

7. Public and Stakeholder Consultation

In accordance with the MOE's *Code of Practice for Preparing and Reviewing Environmental Assessments in Ontario (November 2008)*, York Region undertook a comprehensive public and stakeholder consultation program throughout the IEA study process. An overview of the consultation activities undertaken by York Region is provided below. **Figure 7-1** depicts the consultation activities carried out during key study milestones.



* Public Consultation Centre #3 addressed issues for stages 1 and 2

Figure 7-1 Western Vaughan IEA Key Consultation Activities

7.1 Consultation and Communications Plan

The Consultation and Communications Plan for the IEA was designed to ensure the involvement of residents, review agencies, First Nations and other stakeholders during each stage of the IEA process, in order to fulfill the IEA mandatory points of agency and public contact as required by the approved ToR (refer to **Appendix 1**). The plan was guided by the following principles:

- a) That the process be clear, open and inclusive;
- b) That stakeholder concerns be identified early in the process, and addressed (where possible) in the IEA;
- c) That there be multiple consultation opportunities, using a number of techniques throughout the IEA; and
- d) That issues and concerns, and responses to them, be documented as part of the IEA.

Based on these principles, the consultation plan was developed to meet four primary goals: to build and enhance awareness and information; to provide multiple consultation opportunities; to identify and resolve issues; and to ensure feedback and documentation. Specific objectives were identified in support of each of these main objectives, as follows:

Goal 1. Build and Enhance Awareness and Information

- a) Enhance awareness of the IEA process and the opportunities for people to get involved;
- b) provide people with timely, clear and understandable information so that they can be meaningfully involved in the IEA;
- c) establish two-way communication between York Region, the project consultant team and the public and stakeholders with the view to having a better understanding of challenges and opportunities;
- d) utilize a variety of communication techniques to seek input including verbal (face to face, telephone) written (letters, e-mail, comment sheets) and meetings;
- e) utilize both web-based and print materials to ensure ready access to information and study reports; and
- f) educate the community and stakeholders about the transportation challenges and opportunities within the Study Area and the connections between sustainable growth management, their own lifestyle choices, transportation infrastructure planning and the overall quality of life in York Region.

How York Region Accomplished Goal 1

Through the establishment of a project website, and the wide distribution of Public Consultation Centre (PCC) notices and other communications material, many local residents became aware of the project. The five rounds of PCCs provided multiple opportunities for residents and stakeholders to get engaged throughout the EA process, while neighbourhood meetings provided an opportunity for more detailed examination and discussion of specific concerns.

Goal 2. Provide Multiple Consultation Opportunities

- a) Engage the public and stakeholders through a variety of participation methods and accessible and timely opportunities to be involved throughout the IEA;
- b) facilitate public discussion about the transportation alternatives for the Study Area in the larger regional context;
- c) be flexible to accommodate the needs of participants and responsive to input from the public and stakeholders; and
- d) ensure access to participation through accessible venues.

How York Region Accomplished Goal 2

York Region developed a flexible consultation program designed to engage residents and stakeholders through several strategies, including:

- A Stakeholder Sensitivity Analysis;
- A project website;
- Five rounds of PCCs;
- Six Community Stakeholders Advisory Committee meetings comprised of local residents, business owners, environmental and transportation organizations and property owners;
- A project newsletter;
- Neighbourhood meetings;
- Meetings with property owners;
- Six Review Agency Advisory Committee meetings including representatives of agencies and corporations;
- Additional consultation with individual review agencies; and
- A separate but parallel consultation process for First Nations.

Goal 3. Identify and Resolve Issues

- a) Consider all points of view and input received throughout the IEA process; and
- b) resolve issues where possible.

How York Region Accomplished Goal 3

Throughout this IEA, York Region was guided by two advisory committees comprised of residents, agencies and other key stakeholders: the Review Agency Advisory Committee (RAAC) and the Community Stakeholders Advisory Committee (CSAC). York Region also met regularly with individual review agencies and other stakeholders, including property owners, to discuss issues of concern, and incorporated the outcome of these discussions into the design work carried out. York Region also pro-actively reached out to those local neighbourhoods with concerns about potential noise, safety and design effects, and public and private property acquisition resulting from the proposed road and transit improvements. These neighbourhood meetings allowed residents to identify their concerns and obtain direct feedback from technical experts on the project team.

Goal 4. Ensure Feedback and Documentation

- a) Provide documentation of input throughout the IEA including questions, comments and concerns that are received;
- b) prepare summaries of input from consultation events;
- c) prepare notes of meetings with stakeholders;
- d) use the project website to regularly post project updates, interim reports, technical reports, meeting notes, summaries from consultation events and an e-mail sign-up sheet; and
- e) provide timely responses to questions, comments and concerns that are received.

How York Region Accomplished Goal 4

York Region documented and responded to questions and comments from stakeholders and residents in a timely manner, and provided records of meetings to the agencies and individuals with whom meetings were held. Notes of CSAC and RAAC meetings were also made public through the project website.

The Consultation and Communications Plan is located in **Appendix 7A**.

7.2 Stakeholder Sensitivity Analysis

As part of the development of this Consultation and Communications Plan, York Region conducted a Stakeholder Sensitivity Analysis (SSA), which involved telephone and face-to-face interviews with a diverse cross-section of potential stakeholders perceived to have interests in the Study Area.

In September and October 2007, forty interviews were conducted with ratepayer organizations, major employers, agencies, environmental interest groups, transportation organizations and business representatives. The purpose of the interviews included the following:

- a) to establish contact and provide information about the IEA;
- b) to obtain input on how people would like to be consulted during the IEA;
- c) to discuss the use of web communications;
- d) to identify preliminary study concerns; and
- e) to determine interest in participating on advisory committees.

The key issues raised by interviewees included:

- traffic congestion is a significant issue in the Study Area, and is the result primarily of poor planning and rapid growth;
- improvements to public transit are required to address congestion; and
- effects on significant environmental and heritage features must be avoided wherever possible.

The SSA report is included in **Appendix 7B**.

7.3 Consultation with the Public

7.3.1 Notice and Letters of Study Commencement

A Notice of Study Commencement was advertised in the Vaughan Citizen on **November 9, 2007** and **November 16, 2007** and the Toronto Star on **November 16, 2007**, and through direct mailings to

stakeholders and agencies within the Study Area on **November 9, 2007**. Through these advertisements and direct mailings, the public and stakeholders were provided the necessary information on the project commencement, a map of the Study Area, the purpose of the study, how to obtain an expression of interest form to join one of the Advisory Committees and main contact information for York Region's project manager and its consulting team.

A copy of the Notice of Study Commencement and a sample Letter of Study Commencement are included in **Appendix 7C**.

7.3.2 Project Website

York Region established a project website (<http://www.york.ca/westvaughaniaea>) as a communication vehicle and media relations tool to reach out to stakeholders and residents. The website included background information about the study and IEA process, an overview of the schedule, a map of the Study Area, and a list of frequently asked questions (FAQs). It also provided summaries of all advisory committee meetings, posted the dates of the PCCs and allowed visitors to view and download study materials.

Also included on the site was a comment form that allowed visitors to send questions and/or comments to the project team. This input was recorded and responses were issued by e-mail. Comments and information were maintained on file for use during the IEA process. Information collected was used in accordance with the *Freedom of Information and Protection of Privacy Act*.

7.3.3 Public Consultation Centres

York Region hosted five rounds of PCCs during IEA. For each round, two to three PCCs were held at different venues within the Study Area in order to better accommodate local residents. The purpose of the PCCs was to engage residents and stakeholders in the study process, while providing an opportunity for attendees to discuss relevant issues directly with the project team. Notification of each PCC was accomplished through the following means:

- a) Publishing a notice in the Vaughan Citizen and The Toronto Star. Two notices were published in both newspapers prior to each round of PCCs.
- b) Posting the notice on the project website.
- c) Placing copies of the notice at the following locations within the Study Area:
 - Al Palladini Community Centre
 - Chancellor Community Centre
 - Father Ermanno Bulfon Community Centre
 - Vellore Village Community Centre
 - Woodbridge Pool & Memorial Arena
 - Ansley Grove Library
 - Kleinburg Library
 - Pierre Berton Resource Library
 - Woodbridge Library
- d) Mailing the notice to nearly 30,000 homes within the Study Area through Canada Post; and,
- e) Mailing and e-mailing the notice directly to individuals in the contact database, including agencies, municipalities, councillors, emergency services, utilities, interest groups, and residents who had previously participated or expressed interest in the project.

Materials provided at each event included a copy of the presentation (with the exception of PCC #1, where there was no presentation), a comment form soliciting input, and other related materials. Following each PCC, the presentation slides, display panels and other materials presented were posted to the project website. Individuals who attended the events were added to the project contact list to ensure that they received future project notifications and other information relevant to the study.

Table 7-1 provides an overview of each of the five rounds of PCCs. **Appendix 7D** comprises the public notices for each event, as well as the materials presented during each round.

Table 7-1 Summary of Public Consultation Centres

Date / Time	Location	Attendance	Purpose	General Feedback Received
PCC Round #1				
Tuesday, February 12, 2008 4:30 to 8:30 pm	Al Palladini Community Centre	15	To review information on the problem/opportunity statement, study process and objectives, and current and future traffic conditions	<ul style="list-style-type: none"> All modes of transportation improvements being examined should be considered for implementation. Consider expanding the Study Area. Ensure the protection of conservation areas.
Wednesday, February 13, 2008 4:30 to 8:30 pm	Vellore Village Community Centre	30		
Wednesday, February 20, 2008 4:30 to 8:30 pm	Woodbridge Pool and Memorial Arena	25		
PCC Round #2				
Tuesday, March 10, 2009 4:30 to 8:30 pm	Woodbridge Pool and Memorial Arena	85	To review information on the project background, development of the long list of Alternatives to the Undertaking (i.e., transportation networks), screening of the alternatives, and the preliminary evaluation of the short-listed alternatives	<ul style="list-style-type: none"> Efficient transit is important. Existing congestion needs to be addressed. Increased traffic and noise is a concern on roads to be widened. Effects on Boyd Park and the Kortright Centre are a concern.
Wednesday, March 11, 2009 4:30 to 8:30 pm	Hilton Garden Inn	50		
PCC Round #3				
Tuesday, June 23, 2009 6:00 to 9:00 pm	Woodbridge Pool and Memorial Arena	25	To provide an update on the evaluation of Alternatives to the Undertaking; to confirm the results of the evaluation; to introduce the potential road alignments to be evaluated during the upcoming Alternative Methods stage; and to obtain input on the issues to be considered during the Alternative Methods evaluation.	<ul style="list-style-type: none"> Improvements should support transit, not more road infrastructure. Noise, emissions, and traffic will be concerns in communities along study corridors. Alignments of improvements must avoid natural and community features.
Wednesday, June 24, 2009 6:00 to 9:00 pm	Vellore Village Community Centre	22		
PCC Round #4				
Tuesday, March 9, 2010 6:00 to 9:00 pm	St. Jean de Brebeuf Catholic High School	30	To provide a summary of the results of the evaluation of Alternative Methods of Carrying Out the Undertaking (i.e., road and transit alignments) in each arterial road corridor and to confirm the results of the evaluation; and to identify opportunities for community-level consultation concerning potential effects.	<ul style="list-style-type: none"> Traffic increases, noise, pedestrian safety, and "highway" feel are concerns, particularly along Rutherford Road. HOV lanes may be misused by drivers who are not carpooling. Off-street cycling paths will be safer than on-street lanes.
Wednesday, March 10, 2010 6:00 to 9:00 pm	Emily Carr Secondary School	45		
PCC Round #5				
Wednesday July 21, 2010 6:00 to 9:00 pm	St. Jean de Brebeuf Catholic High School	30	To review the preliminary road and transit designs in each of the five arterial road corridors of the	<ul style="list-style-type: none"> Reliable transit service is needed on all north-south and east-west corridors.

Table 7-1 Summary of Public Consultation Centres

Date / Time	Location	Attendance	Purpose	General Feedback Received
Tuesday, July 27, 2010 6:00 to 9:00 pm	St. Jean de Brebeuf Catholic High School	40	Preferred Undertaking, their potential effects, and the mitigation measures proposed to address the effects; and to discuss the draft phasing plan for project implementation	<ul style="list-style-type: none"> Traffic noise is already a problem on Highway 27, and could become worse with widening. Having sidewalks and bicycle lanes so close to live traffic lanes is a safety concern. The medians raise concerns about left-turn access, as well as maintenance of the vegetation

Participants at each PCC were encouraged to provide feedback in several ways, including verbally during presentation “question and answers” (except at the first event, which followed an open house format); on comment forms provided at each PCC; and through follow-up correspondence.

7.3.4 Community Stakeholders Advisory Committee Meetings

A CSAC was established to obtain study input from community and business leaders. More specifically, the CSAC was created to:

- a) Share information and knowledge of the Study Area;
- b) Assist in identifying current and potential local transportation issues;
- c) Review elements of the Public Consultation and Communications Plan;
- d) Review consultant and staff presentations and reports;
- e) Provide input on the evaluation of Alternatives to the Undertaking (i.e., alternative transportation networks) and Alternative Methods of Carrying Out the Undertaking (i.e., road and transit alignments), including the evaluation criteria and indicators;
- f) Provide input on the development and assessment of the Preferred Undertaking (preliminary design for the road and transit improvements); and
- g) Encourage members to update the project status for those organizations and individuals they represent.

The CSAC comprised 12 local residents and business owners, environmental and transportation organizations, and property owners. Specifically, the composition of this committee included:

- Business Representative (1)
- Citizens (2)
- Cole Engineering (1)
- Friends of Boyd Park (1)
- Kleinburg and Area Ratepayers Association (1)
- Nashville Ratepayers Association (1)
- Smart Commute – Vaughan (1)
- Sonoma Heights Ratepayers Association (1)
- TACC Construction Limited (1)
- Vaughan Chamber of Commerce (1)
- West Humber Naturalists (1)¹

Meetings were held regularly with the CSAC to update the status of the project, obtain feedback on each stage of the IEA, and outline future steps in the study process. Most meetings were led by an independent facilitator while project team members presented information and answered questions throughout. A summary of each CSAC meeting is provided below.

1. The representative from the West Humber Naturalists resigned from the CSAC in 2009.

Meeting #1: January 22, 2008

The CSAC met on January 22, 2008 with twelve members in attendance. The purpose of the first meeting was to:

- Introduce the project team to the CSAC members;
- Provide an overview of the committee's role and responsibilities;
- Summarize the project history;
- Present the proposed Purpose of and Rationale for the Undertaking;
- Provide an overview of the proposed material to be presented at the first round of PCCs; and
- Outline the next steps in the IEA process.

Meeting #2: June 17, 2008

The CSAC met on the evening of June 17, 2008 with seven members in attendance. The purpose of the second meeting was to:

- Provide an update on the project, including comments received from PCC #1;
- Summarize the existing environmental Study Area conditions;
- Provide an overview of the long list of Alternatives to the Undertaking;
- Describe the screening methodology for identifying the three short-listed Alternatives to the Undertaking and present the preliminary screening results;
- Present the proposed criteria, indicators, and measures for evaluating the short-listed Alternatives to the Undertaking; and
- Describe the project schedule and future activities.

Meeting #3: October 21, 2008

The CSAC met on the evening of October 21, 2008 with ten members in attendance. The purpose of the third meeting was to:

- Present the refined screening process, which was updated based on comments from the previous RAAC and CSAC meeting;
- Describe the evaluation methodology for comparing the short-listed Alternatives to the Undertaking and present the preliminary evaluation results; and
- Discuss and seek input on the Preliminary Recommended Alternative to the Undertaking – Alternative #8.

Meeting #4: June 11, 2009

The CSAC met on the evening of June 11, 2009 with eight members in attendance. The purpose of the fourth meeting was to:

- Provide an update on the project, including comments received from PCC #2 on the evaluation of Alternatives to the Undertaking;
- Review the information being presented to the public at the upcoming PCCs;
- Seek input on alternative alignments to be considered for each of the five arterial corridors during the Alternative Methods of Carrying out the Undertaking stage; and
- Seek input on the proposed criteria for evaluating the alternative alignments.

Meeting #5: October 27, 2009

The CSAC met on the evening of October 27, 2009 with eight members in attendance. The purpose of the fifth meeting was as follows:

- Provide an update on the project, including comments received from PCC #3 on the Preferred Alternative to the Undertaking and the proposed alternative alignments;
- Present the results of the corridor optimization process associated with the Preferred Alternative to the Undertaking, including the removal of the Pine Valley Drive improvements between Rutherford Road and Teston Road from the study;
- Review the alternative alignments that were developed;
- Present the preliminary assessment of the Alternative Methods of Carrying out the Undertaking, including the net effects assessment of all alignments and the comparative evaluation of alternative alignments; and
- Review the future steps in the process.

Meeting #6: July 13, 2010

The CSAC met on the evening of July 13, 2010 with five members in attendance. The purpose of the sixth meeting was to:

- Provide an update on the project, including the status of technical studies and consultation activities undertaken since the last meeting;
- Review the information to be presented at the upcoming PCC #5;
- Present the preliminary designs associated with the Preferred Undertaking (i.e., preferred road and transit alignments);
- Present the methodology and preliminary results of the effects assessment; and
- Discuss the potential effects and their mitigation measures associated with the preliminary designs.

A copy of the meeting notes for all CSAC meetings is located in **Appendix 7E**.

7.3.5 Project Newsletter

A project newsletter was circulated in **February 2010**, prior to the fourth round of PCCs, as a means of communicating to the public about where transportation improvements were proposed and what they might look like. The intent of the newsletter was to raise the profile of the project and to identify any community concerns that had not yet been raised. Newsletter content focused on:

- Study background, including the rationale for the improvements;
- An explanation of the improvements proposed for each corridor;
- An overview of how the project team was assessing and addressing potential environmental effects; and
- Inviting residents and stakeholders to attend the fourth PCC.

In addition to being mailed to nearly 30,000 homes in the Study Area, the newsletter was sent to individuals included in the contact database comprising agencies, municipalities, councillors, emergency services, utilities, interest groups and residents who had previously participated or expressed interest in the study. A copy of the newsletter is included in **Appendix 7F**.

7.3.6 Neighbourhood Meetings

In response to individual concerns raised at PCC Rounds #4 and #5, York Region met with local ratepayer groups and residents to address potential effects resulting from the transportation improvements. The first two meetings were held on July 7 and 15, 2010 with residents living adjacent to Rutherford Road, including the Sonoma Heights Ratepayers Association. A third meeting was held with the West Woodbridge neighbourhood, located adjacent to Highway 27, on August 25, 2010.

The key issues discussed at each neighbourhood meeting primarily revolved around:

- Potential changes in noise levels resulting from transportation improvements;
- Proposed measures to address potential effects on safety;
- Public and private property acquisition requirements required to construct the proposed improvements; and
- Phasing and implementation of the transportation improvements.

A summary of the neighbourhood meetings is included in **Appendix 7G**.

7.3.7 Meetings with Private Property Owners

During the course of the study, several meetings were held with private property owners in the vicinity of the study corridors to address property issues and to initiate discussion concerning potential acquisitions or easements. In the case of one particular property owner, U-PAK, whose property is required for the jog elimination at Major Mackenzie Drive and Highway 27, York Region had an initial meeting to present the proposed alternative alignments associated with Segment MM-2 (Alternative Methods of Carrying out the Undertaking) and a follow-up meeting to present the preliminary results of the comparative evaluation.

Further to these meetings, York Region received correspondence from U-PAK that included a concept plan for a proposed subdivision at this location that reflects the preferred alternative alignment for the Major Mackenzie Drive jog elimination identified through Alternative Methods. York Region reviewed this concept plan and confirmed its compatibility with the preliminary design, also noting that U-PAK will be required to provide noise mitigation for future residences at this location, in accordance with York Region's Standard Operating Procedures (SOP) for Traffic Noise Mitigation.

7.3.8 Summary of Comments Received from the Public

Table 7-2 summarizes general comments or "themes" expressed by the public at PCCs, Advisory Committee meetings, or through other correspondence. It also identifies how York Region considered and, where appropriate, addressed each comment.

Appendix 7H lists in detail the comments received from the public, the context of the comment, and the consideration provided by York Region.

