



Green Line Board **Report**

ISC: Unrestricted

Green Line Board September 2022 Progress Report

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1 Executive Summary

1.1 September Highlights

With approval from the Green Line Board, the RFP for the Phase 1 Design-Build-Finance with Development Phase contract (DBF-DP) was released on September 26, 2022, to the two proponent teams, Bow Transit Connectors (Barnard Constructors of Canada LP, Flatiron Constructors Canada Ltd, and WSP Canada Inc) and City Link Partners (Aecon Infrastructure Management Inc, Dragados Canada Inc, Acciona Infrastructure Canada Inc, Parsons Inc, and AECOM Canada Ltd), shortlisted through the RFQ stage. The RFP included a significant number of technical documents such as Technical Project Requirements (TPRs), Reference Concept Designs (RCDs) and Project Agreement Schedules. These were essential pieces of work required to move forward with the RFP and required a significant amount of work from Green Line.

At the conclusion of the RFP evaluation in Q1 2023, one of the proponent teams will be selected to become the Development Partner. The Development Partner will collaborate with the Green Line team during an approximately 12-month long Development Phase to advance design, determine the risk allocation, establish price, and confirm a project schedule. During this phase, potential opportunities for smaller, specific work packages and long lead procurement items to advance the schedule and to further de-risk the project, will also be considered.

Construction work in Beltline East has been focused on completing deep utility relocations in the intersection of Olympic Way and 12 Avenue SE. This work will allow Green Line to rebuild the road and reopen the intersection in early November. Coordination for ongoing detours between area partners in the Beltline East continues in preparation for the upcoming sports and events season to minimize traffic and pedestrian impacts. Construction to relocate deep and shallow utilities in other areas of the Beltline and Downtown will continue.

The pictures below show the installation of storm-trunk and Telus duct-bank work in the intersection of Olympic Way and 12 Ave SE.





Next Month Look Ahead

As part of the LRV contract, Construcciones y Auxiliar de Ferrocarriles (CAF) is providing an LRV mock-up, which is now in transit and is expected to arrive in Q4 2022. The mock-up has been built to scale and will have a similar look and feel, inside and out, to the future Green Line vehicle. Once received, Green Line and Calgary Transit will undertake a review of the LRV mock-up, and following that, it will be used at information sessions for Calgarians to view and interact with.

The following construction activities for Beltline Downtown Utility Relocation Project (BDURP) are occurring in October 2022:

Beltline

- Completion and commission of the sanitary main, storm trunk and water mains in the intersection of Olympic Way and 12 Avenue SE.
- Completion of roadway and sidewalks as well as reinstallation of signals in the intersection of Olympic Way and 12 Avenue SE.
- Enmax will begin manhole and duct bank installation work on 5 Street SE between 11 Avenue and 12 Avenue SE.

Downtown

- Completion of gas line relocation work on 5 Avenue SW between 4 Street and 2 Street SW.
- Continue duct bank relocation installation work on 2 Avenue SW between 3 Street and 2 Street SE.
- Construction on duct bank relocations will begin at the following locations:
 - 7 Avenue SW between 2 Street and 1 Street SW
 - 1 Street SW between 7 Avenue and 2 Avenue SW

Coordinated construction activities and stakeholder outreach will continue to minimize impacts to businesses, pedestrians and traffic in the areas described above. Specific accommodations in the Beltline East, such as, lane reversals and temporary/partial opening of some lanes are being explored to accommodate higher vehicle and pedestrian volumes before and after major events in the area (e.g. Calgary Flames hockey games).

1.2 Program Status Dashboard

The table below provides the program status dashboard update for September 2022 including the overall program status and a comparison to the previous month.

Functional Area	Overall Program Status	Last Month's Status	Comments
Health & Safety			<ul style="list-style-type: none"> • There were no safety incidents in September 2022. • Green Line has had no Lost Time Incidents (LTI), Medical Aid (MA) or First Aid (FA) incidents in the past year.
Environmental			<ul style="list-style-type: none"> • Site specific limited Environmental Site Assessment (ESA) work is ongoing.



