

1. Introduction

The Toronto Transit Commission's (TTC) Scarborough Rapid Transit (SRT) line (Line 3) has reached the end of its normal service life. The vehicle model now operating on the line is obsolete and the newer model of this vehicle now available is larger than the one currently operating and would require physical modifications to be made to the Line 3 facility – for example, complete reconstruction of the tighter curves on the line would need to take place.

A number of assessments have been conducted over the past decade of alternative methods to replace or reconstruct / rehabilitate TTC's Line 3. Most recently, at their meeting in July 2016, City of Toronto Council endorsed the option of replacing Line 3 with an extension of the Bloor-Danforth subway (Line 2) to Scarborough Centre. The subway extension would operate as an 'express' subway service from Kennedy Station, approximately 6.2 kilometres northeast, to its new terminus – Scarborough Centre Station.

This type of transit project is subject to the *Ontario Environmental Assessment Act (Ontario EA Act)*. The Ministry of Environment and Climate Change (MOECC) has approved a streamlined environmental assessment process specific to transit projects in Ontario – the Transit Project Assessment Process, or TPAP. This report provides the required documentation related to the TPAP.

1.1 Project Background

Line 3 opened for service in 1985, providing rapid transit service in a fully exclusive right-of-way (ROW) between Kennedy Station – the terminus of Line 2 – and McCowan Road, north of Ellesmere Road. The critical problem affecting the existing Line 3 is that the vehicles are over 30 years old and in need of replacement. However, that particular vehicle is obsolete and the newer model that is available is too large for the existing facility and would require physical changes to the infrastructure, for example, the reconstruction of existing structures where there are tight curves.

In 2006, the TTC evaluated options to upgrade or replace Line 3, completing the [Scarborough Rapid Transit Strategic Plan](#). This plan was a comprehensive study of options for replacing the aging vehicles, upgrading the system's infrastructure as necessary, and potentially expanding the line. The conclusion of the study was to purchase larger, new generation Line 3 vehicles and make the necessary physical modifications at stations to accommodate the new, longer vehicles.

In 2007, one year after the Scarborough Rapid Transit Strategic Plan – the [Transit City Light Rail Plan](#) was introduced. This plan called for the implementation of seven light rail lines throughout the City of Toronto. It was recommended that the Line 3 rehabilitation adopt light-rail technology in order to take advantage of the economies-of-scale cost savings which would result from the acquisition of a large fleet of light-rail vehicles to operate on the proposed City-wide network.

An [Environmental Assessment \(EA\)](#) for the replacement of Line 3 with light rail technology, including a complete rehabilitation / reconstruction of the existing elevated structure, was completed in 2010. The

recommended route extended the line beyond its current terminus – at McCowan Station – to Centennial College and then north to Sheppard Avenue in the vicinity of Markham Road. The EA also addressed a second, future extension north of Sheppard Avenue, to Malvern Town Centre.

At their meeting on October 8, 2013, City Council approved replacing Line 3 with a three-stop extension of the Line 2 Bloor-Danforth subway to Sheppard Avenue East (**Appendix A-1**). This decision was based on the following benefits:

- Higher speed;
- Most-reliable, highest-quality rapid transit service;
- Elimination of the transfer at Kennedy Station;
- Higher ridership; and,
- Consideration of alignments other than the existing Line 3 routing, which would then not require shutting down Line 3 during the construction of a subway extension.

1.1.1 An Updated Transit Plan for Scarborough

Subsequent to the direction from City Council for a subway extension to Sheppard Avenue East, City Planning staff re-assessed the transit requirements in this area of Scarborough, taking into account the recent changes to the transportation plans in the nearby Stouffville GO corridor – firm funding commitments for the GO Regional Express Rail (RER) program, plans for the City's SmartTrack program - and the announced delay in the implementation of the previously-approved Sheppard East Light Rail Transit (LRT).

Two refined priorities for the Scarborough Transit Network Plan were developed and endorsed by the City's Executive Committee on January 28, 2016 (**Appendix A-2**):

- Support for the development of Scarborough Centre as a vibrant urban node; and,
- Support for the development of complete communities along the Avenues and improve local accessibility.

