



YONGE NORTH SUBWAY EXTENSION

Project Update

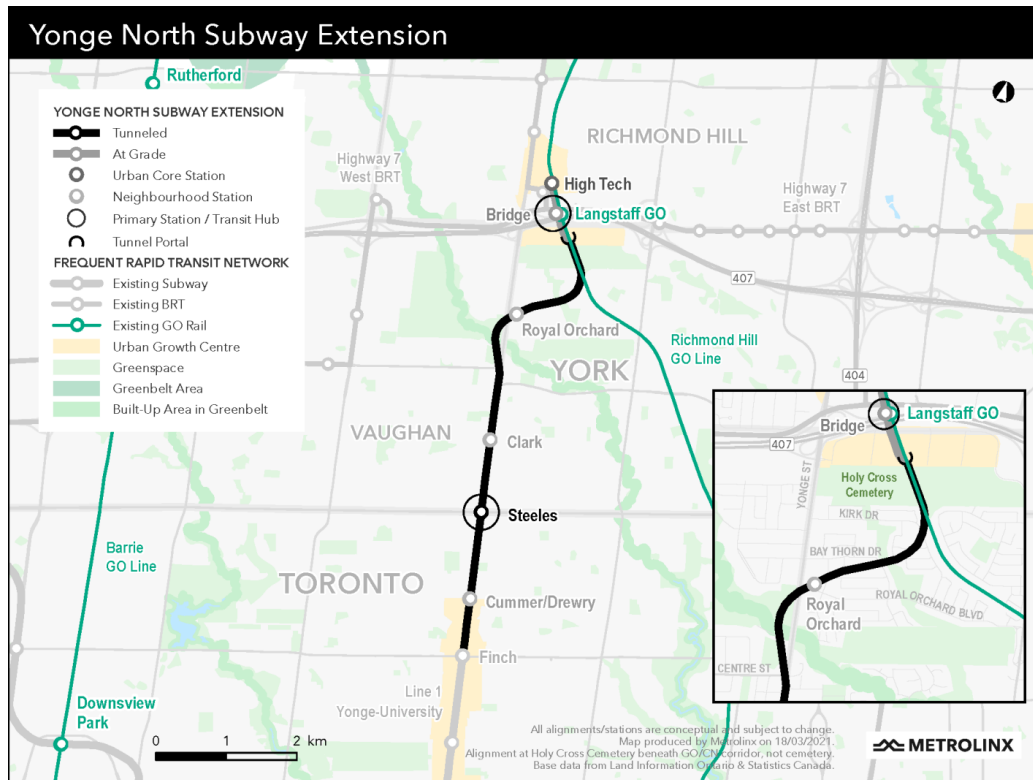
Stephen Collins, Program Sponsor, YNSE

Rajesh Khetarpal, Vice President, Community Engagement

May 5, 2021

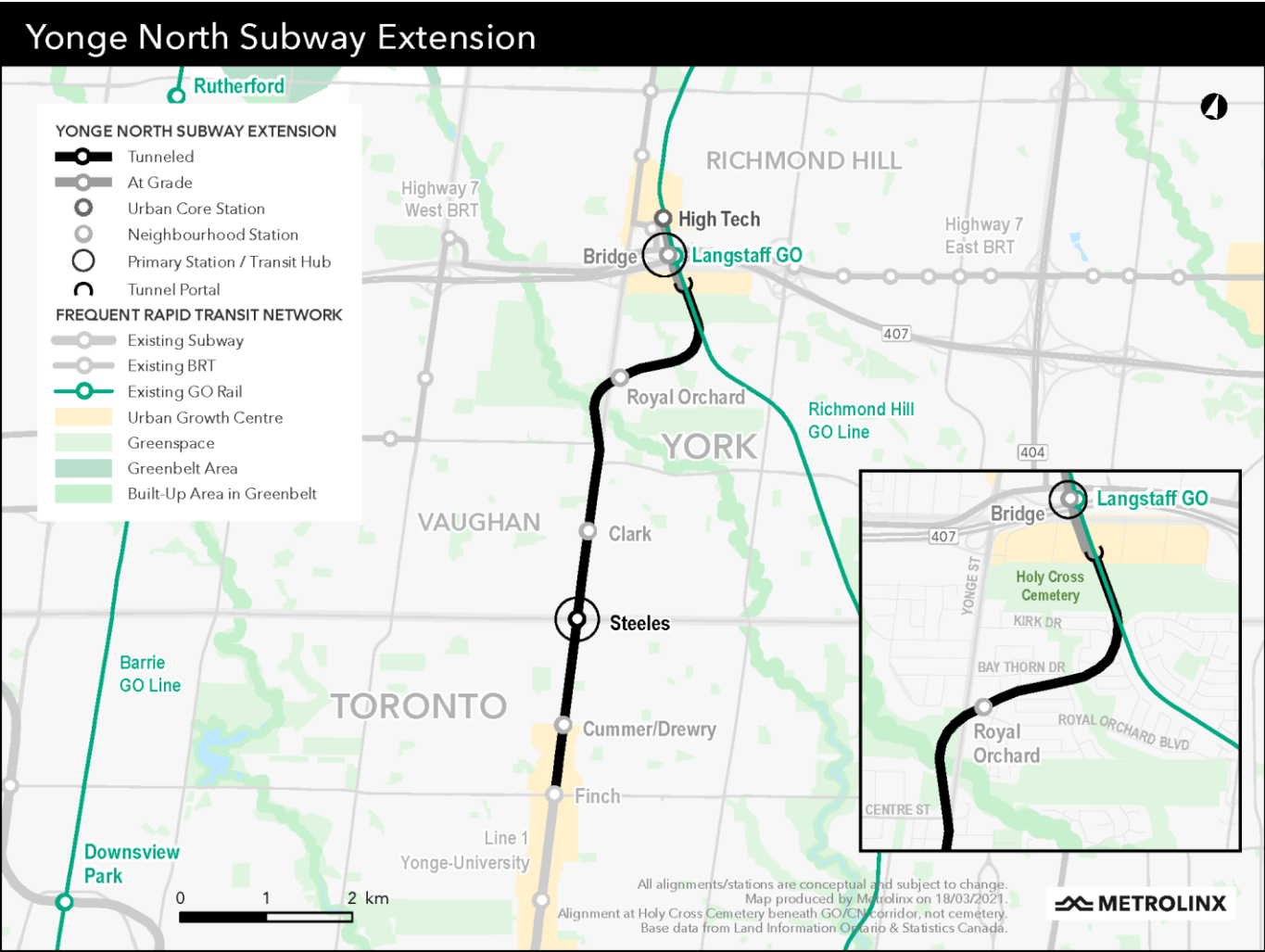
BETTER TRANSIT CONNECTIONS FOR YORK REGION & TORONTO

- Four new stations along an **approximately eight-kilometre extension** of TTC Line 1, from Finch Station north to Richmond Hill.
- Steeles Station will be a hub for local bus routes as well as a **future rapid transit line** along Steeles Avenue.



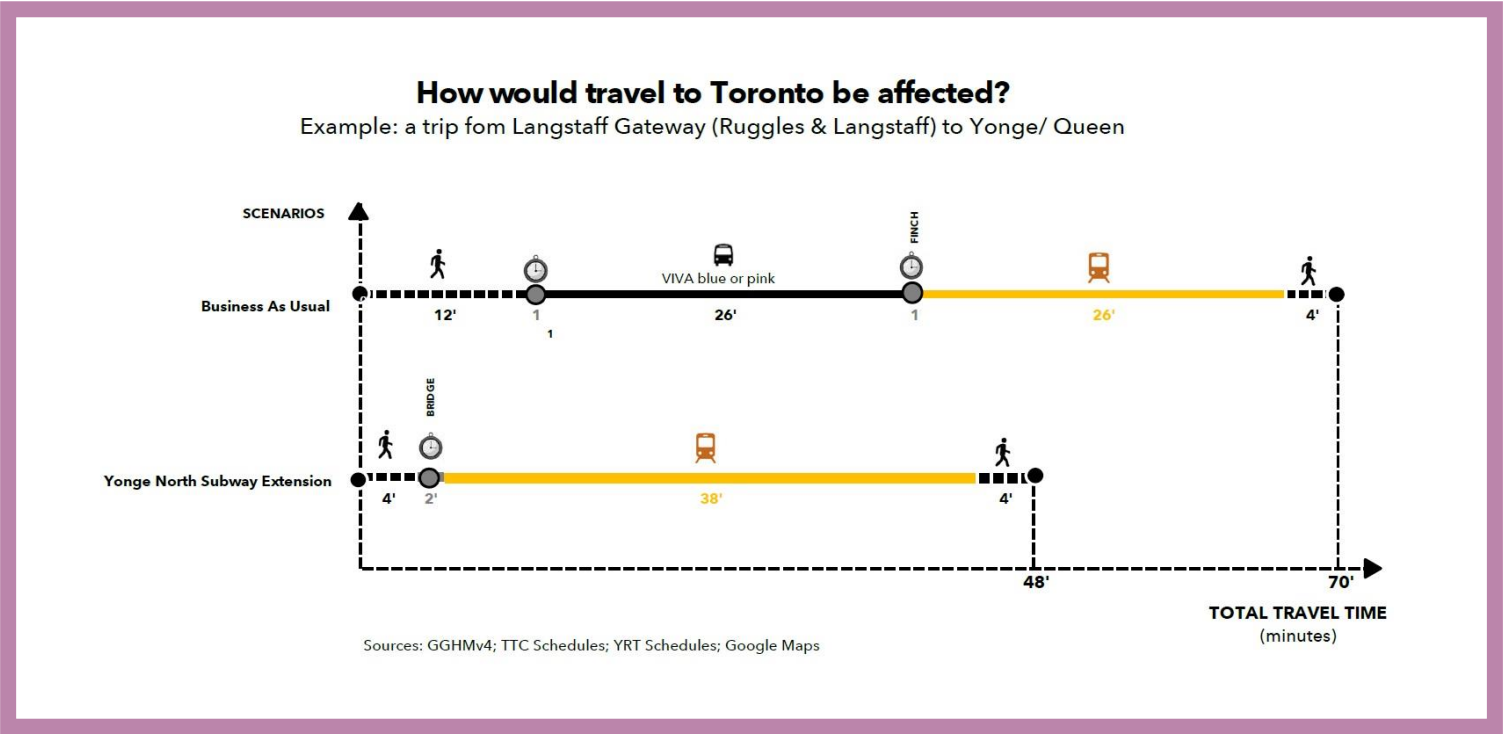
- Bridge Station will **conveniently connect** with GO train, GO bus, and local transit service, including VIVA BRT.
- High Tech Station will **serve future communities** envisioned within the Richmond Hill Centre area.
- Metrolinx is working with municipal partners to **evaluate and determine** the best location for the fourth station as planning work continues.


BY THE NUMBERS





Route length	~8 km
Ridership	94,100 daily boardings
Improved access to transit	26,000 more people within a 10-minute walk to transit
Improved access to jobs	22,900 employees within a 10-minute walk to transit
Daily reductions in traffic congestion	7,700 km in vehicle kilometres traveled
Yearly reductions in greenhouse gas emissions	4,800 tonnes

