



## STAFF REPORT INFORMATION ONLY

### **Presentation: Project Progress Update for Toronto-York Spadina Subway Extension**

<b>Date:</b>	May 18, 2017
<b>To:</b>	TTC Board
<b>From:</b>	Chief Executive Officer

### **Summary**

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The purpose of this report is to present the following information regarding the Toronto-York Spadina Subway Extension project:

- Safety performance
- Construction progress status of facilities and systems
- Testing and commissioning status
- Milestones achieved and planned

### **Financial Summary**

This report has no financial impact beyond what has been approved in the current year's budget.

The Chief Financial and Administration Officer has reviewed this report and agrees with the financial impact information.

### **Accessibility/Equity Matters**

The TYSSE project remains in construction and therefore there is no impact on accessibility. The new stations being constructed include the full range of accessibility features.

## **Decision History**

The CEO's report for April 2017 included a brief description of progress on the TYSSE project.

[http://www.ttc.ca/About\\_the\\_TTC/Commission\\_reports\\_and\\_information/Commission\\_meetings/2017/April\\_20/Reports/1\\_Chief%20Executive%20Officer%27s%20Report%20-%20April%202017%20Update.pdf](http://www.ttc.ca/About_the_TTC/Commission_reports_and_information/Commission_meetings/2017/April_20/Reports/1_Chief%20Executive%20Officer%27s%20Report%20-%20April%202017%20Update.pdf)

## **Contact**

Keith Sibley, Project Director  
Toronto-York Spadina Subway Extension  
416-590-6762  
[keith.sibley@ttc.ca](mailto:keith.sibley@ttc.ca)

