

Environmental Project Report | Main Report

Transit City Light Rail – Scarborough-Malvern LRT Transit Project Assessment Study





Toronto Transit Commission / City of Toronto

**SCARBOROUGH-MALVERN LIGHT RAIL TRANSIT
TRANSIT PROJECT ASSESSMENT
ENVIRONMENTAL PROJECT REPORT**

ENVIRONMENTAL PROJECT REPORT

OCTOBER 2009

TRANSITCITY
MOVING TORONTO INTO THE FUTURE



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EXECUTIVE SUMMARY

E.1. INTRODUCTION

The Toronto Transit Commission (TTC) and the City of Toronto have undertaken a Transit Project Assessment Process (TPAP) study for the 13 km long Scarborough-Malvern Light Rail Transit (SMLRT) corridor that would link northeast Scarborough with the Kennedy Subway Station, connecting with the Bloor-Danforth Subway, Scarborough Rapid Transit (SRT) and planned Eglinton Crosstown Light Rail Transit (LRT). This study recommends that bus services along the Scarborough-Malvern corridor be replaced by Light Rail Transit (LRT) with electrically powered light rail vehicles operating in a designated centre of the street right-of-way.

This change in transit service in the Scarborough-Malvern corridor is recommended as part of the TTC Transit City plan for a widely-spaced network of electric light-rail lines throughout the city, with seamless interconnections to existing and future transit services. The SMLRT is one of seven new lines being planned as part of Transit City, and will provide an important link between Kennedy Subway Station and the north of Scarborough. It will also provide a new high quality transit service along several busy existing transit routes.

The SMLRT light rail service would run east from Kennedy Station on Eglinton Avenue, northeast on Kingston Road, and then north on Morningside Avenue, with service via Ellesmere Road and Military Trail to serve the University of Toronto Scarborough Campus (UTSC), and returning to Morningside Avenue and terminating at Sheppard Avenue.

Study Background and Context:

Study Area

The study area for this TPAP consists of three major corridors including the Eglinton Avenue, Kingston Road and Morningside Avenue Corridors as shown on Exhibit E-1. The study limits for each corridor are provided as follows:

1. Eglinton Avenue Corridor

- Eglinton Avenue, from 200m west of Midland Avenue to Kingston Road. The study of the connection at Kennedy Subway Station will be the subject of a separate EA amendment following completion of the Kennedy Subway Station study by TTC;

2. Kingston Road Corridor

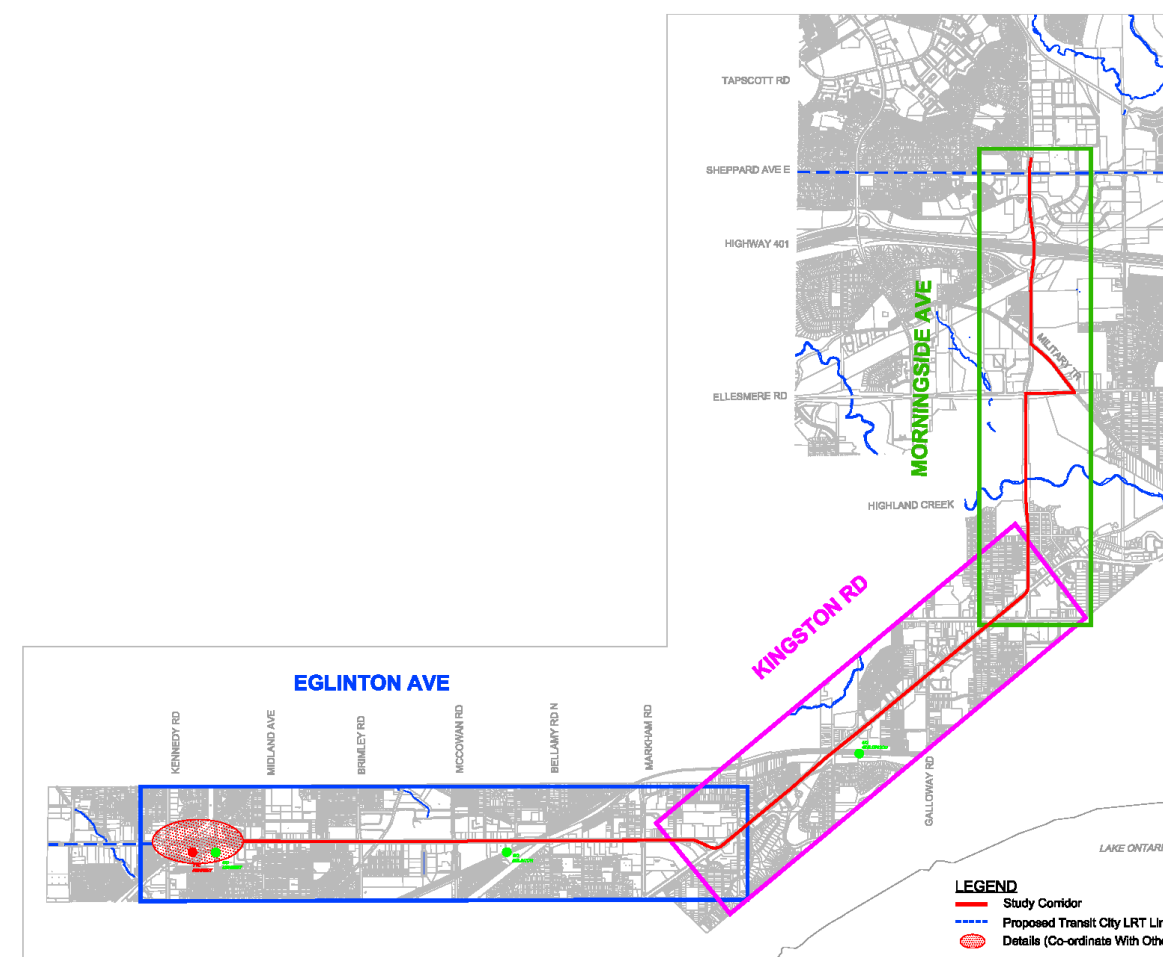
- Kingston Road, from Eglinton Avenue to Morningside Avenue;

3. Morningside Avenue Corridor

- Morningside Avenue and Ellesmere Road, from Kingston Road to the UTSC;
- From UTSC via Ellesmere Road/Military Trail and Morningside Ave. to Sheppard Avenue East (and 140 m north of the intersection) to connect with the Sheppard East LRT.

The study area was developed based on a feasibility study that was undertaken in early 2008. Alternative corridors from the Kingston Road/Morningside Avenue intersection to northeast Scarborough connecting to the Malvern Community were identified, developed and assessed, consistent with established City planning policies and the overall project objectives during the feasibility study phase. The Malvern Community is bounded by Highway 401 to the south, Morningside Avenue to the east, Finch Avenue East to the north and Markham Road to the west. Alternative corridors that were considered during the feasibility stage included using Kingston Road and Military Trail to provide a connection to UTSC and using Ellesmere Road and Neilson Road to access to Malvern Town Centre. During the review, it was decided to limit this project at Sheppard Avenue as an extension of the Scarborough Rapid Transit to Malvern Town Centre is now planned.

