

Re: EX9.1

SMARTTRACK STATUS UPDATE

Presentation to City of Toronto Executive Committee

October 20, 2015

John Livey, Deputy City Manager, Cluster B, City of Toronto

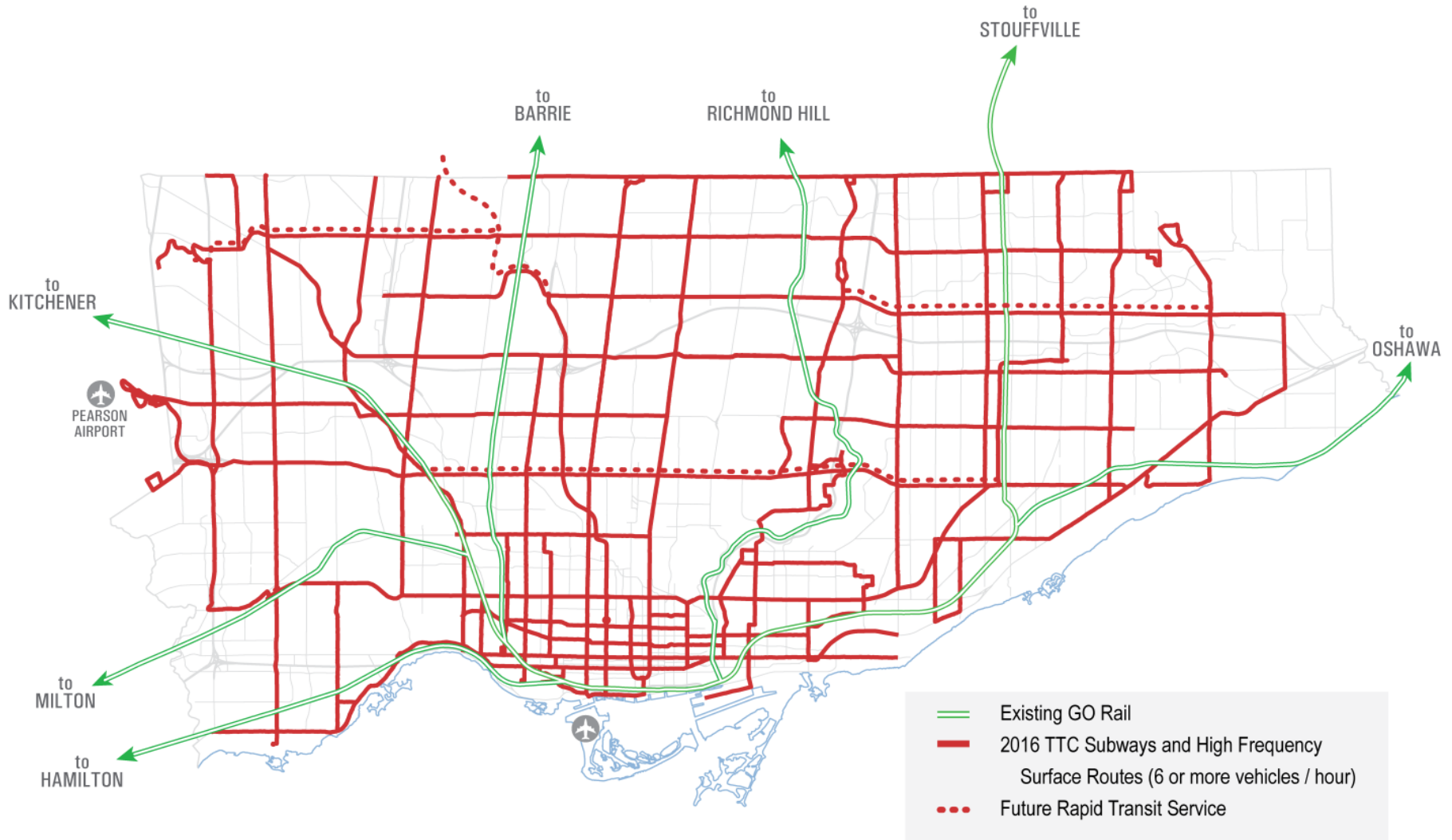
Chris Upfold, Chief Customer Officer & Deputy CEO, Toronto Transit Commission

Outline

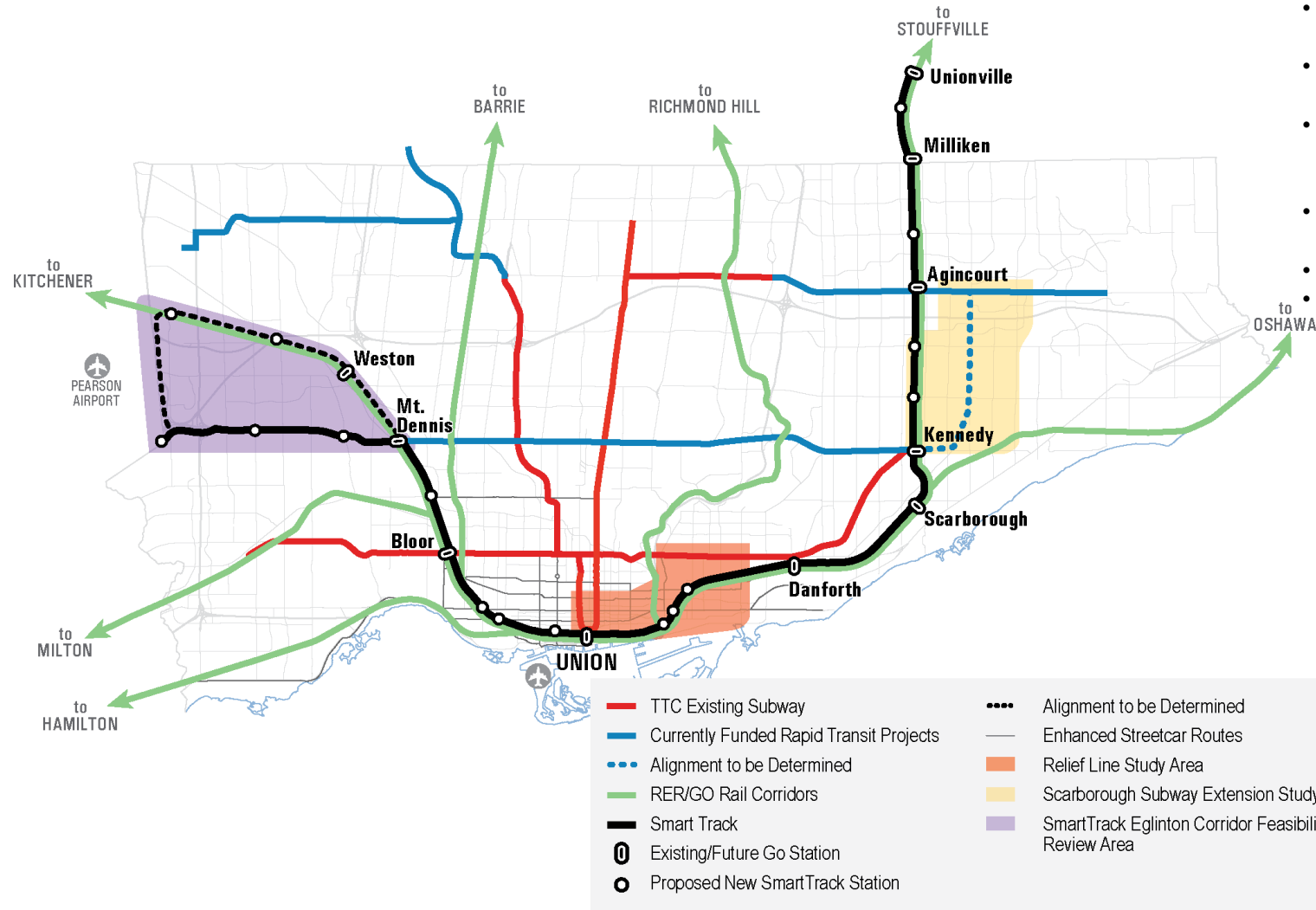
- Issue Background
- Project Status & Updates
- Next Steps