70-29-58  
03-04-000232320

## **Attachment**

Presentation: TYSSE Project Progress Update



# TYSSE PROJECT PROGRESS UPDATE

Keith Sibley  
TYSSE Project Director

TTC Board Meeting  
May 18, 2017

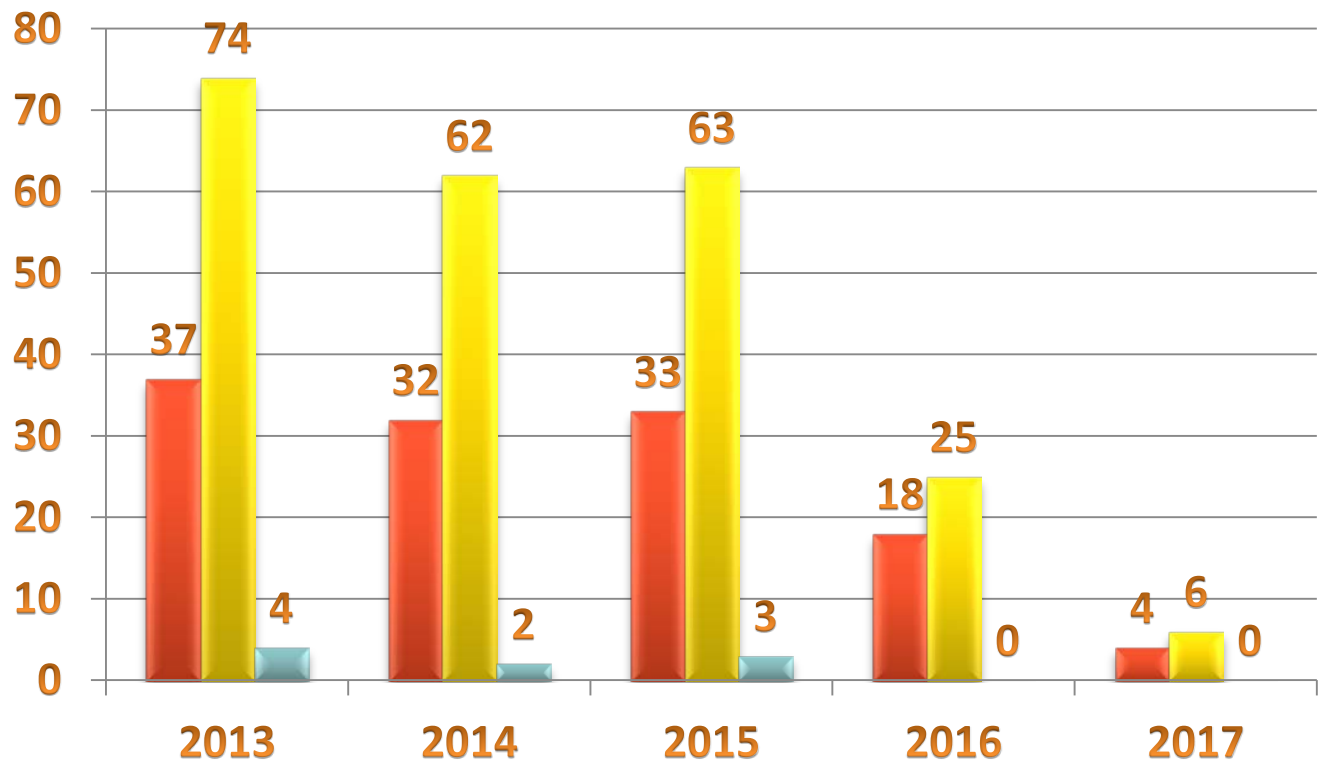
SP# 03-04-000232474





- 1. Safety Performance**
- 2. Project Achievements**
- 3. Project Progress – Facilities and Systems**
- 4. Commissioning Status**
- 5. Completion Timeline**

# SAFETY PERFORMANCE



**Jan 2013 –  
May 2017  
Recorded  
Safety  
Metrics**

- First Aid
- Medical Aid
- LTI



# PROJECT ACHIEVEMENTS



- **Downsview Park Station – Achieved Substantial Performance on Feb 10<sup>th</sup>**
- **York University Station – Achieved Substantial Performance on Feb 28<sup>th</sup>**
- **Vaughan Metropolitan Centre Station – Achieved Substantial Performance on March 31<sup>st</sup>**
- **Clearance train testing completed – March 10/11<sup>th</sup>**
- **Traction Power energized – March 28<sup>th</sup>**
- **First Toronto Rocket travelled on line – April 4<sup>th</sup>**



# DOWNSVIEW PARK STATION



**Achieved Substantial Performance – Feb 10, 2017**





## *Entrances*

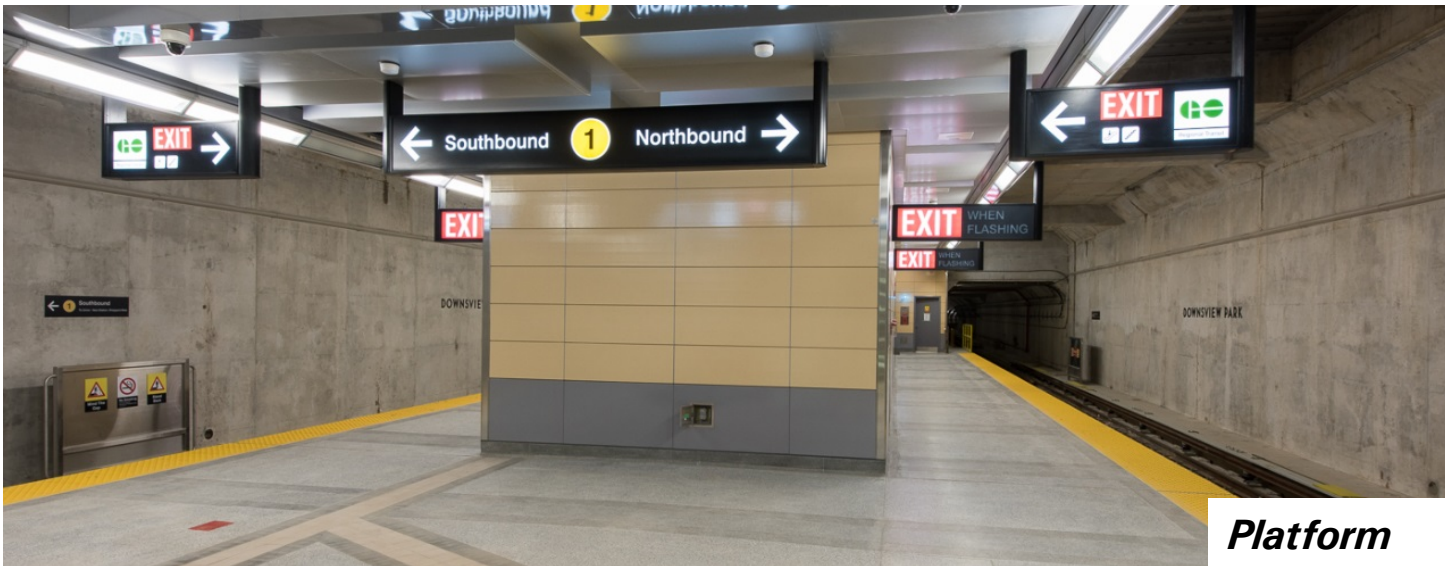




# PROGRESS STATUS - DOWNSVIEW PARK STATION



*Concourse*



*Platform*

# FINCH WEST STATION



May 18, 2017

TTC Board Update



# PROGRESS STATUS - FINCH WEST STATION



*Main Entrance*



*Bus Terminal*



# PROGRESS STATUS – FINCH WEST STATION



**Concourse**



**Platform**

# YORK UNIVERSITY STATION

**Achieved substantial performance – February 28, 2017**



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# PROGRESS STATUS - YORK UNIVERSITY STATION



