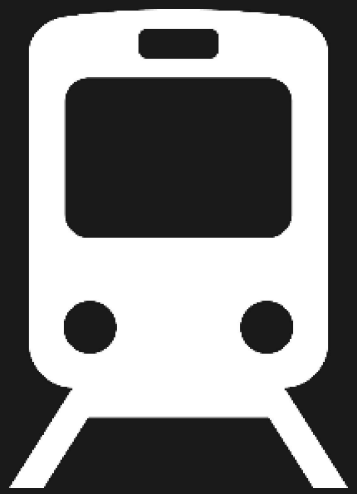


Welcome to the tunnelling and elevated guideway open house

Eglinton Crosstown West Extension

April 9, 2025

METROLINX

Welcome

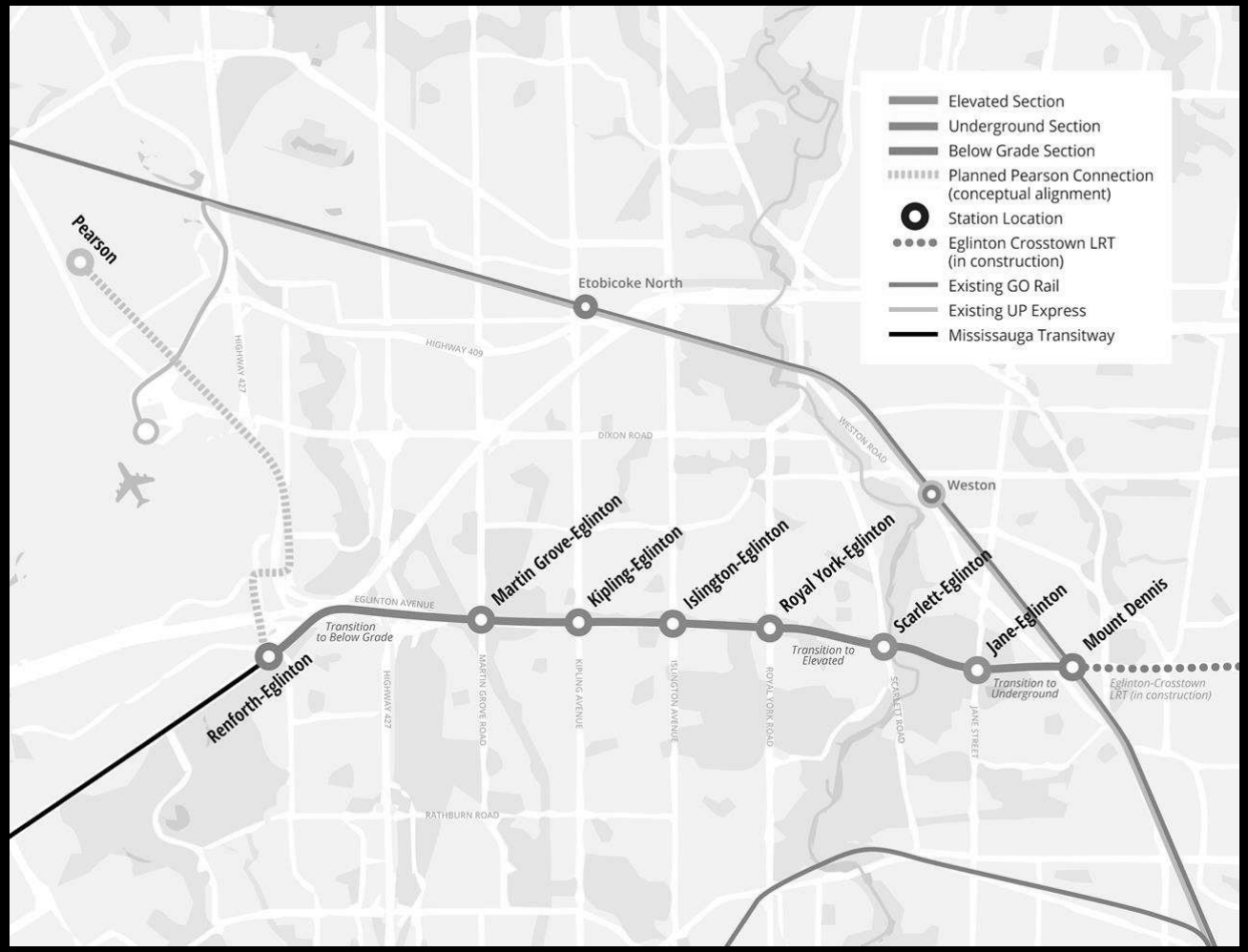
Thank you for attending the Eglinton Crosstown West Extension open house

Event focus:

- Construction updates for the elevated guideway and the tunnels between Jane Street and Mount Dennis station
- Update on community benefits and supports measures

Eglinton Crosstown West Extension

- 9.2 km of new rapid transit line
- Seven (7) new stations
- Five (5) connections to other transit options, including: UP Express, Kitchener GO Train, GO Transit, TTC and MiWay buses
- 37,500 more people within walking distance to transit
- 23,600 more jobs within walking distance to transit
- Up to 69,700 daily rides

