



Green Line Board **Report**

ISC: Unrestricted

Green Line Board May 2022 Progress Report

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1 Executive Summary

1.1 May Highlights

With the Request for Qualifications (RFQ) for Phase 1 in market and closing in June, Green Line has been focused on proactively managing Requests for Information (RFIs), meeting with proponents and preparing for the evaluation process. Following the evaluation, recommendations will be made to the Green Line Board, and with their approval, Green Line will release the RFP for the Development Phase by the end of Q3 2022. Preparation of the procurement documents for the Request for Proposal for Phase 1 is ongoing concurrently.

In addition to the procurement work, the Conceptual Design Review (CDR) for the Light Rail Vehicle (LRV) is being completed with a series of workshops with CAF, the LRV supplier. The CDR represents approximately 30% design of the LRV. Construction has commenced on the mock-up of the LRV that will be used to facilitate design reviews of the operator's cab, passenger car and stakeholders' experience.

Concurrent to the procurement activities described above, the Beltline Downtown Utility Relocation Project (BDURP) continues to move forward with construction activities to relocate deep and shallow utilities in Beltline East. During the month of May, 5 Street S.E. was closed with appropriate traffic detours between 12 & 13 Avenues to complete project work.

Next Month Look Ahead

In addition to preparing for the RFQ evaluation process, Green Line will continue work on the subsequent RFP for the Development Phase. This work will focus on our ongoing review of market precedents for similar projects and discussions with other relevant project owners.

Work will continue to review and complete of the remainder of CDR-related technical submissions through workshops between Green Line and CAF that began in May 2022. Construction of the LRV mock-up at a subcontractor facility for the LRV Supplier will be completed in Q3 2022.











BDURP activity will continue to progress, and the following works are planned during the month of June in Beltline East:

- Completion of 6 Street S.E. Sanitary works south of 12 Avenue S.E.
- Completion of casing and trunk crossings at 5 Street S.E.
- Completion of temporary rehabilitation of 12 Avenue roadway and sidewalks to facilitate pedestrian and vehicular access for Stampede 2022.

Traffic detours and road closures will continue to be communicated to Calgarians and businesses in the area.

1.2 Project Status Dashboard

Functional Area	Overall Program Status	Last Month's Status	Comments
Health & Safety			<ul style="list-style-type: none"> • There was one contractor minor near miss on May 31, 2022. The contractor immediately added additional flagging staff to address this issue.

Functional Area	Overall Program Status	Last Month's Status	Comments
Environmental			<ul style="list-style-type: none"> Site specific Phase 2 Environmental Site Assessment (ESA) work is ongoing. Field work for two properties in the Southeast area is expected to be complete by the end of June 2022. All Phase 2 ESAs are expected to be complete by the end of June 2022. Although some minor delays were incurred, the field work is still on target.
Stakeholder Relations			<ul style="list-style-type: none"> A virtual information session was held with Beltline stakeholders on May 3, 2022 to share the BDURP construction overview for 2022. Direct engagement with more than 70 businesses provided an opportunity to share resources on preparing for construction and encourage Green Line Business Registry sign-up. Work with East Beltline area stakeholders was undertaken to align construction detours and business access during the Calgary Flames playoff run.
Schedule			<ul style="list-style-type: none"> Phase 1 DBF-DP procurement activities are on schedule. BDURP Beltline East construction is on schedule.
Cost			<ul style="list-style-type: none"> Green Line continues to proactively monitor project costs. Mitigation measures continue to be reviewed and implemented.
Quality			<ul style="list-style-type: none"> Program Quality Management Plan implementation continued with oversight of quality compliance and reviews of contractor and supplier quality plans.

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*Definition of legend for the dashboard in Appendix 1

1.4 Milestone Schedule

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

- June 2022 – Roadways and sidewalks are being reinstated in Beltline East to support access requirements for traffic and pedestrians for Stampede 2022
- June 2022 – Phase 1 DBF-DP RFQ Submissions are due
- Q3 2022 – Completion of the LRV mock-up
- Q3 2022 – Phase 1 DBF-DP RFP Release



Significant procurement milestones are upcoming for Green Line and progress towards the milestones is being prioritized by Green Line.

1.5 Risk Management

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

- Green Line is competing with other North American projects. This may lead to a limited number of willing/capable bidders reducing competition among applicant teams.
 - Implement the approved procurement strategy, DBF with Development Phase, and continuing to engage with prospective applicants through Commercially Confidential Meetings (CCMs).
- Green Line continues to monitor financial market changes due to the current economic climate.
 - Regular 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 in Beltline and Downtown are ongoing in tight working areas, which can potentially impact the travelling public and pedestrians.
 - Green Line continues to proactively engage and notify stakeholders of potential construction related impacts (e.g., road closures).
- Ongoing pandemic/health concerns.
 - Implement safety protocols including a hybrid work model to effectively manage project needs while limiting potential impacts to the Program team and stakeholders.

