

TORONTO TRANSIT COMMISSION REPORT NO.

MEETING DATE: October 23, 2008

SUBJECT: TRANSIT CITY LIGHT RAIL PLAN:
STATUS UPDATE FOR OCTOBER 2008

ACTION ITEM

RECOMMENDATIONS

It is recommended that the Commission:

1. Note that, consistent with the direction of the Commission and the Mayor, significant progress is being made on accelerated environmental assessments for all seven Transit City light rail lines, the Scarborough RT, and associated maintenance facilities, as described in this report.
2. Note that, as with all major capital projects, *Transit City* needs committed and predictable funding to allow continuous and uninterrupted progress, to avoid project delays which would affect planned construction start dates and associated costs;
3. (a) approve a further \$13.6 million to allow all *Transit City* projects to proceed without interruption until Metrolinx and the Province confirm their provision of this funding on or around April 2009, subject to Toronto City Council approving this budget and project commitment as part of the TTC's 2009-2013 Capital Program;

(b) request Toronto City Council to approve this additional approval in the amount of \$18.8 million as part of the TTC's 2009-2013 Capital Program budget request;

(c) request Toronto City Council to request Metrolinx for reimbursement of this additional funding, which is required to allow continued progress on Toronto's part of the *MoveOntario 2020 Plan*;
4. Authorize the Chief General Manager to re-allocate funding among the Transit City projects and activities listed in Appendix 1, if necessary, to reflect the differing pace of progress among the projects and the changing work demands which might arise as individual projects proceed or as decisions are made by Metrolinx or the Province;
5. Forward this report to the City of Toronto, Metrolinx, and the Ontario Ministries of Transportation and Energy and Infrastructure.

FUNDING

Funds in the amount of \$7.1 million for *Transit City* environmental assessments were included in the 2008-2012 TTC Capital Program budget, as approved by City Council on December 11, 2007. The March 25, 2008 provincial budget announced funding to cover this \$7.1 million cost, as part of Metrolinx's "Quick Wins" initiatives.

The Commission approved funding of \$4 million at its meeting of November 2007 and an additional \$5.2 million at its April 2008 meeting -- for a total current authority of \$16.3 million -- and this will allow the *Transit City* environmental assessments and related activities to proceed up until the end of 2008. City Council approved the \$4.0 million as part of the 2008-2012 Capital Program, however, it deferred approval of the additional \$5.2 million for consideration through the 2009 capital budget process.

The 2009-2013 Capital Program budget, as approved by the Commission on August 27, 2008, included \$129 million (below the line) for *Transit City* projects, including the extension of the Scarborough RT. No funding sources have yet been identified for these initiatives, beyond the initial provision of \$7.1 million by Metrolinx, and budget and funding approval is required from City of Toronto Council through the budget process in December 2008 before additional commitments can proceed.

Additional 2009 cashflow funding of \$17.1 million (see Appendix 1) is required to ensure that all current and planned work can proceed uninterrupted and that the current momentum is sustained through the first part of 2009, until Metrolinx/the Province confirm their funding of these initiatives, expected in the spring provincial budget process. Additional approvals are required from the Commission (\$13.6 million) and from the City of Toronto (\$18.8 million) to cover the total projected expenditures into the first quarter of 2009, until such time as Metrolinx or the Province announce funding in the spring 2009 budget.

BACKGROUND

The *Transit City Light Rail Plan* consists of seven new light rail transit (LRT) lines that will, upon implementation, provide a network of rapid transit throughout Toronto. The Commission endorsed the *Transit City* plan at its meeting of March 21, 2007 and has since received several updates.

At its meeting of June 13, 2007, the Commission approved a report entitled, *Transit City Light Rail Plan – Implementation Work Plan*, which outlined the activities being undertaken to implement the *Transit City Light Rail Plan*.

At its meetings of February 27, 2008 and April 23, 2008, the Commission received status updates for the *Transit City Light Rail Plan*. The Commission requested staff to provide periodic progress updates on the *Plan*. This report is the next such update. For the sake of brevity, only the most-important information for each project is provided. Additional detail can be obtained from the Project Managers for each line.

