

**Caledonia GO Station Environmental
Assessment Impact Assessment,
Mitigation and Monitoring Report**

Metrolinx

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Caledonia GO Station Environmental Assessment Impact Assessment, Mitigation and Monitoring Report
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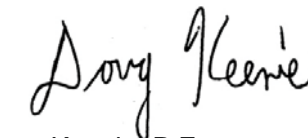
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Executive Summary

There are a number of potential impacts that may occur as a result of the construction and operation/maintenance of the proposed Caledonia GO Station. This Impact Assessment, Mitigation and Monitoring Report has been prepared to document the potential environmental impacts associated with the implementation of the Caledonia GO Station Project, provide mitigation measures (as required) and provide a monitoring plan to ensure that these measures are being effectively implemented. The existing conditions as described in the separate discipline specific environmental studies prepared as part of the Caledonia GO Station TPAP were used as the basis from for this Report.

The Impact Assessment and Mitigation Plan are provided in the form of a Risk Registry in a tabular format. A Monitoring Plan is also provided in tabular format. These Plans are included in the Appendices at the end of this Report.

The Environmental Project Report (EPR) for this Project, which includes all the supporting environmental studies including this Report, collectively demonstrate that there are no adverse environmental effects anticipated from the development of the Caledonia GO Station. With the implementation of the prescribed mitigation measures and monitoring activities, the impacts can be minimized to have a negligible net effect on the environment.

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1.0 Introduction

Metrolinx, an agency of the Province of Ontario, has retained R.J. Burnside & Associates Limited (Burnside) to complete a Transit Project Assessment Process (TPAP) and Preliminary Design Update to support the development of the future Caledonia GO Station. This new station will be located near the intersection of Eglinton Avenue West and Caledonia Road, where the Eglinton Crosstown Light Rail Transit line intersects with the GO Transit Barrie Rail Corridor (northwest quadrant of Eglinton Avenue West and Croham Road). The preparation of this Impact Assessment, Mitigation and Monitoring Report is included as a component of the TPAP, to assess the potential impacts to the natural, cultural and social/built environments and transportation and utilities within the Study Area and adjacent lands, as prescribed by the Transit Project Assessment Process (TPAP), as outlined in *Ontario Regulation 231/08, Transit Projects and Metrolinx Undertakings* (Government of Ontario).

The purpose of the Impact Assessment, Mitigation and Monitoring Report is to summarize the potential environmental impacts associated with the implementation of the Caledonia GO Station Project, provide mitigation measures (as required) and provide a monitoring plan to ensure that these measures are being effectively implemented.

2.0 Impact Assessment and Mitigation Plan

The Impact Assessment and Mitigation Plan includes impacts and mitigation measures for pre-construction, construction and post-construction periods based on information available at the time of the TPAP. Pre-construction mitigation measures are general mitigation measures that shall be established as a part of preparing the detailed design and tender documents. During the detailed design phase of the Project, more information will be known about how the Project may affect the natural, cultural or social/built environments and transportation and utilities within or adjacent to the Project Area. The Impact Assessment and Mitigation Plan will be revisited and updated (if necessary) during the detailed design phase of the Project.

2.1 Methodology

The existing conditions described in separate discipline specific environmental studies were used as the basis from which the potential impacts of constructing and operating/maintaining the Caledonia GO Station were identified in consideration of the Preliminary Design Update. The Impact Assessment and Mitigation Plan are provided in the form of a Risk Registry (Appendix A). The methodology used to complete the Risk Registry is noted in the following steps:

1. Identify potential impacts by reviewing the existing conditions documented in the following 12 reports:
 - 1) Air Quality Study Report;
 - 2) Noise and Vibration Impact Assessment Report;
 - 3) Stage 1 Archaeology Assessment Report;
 - 4) Cultural Heritage Screening Report;
 - 5) Cultural Heritage Evaluation Reports for the Eglinton Avenue West Bridge;
 - 6) Cultural Heritage Evaluation Report for the York Beltline Trail;
 - 7) Heritage Impact Assessment for the York Beltline Trail;
 - 8) Tree Inventory Plan;
 - 9) Natural Heritage Assessment Report;
 - 10) Socio-Economic and Land Use Characteristics Report;
 - 11) Traffic Impact Study Report; and,
 - 12) Environmental Project Report.
2. Identify the type of risk that is being triggered by the potential environmental impacts.
3. Identify the severity of the impact (high, medium, low).
4. Identify the probability of the impact occurring (high, medium, low).
5. Identify the timeline for the impact to occur (short-term, medium-term, long-term).
6. Establish mitigation measures to minimize potential negative impacts.

2.2 Risk Registry

The Risk Registry, provided in Appendix A, has been prepared in a tabular format, which allows for quick reference and of the potential risks, impacts and mitigation plans associated with the Project.

The Risk Registry table has been divided into 10 columns or headings, describing information in relation to each individual potential risk. The following provides a brief description/definition for each of the table headings.

Risk ID: provides a categorization of risk to organize the risk registry.

Site: describes the physical location of the identified potential risks within and/or surrounding the Study Area (e.g., Caledonia GO Corridor, adjacent properties, parklands, etc.).

Risk Area: denotes the environmental area/feature class that may be impacted by the potential risk (e.g., Species at Risk, fish and fish habitat, soils, surface and groundwater, vegetation and wetlands, terrestrial wildlife, cultural heritage resources, archaeological resources, air quality, noise, vibration, human health, public safety, property needs (public or private), land use, etc.).

Type of Risk: denotes which of the five specific categories that the potential risk may impact: environmental, design and construction, operational, regulatory, and/or stakeholder & public relations.

Impact Description: describes the potential impacts (positive or negative) associated with each potential risk and how project implementation could be impacted (i.e., schedule, budget, scope, costs, and/or quality).

Severity of Impact: describes how severe the impact (low, medium or high) on the basis of the magnitude of impact, geographic extent and degree of irreversibility of the impact:

- **Magnitude of Impact:**
 - Minimal: not impacting an environmental resource, people or land;
 - Moderate: impacts one or more localized environmental resources or affect a moderate number of people; and,
 - Large: impacts cover a large area beyond the neighborhood and involve larger numbers of people, and the environmental resources may have a broad local or regional concern and are regulated by a local, provincial or federal agency.
- **Geographic Extent of Impact:**
 - Low: impact is within the Project Area;
 - Medium: impact extends beyond the Project Area; and,
 - High: impact extends to a regional area.
- **Degree of Irreversibility:**
 - Low: impact is readily reversible;
 - Medium: impact is reversible with time; and,
 - High: impact is not reversible.

Probability of Occurrence: a reflection of the likelihood of the impact to occur and can either be:

- Low: not likely to occur;
- Medium: even chance to occur; and,
- High: very likely or certain to occur.

Timeline for Impact to Occur: provides a general timeline that the impact may occur within including:

- Short-term: conditions causing the impact are evident during the site preparation, construction or decommissioning phase;
- Mid-term: conditions causing the impact are evident during the operations phase; and,
- Long-term: conditions causing the impact extend beyond any one phase.

Related Legislation or Policies: denotes any legislation or policy documents that relate to the impact.

Potential Permits, Approvals or Agency Review Requirements: provides information on any federal, provincial or municipal permits or approvals required in relation to the impact or any anticipated agency reviews, as well as the approval agency involved (e.g., Ministry of the Environment and Climate Change (MOECC), Ministry of Natural Resources and Forestry (MNRF), Toronto and Region Conservation Authority (TRCA), City of Toronto).

Mitigation Plan: describes potential responses and measures to be undertaken to avoid or minimize potential impacts associated with the potential risks identified.

Mitigation Responsibility: denotes the personnel assigned to oversee the mitigation plan implementation and maintenance.

3.0 Monitoring Plan

For each mitigation measure proposed to minimize environmental impacts there is generally a corresponding monitoring activity to ensure that the mitigation measure is being effectively implemented. The timing and frequency of the monitoring activity is dependent on the nature of the impact being mitigated. In some cases, the monitoring activity will only be required once or twice during construction. In other cases, the monitoring activity may need to be repeated several times over the duration of the entire construction phase or may be required during the operation/maintenance phase of the Project once the Caledonia GO Station is in use. A Monitoring Plan has been prepared to identify specific monitoring activities that shall be undertaken for each mitigation measure. The Monitoring Plan, provided in Appendix B, has been prepared in a tabular format. The Monitoring Plan table includes the monitoring activities, frequency of

monitoring events, assigned personnel and benchmarks of mitigation success as measured through the monitoring.

Monitoring activities are identified during construction and post-construction periods based on information available at the time of the TPAP. During the detailed design phase of the Project, more information will be known about how the Project may affect the natural, cultural, social/built environments and/or transportation and utilities during the construction and post-construction periods within or adjacent to the Project Area. The Monitoring Plan will be revisited and updated (if necessary) during the detailed design phase of the Project.

4.0 Compliance Monitoring Program (CMP)

The Compliance Monitoring Program (CMP) is a comprehensive and self-contained document that can be provided to a future prospective contractor for the construction of the Caledonia GO Station to efficiently and effectively implement all mitigation and monitoring activities of for matters of provincial importance relating to the natural environment, cultural heritage values or interests, or constitutionally protected Aboriginal or treaty rights. The following sections provide a summary of the CMP; however, the CMP itself is provided in Appendix C so that it can be easily provided to the contractor.

4.1 Matters of Provincial Importance

The Transit Project Assessment Process (TPAP), as prescribed in Ontario Regulation 231/08 (O.Reg. 231/08) defines matters that are considered to be of provincial importance or that are related to constitutionally Aboriginal or treaty rights. The Ministry of Environment and Climate Change (MOECC) provides the following list in the Guide to the Ontario's Transit Project Assessment Process (January, 2014), which outlines matters that may be relevant in determining provincial importance:

- A park, conservation reserve or protected area;
- Extirpated, endangered, threatened, or species of special concern and their habitat;
- A wetland, woodland, habitat of wildlife or other natural heritage area;
- An area of natural or scientific interest;
- A stream, creek, river or lake containing fish and their habitats;
- An area or region of surface water or groundwater or other important hydrological feature;
- Areas that may be impacted by a known or suspected on or off-site source of contamination such as a spill, a gasoline outlet, an open or closed landfill site etc.
- Protected heritage property;
- Built heritage resources;
- Cultural heritage landscapes;
- Archaeological resources and areas of potential archaeological interest;

- An area designated as an escarpment natural area or an escarpment protection area by the Niagara Escarpment Plan under the *Niagara Escarpment Planning and Development Act*;
- Property within an area designated as a natural core area or natural linkage area within the area to which the Oak Ridges Moraine Conservation Plan under the *Oak Ridges Moraine Conservation Act, 2001* applies; and
- Property within an area described as a key natural heritage feature or a key hydrologic feature in the Protected Countryside by the Greenbelt Plan under the *Greenbelt Act, 2005*.

