

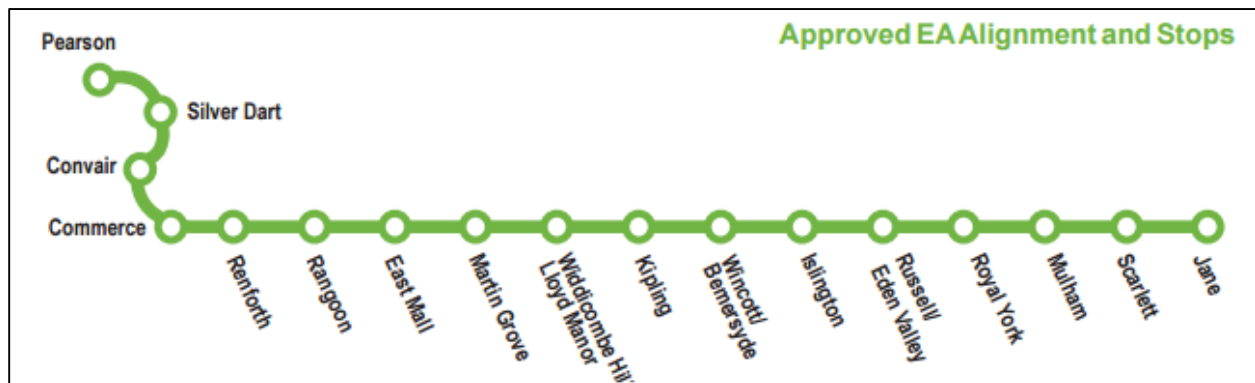
## Attachment 5 – Eglinton West LRT Planning and Technical Update

### 1. Introduction

In July 2016, City Council approved an Eglinton West LRT with between 8 and 12 stops between Mount Dennis and Renforth Gateway, and up to five potential grade separations at Martin Grove Road, Kipling Avenue, Islington Avenue, Royal York Road and Eglinton Flats (EX16.1). City Council also directed City Planning and the TTC to work in partnership with Metrolinx, the City of Mississauga and the Greater Toronto Airport Authority to further develop the options for extending the LRT to the Pearson International Airport.

Planning and design work is currently underway in order to update the Eglinton West LRT concept approved through an Environmental Assessment (EA) in 2010 (See Figure 1) and to refine the preliminary Class 4/5 cost estimates previously presented to City Council in July 2016. Metrolinx staff are leading this work on the project between Mount Dennis and Renforth Gateway in partnership with the City of Toronto and the TTC. City staff are also participating in a separate working group led by Metrolinx with representation from the City of Mississauga and the Greater Toronto Airports Authority (GTAA) to further refine options for extending the project from Renforth Gateway to the Pearson International Airport.

Figure 1: EA-Approved Project Alignment and Stops



Source: EX16.1 Attachment 3: Eglinton West LRT Initial Business Case

### 2. Stop Locations

City and TTC staff have been working with Metrolinx to review the 8 to 12 stop locations between Mount Dennis and Renforth Gateway. A working group consisting of staff from City Planning, Transportation Services, the TTC and Metrolinx evaluated each of these stop locations considering the usage of the existing TTC bus stop, connecting TTC routes, existing and projected population and employment, development potential and nearby destinations (summarized in Table 1). Through this process it was determined that approximately 10 to 11 stop locations will be carried forward into the Transit Project Assessment Process (TPAP) to update the previously approved EA, if necessary. These stop locations are shown in Figure 2.

