

Subject: Stage 2 Light Rail Transit Project

File Number: ACS2026-TSD-RCP-0001

Report to Transit Committee on 12 March 2026

Submitted on March 3, 2026, by Troy Charter, Interim General Manager, Transit Services Department

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Ward: Citywide

Objet: Phase 2 du projet de train léger sur rail

Numéro de dossier: ACS2026-TSD-RCP-001

Rapport présenté au Comité du transport en commun

Rapport soumis le 12 mars 2026

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REPORT RECOMMENDATION(S)

That the Transit Committee receive this report for information.

RECOMMANDATION(S) DU RAPPORT

Que le Comité du transport en commun prenne connaissance du présent rapport à titre d'information.

EXECUTIVE SUMMARY

This report provides a status update on Ottawa's Stage 2 Light Rail Transit (LRT) Project. O-Train Lines 2 and 4 have been in full revenue service since March 16, 2025, which marked a major expansion of Ottawa's O-Train network. There are some remaining post-opening works on these lines which are limited to minor deficiencies and the final close-out activities are expected to continue through 2026.

At the time of the publication of this report, Substantial Completion has not yet been achieved for the East Extension of O-Train Line 1. The most recent forecasted Substantial Completion date is March 4, 2026. Following Substantial Completion, there will be a familiarization period for Rideau Transit Maintenance (RTM) staff and a technical briefing held prior to the start of the Trial Running phase. Following the completion of Trial Running, the project's final system preparations will take place. Final Safety Approval from the Independent Safety Auditor will be required before Revenue Service can begin. Transit Services staff continue to work closely with East/West Connectors (EWC) and Rideau Transit Maintenance to satisfy all contractual and technical requirements, while maintaining focus on safety, system performance and operational readiness.

Construction on the West Extension to O-Train Lines 1 and 3 continues to advance, with structural work nearing completion on all stations, and systems testing and commissioning underway. Track installation is now complete; the installation of the Overhead Catenary System (OCS) is progressing; and building systems such as elevators, escalators, lighting and fire alarms continue to be commissioned. Major roadway works, station access, and complete street projects will continue through 2026. Ongoing coordination with other City departments, as well as continuous and effective communication with Councillors and members of the public, will help mitigate impacts to the local community.

Transit Services will continue to provide regular updates to the Transit Committee and Council as milestones are reached, and the project progresses toward expanded revenue service.

BACKGROUND

On March 6, 2019, Council approved the Contract Award of Ottawa's Stage 2 Light Rail Transit Projects and Related Matters report ([ACS2019-TSD-OTP-0001](#)).

TransitNEXT (TNEXT) was awarded the contract to design, build, finance, and maintain the Trillium Line extension, including the Airport Link. These lines now operate as O-Train Line 2 and Line 4.

East/West Connectors (EWC) was awarded the contract to design, build, and finance the Confederation Line extensions. The project will extend O-Train Line 1 from Blair Station to Trim Station in the east and from Tunney's Pasture Station to Moodie Station (O-Train Line 3), and to Algonquin Station (O-Train Line 1) in the west.

As part of the 2022-2026 Council Governance Review report, Council approved the following Motion 2022 - 03/06, moved by Councillor Desroches and seconded by Mayor Sutcliffe:

THEREFORE BE IT RESOLVED that City Council establish a Light Rail Sub-Committee of Council to provide oversight over non-operational matters related to the Confederation Line 1 and the construction of Confederation Stage 2 and Trillium Lines.

Based on this motion, Transit Services provided a regular Stage 2 Light Rail Transit Project presentation to Light Rail Sub-Committee (LRSC).

On January 29, 2025, Council approved the 2022-2026 Mid-term Governance Review report ([ACS2025-OCC-GEN-0001](#)), which included the following recommendation:

- The following Council committee structure for the remainder of the 2022-2026 Term of Council, effective immediately and including that the Light Rail Sub-Committee be dissolved, and the Transit Commission be renamed as the Transit Committee.

As a result, updates to the Stage 2 Light Rail Transit Project, which had previously been provided to LRSC, will now be provided to the Transit Committee.

DISCUSSION

This report, and the presentation prepared for the Transit Committee meeting on March 12, 2026, provide a construction update on the O-Train East and West extensions, as well as the status of remaining construction works for Line 2 and Line 4.

