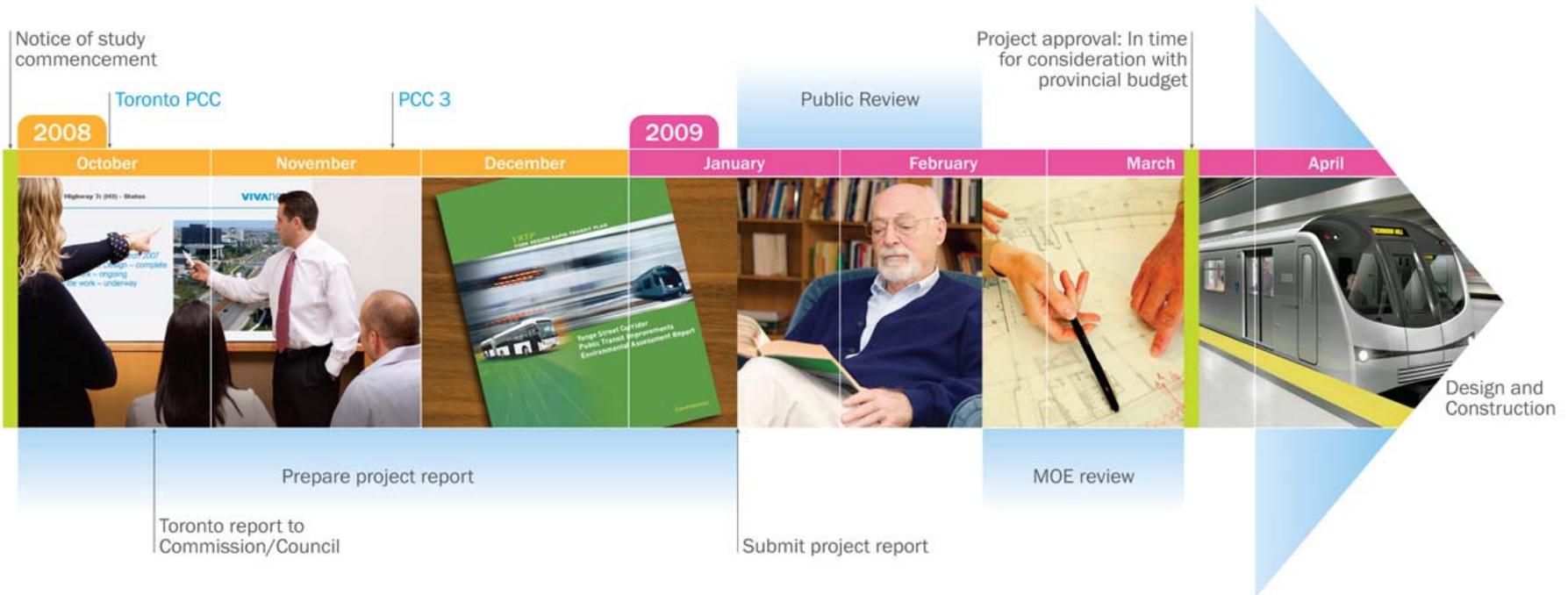




Yonge Subway Extension Preliminary Planning for Transit Project Assessment

Public Consultation – Toronto
October 16, 2008

Where we are today



Public outreach

6,000+ letters to Toronto residents

Newspaper ads:

Toronto Star

North York Mirror

4,000+ email notices



It's all coming together.

yonge subway extension | public consultation

We invite you to attend an interactive public consultation session on the Yonge subway extension (Finch Avenue to Highway 7). We will discuss the subway's alignment, stations and other details related to this project.

The proposed subway extension, being led by York Region Rapid Transit, is being studied in cooperation with representatives of the City of Toronto, Toronto Transit Commission and The Regional Municipality of York. Metrolinx released its draft Regional Transportation Plan identifying the Yonge subway extension as a priority project.

