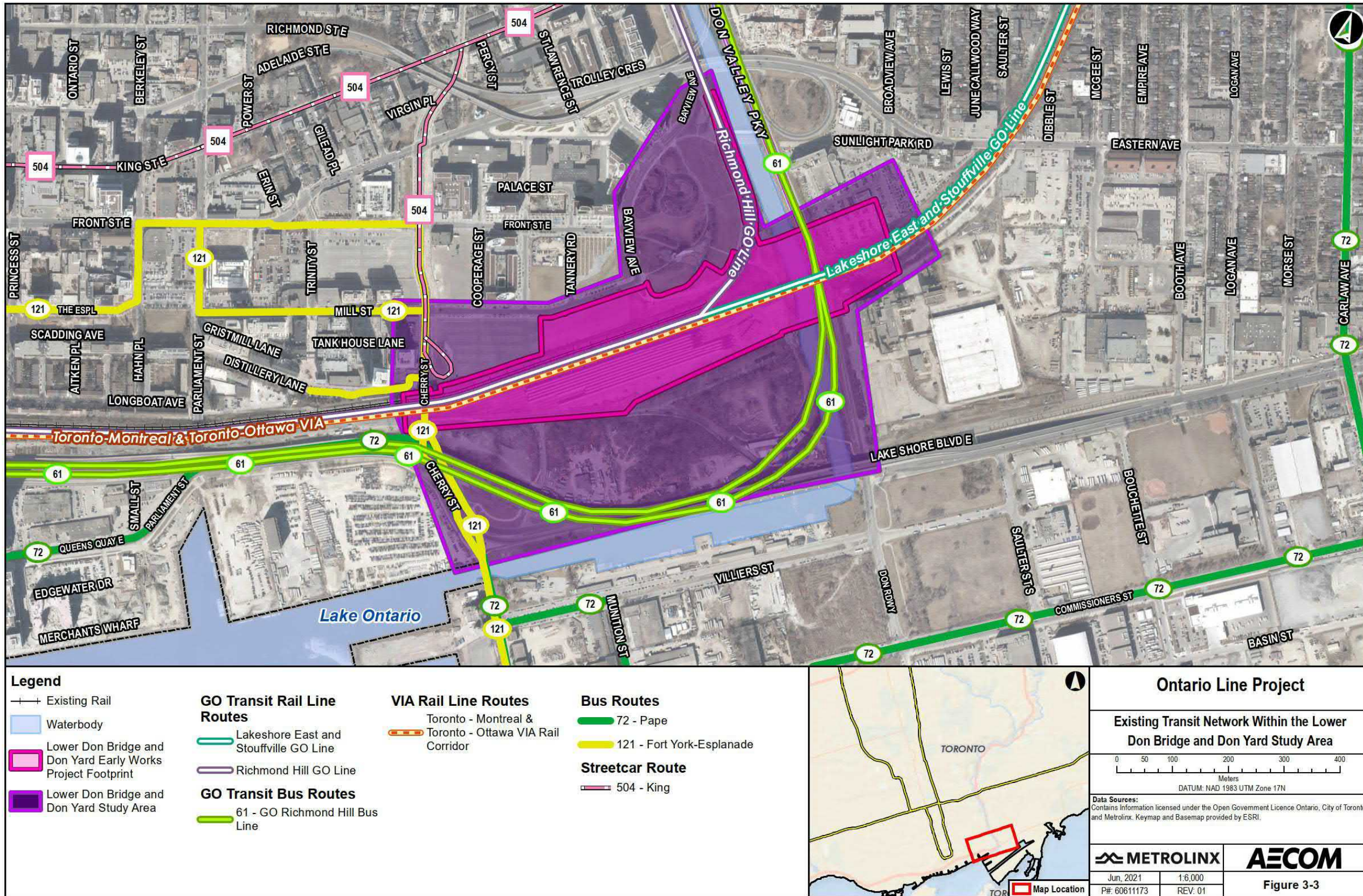


| Route Number – Name and Description  | Service Headway during Peak Periods   |
|--|---|
| <p><b>Richmond Hill GO</b> line operates between Union Station and Gormley GO Station in Richmond Hill, generally in a north-south direction. The train service operates only during weekday peak periods, with southbound trains operating in the morning peak hours between 6 AM and 9 AM and northbound trains operating in the afternoon peak hours between 3 PM and 8 PM. A bus service (i.e., GO Bus #61) runs along Gardiner Expressway and Don Valley Parkway within the Lower Don Bridge and Don Yard Study Area and generally covers the southbound and northbound services during the remaining hours of a typical weekday with the latest southbound departure from Gormley GO Station scheduled at 2:00 PM and the latest northbound departure from Union Station scheduled at 2:40 AM.</p> | <p>30 to 45-minute for the southbound direction in the AM peak period<br/>60-minute for the northbound direction in both the AM and PM peak periods</p>               |
| <p><b>Toronto-Ottawa VIA Rail</b> line operates between Union Station in Toronto and Ottawa Station in Ottawa, generally in an east-west direction. The train service operates seven days a week. The line does not have any designated stops at the rail tracks section within the Lower Don Bridge and Don Yard Study Area, but the eastbound and westbound trains pass through the noted rail tracks section shortly after each scheduled departure from Union Station and shortly before each scheduled arrival at Union Station.</p>  | <p>60-minute for the peak direction (i.e., westbound in the AM and PM peak periods and eastbound in the PM peak period)<br/>180-minute for the non-peak direction</p> |
| <p><b>Toronto-Montreal VIA Rail</b> line operates between Union Station in Toronto and Gare Centrale in Montreal, generally in an east-west direction. The train service operates seven days a week. The line does not have any designated stops at the rail tracks section within the Lower Don Bridge and Don Yard Study Area, but the eastbound and westbound trains pass through the noted rail tracks section shortly after each scheduled departure from Union Station and shortly before each scheduled arrival at Union Station.</p>   | <p>60-minute for the peak direction (i.e., westbound in the AM and PM peak periods and eastbound in the PM peak period)<br/>180-minute for the non-peak direction</p> |
| <p><b>#504A – King</b> streetcar route operates between Dundas West Station and Distillery Loop, generally in an east-west direction. It also serves the St. Andrew and King Station on Line 1 Yonge-University. The route is part of the 10-minute network and operates at 10-minute or better headways, all day, every day. The streetcar route operates mainly along King Street and the Distillery Loop is the only designated stop within the Lower Don Bridge and Don Yard Study Area.</p>   | <p>3-minute in both the AM and PM peak periods</p>  |