1. O-Train Lines 2 and 4

O-Train Lines 2 and 4 entered service through a phased opening and these lines have been successfully operating with seven-day service since March 16, 2025. This was a historic milestone that expanded the rail network in Ottawa by 23 additional kilometers and 13 stations. Since the opening, these lines continue to carry more than 24,000 customer trips every day, while adjacent park and ride lots along O-Train Line 2 are regularly operating at 80 per cent to 90 per cent capacity.

As noted in the June 2025 report ([ACS2025-TSD-RCP-0002](#)), updates on ongoing rail operations for these lines will be brought forward to the Transit Committee, similar to the

process currently followed for O-Train Line 1. The Stage 2 Construction Update reports will continue to cover the status of outstanding construction works.

For Lines 2 and 4, Transit Services continues to work closely with TNEXT to close out all remaining minor deficiencies, which include:

- Bearing condition monitoring system: This system allows for proactive monitoring of the condition of the train vehicle's axle bearing and detects any potential wear that may require further investigation. This is in line with Transport Canada requirements. The design and construction of the system were completed in 2025, while testing and commissioning of the system is ongoing.
- Conformal frog: A frog is part of the switch on a rail line that helps transfer train wheels from one section of rail to another track. A final design and workplan has been completed for two locations, Beech and Brookfield. Coordination with the maintainer (Alstom) is ongoing for the work to take place this spring.
- Locomotive Video and Voice Recorder (LVVR): The system is installed in the cabs of the whole fleet and progress continues with the supplier to address the remaining outstanding issues to ensure full compliance with Transport Canada regulations.
- Landscaping: Most of the Line 2 landscaping has been completed. Deficiency inspections will commence in the spring and final landscaping will occur through the summer of 2026.

Progress continues to be made to close out all other remaining deficiencies.

2. East Extension Construction

For the Line 1 East Extension, Transit Services is coordinating closely with EWC and Rideau Transit Maintenance (RTM) to prepare for the significant stage of Substantial Completion on this section of the Stage 2 project. Following Substantial Completion, there will be a familiarization period for RTM staff, and a technical briefing will be held prior to the start of Trial Running phase.

The guideway inspection walkdowns and deficiency corrections have progressed well, and the track sign-off was received. Occupancy permits for the five stations are now in hand, and the testing and commissioning of key system infrastructure is complete.

The East Extension Substantial Completion stage is a significant contractual milestone; however, it does not mean that the extension is ready for customer service. Rather, it is a formal step that allows the City, and the Independent Certifier, to thoroughly review the system and confirm that all requirements have been met before the system is accepted from the contractors. This review period has allowed staff to determine that there are

certain items that were outstanding and in need of completion prior to Substantial Completion being achieved, such as:

- Retrofitting station support systems
- Adjusting rail infrastructure in specific locations
- Platform edge camera functioning

Transit Services staff continue to work closely with EWC and RTM to satisfy all contractual and technical requirements, while maintaining focus on safety, system reliability, and operational readiness.

At the time of the publication of this report, the City continues to work with Rideau Transit Group (RTG) to increase the fleet availability of Line 1 train vehicles.

Paving of one section of OR 174, in the west bound direction, was completed in 2025 with ongoing resurfacing works continuing in 2026. A related project connected to the East Extension work; the rehabilitation of Jeanne d'Arc Boulevard, including the roundabout, has been substantially completed through the Infrastructure and Water Services Department.

2.1. East Rail Activation Management Program (RAMP)

As previously reported, the path to revenue service for the East Extension includes Testing and Commissioning, Substantial Completion, Trial Running, final safety approvals, and system preparations.

Substantial Completion will validate that the system infrastructure, designed and built by EWC, meets the requirements of the Project Agreement.

Trial Running will operate for 21 days, once all the prerequisites have been achieved.

Final Safety Approval is the last step before Revenue Service and will include a statement from the Independent Safety Auditor that the system is safe for passenger service.

The Rail Activation Management Program (RAMP) ensures comprehensive tracking for all activities and milestones during the transition from construction to revenue service. This work is done in coordination with the Transit Services Rail Operational Readiness (ROR) Program.

As described in the June 2025 report ([ACS2025-TSD-RCP-0002](#)), the Systems Steering Committee and Interface Committee continue to oversee and guide system integration and coordination between the City, EWC, and its maintainer (RTM). Additionally, transition to operations is being coordinated through regular meetings and tracked amongst the stakeholders to ensure that critical issues are identified and addressed.

