





Achieving 5 in 10

A Revised Plan for the Big 5 Transit Projects

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Metrolinx Board of Directors Meeting
May 19, 2010

The Plan: Achieving 5 in 10

-  **Aggressive, Bold and Doable Plan.**
-  **Build all 5 projects in 10 years.**
-  **Proceed with three projects immediately.**
 - Sheppard LRT
 - Eglinton LRT
 - York Viva
-  **Proceed with two projects in 2015 – 2020.**
 - Scarborough RT
 - Finch LRT
-  **Proceed with phase 2 of projects as Investment Strategy funds come available.**

Building the Big 5

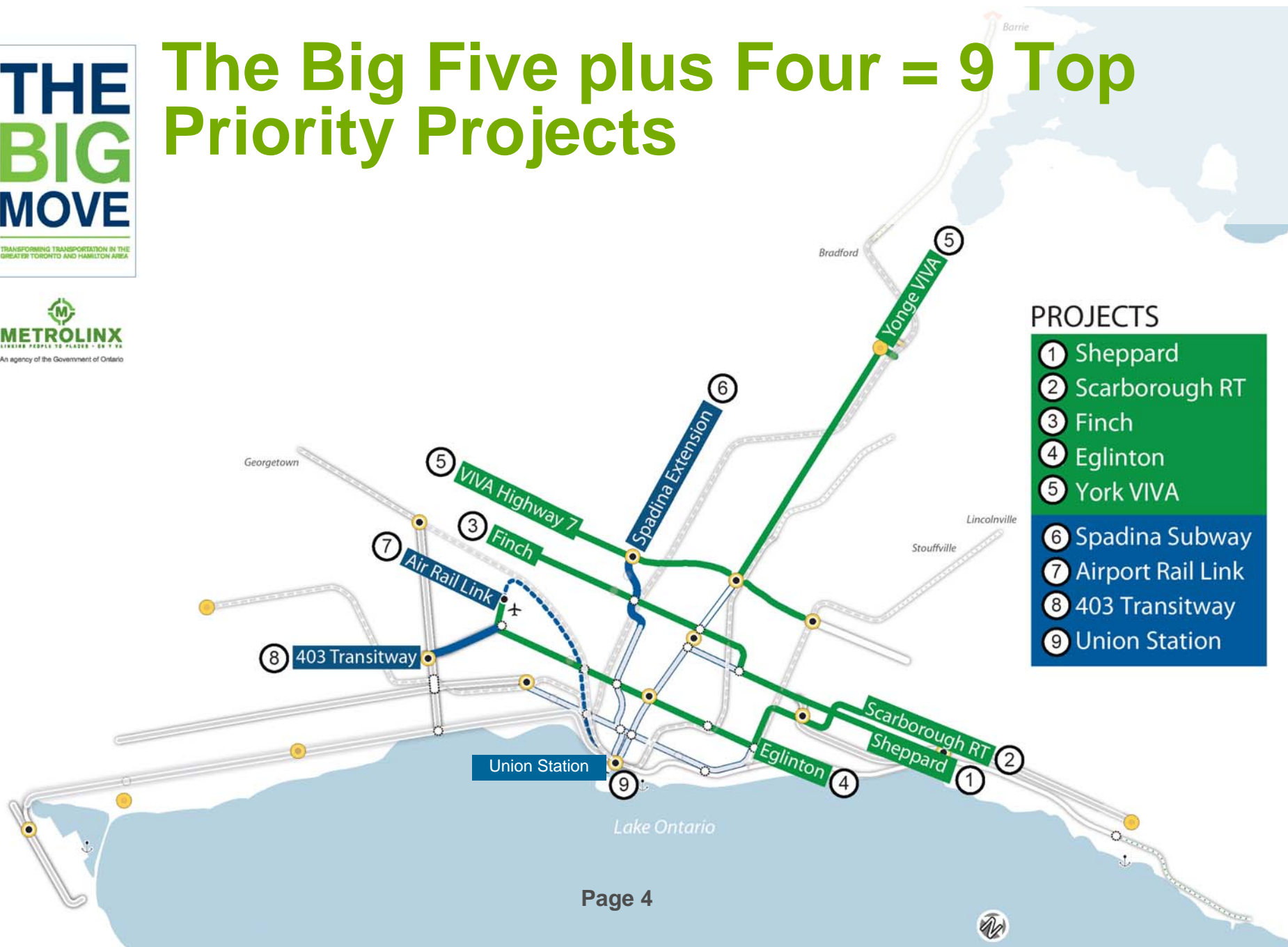
 Initial priority Big Move projects announced by Premier in April 2009

- | | | |
|----|--|---------|
| 1. | York Viva Bus Rapid Transit (BRT) | \$ 1.4b |
| 2. | Sheppard East Light Rail Transit (LRT) | \$.95b |
| 3. | Finch Light Rail Transit (LRT) | \$ 1.2b |
| 4. | Scarborough Rapid Transit (SRT) | \$ 1.4b |
| 5. | Eglinton Crosstown LRT | \$ 4.6b |






Toronto	\$ 8.15b
York	<u>\$ 1.35b</u>
Total	\$ 9.5 b

- Largest public transit investment in Canadian history
- Up to \$333 million from Federal government – rest Provincial