ISSUE BACKGROUND

Toronto's Existing High Frequency & High Capacity Transit Network



Toronto Transit Expansion Projects Currently in the Planning Stage

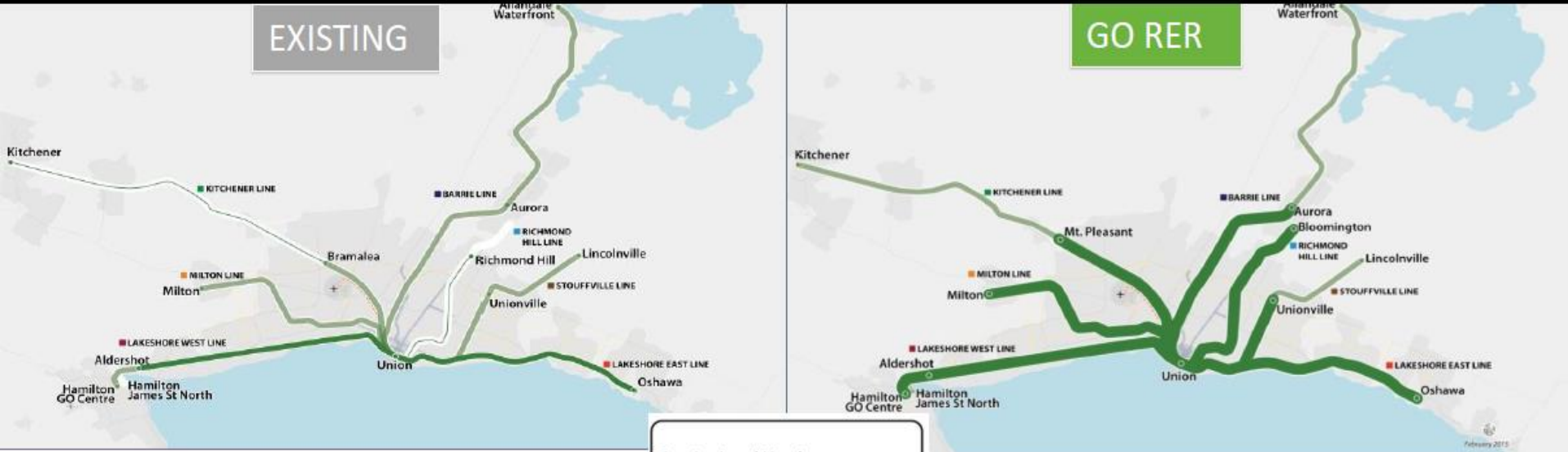


Current Projects

- SmartTrack (City, TTC, Metrolinx)
- Regional Express Rail (Metrolinx)
- Scarborough Subway Extension Project Assessment/EA (City/TTC)
- Relief Line Project Assessment/EA (City/TTC)
- Finch LRT (Metrolinx)
- Sheppard LRT (Metrolinx)

Metrolinx GO Regional Express Rail

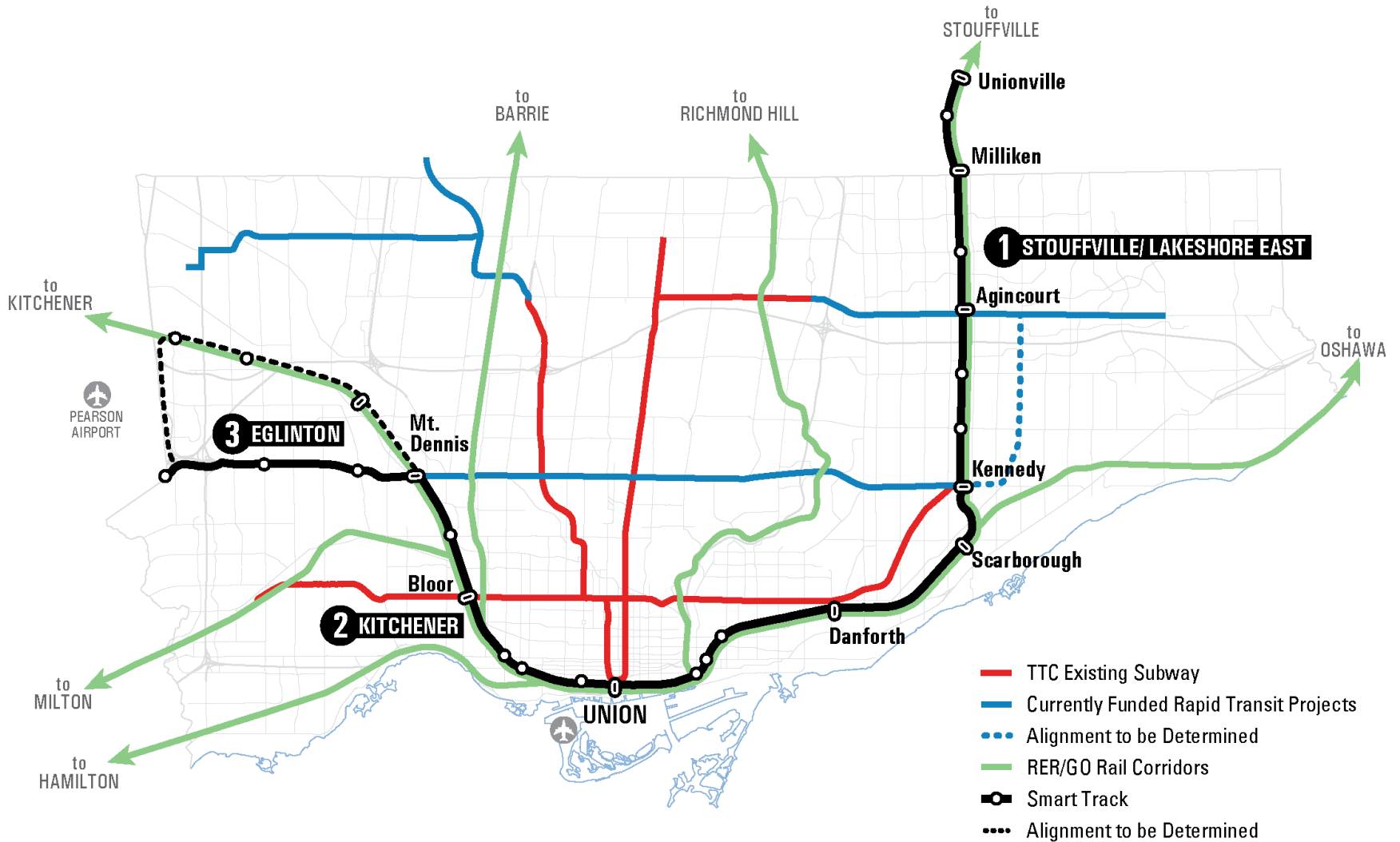
Weekday Rush Hour (Peak Direction)



