



Easier Access Phase III Project Status Report

Date: July 14, 2020
To: TTC Board
From: Chief Capital Officer

Summary

The purpose of this report is to provide a status update on the delivery of the Easier Access Phase III (EA III) program for completion by 2025.

The EA III program is an important part of the *2019-2023 TTC Multi-Year Accessibility Plan* in its objective to fulfil the provincially-legislated requirements in the *Accessibility for Ontarians with Disabilities Act, 2005 (AODA)*.

The Board received a report titled “Feasibility of Acceleration – Easier Access Phase III” at its October 27, 2016 meeting. The report recommended that the Board receive the current schedule noting the acceleration efforts currently underway and that staff will continue to seek opportunities for schedule improvement.

The 2016 report also highlighted the challenges and complexities with delivering or accelerating the EAIII program. Managing these challenges and raising the level of awareness and engagement of third parties, City agencies and staff, utility authorities and developers remain as key risks to the success of EA III.

To date, 46 stations are accessible and there are 26 remaining stations to be made accessible by 2025.

The EA III program schedule currently indicates completion of all remaining stations by 2025.

The Board adopted the recommendations in a report titled “2019-2023 TTC Multi-Year Accessibility Plan” at its May 8, 2019 meeting. The Board is provided with an annual status update on this plan and this includes an update to the EA III program schedule.

Recommendations

It is recommended that the Board:

1. Receive the current EA III Program schedule noting the acceleration efforts presently underway, and that staff will continue to seek opportunities for schedule improvement.

Financial Summary

This report has no additional capital financial impact beyond what has been requested and approved in the 2020-2029 Capital Budget & Plan. At its May 2020 meeting, the Board approved additional funding of \$7.8 million in 2020 for the Easier Access III project to enable TTC staff to accelerate work. As a result, the EA III total project approval is \$837 million of which approximately \$417 million has been committed to date, with the remaining stations progressing through to stage gate 3 where design will be approximately 30% which will allow for the development of a class 3 estimate.

This report does note that, as the designs and estimates are updated for many of the remaining stations, it is anticipated that there will be a need for an increase in the overall budget to accommodate more complex requirements. Any need for additional funding will be identified in a future budget process once these requirements can be estimated.

The Interim Chief Financial Officer has reviewed this report and agrees with the financial summary information.

Equity/Accessibility Matters

A cornerstone of the TTC's Corporate Plan 2018-2022 is accessibility and as a proud leader in providing accessible public transit in the City of Toronto, we are committed to ensuring reliable, safe and inclusive transit services for all our customers.

This is supported through the work of the EA III project. An accessible path with elevators and the associated equipment and finishes will be provided from street level to subway platforms for all remaining stations not currently accessible.

To date, 46 stations are accessible and there are 26 remaining stations to be made accessible by 2025.

Decision History

In order to meet the 2025 required completion date, the EA III Program schedule has been accelerated where possible. For further project background and history refer to:

[http://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2016/October 27/Reports/7 Feasibility of Acceleration Easier Access %20 III.pdf](http://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2016/October%2027/Reports/7%20Feasibility%20of%20Acceleration%20Easier%20Access%20III.pdf)

[http://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2019/May 8/Reports/6 2019-2023 TTC Multiyear Accessibility Plan.pdf](http://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2019/May%208/Reports/6%202019-2023%20TTC%20Multiyear%20Accessibility%20Plan.pdf)

Issue Background

The EA III program is an important part of the 2019-2023 TTC Multi-Year Accessibility Plan in its objective to fulfil the provincially-legislated requirements in the Accessibility for Ontarians with Disabilities Act, 2005 (AODA).

TTC started work to make subway stations accessible to people with disabilities in 1990 and has a target to complete all subway stations by 2025. To date, 46 stations are accessible and there are 26 remaining stations to be made accessible by 2025 as depicted in Appendix A - Easier Access Phase III Program Schedule. Note: the remaining SRT stations are being replaced by the Scarborough Subway Extension and will not be made accessible under the program.

The EA III program will provide an accessible path from street level, buses and streetcars, to subway platforms for all remaining stations not currently accessible.

The overall project scope at each station can vary according to individual station requirements but will include: elevators, accessible doors, wide fare gates, electrical power upgrade, communication system upgrades, fire alarm modifications, associated HVAC and electrical equipment, ceiling modifications and architectural finishes. Existing service rooms will be renovated or new service rooms constructed to house the required equipment. Structural modifications are required for wall and floor openings to accommodate elevator shafts and corridors. Some stations will require removal or reconstruction of existing stairs and escalators.

The prioritization of making stations accessible is determined in consultation with the Advisory Committee on Accessible Transit (ACAT). Factors considered by ACAT include geographical location, daily usage of the station, proximity to hospital and senior citizens' facilities, proximity to other accessible stations and transfers/connections to other modes of transportation and Wheel-Trans. The ACAT Design Review Subcommittee reviews and provides input and constructive feedback on all EA III designs at the preliminary design stage. All ACAT comments are addressed prior to completing the detail design.