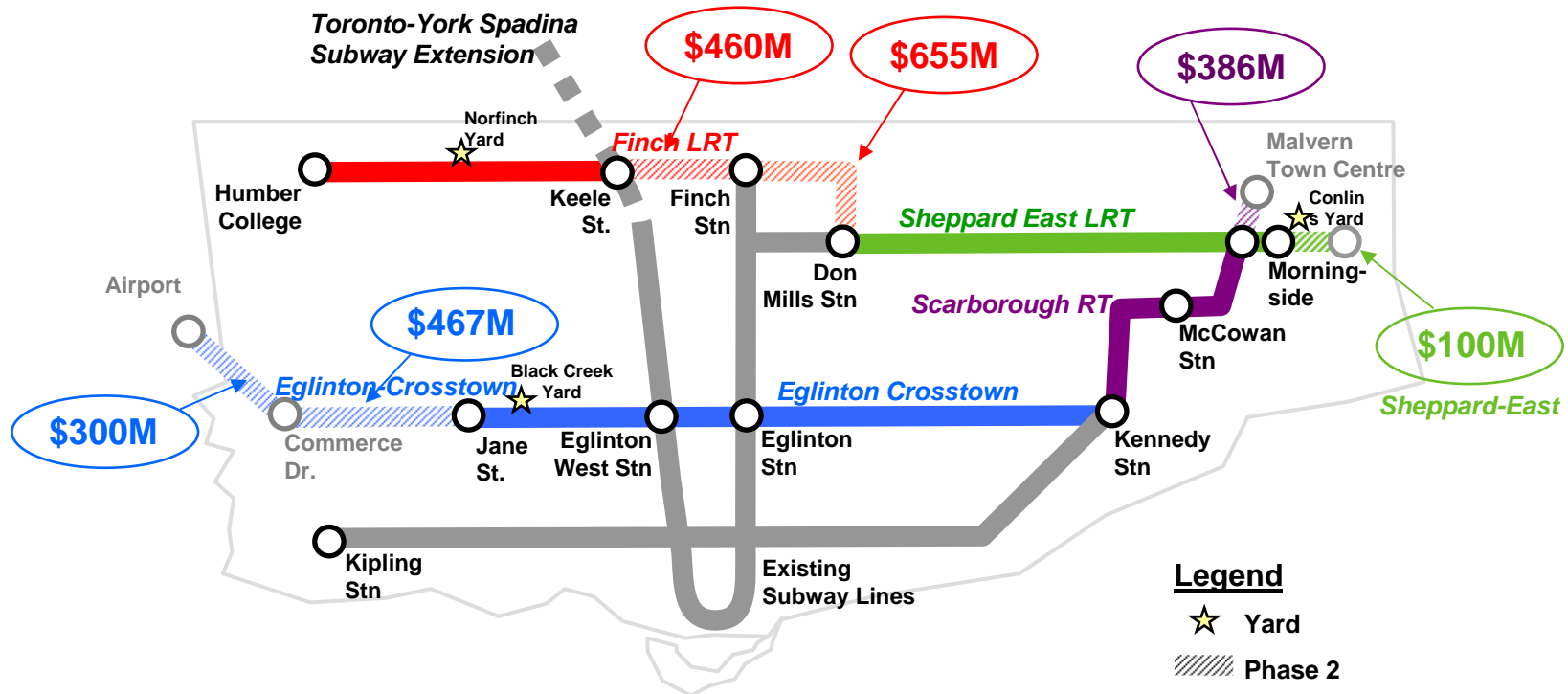
The Big Five plus Four = 9 Top Priority Projects



February 2010 – Phasing plan for Toronto Projects

-  In January 2010 TTC advises projects, if fully built, would cost \$10.5 billion, not \$8.15 billion in 2008 dollars – a \$2.4 billion gap
-  Provincial contribution fixed at \$8.15 billion
-  TTC and City not able to contribute funds
-  Metrolinx and TTC worked together to develop options:
 - What could be paid for with \$8.15 billion provincial commitment
 - What program elements could be held to a second phase when additional funds would be available
-  Consensus among Province, Metrolinx, City and TTC reached in February 2010

February 2010 – Proceed with all projects in a phased way



- York came in within original budget
- Phase 1 Toronto components from \$8.15 billion
- Phase 2 Toronto components from Metrolinx Investment Strategy

Phasing was considered. Not arbitrary



Eglinton

- Airport connection deferred by GTAA to 2020+
- Will provide express bus transfer to Airport from LRT
- LRT can be extended seamlessly
- Air Rail Link will open 2015



Scarborough RT to Malvern

- Was Sheppard or Malvern
- Significant cost of tunnel to Malvern
- Can be extended seamlessly to Malvern



Sheppard to Meadowvale

- Must get to Conlins Yard
- Can be extended seamless to Meadowvale
- Or even the Toronto Zoo



Finch East

- Low Priority for City



Finch Middle

- Important but less urgent than Finch West
- Finch West ties to Spadina Subway Extension and capacity
- Easily extended to Yonge Street



March 2010 Ontario Budget

-  Reaffirm commitment to all Big 5 projects
-  Reaffirm budget of \$9.5 billion
-  Province committed to escalation costs as funds spent from 2010 to 2020
-  Restricted available cash flow for first 5 years by \$4 billion from \$7.7 billion to \$3.7 billion
-  Asked Metrolinx to develop revised Plan with more extended timeframe

Achieving 5 in 10 Plan

Goal:

Complete the Big 5 Metrolinx *Big Move* Projects on budget in 10 years while reducing cash flow requirements in first five years by \$4 billion