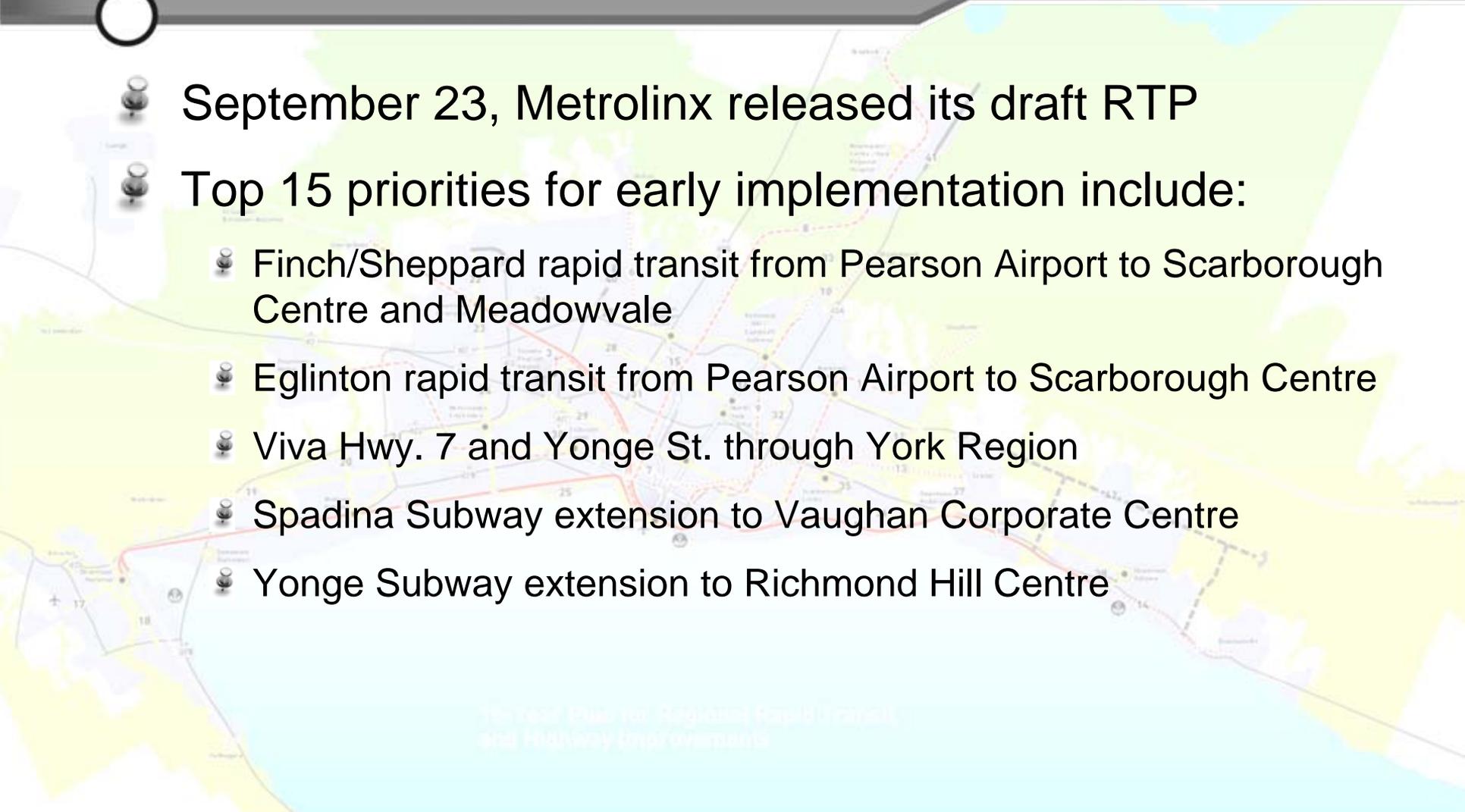
York Region has been engaged in discussions with the public. The feedback we have received so far has been very helpful in moving this project forward. Join us and have your say!

Thursday, October 16th : North York Civic Centre, Council Chambers
Open House 4-7 pm : 5100 Yonge Street
Presentation 7-9 pm : North York, Ontario

Visit vivayork.com for updates or call our infoline 416.989.6186

VIVA York Region TORONTO

Metrolinx: 15 top priorities

- 
- September 23, Metrolinx released its draft RTP
- Top 15 priorities for early implementation include:
- Finch/Sheppard rapid transit from Pearson Airport to Scarborough Centre and Meadowvale
 - Eglinton rapid transit from Pearson Airport to Scarborough Centre
 - Viva Hwy. 7 and Yonge St. through York Region
 - Spadina Subway extension to Vaughan Corporate Centre
 - Yonge Subway extension to Richmond Hill Centre

15-Year Plan for Required Rapid Transit and Highway Improvements

Background

Prior to Metrolinx Regional Transportation Plan (RTP)