Discussion

The current program schedule is meeting the project delivery commitment with Royal York (December 2019) recently put into service and another 6 stations to be put into service this year: Wellesley, Dupont, Chester, Wilson, Runnymede and Bay.

There are 10 stations currently in construction: Wellesley, Chester, Dupont, Wilson, Runnymede, Bay, Keele, Yorkdale, Sherbourne and Lansdowne Stations. College and Donlands will commence construction later this year, another 8 stations are due to commence construction in 2021 and the remaining 6 in 2022. Refer to Appendix A that outlines the project plan to 2025.

Recently, as with most other construction projects, EA projects have been impacted by the COVID-19 pandemic. Although deemed essential and allowed to continue through the pandemic the necessary restrictions implemented to protect the health and safety of

those involved have affected availability of resources and impacted design and construction progress.

Due to the low ridership on the system, opportunities are being reviewed to advance EA project construction work. We recently closed Chester Station for two weeks to accelerate the works and are looking at further potential closures and extending bus loop closures at other stations.

The October 27, 2016 Board report “Feasibility of Acceleration – Easier Access Phase III” discussed the increasing complexities of the remaining stations to be made accessible and the challenges faced by EA III projects.

Stations made accessible early in the program were chosen for both accessibility and comparatively less complex design and construction constraints. The majority of the remaining stations are very challenging due to station configuration and conditions. The following discussion provides an update to the information in the “Feasibility of Acceleration” report.

Project Life Cycle

The project life cycle begins with a design concept at Stage Gate 1, followed by preliminary design development at Stage Gate 2. At this stage the required project scope elements are identified and agreed to by the principle project stakeholders.

The project then proceeds to Stage Gate 3 detail design development. At the completion of this stage gate the design is thoroughly vetted through all internal stakeholders and is accepted for construction. Stage Gate 4 is the tender and award process and Stage Gate 5 the construction phase which is typically a 2 to 3 year duration. Stage 6 is contract closeout and handover to the end-user.

The current status of the remaining Easier Access projects is as follows:

Station	Stage Gate
Royal York	G6
Dupont	G5
Wellesley	G5
Yorkdale	G5
Chester	G5
Wilson	G5
Runnymede	G5
Bay	G5
Keele	G5
Lansdowne	G5
Sherbourne	G5
King	G3
College	G4
Spadina	G3

Station	Stage Gate
Donlands	G4
Lawrence	G3
Castle Frank	G3
Christie	G3
High Park	G2
Greenwood	G3
Summerhill	G3
Museum	G2
Rosedale	G3
Old Mill	G1
Glencairn	G3
Warden	G2
Islington	G2

Designs are being advanced through Stage Gate 2 to identify the project constraints and complexities that require more time and effort to resolve: property acquisition, utility relocations, station power upgrades, site plan approval, etc. Every station is different, with different risks identified and required mitigation efforts to manage the risk to the project schedule. A project risk register is developed for each station and is used to identify and manage the potential risks, impacts and mitigation strategies and assign the risk owners.

Project Risks and Mitigation

Risks associated with significant station modifications:

- structural demolition (wall and floor openings, etc.)
- stair/escalator reconstruction
- deep excavations and shoring systems
- groundwater ingress
- operational constraints
- managing customer impacts

Mitigation efforts include early and thorough design development, surveys for embedded services, constructability workshops, retaining specialist consultants, code and peer reviews, extensive stakeholder reviews and industry expert consultations. The projects will also require temporary bus re-routing and employing community relations staff, customer service agents and additional janitorial services to manage the construction disruptions.

Risks associated with 3rd party processes and resources:

- property acquisitions
- permits and approvals
- electrical power upgrades
- utility relocations
- specialized elevator suppliers

Mitigation efforts include advancing design development to identify requirements early to commence the lengthy process of approvals and property acquisitions in parallel with completing the design and commencing construction. Separating and completing station power upgrades using both external and internal resources in advance to reduce construction complexity as well as performing utility relocations ahead of Easier Access construction. In 2019 a consultant was retained to survey the elevator industry and recommend revisions to the specifications. This effort was to further standardize the specification and potentially introduce additional elevator suppliers to increase the available resources for construction.

Risks associated with resources:

- design resources
- project management
- construction management
- supporting functions

Advancing design and managing the associated complexities requires extensive design resources, including specialized consultants. The project team utilizes some 13 design services contracts and in-house engineering resources to meet these needs. The EA project team has increased its resources to manage more projects in parallel while some EA projects are distributed to other management teams. Dedicated construction management teams have been assigned to manage EA projects during construction.

