

APPENDIX C

Arborist Report

CITY OF TORONTO

SOUTHWEST AGINCOURT TRANSPORTATION CONNECTIONS STUDY ENVIRONMENTAL ASSESSMENT ARBORIST REPORT

NOVEMBER 10, 2023





SOUTHWEST AGINCOURT TRANSPORTATION CONNECTIONS STUDY ARBORIST REPORT

CITY OF TORONTO

PROJECT NO.: 19M-01888-00
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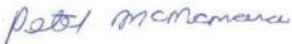


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1 INTRODUCTION

The City of Toronto has retained WSP Canada Inc. (WSP) to undertake the Southwest Agincourt Transportation Connections Study (Herein referred to as the SW Agincourt EA) following the Municipal Class Environmental Assessment (EA) process for Schedule ‘C’. The purpose of this study is to identify improvements to enhance connectivity for all modes of transportation from Village Green Square (south of the Canadian Pacific Railway corridor), Cowdray Court and Collingwood Street to Sheppard Avenue East (in the vicinity of Reidmount Avenue and the Agincourt GO Station).

The number of people living and working in this area has grown and will continue to grow as a result of planned development. As the number of people using the transportation system increases, transportation infrastructure improvements will be needed to ensure that people can drive, walk, and cycle to destinations safely and efficiently.

The study objectives are as follows:

- 1 Provide high quality transportation infrastructure that addresses the needs of this growing area;
- 2 Improve street network connectivity to key destinations, particularly the Agincourt GO station, Collingwood Park and schools; and
- 3 Improve the safety of people walking, cycling, taking public transit, and driving.

As part of the SW Agincourt EA, this Arborist Report documents the tree inventory and assessment for the Focus Area. Tree Preservation Plans have been prepared in association with this report.

1.1 FOCUS AREA (SECTIONS A, B, C)

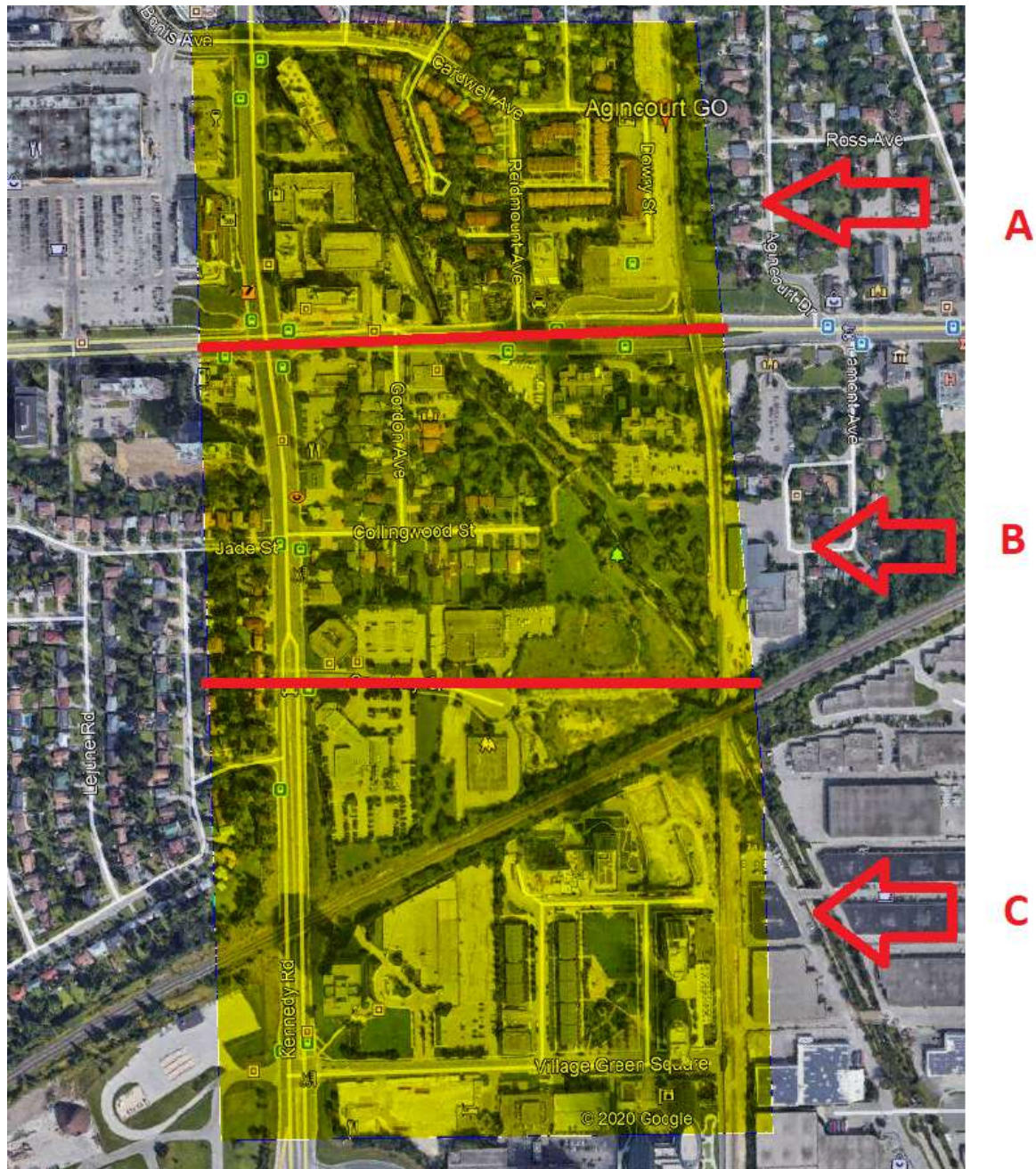
- The Focus Area is bound by Kennedy Road to the west, Dowry Street to the north, the Stouffville GO Train Line to the east, and Village Green Square to the south.
- All trees were inventoried within the Focus Area:
 - Trees of any size within 12m of the Focus Area within Ravine and Natural Feature By-law limits
 - Trees of any size within 6m of the Focus Area within City street’s rights-of-way (ROW) or City parkland; and
 - Trees 30cm or greater diameter-at-breast height (DBH) within 6m of the Focus Area on private property.
- The approximate limits are shown in Figure 1.

Figure 1: Focus Area



- For the purposes of this report, the Focus Area is subdivided into three sections:
 - Section A (North): the portion of the Focus Area north of Sheppard Avenue East to the Focus Area limits;
 - Section B (Central): the portion of the Focus Area from Cowdray Court north to Sheppard Avenue East; and
 - Section C (South): the portion of the Focus Area including Cowdray Court and the area south to the Focus Area limits.
- The limits of the three sections of the Focus Area (Sections A, B and C) inventoried for individual trees and tree groupings are shown in Figure 2.

Figure 2: Focus Area (Sections A, B and C)



1.2 REPORT FRAMEWORK

The purpose of this report is to discuss the findings of the tree inventory, provide recommendations for tree removals and protection and preservation measures, and identify mitigation and replacement measures to compensate for potential tree removals for the Focus Area.

The study area limits are located within the limits of four (4) City of Toronto Urban Forestry By-laws, detailed below. Parts of the Focus Area are within TRCA regulated area Tree assessments have been assessed per the following criteria:

- The City Streets By-law applies to trees within the road allowance that are maintained and non-naturalized;
- RNFP By-law applies to trees within naturalized areas along West Highland Creek;
- The Parks By-law applies to the site trees that are within manicured lawn areas;

The tree inventory included:

- Individual trees >10cm DBH;
- Trees within 12m of the proposed limits of work;
- Trees with canopies that overlap were assessed as groupings e.g. TG-1;
- City trees that were between <5 to 10cm DBH were also included in the inventory.

This report is to be read in conjunction with:

- Appendix A: Tree Inventory and Preservation Charts;
- Appendix B: Site Photos;
- Appendix C: Tree Preservation Plans

2 EXISTING CONDITIONS

2.1 BUILT FORM

The Focus Area is within an urban setting with multiple land-use types. The Focus Area is a mix of high to low-density residential, commercial, transportation, corporate, and parkland. The built form includes but is not limited to:

- Two-lane residential streets with curbs and occasional sidewalks and two multi-lane major roadways;
 - Commercial and corporate businesses along Kennedy Road and Sheppard Avenue East;
 - Collingwood Park with expansive greenspace, a playground, a bridge and minimal built trails;
 - Metrogate Park with a playground and greenspace;
 - A CN railway;
 - Condominium complexes;
 - Agincourt Go which is directly east of the Focus Area.
-

2.2 VEGETATION

Vegetation is primarily planted and a mixture of native and non-native trees. Trees varied in age from young to mature, and DBH ranged in size from 2 to 120cm DBH.

Vegetation composition and tree sizes are detailed below by location.

2.2.1 SECTION A (NORTH)

Section A is approximately bounded by Cardwell Avenue to the north, the Metrolinx Stouffville Rail Corridor to the east, Sheppard Avenue East to the south, and Kennedy Road to the west (see **Figure 2**). Approximately 1056 trees were assessed in Section A.

Trees were a mix of native and non-native trees and primarily planted rather than naturally occurring. These trees were primarily deciduous, with some coniferous trees present. Trees varied in age from young to mature, and DBH ranged from 3 cm to 108 cm, with an average of 26 cm DBH. Shrub species frequently encountered within Section A included Common Buckthorn (*Rhamnus cathartica*) and European Spindle (*Euonymus europaeus*).

The relative abundance of tree species was as follows:

- **Frequent:** Manitoba Maple (*Acer negundo*), Black Pine (*Pinus nigra*), Common Buckthorn, Norway Maple (*Acer platanoides*), Eastern White Cedar (*Thuja occidentalis*), Siberian Elm (*Ulmus pumila*) and Thornless Honey-locust (*Gleditsia triacanthos* var. *inermis*).
- **Occasional:** Cherry Species (*Prunus* sp.), Serviceberry Species (*Amelanchier* sp.), Silver Maple (*Acer saccharinum*), American Basswood (*Tilia americana*), Green Ash (*Fraxinus pennsylvanica*), Apple Species (*Malus* sp.), White Mulberry (*Morus alba*), Black Walnut (*Juglans nigra*) and Blue Spruce (*Picea pungens*).
- **Rare:** Juniper Species (*Juniperus* sp.), White Spruce (*Picea glauca*), Linden Species (*Tilia* sp.), Maple Species (*Acer* sp.), Ash Species (*Fraxinus* sp.), Amur Maple (*Acer ginnala*), Poplar Species (*Populus* sp.), Ginkgo (*Ginkgo biloba*), Kentucky Coffee-tree (*Gymnocladus dioica*), Northern Red Oak (*Quercus rubra*), Emerald Cedar (*Thuja occidentalis* 'Smaragd'), Common Hackberry (*Celtis occidentalis*), Chanticleer Pear (*Pyrus calleryana* 'Chanticleer'), Black Locust (*Robinia pseudoacacia*), Ornamental / Fruit Species, Paper Birch

(*Betula papyrifera*), Norway Spruce (*Picea abies*), Red Pine (*Pinus resinosa*), Scots Pine (*Pinus sylvestris*), Golden Weeping Willow (*Salix babylonica*), Elm Species (*Ulmus* sp.), Japanese Maple (*Acer palmatum*), Red Maple (*Acer rubrum*), Freeman's Maple (*Acer x. freemanii*), Black Ash (*Fraxinus nigra*), Tulip Tree (*Liriodendron tulipifera*), Magnolia Species (*Magnolia* sp.), Eastern White Pine (*Pinus strobus*), Pear Species (*Pyrus* sp.), Willow Species (*Salix* sp.), Mountain-ash Species (*Sorbus* sp.), Ivory-silk Lilac (*Syringa reticulata* 'Ivory Silk'), American Elm (*Ulmus americana*) and Birch Species (*Betula* sp.).

Several dead Ash Species were observed within this section with evidence of Emerald Ash Borer (*Agrilus planipennis*) (EAB) infestation.

Understory species observed within the RNFP area surrounding West Highland Creek consisted of trees and shrubs <5 and 5 to 10cm DBH, with the most frequently occurring species being:

- Manitoba Maple, Ash Species, Elm Species, Cherry Species, Norway Maple, Poplar Species, Green Ash, Black Walnut, American Basswood, Siberian Elm White Ash (*Fraxinus americana*), Common Buckthorn, Honeysuckle Species (*Lonicera* sp.) and European Spindle.

2.2.2 SECTION B (CENTRAL)

Section B is approximately bounded by Sheppard Avenue East to the north, the Metrolinx Stouffville Rail Corridor to the east, Cowdray Court to the south, and Kennedy Road to the west (see **Figure 2**).

Approximately 452 trees were assessed in Section B. Tree species were a mix of native and non-native trees and primarily planted rather than naturally occurring. Trees were primarily deciduous with some coniferous trees present. Trees varied in age from young to mature, and DBH ranged from 4 to 120 cm, with an average of 26 cm DBH. Shrub species frequently encountered within Section B included Russian Olive (*Elaeagnus angustifolia*) and Olive Species (*Elaeagnus* sp.).

The relative abundance of tree species was as follows:

- Frequent: Siberian Elm, White Willow (*Salix alba*), Manitoba Maple (*Acer negundo*), Green Ash and Norway Maple.
- Occasional: White Spruce, Russian Olive, Black Pine, Freeman's Maple, Thornless Honey-locust, Hybrid White Willow (*Salix x. fragilis*) and Eastern White Cedar.
- Rare: Black Walnut, Blue Spruce, Northern Red Oak, Ginkgo, Common Hackberry, Kentucky Coffee-tree, Tulip Tree, Cherry Species, Balsam Fir (*Abies balsamea*), Sugar Maple (*Acer saccharum*), Maple Species, Ohio Buckeye (*Aesculus glabra*), Paper Birch, Birch Species, Northern Catalpa (*Catalpa speciosa*), Fir Species (*Abies* sp.), Apple Species, White Mulberry, Norway Spruce, Sycamore (*Platanus occidentalis*), Trembling Aspen (*Populus tremuloides*), Sweet Cherry (*Prunus avium*), American Basswood, Serviceberry Species, Olive Species, Eastern Red Cedar (*Juniperus virginiana*), Spruce Species (*Picea* sp.), Scots Pine, Eastern Cottonwood (*Populus deltoides*), White Oak (*Quercus alba*), Bur Oak (*Quercus macrocarpa*), Ivory-silk Lilac, Linden Species, American Elm and Elm Species.

Understory species observed within the RNFP area consisted of trees and shrubs <5 and 5 to 10cm DBH, with the most frequently-occurring being:

- Manitoba Maple, Green Ash, Siberian Elm, Russian Olive, Common Buckthorn, Honeysuckle Species and European Spindle.

2.2.3 SECTION C (SOUTH)

Section C is approximately bounded by Cowdray Court to the north, the Metrolinx Stouffville Rail Corridor to the east, Highway 401 to the south, and Kennedy Road to the west (see **Figure 2**).

Approximately 1218 trees were assessed in Section C. Tree species were a mix of native and non-native trees. Trees on private property and within the ROW were primarily planted rather than naturally occurring. Trees within the rail

corridor were primarily naturally occurring. Trees within Metrogate Park were primarily planted. Trees were primarily deciduous with some coniferous trees present. Trees varied in age from young to mature, and DBH ranged from 2 cm to 110 cm, with an average of 21 cm DBH. Shrub species frequently encountered within Section C included Russian Olive and a Lilac species.

The relative abundance of tree species was as follows:

- Frequent: Manitoba Maple, Siberian Elm, Norway Maple, Eastern White Cedar, Blue Spruce, Red Maple, Black Pine, Thornless Honey-locust, Linden Species, Black Walnut and Trembling Aspen.
- Occasional: Apple Species, London Plane-tree (*Platanus x acerifolia*), Northern Red Oak, Pyramidal English Oak (*Quercus robur* 'Fastigiata'), Lilac Species (*Syringia* sp.), Willow Species, Juniper Species, White Spruce, Serviceberry Species, Paper Birch, Elm Species and Maple Species.
- Rare: Swamp White Oak (*Quercus bicolor*), Katsura Tree (*Cercidiphyllum japonicum*), Russian Olive, Scots Pine, White Poplar (*Populus alba*), Ginkgo, Ivory-silk Lilac, Little-leaf Linden (*Tilia cordata*), Norway Spruce, Cherry Species, Freeman's Maple, American Larch (*Larix laricina*), Common Hackberry, Katsura Species (*Cercidiphyllum* sp.), Spruce Species, Chanticleer Pear, American Basswood, Amur Maple, River Birch (*Betula nigra*), Hawthorn Species (*Crataegus* sp.), Weeping Beech (*Fagus sylvatica* 'Pendula'), Tulip Tree, White Mulberry, Pear Species, Japanese Maple, Silver Maple, Sugar Maple, Autumn Blaze Maple (*Acer x freemanii* 'Jeffersred'), Chestnut Species (*Castanea* sp.), White Ash, Eastern Red Cedar, Sycamore, Bur Oak, European Mountain-ash (*Sorbus aucuparia*), Weeping Ornamental Tree and a Fruit Tree species.

2.2.4 TREE HEALTH

Overall tree health ranges between good and poor; with a majority observed to be in good condition.

The following signs of decline and defects were observed:

- Lean;
- Planted too closely spaced together;
- Planted too high above soil;
- Soil compaction;
- Exposed roots due to erosion;
- Roots with wounds;
- Girdling roots;
- Weakly formed unions;
- Obstructed growth due to fencing;
- Twisted trunk;
- Irregular growth due to stems crossing;
- Improper pruning cuts;
- Broken branches and stems;
- Broken branches from ice damage;
- Dead branches;
- Signs of decay;
- Black knot fungus on branches;

- Peeling bark;
- Bulges at the base of trunks;
- Gall growth;
- Trunk wounds and / or wounds from mower damage;
- Split trunk;
- Frost crack up trunk and / or branches;
- Codominant stems;
- Kink in trunk;
- Topped stems;
- Trunk wounds;
- Poor compartmentalization;
- Water sprouting;
- Epicormic shoots;
- Suckering stems at base;
- Vines in canopy;
- Unbalanced crown growth;
- Canopy dieback; and,
- Overall lack of vigour.

Symptoms of decline were observed in some dead and / or dying Ash trees due to the presence of Emerald Ash Borer (EAB), including:

- ‘D’ shaped exit holes in trunk;
- Peeling bark;
- Suckering stems at the base and water sprouting on trunk;
- Woodpecker damage from woodpeckers eating the larvae; and,
- Extensive deadwood in crown.

3 POLICY CONTEXT

This section summarizes the various municipal, regional, provincial and federal planning policies and regulations related to the tree inventory and applicable to the project. Thus, they provide the policy context for this Arborist Report.

3.1 TREES ON CITY STREETS BY-LAW

The City of Toronto's Trees on City Streets By-law (Municipal Code, Chapter 813, Article II – Trees on City Streets) applies to the planting, care, maintenance, protection, preservation and removal of all trees of any size located on any City street. A permit is required to injure or remove any tree on a City street of any size.

Applicability to Project

- The Focus Area includes city-owned ROW, therefore the By-law **does** apply.
-

3.2 PRIVATE TREE BY-LAW

The City of Toronto's Private Tree By-law (Municipal Code, Chapter 813, Article III) establishes the criteria and conditions required for the injury, destruction or removal of any tree, including a multi-stemmed tree having at least one stem that has a diameter measurement of 30cm or more, measured at 1.4m above ground in the Focus Area and within 6m of the Focus Area. A permit is required to injure or remove any tree on private property that is greater than 30cm diameter at breast height (DBH).

Applicability to Project

- The Focus Area includes privately-owned trees, therefore the By-law **does** apply
 - Should the project proceed to detailed design, any Private trees that may be injured or require removal will need to be included on an *Application to Injure or Destroy Trees*.
-

3.3 RAVINE AND NATURAL FEATURE PROTECTION BY-LAW

The City of Toronto's Ravine and Natural Feature Protection (RNFP) By-law applies to trees of any size within areas designated as 'Ravine'. This By-Law (Municipal Code, Chapter 658) applies to the injury, removal or destruction of trees located on protected ravine land and the restriction of dumping fill, refuse or altering the grade of protected ravine land. Where the limit of work will occur within RNFP limits, trees will be inventoried, 12m from this limit.

Applicability to Project

- A portion of the Focus Area is within the RNFP limits (specifically the area along West Highland Creek), therefore the By-law **does** apply.
 - Specifically, there are portions of RNFP limits within Section A, B and C that follow the West Highland Creek. These limits fall on both City and Private property including sections of Sheppard Avenue East and the CPR rail corridor.
- Where trees are in areas that meet the definition of 'Ravine' (i.e., naturalized landscapes and vegetation growth), the RNFP By-law requirements will be applied.
- Should the project proceed to detailed design, any trees that will require removal or will be injured will need to be included on an *'Ravine and Natural Feature Permit Application'*.

3.4 PARKS BY-LAW

The City of Toronto Parks By-law (Municipal Code, Chapter 608 Parks) applies to trees of any size and prohibits the removal, injury or destruction of trees located within City parkland. Approval is required from the City of Toronto Parks Department prior to the removal of any tree.

Applicability to Project

- A portion of the Focus Area is City of Toronto parkland (Collingwood Park, Metrogate Park), therefore the By-law **does** apply.

3.5 TORONTO AND REGION CONSERVATION AUTHORITY GUIDELINES

The Toronto and Region Conservation Authority (TRCA), as mandated under O. Reg. 166/06 TRCA Regulation of Development, Interference with Wetlands and Alteration to Shorelines and Watercourses, regulates and may prohibit work that may take place within a regulated area (“an area that represents the greatest physical extent of the combined hazards, plus a prescribed allowance, as set out in the Conservation Authorities Act”). This includes valley and stream corridors, wetlands and associated areas of interference and the Lake Ontario waterfront.

Applicability to Project

- A portion of the Focus Area (along the West Highland Creek corridor) is within the TRCA regulated area, therefore TRCA O. Reg. 166/06 **does** apply.

3.6 ENDANGERED SPECIES ACT (ESA), 2007

Species designated as Threatened or Endangered by the Committee on the Status of Species at Risk in Ontario (COSSARO), otherwise known as Species at Risk in Ontario (SARO), and their habitats (i.e., areas essential for breeding, rearing, feeding, hibernation and migration) are afforded legal protection under the Endangered Species Act, 2007 (ESA) (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 SARO 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) or (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 SARO list as an endangered or threatened species”.