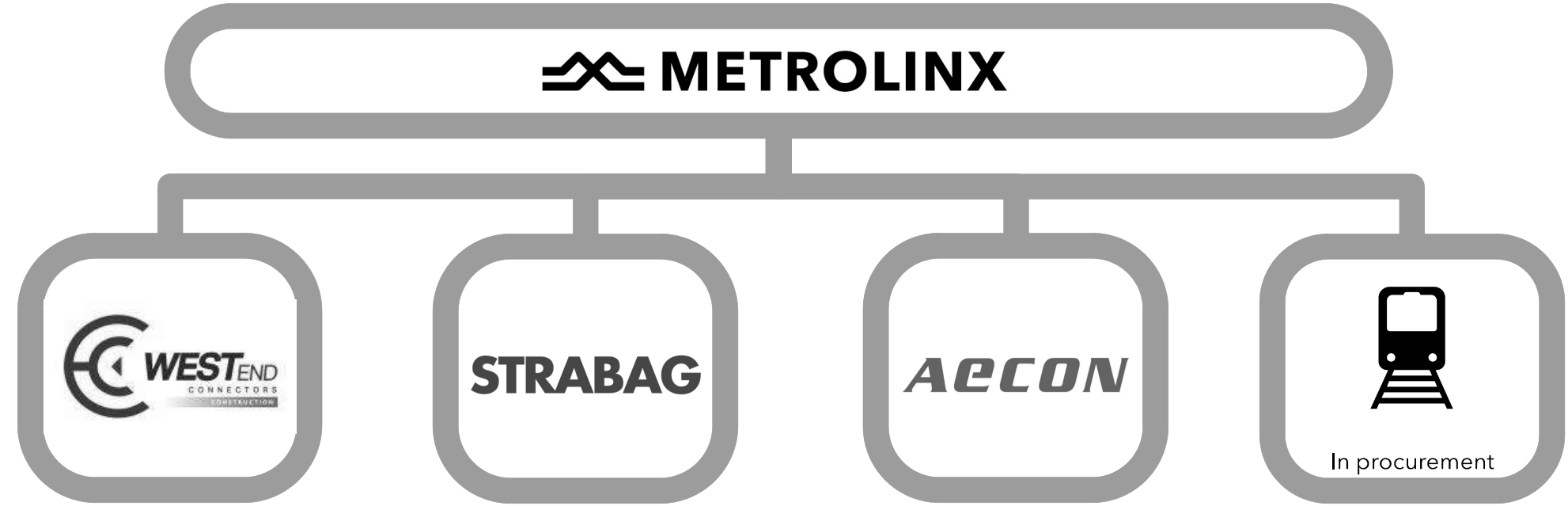


Timeline

The project is being delivered through four contracts, with separate contractors

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Renforth to Scarlett tunnels - currently under construction	**Construction**									
Scarlett to Jane elevated guideway - currently under construction			**Construction**							
East of Jane to Mount Dennis tunnels - currently under construction			**Construction**							
Stations, Rail and Systems - currently in procurement						**Design, Early Works and Construction**				

Who is building the Eglinton Crosstown West Extension?



Delivering the tunnels between Renforth Drive to Scarlett Road

- In construction since July 2021
- Tunnel boring machines (to create east and west bound tunnels) are called Renny and Rexy
- Rexy completed its works in April 2024. Renny completed its works in May 2024
- Tunnelling completed in 2024

Delivering the tunnels east of Jane Street to Mount Dennis Station

- Construction began in 2024
- The tunnel is approximately 500 metres and will connect east of Jane Street to Mount Dennis Station
- Expected to be completed in 2027
- **Meet us today!**

Delivering the 1.5 km elevated guideway (West of Scarlett Road to just east of Jane Street)

- Construction beginning in 2025
- Expected to be completed in 2028
- **Meet us today!**

Delivering the stations, rails and systems (Renforth to Mount Dennis Station)

- Currently in procurement

Who we are - Aecon

AECON

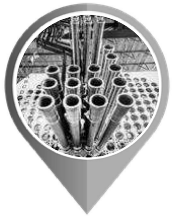
National Canadian Construction and Infrastructure Development company with global experience. Delivering integrated solutions to private and public sector clients in the civil, urban, transportation, nuclear, utility and industrial sectors as well as project development, financing, investment and management services.

Aecon is well-positioned in the Canadian marketplace as an industry leader in the development and construction of infrastructure. We have a roster of ongoing major projects, in Canada and abroad, that is diversified across multiple sectors and durations. We are in a strong market position, but we are ultimately aiming higher.

1962
GARDINER
EXPRESSWAY

1976
CN TOWER
TORONTO

2015*
CROSSTOWN
LRT



2016*
DARLINGTON
REFURBISHMENT

2018*
GORDIE HOWE
INTERNATIONAL BRIDGE

2019*
PATTULLO
BRIDGE

2021*
WINNIPEG
NORTHWWTP

2014
WATERLOO
LRT

2023
SCARBOROUGH
SCARBOROUGH SUBWAY

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Elevated guideway - Completed work