The Executive Committee directed staff to proceed with the analysis of an optimized transit network to address these priorities, which included:

- An extension of Line 2 (Bloor-Danforth Subway) express to Scarborough Centre;
- An extension of Line 5 (Eglinton Crosstown LRT) to the University of Toronto Scarborough Campus (UTSC);
- SmartTrack stations at Lawrence Avenue East and Finch Avenue East; and,
- A rapid transit solution on the Sheppard Avenue East corridor.

In this network, the primary purpose of the Scarborough Subway Extension (SSE) is to improve service and access to Scarborough Centre, which is identified as an Urban Growth Centre (UGC) by the City and Province. Scarborough Centre has been envisioned as a vibrant urban node in the City's Official Plans (OPs) since 1968, and it is recognized that excellent transit service which increases the accessibility of Scarborough Centre is a key component of realizing that vision.

SmartTrack functions as a north-south spine where bus passengers on busy east-west routes can transfer to the regional transit network (i.e., at Lawrence Avenue East, Sheppard Avenue East, Finch Avenue East and Steeles Avenue East). Transfers between the Lawrence Avenue East and Ellesmere Road corridors and the regional transit system are currently made onto Line 3.

At its meeting in July 2016, City Council endorsed the express subway extension of Line 2 (**Appendix A-3**). This report deals solely with the express subway project.

1.2 Study Purpose

A TPAP has been conducted to satisfy the requirements of the *Ontario EA Act*. As with any EA process, the central focus is on ensuring that the impacts associated with the Project are clearly identified, and mitigated to the greatest extent practical.

This report provides the necessary documentation of this study process. It describes the conditions in the area in which the Project will be implemented, the major elements of the subway extension project, the types of impacts that may be expected from the construction of, and ongoing operation and maintenance related to, this subway extension, and the manner in which those impacts will be mitigated, and monitored.

1.3 Study Area

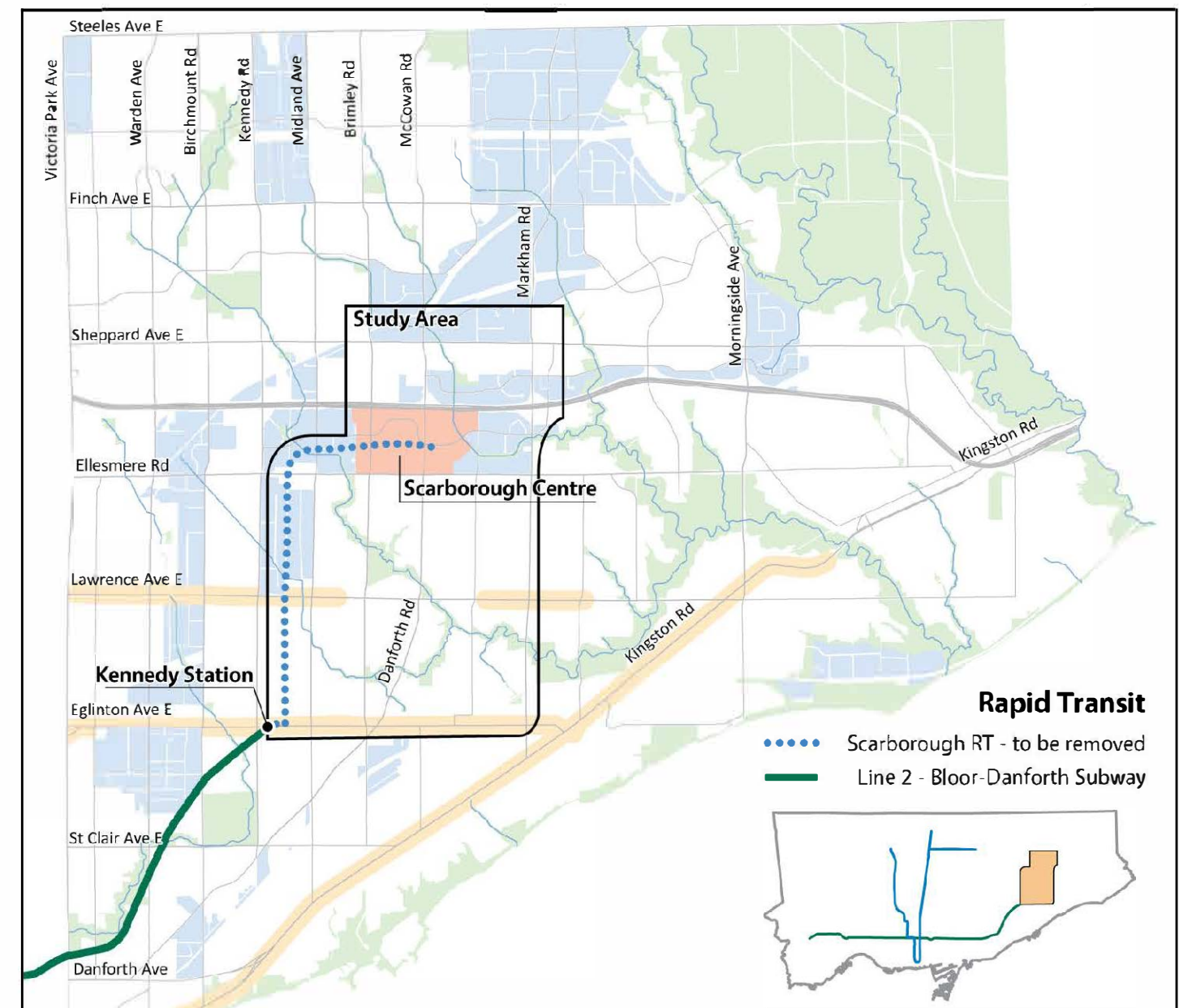
As shown in **Exhibit 1-1**, the Study Area is roughly bounded on the south by Eglinton Avenue East, Sheppard Avenue East on the north, on the west by the existing Line 3 and Brimley Road once north of Ellesmere Avenue, and on the east by Markham Road / Progress Avenue.

