

The background image shows a busy urban transit station. In the foreground, several pedestrians are walking on a paved path. A light rail train is visible in the middle ground, stopped at the station platform. The station has a modern design with a red and white color scheme. The text "PARK LAWN STATION" is visible on a sign above the platform. The overall scene is captured in a slightly desaturated, blue-tinted style.




APPENDIX B

Tree Inventory Plan

**Lakeshore Development Inc.
Park Lawn GO Station
Tree Inventory Plan**

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2021-12-17	0	Jennifer Koskinen	Melissa Alexander	Mark Armstrong	Final Report
Signatures					
Date	Rev.	Prepared By	Checked By	Approved By	Status
HATCH					

Executive Summary

Lakeshore Development Inc. (“the Developer”) has proposed the new Park Lawn GO Station to be developed in partnership with Metrolinx, located at the north end of 2150 Lake Shore Boulevard West in the City of Toronto (“the Project”). Hatch was retained by the Developer to undertake an Environmental Assessment (EA) for the proposed Park Lawn GO Station on the Lakeshore West rail corridor. The Initial Business Case (IBC) (2016) recognized Park Lawn as a strategic location of dense development and growth, as well as opportunity to integrate with local transit in the area. The Park Lawn GO Station will provide a stop between Mimico GO Station and Exhibition GO Station. The Park Lawn GO Station will be located 100 metres south of the Gardiner Expressway, 300 metres northwest of Lake Shore Boulevard West, on both sides of Park Lawn Road, and both sides of the Lakeshore West rail corridor within the City of Toronto.

The evaluation of environmental impacts of the proposed Park Lawn GO Station has been carried out in accordance with the Transit Project Assessment Process (TPAP). The TPAP is regulated by the *Environmental Assessment Act* (EAA) under Ontario Regulation 231/08 – Transit Projects and Metrolinx Undertakings (O. Reg. 231/08). The purpose of the TPAP is to ensure effects associated with the Project are clearly identified and mitigated to the greatest extent feasible. For TPAP purposes, Metrolinx is the proponent. The Developer will be constructing the Project and will be responsible for incorporating mitigation measures to address both construction and operation-related effects. Metrolinx will be responsible for operations and maintenance at the GO Station.

As a component of the EA this Tree Inventory Plan (TIP) was completed to document the existing conditions and assess the potential effects of the new GO Station on trees and other vegetation in the Study Area. The Project Footprint includes the limits of the Preferred Station Design (completed by Hatch, 2020). The Study Area includes the construction buffer area applied for different regulations; 6 m for City of Toronto private and public lands and 12 m for Toronto and Region Conservation Authority (TRCA) and Ravine and Natural Feature Protection (RNFP) limit.

A total of 207 individual trees were assessed; in addition, a stem count tally for vegetation under 4-centimetre (cm) diameter at breast height (DBH) was completed for TRCA Regulated Areas where they intersected with the project limits. The tally resulted in a total of 405 stems throughout the Study Area.

During the field investigation, a screening was undertaken for any woody vegetative Species at Risk (SAR) (i.e., Butternut) within the Study Area. One planted Kentucky Coffee Tree was observed. This tree does not require a permit with Ministry of the Environment, Conservation and Parks (MECP) as it is a planted street tree. There were no other SAR observed within the Study Area during the field investigations.

To meet the requirements for construction activities, it is anticipated that 178 trees will be required for removal, nine trees will be expected to be injured, and 20 trees will be preserved.

Table 0-1: Tree Removal, Injury and Preservation Summary, provides a summary of the impacts to trees based on the tree category description that trees were grouped under. Please note that the Project Footprint is considered equivalent to the City's term 'subject site'.

Table 0-1: Tree Removal, Injury and Preservation Summary

Tree Category	Tree Category Description	Potential Removals	Potential Injuries	Trees to be Preserved
1	Trees with diameters of 30 cm or more, situated on private property on the Project Footprint.	11	0	0
2	Trees with diameters of 30 cm or more, situated on private property, within 6 m of the proposed construction on the Project Footprint.	5	0	0
3	Trees of all diameters situated on City owned parkland within 6 m of the Project Footprint.	18	0	0
4	Trees of all diameters situated within lands designated under City of Toronto Municipal Code, Chapter 658, Ravine Protection.	66	9	19
5	Trees of all diameters situated within the City road allowance adjacent to the Project Footprint.	1	0	0
6	Trees with diameters of 10 cm to 29 cm situated on private property within the Project Footprint or Study Area	77	0	1
	Total	178	9	20
Total Trees Inventoried :		207		

To mitigate against potential effects to trees associated with the construction and operations/maintenance of the proposed Project, a number of mitigation measures have been prescribed. Mitigation measures relate to construction timing, tree protection measures (Tree Protection Zone barriers), and preservation, proper pruning practices, construction monitoring and reporting, woody material removal and wildlife management.

The primary impact identified as part of this Report is overall canopy cover loss within the City of Toronto and RNFP / TRCA limits. Permits will be required for impacted trees in the City of Toronto for Tree Categories 1 through 5. Permit quantities and types of permits will be identified during the detailed design stage. Consultation with Metrolinx, the TRCA and the City of Toronto will be required during detailed design to identify compensation in accordance with existing guidelines and By-laws (i.e., TRCA Ecosystem Compensation Guideline (2018), City of Toronto Tree By-laws and Guidelines, Metrolinx Vegetation Guideline (2020).

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Appendix A

Tree Inventory Chart

Appendix B

Tree Preservation Plan- Existing Condition Figures

Appendix C

Photography Inventory

Appendix D

City of Toronto General Notes, Specifications and Details

Glossary of Terms and Acronyms

Arborist:	An expert in the care and maintenance of trees including an arborist qualified by the Ontario Training and Adjustment Board Apprenticeship and Client Services Branch, a certified arborist qualified by the International Society of Arboriculture, a consulting arborist registered with the American Society of Consulting Arborists, a registered professional forester or a person with other similar qualifications as approved by the General Manager.
BMP:	Best Management Practice
CFIA:	Canadian Food Inspection Agency
CS:	Crown Structure
CV:	Crown Vigour
Developer:	Lakeshore Development Inc.
DBH:	Diameter at Breast Height
EA:	Environmental Assessment
EAA:	<i>Environmental Assessment Act</i> (Ontario)
EAB:	Emerald Ash Borer
ECCC:	Environment and Climate Change Canada
ESA:	<i>Endangered Species Act</i>
EPR:	Environmental Project Report
IBC:	Initial Business Case
ISA:	International Society of Arboriculture
MBCA:	<i>Migratory Birds Convention Act</i>
MECP (MOE/MOEE/MOECC):	Ministry of the Environment/Ministry of the Environment and Energy/Ministry of the Environment and Climate Change. The Ministry of the Environment was created in 1972 and merged with the Ministry of Energy to form the Ministry of Environment and Energy (MOEE) from 1993 to 1997 and again in 2002. The Ministry of the Environment changed its name to the Ministry of the Environment and Climate Change (MOECC) on June 24, 2014. The Ministry changed its name to Ministry of the Environment, Conservation and Parks (MECP) on June 29, 2018. Thus, the MOE/MOEE/MOECC and MECP are considered to be synonymous for the purposes of this Report.
O. Reg.	Ontario Regulation

PTE:	Permission to Enter
RNFP:	Ravine and Natural Feature Protection
ROW:	Right-of-Way
TI:	Trunk Integrity
TPAP:	Transit Project Assessment Process
TRCA:	Toronto and Region Conservation Authority
TPZ:	Tree Protection Zone

1. Introduction

1.1 Project Description

Lakeshore Development Inc. (“the Developer”) has proposed the new Park Lawn GO Station to be developed in partnership with Metrolinx, located at the north end of 2150 Lake Shore Boulevard West in the City of Toronto (“the Project”). Hatch was retained by the Developer to undertake an Environmental Assessment (EA) for the proposed Park Lawn GO Station on the Lakeshore West rail corridor. The evaluation of environmental impacts of the proposed Park Lawn GO Station has been carried out in accordance with the Transit Project Assessment Process (TPAP). The TPAP is regulated by the *Environmental Assessment Act* (EAA) under Ontario Regulation 231/08 – Transit Projects and Metrolinx Undertakings (O. Reg. 231/08). The purpose of the TPAP is to ensure effects associated with the Project are clearly identified and mitigated to the greatest extent feasible. For TPAP purposes, Metrolinx is the proponent. The Developer will be constructing the Project and will be responsible for incorporating mitigation measures to address both construction and operation-related effects. Metrolinx will be responsible for operations and maintenance at the GO Station.

The Initial Business Case (IBC) (2016) recognized Park Lawn as a strategic location of dense development and growth, as well as opportunity to integrate with local transit in the area. The commitment of GO Regional Express Rail (now referred to as GO Expansion) including more frequent and faster service creates significant opportunity to realize a transit hub bringing together and integrating higher order transit, local transit and other modes. An updated IBC (2018) considered an updated service plan, realigned station to minimize impacts on existing infrastructure, and a redefined station design. An updated IBC (2020) was published June 11, 2020.

This Project will be coordinated with the City of Toronto as appropriate to provide improved local transit access and connectivity to the GO Station, as well as additional and more frequent transit service.

The Park Lawn GO Station will provide a stop between Mimico GO Station and Exhibition GO Station. The Park Lawn GO Station will be located 100 metres south of the Gardiner Expressway, 300 metres northwest of Lake Shore Boulevard West, on both sides of Park Lawn Road, and both sides of the Lakeshore West rail corridor within the City of Toronto.

The Park Lawn GO Station will include a fully accessible station building with platform access points, tunnel infrastructure, multimodal access, bicycle parking and connections with local transit. The proposed Project will include:

- Two side platforms (north and south);
- Pick-up and drop off (PUDO);
- Secure bike parking and covered bicycle parking;
- Two-storey main station building (south of tracks);

- Two-storey secondary station building (north of tracks);
- Landscaping and paving around the north Station building;
- Pedestrian tunnel (under tracks) between the two Station buildings;
- Widening of the existing Park Lawn rail bridge;
- Maintenance and Metrolinx staff parking spaces;
- A pavilion with elevator and stairs north of the rail corridor and a sloped walkway south of the rail corridor, both west of Park Lawn Road;
- Protection for the future island platform;
- Electrification enabling work; and
- Signal work.

As a component of the EA, this Tree Inventory Plan (TIP) has been completed to document the existing conditions, and assess the potential impact of the proposed Park Lawn GO Station on the trees. The Report focuses on and provides information on trees within the vegetation communities identified within the Study Area, while the Natural Environment Report (NER) focuses on larger natural environmental features. It is noted that the NER is provided under separate cover in Appendix B of the Environmental Project Report (EPR).

1.2 2150 Lake Shore Application

The Developer recently resubmitted a combined Official Plan Amendment, Zoning By-law Amendment and Draft Plan of Subdivision application to establish a framework for a transit-oriented mixed-use master plan redevelopment of the 27.7 acre/11 hectare site on the northeast corner of Park Lawn Road and Lake Shore Boulevard West, municipally known as 2150-2194 Lake Shore Boulevard West and 23 Park Lawn Road (2150 Lake Shore Application). These lands are adjacent to the Park Lawn GO Station project.

Hatch was retained to complete an Arborist Report and Tree Preservation Plan to support the 2150 Lake Shore Application. The projects abut each other and as such there are trees that have Tree Protection Zones (TPZ) or driplines that are located on both properties. Hatch has decided that trees that could be considered an 'injury' for Park Lawn GO Station but a 'removal' for the 2150 Lake Shore Application will not be included in the Park Lawn GO project and only identified in the 2150 Lake Shore Application. The trees that could be identified for both projects based on City permit requirements, have only been included for the project with the greatest impact, i.e. removal, and permitted once for only one project. Thus all impacted trees will be permitted either under the Park Lawn GO Station, or the 2150 Lake Shore Application. The footprint for the 2150 Lake Shore Application has been identified in Figure 1-1.

1.3 Study Area

The Park Lawn GO Station will be located on both sides of the Lakeshore West rail corridor and will provide a stop between the Mimico GO Station and Exhibition GO Station. The Park Lawn GO Station will be located at the north end of the former Mr. Christie Cookie factory. The

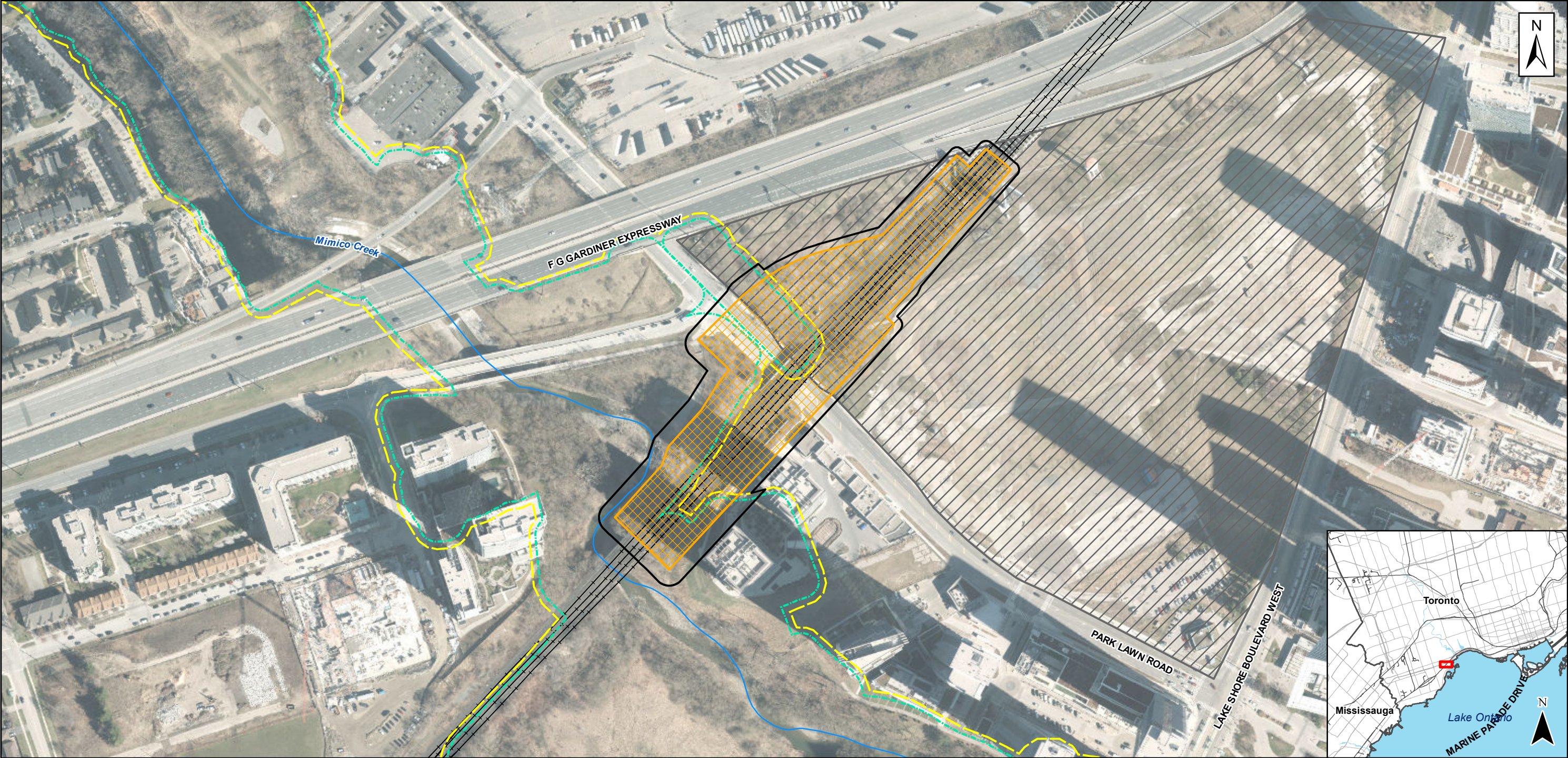
GO Station will be located 100 metres south of the Gardiner Expressway, and 300 metres northwest of Lake Shore Boulevard West, within the City of Toronto.

Based on a review of the City of Toronto Interactive Map and Toronto and Region Conservation Authority (TRCA) Regulated Area Map, a portion of the Project falls within the TRCA Regulated Limits and the Ravine and Natural Feature Protection (RNFP) limits. Therefore, the Study Area is defined as the limits of development including a six metre assessment area beyond the GO Station footprint in accordance with the applicable City of Toronto Tree By-Law. Trees situated on private property or City-owned property within a six metre buffer from the development footprint were included in the tree inventory; as the RNFP regulatory limits require a 12-metre buffer, the Study Area has been expanded to 12 metres for those portions of the project within the RNFP and TRCA limits (see Figure 1-1). The following define the Project Footprint and the Study Area for the Park Lawn project:

Project Footprint: Limits of the Preferred Station Design (2020).

Study Area: Includes the construction buffer area applied for different regulations; 6 m for City of Toronto private and public lands and 12 m for TRCA and RNFP regulated lands.

There are multiple property owners included in the Study Area. Tree ownership and affected properties have been identified on Figure 1-2.



LEGEND

Proposed Project Footprint (approximate)

Study Area 6-12 Metres

Toronto Region Conservation Authority (TRCA) Regulated Area

Ravine and Natural Feature By-law

2150 Lake Shore Footprint

Railway

Permanent Watercourse

NOTES

1. Coordinate system - UTM NAD 1983 Zone 17N

2. Sources: Roads, Railways, Watercourses - Land Information Ontario; RNFP, City of Toronto 2019.

3. Station Footprint Based on Preliminary Station Design.

050100200

Meters

1:3,000

Project:

Park Lawn GO Station

Figure Title:

Tree Inventory Plan - Study Area

Prepared By:

HATCH

Version:

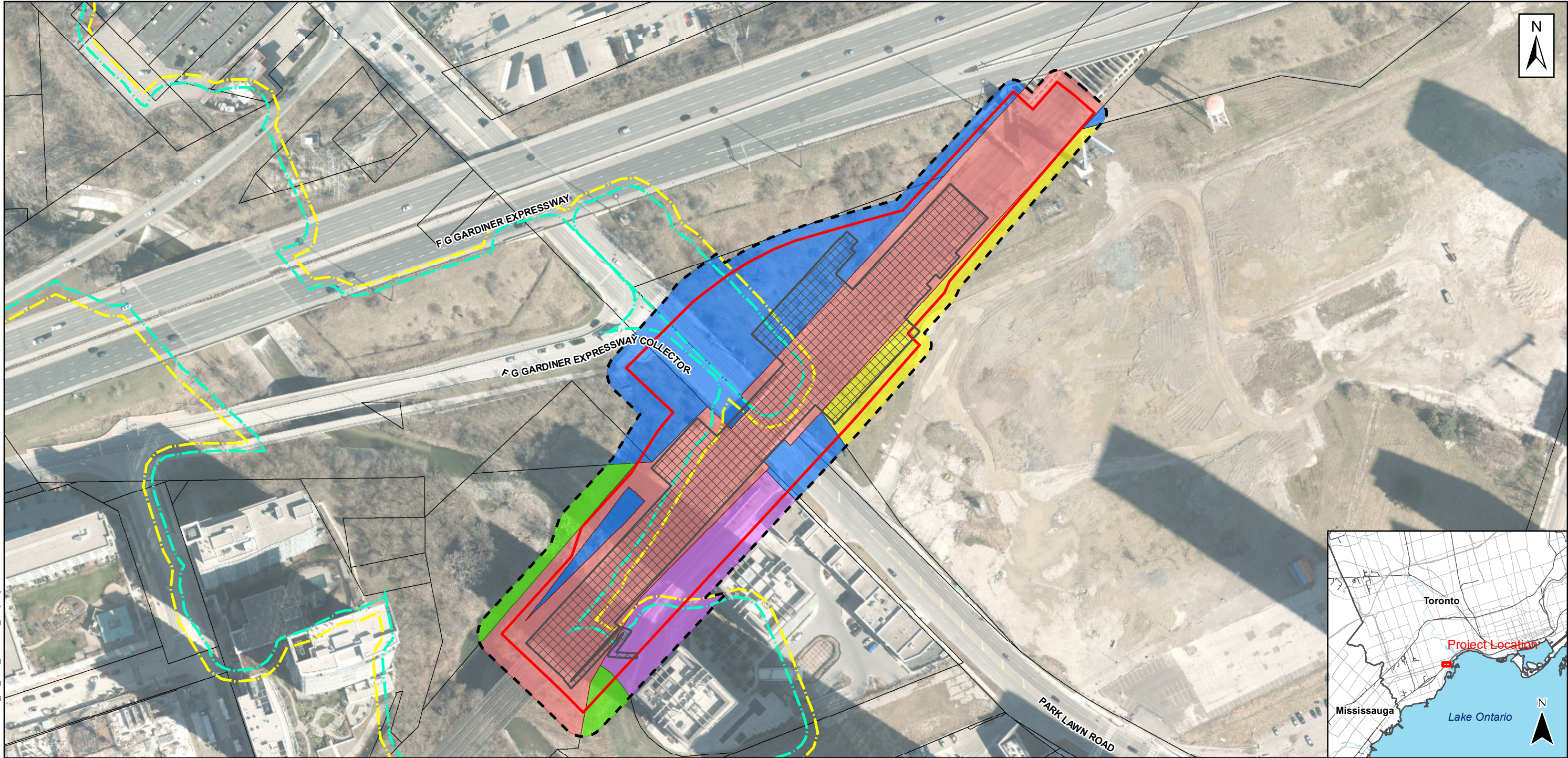
PL.TIP.100-1

Review:

Date: December 17, 2021

Figure:

1-1



LEGEND		NOTES		Project: Park Lawn GO Station	
	Study Area (6-12 Metres)		TRCA Regulation Limit	Figure Title: Tree Inventory Plan - Property Impact Plan	
	Proposed Project Footprint (approximate)		City of Toronto		
	Property Boundary		Lakeshore Development Inc.	Prepared By:	
	Proposed Station Layout		Metrolinx		
	Ravine and Natural Feature By-law		South Beach Condos and Lofts	Version: PL.EP.100-1	
			Toronto and Region Conservation Authority		
				Review:	
				Date: December 17, 2021	
				Figure: 1-2	

2. Assumptions/Limitations

This Report was prepared based on existing information collected during the field inventory completed on April 20, 2020. Additional tree inventory on Metrolinx Right-of-Way (ROW) and TRCA Regulatory and RNFP limits was conducted on June 2 and 3, 2020. Should there be any changes to the Study Area as a result of the GO Station design work, all additional work will be approved by the Developer prior to the commencement of work.

