

E. EXECUTIVE SUMMARY

E.1 Introduction

In 2007, the Ministry of Transportation of Ontario (MTO) initiated a planning, preliminary design and Environmental Assessment (EA) study for the Central Section of the 407 Transitway from east of Highway 400 to Kennedy Road, a distance of 23 kilometres. The study area, shown in **Figure E-1** is located within the City of Vaughan and Towns of Richmond Hill and Markham in York Region. It also falls within the Province's *Parkway Belt West Plan (1978)*, a multi-purpose corridor providing right-of-way (ROW) for freeways, regional transit, electric power transmission lines, utilities and public open space.

Figure E-1: Study Area



The scope of this study was the planning and preliminary design of the 407 Transitway, maintenance facilities and stations to accommodate an initial bus service with provision for future conversion to Light Rail Transit (LRT), including local bus access to and egress from the stations, platforms, access to and from the adjacent arterial road, parking, passenger pick-up and drop-off (PPUDO), buildings, shelters and other miscellaneous amenities.

The primary role of a major investment in rapid transit in the Highway 407 Corridor, as an integral element of the *Growth Plan for the Greater Golden Horseshoe (2006)* (Growth Plan), is to offer a viable alternative to fundamentally change travel behavior in the 905 area. The corridor's location within the Greater Toronto Area (GTA), as illustrated in **Figure E-1**, provides an ideal opportunity to enhance connectivity with the existing and future primarily radial transportation network thereby expanding travel choices. In this role, the continuous corridor will become the much-needed, second east-west spine across the GTA parallel to the Lakeshore corridor. Given the importance of this role, planning of high-order rapid transit in this corridor must focus on the objectives outlined below:

Transportation

- Enhance east-west cross-regional mobility for medium to longer distance trips greater than 10-15 kilometres;

- Offer a safe, high speed, more efficient way of moving people between GTA population and employment zones, north or south of the corridor;
- Improve connectivity and integration with the regional transportation network by promoting gateway opportunities with modal interchange facilities;
- Enhance the ability to increase capacity to meet additional travel demand; and,
- Maximize the utilization of the protected Highway 407 Corridor.

Land Use

- Improve accessibility to existing/planned major mixed-use urban centres/nodes in the corridor; and,
- Increase support for a more compact urban structure in the GTA by maximizing opportunities for transit-oriented development (TOD).

Natural and Social Environments

- Minimize adverse effects on the natural environment;
- Minimize adverse effects on the social environment; and,
- Reduce reliance on energy resources and reduce automobile dependence and gas emissions.

Costs

- Increased cost-effectiveness of moving people in the Highway 407 corridor.

E.2 Environmental Assessment and Consultation Process

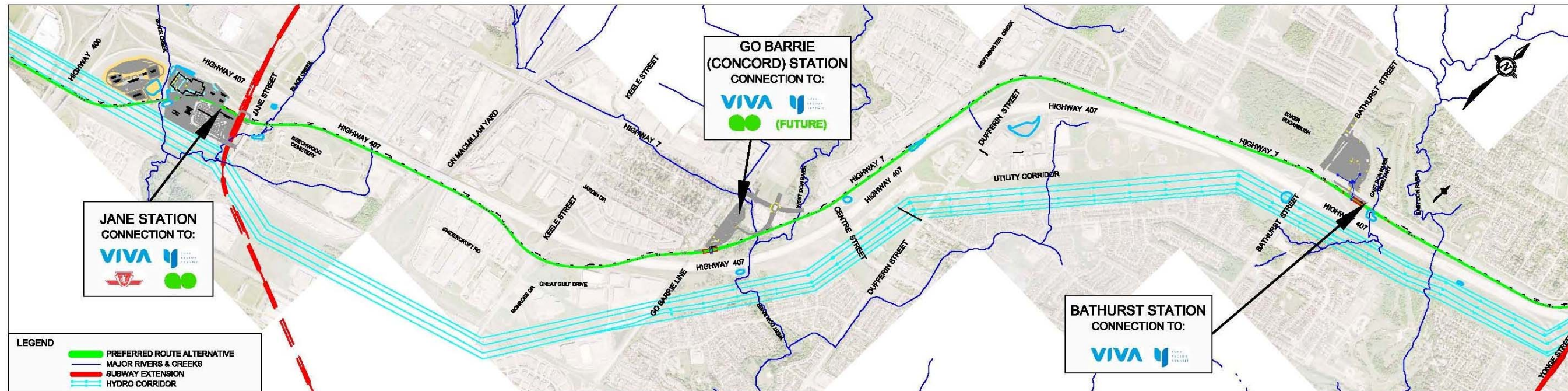
The 407 Transitway study was carried out under the new Transit Project Assessment Process (TPAP). The new TPAP was approved by the Government of Ontario in June 2008. The process provides a framework for an accelerated and focused analysis and consultation process for completing the assessment of potential environmental impacts of a transit project.