Functional Area	Overall Program Status	Last Month's Status	Comments
			<ul style="list-style-type: none"> The final ESA report for the Mustard Seed site has been completed.
Stakeholder Relations	●	●	<ul style="list-style-type: none"> Connected with more than 70 businesses and key stakeholders in September 2022. Supported success of four major events around BDURP construction sites including Calgary Pride Parade and Canadian Country Music Awards (CCMA).
Schedule	●	●	<ul style="list-style-type: none"> Phase 1 DBF-DP RFP has been issued to market; subsequent activities are on schedule. BDURP construction and LRV mock-up delivery is on schedule.
Cost	●	●	<ul style="list-style-type: none"> Green Line continues to proactively monitor program costs. Appropriate mitigation measures for various key risks continue to be established, reviewed, and implemented.
Quality	●	●	<ul style="list-style-type: none"> Program Quality Management Plan implementation continued with ongoing review of Phase 1 RFP quality requirements, oversight of Enabling Works, and LRV Supply project quality compliance.

*Definition of legend for the dashboard in Appendix 1

1.3 Financial Summary as of end of September 30, 2022

Category	Committed Cost	Cost to Date	Cost Year to Date
Owner's Cost	\$76,278,721	\$75,799,094	\$10,523,008
Design & Engineering	\$281,039,301	\$260,823,469	\$24,372,203
Construction, Land & Other Assets	\$535,051,320	\$431,687,019	\$29,166,889
Bus Rapid Transit	\$4,526,222	\$4,526,222	\$1,232,315
Grand Total	\$896,895,564	\$772,835,803	\$65,294,415

*Details on specific inclusions in Appendix 1.



1.4 Milestone Schedule

As work progresses for Green Line, near term milestones and achievements for the program include:

- September 2022 – Phase 1 DBF-DP RFP release (complete)
- Q4 2022 – Delivery of LRV mock-up to Calgary (on-route)
- Q4 2022 – Completion of LRV Preliminary Design Report (PDR) Submissions (on-going)
- Q1 2023 – Phase 1 DBF-DP Development Phase to begin

1.5 Risk Management

Risk is continually monitored by Green Line and below are some of the key risk items for September that continue to be addressed by the team:

- Green Line continues to monitor financial market changes due to the current economic climate.
 - Regular external due diligence is ongoing.
- The market is unwilling to accept certain risks that have been transferred to the private sector in similar projects.
 - Green Line is proceeding with a strategy to utilize a DBF with Development Phase to best allocate, mitigate, and manage risks. This strategy takes into consideration successful market precedents.
 - Utility relocation works that are currently underway provide higher confidence to the prospective applicants in minimizing risks and encourage active participation through the procurement process.
- Utility relocation works in Beltline and Downtown are ongoing in tight working areas, which can potentially impact travelling public and pedestrians.
 - Green Line continues to proactively engage and notify stakeholders of potential construction related impacts (e.g., road closures).

1.6 Stakeholder Relations

With utility construction underway in all four station areas in the Beltline and Downtown, Green Line has been working directly with businesses and key stakeholders to identify potential impacts and make efforts to minimize them during construction. In addition to the construction notices sent to more than 80 stakeholders in Beltline and Downtown, the direct stakeholder outreach for September 2022 is summarized below.

Stakeholder Activity	Quantity
Business outreach*	45
Residential/property outreach*	4
Email/social/311 requests	8
Key stakeholder/partner meetings	27
Information sessions/events	0

* Outreach includes calls, meetings, and on-site visits.

An update from the Green Line Board was shared through Green Line social media channels to provide another opportunity for Calgarians to hear directly from the Board and receive project information. Four business and community video profiles were shared through the social media channels, and a Question & Answer (Q&A) session, “Ask the CEO”, was posted on Instagram. Collectively, these initiatives generated over 188,000 views across our platforms.