| Route Number – Name and Description  | Service Headway during Peak Periods  |
|--|--|
| <p><b>#72 – Pape</b> bus route operates between Pape Station on Line 2 Bloor-Danforth and Commissioners Street, and between Pape Station and Union Station on Line 1, generally in a north-south direction. Three services are operated: The <b>72A (Pape Station-Eastern)</b> operates at all times except the morning and afternoon peak periods from Monday to Friday. The <b>72B (Pape Station-Union Station via Queens Quay)</b> operates all day, every day. The <b>72C (Pape Station - Commissioners)</b> operates during the morning and afternoon peak periods from Monday to Friday. Service between Pape Station and Eastern Avenue is part of the 10-minute network and operates at 10 minutes or better, all day, every day. The bus service mainly operates along Pape Avenue, Carlaw Avenue, Commissioners Street, Queens Quay, and Bay Street. The closest northbound and southbound stops to the Lower Don Bridge and Don Yard Early Works Project Footprint are located at the intersection of Cherry Street and Lake Shore Boulevard East.</p>                                    | <p>6-minute in the AM peak period<br/>7-minute in the PM peak period</p>   |
| <p><b>#121 – Fort York-Esplanade</b> bus route operates between Exhibition Place, the Fort York neighbourhood and the Distillery neighbourhood, and, in the summer, between Ontario Place, the Fork York neighbourhood and Clarke Beach Park (Cherry Beach), generally in an east-west direction. All buses serve Union Station on Line 1, and the Fort York, City Place, Esplanade, and Distillery neighbourhoods. Two services are operated: the <b>121A (Exhibition (Princes' Gates)-Distillery via Union Station)</b> branch operates all day, every day outside the summer months. The <b>121D (Ontario Place-Cherry Beach via Union Station and Distillery)</b> seasonal branch operates from mid-May to mid-October. The bus service mainly operates along Cherry Street, Front Street, The Esplanade, and Fort York Boulevard. The closest eastbound and westbound stops to the Lower Don Bridge and Don Yard Early Works Project Footprint are located at the intersection of Cherry Street and Mill Street as well as the intersection of Cherry Street and Lake Shore Boulevard East.</p> | <p>13-minute in the AM peak period<br/>18-minute in the PM peak period</p> |

Sources: GO Transit, 2020; VIA Rail, 2020; and Toronto Transit Commission, 2019. Accessed in September 2020.

