



Relief Line Network Study

Metrolinx Board of Directors

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V.P. Policy, Planning and Innovation

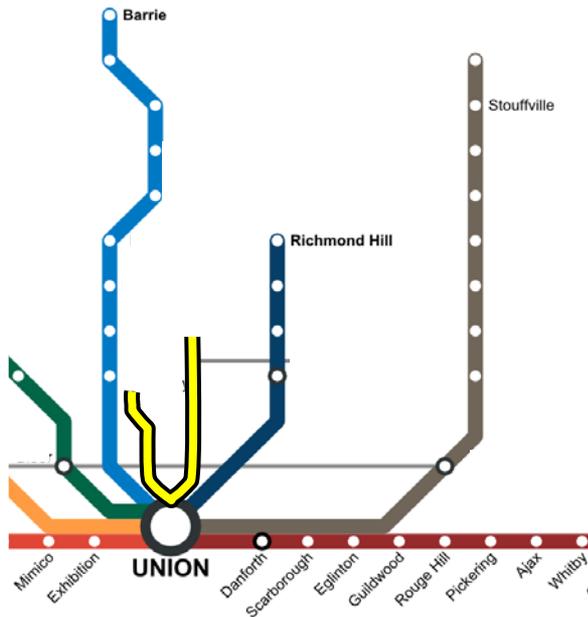
Overview

- Capacity relief is a pressing local and regional issue. The Yonge subway is the busiest rapid transit line in the GTHA and GO Train service is currently operating at capacity during peak periods within the City of Toronto.
- Subway improvements are underway, but the Yonge subway will still be at capacity in 2031.
- Metrolinx study will address capacity issues and system-wide benefits:
 - What is the full range of alternatives that needs to be considered? How can GO Transit serve longer and shorter distance trips more effectively?
 - What is the optimal phasing of related projects?
- Coordinated planning being undertaken by Metrolinx, TTC, City, and York Region
- Public consultation Fall 2013 & Summer 2014. Preliminary study findings Spring 2014.

Capacity Relief is a Pressing Issue



chuckmantorontonostalgia.wordpress.com



- The Yonge subway is the busiest rapid transit line in the GTHA, and currently operates at capacity in peak periods
- Bloor-Yonge Station is a major pinch point
- There are parallel challenges in other parts of the regional network, with GO Train service to and from Union currently operating at capacity within the City of Toronto in peak periods

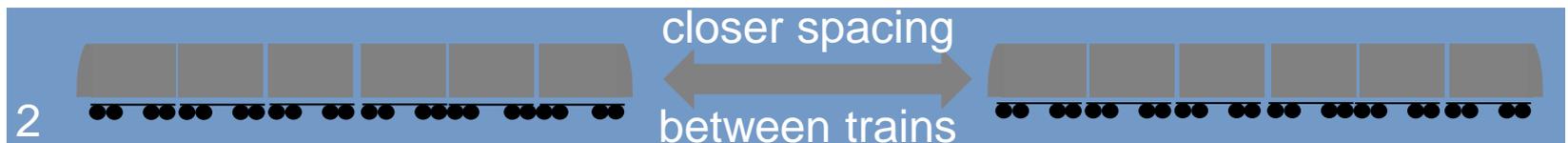
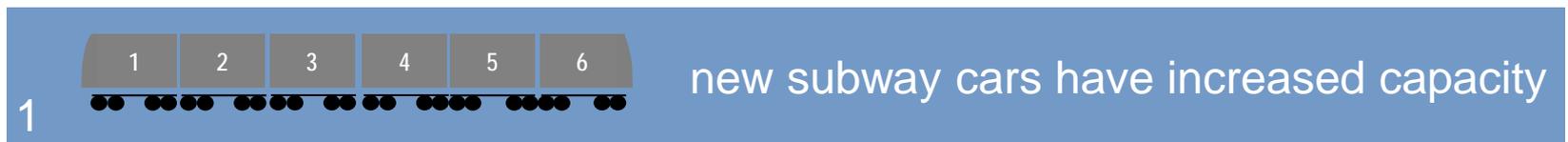
We have an opportunity to improve access and network mobility