Table 7-2 Summary of Comments Received from the Public

General Comment or Question	Consideration
Traffic Modelling	
How will developments such as the planned subway extension, the planned Highway 427 extension, and the proposed provincial east-west transportation corridor (GTA West Corridor) affect the traffic projections used in this study?	The traffic modelling that was completed for this study assumes implementation of the subway extension, the extension of Highway 427 to Major Mackenzie Drive, and the GTA West Corridor. The latter, which is north of the Study Area, is not expected to affect traffic levels on the study corridors. Conversely, the extension of Highway 427 to Major Mackenzie Drive accelerates the need for improvements to Major Mackenzie Drive, as the highway is designed to terminate at this location and there are no current plans to extend the highway further north. Thus, Major Mackenzie Drive will have to accommodate the increased levels of traffic from the highway.
Public Transit	
Improvements to public transit service are an important transportation need in Western Vaughan.	Transit improvements, as well as travel demand management (TDM) and transportation systems management (TSM) are needed to enhance mobility through 2031. This conclusion was based on detailed traffic modelling that considered existing and future levels of congestion using planned and anticipated population and employment growth.
How is transit usage reflected in the transportation model?	The model captures observed increases in transit use. Therefore, the model estimates provide a reasonable and defensible basis for estimating future demands by motor vehicles (automobiles and trucks) and transit, and for assessing the implications of planned and other possible transit service improvements on future motor vehicle demands.
Transit improvements should be more focused in higher density areas, not implemented along arterials with low development density.	Proposed transit improvements are intended to accommodate future development over the next twenty years. Short term-transit planning is the responsibility of York Region Transit, which is looking at innovative solutions for effectively serving high-density areas. This would include Bus Rapid Transit in exclusive rights-of-way and Light Rail Transit.
The only way to encourage transit use is to offer a full north-south, east-west transit route grid.	This project is intended to achieve such a transit network with transit facilities on all major north-south and east-west corridors. These facilities would be linked into the evolving transit initiatives in the City of Vaughan and the rest of the Greater Toronto Area.
Bus ridership is too low to justify dedicated transit lanes, due to poor access to routes and expensive fares.	York Region Transit has already seen increased ridership due to York Region's commitments to transit improvements and expects more ridership in the future due to plans like this. Putting more buses in mixed traffic on roads that cannot accommodate them will be ineffective. The purpose of providing dedicated lanes is to give the priority to buses. We need to optimize the functionality of the transit system that currently exists and then expand it.
Road Improvements	
Consider expanding the Study Area to the north to provide an alternate route that avoids Kleinburg.	York Region considered an expansion of the Study Area to provide an alternative route north of Kleinburg. However, York Region determined that it could not support any such route due to the location of sensitive environmental features, including the Humber Valley.
Can the discontinuity in Pine Valley Drive south of Rutherford Road be eliminated?	The Minister of Environment amended our ToR to exclude any option through Boyd Conservation Area. Therefore it is not possible to open Pine Valley Drive south of Rutherford Road.
It may not be necessary to expand both Rutherford Road and Major Mackenzie Drive to a full six lanes. A six-lane expansion on Major Mackenzie Drive between Islington Avenue and Pine Valley Drive would impact conservation areas, while a six-lane expansion on parts of Rutherford Road would put lanes too close to homes.	Traffic modelling during the corridor optimization process (following the selection of Alternative #8 as the preferred Alternative to the Undertaking) confirmed that both Major Mackenzie Drive and Rutherford Road will need to be expanded to six lanes to accommodate the projected traffic increases between 2006 (the base year) and 2031. For the section of Major Mackenzie Drive between Islington Avenue and Pine Valley Drive, the median has been reduced in width to 1.5 metres to reduce the impact on the adjacent conservation areas. Along Rutherford Road, the new boulevard, which will separate the road from adjacent homes, will range in width from 4.4 metres to 8.8 metres.
High-Occupancy Vehicle (HOV) Lanes	
HOV lanes will be ineffective due to non-compliance.	Experience with High-Occupancy Vehicle (HOV) lanes within the City of Toronto and other municipalities show that compliance on arterial HOV lanes is high enough to significantly increase the efficiency of their use.
Natural Environment	
Ensure the protection of conservation areas, including Boyd Conservation Area and Kortright Centre for Conservation.	York Region worked closely with the Toronto and Region Conservation Authority (TRCA) throughout the EA to ensure that key natural heritage features, such as the Boyd Conservation Area and Kortright Centre for Conservation, are protected and enhanced where possible. Any displacement of habitat within these and other significant natural features will be compensated through replacement plantings in areas that are acceptable to the TRCA.

Table 7-2 Summary of Comments Received from the Public

General Comment or Question	Consideration
Alignments of improvements must avoid natural and community features.	York Region designed the alignments to avoid natural and community features wherever possible. Where features cannot be avoided, mitigation measures and/or compensation have been identified to address the effects on those features.
Impact on wildlife habitat is a concern. Provide wildlife crossings on Major Mackenzie Drive and Rutherford Road to improve connectivity between Boyd Conservation Area and Kortright Centre for Conservation	Three new wildlife crossings will be provided along the stretch of Major Mackenzie Drive between Islington Avenue and Pine Valley Drive to improve connectivity. These crossings, which are openings four metres wide by two metres high, will allow smaller mammals to travel under Major Mackenzie Drive, while larger animals will be able to cross under Major Mackenzie Drive at the two new bridge structures located at the East Humber River and at Purpleville Creek. These new bridge structures will also accommodate recreational users who wish to cross under Major Mackenzie Drive.
Public Health and Safety	
Public health and safety and the potential effect on health of residents affected by road widenings to accommodate more vehicles during rush hour should be considered.	Public health and safety was considered during the development of conceptual and preliminary designs for the improvements, as well as during the evaluation of improvements. Regarding public health, an air quality assessment was undertaken as part of the EA and concluded that there would be no measurable change in pollutant levels associated with vehicular traffic as a result of the improvements. In terms of public safety, the design of the improvements will result in improved safety for drivers and pedestrians due to the presence of the median (which slows traffic), reduced speed limits, and roads that meet all Regional Design Standards (older roads such as Major Mackenzie Drive do not meet new standards).
Widening roads to six lanes will increase traffic and noise pollution, and make streets less pedestrian and cyclist-friendly.	The recommended six lane cross-section accommodates pedestrians through sidewalks in the boulevards, and cyclists through on-road bike lanes. In addition, the cross-section also includes one HOV lane in each direction for carpoolers and buses, which is intended to reduce the number of vehicles on the road. A detailed noise assessment was completed as part of the EA to determine changes in noise levels and applicable measures to reduce noise. The assessment concluded that, on average, the improvements would result in increases in noise levels of less than 1 decibel, which is not noticeable to the human ear.
Pedestrian and cyclist safety in school zones on Rutherford Road is a concern.	The recommended six lane cross-section accommodates pedestrians through sidewalks in the boulevards, and cyclists through on-road bike lanes. York Region recognizes that some cyclists, especially children, may not be comfortable cycling on the road, even in dedicated bike lanes. Furthermore, we understand that cycling in the vicinity of the Emily Carr Secondary School is especially concerning for parents. York Region has determined that there is room for an off-road bike path on the southeast corner of Rutherford Road and Islington Avenue and is willing to work with the City of Vaughan to develop an appropriate off-road bike path for high school children.
On-road bicycle lanes are a safety concern - an off-street facility would be better.	York Region Council has approved the six lane cross-section, which includes on-road bicycle lanes. Council's opinion is that dedicated lanes are better than cyclists sharing general purpose lanes with motorized vehicles. One of the challenges with the off-road option is how to ensure the safety of cyclists at intersections. Motorists don't expect to encounter cyclists entering the intersection from an off-road facility. However, off-road bicycle lanes or other means of separating cyclists from vehicular traffic may be considered as York Region proceeds with detailed design.
A road safety audit, and/or a human factors review of the proposed designs should be undertaken as part of this study.	All designs are based upon established industry standards and York Region Design Guidelines. Human Factor issues such as perceived location of signs, lane markings and potential visual distractions were reviewed and considered to the extent possible as part of the preliminary design.
Noise	
Will the study be measuring noise levels before and after construction?	York Region's SOP for Traffic Noise Mitigation on Regional Roads recommend establishing sound levels before construction and during operation through the use of computer models, rather than actual field measurements. These computer models use actual traffic data and projected congestion levels to determine sound levels. The modelling analysis predicts the noise levels before and after construction, but these projections will be update based on the observed noise levels.

Table 7-2 Summary of Comments Received from the Public

General Comment or Question	Consideration
How was the 60-decibel figure established for the purposes of noise mitigation? Does the figure represent an average or a maximum?	The 60-decibel criterion was established by York Region based on similar guidelines established by the Ministry of Transportation (MTO). The MTO guidelines use 65 decibels as the threshold for mitigation, so the Regional guidelines are more stringent. The 60-decibel figure represents the average noise levels over a 16-hour period.
How did York Region determine what homes qualify for noise mitigation?	Noise barriers have been recommended in locations where traffic associated with the improvements is anticipated to result in noise increases of 5 decibels or more or where noise levels will be above 60 decibels, and where noise barriers will reduce noise levels by 6 decibels or more. This approach is consistent with York Region's SOP for Traffic Noise Mitigation on Regional Roads. A total of ten homes have been identified as qualifying for noise barriers, based on the detailed noise assessment that was completed for this study.
Noise levels are already disruptive with current levels of congestion. What will York Region do to address the current situation?	According to York Region's SOP, on capital projects (such as those associated with this IEA) where privately owned noise barriers already exist along reverse frontage properties, new noise mitigation will not be provided. However, the SOP also identifies opportunities for implementing retrofit noise mitigation. All residential areas adjacent to a Regional road that are reverse frontage/flanking homes and have outdoor living areas (such as backyards) that are directly exposed to traffic noise meet York Region's policy criteria for retrofit locations and will be considered on a case-by-case basis by Regional Council. The prioritization of these sites will be on the basis of need, cost, benefit derived, and number of receivers, which are being protected. Where retrofits are approved by Council, York Region will construct noise barriers up to a maximum of 3 metres in height.
Property Values and Economic Impacts	
Property values along improved roads could suffer.	York Region has been responsible for widening and improving arterial roads throughout the Region for over 30 years. Regional staff has not seen a direct link between road improvements and a decrease in property values.
The criteria and indicators identified in the ToR for assessing community and neighbourhood impacts are not of a level appropriate to identify the specific impacts to the neighbourhoods impacted by the project, such as Sonoma Heights and Weston Downs.	The criteria and indicators listed in the ToR have been modified as the project has progressed to reflect the increasing level of detail associated with the designs and the interests of stakeholders. The analysis of community and neighbourhood impacts has considered the effects of the designs on connectivity and access, safety, noise, property, and community character.
What mitigation is available for communities and businesses losing left-turn access because of the medians?	Businesses suffering a demonstrable loss of revenue as a result of the reduction in access can apply to be compensated by York Region.
The EA Process	
When would improvements be implemented, and with what consultation measures?	A proposed phasing plan has been put forward as part of the IEA; however, the actual dates of construction are based on York Region's 10-year capital plan. The proposed phasing plan recommends that Major Mackenzie Drive be implemented within the next 10 years to coincide with the extension of Highway 427. By 2030, Rutherford Road west of Highway 27, Weston Road, and Pine Valley Drive would be built, followed by the remainder of Rutherford Road and Highway 27 beyond 2031. York Region will continue to keep the public informed of the status of the improvements as the work proceeds through to detailed design and ultimately construction.
Once the EA is approved, would York Region implement the identified improvements even if the projected growth and associated congestion doesn't happen?	Implementation of the identified improvements is contingent on the availability of sufficient funds, based on York Region's 10-year capital plan. Before funds are committed, York Region will monitor growth and associated congestion in the Study Area and plan financially on an ongoing basis. Improvements will not be implemented if demand doesn't materialize.
Consultation with ratepayers associations is not sufficient, because some impacts are at the individual level (e.g., impacts only to homes at the edge of a subdivision that back onto an arterial road that is being improved, not to the whole subdivision)	York Region has consulted extensively with residents and other stakeholders throughout this IEA. In addition to five sets of PCCs, York Region established a Community Stakeholder Advisory Committee that included representatives from ratepayers associations as well as unaffiliated citizens and met six times during the EA. Once the effects of construction and operation were understood, York Region offered to meet with local residents. As a result, two community meetings were held with residents along Rutherford Road, including the Sonoma Heights Ratepayers Association, and a third meeting with residents along Highway 27, including the West Woodbridge Homeowners Association, to discuss the detailed effects and proposed mitigation measures, primarily related to changes in noise levels and the safety of drivers, pedestrians, and cyclists.
Medians	
How would vegetation in the medians be maintained?	Vegetation in the medians would likely consist of trees in irrigated planters to minimize maintenance needs, including the use of water trucks.

7.4 Consultation with Review Agencies

Consultation was initiated with several review agencies during the preparation of the IEA ToR and continued through the duration of the study. Specific consultation activities included direct correspondence via letters/ e-mails to relevant agencies, as well as meetings held with individual agencies or groups of agencies, as appropriate. Review agencies were also invited to participate on the RAAC, and attend PCCs, workshops and other activities throughout the project. York Region actively engaged the TRCA, MOE, MTO, Peel Region and City of Vaughan.

Review agencies also received the notice / letter of study commencement that was described in Section 7.3.1.

7.4.1 Review Agency Advisory Committee Meetings

A RAAC met six times over the course of the study. The mandate of the RAAC was to review and provide input on the:

- Purpose of and Rationale for the Undertaking;
- Collection of baseline data;
- Identification and evaluation of Alternatives to the Undertaking (network alternatives) and Alternative Methods of Carrying out the Undertaking (alternative alignments for the road and transit improvements), including the evaluation criteria and indicators;
- Development and assessment of the Preferred Undertaking (preliminary design for the road and transit improvements);
- Communications material prepared for PCCs and other public activities; and
- Draft Environmental Assessment Report.

The RAAC was comprised of representatives from nine agencies/corporations, including:

- MOE;
- MTO;
- GO Transit;
- TRCA;
- Peel Region;
- City of Vaughan;
- CEAA;
- CP Rail; and
- 407 ETR.

RAAC meetings were held regularly to update members on the status of the project, obtain feedback on each stage of the IEA, and outline future steps in the study process. Most meetings were led by an independent facilitator while York Region's project manager and other project team members presented information and responded to questions.

A summary of consultation with the RAAC and with individual review agencies is provided below.

Meeting #1: January 22, 2008

The RAAC met on January 22, 2008 with fourteen members in attendance. The purpose of the first meeting was to:

- Introduce the project team to the RAAC members;
- Provide an overview of the Committee's roles and responsibilities;
- Summarize the project history;

- Present the proposed Purpose of and Rationale for the Undertaking (Stage 1 of the IEA Process);
- Provide an overview of the proposed material to be presented at the first round of PCCs; and,
- Outline the next steps in the IEA process.

Meeting #2: June 17, 2008

The RAAC met on June 17, 2008 with thirteen members in attendance. The purpose of the second meeting was to:

- Provide an update on the project, including comments received from PCC #1;
- Summarize the existing environmental Study Area conditions;
- Provide an overview of the long list of Alternatives to the Undertaking (Stage 2 of the EA Process);
- Describe the screening methodology for identifying the three short-listed Alternatives to the Undertaking and present the preliminary screening results;
- Present the proposed criteria, indicators, and measures for evaluating the short-listed Alternatives to the Undertaking; and
- Describe the project schedule and future activities.

Meeting #3: October 21, 2008

The RAAC met on October 21, 2008 with twelve members in attendance. The purpose of the third meeting was to:

- Present the refined screening process for identifying the three short-listed Alternatives to the Undertaking, which was updated based on comments from the previous RAAC and CSAC meeting;
- Describe the evaluation methodology for comparing the short-listed Alternatives to the Undertaking and present the preliminary evaluation results; and
- Discuss and seek input on the Preliminary Recommended Alternative to the Undertaking – Alternative #8.

Meeting #4: June 11, 2009

The RAAC met on June 11, 2009 with ten members in attendance. The purpose of the fourth meeting was to:

- Provide an update on the project, including comments received from PCC #2 on the evaluation of Alternatives to the Undertaking;
- Review the information being presented to the public at the upcoming PCC #3;
- Seek input on alternative alignments to be considered for each of the five arterial road corridors during the Alternative Methods of Carrying out the Undertaking stage (Stage 3 of the IEA process); and
- Seek input on the proposed criteria for evaluating the alternative alignments.

Meeting #5: October 27, 2009

The RAAC met on the afternoon of October 27, 2009 with eight members in attendance. The purpose of the fifth meeting was to:

- Provide an update on the project, including comments received from PCC #3 on the Preferred Alternative to the Undertaking and the proposed alternative alignments;
- Present the results of the corridor optimization process associated with the Preferred Alternative to the Undertaking, including the removal of the Pine Valley Drive improvements between Rutherford Road and Teston Road from the study;
- Review the alternative alignments that were developed for: (1) the jog elimination at Major Mackenzie Drive and Highway 27; (2) widening a section of Major Mackenzie Drive between Islington Avenue and Pine Valley Drive; and (3) widening a section of Rutherford Road between Islington Avenue and Pine Valley Drive;
- Present the preliminary assessment of the Alternative Methods of Carrying out the Undertaking, including the net effects assessment of all alignments and the comparative evaluation of the three sets of alternative alignments described above; and
- Review the future steps in the process.

Meeting #6: July 13, 2010

The RAAC met on July 13, 2010 with seven members in attendance. The purpose of the sixth meeting was to:

- Provide an update on the project, including: confirming the Preferred Alternative Methods of Carrying out the Undertaking (i.e., alignments for the road and transit improvements); and describing the status of technical studies, such as noise and air quality assessments, and consultation activities undertaken since the last meeting (including PCC #4);
- Review the information to be presented at the upcoming PCC #5;
- Present the preliminary designs associated with the Preferred Undertaking (i.e., preferred road and transit alignments);
- Present the methodology and preliminary results of the effects assessment;
- Discuss the potential effects and their mitigation measures associated with the preliminary designs; and
- Outline the process for preparing and submitting the draft and final EA reports to key stakeholders and the public.

Appendix 71 further documents the RAAC meetings.

7.4.2 Meetings with Review Agencies

The following subsections document the meetings held with various review agencies. **Table 7-3** summarizes the comments received from review agencies, the context of the comments, and the consideration provided by York Region. **Appendix 7J** includes records of consultation with agencies, including meeting notes and/or official correspondence.

7.4.2.1 Federal Agencies

CP Rail²

A meeting was held on **August 25, 2009** with CP Rail to discuss the proposed designs for two structural crossings on the North-South CP McTier Subdivision Rail Line east of Huntington Road on the new Major Mackenzie Drive alignment and on Rutherford Road. CP Rail representatives indicated that GO Transit plans to add a second track on the McTier Subdivision, and that CP has to consider any track expansion required to meet GO Transit services. Thus, they suggested to York Region that the proposed structures on Major Mackenzie Drive and Rutherford Road allow for four and two tracks, respectively. Similarly, it will be necessary to design and protect property for a two-track diversion of the CP McTier Subdivision at the rail overpass at Highway 27 to account for the proposed road widening.

7.4.2.2 Provincial Agencies

Ontario Ministry of Transportation, Central Region

York Region and its consulting team met with representatives from the MTO's Central Region on **July 19, 2007**, together with staff from Peel Region. The purpose of this meeting was to discuss potential transportation planning issues related to the Ministry's Highway 427 Northern Extension IEA Study (from Highway 7 to Major Mackenzie Drive), Region's Highways 427/50 Arterial Roads Boundary Environmental Assessment Study and this IEA. Participants provided an overview of each of the studies and discussed how to co-ordinate future activities. Two subsequent meetings were held with the MTO and Peel Region on (**October 11, 2007**) and (**October 1, 2008**) to discuss co-ordination issues between the three environmental assessment studies.

Ontario Ministry of the Environment

York Region and its consulting team met with representatives from the MOE on **June 16, 2009** to provide an overview of the project to date, including the Purpose of and Rationale for the Undertaking, and the Recommended Alternative to the Undertaking. At the meeting, York Region also presented the proposed approach to developing and evaluating Alternative Methods of Carrying out the Undertaking.

Ontario Heritage Trust

York Region and its consulting team met with representatives of the Ontario Heritage Trust (OHT), together with representatives of the TRCA, on **December 8, 2009**. The purpose of this meeting was to discuss the alternative alignments that were being considered along Major Mackenzie Drive between Islington Avenue and Pine Valley Drive, and the potential implications of widening the road on adjacent OHT and TRCA property. At the meeting, OHT explained that the agency would be looking for York Region to refine the improvement to avoid any effects on Glassco Park and any requirements for property.

2. Although CP Rail is a private corporation, any proposed modifications to its crossings are potential triggers for a federal environmental assessment. Therefore, CP Rail is listed in this section.

