Ontario

407 TRANSITWAY

From East of Highway 400 to Kennedy Road

Environmental Project Report

Section 3: Consultation Process

Delcan IBI GROUP

in association with

LGL

3. CONSULTATION PROCESS

3.1 Overview

Consultation is an integral component of an environmental assessment process and essential to the successful completion of this study. A consultation process was undertaken to assist in the planning and impact assessment process for the 407 Transitway. The consultation process was designed to address the requirements of *Ontario Regulation 231/08.* Consultation was initiated in 2007 well before the formal declaration of the TPAP on August 26, 2010 through the issuance of the "Notice of Commencement".

Consultation was conducted with the government review agencies, technical agencies, local municipalities, the general public, property owners and Aboriginal communities.

The consultation process included the following types of consultation activities:

- Public notices;
- Liaison with agencies aboriginal communities and members of the public;
- Public Information Centres (PICs); and,
- Project website.

3.2 Consultation with Agencies

Extensive notification and consultation was carried out to encourage the involvement of government agencies, technical agencies (i.e. transit authorities, utility companies, emergency medical services (EMS), etc.) and municipal staff in the Planning and Preliminary Design Stage. Agencies were invited to participate in the public information centres, workshop and focused meetings to address specific concerns and technical requirements.

Agencies were notified of project commencement by the distribution of an initial contact letter, which was mailed in July 2007. Some agencies responded that after review of the project, there were no concerns and/or interests within the study area and they requested to be removed from the contact list.

Agencies were also invited to attend the two rounds of PICs by a contact letter mailed in May 2009 and in June 2010. A contact letter was mailed to advise agencies of the formal start of the TPAP on August 24, 2010. On September 28, 2010 copies of the Draft EPR were submitted to members of the TRG and the MOE for review and comment.

The following is a list of agencies that were invited to participate in the consultation process:

- Ministry of Infrastructure (MOI);
- Ministry of Municipal Affairs and Housing;
- Ontario Realty Corporation (ORC);
- Ministry of Natural Resources (MNR);
- Ministry of the Environment (MOE);
- Toronto and Region Conservation Authority (TRCA);
- Ministry of Aboriginal Affairs;
- Indian and Northern Affairs Canada;
- Department of Fisheries and Oceans (DFO);
- Canadian Environmental Assessment Agency (CEAA);
- Canadian Transportation Agency;
- Ministry of Tourism and Culture;
- Metrolinx;
- York Region;
- York Region Transit (YRT)/Viva;
- RapidCo;
- City of Vaughan;
- Town of Richmond Hill;
- Town of Markham;
- City of Toronto;
- Toronto Transit Commission (TTC);
- Canadian Pacific Railway ;
- Ontario Provincial Police;
- Highway 407 ETR Consortium;
- York Region District School Board;
- York Catholic District School Board;
- Conseil scolaire de district catholique Centre-Sud;
- Conseil scolaire de district de Centre Sud-Ouest;
- Vaughan Chamber of Commerce;
- Hydro One;
- Enbridge Pipe Line;
- Rogers Cable;
- Bell Canada;
- Power Stream Inc.; and,
- Canadian National Railway.

Agency communications were undertaken as required to identify and resolve any environmental or design issues associated with the project. This consisted of discussions, meetings, correspondence and/or presentations to external committees, government ministries/agencies, municipalities, municipal politicians and interest groups. Environmental approvals-in-principle were secured in writing from external agencies where required.

3.2.1 Technical Resource Group (TRG)

A TRG was formed for the purpose of the study to provide technical expertise to the Study Team during the development of 407 Transitway Design Standards and during various stages of the Preliminary Design. Six TRG meetings occurred throughout the study.

The TRG members met at key project milestones providing comments on the EPR, Preliminary Design Report and Design Standards Report for this project.

The TRG was comprised of representatives from:

- Metrolinx;
- Ottawa-Carleton (OC) Transpo;
- YRT/Viva;
- TTC;
- City of Vaughan;
- Town of Richmond Hill;
- Town of Markham;
- Hydro One;
- MOI;
- Ministry of Municipal Affairs and Housing;
- 407 ETR;
- TRCA;
- York Region;
- Greater Toronto Airports Authority (GTAA); and,
- ORC.

The first TRG meeting was held on September 6, 2007. At the meeting an introduction of the study and the Study Team and background information related to the study were presented.

The second TRG meeting was held on March 3, 2008. At the meeting, the Transportation Needs Assessment, outline of the Design Standards, Project objectives, "Alternatives To" the undertaking and "Alternative Methods" of carrying out the undertaking were presented and discussed.

The third TRG meeting was held on September 25, 2008. At the meeting, the Study Team presented the finalized Transportation Needs Assessment, draft Design Standards, developed and evaluated station sites and route alternatives, and identified the preferred planning station sites and route alternative. The Study Team requested input from the TRG on station locations, on-going projects located adjacent to the 407 Transitway and the transitway itself.

The fourth TRG meeting was held on March 9, 2009. At this meeting, progress of the study and material to be presented at the first round of PICs were presented to the TRG members. Any comments on the study to date were requested.

The fifth TRG meeting was held on April 22, 2010. At this meeting, progress of the study and material to be presented at the second round of PICs were presented to the TRG members. Any comments on the study were requested.

The sixth TRG meeting was held on October 13, 2010. At this meeting, progress of the study and details related to transition of the study to the TPAP in accordance with Ontario Regulation 231/08 (Transit Projects Regulation) were presented to the TRG members. Comments on the Draft EPR distributed to the TRG on September 28, 2010 were requested.

3.2.2 Summary of Agency Consultation Activities

Table 3-1 presents a summary of agency correspondence received in response to correspondences sent by the Study Team and meetings held for the study during the Planning and Preliminary Design Stages. The original correspondences received from agencies are presented in **Appendix A**.

Table 3-1: Summary of Agency Consultation Activities

Agency	Meetings/Correspondence Received	Conclusions
M.P. Thornhill	No response to date.	
M.P. Richmond Hill	No response to date.	
M.P. Markham-Unionville	No response to date.	
M.P.P. Markham	No response to date.	
M.P.P. Thornhill	No response to date.	
M.P.P. Vaughan-King-Aurora	No response to date.	
Fisheries and Oceans Canada (DFO) – Ontario Great Lakes Area - Administrator	Fax received July 16, 2007 requesting that DFO be removed from the contact list and that all notices be sent to the TRCA. TRCA will determine the need for DFO's involvement.	DFO was removed from the contact list. DFO will be contacted during the Detailed Design Stage in accordance with the MTO/DFO/MNR Fisheries Protocol.
Canadian Environmental Assessment Agency (CEAA) - Director, Ontario Region	Mail dated July 13, 2007 from a Senior Program Officer indicating that a project description will be required to determine whether the *Canadian Environmental Assessment Act* applies to this project. Phone conversation with the Senior Program Officer on August 31, 2010 was held to discuss the status of the study. MTO advised that a draft Environmental Project Report will be circulated in September 2010 for CEAA review. In addition, a CEAA Project Description will be submitted for federal review.	Any CEAA triggers will be determined during the Detailed Design Stage. If required, a CEAA screening will be conducted during Detailed Design Stage. Consultation to continue during Detailed Design Stage.
Canadian Transportation Agency - Senior Environmental Officer, Rail Infrastructure Directorate	Fax received on July 27, 2007 requesting that future communication be forwarded to the new Environmental Officer. Also, it was noted that there are no concerns about the project at this time, but would like to remain informed about the project's progress.	Contact list has been revised. Consultation to continue during Detailed Design Stage.
Transport Canada Ÿ Senior Analyst , Coordination and Policy Advice Ÿ Navigable Waters Protection Agency	Letters received in August 2010 from the Navigable Waters Protection Agency indicate that the *Navigable Waters Protection Act* does not apply to this project.	No issues or concerns identified.
Indian and Northern Affairs Canada Ÿ Chief Negotiator, Comprehensive Claims Ÿ Director, Administrative Services, Litigation Management and Resolution Branch	Letter dated August 21, 2007 from the Environment Officer, Ontario Region (via the Director of Administrative Services, Litigation Management and Resolution Branch) presenting contact information to identify First Nations and other Aboriginal groups within the vicinity of the study area for consultation purposes. In addition, it was suggested to submit a project description to the Canadian Environmental	Contact list has been revised to direct correspondence to the Manager, of Environmental Unit. Consultation to continue during Detailed Design Stage.

Agency	Meetings/Correspondence Received	Conclusions
Ÿ Environment Officer, Ontario Region Ÿ Manager, Environmental Unit.	Assessment Agency if the *Canadian Environmental Assessment Act* is believed to apply. Email received on August 24, 2007 asking MTO to send requests to the Manager Environmental Unit.	
Health Canada - Regional Environmental Assessment Coordinator	No response to date.	Consultation to continue during Detailed Design Stage.
Environment Canada – Environmental Protection Operatins Division – Ontatrio Region	No response to date.	Consultation to continue during Detailed Design Stage.
Ministry of Aboriginal Affairs · Policy Advisor · Deputy Director, Policy and Relationships Branch	Mail dated September 26, 2007 from the Deputy Director indicating that the study area is located within the area where the Mississaugas of Scugog Island have existing or asserted rights. It was also recommended that Indian and Northern Affairs Canada be contacted.	Contact list has been revised.
Ministry of Tourism and Culture Ÿ Heritage Conservation Advisor Ÿ Heritage Planner/Archaeologist	Review and Acceptance letter of the Stage 1 Archaeological Assessment dated October 14, 2010 was received.	Stage 2 Archaeological Assessment to be conducted in Detailed Design Stage on areas identified in the Stage 1 Archaeological Assessment Report.
Ministry of Economic Development and Trade - Manager, Economic Development Analysis Unit	No response to date.	Consultation to continue during Detailed Design Stage.
Ministry of Government Services - Policy and Issues Analyst	No response to date.	Consultation to continue during Detailed Design Stage.
Ministry of Research and Innovation – Director, Innovation Policy and ORIC Secretariat Branch	No response to date.	Consultation to continue during Detailed Design Stage.
Ministry of Health and Long Term Care - Information Officer, Planning and Issues Management	No response to date.	Consultation to continue during Detailed Design Stage.
Ministry of Municipal Affairs and Housing – Director, Provincial Planning & Environmental Services Branch	Email received on July 10, 2007 from the Senior Planner in Legislation and Research Section, Provincial Planning Policy Branch informing that correspondence has been forwarded to Mr. Bruce Singbush, Manager in Central Municipal Services Office. Fax received August 2, 2007 requested that future communication be forwarded to the Assistant Planner in the Municipal Services Office – Central Region.	Contact list has been revised.
MOI– Director, Growth Policy, Planning and Analysis Branch	An email received August 1, 2007 from the Manager, Growth Policy informing that the Ontario Growth Secretariat of the MOI and Renewal accepted the invitation to participate in the TRG. It was suggested that the main contact for the ministry be the Manager. Comments on the draft EPR were received on October 29, 2010.	Contact list has been revised. TRG member. Responses to comments on the draft EPR were provided. Comments were considered during the finalization of the EPR.
Ministry of Agriculture, Food and Rural Affairs - Land Use Policy Specialist, Resources, Agricultural Land Use	No response to date.	Consultation to continue during Detailed Design Stage.
ORC · Manager, Environmental Assessment · Planning Coordinator	Mail dated July 27, 2007 from Land Use Planning Coordinator providing information that there are ORC managed lands present in the study area and that, depending of the alternative being considered in the project study, there is potential for the ORC Class EA to be triggered by this project. Letter dated June 19, 2009 indicated that ORC-managed lands are found within the study area and potential impacts may exist. Letter dated August 12, 2010 providing comments on the preliminary designs being developed to date. A letter dated October 12, 2010 was sent to ORC providing responses to ORC letter dated August 12, 2010. See **Section 3.2.2.1** for details. Comments on the draft EPR were received on October 27, 2010. A letter dated December 8, 2010 was sent to ORC providing responses to ORC letter dated October 27, 2010.	Contact list has been revised. Responses to comments on the draft EPR were provided. Comments were considered during the finalization of the EPR.
MOE · Environmental Assessment and Approvals Branch · EA Coordinator, Central Region Office	Letter dated July 27, 2007 from the EA and Planning Coordinator provided comments to assist the Study Team in the proposed undertaking. The comments were related to ecosystem protection and restoration, provincial policy statement, groundwater/surface water, dust and noise, contaminated soils, mitigation and monitoring, Class EA process, and First Nation consultation. Meeting was held June 2, 2010 to present the project and discuss details of the TPAP. Letter of acknowledgement received on September 20, 2010 regarding the Notice of Commencement of the TPAP. Comments on the draft EPR were received on November 18, 2010.	Contact list has been revised Responses to comments on the draft EPR were provided. Comments were considered during the finalization of the EPR. Consultation to continue during Detailed Design Stage.
MNR – Area Supervisor, York/Durham	Fax received July 23, 2007 from the Area Supervisor requesting that future communication be forwarded to the Area Biologist. The biologist requested information on evaluated and non-evaluated wetlands, forests, Areas of Natural and Scientific Interest (ANSI), *Species at Risk Act* (SARA) through Land Information Ontario. Also, it was suggested that contact be made for fisheries related information directly to the biologist. Further, the biologist expressed interest in technical/agency meetings and notification of EPR submission.	Contact list has been revised. Notifications throughout the study process were sent and a copy of the draft EPR was forwarded. Consultation to continue during Detailed Design Stage.

Agency	Meetings/Correspondence Received	Conclusions
TRCA Ÿ Director, Development Planning and Regulation Ÿ Manager, Development Planning and Regulation Ÿ Planner II, Environmental Assessment Review	Meeting on June 29, 2007 to address TRCA concerns regarding a revised alignment for the 407 Transitway proposed to optimize the Black Creek crossing and to mitigate the effect of an encroachment by Beechwood Cemetery on the protection corridor study ROW. Fax received July 23, 2007 requesting that future communication be forwarded to Planner II in Environmental Assessment. Also, it indicated that comments will be provided in the near future. Email received on September 4, 2007 from Planner II indicating that TRCA has identified environmental features within the study area to be included into planning documents and both within the text and overlay maps. A response letter identifying how TRCA's environmental concerns will be addressed in the EA documents was requested. It was indicated that TRCA will participate on the TRG. Reference this project CFN 39454 for future correspondence. Meeting on April 1, 2009 to address a revised alignment for the 407 Transitway at Jane Street as dictated by TTC for the subway and to review all other watercourses and creek crossings. Meeting on December 3, 2009 to discuss watercourse crossing issues and SWM criteria in preparation of the preliminary design. Comments on the draft EPR were received on November 23, 2010.	Contact list has been revised. Responses to comments on the draft EPR were provided. Comments were considered during the finalization of the EPR. Consultation to continue during Detailed Design Stage.
York Region · C.A.O. · Commissioner of Planning and Development Services · Director of Operations York Region EMS · Program Manager, Transportation Engineering · Infrastructure Planning Branch · YRT/Viva · RapidCo	Fax received on July 10, 2007 from the Manager, Transportation Planning that background information related to this project will be provided by August 6, 2007. Mail received on July 18, 2007 from Manager, Operations EMS requesting information about access routes, egress routes, duration of impediments and possible impact(s) on the emergency services and that future communication is forwarded to the Manager. Fax received on July 26, 2007 from the C.A.O. requesting that future communication be forwarded to the Director, Infrastructure Planning, Planning and Development Services Department. Also, it noted that comments will be provided throughout the project's progress as a member of the Technical Resource Group. Further, it noted that more project information is required to provide background information. Fax received on August 13, 2007 from the C.A.O. indicating that the Director of Infrastructure Planning will be the main contact for the study. The C.A.O. will participate as the York Region Transit representative in both the Technical Resource Group and the Functional Planning Specification Workshop. Meeting held on April 16, 2009 to present the study purpose and scope, transportation needs and opportunities, 407 Transitway study objectives, evaluation and result of route and station location alternatives, and transitway ridership forecasting results. Meeting held on November 26, 2009 to brief the YRT and Metrolinx on the proposed facility layout and access options at four of the seven stations of the 407 Transitway: GO-Barrie (Concord), Bathurst, Leslie and Woodbine/Rodick Stations). The other mobility hubs are delayed due to planning issues and will be addressed separately but should not delay these four stations. Also, to obtain input from the operating agencies in order to develop the preliminary design for the four stations and surface facilities. Meeting on December 16, 2009 to discuss the traffic effects of the 407 Transitway during and post construction as well as the proposed station layouts on regional roads. Mail received on July 5, 2010 from Manager, Operations EMS requesting information about access routes, egress routes, duration of impediments and possible impact(s) on the emergency services and that future communication is forwarded to the Manager. Mail received on July 15, 2010 providing comments on the Planning Stage of the study. Comments on the draft EPR were received on November 3 and 4, 2010.	Contact list has been revised. Responses to comments on the Planning Stage of the study were provided in August 2010. Responses to comments on the draft EPR were provided. Comments were considered during the finalization of the EPR. Consultation to continue during Detailed Design Stage.
York Regional Police	No response to date.	Consultation to continue during Detailed Design Stage.
City of Vaughan · City Manager · Senior Planning, Policy Planning Development, Engineering and Public Works · Director of Development/ Transportation Engineering · Fire Chief	Fax received on August 2, 2007 presenting concerns with the integration of transit supportive uses into the adjacent neighbourhoods particularly in the area where the Operations and Maintenance Yard for this project is located. This location is also the study area for the Spadina Subway extension to Highway 7 and a TTC Subway Station. In addition, it was suggested that careful consideration is required about the integration of the Barrie GO Rail Line, the future GO Rail station at Highway 407 and a BRT station as part of the YRTP (Viva) system at this location. It was suggested that the objective should be to provide a seamless connection between the three transit	Contact list has been revised to replace the Senior Planning and the Director of Development/Transportation for the Commissioner of Engineering and Public Works and the Commissioner of Planning respectively. Responses to comments on the draft EPR were provided. Comments were considered during the finalization of the

Agency	Meetings/Correspondence Received	Conclusions
	services to allow for the convenience of transferring passengers. In addition, the City has determined that the area is appropriate for higher density uses. Overall, it was noted that the stations will need to support and be compatible with the existing and planned land uses and consideration to aesthetics and functional factors should be important especially when they are in proximity to existing residential areas. Noise studies should also be considered for this study. Letter received on November 14, 2007 from the Development/ Transportation Engineering Department indicating that there are no concerns about the project at this time, but would like to remain informed about the project's progress. Comments on the draft EPR were received on November 19, 2010.	EPR. Consultation to continue during Detailed Design Stage.
Town of Richmond Hill · C.A.O. · Commissioner of Planning and Development · Commissioner of Engineering and Public Works · Fire Chief · Councilor Ward 6 · Manager of Transportation and Site Plans and Regulatory Services Department · Manager of Emergency Medical Services (EMS)	Fax received on July 25, 2007 from the Commissioner of Engineering and Public Works requesting that future communication be forwarded to the Manager of Transportation and Site Plans. Also, it was noted that there are no concerns about the project at this time, but would like to remain informed about the project's progress. Further, comments and background information will be provided as required. Mail received on July 25, 2007 from the Commissioner of Planning and Development that there are no concerns about the project at this time, but would like to remain informed about the project's progress. Also, it indicated that background information including latest development applications and secondary plans in the corridor will be forwarded to the Study Team. Letter dated May 28, 2009 from the Manager of EMS requesting information on access and egress routes, duration of impediments and other possible impacts to the Emergency Service Sector. Letter dated June 15, 2009 from the Ward 6 Councillor stating that he is interested about the project and is looking forward to being kept informed of all future developments. E-mail received November 9, 2010 from the Manager of Transportation and Site Plans and Regulatory Services Department that there are no technical comments on the draft EPR. A staff report for a Council meeting in January 2011 supporting the recommendation of the study will be submitted.	Contact list has been revised. Consultation to continue during Detailed Design Stage.
Town of Markham · C.A.O. · Director, Planning and Urban Design · Fire Chief	Mail received August 8, 2007 from the Director of Planning and Urban Design suggesting that a meeting be arranged to review the project with the Town's staff. Also, it was noted that the Town needs more details in order to provide the Study Team with background information. Meeting held on March 9, 2010 to present the study purpose and scope, transportation needs and opportunities, 407 Transitway study objectives, evaluation and result of route and station location alternatives, and transitway ridership forecasting results. Meeting held on June 10, 2009 to discuss and assess the potential Miller Avenue extension east of Rodick Road to Kennedy Road. Meeting held on October 29, 2009 to review the 407 Transitway study status and to discuss specific issues within the Town of Markham jurisdiction. Meeting held on December 9, 2009 to review and discuss the effects of the proposed widened Miller Road and its intersection with Street "B". Comments on the draft EPR were received on October 28, 2010.	Additional information were obtained from and provided to the Town of Markham through their involvement on the TRG. Responses to comments on the draft EPR were provided. Comments were considered during the finalization of the EPR. Consultation to continue during Detailed Design Stage.
City of Toronto · City Manager · Chief Planner & Executive Director · Director, Transportation Planning	Fax received July 16, 2007 from the Director, City Planning Division, Transportation Planning, indicating that there are no concerns about the project at this time, but would like to remain informed about the project's progress. Also, it noted that the Director will be the main contact for the City of Toronto. Fax received July 16, 2007 from the City Manager requesting to be removed from the contact list and indicated that future communication be forwarded to the Director, City Planning Division, Transportation Planning.	Contact list has been revised. Consultation to continue during Detailed Design Stage.
Toronto EMS - Chief/General Manager	Mail received July 26, 2007 from the Chief/General Manager requesting that future information be forwarded to the Senior EMS Planner. Also, information relating to the needs of the Emergency Services, specifically to access and egress points along the transitway as well as the ability to pass other vehicles within was requested. Further, it was requested that detailed planning maps for the study area be presented to Toronto EMS, York Region EMS and Peel Region EMS.	Contact list has been revised. Consultation to continue during Detailed Design Stage.
Toronto Fire Services, Fire Chief	Fax received July 23, 2007 indicating that the study area is outside the City of Toronto boundaries, therefore there are no concerns about the project and requested to be removed from the contact list.	Contact list has been revised.

Agency	Meetings/Correspondence Received	Conclusions
Toronto Transit Commission - TTC Chair	Meeting on August 12, 2009 to establish the process of resolving the 407 subway/transitway interface design concepts. Comments on the draft EPR were received on December 3, 2010.	Responses to comments on the draft EPR were provided. Comments were considered during the finalization of the EPR. Consultation to continue during Detailed Design Stage.
Metrolinx	Meeting held on November 14, 2008 to confirm the transitway design and operational requirements and controls. Meeting held on November 26, 2009 to brief the York Region transit agencies and Metrolinx on the proposed facility layout and access options at four of the seven stations of the 407 Transitway: GO-Barrie (Concord), Bathurst, Leslie and Woodbine/Rodick Stations). The other mobility hubs are delayed due to planning issues and will be addressed separately but should not delay these four stations. Also, to obtain input from the operating agencies in order to develop the preliminary design for the four stations and surface facilities. Comments on the draft EPR were received on December 10, 2010.	Responses to comments on the draft EPR were provided. Comments were considered during the finalization of the EPR. Consultation to continue during Detailed Design Stage.
Ontario Provincial Police - Detachment Commander, Highway Safety Division	Mail received July 16, 2007 requesting that future communication be forwarded to the Highway 407 Detachment Commander. Also, it was indicated that there are no concerns about the project at this time, but would like to remain informed about the project's progress.	Contact list has been revised.
Conseil scolaire de district de Centre Sud-Ouest - Director of Education	No response to date.	
Conseil scolaire de district catholique Centre-Sud - Director of Education	No response to date.	
York Catholic District School Board - Director of Education and Secretary of the Board	Fax received August 1, 2007 requesting that the Manager of Planning Services be added to the contact list. Also, it specified that comment on this project will be provided by August 6, 2007. Email received August 2, 2007 indicated that the Board would like to remain informed about the project's progress, public/stakeholders meeting. It added that there are a number of schools located in close proximity.	Contact list has been revised. Consultation to continue during Detailed Design Stage.
York Region District School Board – Director of Education	No response to date.	Consultation to continue during Detailed Design Stage.
Vaughan Chamber of Commerce - President	No response to date.	Consultation to continue during Detailed Design Stage.
Hydro One Networks Inc. - Head of Environmental Studies & Approvals	Meeting held on April 28, 2008 to review preliminary alternatives for the 407 Transitway project and to obtain information from Hydro One regarding standards or restrictions in developing alternative transitway and station designs. Mail dated March 20, 2009 indicating that Hydro One Transmission facilities rated at 230kV and 500kV are located within the immediate vicinity of the study area. Requested if the proposed transitway impacts Hydro One infrastructure Hydro One be contacted. Line clearances and access to its facilities should not be reduced. Any construction activities must maintain the electrical clearance from the transmission line conductors as specified in the *Ontario Health and Safety Act.*	Consultation to continue during Detailed Design Stage.
Enbridge Pipe Line - Assistant ROW Analyst	No response to date.	Consultation to continue during Detailed Design Stage.
Canadian Pacific Railway	Email received June 21, 2010 from the Area Manager Support that Canadian Pacific Railway has no corridors within the study area and therefore would like to be removed from the contact list.	Contact list has been revised.
CN Railways	No response to date.	Consultation to continue during Detailed Design Stage.
Highway 407 ETR Consortium	Meeting held on July 13, 2007 to present the purpose and scope of the 407 Transitway study. 407 ETR indicated that they will work together with the Study Team on this study. Discussions related to design standards, construction phase and property issues were held at this meeting. Mail received July 18, 2007 noting Highway 407 ETR Consortium will work with the Study Team to support the project. Meeting held on April 21, 2009 to discuss and assess the potential transitway crossings over or under Highway 407 facilities. Meeting held on January 21, 2010 to present and obtain feedback from 407 ETR on the proposed conceptual construction staging for cases that could affect 407 ETR. Comments received on the study on November 25, 2010.	Responses to comments on the draft EPR were provided. Comments were considered during the finalization of the EPR. Consultation to continue during Detailed Design Stage.
TransCanada Pipelines – Director, Mainline East	Fax received August 9, 2007 from Darlene Truav, Meridian Planning Consultants Inc. indicating no concerns about the project and requested to be removed from the contact list.	TCP was removed from the contact list. No issues or concerns identified.
Trans-Northern Pipeline - Coordinator of Crossings and Facilities	Fax received July 11, 2007 indicating that there are no concerns about the project and requested to be removed from the contact list.	TNP was removed from the contact list.
Rogers Cable - Team Manager, Planning Department	Mail received July 26, 2007 requesting that future information be forwarded to a new Team Manager. Also, it indicated that there are no concerns about the project at this time, but would like to remain informed about the project's progress.	Contact list has been revised.
Bell Canada - Implementation Manager	No response to date.	Consultation to continue during Detailed Design Stage.

Agency	Meetings/Correspondence Received	Conclusions
Power Stream Inc. · Director, Engineering Planning · Manager, System Planning	Letter dated June 28, 2007 from the Director, Engineering Planning indicated that Power Stream is currently undertaking a Class Environmental Assessment for Minor Transmission Facilities for a new transformer in Markham. Mail received July 13, 2007 from the Manager, System Planning that Power Stream Inc. is currently undertaking a Class Environmental Assessment for Minor Transmission Facilities Class EA for a new transformer station in Markham. The location of the transformer is found within this project study area. In addition, it informed that Power Stream Inc. is anticipating an additional 3-5 transformer stations to be in-service in the spring of 2009 that could potentially be located in this project area. Further, it is requested that a meeting be held to review the respective plans and explore any opportunities for the two projects to maximize benefits and to address any concerns. Any correspondence was requested to be director the Manager, System Planning instead of the Director, Engineering Planning. Meeting held on September 25, 2007 to review potential site locations for Power Stream station adjacent/within the 407 Transitway Corridor.	Contact list has been revised. Consultation to continue during Detailed Design Stage.

