

8.	Consultation .....	8-4
8.1	Consultation Approach and Activities.....	8-4
8.2	Public Consultation .....	8-4
8.2.1	Project Website Updates .....	8-5
8.2.1.1	March 2012 Website Update.....	8-5
8.2.1.2	June 2012 Website Update .....	8-5
8.2.1.3	June 2013 Website Update .....	8-5
8.2.1.4	December 2013 Website Update.....	8-6
8.2.1.5	January 2014 Website Update .....	8-6
8.2.2	Stakeholder Working Session (March 2012).....	8-6
8.2.2.1	Summary of Stakeholder Working Session Discussion .....	8-7
8.2.3	Public Update Meeting (June 2012).....	8-7
8.2.3.1	Summary of Public Update Meeting Discussion .....	8-8
8.2.4	Public Open Houses (June 2013).....	8-8
8.2.4.1	Summary of Public Comments Received (June 2013 POH) .....	8-10
8.2.5	Notice of Commencement.....	8-34
8.2.6	Public Open Houses (January/February 2014).....	8-35
8.2.6.1	Summary of Public Comments Received (January/February POH) .....	8-37
8.3	Aboriginal Communities.....	8-51
8.3.1	Notifications and Correspondence – Aboriginal Peoples .....	8-52
8.3.2	Summary of Aboriginal Peoples Comments Received .....	8-53
8.4	Elected Officials.....	8-55
8.4.1	Meetings with Elected Officials.....	8-55
8.4.1.1	Jonah Schein, MPP and Staff from Andrew Cash, MP office .....	8-55
8.4.1.2	City of Toronto Councillor Mike Layton .....	8-55
8.4.2	Letters from Elected Officials.....	8-56
8.4.2.1	Mike Sullivan, MP.....	8-56
8.4.2.1	Laura Albanese, MPP .....	8-56
8.4.2.2	Jonah Schein, MPP .....	8-56
8.4.2.3	City of Toronto Councillor, Gloria Lindsay Luby .....	8-57

8.5	Review Agency Consultation.....	8-58
8.5.1	Federal .....	8-58
8.5.1.1	Aboriginal Affairs and Northern Development Canada .....	8-58
8.5.1.2	Transport Canada.....	8-59
8.5.1.3	Nav Canada and Greater Toronto Airports Authority.....	8-59
8.5.2	Provincial.....	8-60
8.5.2.1	Ministry of the Environment.....	8-60
8.5.2.2	Ministry of Aboriginal Affairs (MAA).....	8-61
8.5.2.3	Ministry of Tourism, Culture and Sport .....	8-62
8.5.2.4	Ministry of Natural Resources .....	8-63
8.5.2.5	Ministry of Transportation.....	8-63
8.5.2.6	Hydro One Networks Inc.....	8-64
8.5.3	Municipal .....	8-64
8.5.3.1	City of Toronto .....	8-64
8.5.3.2	Toronto Public Health .....	8-66
8.5.3.3	Toronto and Region Conservation Authority.....	8-66
8.5.3.4	Fort York National Historic Site .....	8-67
8.5.3.5	Toronto Transit Commission.....	8-67
8.5.3.6	Toronto Hydro.....	8-68
8.5.4	Summary of Review Agency Comments Received.....	8-68
8.6	Other Stakeholders .....	8-90
8.6.1	Canadian National Railway .....	8-90
8.6.2	Canadian Pacific Railway.....	8-90
8.6.3	Canada Lands Company/CN Tower.....	8-91
8.6.4	Oxford Properties.....	8-91
8.6.5	Weston Golf Club .....	8-91
8.6.6	Utilities .....	8-91

## **List of Tables**

Table 8-1 Summary of Public Comments (Pre-Planning Phase) and How They Were Considered By Metrolinx.....	8-11
Table 8-2 Summary of Public Comments (TPAP Phase) and How They Were Considered By Metrolinx	8-38
Table 8-3 Summary of Review Agency Comments and How They Were Considered By Metrolinx .....	8-69

## 8. Consultation

In accordance with Section 8 of *O. Reg. 231/08*, this chapter summarizes how Metrolinx consulted with the public, property owners, review agencies, aboriginal peoples and other stakeholders during the UP Express Electrification EA, including a summary of feedback and comments received and how they were considered.

### 8.1 Consultation Approach and Activities

Metrolinx carried out numerous consultation activities during the Pre-Planning Phase (i.e., Pre-Notice of Commencement), as well as during the 120-day Transit Project Assessment Process phase (i.e., post Notice of Commencement) of the UP Express Electrification project.

The consultation process consisted of the following activities to engage a diverse set of participants, provide information and updates on the project, and to allow opportunities for interested persons (including members of the public, aboriginal peoples, and review agencies) to provide comments and feedback throughout the process.

- Project Web Site
- Electrification e-mail address
- Stakeholder Working Session
- Public Open Houses
- Public Update Meeting
- Newspaper Advertisements
- Meetings with Review Agencies
- Meetings with Elected Officials
- Meetings with Other Stakeholders
- Meetings with Property Owners

### 8.2 Public Consultation

As part of engaging the public in the EA process, Metrolinx carried out the following activities to solicit comments and feedback on the project:

- Project Web Site Updates
- Stakeholder Working Session
- Public Update Meeting
- Public Open Houses
- Notifications/Newspaper Advertisements

## **8.2.1 Project Website Updates**

### **8.2.1.1 March 2012 Website Update**

The Metrolinx project website (<http://www.gotransit.com/electrification/en/default.aspx>) was updated in March 2012 to provide the following information:

- Status update on the early work on the first phase of the electrification project including: i) performance specifications for electrification, ii) advancing the electrification design of the Kitchener and Lakeshore rail corridors, and iii) carrying out an EA for electrification of the UP Express service.
- Notification that an initial Stakeholder Working session would be held on March 8<sup>th</sup>, 2012
- Information that the EA process for the UP Express Electrification undertaking includes a broader consultation program to engage members of the public (including property owners), review agencies, and Aboriginal peoples in the project.

### **8.2.1.2 June 2012 Website Update**

The Metrolinx project website was updated again in June 2012 to provide the following information and updates on key project milestones including:

- Development of Performance Specifications for Electrification
- Summary of Stakeholder Working Session #1
- Commenced electrification design for the UP Express
- Initiated Environmental Baseline Conditions data collection
- Timing of upcoming June 2012 Public Update Meeting

### **8.2.1.3 June 2013 Website Update**

The Metrolinx project website was updated in June 2013 to provide the following information and updates:

- Held Public Open Houses in June 2013 to share project update, provide an overview of conceptual design, EA studies, and next steps;
- Posting of display boards from June 2013 Public Open Houses for information;
- Identified how comments/feedback from members of the public and interested stakeholders can be shared with the project team; and
- Posting of the latest Electrification Performance Specifications.

**8.2.1.4 December 2013 Website Update**

The Metrolinx project website (<http://www.gotransit.com/electrification/en/default.aspx>) was updated in December 2013 to provide the following information:

- Notification that the Notice of Commencement had been issued to start the 120 day TPAP phase of the UP Express Electrification project
- The posting also included information regarding how comments/feedback could be submitted to the project team
- The June 2013 Public Open House Summary Report was made available, including responses to comments received.

**8.2.1.5 January 2014 Website Update**

The Metrolinx project website (<http://www.gotransit.com/electrification/en/default.aspx>) was updated in January 2014 to provide the following information:

- Advertisement of the upcoming January / February 2014 Public Open House sessions including the dates, times, and locations, as well as how comments could be submitted to the project team

**8.2.2 Stakeholder Working Session (March 2012)**

With the objective of engaging interested stakeholders in a discussion about key project topics via a workshop style meeting format, a Stakeholder Working Session was held in March 2012. The initial invitation list for the meeting was based on previous Metrolinx projects, including the Georgetown South Service Expansion EA and the 2010 *GO Transit Electrification Study* as a starting point. In addition, resident groups, local interest groups, local politicians and any interested stakeholders were invited to attend the session.

The meeting was held as a workshop format, with an opening presentation from the project team followed by small-table discussion on specific focus questions, followed by a full-room plenary to discuss the small-table results. The session was held on Thursday, March 8th, 2012 from 4:00 p.m. to 6:00 p.m. at the Metro Central YMCA, 20 Grosvenor Street, Toronto.

Invitations were sent via email (see **Appendix J-1** for a copy of the email invitation). A total of 15 stakeholder participants attended the session, representing a range of organizations and interests, including: business, energy, public safety and security, environment, transit and urban planning.

The primary purpose of this stakeholder session was to introduce the project, and provide an update on electrification since the completion of the 2010 *GO Transit Electrification Study*. The project team's presentation summarized background information on the project, status of work completed to date, a summary of the technical/engineering design components, as well as an overview of the Environmental Assessment process being followed, and next steps.

#### **8.2.2.1 Summary of Stakeholder Working Session Discussion**

As mentioned, the group discussion followed the presentation was dedicated to hearing from participants, giving them an opportunity to ask questions and provide feedback on the project.

Participants inquired about the economics and cost of electricity compared to diesel. It was also clarified that a detailed study on the economic benefits of electrification is not part of the scope of the UP Express Electrification EA, as Metrolinx has already established and documented the need/justification for electrification in the previously completed 2010 *GO Transit Electrification Study*.

Participants also asked questions about the EA process, specifically related to whether or not diesel will be an alternative considered in the EA. The project team responded by noting that the scope of the UP Express Electrification EA will be on identifying the potential environmental impacts of electrifying the rail corridor, as opposed to assessing alternative ways to electrify or alternatives "to" electrifying (e.g., diesel).

Questions were also raised in relation to the rolling stock and whether the DMUs being purchased would be converted from diesel to electric. Metrolinx clarified that the UP Express service that will start in 2015 will operate with DMUs. Other comments were raised in relation to project costs, timelines, and involvement of Hydro One.

A copy of the March 2012 Stakeholder Working Session Summary Report (including email invite, summary of discussion topics/feedback, and presentation slides) is contained in **Appendix J-1**.

#### **8.2.3 Public Update Meeting (June 2012)**

A public update meeting was held on Wednesday, June 27, 2012 from 6:30 p.m. to 8:30 p.m. at the Lithuanian House, 1573 Bloor St. West, Toronto.

The purpose of this public update meeting was three-fold:

- Provide an overview of the work completed to date including the 2010 *GO Transit Electrification Study* and the Metrolinx recommendation to proceed with Phase 1 (UP Express);
- Introduce the public to the electrification team and work that is currently underway; and
- To seek feedback on the key issues and opportunities related to the UP Express electrification project, and on the planned consultation process.

A total of 47 people attended the meeting including local politicians, stakeholder groups and members of the public. The format of the meeting entailed a short presentation by the project team followed by a discussion period where participants posed questions and comments directly to Metrolinx and the project team. Following the meeting, a draft Summary Report was prepared to document the comments received and how they were responded to. The draft report was circulated to all those who attended the meeting for their review/comment prior to finalizing.

#### **8.2.3.1 Summary of Public Update Meeting Discussion**

In general, the key themes of the discussion session were related to:

- Commitment to electrification and timing of implementation
- Cost of electrification
- Air quality effects (diesel vs. electric powered trains)
- Proposed noise walls related to the Georgetown South project

A copy of the June 2012 Final Public Update Meeting Summary Report (including email invitation, newspaper ad, presentation slides, summary of questions/comments/responses, and supplementary information) has been included in **Appendix J-2**. As mentioned above, there were a number of questions and comments raised regarding sound walls proposed as part of the Georgetown South Project along the corridor. As a result, additional information on sound walls was provided by Metrolinx as an appendix to the Final Summary Report.

#### **8.2.4 Public Open Houses (June 2013)**

Four Public Open House sessions were held at various locations along the corridor between June 4<sup>th</sup> and June 11<sup>th</sup>, 2013 during the Pre-Planning Phase of the EA. Four different venues were selected as follows, in order to provide locations that were reasonably distributed along the 25 km length of the UP Express route:

<b>Tuesday, June 4, 2013</b>	<b>Monday, June 10, 2013</b>	<b>Tuesday, June 11, 2013</b>	<b>Wednesday, June 12, 2013</b>
Toronto Pearson International Airport Viscount Station 6100 Viscount Road Mississauga, ON	Metro Hall Room 314 55 John Street Toronto, ON	Mimico Presbyterian Church 119 Mimico Avenue Etobicoke, ON	Mount Dennis (Weston) Legion 1050 Weston Road Toronto, ON

The purpose of the June 2013 Public Open Houses was to share a project update and seek feedback on the following:

- Overview of Conceptual Design for UP Express Electrification:
  - Traction power supply
  - Traction power distribution
  - Maintenance requirements
- Overview of Environmental Studies
- Next Steps

The open houses were advertised broadly in local newspapers including: Parkdale Liberty Villager, City Centre Mirror, Etobicoke Guardian, York Guardian, Mississauga News, Bloor West Villager, North York Mirror, Metro News Toronto, L'Express de Toronto, Toronto le Metropolitain (Brampton) so that the public was made aware of the multiple date and location options. In addition, the Public Open House Notice was published in the Georgetown South Monthly Newsletter which is circulated to approximately 3300 members of the public and other stakeholders.

In addition to newspaper ads, the open house notice was posted on Metrolinx's website, and invitation emails/letters were sent to the project contact list which included over 1,000 contacts: elected officials, review agencies, public/stakeholders, property owners, and aboriginal peoples. In addition, individually addressed letters were mailed directly to identified property owners within 30 m of the study area. A copy of the Notice was also sent directly to the management offices of a number of condominium/apartment residences located along the Union Station Rail Corridor portion of the study area, with a request to post copies of the Notice in the common areas of these buildings (e.g., mail room, elevators, etc.).

Attendees were welcomed by the project team, asked to sign-in, and were given a comment sheet and were encouraged to provide comments and feedback. The format of the meeting was an open house session, with 39 presentation boards displayed around the room with members of the project team on-hand to answer questions and provide further detail about the project. A copy of the display board material was also posted on Metrolinx's project website.

The display panels presented the following key information:

- Purpose/Scope of the Project
- Overview of EA Process
- Assessment of Potential Facility Locations
- EMU Maintenance Facility options
- Overview of Power Distribution System components
- Station/bridge modifications
- Summary of baseline environmental conditions
- Next Steps

A total of 95 people attended the four open houses including: local politicians, local business owners, professional/educational interests, stakeholders and members of the public.

**Appendix J-3** contains a copy of the June 2013 Public Open House Summary Report which includes a copy of the newspaper ad, email/letter invitation, sign-in sheet, and display panels. Appendix J-3 also contains copies of the comment forms from the POH.

#### ***8.2.4.1 Summary of Public Comments Received (June 2013 POH)***

In general, strong support for the UP Express Electrification project has been expressed by the public. In addition, some of the key topics raised as part of the comments/feedback received at the POHs included but were not limited to the following:

- Commitment to electrification and timing of implementation
- Cost of electrification
- Potential construction – related impacts along the corridor (e.g., noise)
- Air quality effects (diesel vs. electric powered trains)
- Overhead contact system vs. third rail
- Additional venue considerations/locations for next round of POHs
- Locations and size of electrification facilities
- Inquires related to EA process and timelines
- Opportunities for more stations and for future integrated transit system
- Distinction between scope of GTS construction project and UP Express Electrification project
- General support for electrification

**Table 8-1** summarizes the key issues/comments/questions raised by members of the public as part of the Pre-Planning Phase, including the June 2013 Public Open Houses, and how they were considered by Metrolinx. **Appendix J-6** contains copies of public correspondence.

**TABLE 8-1 SUMMARY OF PUBLIC COMMENTS (PRE-PLANNING PHASE) AND HOW THEY WERE CONSIDERED BY METROLINX**

Source	Topic /Issue Raised	Question/Comment	How Comment was Considered by Metrolinx
Via email	Project Timeline and Implementation	EA of Diesel takes 6 months. EA of electric will take over 3 years.	<p>The Environmental Assessment process (Transit Project Assessment Projects) that needs to be followed for electrification of the UP Express includes a 120 day regulated timeline.</p> <p>To provide clarification, the Transit Project Assessment Process (TPAP) involves two phases: the first is a pre-planning phase where background studies are undertaken such as collection and documentation of existing environmental conditions in the study area, as well as conceptual engineering work and preparation of performance specifications, and pre-TPAP consultation/engagement activities with review agencies, public, stakeholders, First Nations and Metis communities.</p> <p>Following the pre-planning phase, the second phase involves a 120 day TPAP phase which includes: completion of environmental impact assessment studies, preparation of the Environmental Project Report (EPR), additional public/agency consultation activities, as well as more detailed preliminary engineering design and technical studies.</p> <p>Following the TPAP phase, there is a 30-day review period for the public to review the Final EPR that is submitted to the Ministry of the Environment for approval.</p>
Open House #1 – Viscount Rd (Airport)	Project Timeline and Implementation	UP Express should be built right the first time – electrify now.	Comment noted.
Open House #1 – Viscount Rd (Airport)	Project Timeline and Implementation	Is the budget finalized? / Why do people think it will never happen?	As part of the Electrification Study, the cost estimate to electrify the UP Express (formerly ARL) was \$440 Million. We will be refining these cost estimates throughout the process. Electrification of the UP Express is included in the “Next Wave” of Metrolinx priorities and funding is subject to the Investment Strategy. It is not unusual that Environmental Assessments are completed and approved before funding is committed to their implementation. Upon confirmation of funding, the project can proceed. .
Open House #1 – Viscount Rd (Airport)	Project Timeline and Implementation	When will the electric trains actually start operating?	Given the three-year electrification construction timeline, and the fact that the EA will not be complete until 2014, the earliest electrification could be completed is 2017.
Open House #2 Metro Hall	Project Timeline and Implementation	Why not start the service as electric?	The 2009 Georgetown South Service Expansion & Union-Pearson Rail Link EA did not study electrification and therefore did not include MOE approval for electrification of the UP Express service. The UP Express Electrification Environmental Assessment is targeted for submission to the MOE in 2014. Then the project will require approvals and funding. Depending on the decision date, the estimated construction phase would be approximately 3 years from that date. Based on this, we have estimated 2017 for the operation of an electrified UP Express Service. These assumptions were also presented as part of the 2010 Electrification Study.
Open House #2 Metro Hall	Project Timeline and Implementation	How many tracks will be electrified	Based on preliminary design for UP Express Electrification, it is currently anticipated that a minimum of three tracks within the rail corridor will be electrified and two tracks will be electrified along the spur portion to Pearson Airport.

Source	Topic /Issue Raised	Question/Comment	How Comment was Considered by Metrolinx
Open House #2 Metro Hall	Project Timeline and Implementation	What are the plans for the electrification of the whole GO network system?	A full study of electrification of the GO network was conducted in 2010 and assessed electrification of the network, phased in over time. The decision of the Metrolinx Board of Directors was to begin by electrifying the Kitchener and Lakeshore corridors, subject to funding. The first phase is the EA for the electrification of the UP Express (which will operate on the existing Kitchener rail corridor).
Open House #2 Metro Hall	Project Timeline and Implementation	Switching from diesel to electric: how will that happen? What will happen to the diesel vehicles? If you have rolling stock that claims to do both, I understand it's not easy.	The vehicles are designed and constructed to be convertible from diesel to electric propulsion.
Open House #2 Metro Hall	Project Timeline and Implementation	When will electrification of the UP Express be completed?	The UP Express Electrification Environmental Assessment is targeted for submission to the MOE in 2014. Then the project will require approvals and funding. Depending on the decision date, the estimated construction phase would be approximately 3 years from that date. Based on this, we have estimated 2017 for the operation of an electrified UP Express Service. These assumptions were also presented as part of the 2010 Electrification Study.
Open House #3 Mimico	Project Timeline and Implementation	What type of technology will be used for the rolling stock for the UP Express? Will there be dual locomotives?	The UP Express will launch with Diesel Multiple Units (DMUs). Upon electrification, the rolling stock will be Electric Multiple Units (EMUs).
Open House #3 Mimico	Project Timeline and Implementation	Is this the first time GO Transit will have an electric line?	Yes.
Open House #4 Mount Dennis	Project Timeline and Implementation	Would like electrification to be implemented as soon as possible.	Comment noted.
Open House #4 Mount Dennis	Project Timeline and Implementation	Would like this electrification to happen before the diesel trains start running.	Comment noted.
Open House #4 Mount Dennis	Project Timeline and Implementation	Would like to know what other city in the world could possibly be comparable to study or be nearly equitable to our situation in Toronto, every other city is electric, not nearly so densely populated or as busy; this will be the busiest rail corridor on the planet.	There are a number of places in North America , Europe, Asia, Australia and Africa where electrified commuter railways of a much higher capacity have been in service for a number of years.  In Canada, a similar railway system exists and was built to serve the Montreal area. In the U.S., a comparable example of an electrified rail system is the North East Corridor in New Jersey and Chicago's and Metra Electric Commuter Rail in Chicago Illinois.
Open House #4 Mount Dennis	Project Timeline and Implementation	This should be built as EMU from day one, not DMU to convert later, and make it happen; it's long overdue in Canada to have 20 <sup>th</sup> century transit built (we need 21 <sup>st</sup> century transit)	Comment noted.
Open House #4 Mount Dennis	Project Timeline and Implementation	If no money is committed to Electrification, then this is all another PR exercise to calm the communities along the corridor.	Comment noted.
Open House #4 Mount Dennis	Project Timeline and Implementation	Don't know how it got to this point when Toronto's former chief city (urban) planner declared it must be done and must be electric. He and thousands were ignored by McGuinty.	Comment noted.
Open House #4 Mount Dennis	Project Timeline and Implementation	Suggest that Metrolinx tax each businesses \$5/employee/month in the GTA; if 2 employees = \$10/month, 2,000 employees = \$10,000/month etc... would ensure that Metrolinx got the money	Comment noted

Source	Topic /Issue Raised	Question/Comment	How Comment was Considered by Metrolinx
		needed and business would get their employees to work on time and with less stress.	
Open House #4 Mount Dennis	Project Timeline and Implementation	Why is it a separate project? Why not electrify as part of the current UP Express project?	<p>The 2009 Georgetown South Service Expansion &amp; Union-Pearson Rail Link Environmental Assessment (EA) did not include MOE approval for electrification of the UP Express service. As a result, an EA is required to be completed by Metrolinx for electrification of the UP Express service. Specifically, the conversion of the UP Express service from diesel to electric power falls under <i>Schedule 1, Subsection 2 (1) 7 of O. Reg. 231/08 - Transit Projects and Metrolinx Undertakings</i> which applies to transit projects including: “Electrification of rail equipment propulsion on existing commuter rail corridor and associated power distribution system.”</p> <p>In addition, electrification of the UP Express will necessitate new electrical connection facilities, which will be provided by Hydro One. Hydro One will be responsible for connecting a new transformer station via 230kV connection lines to their existing grid. These particular project components fall within the scope of <i>Hydro One’s Class Environmental Assessment for Minor Transmission Facilities (1992)</i>.</p> <p>As a result, Metrolinx and Hydro One are carrying out parallel EA processes to satisfy both Metrolinx’s requirements under the Transit Project Assessment Process (TPAP) (O. Reg. 231/08) as well as Hydro One’s requirements under the Class EA for Minor Transmission Facilities (Class EA).</p> <p>Regarding timing, the UP Express Electrification Environmental Assessment is targeted for submission to the MOE in 2014. Then the project will require approvals and funding. Depending on the decision date, the estimated construction phase would be approximately 3 years from that date. Based on this, we have estimated 2017 for the operation of an electrified UP Express Service. These assumptions were also presented as part of the 2010 Electrification Study.</p>
Open House #4 Mount Dennis	Project Timeline and Implementation	Recent announcement of establishing a new airport in Pickering has the CP rail line to Peterborough running through it, opening the possibility of GO service from Milton to Pickering and possibly to Peterborough. Will electrification of this line result in redundant or extra costs with regard to the electrification being undertaken?	If the question is whether there is a need for an air rail link to Pearson Airport (versus Pickering Airport), no it will not be redundant. The need for the UP Express service was demonstrated as part of the Georgetown South Corridor Expansion – Union Pearson Rail Link Environmental Assessment.
Open House #2 Metro Hall	Project Timeline and Implementation	Why can’t the EA process be carried out together with procurement? Will the procurement process delay a potential 2017 date for electrification?	Procurement will occur once funding is confirmed for the UP Express Electrification project,
Via email	Support for the Project	I am in full support of the electrification of the rail system in the GTA. I welcome further developments in this direction, as burning diesel fuels for transportation in a populated urban setting, is just plain wrong.	Thank you for your comments.

Source	Topic /Issue Raised	Question/Comment	How Comment was Considered by Metrolinx
Via email	Support for the Project	I wish to state my support for the electrification of Go Transit and the Union Pearson Express. In my opinion it will not only be environmentally acceptable, it is much better than diesel power.	Thank you, comment noted.
Open House #2 Metro Hall	Support for the Project	Overall – this project is very high value to the broader community and I hope that individual or local objections can be overcome quickly and efficiently. I fully support.	Comment noted.
Open House #4 Mount Dennis	Support for the Project	Glad/hopeful electrification of commuter rails will be built in our world class city.	Comment noted.
Open House #4 Mount Dennis	Support for the Project	General support for the project./ Applaud the team for their work on this project; do not remember the same work being done for the diesel train	Thank you. Comment noted.
Via email	Consultation Process	How about having a meeting location at Lithuanian Hall near a lot of people affected by this? And can we have more notice on these meetings in the future?	<p>The scope of this EA begins west of Union Station and travels along the GO Union Station and Kitchener rail corridors, then along the UP Express rail spur to Terminal 1 at Pearson International Airport. The power supply also covers part of the GO Lakeshore line from about Bathurst St. to connect to a substation near our Willowbrook rail maintenance facility in Etobicoke.</p> <p>Metrolinx’s goal is to reach as many people as possible. The locations for the UP Express Electrification public open houses were chosen to cover as much of the EA study area as possible and reflect the locations of proposed electrification infrastructure such as power stations. We appreciate that there is no public meeting location in your Junction neighbourhood but that is the case for several other neighbourhoods along the rail corridor. The Mount Dennis Weston Legion location is in relatively close proximity to the Junction area, and we would encourage you to attend this session to share your comments/feedback on the project. We hope to see you at this meeting.</p>
Via email	Consultation Process	I'm just wondering why there is not going to be an EA Open House meeting in the Junction. Many of the residents who live there have expressed their concern around electrification with regards to the UP Express. From what I understand, the UP Express does not go through Mimico nor Metro Hall, so I don't understand why these two locations would have been chosen as priority locations for an Open House for the UP EA when there are other locations closer to the affected residents that would seem much more suitable.	<p>The scope of the UP Express Electrification EA begins west of Union Station and travels along the GO Union Station and Kitchener rail corridors, then along the UP Express rail spur to Terminal 1 at Pearson International Airport. The power supply portion of the project also covers part of the GO Lakeshore line from about Bathurst St. to connect to a potential substation near GO’s Willowbrook rail maintenance facility in Etobicoke.</p> <p>Metrolinx’s goal is to reach as many people as possible. The locations for the UP Express Electrification public open houses were chosen to cover as much of the EA study area as possible and reflect the locations of proposed electrification infrastructure such as power stations. We appreciate that there is no public meeting location in your Junction neighbourhood but that is the case for several other neighbourhoods along the rail corridor. The Mount Dennis Weston Legion location is in relatively close proximity to the Junction area, and we would encourage you to attend this session to share your comments/feedback on the project. We hope to see you at this meeting.</p>

Source	Topic /Issue Raised	Question/Comment	How Comment was Considered by Metrolinx
			You can still participate in the public consultation as the materials from these public meetings will posted online and you can share your thoughts by contacting the project team at <a href="mailto:electrification@metrolinx.com">electrification@metrolinx.com</a>
Via email	Consultation Process	I would like to attend the open house tonight. Is there free parking available near 6100 Viscount road? If so, where is it, I cannot locate it on the map.	Additional information was provided on how to access the parking.  There is no unpaid parking at the venue, however there are additional POH's being held at other venues along the UP Express Electrification Study Area, where unpaid parking is available.
Open House #1 – Viscount Rd (Airport)	Consultation Process	Hold more community meetings west of Weston Station	We recognize that there are many interested neighbourhoods along the Union Pearson Express route to the airport. As you know, in June, four open houses were held at various locations along the route that would be accessible to the community: at Toronto Pearson International Airport (June 4), Metro Hall (June 10), Mimico Presbyterian Church (June 11), and Mount Dennis Legion (June 12). These venues were selected in order to provide locations that were distributed along the 25 km length of the UP Express route from Union Station to Pearson Airport.  The open houses were advertised broadly including: Parkdale Liberty Villager, City Centre Mirror, Etobicoke Guardian, York Guardian, Mississauga News, Bloor West Villager, North York Mirror, Metro News Toronto, L'Express de Toronto, Toronto le Metropolitain (Brampton) so that neighbours were made aware of the multiple date and location options. In addition to newspaper ads, the open house notice was posted on our website, notification emails were sent to the project contact list including: elected officials, review agencies, stakeholders, and first nations, and letters were mailed directly to property owners along the corridor.  We have received several suggestions for areas in which to hold our next round of public open houses and will endeavour to accommodate these requests. Metrolinx is committed to keeping the public informed throughout the EA process. We appreciate your feedback and invite you to join us during our next round of consultation. Please also note that a copy of the June 2013 Public Open House display panels has been posted to our website: <a href="http://www.gotransit.com/electrification/">http://www.gotransit.com/electrification/</a> .
Open House #4 Mount Dennis	Consultation Process	Very impressed with the level of professionalism shown to me as all of my present concerns were answered; the coffee was also very good.	Thank you. Comment noted.
Via email	Information request	I will try to enjoy one of your presentation next week and I would like to receive information about the UP project. I will appreciate if you send me more information by mail.	Additional information was provided as requested.
Via email	Information request	I have just received your notice of proposals for the facilities that you intend to build.  The map variance in shading makes this difficult to read.  I am unable to locate your proposed EMU Maintenance Facility?	In response to this email inquiry, additional information on the proposed EMU Maintenance Facility was provided for reference purposes.

Source	Topic /Issue Raised	Question/Comment	How Comment was Considered by Metrolinx
		I am requesting the address or an updated clearer key map so I can review this before the meeting.	
Open House #1 – Viscount Rd (Airport)	Air Quality	Diesel pollutants –concerns about particulates	The purpose of the UP Express Electrification project is to convert the Diesel Multiple Units (DMUs) to Electric Multiple Units (EMUs). As a result, diesel powered UP Express trains will be replaced by electric powered trains. In addition, an air quality impact assessment will be undertaken as part of the EA to assess the potential air quality effects (positive and negative) of UP Express electrification.
Via email	Air Quality	<p>Union Pacific Pearson Express Electrification Environmental Assessment Project.</p> <p>To whom it may concern.</p> <p>For your information regarding the need for electric trains, over cheaper, more extremely dangerous 'diesel option's which assure cancers and various harms to the communities.</p> <p>Diesel Exhaust Chemicals :</p> <ul style="list-style-type: none"> <li>- There is a need to use environmental science to understand human biology and human diseases.</li> <li>- Fetal origins of diseases need scientific clarification and much more discussion.</li> <li>- The science is not 100%, but it is suggested that Diesel Exhaust (DE) may play a causal role in asthma, autism, Huntingtons Disease, Parkinsons Disease, various cancers, ischemetic disorders, myocardial infarctions, arterial vasodilation, and fetuses aborting before coming to term.</li> <li>- When a person is subject to (DE), arterial vasoconstriction occurs that is -- the arteries constrict in response, shying away from the exposure.</li> <li>- This causes less blood flow to the fetus in the case of a pregnant woman, and decreases lung size and function, possibly leading to asthma and other possible respiratory ailments such as autism, Huntingtons disease, or Parkinsons disease.</li> <li>- There is a basic biological need to determine public health by using interdisciplinary research, that is -- Health officials at all levels of government along with all agencies should unite. In working together, this research and the articles are submitted and peer-reviewed by scientists. Pending approval, submissions would then be published. The information would then be more available for dissemination to the public.</li> </ul>	<p>Regarding implementation of an electrified UP Express Service, please note the following:</p> <ul style="list-style-type: none"> <li>• We're committed to delivering the UP Express service in an environmentally responsible manner. The service will launch with state-of-the-art Tier 4 diesel multiple units. Tier 4 is the strictest non-road engine emissions standard set by the U.S. Environmental Protection Agency (EPA).</li> <li>• In addition, UP Express will take up to 1.2 million car trips off the road in the first year alone – reducing congestion and improving air quality.</li> <li>• Metrolinx is moving forward with an environmental assessment (EA) for an electrified ARL. Preliminary design and engineering is already underway.</li> <li>• The EA is a critical step toward electrification and the study is expected to be completed in 2014.</li> <li>• The vehicles which have been purchased for UP Express are fully convertible to electric, and infrastructure improvements currently underway on the Georgetown South Corridor are being built to allow for electrification.</li> </ul>

Source	Topic /Issue Raised	Question/Comment	How Comment was Considered by Metrolinx
		<ul style="list-style-type: none"><li>- There needs to be a focused understanding of the chemicals and biologics in the environment, and how this affects humans.</li><li>- There is a need to develop local issues regarding microbial environmental disruption on human growth cells.</li><li>- There needs to be very clear and concise research before developing any new transportation systems, which accurately reflect all of the potential harm that is imposed on the communities.</li><li>- Ischemetic diseases, - blood spurts (uneven blood flow) in arteries and viens.</li><li>- Mycardial infarction, - irregular and uneven heartbeats.</li></ul> <p>New areas of research will include:</p> <ul style="list-style-type: none"><li>- Environmental Epiginetics: Environmental Stress-Gene Expression and Human Fetal Development, including DNA Methylation, Genomic Imprinting, Histone Modification.</li><li>- Cumulative affects of environmental and all other exposures (home, diet, lifestyle, exercise).</li><li>- Endocrine disruptors that negatively impact gene growth.</li></ul> <p>All of these areas will contribute to developing diseases in populations, especially regional populations.</p> <p>Specific to Cancer:</p> <p>Agencies such as the World Health Organization’s – International Agency for Research on Cancer (IARC) and the United States National Toxicology Program follow a scientific process and consider the weight of scientific evidence to determine whether a substance or chemical causes cancer.</p> <p>Class 1: exposure causes cancer in humans.</p> <p>Class 2A: exposure probably causes cancer in humans.</p> <p>Class 2B: exposure possibly causes cancer in humans.</p> <p>Class 3: scientists are unable to determine or classify whether exposure does or does not cause</p>	