2.1 Permission to Enter

The initial field visit (April 20, 2020) was completed as part of the 2150 Lake Shore Application field visit. Subsequent field visits were conducted during leaf-on season (June 2 and 3, 2020) for work within the Metrolinx ROW and TRCA Regulatory and RNFP limits. Fieldwork to be conducted within the Metrolinx ROW requires track protection, as such, required flagging was provided during fieldwork. Permissions to Enter (PTE) was required for private lands located at 90 Park Lawn Road. The PTE was not obtained in time for the fieldwork, as such assessments were conducted at the fence line/property line adjacent to the Study Area.

2.2 Tree Impacts

The Preferred Station Design (2020) was used as the basis to prepare this report. It is noted that tree impacts are typically defined during detailed design when drawings showing the limit of work, including clearing, grading and other construction details are available. Since the Preferred Station Design (2020) was the level of design available to identify impacts, it is recommended that quantities are confirmed and/or revised during the detailed design stage. Therefore, it has been conservatively assumed that all woody vegetation within the Project footprint will be removed, and those outside of the Project footprint, but within the Study Area (i.e., within the 6 m buffer or 12 m buffer (RNFP and TRCA only) will be assessed on a case by case basis for impacts dependent on their dripline and the TPZ identified.

The City of Toronto Tree Protection By-Law has been referenced as part of this Report to support discussions regarding tree impacts, and removal and injury permitting. As such, the subject of permitting will be further coordinated with the City of Toronto, TRCA and Metrolinx during the detailed design phase. Required permit applications will be prepared and submitted as part of the detailed design phase.

3. Policy Context

This section of the TIP summarizes the various federal, provincial and municipal planning policies and regulations related to tree inventories that apply to the proposed Project, thus providing the policy context for this TIP. These policies and the natural heritage features which they protect were investigated further in the NER, which was prepared under a separate cover.

3.1 Migratory Birds Convention Act, 1994

The *Migratory Birds Convention Act* (MBCA) was passed in 1917 and updated in 1994 (Environment and Climate Change Canada, 1994). The MBCA protects migratory bird populations by regulating potentially harmful anthropogenic activities. The MBCA (1994) and the Migratory Birds Regulations (MBR) (Environment and Climate Change Canada, 2020) are federal legislative requirements that are binding on members of the public and all levels of government, including federal and provincial governments.

Protected bird species¹ are listed under Article I of the MBCA, are native or naturally occurring in Canada, and are species that are known to occur regularly in Canada. Therefore, if a listed species or their nest are encountered during Project works, compliance with the Act is required. As described in Section 6 of the associated MBR:

“Subject to subsection 5(9), no person shall:

Disturb, destroy or take a nest, egg, nest shelter, Eider Duck shelter or duck box of a migratory bird, or

Have in his possession a live migratory bird, or a carcass, skin, nest or egg of a migratory bird except under authority of a permit therefor.”

The “incidental take” of migratory birds and the disturbance, destruction or taking of the nest of a migratory bird is prohibited. “Incidental take” is the killing or harming of migratory birds due to actions, such as economic development, which are not primarily focused on taking migratory birds. No permit can be issued for the incidental take of migratory birds or their nest or eggs as a result of economic activities. These prohibitions apply throughout the year.

Environment and Climate Change Canada (ECCC) and the Canadian Wildlife Service have compiled nesting calendars that show the variation in nesting intensity by habitat type and nesting zone, within broad geographical areas distributed across Canada. While this does not mean nesting birds will not nest outside of these periods, the calendars can be used to greatly reduce the risk of encountering a nest. It is noted that ECCC advises that avoidance is the best approach.

¹ Bird species not regulated under the Act include: Rock Dove (*Columbia livia*), American Crow (*Corvus brachyrhynchos*), Brown-headed Cowbird (*Molothrus ater*), Common Grackle (*Quiscalus quiscula*), House Sparrow (*Passer domesticus*), Red-winged Blackbird (*Agelaius phoeniceus*), and European Starling (*Sturnus vulgaris*). In addition, raptors are not regulated under the MBCA, 1994, however they are protected under provincial legislation which restricts and regulated the taking or possession of eggs and nests. Furthermore, if the species identified is protected under Ontario's Endangered Species Act, 2007 or the federal Species at Risk Act, additional restrictions may apply.

3.1.1 **Applicability to the Project**

The MBCA applies to all of Canada. As such, the MBCA is applicable to the entire Study Area. Therefore, if a species or their nest, that are listed under the MBCA are encountered during Project works, they must comply with the Act. As vegetation removal is part of future Project works, it is recommended that it occur outside of the core breeding time-period identified by the MBCA for the Project, which takes place from April 1st to August 31st in any given year.

Further discussion on the MBCA in relation to the construction phase of the project has been included in Section 6.3.3.

3.2 **Canada Food Inspection Agency**

The Canadian Food Inspection Agency (CFIA) Directive (D-03-08): Phytosanitary Requirements to Prevent the Introduction and Spread within Canada of the Emerald Ash Borer, (EAB) *Agrilus planipennis* (Fairmaire) applies to Ash (*Fraxinus spp.*) species that are located within the EAB Regulated Areas of Canada as prepared by the CFIA. All Ash (*Fraxinus spp.*) found in North America, including cultivars and additional introduced *Fraxinus spp.*, are vulnerable to EAB infestation (CFIA, 2014). The intent of the Directive is to slow the spread of the EAB to new areas.

3.2.1 **Applicability to Project**

The Study Area is within a CFIA regulated area, which prohibits the movement of regulated materials (including but not limited to Ash wood or bark and Ash wood chips or bark chips) from a regulated area. All EAB regulated materials, moving out of a regulated area, must be accompanied by a Movement Certificate issued by the CFIA. Refer to the EAB Regulated Areas of Canada found on the CFIA website (CFIA, 2020).

The CFIA website includes a map that identifies the EAB regulatory areas in Canada. It identifies Southern Ontario, in its entirety as a regulated area for EAB. The EAB has infested ash trees throughout Southern Ontario. As such disposal of ash material from the Study Area within Southern Ontario does not require a Movement Certificate as disposal would be within a regulatory area. However if materials from the Study Area are moved out of Southern Ontario, thus outside a regulated area, a certificate would be required.

Ash are permitted to be chipped on site and/or removed or cut down and removed from site. Chipped Ash material that is to remain on site must be ground or chipped to a size of less than 2.5 centimeters in any two dimensions.

3.3 **Endangered Species Act, 2007**

Species designated as Threatened or Endangered by the Committee on the Status of Species at Risk in Ontario (COSSARO) otherwise known as the Species at Risk in Ontario (SARO) List, and their habitats (e.g., areas essential for breeding, rearing, feeding, hibernation and migration) are automatically afforded legal protection under the *Endangered Species Act* (ESA), 2007 (Government of Ontario, 2007).

The ESA (Subsection 9.(1)) states that:

"No person shall:

- (a) *kill, harm, harass, capture or take a living member of a species that is listed on the Species at Risk in Ontario List as an extirpated, endangered or threatened species;*
- (b) *possess, transport, collect, buy, sell, lease, trade or offer to buy, sell, lease or trade;*
 - (i) *a living or dead member of a species that is listed on the Species at Risk in Ontario List as an extirpated, endangered, or threatened species;*
 - (ii) *any part of a living or dead member of a species referred to in subclause (i);*
 - (iii) *anything derived from a living or dead member of a species referred to in subclause (i); or*
- (c) *sell, lease, trade, or offer to sell, lease or trade anything that the person represents to be a thing described in subclause (b) (i), (ii), (iii)".*

Clause 10 (1) (a) of the ESA states that:

"No person shall damage or destroy the habitat of a species that is listed on the Species at Risk in Ontario List as an endangered or threatened species".

In order to balance social and economic considerations with protection and recovery goals, the ESA also enables the Ministry of the Environment, Conservation and Parks (MECP) to issue permit and approval agreements with proponents in order to authorize activities that would otherwise be prohibited by subsections 9(1) or 10(1) of the ESA provided the legal requirements of the ESA are met.

3.3.1 **Applicability to Project**

Ontario Regulation 242/08 (as amended) (Government of Ontario, 2018) applies to select species on the SARO List. This regulation identifies exemptions under the ESA and associated directives required.

Habitat in southern Ontario is conducive for the growth and establishment of SAR tree species (e.g., Endangered Butternut (*Juglans cinerea*)). As part of this TIP, an inventory of SAR trees in the Study Area was completed. In addition, trees that are possible habitat for tri colored bat (*Perimyotis subflavus*), little brown myotis (*Myotis lucifugus*) and northern myotis (*Myotis septentrionalis*) were identified during the tree inventory.

3.4 **Toronto and Region Conservation Authority**

The TRCA regulates watercourses, wetlands, and hazard lands (valleylands, shorelines, floodplains) through application of *Ontario Regulation 166/06 – Toronto and Region Conservation Authority: Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses* (Government of Ontario, 2013), under Section 28 of the *Conservation Authorities Act* (Government of Ontario, 2019). Ontario Regulation 166/06 (Government of Ontario, 2013) applies to hazardous lands that are defined in Section 28(25) of the *Conservation Authorities Act* as lands that could be unsafe for development because of naturally occurring processes associated with flooding, erosion, dynamic beaches or unstable

soil or bedrock. The regulation limit for O. Reg. 166/06 is the applicable hazard limits for a property.

The main purpose of O. Reg. 166/06 is to ensure public health and safety, and protection of life and property in relation to natural hazards. This regulation establishes guidelines for development, interference with wetlands and alterations to shorelines and watercourses.

TRCA has developed a policy document called "The Living City Policies" (TRCA, 2014), that guides the implementation of TRCA's legislated and delegated roles and responsibilities in the planning and development approval process. In addition, TRCA has developed a Guideline for Determining Ecosystem Compensation (TRCA, 2018); when a natural feature cannot be protected TRCA may recommend compensation for replicating ecosystem services.

3.4.1 Applicability to the Project

Based on review of the TRCA's Regulation Mapping Tool² (accessed April 14, 2020), part of the Study Area is mapped within the Authority's regulated area. As such, based on the current preferred design, a permit under O. Reg. 166/06 will be required.

3.5 City of Toronto Street Tree By-law

The City of Toronto City Street Tree By-law (Municipal Code, Chapter 813, Article II, (City of Toronto, 2015) applies to the planting, care, maintenance, protection, preservation and removal of all trees of any size located on any City street. Any person carrying out work on City streets or carrying out work that may impact trees on City streets shall carry out work in accordance with Article II and any other standards (as applicable). A permit to injure, remove or destroy a tree on a City street is subject to the following terms and conditions:

- The injury, destruction or removal of a tree shall be carried out by or under the supervision of an arborist;
- Compliance with good arboricultural practices;
- Compliance with the City's Tree Protection Policy and Specifications for Construction Near Trees and any other standards as defined in Chapter 813, Article II;
- Compliance with approved landscape and tree protection plans to the satisfaction of the General Manager;
- The permit shall be posted in a conspicuous location visible from the street, for a period of one day prior to the commencement of the approved tree injury or destruction and until such time as the approved tree injury or destruction has been completed in accordance with the permit; and
- A permit to injure, remove or destroy a tree may be subject to additional terms and conditions as determined by the General Manager.

² The TRCA Regulation Mapping Tool is updated on a periodic basis and not all regulated areas may be mapped. Confirmation prior to construction works should be made through consultation with the TRCA.

3.5.1 Applicability to the Project

There is only one street tree within the Study Area which would be subject to the City Street Tree By-law. This tree has been numbered #173, with data included in the tree inventory chart in Appendix A. The Developer will work with the City of Toronto with respect to the relevant permit/approval requirements.

3.6 City of Toronto Private Tree By-law

The City of Toronto Private Tree By-law (Municipal Code, Chapter 813, Article III, (City of Toronto, 2015) applies to the planting, care, maintenance, protection, preservation and removal of trees greater than or equal to 30 centimetres (cm) Diameter at Breast Height (DBH), including a multi-stemmed tree having at least one stem that has a diameter measurement of 30 cm or more, measured at 1.4 metres above ground. A permit to injure, remove or destroy a tree that is 30 cm or greater on private property is subject to the following terms and conditions:

- The injury, destruction or removal of a tree shall be carried out by or under the supervision of an arborist;
- Compliance with good arboricultural practices;
- Compliance with the City's Tree Protection Policy and Specifications for Construction Near Trees and any other standards as defined in Chapter 813, Article III;
- Compliance with approved landscape and tree protection plans to the satisfaction of the General Manager;
- The permit shall be posted in a conspicuous location visible from the street, for a period of one day prior to the commencement of the approved tree injury or destruction and until such time as the approved tree injury or destruction has been completed in accordance with the permit; and
- A permit to injure, remove or destroy a tree may be subject to additional terms and conditions as determined by the General Manager.

3.6.1 Applicability to Project

Private properties with trees included in the inventory include the Developer's lands and 90 Park Lawn Road. A PTE was not available at the time of the field visits in 2020 for the trees on 90 Park Lawn Road, as such the private trees were visually assessed as best possible from public property. Appendix A includes a column for the address the trees were located on, as such trees located on 90 Park Lawn Road have been identified on the Tree Inventory Chart. Those trees identified for removal or impact on private property will require consultation with the respective landowner, as well as the landowner's authorization to remove and/or injure the tree(s). As a result, the Developer will work with landowners to address the loss of trees, including obtaining necessary permits based upon the City Private Tree By-law. In addition, the Developer will work in co-operation with the City of Toronto and landowners to develop a compensation plan for the tree loss to the extent possible.

3.7 City of Toronto Parks By-law

The City of Toronto Parks By-law (City of Toronto, 2020), Chapter 608, Article VII)), sections 608-40 to 608-42 applies to trees of all sizes and prohibits the removal, injury or destruction of trees located within City parkland. Trees cannot be removed or cut down, destroyed or injured without written approval of the General Manager. Construction activities contrary to the City's Tree Protection Policy and Specifications for Construction Near Trees and any other standards or conditions imposed or set out by the General Manager for the protection of a tree located in a park is not permitted except with the written approval of the General Manager. Approval is required from the City of Toronto Parks, Forestry & Recreation Division and Urban Forestry branch prior to the removal of any tree.

Injury, destroying or removal of trees without prior written approval of the General Manager may be subject to providing payment to the City in an amount sufficient to cover the appraised value of the tree, as well as removal and replacement costs and the costs of any specific arboriculture procedures to be undertaken to remedy the tree. Upon approval of a tree removal, requests may be subject to conditions imposed by the General Manager that include payment of tree value, removal and replacement costs and the replanting of a replacement tree or trees by the applicant.

3.7.1 **Applicability to Project**

The trees currently identified as City parkland trees are the trees located north of the railway in the open space between the Gardiner Expressway and the rail corridor. Trees located here that are impacted would be subject to the City Parks By-law.

3.8 City of Toronto Ravine and Natural Feature Protection By-law

The City of Toronto RNFP By-law (City of Toronto, 2016) applies to the injury, removal or destruction of trees located on protected ravine land and the restriction of dumping fill, refuse of altering the grade of protected ravine land. The By-law promotes the management, protection and conservation of ravines and associated natural and woodland areas. This By-law states that:

"An owner who wishes to do any of the following within a protected area shall submit a completed application to the General Manager:

1. *Injure or destroy a tree;*
2. *Place or dump fill or refuse; and*
3. *Alter the grade of land."*

A completed application shall consist of the following:

1. *In the case of an application to injure or destroy a tree:*
2. *An inventory of trees and other vegetation;*
3. *Engineering drawings identifying site plans, building footprints, survey, proposed grades, easements, etc.*

4. *A tree protection plan;*
5. *A tree removal plan;*
6. *Geotechnical reporting; and*
7. *A tree replacement, woodland management, stewardship or rehabilitation plan."*

3.8.1 Applicability to Project

Based on a review of the City of Toronto Interactive Map (version 2) accessed on May 5, 2020, parts of the Study Area are within the RNFP. As the RNFP requires a 12-metre buffer, the Study Area for the west side of Park Lawn Road north of the tracks was extended out 12 metres from the Project footprint. The remaining sections of the Study Area will follow the Private and City Street Tree By-laws and incorporate a six-meter buffer as described herein.

Trees identified for injury or removal within the RNFP area require a different permit application than the City or Private Tree By-law, and shall be directed to the City of Toronto RNFP office.

3.9 Metrolinx Vegetation Guideline

Metrolinx has developed a Vegetation Guideline (Metrolinx, 2020) to address on corridor vegetation removal and compensation. This vegetation guideline provides Metrolinx's approach to managing the vegetation along the ROW, including removal and compensation of trees.

Vegetation Guideline provides framework for: (1) vegetation compensation; (2) tree end use; and (3) integrated vegetation management (IVM). Vegetation compensation framework outlines the approach for determining and implementing compensation for removal of trees from the Metrolinx ROW, as well as public and private lands.

3.9.1 Applicability to the Project

Park Lawn GO Station project will require removal of trees within the Metrolinx ROW. The trees that are on Metrolinx property will be compensated based on the Metrolinx Vegetation Guideline, which is a 1:1 replacement ratio. Tree compensation for trees owned by the City or other private property owners, will be based on the Metrolinx Vegetation Guideline, compensation approach incorporating applicable City By-law or Conservation Authority regulation.

4. Methodology

4.1 Desktop Review

Prior to conducting fieldwork, the Study Area was reviewed using Google Maps, Street view, Bing, Ontario Geo Hub and Google Pro to gain an understanding of the existing conditions.

Hatch reviewed the site location and applicable City of Toronto Tree By-Laws using the City of Toronto's Interactive Map (version 2), which displays property limits and RNFP limits. The TRCA Regulated Area map was reviewed as well, to identify TRCA regulated limits within the Study Area. In addition, the following guidelines, documents and by-laws were reviewed and used to guide the field work:

- City of Toronto City Street Tree By-Law (Article II of Chapter 813);
- City of Toronto Private Tree By-Law (Article III of Chapter 813);
- City of Toronto Ravine and Natural Feature Protection By-Law (Chapter 658);
- City of Toronto Parks By-Law (Article VII of Chapter 608);
- City of Toronto – Guidelines for Completion of an Arborist Report (City of Toronto, 2011);
- City of Toronto – Tree Protection Policy and Specifications for Construction Near Trees (City of Toronto, 2016)
- MBCA, 1994;
- TRCA Regulation Mapping Tool, 2020;
- *Endangered Species Act*, ESA (2007), O. Reg. 242/08;
- CFIA Directive (D-03-08): Phytosanitary Requirements to Prevent the Introduction and Spread with Canada of the Emerald Ash Borer, *Agrilus planipennis* (Fairmaire), Appendix 5&6 of Directive #D-03-08;
- Metrolinx, Vegetation Guideline (Metrolinx, 2020); and
- TRCA Guideline for Determining Ecosystem Compensation, (TRCA, 2018).

4.2 Fieldwork

Site visits were required to inventory individual trees within the Study Area. Tree identification number, tree species (common and botanical name), location (i.e., private property, City property, Metrolinx ROW, the Developer's lands, RNFP/TRCA Regulation limits), dripline radius, tree condition and any comments related to tree health and existing conditions, were logged in a Microsoft Excel table labelled Appendix A: Tree Inventory Plan.

Fieldwork was completed between April and June 2020. Assessments were conducted from the ground level only. As part of the fieldwork, photographs using a digital camera or smartphone were included. Work was completed by an International Society of Arboriculture (ISA) Certified Arborist in good standing, as well as supported by Environmental Field Staff to assist with fieldwork, figures and report writing. Any cavities or crevices with potential for wildlife use were noted and the information forwarded to appropriate disciplines.

Individual trees and shrubs within the Metrolinx-owned property that were greater than or equal to 10 centimetres DBH were numbered. Trees of all diameters situated within lands designated RNFP lands were included in the inventory, with those greater than or equal to 10 cm DBH being numbered. Those trees and shrub less than 10 centimetres DBH within the Metrolinx-owned property, other private property, and RNFP/TRCA limits were counted using a tally system. For those trees outside the Metrolinx-owned property, and situated on private property, that are over 30 centimetres DBH were numbered as per the City of Toronto Private Tree By-Law. Those trees of all sizes located on City-owned property were numbered as per the City of Toronto City Street or Parks Tree By-Law(s).

Trees that are inaccessible due to existing conditions (i.e., steep or unsafe terrain, debris with sharp edges), property constraints/limitations (i.e., fences, retaining walls, barriers) or with no PTE were provided a Tree ID number and assessed within a distance where species and diameter could still be determined. The Tree Inventory Chart, Appendix A, includes a column 'Assessment Approximate (No PTE)', which indicates the trees that were not physically tagged with a number tree tag.

4.2.1 **Future Field Work Commitments**

Additional future field work may be completed during leaf on season in the detailed design phase of the project, if necessary. At detailed design phase, our recommendation would be to prepare an Arborist Report to support the permitting process required from the City of Toronto and TRCA.