3.2.2.1 Summary of Written Correspondence prior to TPAP

Only one agency, ORC, provided comments on the planning and preliminary design of the 407 Transitway prior to the start of the TPAP. **Table 3-2** presents a summary of comments received from agencies and the Study Team responses.

Table 3-2: Summary of Agency Comments received during the Planning and Preliminary Design Stage

ORC Letter dated August 12, 2010	Study Team Response Letter dated October 12, 2010
Jane 407 Station and Surrounding MOI Lands:	
· Request that the design of the Transitway and supporting documentation speak to how transit oriented development could be achieved at this location. · Request clarification on how the EA has considered other provincial land use objectives outlined in the Metrolinx Regional Transportation Plan, Provincial Policy Statement and Growth Plan to determine this preferred configuration. · Request additional information as to why the alignment has been changed – where the transitway runningway is proposed to bisect this property, connecting the station to its terminus at Highway 400, essentially dividing the property in half. · Require that such features (environmental features and their buffered part of Black Creek identified on the site) be protected and that additional detail on mitigation measure related to SWM, etc. be included in your study. Request cost/benefit of elevated structure parking also be included to address the land cost of the proposed surface parking use. · Request that any operations and maintenance yard be limited in size or situated on one of the several alternative sites MTO is protecting for. · Request that the plan be reconsidered in light of opportunities to facilitate a storage maintenance yard in less valuable locations rather than this signature location; want to see this concept reflected to the extent possible in the final EA configuration	As noted in ORC's letter, the provincially owned lands at this location have been protected since 1989 for multiple transportation uses supporting both the 407 Transitway and the Spadina Subway Extension currently under construction jointly by York Region and the TTC. Final design for the latter has now identified the area required for the station, bus terminal and surface parking facilities. Their location and configuration stems from the need to maximize the efficiency of access to the subway by all modes from the sole entrance to the site on Jane Street. With the subway station needs as a starting point, MTO's planning of the 407 Transitway requirements at this site has focussed on retaining lands closest to the subway for TOD by placing the maintenance facilities required for the Central Section on the portions more remote from the station facilities to the north and west. Also, the current EA Study's update of the previous (1998) assessment of alternative sites for both BRT and LRT maintenance facilities has confirmed that the Highway 400-Jane lands remain the preferred location for these facilities consolidated on a single site. As outlined in the EPR, the evaluation of several different site alternatives was conducted during the study. The selection criteria for the evaluation included: – Proximity to transitway ROW and 407 Central Section/400 series highway operations centroid – Site size and configuration – (parcel up to 18 ha required) – Site ownership and acquisition cost – Site topography (grading and drainage requirements) – Compatibility with surrounding neighborhood, (zoning, land uses & security) – Site access from transitway and road network and surrounding traffic conditions – Site servicing and utility relocation/ interface requirements – Flexibility for expansion and protection of LRT maintenance and storage capability – Environmental conditions and constraints From the above selection criteria, it was deemed that the current proposed site, as identified in the 1989 Transitway Overview Study and 1998 Corridor Protection Study conducted by the MTO is the most suitable site for the O&M facilities. As shown in the conceptual site plans made available at Public Open Houses and in the planning design, development of a central headquarters bus and rail facility for simultaneous operation will require a combined area of approximately 16 ha at a minimum. Metrolinx, the likely transitway service operator, has already commented that the area allocated for bus maintenance may be less than desirable. While rapid transit service on the 407 Transitway will be bus-based initially, it is anticipated that even when the Central Section is converted to rail, buses will continue to operate on the sections to the west and east as well as on 400-series highway services. Hence, it is unlikely that the BRT facility could be replaced or converted for LRT vehicle maintenance. Regarding transitway alignment alternatives on these Provincial lands, the original perimeter alignment identified in the 1998 study was reviewed for opportunities to segregate maintenance and storage uses from potential TOD land as well as to improve the geometry of the Highway 400 crossing and permissible speed through the undeveloped lands. These objectives are achieved with the more southerly runningway alignment now recommended and, in addition, the lands south of the runningway and east of the Black Creek tributary offer the potential for integrated development surrounding the subway station incorporating future structured parking and air-rights where required. A small portion of the land west of the Black Creek tributary would also be available for other uses compatible with a future LRT facility.

ORC Letter dated August 12, 2010	Study Team Response Letter dated October 12, 2010
Lands East of Keele South of Highway 407	
MTO to provide, through a standalone correspondence, confirming that they are releasing their hold on the balance of MOI lands east of Keele Street.	If the MOI lands east of Highway 400 remain protected for MTO transportation uses, MTO will provide stand alone correspondence confirming whether it has any continuing interest in the balance of the Keele lands after accounting for the runningway requirements.
Lands South of Racco Parkway East of Dufferin	
MTO to provide, through a standalone correspondence, confirming that they no longer have an interest in any MOI owned land east of Dufferin and south of Highway 407.	When the 407 Transitway EA is approved, MTO will indicate in stand-alone correspondence whether it has any continuing interest in these lands adjacent to the Hydro One ROW.
Lands North of 407 Immediately East of Bathurst	
ORC recommends that TOD opportunities be evaluated and accommodated for as part of station development at this location; ORC offers their advice and to work collaboratively with MTO to realize these opportunities.	TOD opportunities have been evaluated for lands north of 407 immediately east of Bathurst. These lands, predominantly within the Bathurst Street to Highway 7 connector road loop, are required to accommodate transit station support facilities including park-and-ride, PPUDO and a feeder bus loop. The footprint of these facilities, to be used by both YRT/Viva and 407 Transitway, will occupy the entire property and access to them is constrained by existing intersections on Bathurst Street and Highway 7. Consequently, TOD would only be feasible if developed above structured parking and transit access facilities. Even if this were possible at higher cost, the single access location would not provide sufficient traffic capacity for both transit and development uses.
Yonge Langstaff – MOI Owned Parking Lot Immediately South of The Voice of Vedas Temple, West Of Yonge Street And North Of Highway 407	
Clarity on any setbacks at the site specific level would allow ORC to update our lease schedules and possibly facilitate the sale of any surplus lands in this area; ORC would request that impacts on developable land be limited to the extent possible and that a detailed plan showing the ultimate footprint with setbacks be prepared and sent to ORC when available to inform our lease discussions in this area.	The proposed 407 Transitway alignment across the southeast corner of these lands is identified as the technically preferred alternative in the transitway EA to be submitted at the end of 2010. If this alignment is unaffected by the on-going York Region review of Yonge Subway Extension and associated 407 Transitway alignments through the Richmond Hill/ Langstaff Centre lands, MTO will be in a position to provide a plan showing the ultimate footprint of transit facilities when the EA is approved. Conversely, if the Region's review recommends a different mobility hub solution, further analysis of 407 Transitway requirements will be required in 2011. Impacts on developable lands adjacent to the proposed transitway have been avoided and/or mitigated where possible. MTO will prepare and provide ORC with a detailed plan showing the ultimate footprint with setbacks.
Yonge Langstaff – Station Location East of Yonge Street	
We would appreciate that the plan show an additional possible alternative in this location to take into account the recently approved Yonge Langstaff Gateway secondary plan for lands east of Yonge Street and south of Highway 407, which include MOI lands. Greater clarification and analysis of cost/benefits of acquisition and construction of this segment of the preferred alternative should be included as part of your EA.	The technically preferred alignment and station location for the 407 Transitway at the Richmond Hill Centre/Langstaff mobility hub has been selected to optimize the connectivity between the transitway and the Yonge Subway Extension. The approved EA for the latter places the subway terminus station on the north side of Highways 407 and 7 consequently, the transitway station must be within 100-120 metres of the subway station and supporting feeder bus terminal to achieve a convenient transfer for the over 80% of the transitway riders connecting to other transit at this location. MTO has developed an alignment that achieves this connectivity efficiently without any significant intrusion onto developable lands identified in the Richmond Hill Centre land use plan and at the same time with convenient access to the Langstaff lands south of Highway 407 through the existing underpass adjacent to the GO Rail line. A transitway alignment remaining between Highways 7 and 407 was evaluated in the transitway EA alternatives analysis but, although less costly, it was not pursued due to the resulting 450 - 600 metre walk required to reach either of the proposed Yonge Subway Extension stations in the area. Also, a station at this location straddling the GO Station would still be 200-400 metres from the development core on the Langstaff lands and much farther from the remainder of these lands. Please refer to the EPR where further justification for the preferred station site and alignment are provided.
Leslie and Highway 407 – Lands West of Leslie	
ORC recommends that TOD opportunities be evaluated and accommodated for as part of station development at this location; ORC would be happy to offer advice in this regard and to work collaboratively with MTO to realize these opportunities.	TOD opportunities on lands west of Leslie were considered during transitway station development but were found to be severely constrained by existing Highway 407 stormwater drainage facilities, the German Mills tributary flood plain and the designated municipal utility corridor north of the Hydro One ROW. Consequently, TOD would only be feasible if developed above parking (potentially partially structured) and transit access facilities. While this may be possible on an air-rights basis, capacity for both transit and TOD traffic to access the site at the single intersection on Leslie Street may be problematic and would require further analysis.
Leslie and Highway 407 – East Side of Leslie	
As part of this EA, ORC would request confirmation that MTO is releasing its hold on the balance of lands located generally east of St. Roberts High School at the southwest corner of Highway 404 and Highway 407. Also request that the alignment be adjusted so as to protect for the opportunity of a viable development block in this area. We recommend a commitment in the EA or in a standalone letter to support removal of lands not required for the transitway from the Parkway Belt West Plan subject to MAH review and approval.	MTO's planning of the Leslie Station has recognized the potential for future TOD on provincial lands east of Leslie Street and the St Robert Catholic High School. The proposed Leslie Street underpass will include a pedestrian walkway on the south side of the transitway to allow access from the lands east of the school to both the transitway station and any future LRT station in the Leslie Street median above. If, at some time in the future, the school is relocated or re-built, the school lands could be re-developed as an integrated TOD immediately adjacent to the station. Further east, the transitway alignment passes through a short cut section and then climbs on fill to reach the Highway 404 and ramps overpass. Both the cut and fill sections, would permit one or more grade separated access roads to lands north of the transitway and south of Highway 407, potentially for parking. MTO has identified the need to protect lands on the parcel between St. Robert Catholic High School and Highway 404 for a future Highway 404 Transit/407 Transitway interface. The planning and design of this interface will be done by MTO through a different exercise at a later date. This will determine the lands that will be available for development.
Lands East of Woodbine and South of Highway 407	
ORC recommends that TOD opportunities be evaluated and accommodated for as part of station development at this location. ORC would be happy to offer advice in this regard and to work collaboratively with MTO to realize these opportunities.	MOI land adjacent to the Woodbine/Rodick Station is almost entirely occupied by the Hydro One ROW. The only opportunity for TOD at this station is through re-development of the vacant privately-owned land between the transitway and Highway 407. As noted in ORC's letter, this re-development could include an employment block or office complex integrated with the station with access under the elevated transitway east of the Woodbine overpass. MTO has recognized this potential and has accommodated this access in the transitway design.

ORC Letter dated August 12, 2010	Study Team Response Letter dated October 12, 2010
Hydro Corridors	
Hydro One must conduct a separate technical review and provide technical approval of the final design drawings for any corridor lands that may be impacted. Mr. Hart, from Hydro One, can provide further information on the status of their review.	Hydro One has been provided a copy of the technically-preferred alignment for technical approval and the Study Team is now awaiting the results of this review.

3.2.3 Submission of the Draft EPR

3.2.3.1 Summary of Agency Comments on the Draft EPR and the Study Team's Response

Draft EPR copies were distributed to the following agencies for their review and comment on September 28, 2010:

- CEAA
- MOI
- ORC;
- Ministry of Municipal Affairs and Housing
- MOE
- MNR
- TRCA
- York Region
- City of Vaughan
- Town of Richmond Hill
- Town of Markham
- Metrolinx
- YRT/Viva
- TTC
- Hydro One
- Highway 407 ETR Consortium
- Greater Toronto Airports Authority

A copy of the draft EPR was also sent to CN Railways on November 19, 2010.

The agencies were requested to provide their comments on the draft EPR by October 29, 2010. On November 9, 2010 and November 17, 2010 follow up requests were made to the agencies for comments on the draft EPR.

The agencies that provided comments or responses on the draft EPR included:

- MOI
- ORC
- MOE
- TRCA
- York Region
- City of Vaughan
- Town of Richmond Hill
- Town of Markham
- Metrolinx
- YRT/Viva
- TTC
- Highway 407 ETR Consortium

Table 3-3 presents the agency comments and corresponding responses from the Study Team.

3.3 Consultation with Aboriginal Communities

In consultation with the MOE's Environmental Assessment and Approvals Branch, Ministry of Aboriginal Affairs and Indian and Northern Affairs Canada, potential aboriginal communities that may hold an interest in this study were identified and contacted.

The aboriginal communities that were contacted included:

- Alderville First Nation;
- Chippewas of Georgina Island;
- Chippewas of Rama;
- Hiawartha First Nation;
- Beausoleil First Nation;
- Coordinator for the Williams Treaties;
- Mississaugas of Scugog Island;
- Curve Lake First Nation; and,
- Métis Nation of Ontario.

Aboriginal communities were invited to attend the two rounds of PICs by a contact letter mailed in May 2009 and in June 2010. A contact letter was mailed to advise aboriginal communities of the formal start of the TPAP on August 24, 2010.

3.3.1 Summary of Comments Received

As a member of the Williams Treaties First Nation, Chippewas of Rama indicated in a letter dated July 7, 2010 that the Barrister and Solicitor Coordinator for Williams Treaties First Nations were being made aware of this project for further review and response.

A representative of the Alderville First Nation has requested through phone conversation to be contacted if any aboriginal archaeological artefacts are discovered. In the meantime, it was requested that the Alderville First Nation be kept informed of study progress.

No response from other aboriginal communities has been received to date.

3.3.2 Conclusion

Aboriginal communities will be consulted during the Detailed Design Stage of this project. Results of the Stage 2 Archaeological Assessment, to be conducted during the Detailed Design Stage, will be forwarded to the relevant aboriginal communities.

Table 3-3: Draft EPR Version 2, Agency Comments and Responses

No.	Section	Comment/Concern	Response
1.0	**ONTARIO REALTY CORPORATION (ORC) – October 27, 2010**		
1.1		**Jane 407 Station and Surrounding MEI Lands** Emphasize need to consider and plan for the highest degree of transit oriented development (TOD) and employment uses possible at this location to maximize land value and transit use by non-commuters. Development blocks for TOD should be more clearly defined and expanded in size in this location to reflect the strategic nature of this site. Requested but did not receive clarification on how the EA has considered other provincial land use objectives outlined in the Metrolinx Regional Transportation Plan, Provincial Policy Statement and Growth Plan to determine this preferred configuration. The City of Vaughan has also indicated an opportunity for transit oriented employment development at this location subject to Parkway Belt West Plan refinements. We emphasize the importance of articulating how these land use policy objectives have been considered and met in the final EPR. Encourage your team to be creative in terms of examining the opportunity for stratifying uses and fully examining the potential for secondary uses on the hydro corridor lands to offset the use of unencumbered development lands in this location. We note several environmental features and their buffers that are part of Black Creek have been identified on these lands and may be impacted by the large footprint required for the O & M facilities and station parking. As part of ORC's Sustainability Framework we would require that such features be protected and that additional detail on mitigation measures related to stormwater management, etc. be included in the final EPR. The ecological cost of surface parking and single uses should be examined in your EA documents. Request that a cost benefit analysis of elevated structured parking be prepared inclusive of structures contain a mix of uses (e.g., podium stores, offices) and that the analysis include clear assumptions on the land cost of the proposed surface parking use. Several different site alternatives were evaluated during the study. We do not agree that factors such as land cost, value capture and land use policies have been properly weighted and factored into this analysis. ORC would prefer that O & M facilities be located in a more industrial like setting. In the immediate study area this could include provincially owned Parkway Belt lands east and west of Woodbine and lands east and west of Warden south of Highway 407. Request MTO consider designing an alternative O & M facility on these lands where over 300 acres of provincial land holdings are located in a combination of Inter Urban Transit, Complementary Use and Electric Power Corridor Parkway Belt designations so as not to miss a potential prime TOD opportunity at this subway station location. MTO is protecting hundreds of acres of land for such uses including a site at Hurontario and 407 and at the 407/401 link interchange. Request opportunity to locate O & M facilities elsewhere be carried forward into the next stage of study design and that an alternative O & M facility be planned elsewhere. In addition, on this site we would request that an O & M facility be limited in size to the extent possible and that the opportunity to situate storage components as Hydro Corridor secondary uses be fully explored.	As noted in ORC's letter, the provincially owned lands at this location have been protected since 1989 for multiple transportation uses supporting both the 407 Transitway and the Spadina Subway Extension currently under construction jointly by York Region and the Toronto Transit Commission (TTC). Starting with the subway needs, 407 Transitway requirements at this site focussed on retaining lands closest to the subway for TOD by placing the maintenance facilities required for the Central Section on the portions more remote from the station facilities to the north and west. A cost benefit analysis of elevated structured parking inclusive of structures containing mixed uses could be carried out in consultation with the TTC and York Region at the time the Transitway Detailed Design is initiated and TOD opportunities are pursued. As outlined in the draft Environmental Project Report (EPR), an evaluation of several different site alternatives was conducted during the study. The selection criteria for the evaluation included: · Proximity to transitway ROW and 407 Central Section/400 series highway operations centroid; · Site size and configuration – (parcel up to 18 ha required); · Site ownership and acquisition cost; · Site topography (grading and drainage requirements); · Compatibility with surrounding neighbourhood, (zoning, land uses & security); · Site access from transitway and road network and surrounding traffic conditions; · Site servicing and utility relocation/interface requirements; · Flexibility for expansion and protection of LRT maintenance and storage capability; and, · Environmental conditions and constraints. Site alternatives considered included options within the 300 acres of provincial land holdings in the Parkway Belt lands east of Highway 404 in Markham, most of which is highway or hydro right-of-way, as noted. All other publicly-owned parcels are narrow and constrained by Highway 407 and the hydro right-of-way. In the case of the later, the only components of an O&M facility that may be acceptable as a hydro corridor secondary use are employee parking facilities. The only other Parkway Belt land in the Central Section suitable for a functional maintenance facility is Site B, which contains protected land for Keele Street Station east of Keele Street for BRT and private land between Woodbine Avenue and Rodick Road for LRT. This site requires acquisition (further defined in the evaluation of site alternatives in **Section 5.5.4** of the Final EPR to be released on December 24th, 2010 to the public). Protected sites in the western portion of the 407 Transitway, beyond the central section study limits, cannot practically to serve a system through the central section. Any other new options that may become available at the time of Detailed Design can always be considered through an amendment to this Environmental Assessment From a review of the site evaluation, MTO still believes that the current proposed site, as identified in the 1989 Transitway Overview Study and 1998 Corridor Protection Study conducted by the MTO, is the most suitable site for the O&M facilities. As shown in the conceptual site plans made available at the Public Open Houses and in the draft Functional Planning Report, development of a central headquarters bus and rail facility for simultaneous operation will require a combined area of approximately 16 ha at a minimum. Metrolinx/GO, the likely transitway service operator has already commented that the area allocated for bus maintenance may be less than desirable. While rapid transit service on the 407 Transitway will be bus-based initially, it is anticipated that even when the Central Section is converted to rail, buses will continue to operate on the sections to the west and east as well as on 400-series highway services. Hence, it is unlikely that the BRT facility could be replaced or converted for LRT vehicle maintenance as it will continue to be required.
1.2		**Lands East of Keele South of Highway 407** We look forward to receiving a standalone correspondence confirming the extent of MTO interest in the balance of the lands as per your response to our earlier letter. We would also request confirmation of a minimum acceptable buffer distance from the edge of the 30m Transitway running way.	As indicated in our previous response, if the MOI lands east of Highway 400 remain protected for MTO transportation uses, MTO will provide stand alone correspondence confirming whether it has any continuing interest in the balance of the Keele lands after accounting for the runningway requirements.

No.	Section	Comment/Concern	Response
1.2		**Lands East of Keele South of Highway 407** We look forward to receiving a standalone correspondence confirming the extent of MTO interest in the balance of the lands as per your response to our earlier letter. We would also request confirmation of a minimum acceptable buffer distance from the edge of the 30m Transitway running way	As indicated in our previous response, if the MEI lands east of Highway 400 remain protected for MTO transportation uses, MTO will be able to discuss whether it has any continuing interest in the balance of the Keele lands after accounting for the runningway requirements following EA approval.
1.3		**Lands South of Racco East of Dufferin** The transitway is proposed to run along the north side of Highway 407 at this location. We look forward to receiving a stand-alone correspondence confirming whether MTO has any continuing interest in these lands as indicated in your response to our earlier letter.	As was indicated in our previous response, when the 407 Transitway EA is approved, MTO will be able to discuss whether it has any continuing interest in these lands adjacent to the Hydro One right-of-way.
1.4		**Lands North of 407 Immediately East of Bathurst** We request that TOD opportunities and a solution to the access limitations be further explored as part of the final EPR. ORC real estate development staff would be pleased to assist in this analysis if it is helpful.	As previously stated, the connector road loop at Bathurst Street and Highway 7 limits available land for use as a TOD opportunity. As you stated, the footprint of the loop is occupied with the transit station support facilities. The option of having development occur above a structured parking scenario would be difficult to accommodate with the single access location. An additional access point to the connector loop, either along Highway 7 or Bathurst Street, is not feasible due to higher costs, the potential for increased congestion, and municipality standards for minimum distances between intersections.
1.5		**Yonge Langstaff – MEI Owned Parking Lot Immediately South of the Voice of Vedas Temple, West of Yonge Street and North of Highway 407** MOI lands are leased to the Voice of Vedas Temple and discussions are underway regarding the amount of land to be leased and the term of the lease or whether possible sale of a portion of the site is possible. These discussions are in part dependent upon the outcome of this MTO undertaking. ORC requests a plan showing the ultimate footprint of transit facilities with setbacks when the Transitway EA is approved as per your response to this letter.	If the proposed 407 Transitway alignment across the southeast corner of these lands are unaffected by the on-going York Region review of Yonge Subway Extension and associated 407 Transitway alignments through the Richmond Hill/ Langstaff Centre lands, MTO will then be in a position to provide a plan showing the ultimate footprint of transit facilities when the EA is approved. Conversely, if the Region's review recommends a different mobility hub solution, further analysis of 407 Transitway requirements will be required. Impacts on developable lands adjacent to the proposed Transitway have been avoided and/or mitigated where possible. MTO will provide ORC with a detailed plan showing the ultimate footprint with setbacks after EA approval has been obtained.
1.6		**Leslie and Highway 407 – Lands West of Leslie** We request that the option of having the TOD opportunity expressed through development above parking and transit access facilities continue to be analyzed as part of this EA and at future design stages.	As stated in our previous response letter, TOD would only be feasible if developed above parking (potentially partially structured) and transit access facilities. While this may be possible on an air-rights basis, capacity for both transit and TOD traffic to access the site at the single intersection on Leslie Street may be problematic and would require further analysis. Furthermore, adding more access points on Leslie Street may not be feasible within municipality intersection design standards.
1.7		**Leslie and Highway 407 – East Side of Leslie** In our earlier letter, ORC requested confirmation that MTO is releasing its hold on the balance of lands located generally east of St. Roberts High School at the southwest corner of Highway 404 and Highway 407. You responded that MTO has identified the need to protect lands on this parcel for a future Highway 404 Transit/407 Transitway interface and that the planning and design of this interface will be done through a different exercise. ORC requests additional information on this project, including anticipated timing of the planning and design exercise to ensure a piecemeal approach to development of this site is avoided. ORC would be pleased to work with MTO to develop a TOD concept for this site that would integrate a 404 Transit/407 Transitway interface as part of the design so as to create an office destination in this location.	The timing of the future Highway 404 Transit/407 Transitway interface planning and design is not known at this time. MTO appreciates ORC's offer to work with MTO to develop a TOD concept for this site that would integrate a 404 Transit/407 Transitway interface as part of the design so as to create an office destination at this location. Upon commencement of the planning and design, MTO will contact ORC to discuss assistance with site development.
1.8		**Provincial Lands from 404 east to McCowan south of Highway 407** We would request that MTO consider all or a portion of light rail storage and O & M facilities proposed at the Jane/Highway 407 subway station to these lands taking into account Hydro One operational requirements. The employment industrial character of this area is more in keeping with the development of an O&M and storage area and would better protect the opportunity for TOD at the Jane / Highway 407 station.	As requested, consideration of the provincial lands from Highway 404 to McCowan Road, on the south side of Highway 407 as an alternate location for the O&M facilities has been undertaken. However, due to the limited space available between the Hydro Corridor and Highway 407's existing embankment, the placement of the LRT O&M facility on provincial lands would not allow an operationally acceptable facility based on the parcel sizes shown in plans provided by ORC subsequent to your letter. The only option to provide space at the Jane and Highway 407 station would involve separating the BRT and LRT facilities with the latter placed on privately owned lands east of Woodbine Avenue and south of Highway 407 (Magna Lands). As was previously stated, the O&M site selection underwent a thorough evaluation to confirm the Jane/Highway 407 station site as the preferred location for both facilities. The evaluation criteria and process are outlined in the Draft EPR that was submitted to the ORC.