KEY BENEFITS



 Up to 22 minutes saved on a trip from York Region to downtown Toronto

 94,100 daily riders

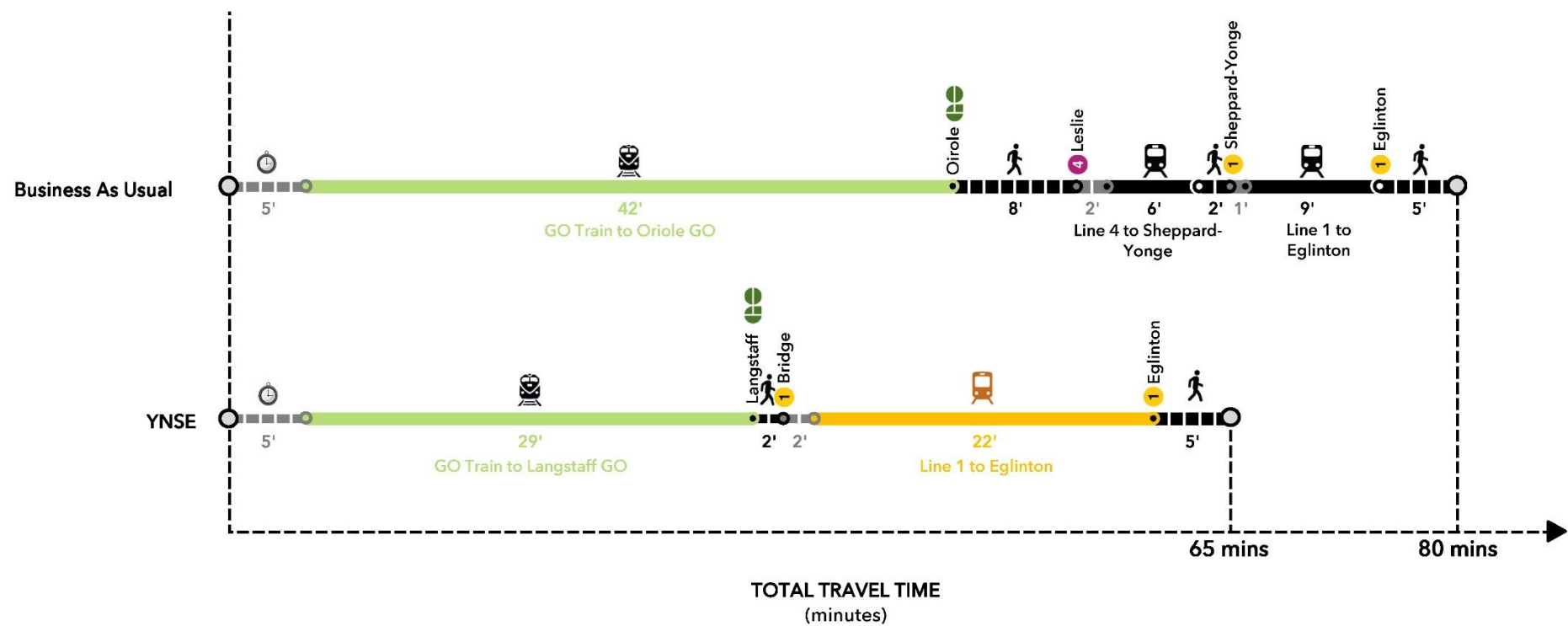
 Cuts time spent commuting in York Region and Toronto by 835,000 minutes daily

 7,770 fewer kilometres traveled by cars during morning rush hour

KEY BENEFITS

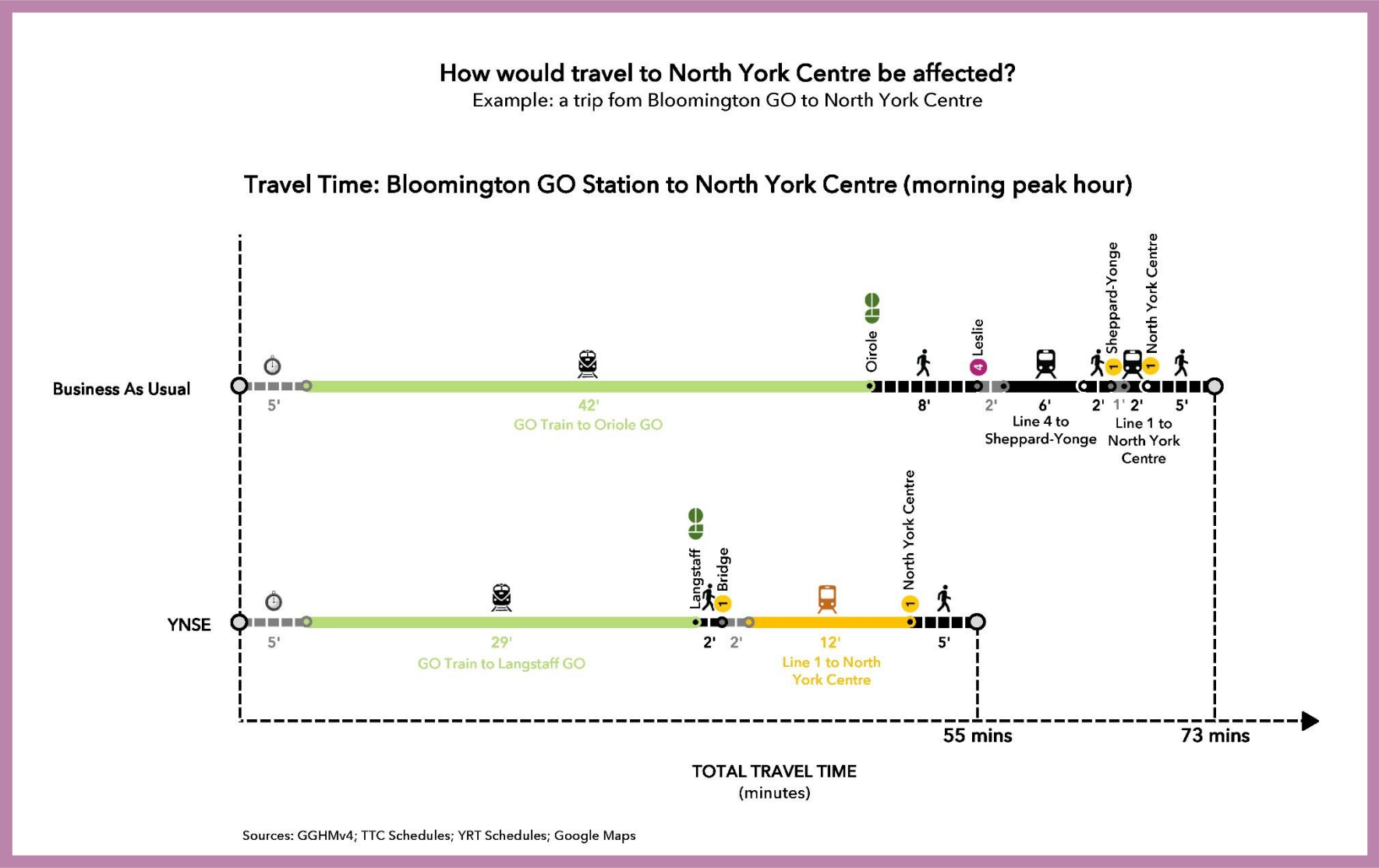
How would travel to Midtown Toronto be affected?
Example: a trip from Bloomington GO to mid-town Toronto