4.1.1 Potential Matters of Provincial Importance in Relation to the Caledonia GO Station

As per the list above, the following two potential impacts from the Project are considered matters of provincial importance:

- Potential for removal of Chimney Swift (*Chaetura pelagica*) habitat in the chimney on the structure at 2-4 Croham Road.
- Potential direct impacts to the York Beltline Trail.

There is potential that Chimney Swift, a Species at Risk (SAR), resides within the Study Area in a chimney located at 2-4 Croham Road. During detailed design, a survey will be conducted at 2-4 Croham Road to determine if the chimney is capped or uncapped. If the chimney is uncapped, a species-specific survey will be undertaken for evidence of current use by Chimney Swift during the appropriate timing windows or with MNRF approved survey protocols. If evidence of use is confirmed, it is acknowledged that the MNRF will be notified and further consulted to determine suitable mitigation, as this bird species is protected under the Environmental Species Act, 2007.

The York Beltline Trail has been identified as a heritage property because the property retains municipal/local cultural heritage value or interest. Studies including a Cultural Heritage Evaluation Report (CHER) and Heritage Impact Assessment (HIA) have been completed for the York Beltline Trail. The studies determined that the property is considered a Provincial Heritage Property (PHP), under O.Reg. 9/06 (if acquired by Metrolinx), however it is not considered a PHP of provincial significance.

Further detail is provided in the CMP (refer to Appendix C).

5.0 Conclusions

Based on the completion of the impact assessment, there are no adverse environmental impacts anticipated from the development of the Caledonia GO Station. With the implementation of prescribed mitigation measures and monitoring activities, the impacts can be minimized to have a negligible net effect on the environment.

6.0 References

MOECC (Ministry of Environment). January 2014. Ontario's Transit Project Assessment Process.



Appendix A

Risk Registry

Appendix A - Risk Register

Provide a unique identifier for risk		describes the location of identified potential risk (e.g., City of Toronto parklands, bridge crossing heritage structure, etc.). These sites include, but may not be limited to: stakeholder interests, matters of provincial importance relating to the natural environment, cultural heritage values or interests, or constitutionally protected Aboriginal or treaty rights.	denotes the environmental area or feature class that may be impacted (e.g., Species at Risk, fish and fish habitat, surface and groundwater, vegetation and wetlands, terrestrial wildlife, soils, cultural heritage resources, archaeological resources, air quality, noise, vibration, human health, public safety, property needs (public or private), land use, etc.)	denotes the type of risk involved based on the following five categories: Environmental, Design and Construction, Operational, Regulatory, and/or Stakeholder & Public Relations.	describes the specific impact on the environmental area or feature class, the root cause of the impact and the effect that the impact will have on the project implementation (i.e., schedule, budget, scope, costs, and quality) or the environment	Enter here High, Medium, or Low according to impact definitions	Enter here High, Medium or Low according to probability definitions	Enter here Short-term; Mid-term; or Long-term according to timeline definitions		provides list of any permits or approvals in relation to impact and approval agency (e.g., City of Toronto, MOECC, MNRF)	provides potential responses to be undertaken to reduce or avoid anticipated impacts.	Personnel assigned to oversee mitigation measures implementation and maintenance
R1: Natural Heritage	1	Caledonia GO Station Project Area	Vegetation Terrestrial Wildlife	Environmental Construction	Permanent removal or disturbance of vegetation that comprises the City's Natural Heritage System, during construction.	Low	High	Short-term	Official Plan		<p><u>General Mitigation</u> Compensation to include both trees and plantable area/planting locations.</p> <p>Develop landscape plans to stabilize and re-vegetate any disturbed areas surrounding buildings and facilities. The landscape plan shall include provisions for replacement plantings comprised of high quality native, non-invasive species.</p> <p>Coordinate adjacent offsite planting locations with City of Toronto and TRCA.</p> <p><u>Construction Mitigation</u> Limit vegetation disturbance associated with the footprint of the station facilities to the furthest extent possible.</p> <p>Keep the movement of equipment and machinery to the designated staging areas and work zones and ensure the following of environmentally sound practices.</p> <p>The movement of equipment and machinery shall be kept to the designated staging areas and work zones and environmentally sound practices shall be followed.</p> <p>For trees on property situated on or adjacent to construction sites: Silt fencing and/or tree protection fencing shall be installed in accordance with the City's Tree Protection Policy, the approved Tree Protection Plan, and/or as agreed to by Urban Forestry, to protect existing vegetation not proposed for injury or removal. This applies to trees on the construction site and on properties adjacent to the construction site (neighbour trees).</p> <p>Tree protection barriers must be installed around trees to be protected using plywood clad hoarding or an equivalent approved by Urban Forestry (Toronto). All supports and bracing to safely secure the barrier should be outside the Tree Protection Zone (TPZ). All such supports and bracing should minimize damage to roots outside the TPZ.</p> <p>Topsoil shall be stockpiled separately from other soil materials and used for restoration to facilitate natural regeneration of native species.</p> <p>Install compensation plantings in accordance with landscape plans.</p>	Project Arborist Landscape Architect Landscape Contractor
R1	2	Caledonia GO Station Project Area	Vegetation Terrestrial Wildlife	Environmental Construction	Loss of plantable area for compensation plantings.	Low	High	Long-term			<p><u>General Mitigation</u> Identify locations of offsite planting within adjacent public property (i.e. parklands) to receive plantings, in coordination with TRCA and City staff.</p> <p><u>Construction Mitigation</u> Plant installation to be coordinated with construction work.</p>	Landscape Architect
R1	3	Parklands adjacent to Caledonia GO Station Project Area	Vegetation Terrestrial Wildlife	Environmental Construction	Potential for the encroachment by contractors and equipment into protected vegetation zones on adjacent lands (parklands).	Medium	Medium	Short-term			<p><u>Construction Mitigation</u> Install sturdy vegetation protection measures (e.g., paige wire fencing) with signage.</p>	Contractor
R1	4	Caledonia GO Station Project Area	Vegetation Terrestrial Wildlife	Environmental Construction	Potential for disturbance to breeding birds or migratory birds and their habitat removal of vegetation.	High	Low	Short-term	Species at Risk Act (S.C. 2002, c. 29) Endangered Species Act (2007) Migratory Birds Convention Act (1994)	Agency Review (Ministry of Natural Resources and Forestry, MNRF)	<p><u>General Mitigation</u> Ensure that timing constraints are applied to construction schedule to avoid vegetation clearing (including grubbing) and/or structure works (construction, maintenance) during the core breeding bird period. Ideally, vegetation removals should occur between October to March. Note: Environment Canada broadly defines the core breeding bird period for open habitat in nesting Zone C (Ontario) as typically April 26 to July 31; however, this period can extend earlier and later for some species.</p> <p>Active nests (nests with eggs or young birds) of protected migratory birds, including SAR protected under the ESA, 2007, cannot be destroyed.</p> <p><u>Construction Mitigation</u> If a nesting migratory bird (or SAR protected under ESA, 2007) is identified within or adjacent to the construction site and the construction activities are such that continuing construction in that area would result in a contravention of the MBCA or ESA, 2007, all activities will stop and the Contract Administrator will be contacted immediately. The Contract Administrator (with assistance from a Qualified Avian Biologist) will discuss mitigation measures with the Metrolinx - Environment Program and Assessment department. MNRF and Environment Canada will be contacted to discuss mitigation options. The Contract Administrator will instruct the Contractor on how to proceed based on the mitigation measures established through discussions with Metrolinx, MNRF and/or Environment Canada.</p>	Contract Administrator Contract Administrator Qualified Avian Biologist Metrolinx - Environment Program and Assessment department MNRF SAR Biologist
R1	5	2-4 Croham Road	Species at Risk Terrestrial Wildlife	Environmental Construction	Potential for removal of Chimney Swift (<i>Chaetura pelagica</i>) habitat in the chimney on the structure at 2-4 Croham Road (to be confirmed by future targeted surveys, if necessary).	Medium	Low	Short-term	Species at Risk Act (S.C. 2002, c. 29) Endangered Species Act (2007) Migratory Birds Convention Act (1994)	Agency Review (MNRF)	<p><u>General Mitigation</u> Prior to removal of the structure, confirmation is required to determine if the chimney structure is being used by Chimney Swift. If the chimney structure is not sealed or capped a species-specific survey may need to be completed during the appropriate timing windows (as per Bird Studies Canada survey protocols) and in consultation with the local MNRF District Office SAR Biologist.</p> <p>In the event that SAR are found within the study limits, an MNRF SAR Biologist will be contacted for advice as these animals are protected under ESA, 2007.</p>	Qualified Avian Biologist MNRF SAR Biologist (if required)