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		<p>cancer in humans.</p> <p>Class 4: exposure probably does not cause cancer in humans.</p> <p>Please let me know if I can help in any discussions.</p>	
Open House #4 Mount Dennis	Air Quality	No diesel trains because of smoke and smell; wait and do electric only.	Comment noted.
Open House #1 – Viscount Rd (Airport)	Economic Impact/Jobs	Career initiative program to engage those in the area with opportunities on the project. / What are the job opportunities/ impact on job opportunities / Remember when tendering to consider community benefits-- leveraging local access to jobs and economic growth.	<p>Your comment is noted and will be considered as part of the implementation phase. We have a pilot project underway known as the Georgetown South Project Employment Initiative. Additional information is also available on GO's website at: (Georgetown South Project Employment Initiative):</p> <p><a href="http://www.gotransit.com/gts/en/resources/employment_initiative.aspx">http://www.gotransit.com/gts/en/resources/employment_initiative.aspx</a></p>
Open House #1 – Viscount Rd (Airport)	Economic Impact/Jobs	Lack of Canadian manufacturing involvement in UP Express locomotives: manufactured in Japan, assembled in US.	<p>Two critical factors led Metrolinx to award the vehicle contract to Sumitomo Corporation of America.</p> <p>First, there are currently no Canadian manufacturers of this locomotive technology -- powered rail vehicles designed for use on lines with mixed passenger and freight traffic. The procurement process was therefore exempt from provincial policy on domestic content requirements, since no Canadian manufacturer was available.</p> <p>Second, this purchase was a significant cost-savings opportunity, as we were able to enter a joint procurement with Sonoma Marin Area Rail Transit District (SMART), which resulted in a cost savings on each vehicle.</p>
Open House #1 – Viscount Rd (Airport)	Economic Impact/Jobs	Check with CUE and Ryerson Engineering on training specialist for the Maintenance and Storage Facility.	<p>Thank you for the suggestion.</p> <p>There will be a need for engineers in this area and we will work with the local community and universities to ensure people are aware of upcoming opportunities.</p>
Open House #4 Mount Dennis	Economic Impact	Mount Dennis-Weston Network have been working for 4 years to get jobs on that site and to have small businesses along Industry St and Ray Ave; it will not help the local economy or the streetscape to have a switching station there.	<p>Comment noted. As part of the UP Express Electrification EA, a site assessment process was carried out to identify potential facility sites to ensure reliable system operation. One of the factors considered as part of the assessment process was to minimize potential property requirements associated with implementing the switching station that are not Metrolinx owned.</p> <p>We are aware of the community's efforts to grow local employment in the area and this is referenced in Metrolinx's mobility hub study for the Mount Dennis station on the Eglinton Crosstown line.</p> <p>Additional information on this study is available online: <a href="http://thecrosstown.ca/Online-Consultation-Mount-">http://thecrosstown.ca/Online-Consultation-Mount-</a></p>

Source	Topic /Issue Raised	Question/Comment	How Comment was Considered by Metrolinx
			Dennis-Text-Summary
Open House #3 Mimico	Economic Impact (Property Values)	Impact of construction and increase in rail traffic on property values.	<p>It is noted that no additional capacity (tracks/rail traffic) are proposed as part of the UP Express Electrification project.</p> <p>With regard to potential construction related effects, as part of the EA process, potential effects related to both the construction and operations phase of the UP Express electrification project will be considered and assessed as part of the impact assessment phase of the project. Mitigation measures to reduce or eliminate potential adverse effects will be developed as required. The results of the impact assessment studies will be presented at the next public consultation round.</p>
Open House #4 Mount Dennis	Economic Impact (Property Values)	Many of us will be asking for compensation, if when we move our properties are devalued.	Comment noted.
Open House #3 Mimico	Economic Impact (Revenue generation)	Projections regarding the demand for the UP Express (how many people will take it) and particularly regarding the expected usage of the Weston stop, especially considering the lack of further connections.	Regarding the Weston Station stop and related connections, demand for the UP Express service is not part of the scope of the UP Express Electrification EA.
Open House #4 Mount Dennis	Environmental Effects/Economic Impact	Studies show more cars will be taken off the road in electric than diesel, this whole project will fail miserably financially, be an environmental disaster and in ridership.	<p>When the UP Express service starts we expect about 5,000 riders per day, and take up to 1.2 million car trips off the road in the first year alone. This ridership level will mean a greenhouse gas (GHG) reduction in private cars travelling to and from the airport every year. Metrolinx is committed to reducing its carbon footprint and minimizing the impact on the environment by removing vehicles from the highways and roads and by using the most efficient technology available for its locomotives.</p> <ul style="list-style-type: none"> <li>UP Express will launch with Tier 4 compliant diesel multiple units.</li> <li>By using these leading edge trains, emissions in the corridor from GO Transit vehicles are expected to be no higher than today, in spite of a significant increase in service along the corridor.</li> </ul>
Open House #4 Mount Dennis	Environmental Effects	Missing the trees and nature aspects already.	A Natural Environment Impact Assessment will be carried out as part of the UP Express Electrification EA that will assess potential environmental effects (aquatic and terrestrial) related to implementation of the electrified UP Express system, including establishment of mitigation/compensation measures to either minimize or mitigate potential adverse effects.
Open House #4 Mount Dennis	Environmental Effects	This facility has the potential to leach substances (unless regularly maintained and audited to environmental standards) into the soil and possible the water-table.	As part of the EA process, potential effects on the natural environment (including groundwater) will be considered and assessed as part of the impact assessment phase of the project. Mitigation measures to reduce or eliminate potential adverse natural environmental effects will be developed as required. The results of the impact assessment studies will be documented in the Environmental Project Report, which will be made available for public review.
Open House #1 – Viscount Rd (Airport)	EMF	EMF emissions from electrification facilities?	As part of the EA process, potential effects related to Electromagnetic Interference (EMI) and Electromagnetic Fields (EMF) will be considered and assessed as part of the impact assessment phase of the project. Mitigation measures to reduce or eliminate potential adverse effects related to EMI and EMF will be developed, as

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			required. The results of the impact assessment studies will be documented in the Environmental Project Report, which will be made available for public review.
Open House #2 Metro Hall	EMF	Are there concerns for the noise with the projected levels of trains?	We assume that projected level of trains means increased number of trains in the corridor., It is noted that no additional level of trains are proposed as part of the UP Express Electrification project, rather the Diesel Multiple Units (DMUs) that will initially operate along the UP Express route will be replaced by Electric Multiple Unit trains once electrification of the UP Express is implemented. A noise impact assessment is being carried out as part of the EA and will be made available upon completion.
Open House #4 Mount Dennis	EMF	No mention of catenary voltage; since this will be a source of EMF radiation all along the ROW, it should be stated clearly.	For clarification, the overhead voltage is 25kV, 60Hz.
Open House #1 – Viscount Rd (Airport)	Facility Siting	There is a Toronto Hydro Substation Yard at Old Weston Road south of Junction Road, north west corner of the Junction diamond. Hope it still exists. Might be ready made for a switching station.	<p>The existing Toronto Hydro Substation Yard at Old Weston Road was reviewed and compared with the recommended location for the SWS at 3500 Eglinton Ave. W. (Kodak). The following provides a summary of the comparative evaluation of the two sites:</p> <p><u>Proximity to Rail Corridor and Property Size Requirements:</u></p> <p>Although the Old Weston Rd. site is located in close proximity to the existing rail corridor (UP Express route), the site has very limited space to accommodate a standard and reliable SWS facility design, compared to the Kodak site.</p> <p><u>Technical and Cost</u></p> <p>As a result of the space constrained site at Weston, complex engineering solutions would be required in order to implement the facility such as: locating heavy equipment (e.g. autotransformer) underground which would make the equipment very difficult to maintain throughout the operational phase. In addition, since the size of the site is constrained, the facility equipment would need to be stacked and enclosed in a building. This type of design is not typically applied in Ontario as it is less reliable and significantly more costly than the more standard, proven design proposed for the SWS at Kodak which reflects the optimal configuration of equipment on the site.</p> <p><u>Property Availability</u></p> <p>The Old Weston Rd. site is not owned by Metrolinx. Therefore, development of the site would be more costly compared to the Kodak site which is currently owned by Metrolinx.</p>

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Via email	Facility Siting/ Project Timeline and Implementation	<p>If the Kodak site is chosen, can we open discussion with Hydro through you on a renewable energy installation for the site and connecting into the grid at this point?</p> <p>Lastly, we spoke about the Minister saying we are in the 80 per cent certainty range for delivery by 2017 and he is pushing for sooner...can you give me an outline of what you think the 20 percent items that are holding electrification back from happening sooner</p>	<p>The function of the proposed paralleling station at 3500 Eglinton Ave. W. will be to boost the OCS voltage. It will be a Metrolinx facility. Renewable energy options will be reviewed at the detailed design stage of the project. Regarding implementation and timing, the UP Express Electrification Environmental Assessment is targeted for submission to the MOE in 2014. Then the project will require approvals and funding. Depending on the decision date and confirmation of funding, the estimated construction phase would be approximately 3 years from that date. Based on this, we have estimated 2017 for the operation of an electrified UP Express Service.</p>
Open House #2 Metro Hall	Facility Siting	Electrification facilities need to be as far away from residential as possible. Can they be buried?	<p>Burying railway electrification facilities is not the industry practice in North America and other places around the world. Locating heavy equipment (e.g. autotransformer) underground would make the equipment very difficult to maintain throughout the operational phase. This type of design is not typically applied in Ontario as it is less reliable and significantly more costly than the more standard, proven above ground design proposed which reflects the optimal configuration of equipment on the site.</p> <p>Furthermore, it is noted that several criteria will be considered as part of identifying the preferred facility locations, as follows:</p> <ul style="list-style-type: none"> <li>• <b>Natural Environment</b> - consideration of sensitive natural features in the vicinity of the facility location.</li> <li>• <b>Built/Social Environment</b> - consideration of existing/planned land use (including residential) in the vicinity of the facility location/consideration of social features (i.e., schools, daycares, etc.) in the vicinity of the facility location.</li> <li>• <b>Cultural Environment</b> - consideration of sensitive cultural/archaeological features in the vicinity of the facility location.</li> <li>• <b>Technical</b> - consideration of Property Availability, Development Cost, Site Accessibility</li> </ul> <p>The preferred facility locations will be presented as part of the next consultation round for the EA.</p>
Open House #2 Metro Hall	Facility Siting	Is there going to be a paralleling station or any other facility in Peel Region?	With regard to UP Express Electrification, there will not be a paralleling station in Peel Region.
Open House #2 Metro Hall	Facility Siting	Who owns the ordnance site near the proposed Fort York Bridge?	Metrolinx currently owns the Ordnance site.
Open House #2 Metro Hall	Facility Siting	How did you choose the sub-station locations?	<p>The assessment of potential traction power facility locations is based on a four step process as follows:</p> <ul style="list-style-type: none"> <li>➤ Step 1 - Background study involving computer- aided train operation simulations to determine the number and type of traction power facilities required to electrify the UP Express Service</li> <li>➤ Step 2: Generate Potential Facility Locations</li> <li>➤ Step 3: Assess Potential Facility Locations</li> </ul> <p>The following criteria will be considered in order to assess potential facility locations:</p> <ul style="list-style-type: none"> <li>• <b>Natural Environment</b> - consideration of sensitive natural features in the vicinity of the facility location.</li> </ul>

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			<ul style="list-style-type: none"> <li>• <b>Built/Social Environment</b> - consideration of existing/planned land use in the vicinity of the facility location/consideration of social features (i.e., schools, daycares, etc.) in the vicinity of the facility location.</li> <li>• <b>Cultural Environment</b> - consideration of sensitive cultural/archaeological features in the vicinity of the facility location.</li> <li>• <b>Technical</b> - consideration of Property Availability, Development Cost, Site Accessibility</li> </ul> <p>➤ Step 4: Identify Recommended Facility Locations</p>
Open House #3 Mimico	Facility Siting	What are the criteria used to determine siting of the maintenance facility? / Preference to locate facilities away from residential areas	<p>As part of generating initial maintenance facility options for EMUs, the following criteria were considered/applied:</p> <ul style="list-style-type: none"> <li>• <u>Location</u> – Does the site avoid the need to construct/implement additional electrification infrastructure (catenary, traction power facilities, etc.)?</li> <li>• <u>Site Constraints</u> – Can the site accommodate the electrification infrastructure required for storage and maintenance of the EMU’s?</li> <li>• <u>Operations</u> – Is the maintenance facility currently set up to provide for a safe work environment for the storage and maintenance of the EMU’s?</li> </ul> <p>Following identification of the three maintenance facility options (i.e., Existing Willowbrook Maintenance Facility, Purpose-Built EMU Maintenance Facility at Resource Rd., and East Rail Maintenance Facility (under construction)), the following additional criteria are to be considered in order to confirm the recommended maintenance facility option:</p> <ul style="list-style-type: none"> <li>• <b>Natural Environment</b> - consideration of sensitive natural features in the vicinity of the facility location.</li> <li>• <b>Built/Social Environment</b> - consideration of existing/planned land use in the vicinity of the facility location/consideration of social features (i.e., schools, daycares, etc.) in the vicinity of the facility location.</li> <li>• <b>Cultural Environment</b> - consideration of sensitive cultural/archaeological features in the vicinity of the facility location.</li> <li>• <b>Technical</b> - consideration of Property Availability, Development Cost, Site Accessibility</li> </ul> <p>It is noted that the Built/Social Environment criterion includes consideration existing land uses in the vicinity of potential facility sites, including residential areas. Based on application of the criteria listed above, recommended facility locations will be identified based on the relative advantages and disadvantages associated with each siting option.</p>
Open House #4 Mount Dennis	Facility Siting	Regarding the two sites being considered as alternatives to the Kodak site for the Switching station: one has an approval in place for residential development, and would be a very unpopular site for this type of utility; the other is about to approved by the City for a gas station.	Comments noted. The initial step to identify possible SWS locations was based on applying the following key criteria:

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			<p><i>Criterion A - Proximity to existing UP Express route/rail corridor:</i></p> <p>25 kV feeders between the new SWS and OCS will be required in order to distribute electrical power from the SWS to the catenary along the UP Express route/corridor. Therefore, TPS sites should be located in close proximity to the existing UP Express route/corridor for the following reasons:</p> <ul style="list-style-type: none"> <li>• Shorter 25kV feeders minimize real estate/easement requirements;</li> <li>• Shorter 25kV feeders minimize maintenance requirements.</li> </ul> <p><i>Criterion B - Property size requirements:</i></p> <p>The approximate footprint size required for constructing the SWS is anticipated to be 50m X 30m. Therefore, potential SWS sites need to be able to accommodate a minimum footprint area of 50m X 30m.</p> <p>Following identification of potential facility locations, the sites will be further assessed according to consideration of the following additional criteria:</p> <ul style="list-style-type: none"> <li>• <b>Natural Environment</b> - consideration of sensitive natural features in the vicinity of the facility location.</li> <li>• <b>Built/Social Environment</b> - consideration of existing/planned land use in the vicinity of the facility location/consideration of social features (i.e., residences, schools, daycares, etc.) in the vicinity of the facility location.</li> <li>• <b>Cultural Environment</b> - consideration of sensitive cultural/archaeological features in the vicinity of the facility location.</li> </ul> <p><b>Technical</b> - consideration of Property Availability, Development Cost, Site Accessibility</p>
Open House #4 Mount Dennis	Facility Siting	Switching station: 3 possible sites proposed in Mount Dennis, but former Kodak site most likely, this makes more sense but find a site within that space, not on the periphery.	<p>Comment noted.</p> <p>To provide clarification, the proposed SWS at Kodak would be located within the existing Kodak property boundary, not outside of it.</p>
Open House #4 Mount Dennis	Facility Siting	Would hope that large critical systems buildings and major tourist attraction locations not be considered as locations for transformer stations, looking at the display boards in the open house presentation, this has been considered.	Comment noted.
Open House #4 Mount Dennis	Facility Siting	What will be the location of the switching station on the Kodak lands?	<p>It is noted that two other potential SWS sites are being considered for locating the SWS (one at the southwest corner of Black Creek Dr. and Eglinton Ave. W. and one at 955 Weston Rd.). Following the June 2013 POH, the preferred facility location will be determined.</p> <p>If the Kodak site is identified as the preferred SWS site, more specific locations on this site will be determined as part of the preliminary design phase. In addition, coordination with the Eglinton Crosstown LRT team will be required to establish viable SWS locations within the Kodak site that can accommodate the proposed Eglinton Crosstown LRT Maintenance and Storage Facility as well as the SWS facility. The preferred facility locations will then be carried forward for a more detailed impact assessment as part of the UP Express Electrification EA and</p>

Source	Topic /Issue Raised	Question/Comment	How Comment was Considered by Metrolinx
			documented in the Environmental Project Report
Open House #2 Metro Hall	Facilities	What is the function of a switching station?	A Switching Station is a traction power facility equipped with the electrical equipment that allows for switching power between one power source and another. A switching station is required when more than one traction power supply station feeds the same railway system.
Open House #2 Metro Hall	Facilities	How big will the actual substation be at Strachan Avenue?	To provide clarification, there is no traction power substation proposed at Strachan Avenue, rather there is a Paralleling Station proposed at Ordnance Street. The approximate footprint size of the PS facility is 45 m X 20 m. It is also noted that gantries and duct banks containing 25 kV feeders will need to be located within the railway ROW in the vicinity of the PS (west of the Ordnance St. site).
Open House #3 Mimico	Facilities	Purpose of the Traction Power Station.	The purpose of traction power facilities is to provide electricity to the OCS along the rail corridor, which then powers electric trains.
Open House #4 Mount Dennis	Facilities	Interested in understanding what a substation is, what it does, and if it looks like a hydro substation. /How will the traction power facilities look?	The Traction Power Substation (TPS) will house two transformers that will step-down the voltage that comes in from a connection to the existing 230kV transmission line. The voltage will be converted from 230kV to 25kV, and then distributed along the rail corridor to the trains. There will be other electrical equipment at the TPS such as circuit breakers and switches. The TPS will be similar to some of the smaller Hydro One Transformer Stations.
Open House #3 Mimico	Maintenance Facility	Can the VIA Maintenance facility be used for electric trains.	One of the maintenance options considered by Metrolinx was to modify the existing GO Willowbrook Maintenance Facility (WRMF) in order to perform maintenance on the electric UP Express trains. Because the WRMF is currently at capacity, the adjacent VIA Rail TMC facility would need to be used to perform certain EMU train maintenance functions. However, this option would require significant shop modifications to both the WRMF (i.e., electrifying a portion of the GO Lakeshore West corridor in order to transport EMUs to the WRMF, implementation of new yard OCS infrastructure, etc.) and VIA facility (i.e., installing an electric train power pick-up at VIA's TMC to enable EMU train testing) that would introduce operational complexities and would entail a higher cost (capital and operating) compared to the purpose-built Resources Rd. Maintenance Facility option.
Open House #4 Mount Dennis	Maintenance Facility	Current proposed site; maintenance facility; does this location cover 'heavy' and 'preventative maintenance'?	The EMU Maintenance Facility will primarily provide preventative maintenance (e.g., daily/weekly inspections, service, train washing, repair functions including interior wheel truing, railcar truck change-outs, storage of EMU trains). Heavy maintenance (i.e., engine or train body repairs) will generally occur off site at appropriate repair facilities.
Open House #4 Mount Dennis	Maintenance Facility	Is this going to be the facility to also handle to the 'T4 diesel cars' prior to EMU usage?	No. DMU trains will be maintained at Willowbrook Maintenance Facility
Open House #1 – Viscount Rd (Airport)	Alternative Energy	If Kodak site, can we talk how it might relate to a solar farm on the LRT MSF+Yards.	<p>The function of the proposed paralleling station at 3500 Eglinton Ave. W. will be to boost the OCS voltage. It will be a Metrolinx facility. Renewable energy options will be reviewed during the detailed design stage of the project.</p> <p>The function of the proposed paralleling station at 3500 Eglinton Ave. W. will be to boost the OCS voltage. It is not practical to replace the PS with solar panels since the capacity of the energy source required to boost the</p>

Source	Topic /Issue Raised	Question/Comment	How Comment was Considered by Metrolinx
			<p>OCS voltage at the 3500 Eglinton Ave. W. site significantly exceeds the capacity of solar panel farms.</p> <p>In addition, solar panels do not provide a reliable energy source to boost the OCS voltage, as they are dependent on weather/climatic factors that are out of Metrolinx's control (e.g., number of sunny days in a year). As a result, there is a risk that train service could be negatively affected by the unreliable solar energy source.</p>
Open House #1 – Viscount Rd (Airport)	Operations	How will you deal with power outages?	The UP Express system will be connected to two 230kV electrical circuits, which are part of the provincial high voltage grid. Although the project only requires one circuit, a second one will provide a back-up. High voltage circuits were chosen for connections because they supply more reliable power than distribution voltages
Open House #4 Mount Dennis	Operation	Would like more information on the fail safe features for the signals and trains in the event of a power outage.	<p>In the event of utility power failure all safety critical communication, signaling and control equipment will still function since this equipment is fed from emergency power sources.</p> <p>Without power, the train will safely stop. The train service will be resume once the power comes back based on applying safe operating and failure management procedures.</p> <p>In the event of longer outages, alternative means of transportation such as shuttle busses or GO Transit trains will be provided to bring passengers to their final destination.</p>
Open House #4 Mount Dennis	Operations	If the signals are still working but the power to the rails are not, will there be a back up battery supply for the trains; perhaps to have the train reach the next station instead of the train being potentially stranded?	The trains are not provided with the onboard propulsion back up batteries. In the event of unlikely loss of traction power, trains will safely come to a stop.
Open House #4 Mount Dennis	Operations	How many people can go on one train and what is the waiting time for the train?	<p>Trains will depart Union Station and Toronto Pearson every 15 minutes. The total journey time between Union Station and Toronto Pearson is 25 minutes. The UP Express schedule is expected to coincide with Pearson's passenger flight schedule.</p> <p>Each unit will provide comfortable and spacious seating for up to 60 people, and each vehicle will consist of two to three units, meaning that every 15 minutes we will have seating for up to 180 guests onboard the Union Pearson Express.</p>
Open House #4 Mount Dennis	Operation	Concerned with the early and late (05:30 to 01:00) hours of operation of the UP Express. They indicated that particularly the last train at 01:00HRS was excessive, and that technically airplanes were not allowed to land at Pearson International (without penalty) beyond 12:00 midnight, so why would UP Express be operating beyond 12:00 midnight. Frequency and number of trains on the corridor was also a concern, particularly for residence close to the rail corridor.	Trains will depart Union Station and Toronto Pearson every 15 minutes. The UP Express schedule is expected to coincide with Pearson's passenger flight schedule. More information related to the schedule will be available closer to the inaugural launch date.
Open House #2 Metro Hall	Energy Supply	Would like to understand the availability of volume of electricity that will be required when trains are electrified. Every summer at some point we receive warnings of brown-outs. Reasonably the rail system will have a priority place to receive power but what if any impacts should we expect and again is there sufficient power?	The high-voltage (230 kV) grid of Hydro One has very high capacity as compared to the power and energy requirements of UP Express railway electrification; therefore electrification of the UP Express service is not anticipated to cause adverse effects on the power quality supplied to other customers (commercial and residential).
Open House #2 Metro	Infrastructure Coordination	Coordinate with Fort York bridge proposal re paralleling station on Ordnance Road	As part of the EA process, Metrolinx is coordinating with the City of Toronto in relation to the proposed bridge

Source	Topic /Issue Raised	Question/Comment	How Comment was Considered by Metrolinx
Hall			modifications along the corridor that will be required as part of electrifying the UP Express. The design of the Ordnance Rd. paralleling station will be developed as part of the preliminary design phase and discussed with the City.
Open House #2 Metro Hall	Infrastructure Integration	Will the proposed Fort York Bridge be feasible if electrification happens?	Yes. We are working with the City of Toronto to ensure compatibility.
Open House #4 Mount Dennis	Infrastructure integration	If it's a healthy corridor electrify it, then add a bike path if possible – it would make sense.	Comment noted.
Open House #2 Metro Hall	Construction Impacts	What will the construction impacts of electrification be? For example, digging piles for the poles?	The proposed construction method for installing OCS poles is via auger excavation, which is commonly used in the UK and in other parts of the world. It is noted that potential short term construction related effects (e.g., noise, dust, vibration, etc.) will be assessed and mitigation measures established as appropriate, as part of the Impact Assessment phase of the EA process.
Open House #2 Metro Hall	Noise	Noise walls are planned, but what mitigation is available for people living in high rise condominiums and apartment buildings?	As part of the EA process, a noise impact assessment will be carried out to assess the potential noise effects related to UP Express electrification. The results of the noise impact assessment will be presented at the next public consultation round for comments/feedback/discussion.
Open House #2 Metro Hall	Noise	How much noise will come from the hum of the wires?	As part of the EA, a noise impact assessment will be carried out to assess the potential noise effects related to UP Express electrification, including potential noise effects related to the catenary/pantograph.
Open House #4 Mount Dennis	Noise and Vibration	Do something with the noise, vibration and of course safety as well.	Comment noted.
Open House #2 Metro Hall	UP Express Stations	Will there be a stop at Eglinton LRT?	Currently there are four stops/stations associated with the UP Express service: UP Express Union, UP Express Bloor, UP Express Weston, and UP Express Pearson.  Connecting to the Eglinton Crosstown LRT line is an important future consideration for UP Express.
Open House #2 Metro Hall	UP Express Stations	Why are there only 4 stations on the UP Express?	The design and project scope for the opening day of the service in 2015 has been determined. UP Express will connect Union Station and Terminal 1 at Toronto Pearson Airport, with two station stops at Bloor and Weston stations along GO's Kitchener corridor (formerly known as the Georgetown line).  The 25-minute trip will offer residents, tourists and business travellers with a high-quality connection to the airport that is fast, reliable, convenient and comfortable. Adding more stations stops along the UP Express route will increase the total travel time, therefore taking away from the purpose of the service as being direct and express.
Open House #4 Mount Dennis	UP Express Stations	Make sure the train stations are well designed and have the best of amenities, plus provision for new services, also make each station as "green" as possible; e.g. LEED certified and lessen environmental impacts.	Comment noted.  To provide clarification, no new stations are being proposed/design as part of the UP Express Electrification project.  Additional information related to UP Express stations is contained online:

Source	Topic /Issue Raised	Question/Comment	How Comment was Considered by Metrolinx
			<a href="http://www.upexpress.ca/en/project/stations.aspx">http://www.upexpress.ca/en/project/stations.aspx</a>  GO recognizes the decisions we make today will have a major impact on the world we live in tomorrow. Changing attitudes and shifting mindsets are putting the environment at the forefront of GO's plans – both today and in the future.  Transit is a clean, sustainable transportation option and GO believes the environment should be a key consideration for future growth strategies and development. Going green is just one of the many ways GO Transit is leading the way, both in the transportation industry and in the eyes of its customers.
Open House #2 Metro Hall	OCS	Can you do 3 <sup>rd</sup> rail? What are the advantages of catenary?	One of the key reasons that third rail not preferred is due to safety considerations. Third rail has more safety risks, particularly for an open corridor such as GO Transit. Further detail regarding the consideration of third rail vs. catenary can be found in the 2010 Electrification Study available on Metrolinx's website:  <a href="http://www.gotransit.com/electrification/en/default.aspx">http://www.gotransit.com/electrification/en/default.aspx</a>
Open House #3 Mimico	OCS	How will the overhead catenary system would be installed?	One of the proposed construction methods for installing OCS poles is via auger excavation, which is commonly used in the UK and in other parts of the world. It is noted that potential short term construction related effects (e.g., noise, dust, vibration, etc.) will be assessed and mitigation measures established as appropriate, as part of the Impact Assessment phase of the EA process.
Open House #4 Mount Dennis	OCS	Clarification needed in the displays on the size/frequency of the catenaries along the line.	Comment noted. Additional detail related to the proposed design and installation of the OCS along the corridor will be developed as part of the preliminary design phase. As a result, additional design details will be presented as part of the next UP Express Electrification EA consultation round for comments/feedback.
Open House #4 Mount Dennis	OCS	Presume that the bridges spanning the ROW supporting the catenary will span all tracks but not necessarily have a catenary wire along each track – this, if needed, could easily be added later.	Comment noted.  To provide clarification, OCS wires will only be installed over tracks that are intended to be electrified for the purposes of UP Express operation.
Open House #4 Mount Dennis	OCS	We need to deal with the eye pollution to save the lung pollution.	Comment noted.
Open House #4 Mount Dennis	OCS	Questions about the portals and why they need to look the way they do (does Metrolinx have to use the ugly ones?)?	As part of the preliminary design process for the Overhead Contact System (OCS) for UP Express, applicable engineering standards and proven design solutions were considered and applied in order to ensure the OCS design is aligned with industry best practices. The height/size of OCS portals were reduced to the extent possible in various locations along the UP Express route. However, it is noted that vertical clearances along the corridor are primarily dictated by operational considerations such as double-stacked freight trains that also operate along the same corridor. Furthermore, standardizing the portal structure design as much as possible offers advantages from a capital cost perspective, and maximizes ease/efficiency of maintaining the OCS throughout the operational phase.  It is noted that Metrolinx's Design Review Team will be involved in reviewing potential options for portal structure styles during the Detailed Design phase.

Source	Topic /Issue Raised	Question/Comment	How Comment was Considered by Metrolinx
Open House #4 Mount Dennis	Rolling Stock and OCS	Interest in understanding the technology that would be used for the rolling stock, the speed of the rolling stock, and general questions about the traction power system.	<p>Metrolinx is purchasing DMUs for the UP Express service that will start in 2015. Part of that procurement process was that DMUs could be converted to EMU – that is still part of the plan.</p> <p>Vehicles for the Union Pearson Express have been purchased from the Sumitomo Corporation of America. Currently being manufactured, the first vehicle is expected to arrive in early 2014.</p> <p>The vehicle’s top speed is 152 km/h. However there will be factors on achieving that i.e., track conditions, speed restrictions, curvature.</p>
Open House #4 Mount Dennis	Safety	What safeguards will Metrolinx impose on properties adjacent to electrified catenary system?	As part of the EA process, impact assessments will be carried out to assess the potential effects (e.g., land use, noise, vibration, etc.) related to UP Express electrification, and to identify mitigation measures as required. The impact assessment studies will consider potential construction related effects as well as operational effects and will be based on the preliminary design for UP Express electrification. Mitigation measures will be developed as required in order to minimize or mitigate potential adverse effects.
Open House #4 Mount Dennis	Safety	So long as it is safe for everyone, we have no comment on that.	Comment noted.
Open House #4 Mount Dennis	Bridges	May need to rebuild Wallace Ave bridge when installing the bridge barrier for electrification.	Comment noted. The proposed bridge modifications (including bridge barriers) required as part of UP Express electrification will be refined as part of the preliminary design phase.
Open House #4 Mount Dennis	Bridges	John/King/Church, where it comes out of the tunnel, need a bridge barrier	Comment noted. The proposed bridge modifications (including bridge barriers) required as part of UP Express electrification will be refined as part of the preliminary design phase.
Open House #4 Mount Dennis	Bridges	City/MX: need a pedestrian connection between Weston Rd and the No Frills/Rec Centre; would like a bridge instead of proposed tunnel – may need bridge barriers	<p>Comment noted.</p> <p>Metrolinx consulted with the community on design options for the John Street Pedestrian Bridge. Construction of the John Street Pedestrian Bridge is anticipated to begin in 2014.</p> <p>There are currently no plans for Metrolinx to build additional bridges across the corridor because of safety concerns. However, the City of Toronto has a number of proposed projects in various stages of development including pedestrian bridges in Liberty Village. For more information on future pedestrian bridges, please contact the City of Toronto.</p>
Open House #4 Mount Dennis	Bridges	I liked the bridge protection and railway crossing safety concerns are critical so no one sees it as an opportunity to ‘jump’.	Comment noted.
Open House #4 Mount Dennis	Electrical Supply	What are the possible drains on the electrical grid in relation to the power used for the railway?	The high-voltage (230 kV) grid of Hydro One has very high capacity as compared to the power and energy requirements of UP Express railway electrification; therefore electrification of the UP Express service is not anticipated to cause adverse effects on the power quality supplied to other customers (commercial and residential).
Via email	Other - GTS Project	I I am certain that you have noticed a perimeter fence around the property erected by Metrolinx Project. In addition, the entire corner is used to load and unload gravel, sand and other materials.	It is noted that this comment pertains to the Georgetown South project, and is not included in the UP Express Electrification project scope.