No.	Section	Comment/Concern	Response
2.0	**TOWN OF MARKHAM, Development Engineer - October 28, 2010**		
2.1	**Figure 2a-b: Allocation of Growth & Density**	The figures do not appear to accurately reflect the existing 2001 and proposed 2031 densities for Markham's Urban Growth Centres within the boundaries identified by the Province. In particular, the transportation modeling does not appear to take into account the full urban density and transit potential of the Urban Growth Centers at build out, recognizing that both also have significant additional growth potential beyond 2031. Also, the symbol depicting the Richmond Hill/Langstaff Gateway Urban Growth Centre is centered on the mobility hub in the Richmond Hill portion which suggests that the growth assignment to the Regional traffic zones which include the Langstaff Gateway in Markham, do not account for either the planned potential by 2031 or full build out.	These figures have been revised to reflect the appropriate 2031 densities at Urban Growth Centres in York Region. The boundaries of UGC comply with the ones identified in the Province's Report titled "Size and Location of Urban Growth Centres in the Greater Golden Horseshoe". A symbol indicating Langstaff Gateway Centre has been added into two figures. In terms of potential growth beyond 2031, Table 2-5 presents the ultimate 2051 population and employment projections by the regional municipality. Detailed 2051 population and employment forecasts at a traffic zone level are not available as they have yet been developed by municipalities. The current GGH model forecasts future travel demand up to 2031. In recognizing significant additional growth beyond 2031, a sketch planning approach has been applied to estimate the potential transit demand in 2051. As shown in **Table 2-6**, the resulting peak point passenger load carried by the 407 Transitway east of Yonge Street (at Richmond Hill-Langstaff Gateway) are expected to increase to 118,600 – 158,600 in 2051, an increase of 44% to 95% from 2031.
2.2	**Richmond Hill/ Langstaff Urban Growth Centre**	On March 9, 2010 the IBI Group, Urban Strategies, York Region Rapid Transit Corporation and the Ministry of Transportation delivered a PowerPoint presentation regarding Rapid Transit/Mobility Hub and Yonge Subway extension to Council. Council requested staff to retain a world class consultant familiar with similar transit projects in other jurisdictions at the Langstaff developers' costs to review alternatives and to obtain alternative opinions with respect to the transit connectivity within the Richmond Hill/ Langstaff Urban Growth Centre. The Region of York is also undertaking a Transportation study for the Richmond Hill/Langstaff Urban Growth Centre that has just began and is anticipated to be complete in early 2011. "ARUP Consultants" was retained at the developers cost to undertake a review and to comment on the previous studies and develop solutions that assist in achieving the planned densities, connectivity and increased ridership and create the most efficient, seamless and timely transit experience for riders and ensure that the transit plan is not adding unnecessary cost to riders and taxpayers. The study will also look at methods to bring the subway stations to the front door of the Richmond Hill/ Langstaff Urban Growth Centre. The study will also review the need to advance the Langstaff concourse concept as part of their study. ARUP will present their draft findings at Development Services Committee on December 13, 2010.	The project team developed alignment and station alternatives for the Richmond Hill/Langstaff Growth Centre area in consultation with all stakeholders including the municipalities and transit agencies. The team's selection of the preferred alignment and station alternatives for the Growth Centre area were based on the evaluation summarized in **Table 5-8** of the EPR. This evaluation was developed with consideration of both existing conditions and future municipal development plans as known to date. Should ongoing studies undertaken after the approval of the 407 Transitway EA determine that changes to the transportation hubs/alignment (which all parties agree to) are warranted, the EA would be modified as required.
2.3	**Design issues**	During the Preliminary Design and Detailed Design phase of the study the technically preferred route and station sites will be used to generate alternative horizontal and vertical alignments and station configurations. In this phase of the study, based on the technically preferred horizontal and vertical alignment option, technical issues such as infrastructure conflicts, utility conflicts, SWM issues and environmental protections will be considered and be addressed in detail. In addition any cost associated to the MTO (i.e. Rodick Road SWM facility, utility relocations, etc) need to be defined. It is anticipated that various agreements between the MTO/transit providers and the Town will be required, which staff will report back on.	This Environmental Project Report is based on a preliminary design of the 407 Transitway and includes horizontal and vertical alignment alternative evaluation, as well as station layout assessment. The next phase of the project will include the detailed design of the selected alternatives, approved under this process. Cost sharing arrangements between MTO, the Municipalities and/or Transit Agencies, will be addressed during the Detailed Design Stage.
2.4	**Bayview**	A station was initially proposed at the south west corner of Highway 7 and South Park Road, east of Bayview Avenue as part of the eleven seven station option. This station is no longer part of the Highway 407 Transitway plans under the seven station options. To date, development of this parcel has not proceeded, as MTO originally wanted to protect this site for a possible transitway station. Currently, this site is designated and zoned Business Corridor Area in the Markham Official Plan, the Leitchcroft Secondary Plan (OPA 41) and Zoning By-law 177-96. The Town's intent is to provide for a mix of employment uses on these sites. Currently the site is subject to a Minister's Zoning Order, which limits uses to open space, agriculture and similar low-intensity uses. If the Province lifts the Minister's Zoning Order on this site, the underlying official plan and zoning provisions, noted above, will come into effect.	Noted.

No.	Section	Comment/Concern	Response
2.5	**Access to Magna Lands**	When building the Rodick Rd/ Hwy 407 overpass Markham provided access to the Magna Lands with an access road as noted in Attachment "D". To date the MTO has not provided a release to ORC to provide the Town and Magna access rights across the future 407 Transitway corridor. Upon construction of the 407 Transitway the Town should request the MTO, at their cost, to extend their Rodick underground Transitway structure easterly for approximately 10m to accommodate the Magna access road. As a condition of the Town's Transit Project Assessment approval for the 407 Transitway staff recommend that the MTO provide their release to ORC and provide continued access to the Magna lands upon construction of the 407 Transitway.	The eastern Magna parcel became land locked as a result of the Town's construction of the Rodick Rd extension crossing Hwy 407 that bisects the Magna property. Prior to construction of the Rodick Rd crossing, the Town was advised by MTO that the Ministry would not approve any at grade crossings of the planned Transitway, including this location to provide access to the land locked Magna site, nor would MTO be responsible for providing an access or funding it. Prior to construction MTO also advised the Town that it should consider designing the Rodick Road overpass structure to include a link between the two Magna parcels under Rodick Road. This was not carried out by the Town.
2.6	**Markham Centre**	In July, 2003, Council granted draft plan approval to the Remington Group's Downtown Markham project. This project, with a projected 20 plus year build-out, provides for the introduction of Viva Rapid Transit along a dedicated alignment within the Civic Mall ("Simcoe Promenade") linear park, and reserves another block for the future 407 Transitway. Calthorpe Associates reviewed Remington's Markham Centre precinct plan, which includes consideration of the 407 and Viva transit alignments and interface with the Unionville GO Station and Mobility Hub as per Attachment "A". In May, 2010, Calthorpe presented their preliminary concept for potential alternative transit alignments and Mobility Hub station location to Markham staff, MTO and Viva. MTO and Viva representatives indicated that a Markham Council resolution is required in order for them to review the Calthorpe concept in the context of their Environmental studies/approvals and to seek direction from their respective ministries and/ or boards. On June 22, 2010, Markham Council formally requested the MTO and Viva to review and report back on potential alternative 407 transitway alignments, Viva rapidway routes and Mobility Hub station location in Markham Centre. Both agencies have advised they need to report back to their Ministry and/ or board for direction regarding review of the Calthorpe alternative. A staff report outlining the agencies response to the alternative is scheduled for December 13, 2010.	As indicated in this comment, the current Markham Centre precinct plan, which contains the Remington property, is being conceptually re-evaluated by the Town. Following completion and assessment of the future development plans on either side of the GO tracks in the precinct plan, it will be determined whether the 407 Transitway alignment and station location in this area, as presented in this EPR, should be revised and an Addendum to the Report filed.
2.7	**Station Site Plan**	Staff recommends the MTO and/or subsequent transit providers obtain site plan approval and provide transit oriented development at the 2 Markham stations (Leslie St and Rodick Rd) in addition to the Richmond Hill/ Langstaff Urban Growth Centre and Markham Centre developments. This would enable staff to assure; · Good Urban design · Finalize the number of parking spots at each station · Allow the agencies/Markham to achieve an integrated transit service to · enable Markham residents fast and convenient service to stations without taking cars · Ensure sustainable and environmentally sensitive development · Ensure opportunities for transit oriented development	While MTO is not subject to site plan approval, MTO will consult with municipalities with regards to station plans during the Detailed Design Stage. The MOE does not support the inclusion of TOD lands as part of this Report as indicated in their comment to the EPR shown below: *"The EA has included areas identified as "potential TOD" (transit oriented development) in association with a number of proposed station locations. The feasibility of these elements has not been confirmed and staff cannot support them in concept as part of this EA as they are unrelated to the Transitway itself. Reference to these should be excluded from the EA generally, and from figures entirely. While the potential can be considered in locating of stations, in no way should it appear as a component of the overall project".*
2.8	**Hwy 404/407 transit interface**	The Metrolinx "Big Move" transportation plan did not recommend the protection for a potential Hwy 404 and 407 Transitway interface on ORC lands south of Highway 407 and east or west of Highway 404. Staff request the MTO review the feasibility of the Highway 404 transit corridor and protect lands at key transit interfaces for potential stations. (i.e. Hwy 407)	This EPR does not include an assessment of the Highway 404/407 interface. However, MTO is protecting for this interface.
2.9	**Implementation**	Given Markham will be largely built out to its capacity in 25-30 years, it is essential that the 407 Transitway be implemented in conjunction with or in advance of development over this timeframe. This requires that the preliminary design, currently being undertaken by MTO, be finalized in the next year so that near term development projects in Markham Centre and Langstaff can be designed around the Transitway. It may also means that some structures may need to be pre-built well in advance of the implementation of full dedicated rapidway starts operation. If Metrolinx is not prepared to advance the detailed design and construction of certain sections of the transitway it may lose the preferred transit alignment and have to settle on an alignment that is available after development.	Preliminary Design of the 407 Transitway will be completed within the next several months. MTO fully agrees with the suggestion of designing the future developments such as Markham Centre and Langstaff "around the Transitway". As explained in **Section 8.3** of this Report, the Transitway is planned to be built-in stages. Upon any development, the requirement for any pre-build infrastructure will be considered at that time.
2.10	**Markham District Energy**	In accordance with Markham District Energy's (MDE) letter dated on September 27, 2010, MDE did not object to the 407 transitway alignment, however they are requesting conditions related to a land exchange and reimbursement of MDE associated costs.	Comment noted. MTO is aware of this situation.

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2.11	**Pan Am Pool**	The Town of Markham has been selected to host the 2015 Water Polo and Badminton events as part of the Pan Am Games of which the Water Polo event is being directed to the Markham Centre location. The Town will be moving into a design build process with the Pan Am Bid Committee and Infrastructure Ontario this fall and needs to be in a position to confirm the preferred building placement, grading and site requirements. In order to ensure that the Town's urban design objectives and schedule are appropriately addressed, Town needs to protect lands for the preferred location, infrastructure requirement and parking lot. As noted the conceptual layout for the Pan AM Pool overlaid in the MTO's 407 alignment (Attachment "E") reveals that the 407 alignment needs to be realigned to the south to facilitate construction of the complex in 2013/2014.	**Section 5** addresses the likely presence of a future water sport facility east of the GO tracks; however, to date the MTO design team has not been provided with actual drawings of the proposed water sport facility that would allow for a more detailed assessment.
3.0	**MINISTRY OF INFRASTRUCTURE, Manager, Growth Policy - October 29, 2010**		
3.1	**General**	While potentially warranted in the long term, under current and foreseeable conditions, the Ontario Growth Secretariat (OGS) does not see a priority in implementing the project. However, the OGS is supportive of MTO's efforts to protect the Transitway corridor for future needs and would like to see this work continue. As part of the Transit Project Assessment Process, and in project planning and design beyond this process, we recommend this work be completed in collaboration with Metrolinx/GO Transit and other transit and government partners	The 407 Transitway Central Section is included in the current Metrolinx RTP 15 to 25 year plan. The 407 Transitway Study has been conducted under the guidance and approval of a Steering Committee which includes senior representatives from Metrolinx/GO and MTO. The study's Technical Resource Group included representatives from Metrolinx/GO and other transit and government partners. This group provided input to the EPR and subsequent Preliminary Design Report for the entire duration of the study.
3.2	**Project Prioritization**	In regards to the draft EPR, and should the project go forward, the OGS has some specific concerns, including: **Project Prioritization:** Sound transit network planning, and Metrolinx's current approach for the region, prioritizes projects that serve a greater number of intensification nodes, major destinations (e.g., public institutions, including hospitals, etc.) and/or connections to other rapid transit routes. Given the limited public investment funds for transit, the 407 Transitway does not sufficiently meet the criteria of serving major trip origins/destinations and/or substantial connections to other rapid transit routes relative to other regional rapid transit project proposals.	The 407 Transitway Central Section alone will directly serve two major intensification nodes by connecting directly to Richmond Hill Centre/Langstaff Gateway and Markham Centre and a third, the Vaughan Metropolitan Centre via transfer to the Spadina Subway Extension (one station away). It will also connect to York University via transfer to the Spadina Subway Extension (one and two stations away). Other important existing and future mixed-use developments include the Commerce Valley/Beaver Creek Employment District at the Leslie/Highway 7 area, the Highway 404/Highway 7 Business Park and the recently announced, future major re-development of the Buttonville Airport Lands north of the Woodbine Transitway Station. In addition to the above major trip origins/destinations within the Central Section, the high speed cross-regional Transitway service, potentially operated by Metrolinx/GO, will serve major origins/destinations to the east and west initially by continuing on the 407 ETR with connections such as Highway 427 to Pearson Airport followed by implementation of the fully grade separated Transitway. This 23km Central Section has substantial connections to other rapid transit lines, as it crosses the two future subway extensions to York Region and the three GO Transit north-south commuter rail lines between Highway 400 and Kennedy Road (GO Barrie, Richmond Hill and Stouffville lines). Again, future eastern and western extensions of the Transitway would intersect future GO Commuter rail service on the existing rail lines to Milton and, Georgetown in the West, and Seaton in the East.
3.3	**Ridership Estimates**	a. **Ridership Estimates**: As the 407 Transitway is intended for mainly transit-to-transit transfers, with less of a consideration for intermodal connections to walking and cycling, the demand for the 407 Transitway service relies heavily on the future of other transit routes. In some cases, these routes are yet to be constructed (i.e., the Spadina and Yonge subway extensions), while other routes must be eliminated or significantly differentiated so as not to leach ridership demand from the Transitway (i.e., the Highway 407 GO bus and Viva bus routes along Highway 7). Ridership estimates for the busiest section of the Transitway's central segment (westbound between Kennedy Station -Markham Centre and Yonge Station - Richmond Hill /Langstaff Gateway) assume that riders will transfer to the Yonge subway. Without the construction of the subway extension, ridership numbers would presumably drop considerably. Despite describing the Yonge subway extension project as "approved" (Page E-4 of the draft EPR), this project does not yet have any funding committed to it, and a construction timeline is quite uncertain given other competing Metrolinx priorities.	While it is true that a large part of the ridership on the 407 Transitway will come from transfers from other transit modes, planning includes significant opportunity for park-and ride and bike-and-ride at most stations. In addition, MTO is proposing a significant investment in infrastructure to locate the stations at two regional centers within walk-in distance from surrounding, major transit oriented development (TOD). Construction for the already funded Spadina Subway Extension is scheduled to start in 2011 with completion by 2017, well in advance of the current Metrolinx RTP timing for the 407 Transitway. The Yonge Subway Extension is among the priority projects listed in the Metrolinx RTP to be implemented within the next 13 years; again in advance of the 407 Transitway. Many of these first phase projects do not have committed funding as yet. In the unlikely event that the Yonge Subway is not extended to Richmond Hill before the 407 Transitway is in service, the potential 407 Transitway – Yonge Subway destined passengers would have several alternative route options depending on their destination, such as: a) transfer to the GO Transit Richmond Hill if going to Union Station; b) connect to a potential VIVA BRT Yonge service (likely a York Region alternative if the subway extension is not built) or take a 407 Transitway off-line service route that would leave the Transitway at Yonge to connect directly to the Yonge Subway at Finch Station (a key attribute of BRT technology) ; c) take 407 Transitway express service to the Jane/407 Transitway Station to connect to the Spadina Subway line to reach southern Toronto destinations. As a result, it is unlikely that, significant reductions in the forecasted ridership would be expected if the Yonge Subway Extension is not built by 2023, the earliest planned date in the RTP for 407 Transitway implementation. In response to the comment regarding potential ridership competition with the current Highway 407 GO bus services and the vivaNext BRT along Highway 7; the 407 Transitway service (likely operated by Metrolinx/GO Transit), will actually be an enhanced version of the current GO bus service operating on Highway 407 ETR through the Central Section. The York Region Viva network is a different

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			type of service, being an intra-regional service aimed at a different shorter trip market. The 407 Transitway is planned as a longer distance cross-regional, fully grade separated, rapid transit commuter service (stations 3-4 km. apart, analogous to the existing GO Rail lines), while the Highway 7 Viva service operates as an urban rapid transit service (stations 0.8-1.2 km. apart). Incremental transition of the existing GO 407ETR service to operation on the Transitway as it is implemented is discussed in **Section 8.3** of the draft EPR.
		b. Peak hour ridership estimates range between 1,100 and 5,400 passengers per hour depending on the route segment, though no off-peak data has been shared. The commonly-accepted minimum threshold for bus rapid transit (BRT) service in an exclusive or partially-exclusive right-of-way (ROW) is 2,000 passengers per hour. The OGS is concerned that the ridership forecasts presented in the draft EPR do not demonstrate the minimum ridership thresholds to support BRT investment.	**Figure 2-6** of the EPR illustrates the forecast AM peak-hour link volumes on the Transitway showing the peak direction figures above the line and the contra-peak direction below. Peak direction volumes exceed any 2,000 passengers per hour threshold along the entire length of the Central Section, rising to over 5,000 in the heaviest loaded links. In addition, the contra-peak volumes are already approaching 2,000 pph in the 2031 forecast, potentially only eight years from the earliest in-service date. From the demand perspective following the quoted "commonly accepted" guidelines, these figures, if achieved within ten years of opening the facility clearly justify a rapid transit system on exclusive grade separated right-of-way.
3.4	**Jane Station**	The land immediately to the west of the intermodal station at Jane Street is planned to accommodate 800 parking spaces, while the land further to the west is planned as potential TOD. To encourage transit use and promote a walkable environment the land closer to the station should instead be planned for TOD. If substantial parking is still required, it could instead be accommodated in the land further west.	The parking facility (800 parking spaces) is part of the TTC Spadina Subway Extension 407 Station design, as opposed to being proposed by the 407 Transitway project**.** Additional parking may be required when the Transitway is implemented. Additional parking demand could be accommodated in conjunction with TOD opportunities and possible combined structured parking.
3.5	**GO Barrie (Concord) Station**	The draft EPR identifies this station as a Mobility Hub, however this location is not in fact a Mobility Hub as designated by Metrolinx. For the purposes of the draft EPR, to be accurate the term can be changed to transportation hub or transit node	The GO Barrie (Concord) Station will be an intermodal station that will serve the cross-regional 407 Transitway, the GO Barrie Commuter Rail line, the Viva Highway 7 BRT and local YRT bus routes. However, the term can be changed to transportation hub or transit node in the final EPR.
3.6	**References to the Growth Plan in the draft EPR**	On page E-2, second paragraph under section E.4, please make the following correction to accurately reference the Growth Plan: "In line with the Provincial Province's Growth Plan **for the Greater Golden Horseshoe, 2006,..."** The reference should also be revised in the third paragraph in the same manner.	This has been changed.
3.6	**Map legends**	With only a few exceptions, the maps throughout the draft EPR lack legends. With a variety of differently colored lines and other markings, a legend is absolutely necessary to understand the map.	Where required, a Legend has been included on all drawings.
3.8	**General**	In general, we are supportive of the 407 Transitway Transit Project Assessment Process as a long-term project to protect the corridor. As the TTC, YRT, and Metrolinx/GO Transit move forward with their system improvement plans, and as the municipalities along the 407 Transitway corridor proceed with their planning for residential and employment growth, we expect the need for and feasibility of the 407 Transitway to become clearer. If and when the Transitway is constructed, we will want to see a greater emphasis on ensuring transit-supportive land use densities, good pedestrian and bicycle access to key trip generators/building entrances around major transit station areas, and good overall pedestrian-scale urban design.	These principles have been and will continue to be applied to 407 Transitway planning.
4.0	**YORK REGION, Program Manager, Transportation Engineering – November 3, 2010 (Comments from staff from Infrastructure Planning, York Region Transit and York Region Rapid Transit Corporation)**		
4.1	**GO Barrie Station**	We acknowledge that as per our comments of July 15, 2010, the proposed Viva stops on Highway 7 have been shifted closer to the GO Rail overpass. The objective for doing this, as noted in our previous comments, was to provide passengers a shorter access route to the proposed GO Station and to the 407 Transitway, and accomplishing this via use of the proposed vertical passenger connection. In the 407 Transitway draft EPR, the vertical passenger connection is noted to be dependent on development in Concord West. Locating the Viva stops on Highway 7 closer to the GO Rail line will not provide for effective access to the proposed GO Station and to the 407 Transitway without the use of the vertical passenger connection. We therefore suggest that the passenger connection be identified as part of the 407 Transitway project.	The grade separated walkway over Highway 7 that will allow westbound Viva transfer passengers direct connection to the proposed GO Station and the 407 Transitway is shown as a recommendation. The existing CN bridge is over 40 years old and will soon require replacement. It is recommended that the walkway be designed and built as a component of the future overpass structure.
4.2	**Bathurst Station**	As noted in our comments of July 15, 2010, YRRTC has a preliminary preferred option for a station layout within the loop ramp of Bathurst Street. This provides for the eastbound stop on the loop ramp at an intersection in the approximate location as that proposed for the 407 Transitway design, and the westbound stop within the loop ramp (i.e. off of the ramp). Since the preliminary design proposed at this station in the draft EPR is different to that proposed for vivaNext, the report should indicated that during the detailed design phase, there will need to be coordination with YRRTC on the layout of this station to determine an optimal solution for all uses.	Agreed. A sentence has been added to all stations intermodal surface facilities in **Section 6.2,** stating: *"During the Detailed Design Stage, the location of the surface facility at this station will be reviewed with impacted transit agencies to confirm requirements and preferences".*

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4.3	**Richmond Hill Centre Station**	We require confirmation on whether the proposed 407 Transitway alignment conflicts with the existing RHC bus terminal. If it does, the report should indicate that during the detailed design phase, there will need to be staging discussion with the Yonge Subway project team, as our current bus terminal design for the RHC terminal as part of the Yonge Subway Extension has the platform in the same location as the existing terminal.	Agreed. A paragraph has been added to **Section 6.2.5** stating: *"In the area of the existing RHC bus terminal, the proposed 407 Transitway is a level below ground. The facility is essentially aligned with the south-west corner of the bus facility. During the Detailed Design Stage, a staging discussion with the TTC-YR Yonge Subway project team will be required to ensure optimum constructability and cost effectiveness."*
4.4	**Figure 5-23 and 5-24**	Given the discussion provided on page 86 regarding the alternative alignments in the Markham Centre area, the two figures should be reversed.	Agreed. **Figures 5-23 and 5-24** have been reversed in the Final EPR.
4.5	**Figure 5-25**	This figure should identify a single preferred alignment (F3A)	Agreed. The Corridor Protection Study alternative has been removed from **Figure 5-25** of the Final EPR.
4.6	**Executive Summary Page E-3, Section E.6**	Jane Station notes that it is a connection point to a "major Viva bus facility". This should be revised to indicate that the 407 Station is an 18 bay bus terminal where 13 bays are for GO buses and 5 bays are shared between YRT and Viva.	Section E6 of Executive Summary has been modified and the text of the Final EPR now reads: *"Major Gateway at the interchange of the future TTC Spadina Subway Extension's 407 Station, GO and YRT/ Viva bus services."* As this section of the Executive Summary is meant to provide the integration of all the transit systems at each station, the detailed information of the number of bus bays has not been included for any of the stations. However, this information is included in the Final EPR, Section 6 (Station layout drawings).
4.7	**Executive Summary Page E-3, Section E.6**	The Yonge Station should include YRT in the description of the transit serving the major bus facility.	Agreed. **Section E6** of Executive Summary has been modified accordingly; the text of the Final EPR now reads; *"Major Gateway at the interchange of the future TTC Yonge Subway Extension RHC Station, major YRT/Viva and GO Transit bus terminal and GO Transit Richmond Hill regional commuter rail Station."*
4.8	**Section 2, page 16**	The document notes that there would be planned direct service to VMC Station. It should be noted that no 407 Transitway/GO bus spaces are currently protected for the VMC Station. It is anticipated that all 407 Transitway trips destined to VMC would transfer to the subway at the 407 station. This will likely require a fare integration/fare discount strategy to be in place.	Agreed. **Section 2.3.5** has been modified to reflect that there will not be 407 Transitway service to the VMC Spadina Subway Station.
4.9	**Section1.3.1.5 York Region Transportation Master Plan**	This section should be updated to reflect the latest York Region Transportation Master Plan, November 2009.	**Section 1.3.1.5** has been revised. It now reads: *"The main purpose of this Plan, completed in 2002, and revised in November, 2009, is to define a long-term transportation vision and integrated road and transit network plan that would support growth in York Region to the year 2031. A number of policies and programs discussed in the Plan have a strong focus on the Highway 407 Corridor as one of the major actors in meeting the Region's future needs. The proposed transit network shows expected GO Transit improvements, as well as York Region rapid transit facilities integrated with the GO Transit and TTC systems. Proposed future rapid transit facilities include BRT and/or LRT systems within the Highway 7/407 Corridor.* *The three major activity centres along the Highway 407 Corridor, as identified in the province's Growth Plan, are recognized in the plan as strong focal points for concentrated transit-oriented development. Additionally, a system of gateways enhancing access to the existing and proposed transit network is introduced. Road network expansion including active transportation plans are also included. Road network expansion including active transportation plans are also included."*
4.10	**Table 2-5**	In our July 15, 2010 comment on the Functional Planning Report, we indicated that the 2031 employment statistics were incorrect (the numbers listed are from Places to Grow for the year 2001). This has not been corrected in the draft EPR.	Agreed. **Table 2.5** has been updated and is reflected in the Final EPR.
5.0	**YORK REGION TRANSIT (YRT)/Viva, Service Planning comments – November 4, 2010**		
5.1	**Page E-7: For the Kennedy Station info box**	Add the TTC logo with the word (future)	The TTC logo for Kennedy Station has been added on **Figure 5** of the Executive Summary and is reflected in the Final EPR.
5.2	**The references to VIVA**	The references to VIVA should be shown as Viva	Agreed; the reference to VIVA has been changed to "Viva" in the entire report and is documented in the Final EPR.
5.3	**Section 2.3.4**	The reference to Viva should be stated as YRT/Viva	Agreed, the reference to Viva has been changed to YRT/Viva in **Section 2.3.4** in the Final EPR.
5.4	**Section 3.2:**	The bullet point which refers to York Region Transit should be stated as York Region Transit/Viva Add a new bullet point for RapidCo	Agreed, these changes have been made and are reflected in the Final EPR.

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5.5	**Section 3.2.1**	The comments for Section 3.2 should they also apply for Section 3.2.1?	Agreed, both sections have been revised and refer to YRT as YRT/Viva. RapidCo has been added for **Section 3.2.1.**
5.6	**Section 3.2.3.1**	YRT/Viva submitted comments but were not included in the chart. Please update the chart to include our previous YRT/Viva comments.	Agreed, all comments and responses have been included in the chart and are reflected in the Final EPR.
5.7	**Section 4.3.1 (second paragraph)**	For the list of transit providers, you can add GO Transit and Brampton Transit. There is a reference to different transit providers. YRT and Viva are one system. Add Promenade Terminal to the list of terminals. Remove the "s" from the word terminals. Figure 4-3: Update the name of the title to: Existing YRT/Viva System Map (Effective September 5, 2010)	Agreed, the following changes have been made: · the list of transit providers now includes GO Transit and Brampton Transit; · YRT and Viva reference changed to YRT/Viva; · Promenade Terminal has been added to the list of terminals; · "s" has been removed from the word "terminals"; and, · Figure 4-4 title has been changed to "Existing YRT/Viva System Map (Effective September 5, 2010)".
5.8	**Section 4.3.1.2**	Update the reference of Finch Subway Station to: Finch GO Bus Terminal The passenger trips reflects 2005 data. Do you need updated numbers? The 3rd bullet point under 4. Viva Orange needs to be corrected (Street name is missing) The 3rd bullet point under 5. Viva Green need to be corrected. Remove the information: "and along Highway 7 during off-peak periods. For 6. Viva Pink, add a bullet point stating: Peak period service	Agreed. Updated numbers were requested by YRT. Based on October 2010, the average weekday boarding for YRT/Viva express service is 1,026. These updated numbers are reflected in the Final EPR. Agreed
5.9	**Section 4.3.1.3**	For the second bullet point, add "Richmond Hill Centre terminal after Langstaff GO Station.	Agreed; text has now been revised to read: *"Langstaff GO Station/Richmond Hill Centre terminal"*
5.10	**Table 5-4, Section C:**	For the Leslie column, remove TTC Route 25D. For the Warden/Birchmount column, add TTC 68B. For the Markham Centre, add future TTC 17A.	Agreed; table 5-4 has been updated: · TTC Route 25D removed from the Leslie column; · TTC 68B added to the Warden/Birchmount column; and, · future TTC 17A added to Markham Centre column.
5.11	**Table 5-4, Section D**	Remove the line between Viva and York Region Transit info, since we are one system (YRT/Viva)	Agreed; throughout report York Region and Viva reads York Region Transit/Viva or YRT/Viva.
		For the Richmond Hill Centre column, add 91B. For the Richmond Hill Centre column, remove 340.	Agreed; for table 5-4 · 91B has been added for the Existing YRT Routes in the Richmond Hill Centre (Yonge) column, and · 34D has been removed from the Bayview column.
		What is the reference to Viva Yellow, are no plans for new Viva route called yellow.	Agreed; Viva Yellow was written in error and was removed.
		What is the meaning of Viva BRT (future)? For the Markham Centre column, add Viva green.	The meaning of Viva BRT (future) pertains to future Viva lines; Viva green was added to the Markham Centre column.
5.12	**Page 72, Section C**	Staff list should be updated to: YRT/Viva and RapidCo.	Agreed; Section C has been updated to include YRT/Viva and RapidCo.
5.13	**Section 5.4.2.3:**	The spelling of Hightech should be spelled: High Tech Road	Agreed, spelling has been changed from Hightech to "*High Tech Road"* in **Section 5.4.2.3** of the final EPR.
5.14	**Section 5.4.2.6**	Fourth bullet: add: TTC (future)	Agreed, the fourth bullet includes "*TTC (Future)*".
5.15	**Figures 5-21 & 5-22**	add the TTC logo and (future)	Agreed, TTC logo and (future) has been added to **Figures 5-21 and 5-22**, and is reflected in the Final EPR.
5.16	**Section 5.5.2**	missing blanks	Missing blanks have been completed in **Section 5.5.2.**
5.17	**Section 6.2.2.2 (site plan)**	How may bus platforms will that loop accommodate? What is the turning radius of that loop? Need to accommodate 40foot buses.	The loop accommodates three bus platforms at this Station. The turning radius of the bus loop (8.5m inside radius with approx 9.5m wide lane) provides for 40-foot bus operation.
5.18	**Section 6.2.2.6**	Can the number of bus platforms be adjusted at the design stage? What is the turning radius of that loop? Need to accommodate 40foot buses.	As indicated in the Report, the bus facility layout will be reviewed during the Detailed Design Stage, in coordination with other impacted transit agencies that will use the facility. At this stage, three bus platforms are proposed at this Station. The geometry of the loop (15m inside radius) will allow for 40-ft bus operation.
5.19	**Section 6.8**	Should Presto equipment be evaluated and included? Operations and Maintenance: Do you need further information from YRT/Viva regarding the Operations and Maintenance?	Presto is a particular brand of electric fare system. In the EPR ITS section common ITS elements in a generic manner have been described, including management of transit fare collection; common electronic payment, etc. The Detailed Design Phase will review the ITS requirements.