Travel Time: Bloomington GO Station to mid-town Toronto (morning peak hour)



Sources: GGHMv4; TTC Schedules; YRT Schedules; Google Maps

KEY BENEFITS



SURFACE LEVEL ROUTE

Running the extension above ground protects for further extension of the line in the future by positioning the northern end of the project along a pre-existing rail corridor.

- **Reduces** the need for complex and time-consuming construction of tunnels and underground stations
- **Cuts down on disruptions** of hydro, natural gas, and water service
- Positions northern stations to provide **better transit connections** and more opportunities for nearby communities to grow
- Ensures the extension can be **built quickly** and serve key growth areas
- Surface-level subway lines have **been proven around the world** as a way to improve transit connections and strengthen communities



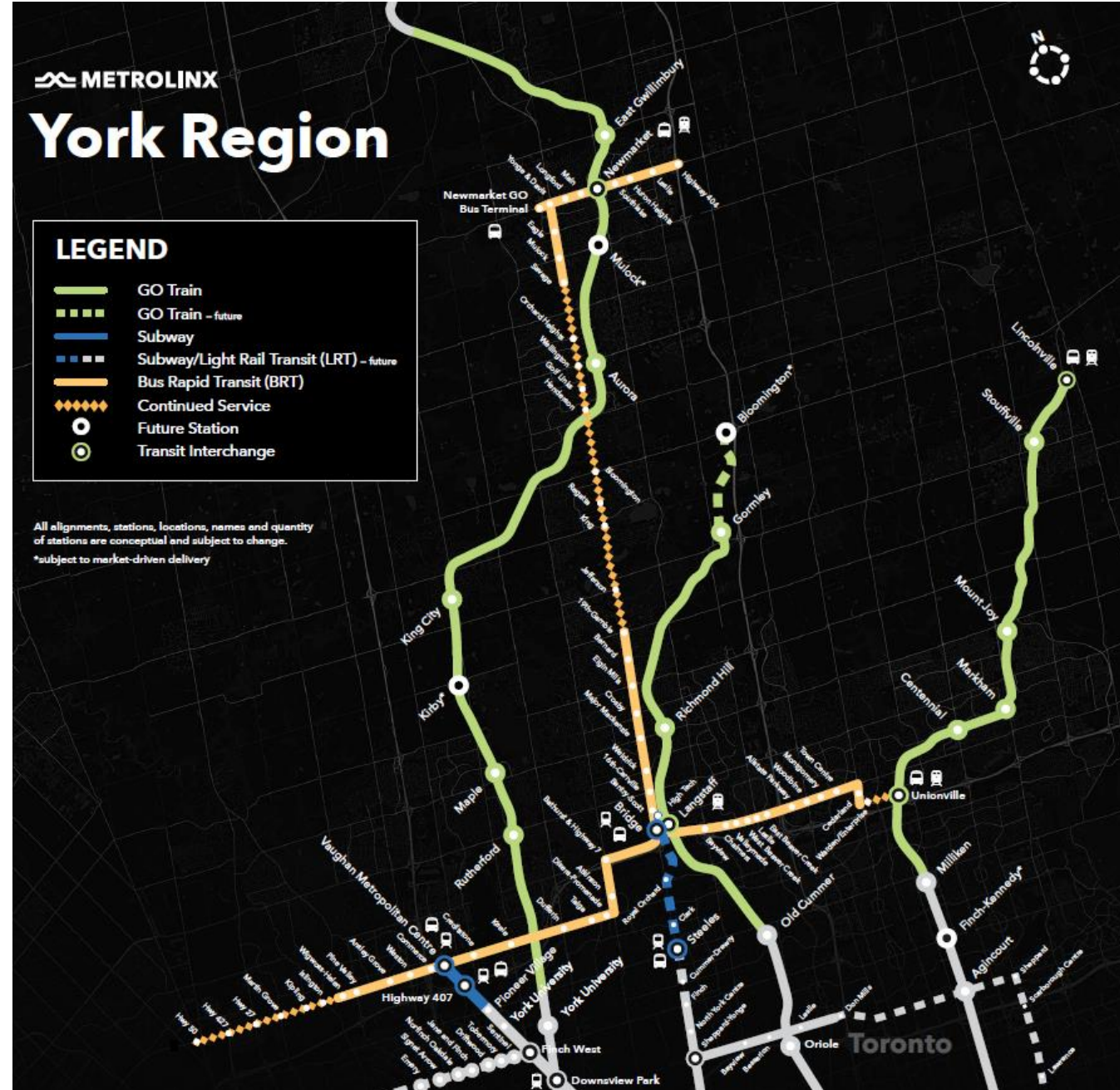
IMPROVING TRANSIT CONNECTIONS

Direct benefits to northern York Region communities:

- Fills a gap in the **regional transit network**
- A transit hub in the northern section of the route will be a **launchpad** to explore the GTA and beyond
 - Bridge Station will **stitch together** burgeoning communities in Markham and Richmond Hill

Broader benefits:

- **Better customer experiences** on existing transit lines as demand is spread across the growing network
- **Traffic congestion relief and offsets to greenhouse gas emissions** as drivers get out from behind the wheel in favour of using the subway
- The project will bring economic activity, create good jobs and connect more people in York Region to **more opportunities to succeed**



NEW TRAVEL OPTIONS THROUGH BRIDGE STATION

The Yonge North Subway Extension will open up many more travel possibilities in York Region and beyond through a planned transit hub tentatively called Bridge Station.