Source	Topic /Issue Raised	Question/Comment	How Comment was Considered by Metrolinx
		<p>It's unsightly!</p> <p>My doctors and residential tenants are complaining.</p> <p>The dust, sand, gravel and dirt flows along the road and gutters and is rarely cleaned. Mud is being tracked into the building. Patients, especially the disabled are having a difficult time accessing doctor's offices.</p> <p>Why must the front of the property be used as a construction centre? Can it be moved to the railway lands? There is plenty of space there! We have tolerated the noise and dirt and filth for months. Tenants are threatening to leave!</p> <p>Please do something or inform me who to contact.</p>	<p>This comment was forwarded to the Metrolinx Community Office in Weston, who followed up directly with the interested person to discuss their comments/concerns.</p>
Open House #1 – Viscount Rd (Airport)	Other - GTS Project	Pollution from construction equipment on the GTS corridor	<p>It is noted that the UP Express Electrification EA will consider and assess potential effects related to construction activities. The effects assessment and proposed mitigation measures will be documented within the Environmental Project Report. The results of the impact assessments will be presented as part of the next consultation round for feedback.</p>
Open House #2 Metro Hall	Other – GTS Project	Current trains have horns going off. Will the level of horns etc. decrease when the level crossings are removed?	<p>Yes however, please note that all train crews are governed by the Federal Canadian Railway Operating Rules (CROR) to sound the horn in the interest of public safety. The need to blow the horn, its noise level and frequency, is federally regulated by Transport Canada.</p> <p>Please note that all train crews are governed by the Federal Canadian Railway Operating Rules (CROR) to sound the horn in the interest of public safety. The need to blow the horn, its noise level and frequency, is federally regulated by Transport Canada.</p>
Open House #3 Mimico	Other - GTS Project	Noise impacts related to GTS construction –participants expressed concerns related to ongoing noise impacts along the corridor.	<p>Construction related impacts of the GTS project are outside the scope of the UP Express Electrification EA. Notwithstanding this, it is noted that the potential construction related effects due to UP Express electrification will be assessed as part of the EA and mitigation measures will be developed to reduce or eliminate potential adverse effects on nearby residents.</p>
Open House #3 Mimico	Other – GTS Project	There were issues with noise from existing trains in the Mimico area.	<p>Comment noted. It is noted that this comment does not pertain to the UP Express Electrification project scope.</p>
Open House #3 Mimico	Other – GTS Project	Request for more information regarding the location of the new noise walls.	<p>It is noted that this comment pertains to the Georgetown South project, and is not included in the UP Express Electrification project scope.</p> <p>There were Noise Wall Advisory Committees to help guide the design of noise walls in each neighbourhood. Eight Community Advisory Committees (CACs) have been established along the corridor, from Bathurst Street to the Humber River Bridge. Each of the eight Community Advisory Committees is comprised of individuals who work or reside within 200 metres of the GTS corridor, representative(s) from local organizations such as BIAs, City of Toronto staff and local elected officials.</p>

Source	Topic /Issue Raised	Question/Comment	How Comment was Considered by Metrolinx
			Additional information is available on Metrolinx's website: <a href="http://www.gotransit.com/gts/en/default.aspx">http://www.gotransit.com/gts/en/default.aspx</a>
Open House #3 Mimico	Other – GTS Project	Confusion over current GTS construction and UP Express Electrification EA consultation process.	To provide clarification, the Georgetown South (GTS) project is currently under construction at various locations along the existing GO Kitchener rail corridor. The implementation of the new UP Express service from Union Station to the Airport is one component of the GTS project.  In contrast, the purpose of the Union-Pearson (UP) Express Electrification Environmental Assessment (EA) project is to convert the UP Express trains from diesel power to electric power. The Public Open Houses held in June 2013 were part of the consultation process being carried out for the UP Express Electrification EA project.
Open House #4 Mount Dennis	Other – GTS Project	Weston revitalization of our core should try to compensate for the loss all businesses along Weston are suffering at the moment with no access for residents to try to navigate the blockages to get there presently.	It is noted that this comment pertains to the Georgetown South project. It is recommended that the GTS team be contacted directly at:  <b>Georgetown South Project</b> 20 Bay Street, Suite 600 Toronto, ON M5J 2W3 416-406-0489 <a href="mailto:gts@gotransit.com">gts@gotransit.com</a>  Additional information is also available on Metrolinx's website: <a href="http://www.gotransit.com/gts/en/default.aspx">http://www.gotransit.com/gts/en/default.aspx</a>
Open House #4 Mount Dennis	Other – GTS Project	Do you really need a 4 <sup>th</sup> track? 3 tracks should be enough even for off peak	The electrified UP Express service will operate on the same tracks as the non-electrified service. The need for a 4 <sup>th</sup> track will be evaluated as part of considering future service expansion within the Kitchener corridor.
Open House #4 Mount Dennis	Other – GTS Project	Would like to see a soundproofing wall built along Weston Road beside the tracks north of Rogers Rd; would like to use the latest technology to decrease the noise and vibration when building the tracks and trains.	It is noted that this comment pertains to the Georgetown South project and is not included in the UP Express Electrification project scope.  However, it should be noted that there were Noise Wall Advisory Committees to help guide the design of noise walls in each neighbourhood, eight Community Advisory Committees (CACs) have been established along the corridor, from Bathurst Street to the Humber River Bridge. Each of the eight Community Advisory Committees is comprised of individuals who work or reside within 200 metres of the GTS corridor, representative(s) from local organizations such as BIAs, City of Toronto staff and local elected officials.  Additional information is available on Metrolinx's website: <a href="http://www.gotransit.com/gts/en/default.aspx">http://www.gotransit.com/gts/en/default.aspx</a>
Open House #4 Mount Dennis	Other - GTS Project	Extreme concern with carcinogens and particulate matter; the 25% tier 4 will not catch, is lethal	To provide clarification, the scope of the UP Express Electrification project is to replace the diesel powered

Source	Topic /Issue Raised	Question/Comment	How Comment was Considered by Metrolinx
		and a seriously compromised air quality for the health of cancer patients, children with smaller lung capacities and the elderly.	trains that will initially operate on the UP Express line with electric powered EMU trains. As a result, no adverse air quality impacts are anticipated in relation to the UP Express electrification undertaking.
Open House #4 Mount Dennis	Other – GTS Project	Air quality stations must be manned for measuring and strictly enforced service cuts if they exceed an already dangerous situation for those of us breathing this air 24/7.	<p>Comment noted.</p> <p>It that this comment pertains to air quality monitoring stations currently operating within the Georgetown South Corridor.</p> <p>With this in mind, Ambient Air Monitoring and Reporting Plan here:  <a href="http://www.gotransit.com/gts/en/docs/AAMRP_Final.pdf">http://www.gotransit.com/gts/en/docs/AAMRP_Final.pdf</a></p> <ul style="list-style-type: none"> <li>We’re committed to delivering the UP Express service in an environmentally responsible manner. The service will launch with state-of-the-art Tier 4 diesel multiple units. Tier 4 is the strictest non-road engine emissions standard set by the U.S. Environmental Protection Agency (EPA). Tier 4 technology reduces airborne particulate emissions by 90% and nitrogen oxides (NOx) by 80%.</li> <li>In addition, UP Express will take up to 1.2 million car trips off the road in the first year alone – reducing congestion and improving air quality.</li> </ul>
Open House #4 Mount Dennis	Other – GTS Project	Live in the area and very concerned with the noise and all the street closures and wonder when it will all end	Metrolinx committed to completing the GTS Project as soon as possible with as little disturbance as possible to our neighbours. We are in the home stretch of the project with completion scheduled for the end of 2014. If you have any concerns, please contact the Weston community office at 416-241-2300 or <a href="mailto:gts@gotransit.com">gts@gotransit.com</a> .
Open House #4 Mount Dennis	Other – GTS Project	House was damaged by construction, the garage and some cracks inside the house; they say that they are going to do it, or fix it or replace it if necessary and we’re looking forward to that; main concern now is what if something happens in my house in the future, due to so much vibration; can we assume that your company will be responsible for that?	This comment pertains to a previous/ongoing GO construction project. Notwithstanding this, it is noted that these types of claims are handled through GO Transit’s established process to receive and review claims related to construction damage.
Open House #4 Mount Dennis	Other – GTS Project	There is a health concern because my brother-in-law is a diabetic and had heart surgery a couple of years ago.	Comment noted.
Open House #4 Mount Dennis	Other – GTS Project	Worries about vibration from GTS construction.	<p>It is noted that this comment pertains to the Georgetown South project, and is not included in the UP Express Electrification project scope. It is recommended that the GTS team be contacted directly at:</p> <p><b>Georgetown South Project</b>  20 Bay Street, Suite 600  Toronto, ON M5J 2W3  416-406-0489  <a href="mailto:gts@gotransit.com">gts@gotransit.com</a></p>

Source	Topic /Issue Raised	Question/Comment	How Comment was Considered by Metrolinx
			<p>Additional information is also available on Metrolinx's website:  <a href="http://www.gotransit.com/gts/en/default.aspx">http://www.gotransit.com/gts/en/default.aspx</a></p> <p>Also, GTS Noise and Vibration Report can be accessed online:  <a href="http://www.gotransit.com/gts/en/docs/GTS_Operational_Noise_and_Vibration_Assessment-Main_Report.pdf">http://www.gotransit.com/gts/en/docs/GTS_Operational_Noise_and_Vibration_Assessment-Main_Report.pdf</a></p>
Via email	Other	<p>Summary of Recommendations</p> <p>General</p> <ul style="list-style-type: none"> <li>• More rail, less light rail</li> <li>• Integration CN/CP solitudes into one optimized GO grid</li> <li>• More users through incentives &amp; Smartphone dispatched ride sharing to/from Go Stations</li> <li>• Manner of Funding issue should not detract from Re-Examining Plan Fundamentals</li> <li>• Federal funding of public transit should take precedents over defense spending</li> </ul> <p>Specific</p> <ul style="list-style-type: none"> <li>• Main/Danforth 'Mobility Hub' similar to Dundas West/Bloor Hub by 2015</li> <li>• Downtown Relief Line (DRL) already exists in the Railway Corridor</li> <li>• Prioritize Mid-town (CP) Rail Corridor Electrification (Summerhill Hub)</li> <li>• Initiative a pilot project for Smart-phone based On-Demand ride sharing</li> <li>• Simulation/Modeling based on forecasting of traffic demand to better anticipate growth-patterns</li> </ul>	<p>Information can be obtained via the website links provided below.</p> <p><u>Metrolinx's vision for the Big Move:</u> <a href="http://www.bigmove.ca/what-is-the-big-move">http://www.bigmove.ca/what-is-the-big-move</a></p> <p><u>Investment Strategy information:</u> <a href="http://www.bigmove.ca/report">http://www.bigmove.ca/report</a></p>
Open House #1 – Viscount Rd (Airport)	Other	Environmental impacts of shipping locomotives from Japan	This topic is outside the scope of the UP Express Electrification EA.
Open House #2 Metro Hall	Other	<p>Opportunities for more stations for future integrated transit system e.g.</p> <ul style="list-style-type: none"> <li>• Eglinton Crosstown</li> <li>• St Clair TTC</li> <li>• Islington / Kipling</li> </ul> <p>Can the electrification be leveraged for Downtown Relief Line (subway etc.)?</p>	<p>The design and project scope for the opening day of the UP Express service in 2015 has been determined. UP Express will connect Union Station and Terminal 1 at Toronto Pearson Airport, with two station stops at Bloor and Weston stations along GO's Kitchener corridor (formerly known as the Georgetown line).</p> <p>The 25-minute trip will offer residents, tourists and business travellers with a high-quality connection to the airport that is fast, reliable, convenient and comfortable. Adding more stations stops along the UP Express route will increase the total travel time, therefore taking away from the purpose of the service as being direct and express.</p>
Open House #2 Metro Hall	Other	<p>Proposal of a regional rail network approach to increasing public transit usage, comparable to those found in Zurich and Stuttgart. The submission makes a case for using existing rail corridors in the GTA to increase public transit facilities and capacity. Three rail corridors suggested:</p> <ol style="list-style-type: none"> <li>1. The Downtown Relief Line</li> <li>2. Mid Town Line: Etobicoke – Junction – Summerhill – Don Mills – Agincourt – Markham</li> <li>3. Bramalea – Markham</li> </ol>	Comment noted. Consideration of new methods/programs to increase public transit usage of the regional rail network are part of additional studies which are underway but are outside the scope of the UP Express Electrification EA.
Open House #2 Metro Hall	Other	Need to co-ordinate with West Toronto Rail Path to maximize Rail Path potential, including possible pedestrian/cycle bridge connecting ward 14 and 18 in Lansdowne/Sorauren Park area	As part of the EA process, Metrolinx is coordinating with the City of Toronto to assess potential effects on current land uses as well as how future/planned land uses (e.g., Railpath) will be considered.

Source	Topic /Issue Raised	Question/Comment	How Comment was Considered by Metrolinx
			Furthermore, Metrolinx is engaging with the West Toronto Railpath group, the City of Toronto and other community organizations to help accommodate the Railpath’s plan to build its path adjacent to GO’s Kitchener corridor, where possible.
Open House #2 Metro Hall	Other	Why are current diesel locomotives noisier than the older ones?	<p>The newer locomotives do have a distinctive sound. Especially if a person is used to hearing the F59 model locomotives, it is understandable that the new sound will be noticed. There are many variables that can influence sound levels such as environmental conditions, surrounding buildings, acceleration/deceleration, etc.</p> <p>Specific to the new MP40 engines, GO Transit has voluntarily complied with the latest noise level standards set for locomotives used in the United States, as Canada does not currently stipulate standards for railroad use. These new engines do have a different sound signature (pitch) and may appear to be noisier than the older model engines, however the noise emission level is comparable between the old model engines and the new MP40 locomotives. The new engines are 20 percent more powerful and are not outputting/ emitting any additional sound pollution over our older model. These have been introduced to improve on time performance as well as provide GO Transit the ability to respond to increased customer demand by carrying more passengers per train.</p>
Open House #2 Metro Hall	Other	What is the timing to electrify Lakeshore?	The electrification of Lakeshore is dependent on funding, which is part of the Investment Strategy that is currently under review. Therefore, the timing is dependent on this review.
Open House #4 Mount Dennis	Other	Another stop in south Bathurst to serve Toronto Island Airport, considering service and connectivity in and out of both airports will likely increase as more airlines create new local routes, this will make easy transfers between airports; e.g. Windsor/Sarnia to Island, train to YYZ to Paris, etc.	<p>The design and project scope for the opening day of the service in 2015 has been determined. UP Express will connect Union Station and Terminal 1 at Toronto Pearson Airport, with two station stops at Bloor and Weston stations along GO’s Kitchener corridor (formerly known as the Georgetown line).</p> <p>The 25-minute trip will offer residents, tourists and business travellers with a high-quality connection to the airport that is fast, reliable, convenient and comfortable. Adding more station stops along the UP Express route will increase the total travel time, therefore taking away from the purpose of the service as being direct and express.</p>
Open House #4 Mount Dennis	Other	Make future provisions for green energy, solar and wind (like small ones used on Boston Airport).	Comment noted.
Open House #4 Mount Dennis	Other	The Minister of Health calls it a danger, David Suzuki expressed on record his concern; thousands of members of the community have expressed outrage from Day one.	Comment noted.
Open House #4 Mount Dennis	Other	When will we know if \$400 million will even be committed and budgeted and designated for electrification of the Georgetown Line; it is needed ASAP.	Based on the Electrification Study, the estimated incremental capital cost to electrify the UP Express corridor is approximately \$440 million (2010 dollars). This estimate will be refined during the preliminary design that is currently underway. Funding has not yet been confirmed and is subject to the Metrolinx Investment Strategy.
Open House #4 Mount Dennis	Other	Residents will not hold out for long after diesel opens.	Comment noted.

### 8.2.5 Notice of Commencement

In accordance with Section 7 of *O. Reg. 231/08*, a Notice of Commencement was issued to publicly announce the start of the TPAP phase of the project. The notice was issued to the following stakeholders:

- Property owners within 30 m of the project study area
  - A list of property owners within 30 m of the study area was obtained through Teranet<sup>1</sup>.
  - The process of notifying property owners also included distribution of the Notice of Commencement to condominium/apartment buildings along the study area/corridor for posting in the common areas of the buildings for resident's information.
- Director, Environmental Assessment and Approvals Branch, Ministry of the Environment (the Director)
- Director, Central Region, Ministry of the Environment
- Aboriginal Peoples (as identified through the bodies specified by the Director)
- Review Agencies
- Public/Stakeholders (including members of the public, other stakeholders, anyone who had previously expressed an interest in the project/submitted comments/attended Public Open House sessions/meetings), and
- Elected Officials.

In addition, the Notice of Commencement was published in the following newspapers which have circulation in the areas along the study area/corridor:

- Metro News Toronto
- L'Express de Toronto
- Toronto le Metropolitan (Brampton)
- Mississauga News
- York Guardian
- Parkdale Liberty Villager
- North York Mirror
- City Centre Mirror
- Etobicoke Guardian

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<sup>1</sup> Teranet owns and operates Ontario's Electronic Land Registration System (ELRS) and facilitates the delivery of electronic land registration services on behalf of the Province. The ELRS is the means by which ownership of real property and interests on title are searched, recorded and transferred in the Province of Ontario.

The Notice of Commencement was also posted to the project website (<http://www.gotransit.com/electrification/en/default.aspx>), as well as within the Georgetown South newsletter (which is circulated to approximately 3300 contacts).

A copy of the Notice of Commencement is contained in **Appendix J-4**.

### **8.2.6 Public Open Houses (January/February 2014)**

Four Public Open House sessions were held at various locations along the corridor between January 30<sup>th</sup> and February 10<sup>th</sup>, 2014 during TPAP Phase of the EA. Four different venues were selected as follows, in order to provide locations that were reasonably distributed along the 25 km length of the UP Express route, and based on feedback from the public/stakeholders regarding venue locations from the first round of Public Open Houses:

<b>Tuesday, January 30, 2014</b>	<b>Monday, February 3, 2014</b>	<b>Tuesday, February 4, 2014</b>	<b>Monday, February 10, 2014</b>
Islington Evangel Centre 49 Queen's Plate Drive Etobicoke, ON 6:30 p.m. – 8:30 p.m.	Locus 144 Restaurant 171 East Liberty Street Unit 144 Toronto, ON 6:30 p.m. – 8:30 p.m.	York West Active Living Centre 1901 Weston Road Weston, ON 6:30 p.m. – 8:30 p.m.	Lithuanian House 1573 Bloor Street West Toronto, ON 6:30 p.m. – 8:30 p.m.

The purpose of the January/February 2014 Public Open Houses was to share a project update on the design and environmental assessment work completed since the previous June 2013 Open Houses, and seek feedback on the following:

- Overview of Preliminary Design for Union Pearson (UP) Express Electrification:
  - Traction Power Supply (Hydro One)
  - Traction Power Distribution
  - Maintenance Requirements
  - Construction Activities
- EA Studies (including potential environmental effects, mitigation measures)
- Next Steps/Timelines

The open houses were advertised broadly including: Parkdale Liberty Villager, City Centre Mirror, Etobicoke Guardian, York Guardian, Mississauga News, Bloor West Villager, North York Mirror, Metro News Toronto, L'Express de Toronto, Toronto le Metropolitain (Brampton) so that the public was made aware of the multiple date and location options. In addition, the Public Open House Notice was published in the Georgetown South Monthly Newsletter which is circulated to approximately 3300 contacts.

In addition to newspaper ads, the open house notice was posted on Metrolinx's website, and invitation emails/letters were sent to the project contact list which included over 1,000 contacts: elected officials, review agencies, public/stakeholders, property owners, and aboriginal peoples. In addition, individually addressed letters were mailed directly to identified property owners within 30 m of the study area. A copy of the Notice was also sent directly to the management offices of a number of condominium/apartment residences located along the Union Station Rail Corridor portion of the study area, with a request to post copies of the Notice in the common areas of these buildings (e.g., mail room, elevators, etc.). The January/February 2014 Public Open Houses were held jointly by Metrolinx and Hydro One.

As the Traction Power Supply components of the UP Express Electrification project are being assessed by Hydro One under the Class EA for Minor Transmission, it was beneficial to hold joint Public Open House sessions with Metrolinx in order to provide the public with a complete understanding of the project, including how the power supply and power distribution components will be implemented.

For a summary of the information and materials presented by Hydro One at the open house, please refer to: *Hydro One Union Pearson Express Traction Power Substation Class Environmental Assessment - Draft Environmental Study Report*.

With respect to the format of the sessions, attendees were welcomed by the project team, asked to sign-in and provided with a comment sheet. Attendees were encouraged to discuss questions with the project team and to provide written comments and feedback via the comment sheets. A total of 50 Metrolinx/Hydro One presentation boards were displayed around the room with members of the project team on-hand to answer questions and provide further detail about the project. A copy of the display board material was also posted on Metrolinx's project website.

The display panels presented the following key information:

- Overview of Preliminary Design for Union Pearson (UP) Express Electrification
- Description of Traction Power Supply System
- Description of Traction Power Distribution System
- EMU Maintenance Facility design
- Grounding and bonding requirements
- Summary of environmental impact assessment studies
- Proposed construction activities
- Artistic renderings of OCS design
- Commitments to Future Work
- Next Steps/Timelines

A total of 117 people attended the four open houses including: local politicians, local business owners, professional/educational interests, stakeholders and members of the public.

**Appendix J-5** contains a copy of the January/February 2014 Public Open House Summary Report which includes a copy of the newspaper ad, email/letter invitation, sign-in sheet, and display panels. Appendix J-5 also contains copies of the comment forms from the POH.

#### ***8.2.6.1 Summary of Public Comments Received (January/February POH)***

In general, strong support for the UP Express Electrification project has been expressed by the public. In addition, some of the key topics raised as part of the comments/feedback received at the January/February 2014 POHs included but were not limited to the following:

- Commitment to electrification
- Timing of implementation/why was electrification not included into the 2015 time frame
- Cost of electrification
- Inquires related to EA process timelines
- Suggestions for opportunities for more stations (e.g., Mt. Dennis, Liberty Village)
- Future electrification of other GO Transit rail corridors
- Questions related to how the system would be protected in the case of inclement weather (e.g. ice storm of 2013)
- Questions regarding EMI and EMF effects
- Would like to see more visuals/renderings of the electrified system
- Suggestions to consider alternative technologies (e.g., wind power, “steam motion” technology)
- General support for electrification

**Table 8-2** summarizes the key issues/comments/questions raised by members of the public as part of the TPAP phase, including the January/February 2014 Public Open Houses, and how they were considered by Metrolinx. **Appendix J-6** contains copies of public correspondence.

TABLE 8-2 SUMMARY OF PUBLIC COMMENTS (TPAP PHASE) AND HOW THEY WERE CONSIDERED BY METROLINX

Source	Topic /Issue Raised	Question/Comment	How Comment was Considered by Metrolinx
Open House #3 Weston	Support for the Project	I must congratulate you on a very comprehensive design and on beginning a project to fruition that was long overdue, i.e. the downtown to airport rail link	Thanks for your support for the project.
Open House #3 Weston	Support for the Project	A very good explanation and understanding of the different obstacles, especially at bridges.	Thanks for your support for the project.
Open House #4 Junction	Support for the Project	Looks good! Glad to see serious planning for electrification. Now I'm hoping for funding and moving on, very soon, into the building phase. Thanks for the open house!	Thanks for your support for the project.
Via email	Support for the Project	It makes me happy to see that Metrolinx is looking at electrifying the tracks. Diesel is such an old and dirty way of fuelling. Now if only you would consider joining the express with the Eglinton LRT and Bloor subway line! To me it doesn't make sense to not join the lines now. It is inevitable that it will be done. It would be far more cost efficient to do it now rather than 5-10 years from now.	Comments noted. Thanks for your support for the project.
Open House #4 Junction	Support for the Project	I think that the UP Express was a very good idea because it takes over an hour to get to the airport by TTC.	Thanks for your support for the project.
Via email	Support for the Project	If it is indeed decided by the powers that be in the case of the Metrolinx rail system to be used in Toronto chose to utilize diesel commuter trains, as opposed to the safer, healthier electric technology which already has been selected- this would indeed be a 'wrongdoing' regarding public health, safety and security.	Comments noted. Thanks for your support for the project.

Via email	Project Timeline and Implementation	<p>We are decades behind most other countries in infrastructure projects (I've just come back from Hong Kong and weep at our inability to get things done).</p> <p>Why on earth is an environmental assessment necessary to erect electricity wires over an existing railway track? And what on earth does it have to do with First Nations people? Electrical rail traction is known throughout the world to be vastly superior to diesel in terms of environmental impact. All those living close to the track will benefit from reduced noise. Travellers will benefit from faster times (better acceleration) and the air will benefit from less diesel fumes. SO JUST DO IT!!!!!!!!!!!!!!!!!!!!!!</p> <p>The only political issue is, and should be, cost. The only reason it was built as a diesel line in the first place was cost, and the fact that finally (several decades late) politicians realized that we needed to do it fast to avoid being the laughing stock of the world (or at least the Americas) by having no rail link to the airport in time for the Pan Am Games.</p> <p>If this were Beijing, or Hong Kong, or Singapore, or any major Chinese or European city, the electrified line would already exist and be on the way to being obsolete by now. If it needed to be built, it would be done in a year or less. My guess is that I won't live to see this line electrified (I'm 75).</p> <p>It's all so sad for this once great city. It's political correctness and over-regulation gone mad.</p>	<p>Firstly, the requirement for Metrolinx to carrying out an Environmental Assessment to electrify an existing rail corridor is prescribed in <i>Ontario Regulation 231/08 – Transit Projects and Metrolinx Undertakings</i> (<a href="http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_080231_e.htm">http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_080231_e.htm</a>) under the <i>Ontario Environmental Assessment Act. Schedule 1, Subsection 2 (1)</i> 7 of O. Reg. 231/08 is the regulation that requires the completion of an Environmental Assessment for electrification: <i>Electrification of rail equipment propulsion on existing commuter rail corridor and associated power distribution system</i>.</p> <p>In addition, O. Reg. 231/08 requires Metrolinx to consult with interested persons (including public, property owners, Review Agencies, other stakeholders) on the proposed project, including aboriginal communities. Specifically, Consultation Section 8 within <i>O. Reg. 231/08</i> includes the requirement to consult with Aboriginal communities as part of the Transit Project Assessment Process.</p>
Open House #3 Weston	Project Timeline and Implementation	Why was electrification not included into the time frame for completing by 2014 or 2015?	<p>The UP Express Electrification EA is targeted for submission to the Ministry of the Environment (MOE) for review in April 2014.</p> <p>Once the EA is approved, further funding will need to be identified to move to the next steps, which would be conducting the final, detailed engineering, procurement of electric trains, constructing the fixed infrastructure like substations and catenary, and commissioning/testing the new system.</p>
Via email	Project Timeline and Implementation	<p>Does the government intend to electrify by 2017 as "promised" by Minister Murray?</p> <p>When will the EA be finished? - What then?</p>	<p>The UP Express Electrification Environmental Assessment is targeted for submission to the Ministry of the Environment in April 2014. Then the project will require EA approval and funding. Depending on the EA decision and funding, the estimated construction phase would be approximately three years.</p> <p>The EA document (Environmental Project Report) is to be submitted to the Ministry of the Environment on April 1, 2014. Then there is a 30 day review period for public and review agency comment. Following this, as part of the Transit Project Assessment Process, there is a 35-day Minister review period, Following the required environmental approvals, the project needs to be funded prior to starting the detailed design and construction of the infrastructure required for electrification.</p>

		<p>Can the Diesel Multiple Unit trains on order really be converted to electric as shown in previous Metrolinx presentations?</p> <p>Yes or No, are electric trains quieter than diesel trains like other rail services claim?</p> <p>Is Metrolinx considering the lighter European trains that CalTrain is using which are even more quieter than North American electric trains?</p> <p>Would there be a need for sound walls if we had electric trains?</p> <p>Is \$400M still the estimate for the upfront costs of electrification?</p> <p>Are you talking to the TTC about possible use of line as western leg of relief line?</p> <p>How close can new stations be built along the line with electric locomotion? What locations are being considered?</p> <p>Will Metrolinx be applying the federal Building Canada Fund for funding to electrify?</p>	<p>Yes, Metrolinx is purchasing DMUs for the UP Express service that will start in 2015. Part of that procurement process was that DMUs could be converted to EMU. The vehicles are designed and constructed to be convertible from diesel to electric propulsion.</p> <p>The noise is distinctly different, and marginally quieter.</p> <p>No. We are required to be FRA (Federal Railroad Administration) compliant and therefore this is not an option for Metrolinx.</p> <p>Yes. This line will see an increase of train traffic due to the introduction of both UP Express and increase to future GO Train service. The noise walls are meant to benefit local communities based on the increase in train traffic. For further information please see: <a href="http://www.gotransit.com/gts/en/docs/201303-GTS_Noise_Impacts_with_Electrification_UP_GO.pdf">http://www.gotransit.com/gts/en/docs/201303-GTS_Noise_Impacts_with_Electrification_UP_GO.pdf</a></p> <p>As part of the Electrification Study, the cost estimate to electrify UP Express was \$440 million. We will be refining these cost estimates throughout the preliminary design process.</p> <p>No, not as part of this EA.</p> <p>The UP Express will be a dedicated Union-Pearson link intended specifically for airport-oriented traffic. The introduction of electric locomotion does not have an impact on how close the stations can be built to each other. Currently there are four stops/stations associated with the UP Express service: UP Express Union, UP Express Bloor, UP Express Weston, and UP Express Pearson. No additional locations are being considered at this time.</p> <p>The process for applying to the Fund is coordinated through the Government of Ontario.</p>
Open House #3 Weston	Project Timeline and Implementation	Not that tunnels and trenches still open will you at least “rough in” the infrastructure for electrification rather than go through this much more complicated, expensive, and lengthy	Where possible, electrification infrastructure has been incorporated into the construction As an example both Bloor and Weston Stations have included the Grounding & Bonding necessary for electrification.

		process of retrofitting electrification?	
Open House #2 Liberty Village	Project Timeline and Implementation	Current speculation by the Ontario government suggests electrification to be under construction by 2017. There should be more clarification as to what timeline would be feasible.	<p>The UP Express Electrification EA is targeted for submission to the Ministry of the Environment (MOE) for review in April 2014.</p> <p>Once the EA is approved, further funding will need to be identified to move to the next steps, which would be conducting the final, detailed engineering, procurement of electric trains, constructing the fixed infrastructure like substations and catenary, and commissioning/testing the new system.</p>
Via email	Project Timeline and Implementation	Metrolinx Investment Strategy...tell me all about this please. It sounds like the money isn't in place yet for electrification project.	<p>Electrification of the Lakeshore Corridor, and the electrification of the UP Express, had been identified as priority projects in the Next Wave of The Big Move projects. Funding and timing of this project will become part of the Investment Strategy discussion regarding Next Wave projects.</p> <p>For additional information on the Investment Strategy and Next Wave Projects, please visit our website: <a href="http://www.metrolinx.com/en/regionalplanning/funding/investment_strategy.aspx">http://www.metrolinx.com/en/regionalplanning/funding/investment_strategy.aspx</a></p>
Via email	Project Timeline and Implementation	I'm enclosing my suggestions for expediting the electrification eastward to the Main/Danforth TTC/GO interchanger. This mobility hub together with the one at Dundas West hub will complete the trajectory of the TTC's proposed DRL at much less cost and in an earlier timeframe -- I hope?	Comments noted.
Via email	Project Timeline and Implementation	<p>I am writing with respect to the ad regarding "Union Pearson Express Electrification Environmental Assessment" which recently appeared in the Etobicoke Guardian. This is an issue that has concerned me for a number of years since we learned of the connection between Union Station and Pearson.</p> <p>My Ward (1) runs along the west side of the Humber River and will be impacted by the originally proposed diesel trains running to Pearson. The concern has been the frequency of the trains and the amount of diesel fumes that will be emitted. I am in full support of the electrification of this line and in the past have expressed this support to other parties involved in this process.</p> <p>In the past I chaired the restoration of Union Station and in doing so I had the opportunity to visit the Grand Central Station in New York. I was impressed with the fact that as New York does not allow diesel trains to come within the city boundaries, goods must be transferred to electric trains. This makes good sense to me in dense urbanized areas.</p> <p>I respectfully request that you convey my support for electrification to those involved in this project.</p>	Thank you for your support for the UP Express Electrification project. Your comments have been conveyed to the project team.
Via email	Project Implementation and Timeline	<p>I would recommend electrification versus diesel trains for interurban transportation, such as the ones in existence in Europe and the United States.</p> <p>I don't understand all the studying going on without action. The biggest factor we may have is</p>	<p>Your comment regarding your support for electrified trains is noted.</p> <p>With respect to your second comment, in terms of the study process, Metrolinx is required to carry out the Transit Project Assessment Process (TPAP) in accordance with the Ontario Environmental Assessment Act prior</p>

		climate. Canadian must become more embracing of new technology whether its transport or other things. Unfortunately we seem to have quite a strong resistance to change overall.	to implementing/constructing the UP Express Electrification project.
Open House #2 Liberty Village	Project Timeline and Implementation	The future will require independent electric suppliers along all railway lines. The power lines will be required to be replaced. I believe that windmills along the lines should be installed today for the future. We have the technology.	Thank you for the comment. Metrolinx has decided that a reliable supply of power tapped directly from the high-voltage grid (which incorporates power from many renewable sources) is necessary for its trains.
Via email	Project Timeline and Implementation	<p>I was so pleased to get an email from Metrolinx (Georgetown South Project) and read in my local York Guardian - Dec. 5/2013 issue that FINALLY maybe some progressive ideas are truly being considered for the Union-Pearson Express line due to open in time for the Pan American Games in 2015.</p> <p>Toronto should be a forward looking city, not one that lives in the past. When a brand new train line, especially one that visitors are quite likely to use, is put into service in the 21st century, one would expect the environment would be front &amp; centre when building it and operating it. Having diesel trains, even the most modern, going every 15 minutes in each direction throughout the day (and night), contributing pollution (and noise) to the neighbourhoods it runs through, is NOT the way public transit should be.</p> <p>The notice did not mention if the goal is to have the electrification in place for 'day one' of public operations. I truly hope it is. It seems to me that there's been so much 'stone walling' against electrification that one might think it's 'political' especially given all the messes one sees at all levels of governments these days. Whatever, I don't really care as long as we indeed see positive results in favour of electrification and the prompt implementation of such a program beginning with the Union-Pearson Express and eventually having the entire GO system running on cleaner electric power.</p> <p>I find it rather ironic that I keep hearing we are having to pay other jurisdictions to get rid of our extra power and yet have been also hearing, up until this announcement, that diesel is the only way to go for the near future. Having travelled much throughout the world and especially to continental Europe, I know that 'cleaner running' trains are not in the future, they are here and now, and many indeed are made by the Canadian manufacturer Bombardier. So let's 'get with the green script' and 'all aboard' for a environmentally forward looking system of mass transit in the GTA !!</p>	Comments noted.
Via email	Project Timeline and Implementation	Just wondering if you have a standard introductory set of information on this, what are next steps/what is status of UPEX EA, and can you please add me to mailing list of future notices/correspondence?	<p>We have added you to our mailing list so that you will receive future project updates.</p> <p>Regarding your inquiries, please see the electrification webpage as the starting point for the introductory background information, it can be found here: <a href="http://www.gotransit.com/electrification/en/default.aspx">http://www.gotransit.com/electrification/en/default.aspx</a></p>
Open House #3 Weston	Project Timeline and Implementation	Incorporate portal/cantilever structures, and any additional hardware structures; Need to electrify in the Weston corridor before UP is running in 2015. Access to the empty rail corridor would accommodate work without interfering with the operation of GO and UP lines.	The trains which have been purchased for UP Express can be converted to electric, and where possible, infrastructure improvements currently underway on the Georgetown South Corridor are being built to allow for electrification.

