

Ontario Line

Environmental Impact Assessment Report Findings

VIRTUAL OPEN HOUSE
GERRARD TO EXHIBITION STATIONS
MARCH 1 AND 3, 2022

Agenda

- Land acknowledgement
- Safety moment
- Introduction to panel
- Presentation
 - About the Ontario Line project
 - Environmental Impact Assessment Report Overview
 - Key findings and mitigation measures
 - What's next
 - Property details
- Questions / Answers period

Land acknowledgement

Let us take a moment to acknowledge that we are on the traditional territory of Indigenous Peoples including the Anishnabeg, the Haudenosaunee and the Wendat Peoples.

We are all Treaty people. Many of us have come here as settlers and immigrants...in this generation or generations past.

Metrolinx declares its commitment to building meaningful relationships with Indigenous Peoples.

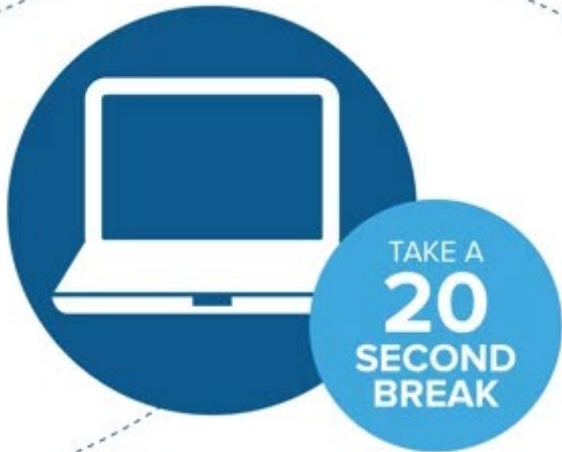
We acknowledge the historic and continued impacts of colonialization and the need to work towards meaningful reconciliation with the original caretakers of the land.

We acknowledge that Metrolinx operates on lands covered by 20 Treaties, and that we have a responsibility to recognize and value the rights of Indigenous Nations and Peoples and conduct business in a manner that is built on the foundation of trust, respect and collaboration.

Safety Moment

20/20/20

TO PREVENT DIGITAL EYE STRAIN



Visit www.aoa.org for more tips on how to protect your eye health and to find a doctor of optometry near you for your annual comprehensive eye exam.

