

## 1. INTRODUCTION

### 1.1 PURPOSE OF THE REPORT

In July 2004, the Regional Municipality of York (Region), the proponent of the York Region Rapid Transit Plan, obtained formal approval of the Terms of Reference (ToR) for an Environmental Assessment (EA) of the proposed Public Transit Improvements in the Highway 7 Corridor and Vaughan North-South Link, the primary east-west corridor of the Plan. In accordance with clause 6.2 of the *Ontario Environmental Assessment Act*, the Region initiated the EA to fulfil its obligations under Clause 3 of the Act. The EA studies, meeting the requirements of the approved ToR, carried out between late 2002, and the end of 2003, were updated following ToR approval and assembled to form the content of this report.

The purpose of this report is to document the scope and findings of the EA study assessing the effects of both the construction of the Highway 7 and Vaughan North-South Link Public Transit improvements and the operation of transit service in the corridor. The report and its appendices, including the approved ToR, constitutes the Region's application to the Ontario Ministry of the Environment for approval to proceed with the undertaking, submitted under subsection 6.2 (1) of the EA Act. In addition, approval under the *Canadian Environmental Assessment Act* (CEAA) is being sought through an integrated parallel process.

### 1.2 PURPOSE OF THE UNDERTAKING

#### 1.2.1 Statement of the Problem

York Region has had the greatest proportional increase in population and employment amongst the four suburban regions of the Greater Toronto Area over the past 10 years. Within the 2021 planning horizon, the population of the Region is forecast to increase from the current 0.8 million residents to 1.2 million residents, while employment is estimated to increase from the existing 385,000 jobs to 655,000 jobs.

Much of this growth is targeted to live and/or work in the southern areas of the Region that include the Highway 7 Corridor. This growth will generate a proportionate increase in travel demand. While it is expected there will be a greater segment of the population living and working within the Region itself, north-south travel demand between the Region and the City of Toronto will also remain a dominant feature amounting to 35% of total travel demand. Part of this travel will occur in the Vaughan North-South Link Corridor.

*York Region's Official Plan* (Office Consolidation, as of July 1, 1998) places a strong emphasis on significantly increasing public transit use to accommodate future transportation needs and support the Plan's vision of sustaining the natural environment, optimizing economic vitality and ensuring healthy communities. The Plan identifies four regional centres and two main regional corridors. The four existing and/or developing centres, intended to be focal points for business, government and culture with complementary medium and high density mixed-use development, are:

- The Langstaff Community area in southern Richmond Hill surrounding the Yonge Street/Highway 7 intersection,
- Newmarket, at the top of the primary north-south corridor on Yonge Street and home to the Regional Council offices,
- Markham Centre to the east in the vicinity of Highway 7 and Warden Avenue, and
- Vaughan Corporate Centre to the west in the vicinity of Highway 7 and Highway 400.

Three of the above regional centres are located along the Highway 7 Corridor – Vaughan Corporate Centre, Richmond Hill Centre, and Markham Centre. In addition, York University is immediately adjacent to the corridor, being on the boundary between York Region and the City of Toronto.

The long-term vision for Highway 7 is for it to develop into a multi-use, transit-supportive, urban street, providing an integrated community for residents to live, work, play, and learn. The Highway 7 Corridor will link the three regional centres that serve as compact mixed-use areas intended as focal points for business, government and culture. Complementary medium and high-density residential development as well as historical and main-street areas, employment and business parks and rural and natural areas will round out the development in the corridor.

The Region's 2002 Transportation Master Plan (TMP), included in **Appendix P**, has reaffirmed the need to achieve a balanced transportation system by implementing rapid transit in four corridors. The TMP incorporates the Government of Ontario's Smart Growth vision for fostering and managing growth. This study and others completed recently have confirmed that most of the major east-west roads in southern York Region are at, or approaching, capacity and cannot sustain the Region's continual growth trend in auto traffic. Public transit has been identified to have an essential role to meet future travel needs, increase accessibility for residents, reduce dependence on automobiles, support the planned urban structure of the Region, and accommodate planned growth.