Aggressive, Bold and Doable



Worked with York and TTC to confirm it can be done – demanding but doable



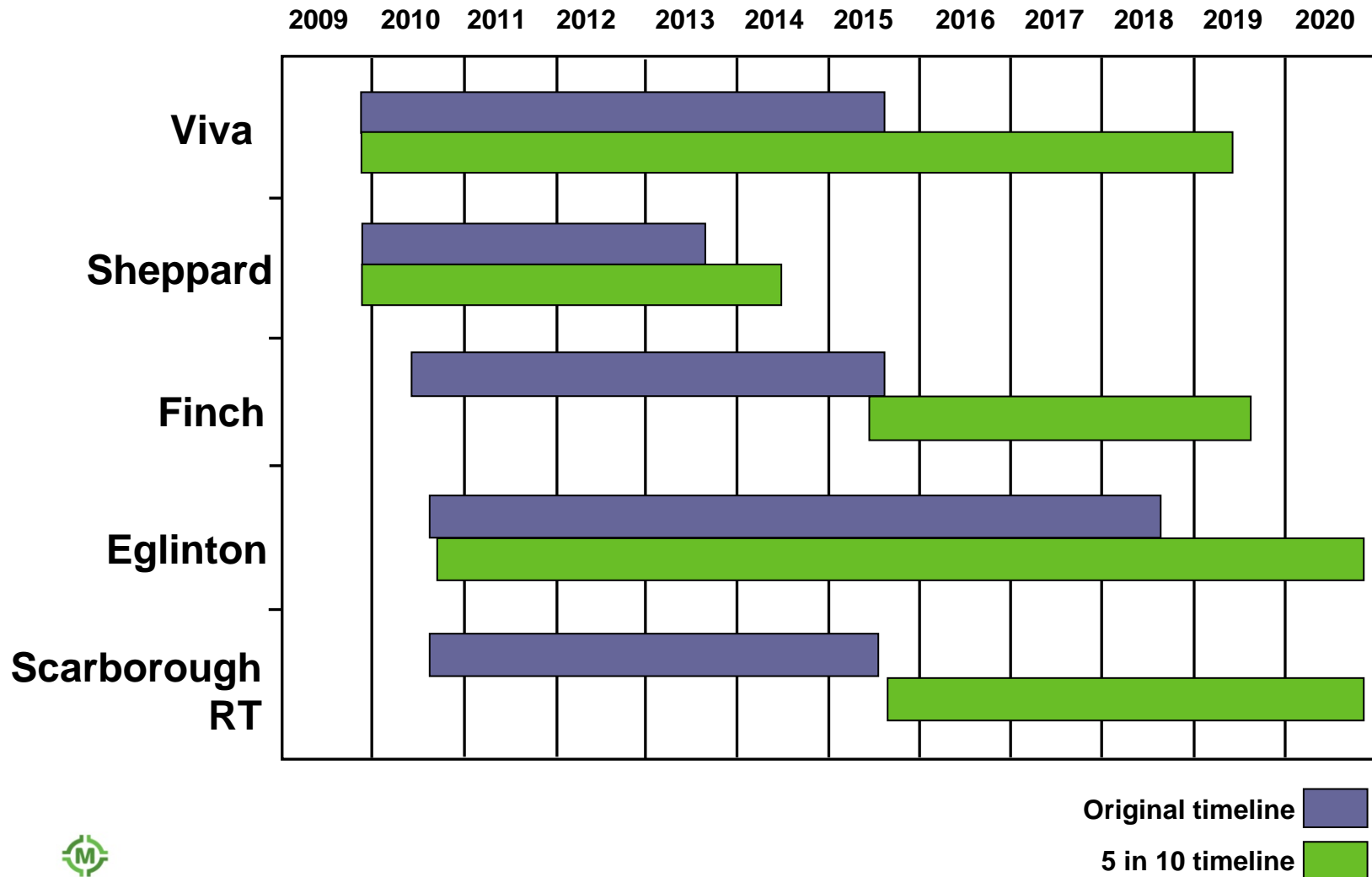
Key principles of 5 in 10 plan

-  **Build all 5 projects**
-  **Build as fast as possible given budget and cash flow constraints**
-  **Complete all projects in 10 years instead of original 8 years**
-  **Work with our partners – York and Toronto – fair and equal treatment**
-  **Construction planning and staging before we build to minimize disruption to communities**

Key elements of 5 in 10 plan

1. Continue building York Viva BRT but completed over a longer period. Completed by 2020. Strong support from York.
2. Continue building Sheppard over original timeframe. Completed early 2014.
3. Move ahead immediately with Eglinton, beginning with tunnel. Completed by 2020.
4. Start Scarborough RT after Pan Am Games and Sheppard LRT. Completed 2020.
5. Start Finch in late 2015. Completed 2019.
6. Propose Investment Strategy to finance phase 2 not later than June 2013.

