TORONTO TRANSIT COMMISSION
REPORT NO.

MEETING DATE: MAY 6, 2010

SUBJECT: SCARBOROUGH RAPID TRANSIT
TRANSIT PROJECT ASSESSMENT STUDY
RECOMMENDATIONS

ACTION ITEM

RECOMMENDATION

It is recommended that the Commission:

1. Approve the recommendation, of the joint City/TTC Scarborough Rapid Transit (RT) Transit Project Assessment Study, as described in the attached "Scarborough Rapid Transit, Draft Environmental Project Report, Executive Summary", for:
    a. Conversion of the existing Scarborough RT line (Kennedy Station to McCowan Station) to use Transit City Light Rail Transit (LRT) vehicles;
    b. Extension of the Scarborough RT from McCowan Road to Malvern Town Centre, including the alignment, stations, passenger pick-up and drop-off facilities and bus terminals;
    c. A non-revenue service connection to the proposed Sheppard East Maintenance and Storage Facility, via Progress Avenue and Sheppard Avenue East;
    d. Protection for the future Bellamy Maintenance and Storage Facility;
    e. An amendment to the approved Scarborough-Malvern LRT Environmental Project Report (EPR) to provide an underground connection to Kennedy Station, via a portal located immediately west of Midland Avenue; and
    f. An amendment to the Eglinton Crosstown LRT EPR to provide an underground connection to Kennedy Station, via a portal located immediately east of Ionview Road.

2. Note that eight public consultation open houses and one community meeting were held.

3. Forward this report to the Toronto Executive Committee for consideration at its meeting on May 17, 2010, and City Council at its meeting on June 8, 2010 recommending that City Council approve the recommendations of the SRT Transit Project Assessment Study and authorize staff to submit the EPR to the Ministry of the Environment.

4. Forward this report to Metrolinx and the Ontario Ministry of Transportation and the Ontario Ministry of the Environment, for information.

FUNDING

Funding is included in the Scarborough RT, Eglinton Crosstown LRT and Scarborough-Malvern LRT projects outlined under Transit City approved priority projects in the TTC 2010-2014 Capital Program, as amended by the Commission on October 29, 2009 and adopted by City of Toronto Council on December 8, 2009. Project commitment approval of $217.447 million was included for the Scarborough RT and $131.268 million for the Eglinton Crosstown LRT, to cover expenditures to the end of 2010 for these approved lines; and $1.363 million for the Scarborough-Malvern LRT for expenditures to 2009 for this unapproved line.

In its March 25, 2010 Provincial Budget, the Province deferred $4 billion in expenditures over the next five years to phase the construction of transit projects. It is anticipated that there will be some impacts on the implementation timing of lines not currently under construction; however the details of this announcement will require further discussion and clarification from Metrolinx.

BACKGROUND

The Scarborough RT began operation in 1985 from Kennedy Station to McCowan Station. The existing Mark 1 vehicles are no longer available and will reach the end of their economic life in 2015. There is also inadequate fleet capacity to meet current demand.

At its meeting of August 30, 2006, the Commission approved replacement of the existing Mark 1 vehicles with their successor – the Mark II vehicles. During 2009, a life cycle cost analysis was performed, which led to the decision to use Transit City LRT technology on the Scarborough RT, allowing for a common fleet. Accordingly, the existing Scarborough RT line must be modified to accommodate the new, larger LRT vehicles.

At its meeting of March 21, 2007, the Commission endorsed the *Toronto Transit City Light Rail Plan* as the basis for rapid transit expansion in the City of Toronto. This plan included the extension of the Scarborough RT and seven new LRT lines, forming a network of fast, reliable, environmentally-sustainable light rail transit throughout the City.

On June 15, 2007, the Province of Ontario announced the *MoveOntario 2020* rapid transit plan for the Greater Toronto and Hamilton area (GTHA). *MoveOntario 2020* includes the TTC-City of Toronto *Transit Light Rail Plan*, which includes the Scarborough RT (from Kennedy Station to Malvern), Eglinton Crosstown LRT, and Scarborough-Malvern LRT lines. In the spring of 2009, the Province announced funding for four Transit City projects including the Scarborough RT conversion and extension project. The Scarborough RT is included as a priority project in the *Metrolinx Big Move Transit Plan* for the GTHA.

In early 2008, the City of Toronto and Toronto Transit Commission initiated preliminary planning for a Transit Project Assessment Study for the Scarborough RT line. The Transit Project Assessment is conducted in accordance with the Transit Projects Regulation of the *Environmental Assessment Act* (EA). Under this Regulation, transit projects, such as the Scarborough RT, are exempt from the requirements under Part II of the *Act.* The new regulation has created a process which allows for a Provincial assessment of potential environmental impacts to be completed and approved within six months.

In addition to the 11.4 kilometre Scarborough RT line, the scope of the Scarborough RT Transit Project Assessment also addresses Kennedy Station improvements, including the alignments of the Scarborough-Malvern LRT and Eglinton Crosstown LRT lines into Kennedy Station. The Commission approved the recommendations for the Scarborough-Malvern LRT Transit Project Assessment at its meeting of August 26, 2009 and for the Eglinton Crosstown LRT Transit Project Assessment at its meeting of November 17, 2009. Both of these Studies excluded the alignments into Kennedy Station, pending the results of the Scarborough RT Transit Project Assessment.

This report provides a summary of the public consultation process, results of the Scarborough RT Transit Project Assessment Study, and the rationale supporting the various elements of the recommended preferred design for the Scarborough RT from Kennedy Station to Malvern Town Centre, the Eglinton Crosstown LRT from Birchmount Road to Kennedy Station and the Scarborough-Malvern LRT from Midland Avenue to Kennedy Station.

DISCUSSION

Purpose

The overall objective of the Transit City program is to provide excellent, reliable, high-capacity, environmentally-sustainable transit service, thereby reducing auto dependency, while supporting other important City objectives related to creating a more liveable, attractive, and sustainable city.

In support of this broader objective, the specific purpose of the Scarborough RT project is to:

1. Provide rapid transit into north-east Scarborough;

2. Support local population and employment growth;

3. Accommodate future increase in ridership;

4. Minimize adverse environmental and community effects;

5. Connect the Scarborough RT to the approved Sheppard East LRT;

6. Provide rapid transit into Centennial College; and

7. Achieve reasonable costs.

The Scarborough RT will include the following new connections to TTC and GO Transit services:

1. Kennedy Station (Bloor-Danforth Subway, Scarborough-Malvern LRT, Eglinton Crosstown LRT, GO Stouffville Line); and

2. Sheppard East Station (Sheppard East LRT).

Ridership

Current/future capacity/demand for the Scarborough RT, passengers per hour, per direction (pphpd) into Kennedy Station is as follows:

	Current
Capacity	3,800 pphpd
Ridership	4,200 (with overcrowding)
Demand	5,000

	2031
Capacity	12,000-14,000
Demand	10,000

Phased Project Implementation

Due to funding constraints, the extension of the Scarborough RT into Malvern will be undertaken in two phases. During Phase 1, the Scarborough RT will be extended from McCowan Station to Sheppard Avenue, which will include a bus terminal to serve feeder bus routes. Phase 2 will extend from Sheppard Avenue to Malvern Town Centre and will be implemented when funding becomes available.

Study Area

The study area for the Scarborough RT Transit Project Assessment includes:

1. The Eglinton Avenue corridor from Kennedy Station to Birchmount Road (Eglinton Crosstown LRT);

2. The Eglinton Avenue corridor from Kennedy Station to Midland Avenue (Scarborough-Malvern LRT);

3. The existing Kennedy Station lands;

4. A corridor around the existing Scarborough RT alignment from Kennedy Station to McCowan Station; and

5. An area bounded by McCowan Road, Ellesmere Road, Neilson Road, the CP-Agincourt Subdivision, and Markham Road (Scarborough RT extension to Malvern).

The Process to Date

The process, to date, has involved a number of study phases to develop a preferred Scarborough RT alignment and to assess the impacts of its construction and operation including:

1. Data collection and analysis on transportation facilities, the natural environment, and the social environment was completed for the study area.

2. For those areas where issues had been identified (including interchanges with Scarborough-Malvern LRT and Eglinton Crosstown LRT lines at Kennedy Station, network and alignment alternatives for the Scarborough RT extension from McCowan Station to Malvern Town Centre, connection to the proposed Sheppard East Maintenance and Storage Facility and bus terminal location at Sheppard East Station) alternative solutions were developed and analyzed. The preferred options were incorporated into the preferred project design.

3. Environmental issues were identified and alternative methods were selected for the alignment to minimize and/or mitigate adverse impacts.

4. At the beginning of the process, various agencies and stakeholder groups were canvassed to determine interest in the project. Meetings were held with City of Toronto departments and key stakeholders including: the Ministry of the Environment, GO Transit, Hydro One, Metrolinx, the Ministry of Transportation, the Toronto and Region Conservation Authority, the Toronto Catholic District School Board and the Toronto District School Board.