Open House #3 Weston	Project Timeline and Implementation	The project timeline of summer 2015 is realistic and feasible for the initial diesel service. The next step depends on financing from the governments and the timeline is 2016? 2017?	<p>The UP Express Electrification EA is targeted for submission to the Ministry of the Environment (MOE) for review on April 1, 2014.</p> <p>Once the EA is approved, further funding will need to be identified to move to the next steps, which would be conducting the final, detailed engineering, procurement of electric trains, constructing the fixed infrastructure like substations and catenary, and commissioning/testing the new system.</p>
Open House #3 Weston	Project Timeline and Implementation	Hopefully, the existing UP Project will provide fully for eventual conversion to electrification of UP Express	The trains which have been purchased for UP Express can be converted to electric, and infrastructure improvements currently underway on the Georgetown South Corridor are, where possible, being built to allow for electrification.
Open House #3 Weston	Project Timeline and Implementation	Why are we not electrifying now?	<p>The UP Express Electrification EA is targeted for submission to the Ministry of the Environment (MOE) for review on April 1, 2014.</p> <p>Once the EA is approved, further funding will need to be identified to move to the next steps, which would be conducting the final, detailed engineering, procurement of electric trains, constructing the fixed infrastructure like substations and catenary, and commissioning/testing the new system.</p>
Open House #4 Junction	Project Timeline and Implementation	Don't set up or orchestrate false deadlines like your "arms-length" relationship with the Ontario government with the Pan AM excuse, Where's the financial stewardship.	<p>The UP Express Electrification EA is targeted for submission to the Ministry of the Environment (MOE) for review on April 1, 2014.</p> <p>Once the EA is approved, further funding will need to be identified to move to the next steps, which would be conducting the final, detailed engineering, procurement of electric trains, constructing the fixed infrastructure like substations and catenary, and commissioning/testing the new system.</p>
Open House #4 Junction	Project Timeline and Implementation	Why are we even having this conversation when we know modern countries run electric and we "cost" the healthcare system with the lethal and deadly consequences of a known and WHO carcinogen diesel?	The UP Express service will launch with state-of-the-art Tier 4 diesel multiple units. Tier 4 diesel is the strictest non-road engine emissions standard set by the U.S. Environmental Protection Agency (EPA), and reduces airborne particulate emissions by 90 per cent and nitrogen oxides (NOx) by 80 per cent.
Open House #4 Junction	Project Timeline and Implementation	It is not now funded. When will it be funded? Electrification now and make it a commuter train for the people of Toronto.	Electrification of the UP Express is included in the "Next Wave" of Metrolinx priorities and funding is subject to the Investment Strategy. It is not unusual that Environmental Assessments are completed and approved before funding is committed to their implementation. Upon confirmation of funding, the project can proceed.
Via email	Project Timeline and Implementation	It strikes me that physical provisions for platforms at a future Eglinton West GO Transit/UPE station, as well as for the requisite vertical links between the two stations will certainly require pre-planning, and I can only hope that adequate space for these components has been identified for protection. Attempting to add such facilities after operations begin would be prohibitively costly and disruptive.	Comments noted. The Mount Dennis/Eglinton station will be included in the Eglinton Crosstown project.
Via email	Technology	<p>I recommend you also look at battery powered EMU hybrid units. They offer recharging while on the grid and about 30+ miles of battery power. They could work well with your system and offer the ability to gain the benefit of electric technology while you build out the infrastructure.</p> <p>Here are a few links to the technology now being tested in the UK and Japan.</p>	<p>The GO Electrification study included a review of alternative technologies and based on the requirements for the GO Transit Network, it was determined that the 2x25k Overhead Contact system was the best fix. For more information please see EStudy link</p> <p><a href="http://www.gotransit.com/electrification/en/current_study/updates.aspx">http://www.gotransit.com/electrification/en/current_study/updates.aspx</a></p>

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Open House #3 Weston	Technology	I would like to see us work like German, be ingenious like the Japanese with levitation technology instead of the old “steam motion” technology and eliminate hydro right now.	<p>The GO Electrification study included a review of alternative technologies and based on the requirements for the GO Transit Network, it was determined that the 2x25k Overhead Contact system was the best fix. For more information please see EStudy link</p> <p><a href="http://www.gotransit.com/electrification/en/current_study/updates.aspx">http://www.gotransit.com/electrification/en/current_study/updates.aspx</a></p>
Via email	Power supply for rolling stock	Use hydrogen fuels with condenser units to improve the gas mileage. Change to electric powered vehicles and monorail trains.	Comment noted.
Open House #3 Weston	Cost	It was very interesting and this was my first meeting. No details on costs of infrastructure or rolling stock and projects of date of completion.	<p>The GO Transit Electrification Study (E-Study) estimated \$440 million for the electrification of the UP Express. As we complete the preliminary design for the UP Express, this cost estimate will be updated. For further information see E-Study</p> <p><a href="http://www.gotransit.com/electrification/en/current_study/updates.aspx">http://www.gotransit.com/electrification/en/current_study/updates.aspx</a></p> <p>The UP Express Electrification EA is targeted for submission to the Ministry of the Environment (MOE) for review in April 2014.</p> <p>Once the EA is approved, further funding will need to be identified to move to the next steps, which would be conducting the final, detailed engineering, procurement of electric trains, constructing the fixed infrastructure like substations and catenary, and commissioning/testing the new system.</p>
Open House #3 Weston	Cost	I feel that this 25-kilometer project, which I gather, may cost \$1.5 billion. They should not electrify but stick with the cleaner diesel engines, which I gather are less polluting and less noisy since the quality of diesel is now matching the emission standards. It would be good to move forward fast using existing engines and cars and study the ridership.	Metrolinx is committed to the electrification of GO Transit and UP Express services. These corridors were selected following Metrolinx’s comprehensive Electrification Study completed in 2010 that recommended proceeding with electrification contingent on funding availability.
Open House #3 Weston	Cost	Why is there no projected cost analysis done on this project and why has the feds, provincial, and municipal governments not jointly funded this project. I will like to see an elevated track horizontally across the city with few stops parallel.	<p>The E-Study cost estimate is \$440 million. For further information please refer to the E-Study:</p> <p><a href="http://www.gotransit.com/electrification/en/current_study/updates.aspx">http://www.gotransit.com/electrification/en/current_study/updates.aspx</a></p>
Open House #3 Weston	Cost	Is there any reason not to go ahead with electrification now even as the train running on diesel? Have you compared your costs with those in other parts of the world where electrification has recently been done? Do you have a travelling research team that studies rapid transit around the world? It would be smart money well spent.	<p>Work is already underway, and we’re on track to have UP Express up and running in 2015. Construction work on the corridor is protecting for future electrification where possible.</p> <p>Metrolinx hired consultants who have implemented electrified railways around the world. The cost estimates are based on their experience.</p>

			Thank you for your support.
Via email	Rolling Stock	I know you are going to electrify a GO train line but I was wondering if you are going to use electric locomotives or electric multiple unit cars, what company they are going to be built by and what they are going to be called. I know that some people criticize you for using diesel trains because diesel train pollute the air but people are forgetting that they should be grateful for the efforts you are making to improve transit in the GTA such as: the GO trains and buses which are good for commuting people to other towns and cities, the upcoming UP express which will get people to the Pearson airport in just 25 minutes, the upcoming LRT lines which will provided rapid transit to areas that don't already have rapid transit and the Viva BRT which will prevent Viva buses from getting stuck in traffic so Viva customers will get to their destination on time. I really appreciate these efforts you are making to make commuting in the GTA easier, faster and more convenient and everybody else should also be grateful. I believe that public transit is one of the most important parts of a city. And just so you know, if you need me to come to a meeting to talk about my advertising ideas just give me a date, time and place and I will be there. I have thought of a whole bunch of ads and commercials and have written them down.	<p>For the UP Express trains, we have identified that the UP Express will be EMUs (the proposed Maintenance Facility at Resources Rd. will be an Electric Multiple Unit Maintenance Facility).</p> <p>As for GO Trains, the scope of the current UP Express Electrification EA does no include electrification of GO trains.</p> <p>In addition, a decision has not yet been made whether the new trains will be EMUs or an electric locomotive.</p> <p>Regarding advertising ideas - As a government agency, Metrolinx has to go through a mandated procurement process. Please watch the Metrolinx website for advertising tenders that may be issued in the future.</p>
Open House #1 Highway 27 Area	Rolling Stock	Hydro infrastructure must be designed such that it is similar enough to other systems in use around the world for ease of procuring rolling stock and locomotives. This will allow for Metrolinx the best price after further electrification for the GO service.	Comment noted.
Via email	GO Trains	Is the system for electrification of the UP Express line the same intended for the GO trains? Additionally, can it be compatible with the standard-gauge built LRT trains as will be used on the Eglinton, Sheppard and Finch lines?	<p>The vehicles being purchased for the UP Express are compatible with the existing rail infrastructure used by GO.</p> <p>The LRT system uses a different gauge track and therefore requires different vehicles.</p>
Open House #1 Highway 27 Area	Train stops/stations	Don't forget to have lots of parking at the stations.	Comment noted.
Open House #1 Highway 27 Area	Train stops/stations	Stop treating Weston as the only top priority – add Etobicoke as a stop or add a stop at Kipling.	Comment noted. The consideration of additional stops along the route is not part of the UP Express Electrification EA.
Open House #2 Liberty Village	Train stops/stations	After electrification has been completed, are there plans to add more stations in between? Currently three are only two stations planned (Bloor and Weston), but electrification would allow for quicker acceleration and stations being brought closer together. There are two stations which should be added. One at Mt. Dennis to connect with the Crosstown and the other at Liberty Village.	Comment noted. The consideration of additional stops along the route is not part of the UP Express Electrification EA.
Via email	Facility Sites	<p>Please note that further to your public open houses, we have some serious concerns with respect to the propose TPS Site at 175 City View Drive, Toronto.</p> <p>We and our employees are very concerned with the environmental impact as we are the adjoining property at the proposed TPS site.</p>	<p>Letter response was sent as follows:</p> <p>Thank you for your comments on the Union Pearson Express Electrification Traction Power Substation (TPS) project. We understand that you spoke with members of our team at the public open house in late January. We would be pleased to meet with you.</p>

		<p>In addition we are not and were never interested in being property owners next to such a development, and the negative and adverse impact that will undoubtedly arise both on a health and economic basis.</p> <p>Please provide me with the individuals that I should be dealing with in respect to these issues. I would like to be directly contacted with any and all ongoing developments with this project so that I may have representation present.</p>	<p>As you may know, Hydro One is conducting a Class Environmental Assessment (EA) under the Ontario Environmental Assessment Act for the proposed Union Pearson Express Electrification TPS project, and Metrolinx is conducting a parallel process to obtain environmental approvals for its proposed electrification. Public consultation is an important part of the Class EA process.</p> <p>Hydro One’s Class EA process is an effective way to ensure minor transmission projects that have a predictable range of effects are planned and carried out in a manner that is environmentally acceptable. Hydro One is experienced in predicting and mitigating environmental effects of transmission projects. The predicted environmental effects for this project and our proposed mitigation measures will be fully documented in the draft Environmental Study Report (ESR) that Hydro One will make available for a 30-day public review and comment period in April. We will be pleased to discuss this document with you with you and we look forward to meeting with you. Please contact us to set up a meeting.</p>
Open House #4 Junction	Air Quality	I am a local property owner and active voter. The WHO has declared diesel a carcinogen, regardless of “clean diesel” purchases. Electrify now, you are directly impacting our health and property values. Electrify now, stop polluting the environment and our air now!	<p>The UP Express service will launch with state-of-the-art Tier 4 diesel multiple units. Tier 4 diesel is the strictest non-road engine emissions standard set by the U.S. Environmental Protection Agency (EPA), and reduces airborne particulate emissions by 90 per cent and nitrogen oxides (NOx) by 80 per cent.</p> <p>The UP Express service will not result in a significant contribution to air emissions from the rail corridor.</p>
Open House #4 Junction	Air Quality	The climate temperature is rising therefore what we need like a hole in the head is more carbon emissions. Electrifying the UP Express is a good idea, more rail lines should be electrified such as GO Trains and the Ottawa O-Train.	Comment noted.
Via email	Air Quality	<p>I am very excited to hear about the Pearson line and am very curious to know about getting the Lakeshore line West electrified. Further I would like to know how much greenhouse gas and other pollutants would not be put into our Neighborhoods.</p> <p>Please know you have my full support for electrification of our rail system.</p>	<p>Apologies on behalf of the project team for the delay in getting a response back to you. Further to my email, please see responses from the team to your questions below:</p> <p>Electrification of the Lakeshore West (LSW) line is dependent on funding which was proposed as part of the Investment Strategy. Timing for the electrification of LSW is dependent on a number of factors including the review of the Investment Strategy and funding. More detailed information about the Investment Strategy can be found at <a href="http://www.bigmove.ca/report">http://www.bigmove.ca/report</a> .</p> <p>Metrolinx is committed to reducing our carbon footprint and minimizing the impact on the environment by removing vehicles from the highways and roads and by using the most efficient locomotive technology available. It is noted that potential effects on air emissions related to the electrification of the LSW line would need to be determined as part of a separate Environmental Assessment study.</p> <p>Regarding your second question, it is estimated that replacing UP Express diesel multiple units (DMUs) with electric multiple units (EMUs) amounts to less than a 0.02% reduction in regional GHG emissions.</p>
Open House #1 Highway 27 Area	Noise	There should be more data available on the intensity/level of the “60 Hz buzz” that is inevitable around substations and hydro lines. “Below MoE standards” doesn’t mean much.	A preliminary Acoustic Assessment has been completed for the substation as part of the <i>UP Express Electrification Traction Power Substation Class EA</i> . This report will be made available in the appendix of the Draft Environmental Study Report (Hydro One, 2014). Once the design of the substation has been finalized, additional assessments will be completed in order to ensure that the station will meet MOE standards. These standards and associated guidelines have been heavily reviewed by the MOE and any concerns pertaining to them should be addressed to the MOE.

Open House #3 Weston	Noise	How far will the noise go from Kodak gantry? Will it go all the way to Rutherford or Nickle?	There are no noise emissions associated with operation of the gantries.
Open House #1 Highway 27 Area	Traffic Impacts	It wasn't really addressed how construction would or wouldn't affect road traffic like the Eglinton Crosstown. From an environmental perspective, cars sitting due to construction pollute.	With regard to construction, it is anticipated that OCS structures will be constructed within the railway right-of-way and therefore will have negligible traffic effects. Temporary traffic detours may be required in relation to construction of the facilities, however they are anticipated to be of short duration (approximately 6-9 months). There may also be minor disruptions on some bridges in order to install the bridge barrier protection; however, they are anticipated to be of short duration.
Open House #2 Liberty Village	West Toronto Railpath	There should be more classification as to how UP Express electrification would impact the West Toronto Rail path extension, which the city of Toronto is currently studying.	Metrolinx is doing its part to support walking and cycling in the City of Toronto by helping to extend the West Toronto Railpath. Metrolinx continues to balance its mandate to expand public transit with the City's desire to extend the West Toronto Railpath. Metrolinx is supportive of walking/cycling and other active transportation initiatives across the Greater Toronto and Hamilton Area.  Timeline: The earliest that construction can begin on the Phase 2 expansion is in late 2014 into 2015 when the GTS Project construction is completed. The City's EA timeline and Metrolinx's electrification EA timeline fit well with this construction timeline. In other words, we will know exactly where the catenary poles will be in time for the City to adapt their design to account for any catenary poles that will need to be located on the property outlined for the Railpath. The City's team is aware of this issue and they are including it in their EA investigation.
Via email	Consultation process	As per this story, can we see the materials before the meeting ?I find it disingenuous that existing materials will not be made available until AFTER the public meetings. Will there be any actual q and a or any real engagement or is this another panel exhibition?  <a href="http://www.insidetoronto.com/news-story/4350435-open-house-offers-a-chance-to-comment-of-electrification-environmental-assessment/">http://www.insidetoronto.com/news-story/4350435-open-house-offers-a-chance-to-comment-of-electrification-environmental-assessment/</a>	Yes, the panels will be posted tomorrow on the project webpage in advance of Monday's meeting. <a href="http://www.gotransit.com/electrification/en/default.aspx">http://www.gotransit.com/electrification/en/default.aspx</a>  As for the format, this will be an open house. Project team members will be available to explain the technical information and will be available for one-on-one Q&A.
Open House #1 Airport	Consultation process	George (from Metrolinx) provided very useful commentary.	Comment noted
Open House #4 Junction	Consultation Process	There was no real opportunity to participate. The visual were very well-presented but the Ask Me people often gave conflicting information, e.g. the UP Express is not for the people of Toronto.	The format for the meeting was an open house and participation opportunities were provided which included project staff on site to answer questions and discuss details of the project directly with participants. In addition, comment sheets were provided to all participants and were encouraged to provide comments for consideration by the project team. In addition, a Public Open House Summary report will be prepared and made available online for members of the public.
Open House #4 Junction	Consultation Process	Attend this event, yes, but there was no opportunity to actually participate. Pretty visuals but conflicting information from the "Ask Me" people.	The format for the meeting was an open house and participation opportunities were provided which included project staff on site to answer questions and discuss details of the project directly with participants. In addition, comment sheets were provided to all participants and were encouraged to provide comments for consideration by the project team. In addition, a Public Open House Summary report will be prepared and made available online for members of the public.

Open House #3 Weston	Consultation Process	More pictures with the OCS portals modeled in would be great.	Your comment will be considered as part of preparing the final EPR.
Open House #3 Weston	Environmental effects and mitigation	Concerns were addressed about numerous environmental concerns and how the community look will be taken into consideration.	Comments noted.
Open House #4 Junction	Environmental effects and mitigation	Most details are TBD or dependent on further study/mitigations. My concerns are what will happen if too proximate to parks and rec, too proximate to residences, EMFs are higher than anticipated, runoff drainage shifts, train discharge and pollution to parks and residential as well as will EMIs and EMFs affect WiFi reception?	<p>The public open house display panels provided summaries of the potential environmental effects and mitigation (including land use, natural environmental, EMI and EMFs) based on the technical studies carried out as part of the EA process.</p> <p>With regard to the locations of the traction power facilities, alternative sites were considered and assessed as part of the EA process and presented at the June 2013 Public Open Houses for feedback. Following this, the preferred sites were established based on application of the following list of criteria:</p> <ul style="list-style-type: none"> <li>• <b>Natural Features</b> - consideration of sensitive natural features in the vicinity of the facility location.</li> <li>• <b>Land Use/Social Features</b> - consideration of existing/planned land use in the vicinity of the facility location/consideration of social features (i.e., schools, daycares, etc.) in the vicinity of the facility location.</li> <li>• <b>Cultural Features</b> - consideration of sensitive cultural/archaeological features in the vicinity of the facility location.</li> <li>• <b>Technical</b> - consideration of Property Availability, Development Cost, Site Accessibility</li> </ul> <p>Furthermore, during the construction phase, an Environmental Inspector will be responsible for ensuring that environmental mitigation measures are implemented and functioning as predicted, to ensure environment effects are mitigated/ minimized to the extent possible.</p> <p>With respect to train discharge and pollution, it is noted that the purpose of the project is to convert the UP Express trains from diesel to electric power, thereby removing diesel emissions that are associated with the UP Express Diesel Multiple Unit trains.</p> <p>Based on the EMI and EMF assessments carried out as part of the EA, Wifi reception is not expected to be affected by EMF emitted by UP Express Electrification equipment. UP express electrification equipment will be designed, constructed and integrated to be in compliance with the relevant industry standards (e.g., European Committee for Electro-technical Standarization, Institute of Electrical and Electronic Engineers, Canadian Standards Association, etc.) to ensure that the emissions are kept within the permissible limits. As a result, compatibility with Wifi equipment will be achieved and no adverse effects to the Wifi equipment and services are anticipated.</p> <p>Furthermore, Metrolinx will undertake additional studies and analyses during the detailed design phase based on the electric train specifications to ensure that no adverse EMI/EMF effects will result from the project. This will include: design verification studies, factory testing and field testing, as part of the testing and commissioning phase prior to commencing the electrified UP Express service.</p>

Open House #3 Weston	Environmental Approvals	Would like information as to what the Environmental Compliance Approval at the EMU Facility is required for?	An Environmental Compliance Approval (ECA) for Air and Noise for the EMU Maintenance Facility will need to be obtained from the Ministry of Environment (MOE) in accordance with <i>Part II.1</i> of the <i>Environmental Protection Act (EPA)</i> , prior to its implementation. It is also noted there is potential for MOE to require an Acoustic Audit as a condition of the ECA which would require that a monitoring study be completed by an independent third party during construction and operation of the facility in order to demonstrate that the facility complies with the MOE sound level limits outlined in the ECA.
Open House #3 Weston	Design	Why is the Weston tunnel being designed for 3 tracks rather than 4?	The OCS design for Weston Tunnel has been made to be easily expandable for the future track electrification once the track alignment becomes known. The only additional work that needs to be done is to apply the same OCS design utilizing the same type of tunnel arm assemblies. The alignment needs to be confirmed prior to the final design at which time it is not complicated to add the tunnel arm attachment.
Open House #4 Junction	Design	How protected would the lines be in the case of inclement weather e.g. ice storm of 2013?	The UP Express OCS preliminary design meets the AREMA standards, which requires the OCS structures (portals, gantries, poles etc. catenary system ) to be designed for the extreme weather conditions (-40°C, wind speed at 35m/s and ice accumulation of 12.5 mm). In addition, during detail design, further review of industry proven solutions to prevent ice accumulation on the wires will be carried out. These solutions may include heating systems for the OCS contact and messenger wires that prevent ice accumulation on the exposed and elevated sections of track.
Open House #4 Junction	Energy	What other means will be used to be less dependent on the grid but still keeping it electrified?	Other than the power grid, during normal operation, there would be no alternative energy sources required to propel the UP Express electric trains. The UP Express traction power system has been designed and implemented to deliver and exceed the required reliability requirements. Therefore, implementing alternative energy sources and hybrid technologies will not be required.
Open House #4 Junction	Other	When people think of the future they think of smartphones and computers but they should be thinking of public transit and the economy because a fancy smartphone can't get you to work and home.	Comment noted.
Via email	Other	<p>We welcome the long awaited start of the electrification process of GO rail and take the opportunity of the Environmental Assessment hearings to voice our support for an extension of this project eastward at least to the Danforth GO if not to Kennedy station in Scarborough. These extensions would enable GO rail to function as relief lines to the overcrowded subways, given convenient 'mobility hubs' at the transfer stations, and more frequent trains.</p> <p>Both can be provided at a fraction of the cost of a new Downtown Relief [subway] Line advocated by the TTC and can be implemented in a much shorter timeframe.</p> <p>This 'low-hanging fruit' of GO/TTC integration is detailed in the December 13th Neptis Foundation report in chapter 5, and in chapter 3 regarding electrification and the use of Electric Multiple- Unit (EMU) rolling stock.</p> <p><a href="http://www.neptis.org/sites/default/files/metrolinx_review_2013/review_of_metrolinx_big_move_neptis_foundation_schabas.pdf">http://www.neptis.org/sites/default/files/metrolinx_review_2013/review_of_metrolinx_big_move_neptis_foundation_schabas.pdf</a></p> <p>As advocates for GTA public transit integration and as elected officials we urge you to initiate this pro-active extension.</p>	Comments noted.

		PS: For an electrification EUREKA moment going back to 1897 click on the following link: <a href="http://home.cc.umanitoba.ca/~wyatt/alltime/pics/toronto-MRloco1897RHill-DonPEvans.jpg">http://home.cc.umanitoba.ca/~wyatt/alltime/pics/toronto-MRloco1897RHill-DonPEvans.jpg</a>	
Open House #1 Highway 27 Area	Other	Metrolinx doesn't think outside the box – elevate the rail and for future track build up not out.	Comment noted.
Open House #1 Highway 27 Area	Other	Most people don't need heavy rail, it's more for the City. Suspend the rail; use a roller coaster style similar to propulsion. It's perfect for use in the City. One benefit of this approach is that you wouldn't need to implement heavy commuter infrastructure like you normally would. Also consider building a ride like at Canada's Wonderland and let gravity do the work for you.	Comment noted
Open House #1 Highway 27 Area	Other	Whenever possible, this TPAP/EA should include provisions for expanding electrification to adjacent lines (i.e. can we include additional areas/components in the EA to fast-track future electrification?)	<p>Electrification is a critically important issue and is a multi-billion dollar decision. Metrolinx has selected the electrification of the Kitchener and Lakeshore East and West rail corridors, along with UP Express, to be part of its proposed "next wave" of The Big Move projects. Metrolinx provided funding recommendations to the government on May 27, 2013 for these and other next wave projects that will help determine potential implementation timelines.</p> <p>The design for electrification of UP Express has been undertaken to accommodate GO Trains. This design work can be applied to other corridors to be electrified in the future. This work will assist with the pre-planning for the future EA's which will be required for the electrification.</p> <p>In the meantime, the preliminary design and EA is underway for the first phase of a potential electrification program, UP Express. Completing the preliminary design and obtaining the necessary environmental approvals are important steps that cannot be rushed or skipped.</p>
Open House #1 Highway 27 Area	Other	Why doesn't the TTC run (bus route 58 A or B) on Sunday? This is not helpful for airport employees.	This comment is outside the scope of the UP Express Electrification EA.
Via email	GO Transit Pricing	Keep services free of charge at GO Transit that keeps services free of charge by using revenues from gambling, advertising, retail and restaurant services. If you must charge, have simple prices like \$10 for a ride not \$8.95 plus taxes. Use TTX cash registers only.	<p>Comment noted. We appreciate that pricing of the planned new UP Express service is of interest.</p> <p>We are currently conducting detailed market research to ensure that the UP Express service is relevant and reflective of the needs of the market. The outcome of this research will guide key elements, including the customer service strategy and business plan, and will influence possible pricing models. These details will be announced closer to the inaugural launch date.</p>
Via email	Other	Get free hydro power for all of your buildings.	Comment noted.
Via email	Other	Always buy buildings over leasing them.	Comment noted.
Via email	Other	Always use steel frame construction for GO Transit buildings.	Comment noted.

### 8.3 Aboriginal Communities

Subsection 7(4) of *O. Reg. 231/08* requires that the proponent first contact MOE to request assistance in identifying and contacting Aboriginal communities that may be interested in the project. As part of the pre-planning phase, Metrolinx completed contacted MOE in this regard via a letter dated May, 2012 (see **Appendix J-6**) to request a list of bodies that may assist in identifying and contacting Aboriginal communities that may be interested in this project.

In response to Metrolinx's May 2012 letter, email correspondence from MOE was received on June 14, 2012 (see **Appendix J-6**) advising Metrolinx as to the process to be followed in order to identify potentially interested aboriginal communities under TPAP:

*"Aboriginal communities must be contacted prior to issuing a Notice of Commencement for the project. In response to your request, the ministry recommends that you contact the following organizations and resources to assist you in identifying interested Aboriginal communities for this project. "*

<http://www.ene.gov.on.ca/en/eaab/aboriginal-resources.php>

[http://www.ene.gov.on.ca/environment/en/industry/assessment\\_and\\_approvals/environmental\\_assessments/STDPROD\\_075744.html](http://www.ene.gov.on.ca/environment/en/industry/assessment_and_approvals/environmental_assessments/STDPROD_075744.html)"

Following this, Metrolinx sent correspondence via two letters to the Ministry of Aboriginal Affairs (MAA) and Aboriginal Affairs, and Northern Development Canada (AANDC). The purpose of the letters was to advise of the project as well as to request assistance from the MAA and AANDC in identifying potentially interested Aboriginal communities (as per MOE's direction). See **Appendix J-6** for copies of these letters.

In response to these letters, Metrolinx received a response letter from MAA dated April 19, 2013 (**Appendix J-6**). MAA identified that the Mississaugas of the New Credit may be a potentially interested First Nation. Further, MAA also requested that they be removed from the project contact list.

In addition, correspondence from AANDC was received on June 6, 2013, as outlined in Section xx above. The letter included comprehensive information from Consultation Information Service (CIS), which verified that no reserve lands are located within 50 km of the project location. Information for the following aboriginal communities was provided:

- Chippewas of Georgina Island;
- Chippewas of Kettle and Stony Point ;
- Chippewas of Nawash First Nation;
- Chippewas of Rama First Nation;
- Chippewas of the Thames First Nation;
- Mississauga's of Scugog Island First Nation;
- Mississaugas of the Credit;

- Saugeen First Nation;
- Six Nations of the Grand River; and
- Métis Nation of Ontario

As a result, in order to ensure that all potentially interested aboriginal communities were informed of the UP Express Electrification project, all ten aboriginal communities were added to the project contact list.

### **8.3.1 Notifications and Correspondence – Aboriginal Peoples**

#### **June 2013 Public Open House Invitations**

On May 28, 2013 Metrolinx sent notification via email and letter to invite the Mississaugas of the New Credit First Nation to the upcoming Public Open House sessions scheduled for June 2013. The correspondence provided a description of the project (including study area map) and the environmental assessment process being followed. The correspondence also included a link to the project website and a description of how comments/questions could be submitted to the project team and/or additional project information obtained.

#### **July 2013 Correspondence**

Based on consultation with AANDC, Metrolinx sent another round of direct notification letters to the following Aboriginal peoples groups on July 22, 2013:

- Chippewas of Georgina Island;
- Chippewas of Kettle and Stony Point ;
- Chippewas of Nawash First Nation;
- Chippewas of Rama First Nation;
- Chippewas of the Thames First Nation;
- Mississauga's of Scugog Island First Nation;
- Saugeen First Nation;
- Six Nations of the Grand River; and
- Toronto & York Region Métis Council

The letter correspondence provided an overview of the project scope, study area map, and a description of the environmental assessment process being followed. In addition, a link to the project website was provided, and contact information for the project team was included so that comments or questions could be submitted, or additional information could be requested about the project. A copy of the June 2013 Public Open House Display Panels was also provided as an attachment to the letter package.

**Notice of Commencement**

A copy of the Notice of Commencement was provided to all aboriginal peoples included on the project contact list (as listed above).

In response to the Notice of Commencement, correspondence was received from the Chippewas of Georgina Island First Nation acknowledging receipt of the notification and noting their interest in being kept informed by remaining on the contact list.

In addition, correspondence was received from the Chippewas of Rama First Nation. The letter acknowledged receipt of the Notice of Commencement and noted that a copy of the notice was forwarded to the Barrister & Solicitor, Coordinator for Williams Treaties First Nations for further review.

Copies of the correspondence from the Chippewas of Georgina Island First Nation and Chippewas of Rama First Nation are contained in **Appendix J-7**.

**January/February 2014 Public Open House Invitations**

A copy of the Notice of January/February Public Open Houses was provided to all aboriginal peoples included on the project contact list (as listed above).

**8.3.2 Summary of Aboriginal Peoples Comments Received**

As part of the Pre-Planning Phase, two letters were received in response to the July 2013 correspondence:

- Letter from Chippewas of RAMA First Nation acknowledging receipt of Metrolinx's July 2013 letter. In addition, the letter noted that a copy of the letter was forwarded to the Barrister & Solicitor Coordinator (who was subsequently added to the project contact list) for Williams Treaties First Nations for further review.
- Letter from Chippewas of the Thames First Nation acknowledging receipt of Metrolinx's July 2013 letter. The letter also stated that based on a screening of the July 2013 correspondence, no concerns were identified with the project or information presented, and also requested to be kept informed.

As part of the TPAP Phase, two letters were received in response to the Notice of Commencement:

- Correspondence was received from the Chippewas of Georgina Island First Nation acknowledging receipt of the notification and noting their interest in being kept informed by remaining on the contact list.

- Correspondence was received from the Chippewas of Rama First Nation acknowledging receipt of the Notice of Commencement and noted that a copy of the notice was forwarded to the Barrister & Solicitor, Coordinator for Williams Treaties First Nations for further review.

**Appendix J-7** contains copies of the correspondence with Aboriginal peoples and contact list.

## 8.4 Elected Officials

### June 2013 Public Open House Notification

In order to provide a project update and as part of distributing notification of the June 2013 Public Open Houses, Metrolinx sent email correspondence to the elected officials within the study area. The correspondence was sent to the following list of elected officials on May 23, 2013, which also included an invitation to schedule in-person meetings to further discuss the project if desired.

Mr. Andrew Cash, MP	Ms. Cheri DiNovo, MPP	Mr. Adam Vaughan, City of Toronto Councillor
Mr. Bal Gosal, MP	Mr. Jagmeet Singh, MPP	Ms. Ana Bailão, City of Toronto Councillor
Mr. Bernard Trottier, MP	Mr. Jonah Schein, MPP	Ms. Bonnie Crombie, Mississauga City Councillor
Dr. Kirsty Duncan, MP	Ms. Laura Albanese, MPP	Mr. Cesar Palacio, City of Toronto Councillor
Mr. Mike Sullivan, MP	Ms. Laurel Broten, MPP <sup>2</sup>	Mr. Doug Ford, City of Toronto Councillor
Ms. Olivia Chow, MP	Mr. Rosario Marchese, MPP	Ms. Frances Nunziata, City of Toronto Councillor
Ms. Peggy Nash, MP	Dr. Shafiq Qaadri, MPP	Mr. Frank Di Giorgio, City of Toronto Councillor
		Mr. Gord Perks, City of Toronto Councillor
		Mr. Mark Grimes, City of Toronto Councillor
		Mr. Mike Layton, City of Toronto Councillor
		Mr. Peter Milczyn, City of Toronto Councillor
		Ms. Sarah Doucette, City of Toronto Councillor

### 8.4.1 Meetings with Elected Officials

#### **8.4.1.1 *Jonah Schein, MPP and Staff from Andrew Cash, MP office***

The key topics discussed at the meeting were as follows:

- Noise considerations related to proposed electrified trains
- Scope of the air quality study for the UP Express Electrification EA
- Timing for implementation of electrification
- Potential for adding new passenger stations

#### **8.4.1.2 *City of Toronto Councillor Mike Layton***

In response to the May 2013 notifications, Metrolinx held a meeting with City of Toronto Councillor Mike Layton, at his request, to provide a project update on the electrification design and EA studies, as well as to answer questions and discuss specific local issues.

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<sup>2</sup> The contact list was updated in December 2013 to include Doug Holyday, MPP.

In addition, a subsequent meeting with Councilor Layton was held on January 17, 2014. The key topics discussed at the meeting were as follows:

- Height and aesthetics of gantries
- Spacing of portal structures
- Noise considerations related to Georgetown South project
- Request for the future King Liberty Pedestrian Bridge to be included in the EA drawings/plans, as appropriate
- Timing for implementation of electrification

## **8.4.2 Letters from Elected Officials**

### **8.4.2.1 Mike Sullivan, MP**

On August 13, 2012, letter correspondence was received from Mike Sullivan, MP, York South-Weston. The correspondence was an open letter addressed to Ms. Laura Albanese, MPP regarding funding and timeline issues for the UP Express Electrification Project. The letter expressed that given the Province's rules regarding transit EA's there is no reason the UP Express Electrification EA should take a significant amount of time.. The letter advised that the Federal government is spending significant sums on the project as part of the Canada-Ontario-GO agreement signed in 2004 and that a formal funding request from the Provincial government for the UP Express Electrification Project has yet to be received. The letter advised Ms. Albanese to convince the Premier of Ontario to make electrification a funding priority

### **8.4.2.1 Laura Albanese, MPP**

In November 22, 2013 letter correspondence was received from Ms. Laura Albanese, MPP, addressed to the Minister of Transportation and Infrastructure, Mr. Glen R. Murray. The letter expressed the importance of the UP Express Electrification Project and the need to ensure targeted timelines for construction and subsequent operation are achieved. The correspondence also noted the need to secure funding at both Federal and Provincial levels to ensure the transition between the EA process and construction moves as expeditiously as possible.

### **8.4.2.2 Jonah Schein, MPP**

In addition, letter correspondence dated July 2, 2013 was received from Johan Schein, MPP expressing concern about diesel trains operating on the Georgetown South corridor, and suggesting that Metrolinx hold future Public Open House meetings in the area of west Toronto riding of Davenport. Metrolinx responded via email on July 4, 2013 and noted that Metrolinx's goal is to reach as many people as possible during the public open house sessions. The locations for the UP Express Electrification public open houses were chosen to cover as much of the EA study area as possible and reflect the locations of

proposed electrification infrastructure such as power stations. It was recognized that although a public meeting was not held in the Junction neighbourhood as part of this consultation round, this was also the case for several other neighbourhoods along the rail corridor. It was further noted that the Mount Dennis Weston Legion location is in relatively close proximity to the Junction area, and that interested persons are encouraged to attend this session to share your comments/feedback on the project.

#### **8.4.2.3 City of Toronto Councillor, Gloria Lindsay Luby**

In addition, letter correspondence from City Councillor Gloria Lindsay Luby was received on December 10, 2013 noting support for the UP Express Electrification project and its implementation. A copy of the correspondence is contained in **Appendix J-8**.

A copy of the correspondence with elected officials is contained in **Appendix J-8**.

#### Notice of Commencement and Notice of January/February Public Open House

In order to provide a project update and as part of distributing both the Notice of Commencement and notification of the January/February 2014 Public Open Houses, email correspondence was sent by Metrolinx to all elected officials as listed above, on November 18, 2013 and January 16, 2014 respectively. The first correspondence was related to issuance of the Notice of Commencement, while the second correspondence was to provide information on the Public Open House, which included an invitation to schedule in-person meetings to further discuss the project, if desired.

In response to these invitations, Metrolinx received two requests for meetings. As a result, briefings were held with Johan Schein, MPP and staff from the office of Andrew Cash, MP.

## **8.5 Review Agency Consultation**

A number of federal, provincial, and municipal review agencies were consulted at various stages of the UP Express Electrification EA. As part of the Pre-Planning Phase, a comprehensive contact list of review agencies was developed, and this list was refined and updated as the project progressed based on feedback received regarding the addition of new or replacement contacts (see **Appendix J-9**). The following section summarizes the consultation activities undertaken with review agencies and how comments/feedback were considered by Metrolinx.

### **8.5.1 Federal**

#### ***8.5.1.1 Aboriginal Affairs and Northern Development Canada***

On March 27, 2013 a letter was sent from Metrolinx to Aboriginal Affairs and Northern Development Canada (AANDC) advising of the initiation of the UP Express Electrification Environmental Assessment. As per direction from MOE, the letter requested assistance from AANDC in identifying potentially interested Aboriginal communities to be consulted as part of the project.

A follow up call and email to AANDC was sent on May 7, 2013 requesting confirmation that the March 27, 2013 email and corresponding letter was received. An email response was provided by AANDC confirming receipt of the letter dated March 27, 2013. AANDC further advised that the Consultation and Accommodation Unit (CAU) should be contacted for further information with respect to the location of:

- Aboriginal communities, reserves or their traditional territory as claimed claims; and/or
- Asserted or established rights that pertain to those communities or to a geographic location.

Therefore, on May 14, 2013 an email and corresponding letter was sent to the CAU requesting additional information regarding claims, litigation, treaties and Métis and Non-Status Indians interests, that may be relevant to the UP Express Electrification EA.

A letter response was received from AANDC via email on June 6, 2013 providing information on established or potential Aboriginal and treaty rights in the vicinity of the project study area. The letter included a comprehensive response, which verified that no reserve lands are located within 50 km of the project location. Information related to the following aboriginal communities was provided:

- Chippewas of Georgina Island;
- Chippewas of Kettle and Stony Point ;
- Chippewas of Nawash First Nation;
- Chippewas of Rama First Nation;
- Chippewas of the Thames First Nation;
- Mississauga's of Scugog Island First Nation;
- Mississaugas of the Credit;

- Saugeen First Nation;
- Six Nations of the Grand River; and
- Métis Nation of Ontario

As a result, the above listed additional aboriginal communities were added to the project contact list.

