

## 13. IMPLEMENTATION PROCESS

### 13.1 CONTEXT

**Chapter 1** of this report has described the Regional Municipality of York's commitment to put in place a comprehensive network of rapid transit services linking the four designated regional centres. The Plan has as its focus, the early provision of a viable alternative to increasing automobile dependence for mobility in the Region.

The North Yonge Street Corridor Public Transit and Associated Road Improvements project description, described in **Chapter 9**, is the northern primary north-south corridor in York Region's proposed four-corridor Rapid Transit Plan. This ESR constitutes the first step in the implementation process which will include all the traditional phases of preliminary and detailed design, construction, testing and commissioning of systems and installations and finally operation of rapid transit service.

### 13.2 PROJECT IMPLEMENTATION PLAN

In support of the EA studies, the preferred rapidway design has been developed to a Functional Planning level of detail including both horizontal and vertical alignment of the preferred rapidway alternative. Also, preferred locations for the at-grade stations have been identified and conceptual layouts for insertion of prototypical station facilities developed at each station site.

#### 13.2.1 The Design Phase

The infrastructure planning undertaken during the EA study is considered adequate to identify the effects of implementation and operation of the undertaking and establish whether any mitigation is needed and what form it should take. Following approval of the ESR, further preliminary design and subsequently, detailed design will constitute the first stage of the Region's implementation plan.

Selection of bus rapid transit (BRT) as the preferred initial technology allows the facilities to be constructed and the service to be operated in stages along the length of the corridor. The timing and extent of each stage implemented and operated will depend on the availability of funding, monitoring of transit ridership demand, expected travel time savings and the period required for construction of each stage.

Once these factors have been determined, a work plan to carry out the detailed design will be developed. This plan must recognize that the

Region has decided to implement rapid transit featured services with new buses in mixed traffic in the corridors prior to and during construction of the dedicated lanes. (Viva 1 Services)

It is likely that the design phase for rapidway infrastructure will be completed sequentially in segments along the route, each timed to allow sufficient time for post-EA approvals prior to the scheduled start of construction in each segment. Besides Provincial and Federal EA Act approvals, examples of these approvals are:

- TRCA permits;
- LSRCA permits;
- Federal DFO authorization;
- Permits under the Lakes and Rivers Improvement Act for alternations to the watercourses and/or stream crossings;
- Any Ontario MNR approvals; and
- Navigable waters approval

#### 13.2.2 The Construction Phase

Implementation of the rapidway by segment was introduced in the discussion on design approach above. As a first stage, it is anticipated that the HOV lanes along Yonge Street from Davis Drive to Green Lane will be implemented as budgeted in the Region's 10 year Roads Construction Program (currently identified as a 2011 project). The priority segment of median rapidway identified for early implementation, subject to availability of funding from Metrolinx, is the segment along Yonge Street from Mulock Drive to Davis Drive and on Davis Drive from Yonge Street to the Southlake Regional Health Centre. The remaining segments of the median rapidway will be implemented as funding becomes available and based on specific needs within each segment (transit ridership, expected transit travel time savings and adjacent transit oriented development opportunities). The detailed implementation phasing will be refined during detailed design. In all cases, the limits of each phase of implementation will be selected in consideration of technical issues (such as appropriate location to transition transit vehicles to and from the median rapidway) and in consideration of minimizing environmental effects (as an example, it would be desirable to complete the project implementation through a community or business area as a single phase to avoid negative effects on the community that may result from multiple stage construction). Should funding securement for rapidway implementation along Davis Drive be delayed, it would be desirable to implement selected intersection improvements along Davis Drive to alleviate traffic congestion at several operationally constrained areas and to provide reduced transit travel time for Viva 1 services along this corridor. The required intersection improvements have been identified as a component of the overall project and their staged implementation, as needed, will be determined during detailed design. The other rapidway

segments will fall into place depending on timing of funding and requirements of the rapidway.

Prior to commencing construction in the North Yonge Street Corridor right-of-way, a comprehensive, detailed Traffic Management Plan will be prepared in consultation with regional and local municipal traffic operations staff, emergency services personnel and owners of businesses generating major traffic movements. The plan will include

- traffic signal modifications to control left and U-turns;
- distribution of available roadway width for traffic lane diversions;
- sequencing of shifts of construction and traffic between sides of Yonge Street, Davis Drive and Green Lane;
- measures to preserve vehicle and pedestrian access to adjacent properties;
- measures to maintain access for emergency vehicles;
- locations and details of signage and barriers; and
- methods to permit transit operations during construction.

Within each of the segments discussed above, road-widening works, to develop the median right-of-way for transit, will be staged to minimize the temporary disruption due to traffic lane diversions and narrowing.

### 13.3 ENVIRONMENTAL COMMITMENTS

The purpose of this section is to outline commitments made by York Region to undertake environmental mitigation measures to ensure compliance with the requirements of the government agencies responsible for the review of this Environmental Assessment. Refer to **Table 13-1**.

