



Councillor Josh Matlow

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March 16, 2017

City Clerk's Office
City Hall 13th Floor, West Tower
100 Queen Street West
Toronto, ON M5H 2N2

Re: **EX 23.1 Next Steps on the Scarborough Subway Extension.**

Mayor and Council,

There are a number of issues regarding the one-stop subway extension of the Bloor-Danforth line to Scarborough that require clarification before we vote on EX 23.1. Please see the attached questions to the City Manager.

I look forward to having answers to these important questions provided before the Council meeting on March 28, 2017.

Sincerely,

A handwritten signature in black ink, appearing to read "Josh Matlow". The signature is stylized with a large, sweeping loop at the end.

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March 21, 2017

City Manager's Office
11th Floor, East Tower, City Hall
100 Queen Street West
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Dear Mr. Wallace,

Questions Re: Transit Options for Scarborough

As you know, transit plans in Scarborough have gone through a number of iterations. A 7-stop, traffic-separated LRT was initially approved in 2007, and reconfirmed several times, including the "MOU Plan" between former Mayor Ford and Metrolinx, as shown in the March 31, 2011 Ontario government press release below.



Fig. 1

The project, along with 3 other LRT lines in Toronto, was reconfirmed on February 8, 2012 at a Special Meeting of Council.

The shift to a subway in Scarborough was first approved as a 3-stop subway in October of 2013 for \$3.56 billion. The plan significantly changed on January 28, 2016 when Staff

presented a 1-stop subway just to Scarborough Town Centre and a 17-stop eastern extension of the Eglinton Crosstown LRT for approximately the same funding as the previous 3-stop plan, as stated on page 3 of **EX 11.5 – Scarborough Transit Planning Update**:

"Initial estimates indicate it is possible to construct the extension of Line 2 and the Crosstown East for a similar order-of-magnitude cost and in a similar timeframe as the three-stop Scarborough Subway extension originally proposed."

Unfortunately, the estimated price of the subway, excluding financing and other costs, has risen by more than 50%, leaving the 17-stop Crosstown extension unfunded. At the upcoming Council meeting of March 28, 2017, Council will, for the first time, have an opportunity to decide whether to proceed with a 1-stop extension of the Bloor Danforth subway for \$3.346 Billion as identified in **EX 23.1 Next Steps on the Scarborough Subway Extension**.

I am submitting the following questions as there are several significant matters pertaining to this item that require clarification before Council makes a decision on the future of transit in Scarborough.

Master Agreement

The Master Agreement between Metrolinx, the City of Toronto, and the TTC signed in 2012 stated that the Province would pay 100% of the capital costs associated with the Scarborough LRT as shown in the excerpt below from page 1 of Schedule G in the Master Agreement:

Agreement in Principle

This is to confirm and outline an agreement in principle between the Toronto Transit Commission (TTC) and Metrolinx for the delivery of the Toronto transit projects that are receiving 100% of their capital funding from the Province, and are owned and controlled by Metrolinx – the Eglinton Crosstown LRT, the Scarborough RT conversion to LRT, the Sheppard East LRT and the Finch West LRT.

Fig. 2

Question: *Is the Master Agreement between Metrolinx, the City of Toronto, and the TTC still valid?*

Comparison

The business case analysis before Council only provides a relative comparison between two 1-stop subway options.

Question: *Has the City ever provided a business case analysis that directly compared the subway extension (3 or 1-stop version) with the 7-stop LRT in Scarborough?*

Transit Project Construction Issues

On July 4, 2016 a briefing note produced by the TTC (Attachment 1) appeared on CP24 regarding the possibility of moving forward with a 7-stop LRT from Kennedy to Sheppard, serving the existing RT route along with Centennial College and Sheppard. The contents of the briefing note were cited numerous times by Staff and Councillors during the Council meeting of July 12, 2016. This briefing note has still not been publicly posted on the website of the TTC or the City of Toronto.

The briefing note makes a number of assertions regarding the construction of the 7-stop LRT that require clarification prior to the upcoming Council meeting.

First, the briefing note assumes that the start of LRT construction would have to wait until work on the Eglinton Crosstown was completed at Kennedy. However, as the excerpt below from an April 25, 2012 Metrolinx Board Report states, Metrolinx was explicitly planning to start at the north end of the line first to speed up construction time:

Scarborough RT

This project involves the replacement of the Scarborough RT with a LRT and its extension from McCowan to Sheppard. The total length of the project is 9.9 kilometres and it is forecasted to carry approximately 10,000 pphpd, within the capacity of a LRT.