Exhibit E-1: Study Area





Study Process – Transit Project Assessment Process (TPAP)

This study was conducted following the Transit Project Assessment Process (TPAP) in accordance with Ontario Regulation 231/08 for Transit Projects and Greater Toronto Transportation Authority Undertakings. It is one of the TTC and City of Toronto LRT Transit Improvement Projects that is being carried out following this new process, which provides a framework for an accelerated consultation process for the assessment of potential environmental effects of a transit project.

Toronto Official Plan

The City's Official Plan strives to decrease dependency on private automobiles through a wide range of sustainable transportation objectives that support the development of a network of alternative forms of travel that are seamlessly linked, safe, convenient, affordable and economically competitive. LRT is one of the key elements of the City's transportation network and is crucial to supporting the growing travel needs of residents and workers over the next 30 years. Developing a LRT line in the Scarborough-Malvern study area supports the Official Plan.

Eglinton Avenue and Kingston Road are designated as Avenues in the Toronto Official Plan. These are important corridors along major streets where redevelopment and growth is encouraged. Growth and redevelopment must be supported by high quality transit services that promote a safe pedestrian environment and efficient commutes by placing priority on buses, streetcars, and LRT. Lands designated as mixed-use areas along the Avenues have the opportunity to perform a 'Main Street' function and become meeting places for local neighbours and the wider community. By promoting alternative forms of travel, these areas become vibrant communities centred on activities and uses instead of automobiles. By directing growth to areas such as Avenues, the Official Plan provides greater certainty for land owners, businesses, and residents about what type of growth can be anticipated, and where growth will occur.

An amendment to Map 5 of the Official Plan is required in order to identify the segment of Morningside Avenue from Kingston Road to Ellesmere Avenue and from Military Trail to North of Sheppard Avenue as well as Ellesmere Road between Morningside Avenue and Military Trail and Military Trail from Ellesmere Road to Morningside Avenue as part of the City's "Surface Transit Priority Network". This amendment will enable public works related to the proposed Transit City – Scarborough-Malvern Light Rail Transit (LRT) to proceed north of Kingston Road.

In addition, City Planning is proceeding to amend the Right-of-Way widths shown on Map 3 of the Toronto Official Plan for a section of Morningside Avenue, north of Kingston Road to 36 metres (from 30m) and Military Trail between Ellesmere Road and Morningside Avenue to 36 metres (from 27m). The Official Plan amendment process includes community consultation, a community public meeting and a final decision by City Council.

Toronto Transit City Light Rail Transit Plan

In 2007, the TTC developed a plan that built upon the transit concepts contained in several studies, including the Toronto Official Plan, the TTC Ridership Growth Strategy, Building a Transit City and the Mayor's "Transit City" Platform (2006), and recommended a network of electric light-rail lines throughout the City, each with its own right-of-way. There are seven new lines proposed, with a total length of 120 km, all connecting with the City's existing and planned rapid transit routes. By 2031, it has been estimated that the new lines would carry 175 million riders per year.

Other Related Studies

Preparation of this study has also taken into consideration the policies, plans and strategies of the following municipal and provincial documents:

- Toronto Bike Plan – Shifting Gears
- Cycling and Transit Strategy: Bicycle Parking and Access to the Toronto Transit Commission
- Provincial Policy Statement
- Growth Plan for the Greater Golden Horseshoe
- Regional Transportation Master Plan (Metrolinx)
- Sheppard East LRT Class Environmental Assessment Study

E.2. PROJECT DESCRIPTION

The preferred Scarborough-Malvern LRT project includes the following key design components:

1. construction of the LRT in the centre of the roadway on a raised median to separate the LRT from vehicular traffic, crossing signalized intersections at-grade, with the exception of the areas adjacent to Highland Creek and UTSC, where a separate LRT right-of-way will be provided;
2. construction of 3.0 m wide farside passenger platforms or a minimum 5.0 m wide centre platform with an average spacing of 400-600 m in general;
3. provision of a 1.6 m delineated cycling lane on both sides along Eglinton Avenue, Kingston Road, Military Trail and Morningside Avenue with the exception of the Highway 401 area;
4. provision of 2 vehicular traffic lanes in each direction adjacent to the Scarborough-Malvern LRT corridor;
5. provision of left turn lanes at signalized intersections except at identified locations;
6. provision of U-turn opportunities at signalized intersections where there are no significant adverse traffic impacts;
7. construction of a new bridge to carry the LRT over Highland Creek parallel to the existing Morningside Avenue structure;
8. reconfiguration of the following intersections to minimize adverse traffic impacts: Eglinton Avenue & Kingston Road, Kingston Road & Morningside Avenue; Lawrence Avenue & Kingston Road and Eglinton Avenue/Brimley Road/Danforth Avenue;
9. provision of a new access road connection between Warnsworth Street and Beath Street across Morningside Avenue to ensure access to/from the communities adjacent to Morningside Avenue; and
10. minor realignment of lanes on the south-east ramp of the Highway 401/Morningside Avenue interchange for 200 m at the entrance area to accommodate the proposed LRT.

Exhibit E-2: Typical Mid-Block Cross Section – Eglinton Avenue and Kingston Road (36.0 m)
LRT Alignment

The Scarborough-Malvern LRT alignment will generally follow the existing roadway alignments along the study corridor, with the exception of Morningside Avenue (between Beath Street and Ellesmere Road) and on Ellesmere Road. Beginning at the Kennedy Station west of Midland Avenue, the LRT will travel eastward along the existing centrelines of Eglinton Avenue, Kingston Road and Morningside Avenue from Kingston Road to just north of Beath Street. It will then cross the Morningside Avenue northbound lanes and tie into a new Highland Creek bridge structure located on the east side of Morningside Avenue. At Ellesmere Road it will turn east and run along the south side of Ellesmere Road to serve the University of Toronto Scarborough Campus. The LRT will then turn north into the centre of Military Trail from Ellesmere Road to Morningside Avenue. Thereafter, the LRT alignment will operate north in the centre of Morningside Avenue, pass over Highway 401, cross Sheppard Avenue East and terminate 140 m north of the intersection.

The existing horizontal alignment of Eglinton Avenue and Kingston Road will remain the same, except at the Eglinton Avenue and Kingston Road intersection. The Morningside Avenue right-of-way will be widened on both sides between Kingston Road and north of Warnsworth Street. The road alignment will be moved slightly to the west from Warnsworth Street to tie into the existing Highland Creek structure. The Morningside Avenue widening will be along the existing east side edge of pavement north from Warnsworth Street, to accommodate the existing travel lanes, the proposed LRT facilities and bicycle lanes. Vertical alignment for the LRT alignment will generally follow the existing road profile. The maximum grade for the LRT will be 5.0%.

