

TORONTO TRANSIT COMMISSION REPORT NO.

MEETING DATE: September 30, 2010

SUBJECT: TORONTO-YORK SPADINA SUBWAY EXTENSION PROJECT
FINCH WEST STATION
APPROVAL OF FINISHES AND ARTWORK

ACTION ITEM

RECOMMENDATION

It is recommended that the Commission approve the final design, finishes, and artwork for Finch West Station, which will be presented through the public consultation process.

FUNDING

Sufficient funds for this expenditure are included in the Toronto-York Spadina Subway Extension (TYSSE) Project, as set out on pages 1439 to 1442 of the TTC 2010-2014 Capital Program (Category - Expansion) which was approved by City Council on December 8, 2009.

BACKGROUND

The TTC is planning the design and construction of a subway line from the existing Downsview Station on the Spadina Line located in the City of Toronto, to the future Vaughan Metropolitan Centre located in the City of Vaughan, Region of York as shown in Exhibit 1. 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 Government of Canada, the Province of Ontario, the City of Toronto, and the Regional Municipality of York. The TTC is managing the design and construction of the YYSSE project and will own and operate the subway extension.

At the Commission meeting of October 23, 2008, Contract A85-75B for the design of Finch West Station was awarded to the design team lead by The Spadina Group Associates (TSGA). The architectural firms for this team are Richard Stevens Architects and Alsop Architects.

At its meeting of September 24, 2009, the Commission approved the TYSSE Station Design Philosophy with additional emphasis on achieving high quality architecture, urban design, streetscape, and landscape architecture 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.

At the Commission meeting of January 20, 2010, the Commission approved the conceptual design for this station.

The project has been reviewed by the public and all stakeholders, including City of Toronto Planning.

DISCUSSION

DESIGN: **Exhibit 1 – TYSSE Map**
 Exhibit 2 – Site Plan

Finch West Station is located under Keele Street north of Finch Avenue West as shown on the site plan in Exhibit 2. Located in the hydro corridor to the north of the station, commuter parking for 358 vehicles, a ten space passenger pick-up and drop-off (PPUDO), and associated access roads from Keele Street are under development. A crossover box structure extending south of the station under Finch Avenue West will also be built by the station contractor.

Passengers from the commuter parking and PPUDO facilities cross the transit-only extension of Four Winds Drive to enter the station through the automatic entrance located on the east side of Keele Street. The automatic entrance, bus terminal, and secure parking for 100 bicycles are located under an elevated substation facility.

The main entrance is located on the west side of Keele Street just north of the intersection with Finch Avenue West. Vent shafts will come to the surface on the west and east sides of Keele Street just north of the Finch Avenue West intersection; in front of the Four Winds Drive Condominium; and in the landscaped center median of Keele Street.

The Finch West Station project incorporates the following environmental initiatives:

- Cool roof and green roofs;
- Increased daylight levels to reduce electric lighting power usage;
- LED lighting in pylon signs, and energy efficient lighting in illuminated wayfinding signage to reduce power consumption;
- Water efficient plumbing fixtures;
- Energy efficient HVAC system;
- Reduced stormwater runoff into the municipal drainage system by utilizing green roof landscaping and soft landscaping areas adjacent to other building runoff areas;
- 100 secure and 13 short term bicycle parking spaces; and
- Landscape with native and drought tolerant species provided.

PUBLIC REVIEW:

The Finch West Station functional design concept has been reviewed as follows:

- Advisory Committee on Accessible Transportation (ACAT) on November 23, 2009;
- Commission meeting on January 20, 2010;
- Public open house on March 30, 2010;
- Public presentation of TYSSE station designs on April 28, 2010; and
- ACAT Design Subcommittee on September 8, 2010.

The March 30, 2010 open house was held specifically to exhibit functional design. There were over 100 attendees with 12 written comment forms submitted. In general, the comments received were supportive of the station's functional design. Three comments requested the widening of Finch Avenue and Keele Street, development of the Hydro corridor into gardens, parking, protection of hydro wires, providing more playgrounds, etc. and creating more underground retail facilities. Two comments requested better TTC bus services for the neighborhood; one requested information on the Eglinton LRT; one requested a meeting of the architect with an interested community group; and one requested more/better promotion of the open house.

The conceptual design was reviewed with the ACAT Design Subcommittee on November 23, 2009. Staff subsequently reviewed the completed design, finishes, and artwork with the Design Subcommittee on September 8, 2010. Comments included:

- Consider protecting for installation of a second elevator from the north concourse to platform to better accommodate passengers from the bus terminal and automatic entrance who would otherwise have to go to the south concourse; and
- Consider combining the main entrance into the bus terminal and automatic entrance.

The station designers are looking to revise the design to adjust the placement of under platform services which would facilitate the installation of a second elevator from the concourse level to the platform level in the future.

With regard to the second comment by ACAT related to combining the main entrance into the bus terminal and automatic entrance, staff considered the comment and determined that it would not meet the requirements of the Environment Assessment and reported back at the second meeting with ACAT that this was not being implemented, to which the ACAT representatives offered no objection.

The station design, finishes, and artwork will be taken to a second public open house in November 2010.

STATION DESIGN AND FINISHES:

Exterior: **Exhibit 3 – Exterior View – Main Entrance**
 Exhibit 4 – Exterior View – Bus Terminal

The roof over the main entrance is a cool roof, and the roof to the elevated substation box is a green roof to meet the Toronto Green Standard and the Green Roof Bylaw. Glazing is bird-friendly fritted glass, with occasional panels of coloured art glass, in clear anodized aluminum curtain wall framing. The parapet wall and façade above the glazing are clad with fibrous cement panels in a black and white graphic pattern. The northern end of the substation box extends over the automatic entrance doors providing a canopy to this entrance. This extension is back lit to form a glowing panel to further highlight the entrance point to patrons from the parking lot and PPUDO.