- Project initiated by York Region
- TTC/City staff participating but project had not been a TTC/City priority
- Spadina Subway/Transit City are top priorities

Metrolinx's Regional Transportation Plan announced September 23

- RTP supports Yonge Subway extension in the first 15 years
- RTP also committed to Spadina Subway/Transit City initiative
- Provincial funding previously announced for Yonge Subway capacity improvements
- TTC/City now supportive of Yonge Subway project

Major project considerations



TTC/City

- Capacity of Yonge Subway must be addressed before Yonge Subway extension is operational
- Station locations/facilities at new stations within Toronto
- Impact on Yonge Street corridor/Finch Station

York Region

- Over/under East Don River
- Alignment into Richmond Hill Centre

York/TTC/City

- Number/spacing of stations
- Construction methods

Yonge Subway capacity

- Nearing capacity south of Bloor
- Capacity improvements to existing line are urgently needed prior to operating the extension
- Funding commitment to re-signal YUS subway line (\$350 million)
- Will significantly increase capacity with closer spacing between trains:

Current: 141 seconds

With new signal system: 90 seconds (36% increase)

- New Toronto Rocket Car will increase capacity approximately 10%

- Additional improvements:

- Add a 7th car to trains
- Effect of Spadina Subway extension



7th car added to train

Effect of Spadina Subway extension

- 8.6 km extension to Vaughan Corporate Centre/Highway 7
- 6 new stations (4 in Toronto)
- 2,900 new parking spaces (2,200 net)
- 2,300 peak period Yonge Subway riders moved to Spadina line
- Opens before Yonge extension
- Connections include:
 - Barrie GO line (Sheppard West Station)
 - Finch LRT (Finch West Station)
 - Jane LRT (Steeles West Station)
 - Highway 407 Transitway (407 Station)
 - Viva/YRT (Vaughan Corporate Centre)
- Will help “dilute” the ridership on Yonge Subway for people from north/west destined to downtown



