

To: Metrolinx Board of Directors

From: Andrew Hope
Chief Capital Officer (Rapid Transit)

Date: February 16, 2023

Re: **Capital Projects Group (Rapid Transit) Quarterly Report**

This report addresses activity and performance data for capital projects overseen by CPG (Rapid Transit) from Q3 of FY 2022-23 (October 1 to December 31, 2022) while incorporating some ensuing developments where appropriate.

Project Updates

- In the last quarter, major procurement milestones were reached for the advancement of the Ontario Line.
 - On November 9, the South Civils contract was awarded to Ontario Transit Group, and on November 17 the Rolling Stock, Systems, Operations and Maintenance (RSSOM) contract was awarded to Connect 6ix. Work on both of these contracts is expected to start in early 2023. The South Civils contract includes construction of a six-kilometre tunnel and seven stations between Exhibition and the Don Yard tunnel portal. The RSSOM contract includes designing and supplying the trains as well as designing and building the maintenance and storage facility and the communications and train control systems, as well as the operation and maintenance of the Ontario Line over a 30-year term.
 - Additionally, requests for qualifications (RFQs) were released for the two remaining main works contracts. The winning Pape Tunnel and Underground Stations (PTUS) contractor will design and build three kilometres of twin tunnels largely under Pape Avenue with a new station at Cosburn, and the expansion of Pape station to an interchange facility where new Ontario Line platforms will connect seamlessly with TTC Line 2. The Elevated Guideway and Stations (EGS) contractor will design and build three kilometres of elevated tracks in Thorncliffe Park and Flemingdon Park and onward to the Ontario Science Centre. This contract will also include construction of five above-ground stations. Metrolinx and Infrastructure Ontario will evaluate RFQ submissions and invite a shortlist of qualified teams to respond to a request for proposals in early 2023.
- Progress continues in south Mississauga on the Hurontario LRT project, which will deliver the new Hazel McCallion Line. A new underpass was installed at Hurontario Street and the Queen Elizabeth Way (QEW) in October. The process involved using hydraulic jacks to push a large concrete structure, or “push box,” weighing more than 6,000 tonnes, into place. The QEW push box will be a permanent underpass for northbound Hurontario traffic, allowing space for the Hazel McCallion Line tracks through the existing underpass along with the southbound Hurontario vehicle traffic.

- Construction of the Scarborough Subway Extension has been split into two contracts – an Advance Tunnelling contract that is already underway, and the Stations, Rail and Systems (SRS) contract.
 - In November, Scarborough Transit Connect was selected as the development partner for the project’s SRS contract. Scarborough Transit Connect will play a key role in preparing more detailed plans for the stations, bus terminals, subway tracks, and other technical components that will bring the project to life.
 - Work on the Advance Tunnel package this quarter focused on preparations for the launch of the 10.7-metre diameter Tunnel Boring Machine named “Diggy Scardust”, which commenced mining operations on January 16, 2023.
- The first eight pedestrian shelters for the Finch West Light Rail Transit (LRT) line were installed at Driftwood Avenue in November. These canopies will shelter commuters, provide nighttime lighting to increase safety and visibility, and include ticketing machines and route maps. Two additional canopies were installed at Humber College Station later in November. There will be 116 canopies in total along the line.
- Tunnelling continued on the Eglinton Crosstown West Extension this quarter. When the two boring machines, Remy and Renny, are finished, they will have dug more than six kilometres of tunnel between Renforth Drive and just west of Scarlett Road – a significant section of the 9.2-kilometre total route. Headwall construction also progressed during the last quarter. Headwalls are the frames for the future stations and emergency exit buildings, and must be built before the tunnel boring machines arrive at each location. Headwall construction at Martin Grove Avenue started last spring and was completed in last fall, while construction at Kipling Avenue started in the summer and will wrap up in spring 2023. Headwall work at Islington Avenue started in October and is expected to last until the spring of 2023.

Quarterly Performance Data

Safety

Both the Lost Time Injury Frequency Rate (LTIFR) and the Total Recordable Injury Rate (TRIR) are calculated based on a 12-month rolling number, taking in to account the total hours and number of lost time injuries over the course of the previous year.

