Eglinton Crosstown West Extension Advanced Tunnel Community Liaison Committee (CLC) Meeting #3

EGLINTON CROSSTOWN WEST EXTENSION

JULY 27 2023

Agenda

- 1. Land Acknowledgement
- 2. Safety Moment
- 3. Introducing the WECC and Metrolinx project team
- 4. CLC Expectations
- 5. Project Schedule
- 6. Tunnel Update
- 7. Surface Construction Update
- 8. Public Engagement
- 9. Monitoring
- 10. Questions

Land acknowledgement

Let us take a moment to acknowledge we are on lands that have been, and continue to be, home to many Indigenous Peoples including the Anishnabeg, the Haudenosaunee and the Huron-Wendat peoples.

We are all Treaty people. Many of us have come here as settlers, as immigrants or involuntarily as part of the trans-Atlantic slave trade, in this generation, or generations past.

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

We acknowledge that Metrolinx operates on territories and lands covered by many treaties that affirm and value the rights of Indigenous communities, Nations and Peoples.

We understand the importance of working towards reconciliation with the original caretakers of this land. At Metrolinx, we will conduct business in a manner that is built on a foundation of trust, respect and collaboration.

Safety moment

Construction for the Eglinton Crosstown West Extension (ECWE) project has expanded over the spring and summer of 2023, which means trucks, machinery, and equipment are now operating in many areas along the Eglinton Avenue West corridor.

Staff are trained to ensure the safe movement of vehicles and equipment in the area.

Everyone has a role in safety to play.

Please obey construction signage in the area and cross at designated crosswalks.

Exercise caution while traveling and commuting in the area.



CAUTION!

Construction equipment and vehicles passing through.



Stay alert while in our construction zone.

There's a lot going on while we build your new transit extension.

Introducing the WestEnd Connectors project team



John Provenzano Communications & Public Engagement Lead



Fernando Triana Project & Design/Build Director



Emidio Tamburri Tunnel Manager







Introducing the Metrolinx project team







Aman Gill Community Relations Manager, ECWE **Chathurika Mahagamulla Gamage** Project Manager- ATC1, ECWE

Shahid Neaz Project Manager- ATC1, ECWE **Fayyaz Siddiqui** Senior Project Manager-ATC1, ECWE

Community Liaison Committee Code of Conduct

Community Liaison Committees (CLCs) are being held quarterly to provide open, two-way communication and sharing of information before and during construction of the ECWE project. A code of conduct will help ensure that discussions are respectful and productive:

- Participate fully and openly in discussions, while also creating an environment where all members are encouraged to contribute and share their views.
- Participate in a respectful manner, including refraining from use of foul language and derogatory comments.
- Keep requested agenda and discussion items within the mandate of the committee.
- Maintain confidentiality of sensitive issues, when requested by participants.
- Represent your community's diverse perspectives and interests.
- Refrain from speaking to the media or engaging on social media regarding their role or any information they obtained as a results of being a member.
- Commit to equity, diversity, overcoming systemic racism and supporting the participation of the whole community regardless of race, gender, class, sexuality, age or ability.



CLC Members

- Residents
- Property management groups
- Representatives from condo boards
- Representatives from the community
- Businesses
- City of Toronto Transit Expansion Office
- City of Toronto Transportation Services
- Elected Officials

Eglinton Crosstown West Extension

Renforth to Scarlett tunnel timeline

	2022			202	3			2024	2025
Tunnel Boring	Tunnelling								
Station Headwalls	Martin Grove	Kipling Islington	Royal]] I York]				
Emergency Exit Building Headwalls	EE	EB3: Wincott Dr. EEB	2: Russell Rd.						
Extraction Shaft and Portal	Realignment of Eglinton TBM extraction shaft and portal construction								
Cross Passages							Nine Cross Passag	les	

Timelines are subject to change.

Tunnelling Update

What to expect during tunnelling

- TBMs operate beneath Eglinton Avenue West 24 hours per day, Monday through Friday, with occasional weekend work.
- The launch shaft area will be an active construction site until the completion of tunnelling work in 2025.
- Residents and businesses in the area can expect to hear some noise during construction, but disruption will be minimal.
- Some residents have reported to feel vibrations from the TBMs. However, vibrations are expected to stop once the TBM is a few metres away from their homes.
- Additionally, construction trucks will be present in the area during this work. The trucks entering and exiting the site sound similar to TTC busses or sanitary trucks that frequent the area.



The launch shaft in June 2023

Tunnelling update

Where are Renny and Rexy, the two tunnel boring machines (TBMs) now?

The TBM Tracker can be found on the project website and is updated regularly.