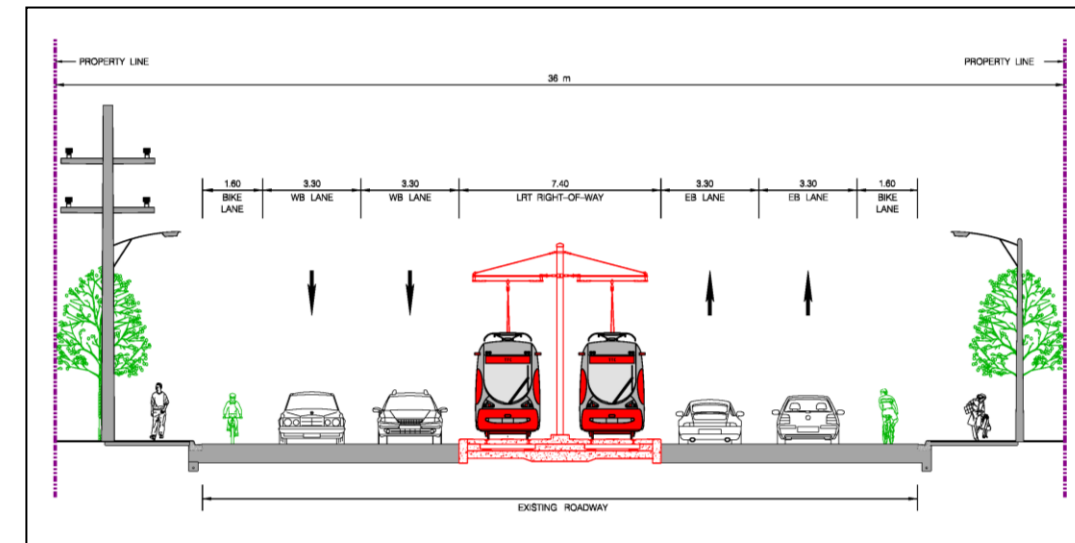
Typical Cross-Sections

Typical 36.0 m cross-sections along the Scarborough-Malvern corridor were developed for both mid-block sections and at intersections. Typically, the LRT alignment is located in the middle of the corridor with a 150 mm high median to separate LRT traffic and general traffic between traffic signals. At intersections, the track will be at the same elevation as the crossing road. Light rail vehicles (LRVs) will be operating on standard TTC gauge embedded track. The proposed system will be double-tracked throughout, providing a separate track for each direction. Generally, a cross-section of at-grade double track for an LRT alignment requires 7.4 m. The minimum vertical clearance is approximately 4.0 m from top of rail. Crossovers will be provided at designated locations for special LRT operations to allow trains to cross to the opposite track.

Centre-located traction power poles are recommended from an urban design perspective (removal of some visual clutter from the street), and because they cost less to construct, are less prone to damage and have lower maintenance requirements. Pole locations will be confirmed at the detailed design stage.

The following Exhibit E-2 cross-section shows a typical mid-block condition on Eglinton Avenue and Kingston Road. On Eglinton Avenue, the existing 6 traffic lanes and continuous centre left turn lane will be replaced by the LRT right-of-way, 2 lanes of traffic in each direction, bicycle lanes and boulevard/sidewalk. Similarly, on Kingston Road, the existing 6 traffic lanes and raised median/centre left turn lane will be replaced by the LRT right-of-way, 2 lanes of traffic in each direction, bicycle lanes and boulevard/sidewalks.

The existing Morningside Avenue right-of-way between Kingston Road and Warnsworth Street will be widened to accommodate the LRT right-of-way, 2 lanes of traffic in each direction, bicycle lanes and boulevard/sidewalk as shown in Exhibit E-3.



The existing Highland Creek Structure will require widening by 1.7 m on the east side to accommodate the bicycle lanes as shown in Exhibit E-4; in addition, a new 10.0 m wide structure is proposed on the east side of Morningside Avenue for the LRT.

Ellesmere Road has a four-lane cross section with no median and a sidewalk on the south side. The existing roadway cross-section will be maintained with the LRT located on the south side of Ellesmere Road as shown in Exhibit E-5; bicycle lanes will not be provided. Military Trail will become a four lane road with the LRT facilities located in the median as shown in Exhibit E-6. The LRT right-of-way along Military Trail will be wider than other locations due to the special trackwork (two-track to three-track transition crossovers and turnback tracks) located within this area.

Left Turning Movements at Unsignalized Intersections

Left turns across the Scarborough-Malvern LRT tracks will be permitted only at signalized intersections where possible. Loss of left turn access to driveways/streets located between traffic signals will be facilitated at nearby signalized intersections where “U” turns will be permitted to allow motorists an opportunity to achieve the equivalent movement/access.