Another meeting was held on **October 7, 2010** to review the preliminary design for the improvements along Major Mackenzie Drive between Islington Avenue and Pine Valley Drive. At this meeting, York Region confirmed that the design avoided a significant archaeological find located on OHT property, and also minimized any effects on the adjacent habitat and OHT property to the extent possible. Ongoing discussions will be required with OHT to finalize potential property acquisition.

7.4.2.3 Municipal/Regional Agencies

Toronto and Region Conservation Authority

A total of seven meetings were held between York Region, its consulting team and TRCA staff. The first meeting was held on **September 26, 2008**. The purpose of this meeting was to obtain feedback from TRCA on the long list of Alternatives to the Undertaking, as well as the evaluation criteria and indicators used in the screening process.

A second meeting was held on **April 24, 2009**. The purpose of this meeting was to discuss the preliminary results of the evaluation of the Alternatives to the Undertaking, and specific issues identified by the TRCA where roadways considered for improvements about sensitive locations.

A third meeting was held on **July 6, 2009**. The purpose of this meeting was to update the TRCA on the progress of field data collection for the project, discuss the archaeological investigations to be carried out on TRCA property, and review the preliminary alternative alignments. At the meeting, TRCA confirmed that its staff archaeologists would need to carry out Stage 2 archaeological assessments on TRCA owned and managed properties that might be affected by the proposed improvements.

On **September 16, 2009**, a fourth meeting was held to discuss issues related to watercourse crossings on the roads identified for improvement. As a follow-up to this meeting, York Region, its consulting team and TRCA representatives conducted two days of site visits to confirm the existing conditions of the various watercourses and to discuss the potential effects associated with the transportation improvements.

A fifth meeting was held on **November 3, 2009** with TRCA staff regarding the preliminary results of the assessment and evaluation of the Alternative Methods of Carrying out the Undertaking. The meeting also offered the opportunity for TRCA's archaeologists to present the results of their Stage 2 Archaeological Assessment on TRCA owned and managed properties, including the OHT property. Following the meeting, York Region circulated the draft net effects analysis tables to TRCA staff for review and comment.

One member of the consulting team met with representatives of the TRCA on **May 12, 2010** to conduct a site visit of Major Mackenzie Drive between Islington Avenue and Pine Valley Drive. The purpose of this site visit was to observe the proposed footprint of the Major Mackenzie Drive alignment and associated grading, in order to determine how potential effects could be altered by recent modifications to the conceptual design. During the site visit, TRCA staff agreed that the modifications had reduced the effect on the natural environment, including potential impacts to the Kortright Centre for Conservation.

A final meeting was held with TRCA staff on **August 17, 2010** to present and discuss the preliminary results of the effects assessment of the Preferred Undertaking, and to discuss how York Region intended to address issues that TRCA staff had raised regarding the assessment of effects on the natural environment. Specifically, TRCA staff wished to understand how the meander belt analysis, 100 year erosion limit analysis, and hydrogeological and geotechnical analyses would be reflected in the assessment.

Peel Region

Meetings were held with Peel Region staff, together with MTO staff, as described in Section 7.4.2 above. An additional meeting was held on **February 11, 2010** to discuss Peel Region's Class Environmental Assessment for Highway 50 between Rutherford Road and Mayfield Road. Highway 50 is under the joint jurisdiction of York Region and Peel Region. However, the ongoing maintenance and capital improvements required for Highway 50 are the responsibility of Peel Region. At that meeting, the Regions agreed that Peel Region would take responsibility for developing and assessing improvements to Highway 50. As a result, York Region removed Highway 50 from its list of improvements as part of this IEA.

City of Vaughan

An initial meeting was held with City of Vaughan staff on **August 31, 2009** to provide an update on the IEA and to share information on how the alternative alignments being considered might affect current or pending developments in the Study Area. At the meeting, City staff commented that the City would favour an alternative alignment in the area of the jog elimination that provided direct access to future development on the north side of the existing Major Mackenzie Drive (i.e., the proposed Lake Rivers subdivision).

A second meeting with City of Vaughan staff was held on **July 15, 2010** to discuss the preliminary results of the effects assessment of the Preferred Undertaking. At that meeting, City staff indicated that Council may not support the removal of street trees that is required to facilitate the six-lane cross-section, including the landscaped centre median, in many locations in the Study Area.

Table 7-3 Summary of Key Issues Raised by Review Agencies and their Consideration

	When Issue was Raised	Issue Raised by Review Agency	Consideration of Issue
Provincial Agencies			
Ontario Heritage Trust (OHT)	Alternative Methods of Carrying Out the Undertaking Stage	<ul style="list-style-type: none"> What First Nations have been engaged in the study, and did engagement include any First Nations outside of Ontario? 	<ul style="list-style-type: none"> Thirteen First Nations have been invited to participate in the IEA, including Huron-Wendat from Quebec City. An initial meeting with First Nations was held on May 1, 2009 to provide a project overview and to discuss the use of a protocol for First Nations that would address how consultation during the IEA, detailed design, and construction would occur. A second meeting with First Nations was held on January 22, 2010 to present results of the Stage 2 archaeological assessments.
	Meeting (December 8, 2009)	<ul style="list-style-type: none"> Widening of Major Mackenzie Drive will affect wildlife movement across the road. Please consider options for maintaining connectivity between the north and south sides of Major Mackenzie Drive, such as wildlife crossing culverts or long bridges. Might it be possible to shift the Major Mackenzie Drive alignment to the south in certain locations between Islington Avenue and Pine Valley Drive to avoid natural features? 	<ul style="list-style-type: none"> The preliminary design for Major Mackenzie Drive between Islington Avenue and Pine Valley Drive incorporates three wildlife crossings for smaller animals, as well as two new bridges that provide for improved connectivity for larger animals. The recommended alignment was chosen because it avoids the greatest amount of high functioning habitat, which is located within the Kortright Centre for Conservation, on the south side of Major Mackenzie Drive.
	Alternative Methods of Carrying Out the Undertaking Stage Letter (January 22, 2010)	<ul style="list-style-type: none"> The OHT is concerned that the options currently being considered by York Region, pursuant to the above-noted environmental assessment process, will have a detrimental impact upon the natural and/or cultural heritage values of Glassco Park. The Trust does not wish to see the road widened, expanded or the adjacent land re-graded at the expense of these valuable natural, archaeological and cultural landscape heritage interests. Avoidance of natural, landscape and archaeological heritage elements is our preferred approach and any new road widening design would need to include such vision. The Glassco lands possess remarkable archaeological significance and have been identified by the First Nations as possessing special cultural importance and associations. While we understand that new archaeological sites have been identified recently by TRCA along the southern edge of the Glassco property, Trust staff would like to re-iterate our request that no further archaeological field work be undertaken on the Glassco property without the prior written approval of the Trust and consultation with First Nations. 	<ul style="list-style-type: none"> The IEA ToR was approved by the Minister of the Environment and the study is being conducted accordingly. As part of the ToR, we are required to develop alternative designs for the proposed transportation improvements and assess them based on the following factors; Transportation, Natural Environment, Socio-economic, Cultural, Financial. For each of these factors, there are a number of detailed criteria that are considered including but not limited to effects on cultural heritage (including archaeology and built heritage), land use, and aquatic and terrestrial habitat. It is the Region's intent to avoid impacts wherever possible, and to minimize any impacts that cannot be avoided through appropriate mitigation. Wherever possible, the Region also considers opportunities to enhance existing conditions as part of the improvements. In locations where more than one alternative design is being considered, the Region's preference is to select the design with the fewest effects on the environment. In this particular location along Major Mackenzie Drive, there is a trade-off between protecting the natural and cultural landscape within Glassco Park and the natural landscape within Kortright Centre for Conservation. The Region will need to balance these impacts and recommend a preferred design that is technically sound and that can be supported by stakeholders, including OHT and TRCA, and the public. It is the Region's intent to avoid effects to both Glassco Park and the Kortright Centre for Conservation to the greatest extent possible. The archaeological work on the north side of Major Mackenzie Drive has been undertaken by TRCA on behalf of the Region since the lands are managed by TRCA. At this time, no further works are planned. In the event there are any further works, we will contact OHT and TRCA. It is also pertinent to note that the preliminary design for this section of Major Mackenzie Drive avoids the archaeological finds on OHT property.
Ministry of Aboriginal Affairs (MAA)	Development of the Preferred Undertaking Letter (November 22, 2010)	<ul style="list-style-type: none"> The project appears to be located in an area where First Nations may have existing or asserted rights that could be impacted by the project. To determine what consultation with Aboriginal communities may be required, please contact the appropriate department representative at Indian and Northern Affairs Canada. Additional details about the project or any changes to it that suggest impacts beyond what have been provided to date may necessitate further consideration. Please be aware that First Nation or Métis communities can make assertions at any time, and other developments can occur that might require additional communities to be notified. 	<ul style="list-style-type: none"> As part of the Western Vaughan Transportation Improvements IEA, York Region has established a separate consultation process for First Nations and has invited the following communities to participate: <ul style="list-style-type: none"> Alderville First Nation; Beausoleil First Nation; Chippewas of Georgina Island; Chippewas of Mnjikaning; Curve Lake First Nation; Hiawatha First Nation; Iroquois Confederacy; Mississaugas of Scugog Island; Mississaugas of the New Credit First Nation; Mohawks of the Bay of Quinte; Moose Deer Point First Nation; Nation Huronne Wendat; and Six Nations of the Grand River. As per MAA's suggestion, we will ensure that INAC is aware of our project and ongoing consultation process with First Nations.
Municipal and Regional Agencies			
Toronto and Region Conservation Authority (TRCA)	Alternatives to the Undertaking Stage	<ul style="list-style-type: none"> TRCA staff is generally in support of Alternative 8 as the preliminary preferred alternative since it has fewer road widenings than Alternatives 6 or 9. 	<ul style="list-style-type: none"> (No response required)
	Letter (February 27, 2009)	<ul style="list-style-type: none"> TRCA staff will need to see the Needs and Justification Reports for the road widening of Pine Valley Drive north of Rutherford Road as well as Major Mackenzie Drive, Rutherford Road and Highway 27 where those areas abut significant natural areas/valley and stream corridors and TRCA property as noted. 	<ul style="list-style-type: none"> During the first stage in the IEA process (known as the Purpose of / Rationale for the Undertaking), York Region and its consultant team undertook analyses of the existing traffic conditions within the Study Area to identify deficiencies within the existing transportation / road network. Future traffic conditions within the Study Area were then developed based on computer modelling to forecast auto and transit travel for 2021 and 2031. This analysis showed that two-thirds of the Study Area would be congested by 2031, as compared to just one-third in 2006. As shown in the attached map, congested areas in 2031 include: <ul style="list-style-type: none"> All of the roads around TRCA's lands and other natural areas, including Pine Valley Drive, Rutherford Road and Major Mackenzie Drive; All of Highway 27 between Rutherford Road and Major Mackenzie Drive, except for the portion around the jog elimination; and Major Mackenzie Drive on either side of Highway 27. At the end of the first stage of the IEA, York Region confirmed the purpose of the undertaking as the following: "to reduce the level of congestion along the north-south and east-west travel corridors within the Western Vaughan transportation Study Area that are currently congested or will be congested in the future", which includes the three areas described above.

	When Issue was Raised	Issue Raised by Review Agency	Consideration of Issue
		<ul style="list-style-type: none"> In the following areas of concern, an increased scoped analysis is required to understand the full range of impacts and the mitigation to those impacts: <ul style="list-style-type: none"> Highway 27 (Langstaff Road to Nashville/Teston Road) Major Mackenzie Dr (Islington to Pine Valley Drive) Rutherford Road (Islington to Pine Valley Drive and Huntington to East of Highway 27) Jog Elimination (Major Mackenzie Drive and Highway 27) 	<ul style="list-style-type: none"> During the evaluation of the "Alternatives to the Undertaking", York Region completed additional analyses on how well each of the three short-listed alternatives (Alternatives 6, 8, and 9) reduced congestion within the congested travel corridors, which include the three general concern areas identified by TRCA. These analyses confirmed that undertaking road and transit improvements along Major Mackenzie Drive, Rutherford Road, and Highway 27 would result in considerable reductions in levels of congestion compared to "doing nothing". Subsequently, York Region and its consulting team confirmed that improvements to Pine Valley Drive between Rutherford Road and Teston Road would not be required to improve transportation mobility in Western Vaughan and satisfy the Purpose for the Undertaking.
		<ul style="list-style-type: none"> As you are aware, every Environmental Assessment will need to comply with TRCA's "Valley and Stream Corridor Management Program," regarding, among other things, Section 4.3 on Infrastructure and Servicing. Generally, the road widening need to ensure that: <ul style="list-style-type: none"> Existing features and functions are maintained; Impacts to erosion prone/flood prone areas are minimized; and Terrestrial/human/aquatic passage will be provided. Please include a copy of the "Valley and Stream Corridor Management Program," Section 4.3 in the draft EA document and reference it in the body of the report. 	<ul style="list-style-type: none"> As discussed at the April 24, 2009 meeting, the net effects analysis being proposed for assessing and comparatively evaluating the alignments for each of the improvements (also known as the "Alternative Methods of Carrying out the Undertaking") fulfills this requirement. York Region and its consulting team have already collected considerable baseline conditions data regarding the natural environment through a review of secondary sources, including TRCA mapping and reporting. During this next stage of the IEA, we will be collecting additional data through field studies, which will include: <ol style="list-style-type: none"> Amphibians (two evening visits to each site); Vegetation (Ecological Land Classification study); Breeding Birds (four morning visits); Aquatic Habitat/Fisheries (targeted electrofishing and dip netting to confirm the presence of sensitive habitat); and Hydrogeology (drilling of two wells in the area of the Major Mackenzie Drive jog elimination, plus installation of mini-piezometers in coldwater streams). The information collected through the field studies will be documented in stand-alone reports, and will be used for the subsequent evaluation of alternative alignments for the road improvements included in Alternative 8. Among other issues, the evaluation will consider how well the alignments are consistent with TRCA's "Valley and Stream Corridor Management Program", including: <ol style="list-style-type: none"> Effects to existing features and functions; Effects to erosion prone / flood prone areas; and Ability to provide terrestrial / human / aquatic passage.
	Alternative Methods of Carrying Out the Undertaking Stage Meeting (July 6, 2009)	<ul style="list-style-type: none"> Only the TRCA itself may conduct archaeological investigations on TRCA property. The TRCA will not conduct Stage 1 Archaeological Assessments but will go directly to Stage 2 where Stage 2 investigations are deemed necessary. Please keep the TRCA informed about discussions with First Nations and points of view expressed by First Nations, in particular as they pertain to archaeological finds. The TRCA would like to see the width of the road cross-sections reduced in environmentally sensitive areas. 	<ul style="list-style-type: none"> Among other issues, the evaluation of alternative alignments (in the Alternative Methods stage) will consider how well the alignments are consistent with TRCA's "Valley and Stream Corridor Management Program", including: <ol style="list-style-type: none"> Effects to existing features and functions; Effects to erosion prone / flood prone areas; and Ability to provide terrestrial / human / aquatic passage. The "Valley and Stream Corridor Management Program" will be referenced in the EA Report.
	Alternative Methods of Carrying Out the Undertaking Stage Letter (October 9, 2009)	<ul style="list-style-type: none"> York Region must consider TRCA's Meander Belt Report and the hydraulics (100 year storm, etc.) when designing the Humber River crossings, as well as conduct geotechnical investigations to determine bank stability. Along Major Mackenzie Drive between Islington Avenue and Pine Valley Drive, the Region should consider reducing the roadway width by reducing or eliminating the centre median, in order to reduce effects on forests and wetlands. The Region should also be aware of the TRCA's Net Benefit – Edge Management Program. The purpose of this program is to make the interface between roads and natural habitat as non-invasive as possible. Is it confirmed that York Region will need to acquire TRCA property for road improvements? Property requirements should be identified as early as possible, and tenants on TRCA lands adjacent to the roadway corridors will need 12 months notice before construction begins. 	<ul style="list-style-type: none"> York Region through Archaeological Services, Inc (ASI) will identify the project's Stage 2 Archaeological Assessment needs on TRCA property, communicate this information to the TRCA, and exclude the Stage 2 Archaeological Assessment work on these properties from ASI's work plan. York Region has a consultation program in place with interested First Nations on this study, and any pertinent information arising from these consultations will be passed on to the TRCA. Natural environment constraints are one of several factors that will influence where right-of-way widths are minimized, including property/building constraints, and in the case of bridges, construction cost. In the case of Major Mackenzie Drive between Islington Avenue and Pine Valley Drive, the right-of-way width has been reduced by nearly 5 metres by eliminating the landscaping in the centre median. These analyses will be part of the effects assessment undertaken by the project team, and the geotechnical assessment will be further refined in detailed design. (See comment above) Property will be required from the TRCA. The property requirements will be confirmed during detailed design.
	Alternative Methods of Carrying Out the Undertaking Stage Letter (October 9, 2009)	<ul style="list-style-type: none"> Groundwater effects analyzed for purposes of evaluation of alternative alignments should include temporary and long-term effects on groundwater discharge to the Humber River and its tributaries, as well as effects on groundwater seepage and discharge at and near natural features, not just effects on water wells. 	<ul style="list-style-type: none"> The project team's hydrogeologists have identified potential discharge areas and conducted an initial monitoring event. Based on the results of this work, which will be presented in the Hydrogeology Field Investigations Report, discharge areas in the Study Area are confined to low-lying areas within the Humber River Valley and wetlands that overlie low-permeability clays. Groundwater discharge is likely to be occurring throughout the entire valley along the Humber River and its tributaries as this is the lowest point of elevation in the area and discharge will naturally occur to this point. Since all of the alternative alignments under consideration cross the Humber Valley at the same location, they all would have the same potential influence on groundwater flow and discharge. Thus, these effects were not considered during the evaluation of Alternative Methods as they do not help to differentiate between alternatives.