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6.0	**MINISTRY OF THE ENVIRONMENT (MOE) – Environmental Assessment and Approvals Branch, Air and Noise Unit (ANU) – November 18, 2010**		
6.1		**Sound Level Criteria:** The sound level criteria were based on the MTO Environmental Guide for Noise (October 2006). This MTO document was developed to provide guidance for MTO personnel and consultants in the analysis of highway noise and its effects. The applicable criteria are contained in the MTO/MOE Protocol for Highways (MTO & MOE, 1986). However, the Ministry is currently in the process for transitioning towards similar limits and procedures noted in the MTO 2006 document. In the interim, undertakings will be assessed on a case by case basis. For this undertaking, the MTO document is deemed acceptable.	Clarification noted.
6.2		**Noise Control Measures:** Section 4.2.2 indicates that future predicted sound levels without the 407 Transitway may exceed 65 dBA at two noise sensitive areas and that there is no need for additional mitigation. In accordance with the MTO Environmental Guide for Noise, the feasibility of noise control measures should be investigated when an increase in sound levels is predicted to be equal or greater than 5 dBA, or when any increase in sound levels is present and the resulting predicated project should levels are greater than 65 dBA. Therefore, the feasibility of noise control measures should be investigated at the two noise sensitive areas where the 65 dBA cap has been exceeded.	As noted, noise control measures should be investigated when an increase in sound level is predicted to be greater than 5 dBA or when the predicted project sound levels exceed 65 dBA. In the case of the two receptors (R3 and R9) for which sound levels exceed 65 dBA, this threshold is already exceeded under the no-build scenario. As such, the elevated background condition is attributed to the presence of Highway 407, and the 407 Transitway project is not the cause for the threshold exceedance. At both locations there is a direct line of sight from Highway 407 to the residential area with no barrier in place. At both receptors noted in the comments, the effect of the 407 Transitway on future noise levels is significantly less than the effect of Highway 407 [-7 dBA at R3, and -11 dBA at R9]. Mitigating noise from the 407 Transitway would therefore have little to no impact on the overall sound levels at the receptors. MTO will investigate the feasibility of noise mitigation control installation during the Detailed Design Stage.
6.3	Appendix – SENES Report	**Study Area:** Zoning maps should be provided to clearly show the zoning designation of all lands surrounding the proposed 407 Transitway corridor.	Appropriate land use planning maps have been provided in the revised report.
6.4	" Selected Receptors: 10 receptors (R1 – R9, and S1) were selected in the report. Comments of the selected receptors:	a. Table 7 which describes the select POR's should be updated to show the distance from each POR to the 407 Transitway	a. The table has been revised to show the distances from the 407 Transitway to each POR.
		b. Additional points of reception should be selected to represent all lands zoned for future noise sensitive use, if required. All the selected points of reception should represent the worst case designs with respect to outdoor environmental noise impact such as first row reversed frontage lots (not flanking or direct frontage lots). This is necessary at this early planning stage in order to know the sound barrier requirements (i.e. barriers heights, lengths, & layouts) for these future noise sensitive land uses.	b. Future noise sensitive uses were accounted for – receptors R7 and R9 represent future noise sensitive land uses. The assessment at these receptors, as with all others, was based on the worst case design with respect to outdoor environmental noise impact.
		c. Receptors R7 and R9 both represent future developments located within areas of elevated sound levels (> 55dBA) & sound barriers should be investigated, as per MOE noise guidelines. The location of these two receptors should be selected in accordance with the worst case layouts, ie. first row reversed frontage lots.	c. As noted previously, Highway 407 is the dominant source of existing and future background noise throughout the study area. The effect of Highway 407Transitway is expected to be minimal that show only a 1.1 dB increase in the noise level at R7, and less than 0.5 dB at R9. The contribution from the 407 Transitway at R7 is predicted to be 5 dBA less than that from future no-build Highway 407 noise at that location. At receptor R9 the noise from the 407 Transitway is predicted to be 11 dBA less than the no-build Highway 407 noise. As such, noise control on the 407 Transitway will not result in a condition approaching 55 dBA, when no-build noise from Highway 407 alone is predicted to exceed 55 dBA. There are no noise barriers in this section of Highway 407 and there is direct line of sight to the residential areas. This assessment shows there is little to no incremental noise effect of the 407 Transitway. MTO will investigate the feasibility of noise mitigation control installation during the Detailed Design Stage.
		d. Receptors R2 & R3 represent direct frontage lots. Worst-case lots should be assessed (ie. first row reversed frontage or flanking lots, as applicable, should be used).	d. MTO Guide does not state that assessments are to take place at "first row reversed frontage lots" nor does this terminology appear in the MTO Guide. The MTO guidance states that first row receptors are to be considered for noise control. Receptors in this assessment were placed in the Outdoor Living Area, per the MTO definition, on the most exposed side of the first row receptors, with no shielding from the building itself.
		e. An additional receptor should be added to represent the vicinity of the Greenberg Gate residences, located northeast of the Kennedy Road and Highway 407 intersection.	e. A receptor has been added in this area.

No.	Section	Comment/Concern	Response
6.4	" Selected Receptors: 10 receptors (R1 – R9, and S1) were selected in the report. Comments of the selected receptors:	f. The effect of highway 7 was accounted for at receptor R4. Highway 7 should also be accounted for at receptors R2, R3, R6 & R7.	f. While noise from Highway 7 can be accounted for at the identified locations, it should be noted that the addition of this noise source will only likely serve to increase background/future no-build sound levels, thus requiring the 407 Transitway to meet less stringent criteria levels. The incremental effect of the 407 Transitway will be reduced as background Highway 7 noise will further mask its effect. Highway 7 was included for R4 because there is an existing noise barrier along the highway that also reduces noise from Highway 407 thereby making Highway 407 less of a dominant presence in this particular area.
		g. STAMSON modeling should be provided for receptor R4.	g. Due to the complex grade separations and terrain features in this area, STAMSON could not be used to predict reliable sound levels at this receptor. In previous work completed for MTO (and reviewed by the MOE), SENES has used a more robust model (Cadna) for such situations in order to take these features into account.
		h. The angles of exposure for all receptors used in modeling of road traffic noise need further checking/verification. Full (not partial) angles of exposure should be used for all residences along roads within the study area.	h. Angles of exposure were utilized as necessary to account for the curved sections of the Highway 407 and 407 Transitway (i.e., the roads were split into smaller segments to account for the curve, limited by the associated angle of exposure for each segment). Angles of exposure were also used where there was a change in traffic volumes on the road being modelled, or where the grade changed on the road being modelled. Given these features of the various roads, it was not possible to model each road as a straight flat road with full exposure to the residence.
6.5	" Bus Station	Spadina subway/Jane, Yonge/Richmond Hill Centre, and Kennedy bus stations are proposed as part of this undertaking. Analysis & recommendations (if warranted) should be provided for these main intermodal stations, which may have the potential to impact the noise/vibration environment of the nearby/adjacent sensitive areas.	Bus facilities are not being proposed as part of this undertaking at these locations; they are being proposed by the TTC as part of the Spadina Subway extension for the f Jane Station and the Yonge Subway extension for the Richmond Hill Centre Station as well as York Region's Viva Program in the case of Kennedy Station. The text of **Section 6.2** has been modified to reflect this.
6.6	" O&M Facility	Analysis and noise/vibration recommendations (if warranted) should be provided for this facility. It should be noted that noise sources associated with the O&M facility will require a Certificate of Approval from the MOE.	The Operations and Maintenance facility at the Spadina Subway/Jane Station site was addressed in the report. At this time there are no recommendations for this facility with regard to noise and vibration, due to the separation distance to the nearest receptor (>700 m) and the elevated background noise conditions. Should a Certificate of Approval be required for this facility, it will be obtained.
6.7	" Traffic Data	a. In-house traffic data for Highway 7 & Yonge Street from previous SENES projects were used for noise impact assessment.	Confirmation of the traffic data referred to in this Section has been obtained from the corresponding authorities. The MTO requires that AADT or SADT data be used for the traffic associated with the project undertaking, which in this case is the 407 Transitway (not Highway 407). Highway 407 has been included in the assessment in order to characterize background, and data provided by the traffic consultant on the project was utilized for this purpose. The data used is for average conditions, which results in a conservative assessment of noise from the 407 Transitway. If SADT data were used for Highway 407 for instance, this would likely show higher traffic volumes and would likely result in higher background/no-build sound levels and ultimately less stringent criteria and increased masking of noise from the 407 Transitway, thus reducing the overall predicted impact. The assumption with regard to the truck percentage and split was confirmed with MTO before proceeding with the modelling.
		b. Traffic volume and annual growth rate data for Highway 407 was obtained from the IBI Group. The Summer Average Daily Traffic (SADT) traffic volumes should have been used for Highway 407. Assumptions were made regarding a 7% truck volume with 2:1 (heavy/medium) split for Highway 407.	
		c. The noise impact of Highway 407 Transitway was based on numbers shown in table B.5 "Bus Volumes on the 407 Transitway (Projected to 2041)", obtained from the IBI Group.	
		d. Confirmation of the above-listed traffic data should be sought from the authorities having jurisdiction on the roads under construction.	
6.8	" Predicated Sound Levels	Values reported in Table 8 "Summary of Predicated Sound Levels" do not match the results shown in Appendix D "STAMSON Model Output Files". The correct summary of STAMSON output files should be provided, whichever is applicable.	The sound levels shown in Table 8 are 24-hour L_{eq} sound levels as required by the MTO guide. The STAMSON outputs are shown as 16-hr and 8-hr L_{eq} sound levels in case further detail was requested on day/night levels. The 16-hr and 8-hr L_{eq} sound levels from the STAMON outputs were combined to 24-hr L_{eq} sound levels for presentation in the report. Furthermore, as noted in the report, the night-time bus volume on the 407 Transitway was too low to be modelled in STAMSON, therefore a correction for the 407 Transitway sound levels had to be accounted for outside of STAMSON. Details will be provided in Appendix C of the SENES Report.
6.9	" Noise Control Measures	Table 8 indicates that future predicated sound levels may exceed 65 dBA at tow receptors (R3 & R9) but the report states that "the 407 Transitway is predicted to comply with the MTO requirements with no need for additional mitigation." The feasibility of noise control measures should be investigated when an increase in sound levels is predicted to be equal or greater than 5 dBA, or when any increase in sound levels is present and the resulting predicted project sound levels are greater than 65 dBA.	See response for comment 6.2: As noted, noise control measures should be investigated when an increase in sound level is predicted to be greater than 5 dBA or when the predicted project sound levels exceed 65 dBA. In the case of the two receptors (R3 and R9) for which sound levels exceed 65 dBA, this threshold is already exceeded under the no-build scenario. As such, the elevated background condition is attributed to the presence of Highway 407, and the 407 Transitway project is not the cause for the threshold exceedance. At both locations there is a direct line of sight from Highway 407 to the residential area with no barrier in place. At both receptors noted in the comments, the effect of the 407 Transitway on future noise levels is significantly less than the effect of Highway 407 [-7 dBA at R3, and -11 dBA at R9]. Mitigating noise from the 407 Transitway would, therefore have little to no impact on the overall sound levels at the receptors. MTO will investigate the feasibility of noise mitigation control installation during the Detailed Design Stage.

No.	Section	Comment/Concern	Response
6.10	" Calculations: Appendix C "Calculations & Result Summary"	Missing and should be provided.	This has been provided in the revised report.
7.0	**MINISTRY OF THE ENVIRONMENT (MOE) – Environmental Assessment and Approvals Branch, Environmental Assessment Project Coordination (EAPC) – November 18, 2010**		
7.1	General Comments	The EPR is to contain sufficient information about the proposed project, including summaries and descriptions of studies undertaken in relation to the project, in a manner that is easily read by interested members of the public, agencies, aboriginal communities, and the Minister without the need of referring to lengthy appendix documents. The EPR also needs to contain, at a reasonable level of detail, the proponent's assessment and evaluation of impacts of the preferred method of carrying out the project and other methods of carrying out the project that were considered plus the criteria for assessing and evaluation the impacts/various methods. The EPR must provide a description of any measures proposed for mitigating negative impacts the preferred method may have on the environment, and where measures are proposed, a description of means proposed to be used to monitor and verify the effectiveness of the proposed measures. Additional details about the preferred alternative are required, including timeframe for construction of the project, identification if the transitway is in the exiting right-of-way, details about potential property acquisition requirements, and larger, more detailed figures for station site plans, layouts, and cross-sections for all seven station locations.	The final EPR has been updated to incorporate the necessary enhancements to the presentation and discussions of the specific topics noted. **Section 7** "*Impact Assessment, Mitigation and Monitoring"* includes the potential environmental effect, the issues or concerns, the mitigation measure and the monitoring recommendation for the various environmental values or criterion. This environmental assessment was developed for footprint impacts, construction impacts, and operation and maintenance impacts. The proposed implementation schedule is addressed in **Section 8** of the Report. The updated plan and profile plates illustrate the preliminary grading and footprint effects. The proposed station layouts and typical cross sections have also been upgraded and are presented in larger scales.
7.2	Presentation of Material	a. The draft EPR and Appendices were prepared in 11x17 format. Letter size (8 ½ x 11) is preferred by MOE as it is more user-friendly and space-efficient for file retention purposes.	a. Noted, however the report itself was originally prepared with the 11x17 format, and this format was maintained for the Final EPR. As discussed at the June 2, 2010 meeting with Solange Desautels of MOE, it was explained that an 8 ½ x 11 format was not practical due to drawing requirements.
		b. Placeholders throughout the EPR indicate that work is in progress; ensure final EPR is complete.	b. Agreed. All "To be completed" or "Work In Progress" sections have been completed in the Final EPR.
		c. Provide tabs or, at minimum, different colored paper between sections.	c. Agreed, the Final EPR's sections have been divided accordingly.
7.3	Consistency of Terminology	a. Acronyms should be defined first and acronym identified in brackets	a. Agreed; all commonly used acronyms have been identified in a "List of Acronyms" section, while all other acronyms have been first defined and then identified in brackets. A glossary of terms has also been added to the Final EPR.
		b. When referring to a highway, ensure that it is always clear which highway is being discussed.	b. Agreed; final EPR clearly identifies the highway in question
7.4	Table of Contents	a. Page numbers should be same as used on pages in Executive Summary.	a. Agreed. Table of Contents has been revised so that the page numbers are the same as the pages in the Executive Summary.
		b. Section 4.2: *Air Quality* and *Contaminated Properties and Waste* must appear in Section 4.1.	b. Agreed; **Section 4.2** has been included in **Section 4.1** of the Final EPR.
		c. Section 5.4 *Alternative Routes, Alignments & Station Layouts*: list all subsections	c. Agreed; **Section 5.4** includes a list of the all the subsections.
		d. All appendices, figures, reports and tables should be listed along with page numbers.	d. Agreed; the Final EPR's Table of Contents lists all appendices, figures, and reports with the associated page number where the item can be found in the document.
7.5	Appendices, Figures, Reports, and Tables	a. Provide tabs, or, at minimum, different colored paper between appendices.	a. Agreed; final EPR contains different colored paper between appendices.
		b. Ensure all appendices, figures, reports and tables have titles on same page, are properly cross referenced, relevant information summarized, and located proximate to summary.	b. Agreed and completed in final EPR.
		c. Appendix X is referenced throughout main report; provide accurate appendix references.	c. Agreed; all appendices referenced in the final EPR have been properly identified, with all "X" referenced removed.
		d. Provide missing appendices, figures, reports and tables.	d. Agreed; all missing appendices, figures, reports, and tables have been provided in the Final EPR.
		e. Air Quality Impact Assessment and Traffic Impact Assessment reports are missing.	e. Agreed; have been included in Final EPR.

No.	Section	Comment/Concern	Response
7.6	Commitments & Monitoring	a. The EPR must include details of all commitments made for mitigation and monitoring.	a. Has been accounted for in **Section 7** of the Final EPR.
		b. Details of required municipal, provincial, and federal approvals and/or permits are required.	b. Agreed; details have been included.
7.7	Executive Summary	a. Identify if any property acquisitions will be required, provide details, as appropriate.	a. Agreed; details have been included in the Executive Summary of the Final EPR.
		b. E5: identify which natural and socio-economic impacts cannot be mitigated.	b. At the Preliminary Design Stage, we have attempted to mitigate all potential impacts. This approach will also be adopted at the Detailed Design Stage, however, any potential impacts that cannot be mitigated will be identified at the Detailed Design Stage and the appropriate compensation measures identified.
		c. E6: Segments, as discussed, should be reflected in Figure 4, as appropriate.	c. Agreed; **Figure E-4** in the Executive Summary has been revised to illustrate Segments A-F of the study.
		d. Figure 4: Legend would aid in understanding the different colored lines/routes.	d. **Figure E-4** was redone for the Final EPR, and a legend was added to differentiate between: a) route alternatives evaluated; b) preferred route alternative; c) subway extensions.
		e. E7: Quotes average station spacing at 3.6km yet Section 2.3.4 states 3.8. Make consistent.	e. Agreed; the Executive Summary and **Section 2.3.4** of the final EPR are consistent and now indicate the reassessed station spacing of 3.5km.
		f. Figure 5: Identify what the red lines at Jane Street and Yonge Street represent.	f. Agreed; red lines in figure are labeled as Spadina Subway Extension and Yonge Subway Extension, respectively.
		g. E9: Define or explain *air rights* development.	g. Agreed; air rights development explained in Final EPR, and Executive Summary text now reads: *"In the case of impacts on future Regional Centre land development, considerable planning effort has been applied to minimize intrusion of transitway facilities onto developable parcels based on currently available land use plans. In each case, where an easement across private land is required, air-rights development over the easement, where feasible, could be used to minimize the effects."*
		h. E10: Provide explanation/context for "...MTO or the proponent at the time..."	h. Agreed; the EPR text was amended to indicate that the proponent at the time of implementation, may be the MTO or another different proponent. The Final EPR text now reads as follows: *"Approval of this Transit Project Assessment (TPA) for 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."*
7.8	1. Introduction	a. **Section 1.2.1:** The consultation record and results of consultation, and all municipal, provincial, and federal approvals and permits are to be included in the final EPR.	a. Agreed, this section has been revised to include: - The Consultation Record and results of consultation, and, - all municipal, provincial, and federal approvals and permits.
		b. **Section 1.3.4.:**	b. Agreed, this has been addressed in the final EPR.
		Present studies consistent with how listed in TOC;	Agreed. This has been addressed in the final EPR.
		Air Quality Impact Assessment and Aesthetics – Landscaping Planting Report descriptions missing;	Agreed. Descriptions of the two reports have been added in this section.
		Make description of studies consistent (e.g. only some present conclusions);	Agreed. Descriptions of studies were revised to be consistent (all including conclusions). The presentation of the studies was moved to **Section 7.1.1.** **Section 7.1.1** was modified to list studies undertaken.
		Traffic impacts should be assessed for all station locations yet only 5 stations were discussed.	Transportation analyses were not conducted for two other proposed 407 Transitway stations: Jane and Yonge. A transportation study for the proposed Jane Station was undertaken as part of the Toronto Transit Commission's (TTC) Toronto-York Spadina Subway Extension Project. In the case of the Richmond Hill Centre Station on the Yonge Subway line Station, land development and future transit projects in the area are still under study.
		Provide details.	Agreed, **Section 1.3.4** has been revised and has been moved to **Section 7.1.1** in the Final EPR.
7.9	2. Transportation Need and Travel Demand	a. **Figure 2-5a:** Appears before Figure 2-4, or the figures may be incorrectly titled.	a. Agreed. The figures were placed in order, as reflected in the Final EPR.
7.10	3. Consultation Process	a. **Section 3.2.1:** Provide brief overview of focus of the five Technical Resource Group meetings.	a. Agreed. A brief overview of the five meetings has been included in **Section 3.2.1.**
		b. **Section 3.2.3:** Consultation details provided mainly reflect pre-TPAP consultation. Provide details of all consultation efforts and results from 2008 to present.	b. Agreed. Details on the consultation process have been added from 2008 to present.

No.	Section	Comment/Concern	Response
		c. **Section 3.3:** Details of consultation with First Nations must be provided, what was done, when, how, and follow up conducted. Appendix indentified to provide overview of aboriginal consultation was not included.	c. Agreed. Details have been included in **Section 3.3** of the Final EPR.
		d. **Section 3.4:** identify the newspapers in which the Notice of Commencement was published.	d. Agreed. Newspapers names have been identified in the Final EPR, **Section 3.4**.
		e. **Section 3.4.4:** Appears lead-in information is missing.	e. **Section 3.4.4** has been revised to include comments received from the public, as well as the responses made.
		f. **Section 3.5:** Is a Consultation appendix to appear in final EPR? Tables containing summary comments, responses and conclusions must appear in the final EPR, main report.	f. Agreed. Tables summarizing comments received and responses provided were inserted within the main report instead of the appendix.
7.11	4. Study Area Conditions	a. **Section 4.2.1:** *Natural Features/Natural Systems* should appear in Section 4.1; provide land use plans/maps for study area.	a. Agreed. Chapter has been moved.
		b. **Section 4.2.3:** *Air Quality* should appear in Section 4.1; provide summary and information.	b. Agreed. Air Quality has been moved as indicated.
		c. **Section 4.2.5:** Provide current status of concerns raised with Ministry of Culture about two registered archaeological sites; identify timing for Stage 2 assessment in undisturbed areas; and clarify if additional areas requiring further assessment will undergo Stage 2 assessment.	c. A Stage 2 Archaeological Assessment will be required on the two registered archaeological sites if affected by the project. During the Detailed Design Stage, if additional areas (undisturbed areas and the two registered sites) are determined to be impacted by the implementation of the Transitway, a Stage 2 Archaeological Assessment will be conducted.
		d. **Section 4.2.6:** *Contaminated Properties and Waste* should appear in Section 4.1	d. Agreed. The section has been moved.
7.12	5. Identification of Alternatives and Evaluation Process	a. **Section 5.1.1:** Identify the *selected* Alternatives To and the set of Alternative Methods.	a. A record of the evaluation of "Alternatives To" carried out before adopting the TPAP has been added to Section 1 of the final EPR. The alternative selected and alternative transit technologies have been identified as per further discussion over the phone.
		b. **Section 5.1.3:** Provide descript of the *Base Case.*	b. This has been addressed in the additional text inserted in **Section 1.3.**
		c. **Table 5-1:** Define CBDs and TOD; Provide ITS availability and capital cost information for AGT category; If *automated LRT* mean something different than automated AGT provide details.	c. To ensure that acronyms are understood throughout the document, a list of acronyms has been added to the final EPR. Provided in final EPR Table update refers consistently to AGT as the technology eliminating any reference to automated LRT.
		d. **Table 5-2:** Provide property requirement information for all five technologies assessed.	d. Agreed; property requirements information added for each of the five technologies assessed.
		e. **Figure 5-3:** Discussed on page 55 but appears on page 60. Keep visuals and text together.	e. Agreed; all text & figure combinations throughout the entire report have been matched and are in close proximity to one another in the Final EPR.
		f. **Section 5.3:** If *Planning and Preliminary Design Study, Preliminary Design phase, Preliminary Design Stage* refer to the same thing, use one term consistently. If not, provide explanation for each one. Same remark applies to *Planning phase and Planning Stage*.	f. *Planning and Preliminary Design Stage* has been applied throughout the entire report. Where referencing only the planning stage, the text reads "Planning Design Stage"; where referencing only preliminary design, the text reads "Preliminary Design Stage". As well, for consistency for all phases of the study described, when there is mention of the detailed design, the text reads "Detailed Design Phase"
		g. **Section 5.3:** Information presented could be made clearer re: sequencing of analysis and application of methodology in identifying station nodes through to final station site locations.	g. Section has been reviewed and updated in final EPR to better reflect methodology.
		h. **Table 5-3:** Discussion and table appear after discussion about Table 5-4.	h. Agreed. **Table 5-3** has been placed after it is referenced in the text, and before **Table 5-4** appears.
		i. **Table 5-4:** Summarize findings from comparative table to highlight why 7 short listed station node locations ranked higher from the total 11 station node locations identified. Identify the environmental factors considered when preferred station locations were assessed.	i. Agreed. Environmental impact was one of the criteria used when station locations were assessed. **Table 5-4** has been revised to include the environmental assessment criterion, reading ..." Avoid environmental constraints, where possible (developed land, hazard land, watercourses, designated natural areas, contaminated sites, etc.)
		j. **Section 5.4:** Incorrectly titled?	j. **Section 5.4** title was verified.
		k. **Section 5.4.1.1:** Have all analyses and evaluations been documented here.	k. **Section 5.4.1.1** provides an overview of the alternatives identification and analysis procedure, and evaluation criteria. The specific analysis and evaluation for each of the segments of the Transitway are described throughout **Section 5**.
		l. **Section 5.4.2:** Level of detail provided in discussing criteria for all segments is inconsistent.	l. **Section 5.4.2** of the EPR has been revised to better explain the reasons behind the level of detail used to evaluate alternatives of the various segments of the Transitway. In some segments, the alignment and station location was essentially defined by factors and constrains such as fixed location of intermodal hubs, right-of-way limitations, environmental constrains, future development areas and others. In segments that did not have these type of constrains and limitations, various alternatives were evaluated in greater detail to assist with the selection of the alternative that best responded to all factors and indicators considered in the evaluation criteria.
		m. **Section 5.4.2.1:** Clarify if the reference study proposed earlier by MTO is another project.	m. The reference study was the Corridor Protection Study of the 407 Transitway, which is a previous phase of this Environmental Assessment. This has been clarified in **Section 5.4.2.1.**