DISCUSSION

TTC staff spearheaded the efforts to establish a streamlined environmental assessment (EA) process for transit projects, and are now working to deliver accelerated EA's and project assessments to allow the quickest possible start of construction on the *Transit City* light rail lines.

All seven *Transit City* LRT lines, the maintenance and storage facilities, and the Scarborough RT upgrading and extension have dedicated Project Managers and consultant teams. TTC and City staff are working together on a continual basis on all EA work, and Technical Advisory Committees have been established for each EA.

Public meetings are being held for each *Transit City* line. Prior to each public meeting, Commissioners, Councillors, MPP's, and MP's are notified of the coming meeting, and an advance briefing session is offered to Councillors. The public meetings have generally been well attended, indicating a high level of interest in the *Transit City* plan. At these meetings, TTC, City, and consultant staff have presented display boards and slide shows, and have answered many questions from the public. The public has been invited to provide comments on the proposed lines and options, and the feedback has generally been quite positive.

Sheppard East LRT

This is the most-advanced of all the *Transit City* lines.

The Municipal Class Environmental Assessment (EA) has been completed for the Sheppard East LRT, using the new Class EA process approved by the Minister of the Environment in September 2007. The final two rounds of public meetings for this project were held on June 3 and 4, 2008. Some additional information sessions with individual stakeholders, including an area BIA, continued throughout the summer 2008.

The recommendations of the EA study were approved by the Commission at its meeting of June 18, by the City's Planning and Growth Management Committee on July 2, and subsequently by City Council at its meeting on July 15, 16 & 17, 2008. The Environmental Study Report (ESR) will be submitted in late October for the mandatory 30-day public review period.

In an effort to start construction on the Sheppard LRT project in 2009, preliminary and detailed design has been started and is progressing in a simultaneous fashion on two sections of the Sheppard alignment, namely:

- A) Proposed grade separation of Sheppard Avenue East and GO Transit tracks east of Kennedy Road
- B) A 2.2 Kilometre section of track and roadway located east of McCowan and Neilson Roads.

The project team is pushing ahead on a very aggressive schedule necessary to meet the 2009 construction timeline. Recent milestones achievements and expectations are:

- i) The GO Agincourt Grade Separation Project:
 - detailed property requirements have been identified and City staff are submitting a report seeking City Council authority to proceed with the necessary property easements/acquisitions/expropriations;
 - the necessary geotechnical investigations and sub-surface utility engineering work is in progress for the grade separation; this is expected to complete by the third week of October;
 - preliminary designs for the road/rail detours associated with the GO Agincourt grade separation are to be completed by end of October, 2008;
 - detailed design (60%) is to be completed by end of December, 2008; and
 - by March, 2009, the designs are to be finalised and the tender documents completed; construction is scheduled to commence on the grade separation by April, 2009.
- ii) The 2.2 Kilometre section between the two branches of the East Highland Creek, bounded roughly by McCowan and Neilson Roads:
 - preliminary engineering is underway and is scheduled to be completed by end of November, 2008; and
 - complete 100% designs are expected to be available by the end of June, 2009 and the expected construction start date is September, 2009.

Preliminary engineering on the next phase of project (Birchmount to McCowan) is expected to begin in April of 2009.

The most-significant issue currently facing the project is the determination of the recommended design for the LRT connection at Don Mills subway station. Staff have, through the ESR, recommended EA approval of two options, namely

- A) the LRT enters a tunnel just west of Consumers Road and continues under Highway 404 to the subway level of Don Mills Station; and
- B) extension of the Sheppard Subway eastward to the Consumers Road area with a connection to a surface LRT 'station' in the centre of the road;

A decision on this matter must be made as soon as possible to avoid delaying the opening of the line in 2013. The process to choose one of these two options has become somewhat more complicated because the *Metrolinx Regional Transportation Plan* calls for a continuous Sheppard-Finch corridor service, and some of the options being studied in this context may not be compatible with the two options described above.

