

Subject: O-Train Stage 2 Light Rail Transit Project Quarterly Update

File Number: ACS2023-TSD-RCP-0013

Report to Light Rail Sub-Committee on 29 August 2023

Submitted on August 18, 2023 by Renée Amilcar, General Manager, Transit Services Department

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Ward: Citywide

Objet : Mise à jour trimestrielle sur l'Étape 2 du projet de train léger sur rail de l'O-Train

Numéro de dossier : ACS2023-TSD-RCP-0013

Rapport présenté au Sous-comité du train léger

Rapport soumis le 29 août 2023

Soumis le 18 août 2023 par Renée Amilcar, Directrice générale, Services de transport en commun

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Quartier : À l'échelle de la ville

REPORT RECOMMENDATION(S)

That Light Rail Sub-Committee receive this report for information.

RECOMMANDATION(S) DU RAPPORT

Que le Sous-comité du train léger prenne connaissance du présent rapport.

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 was awarded the contract to design, build, finance, and maintain the Trillium Line extension, including the Airport Link. The Trillium Line will operate from Bayview Station to Limebank Station (Line 2) and include the Airport Link (Line 4).

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

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 provides the Quarterly Update – Stage 2 Light Rail Transit Project presentation to Light Rail Sub-Committee (LRSC). The following report provides an update on the status of the project and is in addition to the Stage 2 Quarterly Memo and the Stage 2 Bi-weekly Construction updates that are provided to Council.

DISCUSSION

This report, and the presentation prepared for the August 29th LRSC meeting, outlines the progress made during Q2 2023 on the Stage 2 project, and provides an overview of the planned work for Q3 2023.

The East extension is currently forecasting a completion date in Q1, 2025, which is an approximately 7-week delay from the Project Agreement (PA) completion date of November 26, 2024.

On the West extension, from Tunney's Pasture Station to Moodie and Algonquin stations, the City is currently expecting a delay of up to 17 months against the contractual completion date of May 25, 2025.

The City has been working closely with TransitNEXT to advance critical works that would enable the handover of the Trillium Line system to the City this year. Based on the current review of all inputs, including an agreement on the training requirements, the updated working timeline for the project handover is before the end of the year.

Confederation Line Extension

In Q2 2023, City staff continued their review of East/West Connector's (EWC) designs of specific Confederation Line extension elements, including stations. The focus is now on closing open comments on design packages. In Q2 2023, staff continued the review of design documents for stations and remaining roads packages.

The review of design for other works that can be completed following Substantial Completion, including the Richmond Road Complete Streets and the decommissioning of portions of the Transitway, will continue in Q3 2023.

Work is continuing throughout the west extension, including PCL Construction mobilization at New Orchard and Kìchì Sìbì stations, structural work for the Bus Operator Buildings at Lincoln Fields and Moodie stations, concourse pour at Queensview Station, station servicing for Pinecrest Station, and roofing and glazing at Moodie Station.

The bulk excavation work in the existing transitway trench between Kìchì Sìbì and Tunney's Pasture stations was completed, while drainage work and rehabilitation of the walls, including scaling and installation of anchors, shotcrete, and drapery continues in the trench.

Throughout Q2 2023, rail welding and installation continued with the completion of the energization of the Servicing and Inspection building of the Light Maintenance Storage Facility (LMSF). The infrastructure maintenance building and signals building were also energized in Q2 2023. Installation of catenary poles was completed between Blair Station and east of Jeanne D'Arc Station, and installation continues at other locations into late 2023.

In the east, the majority of the 23-kilometre guideway barrier wall between the rail guideway and the highway is complete with some exceptions for station/guideway entrances. Fence installation on top of the barrier walls will continue in Q3 2023.

Overhead Catenary System (OCS) Messenger Wire installation begun between Montreal and Jeanne D'Arc stations and will continue in Q3 2023. Racks and cabinets installation in the communications room, as well as cable pulling, continued in east stations and will

continue in Q3 2023. Communication devices configuration work has begun and will continue in Q3 2023.

The track installation between Trim Station and east of Place d'Orléans Station continues and nearing completion. Eastbound trackwork between Jeanne d'Arc and Place d'Orléans has begun and will continue in Q3 2023.