4.3 **Definitions and Assessment Criteria**

The following parameters will be collected/assessed during the Tree Inventory to provide a holistic assessment of tree condition:

Tree ID Number: Refers to the number i.e., 270 provided to an inventoried tree that will be listed on the data collection sheets used during the fieldwork

Tree Grouping: A tree grouping is more than one tree located within close proximity of other trees with no separation between the canopies.

Species: Each tree will be identified by botanical and common name.

DBH: Refers to diameter (in centimetres) at breast height and is measured at 1.4 metres above the ground for each tree.

Dripline Radius: It is the area directly located under the outer circumference of the tree branches measured in meters.

Tree Assessment Criteria (Subjective holistic approach considering abiotic and biotic tree disorders):

Trunk Integrity (TI): Assessment of the trunk for any defects or weaknesses. It is measured on a scale of dead, poor, fair, good and very good.

Crown Structure (CS): Assessment of the scaffold branches, unions and the crown of the tree. This is measured on a scale of dead, poor, fair, good and very good.

Crown Vigour (CV): Assessment of the health of the tree and assesses the amount of deadwood and live growth in the crown as compared to a 100 percent healthy tree. The size, colour and amount of foliage are also considered in this category. This is measured on a scale of dead, poor, fair, good and very good.

The above criteria (TI, CS & CV) will be expressed per the following definitions:

VERY GOOD: Overall, the tree is very healthy and in excellent condition, vigor and form based on the given tree assessment criteria (TI, CS, CV). The tree has no structural problems, no

mechanical damage, and no aesthetic, insect, disease, or structure problems. Small amounts of dead wood may be present in the secondary branches, but account for less than 5 percent of the canopy.

GOOD: Overall, the tree is healthy and in satisfactory condition, vigor, and form based on the given tree assessment criteria (TI, CS, CV). The tree has no major structural problems, no mechanical damage, and may only have insignificant aesthetic, insect, disease, or structure problems. Small amounts of dead wood may be present in the secondary branches, but account for less than 15 percent of the canopy.

FAIR: The tree has no major structural problems, no significant mechanical damage, may have only minor aesthetic insect, disease, or structure problems, and is in good health. Trees in fair condition show moderate symptoms of decline in the lower canopy or scaffold branches, but more than 40% of the scaffold branches are viable.

POOR: The tree may exhibit the following characteristics: major structural problems, mechanical damage, significant damage from diseases, thin crown, or stunted growth compared to adjacent trees. This condition also includes trees that have been topped, but show reasonable vitality with no obvious signs of decay. 60 percent and greater of the main scaffold branches are dead yet still include live branches, or in a severe diseased state. Poor condition rating can be applied to trees where the trunk shows evidence of advanced rot, deadwood or is hollow and/or there is no twig development on the main branches.

DEAD: Dead condition rating can be applied to trees where the trunk shows evidence of advanced rot, deadwood or is hollow and there is no evidence of live buds or branches.

4.4 Tree Categories

For the purposes of this Report, the field inventory and this Tree Inventory Plan was completed following City of Toronto tree categories. The City Categories can be found in the City of Toronto's "Guidelines for completing an Arborist Report" (January 2011). Please note that the Project Footprint is considered equivalent to the City's term 'subject site':

- **Category 1:** Trees with diameters of 30 cm or more, situated on private property on the Project Footprint;
- **Category 2:** Trees with diameters of 30 cm or more, situated on private property, within 6 m of the proposed construction on the Project Footprint;
- **Category 3:** Trees of all diameters situated on City owned parkland within 6 m of the Project Footprint;
- **Category 4:** Trees of all diameters situated within 12 metres of the project footprint on lands designated under City of Toronto Municipal Code, Chapter 658, RNFP; and
- **Category 5:** Trees of all diameters situated within the City road allowance adjacent to the Project Footprint .

In addition, one more category was added to account for the following trees:

- **Category 6:** Trees with DBH measurements 10 cm to 29 cm situated on private property within the Project Footprint or Study Area.

It is noted that trees and shrubs 10 centimetre DBH or greater are numbered and those smaller than 10 centimetres DBH were counted as a stem count in a separate tally.

The City Category's were assigned to each inventoried tree in the Tree Inventory Chart, Appendix 'A'. The categories were determined based on the property location using Figure 1-2. For example, a tree located outside of the Project Footprint but within the RNFP limit was assigned a Category 4; whereas a tree located on Metrolinx property within the Project Footprint and within RNFP was assigned a Category 1, 2, or 6.

4.5 Tree Inventory Plan

The TIP was prepared based on City of Toronto (City of Toronto, 2016) and TRCA guidelines/requirements and is included as Appendix C of the EPR document that is circulated to agencies, including the City of Toronto and TRCA.

This TIP was prepared to identify trees which may be affected by the Project. Tree locations were identified using applicable numbers within the identified Study Area (please refer to Appendix A of this Report). As previously discussed, only select PTEs were available at the time the field visits were completed, therefore trees in locations where there was no PTE have not been fully assessed (i.e., not physically measured with a DBH tape, tree conditions are only viewed from one side, etc.) as part of this Report. However, DBH was estimated by the ISA Certified Arborist to inform the tree inventory assessment (Appendix A).

The TIP includes the items listed below as part of the work plan methodology. The City of Toronto Urban Forestry Department's Guideline for the Completion of an Arborist Report (City of Toronto, 2011) and Tree Protection Policy and Specifications for Construction Near Trees (City of Toronto, 2016), July 2016, guided the fieldwork and TIP preparation components:

4.5.1 Tree Inventory Chart

The Tree Inventory Chart is located in Appendix A and includes the tree inventory data collected during the field assessments. It also includes impact assessments based on the data and the locations of the trees in relation to the Project Footprint as displayed on the Figures in Appendix B. The following is a summary of what has been included in the Tree Inventory Chart:

- Tree numbers (i.e., 250);
- Labels of properties, surrounding uses, roads, addresses, the Lakeshore West corridor and any other relevant information to be included;
- Data sheets used for fieldwork prepared in excel and inserted into AutoCAD showing species (common and botanical name), quantity, DBH, condition (trunk integrity, crown structure and crown vigour), dripline radius, location, tree categories 1-6, and comments; and
- Recommendations (preserve, remove, injure) and minimum tree protection zones. Recommendations were colour coded.

4.5.2 Tree Preservation Plan – Existing Conditions

The Tree Preservation Plan, Figure B, Sheets 1 to 3, located in Appendix B, was prepared based on the preliminary design, showing existing conditions and property limits, including the railway corridor, footprints of adjacent buildings, fences, roads and tree locations. The plans prepared display:

- The Figures include colour coded tree labels with recommendations for removal, injury and preservation with minimum tree protection zone (colour coded circle).

5. Existing Conditions

5.1 Description of Trees

Trees observed throughout the Study Area are comprised mainly of native and non-native tree species. Trees ranged in sized from less than 10 cm to 152 cm DBH. Appendix A provides the identification number of inventoried trees, botanical (Latin) and common names, size, conditions, dripline radius, location, tree category, TPZ, address, preservation, removal, and/or injury notes, permit requirements and remarks. The photographic inventory of trees identified is provided in Appendix C.

Field investigations were undertaken April 20, and June 2-3, 2020 within the Study Area. A total of 242 trees were surveyed; in addition, stem counts were completed for RNFP and TRCA Regulated Areas where they intersected the project limit.

Thirty-one species and varieties were identified for the Project that were greater than 10 cm DBH. These include Apple spp. (*malus spp.*), Black Locust (*Robinia pseudoacacia*), Black Walnut (*Juglans nigra*), Black Willow (*Salix nigra*), Blue Beech (*Carpinus caroliniana*), Blue Spruce (*Picea pungens*), Cottonwood (*Populus deltoides*), Dogwood (*Cornus spp.*), Eastern White Cedar (*Thuja occidentalis*), Flowering Dogwood (*Cornus florida*), Green Ash (*Fraxinus pennsylvanica*), Hackberry (*Celtis occidentalis*), Kentucky Coffee Tree (*Gymnocladus dioicus*), Manitoba Maple (*Acer negundo*), Norway Maple (*Acer platanoides*), Norway Spruce (*Picea abies*), Red Cedar (*Juniperus virginiana*), Russian Olive (*Elaeagnus angustifolia*), Scots Pine (*Pinus sylvestris*), Serviceberry (*Amelanchier sp.*), Siberian Elm (*Ulmus pumila*), Staghorn Sumac (*Rhus typhina*), Sugar Maple (*Acer saccharum*), Sweet Cherry (*Prunus avium*), Trembling Aspen (*Populus tremuloides*), White Birch (*Betula papyrifera*), White Elm (*Ulmus americana*), White Mulberry (*Morus alba*), White Pine (*Pinus strobus*), White Spruce (*Picea glauca*), and Yellow Birch (*Betula alleghaniensis*).

A total of 33 percent of trees were found to be in Good condition, 61 percent were in fair condition, less than five percent were in poor condition, and less than five percent were dead. Dead trees include trees #313, #319, #325, #422, and #424. While dead trees are exempt from permitting requirements, their condition shall be assessed as part of the Tree Inventory Plan and Arborist Report in order to qualify for exemption prior to removal. Trees in fair or poor condition showed signs and symptoms of abiotic and biotic defects leading to decline including:

- Deadwood ranging between five to greater than 30 percent;

- Weakly formed unions (i.e., included bark);
- Poor tree form due to abnormal development of scaffold branches causing injury to other branches;
- Sprouts at the base and on the trunk;
- Vine suppression;
- Lean and contorted growth;
- Lack of vigour;
- Broken branches;
- Trunk wounds and cracks; and
- Defoliation from Cankerworm.

It is noted that several Ash trees were observed during the field investigations; many of these trees showed signs of EAB infestation. Most Ash trees that did not show signs of EAB infestation were noted to be in declining health and condition or dead.

5.2 Description of Stem Count Data

Stem counts for vegetation under 10 cm was completed where the Study Area intersected the RNFP area and the TRCA regulated areas.

Approximately 405 stems were inventoried. Twelve tree species and varieties were identified which include: Ash spp. (*Fraxinus spp.*), Basswood (*Tilia americana*), Black Locust (*Robinia pseudoacacia*), Bur Oak (*Quercus macrocarpa*), Cherry spp. (*Prunus spp.*), Elm spp. (*Ulmus spp.*), Manitoba Maple (*Acer negundo*), Norway Maple (*Acer platanoides*), Maple spp. (*Acer spp.*), Staghorn Sumac (*Rhus typhina*), White Elm (*Ulmus americana*), and Willow spp. (*Salix spp.*).

5.3 Species at Risk

During the field investigation conducted for this Report, a screening was undertaken for any woody vegetative SAR within the Study Area. No Butternuts were identified during this field investigation. One planted Kentucky Coffee Tree (*Gymnocladus dioica*), Tree #173 was observed within the Study Area located on Park Lawn Road as a City of Toronto street tree. Although MECP has not been contacted, previous correspondence for similar assignments has resulted in an exemption from the ESA permit process based on the origin and use as an amenity tree within a street setting.

6. Effects Assessment, Mitigation and Monitoring

This section outlines the potential effect to trees and shrubs (i.e., woody vegetation) resulting from the implementation of the project during the construction and operations/maintenance phases. This section also documents the mitigation measures and monitoring activities identified to minimize the anticipated effects due to the project.

6.1 Tree By Laws

As noted previously, the City of Toronto has several By-laws in place to provide protection to the urban forest. Those By-laws applicable to this Report are identified in Section 3.5 to 3.8.

The Developer will work in cooperation with the City to adhere to the intent of the relevant permit/approval requirements for city and private trees to the extent possible, as well as compensation for tree removals.

6.2 Potential Effects

Trees recommended to be preserved are those that will not be affected by the Project once the recommended mitigation measures have been implemented. Trees recommended to be removed are those deemed to be within the construction envelope (Project Footprint) and would not be able to withstand construction related activities or changes to grading. This designation may also be applied to trees that are dead, in poor condition, or trees that could pose future safety concerns. There are trees in good condition and of 10 cm DBH or smaller that could be recommended for transplant if transplanting is desired by the regulatory agencies and the Developer. This approach can be explored further during the detailed design stage. It should be noted that transplanting trees is dependent on available space within the Project Footprint.

Trees identified with the potential for injury are those where the minimum TPZ encroaches into the construction envelope (Project footprint). In order to identify appropriate TPZs, Tree Protection Policy and Specification for Construction Near Trees (City of Toronto, 2016) was used to determine the minimum requirements for TPZ of city owned and private trees as illustrated in Table 6-1.

Table 6-1: City of Toronto's Minimum Tree Protection Zone Determination

Trunk Diameter (DBH) cm ³	Minimum Protection Distances Required ⁴ City Owned and Private Trees	Minimum Protection Distances Required Trees in Areas Protected by the Ravine and Natural Feature Protection By Law (whichever of the two is greater)
<10 cm	1.2 m	The dripline ⁵ or 1.2 m
10-29 cm	1.8 m	The dripline or 3.6 m
30 ⁶ -40 cm	2.4 m	The dripline or 4.8 m
41-50 cm	3 m	The dripline or 6 m
51-60 cm	3.6 m	The dripline or 7.2 m
61-70 cm	4.2 m	The dripline or 8.4 m
71-80 cm	4.8 m	The dripline or 9.6 m
81-90 cm	5.4 m	The dripline or 10.8 m
91-100 cm	6 m	The dripline or 12 m

³ Diameter at Breast Height (DBH) is the measurement of the tree trunk taken at 1.4 m above the ground level.

⁴ Minimum Tree Protection Zone Distances are to be measured from the outside edge of the tree base.

⁵ The dripline is defined as the area beneath the outermost branch tips of a tree.

⁶ Diameter 30 cm at which trees qualify for protection under Private Tree By-law.

Trunk Diameter (DBH) cm ³	Minimum Protection Distances Required ⁴ City Owned and Private Trees	Minimum Protection Distances Required Trees in Areas Protected by the Ravine and Natural Feature Protection By Law (whichever of the two is greater)
>100 cm	6 cm protection for each 1 cm diameter	12 cm protection for each 1 cm diameter or the dripline ⁷

Encroachment into TPZ will result in an injury or require removal depending on the extent of the encroachment. Generally, trees with a 25 percent encroachment or greater into the TPZ are recommended for removal. As a result of analysis, trees were given one of the three following preservation assignments:

- Preserve: No encroachment into the TPZ by proposed construction activities (i.e. grading, retaining walls, noise walls, and property acquisition areas);
- Injure: Minor encroachment (< 25 percent) into the TPZ by proposed construction activities; and
- Remove: Significant encroachment (25 percent and greater) into the TPZ by proposed construction activities.

It is also important to note that where the tree condition is assessed by the ISA Certified Arborist to be declining in health and condition or dead and only a minor encroachment is to occur to the tree, instead of injuring this tree, it will be removed. The reason for this approach being that an injury to a tree in decline will lead to the eventual death and structural failure of the tree. To ensure the safety of the ROW, it is important to reduce the potential for trees to fail and fall within the ROW impacting railway safety.

6.2.1 Construction and Tree Removal

Tree removal is required to accommodate the Project Footprint including land clearing, grading and construction. Trees on lands immediately adjacent to the Project Footprint may be impacted due to their crowns and root zones overlapping the proposed construction works (i.e., grading). Clearing of trees also has the potential to disturb or destroy nests of migratory birds which are protected under the MBCA. Disruption to migratory breeding birds can be mitigated for by ensuring vegetation removal takes place outside of the MBCA active breeding season (further discussed in Section 6.3).

The Preferred Station Design (2020) was utilized to determine which trees should be identified for removal in the Study Area. As defined in Section 6.2, tree removals are defined as a significant encroachment (25 percent and greater) into the TPZ by proposed construction

⁷ Converted from ISA Arborist Certification Study Guide, general guideline for tree protection barriers of 1 foot of diameter from the stem for each inch of stem diameter.

activities. Included in removals were five dead trees, #313, #319, #325, #422, and #424. These trees would be exempt from any City permitting.

Table 6-2 details the quantity of tree removals per applicable tree category as defined within in Section 4.4 in relation to their location and land ownership classification. For further details relating to species type, size and condition, refer to Appendix A of this Report.

Table 6-2: Tree Removal Chart Summary

Tree Category	Tree Category Description	Potential Removals
1	Trees with diameters of 30 cm or more, situated on private property on the Project Footprint.	11
2	Trees with diameters of 30 cm or more, situated on private property, within 6 m of the proposed construction on the Project Footprint.	5
3	Trees of all diameters situated on City owned parkland within 6 m of the Project Footprint.	18
4	Trees of all diameters situated within lands designated under City of Toronto Municipal Code, Chapter 658, Ravine Protection.	66
5	Trees of all diameters situated within the City road allowance adjacent to the Project Footprint.	1
6	Trees with diameters of 10 cm to 29 cm situated on private property within the Project Footprint or Study Area	77
	Total	178

6.2.2 Construction and Tree Injury

Tree injury occurs when either tree protection hoarding cannot be placed at the minimum required distance from the trunk due to constraints or conflicts, or where the minimum TPZ overlaps with the construction limits. As defined in Section 6, tree injuries are minor encroachment (less than 25 percent) into the TPZ by proposed construction activities. Table 6-3 details the quantity of trees that have been identified as an injury based on their TPZ relative to the Project Footprint.

Table 6-3: Tree Injury Chart Summary

Tree Category	Tree Category Description	Potential Injuries
1	Trees with diameters of 30 cm or more, situated on private property on the Project Footprint.	0
2	Trees with diameters of 30 cm or more, situated on private property, within 6 m of the proposed construction on the Project Footprint.	0
3	Trees of all diameters situated on City owned parkland within 6 m of the Project Footprint.	0
4	Trees of all diameters situated within lands designated under City of Toronto Municipal Code, Chapter 658, Ravine Protection.	9
5	Trees of all diameters situated within the City road allowance adjacent to the Project Footprint.	0
6	Trees with diameters of 10 cm to 29 cm situated on private property within the Project Footprint or Study Area	0
	Total	9

6.2.3 Construction and Tree Preservation

The current inventory of trees located outside the Project Footprint but are within the Study Area and have been identified for preservation (i.e. retention).

Table 6-4 details the trees to be preserved.

Table 6-4: Tree Preservation Chart Summary

Tree Category	Tree Category Description	Trees to be Injured
1	Trees with diameters of 30 cm or more, situated on private property on the Project Footprint.	0
2	Trees with diameters of 30 cm or more, situated on private property, within 6 m of the proposed construction on the Project Footprint.	0
3	Trees of all diameters situated on City owned parkland within 6 m of the Project Footprint.	0
4	Trees of all diameters situated within lands designated under City of Toronto Municipal Code, Chapter 658, Ravine Protection.	19
5	Trees of all diameters situated within the City road allowance adjacent to the Project Footprint.	0
6	Trees with diameters of 10 cm to 29 cm situated on private property within the Project Footprint or Study Area	1
	Total	20

6.2.4 Operations and Tree Maintenance

Deterioration of tree vitality over time for trees that will be protected was the only identified effect during the operations and/or maintenance phase of the Project. It is noted that new growing conditions (i.e., new exposure to wind, sunscald and root damage) may result in failure of trees or their branches.

6.3 Mitigation Measures

A number of mitigation measures have been identified as described below, to address the predicted effects associated with project construction and operations/maintenance phases. These mitigation measures may be updated during the detailed design phase once construction works and potential effects are better understood.

6.3.1 Construction and Permits

The types of permits and the quantity of trees that will require permitting will be determined during the detailed design process. Where permits are required, the Developer will obtain all applicable documents and approvals. The Developer will continue to adhere to municipal By-laws and policies for tree removals on municipal land and private properties. Tree protection measures will follow municipal By-Laws, regulations and policies. Regulated trees that are dead and identified to be removed are exempt from permit requirements.

6.3.2 Construction and Compensation

Tree replacement may be required to compensate for tree removals as a result of Project implementation. The compensation quantities will be determined during the detailed design stage upon confirming tree removals and injuries and determining which trees will be compensated for. Restoration plans and tree compensation payments shall be submitted to the City prior to permit issuance.

Compensation will follow the compensation approach set forth in the Metrolinx Vegetation Guideline, 2020. Table 1, in the guide provides a compensation approach based on tree location, as summarized in Table 6-5. The “designated natural areas” would include trees that are located within RNFP/TRCA lands. Figure 1-2 in Section 1.3, illustrates the property ownership, as well as lands included in regulated areas. This figure will be used when determining what compensation approach would apply to an impacted tree. The following identifies the Metrolinx compensation approach that will be used for the Project where compensation is required.

Table 6-5: Metrolinx Vegetation Compensation Guideline Table 1

Compensation Approach #	Location	Applicable Bylaw with Compensation Approach	Within a Designated Natural Area	Compensation Approach
1	Metrolinx ROW	No	No	Baseline Compensation
2	Metrolinx ROW	No	Yes	Ecological Compensation
3	Public/Private Land	Yes	No	Bylaw Compensation
4	Public/Private Land	Yes	Yes	Bylaw + Ecological Compensation
5	Public/Private Land	No	Yes	Ecological Compensation
6	Public/Private Land	No	No	Baseline Compensation

Baseline Compensation:

Involves replacement at a 1:1 ratio on an individual tree basis.

Bylaw Compensation:

When following City By-Law and impacts to regulated trees, the compensation for tree removal will be completed in the form of tree planting or cash-in-lieu at \$583/tree as required by the City of Toronto. Compensation will also follow guideline ratios of City of Toronto for tree replacement of private 30cm DBH and greater, any park and City trees, replaced at ratios 3:1, 1:1 and 1:1 respectively, compensation for RNFP removals for trees >10 cm is 3:1, <10 cm is 1:1, and tree injuries is a compensation replacement of 1:1, with hedges a ratio of 1:5m hedge removed.