Figure 3-3: Existing Transit Network Within the Lower Don Bridge and Don Yard Study Area



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## 4. Potential Impacts, Mitigation Measures and Monitoring Activities

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In accordance with Sections 8(2)6, 8(2)7 and 8(2)8 of Ontario Regulation 341/20: Ontario Line Project, this section describes the potential impacts, mitigation measures, and monitoring activities to verify the effectiveness of mitigation measures associated with the Lower Don Bridge and Don Yard early works.

Potential impacts to traffic and transportation operations as a result of the Lower Don Bridge and Don Yard early works have been assessed and are presented in **Table 4-1**, in addition to mitigation measures and monitoring activities.

The Lower Don Bridge and Don Yard early works may require temporary lane restrictions on the Don Valley Parkway, which may result in impediment of the traffic flow and increased average vehicular delay of motorists and GO Bus #61 travelling in the Lower Don Bridge and Don Yard Study Area. The extent of such implications will depend on the level of encroachment into the right-of-way of the Don Valley Parkway.

It is expected that construction vehicles will be travelling within the Lower Don Bridge and Don Yard Study Area, considering the extent of excavation and grading activities required. Depending on the available haul routes, the addition of these construction vehicles to the road network may impact traffic operations resulting in increased vehicular delays and queue lengths, especially at intersections where construction traffic is required to make left-turning movements (e.g., the intersection of Cherry Street and Lake Shore Boulevard East). This could result in travel time delays to the existing transit routes (i.e., Toronto Transit Commission bus route #72 Pape and #121 Fort York-Esplanade) that would pass through the identified intersection. Construction vehicles are expected to be accommodated at off-road launch sites, and therefore it is not anticipated that these vehicles will occupy curb lanes of roads within the Lower Don Bridge and Don Yard Study Area.

Other planned projects (e.g., capital projects, local development, etc.) nearby with construction timelines that potentially overlap with the Lower Don Bridge and Don Yard early works may result in impacts to the transportation network and its road users within the Lower Don Bridge and Don Yard Study Area.

The construction of the Ontario Line bridge north of the existing rail bridge over the Lower Don River may require temporary full closure of the portion of the Lower Don Trail adjacent to the Richmond Hill GO tracks and below the rail corridor. If the closure of the noted section of the Lower Don Trail is implemented, the Martin Goodman Trail

connection may be disrupted and the mobility and convenience of pedestrians and cyclists travelling along both trails may be impacted.

The Lower Don Bridge and Don Yard early works may require partial or full closure of the GO tracks on the existing rail bridge over the Lower Don River during early works construction activities. The extent of track closure is dependent on the type of equipment used and the installation process applied. If partial or full closures are implemented, the operations of the existing commuter (i.e., Lakeshore East GO Line, Stouffville GO Line, Richmond Hill GO Line, Toronto-Ottawa VIA Rail line, and Toronto-Montreal VIA Rail line) and freight rail corridors may be temporarily disrupted.

The Lower Don Bridge and Don Yard early works may also require partial or full closure of the train storage tracks at the Don Yard. The extent of track closure is dependent on the type of equipment used and construction sequencing.

**Table 4-1** provides mitigation measures and monitoring activities to be implemented for potential impacts that may result from the Lower Don Bridge and Don Yard early works.

**Table 4-1: Potential Impacts, Mitigation Measures and Monitoring Activities for the Lower Don Bridge and Don Yard Early Works**