Copies of the AANDC correspondence are contained in **Appendix J-9**.

#### **8.5.1.2 Transport Canada**

In response to the June 2013 Notice of Public Open House, a letter was received from Transport Canada on July 4, 2013 outlining general requirements as they relate to: *Navigable Waters Protection Act* (NWPA), *Canadian Environmental Assessment Act (CEAA)*, and *Railway Safety Act*. As a result, these requirements were reviewed by Metrolinx and considered as part of preparing the preliminary design and EA process for electrification of the UP Express. A summary of Transport Canada's comments and how they were considered by Metrolinx is provided in **Table 8-3** below.

A copy of the Transport Canada correspondence is contained in **Appendix J-9**.

#### **8.5.1.3 Nav Canada and Greater Toronto Airports Authority**

##### NavCan/GTAA Meeting #1 – June 3, 2013

A meeting was held in June 2013 to present a project overview and obtain initial feedback from both the Greater Toronto Airports Authority (GTAA) and NavCanada (NavCan).

GTAA inquired about potential impacts on communication systems around the airport and potential effects related to EMI. Metrolinx noted that EMF and EMI assessments are being carried out as part of the EA and this information will be subsequently provided to GTAA and NavCan once available.

As a follow up to the June 2013 meeting, an additional information package was provided by Metrolinx to GTAA and NavCan on July 12, 2013, which included the following:

- 100% Airline Electrification design package for the Airport Spur
- Performance Specifications for:
  - Traction Power System Supply
  - Traction Power System Distribution
  - Grounding & Bonding
  - EMI/EMC
- June 2013 Public Open House Display Panels

In addition, on November 18 2013, the following additional information was provided by Metrolinx to GTAA and NavCan for their information/comment:

- Traction Power Supply Report
- Overview of Preliminary EMI/EMF Assessment (vicinity of airport spur)

Copies of GTAA/NavCan correspondence are contained in **Appendix J-9**.

#### NavCan/GTAA Meeting #2 – January 22, 2014

A meeting was held with both GTAA and Nav Canada staff on January 22, 2014. A project update was provided by Metrolinx, followed by a presentation on the Electromagnetic Interference (EMI) and Electromagnetic Fields (EMF) assessments (as they relate to the airport spur area) completed to date. A discussion followed on the future EMI/EMF technical analysis/studies that will need to be carried out during the detailed design phase to further assess potential EMI/EMF impacts and develop mitigation measures as required. It was noted that Metrolinx will provide copies of the Electromagnetic Compatibility Plan and EMC Report once available for NavCan's review and comment. As part of the future detailed design phase, Metrolinx will continue to engage GTAA and NavCan. Follow up emails were sent by Metrolinx to NavCan in February 2014 to solicit their comments on the information previously submitted in November 2013 (i.e., Traction Power Supply Report, Overview of Preliminary EMI/EMF Assessment).

Comments were subsequently received from NavCan via a letter dated March 10, 2014. A summary of NavCan's comments and how they were considered as part of the EA is contained in **Table 8-3**.

## **8.5.2 Provincial**

### **8.5.2.1 Ministry of the Environment**

Consultation with the Ministry of the Environment was carried out by Metrolinx during the Pre-Planning Phase and TPAP Phase to: discuss the proposed approach for specific technical studies (e.g., Noise/Vibration assessment, Air Quality assessment), discuss coordination of Hydro One's Class EA for Minor Transmission Facilities process steps and the TPAP steps (especially joint consultation aspects), and to consult with MOE during preparation of the Draft Environmental Project Report.

#### MOE Meeting #1 – July 24, 2012

An initial meeting (via conference call) with the Ministry of the Environment (MOE) was to introduce the project and to discuss the general approach to the scope of the Air Quality study for the UP Express EA with MOE Environmental Assessment and Approvals (EAAB) and Central Region staff.

#### MOE Meeting #2 – November 13, 2012

The second meeting with MOE EAAB was held in order to provide an update on the project and to discuss the potential for integrating Metrolinx's EA requirements under O. Reg. 231/08 (TPAP) and Hydro One's EA requirements under the Class EA for Minor Transmission Facilities.

#### MOE Meeting #3 – March 25, 2013

A follow up meeting was held with MOE in March 2013 to provide a project update and to discuss in further detail the approach to both the Noise/Vibration and Air Quality studies. Both MOE EAAB and MOE Central Region staff attended. There were no significant issues raised by MOE with respect to the approaches to these studies. However, it was suggested by MOE that the methodologies/approaches to the Noise/Vibration and Air Quality assessments be summarized into work plans and provided to MOE for their information/review. As a result, Metrolinx submitted these two respective work plans to MOE on July 3, 2013 based on their request at the March 25th meeting.

#### MOE Meeting #4 – November 4, 2013

In November 2013, Metrolinx and Hydro One met with MOE EAAB staff to follow up on previous discussions regarding the proposed approach to completing the TPAP and Hydro One Class EA processes as an integrated EA (i.e., combined EA document). As these processes are required to follow different MOE review and approval processes, it was determined that maintaining separate EA reports would be the preferred approach. Notwithstanding this, there were no concerns identified with respect to Metrolinx and Hydro One undertaking joint consultation activities such as combined public notices/letters, and Public Open House sessions.

#### Draft EPR Review

A copy of the draft EPR (including supporting technical studies) was provided to the MOE EAAB and Central Region on February 19, 2014 for review and comment. Comments from MOE were received on March 13<sup>th</sup> and 17<sup>th</sup>, 2014 and are summarized in **Table 8-3** below, along with how these comments were considered by Metrolinx as part of finalizing the EPR document.

#### **8.5.2.2 Ministry of Aboriginal Affairs (MAA)**

On March 27, 2013 a letter was sent from Metrolinx to the Ministry of Aboriginal Affairs (MAA) advising of initiation of the Union-Person Express Electrification Environmental Assessment. The letter requested

assistance from MAA in identifying potentially interested Aboriginal communities to be consulted as part of the consultation program for the project.

On April 19, 2013 a response letter was received from MAA advising that the Mississauga's of the New Credit First Nation may have an interest in the project and contact information for the Mississauga's of the New Credit First Nation was provided.

Copies of the correspondence with MAA are contained in **Appendix J-9**.

#### **8.5.2.3 Ministry of Tourism, Culture and Sport**

##### Correspondence with MTCS

In response to the Notice of Commencement, a letter was received from the Ministry of Tourism, Culture and Sport (MTCS) on December 18, 2013 (see **Appendix J-9** for a copy of the MTCS correspondence). The letter noted that MTCS was interested in remaining on the circulation list and being informed of the project through the EA process. In addition, MTCS inquired about whether an archaeological assessment and/or heritage impact assessment was being undertaken for this EA project. Metrolinx responded to the MTCS via letter on January 21, 2014 to confirm that they will be kept informed as the EA progresses and that both an archaeological assessment and cultural heritage assessment report were being carried out as part of the EA.

In response to Metrolinx's January 21, 2014 letter, follow up correspondence from MTCS was received on January 22, 2014 requesting clarification on the status of the Stage 1 archaeological assessment completed as part of the project. In addition, MTCS requested a copy of the Cultural Heritage Assessment Report for their review. Subsequently, Metrolinx provided a copy of the Draft UP Express Electrification Cultural Heritage Assessment Report to MTCS for their review on February 6, 2014.

##### Meeting with MTCS (February 2014)

In addition, a meeting (via conference call) was held with MTCS on February 11, 2014 to discuss the UP Express electrification project, including the work completed as part of the cultural heritage assessment report, potentially affected cultural heritage resources, proposed mitigation measures, as well as the status of other Metrolinx projects that MTCS has previously provided comments on (e.g., Georgetown South project, Eglinton Crosstown LRT project).

##### Review of Draft Cultural Heritage Resource Assessment

As a follow up to the February 11, 2014 meeting, excerpts from the Draft EPR related to cultural heritage components were submitted to MTCS for review and comment:

- Cultural Heritage Baseline Conditions section – summary of the baseline cultural heritage resources in the study area; and
- Cultural Heritage Impact Assessment section - summary of the assessment of potential effects on cultural heritage resources, including proposed mitigation measures.

Comments from MTCS on the Draft CHAR and Draft EPR excerpts were received on March 7, 2014, and have been summarized in **Table 8-3** below, along with how these comments were considered by Metrolinx.

#### **8.5.2.4 Ministry of Natural Resources**

As part of baseline data collection, an information request was sent to the Ministry of Natural Resources (MNR) on April 24 2012 requesting data on natural heritage features within and adjacent to the EA study area. In response to this request, information was provided by MNR on May 18 2012. As a result, this information was reviewed and incorporated as appropriate within the Natural Environmental Baseline Conditions Report.

In response to the Notice of Commencement, email correspondence was received from MNR on December 5, 2013 requesting clarification as to the proposed location of the OCS infrastructure, as well as what type of heavy equipment will be used to install the wiring. MNR comments and Metrolinx responses have been summarized in detail in **Table 8-3** below, and copies of MNR correspondence are contained in **Appendix J-9**.

#### **8.5.2.5 Ministry of Transportation**

A meeting with the Ministry of Transportation was held on October 4, 2013. The purpose of the meeting was to provide an overview of the project including: preliminary design work completed to date, as well as discuss specific proposed bridge designs for MTO-owned bridges (OCS attachments, grounding, etc.) in order to obtain comments/feedback prior to finalizing the designs. A short presentation was made by Metrolinx followed by a discussion period. Following the meeting, Metrolinx provided further, more detailed information to MTO related to the proposed OCS designs for MTO-owned bridges.

Comments from MTO were subsequently received from MTO on February 14th 2014. **Table 8-3** below provides a summary of the comments received and how they were considered by Metrolinx.

As a follow up to the October 2013 meeting with MTO, Metrolinx sent follow up correspondence to MTO in November 2013 and January 2014 to request comments on the previously provided information. Subsequently, comments from MTO were received on February 14, 2014, and have been summarized in detail in **Table 8-3** below.

Copies of the correspondence with MTO are contained in **Appendix J-9**.

#### **8.5.2.6 Hydro One Networks Inc.**

Ongoing communication and coordination with Hydro One was carried out during the Pre-Planning phase, as Hydro One is responsible for the traction power supply components of the project (i.e., new traction power substation and 230 kV connection line). With this in mind, a number of meetings were held (as listed below) during the Pre-Planning and TPAP Phases to discuss the technical/design aspects of the traction power supply components (traction power substation at 175 CityView Drive, new 230 kV connection), grounding and bonding design for traction power substation, configuration of high voltage feeder cables, minimum clearances required between the OCS structures and Hydro One transmission lines, as well as the joint EA consultation process.

- Hydro One Meeting #1 - October 22, 2012
- Hydro One Meeting #2 - January 31, 2012
- Hydro One Meeting #3 - April 24, 2012
- Hydro One Meeting #4 - June 27, 2012
- Hydro One Meeting #5 - October 22, 2012
- Hydro One Meeting #6 - March 20, 2013
- Hydro One Meeting #7 - August 29, 2013
- Hydro One Meeting #8 – January 23, 2014

In addition, a copy of the Draft EPR was provided to Hydro One in February, 2014 for their information/review, particularly in relation to the integration of the traction power supply components (i.e., 230 kV connection and new traction power substation) to be provided by Hydro One.

Comments from Hydro One and how they were considered have been summarized in detail in **Table 8-3** below.

### **8.5.3 Municipal**

#### **8.5.3.1 City of Toronto**

As part of the EA process, Metrolinx consulted with the City of Toronto through a series of face to face meetings during the pre-planning phase in order to present project updates and to seek feedback early in the planning process on a number of project and design components such as bridge modifications, proposed locations for traction power facilities, affected utilities, future visual/aesthetic design considerations for gantries/traction power facilities, etc. In general, a wide range of City staff attended the meetings including City Planning, Transportation Services, Capital Infrastructure, etc.

Four meetings were held with the City of Toronto during the Pre-Planning Phase:

City of Toronto Meeting #1 – April 30, 2013

An initial meeting with the City was held on April 30, 2013 to introduce the project including study area and project scope, planned project timelines (including public consultation), and to solicit the City's initial feedback on the electrification project. It was noted that future collaboration would be required. A presentation was made by Metrolinx followed by discussion.

City of Toronto Meeting #2 – July 23 2013

A follow up meeting was held with the City on July 23, 2013 to provide updated information on the project, specifically related to proposed bridge modifications/designs. Utility coordination and potential locations for traction power facilities were also discussed. In addition, other future developments/projects (e.g., Condo development near Ordance Rd. site, Eglinton Crosstown Maintenance Facility at Kodak site, Proposed Fort York bridge, etc.) in the vicinity of the UP Express electrification study area were discussed.

A presentation was made by Metrolinx, followed by discussion, and a summary of proposed bridge modification was provided to the City for information/review.

City of Toronto Meeting #3 – September 19, 2013

This meeting was focused on presenting further detail on the proposed bridge designs and modifications including: proposed OCS methods/attachments for City-owned bridges, grounding of bridges, requirements for bridge protection barriers, potential effects on bridge maintenance procedures/practices. In addition, potential easement requirements related to the installation of duct banks were discussed.

A comprehensive information package was provided to the City for review/comment which included: proposed bridge designs (OCS attachments, bridge barriers, grounding) for City-owned bridges, traction power facility designs, EMU Maintenance Facility design.

Comments from the City of Toronto on the information provided are summarized in **Table 8-3** below, including how they were considered by Metrolinx.

In addition, the following meetings were held with the City of Toronto during the TPAP Phase:

City of Toronto Meeting #5 (*Heritage Preservation Services*) – January 20, 2014

A meeting was held with City of Toronto Heritage Preservation Services on January 20, 2014 to provide an overview of the project and to discuss potentially affected cultural heritage resources, including bridges that have local and/or provincial significance. A summary of the cultural heritage resources, identified potential impacts, proposed mitigation measures, and future work/required approvals was provided and discussed.

City of Toronto Meeting #6– February 19, 2014

A follow up meeting with the City of Toronto was held on February 19, 2014 to provide an update on the EA and to further discuss the preliminary design components related to bridge modifications, grounding and bonding, duct bank locations, easement requirements, facilities and utilities. Representatives from the City included: Major Capital Infrastructure, Engineering & Construction Services, Transportation Services, and Toronto Water. As a follow up to this meeting, as requested by the City, a supplementary information package was provided on February 21, 2014 including the following information:

- Design information related to underground duct banks (also previously provided as part of the December 2013 information package)
- Results of Traffic Impact Study (EMU Maintenance Facility at Resources Rd.)
- Summary of meetings/consultation with the City to date
- Summary of proposed commitments to future work (post EA approval)

In addition, copies of the Draft Utility Report and Draft EMU Maintenance Facility Conceptual Design Report were also provided to the City on February 28, 2014. Comments were subsequently received from the City on the previously provided information on March 14<sup>th</sup> and 17<sup>th</sup>, 2014.

**8.5.3.2 *Toronto Public Health***

A meeting was held on November 26, 2013 with Toronto Public Health in November 2013 to provide them with a project overview, preliminary design work completed, description of the EA studies being carried out such as Air Quality, EMI/EMF, timelines/next steps. Discussion topics included timelines for implementation, OCS design, scope of air quality study.

**8.5.3.3 *Toronto and Region Conservation Authority***Correspondence with TRCA

A letter was received from the TRCA, on May 31, 2013 confirming receipt of the June 2013 Public Open House notice. TRCA advised that staff would be unable to attend the meeting, but may interested in receiving further information regarding the conceptual design in relation to TRCA program and policy

areas that may be affected. In addition, the TRCA requested to be provided with both hard and digital copies of the public open house display materials for their files. TRCA also requested to be kept informed of the project to confirm permit requirements.

On July 11, 2013 Metrolinx issued a response letter to TRCA advising that they would be kept informed throughout the EA process and preliminary design, including opportunities for providing comments/feedback. Metrolinx also provided TRCA with copies of the POH display materials as per their request.

#### Meeting with the TRCA (January 2014)

A meeting with the Toronto and Region Conservation Authority (TRCA) was held on January 28 2014, which included a short presentation by Metrolinx followed by discussion of the key project/design components, proposed electrification facility sites, results of the natural environmental impact assessment, as well as timelines/next steps. No major issues or concerns were raised by the TRCA on the information presented. Following the meeting, a copy of the draft Natural Environment Assessment Report was provided to TRCA on February 21 2014 for their review/comment.

#### **8.5.3.4 Fort York National Historic Site**

A meeting with staff from the Fort York National Historic Site was held on November 8, 2013 to discuss the proposed electrification infrastructure in the vicinity of Fort York and to carry out a site visit. Specifically, the proximity of the proposed paralleling station location at Ordnance St. to Fort York was discussed as well as the OCS design for this specific portion of the corridor. No issues/concerns related to potential impacts on Fort York National Historic Site were identified as part of the meeting, as the paralleling station will be situated at a sufficient distance from the Fort York area.

#### **8.5.3.5 Toronto Transit Commission**

A meeting with the Toronto Transit Commission (TTC) was held on March 10, 2014 to provide an overview of the preliminary design work completed to date and EA process. Some of the key topics discussed included: clearance requirements, proposed OCS attachments to Spadina bridge, maintenance implications, TTC subway crossing locations, and potential EMI related effects of the proposed UP Express traction electrification system. Following the meeting, more detailed comments were received from the TTC, which are summarized in **Table 8-3**.

As requested by TTC, a supplemental information package was provided to them for their information/review on March 18, 2014.

**8.5.3.6 Toronto Hydro**

A meeting with Toronto Hydro was held on March 12, 2014 to provide an overview of the preliminary design work completed to date and to discuss clearance requirements and potential utility relocations related to Toronto Hydro infrastructure. Subsequently, comments were received from Toronto Hydro on March 18 2014, which are summarized in **Table 8-3**.

**8.5.4 Summary of Review Agency Comments Received**

**Table 8-3** below provides a summary of review agency comments received and how they were considered by Metrolinx.

**TABLE 8-3 SUMMARY OF REVIEW AGENCY COMMENTS AND HOW THEY WERE CONSIDERED BY METROLINX**

	Consultation Phase	Comment/Issue Raised by Review Agency	Consideration of Comment/Issue by Metrolinx
<b>FEDEAL AGENCIES</b>			
<b>Transport Canada</b>	Pre-Planning Phase	► There is a federal property in the general vicinity of the project. The Canadian Environmental Assessment Act (2012) includes requirements and provisions for projects involving federal lands. Please review the Directory of Federal Real Property ( <a href="http://www.tbs-sct.gc.ca/dfrp-rbif/">http://www.tbs-sct.gc.ca/dfrp-rbif/</a> ) for additional information, and if your project will potentially interact with any of these sites please notify the appropriate federal department or agency as soon as possible.	► A review of federal properties in the vicinity of the study area was completed and the GTAA and NavCanada were identified as potentially affected stakeholders. As a result, it was confirmed that GTAA and NavCan were included on the project contact list to ensure they would receive all project notifications including Notices of Public Open Houses and Notices of Commencement/Completion. Further, meetings were held between Metrolinx and GTAA/NavCan to discuss the project, and the potential issues / concerns relevant to these two stakeholders. Refer to the NavCanada and Greater Toronto Airports Authority section above for additional information related to these meetings.
		► Transport Canada is responsible for the administration of the Navigable Waters Protection Act (NWP), which prohibits the construction or placement of any “works” in navigable waters without first obtaining approval. If any of the related project undertakings cross or affect a potentially navigable waterway, the proponent should prepare and submit an application in accordance with the requirements as outlined in the attached Application Guide and Form.	► Based on the current UP Express electrification design, there are no anticipated negative impacts to watercourses – i.e., Humber River, Black Creek, Mimico Creek, as project works will take place on existing bridge structures. There are no project works proposed in the water. Therefore, no formal applications/approvals under NWP are anticipated to be required.
		► Please review the Minor Works and Waters (Navigable Waters Protection Act) Order, established to outline the specific standards and criteria under which Transport Canada considers a work as a minor and does not require an application under the NWP	► The Minor Works and Waters (NWP) Order was also reviewed. The two watercourse crossings along the UP Express route (i.e., Humber River & Black Creek) fall under the Minor Works and Waters (NWP) Order, Section 5 “Aerial Cables – Power and Communication”. As a result, no formal applications/approvals under NWP are anticipated to be required
		► Transport Canada is also responsible for inspecting and auditing federally regulated railway companies that are subject to the Railway Safety Act.  ► Transport Canada is also responsible for inspecting and auditing federally regulated railway companies that are subject to the Railway Safety Act. Transport Canada also regulates some provincial shortlines from the Province of Ontario that are part of an Agreement between the Federal Government and the Province of Ontario. The <i>Railway Safety Act</i> , with related regulations and rules, provides the legislative and regulatory framework for safe railway operations in Canada. The rail safety program develops, implements and promotes safety policy, regulations, standards and research, and in the case of railway grade crossings, subsidizes safety improvements. A list of all the Rail Safety legislations (the Act, Regulations, Rules, Guidelines, Policies and Standards) that applies to the federally regulated railways, can be found here: <a href="http://www.tc.gc.ca/eng/railsafety/legislation.htm">http://www.tc.gc.ca/eng/railsafety/legislation.htm</a>  ► The Act also addresses the construction and alteration of railway works, the operation and maintenance of railway equipment and certain non-railway operations that may affect the safety of federally regulated railways. If a proposed railway work is of a prescribed kind, pursuant to the Notice of Railway Works Regulations, the proponent shall not undertake the work unless it has first given notice of the work in accordance with the regulation. More information related to railway works is available at the following internet sites:  · Railway Safety Act: <a href="http://www.tc.gc.ca/acts-regulations/acts/1985s4-32/menu.htm">http://www.tc.gc.ca/acts-regulations/acts/1985s4-32/menu.htm</a> · Notice of Railway Works Regulations: <a href="http://laws.justice.gc.ca/en/SOR-91-103/">http://laws.justice.gc.ca/en/SOR-91-103/</a> · Standards Respecting Pipeline Crossings Under Railways: <a href="http://www.tc.gc.ca/eng/railsafety/standards-tce10-236.htm">http://www.tc.gc.ca/eng/railsafety/standards-tce10-236.htm</a> · Guideline on Requesting Approval to Undertake Certain Railway Works: <a href="http://www.tc.gc.ca/eng/railsafety/guideline-283.htm">http://www.tc.gc.ca/eng/railsafety/guideline-283.htm</a>	► Metrolinx has an MOU with Transport Canada for Rail Inspection Services. This provides for inspection of Metrolinx-owned rail corridors by Transport Canada. The agreement is required because Metrolinx is not federally regulated. Because we are not under the jurisdiction of Transport Canada, we are setting up a contractual framework to ensure safety oversight of our operations. ► That said, the application of federal regulations to Metrolinx is really a case by case determination, with reference to the specific statute. The application of a federal statute may also be subject to possible constitutional arguments. That is, if a federal statute purports to apply to Metrolinx, there may be a constitutional argument that the statute can’t or shouldn’t apply to Metrolinx. ► The Railway Safety Act requirements were reviewed and adhered to where applicable as part of developing the UP Express Electrification Preliminary Design. In general, these requirements are not applicable to electrification design. Notwithstanding this, it is noted that the requirements of Transport Canada/s regulations will be further reviewed during detailed design, as appropriate.
<b>Greater Toronto Airports Authority (GTAA)</b>	Pre-Planning Phase	► Clarification requested regarding whether no the APM will need to be shut down as part of the construction phase of the UP Express Electrification project.	► It is not anticipated that the Airport People Mover (APM) will need to be shut down during implementation of electrification, as work will occur overnight during non-service window.
		► Inquired about the need for barriers on the upper floors of the T1 parking garage that overlooks the UPE station/guideway.	► The upper floors of the T1 parking garage have barrier protection and they will be assessed during detailed design to determine if they are sufficient for electrification
<b>Nav Canada</b>	Pre-Planning Phase	► Request for additional information related to potential Electromagnetic Interference (EMI) effects on equipment located in the vicinity of the UP Express spur line / UP Express Pearson Station.	► As part of the information package submitted by Metrolinx to NavCan on November 18, 2013, an overview of the preliminary EMI and EMF assessment for the airport spur area was included. This information package also contained a summary of the proposed future work/studies that will need to be carried out during detailed design phase in order to confirm potential EMI effects and to determine mitigation measures to be implemented, where applicable.
	TPAP Phase	► As discussed at previous NAV CANADA/GTAA/Metrolinx meetings, the issue of electromagnetic interference (EMI) generated by the proposed ARL – specifically, the potential impact on existing NAV CANADA communications, navigation, and surveillance (CNS) facilities – will be addressed in the EMI/EMF assessment and the EMC Control plan to be developed by Metrolinx.	► Metrolinx confirms that the potential EMI impacts on NavCan communications, generated by the electrified UP Express navigation, and surveillance (CNS) facilities will be addressed in the EMI/EMF assessment and the EMC Control Plan to be developed as part of the detailed design phase.

	Consultation Phase	Comment/Issue Raised by Review Agency	Consideration of Comment/Issue by Metrolinx
		<p>► The EMI/EMF assessment must take into consideration CNS system performance specifications as per the current International Civil Aviation Organization (ICAO) Annex 10 (Aeronautical Telecommunication - International Standards &amp; Recommended Practices). Below are the minimum signal field strength and the maximum tolerable noise levels taken from Annex 10 for a few existing operational CNS system at Pearson International Airport (CYYZ).</p> <p>VHF Air Traffic Control (ATC) Voice Communication Receivers (Annex 10, Volume 3, Part II, Section 2.2 &amp; 2.3)</p> <ul style="list-style-type: none"> <li>Any undesired signal must be 15 dB below 20 uV/m (which is a minimum acceptable signal throughout the service volume). In addition, a 10 dB margin is required to account for noise from other sources from within surrounding area.</li> </ul> <p>Instrument Landing System (ILS) including Localizer and Glidepath (Annex 10, Volume 1, Section 3.1)</p> <ul style="list-style-type: none"> <li>Minimum signal of 40 uV/m is required within the ILS service volume.</li> <li>In addition, NAV CANADA Flight Inspection standard require that any interference signals present within ILS service volume must not exceed 24.5 dBuV/m or 16.8 uV/m as part of the ILS operational certification.</li> </ul> <p>Distance Measuring Equipment (DME) (Annex 10, Volume 1, Section 3.5.4)</p> <ul style="list-style-type: none"> <li>Peak equivalent isotropically radiated power shall ensure -89 dBW/m<sup>2</sup> within collocated ILS service volume</li> <li>Receiver shall trigger transponder at -103 dBW/m<sup>2</sup> received peak power density;</li> <li>Recommendation: "Protection against interference outside the DME frequency band should be adequate for the sites at which the transponders will be used."</li> </ul> <p>Multilateration (MLAT) information is being requested and will follow.</p>	<p>► The more detailed EMI/EMF analysis to be carried out during detailed design will consider CNS system performance specifications as per the current International Civil Aviation Organization (ICAO) Annex 10 (Aeronautical Telecommunication - International Standards &amp; Recommended Practices).</p>
		<p>► Any other radio frequencies to be used in association with the operations of the proposed ARL (signalling, walkie-talkie, etc.), shall not generate intermodulation products among themselves or with other existing frequencies that will cause harmful interference to existing NAV CANADA operational frequencies.</p> <p>► Metrolinx will provide the complete EMI/EMF assessment and the EMI/EMC control plan reports for review by NAV CANADA prior to commencement of the ARL operation. The EMI/EMC control plan will include the field test plan to verify no harmful EMI interference to NAV CANADA CNS facilities.</p> <p>► In addition, the general guidelines provided in Part II of the current Transport Canada TP1247 (Land Use in the Vicinity of Airports) should be observed. Any deviation to the guidelines can potentially have an impact on existing operational CNS facilities, thus will need to be addressed in the EMI/EMF Assessment and Control plan. For example, &lt;the attached pdf&gt; shows the Electromagnetic Noise (EMN) protection zones for the ILS runway 23 and 24R, as well as the 500m EMN zone around the existing NAV CANADA ATC Tower Contingency and GTAA's Apron Management Unit communication sites.</p> <p>► Due to the proximity of the ARL link to Pearson International Airport and the approach to runway 23 in particular, the EMI/EMF assessment must also consider EMI protection for the radio equipment in the aircraft. While the ICAO Annex 10 document mentioned above includes some specifications for the avionics portion, it would be prudent for Metrolinx to consult with the avionic industries and/or authorities such as Transport Canada as necessary to ensure any EMI issue is properly addressed.</p> <p>► As requested by Metrolinx, we have attached a map of the existing operational CNS facilities at Toronto PIA, including the two MLAT Remote Units (RU) located very close (&lt; 100 meters) to the proposed ARL; these units are part of the currently operational MLAT system at CYYZ.</p> <p>► Industry Canada addresses any spectrum management issues that may arise from your proposal and consults with NAV CANADA Engineering as deemed necessary.</p>	<p>► This is not an electrification issue but for the DMU operations, the Radio frequencies used will be similar to the existing GO transit. A Track Circuit Assister operating at 165KHZ will be tested under the EMI/EMC test plan for the DMU.</p> <p>► Metrolinx confirms that a copy of the EMC Control Plan will be provided to NAV CANADA prior to prior to commencement of the electrified UP Express service.</p> <p>► Metrolinx also confirms that the EMC Control Plan will include field testing to verify that potential EMI emissions will not adversely affect NavCan CNS facilities.</p> <p>► Metrolinx confirms that the more detailed EMI/EMF analysis to be carried out during detailed design will take into consideration the general guidelines provided in Part II of the current Transport Canada TP1247 (Land Use in the Vicinity of Airports). The results of this analysis will be documented in the EMC Control Plan to be prepared as part of detailed design, and a copy of this report will be provided to NavCan and GTAA for review.</p> <p>► Metrolinx confirms that the more detailed EMI/EMF analysis to be carried out during detailed design will take into consideration assessment of radio equipment in the aircraft. Specifically, the ICAO Annex 10 document specifications will be reviewed and considered, and Metrolinx will consult with the avionic industries and/or authorities (e.g., Transport Canada) as necessary during detailed design to ensure any EMI issues are adequately addressed.</p> <p>► Thank you for providing this information. This will be considered in the electrification detailed design of UP Express</p> <p>► Comment noted.</p>
<b>PROVINCIAL AGENCIES</b>			
<b>Ministry of the Environment (MOE)</b>	Pre-Planning Phase	► Requested submission of Draft Air Quality and Noise/Vibration work plans that summarized the scope and methodology to be followed for the Noise/Vibration and Air Quality EA studies.	► Draft Air Quality and Noise/Vibration Work Plans were submitted to the MOE on July 3, 2013.
		► In Europe and in other parts of North America, power pickup for electrified heavy rail traditionally uses an overhead pantograph system, which is not normally found in Ontario. There might be noise issues connected with these.	► The catenary for the UP Express will be a constant tension system designed to provide for a smooth interface between the contact wire and the sliding pantograph. Based on similar projects, any noise levels generated by the pantograph/contact wire interface are typically minor and cannot be distinguished from the noise generated by the vehicles.

	Consultation Phase	Comment/Issue Raised by Review Agency	Consideration of Comment/Issue by Metrolinx
		<ul style="list-style-type: none"> <li>► The one difference between a diesel and an electric line is the need for large power transformer stations at various locations along the line, which are not needed to power a diesel line. Given that there are active land uses, many of them sensitive, close to most of the length of the Air Rail Link, there could be challenging noise control issues from this area. Some basic order of magnitude information on the capacity of each transformer and how many might be needed to be spaced along the line would be very valuable.</li> </ul>	<ul style="list-style-type: none"> <li>► There will be a paralleling station<sup>3</sup> located in the vicinity of the central region of the corridor (i.e., approximately Eglinton Ave. W. and Black Creek Dr. area), as well as a paralleling station in the vicinity of Bathurst St./Ordance St. where the Kitchener line splits from the Lakeshore West line. The paralleling stations will contain one 10 MVA autotransformer.</li> <li>► The project team is working closely with Hydro One<sup>4</sup>, who will be responsible for designing the new substation (see footnote #1) and completing the noise analysis (for the traction power substation) including identification of mitigation measures.</li> </ul>
		<ul style="list-style-type: none"> <li>► If a decision has been made as to the maximum size of electrified trains, that would be important as well. The diesel proposal for the line involved the equivalent of three self-powered rail cars per train; if the electrified line is to use more, this is important to know for noise purposes.</li> </ul>	<ul style="list-style-type: none"> <li>► The electrified line will use the same size trains as the diesel proposal (three Electrical Multiple Unit (EMU) cars per train).</li> </ul>
	TPAP Phase	<ul style="list-style-type: none"> <li>► A qualitative emission loading assessment for DMUs and EMUs was done as summarized in Table 4-1 “Estimated UP Express System Wide EMU Regional 24-hr Contaminant Emission Rates” and Table 4-2 “Estimated UP Express System Wide DMU Local 24-hr Contaminant Emission Rates”.</li> <li>► The reference(s) for the source of data presented in Table 4-1 and 4-2 should be integrated in the AQA.</li> </ul>	<ul style="list-style-type: none"> <li>► The reference provided for Table 4-1 was: 2005 Integrated Power Service Plan (IPSP) and Ontario Power Authority (OPA) Supply Mix Summary for Electricity Production</li> <li>► <u>Formal references are:</u></li> <li>► SENES Consultants Limited, Supplementary Environmental Impacts Report for the Integrated Power System Plan, June 2007 <a href="http://www.powerauthority.on.ca/sites/default/files/page/4503_G-3-1_Att_1.pdf">http://www.powerauthority.on.ca/sites/default/files/page/4503_G-3-1_Att_1.pdf</a></li> <li>► Ontario Power Authority, Supply Mix Summary (December 2005) <a href="http://www.powerauthority.on.ca/integrated-power-system-plan/supply-mix-summary-december-2005">http://www.powerauthority.on.ca/integrated-power-system-plan/supply-mix-summary-december-2005</a></li> <li>► No reference was provided for Table 4-2; data in Table 4-2 was calculated based on the parameters outlined in the report (immediately above Table 4-2), which are engineering estimates for the current UP Express system design from the reference LTK Engineering Services, Traction Power System Simulations Report, 2012; note that this reference was provided in the report.</li> </ul>
		<ul style="list-style-type: none"> <li>► Section 4.3 entitled “EMU Maintenance Facility” summarizes the maximum predicted and combined emissions from all the sources.</li> <li>► Please clarify if the dispersion modelling has followed the ministry’s practices as stipulated in Guideline A-11 Air Dispersion Modelling Guideline for Ontario.</li> </ul>	<ul style="list-style-type: none"> <li>► Dispersion modelling completed for the EMU Maintenance Facility followed the ministry’s practices as stipulated in Guideline A-11 Air Dispersion Modelling Guideline for Ontario.</li> </ul>
		<ul style="list-style-type: none"> <li>► In regards to the emissions estimates for the EMU maintenance facility, please provide the estimated total dissolved solids content in the cooling water for the cooling tower.</li> </ul>	<ul style="list-style-type: none"> <li>► The Environment Canada NPRI Toolbox default total dissolved solids value of 12,000 ppmw (reference: AP-42, high dissolved solids) was used.</li> </ul>
		<ul style="list-style-type: none"> <li>► Lastly, please provide a sample electronic AERMOD modelling input and output file for the EMU maintenance facility for our review.</li> </ul>	<ul style="list-style-type: none"> <li>► As requested, a sample electronic AERMOD modelling input and output file (for PM2.5) for the EMU maintenance facility was provided to MOE for review.</li> </ul>
		<ul style="list-style-type: none"> <li>► Agreement to incorporate the flows from the EMU maintenance facility into the stormwater pond associated with the Lowes retail development should be secured at the EA stage.</li> </ul>	<ul style="list-style-type: none"> <li>► As part of the property acquisition process previously carried out by Metrolinx for the 50 Resources Rd. site, it was confirmed that stormwater runoff from the entire 14.7 ha site bounded by Resources Rd. to the north and the rail corridor to the south (which encompasses the 5 ha 50 Resources Rd. site) will be accommodated by the stormwater pond situated adjacent to the site, to the east. The report entitled <i>Stormwater Management Report</i> that was prepared in support of the Draft Plan of Subdivision Application (May, 2011) describes the design of the SWM pond and confirms the following:   <i>The mixed employment/commercial subdivision will provide quality and quantity control measures through a future municipal stormwater management facility. The subdivision will have a release rate of 0.455 m3/s which is lower than the determined governing target release rate of 0.70 m3/s in the previous Functional Servicing Report (FSR). The SWM pond will provide erosion control and Level 1 treatment (80% TSS removal) as per the MOE guidelines. 5 mm runoff will be infiltrated/attenuated within the developed subdivision areas. The report demonstrates that the proposed stormwater management design meets the criteria for: quantity control, erosion control, and quality control as that were determined through recommendations provided by the City of Toronto, Ministry of Transportation (MTO), and the Toronto and Region Conservation Authority (TRCA). A copy of this Report will be included as an Appendix to the Natural Environmental Assessment Report.</i> </li> </ul>

<sup>3</sup> The paralleling station at Eglinton Ave. W./Black Creek Dr. was previously envisioned to be a switching station, based on the conceptual level design. As part of further refining the design, it was determined that only one traction power substation would be required for the UP Express. As a result, the switching station at Eglinton Ave. W./Black Creek Dr. will be a paralleling station instead, as there is no longer a need to switch between substations for power supply.