**Table 13-1**  
Summary of Environmental Concerns and Commitments

Environmental Issue/ Concern/ Effect			Environmental Commitments		
I.D. #	Details	Potentially Interested Group/ Agency	I.D.#	Details	Comments
1	Fisheries and Aquatic Habitat	EC, MNR, DFO, MOE, TRCA, LSRCA	1.1	All culverts/ bridge modifications regarding potential Harmful Alterations, Disruption or Destruction of fish habitat, compensation under the Fisheries Act and identification of additional watercourses during the detailed design phase will be reviewed and approved by TRCA and LSRCA to ensure the compliance to their requirements.	Appendix C (NSR)
			1.2	For the proposed replacement and widened Keith Bridge at the East Holland River on Davis Drive east of Main Street, a meander belt analysis will be carried out and a 100-year erosion limit will be determined during the preliminary & detailed design phases to meet LSRCA's approval in determining the sizing of the bridge span.	Appendix C
			1.3	Discussion with LSRCA will be carried out during the detail design phase to determine if a HADD will occur at widened replacement water crossing of the East Holland River; and if so, to secure a Fisheries Act authorization.	Appendix C
			1.4	Any proposed in-stream work and site-specific mitigation measures will be carried out as outlined in Table 8 of the Natural Science Report ( <b>Appendix C</b> ).	Appendix C
2	Wildlife Habitat	MNR, TRCA, DOE, EC	2.1	Edge Management Plan and Tree Preservation Plans will be prepared during the detailed design to mitigate impacts to adjacent natural features, as well as the preparation of detailed compensation and restoration plans to strive to provide for a net improvement to existing condition. TRCA guidelines for Forest Edge Management Plans and Post-Construction Restoration will be followed.	Appendix C
3	Vegetation and Wetlands	MNR, MOE, TRCA, DOE, EC	3.1	Edge Management Plan and Tree Preservation Plans will be prepared during the detailed design to mitigate impacts to	Appendix C (NSR)

**Table 13-1**  
Summary of Environmental Concerns and Commitments

Environmental Issue/ Concern/ Effect			Environmental Commitments		
I.D. #	Details	Potentially Interested Group/ Agency	I.D.#	Details	Comments
				adjacent natural features, as well as the preparation of detailed compensation and restoration plans to strive to provide for a net improvement to existing condition. TRCA guidelines for Forest Edge Management Plans and Post-Construction Restoration will be followed.	
4	Groundwater Resources	MOE, TRCA, LSRCA	4.1	For wells that remain in use, a well inspection will be conducted prior to construction to establish baseline conditions and to confirm the relationship of the widened roadway to existing active water well will not have an adverse affect on water quality. If it does, a contingency plan will be developed. In the event that wells are required to be closed, closure will proceed in accordance with O.Reg.903 of the Ontario Water Resource Act. If the widened roadway has adverse effects on the active well on water quality, a contingency plan will be developed.	Appendix C
5	Surface Water Resources	MOE, MNR, DOE, TRCA, LSRCA	5.1	A detailed Storm Water Management Plan (SWMP) will be developed in accordance with the MOE's <i>Stormwater Management Planning and Design Manual (2003)</i> and <i>Guidelines for Evaluating Construction Activities Impacting on Water Resources</i> . This SWMP will outline monitoring & maintenance commitments for SWM facilities constructed as part of this undertaking.	Section 10.5, Appendices C & F
			5.2	Water quality controls up to the MOE water quality guideline of Enhanced Level (80% total suspended solids removal) will be required for areas where an increase in impervious surface is observed.	Appendices C & F
			5.3	An Erosion and Sediment Control Plan will be developed to manage the flow of sediment into storm sewers and watercourses and to monitor erosion and sedimentation control measures during construction.	Section 10.5
6	Air Quality & Energy	MOE, EC	6.1	During construction measures will be taken to control dust.	Appendix J
7	Contaminated Soil	MOE	7.1	In the event contaminated sites are identified after construction activities begin, a contingency plan will be prepared to outline the steps that will be taken to ensure that contaminant release will be minimized and appropriate clean-up will	Appendix E

**Table 13-1**  
Summary of Environmental Concerns and Commitments

Environmental Issue/ Concern/ Effect			Environmental Commitments		
I.D. #	Details	Potentially Interested Group/ Agency	I.D.#	Details	Comments
		Heath Canada	7.2	Health Canada's Federal Contaminated Site Risk Assessment in Canada will be obtained.	
8	Noise and Vibration	MOE	N/A	Contract documents to include provisions for compliance with local noise by-laws during construction	N/A
9	Effects on Businesses and Other Land Uses	Municipal agencies	9.1	A parking need assessment and management study to be performed.	Section 10.1.8
10	Archaeological Resources	MTCR, Municipal Agencies, Municipal Heritage Planners, LACAC, TRCA, Ministry of Aboriginal Affairs	10.1	Findings of future archaeological assessment will be forwarded to the Ministry of Culture.	Appendix H
11	Agriculture	MAF	12.1	A policy to protect agricultural lands during construction will be developed during the detailed design phase.	
12	Other	Public	13.3	Public concerns/ complaints will be address through public consultation centres during detailed design phase. As well, public relation staff will address complaints regarding construction and operations of the rapidway. The received concerns/ complaints will be circulated to appropriate department for action.	
13	Cycling and Pedestrian treatments	York Region	13.4	During the preliminary and detailed design phases, the York Region Cycling Master Plan will be consulted regarding the cyclist and pedestrian treatments.	

