



## Green Line Board

# August 2023 Public Progress Report

## 1.0 Executive Summary

Significant new utility relocation work began in August both in the Downtown and Beltline area. The Calgary District Heating Inc. utility relocation work started on 5 Avenue S.W., west of 2 Street S.W. and will continue until October 2023. The storm, sanitary trunk and water feeder main relocation work started along Olympic Way S.E. with a full intersection closure at 11 Avenue S.E. Similar work also started at the intersection of 6 Street S.E. and 12 Avenue S.E. with a detour to accommodate traffic along 6 Street S.E. This work will continue until the end of this year.

In addition to direct outreach to businesses and properties, Green Line coordinated with area partners to raise awareness of ongoing construction among the public, sharing information through social media channels and multiple media outlets.

Work with BTC (Bow Transit Connector, Green Line's Development Partner) also continued throughout August, and Green Line received its first progress update on the status of various submittals established as part of the Development Phase Agreement. Working groups continued their technical information exchange sessions to further develop details on design, and establish agreement on project costs, risks, and overall schedule.

Green Line and the Parks Foundation Calgary celebrated the official ground-breaking of the George Moss Park redevelopment, located 200 metres away from the future Ogden Station. This park redevelopment will create a safe and fun gathering place for the community and is the first of a minimum of six outdoor community spaces that will be located in and around the future Green Line stations.

## 1.1 Construction Highlights

### BDURP Construction Activity

Utility relocation work continued in the month of August within Beltline and Downtown. August saw two significant road closures put in place, the Calgary District Heating Inc. utility relocation work on 5 Avenue S.W. and the storm, and the sanitary trunk and water feeder main relocation at 11 Avenue S.E. and 6 Street S.E. into Olympic Way and 12 Avenue S.E.



Looking south at deep utility relocation work along 12 Avenue S.E., between 6 Street and 5 Street S.E.



Looking east at Calgary District Heating Inc. pipeline relocation work along 5 Avenue S.W., west of 2 Street S.W.

The following tables summarize utility relocation works that continued throughout the month of August with a look ahead at planned construction activities for the month of September:

| <b>Beltline</b>  |               |                       |
|--|---------------|-----------------------|
| <b>Construction activity</b>   | <b>August</b> | <b>September</b>      |
| Enmax duct bank installation 10 Avenue S.W.  | Completed     | -                     |
| Enmax duct bank installation on south half of 1 Street S.W.  | Completed     | -                     |
| Enmax duct bank installation on 11 Avenue S.W.   | Underway      | Continues             |
| Installation of north pass utilities on 12 Avenue S.E. for 900mm water, 300mm water, and 300mm sanitary sewer, west of 5 Street S.E. | Completed     | -                     |
| Waterline work on 5 Street S.E., south of 12 Avenue S.E.   | Completed     | -                     |
| Installation of waterline, sanitary/storm manholes at the intersection of Olympic Way S.E. and 11 Avenue S.E.                        | Started       | Continues             |
| Sanitary, storm and feedermain installation at 12 Avenue S.E. and 6 Street S.E.  | Started       | Continues             |
| Enmax duct bank installation in Olympic Way, between 12 Avenue and 11 Avenue S.E.  | Started       | Anticipate Completion |

| <b>Downtown</b>   |               |                  |
|---|---------------|------------------|
| <b>Construction activity</b>  | <b>August</b> | <b>September</b> |
| Enmax duct bank and vault installation on north side of 5 Avenue S.W. west of 2 Street S.W. | Completed     | -                |
| CDHI scope on 5 Avenue S.W., west of 2 Street S.W.  | Started       | Continues        |
| Telus 6 Avenue S.W. Cable Pull from Centre Street to 5 Street S.W.                          | Completed     | -                |
| Bell/Zayo Joint scope on 2 Street S.W. and 3 Avenue S.W.                                    | Completed     | -                |
| Enmax duct bank and manhole installation on 3 Avenue S.W.                                   | Started       | Continues        |



## 78 Ave Construction Activity

Construction of diversion embankments at 78 Avenue and pedestrian tunnel area continued in August. The Canadian Pacific Kansas City Rail culvert extension work also continued with a concrete pour for footings and the building of the steel plate culvert.



Looking south along the diversion track alignment.