Mid-Day, Evening and Weekend



SmartTrack Study Areas



SmartTrack and GO RER

Regional Express Rail (RER)

SmartTrack

General

- | | |
|--|---|
| <ul style="list-style-type: none"> • Service frequency of 15 minutes or better • Fare policy to be determined. • Union Station key destination • Electrification | <ul style="list-style-type: none"> • Service frequency of 15 minutes or better • All stop service in both directions • TTC fare option included in study • Union Station, Mississauga Airport Corporate Centre/Pearson are key destinations • Electrification • Local Service Integration |
|--|---|

Corridor #1- Stouffville/Lakeshore East GO (*Unionville to Union Station*)

- | | |
|--|--|
| <ul style="list-style-type: none"> • 6 existing GO stations • Consideration of new stations undergoing analysis and consultation | <ul style="list-style-type: none"> • 6 existing GO stations (1 in Markham) • 7 new stations (1 in Markham) |
|--|--|

Corridor #2- Kitchener GO (*Mt. Dennis to Union Station*)

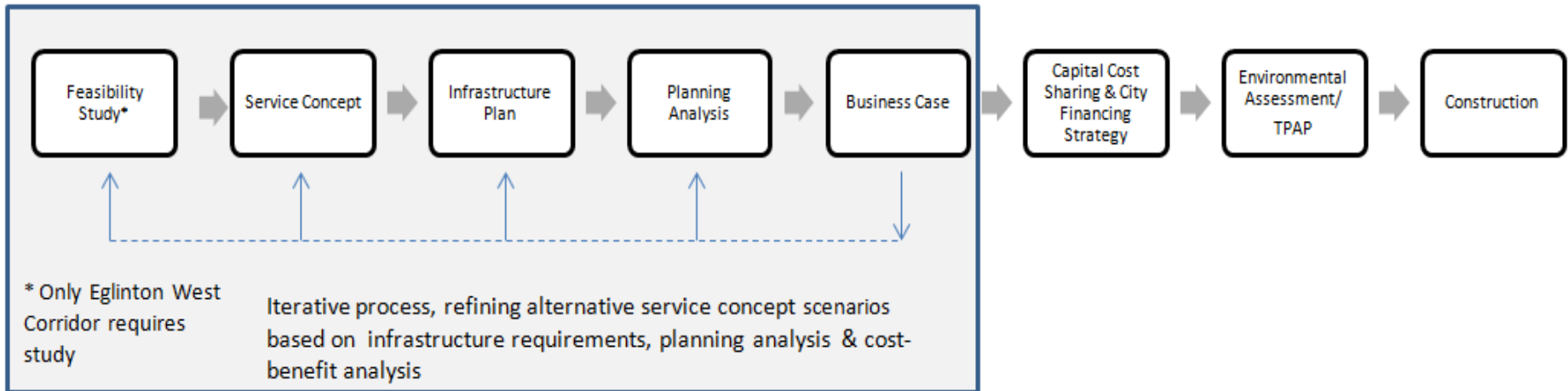
- | | |
|---|---|
| <ul style="list-style-type: none"> • 1 existing GO station (Bloor) • 1 future GO station (Mt. Dennis) • Consideration of new stations undergoing analysis and consultation | <ul style="list-style-type: none"> • 1 existing GO station (Bloor) • 1 future GO station (Mt. Dennis) • 4 new stations |
|---|---|

Corridor #3- Eglinton West (*Mt. Dennis to Airport Corporate Centre*)

- | | |
|---|--|
| <ul style="list-style-type: none"> • Not in RER plan. • Extension of Eglinton Crosstown LRT to Pearson Airport is an unfunded project in The Big Move Plan. | <ul style="list-style-type: none"> • New heavy rail corridor to Mississauga Airport Corporate Centre • 3 new stations (1 in Mississauga) |
|---|--|

PROJECT STATUS & UPDATES

SmartTrack/RER Review Process



Developing the SmartTrack Service Concept & Infrastructure Plan

SmartTrack Components Under Review:

- Service Concept Options:
 - Service Frequency (4 to 12 trains an hour)
- Fare Options:
 - (TTC fare or GO fare)
- Infrastructure Options:
 - New Stations (14+ new stations)
 - Western Heavy Rail Corridor (8 Corridors, 11 alignments).