Major project delivery milestones to date for the Scarborough RT include completion of design for the replacement of the SRT to 30 percent and completed design for Kennedy Station to 10 percent. Design for the extension component of the SRT, between McCowan and Sheppard will need to be restarted.

The previous plan included a construction schedule for the Scarborough RT of 2015-2020. The schedule allows for the SRT to be in service during the Pan Am/Parapan Games in the summer of 2015, after which the service would be shut down for construction. Planning, design and engineering work will be completed prior to construction in order to minimize down time.

The revised plan will move up SRT completion by one year from 2020 to 2019. This would be accomplished by starting work on the extension of the line between McCowan and Sheppard as a first phase, allowing the existing service to continue until after the Pan Am/Parapan Games are completed.

Fig. 3

Question: *Was the City/TTC aware of new information that would prohibit starting to build the Scarborough LRT at the north end of the line to expedite the construction process?*

Further, an excerpt from page 1 of the same 2012 Metrolinx Board Report, shown below, states that, at the time, the Eglinton Crosstown was expected to be completed in 2020 and the Scarborough LRT's completion date was 2019:

RESOLVED:

1. *THAT*, subject to any approvals required from the Province of Ontario, Metrolinx is authorized to proceed with the implementation of the Toronto Transit Plan as originally approved by Metrolinx on May 19, 2010, consisting of the following projects, (the "Projects"), with the following staging:

- the Eglinton Crosstown LRT from the Jane Street / Black Creek area to Kennedy Station with an in-service date of 2020,
- the Scarborough RT / Sheppard LRT maintenance and storage facility, with a construction start of 2013 and substantial completion in 2016,
- the Scarborough RT replacement and extension to Sheppard Avenue, with a construction start of 2014 and an in-service date of 2019,
- the Sheppard East LRT from Don Mills Station to east of Morningside Avenue, with a construction start of 2014 and an in-service date of 2018; and,
- the Finch West LRT from the Toronto-York-Spadina Subway Extension (TYSSE) to Humber College, with a construction start date of 2015 and an in-service date of 2019.

Fig. 4

While the completion dates have changed, these construction timelines required that work occur simultaneously at Kennedy Station to facilitate both projects. As depicted in the diagram below, the Eglinton Crosstown was to occupy the below-grade platform, while the Scarborough LRT would enter at-grade.

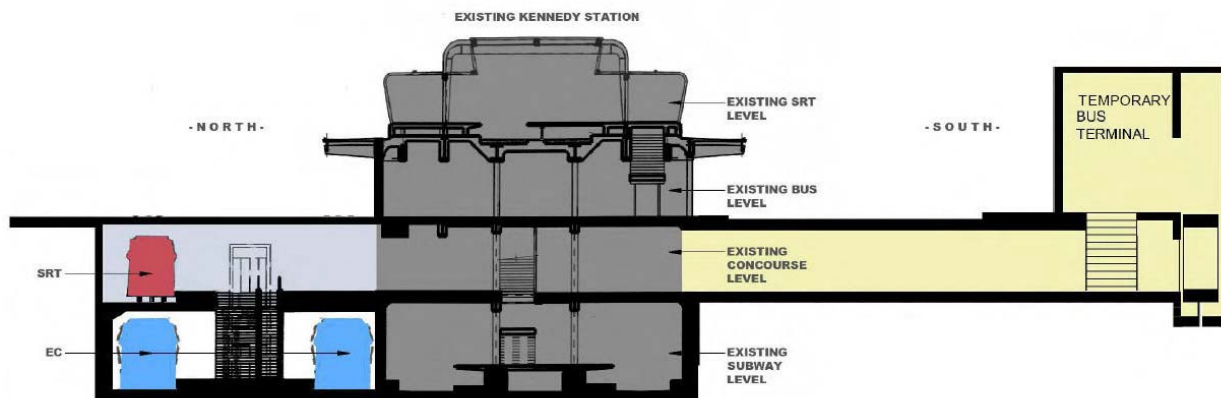


Fig. 5

The briefing note states that, as a result of the Eglinton Crosstown, the Scarborough LRT is "physically precluded" at Kennedy Station without mentioning that space below-grade would now be available for the Scarborough LRT platform, further improving the transfer to the Bloor-Danforth subway.

Question: *Is the City/TTC aware of a reason why Metrolinx would not be able to construct platforms at Kennedy Station for both the Eglinton Crosstown and the Scarborough LRT, as was originally planned, but with the platform levels for the two projects switched?*

Design Completion

There have been several concerning inconsistencies regarding the stated level of design completion for both the 7-stop Scarborough LRT and the 1-stop subway that require clarification before Council votes later this month.