In the planned rapid transit network, shown in **Figure 1.2-1**, three of the four corridors comprise north-south rapid transit facilities. These include a link from the Vaughan Corporate Centre to the Spadina Subway; the Yonge

Street Corridor connecting Newmarket Regional Centre to the Yonge Subway; and a link from the proposed Markham Centre to the Sheppard Subway. The fourth corridor is an east-west rapid transit facility in the Highway 7 Corridor connecting to all three of the north-south rapid transit lines, to the Region of Peel in the west and to the Region of Durham in the east.



Figure 1.2-1  
Rapid Transit Network

Much of the Region's transportation system centres on the two primary corridors identified in the Official Plan (OP), which are the north-south leg on Yonge Street and Highway 7, the major east-west leg. The TMP established a comprehensive blueprint for road and transit developments in the Region through 2031 and articulated the goals in a set of twelve, desirable 'end states' for the transportation system:

- Reduced vehicular trips and shorter work trips;
- Employer based Travel Demand Management initiatives;
- Reduced dependence on automobiles;
- Universal access to public transit;
- Integrated transit services and fares among GTA transit operators serving York Region;
- Transit accessible human services;
- Efficient and safe movement of goods;
- Efficient use of infrastructure;

- Infrastructure in a 'state of good repair';
- Strong protection for the environment;
- Adequate and dedicated long-term funding sources; and
- Effective public consultation.

### 1.2.2 The Purpose of the Undertaking

The purpose of this "Undertaking", the Highway 7 Corridor and Vaughan North-South Link Public Transit Improvements encompasses two fundamental objectives:

- Firstly, to improve accessibility to current and planned development by providing a high quality public transit alternative to reduce automobile dependence; and
- Secondly, to contribute to the achievement of the Regional Official Plan objectives of sustainable natural environment, economic vitality and healthy communities. The undertaking must help make the Region's urban centres more liveable, pedestrian-oriented and economically viable by providing a valuable tool for structuring and achieving land use and social objectives.

Following adoption of the TMP by Regional Council, the Region initiated the planning and project development phase of the Rapid Transit plan by entering into a public-private partnership with York Consortium 2002. The scope of this first phase included network-wide transportation planning in parallel with, and in support of, Environmental Assessments of public transit improvements in each of the four corridors.

A key activity has been travel demand analyses, using the recently published results of the 2001 GTA-wide *Transportation Tomorrow Survey* and the current demographic projections of York Region and the City of Toronto. This demand forecasting across the network has confirmed the findings of the Highway 7 Corridor Rapid Transit Need and Justification Study, specifically by showing that the shortfall in the Highway 7 road capacity at the 2021 planning horizon can be reduced by attracting a significant share of corridor trips to public transit. These travel demand forecasting results, combined with the smart growth and sustainable environment objectives of the Region's TMP reflect the purpose of the "Undertaking", the Highway 7 Corridor and Vaughan North-South Link Public Transit Improvements.

The purpose can be summarized as:

- Providing improved public transit infrastructure and service in the Region's network's primary east-west corridor and western north-south corridor capable of producing significant increases in transit ridership both within the corridor and across the network and regional boundary.

This objective will be supported by interconnection with other corridors and GTA transit systems such as GO Transit and the Toronto Transit Commission (TTC); and

- Integrating public transit facilities in a manner that improves and enriches streetscapes with new amenities by using a holistic urban design approach to support the Region's goals for higher density mixed-use transit-oriented development along the corridor in accordance with approved official plans.

The undertaking, for which Ministry approval is sought, will comprise all infrastructure, systems, vehicle types and subsequent operational requirements necessary to achieve a significant improvement in public transit service and its attractiveness in the Highway 7 Corridor from Highway 50 to York-Durham Line during the planning period.