A progress summary of critical activities includes:

2.1.1. System Installation, Integration, Testing and Commissioning

Integrating the communication systems for the East Extension with the existing live Line 1 systems is complete. The migration of systems from a lab environment to a production environment began in May 2025 and was completed in September 2025. The Systems Steering Committee oversaw and guided the system integration process.

2.1.2. Safety Certification and Approvals

A comprehensive safety certification program is in place to guide assessment and documentation of system safety through the milestones of Substantial Completion and Revenue Service. This includes safety cases for the Stage 2 East system (EWC), the operator (City), and the maintainer (RTM). Ultimately, the railway level safety case will provide the final assurance that the full system is ready for revenue service.

2.1.3. Operations and Maintenance Readiness

The hiring and training of new Electric Rail Operators (ERO) and Electric Rail Controllers (ERC) is complete. RTM is also fully staffed and resourced to assume maintenance responsibilities in the East Extension when Substantial Completion is achieved. The maintainer and operator are ready to assume their responsibilities once Substantial Completion is achieved.

2.1.4. Vehicles

Currently, 30 of the 38 light rail vehicles (LRVs) for the Stage 2 fleet have been delivered and accepted by the City. One additional vehicle is in the testing process, and the remaining seven are in production.

2.2. Interface Committee

An Interface Committee comprising representatives from the City, EWC, and RTM meets regularly to discuss issues and resolve concerns between the three parties. The committee's focus has recently shifted to the West Extension, as detailed coordination for the East is happening in other forums. Discussions include applying lessons learned from the East, preparation of the West handover plan, occupancy of the Light Maintenance Storage Facility (LMSF), and resolving any interface challenges that arise from construction walkdowns and design reviews. Discussions continue regarding spare parts and warranty.

2.3. Trial Running Overview

Prior to the start of Trial Running there are four key milestones that must be successfully achieved:

1. Testing and Commissioning - Gate 5 work (completed)
2. Performance Test (completed)
3. Substantial Completion
4. Pre-Trial running

The Performance Test was successfully completed on September 13, 2025, with 23 trains operating between Tunney's Pasture and Trim stations and multiple test scenarios conducted to demonstrate that the integrated system can achieve the service levels specified in the Project Agreement.

After Substantial Completion is achieved, there will be a familiarization period for RTM. Once all the prerequisites for Trial Running have been achieved, the Trial Running phase will start with Pre-Trial Running. The Pre-Trial running period is designed to validate that the system and stakeholders are ready for Trial Running, and to allow for any final preparations or adjustments to be made ahead of the 21-day Trial Running evaluation period.

Following the successful completion of Pre-Trial Running, the Trial Running evaluation period will start. The objective of the Trial Running process is to validate that the fully integrated system functions as intended in the Project Agreement. This will allow the expanded system to demonstrate specific items including prescribed travel times, headways, and operational performance requirements.

Trial Running will evaluate the performance of system infrastructure, subsystems, vehicles, operating and maintenance personnel, as well as operating procedures to demonstrate the reliability of the system and its ability to deliver passenger service without interruptions. During the Pre-Trial Running and Trial Running period, Revenue Service will continue on the existing segment of Line 1, with passengers disembarking at Blair Station. Trains running between Blair and Trim will not carry passengers.

As directed by Council, staff will continue the practice of holding technical briefings to provide details on the Trial Running process and as the East Extension progresses towards revenue service. This will ensure continued transparency and timely information is shared with Members of Council, public and media partners. Regular progress updates are also being shared on octranspo.com/otrain-x.

3. West Extension Construction

For the West Extension, structural work is nearing completion at all stations with finishing work ongoing. Elevator and escalator commissioning is taking place at all stations. Work

continues on the testing and commission of various elements such as CCTV cameras, lighting and fire alarms.

Bus loop construction at Algonquin, Bayshore, Moodie, Pinecrest, Lincoln Fields and Westboro stations will continue in 2026 and are expected to be near completion by the end of the year. Work will continue to advance with Building Code Service and Ottawa Fire Services demonstrations to obtain occupancy permits on stations, bus operator buildings, and Traction Power Sub-stations (TPSS).

It is expected that end-to-end testing of trains will take place on the West Extension in 2026.

As shown below in Figure 1, the proposed timeline for the West Extension currently outlines a phased approach to advancing the work in a coordinated and efficient manner. The project timeline has been revised from previous timelines presented, with Substantial Completion now expected in 2027. This change reflects updated planning that incorporates the remaining scope of work, including ongoing construction, systems installation, integration and extensive testing which is required before the extensions can safely and reliably enter service.