2 Health and Safety

2.1 Overall Program

Green Line continues to provide oversight to ensure safety compliance by Green Line staff, consultants, and contractors at construction sites.

There were no safety incidents on Green Line in the month of September 2022. A sitewide safety stand down with the Construction Manager and all site personnel was held on September 2, 2022 to proactively raise safety awareness.

Overall Program Metrics

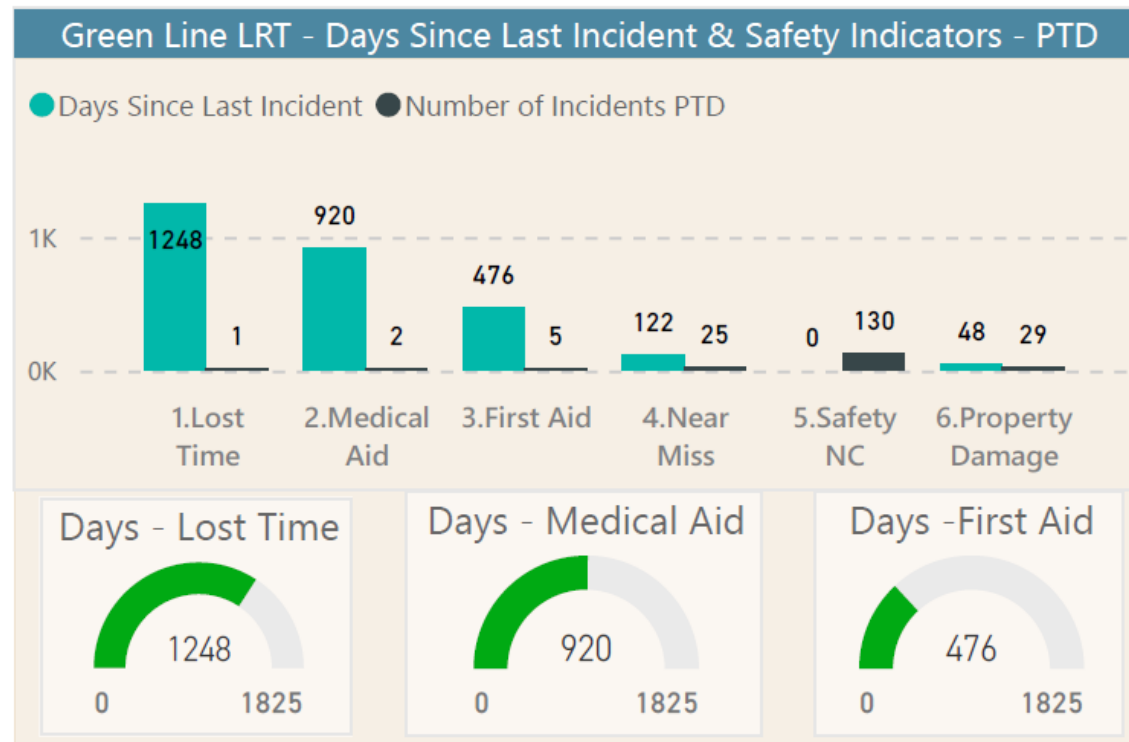
The following tables contain the recorded incidents and non-compliance for the Program:

Table 1: Green Line Safety Incident Frequency Statistics

Performance Indicator		Green Line & City Staff	Contractors	Green Line, City Staff & Contractors
TRIFR: Total Recordable Injury Frequency Rate	per 200,000 hrs	●	●	●

**Statistics based on a rolling 12-month period from September 30, 2021, to September 30, 2022*

Overview of Safety Metrics as of September 30, 2022



*NC = Non-Compliance

1825 days = 5 Years



Safety targets continue to be met and safety will continue to be a focus for Green Line as BDURP construction activity increases in Beltline East and Downtown.