 AMERICAN OPTOMETRIC ASSOCIATION

Introduction to panel



Malcolm MacKay

Program Sponsor,
Ontario Line



James Francis

Sr. Manager,
Environmental
Programs and
Assessment



Jesse Pakkala

Project Manager,
Environmental
Programs and
Assessment



Vicki Wong

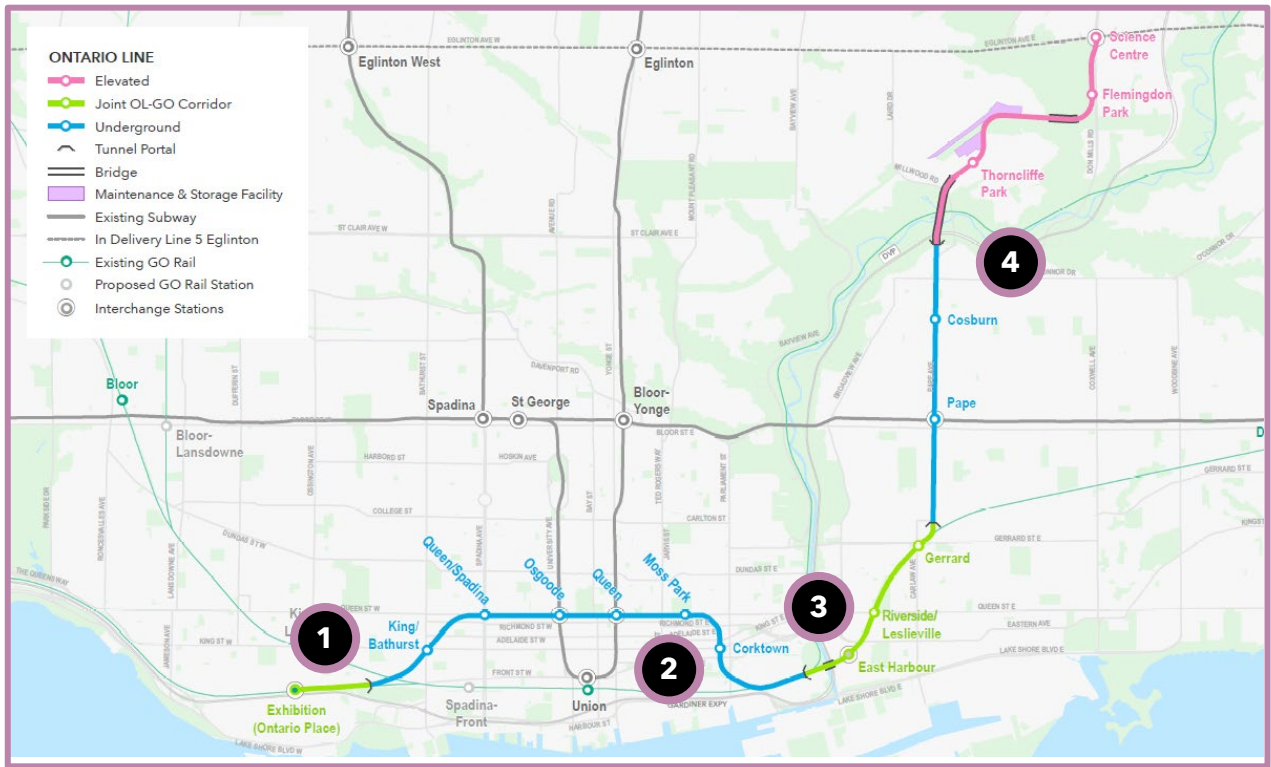
Director,
Property
Acquisitions



Richard Tucker

Vice President,
Subway Project
Delivery,
Ontario Line

The Ontario Line



1 West
(Exhibition to Queen/Spadina)

2 Downtown
(Osgoode to Don Yard)

3 East
(East Harbour to Pape South)

4 North
(Pape to Science Centre)



15.6-km of
new subway
service



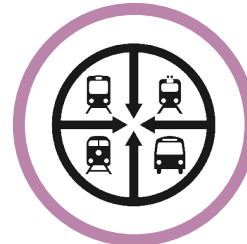
15 stations



As frequent as
every 90 seconds
during rush hour



388,000 daily
boardings



40+ connections to
other transit options

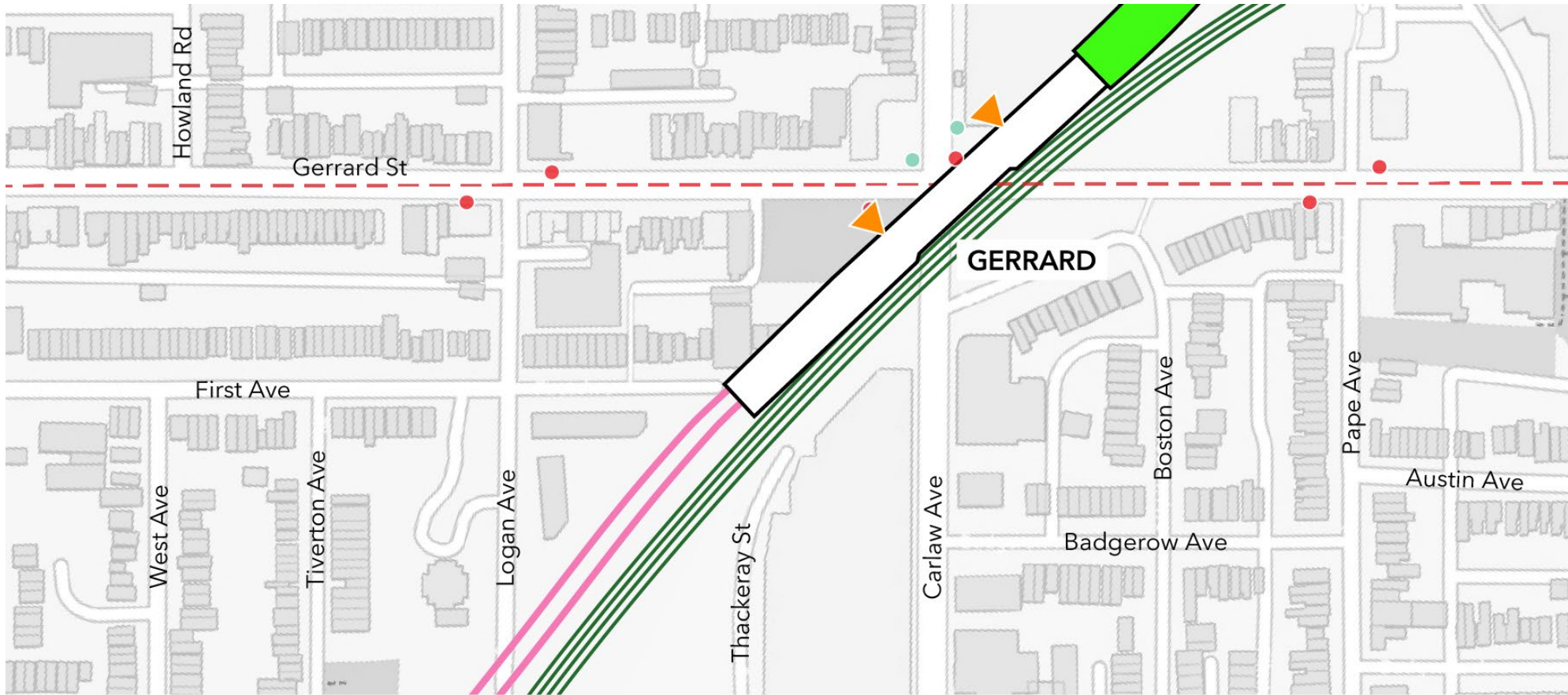


227,500 more people
within walking
distance to transit



Up to 47,000 more
jobs accessible in 45
minutes or less, on
average

Gerrard Station



Gerrard Station

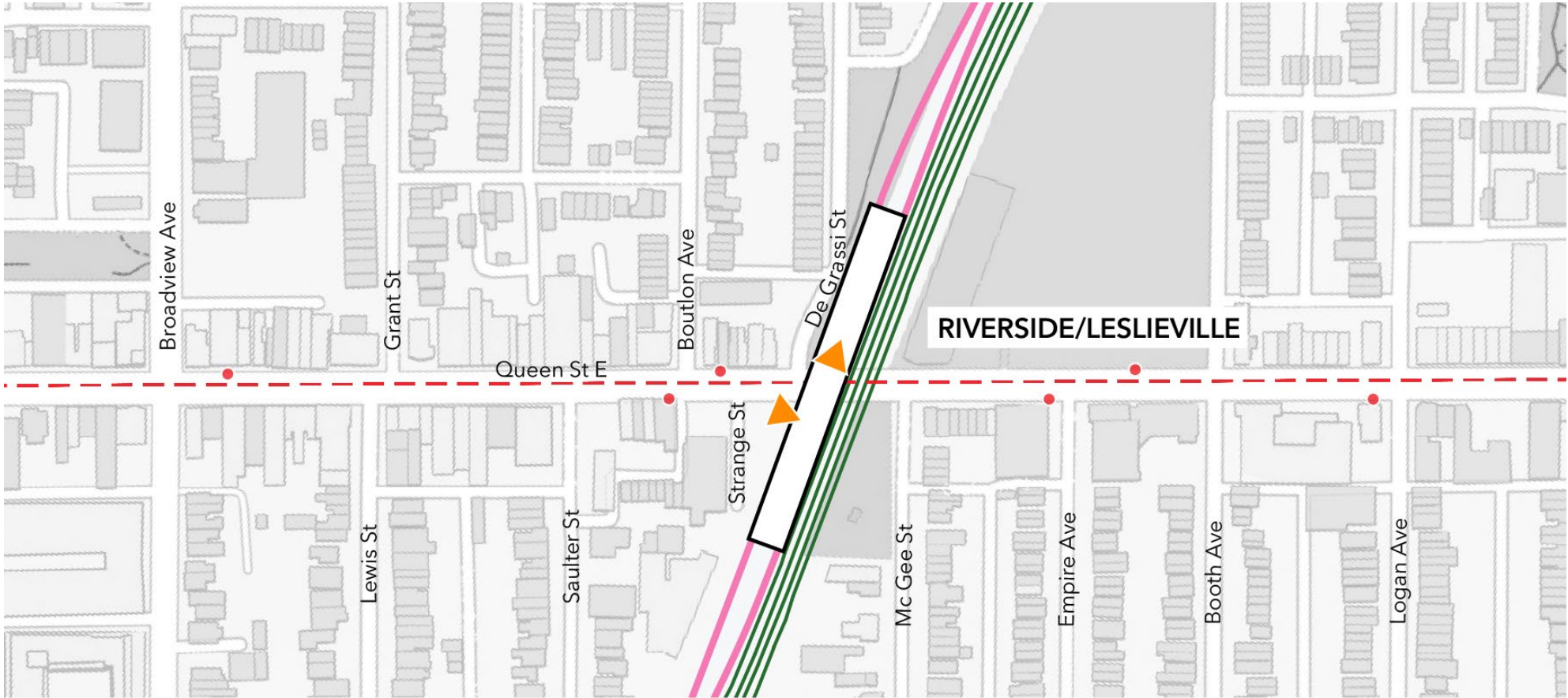
- Elevated
- Streetcar Line
- Bus Stop
- GO Tracks
- Streetcar Stop
- Station Building
- Station Entrance
- Tunnel Portal



0 100 metres



Riverside/Leslieville Station



Riverside/Leslieville Station

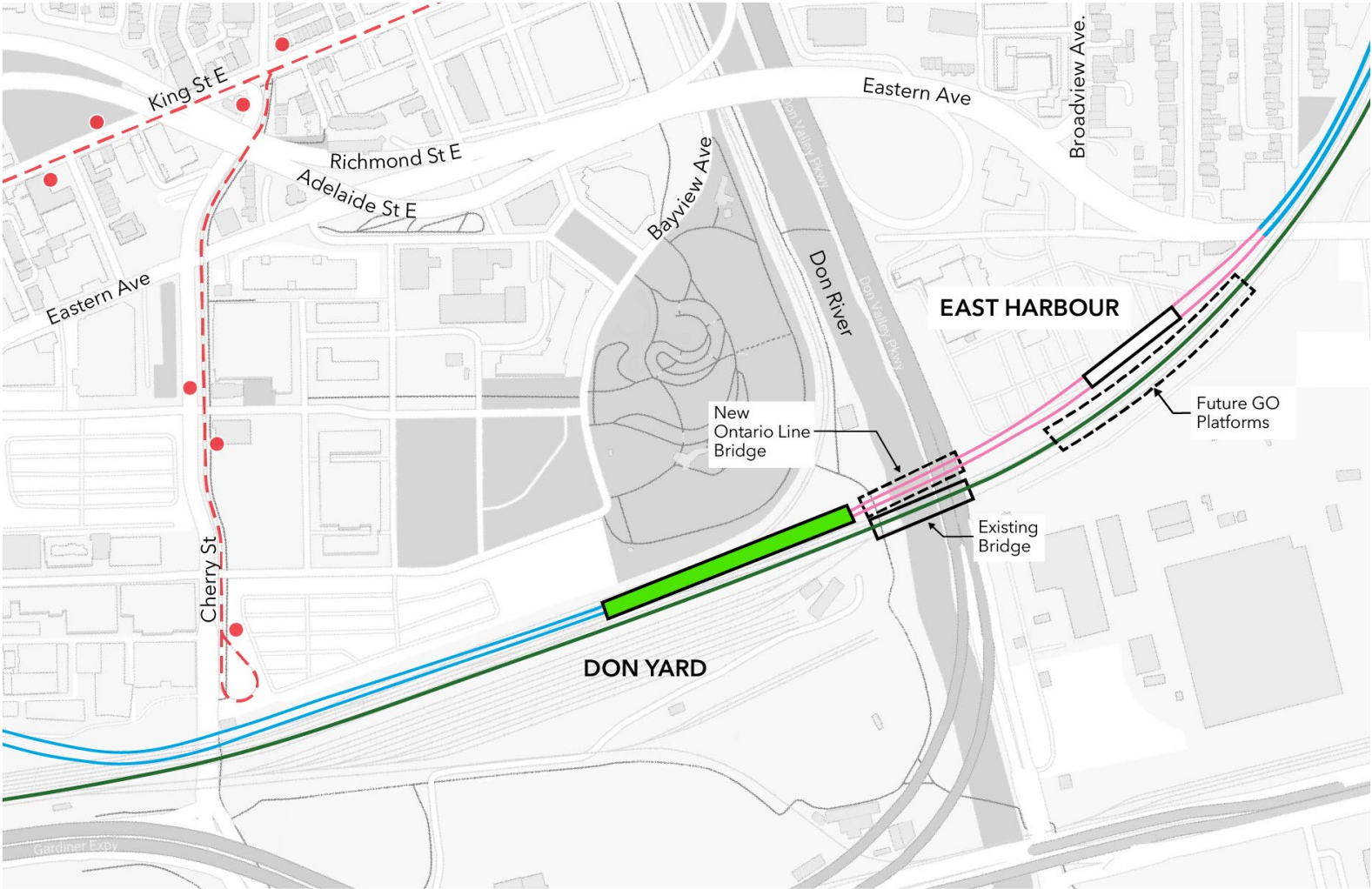
- Elevated
- Streetcar Line
- Station Building
- GO Tracks
- Streetcar Stop
- Station Entrance