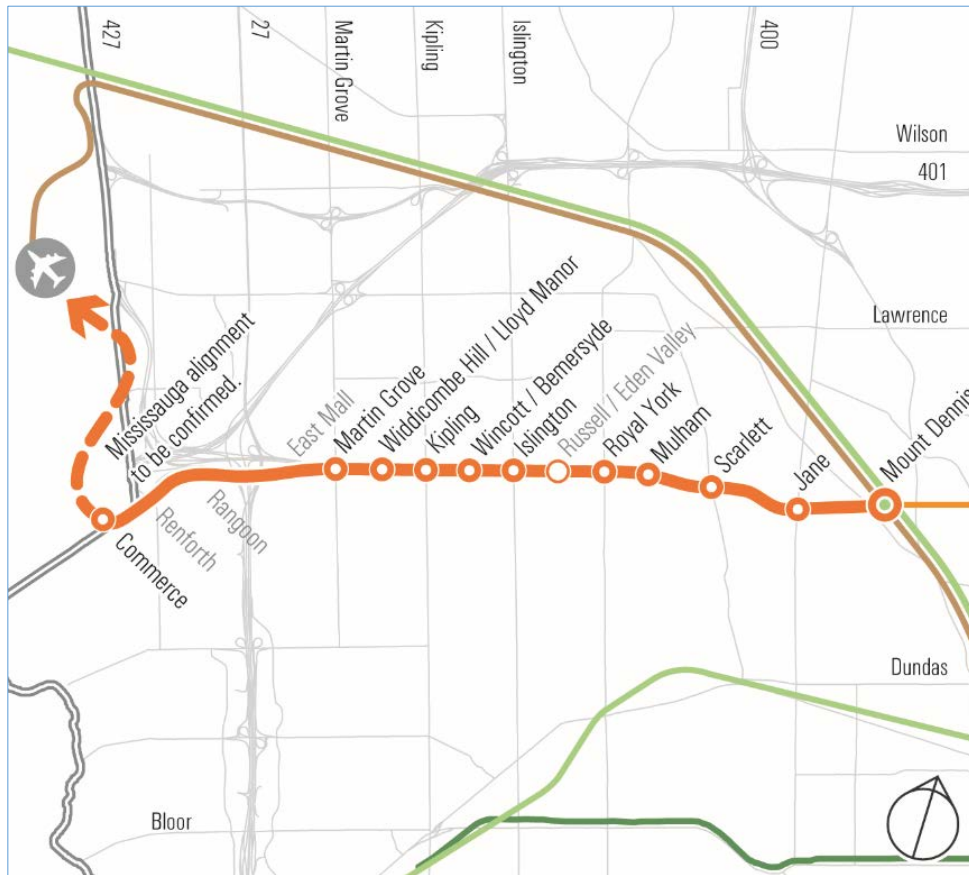
Proposed LRT stops at Renforth Road, Rangoon Drive and The East Mall are not recommended to be carried forward. A stop at Russell Road/Eden Valley Drive may be included, depending on the feasibility of providing local bus service to this location. TTC is currently studying options.

Wherever possible, allowances will be made in the design of the Eglinton West LRT for the protection of future stop platforms at these locations should they be deemed warranted in the future.

*Table 1: Summary of Stop Locations*

Stop Location	Existing Bus Stop Usage	Connecting TTC Routes	2011 Population Served	Projected Population Growth to 2041	2011 Employment Served	Projected Employment Growth to 2041	Development Potential	Significant Community Destinations
Commerce	250	112 West Mall	100	Negligible	640	120%	Moderate	Mississauga Airport Corporate Centre, Renforth Gateway Station
Renforth	1120	112 West Mall	290	Negligible	660	110%	Low	None
Rangoon	90	None	40	Negligible	0	35%	Low	None
East Mall	250	111 East Mall	60	Negligible	320	10%	Low	None
Martin Grove	1470	46 Martin Grove, 111 East Mall	1330	20%	130	45%	Low	Martin Grove Collegiate Institute
Widdicombe Hill / Lloyd Manor	310	None	2680	30%	440	50%	Moderate	Lloyd Manor Plaza
Kipling	1550	45 Kipling	3150	25%	610	60%	Moderate	None
Wincott / Bemersyde	220	None	1370	20%	320	65%	Moderate	Richview Square
Islington	1440	37 Islington	610	15%	120	50%	Moderate	Richview Collegiate Institute
Russell / Eden Valley	110	None	960	Negligible	0	N/A	Low	None
Royal York	940	73 Royal York	1720	20%	260	50%	Moderate	None
Mulham	580	73 Royal York	1580	25%	160	60%	Moderate	St Demetrius, Chartwell Scarlett Heights Retirement Residence
Scarlett	1240	79 Scarlett Rd	4150	20%	20	55%	Moderate	Humber River Recreational Trail
Jane	2280	35 Jane	230	10%	80	50%	Low	Eglinton Flats

Figure 2: Eglinton West LRT Alignment and Stop Locations



### Renforth Drive

The Renforth Drive stop included in the EA-approved concept is located in a relatively isolated area, separated from the nearest residential community by a hydro corridor and Eglinton Avenue (see Figure 3). Other existing transit services already serve this community, including the TTC's 112 West Mall bus and a number of MiWay (the City of Mississauga's transit operator) services. A stop at Renforth Drive is not required to provide network connectivity due to its proximity to the nearby Commerce Boulevard stop, which would already connect to the terminus of the Mississauga Transitway and form part of the Renforth Gateway Mobility Hub. Transfers currently occurring at Renforth Drive are expected to shift to the Renforth Gateway, the future terminus of the Mississauga Transitway.

The Renforth Drive stop will not be recommended to be carried forward.

Figure 3: Aerial Photo of Renforth Stop Location



### Rangoon Road

A Rangoon Road stop included in the EA-concept would be in a relatively isolated location in an area that is not planned for transit-supportive densities of people and jobs (see Figure 4). There is an existing stop on the 32 Eglinton West bus that has very low usage. Including this stop location would require implementing an additional traffic signal to allow for transit users to safely cross Eglinton Avenue to access the LRT platform, introducing a source of delay for traffic. The existing 112 West Mall bus passes through the neighbourhood. There are also MiWay services on this part of Eglinton Avenue West, however they are currently restricted from picking up passengers. Service integration options should be explored. Other alternatives for serving the adjacent Eringate-Centennial-West Deane community with local transit will also be explored by the TTC for connections to the Commerce Drive LRT stop.