Appendix A - Risk Register

Provide a unique identifier for risk		describes the location of identified potential risk (e.g., City of Toronto parklands, bridge crossing, heritage structure, etc.). These sites include, but may not be limited to: stakeholder interests, matters of provincial importance relating to the natural environment, cultural heritage values or interests, or constitutionally protected Aboriginal or treaty rights.	denotes the environmental area or feature class that may be impacted (e.g., Species at Risk, fish and fish habitat, surface and groundwater, vegetation and wetlands, terrestrial wildlife, soils, cultural heritage resources, archaeological resources, air quality, noise, vibration, human health, public safety, property needs (public or private), land use, etc.)	denotes the type of risk involved based on the following five categories: Environmental, Design and Construction, Operational, Regulatory, and/or Stakeholder & Public Relations.	describes the specific impact on the environmental area or feature class, the root cause of the impact and the effect that the impact will have on the project implementation (i.e., schedule, budget, scope, costs, and quality) or the environment	Enter here High; Medium; or Low according to impact definitions	Enter here High, Medium or Low according to probability definitions	Enter here Short-term; Mid-term; or Long-term according to timeline definitions		provides list of any permits or approvals in relation to impact and approval agency (e.g., City of Toronto, MOECC, MNRF)	provides potential responses to be undertaken to reduce or avoid anticipated impacts.	Personnel assigned to oversee mitigation measures implementation and maintenance
R1	6	Caledonia GO Station Project Area	Vegetation Terrestrial Wildlife	Environmental Construction	Displacement and disturbance of wildlife and wildlife habitat during the construction phase (i.e., vegetation removals, noise) through reduction of habitat (tree canopy areas).	Medium	High	Long-term	Fish and Wildlife Conservation Act (1997) Endangered Species Act (2007)	Agency Review (MNRF)	<p><u>General Mitigation</u> Develop a Landscape Plan to stabilize and re-vegetate any disturbed areas surrounding buildings and facilities. The Landscape Plan shall include provisions for replacement plantings comprised of high quality native, non-invasive species.</p> <p>Install compensation plantings in offsite lands in coordination with City of Toronto and TRCA.</p> <p><u>Construction Mitigation</u> Some wildlife may be displaced during construction activities and after construction of the GO Station. Some wildlife habitat may be removed as a result of the proposed activities. It is expected that wildlife inhabiting the Study Area are species which are tolerant of disturbance and are resilient to changes in urban environments. It is expected that these species which have adapted to existing disturbances will return upon completion of the construction activities and will utilize habitat that will be present.</p> <p>In the event that an animal encountered during construction does not move from the construction zone, the Contractor will notify the Contract Administrator. If the construction activities are such that continuing construction in the area would result in harm to wildlife, construction activities in that location will temporarily stop and MNRF will be contacted for direction.</p> <p>In the event that SAR are found within the study limits, an MNRF SAR Biologist will be contacted for advice as these animals are protected under ESA, 2007.</p>	Contractor Contract Administrator Qualified Wildlife Biologist MNRF SAR Biologist (if required) Landscape Architect
R1	7	Caledonia GO Station Project Area	Surface Water Soils	Environmental Construction	Potential for the erosion of soils and impacts to surface water and offsite lands during the construction period.	Medium	Medium	Short-term		ESC Plan Review (Toronto and Region Conservation Authority, TRCA)	<p><u>General Mitigation</u> An Erosion and Sediment Control (ESC) Plan will be developed in consultation with Toronto and Region Conservation Authority (TRCA). Implementation of the ESC measures will conform to recognized standard specifications such as Ontario Provincial Standards Specification (OPSS) and the requirements of the TRCA. The ESC Plan will also take into account the Greater Golden Horseshoe Area Conservation Authorities (GGHACA) Erosion and Sediment Control Guidelines for Urban Construction.</p> <p><u>Construction Mitigation</u> Implement and maintain ESC Plan during construction phase.</p>	Contract Administrator Contractor
R1	8	Caledonia GO Station Project Area	Soils	Environmental Construction	Potential for the movement of contaminated soils around or away from site. Impact would affect project scope and costs.	High	Medium	Short-term			<p><u>Construction Mitigation</u> A Soil Management Plan (SMP) shall be prepared by a Qualified Professional during the detailed design phase to form part of the Construction Contract for managing soil materials onsite (includes excavation, location of stockpiles, reuse, and offsite disposal).</p>	Contractor
R1	9	Caledonia GO Station Study Area	Soils and Groundwater	Environmental Construction	Potential contamination of soils resulting from a spill or release of fuels and toxic substances during construction.	Medium	Low	Long-term	TTSA Liquid Fuels Handling Code and Fuel Oil Regulation and Code		<p><u>General Mitigation</u> An emergency response and communications plan will be developed during detailed design to ensure proper mitigation and notification procedures are in place regarding soil quality during project operation.</p> <p><u>Construction Mitigation</u> Refueling of equipment and fuel storage shall be conducted in designated areas with spill protection.</p>	Metrolix (Operator) Contractor
R1	10	Caledonia GO Station Study Area	Groundwater	Environmental Construction	Potential impacts to groundwater from construction activities including dewatering activity and potential contamination from leaks, spills.	Medium	Low	Long-term	Ontario Regulation 387/04: Water Taking and Transfer	Permit to Take Water (Ministry of the Environment and Climate Change, MOECC) Dewatering Plan Review (TRCA)	<p><u>General Mitigation</u> Investigate potential for localized groundwater impacts and retain services for a detailed hydrogeological study, if recommended following geotechnical investigations. Consult TRCA if hydrogeological studies are undertaken.</p> <p>Coordinate any dewatering requirements with the other project works that may be ongoing in the Project Area, including Barrie Rail Corridor Expansion Project and Eglinton Crosstown LRT.</p> <p>Determine dewatering requirements as applicable for the construction works including building/ bridge foundations and track lowering and consult with the TRCA on dewatering for construction work.</p> <p><u>Construction Mitigation</u> Contractor and Construction Administrator to implement dewatering in accordance with the TRCA approved plans.</p>	Metrolix, TRCA and Toronto Water Contractor and Construction Administrator
R1	11	Eglinton Avenue West Bridge (BHR1)	Groundwater	Environmental Construction	Potential for dewatering activities required for construction of the new GO Station to affect the Eglinton Avenue West Bridge structure and substructure.	Medium	Low	Long-term	Ontario Regulation 387/04: Water Taking and Transfer	Permit to Take Water (Ministry of the Environment and Climate Change, MOECC) Dewatering Plan Review (TRCA)	<p><u>General Mitigation</u> In conjunction with the Geotechnical Investigation, a dewatering plan will be prepared, if required, for the construction of the new GO Station works. This dewatering plan will be cognizant of any dewatering activities that are ongoing for the ECLRT or Barrie Expansion project. Consultation will be sought from the TRCA.</p>	Metrolix
R2: Trees	1	Caledonia GO Station Project Area	Vegetation	Environmental Construction Operational	Potential to impact operations if tree numbers 1 and 2 (poor condition) fall on the track.	High	Low	Short-term	City of Toronto Municipal Code, Chapter 813, Article III, 'Private Tree Protection'	Tree Removal Permit (City of Toronto)	<p><u>General Mitigation</u> Consult with project arborist during the detailed design phase of the project to determine if tree numbers 1 and 2 should be removed and establish an appropriate tree removal plan.</p> <p><u>Construction Mitigation</u> If tree numbers 1 and 2 are to be removed, the Contractor will follow the measures for tree removal as set out in the tree removal plan.</p>	Project Arborist (during detailed design phase) Contractor (during construction phase)

Appendix A - Risk Register

Provide a unique identifier for risk		describes the location of identified potential risk (e.g., City of Toronto parklands, bridge crossing heritage structure, etc.). These sites include, but may not be limited to: stakeholder interests, matters of provincial importance relating to the natural environment, cultural heritage values or interests, or constitutionally protected Aboriginal or treaty rights.	denotes the environmental area or feature class that may be impacted (e.g., Species at Risk, fish and fish habitat, surface and groundwater, vegetation and wetlands, terrestrial wildlife, soils, cultural heritage resources, archaeological resources, air quality, noise, vibration, human health, public safety, property needs (public or private), land use, etc.)	denotes the type of risk involved based on the following five categories: Environmental, Design and Construction, Operational, Regulatory, and/or Stakeholder & Public Relations.	describes the specific impact on the environmental area or feature class, the root cause of the impact and the effect that the impact will have on the project implementation (i.e., schedule, budget, scope, costs, and quality) or the environment	Enter here High; Medium; or Low according to impact definitions	Enter here High, Medium or Low according to probability definitions	Enter here Short-term; Mid-term; or Long-term according to timeline definitions		provides list of any permits or approvals in relation to impact and approval agency (e.g., City of Toronto, MOECC, MNRF)	provides potential responses to be undertaken to reduce or avoid anticipated impacts.	Personnel assigned to oversee mitigation measures implementation and maintenance
R2	2	Caledonia GO Station Project Area	Vegetation	Environmental Construction	Loss of onsite trees to accommodate the construction.	Medium	High	Short-term	City of Toronto Municipal Code, Chapter 813, Article III, 'Private Tree Protection'	Tree Removal Permit (City of Toronto)	<u>General Mitigation</u> Tree replacement will occur where the trees' function is being lost for screening or landscape aesthetics (where reasonable and space permits). Tree replacement methods to be implemented by the Landscape Contractor will be documented on the Landscape Plan. <u>Construction Mitigation</u> Implement tree replacement as per specifications on Landscape Plan.	Project Arborist and Landscape Architect Landscape Contractor
R2	3	Lands Adjacent to Caledonia GO Station Project Area	Vegetation	Environmental Construction	Loss of offsite trees to accommodate construction.	Medium	High	Short-term	City of Toronto Municipal Code, Chapter 813, Article III, 'Private Tree Protection'	Tree Removal Permit (City of Toronto)	<u>General Mitigation</u> Tree replacement will occur where the trees' function is being lost for screening or landscape aesthetics (where reasonable and space permits). Tree replacement methods to be implemented by the Landscape Contractor will be documented on the Landscape Plan. <u>Construction Mitigation</u> Implement tree replacement as per specifications on Landscape Plan.	Project Arborist and Landscape Architect Landscape Contractor
R2	4	Lands Adjacent to Caledonia GO Station Project Area	Vegetation	Environmental Construction	Trees to be preserved adjacent to construction zones impacted by construction.	Low	High	Short-term	City of Toronto Municipal Code, Chapter 813, Article III, 'Private Tree Protection'		<u>General Mitigation</u> Tree Protection Plan to be prepared in coordination with detailed design to identify locations of tree protection fence, in accordance with City By-Law requirements. <u>Construction Mitigation</u> Install tree protection fence around trees to be preserved.	Project Arborist Landscape Contractor
R2	5	Caledonia GO Station Project Area and adjacent private residential and commercial lands	Vegetation	Stakeholder & Public Relations	Potential for delays to project schedule as a result of public opposition to the alteration or removal of trees.	Medium	Medium	Short-term	City of Toronto Municipal Code, Chapter 813, Article III, 'Private Tree Protection'		<u>General Mitigation</u> Consultation and engagement of all affected parties will commence at an early stage to identify and resolve any potential issues that could affect the project schedule.	Metrolinx
R2	6	City-Owned Parklands adjacent to Caledonia GO Station Project Area (York Beltline Trail)	Vegetation	Stakeholder & Public Relations	Potential for delays to project schedule as a result of public opposition to the alteration or removal of trees on City-owned parklands.	Medium	Low	Short-term	City of Toronto Municipal Code, Chapter 608, Article VII, 'Parks'		<u>General Mitigation</u> Consultation and engagement of all affected parties will commence at an early stage to identify and resolve any potential issues that could affect the project schedule.	Metrolinx
R3: Archaeology	1	Caledonia GO Station Study Area	Archaeological Resources	Environmental Design & Construction	Potential to impact archaeological resources and project schedule and scope in the event that an isolated or deeply buried archaeological deposit not found during Stage 1 Archaeological Assessment is unearthed during construction.	Medium	Low	Short-term	Ontario Heritage Act, R.S.O. 1990, c 0.18.	Clearance from Ministry of Tourism, Culture and Sport (MTCS) based on the findings of subsequent Stage 1 and/or Stage 2 Archaeological Assessments, as necessary.	<u>General Mitigation</u> In the event that an isolated or deeply buried archaeological deposit is unearthed during construction, further archaeological studies will be completed. <u>Construction Mitigation</u> Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the Ontario Heritage Act. If the Contractor or a person under direction of the Contractor discovers an archaeological resource, they must cease alteration of the site immediately. The Contractor shall engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with sec. 48 (1) of the Ontario Heritage Act.	Consultant archaeologist (ASI) Contractor
R3	2	Areas Requiring Property Acquisition (outside of Project Area)	Archaeological Resources	Design & Construction	Potential to impact project scope in the event that the legal survey or topographical survey is inaccurate and the proposed work is required to extend beyond the current Project Area.	Medium	Medium	Short-term	Ontario Heritage Act, R.S.O. 1990, c 0.18.	Clearance from MTCS based on the findings of subsequent Stage 1 and/or Stage 2 Archaeological Assessments, as necessary.	<u>General Mitigation</u> In the event that properties are acquired outside of the current Project Area, Stage 1 and/or Stage 2 Archaeological Assessment studies will be completed within areas acquired.	Consultant archaeologist (ASI)
R3	3	Areas Requiring Property Acquisition (outside of Project Area)	Archaeological Resources	Design & Construction	Potential that geotechnical investigation will require the proposed work to extend beyond the current Project Area and that different construction methods may need to be used.	Medium	Medium	Short-term	Ontario Heritage Act, R.S.O. 1990, c 0.18.	Clearance from MTCS based on the findings of subsequent Stage 1 and/or Stage 2 Archaeological Assessments, as necessary.	<u>General Mitigation</u> In the event that properties are acquired outside of the current Project Area, Stage 1 and/or Stage 2 Archaeological Assessment studies will be completed within areas acquired.	Consultant archaeologist (ASI)
R4	1	York Beltline Trail (CHL1)	Cultural Heritage Resources	Environmental Construction	Potential direct impacts to the York Beltline Trail which has been identified as a Provincial Heritage Property, may include the loss of the resource through demolition or the displacement of resources through relocation. Potential indirect impacts may include the disruption of resources by introducing physical, visual, audible or atmospheric elements that are not in keeping with the resources/their setting.	Medium	Low	Short-term	Ontario Heritage Act, R.S.O. 1990, c 0.18.	Clearance from MTCS based on the findings from recommended CHER report.	<u>General Mitigation</u> A minimal intervention approach will be adopted with like-for-like replacement or enhanced provision of landscape features for areas directly impacted by the Project. <u>Construction Mitigation</u> Staging/construction activities should be planned to avoid impacts to identified provincial heritage resources. Landscaping/rehabilitation should be undertaken in a manner that is sympathetic to overall setting.	Consultant cultural heritage specialist (ASI) Contractor and Contract Administrator Contractor and Contract Administrator
R4	2	York Beltline Trail (CHL1)	Cultural Heritage Resources	Stakeholder & Public Relations Regulatory Design & Construction	Potential for delays to project schedule as a result of public opposition to the alteration of the York Beltline Trail.	Medium	Low	Short-term			<u>General Mitigation</u> Consultation and engagement of all affected parties will commence at an early stage to identify and resolve any potential issues that could affect the project schedule.	Metrolinx
R4	3	York Beltline Trail (CHL1)	Cultural Heritage Resources	Stakeholder & Public Relations Regulatory Design & Construction	Potential for delays to the project schedule based on comments, recommendations or requirements for permits and approvals from the MTCS due to the proximity of the project to the York Beltline Trail, which has been identified as a Provincial Heritage Property.	Medium	Low	Short-term			<u>General Mitigation</u> Consultation and engagement of all affected parties will commence at an early stage to identify and resolve any potential issues that could affect the project schedule.	Metrolinx

