

**Green Line Report to
Executive Committee
2023 December 06**

**ISC: UNRESTRICTED
EC2023-1221**

Green Line Board Report Q4 2023

PURPOSE

The Green Line LRT project is the largest infrastructure investment in Calgary's history. It has \$5.5 billion in funding commitments from the Government of Canada, Government of Alberta, and The City of Calgary. This quarterly report to the Executive Committee of Council from the Green Line Board is part of the efforts to keep Council and Calgarians informed on the progress and governance of the Green Line LRT Project and demonstrate the ongoing management of the Project by the Board.

PREVIOUS COUNCIL DIRECTION

This quarterly report provides an update by the Green Line Board as required by the Green Line Board Bylaw 21M2020. The Green Line Board also publishes monthly progress reports that are available to members of Council and the public, see Attachment 2 - Green Line Board Progress Report October 2023.

RECOMMENDATION:

That the Executive Committee:

1. Receive this report for the Corporate Record; and
Direct that Attachment 3 remain confidential pursuant to Sections 24 (Advice from officials), 25 (Disclosure harmful to economic and other interests of a public body), and 27 (Privileged information) of the *Freedom of Information and Protection of Privacy Act*, not to be released.

CEO GREEN LINE COMMENTS

CEO Green Line D. Bhatti and Green Line Board Chair D. Fairbairn concur with this report.

HIGHLIGHTS

Green Line and BTC are working collaboratively through an established Development Phase governance model to advance the Phase 1 design and to negotiate the cost, schedule, and risk allocation.

Green Line's LRV work met a significant milestone on September 28, 2023, with CAF achieving Final Design Review.

Green Line has seen significant progress on key early works activities since the last quarterly report. These projects are helping to minimize cost and schedule risks, thereby reducing conflicts during construction of Green Line tracks, stations, tunnels, and bridges:

- 78 avenue temporary embankment construction was completed on October 31.
- Lilydale demolition underway and expected to be completed by the end of 2023.
- Utility relocation work in Downtown and Beltline progressed with major road closures expected to be re-opened by the end of 2023.

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Several environmental assessments and studies were completed as part of the additional due diligence program to inform the Phase 1 design work underway as part of the Development Phase:

- Field work for fish habitat assessments and bathymetry in the Bow and Elbow Rivers was completed in September.
- Field work for additional wetland assessments along the alignment was completed in October.
- Fish spawning surveys in the Bow and Elbow Rivers as well as supplemental baseline noise and vibration monitoring was completed in November.

DISCUSSION

Phase 1 – Development Phase

Work with Bow Transit Connectors (BTC), the Development Partner, is progressing. Working groups continued their technical information exchange sessions to further develop details on design, and establish agreement on project costs, risk allocation, and overall schedule.

78 Avenue Project

Green Line worked with Graham Construction on an accelerated plan to deliver work on the 78 Avenue Project. The temporary diversion embankments at 78 Avenue and the pedestrian tunnel area were completed at the end of October, as planned.

Beltline Downtown Utility Relocation Project (BDURP)

Shallow utility relocation work (third-party telecom, electricity, and gas utilities) continued in the Beltline and Downtown; additional engineering design work is continuing for the remaining shallow utility work. Deep utility relocation works underway in the Beltline include City sanitary, water and stormwater utilities.

Complete closure of the Olympic Way and 11 Avenue S.E. intersection was implemented in August to facilitate construction of all remaining utility work at this intersection. Similarly, a closure of 12 Avenue S.E. for east-west traffic movement at 6 Street S.E. was put in place for utility relocation work. Traffic detours were constructed and are in place to ensure all directional traffic movements are provided and to minimize impacts to the travelling public while utility relocation work is ongoing.

5 Avenue S.W. continues to see closures as Enmax, Calgary District Heating Inc., Telus, and Bell/Zayo continued to perform work in the area.

Light Rail Vehicle (LRV)

Following achievement of the Final Design Review on September 28, 2023, Green Line and CAF have been working collaboratively to achieve the next LRV Supply Agreement Milestone in December 2023. This Milestone will see all the necessary testing documents and procedures being finalised which will be used in the final testing and commissioning of the individual LRV once manufactured.

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Environment

Field work for fish habitat assessments and bathymetry in the Bow and Elbow Rivers was completed in September 2023. Green Line and BTC met with Alberta Environment and Protected Areas on September 18, 2023, to discuss the proposed soil management approach for the Green Line. Green Line and BTC also met with Alberta Environment and Protected Areas on September 12, 2023, to discuss wetland compensation at the Maintenance & Storage Facility.

Field work for additional wetland assessments along the alignment was completed in October 2023. Fish spawning surveys in the Bow and Elbow Rivers as well as supplemental baseline noise and vibration monitoring was completed in November 2023.

Health & Safety

Safety remains the key focus as BDURP construction activity continues in the Beltline, Downtown and community of Ogden. Green Line monitors safety compliance by Green Line staff, consultants, and contractors on all construction sites. 19 minor incidents occurred in September and October with no injuries reported. In compliance with established protocols, root cause analyses were completed, and lessons learned were implemented.