Capacity Relief has Wide Impacts

- The need for Yonge subway relief is both a local and regional issue that is of interest to the travelling public, Metrolinx, TTC, City of Toronto, York Region and others:
 - Most Toronto transit trips use the subway network; congestion on one part of the system has impacts felt across the city and beyond
 - York Region residents make extensive use of the TTC subway network for longer distance transit trips
 - If not addressed, Yonge subway congestion has the potential to negatively affect the customer experience and limit ridership growth, particularly into Downtown Toronto
 - There is an inter-dependency between subway system capacity and the ability to expand the subway network

Subway Capacity Improvements Underway

- Funded capacity improvements:
 1. Toronto Rocket Trains (2014)
 2. Automatic Train Control to allow closer spacing between trains (2016)
- Metrolinx provided \$293m in funding via 'Quick Wins' program
- Increases subway capacity from 26,000 passengers / hour to 38,000 passenger / hour
- Extension of University-Spadina subway also attracts some riders away from the Yonge line (2016)



Yonge Subway Still at Capacity in 2031

- Even with current improvements, the Yonge subway will still be at capacity in 2031
- Bloor-Yonge interchange station is a key constraint

2031 AM Peak Hour Southbound Subway Volumes Compared to Capacity



Source: TTC, Madituc, 2031 forecast

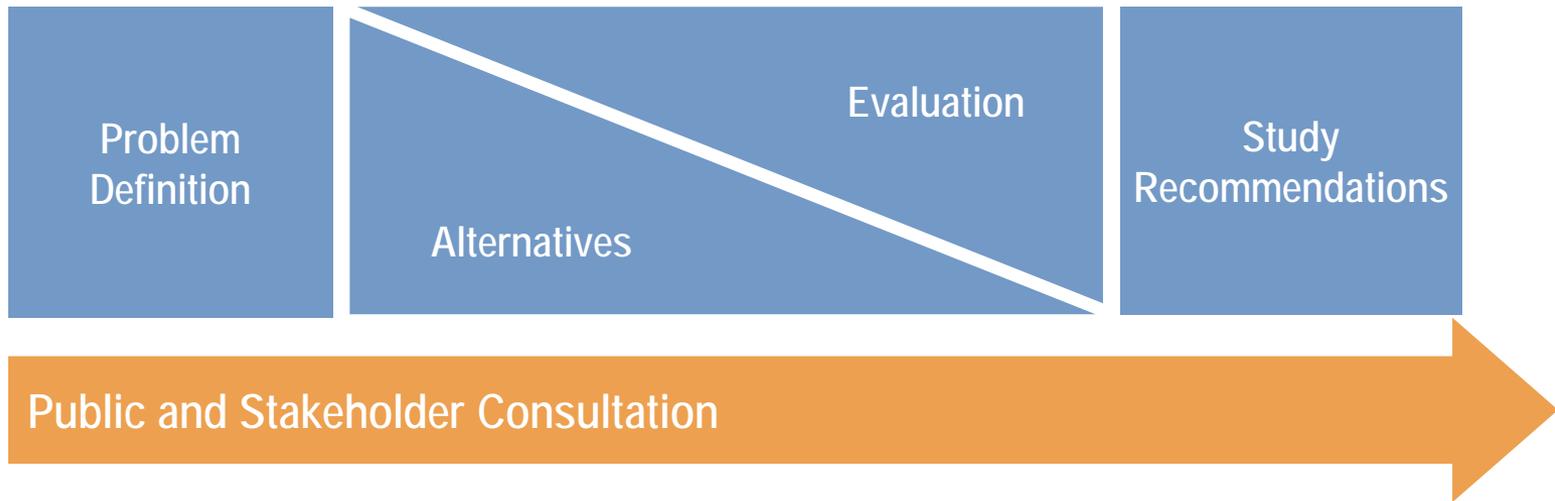
2031 modelled scenario includes First Wave (funded) transit projects; and selected Next Wave (unfunded) projects: Two-way, all-day GO and Yonge subway extension to Richmond Hill