0 100 metres

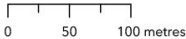


East Harbour Station



East Harbour Station

- Tunnelled
- Elevated
- GO Transit
- - - Streetcar Line
- Streetcar Stop
- Station Platform
- Tunnel Portal



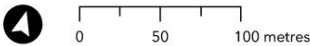
Corktown Station



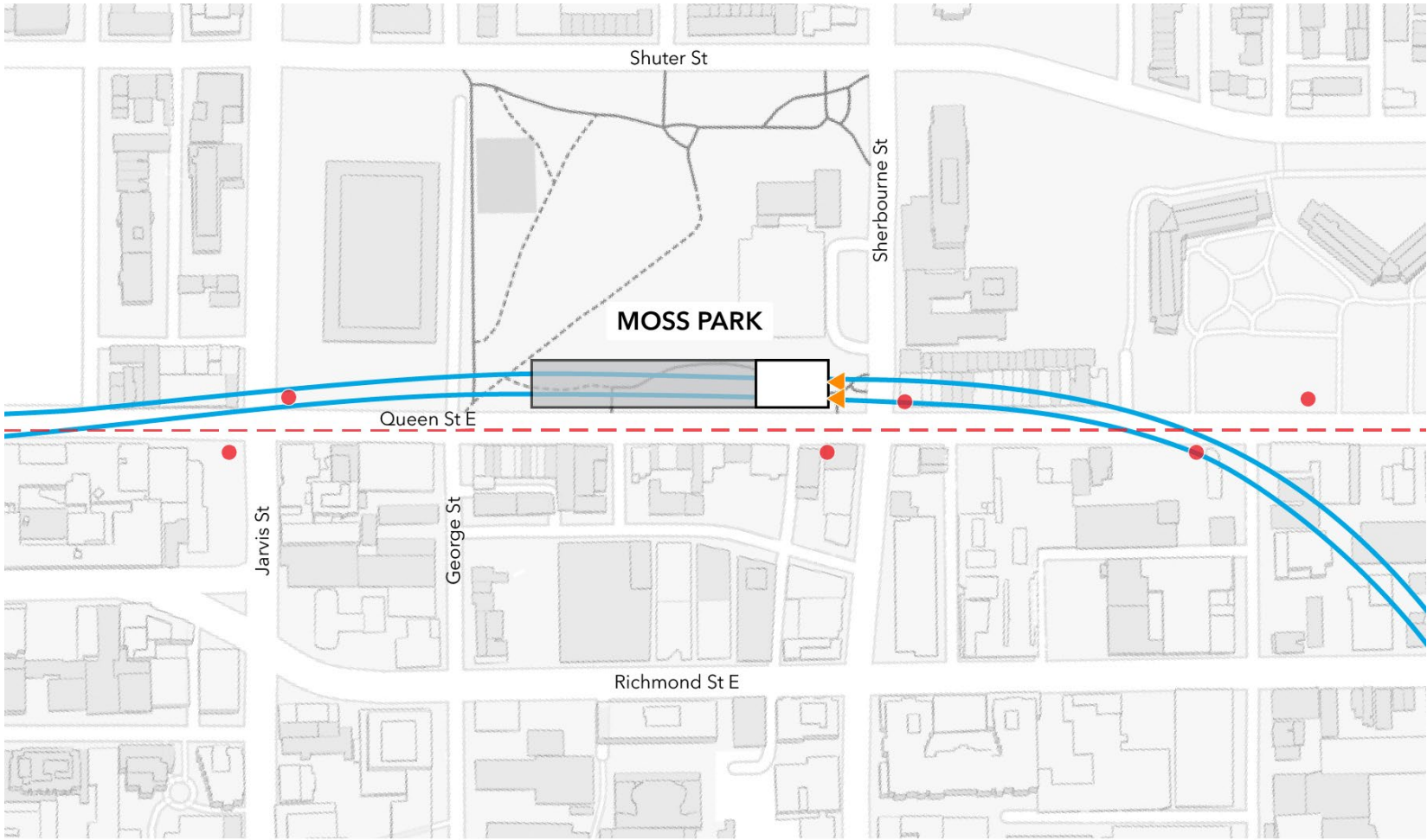
Corktown Station

- | | | | |
|-----------|----------------|--------------------------|------------------------------------|
| Tunnelled | Streetcar Line | Station Building | Station Entrance |
| | Streetcar Stop | Underground Station Area | Emergency Exit and Tunnel Entrance |

Note: Heritage attributes will be conserved where possible.