Applicability to Project

- One provincial Species at Risk was observed within the Focus Area: Kentucky Coffeetree. It is provincially 'Threatened.' Native stock are protected under the ESA, whereas non-native stock is not subject to the policies under the ESA.
- Planted Kentucky Coffeetree was observed on residential private properties, within the City's ROW along Kennedy Road, and within Collingwood Park. Given that the Kentucky Coffeetrees observed within the Focus Area were planted (and thus considered non-native stock) they are **not** subject to the policies and regulations of the ESA.

3.7 SPECIES AT RISK ACT (SARA), 2002

The federal Species at Risk Act (SARA) includes prohibitions to protect individuals of listed Species at Risk, including:

- No person shall kill, harm, harass, capture or take an individual of a Threatened, Endangered or Extirpated species.
- No person shall possess, collect, buy, sell or trade an individual of a Threatened, Endangered or Extirpated species, or any part or derivative of such an individual.
- No person shall damage or destroy the residence of one or more individuals of a Threatened or Endangered species, or of an Extirpated species if a recovery strategy has recommended the reintroduction of the species into the wild in Canada.

These prohibitions apply on federal lands throughout Canada, on private lands for aquatic and migratory birds which are protected by the MBCA and also listed as Endangered, Threatened, or Extirpated under Schedule 1 of SARA. Application to non-federal lands and/or species not protected under SARA on federal lands may be determined by the Governor in Council and/or provincial ministries on a case by case basis.

SARA also includes provisions to protect *critical habitat*; these are complex and vary according to the species in question and the location of the critical habitat. Generally, critical habitat protection applies to Threatened, Endangered and Extirpated species.

Applicability to Project

- One federal Species at Risk was observed within the Focus Area: Kentucky Coffeetree. It is federally 'Threatened.' Native stock are protected under the SARA, whereas non-native stock is not subject to the policies under the SARA.
- Planted Kentucky Coffeetree was observed on residential private properties, within the City's ROW along Kennedy Road, and within Collingwood Park. Given that the Kentucky Coffeetrees observed within the Focus Area were planted (and thus considered non-native stock) they are **not** subject to the policies and regulations of the SARA.
- Moreover, none of the Focus Area is on federal land, or non-federal land where there is a recommendation by the Minister of the Environment to the Governor in Council.

3.7.1 SPECIES OF CONSERVATION CONCERN

For the purposes of this report, a Species of Conservation Concern is defined as a species that is designated as a federal and/or provincial Species at Risk, and/or has been assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) or the Committee on the Status of Species at Risk in Ontario (COSSARO) as a Species at Risk, and/or is a species that is provincially rare (i.e. has a sub-national/provincial rank of S1-S3). Two Species of Conservation Concern were recorded in the Focus Area: Kentucky Coffee Tree, and Black Ash.

Kentucky Coffee Tree

Kentucky Coffee-tree is listed as ‘Threatened’ under the federal Species at Risk Act (SARA), and listed as ‘Threatened’ on the Species at Risk in Ontario list (SARO). It is protected provincially under Section 17(2)(b) the Endangered Species Act (ESA) (2007). Native stock are protected under the ESA, whereas non-native stock is not subject to the policies under the ESA.

Planted Kentucky Coffee Tree was observed on residential private properties, within the City’s ROW along Kennedy Road, and within Collingwood Park. Given that the Kentucky Coffee-trees observed within the Focus Area were planted (and thus considered non-native stock), they are not subject to regulation under the ESA or the SARA.

Black Ash

Black Ash (*Fraxinus nigra*) trees were observed in Section A (north section) of the Focus Area within the naturalized area adjacent to West Highland Creek. This species is listed as ‘Threatened’ by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) with a provincial rank of S3. At the time of publication, this species had not yet been listed under SARA. Further, if listed under SARA, individuals within the Focus Area would not be regulated as they are not on federal land and there is no order by the Governor in Council. However, as a provincially rare species, impacts to individuals of this tree species should be avoided where possible.

3.8 MIGRATORY BIRDS CONVENTION ACT, 1994

The Migratory Birds Convention Act, MBCA (1994) and Migratory Birds Regulations, MBR (2014) protect most species of migratory birds anywhere they are found in Canada, including surrounding ocean waters, regardless of ownership. General prohibitions under the MBCA and MBR protect migratory birds, their nests and eggs and prohibit the deposit of harmful substances in waters / areas frequented by them.

- The MBR includes an additional prohibition against incidental take, defined by Environmental Canada as:
“The inadvertent harming, killing, disturbance or destruction of migratory birds, nests and eggs.”
- Environment Canada implements policies and guidelines to protect migratory birds, their eggs and their nests. There is guidance on the Environment Canada website to minimize the risk of incidental take effects on migratory birds, achieve compliance with the law and maintain sustainable populations of migratory birds.
- Compliance with the MBCA and MBR is best achieved through a due diligence approach, which identifies potential risk, based on a site-specific analysis in consideration of the Avoidance Guidelines and Best Management Practices information on the Environment Canada website.

Applicability to Project

- The MBCA and its regulations **are** applicable to the project. Migratory bird species subject to the MBCA may be present within the Focus Area and may use various habitats on the subject property (e.g. trees, grass and other herbaceous material, buildings). Recommended measures to reduce the possibility of contravention to the MBCA and its regulations are provided in Section 6.5.
- Tree removals should be coordinated outside of the Migratory Bird Nesting Season (**April 1 to August 31**).
*Note: Overall clearing of trees is recommended to occur between **October 1 to March 31** to reduce the potential of a contravention of the MBCA and its regulations, and to reduce the potential of impacting Species at Risk bats which are active until the end of September, annually.*

3.9 CANADA FOOD AND INSPECTION AGENCY DIRECTIVE D-03-08 EMERALD ASH BORER

Canada Food and Inspection Agency (CFIA) Directive D-03-08: Phytosanitary Requirements to Prevent the Introduction into and Spread within Canada of the Emerald Ash Borer, *Agrilus planipennis* (Fairmaire) applies to Ash (*Fraxinus spp.*) species observed on properties that are located within the Emerald Ash Borer (EAB) Regulated Areas of Canada, prepared by the Canada Food and Inspection Agency (CFIA) and dated: June 2019. This area covers all south and central Ontario and western Quebec. Ash trees that require removal are subject to this directive.

Applicability to Project

- The CFIA restricts the movement of all Ash material including wood, bark, chips or bark chips from being transported outside of the Regulated Area. A Movement Certificate is required by the CFIA for any Ash material leaving the Regulated Area.
- 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 cm in any two dimensions. All Ash material chipped or whole that is to be removed from site must be disposed of within the Regulated Areas of Canada.
- Refer to the CFIA website for a current map of the ‘*Emerald Ash Borer Regulated Areas of Canada*’
- Ash trees and signs of EAB **were** observed within the project limits and have been recommended for removal. Therefore the above guidelines are applicable.

4 FIELD SURVEYS

4.1 TREE INVENTORY METHODOLOGY

All work was carried about by WSP Certified Arborists, on May 4, 6, 7, and 13, 2020 within the study limits.

The methodology was in accordance with industry standards and was as follows:

- Trees were visually assessed for species, quantity, diameter at breast height (DBH), dripline radius and general health condition;
- Tree location was identified using a topographic survey and aerial photography;
- Representative photographs were taken, which are on file at WSP;
- Trees with a canopy that overlaps, in close proximity or clusters of the same species were assessed as a grouping using an alphanumeric identifier e.g. TG-1;
- Trees in accessible locations were tagged using aluminum numbered tags affixed to the tree, e.g. 2739;
- Trees that were out of reach on an adjacent property or within the road allowance were not tagged, but were given an alphabetic label e.g. A;
- Trees were assessed in accordance with applicable City of Toronto By-laws;
 - City Street Tree By-law (Toronto Municipal Code, Chapter 813, Article II):
 - Trees of any DBH within the City's right-of-way (ROW);
 - Private Tree By-law (Toronto Municipal Code, Chapter 813, Article III):
 - Trees 30 cm DBH or greater within the Focus Area, and those within 6 m of the Focus Area;
 - Parks By-law (Toronto Municipal Code, Chapter 608):
 - Trees of any DBH within a city park (applicable to Collingwood Park and Metrogate Park within the Focus Area);
 - Ravine and Natural Features Protection (RNFP) (Toronto Municipal Code, Chapter 658) By-law:
 - Trees of any DBH within RNFP limits (applicable to West Highland Creek within the Focus Area)
- The location of each tree was recorded as per the location categories listed on the City of Toronto Arborist Report for Development Applications Form (Refer to **Appendix A: Tree Inventory & Preservation Charts**).

Table 4.1 – City of Toronto Tree Location / Categories

CATEGORY	DESCRIPTION
1	Trees with diameters of 30cm or more situated on private property on the subject site.
2	Trees with diameters of 30cm or more situated on private property, within 6m of the subject site.
3	Trees of all diameters situated on City owned parkland within 6m of the subject site.
4	Trees of all diameters situated within lands designated under City of Toronto Municipal code, Chapter 658, Ravine and Natural Feature Protection, trees of all diameters situated within 12m of any construction activity.
5	Trees of all diameters situated within the City road allowance adjacent to the subject site.

4.2 TREE INVENTORY RESULTS

- A total of **1121 trees** were inventoried:
 - Individual trees (identifiers between P68 to P575, S1 to S581, 1 to 196, 256, 257, 258, T1 to T30, and 'Dead');
 - Tree groupings (identifiers between TG-01 to TG-07, TG-B01 to TG-B06, TG001, and TG1S).
- Please refer to the following table for a breakdown of trees within the Focus Area. Refer to **Appendix A** for details on the inventory of each tree / tree grouping.

Table 4.2 – Tree Location

LOCATION	TREE IDS	TOTALS
Section A (North Section)		163
City ROW	Dead, P104, P106, P110, P111, P112, P113, P114, P126, P127, P128, P129, P130, P136, P157, P158, P169, P170, P171, P172, P189, P212, P213, P214, P215, P218, P220, P221, P68, P69, T1, T10, T11, T12, T13, T14, T2, T3, T4, T5, T6, T7, T8, T9,	44
	Tree Grouping: TG-01	20
Private Property	P101, P102, P103, P105, P108, P109, P115, P125, P132, P156, P159, P160, P161, P162, P163, P164, P165, P166, P167, P168, P173, P174, P175, P176, P177, P178, P179, P180, P181, P182, P183, P184, P185, P186, P187, P188, P190, P191, P192, P193, P194, P195, P196, P197, P198, P199, P200, P201, P202, P203, P204, P205, P206, P207, P208, P209, P210, P211, P216, P217, P219, P361, P362, P363, P364, P365, P366, P367, P368, P369, P370, P371, P372, P373	74
	Tree Groupings: TG-05, TG-06, TG-07	24
RNFP Area	P138	1
Section B (Central Section)		446
City ROW	1, 2, 22, 23, 24, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 43, 45, 46, 47, 48, 49, 53, 58, 59, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 78, 79, 80, 148, 149, T29	44
Private Property	3, 4, 14, 15, 16, 17, 18, 19, 25, 36, 37, 38, 39, 40, 41, 42, 44, 50, 51, 52, 54, 55, 56, 57, 60, 76, 77, 81, 85, 88, 89, 101, T26, T27, T28, T30	36
	Tree Groupings: TG-B01	6
City Parkland	84, 86, 87, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 144, 145, 146, 147, 150, 151, 152, 153, 154, 155, 156, 157, 158, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 182, 183	55
	Tree Groupings: TG-B02	4
RNFP Area	115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 159, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196	68
	Tree Groupings: TG-B03, TG-B04, TG-B05, TG-B06	233
Section C (South Section)		512

LOCATION	TREE IDS		TOTALS
City ROW	256, 257, 258, P521, P522, P523, P524, P525, P526, P575, S105, S113, S115, S409, S410, S411, S412, S430, S431, S432, S434, S435, S437, S438, S441, S442, S443, S446, S451, S452, S453, S454, S455, S498, S499, S500, S579, S580, S581, S98		41
Private Property	CPR	S11, S12, S13, S14, S15, S151, S152, S153, S154, S155, S156, S157, S158, S159, S16, S160, S161, S162, S163, S164, S165, S166, S17, S18, S19, S20, S21, S22, S23, S24, S25, S26, S27, S277, S278, S28, S280, S281, S282, S283, S284, S286, S287, S29, S290, S291, S292, S293, S294, S296, S297, S298, S299, S30, S300, S301, S302, S303, S304, S305, S306, S307, S308, S309, S31, S310, S311, S312, S313, S314, S315, S316, S317, S318, S319, S32, S320, S321, S322, S323, S324, S325, S326, S327, S328, S329, S33, S330, S331, S332, S333, S334, S335, S336, S337, S338, S339, S34, S340, S341, S342, S343, S344, S345, S346, S347, S348, S349, S35, S350, S351, S352, S353, S354, S355, S356, S357, S358, S359, S36, S360, S361, S369, S37, S370, S371, S372, S373, S374, S375, S376, S377, S378, S379, S38, S380, S381, S382, S383, S384, S385, S386, S387, S388, S389, S39, S390, S391, S40, S41, S42, S43, S44, S45, S46, S47, S48, S49, S50, S51, S52, S53, S54, S55, S56, S57, S58, S59, S60, S61, S62, S63, S64, S65, S66, S67, S68, S69, S70	244
	Study area (excluding CPR ROW)	P527, S100, S101, S102, S103, S104, S106, S109, S110, S111, S112, S114, S118, S119, S120, S121, S122, S123, S124, S145, S146, S147, S148, S149, S150, S279, S285, S288, S289, S295, S392, S393, S394, S395, S396, S397, S398, S399, S400, S401, S402, S403, S404, S405, S406, S407, S408, S433, S436, S439, S440, S444, S445, S447, S448, S449, S450, S487, S488, S489, S490, S491, S492, S493, S494, S495, S496, S497, S71, S72, S73, S74, S75, S76, S77, S78, S79, S80, S81, S82, S83, S84, S85, S86, S87, S88, S89, S90, S91, S92, S93, S94, S95, S96, S97, S99, T17, T18, T19, T20, T21, T22, T23, T24, T25	154
		Tree Groupings: TG001, TG1S	
City Parkland	P477, P478, P479, P480, P481, P482, P483, P484, P485, P486, P487, P488, P489, P490, P491, P492		16
RNFP Area	S1, S2, S3, S4, S5, S6, S7, S8, S9, S10		20
Grand Total			1121

5 DEFINITIONS

The following are the definitions of the assessment categories utilized in our tree assessment:

Table 5.1 – Definitions

ACRONYM / DEFINITION	DESCRIPTION
Tree Number	This number refers to the number on the on the tree tag or alpha-numeric, alphabetical or tree grouping label listed in Table 1: Tree Inventory and Preservation Charts and labelled on the Tree Preservation Plans (e.g. P29, 1216, A or TG-1).
Tree Grouping	A tree grouping is more than one (1) tree located within proximity of other trees sometimes with no separation between the canopies.
DBH	This refers to diameter (in centimetres) at breast height and is measured at 1.4 m above the ground for each tree.
Tree Protection Zone (TPZ)	This to the area around a tree that is to be protected through tree protection measures e.g. hoarding. No construction activities are to be undertaken within this zone.
Suppressed	Refers to trees that have their crowns completely overtopped by adjacent trees and received limited to very limited sunlight.
Co-dominant Stem	Stems equal in size and relative importance that make up the overall crown of the tree.
Union	Junction point where two or more stems meet. A 'U' shaped junction indicates a well-formed union. A 'V' shaped junction indicates a weakly formed union, whereas stems grow and increase in girth, weak bark called 'included bark' forms within the junction and stems start to push apart causing vertical cracks and loss of structure.
Compartmentalization	This is a naturally occurring process by which chemical and physical barriers are synthesized to prevent the spread of decay and disease in trees.
Irregular Tree Form	Refers to branches and stems that have formed irregularly often resulting in contorted growth, weak attachments, weakly formed unions and codominant stems. The irregular growth of scaffold (lateral) branches typically leads to damage to other scaffold branches.
Imminently Hazardous Tree	Refers to a destabilized or structurally compromised tree that is in imminent danger of causing damage or injury to life or property.
Injure and Injury	Described as any act that will harm a tree's health, including failure to protect in accordance with standards set by the Cities tree protection / preservation policy.
Root Zone	Refers to the subterranean area around the tree measured from the trunk to up to 2-3m beyond the dripline.
Critical Root Zone	The minimum area of the root system necessary to maintain vitality or stability of the tree. Typically, this area extends to the drip line of the tree. The severing of one root can cause approximately 5-20% loss of the root system. A reduction of this area by greater than 30% can pose stability concerns for the tree.

Table 5.2 – Tree Assessment Criteria

DEFINITION	DESCRIPTION
Trunk Integrity (T.I.)	This is an assessment of the trunk for any defects or weaknesses. It is measured on a scale of poor, fair, good.
Canopy Structure (C.S.)	This is an assessment of the scaffold branches, unions and the canopy of the tree. This is measured on a scale of poor, fair, good.
Canopy Vigour (C.V.)	This is an assessment of the health of the tree and assesses the amount of deadwood and live growth in the crown as compared to a 100% healthy tree. The size, colour and amount of foliage are also considered in this category. This is measured on a scale of poor, fair, good.
Good	Tree displays less than 15% deficiency/defect within the given tree assessment criteria (TI, CS, CV).
Fair	Tree displays 15%-40% deficiency/defect within the given tree assessment criteria (TI, CS, CV).
Poor	Tree displays greater than 40% deficiency/defect within the given tree assessment criteria (TI, CS, CV).

6 DISCUSSION

This section is a discussion of the retention potential, preservation and / or impacts to trees within the limits of the Agincourt EA Focus Area. Permit applications have been included for trees within RNFP limits. Proposed works, vegetation recommendations, impacts and preservation are detailed in the following sections.

6.1 PROPOSED WORKS

The proposed works within the Agincourt EA Focus Area are anticipated to include:

- An extension of Gordon Avenue to connect to Cowdray Court and Village Green Square;
 - A multi-use path through Collingwood Park from Sheppard Avenue East, connecting to Collingwood Street and ending at Village Green Square.
 - Road widening and repaving to integrate bike lanes along Cardwell Avenue, Reidmount Avenue, Sheppard Avenue East, Gordon Avenue, and Cowdray Court.
-

6.2 TREE RECOMMENDATIONS / ASSUMPTIONS

Protection, injury and removal of trees are subject to City of Toronto By-laws, as detailed in Section 3. In addition, tree protection, injury and removal shall be conducted in accordance with the guidelines outlined in the City of Toronto's *Tree Protection Policy and Specifications for Construction Near Trees* (City of Toronto, 2016) and *Guidelines for Completion of an Arborist Report* (City of Toronto, 2011).

The following recommendations / assumptions apply to trees that are to be removed, injured, preserved, retained and or transplanted.

6.2.1 TREE REMOVAL

- Tree removal is based on the degree of excavation / disturbance within the TPZ, considering: tree species, size, condition and the amount of critical roots that would be impacted that are vital to sustaining the trees overall health and stability.
 - Where an encroachment into the root zone is equal to or greater than 3x the DBH, trees will be removed (e.g. 30cm DBH tree x 3 = 90cm. Any encroachment into this 90cm limit will result in the removal of the tree, as the impact within the root zone will be too severe).
 - This above impact is likely to cause a significant and irreversible decline in health of the tree.
 - This designation may also be applied to trees that are dead, in poor condition or trees that could pose future safety concerns and trees dying because of a disease or insect infestation.
-

6.2.2 TREE INJURY

- Tree injury will occur where any act that will harm a tree's health in any manner, including failure to protect in accordance with standards set in the Private, City and RNFP By-laws;
 - Tree injury is based on encroachments into the TPZ;
 - Tree injury will occur where a TPZ will be reduced and construction activity will impact roots and/or branches. Pruning of branches that exceeds 25% of the canopy will also result in tree injury;

- Encroachments into the TPZ that are within the paved portion of the road (where there is a curb and or sidewalk), 'no injury' will be assumed due to the assumption there are no roots under the curb and road;
- On streets that do not have a curb, gutter or sidewalk separating the pavement from the softscape boulevard, it will be assumed that there are roots under the road and that encroachments into the TPZ within the road or boulevard will result in 'injury';
- Mitigative measures may be recommended to minimize the damage to existing roots.

6.2.3 TREE PRESERVATION

- Preservation of trees and the requirement of tree protection hoarding is considered where trees are located within 6m / 12m of the proposed works (refer to Section 6.2.6.).
- Preservation of trees is considered where an encroachment, excavation or disturbance into the TPZ is expected to be minor or nil and that tree health and stability will not be adversely impacted;
- The implementation of mitigation measures will reduce potential impacts to the tree therefore allowing for the tree to be preserved e.g. air-spade excavation and / or horizontal root protection.
- Applies to trees within the Area of Consideration. Refer to Section 6.2.6 below.

6.2.4 TREE RETENTION

- Proposed works will be located outside of the 6m / 12m buffer (refer to Section 6.2.6.) of which there will be no impacts to the tree. Trees located outside of the buffers will not require tree protection hoarding.

6.2.5 TREE TRANSPLANTING

- Deemed to be within the limit of work, in good condition and typically 2 years old or younger.
- Any by-law protected tree proposed for transplanting will be reviewed by the City on a individual tree basis.
- Transplanting based on available space on site.

6.2.6 CITY OF TORONTO AREA OF CONSIDERATION

As per the City of Toronto's Tree Protection Policy and Specifications for Construction Near Trees the 'Area of Consideration' applies to trees on City property, private property and within the Ravine and Natural Feature Protection limit (RNFP). This area is defined as:

- The entire area of site disturbance, including construction, related traffic, and material storage. This area extends up to 6m beyond the limit of site disturbance for trees on City and Private property and 12m for trees within the RNFP limits.

6.3 APPLICABLE BY-LAW TABLE

Trees within the Focus Area have been assessed in the context of applicable urban forestry by-laws. These by-laws are: Trees on City Streets By-law, Private Trees By-law, Parks By-law, and RNFP By-law. These by-laws are discussed in Section 3.

- In some cases, a tree may be covered by more than one by-law. When this is the case, the surrounding landscape is used to determine which by-law will be applied.

- For example, only trees which are part of a naturalized landscape that fits the general definition of ‘Ravine’ will be considered protected under the RNFP by-law.

