



Ontario Line

East Segment

September 23, 2021

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 this 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

It's almost fall. That means darker mornings and evenings.

- **Drivers,** make sure to slow down and pay closer attention to your neighbours walking or cycling to work or school.
- **Pedestrians and cyclists,** be aware. Cyclists, remember to use your lights.



Panel Introduction



Richard
Tucker

Ontario Line
Project Director



Malcolm
MacKay

Ontario Line
Project Sponsor



Carrie
Sheaffer

Senior Manager,
Environmental Programs
and Assessment



John
Potter

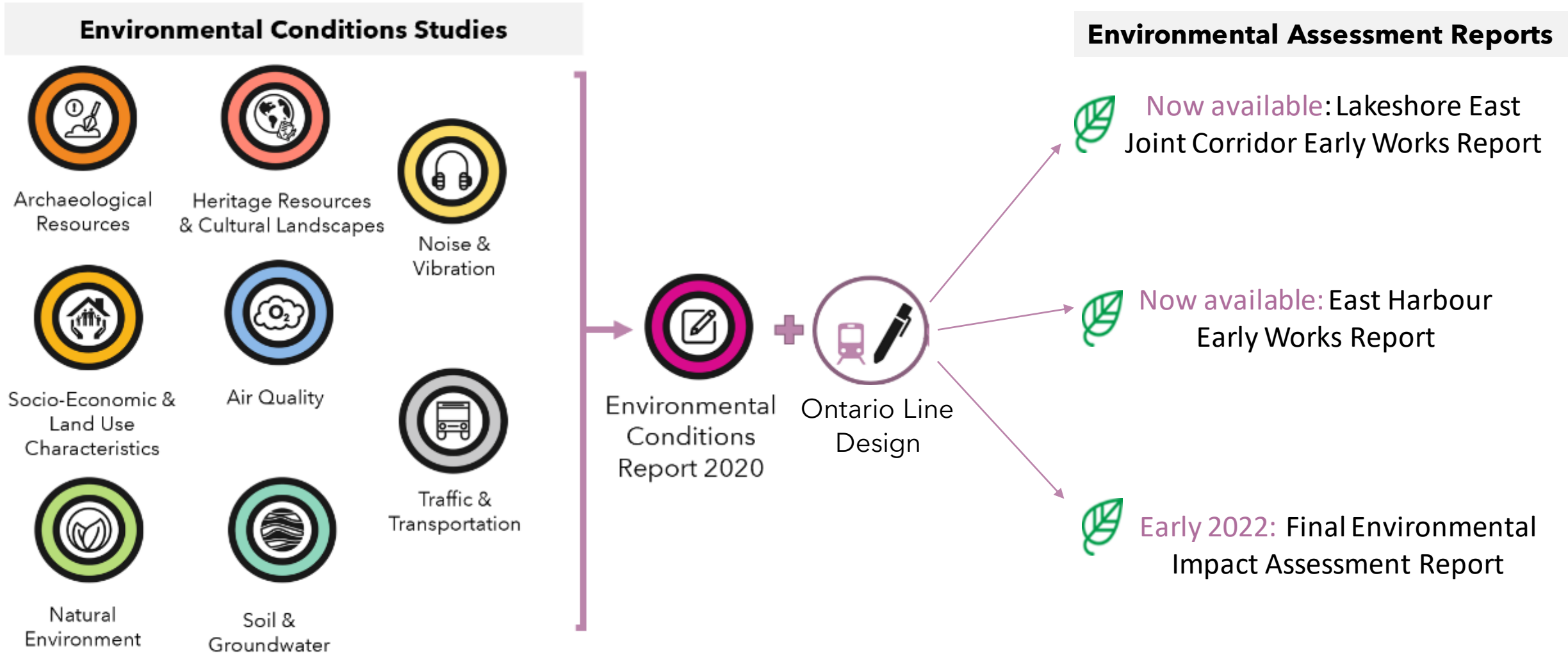
Manager, Design
Standards

Agenda

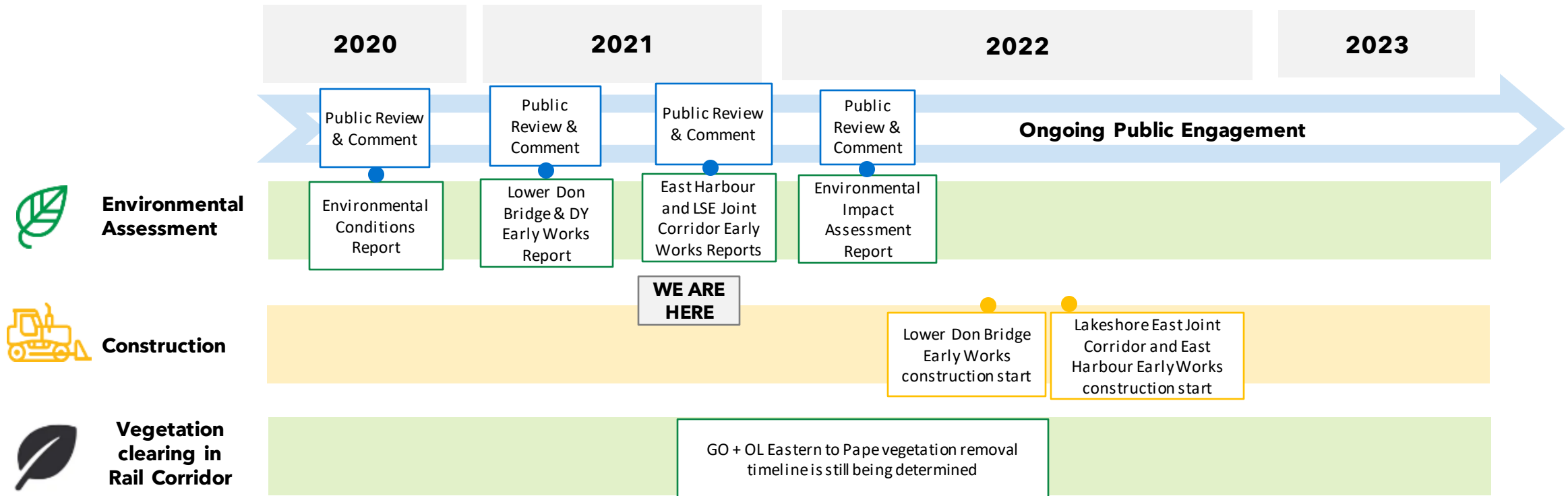
Ontario Line East Segment presentation:

- Environmental assessment summary and update
- Release of Lakeshore East Joint Corridor and East Harbour Early Works Reports
- Launch of online immersive sound demonstration
- Consultation on noise and retaining wall design elements
- Construction sequencing within Riverside and Leslieville
- Q&A

How Will Metrolinx Analyze Impacts in Your Community?



Environmental Assessment Timeline (East Harbour and Lakeshore East Joint Corridor Early Works*)



Timelines are subject to change.

* Early Works = components of the Ontario Line Project that Metrolinx proposes to proceed before the main components of the Ontario Line. Early works construction will begin after the appropriate early works report has been approved

Lakeshore East Joint Corridor Scope and Sequencing



*Visit Metrolinx Engage or [click this link](#) to view an animation which outlines the planned construction sequencing in your neighbourhood

- To advance the Ontario Line and GO Expansion, the following construction activities will take place within the Lakeshore East rail corridor between Eastern and Pape Avenue:
 - reconfiguration of existing GO tracks to support future Ontario Line infrastructure;
 - replacement of the existing rail bridges at Queen Street East, Dundas Street East and Logan Avenue;
 - construction of two new bridges at Dundas Street East and Logan Avenue;
 - construction of the supporting infrastructure to accommodate future fourth GO track;
 - setting foundations for GO overhead catenary system poles; and
 - construction of retaining walls and continuous noise barriers

Release of Lakeshore East and East Harbour Early Works Reports



Archaeological
Resources



Built Heritage
Resources
& Cultural
Landscapes



Noise &
Vibration



Natural
Environment



Socio-Economic
& Land Use
Characteristics



Air Quality



Traffic &
Transportation



Soil &
Groundwater



Draft Lakeshore Joint Corridor and East Harbour Early Works Reports are available on Metrolinx Engage for public review and feedback until **Sunday, October 24, 2021**.



Virtual open house on **October 5, 2021** to hear your feedback and answer questions about these two early works reports.

Managing Construction Noise and Vibration

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

Mitigation measures are identified in the Lakeshore East Joint Corridor Early Works Report to avoid, reduce or manage noise and vibration impacts.

Measures to manage construction noise and vibration:

- Meet the Ministry of the Environment Conservation and Parks (MECP) noise levels standards
- Implement measures to minimize transfer of noise and vibration, where possible (*e.g., equipment must be in good working order, use of muffling devices, compressors, restrict construction hours for vibration-causing activities, hoarding, or noise barriers*)
- Before construction begins, complete pre-condition surveys at properties that may be affected by vibration-causing activities.
- Install noise monitoring equipment to monitor noise levels and identify where further mitigation is required.
- Ongoing communication and consultation with nearby residents to provide advance notice of noise and vibration causing activities.