- **Fast and convenient** transfers to and from regional and local bus service
- Bridge Station will connect as many as five existing and future **regional transit lines** to the subway:



Viva Yonge Street Rapidway



Viva Highway 7 Rapidway



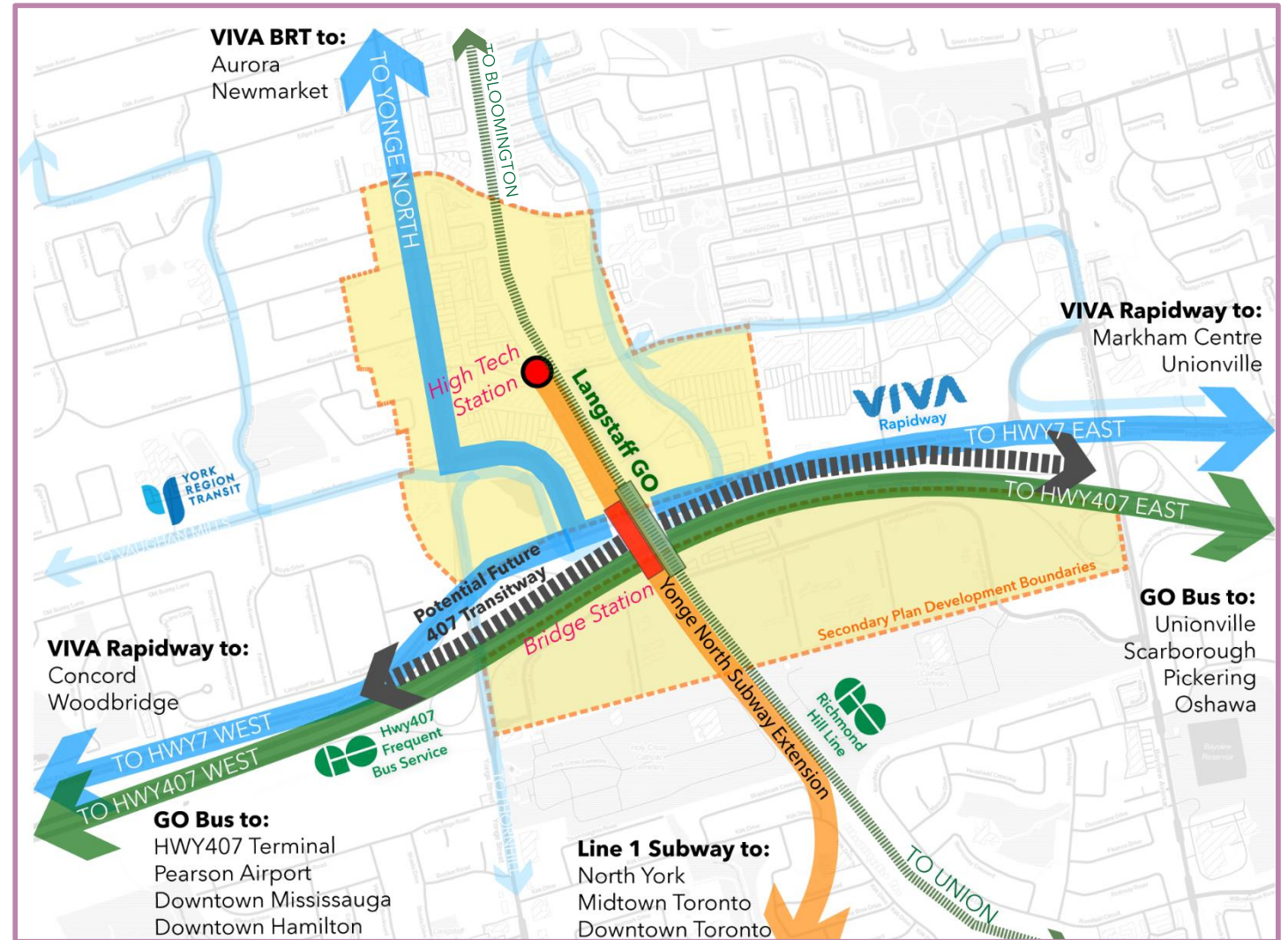
Highway 407 GO



Richmond Hill GO



Future Hwy 407 Transitway



PARKING

Metrolinx evaluates commuter parking through the business case process, including an analysis of availability and demand close to Bridge Station

- The details of our analysis will be available through the Preliminary Design Business Case
- The Yonge North Subway Extension will support vibrant urban development that creates faster, easier connections to rapid transit so that people can get out from behind the wheel
- Those connections include:
 - York Region local and Viva express bus service;
 - TTC bus service;
 - Richmond Hill GO train and GO bus service;
 - Highway 407 GO bus service;
 - Active transportation like walking and cycling