Appendix A - Risk Register

Provide a unique identifier for risk		describes the location of identified potential risk (e.g., City of Toronto parklands, bridge crossing, heritage structure, etc.). These sites include, but may not be limited to: stakeholder interests, matters of provincial importance relating to the natural environment, cultural heritage values or interests, or constitutionally protected Aboriginal or treaty rights.	denotes the environmental area or feature class that may be impacted (e.g., Species at Risk, fish and fish habitat, surface and groundwater, vegetation and wetlands, terrestrial wildlife, soils, cultural heritage resources, archaeological resources, air quality, noise, vibration, human health, public safety, property needs (public or private), land use, etc.)	denotes the type of risk involved based on the following five categories: Environmental, Design and Construction, Operational, Regulatory, and/or Stakeholder & Public Relations.	describes the specific impact on the environmental area or feature class, the root cause of the impact and the effect that the impact will have on the project implementation (i.e., schedule, budget, scope, costs, and quality) or the environment	Enter here High; Medium; or Low according to impact definitions	Enter here High, Medium or Low according to probability definitions	Enter here Short-term; Mid-term; or Long-term according to timeline definitions		provides list of any permits or approvals in relation to impact and approval agency (e.g., City of Toronto, MOECC, MNRF)	provides potential responses to be undertaken to reduce or avoid anticipated impacts.	Personnel assigned to oversee mitigation measures implementation and maintenance
R5: Socio-Economic and Land Use Characteristics	1	Caledonia GO Station Study Area	Property Needs Land Use	Environmental Design & Construction Stakeholder & Public Relations	Potential for temporary impacts during the construction phase that could potentially disrupt access to existing businesses, residents and parkland.	Medium	High	Short-term	City of Toronto Traffic and Parking Bylaw (Chapter 950, City of Toronto Municipal Code) Highway Traffic Act, R.S.O 1990, c. H.8		<u>General Mitigation</u> Discussions and consultation to be held with affected businesses to determine appropriate mitigation to minimize effects. <u>Construction Mitigation</u> A traffic management plan for the construction phase will be developed by the contractor for approval by Metrolinx (to include considerations for bicycle traffic and access to businesses, residences, trails and parks).	Metrolinx Contractor
R5	2	Caledonia GO Station Study Area	Property Needs Land Use	Environmental Design & Construction Stakeholder & Public Relations	Potential for aesthetic impacts during the construction phase (i.e. temporary storage sites for equipment, stock piling of substrate materials, etc.).	Low	High	Short-term			<u>Construction Mitigation</u> Construction delays will be avoided to the extent possible in order to minimize construction time. All stockpiled materials will be fenced and the construction area will be minimized to the extent possible to ensure that the construction zone does not sprawl beyond what is necessary.	Contractor
R5	3	2-4 Croham Road	Property Needs Land Use	Environmental Stakeholder & Public Relations	Loss and/or disruption of businesses at 2-4 Croham Road as a result of the removal of the building for the construction of new GO Station, including the potential for the loss or relocation of a small number of jobs in the area.	Medium	High	Long-term			<u>General Mitigation</u> Although a small number of jobs could be lost or relocated outside of the neighbourhood, it is anticipated that the station and spin-off redevelopment of the area will result in overall job growth.	Metrolinx
R5	4	Parklands adjacent to Caledonia GO Station Project Area	Property Needs Land Use	Environmental Stakeholder & Public Relations	Removal of City-owned parklands to accommodate construction of pedestrian tunnel.	Low	High	Long-term	City of Toronto Parks Bylaw (Chapter 608, City of Toronto Municipal Code)		<u>General Mitigation</u> Metrolinx to coordinate compensating reduction of parklands with City.	Metrolinx
R6: Air Quality	1	Caledonia GO Station Study Area	Air Quality	Environmental Construction Stakeholder & Public Relations	Potential for construction vehicle or dust emissions that could affect businesses, residents and parkland users during construction stage.	Medium	High	Short-term	Environmental Protection Act (1990) Ontario Regulations 419/05: Control of Exposure to Biological or Chemical Agents		<u>General Mitigation</u> A complaint response protocol for nuisance impacts including dust emissions will be prepared during the detailed design phase of the project and implemented prior to construction. <u>Construction Mitigation</u> Vehicles/machinery and equipment shall be in good repair, equipped with emission controls, as applicable, and operated within regulatory requirements. Onsite vehicle speeds will be reduced. The contractor shall also be required to implement dust suppression measures to reduce the potential for airborne particulate matter resulting from construction activities. This should be in the form of water applications on exposed soils. The contractor shall also ensure that wheels of vehicles leaving the site are washed down, when necessary and vehicles carrying dusty materials will be securely covered before leaving the site.	Construction Administrator Contractor
R6	2	Caledonia GO Station Study Area	Air Quality	Construction Stakeholder & Public Relations	Potential for delays to project schedule due to public opposition based on air quality concerns relating to the proposed works and the construction of the works.	Medium	Medium	Short-term			<u>General Mitigation</u> Consultation and engagement of all affected parties will commence at an early stage to identify and resolve any potential issues that could affect the project schedule.	Metrolinx
R7: Noise	1	Caledonia GO Station Study Area	Noise	Environmental Construction Stakeholder & Public Relations	Potential for temporary noise impacts that could affect businesses, residents and parkland users during the construction stage.	Medium	Low	Short-term	MOEE / GO Transit Draft Protocol for Noise and Vibration Assessment (January 1994) City of Toronto Noise Bylaw (Chapter 591, City of Toronto Municipal Code)		<u>General and Construction Mitigation</u> A complaint response protocol for nuisance impacts including construction noise shall be prepared during the detailed design phase of the project, implemented by the Contractor prior to construction and maintained by the Contractor during construction. <u>Construction Mitigation</u> Noise control measures shall be implemented where required during the construction phase, such as restricted hours of operation and the use of appropriate machinery and mufflers. Impacts to be managed to ensure compliance with provincial regulations and local bylaws (where possible).	Construction Administrator and Contactor Contractor
R7	2	Caledonia GO Station Study Area	Noise	Construction Stakeholder & Public Relations	Potential for delays to project schedule to diffuse public opposition related to perceived noise increases from increased service on the Barrie rail corridor as a result of the Barrie Rail Corridor Expansion and Caledonia GO Station.	Medium	High	Short-term	MOEE / GO Transit Draft Protocol for Noise and Vibration Assessment (January 1994) City of Toronto Noise Bylaw (Chapter 591, City of Toronto Municipal Code)		<u>General Mitigation</u> Consultation and engagement of all affected parties will commence at an early stage to identify and resolve any potential issues that could affect the project schedule.	Metrolinx
R7	3	Adjacent properties	Noise	Stakeholder & Public Relations	Potential for adjacent properties owners to experience a perceived increase in noise levels. Following the construction of the Caledonia GO Station, there will be an initial reduction in the level of noise experienced by adjacent properties as the train speed through the area will be significantly lower as trains move slower when approaching and leaving the station. The implementation of the increased train service as part of the Barrie Rail Corridor Expansion project may result in a perceived increase in noise experienced by the adjacent properties relative to this initial reduction. Following the Barrie rail corridor service level expansion, the net effective for the noise level is expected to be a reduction from the existing (baseline) condition.	Medium	High	Long-term	MOEE / GO Transit Draft Protocol for Noise and Vibration Assessment (January 1994) City of Toronto Noise Bylaw (Chapter 591, City of Toronto Municipal Code)		<u>General Mitigation</u> Consultation and engagement of all affected parties will commence at an early stage to identify and resolve any potential issues that could affect the project schedule.	Metrolinx

