



Green Line LRT

Green Line Program February 2021 Progress Report



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1 Executive Summary

Project Status Dashboard

	Overall Program	Enabling Works	LRVs	Segment 1	Segment 2	Owner Activities	Comments
Health & Safety							
Environmental			N/A				Continue to focus on Segment 2 requirements.
Stakeholder Relations			N/A				Overall red due to effect of Provincial Review.
Schedule				N/A	N/A		Overall red due to unknown timeline of the provincial review. Segment 1 & 2 schedule unknown until completion of provincial review.
Cost				N/A	N/A		Overall red due to unknown costs of current delay, updated costs to be calculated following completion of review. Segment 1 & 2 costs are N/A awaiting completion of review.
Quality				N/A	N/A		Segment 1 and 2 will be updated once the construction DBF's are under construction.

LEGEND*:	On Plan		At Risk		Off Plan		Not Started		Not Applicable	N/A
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*Definition of legend for the dashboard in Appendix 1



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Overall - Work with the province to address the recommendations brought forward through their project review continues to progress. The teams are working collaboratively to address many of the items raised including alignment, ridership, the impact of COVID, constructability, costs and risk. Confidential market sounding with 24 builder/designers, tunnel companies and lenders has begun and will be concluded in March 2021.

The downtown utility relocation Construction Manager RFP has closed, and evaluation has begun. A recommendation will be brought forward to the Green Line Board in March 2021. LRV procurement is underway and the Segment 1 LRT RFP remains paused.

Segment 2 Functional Plan design, planning and engagement continues for the Beltline, Downtown/Eau Claire, Bow River Bridge and Centre Street.

Health & Safety – The Project is on plan with safety management system compliance. There is a minor lag in mandatory training for safety excellence certification due to in-person training risks (pandemic precautions) for first aid and leadership. Review of contractor site specific safety plans prior to commencement of field work and maintaining monthly safety inspections and Green Line Joint OH&S inspection and meetings are all on track.

Environmental - Work continued this month on the development of a Segment 1 and Segment 2 life of project budget and work plan; contaminated sites risk and potential remediation activities pre-construction; and the continuation of specific multi-disciplinary baseline environmental activities for Segment 2.

Stakeholder Relations - The uncertainty by the provincial review continues to impact stakeholders. There is both a lack of confidence in the project and lack of clarity in schedules and timelines (when will construction begin, when will my community or business be impacted, when will Green Line be built).

Schedule - Procurement strategy and contracting is a key driver for the schedule and remains an outstanding item with the province. The team continues to work with the Province through their review.

Cost - The Program cost estimate is currently under revision. Segment 1 procurement is currently paused. Segment 2 and Owner Activities are undergoing estimate updates and work is underway to evaluate the risks associated with the delayed schedule as well as the current escalation being experienced due to COVID 19.

Quality - The focus for the Overall Program has been ensuring quality requirements are included in the final documentation for Segment 2 Enabling Works CM Utilities Relocation. The Program Quality Management Plan will be issued for review in advance of the Program Management Plan. Quality Management is supporting closeout of Segment 1 Enabling works records and development of Segment 2 CM Utilities project quality management plan.



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Financial Summary

Category	Total Committed Costs	Expenditures Project to Date	Expenditures Project to Date Previous Month	Expenditures for 2021 to Date	2021 Spending Plan
Owner's Costs	\$ 55,138,205	\$ 53,771,089	\$ 52,561,237	\$ 2,063,556	TBD
Land	\$ 219,128,885	\$ 219,066,461	\$ 219,077,426	\$ 1,222,166	TBD
Design & Engineering	\$ 275,776,219	\$ 212,021,542	\$ 209,098,564	\$ 5,721,168	TBD
Construction	\$ 161,662,719	\$ 143,357,839	\$ 140,932,794	\$ 1,698,914	TBD
TOTAL	\$ 711,706,028	\$ 628,216,931	\$ 621,670,021	\$ 10,705,804	TBD

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.

Construction: Includes Enabling Works.

Committed Costs present issues PO values only for design & engineering/construction. Land and Owner's costs are incurred to date only.