Ecological Compensation:

Involves replacement of trees at a ratio representative of their ecosystem functions and services. Ecological compensation ratios can be determined by one of two methods: basal area approach or individual tree approach.

Bylaw and Ecological Compensation:

Involves meeting applicable bylaws/regulations in addition to replacement above and beyond the bylaw/regulation, if determined necessary. In other words, where ecological compensation is greater than bylaw/regulation requirements, the bylaw/regulation shall be followed and the difference between the two shall be implemented through ecological compensation.

6.3.3 Construction Timing

- Timing windows for trees that have been identified as part of the habitat of a SAR will be confirmed by the MECP; and
- To reduce the possibility of contravention of the MBCA, vegetation removal should be scheduled to occur outside of the overall bird nesting season of April 1 and August 31 in any given year. Some birds may nest before or after this peak bird nesting season due to annual seasonal fluctuations. Therefore, if a nest of a migratory bird is found within the construction area outside of this nesting period it will receive protection:

If vegetation must be removed during the overall bird nesting season:

- ♦ Nesting activity searches will be conducted in areas defined as simple habitat by a qualified Ecologist/Avian Biologist no more than 24 hours prior to vegetation removal. Nesting activity will be documented when it consists of confirmed breeding evidence, as defined by Atlas of the Breeding Birds of Ontario criteria (Cadman, Sutherland, Beck, Lepage, & Couturier, 2007);

- ♦ If an active nest or confirmed nesting activity of a migratory bird is observed in simple habitat⁸, regardless of the timing window recommended, a species-specific buffer area following ECCC guidelines will be applied to the nest or confirmed nesting activity wherein no vegetation removal will be permitted until the young have fledged from the nest. The radius of the buffer will depend on species, level of disturbance and landscape context (Government of Canada, 2020) which will be confirmed by a qualified Ecologist/Avian Biologist, but will protect a minimum of 10 metres around the nest or nesting activity;
- ♦ The results of all nest searches will be documented at the end of each survey day in a Technical Memorandum, including information on the searcher, date, time conducted, weather conditions, habitat type, vegetation community type, observations of breeding activity, observations of confirmed nests including co-ordinates, and, if required, the buffer applied to identified breeding/nesting sites. If vegetation removal must occur in complex habitats within the above-listed timing windows and absolutely cannot be avoided, the same Best Management Practice (BMP) such as nest and nesting activity searches described above will be undertaken; and
- ♦ If a nesting migratory bird (or species at risk protected under the ESA) is identified within or adjacent to the construction site, regardless of the timing window recommended, all activities will stop and the Contractor (with assistance from a qualified Ecologist/Avian Biologist) will discuss mitigation measures with the Certified Arborist.

6.3.4 **Tree Preservation Measures**

The City of Toronto has detailed protection measures stated in their specifications and details from their Tree Protection Policy and Specifications for Construction Near Trees (July 2016). Applicable notes for preservation measures from the City's document have been included on the Figures, in Appendix D. Measures beyond the City standard tree protection hoarding may be required to protect trees where there is potential for 'tree injury' (i.e., a reduction in the minimum tree protection zone or work that may be required within a TPZ).

If it is determined that any City regulated trees require pruning, a pruning plan must be submitted to the City for approval. Tree pruning on any tree will be pruned in a manner that minimizes physical damage and promotes quick wound closure and regeneration following ISA

⁸ Simple habitat refers to habitat that contains few nesting spots or few species of migratory birds, where identification of active nests or confirmed nesting activity can be completed with confidence. According to (Environment and Climate Change Canada, 2020), examples of simple habitat include the following:

- Urban parks consisting mostly of lawn with a few isolated trees.
- Vacant lot with few possible nest sites.
- Previously cleared area where there is a lag between clearing and construction activities (and where ground nesters may have been attracted to nest in cleared areas or in stockpiles of soil); or Structure such as a bridge, beacon, tower or building (often chosen as a nesting spot by robins, swallows, phoebes, nighthawks, gulls and others).
- Structure such as a bridge, beacon, tower or building (often chosen as a nesting spot by robins, swallows, phoebes, nighthawks, gulls and others).

BMP Tree Pruning (ISA, 2019). All tree maintenance and pruning should be carried out by a qualified tree care specialist that is also an ISA Certified Arborist or under the supervision of an ISA Certified Arborist. If earthworks are required immediately adjacent to a TPZ, and there is a potential to encounter roots, it is recommended that an exploratory exercise with an air spade be conducted, as described below.

Vertical Root Protection: If it is determined that root pruning must occur to facilitate a grade change or other earthworks, the roots will be pruned in accordance with acceptable arboricultural standards which may include:

- Maintenance and pruning will be avoided during hot and dry weather;
- Exposed roots should be neatly cut with a sharp saw;
- Ends of severed roots should be covered with a plastic bag held in place by a rubber band to protect them from drying out;
- If tree maintenance is to occur during hot weather, exposed roots should be wrapped with dampened burlap, especially if there is a delay in pruning or filling with soil;
- Trees to be pruned should be watered after digging, along with an application of soil and mulch;
- Backfill with excavated material and reinstate to original condition or better; and
- Upon completion reinstate tree protection barrier to original location.

Horizontal Root Protection: in select locations where excavation will require the temporary removal of tree protection barrier and works within a TPZ, Horizontal Root Protection in conjunction with air spade exploration is recommended to reduce the potential for compaction. Horizontal root protection should follow detail TP-1 of the City of Toronto and will include:

- One layer of non-woven geotextile material;
- A layer of at least 30 cm coarse wood chip;
- Placement of 1.2 m x 1.2 m timber frame or equivalent to hold woodchips where needed;
- Minimum two layers of 19 mm thick plywood board or one layer steel plate;
- Application to be reviewed and approved by the Contract Administrator prior to installation; and
- Upon completion, remove boards and spread mulch in a two-metre diameter around the trunk to a depth of 75 mm, and reinstate tree protection barrier to original location.

Root Pruning Practices: As previously noted, if it is determined that root pruning may be required, an exploratory exercise with an air spade should be conducted. The following are standard ISA BMPs for Root Management (ISA, 2017) for root pruning:

- All approved root pruning is to take place by or under the supervision of an ISA Certified Arborist and in accordance with best arboricultural practice;
- Pruned root ends will be neatly and squarely trimmed, and the area will be backfilled with clean native fill as soon as reasonably possible to prevent desiccation and promote root growth;
- The exposed roots will not be allowed to dry out. Exposed roots should be wrapped with dampened burlap, so that the roots maintain optimum soil moisture during construction and backfilling operations; and
- Backfilling will occur as soon as reasonably possible and will include use of clean, uncontaminated topsoil from an approved source. It is recommended that the texture of backfill be coarser than existing soils, and that the backfill is applied directly onto existing soils (i.e., remove air pockets, sod, etc.).

Branch Pruning Practices - All trees identified for preservation (i.e., those to be protected and retained), including those for injury will be protected using the prescribed hoarding details as identified in the City of Toronto Specifications for Construction Near Trees. In addition to the tree protection barrier specifications, the following are standard ISA BMPs for Tree Pruning (ISA, 2019) for branch pruning:

- All limbs damaged or broken during construction should be pruned cleanly, utilizing bypass secateurs in accordance with best arboricultural practices. Should there be a potential risk of transfer of disease from infected to non-infected trees; tools must be disinfected after pruning each tree by dipping in methyl hydrate. This practice is particularly important during periods of tree stress and when pruning many members of the same genera (i.e., tree branch versus limbs versus epicormic shoots), within which a disease could be spread quickly (i.e., Verticillium Wilt on Maples or Fireblight on genera of the Rosaceae family);
- All pruning cuts should be made to a growing point such as a bud, twig or branch, cut just outside the branch collar (i.e., the swollen area at the base of the branch that sometimes has a bark ridge), and perpendicular to the branch being pruned rather than as close to the trunk as possible. This minimizes the site of the wound. No stubs should be left;
- Extensive pruning is best completed before plants break dormancy. Pruning should be limited to the removal of no more than 1/3 of the total bud and leaf bearing branches. Pruning should include the careful removal of:
 - ♦ Deadwood;
 - ♦ Branches that are weak, damaged, diseased and those which will interfere with construction activity;
 - ♦ Secondary leaders of conifers;
 - ♦ Trunk and root suckers;
 - ♦ Trunk waterspouts; and

- ♦ Tight V-shaped or weak crotches (included unions).
- Any branches that overhang the work area and require pruning are to be pruned using best arboricultural practices utilizing by-pass secateurs in accordance with the American National Standards Institute A300 (Part 1) - Pruning (ANSI, 2017); and
- The Contractor(s) must report immediately to the Contract Administrator any damage to trees such as broken limbs, damage to roots, or wounds to the main trunk or stem systems so that the damage can be assessed immediately.

6.3.5 Construction Implementation

There are several common impacts to trees that can occur during construction, especially in urban settings due to the already limited growth space for root systems. The following are standard ISA BMPs for Managing Trees During Construction (ISA, 2016) to implement prior to and during construction activities:

- Prior to construction, a site meeting will be held with the Contractor(s) and Contract Administrator to review the clearing limits and confirm the installation location for the tree protection barrier;
- Tree protection barriers will be installed as per the construction specifications and applicable City of Toronto specifications. All supports and bracing to safely secure the barrier will be placed outside the TPZ;
- Inspection of the tree protection barrier, including photographic records and deficiency notes, will be undertaken by the site supervisor and submitted to the Contract Administrator prior to the commencement of construction, during construction and after construction is completed;
- Proof of installed hoarding must be submitted to City Urban Forestry prior to permit issuance; and
- All removals should be felled into the work area to ensure that damage does not occur to the trees within the TPZ. Upon completion of the tree removals, all felled trees are to be removed from the site, and all brush chipped. All brush, roots and wood debris should be shredded into pieces that are smaller than 25 mm in size to ensure that any insect pests that could be present within the wood are destroyed.

6.3.6 Operations and Maintenance

Pruning and felling will be carried out by or under the direction of an ISA Certified Arborist.

During removal operations efforts should be made to prevent the spread of invasive plant species during construction both on and off-site. Invasive species vegetation has been identified in the NER report. Sanitation of construction equipment should be undertaken in accordance with the Clean Equipment Protocol (OIPC, 2016) and at a minimum should include sanitation of construction vehicles and equipment prior to leaving and moving to the next site. A cleaning station should be set up, so vehicles and equipment can be inspected and cleaned regularly.

6.4 Monitoring Activities

6.4.1 Construction

An ISA Certified Arborist is required to be on-site during key construction activities (i.e., vegetation removal), as required, to ensure compliance with environmental requirements. The ISA Certified Arborist will be responsible for:

- On-Site inspection as required during construction to ensure that only specified trees are removed, fencing is intact and there is no damage caused to the remaining trees and adjacent vegetation communities. Construction and/or silt fencing will be repaired if it is damaged. Any damaged/injured trees will be assessed by an ISA Certified Arborist who will provide management recommendations and direction following City By-laws, standards and practice. and
- Regular monitoring, to be defined prior to pre-construction land clearing, to confirm activities do not encroach into nesting areas or disturb active nesting sites.

6.4.2 Operations and Maintenance

Routine inspections will identify dead trees or limbs adjacent to the Project Footprint that will require maintenance for reduction of safety risks. An ISA Certified Arborist will inspect and assess trees on site and on lands immediately adjacent annually (at minimum) from the Metrolinx property. Trees to be removed or pruned post permit issuance must only be done so with the approval of City Urban Forestry.

6.4.3 Restoration, Compensation and Post Construction Monitoring

Restoration, compensation and post construction monitoring will be required to ensure continued ecological function of natural features within or in the immediate vicinity of the project footprint as identified through Metrolinx Vegetation Guideline and TRCA Guideline for Determining Ecosystem Compensation. These activities include:

- Post planting monitoring of restoration areas for two years after installation, one year thereafter with one additional monitoring visit in the following growing season. Should the plantings and/or seed mix not survive, additional seeding and/or plantings will be undertaken and the two year 'warranty' period will restart. Mandatory inspection by City of Toronto Urban Forestry after the two year period will confirm whether the state of the planting is acceptable, and an 80 percent survival rate for RNFP areas will be required;
- Additional restoration/compensation measures and/or monitoring maybe required based on the results of additional surveys and consultations with regulatory agencies; and
- Restoration/compensation and/or monitoring will be confirmed through regulatory agency consultation during detailed design.

7. Conclusions and Recommendations

7.1 Tree Removals, Protection and Preservation.

It is understood that development of the Project and associated construction will occupy the proposed Project Footprint in its entirety. As such, it is anticipated that 178 trees will be required for removal, nine trees will be expected to be injured, and 20 trees will be preserved. A summary breakdown is provide in Table 7-1.

Table 7-1: Tree Removal, Injury and Preservation Summary

Tree Category	Tree Category Description	Potential Removals	Potential Injuries	Trees to be Preserved
1	Trees with diameters of 30 cm or more, situated on private property on the Project Footprint.	11	0	0
2	Trees with diameters of 30 cm or more, situated on private property, within 6 m of the proposed construction on the Project Footprint.	5	0	0
3	Trees of all diameters situated on City owned parkland within 6 m of the Project Footprint.	18	0	0
4	Trees of all diameters situated within lands designated under City of Toronto Municipal Code, Chapter 658, Ravine Protection.	66	9	19
5	Trees of all diameters situated within the City road allowance adjacent to the Project Footprint.	1	0	0
6	Trees with diameters of 10 cm to 29 cm situated on private property within the Project Footprint or Study Area	77	0	1
	Total	178	9	20

7.2 Recommended Future Steps

The following is a list of commitments that will occur during future phases of the Project either prior to, or during construction:

- Preparation of an Arborist Report and Tree Protection Plans based upon the detailed design to support permit applications for tree removals and injuries, including showing location of hoarding to be installed, as well as tree protection and preservation plans to be submitted to City and TRCA for approval prior to permit issuance;
- Ownership of property required for the station will be confirmed to finalize categorization of trees prior to submission of permit applications for tree removals and injuries; and
- A qualified Environmental Inspector is required throughout the construction period to ensure that tree protection measures are implemented, maintained and enforced. This inspector is responsible for determining the need and timing of additional expertise, such as an ISA Certified Arborist.

7.3 Permit Applications

Where permits are required on City of Toronto or private property lands within the Study Area, the Developer will work with stakeholders to obtain the necessary documents and approvals. Tree protection measures will follow the municipal By-laws, regulations and policies.

Based on an overview of the Study Area, the following legislation is applicable:

- City of Toronto Private Tree By-law;
- City of Toronto Parks By-law;
- City of Toronto Ravine and Natural Feature Protection By-law;
- City of Toronto Street Tree By-law; and
- Toronto Region Conservation Authority Development Permit (O. Reg. 166/06).

7.4 Compensation

Compensation will be determined during detailed design, based upon the basal area approach once tree removals have been confirmed based on construction methods.

Detailed restoration and compensation plans will be prepared prior to project construction in discussion and coordination with the City of Toronto and TRCA using the expertise of a Certified Arborist/Forester and/or licensed Landscape Architect.

8. Limitations of Assessment

The assessment of the trees and shrubs presented in this Report has been made using accepted arboricultural techniques and reflects those areas where PTEs were obtained at the time of the field inventory. This included a visual examination of all the above ground parts of the tree for structural defects, scars, external indications of decay such as fungal fruiting bodies, evidence of attack by insects, discoloured foliage, the condition of any visible root structures, the degree and direction of lean (if any), the general condition of the trees and the surrounding site, and the proximity of property and people. Except where specifically noted, the trees were not cored, probed or climbed and there was no detailed inspection of the root crowns involving excavations.

Notwithstanding the recommendations and conclusions made in this Report, it must be recognized that trees and shrubs are living organisms, and their health and vigour constantly change over time. They are not immune to changes in site conditions or seasonal variations in the weather conditions.

While reasonable efforts have been made to ensure that the subject trees are healthy, no guarantees are offered, or implied, that these trees or any of their parts will remain standing. It is both professionally and practically impossible to predict with absolute certainty the behaviour of any single tree or its component parts under all circumstances. Inevitably, a standing tree will always pose some level of risk. Most trees have the potential for failure under adverse weather conditions, and the risk can only be eliminated if the tree is removed.

Although every effort has been made to ensure that this assessment is reasonably accurate, the trees should be reassessed periodically. The assessment presented in this Report is valid at the time of inspection.

9. References

- ANSI. (2017). *Pruning Standards*. Retrieved from ISA.
- Bird Studies Canada. (2001). *Atlas of the Breeding Birds of Ontario*.
- Cadman, M., Sutherland, D., Beck, G., Lepage, D., & Couturier, A. (2007). *Atlas of the Breeding Birds of Ontario, 2001-2005*. Toronto, Ontario: Bird Studies Canada, Environment Canada, Ontario Field Ornithologists, Ontario Ministry of Natural Resources and Ontario Nature.
- CFIA. (2014). *Directives D-03-08*. Retrieved from <https://www.inspection.gc.ca/plant-health/plant-pests-invasive-species/directives/forest-products/d-03-08/eng/1323821135864/1323821347324>
- CFIA. (2020). *Areas Regulated for Emerald Ash Borer*. Retrieved March 11, 2020, from <https://www.inspection.gc.ca/plant-health/plant-pests-invasive-species/insects/emerald-ash-borer/areas-regulated/eng/1347625322705/1367860339942>
- City of Toronto. (2011). *Guidelines for Completion of an Arborist Report*. Retrieved from <https://www.toronto.ca/data/parks/pdf/trees/arborist-report-guidelines.pdf>
- City of Toronto. (2015). *Street Tree By Law*. Retrieved from https://www.toronto.ca/legdocs/municode/1184_813.pdf
- City of Toronto. (2016). *Toronto Municipal Code Chapter 658 Ravine and Natural Feature Protection*. Retrieved from https://www.toronto.ca/legdocs/municode/1184_658.pdf
- City of Toronto. (2016). *Tree Protection Policy and Specification for Construction Near Trees*. Retrieved from <https://www.toronto.ca/data/parks/pdf/trees/tree-protection-specs.pdf>
- City of Toronto. (2016, July). *Tree Protection Policy and Specifications for Construction Near Trees*.
- City of Toronto. (2016). *Tree Protection Policy and Specifications for Construction Near Trees*. Retrieved from <https://www.toronto.ca/data/parks/pdf/trees/tree-protection-specs.pdf>
- City of Toronto. (2020). *Chapter 608: Parks By Law*. Retrieved from https://www.toronto.ca/legdocs/municode/1184_608.pdf
- COSSARO. (n.d.). *Species COSSARO*.
- Environment and Climate Change Canada. (1994). *Migratory Birds Convention Act*. Retrieved from <http://laws-lois.justice.gc.ca/eng/acts/M-7.01/page-1.html>
- Environment and Climate Change Canada. (2020). Retrieved from Migratory Bird Regulations: https://laws-lois.justice.gc.ca/PDF/C.R.C.,_c._1035.pdf
- Government of Canada. (2020). *Guidelines to reduce risk to migratory birds*. Retrieved from <https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/reduce-risk-migratory-birds.html>
- Government of Canada. (2020, 05 01). *The Migratory Birds Convention Act*.
- Government of Ontario. (2007). *Endangered Species Act, 2007, S.O. 2007, c. 6*. Retrieved 07 01, 2019, from Ontario Laws: <https://www.ontario.ca/laws/statute/07e06>
- Government of Ontario. (2013). *Ontario Regulation 166/06*. Retrieved from <https://www.ontario.ca/laws/regulation/060166>
- Government of Ontario. (2018). *O. Reg. 242 / 08: General*. Retrieved from <https://www.ontario.ca/laws/regulation/080242>
- Government of Ontario. (2019, 06 06). *Conservation Authorities Act, R.S.O. 1990, c. C.27*. Retrieved from Ontario Laws: <https://www.ontario.ca/laws/statute/90c27>
- ISA. (2016). *Managing Trees During Construction*.
- ISA. (2017). *BMP Root Management*.
- ISA. (2019). *BMP Tree Pruning*.
- Metrolinx. (2016). *The Initial Business Case*. Toronto: Metrolinx.
- Metrolinx. (2020). *The Initial Business Case*. Toronto: Metrolinx.
- Metrolinx. (2020). *Vegetation Removal and Compensation Guideline*. Ontario.
- OIPC. (2016). *Clean Equipment Protocol for Industry*. Retrieved from Ontario Invasive Species Council: https://www.ontarioinvasiveplants.ca/wp-content/uploads/2016/07/Clean-Equipment-Protocol_June2016_D3_WEB-1.pdf

TRCA. (2014). *The Living City Policies*. Retrieved from <https://drive.google.com/file/d/0BxjqkzmOuaaRYWxqSGdUaHp5UE0/view>

TRCA. (2018). *Guidelines for Determining Ecosystem Compensation*. Retrieved from https://trca.ca/app/uploads/2019/11/TRCA-Guideline-for-Determining-Ecosystem-Compensation-June-2018_v2.pdf