Summary of capacity improvements



new subway cars have increased capacity



closer spacing
between trains



7th car added to train



transfer to Spadina Subway



new parking spaces on Spadina Subway extension

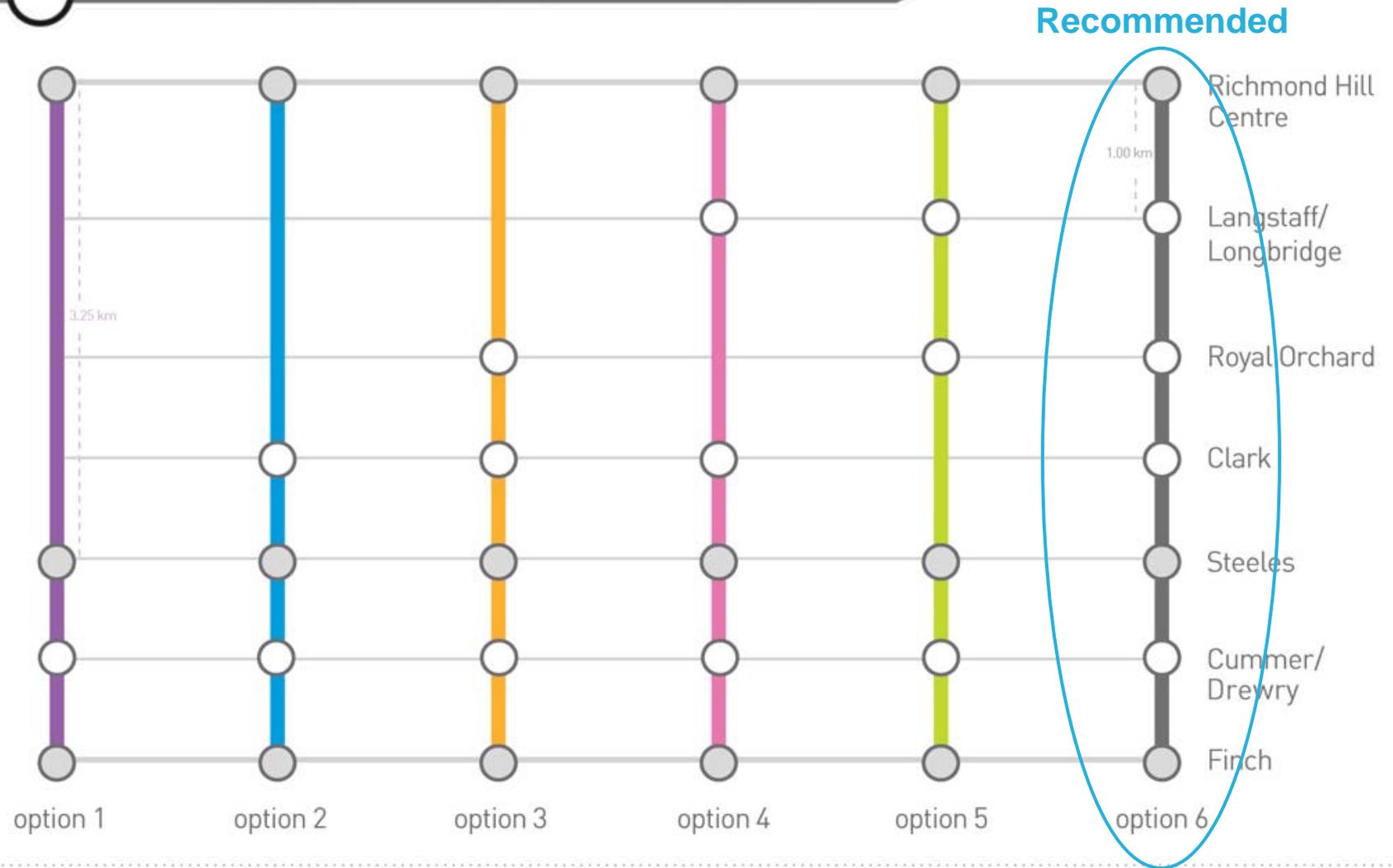
Yonge Subway: Initial service levels

- Every second northbound train will short-turn at Finch station
 - These trains will be empty for southbound departures at Finch station
- Every other train will start at Richmond Hill Centre station
- Capacity improvements will also help to increase Yonge subway seat availability for existing riders

Storage/maintenance of subway cars

- Various projects add additional trains to the Yonge line
- No convenient yard location/capacity
- Davisville Yard at capacity
- Wilson Yard requires trains to go through Union Station to access Yonge line
- Alternatives
 - New yard north of Finch
 - Construct Sheppard Subway to Downsview Station and supply trains from Wilson Yard
 - Expanded Richmond Hill Centre terminal tracks to store trains
- Subway Rail Yard Needs Study underway to answer these and other questions
- Completed by early 2009

Potential grouping of station locations considered



Justification for Cummer/Drewry Station

- Threshold of 100 persons per hectare (pph)
- At or above this level = successful transit station
 - Cummer/Drewry currently at 82 pph
- Station expected to meet this threshold close to opening day

Benefits of Yonge Subway extension

- Southbound buses destined to Finch Station will now go to Steeles Station
 - Significant reduction in bus volumes on Yonge St.
 - Reduced noise, fumes, bus traffic on Yonge St.
 - Local Yonge bus service will remain
- Two new stations (Cummer/Drewry and Steeles)
 - Improved bus and walk-in access to new stations
 - New bus terminal at Steeles
- Frees up space at Finch Station commuter lots

Yonge Street bus volumes (Finch – Steeles)

| Number of Buses in Peak Period/Direction (6-9 am/southbound) | |
|--|--------------|
| Current | 350+ |
| With Yonge Subway Extension | Less than 10 |

Finch bus bay usage

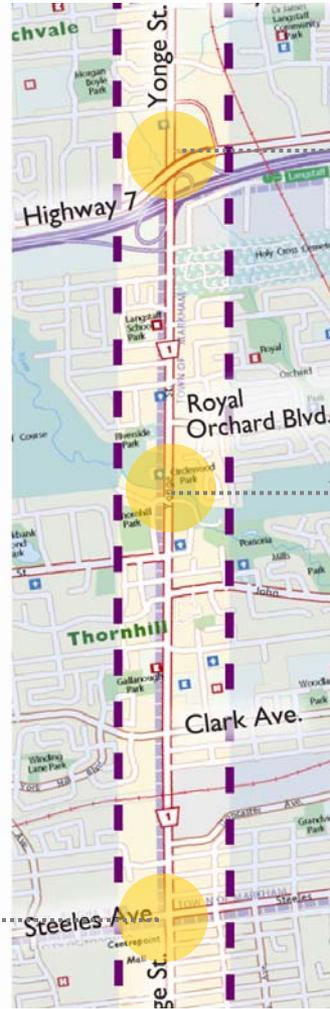
| Number of Bus Bays | | |
|--------------------|-------------------|-----------------------------|
| Transit Operator | Current Operation | With Yonge Subway Extension |
| TTC | 13 | 6 |
| GO | 4 | 4 |
| Viva/YRT | 10 | 0 |
| Other | 3 | 0 |
| Total: | 30 | 10 |