	When Issue was Raised	Issue Raised by Review Agency	Consideration of Issue
			<ul style="list-style-type: none"> • These potential effects were assessed in detail during the effects assessment of the preliminary designs. Proposed mitigation measures for addressing any impacts to groundwater discharge and associated effects on natural features were developed, along with monitoring requirements to be implemented during construction. The mitigation measures and monitoring requirements will be further refined during subsequent detailed design. • Given the linear nature of the proposed improvements, long-term changes to groundwater recharge, and subsequently groundwater discharge, are not anticipated. Temporary effects from dewatering as a result of bridge construction over the watercourse will be addressed if and when necessary through the Permit to Take Water application process. These effects are anticipated to be temporary and reversible once construction is complete.
	<p>Alternative Methods of Carrying Out the Undertaking Stage Letter (August 12, 2010)</p>	<ul style="list-style-type: none"> • TRCA staff supports clear spanning the Main Humber watercourse and minimizing the fill placement in the floodplain. • Preliminary hydrogeological concerns stem from any potential dewatering/depressurization requirements for the proposed bridge abutments/piers and the amount of groundwater control, duration, zone of influence and impacts to nearby natural features. Appropriate scaled preliminary hydrogeological and geotechnical reports are required at the conceptual stage in order to evaluate potential subsurface conditions." • Staff is concerned with the proposed road widening on Highway 27 from 4 to 6 lanes from south of Rutherford Road to Major Mackenzie Drive as well as the widening from 2 to 4 lanes north of Major Mackenzie Drive to Teston Road and the impacts to the natural areas and the floodplain within this section. • Both during and after construction, all existing TRCA Property access points/driveways for tenants/trails (including those beneath bridges) must be maintained and kept open at all times. Any existing fencing and signage must be relocated and or replaced to TRCA's satisfaction and new fencing may be required where applicable. These requirements apply to areas adjacent to Boyd Conservation Area, Kortright Centre for Conservation, and other tenant's driveways elsewhere within the project limits. Please ensure that notes to this effect are indicated beside all TRCA property on all future IEA plate drawings in order to carry the messages forward to the detailed design stage. 	<ul style="list-style-type: none"> • Where feasible, York Region has adopted the approach of spanning the watercourse and minimizing fill placement in the floodplain. • The impacts of the structure at the jog elimination on hydrogeology were assessed during the Effects assessment of the Preferred Undertaking, which will be part of York Region's pre-submission of the EA report to TRCA. This chapter describes any potential dewatering / depressurization requirements for the proposed bridge abutments/piers at this and other structures, and identifies assumptions regarding the amount of groundwater control, duration, zone of influence and impacts to nearby natural features. Mitigation measures related to these potential impacts have also been included in this chapter. The effects and mitigation will be updated and confirmed during detailed design. • As mentioned above, York Region has adopted the approach of spanning the watercourse and minimizing fill placement in the floodplain where feasible. • All plate drawings will indicate that all existing TRCA property access points/driveways for tenants/trails (including those beneath bridges) must be maintained and kept open at all times. • The issue of replacing existing fencing and signage was discussed at the meeting on August 17, 2010, in the context of providing wildlife fencing adjacent to the wildlife crossings. At the meeting, it is our understanding that TRCA staff agreed that fencing at the base of the 1:1 slope would not be necessary. With regard to other fencing and signage, York Region will discuss opportunities for relocating or replacing fencing, and the associated maintenance implications, where feasible.
	<p>Development of the Preferred Undertaking Stage Letter (November 29, 2010)</p>	<ul style="list-style-type: none"> • TRCA has reviewed the Hydraulic Assessment of Watercourses Associated with the Western Vaughan Transportation Improvements and the Meander Belt and Erosion Assessment of Watercourses Associated with the Western Vaughan Transportation Improvements reports and provides the following comments: <ul style="list-style-type: none"> ▪ Local increases in flood elevation will result from loss of conveyance due to construction of bridge abutments and piers for the crossing of the Humber River at Major Mackenzie Drive. Please identify whether the area where flood levels increases are greater than 10 cm includes property that is privately owned. ▪ The proposed retaining walls along Rutherford Road at the East Robinson Creek crossing may not be sufficient to prevent overtopping into the main Humber River. Please provide information on the depth overtopping at this location and what the resulting height of the retaining wall above deck level would be. ▪ Please determine, during the preparation of the EA, the impact to private property resulting from the increase in water surface elevation from the proposed extension of the East Humber River crossing along Rutherford Road, as well as the change in road profile, and investigate appropriate mitigation measures. ▪ Please include the required analysis, discussion, and summaries consistent with the reporting done for other crossings within the study area for the Marigold Creek crossing at Major Mackenzie Drive. ▪ TRCA generally concurs with the findings of the Meander Belt and Erosion Assessment of Watercourses Associated with the Western Vaughan Transportation Improvements report that speak to the size and configuration of the proposed crossings; however, does not find the proposed size of the crossing over Rainbow Creek to be sufficient to address the average amplitude of the meanders near the crossing, bankful width, and the 100 year erosion rate. Please provide clarification or a revision to the proposed size, if necessary. 	<ul style="list-style-type: none"> • <i>Response pending</i>
<p>Peel Region</p>	<p>Alternatives to the Undertaking Stage Meeting (October 22, 2008)</p> <p>Alternative Methods of Carrying out the Undertaking Stage Meeting (February 11, 2010)</p>	<ul style="list-style-type: none"> • Can designating both Rutherford Road and Major Mackenzie Drive as transit priority corridors be justified? It may not be in the best interest of traffic flow efficiency to designate two out of six lanes as HOV lanes in all cases. • Major Mackenzie Drive should be considered a joint Peel/York facility. It will be a critical linkage to Peel from Highway 427 easterly across Highway 50 into Peel. • Highway 50 is a boundary road between Peel and York. Both studies are going to have to ensure it gets its due attention. Additional lanes will, no doubt, be required. • Peel Region's Class EA for Highway 50, from Rutherford to Mayfield (also in phase 3 following 427 Master Plan) was initiated in Fall, 2009. Resolution is needed to clarify Proponency and who takes the lead on the EA. 	<ul style="list-style-type: none"> • York's general policy for arterial road expansions from 4 to 6 lanes indicates that the fifth and sixth (curb lanes) are to be HOV lanes. • Comment noted. • Comment noted. • Peel Region will continue as the proponent as part of their Class EA. York Region will remove references to Highway 50 as an undertaking in the West Vaughan IEA.
<p>City of Vaughan</p>	<p>Alternative Methods of Carrying out the Undertaking Meeting (October 7, 2009)</p>	<ul style="list-style-type: none"> • Regarding the four alternative alignments in the area of the jog elimination, City staff consider the two most northerly alignments to be more favourable than the two southerly alignments as they are more compatible with proposed developments in the area 	<ul style="list-style-type: none"> • This input will be considered in the evaluation of the alternatives.

7.5 Consultation with First Nations and other Aboriginal Communities

Consultation with First Nations and other Aboriginal communities was undertaken in accordance with the Minister-approved ToR. In the approval letter, the Minister stated that “*Regarding consultation, the list of contacts shall also include municipal agencies, provincial agencies and First Nations, including the Mississaugas of the New Credit and Huron Wendat Nation*” during preparation of the IEA.

First Nations Engineering Services Ltd. (FNESL) was retained as part of the consulting team to lead this consultation process in accordance with the approved ToR.

The following First Nations and Aboriginal communities were invited to participate in this separate but parallel consultation process:

- Alderville First Nation;
- Beausoleil First Nation;
- Chippewas of Georgina Island;
- Chippewas of Mnjikaning;
- Curve Lake First Nation;
- Hiawatha First Nation;
- Iroquois Confederacy;
- Kawartha Nishnawbe First Nation;
- Metis Nation of Ontario;
- Mississaugas of Scugog Island;
- Mississaugas of the New Credit First Nation;
- Mohawks of the Bay of Quinte;
- Moose Deer Point First Nation;
- Nation Huronne Wendat; and
- Six Nations of the Grand River.

At the start of the consultation process, a protocol was developed to guide consultation and communication activities with First Nations and other Aboriginal communities during the EA and throughout the construction phases of the project (refer to **Appendix 7K**). The protocol is intended to create a consultation process to identify and address specific cultural and heritage interests that First Nations may have within the Study Area and potential impacts to established or asserted Aboriginal or Treaty rights or Claims within the Study Area. Also, this Protocol establishes a process for addressing identified impacts of the project in respect of First Nations human remains or First Nations archaeological sites.

7.5.1 Meetings and Correspondence with First Nations and other Aboriginal Communities

The following provides a summary of the meetings held with First Nations during the IEA as well as correspondence sent by York Region to First Nations. In addition to the First Nations Consultation Protocol, **Appendix 7K** includes a copy of the invitation letters that were sent to each First Nation and Aboriginal community for both meetings, and the notes of the meetings. No correspondence from First Nations or other Aboriginal communities related to the project was received during the EA process.

Letter of Introduction – February, 2008

In **February, 2008**, FNESL sent a letter to the thirteen First Nations and Aboriginal communities listed above (not including the Métis Nation of Ontario) on behalf of York Region to introduce the First Nations to the project and offering to meet with them at their convenience. No responses were received to the letter.

Meeting #1 – May 1, 2009

York Region hosted a meeting between interested First Nations and Aboriginal communities and the project team on **May 1, 2009**. The purpose of the meeting was to provide a preliminary overview of the project and

discuss the consultation requirements for the project. As mentioned above, the meeting resulted in the development of a draft Consultation Protocol to specify the expectations of consultation between York Region and Aboriginal communities throughout the IEA process. The following First Nations attended this meeting:

- Alderville First Nation;
- Georgina Island First Nation;
- Hiawatha First Nation;
- Mississaugas of Scugog First Nation; and
- Mississaugas of the New Credit First Nation.

Meeting #2 – January 22, 2010

York Region conducted a second meeting between interested First Nations and project team representatives on **January 22, 2010**. The purpose of this meeting was to discuss the findings of the Stage 2 Archaeological Assessment – specifically, the discovery of First Nations artifacts along Major Mackenzie Drive and Rutherford Road – and the ways in which these discoveries would be addressed relative to avoiding or mitigating effects. At the meeting York Region confirmed that the proposed improvements to Major Mackenzie Drive and Rutherford Road would be designed to avoid any artifacts.

The following First Nations attended this meeting:

- Alderville First Nation;
- Curve Lake First Nation;
- Georgina Island First Nation;
- Hiawatha First Nation;
- Mississaugas of Scugog First Nation; and
- Mississaugas of the New Credit First Nation.

7.6 Pre-Submission Consultation for the Draft EA Report

In accordance with the Minister of the Environment approved Western Vaughan Transportation Improvements IEA ToR, York Region undertook a pre-submission review of the draft Western Vaughan Transportation Improvements IEA Report and Appendices to obtain comments on the draft documentation prior to finalizing it.

The pre-submission review period lasted five weeks (between January 12, 2011 and February 18, 2011), as per the Ministry of the Environment’s *Code of Practice: Preparing and Reviewing Environmental Assessments in Ontario*. With this in mind, a number of consultation activities were carried out as part of the pre-submission review including notification, provision of documentation, and meetings. In response to these consultation efforts, comments were provided to York Region for consideration in preparing the Final Western Vaughan Transportation Improvements IEA Report and Appendices for formal submission to the Minister for review and approval.

7.6.1 Notification of Pre-submission Review

All members of the Government Review Team, Aboriginal communities who had been involved in the EA, and representatives on the two Advisory Committees received a letter and a copy of the draft EA report either in CD or hard copy format (refer to **Appendix 7L-1** for a copy of the letter). The full list of recipients is provided below:

- 407 ETR;
- Alderville First Nation;
- Beausoleil First Nation;
- Ministry of Energy and Infrastructure;
- Ministry of Municipal Affairs and Housing;
- Ministry of Natural Resources;

- Canadian Environmental Assessment Agency;
- Chippewas of Georgina Island;
- Chippewas of Mnjikaning;
- City of Brampton;
- City of Vaughan – Engineering Department;
- City of Vaughan – Fire and Rescue;
- City of Vaughan – Policy Planning Department;
- CN Rail;
- Cole Engineering;
- Conservation Ontario;
- CP Rail;
- Curve Lake First Nation;
- Department of Indian and Northern Affairs;
- Environment Canada;
- GO Transit;
- Hiawatha First Nation;
- Iroquois Confederacy;
- Kawartha Nishnawbe First Nation;
- Kleinburg and Area Ratepayers Association;
- Metis Nation of Ontario;
- Ministry of Aboriginal Affairs;
- Ministry of Agriculture Food and Rural Affairs;
- Ministry of the Environment, Central Region;
- Ministry of the Environment, Environmental Assessment and Approvals Branch;
- Ministry of Tourism and Culture;
- Ministry of Transportation;
- Mississaugas of Scugog Island;
- Mississaugas of the New Credit First Nation;
- Mohawks of the Bay of Quinte;
- Moose Deer Point First Nation;
- Nashville Ratepayers Association;
- Nation Huronne Wendat;
- Ontario Heritage Trust;
- Ontario Provincial Police;
- Ontario Realty Corporation;
- Region of Peel;
- Six Nations of the Grand River;
- Smart Commute Vaughan;
- Sonoma Heights Ratepayers Association;
- TACC;
- Toronto and Region Conservation Authority;
- Transport Canada;
- Vaughan Chamber of Commerce;
- York Catholic District School Board; and,
- York Region District School Board.

7.6.2 Comments Received from the Public

All members of the Community Stakeholder Advisory Committee received a copy of the draft EA report on CD. One member of the committee provided comments, as listed in **Table 7-4** below.

7.6.3 Comments received from Review Agencies

A number of review agencies provided comments on the draft EA report, including MTO, MOE, TRCA, the Region of Peel, and the City of Brampton. These comments are listed in **Table 7-5**, along with York Region's consideration of those comments. A copy of the agency correspondence received is included in **Appendix 7L-2**.

In addition, meetings were held with the City of Vaughan and TRCA following agencies following distribution of the draft EA report. A summary of these meetings is provided below.

7.6.3.1 Meeting with City of Vaughan – January 12, 2011

The purpose of the meeting with City of Vaughan staff was to provide an overview of the EA, including the preferred undertaking, the results of the effects assessment, and proposed mitigation / compensation, especially in relation to City interests. With regard to the latter, the presentation to City staff focused on acquisition of City property, changes in noise levels from future traffic, changes in access to arterial roads, and disturbance or displacement of cultural heritage resources,

Table 7-4 Summary of Issues Raised by the Public during Pre-submission and their Consideration

ID	Issue Raised by the Public	Section	Consideration of Issue
CSAC member - E-mail (February 18, 2011)			
1	<ul style="list-style-type: none"> I personally am a CSAC Committee Member of the Western Vaughan Transportation Improvement IEA. This study was undertaken to identify and address the transportation needs in Western Vaughan to support growth until the year 2031. A CD copy of the draft EA report was sent to me asking for my comments by February 18, 2011. Kathleen, I printed out a copy of the entire report and fail to find any comments in the report as to the City of Vaughan Council's unanimous vote requesting that the jurisdictional ownership of Nashville Road be transferred from the Region to the City of Vaughan so that the trucks can be permanently restricted and traffic calming put in place. The report covers many items under 9 specific headings, but fails, as stated above, to comment on the safety concerns of the residents of Nashville Road, with the 1,000 plus heavy trucks that daily speed through their small community with a frightening 'Get Out Of My Way Attitude.' Why is this? It would be appreciated if I could receive your comments prior to the March 2, 2011 Transportation Services Committee Meeting. 	<ul style="list-style-type: none"> General comment` 	<ul style="list-style-type: none"> The issue of trucks on Nashville Road is an existing traffic operational issue. This matter was addressed by York Region Council on March 24, 2011 by extending a temporary ban for trucks on Nashville Road (between Highway 50 and Highway 27) to the year 2015. It should be noted that the overall improvements identified in this IEA will help to mitigate this issue by providing more viable opportunities for truck routing in the area. The transfer of Nashville Road to the City of Vaughan will be addressed based on the Region's protocol for road jurisdiction transfer between municipalities.

Table 7-5 Summary of Issues Raised by Review Agencies during Presubmission and their Consideration

ID	Issue Raised by Review Agency	Section	Consideration of Issue
Federal Agencies			
Department of Indian and Northern Affairs Canada (INAC) - Letter (January 11, 2011)			
1	<ul style="list-style-type: none"> In determining your duty to consult, you may wish to contact the First Nations in the vicinity of your area of interest to advise them of your intentions. To do this you may: <ul style="list-style-type: none"> Find the Reserves in your area of interest by consulting a map of the region such as the Province of Ontario Ministry of Aboriginal Affairs online map at http://www.aboriginalaffairs.gov.on.ca/english/services/firstnations.asp; Search for the First Nations located on those Reserves by using the INAC Search by Reserve site at http://pse5-esd5.ainc-inac.gc.ca/fnp/Main/Search/SearchRV.aspx?lang=eng; Determine the First Nations in your area of interest who have submitted claims by consulting the Reporting Centre on Specific Claims at http://pse4-esd4.ainc-inac.gc.ca/SCBRI/Main/ReportingCentre/External/ExternalReporting.aspx?lang=eng It should be noted that the reports available on the INAC website are updated regularly and therefore, you may want to check this site often for updates. In accordance with legislative requirements, confidential information has not been disclosed. Please rest assured that it is the policy of the Government of Canada as expressed in The Specific Claims Policy and Process Guide that: "in any settlement of specific native claims the government will take third party interests into account. As a general rule, the government will not accept any settlement which will lead to third parties being dispossessed." We can only speak directly to claims filed under the Specific Claims Policy in the Province of Ontario. We cannot make any comments regarding potential or future claims, or claims filed under other departmental policies. This includes claims under Canada's Comprehensive Claims Policy or legal action by a First Nation against the Crown. You may wish to contact the Assessment and Historical Research Directorate at (819) 994-6453, the Consultation and Accommodation Unit at (613) 944-9313 and Litigation Management and Resolution Branch at (819) 934-2185 directly for more information. You may also wish to visit http://www.ainc-inac.gc.ca/ai/mr/is/acp/acp-eng.asp on the INAC website for information regarding the Federal Action Plan on Aboriginal Consultation and Accommodation. To the best of our knowledge, the information we have provided you is current and up-to-date. However, this information may not be exhaustive with regard to your needs and you may wish to consider seeking information from other government and private sources (including Aboriginal groups). In addition, please note that Canada does not act as a representative for any Aboriginal group for the purpose of any claim or the purpose of consultation. 	<ul style="list-style-type: none"> General Comment 	<ul style="list-style-type: none"> The information and websites provided have been thoroughly reviewed and it has been determined that all First Nations located on reserves near, or with claims to lands in the vicinity of, the Study Area have been engaged throughout the EA process.
Transport Canada (TC) - Email (January 25, 2011)			
2	<ul style="list-style-type: none"> Certain approvals under the <i>Navigable Waters Protection Act</i> and the <i>Railway Safety Act</i> trigger the requirement for a federal environmental assessment under the <i>Canadian Environmental Assessment Act</i> (CEAA). The proponent may therefore wish to consider incorporating CEAA requirements into the project. 	<ul style="list-style-type: none"> General Comment 	<ul style="list-style-type: none"> Comments acknowledged. A project description was circulated to the CEA Agency in April 2011 to determine whether a federal EA will be required.

ID	Issue Raised by Review Agency	Section	Consideration of Issue																																																				
Provincial Agencies																																																							
Ontario Ministry of Transportation (MTO) - Email (February 9, 2011)																																																							
3	<ul style="list-style-type: none"> With respect to the Highway 427 IEA, the cross sections for Major Mackenzie Drive and Rutherford Road do not correspond with the Highway 427 Transportation Corridor EA Report cross sections. The sections differ in the boulevard, lane(s) and median widths totalling 2.80 metres less than the sections in the Highway 427 Transportation Corridor EA Report. <table border="1" style="margin: 10px auto;"> <thead> <tr> <th colspan="13">Major Mackenzie Drive and Rutherford Road Cross Section EA Comparison</th> </tr> <tr> <th></th> <th>SW</th> <th>BLVD</th> <th>Lane</th> <th>Lane</th> <th>Lane</th> <th>Median</th> <th>Lane</th> <th>Lane</th> <th>Lane</th> <th>BLVD</th> <th>SW</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Western Vaughan IEA</td> <td>1.50</td> <td>0.90</td> <td>5.00</td> <td>3.30</td> <td>3.30</td> <td>1.50</td> <td>3.30</td> <td>3.30</td> <td>5.00</td> <td>0.90</td> <td>1.50</td> <td>29.50</td> </tr> <tr> <td>Highway 427 IEA</td> <td>1.50</td> <td>1.40</td> <td>5.25</td> <td>3.50</td> <td>3.50</td> <td>2.00</td> <td>3.50</td> <td>3.50</td> <td>5.25</td> <td>1.40</td> <td>1.50</td> <td>32.30</td> </tr> </tbody> </table>	Major Mackenzie Drive and Rutherford Road Cross Section EA Comparison														SW	BLVD	Lane	Lane	Lane	Median	Lane	Lane	Lane	BLVD	SW	Total	Western Vaughan IEA	1.50	0.90	5.00	3.30	3.30	1.50	3.30	3.30	5.00	0.90	1.50	29.50	Highway 427 IEA	1.50	1.40	5.25	3.50	3.50	2.00	3.50	3.50	5.25	1.40	1.50	32.30	Chapter 5	<ul style="list-style-type: none"> As per MTO's guidelines where a Provincial 400 Series Highway interchange is intersecting with a Municipal arterial road, the Municipal arterial road will be designed to the Ministry's cross-sectional standards. As a result, both Major Mackenzie Drive and Rutherford Road will be designed to the Ministry's standards through the Highway 427 Interchange areas.
Major Mackenzie Drive and Rutherford Road Cross Section EA Comparison																																																							
	SW	BLVD	Lane	Lane	Lane	Median	Lane	Lane	Lane	BLVD	SW	Total																																											
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Highway 427 IEA	1.50	1.40	5.25	3.50	3.50	2.00	3.50	3.50	5.25	1.40	1.50	32.30																																											
Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA) - Letter (January 28, 2011)																																																							
4	<ul style="list-style-type: none"> The purpose of the undertaking is to improve transportation mobility and facilitate more convenient and reliable transportation choices within the Western Vaughan Study Area. Alternative 8 (All Improvements – Except More Roads) is the preferred alternative. The Ministry has no concerns with the proposed EA. 	General Comment	<ul style="list-style-type: none"> Comment noted. 																																																				
Ontario Ministry of the Environment (MOE) Central Region - Letter (February 18, 2011)																																																							
5	<ul style="list-style-type: none"> "Future developed planned" should be changed to "future development planned" on page 3-33 as this is a typographic error. 	General Comment	<ul style="list-style-type: none"> Comment noted. The revision has been made in the Final EA Report 																																																				
6	<ul style="list-style-type: none"> Please confirm whether MOE's Air and Noise Unit has reviewed or will review Appendices 3B-2c and 4C-9 regarding noise impacts. 	General Comment	<ul style="list-style-type: none"> Header Merza of MOE's Air and Noise Unit has received and provided comments on the Draft EA report with respect to noise and vibration. 																																																				
7	<ul style="list-style-type: none"> The proponent should consult with the MOE Central Region Permit to Take Water (PTTW) Coordinator prior to detailed design to confirm any approval requirements for water takings during construction or operation. A Permit To Take Water (PTTW) will be required prior to any construction dewatering if the taking is greater than 50,000 litres/day. The relevant guideline is "Potential Effects of Groundwater Takings: Environmental Issues to Consider When Applying for Permits To Take Water", Ministry of the Environment, November 2008. 	Groundwater	<ul style="list-style-type: none"> Comment noted 																																																				
8	<ul style="list-style-type: none"> If the potential construction or decommissioning of water wells is identified as an issue, the Report should refer to Ontario Regulation 903, Wells, under the Ontario <i>Water Resources Act</i>. 	Groundwater	<ul style="list-style-type: none"> Reference has been made to O.Reg.903 as suggested 																																																				
9	<ul style="list-style-type: none"> The status of, and potential impacts to, any well water supplies should be addressed. If the project involves groundwater takings or changes to drainage patterns, the quantity and quality of groundwater may be affected due to drawdown effects or the migration of contaminants. Baseline water quality samples should be collected as part of the survey of groundwater users within the project area. In addition, project activities may infringe on existing wells such that they must be reconstructed or sealed and abandoned. Appropriate information to define existing groundwater conditions should be included in the detailed design stage. 	Groundwater	<ul style="list-style-type: none"> Sections 5.5 and 5.6 discuss the existing conditions and effect on water wells respectively. Table 6-1 identifies proposed monitoring of groundwater quantity within residential wells in addition to monitoring wells installed during the EA. Groundwater quality within the same residential wells will also be monitored three times before the permitting phase, as close to construction as possible. 																																																				
10	<ul style="list-style-type: none"> The discharge of contaminated or high volumes of groundwater to natural features may have direct impacts on their function. Any potential impacts on the ecological processes of streams, wetlands or other surficial features resulting from groundwater takings should be identified, and appropriate mitigation measures recommended. The level of detail required will be dependent on the significance of the potential impacts. 	Groundwater	<ul style="list-style-type: none"> Section 5.6 (Net Effects) discusses the potential groundwater impacts to natural features and the appropriate mitigation measures to be applied. 																																																				