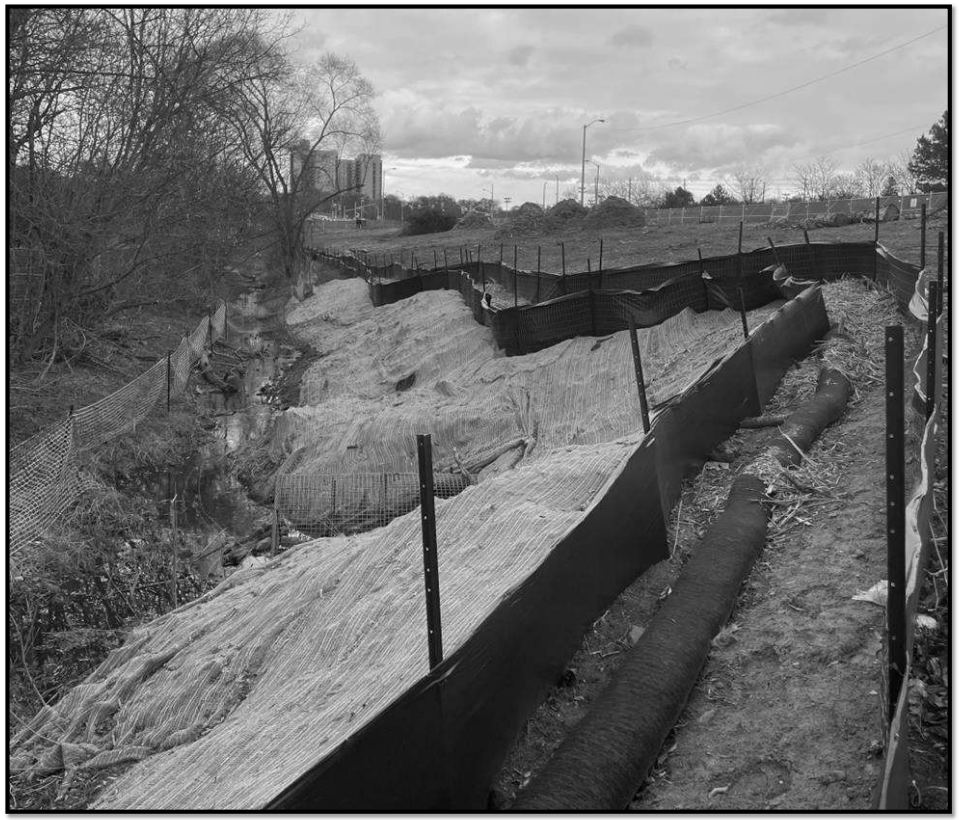
Time	Activity	Location	Details & Purpose
Fall 2024	Borehole drilling	North of Eglinton Avenue West between Scarlett Road and Jane Street.	Boreholes provide important information about soil and rock conditions
	Subsurface utilities engineering	North of Eglinton Avenue West between Scarlett Road and Jane Street	Maps underground utilities to facilitate construction
	Site fencing	North side of Eglinton Avenue West, from Scarlett Road to Fergy Brown Park, and north on Scarlett Road and Jane Street	Maintains site security while ensuring public safety
	Tree clearing / grubbing	North of Eglinton Avenue West between Scarlett Road and Jane Street	Clears trees to accommodate the elevated guideway construction
	Erosion sediment control installation	North of Eglinton Avenue West between Scarlett Road and Jane Street	Minimizes environmental impact and protects the local environment near the construction site
Winter 2025	Site grading & prep work	North of Eglinton Avenue West between Scarlett Road and Jane Street	Levels and prepares the ground for construction, including clearing, grading, and compacting the soil

Erosion and sediment control

Erosion and sediment control measures are used to minimize the impact of construction on the surrounding environment. These measures are important in preventing soil loss, protecting water quality and aquatic life in the Humber River and minimizing sediment run off from construction sites.

This is especially important for construction of the elevated guideway as we build near the Humber River and work to restore the area. Some of the control measures that will be implemented during construction include:

- Single and double row silt fencing
- Mud mats
- Coir log check dam
- Erosion control blanket



Double silt fencing at the elevated guideway construction site

Erosion and sediment control

Single and double row silt fencing

- A temporary barrier made of porous fabric held up by wooden or metal posts secured into the ground.
- The fabric gathers sediment filled stormwater, causing sediment to be retained by the settling processes
- Is a sediment barrier that prevents the off-site discharge of harmful sediment release, to protect the natural environment.

Double silt fencing at the elevated guideway construction site

Mud mats

- A rough surface on the ground that causes vehicles to shake when crossing over it, allowing tires to sink slightly and remove mud.
- Mud mats or vehicle tracking pads help remove mud from construction vehicles to prevent mud from spreading off-site.

Mud mats at the elevated guideway construction site

Erosion and sediment control

Coir log installed at the elevated guideway construction site

Coir log dam

- Biodegradable fiber products designed to stabilize soil and support areas prone to erosion, such as riverbanks, slopes, streams and hillsides.
- They offer high strength and reinforcement with densely packed mattress coir fibers inside tubular coir twine netting.
- Coir logs promote vegetation growth, which further strengthens the soil and prevents erosion over time, ensuring long-term soil stability and environmental protection.

Erosion control blanket

- Erosion control blankets are used to prevent surface erosion and accelerate the establishment of vegetation.
- These blankets cover areas of open land to help prevent soil shifting and promote new plant growth before, during and after the construction
- Erosion control blankets provide a mechanically stabilized form of immediate cover, functioning as a barrier against both the detachment and transportation phase of the erosion process until vegetation or reinforced vegetation assume this function.

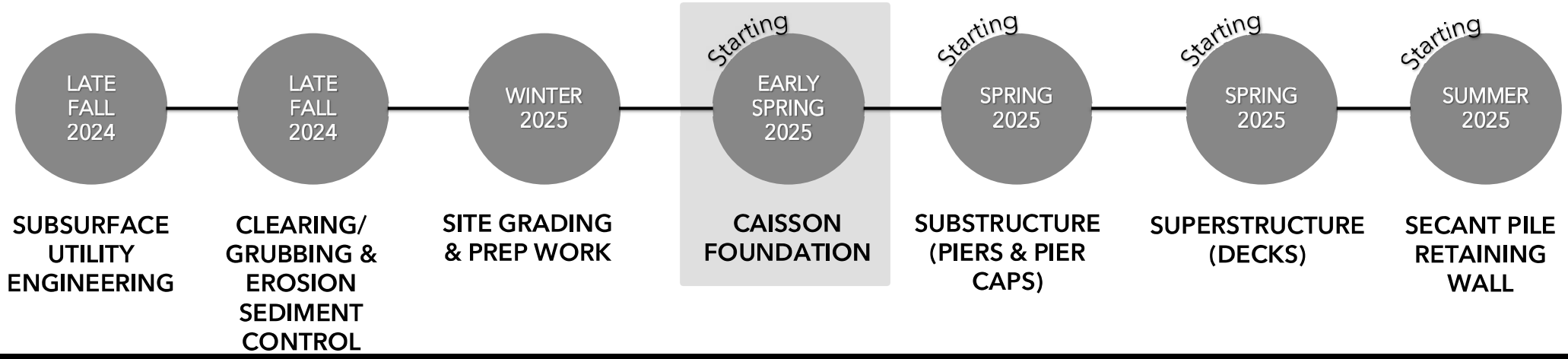
Erosion control blankets being installed at the elevated guideway construction site