Appendix A - Risk Register

Provide a unique identifier for risk		describes the location of identified potential risk (e.g., City of Toronto parklands, bridge crossing heritage structure, etc.). These sites include, but may not be limited to: stakeholder interests, matters of provincial importance relating to the natural environment, cultural heritage values or interests, or constitutionally protected Aboriginal or treaty rights.	denotes the environmental area or feature class that may be impacted (e.g., Species at Risk, fish and fish habitat, surface and groundwater, vegetation and wetlands, terrestrial wildlife, soils, cultural heritage resources, archaeological resources, air quality, noise, vibration, human health, public safety, property needs (public or private), land use, etc.)	denotes the type of risk involved based on the following five categories: Environmental, Design and Construction, Operational, Regulatory, and/or Stakeholder & Public Relations.	describes the specific impact on the environmental area or feature class, the root cause of the impact and the effect that the impact will have on the project implementation (i.e., schedule, budget, scope, costs, and quality) or the environment	Enter here High; Medium; or Low according to impact definitions	Enter here High, Medium or Low according to probability definitions	Enter here Short-term; Mid-term; or Long-term according to timeline definitions		provides list of any permits or approvals in relation to impact and approval agency (e.g., City of Toronto, MOECC, MNRF)	provides potential responses to be undertaken to reduce or avoid anticipated impacts.	Personnel assigned to oversee mitigation measures implementation and maintenance
R8: Vibration	1	Caledonia GO Station Study Area	Vibration	Environmental Construction Stakeholder & Public Relations	Potential for temporary vibration impacts that could affect businesses, residents and parkland users during the construction stage.	Medium	Low	Short-term	MOEE / GO Transit Draft Protocol for Noise and Vibration Assessment (January 1994)		<u>General and Construction Mitigation</u> A complaint response protocol for nuisance impacts including construction vibration shall be prepared during the detailed design phase of the project, implemented by the Contractor prior to construction and maintained by the Contractor during construction.	Construction Administrator and Contractor
R8	2	Adjacent properties	Vibration	Stakeholder & Public Relations	Potential for adjacent properties owners to experience a perceived increase in vibration levels. Following the construction of the Caledonia GO Station, there will be an initial reduction in the level of vibration experienced by adjacent properties as the train speed through the area will be significantly lower as trains move slower when approaching and leaving the station. The implementation of the increased train service as part of the Barrie Rail Corridor Expansion project may result in a perceived increase in vibration experienced by the adjacent properties relative to this initial reduction. Following the Barrie rail corridor service level expansion, the net effect for vibration is expected to be a reduction from the existing (baseline) condition.	Low	Low	Long-term	MOEE / GO Transit Draft Protocol for Noise and Vibration Assessment (January 1994)		<u>General Mitigation</u> Consultation and engagement of all affected parties will commence at an early stage to identify and resolve any potential issues that could affect the project schedule.	Metrolinx
R9: Traffic	1	Caledonia GO Station Study Area	Land Use	Environmental Operational Stakeholder & Public Relations	Potential parking issues on Croham Road and Westside Shopping Centre lands, resulting from operations of the Caledonia GO Rail station.	Medium	Medium	Mid-term			<u>General Mitigation</u> Increased signage and parking enforcement in the area of the GO station.	City of Toronto
R9	2	Caledonia GO Station Study Area	Land Use	Environmental Operational Stakeholder & Public Relations	Additional pedestrian demands, created by the GO Rail station, for crossing of Eglinton Avenue West and impact on traffic mobility.	Medium	Medium	Mid-term			<u>General Mitigation</u> Monitoring of pedestrian activity after commencement of GO Rail operations. Completion of signal coordination plan for Eglinton Avenue West.	Metrolinx City of Toronto
R9	3	Caledonia GO Station Study Area	Land Use	Environmental Operational Stakeholder & Public Relations	Potential to aggravate traffic issues on Croham Road (speeding, wrong-way traffic operation, illegal parking).	Medium	Medium	Mid-term			<u>General Mitigation</u> Increased signage and parking enforcement in the area of the GO station. Ongoing monitoring of traffic operations after implementation of the GO Rail station.	City of Toronto
R9	4	Caledonia GO Station Study Area	Land Use	Environmental Operational Stakeholder & Public Relations	Potential increase in auto traffic vs more sustainable modes of access, impacting station access and traffic mobility.	Medium	Low	Mid-term			<u>General Mitigation</u> Ongoing monitoring of traffic operations on Eglinton Avenue West and improvements to this road. Future traffic signal coordination studies on Eglinton Avenue West. Increased Transportation Demand Management initiatives.	City of Toronto City of Toronto Metrolinx and City of Toronto.
R9	5	Caledonia GO Station Study Area	Land Use	Environmental Construction Stakeholder & Public Relations	Construction ingress/egress impacts on adjacent neighbourhoods	Medium	Medium	Short-term			<u>General Mitigation</u> Detailed traffic management plan for construction staging and hauling routes to be developed by contractor. <u>Construction Mitigation</u> Construction access route / construction parking to be restricted.	Contractor Contractor
R9	6	Caledonia GO Station Study Area	Operational	Operational Stakeholder & Public Relations	Potential for delays project schedule due to conflicts with other projects within the Project Area affecting GO Station access and traffic mobility, notably, the Barrie Rail Corridor Expansion, the ECLRT Station construction and improvements to Eglinton Avenue West as part of the ECLRT project.	High	High	Short-term			<u>General Mitigation</u> Consultation and engagement of all affected parties will commence at an early stage to identify and resolve any potential issues that could affect the project schedule.	Metrolinx
R10: Stakeholder Consultation	1	Caledonia GO Station Project Area	Public Participation Process and media relations	Stakeholder & Public Relations	Potential issues related to public opposition for the increased service on the Barrie rail corridor and the Caledonia GO Station.	High	Low	Short-term			<u>General Mitigation</u> Follow TPAP process and exceed the minimum requirements for public consultation to satisfy MOECC and the public.	Metrolinx
R10	2	Emergency Service Providers	Human health Public safety	Stakeholder & Public Relations	Potential for delays to project schedule based on comments, recommendations or requirements from EMS.	Low	Low	Short-term			<u>General Mitigation</u> Consultation and engagement of Emergency Service Providers will commence at an early stage to identify and resolve any potential issues that could affect the project schedule.	Metrolinx

Appendix A - Risk Register

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R11: Permits and Approvals	1	Federal Government	Species at Risk Vegetation and wetlands Terrestrial Wildlife	Regulatory Stakeholder & Public Relations	Potential for delays to project schedule based on comments, recommendations or requirements for permits and approvals.	Medium	Low	Short-term			<u>General Mitigation</u> Consultation and engagement of all affected parties will commence at an early stage to identify and resolve any potential issues that could affect the project schedule.	Metrolinx
R11	2	Provincial Government	Species at Risk Surface and Groundwater Vegetation and wetlands Terrestrial Wildlife Soils Historical Resources Air Quality Noise Vibration Human Health Public Safety	Regulatory Stakeholder & Public Relations	Potential for delays to project schedule based on comments, recommendations or requirements for permits and approvals.	Medium	Medium	Short-term		Various Permits or Approvals as noted in Permit and Approval Requirements Report (MOECC, MTCS, Ministry of Transportation (MTO), MNRF, TRCA and Ontario Energy Board (OEB))	<u>General Mitigation</u> Consultation and engagement of all affected parties will commence at an early stage to identify and resolve any potential issues that could affect the project schedule.	Metrolinx
R11	3	City of Toronto	Surface and Groundwater Vegetation and wetlands Soils Air Quality Noise Vibration Human Health Property Needs Land use Public Safety	Regulatory Stakeholder & Public Relations	Potential for delays to project schedule based on comments and recommendations received from City of Toronto relating to their permitting process.	Medium	High	Short-term		Agency Review (City of Toronto)	<u>General Mitigation</u> Consultation and engagement of all affected parties will commence at an early stage to identify and resolve any potential issues that could affect the project schedule.	Metrolinx
R12: Utilities and municipal services	1	Caledonia GO Station Project Area	Property Needs	Environmental Design and Construction	A number of utilities and municipal services will require relocation prior to the construction of the new GO Station and associated works. There is potential for these works to impact adjacent properties.	Medium	Low	Short-term			<u>General Mitigation</u> Efforts will be made to relocate the utilities and municipal services within the proposed ROW. <u>Construction Mitigation</u> Efforts will be made to limit impacts of relocation activities within the project property as much as possible during construction.	Consultant Contractor
R12	2	Caledonia GO Station Project Area	Property Needs	Operational	Potential delays to operation of the station due to servicing and utility agreements issues with providers.	Medium	Medium	Mid-term			<u>General Mitigation</u> Consultation and engagement with planned service and utility providers at an early stage to identify and resolve any potential issues that could affect the project schedule.	Metrolinx
R12	3	Caledonia GO Station Project Area	Property Needs	Design and Construction Operational	Potential for delays to project schedule if there are capacity issues for connection to existing services. In particular, the project schedule could be delayed if the City of Toronto works planned for the new combination sanitary and storm sewer on Croham Road is not installed in advance of the Caledonia GO Station works.	Medium	Low	Short-term			<u>General Mitigation</u> Consultation and engagement with planned service and utility providers at an early stage to identify and resolve any potential issues that could affect the project schedule.	Metrolinx
R12	4	Caledonia GO Station Project Area	Property Needs	Design and Construction	There is an existing hydro tower that conflicts with the proposed Caledonia GO Station and Barrie ROW expansion project. There is potential that delays in relocating this hydro service underground within the project area as part of early works for the Barrie Expansion project will affect the Caledonia GO station project schedule.	High	Medium	Short-term		Utility Crossing Agreement (Hydro One)	<u>General Mitigation</u> Consultation and engagement of all affected parties will commence at an early stage to identify and resolve any potential issues that could affect the project schedule and to ensure that the utility is relocated to an appropriate location so as not to affect the proposed works.	Metrolinx and Hydro One
R12	5	Caledonia GO Station Project Area	Property Needs	Design and Construction	Potential affect to the project schedule due to delays in relocating utilities or services identified that conflict with the proposed works for both the ROW and wider project area.	High	Medium	Short-term			<u>General Mitigation</u> Consultation and engagement of all affected parties will commence at an early stage to identify and resolve any potential issues that could affect the project schedule and to ensure that the utility is relocated to an appropriate location so as not to affect the proposed works.	Metrolinx and Utility and Service Owners/Providers