No.	Section	Comment/Concern	Response
		n. **Table 5-7:** Provide missing cost data.	n. This has been provided in final EPR.
		o. **Section 5.4.2.3:** C1A identified as preferred alternative (PA) yet, Table 5-8 concludes C3A.	o. Agreed. The preferred alternative is, C3A, and the text of the Final EPR has been amended to indicate such. The text now reads: *"As a result of the evaluation, Alignment C3A was selected as the preferred alternative."*
		p. **Figure 5-12:** Title does not appear to be correct.	p. Title in final EPR has been revised to "Shortlisted Preferred Routes for Segment C"
		q. **Figure 5-16:** Supposed to illustrate the entire Transitway? Same state for Figure 5-22 (p. 85).	q. Text referring to **Figure 5-16 and 5-22** has been amended to refer to Segment D and F respectively.
		r. **Section 5.4.2.4:** Figure 5-12 is referenced incorrectly; alignment analysis is missing.	r. Reference to **Figure 5-12** has been corrected to read **Figure 5-17**: Bayview Underpass and Highway 407 Crossing and alignment analysis has been expanded.
		s. **Section 5.4.2.5:** Provide figure illustrating the combined overpass-underpass alternative.	s. Description of the combined overpass-underpass of the Highway 404-Highway 407 Interchange has been expanded in the final EPR. The "combined overpass-underpass" option as described in the EPR consists of crossing over the west Highway 407 - Highway 404 ramps and the HWY 404 core lanes, and under the east ramps. This crossing scenario of the Interchange is illustrated in the profile shown on Plate 26.
		t. **Section 5.4.2.6:** Descriptions provided for F3A and F3B may be reversed; can't assess what is being presented based on level of detail in cross-referenced figures; discussion on alternative station layouts missing.	t. Descriptions for F3A and F3B have been verified; cross-referenced figures have been magnified where necessary; additional details of the alternate station layouts were also added to the final EPR. Inadvertently, figure numbers were reversed and have been corrected in the final EPR.
		u. **Figure 5-25:** Unclear which green line is F3A.	u. **Figure 5-25** has been edited to clarify the comment.
		v. **Figure 5-26a/b**: Cannot locate employee access for LRV; storage and repair garage; service areas based on level of magnification and clarity of image. Provide more detail for PA.	v. Labelled employee access for LRV on **Figures 5-26 a) and b).**
7.13	6. Description of the Preferred Alternative	a. **Section 6.1.3:** Provide missing numbers.	a. Reference to runningway cross sections, with missing numbers provided, as illustrated in the Final EPR. Text reads: *"On bridge structures shorter than 60m, shoulders are reduced to 1.75m. On underpass structures, 2.25m will be added to the shoulders as a safety buffer."*
		b. **Figure 6-1,6-2, and 6-3:** figures are to illustrate typical cross section (cut, fill and station areas) along the entire Transitway yet same figure has been used for all three examples.	b. Agreed, figures repeated in error. Correction made.
		c. **Section 6.2.1:** Define CPTED.	c. **Crime Prevention Through Environmental Design (CPTED)** The text now reads: *"The entire station layout was designed based on the principles of Crime Prevention through Environmental Design (CPTED). CPTED is a multi-disciplinary approach to deterring criminal behaviour through environmental design. CPTED strategies rely upon the ability to influence offender decisions that precede criminal acts. As of 2004, most implementations of CPTED occur solely within the built environment. Incorporating CPTED techniques should be considered in the design of pedestrian corridors and all transit facilities to optimize natural surveillance."* Definition and acronym have been added to the *Glossary* and *List of Acronyms*.
		d. **Section 6.2.2:** Identify property acquisition requirements for all seven station locations.	d. This information has been provided in all station drawings of the Final EPR.
		e. **Section 6.2.2.1:** Amend descript of location of Jane Station; provide missing numbers.	e. Text indicates location as *"intersection of Highway 407 and Jane Street.",* amended to indicate *Highway 407 off ramp*. Missing numbers have been added.
		f. **Section 6.2.2.2:** Is there an alternative plan for GO-Barrie (Concord) Station?	f. Alternative station location and configuration plans have been developed, evaluated and findings recorded in the final EPR.
		g. **Section 6.2.2.4:** Full details of the assessment and construction of the proposed Yonge Station must be presented in this EPR; if Yonge Station is planned under another study, identify the other project, but provide sufficient detail as relates to the 407 Transitway.	g. Full details have been included in the final EPR.
		h. **Section 6.2.2.6:** Appears to be duplicate information as shown in Section 6.2.2.7 (p.101)	h. Error; duplicate Woodbine/Rodick station location and transportation function text deleted.
		i. **Section 6.3:** State number of new structures and structures to be modified or rehabilitated.	i. First paragraph of 6.3.1 has been amended to include actual numbers, as suggested.
		j. **Section 6.3.2:** Identify the referenced high volume roads, and specific locations of structures to go under existing railway embankments; identify the environmental factors considered in the evaluation and ranking of the alternative structures. Where is the analysis?	j. In the final EPR, the referred section is **Section 6.3.1** – "Overpasses and Underpasses" . The Section has been expanded to identify the crossings requested in the comment and the environmental factors considered. **Section 5** of the EPR – "Identification of Alternatives and Evaluation Process" describes the profile alternatives segment by segment, and the criteria followed to determine the preferred options. .

No.	Section	Comment/Concern	Response
		k. **Section 6.4:** Identify if any new storm water that will not drain to existing storm water management ponds; where the appendices cross-referenced in this section can be found; and define TWY, NASHYDS, STANDHYDS.	k. The overall drainage schemes, as well as drawings showing the location of the existing and proposed stormwater management facilities, are included in the Drainage Report, found within the Appendices of the Final EPR. Appendices that have been cross referenced are included in the Drainage Report; text has been modified to reflect this. NASHYD and STANDHYD are not acronyms. NASHYD is a command used to model the previous areas and STANDHYD is a command to model impervious areas in Visual OTTHYMO software (Hydrologic Modelling). These commands have been added to the Final EPR.
		l. **Section 6.7:** Clarify if "work in progress" refers to Section 6.7 or Section 6.8	l. Reference to Work in progress has been removed from both places in the text.
		m. **Section 6.10:** Clarify the figure in which layouts are shown; identify the ministry referenced.	m. Figure has been referred in revised text of Section 6.10. Ministry referenced has been clarified.
		n. **Section 6.10.1:** Identify the number of vehicles; define CAD/AVL; and provide brief description of *maintenance of way* functions.	n. Agreed; the number of vehicles has been identified; CAD/AVL have been defined in the "List of Acronyms" section of the Final EPR; brief description of *maintenance of way* functions has been provided.
		o. **Section 6.10.2:** Identify the number of vehicles; and define OMC.	o. Agreed; the number of vehicles have been defined and OMC has been defined in the "List of Acronyms" section of the Final EPR.
7.14	7. Impact Assessment, Mitigation & Monitoring	a. **Section 7.1.1:** Identify environmental technical studies undertaken to assess impacts and discuss results of those studies; identify further studies to be undertaken to provide detailed impacts, mitigation measures, monitoring and contingency plans; is a commitment in EPR?	a. **Section 7.1.1** was modified to list studies undertaken.
		b. **Table 7-1:** *Contaminated Properties and Waste* and *Air Quality* should appear in the Natural Environment category; matrix rating and description does not coincide with information in tables outlining impacts, mitigation measures and monitoring.	b. **Table 7-1** was removed and instead a summary of key impacts is included. The Contaminated Properties and Waste and Air Quality criteria now appear under the Natural Environment category.
		c. **Section 7.2:** Impacts as related to the specific activities identified in the matrix as runningway, bridges and culverts; station (including platforms, PPUDO, parking, etc.), the Operations and Maintenance Facility, and stormwater management facilities have not been presented; impacts to surface and groundwater must be acknowledged.	c. **Section 7.2** was revised to include any impacts related to the specific activities and facilities listed in the comment.
		d. **Section 7.2.1:** All environmental factors are to be discussed; use subheading for each factors.	d. Agreed. **Section 7.2.1** was revised to include sub-headings for each factor.
		e. **Table 7-2:** Define OPSS 180; ensure that *Contaminated Properties and Waste* and *Air Quality* are added to this table; has the Department of Fisheries and Oceans (DFO) been consulted?	e. **Table 7-2** was revised to include the OPSS 180 definition and to include the two environmental factors mentioned in the comment. The Study Team initially contacted DFO. Study team directed that the response from DFO was to be removed from the project contact list and to directly contact TRCA.
		f. **Section 7.2.2:** All environmental factors, consistent with that presented in the matrix, are to be discussed (e.g. it appears that Land Use; Noise and Vibration; Property; and Utilities represent *Socio-Economic* whereas Built Heritage and Cultural Heritage Landscapes; and Archaeological Resources represent *Cultural Environment* and Traffic Operations; Transit Services; and Navigation represent *Transportation*).	f. **Table 7-1** was removed and **Section 7.2.2** was revised to discuss all environmental factors that will be affected by footprint impacts.
		g. **Table 7-3:** See comments above (d & f) re: grouping factors; all factors to be presented in table; environmental value/criterion for transportation does not correspond with the matrix.	g. **Table 7-3** was revised to be consistent with the grouping of environmental factors as per the presentation in the revised **Section 4.**
		h. **Section 7.2.3:** Identify timeframe for completion of refinement of potential utilities conflicts.	h. **Section 7.2.3** has been revised and completed.
		i. **Table 7-4:** As marked by the X, it appears that all identified utilities have potential conflicts.	i. **Table 7.4** has been revised and completed. Only significant utility conflicts are not included such as location, type of utility/service line, owner of the plant, conflict or potential conflict, mitigation or recommendations for the design phase.
		j. **Section 7.3:** See comments above (c, d, and f) re: discussing and grouping of all factors.	j. Section was revised as per responses above for c, d and f.
		k. **Page 154 & Table 7-5:** Explain relevance of statement beginning "With several exceptions..."	k. The statement was removed to avoid any confusion and the sentence was revised to read: *"The nesting season for the majority of the species is from April 1 to July 31"*
		l. **Section 7.3.2 & Table 7-6:** Move *Air Quality* and *Contaminated Property and Waste* discussion to natural Environment section; ensure all factors are presented in table.	l. Agreed, the two environmental factors were relocated to **Section 7.3.1** Natural Environment.
		m. **Section 7.3.3:** Identify the "Highway Authorities" being referenced.	m. Referenced paragraph of **Section 7.3.3** has been edited to read: *"Also, during the Detailed Design Stage, consultation with the corresponding Municipal and Provincial Authorities (York Region, local Municipalities and MTO), as well as other stakeholders (407 ETR) will be sought to determine the requirements to maintain safe operation of traffic on the road network affected by the construction of the 407 Transitway."....*

No.	Section	Comment/Concern	Response
		n. **Table 7-7:** The environmental value/criterion presented does not correspond with the matrix.	n. Section has been edited..
		o. **Section 7.4:** Discuss factors for all activities, including all environmental value/criterion.	o. Agreed; this has been completed.
		p. **Section 7.5:** In addition to a summary of impacts, this section should include summary of future commitments related to mitigation and monitoring.	p. **Section 9** lists the future commitments related to mitigation and monitoring. A statement was added to refer to **Section 9.**
7.15	8. Implementation	a. **Section 8.1.2:** provide missing figure referenced on page 170.	a. Figure has been provided in the final EPR.
		b. **Section 8.2:** additional information required related to the stormwater management plans.	b. A preliminary stormwater management plan has been prepared and is included in the Drainage, Hydrology, Stormwater Management and Floodplain Hydraulics Report in Appendix L of the EPR. During the Detailed Design Stage, a final Stormwater Management Plan will be prepared.
7.16	9. Commitments to Future Action	a. Provide list of commitments to stakeholders.	a. Agreed; this has been provided.
		b. **Section 9.4:** Provide approximate timing for completion and submission of screening.	b. The CEAA screening will be conducted during the Detailed Design Stage. Approximate timing is not currently available. A CEAA Project Description has been prepared and submitted to CEAA.
		c. **Section 9.5:** Addendum is possible only after Statement of Completion has been filed.	c. **Section 9.5** states that *"MTO will prepare an addendum if significant changes to the project occur after the Notice of Completion is issued and filed in accordance with Section 15 of the Transit Projects Regulation."*
7.17	Appendix 2 – Drainage Report	a. **Figure 1-1:** page left blank (see page 5); provide missing figure.	a. Agreed. **Figure 1-1** has been provided.
		b. **Table 3-5:** is not fully legible.	b. **Table 3-5** will be printed on 11x17 paper size to be legible (as shown in the Drainage Report).
		Appendix 2A: Humber, Don and Rouge River maps not fully legible at current size.	c. Full-scale drawings will be provided in the final EPR.
		Appendix 2B: Provide station maps for Yonge and Kennedy; other maps not fully legible.	d. Yonge Station and Kennedy Station are not included in the Drainage Report because they are located underground. Stormwater control will be provided on-site. During the Detailed Design Stage, best management practices will be provided at these stations. The legibility of the other maps has been improved.
		Appendix 2C: Tables and maps provided not fully legible at current size.	e. Full-scale drawings will be provided in the final EPR.
7.18	Appendix 7 – Noise and Vibration Impact Assessment Report	**Appendix 7C:** Calculations and results summary not provided.	Provided in the final EPR.
		Appendix 7E: Cadna-A tables for receptor R4 model not provided.	Provided in the final EPR.
		Appendix 7F: Bus station plans not provided.	Provided in the final EPR.
7.19	Certificate of Approvals	Comments submitted by the ANU and WWU are attached.	-
7.20	Central Region Office	Comments submitted by the TSS are attached.	-
7.21	Concluding Remarks	The foregoing comments reflect a preliminary review only and don not limit additional and new comments from being provided at such time as the final EPR is submitted for review. The comments provided, along with any feedback received by government review agencies, the public and Aboriginal communities, should be considered as you prepare the final EPR for submission to the MOE. The proponent is responsible for identify and resolving, or attempting to resolve, any issues raised before the final EPR is submitted. The final consultation summary included in the EPR is to reflect the results of the draft EPR review including comments provided by government agencies and the MOE.	Agreed.

No.	Section	Comment/Concern	Response
8.0	**MINISTRY OF THE ENVIRONMENT (MOE) – Environmental Assessment and Approvals Branch, Technical Support Section (TSS) – November 18, 2010**		
8.1	Air Quality Impact Assessment	a. Executive Summary, under the Recommended Mitigation and Conservative Nature of Assessment sections, the Air Quality Impact Assessment (the report) states that the revised methodology from the US EPA appears to give significantly lower levels of emissions compared to the US EPA 2006 methods used in the Assessment. From the US EPA 2010 document, the PM10 emissions would decrease using the new methodology; however, the PM2.5 fraction would be slightly increased in areas similar to the study site. There if this new methodology is adopted, the PM2.5 estimated concentrations will be slightly underestimated, and should not be considered conservative.	a. The U.S. EPA provides a comparison (in Excel format) of the proposed (2010) and previous (2006) paved roads emission factor equation under Chapter 13.2.1 of AP-42. Within this spreadsheet, it indicates that the PM2.5 emission factor will increase where traffic counts are greater than 5,000 vehicles per day. When vehicle counts are less than 5,000 (as on the 407 Transitway) the emission factor actually decreases. This discrepancy is a result of a negative 2006 emission factor as outlined in the spreadsheet (see Section 3.2.3 of the AQIA report). Therefore, based on a comparison between the future with and the future without scenarios, if this new methodology is adopted the model estimated change in PM2.5 concentrations is conservative.
		b. In Table 2.9 of Section 2.4 the report, entitled "Table 2.9 Representative MOE Monitoring Station Average 90th Percentile Background Concentrations (ug/m3)", the 8 hours value for OC should be 483.6, not 4924; and the 1 hour value should be 492.4, not 484. This should be corrected in the Final Report.	b. Table 2.9 of the AQIA report has been updated to correct CO background concentrations.
		c. In Section 2.4 it is also stated that: "Therefore, urban concentrations measured in major cities similar to Toronto, as provided on the TOXNET website (http://toxnet.nlm.nih.gov/cgibin/sis/htmlgen?HSDB) were used as they would be conservatively high." From this reference, background benzene levels in Canadian cities (10 cities, 586 samples) were found to be 4.4 ug/m3 (average value) from Wallace L.; Environmental Health Perspective 104: 1129-1136 (1996). The background value used in this assessment seems high in comparison (44ug/m3).	c. It is agreed that a background benzene concentration of 4.4 µg/m3 would likely be more representative of the general study area. This change has been reflected in Section 2.4 – Background Concentrations, figures presented in Appendix A and tables presented in Appendix B of the AQIA report.
		d. In section 3.2.2 paragraph 4, it stated that the two future scenarios are both based on an average speed of 100km/hr. This is assuming that there will be no congestion during peak traffic periods at key points of access in the no build scenario. The validity of this assumption of the modeling should be explained by the proponent.	d. In Section 3.2.2, paragraph 4 of the AQIA report, it states that the average speed used in CAL3QHCR modelling was 100 km/h on Highway 407. It is an industry standard approach to use the posted speed limit as the average speed for a model simulation. Only one speed can be assigned to each road segment modelled and it is difficult to estimate the temporal and spatial extent of worst-case traffic conditions particularly for a future scenario (i.e., which areas will experience congestion). In addition, vehicle speed only impacts tailpipe emissions, which are comprised of gaseous contaminants and particulate matter less than 2.5 microns (PM2.5). The difference in the emission factor (g/VKT) for a light or heavy duty vehicle travelling at 100 km/hr versus 50 km/hr is a ratio of approximately 1.19 (in other words the emissions are 19% higher when the higher vehicle speed is used). Therefore, an assumed speed of 100 km/hr is conservative in comparison to an assumed speed of 50 km/hr. It should be noted that a higher speed will have a larger emission factor for NOx, CO and PM2.5 but for VOC compounds the inverse is true. Typically, the primary contaminants of concern are NOx and the PM fractions. Therefore, our assumption of 100 km/hr is considered to be reasonable.
		e. In Section 5.4, the comparison of existing conditions (2008) to future scenarios (2031), reference to the hourly values and 8 –hourly values presented in tabular form in Appendix B should be made and these values should be discussed in the context of expected hourly and 8-hourly exceedences (if any) of the AAQCs.	e. Discussion was added to Section 5.3.1 of the AQIA report in the context of expected hourly NOx exceedances (formerly Section 5.4). It was discovered that this section was improperly numbered and has now been updated in the attached revised report. Discussion about other gaseous contaminant exceedances is found in Section 5.3.2.
		f. In Figure 5.6 Maximum 24-hour PM2.5 Concentrations for Existing and Future Scenarios, B: "24 Hour $PM_{2.5}$ Concentrations including Background – Future without Transitway 2031" the contours reflect concentrations in different levels than the other two figures. It is recommended that comparative figures such as this retain the same contour levels.	f. Figure 5.6 was updated so that the "24-hour PM2.5 Concentrations Including Background – Future without Transitway 2031" has the same contour levels as the other two scenarios. As a result, no contours will be shown as PM2.5 concentrations in the Future without Transitway scenario are outside of the range of these levels. The reasoning behind this is explained in Section 5.5.
8.2	Surface Water	a. EPR, Section 6.4: Table 6-4 proposes that the ministry's Enhanced (level-1) water quality protection be applied to the Don River and Rouge River. It is not clear what criteria are applied for the Humber River Watershed. Enhanced (Level-1) protection should be applied to all stormwater management facilities, including those in the Humber River Watershed, unless the proponent can justify a lower level.	a. Level-1 protection is being provided for the Humber River Watershed. Table 6-4 has been revised accordingly.

No.	Section	Comment/Concern	Response
8.2	Surface Water	b. While the proposed stormwater management strategy (SWMS) relies heavily on utilizing twenty-one of the existing SWM ponds for the Highway 407 ETR to treat stormwater runoff from the 407 Transitway, the EPR states that additional hydrologic and hydraulic analysis will be needed at detailed design to confirm the type and extent of the stormwater management works, including studies to determine existing pond capacities at the time of construction. The characterization of potential impacts, evaluation of alternatives and proposed mitigation measures are key parts of the transit regulation project planning process; therefore those studies should be included in the final EPR as opposed to being deferred to detailed design.	b. As-built drawings and drainage areas for the 407 ETR ponds could not be obtained from both TRCA and MTO. Stage-discharge curves and outlet configurations of existing facilities will need to be prepared after a detailed topographic survey for each facility is completed. These activities are best deferred to the Detailed Design Stage. However, based on our preliminary analysis, the volume requirements were calculated to satisfy pre-development to post-development quantity controls for Transitway areas only. The required volumes calculated do not exceed more than 500m^3 per Transitway outlet. A desktop overview of the existing ponds and volumes was also performed. It was found that there is sufficient capacity to provide the additional volumes required for the Transitway. Should the field survey data and Detailed Design Stage work indicate that the additional volume cannot be accommodated in the existing SWM ponds, flat bottom grass swales can be used to provide the required volume. In the worst case scenario, an elongated/cascading facility (refer to our enhanced swale locations along the Transitway as indicated in Appendix A of the Drainage Report? that will be approximately 90m long, with 1.5m depth and a 2m flat bottom would be needed to accommodate the required volume. The final arrangement – modification of existing SWM pond and/or elongated/cascading grass swales - will be determined during the Detailed Design Stage.
		c. The SWMS states that grassed swales will be used when SWM ponds are not used or where there is no extra capacity with existing SWM ponds. According to the ministry's Stormwater Management Planning and Design Manual, 2003, grassed swales alone cannot meet Enhanced (Level 1) water quality protection and should be used as part of a treatment train approach.	c. **Section 6.4** of the Final EPR now reads: *"Where Transitway drainage contributes to an existing SWM pond either directly or via a grass swale with or without quantity storage, quality treatment will continue to be provided by the existing SWM pond. Where the runoff does not contribute to a SWM pond, water quality treatment will be provided by the enhanced grass swales. The enhanced grass swales will be part of a treatment train approach comprised of: sheet flow off the roadway surface; flow through grassed filter strips (roadway embankment); and enhanced grass swales. Enhanced grass swales have been shown to reduce TSS by 76% and grass filter strips provide a reduction of 20% to 80% (Low Impact Development Stormwater Management Manual, Toronto and Region Conservation and Credit Valley Conservation, Draft 2009). While the report does not provide documentation on a combination of grass filter strip and enhanced grass swale, it is expected that the combination should provide a total reduction of at least 80%, which would meet the Enhanced (Level 1) water quality target."*
		d. Mitigation measures to reduce thermal impacts to waterbodies designated as coldwater fisheries should be included as part of the SWMS.	d. During the Detailed Design Stage, SWM facilities proposed to outlet to these systems will explore opportunities to reduce thermal impacts during the summer period. This could include enhanced infiltration measures, shading of outfalls and ponds, drawing water from deep portions of the ponds or other treatment options (bio-retention units, grassed swales, etc.). This statement was added in the final EPR, Section 7.
		e. The Stormwater Management Strategy should identify the location and the amount of the total area that is to be treated to Enhanced Level Protection, the total area to be treated with grassed swales, and the total area to be left untreated.	e. The location of all grassed swales is schematically shown in **Figures 3.4, 3.6, 3.7 and 3.9** included in Appendix A of the Drainage Report. A summary table including the required information can be found in Appendix A of this response table.
		f. The SWMS should also identify sensitive areas, in particular drains and other key areas draining surface water runoff into sensitive environmental receivers, and describe how stormwater quality and quantity from these area will be treated.	f. The SWMS will be further developed and the assessment of impacts of drainage surface water runoff into sensitive areas will be determined during Detailed Design Stage.
		g. Engineered wetlands area an effective type of stormwater management treatment that should be considered as a mitigation option for the proposed project.	g. The preferred drainage area for a wetland is 10 ha (minimum area is 5ha) as per MOE criteria. Wet ponds have been proposed where the drainage area is greater than 5 ha. Enhanced grass swales have been proposed for drainage areas less than 5 ha. Wet ponds and engineered wetlands are both effective means of providing stormwater management treatment. Wet ponds have been proposed as they are typically easier to incorporate into a longitudinal right-of-way and the contributing drainage areas are less than the preferred drainage area (10 ha) for a wetland.
		h. An impact assessment should be conducted to determine the current groundwater influence to baseflow of the surface water features affected by the project. A description of any expected changes to the ground-surface water resulting from any deep cuts or other activities expected to take place as part of the project, along with details on monitoring and mitigation should be also be included as part of the final EPR.	h. Based on the relatively large regional areas from which the local watersheds and aquifers derive recharge, the potential reduction in overall groundwater recharge is not expected to be significant. It is unlikely that the potential reduction in recharge would produce a measurable effect on groundwater recharge and discharge functions, including baseflow in streams and water well supply quantity. Profile lowering activities could reduce the existing hydraulic gradients to an extent where a reduction in groundwater discharge would be measurable. The effect of construction activities on the high water table areas and the associated potential discharge will be re-assessed during the Detailed Design Stage. A detailed impact assessment will be conducted during the Detailed Design Stage when detailed information of designs for the Transitway is being developed. A commitment for future studies has been included in the final EPR in **Sections 7 and 9.**

No.	Section	Comment/Concern	Response
8.2	Surface Water	i. When determined appropriate stormwater management facilities, consideration should be given to the receiver streams(s) already affected by ongoing flow alterations, stream bank erosion and sedimentation of the stream bed. Even small increases in peak flow would b expected to further deteriorate existing conditions. This project provides a valuable opportunity to improve current stormwater management, and hydrological and ecological conditions of the watercourses with the study area.	i. Where SWM facilities are used, post-development peak flows will match pre-development peak flows at each outlet. Hydrologic Reference Points have been identified at critical locations downstream of the Transitway alignment to confirm that post-development peak flows will not exceed existing conditions.
		j. The stormwater management criteria of Enhanced (level 1) protection should be applied to stormwater management for all proposed Transitway station, parking lots and work yards. Please include proposed stormwater management methods for these facilities in maps of the facilities in the EPR.	j. Preliminary designs of stormwater management facilities for the 5 above-ground transit stations and the work yard at Jane Street have been prepared and are included in Appendix B of the Drainage Report. The stormwater management facilities will provide Level 1 protection. The text of the Final EPR, **Section 6.4** now reads: *"As illustrated in **Table 6-5**, SWMFs have not been developed for the underground stations (Yonge Station and Kennedy Station). During the Detailed Design Stage, any required SWMFs for these underground stations will be developed following best management practices"*
		k. Site level wastewater treatment should be required for work yards before discharge to the stormwater management system. Describe specifically what contaminates are expected to be generated from each of these areas and how they will be addressed.	k. Outline of potential contaminants and method of disposal has been included in the final EPR.
		l. Section 5.2 of the Appendix 2 (Drainage Report) indicates the Transit stations were modeled with a 90% imperviousness post development condition. However the hydrological analysis in Appendix B of the Drainage Report seems to indicate 855. This needs clarification.	l. The hydrologic modelling with Visual OTTHYMO was based on 90% imperviousness for the post-development condition- refer to **Figures 5.1 to 5.5** in Appendix B of the Drainage Report. The sizing of the wet ponds was calculated using **Table 3.2** from the Stormwater Management Planning and Design Manual (MOE, March 2003). The greatest impervious value in **Table 3.2** is 85% and this value was used to size the ponds. During the Detailed Design Stage, the storage volumes in **Table 3.2 will** be extrapolated if the final imperviousness is greater than 85%. We have determined that it is feasible to increase the permanent pool volumes if needed.
		m. All seven proposed Transitway stations should be included in the stormwater management analyses in the final EPR (only five were identified).	m. Yonge Station and Kennedy Station are not included in the Drainage Report because they are underground. Stormwater management for any surface facilities will be provided on-site. During the Detailed Design Stage, best management practices will be provided at these stations. See comment 8.2j for details on the underground stations, Yonge and Kennedy.
		n. In Section 7: Impact Assessment, Mitigation and Monitoring, the "Interactions Matrix" is described as gauging the interaction of an activity and its negative environmental effects with the level of 'significance to society' in order to determine mitigation measures. The use of the interactions matrix is unjustified as impacts to the natural environment should be considered free of human bias; it should not be evaluated on what humans consider valuable but of what importance the effect has on the integrity on the natural specimen, species or ecosystem. Please contact me so that we may discuss this further.	n. **Table 7-1** was removed and a summary of key impacts presented in the final EPR instead.
		o. We also have concerns with the ranking in Table 7-1: for example 1) Stormwater management facilities require proper maintenance to function properly as treatment systems of both water quality and quantity control; and 2)Snow removal – this activity directly relates to the level of salt application and chlorides that leach into both surface and groundwater systems including drinking water wells.	o. **Table 7-8** was revised to include that stormwater management facilities will be properly maintained. **Table 7-1** was removed and a summary of key impacts presented in the final EPR instead. The summary contains stormwater facilities and snow removal impacts and mitigation measures.
		p. Table 7-8 should be reformatted to individually identify each activity and specific potential impacts from that activity. These should include effects to surface water features from increased impervious areas; erosion and sedimentation at water crossings; stormwater runoff quality and quantity including thermal impacts to coldwater streams; reduction of baseflow due to reduced in groundwater recharge. The table currently identifies road salt application as a potential impact and proposes mitigation measure in the form of the MTO's code of practice and a prepared Salt Management Plan. If this plan is not publicly available, it should be appended to the EPR and should include up to date and quantifiable measure of how negative environmental impacts have been and are expected to be reduced.	p. **Table 7-8** has been amended to include the effects of increased impervious areas; erosion and sedimentation at water crossings; stormwater runoff quality and quantity including thermal impacts to coldwater streams; reduction of baseflow due to reduced in groundwater recharge. A copy of the Salt Management Plan is included in **Appendix N** of the EPR.