5. A comprehensive public consultation program was developed to allow the general public to review the proposed project, provide comments and outline any objections. Since April 2008, eight public consultation open houses and one community meeting (total attendance of 1,375 persons) have been conducted. Information was posted on the City and TTC websites. Opportunities were provided for the public to comment verbally, by email or by fax. A summary of responses prepared for all concerns and comments will be included in the EPR.

6. To date, this process has resulted in the development of a preferred design for Kennedy Station, requirements for the conversion of the existing Scarborough RT to use Transit City LRT technology and the preferred alignment and associated facilities for the extension of the Scarborough RT from McCowan Station to Malvern Town Centre.

Preferred Design

Overview

As shown in Exhibit 1, the Preferred Design for the 11.4 kilometre Scarborough RT line includes modifications to the existing 6.5 kilometre Scarborough RT (from Kennedy Station to McCowan Station) for conversion to Transit City LRT vehicles technology and a 4.9 kilometre extension of the Scarborough RT from McCowan Station to Malvern Town Centre. The entire alignment will be within a dedicated, fully-segregated right-of-way, which is generally at-surface or elevated between Kennedy Station and Milner Avenue, and is underground between Milner Avenue and Malvern Town Centre. Portals (transition from elevated to underground section) will be located immediately south of the Progress/Milner intersection and immediately west of Malvern Town Centre.

The Scarborough RT project includes the following key design components:

1. A complete reconstruction of the Scarborough RT connection at Kennedy Station, that will provide a more convenient transfer from the Scarborough RT to the Bloor-Danforth subway and will make provisions for the future Eglinton Crosstown and Scarborough-Malvern LRT lines;

2. Modifications to the existing Scarborough RT stations to accommodate the longer, low-floor LRT vehicles (including lengthening platforms, adjustments to track levels and/or roof levels and conversion to overhead power distribution): Lawrence East, Ellesmere, Midland, Scarborough Centre and McCowan Stations;

3. Extension of the Scarborough RT from McCowan Station to Malvern Town Centre, with stations at Centennial College (Exhibit 2), Sheppard Avenue (Exhibit 3) and Malvern Town Centre;

4. Protection for future Scarborough RT stations at Bellamy Road and Brimley Road;

5. Bus terminals and passenger pick-up and drop-off facilities at Sheppard Avenue and Malvern Town Centre;

6. Provision of a surface non-revenue service connection from Sheppard Avenue to Milner Avenue, along Progress Avenue and from Milner Avenue to Centennial College along an elevated structure (over Highway 401);

7. Supporting structures including traction power substations, an emergency exit building and ventilation shafts in the 1.6 kilometre underground section, from Milner Avenue to south of Malvern Town Centre.

Maintenance and Storage Facility

Scarborough RT vehicles will initially operate from the proposed Sheppard East Maintenance and Storage facility. However, as full build-out of the Transit City network approaches, the Sheppard East Maintenance and Storage Facility will be unable to accommodate the additional fleet. The Bellamy Maintenance and Storage Facility continues to be a possible option for a future location. As such, the Scarborough RT Transit Project Assessment will reference the potential future requirement for this location.

Sheppard East Maintenance and Storage Facility Non-Revenue Service Connection

The non-revenue service connection to the proposed Sheppard East Maintenance and Storage Facility (located at Conlins Road) will run at-surface in a dedicated centre median right-of-way on Progress Avenue, from Milner Avenue to Sheppard Avenue East. At Sheppard Avenue, the Scarborough RT trains will use the Sheppard East LRT right-of-way between Progress Avenue and Conlins Road for access to the Maintenance and Storage Facility. Scarborough RT vehicles will typically use the non-revenue service connection on Progress Avenue in the shoulders of the peak periods, when service ramps up and down, and during the late night and early morning time periods for service start-up and shut-down.

Commuter Facilities

For the stations on the existing Scarborough RT line, existing commuter facilities (parking, bus terminals and lay-bys, passenger pick-up and drop-off facilities) will be retained. The preferred design will include a new 7 bay bus terminal at Sheppard Avenue and a new 11 bay bus terminal at Malvern Town Centre. Once the Scarborough RT is extended to Malvern Town Centre, the feeder bus routes serving the Sheppard bus terminal will be reviewed. Passenger pick-up and drop-off facilities will also be provided at Sheppard Avenue and Malvern Town Centre.

Ancillary Facilities

An emergency exit building (for the evacuation of Scarborough RT passengers in the event of an emergency) is proposed along the underground segment.

The existing traction power substations at Kennedy, Lawrence East, Ellesmere, Scarborough Centre and McCowan Stations will remain part of each station, but will undergo changes to accommodate the new vehicle requirements. New substations are proposed at Centennial College, Sheppard Avenue and Malvern Town Centre.

The locations of the emergency exit building and the traction power substations will be subject to further review and refinement during detailed design.

Eglinton Crosstown LRT and Scarborough-Malvern LRT Connections to Kennedy Station

The Scarborough RT Transit Project Assessment also addressed the alignment of the Eglinton Crosstown LRT from Birchmount Road to Kennedy Station and the Scarborough-Malvern LRT from Midland Avenue to Kennedy Station (see Exhibit 4). The preferred design for the Eglinton Crosstown LRT includes a surface stop at Ionview Road, with a portal structure immediately east of the intersection. As shown in Exhibit 5, the Eglinton Crosstown LRT will operate underground into Kennedy Station at the same level as the existing Bloor-Danforth subway station platform. The Scarborough-Malvern LRT will include a surface stop at Midland Avenue, with a portal located west of Midland Avenue to an underground platform immediately east of the GO Rail line. Scarborough-Malvern LRT passengers will transfer to the Scarborough RT, Eglinton Crosstown LRT and Bloor-Danforth subway platforms via a pedestrian tunnel under the GO rail corridor.

Property Requirements

As of April 15, 2010, the following permanent property requirements have been identified:

1. Full acquisition of 2 to 8 properties; and

2. Partial acquisition on 170 to 190 properties.

Temporary property requirements for construction of the Scarborough RT will be confirmed during design.

Subject to approval of the recommendations included in the EPR report by City Council, the City of Toronto will acquire privately-owned properties by negotiation or expropriation, as required.

Schedule

The Transit Project Assessment process will be completed in fall 2010.

Construction of Sheppard East Station will be coordinated with the Sheppard East LRT, currently under construction and scheduled to be completed in 2013.

The March 2010 Provincial Budget announced the phasing of funding for the Transit City projects. The commitment of $8.15 billion was maintained, but the funds will be distributed over a longer period of time. Specific impacts on Transit City projects are not known at this time. Staff will report back at a future Commission Meeting when the impact of the Provincial Budget is known.

Notwithstanding, investigations are underway to determine if the schedule for implementation of Phase 1 of the Scarborough RT project can be accelerated so that the line is operational for the Pan Am Games, in the summer of 2015.

Transit Project Assessment Process

Under the Transit Projects Regulation of the *Environmental Assessment Act*, transit projects, such as the Scarborough RT, are exempt from the requirements under Part II of the *Act.* The new regulation has created a process which allows for a Provincial assessment of potential environmental impacts to be completed and the report to gain approval within six months.

The preliminary planning has been completed for the project and the Transit Project Assessment Process Notice of Commencement was issued on April 6, 2010. Public consultation has been included throughout the process. The attached report, entitled "Scarborough RT, Transit Project Assessment, Draft Environmental Project Report Executive Summary" provides additional details on:

1. The process followed to develop the project;

2. The rationale for the design elements selected for the Scarborough RT conversion and extension; and,

3. A summary of the environmental impacts of the project and net effects following proposed mitigation measures.

Complete details on the Scarborough RT line, including plans of the 11.4 kilometre corridor from Kennedy Station to Malvern Town Centre, will be contained in the project's

Environmental Project Report, which will be finalized in spring 2010. The EPR will be placed on the public record for the mandatory 30-day review period in summer 2010.

JUSTIFICATION

The Scarborough RT project is a component of the *Toronto Transit City Light Rail Plan*, the Province's *MoveOntario 2020* Plan and Metrolinx Regional Transportation Plan.

The existing Mark I vehicles are nearing the end of their economic life and as such, modifications to the existing Scarborough RT line (Kennedy Station to McCowan Station) are required to accommodate the larger Transit City LRT vehicles.

The extension of the Scarborough RT from McCowan Road to Malvern will provide excellent, reliable, high-capacity, environmentally-sustainable transit service thereby, reducing auto dependency in the corridor and creating a more liveable, attractive, and sustainable city.