Last updated on July 25, 2023

TBM update

- Both TBMs will tunnel approximately 6 kilometres along the Eglinton Avenue West Corridor before completing their journey at Scarlett Road in early 2024.
- Renny passed through the first headwall at Martin Grove Road. in November 2022 and Rexy passed through Martin Grove Road in March 2023.
- Currently, Renny is at 4.02km and Rexy is at 3.72 km. Renny is currently undergoing maintenance.



Cross Passage construction has begun

A cross passage (CP) is a small passageway built to connect the eastbound and westbound tunnels for maintenance and/or emergency purposes.

This project will have 9 cross passages along the Eglinton Avenue West corridor.

Work for the first cross passage at Renforth, "CP-10" started on May 15 - slightly ahead of schedule.

While many other projects build cross passages after the TBMs complete their digging, our team's methods, equipment, and expertise allow us to build them during TBM operation.





Cross Passage construction progress

CP-10

70 % completed

Work started in May 2023

CP-9

60 % completed

Work started in June 2023

CP-8

50 % completed

Work started in July 2023

Brokk Machine

A Brokk machine is used to excavate the cross passages.

- **Safety** The Brokk is remote controlled. The operator can control the machine from 5 to 8 metres away
- **Environmental** The Brokk is electric-powered, so there is no pollution or smoke in the tunnel
- **Productivity** The Brokk is more powerful and compact compared to a standard excavator of the same power
- **Multi-tools** The Brokk has multiple tools that can be used as a: breaker, bucket, roadheader, etc.



Construction Update

What to expect during construction work?

- The working hours for surface construction are between 7:00 a.m. and 11:00 p.m.
- WECC typically works Monday to Friday, however, occasional weekend work is required.
- Residents can expect to hear noise from construction equipment, drills, excavators and trucks.
- Lane reductions and pedestrian detours will be required to ensure everyone's safety. Further notification will be provided for every lane closure.
- Mitigations are being put in place to reduce dust, including the use of water sprays and biodegradable dust suppressants.
- We are working as quickly as possible to minimize the impact to the neighborhoods and residences in the Eglinton Ave. area.
- If you have any concerns, we are here to listen. Contact our 24/7 hotline: **416-202-8001**

Headwall overview

What are headwalls?

- Headwalls are underground support walls located at the east and west ends of the station location.
- The TBMs bore through the headwalls, therefore crews must build them prior to the TBMs arriving at each site.
- There will be four underground stations in this tunneled section (Martin Grove, Kipling, Islington and Royal York) and each will require two headwalls be built.
- There will also be headwalls constructed for two emergency exit buildings - one between Kipling Avenue and Islington Avenue, the other between Islington Avenue and Royal York Road.



3D model of two headwalls

Martin Grove headwall

- Major works completed in October 2022
- The first TBM, Renny, reached the Martin Grove headwalls in mid-November 2022.
- Rexy passed through in March 2023.



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Kipling headwall

Major works completed in April 2023



Kipling headwall



- Pedestrian sidewalk on the north side is temporarily closed.
- Pedestrian crossing on the west side of the intersection is closed.
- Two temporarily closed lanes to the north of Eglinton Avenue West.
- One eastbound and one westbound lane remain open to traffic during construction.
- Traffic able to turn left and right at the intersection.
- The eastbound bus stop still temporarily relocated to the east side of the intersection.
- The westbound bus stop temporarily relocated 100m east of the intersection.

Emergency Exit Building #3 (Wincott Drive)

Emergency Exit Buildings are used to evacuate passengers from tunnels in the event of an emergency at track level during operation.



Major works completed in March 2023

• Renny is currently at EEB3



Additional headwall work at Wincott Drive

July 2023 - September 2023



- Construction crews will be building an additional headwall at Wincott Drive and Eglinton Avenue West. This additional headwall is for maintenance purposes.
- Our second TBM, "Rexy" will pass through this headwall once it is completed.
- One westbound through lane on the north side of Eglinton Avenue West, just west of Wincott Drive will be closed.

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Islington headwall





Eglinton Crosstown West Extension

Islington headwall

Current traffic staging:



- One westbound lane is temporarily closed. All other lanes remain open to traffic during construction.
- No bus stops are impacted by this work.

Emergency Exit Building #2 (Russell Road)





Emergency Exit Building #2 (Russell Road)

Current traffic staging:

Traffic map not to scale.



- Two north lanes are temporarily closed. One eastbound and one westbound lane remain open to traffic at all times during construction.
- No bus stops are impacted during this work.