No.	Section	Comment/Concern	Response
8.2	Surface Water	q. A pre-construction surface water quality monitoring program and a commitment to conduct a post-development assessment is recommended as part of the final EPR. Water quality data should be collected at multiple locations from waterbodies abutting the Transitway corridor and for a minimum of 50m downstream of the water crossings. A post-development assessment should be prepared to document the environmental impacts/changes caused by the road widening, assess the effectiveness of the proposed mitigation measures, identify existing stormwater management and identify further measures for improvement.	q. A commitment to conduct a pre- and post-construction assessment will be developed as part of the Detailed Design Stage. **Section 7** of the Final EPR includes this commitment.
		r. An analysis and assessment of the pre-development versus post-development 407 Transitway salt impacts should be conducted. Further evaluation is needed to assess the potential impacts on these surface waters and fish habitats from this increased salt load. The associated environmental risks need to be reduced by chloride source controls, and prevention of excessive chloride accumulations by appropriate and operation of stormwater facilities in winter months.	r. During Detailed Design Stage, an analysis and assessment of the pre-development versus post-development 407 Transitway salt impacts will be conducted. This commitment is outlined in the final EPR, **Section 7**. A commitment to conduct a post-development assessment has been included in the final EPR.
		s. MOE defers any comments on the assessment, impacts and mitigation of natural features and fish habitat to the Ministry of Natural Resources (MNR). Of particular concern are the effects that changes in water quality and water quantity may have on species identified in the study areas classified as Endangered, Threatened or of Special Concern. Please ensure that MNR is consulted and any comments from MNR incorporated into the final Report.	s. MNR has been contacted regarding the issues stated in the comment.
		t. Hydraulic analysis and proposals for sizing of stream culverts and bridge crossings are not reviewed here and should be sent to TRCA for review by their engineering staff. The proponent should ensure TRCA is consulted and any TRCA comments incorporated in to the final Report.	t. TRCA has been consulted and their comments addressed.
8.3	Groundwater	a. If private wells are used in the area, it is conceivable that some may be affected by road construction, either because of construction activities, or, later, due to additional or more proximate road salt application. The proponents will be required to ensure that affected well owners will continue to have water supplies of appropriate quality and in adequate quantities, and to ensuring that any work done on affected wells or any replacement wells is done pursuant to O. Reg. 903, Wells (pursuant to the Ontario Water Resources Act).	a. A water well study will be conducted during the Detailed Design Stage to assess the impacts. **Section 7** and **Section 9** have been modified to include this commitment.
9.0	**MINISTRY OF THE ENVIRONMENT (MOE) – Environmental Assessment and Approvals Branch, W&WW Unit – November 18, 2010**		
9.1		a. Please confirm that the for the proposed SWMF in the study area: 21 existing ponds are to be evaluated and if necessary retrofitted for enhanced level of quality control of the developments including the existing 407-ETR and would include assessment of existing level of infiltration for maintenance of groundwater augmentation techniques. Grassed swales and enhanced grassed swales, existing and new areas are to be developed to provide for the required quality, erosion potential and groundwater augmentation controls in the study area.	a. During the Detailed Design Stage, detailed studies will be undertaken to ensure the retrofitted ponds will comply with the MOE design criteria.
		b. Provision of monitoring of SWMF 1,2, 3 at Jane Station, 4 at GO Barrie Station, 5 at Bathurst Station, 6 at Leslie Station, 7 at Woodbine station to be confirmed. Please also confirm that minimum parameters of monitoring shall include TSS, BOD5, Oil/grease and heavy metals.	b. During the Detailed Design Stage, monitoring of stormwater management ponds will be completed. As well, monitoring TSS, BOD5, Oil/grease and heavy metals parameters, at minimum, will also be completed during the stage.. A commitment for these monitoring activities is found in **Section 7** of the final EPR.
		c. An overall SWM plan shall be included in the Appendices, showing interfaces of the proposed ponds and existing ones with the water courses and indicated location of surface water/effluent monitoring.	c. The overall SWM plans are shown in **Figures 3.4, 3.6, 3.7 and 3.9** included in the Drainage Report's Appendix A. The Drainage Report is included as an Appendix to the final EPR. Please refer to comment 8.2b.
		d. An overall Groundwater wells location plan shall be included in the Appendices, showing location of the proposed ponds and existing ones with indication of possible interference of pond water with the groundwater and location of proposed monitoring wells.	d. An overall Groundwater Wells Location Plan is provided in the Appendix of the final EPR in the report titled Secondary Source Groundwater Investigation. The location of proposed and existing ponds is included on the runningway drawing plates provided in the final EPR, **Section 6** Description of the Preferred Alternative. The possible interferences of the pond water with the groundwater and location of the proposed monitoring wells were assessed and no interferences identified. The runningway plates of the final EPR identify all of the groundwater wells
		e. A protocol for SWM surface and groundwater monitoring and emergency spill prevention and reporting shall be appended.	e. **Table 7-5** of the Final EPR now reads: *"During the Detailed Design Stage, a protocol for stormwater management surface and groundwater monitoring and emergency spill prevention and reporting will be developed."*

No.	Section	Comment/Concern	Response
10.0	**TORONTO REGIONAL CONSERVATION AUTHORITY – November 18, 2010**		
10.1		Please provide a brief summary response as to why integration with the existing Highway 407 is not an option.	Current GO Transit service runs on Highway 407 ETR and was considered the Base Line in the evaluation of alternatives to the undertaking, included in **Section 1.2.3** of the Report. Proposed implementation of the Transitway is in a sequence of phases as described in **Section 8.3** of the Report. The proposed Implementation Plan includes the use of Highway 407 lanes for the Transitway operation in various segments until the complete exclusive runningway is built.
10.2		The EA has included areas identified as "potential TOD" (transit oriented development) in association with a number of proposed station locations. The feasibility of these elements has not been confirmed and staff cannot support them in concept as part of this EA as they are unrelated to the Transitway itself. Reference to these should be excluded from the EA generally, and from figures entirely. While the potential can be considered in locating of stations, in no way should it appear as a component of the overall project.	Agreed. These "potential TOD areas" do not form part of this undertaking; however the potential opportunity for future development was considered in the evaluation of the alternative sites. The revised report labels these areas as "Potential opportunity for developable lands".
10.3		The station envelopes should be subject to review under TRCA policies for new development where they have potential to impact on Regulated Areas. Specifically from an ecological perspective, defining of the developable portion of a site should be undertaken at the earliest planning stages to ensure that valley and stream corridors are appropriately delineated and protected. Further, consideration of the TRCA's Natural Heritage System Strategy and watershed plans needs to be integrated into the overall assessment of station locations, sizing and design. Typically linear facility proponents are exempt from the process of defining and designing within appropriate development limits, however the station designs and sitings will require site-plan approval, and therefore will be required to meet all requirements of regulatory agencies (TRCA, Municipalities, and Province). Preliminary assessment and discussion of site constraints based on Provincial, municipal and TRCA planning policies should be completed at the EA stage to ensure adequate developable area is available for all station locations.	The identification of potential station sites and consequent selection of the preferred options were developed with consideration of environmental limitations and restrictions; including consideration of the TRCA's Natural Heritage System Strategy and watershed plans; and available developable land based on Provincial and Municipal policies. Several of the proposed station facilities are either part of another project or can not be confirmed due to other land, transit and stormwater management studies currently being undertaken. All required approvals will be sought.
10.4		A screening by the MNR for Species at Risk should be completed for the entire study area, with results included within the EA.	Species at risk will be confirmed with MNR for the entire study area during the Detailed Design Stage. A review of the DFO/TRCA Aquatic Species at Risk Mapping (May 2010) was completed for the entire study area to identify areas that are managed for listed species. Some of the watercourse crossings (East Don River and Tributaries 1 and 2) are likely to support Redside , which is regulated under the provincial *Endangered Species Act*. As such, permitting for the proposed activities may be required from the MNR. The MNR Aurora District Office Species at Risk Biologist will be consulted at the initiation of the Detailed Design Stage, to determine the permitting requirements. Results will be included in revised EPR and Natural Heritage Report, found in the Appendix of the EPR.
10.5	Section 4.1.3 - Groundwater	Staff notes that significant and potentially difficult groundwater conditions are present in the area around the East Don Crossing. This was identified at previous meetings, but there appears to be no mention of this in the ESR. Staff would like to note that there should be a significant amount of geotechnical data available for this reach either through MTO-407 or York Region (Sewer section). From the available information and previous project reviews, the possible bridge foundation construction over the Little Don River (between Bathurst Street and Yonge Street) represents the most potential area for impacts to occur to a watercourse. The impacts would be a consequence of groundwater control requirements for abutment installation activities due to reported high groundwater levels. TRCA hydrogeology staff concurs that further site-specific testing / studies will be required at the proposed crossing locations. The selection of appropriate crossing structures and construction methodology will be made. Appropriate construction methods should minimize groundwater impacts to the watercourses spanned.	Agreed**. Sections 7** and **9** have been expanded to address groundwater issues at water crossings. Detailed subsurface investigation will be undertaken during the Detailed Design Stage for all crossing locations to address groundwater control requirements for abutment and pier foundation construction, as well as appropriate construction methods where warranted.

No.	Section	Comment/Concern	Response
10.6	Section 4.1.4 – Fish and Aquatic Habitat	A coolwater category is defined for several watercourses. The proponent is advised that the classification by the Ministry of Natural Resources (MNR) has been revised, with the following changes: Crossing D12 is classified as coldwater; Crossings R8, R6 and R7 are all classified as warmwater systems (MNR, 2008- TRCA screening mapping). It should be noted that classification of the thermal regime of watercourses is provided to TRCA from the MNR. The MNR is the responsible agency for the management of fisheries resources within the Province. Classification identifies the management objectives for the system and provides recommendations for construction timing for the protection of the local fish community during its reproductive phases. They are provided as guidelines, and reflect both existing and future management direction.	Watercourse thermal regimes have been updated in the final EPR text and mapped to reflect MNR's recent reclassification.
10.7	Section 6.2.2.2 Go Barrie – Concord Station	The station is proposed on lands currently designated as part of the natural heritage system within the Don Watershed Plan and TRCA's Regulated Area. The limits of the existing natural features, specifically the valley and stream corridor as defined by TRCA, need to be established. The proposed station design needs to respect the limits of the natural feature and the EA should demonstrate that this can be achieved. Staff notes that there has been a recent report of the presence of a species protected under the ESA 2007 in this area (Blandings Turtle; *Emydoidea blandingii)*. Please consult the Ministry of Natural Resources directly with regard to issues related to endangered species.	The conceptual layout of the GO Barrie (Concord) Station was determined during the Preliminary Design Stage, during which impacts to the valley lands were minimized and the existing woodlot preserved. The Transitway crossing and the station access road have been combined as one structure to minimize impacts to the West Don River. Additional analysis will be conducted during the Detailed Design Stage. This statement was included in **Section 7** and **9** of the final EPR. MNR will be consulted regarding the presence of Blanding's Turtle. Further field investigations to confirm presence/absence of this species will be undertaken during the Detailed Design Stage. This statement was included in Section 7 and 9 of the final EPR.
10.8	Section 6.2.2.5 – Leslie Station	The limits of development in relation to the watercourse need to be established to ensure parking area is appropriately sited.	A note has been added to the Leslie Station layout that reads: "*The Detailed Design Stage of the station ground facility will ensure that any proposed development is out of the floodplain of the German Mills Creek Tributary 1.*"
10.9	Section 6.2.2.6/7– Woodbine Station	There appears to be a watercourse/drainage feature across this property that has not been identified or discussed within the Natural Heritage Report. Details regarding this tributary are needed as the transitway is proposed to cross it. There also appears to be a drainage feature paralleling the transitway and woodlot edge. The form and function of these features needs to be investigated. Limits of development for the station and parking facilities needs to be established, with station and parking areas appropriately designed to protect these features. Wetland habitats on site need to be identified for protection, and impacts mitigated to the extent possible.	The watercourse in question is a small intermittent watercourse. This watercourse flows in a northerly direction into a poorly defined swale within the woodland swamp adjacent to Highway 407. The swale eventually flows into the Tributary of Beaver Creek (R8) and as such likely supports a seasonal warmwater fish community. The new crossing structure will likely not constitute a HADD, due to the seasonal nature of the warmwater fish community in this channel which makes this a low sensitivity system. Further analysis of the watercourse/drainage features and the design of the crossing structure will be addressed at the Detailed Design Stage A narrow portion of the Green Ash Mineral Deciduous Swamp (SWD2-2), at the southeast corner of Highway 407 and Woodbine Avenue, will be impacted due to the construction of the Transitway and Woodbine/Rodick Road Station. Red ash is the dominant tree both in the canopy and understorey, and the ground cover is dominated by broad-leaved cattail *(Typha latifolia).* During the Detailed Design Stage, design efforts will be made to minimize any impacts to this swamp. Erosion control fencing along its southern, western and eastern boundaries to provide protection from sediment transport will be considered. Edge management, post-construction should be undertaken to mitigate the spread of invasive species along the newly created edges. The above information has been included in **Section 7** of the EPR.
10.10	Section 6.2.2.8 – Kennedy Station	The existing drainage features should be identified on plans. It appears that transit oriented development is proposed that would remove these features. Staff does not support this, and request that the potential future development locations be removed from plans. As noted previously, the limits of development for the station and parking facilities need to be established to ensure natural features are protected. Further detailed assessment of the form and functions of these features will be required.	Transit oriented development is not part of this undertaking, and if it occurs, it will be subject to Town of Markham planning approval. The references to this development have been removed from the final EPR. Further details of the form of the Transitway station facilities will be developed in collaboration with Metrolinx and the Town of Markham during the Detailed Design Stage. Detailed assessment of effects on natural features and any necessary mitigation will be provided during the approval and permitting process for these works.
10.11	Section 6.3.2 – Bridge Sizing	TRCA staff would like to ensure that ecological functions are maintained or improved at all crossing locations. Bridge sizing should include assessment of long-term channel movement (via meander belt) and provide for wildlife as well as fish passage. This issue can be addressed at detailed design, but understanding of expectations and commitments to address TRCA issues should be identified in EA.	Agreed. The water crossing structures sub-section under **Section 6.3** has been modified to read.... *" Waterway crossing: A crossing structure used where the Transitway will pass over a waterway (river, creek, tributary,). The crossing configuration was determined through an assessment of ecological constraints, and both hydraulic and structural requirements. A hydraulic analysis (see Drainage Report in* ***Appendix M)*** *was undertaken to establish the design flood levels at the crossing, the opening required for the watercourse through the bridge and the required bridge deck clearance. This information was used to identify the preferred structure type and prepare the preliminary design. During the Detailed Design Stage, the actual bridge spans will be confirmed based on additional field surveying, updated hydraulic modelling, the actual shape of the section under the bridge, a detailed assessment of long-term channel movement (via meander belt analysis), erosion effects, and provision of wildlife and fish passage."*

No.	Section	Comment/Concern	Response
10.12	*Table 7-1*	*Impacts to fish and fish habitat will result from the construction of both bridges and culverts, but this does not appear to be identified. While the most damaging effects can be mitigated to avoid a HADD, it is not accurate to assume no impacts in either the short or long terms when watercourses are covered, and the impacts are cumulative. Also, it is staff opinion that impacts to wildlife and wildlife habitat can be negatively affected by additional watercourse crossings, particularly if passage is further impaired. Vegetation, wildlife habitat and fish habitat are also potentially affected by the proposed maintenance and storage facilities, as well as for stations. Despite being predominantly "cultural" landscapes, they provide habitat, including potential habitat for species at risk in the case of cultural meadow habitats. These are permanent impacts related to the project footprint, and it is staff opinion that this has been understated in the EPR.* *There also appears to be potential impacts to fish and fish habitat at the proposed Woodbine Station as there are watercourses illustrated on mapping, but not addressed in the background report (NHR – Appendix 4).*	Agreed. Impacts to fish and fish habitat, vegetation and wildlife habitat have now been more clearly stated. Potential impacts to fish and fish habitat have been identified in the EPR (**Sections 4, 7**, and **9**) and an assessment will be conducted during the Detailed Design Stage at the Woodbine/Rodick Station.
10.13	Table 7-2	*a) The footprint total area is identified in Table 7-2 as 73.06ha. While the areas affected may already have been disturbed historically (thus the cultural label), the impacts to the existing communities directly affected is permanent and significant at the local level. The overall net loss of greenspace, wetlands, and TRCA's defined Natural Heritage System should be identified, and opportunities to provide for improvement within the Parkway belt lands to offset impacts should be provided. Specifically, losses of wetland and tree cover should be mitigated/compensated for, and opportunities to improve meadow habitats considered. Based on the information presented, staff can concur that impacts are not likely to be significant provincially, but the cumulative effects and local impacts need to be more carefully considered and evaluated.*	The following statements were added in the Natural Heritage Report and in the final EPR: The loss of vegetation and vegetation communities has been broken out into two categories, the preferred alignment for the Highway 407 Transitway, and the associated stations. Overall, there will be a loss of 73.06 ha of vegetated lands which includes a 47.99 ha loss due to the preferred alignment, and a 25.07 ha loss due to the stations. Collectively, this will result in impacts to both terrestrial and wetland habitat. This loss of habitat could result in impacts to the TRCA's Natural Heritage System. The TRCA has identified all of the natural cover in its region. The Natural Heritage System represents natural features that have been evaluated and assessed based on habitat quality as well as species presence. This work has been undertaken, in part, to help direct land use policy, strategic planning and environmental decision-making. Subsequently, an evaluation of any additional impacts to the TRCA Natural Heritage System will be undertaken during the Detailed Design Stage. Impacts to wetland communities within the study area will primarily be to wetlands which have developed due to the presence of drainage ditches, have been created due to concentrated development which has resulted with increased runoff in localized areas, as well as wetlands in low grade areas along the hydro corridors. These wetland vegetation communities include meadow and shallow marshes, swamp thickets, and mixed and deciduous swamps. However, the function of these wetlands, as well as habitat qualities still provide a valuable function that includes flood mitigation, and habitat for more sensitive wildlife species. It is expected that post-construction, new wetland areas will be created due to changes in drainage related to the construction of the transitway and its related components, but mitigation will be outlined at the detailed design phase. Compensation for wetland habitat within areas where drainage alterations will result in seasonally flooded area and any proposed stormwater ponds will be considered during detailed design."
		b) It should be identified that impacts will be further assessed and mitigated or compensated for at the detailed design stage. A key mitigation factor for impacts to fish habitat is design. While a preliminary design is described in table 7-2, this may not be acceptable, and the need to revise to address all issues (including fluviogeomorphic processes, wildlife passage, hydrology, fish habitat) should be clearly identified.	Agreed. Commitment is made in the final EPR to further assess and document mitigation and compensation measures during the Detailed Design Stage..
		c) With regard to species at risk, staff advises that Bobolink has been recently uplisted under the ESA 2007. This species is noted as recorded within the study area. Implications will need to be addressed. There are also a significant number of meadow dwelling species recorded within the study area that utilize the cultural meadow habitats that dominate the Parkway lands. Implications to these species should be noted	Agreed. Reference to Bobolink species at risk status were included in the report. Impacts to Bobolink habitat will be further assessed during detailed design.
		d) Within table 7-2, the need to address TRCA issues related to dewatering and dewatering discharge should be identified for Groundwater, under Monitoring and Recommendation. TRCA requires that an Environmental Management Plan be prepared where dewatering has potential to negatively impact fish habitat, wetlands or forests. A TRCA draft guideline is provided for further information.	Agreed. Reference to TRCA's requirement for an Environmental Management Plan, to be prepared during the Detailed Design Stage, has been included.

No.	Section	Comment/Concern	Response
10.13	Table 7-2	*e) Within table 7-2, related to vegetation communities, the need for invasive species management should be identified as a mitigation measure where appropriate, since the impacts anticipated include increased opportunity for non-native species establishment.*	*Agreed. The following information was added in the EPR:* *"Non-native invasive plants can establish in natural areas displacing native plant species over time. Efforts to control non-native species that have become established, as well as prevent the establishment of new non-native plants is important to maintain the health and diversity of natural ecological systems. Recommended mitigation measures include:* · *the restoration of disturbed areas post-construction using only native plant species that once established can help to mitigate the establishment of non-native plant species;* · *where there are dense patches of common buckthorn (Rhamnus cathartica), swallow-wort (Cynanchum rossicum) or garlic mustard (Alliaria petiolata), the appropriate removal and control of these species by a qualified specialist, would benefit the ecological integrity of the surrounding natural features;* · *no invasive, non-native ornamentals plants should be used for landscaping (e.g., Norway maple, purple loosestrife, Japanese knotweed, Japanese honeysuckle, etc.); and*
		f) Within table 7-2, staff requests that implications to milk snake and snapping turtle be further evaluated. The loss of over 5ha of wetlands, including some complete removals, is likely to have implication to snapping turtles, as well as to amphibians. Given the general rarity of wetlands locally, this is a significant loss, justification of which has not been sufficiently demonstrated. Within this section, please identify if the records for either species is within the proposed construction footprint, and the date of the records. The rationale for the statement that impacts are not anticipated should be made clear.	Agreed. MNR biodiversity explorer (NHIC) was reviewed for records of endangered species. Impacts to wetland communities within the study area will primarily be to wetlands that have been developed due to the construction of drainage facilities. Detailed efforts to avoid these communities were carried out to the extend possible. It is expected that post-construction, new wetland areas will be created due to changes in drainage related to the construction of the transitway. Further mitigation measures will be assessed during the Detailed Design Stage. Field investigations during Detailed Design Stage will place an emphasis on confirming presence/absence and distribution of the regulated wildlife species (addressed in the EPR, **Section 7**).
		g) Within table 7-2, under wildlife and wildlife habitat, mitigation measures should include implementation of habitat creation or enhancement to off-set losses that will result. While replacement of area is not usually possible (except for wetlands), the functionality of habitats may be improved, including improvements to connectivity.	Agreed, **Table 7-2** has been amended, as reflected in the Final EPR.
		h) Within table 7-2, and within section 7.2.1, generally, there should be some discussion of TRCA's defined Natural Heritage System. While not a provincially designated natural area, the System was established to address the "systems approach" to management of natural heritage as identified within the Provincial Policy Statement, and to replace the antiquated "areas" approach.	Agreed. *Please refer to comment 10.13 a).*
10.14	Table 7-5	*a) Please include reference to the need to address staff issues surrounding dewatering and its implications to natural features and fish habitat, as well as the efforts to achieve a no harmful alteration, disruption or destruction (HADD) as a result of dewatering operations. Commitment to the preparation of an EMP as necessary should be provided. Monitoring for compliance and performance should be anticipated.*	Agreed. *Reference to the need to address TRCA issues surrounding dewatering and its implications to natural features and fish habitat, efforts to achieve a no harmful alteration, disruption or destruction (HADD) has been included.* *Commitment was provided for the preparation of an EMP as necessary.* *Monitoring for compliance and performance has been anticipated.*
		b) While staff supports the proposed mitigation measures generally, it should be noted that mitigation is not restricted only to the measures stated, but may include additional measures as deemed necessary by regulatory agencies. It is during detailed design that clarity regarding the full scale of impacts is resolved, and this needs to be acknowledged within the EA. The full suite of mitigation and compensation options identified within this report should be carried forward into the main body of the Environmental Project Report.	Agreed. Statement added to indicate that during the Detailed Design Stage, further studies will be made to develop in more detail mitigation measures and that the presented mitigation measures in the EPR are based on preliminary design. The full suite of mitigation and compensation options stated in the Natural Heritage report has been carried forward into the final EPR.
		c) Please identify that additional mitigation measures may be required based on detailed design, and that compensation requirements will also be established at detailed design. A commitment to try and achieve an ecological gain should be identified, with details to be addressed during detailed design.	Agreed. Commitment was added to review mitigation and compensation with the potential of achieving ecological gain during the Detailed Design Stage..