Compared to original timeline



Project Details

York VIVA



Finch

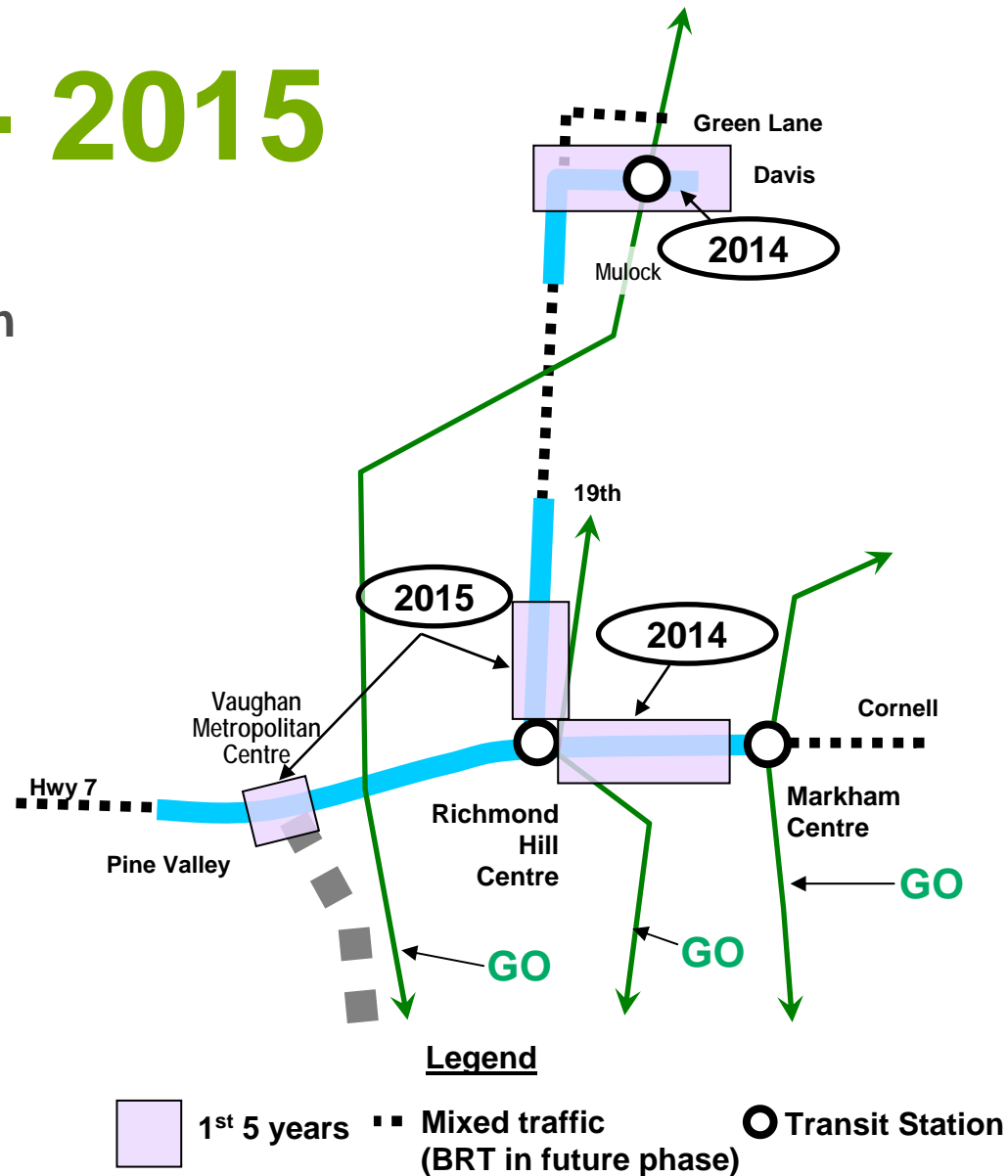


Sheppard



VIVA – 2010 - 2015

- York VIVA BRT program – dedicated bus lanes – will open in operational segments as completed
- Construction started in 2009
- York currently in “cost confidence” stages to start construction on Davis drive in Fall 2010
- Highway 7, Davis Drive and Vaughan Metropolitan Centre complete and in-service during 2010-15
- 2010-15 investment: \$790M (escalated dollars)



Planned In-Service During 2010-15

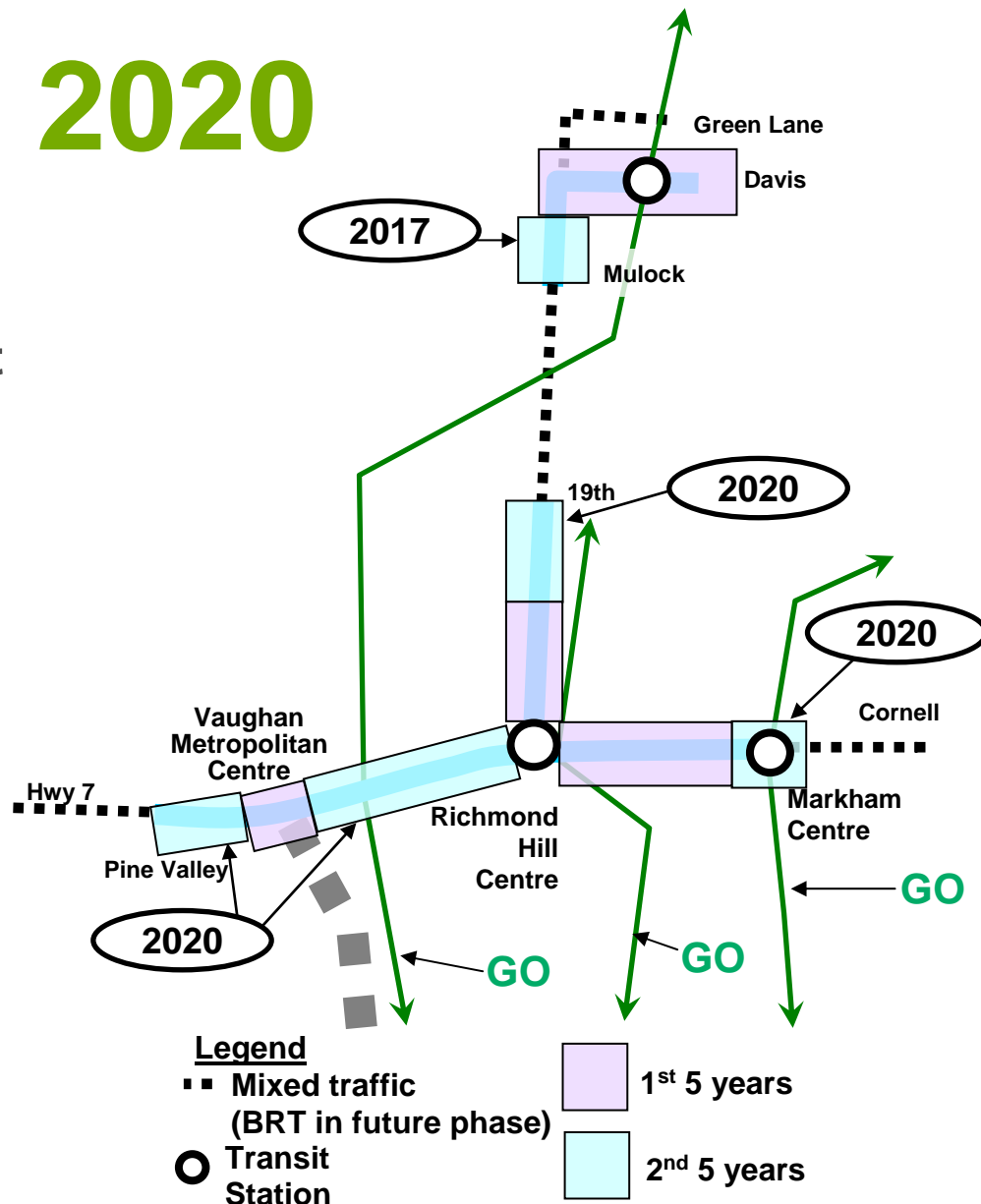
VIVA – 2016 - 2020

 Second phase of construction planned to start in 2016

 Planned 2016-20 Richmond Hill Centre in-service dates include:

- Yonge (Mulock to Davis) 2017
- Yonge (Major Mac. to 19th) 2020
- Highway 7 (west) 2020
- Highway 7 (Unionville) 2020

 2016-20 investment: \$965M (escalated dollars)



Planned In-Service During 2016-20

Sheppard East LRT – 2010-15



Construction began at Agincourt GO station in December 2009

- Additional major construction packages to proceed later this year
- Conlins Yard – a combined carhouse for the Sheppard East LRT and Scarborough RT to start construction late 2011



Construction complete and in service by mid-2014

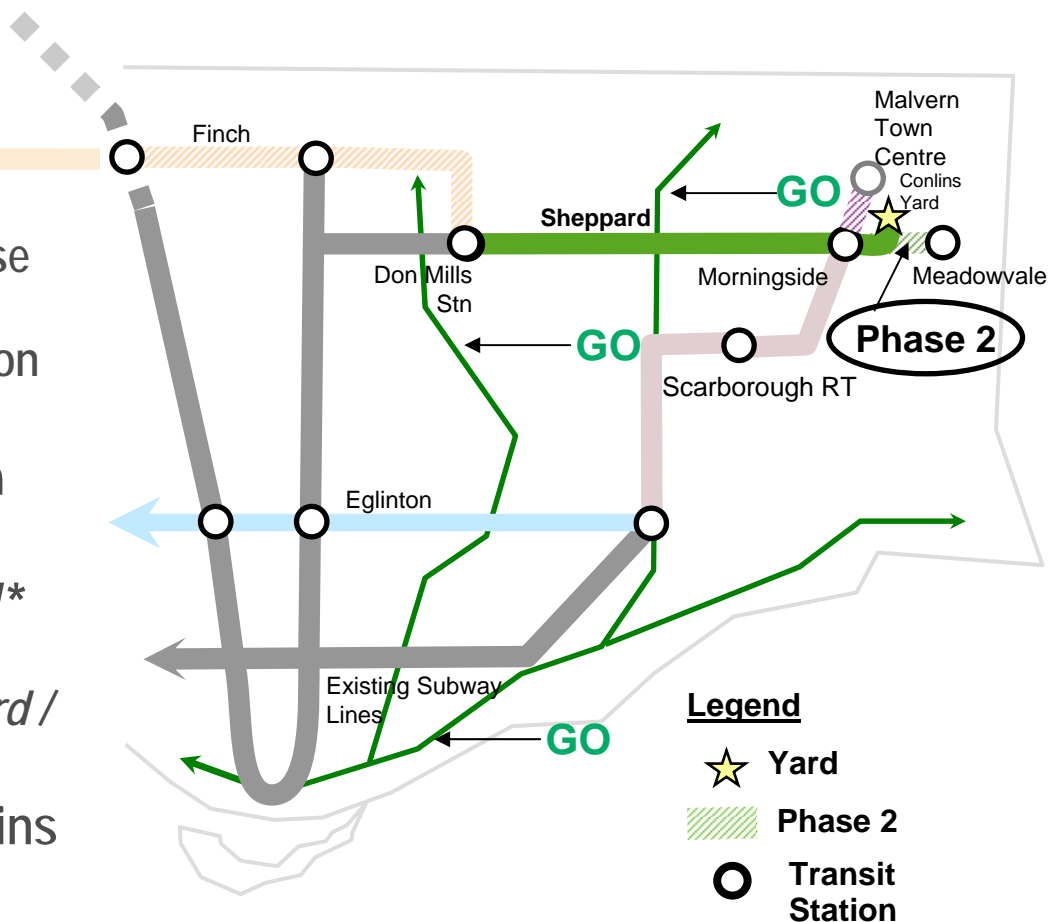


2010-15 investment: \$1,105M* (escalated dollars)

