



Rogers 5G Implementation Update

Date: June 23, 2025
To: TTC Board
From: Chief Capital Officer

Summary

This report aims to provide an update on the progress and implementation timeline for the Rogers 5G wireless implementation project within the TTC subway tunnels.

This project, spearheaded by Rogers in collaboration with the TTC, involves designing and installing more than 500 kilometres of fiber, coaxial, and power cables, along with installing approximately 350 wayside signal amplifier locations within the tunnels. In addition to these critical tunnel infrastructure upgrades, station-level equipment at 45 stations must also be enhanced to ensure seamless cellular connectivity throughout the subway system.

As of now, 38% of tunnel sections are equipped with 5G wireless cellular service, including key segments, such as Vaughan Metropolitan Centre to Sheppard West and St George to Bloor-Yonge on Line 1 as well as St George to Bloor-Yonge on Line 2.

The remaining tunnel sections, covering portions of Lines 1, 2, and 4, are on track for completion by the end of 2026. Work is underway on Lines 1 and 2, with significant progress being made to ensure that the entire subway system will benefit from the advanced 5G connectivity by the projects conclusion.

To ensure seamless connectivity for everyone within the subway system, the neutral host solution being implemented allows access to all mobile users, no matter their carrier.

Recommendations

It is recommended that the Board:

1. Receive this report as a general update on the Rogers 5G wireless implementation project.

Financial Summary

There is no financial impact to the TTC as all costs associated with work performed under this contract are recovered from Rogers. The 5G implementation project is primarily a partnership between Rogers Communications and the TTC, with Rogers being the key infrastructure provider. As a result, there are no financial costs to the TTC.

The Executive Director – Finance has reviewed this report and agrees with the financial impact information.

Equity/Accessibility Matters

The 5G implementation project addresses several equity and accessibility concerns, including universal access through the neutral host solution, improved emergency services, and the potential for future accessibility features.

Universal access to 5G service ensures that all mobile users, regardless of their carrier, can benefit from high-speed connectivity within the TTC subway system. This approach fosters digital equity, making modern mobile services available to every rider, helping to bridge the gap for access to reliable connectivity for all passengers.

The upgrade to 5G also brings significant improvements to emergency services, particularly for enhancing 911 access. This is especially crucial for individuals with disabilities, such as those with mobility or hearing impairments. The improved connectivity makes it easier for these individuals to request assistance in emergencies, ensuring their safety. Looking ahead, the expanded bandwidth and speed of 5G will open the door to future accessibility features, such as real-time captioning, visual aids, and navigation tools, all of which will provide valuable support for passengers with disabilities.

Decision History

At its meeting on July 24, 2013, the TTC Board received for information an update on the wireless network status, in which the TTC entered into an agreement with BAI Canada Inc. (BAI) for the wireless network in the subway system project for a fixed fee payable to the TTC.

[Wireless Network Status Update](#)

At its meeting on July 14, 2022, the TTC Board approved contract amendments related to the draft term sheet and Rogers' acquisition of BAI.

[Telecommunications Network Agreement July Update](#)

Issue Background

The 5G implementation project is a partnership with Rogers Communications aimed at providing high-speed, reliable 5G mobile connectivity across the TTC subway system. This initiative is designed to enhance the rider experience by offering better mobile service.

The project began in 2023, with Rogers taking control of the network infrastructure after acquiring BAI Canada. By November 2023, 5G coverage was expanded to all subway stations.

Currently, 38% or 25 out of 66 tunnels have 5G wireless cellular service, including VMC to Sheppard West St George to Bloor-Yonge on Line 1, and St George to Bloor-Yonge on Line 2.

The expansion of 5G wireless cellular service is required to improve customer access and complement safety and well-being measures including access to emergency services, such as 911.

A significant rollout feature is the neutral host solution, which ensures that 5G service is accessible to all mobile users, no matter their carrier. The new 5G network also offers faster data speeds and more reliable service, especially in previously underserved underground sections.

Federal Government timelines have mandated that 80% of tunnel sections be completed by the end of 2025 and 100% of tunnel sections be completed by the end of 2026.

Comments

Implementing 5G connectivity in the TTC subway system aligns with the TTC's goals to enhance the rider experience and improve public safety. By providing faster, more reliable mobile service, the 5G network ensures seamless connectivity for commuters throughout their journey, addressing long-standing issues with network availability in underground areas.

Rogers is leading the project, taking responsibility for the design, materials, testing, and commissioning of the entire 5G system. They are also handling the station-level installations throughout the subway network.

The TTC is managing the track-level installations on behalf of Rogers. This includes the installation of various essential components, such as cable trays, power cables, fiber cables, radiating coax cables, amplifiers, and antennas throughout the subway system.