<sup>4</sup> Hydro One is carrying out a separate EA study under the Class EA for Minor Transmission Facilities process to assess the environmental effects associated with the new Traction Power Substation. Please refer to: Hydro One Union Pearson Express Electrification Traction Power Substation Class Environmental Assessment - Draft Environmental Study Report.

Consultation Phase	Comment/Issue Raised by Review Agency	Consideration of Comment/Issue by Metrolinx
		<p>► The above noted information will be added to the EPR to document how stormwater management will be addressed in relation to the 50 Resources Rd. maintenance facility.</p>
	<p>► Information should be provided in support of utilizing the planned SWM pond and should include the level of treatment the SWM pond will achieve (with the additional flows) and the analysis that shows the pond will be able to handle the "excess" flows. Enhanced Level 1 Protection should be the minimum goal and should be clearly stated. The OGS (oil and grit separator) sizing and applicability to treat the stormwater from the site should also be discussed.</p>	<p>► The analysis to demonstrate the pond will accommodate the additional flows from the 50 Resources Rd. development is contained in report entitled <i>Stormwater Management Report</i> that was prepared in support of the Draft Plan of Subdivision Application (May, 2011) (refer to above response).</p> <p>► In addition, the May 2011 report (Section 3.3) notes the following with respect to level of treatment:</p> <p>► Quality control for the development will be provided by the storm water management facility in the form of a permanent pool and sediment forebay providing Enhanced (Level 1) quality control as per discussions with the TRCA. Refer to Appendix B for email correspondence from TRCA.</p>
	<p>► SWM measures were not discussed for the other site developments. SWM measures should be clearly stated and applied as part of a treatment train approach as described in the Ministry's 2003 Stormwater Management Planning and Design Manual.</p>	<p>► <b><u>With regard to the proposed paralleling station site at 3500 Eglinton Avenue West:</u></b></p> <p>As outlined in the EPR, the proposed paralleling station at 3500 Eglinton Ave. W. is to be integrated on the same site as the proposed Metrolinx Eglinton Crosstown Maintenance and Storage Facility. With this in mind, stormwater management measures related to development of the entire 3500 Eglinton Ave. W. property were assessed as part of the approved TPAP Addendum completed for Eglinton Crosstown project. Specifically, within the <i>October 2013 Eglinton Crosstown EPR Addendum document, Section 5.3.2.1</i>, Metrolinx has committed to the following stormwater management measures for the proposed development at 3500 Eglinton Avenue West:</p> <p>A Stormwater Management System (SWM) is required at the MSF site, which will be consistent with the Toronto Green Development Standard, including the provision for green roofs. Current MSF design standards require imbedded track, and a network of paved roads and parking areas, the overall site will be highly impervious. The SWM system will be designed on this basis, with appropriate storage and outlet controls. The SWM is planned to outlet to the 1200 millimetre diameter storm sewer that is located on Industry Street.</p> <p>The storm runoff will be discharged to Black Creek and the Humber River. The SWM system will be designed to achieve an Enhanced Level of water quality treatment, as per the <i>Ministry of the Environment's Stormwater Management Planning and Design Manual (2003)</i> and using low impact development techniques where feasible. Due to land constraints on Eglinton Avenue, oil grit separators will be designed to achieve the desired level of water quality treatment.</p> <p>An on-site SWM pond is protected for within the current design of the MSF site to control both water quality and quantity of stormwater discharge before the connection to the municipal storm sewer network. The SWM pond will be further defined as part of the detailed design phase of the project.</p> <p>► <b><u>With regard to the proposed paralleling station site at Ordinance Street:</u></b></p> <p>The change in the ground surface at the facility location from current conditions may result in alterations to the current storm water drainage patterns. Therefore, the following measures will be carried out by Metrolinx during detailed design:</p> <ul style="list-style-type: none"> <li>► During detailed design, a stormwater management plan/design will be carried out by Metrolinx and will address: quantity control, erosion control, and quality control.</li> <li>► To control both water quality and quantity of stormwater discharge, stormwater management measures will be defined as part of the detailed design phase of the project in accordance with the <i>Ministry of the Environment's Stormwater Management Planning and Design Manual (2003)</i>.</li> <li>► The stormwater management plan/design will be developed in consultation with MOE, City of Toronto, and the Toronto and Region Conservation Authority (TRCA), as appropriate.</li> <li>► Oil and grit separators will be designed to achieve the desired level of water quality treatment in accordance with the stormwater management plan/design.</li> <li>► The stormwater management design will be coordinated with the City of Toronto's design for the adjacent park to be built to the west of the Paralleling Station.</li> <li>► The design of the paralleling station foundations shall ensure water drains to the site drainage system and prevents standing water at or under equipment and structural steel.</li> <li>► The design of the foundations associated with the transformers and autotransformers shall prevent oil from entering the site drainage system and contain fluids.</li> <li>► An Environmental Compliance Approval (ECA) for stormwater works will be obtained from the MOE prior to construction.</li> </ul> <p>The information on stormwater management as outlined above will be added to the EPR document.</p>
	<p>► The requirement of an Environmental Compliance Approval (ECA) for any stormwater works (or modifications to an existing ECA if applicable) should also be discussed.</p>	<p>► An Environmental Compliance Approval (ECA) for stormwater works/drainage (or modifications to existing ECA', if applicable) will be obtained from the MOE for each of the facility sites (Maintenance Facility site, and both</p>

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		<p>► Please note that sewer discharges are not generally regulated by the TRCA (section 9.2.5).</p> <p>► Inclusion of Diesel Multiple Units (DMUs) in the Baseline Conditions: Section 4.9 of the Draft EPR and Section 3.1 of Part A of the NVAR state that the approach of the assessment is to include the DMUs as noise sources when calculating the baseline conditions. This is an incorrect approach because the purpose of the project is to replace the DMUs with Electric Multiple Units (EMUs). Therefore, DMUs should not be included as noise sources since their operations will cease once the EMUs are fully operational.</p>	<p>paralleling station sites) prior to construction.</p> <p>► Comment noted.</p>
		<p>► Background Sound Levels for the Paralleling Stations: Sections 3.1.1 and 3.1.2 of Part A of the NVAR should provide information regarding the background sound levels, measured or predicted, at the points of reception near the two paralleling stations. If no background sounds levels will be used as criteria, then exclusion limits shall be used, as outlined in the NPC-300 guideline.</p> <p>► Guidelines for Construction Activities: Sections 3.3, 4.1.5 and 5.2 of Part B of the NVAR state that NPC-115 and the City of Toronto Municipal By-Law are the guidelines to be used for construction activities. However, there are other guidelines that should be included as well, including:</p> <ul style="list-style-type: none"> <li>a) MOE Publication NPC-118, “Motorized Conveyances”;</li> <li>b) MOE Publication NPC-207, “Impulse Vibration in Residential Buildings”, November 1983; and</li> <li>c) City of Mississauga Noise Control By-Law 360-79.</li> </ul> <p>► Noise Assessment for the EMUs: Section 4.1.1.3 of Part B of the NVAR states that engine and wheel-rail will be the dominant noise sources for the EMUs, then Section 4.1.1.4 concludes that the noise levels of the EMUs will be equal to or lower than that of the DMUs. However, no assessment has been provided to compare the noise levels of EMUs and DMUs to support that conclusion.</p> <p>► In addition, it is stated that catenary noise is the greatest at train speeds above 125 miles per hour. However, pantograph noise could be potentially significant as it is not speed dependent, and therefore should be assessed for the EMU noise levels.</p>	<p>► The approach applied that includes DMU noise levels as part of the baseline conditions was based on a meeting held with the Ministry of the Environment (MOE) and Metrolinx project team on March 25th, 2013. The purpose of this meeting was to discuss the proposed approach and methodology to the Noise/Vibration and Air Quality studies. As a follow up to this meeting (as per the MOE's request), a detailed Noise and Vibration Work Plan that summarized this approach was provided to the MOE on July 3rd, 2013 for comment and no objections from the MOE were received at that time.</p> <p>► The approach of including the DMUs in the baseline condition is a base assumption in all aspects of the EA (not only noise and vibration), as this project is intended to evaluate the effect of the electrification of the UP Express line which involves conversion of DMUs to EMUs. The DMUs will be in place and operating in 2015 (prior to electrification which will not be implemented until 2017 at the earliest, pending funding for construction) for the UP Express service and were assessed as part of the approved <i>Georgetown South Service Expansion and Union Pearson Express Link Environmental Project Report</i> (Metrolinx, 2009), and therefore form part of the base case scenario to be considered as part of the UP Express Electrification EA project. Accordingly, as the purpose of the UP Express Electrification project is to evaluate the effect of converting from diesel to electric trains on the UP Express line, it is necessary to consider DMUs as part of the baseline conditions in order to demonstrate the net effect of the electrification project.</p> <p>► Background sound levels were not established in the vicinity of the paralleling stations. In this case, the MOE exclusionary limits would apply to the evaluation of noise impacts from these stations. As noted in Part B of the Noise and Vibration Assessment Report (Sections 4.1.2 and 4.1.3 specifically), the MOE exclusionary limits were applied in the evaluation of noise impacts of these stations.</p> <p>► The Noise and Vibration Assessment Report and EPR document will be updated to include reference to these documents.</p>
		<p>► Noise Assessment for the Paralleling Stations: Sections 4.1.2 and 4.1.3 of Part B of the NVAR identify that each of the paralleling stations contains one (1) 10 MVA autotransformer and two (2) auxiliary transformers, but the section only considers the autotransformers as the significant noise source. There should be assessment conducted for the auxiliary transformers as well, since the nearest points of reception are only about 180 metres away, these transformers could potentially be significant noise source. If not, rationale should be provided to justify the auxiliary transformers as insignificant noise sources.</p>	<p>► Similar to the response above, it is noted that the approach for comparing the change from DMU to EMU noise was discussed with the MOE at the meeting held on March 25th, 2013. As outlined in detailed Noise and Vibration Work Plan provided to the MOE on July 3rd, 2013, it was stated that Metrolinx has provided noise specifications to the DMU manufacturer for the design of DMUs to be purchased for use in the UP Express corridor; and that Metrolinx intends to require noise specifications for the EMUs that are either the same or more stringent than those for DMUs.</p> <p>► With regard to the pantograph, the qualitative assessment approach was also discussed previously with the MOE at the March 25th, 2013 meeting and was also outlined in the Noise and Vibration Work Plan provided to the MOE. Further, the literature that reviewed on this topic to-date (e.g., <i>Arai, M., and Yoshio, B., 1975; U.S. Federal Railroad Administration, 2012</i>) associates noise from this source only with high speed rail. In a recent update to the Federal Rail Administration (FRA) noise impact assessment guidance, it is recommended that pantograph noise only be included in an assessment when train speeds exceed 160 mph (257 km/hr). At lower speeds (i.e., UP Express), it is anticipated that engine and wheel-rail noise will be the dominant sources of noise. As noted in the UP Express electrification Noise and Vibration Assessment Report, the UP Express trains will travel a maximum of approximately 145 km/hr.</p> <p>► The paralleling stations are each comprised of one (1) autotransformer (10 MVA), two (2) auxiliary transformers (~2 MVA) and a control / switchgear room located within an approximate 40 m by 25 m footprint. The sound power level of a typical 10 MVA transformer is approximately 87 dBA (Bies &amp; Hansen, 1997). The MOE outlines a requirement to apply a 5 dB tonal penalty to sources that may exhibit a humming characteristic, and as such is commonly applied to transformers. The resulting sound power level is 92 dBA for the autotransformer. The two auxiliary transformers have been considered to be insignificant in this assessment, due to the difference in rating compared to the main autotransformer. Based on information provided by the design consultant for Metrolinx, the auxiliary transformers would each be expected to have a sound power level of approximately 75 dBA (including the tonal penalty). In general, when sources differ in sound level by greater than 10 dB, the source with the lower sound level is considered insignificant relative to the louder source.</p> <p>► The EPR and NVAR were updated to reflect this information.</p>
		<p>► Metrolinx and their consultants have an adequate understanding of the geology and hydrogeology along and in the vicinity of the railway right-of-way. With respect to the proposed construction, most of the works will be shallow and installed above the water table; so, from a groundwater perspective, significant environmental impacts are not anticipated. However, some of the proposed works will have deeper foundations and ground water control will very likely be required. In this regard, the Draft EPR draws attention to the construction of the proposed EMU maintenance facility.</p> <p>► In any event, a Permit to Take Water (PTTW) will be required if construction dewatering flows exceed 50,000 L/day.</p>	<p>► Acknowledged.</p> <p>► With regard to PTTW requirements, these are documented in Section 6.4.3 and Section 9.2 of the EPR.</p>

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		Please note that the PTTW technical review process looks in detail at the environmental impacts potentially associated with the groundwater taking.	
		<p>► Metrolinx and their consultants have undertaken numerous Phase I and Phase II Environmental Site Assessments (ESAs) with respect to the UP Express Electrification project. Based on these ESA studies, it appears that Metrolinx and their consultants have a good understanding of potential and existing “site contamination issues” along and in the vicinity of the railway right-of-way (Draft EPR; February 2014; page 6-40).</p> <p>► Section 6.5 (“Natural Environment – Contaminated Sites”) “discusses the potential impacts of the UP Express Electrification project on, or relating to, existing contaminated sites” (Draft EPR; February 2014; page 6-40), which include the Ordnance St. paralleling station, the 3500 Eglinton Ave. W. paralleling station, the 50 Resources Rd. EMU maintenance facility, and the 175 City View Drive traction power substation.</p> <p>► With the exception of the Ordnance St. paralleling station, Metrolinx and their consultants discussed the types of contamination impacting the soil and/or the groundwater at these sites. In addition, they discussed the approach taken to manage the contamination at these sites. For example, at the 3500 Eglinton Ave. W. paralleling station (where the soil and groundwater has been impacted by PHCs, VOCs, metals, and inorganics), in “accordance with Ontario Regulation 153/04 a Risk Assessment (RA) approach is proposed (Golder Associates Ltd., January 2013) ... to protect human health and the environment during and following construction” (Draft EPR; February 2014; page 6-41). The discussion concerning the types of contamination and the approaches taken to managing the contamination at these sites provides a basis for understanding their conclusions concerning potential footprint, construction, and operations/maintenance effects and recommended mitigative measures.</p> <p>► With respect to the Ordnance St. paralleling station, the type(s) of contamination impacting the soil and/or groundwater and the approach taken to managing the contamination are not discussed. As a reviewer, without some background information concerning these issues, it is difficult to understand how the conclusions and recommendations were reached.</p>	<p>► Acknowledged.</p> <p>► Acknowledged.</p> <p>► With respect to the Ordnance paralleling station, as outlined in Section 6.5.1.3 of the Draft EPR:</p> <p>There is potential for disturbance of contaminated soil and/or groundwater during construction at the Ordnance paralleling station site. Improperly handled excess contaminated soil and contaminated groundwater pumped during dewatering (if any) has the potential to contaminate property and surface water, respectively. Without appropriate preventative measures, workers can be exposed to unacceptable levels of contamination during construction. Dust generated during construction can spread contamination.</p> <p>Therefore, the following mitigation measures, based on best management practices, will be implemented to manage contamination:</p> <ul style="list-style-type: none"> <li>• A health and safety plan be developed and implemented for construction workers;</li> <li>• Contaminated soils and groundwater will be managed in accordance with provincial legislation and regulations (i.e., Ontario Environmental Protection Act, Ontario Regulation 347, Transportation of Dangerous Goods Act and Regulations, Ontario Regulation 153/04).</li> <li>• An excess materials management plan will be developed and implemented;</li> <li>• Pumped groundwater (if required) will be treated such that discharge complies with prevailing TRCA and City of Toronto water guidelines and requirements;</li> <li>• Dust control will be practiced during construction.</li> </ul> <p>It is noted that in 2010, SPL Beatty completed a Phase 1 and Phase 2 Environmental Site Assessment that included the Ordnance location. The report recommendations are being followed by Metrolinx in relation to managing contaminated material.</p>
Ministry of Transportation	TPAP Phase	Highway Engineering - Our biggest concern is our near and long term construction projects.	<p>► UP Express electrification does not require more frequent train operation than the Diesel trains. Therefore, no additional impacts are anticipated in relation to train operation to 401/427 rehabilitation projects due to UP Express Electrification. There will be proper process/procedure setup and agreed between Metrolinx and stakeholders for the maintenance and stakeholder projects for the bridges, including 401 and 427. Once the agreement and process is set, there are no anticipated obstacles for the bridge deck replacements and other MTO projects in the next 20 years.</p> <p>► Metrolinx has undertaken a utility assessment for the UP Express electrification project. Utilities that are in proximity to or cross the UP Express ROW were identified, and potential impacts were assessed, and mitigation measures established as required. For the future upcoming utility projects on Hwy 427, an additional utility assessment will need to be carried out during the detail design stage. If required, Metrolinx will consult with the MTO on any proposed mitigation measures.</p> <p>► Metrolinx will inform MTO during the detail design stage, if there is a potential impact on this structure and work with MTO to mitigate any potential impacts.</p>
		We have some projects on Hwy 427 going over the next couple of years, including rehabilitation/widening of the 427 structure that these OCS will be attached to. Also, with the electrical facilities attached to our 401 and 427 structure, will we be able to complete a proper structure rehab in the future? It will be hard enough getting time to work, based on the expected frequency of the trains, but will we be able to remove the facilities when we do deck replacement in 20 years or so?	
		Electrical - There may be possible conflicts with MTO lighting systems on Hwy 401 and Hwy 427 where train structures will be constructed. Metrolinx must investigate and verify all existing MTO electrical systems in the area affected. Metrolinx must provide approved methods to maintain the MTO systems if affected. Please note that there is a Hwy 427 widening project, which may be tendered in the near future. Highmast lighting will be installed on Hwy 427 under this project.	
		MTO understands there is a structure just north of Site # 37-763 (on Kipling Avenue) within the UP Express route. MTO needs to be informed should the potential work on this structure affect Site # 37-763 and its ROW.	

	Consultation Phase	Comment/Issue Raised by Review Agency	Consideration of Comment/Issue by Metrolinx
Ministry of Tourism, Culture and Sport	TPAP Phase	MTO requires an exhaustive repair to the soffit and fascia of the other 8 structures along UP Express route (6 structures at its intersection with Hwy 427 and two at 401),	► Acknowledged. Metrolinx will take into account MTO’s request during the detailed design stage
		MTO requires a structural evaluation to be performed on the above-mentioned structures to investigate the effect of any additional loading (including, but not limited to, the OCS attachments to the soffit) imposed on the structures as a result of this project.	► Acknowledged. Metrolinx will take into account MTO’s request during the detailed design stage.
		Further drawings, to the standard accepted by MTO, are required to show the details of the OCS attachment to the bottom flange of pre-stressed CPCI girders for Site # 37-984/1 & /2 (Hwy 427) and the precaution measures undertaken to avoid any damage to the pre-stressed strands.	► Acknowledged. Metrolinx will take into account MTO’s request during the detailed design stage.
		1a). Metrolinx Interim Cultural Heritage Management Process (2013)  ► Both the CHAR and the Draft Environmental Project Report (Section 4.6) reference the “Metrolinx’s “internal Draft Heritage Protocol (Draft Protocol hereafter)”. Metrolinx finalized this document in Fall of 2013 under the title, Metrolinx Interim Cultural Heritage Management Process (2013). Accordingly, the reports for this EA should be revised to reflect the correct document.	► The EPR and CHAR have been updated to include the reference to “Metrolinx Interim Cultural Heritage Management Process (2013)”.
		1b) In addition, the text in the CHAR (section 2.1 page 2-3) and the draft EPR (section 4.6.1 page 30-31) should be revised and updated to reflect the language and content of the Metrolinx Interim Cultural Heritage Management Process (2013). For example, the term “qualified persons” should be used instead of “a qualified heritage specialist”. The evaluation process described would result in a CHER and a CHE Recommendation Report. We note that section 2.1 includes extensive description of the Process. This should be updated accordingly.	► The EPR and CHAR have been updated to reflect the reference to the term “qualified persons” instead of “a qualified heritage specialist”.
		2. “Metrolinx Status”  ► The Draft EPR (section 4.6.2) and the corresponding Tables (Tables 4.2 and 6.2) use the term “Metrolinx Status” to “reflect the current status of each CHR in accordance with the evaluation process for determining cultural heritage value or interest” (page 31). Properties owned by Metrolinx are identified as “Potential Provincial Heritage Property” and those owned or co-owned by another party (i.e., the City of Toronto?) as being “Conditional Heritage Property”.  ► These terms are confusing and conflate two distinct concepts. From a heritage perspective, the term “potential” refers to a property that has been identified but not yet evaluated under O.Reg 9/06 or 10/06. As such the cultural heritage value or interest of the property has not yet been determined. MTCS suggests using the term “Heritage Status” instead of “Metrolinx Status”. The column could then record whether or not that property has been evaluated under the O.Reg 9/06 or 10/06 of the OHA and /or the result of the CHER.  ► An additional column could be added to indicate property ownership, and as such whether the Standards & Guidelines for Conservation of Provincial Heritage Properties (S&Gs) would apply.	► Correct.  ► To provide clarification, the term “Potential Provincial Heritage Property” is referenced in the EPR and CHAR in accordance with the definitions as outlined in the Metrolinx Interim Cultural Heritage Management Process (2013). It is noted that the cultural resources (CHR) identified in the EPR/CHAR have not yet been evaluated under O. Reg 9/06 or O. Reg, 10/06 as part of the EA phase. Once the CHER’s have been undertaken as required (as part of detailed design phase), the status of each CHR will be updated to reflect the results of the CHER. Therefore, for the purposes of the EPR/CHAR, no change to the “Metrolinx Status: column heading has been made.  ► It is noted that in some cases, there may be joint ownership of bridge/rail overpass structures (e.g., City of Toronto and Metrolinx). In addition, ownership of bridges/rail overpasses may be governed by agreements, which will need to be further discussed with the City of Toronto during the detailed design phase. Accordingly, where Metrolinx has authorization to alter a heritage structure, Metrolinx will follow the Metrolinx Interim Cultural Heritage Management Process (2013).
		3) Table 6.2 Draft EPR  In addition to the recommendations above, MTCS would suggest that the Table 6.2 include the specific potential impacts and also the proposed mitigation that is included in the body of the report. As an example, would be a format similar to Table 6.3.1.1-1 in the Environmental Project Report for the Georgetown South Service Expansion and Union-Pearson Rail Link.	► Chapter 6 of the Final EPR includes a comprehensive summary of the potential impacts and mitigation measures for potentially affected cultural heritage resources. This table was not provided in the information package submitted to the MTCS however it will be included in the Final EPR. This table will be updated to reflect MTCS’s comments as appropriate as part of finalizing the EPR. As a result, no revisions to Table 6-2 were required.
		4a) Bathurst Street Bridge (CHR1) ► The Draft EPR – section 6.6.1.1 (page 47) states the potential effects to this CHR include displacement of heritage attributes and/or disruption of setting due to the addition of a bridge protection barrier. We note the CHAR includes the potential Construction Impacts (Section 3.1.1.3 – page 9-10) that are not mentioned in the draft EPR.	► It is noted that the potential construction impacts to all bridges and associated list of mitigation measures was included in EPR Section 6.6.1.5. However Section 6.6.1.5 is applicable to both bridge CHR’s as well as the Fort York Heritage Conservation District. Therefore, separate headings will be added to this section to distinguish the bridge-related construction effects and mitigation from the Fort York-related construction effects and mitigation.
		4b) Bathurst Street Bridge (CHR1) The Draft EPR – section 6.6.1.1 (page 47) recommends the following mitigation/monitoring measures:  ► Carry out a Cultural Heritage Evaluation Report (CHER) to identify heritage value and attributes (during detailed design); ► If found to have cultural heritage value in accordance with the Metrolinx Draft Heritage Protocol ► Heritage Impact Assessment (HIA) will be conducted (during detailed design) to further identify potential	The mitigation measures proposed for the Bathurst St. Bridge will be augmented within the Final EPR and Final CHAR to include the following:  ► During detail design, the Heritage Impact Assessment (HIA) be developed in consultation with MTCS and City Heritage Preservation Services

Consultation Phase	Comment/Issue Raised by Review Agency	Consideration of Comment/Issue by Metrolinx
	<p>impacts and appropriate mitigation measures;</p> <ul style="list-style-type: none"> <li>▶ Undertake detail design of the bridge following the recommendations (e.g., heritage attributes to be conserved) outlined in the HIA;</li> <li>▶ Follow Metrolinx Draft Heritage Protocol for managing heritage assets</li> </ul> <p><i>MTCS Comments and Recommendations:</i></p> <ul style="list-style-type: none"> <li>▶ Please be aware that the Bathurst Street Bridge is also listed on the Ontario Heritage Bridge List</li> <li>▶ In addition to the recommendations in the Draft Environmental Project Report, MTCS recommends that the during detail design, the Heritage Impact Assessment (HIA) be developed in consultation with MTCS and City Heritage Preservation Services</li> </ul>	
	<p>4c) King Street Subway (CHR3)</p> <p>The Draft EPR (page 49) states the potential effects to this CHR include displacement of heritage attributes and/or disruption of setting due to the addition of an OCS structure attachment to the bridge. We note the CHAR includes the potential Construction Impacts (Section 3.1.2.3 – page 11) that are not mentioned in the draft EPR.</p> <ul style="list-style-type: none"> <li>▶ The Draft EPR states that the mitigation/monitoring measures in section 6.6.1.1 of the Draft EPR (page 47) are also recommended for the King Street Bridge. Accordingly, MTCS Comments and Recommendations stated above should also be considered.</li> </ul>	<p>▶ It is noted that the potential construction impacts to all bridges/rail overpasses and associated list of mitigation measures was included in EPR Section 6.6.1.5. However Section 6.6.1.5 is applicable to both bridge CHRs as well as the Fort York Heritage Conservation District. Therefore, separate headings will be added to this section to distinguish the bridge-related construction effects and mitigation from the Fort York-related construction effects and mitigation.</p> <p>In addition, the mitigation measures as outlined in Section 6.6.1.1 of the EPR will be augmented within the Final EPR and Final CHAR to reflect the following:</p> <ul style="list-style-type: none"> <li>▶ During detail design, the Heritage Impact Assessment (HIA) be developed in consultation with MTCS and City Heritage Preservation Services</li> </ul>
	<p>4d) Fort York and Garrison Common National Historic Site and Heritage Conservation District</p> <p>The Draft EPR (page 53) states the potential effects include potential displacement and/or disruption of the original alignment of Garrison Creek, obstruction/disruption of identified/protected views (Viewpoints 4, 9e, and 20), and/or disruption of setting through the introduction of light sources (required for safety/security).</p> <p>In addition, the Draft EPR states that there will be additional impacts associate with the construction activities associated with installing bridge protection barriers, OCS attachments, and grounding grids to bridges will have potential short-term disruption effects (e.g., introduction of physical, visual, noise-related, and atmospheric elements that are not in keeping with the character of the bridge) to the setting of those bridges that have been identified as CHRs, and to the setting of Fort York Precinct. In addition, the construction activities associated with installing the paralleling station components have the potential to disturb/displace the original alignment of Garrison Creek and the original topography of Garrison Creek Ravine through the removal of soil.</p> <p>The Draft EPR (page 53-54) recommends the following mitigation/monitoring measures:</p> <ul style="list-style-type: none"> <li>▶ A Visual Impact Assessment (VIA) should be carried out to determine the impact of the Paralleling Station on identified viewpoints to and from Fort York;</li> <li>▶ Carry out a Stage 2 archaeological assessment for the paralleling station site, as recommended through the Stage 1 Archaeological Assessment completed as part of the EA (see Appendix D)</li> <li>▶ During detailed design, lighting (required for safety/security) within the Paralleling Station should be designed to have minimal impact to the darkness of Fort York; and,</li> <li>▶ The detail design plans for the Paralleling Station should be submitted to Heritage Preservation Services at the City of Toronto (<a href="http://www.toronto.ca/heritage-preservation/">http://www.toronto.ca/heritage-preservation/</a>) and to the Friends of Fort York (<a href="http://www.fortyork.ca/contact.html">http://www.fortyork.ca/contact.html</a>) for review and comment prior to construction.</li> </ul>	<p>▶ Acknowledged, no change to the EPR or CHAR required.</p>

Consultation Phase	Comment/Issue Raised by Review Agency	Consideration of Comment/Issue by Metrolinx
	<p>In addition the Draft EPR (page 54) recommends the following mitigation/monitoring measures for potential construction impacts:</p> <ul style="list-style-type: none"> <li>► To minimize these potential temporary effects, staging areas should be carefully selected so that they are non-invasive and avoid all heritage attributes.</li> <li>► In addition, pre-construction vibration studies may be required to mitigate any potential vibration related impacts (to be determined during detailed design).</li> <li>► Pre-construction conditions should be re-established through post-construction landscape treatments, where appropriate. If possible, construction activities should avoid the removal of soil in the vicinity of Garrison Creek and the former Garrison Creek Ravine.</li> </ul>	
	<p>4e) Existing GO Rail Corridor (CHR28)</p> <ul style="list-style-type: none"> <li>► The Draft EPR (footnote page 45) and CHAR (January 2014) indicate that heritage attributes of the rail corridor, which consist of the alignment, width right-of way, and arrangement of tracks, will not be impacted by the current proposed Electrification EA.</li> <li>► However, Table 10 of the CHAR states that “Portal structures to be erected approximately every 5—65 m along the rail”. Was the visual impact of these portal structures considered? This would be of particular concern where the corridor runs through or adjacent to Heritage Conservation Districts.</li> </ul>	<ul style="list-style-type: none"> <li>► Yes – the visual impact of implementing OCS support structures every 50 – 65 meters along the corridor was considered as part of a separate Visual Impact Assessment (VIA) that was undertaken as part of the EA. The results of this VIA will be included in the Final EPR document.</li> </ul>
	<p>4f) Phase 1 and 2 Weston HCD</p> <ul style="list-style-type: none"> <li>► The Draft EPR states that this section of the study area is located in proximity to: <ul style="list-style-type: none"> <li>• Phase 1 Weston HCD</li> <li>• Phase 2 Weston HCD</li> </ul> </li> <li>► See MTCS’s comments above regarding visual impacts of the portal structures along the rail line. Were visual impacts of the portal structures considered in regard to the HCDs?</li> </ul>	<ul style="list-style-type: none"> <li>► The Visual Impact Assessment considered the potential visual effects of the OCS support structures in the vicinity of the two HCDs. The results of this VIA will be included in the Final EPR document.</li> </ul>
	<p>4g) 3500 Eglinton Avenue West (former Kodak Lands) (CHR 29)</p> <ul style="list-style-type: none"> <li>► The footnote to Table 6.2 states: “The potential impacts and mitigation measures related to developing the entire 3500 Eglinton Ave. W. property were previously assessed as part of the Final Eglinton Crosstown LRT EPR Addendum (October 2013), therefore there will be no new adverse effects on CHRs associated with the paralleling station footprint on this site”.</li> <li>► On October 10, 2013 MTCS provided comments on the Eglinton Crosstown LRT EA (Addendum), including recommendations for the Kodak Property. At that time MTCS had not seen the CHER or the HIA that had been completed for the Kodak Property. We are still awaiting receipt of the CHER and Metrolinx’s Heritage Review Committee’s decision form confirming the cultural heritage value of this property.</li> </ul>	<ul style="list-style-type: none"> <li>► The Metrolinx Heritage Committee has evaluated the CHER for Building #9 on 3500 Eglinton Ave. W. It was determined that Building #9 is a Provincial Heritage Property. The Metrolinx Heritage Committee Decision Form will be submitted to MTCS in due process.</li> <li>► Metrolinx has committed to preservation and restoration of Building #9 as part of the Eglinton Crosstown development.</li> </ul>
	<p>4h) Wallace Avenue Pedestrian Bridge (CHR 7)</p> <ul style="list-style-type: none"> <li>► The Draft EPR (page 55) states the potential effects to this CHR include displacement of heritage attributes and/or disruption of setting due to the addition of a bridge protection barrier, attachment of a grounding grid, and potential alteration of the bridge deck to accommodate the OCS. We note the CHAR includes the potential Construction Impacts (Section 3.2.1.3 – page 26-27) that are not mentioned in the draft EPR.</li> <li>► The Draft EPR states that the mitigation/monitoring measures in section 6.6.1.1 of the Draft EPR (page 47) are also recommended for the Wallace Avenue Pedestrian Bridge. Accordingly, MTCS Comments and Recommendations stated above should also be considered.</li> </ul>	<ul style="list-style-type: none"> <li>► It is noted that the potential construction impacts to all bridges and associated list of mitigation measures was included in EPR Section 6.6.1.5. However Section 6.6.1.5 is applicable to both bridge CHRs as well as the Fort York Heritage Conservation District. Therefore, separate headings will be added to this section to distinguish the bridge-related construction effects and mitigation from the Fort York-related construction effects and mitigation.</li> </ul> <p>In addition, the mitigation measures as outlined in Section 6.6.1.1 of the EPR will be augmented within the Final EPR and Final CHAR to reflect the following:</p> <ul style="list-style-type: none"> <li>► During detail design, the Heritage Impact Assessment (HIA) be developed in consultation with MTCS and City Heritage Preservation Services</li> </ul>
	<p>4i) Rogers Road Bridge (CHR B5)</p> <ul style="list-style-type: none"> <li>► The Draft EPR (page 56) states the potential effects to this CHR include displacement of heritage attributes and/or disruption of setting due to the addition of a bridge protection barrier, attachment of a grounding grid. We note the CHAR includes the potential Construction Impacts (Section 3.2.2.3 – page 27-28) that are not mentioned in the draft EPR.</li> </ul>	<ul style="list-style-type: none"> <li>► It is noted that the potential construction impacts to all bridges and associated list of mitigation measures was included in EPR Section 6.6.1.5. However Section 6.6.1.5 is applicable to both bridge CHRs as well as the Fort York Heritage Conservation District. Therefore, separate headings will be added to this section to distinguish the bridge-related construction effects and mitigation from the Fort York-related construction effects and mitigation.</li> </ul> <p>In addition, the mitigation measures as outlined in Section 6.6.1.1 of the EPR will be augmented within the Final EPR</p>