SmartTrack Infrastructure Plan Development: New Stations

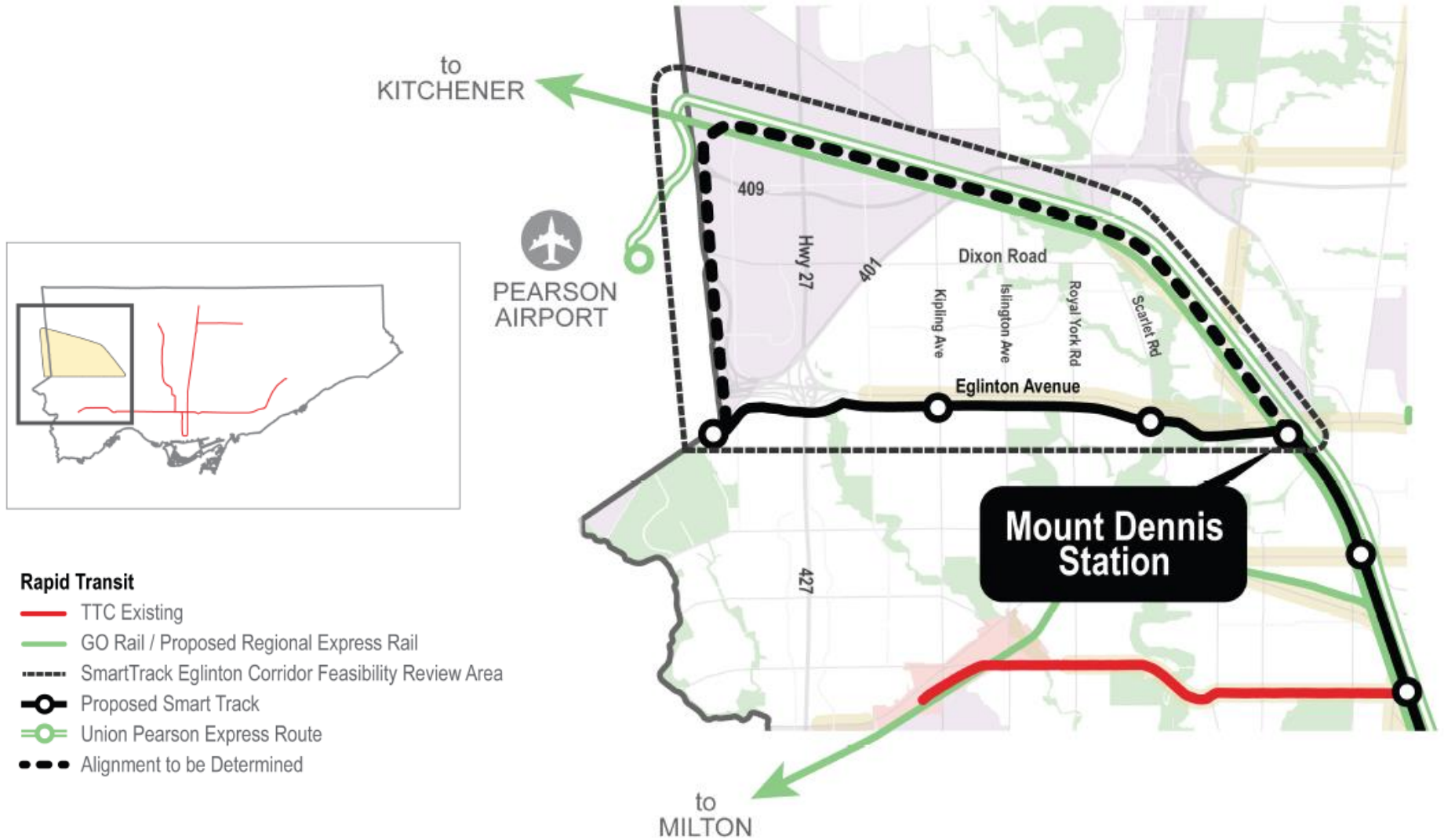
- SmartTrack proposes approximately 14 new stations
 - Stouffville/Lakeshore East Corridor: 7 new stations
 - Kitchener GO Corridor: 4 new stations
 - Western Heavy Rail Corridor: 3-4 new stations
 - See Table 2 p. 13-14 of staff report contains full list of stations
- City preliminary assessment focuses on new stations within Toronto.
 - Appendix 2 of report contains City Planning assessment. Appendix 2A contains profiles of each station.
- GO RER as announced does not include new stations.
- Metrolinx has a process currently underway to assess potential new stations across the GO network.
 - List of 50+ stations (includes proposed SmartTrack stations) being considered by Metrolinx for further analysis and an initial business case.
- Additional analysis is required and public consultation

GO RER Electrification Plan

- Electrification is critical to achieving service levels proposed under both RER and SmartTrack
- System wide Environmental Assessment is expected to be complete by late 2017



Western Heavy Rail Corridor Feasibility Review



Western Heavy Rail Corridor Feasibility Review

- 8 corridors and 11 alignment options were assessed for heavy rail
- Base case is the unfunded EA-approved Eglinton LRT extension
 - Metrolinx has recently started to develop optimized options for Eglinton LRT extension. City staff will be consulted.
- The review has identified a number of technical areas requiring additional analysis:
 - Integration with the Kitchener GO Corridor and additional infrastructure requirements
 - Operations management with the Kitchener Corridor (including RER, UPX, VIA Rail and freight)
 - Impacts on existing development adjacent to the corridor
- Additional analysis is required, including inputs from ridership model prior to recommendations being brought forward in Q1 2016
- See Appendix 3 of the staff report for details