Moss Park Station



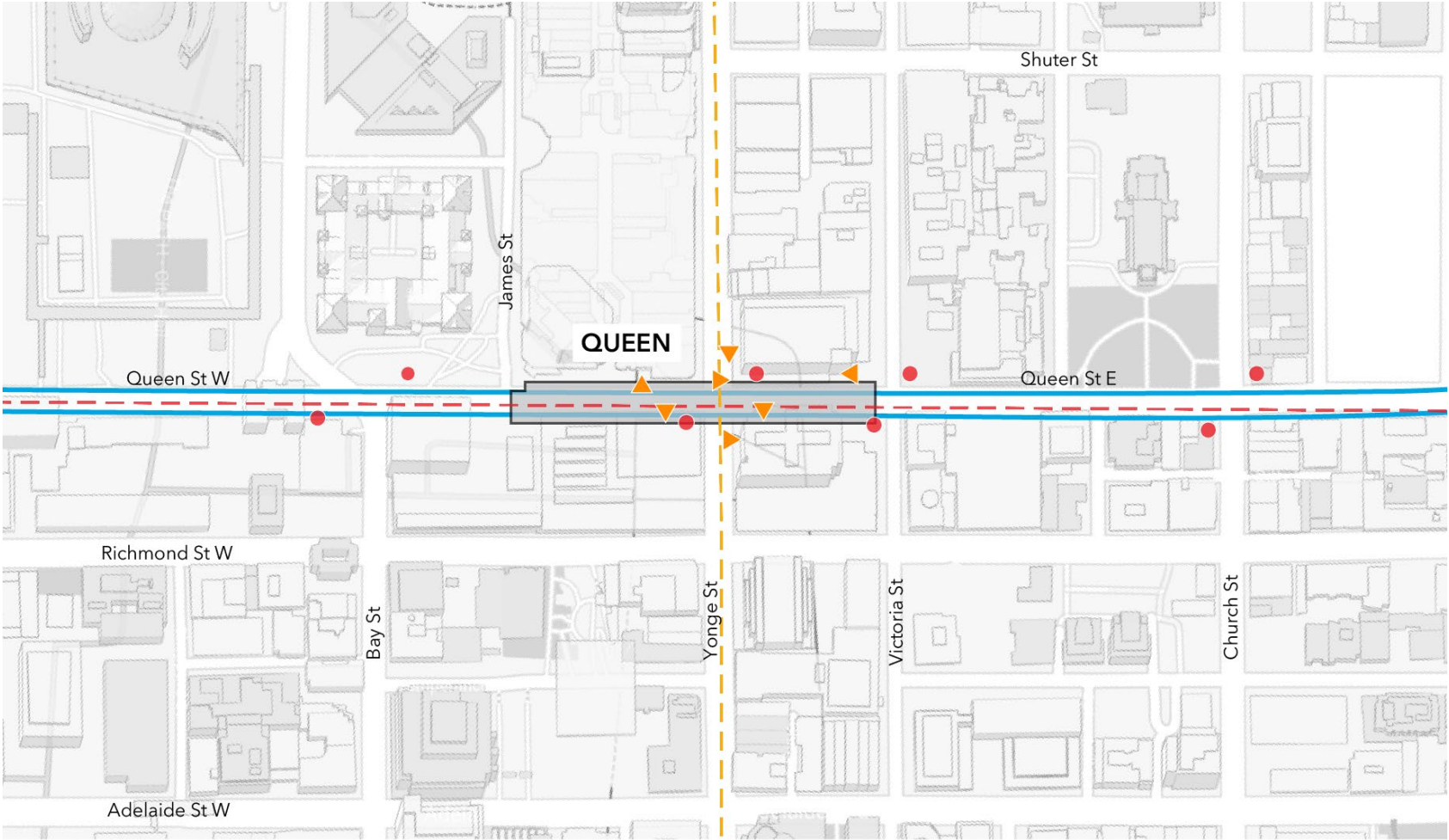
Moss Park Station

- Tunnelled
- Streetcar Line
- Streetcar Stop
- ▲ Station Entrance
- Station Building
- Underground Station Area

Note: Heritage attributes will be conserved where possible.



Queen Station



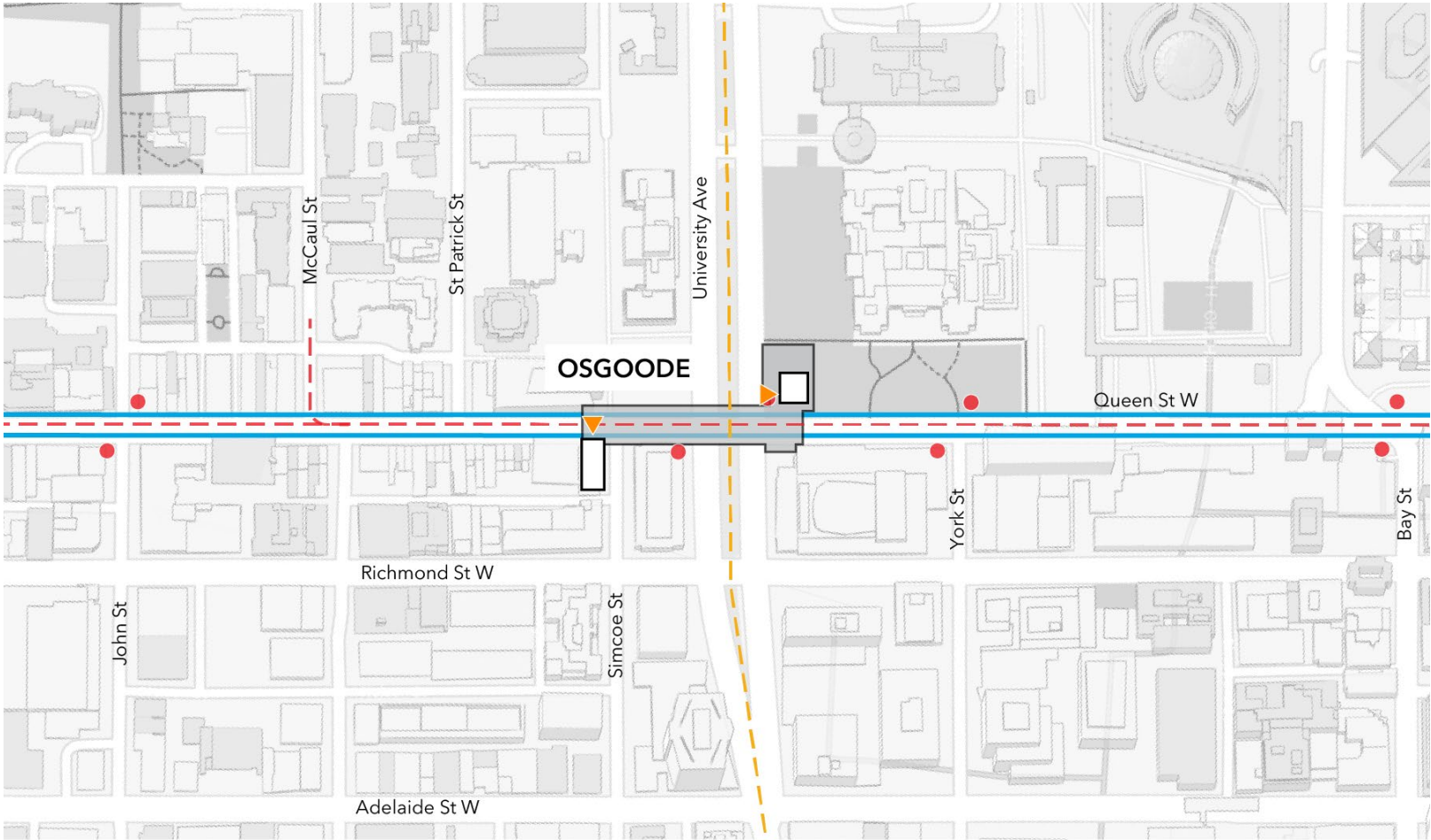
Queen Station

- Tunnelled
- - - Line 1 Yonge-University
- - - Streetcar Line
- Streetcar Stop
- ▲ Station Entrance *
- Underground Station Area

* **Note:** Access to Queen Station will be via the existing Line 1 entrances with some modifications.
Note: Heritage attributes will be conserved where possible.



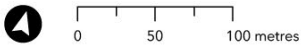
Osgoode Station



Osgoode Station

- Tunnelled
- Line 1 Yonge-University
- Streetcar Line
- Streetcar Stop
- ▲ Station Entrance
- Station Building
- Underground Station Area

Note: Heritage attributes will be conserved where possible.