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R13: Other	1	Barrie Rail Corridor	Consultation with CN	Operational Construction	Potential for delays to project schedule based on requirements to satisfy CN operational interests, including during construction of the proposed works.	Medium	High	Long-term		Agency Review (CN)	<u>General Mitigation</u> Consultation and engagement of all affected parties will commence at an early stage to identify and resolve any potential issues that could affect the project schedule.	Metrolinx and CN
R13	2	Barrie Rail Corridor	Consultation with VIA Rail	Operational Construction	Potential for delays to project schedule based on requirements to satisfy VIA Rail operational interests, including during construction of the proposed works.	Medium	High	Long-term		Agency Review (VIA Rail)	<u>General Mitigation</u> Consultation and engagement of all affected parties will commence at an early stage to identify and resolve any potential issues that could affect the project schedule.	Metrolinx and VIA
R13	3	Barrie Rail Corridor	Electrification	Design and Construction	Potential for delays to project schedule and impacts to project costs for additional work required for electrification including grounding and bonding and protection to existing underground utilities and structures.	High	High	Long-term			<u>General Mitigation</u> Provision has been made as far as possible for future electrification of the Barrie corridor.	Metrolinx
R13	4	Barrie Rail Corridor	Coordination and Interface with other projects	Construction Operational	Potential that the ECLRT or Barrie Corridor Expansion works will not be completed in advance of the Caledonia GO Station works commencing which will affect the project schedule.	High	High	Mid-term			<u>General Mitigation</u> Ongoing consultation with the other projects within the study area.	Metrolinx
R13	5	Caledonia GO Station Project Area	Coordination and Interface with other projects	Operational	Potential for delays to the project schedule and impact to project costs due to changes to interfacing projects, notably Caledonia ECLRT Station and the Barrie Rail Corridor Expansion Project.	High	Medium	Short-term			<u>General Mitigation</u> Ongoing consultation with the other projects within the study area.	Metrolinx
R13	6	Caledonia GO Station Project Area	Property Needs	Operational	Potential for affected property owner opposition to the property acquisition required for the project area and also for construction easements to accommodate the works.	Medium	Medium	Short-term		Private land sale agreement	<u>General Mitigation</u> Consultation and engagement of all affected parties will commence at an early stage to identify and resolve any potential issues that could affect the project schedule and to ensure that the property is acquired prior to the construction stage.	Metrolinx
R13	7	Eglinton Avenue West Bridge (BHR1)	Property Needs	Construction Operational	Potential delays to project schedule if early works for widening the Eglinton Avenue West Bridge are not completed by the City of Toronto in advance of the Caledonia GO Station Works commencing.	High	Medium	Short-term		City of Toronto	<u>General Mitigation</u> Consultation and engagement of all affected parties will commence at an early stage to identify and resolve any potential issues that could affect the project schedule.	Metrolinx and City of Toronto
R13	8	Caledonia GO Station Project Area	Property Needs	Construction Operational Stakeholder & Public Relations	Potential delays to the project schedule if additional land is identified to be acquired from the verification of the legal survey or topographical survey. Potential impact on construction cost.	Medium	Medium	Short-term		Private land sale agreement	<u>General Mitigation</u> Consultation and engagement of all affected parties will commence at an early stage to identify and resolve any potential issues that could affect the project schedule.	Metrolinx
R13	9	Caledonia GO Station Project Area	Property Needs	Construction Operational Stakeholder & Public Relations	Potential that geotechnical investigation will require amendments to the current scope of work, requiring additional land to be acquired to accommodate different construction methods that may need to be used. Potential impact on construction cost.	Medium	Medium	Short-term		Private land sale agreement	<u>General Mitigation</u> Consultation and engagement of all affected parties will commence at an early stage to identify and resolve any potential issues that could affect the project schedule.	Metrolinx
R13	10	Caledonia GO Project Area	Land Use Property Needs	Construction	Potential for delays to project schedule due to delays in construction easements being granted.	High	Medium	Short-term		Private land access agreement	<u>General Mitigation</u> Consultation and engagement of all affected parties will commence at an early stage to identify and resolve any potential issues that could affect the project schedule.	Metrolinx



BURNSIDE

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Appendix B

Monitoring Plan

Appendix B

Appendix B - Monitoring Plan

Risk ID	Impact Description	Mitigation Plan	Monitoring Activities	Monitoring Frequency	Monitoring Responsibility	Benchmarks for Mitigation Success
Provide a unique identifier for risk	describes the specific impact on the environmental area or feature class, the root cause of the impact and the effect that the impact will have on the project implementation (i.e., schedule, budget, scope, costs, and quality) or the environment	provides potential responses to be undertaken to reduce or avoid anticipated impacts.		Specify pre-construction, construction, and/or post-construction.	Personnel assigned to oversee mitigation measures implementation and maintenance	
R1: Natural Heritage	Permanent removal or disturbance of vegetation that comprises the City's Natural Heritage System, during construction.	<p>General Mitigation Compensation to include both trees and plantable area/planting locations.</p> <p>Develop landscape plans to stabilize and re-vegetate any disturbed areas surrounding buildings and facilities. The landscape plan shall include provisions for replacement plantings comprised of high quality native, non-invasive species.</p> <p>Coordinate adjacent offsite planting locations with City of Toronto and TRCA.</p>	<p>An environmental inspector shall regularly monitor construction to ensure that activities do not encroach into vegetated areas beyond the scope of work.</p> <p>Ensure success of plant establishment through planting contractor warranty inspections.</p>	<p>Pre-construction: Fencing to be inspected for correct placement.</p> <p>Construction: Daily monitoring of fencing and construction activity.</p> <p>Construction: Inspection for care requirements (e.g. watering) as needed.</p> <p>Post-construction: Inspection of plantings.</p>	<p>Site Inspector</p> <p>Landscape Contractor</p> <p>Landscape Architect</p>	<p>Equipment and machinery is contained in designated areas by the end of the monitoring period.</p> <p>Silt and tree protection fencing is installed and maintained throughout the construction phase and existing vegetation and trees are not impacted by the end of the monitoring period.</p> <p>Installed plant material is satisfactory to the Landscape Architect.</p>
		<p>Construction Mitigation Limit vegetation disturbance associated with the footprint of the station facilities to the furthest extent possible.</p> <p>Keep the movement of equipment and machinery to the designated staging areas and work zones and ensure the following of environmentally sound practices.</p> <p>The movement of equipment and machinery shall be kept to the designated staging areas and work zones and environmentally sound practices shall be followed.</p> <p>For trees on property situated on or adjacent to construction sites: Silt fencing and/or tree protection fencing shall be installed in accordance with the City's Tree Protection Policy, the approved Tree Protection Plan, and/or as agreed to by Urban Forestry, to protect existing vegetation not proposed for injury or removal. This applies to trees on the construction site and on properties adjacent to the construction site (neighbour trees).</p> <p>Tree protection barriers must be installed around trees to be protected using plywood clad hoarding or an equivalent approved by Urban Forestry (Toronto). All supports and bracing to safely secure the barrier should be outside the Tree Protection Zone (TPZ). All such supports and bracing should minimize damage to roots outside the TPZ.</p> <p>Topsoil shall be stockpiled separately from other soil materials and used for restoration to facilitate natural regeneration of native species.</p> <p>Install compensation plantings in accordance with landscape plans.</p>	<p>Silt fencing and/or tree protection fencing (along with signage for TPZs) shall be monitored regularly by an environmental inspector to ensure they are functioning and maintained, as required.</p> <p>If the silt fencing and tree hoarding are not functioning, alternative measures shall be implemented and prioritized above other construction activities.</p> <p>Following construction, all new vegetation, natural restoration, and compensation plantings must continue to be watered and monitored until established.</p>			
R1	Loss of plantable area for compensation plantings.	<p>General Mitigation Identify locations of offsite planting within adjacent public property (i.e. parklands) to receive plantings, in coordination with TRCA and City staff.</p> <p>Construction Mitigation Plant installation to be coordinated with construction work.</p>	<p>Ensure success of plant establishment through planting contractor warranty inspections.</p> <p>Following construction, all new vegetation, natural restoration, and compensation plantings must continue to be watered and monitored until established.</p>	<p>Construction: Inspection for plant care requirements (e.g. watering) as needed.</p> <p>Post-construction: Inspection of plantings.</p>	<p>Landscape Contractor</p> <p>Landscape Architect</p>	Planted materials are successfully established
R1	Potential for the encroachment by contractors and equipment into protected vegetation zones on adjacent lands (parklands).	<p>Construction Mitigation Install sturdy vegetation protection measures (e.g., paige wire fencing) with signage.</p>	Qualified personnel are required to inspect and repair protection measures as needed.	Construction: Daily monitoring	Site Inspector	Construction does not encroach into protected vegetation zones on adjacent lands by the end of the monitoring period.