1.4 Study Process – The Transit Project Assessment Process

The current study adheres to the TPAP in order to satisfy the *Ontario EA Act*, Ontario Regulation 231/08, the Transit Project Regulation (Transit Projects and Metrolinx Undertakings).

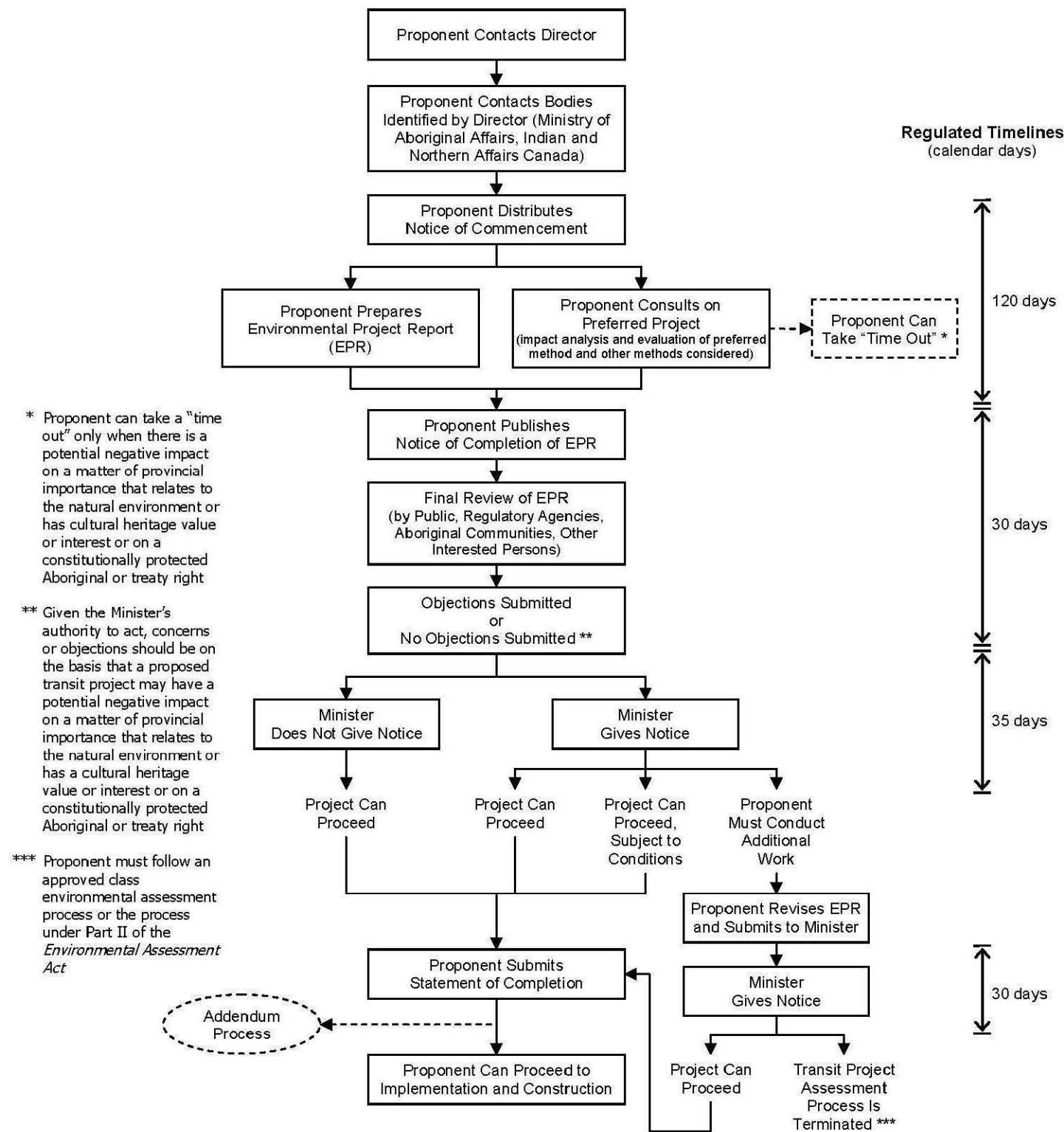
Proponents of a project must follow the prescribed steps in the TPAP within specified time frames, and provide adequate opportunities for review and comment by a broad range of stakeholders, culminating with the Minister of the Environment and Climate Change's decision within six months of the start of the process. Once the TPAP has been completed to the satisfaction of the Minister of the Environment and Climate Change, transit project proponents may file a Statement of Completion and proceed with design and construction processes.

Exhibit 1-1: Study Area



[Ontario's TPAP Guide](#) was developed in March 2009 by the MOECC to highlight key features of the TPAP. An illustration of the TPAP is provided in **Exhibit 1-2**.

Exhibit 1-2: Illustration of Transit Project Assessment Process



1.4.1 Environmental Project Report

An Environmental Project Report (EPR) documents the TPAP, including the conclusions reached, the impacts, the associated mitigation measures, and the future commitments for the Project. The EPR must be submitted to the MOECC within 120 days of distributing the Notice of Commencement.

In accordance with Ontario's TPAP Guide, this EPR will be adjusted throughout the 120-day period to reflect input from Indigenous communities, adjacent property owners, regulatory agencies and other interested persons.

1.4.2 TPAP Approval Process

If a person, including members of the public, regulatory agencies and Indigenous communities, has concerns about this Project, objections can be submitted to the Minister within 30 days of the Notice of Completion. Proponents will be given an opportunity to comment on the concerns raised in an objection before the Minister acts. After the 30-day review period has ended, the Minister has 35 days within which certain authority may be exercised. A proponent may not proceed with a transit project before the end of the 35-day period unless the Minister gives a notice allowing the proponent to proceed. Objections received after the 30-day objection period will not be considered by the Minister.

Whether there is an objection or not, if the Minister acts within the 35-day period, one of three notices may be issued to the proponent:

- A notice to proceed with the transit project as planned in its EPR;
- A notice that requires the proponent to take further steps, which may include further study or consultation; or,
- A notice allowing the proponent to proceed with the transit project subject to conditions.

If, within 30 days after receiving the revised EPR, the Minister is of the opinion that it still does not appropriately address negative impacts, the Minister can terminate the TPAP and require the proponent to comply with Part II of the *Ontario EA Act* or to comply with an approved class EA before proceeding with the transit project. If the Minister does not act within the 35-day period, the transit project may proceed as planned.