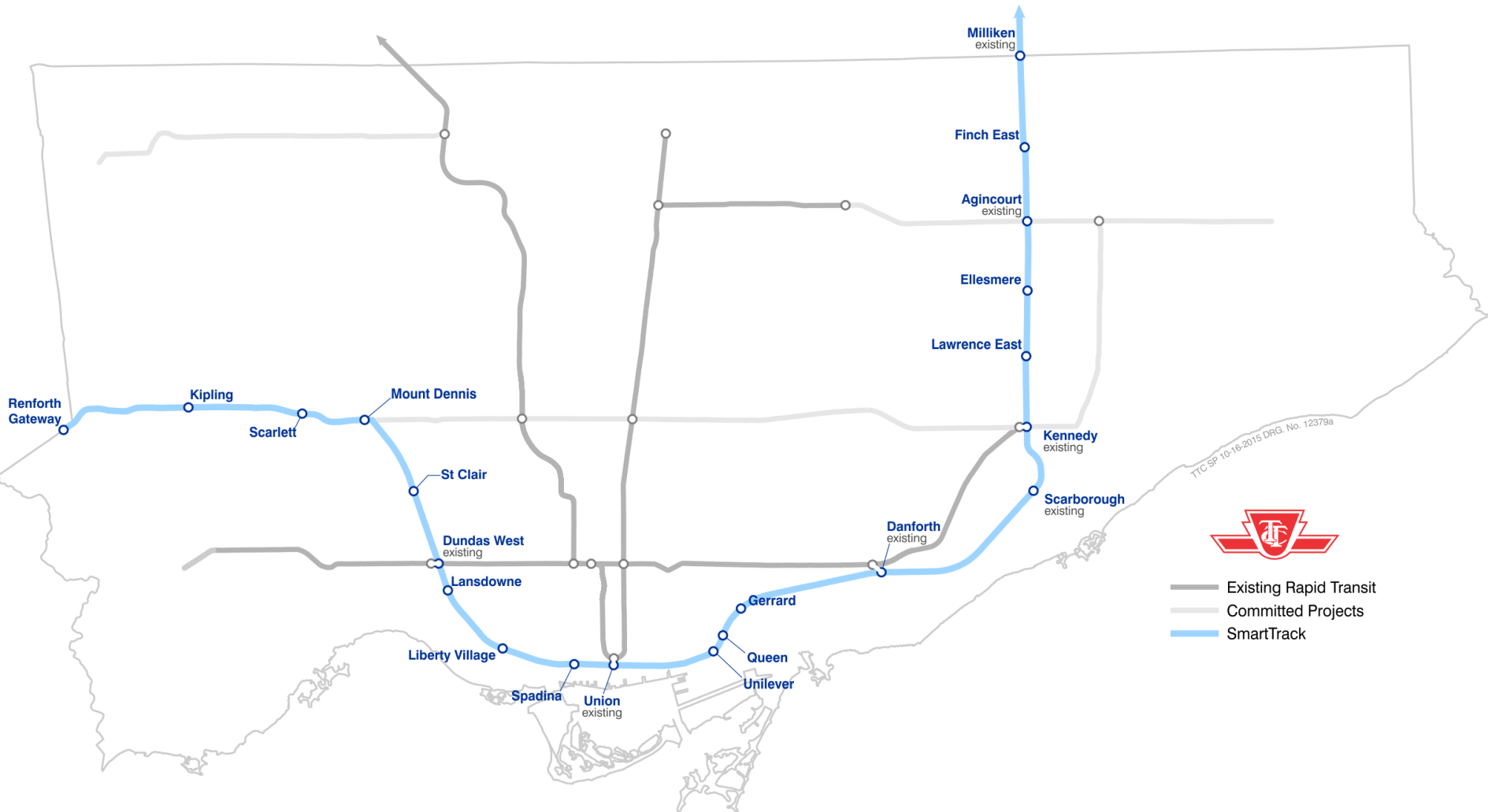
Western Heavy Rail Corridor Review: Preliminary Options Screening Results

Corridor Option	Preliminary Screening – Carried forward?	Number of Alignment Options Carried Forward for Further Study
Eglinton Corridor 1A	Yes	2
Eglinton Corridor 1B	Yes	1
Eglinton Corridor 1C	Yes	1
Eglinton Corridor 1D	Introduced after primary screening	Alignment to be developed
Woodbine/Airport Corridor 2A	No	N/A
Woodbine/Airport Corridor 2B	Yes	1
Woodbine/Airport Corridor 2C	Yes	2
Stand-alone Eglinton Corridor 3	No	N/A