Table 6.1– Applicable By-law

LOCATION	TREE IDS	TOTALS
Section A (North Section)		163
City ROW	Dead, P104, P106, P110, P111, P112, P113, P114, P126, P127, P128, P129, P130, P136, P157, P158, P169, P170, P171, P172, P189, P212, P213, P214, P215, P218, P220, P221, P68, P69, T1, T10, T11, T12, T13, T14, T2, T3, T4, T5, T6, T7, T8, T9,	44
	Tree Grouping: TG-01	20
Private Property	P101, P102, P103, P105, P108, P109, P115, P125, P132, P156, P159, P160, P161, P162, P163, P164, P165, P166, P167, P168, P173, P174, P175, P176, P177, P178, P179, P180, P181, P182, P183, P184, P185, P186, P187, P188, P190, P191, P192, P193, P194, P195, P196, P197, P198, P199, P200, P201, P202, P203, P204, P205, P206, P207, P208, P209, P210, P211, P216, P217, P219, P361, P362, P363, P364, P365, P366, P367, P368, P369, P370, P371, P372, P373	74
	Tree Groupings: TG-05, TG-06, TG-07	24
RNFP Area	P138	1
Section B (Central Section)		446
City ROW	1, 2, 22, 23, 24, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 43, 45, 46, 47, 48, 49, 53, 58, 59, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 78, 79, 80, 148, 149, T29	44
Private Property	3, 4, 14, 15, 16, 17, 18, 19, 25, 36, 37, 38, 39, 40, 41, 42, 44, 50, 51, 52, 54, 55, 56, 57, 60, 76, 77, 81, 85, 88, 89, 101, T26, T27, T28, T30	36
	Tree Groupings: TG-B01	6
City Parkland	84, 86, 87, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 144, 145, 146, 147, 150, 151, 152, 153, 154, 155, 156, 157, 158, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 182, 183	55
	Tree Groupings: TG-B02	4
RNFP Area	115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 159, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196	68
	Tree Groupings: TG-B03, TG-B04, TG-B05, TG-B06	233
Section C (South Section)		512
City ROW	256, 257, 258, P521, P522, P523, P524, P525, P526, P575, S105, S113, S115, S409, S410, S411, S412, S430, S431, S432, S434, S435, S437, S438, S441, S442, S443, S446, S451, S452, S453, S454, S455, S498, S499, S500, S579, S580, S581, S98	41
Private Property	CPR S11, S12, S13, S14, S15, S151, S152, S153, S154, S155, S156, S157, S158, S159, S16, S160, S161, S162, S163, S164, S165, S166, S17, S18, S19, S20, S21, S22, S23, S24, S25, S26, S27, S277, S278, S28, S280, S281, S282, S283, S284, S286, S287, S29, S290, S291, S292, S293, S294, S296, S297, S298, S299, S30, S300, S301, S302, S303, S304, S305, S306, S307, S308, S309, S31, S310, S311, S312, S313, S314, S315, S316, S317, S318, S319, S32, S320, S321, S322, S323,	244

LOCATION	TREE IDS	TOTALS
	S324, S325, S326, S327, S328, S329, S33, S330, S331, S332, S333, S334, S335, S336, S337, S338, S339, S34, S340, S341, S342, S343, S344, S345, S346, S347, S348, S349, S35, S350, S351, S352, S353, S354, S355, S356, S357, S358, S359, S36, S360, S361, S369, S37, S370, S371, S372, S373, S374, S375, S376, S377, S378, S379, S38, S380, S381, S382, S383, S384, S385, S386, S387, S388, S389, S39, S390, S391, S40, S41, S42, S43, S44, S45, S46, S47, S48, S49, S50, S51, S52, S53, S54, S55, S56, S57, S58, S59, S60, S61, S62, S63, S64, S65, S66, S67, S68, S69, S70	
	Study area (excluding CPR ROW) P527, S100, S101, S102, S103, S104, S106, S109, S110, S111, S112, S114, S118, S119, S120, S121, S122, S123, S124, S145, S146, S147, S148, S149, S150, S279, S285, S288, S289, S295, S392, S393, S394, S395, S396, S397, S398, S399, S400, S401, S402, S403, S404, S405, S406, S407, S408, S433, S436, S439, S440, S444, S445, S447, S448, S449, S450, S487, S488, S489, S490, S491, S492, S493, S494, S495, S496, S497, S71, S72, S73, S74, S75, S76, S77, S78, S79, S80, S81, S82, S83, S84, S85, S86, S87, S88, S89, S90, S91, S92, S93, S94, S95, S96, S97, S99, T17, T18, T19, T20, T21, T22, T23, T24, T25	154
	Tree Groupings: TG001, TG1S	37
City Parkland	P477, P478, P479, P480, P481, P482, P483, P484, P485, P486, P487, P488, P489, P490, P491, P492	16
RNFP Area	S1, S2, S3, S4, S5, S6, S7, S8, S9, S10	20
Grand Total		1121

6.4 TREE REMOVAL

Where the impact to the root zone and branch removal will be significant and is likely to cause a significant and irreversible decline in health of the tree from the removal or damage of structural and critical roots, or the encroachment into the root zone will be greater than 3 times the trunk diameter, tree removal is recommended.

- A total of **142 trees** require removal due to:
 - Excavation and construction of the proposed new north / south road alignment;
 - Widening of Gordon Avenue;
 - Location of the multi-use trail;
 - Bridge over the CNR rail corridor;
 - Widening and re-alignment of Cowdray Court.
- Removals are subject to change once the proposed design enters the detailed design stage.
- Refer to Appendix A which details the reason for removal on a per tree basis.

The following tables provide details of trees to be removed.

Table 6.2 – Tree Removal

BY-LAW	CATEGORY	TREE IDS	QUANTITY	*EXEMPT FROM PERMIT / COMPENSATION	TOTAL
City	5	31, 32, 33, 34, 35, 61, 62, 67, 68, 75, 78, 79, P220, P221, S105, S113, S115, S409, S432, S437, S438, S98	22	0	22
CPR Property	- / 2	1278, 1335, 1336, 1338	20	11 (<30cm DBH)	9
Private	- / 2	S150, S279, S393, S394, S395, S396, S397, S401, S404, S405, S407, S408, S78, S80, S81, S82, S83, S86, S88, S89, S90, S91, S92, S93, S94, S96, S97, T17, T18, T19, T20, T26, T27, TG1S	77	43 (<30cm DBH)	34
Park	3	100, 105, 106, 110, 119, TG-B02	9	0	9
RNFP	4	124, 127, 128, S10, S2, S7, S8, S9	14	0	14
Totals			142	54	88

*Refer to Section 8 for and Table 8.2 where trees exempt from compensation have been detailed.

6.5 TREE INJURY / ENCROACHMENT

Where the limit of work will encroach into the minimum tree protection zone (TPZ), there is potential for damage and injury to roots, which may lead to structural instability.

Table 6.3 – Tree Injury

BY-LAW	CATEGORY	TREE IDS	QUANTITY
City	5	27, 48, 53, 63, 64, 65, 66, 73, 74, 80, P189	11
CPR Property	- / 2	S14, S17, S29	4
Private	- / 2	41, 76, S104, S119, S84, S85	6
Park	3	86, 99, 104	3
Totals			24

Table 6.4 – Tree Injury and Mitigation

TREE #	SPECIES	DBH (cm)	TPZ	INJURY	MITIGATION & SURVIVAL
27	Freeman's Maple	41, 49	4.2	Encroachment into TPZ from road widening of Collingwood St.	Excavate using air-spade / hydro-vacuum excavation prior to construction as per Section 7.2. During excavation any roots exposed are to be pruned at the limit of disturbance using accepted pruning techniques. Prune per Section 7.4 and by a Certified Arborist. This measure will enable pruned root ends to sprout new roots once

TREE #	SPECIES	DBH (cm)	TPZ	INJURY	MITIGATION & SURVIVAL
					construction has been completed to ensure that structural stability and health will remain unchanged.
41	Freeman's Maple	75	4.8	Encroachment into TPZ from road widening of Gordon Ave.	Air-spade / hydro-vacuum excavation. See above note for tree #27.
48	Serviceberry sp.	13	1.8	Encroachment into TPZ from road widening of Gordon Ave.	Air-spade / hydro-vacuum excavation. See above note for tree #27.
53	Freeman's Maple	40, 40, 40, 50, 60	6.24	Encroachment into TPZ from road widening of Gordon Ave.	Air-spade / hydro-vacuum excavation. See above note for tree #27.
63	Sugar Maple	62.5	4.2	Encroachment into TPZ from road widening of Gordon Ave.	Air-spade / hydro-vacuum excavation. See above note for tree #27.
64	Norway Maple	36, 27	3	Encroachment into TPZ from road widening of Gordon Ave.	Air-spade / hydro-vacuum excavation. See above note for tree #27.
65	Freeman's Maple	108	6.48	Encroachment into TPZ from road widening of Gordon Ave.	Air-spade / hydro-vacuum excavation. See above note for tree #27.
66	Norway Maple	13	1.8	Encroachment into TPZ from road widening of Gordon Ave.	Air-spade / hydro-vacuum excavation. See above note for tree #27.
73	Eastern White Cedar	12	1.8	Encroachment into TPZ from road work on Sheppard Ave E.	Air-spade / hydro-vacuum excavation. See above note for tree #27.
74	Apple sp.	24	1.8	Encroachment into TPZ from road widening of Gordon Ave.	Air-spade / hydro-vacuum excavation. See above note for tree #27.

TREE #	SPECIES	DBH (cm)	TPZ	INJURY	MITIGATION & SURVIVAL
76	Norway Maple	25	1.8	Encroachment into TPZ from road widening of Gordon Ave.	Air-spade / hydro-vacuum excavation. See above note for tree #27.
80	Norway Maple	30	2.4	Encroachment into TPZ from road widening of Gordon Ave.	Air-spade / hydro-vacuum excavation. See above note for tree #27.
86	Olive sp.	30, 13.5	2.4	Encroachment into TPZ from proposed multi-use path.	During excavation any roots exposed are to be pruned at the limit of disturbance using accepted pruning techniques. Prune per Section 7.4 and by a Certified Arborist. This measure will enable pruned root ends to sprout new roots once construction has been completed to ensure that structural stability and health will remain unchanged. Air-spade / hydro-vacuum is not recommended due to limited access of equipment.
99	White Spruce	4	1.2	Encroachment into TPZ from proposed multi-use path.	Root pruning only. See above note for tree #86.
104	Sycamore	9	1.2	Encroachment into TPZ from proposed multi-use path.	Root pruning only. See above note for tree #86.
P189	Norway Maple	27	1.8	Encroachment into TPZ from road widening of Dowry St.	Air-spade / hydro-vacuum excavation. See above note for tree #27.
S104	Honey-locust	30	2.4	Encroachment into TPZ from road widening of Cowdray Court.	Air-spade / hydro-vacuum excavation. See above note for tree #27.
S119	Manitoba Maple	26	1.8	Encroachment into TPZ from road widening of Cowdray Court.	Air-spade / hydro-vacuum excavation. See above note for tree #27.
S14	Siberian Elm	11	1.8	Encroachment into TPZ from proposed multi-use path.	Root pruning only. See above note for tree #86.

TREE #	SPECIES	DBH (cm)	TPZ	INJURY	MITIGATION & SURVIVAL
S17	Willow sp.	44	3	Encroachment into TPZ from proposed multi-use path.	Root pruning only. See above note for tree #86.
S29	Black Walnut	40,13	3	Encroachment into TPZ from proposed multi-use path.	Root pruning only. See above note for tree #86.
S84	Norway Maple	44	3	Encroachment into TPZ from proposed road extension.	Root pruning only. See above note for tree #86.
S85	Norway Maple	48	3	Encroachment into TPZ from proposed road extension.	Root pruning only. See above note for tree #86.

6.6 TREE PRESERVATION

Trees that are well beyond construction limits with no encroachment into the tree protection zone can be retained. These trees will not require tree protection hoarding. Trees where construction limits will either encroach into the tree protection zone or will be within proximity of the TPZ and / or dripline, will require tree protection hoarding.

Table 6.5 details the minimum required TPZ's and Table 6.6 details trees by category (retain or preserve), location and tree ID. Refer to **Appendix A** for minimum TPZ distances for trees.

The extent of trees that can be retained or preserved is not yet known and can be assessed at the detailed design stage.

Table 6.5 – Minimum Tree Protection Zone (TPZ) Determination

TRUNK DIAMETER	MINIMUM PROTECTION DISTANCES REQUIRED (CITY OWNED & 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	1.2m	The dripline or 1.2m
10 to 29cm	1.8m	The dripline or 3.6m
30 to 40cm	2.4m	The dripline or 4.8m
41 to 50cm	3.0m	The dripline or 6.0m
51 to 60cm	3.6m	The dripline or 7.2m
61 to 70cm	4.2m	The dripline or 8.4m
71 to 80cm	4.8m	The dripline or 9.6m
81 to 90cm	5.4m	The dripline or 10.8m
91 to 100cm	6.0m	The dripline or 12.0m

>100cm	6 cm protection for each 1cm of diameter	12cm protection for each 1cm of diameter or the dripline
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*City of Toronto (July 2016). *Tree Protection Policy and Specifications for Construction Near Trees*. Toronto Parks, Forestry and Recreation, Urban Forestry.

Table 6.6 – Tree Preservation

CATEGORY	BY-LAW	TREE IDS	MIN. TPZ	QUANTITY
Retain	City	1, 2, 22, 23, 24, 26, 69, 70, 71, 148, 149, 256, 257, 258, Dead, P104, P106, P110, P111, P112, P113, P114, P126, P127, P128, P129, P130, P158, P212, P521, P522, P523, P524, P525, P526, P575, P68, P69, S410, S411, S412, S430, S431, S434, S442, S443, S446, S451, S452, S453, S454, S498, S499, S500, S579, S580, S581, T1, T10, T11, T14, T2, T3, T4, T5, T6, T7, T8, TG-01, S12, S153, S154, S155, S156, S157, S158, S159, S160, S161, S162, S163, S164, S165, S166, S20, S22, S24, S281, S282, S283, S284, S286, S287, S290, S291, S292, S293, S294, S296, S297, S298, S299, S300, S301, S302, S303, S304, S305, S306, S307, S308, S309, S310, S311, S312, S313, S314, S315, S316, S317, S318, S319, S32, S320, S321, S322, S323, S324, S325, S326, S327, S328, S329, S330, S331, S332, S333, S334, S335, S336, S337, S338, S339, S34, S340, S341, S342, S349, S35, S350, S351, S352, S353, S354, S355, S356, S357, S358, S359, S36, S360, S361, S369, S37, S370, S371, S372, S373, S374, S375, S376, S377, S378, S379, S38, S380, S381, S382, S383, S384, S385, S386, S387, S388, S389, S39, S390, S391, S40, S41, S42, S43, S44, S45, S46, S47, S48, S49, S50, S51, S52, S53, S54, S55, S56, S57, S58, S59, S60, S61, S62, S63, S64, S65, S66, 84, 87, 90, 91, 92, 93, 94, 95, 96, 97, 98, 102, 103, 107, 108, 109, 116, 117, 118, 120, 121, 122, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, P477, P478, P479, P480, P481, P482, P483, P484, P485, P486, P487, P488, P489, P490, P491, P492, 3, 4, 14, 15, 16, 17, 18, 19, 25, 36, 37, 38, 85, 88, 89, 101, P101, P102, P103, P105, P108, P115, P125, P132, P156, P159, P160, P161, P162, P163, P164, P165, P166, P167, P168, P174, P175, P176, P177, P178, P179, P180, P181, P182, P183, P184, P185, P186, P187, P190, P191, P192, P193, P194, P195, P196, P197, P198, P199, P202, P204, P205, P206, P207, P208, P209, P210, P211, P216, P361, P362, P363, P364, P365, P366, P367, P368, P369, P370, P371, P372, P373, P527, S100, S101, S102, S103, S106, S109, S118, S120, S122, S124, S145, S146, S147, S148, S149, S285, S288, S289, S295, S392, S433, S444, S445, S447, S448, S449, S450, S487, S488, S489, S490, S491, S492, S493, S494, S495, S496, S497, S73, S74, S75, S76, S77, S79, S87, S95, S99, T22, T23, T24, T25	N/A	68
		Tree Groupings: TG-01	N/A	20
	Private / CPR Property	3, 4, 14, 15, 16, 17, 18, 19, 25, 36, 37, 38, 85, 88, 89, 101, P101, P102, P103, P105, P108, P115, P125, P132, P156, P159, P160, P161, P162, P163, P164, P165, P166, P167, P168, P174, P175, P176, P177, P178, P179, P180, P181, P182, P183, P184, P185, P186, P187, P190, P191, P192, P193, P194, P195, P196, P197, P198, P199, P202, P204, P205, P206, P207, P208, P209, P210, P211, P216, P361, P362, P363, P364, P365, P366, P367, P368, P369, P370, P371, P372, P373, P527, S100, S101, S102, S103, S106, S109, S118, S120, S122, S124, S145, S146, S147, S148, S149, S285, S288, S289, S295, S392, S433, S444, S445, S447, S448, S449, S450, S487, S488, S489, S490, S491, S492, S493,	N/A	347

CATEGORY	BY-LAW	TREE IDS	MIN. TPZ	QUANTITY
		S494, S495, S496, S497, S73, S74, S75, S76, S77, S79, S87, S95, S99, T22, T23, T24, T25, S12, S153, S154, S155, S156, S157, S158, S159, S160, S161, S162, S163, S164, S165, S166, S20, S22, S24, S281, S282, S283, S284, S286, S287, S290, S291, S292, S293, S294, S296, S297, S298, S299, S300, S301, S302, S303, S304, S305, S306, S307, S308, S309, S310, S311, S312, S313, S314, S315, S316, S317, S318, S319, S32, S320, S321, S322, S323, S324, S325, S326, S327, S328, S329, S330, S331, S332, S333, S334, S335, S336, S337, S338, S339, S34, S340, S341, S342, S349, S35, S350, S351, S352, S353, S354, S355, S356, S357, S358, S359, S36, S360, S361, S369, S37, S370, S371, S372, S373, S374, S375, S376, S377, S378, S379, S38, S380, S381, S382, S383, S384, S385, S386, S387, S388, S389, S39, S390, S391, S40, S41, S42, S43, S44, S45, S46, S47, S48, S49, S50, S51, S52, S53, S54, S55, S56, S57, S58, S59, S60, S61, S62, S63, S64, S65, S66		
		Tree Groupings: TG001, TG-05, TG-06, TG-07, TG-B01	N/A	37
	Park	84, 87, 90, 91, 92, 93, 94, 95, 96, 97, 98, 102, 103, 107, 108, 109, 116, 117, 118, 120, 121, 122, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, P477, P478, P479, P480, P481, P482, P483, P484, P485, P486, P487, P488, P489, P490, P491, P492	N/A	119
	RNFP	P138, S1, S3, S4, S5, S6	N/A	10
		Tree Groupings: TG-B03, TG-B04, TG-B05, TG-B06	N/A	233
Preserve	City	29, P213, P214, S435, S441, S455, T12, T13	1.2	8
		28, 30, 43, 47, 48, 49, 66, 72, 73, 74, P136, P172, P189, P215, P218, T29	1.8	16
		45, 46, 59, 80, P157, P169, P171, T9	2.4	8
		58, 64, P170	3	3
		27, 63	4.2	2
		53	6.2	1
		65	6.5	1
	Private / CPR Property	P188, S406, S436, S439, S440, T21	1.2	6
		39, 42, 50, 51, 52, 54, 55, 56, 60, 76, P109, P173, P200, P203, P217, P219, S110, S111, S112, S114, S119, S121, S13, S14, S277, S30, S31, S33, S343, S348, S399, S400, S402, S403, S67, S68, S69, T28	1.8	63
		44, 77, 81, P201, S104, S123, S26, S398, S72	2.4	9
		S152, S17, S27, S29, S84, S85, T30	3	12
		40, 57	3.6	2
		41, S71	4.8	2
	Park	99, 104, 111, 112, 113, 114, 115	1.2	7
		86	2.4	1
	RNFP	123, 125, 126, 129	1.2	4
Total				145

There are **145 trees** detailed in Table 6.6 to be preserved in the study area. To protect these trees, install the following fence types:

- 1.2m high snow fence to protect trees within the road allowance / right of way;
- 2.4m high solid board fence for RNFP trees, trees on private property, trees within City designated parkland, by-law protected trees that are outside of the right of way or where chain link or other fencing is not already present. Reduce height from 1.2m height to allow for sightlines from driveways, pathways and the road.

Tree protective hoarding is to be installed:

- At the minimum TPZ distances detailed on Appendix A;
- Per TPZs shown on the Tree Preservation Plans and per manufacturers recommendations;
- Refer to sheet TP-3 for notes and details.

Trees within the road allowance / Right-of-way

- Continuous plastic snow fence, 1.22m (4') height wood frames on a 38 x 89mm (2" x 4") wood frame for all trees installed at the extent of TPZs. Hoarding to be secured to the ground and installed with screws;

Parkland

- Continuous and solid plywood on 2.43m (8') height wood frames on a 38 x 89mm (2" x 4") wood frame for all trees installed at the extent of TPZs. Hoarding to be secured to the ground and installed with screw

RNFP

- Continuous and solid plywood on 2.43m (8') height wood frames on a 38 x 89mm (2" x 4") wood frame for all trees installed at the extent of TPZs. Hoarding to be secured to the ground and installed with screw; or
- 1.8m high, Construction fence, by Fast fence Inc.

Private Property

- Continuous and solid plywood on 2.43m (8') height wood frames on a 38 x 89mm (2" x 4") wood frame for all trees installed at the extent of TPZs. Hoarding to be secured to the ground and installed with screw;

7 MITIGATION MEASURES AND TREE PROTECTION PRACTICES

The survival rates for trees, which are in proximity to construction, are dependent on the resultant changes to a variety of environmental and anthropogenic factors. These construction activities bring about changes to a variety of environmental features such as the existing microclimate that includes winds, air temperature, soil moisture, amount of available sunlight, soil quality, and the level of the water table. Increased human activities may also damage the structure and/or physiological activities of the trees. The full effects of the damage may not appear until several years after its occurrence. Thus, it is essential that both vegetative clearing and preservation methods follow the guidelines below.

The measures presented below are based on current City of Toronto Urban Forestry By-laws (Toronto Municipal Code, Chapters 608, 658, and 813), its Tree Protection Policy and Specifications for Construction Near Trees (City of Toronto, July 2016), federal and provincial legislation, and additional recommendations that are in keeping with good horticultural and construction practices.

Mitigation measures and tree protection practices will be further refined at the detailed design stage.