Royal York headwall

Major works completed in May 2023



Extraction shaft and portal

- The TBMs will finish digging west of Scarlett Road where they will be dismantled and removed from the ground through an extraction shaft.
- The shaft is also the portal for where the light rail vehicles transition between the tunnel and the elevated guideway.
- Construction for the extraction shaft/portal began in winter 2022. The TBMs will finish tunnelling and will be removed in 2024.





Crosstown LRT east portal (2021)

Eglinton Crosstown West Extension

Extraction Shaft (Scarlett Road)





To make room for the extraction shaft and portal (which will be used to remove the tunnel boring machines), Eglinton Avenue West shifted to the south by approximately 10 metres (33 feet) between Scarlett Road and the pedestrian bridge.

The road realignment construction was completed in April 2023, and crews reopened the south side of Eglinton Avenue West and flipped the work zone to the north side to continue working full-time on the extraction shaft.

This work will require different traffic staging throughout 2023. More details will be provided closer to those dates.

Road diversions to support the extraction shaft construction

New work zone and traffic staging for July 2023:

Traffic map not to scale.



- The work zone on the south side of Eglinton Avenue West, including the multi-use path is open to the public.
- Work north of Eglinton Avenue West will continue, the work zone will include east of the Richview driveway.
- Three traffic lanes will be open to traffic: one westbound and two eastbound.
- The north sidewalk west of the Scarlett Road and Eglinton Avenue West intersection will be temporarily closed.
- Southbound bus stop #7089 at the northwest corner of the intersection will be temporarily relocated 90m north.
- Pedestrians are encouraged to use multi-use path and pedestrian bridge during this stage of construction.

Public Engagement

- Resident and commuter engagement, pop-up events, and canvassing have been conducted across the Eglinton Avenue West Corridor since 2021. Community members and residents can provide feedback directly to the team and have project questions or concerns answered in person.
- The CLC is another form of public engagement to help bring more voices to discussions about the project.

As of 2023, the ECWE Communications and Public Engagement team has:

- Conducted **10** community pop-up events
- Canvassed **380+** houses
- Spoken with **700+** community members
- Hosted or participated in **4** open houses and community meetings
- **2** minister tunnel tours





Monitoring

- Noise, air and vibration monitors have been installed on the properties of residences, offices and commercial buildings in the vicinity of the construction.
- This equipment helps us measure and minimize noise and vibration throughout the project term to prioritize your safety and well-being.
- The project team will continually monitor the noise, air and vibration throughout the project term.

This is not a camera!

This is a **total station**, an automatic monitoring system that reads slope measurements and surface movements at specific points. As the TBMs tunnel across Eglinton Avenue West, the project team can read the data collected by these instruments to see if they have caused any surface or ground impacts as they pass.



Air Quality Monitor



- Air quality monitors measure dust levels 24/7 while construction is occurring in the area.
- The air quality monitor is a small, battery operated, noiseless unit which is typically installed on a lamppost or similar structure.
- Installation does not require any drilling or intrusive impacts to buildings or structures.
- WECC may require periodic access to maintain the monitor (e.g., cleaning off the solar panel).

Noise Monitor



- Noise monitors measure noise levels during construction in the area.
- The noise monitor is a small, battery operated, noiseless unit which is typically installed on a lamp-post or similar structure.
- Installation does not require any drilling or intrusive impacts to buildings or structures.

Vibration Monitor



- These monitor sensitive structures during surface construction in the area.
- The vibration monitor is a small, battery operated, noiseless unit which is typically installed on the ground.
- Installation does not require any drilling or intrusive impacts to buildings or structures.

Geotechnical Instrumentation Monitoring Points Instruments







Installed in the ground, these short white cylindrical posts are Surface Monitoring Points that monitor any ground movement along the tunnel alignment as the TBMs pass through. The L-Bar Mini Prism is a compact and versatile optical target used with automated total stations to monitor potential ground movement and the structures on it. Suitable for a wide range of applications, the L-Bar Mini Prism is installed on the exterior building facades.

Together, these instruments operate as a whole.

Questions?

Appendix

Glossary

Cross Passages: a short tunnel that connects 2 parallel tunnels.

Design-Build-Finance: a single contract is awarded for the design, construction, and full or partial financing of a facility or project.

Emergency Exit Buildings: used to evacuate passengers from tunnels in the event of an emergency at track level during operation.

Extraction Shaft: where the boring machines are dismantled and removed from the ground after completing the tunnel.

Headwalls: underground support walls located at the east and west ends of the station location.

Launch Shaft: deep excavation areas that provide access points for TBMs.

Tunnel boring machine (TBM): a machine used to excavate tunnels with a circular cross section through a variety of soil and rock strata.