# PROGRESS STATUS - YORK UNIVERSITY STATION



# PIONEER VILLAGE STATION





# PROGRESS STATUS — PIONEER VILLAGE STATION



*TTC bus terminal*



*North entrance*



# PROGRESS STATUS - PIONEER VILLAGE STATION



**North Concourse**



**South Concourse**



**Platform**



# HIGHWAY 407 STATION



# PROGRESS STATUS - HIGHWAY 407 STATION



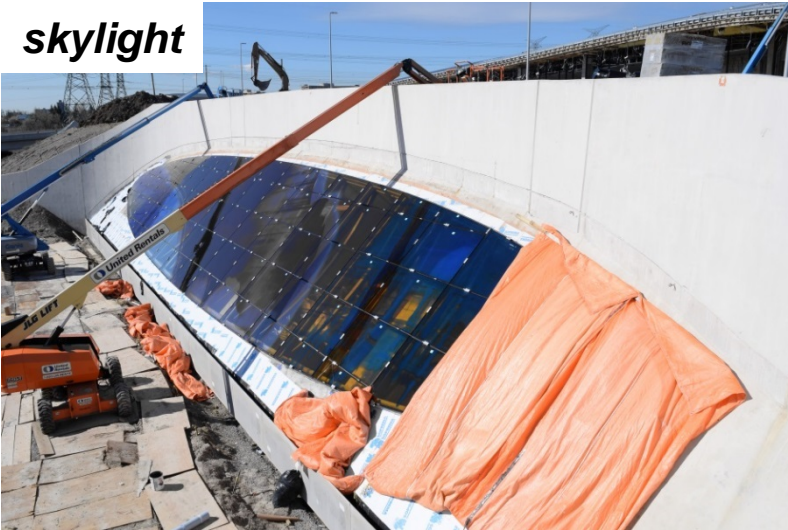
*Metrolinx Bus Terminal*



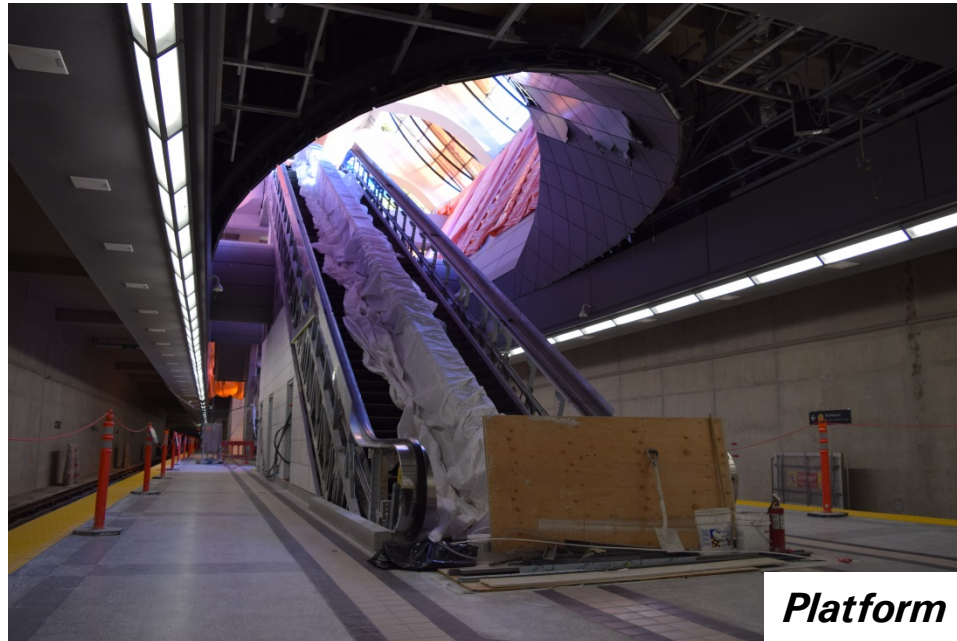
# PROGRESS STATUS - HIGHWAY 407 STATION



**skylight**



**Concourse**



**Platform**

# VAUGHAN METROPOLITAN CENTRE



May 18, 2017

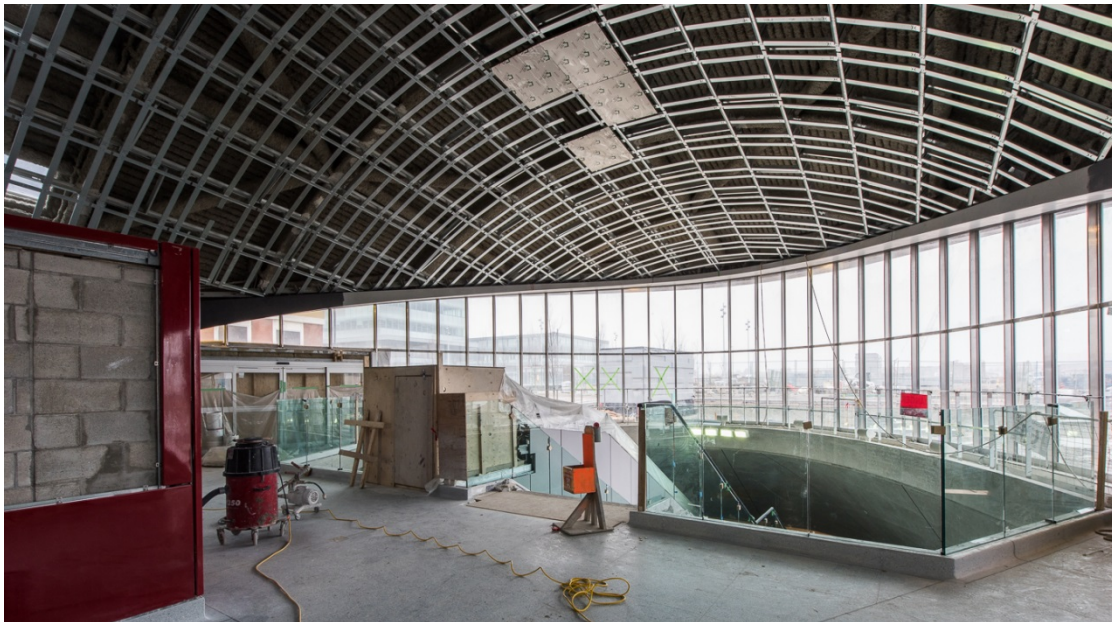
TTC Board Update