Details are available in the *Key Findings* of the Early Works Report.



Image:

Example of a construction noise monitor.

Source: AECOM, 2017.



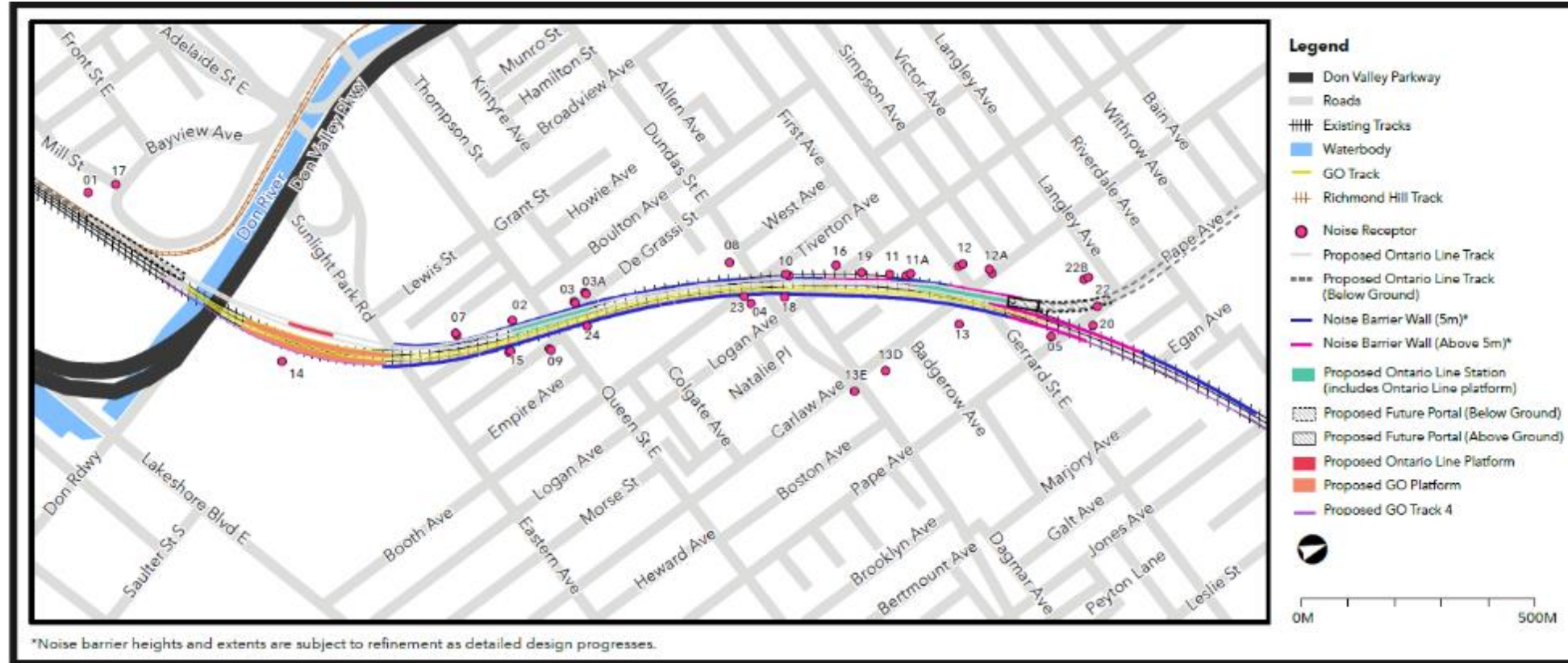
Image:

Example of a construction vibration monitor.

Source: AECOM, 2020

Operational Noise and Vibration Assessment

- 1 28 locations assessed, modelling both Ontario Line and GO Expansion.
- 2 Metrolinx will install noise barriers with a minimum height of five metres.
- 3 Noise barriers will reduce existing noise levels at most locations in the corridor.



Immersive Sound Demonstration

- The demo will allow you to compare current noise levels in the rail corridor to future noise levels after installation of the noise walls and once GO Expansion and Ontario Line are in operation.
- Users will be able to hear a simulated Ontario Line train passby and a GO train passby.



Visit [Ontariolinesoundstudio.ca](https://ontariolinesoundstudio.ca) to experience this virtual demonstration for yourself

Protecting the Natural Environment During Construction

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

Measures for managing trees and the natural environment

- Promote pollinator species, habitat and compensation in accordance with the *Metrolinx Vegetation Guideline 2020*
- Where trees are required to be removed, only those necessary for the works (in the construction footprint) will be affected.
- Remaining trees will be protected using fencing/barriers.
- The area will be assessed to identify any species at risk and measures put in place to minimize impacts.
- Areas disturbed during construction will be restored.
- Erosion and sediment control measures will be put in place.
- Metrolinx is using T-wall construction to minimize impact as it allows for construction from within the rail corridor and will result in a shallower impact.



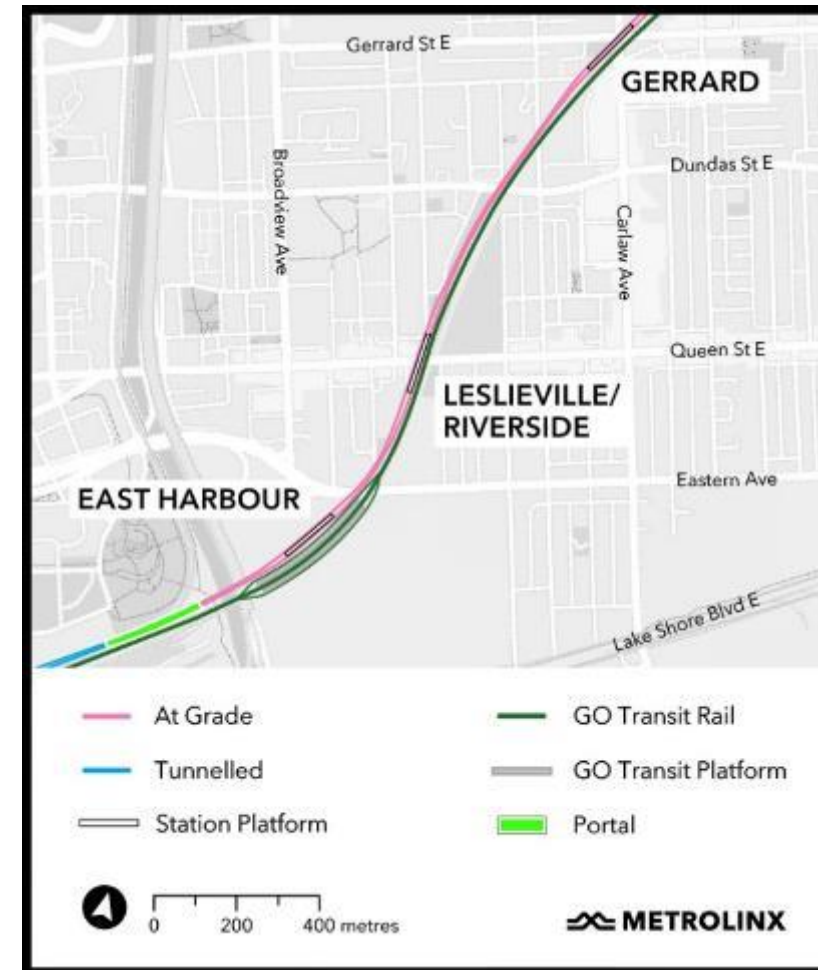
Image:

Jimmie Simpson Park, looking east along the rail corridor.

Source: Metrolinx, 2021.

Required Vegetation Removals and Compensation in LSE Rail Corridor

- Vegetation must be removed for both the GO Expansion and Ontario Line in Metrolinx-owned lands.
- The timeline for removing vegetation for Lakeshore East Rail Corridor Improvements from Eastern to Pape Avenue **is still being determined.**
- Metrolinx is consulting with the City on the tree replacement and compensation strategy for any trees that need to be removed outside the Metrolinx property boundary.
- Metrolinx is also working with Toronto Parks, Forestry and Recreation Division and the community to explore park enhancements and tree planting in your neighbourhood.



Ontario Line and Neighbourhood Parks

Parks	Approximate New Green Space (m ²)	Maximum Permanent Takes (m ²)	Net Increase in Green Space (m ²)
McCleary Playground	300	-	300
Jimmie Simpson Park	700	-	700
Bruce Mackey Park	1,300	-200	1,100
Gerrard-Carlaw Parkette / Dog Park	1,100	-600	500
Saulter Street Parkette	-	-	-
Tiverton Parkette	-	-	-
Total:	3,400	-800	2,600

1 Permanent Space Required

800 m²

2 Potential New Additional Green Space After Construction*

2,600 m²

Careful planning has ensured Tiverton Parkette, Saulter Street Parkette, McCleary Playground, Bruce Mackey Park and Jimmie Simpson Park + Rec Centre will not be used for construction and fully open to public during construction and beyond.