Etobicoke-Finch West LRT

Considerable planning work has been undertaken in preparation for the launch of the formal Transit Project Assessment, the new "six-month" environmental assessment process for transit projects. To date, five public meetings have been held on this project – two of which were arranged by local councillors – and attendance has varied from 20 people up to 150 people. Some of the issues identified through these public meetings include distances between stops, especially for elderly and disabled customers, access restrictions associated with the raised right-of-way, cost and affordability of the project, and congestion associated with construction.

Other technical issues which the project team is dealing with includes the limited 30-metre street allowance between Yonge Street and Bathurst Street, the traffic implications of removing traffic lanes on Finch Avenue where it crosses Highway 400 and the CP Rail line, minor road widenings which may be necessary at specific locations, and the inclusion of bicycle lanes in the project design.

Near-term tasks include traffic analyses in the Jane Street-to-Weston Road section pertaining to Highway 400 interchange, development and assessment of design options for connections at Finch Station and Finch West Station, meeting with Humber College to discuss integration of the LRT with proposed campus development, finalizing stop locations on the route, and commencement of preliminary design work.

The team will also be meeting with Woodbine Entertainment in order to discuss the proposed work plan to study the extension of this LRT to that major redevelopment and, possibly, onwards to the airport.

It is expected that the next public meetings will be called for the end of November.

In addition, an authorization to proceed with preliminary engineering that is necessary to meet the project's ambitious schedule is the subject of another Commission report.

Eglinton-Crosstown LRT

The first series of public meetings for this project were held in August/September, 2008.

Current project work is focussing on evaluating the various options for the underground tunnel section, including preliminary construction methods and portal locations, developing design concepts for stations and interfaces with other *Transit City Light Rail* lines, the Yonge and Spadina Subway lines, and GO Transit, and identifying property impacts.

The five-kilometre section from Martin Grove Road to the airport has been designated as a special study area, with a number of options under consideration with various stop arrangements. Consistent with city-building objectives, this study is also reviewing means by which to improve transit access to local development on Dixon Road and other locations in and around the airport. Work is also being done on a possible tunnel section under the airport. This work is a joint effort by TTC, the Greater Toronto Airport Authority (GTAA), and the Mississauga Bus Rapid Transit Project.

An important next project task will be to prepare for preliminary engineering work to be initiated early 2009. Work is also underway to prepare for the next series of public meetings which will be held in early 2009.

Scarborough RT

The Environmental Assessment (EA) process for the upgrade and extension of the Scarborough RT is ongoing. The work includes an amendment to the EA that was approved in 1994 for an extension of this line from McCowan Road to Sheppard Avenue, as well as an EA conducted under the new Transit Project Assessment Regulation for an extension of the line from Sheppard Avenue to Malvern Town Centre. Public meetings were held on April 15, June 4, 5 and July 31, 2008. There was strong support for the upgrading and extension of the Scarborough RT but, as with the present arrangement, public feedback reveals a strong desire for a minimum of transfer requirements between lines and, where they are necessary, that they be designed in the most customer-friendly way possible. A preferred corridor has been recommended to the public and was well received. Work is progressing on the evaluation of various alignments within the recommended corridor.

The project team is currently re-visiting the option of converting the Scarborough RT from its current vehicle technology to light rail technology, when the current fleet of vehicles reaches the end of its service life. Such a conversion is being investigated as a means of providing more routing flexibility, and in order to take advantage of possible benefits of a vehicle technology which would be common to the other *Transit City* lines. In support of this option, a structural analysis is underway of the existing Scarborough RT infrastructure. The project team is continuing its work on the development of conceptual designs for a new maintenance facility.

Work is also underway for the development of design alternatives for (a major transit hub at) Kennedy Station, which would include the Scarborough RT, the Eglinton-Crosstown LRT, the

Scarborough-Malvern LRT, the subway, GO Transit, and all connecting bus services.

The next public meetings for this project have been delayed to allow completion of the current review of LRT technology for this corridor. The meetings will be held towards the end of this year.

Scarborough-Malvern LRT

A feasibility study and report has been completed for this *Transit City* light rail line, and two public meetings have been held at which staff presented a preferred alignment. This light rail line passes through an environmentally sensitive area on Morningside Avenue south of Ellesmere Road and, therefore, meetings have been held Toronto and Region Conservation Authority.