1.6 Stakeholder Relations

Communications and information sharing is ongoing along the Green Line alignment to update Calgarians and businesses of progress as well as activities that they may be impacted by. The direct stakeholder engagement summary for May 2022 is below.

Stakeholder Activity	Quantity
Business outreach*	71
Residential/property outreach*	8
Email/social/311 requests	5
Key partner meetings	6
Information sessions/events	1

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

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2 Health and Safety

2.1 Overall Program

Green Line continues to prioritize safety for the team and contractors.

A Leadership for Safety Excellence course was provided to Green Line supervisors and managers in May to refresh them on Alberta legislation, investigations, and compliance to the safety programs. The information shared at this session will be disseminated to the broader team by the supervisors and managers to emphasize the importance of Safety for Green Line.

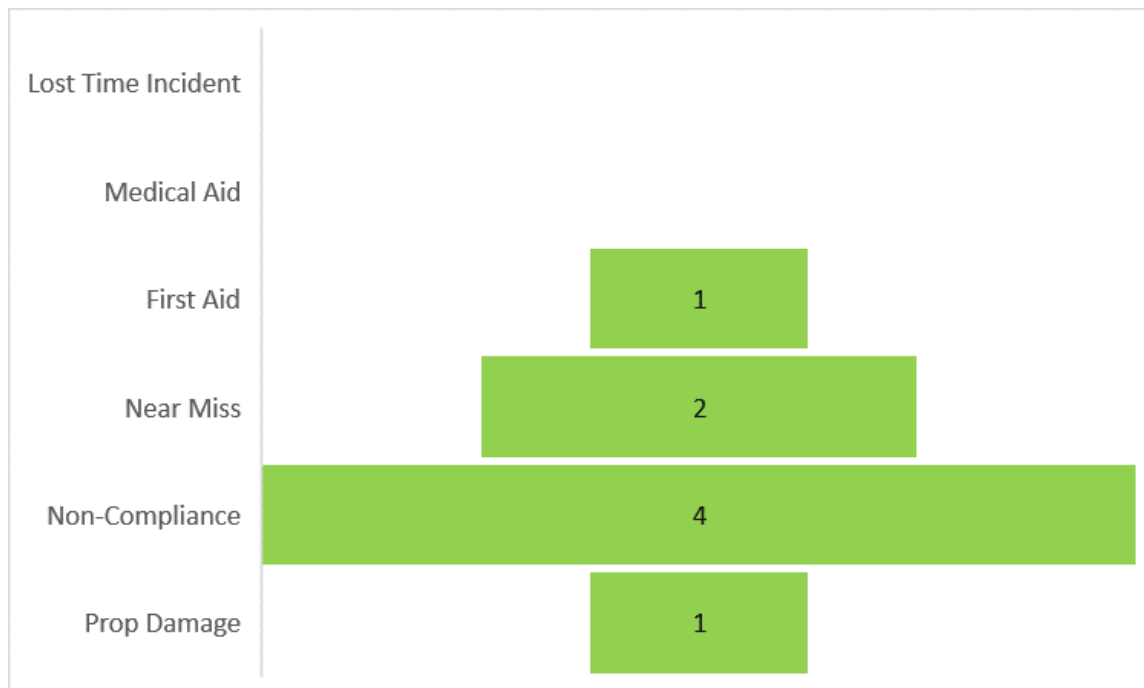
Green Line continued to provide oversight to ensure safety compliance by Green Line staff, consultants, and contractors at the Beltline/Downtown utility relocation construction sites. Continued oversight and safety reminders can reduce the risk of incidents happening related to the Green Line project.

There was one near miss on the Green Line project for the month of May 2022:

- On May 31, 2022, a PCL contractor proactively reported a near miss when he observed a loader leaving a staging area with a potential to contact approaching vehicles on 12 Avenue S.E. Additional flagging staff was added immediately to address this issue. The incident is being investigated and corrective/preventive actions will be implemented, in addition to the documentation of lessons learned.

Overall Program Metrics

The following chart contains the recorded incidents for the rolling 12-month period as of May 31, 2022:



There have been no Lost Time or Medical Aid incidents over the past 12 months. Non-Compliance incidents will continue to be reviewed and monitored with applicable lessons-learned being incorporated into safety plans.



Table 1 and Table 2 provide additional information on safety incidents and safety metrics.

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 May 31, 2021, to May 31, 2022				

Table 2: Overview of Safety Metrics for the 2022 Calendar Year as of May 31, 2022

Metric	May	2022 YTD Incidents	Days since Last incident
Lost Time Incident	0	0	1126
Medical Aids	0	0	798
First Aids	0	0	354
Near Misses	1	2	0
Safety Non-Compliance	0	1	36
Property Damages	0	1	40

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. This focus will continue to minimize significant incidents.



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.