Hard landscaping will be white and grey concrete in a pattern to match the architecture. Soft landscaping will be generally hardy and low maintenance for durability in the local environment.

Grade Level: **Exhibit 5 – Plan at Grade – Main Entrance**
 Exhibit 6 – Interior View – Main Entrance
 Exhibit 7 – Plan at Grade – Bus Terminal
 Exhibit 8 – Interior View – Bus Terminal

Passengers arriving at the station from the commuter parking or PPUDO will enter through the automatic entrance containing an automatic fare line with an easier access portal unit (EAPU). Passengers arriving by bus move from the bus platforms to the fare paid side of the automatic entrance and then down to the fare paid north concourse by an elevator, escalators, and stairs. The bus terminal facility also contains a retail space and TTC service spaces.

Due to the delayed implementation of the Etobicoke-Finch West LRT project, additional buses will have to be accommodated in the Finch West Station bus terminal. A redesign of the bus operations is ongoing and will be brought forward to a future Commission meeting if this requires significant change to the design shown.

Passengers from west or south of the station enter through the main entrance which contains an elevator, escalators, and stairs to the unpaid south concourse.

Glazing is bird-friendly fritted glass, with occasional panels of coloured art glass, in clear anodized aluminum curtain wall framing. Interior walls are clad with large two-tone yellow ceramic wall panels, with doors painted to match. Floors are dark two-tone grey terrazzo and stairs are dark grey granite with nosings in a paler colour to provide contrast required to meet TTC barrier-free design standards. The guardrails around the vertical circulation openings are stainless steel frames with tempered-laminated glass panels.

The exposed concrete columns are part of the art concept and will be sealed to resist graffiti. Ceilings will be prefinished aluminum acoustic panels in a black and white pattern to match the exterior soffit.

Concourse: **Exhibit 9 – Concourse Plan**
 Exhibit 10 – Interior View – Concourse

The north concourse directs passengers from the PPUDO, parking, and bus terminal to the platform level by stairs and escalators. From the top of the escalators there is a view through the large open space over the platform towards the south concourse.

At the south concourse, a knockout panel protects for future connections to the proposed Etobicoke-Finch West LRT and to Transit Oriented Development (TOD) to the east. Moving through the fare line leads to escalators, stairs and an elevator to platform level.

A mezzanine walkway connects the north and south concourses on the east side of the concourse level, overlooking the platform. The concourse level also contains TTC service spaces.

East walls are clad with large two-tone yellow ceramic wall panels with the west walls in two-tone grey. Floors are dark two-tone grey terrazzo and stairs are dark grey granite with nosings in a paler colour to provide the contrast required to meet TTC barrier-free design standards. The guardrails around the vertical circulation openings and the mezzanine walkway are stainless steel frames with tempered-laminated glass panels. Ceilings are dark grey acoustic panels randomly distributed across the ceilings.

**Platform: Exhibit 11 – Platform Plan
 Exhibit 12 – Interior View – Platform**

One elevator, four escalators, and two sets of stairs to the concourse levels serve the subway platform level. Walls around the vertical circulation elements and the platform end walls are clad with large two-tone grey ceramic wall panels.

Trainway walls will be exposed architectural concrete. Floors are dark two-tone grey terrazzo with TTC standard wayfinding tile and yellow platform edge tiles. Stairs are dark grey granite with nosings in a paler colour to provide the contrast required to meet TTC barrier-free design standards. The guardrails around the vertical circulation openings and the mezzanine walkway are stainless steel frames with tempered-laminated glass panels. Ceilings are dark grey acoustic panels randomly distributed across the ceilings.

Options are currently under review for mounting the platform edge sign bands. The optimal location for the platform edge sign band is to have it integrated into the header of the future platform edge doors. In the interim, options are being explored, including suspending the platform edge sign band from the ceiling or smoke canopies above the platform edges or mounting the information contained on the signs on the train wall.

Artwork: Exhibit 13 – Artwork

A public art selection process resulted in the selection of Bruce McLean as the public artist for Finch West Station. The Artist has worked very closely with the architectural design team to develop a concept of public art being fully integrated with the architecture and the structure so that it is woven into the very fabric of the station; physically supporting it to form a unified aesthetic language of design. The artist has stated:

“The sculptures are intended to be part of the structure and fabric of the building and should in a way be invisible. The structures supporting the power substation are referencing Greek caryatids; the pillars supporting the underground roof reference 6,000 year old Minorcan pillars supporting underground houses based, I believe, on the structure of a palm tree and are, I also believe, the inspiration for the form of the barrel vault, so in effect it’s making use of the ancient in modern times.”

The formal aspects of the artwork are comprised of strong sculptural concrete forms that are integrated into the supporting columns of the substation and entrance buildings, the bus canopy, and double-height columns below grade. Every visible aspect of the public space of this project is a blending of the boundaries between art and architecture.

This concept has been developed and approved by the Finch West Station, Art Design Review Committee (ADRC).

Project Impacts:

As this site and surrounding area are largely developed, there is potential for impact on the surrounding community during the construction period. Finch West Station will be the site of the tunnel boring machine (TBM) extraction shaft for construction of the north twin tunnels from York University Station, and from the southeast from Sheppard West Station.

To address these impacts, the following steps have been taken during design development:

- Discussions with the Toronto and Region Conservation Authority (TRCA);
- An Environmental Management Plan (EMP) will be in place to address the effects of dewatering, stormwater management, and erosion and sediment control;
- Instrumentation, inspection and response procedures will be in place to monitor and mitigate construction noise, vibration and dust control;
- A traffic staging plan will be developed in consultation with the City to address traffic issues on Keele Street.

Cost and Schedule:

The footprints of the main entrance and bus terminal/automatic entrance have been significantly reduced from the 30% design. The estimated final cost of construction costs for Finch West Station is \$148 million, inclusive of taxes. While this current cost estimate will require further use of contingency funds, value engineering and cost reduction measures will be taken on this station work to keep the total project costs within the approved budget. Finch West Station is scheduled for substantial completion by the end of 2014.