Queen/Spadina Station



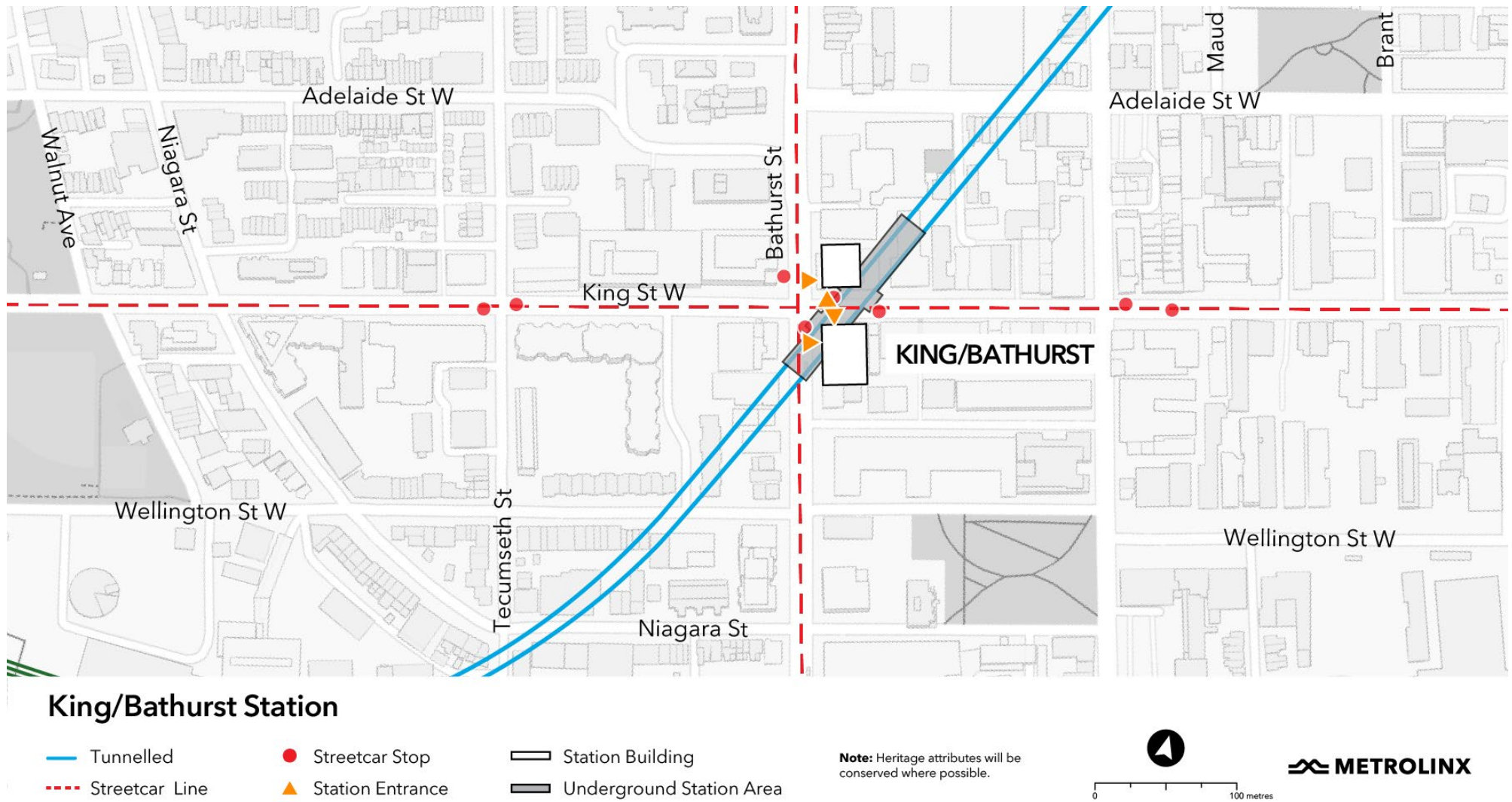
Queen/Spadina Station

- Tunnelled
- Streetcar Stop
- Station Building
- - - Streetcar Line
- ▲ Station Entrance
- Underground Station Area

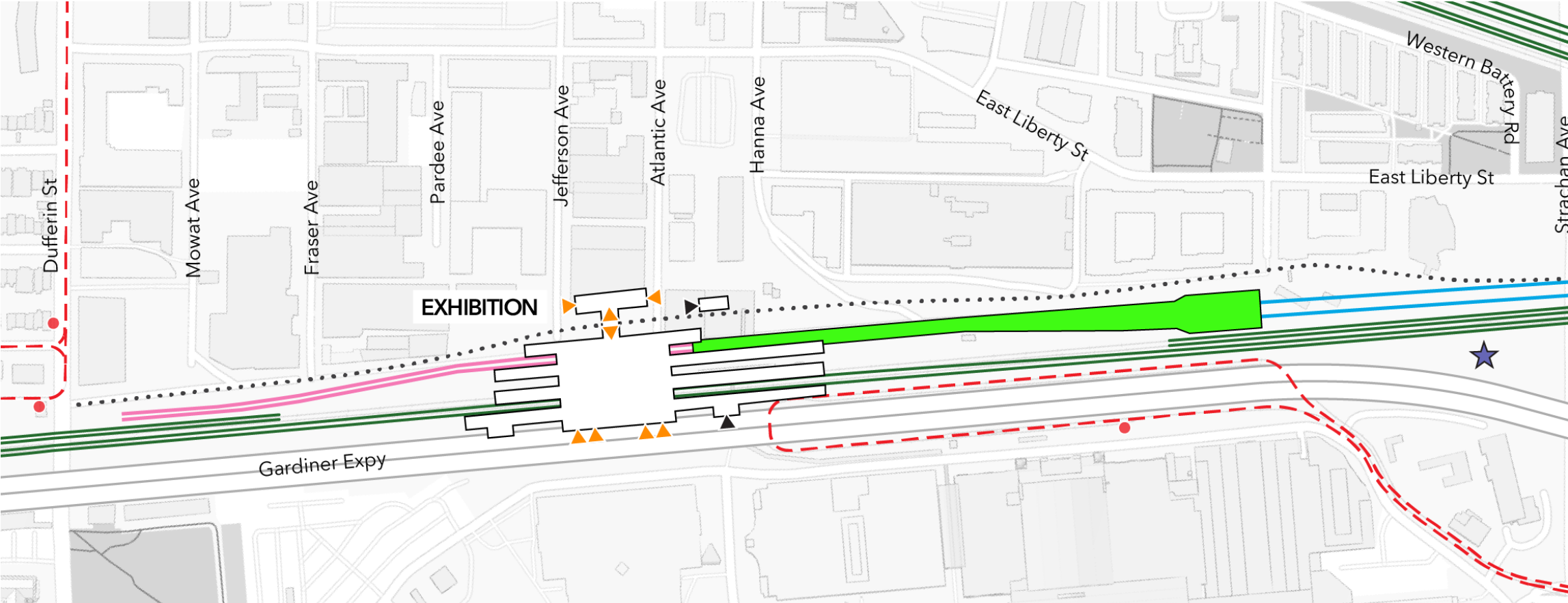
Note: Heritage attributes will be conserved where possible.



King/Bathurst Station



Exhibition Station



Exhibition Station

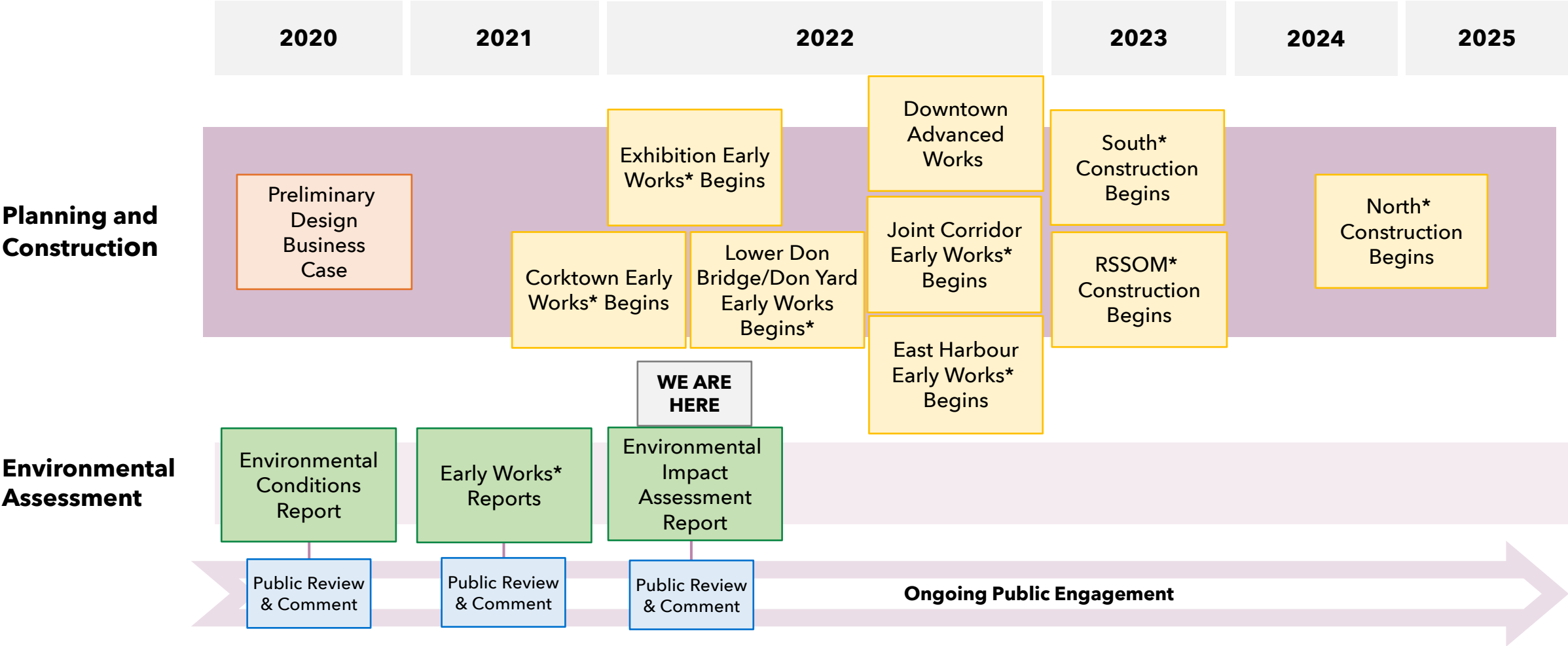
- | | | | |
|-----------|---------------------------|---------------------------|------------------------------------|
| Elevated | Streetcar Line | Station Building | Station Entrance |
| Tunnelled | Streetcar Stop | Portal | Emergency Exit and Tunnel Entrance |
| GO Rail | Future Liberty New Street | Traction Power Substation | |