### 1.3 RELATIONSHIP WITH OTHER CORRIDORS

As a primary corridor on York Region's proposed rapid transit network and major inter-regional connector with the adjacent regions, Peel and Durham, Highway 7 Corridor public transit improvements fulfil several roles relative to other corridors in the Region's network as well as those of other transit operators interfacing with it. These roles can be summarized as follows:

- Providing the high quality transit link between the three southern Regional Centres in the Highway 7 Corridor that serve as compact mixed-use areas intended as focal points for business, government and culture. The long-term vision for Highway 7 is for it to develop into a multi-use, transit-supportive, urban street, providing an integrated community for residents to live, work, play, and learn. Complementary medium and high-density residential development as well as historical and main-street areas, employment and business parks and rural and natural areas will round out the development in the corridor.
- Providing the principal east-west public transit feed to the Richmond Hill Centre intermodal terminal station at the junction of the Yonge Street and Highway 7 Corridors in the Bayview Glen area of Richmond Hill.
- Distributing trips from the Yonge Street Corridor to the east-west corridor.
- Providing feeder public transit service to the network's outer north-south links across the Steeles Avenue regional boundary in Vaughan and Markham to Toronto's subway system.

- Establishing improved public transit in the Vaughan North-South Link (VNSL) Corridor between Vaughan Corporate Centre (VCC) and the TTC's existing Spadina subway and any future extension to York University and into the Region. The Undertaking for this EA includes a potential ultimate phase of rapid transit in VNSL comprising a further extension of Toronto's subway system from York University to Highway 7 at the VCC.
- Providing improved public transit access to the GO Transit Bradford, Richmond Hill and Stouffville commuter rail corridors.
- Providing rapid transit access to the future 407 Transitway, the inter-regional bus rapid transit corridor, at the Unionville, and Langstaff terminals. GO Transit has recently undertaken an Inter-regional Bus Rapid Transit study, in which the main objective was to identify a feasible inter-regional bus rapid transit alignment and implementation

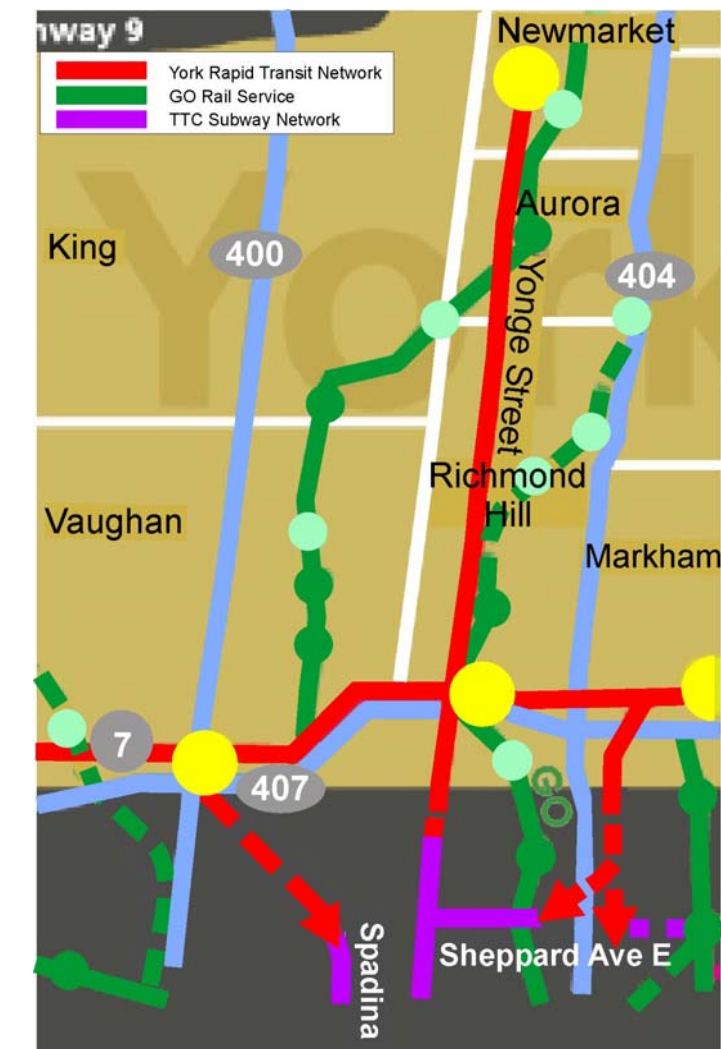


Figure 1.3-1  
Corridor Relationship

strategy that complements and supports GO Transit’s existing rail and bus network.