Next Steps:

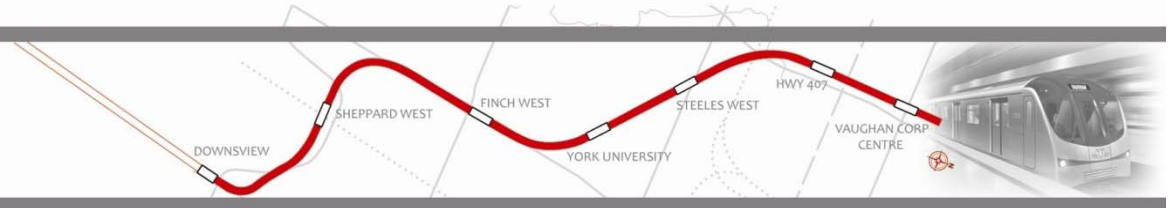
A next public open house for Finch West Station will be held in late November 2010. In the event that any issues arise, a report will be brought to a future Commission meeting. A report for contract award approval will be presented to the Commission in spring 2011.

JUSTIFICATION

Approval is required to allow the station design to be finalized for tender.

September 8, 2010
70-14-31
03-04-000009151

Attachments: Exhibits 1 to 13



Finch West Station

Located under Keele Street, north of Finch Avenue West intersection:

- 358 space Commuter Parking Lot
- 100 space secure bicycle parking
- 10 space Passenger Pick Up and Drop Off (PPUDO)
- TTC bus terminal
- Future connection to Etobicoke-Finch West Light Rail Transit (LRT)

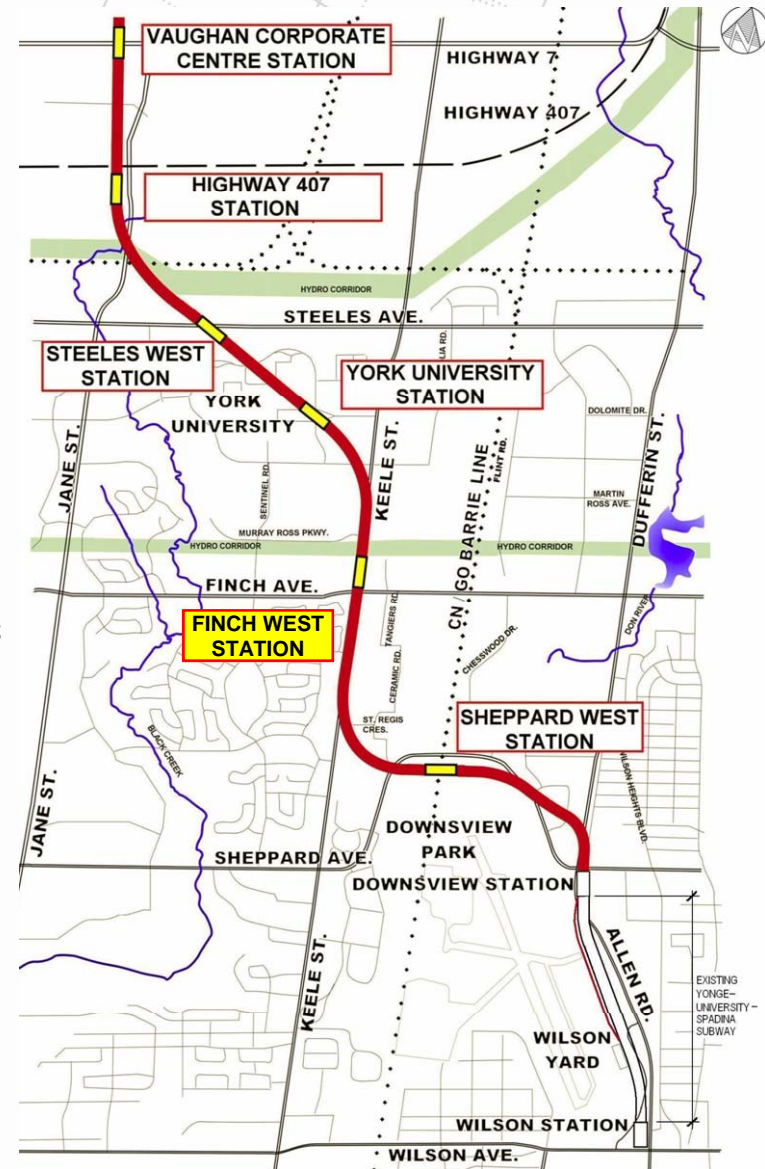
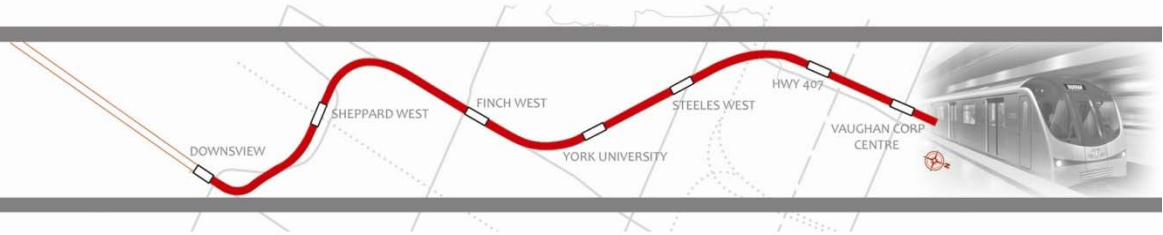