Note: Heritage attributes will be conserved where possible.



METROLINX

Project Timeline (Gerrard to Exhibition)



*Procurement Packages:

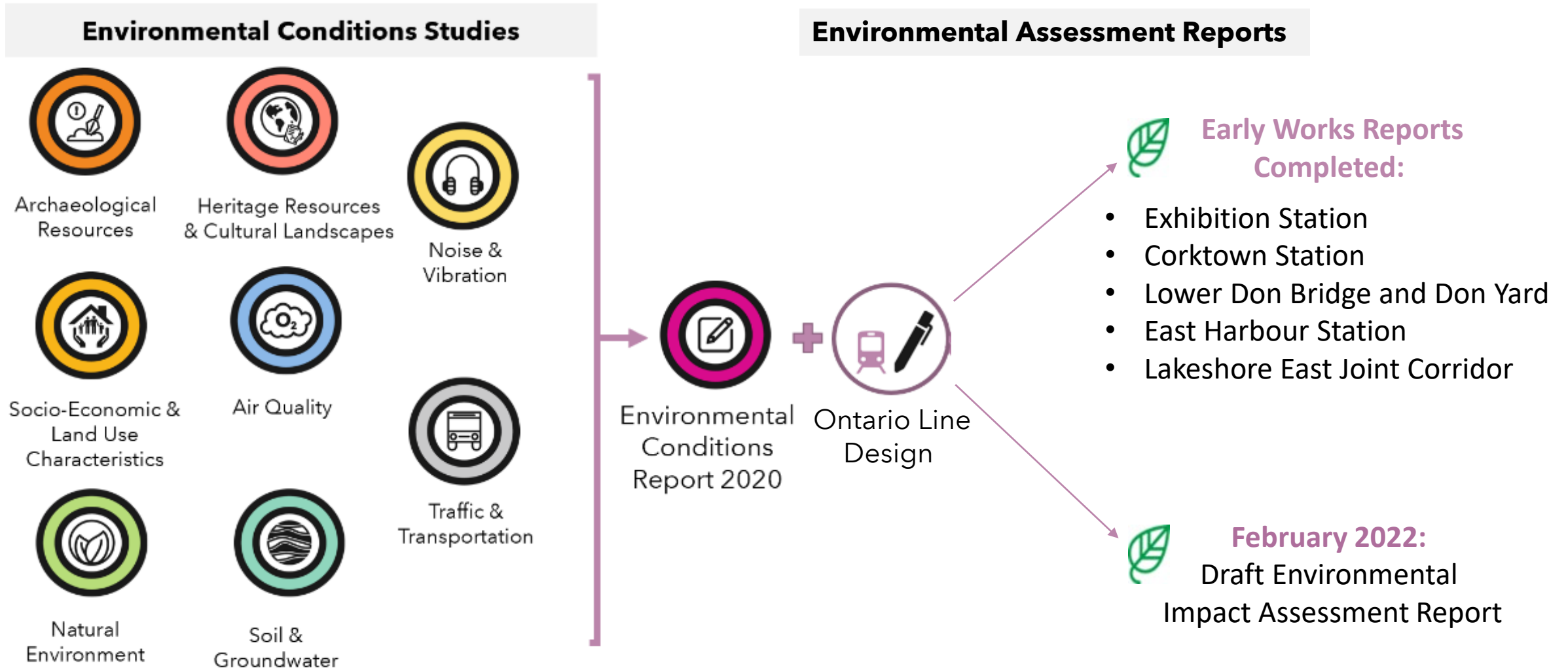
- South - Southern Civil, Stations and Tunnel (Exhibition to Don Yard)
- North - Northern Civil, Stations and Tunnel (East Harbour to Science Centre)
- RSSOM - Rolling Stock, Systems, Operations and Maintenance
- Early Works - Exhibition, Corktown, Lower Don Bridge/Don Yard, East Harbour, Lakeshore East Joint Corridor

Timelines are subject to change



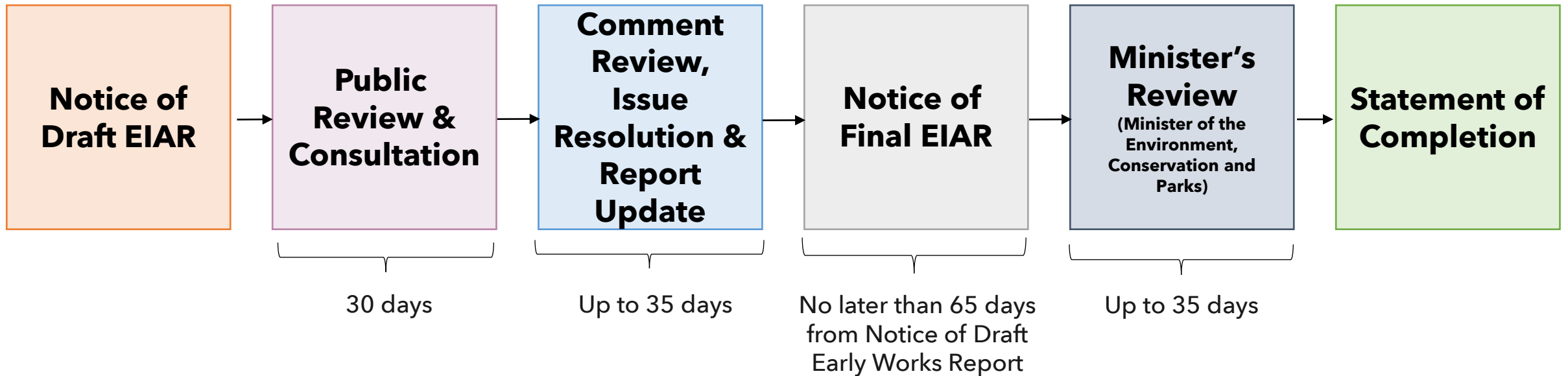
Environmental Impact Assessment Report: An Overview

Assessment and Reporting Process



Review Process

- The Draft Environmental Impact Assessment Report (EIAR) has been prepared in accordance with Ontario Regulation 341/20 under the Environmental Assessment Act.



Key Findings

Construction Noise and Vibration

During construction, the use of heavy machinery may cause some noise and vibration above existing levels.

Measures to manage construction noise and vibration

- Meet the Ministry of Environment, Conservation and Parks (MECP) noise level standards.
- Implement measures to minimize transfer of noise and vibration, where possible (*e.g., equipment in good working order, use of muffling devices, compressors, temporary hoarding, or noise barriers*).
- Before construction begins, complete surveys at properties that may be affected by vibration-causing activities, such as heritage buildings.
- Monitor noise and vibration levels during construction and identify where further mitigation is required.
- Continue to engage and communicate with nearby residents and businesses to provide advanced notice of noise and vibration causing activities.