	Consultation Phase	Comment/Issue Raised by Review Agency	Consideration of Comment/Issue by Metrolinx
		<p>► The Draft EPR states that the mitigation/monitoring measures in section 6.6.1.1 of the Draft EPR (page 47) are also recommended for the Rogers Road Bridge. Accordingly, MTCS Comments and Recommendations stated above should also be considered.</p>	<p>and Final CHAR to reflect the following:</p> <ul style="list-style-type: none"> <li>► During detail design, the Heritage Impact Assessment (HIA) be developed in consultation with MTCS and City Heritage Preservation Services</li> </ul>
		<p>4i ) Jane Street Bridge (CHR B8)</p> <p>► The Draft EPR (page 56) states the potential effects to this CHR include displacement of heritage attributes and/or disruption of setting due to the addition of a bridge protection barrier. We note the CHAR includes the potential Construction Impacts (Section 3.2.3.3 – page 29-30) that are not mentioned in the draft EPR.</p> <p>► The Draft EPR states that the mitigation/monitoring measures in section 6.6.1.1 of the Draft EPR (page 47) are also recommended for the Jane Street Bridge. Accordingly, MTCS Comments and Recommendations stated above should also be considered.</p>	<p>► It is noted that the potential construction impacts to all bridges and associated list of mitigation measures was included in EPR Section 6.6.1.5. However Section 6.6.1.5 is applicable to both bridge CHRs as well as the Fort York Heritage Conservation District. Therefore, separate headings will be added to this section to distinguish the bridge-related construction effects and mitigation from the Fort York-related construction effects and mitigation.</p> <p>In addition, the mitigation measures as outlined in Section 6.6.1.1 of the EPR will be augmented within the Final EPR and Final CHAR to reflect the following:</p> <ul style="list-style-type: none"> <li>► During detail design, the Heritage Impact Assessment (HIA) be developed in consultation with MTCS and City Heritage Preservation Services</li> </ul>
		<p>4k) Humber River Rail Overpass (CHR 13)</p> <p>► The Draft EPR (page 57-58) states the potential effects to this CHR include displacement of heritage attributes and/or disruption of setting (i.e. brick piers with stone footings, gunite repairs and board finish on the south side of the bridge) due to the proposed attachment of OCS portal structures to the bridge piers (via wall brackets).</p> <p>► The Draft EPR indicates additional impacts resulting from construction activities associated with attaching OCS portal structures to the bridge (e.g., introduction of physical, visual, noise-related, and atmospheric elements that are not in keeping with the character of the bridge). And potential for short-term disruption effects to the bridge piers due to the use of scaffolding and attachment of brackets.</p> <p>► The Draft EPR recommends the following mitigation measures as outlined in Section 6.6.1.5 (i.e those for Garrison Creek) are to be implemented:</p> <p style="padding-left: 40px;"><i>To minimize these potential temporary effects, staging areas should be carefully selected so that they are non-invasive and avoid all heritage attributes. In addition, pre-construction vibration studies may be required to mitigate any potential vibration related impacts (to be determined during detailed design). Pre-construction conditions should be re-established through post-construction landscape treatments, where appropriate. If possible, construction activities should avoid the removal of soil in the vicinity of Garrison Creek and the former Garrison Creek Ravine.</i></p> <p>► Please confirm that the reference to Section 6.6.1.5 is correct.</p>	<p>► The reference to section 6.6.1.5 is correct, however it is noted that the list of mitigation measures documented in Section 6.6.1.5 are applicable to bridge CHRs as well as the Fort York Heritage Conservation District. Therefore, separate headings will be added to this section to distinguish the bridge-related construction effects and mitigation from the Fort York-related construction effects and mitigation.</p> <p>► To clarify, the proposed mitigation measures to address potential short-term disruption effects (e.g., introduction of physical, visual, noise-related, and atmospheric elements that are not in keeping with the character of the Humber River Bridge are as follows:</p> <ol style="list-style-type: none"> <li>Staging areas should be carefully selected so that they are non-invasive and avoid heritage attributes.</li> <li>Pre-construction vibration studies may be required to mitigate any potential vibration related impacts</li> <li>Pre-construction conditions should be re-established through post-construction landscape treatments.</li> </ol>
		<p>4l) Humber River Rail Overpass (CHR 13)</p> <p>► It should be noted that Golder Associates evaluated the bridge and found that the Humber River Rail Overpass (also referred to as the Humber River Bridge) was determined to have cultural heritage value and has local and provincial significance.</p> <p>► In 2011 MTCS provided comments on the Humber River Bridge as part of the Georgetown South Service Expansion and Union–Pearson EA. It appears that the CHER is under review by the Metrolinx Heritage Review Committee. MTCS is still awaiting the Committee’s decision form regarding this bridge.</p>	<p>► To provide clarification, as outlined in the draft EPR:</p> <p>► The Humber River Rail Overpass was previously evaluated, via a Heritage Impact Assessment (HIA) that was completed in 2011 (by Golder Associates on behalf of Metrolinx) as part of fulfilling the EA approval conditions associated with the Georgetown South Service Expansion and Union-Pearson Rail Link EA, and documented in a report entitled: Heritage Impact Assessment, St. Claire Subway to Highway 27 Overpass, Seven Subways, Two Railway Underpasses, One Railway Overpass, Two Residences, and Two Cultural Heritage Landscapes, Georgetown South Service Expansion and Union Pearson Rail Link, City of Toronto, Ontario. (Golder Associates, 2011).</p> <p>► The 2011 HIA recommended that the bridge be classified as a Provincial Heritage Property of Provincial Significance.</p> <p>► It is further noted that a CHER for the Humber River Bridge is to be undertaken following completion of Georgetown South Project construction works, in order to identify heritage attributes. The CHER will then be reviewed by the Metrolinx Heritage Committee. Once the Metrolinx Heritage Committee approves the CHER recommendations(s), a <i>Metrolinx Heritage Committee Decision Form</i> will be prepared and submitted to the MTCS.</p>
Ministry of Natural Resources	TPAP Phase	<p>► Thank you for the notification. Is this (Notice of Commencement) telling me that the “electrification” will be contained within the existing rail routes and suspended from existing structures? Also, will any heavy equipment be necessary to install the wiring?</p>	<p>► With regard to your first question, the preferred power distribution system for UP Express electrification is an Overhead Contact System (OCS) that is comprised of a wiring system which will provide power to the electric trains. The wiring system will be suspended from new OCS support structures (i.e., portals, cantilevers) placed along and over the track, including on bridges/overpasses where required. The majority of OCS support structures will be situated within the existing Metrolinx rail Right-of-Way (ROW), except for a small number of locations where the structures cannot be accommodated within the existing ROW.</p> <p>In addition to OCS support structures, there are four facilities that will need to be built to support electrification, all of which are located outside of the rail corridor. The proposed locations of these facilities are as follows:</p>

	Consultation Phase	Comment/Issue Raised by Review Agency	Consideration of Comment/Issue by Metrolinx			
			<ul style="list-style-type: none"><li>• Traction Power Substation (TPS) - in the vicinity of CityView Drive and the rail corridor<ul style="list-style-type: none"><li>➤ The TPS is being assessed under the Class EA for Minor Transmission Facilities by Hydro One</li></ul></li><li>• Paralleling Station (PS) - in the vicinity of Eglinton Ave West and the rail corridor<ul style="list-style-type: none"><li>➤ The PS is being assessed under the Transit Project Assessment Process by Metrolinx</li></ul></li><li>• Paralleling Station (PS) - in the vicinity of Strachan Ave and the rail corridor<ul style="list-style-type: none"><li>➤ The PS is being assessed under the Transit Project Assessment Process by Metrolinx</li></ul></li><li>• Maintenance Facility - in the vicinity of Islington Avenue and the rail corridor<ul style="list-style-type: none"><li>➤ The Maintenance Facility is being assessed under the Transit Project Assessment Process by Metrolinx</li></ul></li></ul> <p>Regarding your second question related to heavy equipment required for construction, the proposed methods for installing the new OCS portals/cantilever and overhead wires are as follows:</p> <p>a) Installation of the OCS foundations (approximately every 50-65m along the corridor)</p> <p>b) Installation of OCS Portal/Cantilever Structures</p> <ul style="list-style-type: none"><li>• Once foundations are in place, OCS portal/cantilever structures will be installed - structures to be transported to the site either by truck or railcar.</li><li>• For portals: structures are pre-assembled and ready to lift</li><li>• Erect structures using track crane</li></ul> <p>c) Install OCS Wiring</p> <ul style="list-style-type: none"><li>• Typically completed using a four vehicle wiring unit on the rail corridor</li></ul> <p>d) Construction of facilities – this will require the typical equipment used for construction of facilities</p>			
Hydro One Networks Inc.	Pre-Planning Phase	► Hydro One requested an overview of the electrical clearance requirements related to the UP Express OCS system for their review.	► A detailed memo was submitted by Metrolinx to Hydro One on October 28, 2013 that outlined the electrical clearance requirements for Metrolinx electrification of UP Express in order to assist identifying potential conflicts between the Metrolinx overhead contact system (OCS) clearance requirements and Hydro One clearance requirements.			
	TPAP Phase	► Related to the “Hydro One Clearance Requirements” part of the October 2013 memo, please note that this type of work where our facilities (lines) must be modified or relocated to accommodate third party projects is handled independently of any other connection work HONI’s actions and undertakings to accommodate your proposal will be done due to your project. To ensure understanding of the basis of our participation and the terms of our undertaking, Metrolinx and HONI will enter into our form of Study Agreement; this Agreement will allow us to more fully examine the feasibility of your proposal to Hydro One’s facility impacts.	► Acknowledged. Metrolinx will carry out the Study Agreement process during the detailed design phase, as required, in accordance with Hydro One’s established process.			
MUNICIPAL AGENCIES						
City of Toronto	Pre-Planning Phase	► Request to provide draft design drawings for City-owned bridges for review and comment.	► An information package was provided to the City on September 19, 2013 containing preliminary design drawings of City-owned bridges. The package also included draft site plans for each of the proposed traction power facilities and EMU Maintenance Facility.			
		► More detailed information on potential easement requirements associated with duct banks at 3500 Eglinton Ave. W. is required.	► Detailed information on the potential easement requirements for installation of ductbanks along Ray Avenue were provided via the December 9 2013 information package that was submitted to the City of Toronto. Information regarding duct banks and potential easements was also provided via an additional information package submitted to the City on February 21, 2014.			
		► Potential traffic effects related to implementation of the Resources Road Maintenance Facility should be considered as part of the EA.	► In response to the City’s request, a Traffic Impact Study was prepared by Metrolinx for the proposed EMU Maintenance Facility at Resources Rd. The scope of the study included but was not limited to: preparing a forecast of site traffic, completing an operational analysis for future background traffic conditions using a 2020 horizon year. The results of the Traffic Impact Study will be documented in the Final EPR, including any proposed mitigation measures. In addition, it is noted that a copy of the Traffic Impact Study was provided to the City for their information/review.			
		► How would inspection/maintenance/repairs to City Bridges occur once OCS is attached to the bridges?		Typical Maintenance Activity (no OCS)	New Requirements (with OCS)	

	Consultation Phase	Comment/Issue Raised by Review Agency	Consideration of Comment/Issue by Metrolinx				
			1	Track patrol / visual inspection from ground level	No requirement for de-energization or removal of the OCS system		
			2	Planned / Routine Maintenance of bridge	OCS to be de-energized over electrified lines to eliminate risk of electric shock to bridge maintenance team.  No requirement for removal of OCS equipment.		
			3	Extensive maintenance to bridge soffit in the vicinity of OCS attachments	OCS to be de-energized over electrified lines to eliminate risk of electric shock to bridge maintenance team.  OCS equipment may require removal to if extensive repairs are required to the bridge / tunnel soffit.		
		► Requested confirmation of who owns the retaining walls under the Strachan Avenue Bridge.	► The retaining walls under Strachan Avenue Bridge are owned by Metrolinx.				
		► Regarding Wallace Ave. Pedestrian Bridge: review of structural drawings and latest condition survey reports to determine if the bridge has the capacity for the additional required bridge barriers.	► An additional review and condition survey will be carried out prior to implementation of electrification to determine if the bridge has the capacity for the required bridge barriers.				
		► Requested that Metrolinx confirm the new John Street, King Street and Church Street bridges (at the Weston Tunnel) have the required bridge barriers (for electrification) incorporated into their designs.	► For the Church St. and King St. bridges, we have reviewed the designs for these two bridges and have determined that additional bridge barriers will not be required as part of electrification of the UP Express route. The current bridge barriers will provide adequate protection / pedestrian safety in relation to electrification of the UP Express route. The John St bridge is at 95% completion. Therefore, the final design will be reviewed to ensure that adequate protection / pedestrian safety for electrification is provided.				
		► How will post-construction damage to be repaired?	► A pre-construction conditions survey will be completed by the contractor prior to commencement of construction work. A post-construction conditions survey will be undertaken after completion of construction and final restoration sign-off will be required jointly between any affected parties and Metrolinx.				
		► Additional information requested regarding consideration of different options for portal styles (with different visual appearances).	► Metrolinx's Design Review Team will be involved in reviewing potential options for portal structure styles during the Detailed Design phase.				
		► Are there potential impacts related to stray current as a result of the electrified system?	► In the case of AC traction (which will be implemented for UP Express Electrification), the earth (ground) is a part of the intended return current path for AC traction. Therefore, there is no stray current flow through the ground associated with AC traction. As a result, no corrosion of buried metallic bodies along the path of the return current is anticipated with respect to electrification of the UP Express.				
		► At the Sudbury Street portal location (potential horizontal conflict), the City suggested a workshop with City Street Furniture Group to determine how best to locate the OCS poles in this area, which will consider the City's restoration plan for this area from the current construction work in the area.	► As part of detailed design, Metrolinx will consult with the City of Toronto to review design options and to determine the final design and location of OCS poles in the Sudbury St. area.				
		► A meeting with the City Planning department is required in order to further discuss/confirm: Zoning as it relates to the proposed traction power facility sites, setbacks and urban design standards for industrial/commercial areas, confirmation of Site Plan approval requirements, etc.	► A follow up meeting was scheduled to further discuss zoning, setbacks, site plan approval requirements, etc. It is noted that Metrolinx's Design Review Team will be engaged in the review of traction power facility (TPF) designs prior to subsequent TPS design submissions/consultation with the City.				
	TPAP Phase	<b>Rod Robbie Pedestrian Bridge:</b> ► Has the bridge been evaluated to determine feasibility of installing protection barriers (capacity to withstand significant additional wind loading)? ► How will the protection barriers be designed to minimize impacts on existing architectural features of the bridge? ► If transparent barriers are installed, who is responsible for maintenance/cleaning?	► Bridge evaluation to determine feasibility of installing protection barriers and the design of protection barriers will be undertaken during the detailed design phase. Responsibility for maintenance/cleaningof the protection barriers will be determined according to the agreement governing the particular bridge.				
		<b>Peter Street/Blue Jays Way Bridge:</b> ► Has the bridge been evaluated to determine feasibility of installing protection barriers (capacity to withstand significant additional wind loading)? ► Bridge type - precast concrete girders with concrete deck (error in MX report). Will a grounding grid be required? ► If transparent barriers are installed, who is responsible for maintenance/cleaning?	► Bridge evaluation to determine feasibility of installing protection barriers and the design of protection barriers will be undertaken during the detailed design phase. Responsibility le for maintenance/cleaning of the protection barriers will be determined according to the agreement governing the particular bridge				
		<b>Spadina Avenue Bridge</b> ► Has the bridge been evaluated to determine feasibility of installing protection barriers (capacity to withstand significant additional wind loading)? ► City cannot comment on TTC owned portion of the bridge.	► Bridge evaluation to determine feasibility of installing protection barriers, extent and type of bridge rehabilitation, mitigation of galvanic reactions, and the verification of bridge types will be undertaken during the detailed design phase. Pending the establishment of agreements, it is expected that the bridge owner will be responsible for maintenance/cleaning of the protection barriers. All bridge owners will be duly informed as required.				

Consultation Phase	Comment/Issue Raised by Review Agency	Consideration of Comment/Issue by Metrolinx
	<ul style="list-style-type: none"> <li>▶ Has Metrolinx provided this information to TTC?</li> <li>▶ Maintenance issues associated with connections of OCS and Grounding Grid are a concern to the City. How will rehabilitation in these areas occur? Who will be responsible for removal and reinstatement of the elements to allow for rehabilitation?</li> <li>▶ Does the connection of the OCS have the potential for galvanic reactions that may result in accelerated deterioration of the steel in that area?</li> <li>▶ Bridge type - steel box girders with a concrete deck (error in MX report). Will a grounding grid be required?</li> <li>▶ If transparent barriers are installed, who is responsible for maintenance/cleaning?</li> </ul>	<ul style="list-style-type: none"> <li>▶ A meeting with the Toronto Transit Commission (TTC) was held on March 10, 2014 to provide an overview of the preliminary design work completed to date and EA process. Some of the key topics discussed included: clearance requirements, proposed OCS attachments to Spadina bridge, maintenance implications, TTC subway crossing locations, and potential EMI related effects of the proposed UP Express traction electrification system.</li> <li>▶ As requested by TTC, a supplemental information package was provided to them for their information/review on March 18, 2014.</li> </ul>
	<p><b>Portland Ave. Pedestrian Bridge</b></p> <ul style="list-style-type: none"> <li>▶ Has the bridge been evaluated to determine feasibility of installing protection barriers (capacity to withstand significant additional wind loading)?</li> <li>▶ How will the protection barriers be designed to minimize impacts on existing architectural features of the bridge?</li> <li>▶ If transparent barriers are installed, who is responsible for maintenance/cleaning?</li> </ul> <p><b>Bathurst Street Bridge</b></p> <ul style="list-style-type: none"> <li>▶ Truss portion of Bathurst Street Bridge is a designated Heritage Bridge. Has the installation of the required barrier been assessed in terms of the impact on the architectural details of the heritage bridge? What approvals are required for modification of a designated heritage structure?</li> <li>▶ City owns and is responsible for the maintenance of the concrete sidewalks and steel brackets. Have the concrete sidewalk and steel brackets been evaluated to determine feasibility of installing protections barriers (capacity to withstand significant additional wind loading)?</li> <li>▶ If transparent barriers are installed, who is responsible for maintenance/cleaning?</li> </ul>	<ul style="list-style-type: none"> <li>▶ Bridge evaluation to determine feasibility of installing protection barriers and the design of protection barriers will be undertaken during the detailed design phase. Responsibility le for maintenance/cleaning of the protection barriers will be determined according to the agreement governing the particular bridge</li> </ul>
	<p><b>Fort York Pedestrian Bridge</b></p> <ul style="list-style-type: none"> <li>▶ Bridge not constructed.</li> <li>▶ City design should make provisions for future track electrification. Additional costs for design/construction associated with provisions to be covered by MX?</li> <li>▶ If transparent barriers are installed, who is responsible for maintenance/cleaning?</li> </ul> <p><b>Strachan Ave. Grade Separation</b></p> <ul style="list-style-type: none"> <li>▶ Are provisions being made in current design to allow for future track electrification?</li> <li>▶ Are the superstructure and parapets designed to withstand the additional wind loading caused by barrier installation?</li> <li>▶ If the City is responsible for the future maintenance of this bridge, maintenance issues associated with connections of OCS and Grounding Grid are a concern to the City. How will rehabilitation in these areas occur? Who will be responsible for removal and reinstatement of the elements to allow for rehabilitation?</li> <li>▶ Does the connection of the OCS have the potential for galvanic reactions that may result in accelerated deterioration</li> </ul>	<ul style="list-style-type: none"> <li>▶ Bridge evaluation to determine feasibility of installing protection barriers, extent and type of bridge rehabilitation, and the verification of bridge types, including heritage structures and associated requirements, will be undertaken during the detailed design phase. Responsibility le for maintenance/cleaning of the protection barriers will be determined according to the agreement governing the particular bridge .</li> <li>▶ With respect to approvals required for heritage structures, Metrolinx acknowledges that the Bathurst Street Bridge is listed as a cultural heritage resource by the City of Toronto (Bathurst St, Heritage Property Detail. City of Toronto Heritage Inventory. Available at &lt;<a href="http://app.toronto.ca/HeritagePreservation/details.do?folderRsn=2433678&amp;propertyRsn=754694">http://app.toronto.ca/HeritagePreservation/details.do?folderRsn=2433678&amp;propertyRsn=754694</a>&gt;. Last accessed 21 August 2013.)</li> <li>▶ As per the Cultural Heritage Assessment Report prepared as part of the EA, potential effects to the Bathurst St. bridge include displacement of heritage attributes and/or disruption of setting due to the addition of a bridge protection barrier.</li> <li>▶ Therefore, the following mitigation/monitoring measures are recommended: <ul style="list-style-type: none"> <li>a) Carry out a Cultural Heritage Evaluation Recommendation Report (CHER) to identify heritage value and attributes (during detailed design);</li> <li>b) If found to have cultural heritage value in accordance with the Metrolinx Interim Cultural Heritage Management Process (2013), a Heritage Impact Assessment (HIA) will be conducted (during detailed design) in consultation with the Ministry of Tourism, Culture and Sport (MTCS) and City of Toronto Heritage Preservation Services to further identify potential impacts and appropriate mitigation measures;</li> <li>c) Undertake final design of the bridge following the recommendations (e.g., heritage attributes to be conserved) outlined in the HIA;</li> <li>d) Follow Metrolinx Interim Cultural Heritage Management Process (2013) for managing heritage assets.</li> </ul> </li> <li>▶ For any properties determined by the Metrolinx Heritage Committee to be of provincial heritage value, Metrolinx will include the property on the list of Provincial heritage properties maintained by the MTCS and will provide all related documents (e.g., CHERs, etc.) as appropriate to MTCS.</li> <li>▶ Furthermore, Ministry of Tourism, Culture and Sport sign-off / agreement will be sought with respect to the findings of additional documentation /studies to be undertaken during detailed design for potentially affected cultural heritage features (including Cultural Heritage Evaluation Recommendation Reports and Heritage Impact Assessments).</li> </ul>
		<ul style="list-style-type: none"> <li>▶ Additional electrification requirements should be incorporated into the final design for Fort York Bridge. Responsibility for maintenance/cleaning of the protection barriers will be determined according to the agreement governing the particular bridge s.</li> </ul>
		<ul style="list-style-type: none"> <li>▶ Provisions for future track electrification and coordination with City bridge design, bridge evaluation to determine feasibility of installing protection barriers, extent and type of bridge rehabilitation, mitigation of galvanic reactions, and the verification of bridge types will be undertaken during the detailed design phase. Responsibility for maintenance/cleaning off the protection barriers will be determined according to the agreement governing the particular bridge. Removal/re-instatement of electrification elements required for bridge rehabilitation/maintenance will be undertaken by Metrolinx in coordination with the bridge owner.</li> </ul>

Consultation Phase	Comment/Issue Raised by Review Agency	Consideration of Comment/Issue by Metrolinx
	<p>of the superstructure in that area? ► If transparent barriers are installed, who is responsible for maintenance/cleaning?</p> <p><b>Dundas Street Bridge</b> ► Has the bridge been evaluated to determine feasibility of installing protection barriers (capacity to withstand significant additional wind loading)? ► Maintenance issues associated with connections of OCS and Grounding Grid are a concern to the City. How will rehabilitation in these areas occur? Who will be responsible for removal and reinstatement of the elements to allow for rehabilitation? ► Does the connection of the OCS have the potential for galvanic reactions that may result in accelerated deterioration of the steel in that area? ► If transparent barriers are installed, who is responsible for maintenance/cleaning?</p> <p><b>Wallace Ave. Pedestrian Bridge</b> ► Has the bridge been evaluated to determine the feasibility of replacing the wooden deck and installing protection barriers (capacity to withstand significant additional wind loading)? ► If transparent barriers are installed, who is responsible for maintenance/cleaning?</p> <p><b>Rogers Road Bridge</b> ► Has the bridge been evaluated to determine feasibility of installing protection barriers (capacity to withstand significant additional wind loading)? ► If transparent barriers are installed, who is responsible for maintenance/cleaning?</p> <p><b>Jane Street Bridge</b> ► Has the bridge been evaluated to determine feasibility of installing protection barriers (capacity to withstand significant additional wind</p>	<p>► Bridge evaluation to determine feasibility of installing protection barriers will be undertaken during the detailed design phase. Responsibility for maintenance/cleaning the protection barriers will be determined according to the agreement governing the particular bridge</p> <p>► Bridge evaluation to determine feasibility of installing protection barriers and the design of protection barriers will be undertaken during the detailed design phase Responsibility for maintenance/cleaning of the protection barriers will be determined according to the agreement governing the particular bridge</p> <p>► Bridge evaluation to determine feasibility of installing protection barriers and the design of protection barriers will be undertaken during the detailed design phase. Responsibility for maintenance/cleaning of the protection barriers will be determined according to the agreement governing the particular bridge .</p> <p>► Bridge evaluation to determine feasibility of installing protection barriers and the design of protection barriers will be undertaken during the detailed design phase. Responsibility for maintenance/cleaning of the protection barriers will be determined according to the agreement governing the particular bridge..</p>
	<p><b>Weston Tunnel</b> ► Are provisions being made in current design to allow for future track electrification? ► Are the superstructure and parapets designed to withstand the additional wind loading caused by barrier installation? ► If the City is responsible for the future maintenance of this bridge, maintenance issues associated with connections of OCS and Grounding Grid are a concern to the City. How will rehabilitation in these areas occur? Who will be responsible for removal and reinstatement of the elements to allow for rehabilitation? ► Does the connection of the OCS have the potential for galvanic reactions that may result in accelerated deterioration of the superstructure in that area? ► If transparent barriers are installed, who is responsible for maintenance/cleaning?</p> <p><b>Islington Ave. Bridge</b> ► Has the bridge been evaluated to determine feasibility of installing protection barriers (capacity to withstand significant additional wind loading)? ► Maintenance issues associated with connections of OCS and Grounding Grid are a concern to the City. How will rehabilitation in these areas occur? Who will be responsible for removal and reinstatement of the elements to allow for rehabilitation? ► Does the connection of the OCS have the potential for galvanic reactions that may result in accelerated deterioration of the steel in that area? ► If transparent barriers are installed, who is responsible for maintenance/cleaning?</p>	<p>► Provisions for future track electrification and coordination with City bridge design, bridge evaluation to determine feasibility of installing protection barriers, extent and type of bridge rehabilitation, mitigation of galvanic reactions, and the verification of bridge types will be undertaken during the detailed design phase. Responsibility for maintenance/cleaning of the protection barriers will be determined according to the agreement governing the particular bridge Removal/re-instatement of electrification elements required for bridge rehabilitation/maintenance will be undertaken by Metrolinx in coordination with the bridge owner.</p> <p>► Provisions for future track electrification and coordination with City bridge design, bridge evaluation to determine feasibility of installing protection barriers, extent and type of bridge rehabilitation, mitigation of galvanic reactions, and the verification of bridge types will be undertaken during the detailed design phase. Responsibility for maintenance/cleaning of the protection barriers will be determined according to the agreement governing the particular bridge. Removal/re-instatement of electrification elements required for bridge rehabilitation/maintenance will be undertaken by Metrolinx in coordination with the bridge owner.</p>
	<p>► Traffic Planning reviewed the traffic impact study (prepared by Hatch Mott MacDonald), dated February 12, 2014, that examines the traffic impacts of the proposed Resources Road Maintenance Facility; to be used as a rail car storage and servicing yard for the proposed Metrolinx "Union-Pearson Express Electrification - EA". ► The proposed Resources Rd maintenance facility is not expected to negatively impact the level of service of the adjacent street system.</p>	<p>► Acknowledged.</p>
	<p><b>Toronto Water:</b></p> <ol style="list-style-type: none"> <li>Information provided does not contain sufficiently detailed drawings showing where the proposed (4m by 1 m) electrification duct banks are to be located, consequently there are unresolved concerns as to: <ol style="list-style-type: none"> <li>induced currents (from the 25kV duct bank cables) in adjacent Toronto Water metallic infrastructure / galvanic corrosion,</li> <li>telemetry interference with Toronto Water assets (Strachan Pumping Station &amp; Western Beaches Battery Park PS) from duct banks, and</li> <li>physical access obstruction to Toronto Water infrastructure from the duct banks.</li> </ol> </li> <li>Additionally, the associated costs of (electrical) bonding of Toronto Water Infrastructure should be identified as part of the project, (similarly for any additional maintenance costs associated with the proximity of the duct banks to Toronto Water assets).</li> </ol>	<ol style="list-style-type: none"> <li>Metrolinx has developed site plans for the three traction power facilities as provided in the package to the City of Toronto The site plans show preliminary location of the 25kV duck banks. <ol style="list-style-type: none"> <li>UP Express traction electrification current reverses its direction 60 times in a second. Therefore, since the AC current profile is uniform and sinusoidal and change the polarity 60 times in a second, there would be no noticeable corrosion impact on buried metallic objects located along the path of the induced AC currents. Experience from other similar projects and industry best practices have been applied to the UP Express electrification preliminary design to assess potential impacts of AC stray currents. Notwithstanding this, during detailed design, further studies and investigations will be carried out to confirm there will be no adverse effects on Toronto Water assets related to the induced currents. EMF emanated from the 25kV cables installed in duck banks will be in the low intensity electromagnetic field in low frequency range 60 Hz to 400 Hz.</li> <li>Toronto Water telemetry frequencies are at the much higher frequency range and no EMI effects to</li> </ol> </li> </ol>

Consultation Phase	Comment/Issue Raised by Review Agency	Consideration of Comment/Issue by Metrolinx
		<p>the Toronto Water telemetry infrastructure is anticipated.</p> <p>c. Potential physical access obstructions to Toronto Water infrastructure will be analyzed in detail during the UP Express electrification implementation stage. Metrolinx will engage Toronto Water during the detail design stage to ensure that physical access to the Toronto Water infrastructure will not be obstructed with the 25kV duck banks.</p> <p>2. The associated costs of (electrical) bonding of Toronto Water Infrastructure will be identified as part of the UP Express traction electrification project, (similarly for any additional maintenance costs associated with the proximity of the duct banks to Toronto Water assets). There are two grounding connections per location for Toronto Water utilities cross under the ROW. The additional maintenance cost is associated with the proactive maintenance activities for these grounding connections.</p>
	<p><b><u>Toronto Fire Services:</u></b></p> <p>Comments regarding the Ordinance Street Paralleling Station:</p> <ul style="list-style-type: none"> <li>▶ The access drive is 6m wide and 300m long with no ability to turn around where it ends. A turn-around area sufficient to accommodate an aerial fire apparatus should be constructed at the end of the access drive.</li> <li>▶ The current proposal would only permit fire apparatus to line up in a queue, with only the lead apparatus close proximity to the station.</li> <li>▶ Clarification Required – Will Fire apparatus have access to the rail lines at the Maintenance facility at 50 Resources Rd. if required?</li> <li>▶ Clarification Required – Will Fire apparatus have access beyond the bridge protection barriers?</li> </ul>	<ul style="list-style-type: none"> <li>▶ The design of the paralleling station has taken into account the space for fire truck turn around at the end of the access road. There is a 9 m clearance within the paralleling station and parking space outside the paralleling station for the turn around</li> <li>▶ The fire access design issue will be coordinated with the proposed development and the design of the City Park and adjacent development.</li> <li>▶ Fire apparatus will have access to the rail lines in maintenance facility when required. Fire apparatus will have access to the rail tracks in the MSF, the access will be coordinated with maintenance staff and follow proper procedure that will be agreed between the Fire department and Metrolinx during detail design.</li> <li>▶ Access to fire apparatus beyond bridge barriers will be regulated by the emergency power down procedures. Fire apparatus will have access beyond the bridge barriers. However, the access will be coordinated with operation staff and follow proper procedure for safety. The process will be discussed and agreed to between the Fire department and Metrolinx during detail design.</li> </ul>
	<p><b><u>Fire Prevention</u></b></p> <ul style="list-style-type: none"> <li>▶ Based on the scope and stage of this project, Fire Prevention has no significant comments at this time. Fire Prevention reviews for fire department access to buildings and this is dealt with at the Site Plan Approval process.</li> <li>▶ If a proposed building is not subject to the Site Plan Approval process, the fire department access is reviewed by Toronto Building under the Building Permit process. Fire department access shall meet the requirements of the Ontario Building Code, Division B, Subsection 3.2.5.</li> <li>▶ When the design is complete, Fire Prevention should review the buildings at 50 Resource Road, the passenger terminals and at the Ordinance Street (Triangle) and any other associated buildings.</li> <li>▶ Fire Prevention had previously provided comments for the Ordinance Street (Triangle), but as the design is still preliminary, final approval has not been given. When the fire access route exceeds 90 metres in length, a turnaround facility is required. See attached pdf for acceptable turnaround facilities.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Metrolinx acknowledges Fire Prevention comments and will review during the detailed design.</li> <li>▶ Metrolinx will provide final designs for the buildings at 50 Resource Road, Ordinance Street (Triangle), and 3500 Eglinton Ave. W. to Fire Prevention Services for review.</li> </ul>
	<p><b><u>Urban Design and Community Planning Comments</u></b></p> <ul style="list-style-type: none"> <li>▶ The Union Pearson Express corridor will become a major gateway to the city and should be a source of civic pride through its design. Quality design should be the highest priority. Ensure there is proactive design leadership throughout the detailed design process.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Safety and quality are always the highest priorities of the design of UP Express electrification. A proactive design leadership will be in place during the detail design stage and throughout the entire project life cycle.</li> </ul>
	<ul style="list-style-type: none"> <li>▶ Carefully examine the need for all proposed infrastructure within the corridor, with the objective of installing it only where absolutely necessary (i.e. minimize the number of structures required).</li> <li>▶ Minimize the visual and physical impacts of the elements especially the gantries and the support structures.</li> <li>▶ Elements must not result in barriers or impediments to larger development opportunities along the corridor.</li> <li>▶ Integrate the individual elements into larger development (e.g. at Mount Dennis incorporate the Paralleling Station into the Maintenance and Storage Facility building).</li> </ul>	<ul style="list-style-type: none"> <li>▶ Acknowledged. Metrolinx is committed to design excellence and will review the electrification infrastructure requirements as part of the design process.</li> </ul>
	Develop a comprehensive vision for the overall design, details and treatment, including materials, of all elements within the corridor. The vision should include objectives which strive to:	<ul style="list-style-type: none"> <li>▶ Acknowledged. Metrolinx is committed to design excellence and will review the infrastructure requirements as part of the design process.</li> </ul>