# PROGRESS STATUS - VMC STATION

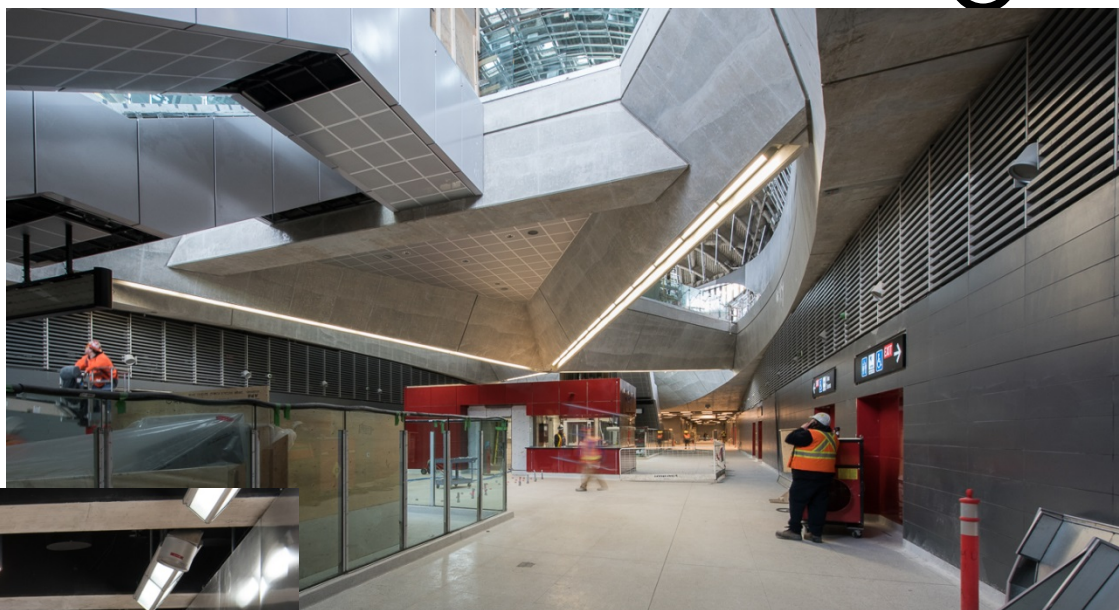


## Main Entrance



# PROGRESS STATUS - VMC STATION

*Concourse*

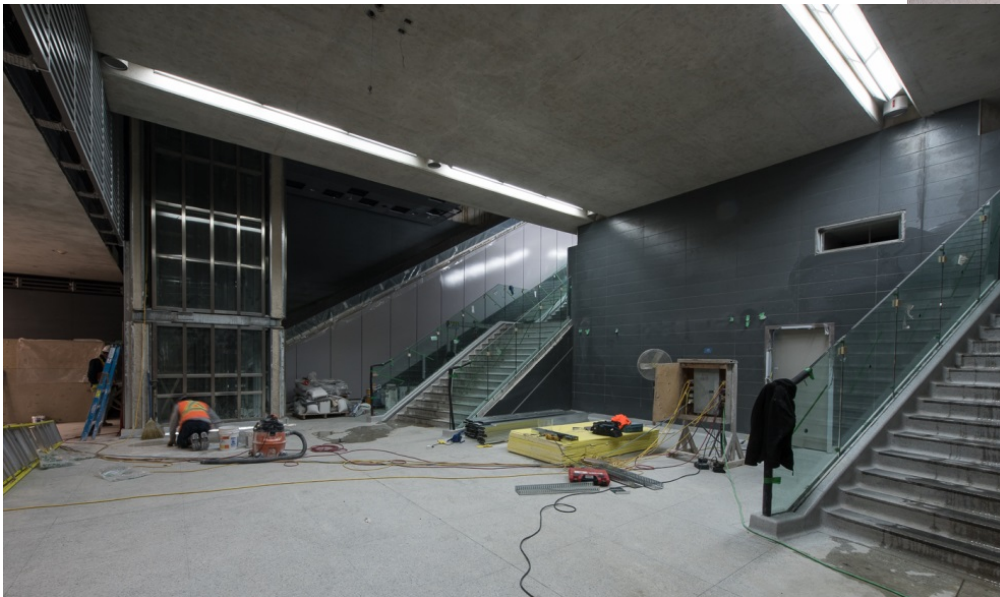


*Platform*



# PROGRESS STATUS - VMC

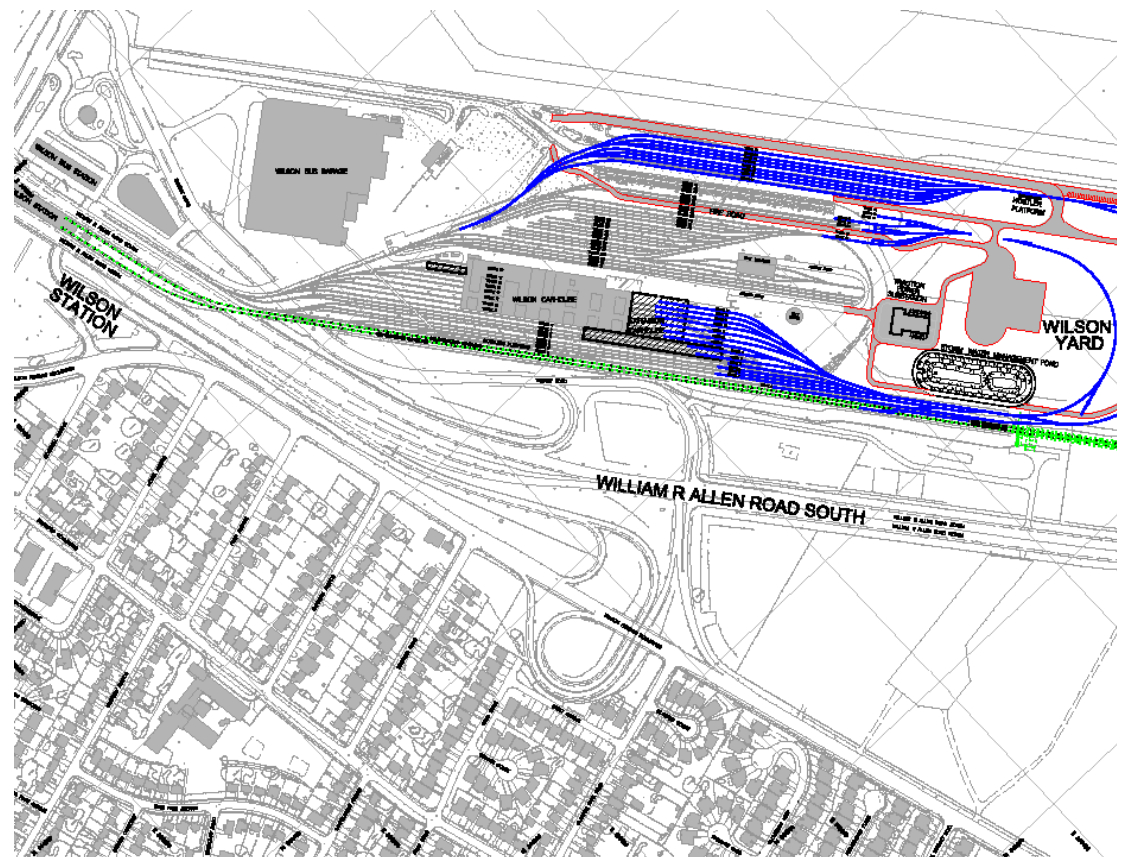
*YRT bus terminal connection*



*viva BRT connection*



# WORK SOUTH OF TYSSSE PROJECT LIMIT



# PROGRESS STATUS – SYSTEMS



- **All 4 power substations energized** – Providing AC power to subway stations and DC traction power
- **Emergency Trip system** – Installed & operational
- **Tunnel equipment & cable installation** – Complete
- **Subway radio system** – Operational; Connected to Transit Control and to Toronto emergency services