Several of the property damage incidents were related to contact with underground utilities during excavation. Service strikes have become more frequent, and the Green Line team has followed up by reviewing site conditions and operating procedures to establish whether there are underlying causes driving these trends. Several follow-up meetings with contractors and asset owners were held to discuss solutions and ensure that coordination and interface issues that seem to be the root cause for these incidents are addressed and shared with all the BDURP contractors.

EXTERNAL ENGAGEMENT AND COMMUNICATION

- | | | | |
|-------------------------------------|---|-------------------------------------|---|
| <input type="checkbox"/> | Public engagement was undertaken | <input checked="" type="checkbox"/> | Dialogue with interested parties was undertaken |
| <input checked="" type="checkbox"/> | Public/interested parties were informed | <input type="checkbox"/> | Public communication or engagement was not required |

In October, BTC began a series of geotechnical field work visits. Green Line worked collaboratively with the BTC team to secure access to properties, distribute construction notices, and identify opportunities to minimize impacts while maintaining the schedule. Specifically, Green Line coordinated with City peace officers to communicate with vulnerable people where encampments were identified in proximity to this work. This early intervention, allowed for BTC and Green Line take proactive and compassionate steps to advance the work as planned, while ensuring the safety of construction workers as well as the vulnerable populations encountered.

Green Line's Community & Business Relations team held construction outlook sessions to help set expectations and inform residents and businesses about the impacts of upcoming work. The Q3 2023 Business Insights Panel met on site in Victoria Park, providing an opportunity to receive feedback from members on recent wayfinding signage and business access planning activities.

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Dakota Inc, the contractor brought in to undertake building demolitions, began work on the Lilydale Chicken Factory. A community event was held on November 8 to mark the start of the demolition. The community turnout was positive with many area residents attending the event and expressing their excitement for the change. The Lilydale building demolition is expected to be completed by the end of 2023.

IMPLICATIONS

Social

The Green Line LRT will transform accessibility and mobility for Calgarians providing an affordable alternative to the bus and road network. Green Line will contribute to safe and healthy communities. The Green Line LRT will improve mobility choices by providing a high-quality transit service that is fast, frequent, and reliable; enhance connectivity between people and places including connections to communities, employment hubs and key destinations across the city; and provide flexible capacity for a growing region.

Environmental

The Green Line LRT will allow Calgary's transportation network to move more people, emit fewer greenhouse gasses and use less energy and resources than we do today. Green Line will also contribute to a greener Calgary by improving the urban forest. A key factor in planning the Green Line is adding trees, green elements, and natural spaces. This will enhance the streetscape environment and the experience of transit riders.

Economic

As the largest infrastructure investment in Calgary's history, the Green Line is contributing to the city's economic recovery and resiliency. Bow Transit Connectors (BTC) has already identified some of their local, Calgary-based sub-contractors and will be building out their teams going forward, building on the strength of Calgary's local contractors, trades, and suppliers. Their subcontracting strategy will directly benefit local businesses, who will work with us through both the Development and Implementation Phases. Green Line has already invested more than \$300M on its utility relocation work, and the 78 Avenue Project that are being performed by local businesses.

Service and Financial Implications

No anticipated financial impact

The Green Line Board has a mandate to deliver the Green Line LRT Project in alignment with 2020 Council direction and within the committed funds. The Board continues to work on behalf of Calgarians and all funding partners to balance the costs and risks with the long-term city-shaping benefits.

Financial Summary as of October 31, 2023

Category [1]	Committed Cost	Cost to Date	Cost Year to Date
Owner's Cost	93,202,998	93,202,998	12,997,667

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Design & Engineering [2]	408,758,493	356,541,393	89,488,487
Construction, Land & Other Assets [2]	623,339,937	539,258,453	82,288,416
Bus Rapid Transit	5,846,980	5,846,980	1,203,684
Grand Total	1,131,148,408	994,849,825	185,978,253

[1] Details on inclusions can be found online in the [Monthly board report and financial summary legend](#).

[2] Adjusted as of October 2023 to shift the costs of Development Phase from Construction, Land & Other to Design & Engineering

Spending since 2015 includes the engineering and design of different alignment options, the procurement of 28 new Light Rail vehicles, land acquisition, and early works construction.

RISK

Risk is continually monitored and analyzed by the Green Line Board, on behalf of Calgarians and all funding partners. The Board relies on the experience and expertise of the Green Line leadership team to make recommendations and invests in ongoing independent due diligence to identify, evaluate, and validate information and assumptions.

The key risks and mitigations include:

- Green Line is working with BTC to ensure that they have sufficient resources to meet the Development Phase Agreement requirements within the agreed Development Phase schedule.
- Utility relocation works in Beltline and Downtown are ongoing in busy traffic corridors, which impacts the travelling public and pedestrians. Green Line continues to proactively engage and notify stakeholders of potential construction related impacts (e.g., road closures) and work actively with City business units on a regular basis to optimize traffic control, lane closures, and assist with traffic management in Beltline and Downtown overall.

ATTACHMENTS

1. Green Line Board Report Q3 2023 – EC2023-0936
2. Green Line Board Progress Report October 2023
3. CONFIDENTIAL – Green Line Board Quarterly Land Report
4. Presentation – Green Line Board Report Q4 2023

Department Circulation

General Manager/Director	Department	Approve/Consult/Inform
Don Fairbairn	Green Line Board Chair	Approve
Darshpreet Bhatti	Chief Executive Officer, Green Line	Approve

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