7.1 GENERAL TREE PROTECTION PRACTICES

- Should a permit to injure or remove trees be issued, the work shall be carried out by or under the supervision of an arborist.
- 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 and until such time as the approved tree injury has been completed in accordance with the permit.
- The owner shall notify all contractors and other parties working on site of approved tree protection plans and arborists reports, and shall ensure that all contractors and other parties adhere strictly to the requirements of the tree protection plan.
- Every precaution must be taken to prevent damage to trees and root systems from damage, compaction and contamination resulting from the construction to the satisfaction of Urban Forestry. The Contractor must report immediately to Urban Forestry any accidental/unforeseen damage to trees such as broken limbs and damage to roots so that the damage can be assessed and mitigated as deemed appropriate by Urban Forestry.
- Prior to the commencement of construction, tree protection barriers shall be installed in accordance with the Tree Protection Policy and Specifications for Construction Near Trees (City of Toronto, July 2016), and in accordance with the approved tree protection plans and arborist reports, and must be approved by Urban Forestry.
- Tree protection barriers shall be maintained in good condition and shall not be altered, moved or removed unless and until authorized by Urban Forestry.
- The following activities are prohibited within a Tree Protection Zone (TPZ):
 - demolition, construction, replacement or alteration of permanent or temporary buildings, structures or pathways of any kind;
 - 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;
- 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; and
- excavating for directional or micro-tunnelling and boring entering shafts.
- Areas where excavation, grading and construction have compacted soil within a reduced TPZ, at the completion of construction, scarify soil to a depth of 100mm. Restore disturbed areas as per Landscape Plans and /or the following methods below;
 - Water trees periodically during construction;
 - After construction it is recommended that a 75mm depth layer of mulch be placed in a 2m radius around the trunks of these trees.
- The wood of ash trees may contain Emerald Ash Borer, an invasive beetle. The transport of its wood is regulated by the CFIA. Please refer to Section 2.6 for further details.

7.2 AIR SPADE / HYDRO VACUUM EXCAVATION

Air spade / hydro vacuum excavation may be recommended as a preventative measure to reduce the potential damage to roots from construction and to provide an opportunity for pruned root ends to grow after pruning.

Where excavation will occur within an accessible area for associated equipment and TPZs will be reduced, air-spade / hydro-vacuum excavation is recommended to minimize the damage to roots.

This measure is to be used for all trees within City boulevards (27, 41, 48, 53, 63, 64, 65, 66, 73, 74, 76, 80, P189, S104, S119). Prior to excavation and construction, the following measures are to be applied:

- At the limit of the TPZ and proposed grading or construction activity, air-spade / hydro-vacuum excavate to a depth of 300mm along the length of the TPZ distance and at a width of 0.5m to expose roots;
- Ensure that the pressure used from the air-spade / hydro-vacuum is such that it will not damage roots during excavation;
- Prune any roots in this area using good arboricultural practices per the guidelines in this report or under the supervision of a Certified Arborist;
- Backfill with excavated material and reinstate to original condition or better;
- Upon completion reinstate tree protection fencing to original location;
- Water trees periodically during construction;
- Restore disturbed areas with a layer of 75mm depth mulch in a 2m radius around the trees;
- It is recommended that this measure be applied while a Certified Arborist is present.

7.3 HORIZONTAL ROOT PROTECTION

In select locations where excavation will require the temporary removal of tree protection hoarding and within a TPZ, or close to a tree trunk, Horizontal Root Protection in conjunction with air-spade / hydro-vacuum excavation is recommended to reduce the potential for compaction. The method will be determined during the site walk with Urban Forestry. Horizontal Root protection is to be installed per City of Toronto detail HTP-1.

There are no locations where this measure is feasible or recommended to be applied. In the event that this becomes a necessary measure the following methods / steps are to be implemented prior to construction:

- Place layer of non-woven geo-textile material on top of sod;
- Place 30cm depth wood chip mulch on top of geo-textile. Where required place 4x4 timbers to hold mulch in place;
- Place 4'x8' plywood boards (minimum ¾" thick) length wise within the TPZ between the trunk and limit of excavation on top of mulch;
- Field fit if necessary. Board width and length may vary depending on available space
- Upon completion, remove boards and spread mulch in a 1m diameter around the trunk to a depth of 5cm and reinstate tree protection fencing to original location;
- Application to be reviewed and approved by the contract administrator prior to installation.
- Place horizontal root protection as per direction from contract administrator and consultant;
- Restore disturbed areas.

7.4 ROOT PRUNING PRACTICES

- All approved root pruning is to take place by or under the supervision of an arborist and in accordance with the Toronto Tree Protection Specifications.
- Prior to the commencement of 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 root-sensitive 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.
- Any roots exposed during grading are to be pruned using good arboricultural practices and per the guidelines in this report.
- To minimize damage to roots it is recommended that excavators scrape soil within the same direction of the roots and not across. Any roots exposed are to be pruned neatly and cleanly.
- Pruned root ends shall be neatly and squarely trimmed and the area shall be backfilled with clean native fill as soon as possible to prevent desiccation and promote root growth.
- The exposed roots shall not be allowed to dry out and an appropriate watering schedule shall be undertaken (e.g. water bi-weekly to field capacity between **June 1st and September 15th** so that the roots maintain optimum soil moisture during construction and backfilling operations.
- Backfilling shall occur immediately and shall be with clean uncontaminated topsoil from an approved source. It is recommended that texture of backfill be coarser than existing soils, and that backfill comes into clean contact with existing soils (remove air pockets, sod, etc.)

7.5 BRANCH PRUNING PRACTICES

- All limbs damaged or broken during the course of construction should be pruned cleanly, utilizing by-pass secateurs in accordance with approved horticultural 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, 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 (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. Poor cut location, poor cut angle and torn cuts are not acceptable.
- Extensive pruning is best completed before plants break dormancy. Pruning should be limited to the removal of no more than 25% 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 good arboricultural practices utilizing by-pass secateurs in accordance with approved horticultural practices and/or American National Standard (ANSI) A300 (Part 1) – 2008 Pruning.
- The Contractor must report immediately 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.

7.6 CONSTRUCTION IMPLEMENTATION

- Prior to construction, a site meeting shall be held with the Contractor and Contract Administrator to review the clearing limits and confirm the installation location for the temporary tree protection fence.
- Tree protection barriers shall be clearly staked in the field and approved by Urban Forestry prior to construction to ensure correct positioning of fencing and avoid unnecessary disturbance.
- To avoid root zone impacts on trees to be retained, excavated material shall not be stored against the tree protection barrier.
- Inspection of the tree protection fencing, including photographic records and deficiency notes, shall be undertaken by the site supervisor and submitted to Urban Forestry prior to the commencement of construction, during construction and after construction is completed.
- 100-200mm of organic amendment and 500-750mm of wood chip mulch shall be applied to the area within the dripline of trees to be retained in parking islands within the subject property to retain moisture and promote survival. Upon completion of construction, all but 100mm of excess mulch shall be removed.
- All removals should be felled into the work area to ensure that damage does not occur to the trees within the tree preservation zone. 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.

7.7 MIGRATORY BIRD PROTECTION

- To reduce the possibility of contravention of the MBCA, vegetation removal should be scheduled to occur outside of the overall bird nesting season of **March 31 to August 31**. Some birds may nest before and after this peak bird nesting season due to annual seasonal fluctuations. If a nest of a migratory bird is found within the construction area outside of this nesting period it still receives protection.
- If vegetation must be removed during the overall bird nesting season:
 - Nest and nesting activity searches will be conducted in areas defined as simple habitat by a qualified 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 OBBA criteria (Cadman, 2009).
 - If an active nest or confirmed nesting activity of a migratory bird is observed in simple habitat, 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 (ECCC 2018), which will be confirmed by a qualified Biologist, but will protect a minimum of 10 m 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 Practices (BMPs) such as nest and nesting activity searches described above will be undertaken.

8 TREE COMPENSATION

To facilitate the proposed works a minimal amount of tree removal will be required. Refer to the charts below that detail and removals.

8.1 COMPENSATION NOTES

- Replacement trees are based on the following criteria outlined in the tables below.
- The ratios and quantities detailed in Table 7.1 are consistent with the Tree By-laws – Compensation Planting Ratios, dated: July 29, 2019 and replacement policies of the TRCA.
- Compensation ratios for trees within RNFP By-law limits in Table 7.2 are based on the Ravine & Natural Feature Protection (RNFP) Tree-Based Compensation Pilot 2022.

Table 8.1 – Removal and Compensation Criteria

By-law	Removal Construction (>30cm DBH)	Removal Construction (>5cm DBH)	Removal Construction (<10cm DBH)	Removal Construction (>10cm DBH)	Removal Non-Construction / Trees in poor condition	Injury	Compensation for Injury	Compensation for Removal	Compensation for Hedge removal
City	N/A	N/A	3:1	3:1	3:1	N/A	No	Yes	1 tree / 5m of hedge
Private	3:1	N/A	N/A	N/A	3:1	N/A	No	Yes	1 tree / 5m of hedge
RNFP	N/A	N/A	1:1	See Table 8.2	1:1	1:1	Yes	Yes	1 tree / 5m of hedge
Park	N/A	3:1	N/A	N/A	1:1	N/A	No	Yes	N/A

Table 8.1 – RNFP Tree-Based Compensation

TRUNK DIAMETER	COMPENSATION RATIO FOR REMOVAL	CONTRAVENTION COMPENSATION RATIO FOR REMOVAL
≤19cm	1:1	2:1
20 to 29cm	2:1	3:1
30 to 39cm	3:1	5:1
40 to 49cm	4:1	6:1
50 to 59cm	5:1	8:1
60 to 69cm	6:1	9:1
70 to 79cm	7:1	11:1
80 to 89cm	8:1	12:1
90 to 99cm	9:1	14:1
100 to 109cm	10:1	15:1

etc.	etc.:1	etc.:1
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Area Based Compensation

Applied to areas where the existing soil will be disturbed and will result in the removal of trees, especially those in RNFP regulated areas where trees are part of a vegetation unit, cluster of forest. Application of this measure is at the discretion of Tree Protection & Plan Review (TPPR). The applicant will need to discuss the implementation of this approach prior to the issuance of pre-approval conditions:

- A minimum of 800 trees (3 to 5 m spacing) and 5,700 shrubs (1.5 m spacing) per hectare (only naturalization)
- Trees to be planted at 3-5 m spacing and shrubs to be planted at 1-2 m spacing in gaps (related to a stewardship plan)
- Overall minimum planting density of 1950 trees and 4550 shrubs and maximum of 3000 trees and 7000 shrubs
- Current cash-in-lieu compensation is \$260,000/hectare or \$26/m²

8.2 COMPENSATION TABLE

Table 8.3 – Removal and Compensation Criteria

BY-LAW	TREES TO BE REMOVED	TREES TO BE INJURED	EXEMPT	SUBTOTAL	REPLACEMENT RATIO	REPLACEMENT TREES REQUIRED
City	22	11	11	22	3:1	66
Private	97	10	64	43	3:1	129
Park	9	3	3	9	3:1	27
RNFP	6	0	0	6	1:1 (<19cm, injury)	6
	8	-	0	8	2:1 (20-29cm)	16
Totals	142	24	78	88	-	244

8.3 EXEMPTIONS FROM COMPENSATION

The following trees have been excluded from the removal, injury and compensation table as:

- Urban Forestry Policy does not require replanting(s) on injuries for City trees; and
- RNFP policy does not require compensation / replanting(s) for invasive species e.g. Buckthorn
- Tree sizes that do not meet the minimum By-law requirement e.g. Trees on Private property <30cm DBH;
- Dead trees or Ash trees infested with EAB.
- Shrubs e.g. Staghorn Sumac

Table 8.3 – Exemptions

BY-LAW	TREE ID	REASON	QUANTITY
City	27, 48, 53, 63, 64, 65, 66, 73, 74, 80, P189	No compensation for injuries	11
Private	41, 76, S104, S119, S14, S17, S29, S84, S85,	No compensation for injuries	10
	S11, S15, S150, S16, S19, S21, S23, S278, S279, S280, S345, S347, S397, S404, S405, S407, S408, S70, S78, S80, S83, S86, S89, S90, S93, S97, T17, T18, T19, T20, TG1S	<30cm DBH / Dead Ash trees	54
Park	86, 99, 104	No compensation for injuries	3
Total			78

8.4 CITY AND TRCA COMPENSATION NOTES

- Total replacement trees required will be **244 trees**.
- These replacement trees are recommended to be planted where possible within areas that were disturbed during construction and staging. If adequate space is not available for replacement planting in these areas then planting can occur within areas adjacent to disturbed limits where vegetation cover is sparse.
- If these areas still do not provide enough space for restoration planting than an alternate location will be agreed upon by Urban Forestry or cash in lieu could be considered. Replacement trees to be native species common to Toronto.
 - Landscape renderings have been prepared by WSP to show planting areas available within City ROW limits.

9 CONCLUSION

Certified Arborists conducted a tree inventory and assessment of within the Southwest Agincourt EA Focus Area on May 4, 6, 7 and 13, 2020. The survey was completed in support of the Southwest Agincourt EA to identify improvements to enhance connectivity for all modes of transportation from Village Green Square (south of the Canadian Pacific Railway corridor), Cowdray Court and Collingwood Street to Sheppard Avenue East (in the vicinity of Reidmount Avenue and the Agincourt GO Station).

This arborist report details the findings of 1121 trees within the work limit area of the proposed alignment. The report provides recommendations for tree removals, protection and preservation measures as shown on the associated Tree Preservation Plans. Impacts to trees are expected to be moderate with one-hundred and forty-two (142) tree removals and an additional twenty-four (24) trees to be injured. Of the trees to be injured, those that occur within the softscape boulevard of City streets, air-spade / hydro-vacuum excavation has been recommended. Given the implementation of the mitigation measures enclosed in this report, including protection of trees beyond the construction limits, significant impacts to trees to be preserved are not anticipated.

Municipal, regional, provincial, and federal policy applies to trees within the Focus Area, as follows:

- Four (4) City of Toronto Urban Forestry Tree By-laws apply to trees within the Focus Area: Trees on City Streets By-law, Private Tree By-law, Ravine and Natural Feature Protection By-law and Parks By-law.
- Parts of the Focus Area are within the TRCA Regulated Area limits.
- CFIA restrictions on the movement of ash wood apply to ash trees within the Focus Area.
- One tree species is a Species at Risk: Kentucky Coffee-tree (*Gymnocladus dioica*) is Threatened under the Endangered Species Act and the Species At Risk Act. However, the trees present within the Focus Area are planted specimens and therefore the ESA and SARA do not apply.
- Suitable migratory bird habitat is present within the Focus Area, therefore the Migratory Birds Convention Act and its Regulations do apply. Infractions have the potential to occur during the construction phase, potentially impacting migratory birds, nests and eggs. Migratory bird habitat on the subject property may be found in trees, shrubs, ground vegetation (i.e. grass and forbs) and built structures. To minimize the possibility of contravention to the Act and its Regulations, vegetation removals and work within vegetated areas (e.g. moving of heavy equipment), or work on buildings where birds may nest, should occur outside of the “regional bird nesting period” (approximately April 1 to August 31). If work must occur during this period, please refer to the mitigation measures in Section 9.3. *Note: Overall clearing of trees is recommended to occur between **October 1 to March 31** to reduce the potential of a contravention of the MBCA and its regulations, and to reduce the potential of impacting Species at Risk bats which are active until the end of September, annually.*

Mitigation measures, and preservation and protection recommendations discussed herein are provided to support the maintenance, growth, and enhancement of the City of Toronto’s urban forest.

10 REFERENCES

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11 LIMITATIONS OF ASSESSMENT

- It is our policy to attach the following clause regarding limitations. We do this to ensure that the client is aware of what is technically and professionally realistic in retaining trees.
- The assessment of the trees presented in this report has been made using accepted arboricultural techniques. These include 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 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.

APPENDIX

A

TREE INVENTORY AND PRESERVATION CHARTS

Appendix A: Tree Inventory and Preservation Charts

Project: Agincourt EA			Field Work Completed By:			Carlene Perkin & Carly Van Daele (Section A); Leanne Wallis & Tiffany Waters (Section B); Whitney Black & Shannon Ritchie (Section C)			Date(s) of Fieldwork: 5/4/2020, 5/6/2020, 5/7/2020 and 5/13/2020			Remark Legend:					
Tree Condition Assessment Criteria:						Tree Condition:						MS: Multistem					
TI - Trunk Integrity: assessment of the trunk for any defects or weaknesses.						Good (G): tree displays less than 15% deficiency/defect within the given tree assessment criteria (TI,CS,CV)						Dead (D): trees is dead			LS: Lean showing direction		
CS - Canopy Structure: assessment of scaffold branches, unions and canopy						Fair (F): tree displays 15-40% deficiency/defect within the given tree assessment criteria (TI,CS,CV)									G: Girdling		
CV - Canopy vigour: assessment of the health of the tree, based on the % of deadwood, disease, pests & live crown						Poor (P): tree displays greater than 40% deficiency/defect within the given tree assessment criteria (TI,CS,CV)									EAB: Emerald Ash Borer		
Recommendation Legend:												ZL: 2 leaders or codominant stems			SI: Soil impacts (backfilled or compacted soil)		
			Location						Minimum TPZ reduction / Injury						Hazard trees		
			Trees to be Retained						Minimum TPZ reduction / No Injury						Trees to be Removed		
															Trees to be Preserved		

Appendix A: Tree Inventory and Preservation Charts

Project: Agincourt EA		Field Work Completed By:		Carlene Perkin & Carly Van Daele (Section A); Leanne Wallis & Tiffany Waters (Section B); Whitney Black & Shannon Ritchie (Section C)		Date(s) of Fieldwork: 5/4/2020, 5/6/2020, 5/7/2020 and 5/13/2020		Remark Legend:							
Tree Condition Assessment Criteria:				Tree Condition:				MS: Multistem							
TI - Trunk Integrity: assessment of the trunk for any defects or weaknesses.				Good (G): tree displays less than 15% deficiency/defect within the given tree assessment criteria (TI,CS,CV)				LS: Lean showing direction							
CS - Canopy Structure: assessment of scaffold branches, unions and canopy				Fair (F): tree displays 15-40% deficiency/defect within the given tree assessment criteria (TI,CS,CV)				G: Girdling							
CV - Canopy vigour: assessment of the health of the tree, based on the % of deadwood, disease, pests & live crown				Poor (P): tree displays greater than 40% deficiency/defect within the given tree assessment criteria (TI,CS,CV)				EAB: Emerald Ash Borer							
Recommendation Legend:								ZL: 2 leaders or codominant stems							
Location		Minimum TPZ reduction / Injury		Hazard trees				SI: Soil impacts (backfilled or compacted soil)							
Trees to be Retained		Minimum TPZ reduction / No Injury		Trees to be Removed		Trees to be Preserved		DB: dead branches (include %)							
Tree #	Botanical Name	Common Name	No.	DBH (cm)	Effective DBH	Tree Condition			Drip-line Radius (m)	Tree Location / By-law	City of Toronto Category	Tree Protection Zone	Recommendation	Remarks	Tree Preservation / Impact Comments
						TI	CS	CV							
P181	Juniperus sp.	Juniper sp.	1	10	10	G	G	G	1	Private	-	1.8	Retain		
P182	Gleditsia triacanthos	Honey-locust	1	30	30	G	G	G	3	Private	2	2.4	Retain		
P183	Acer platanoides	Norway Maple	1	17	17	G	G	G	1.5	Private	-	1.8	Retain		
P184	Prunus sp.	Cherry sp.	1	14	14	G	F	G	1	Private	-	1.8	Retain	Broken branches	
P185	Acer negundo	Manitoba Maple	1	22	22	P	G	G	2	Private	-	1.8	Retain	Frost crack with poor compartmentalization and decay inside	
P186	Prunus sp.	Cherry sp.	1	2,2	3	G	G	G	0.5	Private	-	1.2	Retain	Staked, recently planted	
P187	Acer platanoides	Norway Maple	1	21	21	G	G	G	2	Private	-	1.8	Retain		
P188	Acer palmatum	Japanese Maple	1	4	4	G	G	G	0.5	Private	-	1.2	Preserve	Staked, recently planted	Tree can be fully protected
P189	Acer platanoides	Norway Maple	1	27	27	G	G	G	2.5	City	5	1.8	Injure		Minor encroachment into TPZ from curb re-alignment
P190	Thuja occidentalis 'Smaragd'	Emerald Cedar	1	10	10	G	G	G	1	Private	-	1.8	Retain		
P191	Pinus nigra	Black Pine	1	24	24	G	G	G	2	Private	-	1.8	Retain		
P192	Pinus nigra	Black Pine	1	18	18	F	G	G	1.5	Private	-	1.8	Retain	Lean	
P193	Pinus nigra	Black Pine	1	35	35	G	G	G	3.5	Private	2	2.4	Retain		
P194	Pinus nigra	Black Pine	1	29	29	G	G	G	2.5	Private	-	1.8	Retain		
P195	Gleditsia triacanthos	Honey-locust	1	15	15	G	G	G	1.5	Private	-	1.8	Retain		
P196	Acer platanoides	Norway Maple	1	17	17	P	P	P	1.5	Private	-	1.8	Retain	Topped stem with peeling bark and decay, 50% dieback	
P197	Acer platanoides	Norway Maple	1	25	25	G	G	G	2.5	Private	-	1.8	Retain		
P198	Acer platanoides	Norway Maple	1	12	12	G	F	F	1	Private	-	1.8	Retain	Dead branches with peeling bark	
P199	Acer platanoides	Norway Maple	1	13	13	G	G	G	1	Private	-	1.8	Retain		
P200	Acer platanoides	Norway Maple	1	28	28	G	G	G	2.5	Private	-	1.8	Preserve		Tree can be fully protected
P201	Acer platanoides	Norway Maple	1	32	32	G	G	G	3	Private	2	2.4	Preserve		Tree can be fully protected
P202	Acer platanoides	Norway Maple	1	32	32	G	G	G	3	Private	2	2.4	Retain		
P203	Acer negundo	Manitoba Maple	1	20,15,15	29	F	G	G	2.5	Private	-	1.8	Preserve	Lean	Tree can be fully protected
P204	Pinus nigra	Black Pine	1	36	36	G	G	G	3.5	Private	2	2.4	Retain		
P205	Pinus nigra	Black Pine	1	16	16	G	G	G	1.5	Private	-	1.8	Retain		
P206	Pinus nigra	Black Pine	1	23	23	G	G	G	2	Private	-	1.8	Retain		
P207	Pinus nigra	Black Pine	1	28	28	G	G	G	2.5	Private	-	1.8	Retain		
P208	Pinus nigra	Black Pine	1	29	29	G	G	G	2.5	Private	-	1.8	Retain		
P209	Pinus nigra	Black Pine	1	35	35	G	G	G	3.5	Private	2	2.4	Retain		
P210	Acer platanoides	Norway Maple	1	26	26	G	G	G	2.5	Private	-	1.8	Retain		
P211	Acer platanoides	Norway Maple	1	40	40	G	G	G	4	Private	2	2.4	Retain		
P212	Acer platanoides	Norway Maple	1	38	38	G	G	G	3.5	City	5	2.4	Retain		
P213	Morus alba	White Mulberry	1	9	9	G	G	G	0.5	City	5	1.2	Preserve	Weeping	Tree can be fully protected
P214	Morus alba	White Mulberry	1	9	9	G	G	G	0.5	City	5	1.2	Preserve	Weeping	Tree can be fully protected
P215	Morus alba	White Mulberry	1	13	13	G	G	G	1	City	5	1.8	Preserve	Weeping	Tree can be fully protected
P216	Acer platanoides	Norway Maple	1	30	30	G	G	G	3	Private	2	2.4	Retain		
P217	Acer platanoides	Norway Maple	1	25	25	G	G	G	2.5	Private	-	1.8	Preserve		Tree can be fully protected
P218	Acer platanoides	Norway Maple	1	24	24	G	G	G	2	City	5	1.8	Preserve		Tree can be fully protected
P219	Acer platanoides	Norway Maple	1	24	24	G	G	G	2	Private	-	1.8	Preserve		Tree can be fully protected
P220	Morus alba 'Pendula'	Weeping Mulberry	1	8	8	G	G	G	0.5	City	5	1.2	Remove		Within alignment of the proposed sidewalk. Impacts upto 75% of TPZ.
P221	Malus sp.	Apple sp.	1	21	21	G	G	G	2	City	5	1.8	Remove		Proposed sidewalk alignment will encroach into 50% of TPZ. Damage to roots and stability and likely to cause irreversible decline
P361	Fraxinus sp.	Ash sp.	1	<10	<10	G	G	G	0.5	Private	-	1.2	Retain		
P362	Acer negundo	Manitoba Maple	1	<10	<10	G	G	G	0.5	Private	-	1.2	Retain		
T11	Amelanchier sp.	Serviceberry sp.	1	±4	4	G	G	G	0.5	City	5	1.2	Retain		
P363	Juniperus sp.	Juniper sp.	1	20	20	G	G	G	2	Private	-	1.8	Retain		
P364	Acer negundo	Manitoba Maple	1	25	25	F	G	G	2.5	Private	-	1.8	Retain	Heavy lean	
T10		Deciduous sp.	1	±5	5	G	G	G	0.5	City	5	1.2	Retain		
P365	Acer platanoides	Norway Maple	1	25	25	F	F	G	2.5	Private	-	1.8	Retain	Shaded by adjacent tree, lean	
P366	Acer negundo	Manitoba Maple	1	50	50	F	F	G	5	Private	2	3	Retain	Shaded by adjacent tree, lean	
P367	Acer platanoides	Norway Maple	1	45	45	F	F	G	4.5	Private	2	3	Retain	Shaded by adjacent tree, lean	
P368	Acer negundo	Manitoba Maple	1	55	55	P	F	G	5.5	Private	2	3.6	Retain	Heavy lean, pruned for hydro	
P369	Juniperus sp.	Juniper sp.	1	25	25	G	G	G	2.5	Private	-	1.8	Retain		
P370	Acer negundo	Manitoba Maple	1	10	10	G	G	G	1	Private	-	1.8	Retain		
P371	Sorbus sp.	Mountain-ash sp.	1	18	18	F	F	F	1.5	Private	-	1.8	Retain	Lean, topped, broken branches, 30% dieback	
P372	Acer negundo	Manitoba Maple	1	45	45	F	G	G	4.5	Private	2	3	Retain	Lean	
P373	Tilia americana	American Basswood	1	15	15	G	G	G	1.5	Private	-	1.8	Retain		