- **Backbone fibre optic system** – Operational; connected to Transit Control
- **PAX phones** – Installed & operational in tunnels; 60% complete in stations
- **Pay phones (AODA compliant)** – 70% installed
- **SCADA installation** – 95% complete in stations
- **Public Address, CCTV, Intercom** – 46% complete



# PROGRESS STATUS – SYSTEMS



Finch West Pocket Track  
TTC Board Update

May 18, 2017



# PROGRESS STATUS – SYSTEMS



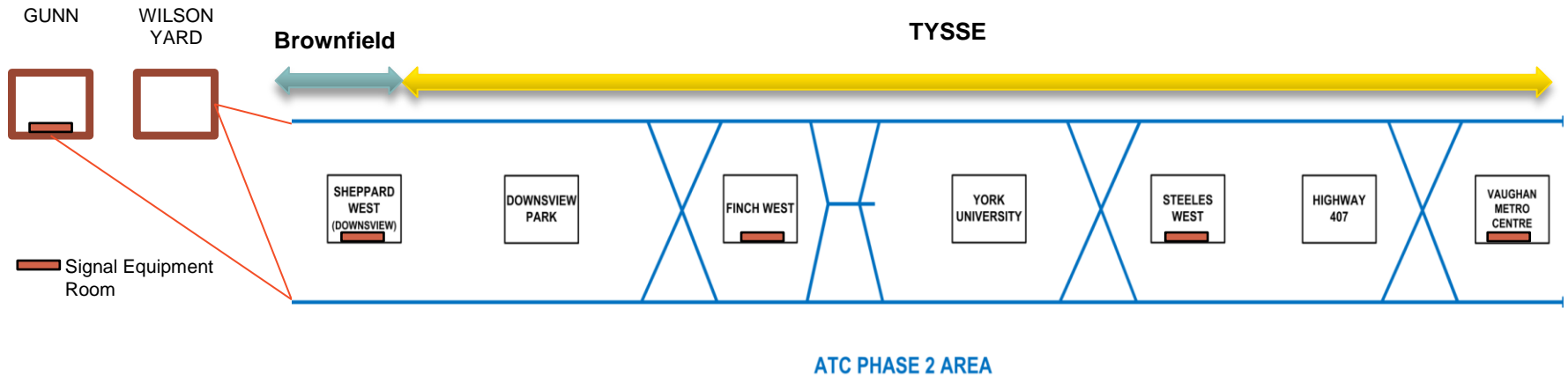
Finch West Power Sub-Station

May 18, 2017

TTC Board Update



# ATC SIGNAL SYSTEM ON TYSSE (PHASE 2)



## Total Equipment Installed

85 Axle Counters  
72 TRE's  
314 Beacons  
39 Signals  
19 Switches  
155 Junction Boxes  
180 Kilometers of cable  
30 Kilometers of cable tray  
3364 Splices  
62 Racks

- Completed installation of all equipment on TYSSE and Sheppard West (Brownfield).
- Completed installing equipment racks in all 4 Signal Equipment Room (including Sheppard West).
- Completed installing the Data Communications System fiberoptic, including splicing
- Started slow speed testing with trains on May 2



# FACILITY COMMISSIONING STATUS



Station	Assets Commissioned	Assets Remaining
Downsview Park	411	165
Finch West	24	587
York University	364	121
Pioneer Village	35	598
Highway 407	95	551
Vaughan Metro Centre	461	117
Totals	1420	2139