Appendix A

Tree Inventory Chart

Appendix A - Tree Inventory Chart																								
Project: Park Lawn GO Station, Toronto															Field Work Completed By: Arben Pustina, Jaimie Snelgrove, Rachel Eagles									
Dates of Field Work: April 20, June 2 and 3, 2020															Weather: Sunny 10 degree celcius, sunny 25 degrees									
Tree Assessment Criteria															Tree Condition									
TI - Trunk Integrity: assessment of the trunk for any defects or weaknesses															4 - Very Good: tree displays less than 5% deficiency/defect within the given tree assessment (TI, CS, CV)									
CS - Canopy Structure: assessment of the scaffold branches, unions and canopy															3 - Good: tree displays less than 15% deficiency/defect within the given tree assessment (TI, CS, CV)									
CV - Canopy Vigour: assessment of the health of a tree, based on the % of deadwood															2 - Fair: tree displays less than 40% deficiency/defect within the given tree assessment criteria (TI, CS, CV)									
Legend															1 - Poor: tree displays 60% and greater deficiency/defect within the given tree assessment criteria (TI, CS, CV)									
	Trees to be Preserved/Retained						Potential EAB Removals																	
	Trees to be Removed						Trees to be Injured																	
Tree ID Number	Botanical Name	Common Name	Number of Specimens	Assessment Approximate (No PTE)	DBH (cm)	Dripline Radius (m)	Tree Protection Zone (m)	Tree Condition				Tree Category	Remove, Preserve, Injure	Permit Required (Y/N)	Comments	Address					Date	Tally of < 10cm DBH trees		
								Trunk Integrity	Crown Structure	Crown Vigour	Condition Rating					Owner	Street No.	Street Name	City	Postal Code				
1	Salix nigra	Black willow	1	N	96	5		1	1	2	1	2	Remove	Y	Extensive Pruning for GO and adjacent devleopment impact	Lakeshore Development Inc.	2150	Lakeshore Blvd.West	Toronto	M8V 1A3	April 16/2020			
2	Salix nigra	Black willow	1	N	123	6.5		1	1	2	1	2	Remove	Y	Extensive Pruning for GO and adjacent devleopment impact	Lakeshore Development Inc.	2150	Lakeshore Blvd.West	Toronto	M8V 1A3	April 16/2020			
3	Salix nigra	Black willow	1	N	128	7.5		1	1	2	1	2	Remove	Y	Extensive Pruning for GO and adjacent devleopment impact	Lakeshore Development Inc.	2150	Lakeshore Blvd.West	Toronto	M8V 1A3	April 16/2020			
4	Salix nigra	Black willow	1	N	152	6.5		1	1	1	1	2	Remove	Y	Extensive Pruning for GO and adjacent devleopment impact	Lakeshore Development Inc.	2150	Lakeshore Blvd.West	Toronto	M8V 1A3	April 16/2020			
5	Salix nigra	Black willow	1	N	86	4.5		2	2	3	2	1	Remove	Y		Lakeshore Development Inc.	2150	Lakeshore Blvd.West	Toronto	M8V 1A3	April 16/2020			
6	Salix nigra	Black willow	1	N	71, 63	4		1	1	2	1	2	Remove	Y		Lakeshore Development Inc.	2150	Lakeshore Blvd.West	Toronto	M8V 1A3	April 16/2020			
7	Salix nigra	Black willow	1	N	107, 55	4.5		1	1	2	1	1	Remove	Y		Lakeshore Development Inc.	2150	Lakeshore Blvd.West	Toronto	M8V 1A3	April 16/2020			
8	Rhus typhina	Staghorn sumac	1	N	9	1.5		3	3	3	3	6	Remove	N		Lakeshore Development Inc.	2150	Lakeshore Blvd.West	Toronto	M8V 1A3	April 16/2020			
155	Robinia pseudoacacia	Black locust	1	N	10	1.5		2	2	2	2	4	Remove	Y		MX	90	Park Lawn Rd	Toronto	M8Y 0B6	April 20/2020	3		
156	Robinia pseudoacacia	Black locust	1	N	10	2		2	2	2	2	4	Remove	Y		TRCA/RNFP	90	Park Lawn Rd	Toronto	M8Y 0B6	April 20/2020			
157	Robinia pseudoacacia	Black locust	1	N	10	2		2	2	2	2	4	Remove	Y		TRCA/RNFP	90	Park Lawn Rd	Toronto	M8Y 0B6	April 20/2020	1		
158	Robinia pseudoacacia	Black locust	1	N	12, 11, 10, 10	2.5		2	2	2	2	4	Remove	Y		TRCA/RNFP	90	Park Lawn Rd	Toronto	M8Y 0B6	April 20/2020			
159	Juglans nigra	Black walnut	1	N	10	1.5		2	2	2	2	4	Remove	Y		TRCA/RNFP	90	Park Lawn Rd	Toronto	M8Y 0B6	April 20/2020			
160	Robinia pseudoacacia	Black locust	1	N	10	1.5		2	2	2	2	4	Remove	Y		TRCA/RNFP	90	Park Lawn Rd	Toronto	M8Y 0B6	April 20/2020	2		
161	Robinia pseudoacacia	Black locust	1	N	12	2.5		2	2	2	2	4	Remove	Y		TRCA/RNFP	90	Park Lawn Rd	Toronto	M8Y 0B6	April 20/2020			
162	Robinia pseudoacacia	Black locust	1	N	10	2		2	2	2	2	4	Remove	Y		TRCA/RNFP	90	Park Lawn Rd	Toronto	M8Y 0B6	April 20/2020			
163	Robinia pseudoacacia	Black locust	1	N	10	2.5		2	2	2	2	4	Remove	Y		TRCA/RNFP	90	Park Lawn Rd	Toronto	M8Y 0B6	April 20/2020	1		
164	Elaeagnus angustifolia	Russian olive	1	N	10	1.75		2	2	2	2	4	Remove	Y		TRCA/RNFP	90	Park Lawn Rd	Toronto	M8Y 0B6	April 20/2020	5		
165	Robinia pseudoacacia	Black locust	1	N	15, 15, 14, 14	3		2	2	2	2	4	Remove	Y		TRCA/RNFP	90	Park Lawn Rd	Toronto	M8Y 0B6	April 20/2020			
166	Robinia pseudoacacia	Black locust	1	N	10	2.5		2	2	2	2	4	Remove	Y		TRCA/RNFP	90	Park Lawn Rd	Toronto	M8Y 0B6	April 20/2020	5		
167	Robinia pseudoacacia	Black locust	1	N	19, 13	2.5		2	2	2	2	4	Preserve	N	Previously tagged 2505	TRCA/RNFP	90	Park Lawn Rd	Toronto	M8Y 0B6	April 20/2020			
168	Robinia pseudoacacia	Black locust	1	N	24	1.5		2	2	2	2	4	Preserve	N	Previously tagged 2506	TRCA/RNFP	90	Park Lawn Rd	Toronto	M8Y 0B6	April 20/2020			
169	Robinia pseudoacacia	Black locust	1	N	0, 20, 18, 16, 16, 12, 12, 12, 10, 10	6		2	2	2	2	4	Remove	Y	Previously tagged 2507	TRCA/RNFP	90	Park Lawn Rd	Toronto	M8Y 0B6	April 20/2020	5		
170	Thuja occidentalis	Eastern white cedar	1	N	10	2		2	2	2	2	4	Remove	Y		MX	90	Park Lawn Rd	Toronto	M8Y 0B6	April 20/2020	4		
171	Robinia pseudoacacia	Black locust	1	N	10	1.5		2	2	2	2	4	Remove	Y		MX	90	Park Lawn Rd	Toronto	M8Y 0B6	April 20/2020			
172	Robinia pseudoacacia	Black locust	1	N	10, 10	2		2	2	2	2	4	Remove	Y		TRCA/RNFP	90	Park Lawn Rd	Toronto	M8Y 0B6	April 20/2020	8		
173	Gymnocladus dioicus	Kentucky coffee tree	1	N	11	2		3	3	3	3	5	Remove	Y		City	2150	Lakeshore Blvd.West	Toronto	M8V 1A3	April 20/2020			
174	Ulmus americana	White elm	1	N	12	2		3	3	3	3	4	Remove	Y		MX			Toronto		April 20/2020	1		
175	Elaeagnus angustifolia	Russian olive	1	N	15, 14	3		2	2	2	2	4	Remove	Y	Overhead wires	TRCA/RNFP			Toronto		April 20/2020			
176	Morus alba	White mulberry	1	N	20, 10, 10	4.5		2	2	2	2	4	Remove	Y		TRCA/RNFP			Toronto		April 20/2020	2		
177	Elaeagnus angustifolia	Russian olive	1	N	22	3		2	2	2	2	4	Remove	Y	Overhead wires	TRCA/RNFP			Toronto		April 20/2020	6		
178	Morus alba	White mulberry	1	N	27, 20, 15, 10	4		2	2	2	2	4	Remove	Y	Overhead wires	TRCA/RNFP			Toronto		April 20/2020	1		
179	Morus alba	White mulberry	1	N	26, 10	3		2	2	2	2	4	Remove	Y		TRCA/RNFP			Toronto		April 20/2020	3		
213	Elaeagnus angustifolia	Russian olive	1	N	18	3		2	2	2	2	3	Remove	Y		Parkland	2150	Lakeshore Blvd.West	Toronto	M8V 1A3	April 20/2020	17		

Tree ID Number	Botanical Name	Common Name	Number of Specimens	Assessment Approximate (No PTE)	DBH (cm)	Dripline Radius (m)	Tree Protection Zone (m)	Tree Condition				Tree Category	Remove, Preserve, Injure	Permit Required (Y/N)	Comments	Address					Date	Tally of < 10cm DBH trees
								Trunk Integrity	Crown Structure	Crown Vigour	Condition Rating					Owner	Street No.	Street Name	City	Postal Code		
214	<i>Elaeagnus angustifolia</i>	Russian olive	1	N	23, 20, 16, 16	4		1	1	1	1	3	Remove	Y		Parkland	2150	Lakeshore Blvd.West	Toronto	M8V 1A3	April 20/2020	
215	<i>Populus deltoides</i>	Cottonwood	1	N	25, 23	2.5		2	2	2	2	3	Remove	Y		Parkland	2150	Lakeshore Blvd.West	Toronto	M8V 1A3	April 20/2020	4
216	<i>Populus deltoides</i>	Cottonwood	1	N	48, 40	4		2	2	2	2	3	Remove	Y		Parkland	2150	Lakeshore Blvd.West	Toronto	M8V 1A3	April 20/2020	1
217	<i>Populus deltoides</i>	Cottonwood	1	N	21	2		2	2	2	2	3	Remove	Y		Parkland	2150	Lakeshore Blvd.West	Toronto	M8V 1A3	April 20/2020	
218	<i>Juglans nigra</i>	Black walnut	1	N	20	2.5		2	2	2	2	3	Remove	Y		Parkland	2150	Lakeshore Blvd.West	Toronto	M8V 1A3	April 20/2020	
219	<i>Juglans nigra</i>	Black walnut	1	N	17	2.5		2	2	2	2	4	Remove	Y		TRCA/RNFP	2150	Lakeshore Blvd.West	Toronto	M8V 1A3	April 20/2020	10
220	<i>Populus deltoides</i>	Cottonwood	1	N	67, 55, 54, 42, 24	5		2	3	3	3	3	Remove	Y		Parkland		Park Lawn Rd	Toronto		April 20/2020	5
221	<i>Acer negundo</i>	Manitoba maple	1	N	20	2		2	2	2	2	3	Remove	Y		Parkland		Park Lawn Rd	Toronto		April 20/2020	
222	<i>Acer negundo</i>	Manitoba maple	1	N	22	2.5		1	2	2	2	3	Remove	Y		Parkland		Park Lawn Rd	Toronto		April 20/2020	
223	<i>Acer negundo</i>	Manitoba maple	1	N	23	3		1	2	2	2	3	Remove	Y		Parkland		Park Lawn Rd	Toronto		April 20/2020	
224	<i>Acer negundo</i>	Manitoba maple	1	N	13, 11	2.5		1	2	2	2	3	Remove	Y		Parkland		Park Lawn Rd	Toronto		April 20/2020	
225	<i>Acer negundo</i>	Manitoba maple	1	N	13	2.5		1	2	2	2	3	Remove	Y		Parkland		Park Lawn Rd	Toronto		April 20/2020	
226	<i>Acer negundo</i>	Manitoba maple	1	N	22	3		1	2	2	2	3	Remove	Y		Parkland		Park Lawn Rd	Toronto		April 20/2020	
227	<i>Acer negundo</i>	Manitoba maple	1	N	17	2.5		1	2	2	2	3	Remove	Y		Parkland		Park Lawn Rd	Toronto		April 20/2020	
228	<i>Acer negundo</i>	Manitoba maple	1	N	14	2.5		1	2	2	2	3	Remove	Y		Parkland		Park Lawn Rd	Toronto		April 20/2020	
229	<i>Acer negundo</i>	Manitoba maple	1	N	23	3		1	2	2	2	4	Remove	Y		TRCA/RNFP		Park Lawn Rd	Toronto		April 20/2020	
230	<i>Acer negundo</i>	Manitoba maple	1	N	15, 13	2		2	2	2	2	4	Remove	Y		TRCA/RNFP		Park Lawn Rd	Toronto		April 20/2020	
231	<i>Acer negundo</i>	Manitoba maple	1	N	20	2.5		2	2	2	2	4	Remove	Y		TRCA/RNFP		Park Lawn Rd	Toronto		April 20/2020	
232	<i>Acer negundo</i>	Manitoba maple	1	Y	24, 24, 24, 20, 20, 18, 18, 16, 16	7.5		1	2	2	2	4	Remove	Y	Injury to TPZ and adjacent 2150 development will impact.	TRCA/RNFP		Park Lawn Rd	Toronto		April 20/2020	
305	<i>Ulmus pumila</i>	Siberian elm	1	Y	34, 30, 30, 28	4	4.8	2	2	2	2	4	Injure	N		MX			Toronto		June 2/2020	
311	<i>Acer negundo</i>	Manitoba maple	1	Y	24, 20, 14, 14, 14, 10	4	4	2	2	2	2	4	Injure	N		MX			Toronto		June 2/2020	
312	<i>Acer negundo</i>	Manitoba maple	1	Y	14	2		2	2	2	2	6	Remove	N		MX			Toronto		June 2/2020	5
313	<i>Ulmus pumila</i>	Siberian elm	1	Y	32	4		0	0	0	0	1	Remove	N	Tree is dead.	MX			Toronto		June 2/2020	5
314	<i>Acer negundo</i>	Manitoba maple	1	Y	24, 15, 14	2.5		1	2	2	2	6	Remove	N		MX			Toronto		June 2/2020	
315	<i>Acer negundo</i>	Manitoba maple	1	Y	24, 22	3		2	2	2	2	6	Remove	N		MX			Toronto		June 2/2020	
316	<i>Acer negundo</i>	Manitoba maple	1	Y	16	2.5		1	2	2	2	6	Remove	N		MX			Toronto		June 2/2020	10
317	<i>Rhus tufina</i>	Staghorn sumac	1	N	11	2		1	2	2	2	6	Remove	N		MX			Toronto		June 2/2020	
318	<i>Elaeagnus angustifolia</i>	Russian olive	1	N	17	3		1	2	2	2	6	Remove	N		MX			Toronto		June 2/2020	
319	<i>Fraxinus pennsylvanica</i>	Green ash	1	N	16, 14, 12, 12	2		0	0	0	0	6	Remove	N	Tree is dead.	MX			Toronto		June 2/2020	
320	<i>Malus sp.</i>	Apple	1	N	22	3		2	3	3	3	6	Remove	N		MX			Toronto		June 2/2020	
321	<i>Acer platanoides</i>	Norway maple	1	N	13	2		3	3	3	3	6	Remove	N		MX			Toronto		June 2/2020	
322	<i>Populus deltoides</i>	Cottonwood	1	N	14	2		2	3	3	3	6	Remove	N		MX			Toronto		June 2/2020	
323	<i>Populus deltoides</i>	Cottonwood	1	N	21, 15	2.5		1	2	2	2	6	Remove	N		MX			Toronto		June 2/2020	
324	<i>Populus deltoides</i>	Cottonwood	1	N	14, 12	2		1	2	2	2	6	Remove	N		MX			Toronto		June 2/2020	
325	<i>Populus deltoides</i>	Cottonwood	1	Y	32, 32	2		0	0	0	0	1	Remove	N	possible habitat for little brown and northern myotis. Tree is dead.	MX			Toronto		June 2/2020	
326	<i>Populus deltoides</i>	Cottonwood	1	N	30	2.5		1	2	2	2	1	Remove	N		Lakeshore Development Inc.			Toronto		June 2/2020	
327	<i>Populus deltoides</i>	Cottonwood	1	Y	32	2.5		0	1	0	1	1	Remove	N	possible habitat for little brown and northern myotis	MX			Toronto		June 2/2020	
328	<i>Ulmus pumila</i>	Siberian elm	1	Y	32, 30, 22, 20, 16	4		2	3	3	3	1	Remove	N		MX			Toronto		June 2/2020	
329	<i>Populus deltoides</i>	Cottonwood	1	N	22	2		0	1	0	1	6	Remove	N		MX			Toronto		June 2/2020	
330	<i>Populus deltoides</i>	Cottonwood	1	N	17	2		1	2	2	2	6	Remove	N		MX			Toronto		June 2/2020	
331	<i>Populus deltoides</i>	Cottonwood	1	N	18	2		1	2	2	2	3	Remove	N		Parkland			Toronto		June 2/2020	
332	<i>Populus deltoides</i>	Cottonwood	1	N	34,19	2		1	2	2	2	3	Remove	N		Parkland			Toronto		June 2/2020	
333	<i>Populus deltoides</i>	Cottonwood	1	N	25	2		1	2	2	2	3	Remove	N		Parkland			Toronto		June 2/2020	
334	<i>Populus deltoides</i>	Cottonwood	1	N	36, 26, 24, 18, 18	3		1	2	2	2	1	Remove	N		MX			Toronto		June 2/2020	
335	<i>Picea pungens</i>	Blue spruce	1	Y	6	1.5		2	2	2	2	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	
336	<i>Celtis occidentalis</i>	Hackberry	1	Y	12	1.5		3	3	3	3	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	
337	<i>Juglans nigra</i>	Black walnut	1	N	38, 35	4		2	2	3	2	1	Remove	N		Private			Toronto		June 2/2020	
338	<i>Celtis occidentalis</i>	Hackberry	1	Y	16	2.5		3	3	3	3	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	
339	<i>Pinus sylvestris</i>	Scots pine	1	Y	10	2		2	2	2	2	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	
340	<i>Juniperus virginiana</i>	Red cedar	3	Y	(3 stems) 6	1		2	2	2	2	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	
341	<i>Acer negundo</i>	Manitoba maple	1	N	12, 12, 10, 8, 8	3		2	2	2	2	6	Remove	N		Private			Toronto		June 2/2020	
342	<i>Pinus sylvestris</i>	Scots pine	1	Y	14	2		2	2	2	2	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	

