



Green Line Board **Report**

ISC: Unrestricted

Green Line Board January 2022 Progress Report

ISC: Unrestricted



1 Executive Summary

1.1 Project Status Dashboard

	Overall Program	Enabling Works	LRVs	Phase 1	Comments
Health & Safety	●	●	N/A	N/A	<p>There were no safety incidents with Green Line personnel, consultants and contractors surpassing 1,000 days Lost Time Incident Free on January 25, 2022.</p> <p>The Green Line 2022 Safety Targets & Objectives were drafted for management approval.</p> <p>The 2022 Business Continuity Plan was completed and sent to the Calgary Emergency Management Agency (CEMA)</p>
Environmental	●	●	N/A	●	<p>The Climate Lens Resilience Assessment and Greenhouse Gas Mitigation Assessments have been reviewed and will be sent to the Government of Alberta and Government of Canada in mid-February.</p>
Stakeholder Relations	●	●	●	●	<p>Green Line’s business registry was launched across our social media channels and through the newsletter. Promotion also included a profile of the work being undertaken to help prepare stakeholders for construction.</p> <p>As the Beltline Downtown Utility Relocation Project (BDURP) prepares to ramp up, pre-construction planning and outreach is underway to ensure impacted stakeholders are informed.</p>

	Overall Program	Enabling Works	LRVs	Phase 1	Comments					
Schedule	●	●	●	●	The execution of the BDURP Guaranteed Maximum Price (GMP) contract for Beltline East and Construction Manager General Expenses is nearing completion.					
Cost	●	●	●	●	The team continues to monitor various risk factors that may impact the budget and will continue to implement effective mitigation measures.					
Quality	●	●	●	●	Green Line 2022 Quality Objectives have been drafted for management approval.					
LEGEND*:	On Plan	●	At Risk	●	Off Plan	●	Not Started	●	Not Applicable	N/A

*Definition of legend for the dashboard in Appendix 1

1.2 Project Highlights

Project	Summary of Status this Period	February 2022
Overall Program	The RFQ forecast dates were updated this period to ensure input from the December market sounding is reflected in the documents. This change does not have an impact on the critical path of the project.	The Beltline East utility relocation bids are expected to be submitted by mid-February. Construction by the awarded contractor is expected to start in March. Preparation of Phase 1 procurement documents will continue in anticipation of release of RFQ by the end of Q1.
Enabling Works	The BDURP team is working with third-party utility groups to plan for the upcoming Spring 2022 construction.	The two remaining track deficiencies for the CN Highfield Track & Tunnel project are expected to be completed in April (weather dependent) under the warranty period. Final approval and acceptance of rail infrastructure by CN will take place once the above deficiencies are addressed.



LRV	Coordination with the LRV vendor is ongoing and progressing well.	Ongoing coordination with the LRV vendor.
Phase 1	Preparation of procurement documents are underway. Discussions with major contractors interested in competing in the Phase 1 Design-Build-Finance (DBF) procurement are ongoing.	Continue with Phase 1 DBF procurement document preparation The RFQ is being prepared to go to market in late Q1 2022.

1.3 Financial Summary as of end of January 31, 2022

Construction, Land & Other Assets	Committed	Cost to Date	Cost Year to Date
Owner's Cost	66,348,243	65,823,155	770,150
Design and Engineering	278,129,361	238,614,664	1,986,108
Construction, Land & Other Assets	484,686,722	402,620,564	54,642
Bus Rapid Transit	3,330,276	3,330,276	36,369
Grand Total	832,494,601	710,388,658	2,847,269

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

Design & Engineering: Includes all Owner's Engineer 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.

1.4 Milestone Schedule

The next phase of work is focused on three critical paths to mitigate risk for future Phase 1 construction:

- Advancing to the award of the DBF contract,
- Relocating downtown utility conflicts, and
- Land acquisition.