ID	Issue Raised by Review Agency	Section	Consideration of Issue
11	<ul style="list-style-type: none"> The stormwater management concept should include enough preliminary details to evaluate impacts and benefits of different proposals and to select preferred alternatives. 	<ul style="list-style-type: none"> Surface Water 	<ul style="list-style-type: none"> For each section of the Preferred Undertaking, a proposed concept for stormwater management has been identified. Figure 5-5 has been generated to show the location of preliminary stormwater management facilities that will be incorporated into the design. A discussion has been included in Chapter 5 to provide information on these facilities.
12	<ul style="list-style-type: none"> A preliminary analysis of stormwater management facilities should be included as this is required for an assessment of any additional land and structural requirements of the various alternatives. 	<ul style="list-style-type: none"> Surface Water 	<ul style="list-style-type: none"> See comment above. At this time, York Region does not intend to acquire additional land beyond what has been identified in the EA report.
13	<ul style="list-style-type: none"> An evaluation of expected stormwater quantity and quality impacts to the environmental receivers and effective mitigation of impacts should be provided at the EA stage. 	<ul style="list-style-type: none"> Surface Water 	<ul style="list-style-type: none"> Section 5.6 of the EA Report discusses effects associated with surface water quality and quantity and the mitigation measures that will be applied. The evaluation of surface water quality and quantity impacts has been revised to more clearly indicate the sediment and erosion controls and stormwater management controls that will be used to mitigate impacts on downstream water during operation
14	<ul style="list-style-type: none"> The Report should indicate the expected increase in impervious area and how much of the total impervious area is to be treated according to MOE's 'Enhanced Water Quality Protection' Level 1 standards (enhanced level treatment standards). We recommend that enhanced level treatment standards be applied to all stormwater management facilities unless justification can be provided for a lower level of protection. 	<ul style="list-style-type: none"> Surface Water 	<ul style="list-style-type: none"> 100% of the impervious area associated with the Preferred Undertaking will receive water quality treatment Sections of the road with enhanced vegetated swales or stormwater management ponds will be treated to MOE's 'Enhanced Water Quality Protection' Level 1 standards Sections of the road with oil-grit separators will receive the best treatment possible through such structures. The information regarding the total increase in impervious area per section of improved roadway has been added to Chapter 5, Section 5.6.
15	<ul style="list-style-type: none"> It is recommended that the Report delineate drainage areas and quantify increased surface water runoff to receiving watercourses in order to assess impact to receivers and to determine the need for water quantity control structures. 	<ul style="list-style-type: none"> Surface Water 	<ul style="list-style-type: none"> The drainage areas and the quantity of increased surface water runoff to major watercourses has been provided in applicable sections of Chapter 5.
16	<ul style="list-style-type: none"> A balanced water budget should be developed for each sub-catchment with the objective of matching pre- and post-development hydrologic regimes. The calculations used in achieving the results should be attached to the Report. 	<ul style="list-style-type: none"> Surface Water 	<ul style="list-style-type: none"> The increase in impervious area associated with the Preferred Undertaking is very small relative to other changes (i.e., suburban development). Therefore, York Region does not believe that it is warranted to develop a balanced water budget for each sub-catchment.
17	<ul style="list-style-type: none"> It is recommended that the contributing drainage areas of each stormwater facility (ponds, swales, sewers, oil/grit separators (OGS)) and their outlet locations be approximately marked on a map. Areas proposed to be left untreated should also be identified. 	<ul style="list-style-type: none"> Surface Water 	<ul style="list-style-type: none"> No areas will be left untreated. This information has been included in the figure described above.
18	<ul style="list-style-type: none"> Information that should be provided in support of utilizing the existing stormwater ponds includes: <ul style="list-style-type: none"> The level of treatment the stormwater ponds were originally designed to achieve; An analysis of the current level of treatment being provided by each stormwater pond; A determination of the "excess" capacity to handle additional flows from the expanded roadways and adhere to enhanced level treatment standards; A technical assessment of the ability to retrofit stormwater ponds that do not currently meet enhanced level treatment standards to meet these standards. This assessment should consider other issues that may influence the feasibility of using the existing ponds for this 	<ul style="list-style-type: none"> Surface Water 	<ul style="list-style-type: none"> These details will be obtained during detailed design. The proposed stormwater management approach described in section 5.3.1.2 and section 5.4 includes contingency measures in the event that existing ponds do not have quality or quantity controls that are sufficient to meet the needs associated with the improvements.

ID	Issue Raised by Review Agency	Section	Consideration of Issue
	<p>project such as ownership, access, and possible allocation of stormwater ponds to service other future development.</p> <ul style="list-style-type: none"> Proposals for alternative treatment facilities that can meet enhanced level treatment standards where it is determined that the existing ponds do not have the available capacity or the ability to retrofit, as well as for areas that are currently drained with ditches and swales. 		
19	<ul style="list-style-type: none"> OGS sizing requirements will need to be considered to ensure that at least 90% of the runoff volume at the site is captured and treated as per enhanced level treatment standards. If stormwater facilities are to include OGS, it should be as part of a treatment train with grassed swales (Stormwater Management Planning and Design Manual, MOE 2003). 	<ul style="list-style-type: none"> Surface Water 	<ul style="list-style-type: none"> OGS sizing requirements will be addressed as part of detailed design and contracting. Where feasible, vegetated swales will be examined in addition to OGS. Currently, such swales are proposed in areas where there are no built-up areas adjacent to the road improvements (i.e., along Major Mackenzie and Rutherford Road between Islington Avenue and Pine Valley Drive). In built-up areas, which make up the majority of the study area, there is limited opportunity to provide grassed swales due to the proximity of the road to existing properties. In these locations, York Region proposes to use OGS, including any associated filters or other technology, to provide the appropriate treatment that meets regulatory requirements.
20	<ul style="list-style-type: none"> The Report repeatedly refers to the word 'feasible' when describing the types of stormwater management that can be considered for this project. This feasibility is based on existing property and capital costs. The cumulative impact of stormwater resulting from the road expansion should be considered with more emphasis placed on the protection of the environmental receivers; this may require additional land acquisition to implement. 	<ul style="list-style-type: none"> Surface Water 	<ul style="list-style-type: none"> York Region believes that all of the stormwater management options put forward will provide sufficient protection of environmental receivers. As mentioned above, York Region does not intend to acquire additional land beyond what has been identified in the EA report.
21	<ul style="list-style-type: none"> It is unclear how stormwater will be managed at the proposed interchanges, particularly those at the 427 extension, which has already been subject to its own Environmental Assessment that included 9 stormwater ponds. A discussion on stormwater management specific to these interchanges should be provided. 	<ul style="list-style-type: none"> Surface Water 	<ul style="list-style-type: none"> This is part of the Highway 427 EA, and it is MTOs responsibility to design these stormwater management ponds. This will be coordinated during detailed design.
22	<ul style="list-style-type: none"> Several sections state that lowered water levels are expected to have a long-term impact post-construction (page 5-141, 5-103) and refer to the hydraulic analysis in the appendices. This potential long term impact should be further interpreted and discussed. The extent of the expected impact should be quantified and long-term mitigation options proposed. It is important that baseflows in the surface water features be maintained. 	<ul style="list-style-type: none"> Surface Water 	<ul style="list-style-type: none"> The comment refers to lower water levels during flood conditions, which is a positive effect. No impacts on baseflow water levels are anticipated. The sections have been revised accordingly to provide clarification.
23	<ul style="list-style-type: none"> The impacts and mitigation measures for potential upstream flooding in waterways should be discussed in greater detail. 	<ul style="list-style-type: none"> Surface Water 	<ul style="list-style-type: none"> A minor increase in upstream flooding (between 7 and 14 cm) is predicted at the Main Humber River upstream of new bridge at Major Mackenzie Drive, There are two properties on the upstream side of the bridge that are already within the floodplain. York Region will undertake more detailed hydraulic modelling prior to detailed design to better understand the upstream effects and to identify design modifications to the bridge to eliminate these effects. It is expected that refinements to the design of the bridge will eliminate these effects. In the unlikely event that the effects are unavoidable, York Region will meet with the affected landowners to discuss and agree on appropriate compensation for the increased flood risk. A discussion of the effects and proposed mitigation has been added to Chapter 5.

ID	Issue Raised by Review Agency	Section	Consideration of Issue
24	<ul style="list-style-type: none"> Net effects should be clarified as there is conflicting information regarding this topic in the Report. For example, page 5-157 states that the hydraulic analysis indicated that the post construction water levels in the Humber River will be lower as a result of bridge replacement at the Main Humber River crossing. However, Table 5-8 states that there is an increase in water levels at the Main Humber River due to the installation of a new bridge. 	<ul style="list-style-type: none"> Surface Water 	<ul style="list-style-type: none"> As mentioned above, Table 5-8 indicates that water levels at the Main Humber River bridge on Major Mackenzie (not Rutherford Road) will increase. Page 5-157 refers to the Main Humber River Bridge on Rutherford Road.
25	<ul style="list-style-type: none"> The Report should include a review of the current practices for road salt management and an evaluation of pre-development versus post-development salt impacts on surface water and fish habitat. 	<ul style="list-style-type: none"> Surface Water 	<ul style="list-style-type: none"> An assessment of effects from road salt application is included in Chapter 5 in the sections dealing with Surface Water and terrestrial habitat, where applicable. References to York Region's Salt Management plan have been provided in the appropriate Mitigation / Compensation sections in Chapter 5.
26	<ul style="list-style-type: none"> BMPs for salt management and application should be included in Appendix E as indicated in several sections regarding Mitigation/Compensation Measures. 	<ul style="list-style-type: none"> Surface Water 	<ul style="list-style-type: none"> See response above. References of BMPs as per York Region's Salt Management Plan have been provided in the appropriate Mitigation / Compensation sections in Chapter 5.
27	<ul style="list-style-type: none"> 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 area classified as Endangered, Threatened or of Special Concern. The proponent should ensure that MNR is consulted and any comments from MNR incorporated into the final Report. 	<ul style="list-style-type: none"> Surface Water 	<ul style="list-style-type: none"> A copy of the draft EA report was provided to Rene Bowler and Steve Strong of MNR. Only high-level comments were received from MNR on the draft EA report regarding the need for permits under the <i>Endangered Species Act</i> for effects on Redside Dace habitat and the importance of York Region's commitment to developing and implementing restoration/recovery plans. The need for permits under the <i>Endangered Species Act</i> has been added to the list of Provincial approvals included in Chapter 8.
28	<ul style="list-style-type: none"> Hydraulic analysis and proposals for sizing of stream culverts and bridge crossings should be sent to the Toronto and Region Conservation Authority (TRCA) for review by their engineering staff. TRCA should be consulted and any TRCA comments incorporated into the final Report. 	<ul style="list-style-type: none"> Surface Water 	<ul style="list-style-type: none"> Hydraulic analysis was provided to TRCA and has been reviewed. Their comments have been incorporated into the final EA report, where applicable.
29	<ul style="list-style-type: none"> While several sections of the Report and Appendices acknowledge the need for a PTTW for groundwater pumping in exceedance of 50,000 litres/day, it should be noted that a PTTW is also needed for surface water extraction and the active diversion of surface water flows by pumping in exceedance of 50,000 litres/day. A monitoring program for discharge water quality and quantity, as well as a mitigation program, may need to be developed. 	<ul style="list-style-type: none"> Surface Water 	<ul style="list-style-type: none"> Comments acknowledged.
30	<ul style="list-style-type: none"> Table 4.3 compares typical future motor vehicle emission rates to health-based Ambient Air Quality Criteria (AAQCs) applicable to a 24-hour averaging period. The acrolein standard listed in Table 4.3 should be updated to indicate that it is not based on a 24-hour average (i.e. by including the rank column). 	<ul style="list-style-type: none"> Air 	<ul style="list-style-type: none"> Acknowledged. The updated standard for acrolein does not affect the selection of contaminants.
31	<ul style="list-style-type: none"> Section 4.3 should indicate which 5 years of monitoring data were used in the assessment of background air quality conditions. Notes in Tables 6.7 to 6.24 refer to 2000-2004, Figures B1 to B12 in Attachment B list 2004-2008 and Section 6.2.2 notes that the worst-case year for background concentrations was 2005. The proponent should clarify which years were used in the assessment and update the different sections accordingly. 	<ul style="list-style-type: none"> Air 	<ul style="list-style-type: none"> The data for the toxics (i.e., acetaldehyde, acrolein, 1,3-butadiene, benzene, and formaldehyde) were based on the years 2000 to 2004. The data for the criteria air contaminants (NO₂, PM_{2.5} and ozone) were based on the years 2004 to 2008. The analysis was based on the year 2005 as it had relatively high ambient background levels and worst-case meteorological conditions, resulting in conservative predicted cumulative concentrations.

ID	Issue Raised by Review Agency	Section	Consideration of Issue
32	<ul style="list-style-type: none"> Table 4.4 should be updated to reflect the following information related to Ozone: the 1-hour AAQC for ozone is 80 ppb (equivalent to 165 µg/m³) as listed in the <i>Ontario's Ambient Air Quality Criteria</i> (MOE, February 2008). In addition, based on 2005 monitoring data at the Brampton Station, there were 47 hours that exceeded the 1-hour threshold. 	<ul style="list-style-type: none"> Air 	<ul style="list-style-type: none"> The Air Quality Report has been updated accordingly
33	<ul style="list-style-type: none"> Table 5.1 should be updated to correct the labels of the maximum and minimum daily temperatures. 	<ul style="list-style-type: none"> Air 	<ul style="list-style-type: none"> The Air Quality Report has been updated accordingly
34	<ul style="list-style-type: none"> Tables 5.6 to 5.9 should be updated to reference the parameter that was modelled (NO₂). In the current Report, the tables list "Increased CoC [Contaminants of Concern] levels still within AAQC" under potential impact. 	<ul style="list-style-type: none"> Air 	<ul style="list-style-type: none"> The Air Quality Report has been updated accordingly
35	<ul style="list-style-type: none"> Figure B-6 entitled "<i>Concentration Profile for NO₂ – Year 2031 Future Build</i>" should be corrected to present the contribution without background as illustrated in other figures. 	<ul style="list-style-type: none"> Air 	<ul style="list-style-type: none"> The Air Quality Report has been updated accordingly
36	<ul style="list-style-type: none"> Construction equipment maintenance should be incorporated into Table 5- 8 entitled "<i>Summary of Mitigation / Compensation Measures Associated with the Preferred Undertaking</i>" of the Draft <i>Environmental Assessment Report</i>. The table should state that construction equipment will be properly maintained to minimize air emissions. 	<ul style="list-style-type: none"> Air 	<ul style="list-style-type: none"> Construction equipment maintenance has been added to the mitigation measures listed in Appendix 5-E.
37	<ul style="list-style-type: none"> The assessment of alternative methods for carrying out the undertaking in Section 5.0 used 2007 meteorological (met) data set, whereas the assessment for the preferred route used the 2005 met data set. The proponent should explain why the 2005 met data set was not used on the alternative methods assessment. 	<ul style="list-style-type: none"> Air Quality Investigations Report 	<ul style="list-style-type: none"> The year 2007 was selected for the assessment of alternatives as it was the most recent year of data available. It is important to note that the selection of a year of meteorological data is inconsequential in comparing alternatives, as it was a relative comparison. For the assessment of the preferred route, which is more absolute, we analyzed five years of data and selected 2005 which resulted in the highest predicted concentration in terms of worst-case meteorological conditions, combined with high ambient background concentrations.
38	<ul style="list-style-type: none"> The air quality impacts at sensitive receptors for the preferred route were only assessed using the NO₂ and PM_{2.5} levels. The proponent should explain why only PM_{2.5} and NO₂ were used in the modelling assessment of the preferred route and include a qualitative assessment on the VOC impacts for this project, as VOCs are also compounds of concern. 	<ul style="list-style-type: none"> Air Quality Investigations Report 	<ul style="list-style-type: none"> PM_{2.5} and NO₂ were selected as they are the most limiting contaminants (i.e., they had the highest ratio of emissions relative to their respective ambient air quality criteria), as shown in the screening analysis presented in Table 4.3 of the report. If the predicted concentrations for these contaminants are less than their ambient air quality criteria, it follows that the predicted concentrations for the remaining contaminants not modelled, including VOCs, would also be less than their ambient air quality criteria.
39	<ul style="list-style-type: none"> The proponent should clarify how the air quality impacts for the future build scenario compare with the current conditions. The Report did not include an assessment of the current conditions (Base Case); only preconstruction 2021 and 2026 scenarios were assessed and compared to the future build (2031). 	<ul style="list-style-type: none"> Air Quality Investigations Report 	<ul style="list-style-type: none"> Most of the improvements identified in the EA report will not be constructed until 2021. Thus, the 2021 scenario represents the year of construction and the 2026 scenario represents the mature state of the development. These cases were adopted so that the air quality study would be consistent with the noise study, which followed York Region's noise guidelines. Comparison of the future build to existing conditions does not provide any indication of the effect of the project itself and, therefore, is of limited relevance. By assessing the preconstruction 2021 and 2026 scenarios we were able to explicitly evaluate the impacts of the undertaking itself.