Toronto station requirements

| Station | # of Entrances | Electrical Substation | Commuter Parking | Bus Facilities |
|---------------|----------------|-----------------------|------------------|------------------------|
| Cummer/Drewry | 2 | No | No | Bus loop only |
| Steeles | 2-3 | Yes | No | Bus terminal (25 bays) |

Other project considerations

- Steeles bus terminal
- Crossing East Don River
- Alignment into Richmond Hill Centre



Where we are today

Recommended Yonge Subway Extension

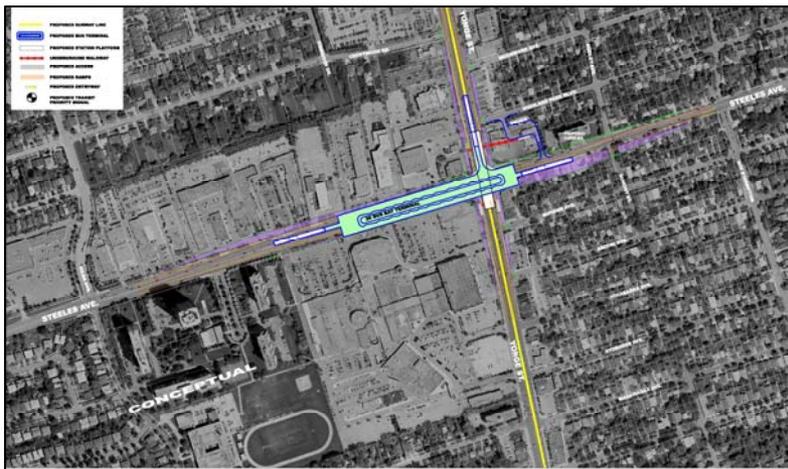
- Six stations
- Two bus terminals
 - Steeles
 - RHC
- Bridge over East Don River
- Alignment into Richmond Hill Centre

| | | |
|--------|----------------------|---|
| 6 | Richmond Hill Centre | Key intermodal passenger terminus of subway High potential for intensification |
| 1123 m | | |
| 5 | Longbridge/Langstaff | High potential for intensification Key location for future commuter parking |
| 954 m | | |
| 4 | Royal Orchard | Good opportunity for intensification of existing medium density development |
| 1668 m | | |
| 3 | Clark | Good transit connections to local routes Opportunity for intensification along with existing medium and high density development |
| 1067 m | | |
| 2 | Steeles | High potential for intensification Numerous connections between bus and subway |
| 1204 m | | |
| 1 | Cummer/Drewry | Good transit connections to local routes Good opportunity for future development |
| 794 m | | |
| ● | Finch | Part of existing transit system |