Near term milestones and achievements for the project include:

- March 2022 – Beltline Downtown Utility Relocation Project – Construction Started
- Q1 2022- DBF RFQ – Issued to Market

1.5 Risk Management

Below are some of the primary risk items that continue to be addressed by the team:



- Vacancies within the leadership team:
 - Recruitment is underway to fill key vacancies with primary focus on hiring outstanding director positions (Construction and Technical).
- Competing pressure in the North American marketplace may limit the pool of qualified teams interested in participating in the Phase 1 DBF procurement:
 - Steps are being taken to improve the Phase 1 DBF procurement process and documents based on feedback received through market sounding in December to make the procurement more attractive to the market. Market sounding will continue through the pre-procurement phase to continually evaluate and mitigate this risk.

The risk register and risk management strategies continue to be reviewed and updated as required.

2 Health and Safety

	Overall Program	Enabling Works	LRVs	Phase 1	Comments
Current Period	●	●	N/A	N/A	<p>There were no safety incidents in January 2022 with Green Line personnel, consultants and contractors surpassing 1,000 days Lost Time Incident Free on January 25.</p> <p>Green Line 2022 Safety Targets & Objectives drafted for management approval.</p> <p>The 2022 Business Continuity Plan was completed and sent to the Calgary Emergency Management Agency (CEMA).</p>
Last Period	●	●	N/A	N/A	<p>There were no safety incidents in October, November or December.</p> <p>City vaccination policy, including contractor vaccination declaration requirement remain in effect.</p> <p>The Green Line Safety Internal Maintenance Audit was completed, and the report approved by ACSA.</p> <p>The City revised the date for return to office from January 3, 2022, to four</p>

						<p>weeks following the date the Province lifts Public Health Order Mandatory Work from Home Measures.</p> <p>The 2022 Business Continuity Plan draft has been updated. The revised Business Continuity Plan and registration letter is due to Chief Susan Henry of the Calgary Emergency Management Agency by January 31, 2022.</p> <p>A spike in the Delta variant of COVID-19 has resulted in the volunteer return to work being postponed from October 20, 2021 to at least January 3, 2022.</p>				
LEGEND*:	On Plan	●	At Risk	●	Off Plan	●	Not Started	●	Not Applicable	N/A

*Definition of legend for the dashboard in Appendix 1

2.1 Overall Program

The January Safety Focus reflected on Green Line’s 2021 performance including opportunities for improvement highlighted from the 2021 Internal Maintenance Safety audit. These included: psychological health and safety for workers, musculoskeletal disorder prevention and office ergonomics.

Green Line achieved a significant landmark surpassing 1,000 days Lost Time Incident Free on January 25, illustrating the team’s continued commitment to safety.

There is no significant impact on Green Line productivity from COVID-19.

Green Line 2022 Safety Targets & Objectives have been drafted for approval based on the annual safety management system review, the internal audit results and meeting with the occupational health and safety committee and will share with the Green Line team and Board members in early February.

Overall Program Metrics

There were no safety incidents on the Green Line project for the month of January.

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

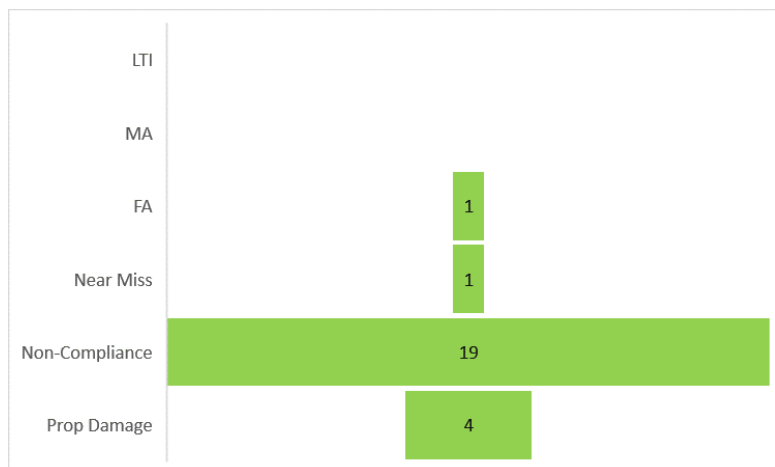




Table 1: Green Line Safety Incident Frequency Statistics

Performance Indicator		GL City Staff	Contractors	GL City Staff & Contractors
TRIFR: Total Recordable Injury Frequency Rate (MA +LTI)	per 200,000 hrs	●	●	●
	per 1,000,000 hrs	●	●	●
LTIFR: Lost Time Injury Frequency Rate	per 200,000 hrs	●	●	●
	per 1,000,000 hrs	●	●	●

*** Statistics based on rolling 12 month period from January 31, 2021 to January 31, 2022**

Table 2: Overview of Q4 Safety Metrics for the 2022 Calendar Year as of January 31.