- h) Permitting convenient connections between rapid transit and local transit services.

The relationship of the Highway 7 Transitway Corridor to the other inter-connected corridors mentioned above is illustrated in **Figure 1.3-1**.

### 1.4 STUDY PROCESS

The study of public transit improvements in the Highway 7 and Vaughan North-South Link Corridor followed an Individual Environmental Assessment (IEA) process in accordance with the Ontario Environmental Assessment Act (Part II). This IEA was carried out in a *Harmonized* manner so as to comply with the Canadian Environmental Assessment Act (CEAA). Federal funding will almost certainly be required because of the size and importance of this project. Funding by a federal agency is considered a *trigger* under the CEAA. The harmonization would ensure that the process followed would fulfill the requirements of both acts.

Funding could flow from Industry Canada through the Strategic Infrastructure Fund and as such Transport Canada is likely to be designated the *Responsible Authority*. Other approvals or triggers under CEAA for this project include approval for a TransCanada Pipeline crossing under the jurisdiction of the National Energy Board and DFO (Department of Fisheries of Oceans).

The four phases followed as part of this process are illustrated in **Figure 1.4-1**. The first two phases have utilized findings of transportation studies completed prior to the commencement of the EA and their content is summarized in **Chapters 3 and 4** of this Environmental Assessment Report.

The third and fourth phases are the focus of this assessment. Within these phases the following key tasks were completed:

- Detailed and focused investigation of existing conditions;
- Development of alternative functional designs;
- Assessment of environmental effects of alternative functional designs;
- A comparative evaluation of the functional design alternatives;
- Selection of Preferred Functional Design;
- Detailed description of the project including phasing and built-in mitigation;

- Detailed assessment of the environmental effects of the preferred design;
- Identification of lands needed for the implementation of the Preferred Functional Design;
- Recommendations for actions to prevent, change, mitigate, or remedy adverse effects, including monitoring provisions;
- Conclusions of the effects of the project on the human and natural environment; and
- Documentation of the Study in an EA Report.

The outcome of these tasks included:

- Opportunities to minimize identified potential adverse effects through the implementation of effective mitigation measures;
- Opportunities to restore, enhance, or improve overall environment quality of the Study Area including the preparation of a streetscape plan;
- Definition of the Preferred Functional Design for infrastructure of public transit improvements and the potential service plan for operations;
- Right-of-way (ROW) protection requirements for the preferred design to allow for orderly development or redevelopment of lands in proximity of the transit facilities; and

- A staged implementation process for construction of the improvements based on development pressures and ridership requirements.

### 1.5 REPORT ORGANIZATION

This report is divided in fourteen Chapters. The purpose of the study and the vision of transit within York Region are provided in **Chapter 1** including the planning and approval process. **Chapter 2** provides the background to the study and describes the Study Area identified in the Terms of Reference. **Chapter 3** identifies the Alternative Transportation Strategies to the need addressed by the undertaking and describes the findings of a comparative evaluation of these solutions. **Chapter 4** sets out the findings of the travel demand analysis carried out. In **Chapter 5**, the alternative methods of carrying out the preferred Transportation Strategy are presented and evaluated.

A description of existing conditions within the Study Area that could be affected by the undertaking is presented in **Chapter 6**. **Chapter 7** describes fundamental planning and design parameters that were used in developing alignments and alternatives. A description of the route