Looking east at the culvert extension

## 1.2 Program Status Dashboard

The table below provides the program status dashboard update for August 2023, including the overall program status and a comparison to the previous month.

| Functional Area | August Status | July Status | Comments   |
|-----------------|---------------|-------------|--|
| Health & Safety | ●             | ●           | <ul style="list-style-type: none"> <li>There were two safety incidents involving property damage and two near misses in the month of August.</li> </ul>  |
| Environmental   | ●             | ●           | <ul style="list-style-type: none"> <li>There was an incident of sediment release due to heavy rain in August, along the alignment, north of Highfield Blvd. S.E.</li> <li>Field work for a rare plant survey and wetland assessment was completed in August 2023.</li> <li>Field work for fish habitat and water depth assessments in the Bow and Elbow Rivers is scheduled for September 2023.</li> </ul> |



| Functional Area   | August Status | July Status | Comments  |
|---|---------------|-------------|---|
| Public Affairs  | ●             | ●           | <ul style="list-style-type: none"> <li>Connected with 192 businesses, residents, and key stakeholders in August.</li> </ul>   |
| Schedule  | ●             | ●           | <ul style="list-style-type: none"> <li>Work on key program activities is progressing as per schedule.</li> </ul>  |
| Cost  | ●             | ●           | <ul style="list-style-type: none"> <li>Green Line continues to proactively monitor program costs.</li> <li>Currently advancing design and negotiating risks, price, and the project schedule with BTC as part of the Development Phase to align on project cost.</li> </ul> |
| Quality   | ●             | ●           | <ul style="list-style-type: none"> <li>Program Quality Management Plan implementation continued with ongoing oversight of design quality management, BDURP construction works, 78 Avenue project, and LRV Supply project quality compliance.</li> </ul>                     |
| <p>*Definitions of the dashboard statuses can be found online in the <a href="#">Monthly board report and financial summary legend</a>.</p> |               |             |   |

### 1.3 Financial Summary as of August 31, 2023

Green Line continues to monitor the financial position of the program.

| Category                          | Committed Cost       | Cost to Date       | Cost Year to Date  |
|-----------------------------------|----------------------|--------------------|--------------------|
| Owner's Cost                      | 91,084,915           | 90,605,288         | 10,639,171         |
| Design & Engineering              | 303,918,320          | 291,381,655        | 24,311,066         |
| Construction, Land & Other Assets | 719,071,763          | 536,812,920        | 79,621,351         |
| Bus Rapid Transit                 | 5,126,034            | 5,126,034          | 482,738            |
| <b>Grand Total</b>                | <b>1,119,201,032</b> | <b>923,925,896</b> | <b>115,054,325</b> |

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

### 1.4 Milestone Schedule

Upcoming milestones and achievements for the Green Line program include:

| Achievements Completed  | Upcoming Milestones  |
|---|--|
| <p><b>August 8, 2023</b> – Development Phase Check Point 1 report submission.</p> <p><b>August 14, 2023</b> – Award of contract for 24 Street shed demolition work.</p> <p><b>August 16, 2023</b> - Ground-breaking for Green Line's first Public Gardens Project at George Moss Park in Ogden.</p> <p><b>August 18, 2023</b> - Receipt of bids for Lillydale Chicken Factory demolition.</p> | <p><b>Q4 2023</b> – aiming for LRV Final Design Review completion.</p> |



## 1.5 Risk Management

Risks and opportunities are continually monitored by Green Line, some key risks of note from August 2023 are:

- Utility relocation works in Beltline and Downtown are ongoing in busy traffic corridors, which impacts 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.
- Construction of the 78 Avenue Project is ongoing in the community of Ogden. The project has a tight footprint and is located between the very active Canadian Pacific Kansas City Rail mainline carrying approximately 28 trains a day and is adjacent to residential areas. Adequate safety measures are in place to ensure safety of the workers/residents, and to avoid any interruption to Canadian Pacific Kansas City Rail’s operations. Similarly, proactive measures are planned to minimize quality of life impacts to the nearby residents.