Appendix A: Tree Inventory and Preservation Charts

Project: Agincourt EA		Field Work Completed By:		Carlene Perkin & Carly Van Daele (Section A); Leanne Wallis & Tiffany Waters (Section B); Whitney Black & Shannon Ritchie (Section C)		Date(s) of Fieldwork:		5/4/2020, 5/6/2020, 5/7/2020 and 5/13/2020					Remark Legend:		
Tree Condition Assessment Criteria:						Tree Condition:						MS: Multistem			
T1 - Trunk Integrity: assessment of the trunk for any defects or weaknesses.						Good (G): tree displays less than 15% deficiency/defect within the given tree assessment criteria (T1,CS,CV)						Dead (D): trees is dead		LS: Lean showing direction	
CS - Canopy Structure: assessment of scaffold branches, unions and canopy						Fair (F): tree displays 15-40% deficiency/defect within the given tree assessment criteria (T1,CS,CV)								G: Girdling	
CV - Canopy vigour: assessment of the health of the tree, based on the % of deadwood, disease, pests & live crown						Poor (P): tree displays greater than 40% deficiency/defect within the given tree assessment criteria (T1,CS,CV)								EAB: Emerald Ash Borer	
Recommendation Legend:												ZL: 2 leaders or codominant stems		SI: Soil impacts (backfilled or compacted soil)	
		Location				Minimum TPZ reduction / Injury				Hazard trees				Trees to be Preserved	
		Trees to be Retained				Minimum TPZ reduction / No Injury				Trees to be Removed				Trees to be Preserved	
Tree #	Botanical Name	Common Name	No.	DBH (cm)	Effective DBH	Tree Condition			Drip-line Radius (m)	Tree Location / By-law	City of Toronto Category	Tree Protection Zone	Recommendation	Remarks	Tree Preservation / Impact Comments
						T1	CS	CV							
T1	Tilia cordata	Little-leaf Linden	1	±120	120	G	F	G	6	City	5	7.2	Retain	scaffold branch pruned	
T2	Acer negundo	Manitoba Maple	1	±50, 50, 40	67	G	F	G	6	City	5	4.2	Retain		
T3	Ulmus sp.	Elm sp.	1	MS (~10) 15 to 25	±35	G	F	G	3.5	City	5	2.4	Retain		
T4	Tilia cordata	Little-leaf Linden	1	104	90	G	G	G	7.5	City	5	5.4	Retain		
T5	Pinus nigra	Black Pine	1	31	25	G	G	G	3	City	5	1.8	Retain		
T6	Pinus nigra	Black Pine	1	29	25	G	G	G	3	City	5	1.8	Retain		
T7	Pinus nigra	Black Pine	1	±25	25	G	G	G	3	City	5	1.8	Retain		
T8	Acer platanoides	Norway Maple	1	±5	5	G	G	G	1	City	5	1.2	Retain		
T9	Acer platanoides	Norway Maple	1	±30	30	G	G	G	5	City	5	2.4	Preserve		Tree can be fully protected
TG-01		Various sp.	±20	<10 to 30	30	G	G	G	1 to 4	City	5	2.4	Retain	Grouping was not included in original inventory	
TG-05	Acer negundo	Manitoba Maple	3	10 to 25	25	G	G	G	2.5	Private	-	1.8	Retain		
	Acer platanoides	Norway Maple	7	3 to 15	15	G	G	G	1.5	Private	-	1.8	Retain		
	Acer ginnala	Amur Maple	5	10 to 15	15	G	G	G	1.5	Private	-	1.8	Retain		
TG-06	Pinus nigra	Black Pine	5	25 to 42	42	G	G	G	4	Private	2	3	Retain		
TG-07	Acer platanoides	Norway Maple	4	20 to 30	30	G	G	G	3	Private	2	2.4	Retain		
Section B (Central) - Trees North of Cowdray Court to Sheppard Avenue East															
1	Gleditsia triacanthos	Honey-locust	1	38.5	38.5	G	G	G	9	City	5	#N/A	Retain	Recently pruned, good form	
2	Gleditsia triacanthos	Honey-locust	1	38	38	G	G	G	9	City	5	#N/A	Retain	Needs pruned for hydro	
3	Malus sp.	Apple sp.	1	25	25	F	F	G	6	Private	-	#N/A	Retain	Lean, branch wounds	
4	Acer negundo	Manitoba Maple	1	10	10	G	G	G	4	Private	-	#N/A	Retain		
14	Acer platanoides	Norway Maple	1	38.5	38.5	G	G	G	7	Private	2	#N/A	Retain		
15	Fir sp.	Fir sp.	1	32	32	G	G	G	3	Private	2	#N/A	Retain		
16	Fir sp.	Fir sp.	1	33	33	G	G	G	4	Private	2	#N/A	Retain		
17	Acer negundo	Manitoba Maple	1	42	42	G	G	G	7	Private	2	#N/A	Retain	Trunk wound (hole) 1ft above ground level, some small dead branches	
18	Pinus nigra	Black Pine	1	47	47	G	G	G	7	Private	2	#N/A	Retain		
19	Ginkgo biloba	Ginkgo	1	16	16	G	G	G	2	Private	-	#N/A	Retain		
22	Gleditsia triacanthos	Honey-locust	1	41	41	G	G	G	7	City	5	3	Retain	Exposed roots with mower damage, soil compaction	
23	Gleditsia triacanthos	Honey-locust	1	34.5	34.5	P	F	G	6	City	5	2.4	Retain	Soil compaction, main stem topped, branches pruned for hydro	
24	Gleditsia triacanthos	Honey-locust	1	28	28	F	F	G	7	City	5	1.8	Retain	Exposed roots, soil compaction, trunk wound 1.5ft above ground	
25	Gleditsia triacanthos	Honey-locust	1	47	47	G	F	G	9	Private	2	3	Retain	Unbalanced crown as pruned for hydro	
26	Gleditsia triacanthos	Honey-locust	1	24	24	G	F	G	5	City	5	1.8	Retain	Unbalanced crown as pruned for hydro	
27	Acer x freemanii	Freeman's Maple	1	41, 49	64	G	F	G	7	City	5	4.2	Injure	Silver or Freeman's, MS (2), water sprout branches from pruning, some large limbs pruned off and slow sealing, trunk wound with moss 2ft above ground level	Proposed sidewalk alignment will encroach into 35% of TPZ. Mitigate through air-spade excavation
28	Prunus sp.	Cherry sp.	1	15.5, 16.5	23	P	F	G	4	City	5	1.8	Preserve	MS (2), Main stem broken off and stub all rotted out, two side branches were measured, exposed roots with mower damage, girdling root, unbalanced crown	Tree can be fully protected
T30	Acer platanoides	Norway Maple	1	±50	50	G	G	G	5	Private	2	3	Preserve		Tree can be fully protected
T29	Thuja occidentalis	Eastern White Cedar	1	15	15	G	G	G	1	City	5	1.8	Preserve	Part of a cedar hedgerow, other trees are less than 10cm dbh	Tree can be fully protected
29	Gleditsia triacanthos	Honey-locust	1	±5	5	G	G	G	1	City	5	1.2	Preserve		Tree can be fully protected
30	Gleditsia triacanthos	Honey-locust	1	20, 20	28	P	F	G	4	City	5	1.8	Preserve	MS (2), two main stems both topped	Tree can be fully protected
31	Pinus sylvestris	Scots Pine	1	51	51	G	F	G	4	City	5	3.6	Remove	Insect holes, sapsucker feeding holes, some dead and broken branches	Within alignment of the proposed sidewalk. Impacts upto 50% of TPZ.
32	Thuja occidentalis	Eastern White Cedar	1	20, 20, 20, 10	36	G	G	G	4	City	5	2.4	Remove	MS (4)	Within alignment of proposed north / south road. Impact to all of tree and TPZ
33	Thuja occidentalis	Eastern White Cedar	1	15, 25	29	G	G	G	4	City	5	1.8	Remove	MS (2)	Within alignment of proposed north / south road. Impact to all of tree and TPZ
34	Thuja occidentalis	Eastern White Cedar	1	25	25	G	G	G	4	City	5	1.8	Remove		Within alignment of proposed north / south road. Impact to all of tree and TPZ
35	Thuja occidentalis	Eastern White Cedar	1	25, 25, 25, 25, 30	58	G	G	G	4	City	5	3.6	Remove	MS (5)	Within alignment of proposed north / south road. Impact to all of tree and TPZ
T26	Ulmus sp.	Elm sp.	1	±30		G	G		5	Private	2	2.4	Remove		Within alignment of proposed north / south road. Impact to all of tree and TPZ
T27	Ulmus sp.	Elm sp.	1	±30		G	G		5	Private	2	2.4	Remove		Within alignment of proposed north / south road. Impact to all of tree and TPZ
36	Picea glauca	White Spruce	1	35	35	G	G	G	4	Private	2	2.4	Retain		
37	Picea glauca	White Spruce	1	35	35	G	G	G	4	Private	2	2.4	Retain		
38	Picea glauca	White Spruce	1	35	35	G	G	G	4	Private	2	2.4	Retain		

Appendix A: Tree Inventory and Preservation Charts

Project: Agincourt EA		Field Work Completed By: Carlene Perkin & Carly Van Daele (Section A); Leanne Wallis & Tiffany Waters (Section B); Whitney Black & Shannon Ritchie (Section C)				Date(s) of Fieldwork: 5/4/2020, 5/6/2020, 5/7/2020 and 5/13/2020				Remark Legend:							
Tree Condition Assessment Criteria:						Tree Condition:						MS: Multistem					
TI - Trunk Integrity: assessment of the trunk for any defects or weaknesses.						Good (G): tree displays less than 15% deficiency/defect within the given tree assessment criteria (TI,CS,CV)						LS: Lean showing direction					
CS - Canopy Structure: assessment of scaffold branches, unions and canopy						Fair (F): tree displays 15-40% deficiency/defect within the given tree assessment criteria (TI,CS,CV)						G: Girdling					
CV - Canopy vigour: assessment of the health of the tree, based on the % of deadwood, disease, pests & live crown						Poor (P): tree displays greater than 40% deficiency/defect within the given tree assessment criteria (TI,CS,CV)						EAB: Emerald Ash Borer					
Recommendation Legend:												ZL: 2 leaders or codominant stems					
		Location		Minimum TPZ reduction / Injury		Hazard trees								SI: Soil impacts (backfilled or compacted soil)			
		Trees to be Retained		Minimum TPZ reduction / No Injury		Trees to be Removed		Trees to be Preserved						DB: dead branches (include %)			
Tree #	Botanical Name	Common Name	No.	DBH (cm)	Effective DBH	Tree Condition			Dripline Radius (m)	Tree Location / By-law	City of Toronto Category	Tree Protection Zone	Recommendation	Remarks	Tree Preservation / Impact Comments		
						TI	CS	CV									
39	Prunus sp.	Cherry sp.	1	15	15	G	G	G	2	Private	-	1.8	Preserve	Could not approach close enough to identify	Tree can be fully protected		
40	Acer x freemanii	Freeman's Maple	1	60	60	G	F	F	16	Private	2020	3.6	Preserve	Silver or Freeman's, branch wounds, a few small and medium sized broken and dead branches, unbalanced crown	Tree can be fully protected		
41	Acer x freemanii	Freeman's Maple	1	75	75	G	G	G	12	Private	2	4.8	Injure	Silver or Freeman's, a few small dead branches	Proposed sidewalk will encorach into TPZ. Minor impact. Mitigate through air-spade excavation		
42	Betula papyrifera	Paper Birch	1	25	25	F	F	F	6	Private	-	1.8	Preserve	Lean, trunk wounds, broken and dying branches	Tree can be fully protected		
43	Picea pungens	Blue Spruce	1	25	25	G	G	G	2	City	5	1.8	Preserve		Tree can be fully protected		
T28	Prunus sp.	Cherry sp.	1	±15, 15	21	F	G	G	3	Private	-	1.8	Preserve		Tree can be fully protected		
44	Picea glauca	White Spruce	1	35	35	G	G	G	4	Private	2	2.4	Preserve		Tree can be fully protected		
45	Picea glauca	White Spruce	1	30	30	G	G	G	4	City	5	2.4	Preserve		Tree can be fully protected		
46	Picea abies	Norway Spruce	1	40	40	G	G	G	7	City	5	2.4	Preserve		Tree can be fully protected		
47	Picea glauca	White Spruce	1	25	25	G	G	G	3	City	5	1.8	Preserve		Tree can be fully protected		
48	Amelanchier sp.	Serviceberry sp.	1	13	13	G	G	G	4	City	5	1.8	Injure		Proposed sidewalk will encorach into TPZ. Minor impact. Mitigate through air-spade excavation		
49	Picea glauca	White Spruce	1	25	25	G	G	G	3	City	5	1.8	Preserve		Tree can be fully protected		
50	Acer platanoides	Norway Maple	1	13	13	G	G	G	4	Private	-	1.8	Preserve		Tree can be fully protected		
51	Acer platanoides	Norway Maple	1	13	13	G	G	G	4	Private	-	1.8	Preserve		Tree can be fully protected		
52	Acer platanoides	Norway Maple	1	10, 11	15	F	F	G	2	Private	-	1.8	Preserve	MS (2), Plus 8.5, 3, 3 cm dbh, trunk wounds, growing very close together, stems not straight	Tree can be fully protected		
53	Acer x freemanii	Freeman's Maple	1	40, 40, 40, 50, 60	104	G	F	G	13	City	5	6.24	Injure	Multistemmed (5), pruned limbs are sealing slowly, some broken medium sized limbs, some branch scar rot	Proposed sidewalk will encorach into TPZ. Minor impact. Mitigate through air-spade excavation		
54	Picea sp.	Spruce sp.	1	19.5	19.5	P	P	P	2	Private	-	1.8	Preserve	Dead, shaded out	Tree can be fully protected		
55	Acer platanoides	Norway Maple	1	10	10	G	G	G	4	Private	-	1.8	Preserve		Tree can be fully protected		
56	Acer platanoides	Norway Maple	1	14	14	G	G	G	4	Private	-	1.8	Preserve		Tree can be fully protected		
57	Picea abies	Norway Spruce	1	43, 32	54	F	G	G	6	Private	2	3.6	Preserve	MS (2)	Tree can be fully protected		
58	Picea glauca	White Spruce	1	28, 32	43	G	G	G	3	City	5	3	Preserve	MS (2), some dead and shaded branches	Tree can be fully protected		
59	Picea glauca	White Spruce	1	36	36	G	G	G	3	City	5	2.4	Preserve		Tree can be fully protected		
60	Acer platanoides	Norway Maple	1	25	25	F	G	G	6	Private	-	1.8	Preserve	Homeowner has pruned off lower limbs using flush cuts, epicormic sprouts, wound at trunk base	Tree can be fully protected		
61	Prunus sp.	Cherry sp.	1	6.5	6.5	P	G	G	1	City	5	1.2	Remove	Trunk wounded badly, may not survive			
62	Prunus sp.	Cherry sp.	1	4.5	4.5	P	G	G	1	City	5	1.2	Remove	Trunk wounded badly, may not survive			
63	Acer saccharum	Sugar Maple	1	62.5	62.5	P	F	F	7	City	5	4.2	Injure	Landowner may be hostile, said he didn't want us cutting down his tree, 3 Gordon Ave, Insect damage on trunk, flush cuts, pruned for hydro so unbalanced crown, one of the two major stems has been topped, mower damage on exposed roots, trunk wounds, trunk crack, dead branches, caution of nail marked with orange near tree base, old tree tag #342. House was constructed in 2015 (as well as adj. 1 Gordon Ave) per CoT imagery and Google Earth imagery - this tree had tree protection fencing around it at the time of construction. Tree appears to be on City property but due to potential landowner issues this should be verified if any removal is anticipated.	Encroachment into TPZ from widening of Gordon Avenue. Tree will be located in proposed softscape boulevard. Mitigate root damage trough air-spade excavation.		
64	Acer platanoides	Norway Maple	1	36, 27	45	G	F	F	10	City	5	3	Injure	Orange nail with orange tape on exposed root, mower damage on exposed roots, most limbs have been pruned off, pruned for hydro so unbalanced crown. Other trees/vegetation on this property have recently been removed (5 Gordon).	Encroachment into TPZ from widening of Gordon Avenue. Tree will be located in proposed softscape boulevard. Mitigate root damage trough air-spade excavation.		
65	Acer x freemanii	Freeman's Maple	1	108	108	G	G	G	12	City	5	6.48	Injure	Very large tree, good health, try to retain. Mower damage on exposed roots, pruned for hydro with branch wounds sealed, unbalanced crown due to pruning, some weak attachments from water sprout branches	Encroachment into TPZ from widening of Gordon Avenue. Tree will be located in proposed softscape boulevard. Mitigate root damage trough air-spade excavation.		
66	Acer platanoides	Norway Maple	1	13	13	G	G	G	2	City	5	1.8	Injure		Encroachment into TPZ from widening of Gordon Avenue. Tree will be located in proposed softscape boulevard. Mitigate root damage trough air-spade excavation.		