Elevated guideway construction - Foundation

Caisson foundation

- **Purpose**: Provides a deep foundation that is embedded into bed rock ensuring structural stability and load-bearing capacity, particularly in section with high load requirements.
- **Process**: Involves drilling large shafts into the ground to construct reinforced concrete foundations that support the guideway structure.

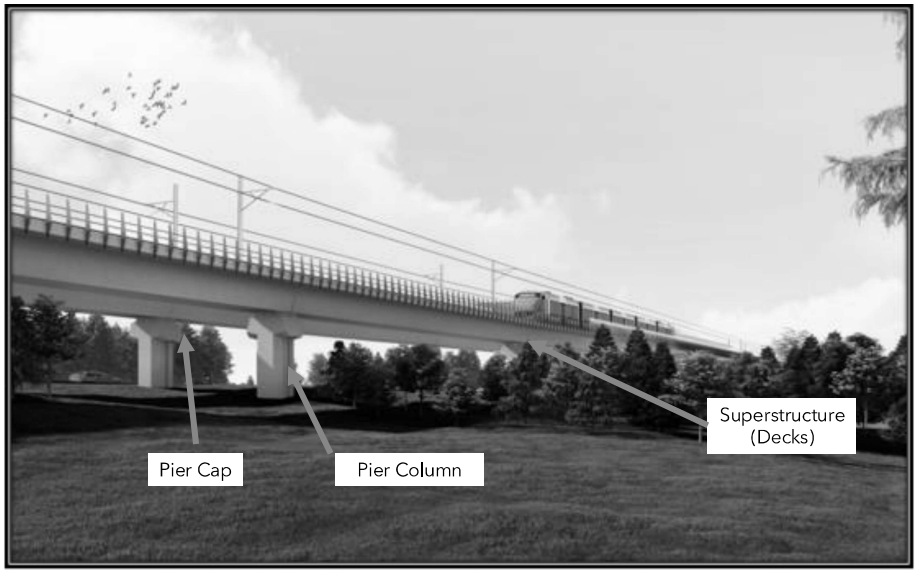
Example of caisson foundation
Source: Liebherr Group



Elevated guideway construction - Substructures

Piers and pier caps

- **Purpose:** Piers support a bridge by transferring its weight to the foundations, while pier caps distribute the load evenly across the piers, ensuring strength and stability.
- **Process:** Concrete pier columns will be constructed above the caisson and connected with a strong beam support (pier cap) off with pier caps to create a stable substructure for the guideway.



LATE FALL 2024	LATE FALL 2024	WINTER 2025	Starting EARLY SPRING 2025	Starting SPRING 2025	Starting SPRING 2025	Starting SUMMER 2025
SUBSURFACE UTILITY ENGINEERING	CLEARING/ GRUBBING & EROSION SEDIMENT CONTROL	SITE GRADING & PREP WORK	CAISSON FOUNDATION	SUBSTRUCTURE (PIERS & PIER CAPS)	SUPERSTRUCTURE (DECKS)	SECANT PILE RETAINING WALL

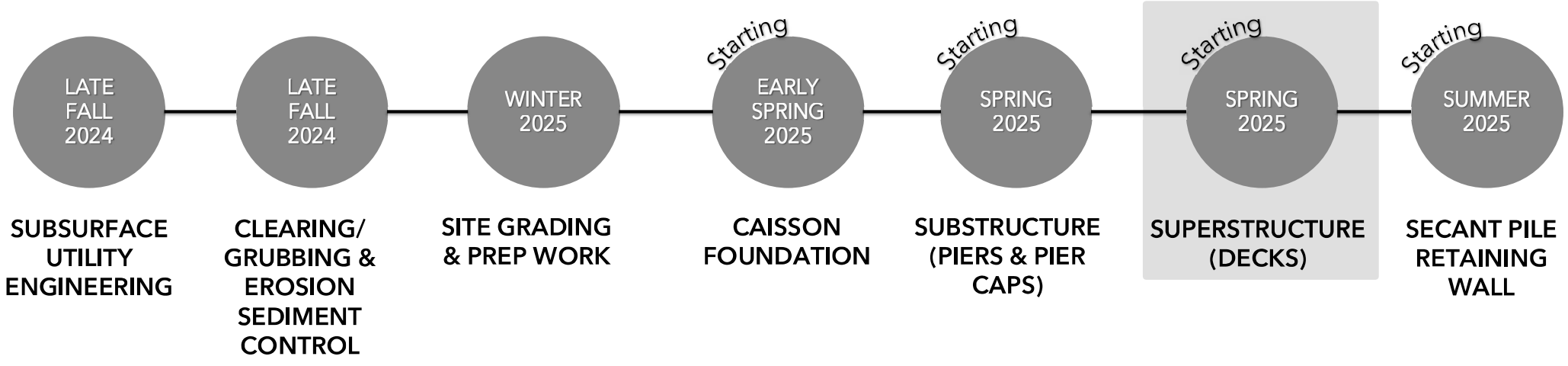
METROLINX

Elevated guideway construction – Superstructures

Decks

- **Purpose:** Forms the main horizontal structure that supports the transit system and distributes loads to the piers and pier caps.
- **Process:** Involves casting concrete deck slabs, beams supported by the piers, pier caps and other structural elements to create a continuous pathway.