- The LTIFR for contractors working for CPG (Rapid Transit) at the end of the quarter was 0.041, an increase to the rate of 0.021 for the previous quarter, as a result of two lost-time injuries occurring on the Eglinton Crosstown LRT project.
- The TRIR includes lost time injuries, critical injuries, and external medical care incidents. The Ontario Workplace Safety and Insurance Board target for TRIR is 4.76, and in March 2022 a Metrolinx target was introduced which seeks to reduce the TRIR by 15 per cent over the course of 2022-23 fiscal year. As of the end of this quarter, the target was 2.52 and CPG (Rapid Transit) had a TRIR of 2.29, down from 2.36 at the end of last quarter.

Financial

A summary of major capital project incurred costs for Rapid Transit is shown in Table 1. There are two notable changes to reported ‘baseline less exclusions’ values this quarter:

- With two major Ontario Line packages awarded in November (South Civils and RSSOM), the portion of the approved project budget associated with those contracts

has now been added to the baseline value reported last quarter. Portions of the approved budget, such as those for large construction contracts remaining to be procured, continue to be omitted from the figures and will be disclosed once no longer commercially sensitive. Similarly to some of the LRT projects in the table, the costs for the Ontario Line reported below include approximately \$7 billion associated with the operations, maintenance, lifecycle and financing costs over 30 years, as well as allocations for property and professional services, and as such are not comparable with the project's "construction cost". All components of the Ontario Line's estimated cost are within approved budget.

- In December, primary procurement activities for the Scarborough Subway Extension were completed with the signing of a Development Phase Agreement for the SRS package. The reported baseline for this project now discloses anticipated project costs with the exception of the portion of the approved budget that will be incurred on SRS during the future Implementation Phase on the basis of a negotiated Target Price.

Table 1: CPG (Rapid Transit) Capital Projects Incurred Costs to December 31, 2022

	Current Baseline less Exclusions (\$M)	Incurred Costs to date (\$M)	Incurred Costs this quarter (\$M)
Eglinton Crosstown LRT	\$12,571 ^{a,b}	\$8,639	\$81
Finch West LRT	\$3,530 ^a	\$1,808	\$62
Hurontario LRT	\$5,632 ^a	\$1,690	\$102
Eglinton Crosstown West Extension	\$1,907 ^c	\$733	\$59
Ontario Line	\$20,127 ^{a,c}	\$2,160	\$481
Scarborough Subway Extension	\$3,627 ^d	\$753	\$57
Yonge North Subway Extension	\$1,456 ^c	\$208	\$26
Hamilton LRT	\$178 ^c	\$19	\$8
GO Bus Infrastructure	\$486	\$416	\$2

All figures are reported in year-of-expenditure dollars and are not directly comparable with those in other contexts expressed as nominal dollars. Similarly, figures encompass full project implementation costs (i.e. including elements such as property, owner's project management & professional services costs and private financing where relevant) and are not directly comparable to figures provided in other contexts for construction costs or the value of 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 Budget and incurred costs associated with the GO Transit elements of Mount Dennis and Kennedy stations are reported within the "GO Expansion Early Works" totals in the *Capital Projects Group (GO & UP) Quarterly Report*.

^c **Value does not reflect the full project cost.** Project includes one or more large contracts awaiting procurement or award. To obtain the best value from the market, the published baseline value omits the portion of the approved project budget allocated to these contracts. The baseline will be updated to disclose the associated project budget upon award, before corresponding costs begin to be incurred.

^d **Value does not reflect the full project cost.** Project includes a progressive contract that is currently in its Development Phase. To obtain the best value from the market, the published baseline value omits the portion of the approved project budget allocated to the future Implementation Phase of this contract. The baseline will be updated to disclose the associated project budget as Implementation Phase pricing is agreed, before corresponding costs begin to be incurred.

Respectfully submitted,

Andrew Hope
Chief Capital Officer (Rapid Transit)