Figure 1: Timeline of work activities for the West Extension

Work Activity	2026				2027			
1. Completion of Track & Systems Installation	█	█	█	█	█	█	█	█
2. Systemwide Commissioning	█	█	█	█	█	█	█	█
3. Operations & Maintenance Training	█	█	█	█	█	█	█	█
4. EWC Handover to City	█	█	█	█	█	█	█	█
5. Preparations for Opening	█	█	█	█	█	█	█	█

3.1. Light Maintenance Storage Facility (LMSF)

At the LMSF, crews have completed work on the Overhead Catenary System (OCS), which is at the western limit of the project, and train testing in the yard has begun and is ongoing. There are five separate buildings in the LMSF. Two are in the final stages of

gaining occupancy; the Train Storage Shed (TSS) and the Service and Inspection (S&I) building. Testing and commission activities are also ongoing at the LMSF.

Work around the property of the LMSF buildings is ongoing to complete fencing, gates, signs, landscaping and paved areas.

3.2. Guideway Construction

The installation of track has been completed on Lines 1 and 3. Work on the OCS began at the LMSF and is progressing. The OCS has been installed from the LMSF through Moodie, Bayshore, Pinecrest, Queensview, Lincoln Fields, Iris and Algonquin stations. The installation of OCS will continue in 2026 for the remaining guideway east of Lincoln Fields to Tunney's Pasture Station where it will tie into the Stage 1 OCS.

The tunnel ventilation system has been installed with the testing and commissioning ongoing. Testing and commissioning activities continue on all guideway systems in 2026 which are necessary to accomplish Substantial Completion.

Train Control testing had advanced in Zone Control 14 and Zone Control 12 sections; however, this testing has been delayed by switch issues. Maturity level testing by the supplier is continuing along with installation of equipment.

3.3. Roadway Construction

Kichi Zibi Mikan (KZM) is now in its final configuration except for the connection at Dominion Avenue to facilitate bus transitway movements. This connection will be redundant at the same time as the removal of the temporary Roosevelt bridge which crosses the guideway.

All four Ministry of Transportation (MTO) interchanges will be open throughout the winter and the spring of 2026. Ramp closures are expected in 2026 for work to continue on the remaining civil works. There will also be projects in several locations that include Carling Avenue, Corkstown Road and Moodie Drive in 2026 to complete the scope of work.

The Richmond Road Complete Streets project continues through the 2026 winter season, with work taking place on Byron Avenue west of Woodroffe Avenue and on Richmond Road east of Woodroffe Avenue. Richmond Road is now in its permanent alignment between the KZM and Ancaster Avenue. Flatworks and final top lift paving are still outstanding.

Work that is expected to come in 2026 at the Richmond Road and Woodroffe Avenue intersection will have further impacts on traffic movements through this intersection. Transit Services understands that the revitalization work is disruptive, and staff are

committed to working with the community and local business throughout the construction period and to make improvements to signage and information products, where possible.

The Stage 2 Communications Team continues to provide regular updates to residents and stakeholders regarding construction and traffic impacts. This includes email notifications to all subscribed residents, as well as timely updates posted on the OC Transpo website outlining anticipated impacts and closures. All major closures and significant impacts are communicated directly to Councillors in the affected areas, and an overview of upcoming major work is shared in advance to support awareness of expected activities and associated impacts.

FINANCIAL IMPLICATIONS

1. Stage 1 and Stage 2 Contingency Funds

The Stage 1 Confederation Line contingency fund is \$121.5 million, inclusive of \$6.5 million approved by Council as part of the 2026 Budget. To date, \$106 million from the total fund has been spent. Remaining funds are primarily related to property requirements and remaining commercial matters.

The original Stage 2 contingency fund of approximately \$152.6 million was increased by \$25 million (approved by Council on July 06, 2022), \$110 million (approved by Council on November 22, 2023), and \$79.2 million (approved by Council as part of the 2026 Budget) due to unforeseen costs and improvements to the project. Approximately \$274.9 million of the \$366.8 million Stage 2 contingency fund has been committed to date. A residual budget pressure is forecasted for City and other costs; however, that pressure will be addressed at a future date.