These projects also require staff and external resources outside of the project team including, but not limited to, customer service, community relations, legal, property acquisition and development, utility and permit coordinators. There are dedicated staff identified for these supporting roles on the EA project team.

Warden and Islington Stations

Warden and Islington Stations have multiple bus bay configurations with stairs to each bus bay and as such require new multi-bay bus platforms to achieve accessibility requirements. Funding for the redevelopment of both stations was secured in 2019 and a dedicated project team was implemented to advance the designs. Both sites are designated for future development by CreateTO and as a result, extensive coordination and commitment is required among CreateTO, City Planning & Transportation and TTC to develop a feasible and coordinated development plan that is constructible within the required timelines and respects both transit and housing needs.

Because of this late start and the complexity of these station redevelopments, Warden and Islington will be very challenging to complete by 2025. The project team is investigating mitigation strategies to improve the schedule including constructing the project in phases by separate contracts, advancing the elevator construction associated with the station and constructing an accessible temporary bus loading area.

Cost Risk

The original budget was based on a scope and a level of complexity which covered the majority of the stations, however the latter stations complexity and scope are in excess

of that anticipated within the original budget. We are currently progressing the design of the remaining stations to stage gate 3 where the design will be at approx. 30%, which will allow us to develop a class 3 estimate.

We will be progressively updating our estimates as we complete the designs but early indications are that we anticipate the need for an increase in the overall budget to accommodate the more complex stations. It is too early yet to determine what additional funding increase will be required but we will be reviewing and updating cost estimates and identifying additional costs as part of the annual budget process.

Acceleration Efforts

Additional design services have been retained and dedicated Project Management and Property staff were assigned to advance designs in parallel, and identify property and other requirements early.

Earlier acceleration efforts are paying off. Appendix A shows that all EAIII projects are expected to be designed by end of next year, 2021. Years 2019 and 2020 have the most projects concurrently in design decreasing to just 6 in 2021. This demonstrates that station designs are being advanced to meet the 2025 completion date.

The plan shows that the number of stations concurrently in construction between 2020 and 2023 is consistently high at 12 to 16 stations. This is the time period when the majority of the remaining stations will have elevators put in service.

Comments

The current EA III program plan has advanced station designs to have all remaining stations designed by 2021; three years ahead of the 2025 target completion.

These later designs are more technically complex as discussed in this report and accordingly, construction will be challenging to be completed in parallel. The required construction staging and operating constraints add to the project complexity and construction durations. Staff work collaboratively with contractors to identify opportunities to accelerate the work during construction.

The EA III projects have all utilized the design-bid-build (DBB) process. This traditional industry practice is best suited for these types of projects where operating constraints and the product is more technically complex and dependent on quality assurance and quality control to deliver to the owner's expectations especially given components of the work which have a high frequency of usage and long service life. The DBB method has the advantage of being the most familiar and the rules and procedures are well understood among the parties (owner, designer and constructor). DBB also allows for a competitive market fixed price bid where all performance related risks are the contractor's.

The EA III project primary risks are unforeseen conditions, operational constraints, quality and technical requirements and 3rd party process related. The DBB process is

better suited for this application where the owner has a more involved role rather than design-build, integrated project delivery or construction management type approaches.

Given the described project constraints affecting the EA III projects, the current construction schedule which has up to 16 stations in construction concurrently is ambitious and achievable, but has limited opportunities for further advancement.

The EA III program is scheduled to be complete by 2025. The project team will continue to advance station designs and to seek opportunities for schedule improvement.

Also of note, a separate project has been created and a study funded for Easier Access Phase IV (EA IV). A terms of reference will be developed in 2020 in consultation with ACAT that establishes the assessment criteria used to identify the subway stations that would most benefit from additional accessibility features.

The study will identify a priority list of stations and is expected to be completed in 2021. Implementation of these additional accessibility improvements in future years would be subject to funding availability.

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Attachments

Appendix A

[03075-897-62](#)

APPENDIX A

Easier Access Program Schedule

April 2020

Station	In Service Date	2019	2020	2021	2022	2023	2024	2025
ROYAL YORK	2019							
DUPONT	2020							
WELLESLEY	2020							
YORKDALE	2021							
CHESTER	2020							
WILSON	2020							
RUNNYMEDE	2020							
BAY	2020							
KEELE	2021							
LANDOWNE	2021							
SHERBOURNE	2021							
KING	2022							
COLLEGE	2023							
SPADINA	2022							
DONLANDS	2022							
LAWRENCE	2023							
CASTLE FRANK	2023							
CHRISTIE	2023							
HIGH PARK	2023							
GREENWOOD	2023							
SUMMERHILL	2023							
MUSEUM	2024							
ROSEDALE	2024							
OLD MILL	2024							
GLENCAIRN	2024							
WARDEN	2025							
ISLINGTON	2025							
Stations in Design		10	10	8	10	13	8	2
Stations Construction		11	12	14	16	13	8	2