Finishing/Envelope works at Montréal and Jeanne d'Arc stations continues. Concourse level pour and structural steel installation at Convent Glen Station was completed in Q2 2023, and mechanical and electrical work will continue in Q3 2023. Electrical and mechanical rough-in work, finishes and glazing work is ongoing at Place d'Orléans Station while the structural steel work has been completed and glazing and exterior cladding work has begun at Trim Station.

The handover sequence for the Stage 2 Confederation Line is different from, and includes lessons learned from, Stage 1. Following completion of the infrastructure and system commissioning by EWC, a three-week trial running period involving City operations, Rideau Transit Group (RTG), Rideau Transit Maintenance (RTM) and East-West Connectors (EWC) will be completed verifying operation and maintenance of the completed system. Following this work, additional time may be used for trial operations prior to opening for passenger service.

Trillium Line Extension

The updated timeline for the project handover is based on the information the City has available and assumes that completion of remaining milestones will be relatively smooth. There remains some risk and uncertainty in the completion of the remaining works.

The achievement of the handover milestone is contingent upon:

- successful completion of signal testing
- successful completion of systemwide commissioning including stations
- regulatory approvals by Transport Canada
- training completion

Trackwork is largely complete; however, progress on signal testing is advancing slowly and requires additional time which is pushing the overall handover timeline to no sooner than early November.

Staff also continue to monitor progress at stations, noting that all stations still require occupancy permits and all stations require TSSA approvals for elevators.

Subsequent to project handover, the City will make an assessment regarding the timing for start of public service. Final readiness activities and an assessment of system performance and system maturity will be made after handover from the build team.

The construction of all 13 Trillium Line stations continued in Q2 2023, including elevator installation, platform work, utilities work, aluminum composite materials (ACM) panels, shelter installation, painting, glazing installation, communications cable pulling, mechanical, electrical, and plumbing work.

Building Code Services (BCS) occupancy permit readiness meetings and deficiency closeouts for the Airport, Greenboro, and Carleton stations started during this period with full BCS occupancies targeted for end of Q3 2023.

Civil works at Leirim Station and Bowesville Park and Ride started during Q2 2023.

Works progressed at the new Walkley Yard Facility (MSF), including Mechanical, HVAC and Electrical deficiencies closeout. Commissioning of the HVAC system and wayside cabinets continued.

Trackwork progressed along the north section of the alignment (Segment 2), including track welding, destressing, and final surfacing. The south section of the alignment was provisionally completed with the tonnage run being completed. Vehicle testing continued between the Walkley MSF and Limebank Station.

Airport elevated guideways direct fixation (DF) trackwork was provisionally completed. The first train was sent out to the Airport Station during Q2 2023. Hunt Club bridge works continued in Q2 2023, with handrail installations being started and the north and south bridge approaches being completed. All the remaining works are expected to be completed by Q3 2023.

Following the completion of construction and then testing and commissioning program, TransitNEXT will begin a three-week trial running period to validate that all aspects of the system and maintenance activities perform as expected.

Following the successful completion of Trial Running, as well as completion of all Project Agreement requirements, Substantial Completion will be achieved.

The system will then be available for OC Transpo to complete any remaining operational

readiness activities before determining a final opening date to the public. The duration of this final process for validation of system readiness is still to be determined.

As outlined in the Trillium Line Extension Project report (ACS2023-TSD-RC-0009), the Transit Services Department committed to providing regular updates to Light Rail Sub-Committee and Council during the construction, testing and Trial Running Period of Lines 2 and 4 of the project.

FINANCIAL IMPLICATIONS

The delays will have implications on the project's budget. Staff will report to Committee and Council on any adjustments to the contingency budget as and when 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.

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.

SUPPORTING DOCUMENTATION

Document 1 – O-Train Stage 2 Light Rail Transit Project Quarterly Update (Q2 2023)

DISPOSITION

Transit Services will provide regular updates on Trillium Line testing and trial running. A Quarterly Stage 2 Update will be provided to Light Rail Sub-Committee in Q4 2023.