Study Will Address Capacity Issues and System-Wide Benefits

Key Questions

- Looking at the region as a whole, what are the transit network alternatives that relieve the Yonge-University-Spadina subway and provide the greatest system-wide benefits?
 - What is the full range of alternatives that needs to be considered?
 - What are the land use and development benefits of different alternatives?
 - We know that the Relief Line could alleviate Yonge Subway congestion; what are new infrastructure and policy alternatives that should be considered as shorter-term or complementary solutions? How can GO Transit serve longer and shorter distance trips more effectively?
 - What is the optimal phasing of related projects?

Relief Line Network Study Process



The Study Process Will:

- Consider a wide range of alternatives
- Actively engage stakeholders and the public to generate and address alternatives
- Use international best-practices in evaluating alternatives

Coordinated Planning

Metrolinx, the City of Toronto, and the TTC are working closely to integrate three inter-related streams of work:

Relief Line Network Study

- Identify the transit network alternatives that relieve the Yonge-University-Spadina subway and provide regional benefits.
- Outline the preferred phasing of related transit projects.



Official Plan Review – “Feeling Congested”

- Identify rapid transit priorities for the City.



Downtown Rapid Transit Expansion Study – Phase 2

- Undertake preliminary route evaluation and review of station opportunities, for public consultation.



Study Outcomes

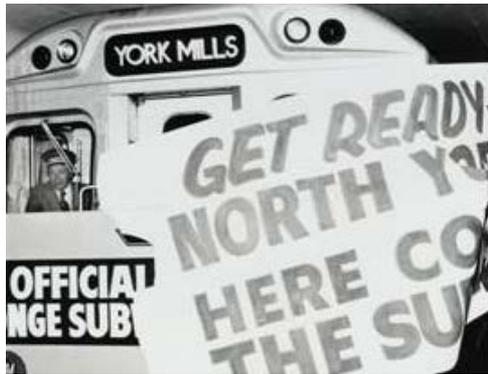
The study will recommend a package of solutions to:

- Address crowding and pinch-points
- Sequence projects and programs for capacity relief
- Support improved access to key destinations (e.g., public institutions, regional attractions, and employment centres)
- Better integrate local and regional transit service

Next Steps

12 Months

- Study contract awarded
- Refine consultation plan
- Public consultation on long-list of alternatives
- Report to Metrolinx Board on preliminary findings of Regional Relief Study
- Public consultation on draft study recommendations



TTC Archives

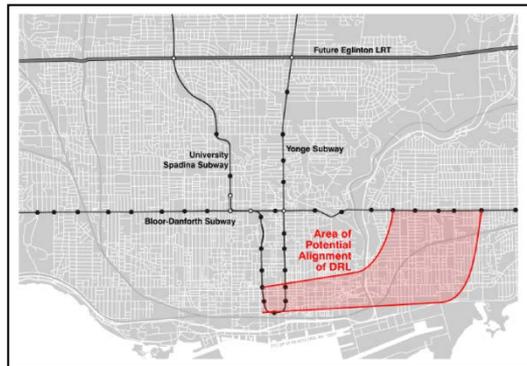


APPENDICES

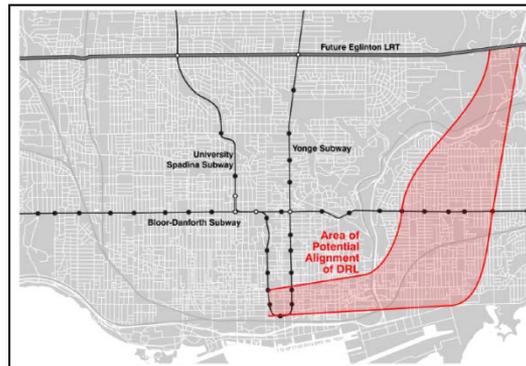
A. TTC Downtown Rapid Transit Expansion Study (DRTES)