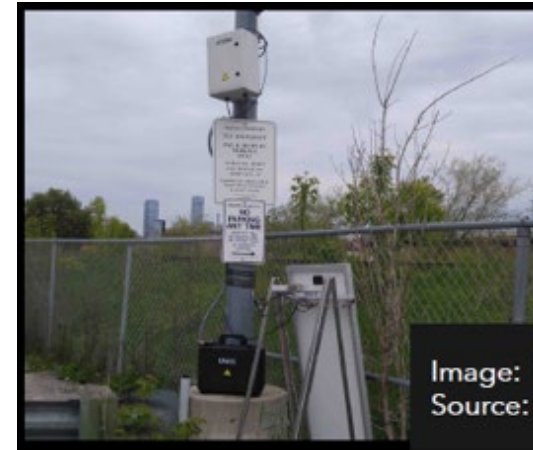


Image: Example of a construction noise monitor.
Source: AECOM 2017



Photo: Vibration monitor.
Source: AECOM

Operational Noise and Vibration

Noise modelling and vibration analyses were completed to predict potential impacts during operations of the Ontario Line and identify mitigation solutions to best manage any impacts.

Design measures to manage operational noise and vibration

- Use vibration isolation methods for underground tunnel design to ensure levels remain below perceptible thresholds (e.g., floating slab at St. Michael's Hospital and Four Seasons Centre).
- Install noise barriers along the Joint Corridor.
- Consult with the community and stakeholders on design elements for the public facing noise barriers.

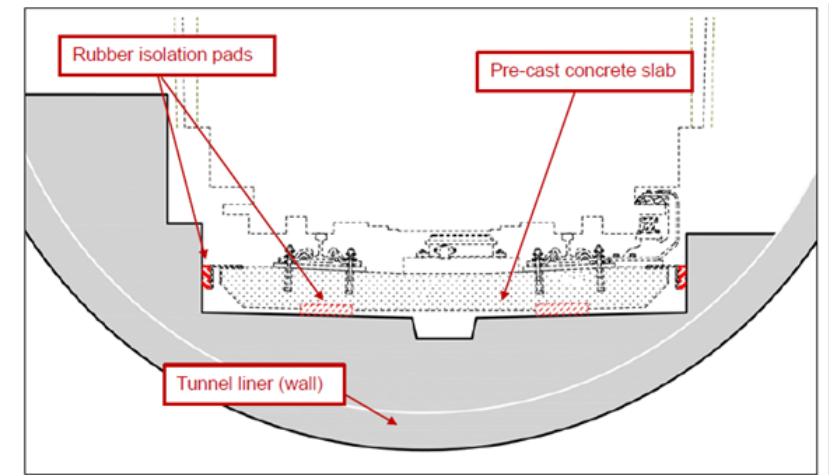


Photo and image of floating slab track installation.
Source: Metrolinx

Immersive Sound Demo Video

Listen to [immersive sound demonstration videos](#) comparing current noise levels to predicted future noise levels (when the Ontario Line is in service) at locations along the Joint Corridor.



For illustrative purposes only, an illustration of a noise wall. Does not reflect the actual retaining wall, noise barrier and landscaping. Source: Metrolinx

Cultural Heritage Resources

Metrolinx is working to reduce impacts of the Ontario Line to heritage properties and landscapes, including developing designs that integrate the new subway with nearby heritage resources.

Measures to reduce impacts to heritage resources

- Avoiding existing buildings is the preferred measure to reduce impacts as seen at Osgoode Hall, Campbell House, and others.
- Where impacts to heritage sites are unavoidable (such as at Osgoode Hall, 378 Queen Street West and 663-665 King Street West), Metrolinx will collaborate closely with the City of Toronto and Ministry of Heritage, Sport, Tourism and Culture Industries to document and salvage heritage attributes, establish an interpretation and commemoration framework, as well as design the adjacent Ontario Line infrastructure in a compatible manner.
- Monitor vibration levels during construction where heritage resources are within the vibration zone of influence to inform adaptive management.



Photo: 378 Queen Street West, location of Queen Spadina Station Source: Stantec



Photo: Osgoode Hall Source: AECOM



Photo: 663-665 King Street West, location of future King Bathurst Station Source: Stantec



Photo: Canada's First Parliament Buildings plaque Source: Stantec

Archaeological Resources

Metrolinx is committed to proactively assessing and conserving archaeological resources prior to and during construction.

A desktop archaeological assessment has been completed, clearing 95% of the study area between Exhibition and Gerrard Stations of potential for archaeological resources. Two known archaeological sites, the Lime Kiln site and the First Parliament site, will be excavated in 2022.

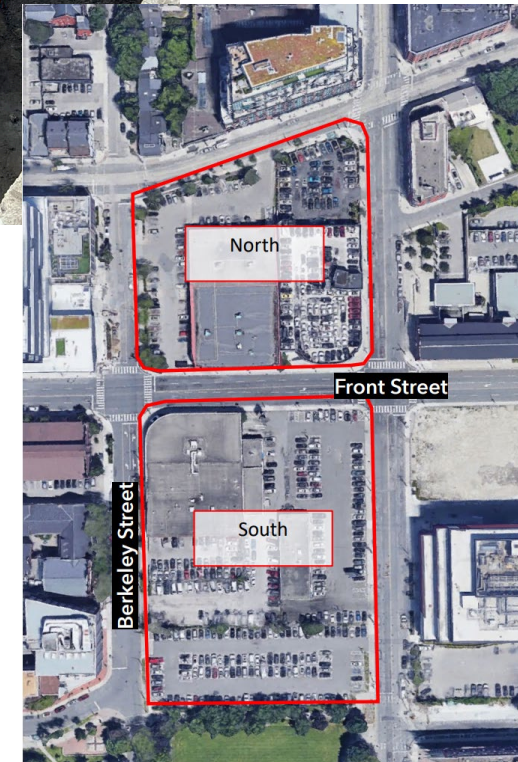
Archaeological investigations conducted to date included the participation of Indigenous monitors. Further assessments will be conducted prior to construction in areas containing archaeological potential in collaboration with Indigenous Nations.

Minimizing disturbance at archaeological sites

- Archaeological resources discovered before construction will be assessed, documented, and mitigated (e.g.: excavated or avoided) by a licensed archaeologist to avoid potential damage.
- If archaeological resources are discovered during construction, work will stop until a licensed archaeologist can assess and determine the safest approach to document and mitigate.



Photo of archaeological investigations at Corktown.
Source: Stantec



Corktown Station Archaeological Sites

Two large scale archaeological excavations at the proposed location of Corktown Station, located at King and Berkeley Streets, will:

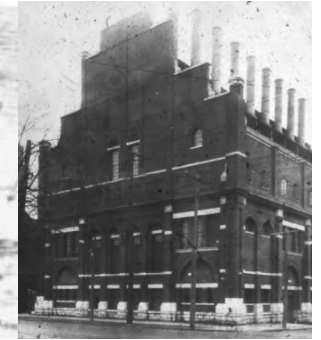
- start in 2022 at the **Toronto Lime Kiln works site**, which contains remains of the 19th century Toronto Lime Works that produced quicklime for use in mortar and plaster for construction in the Toronto area.
- continue in 2022 at the **First Parliament site**, location of Upper Canada's first and second Parliament Buildings, which was later used for the Home District Gaol (jail), then Consumers Gas buildings, and more recently a car wash and car dealership. Excavations take place before and after removal of modern structures on the site.
- Throughout 2021, Metrolinx engaged stakeholders, Indigenous Nations, and community members on an Interpretation and Commemoration Plan for the First Parliament site to build on the City of Toronto's Heritage Interpretation Strategy. Using a public survey and other engagement tools, Metrolinx sought input on five themes to interpret and commemorate at the Corktown station.
- Survey results will inform the direction for interpretation and commemoration of the site. A dedicated Interpretation Specialist will carry out the Interpretation and Commemoration Plan.