The Rangoon Road stop will not be recommended to be carried forward.



Figure 4: Aerial Photo of Rangoon Stop Location



### The East Mall

The East Mall stop included in the EA concept would be located in a relatively isolated area because of the surrounding road network and Mimico Creek (see Figure 5). There are currently only 100 residents within walking distance (500m) of this stop location and there is very little potential for future development and intensification. The design of this stop would also be challenging given the existing intersection geometry and configuration of the 401/427/Eglinton Avenue interchange.

Approximately 250 trips per day make use of the stop on the 32 Eglinton West bus currently. The 111 East Mall bus serves the stop location and would connect to the Eglinton West LRT at Martin Grove Road.

The East Mall stop will not be recommended to be carried forward.



Figure 5: Aerial Photo of The East Mall Stop Location



Russell / Eden Valley

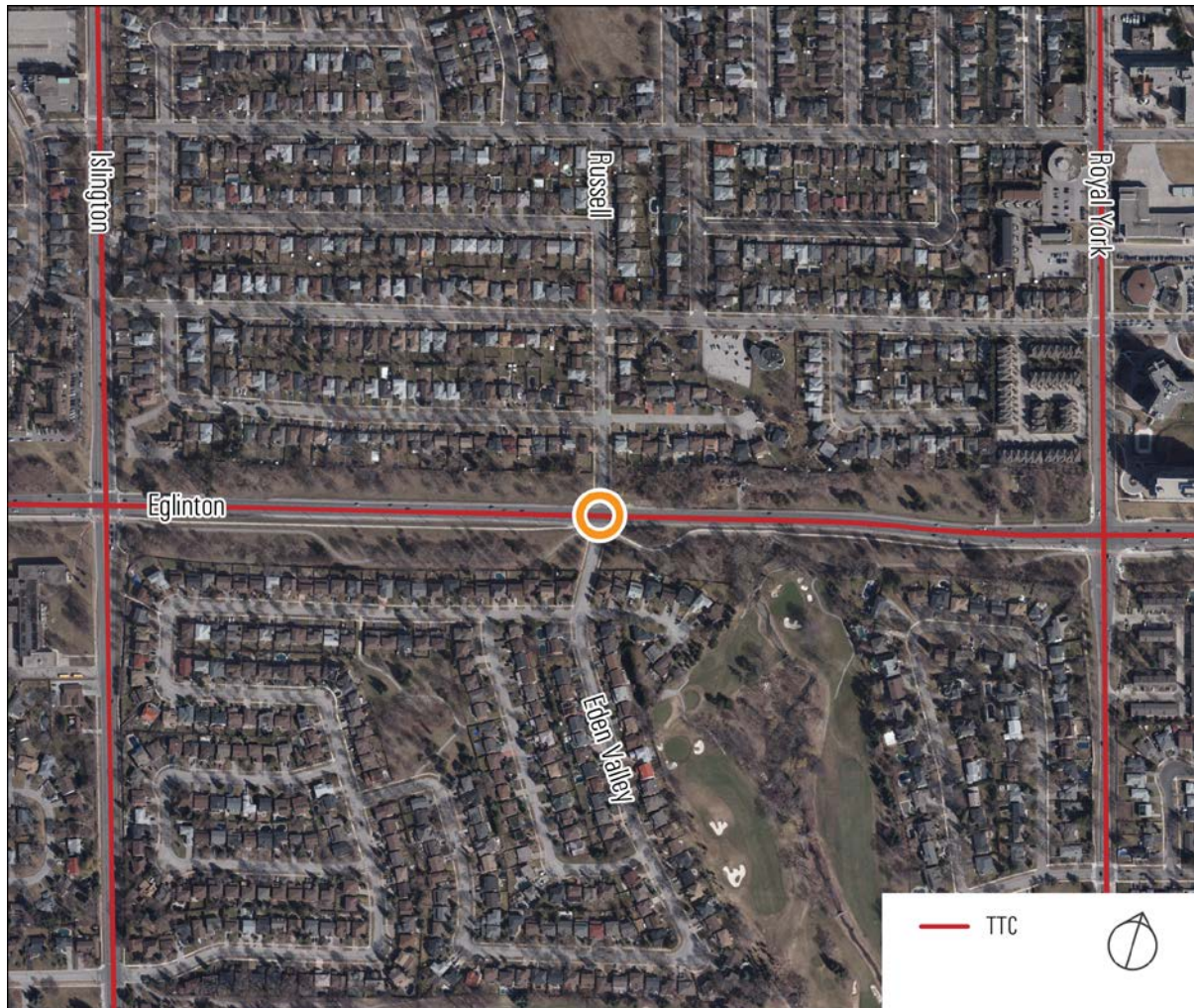
This EA-approved stop is not likely to be well used because the surrounding area has relatively low population density and limited potential for development and intensification, and does not provide any transfer opportunities for connecting surface routes (see Figure 6). At the same time, a lack of connecting surface routes means that this stop is the only access to transit for the surrounding community.