- Includes cost of combined Sheppard / SRT Conlins Yard



Phase 2 – Sheppard-East from Conlins Yard to Meadowvale



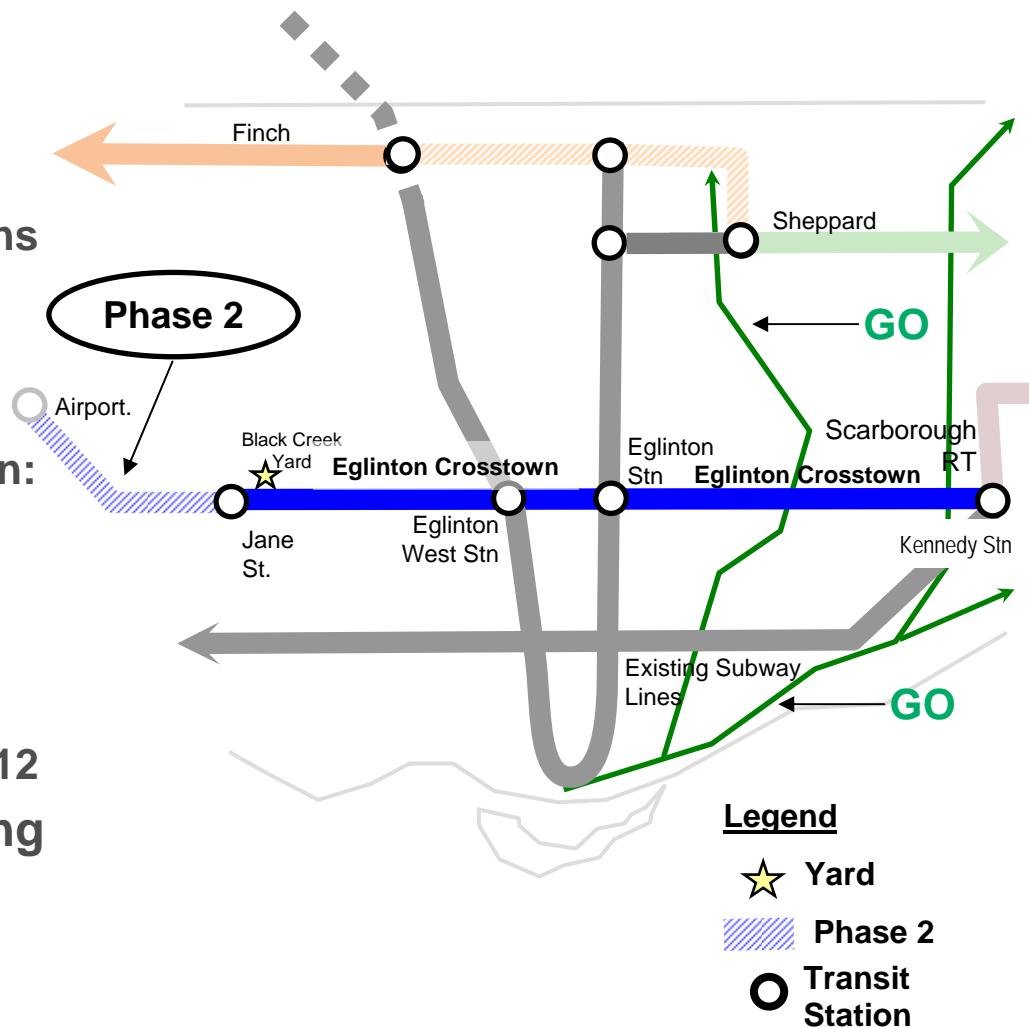
Eglinton LRT – 2010-15

Major activities planned during 2010-15 include:

- Design and engineering for tunnel and underground stations
- Property acquisition
- Award tunnel boring machines contract June 2010
- Start Tunnel Portal construction:
 - West January 2011
 - East January 2012
- Start tunnelling from west January 2012
- Start underground stations 2012

Carhouse Preliminary Engineering

 **2010-15 investment: \$1,815M**
(escalated dollars)



Eglinton LRT – 2016-20

Major activities planned during 2016-20 include:

- Final property acquisition
- Completion of station construction
- Installation of track, signalling and communication systems
- Completion of carhouse
- Completion of eastern at-grade section to Kennedy Station

Complete and in-service by 2020

2016-20 investment: \$4,250M (escalated dollars)





Scarborough RT – 2010-15

 Scarborough RT kept in service for Pan Am Games

 Major activities planned during 2010-15 include:

- Construction and completion of Conlins Yard (combined Sheppard East LRT and Scarborough RT carhouse)
- Preliminary design and engineering
- Property acquisition
- Pre-construction of Sheppard East LRT / Scarborough RT station

 TTC assurance Scarborough RT safe and sustainable to 2016

 **2010-15 investment: \$100M**
(escalated dollars), **plus value of carhouse**



Scarborough RT – 2016-20



Major activities planned during 2016-20 include:

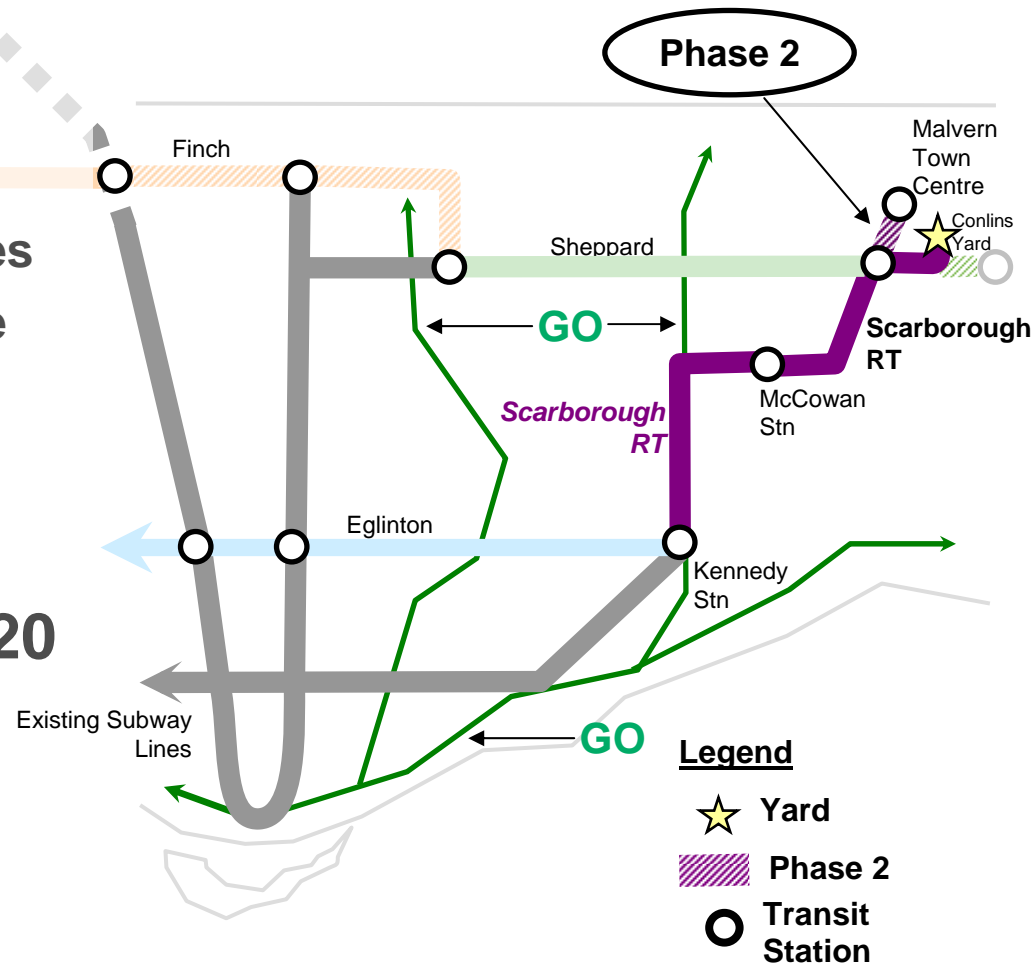
- Construction start after completion of Pan Am games
- Minimize out-of-service time
- Final property acquisition
- Vehicle delivery