2. Stage 1 and Stage 2 Capital Budgets

In keeping with Council's approved 2017 Stage 2 Report ([ACS2017-TSD-OTP-0001](#)), 2019 Stage 2 Report ([ACS2019-TSD-OTP-0001](#)), 2022 Stage 2 Report ([ACS2022-FSD-FIN-0009](#)) and 2023 Stage 2 Report ([ACS2023-TSD-RCP-0017](#)), approximately \$4.545 billion has been spent as of January 31, 2026, and relates to the RTG MOU for Belfast Yard and vehicle assembly mobilization (\$494 million), Confederation Line extension mobilization and construction period payments (\$2.457 billion), Trillium Line extension capital costs including financial close for the Revenue Vehicle Supply Contract (\$845 million), and contingency (\$215 million). The remaining \$534 million was spent on planning, procurement, project delivery and City retained scope.

Figure 2: Stage 1 and Stage 2 budgets

January 31, 2026					
Project Description	Authority	Actual Expenditures	Funds Committed	Reserved/ Unspent/Uncommitted	
Stage 1					
Confederation Line Program	2,130,000,000	2,130,000,000		-	-
Contingency	121,500,000	105,706,620		9,293,380	6,500,000
Total Stage 1	2,251,500,000	2,235,706,620		9,293,380	6,500,000
Stage 2					
Confederation Line Extensions DBF Contract	2,680,832,113	2,457,327,730		223,504,383	-
Trillium Line Extension DBFM Contract	850,966,493	706,193,294		6,251,208	-
Deferred Equity (Maintenance Term)	-	138,521,990		-	-
RTG Stage 2 MOU (includes 38 Alstom vehicles)	516,571,423	493,822,604		22,730,037	18,782
City Costs (includes planning, procurement, property acquisitions, City retained scope, and delivery oversight)	645,042,108	533,736,285		17,223,316	94,082,507
Contingency	366,840,000	214,947,177		59,986,765	91,906,059
Total Stage 2	5,060,252,137	4,544,549,080		329,695,709	186,007,348

Delays could have impacts on the project’s budget. Staff will report to Committee and Council on any adjustments to the contingency budget, as required.

LEGAL IMPLICATIONS

There are no legal impediments to receiving this report for information.

ACCESSIBILITY IMPACTS

All components of the Stage 2 LRT project adhere to the Accessibility for Ontarians with Disabilities Act (AODA). Any policy or procedural development, as well as customer communications and public engagement identified in the report’s recommendations will include the application of the City’s Equity and Inclusion Lens. Staff will continue to engage persons with disabilities and accessibility stakeholders to ensure that their perspectives are considered and incorporated, and to promote inclusion. Staff will also ensure that any applicable accessibility legislation, standards and guidelines are adhered to during the execution of the projects and initiatives identified in this report.

ASSET MANAGEMENT IMPLICATIONS

The City of Ottawa’s Comprehensive Asset Management program uses widely accepted asset management practices and long-range financial planning, in compliance with

provincial asset management regulations, to manage the City's infrastructure portfolio worth over \$70 billion to provide for the safe delivery of reliable and affordable services to the community. Asset management is an internationally recognized and implemented practice that supports informed, transparent decision making, giving Council a framework to provide direction on the appropriate balance of service delivery, cost, and risk, through a process of optimizing the lifecycle management of the City's assets which support the services it delivers.

The implementation of the Comprehensive Asset Management program enables the City to effectively manage existing and new infrastructure to maximize benefits, reduce risk, and provide safe and reliable levels of service to community users. The report identifies potential improvements to the Business Case and Project Management Policy and Project Management Framework. These are guiding documents to the Comprehensive Asset Management program, and as such, any changes to these core documents will be reviewed and reflected in the program.

RURAL IMPLICATIONS

The City's transportation network, including light rail transit, is designed to provide options for all residents. Once completed, Stage 2 LRT will span from Trim Road to Moodie Drive and south all the way to Riverside South. Rural residents will have access to Park and Ride lots at various stations which will allow them to easily use public transit.

TERM OF COUNCIL PRIORITIES

The 2023-2026 Term of Council Priorities include:

- A city that is more connected with reliable, safe and accessible mobility options.
- A city that it is green and resilient.

DISPOSITION

Transit Services will provide ongoing information to Transit Committee and Council as Substantial Completion of the Stage 2 East Extension is finalized.

Construction updates for the Stage 2 project will continue to be provided to Transit Committee.