NOTE: Land areas are approximations.



Retaining and Noise Wall Design Elements

Retaining Wall and Noise Wall Design Objectives



ENHANCING COMMUNITY AND RAIL
SAFETY



PROTECTING EXISTING TREES AND
REPLANTING



MINIMIZING VISUAL AND PHYSICAL
IMPACTS



ENHANCING UNIQUE
NEIGHBOURHOOD CHARACTER

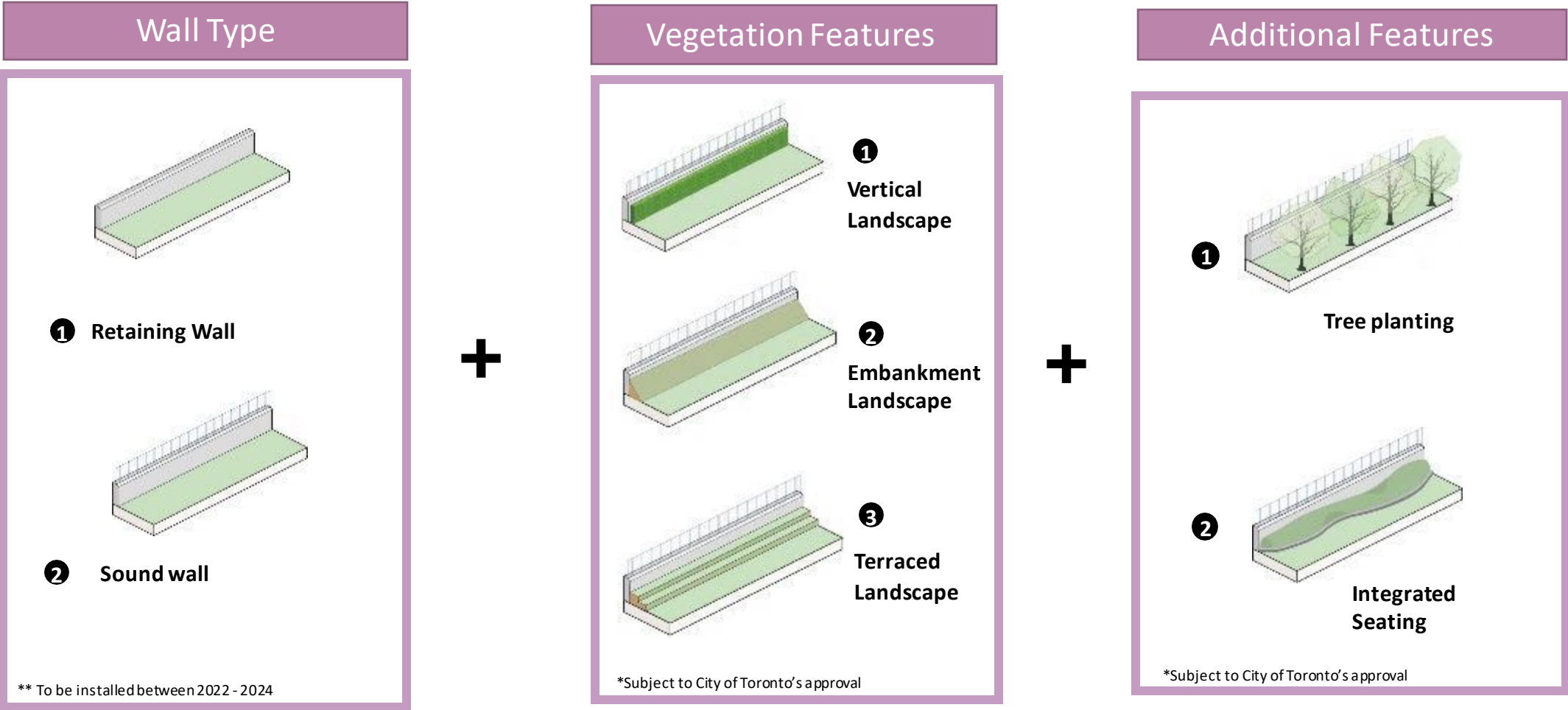


REDUCE SOUND AND
DISTURBANCES



MAXIMIZING VEGETATIVE
SCREENING

Retaining and Noise Wall Design Components and Features



Noise Wall Design Elements

1 NOISE WALL MATERIAL



THE MATERIALS WE ARE CONSIDERING

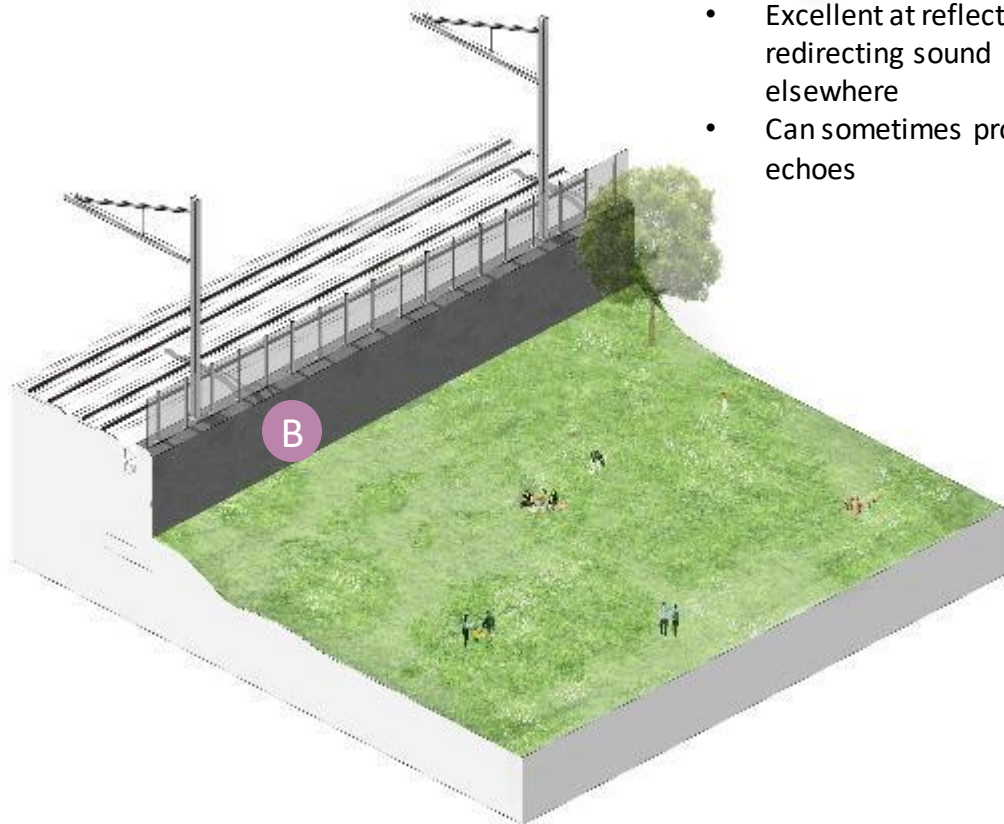
A TRANSPARENT NOISE WALL



- Made from glass, polycarbonate or acrylic
- The transparent barriers are good where visual amenity is important
- Reflective and permit light
- Available in modular sections
- Vertical pattern disguises joints, reduces stains and minimizes graffiti
- With bird deterrent patterns to prevent bird collision

Retaining Wall Design Elements

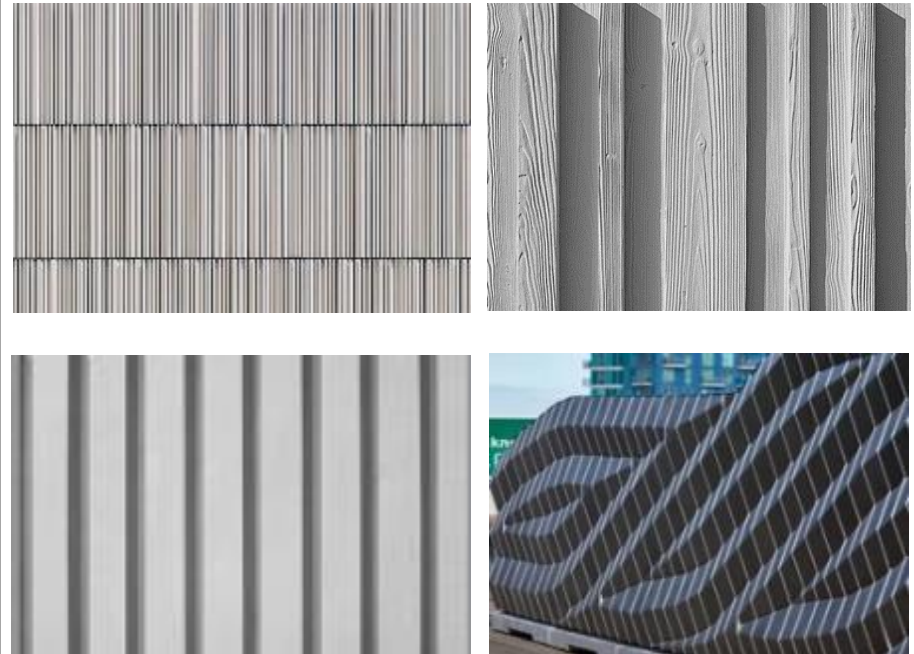
1 RETAINING WALL MATERIAL



- Durable, precast concrete has a high mass and can reduce a significant amount of noise
- Excellent at reflecting and redirecting sound elsewhere
- Can sometimes produce echoes