Construction completed and line in-service in 2020



2016-20 investment:
\$2,365M (escalated dollars)

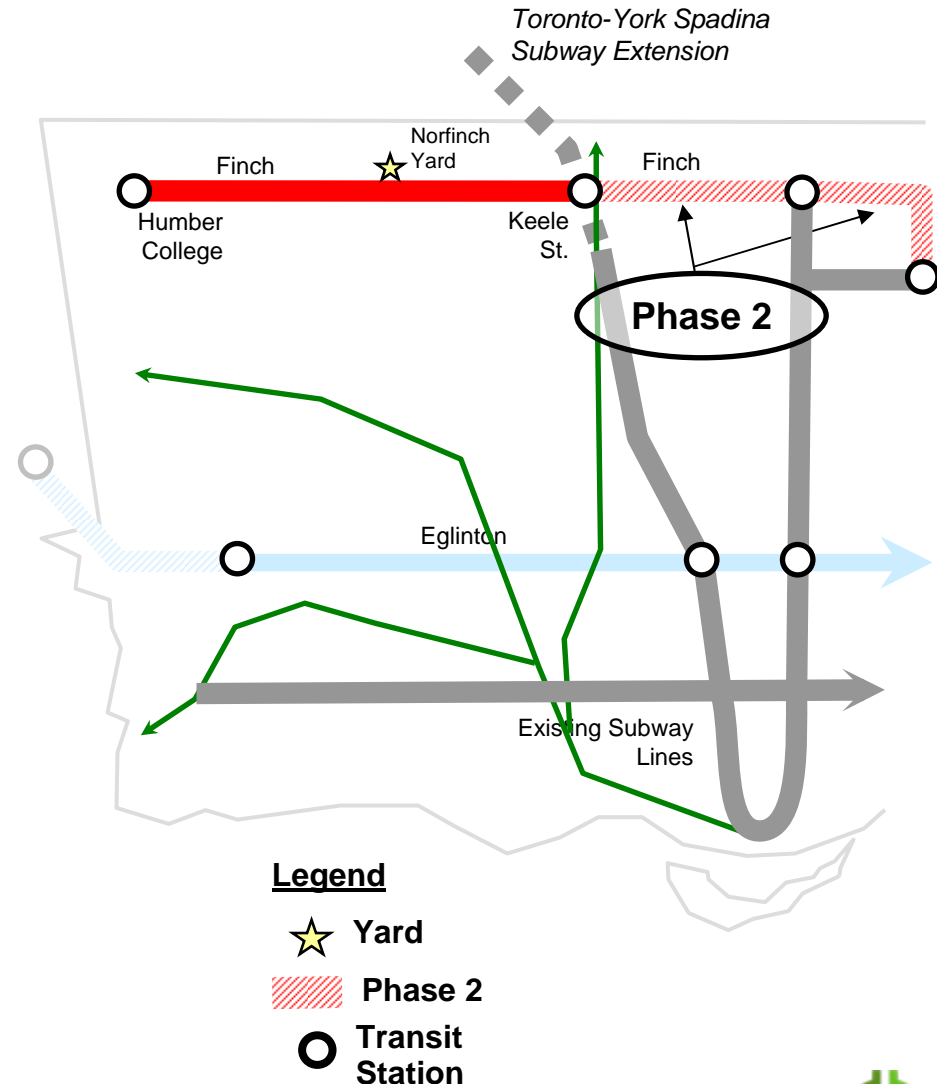


Finch LRT – 2010-15

Major activities planned during 2010-15 include:

- Completion of planning, engineering and design work to 30 percent
- Property acquisition
- Development of procurement documents for construction