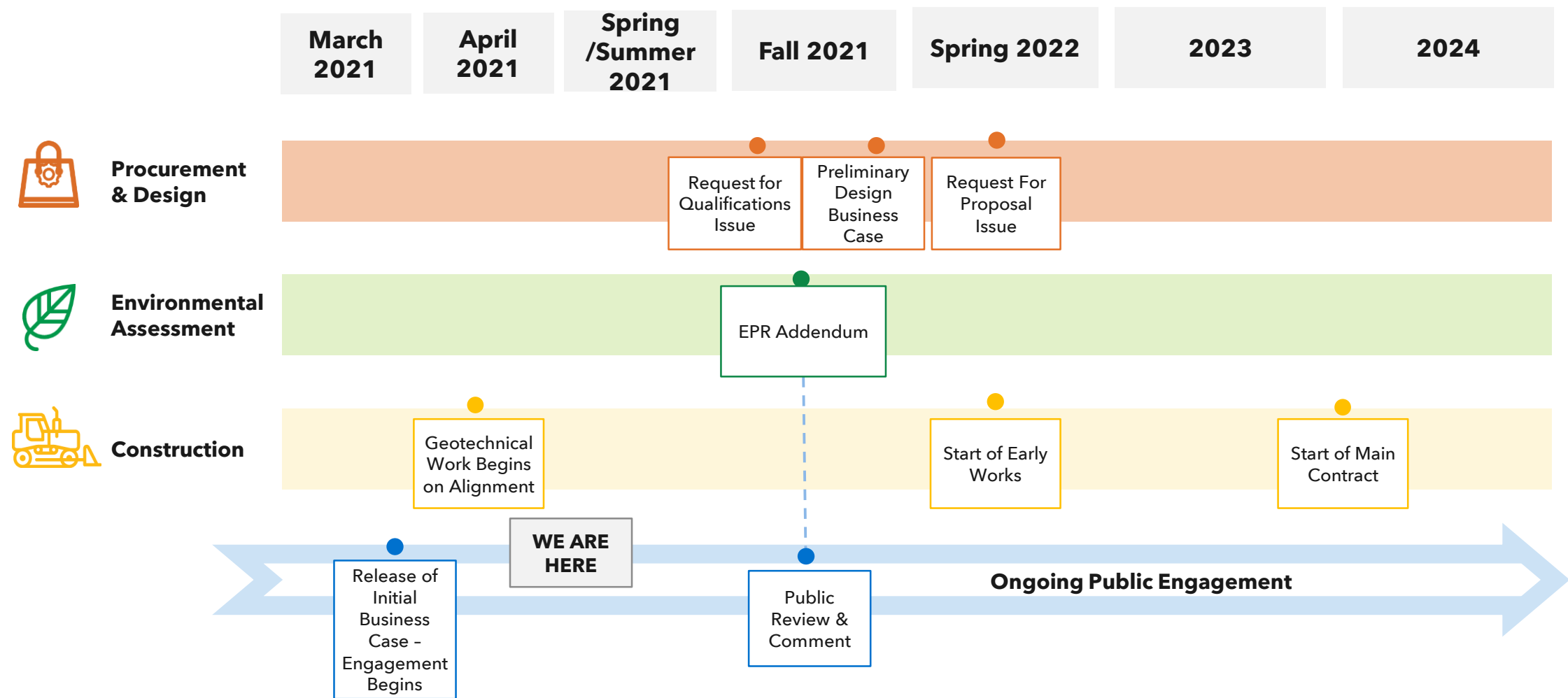
ENVIRONMENTAL STUDIES

We are preparing an addendum to the existing **environmental assessment** (EA) that will cover off any changes to existing conditions since that EA was completed and evaluate the updated route.

	The EA will study things like...		
<ul style="list-style-type: none">• Noise and vibration solutions• Soil and groundwater quality• The natural environment• Land use			

- Crews are already **collecting ground samples** along the route to inform this work.
- Data and **public input** will help Metrolinx make sure all the necessary solutions are put in place to keep things as quiet and peaceful as possible in each neighbourhood.