ID	Issue Raised by Review Agency	Section	Consideration of Issue
40	<ul style="list-style-type: none"> In Ontario, the average heavy duty vehicles distribution in arterial roads is approximately 8%. In this study, the average vehicle emission rates (2021) presented in Table 4.3 was based on 6% heavy duty vehicles distribution. Justification is required as to why such low percentage was used. 	<ul style="list-style-type: none"> Air Quality Investigations Report 	<ul style="list-style-type: none"> Please note that the air quality analysis used values ranging from 4% to 24% depending on the road being modeled. For most of the roads, the value used was in the range of 7-9%, consistent with the value suggested by the MOE. The use of 6 percent trucks in Table 4.3 represented a value near the middle of the range of actual values for the various sections of roadway, so that it gave a good general representation of the ranking. These were meant to be representative data for the range of actual truck percentages, not necessarily corresponding to a particular actual truck mix on one of the roads. The ranking is relatively insensitive to the vehicle mix.
41	<ul style="list-style-type: none"> The proponent should explain why the segment from Highway 27 to Islington Road along Rutherford Road was not assessed in the assessment of the preferred alternative. 	<ul style="list-style-type: none"> Air Quality Investigations Report 	<ul style="list-style-type: none"> Specific hot spots were modelled in the assessment of the preferred alternative, as discussed in Section 6.1 of the Air Quality Investigations Report. These hot spots, which included areas with relatively high traffic volumes combined with large numbers of receptors in close proximity to the roadways, were selected a worst-case indication of potential air quality impacts for the entire study area.
42	<ul style="list-style-type: none"> The discrepancy in the pre-construction dates listed in the Tables and the dates listed in the text should be corrected. The text states that pre-construction dates were 2021 for all selected sections except for Weston Road, where the pre-construction date was 2026. Tables 6.2 to 6.4 list traffic volumes for pre-construction 2026 and not 2021. 	<ul style="list-style-type: none"> Air Quality Investigations Report 	<ul style="list-style-type: none"> The discrepancy has been corrected.
43	<ul style="list-style-type: none"> Tables 6.1 to 6.4 summarize the percentage of heavy duty vehicles used for 2026 and 2031 scenarios. Since the Future Build Scenario (2031) includes HOV lanes, one would expect the heavy duty vehicles (buses) fleet distribution to have a slightly higher percentage for the 2031 scenario. The proponent should clarify why this is not the case. 	<ul style="list-style-type: none"> Air Quality Investigations Report 	<ul style="list-style-type: none"> HOV lanes include buses and high occupancy vehicles, with considerably more of the latter expected. The number of buses in the Pre-Build scenario will already be quite high, and is not expected to increase significantly for the 2031 scenario.
44	<ul style="list-style-type: none"> It is recommended that the proponent provide the ozone (O₃) background concentration used in the Ozone Limiting Method in Section 6.2.3 of the AQIR. 	<ul style="list-style-type: none"> Air Quality Investigations Report 	<ul style="list-style-type: none"> The Ozone Limiting Method was based on a fixed 1-hour O₃ concentration of 97 µg/m³ and a fixed 24-hour O₃ concentration of 89 µg/m³. These values represent the 90th percentile concentrations.
45	<ul style="list-style-type: none"> It is recommended that the proponent provide a sample input and output file in electronic format for pre-construction (2021/2026) and Future Build (2031) scenarios for one of the parameters modelled. As well, a summary of the emission rates (2021/2026 and 2031) inputted into the model should be provided. 	<ul style="list-style-type: none"> Air Quality Investigations Report 	<ul style="list-style-type: none"> A sample input and output file, including a summary of emission rates inputted into the model, has been provided
MOE Environmental Assessment and Approvals Branch (EAAB) - Letter (February 24, 2011)			
46	<ul style="list-style-type: none"> Given the long build out of the undertaking, the ministry requires that updating provisions be included in this EA to address the time that will elapse between the potential approval of the undertaking and the design and construction of the undertaking. Updating provisions should include requirements to confirm the baseline conditions, environmental effects and mitigation prior to construction. As well these updating provisions will ensure that the purpose and need for the undertaking still exists. Updating provisions should include a timeline as to when the EA will be updated (e.g. at least 10 years after approval) and will take into consideration the need to update the EA associated with the phased implementation of the undertaking. Some of the proposed pre-construction monitoring may also assist in addressing some components of this requirement. 	<ul style="list-style-type: none"> General Comment 	<ul style="list-style-type: none"> A commitment has been added to Table 6-2 to clarify that baseline conditions, environmental effects and mitigation will be updated for any improvements where construction has not begun within 10 years of EA approval. Documentation of updates will be provided to MOE for placement on the public record file.

ID	Issue Raised by Review Agency	Section	Consideration of Issue
47	<ul style="list-style-type: none"> Documentation would be required for the updates and shall be provided to the ministry for placement onto the public record file. Any changes through updating the EA may need to be addressed through the amending procedures in consultation with this ministry. 	<ul style="list-style-type: none"> General Comment 	<ul style="list-style-type: none"> Acknowledged – see comment above; chapter 9 already recognizes that amendments may be required.
48	<ul style="list-style-type: none"> In addition to mitigation, it is recommended that all commitments with respect to such matters as undertaking additional study; additional proposed consultation with stakeholders; and submission of additional materials to stakeholders, agencies and this ministry be clearly articulated in the EA and should be also located one place in the documentation in order to facilitate compliance. Also where specifics are to be determined during the detailed design this should be clearly stated as well as a commitment to consult with relevant stakeholders and the Ministry of the Environment about the specific details where warranted. 	<ul style="list-style-type: none"> General Comment 	<ul style="list-style-type: none"> Table 6-2 includes commitments related to additional consultation with stakeholders and it refers to Table 5-8 (mitigation / compensation) and Table 6-1 (monitoring requirements). Table 6-2 has been revised to include submission of additional materials to stakeholders and additional studies required during detailed design.
49	<ul style="list-style-type: none"> Rationale for the identification of each transportation improvement within each 'alternative' needs to be clearly articulated. As well as the rationale for each alternative alignment for the 'alternative methods'. This may require bringing forward some the information contained in any approved Master Plans as well as additional justification. 	<ul style="list-style-type: none"> General Comment 	<ul style="list-style-type: none"> Rationale for each of the Alternatives To and Alternative Methods has been provided in Chapters 3 and 4 respectively.
50	<ul style="list-style-type: none"> The advantages and disadvantages of each alternative versus another alternative (for alternatives to and alternative methods) and for the proposed undertaking is required. A comparison of 'Do Nothing' against the preferred undertaking can also form part of this discussion. 	<ul style="list-style-type: none"> General Comment 	<ul style="list-style-type: none"> The advantages and disadvantages for the Alternatives To are captured in Sections 3.5.3.1 and 3.5.4. The advantages and disadvantages for the Alternative Methods where multiple alignments were identified are described in each "Comparative Evaluation" section of Chapter 4. The respective sections of these chapters have been revised to clarify the discussion of the advantages and disadvantages. The Preferred Undertaking is compared to the Do Nothing Alternative in Section 5.7 and in Table 5-9.
51	<ul style="list-style-type: none"> The final EA must include an executive summary and appropriate maps as required by Regulation 334. The executive summary should also reference the list of studies, or reports under control of proponent which were done for the undertaking or the list of the studies/reports that are related to the undertaking that are not under control of the proponent which were used in the EA. 	<ul style="list-style-type: none"> Executive Summary 	<ul style="list-style-type: none"> Acknowledged
52	<ul style="list-style-type: none"> Table 1.1, Sections 6.1(2)c i, ii, iii and Section 6.1(2) d of the EAA are not accurately described and should include reference to a description of the environment, of the effects that will be caused, the proposed mitigation and the advantages and disadvantages to the environment for not only the preferred undertaking but also for the alternatives to and the alternative methods. Appropriate references must be made to the sections in Chapters 3 and 4 and Appendices 3, 4, and 5 where this is also addressed. 	<ul style="list-style-type: none"> Chapter 1, Table 1.1 	<ul style="list-style-type: none"> Table 1-1 has been revised accordingly
53	<ul style="list-style-type: none"> Table 1.1, Conditions 1 to 6 should be identified as the Minister's amendments 1 to 6. 	<ul style="list-style-type: none"> Chapter 1, Table 1.1 	<ul style="list-style-type: none"> Table 1-1 has been revised accordingly
54	<ul style="list-style-type: none"> A rationale for each specific transportation improvement should also be repeated and expanded upon in Chapter 3 and 4 as part of description of each transportation improvement. 	<ul style="list-style-type: none"> Chapter 2 	<ul style="list-style-type: none"> See comment above. Chapters 3 and 4 have been revised accordingly
55	<ul style="list-style-type: none"> It would appear that transportation improvements to Rutherford Road and Major Mackenzie are not just beyond the 2002 Transportation Master Plan (TMP) but also beyond the 2009 TMP. The description of alternatives or the rationale for the alternatives in Chapter 3 or 4 does not explain this very well nor does Chapter 2. 	<ul style="list-style-type: none"> Chapter 2 	<ul style="list-style-type: none"> The improvements are consistent with the 2009 TMP. A description will be provided to describe that in the 2009 TMP, Major Mackenzie Drive and Rutherford Road were identified as requiring improvement (i.e., widening to 6 lanes) to support transit.

ID	Issue Raised by Review Agency	Section	Consideration of Issue
56	<ul style="list-style-type: none"> Section 3.2 should be re-titled as follows: "Confirmation, Description and Rationale for the Alternatives to". Also section 3.5.4 should be revised as follows "Summary of Advantages and Disadvantages and Identification of "Recommended Alternative to". This section should also include a summary statement that the comparative evaluation for the short list of alternatives discusses the advantages and disadvantages to the environment of proceeding with one alternative versus another. This same approach for rationale and advantages/disadvantages should be provided in Chapter 4 for alternative methods. Additional information may be required in some cases to justify the identification of the alternatives. 	<ul style="list-style-type: none"> Chapter 3 	<ul style="list-style-type: none"> Requested revisions have been made
57	<ul style="list-style-type: none"> Chapter 4-Additional information is required with respect to the rationale for the alternative methods with respect to when only one alternative road widening alignment was identified for consideration. The EA needs to be revised to specifically state the justification (costs, environmental, safety, constraints, etc) for this approach for each alternative stating why one side of road or another is not considered or why there was a change to the original road alignment. 	<ul style="list-style-type: none"> Chapter 4 	<ul style="list-style-type: none"> See comment above. Information has been provided in the relevant sections of Chapter 4 to describe the rationale for why only one alternative road alignment was considered in certain locations.
58	<ul style="list-style-type: none"> Table 5-8- It is understood that Phase II Archaeological reports are to be submitted and reviewed by the Ministry of Culture. As such any mitigation should be consistent with the approved reports and Table 5-8 should be revised to reflect this. 	<ul style="list-style-type: none"> Chapter 5 	<ul style="list-style-type: none"> Stage 2 archaeological assessment reports have been included as part the final EA submission.
59	<ul style="list-style-type: none"> Chapter 6, Section 6.2, the ministry requires compliance with any commitments and conditions of approval which may be imposed which is not stated here. Also annual compliance reports will be required to be submitted to the ministry to report on compliance with any commitments or any proposed conditions. Compliance must also address any design, construction or operational aspects of the undertaking. 	<ul style="list-style-type: none"> Chapter 6 	<ul style="list-style-type: none"> Text regarding the need to comply with additional commitments and conditions of approval identified by the Ministry of the Environment of this EA report has been included Commitments regarding the need to prepare annual compliance reports have been included
60	<ul style="list-style-type: none"> Table 6-2, IEA Commitments appears to be incomplete. 	<ul style="list-style-type: none"> Chapter 6 	<ul style="list-style-type: none"> See previous responses. Table 6-2 has been updated to include the additional commitments as identified in the comments above.
61	<ul style="list-style-type: none"> In addition to the First Nation, the proponent should contact the Kawartha Nishnawbi First Nation who indicate they have traditional territory in this area. 	<ul style="list-style-type: none"> Chapter 7 	<ul style="list-style-type: none"> The Kawartha Nishnawbe First Nation has been contacted as part of this project. A draft EA Report was provided to the Kawartha Nishnawbe First Nation as part of presubmission for their review. York Region has not received a response from the KNFN.
62	<ul style="list-style-type: none"> Letters from INAC and MAA as well as any Aboriginal communities should be included in the Appendix for the consultation record. 	<ul style="list-style-type: none"> Chapter 7 	<ul style="list-style-type: none"> Correspondence from MAA was already included in Appendix 7J-3. Correspondence received from INAC has been included in the final EA report.
63	<ul style="list-style-type: none"> The final EA should include clarification about whether there are any federal triggers under the Canadian <i>Environmental Assessment Act</i>. 	<ul style="list-style-type: none"> Chapter 8 	<ul style="list-style-type: none"> Section 8.3 includes information on the federal triggers under the Canadian <i>Environmental Assessment Act</i>, however a summary has been provided at the beginning of this section to clearly identify the triggers.
64	<ul style="list-style-type: none"> Minor amendments are those amendments which may require some documentation through an Addendum report and a review by affected stakeholders as well as a review by the EAAB and ministry technical staff. A review of documentation may consist of a minimum 30-day review period. Most of the minor amendments should focus on changes to the design of the undertaking and should not result in any new net effects after mitigation. 	<ul style="list-style-type: none"> Chapter 9 	<ul style="list-style-type: none"> It is proposed that an amendment review document will be prepared for documenting minor amendments focused on the design changes to the undertaking and appropriate mitigation. The amendment review document will be distributed to potentially directly affected stakeholders, MOE and the City of Vaughan for 30 days for review and comment. Chapter 9 has been revised to describe this process.

ID	Issue Raised by Review Agency	Section	Consideration of Issue
65	<ul style="list-style-type: none"> Any minor amendments which include changes which are described as project activities requiring assessment under the Municipal Class EA shall be completed under that Class EA as a new undertaking. Please note changing the undertaking for example to add additional road/lane capacity from say 4 to 6 lanes is considered to be a new undertaking under the municipal Class EA and cannot be included as an example of a minor amendment under this EA. 	<ul style="list-style-type: none"> Chapter 9 	<ul style="list-style-type: none"> Comment acknowledged. This particular example of a minor amendment (i.e., widening from 4 to 6 lanes) has been removed from the list of minor amendments in Chapter 9.
66	<ul style="list-style-type: none"> The EA should also be revised to indicate that the ministry will determine the appropriate use of these amending procedures and will determine the nature and the extent of the ministry's review to meet the requirements of the <i>Environmental Assessment Act</i>. 	<ul style="list-style-type: none"> Chapter 9 	<ul style="list-style-type: none"> As per Section 9.1 of the EA Report, any changes proposed as a minor or major amendment will be discussed with the EAAB and categorized as a minor or major amendment subject to concurrence with the Director.
67	<ul style="list-style-type: none"> Major amendments appear to be significant amendments which would constitute a new undertaking. If such a change to an undertaking is of a type identified under the Municipal Class EA then the proposal would likely be completed under the MEA Class EA or an individual EA process as may be appropriate as stated in this EA. 	<ul style="list-style-type: none"> Chapter 9 	<ul style="list-style-type: none"> Comments acknowledged.
68	<ul style="list-style-type: none"> Chapter 10, Consultation Record- Final EA should be updated with any government agency, public and Aboriginal comments provided on the draft EA as well as how and where these comments are addressed in the EA. The final consultation record should also provide an overview summary of all key issues identified and how responded to and/or addressed. 	<ul style="list-style-type: none"> Chapter 10 	<ul style="list-style-type: none"> A table has been provided to include comments provided on the draft EA report from government agencies.
69	<ul style="list-style-type: none"> A council resolution from the City of Vaughan with their formal comments is required for this EA. What are the City of Vaughan's comments on the traffic modelling and improvements proposed to regional transportation corridors 	<ul style="list-style-type: none"> Chapter 10 	<ul style="list-style-type: none"> City of Vaughan staff have reviewed the draft EA report and submitted a staff report to Council that was endorsed in May 2011.
70	<ul style="list-style-type: none"> Prior to final submission it is recommended that we discuss your proposed Government Review Team (GRT) and agency circulation list and timing and administration of the submission of documents and notice requirements. 	<ul style="list-style-type: none"> General Comment 	<ul style="list-style-type: none"> Comments acknowledged
MOE EAAB, Air & Noise Unit - Letter (February 22, 2011)			
71	<ul style="list-style-type: none"> MOE Noise Guidelines: reference was made in Table 7-2 to 60 dBA and 65 dBA as being MOE noise guidelines. This is incorrect, as the 60 dBA and 65 dBA noise guidelines are of York Region and MTO, respectively. The correct reference should be made in the report. 	<ul style="list-style-type: none"> Chapter 7 	<ul style="list-style-type: none"> Table 7-2 has been corrected to identify that the 60 dBA noise guidelines are York Region's guidelines and that the 65 dBA guidelines are MTO's guidelines.
72	<ul style="list-style-type: none"> Noise Impacts and Mitigation Measures: Section 5 includes noise impact assessments and recommended mitigation measures that are not in conformance with the corresponding impacts/measures included in the RWDI Noise Report. The noise impacts and mitigation measures should be the same in both reports. 	<ul style="list-style-type: none"> Chapter 5 	<ul style="list-style-type: none"> Chapter 5 and the associated appendix have been reviewed and updated for consistency.
73	<ul style="list-style-type: none"> Construction Noise and Vibration Distance Setbacks: distance setbacks were recommended for investigation of noise (100 metre source-receiver distance) and vibration (50 metre source-receiver distance) impacts during construction. An explanation should be provided for the selection of these distance setbacks. 	<ul style="list-style-type: none"> Noise 	<ul style="list-style-type: none"> The distance setbacks for construction noise and vibration are based on industry practices used for the Individual Environmental Assessments. Considering the type of construction activity that is proposed, the proposed setbacks are considered to be sufficient.
74	<ul style="list-style-type: none"> Construction Noise/Vibration Impacts: <ul style="list-style-type: none"> Noise: Reference should be made to MOE publications NPC-115 and NPC-118 and to City of Vaughan By-Law No. 96-2006. Vibration: Reference should be made to MOE Publication NPC-207 	<ul style="list-style-type: none"> Noise 	<ul style="list-style-type: none"> The requested references have been made in Appendix 5-E.
75	<ul style="list-style-type: none"> Study Area: Figure 1 of the RWDI Noise Report and Figure 5-1 of the AECOM EA Report show the study area with different extents of improvement of affected roads/highways. 	<ul style="list-style-type: none"> RWDI Noise Report 	<ul style="list-style-type: none"> Figure 1 in RWDI's Noise Report has been updated to reflect the Study Area as shown in Figure 5-1.

ID	Issue Raised by Review Agency	Section	Consideration of Issue
76	<ul style="list-style-type: none"> Road Traffic Data: The use of assumed road traffic data (as listed in Tables 1, 2, and 3) in the MOE's road noise prediction model, ORNAMENT is questionable and there, the following input parameters need further checking/verification: <ul style="list-style-type: none"> Road traffic volumes (Annual Average Daily Traffic (AADT) for roadways and Summer Average Daily Traffic (SADT) for highways; Percentage of medium and heavy trucks; Posted speed limits; Day and night Split; and Project horizon years (start of construction and mature state of development years versus future no-build and future build years). Confirmation of data in the above items should be sought from the authorities having jurisdiction on the roads/highways under consideration. 	<ul style="list-style-type: none"> RWDI Noise Report 	<ul style="list-style-type: none"> Extensive 3 day continuous counts were conducted by AECOM in May/June 2010 to provide an up to date basis for AADTs along the 5 roadways that are part of the preferred solution. The counts distinguished between light and medium/heavy vehicles. Posted speed limits were based on existing conditions, except where the Region indicated there would be a reduction. Day/night traffic splits were taken from traffic volume counts conducted by Pyramid Traffic in May, 2010. The day/night split for the mature state of development was assumed to have the same breakdown of vehicle types. The project horizon years were estimated from a preliminary staging plan prepared by the Region. Peak hour travel forecasts for the horizon years of 2021 and 2031 (with existing and proposed road networks) were used to estimate before and after construction AADTs. The model was based on the Region's GTA wide EMM model, using the most current population and employment projections, and latest travel patterns from the Transportation Tomorrow Survey Summary tables showing the assumptions and step by step procedure employed for each of the 5 roadways are available upon request.
77	<ul style="list-style-type: none"> Sound Barriers: the following information needs to be provided in the report: <ul style="list-style-type: none"> Existing residences with sound barriers: an inventory of the sound barriers has been carried out to determine their acoustic performance and their inclusion in or exclusion from noise predictions. Recommendations should be made regarding the need to keep as-is/upgrade/replace these sound barriers in order to mitigate the project sound levels to the applicable criteria; Existing residences without sound barriers: an investigation should have been carried out to determine the sound barrier requirements of these residences to mitigate the project sound levels to the applicable criteria; and Proposed residences: an investigation should have been carried out (based on review of the zoning plans) to determine the sound barrier requirements of these residences to mitigate the project sound levels to the applicable criteria. The required sound barrier information (i.e. location, extents/length and height) should be provided in tabular and/or graphical forms for all first row residences (on reversed frontage and flanking lots) along both sides of the roads/highways subject to the proposed improvements within the study area. When sound barriers are not recommended for the residential subdivision backing/flanking onto the affected roads/highways; then justifications with support sound level calculations should be provided in the report. 	<ul style="list-style-type: none"> RWDI Noise Report 	<ul style="list-style-type: none"> The locations of existing noise barriers were determined using aerial photography, and confirmed by site visits conducted by RWDI personnel on May 20, 2010 and July 25, 2010. Attenuation of road noise due to existing barriers was accounted for in the study. According to York Region's Standard Operating Procedures for Traffic Noise Mitigation on Regional Roads, ongoing maintenance of existing noise barriers is the responsibility of the homeowner. Therefore, the evaluation of barrier condition and consequent recommendations regarding barrier maintenance were not factored into the assessment. Existing barriers were approved when they were constructed in accordance with the requirements at the time. Representative receptors were chosen for each area of receptors with similar road noise exposure. Evaluations for each of these areas were carried out to determine if sound barriers were required and technically feasible. Receptors where mitigation is recommended are shown in the RWDI noise report and in Chapter 5 of the EA report, as is justification for locations where barriers are not recommended. Proposed barrier design (location, length, and height) have been included in tabular format in Table 5-8. Barriers have also been shown on the design plates included in Appendix 5D. Any noise mitigation measures required for future development will need to be addressed by the developer through the development approvals process, as per York Region's current