During the Questions to Staff portion of the debate on ***EX 16.1 Developing Toronto's Transit Network Plan to 2031*** at the July 12, 2016 Council meeting, Councillor Colle asks the Deputy City Manager, Cluster B, a question on the design completion status of the Scarborough LRT (scroll to the 4hr:45min mark of this video <https://youtu.be/qiCoj3a2JSM> to view):

Councillor Colle: "There's been a lot of discussion around, uh, the percentage of where we are, at design for various projects, and we were told recently for the, call it, 2008-9-10 LRT that that's at about 5 per cent design? Or it was at that time? Is that a fair number?"

DCM: "So, um, Madam Speaker, ah, we've had some discussions as a follow-up. Some elements are at 5 and some are at 10 per cent. That was the information we got from Metrolinx the other day."

The Deputy City Manager's response is seemingly at odds with the information presented by Metrolinx in the April 2012 Board Report included above (Fig. 3), which states that the longest portion of the line, between Kennedy and McCowan, was at 30% design completion.

Question: *Did Metrolinx provide City Staff with information regarding the design completion status of the Scarborough LRT that contradicted their April 2012 Board Report, which claimed that the Kennedy to McCowan portion of the line was at the 30% design stage?*

During the same question period, Councillor Colle asks a follow-up question about the design completion status of the 1-stop subway extension to Chief Project Manager for the Scarborough Subway Extension:

Councillor Colle: "And where would the subway be at design percentage of design completion? Around 5 (per cent) I think I've heard?"

Chief Project Manager: "Uh, we're currently at about 5 per cent, yes."

The Chief Project Manager's answer is reinforced by the chart below from the Staff report presented at the July 2016 Council meeting which states that the cost estimate provided was "developed at approximately 5% design":

Table 3: Capital Cost Expenditure (Class 4 Estimate) (\$millions)

	Option 1 3 Stop McCowan	Option 2A Express McCowan	Difference: Option 1 – Option 2A
Constant 2016\$	\$3,695	\$2,545	\$1,150
Net Present Value 2016\$	\$3,834	\$2,639	\$1,195
YOE/Escalated \$	\$4,605	\$3,159	\$1,446
Notes: <ul style="list-style-type: none"> SSE Cost estimates prepared by the TTC. Estimates include cost to construct. Costs do not include financing, lifecycle and operations/maintenance. Assumes line in service by late 2025, with construction taking approximately 6 years (2020-2025). Note this is a preliminary schedule based on City Council approving the preferred alignment in July 2016. Any delay may result in future adjustments to the preliminary schedule, estimated opening of the subway, and added costs due to escalation. Cost estimates have been developed at approximately 5% design and are a Class 4 cost estimate (per AACE guidelines). Class 3 estimates are required to establish the project budget baseline. 			

Fig. 6

A similar chart included in the Staff Report before Council later this month states that the 1-stop subway extension is still at 5% design.

Question: *Given that there has been significant work done on the 1-stop Scarborough Subway Extension between July 2016 and March 2017, why is the project design status not moved beyond the 5% completion status cited in July 2016?*

Funding Source Issues

There are a number of unanswered questions regarding funding sources for the 1-stop Scarborough Subway Extension that require clarification prior to Council voting on the issue.

The chart below provides a breakdown of the funding sources for the subway extension:

Overall Funding Sources	Amount YOE/Escalated \$	% of Total
Federal Contribution	660	19%
Provincial Contribution	1,990*	56%
City Contribution	910	26%
Total Funding:	3,560	100%
Breakdown of City Contribution		
Estimated Development Charge Funding	165	18%
Estimated Tax Supported Funding		
- Debt	541	
- Reserves Funds	204	
- Total	745	82%
Total City Funding:	910	100%
*The Province has committed \$1.48B (2010\$), less sunk costs associated with the cancellation of the Scarborough LRT project (\$74.8M).		

Fig. 7

Recommendation 6 in the Staff report that contains the above chart reads:

City Council request the Province of Ontario and Government of Canada confirm the sources of funding for the provincial and federal commitments to the Scarborough Subway Extension.