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Risk ID	Impact Description	Mitigation Plan	Monitoring Activities	Monitoring Frequency	Monitoring Responsibility	Benchmarks for Mitigation Success
Provide a unique identifier for risk	describes the specific impact on the environmental area or feature class, the root cause of the impact and the effect that the impact will have on the project implementation (i.e., schedule, budget, scope, costs, and quality) or the environment	provides potential responses to be undertaken to reduce or avoid anticipated impacts.		Specify pre-construction, construction, and/or post-construction.	Personnel assigned to oversee mitigation measures implementation and maintenance	
R1	Potential for disturbance to breeding birds or migratory birds and their habitat removal of vegetation.	<p>General Mitigation Ensure that timing constraints are applied to avoid vegetation clearing (including grubbing) and/or structure works (construction, maintenance) during the core breeding bird period. Note: Environment Canada broadly defines the core breeding bird period for open habitat (in which vegetation clearing should be avoided) in nesting Zone C (Ontario) as typically April 26 to July 31; however, this period can extend earlier and later for some species. This window stipulates when clearing should be avoided to prevent impacts to open habitat. This window is separate from timing windows for completion of breeding bird surveys, generally from May 24-July 10 (as stipulated by Bird Studies Canada (Cadman, M.D., et al., 2007).</p> <p>Active nests (nests with eggs or young birds) of protected migratory birds, including SAR protected under the ESA, 2007, cannot be destroyed.</p> <p>Construction Mitigation If a nesting migratory bird (or SAR protected under ESA, 2007) is identified within or adjacent to the construction site and the construction activities are such that continuing construction in that area would result in a contravention of the MBCA or ESA, 2007, all activities will stop and the Contract Administrator (with assistance from a Qualified Avian Biologist) will discuss mitigation measures with the Metrolinx - Environment Program and Assessment department. MNRF and Environment Canada should be contacted to discuss mitigation options. The Contractor Administrator will instruct the Contractor on how to proceed based on the mitigation measures established through discussions with Metrolinx, MNRF and/or Environment Canada.</p>	Breeding bird surveys are not required. Given the small footprint of the Study Area, nest surveys may be carried out by skilled and experienced observers using appropriate methodology (as per Environment Canada guidelines) immediately prior to vegetation removal (i.e., 1-2 days).	Construction: Daily monitoring	Site Inspector Qualified Avian Biologist	Construction activities do not contravene the MBCA by the end of the monitoring period.
R1	Potential for removal of Chimney Swift (<i>Chaetura pelagica</i>) habitat in the chimney on the structure at 2-4 Croham Road (to be confirmed by future targeted surveys, if necessary).	<p>General Mitigation Prior to removal of the structure, confirmation is required to determine if the chimney structure is being used by Chimney Swift. If the chimney structure is not sealed or capped a species-specific survey may need to be completed during the appropriate timing windows (as per Bird Studies Canada survey protocols) and in consultation with the local MNRF District Office SAR Biologist.</p> <p>In the event that SAR are found within the study limits, an MNRF SAR Biologist will be contacted for advice as these animals are protected under ESA, 2007.</p>	If the chimney structure at 2-4 Croham Road is determined not to be sealed or capped, monitor the structure during the appropriate timing windows (as per Bird Studies Canada survey protocols and consultation with MNRF) to determine if Chimney Swift are present.	Pre-construction: Once, during appropriate timing windows, prior to removal of structure at 2-4 Croham Road.	Site Inspector Qualified Biologist MNRF SAR Biologist (if required)	Construction activities do not interfere with Chimney Swift individuals by the end of the monitoring period.
R1	Displacement and disturbance of wildlife and wildlife habitat during the construction phase (i.e., vegetation removals, noise) through reduction of habitat (tree canopy areas).	<p>General Mitigation Develop a Landscape Plan to stabilize and re-vegetate any disturbed areas surrounding buildings and facilities. The Landscape Plan shall include provisions for replacement plantings comprised of high quality native, non-invasive species.</p> <p>Install compensation plantings in offsite lands in coordination with City of Toronto and TRCA. Landscape plans and coordination with agencies to coordinate compensation plantings on adjacent lands to provide improved habitat for wildlife.</p>	Monitor that any animals encountered are reported to the Contract Administrator and that no harm comes to animals during construction.	Construction: Daily monitoring	Site Inspector Qualified Biologist MNRF SAR Biologist (if required)	Construction activities do not harm wildlife by the end of the monitoring period.
		<p>Construction Mitigation Some wildlife may be displaced during construction activities and after construction of the GO Station. Some wildlife habitat may be removed as a result of the proposed activities. It is expected that wildlife inhabiting the Study Area are species which are tolerant of disturbance and are resilient to changes in urban environments. It is expected that these species which have adapted to existing disturbances will return upon completion of the construction activities and will utilize habitat that will be present.</p> <p>In the event that an animal encountered during construction does not move from the construction zone, the Contract Administrator will be notified. If the construction activities are such that continuing construction in the area would result in harm to wildlife, construction activities in that location will temporarily stop and MNRF will be contacted for direction.</p> <p>In the event that SAR are found within the study limits all activities will stop and mitigation options will be discussed with the Metrolinx - Environment Program and Assessment department, whereby an MNRF SAR Biologist may be contacted for advice as these animals are protected under ESA, 2007.</p>				

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Risk ID	Impact Description	Mitigation Plan	Monitoring Activities	Monitoring Frequency	Monitoring Responsibility	Benchmarks for Mitigation Success
Provide a unique identifier for risk	describes the specific impact on the environmental area or feature class, the root cause of the impact and the effect that the impact will have on the project implementation (i.e., schedule, budget, scope, costs, and quality) or the environment	provides potential responses to be undertaken to reduce or avoid anticipated impacts.		Specify pre-construction, construction, and/or post-construction.	Personnel assigned to oversee mitigation measures implementation and maintenance	
R1	Potential for the erosion of soils and impacts to surface water and offsite lands during the construction period.	<p><u>General Mitigation</u> An Erosion and Sediment Control (ESC) Plan will be developed in consultation with Toronto and Region Conservation Authority (TRCA). Implementation of the ESC measures will conform to recognized standard specifications such as Ontario Provincial Standards Specification (OPSS) and the requirements of the TRCA. The ESC Plan will also take into account the Greater Golden Horseshoe Area Conservation Authorities (GGHACA) Erosion and Sediment Control Guidelines for Urban Construction.</p> <p><u>Construction Mitigation</u> Implement and maintain ESC Plan during construction phase.</p>	Qualified personnel are required to inspect and repair ESC measures as needed.	Construction: Weekly inspection, or daily following rain events	Certified Inspector of Sediment and Erosion Control (CISEC) Site Inspector	Soil movement is restricted as specified by the ESC plan by the end of the monitoring period.
R1	Potential for the movement of contaminated soils around or away from site. Impact would affect project scope and costs.	<p><u>Construction Mitigation</u> A Soil Management Plan (SMP) shall be prepared by a Qualified Professional during the detailed design phase to form part of the Construction Contract for managing soil materials onsite (includes excavation, location of stockpiles, reuse, and offsite disposal).</p>	Monitor the movement of soils to ensure the SMP is followed.	Construction: Daily monitoring	Site Inspector	Soil movement is restricted as specified by the SMP by the end of the monitoring period.
R1	Potential contamination of soils resulting from a spill or release of fuels and toxic substances during construction.	<p><u>General Mitigation</u> An emergency response and communications plan will be developed during detailed design to ensure proper mitigation and notification procedures are in place regarding soil quality during project operation.</p> <p><u>Construction Mitigation</u> Refueling of equipment and fuel storage shall be conducted in designated areas with spill protection.</p>	Monitor for leaks and spills	Construction: Daily monitoring	Contractor and Construction Administrator	No leaks or spills occur or are cleaned up in as per requirements.
R1	Potential impacts to groundwater from construction activities including dewatering activity and potential contamination from leaks, spills.	<p><u>General Mitigation</u> Investigate potential for localized groundwater impacts and retain services for a detailed hydrogeological study, if recommended following geotechnical investigations. Consult TRCA if hydrogeological studies are undertaken.</p> <p>Coordinate any dewatering requirements with the other project works that may be ongoing in the Project Area, including Barrie Rail Corridor Expansion Project and Eglinton Crosstown LRT.</p> <p>Determine dewatering requirements as applicable for the construction works including building/ bridge foundations and track lowering and consult with the TRCA on dewatering for construction work.</p> <p><u>Construction Mitigation</u> Contractor and Construction Administrator to implement dewatering in accordance with the TRCA approved plans.</p>	Monitor for leaks and spills	Construction: Daily monitoring	Contractor and Construction Administrator	No leaks or spills occur or are cleaned up in as per requirements. Dewatering is completed in accordance with permit.
R1	Potential for dewatering activities required for construction of the new GO Station to affect the Eglinton Avenue West Bridge structure and substructure.	<p><u>General Mitigation</u> In conjunction with the Geotechnical Investigation, a dewatering plan will be prepared if required, for the construction of the new GO Station works. This dewatering plan will be cognizant of any dewatering activities that are ongoing for the ECLRT or Barrie Expansion project. Consultation will be sought from the TRCA.</p>	The bridge will be monitored during construction of the new GO Station works by way of pre-condition and post-condition monitoring.	Construction: Daily monitoring Post-construction: Weekly monitoring	Site Inspector	Dewatering is completed in accordance with TRCA permit.
R2: Trees	Potential to impact operations if tree numbers 1 and 2 (poor condition) fall on the track.	<p><u>General Mitigation</u> Consult with project arborist during the detailed design phase of the project to determine if tree numbers 1 and 2 should be removed and establish an appropriate tree removal plan.</p> <p><u>Construction Mitigation</u> If tree numbers 1 and 2 are to be removed, the Contractor will follow the measures for tree removal as set out in the tree removal plan.</p>	Monitoring to confirm that these trees are felled as part of the construction phase.	Construction: Weekly monitoring	Site Inspector	Operations are not impacted.
R2	Loss of onsite trees to accommodate the construction.	<p><u>General Mitigation</u> Tree replacement will occur where the trees' function is being lost for screening or landscape aesthetics (where reasonable and space permits). Tree replacement methods to be implemented by the Landscape Contractor will be documented on the Landscape Plan.</p> <p><u>Construction Mitigation</u> Implement tree replacement as per specifications on Landscape Plan.</p>	Monitor that trees protection measures are installed correctly and in good repair.	Construction: Weekly monitoring, or daily if construction works are occurring immediately adjacent.	Site Inspector	Tree protection measures are in good repair throughout monitoring period.
R2	Trees to be preserved adjacent to construction zones impacted by construction.	<p><u>General Mitigation</u> Tree Protection Plan to be prepared in coordination with detailed design to identify locations of tree protection fence, in accordance with City By-Law requirements.</p> <p><u>Construction Mitigation</u> Install tree protection fence around trees to be preserved.</p>	Monitor that trees protection measures are installed correctly and in good repair.	Construction: Weekly monitoring, or daily if construction works are occurring immediately adjacent.	Site Inspector	Tree protection measures are in good repair throughout monitoring period.