No.	Section	Comment/Concern	Response
10.15	Draft Natural Heritage Report (Appendix 4)	a) Figure 2b and Table 1 do not identify the drainage feature that appears to be present between site D15 and R8. Please provide information regarding this feature.	Agreed. Missing information on feature was included.
		b) In Table 1, staff suggests that under flow conditions, the overall flow pattern be identified rather than based on single state condition. For example, flows should be identified as ephemeral, intermittent or permanent as this is more significant in terms of fish and fish habitat form and function.	Agreed. Flow conditions were added to the report.
		c) In section 3.3.1 or 2, staff recommends further discussion regarding the status of redside dace within the relevant reaches. While they have been present historically, MNR must be contacted to confirm if the species is still present and if review and permitting under the ESA 2007 is required. The date of collections should be noted.	Agreed. The missing information (status of redside dace, presence, and permitting) was added in the report.
		d) Figure 3b: German Mills Creek is mislabelled as Beaver Creek.	Agreed. Has been revised
		e) Screening by MNR for all species under the ESA2007 should be completed for this project.	Agreed. During detailed design, further studies and in consultation with MNR will be conducted for this project.
10.16	Plan and Profile Plates	a) There are some preliminary descriptions of preferred structure sizes – this would be good information to add to the plates for ease of review.	Agreed. Preliminary preferred structures sizes have been included in the plates.
		b) The preliminary descriptions as provided in the Fluviogeomophic preliminary assessment should also include station locations rather that site numbers that are not referenced or mapped elsewhere (as far as staff could see anyway)	Agreed. The Fluvial Geomorphology preliminary assessment has been revised to include the station locations, in addition to the site numbers, that are referenced/mapped elsewhere.
		c) Plate 31 is not correctly depicting the existing channel location at station 21+650 (approx). The channel to the north has been realigned, and is connected to the existing culvert under Hwy 407 via an open drainage feature (fish habitat) which runs parallel to the 407 for some distance, until it reaches the created wetlands to support the new channel. Alignment as shown will have significant implications to the re-aligned tributary and TRCA requests that the alignment be provided on the south side of the 407 to the extent possible.	The re-aligned Markham Centre Tributary was considered when defining the alignment. The 407 Transitway runningway will not affect the re-aligned channel. Plates 31 and 32 have been revised to include the re-aligned channel according to the information provided by the Town of Markham.
		d) Plate 28 does not identify the crossing of a watercourse feature that appears to be present at station 18+970. This needs to be revised. This feature appears to have been overlooked generally.	Plate 28 of the final EPR has been revised to include the watercourse feature. The existing crossing (600mm CSP) at station 18+970 serves as a drainage outlet to the Miller solid waste management facility. At station 19+085 a second crossing (450mm CSP) conveys road drainage. From an engineering perspective, the two crossings in the vicinity of the proposed Woodbine Station are straight V-shaped conveyance ditches, with no signs of meandering. Therefore, it is recommended that the hydraulic capacity of the crossing be maintained by introducing a new culvert or an extension to the existing crossing. We understand that the Town of Markham is currently in the process of developing a master plan for the Miller site that includes a realignment/widening of Miller Avenue. Currently, Miller Avenue is a rural section with roadside ditches on both sides. The Town's objective is to urbanize Miller Avenue in the near future, therefore storm sewers will be installed.
10.17	Stormwater Management	a) Please be advised that the Authority manages incremental changes to the watershed, which is why stormwater management is required for all sites. The analysis provided indicates that quantity control may not be required due to the impacts from the watershed scale; impacts should always be assessed from a site scale. For example the contributing drainage area of the 407 Transitway is quite small compared to the entire drainage area of the watersheds it resides in. From that scale the increase in impervious cover, and resulting peak flows may not be an issue. Conversely from a site by site scale the impact is quite significant. As such appropriate quantity criteria will apply to the transitway right-of-way. Quantity control criteria is as follows: · Black Creek – Unit Release Rates · Don River – sites greater than 5ha apply unit release rates as defined in "Unit Flow Rates for Stormwater Control Upper Don River Watershed", sites less than 5 ha apply the 2 to 100 post to pre control	a) As noted, the approach taken for drainage is based on considering the impact on a watershed scale. The contributing drainage areas from the 407 Transitway are quite small compared to the overall watershed area and the impacts on the watershed are, therefore also quite small. The Transitway is a narrow corridor (30 m right-of-way) with a total impervious width of 12 m comprised of the roadway and paved shoulders. The narrow right-of-way, longitudinal nature of the Transitway and the frequent watercourse crossings results in drainage areas that are less than 5 ha. Wet ponds are typically not feasible due to the narrow corridor and the small drainage areas. The impacts at a site scale, are being addressed by conveyance by grassed swales and where possible the swales will outlet to the existing ponds located along 407 ETR which will provide quality and quantity control. Where the runoff does not contribute to an existing stormwater management pond, water quality treatment will be provided by enhanced grass swales. It is anticipated that the long enhanced grass swales can be modified during the Detailed Design Stage, to provide quantity control. Quality control for all watersheds has been included in the assessment. Please refer to **Table 6-4, Section 6.4** of the final EPR.

No.	Section	Comment/Concern	Response
10.17	Stormwater Management	· Rouge River – From a watershed management perspective no quantity control is required. However local Municipalities may have requirements, should drainage be directed to municipal infrastructure. Please note that water quality control to the Enhanced Level (i.e. 80% TSS removal) is required across TRCA jurisdiction. Please note that Table 5.1 notes water quality control as being only required for the Don and Rouge River watersheds. Erosion control criteria is as follows: · Sites greater than 5 ha, detain and release a 25mm over a 24h period · Sites less than 5 ha, detain a rainfall depth of 5mm (across all impervious areas) through infiltration or rain water reuse.	
10.17	Stormwater Management	b) Please note that the City of Vaughan is in the process of finalizing the "Black Creek Stormwater Optimization Master Plan Class Environmental Assessment" which included a detailed hydrologic assessment of the Black Creek north of Steeles Avenue. Staff recommends MTO obtain a copy of the hydrologic model developed by City and utilize it as part of the Transitway assessment. In addition to the above the City of Vaughan should be consulted on the proposed Stormwater management plan, ensuring the targets and intent of the "Black Creek Stormwater Optimization Master Plan Class Environmental Assessment" are achieved for the transitway site.	b) The hydrologic and hydraulic models for Black Creek were obtained from TRCA and were used for our analysis. The study undertaken by the City of Vaughan is in the process of being finalized and has not been specifically addressed in our work. The EPR will include a requirement to include the intent and targets of the "Black Creek Stormwater Optimization Master Plan Class Environmental Assessment" during the preparation of the detailed design.
		c) Where the proposed transitway is to tie into existing SWM ponds, the ponds need to be assessed to ensure they are appropriate for use (ensure they can accommodate additional drainage/impervious surfaces, and provide stormwater control to today's standards). Since the majority of the SWM scheme depends on the use of existing ponds, they should be assessed during the EA phase, opposed to waiting to detailed design. Where ponds do not have sufficient volume (permanent pool, extended detention, and active storage), the lack of SWM control should be addressed through means (source and conveyance) within the proposed right-of-way.	c) As-built drawings and drainage areas for the 407 ETR ponds could not be obtained from both TRCA and MTO. Stage-discharge curves and outlet configurations of existing facilities will need to be prepared after a detailed topographic survey for each facility. These activities are best deferred to the Detailed Design Stage. However, based on our preliminary analysis the volume requirements were calculated to satisfy post-development to pre-development quantity controls for Transitway areas only. The required volumes calculated do not exceed more than 500m^3 per Transitway outlet. A desktop overview of the existing ponds and volumes was also performed. It was found that there is sufficient capacity to provide the additional volumes required for the Transitway. Should the field survey and detailed design indicate that the additional volume cannot be accommodated in the existing SWM ponds, flat bottom grass swales can be used to provide the required volume. In the worst case scenario an elongated/cascading facility (refer to our enhanced swale locations along the Transitway) that will be approximately 90m long, with 1.5m depth and a 2m flat bottom would be needed to accommodate the required volume. The final arrangement – modification of existing SWM pond and/or elongated/ cascading grass swales - will be determined during the detailed design phase.
		d) Further to the above, from a quantity control perspective the 407 SWM ponds should be included in the hydrologic modeling to ensure quantity control volumes meet the watershed objectives, as well as assessing the ponds impact to the receiving systems.	d) It is recommended that during the Detailed Design Stage, the 407 ETR ponds be modelled. In order to complete the analysis the drainage area boundaries for each pond will need to be mapped and the existing hydrologic models be further analyzed. However, during the preparation of the EPR the proposed ponds for the Transitway stations were modelled in a separate model, ensuring post-development to pre-development control at each outlet.
		e) Please explain why the STANDHYD command has been used to model the transitway catchments for pre-development conditions. The text in the report notes a majority of the right-of-way as being un-developed; as such a NASHYD should have been used. Please revise accordingly.	e) The commands used to model the Transitway catchments in the pre-development condition are the same as in the original TRCA hydrologic models. The transitway areas have been extracted from the appropriate existing condition drainage areas and the input parameters, except area (ha), remain unchanged compared to the TRCA models.
10.18	Hydraulic Assessment	a) Please note that the proposed Jane Station and associated maintenance yard is within the Regional Flood plain. Should MTO wish to proceed with the development plan a comprehensive flood remediation plan for the area will be required. This will require MTO to provide a hydrologic and hydraulic assessment of the area to ensure no adverse impacts to flood line elevations upstream and downstream of the subject site. The assessment shall include hydrologic, hydraulic modeling to assess impacts to downstream areas (erosion and quantity), due to the flood remediation option (most likely the removal of the CNR crossing, which is a major cause of the flood plain). Since the intent of an Environmental Assessment is to assess feasibility, this assessment should be provided as part of the EA package.	a) We agree with the need for this work. As the O&M facility will be further developed during the Detailed Design Stage, all related SWM issues and concerns for the O&M and Jane Station, will be addressed then. As noted in the response to 10.17 b) the EPR includes a requirement to include the intent and targets of the "Black Creek Stormwater Optimization Master Plan Class Environmental Assessment" during the Detailed Design Stage.

No.	Section	Comment/Concern	Response
10.18	Hydraulic Assessment	Discussions related to the Jane Station should also occur with the City of Vaughan as the "Black Creek Stormwater Optimization Master Plan Class Environmental Assessment" was developed specifically to deal with flood concerns along the Black Creek.	
10.18	Hydraulic Assessment	b) Please note that the access route for the proposed GO Barrie Station is located within the Regional Flood plain (191.13 masl, 190.69 masl). Access to and from the site will become an issue during a Regional event, as such please ensure ingress and egress is "safe" pursuant to Provincial floodproofing guidelines.	b) Part of the access route to the station facility is located within the Regional Floodplain. The Detailed Design Stage of the station will assure that the ingress and egress road is safe pursuant to Provincial flood proofing guidelines.
		c) Staff has concerns with relocating the watercourse to accommodate the proposed pond at Woodbine Station. Please provide additional assessments, ecological, fluvial and hydraulic appropriateness of channel relocation at this location. To assess the feasibility the noted assessments should be included as part of the EA. Further to the above the proposed transitway runs directly through the above noted watercourse between stations 19+600 to 19+800. Based on the proposal a creek realignment would be required in this location as well, the additional analysis (as noted above) would apply in this instance as well.	c) We acknowledge the concerns, however based on our visual inspection of the conveyance features and review of the topography and grading, we have determined that it is feasible to realign the creek on both sides of Rodick Road, and still maintain the hydraulic capacity. It is noted that more detailed survey will be required to complete the analysis during the Detailed Design Stage. The proposed creek realignment to the north, on both sides of Rodick Road, is also necessary as a result of the proposed underpass at Rodick Road which is part of the Transitway vertical alignment. .. As per the above comment, the entire area is going through a redevelopment phase and details of the ultimate configuration are still being finalized. The grading for the Transitway, and a proposed SWM facility just west of Rodick Road may require the channel to be realigned which may constitute a HADD and negotiations with TRCA and DFO on design, mitigation and compensation issues. A detailed analysis of this water channel will be conducted during the Detailed Design Stage.
		d) Appendix C, Creek Reference #3, please confirm with the City of Vaughan if drainage is severed by the 407. Additional hydrologic and hydraulic analysis may be required to confirm structure size. The "Black Creek Stormwater Optimization Master Plan Class Environmental Assessment", may have specific requirements for this tributary which may dictate the size of the structure.	d) We acknowledge there is an existing culvert at this location, however, the Transitway will be located above this crossing and currently there is no encroachment from the 407 Transitway. During the Detailed Design Stage, the proposed span of the crossing will be re-assessed to consider the findings of the "Black Creek Stormwater Optimization Master Plan Class Environmental Assessment" currently being prepared by the City of Vaughan.
		e) The proposed Transitway alignment passes through a SWM pond at station 10+400. Based on Figure 6.5 in Appendix C, significant grading would need to occur within the pond to accommodate the transitway. How will Stormwater be treated during construction, and how will the pond function post development? Is this an appropriate transitway alignment?	e) The existing SWM pond will be modified to accommodate the Transitway. Thus, the Transitway will run adjacent to the proposed modified SWM pond. As indicated in the final EPR, Section 6.4, any works on the pond needed to accommodate the Transitway will be defined during the Detailed Design Stage.
		f) Please explain how the reach boundary conditions were determined for areas where no existing HEC models exist? Critical depth, and known water elevations were used, yet the model only extends a few cross-sections upstream and downstream of the proposed crossings. Please ensure an appropriate method for determining starting water surface elevations are used, and ensure the models are of sufficient length to ensure water levels through the structures are appropriate. Reach lengths should be based on a model sensitivity analysis. In addition to the above the hydraulic models should be extended a sufficient distance upstream to accurately assess impacts to flood plain elevations upstream of the right-of-way.	f) Survey data for the existing culverts and roadways located upstream and downstream of the proposed Transitway were not available. The downstream boundary conditions for the new HEC-RAS models were established based on the known water surface elevations from existing downstream HEC-RAS models, the water level associated with a downstream crossing, or critical depth depending on the available data. During the Detailed Design Stage, the HEC-RAS model will be extended upstream and downstream as needed to confirm the hydraulic opening of the bridge and any changes in water levels.
		g) Is the intent to have a flyover crossing for creek reference #10? The figures provided indicates there is a crossing, yet no hydraulic assessment has been provided. Please provide clarification as to the transitway crossing at this location. Also please note TRCA has "Final Draft" flood plain mapping and HEC modeling for the area that can be used in the assessment. Please contact Nick Lorrain at ex. 5336 to obtain a copy.	g) Yes, a flyover crossing is proposed at this location that is well above the creek, therefore no hydraulic assessment is required.
		h) There appears to be 2 crossings located at Creek Reference #12, please confirm.	h) There currently is only one crossing for the Transitway at this location. An expansion of the existing crossing is protected for in the event that a larger parking area is required on the west side of the creek. Should this extra parking space be required, the existing structure will be expanded into one large structure accommodating both the Transitway and local commuter traffic.
		i) Based on Air Photo's of the area, there appears to be a watercourse located at the proposed Unionville Station. Please confirm if a watercourse exists in this location. If so please include the appropriate analysis.	i) The Town of Markham has approved a project that includes the re-alignment of the watercourse. The Transitway crosses the re-aligned creek just west of Kennedy Road. According to the information provided by The Town, the watercourse will not be affected by the transitway.
		j) Please confirm how Stormwater management will be dealt with at the Unionville Station? No discussion or analysis has been included in the "Drainage Hydrology, Stormwater Management, and Floodplain Hydraulics Report".	j) Kennedy Station is located underground and stormwater management is not required. In addition, the existing parking lot will be developed into a two-level parking facility. During the Detailed Design Stage, Best Management Practices will be provided at this station.

No.	Section	Comment/Concern	Response
10.18	Hydraulic Assessment	k) How do the proposed water crossings compare to the existing Highway 407 crossings, please provide a comparison table.	k) A comparison table has been added in the attached table in Appendix B at the end of this document, as requested.
		a) Please note that the Fluvial report speaks primarily to extensions of existing culverts, while the "Drainage Hydrology, Stormwater Management, and Floodplain Hydraulics Report" notes multiple new crossings (i.e. Creek Reference #12, Drainage report notes a 37m span, fluvial assessment an extension). Please ensure that where new crossings are proposed a fluvial assessment is provided.	The fluvial geomorphological assessment was carried out early during the preliminary design phase. As a result, assumptions had to be made to facilitate the assessment. The fluvial geomorphological assessment will be revisited once designs have been advanced at the Detailed Design Stage.
		b) The crossing sizes differ from the "Drainage Hydrology, Stormwater Management, and Floodplain Hydraulics Report", and the Fluvial Assessment. Please ensure consistency between the two reports.	Agreed. The watercourse crossings have been reviewed to ensure consistency.
		c) Please ensure that the sizing of each of the proposed structures is justified with a fluvial assessment. This will require a Meander Belt and 100 year Erosion assessment at each of the proposed new crossings. The assessment must be in accordance with TRCA's "Belt Width Delineation Procedures" 2004, which is TRCA's standard protocol for assessing Meander Belt and 100 year erosion limits. At a minimum the corridors beneath the structures must be sized to meet the 100 year erosion limit, where no grading, construction is to occur with this zone.	The fluvial geomorphological assessment was carried out to provide direction for the design of the watercourse crossings . It should be considered preliminary. A detailed fluvial geomorphological assessment will be carried out during the Detailed Design Stage.
		d) The scope of the fluvial assessment should be expanded to include provisions for channel realignments, and re-established valley corridors where necessary (i.e. Woodbine Station, Jane Station).	The fluvial geomorphological assessment was carried out to provide direction for the design of the watercourse crossings. It should be considered preliminary. A detailed fluvial geomorphological assessment will be carried out during the Detailed Design Stage.
		e) During the detailed design phase of the project, fluvial input should be provided for the alignment of each of the structures, relative to the creek (i.e. appropriate skew, pier locations, etc.).	Agreed.
		f) In addition specific channel bank erosion protection should be assessed and designed during the detailed design phase of the project. Bank vegetation tends to die due to lack of light/water under water crossings, once this has occurred it is likely that bank erosion under the structure will commence, potentially impacting the long term stability of the structure.	Agreed.
11.0	**CITY OF VAUGHAN – November 19, 2010**		
		Given the significance of the proposed Hwy 407 Transitway project, staff will be reporting to Council on the final EPR with comments and recommendations.	Noted.
11.2		The proposed alignment of the Hwy 407 Transitway which is shown on Plates 5 through 7 appears to impact a number of exiting industrial properties. Is it possible to shift the Transitway alignment further north to reduce or eliminate this private property impact?	Various factors were considered during the development of the runningway alignment in this segment including the effects to the industrial development in question, the CN MacMillan yard crossing, the proximity to Highway 407, the 407-Keele Interchange, the 407 Highway crossing east of Keele Street and the design speed of the Transitway. The proposed alternative presented in the final EPR was selected following an evaluation of the factors indicated above in order to minimize adverse effects. In the detailed design Stage, the final alignment may be adjusted following further discussions with all relevant stakeholders.
11.3		The proposed alignment of the Transitway between the Go Barrie Line and Centre Street together with the proposed Go Barrie (Concord) Station will no doubt impact the natural environment of the West Don River valley. The extent of this impact doesn't appear to be thoroughly addressed in the draft EPR. For instance, there are three proposed crossing of the West Don River (two related to the Transitway and one for the access road to the proposed station). The EPR includes a center line profile of the Transitway but doesn't provide any details on the structures that will be required to cross the river nor does it clearly identify how much of the existing natural feature will be impacted. Accordingly, additional details/information/assessment should be provided for this segment of the transitway.	The final version of the EPR shows the extent of the effects on the natural environment in the West Don River valley. There are two structures at this location, one crossing Tributary 1 of the West Don River and the other crossing the West Don River. The structure crossing Tributary 1 of the West Don River is a structure combining the transitway and the access road to the station. Flood regulation lines and the relationship of all proposed station facilities to the existing natural features and flood plain are also shown in the station plates.
11.4		There is an existing residential subdivision abutting the west side of the Go Barrie Line and the proposed Go Barrie (Concord) Station. This residential community is represented by a residents committee (Concord West Residents Ad Hoc Committee), which has expressed concerns with potential impact of the proposed Transitway/Station on the natural environment, the Bartley Smith Greenway and the neighbourhood in general. Accordingly, it is suggested that the project team meet with this residents group to get their input on the project before completing the study.	The project team met with the Concord West community representatives during finalization of the EPR. The final ERP contains an evaluation of alternative station locations and configurations including a proposal by the community. The recommended station and facilities are identified along with commitments to mitigate effects on the neighbourhood and valley lands.

No.	Section	Comment/Concern	Response
11.5		The site plan for the proposed Go Barrie (Concord) Station identifies three vertical pedestrian/passenger connections. The EPR should clearly identify that these connections are to be design and constructed as part of the 407 Transitway project and/or the transit providers.	The final EPR addresses the need for the connections and includes recommendations for their implementation.
11.6		There is an existing residential community at the north-west corner of Hwy 7 and Yonge Street, which may be impacted by the proposed crossing of the Transitway over Highway 7. Accordingly, we would like to obtain further information on this crossing (structure) to better assess whether it has the potential to negatively impact the environmental of this community.	The community was contacted during the second Public Information Centre (PIC), which included renderings of the proposed crossing providing a visualization of the interface with the Richmond Hill residential community adjacent to the crossing.
11.7		The EPR should identify the proposed Highway 407/Centre Street interchange.	The conceptual layout of a potential future 407-Centre Street Interchange has been incorporated in the plates.
11.8		Under Section 2.3.3 Transportation Network Assumptions, should there be a reference to the proposed the GTA West Corridor?	The GTA West Corridor is not included in the 2031 GGH model used to project travel demand for the 407 Transitway. The GTA Corridor initiative is currently in the Environmental Assessment stage. If in the future this project (as well as others) is approved and incorporated in the GGH model, the travel demand of the Transitway will be updated before initiating the detailed design stage.
11.9		We are interested in reviewing the details of the stations, structures, storm water management, utility relocations and illumination when they become available.	The updated drawings of the station layouts include the approximate location for each of the main structures, storm water management facilities and illumination features, adequate for this stage of the project. Definitive arrangements of these components, as well as utility relocations (if required) will be addressed during the detailed design phase of the project.
12.0	**HIGHWAY 407 ETR CONSORTIUM – Received November 25, 2010**		
12.1	General	The design and implementation of the 407 Transitway shall demonstrate to the satisfaction of 407 ETR Concession Company Ltd. and all stakeholders that all reasonable measures have been taken to minimize potential negative impact pre and post construction of the 407 Transitway.	Noted.
12.2	General	The 407 ETR has no comments regarding the proposed alignment and proposed Station locations at this time. . The 407 ETR will reserve comments regarding the implementation, mitigation measures, and construction methods, construction staging until the preliminary design report.	Noted.
12.3	General	The 407 ETR will reserve comments regarding the drainage, stormwater management plan, structures crossing the 407 ETR, utility relocation, traffic impact mitigation, and construction staging until the preliminary design report. It will need be proven to the 407 ETR's satisfaction that the proposed Transitway and facilities will not adversely affect with the 407 ETR's safety, maintenance, or operation of the highway.	Noted.
12.4	Part II Section 10.2 Page 3	Under "Other Agencies" please change C. White/F. Conforti - 407 ETR to C. White/J. Booker - 407 ETR	Noted.
12.5	Part II Section 10.2 Page 2	Under "Other Agencies" please change C. White/F. Conforti - 407 ETR to C. White/J. Booker - 407 ETR	Noted.
13.0	**METROLINX/GO TRANSIT – Received December 3, 2010**		
13.1	Clarifications Section 1.3.3.2	Should be updated to indicate that grade separations have been completed on the Stouffville Line (Hagerman Diamond – completed in 2008) and Barrie Line (Snider Diamond – completed in 2007). Only the Doncaster Diamond (Richmond Hill Line) remains at grade.	Noted. The section has been updated following the clarification.
13.2	Clarifications: Section 5.2	DMU technology was included in the evaluation as commuter rail. This creates confusion for two reasons: it does not resemble current commuter rail technology used in the GTHA (locomotive-hauled consists); and the definition of DMU in this section omits a large segment of the DMUs currently on the market.	Noted. In the final EPR, the Technology Characteristics have been expanded to cover both loco-hauled and DMU commuter rail rolling stock to avoid confusion.
13.3	Clarifications:	We would suggest that the EPR discuss "Commuter Rail" as a technology and treat current GO Train technology as the base line. By using the existing commuter rail technology as a base, it avoids ambiguity and ensures consistency with GO Transit services currently being offered in the GTHA. Smaller, FRA-compliant DMU technologies could also be considered as part of the analysis, but this could be treated more as a note than as a major category.	Noted: In the final EPR the diesel propulsion technology has been redefined as commuter rail encompassing both GO Transit's current loco-hauled rolling stock and typical DMU equipment.
13.4	Clarifications	In general, labelling of the railway corridors should be consistent. For east to west, it should be the GO Uxbridge Subdivision, CN Bala Subdivision and GO Newmarket Subdivision, or alternatively labelled as the GO Stouffville Line, GO Richmond Hill Line and GO Barrie Line. You may want to refer to subdivisions in some instances and GO Lines in others, but the two should not be mixed.	Noted. In most instances, the text is referring to the GO Lines. Consistency in referring to the GO Lines or the subdivisions has been established in the final EPR.

No.	Section	Comment/Concern	Response
13.5	Clarifications	The Mobility Hub identified in *The Big Move* at Highway 7 and Yonge Street is the Richmond Hill-Langstaff Gateway. This name should be used throughout the report when referring to this hub.	Noted. The mobility hub referenced throughout the document is the Richmond Hill-Langstaff Gateway.
13.6	Clarifications	Metrolinx has two separate operation divisions: GO Transit and the yet-to-be-named Air Rail link. For clarity, when referring to bus and train services in the study area offered by the GO Transit operating division, use "GO Transit" and avoid terms such as "Metrolinx/GO Lines", "Metrolinx/GO Transit" or "Metrolinx/GO Station". As they refer to the transit services please use "GO Lines", "GO Transit" and "GO Station".	Noted. The final EPR has all references to Metrolinx/GO removed and replaced with "GO Line", "GO Transit" and "GO Station", respectively, where indicated.
13.7	Clarifications	Metrolinx should be used when discussing the legal agency that owns/maintains various facilities e.g., Metrolinx owns the GO Stouffville Line) and will construct and own new transit facilities throughout the GTHA (e.g., Metrolinx will own the VIVA dedicated bus lanes, though service will be provided by YRT).	Agreed. All references to Metrolinx were used in the context as noted.
13.8	Clarifications	Illumination should meet the GO Transit illumination standards at stations to ensure rider safety and security.	Illumination at stations will meet GO Transit standards as stated in **Section 6.7**.
13.9	Editorial Comments: General	Please ensure that both the "G" and "O" are capitalized when referring to GO Transit, throughout the document.	Agreed. All references to "GO" have been indicated in all capital letters.
13.10	Editorial Comments: Section 1.3.1.4	The final sentence should read "the RTP has identified the 407 Transitway from Pearson International Airport to Kennedy Road in the 25-year plan, to be implemented between 2021 and 2031."	Agreed. The final EPR, **Section 1.3.1.4's** final sentence has been revised as noted.
13.11	Editorial Comments: Section 2.3.3	The St. Clair Streetcar Lanes are now complete.	Noted, the text "currently under construction" was removed from the final EPR.
13.12	Editorial Comments: Section 4.3.1.1	Label this section "**GO Transit Bus Services"** The description of both 407 GO bus routes should be rewritten to state the number of main branches in the introductory sentence and list major stations one per line.	Agreed. The section has been relabelled in the final EPR. As well, the 407 GO bus routes descriptions have been rewritten.
13.13	Editorial Comments: Section 4.3.1	Update to include the new Brampton Transit Züm service that passes through the Vaughan Centre *en route* to York University (new 4.3.1.4).	Agreed. **Section 4.3.1** has been updated in the Final EPR.
13.14	Editorial Comments: Section 5.3 Table 5-4	Change "Future Station on Bradford GO Line" to "Potential Connection to Barrie GO Line."	Agreed, changed in the final EPR.
		Change "Brampton AcceleRide (Future)" to "Brampton Züm".	Agreed, changed in the final EPR.
		GO Bus Routes 45, 46, 47 and 48 serve Keele (York U) from the west.	Agreed, changed in the final EPR.
		GO Bus Route 50 no longer operates.	Agreed, changed in the final EPR.
		Unionville Station is no longer served by GO Bus Routes 71, 52, and 54, but not 51.	Agreed, changed in the final EPR.
13.15	Editorial Comments: Section 5.4.2.1 c)	GO-Barrie Station: Change "possible station layout alternatives were developed for GO Barrie Line Station" to "potential station layout alternatives were developed for GO Barrie Line Station, in case a GO Station is constructed on this site".	Agreed, the recommended text is provided in the final EPR..
13.16	Editorial Comments: Section 6.2.2.2	"GO Barrie (Concord) station, <u>if constructed</u>, will be located…"	Agreed, text of the final EPR has been revised as suggested.
13.17		Current Metrolinx and GO Transit planning documents should be used as the foundation of future transit networks. More recent planning documents such as the Metrolinx Regional Transportation Plan (2008) and GO2020 (2008), should be referenced to more accurately reflect future transit networks and service levels. The GO Transit Year 2021 Plan (1998), cited in Section 1.3.3.2, has been superseded.	Agreed. **Section 1.3.3.2** of the final EPR has been revised accordingly.