This report provides a comprehensive summary of each step in the assessment study, including the assessment of the design alternatives, social and environmental impacts, and ways that such impacts can be mitigated.

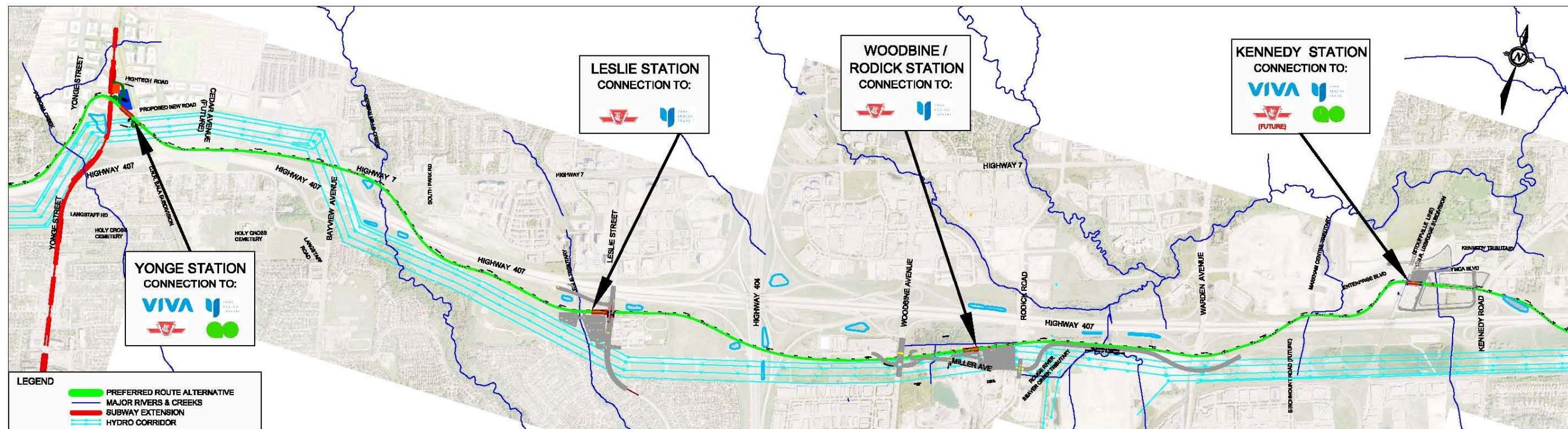
The consultation process, which had begun in 2007, was undertaken to assist in the planning and impact assessment for the 407 Transitway. The process was initiated well before the formal declaration of the TPAP on August 26, 2010 through the issuance of the "Notice of Commencement". Consultation was conducted with government review agencies, technical agencies, local municipalities, property owners, the general public and Aboriginal communities. The process also included public notices, two Public Information Centres (PICs), and the management of the 407 Transitway public website.

A Technical Resource Group (TRG), established to provide technical expertise to the Study Team, met and reviewed findings at several key milestones during the development of 407 Transitway design standards and at various stages throughout the Planning and Preliminary Design Stage. The TRG includes representatives from 407 ETR, York Region, City of Vaughan, Town of Richmond Hill and Markham, Metrolinx, York Region Transit (YRT)/Viva, Toronto Transit Commission (TTC), MTO and other affected provincial ministries and agencies, Hydro One, Toronto Regional Conservation Authority (TRCA) and Ontario Realty Corporation (ORC).