1.5 Study Team Organization

A Study Team was led by the City of Toronto's City Planning Division and the TTC and included key staff from both organizations. The study was guided by the Transit Executive Committee, which was co-chaired by the City Manager and the TTC CEO. A team of external technical experts was selected to provide advice and expertise to the City and the TTC, including:

AECOM	Overall TPAP and Design Lead; Communications and Consultation	Primary Consultant
The Planning Partnership	Land Use Analysis	Subconsultant to AECOM
SS Wilson Associates	Noise and Vibration	Subconsultant to AECOM
Novus Environmental Inc.	Air Quality	Subconsultant to AECOM
LGL Limited	Natural Environment Assessment	Subconsultant to AECOM

A Technical Advisory Committee (TAC) comprised of staff from relevant City and TTC departments, Metrolinx/GO Transit, Toronto Hydro, and Toronto and Region Conservation Authority (TRCA) advised the Study Team.

1.6 Relevant Policies to the Scarborough Subway Extension

Provincial and local planning documents establish a policy framework for managing growth across Ontario, the Greater Golden Horseshoe and the City of Toronto. Alongside other planning matters, these planning documents provide considerable direction for integrating transit expansion and land redevelopment.

Policies that are directly relevant to this study follow.

1.6.1 City of Toronto Planning Policies

Relevant documents for this study include the Toronto OP, Scarborough Centre Secondary Plan and supporting precinct-level plans within the Secondary Plan Area

1.6.1.1 Toronto Official Plan

The [City of Toronto OP](#) establishes the vision and policies for future development, with the overarching goal of supporting a more livable city. In terms of growth and development, the OP establishes an urban structure and land use designations that provide direction on where growth will be directed, and what type and scale of development is permitted. The OP also provides policy direction on the public realm, built form, cultural resources, housing, community services and facilities, parks and open spaces, and economic development.

Urban Structure & Growth Management

Toronto's urban structure is based on directing growth to designated areas, including Centres (places where jobs, housing and services will be concentrated in dynamic, mixed-use settings) and Avenues (corridors that are well served by transit, the existing road network, and which have a number of properties with redevelopment potential). The urban structure and the policies of the OP also aim to protect stable residential neighbourhoods and the Green Space System from all types of growth; and to protect Employment Districts from conversion to other uses.

At the core of the SSE Study Area, Scarborough Centre is a designated Centre under the OP; serving as a focal point for the communities in the eastern part of Toronto. Centres are key locations on the rapid transit system that draw people from across the City and beyond with their high level of connectivity and diversity of housing and employment. A high quality public realm within each Centre is critical to its success in attracting businesses, workers, residents and shoppers. Secondary Plans are used to provide context-specific guidance on growth and development in Centres.

The Transportation Component of the Official Plan Review

Toronto's Transportation Planning Section has been undertaking a review of the transportation policies in the OP. Policies relating to transit planning have not yet been incorporated in the OP, but are being used to guide and inform this Project.

An evaluation framework for comparing transit infrastructure projects has been developed through extensive public consultation on the review of transportation policies in the OP. The framework includes the following high-level criteria:

- **Serving People**
 - Experience
 - Choice
 - Social Equity
- **Strengthening Places**
 - Shaping the City
 - Healthy Neighbourhoods
 - Public Health & Environment
- **Supporting Prosperity**
 - Supports Growth
 - Affordability

The evaluation criteria developed for this study are consistent with this framework.

1.6.1.2 Scarborough Centre Secondary Plan

The [Scarborough Centre Secondary Plan](#) envisions Scarborough Centre as the urban focal point for eastern Toronto where employment, housing, institutional, cultural, recreational, commercial and community services, and transit will be concentrated in a dynamic mixed use location. The Centre is a focal point, at the eastern end of Line 3, of numerous local and interregional surface transit lines. It is adjacent to Highway 401 and at the crossroads of several major arterial roadways. These features create greater opportunities for employment and residences within the Centre. Promoting transit supportive development in the vicinity of rapid transit is an OP strategy. Higher densities of both residential and employment land uses in specific locations within the Centre will increase ridership levels to help sustain the transit services, support future transportation improvements and further the City's goal of accommodating balanced growth at strategic locations within Toronto.