To meet the Federal-mandated timelines, dedicated resources and maintenance workcars are required to complete the track-level installation activities per the aggressive schedule. Dedicating these resources and workcars to this project directly impacts many other critical state-of-good-repair (SOGR) projects, as support from the

majority of the capital workforce is required, as well as all suitable maintenance workcars with high reliability to achieve the Rogers 5G installation targets. Essential co-ordination is also required to ensure that track-level access for this project is prioritized, potentially impacting or delaying ongoing SOGR projects.

As the maintenance and capital works windows in the subway system are constrained, weekend closures – in addition to nightly work – are required to perform the track-level installation activities. Approximately 12 full weekend closures are required in 2025 for installation activities on Lines 1 and 2, and approximately 10 full weekend closures will be required in 2026, with five of those closures required for Line 4. Any cancellation of closures or the TTC's inability to secure the required future closures will result in reduced track time, directly impacting the TTC's ability to complete the track-level installation activities as per the schedule.

Areas on Lines 1 and 2, particularly Eglinton to York Mills, Woodbine to Main, Sherbourne to Yonge, and Dundas West to Lansdowne, require designated substance removal activities before equipment installation can proceed. These abatement activities are carried out nightly during non-revenue hours for the majority of the year, with additional work performed during planned nightly early subway closures. Prioritization of abatement resources to support this work is required to meet the schedule. Emergency abatement activities throughout the subway system requiring immediate remediation will impact the completion timelines. Similarly to the track-level installation, using the maintenance workcars and abatement resources for this project directly impacts abatement activities for other critical SOGR projects.

It is important to acknowledge the growing backlog of capital work across the subway network. Major initiatives such as Rogers, ATC, and SOGR are all competing for limited resources, including track time, skilled labour, and specialized work cars. This convergence of demands presents significant scheduling and logistical challenges, which must be carefully managed to ensure the successful delivery of all projects. Recognizing these constraints reinforces the complexity and challenges of capital program execution within an active transit system.

Station-level installation activities are also being conducted nightly by Rogers' contractors, with support from the TTC. Close co-ordination with other station-level projects is required to prioritize the Rogers installation activities to meet the timelines. Delays to station access and preparation, due to ongoing projects and internal resources, may impact the 5G implementation schedule as both track-level and station-level installations need to be completed to activate 5G wireless service within the tunnels.

The projected completion timeline for the rollout of 5G wireless service across the entire TTC subway system is set for Q4 2026, according to the current project schedule as shown below:

Line	Sections	2025				2026			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Line 1	St. George - Eglinton W								
	Rosedale - Finch ¹								
	Eglinton - York Mills								
Line 2	Kennedy - Sherbourne ²								
	Sherbourne - Kipling								
	Woodbine - Main								
Line 4	Sheppard - Don Mills								

¹ Eglinton - York Mills excluded

² Woodbine - Main excluded

This timeline outlines the stages of a comprehensive system upgrade aimed at providing seamless 5G connectivity to all subway riders.

The table below shows the progress to date:

Line	Sections	Track-Level Installation of Rogers Assets	Station-Level Installation of Rogers Assets	In Service Date	Status
Line 1	St. George to Eglinton West	66%	10%	Q3 2025	On Schedule
Line 1	Rosedale to Finch ¹	8%	0%	Q4 2025	On Schedule
Line 1	Eglinton to York Mills	0%	0%	Q2 2026	On Schedule
Line 2	Kennedy to Sherbourne ²	80%	14%	Q4 2025	On Schedule
Line 2	Sherbourne to Kipling	0%	28%	Q4 2026	On Schedule
Line 2	Woodbine to Main	0%	0%	Q4 2026	On Schedule
Line 4	Sheppard to Don Mills	0%	0%	Q4 2026	On Schedule

¹Eglinton to York Mills excluded, separate line included for this section

²Woodbine to Main excluded, separate line included for this section

These updates reflect the ongoing efforts to install the necessary infrastructure for 5G connectivity, with the project advancing according to the outlined schedule. The completion of these tasks will bring enhanced mobile service within the tunnels, significantly improving the rider experience and bringing the TTC subway system in line with modern technological standards.

Progress updates to the Board moving forward will be reported as part of the quarterly Major Project Update report.

After the implementation of 5G wireless service across the entire subway system is completed in 2026, Rogers will continue with additional upgrades to enhance wireless performance across the network for future needs.

The 5G implementation project marks a significant milestone in the TTC's ongoing efforts to modernize Toronto's transit system and improve the commuter experience. By ensuring high-speed connectivity and more reliable mobile service, the TTC is enhancing both the practical and safety aspects of urban transit.

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