- - - - - - - - - - - -

April 16, 2010
55-21-21

Attachments: Exhibits 1 to 5
Draft Environmental Project Report – Executive Summary

Exhibit 1 - SRT Plan

Exhibit 2 – SRT Extension – Station at Centennial College

Exhibit 3 – SRT Extension – Station at Sheppard Avenue

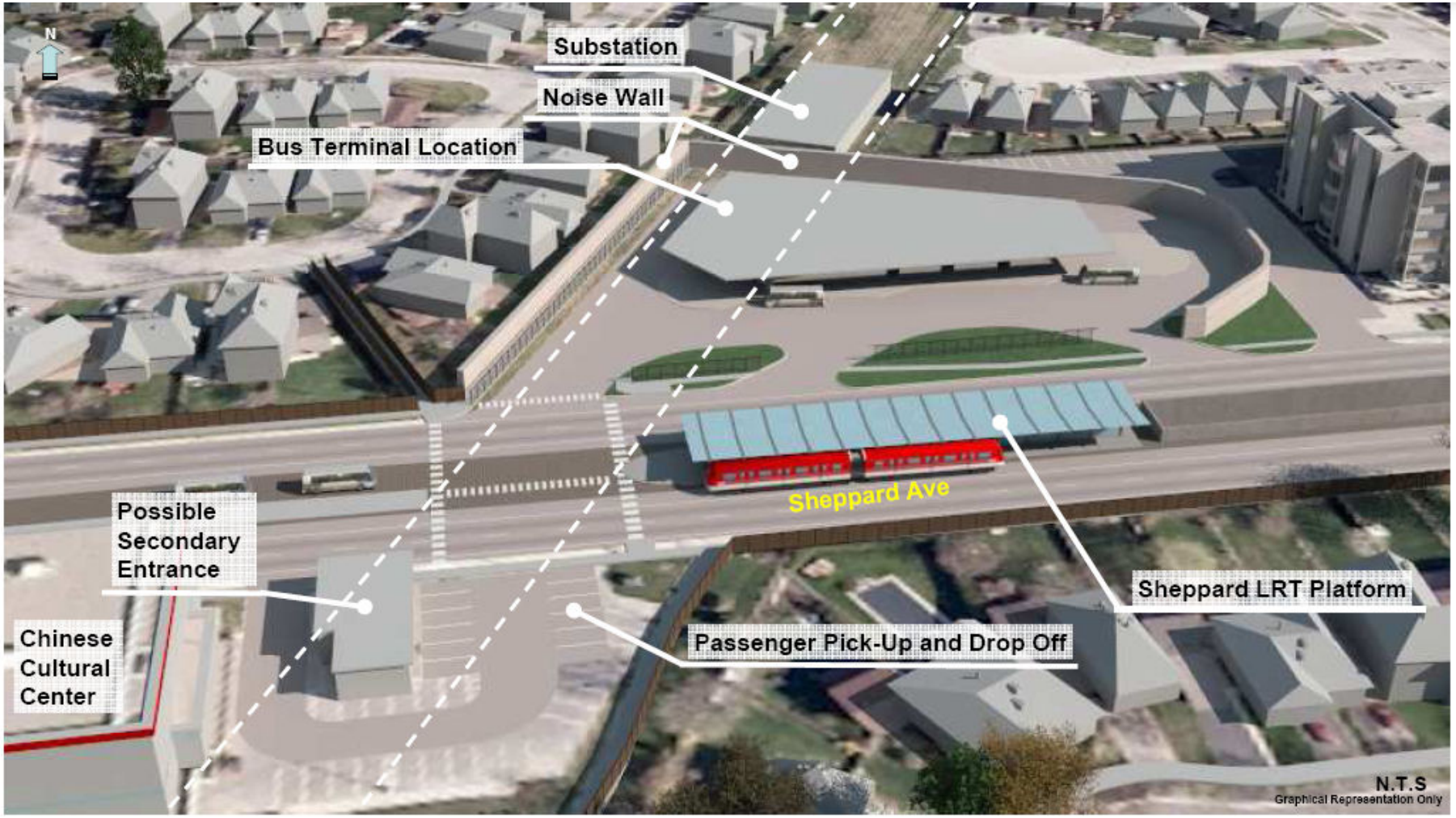


Exhibit 4- Kennedy Station Improvements – Plan

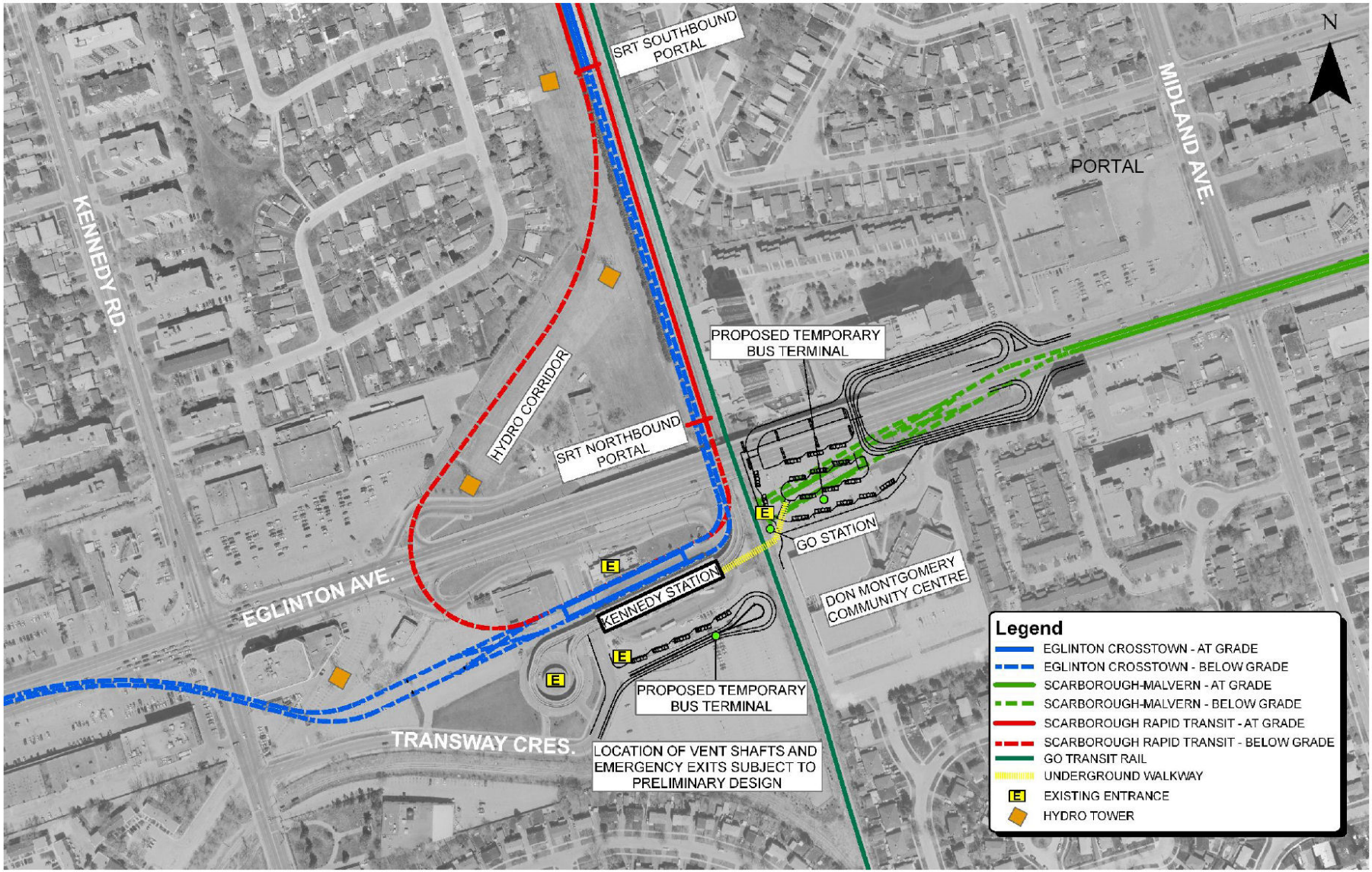


Exhibit 5 – Kennedy Station Improvements – Cross-Section

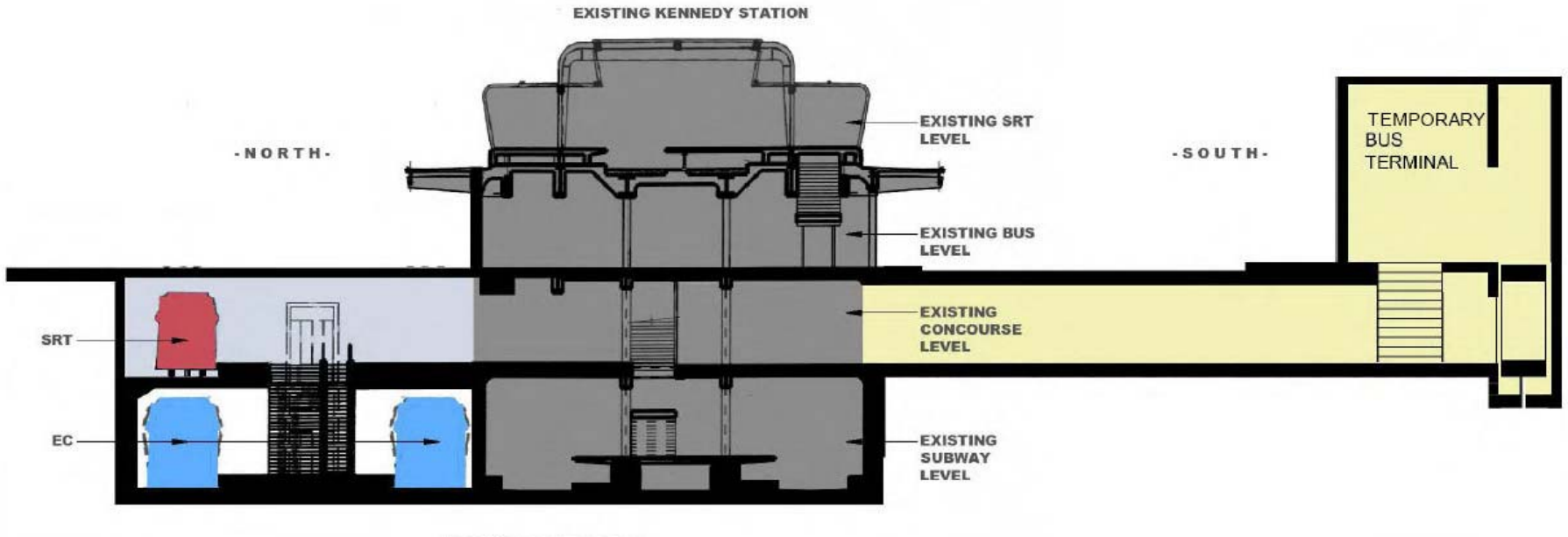


Exhibit E3-4: Centennial Station

Exhibit E3-5: Sheppard East Station

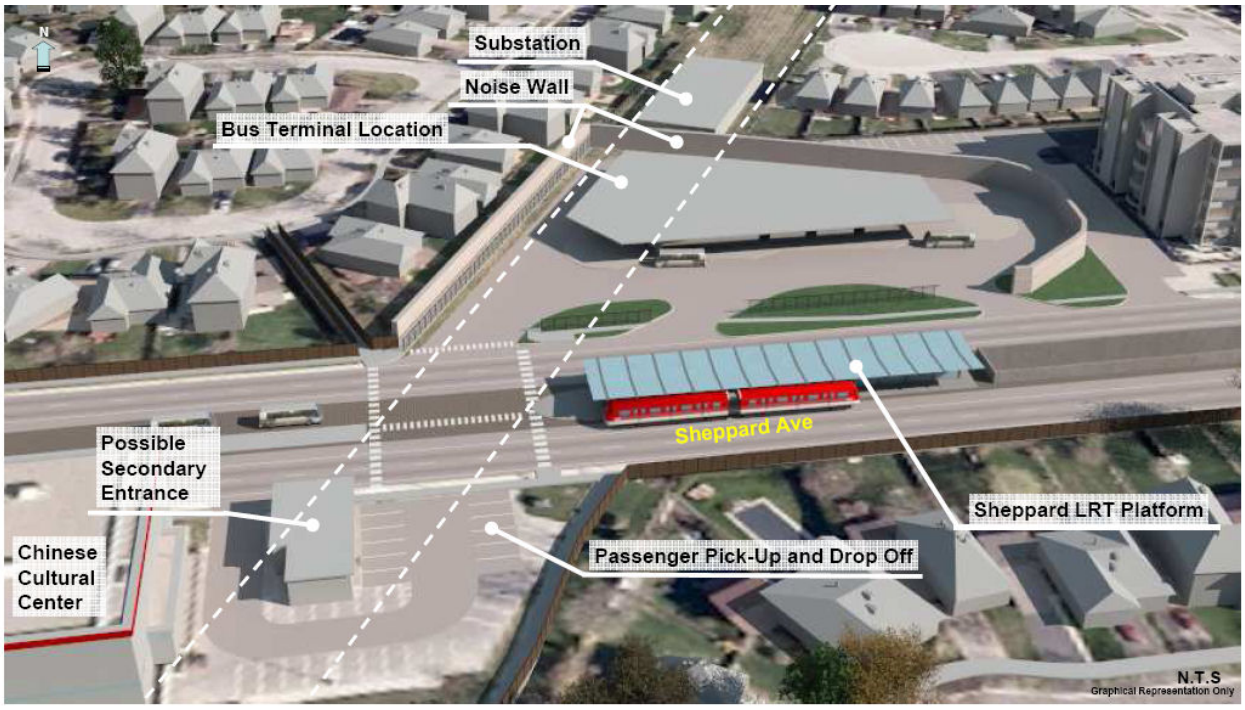
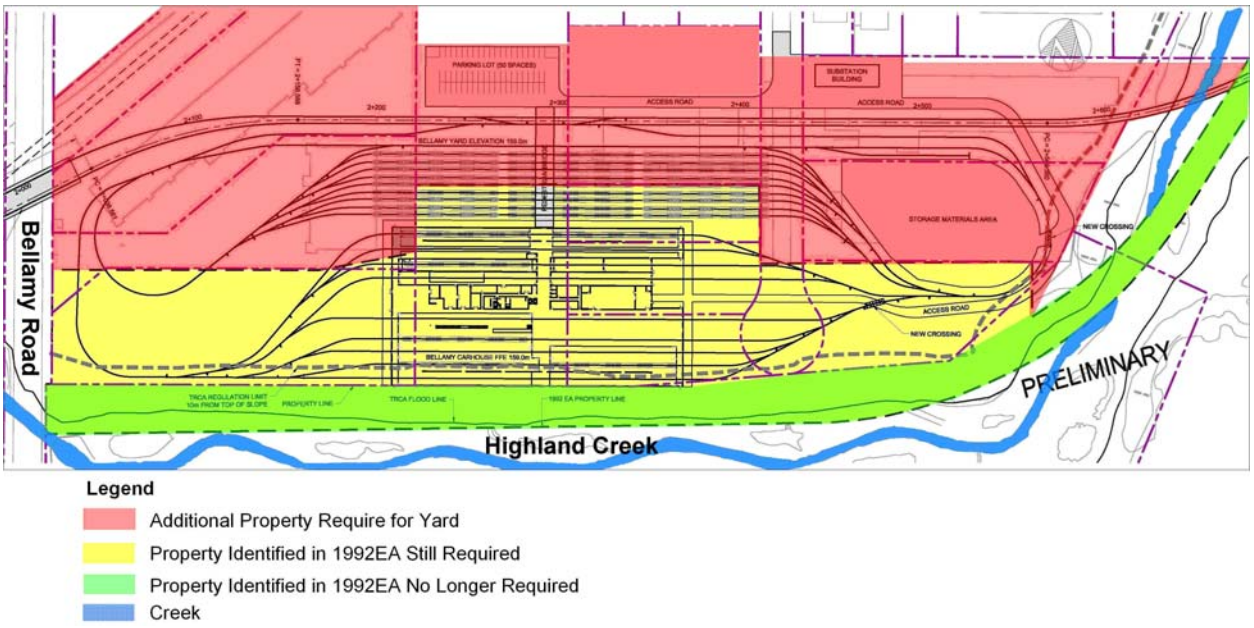


Exhibit E3-6: Malvern Town Centre Station

E.3.4 Maintenance and Storage Requirements for the SRT

SRT vehicles will initially operate from the proposed Sheppard East Maintenance and Storage Facility. However, as full build-out of the Transit City network approaches, the Sheppard East Maintenance and Storage facility will be unable to accommodate the additional fleet. As shown in Exhibit E3-7, the Bellamy Maintenance and Storage facility continues to be a possible option for a future location. As such, the SRT Transit Project Assessment will reference the potential future requirement for this location.

Exhibit E3-7: Future Potential Maintenance and Storage Facility



E.3.5 Ancillary Facilities

E.3.5.1 Special Track Work

Special trackwork is required at six locations along the line to allow a change in direction of an SRT vehicle or storage of an SRT vehicle. The special trackwork is located at:

- Kennedy Station,
- McCowan Station,
- Bellamy Road,
- Centennial College / Progress Avenue,
- Sheppard Avenue, and
- Malvern Town Centre.

All but the Centennial College / Progress Avenue special trackwork comprise a series of switches within the right-of-way that allows trains to reverse direction, either at the end of the line or for short turning activities.

E.3.5.2 Service Connection to Maintenance and Storage Facility

The Progress Avenue service connection will consist of two tracks (one per direction) in a dedicated surface right-of-way in the centre of Progress Avenue running from Milner Avenue to Sheppard Avenue. To access the Sheppard East Maintenance and Storage Facility, SRT vehicles will operate on Sheppard East LRT tracks between Progress Avenue and Conlins Road.