Appendix A: Tree Inventory and Preservation Charts

Project: Agincourt EA		Field Work Completed By:		Carlene Perkin & Carly Van Daele (Section A); Leanne Wallis & Tiffany Waters (Section B); Whitney Black & Shannon Ritchie (Section C)			Date(s) of Fieldwork:			5/4/2020, 5/6/2020, 5/7/2020 and 5/13/2020			Remark Legend:				
Tree Condition Assessment Criteria:						Tree Condition:						MS: Multistem LS: Lean showing direction G: Girdling EAB: Emerald Ash Borer 2L: 2 leaders or codominant stems Si: Soil impacts (backfilled or compacted soil) DB: dead branches (include %)					
TI - Trunk Integrity: assessment of the trunk for any defects or weaknesses.						Good (G): tree displays less than 15% deficiency/defect within the given tree assessment criteria (TI,CS,CV)						Dead (D): trees is dead					
CS - Canopy Structure: assessment of scaffold branches, unions and canopy						Fair (F): tree displays 15-40% deficiency/defect within the given tree assessment criteria (TI,CS,CV)											
CV - Canopy vigour: assessment of the health of the tree, based on the % of deadwood, disease, pests & live crown						Poor (P): tree displays greater than 40% deficiency/defect within the given tree assessment criteria (TI,CS,CV)											
Recommendation Legend:																	
Location			Minimum TPZ reduction / Injury			Hazard trees			Trees to be Preserved								
Trees to be Retained			Minimum TPZ reduction / No Injury			Trees to be Removed											
Tree #	Botanical Name	Common Name	No.	DBH (cm)	Effective DBH	Tree Condition			Dripline Radius (m)	Tree Location / By-law	City of Toronto Category	Tree Protection Zone	Recommendation	Remarks	Tree Preservation / Impact Comments		
						TI	CS	CV									
67	Acer platanoides	Norway Maple	1	34	34	G	G	G	5	City	5	2.4	Remove	Pruned for hydro, exposed roots have mower damage, girdling roots	Tree is within limit of Gordon Avenue road widening and located within the location of the proposed sidewalk. Proposed works will occur within 90% of TPZ and impact entire tree		
68	Acer platanoides	Norway Maple	1	13	13	G	G	G	5	City	5	1.8	Remove		Tree is within limit of Gordon Avenue road widening and located within the location of the proposed sidewalk. Proposed works will occur within 90% of TPZ and impact entire tree		
69	Gleditsia triacanthos	Honey-locust	1	37	37	G	G	G	5	City	5	2.4	Retain	Commercial sign nailed into tree, wound at base possibly from reversing vehicle, garden edging is girdling one root			
70	Gleditsia triacanthos	Honey-locust	1	32	32	G	G	G	7	City	5	2.4	Retain				
71	Gleditsia triacanthos	Honey-locust	1	47	47	G	G	G	7	City	5	3	Retain				
72	Thuja occidentalis	Eastern White Cedar	1	12	12	G	G	G	1	City	5	1.8	Preserve		Tree can be fully protected		
73	Thuja occidentalis	Eastern White Cedar	1	12	12	G	G	G	1	City	5	1.8	Injure		Minor encroachment into TPZ from sidewalk extension. Mitigate through air-spade excavation		
74	Malus sp.	Apple sp.	1	24	24	G	G	G	6	City	5	1.8	Injure	Crabapple sp. Mower wounds at trunk base, wound 1ft up on trunk.	Encroachment into TPZ from widening of Gordon Avenue. Tree will be located in proposed softscape boulevard. Mitigate root damage trough air-spade excavation.		
75	Thuja occidentalis	Eastern White Cedar	1	12	12	G	G	G	1	City	5	1.8	Remove		Tree is within limit of Gordon Avenue road widening and located within the location of the proposed sidewalk. Proposed works will occur within 100% of TPZ and impact entire tree		
76	Acer platanoides	Norway Maple	1	25	25	G	G	G	6	Private	-	1.8	Injure		Encroachment into TPZ from widening of Gordon Avenue. Tree will be located at the limit of the proposed softscape boulevard. Mitigate root damage trough air-spade excavation.		
77	Acer platanoides	Norway Maple	1	35	35	F	F	F	7	Private	-	2.4	Preserve	Scars with rot along trunk, poor pruning, unbalanced crown, branch wounds	Tree can be fully protected		
78	Syringa reticulata ssp. reticulata	Japanese Tree Lilac	1	20	20	G	G	G	3	City	5	1.8	Remove	Old Tree tag 351	Tree is within limit of Gordon Avenue road widening and located within the location of the proposed sidewalk. Proposed works will occur within 100% of TPZ and impact entire tree		
79	Thuja occidentalis	Eastern White Cedar	1	12	12	G	G	G	1	City	5	1.8	Remove		Tree is within limit of Gordon Avenue road widening and located within the location of the proposed sidewalk. Proposed works will occur within 100% of TPZ and impact entire tree		
80	Acer platanoides	Norway Maple	1	30	30	F	G	G	6	City	5	2.4	Injure	Wounds at base of trunk	Encroachment into TPZ from widening of Gordon Avenue. Tree will be located in proposed softscape boulevard. Mitigate root damage trough air-spade excavation.		
81	Picea pungens	Blue Spruce	1	40	40	G	G	G	7	Private	2	2.4	Preserve		Tree can be fully protected		
Section B (Central) - Collingwood Park / RNFP																	
84	Populus deltoides	Eastern Cottonwood	1	15, 20, 20, 25, 25	48	G	G	G	4	Park	3	3	Retain	MS (5)			
85	Ulmus pumila	Siberian Elm	1	25	25	P	P	P	4	Private	-	1.8	Retain	Dead			
86	Elaeagnus sp.	Olive sp.	1	30, 13.5	33	F	F	G	4	Park	3	2.4	Injure	Russian or Autumn Olive, main branch topped, growing through fence	Within limits of proposed multi-use trail alignment. Minor encroachment into TPZ from grading / construction. Mitigate through root pruning		
87	Ulmus sp.	Elm sp.	1	15.5, 16, 24, 24	41	F	G	G	5	Park	3	3	Retain	MS (4), growing through fence			
88	Fraxinus pennsylvanica	Green Ash	1	10, 10, 10, 15	23	P	P	P	3	Private	-	1.8	Retain	Half dead			
89	Fraxinus pennsylvanica	Green Ash	1	8, 4, 4, 4, 3, 3, 3	12	P	P	P	3	Private	-	1.8	Retain	Dead			
90	Ulmus pumila	Siberian Elm	1	8, 8, 9, 14	20	G	G	G	4	Park	3	1.8	Retain				
91	Ulmus pumila	Siberian Elm	1	15, 11, 11, 11, 9	26	G	G	G	4	Park	3	1.8	Retain	MS (5)			
92	Picea glauca	White Spruce	1	4	4	G	G	G	1	Park	3	1.2	Retain				
93	Picea glauca	White Spruce	1	4	4	G	G	G	1	Park	3	1.2	Retain				
94	Picea glauca	White Spruce	1	4	4	G	G	F	1	Park	3	1.2	Retain	Some dieback			
95	Picea glauca	White Spruce	1	4	4	P	P	P	1	Park	3	1.2	Retain	Dead			
96	Abies balsamea	Balsam Fir	1	4	4	G	G	G	1	Park	3	1.2	Retain				
97	Abies balsamea	Balsam Fir	1	4	4	G	G	G	1	Park	3	1.2	Retain				
98	Picea glauca	White Spruce	1	4	4	G	G	F	1	Park	3	1.2	Retain	Some dieback			
99	Picea glauca	White Spruce	1	4	4	G	G	F	1	Park	3	1.2	Injure		Within limits of proposed multi-use trail alignment. Minor encroachment into TPZ from grading / construction. Mitigate through root pruning		

Appendix A: Tree Inventory and Preservation Charts

Project: Agincourt EA		Field Work Completed By:				Carlene Perkin & Carly Van Daele (Section A); Leanne Wallis & Tiffany Waters (Section B); Whitney Black & Shannon Ritchie (Section C)				Date(s) of Fieldwork:		5/4/2020, 5/6/2020, 5/7/2020 and 5/13/2020		Remark Legend:			
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Recommendation Legend:						ZL: 2 leaders or codominant stems						EAB: Emerald Ash Borer					
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Trees to be Retained						Minimum TPZ reduction / No Injury						Trees to be Preserved					

Appendix A: Tree Inventory and Preservation Charts

Project: Agincourt EA		Field Work Completed By:		Carlene Perkin & Carly Van Daele (Section A); Leanne Wallis & Tiffany Waters (Section B); Whitney Black & Shannon Ritchie (Section C)		Date(s) of Fieldwork:		5/4/2020, 5/6/2020, 5/7/2020 and 5/13/2020		Remark Legend:					
Tree Condition Assessment Criteria:				Tree Condition:				Good (G): tree displays less than 15% deficiency/defect within the given tree assessment criteria (TI,CS,CV)		Dead (D): trees is dead		MS: Multistem			
TI - Trunk Integrity: assessment of the trunk for any defects or weaknesses.												LS: Lean showing direction			
CS - Canopy Structure: assessment of scaffold branches, unions and canopy												G: Girdling			
CV - Canopy vigour: assessment of the health of the tree, based on the % of deadwood, disease, pests & live crown												EAB: Emerald Ash Borer			
Recommendation Legend:												ZL: 2 leaders or codominant stems			
		Location		Minimum TPZ reduction / Injury		Hazard trees				Trees to be Preserved		SI: Soil impacts (backfilled or compacted soil)			
		Trees to be Retained		Minimum TPZ reduction / No Injury		Trees to be Removed						DB: dead branches (include %)			
Tree #	Botanical Name	Common Name	No.	DBH (cm)	Effective DBH	Tree Condition			Dripline Radius (m)	Tree Location / By-law	City of Toronto Category	Tree Protection Zone	Recommendation	Remarks	Tree Preservation / Impact Comments
						TI	CS	CV							
138	Celtis occidentalis	Common Hackberry	1	30	30	P	F	G	5	Park / RNFP	4	4.8	Retain	Trunk wound with rot, poor form, poor pruning	
139	Celtis occidentalis	Common Hackberry	1	31	31	F	F	G	5	Park / RNFP	4	4.8	Retain	Poor form	
140	Quercus rubra	Northern Red Oak	1	26	26	G	G	G	5	Park / RNFP	4	3.6	Retain		
141	Quercus rubra	Northern Red Oak	1	37	37	G	G	G	7	Park / RNFP	4	4.8	Retain		
142	Gymnocladus dioicus	Kentucky Coffee-tree	1	4	4	G	G	G	1	Park / RNFP	4	1.2	Retain		
143	Unknown Species	Unknown Species	1	7	7	F	G	G	2	Park / RNFP	4	1.2	Retain	Unknown species, compound leaves, trunk and branch wounds	
144	Gleditsia triacanthos	Honey-locust	1	7	7	G	G	G	2	Park	3	1.2	Retain		
145	Gleditsia triacanthos	Honey-locust	1	7	7	G	G	G	2	Park	3	1.2	Retain		
146	Quercus rubra	Northern Red Oak	1	27	27	G	G	G	5	Park	3	1.8	Retain		
147	Quercus rubra	Northern Red Oak	1	22	22	G	G	G	5	Park	3	1.8	Retain		
148	Corylus sp.	Hazelnut sp.	1	5	5	G	G	G	1	City	3	1.2	Retain	Likely Turkish Hazelnut (Corylus colurna), because it's on COT approved tree planting list	
149	Liquidambar styraciflua	Sweet Gum	1	5	5	G	G	G	1	City	3	1.2	Retain	cultivar	
150	Quercus rubra	Northern Red Oak	1	22	22	G	G	G	5	Park	3	1.8	Retain		
151	Dead tree	Dead tree	1	-	-	-	-	-	-	Park	3	-	Retain		
152	Picea pungens	Blue Spruce	1	7	7	G	G	G	15	Park	3	1.2	Retain		
153	Picea pungens	Blue Spruce	1	7	7	G	G	G	15	Park	3	1.2	Retain		
154	Picea pungens	Blue Spruce	1	7	7	G	G	G	<10	Park	3	1.2	Retain		
155	Picea glauca	White Spruce	1	7	7	G	G	G	<10	Park	3	1.2	Retain		
156	Picea pungens	Blue Spruce	1	8	8	G	G	G	<10	Park	3	1.2	Retain	slight lean	
157	Catalpa speciosa	Northern Catalpa	1	7	7	G	G	G	<10	Park	3	1.2	Retain	multi stem at base, leaning limbs, surrounded by honeysuckle	
158	Acer negundo	Manitoba Maple	1	3, 15, 17, 18, 15	35	P	G	G	<10	Park	3	2.4	Retain	small trunk wound, MS(6)	
159	Acer negundo	Manitoba Maple	1	16	16	F	G	G	<10	Park / RNFP	4	3.6	Retain	slight lean, growing beside buckthorn >10 DBH	
160	Pinus nigra	Black Pine	1	45	45	G	G	G	<10	Park	3	3	Retain	bottom branches pruned, good compartmentalization	
161	Pinus nigra	Black Pine	1	42	42	G	G	G	<10	Park	3	3	Retain	bottom branches pruned, good compartmentalization	
162	Pinus nigra	Black Pine	1	42	42	G	G	G	<10	Park	3	3	Retain	bottom branches pruned, good compartmentalization	
163	Pinus nigra	Black Pine	1	34	34	G	G	G	20	Park	3	2.4	Retain	bottom branches pruned, good compartmentalization	
164	Pinus nigra	Black Pine	1	36	36	F	G	G	15	Park	3	2.4	Retain	bottom branches pruned, good compartmentalization	
165	Pinus nigra	Black Pine	1	39	39	G	G	G	20	Park	3	2.4	Retain	bottom branches pruned, good compartmentalization	
166	Pinus nigra	Black Pine	1	39	39	G	G	G	15	Park	3	2.4	Retain	bottom branches pruned, good compartmentalization	
167	Pinus nigra	Black Pine	1	36	36	G	G	G	20	Park	3	2.4	Retain	bottom branches pruned, good compartmentalization	
168	Pinus nigra	Black Pine	1	36	36	G	G	G	15	Park	3	2.4	Retain	bottom branches pruned, good compartmentalization	
169	Pinus nigra	Black Pine	1	43	43	G	G	G	<10	Park	3	3	Retain	bottom branches pruned, good compartmentalization, growing beside other species <10 DBH	
170	Pinus nigra	Black Pine	1	33	33	G	G	G	15	Park	3	2.4	Retain	bottom branches pruned, good compartmentalization, growing beside other species <10 DBH	
171	Acer negundo	Manitoba Maple	1	29	29	G	G	G	<10	Park / RNFP	4	3.6	Retain	beside white ash <10 DBH	
172	Acer negundo	Manitoba Maple	2	9, 12	15	F	G	G	<10	Park / RNFP	4	3.6	Retain	multi stem at base, growing among other species <10 DBH	
173	Tilia sp.	Manitoba Maple	1	19	19	F	G	G	<10	Park / RNFP	4	3.6	Retain	slight lean	
174	Acer platanoides	Norway Maple	2	18, 14	23	F	G	G	<10	Park / RNFP	4	3.6	Retain	multi stem at 1m	
175	Acer platanoides	Norway Maple	1	18	18	G	G	G	<10	Park / RNFP	4	3.6	Retain		
176	Acer negundo	Manitoba Maple	3	11, 11, 18	24	F	G	G	<10	Park / RNFP	4	3.6	Retain	multi stem at base and 1 m	
177	Acer negundo	Manitoba Maple	1	3, 17, 6, 12, 14, 1	36	F	G	G	<10	Park / RNFP	4	4.8	Retain	multi stem at base	
178	Elaeagnus angustifolia	Russian Olive	1	21	21	P	P	F	<10	Park / RNFP	4	3.6	Retain	twisted trunk, broken branches, some trunk wounds	
179	Elaeagnus angustifolia	Russian Olive	1	25	25	P	P	F	<10	Park / RNFP	4	3.6	Retain	twisted trunk, broken branches, some trunk wounds, lean	
180	Elaeagnus angustifolia	Russian Olive	2	12, 15	19	P	P	F	<10	Park / RNFP	4	3.6	Retain	twisted trunk, broken branches, some trunk wounds, lean	
181	Elaeagnus angustifolia	Russian Olive	7	12	12	P	P	F	<10-15	Park / RNFP	4	3.6	Retain	twisted trunk, broken branches, some trunk wounds	
182	Elaeagnus angustifolia	Russian Olive	1	18	18	P	P	F	<10	Park	3	1.8	Retain	twisted trunk, broken branches, some trunk wounds, heavy lean	

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Project: Agincourt EA		Field Work Completed By:				Carlene Perkin & Carly Van Daele (Section A); Leanne Wallis & Tiffany Waters (Section B); Whitney Black & Shannon Ritchie (Section C)				Date(s) of Fieldwork: 5/4/2020, 5/6/2020, 5/7/2020 and 5/13/2020		Remark Legend:			
Tree Condition Assessment Criteria:						Tree Condition:						MS: Multistem LS: Lean showing direction G: Girdling EAB: Emerald Ash Borer ZL: 2 leaders or codominant stems SI: Soil impacts (backfilled or compacted soil) DB: dead branches (include %)			
TI - Trunk integrity: assessment of the trunk for any defects or weaknesses.						Good (G): tree displays less than 15% deficiency/defect within the given tree assessment criteria (TI,CS,CV)						Dead (D): trees is dead			
CS - Canopy Structure: assessment of scaffold branches, unions and canopy						Fair (F): tree displays 15-40% deficiency/defect within the given tree assessment criteria (TI,CS,CV)									
CV - Canopy vigour: assessment of the health of the tree, based on the % of deadwood, disease, pests & live crown						Poor (P): tree displays greater than 40% deficiency/defect within the given tree assessment criteria (TI,CS,CV)									
Recommendation Legend:															
		Location		Minimum TPZ reduction / Injury				Hazard trees							
		Trees to be Retained		Minimum TPZ reduction / No Injury				Trees to be Removed		City of Toronto Category		Trees to be Preserved			
Tree #	Botanical Name	Common Name	No.	DBH (cm)	Effective DBH	Tree Condition			Drip-line Radius (m)	Tree Location / By-law	City of Toronto Category	Tree Protection Zone	Recommendation	Remarks	Tree Preservation / Impact Comments
						TI	CS	CV							
183	<i>Elaeagnus angustifolia</i>	Russian Olive	3	15, 10, 20	27	P	P	F	<10	Park	3	1.8	Retain	twisted trunk, broken branches, some trunk wounds	
184	<i>Acer negundo</i>	Manitoba Maple	3	11, 9, 11	18	F	G	G	<10	Park / RNFP	4	3.6	Retain	multi stem at base	
185	<i>Elaeagnus angustifolia</i>	Russian Olive	1	18	18	F	P	G	<10	Park / RNFP	4	3.6	Retain	broken branches, some trunk wounds	
186	<i>Salix x fragilis</i>	Hybrid White Willow	1	49	49	P	P	G	<10	Park / RNFP	4	6	Retain	epicormic shoots, heavy lean	
187	<i>Salix x fragilis</i>	Hybrid White Willow	1	66	66	F	G	G	<10	Park / RNFP	4	8.4	Retain	epicormic shoots, lean	
188	<i>Salix x fragilis</i>	Hybrid White Willow	1	42	42	F	G	G	<10	Park / RNFP	4	6	Retain	epicormic shoots, lean	
189	<i>Salix x fragilis</i>	Hybrid White Willow	1	51	51	F	G	G	<10	Park / RNFP	4	7.2	Retain	epicormic shoots, lean	
190	<i>Salix x fragilis</i>	Hybrid White Willow	1	30	30	G	P	P	<10	Park / RNFP	4	4.8	Retain	topped, epicormic shoots	
191	<i>Salix x fragilis</i>	Hybrid White Willow	1	39	39	F	P	G	15	Park / RNFP	4	4.8	Retain	lean, dead branches	
192	<i>Salix x fragilis</i>	Hybrid White Willow	2	62, 65	90	P	F	G	<10	Park / RNFP	4	10.8	Retain	lean, multi stem at base, pruning, most of crown to one side	
193	<i>Salix x fragilis</i>	Hybrid White Willow	1	36	36	P	P	F	<10	Park / RNFP	4	4.8	Retain	heavy lean, pruned, epicormic shoots	
194	<i>Salix x fragilis</i>	Hybrid White Willow	1	38	38	G	F	G	<10	Park / RNFP	4	4.8	Retain	few rubbing/broken branches	
195	<i>Salix x fragilis</i>	Hybrid White Willow	1	64	64	G	G	G	<10	Park / RNFP	4	8.4	Retain		
196	<i>Salix x fragilis</i>	Hybrid White Willow	1	72	72	G	G	G	<10	Park / RNFP	4	9.6	Retain		
TG-B01	<i>Ulmus pumila</i>	Siberian Elm	2	20-25	25	G	G	G	6	Private	-	1.8	Retain		
	<i>Ulmus pumila</i>	Siberian Elm	1	26-30	30	G	G	G	6	Private	-	2.4	Retain		
	<i>Ulmus pumila</i>	Siberian Elm	3	31-35	35	G	F-G	F-G	6	Private	2	2.4	Retain	Broken branches, unbalanced crown	
TG-B02	<i>Pinus nigra</i>	Black Pine	4	25-30	30	G	G	G	6	Park	3	2.4	Remove		Trees are within limits of proposed multi-use trail alignment. Significant impact to critical roots and stability and likely to cause irreversible decline
TG-B03	<i>Fraxinus pennsylvanica</i>	Green Ash	15	5 to 10	10	P	P	P	1 to 2	Park / RNFP	4	3.6	Retain	Poor health, dying	
	<i>Ulmus pumila</i>	Siberian Elm	10	5 to 10	10	G	G	G	2	Park / RNFP	4	3.6	Retain		
	<i>Ulmus pumila</i>	Siberian Elm	5	11 to 15	15	G	G	G	2 to 3	Park / RNFP	4	3.6	Retain		
	<i>Ulmus pumila</i>	Siberian Elm	20	16 to 20	20	G	G	G	2 to 3	Park / RNFP	4	3.6	Retain		
	<i>Ulmus pumila</i>	Siberian Elm	7	21-25	25	G	F-G	F-G	6	Park / RNFP	4	3.6	Retain		
	<i>Salix alba</i>	White Willow	4	20 to 40	40	F-G	F-G	F-G	8	Park / RNFP	4	4.8	Retain		
	<i>Salix alba</i>	White Willow	2	40 to 59	59	F-G	F-G	F-G	8	Park / RNFP	4	7.2	Retain	Broken branches, mower damage on exposed roots	
	<i>Salix alba</i>	White Willow	1	60 to 99	99	G	F-G	F-G	8	Park / RNFP	4	12	Retain		
	<i>Salix alba</i>	White Willow	2	100-120	120	G	F-G	F-G	10	Park / RNFP	4	14.4	Retain	Broken branches, mower damage on exposed roots, dead rotting branches	
	<i>Acer negundo</i>	Manitoba Maple	1	5 to 10	10	G	G	G	2	Park / RNFP	4	3.6	Retain		
	<i>Acer negundo</i>	Manitoba Maple	12	11 to 15	15	G	G	G	4	Park / RNFP	4	3.6	Retain		
	<i>Acer negundo</i>	Manitoba Maple	3	16 to 20	20	G	G	G	4	Park / RNFP	4	3.6	Retain		
	<i>Prunus avium</i>	Sweet Cherry	2	0-5	5	G	G	G	2	Park / RNFP	4	1.2	Retain		
	TG-B04	<i>Ulmus pumila</i>	Siberian Elm	3	5 to 10	10	G	G	G	2	Park / RNFP	4	3.6	Retain	
<i>Ulmus pumila</i>		Siberian Elm	3	11 to 15	15	G	G	G	4	Park / RNFP	4	3.6	Retain		
<i>Ulmus pumila</i>		Siberian Elm	3	16 to 20	20	G	G	G	5	Park / RNFP	4	3.6	Retain		
<i>Ulmus pumila</i>		Siberian Elm	15	21-25	25	G	F-G	G	4 to 6	Park / RNFP	4	3.6	Retain		
<i>Ulmus pumila</i>		Siberian Elm	10	26-30	30	G	F-G	G	4 to 6	Park / RNFP	4	4.8	Retain		
<i>Ulmus pumila</i>		Siberian Elm	1	31-35	35	G	G	G	4 to 6	Park / RNFP	4	4.8	Retain		
<i>Acer platanoides</i>		Norway Maple	3	15 to 20	20	G	G	G	4 to 6	Park / RNFP	4	3.6	Retain		
<i>Acer platanoides</i>		Norway Maple	3	21 to 25	25	G	G	G	4 to 6	Park / RNFP	4	3.6	Retain		
<i>Morus alba</i>		White Mulberry	1	5 to 10	10	G	G	G	4	Park / RNFP	4	3.6	Retain		
<i>Acer x freemanii</i>		Freeman's Maple	1	26	26	G	G	G	7	Park / RNFP	4	3.6	Retain	Silver or Freeman's	
<i>Acer negundo</i>		Manitoba Maple	1	8	8	G	G	G	4	Park / RNFP	4	1.2	Retain		
<i>Acer x freemanii</i>		Freeman's Maple	2	35	35	G	F-G	G	6	Park / RNFP	4	4.8	Retain	Some dead branches	
<i>Salix alba</i>		White Willow	1	20 to 40	40	G	G	G	4	Park / RNFP	4	4.8	Retain		
<i>Salix alba</i>		White Willow	2	40 to 59	59	P	P-G	G	6	Park / RNFP	4	7.2	Retain	One tree with broken top	
TG-B05		<i>Acer negundo</i>	Manitoba Maple	5	10 to 15	15	G	G	G	4	Park / RNFP	4	3.6	Retain	Leaning trunks
	<i>Acer negundo</i>	Manitoba Maple	1	20	20	G	G	G	6	Park / RNFP	4	3.6	Retain	Leaning trunk	
	<i>Juglans nigra</i>	Black Walnut	5	20 to 25	25	G	G	G	4	Park / RNFP	4	3.6	Retain		
	<i>Fraxinus pennsylvanica</i>	Green Ash	5	5 to 10	10	P	P	P	1 to 2	Park / RNFP	4	3.6	Retain	Dead or dying	
	<i>Ulmus pumila</i>	Siberian Elm	3	15 to 20	20	G	G	G	4	Park / RNFP	4	3.6	Retain		
	<i>Tilia americana</i>	American Basswood	1	25	25	G	G	G	4	Park / RNFP	4	3.6	Retain		
	<i>Tilia americana</i>	American Basswood	1	25	25	G	G	G	4	Park / RNFP	4	3.6	Retain		
	<i>Salix alba</i>	White Willow	11	10 to 19	19	G	G	G	2	Park / RNFP	4	3.6	Retain		
	<i>Salix alba</i>	White Willow	3	20 to 30	30	G	F-G	G	10	Park / RNFP	4	4.8	Retain		
	<i>Salix alba</i>	White Willow	13	30 to 40	40	G	F-G	G	10	Park / RNFP	4	4.8	Retain		
<i>Salix alba</i>	White Willow	14	40 to 59	59	G	F-G	G	10	Park / RNFP	4	7.2	Retain			