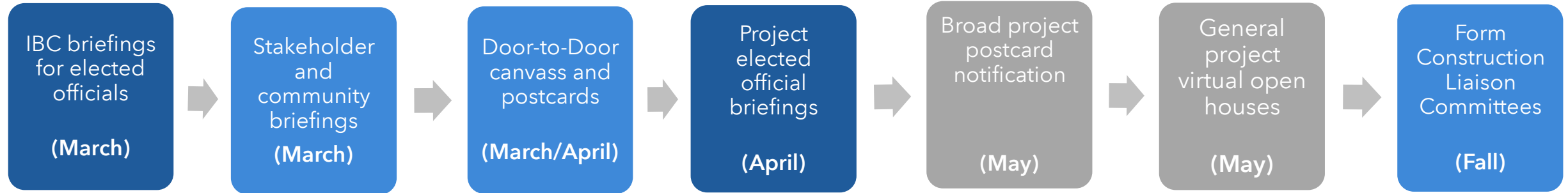
PROJECT MILESTONES



Timelines are subject to change

Communications, Community and Stakeholder Engagement

COMMUNITY & STAKEHOLDER ENGAGEMENT



OFFICIALS BRIEFINGS

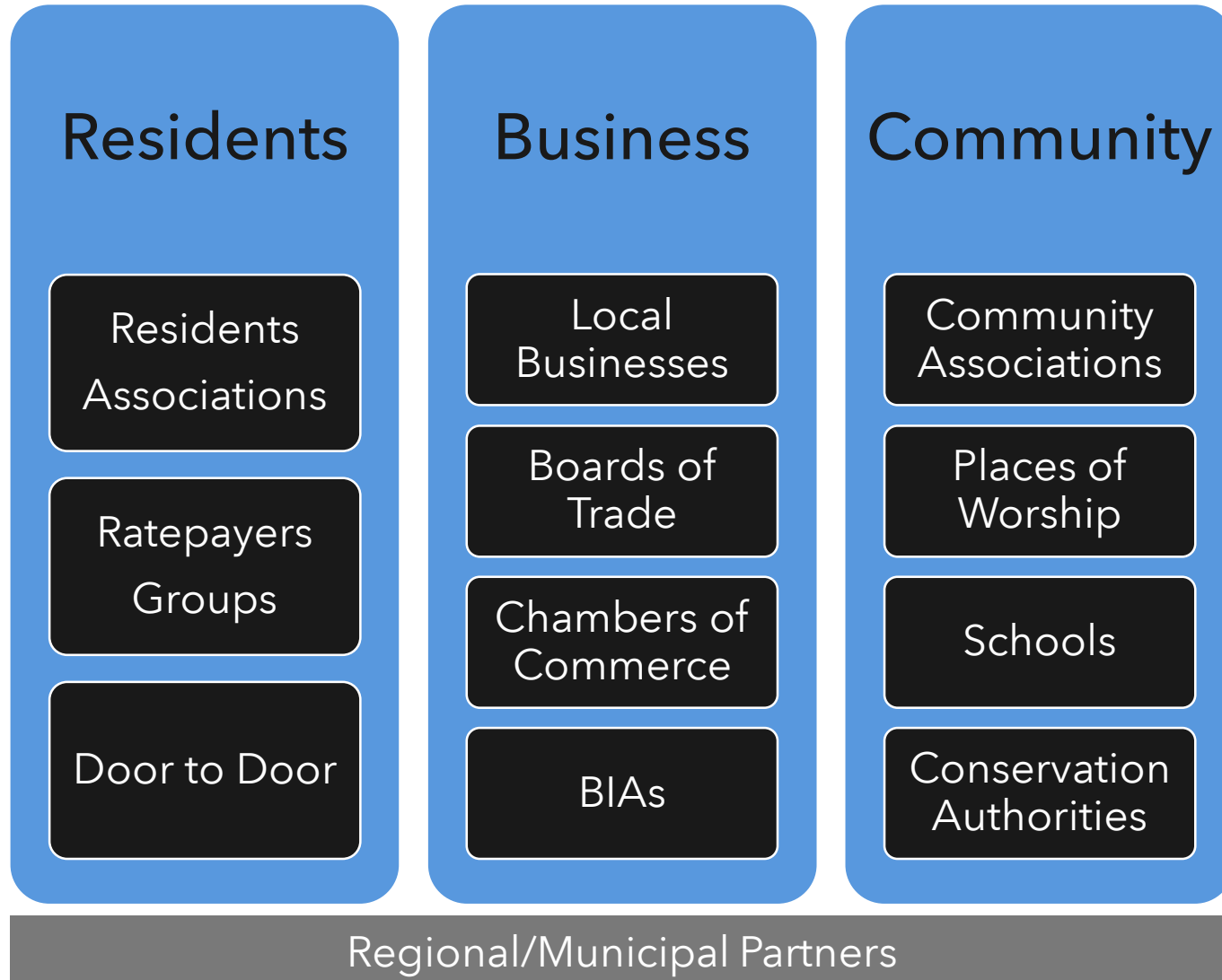
- IBC Briefings for Elected Officials **Ongoing**
- Council Presentations
 - Markham **March 22**
 - Richmond Hill **March 24**
 - York Region **March 25**
 - Vaughan **April 7**
 - Markham DSC **April 26**
- Briefings Elected Officials **Ongoing**
- Project Presentations **May 2021**
 - Municipal Partners, Councils, TEO, TTC
- Update Briefings **June 2021-Jan 2022**

COMMUNITY ENGAGEMENT

- Project Briefings to Community Groups **Ongoing**
 - Resident Groups, BIAs, Chambers of Commerce
 - Indigenous Communities
- Door-to-Door Canvasses **March/April 2021**
 - Royal Orchard & Bayview Glen communities
 - Willowdale-Newtonbrook community
- Community Virtual Open Houses **April 2021**
 - Royal Orchard, Richmond Hill, Northern York
- Project Meetings/Introductory Post Card **May 2021**
- Stakeholder Briefings **April-Aug 2021**
- Project Virtual Open Houses **May-Aug 2021**
- Project E-Newsletters **Bi-weekly**
- Form Construction Liaison Committees **Fall 2021**
- Community Walking Tours **Fall 2021**

Collaboration with Communications Partners (Municipal/Regional Communicators, TTC, YRRTC)

ONGOING COMMUNITY & STAKEHOLDER ENGAGEMENT



Week of May 3:

- Northern York Region municipalities Virtual Open House
- Elected official briefings
- Richmond Hill Board of Trade breakfast briefing

Week of May 10:

- Ongoing briefings for resident, business and community groups

Week of May 17:

- General Yonge North Subway Extension Virtual Open House
- Elected official briefings

Ongoing Metrolinx News articles

UPCOMING ACTIVITIES

Field work begins this spring:



- Noise & vibration monitoring
- Natural Environment/Archeology surveys
- Exploratory work for tunnels & launch shaft
- Utility investigations

Our commitment to keeping communities informed

Residents near planned field work and natural environment/archeology surveys will receive **notification flyers** at least two weeks in advance

Updates on major field work, and natural environment/archeology surveys will be distributed regularly via **email newsletter**

Major notices of work will be posted on the **Metrolinx Engage** website

Construction Liaison Committees will open the lines of communication about all aspects of the project

STAY CONNECTED - WE'RE HERE FOR YOU!




Subscribe:

- YongeSubwayExt@metrolinx.com
- 416-202-7000
- Bi-weekly E-Blast (subscribe via email)

Project Information:

- [Metrolinx.com/YongeSubwayExt](https://metrolinx.com/YongeSubwayExt)
- Virtual Open House link:
www.metrolinxengage.com/YongeSubwayExt

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Appendix

CREATING CONNECTIONS IN YORK REGION

In Construction:

- Bloomington GO Station (new)
- Rutherford GO Station and Grade Separation
- Unionville GO Station
- Lincolnville GO Station
- York vivaNEXT BRT
- Steeles Grade Separation

In Procurement:

- Barrie Contract 2 (Maple GO Upgrades)
- Barrie Contract 3 (King City GO Upgrades)
- Station upgrades at Aurora GO, Centennial GO, Markham GO, Mount Joy GO, East Gwillimbury GO, Stouffville GO
- GO Bus Expansion; Keswick to 404 Terminus at Woodbine

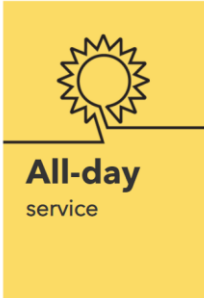
In Early Design:

- McNaughton Grade Separation (Vaughan)
- Wellington Grade Separation (Aurora)
- Network Electrification and infrastructure
- New rolling stock and locomotives