Supporting Precinct-level plans within the Secondary Plan Area

Since the adoption of the Scarborough Centre Secondary Plan, the City has initiated a number of subsequent studies to support implementation. These efforts have focused primarily on the Civic and Commercial Precincts, and more recently, the McCowan Precinct.

- The Civic Precinct Implementation Plan (2009) identified a number of needed improvements, including City-led developments (new library, parking facility, shower / gym facilities), intersection adjustments at Ellesmere Road, and a long list of public realm projects.
- Building on the Civic Precinct Plan, the Scarborough Centre Public Space & Streetscape Master Plan (2012) focused on how to make the Civic and Commercial Precincts more pedestrian friendly, including the introduction of a permeable block pattern and street network, new public spaces, and a pedestrian-oriented built form (e.g., a consistent and active street wall with appropriately scaled podiums).
- Most recently, the City has completed more detailed planning for the McCowan Precinct which includes the preparation of a Street Design & Transportation Network Study (2013), Community Services & Facilities Review (2013), Urban Design Guidelines (2014) including a conceptual master plan, and the implementing McCowan Precinct Plan (2014).

1.6.2 Growth Plan for the Greater Golden Horseshoe, 2017

The [Growth Plan for the Greater Golden Horseshoe](#) (Growth Plan) was first adopted in 2006 and amended in 2017 after a comprehensive review of the policies. The Growth Plan identifies a regional strategy for managing growth to ensure continued economic prosperity and a high quality of life in the Toronto region.

Key policies of the Growth Plan are related to the co-ordination of land use and transportation infrastructure, including the establishment of UGCs to function as mixed-use, high-density downtowns that are well connected to rapid and local transit. Scarborough Centre is one of five UGCs located within the City of Toronto. Its target density is 400 people and jobs per hectare. To enable this level of intensification and foster a large and vibrant mixed-use community, this area must be served by very high quality rapid transit.

Providing a convenient, high speed rapid transit connection to this UGC is a key tenet of the City's OP, which aims to ensure that Scarborough Centre has the same degree of mobility opportunities that exist in other Centres (such as North York and Yonge – Eglinton). The key transit planning priority for Scarborough Centre is to better connect the Centre to the rest of the Toronto city region in order to:

- Encourage high-quality employment and residential growth in the Centre; and,
- Enhance the accessibility of Scarborough Centre; improving the speed, reliability and convenience of transit service linking Scarborough Centre and key destinations in the Toronto city region.

Better connecting Scarborough Centre to the rest of the City and surrounding areas is crucial to its success.

1.6.3 Provincial Policy Statement, 2014

The [Provincial Policy Statement](#) was issued under Section 3 of the *Planning Act* and came into effect April 30, 2014. As a key part of Ontario's policy-led planning system, the Provincial Policy Statement provides policy direction on matters of provincial interest related to land use planning and development, and provides for the appropriate management of resources, public health and safety, and the quality of the natural and built environment. It recognizes that complex interrelationships among environmental, economic and social factors in land use planning must be carefully managed to accommodate sustainable growth in order to meet the full range of current and future needs, while achieving efficient development patterns and avoiding significant or sensitive resources and areas.

Key policies of the Provincial Policy Statement focus on efficient development patterns to optimize the use of land, resources and public investment in infrastructure and public service facilities. The development of the SSE will help support the financial well-being of the Province and City, promote strong and healthy communities for people of all ages, and promote a long lasting and competitive economy while sustaining a clean and healthy environment.

The SSE will better serve transit riders of Scarborough by delivering a fast, efficient and reliable subway system that will provide greater connectivity and accessibility across the Toronto city region and the Scarborough area. The Scarborough Centre is a high density urban centre that will continue to develop as a multimodal central hub with options of quality connections to transit, cultural facilities, public institutions, and services for people across Scarborough and neighbouring districts.

1.7 Transit Interface Considerations

The TTC / City of Toronto and Metrolinx have completed or are currently undertaking transit studies to improve the transit services adjacent to the Line 3 area as shown in **Table 1-1**.