**Exhibit E-3: Mid-Block Cross Section – Morningside Avenue
South of Warnsworth Street (30.0 m)**

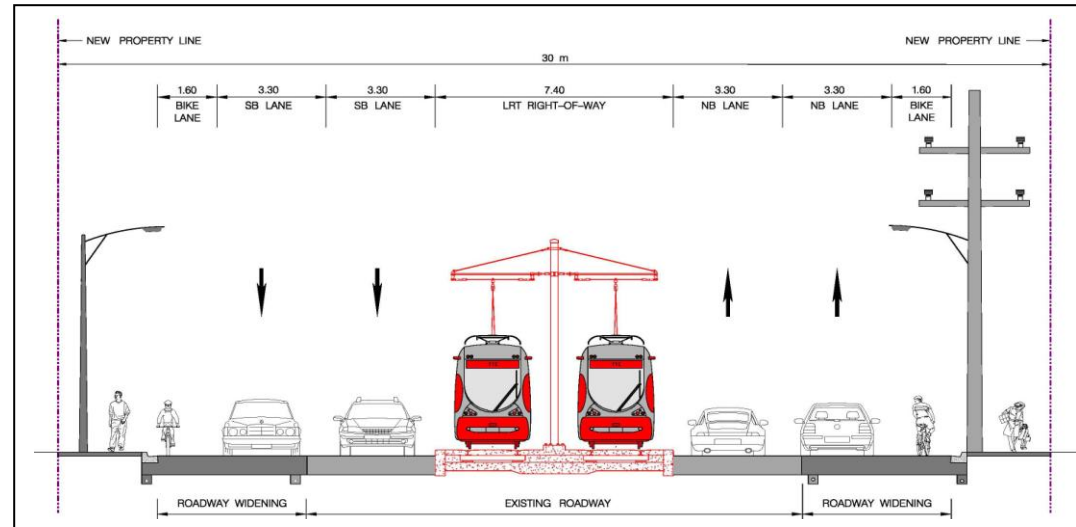


Exhibit E-4: Cross Section – Morningside Avenue over Highland Creek

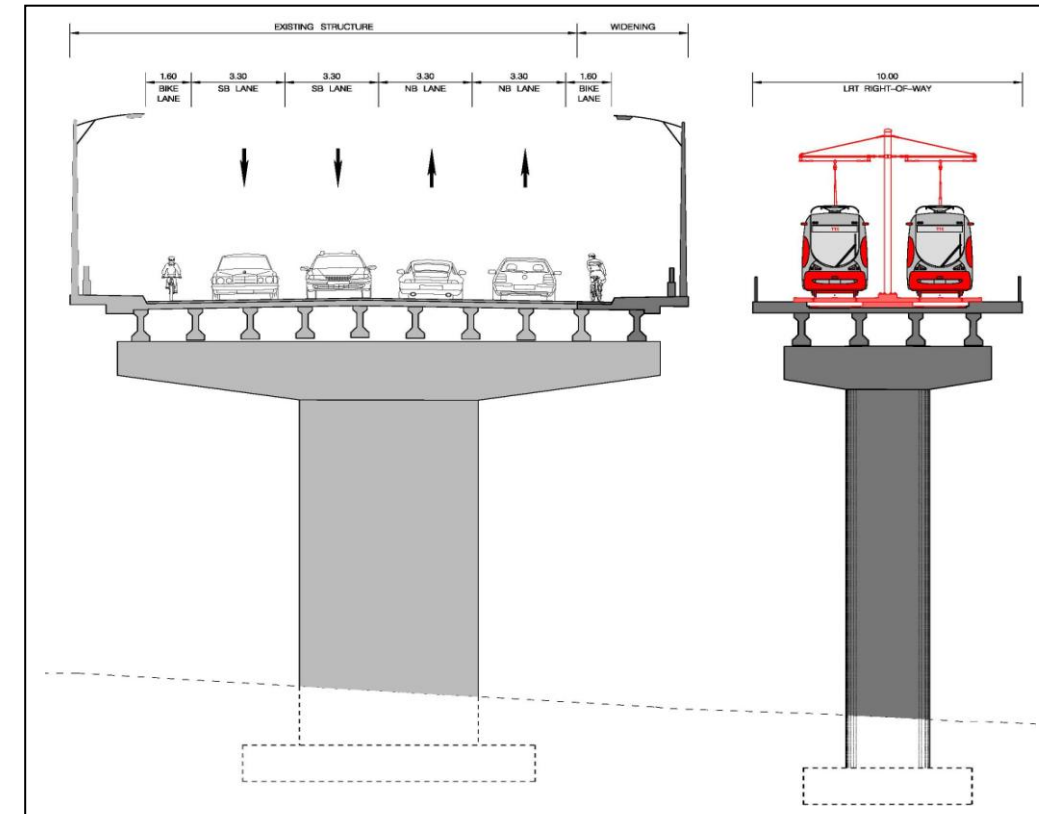


Exhibit E-5: Cross Section – Ellesmere Road

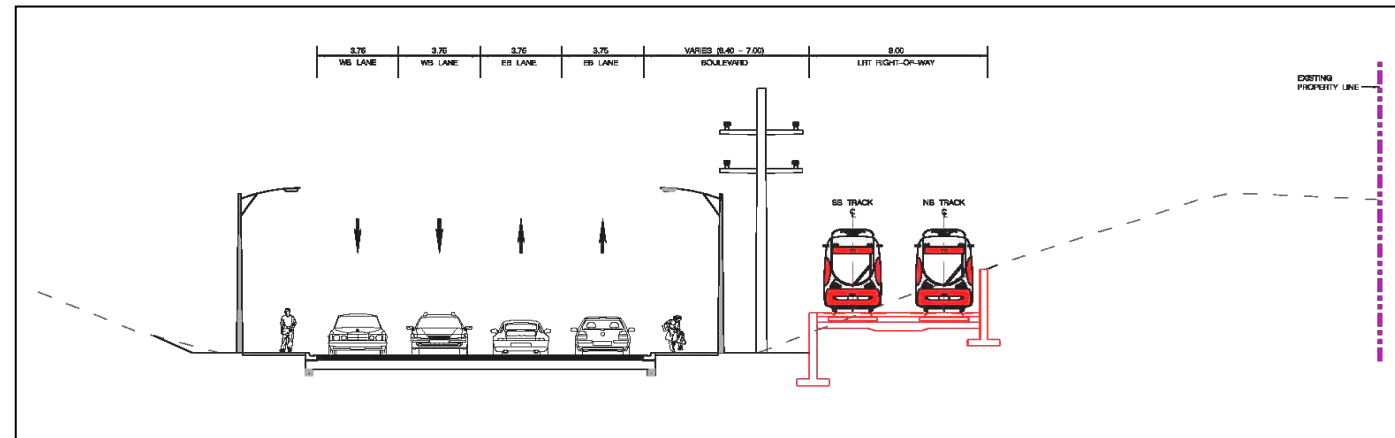
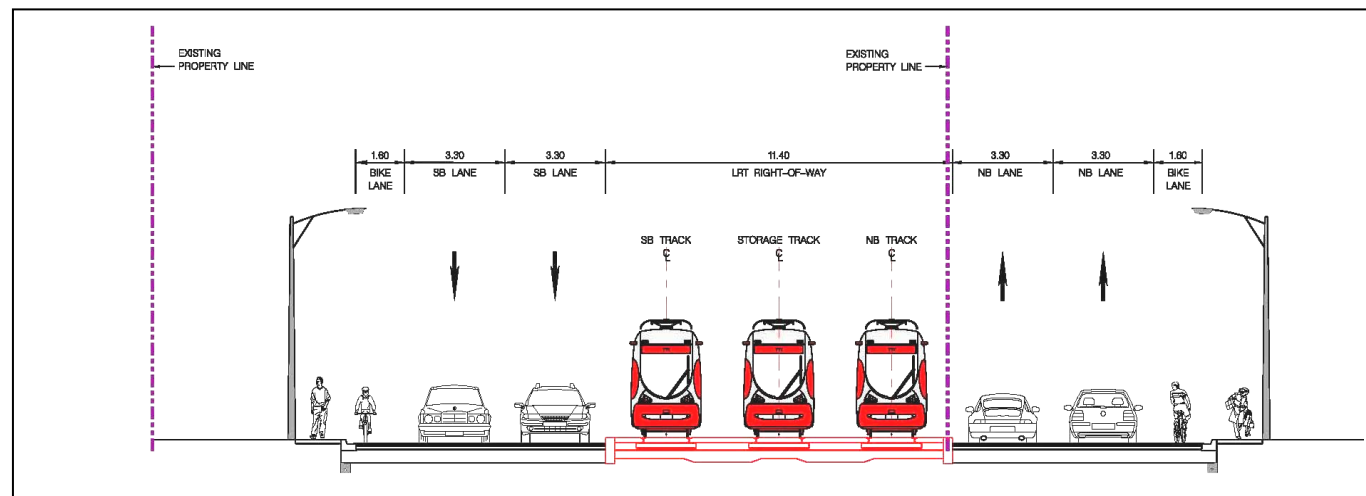


Exhibit E-6: Cross Section – Military Trail



E.3. EXISTING CONDITIONS / POTENTIAL IMPACTS / MITIGATION AND NET EFFECTS

Design alternatives for the SMLRT were developed to assess the potential impacts on all existing significant features and sensitive areas within the proposed corridor. A summary of some key findings is provided as follows.

Transportation System / Traffic Operations

The Toronto Transit Commission currently operates three bus routes in the Scarborough-Malvern corridor, the 34 Eglinton East, 86 Scarborough and 116 Morningside. These three routes have a combined daily ridership of 63,600 and a peak hour peak point ridership of 2,700 persons per hour per direction. An additional 12 bus routes cross the Scarborough-Malvern corridor.