## 13.4 MONITORING

The purpose of this section is to outline commitments made by York Region to monitor the project activities to ensure compliance with the requirements of the government agencies responsible for the review of this EA.

### 13.4.1 Construction Monitoring

During the construction of the rapidway, the Region will carry out monitoring activities in accordance with a comprehensive **Monitoring Program** to be finalized during the detailed design phase. The plan will set out the purpose, method and frequency of all monitoring activities and provide the framework for recording and documenting their results.

The outline of the plan, shown in **Table 13-2**, documents York Region's commitment to measure the effects of rapidway construction activities on the elements of the environment listed.

Table 13-2  
Construction Monitoring

Environment Element	Purpose of Monitoring	Monitoring Method	Monitoring Frequency
Noise generated by construction activities	To ensure noise levels comply with Municipal by-laws	Regular inspection of site to ensure contractor is complying with allowable hours of work and qualitative assessment of nuisance effect from noise on adjacent sensitive receptors	At time of introduction of equipment/activities producing significant noise level with potential to disturb sensitive areas
Effect of construction activities on air quality (dust, odour)	To confirm that local air quality is not being adversely affected by construction activity	Regular inspections of site dust control measures and of construction vehicle exhaust emissions	Monthly during construction seasons
Condition of heritage homes adjacent to rapidway alignment	To determine if any damage/deterioration is caused by construction activity	Pre-construction inspection to obtain baseline condition and monitoring during nearby construction	As required by construction schedule for work adjacent to heritage features
Effect of construction on water quality and quantity in watercourses	To confirm that water quality is not being adversely affected by construction activity	Monitor sediment accumulation after rain events during construction to ensure that the proposed mitigation measures in the Erosion and Sediment Control Plan have been satisfied	After first significant rain event
Effect of construction on boulevard trees	To ensure the survival of boulevard trees	Inspection of protective measures and monitoring of work methods near trees	Prior to commencement of work and bi-weekly during work activities

Environmental protection measures will be stipulated in all appropriate construction specifications that will form the contractual basis for carrying out the works. The **Monitoring Program** will include procedures for implementation of mitigation of any adverse effects identified as well as contingency measures to respond to unexpected adverse impacts. In addition, the plan will set out the responsibilities of inspection staff assigned to carry out the monitoring program described above.

### 13.4.2 Operations Monitoring

The **Monitoring Program**, described above, will also include a methodology and associated procedures to continue the necessary monitoring during revenue operations to confirm compliance with the commitments documented in the ESR. The Program will include regular monitoring activities as well as the procedure to be adopted in the event that adverse effects are identified between regular inspections. Monitoring activities during rapid transit operations are shown in **Table 13-3**.

Table 13-3  
Monitoring Activities During Rapid Transit Operations

Environment Element	Purpose of Monitoring	Monitoring Method	Monitoring Frequency
Condition of heritage homes adjacent to rapidway alignment	To determine if any damage/deterioration is caused by vibrations produced by transit vehicles	Post-construction inspection to obtain baseline condition and monitoring during pass-by operations	Initially after revenue service is introduced and in response to concerns or after any major increase in service frequency
Traffic Operation	To confirm that the traffic operation is not adversely affected	Post-construction traffic assessment	Initially after revenue service is introduced and at a regular interval afterward
Effect of operations and maintenance on boulevard trees	To ensure the survival of boulevard trees	Inspection of protective measures and monitoring of work methods near trees	Annually

example, a design change in streetscape treatment or changes to median width, vehicle lane widths, local alignment refinements, changes to transit stops and station configuration, design speed of roadway curbs and underground infrastructure to be renewed, etc. Such changes could likely be dealt with during the design phase and would remain the responsibility of York Region to ensure that all relevant issues are addressed.

Due to unforeseen circumstances, it may not be feasible to implement the project as described in this ESR. Accordingly, any significant modification to the project or change in the environmental setting for the project which occurs after the filing of this ESR shall be reviewed by York Region and an addendum to the EA may be required. In the event of any uncertainty as to whether a change to the undertaking is a major or minor amendment, the Region will consult MOE before proceeding.

## 13.5 MODIFYING THE PREFERRED DESIGN

In discussing the process to change the preferred design, it is important to distinguish between minor and major changes. A major design change would require completion of an amendment to this ESR, while a minor change would not. For either kind of change, it is the responsibility of York Region, as Proponent, to ensure that all possible concerns of the public and affected agencies are addressed.

Minor design changes may be defined as those which do not appreciably change the expected net adverse effects associated with the project. For