Figure E-5: Preferred Alternative from East of Highway 400 to Kennedy Road



PREFERRED ALIGNMENT BETWEEN HWY 400 AND BATHURST STREET



PREFERRED ALIGNMENT BETWEEN BATHURST STREET AND KENNEDY ROAD

The implementation of the 407 Transitway requires 4.6 hectares of privately-owned commercial or industrial land, 116 hectares of publicly-owned crown land and approximately 4 hectares of easement across Canadian National (CN) Rail and Hydro One lands. **Table 7-2 "Footprints Impacts" of the EPR lists the private properties being affected, the proposed mitigation measures and monitoring recommendations. Appendix O of the EPR includes drawings illustrating the approximate property requirements of the Transitway along its entire route.**

Again, the availability of undeveloped lands within the Parkway Belt between and alongside Highway 407 and Highway 7 limits **construction impacts** to the accommodation of traffic during underpass construction at arterial roads and the four locations where Highways 407 and Highway 404 are crossed by long-span bridges. Built-in design methods and construction staging will mitigate the effects by maintaining peak direction capacity and minimizing delays to traffic. Other typical construction impacts such as noise, dust, erosion, water quality and surplus material disposal effects will be mitigated by requirements, in contract specifications and conditions, to adopt regulatory requirements and industry best practices.

Generally, **operations and maintenance impacts** are also minimized by the remoteness of a large portion of the transitway from sensitive neighbourhoods. While modelling of noise impacts indicates that increases to ambient levels will be imperceptible, local mitigation, particularly in the Regional Centres will be considered if warranted by the proximity of operations. The only other potentially significant impact will be on traffic circulation in the vicinity of transitway stations. This will be mitigated by design and control features at station entrances as described for specific stations in **Section 7** of the EPR. The effects of operations on surface water quantity and quality will also be mitigated by stormwater management (SWM) system design attributes.

E.10 Implementation of the Transitway

Implementation of this section of the 407 Transitway will likely entail several phases, the extent and timing of each being a function of funding availability, the need to maintain transit service reliability and priorities for transit investment in the GGH. In establishing the objectives for phased implementation of the transitway, the current availability of the 407 ETR for use by GO Transit services has been assumed as a baseline phase extending over the full 23 kilometres of the Central Section.

Segments that provide improved access to the (planned and likely completed) Yonge and Spadina subway extensions should be given priority and each phase implemented should not result in a significant increase in travel time transitioning from the 407 ETR to a new section of transitway. Sequencing should be responsive to the zones with highest ridership potential to maximize benefits and exposure of dedicated transitway service as well as allowing a contract cash flow that MTO, or the funding agency, can accommodate in annual budgeting. Construction staging, associated traffic diversion and delays should be limited to the number of locations that arterial road users will tolerate.

With a view to meeting the above objectives, potential Phasing Strategies being investigated include:

- A Baseline Strategy – Cross-regional Rapid Transit Service on the 407 ETR in mixed traffic;
- An Enhanced Baseline Strategy – Cross-regional Rapid Transit Service on 407 ETR with enhanced access to and/or additional off-line stops;

- Rapid Transit Service on newly-constructed 407 Transitway between Bathurst Street and Woodbine Avenue and on 407 ETR from Spadina Subway to Bathurst Street and from Woodbine Avenue to Markham Centre (Kennedy Road);
- Rapid Transit Service on 407 ETR from Spadina Subway to RHC and on newly-constructed 407 Transitway from RHC to Markham Centre (Kennedy Road); and,
- Rapid Transit Service on newly-constructed 407 Transitway from Spadina Subway Station to Markham Centre (Kennedy Station).

Approval of this TPA of the entire Central Section will enable the MTO or the proponent at the time, if responsibility for transitway implementation is transferred to another agency, to pursue any one or more of the above strategies, or variations of them, within the limits of this TPA.