The service connection will be used in the following manner:

- From approximately 4:45am to 6:15am up to 17 trains will run along Sheppard and then down Progress and enter into passenger service at Centennial Station;
- During the day, a small number of trains will use the Progress connection as trains are taken in and out of service around the rush hours; and
- From approximately 1:45am to 2:45am up to 11 trains remaining on the line will reverse the process of the morning.

The timing of operation of the non-revenue service connection may be subject to change during operation.

E.3.5.3 Emergency Exit Buildings

Emergency Exit Buildings (EEBs) extend from the underground tunnel to grade and are designed to provide an emergency exit for passengers and an emergency access for firefighting crews. An underground station, such as what is proposed at Sheppard Avenue, can serve as a means of underground egress. At-grade, the structures are approximately 3 metres in height and 10 square metres in area, as illustrated in Exhibit E3-8.

Exhibit E3-8: Typical Emergency Exit Building – Sheppard Subway

The SRT alignment includes an underground section of approximately 1.6 km (for Phases 1 and 2 combined). Based on the current preliminary design, the distance from the south

portal to the south limit of the Sheppard Station is approximately 630 metres and therefore an EEB will not be required. The preliminary distance from the north limit of Sheppard Station to the north portal (Phase 2) is approximately 820 metres. Because this distance exceeds the maximum allowable distance between emergency exits, potential locations for an EEB are explored. The possible location is in the corridor on Greenspire Road or in the corridor on Mammoth Hall Trail.

Also, where the proposed tunnel is lower than any available sewer (as proposed in the vicinity of Mammoth Hall Trail), a pumping station will be required to drain the lowest point within the tunnel. The pumping station will comprise a small building at the surface that will house the mechanical and electrical equipment for the pumping system and can be combined with other buildings, such as an emergency exit building or a station. Given the need for a pumping station in the vicinity of Mammoth Hall Trail, the pumping station and EEB can be combined into a single building.

The final need will be determined during the detailed design phase. TTC will report back to the community during the detailed design phase as part of the Site Plan approval process in accordance with the Planning Act. Commitments on consultation are outlined in Section E.6.

E.3.5.4 Traction Power Substations

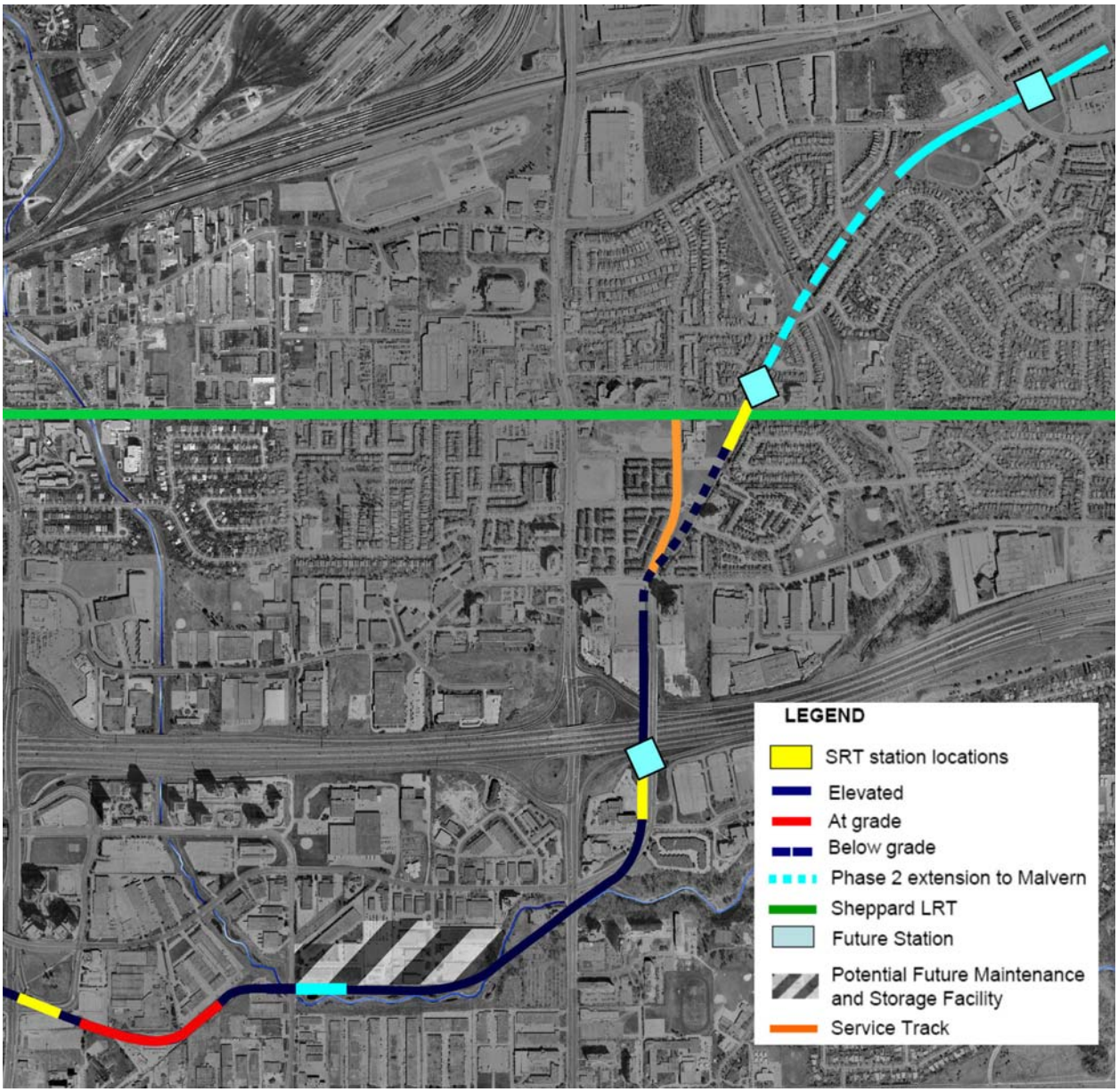
The existing traction power substations at Kennedy, Lawrence East, Ellesmere, Scarborough Centre and McCowan Stations will remain part of each station but will undergo changes to accommodate the new vehicle requirements.

New substations are proposed along the extension with an average of 1.5 kilometre spacing. Exhibit E3-9 presents the proposed location of the traction power substations:

- Centennial College;
- Sheppard Avenue; and
- Malvern Town Centre.

The typical substation structures are proposed to be approximately 11 metres by 4.6 metres and 4 metres high. Additional length and width may be required for providing access and an attractive façade. These structures will be carefully sited so that they do not obstruct existing and future developments along the SRT corridor. The final locations of the electrical substations will be further investigated in the detailed design stage.

Exhibit E3-9: Potential Substation Locations for SRT Extension



E.3.6 Roadway Modifications

Changes to the road network associated with this project are limited to three locations:

- **Eglinton Avenue, between Birchmount Avenue and Midland Road** – The connection to Eglinton Crosstown LRT requires a slight shift in roadway alignment to the north. The Eglinton Crosstown LRT portal will be located east of Ionview Road and the platform/LRT stop will be located west of Ionview Road. East of Kennedy Station, the portal for the Scarborough-Malvern LRT will be west of Midland Avenue and the platform/LRT stop will be located east of Midland Avenue.

- **Milner Business Court** – Between Highway 401 and Milner Avenue, Milner Business Court intersects with Progress Avenue. Through this block, the alignment is transitioning from elevated to below-grade and is at-grade in the general vicinity of the aforementioned intersection. As an at-grade crossing cannot be supported by the operations of the SRT, Milner Business Court will be closed at Progress Avenue. As traffic will then be concentrated onto Milner Avenue, a new set of traffic signals is proposed at the intersection of Milner Business Court and Milner Avenue.
- **Progress Avenue** – To enable the trains to operate to/from the Sheppard East Maintenance and Storage Facility, non-revenue service tracks are required on Progress Avenue, from Sheppard Avenue to Milner Avenue. The service tracks will be in a semi-exclusive right-of-way and include the following impacts: the reduction of Orchard Place Drive to right-in / right-out, movement of the existing entrance to the Burrows Hall Community Centre and Library / Chinese Cultural Centre complex from Orchard Place Drive to Rosebank Drive, and the upgrade of the pedestrian cross over at Rosebank Drive to a full traffic signal.

E.3.7 Construction Methods

The following sections describe the construction methods carried forward for this undertaking.

E.3.7.1 Elevated Section

For the elevated portions of the alignment (between McCowan Station to Highway 401), piers are generally cast in place. The running way sections are pre-cast and installed either as a single piece or in a segmental nature.

Beams can be transported to the site on a truck and then lifted into place with a crane

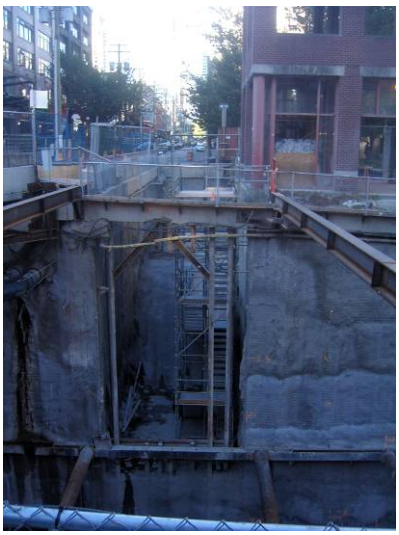
Beams can be assembled in segments on site and put into place using precast segmental construction method.