Exhibit 1 – TYSSE Map



Finch West Station

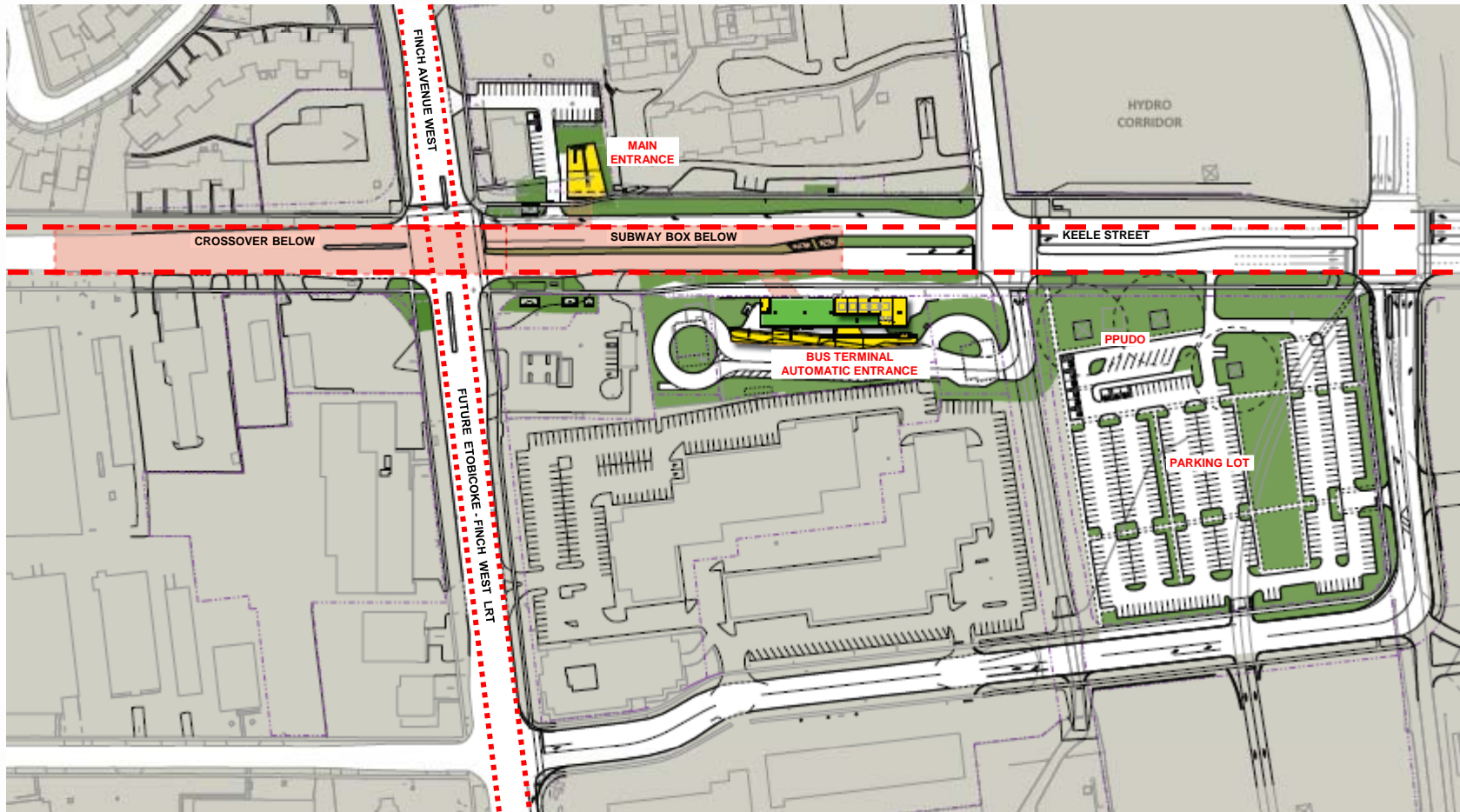
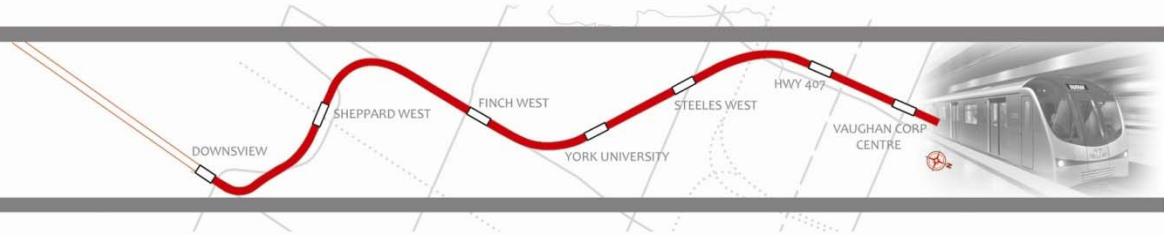