Project team members have met with the University of Toronto-Scarborough to discuss possible alignments near and or through the campus, and are participating in the Campus Master Plan Study being undertaken there. The team has also met with Ministry of Transportation staff pertaining to implications of the LRT crossing of the 401 on Morningside Avenue.

Near-term project tasks include preparation of design concepts for the LRT interface at Kennedy Station and Malvern Town Centre, identification of property impacts, and evaluation of preliminary construction methods for this line.

Work is underway to prepare for the next series of public meetings which will be held later this year.

Maintenance and Storage (M&S) Facilities

The Light Rail Vehicle Maintenance & Storage Facilities Master Plan study, which documented the need for facilities to maintain both the *Transit City* light rail vehicles and the light rail vehicles which will replace the TTC's current streetcars, was completed in spring 2008. A report summarizing the findings of that study and requesting authorization to proceed with conceptual engineering and property searches for four *Transit City* M&S facilities was approved by the Commission at its meeting of May 2008. Staff have since prepared and issued a request for proposals from consultants for services for the implementation of the *Transit City* M&S facilities and a new downtown (Portlands) light rail/streetcar maintenance facility.

Initial property searches for the required maintenance facilities have been initiated. Several properties are currently being assessed for suitability and availability to accommodate the facilities in broad locations recommended in the Master Plan Study:

- Sheppard and Morningside area;
- Finch and Jane area;

- Eglinton and Black Creek area; and
- Don Mills and Steeles area.

Property acquisition will be subject to further approval by the Commission and City Council.

The award of the consultant contract for the preparation of the Program of Requirements and Conceptual Design is being submitted to the Commission under a separate report.

Waterfront West LRT/Park Lawn Loop

The Modification Report for the environmental assessment originally undertaken for the section of the Waterfront West line rail line from Exhibition Place to Dufferin Street, recommended that this light rail line extend westward from Exhibition Place to Dufferin Street, parallel to the Gardiner Expressway and over the proposed eastbound Front Street ramp, connecting to the existing track on King Street. That report was approved by the Commission in May 2008 and by City Council in July 2008. The report has been available for public review since mid-September and will be until mid October. If no objections are received during that time, this section of the line will be eligible to proceed to design and construction.

TTC staff have been working with City staff and the Western Beaches Master Plan (WBMP) consultants in the area west of Dufferin Street. The WBMP study is nearing completion and, when it is done, the EA team can draw on its conclusions and resume work on identifying a preferred alignment for the section between Dufferin Street and Roncesvalles Avenue. This EA will be completed under the new Transit Project Assessment Regulation approved by the Province in June of this year. The EA is planned for completion in the spring of 2009.

Design work for the expansion of the Park Lawn Loop to accommodate LRT/streetcar service is nearing completion. Construction is planned to commence in June, 2009, with completion scheduled for the fall of 2009.

EA work on the segment from Park Lawn to Long Branch is underway. A feasibility study has been completed which identified significant property issues along the route. TTC staff are working with City staff to develop an acceptable alignment solution that minimizes property impacts. The first public meeting for this section of the line is expected to be held in December 2008. The EA will be completed by the summer of 2009.

Don Mills LRT

Feasibility studies have been completed for the Don Mills LRT from Steeles Avenue to the Bloor-Danforth Subway. Five public meetings have been held during June, July, and

September, including one held in Don Mills Station. TTC and City staff are currently developing and assessing alignment options for the south end of the line, south of the Leaside Bridge, where the available right-of-way is limited on all the north-south roads.

Other current project tasks include:

- a special study of the connection between this LRT and the Sheppard LRT and Sheppard Subway, including access to planned maintenance facilities;
- a special study of the intersection of this LRT with the Eglinton-Crosstown LRT, with a focus on the feasibility of this intersection being at grade;
- structural assessment of the Leaside Bridge, as well as six other structures along the route, and means by which these can be strengthened;
- property and construction implications of alignment options on Pape, Donlands, or Broadview Avenues; and
- design work for a terminal at Steeles Avenue.