E.3.7.2 Below-Grade Sections

For the below-grade sections of the alignment (Milner Avenue to Malvern Town Centre), a cut-and-cover construction method has been proposed. The below-grade section to be

constructed as part of Phase 1 is approximately 900 metres long with a considerable amount of special structural needs (station and special trackwork). Furthermore, tunnelling would not be economical for the short distance. Therefore, all below-grade construction is proposed to be undertaken using a cut-and-cover approach.

This method involves excavating the ground surface to a sufficient depth to construct the tunnel structure and ancillary facilities. The sides of the excavation are usually supported by vertical temporary walls to minimize the volume of material excavated and to protect adjacent facilities and buildings. The walls require cross-bracing or tiebacks for support. Once the construction excavation is complete, the contractor builds the structure from the bottom to the top of the structure. Once the structure is complete, the remaining excavation is backfilled and the surface is reinstated.



Area is excavated down to track level. To minimize impacts, soil retention systems are used.

The concrete tunnel is poured and then the surface is reinstated.

Major utilities that are found to be within the right-of-way can be relocated prior to excavation to maintain service, whereas minor utilities will be temporarily suspended through the open cut.

E.3.7.3 Decommissioning of Existing McCowan Maintenance and Storage Facility

The existing McCowan yard is too small to accommodate the long-term requirements of the extended SRT, is not equipped to service Light Rail Transit vehicles, and is directly in the path of the extension. Therefore, as part of this project, the existing tracks and buildings will be removed and, as noted in Section E.2.3, SRT vehicles will be maintained at the Sheppard East Maintenance and Storage Facility.

E.3.7.4 Replacement Service during SRT Shutdown

During reconstruction of the SRT, train service will not operate. TTC customers will be accommodated by very frequent express bus service between Scarborough Centre Station

and Kennedy Station. It is expected that some bus routes that now terminate at Scarborough Centre Station would be extended to operate to Kennedy Station, and that service would be increased on other bus routes in north-east Scarborough that operate to the Yonge and Sheppard Subways.

The temporary service changes and the temporary terminals are expected to be required for up to three years.

Temporary bus terminals will be required at Scarborough Centre Station and at Kennedy Station to accommodate the additional bus service, and to permit construction to take place at the existing facilities.

E.3.7.5 Temporary Construction Sites and Easements

Construction of this magnitude requires additional working space. Heavy equipment maintenance, storage / material lay-down areas and temporary easements for elements like temporary road diversions or temporary replacement parking are a requirement of construction.

During construction areas immediately adjacent to the SRT are required for the removal of excavated material as well as the delivery of material and equipment for the construction of the proposed works.

Through the design stage the number and size of work zones will be confirmed. Some possible sites include:

- The north and south parking lot at Kennedy Station;
- The existing TTC maintenance and storage facility east of McCowan Station; or
- Existing parking lots and open spaces north and south of Highway 401.

E.4. EXISTING CONDITIONS, IMPACTS ASSESSMENT AND PROPOSED MITIGATION MEASURES

This section outlines the existing natural, cultural and transportation conditions within the SRT corridor and identifies potential impacts and mitigation measures.

E.4.1 Existing Natural Environment

E.4.1.1 Aquatic, Vegetation and Wildlife

The natural environment includes species of special concern and their habitat, a wetland, woodlands, habitat of wildlife or other natural heritage area, or a stream, creek, river or lake containing fish and their habitats.

The SRT extension study area can be classified as being mostly urban. There are no areas of natural and scientific interest (ANSIs), environmentally sensitive areas (ESAs) or

provincially significant wetlands (PSWs) located in the study area. The most significant natural heritage features are associated with the East Highland Creek area. According to the Natural Heritage Information Centre (NHIC) database, no aquatic species at risk have been found within or adjacent to the study area.

None of the wildlife species recorded in the study area are designated by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), the Committee on the Status of Endangered Wildlife in Ontario (COSSARO) nor regulated under the Canadian Species at Risk Act or the Ontario Endangered Species Act, 2007. According to historical records, such as the Natural Heritage Information Centre (NHIC) database, no sensitive species have been recorded in the study area. However, 31 of the 37 bird species recorded are protected under the Migratory Birds Convention Act (MBCA). The Fish and Wildlife Conservation Act (FWBA) protects one bird species and eight of the eleven mammal species recorded. Five of the migratory bird species recorded in the study area are also recognized as priority species of conservation concern by Bird Studies Canada for the Metropolitan Toronto region. To meet the requirements of the MBCA and the FWBA, no vegetation removals should occur during the nesting season (April 1 to July 31), subject to several exceptions.

Toronto Water, in consultation with the TRCA will be undertaking works within the Highland Creek valley (east of Markham Road). Intended works and restoration plans have been co-ordinated with this project.

E.4.1.2 Air Quality

The existing ambient air quality conditions for the project area are based on the most recently available data published by the MOE, Air Quality Report (2007) from the closest monitoring stations to the project area for which data was available. The closest monitoring station which provided NO2 and PM2.5 is the Toronto East Station located on Lawrence Avenue East, near Kennedy Road. Data for CO concentrations are based on the measurements at the Toronto Downtown Station. A review of data for the project area indicates that CO and NO2 concentrations are well below the Ontario AAQC. Ambient PM2.5 concentrations, at the 90th percentile level are at 57% of the proposed federal standard that will come into effect in 2010. However, maximum PM2.5 concentrations have exceeded the proposed limit on seven occasions.

The SRT project will have an overall positive impact on air quality on a regional scale. As part of this study, an investigation of potential impacts on air quality in the local area surrounding the proposed bus terminals has been conducted for the preferred design. This analysis has concluded that the proposed bus terminals will not have a significant impact on air quality at the local level.

For construction-related air quality, the Toronto Transit Commission requires that contractors submit a comprehensive Environmental Control and Methods Plan to address, among other elements, dust control.

E.4.1.3 Noise and Vibration

New track features including rubber pads in structures that reduce the transmission of vibrations to the ground, continuously welded rail and ongoing maintenance of tracks and vehicles all reduce the potential for vibration. Observed vibration is minimal at distances greater than 15 metres from the tracks.

There are several major and moderate sources of ambient noise in the study area depending on their volume of traffic, traffic mix, speed and proximity to the points of reception. The following is a list of the sources of ambient noise considered in this study:

- Existing rail corridors, including the GO Stouffville subdivision, the CP Agincourt subdivision and the existing SRT;
- Highway 401;
- Other major arterial roads including Markham Road, Milner Avenue, Tapscott Road, Sheppard Avenue East and others; and
- Existing industrial and commercial activities throughout the study area.

Ambient noise levels in the majority of the SRT study area are influenced by one or more sources of noise and vibration. In most locations along the proposed extension, the introduction of the SRT will result in negligible changes to ambient noise levels. To identify where major changes in ambient noise levels may occur, an extensive investigation of potential noise impacts was undertaken along the existing SRT and the SRT extension.

The noise and vibration investigation identified the following areas where potential adverse effects may occur as a result of the project:

- Changes to the track associated with improvements for Lawrence East Station;
- The service connection on Progress Avenue, between Milner Avenue and Sheppard Avenue;
- The bus terminal at Sheppard Avenue; and
- The future station and bus terminal at Malvern Town Centre.

Mitigation for each of these four locations is discussed in Section E.4.4.

E.4.2 Socio-Economic Environment

Land uses within the SRT study area range from high-rise residential and commercial; low-rise residential and commercial/industrial and institutional uses (e.g. schools and libraries) and open space uses (e.g. parks and recreation centres).

Areas of archaeological potential have been identified within the study area. A Stage 2 Archaeological Assessment is scheduled for the spring of 2010 which will determine if any artefacts remain in these potential areas. No cultural heritage landscape features are within the limits of proposed works for the SRT project.

A review of historical records identified several areas to have potential soil or groundwater contamination from previous and current operations.

There are a number of large diameter utilities and pipelines within the road rights-of-way throughout the extent of the SRT corridor. In addition, there is an extensive system of minor storm sewers and watermains crossing the SRT corridor.

Along the west side of the existing SRT right-of-way (north of Eglinton) there are Hydro towers. Toronto Hydro has poles located along the roads within the SRT study area corridor and has an extensive system of buried conduit throughout.

Rogers and Telus utility plants are located in shared buried conduit and Enbridge Gas has 100 millimetres and 150 millimetres gas main throughout the SRT study area. Bell Canada has an extensive conduit system in the study area.