GO Transit currently operates four routes serving the Scarborough-Malvern study area: the Lakeshore East and Stouffville rail services (with complementary bus service in the Stouffville corridor), the Highway 407 East GO Bus and UTSC/Centennial College GO Bus. The typical AM peak period / peak direction rail boardings are over 1,000 passengers per hour at both the Guildwood and Eglinton Stations.

Existing Eglinton Avenue, Kingston Road and Morningside Avenue do not currently provide any designated bicycle facilities. However, these corridors are included in the City of Toronto Bicycle Lane Network as part of the City of Toronto's Bike Plan. Provision of bicycle lanes on these streets is proposed as part of this project. With regard to pedestrian facilities, Eglinton Avenue, Kingston Road, and Morningside Avenue along the Scarborough-Malvern corridor currently include sidewalks along both sides of the road. Pedestrian crossings with traffic signals are provided at major cross streets. These will be maintained.

The major east-west roads in the study area include Eglinton Avenue, Lawrence Avenue, Ellesmere Road, Highway 401 and Sheppard Avenue. These run perpendicular to Morningside Avenue which runs north-south. Kingston Road runs at a diagonal connecting Eglinton Avenue with Military Trail and east to the Region of Durham, while Military Trail also runs at a diagonal connecting Kingston Road to Morningside Avenue.

Signalized intersections define the level of traffic congestion (typically called the "level of service") on any segment of the roadway. A detailed traffic analysis shows that 18 out of 30 intersections in the Scarborough-Malvern corridor are currently operating at or over capacity during the AM or PM peak hours.

Traffic analysis combined with LRT operation identified four locations that will require specialized treatment with the implementation of the LRT line as follows:

- 1) Eglinton Avenue at Brimley Road and at Danforth Road (Exhibit E-7)

The proximity of these two major road crossings resulted in a recommendation to provide farside platforms at Danforth Road only. In addition, operational measures including restricted left turns from Eglinton Avenue and cycle length adjustments will be implemented to facilitate traffic flows at these locations.

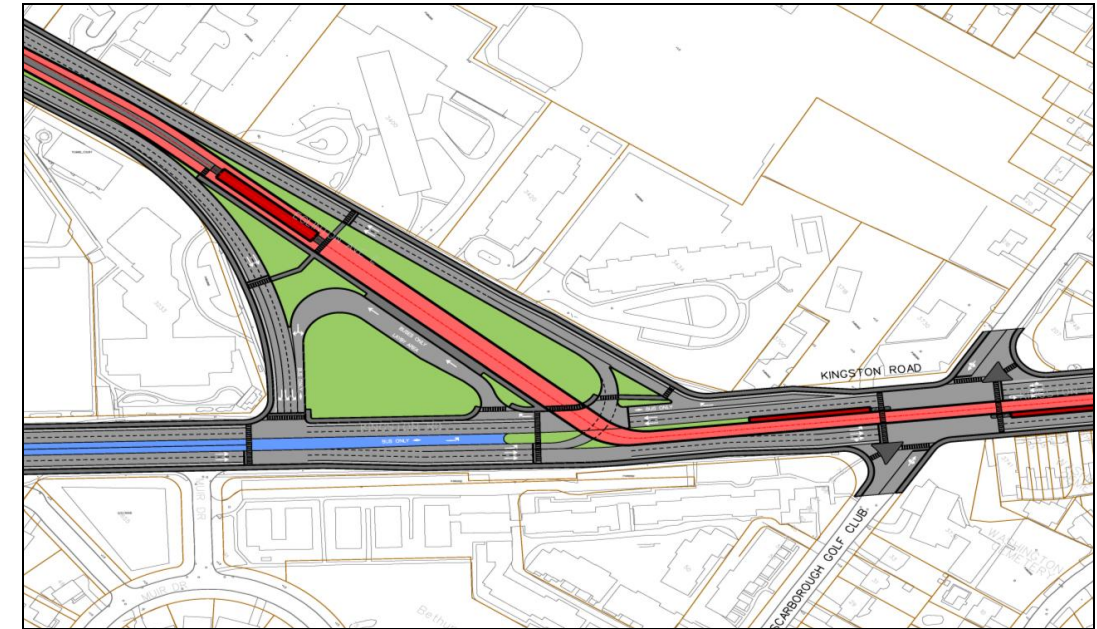
Exhibit E-7: Preferred Design - Eglinton Avenue at Brimley Road and Danforth Road



2) Eglinton Avenue at Kingston Road (Exhibit E-8)

This intersection will be redesigned to accommodate a connection between the SMLRT and the proposed Kingston Road BRT including the LRT platform, special trackwork to allow turnback of service and a bus terminal for the BRT and local bus services. The new design can be accommodated within the existing road allowance.

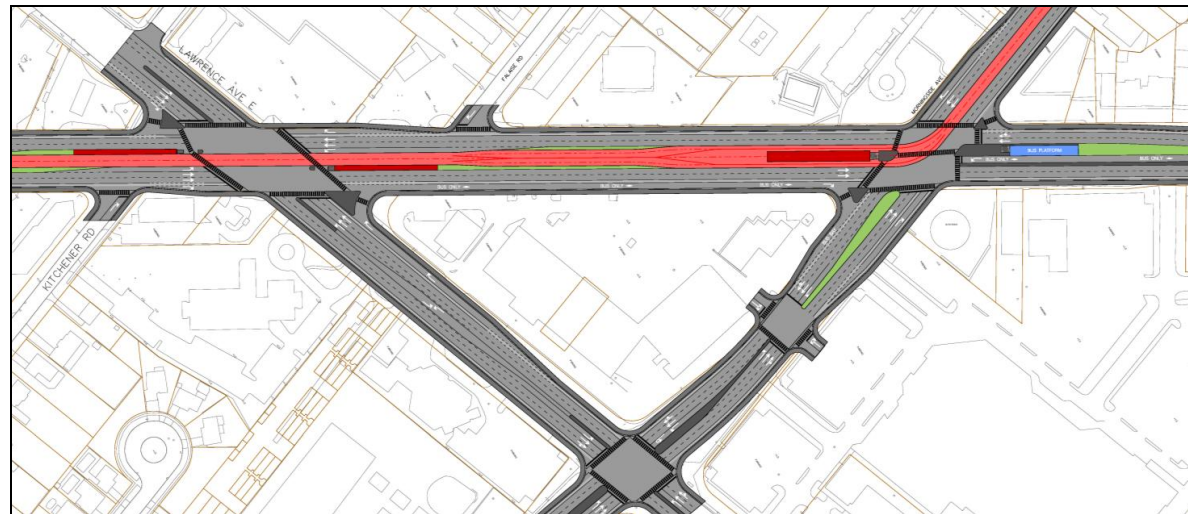
Exhibit E-8: Preferred Design - Eglinton Avenue and Kingston Road Intersection



3) Kingston Road at Morningside Avenue (Exhibit E-9)

Due to the heavy flow of traffic from Kingston Road East, several operational measures will be implemented in the general vicinity of Kingston Road / Morningside Avenue including the Kingston Road/Lawrence Avenue intersection. These measures will include restricted left turns, added right turn lanes, and signal phase adjustments.