2021 Green Line Forecast is in progress.

Milestone Schedule

Milestone schedule to be included after completion of provincial review.

Risk Management

Project currently has a high amount of risk and uncertainty and below are some of the primary risk items for the program right now. There is a detailed risk register and risk management strategies that are regularly reviewed and updated by the team.

- Finalization of the provincial review which will confirm the funding, updates to the funding agreement and the path forward.
- Vacancies within the leadership team and recruitment is underway to fill these positions.
- Competitive pressure in the marketplace in Canada creates limited available capacity for the expertise required. Procurement strategies are under development to address this risk.
- Time delays and anticipated cost escalation result in increased budget pressure. Further refinement of cost estimates and risk understanding is underway to address these risks.



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- Continued delays in moving the program forward has eroded stakeholder confidence. Green Line is in regular communication with stakeholders to provide updated information as it becomes available.

Project Highlights

Project	Summary of Status this Month	Next Month
Overall Program	Work with the province to address the recommendations brought forward through their project review continues to progress. The review is creating uncertainty which is impacting many aspects of the project.	Work with the province to resolve outstanding items raised during their review.
Enabling Works	<p>Segment 1: Projects are on track for completion by July 2021 with project closeout underway where applicable.</p> <p>Segment 2: Preparation for Downtown Utilities relocations underway.</p>	<p>Segment 1: Finalize next steps for 78th Avenue Overpass construction.</p> <p>Segment 2: Utility Relocations CM contract negotiations with highest rated proponent.</p>
LRV	The LRV procurement is proceeding as scheduled, with award of a contract planned in the fall of 2021.	Proceed as per schedule.
Segment 1	Segment 1 is currently paused so that the City can work collaboratively with the Province to address concerns raised.	Work to complete provincial review.
Segment 2	Completing remaining work on the functional design and updating the functional report. Engagement with stakeholders continued.	The concept design for the interface of the Green Line and the river's edge in Eau Claire will be progressed.
Owners Activities	Work is underway to recruit for key positions including CEO, COO, Delivery Director and Technical Director. Board set-up activities continue in support of all Committees and the Board itself.	Recruitment to continue for key positions.



Appendix 1 –Dashboard Legends

Executive Summary

	On Plan	At Risk	Off Plan
Health and Safety	<p>Zero (Lost Time Injury) LTIs or</p> <p>Scheduled monthly site inspections completed with < 2 missed or</p> <p>Joint OH&S committee meetings and inspections on track or</p> <p>Green Line COR Internal Maintenance Audit completed with minor findings or</p> <p>All mandatory training complete</p>	<p>One LTI or</p> <p>≤5 scheduled site inspection not completed or</p> <p>Missed a Joint OH&S committee meeting or inspection or</p> <p>Green Line COR Internal Maintenance Audit completed with major findings or</p> <p><90% mandatory training not completed</p>	<p>More than one LTI or</p> <p>>5 scheduled site inspections not completed or</p> <p>Multiple Joint OH&S committee meetings or inspection not completed or</p> <p>Green Line COR Internal Maintenance Audit failed or</p> <p>Less than 75% mandatory training complete</p>
Environmental	<p>Overall environmental requirements are progressing as defined and work plans and budgets are being accurately managed</p>	<p>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</p>	<p>Failing to meet contractually required environmental obligations causing delays and complications for the Contractor and/or Owner</p>
Stakeholder Relations	<p>Minimal risk of reputational damage or</p> <p>Localized stakeholder issues</p>	<p>Moderate risk of reputational damage or</p> <p>Multiple stakeholder issues that require urgent action</p>	<p>Severe risk of reputational damage or</p> <p>Major risk with funding partners</p>
Schedule	<p>SPI (Schedule Performance Index) ≥ 1.0 or</p>	<p>SPI 0.9-0.99 or</p>	<p>SPI <0.9 or</p>



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	No change to critical activities/milestones	Delay of critical milestones by less than 4 weeks	Critical activities delayed by more than 4 weeks
Cost	Cost Performance Index (CPI) ≥ 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