E.4.3 Transportation System

A large number of TTC bus routes, the existing Scarborough RT, the Bloor-Danforth Subway, GO Rail and GO Bus inter-regional services, private inter-regional bus services and freight rail operations are located within the study area. As well, in the future, it is expected that the Eglinton Crosstown and Scarborough-Malvern LRT lines, and bus services from York Region and Durham Region, will also serve the study area.

Most of the road network in the study area operates at capacity during the morning and afternoon peak hours. With the notable exception of minor operational changes to Progress Avenue and Milner Business Court (see Section E.3.4 above) the introduction of the SRT will not affect the existing road network system.

The Highland Creek and its associated branches within the study area are not considered navigable. Final confirmation of this determination is pending with Transport Canada.

E.4.4 Impact Assessment and Mitigation

The environmental effects for the SRT are classified as follows:

- **Displacement of Existing Features**– Permanent impacts to existing features located within the footprint of the SRT as they are physically altered to accommodate the planned facility.
- **Construction Impacts** – Temporary impacts, occurring only during construction activities.
- **Operations and Maintenance Impacts** – Ongoing and long-term impacts occurring during operations and maintenance activities.

These impacts and proposed measures to mitigate any negative effects are summarized below.

E.4.4.1 Displacement of Existing Features

To execute the project, approximately 2 to 8 full and 170 to 190 partial acquisitions will be required. In addition, there will be temporary property requirements to facilitate construction. These requirements will be confirmed during detailed design.

The City of Toronto (on behalf of TTC) will acquire these properties and provide compensation through either a negotiated settlement or, in the event that expropriation is required, in accordance with the *Ontario Expropriation Act.*

TTC and the City of Toronto are committed to the following process/principles for these impacted properties:

- Early notification to property owners;
- Ongoing meetings and discussions with property owners concerning property impacts to minimize property takings and identify mitigation measures;
- Further investigations of alternative site locations and configurations for surface facilities; and,
- Uniform and equitable treatment, in accordance with the *Ontario Expropriation Act.*

Other features located within the footprint of the SRT that may be affected include:

- **Rosebank Park** – Existing playground equipment and court areas will be temporarily displaced during construction of the below-grade section of the alignment. The preferred location, configuration and design of replacement equipment will be determined in consultation with City of Toronto Parks, Forestry and Recreation.
- **Burrows Hall / Library / Chinese Cultural Centre** – Impacts include the relocation of parking to adjacent property, modifications to vehicular access, including deliveries for the Chinese Cultural Centre (on the east side of the building) and co-ordination with the long term plans for a Chinese garden.
- **Toronto Catholic District School Board Lands South of Chinese Cultural Centre** – The Chinese Cultural Centre driveway to Progress Avenue driveway will be relocated south on these lands in order to provide a full moves driveway (i.e. Left and right turns permitted) to Progress Avenue.
- Several vegetation communities will be displaced during modifications to the existing line as well as for the extension. The impacts on vegetation will be mitigated to the extent possible through avoidance, minimizing the extent of vegetation removals, protecting vegetation to remain and restoring vegetation that is removed.
- The TRCA regulated area of Highland Creek will be affected by the SRT. All crossings will be designed and located, where feasible, to minimize effects on flooding and are being coordinated with stream improvements already planned by Toronto Water (in the vicinity of Markham Road and Progress Avenue). A permit under the Ontario Regulation 166/06 – Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses will be secured from the Toronto and Region Conservation Authority.
- Several properties within the study area have been identified for potential soil or groundwater contamination. A Phase 2 Environmental Site Assessment will be conducted for these properties if acquisition is required. Contaminated soils and groundwater will be managed in accordance with provincial legislation and regulations.
- A number of large diameter utilities and pipelines conflict with the SRT. These utilities will be relocated prior to construction, where necessary. The location of all plant, potential conflicts and the relocation strategy will be confirmed with service providers.
- No harmful alteration of fish habitat will result from the SRT.

E.4.4.2 Construction Impacts

The runningway through underground sections, including stations and special track work areas, will be constructed by cut-and-cover method. Stations, elevated runningway, emergency exit buildings, emergency ventilation shafts, and traction power substations will be constructed following standard at surface construction methods with excavation activities for connection to the underground sections. Construction of new or modification of existing elevated running structures will not involve in-water construction work.

Measures will be implemented during construction to avoid, minimize or mitigate adverse environmental impacts including:

- Erosion and sedimentation control measures will be implemented to prevent the potential migration of sediments off site;
- Best management practices will be implemented to prevent the potential release of dust and other airborne pollutants off site;
- Good housekeeping practices will be implemented to prevent the potential migration of mud and litter off site;
- The temporary work site located at the dry stormwater management facility at the south limit of Rosebank Park will be flood-proofed to prevent the potential flooding of the construction site during a possible 100-year storm event;
- Underpinning will be implemented to minimize the potential for building settlement/structural stress due to excavation, piling and dewatering, where necessary;
- Traffic management will be implemented to reduce the potential for disruption of existing vehicle circulation patterns due to road and lane closures and temporary traffic detours and diversions;
- Bike and pedestrian management will be implemented to reduce the potential for disruption of existing pedestrian circulation and safety due to road diversions and detours;
- Decking will be installed at cut-and-cover excavations within road rights of way to minimize the duration of disturbance;
- Truck haul of construction materials, equipment and tunnelling spoils will be limited to major access roads to avoid neighbourhoods;
- Noise and vibration control measures will be implemented to prevent the potential disturbance from construction equipment and activities to nearby receptors; and,
- Impacts to local business operations due to: modified vehicle and pedestrian circulation patterns; reduced visibility of store fronts and signs; reduction in on-street parking; less convenient access to off-street parking; and customer inconvenience due to temporary construction debris, noise and dust; will be managed as required.

Mitigation methods will include detailed engineering studies and ongoing management and monitoring of construction activities.

E.4.4.3 Operations and Maintenance Impacts

Measures will be implemented during operations and maintenance to avoid, minimize or mitigate adverse effects.

Stormwater run-off from the SRT facilities will be addressed in accordance with the City of Toronto's Wet Weather Flow Management Plan.

Traction power stray current will be controlled using isolated and insulated power supplies. The SRT traction power distribution system will be ungrounded and shall have no direct connection to the earth. The running rails will be insulated from the earth with the use of insulating pads and hardware and by the isolation of all rail-associated metal ware from the earth. Where applicable, the negative running rails shall be connected to the AC ground system through a floating negative automatic ground switch. Utility structures will be electrically insulated, bonded, coated and cathodically-protected as required.

Although no special consideration for air emissions generated by bus terminal operations is required, standard TTC operating policies and procedures with regards to idling buses shall apply to this project.

Noise generated by SRT vehicles and by bus terminal operations will be attenuated in accordance with MOE noise protocols. This includes the following treatments:

- **General Operating Practices:** New vehicles will be subjected to rigorous testing of prototypes and new features which reduce noise and vibration are being pursued. New track will be installed with rubber pads in structures, continuously welded rail will be used and ongoing maintenance of tracks and vehicles will all contribute to the reduction the transmission of vibrations to the ground. The result will be the reduction of vibration to minimal levels at distances greater than 15 metres.
- **Lawrence East Station Modifications:** The changes at Lawrence East Station may require a shift of the track alignment towards the townhouses. This may increase noise level. If necessary, TTC will consider alternate solutions to mitigate the increased noise, such as short noise barriers.
- **Non-Revenue Service Track on Progress Avenue:** The service track on Progress Avenue may result in increased noise levels for the surrounding community. Due to curve in the track at Sheppard Avenue, noise levels may increase during the night. Possible solutions include controlling the speed of the vehicle as they enter the curved section or installing noise barriers on the north side of Sheppard Avenue to shield those most affected by the noise increase. Noise levels for the service tracks south of Sheppard may increase during the night. Possible solutions include controlling the speed limit between Sheppard Avenue and Milner Road or installing noise barrier on the west side of SRT right-of-way to shield the town homes from the primary source of noise – where the track and wheels meet. This possible treatment includes a 0.7 metre high barrier. Potential adverse noise impacts for homes east of Progress Avenue is limited to the town homes on the northeast corner of Milner and Progress. A berm can mitigate noise in this instance. TTC is committed to work with the community to plan the best solution.

- **Bus Terminal at Sheppard Avenue**: A sound barrier up to 6 metres high is proposed at the Sheppard East bus terminal on the west, north and east sides to mitigate noise associated with the proposed bus terminal. A sound barrier up to 6 metres high will mitigate noise for the lower floors of the condominium. There is currently no recommended practical solution for noise mitigation for the upper floors. TTC is committed to working with the owners of the condominium to develop an optimal solution for this specific location.
- **Future Bus Terminal and Station at Malvern Town Centre (Phase 2):** Potential noise impacts have been identified around the future station at Malvern Town Centre similar to those associated with the station at Sheppard Avenue. Noise mitigation treatments as discussed for the Sheppard Avenue station may be employed. TTC is committed to update the noise and vibration analysis prior to implementing Phase 2.