THE MATERIALS WE ARE CONSIDERING

B RETAINING WALL

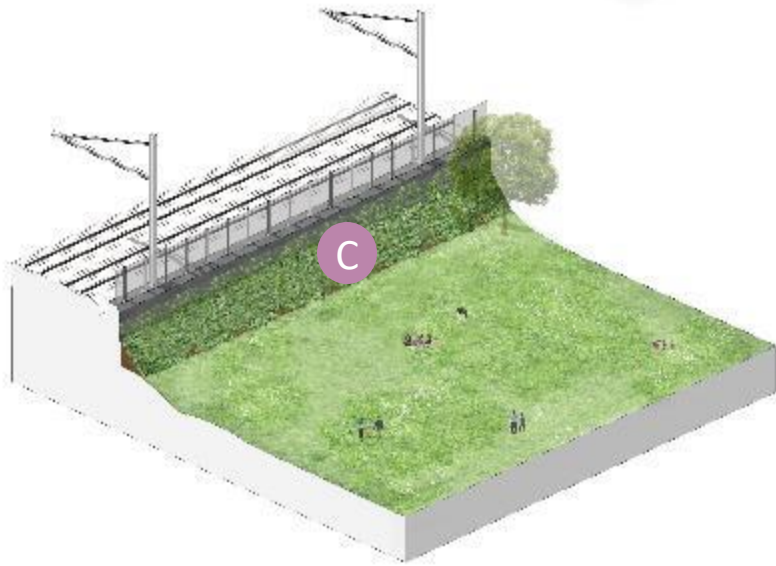


TEXTURED CONCRETE USING
DIFFERENT PATTERNS

Additional Design Elements

2

+ WALL FEATURES AND VEGETATION



- Used to soften and enhance the appearance of a noise barrier
- Used as an embankment, vertical wall or terraced landscape
- Low maintenance, native, and perennial plants are suitable
- Requires access on both sides of the wall for maintenance
- Requires long-term maintenance commitment

VEGETATIVE MATERIALS WE ARE CONSIDERING

C

GREEN WALLS (i.e., embankment, vertical walls or terraced landscape)

EMBANKMENT



VERTICAL WALLS

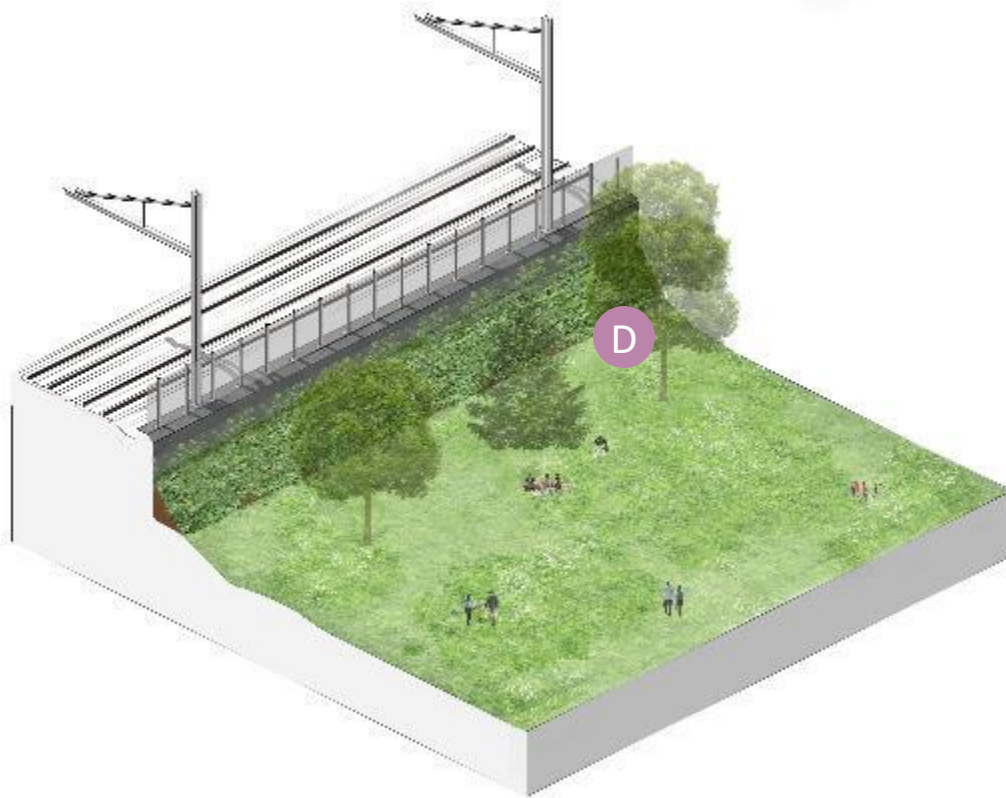


TERRACED LANDSCAPE



Retaining and Noise Wall Design Elements

3 + TREE PROTECTION AND REPLANTING



TREES WE ARE CONSIDERING

D TREE PLANTING



Coniferous Screen



Deciduous Row



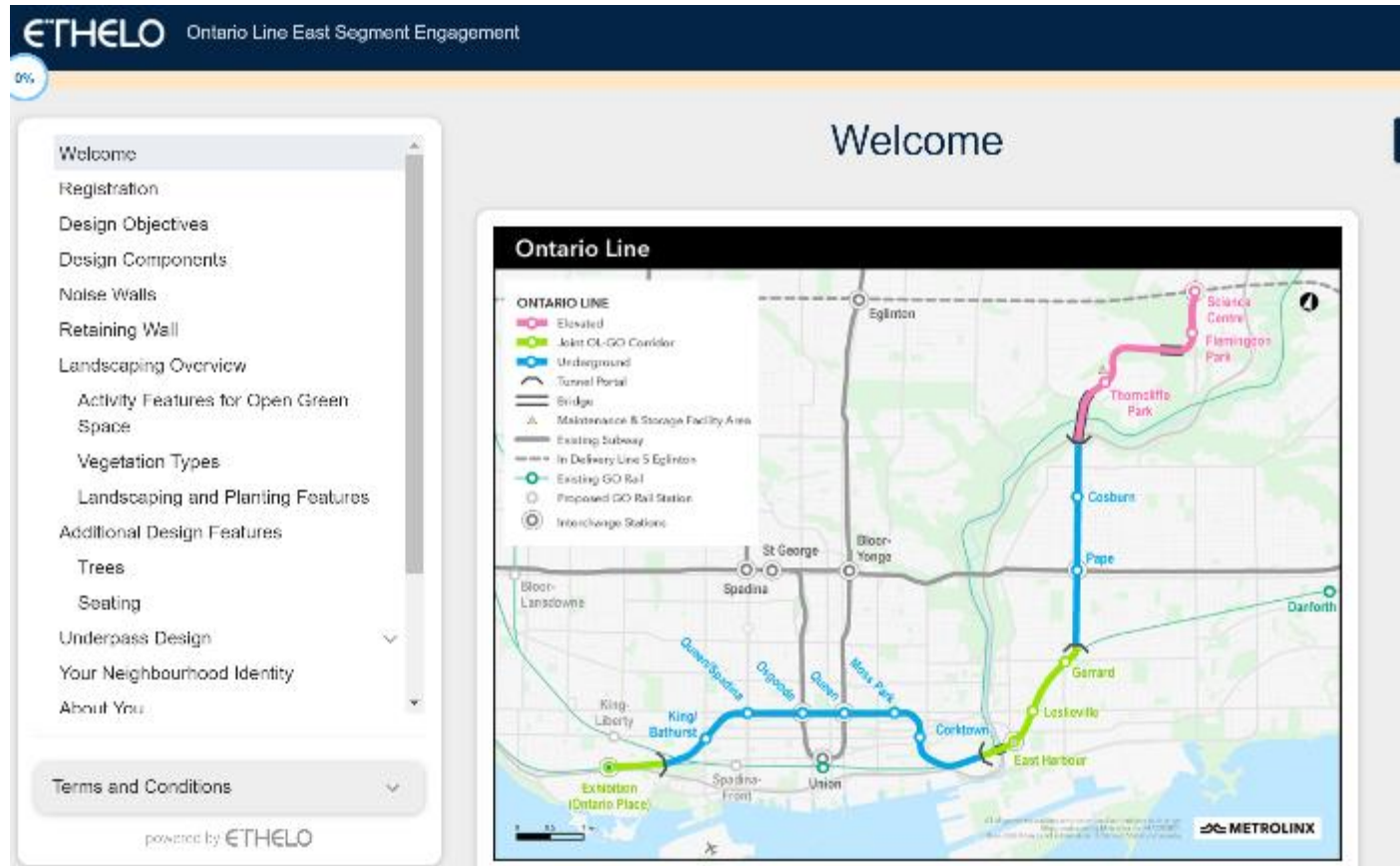
Columnar Tree Hedge



Deciduous Row During Fall

*Requires the City of Toronto's approval and sufficient space to accommodate healthy tree growth.