Source: Ulma Construction



Elevated guideway construction – over the Humber River

- Balanced cantilever bridge construction method is used in situations where access is limited, and long span bridges need to be constructed.
- Aecon will use two cantilever bridge travellers to build the bridge from each side of the Humber river and connect the deck at the centre of the river.

In order to not enter the Humber River, Aecon will utilize the balanced cantilever bridge construction method.

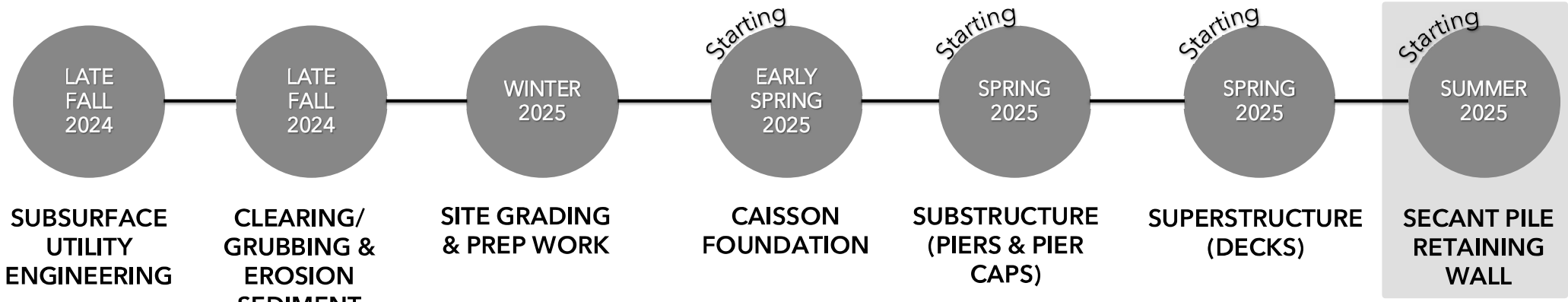
Disclaimer - The images are for conceptual purposes only and not a representation of the elevated guideway.

Elevated guideway construction – Retaining wall

Secant pile retaining wall

- A pile wall consists of overlapping (secant) concrete piles to form water-tight structural walls, with some piles being reinforced with steel beams.
- **Purpose:** provides structural support during construction that prevents movement of the soil, improves water-tightness and protects against erosion
- A pile wall will be built to safely stabilize the slope between Scarlett Road and the Humber River
- **Process:** Involves drilling overlapping concrete piles to form a continuous wall

Example of secant pile wall
Source: www.geotech.hr



Construction impacts and mitigation

Construction impacts	Mitigation(s)
Safety	Pedestrian detours around heavy construction areas. Adjustment of access to public parks.
Access to local businesses	Business continuity plans such as advertising, maintaining access, and buying locally throughout the project.
Noise and vibration	Noise and vibration threshold monitoring. Activities completed during daytime hours.
Lane closures	Signs, flag persons, detours.
Mud tracking	From project site onto sidewalk or street. Mud mats and street sweepers with vacuum suction will be used.
Dust and air quality	Dust suppression will be used on a regular basis – watering the ground regularly to keep the dust suppressed, which helps maintain air quality.
Construction debris	Daily housekeeping to prevent buildup of construction waste.

Who we are - STRABAG

STRABAG Canada stands as a construction leader, renowned for its expertise in tunnelling across diverse terrains. The company's portfolio showcases a commitment to precision and innovation, with tunnel projects contributing to transportation networks, and water infrastructure in Canada. Explore the underground realms sculpted by STRABAG, where engineering excellence defines a resilient and interconnected future.

Key Canadian projects:

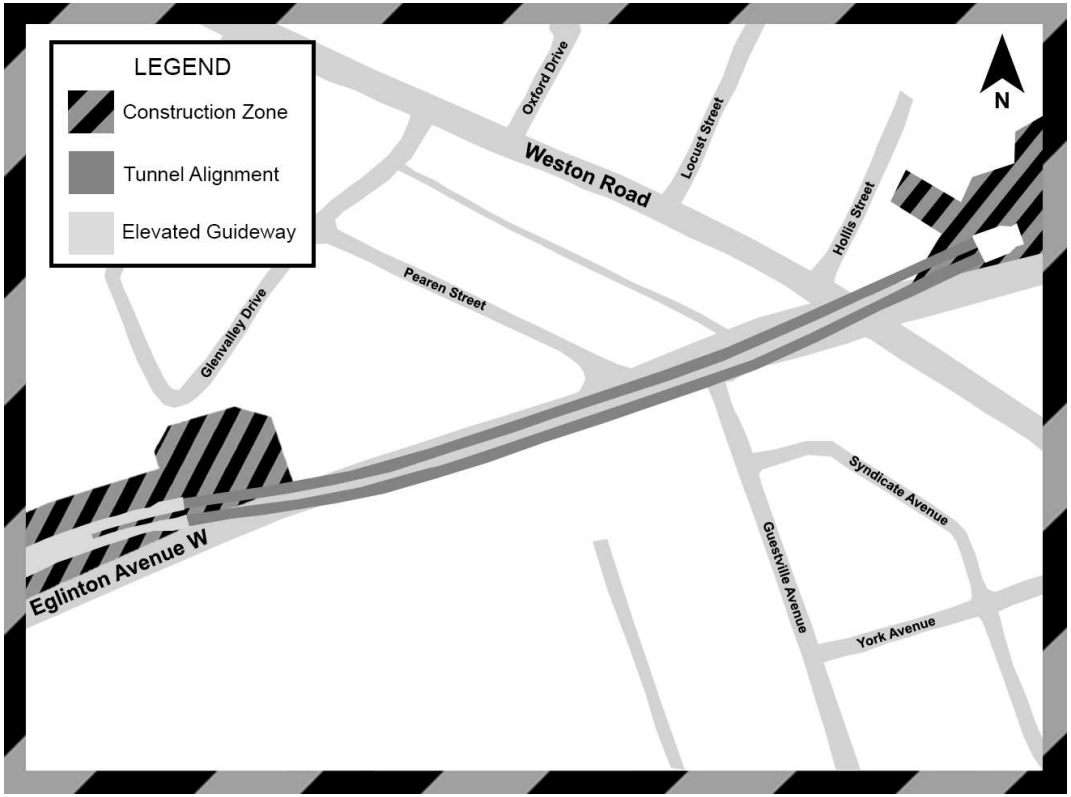
- Niagara Falls Water Treatment Plant
- Scarborough Subway Extension - Advance Tunnel
- Eglinton Crosstown West Extension – Advance Tunnel Contract 2
- Ashbridges Bay Wastewater Treatment Plant
- Highway 401 RER Tunnel Project

STRABAG
WORK ON PROGRESS

Construction updates - Tunnelling

East Tunnels - Jane to Mount Dennis station

- Tunnelling began in February 2025, utilizing the sequential excavation method (SEM). This method allows for precise excavation and stability during tunneling.



500 metre Tunnel Alignment from Jane to Mount Dennis Station

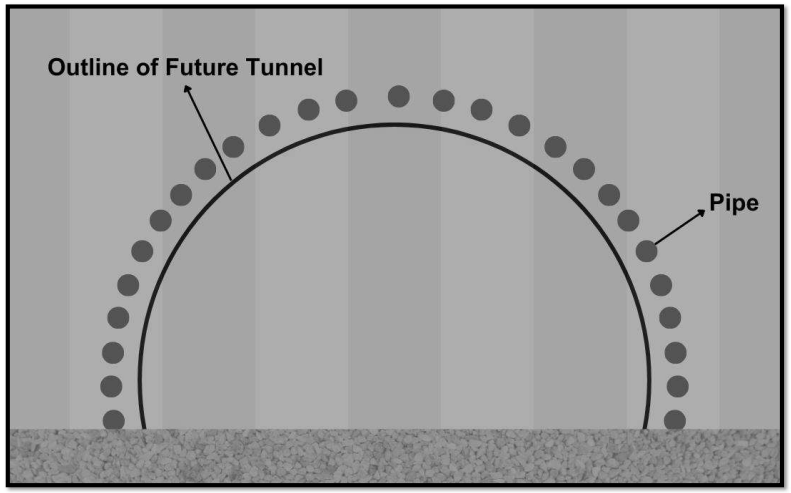
- The tunnelling work will span 500 metres, running directly beneath Eglinton Avenue West.
- Excavation operations for the project will take place 24/7 to maintain efficiency, minimize delays and ensure the work is completed on schedule.

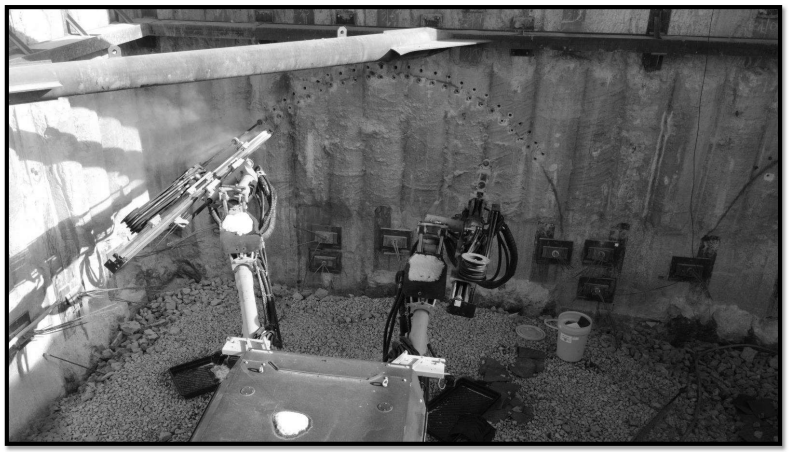
Construction at Jane portal - Stabilizing the soil

Before excavation of the tunnels could begin, a series of 114 mm diameter, 12-metre-long steel pipes were placed in the tunnel's crown to support the soil. These perforated pipes, designed for reinforcement material injection, served as a pre-support system that reduced the risk of roof collapses, enabling faster excavation with minimal surface impact.

This is referred to as the pipe umbrella method, a proven tunnelling technique that enhances safety during excavation. STRABAG completed the installation of this support system at the shaft entrances prior to the start of tunnelling.

The work included installing the pipe roof at both the Jane portal and Mount Dennis headwalls for eastbound and westbound tunnels.