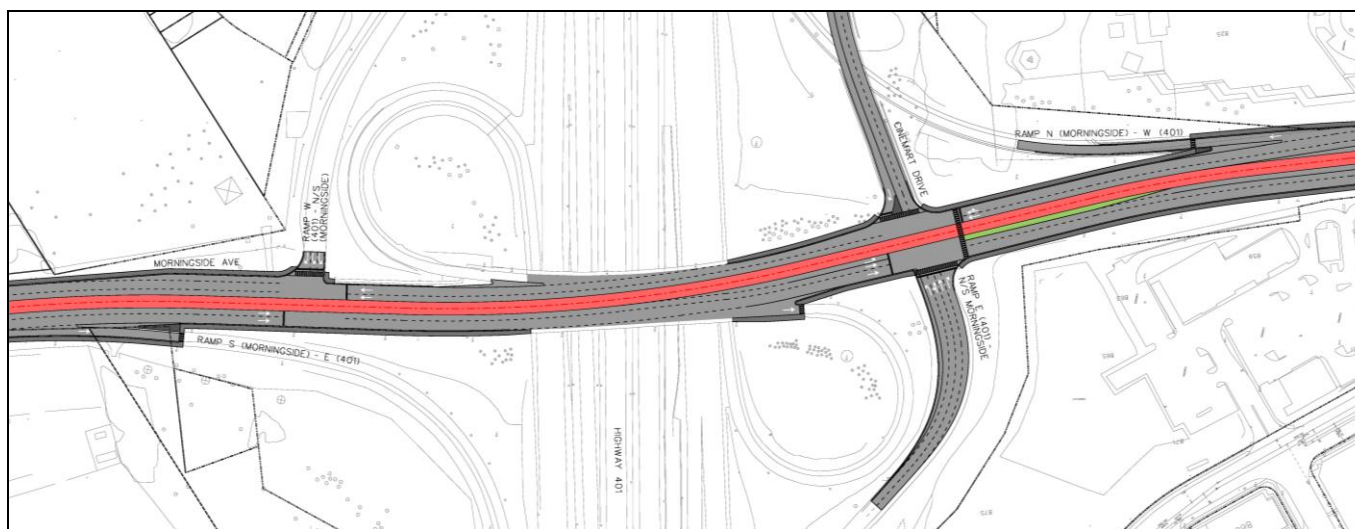
Exhibit E-9: Preferred Design - Kingston Road and Morningside Avenue Intersection



4) Morningside Avenue / Highway 401 (Exhibit E-10)

A detailed traffic analysis was conducted at the Morningside Avenue / Highway 401 crossing resulting in recommendations that provide the most benefit to the LRT operation, and mitigation measures to effectively accommodate critical highway movements. The recommended changes have been agreed in principle by the MTO.

Exhibit E-10: Preferred Design – Highway 401 / Morningside Avenue Area



LRT Service

A successful transit system will maintain existing transit riders and attract new riders by offering a fast, reliable and safe transit service, while being affordable and environmentally sustainable. The existing bus services along the Scarborough-Malvern Corridor operate in mixed traffic, and therefore do not provide enough incentive, from a travel time and reliability perspective, to be an attractive alternative to continued auto use.

LRT is recommended as the preferred transit method over Subway / Scarborough Rapid Transit (SRT) or Bus Rapid Transit (BRT) technologies due to the more appropriate passenger carrying capacity. The forecasted peak point demand for the Scarborough-Malvern corridor ranges between 4,600 and 5,000 people per hour per direction, well below the threshold of 10,000 people per hour normally required to justify the very high cost to construct Subway/SRT facilities.

Transit Service Connections

The TTC is undertaking a separate study to expand the existing Kennedy Subway Station including the terminal of the Scarborough-Malvern LRT.

The City of Toronto has initiated a Transit Project Assessment Process study to identify potential transit improvements along the Kingston Road and Danforth Avenue Corridor. The study is to investigate how to improve transit service along Kingston Road and Danforth Avenue between Victoria Park Subway Station and Eglinton Avenue.

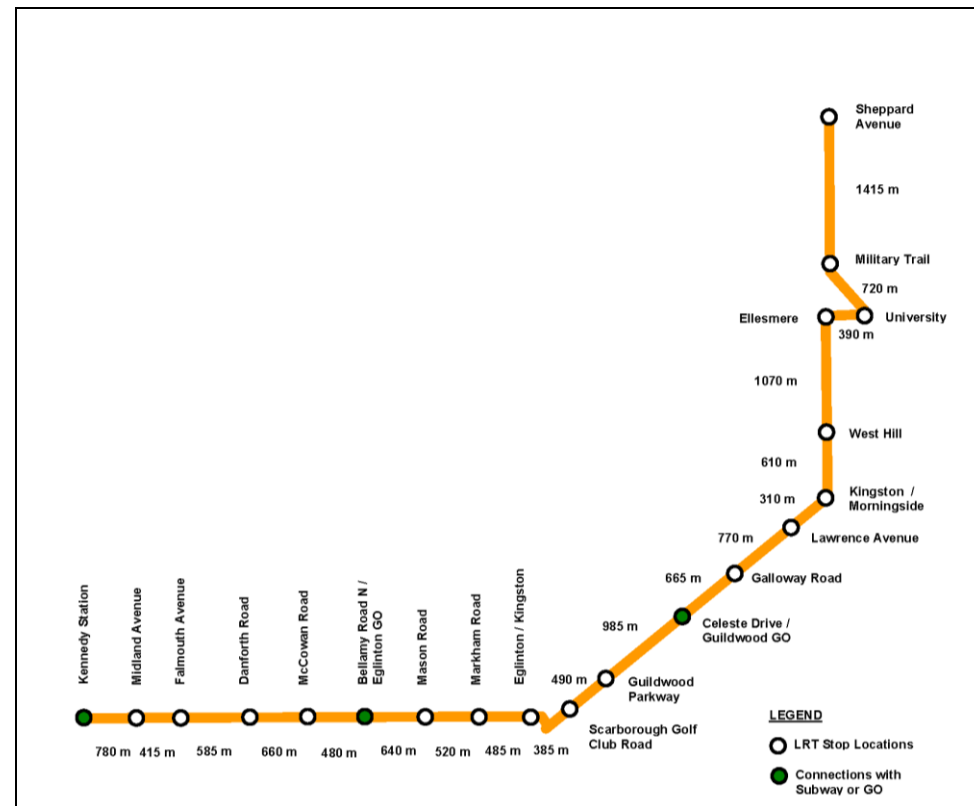
Local bus services in the corridor will be redesigned to provide integrated service with the new SMLRT. Bus Rapid Transit (BRT) may also be implemented along Kingston Road.

The connection between the Sheppard East LRT and Scarborough-Malvern LRT is located at the intersection of Sheppard Avenue East and Morningside Avenue. A track connection will be implemented to provide a link between the two LRT lines for servicing purposes.

