

To: Metrolinx Board of Directors

From: Matt Clark
Chief Capital Officer, Capital Projects Group

Date: November 22, 2019

Re: **Capital Projects Group Quarterly Report**

Recommendation

That this report be received for information.

Executive Summary

The Capital Projects Group (CPG) continues to advance a large program of signature transit expansion projects, including a suite of projects within the GO Expansion program as well as a variety of subway, light rail transit (LRT) and bus projects. CPG focuses on continuous improvement in all areas, including safety and the business performance of numerous project support services, to ensure it meets its commitment to the public to deliver the benefits of these projects on time, on budget, safely.

CPG is pleased to report the following accomplishments this quarter:

- Contractor Lost Time Injury Frequency Rate (LTIFR) continues to decrease, with the result for September 2019 below the target of 0.1 set for this fiscal year.
- The Hurontario LRT project achieved financial close in October, allowing construction of the project to begin in the coming months.
- The Eglinton Crosstown LRT continues to progress, with Keele Station ready for track work and mining complete at Laird Station.
- Hamilton LRT had its first design presentation meeting in September.
- The Confederation Park & Ride came into service in November.
- Stouffville Stations and Grade Separation detailed design packages were completed in November.
- Station improvements were completed at East Gwillimbury GO Station and are underway at Centennial GO Station.
- During the Lakeshore East shutdown in October, deck rehabilitation of the Danforth Bridge was completed.

Program Update

Financial Highlights

A summary of Metrolinx's major capital project incurred cost is shown in Table 1.

Table 1: Program Overview: Incurred Costs to September 30, 2019

	Current Baseline (\$M)	Incurred Cost (\$M)
Light Rail and Bus Projects		
Eglinton Crosstown LRT	\$11,996 ^a	\$5,923
Finch West LRT	\$3,433 ^a	\$847
Hurontario LRT	\$5,632 ^a	\$362
Hamilton LRT	\$1,000 ^b	\$162
Viva BRT	\$1,882	\$1,723
GO Bus Infrastructure	\$650	\$399
GO Expansion Projects		
Early Works	\$10,515	\$3,990
Off Corridor	\$605	\$21
On Corridor	\$15,342	\$948
Core GO Expansion Total	\$26,462	\$4,959
GO-related Transit-Oriented Development	\$0	\$0
GO Extensions	\$1,800	\$29

All figures are reported in year of expenditure dollars unless otherwise specified; note these figures may not be directly comparable with those in other contexts expressed as nominal dollars. These figures reflect overall project budgets rather than the values of each respective project's major contract(s).

^a Includes long-term P3 financing, lifecycle, operating and maintenance costs over concession term as applicable per each respective Project Agreement.

^b In active procurement; project's announced capital budget is \$1,000M in nominal 2014 dollars. Revised baseline in year of expenditure dollars to be reported upon contract award.

Safety Update

Metrolinx has reported a Lost Time Injury Frequency Rate of 0.08 for the rolling 12-month period ending September 2019. This rate is below Metrolinx's 0.10 target adopted over the past year as a measure to drive a culture of safety across its projects.

Actions to continue improvement of safety performance include site engagement, risk management, and governance. Site engagement activities which reduce Lost Time Injuries include inspections, observations, and audits. A target of 106 site engagements per month has been set for this fiscal year, which has already been surpassed.

Business Update

CPG Program Management services are critical for the successful delivery of a significant capital program. Within CPG, the Program Management department provides contract oversight, project management, reporting, document controls, and resource management to facilitate the work of the Project Delivery Teams. In the past quarter:

- **Business Services**, whose responsibilities include resource management, training, and change management, has introduced an initiative to identify the required and current levels of key skills and capabilities within the organization and to determine an action plan to address gaps. The assessment was completed in October 2019 and results and recommendations will be shared with CPG leadership in the upcoming quarter and used to ensure staff have the necessary skills to complete work on time and on budget.
- The **Program Management Office** and **Consultant Contract Administration** teams worked closely with partners at Infrastructure Ontario to advance the procurement of a new Owner's Engineer and Program Controls Services contract for the Subways Program.

Within the Pre-Construction Services portfolio, the **Environmental Programs and Assessment** (EPA) team liaises with regulatory bodies to support the timely delivery of projects. Their mandate is to oversee environmental assessments and perform due diligence in support of project delivery; oversee the development of policies and protocols; and to provide guidance relating to environmental matters through all stages of project delivery. Over this past quarter, EPA has developed innovative ways of managing environmental matters for CPG projects such as:

- developing fill management plans to facilitate storage of excavated soil, saving handling, disposal and future fill cost;
- developing policy white papers to inform the OnCorr procurement and to manage environmental aspects of the project; and
- collaborating with a third party to undertake the first environmental assessment for Transit Oriented Development stations.