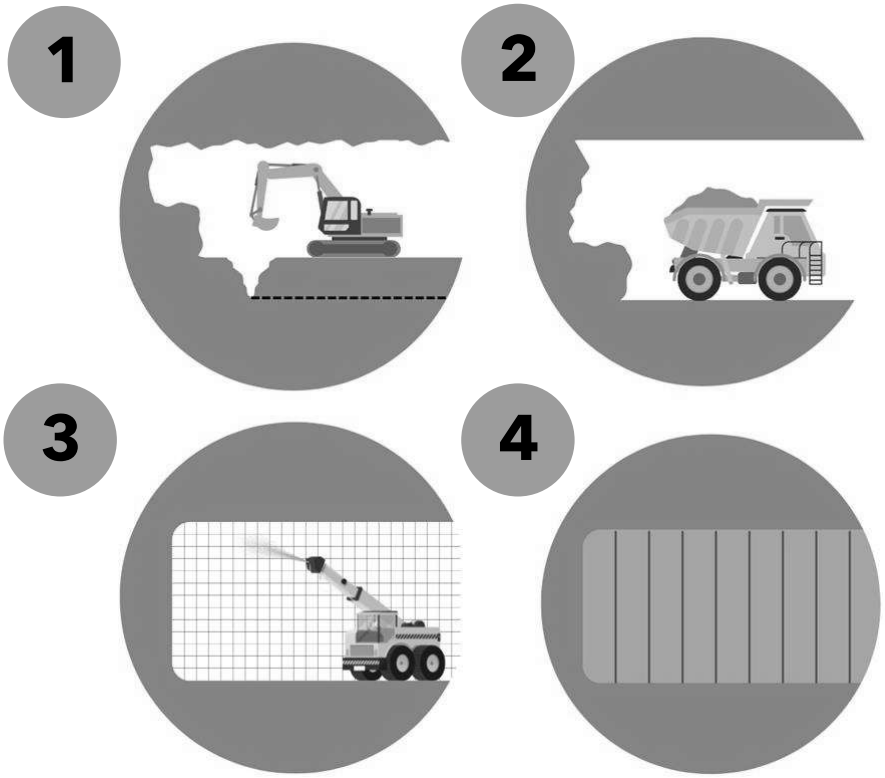
Close-up view of pipe umbrella installation in progress, showing drilling equipment and marked arc pattern on a concrete wall where steel pipes are being installed.

Construction updates - Tunnelling

To build the tunnels east of Jane Street to Mount Dennis station, STRABAG will be using the sequential excavation method (SEM) to tunnel.

Process of the SEM:

1. Excavating: Use an excavator to dig out small, specific sections of the tunnel.
2. Mucking: Remove all the materials that were dug out.
3. Shotcrete: Spray concrete against the walls that were dug out.
4. Final lining: Cast final lining concrete.



Construction at Jane portal - Tunnelling

Construction at Mount Dennis Station – Piling works

In **spring 2025**, STRABAG will begin piling works at the Mount Dennis Station plaza, building support for the tunnel and future transit structures.

How does it work?

- A pile wall consists of overlapping piles to form structural walls and achieve the required water tightness. Some of the piles are reinforced with steel beams. This activity is performed before excavation of the station shaft.
- To install the pile walls, a drilling machine will create holes of between 13 to 24 metres deep, at 1 metre in diameter, around the perimeter of the sites, respectively.
- A drilling machine will install the casing (a hollow tube) by rotating into the ground until it reaches the bedrock, section by section. Excavated material will then be removed from the casing using the auger.
- Once the drilling process is completed, reinforcements to the pile walls will be added using a crawler crane and concrete will be poured to ensure no gaps in solid materials, reinforcing the ground.

Drilling machine used in pile construction

Noise, Vibration and Dust Mitigation

Jane portal to Mount Dennis Station

Transit construction can create noise, vibration, and dust. Metrolinx and STRABAG are dedicated to reducing and managing these impacts.

Noise, vibration, and dust are continuously monitored 24-7.

Collected data helps guide any necessary additional mitigation measures, with consideration for community input.

We prioritize and will continue to prioritize the timely handling of public complaints.

Truck routes

As we build the Eglinton Crosstown West Extension, keeping people safe is our priority - and that includes planning safe and efficient truck routes during construction.

We work closely with our contractors and municipal partners to carefully plan truck routes that avoid residential areas and prioritize main roads whenever possible. We implement detailed traffic management plans that help coordinate truck movements to support safe operations as we bring transit improvements to the region.

Considerations when determining truck routes include:

- avoiding quiet residential streets and opting for main city roads and highways whenever possible
- traffic patterns and other construction projects that are in the area, as well as pedestrian and cycling activity in the area
- Locations of sensitive areas and buildings like schools, hospitals and residences

Hauling and major delivery routes to and from the elevated guideway and tunnelling site

We will continue to work together with all our partners to find ways to enhance safety in communities across Toronto as we build this much-needed transit project. This includes regularly reviewing truck routes to update them as needed to respond to changing conditions and community feedback.

Community benefits and supports

Metrolinx community benefits and supports will be implemented across our transit projects region-wide and delivered in a consistent way to mitigate impacts on local communities and businesses. These benefits will be implemented through four pillars.

This pillar promotes apprenticeship training and workforce development opportunities for local communities and equity seeking groups including 10% hiring targets for BIPOC (Black, Indigenous, People of Colour), Women, apprentices and requirements for an anti-racism policy.

This pillar builds and fosters relationships with local businesses to minimize and alleviate business disruptions and reduce the economic impacts as a result of construction, for example through shop local initiatives and procurement from local businesses.

We are working with communities as a connector to the right decision-makers to make improvements to public spaces surrounding transit project construction, where no funding is available.

During the design and development phase of our projects, we are finding ways to leave the surroundings in an improved state when construction of the project creates temporary disruptions.