ID	Issue Raised by Review Agency	Section	Consideration of Issue
			policy. However, analysis of unbuilt approved and/or draft approved development plans was conducted for this EA based on information presented in a memo prepared by The Planning Partnership dated May 31, 2010. Properties included in this memo were evaluated using the same approach as described above. The results of the analysis indicated that no noise mitigation was required for unbuilt approved or draft approved development plans.
78	<ul style="list-style-type: none"> Figures 3 to 11 show noise contours on both sides of the roads/highways. An explanation should be provided for the shown noise contours. Furthermore, all figures (including Figures 3 to 11, where applicable) showing the recommended sound barriers, must show the locations, extents/length and height of these barriers. 	<ul style="list-style-type: none"> RWDI Noise Report 	<ul style="list-style-type: none"> Figures 3 through 11 show the modeled roadway center line (in orange), overlaid on the proposed roadway layout (in purple). Noise contours have not been presented. As mentioned above, the design plates showing the preferred undertaking (Appendix 5D) have been updated to show the location and extent / length of the recommended sound barriers.
Ministry of Aboriginal Affairs - Letter (February 8, 2011)			
79	<ul style="list-style-type: none"> With respect to your project ... we can advise that the project appears to be located in an area where Six Nations may have existing or asserted rights or claims in MAA's land claims process or litigation, that could be impacted by your project. Contact information is below: <ul style="list-style-type: none"> Six Nations of the Grand River Territory Haudenosaunee Confederacy Chiefs Council 	<ul style="list-style-type: none"> General comment 	<ul style="list-style-type: none"> The final EA report has been circulated to the Six Nations of the Grand River Territory and the Haudenosaunee Confederacy Chiefs Council.
Ministry of Natural Resources – E-mail (June 17, 2011)			
80	<ul style="list-style-type: none"> The Ministry of Natural Resources would concur with many of the concerns expressed by the Toronto and Region Conservation Authority. Items of particular note include: <ul style="list-style-type: none"> Effects on Redside Dace habitat and the need to apply for permits under the Endangered Species Act (contact Melinda.Thompson-Black@Ontario.ca or 905-713-7425); Commitment to restoration/recovery plans that will result in comparable area replacement of the natural features that are removed. For example, it is evident that construction of the proposed Major Mackenzie jog elimination would remove forest, woodland, meadow and wetland. A tree inventory as proposed for detailed design is important and may find some endangered Butternut. It is the details of the replacement that will determine the net effects. 	<ul style="list-style-type: none"> General comment 	<ul style="list-style-type: none"> The need for permits under the Endangered Species Act has been included in the list of Provincial Approvals in Section 8.2.2 of the final EA report. Please see comment # 81 below regarding the commitment to compensation/restoration plans.
Municipal and Regional Agencies			
Toronto and Region Conservation Authority - Draft Letter (March 4, 2011)			
81	<p><u>Restoration and Compensation</u></p> <ul style="list-style-type: none"> Staff remains concerned with potential cumulative impacts that the proposed road widening and jog elimination will have on the overall ecological health of the study area. It is understood that many of the detailed effects on both terrestrial and aquatic habitats which will result from the road widenings and multiple crossing structures, replacements and extensions will have to be determined at detailed design. It is expected that an overall analysis of the cumulative impacts be provided along with a broad compensation and restoration approach will be completed through consultation with TRCA staff. The appropriate compensation and restoration plans will contribute to the fulfillment of Sustainability Principle 3: Protect and Enhance Natural Environment and Cultural Heritage as outlined in York Region's Moving on Sustainability, Transportation Master Plan Update, November 2009 as committed to in the EA Report. 	<ul style="list-style-type: none"> General Comment 	<ul style="list-style-type: none"> York Region is committed to working with TRCA during detailed design to prepare the compensation and restoration plans to address cumulative effects associated with each road improvement. As the phasing of improvements (including detailed design) is expected to occur over a 20-year period, it is proposed that compensation and restoration plans address each improvement (or section of improvement) individually.

ID	Issue Raised by Review Agency	Section	Consideration of Issue
82	<p><u>Environmental Management Plans</u></p> <ul style="list-style-type: none"> Staff understands that an Environmental Management Plan (EMP) will be prepared for each road/transit corridor to support permit and approval applications. The EMPs will detail all of the environmental commitments, monitoring requirements, and approval conditions associated with construction and operation. Staff asks that the compensation and restoration plans be incorporated within the scope of the EMPs and that these plans be prepared in consultation with TRCA staff. Staff applaud this open and accountable mechanism to implement the commitments outlined in the EA and feel that the preparation and approval of such EMPs will ultimately lead to streamlined TRCA permit and <i>Fisheries Act</i> approvals. 	<ul style="list-style-type: none"> General Comment 	<ul style="list-style-type: none"> York Region agrees to prepare EMPs that address compensation and restoration requirements associated with project permitting. As mentioned above, compensation and restoration plans will be developed in consultation with TRCA staff.
83	<p><u>Next Steps:</u></p> <ul style="list-style-type: none"> Please ensure that the TRCA receives a copy of the Notice of Study Completion and one (1) hard copy and one (1) digital copy, in pdf form, of the final EA document. The final EA document should be accompanied by a covering letter which uses the numbering scheme provided in this letter and identifies how these comments have been addressed. 	<ul style="list-style-type: none"> General Comment 	<ul style="list-style-type: none"> Comments acknowledged. TRCA staff received a copy of this disposition table in advance of the final EA report, which identified how these comments have been addressed in the final EA report.
84	<p><u>Appendix A Comment 1:</u></p> <ul style="list-style-type: none"> Many watercourses and drainage features affected by the various road improvement works have been identified in the field with both TRCA and York Region staff. The IEA provides adequate detail regarding the watercourses, their general levels of sensitivity and the potential impacts to the watercourses from the proposed works. It is not feasible to provide detailed comments regarding the appropriateness of the crossing structures, or the proposed realignments at this time. As noted in the report, many of the watercourses are highly sensitive and are known habitat for Species at Risk. As a result, a detailed summary analysis of why each crossing size and type was chosen, as well as how the selected crossing structure adequately accommodates the watercourse, meander belt, wildlife crossing, etc., should be provided for TRCA review. Ecology staff cannot support negative impacts in the form of enclosure or realignment to sensitive fish habitat in general, and may only consider such impacts if detailed rationale and justification is provided, along with appropriate compensation. In conclusion, please be note that ecology staff cannot provide approval of the proposed crossings (type, size, etc) at this time and will work with York Region staff to determine appropriate crossings when more detail is provided. Of particular interest/sensitivity are: <ul style="list-style-type: none"> The crossing of the Main Humber and its tributary along Major Mackenzie, west of Highway 27; Crossings of any watercourses of high sensitivity, particularly where managed for Species at Risk; Crossings which may impact the natural morphology of the watercourse feature. <ol style="list-style-type: none"> Chapter 5, section 5.6 discusses the impacts associated with the various construction activities along Major Mackenzie between Highway 50 and Highway 400. Specifically, there is a discussion of mitigating impacts from the culvert extension at the East Rainbow Creek crossing (station 0+368). If there is a potential for long term effects as a result of this proposed culvert extension, rather than proposing to harden or conduct channel works, it would be the preference of ecology staff that a more appropriate solution be sought (i.e., Larger structure which would accommodate the stream morphology?) It is proposed that 22 m of ephemeral fish habitat along East Rainbow Creek be straightened or enclosed. Are there options that could be examined that would better replicate the function of this feature. For example, using the TRCA's Headwater Drainage Feature Guideline to assess the function of this feature and determine appropriate compensation for proposed loss. 	<ul style="list-style-type: none"> Chapter 5 	<ul style="list-style-type: none"> Where feasible and appropriate, the EA has identified the use of open-footed structures at all regulated crossings to minimize the effects on fish and fish habitat, and maximize the opportunity for wildlife passage. The sizing presented in the EA is based on the hydraulic analysis and Meander Belt reports. During detailed design, the sizing of structures and construction method will be refined in consultation with TRCA to further minimize the effects on fish and fish habitat. A statement has been added in Chapter 5 of the EA report to indicate that the design of all structures will be refined during detailed design, as described above. The effects associated with the structures, including construction effects, on fish and fish habitat are documented in Section 5.6. For ease of review, the information on structures, including existing conditions and associated effects, has been provided in tabular form as part of the Executive Summary. A) Specific reference is made to long term impacts to crossing (0+368). The feature has ephemeral flow, providing indirect poor quality fish habitat during limited periods of the year. York Region believes that altering structure design to accommodate stream morphology is not appropriate at this particular location. B) Agreed, TRCA's headwater Drainage Feature Guideline have been referenced for alternative design options. Specifics on design will be determined during detailed design.

ID	Issue Raised by Review Agency	Section	Consideration of Issue
85	<p><u>Appendix A Comment 2:</u></p> <p>a) Compensation for the many proposed culvert extensions and overall increases in structure lengths will be required to ensure no net loss of fish habitat. Please note that while Table 5.8 addresses this using an example of high density plantings, compensation for loss of length should include additional length and increase quality of habitat or creation of habitat elsewhere, minor improvements in the form of plantings will not be considered sufficient compensation. Furthermore, alternative methods of compensation and mitigation should be considered for some of the smaller, ephemeral features using TRCA's Headwater Drainage Feature Guideline.</p> <p>b) With respect to restoration/compensation for loss of area of vegetated lands, compensation should focus on replacing these lost areas with an area of equal or greater size and then restoring this area according to the principles outlined in the TRCA's Natural Heritage System strategy to improve the overall size, shape, connectivity and quality of the natural heritage system. Additionally consideration must be given to compensatory area and planting ratios, which should be discusses/decided upon with TRCA staff during detailed design. However, leaving these decisions to detailed design could make it difficult to locate appropriate areas for compensation, and so it is recommended that early research and analysis be conducted to develop a comprehensive, overall approach.</p>	<ul style="list-style-type: none"> Chapter 5 	<ul style="list-style-type: none"> A) Compensation plans will be developed during detailed design. It is understood that high density plantings alone are not sufficient. The TRCA's Headwater Drainage Feature Guideline has been referenced for the development of specific compensation and mitigation during detailed design. B) Comments acknowledged. Given that compensation ratios are set by permitting agencies (including TRCA), York Region suggests that compensation and restoration plans be developed during detailed design once the extent of effects are fully understood. We acknowledge that restoration and/or compensation may occur on or off-site, and that compensation and restoration plans will be developed in consultation with TRCA.
86	<p><u>Appendix A Comment 3:</u></p> <ul style="list-style-type: none"> Staff previously reviewed the fluvial geomorphology assessments and the hydraulic assessments that spoke to the proposed engineering design of the major watercourse crossings in the study area where a replacement structure was being considered, and comments were provided to the proponents. The Draft EA Report identifies the issues raised in our previous comments on the fluvial geomorphology and hydraulic assessments, and indicates a "response is in progress". The issues are required to be addressed at the EA stage, and we expect that a response to our comments will be incorporated in the final EA Report. Staff concur with the stormwater management discussion provided in the Draft EA Report, and agree that appropriate text within the report to carry forward a commitment to investigate opportunities to incorporate existing and future stormwater management ponds for treatment of road runoff is acceptable. Staff also agrees to carrying forward a commitment to provide stormwater management to the satisfaction of the TRCA by incorporating best efforts to enhance water quality, reduce erosion, and controlling the quantity of runoff from the roadways included in the undertaking. 	<ul style="list-style-type: none"> General Comment 	<ul style="list-style-type: none"> A response letter was sent to TRCA to address comments on the hydraulics and meander belt reports. With regards to stormwater management, please note that York Region has provided additional detail in the final EA report to address comments from the MOE. Specifically, for each section of the Preferred Undertaking, a proposed concept for stormwater management has been identified. Specifically, Figure 5-5 shows the location of preliminary stormwater management facilities that will be incorporated into the design. A discussion has been included in Chapter 5 to provide information on these facilities.
87	<p><u>Appendix A Comment 4:</u></p> <ul style="list-style-type: none"> While the geotechnical report comments on the general potential for dewatering requirements at culvert and bridge construction sites, existing subsurface soil and water level information (numerous boreholes at the crossing sites were not equipped with standpipes or piezometers) has not identified any major aquifer units within the penetration depths. At this point, there does not appear to be any areas where significant shallow groundwater control measures would be required. However staff notes that follow-up geotechnical / hydrogeological investigations in areas closer to the actual construction site(s) may reveal localized saturated granular intervals requiring dewatering / depressurization. 	<ul style="list-style-type: none"> Geotechnical Report 	<ul style="list-style-type: none"> Table 5-8 (Summary of Mitigation / Compensation measures) identifies that additional geotechnical investigation are required. Table 5-8 and Table 6-2 have been revised to indicate that additional geotechnical and hydrogeological investigations will be undertaken prior to construction.

ID	Issue Raised by Review Agency	Section	Consideration of Issue
	<ul style="list-style-type: none"> Several new bridge construction works (i.e. East Humber River Bridge – Major MacKenzie Drive, Upper Humber River Bridge – Major MacKenzie Drive, Purpleville Creek Bridge – Major MacKenzie Drive, Humber River Bridge – Rutherford Road) would entail pile foundations with footings set to the pile caps. Other watercourse crossings (i.e. Humber River Bridge – Highway 27, East Humber River Bridge – Rutherford Road) would entail pier footing extensions. Staff notes that the different foundation installation methods would require differing groundwater control methods and degree of control, depending on site-specific formations encountered. Supplemental geotechnical / hydrogeological investigations would be undertaken during detail design stage to further delineate the extent of dewatering (un-watering) requirements for foundation installation. Consideration should be given to employing temporary isolation techniques to minimize / eliminate shallow groundwater extraction, where appropriate. 		
Region of Peel - Letter (February 12, 2011)			
88	<ul style="list-style-type: none"> The Region supports the implementation of “Alternative 8 – All Improvements Except More Roads” as this approach is in line with Peel Region’s focus on the increased sustainability of our transportation system, subject to the following comments from various Regional departments. 	<ul style="list-style-type: none"> General Comment 	<ul style="list-style-type: none"> Comment noted
89	<ul style="list-style-type: none"> The issue of network continuity is an important one. Specifically, we have noticed that York’s current practice is for a 3.3 metre GPL and 5.0 metre shared transit/bike/HOV lane. GPLs in Peel Region are typically 3.65 metres and we suggest that York Region staff should review and revise their figures accordingly in light of this information. The larger lane widths are particularly important given the high volume of trucks, which have not been adequately addressed in the Western Vaughan IEA study. In addition, improvements to Major Mackenzie Drive and Rutherford Road should be carried out in consultation with Peel Region staff to further ensure network connectivity. The report does not appear to take into consideration the GTA West corridor or 427 extension to GTA West. While a provincial Environmental Assessment Study for the extension of Highway 427 to Major Mackenzie Drive has been approved, Peel Region is supportive of a further extension of the 427 to Highway 9 and beyond. Provisions should be made in the study to facilitate this extension. 	<ul style="list-style-type: none"> General Comment - Transportation Planning 	<ul style="list-style-type: none"> The lane widths applied to the Western Vaughan IEA Study are based on the 6 lane cross section that has been approved by York Region Council. York Region believes that the approved cross section is sufficient to handle the anticipated volume of trucks. Coordination will be required during detailed design to ensure proper transition between the York and Peel lane widths on Major Mackenzie Drive and Rutherford Road at Highway 50 (the Regional boundary). The GTA West and Highway 427 extension were reflected in the transportation modelling completed for this study; a reference to these and other studies has been added to the EA report. The preferred undertaking identified in the EA Report accommodates the extension of Highway 427 to Major Mackenzie Drive and does not preclude the extension of Highway 427 further north. The design in this section has been completed in consultation with MTO.
90	<ul style="list-style-type: none"> The Western Vaughan IEA should be consistent with the findings and recommendations of the Peel-Highway 427 Extension Area Transportation Master Plan Study. 	<ul style="list-style-type: none"> General Comment - Transportation Planning 	<ul style="list-style-type: none"> The preferred undertaking is consistent with the recommended network from the Peel study recently completed. Specifically, the new arterial link (from Mayfield Road) to Major Mackenzie Drive and Castlemore Road (as an extension to Rutherford Road in York Region) are both proposed to be 6 lane arterials, providing cross-boundary continuity and connections to the future Highway 427 extension from Peel.
91	<ul style="list-style-type: none"> There is a need to coordinate the findings of the Peel Region Carpool Lot Study with the Western Vaughan IEA study. 	<ul style="list-style-type: none"> General Comment - Transportation Planning 	<ul style="list-style-type: none"> The Western Vaughan IEA study is consistent with the recommendations of the Peel Region Carpool Lot Study, which shows Peel / York boundary sites at King Road and at Highway 7. These will be complemented by MTO facilities near the future Major Mackenzie and Rutherford interchanges with Highway 427, thus tying in with the TDM initiatives of the Region along Major Mackenzie Drive and Rutherford Road.

ID	Issue Raised by Review Agency	Section	Consideration of Issue
92	<ul style="list-style-type: none"> Planning and design considerations should encourage active transportation for all age groups and persons with disabilities. 	<ul style="list-style-type: none"> General Comment - Chronic Disease and Injury Prevention 	<ul style="list-style-type: none"> The provision of bicycle and HOV lanes on all roadways with the 6-lane design, along with sidewalks for all improvements, encourages active transportation for all age groups and persons with disabilities within the Study Area. York Region's designs incorporate the requirements of the <i>Accessibility for Ontarians with Disabilities Act</i>.
93	<ul style="list-style-type: none"> 2006 Ministry of the Environment Air Quality Index data was used as background. More recent data is available and indicates that more recent air quality (AQ) is better than 2006; thus, this was conservative in the model. 	<ul style="list-style-type: none"> General Comment - Environmental Health 	<ul style="list-style-type: none"> Agreed. The intent of using data from 2006 was to adopt a relatively worst-case year from among recent years of data.
94	<ul style="list-style-type: none"> BaP/PAHs were not included in the AQ assessment. What was the rationale for exclusion in contaminants of concern? 	<ul style="list-style-type: none"> General Comment - Environmental Health 	<ul style="list-style-type: none"> With respect to contaminants of concern, the same approach and rationale that is adopted by the MTO for environmental assessment of provincial highways was used for this study. The contaminants shown in Table 4.1 of RWDI's Noise report are key representatives of the major groups of exhaust contaminants (inorganic gases, particulate matter, aromatic hydrocarbons and aldehydes). Polycyclic Aromatic Hydrocarbons (PAHs), of which benzo(a)pyrene (BaP) is the key representative, are not assessed for provincial highways. The MTO's rationale is that the available emissions factors for motor vehicles have excessive uncertainty.
95	<ul style="list-style-type: none"> Peel Health disagrees with the language in the report referring to Ambient Air Quality Criterion (AAQCs) as "health based thresholds", which is not the case for NO₂ and CO. Only the new proposed standards for benzene and 1,3-butadiene and the 24-hr CWS for PM_{2.5} should be considered health based. 	<ul style="list-style-type: none"> General Comment - Environmental Health 	<ul style="list-style-type: none"> The use of the term "health based" in connection with MOE criteria for NO₂ and CO is consistent with MOE documentation, which identifies the limiting effect for both of these contaminants as "Health" (Ontario's Ambient Air Quality Criteria, Standards Development Branch, February 2008). However, we acknowledge that in some cases, such as NO₂, there is now evidence that the MOE's health-based criteria are no longer based on the lowest observed effects level.
96	<ul style="list-style-type: none"> Although the modeled cumulative concentrations (90th percentile background + max modeled) are below air quality criteria for NO₂, NO₂ AQ standards are outdated and not at a level that is protective of public health. 	<ul style="list-style-type: none"> General Comment - Environmental Health 	<ul style="list-style-type: none"> As mentioned, there is now evidence that the MOE's health-based criteria for NO₂ are no longer based on the lowest observed effects level. The World Health Organization has adopted a 1-hour guideline of 200 µg/m³ for NO₂, which is half of the MOE 1-hour criterion. Fortunately, the predicted NO₂ concentrations shown in our study remain within the more stringent WHO guideline.
97	<ul style="list-style-type: none"> Appendix 4C – NO₂ results indicate that the preferred alternative scenario will have a much greater impact on short term exposure basis than a long-term exposure basis. The modelled max 1-hr + background and modelled max 24-hr + background (cumulative) doesn't exceed the AAQCs at any sensitive receptor locations; that said, acute exposure NO₂ (1-hr modelled max) accounts for a larger magnitude/percent of the resulting 1-hr max cumulative concentrations than does the 24-hr modelled max to the 24-hr cumulative concentration. 	<ul style="list-style-type: none"> General Comment 	<ul style="list-style-type: none"> We agree that, for the 1-hour averaging time, the roadways are predicted to make up a significant proportion of the cumulative concentration; however, the levels are well within both the MOE criterion and the more stringent WHO guideline, as already noted.