The wording of this recommendation raises a number of questions regarding the degree to which Council can depend on the funding amounts indicated, including:

Question: *Has the City determined whether the \$660 million committed by the previous federal government will be considered a separate contribution under the Build Canada Fund or will the City have to apply for the project under phase 2 of the Investing in Canada Fund, thereby decreasing the amount of funds available through this program? Will the contribution be escalated under either funding source?*

Question: *Has the City determined whether the provincial government has agreed to the \$1.99 billion escalated contribution cited in Fig. 7? Has the provincial government agreed to transfer the full contribution all at once?*

Travel Patterns

One of the proposed main advantages of the 1-stop subway extension, in comparison to the original LRT plan, is the elimination of the transfer at Kennedy station. The main benefit of the elimination of the transfer is a faster travel time downtown. As shown below in the map from the 2011 Transportation Tomorrow Survey, downtown travel accounts for 23% of all transit trips that begin in Scarborough:

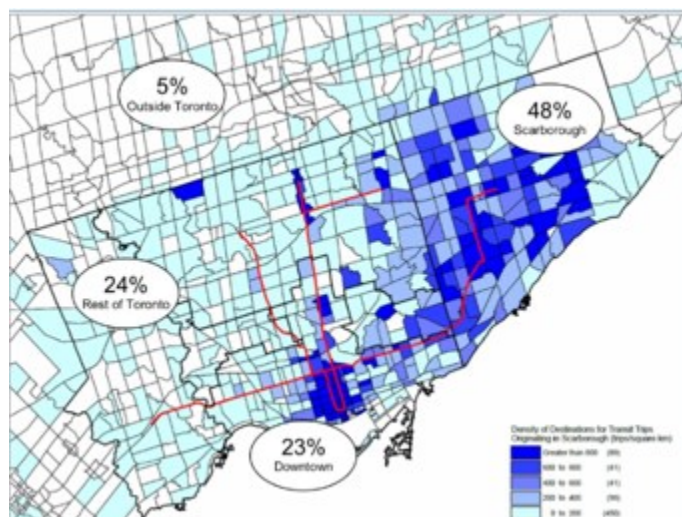


Fig. 8

Also evident in the map is that few riders from Scarborough get off the subway at destinations along the Bloor-Danforth line prior to the core.

As depicted in the rapid transit map below, it would appear that Scarborough commuters going downtown would have a much faster ride on SmartTrack/GO RER.

SmartTrack coming into focus

City planners are set to recommend a version of SmartTrack with seven new stations.

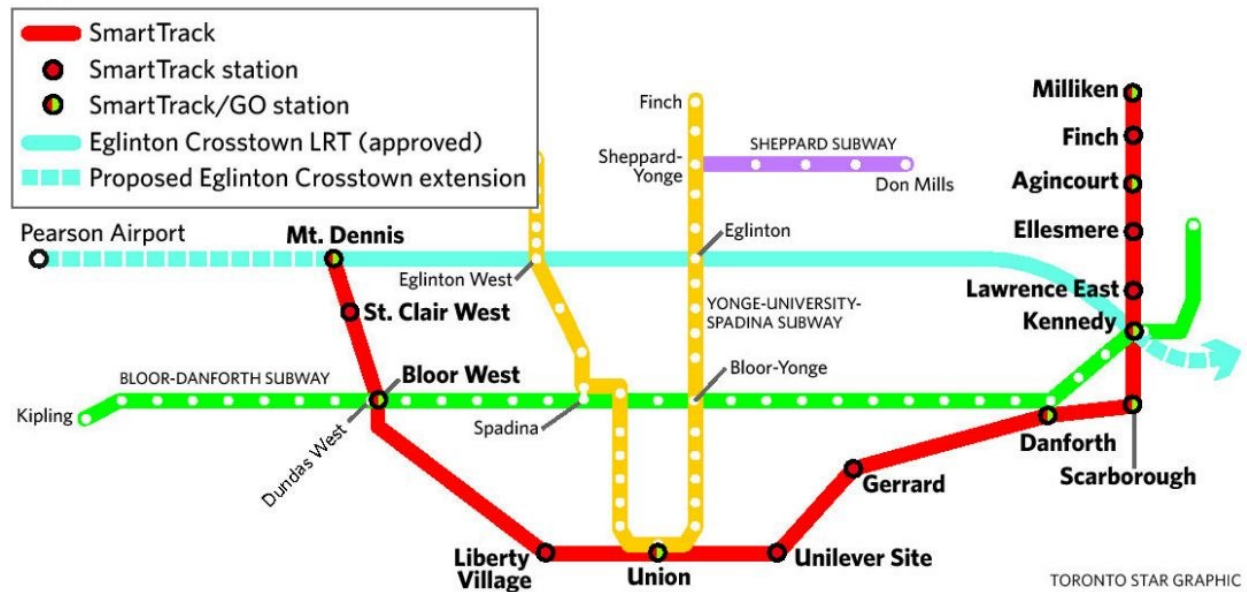


Fig. 9

Question: *How many riders during the AM peak and throughout the day are predicted to transfer to and from SmartTrack/GO RER at Kennedy Station?*

Thank you for your attention in these matters. I look forward to responses that provide me and my colleagues with adequate time to review.