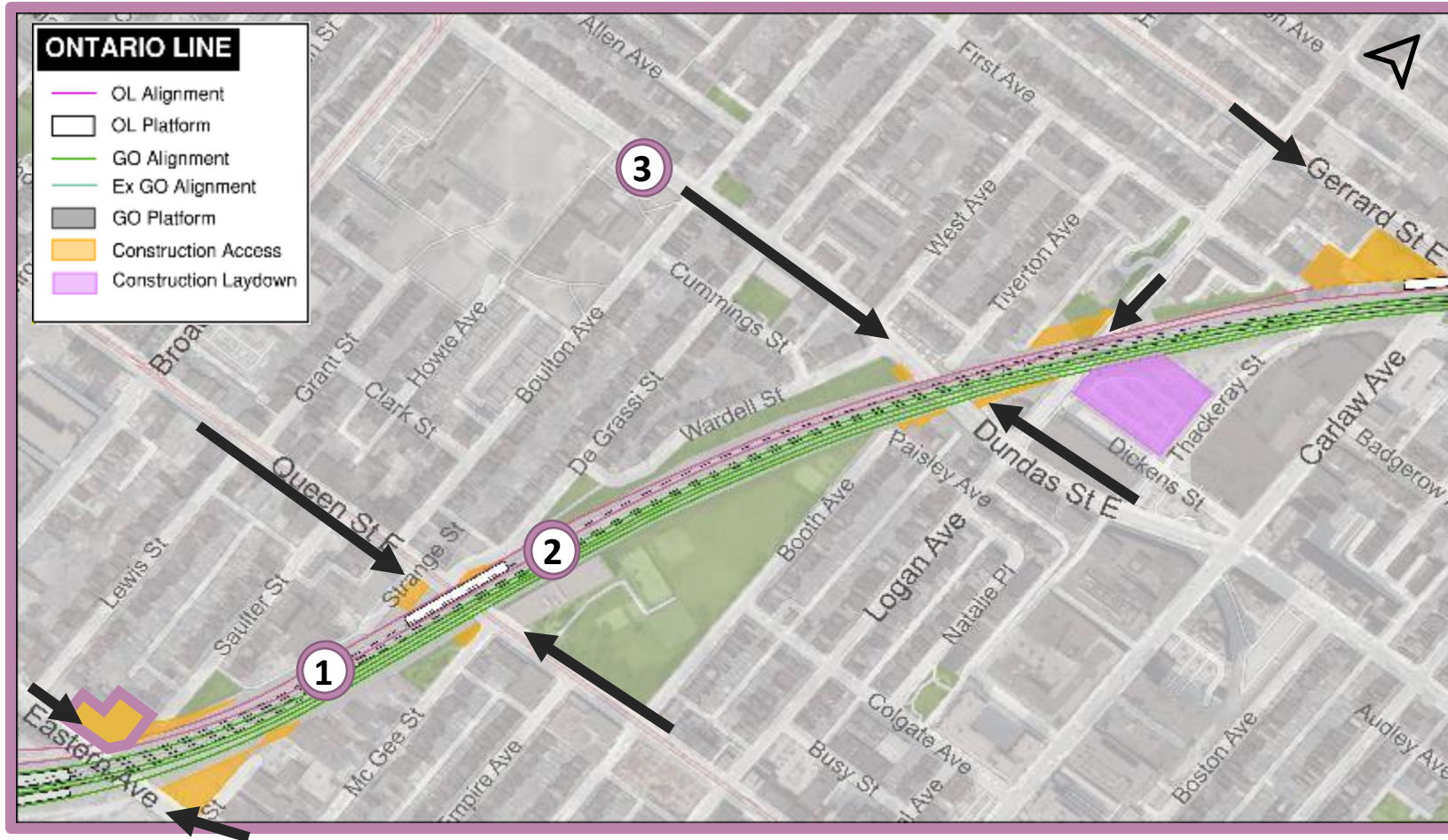
Metrolinx Launches Noise and Retaining Wall Consultation



- Using Ethelo, an interactive public survey tool, LURA Consulting will invite community members to provide feedback on the retaining and noise walls components and features.
- Survey is open until October 14, 2021.

Provide your feedback directly by visiting metrolinx-ontario-line-engagement.ethelo.net

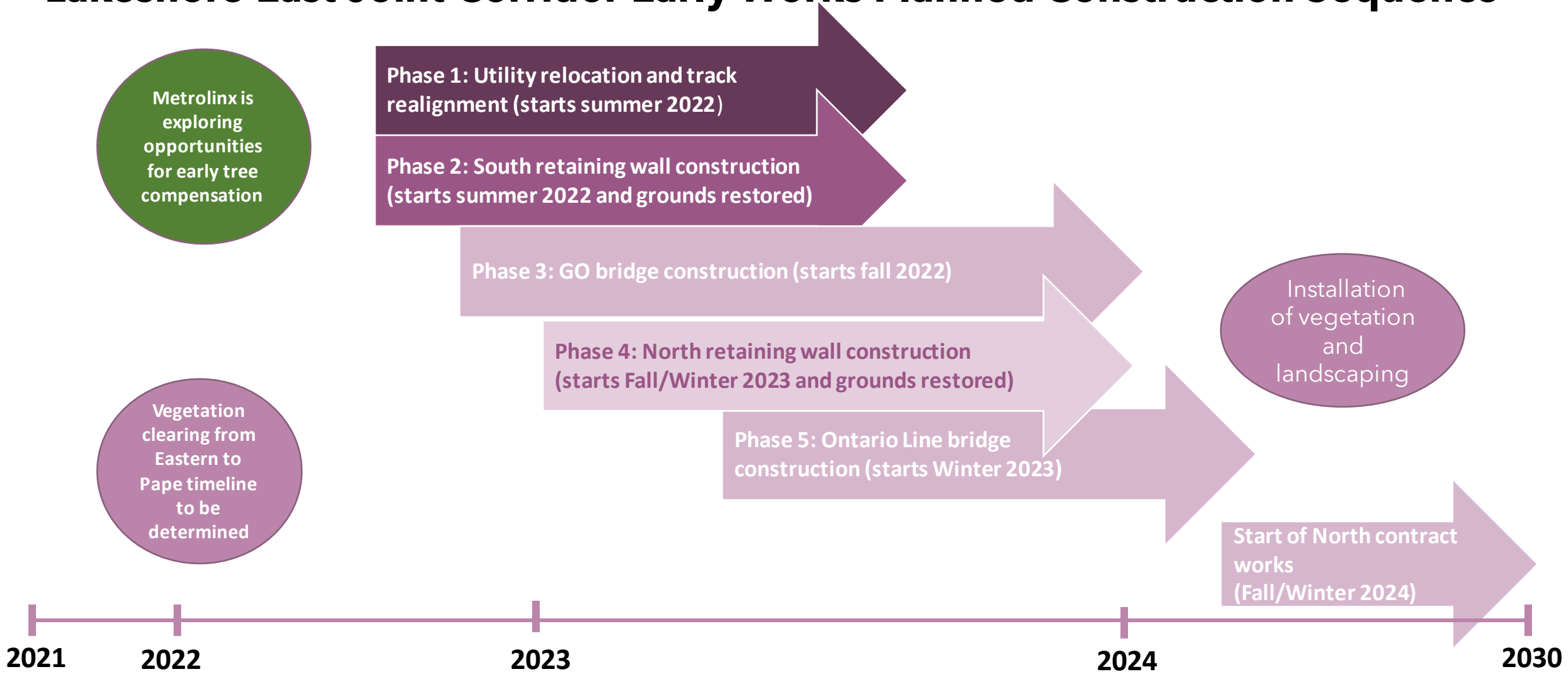
Early Works Construction Approach | Reducing Impacts



Limiting Impacts to Your Neighborhood by:

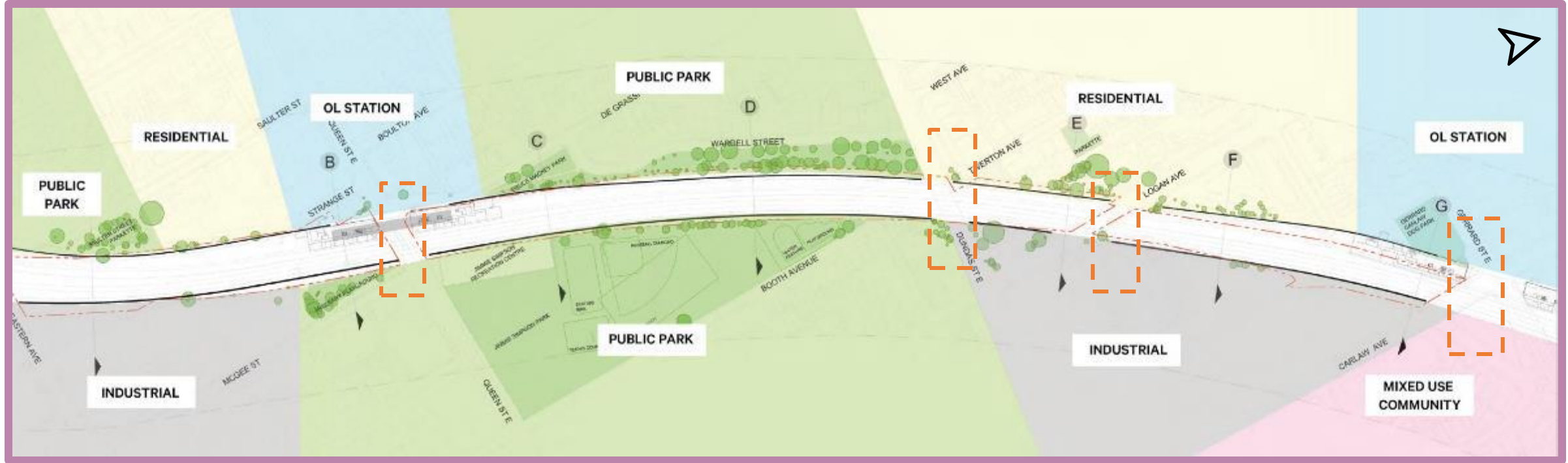
- 1 Using Corridor Space:** The Ontario Line tracks and platforms will occupy a portion of the existing rail corridor, limiting impacts to surrounding businesses, residents and the community.
- 2 Considering Construction Technique:** Retaining walls will be constructed mainly from within the rail corridor to reduce impacts to adjacent trees and greenspace.
- 3 Restricting Workers Access:** Crews will access the construction zone through main roads, reducing impacts to adjacent parks.

Lakeshore East Joint Corridor Early Works Planned Construction Sequence



**Note: Early Works construction phases may overlap as some works may be completed simultaneously to reduce the construction duration. Mitigation measures, such as landscaping will occur after major construction is completed. Tree removals will occur during the early works stage but only after required approvals are in place.*

Bridge Locations



Track alignment and location/height of retaining walls is subject to continued review and design and may change. The GO structures at Queen and Dundas Streets as well as Logan Avenue will be replaced. However, only a part of the Gerrard structure will be replaced.

Upcoming Public Engagement Activities

Retaining and Noise Walls Public Consultation

- Visit metrolinx-ontario-line-engagement.ethelo.net to provide your feedback directly to Metrolinx until October 14, 2021.

Riverside and Leslieville online immersive sound demo

- An immersive sound demo is now available at Metrolinx Engage or by visiting OntarioLineSoundStudio.ca.

East Harbour and Lakeshore East Joint Corridor Early Works Report

- Public Comment Period opens September 23 to October 24, 2021.
- Virtual open house scheduled for October 5, 2021 to hear feedback and answer questions.

Opening of the Riverside Community Office

- Ask questions and provide feedback directly at our office located at 770 Queen Street East.
- Open Monday – Friday from 9am to 5pm.

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).



OntarioLine@Metrolinx.com



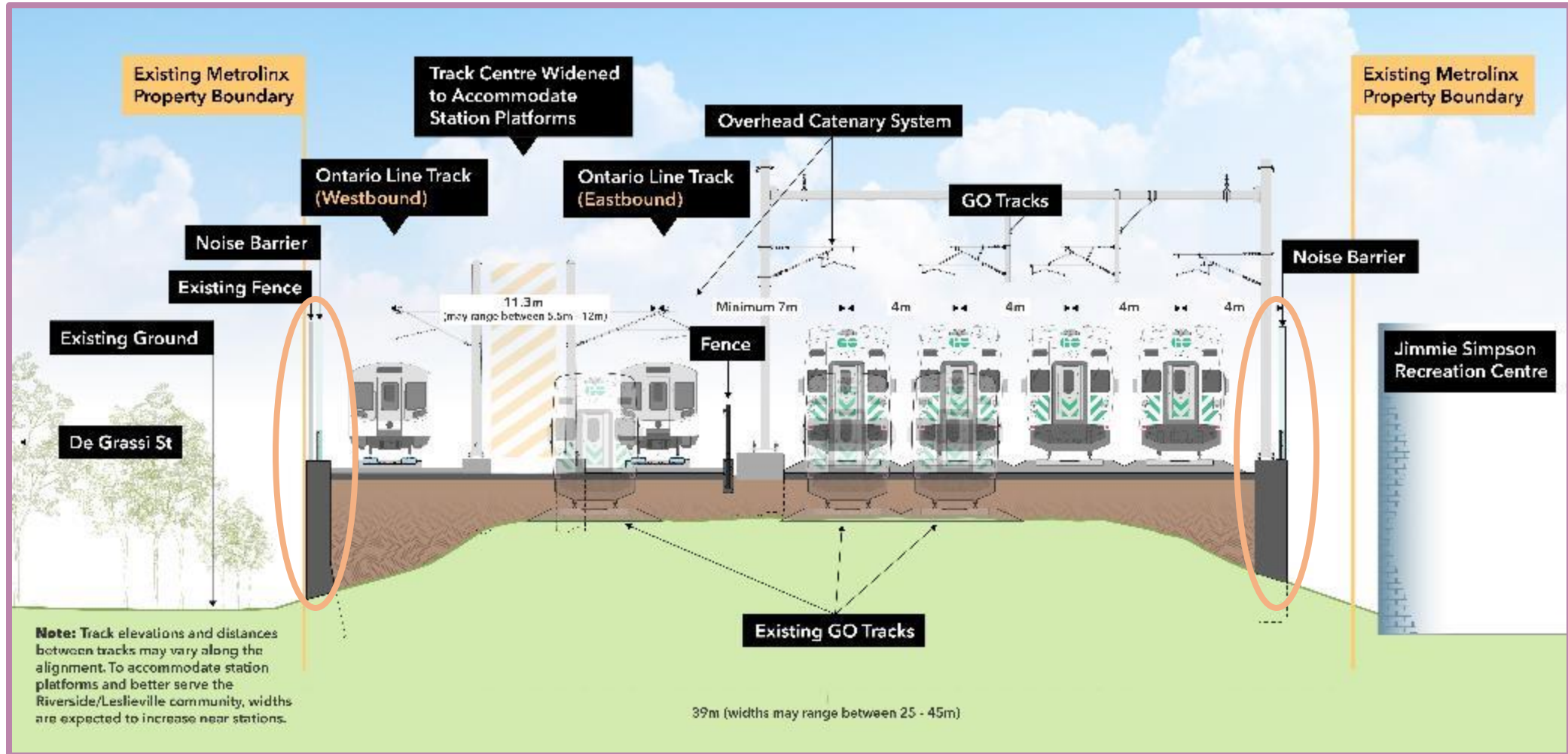
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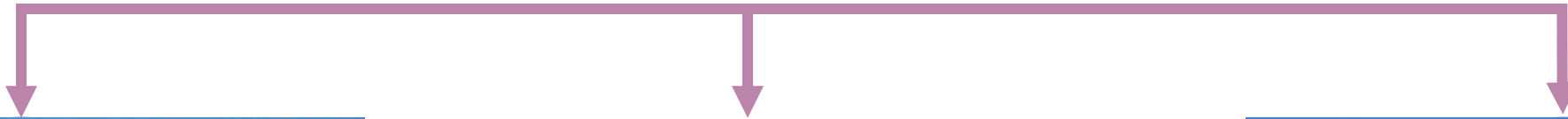
[Metrolinx.com/OntarioLine](https://metrolinx.com/OntarioLine)

Appendix

Cross Section | North of Queen Street East (Riverside and Leslieville Station)



Why We Build Retaining Walls



To stabilize the ground near the transit corridor



To retain soil and earth near excavations



Enhances community safety by eliminating unauthorized access to rail corridor

Retaining Wall Construction Method | T Walls Vs. Cast-in-Place Walls

T Walls:

- ✓ Reduces space needed for construction
- ✓ Smaller wall footprint reduces impact to trees near the rail corridor
- ✓ Speedier and simpler construction