# TESTING & COMMISSIONING



HVAC



Switchboard CX





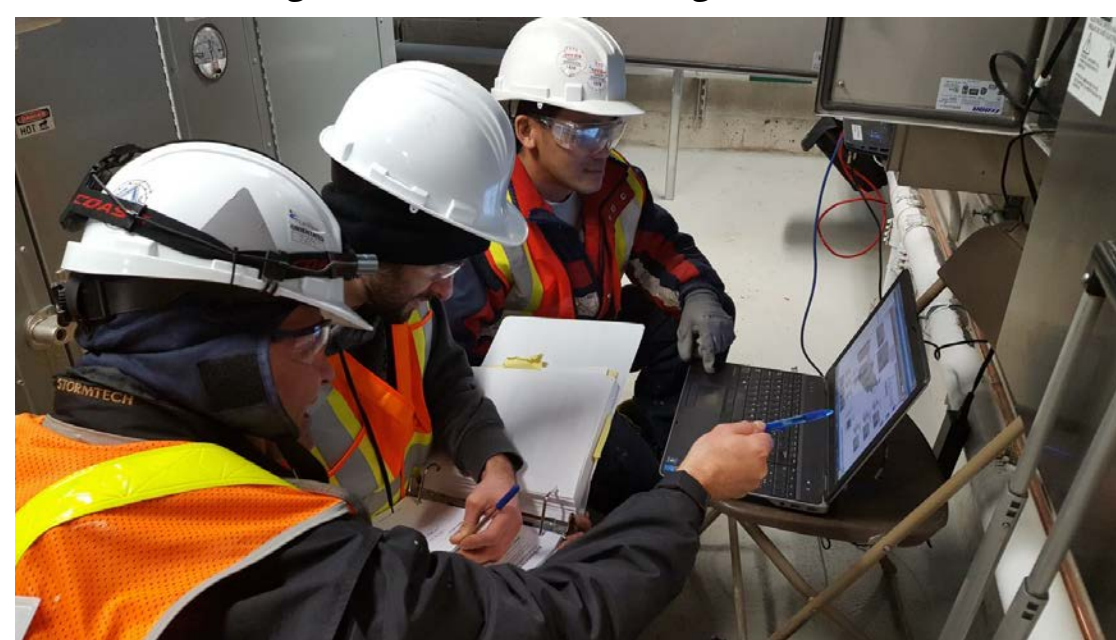
# TESTING & COMMISSIONING



## *Fire Alarm Verification*



## *Air Handling Unit Commissioning*



May 18, 2017

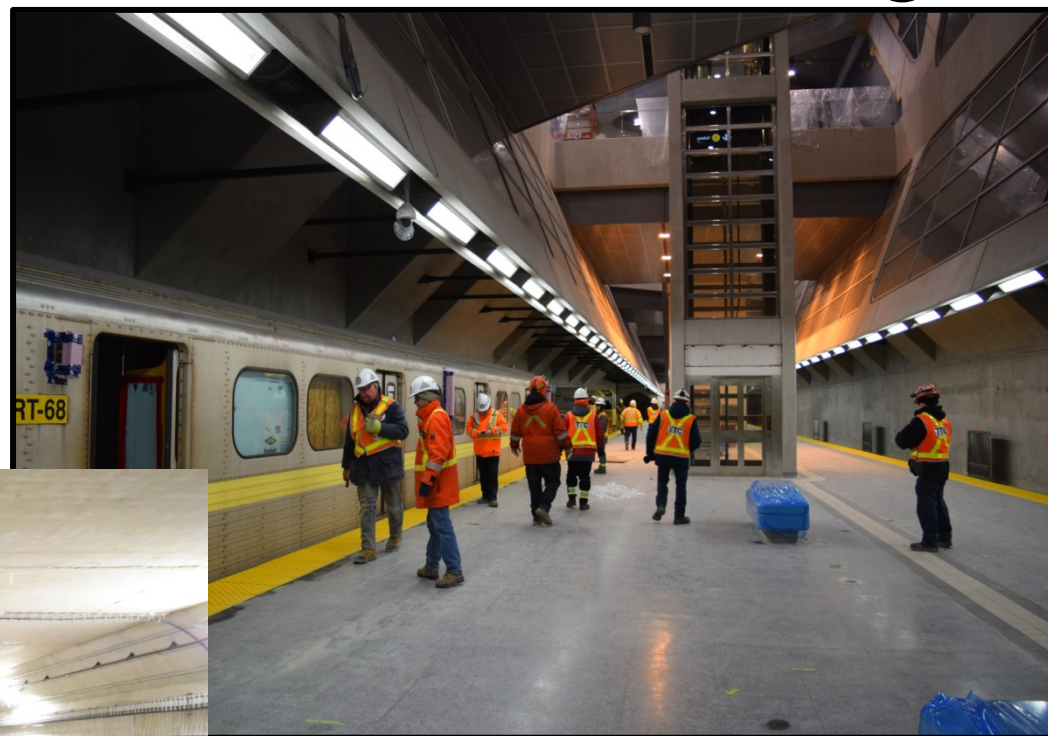
TTC Board Update



# TESTING & COMMISSIONING



*Trainway  
Clearance Train  
MARCH 10/11 2017*

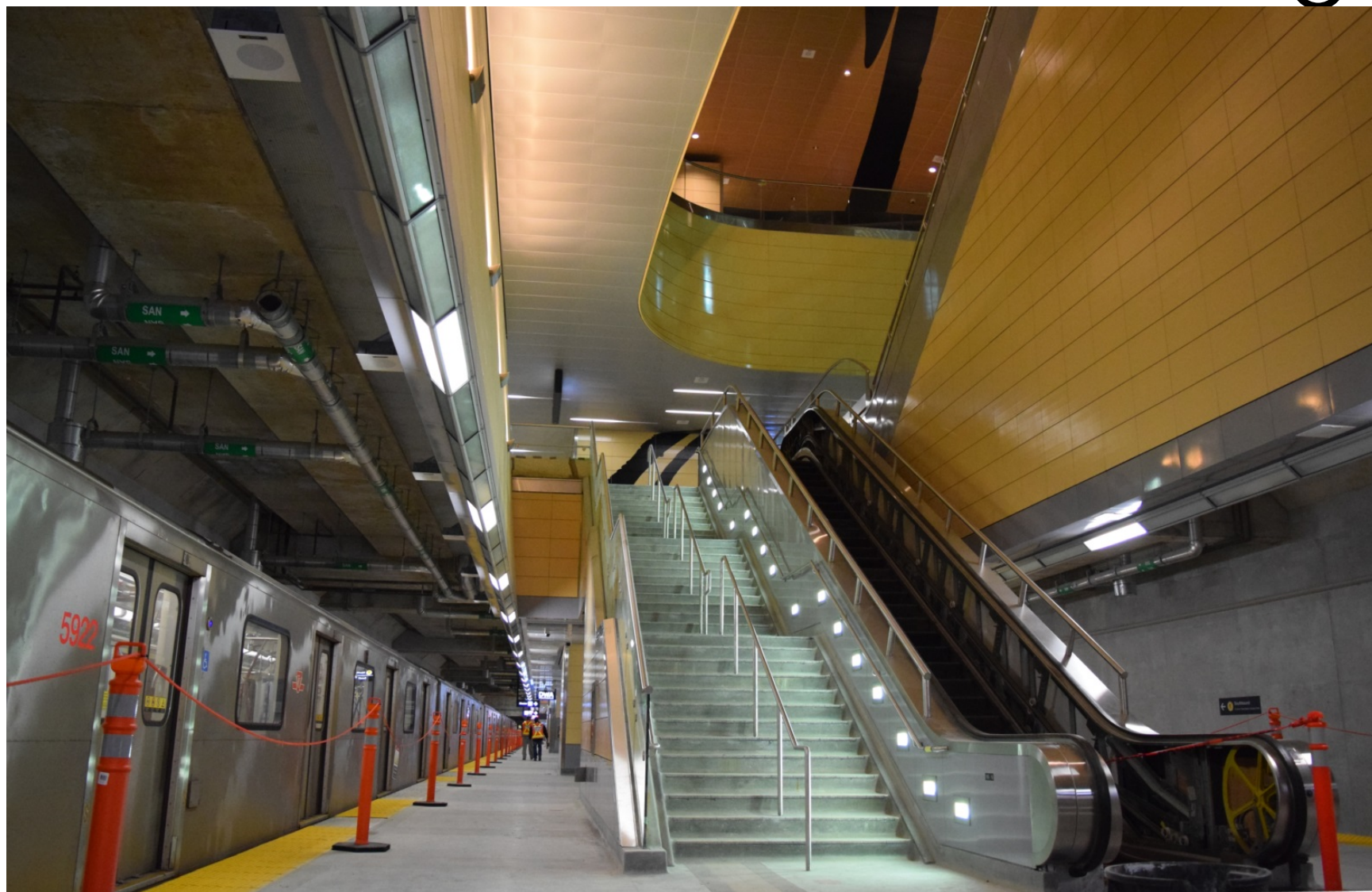




## Danger Sign for Live Power Rails and Moving Trains



# FIRST TORONTO ROCKET AT DP



May 18, 2017

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# FIRST TORONTO ROCKET AT VMC



May 18, 2017

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# COMPLETION TIMELINE – KEY DATES



Completion / Signaling / Commissioning

Operations

Start Low Speed  
Signaling Software  
Verification  
(ATC Project)

02-May-2017

Start High Speed  
Signaling Software  
Verification

Mid-Jun 2017

Integrated Subway  
Ventilation Test

End-Aug 2017

Complete Site Work  
Start Bus Driver  
Familiarization

Oct 2017

**Start  
Revenue Service**

Dec 2017

2018

**28-Mar-17**

**Track Energized  
(Test Track Rules)**

Early Jun 2017

SCADA  
Operational

Mid-Aug 2017

Last Station  
Substantial  
Complete

End-Sep 2017

Complete Signaling  
Site Acceptance  
Testing

Nov 2017

Trial Running /  
followed by  
Operations  
Familiarization





# Questions?