Sincerely,

Josh Matlow
Toronto City Councillor
Ward 22- St. Paul's

Attachment 1



Briefing Note

Date: June 29, 2016

Issues Relating to Re-introduction of LRT Replacement for Line 3 (SRT)

Background

The original proposal - to replace the aging Line 3 Scarborough (SRT) with a 7-stop LRT line, extending to Sheppard Avenue East, is shown in the attached schematic. This note summarises the primary tasks that would have to be undertaken in the event that the LRT solution was re-introduced. It is intended to assist in the event of any questions on this matter at City Council. It is important to note that these figures are estimates only and have been escalated, as noted below.

Discussion

The Environmental Assessment (EA) that was approved for the LRT project in 2010 must be updated, and formally amended, to address the following elements:

- i) **Complete Redesign of the EA-Approved LRT Connection at Kennedy Station:** The most complex aspect of the conceptual design work on the LRT was the connection at Kennedy Station. The recommended solution, shown in the attachments in plan and cross-section views, consisted of a large one-way LRT loop with the LRT station directly on top of the Eglinton Crosstown LRT (ECLRT) station. As Metrolinx's plans for the ECLRT were finalised after Council approved subway technology in October 2013, they did not make any provision to protect for the LRT connection. This LRT connection is now physically precluded by the current ECLRT plans and an entirely new design would have to be developed.
- ii) **New Ridership Forecasts:** As with the subway extension, ridership forecasts for the LRT would have to be updated using the City's new forecasting model and reflect changes in the transit network in Scarborough. This would include Smart Track/RER - with several options re service frequency and assumed level of fare integration – and options with and without the Sheppard East LRT and the easterly extension of the ECLRT.
- iii) **Review Potential Conflicts with GO/RER:** A new design concept for a Lawrence LRT station must be developed that incorporates the current plans for a Smart Track Station at Lawrence Avenue. In addition to identifying and resolving any issues at Lawrence Station, the LRT plans would have to reviewed with Metrolinx to and identify and resolve any conflicts as the running structure is in the same corridor.
- iv) **Assess LRT Maintenance and Storage Facility (MSF) Options:** Subject to confirmation of a consistent maintenance/operating/ownership model for three LRT lines in Scarborough, an adequate location for MSF facility would have to be identified. This could mean an interim

solution (eg. a Bellamy yard was included in the original LRT EA) with a future consolidation at the previously planned Sheppard/Conlins yard.

v) **Closure of Line 3:** finalise plans for the bus replacement service when Line 3 is shut down, including the associated temporary bus terminals and storage facility.

vi) **Re-examine Bus Terminal Concepts at Stations:** The previous number of bus bays to be confirmed for all stations.

vii) **Update Schedule and Capital Cost**

viii) **EA Amendment Public Meeting:** It is expected that at least one public meeting would be necessary as part of the process to amend the LRT EA.

Timing

From the point Council directs staff to proceed with an LRT solution, a very rough estimate would be that it would take approximately 12 to 18 months to present a revised plan to obtain Council and MOE approval. This is very much dependent upon the time required to identify, and obtain acceptance of, a new connection at Kennedy Station.

The construction at Kennedy Station is the key element on the critical path for the LRT and depending if the preferred design is above or below grade, construction could range from approximately 3.5 to 5 years. If staff are directed to proceed in July 2016 and assuming construction cannot begin before the ECLRT work at Kennedy is completed in 2021, a quick preliminary evaluation suggests the LRT could be operational in early 2026 to late 2027.

Funding

With the change in technology, confirmation of contributions from funding partners may be required.

Order of Magnitude Comparison

The October 2013 Council report indicated the Province had announced \$1.8B (\$2010) for construction of SRT as LRT, to Sheppard. Of the \$1.8B, the Province committed \$1.48B (\$2010) to the SSE. As a minimum, staff believe the \$1.8B should be the starting point, which would have to be updated through proper design to address the changes noted above.

The \$1.48B has recently been reported as the total cost of a seven stop LRT. To facilitate a high level cost comparison of the current subway estimate to the costs of an LRT at this time, the \$1.8B was escalated to an end of 2025 opening (2% per year from 2011 to 2013 and 4% per year from 2014 to mid-2023), adding SRT Life Extension and SRT Shutdown service.

\$1.8B escalated	\$2.7B
SRT Life Extension	.108
SRT Shutdown	<u>.171</u>
Total	\$2.979B

Prepared By

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