T-wall construction example

Cast-in-Place Walls

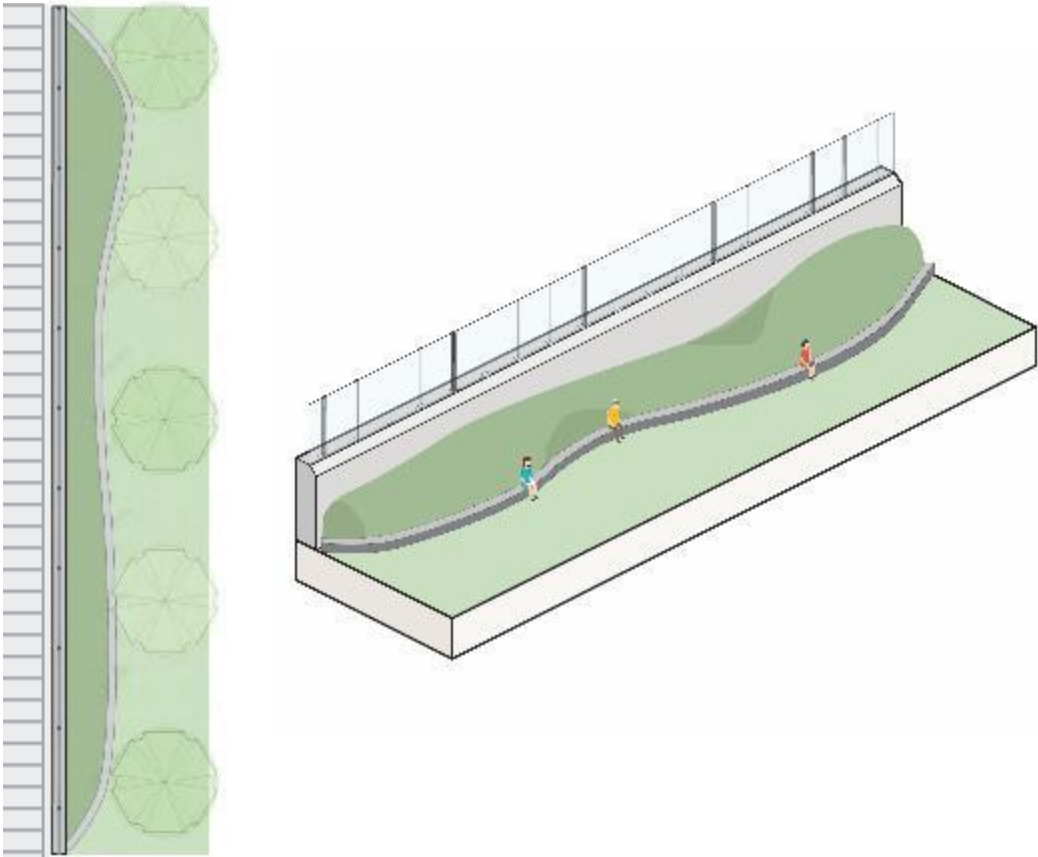
- ✗ Greater space needed for construction
- ✗ Larger subsurface footprint impacts more trees outside the corridor
- Longer construction timeframe
- More construction equipment accessing site








Cast-in-Place construction example

Additional Components - Integrated Seating

- Another type of embankment adjacent to the wall may allow for seating at the base of the embankment, enhancing the character and functionality of adjacent spaces.

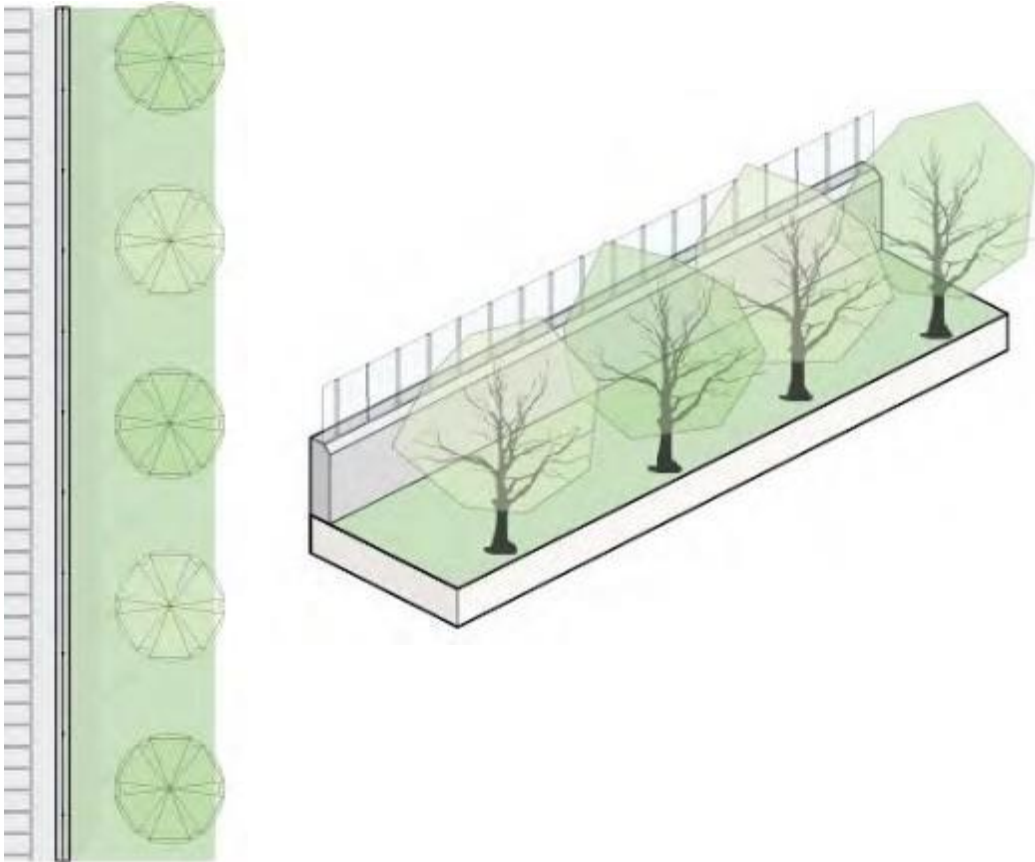


PALETTE OF MATERIALS

SEATING	LANDSCAPE EMBANKMENT
	
Wooden Bench	
	
Seat Wall	Perennial Plants

Additional Components - Tree plantings

- Where property limits allow, trees will be planted adjacent to the rail corridor. Trees may be deciduous, coniferous, columnar, or an alternating mix / combination of these.



PALETTE OF MATERIALS

TREE PLANTING



Coniferous Screen



Deciduous Row

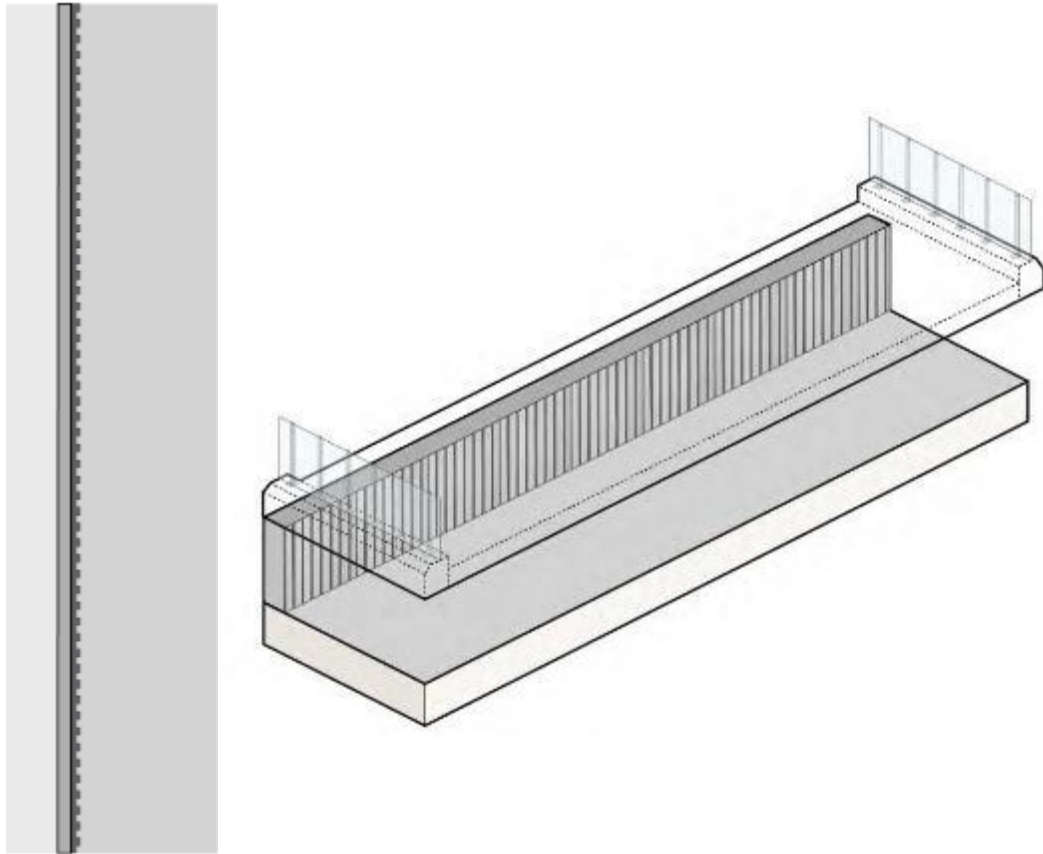


Deciduous Row Winter and Fall



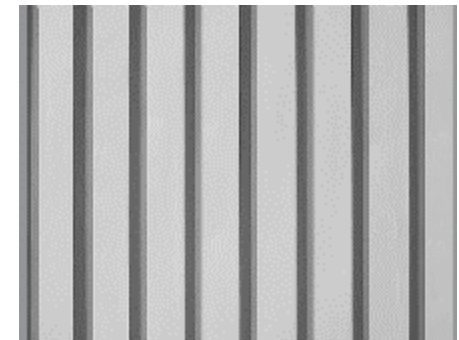
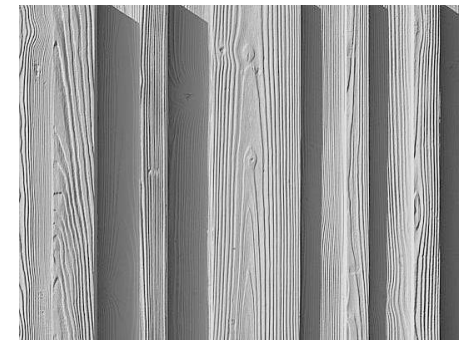
Columnar Tree Hedge