Ridership on the LRT at this location is expected to be relatively high (near the peak ridership of this section of the line), meaning that the added time required for the vehicle to stop would delay many more people than would benefit from the usage of the stop itself. This negative impact could be mitigated if the line operated on a request-stop basis (and the vehicle only stopped if a rider wanted to get on or off). A request-stop service is preferred. If a request-stop operation is not possible on the LRT, the TTC will explore options for rerouting a local bus route to maintain adequate transit coverage for this community.



A recommendation regarding the inclusion of this station will be made in Q2 2017 based on the feasibility of operating the LRT as a request-stop service or providing local bus service to this location.

Figure 6: Aerial Photo of Russell/Eden Valley Stop Location



### 3. Grade Separations

Up to five grade separations are being considered for inclusion in the LRT project to mitigate impacts to traffic and improve transit operations. The five potential locations are:

- Martin Grove Road
- Kipling Avenue
- Islington Avenue
- Royal York Road
- Eglinton Flats

Further technical work is being undertaken to confirm the feasibility and estimate the costs and benefits of each grade separation. Recommendations regarding the inclusion of grade separations will be made to City Council in Q2 2017 alongside other project details and the refined cost estimate for the project prior to commencing the TPAP, if required, to amend the approval under the *Environmental Assessment Act*.

These recommendations will be made based on an evaluation of each potential grade separation. The evaluation framework will include screening for feasibility, comparing benefits and costs, and consideration of strategic values.

#### a) Feasibility

Each potential grade separation is being examined for feasibility including significant impacts to the natural environment and constructability. Should it be determined that any of the potential grade separations are not feasible, they will be screened out from further consideration.

#### b) Benefits and Costs

An estimate of capital and maintenance costs will be determined for each potential grade separation based on conceptual design. These costs will be compared to an estimate of benefits associated with each potential grade separation. Monetized benefits will focus on travel time savings for transit users and automobile drivers. Travel time savings will be based on modelling of the transit line and traffic network.

City Planning does not perceive any benefits of grade separations other than travel time savings for transit and road network users. As the primary benefit of introducing grade separations is in travel time savings to transit and road network users, only potential grade separations perceived to have greater benefits than costs will be carried forward to a review of strategic values.

#### c) Strategic Values

A strategic review of the potential grade separations will focus on non-monetized impacts. These will include:

- Visual and aesthetic impact to communities
- Impact on public realm
- Impacts to pedestrian mobility such as street-crossings
- Ease of transit connections
- Reduction in development potential

### **4. Mississauga Airport Corporate Centre to Pearson International Airport**

Separate from the work to enhance the alignment from Mount Dennis to the Mississauga Airport Corporate Centre (MACC), the alignment from the MACC to Pearson International Airport must also be finalized. The EA completed in 2010 only identified an alignment up to the edge of the Pearson International Airport property, north of the Silver Dart stop. The already identified



alignment will be reviewed and the remaining portion of the alignment, the terminus and the interface with Pearson Airport will be identified through a Metrolinx-led process.

Metrolinx is in the planning stages of this work with the project kickoff expected in spring 2017. City staff have been involved in these early stages, as have staff from the City of Mississauga and the Greater Toronto Airports Authority (GTAA). The GTAA's close involvement in the planning work for the LRT will be essential to ensure that the LRT will be consistent with their long-term vision for the airport being developed as part of their 'Pearson Connects' study. The City of Mississauga is also expected to take a larger role in the planning of this portion of the alignment as a significant portion is within their borders.

## **5. Next Steps**

City staff continue to work closely with Metrolinx to advance this project. Metrolinx is in the process of retaining consultants to complete technical work in support of the assessment for the targeted grade separations, including traffic impacts. This will include refinements to the cost estimates presented to City Council in July 2016. Consultation with stakeholders and the public regarding the potential grade separations is expected to occur in Q1 2017. The findings of the technical work will inform project details and refined costs for consideration by City Council and the Metrolinx Board in Q2 2017. If required, the TPAP to amend the existing EA could commence in Q3 2017.

City staff will continue to provide input to a Metrolinx-led effort to refine and finalize the plan for extending the project from Renforth Gateway to the Pearson International Airport. An update report to Council is expected in Q2 2017.