Exhibit 2 – Site Plan



Toronto-York Spadina
Subway Extension



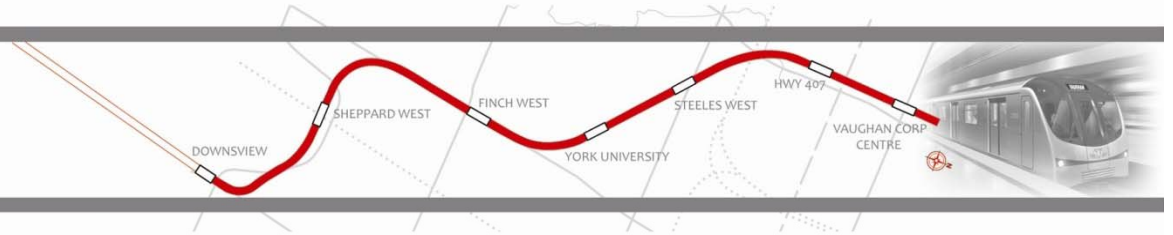
Finch West Station



Exhibit 3 – Exterior View – Main Entrance



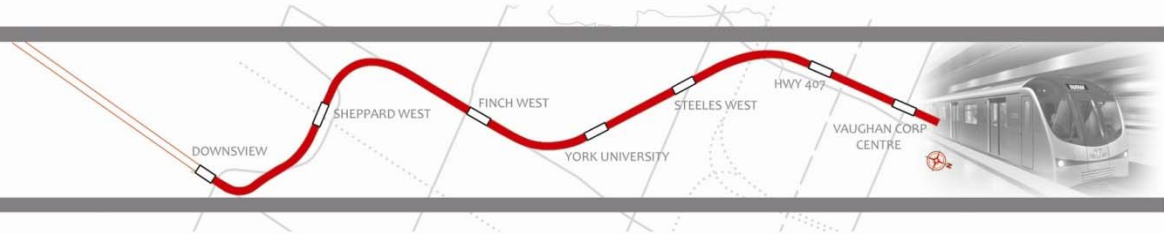
Toronto-York Spadina
Subway Extension



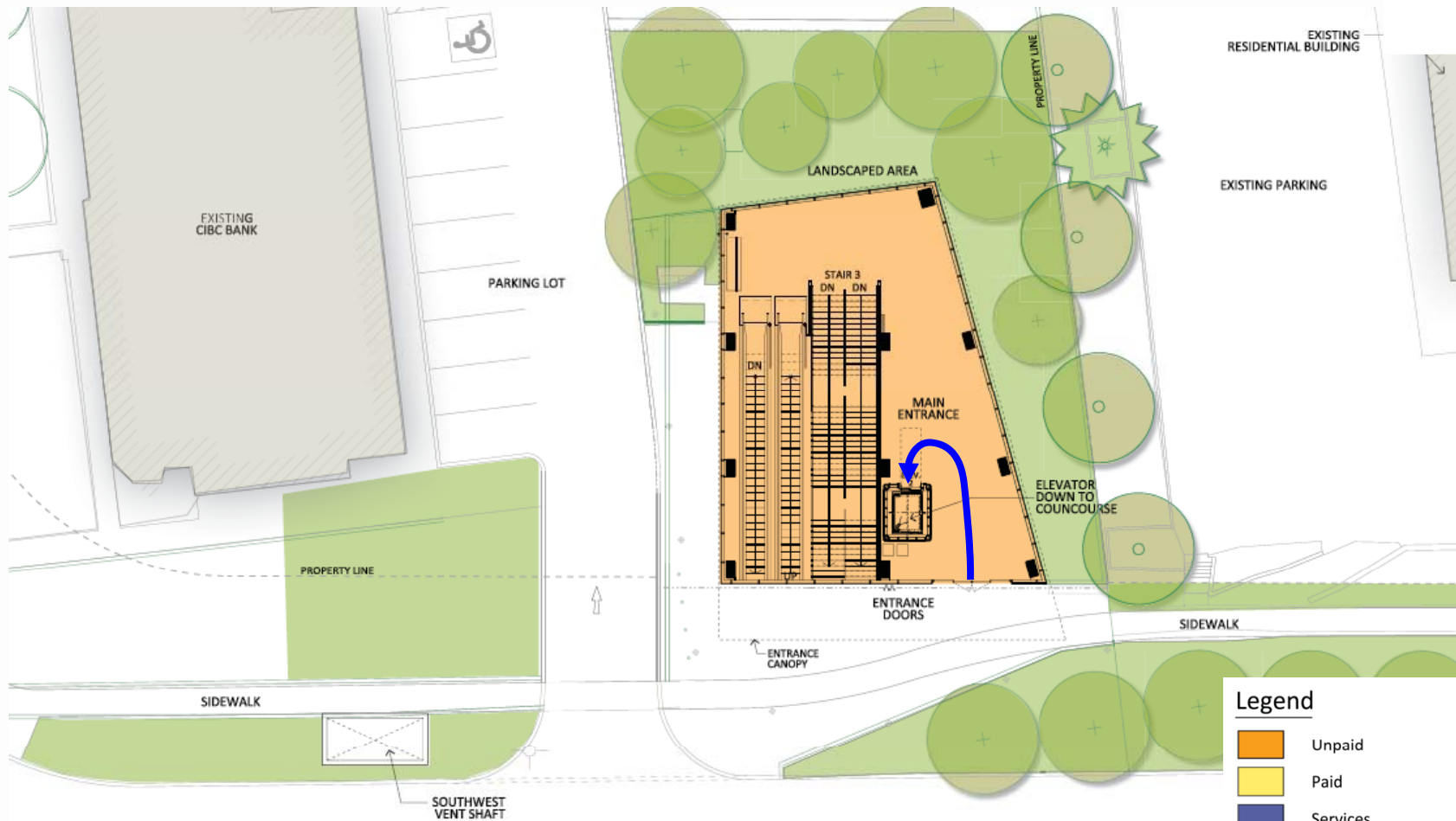
Finch West Station