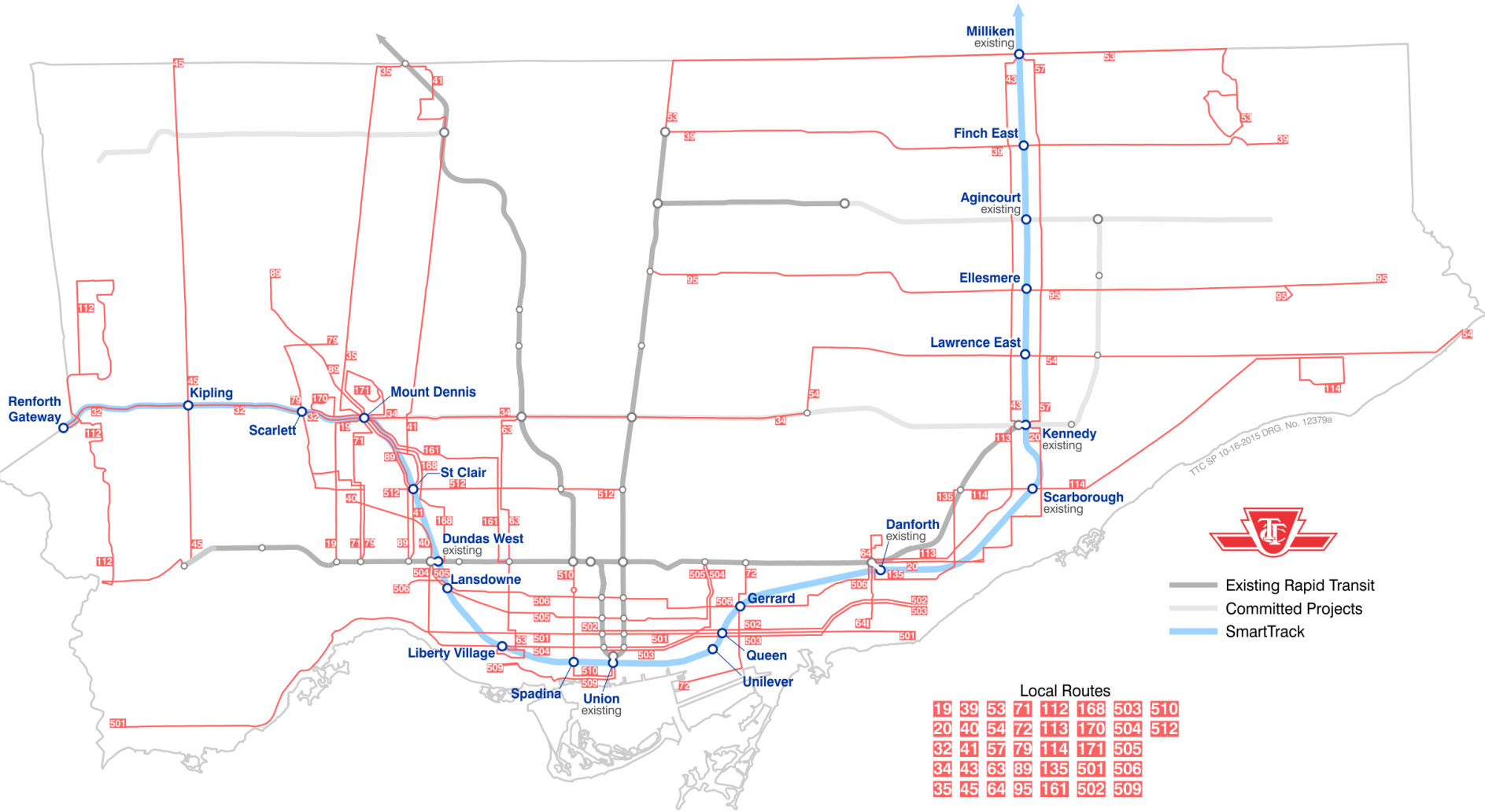
TTC Service Integration



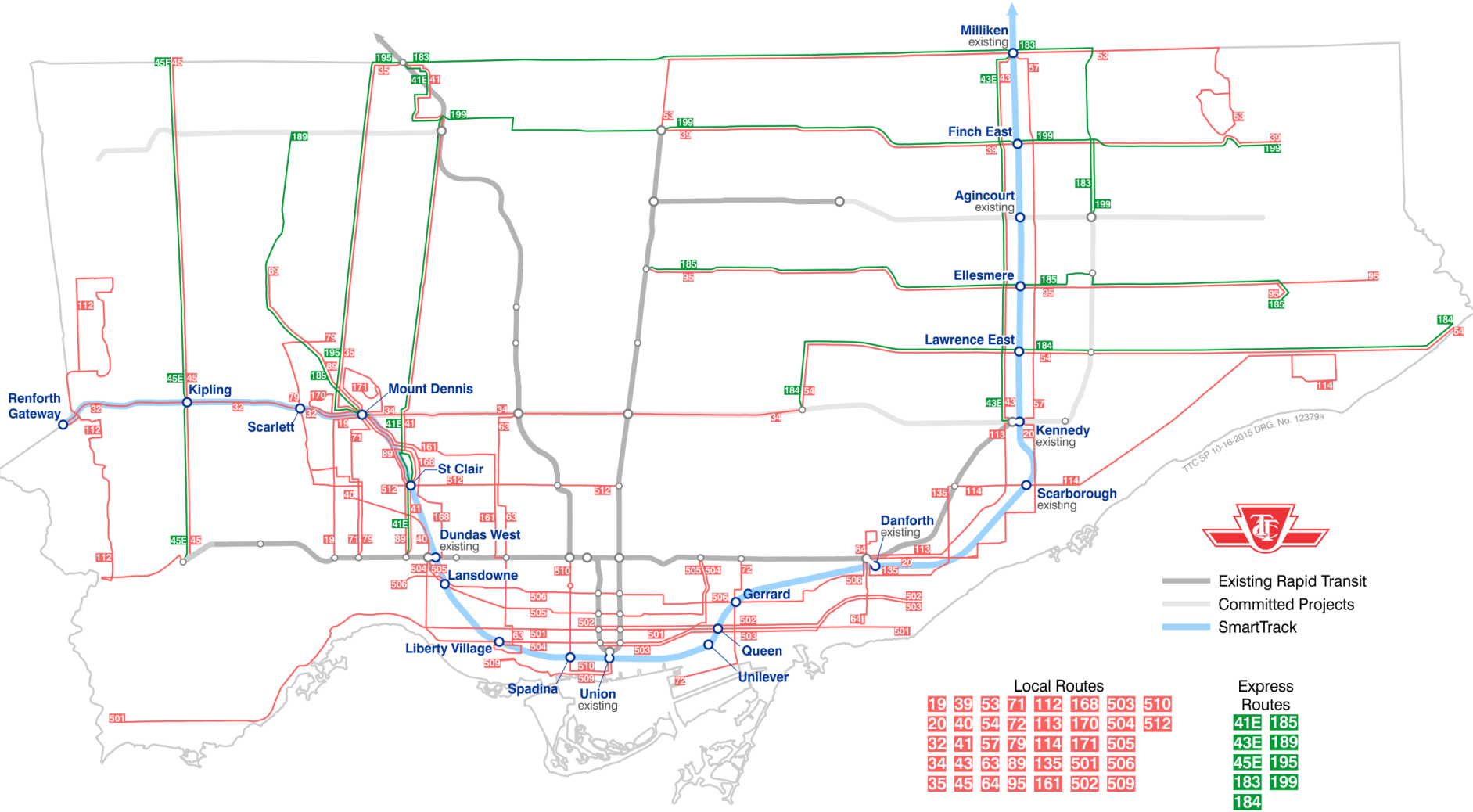
TTC Service Integration



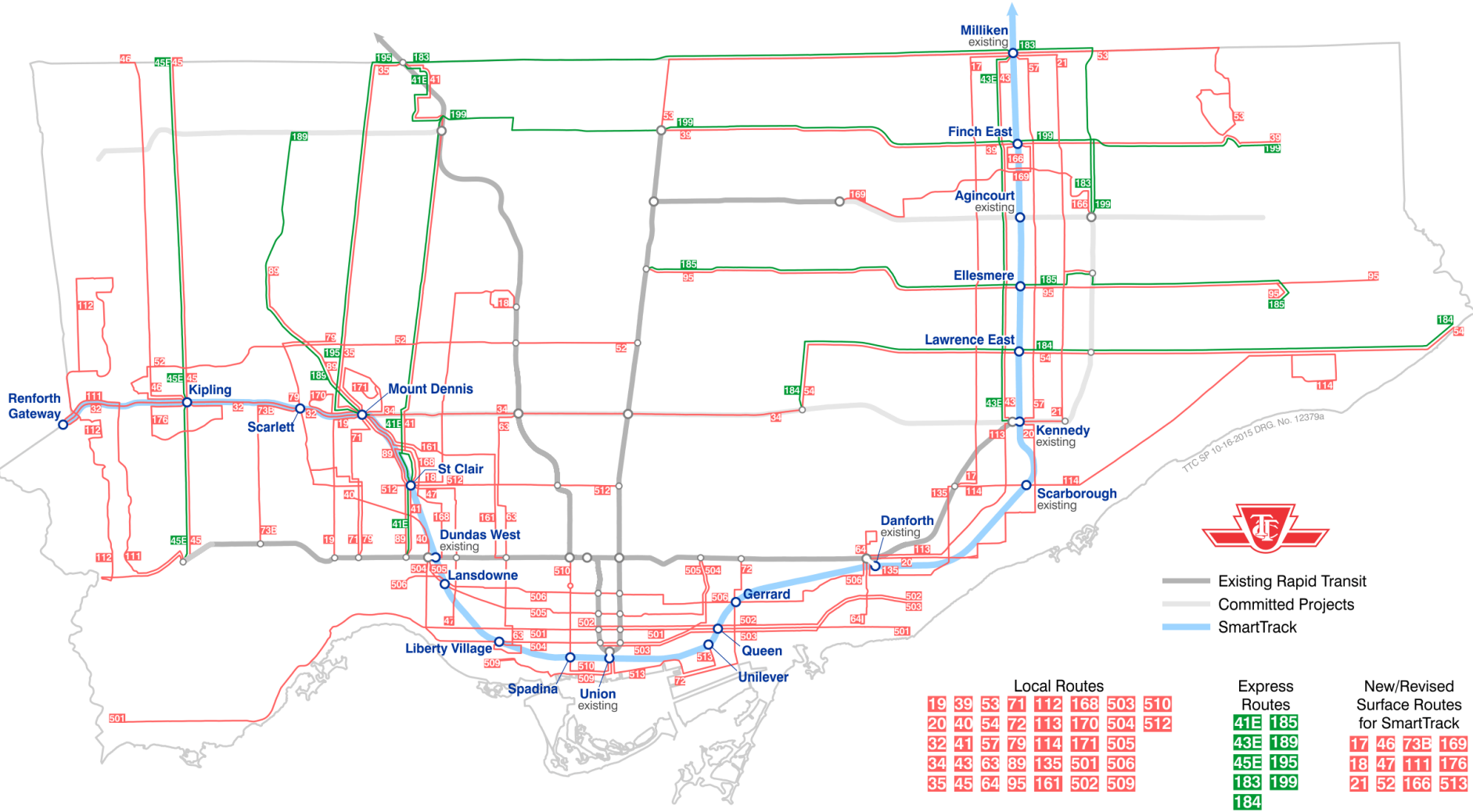
TTC Service Integration



TTC Service Integration



TTC Service Integration with SmartTrack



TTC Service Integration – Preliminary Findings

- 75 transfers: TTC routes @ 21 SmartTrack stations
- 9: off-route diversions
 - done by exception only at TTC
 - must satisfy criterion of net benefit to users
- use in ridership modelling, forecasting:
 - project customers transferring to ST
- use for ST station planning and assessment
- iterative process – overall ST planning