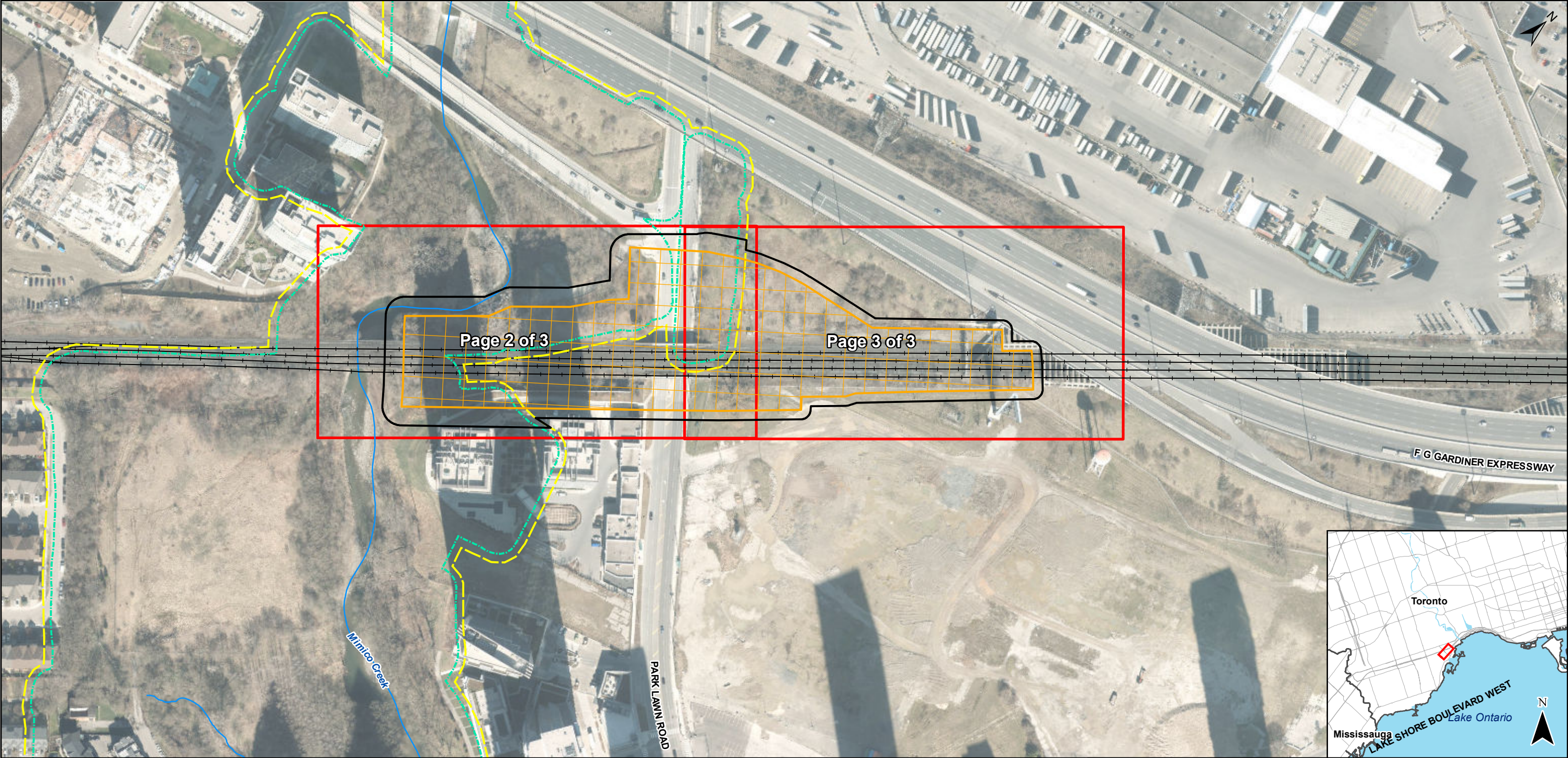
Tree ID Number	Botanical Name	Common Name	Number of Specimens	Assessment Approximate (No PTE)	DBH (cm)	Dripline Radius (m)	Tree Protection Zone (m)	Tree Condition				Tree Category	Remove, Preserve, Injure	Permit Required (Y/N)	Comments	Address					Date	Tally of < 10cm DBH trees
								Trunk Integrity	Crown Structure	Crown Vigour	Condition Rating					Owner	Street No.	Street Name	City	Postal Code		
343	<i>Acer platanoides</i>	Norway maple	1	Y	14	2		3	3	3	3	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	
344	<i>Pinus sylvestris</i>	Scots pine	1	Y	12	2		3	3	3	3	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	
345	<i>Juniperus virginiana</i>	Red cedar	5	Y	(5 stems) 6	1		3	3	3	3	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	
346	<i>Juglans nigra</i>	Black walnut	1	N	11	1.5		2	2	2	2	6	Remove	N		Private			Toronto		June 2/2020	
347	<i>Acer saccharum</i>	Sugar maple	1	Y	12	2		3	3	3	3	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	
348	<i>Juglans nigra</i>	Black walnut	1	N	12, 10	1.5		2	2	2	2	6	Remove	N		Private			Toronto		June 2/2020	
349	<i>Pinus sylvestris</i>	Scots pine	1	Y	14	1.5		3	3	3	3	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	
350	<i>Celtis occidentalis</i>	Hackberry	1	Y	10	1.5		3	3	3	3	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	
351	<i>Juniperus virginiana</i>	Red cedar	3	Y	(3 stems) 6	1.5		3	3	3	3	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	
352	<i>Acer negundo</i>	Manitoba maple	1	N	15	1.5		2	2	2	2	6	Remove	N		Private			Toronto		June 2/2020	
353	<i>Pinus sylvestris</i>	Scots pine	1	Y	14	2		3	3	3	3	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	
354	<i>Celtis occidentalis</i>	Hackberry	1	Y	16	2		3	3	3	3	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	
355	<i>Juniperus virginiana</i>	Red cedar	1	Y	6	1.5		3	3	3	3	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	
356	<i>Acer negundo</i>	Manitoba maple	1	N	15, 14, 14, 12	2.5		2	2	2	2	6	Remove	N		Private			Toronto		June 2/2020	
357	<i>Acer negundo</i>	Manitoba maple	1	N	16, 14	2		2	2	2	2	6	Remove	N		Private			Toronto		June 2/2020	
358	<i>Pinus strobus</i>	White pine	1	Y	6	1.5		2	2	2	2	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	
359	<i>Juniperus virginiana</i>	Red cedar	3	Y	(3 stems) 6	1.5		2	2	2	2	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	
360	<i>Celtis occidentalis</i>	Hackberry	1	Y	12	2		3	3	3	3	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	
361	<i>Pinus sylvestris</i>	Scots pine	1	Y	14	2		3	3	3	3	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	
362	<i>Acer saccharum</i>	Sugar maple	1	Y	9	2		3	3	3	3	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	
363	<i>Acer negundo</i>	Manitoba maple	1	N	12	2		3	3	3	3	6	Remove	N		MX			Toronto		June 2/2020	
364	<i>Juniperus virginiana</i>	Red cedar	3	Y	(3 stems) 4	1		2	2	2	2	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	
365	<i>Acer negundo</i>	Manitoba maple	1	N	14	1.5		2	2	2	2	6	Remove	N		MX			Toronto		June 2/2020	
366	<i>Juglans nigra</i>	Black walnut	1	N	18, 16, 10	2		2	2	2	2	6	Remove	N		MX			Toronto		June 2/2020	30
367	<i>Picea abies</i>	Norway spruce	1	Y	14	2		3	3	3	3	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	
368	<i>Acer saccharum</i>	Sugar maple	1	Y	8	2		3	3	3	3	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	
369	<i>Juniperus virginiana</i>	Red cedar	4	Y	(4 stems) 6	1.5		3	3	3	3	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	
370	<i>Picea abies</i>	Norway spruce	1	Y	10	2		3	3	3	3	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	
371	<i>Acer saccharum</i>	Sugar maple	1	Y	6	2		3	3	3	3	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	
372	<i>Acer negundo</i>	Manitoba maple	1	Y	28, 26, 24	3		2	3	3	3	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	
373	<i>Picea abies</i>	Norway spruce	1	Y	12	2		3	3	3	3	6	Remove	N		Private	90	Parklawn Road	Toronto	M8Y 0B6	June 2/2020	
374	<i>Acer negundo</i>	Manitoba maple	1	N	12	2		2	2	2	2	6	Remove	N		MX			Toronto		June 2/2020	11
375	<i>Juglans nigra</i>	Black walnut	1	N	12	1.5		2	2	2	2	6	Remove	N		MX			Toronto		June 2/2020	
376	<i>Acer negundo</i>	Manitoba maple	1	N	22, 22, 14	3		2	2	2	2	6	Remove	N	possible habitat for little brown and northern myotis	MX			Toronto		June 2/2020	10
377	<i>Acer negundo</i>	Manitoba maple	1	Y	18, 18, 16	3		2	2	2	2	4	Remove	N		TRCA/RNFP			Toronto		June 2/2020	10
378	<i>Acer negundo</i>	Manitoba maple	1	N	14, 14, 14, 12, 12, 10	3		2	2	2	2	4	Remove	N		TRCA/RNFP			Toronto		June 2/2020	
379	<i>Acer negundo</i>	Manitoba maple	1	N	16	3		2	2	2	2	6	Remove	N		MX			Toronto		June 2/2020	
380	<i>Acer negundo</i>	Manitoba maple	1	N	16	3		2	2	2	2	6	Remove	N		MX			Toronto		June 2/2020	10
381	<i>Acer negundo</i>	Manitoba maple	1	N	28, 26, 20, 18	4		1	2	2	2	6	Remove	N		MX			Toronto		June 2/2020	
382	<i>Acer negundo</i>	Manitoba maple	1	N	17	2		1	2	2	2	6	Remove	N		MX			Toronto		June 2/2020	20
383	<i>Acer negundo</i>	Manitoba maple	1	N	16, 14, 10, 10	2.5		1	2	2	2	4	Injure	N		MX			Toronto		June 2/2020	
384	<i>Robinia pseudoacacia</i>	Black locust	1	N	18	2.5		2	2	2	2	4	Injure	Y		MX			Toronto		June 2/2020	20
385	<i>Robinia pseudoacacia</i>	Black locust	1	N	16	2.5	5	2	2	2	2	4	Preserve	N	previously tagged #3261	TRCA/RNFP			Toronto		June 2/2020	
386	<i>Acer negundo</i>	Manitoba maple	1	N	23, 23, 23, 16, 10	5	5	3	3	3	3	4	Preserve	N		MX			Toronto		June 2/2020	20
387	<i>Acer negundo</i>	Manitoba maple	1	N	15, 15, 14, 14, 14, 14, 10, 10	4	4	2	2	2	2	4	Preserve	N		MX			Toronto		June 2/2020	10
388	<i>Acer negundo</i>	Manitoba maple	1	N	14	2		1	2	2	2	4	Injure	N		MX			Toronto		June 2/2020	
389	<i>Acer negundo</i>	Manitoba maple	1	N	11	2		2	2	2	2	4	Injure	N		MX			Toronto		June 2/2020	10
390	<i>Acer negundo</i>	Manitoba maple	1	N	11	2		1	1	1	1	6	Remove	N		MX			Toronto		June 2/2020	
391	<i>Acer negundo</i>	Manitoba maple	1	N	16	2		2	2	2	2	6	Remove	N		MX			Toronto		June 2/2020	10
392	<i>Acer negundo</i>	Manitoba maple	1	Y	26, 24	3		2	2	2	2	6	Remove	N		MX			Toronto		June 2/2020	
393	<i>Juglans nigra</i>	Black walnut	1	Y	30	3		2	2	2	2	6	Remove	N		MX			Toronto		June 2/2020	2
394	<i>Robinia pseudoacacia</i>	Black locust	1	N	22, 20, 16, 14	3		3	3	3	3	4	Remove	N		MX	90	Park lawn Rd.	Toronto	M8Y 0B6	June 3/2020	3
395	<i>Robinia pseudoacacia</i>	Black locust	1	N	16, 14, 8	3		2	2	2	2	4	Remove	N	previously tagged #2511, 2510	MX	90	Park lawn Rd.	Toronto	M8Y 0B6	June 3/2020	5
396	<i>Populus deltoides</i>	Cottonwood	1	Y	18, 18, 16	2.5		2	2	2	2	6	Remove	N		MX			Toronto		June 3/2020	
397	<i>Populus deltoides</i>	Cottonwood	1	Y	45	4		3	3	3	3	1	Remove	N		MX			Toronto		June 3/2020	
398	<i>Acer platanoides</i>	Norway maple	1	N	14	3		3	3	3	3	6	Remove	N		MX			Toronto		June 3/2020	4
399	<i>Populus deltoides</i>	Cottonwood	1	Y	45, 40, 30, 28	4		2	3	3	3	1	Remove	N		MX			Toronto		June 3/2020	









Tree ID Number	Botanical Name	Common Name	Number of Specimens	Assessment Approximate (No PTE)	DBH (cm)	Dripline Radius (m)	Tree Protection Zone (m)	Tree Condition				Tree Category	Remove, Preserve, Injure	Permit Required (Y/N)	Comments	Address					Date	Tally of < 10cm DBH trees
								Trunk Integrity	Crown Structure	Crown Vigour	Condition Rating					Owner	Street No.	Street Name	City	Postal Code		
400	<i>Ulmus pumila</i>	Siberian elm	1	N	20, 12	3		2	2	2	2	4	Remove	Y	previously tagged #2516	MX			Toronto		June 3/2020	
401	<i>Robinia pseudoacacia</i>	Black locust	1	N	15, 15, 11	2		2	2	2	2	4	Remove	Y	previously tagged #2517	MX			Toronto		June 3/2020	
402	<i>Robinia pseudoacacia</i>	Black locust	1	N	19	2.5		3	3	3	3	4	Remove	Y	previously tagged #2518	MX			Toronto		June 3/2020	2
403	<i>Malus sp.</i>	Apple	1	Y	18, 14	2.5		1	2	2	2	4	Remove	Y		MX			Toronto		June 3/2020	9
404	<i>Populus deltoides</i>	Cottonwood	1	Y	65, 30	4		3	3	3	3	4	Remove	Y	possible habitat for little brown and northern myotis	MX			Toronto		June 3/2020	11
405	<i>Populus deltoides</i>	Cottonwood	1	Y	28, 24	3		2	3	3	3	4	Remove	Y		TRCA/RNFP			Toronto		June 3/2020	3
406	<i>Populus deltoides</i>	Cottonwood	1	Y	14	1.5		2	2	2	2	4	Remove	Y		TRCA/RNFP			Toronto		June 3/2020	10
407	<i>Populus deltoides</i>	Cottonwood	1	Y	12	1.5		3	3	3	3	4	Remove	Y		TRCA/RNFP			Toronto		June 3/2020	9
408	<i>Populus deltoides</i>	Cottonwood	1	Y	22	1.5		3	3	3	3	4	Remove	Y		TRCA/RNFP			Toronto		June 3/2020	13
409	<i>Populus deltoides</i>	Cottonwood	1	Y	28	2.5		3	3	3	3	4	Remove	Y		MX			Toronto		June 3/2020	
410	<i>Populus deltoides</i>	Cottonwood	1	Y	40, 30	5		3	3	3	3	4	Remove	Y		MX			Toronto		June 3/2020	
411	<i>Populus deltoides</i>	Cottonwood	1	Y	26	2		2	2	2	2	4	Remove	Y		MX			Toronto		June 3/2020	5
412	<i>Populus deltoides</i>	Cottonwood	1	Y	16	2		3	3	3	3	4	Remove	Y		MX			Toronto		June 3/2020	5
413	<i>Populus deltoides</i>	Cottonwood	1	Y	22	2.5		1	2	2	2	4	Remove	Y		TRCA/RNFP			Toronto		June 3/2020	
414	<i>Populus deltoides</i>	Cottonwood	1	Y	34	3		1	2	2	2	4	Remove	Y		TRCA/RNFP			Toronto		June 3/2020	
415	<i>Populus deltoides</i>	Cottonwood	1	Y	30, 28, 28	4		2	2	2	2	4	Remove	Y		TRCA/RNFP			Toronto		June 3/2020	3
416	<i>Populus deltoides</i>	Cottonwood	1	Y	18	2.5		2	2	2	2	4	Remove	Y		MX			Toronto		June 3/2020	
417	<i>Populus deltoides</i>	Cottonwood	1	Y	20	2.5		3	3	3	3	4	Remove	Y		TRCA/RNFP			Toronto		June 3/2020	3
418	<i>Populus deltoides</i>	Cottonwood	1	Y	20	2.5		2	2	2	2	4	Remove	Y		MX			Toronto		June 3/2020	
419	<i>Populus deltoides</i>	Cottonwood	1	Y	14	1.5		2	2	2	2	4	Remove	Y		MX			Toronto		June 3/2020	
420	<i>Populus deltoides</i>	Cottonwood	1	Y	22	2		2	2	2	2	4	Remove	Y		MX			Toronto		June 3/2020	
421	<i>Populus deltoides</i>	Cottonwood	1	N	14	2		2	2	2	2	4	Remove	Y	previously tagged #2680	MX			Toronto		June 3/2020	6
422	<i>Fraxinus pennsylvanica</i>	Green ash	1	Y	22	2		0	0	0	0	4	Remove	N	Tree is dead.	MX			Toronto		June 3/2020	
423	<i>Acer negundo</i>	Manitoba maple	1	N	29, 17	3		1	2	2	2	4	Remove	Y	previously tagged #2682	MX			Toronto		June 3/2020	
424	<i>Fraxinus pennsylvanica</i>	Green ash	1	N	14, 12, 10	3		0	0	0	0	4	Remove	N	Tree is dead.	TRCA/RNFP			Toronto		June 3/2020	20
425	<i>Robinia pseudoacacia</i>	Black locust	1	N	15, 14, 11	3		2	2	2	2	4	Remove	Y	previously tagged #2520	TRCA/RNFP			Toronto		June 3/2020	
426	<i>Robinia pseudoacacia</i>	Black locust	1	N	18, 11	2.5		2	2	2	2	4	Remove	Y	previously tagged #2519	MX			Toronto		June 3/2020	
427	<i>Robinia pseudoacacia</i>	Black locust	1	N	13, 13, 10, 8	2.5		2	2	2	2	4	Remove	Y	previously tagged #2525	TRCA/RNFP			Toronto		June 3/2020	
428	<i>Robinia pseudoacacia</i>	Black locust	1	N	15	2		2	2	2	2	4	Remove	Y	previously tagged #2521	TRCA/RNFP			Toronto		June 3/2020	
429	<i>Robinia pseudoacacia</i>	Black locust	1	N	15	2		2	2	2	2	6	Remove	Y	previously tagged #2522	MX			Toronto		June 3/2020	
430	<i>Robinia pseudoacacia</i>	Black locust	1	N	16	2		2	2	2	2	4	Remove	Y	previously tagged #2523	MX			Toronto		June 3/2020	
431	<i>Robinia pseudoacacia</i>	Black locust	1	N	12	1.5		2	2	2	2	4	Remove	Y		MX			Toronto		June 3/2020	
432	<i>Robinia pseudoacacia</i>	Black locust	1	N	22	2		2	2	2	2	4	Remove	Y		TRCA/RNFP			Toronto		June 3/2020	
433	<i>Robinia pseudoacacia</i>	Black locust	1	N	26, 26, 24, 24, 22, 20	3		2	2	2	2	4	Remove	Y		TRCA/RNFP			Toronto		June 3/2020	
434	<i>Robinia pseudoacacia</i>	Black locust	1	N	24, 16, 10	3		2	2	2	2	4	Remove	Y	previously tagged #2528	TRCA/RNFP			Toronto		June 3/2020	10
435	<i>Acer negundo</i>	Manitoba maple	1	N	15, 15	3		2	2	2	2	4	Injure	Y	previously tagged #2529	TRCA/RNFP			Toronto		June 3/2020	
436	<i>Acer negundo</i>	Manitoba maple	1	N	28, 18, 14	3	6	2	3	3	3	4	Injure	Y	previously tagged #2531	TRCA/RNFP			Toronto		June 3/2020	
437	<i>Acer negundo</i>	Manitoba maple	1	N	17, 10	2.5	5	2	2	2	2	4	Preserve	N	previously tagged #2530	TRCA/RNFP			Toronto		June 3/2020	
438	<i>Acer negundo</i>	Manitoba maple	1	N	12, 12, 10	2.5	5	2	2	2	2	4	Preserve	N		TRCA/RNFP			Toronto		June 3/2020	
439	<i>Elaeagnus angustifolia</i>	Russian olive	1	Y	16, 14, 12	2.5	5	1	2	2	2	4	Preserve	N		TRCA/RNFP			Toronto		June 3/2020	
440	<i>Populus deltoides</i>	Cottonwood	1	Y	24, 18	2.5	5	3	3	3	3	4	Preserve	N		TRCA/RNFP			Toronto		June 3/2020	1
441	<i>Fraxinus pennsylvanica</i>	Green ash	1	N	14	2	4	1	2	2	2	4	Preserve	N	previously tagged #2652	TRCA/RNFP			Toronto		June 3/2020	9
442	<i>Robinia pseudoacacia</i>	Black locust	1	N	13	1.5	3.6	2	2	2	2	4	Preserve	N		TRCA/RNFP			Toronto		June 3/2020	1
443	<i>Amelanchier sp.</i>	Serviceberry	3	Y	(3 stems) 6	1	1.2	3	3	3	3	4	Preserve	N		Private	90	Park lawn Rd.	Toronto	M8Y 0B6	June 3/2020	
444	<i>Cornus sp.</i>	Dogwood	8	Y	(8 stems) 5	2.5	1.2	3	3	3	3	4	Preserve	N		Private	90	Park lawn Rd.	Toronto	M8Y 0B6	June 3/2020	
445	<i>Cornus florida</i>	Flowering dogwood	1	Y	5	1	1.2	1	2	2	2	4	Preserve	N		Private	90	Park lawn Rd.	Toronto	M8Y 0B6	June 3/2020	

Tree ID Number	Botanical Name	Common Name	Number of Specimens	Assessment Approximate (No PTE)	DBH (cm)	Dripline Radius (m)	Tree Protection Zone (m)	Tree Condition				Tree Category	Remove, Preserve, Injure	Permit Required (Y/N)	Comments	Address					Date	Tally of < 10cm DBH trees
								Trunk Integrity	Crown Structure	Crown Vigour	Condition Rating					Owner	Street No.	Street Name	City	Postal Code		
446	<i>Betula alleghaniensis</i>	Yellow birch	1	Y	10	1	1.8	3	3	3	3	4	Preserve	N		Private	90	Park lawn Rd.	Toronto	M8Y 0B6	June 3/2020	
447	<i>Betula alleghaniensis</i>	Yellow birch	1	Y	8	1	1.2	2	2	2	2	4	Preserve	N		Private	90	Park lawn Rd.	Toronto	M8Y 0B6	June 3/2020	
448	<i>Betula papyrifera</i>	White birch	1	Y	12	1.5	1.8	3	3	3	3	4	Preserve	N		Private	90	Park lawn Rd.	Toronto	M8Y 0B6	June 3/2020	
449	<i>Cornus florida</i>	Flowering dogwood	1	Y	6	1	1.2	2	2	2	2	4	Preserve	N		Private	90	Park lawn Rd.	Toronto	M8Y 0B6	June 3/2020	
450	<i>Amelanchier sp.</i>	Serviceberry	3	Y	(3 stems) 6	1	1.2	2	2	2	2	4	Injure	N		Private	90	Park lawn Rd.	Toronto	M8Y 0B6	June 3/2020	
451	<i>Populus deltoides</i>	Cottonwood	1	Y	6, 6	1.5	1.2	2	2	2	2	4	Preserve	N		Private	90	Park lawn Rd.	Toronto	M8Y 0B6	June 3/2020	
452	<i>Picea glauca</i>	White spruce	1	Y	6	1		3	3	3	3	4	Remove	N		Private	90	Park lawn Rd.	Toronto	M8Y 0B6	June 3/2020	
453	<i>Carpinus caroliniana</i>	Blue beech	1	Y	6	1.5		3	3	3	3	6	Remove	N		Private	90	Park lawn Rd.	Toronto	M8Y 0B6	June 3/2020	
454	<i>Picea abies</i>	Norway spruce	1	Y	4	1		2	2	2	2	6	Remove	N		Private	90	Park lawn Rd.	Toronto	M8Y 0B6	June 3/2020	2
455	<i>Carpinus caroliniana</i>	Blue beech	1	Y	6	2		2	3	3	3	6	Remove	N		Private	90	Park lawn Rd.	Toronto	M8Y 0B6	June 3/2020	4
456	<i>Amelanchier sp.</i>	Serviceberry	3	Y	(3 stems) 4	2		2	3	3	3	6	Remove	N		Private	90	Park lawn Rd.	Toronto	M8Y 0B6	June 3/2020	
457	<i>Picea glauca</i>	White spruce	1	Y	4	1.5		3	2	2	2	6	Remove	N		Private	90	Park lawn Rd.	Toronto	M8Y 0B6	June 3/2020	
458	<i>Prunus avium</i>	Sweet cherry	2	Y	(2 stems) 6	2		2	2	2	2	6	Remove	N		Private	90	Park lawn Rd.	Toronto	M8Y 0B6	June 3/2020	
459	<i>Picea alba</i>	Norway spruce	1	Y	6	1.5		3	3	3	3	6	Remove	N		Private	90	Park lawn Rd.	Toronto	M8Y 0B6	June 3/2020	
460	<i>Amelanchier sp.</i>	Serviceberry	1	Y	4	1.5		2	3	3	3	6	Remove	N		Private	90	Park lawn Rd.	Toronto	M8Y 0B6	June 3/2020	
461	<i>Picea alba</i>	Norway spruce	1	Y	4	1		2	2	2	2	6	Remove	N		Private	90	Park lawn Rd.	Toronto	M8Y 0B6	June 3/2020	
462	<i>Ulmus americana</i>	White elm	1	Y	6	1.5		3	3	3	3	6	Remove	N		Private	90	Park lawn Rd.	Toronto	M8Y 0B6	June 3/2020	
463	<i>Amelanchier sp.</i>	Serviceberry	1	N	4	1.5	1.2	3	3	3	3	6	Preserve	N		Private	90	Park lawn Rd.	Toronto	M8Y 0B6	June 3/2020	