Table 1-1: Transit Studies Related to SSE

Study	Status	Relevance
Eglinton-Crosstown LRT	Under construction.	Approved design of Kennedy Station interchange presents constraints on how the SSE can connect to Line 2.
Eglinton East LRT	Approved (2009) – formerly known as the Scarborough Malvern LRT. Currently reviewing project in preparation of completing an amendment to approved project.	This project is being contemplated as an easterly extension of the Eglinton Crosstown LRT with through-service at Kennedy Station. Connection and design of Kennedy Station presents constraints on how the SSE can connect to Line 2.
Smart Track	Currently being studied by City and Metrolinx.	Would create a north-south transit spine through Scarborough offering connections for bus passengers on east-west arterial routes to the regional transportation network.
Regional Express Rail	Funding committed. Currently being implemented by Metrolinx.	Transformation of the existing GO Rail system to deliver frequent two-way, all-day train service, seven days a week, on both the existing Stouffville and Lakeshore East lines that run through Scarborough, connecting passengers to both local and regional destinations.

Each of the above studies are described in detail below.

1.7.1 Eglinton Crosstown LRT

In September 2008, Metrolinx launched a regional transportation plan – The Big Move – a 25-year, \$50 billion plan for co-ordinated, integrated transportation and transit in the Greater Toronto and Hamilton Area (GTHA). One of the first wave projects currently underway is the Eglinton Crosstown LRT (Crosstown), which represents an investment of \$5.3 billion (2010\$) toward better transit in Toronto.

The Crosstown is a light rail transit (LRT) line that will run across Eglinton Avenue between Mount Dennis (Weston Road) and Kennedy Station. This 19 kilometre corridor will include a 10 kilometre underground portion between Keele Street and Laird Drive.

The Crosstown is part of the \$8.4 billion (2010\$) investment from the Ontario government to expand transit in Toronto. The Crosstown project is the largest transit expansion in the history of Toronto. Construction is currently underway and Crosstown service will begin in 2021.

1.7.2 Eglinton East LRT

The TTC and City of Toronto undertook an EA to study the 13 kilometre long Scarborough-Malvern Light Rail Transit (SMLRT) corridor that would link Kennedy Station, including the Bloor-Danforth Subway, the SRT and the future Eglinton Crosstown LRT, with northeastern Scarborough. The project received EA approval in 2009 that would see bus services along the corridor be replaced by LRT – electrically powered “light rail” vehicles operating in a designated ROW. Although the original project was not funded, it was re-introduced as part of the Scarborough Transit Network in January 2016 as the Eglinton East LRT, which would see a through-service at Kennedy Station, connecting it to the Crosstown LRT. The easterly extension will see service run east from Kennedy Station (on Eglinton Avenue), northeast on Kingston Road, and then north on Morningside Avenue (via Ellesmere Road and Military Trail) to the University of Toronto Scarborough Campus.

1.7.3 SmartTrack

The City, the TTC and Metrolinx are working to implement SmartTrack with GO RER. SmartTrack will use the GO rail network, a provincially owned asset, to provide a more urban transit service than currently contemplated under GO RER. SmartTrack includes a number of key components:

- New stations; including Lawrence East and Finch East;
- Fare integration between GO and the TTC; and,
- TTC Service Integration.

1.7.4 Regional Express Rail (RER)

The Province of Ontario’s GO RER program is a \$13.5 billion provincial funding commitment that includes enhancements to the existing GO network through more frequent service in both peak and off-peak hours. GO RER will bring 15 minute two way all-day service to the core segments of five GO corridors (Lakeshore East, Lakeshore West, Kitchener, Barrie, and Stouffville).

Infrastructure investments included in the \$13.5 billion program include electrification of core segments of five GO corridors, modifications to existing stations, grade separations and additional track infrastructure.

1.8 Organisation of the Environmental Project Report

The remainder of the EPR is organized as follows:

- Chapter 2 – Existing and Future Conditions
- Chapter 3 – Choosing the Preferred Alignment and Station / Bus Terminal Location
- Chapter 4 – Project Description
- Chapter 5 – Impacts, Mitigation Measures and Monitoring
- Chapter 6 – Future Commitments
- Chapter 7 – Communication and Consultation Process