- 2012 TTC DRTES found that eastern leg of Relief Line successfully diverts riders from peak sections of Yonge subway. Study recommended that:
 - The City, TTC and Metrolinx continue to work jointly to plan for new and/or improved grade-separated rapid transit services into the downtown from the east and the north
 - TTC proceed with evaluating Relief Line alignments
 - City of Toronto protect for the Relief Line in the Official Plan update
- Metrolinx Board of Directors has advanced the Relief Line into the grouping of top priority projects as part of the Big Move Update

3 Stages Considered for Relief Line (DRTES, 2012)



1. Downtown to Danforth Subway



2. Downtown to Eglinton East

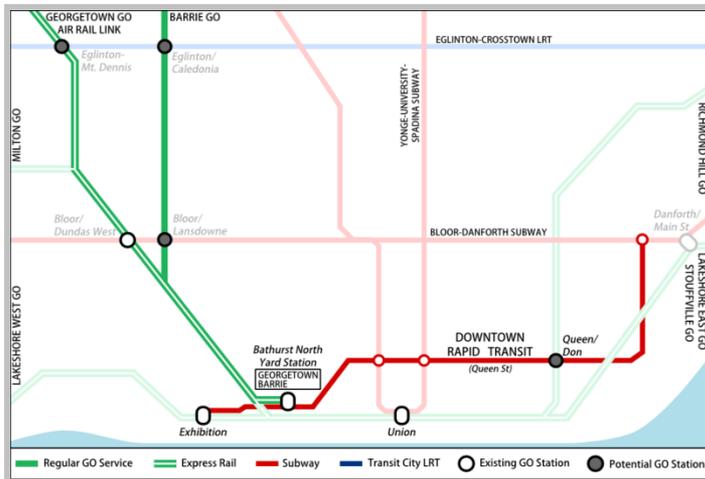


3. Bloor Subway to Eglinton East

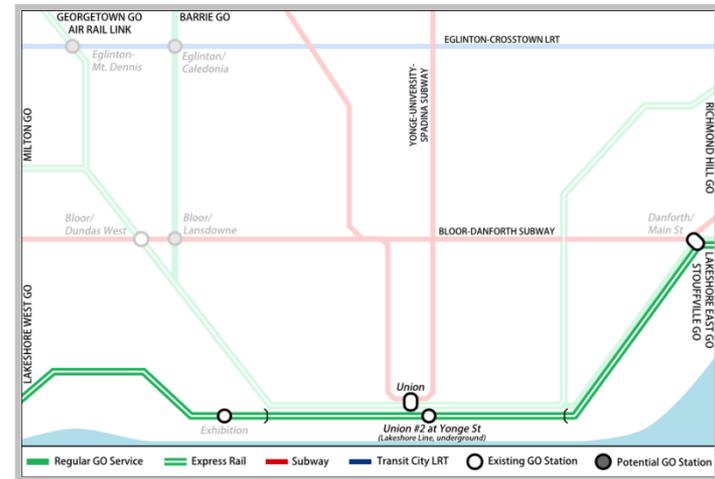
B. Metrolinx Union Station 2031

- 2011 Metrolinx study analyzed system-wide opportunities to re-distribute demand from Union Station to address future passenger capacity constraints
- Union Station site is physically constrained. More space will eventually be needed for tracks, platforms, etc.
- Rapid transit network solutions exist that could help relieve both Union Station and Yonge subway capacity issues.
- Further detailed analysis is required to determine the feasibility of Bathurst North yard and Lakeshore GO tunnel options.

2 Options Identified for Further Study



Bathurst North Yard plus modified Downtown Rapid Transit



Lakeshore GO tunnel to new station east of Union Station