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		<ul style="list-style-type: none"> <li>▶ enrich the pedestrian realm</li> <li>▶ enrich the sensory experience of users along the corridor, creating a positive impression of this gateway to the city</li> </ul>	
		<p>Design elements should be cohesive and be reflective of this vision:</p> <ul style="list-style-type: none"> <li>▶ Consider the various character areas within the corridor; different design treatments may be warranted to ensure they are contextually sensitive</li> <li>▶ Integrate elements into larger developments. If this is not possible, ensure that the design of the elements adds positively to the experience along the corridor and contributes positively to the surrounding context.</li> <li>▶ Group elements such as the Paralleling Stations and the Gantries, in order to reduce the number of structures</li> <li>▶ Ensure treatments are coordinated with proposed Noise Wall designs, where proposed</li> <li>▶ Create coordinated rhythms and sequences of elements</li> </ul>	<ul style="list-style-type: none"> <li>▶ Acknowledged. Metrolinx is committed to design excellence and will review the infrastructure requirements as part of the design process. We will consider these themes as part of the detailed design to determine any modifications that could be made while still providing a safe/reliable design.</li> </ul>
		<ul style="list-style-type: none"> <li>▶ Bridges are a relatively rare urban experience, therefore, their treatment requires special attention.</li> <li>▶ Views available from the Bridges of Interest include views to the city and of the skyline. They also provide a variety of perspective views along the rail corridor, such as from Dundas Street Bridge, and Wallace Avenue Pedestrian Bridge. The views should be studied and preserved or enhanced.</li> <li>▶ Views to bridges should not be obscured by the OCS support structures. It is recommended that the wires be supported by the bridge structures rather than have the support structures located on either side of the bridges.</li> <li>▶ OCS should not be placed within right-of-way bridge vistas: -Seek maximum 65m spacing distance between placement of OCS on bridges</li> </ul>	<ul style="list-style-type: none"> <li>▶ Acknowledged. Metrolinx is committed to design excellence and will review the infrastructure requirements as part of the design process.</li> <li>▶ During the detail design Metrolinx will also investigate various options to avoid placing the OCS portals within the ROW bridge vistas.</li> </ul>
		<p>Bridge Barrier Protections</p> <ul style="list-style-type: none"> <li>▶ The requirement of 1.8 metre high Bridge Barrier Protections on all bridges over the rail corridor requires sensitive design solutions, unique for every bridge. Develop a creative design concept that is suitable to the significant civic importance of these structures:</li> </ul> <ul style="list-style-type: none"> <li>-High quality design is required on all bridges</li> <li>-Bridge Barrier Protections should not obscure views</li> <li>-Design concepts should embrace the experiential quality of these structures from the perspective of a pedestrian</li> <li>-The pedestrian experience should be enhanced, not detracted, by the Protection system as it relates to views and sense of openness that is afforded by bridges</li> <li>-Concept should celebrate the civic gateway quality of the rail corridor; the Barriers should not detract from the visual appearance of the city</li> </ul> <ul style="list-style-type: none"> <li>▶ The Bridge Barrier Protection shown in the precedent image on page 26 of the document dated Feb 19th 2014 does not satisfy the above objectives, and is unacceptable to the City as a solution along this important gateway corridor.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Acknowledged. Metrolinx is committed to design excellence and will review the infrastructure requirements as part of the design process.</li> <li>▶ The bridge barrier protection shown in the precedent image on page 26 of the document dated Feb 19<sup>th</sup> 2014 is only a typical preliminary reference design. This is not detail design for construction</li> <li>▶ Bridge protection barrier design will be developed bridge by bridge during the detailed design stage in consultation with the City.</li> </ul>
		<p>Place-making, Public Art, Lighting Plan</p> <ul style="list-style-type: none"> <li>▶ Develop an integrated lighting plan for Bridge Barrier Protections to ensure a safe night-time environment.</li> <li>▶ Lighting and public art should be used to enhance the pedestrian experience and facilitate place making.</li> <li>▶ Different designs/expressions may be warranted to define exceptional locations and to help with place-making.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Acknowledged. Metrolinx is committed to design excellence and will review the infrastructure requirements as part of the design process.</li> </ul>
		<p>Ordnance Street Gantry (Strachan Avenue)</p> <ul style="list-style-type: none"> <li>▶ The City does not support the location of the proposed gantry at Strachan Avenue. A substantial investment has been made by the City and Metrolinx to improve connectivity in the rail corridor, as well as the quality of the urban environment so that Strachan will become a lively, liveable city street. The proposed gantry at Strachan Ave compromises this city building objective and the overall ambitions of the grade separation project by adding significant visual clutter to an area that has been carefully designed and "repaired" in recent years.</li> </ul> <p>The following is recommended as an alternative: -Relocate the gantry to an area that is less significant in terms of its gateway qualities, heritage context, and public realm impact</p>	<ul style="list-style-type: none"> <li>▶ Alternative gantry locations (east of Ordnance paralleling station, adjacent/in front of paralleling station) were considered as part of the preliminary design phase, however these alternatives were not considered technically feasible due to space constraints and the special trackwork (crossovers and track switches ) in these areas. As a result, the preferred gantry location was identified as the Strachan Ave. location, based on consideration of the complicated current railway track configuration (location of cross-overs) and signaling safety requirements.</li> <li>▶ It is also noted that a Visual Impact Assessment was completed as part of the TPAP. As the next step, as part of the detailed design phase, the gantry designs will be further reviewed by Metrolinx's Design Review Panel to determine potential screening options that would minimize the extent of visual impacts associated with this infrastructure.</li> </ul>

	Consultation Phase	Comment/Issue Raised by Review Agency	Consideration of Comment/Issue by Metrolinx
		<p>If a suitable alternative location for the gantry cannot be found, work in consultation with the City and the local community to determine an appropriate treatment. This could include:</p> <ul style="list-style-type: none"> <li>▶ Locating the gantry fully underground</li> <li>▶ Locating it partially underground, and creating a screen by mounding and other landscape design techniques</li> <li>▶ Screening the gantry with vegetation or an integrated artistic design element, structure, screen, or veil</li> </ul>	
		<p>Paralleling Station / Communication Tower / Access Road(Ordnance Street)</p> <ul style="list-style-type: none"> <li>▶ Continue to work with city Staff, Friends of Fort York, the developers and their designers, and the local community to ensure the visual impact of the proposed paralleling station, access road, and relocation of the existing communication tower is minimized, and does not detract from the quality of the proposed public park, or from views and vistas in this vicinity (such as from the proposed pedestrian and cycling bridge, and from Fort York).</li> <li>▶ The grading of the proposed Ordnance Park should be finalized by city Staff, in consultation with Metrolinx, prior to the finalization of the design for the Paralleling station. Consideration should be given to locating at least part of the proposed paralleling station below-grade to ensure the station does not impact eastward views from the proposed Ordnance Park into the Downtown.</li> <li>▶ Metrolinx should provide information to the City for review detailing any potential noise and/or electromagnetic field issues which may impact public enjoyment of the adjacent park space.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Metrolinx will continue work with City Staff, Build Toronto, Developer, City parks etc. to ensure that any visual impacts are considered in the detailed design. The design of the City park will be taken into consideration as part of the detailed design of the Paralleling Station.</li> <li>▶ A Noise and Vibration Assessment was carried out as part of the EA to assess potential noise and vibration effects related to electrification of the UP Express. As the scope of the project involves replacement of Diesel Multiple Unit (DMU) trains with Electric Multiple Unit (EMU) trains, and since Metrolinx intends to require noise specifications for the EMUs to be either the same or more stringent than those for DMU, no adverse noise effects related to the operation of EMUs are anticipated. With respect to the noise assessment carried out for the EMU Maintenance Facility at Resources Rd., the nearest parks include: <ul style="list-style-type: none"> <li>o Fairhaven Park located approximately 380 m south of the Facility;</li> <li>o Pine Point Park, located approximately 420 m north of the Facility; and</li> <li>o Crawford-Jones Memorial Park, located approximately 500 m east of the Facility.</li> </ul> </li> <li>▶ The predicted sound level attributable to the EMU Maintenance Facility at these locations can be ascertained from the sound level contour plot provided in the UP Express Electrification Noise and Vibration Assessment Report. This plot indicates that the predicted sound level due to the EMU Maintenance Facility at these parks are approximately 43 dBA at Fairhaven Park, 45 dBA at Pine Point Park, and 40 dBA at Crawford-Jones Memorial Park. These are each at or below the most stringent MOE sound level limit for an urban area (45 dBA), though it should be noted that the MOE does not consider park space to be a sensitive point of reception unless designated as a Quiet Zone by the municipality. Pine Point Park and Crawford-Jones Memorial Park are each adjacent to Highway 401, and sound levels at these locations are expected to be dominated by traffic noise. The predicted sound levels attributable to the EMU Maintenance Facility would not be expected to adversely affect public enjoyment of these park spaces. A copy of the Noise and Vibration Assessment Report will be made available for public review during the 30 day review period for the EPR in April 2014.</li> <li>▶ Metrolinx has prepared the EMC Plan that summarizes the EMI and EMF assessment, and addresses potential electromagnetic field effects and mitigation. Based on this assessment, no adverse effects related to human exposure of EMF are anticipated as a result of UP Express electrification. This report also contained a summary of the proposed future work/studies that will be carried out during detailed design phase and testing/commissioning phase in order to ensure that there are no EMF effects related to implementation of the electrified UP Express system (including public enjoyment of the adjacent park space). A copy of this report will be made available for public review during the 30 day review period for the EPR in April 2014.</li> </ul>
		<p>Views to and from Fort York</p> <ul style="list-style-type: none"> <li>▶ Consult with city Staff, Fort York, and the Friends of Fort York on the position on the OCS to ensure views and vistas to this National Historic Site are not impacted.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Metrolinx has met with staff from the Fort York National Historic Site on held on November 8, 2013 and with City of Toronto Heritage Preservation Services on January 20, 2014 . In addition, an overview was provided to Friends of Fort York.</li> <li>▶ Metrolinx will continue to engage with Fort York stakeholders during detailed design regarding visual effects and mitigation options. <del>to minimize any potential impact.</del></li> </ul>
		<p>Paralleling Station (3500 Eglinton Ave W – Mount Dennis)</p> <ul style="list-style-type: none"> <li>▶ Refer to the Metrolinx Mount Dennis Mobility Hub Study, particularly related to the Industry Street and Ray Avenue street frontages and the need to achieve active, interesting and attractive building edges facing the Black Creek Business Area within the Employment Area.</li> <li>▶ The proposed Paralleling Station should be integrated within the Maintenance and Storage Facility or alternatively, should be setback on the Metrolinx lands and should not occupy a prominent location along the street frontages.</li> <li>▶ The street frontages are valuable and should be treated as such with active and animated buildings. The current proposed location for the Paralleling Station will prevent these objectives from being achieved.</li> <li>▶ Efforts should be made to reduce the amount of infrastructure required. A more compact proposal which reduces the length of the duct banks required and reduces the overall footprint of the proposals should be explored.</li> <li>▶ The duct bank should be located on the Metrolinx lands rather than within the municipal right-of-way and should be buried by at least 1.5 metres of soil depth in order to accommodate tree planting along the Industry Street and</li> </ul>	<ul style="list-style-type: none"> <li>▶ Metrolinx recognizes a need to achieve active, interesting and attractive building edges facing the Black Creek Business Area.</li> <li>▶ The proposed Paralleling Station is integrated within the future Eglinton Crosstown Maintenance Facility.</li> <li>▶ Coordination effort with Eglinton Crosstown team will be made during the detailed design to investigate possibilities as to optimize the siting of the paralleling station .</li> <li>▶ During the detailed design, Metrolinx will review the feasibility of locating the duck banks within the Metrolinx property or burying the duct bank in the road right of way to allow for tree planting along the Industry Street and Ray Avenue.</li> <li>▶ Metrolinx acknowledges the City's recommendations in terms of considering other gantry locations that could potentially minimize impacts upon views from the 15 – 20 story buildings on Denarda Street and Oxford Drive.. This will be reviewed during detailed design.</li> </ul>

	Consultation Phase	Comment/Issue Raised by Review Agency	Consideration of Comment/Issue by Metrolinx
		<p>Ray Avenue street frontages.</p> <ul style="list-style-type: none"> <li>► The location of gantries should minimize impacts on adjacent sensitive land uses including limiting the impacts upon views from the 15- and 10-storey buildings on Denarda Street and Oxford Drive.</li> <li>► It appears that the landscape triangle on the north side of Ray Avenue, west of the rail corridor, may be better able to accommodate the gantry and have a lesser impact upon residential lands.</li> </ul>	
		<p>Proposed Maintenance and Storage Facility at 50 Resources Road</p> <ul style="list-style-type: none"> <li>► Can the Mount Dennis Maintenance and Storage Facility be designed to accommodate the Union Pearson Express vehicles and eliminate the need for two Metrolinx Maintenance Facilities in such close proximity to one another?</li> <li>► The Site Specific By-law 844-2010 for 50 Resources Road prohibits the use of the site for a maintenance yard. A copy of the By-law is attached for reference. It is recommended that a Zoning Amendment/Site Plan application process be undertaken for the maintenance facility.</li> <li>► The impact of the maintenance facility on the adjacent land uses and proposed mitigation requires additional consideration. The proposal to construct a 4.5 metre high and 190 metre long noise barrier along the northern edge of the Weston Golf and Country Club appears to be excessive. Could the noise mitigation be achieved with a berm in combination with lower grades on the 50 Resources Road site?</li> </ul>	<ul style="list-style-type: none"> <li>► Based on the conceptual design for the UP Express Maintenance Facility, it will not fit with the requirements for the Eglinton Crosstown Maintenance Facility.</li> <li>► As a Crown Agency, Metrolinx is not bound by zoning by-laws passed by municipalities under s.34 of the Planning Act and as such does not have a requirement to apply for and obtain zoning amendments. Metrolinx will consult with, and have regard for, the City of Toronto's planning policies with regard to specific projects (or components thereof) and will comply with the City's requests when and where reasonable. Regarding the proposed noise barrier at Resources Rd., the barrier was found to be necessary through predictive modelling based on a conservative operating scenario (based on a conceptual level design for the maintenance facility), including EMU units idling simultaneously on the storage tracks for a full hour during the night. The barrier height and length were established to block the line of sight from the full length of the storage tracks to the full row of houses along Golfwood Heights</li> </ul>
		<p>Request for information:</p> <ol style="list-style-type: none"> <li>1. AutoCAD drawings showing the locations of the catenary posts (pdf provided already)</li> <li>2. Typical detail of the catenary posts including foundations in case there is a conflict with the drainage</li> <li>3. Metrolinx plan in the vicinity of 99 Sudbury St - with regard to the catenary structure, any possible sound or barrier walls or fences, and with regard to ameliorating the city property. We understand the current Metrolinx construction access will be closed and ameliorated, and that a catenary structure may be located near to or within city property. The Rail path will transition from an "off-road" facility in the City-owned green space adjacent Sudbury, to a "sidepath" facility located closer to the roadway. To achieve this transition, we may need to modify the existing stepped stone landscaping north of the construction access.</li> </ol>	<ul style="list-style-type: none"> <li>► Acknowledged.</li> <li>► The requested information was provided to the City for review.</li> </ul>
		Information regarding City of Toronto permitting / approval and utility review requirements were provided to Metrolinx on March 20, 2014.	<ul style="list-style-type: none"> <li>► As a Crown Agency, Metrolinx is exempt from Municipal Bylaws as such does not have a requirement to apply for and obtain building permits and Site Plan approvals. Wherever possible, GO/Metrolinx will engage the City of Toronto on specific projects (or components thereof) and will adhere to requirements when and where reasonable.</li> </ul>
<b>Toronto Transit Commission (TTC)</b>	TPAP Phase	<p>Not enough information (voltage, AC/DC, isolated/grounded, etc.) about the traction power system to help us evaluate any interaction between TTC traction power network and the proposed electrification. The EA concentrates only on OCS and bonding and grounding for utilities. We should recommend that EA to further investigate possible interaction between proposed electrification system and existing TTC traction power network.</p> <p>The locations where the 2 systems will be in close proximity and to be further investigated are the following:</p> <ol style="list-style-type: none"> <li>1. Union Station - subway station and streetcar tunnel crossing below Union Station rail tracks;</li> <li>2. Spadina between Front and Bremner - streetcar tracks on bridge over rail tracks;</li> <li>3. Bathurst between Fort York and Front - streetcar tracks on bridge over rail tracks;</li> <li>4. King West between Strachan and Dufferin - rail tracks on bridge over streetcar tracks;</li> <li>5. Queen West@ Dufferin - rail tracks on bridge over streetcar tracks;</li> <li>6. Dundas West @ Lansdowne - streetcar tracks on bridge over rail tracks;</li> <li>7. Bloor West@ Dundas West - rail tracks crossing over subway tunnel;</li> <li>8. St. Clair West between Keele and Old Weston - rail tracks on bridge over streetcar tracks."</li> </ol>	<p>The traction power voltage is 2 x 25 kV 60 Hz. In addition, the following preliminary design reports were provided to the TTC for their information/review, as requested:</p> <ul style="list-style-type: none"> <li>• UP Express Electrification OCS Preliminary Design Report (January, 2014)</li> <li>• UP Express Grounding and Bonding Preliminary Design Report (March. 2014)</li> <li>• UP Express Traction Power Supply Preliminary Design Report (February 2014)</li> </ul> <ul style="list-style-type: none"> <li>► The Union Railway Station North tracks are more than 50 m away from the Union Subway Station South tracks. The Union Subway Station and TTC street car tunnel would not cross under the future UP Express electrified tracks, since the electrified tracks would be located on the North-West side of the Union Station minimum 150 m away from the TTC street car tracks.</li> <li>► Further investigation of the interaction between the proposed UP Express electrification system at the Union Station location and existing TTC infrastructure will take place during the detail design, however at this stage of the design and based on the data collected including distances between TTC and UP Express tracks, UP Express electrification is not anticipated to have adverse impacts to TTC infrastructure, equipment, or rolling stock.</li> <li>► In addition, please note:</li> <li>► The TTC tracks are grade-separated from the UP Express railway lines. In addition, the TTC tracks are not running in parallel and in close proximity to the future UP Express electrified tracks (except in the case of Union Station as noted above). It was observed that, in all instances, there is more than 1 metre of separation between the TTC traction power and communication lines (including fiber optics, copper, twisted pairs, triads, and coax, underground or overhead) and the OCS. According to CSA C22.3 No. 1 and No. 7, no EMI is anticipated to the TTC power and communication lines.</li> </ul>

	Consultation Phase	Comment/Issue Raised by Review Agency	Consideration of Comment/Issue by Metrolinx
			<p>► Since the EMF at the UP Express railway system edge of the right-of-way is not expected to exceed 250 mG and 9 kV/m, and TTC streetcar and subway systems and rolling stock should comply to EN-50121-3-1 and be immune to conducted interference levels as defined in EN 50121-3-2, no EMI related effects are expected to the TTC equipment and communication lines due to UP Express electrification.</p> <p>► Bathurst, Dundas &amp; Spadina bridges - The TTC tracks are grade separated from the UP Express railway lines. In addition, the TTC tracks are not running in parallel and in close proximity to the future UP Express electrified tracks. It was observed that there is, in all instances, more than 1m of separation between the TTC traction power and communication lines (including fiber optics, copper, twisted pairs, triads, and coax, underground or overhead) and the OCS. According to CSA C22.3 No. 1 and No. 7, no EMI is anticipated to the TTC power and communication lines.</p> <p>► Since the EMF at the UP Express railway system edge of the right-of-way is not expected to exceed 250 mG and 9 kV/m, and TTC streetcar and subway systems and rolling stock should comply to EN-50121-3-1 and be immune to conducted interference levels as defined in EN 50121-3-2, no EMI related effects are expected to the TTC equipment and communication lines due to UP Express electrification.</p>
		► Metrolinx to investigate potential impacts of electrolysis caused by the electrification of the GO line with respect to existing TTC rails/poles on bridge decks and submit mitigation report/recommendations prepared by a NACE certified consultant for review.	► Corrosion control study will be undertaken during the detail design, however considering that the traction voltage will be 2 x 25kV, 60 Hz, similarly to other infrastructure along the UP Express ROW no stray current and corrosion control mitigation measures is anticipated
		► TTC rails cannot be grounded within 10m zone. Metrolinx to provide alternate recommendations for review.(see comment TTC-002).	► Please note that grounding of TTC rails is not being recommended as part of the UP Express electrification project.
		► Detailed design of bridge deck modifications affecting poles supporting TTC overhead to be submitted for review and comment.	► The requested information will be provided to the TTC during detailed design.
		► Before drilling into the bridge structure in order to attach wires, OCS, or any other equipment, locates have to be done. Drilling through bridge reinforcement must be avoided.	► Locates will be completed during detailed design. Drilling through bridge reinforcement will be avoided.
		► City comments already cover bridge maintenance and rehabilitation issues related to installation/attachment of new cables, OCS or any other equipment. City comments also already cover issues related to design and maintenance of bridge barrier protection.	► Acknowledged.
		► Please verify whether any provision has been made to conduct investigation into the whether the UP electrification and associated infrastructure may impact TTC assets as a result of stray currents.	<p>► In DC electric traction, if there is any buried metallic object, such as pipes, conduits, steel rebar etc., in the path of DC stray return current, the current flows through the metallic objects (because metallic bodies have better electrical conductivity than ground) and then through ground back to the TPS. There would be no damaging impact when direct current flows from ground into buried metallic object, however when DC current emerges from the metallic object to ground, it causes ionic corrosion of the metallic object. If stray current is not detected in time and corrective action taken, the metallic body may get corroded and damaged.</p> <p>► However, in the case of UP Express AC traction electrification AC current reverses its direction 60 times in a second. Therefore, since the AC current profile is uniform and sinusoidal (which is the generally the case) and change the polarity 60 times in a second, there would be no noticeable corrosion impact on buried metallic objects located along the path of the AC current flowing through ground.</p> <p>► Experience from other similar projects and industry best practices have been applied to the UP Express electrification preliminary design to assess potential impacts of AC stray current. Notwithstanding this, during detailed design, further studies and investigations will be carried out to confirm there will be no adverse effects on TTC assets related to stray current.</p>
<b>Toronto and Region Conservation Authority (TRCA)</b>	Pre-Planning Phase	► TRCA staff may have an interest in the conceptual design if there are structural changes/construction activities required for traction power supply, traction power distribution and maintenance requirements within the study area in relation to the TRCA program and policy areas.	► TRCA regulated areas were identified as part of the Natural Environmental Impact Assessment in relation to the proposed works/activities related to implementing UP Express Electrification. Although portions of the proposed project components (OCS structures, bridges) are situated within TRCA regulated areas (e.g., RRMF, Humber River bridge), no adverse effects to the Humber River or Black Creek watercourses are anticipated during operations/maintenance activities or construction.
		► Please forward a copy of the June 2013 POH Display Panels for their information	► The June 2013 POH Display Panels for their information were provided to TRCA on July 11, 2013.
		► As the detailed design process moves forward, please confirm permitting requirements under Ontario Regulation 166/06 with TRCA staff.	► As a Crown Agency, GO/Metrolinx is exempt from the Conservation Authorities Act and as such does not have a requirement to apply for and obtain permits from conservation authorities. Wherever possible, GO/Metrolinx will engage the conservation authority on specific projects (or components thereof) and will adhere to requirements when and where possible.
	TPAP Phase	<p>► Available mapping and program information regarding Areas of Interest were sent as per your request in July 2012. Please ensure that the status, potential impacts and opportunities for enhancement related to these Areas of Interest are documented and assessed through a review of background material, technical study, field assessment and detailed evaluation, as appropriate.</p> <p>► In consideration of TRCA's programs and policies, staff requires that the preferred alternative meets the following criteria:</p>	<p>► The available mapping and program information provided by TRCA in July 2012 was reviewed in detail and incorporated into the baseline conditions mapping and Natural Environmental Baseline Conditions Report, as appropriate.</p> <p>► A meeting with TRCA was held on January 28, 2014 to discuss the project, including potential TRCA programs and policies that may be applicable to the proposed undertaking.</p>

	Consultation Phase	Comment/Issue Raised by Review Agency	Consideration of Comment/Issue by Metrolinx
		<ul style="list-style-type: none"> <li>a) Prevents the risk associated with flooding, erosion or slope instability</li> <li>b) Protects and rehabilitates existing landforms, features and functions</li> <li>c) Provides for aquatic, terrestrial and human access</li> <li>d) Minimizes water/energy consumption and pollution</li> <li>e) Addresses TRCA property and heritage resource concerns.</li> </ul>	<p>► An overview of the watercourse crossings, proposed electrification facility locations, OCS infrastructure, and proposed construction methods was discussed. In general, there were no major issues/concerns raised by TRCA as part of the January 28<sup>th</sup> meeting. Metrolinx stated that a copy of the Natural Environment Assessment Report would be provided to the TRCA for further review/comment. This report was provided on February 21, 2014.</p>
		<p>► TRCA staff recommends that a summary of detailed design commitments be included in the EA as a pre-design brief. The completion of the pre-design brief will result in a more timely and streamlined permit approval process in the future.</p>	<p>► The EPR document contains a list of commitments (see Chapter 7) as well as a list of permits and approvals that are anticipated to be required (see Chapter 9). As a Crown Agency, GO/Metrolinx is exempt from the Conservation Authorities Act and as such does not have a requirement to apply for and obtain permits from conservation authorities. Wherever possible, GO/Metrolinx will engage the conservation authority on specific projects (or components thereof) and will adhere to requirements when and where possible.</p>
		<p>► Prior to selecting the preferred alternative solution and design, please arrange a meeting to discuss issues that related to our program and policy concerns. In addition, please add TRCA's Watershed Specialists Chandra Sharma, Nancy Gaffney, and Sonia Dhir to the project mailing list to receive any public information updates.</p>	<p>► A meeting with TRCA was held on January 28, 2014 to discuss the project, including potential TRCA areas of interest. ► The additional TRCA contacts were added to the project contact list as requested.</p>
		<p>► Please provide the following to expedite TRCA review:</p> <ul style="list-style-type: none"> <li>a) Notices of public meetings and display materials and handouts</li> <li>b) Copies of the Phase 1, 2, and 3 report</li> <li>c) Draft and Final EA Document</li> </ul>	<p>► Notifications as follows were provided to the TRCA as part of the EA process:            ► Notice of Public Open House #1            ► Notice of Commencement of TPAP            ► Notice of Public Open House #2</p> <p>In addition, copies of the presentation material from both public open houses were provided to TRCA. It is noted that Phase 1, 2, 3 reports do not apply to the TPAP process (which is being followed by Metrolinx for the UP Express Electrification undertaking), rather they are typically completed as part of the Municipal Class EA process. Furthermore, as a formal pre-submission review of the Draft EPR document was not carried out, Metrolinx provided a copy of the Final Draft Natural Environmental Impact Assessment Report prepared as part of the EA for TRCA's review/comment on February 21, 2014.</p>
Toronto Hydro	TPAP Phase	<p>► 'City Report' refers to the draft document 'City of Toronto Summary Package_Feb 2014 FINAL_Revision 1.pdf'. Other documents reviewed include presentations from Metrolinx, as well as reports from 2010-2012 available on the Metrolinx website.</p>	<p>► The UP Express preliminary design was developed in accordance with the applicable local codes therefore Metrolinx's recommendation is to have the listed THESL overhead crossings relocated as required by the OES code Section 75. During the implementation of the project Metrolinx will work with THESL to further develop the design and implementation schedule that will be mutually agreed between Mx and THESL.</p>
		<p>► The City Report indicates that all THESL overhead crossings will have to be relocated under the rail corridor. There are 44 locations identified in the report where THESL crosses the existing GO rail corridor with overhead infrastructure. These relocations will have a significant impact on THESL. The reason for relocation is cited from the Ontario Electrical Safety Code, Section 75. This point will need to be discussed in greater detail because, as a local distribution company (LDC), THESL is not governed by the Ontario Electrical Code.</p>	
		<p>► What is the projected timeline for this project, and in turn, what is the required timeline for THESL relocations? THESL will require significant resources and time to complete any required relocations. The City Report estimates overhead to underground relocations for THESL to be \$250,000 per location. Past experience has shown that overhead to underground relocation projects of this nature will be at least \$1,000,000 per location. In addition to the incredible cost impact, past experience has shown that these type of relocation projects take 1-2 years per location. This could pose a challenge, given the extensive number of locations. Significant lead time is required for any THESL relocations. Metrolinx needs to engage Toronto Hydro Relocates at utility.relocations@torontohydro.com for all relocation projects.</p>	<p>► THESL will be engaged closely in the next step of the project to discuss the schedule resource plan for the required utility relocation.</p>
		<p>► Are there more details available to the timing of the other aspects of the project, such as financial approval, detailed design, construction staging, construction, and energization? When will Metrolinx be able to confirm that this project will be moving forward?</p>	<p>► The EA will be completed April 1, 2014 and if there are no objections the Statement of Completion will be issued in June 2014. Following the required environmental approvals the project needs to be funded to start the detailed design and construction of the infrastructure required for electrification</p>
		<p>► Will the construction methods used impact any existing THESL infrastructure outside of the rail corridor? Will any Metrolinx infrastructure be installed outside of the rail corridor that could be in conflict with existing THESL infrastructure?</p>	<p>► Based on the current Metrolinx design it is not envisioned for any of the proposed construction methods used for electrification to impact the existing THESL infrastructure outside the railway corridor. Current impacts studies and utility report performed by Metrolinx indicate that there will be no Metrolinx infrastructure installed outside of the rail corridor that will be in conflict with THESL infrastructure.</p>
		<p>► Based on the report, it is assumed that no bridges will need to be reconstructed as a result of the electrification process. This leads to the assumption that the only impact to THESL infrastructure on bridges should be proper grounding and bonding.</p>	<p>► According to the preliminary design, the THESL assumption is correct</p>
		<p>► Will Metrolinx require an additional low voltage, or high voltage, connections from THESL?</p>	<p>► There will be a need for utility power (house power) to be sourced to the traction power facilities, EMU maintenance facility as well as selected signal houses. Metrolinx will confirm the utility power needs and discuss them with THESL during the detail design stage.</p>
		<p>► Prior to any mitigation measures being put into place, THESL will require additional time for the Standards team to review the following:</p> <ul style="list-style-type: none"> <li>- grounding and bonding techniques</li> <li>- the effect of radiated and conducted electrical emissions as a result of electrification</li> </ul>	<p>► Metrolinx has prepared a preliminary grounding and bonding design and electromagnetic compatibility report as part of the preliminary design / EA process. During the implementation of the project, Metrolinx will further develop applicable grounding and bonding techniques and designs as well as evaluate in more details electrification equipment emission and radiation data and implement mitigation measures where required. These will be provided</p>

	Consultation Phase	Comment/Issue Raised by Review Agency	Consideration of Comment/Issue by Metrolinx
		► Based on the City Report (pg. 68), it is assumed that there is no stray current from the proposed electrification.	during the detail design stage. ► Experience from other similar projects and industry best practices have been applied to the UP Express electrification preliminary design to assess potential impacts of AC stray currents. Notwithstanding this, during detailed design, further studies and investigations will be carried out to confirm there will be no adverse effects on THESL assets related to stray current. ► UP Express AC traction electrification current reverses its direction 60 times in a second. Therefore, since the AC current profile is uniform and sinusoidal (which is the generally the case) and change the polarity 60 times in a second, there would be no noticeable corrosion impact on buried metallic objects located along the path of the AC current flowing through ground.
		► Will there be any changes to the existing, or proposed, clearances for underground infrastructure crossing under the rail corridor?	► The intent is to physically avoid any existing underground TH infrastructure when locating the foundations for the OCS structures. This will be assessed and confirmed at each occurrence during the detailed design phase.

## **8.6 Other Stakeholders**

### **8.6.1 Canadian National Railway**

As part of the EA process, Metrolinx held three meetings with Canadian National Railway (CN) to discuss the UP Express Electrification project:

#### CN Meeting #1 – June 20, 2013

Metrolinx held an initial meeting with Canadian National Railway (CN) on June 20, 2013 to discuss UP Express Electrification in relation to CN operations and trains. Some of the topics discussed included EMI, OCS design, grounding and bonding requirements, induced currents/voltages, radio communications, etc. New maintenance procedures associated with implementation of electrification equipment were also discussed.

#### CN Meeting #2 - July 11, 2013

The purpose of the second meeting with CN in July 2013 was to provide an update on the UP Express Electrification project, and discuss potential implications for CN operations including: safety of staff and public, new staff training requirements, OCS maintenance procedures (potential freight service disruptions), hardening of equipment/infrastructure (i.e., immunizing the freight railroad's rolling stock and infrastructure from electrification, as required), infrastructure maintenance considerations related to implementation of OCS, additional resources (e.g., staff training and certification).

#### CN Meeting #3 - September 4, 2013

A follow up meeting was held with CN in Montreal in September 2013 to review how CN operates the EMUs for the electrified Deux-Montagnes commuter rail line. The key points discussed were: CN's operation and maintenance of the electrified system, grounding and bonding implementation, bridge barrier implementation. In addition, the meeting included a site visit to an existing traction power facility.

### **8.6.2 Canadian Pacific Railway**

A meeting with Canadian Pacific Railway (CP) was held on February 4, 2014 to discuss the UP Express Electrification project including an update on the preliminary design and EA process, as well as operational effects to be considered, safety rules and procedures, grounding and bonding, electromagnetic compatibility, and clearance requirements related to the proposed OCS wires. In addition, examples of similar electrified systems from the United States were provided. A

Memorandum of Understanding between Metrolinx and CP is to be prepared. There were no significant concerns raised by CP based on the information presented at the meeting.

### **8.6.3 Canada Lands Company/CN Tower**

An information package was provided to Canada Lands Company (CLC) on October 15, 2013 to illustrate proposed OCS attachments to the CLC/CN Tower-owned retaining wall within the Union Station Rail Corridor.

The OCS design information package contained the following:

- Cross Section drawings showing how the OCS portal structure could be attached to the retaining wall
- Photos of a sample wall bracket that would be used to attach to the retaining wall

In addition, Metrolinx met with CN Tower officials on October 25, 2013 to further discuss the project. It is noted that following this meeting, refinements were made to the OCS preliminary design, and the proposed attachment to retaining wall is no longer required.

### **8.6.4 Oxford Properties**

A meeting was held with Oxford Properties on March 21, 2014 to discuss the proposed OCS design. Specifically, the current OCS design involves proposed OCS attachments to a retaining wall in this area owned by Oxford Properties. This is due to the horizontal constraints in this section of the rail corridor. In addition, the results of the EMI inventory and EMF site survey conducted as part of the EA were discussed, and an overview of the proposed grounding and bonding methods were provided. Oxford Properties also outlined future development plans that may need to be considered during detailed design.

### **8.6.5 Weston Golf Club**

A meeting was held on June 13, 2013 with the Weston Golf Club to provide an overview of the UP Express Electrification project, and to solicit any comments/feedback on the proposed design, as the golf club is located in the vicinity of the rail corridor (vicinity of Humber River Bridge). A site walk in the vicinity of the golf course was completed, and the current Humber River Bridge project works being constructed as part of the Georgetown South project was discussed. In addition, a description of the proposed electrification design (OCS) for the Humber River Bridge and the Maintenance Facility was provided and discussed with the Weston Golf Club; no major concerns or issues were identified.

### **8.6.6 Utilities**

As part of the EA, a comprehensive Utilities report was prepared in order to identify known utilities within the UP Express Electrification study area, and to assess potential impacts on utilities due to the implementation of electrification. Based on the results of this assessment, individual letters were sent to all utilities identified in order to provide them with the following information:

- Overview of the UP Express Electrification project;
- Design work completed to date;
- EA process and timelines;
- Locations where their specific utilities were identified in the study area;
- Potential impacts on their utility due to electrification (if applicable);
- Proposed mitigation measures to be implemented; and
- Outline of future work that will be carried out during detailed design with respect to more detailed utility assessments.

The utilities that were provided with a copy of this correspondence are as follows<sup>5</sup>:

- Allstream
- Canada Packers
- Canadian Gypsum Co
- Enbridge Gas
- Hydro One Networks Inc.
- Imperial Oil
- Private Owners
- Sun Canadian Pipeline
- Telus
- Rogers
- Trans-Northern Pipelines
- Woodbine Entertainment Group

Copies of the correspondence sent to Utilities are provided in **Appendix J-10**.

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<sup>5</sup> *It is noted that letter correspondence was not sent to Toronto Hydro, Toronto Transit Commission, or Hydro One as Metrolinx held meetings with both stakeholders to discuss potential issues/concerns.*