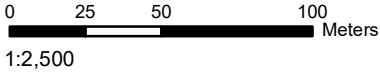
Appendix B

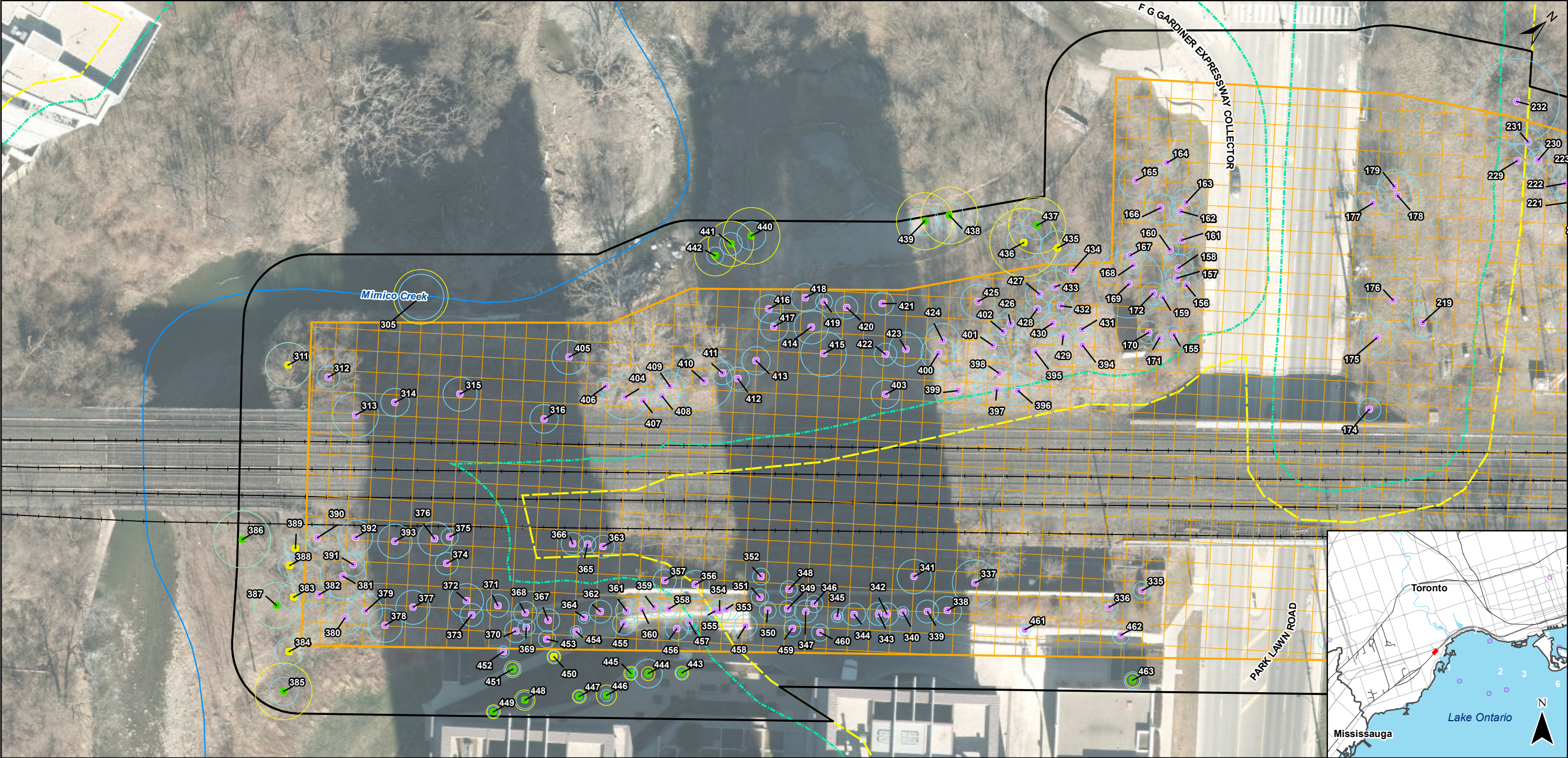
Tree Preservation Plan- Existing Condition Figures



LEGEND		NOTES		Project: Park Lawn GO Station	
	Proposed Project Footprint (approximate)	<div>1. Coordinate system - UTM NAD 1983 Zone 17N</div> <div>2. Sources: Roads, Railways, Watercourses - Land Information Ontario; RNFP, City of Toronto 2019.</div> <div>3. Station Footprint Based on Preliminary Station Design.</div> <div><div><div>02550100</div><div>Meters</div></div><div>1:2,500</div></div>		Figure Title: Tree Preservation Plan - Existing Conditions	
	Study Area (6-12 Metres)			Site Address: 2150 Lakeshore Boulevard West, Toronto	
	Toronto Region Conservation Authority (TRCA) Regulated Area			Prepared By: 	
	Ravine and Natural Feature By-law			Date: December 17, 2021	
	Railway	Version: PL.TIP.100-1	Review: 	Figure: B	Page: 1 of 3
	Permanent Watercourse				

1. Coordinate system - UTM NAD 1983 Zone 17N
2. Sources: Roads, Railways, Watercourses - Land Information Ontario; RNFP, City of Toronto 2019.
3. Station Footprint Based on Preliminary Station Design.





Proposed Project Footprint (approximate)

Study Area (6-12 Metres)

Toronto Region Conservation Authority (TRCA) Regulated Area

Ravine and Natural Feature By-law

Railway

Permanent Watercourse

Tree to be Preserved (Not OLS Surveyed)

Tree to be Injured (Not OLS Surveyed)

Tree to be Removed (Not OLS Surveyed)

Dripline

Tree Protection Zone (TPZ)

NOTES

1. Coordinate system - UTM NAD 1983 Zone 17N
2. Sources: Roads, Railways, Watercourses - Land Information Ontario; RNFP, City of Toronto 2019.
3. Station Footprint Based on Preliminary Station Design.

0102040

Meters

1:700

Project:

Park Lawn GO Station

Figure Title:

Tree Preservation Plan - Existing Conditions

Site Address:

2150 Lakeshore Boulevard West, Toronto

Prepared By:

HATCH

Date:

December 17, 2021

Version:

PL.TIP.100-1

Review:

Figure:

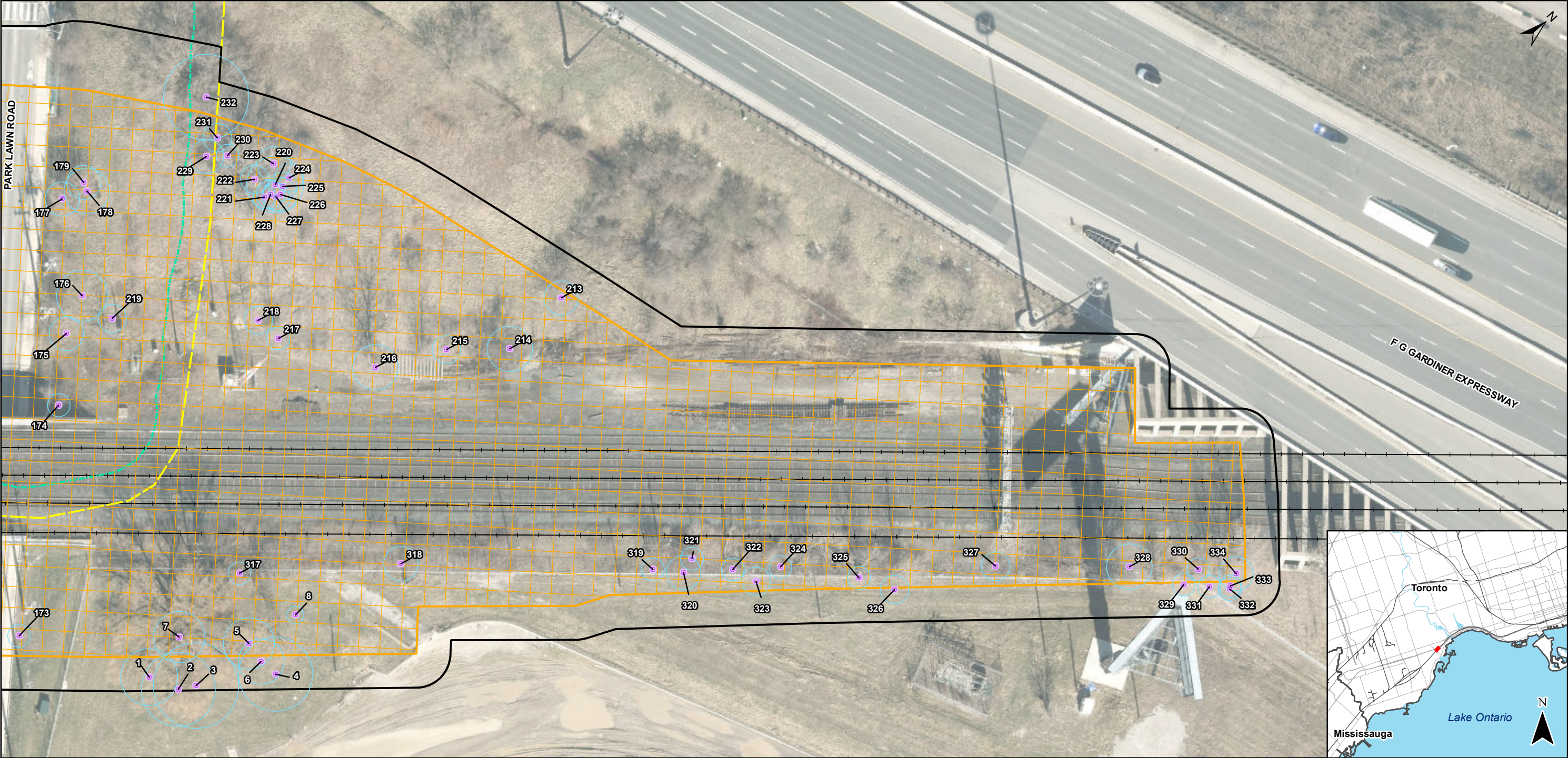
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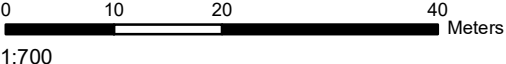




Page:

2 of 3

Document Path: T:\Maps\GIS_Data\MetroLinx\ParkLawnMXD\TIP\MX_PL_FigB_TreePreservationPlan_V3.mxd
User Name: DOAM96940







Aerial Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



LEGEND				NOTES		Project: Park Lawn GO Station	
	Proposed Project Footprint (approximate)		Tree to be Preserved (Not OLS Surveyed)	<ol style="list-style-type: none">Coordinate system - UTM NAD 1983 Zone 17NSources: Roads, Railways, Watercourses - Land Information Ontario; RNFP, City of Toronto 2019.Station Footprint Based on Preliminary Station Design.		Figure Title: Tree Preservation Plan - Existing Conditions	
	Study Area (6-12 Metres)		Tree to be Injured (Not OLS Surveyed)			Site Address: 2150 Lakeshore Boulevard West, Toronto	
	Toronto Region Conservation Authority (TRCA) Regulated Area		Tree to be Removed (Not OLS Surveyed)			Prepared By: HATCH	
	Ravine and Natural Feature By-law		Dripline			Date: December 17, 2021	
	Railway		Tree Protection Zone (TPZ)			Version: PL.TIP.100-1	Figure: B
	Permanent Watercourse					Review: 	Page: 3 of 3

Appendix C

Photography Inventory

	
<p>Tree # 1: 2150 Lake Shore Boulevard West</p>	<p>Tree # 2: 2150 Lake Shore Boulevard West</p>
	
<p>Tree # 3: 2150 Lake Shore Boulevard West</p>	<p>Trees # 4: 2150 Lake Shore Boulevard West</p>
	
<p>Tree # 5: 2150 Lake Shore Boulevard West</p>	<p>Tree # 6: 2150 Lake Shore Boulevard West</p>



Tree # 7: 2150 Lake Shore Boulevard West



Tree # 8: 2150 Lake Shore Boulevard West



Tree # 156: Ravine (90 Park Lawn Road)



Tree # 157: Ravine (90 Park Lawn Road)













Tree # 158: Ravine (90 Park Lawn Road)



Tree # 159: Ravine (90 Park Lawn Road)

	
<p>Tree # 160: Ravine (90 Park Lawn Road)</p>	<p>Tree # 161: Ravine (90 Park Lawn Road)</p>
	
<p>Tree # 167: Ravine (90 Park Lawn Road)</p>	<p>Tree # 168: Ravine (90 Park Lawn Road)</p>
	
<p>Tree # 169: Ravine (90 Park Lawn Road)</p>	<p>Tree # 170: Ravine (90 Park Lawn Road)</p>

	
<p>Tree # 171: Ravine (90 Park Lawn Road)</p>	<p>Tree # 172: Ravine (90 Park Lawn Road)</p>
	
<p>Tree # 173: 2150 Lake Shore Boulevard West</p>	<p>Tree # 174: Ravine (2150 Lake Shore Boulevard West) on Park Lawn and Gardiner</p>
	
<p>Tree # 175: Ravine (2150 Lake Shore Boulevard West)</p>	<p>Tree # 176: Ravine (2150 Lake Shore Boulevard West)</p>

	
<p>Tree # 155: Ravine (90 Park Lawn Road)</p>	<p>Tree # 214: 2150 Lake Shore Boulevard West</p>
	
<p>Tree # 215: 2150 Lake Shore Boulevard West</p>	<p>Tree # 216: 2150 Lake Shore Boulevard West</p>
	
<p>Tree # 217: 2150 Lake Shore Boulevard West</p>	<p>Tree # 218: 2150 Lake Shore Boulevard West</p>



**Tree # 219 Ravine (2150 Lake Shore
Boulevard West)**

Appendix D

City of Toronto General Notes, Specifications and Details

GENERAL NOTES:

- 1) IT IS THE APPLICANTS' RESPONSIBILITY TO DISCUSS POTENTIAL IMPACTS TO TREES LOCATED NEAR OR WHOLLY ON ADJACENT PROPERTIES OR ON SHARED BOUNDARY LINES WITH THEIR NEIGHBOURS. SHOULD SUCH TREES BE INJURED TO THE POINT OF INSTABILITY OR DEATH THE APPLICANT MAY BE HELD RESPONSIBLE THROUGH CIVIL ACTION. THE APPLICANT WOULD ALSO BE REQUIRED TO REPLACE SUCH TREES TO THE SATISFACTION OF URBAN FORESTRY.
- 2) TREE PROTECTION BARRIERS SHALL BE INSTALLED TO STANDARDS AS DETAILED IN THIS DOCUMENT AND TO THE SATISFACTION OF URBAN FORESTRY.
- 3) TREE PROTECTION BARRIERS MUST BE INSTALLED USING PLYWOOD CLAD HOARDING (MINIMUM 19MM OR ¾" THICK) OR AN EQUIVALENT APPROVED BY URBAN FORESTRY.
- 4) WHERE REQUIRED, SIGNS AS SPECIFIED IN SECTION 4, TREE PROTECTION SIGNAGE MUST BE ATTACHED TO ALL SIDES OF THE BARRIER.
- 5) PRIOR TO THE COMMENCEMENT OF ANY SITE ACTIVITY SUCH AS SITE ALTERATION, DEMOLITION OR CONSTRUCTION, THE TREE PROTECTION MEASURES SPECIFIED ON THIS PLAN MUST BE INSTALLED TO THE SATISFACTION OF URBAN FORESTRY.
- 6) ONCE ALL TREE/SITE PROTECTION MEASURES HAVE BEEN INSTALLED, URBAN FORESTRY STAFF MUST BE CONTACTED TO ARRANGE FOR AN INSPECTION OF THE SITE AND APPROVAL OF THE TREE/SITE PROTECTION REQUIREMENTS. PHOTOGRAPHS THAT CLEARLY SHOW THE INSTALLED TREE/SITE PROTECTION SHALL BE PROVIDED FOR URBAN FORESTRY REVIEW.
- 7) WHERE CHANGES TO THE LOCATION OF THE APPROVED TPZ OR SEDIMENT CONTROL OR WHERE TEMPORARY ACCESS TO THE TPZ IS PROPOSED, URBAN FORESTRY MUST BE CONTACTED TO OBTAIN APPROVAL PRIOR TO ALTERATION.
- 8) TREE PROTECTION BARRIERS MUST REMAIN IN PLACE AND IN GOOD CONDITION DURING DEMOLITION, CONSTRUCTION AND/OR SITE DISTURBANCE, INCLUDING LANDSCAPING, AND MUST NOT BE ALTERED, MOVED OR REMOVED UNTIL AUTHORIZED BY URBAN FORESTRY.
- 9) NO CONSTRUCTION ACTIVITIES INCLUDING GRADE CHANGES, SURFACE TREATMENTS OR EXCAVATION OF ANY KIND ARE PERMITTED WITHIN THE AREA IDENTIFIED ON THE TREE PROTECTION PLAN OR SITE PLAN AS A MINIMUM TREE PROTECTION ZONE (TPZ). NO ROOT CUTTING IS PERMITTED. NO STORAGE OF MATERIALS OR FILL IS PERMITTED WITHIN THE TPZ. NO MOVEMENT OR STORAGE OF VEHICLES OR EQUIPMENT IS PERMITTED WITHIN THE TPZ. THE AREA(S) IDENTIFIED AS A TPZ MUST BE PROTECTED AND REMAIN UNDISTURBED AT ALL TIMES.
- 10) ALL ADDITIONAL TREE PROTECTION OR PRESERVATION REQUIREMENTS, ABOVE AND BEYOND THE INSTALLATION OF TREE PROTECTION BARRIERS, MUST BE UNDERTAKEN OR IMPLEMENTED AS DETAILED IN THE URBAN FORESTRY APPROVED ARBORIST REPORT AND/OR THE APPROVED TREE PROTECTION PLAN AND TO THE SATISFACTION OF URBAN FORESTRY.
- 11) IF THE MINIMUM TREE PROTECTION ZONE (TPZ) MUST BE REDUCED TO FACILITATE CONSTRUCTION ACCESS, THE TREE PROTECTION BARRIERS MUST BE MAINTAINED AT A LESSER DISTANCE AND THE EXPOSED PORTION OF TPZ MUST BE PROTECTED USING A HORIZONTAL ROOT PROTECTION METHOD APPROVED BY URBAN FORESTRY.
- 12) ANY ROOTS OR BRANCHES INDICATED ON THIS PLAN WHICH REQUIRE PRUNING, AS APPROVED BY URBAN FORESTRY, MUST BE PRUNED BY AN ARBORIST. ALL PRUNING OF TREE ROOTS AND BRANCHES MUST BE IN ACCORDANCE WITH GOOD ARBORICULTURAL PRACTICE. ROOTS THAT HAVE RECEIVED APPROVAL FROM URBAN FORESTRY TO BE PRUNED MUST FIRST BE EXPOSED USING PNEUMATIC (AIR) EXCAVATION, BY HAND DIGGING OR BY A USING LOW PRESSURE HYDRAULIC (WATER) EXCAVATION. THE WATER PRESSURE FOR HYDRAULIC EXCAVATION MUST BE LOW ENOUGH THAT ROOT BARK IS NOT DAMAGED OR REMOVED. THIS WILL ALLOW A PROPER PRUNING CUT AND MINIMIZE TEARING OF THE ROOTS. THE ARBORIST RETAINED TO CARRY OUT CROWN OR ROOT PRUNING MUST CONTACT URBAN FORESTRY NO LESS THAN THREE WORKING DAYS PRIOR TO CONDUCTING ANY SPECIFIED WORK
- 13) THE APPLICANT/OWNER SHALL PROTECT ALL BY-LAW REGULATED TREES IN THE AREA OF CONSIDERATION THAT HAVE NOT BEEN APPROVED FOR REMOVAL THROUGHOUT DEVELOPMENT WORKS TO THE SATISFACTION OF URBAN FORESTRY.
- 14) CONVICTIONS OF OFFENCES RESPECTING THE REGULATIONS IN THE STREET TREE BY-LAW AND PRIVATE TREE BY-LAW ARE SUBJECT TO FINES. A PERSON CONVICTED OF AN OFFENCE UNDER THESE BY-LAWS IS LIABLE TO A MINIMUM FINE OF \$500 AND A MAXIMUM FINE OF \$100,000 PER TREE, AND /OR A SPECIAL FINE OF \$100,000. THE LANDOWNER MAY BE ORDERED BY THE CITY TO STOP THE CONTRAVENTING ACTIVITY OR ORDERED TO UNDERTAKE WORK TO CORRECT THE CONTRAVENTION.
- 15) PRIOR TO SITE DISTURBANCE THE OWNER MUST CONFIRM THAT NO MIGRATORY BIRDS ARE MAKING USE OF THE SITE FOR NESTING. THE OWNER MUST ENSURE THAT THE WORKS ARE IN CONFORMANCE WITH THE MIGRATORY BIRD CONVENTION ACT AND THAT NO MIGRATORY BIRD NESTS WILL BE IMPACTED BY THE PROPOSED WORK.