## 1.6 Public Affairs

Two major utility projects commenced in August, as part of the BDURP construction in Beltline and Downtown. In mid-August, the full intersection of 11 Avenue and 4 Street/Olympic Way S.E. was closed to allow for coordinated deep utility and Enmax work, and in the downtown, 5 Avenue S.W. was reduced to two traffic lanes for two blocks to facilitate Calgary District Heating’s (CDHI) utility relocation. In addition to direct outreach to impacted businesses and properties, Green Line coordinated with area partners to raise awareness among the public, sharing information through social media channels and multiple media outlets.

Green Line’s Community Relations team led its monthly construction outlook for Downtown on August 23 to help set expectations and inform residents and businesses about the impacts they should expect over the month ahead. Access and business continuity plans were developed to support impacted businesses and reduce the impacts of new construction zones, and coordination continued to ensure a successful summer event season in Calgary’s Downtown and Beltline.

In Ogden, the 78 Avenue Project has three active construction sites throughout the community. As part of Green Line’s commitment to safety, the team continues to work directly with community children and youth to encourage safety near construction areas and to ensure that concerns raised by residents and businesses in the area are addressed in a timely manner.

In addition to the 8 construction notices sent to more than 365 interested parties in Beltline, Downtown, and Ogden, the direct outreach for August 2023 is summarized below.

| Outreach Activity                | Activity (July) |
|----------------------------------|-----------------|
| Business outreach*               | 128             |
| Residential/property outreach*   | 53              |
| Key stakeholder/partner meetings | 11              |
| Email/311 requests               | 11              |
| Information sessions/events      | 0               |

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



Green Line celebrated Historic Calgary Week (July 28 – August 7) with a social media campaign. Each day, historic images of Calgary or the public transit system were posted with comparisons to current images or future renderings showing how Green Line will transform the area. The campaign did particularly well on Facebook, where posts were targeted to Calgarians who are interested in history, receiving an average of 67,765 impressions and 17 comments per post. A video about the history of Light Rail Vehicles was also produced and shared and is currently our most viewed video on YouTube with 750 views.

## 2.0 Health & Safety

Green Line monitors the safety compliance of Green Line staff, consultants, and contractors at construction sites via ongoing site visits and safety inspections. 17 site inspections/visits were carried out by Green Line during August.

There were 4 safety incidents in the month of August:

- A near miss incident occurred when a crew was working within their lane closure on 5 Avenue S.W. when a bus traveling eastbound, west of 2 Street S.W. hit traffic control cones. No property damage or injuries were reported. Calgary Transit was notified of the near miss and more robust barrier system was installed to protect workers from roadway hazards.
- A cover of the accessible door motor fell close to a Green Line employee when he was entering a washroom. The employee notified the Safety Lead of the near miss who investigated the scene, and the cover was secured with the use of screws by the building property management team. All other covers were also checked to avoid a repeat incident.
- An excavator contacted an unidentified cable buried approximately 300 mm below the top of the grade while constructing a traffic detour at the intersection of 12 Avenue and 6 Street S.E. The line was not identified on private, or Alberta One Call locates. It was later determined that this line was connected to a small building that was decommissioned but not de-energized. Green Line is working with Calgary Transit to verify that decommissioning policies and procedures are followed prior to excavating close to their building.
- A hydrovac operator swung their boom to allow an excavator operator to remove road materials and contacted the bottom edge of the signal head flange. The contact bent the signal head flange and rotated the alignment of the head. A safety stand down was held and preventive measures developed to ensure adequate change management process is in place to ensure safety of workers and the public. A spotter was added, and the team was directed to take the time they need to evaluate change in site conditions and review/update hazards prior to resuming operation.

### Safety Audit

Green Line had retained services of an external consultant to audit safety performance of the Construction Manager Contractor (PCL). The audit report has identified several opportunities for improvement. The safety training program sessions begin in September.



## Safety Reporting

| 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 August 31, 2022, to August 31, 2023. |                 |                         |             |                                      |  |

### 3.0 Environmental

A sediment release was reported along the LRT alignment, north of Highfield Blvd on August 30, 2023. There was over 30 mm of rainfall noted in a few hours, resulting in some erosion and release of sediments in the City’s storm system. Green Line worked with the City’s Stormwater Pollution Prevention team to disconnect the discharge pipe and manage the water to avoid any flooding until the site is handed over to the contractor for Green Line construction.

Environmental site assessments were wrapped up in February 2023, and no new field assessments were done in August 2023. Environmental reviews were complete for 10 properties needed for support of excavation.