No.	Section	Comment/Concern	Response
13.18		Analysis of the impacts of constructing parallel transit facilities should be more fully defined. The EPR should demonstrate the anticipated demand for and ridership relationships between parallel transit facilities in terms of the various markets served and how these facilities will be required to serve future demands for inter-regional and intra-regional trip making. This discussion on travel demand should reference the VIVA BRT on Highway 7 as this facility will run parallel to the entire Highway 407 Transitway Central Section, often in close proximity.	**Section 2.3.4** of the EPR has been revised to emphasize that the 407 Transitway market serves longer distance trip users and will aim for longer distance trip users by providing high speed service (all grade separated runningway; with a design speed of 110 kph; stations at an average of 3.5 kilometres apart), while the Viva BRT with an at grade operation and stations at an average of 1.0 kilometre apart will mostly serve shorter trip users. These principles were identified and agreed to by the study participants including Metronlinx/GO during the Planning Design Stage of the study.
13.19		All Transitway station locations should be planned to encourage active transportation access as a priority. Station locations should be planned to encourage active modes of transportation by minimizing the walking and cycling distances to/from places of employment/destinations as a priority. This is particularly important for the proposed Leslie Station (south of Highway 407) and Woodbine-Rodick Stations. For example, the location of the Leslie Station south of Highway 407 will likely reduce its attractiveness for those that need to walk to the Commerce Valley Business Park located north of Highway 407. In the case of the Woodbine/Rodick station consideration for moving the station to either Woodbine Avenue or Rodick Road (and not mid-block) would allow for better connections with connecting local transit services and may encourage additional pedestrian activity. Existing GO Transit ridership patterns show that the walking distance from the final transit station/stop to work is one of the most important factors in attracting home-to-work trips to transit.	The 407 Transitway team fully supports encouraging active transportation access to the station facilities, mainly at stations near developments. This criterion was considered when planning the station location. In the case of Leslie Station as described in **Section 5. 4,** an alternative with the facility on the north side of Highway 7 was analyzed and not selected as the preferred option for the following reasons: · Although the north-side station location, is closer to the centroid of the business park, it remains on the perimeter of the developed mixed-use lands and beyond walk-in distance thus still requiring a community shuttle bus access from the expanding residential areas to the west. It would also be 300m further from the residential areas south of Highway 407 · Park and Ride access is more difficult with limited capacity and no ability for expansion due to Highway 407 constraints. · Over half of the right-of-way in the south side alternative is within the previously protected transitway corridor while the north option would require a new right-of-way along the north edge of Highway 407 with private property impacts. · Construction costs for the north alternative would be almost 50% higher due to the constrained right-of-way, requiring the transitway to pass over Leslie Street and the station facilities. In the case of the Woodbine /Rodick Station, the station location at midblock was predominately the consequence of the runningway vertical alignment. The Transitway crosses over Woodbine and under Rodick leaving only a short segment that is flat and close enough to grade to be suitable and feasible for a station platform.
13.20		All Transitway station site plans should give priority to rapid transit bus access/egress. At Jane / Highway 407 Station and Kennedy/Unionville Station, direct bus only facilities (ramps) between the transitway and the major cross street (Jane St and Kennedy Rd, respectively) should be protected for and implemented as a priority. These ramps will minimize the travel times between the transitway and the surrounding road network and increase the overall attractiveness of the new facility.	Priority to transit bus access/egress was given when planning the station sites. For these two stations (Jane and Kennedy), the surface facilities (including bus access, circulation roads, loops, bays) are not part of the MTO 407 Transitway Undertaking. The Jane Station surface facilities are part of the TTC Spadina Subway Extension Station project which includes a bus-only ramp from Jane Street. In the case of the Kennedy Station, the bus access and terminal are part of the York Region Viva program. Please also note that a bus only ramp from Kennedy Road to the Station site is not technically feasible due to traffic related constrains.
13.21		A GO Station at Highway 7 (Concord) would only be considered upon firm commitments to implementation of the Transitway. The EPR contains too much definitive language regarding the implementation of a new GO Concord station. Language regarding the implementation of this station should be tempered to indicate that the overall feasibility of this station would be further assessed once timelines for transitway construction have been firmly established. In addition, the reference in Section E.6 to the GO Barrie (Concord) Station as a "mobility hub" should be removed as this location has not been identified as a mobility hub in The Big Move.	Agreed. Language has been changed to reflect that a potential GO rail station at this location would be further assessed once timelines for the Transitway construction have been established. The correction of the “mobility hub” label has also been corrected to “intermodal station”
14.0	**TORONTO TRANSIT COMMISSION (TTC) Received December 3rd, 2010**		
14.1	Introductory statement	We are pleased to provide the following comments on the draft Environmental Project Report for the 407 Transitway as it relates to the Toronto-York Spadina Subway Extension's (TYSSE) Highway 407 Subway Station:	
14.2		Ensure that the 407 Transitway Project, is fully co-ordinated with the final TYSSE Highway 407 Subway Station design drawings, in particular with respect to horizontal and vertical elevations of the station where provisions have been made for Transitway to traverse through and for passenger connections to the subway station. The TYSSE Highway 407 Subway Station design is final and no further revisions are feasible.	Acknowledged. The location and preliminary design of the Transitway facilities have been defined in coordination with the TTC's TYSSE 407 Station design
14.3	Bus Lay-Bys on Figure 6-4	Assuming there are intended to be below existing grade, the future design will need to be reviewed during future design stages by TTC to ensure that they do not impact the TYSSE subway station.	Agreed. The bus lay bays are intended to be below grade. The detailed design phase will assure no physical or operational conflicts with the TTC Subway Station facilities.

No.	Section	Comment/Concern	Response
15.0	**Hydro One**		
15.1		Hydro One did not provide comments on the Draft Report by the filing date of the EPR; however, in various occasions expressed concerns related with clearances to their transmission towers at locations where the runningway footprint may be closer than their 15 m. desirable lateral clearance, mainly required for maintenance accessibility	Hydro One has been involved in 407 Transitway planning over the past 20 years and as a member of the Technical Resource Group (TRG) of this project, having participated in all meetings of the TRG and major progress sessions that occurred to review the design deliverables. An agreement exists between Hydro One, Markham and MTO covering the Transitway design parallel to the Hydro corridor between Bayview Avenue and Warden Avenue. Lateral clearance in this section gets as close as 6 m. to the poles (mono), which was agreed to by Hydro One. West of Bayview Avenue, there are two isolated locations where the lateral clearance to one corner of each tower is between 10 and 15m. During the Detailed Design stage, MTO will ensure the Transitway design makes provisions for a feasible and safe access to the towers in these two isolated cases as stated in the EPR (**Section 7**). Hydro One has been involved in 407 Transitway planning over the past 20 years and is a member of the TRG of this project, having participated in all meetings of the TRG and major progress sessions that occurred to review the design deliverables.

3.4 Consultation with the Public

To facilitate the consultation process, notification of consultation activities/opportunities were provided to the public.

The public was able to choose their level of involvement from one or more of the following options:

- Project website (www.lgl.ca/407Transitway);
- PICs; and,
- Contacting the Study Team directly.

3.4.1 Public Notification

Notification of many of the activities/opportunities was provided through advertisements in local newspapers including the *Vaughan Citizen, Markham Economist and Sun* and *The Liberal.* Five notices were placed in the local newspapers including:

- "Notice of Study Commencement" in June 21, 2007 under MTO's Class Environmental Assessment for Provincial Transportation Facilities process as a Group "A" project. This notice was also published in the *Toronto Star;*
- "Notice of Public Information Centre #1" on May 14, 2009;
- "Notice of Public Information Centre #2" on June 17,2010;
- "Notice of Commencement of Transit Project Assessment Process", on August 26, 2010; and,
- "Notice of Completion", on December 23, 2010.

The "Notice of Study Commencement" advertised in June 2007 occurred when the study was initially following MTO's *Class Environmental Assessment for Provincial Transportation Facilities* process as a Group "A" project. This notice outlined the project and study area, discussed the MTO Class EA process and provided information on how to make comments during the study. The notice informed stakeholders of the project early in the Class EA process, prior to any decisions being made.

The "Notice of Public Information Centre #1" was placed in local newspapers at least one week prior to the events (May 26, 2009 and May 28, 2009). The notice included a discussion of the project, the new TPAP, PIC specifics (including date, time and location) and provided information on how to submit comments to the Study Team.

The PIC #1 brochure was mailed directly to the members of the public listed in the general public contact list on May 20, 2009. In addition, approximately 32,400 copies of the PIC brochure were distributed to residences, businesses and property owners within the two kilometre band centered on Highway 407 Corridor by Canada Post Unaddressed Mail Delivery service during the week of May 18, 2009. Additional copies of the brochure were available at the PIC.

The "Notice of Public Information Centre #2" was placed in local newspapers at least one week prior to the events (June 24, 2010 and June 29, 2010). The notice included a discussion of the project, the new TPAP, PIC specifics (including date, time and location) and provided information on how to submit comments to the Study Team. Information on the project's website was also included. Information that two presentations (5:00 p.m. and 7:00 p.m.) were planned at the PIC was also included in the notice.

The PIC #2 brochure was mailed directly to the members of the public listed on the general public contact list on June 15, 2010. In addition, approximately 33,000 PIC brochures were distributed to residences, businesses and property owners located within the two kilometre band centered on Highway 407 Corridor by Canada Post Unaddressed Mail Delivery service during the week of June 14, 2010. Additional copies of the brochure were available at the PIC.

The "Notice of Commencement of Transit Project Assessment Process" was placed in local newspapers to initiate the TPAP on August, 26, 2010. To meet the TPAP requirement to publish the notice on two days, the notice was published in the same local newspapers on the next publication date (i.e. August 28 or 29, 2010). Information about the project and how to submit comments to the Study Team was included in the notice.

The "Notice of Completion" was placed in newspapers concurrent with the release of this EPR. The notice provided details about the study, identified locations where copies of the EPR was available for public review, and identified the closing date for submissions of comments and how to contact the Study Team for further information or submission of comments.

3.4.2 Notification to Landowners in Close Vicinity of the Transitway

Meetings with landowners were held on October 21, 2009 and December 1, 2009 to discuss the study and received any comments.

The "Notice of Commencement of Transit Project Assessment Process" was mailed on August 25, 2010 to registered landowners whose properties are located within 30 metres of the 407 Transitway as per requirements under the Transit Projects Regulation. No responses from landowners from this notice have been received to date.

3.4.3 Public Information Centres (PICs)

Two rounds of PICs were held during this study to provide external agencies/stakeholders, property owners and the public with an opportunity to receive project-specific information, ask questions, share information about the study area, identify any support for and/or concerns with the project, and discuss these matters with the Study Team.

The PICs were organized as informal drop-in centres, where participants were encouraged to review displays and discuss issues with the Study Team. For each round of PICs, there were two PIC venues. For the first round of PICs, one was held just south of the study area at Black Creek Pioneer Village and one in Richmond Hill. For the second round, one was held at Black Creek Pioneer Village and one in Markham. Formal presentations were made twice at each venue of the second round of PICs.

Public Information Centre #1

The purpose of the first round of PICs was to present the information on past studies, need and justification, existing conditions, study objectives, station sites and route alternatives, and the technically preferred station and route alternative for public review and comment. A copy of the display panels shown at the PIC is found in **Appendix A.**

The PIC was held at Black Creek Pioneer Village on Tuesday, May 26, 2009 at 1000 Murray Ross Parkway in Toronto and at the Premiere Ballroom on Thursday, May 28, 2009 at 9019 Leslie Street in Richmond Hill. Both PICs were open to the public from 4:00 p.m. to 8:00 p.m.

A total of 98 people, 16 people at Black Creek Pioneer Village and 82 people at Richmond Hill, signed the attendance register including seven representatives of external agencies from MTO, the City of Vaughan, York Region Transit, the Town of Markham, the Region of York, and ORC.

A comment sheet was distributed to PIC attendants requesting responses to the following questions:

- Do you think implementation of the 407 Transitway will be an important investment to facilitate east-west mobility and reduce traffic congestion?
- Do you consider the 407 Transitway a priority transit infrastructure project?
- What is your current mode of transportation and would you switch if the 407 Transitway were built?
- If you become a transitway user:
  - For what purpose would you use it? (work, school, recreations, other)
  - How would you reach the 407 Transitway Stations (car, carpool, and other transit service – GO Train/Bus, subway, and bus)?
- Where would you get on and off?

The information provided by the public in response to these questions was taken into consideration by the Study Team during the TPAP.

Public Information Centre #2

The purpose of the second round of PICs was to present the preliminary design of the preferred alignment, design concepts of the stations, anticipated environmental impacts and mitigation measures proposed for public review and comment. A copy of the display panels shown at the PIC is found in **Appendix A.**

The PIC was held at Delta Markham Hotel on Thursday, June 24, 2010 at 50 East Valhalla Drive in Markham and at Black Creek Pioneer Village on Tuesday, June 29, 2010 at 1000 Murray Ross Parkway in Toronto. Both PICs were open to the public from 4:00 p.m. to 8:00 p.m. Two formal presentations per PIC venue were held at 5:00 p.m. and 7:00 p.m. by the project manager.

A total of 75 people, 60 people at Markham and 15 people at Black Creek Pioneer Village, signed the attendance register including 10 representatives of external agencies from MTO, the City of Vaughan, the Town of Markham, YRT, York Region Rapid Transit Corporation, Hydro One Networks Inc. and ORC.

3.4.4 Summary of Comments Received

Public Information Centre #1

Twenty-five comment sheets were completed at the PIC. In general, comments received at Black Creek Pioneer Village on May 26, 2009 focused more on the overall transit system of the region while comments received at Richmond Hill on May 28, 2009 contained concerns that were more from a resident/property owner perspective. Most of the comments received expressed that the 407 Transitway would be an important investment to facilitate east-west mobility; some responded that currently there is no east-west transit system that can be compared to the 407 Transitway; others pointed out the importance for connections with south-north transit services. However, one respondent had reservations that the 407 Transitway would reduce traffic congestion. The majority of the comments indicated that the 407 Transitway was a priority infrastructure project, while others indicated that the north-south and local east-west transit services were more of a priority.

The great majority of the respondents' current mode of transportation was the private automobile. Some respondents have expressed interest in switching to the 407 Transitway if the travel experience was convenient (i.e. ease of transfer to other transit services, travel time, affordability, etc.).

An equal number of responses indicated that the 407 Transitway would be used for recreation and employment destination. There were responses that indicated the potential for transit travel that will involve transfers between the subway stations to the 407 Transitway. The majority of the respondents were residents located between Leslie Street and Yonge Street. All comments received are presented in **Appendix A.**

A summary of the comments and issues raised by the public were:

- Must be affordable to users
- Project website needed
- How soon will it be operating?/Projected time frame too long
- Great project/Good idea
- Concerned about adverse impacts to natural heritage features such as woodlots, wetland habitats and species and neighborhood aesthetics
- Like the proposed routings of the transit way/Would like to see other connections added
- Fare integration between bus/subway/GO train, etc. to get the most out of the project
- Request for a copy of all or a portion of the PIC display panels
- Consideration for bike lanes and provision for pedestrian safety
- Important to have connections to transit hubs (i.e. Vaughan Corporate Centre, Richmond Hill Centre, Markham Town Centre, Bramalea City Centre)
- Concerns about increase in noise levels along Highway 407 Corridor – current noise levels near Leslie Street area are high
- Traffic on Leslie Street near the Highway 407 Corridor is already heavy and would not like to see it get worse
- There is no point to point convenient connection to get from the 407 Transitway to a bus that will go deep into residential areas
- A North/South solution is also important (parallel to Highway 404/DVP)
- Suggest a more "active" way of learning to supplement display panels. e.g. Computer activated exhibits
- Is completion of project dependent on future funding?
- Concerned about traffic safety if operated as a bus route due to winter weather
- Emergency vehicles should have access to the 407 Transitway
- More parking at the various sites
- Will shuttle buses be considered?
- Provide a multi-layer map showing the construction/operation schedules and proponent of the different transit projects in the area
- Prefer LRT over BRT, better investment for the long-term
- If transportation is an issue, add more busses on route to different destinations

A response was sent to a resident concerned about impacts to his/her neighbourhood in the Yonge Street area. The response informed the resident that the 407 Transitway facilities will be underground near the subject neighbourhood, thus not affecting the visual environment. Further, it recommended contacting the Town of Richmond Hill regarding land use concerns as land use master plan studies are being conducted by the Town.

Public Information Centre #2

Eleven comment sheets were completed at the PIC. The majority of the comments were submitted at Markham on June 24, 2010. Several sheets were taken away for completion at a later date, and four comments were received following the PIC.

The majority of the comments received from the members of the public were in favour of the 407 Transitway. Specific comments ranged from: the request to implement the project sooner; concerns regarding noise and air pollution; stormwater run-off issues, and, requests to plant hedges and trees to reduce noise and to beautify the area. Many comments suggested various changes to the recommended plan, such as allowing Viva Purple to use the transitway, building small retail and restaurants inside the stations, using subways instead of buses, decreasing the number of parking spaces at Leslie Station, and decreasing the length between transit facilities for better connectivity. All comments received are presented in **Appendix A.** A summary of comments and issues raised by the public and responses provided is provided in **Table 3-4**.

Comments received were:

- In favor of the 407 Transitway
- Provide both trees and noise solid barriers instead of just one of the options.
- Requested a hard copy of the PIC display panels.
- Requested to include small scale commercial retail stores and restaurants into the design of stations. The stations should also be clean and safe.
- Concerned about the excess of parking spaces at the Leslie Station.
- Requested the use of renewable energy, local and green construction materials, and energy efficiency strategies and technologies to build the stations.

Table 3-4: PIC Public Comments and Study Team Responses

Public Comments	Study Team Responses
Requested that the transitway be implemented sooner.	On November 28, 2008, Metrolinx adopted the RTP, also known as "The Big Move: Transforming Transportation in the Greater Toronto and Hamilton Area". Metrolinx is a Government of Ontario agency with a mandate to improve the coordination and integration of all modes of transportation in the GTHA. The RTP presents a plan of implementation and investment listing transportation projects in accordance to priority. The RTP has identified the 407 Transitway from Pearson International Airport to Kennedy Road in Phase Three of the 2008 investment plan which results in it being implemented in the period 16 to 25 years after the RTP release year. If you feel that the 407 Transitway is a project with greater priority than stated in the RTP, we advise that you contact Metrolinx to express your opinion.
Concerned about the increase in noise and air pollution.	Noise and air quality assessment studies are currently being conducted. The assessment studies will identify any potential noise and air quality impacts from the 407 Transitway and will provide, if required, mitigation measures to address the impacts. Results of the assessment studies will be documented in the EPR, which will be released for a 30-day public review. Information on where to review the EPR will be published in local newspapers and a letter will be mailed to you once the EPR is available.

Public Comments	Study Team Responses
Requested the planting of trees and hedges in the perimeter of the parking lots and the 407 Transitway alignment, in order to reduce noise, beautify the area, and provide safety for pedestrians.	A landscape planting plan based on the preliminary design has been developed. Further development of this plan will occur during the Detailed Design Stage.
Suggested allowing the Viva Purple to use the 407 Transitway between Bayview and Bathurst, and to also allow the YRT 300-series to use the transitway.	The primary travel market to be served by the 407 Transitway will be medium to long-distance trips as each segment of the entire length of the transitway (from Burlington to Highway 35/115) is implemented. Viva and YRT services offer more frequent stops on Highway 7 serving shorter-distance trips which are complementary to the 407 Transitway service. It will be possible for these operators to utilize portions of the transitway for express services on routes which are compatible with the transitway when it is implemented.
Concerned about existing bank erosion and encroachment on the Little German Mills Creek located in the southwest quadrant of Leslie Street and Highway 407. Increase quantity of stormwater runoff from new impermeable surfaces (i.e. proposed parking lot at Leslie Station) will further increase erosion and contaminant discharge into Little German Mills Creek.	A SWM assessment for the 407 Transitway is being conducted. All stormwater runoff generated by 407 Transitway facilities, including the Leslie Station, will be collected and treated prior to discharge in accordance with MOE, MTO and TRCA guidelines and best management practices. During the Detailed Design Stage of this project, a detailed SWM plan will be prepared and circulated to regulatory agencies for review. Erosion and sedimentation controls during construction and operation of the 407 Transitway are also being considered as part of this study. During Detailed Design Stage, an erosion and sedimentation control plan will be prepared and circulated to regulatory agencies for review.
Requested a transportation study at Leslie Street and Green Lane intersection. Currently, there are operational safety issues at Leslie Street and Green Lane intersection resulting in traffic accidents. Proposed Leslie Station will increase traffic volumes on Leslie Street resulting in an increase of traffic accidents.	The 407 Transitway study will address traffic effects at the entrance to the Leslie Station and along Leslie Street in the area. However, as Leslie Street is designated as a York Region Road, any additional transportation studies and information/request regarding Leslie Street and the Green Lane area in particular, should be directed to the Region.
Expressed that mitigation measures to protect local wildlife is essential during construction.	Potential impacts to wildlife and wildlife habitat are also being considered. For example, requirements under the *Migratory Birds Convention Act* and *Fish and Wildlife Conservation Act* will be met to protect the local wildlife during construction. One of the requirements under the two legislations is to prohibit removal of vegetation (wildlife habitat) from April 1 to July 31 of any given year. In addition, existing wildlife passages across Highway 407 and Highway 7 will be maintained for the 407 Transitway. The loss of wildlife habitat resulting from vegetation clearing will be off-set through restoration and enhancement measures. The type, area and location for habitat restoration and enhancement will be determined during Detailed Design Stage.
Suggested the use of subway system (rails) instead of buses to move more people in a shorter amount of time.	Rapid transit technology alternatives were considered, including BRT, LRT, AGT, Heavy Rail Transit (i.e. subway) and diesel multiple units (i.e. commuter rail). Each of the above candidate technologies was evaluated against four major criteria reflecting the near- and long-term needs and objectives for the 407 Transitway. These included: · transit service quality encompassing capacity required, user convenience and comfort, service speed and reliability and network connectivity/interlining; · planning considerations addressing infrastructure integration and the system's support of Provincial growth and planning policies; · environmental compatibility covering effects on the natural and socio-economic environment and energy consumption; and, · implementation considerations including ROW property needs, cost effectiveness and implementation staging. From the evaluation, it was determined that BRT was the preferred technology for the 407 Transitway because it provided capacity for the projected demand at the desired level of service and comfort. Similar to the other technologies, BRT is a low emission vehicle technology that is becoming more advanced, energy efficient and with improved emission control. Lastly, BRT's capital and operating costs are compatible with the size of the market for rapid transit service in the corridor compared to the other high capital investment technologies and the runningway and station infrastructure can be shared by other transit operators providing compatible services. Furthermore, the 407 Transitway is being designed to protect for future conversion to LRT technology to respond to the anticipated growth in ridership volumes beyond 2031.
Felt that the 5:00 p.m. presentation time was too premature, but staff was very knowledgeable and helpful in answering questions.	Two presentations were planned for each PIC venue: one at 5:00 p.m. and the other at 7:00 p.m. Therefore, members of the public who missed the 5:00 p.m. presentation had the opportunity to attend the 7:00 p.m. presentation.
Requested that at stations bus loops be closer to other transit facilities (i.e. GO Rail station, local bus stops, parking lots, etc) and access to arterial and highway roads be provided for better connectivity which will reduce transit running time, mileage and costs, and to improve direct routing.	Connectivity will be further optimized during the Detailed Design Stage.
Request to add a station at Dufferin Street.	The planning design of the 407 Transitway was presented to Vaughan Council and to the public at an open house in May 2009. The material presented summarized the methodology used to identify the proposed station locations and listed the purpose of each of the seven stations selected. In analyzing the optimum number and preferred location of stations, the study considered: surrounding land uses; connectivity with other transit systems; station spacing to optimize average speed of medium-long distance transit service; and, space available to accommodate station facilities required to support the station functions (park-and-ride, PPUDO, bus transfer, etc.). The analysis recognized the major residential growth area in Vaughan and Richmond Hill between Dufferin Street and Bathurst Street, both north and south of the Highway 407 Corridor and determined that a single station between Yonge Street and GO Barrie (Concord) Station was the optimum solution to meet the above key considerations. Given the dispersed natural of the residential area, the station site must provide park-and-ride access, good transit connections and the opportunity for bicycle and passenger pick-up/drop-off. Bathurst Street was selected as the preferred station site because it: · allows connections with the Viva Purple service from Bathurst and Centre Street south of 407 and can also be accessed for YRT stops on Bathurst Street north of Highway 7; · has publicly-owned land available for park-and-ride to offset the lack of parking available at Yonge Street and serve the residential neighbourhoods north and west of the station; · the site can accommodate bus terminal platforms to allow community YRT bus service to feed residents to the transitway (such as the current

Public Comments	Study Team Responses
	Route 87 operated by YRT); · can be reached from the residential areas via collector and arterial roads such as Autumn Hill Blvd., Summeridge Drive, Bathurst Street, Thornhill Woods Drive, Highway 7; and, · complements the access from the western growth areas provided by the GO Barrie Rail Station by serving the more eastern growth areas.
Concerned over the transitway's interference with a local place of worship.	After review of the proposed plan in the area, the member of the public was satisfied with the proposed plans.
Improve point-to-point travelling by introducing shorter but more frequent bus (mini-bus) routes that extend into residential areas from the transitway.	The introduction of mini-bus routes would be an ideal method for improving point-to-point travel to and from the transitway and enhancing the connectivity of the transit system. Such service would typically be facilitated or provided by other local transit services such as YRT. The scope of the current 407 Transitway study includes the fully grade separated infrastructure planned. Demand forecasting for the transitway has assumed the provision of convenient, frequent feeder services to the transitway stations by other local transit agencies.
Improve bike traffic, especially that crossing Highway 404 by introducing dedicated bike lanes along the transitway;	A bike and ride parking facility will be provided at each of the planned seven stations. However, due to the limited ROW for the transitway itself, the inclusion of a bikeway (a part of the ROW set aside for the preferential treatment of bicycle traffic, made up of one or more bicycle lanes) along the transitway is not practical. The transitway is a fully grade separated facility designed for high-speed (100km/h plus) standards, not compatible with freeway bike lanes running alongside. Unless continuous barriers were provided and the numerous structures were widened, parallel bike lanes would pose potential safety concerns for bicycle riders and transit passengers alike.
Platforms should be built at bus stops along the transitway to facilitate boarding and alighting; the platforms should be built in a way to be easily converted for use by future light rail transit.	The MTO's Transitway Design Standards require platforms to be installed at each transitway station and provision will be made for future conversion LRT.

Additional Comments Received

The Concord West Residents Ad Hoc Committee made up of residents in the residential area between Highway 7 and Highway 407 and Keele Street to Centre Street, submitted a letter to MTO on September 27, 2010 presenting an alternative location for the GO Barrie (Concord) Station. The alternative presented by the Committee was to locate the station north of Highway 7 in and around the Concord Floral lands. A response letter dated December 8, 2010 indicated that evaluations of four alternative configurations including the committee's proposal were conducted. An evaluation matrix and drawings were presented (see **Appendix A**). It was concluded that the technically preferred preliminary design alternative, which was developed in consultation with the TRG members, was the most suitable option for the transportation needs at this location. The preferred alternative allows opportunities to mitigate effects on the surrounding communities and improve access to valleylands. It includes the construction of a safe pedestrian crossing of the rail line, which does not currently exist and continuous access through the facilities from the Concord West community to the valley lands. The committee also presented to the MTO a recent sighting of the Blanding's Turtle at the GO Barrie (Concord) Station area. The Blanding's Turtle is regulated under the provincial *Endangered Species Act* and the federal *Species at Risk Act*. The preferred alternative maintains a riparian corridor for turtle and other wildlife migration, as habitat for Blanding's Turtle is not believed to be present at this location. The preferred design also maintains an adjacent woodlot. Further investigations to confirm the presence/absence of Blanding's Turtle and its habitat will be carried out during the Detailed Design Stage. The response indicated that the lands in question have been retained by the Province solely for this planned transportation infrastructure. It was noted that if not required for this transportation infrastructure, the lands would be sold for other uses and community access to the valley at this location could be lost.

MTO received a reply from the Committee on December 16, 2010. MTO has offered to meet with the Concord West Residents Ad Hoc Committee at their earliest convenience to determine if there is any additional mitigation possible to address their concerns.