The First Parliament Buildings consisted of two separate brick buildings later connected by a walkway. The south building contained the Legislative Council and the north building the House of Assembly.



Left: Second Parliament building (1820-1824).



Right: Consumers' Gas Facility (1926).



Photogrammetric model of First Parliament site remains, showing a 19th century railway turntable and rail line dating to after the Parliament buildings during the use of the site by Consumers' Gas.

Source: Stantec

Traffic and Transportation

Construction will be carried out in a safe manner and work sites kept isolated from the public, by diverting pedestrian, cyclist and vehicular traffic around work zones and using effective wayfinding.

Approach to maintaining traffic flow

- Permanent enhancement of the streetcar network around Yonge and Queen Streets to facilitate Queen Station construction and alleviate disruptions.
- Maintaining northbound lanes on University Avenue during Osgoode Station construction.
- Access to businesses and loading docks will be maintained.
- Various communication tools, such as community notices, traffic signs, social media, and wayfinding apps will inform motorists of changes to expect.
- TTC and GO transit will remain operational throughout construction



Photo of TTC streetcar at King Street and Berkeley Street. Source: Metrolinx

Socio-Economic Considerations

Metrolinx is committed to managing and limiting potential effects during construction, while working with the community to mitigate land-use requirements.

Alleviating Construction Impacts on Businesses and the Community

- Maintain access to property, street and facility parking and outdoor recreational spaces during construction. When regular access cannot be maintained, provide alternative access and signage.
- Continue coordination with the City of Toronto to promote the integration of stations with existing parkland and open spaces.
- Reconnect trails or provide alternate routing and restore parkland once construction is complete.
- Reduce the visual effects of the stations and the Joint Corridor with design and building materials.
- Engage the City and community stakeholders about public realm initiatives (i.e., noise wall designs).



Queen Street West and Spadina Avenue. Source: Metrolinx



Corktown Common. Source: Metrolinx

Natural Environment - Preserving Trees

In preparation for construction of the Ontario Line, some trees and vegetation will be protected, and others must be removed.

Measures to manage trees and the natural environment

- Tree removals within the construction footprint are required to maintain a safe work zone and will be minimized to the extent possible.
- Remaining trees will be protected using fencing/barriers.
- Areas disturbed during construction will be restored by promoting pollinator species, habitat and compensation.
- Trees will be replaced based on applicable by-laws and Metrolinx Vegetation Guideline (2020), which applies a science-based approach to replant trees in natural areas that is above and beyond regulatory requirements.
- Different construction methods will be considered around the Joint Corridor to minimize disturbance to trees.
- New green space (i.e., at the McCleary playground) will be added to parks, where feasible.



Photo of trees to be retained in Moss Park. Source: Stantec

Natural Environment - Protecting the Don River

Metrolinx is committed to protecting and maintaining the aquatic integrity of the Don River and its tributaries. A clear span bridge will be constructed to avoid permanent in-water impacts at the Lower Don River.

Measures to protect the Don River during construction

- Setbacks will be established during design and maintained throughout construction for equipment and materials.
- Erosion and sediment controls will be implemented in advance and regularly inspected during construction to ensure effectiveness.
- Close collaboration with the Toronto Regional Conservation Authority will occur to confirm potential impacts and approaches to working within the existing floodplain.



View from the west bank of the Lower Don River. Source: Metrolinx

Protecting Soil and Groundwater

Metrolinx will endeavor to identify, assess and protect important surface and underground water systems to minimize potential impacts during construction.

Managing impacts on soil and groundwater during construction

- Environmental Site Assessments will be completed for areas of potential environmental concern prior to construction to identify contaminants and inform remediation where applicable.
- Proper handling and disposal of all excavated materials during construction.
- Minimize construction dewatering and ensure discharge is treated or properly disposed to avoid potential effects on natural features.
- Develop monitoring and site-specific mitigation plans to avoid impacts on existing groundwater sources.



Photo of a Tunnel Boring Machine. Source: Metrolinx



Example of Excavation Support. Source: Metrolinx

Air Quality

The Ontario Line will provide long-term improvements to local air quality and reduce greenhouse gas emissions once in operation.

Temporary construction impacts may include dust, vehicle emissions and odours. Mitigation measures will be applied to construction sites to limit the potential for off-site impacts.

Measures to protect air quality during construction will include:

- Application of dust suppressants
- Use of wind barriers and mud mats
- Equipment washing at entry/exit points
- No-idling policy
- Covering of stockpiles and tarping of trucks delivering soil
- Continuous dust and emissions monitoring to verify mitigation effectiveness



Photo of air quality monitoring equipment. Source: Stantec

Engaging you in the process

The *Draft Environmental Impact Assessment Report* is available for review on Metrolinx's Ontario Line webpage (www.metrolinx.com/ontarioline)

Download the report and provide your input from **February 7 to March 9, 2022**.

In April 2022, the *Final Environmental Impact Report* will be published, following the minister's review and Statement of Completion.



Property Details

Property Details

If Metrolinx confirms that a property is needed, the property owner will receive written notification stating this. Letters have been provided to impacted property owners for the following reasons:

- Acquire the entire property or a portion of the property permanently
 - Property is required to construct one or more of the planned infrastructure elements. These elements include but are not limited to: station entrances; emergency exit buildings; ventilation systems; power substations
- Underground tunnel and easement (permanent)
 - Below grade property area required for the subway tunnel and/or underground structures
- Permanent support / easement surrounding the tunnel
 - An easement is the right to cross or use land for a specified purpose and is a right of use, not ownership. Below-grade easements on either side of a subway tunnel are required as a buffer zone.
- Temporary use of the land during construction
 - Any portion of a property that is required for a temporary easement during construction will be restored to its pre-existing condition once construction is complete.
- **If you have any questions about the letter you have received or about your particular property, please follow up with the Metrolinx contact included in your letter or at OntarioLine@Metrolinx.com or 416-202-5150**

Property Details

- If Metrolinx requires your property or a portion of your property, Metrolinx will arrange to meet (either by phone, virtually, or in person) the property owner to answer any questions, including how much property is needed and why, how the acquisition process works, and expected timelines.
- Multiple meetings will take place throughout the property acquisition process to ensure property owners have the information and support needed.
- Metrolinx prefers to enter into direct negotiations with owners, with the goal of reaching amicable agreements.
- Whether a portion of a property is required or the entire property, the property owner will be compensated.
- In all cases, property owners are compensated for their property at a price they could expect through a sale at fair market value.
- In cases where property is returned to an owner after construction, Metrolinx ensures it is restored to its pre-construction state or better.

If you have any questions about the letter you have received or about your particular property, please follow up with the Metrolinx contact included in your letter or at OntarioLine@Metrolinx.com or 416-202-5150.

What to expect in 2022

2022 Project Highlights



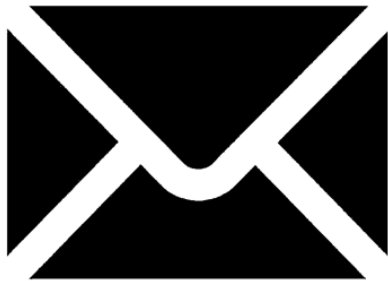
Timelines are subject to change.

Keeping You Informed

Contact us

Your feedback is vital in helping us to move the Ontario Line forward in a way that strengthens the community. We are grateful for your input.

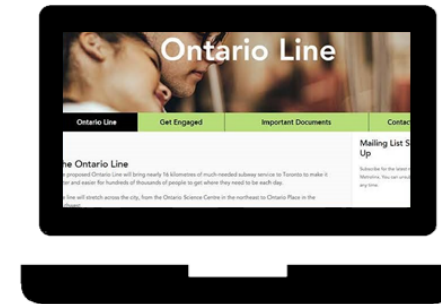
To stay up to date on upcoming virtual events and the latest Ontario Line news, sign up for our e-newsletter at [Metrolinx.com/OntarioLine](https://metrolinx.com/OntarioLine).



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