Exhibit 4 – Exterior View – Bus Terminal



Finch West Station



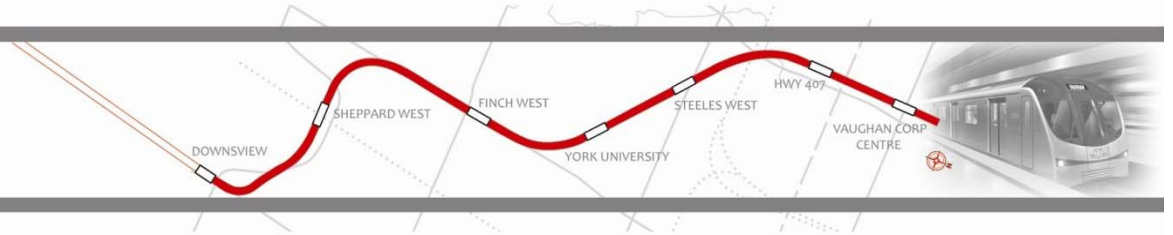
Legend

- Unpaid
- Paid
- Services
- Barrier-Free Route

Exhibit 5 – Plan at Grade – Main Entrance



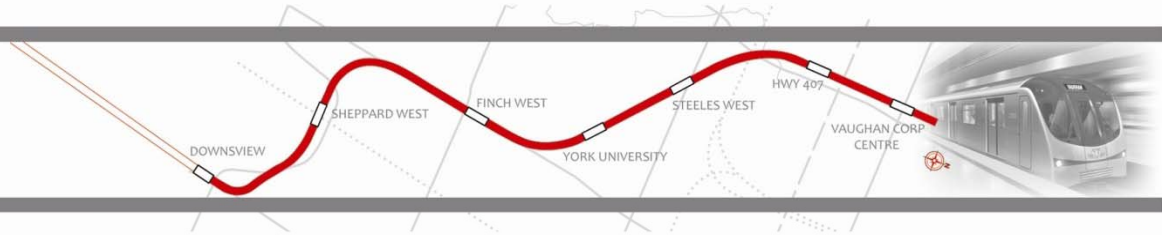
Toronto-York Spadina
Subway Extension



Finch West Station



Exhibit 6 – Interior View – Main Entrance