ID	Issue Raised by Review Agency	Section	Consideration of Issue
The Corporation of the City of Brampton - Letter (February 18, 2011)			
98	<ul style="list-style-type: none"> An Executive Summary, and a definition of the 'Undertaking' presented at the outset of the study would be helpful. 	<ul style="list-style-type: none"> General Comment 	<ul style="list-style-type: none"> An Executive Summary has been included as part of the Final Western Vaughan IEA Report submitted to the MOE.
99	<ul style="list-style-type: none"> There is no mention of the GTA West Transportation Corridor – currently being studied by the Province of Ontario and identified in Peel ROPA 24 – which will likely traverse the study area. 	<ul style="list-style-type: none"> General Comment 	<ul style="list-style-type: none"> The potential effects of the GTA West Transportation Corridor on traffic conditions were assessed and appropriate comments will be added to the report summarizing what was done and the findings/conclusions (the building of this facility north of the study area would not change the recommendations.)
100	<ul style="list-style-type: none"> The Peel Highway 427 Extension Area Transportation Master Plan, completed jointly with York Region in 2009 and emphasizing area connectivity to the Highway 427 extension, and in particular the Major Mackenzie Drive to Mayfield Road connection via a new arterial road ("Alternative A2 in the aforementioned TMP) should be mentioned in Chapter 1 and Chapter 3. 	<ul style="list-style-type: none"> General Comment 	<ul style="list-style-type: none"> Acknowledged; The updated demand analysis incorporated land use and road network changes identified by Peel and York Region staff in April 2009, including Alternative A2 for the 427 Extension Area TMP and has been referenced in Chapters 1 and 2 as suggested.
101	<ul style="list-style-type: none"> Chapter 3 should also discuss the connection to the CP Vaughan Intermodal Yard, which is meant to be improved through the extension of Highway 427 and Major Mackenzie Drive. 	<ul style="list-style-type: none"> Chapter 3 	<ul style="list-style-type: none"> The improved connection offered by the Highway 427 extension was discussed and recognized in our analysis. The Highway 427 Transportation EA addressed the benefits to CP Vaughan Intermodal Yard, where as the West Vaughan IEA discusses mobility for all traffic across the entire study area as opposed to a specific development block. The design plates included in Appendix 5D incorporate the access locations for the CP Vaughan Intermodal Yard.
102	<ul style="list-style-type: none"> There should be a discussion in the report of transit mode share that reflects the differences between areas close to and more distant from the TTC subway extension and GO rail services. Currently the report only includes figures averaged for the whole study area (rather than showing the hierarchy of transit service that is planned, including Züm and the priority transit network). 	<ul style="list-style-type: none"> General Comment 	<ul style="list-style-type: none"> The model was used to estimate the expected future modal splits, and these are somewhat lower than the Regional targets. We have included the effects of the BRT service now known as Züm and some fairly optimistic assumptions about the effectiveness of various transit priority measures in achieving high transit operating speeds in the future.
103	<ul style="list-style-type: none"> High employment growth (over 55,000 jobs by 2031) is indicated near Highway 50, with little discussion of specific effects on traffic in this area (similarly, little discussion of the traffic impacts of employment growth in Brampton's SP 47 area on the west side of Highway 50). This area's specific land use plans are still under development, and population and employment totals were last updated in 2009. Please also confirm and report on 2031 land use assumptions for east of The Gore Road and south of Countryside Drive in Brampton. 	<ul style="list-style-type: none"> 2.2.1; Pages 2-3, 2-5 and 2-6 	<ul style="list-style-type: none"> The analysis recognized the most current available land use assumptions for the Brampton area, which were provided by Peel and York Region staff. Specifically, land use and road network assumptions were provided by Eric Chan in e-mails from April 16, 2009 and January 13, 2010 respectively. These assumptions reflect what was included in the Highway 427 EA and Peel/427 Transportation Master Plan.
104	<ul style="list-style-type: none"> The extension of Highway 427 north to Major Mackenzie Drive is shown to have no effect on Highway 50 traffic congestion, except south of Highway 7, where Highway 427 is already present. 	<ul style="list-style-type: none"> 2.2.2.1; Figures 2-6 and 2-7 	<ul style="list-style-type: none"> Despite the planned additional road capacity in the corridor, the major arterials in the area mentioned continue to be congested. Given the high growth planned within Brampton and Western Vaughan, this is not surprising. The Western Vaughan IEA examines not only the Highway 427 extension, but it also includes population and employment growth within Peel and York Regions.
105	<ul style="list-style-type: none"> Areas of high traffic congestion are shown on Major Mackenzie Drive. Have the effects of the Major Mackenzie Drive connection to Mayfield Road via a new north-south arterial road ("Alternative A2") through Brampton's Secondary Plan Area 47 and improvements to Mayfield Road been considered? These changes are likely to affect traffic patterns on Major Mackenzie Road, Highway 50, and Mayfield Road. 	<ul style="list-style-type: none"> 2.2.2.1; Page 2-10 	<ul style="list-style-type: none"> As noted above, final runs included latest available Peel Region land use and road network assumptions and should provide a good indication of the effects of these changes on travel patterns within Vaughan. Please note that the connection to Mayfield Road was considered as part of the modelling.

ID	Issue Raised by Review Agency	Section	Consideration of Issue
106	<ul style="list-style-type: none"> Please show in Figure 2-14 that Brampton Transit's Züm Route 501A exits Highway 407 at Keele Street (rather than Jane Street) to reach the York University campus as of November 2010. An updated route map is available on Brampton Transit's website, and the change is included in the YRT system map currently on the YRT/Viva website. The longer-term plan (2015) is for Züm to go to the subway terminus at Vaughan Metropolitan Centre rather than to York University. 	<ul style="list-style-type: none"> 2.2.2.4 	<ul style="list-style-type: none"> Figure 2-14 has been replaced with the most up-to-date York Region Transit map.
107	<ul style="list-style-type: none"> "Heavy Truck Traffic" paragraph – please change "3-10% of heavy vehicles" to "3-10% heavy vehicles" and "track traffic" to "truck traffic." 	<ul style="list-style-type: none"> 2.2.2.5 	<ul style="list-style-type: none"> These changes have been made.
108	<ul style="list-style-type: none"> Have all widenings on Highway 50 (EAs for Steeles to Castlemore/Rutherford and Castlemore/Rutherford to Mayfield & Coleraine) been considered in this EA report? It is stated that the Peel Region EA for Highway 50 extends from Steeles to Highway 7 and Rutherford to Major Mackenzie. Also, Figure 3-9 for Alternative 8 in Chapter 3 shows apparent gaps between Mayfield and Major Mackenzie, and Castlemore/Rutherford to Queen/Highway 7 - and Figure 3-7 narrows one of these gaps to Mayfield-to-Nashville. In the City of Brampton's Transportation & Transit Master Plan (TTMP) Highway 50 between Highway 407 and Queen Street/Highway 7 is recommended to remain at 4 lanes beyond 2031. It would be more useful to show lane configurations (number of lanes) rather than 'base conditions' and 'improvements' on these maps. 	<ul style="list-style-type: none"> 3.2.1, 3.2.2 	<ul style="list-style-type: none"> For modelling purposes, Highway 50 was assumed to be a 6 lane road (3/3) from Steeles Avenue to North of Teston Road. Highway 50 is no longer part of the preferred undertaking, as Peel Region agreed to take over the responsibility for improvements along that road as part of its Class EA.
109	<ul style="list-style-type: none"> Figure 3-5 and subsequent description are unclear: Which specific TDM and TSM measures are being considered beyond what was found in the 2002 and 2009 TMPs? 	<ul style="list-style-type: none"> 3.2 	<ul style="list-style-type: none"> Section 3.2.1.2 - Alternative 2 – Travel Demand Management (TDM) and Section _ - Transportation System Management provide details on the TDM & TSM assumptions respectively. These are consistent with the many initiatives listed in Appendix N of the Region's 2009 TMP. In addition, Section 5.2 describes how TDM and TSM are being addressed as part of the preliminary design.
110	<ul style="list-style-type: none"> Why is the Highway 427 extension assumed to be four lanes here, when it is six lanes in the 2002 TMP and on page 3-3? The assumptions in the modelling appendix do not match the scenarios shown in the report. 	<ul style="list-style-type: none"> 3.2.1.1 	<ul style="list-style-type: none"> The reference in Table 15 to a 4-lane Highway 427 extension is an interim arterial extension to Zenway Road, but our testing of the preferred option assumed that Highway 427 would be extended as a 6 lane freeway north of Highway 7. It should be pointed out that the Modelling Appendix dealt with initial trial runs of the model back in early 2008 and would not necessarily be consistent with later tests or final recommendations. Appendix 2 has been expanded to include all transportation modelling that was completed for the study.
111	<ul style="list-style-type: none"> It is stated that this alternative assumes a Highway 427 extension to King Road, "which is consistent with the road network assumptions made in developing the 2002 TMP, as shown in Figure 3-2." However, both the 2002 TMP and the figure indicate an extension of Highway 427 to Major Mackenzie Drive. 	<ul style="list-style-type: none"> 3.2.1.4 	<ul style="list-style-type: none"> The text is meant to refer to an extension of Highway 427 to Major Mackenzie Drive and has been edited accordingly.
112	<ul style="list-style-type: none"> There is no mention of plans for new employment lands in Brampton's Secondary Plan Area 47, or of industrial uses on Highway 50. 	<ul style="list-style-type: none"> 3.4.2.2 	<ul style="list-style-type: none"> Brampton's land use plans have been recognized in the population and employment projections received from Peel Region, as noted in our comments above.
113	<ul style="list-style-type: none"> The terminology seems to change here from "Vaughan Metropolitan Centre" to "Vaughan Corporate Centre." The current name of this location in plans is the former, with the latter referring to the current Viva station stop. 	<ul style="list-style-type: none"> 3.4.2.3 	<ul style="list-style-type: none"> References to "Vaughan Corporate Centre" have been updated to "Vaughan Metropolitan Centre".

ID	Issue Raised by Review Agency	Section	Consideration of Issue
114	<ul style="list-style-type: none"> Please mention that queue jump lanes improve transit travel times as well as reduce delays to turning vehicles behind buses. 	<ul style="list-style-type: none"> 5.2.3 	<ul style="list-style-type: none"> This statement has been added to the description of 'queue jump lanes'.
115	<ul style="list-style-type: none"> The alternatives in Chapter 3 of the report are not reflected in Table 14 – Future Scenario Listing of Appendix 2 (Modelling Assumptions) – for example, Bolton GO Transit (should be Bolton GO Rail Transit) is not shown as part of the 2031 base case. The “Minimal Improvement” Road Network assumptions in Table 15 also do not match any alternative in Chapter 3. 	<ul style="list-style-type: none"> Appendix 2 	<ul style="list-style-type: none"> Appendix 2 has been revised to reflect Table 14 from Chapter 3
116	<ul style="list-style-type: none"> HOV lanes are repeatedly mentioned in the report, but there are no details given in the Appendix. How are HOV lanes modelled (what assumptions have been made)? 	<ul style="list-style-type: none"> Appendix 2 	<ul style="list-style-type: none"> The version of the regional model provided by York Region to Halcrow for this study did not model travel demand for HOV and commercial vehicles explicitly. Therefore, manual adjustments to roadway capabilities were applied to represent the assignment impact of HOV lanes. Based on a review of the observed utilization of HOV lanes, it was assumed that such lanes would have 2/3 the capacity of the general purpose lanes (in terms of auto traffic). This would permit a good level of operating service, both for carpools and buses. The existing Appendix has been revised to include further description of the analysis.
117	<ul style="list-style-type: none"> The cross-section shown for Major Mackenzie Drive is six lanes wide, with 5.0 m curb lanes. Past modelling efforts have indicated four lanes. Are the wide curb lanes meant to accommodate transit vehicles, and would there also be on-road bike lanes, as is generally the policy now for road expansions in York Region (and illustrated as the road design for most six-lane roads in Figure 5-2)? Also, if these two lanes are for transit vehicles or HOVs only, is this designation reflected in the modelling? 	<ul style="list-style-type: none"> Appendix 5D 	<ul style="list-style-type: none"> Details have been added to the design plates in Appendix 5D to denote the bike lanes within the 5.0 m curb lanes The two lanes were modelled for both transit vehicles or HOVs.

City of Vaughan staff raised the following questions / issues regarding the preferred undertaking and proposed effects and mitigation:

- Safety of on-road bicycle lanes, and whether off-road / multi-use paths could be built (York Region responded that the Region will be investigating the results of having bicycle lanes in the road right-of-way on roads such as Dufferin Street as part of a separate initiative, and will consider different bicycle lane configurations depending on the outcome of those investigations);
- Providing for pedestrian access from Major Mackenzie Drive to the Kortright Centre for Conservation by constructing steps down the embankment sideslopes from the road to the valley floor;
- The possibility of avoiding the heritage building at Rutherford Road west of Highway 27 (the study team responded that indicated that all the viable options have been considered and other options would have an adverse effect on more buildings);
- Considering coordinating the construction of new railway structures at Rutherford Road and Highway 27 with GO Transit's feasibility study for the Bolton Line

At that meeting, City of Vaughan staff informed York Region that they will be presenting the study to City Council in the late winter or early spring 2011.

On May 24, 2011, City Council voted in favour of endorsing the recommendations from the draft EA report, requested that York Region work with the City during the design phase for each road segment identified for improvements so that the appropriate City infrastructure can be implemented concurrently with the road works, and requested that York Region advance the improvements to the segment of Major Mackenzie Drive between Pine Valley Drive and Weston Road to accommodate the current and near term growth in the immediate area.

7.6.3.2 Meeting with TRCA – March 30, 2011

The purpose of the meeting with TRCA staff was to review and discuss the comments received from TRCA on the draft EA report, and to discuss the proposed responses to a letter received from TRCA on the meander belt and hydraulic analysis conducted for the Western Vaughan IEA. With regard to the former, the discussion focused on the following topics:

- The importance of developing a broad compensation and restoration approach, in consultation with TRCA staff, that considers and reflects cumulative impacts; Such an approach should allow for alternative methods of compensation outside the immediately affected area to maximize the benefits to the natural environment;
- The need to review and, if necessary, refine the design of structures during detailed design to adequately accommodate fish habitat;
- The need for supplemental geotechnical / hydrogeological investigations during detail design stage to further delineate the extent of dewatering (un-watering) requirements for foundation installation.

7.6.4 Comments Received from Aboriginal Communities

Two Aboriginal communities responded to the draft EA report. Their comments, and York Region's consideration of those comments, is provided in **Table 7-6** below. A copy of the correspondence received from Aboriginal communities is included in **Appendix 7L-3**.

Table 7-6 Summary of Issues Raised by Aboriginal Communities during Presubmission and their Consideration

ID	Issue Raised by Aboriginal Community	Section	Consideration of Issue
Alderville First Nation - Letter (January 25, 2011)			
118	<ul style="list-style-type: none"> • Thank you for your consultation request to Alderville First Nation regarding the Draft Environmental Assessment Report for the Western Vaughn Transportation Improvements (IEA), which is being proposed within our Traditional and Treaty Territory. We appreciate the fact that the Regional Municipality of York recognizes the importance of First Nations Consultation and that your office is conforming to the requirements within the Duty to Consult Process. • As per the Alderville First Nation Consultation Protocol, your proposed project is deemed a level 3, having minimal potential to impact our First Nations' rights, therefore, please keep Alderville apprised of any archaeological findings, burial sites or any environmental impacts, should any occur. 	<ul style="list-style-type: none"> • General comment 	<ul style="list-style-type: none"> • Comment acknowledged.
Curve Lake First Nation - Letter (March 7, 2011)			
119	<ul style="list-style-type: none"> • The area in which your project is proposed is situated within the Traditional Territory of Curve Lake First Nation. Our First Nation's Territory is incorporated within the Williams Treaty Territory and is the subject of a claim under Canada's Specific Claims Policy. We strongly suggest that you provide Karry Sandy-Mackenzie, Williams Treaty First Nation Claims Coordinator with a copy of your proposal as your obligation to consult also extends to the other First Nations of the Williams Treaty. • Although we have not conducted exhaustive research nor have we the resources to do so, Curve Lake First Nation Council is not currently aware of any issues that would cause concern with respect to our Traditional, Aboriginal and Treaty rights. • Please note that we have particular concern for the remains of our ancestors. Should excavation unearth bones, remains or other such evidence of a native burial site or any Archaeological findings, we must be notified without delay. In the case of a burial site, Council reminds you of your obligations under the <i>Cemeteries Act</i> to notify the nearest First Nation Government or other community of Aboriginal people which is willing to act as a representative and whose members have a close cultural affinity to the interred person. As I am sure you are aware, the regulations further state that the representative is needed before the remains and associated artefacts can be removed. Should such a find occur, we request that you contact our First Nation immediately. • If any new, undisclosed or unforeseen issues should arise that have the potential for anticipated negative environmental impacts or anticipated impacts on our Treaty and Aboriginal rights we require that we be notified regarding these as well. 	<ul style="list-style-type: none"> • General comment 	<ul style="list-style-type: none"> • The final EA report has been circulated to Karry Sandy-Mackenzie, as per your request. • As per the First Nations Consultation protocol developed for this project, we acknowledge our requirements to halt development activity and notify First Nation Governments or other communities of Aboriginal people should any excavation unearth evidence of a native burial rite or any Archaeological findings.

7.7 Ongoing Consultation Plan

Implementation of the Preferred Undertaking is expected to occur over the next 20 years, with certain improvements (i.e., Major Mackenzie Drive) being prioritized. Given the long implementation period, York Region is committed to engaging stakeholders throughout detailed design and construction of the Western Vaughan transportation improvements. The following proposed activities form the framework for the project's ongoing consultation plan.

Meetings with Affected Property Owners

In locations where property is required to construct the Preferred Undertaking, York Region will meet with property owners during detailed design.

Newsletters

York Region proposes to distribute newsletters to residents and stakeholders within 500 metres of construction prior to the commencement of construction along each road/transit corridor. The newsletters will also communicate issues and progress of construction activities. The issues to be covered in the newsletters shall be topical and pertinent to the project progress, and shall provide pre-notifications of pending work items and schedule updates.

Notices

Notices will also be circulated in advance of specific construction activities to inform residents and other stakeholders within 500 metres of construction of the timing of such activities.

Plan of Subdivision Approval Conditions

For plans of subdivision adjacent to study corridors that are submitted for approval before the completion of construction on that corridor, York Region will require, as a condition of approval, that the developer inform prospective home buyers about the planned road improvements. This requirement will ensure that those residents who did not live in the Study Area during the IEA process can make an informed decision about purchasing homes alongside the corridors designated for improvement, and that those who do so are aware of the upcoming improvements and of their own opportunities to provide feedback and receive more information.

Aboriginal Consultation

In any locations where Stage 3 or Stage 4 archaeological assessments will be required York Region will invite the following Aboriginal representatives to participate in the assessments prior to topsoil disturbance:

- Alderville First Nation;
- Beausoleil First Nation;
- Chippewas of Georgina Island;
- Chippewas of Mnjikaning;
- Curve Lake First Nation;
- Haudenosaunee Confederacy Chiefs Council
- Hiawatha First Nation;
- Iroquois Confederacy;
- Kawartha Nishnawbe First Nation;
- Metis Nation of Ontario;
- Mississaugas of Scugog Island;
- Mississaugas of the New Credit First Nation;
- Mohawks of the Bay of Quinte;
- Moose Deer Point First Nation;
- Nation Huronne Wendat; and
- Six Nations of the Grand River.