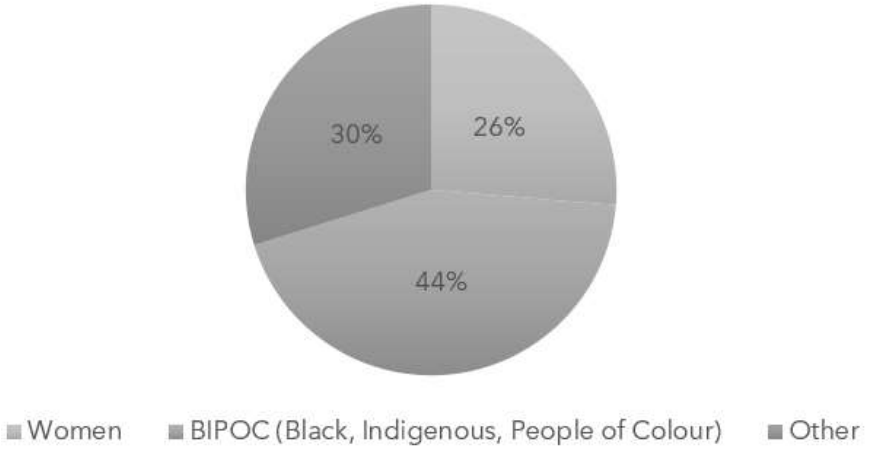
METROLINX

Community benefits and supports

Pillar One: Employment Opportunities

We are committed to hiring diversity in the workforce. Of all hires in 2024 for the elevated guideway and second tunnelling sections of the project

- 26% identified as women
- 44% identified as BIPOC (Black, Indigenous, People of Colour)



Pillar Two: Local Business Supports

Over $67,000 spent on local business supports including:

- Printing services
- Catering
- Signage
- Equipment

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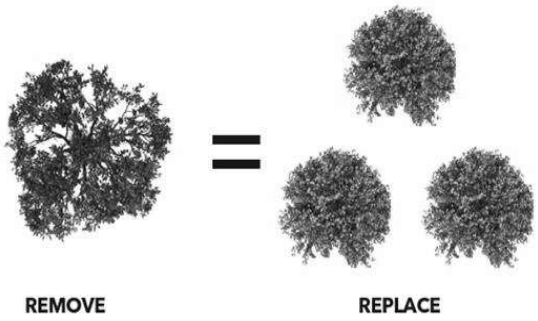
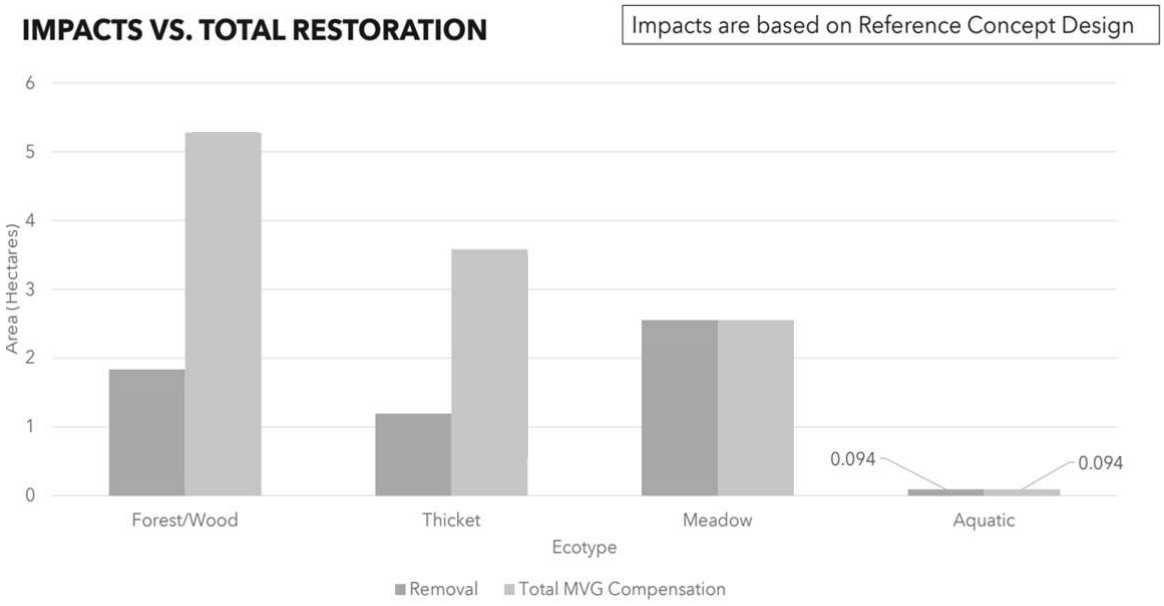
Maintaining canopy in the corridor

- Tree removals will be compensated at **a minimum 3:1 ratio** (e.g. for every 10 trees removed, 30 trees would be planted).
- 40% of trees will be planted on Metrolinx lands, while 60% will be on the City of Toronto and TRCA lands – all within the corridor.





- The approximately 5.59 hectares of trees removed will be compensated and replaced by approximately 11.42 hectares of new trees
- 1 hectare = 2.47 acres = about 2 and half football fields

- Replacing the canopy is not just about compensation, but also repair and improvement by making sure replanting results in **the local ecosystem in a better state** that its current condition.

Thank you for coming to the open house

Visit us at the community office

326 Scarlett Road

Tuesdays and Thursdays,
10 a.m. - 5 p.m. or by appointment

Want to know more?

Visit: metrolinx.com/EglintonWest
Email us: EglintonWest@metrolinx.com
@EglintonWestEXT
Call us: 416-202-8001

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