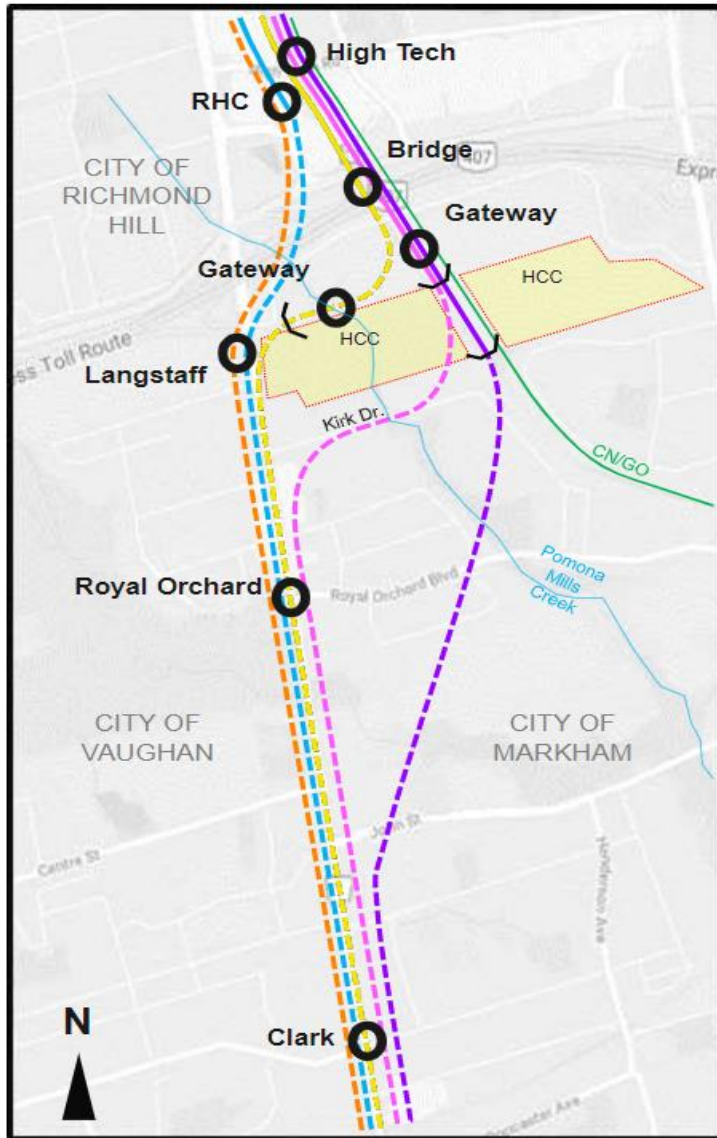


GO EXPANSION IN YORK REGION

- On the Stouffville line, **two-way all-day service** between Mount Joy and Union Station, and fifteen minute service or better between Unionville GO Station and Union Station.
- On the Barrie line, **two-way, all-day fifteen minute service** or better between Aurora GO Station and Union Station
- Parking expansions, station enhancements, grade separations, electrification.



ALTERNATE ALIGNMENT OPTIONS CONSIDERED DURING REVIEW



We are refining designs as we conduct and consult on environmental assessments for the project, and our goal will be to minimize impacts to communities as much as possible as we deliver major transit benefits to them.

APPROVED REFERENCE ALIGNMENT

Refined Option 3 Alignment	
Strategic Case	
Strong Connections	<ul style="list-style-type: none"> 94,100 daily riders¹
Complete Travel Experiences	<ul style="list-style-type: none"> 835,000 person-minutes daily travel time savings compared to BAU 22 minutes saving on a trip from Langstaff Gateway area (Langstaff/Ruggles) to Downtown Toronto (Yonge/Queen) compared to BAU
Economic Case	
Total Economic Impacts (Benefits) (\$2020, Present Value)	\$3666.5 M
Total Costs (\$2020, PV)	\$4386.3 M to \$5135.5 M
Net Present Value (\$2020, NPV)	\$-1358.6 M to \$-607.9 M
Benefit-Cost Ratio	0.74 to 0.86
Financial Case (\$2020, PV)	
Total Revenue Adjustment	114.4 M
Capital Costs ²	\$4,625.0 M
Operating and Maintenance Costs	\$ -39.0 M
Total Costs	\$4,447.1 M
Deliverability and Operations	
Constructability Matters	<ul style="list-style-type: none"> Coordination with the York Durham Sewage System (YDSS) at Steeles East Don River Crossing Construction within the busy Yonge Street corridor Maintaining services on Line 1 during construction Interface with the Highway 7 and 407 Corridor
Property Impacts	<ul style="list-style-type: none"> No tunneling under Holy Cross Cemetery
Operations	<ul style="list-style-type: none"> Integrated into current Line 1 Operations Fully automated operation allows for higher service frequencies

PROPOSED MAJOR CHANGES TO PROJECT ELEMENTS CONSIDERED IN IBC

Steeles Station

Moving Steeles Bus Terminal from Below Steeles Avenue to at-grade integrated with development

- Original proposal planned the bus terminal below Steeles Avenue perpendicular to and above the subway station
- Value engineering recommended relocating to at-grade to reduce costs and minimize impacts to YDSS and construction disruption

East Don River

Tunneling below instead of bridging over the East Don River

- Original proposal planned a two level (upper for road - lower for subway) bridge spanning the river valley
- Value engineering recommended tunneling below the watercourse to reduce costs and disruptions during construction

Train Storage Facility

Moving the YNSE Train Storage Facility north of High Tech Road from below ground to at-grade

- Original proposal planned a 3-track, 12 train below ground storage facility
- Value engineering recommended bringing the facility to at-grade in order to reduce costs while maintaining similar functionality

YNSE Alignment

Changing the point where the subway alignment shifts off of Yonge Street

- Original proposal for the alignment to shift east of Yonge Street north of Holy Cross Cemetery
- Value engineering and peer review identified potential benefit increases and cost reductions from bringing the subway to at-grade adjacent to the CN corridor, which will also better serve the central portions of the Richmond Hill Centre and Langstaff Gateway Urban Growth Centre