Steeles Station surface bus terminals



Steeles Station underground bus terminal options

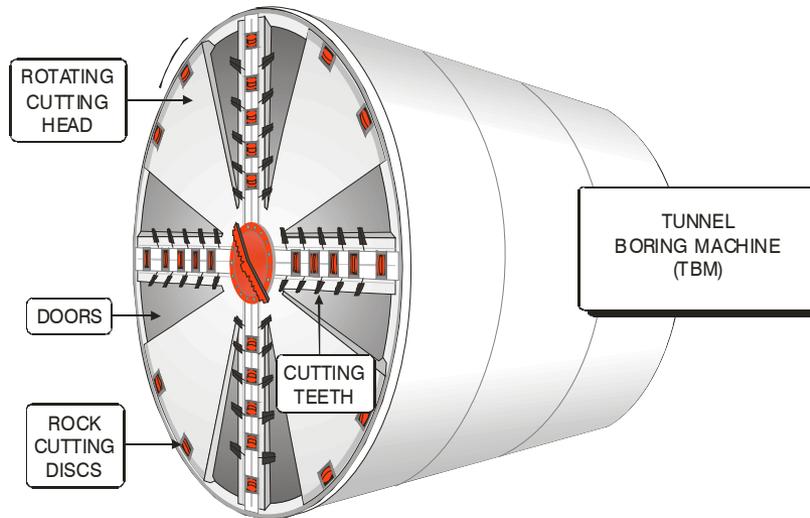
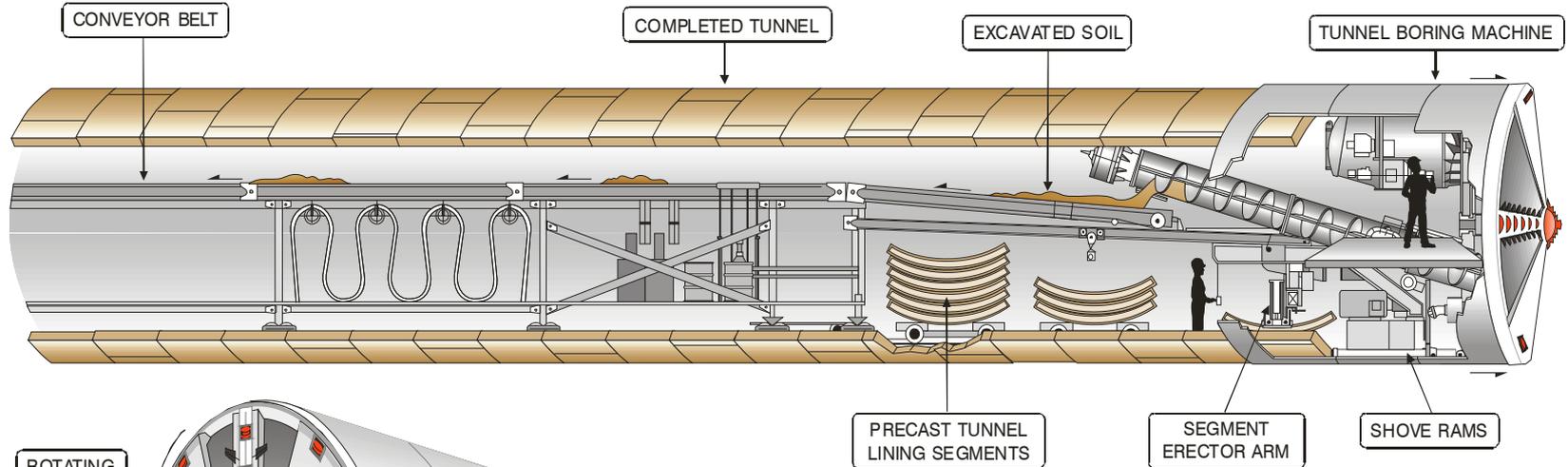


- Minimizes land use impacts
- Three ramps from north, east and west
- Issues:
 - Impacts on development access
 - Higher capital cost
 - Higher operating/maintenance cost
 - Air quality and natural light
 - Disruption during construction
 - Future flexibility

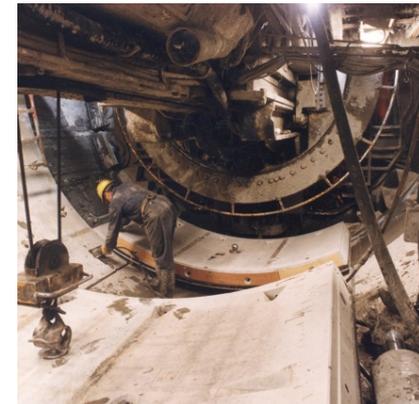
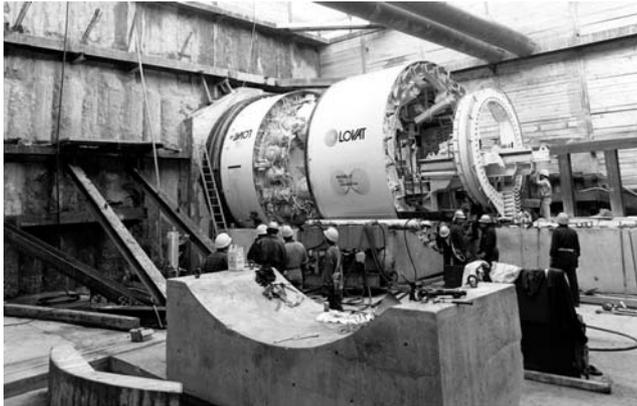
How do you build the subway?