 **2010-15 investment:**
\$70M (escalated dollars)



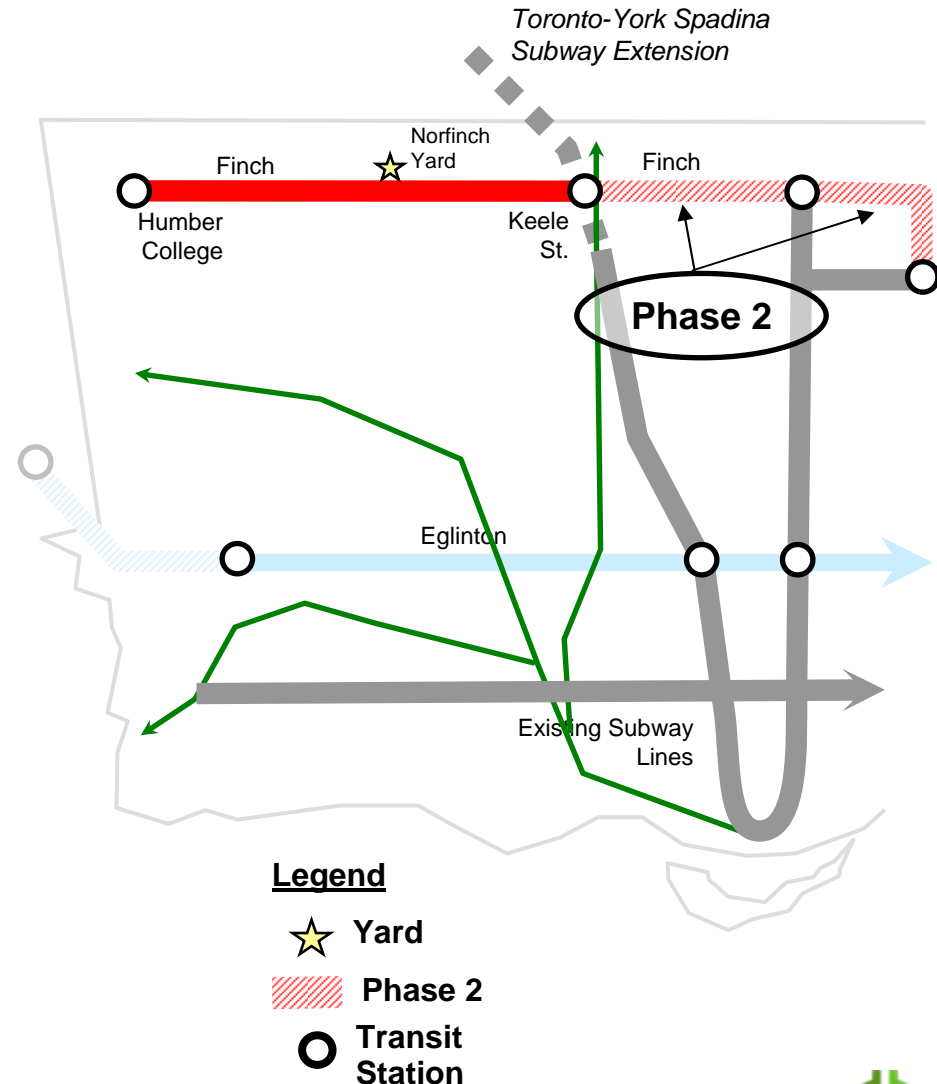
Finch LRT – 2016-20

Major activities planned during 2016-20 include:

- Final property acquisition
- Line construction
- Carhouse construction
- Vehicle delivery

Complete and in-service by: 2019

2016-20 investment: **\$1,210M** (escalated dollars)



Light Rail Vehicles








Assuming successful negotiation, Metrolinx award of contract is planned for June 2010 to supply 182 LRVs for all 4 LRT lines:

- Eglinton – 76 cars
- Finch – 23 cars
- Scarborough RT – 48 cars
- Sheppard – 35 cars



Comments on cash flow

-  Cash flows developed from TTC and York VIVA project estimates against revised schedules
-  First five years reflects reduction in available cash flow
-  Savings/Innovation reduction of \$180M is less than 5% of 5-year program and is achievable
-  Cash flow in years 6-10 will continue to be refined. These are preliminary estimates at this time.
-  Cash flow is in escalated dollars

5 in 10 Plan Summary – 2010-15

\$(000,000) Year of Expenditure

Project	2010/11	2011/12	2012/13	2013/14	2014/15	5 Year Total
York VIVA	65.0	200.0	220.0	180.0	125.0	790.0
Sheppard LRT	80.0	265.0	390.0	300.0	70.0	1,105.0
Eglinton LRT	95.0	235.0	380.0	490.0	615.0	1,815.0
Scarborough RT	15.0	15.0	20.0	10.0	40.0	100.0
Finch LRT	30.0	5.0	10.0	10.0	15.0	70.0
<i>Sub-Total</i>	<i>285.0</i>	<i>720.0</i>	<i>1020.0</i>	<i>990.0</i>	<i>865.0</i>	<i>3,880.0</i>
Savings / Innovation	(5.0)	(145.0)	(30.0)	(55.0)	55.0	(180.0)
Total	280.0	575.0	990.0	935.0	920.0	3,700.0

Note:

- Cash flows are preliminary and subject to change
- Numbers are rounded estimates in escalated dollars

5 in 10 Plan Summary – 2016-20

\$(000,000) Year of Expenditure

Project	2015/16	2016/17	2017/18	2018/19	2019/20	5-YR Total	10-YR Total
York VIVA	95.0	155.0	250.0	250.0	215.0	965.0	1,755.0
Sheppard LRT	20.0	0.0	0.0	0.0	5.0	25.0	1,130.0
Eglinton LRT	1,350.0	1,180.0	925.0	545.0	250.0	4,250.0	6,065.0
Scarborough RT	145.0	280.0	305.0	660.0	975.0	2,365.0	2,465.0
Finch LRT	200.0	305.0	400.0	180.0	125.0	1,210.0	1,280.0
Total	1,810.0	1,920.0	1,880.0	1,635.0	1,565.0	8,815.0	12,695.0

Note:

- Cash flows are preliminary and subject to change
- Numbers are rounded estimates in escalated dollars

Issues






1. Scarborough RT and Finch

- Vehicles
- Joint carhouse
- Engineering and Preliminary Design
 - Finch \$70M
 - Scarborough RT \$100M
- Sheppard / Scarborough RT Station
- Sequencing

2. Investment Strategy

3. Approvals and Partnerships

Aggressive, Bold and Doable Plan

-  Proceeds with 3 projects immediately
 - VIVA, Sheppard, Eglinton
-  Begins \$7 billion of \$9.5 billion
-  2 more in 2015
 - Scarborough RT, Finch
-  Reflects joint work
 - Metrolinx and VIVA
 - Metrolinx and TTC
-  From this point forward every week matters

Proposed Resolution

Be it resolved THAT the Board authorizes Metrolinx to proceed in accordance with *Achieving 5 in 10: A Revised Plan for the Big 5 Transit Projects*; and,

THAT staff is directed to submit the Plan to the Province for its approval