Finch West Station

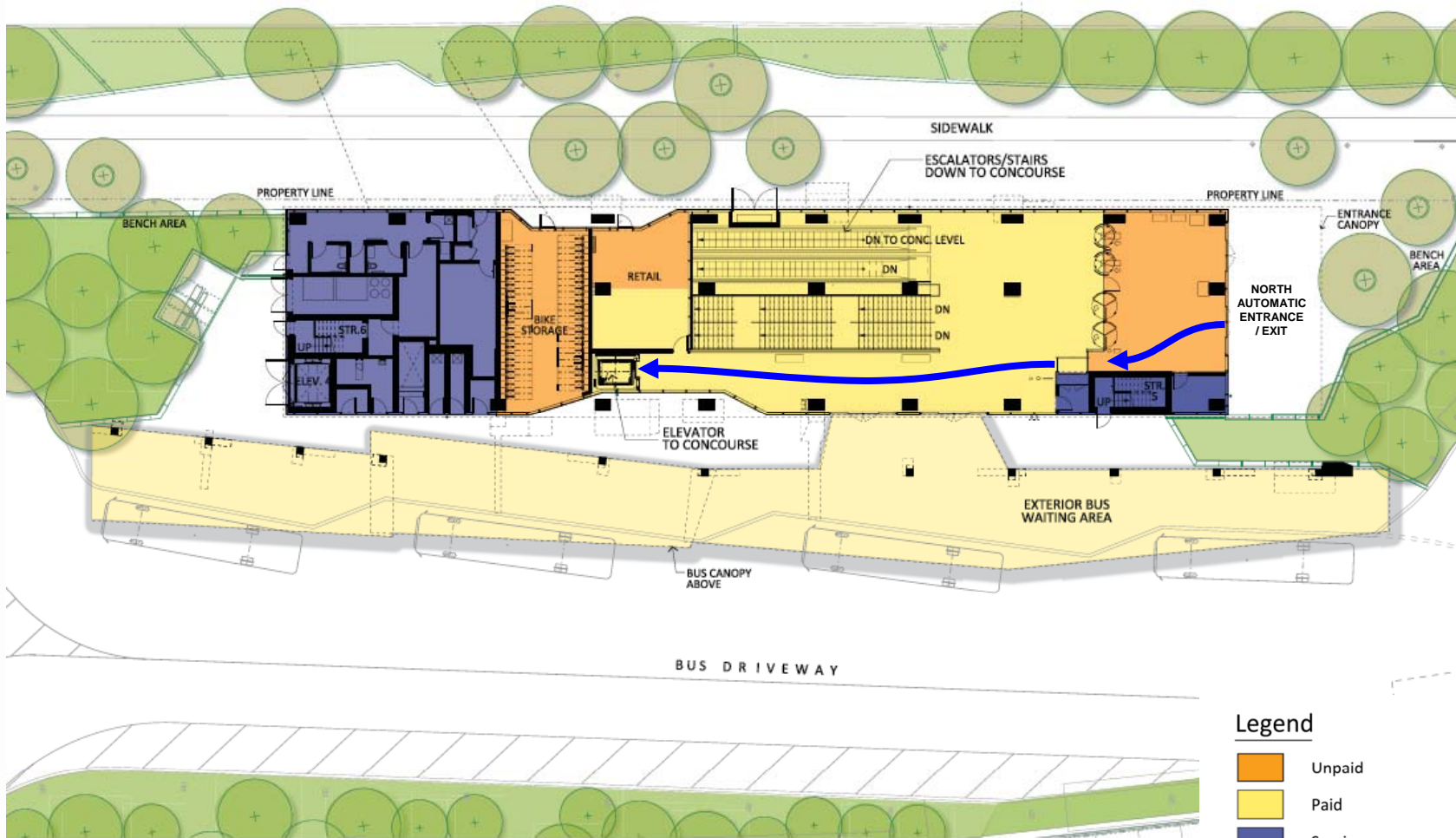


Exhibit 7 – Plan at Grade – Bus Terminal

- Legend**
- Unpaid
 - Paid
 - Services
 - Barrier-Free Route



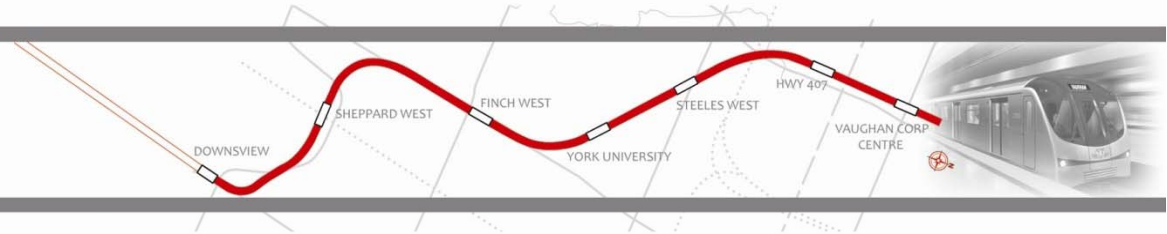
Finch West Station



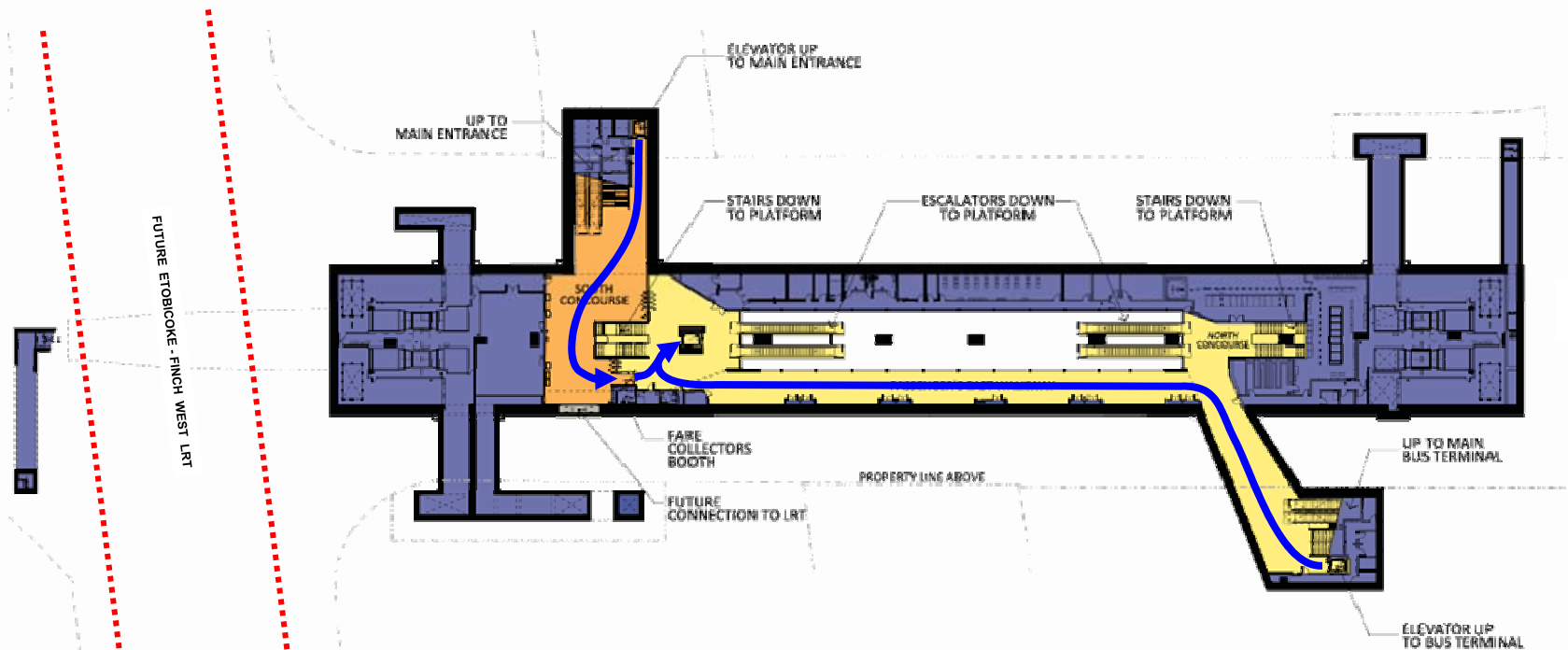
Exhibit 8 – Interior View – Bus Terminal