- Two major construction choices
 - Cut and cover with decking
 - Tunnels using tunnel boring machines (TBM)
- Stations/crossovers must be cut/cover construction
- Running structures in between stations/crossovers can be tunneled or cut/cover

Tunnel boring machine (TBM)



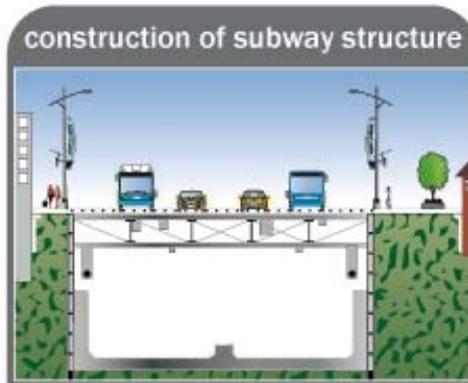
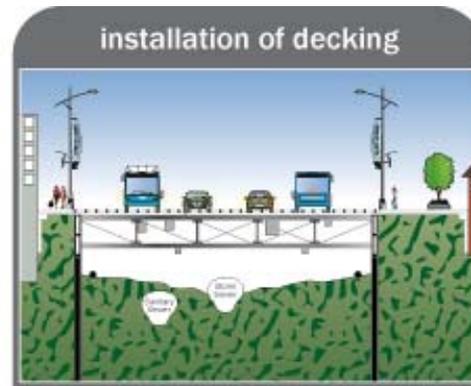
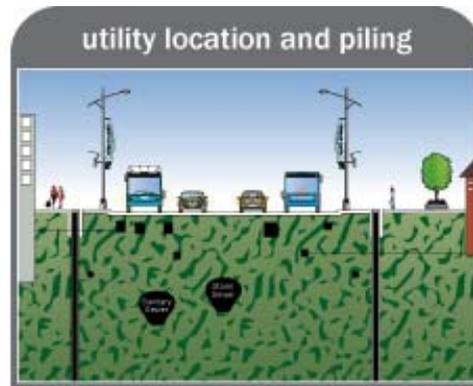
TBM launch and related activities