The following additional notes shall be added on plans for properties regulated by the Ravine and Natural Feature Protection Bylaw:

- Ravine and Natural Feature Protection By-law (RNFP) note:


Ravine & Natural Feature Protection By-law

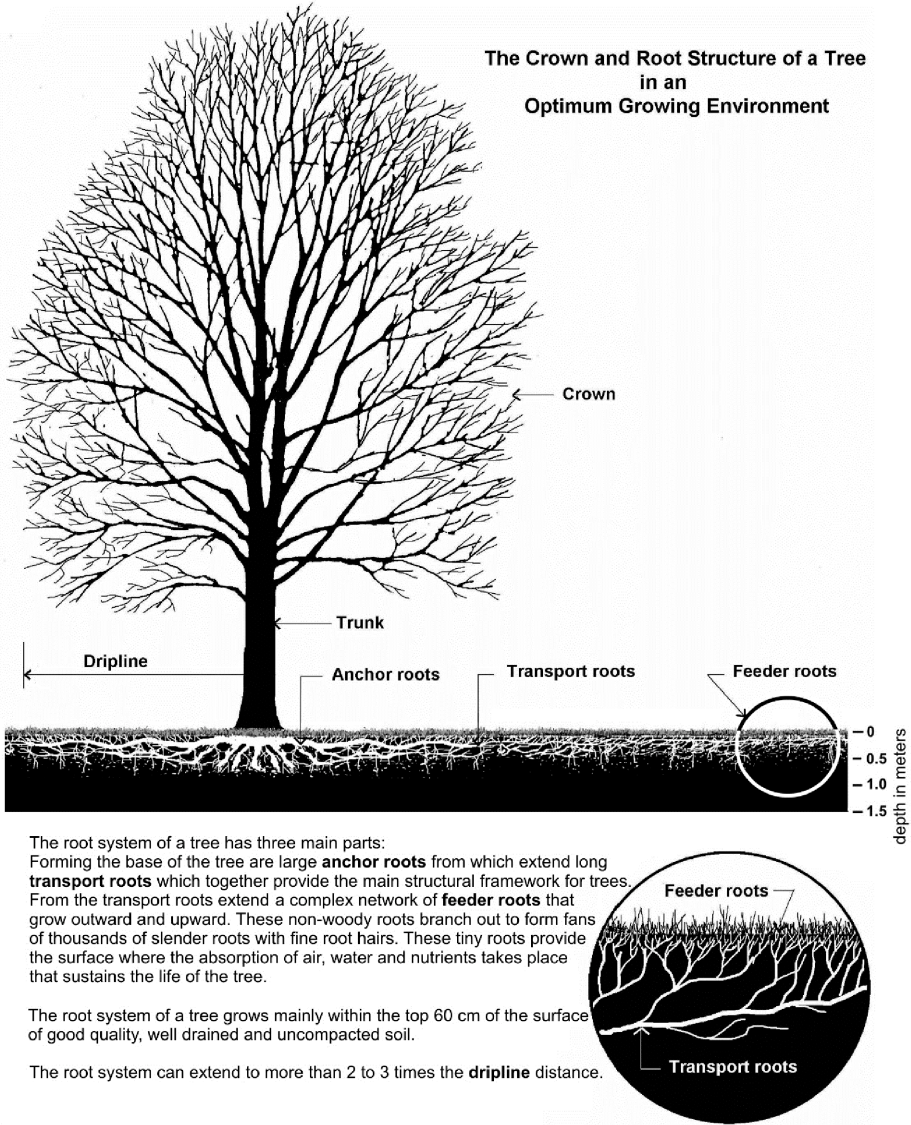
The Ravine & Natural Feature Protection By-law, Chapter 658 of the City of Toronto Municipal Code, regulates the injury and destruction of trees, dumping of refuse and changes to grade within protected areas.

Under this by-law protected trees may not be removed, injured or destroyed, and protected grades may not be altered, without written authorisation from Urban Forestry Ravine & Natural Feature Protection, on behalf of the General Manager of Parks, Forestry & Recreation.

Convictions of offences respecting the regulations in the Ravine and Natural Feature Protection By-law are subject to fines, and the landowner may be ordered by the court to restore the area to the satisfaction of the City. A person convicted of an offence under this Bylaw is liable to a minimum fine of \$500 and a maximum fine of \$100,000 for each tree destroyed, a maximum fine of \$100,000 for any other offence committed under this chapter, and /or a Special Fine of \$100,000. A person convicted of a continuing offence, including failure to comply with ravine permit conditions is liable to a maximum fine of not more than \$10,000 for each day or a part of a day that the offence continues.

- The exact location of the limit of the RNFP area must be shown on all pertinent plans including Tree Protection Plan. The applicant/owner shall have this limit marked on their survey or other plans drawn to a suitable scale. This service costs \$72.37 plus tax and can be requested by contacting the City of Toronto, Information and Technology, Geospatial Competency Centre, Map Service Counter at 416-392-2506 or mapsales@toronto.ca. This line may then be transferred onto other plans to be submitted.
- Sediment control fencing shall be installed in the locations as indicated in the Urban Forestry approved sediment control plan. The sediment control fencing must be installed to Ontario Provincial Standards (OPSD-219.130, see Section 7, Figure 5) and to the satisfaction of Urban Forestry. Sediment control near trees and over root zones shall be installed as shown on Figure 6 of this document and to the satisfaction of Urban Forestry.

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The root system of a tree has three main parts: Forming the base of the tree are large **anchor roots** from which extend long **transport roots** which together provide the main structural framework for trees. From the transport roots extend a complex network of **feeder roots** that grow outward and upward. These non-woody roots branch out to form fans of thousands of slender roots with fine root hairs. These tiny roots provide the surface where the absorption of air, water and nutrients takes place that sustains the life of the tree.

The root system of a tree grows mainly within the top 60 cm of the surface of good quality, well drained and uncompacted soil.

The root system can extend to more than 2 to 3 times the **dripline** distance.



Parks, Forestry and Recreation
November 2015 **Detail TP - 3**

2. Protecting Trees

There are a number of steps that can be taken to protect trees prior to, during and after any construction project. Hiring an arborist should be the first step. An arborist can advise on current tree maintenance requirements and determine the impact the proposal will have on trees and the surrounding natural environment.

An inventory of trees on subject and adjacent properties that may be impacted by the proposed work should be prepared in accordance with the City tree by-laws so that the project can be designed with tree protection in mind. A tree protection plan prepared by an arborist will identify the location, species, size and condition of all trees within the area of consideration, identify the extent of injury where applicable and outline proposed tree protection measures for the trees identified for protection.

The **area of consideration** for trees protected under the Private Tree By-law (Municipal Code, Chapter 813, Article III) includes the entire area of site disturbance, including construction related traffic and material storage, and extends 6m beyond the limit of site disturbance. For trees protected under Ravine and Natural Feature Protection By-law (Municipal Code, Chapter 658), the area of consideration includes the area of site disturbance and 12m area beyond.

The following chart provides the required distances for determining a **minimum tree protection zone** (TPZ) for trees located on a City street, in parks and on private property subject to Private Tree By-law and for trees located in areas regulated under the Ravine and Natural Feature Protection By-law. The minimum tree protection zones are based on the diameter of the tree. While these guidelines provide minimum protection distances for the anchor and transport roots of a tree, there can still be significant loss of the feeder roots beyond the established tree protection zone. Feeder roots are responsible for water and nutrient absorption and gas exchange. **For this reason, Urban Forestry may require a TPZ larger than the minimum, depending on the tree and the surrounding environment.**

Trunk Diameter (DBH) ¹	Minimum Protection Distances Required ² City-owned and Private Trees	Minimum Protection Distances Required Trees in Areas Protected by the Ravine and Natural Feature Protection By-law
		Whichever of the two is greater:
<10cm	1.2 m	The drip line ⁴ or 1.2 m
10- 29 cm	1.8 m	The drip line or 3.6 m
30 ³ – 40 cm	2.4 m	The drip line or 4.8 m
41 – 50 cm	3.0 m	The drip line or 6.0 m
51 – 60 cm	3.6 m	The drip line or 7.2 m
61 – 70cm	4.2 m	The drip line or 8.4 m
71 – 80cm	4.8 m	The drip line or 9.6 m
81 – 90 cm	5.4 m	The drip line or 10.8 m
91 – 100 cm	6.0 m	The drip line or 12.0 m
>100 cm	6 cm protection for each 1 cm diameter	12cm protection for each 1 cm diameter or the drip line ⁵

Table 1: Minimum Tree Protection Zone (TPZ) Determination

¹Diameter at breast height (DBH) measurement of tree stem taken at 1.4 metres (m) above the ground.

²MinimumTree Protection Zone distances are to be measured from the outside edge of the tree base.

³Diameter (30 cm) at which trees qualify for protection under the Private Tree By-law.

⁴The drip line is defined as the area beneath the outer most branch tips of a tree.

⁵Converted from ISA Arborists' Certification Study Guide, general guideline for tree protection barriers of 1 foot of diameter from the stem for each inch of stem diameter.

The diagram below shows how the TPZ is determined:

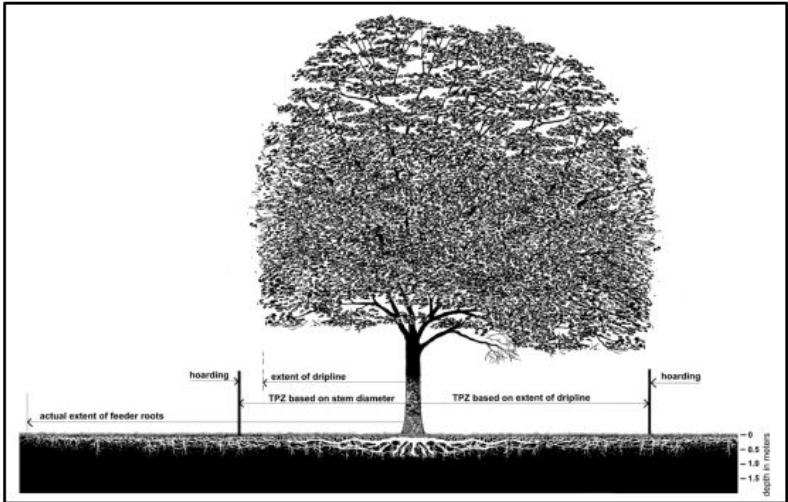


Figure 2: Minimum Tree Protection Zone (TPZ) Determination

In some cases, disturbances in the TPZ may be unavoidable, in which case, the TPZ must be adjusted in consultation with the arborist and Urban Forestry. In these situations, it may be necessary to implement other tree protection measures such as horizontal root protection as noted in section 3 of this document.

In addition to establishing and creating tree protection zones, it may be necessary to implement other protective measures, such as adding mulch to the root zone, aeration of the soil, pruning for deadwood or removing limbs that may be impacted by construction activity. This is also the time to determine the location where new trees can be planted to compliment the construction project and help with the renewal and growth of the urban forest.

Prior to commencing with any excavation, roots approved for pruning by Urban Forestry must first be exposed using pneumatic (air) excavation, by hand digging or by using a low pressure hydraulic (water) excavation. This **exploratory excavation** must be undertaken by an experienced operator under the supervision of a qualified and experienced arborist. The water pressure for hydraulic excavation must be low enough that root bark is not damaged or removed. This will allow a proper pruning cut and minimize tearing of the roots. The arborist retained to carry out root pruning must contact Urban Forestry no less than three (3) working days prior to conducting any specified work.

Exploratory excavation may also be required for open face cuts outside the minimum tree protection zone (TPZ).

Communication between owners and their designated agents, arborists, contractors and sub-contractors throughout the construction process is critical to ensure that everyone involved is aware of the issues surrounding tree protection, and fully understands the tree protection methodology. Construction damage to trees is often irreversible.

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Prohibited Activities Within a TPZ

Except where authorized by Urban Forestry, any activity which could result in injury or destruction of a protected tree or natural feature, or alteration of grade within a Ravine and Natural Feature Protection (RNFP) area, is prohibited within a TPZ, including, but not limited to, any of the following examples:

- demolition, construction, replacement or alteration of permanent or temporary buildings or structures, parking pads, driveways, sidewalks, walkways, paths, trails, dog runs, pools, retaining walls, patios, decks, terraces, sheds or raised gardens
- installation of large stones or boulders
- altering grade by adding or removing soil or fill, excavating, trenching, topsoil or fill scraping, compacting soil or fill, dumping or disturbance of any kind
- storage of construction materials, equipment, wood, branches, leaves, soil or fill, construction waste or debris of any sort
- application, discharge or disposal of any substance or chemical that may adversely affect the health of a tree e.g. concrete sluice, gas, oil, paint, pool water or backwash water from a swimming pool
- causing or allowing water or discharge, to flow over slopes or through natural areas
- access, parking or movement of vehicles, equipment or pedestrians
- cutting, breaking, tearing, crushing, exposing or stripping tree's roots, trunk and branches.
- nailing or stapling into a tree, including attachment of fences, electrical wires or signs
- stringing of cables or installing lights on trees
- soil remediation, removal of contaminated fill
- excavating for directional or micro-tunnelling and boring entering shafts


The above mentioned prohibitions are for area(s) designated as a TPZ. If possible, these prohibitions should also be implemented outside the TPZ in areas where tree roots are located. The roots of a tree can extend from the trunk to approximately 2-3 times the distance of the dripline.

3. Tree and Site Protection Measures

The following are examples of specific tree and site protection measures that may be required by Urban Forestry:

- Plywood tree protection hoarding (minimum 19mm or ¾"), or equivalent barriers, as approved by Urban Forestry, shall be installed in locations as detailed in an Urban Forestry approved Tree Protection Plan. Tree protection barriers must be made of 2.4m (8ft) high plywood hoarding or equivalent as approved by Urban Forestry. Height of hoarding may be less than 2.4m (8ft), to accommodate tree branches that may be lower, or as approved by Urban Forestry. Within a City road allowance where visibility is a consideration, 1.2m (4ft) high orange plastic web snow fencing on a 38 x 89mm (2"x 4") frame should be used. The detail on tree protection barrier construction is shown on Figure 4 in section 7 of this document
- In specific situations where the required full minimum tree protection zone (TPZ) cannot be provided, a **horizontal** (on grade) **root protection**, designed by a qualified professional such as arborist or landscape architect, may be considered, subject to approval by Urban Forestry. Urban Forestry's objective is zero soil compaction within the tree protection zone, therefore best efforts must be made to achieve this objective using materials and best practices available that minimize the vertical loading and spread the loading horizontally.
- Any area designated for stockpiling of excavated soil must be outside of TPZs and be enclosed with sediment control fencing. Sediment control fencing shall be installed in the locations as indicated in an Urban Forestry approved Tree Protection Plan. The sediment control fencing must be installed to Ontario Provincial Standards (OPSD-219.130 – see Section 7, Figure 5) and to the satisfaction of Urban Forestry. When feasible, the sediment control fencing can be attached to the tree protection barrier as shown in Figure 6. Sediment control fencing near trees shall be constructed as per detail shown on Figure 6 of this document

4. Tree Protection Signage



Parks, Forestry & Recreation

Tree Protection Zone (TPZ)

All construction related activities, including grade alteration, excavation, soil compaction, any materials or equipment storage, disposal of liquid and vehicular traffic are NOT permitted within this TPZ.

This tree protection barrier must remain in good condition and must not be removed or altered without authorization of City of Toronto, Urban Forestry.

Concerns or inquiries regarding this TPZ can be directed to:
311 or 311@toronto.ca

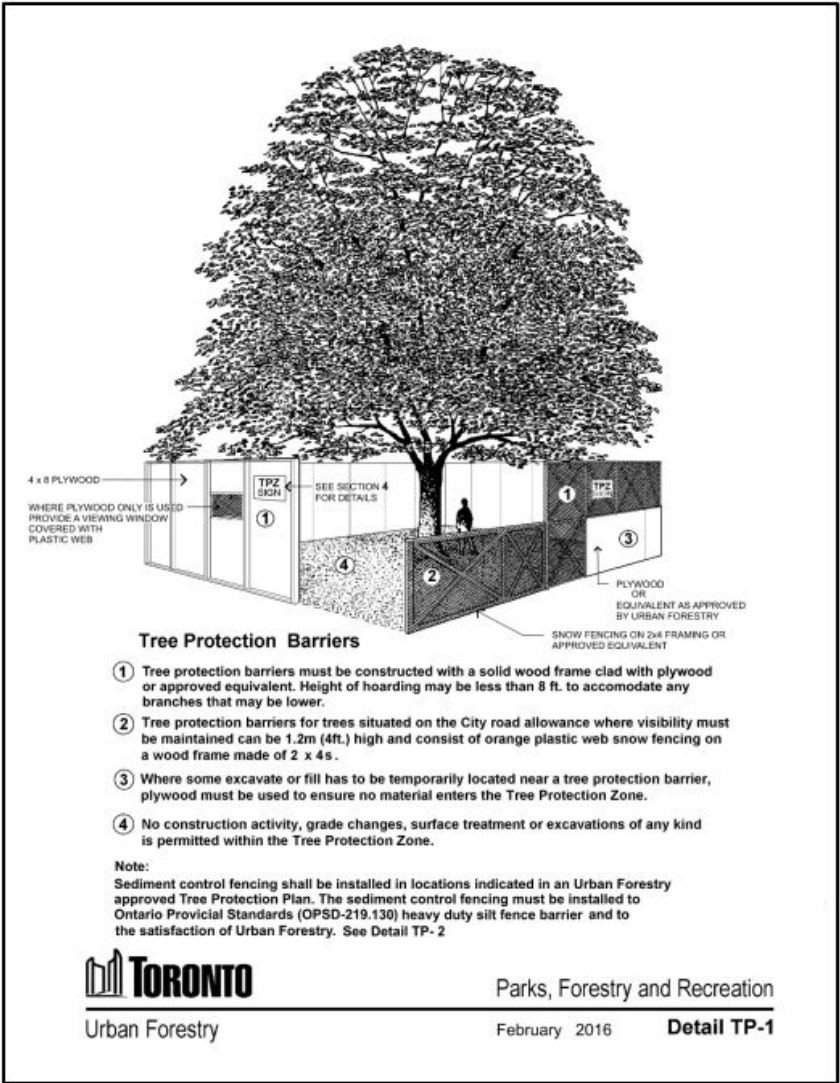


Figure 4: Urban Forestry Detail TP-1

Any person who contravenes any provision of the City's tree protection by-law is guilty of an offence.

More information on tree protection and permit application forms for tree removal and injury are available on Urban Forestry web page at www.toronto.ca/trees.

For additional information regarding the removal or injury of trees protected under City by-laws, please call 311.

9. Tree Guarantee Deposits

Tree Protection Guarantee

Urban Forestry may request a **tree protection guarantee** to secure the protection of trees that may be impacted by work on city streets, or to secure the satisfaction of all conditions of permit issuance. Tree protection guarantees held by the City shall only be released by the City provided that all construction activities are complete, compliance with all permit terms and conditions has been verified, there has been no encroachment into the minimum tree protection zone (TPZ) and the trees are healthy and in a state of vigorous growth.

Where Urban Forestry has confirmed an unauthorized encroachment into the TPZ or the terms and conditions of a permit have not been complied with, Urban Forestry will retain the guarantee until satisfactory compliance.

It is the applicant's responsibility to submit a written request to Urban Forestry for the refund of the tree protection guarantee deposit as soon as construction and landscaping is completed.


Tree Planting Security

Urban Forestry may request a **tree planting security deposit** in an amount equal to the cost of planting and maintenance for two (2) years in order to ensure compliance with approved landscape or replanting plans. The security deposit may be held by the City after the planting of the trees for a period of two (2) years and shall be released by the City provided that the trees have been maintained, are healthy and in a state of vigorous growth upon inspection, two (2) years after planting. It is the applicant's responsibility to advise Urban Forestry that trees have been planted in accordance with approved plans, in order that the two (2) year maintenance period begin.

Prior to release by the City, any dead/dying trees must be replaced, deadwood and sucker growth should be pruned, and mulch should be topped up where necessary. If stakes and ties were used, they must be removed within one (1) year. Any encroachments are to be removed prior to assumption, including walkways, timbers or bricks that result in increased height of soil or mulch around the trees, and lights in trees.

It is the applicant's responsibility to submit a written request to Urban Forestry for the refund of a Tree Guarantee Deposit, two (2) years after the completion of all construction activity and/or two (2) years after tree planting. This request should be made during the growing season, not while the trees are dormant, so that a site inspection can be arranged to confirm the trees are acceptable. The City will not release security deposits where trees are not in good condition, or if there are encroachments.

Financial securities must be in the form of a certified cheque, letter of credit or an alternative acceptable to Urban Forestry, with amounts payable to the Treasurer, City of Toronto.

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