Green Line began the 2022 Certificate of Recognitions (COR) external audit in September 2022. COR is a mandatory safety requirement for The City and involves an external audit every three years to maintain COR certification. The audit ensures Green Line compliance with The City's Safety Management System. The external auditor will provide their report before the end of the year and a safety audit action plan will be developed to address any findings.



Appendix 1 – Dashboards & Financial Summary Legends

Dashboards Legends

Health and Safety	<p>Zero LTIs or</p> <p>Scheduled monthly site inspections completed with < 2 missed or Joint OH&S committee meetings and inspections on track or</p> <p>Green Line COR Internal Maintenance Audit completed with minor findings or all mandatory training complete</p>	<p>One LTI or</p> <p>≤5 scheduled site inspection not completed or missed a Joint OH&S committee meeting or inspection or</p> <p>Green Line COR Internal Maintenance Audit completed with major findings or <90% mandatory training completed</p>	<p>More than one LTI or</p> <p>>5 scheduled site inspections not completed or multiple Joint OH&S committee meetings or inspection not completed or</p> <p>Green Line COR Internal Maintenance Audit failed or less than 75% mandatory training complete</p>
TRIFR: Total Recordable Injury Frequency Rate	<p>Per 200,000 hrs</p> <p>≤1.33</p>	<p>Per 200,000 hrs</p> <p>>1.33 and ≤2.66</p>	<p>Per 200,000 hrs</p> <p>>2.66</p>
Environmental	<p>Greenline environmental requirements and permits are progressing and adhere to Municipal/Provincial/Federal Obligations.</p> <p>Quality of life impacts (noise, vibration, dust, light) resulting in minimal complaints from stakeholders or elected officials.</p>	<p>Specific Environmental permits or requirements are in progress; reliance on approving authorities timelines may cause temporary delays. Delays not expected to impact critical path.</p> <p>Quality of life impacts (noise, vibration, dust, light) resulting in moderate complaints from stakeholders or elected officials.</p>	<p>Contract requirements conflict or falling to meet the Municipal/Provincial/Federal obligations. Risk to schedule critical path or budgets.</p> <p>Quality of life impacts (noise, vibration, dust, light) resulting in significant public complaints from stakeholders or elected officials.</p>
Stakeholder Relations	<p>Minimal risk of reputational damage or localized stakeholder issues</p>	<p>Moderate risk of reputational damage or Multiple stakeholder issues that require urgent action</p>	<p>Severe risk of reputational damage or Major risk with funding partners</p>
Schedule	<p>No delay to critical activities or critical milestones</p>	<p>Delay to intermediate milestones by less than two weeks</p>	<p>Delay to critical activities or critical milestones</p>



Cost	Costs forecast within the budget	Costs forecast to be over budget by less than 35% of retained contingency	Cost forecast to be over budget by more than 35 % retained contingency
Quality	Quality requirements adequate/defined or in progress or Audits performed per plan with no/minor findings or NCR identification and resolution are within expectations	Quality requirements not adequate/defined in at least one area or Audits performed per plan with one or more major findings or NCR identification and resolution are not trending downward	Quality requirements not adequate/defined in multiple areas or Audits not performed or performed with many major findings or NCR(s) remain open that impact the safety/security and quality of new infrastructure or would adversely affect the ability to achieve Substantial Completion or MSF Completion

Financial Summary Legend

Owner's Costs: Include City of Calgary Staff Time, Communications, Software, and General Corporate Overheads and Inter- Business Unit costs.

Design & Engineering: Includes all OE costs as well as general Project Consultants costs.

Construction, Land & Other Assets: Includes Land, Enabling Works, and Quick Win build costs.

Bus Rapid Transit: Includes all costs related to the Bus Rapid Transit work for Green Line.

Committed Costs represent issued PO values only for Design & Engineering and Construction, Land & Other Assets. For Owner's Costs and Bus Rapid Transit these are primarily costs incurred to date.