Toronto-York Spadina Subway Extension



Finch West Station



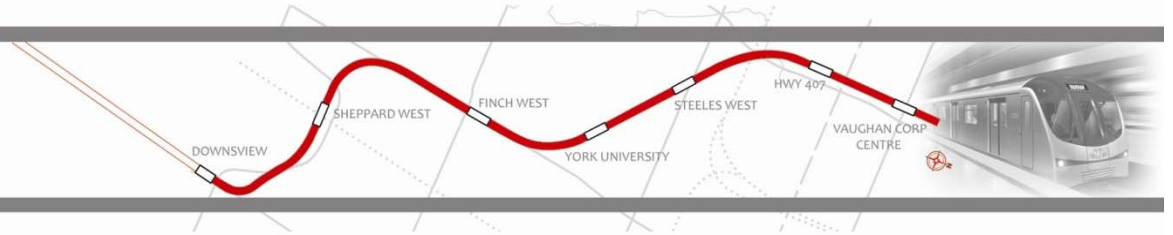
Legend

- Unpaid
- Paid
- Services
- Barrier-Free Route

Exhibit 9 – Concourse Plan



Toronto-York Spadina
Subway Extension



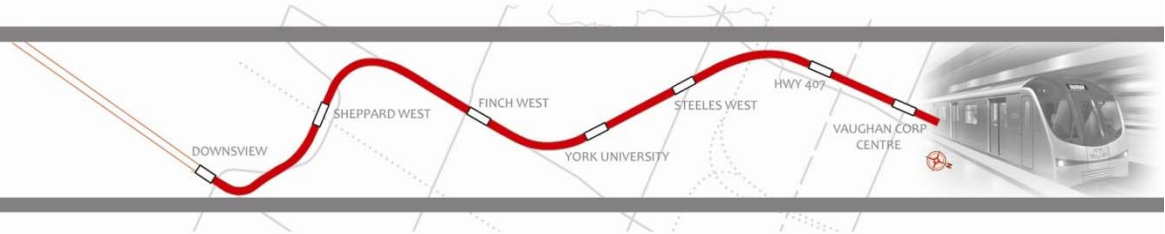
Finch West Station



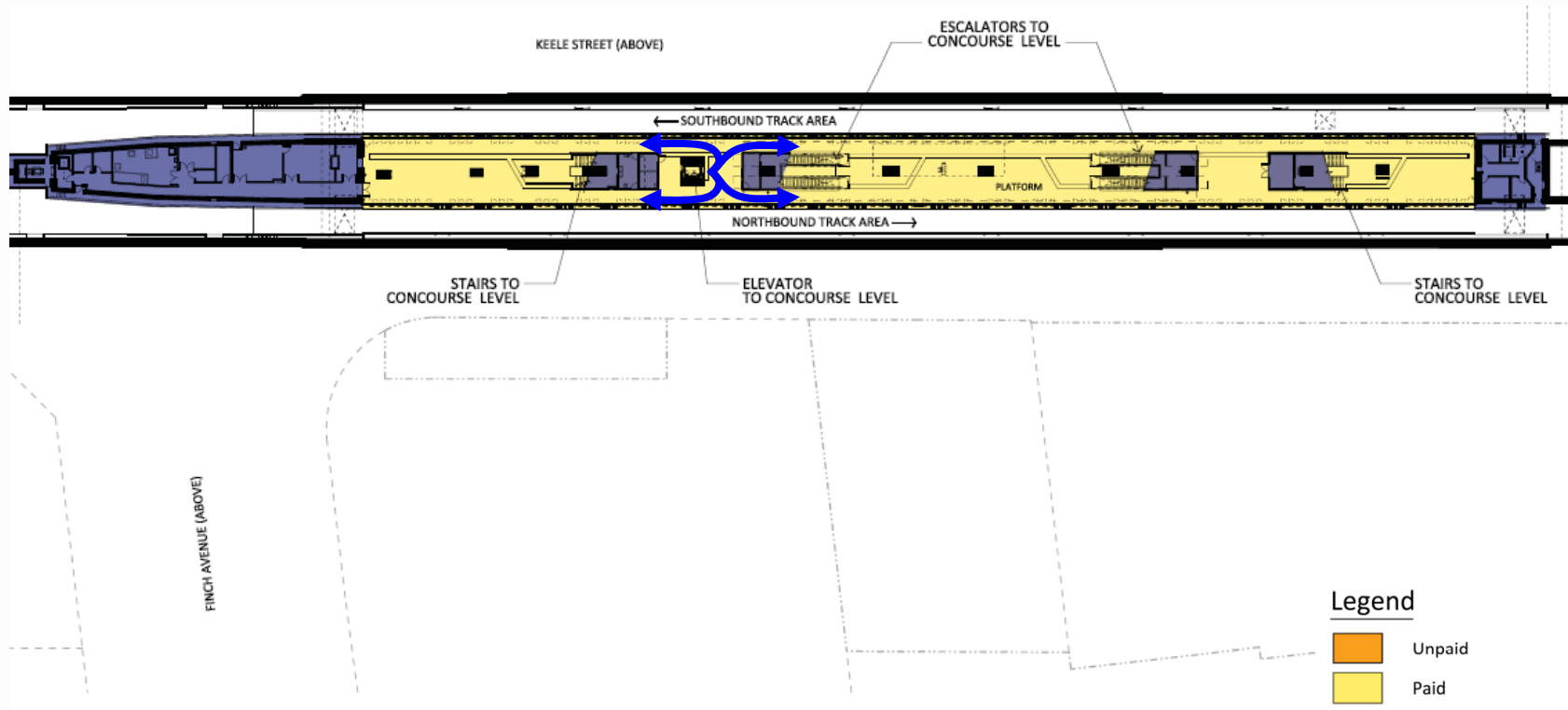
Exhibit 10 – Interior View – Concourse



Toronto-York Spadina
Subway Extension



Finch West Station



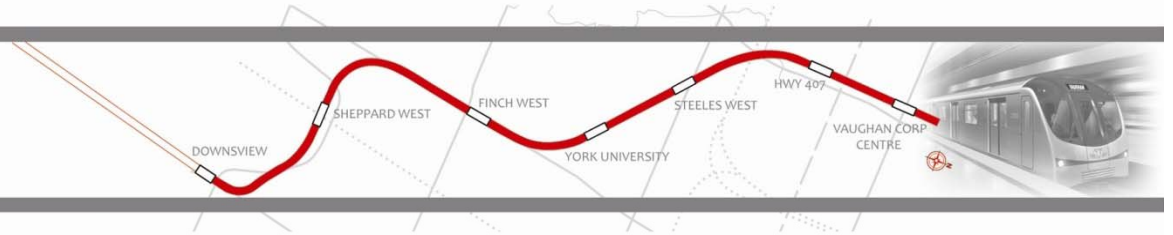
Legend

- Unpaid
- Paid
- Services
- Barrier-Free Route

Exhibit 11 – Platform Plan



Toronto-York Spadina
Subway Extension



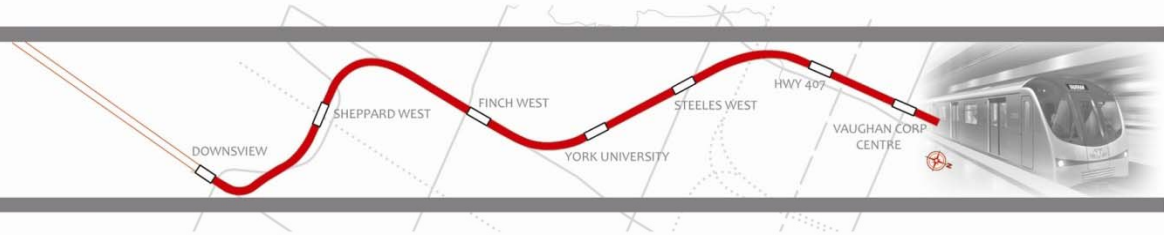
Finch West Station



Exhibit 12 – Interior View – Platform



Toronto-York Spadina
Subway Extension



Finch West Station



Exhibit 13 – Artwork