Major Project Updates

LIGHT RAIL AND BUS

Light rail transit (LRT), bus rapid transit (BRT) and regional bus infrastructure projects are ongoing, with financial close being reached for one large project this quarter. Since the last quarterly update, some key developments required to advance these projects have been achieved:

- The Hurontario LRT project achieved commercial close on October 17, 2019, and financial close on October 21, 2019, with Mobilinx (the consortium constructing, operating, and maintaining the line). This signals that the contractual steps have been completed for the construction of the project to begin in the coming months. Design workshops with Mobilinx are ongoing, with the first set of submittals received in late October 2019.
- On the Eglinton Crosstown LRT, the station box is now ready for track work at Keele Station as of September 30, 2019, and Laird Station is now officially the first of the three mined stations to be completely dug out. Mining involves digging a massive underground cave and then building the station inside, which helps minimize disruptions to everything above ground.
- The Finch West LRT achieved 60% design submittals on September 30, 2019.
- The first design presentation meeting for the Hamilton LRT project was held on September 17, 2019.
- Within the VivaNext BRT program, the H2 West phase of the H2 West & East Vaughan to Richmond Hill project achieved completion on November 21, 2019.
- The Dundas and 407 West Park & Ride project, which consists of 400 Parking spaces, 8 bus bays, re-configuration of existing storm water management, bus drive amenities, provisions for digital signs, bike shelter and 2 heated bus shelters, achieved substantial completion of a number of works on November 6, 2019.
- The Confederation Park & Ride project achieved substantial completion on October 1, 2019, and came into service on November 2, 2019.

GO EXPANSION

Numerous projects are underway to allow for increased rail service on the GO Transit network. These improvements will bring more residents in reach of transit and provide customers with more and better travel options. Notable developments this quarter include:

- As part of the effort by GO Transit to offer two-way, all-day service on the Stouffville line, crews have been making major headway in building a new train line next to the existing track. Stouffville Stations and Grade Separation detailed design packages were completed on November 7, 2019.
- In September 2019, works began at Rutherford GO Station in preparation for construction of the grade separation at Rutherford Road. This will separate the tracks from the road so vehicular and pedestrian traffic will no longer have to wait for a train to pass—a major improvement for traffic and safety.
- As part of the service expansion to Niagara, the West Harbour temporary platform detailed design was completed on November 11, 2019.

GO Station improvements and expansions are designed to provide customers with comfortable and safe environments as they begin and end their journeys on the GO Transit network. Improvements to existing stations and construction of new stations will support increased service as the GO network is expanded. The following projects reached significant achievements during the quarter:

- The early stations improvements project continues, and includes a variety of work on more than 29 existing stations, as we modernize to provide comfort and safety in preparation for increased service across the GO system. East Gwillimbury's infrastructure improvements achieved total performance on October 31, 2019. Centennial GO Station's platform edge tile retrofit and Digital Signage began in September 2019.
- The project at Bramalea GO Station consists of a new station building and multi-level parking garage, an improved dedicated GO bus loop and direct access to Bramalea Road. Detailed design was completed on November 22, 2019.
- The Bradford GO Station parking and bus loop expansion will have its detailed design completed November 29, 2019.
- Detail design for the new Lincolnville GO Station, part of the Lincolnville Layover expansion project, was completed on November 13, 2019.
- Metrolinx Asset Protection Packages (MAPP) are used to share Metrolinx's requirements for developers in designing and delivering market-driven strategy station projects. The MAPP outlines Metrolinx's principles, governance, rules of engagement and standards that will apply to a particular project. Mimico GO Station's MAPP was released to the developer on October 31, 2019.

SUBWAYS

CPG's newest series of projects, which will bring improved rapid transit service to Toronto and surrounding communities, are moving forward quickly. Key accomplishments of the most recent quarter include:

- On-boarding of staff and contractors has progressed very well, with a co-located team now in place and working within a robust governance structure. Recruitment of several key roles for the program continues.
- Technical work continues to refine design choices and inform contracting strategy for the projects.
- Procurement is underway for supporting technical resources: evaluation of bid submissions is currently underway for the appointment of a Technical Advisor for the Ontario Line while a tender for a Subways Owner's Engineer and Program Controls provider was recently released to the market.

RAIL CORRIDOR MAINTENANCE

The Corridor Maintenance program includes works that are required to keep the GO Transit network operating in a state of good repair. The following work was completed this quarter:

- During the Lakeshore East track shut-down in late October, Corridor Maintenance successfully completed the deck rehabilitation of the Danforth Bridge. These efforts, combined with the work being completed under the structure, will add approximately 30-40 years to the lifespan of this structure.
- The major track surfacing program has completed over 80 track kilometres of surfacing this season, with over 40 crossovers on the Lakeshore lines complete. These efforts will have a positive impact on customer ride comfort.

Respectfully submitted,

Matt Clark
Chief Capital Officer, Capital Projects Group