Metric	January	2022 YTD Incidents	Days since Last incident
Lost Time Incident	0	0	1006
Medical Aids	0	0	678
First Aids	0	0	234
Near Misses	0	0	244
Safety Non-Compliance	1	1	4
Property Damages	0	0	263

The safety non-compliance row was added in the table above to differentiate between potentially serious near misses vs non-compliances to safety protocols. The non-compliance noted above was related to a water truck operator for the geotechnical drilling downtown not wearing his hard hat on January 27, 2022.

2.2 Enabling Works

Thurber Geotechnical Consulting Engineers’ safety management system and site-specific safety plan for the downtown geotechnical drilling was reviewed, as was PCL’s safety system for the CM Utilities work planned for downtown area. The LRV contractor CAF’s health and safety policy and overall safety management system was also reviewed.

The team continued to provide oversight to ensure safety compliance by Green Line staff, consultants and contractors at various project sites as well as to observe any public activity issues along the alignment.

No Enabling Works were stopped due to suspected or actual positive COVID-19 cases in January, however, several Green Line staff contracted COVID-19 from their home environment which resulted in staff working strictly from home but with no loss of productivity.



Appendix 1 –Dashboards Legends

	On Plan	At Risk	Off Plan
Health and Safety	Zero LTIs or Scheduled monthly site inspections completed with < 2 missed or Joint OH&S committee meetings and inspections on track or Green Line COR Internal Maintenance Audit completed with minor findings or all mandatory training complete	One LTI or ≤5 scheduled site inspection not completed or missed a Joint OH&S committee meeting or inspection or Green Line COR Internal Maintenance Audit completed with major findings or <90% mandatory training not completed	More than one LTI or >5 scheduled site inspections not completed or multiple Joint OH&S committee meetings or inspection not completed or Green Line COR Internal Maintenance Audit failed or less than 75% mandatory training complete
TRIFR: Total Recordable Injury Frequency Rate (MA +LTI)	Per 200,000 hrs <0.12 Per 1,000,000 hrs <0.60	Per 200,000 hrs ≥0.12 Per 1,000,000 hrs ≥0.60	Per 200,000 hrs >0.30 Per 1,000,000 hrs <1.50
LTIFR: Lost Time Injury Frequency Rate	Per 200,000 hrs <0.00 Per 1,000,000 hrs <0.00	Per 200,000 hrs ≥0.00 Per 1,000,000 hrs ≥0.00	Per 200,000 hrs >0.13 Per 1,000,000 hrs <0.65
Environmental	Overall environmental requirements are progressing as defined and work plans and budgets are being accurately managed	Specific environmental management subjects are being addressed and progressing; reliance on other project disciplines, information and inputs to complete the work may cause temporary delays	Failing to meet contractually required environmental obligations causing delays and complications for the Contractor and/or Owner
Stakeholder Relations	Minimal risk of reputational damage or Localized stakeholder issues	Moderate risk of reputational damage or Multiple stakeholder issues that require urgent action	Severe risk of reputational damage or Major risk with funding partners
Schedule	SPI ≥ 1.0 or	SPI 0.9-0.99 or	SPI <0.9 or

G

	No change to critical activities/milestones	Delay of critical milestones by less than 4 weeks	Critical activities delayed by more than 4 weeks
Cost	CPI \geq 1.0 or Costs forecast within the Budget excluding retained contingency	CPI 0.95-0.99 or Costs forecast to be over Budget and <30% retained contingency	CPI < 0.95 or Cost forecast to be > Budget + 30 % 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 with 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 Significant non-conformance with contract terms