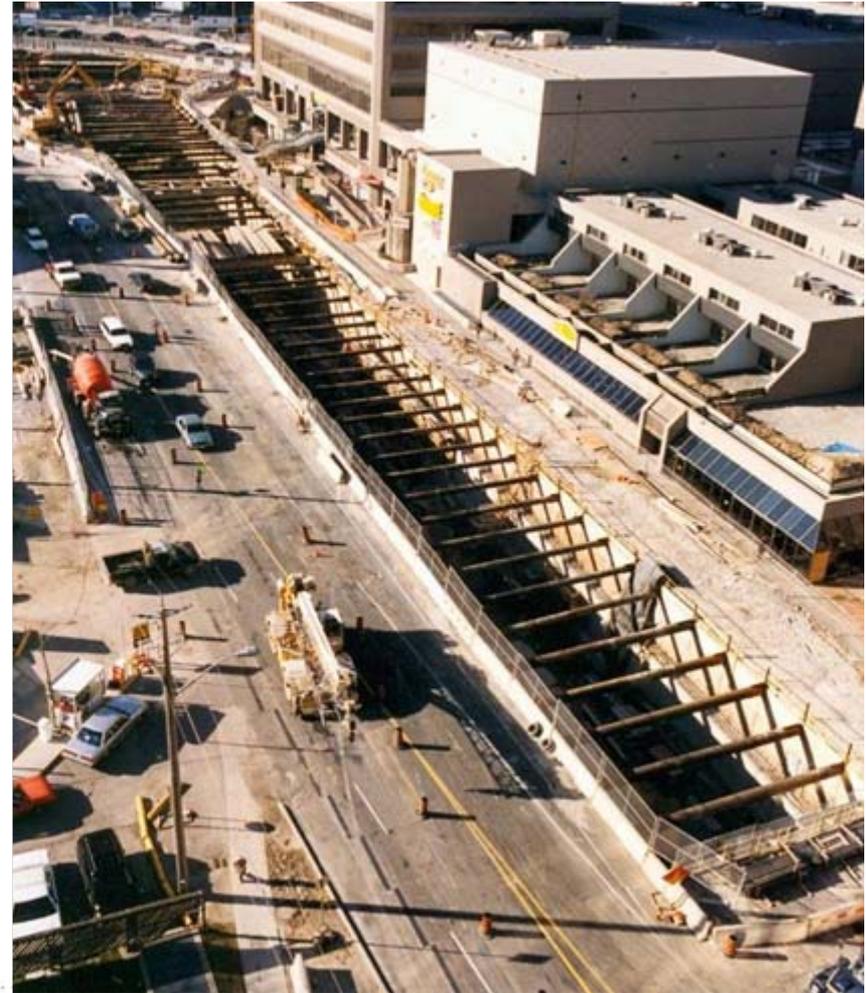
TBM extraction



Cut and cover process



Surface impacts of construction at stations

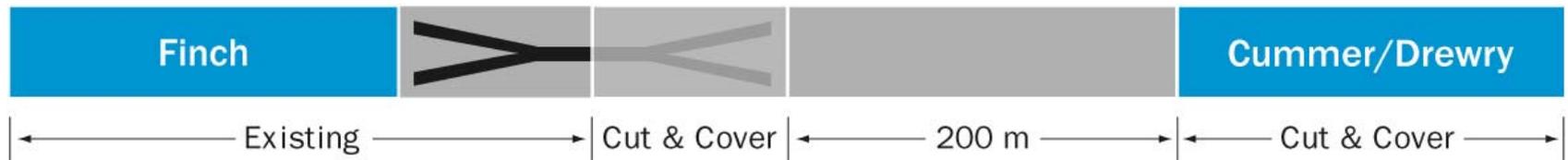


Benefits of tunneling

- Limited disruption to surface traffic, business
- Surface impacts at TBM launch and extraction locations
- Major mobilization site at launch shafts
 - Delivery of tunnel liners
 - Storage of excavated soil
 - Trucking of excavated soil
 - Systems installation (track, etc.)



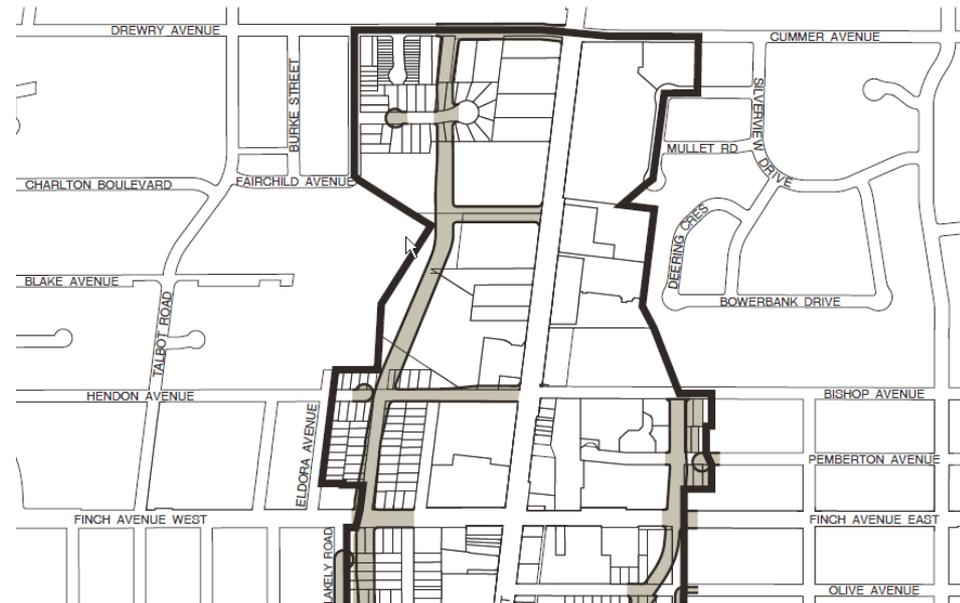
Construction: Finch to Cummer/Drewry



- Existing Finch Station and trail track built by cut and cover
- Extended tail tracks to be built by cut and cover
- Cummer/Drewry to be built by cut and cover
- Remaining distance between cut and cover areas is approx. 200m
 - Not long enough for tunneling
 - Likely means Finch to Cummer/Drewry to be cut and cover

Traffic management issues

- Comprehensive plans developed for each construction contract
- Extension of Ring Road from Finch to Drewry is planned
- Investigate timing on Ring road to coordinate with Subway construction
- Helps to reduce Yonge Street impacts



Source: North York Centre Secondary Plan

Next steps



- 🎯 Stakeholder Consultation – Ongoing
- 🎯 Toronto Co-ordination – Ongoing
- 🎯 PCC in Richmond Hill – November 26
- 🎯 PCC in Toronto - TBD

Get Your Keypads Ready...

Have your say