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Risk ID	Impact Description	Mitigation Plan	Monitoring Activities	Monitoring Frequency	Monitoring Responsibility	Benchmarks for Mitigation Success
Provide a unique identifier for risk	describes the specific impact on the environmental area or feature class, the root cause of the impact and the effect that the impact will have on the project implementation (i.e., schedule, budget, scope, costs, and quality) or the environment	provides potential responses to be undertaken to reduce or avoid anticipated impacts.		Specify pre-construction, construction, and/or post-construction.	Personnel assigned to oversee mitigation measures implementation and maintenance	
R2	Potential for delays to project schedule as a result of public opposition to the alteration or removal of trees.	<u>General Mitigation</u> Consultation and engagement of all affected parties will commence at an early stage to identify and resolve any potential issues that could affect the project schedule.	N/A	N/A	N/A	N/A
R2	Potential for delays to project schedule as a result of public opposition to the alteration or removal of trees on City-owned parklands.	<u>General Mitigation</u> Consultation and engagement of all affected parties will commence at an early stage to identify and resolve any potential issues that could affect the project schedule.	N/A	N/A	N/A	N/A
R3: Archaeology	Potential to impact archaeological resources and project schedule and scope in the event that an isolated or deeply buried archaeological deposit not found during Stage 1 Archaeological Assessment is unearthed during construction.	<u>Construction Mitigation</u> Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the Ontario Heritage Act. If the Contractor or a person under direction of the Contractor discovers an archaeological resources, they must cease alteration of the site immediately. The Contractor shall engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with sec. 48 (1) of the Ontario Heritage Act.	N/A	N/A	N/A	N/A
R4: Cultural Heritage	Potential direct impacts to the York Beltline Trail, which has been identified as a Provincial Heritage Property, may include the loss of the resource through demolition or the displacement of resources through relocation. Potential indirect impacts may include the disruption of resources by introducing physical, visual, audible or atmospheric elements that are not in keeping with the resources/their setting.	<u>Construction Mitigation</u> Staging/construction activities should be planned to avoid impacts to identified provincial heritage resources. Landscaping/rehabilitation should be undertaken in a manner that is sympathetic to overall setting.	Monitoring to confirm that staging/construction activities avoid provincial heritage resource.	Construction: Weekly monitoring	Site Inspector	No physical damage to cultural heritage resource.
R5: Socio-Economic and Land Use Characteristics	Potential for temporary impacts during the construction phase that could potentially disrupt access to existing businesses, residents and parkland.	<u>Construction Mitigation</u> A traffic management plan for the construction phase will be developed by the contractor for approval by Metrolinx (to include considerations for bicycle traffic and access to businesses, residences, trails and parks).	Monitor that traffic management plan is effective.	Construction: Daily monitoring	Site Inspector	Traffic movement is in compliance with the traffic management plan by the end of the monitoring period.
R5	Potential for aesthetic impacts during the construction phase (i.e. temporary storage sites for equipment, stock piling of substrate materials, etc.).	<u>Construction Mitigation</u> Construction delays will be avoided to the extent possible in order to minimize construction time. All stockpiled materials will be fenced and the construction area will be minimized to the extent possible to ensure that the construction zone does not sprawl beyond that which is necessary.	Monitor that all stockpiled materials are fenced and the construction area is minimized and not sprawling beyond that which is necessary.	Construction: Daily monitoring	Site Inspector	Stockpiled materials are properly fenced and construction area does not sprawl beyond that which is necessary by the end of the monitoring period.
R6: Air Quality	Potential for construction vehicle or dust emissions that could affect businesses, residents and parkland users during construction stage.	<u>Construction Mitigation</u> Vehicles/machinery and equipment shall be in good repair, equipped with emission controls, as applicable, and operated within regulatory requirements. Onsite vehicle speeds will be reduced. The contractor shall also be required to implement dust suppression measures to reduce the potential for airborne particulate matter resulting from construction activities. This should be in the form of water applications on exposed soils. The contractor shall also ensure that wheels of vehicles leaving the site are washed down, when necessary and vehicles carrying dusty materials will be securely covered before leaving the site.	Regular inspection of construction work zones to ensure that dust suppression measures are being adequately applied. If dust suppression measures are not functioning properly, alternative measures shall be implemented immediately and prioritized above other construction activities.	Construction: Daily monitoring	Site Inspector	Visual dust plumes do not occur for extended time periods during construction stage. No dust complaints from residents or businesses.
R7: Noise	Potential for temporary noise impacts that could affect businesses, residents and parkland users during the construction stage.	<u>Construction Mitigation</u> Noise control measures shall be implemented where required during the construction phase, such as restricted hours of operation and the use of appropriate machinery and mufflers. Impacts to be managed to ensure compliance with provincial regulations and local bylaws (where possible).	Regular monitoring of construction noise to ensure that noise control measures are being adequately applied. If noise control measures are not functioning properly, alternative measures shall be implemented immediately and prioritized above other construction activities.	Construction: Daily monitoring	Site Inspector	No noise complaints from residents or businesses.
R9: Traffic	Construction ingress/egress impacts on adjacent neighbourhoods	<u>Construction Mitigation</u> Construction access route / construction parking to be restricted.	Regular monitoring of construction access operations.	Construction: Daily monitoring	Metrolinx and City of Toronto	Minimal complaints from local residents.

Appendix C
Compliance Monitoring Plan

Appendix C

**Caledonia GO Station Transit Project
Assessment Process Compliance
Monitoring Program**

Metrolinx

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Distribution List

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Record of Revisions

Revision	Date	Description
0	February 16, 2016	Final Submission to Metrolinx for Review
1	February 22, 2016	Final EPR

R.J. Burnside & Associates Limited

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1.0 Purpose

The purpose of this Compliance Monitoring Program (CMP) is to assist a future prospective contractor for the construction of the Caledonia GO Station to efficiently and effectively implement all mitigation and monitoring activities for matters of provincial importance relating to the natural environment, cultural heritage values or interests, or constitutionally protected Aboriginal or treaty rights.

This document is to be read in conjunction with the other risk monitoring requirements outlined in the Caledonia GO Station Environmental Project Report (EPR) and Impact Assessment, Mitigation and Monitoring (IAMM) Report that are in addition to the provincially important monitoring requirements described below.

2.0 Project Background

Metrolinx, an agency of the Province of Ontario, has retained R.J. Burnside & Associates Limited (Burnside) to complete a Transit Project Assessment Process (TPAP) and Preliminary Design Update to support the development of the future Caledonia GO Station. This new station will be located near the intersection of Eglinton Avenue West and Caledonia Road, where the proposed Eglinton Crosstown Light Rail Transit line intersects with the GO Transit Barrie Rail Corridor (northwest quadrant of Eglinton Avenue West and Croham Road).

3.0 Matters of Provincial Importance

The Transit Project Assessment Process (TPAP), as prescribed in Ontario Regulation 231/08 (O.Reg. 231/08) defines matters that are considered to be of provincial importance or that are related to constitutionally Aboriginal or treaty rights. The Ministry of Environment and Climate Change (MOECC) provides the following list in the Guide to the Ontario's Transit Project Assessment Process (January, 2014), which outlines matters that may be relevant in determining provincial importance:

- A park, conservation reserve or protected area;
- Extirpated, endangered, threatened, or species of special concern and their habitat;
- A wetland, woodland, habitat of wildlife or other natural heritage area;
- An area of natural or scientific interest;
- A stream, creek, river or lake containing fish and their habitats;
- An area or region of surface water or groundwater or other important hydrological feature;
- Areas that may be impacted by a known or suspected on or off-site source of contamination such as a spill, a gasoline outlet, an open or closed landfill site etc.
- Protected heritage property;
- Built heritage resources;

- Cultural heritage landscapes;
- Archaeological resources and areas of potential archaeological interest;
- An area designated as an escarpment natural area or an escarpment protection area by the Niagara Escarpment Plan under the *Niagara Escarpment Planning and Development Act*;
- Property within an area designated as a natural core area or natural linkage area within the area to which the Oak Ridges Moraine Conservation Plan under the *Oak Ridges Moraine Conservation Act, 2001* applies; and
- Property within an area described as a key natural heritage feature or a key hydrologic feature in the Protected Countryside by the Greenbelt Plan under the *Greenbelt Act, 2005*.

Based on the list above, the following two potential impacts from the Project are considered matters of provincial importance:

1. Potential for removal of Chimney Swift (*Chaetura pelagica*) habitat in the chimney on the structure at 2-4 Croham Road.;
2. Potential direct impacts to York Beltline Trail.

Both risks are further detailed in subsequent sections.

4.0 Mitigation and Monitoring Requirements for Matters of Provincial Importance

4.1 Natural Environment

4.1.1 Species at Risk: Chimney Swift (*Chaetura pelagica*)

In accordance with the TPAP Guide (MOECC, January 2014), extirpated, endangered, threatened, or species of special concern and their habitat are matters of provincial importance. The chimney at 2-4 Croham Road, which will be removed for the development of the Caledonia GO Station has the potential to be used by Chimney Swift, which is as Species at Risk (SAR) and designated as Threatened under the Ontario Endangered Species Act (ESA), 2007. If the chimney is used by Chimney Swift, then the removal of the habitat is considered a matter of provincial importance.

Prior to removal of the structure, confirmation is required to determine if the chimney structure is being used by Chimney Swift. If the chimney is not sealed or capped, surveys may need to be completed during the appropriate timing windows (as per Bird Studies Canada survey protocols) and in consultation with the local MNR District Office SAR Biologist. In the event that SAR are found or evidence of use is confirmed within the study limits, a local MNR District Office SAR Biologist will be consulted for specific direction.

Monitoring is to be completed once, during appropriate timing windows, prior to the removal of structure at 2-4 Croham Road by a qualified biologist, along with an MNRF SAR Biologist (if required). Mitigation will be considered a success if the structure is demolished without interfering with Chimney Swift individuals.

4.2 Cultural Heritage Values or Interests

4.2.1 York Beltline Trail

The York Beltline Trail forms a section of a 9 km cycling and walking rail trail through the City of Toronto, and the trail's west terminus is located directly adjacent to the north-east portion of the Project Area at Bowie Avenue. The York Beltline Trail has been identified as a heritage property as the property retains municipal/local cultural heritage value or interest in accordance with O.Reg. 9/06. Studies including a Cultural Heritage Evaluation Report (CHER) and Heritage Impact Assessment (HIA) have been completed for the York Beltline Trail. The results of the HIA show that the property is considered a Provincial Heritage Property (PHP); however, it is not considered a PHP of provincial significance. As such, the York Beltline Trail has the potential to be considered a matter of provincial importance.

The Project will result in potential direct impacts to the York Beltline Trail through demolition or displacement through relocation. Further, this resource could be indirectly impacted by introducing physical, visual, audible or atmospheric elements that are not in keeping with the resource or its setting. These impacts can be mitigated by ensuring that staging and construction activities are planned to avoid impacts to the York Beltline Trail, and all landscaping and rehabilitation should be undertaken in a manner that is sympathetic to the overall setting.

Monitoring is to be completed weekly during the construction phase by an environmental monitor to confirm that staging/construction activities avoid this cultural heritage resource. Mitigation will be considered a success if there is no physical damage to this cultural heritage resource throughout construction of the Project.

4.3 Constitutionally Protected Aboriginal or Treaty Rights

No constitutionally protected Aboriginal or treaty rights have been identified within the Project Area.

5.0 Future Actions and Additional Studies

This CMP has been prepared in conjunction with the Caledonia GO Station TPAP and is intended to assist a future prospective contractor to efficiently and effectively implement all mitigation and monitoring activities related to matters of provincial importance or constitutionally protected Aboriginal or treaty rights. This document will be reviewed and

further developed during the detailed design phase of the Project for incorporation into the Caledonia GO Station Construction Contract. This CMP should be implemented in conjunction with the many other monitoring requirements that are in addition to the monitoring described herein.

6.0 References

MOECC (Ministry of Environment). January 2014. Ontario's Transit Project Assessment Process.