E.5. CONSULTATION PROCESS

A consultation program was conducted under the Transit Project Assessment process as specified under Ontario Regulation 231/08. Key components of the consultation program included consultation with agencies, the public and the aboriginal community, and public review of the Environmental Project Report.

E.5.1 Stakeholder Agency Consultations

The following stakeholder agencies were actively engaged (through meetings, email and letter correspondence) during the Transit Project Assessment process:

- City of Toronto (City Planning, Emergency Medical Services, Fire Services, Heritage Preservation Services, Parks Forestry and Recreation, Police Services, Works, Transportation)
- Hydro One
- Canada Post
- Metrolinx
- Ministry of the Environment (Environmental Assessment Approvals Branch, Noise and Vibration Section)
- Ministry of Transportation
- Toronto District School Board
- Toronto Catholic District School Board
- Toronto and Region Conservation Authority
- GO Transit
- Centennial College
- Toronto Public Library

Additional consultation with external agencies included notification of Public Open Houses. Each external agency was also sent a Notice of Commencement via e-mail message. Table E-1 shows the Federal and Provincial agencies that were notified.

Table E-1: Contact with External Agencies

Federal Agency	Provincial Agency
Canadian Environmental Assessment Agency	Ministry of Aboriginal Affairs
Indian and Northern Affairs Canada	Ministry of Agriculture, Food and Rural Affairs
Environment Canada	Ministry of Citizenship and Immigration
Department of Fisheries and Oceans	Ministry of Culture
Transport Canada	Ministry of Municipal Affairs and Housing
Transport Canada - Ontario Region	Ministry of Natural Resources
Infrastructure Canada	Ministry of Public Infrastructure Renewal
Industry Canada	Ministry of the Attorney General
Health Canada	Ministry of Tourism and Recreation
	Ontario Realty Corporation
Transportation Stakeholders	Ministry of Transportation
Canadian National Railway	Ministry of Education
Canadian Pacific Railway	Ministry of Health
Toronto Cycling Committee	Ministry of the Environment
Toronto Pedestrian Committee	Ministry of Training, Colleges & Universities
Utilities	Ministry of Small Businesses and Consumer Services
Bell Canada	Ministry of Community Safety and Correctional Services
Enbridge Gas Distribution	Ontario Power Generation
Enbridge Pipelines	**Other Stakeholders**
Rogers Cable	Conseil Scolaire de district Catholique Centre-Sud
Sarnia Products Pipeline Company, Inc.	Conservation Ontario
Sun-Canadian Pipeline Company, Inc.	Ontario Provincial Police
Toronto Hydro	
Trans-Northern Pipeline	
Hydro One Networks Inc.	

E.5.2 Public Consultation

Public notification methods have included the following:

- formal notices in the Scarborough Mirror and The Metro;
- bulk mailings to local residents to announce the open houses;
- mailings to ratepayers groups;
- a project website;
- dedicated 24/7 phone line;
- dedicated fax line;
- dedicated TTY line;
- dedicated e-mail address (SRT@toronto.ca);
- dedicated postal address through the City's Public Consultation Unit; and,
- Notice of Commencement.

This work has also included the following public consultation events:

Table E-2: Public Consultation Events Summary

Public Information Event and Date	Number of Attendees
PIC #1 – April 15th, 2008	300
PIC #2 – June 4th and June 5th, 2008	46
Community Meeting – July 31st, 2008	30
PIC #3 – June 2nd, 2009	200
PIC #4 – March 8th and March 11th, 2010	443
PIC #5 – April 12th and 15th, 2010	356

Notice of Commencement under Ontario Regulation 231/08 was issued on April 6, 2010 and appeared in the *Scarborough Mirror and The Metro*.

E.5.3 Aboriginal Communities Consultation

As per the City of Toronto and Indian and Northern Affairs Canada (INAC) protocol for First Nations consultation for EAs, INAC Specific Claims, Litigation Management and Resolution, and Comprehensive Claims are required to be notified of all of EAs conducted by the City of Toronto and no written response is expected unless there are issues with the project as proposed (Note: none have been identified to date).

The aboriginal consultation process included notifying the following of public open houses and the Notice of Commencement:

- INAC Specific Claims;
- INAC Litigation Management and Resolution;
- INAC Comprehensive Claims;
- Ontario Ministry of Aboriginal Affairs; and,
- Mississaugas of the New Credit First Nation.

Following recent guidance received from the Ministry of Environment, Aboriginal Consultation process, the bands involved in the Williams Treaty were notified of the Notice of Commencement individually.

E.6. COMMITMENTS TO FUTURE WORK

During the Transit Project Assessment Process, TTC and the City of Toronto have worked closely with key stakeholders to address and resolve any issues or concerns. In addition, the TTC's and City of Toronto's commitments to future work include the following:

1) **Consultations** – The City of Toronto and TTC will consult with the public, property owners and stakeholder agencies (including emergency service providers) during the design of the SRT.
2) **Property Acquisition** – The City of Toronto will acquire property by negotiation or expropriation, as required.
3) **Planning Initiatives –** The City of Toronto and TTC will take a leadership role in planning initiatives which support the SRT including:
   a) The TTC will work with the City of Toronto for selected locations for station

entrances, vent shafts, traction power substations and Emergency Exit Buildings (EEBs) in order to meet established urban design and community planning policies and guidelines, limit impact, and provide opportunities for enhancements of the sites and pedestrian access; and

b) The TTC will work with the City of Toronto to implement Official Plan Amendments in support of the undertaking.

4) **Construction Issues** - TTC will conduct further research and analysis for the construction of the SRT, including, but not limited to the following activities:
   a) Include noise, vibration and air quality monitoring and mitigation measures and construction site maintenance/upkeep requirements in construction contract documents;
   b) Develop traffic, transit and pedestrian management strategies to be included in construction contract documents;
   c) Develop utility and municipal servicing relocation plans with service providers;
   d) Develop emergency response plans with emergency service providers to maintain fire, police and ambulance services during construction;
   e) Prepare and implement vegetation restoration, edge management and streetscape plans;
   f) In consultation with TRCA and the City of Toronto determine areas where compensation for vegetation loss will be required; determine quantity and type of species to be used; and, identify sites where compensation efforts would be maximized;
   g) In consultation with TRCA, determine any potential for a Harmful Alteration, Disruption or Destruction of fish habitat (HADD) in line with TRCA's Level III agreement with Fisheries and Oceans Canada as per the *Fisheries Act;*
   h) Undertake Designated Substances Surveys for any buildings or structures which require demolition and to reflect the findings in construction contract documents;
   i) Develop procedures for disposal of excavated materials, including excess soils, in accordance with Ministry of the Environment requirements;
   j) Prepare and implement a Soil and Groundwater Management Strategy, including:
      i) water treatment methods, which results in discharge water quality complying with prevailing TRCA and City of Toronto water guidelines and requirements; and,
      ii) contaminated soils management, in accordance with environmental legislation, regulations and guidelines.
   k) Prepare an erosion and sedimentation control plan, which complies with prevailing TRCA and City of Toronto water guidelines and requirements;
   l) Undertake buildings, structures, and railway protection and monitoring;
   m) Conduct a Phase 2 Environmental Site Assessment for any areas of existing contamination prior to property acquisition; and,
   n) Arrange for a Stage 2 archaeological assessment to be conducted at areas where ground disturbance will occur during construction and which have archaeological potential.

5) **Permits and Approvals** - TTC will secure necessary permits and approvals for the implementation of the SRT, including, but not limited to:
   a) Planning approvals (including Site Plan Approval) for all above grade structures and facilities through City of Toronto, where necessary;

b) Park Access Permits for access to parks for construction and staging activities;
c) Building permits for the stations (including ancillary facilities), emergency exit buildings and traction power substations through City of Toronto;
d) Permit(s) to Take Water (from Ministry of the Environment) for locations where dewatering exceeds 50,000 litres per day;
e) TRCA Permit under Ontario Regulation 166/06 for alteration to watercourses;
f) Stormwater management, in accordance with City of Toronto, TRCA and MOE requirements;
g) Sewer discharge approvals, in accordance with City of Toronto and TRCA requirements;
h) Railway Crossing Agreements at the GO Stouffville subdivision;
i) Ministry of Transportation approvals for new bridge crossing Highway 401; and,
j) Hydro One Agreements to allow for the use of the Hydro Corridor for the new alignment into Kennedy Station.

6) **Canadian Environmental Assessment Act Determination** – TTC will prepare a CEAA Project Description Report to secure a determination under CEAA for the entire project from Kennedy Station to Malvern Centre Station.

E.7. ADDENDUM PROCESS

TTC will prepare an addendum, if changes to the project occur after the Notice of Completion is issued, in accordance with Section 15 of the Transit Projects Regulation, including:

- Preparation of an addendum to the Environmental Project Report;
- Preparation of a Notice of Addendum to the Environmental Project Report; and,
- Distribution of the Notice of Addendum to relevant stakeholders and the Ministry of the Environment.