Wall Type - Textured Surface

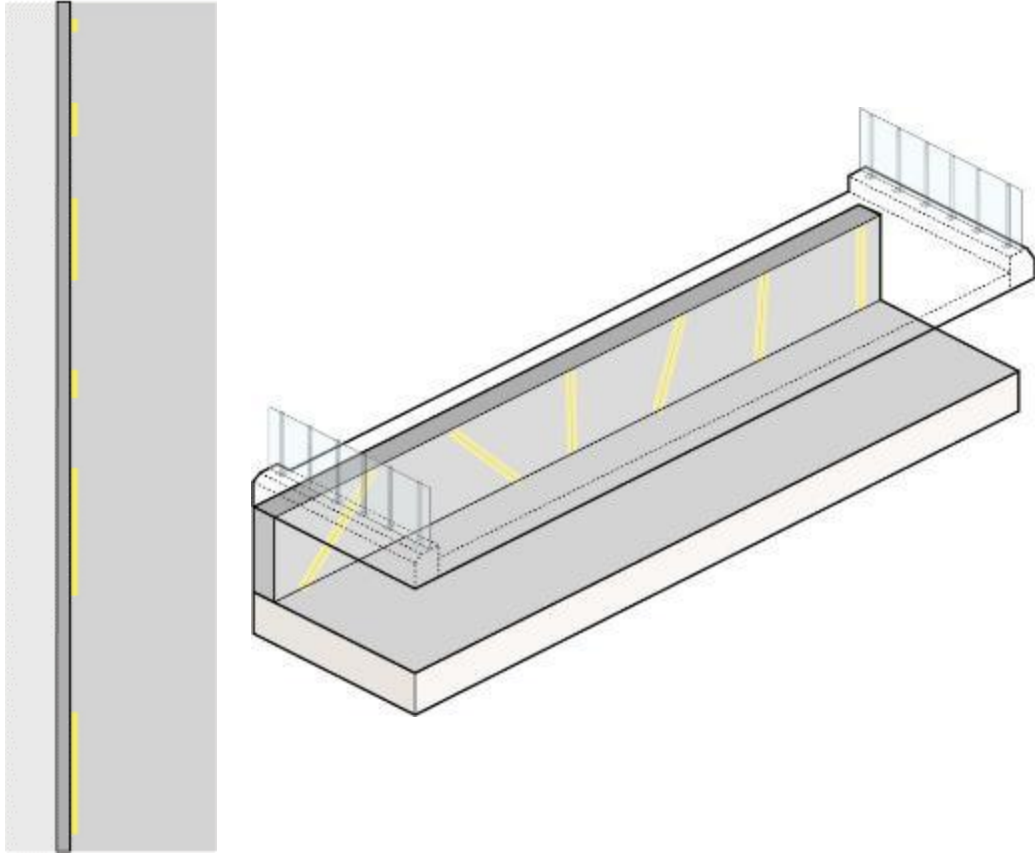


PALETTE OF MATERIALS

TEXTURED WALL



Additional Components - Lighting

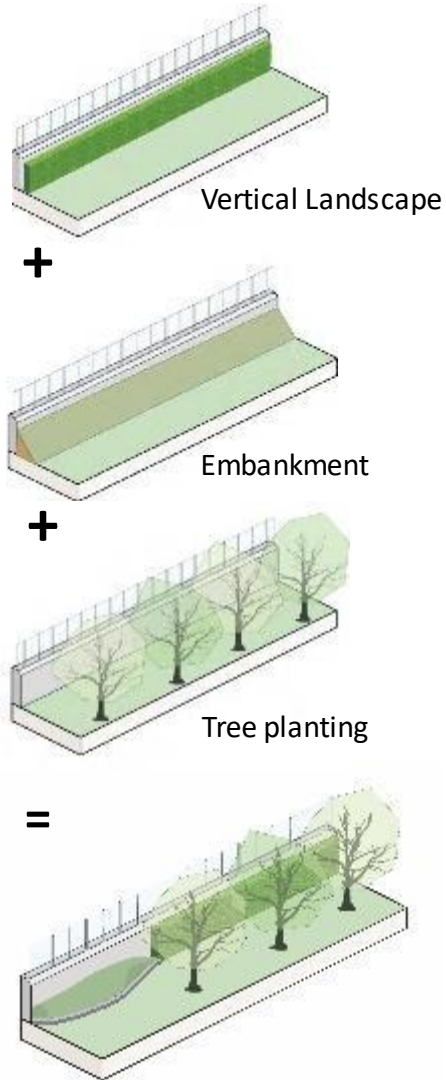


PALETTE OF MATERIALS

LIGHTING ON WALL



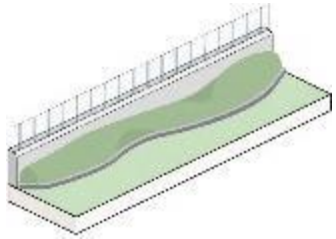
Retaining & Noise Wall - Landscape Theme



Benefits of this theme:

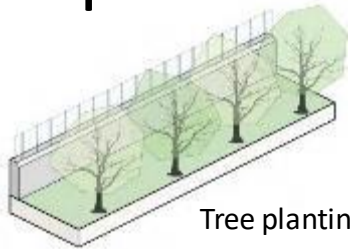
- ✓ Prevents and deters graffiti
- ✓ Enhances surrounding context
- ✓ Provides seasonal interest
- ✓ Camouflages wall
- ✓ Same noise wall capability

Retaining & Noise Wall - Built in Theme

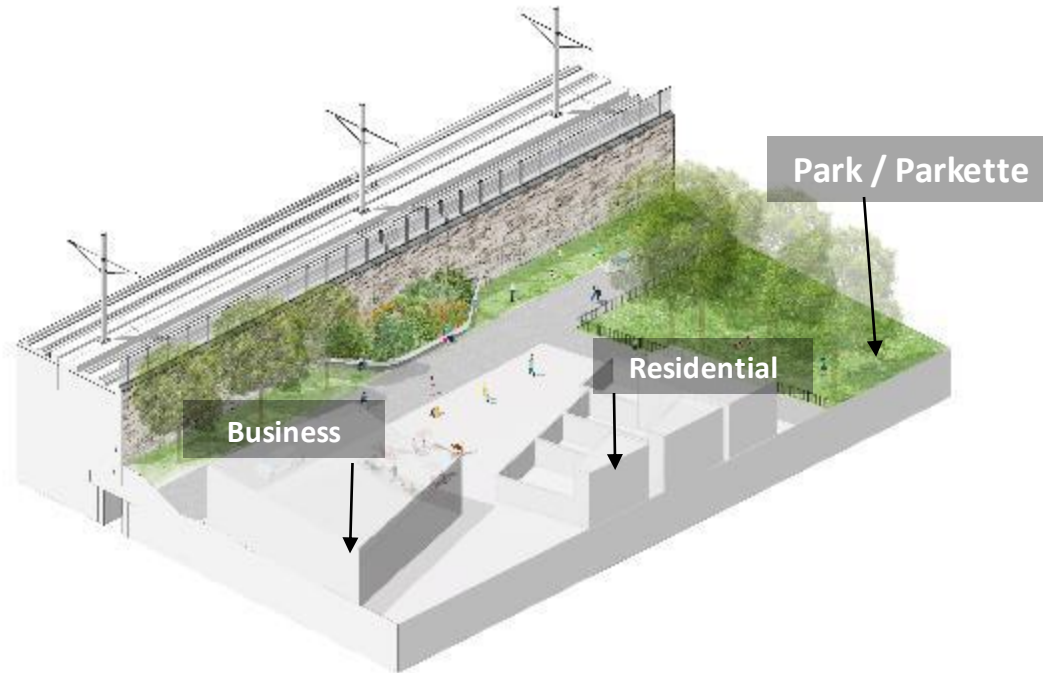


Integrated Seating

+



Tree plantings



Benefits of this theme:

- ✓ Activates public realm
- ✓ Provides functional seating
- ✓ Provides additional programmable space
- ✓ Same noise wall capability