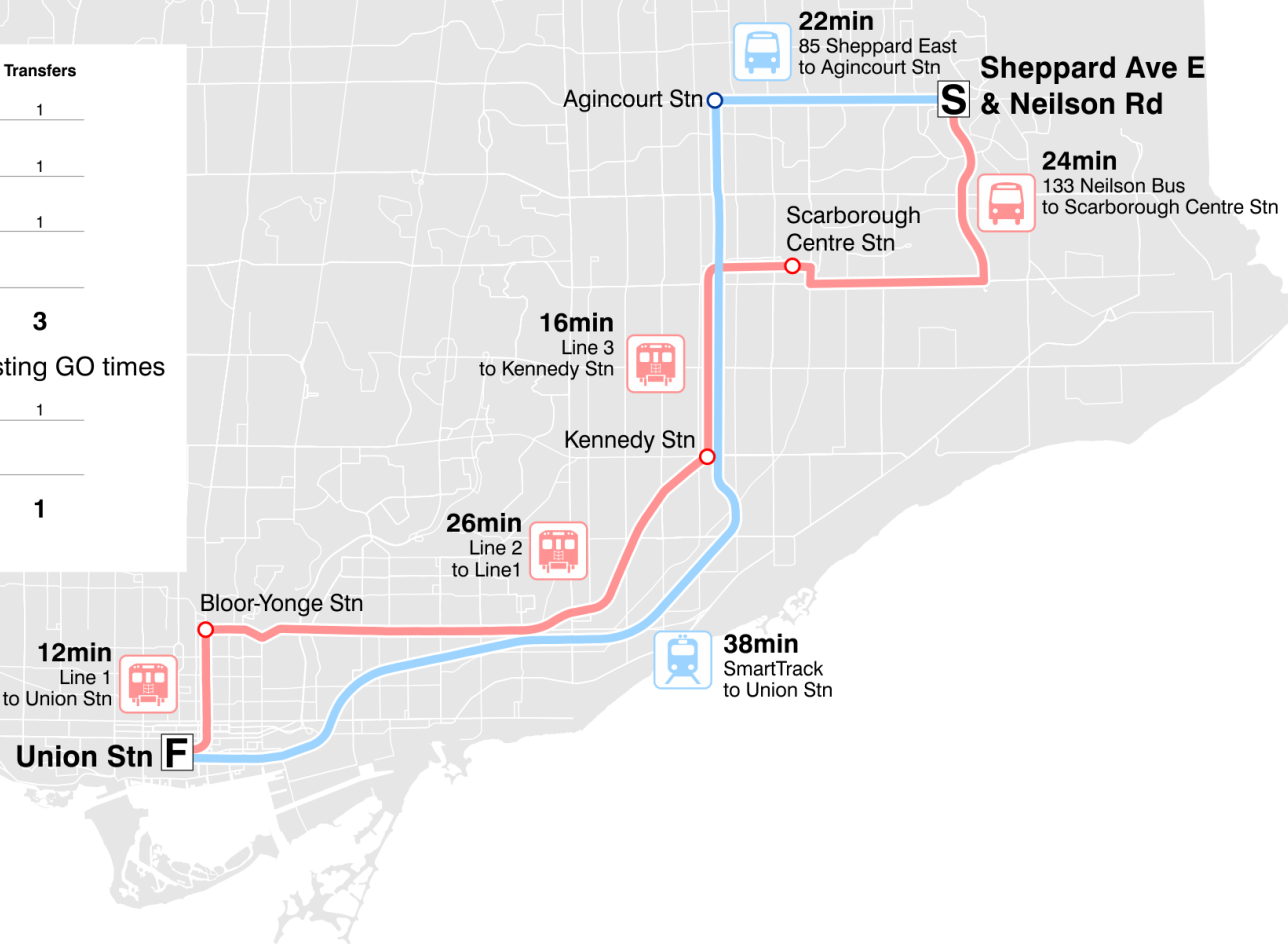
TTC Service Integration



Sheppard & Neilson to Union Station via TTC and SmartTrack

TTC • today		
	Minimum Time	Transfers
S Wait for 133 Neilson	5	
133 to Scarb Centre Stn	19	1
Walk to 3	2	
Wait for 3	2	
3 to Kennedy Stn	12	1
Walk to 2	2	
Wait for 2	1	
2 to Bloor-Yonge Stn	23	1
Walk to 1	2	
Wait for 1	1	
F 1 to Union Stn	9	
Total	78 min	3
With Smart Track • Using Existing GO times		
S Wait for 85 Sheppard East	3	
85 to Agincourt Stn	19	1
Walk to Smart Track	2	
Wait for Smart Track	5	
F Smart Track to Union Stn	31	
Total travel time	60 min	1
Travel time change: -24%		