Stop Locations

The recommended stop spacing for Scarborough-Malvern is in the order of 400 to 600 metres, based upon the pattern of development and the location of cross-streets. With an expected average speed of 22 to 23 km/h, this spacing is considered to be the best balance between the overall route speed and good local access for LRT service. The stop spacing may be longer at some locations for the Scarborough-Malvern LRT due to the presence of undeveloped zones along the corridor, including the crossings of the Highland Creek and Highway 401. The recommended stop locations are shown in Exhibit E-11:

Exhibit E-11: LRT Stop Locations



Natural Environment

A Natural Heritage Report included in Appendix C1 documents the existing natural resources and provides findings on potential impacts and the associated mitigation measures for the proposed LRT. The study area is urbanized and therefore no major natural features exist along the study corridor, with the exception of the Highland Creek area. The Highland Creek area includes two designated Environmentally Sensitive Areas (ESAs) and one Area of Natural Scientific Interest (ANSI). The ANSI includes the entire area of the Morningside Park ESA and adjacent lands along Highland Creek. The Highland Forest ESA is located on both sides of Morningside Avenue south of Ellesmere Road. The City of Toronto Official Plan identifies Highland Creek as a “Natural Heritage Area”.

Eighteen regionally rare plant species have been identified in the Highland Forest ESA and Morningside ANSI. No “At Risk” species or species considered rare, threatened or endangered for wildlife and fisheries were identified in the Highland Creek area in recent years.

With the implementation of the LRT, removal of mature vegetation along the east side of Morningside Avenue in the Highland area is anticipated and minor loss of fish and wildlife habitat is also anticipated but is negligible. Mitigation measures, including vegetation protection and compensation plan, fish habitat

restoration and compensation plan, stormwater management plan, erosion and sedimentation control plan will be prepared in accordance with the Toronto Region and Conservation Authority requirements.

Social Environment

The existing social environment conditions were identified within the study area. The Scarborough-Malvern LRT corridor consists of commercial development, low-rise and high-rise residential areas, and educational institutions. Projects inventoried along the corridor include extensive planned growth in the University of Toronto Scarborough Campus/Centennial College Ellesmere Campus area. The number of people accessing this location is expected to grow to 20,000 in 10 years, and to double in the longer term. There is high potential for development on these campus sites which reinforces the need for the Scarborough-Malvern LRT line. A major sports facility is proposed to be built in the Scarborough-Malvern study area and is planned to straddle the City/UTSC properties along Morningside Avenue, north of Military Trail.

A Secondary Plan, which provides more detailed information on a specific area from the Official Plan, has been developed for the Highland Creek Community as identified in the Toronto Official Plan. As noted in the secondary plan, lands east of Morningside Avenue, north of Ellesmere Road and west of Conlins Road are within the area of potential influence of a historical landfill site. As such, the construction of any buildings, structures, services and hard surface paving will be permitted only if engineering studies (e.g. hydrogeology, gas, leachate etc) have been undertaken and indicate that the development can safely take place.

A total of 62 sites within 200 m of the proposed LRT route also have a high potential for environmental contamination. No utility issues were identified within the study area.

Property Requirements

For the most part, the LRT facilities can be constructed within the 36 m right-of-way at the midblock sections of Eglinton Avenue and Kingston Road. Property frontages may be affected due to the provision of left turn lanes, centre platforms and/or sight-distance triangle requirements at the intersection areas. Property frontages will be required along Morningside Avenue between Kingston Road and north of Warnsworth Street, and on Ellesmere Road and Military Trail to accommodate the proposed design. In the West Hill area, 10 properties located on the west side of Morningside Avenue between Warnsworth Street and the Highland Creek structure may be required, including open space, parkland, residential and commercial areas. Final property requirements will be confirmed at the preliminary and detailed design stage.

Noise and Vibration Analysis

As part of this study, a detailed noise analysis was carried out to assess the potential noise and vibration impacts and to determine mitigation measures if required. In summary, the projected noise level changes, as a result of the implementation of the SMLRT, are predicted to be less than 5dBA at any receptor location. Therefore, the consideration of noise mitigation is not required based on the Ministry of the Environment (MOE)/TTC Criteria.

The vibration impact analysis for the proposed SMLRT was completed using the results of vibration study reports that have been completed for the TTC Eastern Waterfront Project (RWDI, 2007). This report outlined vibration levels expected at increasing distances from a TTC streetcar travelling on a track (representing the latest TTC track design) and are regarded as being applicable to this project.



According to the measurement data, vibration levels resulting from TTC vehicles are well below the MOE/TTC Protocol Criteria at distances beyond 12 m from the track. Given the shortest distance between the centreline of a proposed SMLRT track and any receptor in this assessment is 15 m, it is expected that no mitigation will be required.

Air Quality Analysis

The Air Quality Assessment study report conducted for this project concludes that installation of the Scarborough-Malvern Light Rail Transit (SMLRT) corridor will result in a reduction of particulate based pollutant emissions and will result in small reductions to all gaseous pollutants emissions; therefore, no impacts are predicted based on the operation of the SMLRT system. Particulate based pollutants from within the study area corridor will be reduced by approximately 25% and gaseous pollutants will be reduced by approximately 2%. It is estimated that carbon dioxide equivalent emissions (CO₂-e), which is the unit of measure for global warming potential, will be reduced within the study area corridor by 1.1 to 1.2 ktonnes/year.

Cultural Environment

A Stage 1 Archaeological Assessment identified no registered sites within or near the study area, but the historical land use exhibits some archaeological site potential. Research into built and cultural heritage within the study area also revealed twenty identified heritage areas and properties that may be affected by the planned LRT project. One built heritage building, located in the West Hill area, has been identified as a potential full property requirement site.

Based on these potential impacts, it is recommended that the proposed light rail transit route be suitably planned in a manner that avoids all identified, above ground, cultural heritage resources. Where any identified, aboveground, cultural heritage resources are to be affected by loss or displacement, further research should be undertaken to identify the specific heritage significance of the affected cultural heritage resource. Based on the results of a detailed heritage evaluation, appropriate mitigation measures such as retention, relocation, salvage, and/or documentation, should be adopted. A Heritage Impact Assessment will be conducted during detailed design.

Economic Environment

The existing Eglinton Avenue, Kingston Road and Morningside Avenue corridors provide the essential visibility and accessibility needed by businesses and other economic activities along the corridors. The planned SMLRT will enhance this accessibility with improved transit service, bringing more patrons to and through the corridors. By stimulating land use redevelopment and intensification along these corridors, the SMLRT may attract even more business potential, resulting in positive economic benefits. Further economic benefits to the City will be achieved during the construction and operation of the SMLRT.

E.4. CONSULTATION

Public Consultation

The general public, government agencies and various interest groups were provided opportunities to review, and comment on this project during the course of the study. The City of Toronto Public Consultation Team was involved in the overall public consultation process. They provided a wide range of methods to communicate with the public including a project web site, a dedicated telephone number, and fax and email addresses for contacting the project team. The addresses/number used were:

Telephone:	416-392-6900
TTY:	416-397-0831
Fax:	416-392-2974
Email:	malverntransit@toronto.ca
Mail:	Public Consultation City of Toronto Metro Hall, 19th Floor 55 John Street Toronto, ON M5V 3C6
Web:	http://www.toronto.ca/involved/projects/malvern_lrt/index.htm

Technical agencies, including federal, provincial and municipal agencies, utilities, and potential interested groups, were contacted in the beginning stage for their initial inputs.