The Region of York and Town of Markham have requested that the EA for Don Mills also address a possible extension of this LRT north to Highway 7/Major Mackenzie Road, and the team will be working with York Region to ensure all design options protect for such an extension.

The Don Mills LRT EA will be completed under the new streamlined Transit Project Assessment Regulation.

The next series of public meetings are planned for October/November 2008. The EA will be completed and presented to Commission and Council in early 2009.

Jane LRT

The feasibility study for the Jane LRT EA has been completed and it identified significant potential property impacts south of Wilson Avenue due to limited right-of-way. The first public meetings for this study were held in August 2008 with meetings at three venues.

Current work on this EA include studying alignment options and details for the south end of the line, including the possibility of a tunnel, finalizing functional design work, and identifying stop locations. The next series of public meetings are planned for 2009.

This study will be completed under the new Transit Assessment Project Regulation. It is scheduled for completion in late winter 2009.

Design Work for Narrow Street Cross-Sections

A particularly difficult design challenge which is facing two of the *Transit City* LRT lines is how to accommodate a light rail right-of-way on roads whose width is less than thirty metres. In order for an LRT line to operate reliably and with good quality, it must operate within its own physically-separated right-of-way, insulated from other traffic. However, the establishment of such rights-of-way must also respect the access requirements of adjacent land uses and the need to retain road space for other road users. It is very difficult to meet the needs of all road users where road width is less than thirty metres. Although the option exists, in these situations, to construct the LRT underground, such an option is very expensive and does not support the urban design objectives of integrating the *Transit City* LRT lines into the street life and activities of the corridors in which they are located.

Therefore, the *Transit City* EA teams are working together to identify a right-of-way design which would allow all road users to co-exist on roads with narrow widths. Designs from other cities have been reviewed and a number of design options are being investigated in order to meet this challenge. A report will be brought forward when a conclusion is reached pertaining to the feasibility of LRT at-grade operation on narrow streets.

JUSTIFICATION

The Commission and City Council should approve the requested \$17.1 million in order to ensure that the *Transit City* projects, including the upgrading and extension of the Scarborough RT, continue to progress until Metrolinx/the Province provide this funding, likely through the provincial budget which is expected in March 2009.

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Attachment: Appendix 1



APPENDIX 1

TRANSIT CITY LIGHT RAIL PLAN PROGRESS AND FUNDING STATUS – OCTOBER 2008

PROJECTED EXPENDITURE TO QUARTER 1, 2009*

(\$ Millions)	Commission Approved	Forecast to Year-End 2008	Forecast to Year-End 2008	2009 Expenditure Forecast	2009 Jan-April Forecast	Total Expenditure Forecast to April 2009
	April 2008	2009 - 2013 Budget Submission	Current (a)	2009 - 2013 Budget Submission	Current (b)	(a) + (b)
Sheppard East LRT	1.90	2.40	2.40	50.40	7.00	9.40
Etobicoke-Finch West LRT	2.45	2.50	1.50	11.40	2.00	3.50
Eglinton-Crosstown LRT	5.25	5.50	3.20	28.10	2.00	5.20
Waterfront West LRT/Park Lawn Loop	1.30	2.60	2.20	14.70	0.20	2.40
Kipling Loop	0	0	0	0.20	0	0
Scarborough RT Extension	1.50	1.50	1.00	5.20	1.00	2.00
Scarborough-Malvern LRT	1.30	1.40	1.10	0	0	1.10
Jane LRT	1.50	1.60	0.90	0.60	0.40	1.30
Don Mills LRT	0.20	0.20	0.20	0	0	0.20
Maintenance & Storage Facilities	0.70	0.40	0.10	15.70	4.00	4.10
Alternate Financing & Procurement Analysis	0.20	0.20	0.20	2.00	0.50	0.70
Vehicles	0	0	0	0.80	0	0
TOTALS	16.30	18.30	12.80	129.10	17.10	29.90

Commission approval required: \$29.9M less \$16.3M existing = \$13.6 million

City approval required: \$29.9M less \$11.1 existing = \$18.8 million

* Include additional City resources.