TTC SP 10-16-2015 DRG No. 12379b



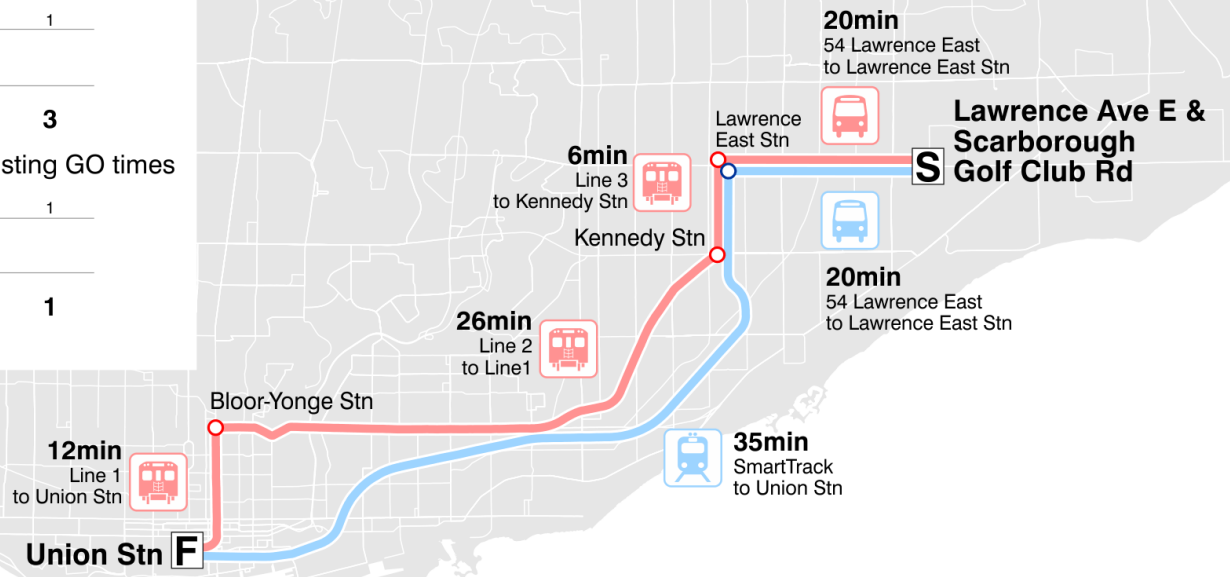
TTC Service Integration



Lawrence & Scarborough Golf Club Rd to Union Station via TTC and SmartTrack

TTC • today		
	Minimum Time	Transfers
S Wait for 54 Lawrence East	2	
54 to Lawrence East Stn	18	1
Walk to 3	1	
Wait for 3	2	
3 to Kennedy Stn	3	1
Walk to 2	2	
Wait for 2	1	
2 to Bloor-Yonge Stn	23	1
Walk to 1	2	
Wait for 1	1	
F 1 to Union Stn	9	
Total time	64 min	3
With Smart Track • Using Existing GO times		
S Wait for 54 Lawrence East	2	
54 to Station at Lawrence Ave East	18	1
Walk to Smart Track	2	
Wait for Smart Track	5	
F Smart Track to Union Stn	28	
Total travel time	55 min	1
Travel time change: -14%		

TTC SP 10-16-2015 DRG. No. 12379c



Preliminary SmartTrack Planning Analysis

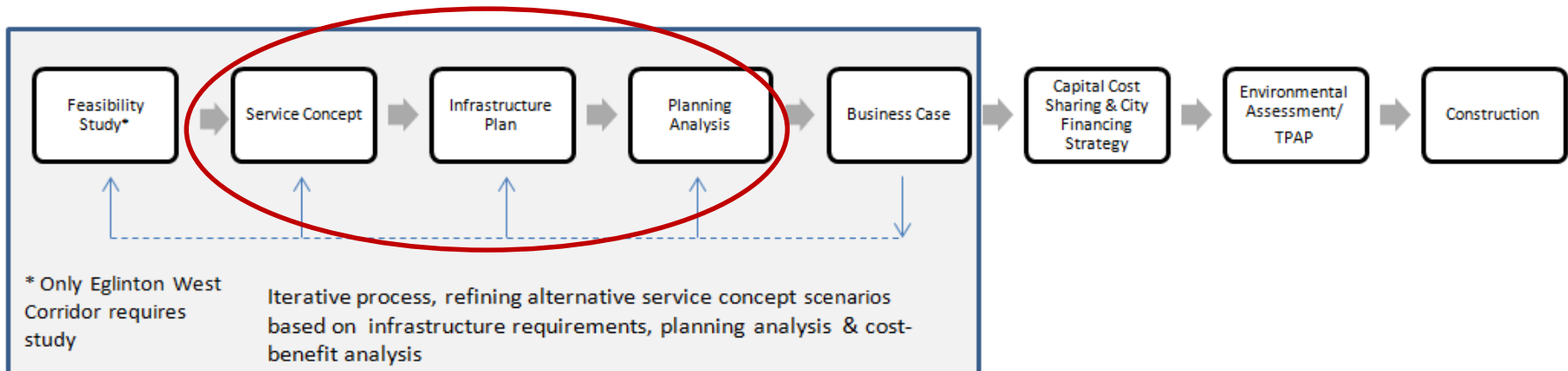
- SmartTrack will be evaluated in context of transit network using the Rapid Transit Evaluation Framework (RTEF) from the Official Plan Review Feeling Congested?
- RTEF contains 3 policy principles; 8 evaluation criteria; 20+ measures
- U of T is developing a new ridership model (GTHA Model V4)
 - provides important improvements over current models used to estimate ridership demand (incl. different network scenarios and off-peak demand)
 - Many RTEF measures require ridership outputs
 - Model is delayed; currently being calibrated and validated;
 - Ridership results are expected Q4 2015
- Preliminary assessment of SmartTrack included in Appendix 6
 - Assessment will be refined as optimal SmartTrack scenario developed, and all required inputs to the RTEF are available.

Capital Funding and Financing Strategy

- Ontario 2015 Budget committed \$13.5 billion to implement GO RER. GO infrastructure improvements support and enable SmartTrack.
- Federal government commitment of up to \$2.6 Billion (one-third of the costs) for SmartTrack, under new Public Transit Fund.
- City Capital Funding and Financing review examining feasibility of various financing options, including:
 - Property Taxes
 - Tax Increment Financing
 - Development Charges
 - Sale of development rights on City owned lands along SmartTrack corridor
- Capital and Operating costs for SmartTrack are currently undefined as the optimal SmartTrack scenario is still being developed.

Next Steps

- November Consultations on SmartTrack, Scarborough Subway Extension, and Relief Line.
- Ridership modelling data will be available in late 2015.
- Report to Executive Committee in Q1 2016 with comprehensive update and findings to optimize SmartTrack plan.



QUESTIONS AND DISCUSSION