| Environmental Component                               | Potential Impacts  | Mitigation Measure(s)  | Monitoring Activities  |
|---|--|--|--|
| <b>Transportation Network – Roads</b>                 | <ul style="list-style-type: none"> <li>■ If required, temporary lane closures along the Don Valley Parkway may result in impeding traffic flow and increased average delay of vehicles, including emergency vehicles.</li> <li>■ Construction vehicle traffic may impact traffic operations resulting in increased vehicular delays and queue lengths, especially at intersections where construction traffic is required to make left-turning movements (e.g., the intersection of Cherry Street and Lake Shore Boulevard East).</li> <li>■ Potential overlapping construction timelines with other planned projects (e.g. local development) nearby may result in impacts to the transportation network and its road users.</li> </ul> | <ul style="list-style-type: none"> <li>■ A quantitative traffic impact assessment will be completed, if required, as project planning progresses to consider vehicular traffic impacts as a result of the Lower Don Bridge and Don Yard early works.</li> <li>■ Develop and implement a transit and traffic management plan(s), which could include temporary changes to intersection lane configurations, traffic signal timing optimization, modifications to existing signal timing plans, etc. The transit and traffic management plan(s) will also address specific emergency services requirements in consultation with the City of Toronto.</li> <li>■ Traffic signal timing optimization may be assessed/implemented to increase capacity of affected intersections and to aid in the movement of traffic. Traffic signal timing adjustments would require coordination between Metrolinx and City of Toronto, and will be undertaken if required, to determine appropriate changes to traffic signal timings.</li> <li>■ Consider scheduling construction activities during off-peak periods and weekends to minimize disruptions to road users during the critical peak periods.</li> <li>■ Co-ordinate with the City of Toronto regarding other ongoing construction projects when scheduling the early works activities to maintain the mobility of road users.</li> </ul> | <ul style="list-style-type: none"> <li>■ The effectiveness of the transit and traffic management plan(s) will be monitored throughout the construction period and adjustments will be made based on actual field observations, as needed.</li> </ul>   |
| <b>Transportation Network – Active Transportation</b> | <ul style="list-style-type: none"> <li>■ Temporary closure of the Lower Don Trail underneath and/or in proximity to the rail corridor may be required. This would result in temporary discontinuation of the Lower Don Trail which may impact the convenience of pedestrians and cyclists and disrupt trail connectivity.</li> </ul>   | <ul style="list-style-type: none"> <li>■ Ensure that appropriate signage and notifications are provided to direct pedestrians and cyclists around the closed section of the Lower Don Trail. The potential detour routes include the Corktown Common Trail and the sidewalks and bike lanes along Bayview Avenue, Mill Street, and Cherry Street.</li> <li>■ Reduce interference with pedestrians and cyclists. This may include fencing, hoarding, shared-lane markings, signals, wayfinding signs, and lighting as required to provide pedestrians and cyclists with safe, accessible, and continuous routes.</li> <li>■ If required, co-ordinate with the City of Toronto to ensure any modifications to pedestrian crossing distances at signalized intersections are reflected in revised pedestrian clearance timings.</li> <li>■ Any temporary pedestrian facilities including temporary or relocated Toronto Transit Commission transit stops will be designed to meet Toronto Transit Commission accessibility standards.</li> <li>■ Implement flagging where construction vehicles are present to ensure construction vehicle operators are aware of pedestrian and vehicular traffic within the construction area.</li> </ul>   | <ul style="list-style-type: none"> <li>■ The effectiveness of the transit and traffic management plan(s) will be monitored throughout the construction period and adjustments will be made based on actual field observations, as needed.</li> </ul>   |
| <b>Transportation Network – Rail</b>                  | <ul style="list-style-type: none"> <li>■ Early works construction may require temporary full or partial closure of existing rail tracks, which may disrupt existing commuter and freight rail operations.</li> <li>■ Partial or full closures and/or modification of the train storage tracks at the Don Yard as required. The extent of track closures is dependent on the type of equipment used and construction sequencing.</li> </ul>   | <ul style="list-style-type: none"> <li>■ Consult with rail operators with current service along the rail corridor (i.e., VIA Rail, Canadian National Railway, and Canadian Pacific Railway) to assess how track closures would impact their service and co-ordinate temporary schedules to accommodate all rail services on the open tracks.</li> </ul>  | <ul style="list-style-type: none"> <li>■ The effectiveness of the transit and traffic management plan(s) will be monitored throughout the construction period. Adjustments to the construction staging plans and transit and traffic management plan(s) will be made based on actual field observations, as needed.</li> </ul> |
| <b>Transit Network</b>                                | <ul style="list-style-type: none"> <li>■ Potential increase of construction vehicles traffic, specifically at the intersection of Cherry Street and Lake Shore Boulevard East, could result in travel time delays to existing surface transit routes (i.e., Toronto Transit Commission bus route #72 Pape and #121 Fort York-Esplanade) that pass through the intersection.</li> <li>■ Potential temporary lane restrictions on the Don Valley Parkway, could result in travel time delays to GO Bus #61 travelling within the Lower Don Bridge and Don Yard Study Area.</li> </ul>  | <ul style="list-style-type: none"> <li>■ Co-ordinate with local transit operators and notify transit users regarding travel delays to the bus services in advance.</li> <li>■ Consider scheduling some construction activities during off-peak periods and weekends to minimize delays to bus services during the critical peak periods.</li> </ul>  | <ul style="list-style-type: none"> <li>■ Transit services will be monitored through actual field observations throughout the construction period and additional mitigation measures will be considered, as needed.</li> </ul>  |

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## **5. Permits and Approvals**

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No federal or provincial permits and approvals related to traffic and transportation are required for the Lower Don Bridge and Don Yard early works.

Metrolinx will co-ordinate with the City of Toronto for transportation-related permits and approvals (e.g., street occupation permit) prior to construction, as required.

## **6. References**

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Ontario Line Final Environmental Conditions Report. Prepared for Metrolinx.

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