Newsletters and/or emails outlining the project and frequently asked questions were sent directly to individuals on the project mailing list, and to all residents and businesses within the Scarborough-Malvern Corridor. This list included representatives from external agencies, municipalities, and members of the public within the study area or affected by the project, and the public who requested to be added to the mailing list.

Three rounds of Open Houses were held for the public and advertised in the local newspaper to have direct communication with Project Team members. Flyers were distributed throughout the study area prior to each open house. Information panels and audio-visual presentations were provided at the Public Open Houses. The Project Team including representatives from the TTC, the City of Toronto, IBI Group/Arup (prime consultant) and Lura Consulting (Public Consultation Unit) was in attendance at the meetings to answer questions regarding the study.

Public Open Houses No. 1

Two public open houses were held on July 23 and July 24, 2008 as part of the first series of Scarborough-Malvern LRT open houses. The purpose of the open house was to share information about the project with the community and gather feedback on the study area, objectives, background and supporting planning policies, existing conditions and the alternative and recommended transit solution. A total of 121 people signed into these open houses, with 23 comment forms received. There was general support for the project, with some concerns noted about station locations, LRT routing and increased traffic delays result from the LRT operation and left turn restrictions.



Public Open Houses No. 2

Two public open houses were held on May 20 and May 21, 2009 to present the preferred design, the assessment of impacts, construction staging and benefits. Almost 200 people signed in to these two sessions. Participants were invited to submit their ideas and opinions on comment forms, with 24 forms received plus about 40 other comments at the sessions. Once again there was general support for the project, but with concerns about left turn restrictions, potential traffic infiltration into neighbourhoods, LRT stop locations, impacts on surrounding property and roadway traffic congestion.

Public Open House No. 3

A Notice of Study Commencement and of the Third Public Open House was placed in Scarborough Mirror on June 19, 2009, with the open house held on June 29, 2009. The notice advised the public of the commencement of this Transit Project Assessment Study. The purpose of the open house was to share information about the project with the community and to gather feedback on the preferred design concept, the associated impacts and proposed mitigation measures. There was support for implementation of the project with concerns about traffic congestion on Eglinton Avenue and Kingston Road, left turn restrictions, property acquisitions, LRT stop locations and spacing, utilization of bicycle lanes and provision for commuter parking.

Additional Public Meetings

In addition to these Public Open Houses, the EA team met with the Coronation Community of West Hill on May 5, 2009 at Toronto Police 43 Division Community Room, and attended two Town Hall Meetings, arranged by the Councillor for Ward 43 on June 25, 2009 at West Hill Collegiate Institute and the Councillor for Ward 42 on June 19, 2009 at the Malvern Recreation Centre. Over 150 residents attended these question and answer meetings, where questions concerning left turn restrictions, potential traffic infiltration, roadway congestion (particularly on Kingston Road), preference for a subway and property impacts were raised.

The response to all these comments are summarized in Section 7 of the report

First Nations Consultation

This TPAP has addressed the new Ontario Regulation 231/08 requirement to involve and consult with interested First Nations agencies and communities. In 2008 the City of Toronto established a protocol to address First Nations communities consultation, referred to as the City of Toronto and federal Ministry of Indian and North Affairs (INAC) notification protocol for Environmental Assessments. Government officials at the federal and provincial level as well as the Mississaugas of the New Credit First Nation and the Williams Treaty Bands were notified of this project. From these notifications and contacts, no First Nations Community interests were recorded that would affect the TPAP or the preferred design of the project.

Technical Agencies Consultation

The following agencies were invited to be involved in the Preliminary Planning and the TPAP study.

Government Review Agencies

Canadian Environmental Assessment Agency

Technical Agencies

All Stream

Government Review Agencies

Environment Canada
 Department of Fisheries and Oceans
 Transport Canada - Ontario Region
 Ministry of Aboriginal Affairs
 Ministry of Agriculture, Food and Rural Affairs
 Ministry of Citizenship and Immigration
 Ministry of Culture
 Ministry of Municipal Affairs and Housing
 Ministry of Municipal Affairs and Housing
 Ministry of Natural Resources
 Ministry of the Environment
 Ministry of Tourism and Recreation
 Ministry of Transportation
 Ontario Realty Corporation
 Ministry of Health Promotion
 Ministry of Energy and Infrastructure
 Ministry of Health and Long-Term Care

Technical Agencies

MTS All Stream Inc.
 Telus
 Enwave Energy Corporation
 Group Telecom / 360 Networks
 Hydro One Network Inc.
 Toronto Hydro
 Toronto Hydro Telecommunications
 Enbridge Gas Distribution
 Rogers Cable Inc.
 Bell Canada
 Toronto and Region Conservation Authority
 Canadian National Railway
 Canadian Pacific Railway
 GO Transit
 Toronto District School Board
 University of Toronto Scarborough Campus
 Ontario Provincial Police
 City of Toronto Fire Department Services
 City of Toronto Police Services
 Toronto Emergency Medical Services

Comments that were received from several of these agencies assisted in the planning process and the development of the conceptual design. The comments and the team's responses are summarized in Section 7.

Further consultation was carried out with major stakeholder agencies that noted interest in the project throughout the study, including the Toronto and Region Conservation Authority (TRCA), the Ministry of Transportation Corridor Management Office and the University of Toronto Scarborough Campus (UTSC). A number of meetings were held with these groups to discuss potential impacts of the SMLRT and associated mitigation measures. The TRCA were interested in Regulated Areas, TRCA Program & Policy Areas and Provincial & Federal Program Areas located within the study area. Their resulting project requirements were listed in their letter to the TTC dated October 28, 2008 and included in Appendix I. MTO input focused on infrastructure crossing agreements, the use of full transit signal priority near their structures and traffic operation near their facilities. Their resulting project requirements were listed in their letter (email) to the TTC dated September 24, 2009 and is included in Appendix I. Input was provided by the UTSC on their current and future facility and operational plans.



E.5. FUTURE COMMITMENTS

The TTC and the City of Toronto have worked closely with the technical agencies to address any environmental concerns and issues associated with this project. The potential impacts, mitigation measures of the project on traffic operations, transit operations, the natural (including fisheries, vegetation and wildlife), socio-economic and cultural environment (including archaeological, built and as documented in this Environmental Project Report (EPR) cultural heritage, noise and vibration, air quality and property) have been identified, evaluated and assessed and mitigation measures identified. The design process, including both preliminary design and detailed design, may lead to refinement or modification of the proposed conceptual design as noted in the EPR. It is anticipated that such changes will be minor and will not alter the original project intent or commitments to the public and involved agencies.

The detailed design will also evaluate and assess construction methods and staging that will minimize the impacts to the surrounding properties. It will include mitigation plans to address traffic staging, noise, air quality, etc. This will involve ongoing liaison with the technical agencies, emergency services providers, and the affected property owners/communities.

The TTC and the City of Toronto will comply with the TRCA/MOE and other regulatory government agencies' regulations, standards and directives. TRCA has provided a number of specific issues that must be addressed during detailed design and construction phase as reported in the EPR.