

TORONTO TRANSIT COMMISSION REPORT NO.

MEETING DATE: September 24, 2009

SUBJECT: TORONTO-YORK SPADINA SUBWAY EXTENSION PROJECT
STATION DESIGN PHILOSOPHY

ACTION ITEM

RECOMMENDATION

It is recommended that the Commission endorse the TYSSE Station Design Philosophy for the Toronto-York Spadina Subway Extension.

FUNDING

Sufficient funds for this expenditure are included in the Toronto-York Spadina Subway Extension (TYSSE) Project, as set out on pages 1479 to 1482 of the TTC 2009-2013 Capital Program (Category - Expansion) which was approved by City Council on December 10, 2008.

BACKGROUND

The TTC is planning the design and construction of an underground subway line from the existing Downsview Station on the Spadina Line located in the City of Toronto, to the proposed Vaughan Corporate Centre located in the City of Vaughan, Region of York. The new 8.6 km long line will include both tunnelled and cut and cover sections.

The Toronto-York Spadina Subway Extension (TYSSE) project is being funded by the Federal Government, the Province of Ontario, the Regional Municipality of York and the City of Toronto. The TTC is managing the design and construction of the TYSSE project and will own, maintain and operate the subway extension.

York Region will manage the design and construction of some surface facilities; specifically, passenger pick-up and drop-offs and regional bus terminals located within York Region. York Region will own, maintain and operate these facilities.

At the Commission Meeting of October 23, 2008, contracts were awarded for the design of six subway stations. The award was the culmination of an RFP process that was designed to encourage participation of world class architects with proven experience in transit station design.

DISCUSSION

The basic design philosophy is based on the Staff Response to Commission Inquiry – Urban Transit Design approved by the Commission at its meeting on October 25, 2006. The intent of the TYSSE Design Philosophy is to provide consistent guidelines to the station designers of the Toronto-York Spadina Subway Extension project as follows:

- Integrated design of all elements with strong aesthetics and public artwork;
- Column-free structures wherever possible with high ceilings and simple flow of space;
- Bright, open spaces with daylight penetrating deep into stations where possible;
- Barrier-free with at least one fully accessible entrance;
- Use of TTC standard elements; and
- Sustainable design to meet the Toronto Green Standard (TGS).

The TYSSE Station Design Philosophy was developed into a presentation that was reviewed with stakeholders and City of Toronto and York Region Urban Design staff prior to presentation to Station Designers at their kick-off meetings.

TYSSE Approach - Station Design Objectives

The underlying objectives behind this Station Design Philosophy are to deliver attractive public transit environments while maintaining a consistent passenger environment at reasonable cost. Building on recent successes, particularly the Sheppard Subway Project, TYSSE stations will be barrier-free and unique with individual aesthetics, integrated public art, and TTC standard elements. Facilities will be safe and secure, easily cleaned and maintainable, and environmentally sustainable. They will have increased floor/ceiling heights and be column-free where cost-effective, or have a single row of columns combined with vertical circulation elements.

As a critical part of the City's transportation infrastructure, all TYSSE surface facilities will have an increased emphasis on creating unique public spaces at grade that have a positive contribution to their urban context and demonstrate urban design excellence with integrated streetscaping and landscaping treatments. Entrances in particular are intended to be:

- highly visible;
- transparent;
- unique/stimulating;
- maintainable;
- sustainable.

Some facilities may eventually be incorporated into development. There will be a project focus on public buildings that are expected to remain stand-alone for the foreseeable future until such time as they are integrated into development. Protection for future connections is a key goal.

Station Structure

The goal is to ensure that architecture and structure are integrated so that structure is carefully designed wherever it is exposed to public view. Stations should be column-free wherever cost effective, or use a single row of large columns on the platform with wide spacing. Where ceilings are planned, they should have a minimum height of 4m to create a sense of openness. Systems requiring routine maintenance will not be mounted higher than 4m.

TYSSE is proceeding to design stations working on the assumption that platform edge doors (PEDs) will not be in place on Opening Day, but are to be easily accommodated at a later date. In addition, platforms are being designed to be 152.4 m long to match the length of the existing stations on the Yonge University Spadina Subway.

Public Art

Selection of Public Artists to work as part of the architectural design teams for each station is now complete. A request for expressions of interest was publicly posted by TTC Materials and Procurement to which 59 artists responded. Through a juried selection process six artists were selected. Public Artists were selected and assigned for each station in July 2009.

Standard Elements

TTC has a range of Standard Elements developed to improve maintainability and help to integrate unique station designs into a recognisable TTC environment.

Maintainability

Station structures are designed for a minimum lifespan of 100 years. All architectural finish materials will have a minimum life of 25 years, and stations will be designed for easy cleaning and for refurbishment or replacement of major elements on a 40 year cycle.

Sustainability

In accordance with the TTC Environmental Plan, adopted by the Commission at its meeting of December 6, 2007, and as directed by the Commission at its meeting of February 18, 2009, the TYSSE project has adopted the Toronto Green Standard and is developing designs to address the following issues:

- Sustainable Site;
- Light Pollution Reduction;
- Urban Heat Island Reduction;
- Stormwater Management;
- Air Quality;
- Energy Efficiency;
- Water Efficiency;
- Daylight;
- Solid Waste Management/Recycling.

Budget

The funding impact will vary from station to station and will be addressed as individual station concepts are brought forward.

JUSTIFICATION

Providing visually appealing public transit facilities will enhance the ridership experience and the urban design environment of the Cities of Toronto and Region of York.

August 31, 2009
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