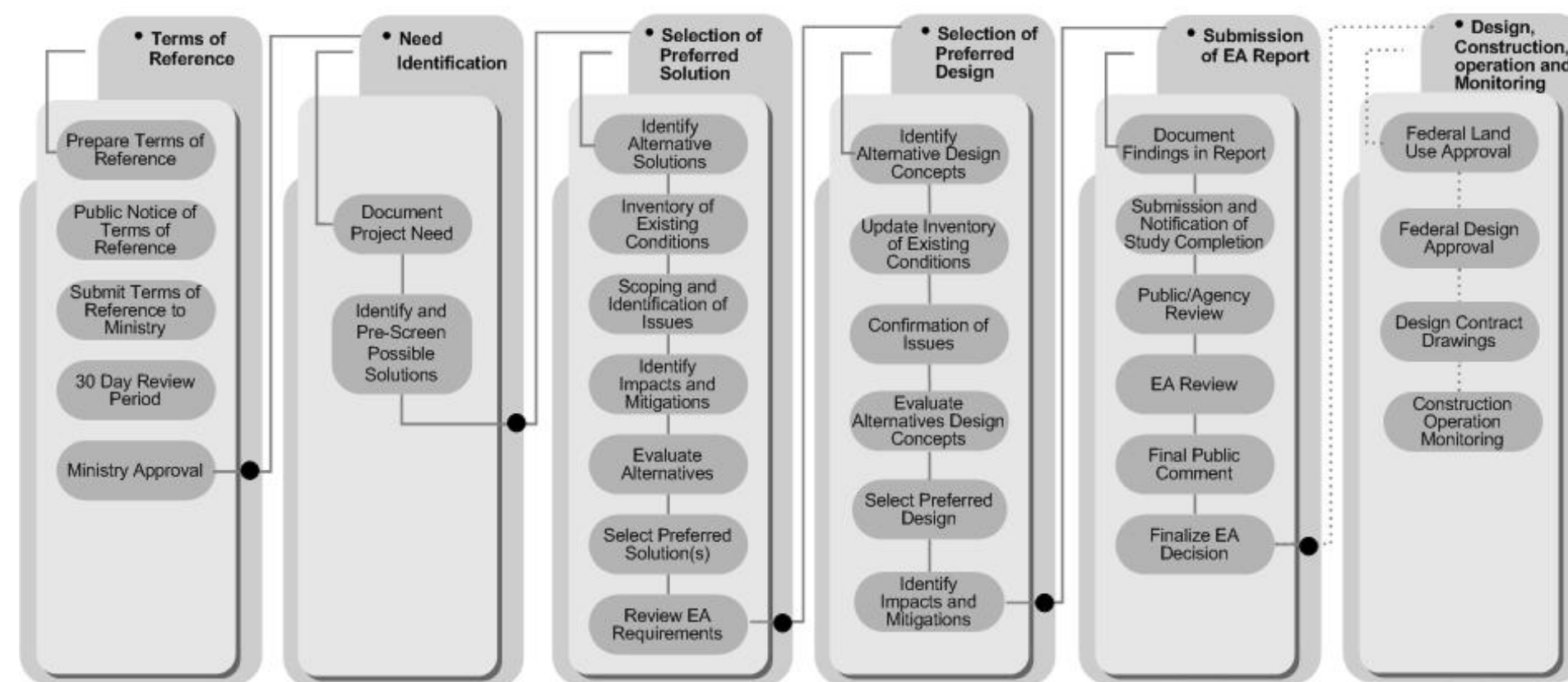


Figure 1.4-1  
Harmonized Environmental Assessment Process

alternatives and the factors influencing their development is provided in **Chapter 8** which also includes the evaluation methodology, criteria used for the evaluation and the initial screening of local alignment alternatives.

In addition, **Chapter 8** evaluates primary route alternatives through each segment of the corridor. A more detailed description of the preferred design solution including project development activities that might affect the environment is presented in **Chapter 9**.

Results of the assessment of the environmental effects, recommended mitigation measures and proposed monitoring are summarized in **Chapter 10**. **Chapter 11** outlines the Implementation Plan. A description of the assessment of a future TTC subway extension from York University to Vaughan Corporate Centre is presented in **Chapter 12**. **Chapter 13** describes the assessment of Highway 7 road widening associated with rapid transit implementation in Markham between Woodbine Avenue and Unionville. Public and agency consultation formed an integral part of all phases of this study and is summarized in **Chapter 14**.