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Tree Condition Assessment Criteria:				Tree Condition:				MS: Multistem LS: Lean showing direction G: Girdling EAB: Emerald Ash Borer ZL: 2 leaders or codominant stems SI: Soil impacts (backfilled or compacted soil) DB: dead branches (include %)							
T1 - Trunk Integrity: assessment of the trunk for any defects or weaknesses.				Good (G): tree displays less than 15% deficiency/defect within the given tree assessment criteria (T1,CS,CV)				Dead (D): trees is dead							
CS - Canopy Structure: assessment of scaffold branches, unions and canopy				Fair (F): tree displays 15-40% deficiency/defect within the given tree assessment criteria (T1,CS,CV)											
CV - Canopy vigour: assessment of the health of the tree, based on the % of deadwood, disease, pests & live crown				Poor (P): tree displays greater than 40% deficiency/defect within the given tree assessment criteria (T1,CS,CV)											
Recommendation Legend:															
Location		Minimum TPZ reduction / Injury		Hazard trees											
Trees to be Retained		Minimum TPZ reduction / No Injury		Trees to be Removed		Trees to be Preserved									
Tree #	Botanical Name	Common Name	No.	DBH (cm)	Effective DBH	Tree Condition			Dripline Radius (m)	Tree Location / By-law	City of Toronto Category	Tree Protection Zone	Recommendation	Remarks	Tree Preservation / Impact Comments
						T1	CS	CV							
TG-B06	Salix alba	White Willow	7	61-80	80	P	F-G	G	10	Park / RNFP	4	9.6	Retain		
	Acer negundo	Manitoba Maple	2	10 to 15	15	G	G	G	6	Park / RNFP	4	3.6	Retain		
	Acer negundo	Manitoba Maple	7	16 to 20	20	G	G	G	6	Park / RNFP	4	3.6	Retain		
	Fraxinus pennsylvanica	Green Ash	10	5 to 10	10	P	P	P	2	Park / RNFP	4	3.6	Retain	Dead and dying	
	Ulmus pumila	Siberian Elm	2	15 to 20	20	G	G	G	6	Park / RNFP	4	3.6	Retain		
	Ulmus pumila	Siberian Elm	8	21-25	25	G	G	G	6	Park / RNFP	4	3.6	Retain		
	Acer x freemanii	Freeman's Maple	1	8	8	G	G	G	2	Park / RNFP	4	1.2	Retain		
	Acer x freemanii	Freeman's Maple	1	35	35	G	G	G	6	Park / RNFP	4	4.8	Retain	Silver or Freeman's	
Section C (South) - Trees South of Cowdray Court															
P575	Gleditsia triacanthos	Honey-locust	1	30	30	G	G	G	3	City	5	#N/A	Retain		
S1	Salix sp.	Willow sp.	1	92	92	G	F	F		RNFP	4	12	Retain	broken branches, dead branches	
S2	Crataegus sp.	Hawthorn sp.	1	10	10	G	G	G		RNFP	4	3.6	Remove	growing among willow and 2 services berries < 10 cm DBH	Tree is within limits of proposed multi-use trail alignment. Significant impact to critical roots and stability and likely to cause irreversible decline
S3	Acer x freemanii	Freeman's Maple	2	10,11	15	F	F	F		RNFP	4	3.6	Retain	curve trunk, broken branches, among 4 Manitoba maple < 10 cm DBH	
S4	Acer negundo	Manitoba Maple	2	13,7,7	16	F	F	G		RNFP	4	3.6	Retain	multi stem at base	
S5	Acer negundo	Manitoba Maple	2	11,55	56	F	F	G		RNFP	4	7.2	Retain	epicormic shoots, dead arches	
S6	Acer negundo	Manitoba Maple	2	24,15	28	F	F	G		RNFP	4	3.6	Retain	curved trunk	
S7	Acer negundo	Manitoba Maple	1	28	28	F	F	G		RNFP	4	3.6	Remove	slight lean	Tree is within limits of proposed multi-use trail alignment. Significant impact to critical roots and stability and likely to cause irreversible decline
S8	Acer negundo	Manitoba Maple	1	18	18	F	F	F		RNFP	4	3.6	Remove	dead branches, slight lean	Tree is within limits of proposed multi-use trail alignment. Significant impact to critical roots and stability and likely to cause irreversible decline
S9	Acer negundo	Manitoba Maple	1	15	15	P	F	G		RNFP	4	3.6	Remove	horizontal, heavy lean	Tree is within limits of proposed multi-use trail alignment. Significant impact to critical roots and stability and likely to cause irreversible decline
S10	Acer negundo	Manitoba Maple	7	15,10,5,8,7,7,17	28	G	P	P		RNFP	4	3.6	Remove	wound at base, dead leader, poor structure	Tree is within limits of proposed multi-use trail alignment. Significant impact to critical roots and stability and likely to cause irreversible decline
S11	Acer sp.	Maple sp.	1	25	25	G	G	G		CPR Property	-	1.8	Remove		Tree is within limits of proposed multi-use trail alignment. Significant impact to critical roots and stability and likely to cause irreversible decline
S12	Ulmus pumila	Siberian Elm	1	11	11	G	F	G		CPR Property	-	1.8	Retain		
S13	Ulmus pumila	Siberian Elm	1	16	16	F	F	G		CPR Property	-	1.8	Preserve		Tree can be fully protected
S14	Ulmus pumila	Siberian Elm	1	11	11	F	P	F		CPR Property	-	1.8	Injure	slight lean	Within limits of proposed multi-use trail alignment. Minor encroachment into TPZ from grading / construction. Mitigate through root pruning
S15	Ulmus pumila	Siberian Elm	1	18	18	F	F	G		CPR Property	-	1.8	Remove	dead branches	Tree is within limits of proposed multi-use trail alignment. Significant impact to critical roots and stability and likely to cause irreversible decline
S16	Salix sp.	Willow sp.	1	23	23	F	F	F		CPR Property	-	1.8	Remove	team, v in crown	Tree is within limits of proposed multi-use trail alignment. Significant impact to critical roots and stability and likely to cause irreversible decline
S17	Salix sp.	Willow sp.	1	44	44	F	F	F		CPR Property	2	3	Injure	dead branches, nest, v at 3 m	Within limits of proposed multi-use trail alignment. Minor encroachment into TPZ from grading / construction. Mitigate through root pruning
S18	Salix sp.	Willow sp.	1	33	33	F	F	F		CPR Property	2	2.4	Remove	crack up trunk, v at 3 m, dead branches	Tree is within limits of proposed multi-use trail alignment. Significant impact to critical roots and stability and likely to cause irreversible decline
S19	Salix sp.	Willow sp.	1	23	23	G	G	G		CPR Property	-	1.8	Remove	dead branches	Tree is within limits of proposed multi-use trail alignment. Significant impact to critical roots and stability and likely to cause irreversible decline
S20	Acer negundo	Manitoba Maple	1	21	21	G	F	G		CPR Property	-	1.8	Retain		
S21	Acer negundo	Manitoba Maple	1	17	17	F	G	G		CPR Property	-	1.8	Remove	curved trunk, debris at base, abundant wild grape	Tree is within limits of proposed multi-use trail alignment. Significant impact to critical roots and stability and likely to cause irreversible decline
S22	Acer negundo	Manitoba Maple	1	21	21	F	F	G		CPR Property	-	1.8	Retain		
S23	Ulmus pumila	Siberian Elm	1	22	22	F	F	G		CPR Property	-	1.8	Remove	v at 3.5 m, exposed roots	Tree is within limits of proposed multi-use trail alignment. Significant impact to critical roots and stability and likely to cause irreversible decline
S24	Juglans nigra	Black Walnut	1	14	14	G	G	F		CPR Property	-	3	Retain	debris at base	
S25	Salix sp.	Willow sp.	2	31,37	48	F	F	G		CPR Property	2	1.8	Remove	v at 1.5 m	Tree is within limits of proposed multi-use trail alignment. Significant impact to critical roots and stability and likely to cause irreversible decline
S26	Salix sp.	Willow sp.	1	25	25	F	F	F		CPR Property	-	2.4	Preserve	dead branches, slight lean	Tree can be fully protected

Appendix A: Tree Inventory and Preservation Charts

Project: Agincourt EA		Field Work Completed By:				Carlene Perkin & Carly Van Daele (Section A); Leanne Wallis & Tiffany Waters (Section B); Whitney Black & Shannon Ritchie (Section C)				Date(s) of Fieldwork: 5/4/2020, 5/6/2020, 5/7/2020 and 5/13/2020				Remark Legend:	
Tree Condition Assessment Criteria:						Tree Condition:								MS: Multistem LS: Lean showing direction G: Girdling EAB: Emerald Ash Borer ZL: 2 leaders or codominant stems SI: Soil impacts (backfilled or compacted soil) DB: dead branches (include %)	
T1 - Trunk integrity: assessment of the trunk for any defects or weaknesses.						Good (G): tree displays less than 15% deficiency/defect within the given tree assessment criteria (T1,CS,CV)						Dead (D): trees is dead			
CS - Canopy Structure: assessment of scaffold branches, unions and canopy						Fair (F): tree displays 15-40% deficiency/defect within the given tree assessment criteria (T1,CS,CV)									
CV - Canopy vigour: assessment of the health of the tree, based on the % of deadwood, disease, pests & live crown						Poor (P): tree displays greater than 40% deficiency/defect within the given tree assessment criteria (T1,CS,CV)									
Recommendation Legend:															
Location			Minimum TPZ reduction / Injury			Hazard trees									
Trees to be Retained			Minimum TPZ reduction / No Injury			Trees to be Removed			Trees to be Preserved						
Tree #	Botanical Name	Common Name	No.	DBH (cm)	Effective DBH	Tree Condition			Dripline Radius (m)	Tree Location / By-law	City of Toronto Category	Tree Protection Zone	Recommendation	Remarks	Tree Preservation / Impact Comments
						T1	CS	CV							
S27	Acer negundo	Manitoba Maple	2	33,20	39	P	F	F		CPR Property	2	3	Preserve	v at base, wound at base, nest	Tree can be fully protected
S28	Acer negundo	Manitoba Maple	2	37,24	44	P	F	F		CPR Property	2	3	Remove	lean, v at 1.5 m	Tree is within limits of proposed multi-use trail alignment. Significant impact to critical roots and stability and likely to cause irreversible decline
S29	Juglans nigra	Black Walnut	2	40,13	42	G	G	G		CPR Property	2	3	Injure		Within limits of proposed multi-use trail alignment. Minor encroachment into TPZ from grading / construction. Mitigate through root pruning
S30	Acer negundo	Manitoba Maple	3	10,13,13	21	F	F	F		CPR Property	-	1.8	Preserve	v at base	Tree can be fully protected
S31	Ulmus pumila	Siberian Elm	2	19,18	26	F	F	F		CPR Property	-	1.8	Preserve	v at base, dead branches	Tree can be fully protected
S32	Juglans nigra	Black Walnut	1	44	44	F	F	F		CPR Property	2	3	Retain	v at 3 m, dead branches	
S33	Acer negundo	Manitoba Maple	1	11	11	F	F	G		CPR Property	-	1.8	Preserve	slight lean	Tree can be fully protected
S34	Acer negundo	Manitoba Maple	3	18,5,5	19	F	F	F		CPR Property	-	1.8	Retain	v at base, wound at base	
S35	Acer negundo	Manitoba Maple	1	37	37	P	P	P		CPR Property	2	2.4	Retain	poor structures, dead branches	
S36	Juglans nigra	Black Walnut	1	12	12	G	G	G		CPR Property	-	1.8	Retain	Virginia creeper	
S37	Acer negundo	Manitoba Maple	4	12,13,8,15	25	P	P	P		CPR Property	-	1.8	Retain	poor structures, dead branches	
S38	Juglans nigra	Black Walnut	1	25	25	G	G	G		CPR Property	-	1.8	Retain		
S39	Juglans nigra	Black Walnut	1	10	10	G	G	G		CPR Property	-	1.8	Retain		
S40	Juglans nigra	Black Walnut	1	13	13	G	G	G		CPR Property	-	1.8	Retain		
S41	Juglans nigra	Black Walnut	1	14	14	F	F	G		CPR Property	-	1.8	Retain	epicormic shoots, slight lean, wild grape	
S42	Juglans nigra	Black Walnut	1	11	11	F	F	F		CPR Property	-	1.8	Retain	heavy lean, dead branches	
S43	Fraxinus americana	White Ash	1	23	23	F	F	F		CPR Property	-	1.8	Retain	EBA damage	
S44	Acer negundo	Manitoba Maple	2	8,6	10	F	F	F		CPR Property	-	1.8	Retain	lean, v at base	
S45	Acer negundo	Manitoba Maple	1	18	18	F	F	F		CPR Property	-	1.8	Retain	slight lean	
S46	Acer negundo	Manitoba Maple	1	11	11	F	F	F		CPR Property	-	1.8	Retain		
S47	Tilia americana	American Basswood	1	10	10	G	G	G		CPR Property	-	1.8	Retain		
S48	Acer negundo	Manitoba Maple	3	18,12,10	24	P	P	P		CPR Property	-	1.8	Retain	poor structure, dead branches	
S49	Acer negundo	Manitoba Maple	3	10,11,5	16	P	P	F		CPR Property	-	1.8	Retain	dead branches, growing horizontal	
S50	Juglans nigra	Black Walnut	1	23	23	G	G	G		CPR Property	-	1.8	Retain		
S51	Acer negundo	Manitoba Maple	1	43	43	F	F	G		CPR Property	2	3	Retain	growing horizontal, dead branches, broken branches, exposed roots	
S52	Juglans nigra	Black Walnut	1	16	16	G	G	G		CPR Property	-	1.8	Retain		
S53	Juglans nigra	Black Walnut	1	11	11	F	F	G		CPR Property	-	1.8	Retain	wild grape, curved branches	
S54	Acer negundo	Manitoba Maple	6	4,12,14,23,12,3	65	P	P	P		CPR Property	2	4.2	Retain	wound on main leader, growing horizontal, v at base	
S55	Acer negundo	Manitoba Maple	2	20,30	36	P	P	P		CPR Property	2	2.4	Retain	epicormic shoots, v at base	
S56	Acer negundo	Manitoba Maple	1	22	22	P	P	P		CPR Property	-	1.8	Retain	twisted and curved trunk, dead branches	
S57	Acer negundo	Manitoba Maple	1	42	42	P	P	P		CPR Property	2	3	Retain	leaning tree against trunk, dead branches	
S58	Acer negundo	Manitoba Maple	2	10,7	12	P	P	P		CPR Property	-	1.8	Retain	one dead limb	
S59	Juglans nigra	Black Walnut	1	11	11	G	G	G		CPR Property	-	1.8	Retain		
S60	Acer negundo	Manitoba Maple	2	15,17	23	F	P	F		CPR Property	-	1.8	Retain	v at base	
S61	Acer negundo	Manitoba Maple	1	96	96	P	P	P		CPR Property	2	6	Retain	wounds up trunk, many dead branches	
S62	Juglans nigra	Black Walnut	1	32	32	G	F	G		CPR Property	2	2.4	Retain	curved branches	
S63	Acer negundo	Manitoba Maple	1	46,31,28	62	F	F	F		CPR Property	2	4.2	Retain	wound at base, heavy lean, wild grape	
S64	Acer negundo	Manitoba Maple	1	10,12	16	F	F	F		CPR Property	-	1.8	Retain	growing in fence	
S65	Gleditsia triacanthos	Honey-locust	1	30,16	34	G	F	G		CPR Property	2	2.4	Retain	v at 1.5 m	
S66	Gleditsia triacanthos	Honey-locust	1	38	38	G	F	G		CPR Property	2	2.4	Retain	v at 3 m, curved branches	
S67	Acer negundo	Manitoba Maple	1	14,14,9	22	F	F	G		CPR Property	-	1.8	Preserve	multi stem base, epicormic shoots	Tree can be fully protected
S68	Juglans nigra	Black Walnut	1	21	21	F	G	G		CPR Property	-	1.8	Preserve	Virginia creeper, debris at base	Tree can be fully protected
S69	Acer negundo	Manitoba Maple	1	13,2,3	13	F	F	F		CPR Property	-	1.8	Preserve	multi stem base, dead branches	Tree can be fully protected
S70	Malus sp.	Apple sp.	1	11,12,13,8	22	F	F	F		CPR Property	-	1.8	Remove	multi stem at base, curved branches	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S71	Tilia americana	American Basswood	1	8,9,37,36,51	74	F	F	G		Private	2	4.8	Preserve	curved branches	Tree can be fully protected
S72	Picea pungens	Blue Spruce	1	39	39	F	G	G		Private	2	2.4	Preserve	slight lean	Tree can be fully protected
S73	Pinus nigra	Black Pine	1	31	31	G	G	G		Private	2	2.4	Retain		
S74	Pinus nigra	Black Pine	1	29	29	F	F	F		Private	-	1.8	Retain	curved	
S75	Pinus nigra	Black Pine	1	44	44	G	G	G		Private	2	3	Retain		
S76	Picea pungens	Blue Spruce	1	42	42	G	G	G		Private	2	3	Retain		
S77	Picea pungens	Blue Spruce	1	28	28	G	G	G		Private	-	1.8	Retain		
S78	Acer platanoides	Norway Maple	1	23	23	F	G	G		Private	-	1.8	Remove	crack on trunk	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree

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Project: Agincourt EA		Field Work Completed By:		Carlene Perkin & Carly Van Daele (Section A); Leanne Wallis & Tiffany Waters (Section B); Whitney Black & Shannon Ritchie (Section C)		Date(s) of Fieldwork:		5/4/2020, 5/6/2020, 5/7/2020 and 5/13/2020		Remark Legend:					
Tree Condition Assessment Criteria:						Tree Condition:						MS: Multistem LS: Lean showing direction G: Girdling EAB: Emerald Ash Borer ZL: 2 leaders or codominant stems SI: Soil impacts (backfilled or compacted soil) DB: dead branches (include %)			
TI - Trunk Integrity: assessment of the trunk for any defects or weaknesses.						Good (G): tree displays less than 15% deficiency/defect within the given tree assessment criteria (TI,CS,CV)						Dead (D): trees is dead			
CS - Canopy Structure: assessment of scaffold branches, unions and canopy						Fair (F): tree displays 15-40% deficiency/defect within the given tree assessment criteria (TI,CS,CV)									
CV - Canopy vigour: assessment of the health of the tree, based on the % of deadwood, disease, pests & live crown						Poor (P): tree displays greater than 40% deficiency/defect within the given tree assessment criteria (TI,CS,CV)									
Recommendation Legend:															
Location		Minimum TPZ reduction / Injury		Hazard trees		Trees to be Preserved									
Trees to be Retained		Minimum TPZ reduction / No Injury		Trees to be Removed											
Tree #	Botanical Name	Common Name	No.	DBH (cm)	Effective DBH	Tree Condition			Drip-line Radius (m)	Tree Location / By-law	City of Toronto Category	Tree Protection Zone	Recommendation	Remarks	Tree Preservation / Impact Comments
						TI	CS	CV							
S79	Acer platanoides	Norway Maple	1	19	19	G	G	G		Private	-	1.8	Retain	dead branches	
S80	Acer platanoides	Norway Maple	1	19	19	F	F	G		Private	-	1.8	Remove	crack, curved branches	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S81	Ulmus pumila	Siberian Elm	1	6,15,4,15,19,20	39	P	F	F		Private	2	2.4	Remove	wound on trunk, dead branches, broken branches, multi stem at base	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S82	Acer platanoides	Norway Maple	1	33	33	F	F	F		Private	2	2.4	Remove	pruned, exposed at roots	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S83	Acer platanoides	Norway Maple	1	26	26	G	G	G		Private	-	1.8	Remove	girdling roots	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S84	Acer platanoides	Norway Maple	1	44	44	F	F	F		Private	2	3	Injure	dead branches	Within limits of proposed north / south road. Minor encroachment into TPZ from grading / construction. Mitigate through root pruning
S85	Acer platanoides	Norway Maple	1	48	48	G	G	G		Private	2/2020	3	Injure	exposed roots	Within limits of proposed north / south road. Minor encroachment into TPZ from grading / construction. Mitigate through root pruning
S86	Betula papyrifera	Paper Birch	1	13,16	21	F	F	G		Private	-	1.8	Remove	v at base, included brank, curved branches	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S87	Malus sp.	Apple sp.	1	40	40	F	F	F		Private	2	2.4	Retain	exposed roots, curved branches	
S88	Acer platanoides	Norway Maple	1	46	46	F	F	F		Private	2	3	Remove	girdling roots	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S89	Tilia americana	American Basswood	1	15	15	F	F	F		Private	-	1.8	Remove	exposed roots	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S90	Juniperus virginiana	Eastern Red Cedar	1	13	13	F	F	F		Private	-	1.8	Remove		Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S91	Acer negundo	Manitoba Maple	1	36	36	F	F	F		Private	2	2.4	Remove	exposed curved branches, dead branches	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S92	Acer negundo	Manitoba Maple	1	33	33	F	F	G		Private	2	2.4	Remove	frost crack, dead branches	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S93	Acer negundo	Manitoba Maple	1	28	28	F	F	G		Private	-	1.8	Remove	exposed roots, gridling roots, frost crack	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S94	Acer negundo	Manitoba Maple	1	34	34	F	G	G		Private	2	2.4	Remove	frost crack	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S95	Gleditsia triacanthos	Honey-locust	1	26	26	G	G	G		Private	-	1.8	Retain		
S96	Gleditsia triacanthos	Honey-locust	1	36	36	F	F	G		Private	2	2.4	Remove	exposed roots, v at 4 m	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S97	Gleditsia triacanthos	Honey-locust	1	24	24	G	G	G		Private	-	1.8	Remove		Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S98	Syringa sp.	Lilac sp.	1	14	14	G	G	G		City	5	1.8	Remove		Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S99	Gleditsia triacanthos	Honey-locust	1	35	35	G	F	G		Private	2	2.4	Retain	5 m south, v at 5 m	
S100	Gleditsia triacanthos	Honey-locust	1	20	20	G	G	G		Private	-	1.8	Retain	5 m south	
S101	Gleditsia triacanthos	Honey-locust	1	20	20	G	F	F		Private	-	1.8	Retain	dead branches, 5 m south	
S102	Gleditsia triacanthos	Honey-locust	1	20	20	G	F	G		Private	-	1.8	Retain	dead branches, 5 m south	
S103	Gleditsia triacanthos	Honey-locust	1	25	25	G	G	G		Private	-	1.8	Retain	10 m south	
S104	Gleditsia triacanthos	Honey-locust	1	30	30	G	G	G		Private	2	2.4	Injure	7 m south	Within limits of proposed north / south road. Minor encroachment into TPZ from grading / construction. Mitigate through air-spade excavation
S105	Syringa sp.	Lilac sp.	1	13	13	F	G	G		City	5	1.8	Remove	trunk wound	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S106	Acer negundo	Manitoba Maple	1	83	83	G	G	G		Private	2	5.4	Retain		
S109	Gleditsia triacanthos	Honey-locust	1	12	12	F	F	F		Private	-	1.8	Retain	dead branches	
S110	Acer negundo	Manitoba Maple	1	22	22	G	G	G		Private	-	1.8	Preserve		Tree can be fully protected
S111	Acer negundo	Manitoba Maple	1	27	27	G	G	G		Private	-	1.8	Preserve	frost crack	Tree can be fully protected
S112	Acer negundo	Manitoba Maple	1	24	24	F	G	G		Private	-	1.8	Preserve	wound on trunk	Tree can be fully protected

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		Trees to be Retained				Minimum TPZ reduction / No Injury				Trees to be Removed				Trees to be Preserved	
Tree #	Botanical Name	Common Name	No.	DBH (cm)	Effective DBH	Tree Condition			Dripline Radius (m)	Tree Location / By-law	City of Toronto Category	Tree Protection Zone	Recommendation	Remarks	Tree Preservation / Impact Comments
						TI	CS	CV							
S113	Syringa sp.	Lilac sp.	1	10	10	F	F	F		City	5	1.8	Remove	multi stem at 2.5 m	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S114	Acer negundo	Manitoba Maple	1	27	27	F	F	G		Private	-	1.8	Preserve	wound on trunk	Tree can be fully protected
S115	Syringa sp.	Lilac sp.	1	11	11	F	G	G		City	5	1.8	Remove		Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S118	Gleditsia triacanthos	Honey-locust	1	10	10	F	F	F		Private	-	1.8	Retain		
S119	Acer negundo	Manitoba Maple	1	26	26	G	G	G		Private	-	1.8	Injure	dead branches	Within limits of proposed north / south road. Minor encroachment into TPZ from grading / construction. Mitigate through air-spade excavation
S120	Acer negundo	Manitoba Maple	1	19	19	F	F	F		Private	-	1.8	Retain		
S121	Acer negundo	Manitoba Maple	1	25	25	G	G	G		Private	-	1.8	Preserve		Tree can be fully protected
S122	Acer negundo	Manitoba Maple	1	11	11	F	F	F		Private	-	1.8	Retain	dead branches, broken branches	
S123	Acer negundo	Manitoba Maple	1	31	31	F	F	F		Private	2	2.4	Preserve	frost crack	Tree can be fully protected
S124	Acer negundo	Manitoba Maple	1	16	16	F	F	G		Private	-	1.8	Retain	epicormic shoots, slight lean	
S145	Ulmus pumila	Siberian Elm	1	21	21	F	G	G		Private	-	1.8	Retain	pruned, epicormic shoots, beside planted Acer sp. < 3 cm DBH	
S146	Crataegus sp.	Hawthorn sp.	1	13	13	P	F	G		Private	-	1.8	Retain	Lean, epicormic shoots, pruned with poor compartmentalization	
S147	Pinus nigra	Black Pine	4	14,14,14,4	25	P	F	G		Private	-	1.8	Retain	pruned with poor compartmentalization, dead branches	
S148	Gleditsia triacanthos	Honey-locust	1	51	51	G	G	G		Private	2	3.6	Retain		
S149	Ulmus pumila	Siberian Elm	1	39	39	G	G	G		Private	2	2.4	Retain		
S150	Acer negundo	Manitoba Maple	1	16	16	G	G	G		Private	-	1.8	Remove	beside Juniper sp. < 10 cm	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S151	Tilia cordata	Little-leaf Linden	2	35,14	37	P	G	G		CPR Property	2	2.4	Remove	multi stem at base	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 50% of TPZ and impact entire tree
S152	Acer negundo	Manitoba Maple	4	30,25,10,10	42	F	F	G		CPR Property	2	3	Preserve	surrounded by saplings of the same species	Tree can be fully protected
S153	Acer negundo	Manitoba Maple	1	21	21	F	P	F		CPR Property	-	1.8	Retain	arched limbs, within Honeysuckle bushes	
S154	Acer negundo	Manitoba Maple	1	15	15	P	P	F		CPR Property	-	1.8	Retain	heavy lean, many dead branches	
S155	Acer negundo	Manitoba Maple	1	15	15	P	P	F		CPR Property	-	1.8	Retain	split in trunk with poor compartmentalization, heavy lean	
S156	Acer negundo	Manitoba Maple	2	25,30	39	F	F	G		CPR Property	2	2.4	Retain	lean, split in trunk with good compartmentalization	
S157	Acer negundo	Manitoba Maple	1	13	13	P	P	G		CPR Property	-	1.8	Retain	lean, dead branches	
S158	Acer negundo	Manitoba Maple	2	13,9	16	P	P	F		CPR Property	-	1.8	Retain	heavy lean, many dead branches	
S159	Juglans nigra	Black Walnut	1	17	17	F	G	G		CPR Property	-	1.8	Retain	kink in trunk, among honeysuckle shrubs	
S160	Acer negundo	Manitoba Maple	1	13	13	P	F	G		CPR Property	-	1.8	Retain	among 7 Manitoba Maples < 10 cm DBH	
S161	Acer negundo	Manitoba Maple	2	20,23	30	P	F	G		CPR Property	2	2.4	Retain	dead branches	
S162	Acer negundo	Manitoba Maple	1	30	30	P	F	G		CPR Property	2	2.4	Retain	heavy lean	
S163	Acer negundo	Manitoba Maple	1	11	11	P	F	G		CPR Property	-	1.8	Retain	heavy lean	
S164	Acer negundo	Manitoba Maple	1	24	24	P	F	G		CPR Property	-	1.8	Retain	heavy lean	
S165	Acer negundo	Manitoba Maple	6	18,20,15,10,10	35	P	P	F		CPR Property	2	2.4	Retain	many broken branches	
S166	Acer negundo	Manitoba Maple	1	11	11	F	G	G		CPR Property	-	1.8	Retain	slight lean	
S277	Acer negundo	Manitoba Maple	1	12	12	F	F	F		CPR Property	-	1.8	Preserve	dead branches, slight lean	Tree can be fully protected
S278	Acer negundo	Manitoba Maple	1	21	21	F	F	F		CPR Property	-	1.8	Remove	v at 3 m, slight lean	Tree is within limits of proposed multi-use trail alignment. Significant impact to critical roots and stability and likely to cause irreversible decline
S279	Acer negundo	Manitoba Maple	1	14	14	G	F	G		Private	-	1.8	Remove	slight lean	Tree is within limits of proposed multi-use trail alignment. Significant impact to critical roots and stability and likely to cause irreversible decline
S280	Acer negundo	Manitoba Maple	1	10	10	G	G	G		CPR Property	-	1.8	Remove	curved branches	Tree is within limits of proposed multi-use trail alignment. Significant impact to critical roots and stability and likely to cause irreversible decline
S281	Acer negundo	Manitoba Maple	1	11,14	18	F	F	F		CPR Property	-	1.8	Retain	dead branches	
S282	Acer negundo	Manitoba Maple	1	20,18	27	F	F	F		CPR Property	-	1.8	Retain	virginia creeper	
S283	Juglans nigra	Black Walnut	1	18	18	F	G	G		CPR Property	-	1.8	Retain	wild grape competition, v at 10 m	
S284	Acer negundo	Manitoba Maple	1	13,14	19	F	F	G		CPR Property	-	1.8	Retain	v at 1.5m	
S285	Acer negundo	Manitoba Maple	1	17,17	24	F	F	F		Private	-	1.8	Retain	v at 2 m	
S286	Acer negundo	Manitoba Maple	1	11	11	F	F	F		CPR Property	-	1.8	Retain		
S287	Salix sp.	Willow sp.	1	25,30,20	41	P	P	P		CPR Property	2	3	Retain	multi at base dead branches, broken branches	
S288	Acer negundo	Manitoba Maple	1	12,10	18	F	F	F		Private	-	1.8	Retain	v at 2.5m	

Appendix A: Tree Inventory and Preservation Charts

Project: Agincourt EA		Field Work Completed By:		Carlene Perkin & Carly Van Daele (Section A); Leanne Wallis & Tiffany Waters (Section B); Whitney Black & Shannon Ritchie (Section C)		Date(s) of Fieldwork:		5/4/2020, 5/6/2020, 5/7/2020 and 5/13/2020		Remark Legend:					
Tree Condition Assessment Criteria:						Tree Condition:				MS: Multistem					
TI - Trunk Integrity: assessment of the trunk for any defects or weaknesses.						Good (G): tree displays less than 15% deficiency/defect within the given tree assessment criteria (TI,CS,CV)				Dead (D): trees is dead		LS: Lean showing direction			
CS - Canopy Structure: assessment of scaffold branches, unions and canopy						Fair (F): tree displays 15-40% deficiency/defect within the given tree assessment criteria (TI,CS,CV)						G: Girdling			
CV - Canopy vigour: assessment of the health of the tree, based on the % of deadwood, disease, pests & live crown						Poor (P): tree displays greater than 40% deficiency/defect within the given tree assessment criteria (TI,CS,CV)						EAB: Emerald Ash Borer			
Recommendation Legend:										ZL: 2 leaders or codominant stems					
		Location		Minimum TPZ reduction / Injury		Hazard trees				SI: Soil impacts (backfilled or compacted soil)					
		Trees to be Retained		Minimum TPZ reduction / No Injury		Trees to be Removed				DB: dead branches (include %)					
Tree #	Botanical Name	Common Name	No.	DBH (cm)	Effective DBH	Tree Condition			Dripline Radius (m)	Tree Location / By-law	City of Toronto Category	Tree Protection Zone	Recommendation	Remarks	Tree Preservation / Impact Comments
						TI	CS	CV							
S289	Acer negundo	Manitoba Maple	1	12,25	28	F	F	G		Private	-	1.8	Retain		
S290	Acer negundo	Manitoba Maple	1	20,17	26	F	F	F		CPR Property	-	1.8	Retain	v at 0.5m, wild grape competition	
S291	Acer negundo	Manitoba Maple	1	51,14	53	P	F	F		CPR Property	2	3.6	Retain	one branch horizontal	
S292	Acer negundo	Manitoba Maple	1	20,24,17,13,21	43	P	P	F		CPR Property	2	3	Retain	multi at base, wild grape competition	
S293	Acer negundo	Manitoba Maple	1	14,11,5,9	21	P	F	F		CPR Property	-	1.8	Retain	multi at base, wild grape competition, dead branches, broken branches	
S294	Salix sp.	Willow sp.	1	40,29	49	P	F	F		CPR Property	2	3	Retain	v at 1.5m, broken branches, dead branches	
S295	Acer negundo	Manitoba Maple	1	25	25	F	F	F		Private	-	1.8	Retain	slight lean, exposed roots, wild grape	
S296	Acer negundo	Manitoba Maple	1	16,16	23	P	F	F		CPR Property	-	1.8	Retain	clean lean, v at base, wild grape, nest, dead branches	
S297	Acer negundo	Manitoba Maple	1	6,8,22	24	P	F	F		CPR Property	-	1.8	Retain	lean	
S298	Salix sp.	Willow sp.	1	12,20,25	34	P	P	P		CPR Property	2	2.4	Retain	multi at base, dead branches, broken branches	
S299	Acer negundo	Manitoba Maple	1	26,24	35	F	F	F		CPR Property	2	2.4	Retain	slight lean, exposed roots	
S300	Acer negundo	Manitoba Maple	1	10,22	24	P	P	F		CPR Property	-	1.8	Retain	broken branches, dead branches, wounds up trunk, curve	
S301	Acer negundo	Manitoba Maple	1	15,19	24	P	F	F		CPR Property	-	1.8	Retain	wild grape, dead branches	
S302	Acer negundo	Manitoba Maple	1	21	21	G	G	G		CPR Property	-	1.8	Retain		
S303	Acer negundo	Manitoba Maple	1	12,19,23,21,19	43	P	P	P		CPR Property	2	3	Retain	multi at base	
S304	Acer negundo	Manitoba Maple	1	16,12,11,8,18	30	P	P	P		CPR Property	2	2.4	Retain	dead branches, leaning, multi at base	
S305	Juglans nigra	Black Walnut	1	11	11	G	G	G		CPR Property	-	1.8	Retain		
S306	Quercus rubra	Northern Red Oak	1	21,35	41	P	P	P		CPR Property	2	2.4	Retain	exposed roots, multi at base, curved	
S307	Populus tremuloides	Trembling Aspen	1	12	12	F	F	G		CPR Property	-	1.8	Retain	slight lean	
S308	Acer negundo	Manitoba Maple	1	32	32	F	F	F		CPR Property	2	2.4	Retain	slight lean, exposed roots	
S309	Populus tremuloides	Trembling Aspen	1	17	17	F	G	G		CPR Property	-	1.8	Retain	curved top	
S310	Populus tremuloides	Trembling Aspen	1	24	24	G	G	G		CPR Property	-	1.8	Retain		
S311	Populus tremuloides	Trembling Aspen	1	17	17	G	G	G		CPR Property	-	1.8	Retain		
S312	Populus tremuloides	Trembling Aspen	1	12	12	G	G	G		CPR Property	-	1.8	Retain		
S313	Populus tremuloides	Trembling Aspen	1	16	16	G	G	G		CPR Property	-	1.8	Retain		
S314	Acer negundo	Manitoba Maple	1	11,8	14	P	P	P		CPR Property	-	1.8	Retain	dead branches, v at 1.5m	
S315	Populus tremuloides	Trembling Aspen	1	11	11	F	F	F		CPR Property	-	1.8	Retain	curved leader	
S316	Populus tremuloides	Trembling Aspen	1	27	27	G	G	G		CPR Property	-	1.8	Retain		
S317	Acer negundo	Manitoba Maple	1	11,12	16	F	G	G		CPR Property	-	1.8	Retain	multi at 1m	
S318	Acer negundo	Manitoba Maple	1	25	25	G	G	G		CPR Property	-	1.8	Retain		
S319	Populus tremuloides	Trembling Aspen	1	21	21	G	G	G		CPR Property	-	1.8	Retain		
S320	Populus tremuloides	Trembling Aspen	1	22	22	G	G	G		CPR Property	-	1.8	Retain	7m south	
S321	Populus tremuloides	Trembling Aspen	1	18	18	G	G	G		CPR Property	-	1.8	Retain	7m south	
S322	Populus tremuloides	Trembling Aspen	1	18	18	F	G	G		CPR Property	-	1.8	Retain	wounds on trunk	
S323	Populus tremuloides	Trembling Aspen	1	10	10	G	G	G		CPR Property	-	1.8	Retain		
S324	Populus tremuloides	Trembling Aspen	1	19	19	G	G	G		CPR Property	-	1.8	Retain		
S325	Populus tremuloides	Trembling Aspen	1	11	11	F	G	F		CPR Property	-	1.8	Retain	slight lean	
S326	Populus tremuloides	Trembling Aspen	1	12	12	F	F	F		CPR Property	-	1.8	Retain	wounds on trunk, dead branches	
S327	Populus tremuloides	Trembling Aspen	1	13	13	G	G	G		CPR Property	-	1.8	Retain		
S328	Populus tremuloides	Trembling Aspen	1	21	21	G	G	G		CPR Property	-	1.8	Retain		
S329	Acer negundo	Manitoba Maple	1	11	11	F	F	F		CPR Property	-	1.8	Retain	slight lean, shoots	
S330	Populus tremuloides	Trembling Aspen	1	25	25	G	G	G		CPR Property	-	1.8	Retain	wild grape competition	
S331	Populus tremuloides	Trembling Aspen	1	14	14	F	F	F		CPR Property	-	1.8	Retain	curved branches	
S332	Populus tremuloides	Trembling Aspen	1	20	20	F	F	G		CPR Property	-	1.8	Retain		
S333	Populus tremuloides	Trembling Aspen	1	11	11	P	P	P		CPR Property	-	1.8	Retain	broken top	
S334	Populus tremuloides	Trembling Aspen	1	20	20	F	F	F		CPR Property	-	1.8	Retain	dead branches, debris at base	
S335	Populus tremuloides	Trembling Aspen	1	12	12	G	G	G		CPR Property	-	1.8	Retain	debris at base	
S336	Acer negundo	Manitoba Maple	1	11	11	F	F	F		CPR Property	-	1.8	Retain	slight lean	
S337	Populus tremuloides	Trembling Aspen	1	17	17	G	G	G		CPR Property	-	1.8	Retain		
S338	Populus tremuloides	Trembling Aspen	1	20	20	G	G	G		CPR Property	-	1.8	Retain	wild grape, debris at base	
S339	Populus tremuloides	Trembling Aspen	1	23	23	F	G	G		CPR Property	-	1.8	Retain	curved top	
S340	Acer negundo	Manitoba Maple	1	16,30,22	40	P	F	F		CPR Property	2	2.4	Retain	wild grape, lean, multi at base	
S341	Acer negundo	Manitoba Maple	1	29,28,30,8	51	P	P	P		CPR Property	2	3	Retain	exposed roots, multi at base	
S342	Acer negundo	Manitoba Maple	1	28	28	P	F	F		CPR Property	-	1.8	Retain	epicormic shoots, slight lean	
S343	Acer negundo	Manitoba Maple	1	21,10	23	P	P	P		CPR Property	-	1.8	Preserve	dead main leader	Tree can be fully protected

Appendix A: Tree Inventory and Preservation Charts

Project: Agincourt EA		Field Work Completed By:		Carlene Perkin & Carly Van Daele (Section A); Leanne Wallis & Tiffany Waters (Section B); Whitney Black & Shannon Ritchie (Section C)					Date(s) of Fieldwork: 5/4/2020, 5/6/2020, 5/7/2020 and 5/13/2020			Remark Legend:			
Tree Condition Assessment Criteria:					Tree Condition:								MS: Multistem LS: Lean showing direction G: Girdling EAB: Emerald Ash Borer 2L: 2 leaders or codominant stems SI: Soil impacts (backfilled or compacted soil) DB: dead branches (include %)		
TI - Trunk Integrity: assessment of the trunk for any defects or weaknesses.					Good (G): tree displays less than 15% deficiency/defect within the given tree assessment criteria (TI,CS,CV)					Dead (D): trees is dead					
CS - Canopy Structure: assessment of scaffold branches, unions and canopy					Fair (F): tree displays 15-40% deficiency/defect within the given tree assessment criteria (TI,CS,CV)										
CV - Canopy vigour: assessment of the health of the tree, based on the % of deadwood, disease, pests & live crown					Poor (P): tree displays greater than 40% deficiency/defect within the given tree assessment criteria (TI,CS,CV)										
Recommendation Legend:															
		Location				Minimum TPZ reduction / Injury				Hazard trees					
		Trees to be Retained				Minimum TPZ reduction / No Injury				Trees to be Removed		Trees to be Preserved			
Tree #	Botanical Name	Common Name	No.	DBH (cm)	Effective DBH	Tree Condition			DripLine Radius (m)	Tree Location / By-law	City of Toronto Category	Tree Protection Zone	Recommendation	Remarks	Tree Preservation / Impact Comments
						TI	CS	CV							
S344	Acer negundo	Manitoba Maple	1	22,16,15	31	F	F	F		CPR Property	2	2.4	Remove	multi at 1.5m	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S345	Acer negundo	Manitoba Maple	1	17,19	25	F	F	G		CPR Property	-	1.8	Remove	v at base	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S346	Acer negundo	Manitoba Maple	1	23,20	30	P	F	G		CPR Property	2	2.4	Remove	2m, curved branches	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S347	Acer negundo	Manitoba Maple	1	22	22	F	F	F		CPR Property	-	1.8	Remove	slight lean	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S348	Acer negundo	Manitoba Maple	1	19	19	G	G	G		CPR Property	-	1.8	Preserve		Tree can be fully protected
S349	Acer negundo	Manitoba Maple	2	16, 20	26	F	G	G		CPR Property	-	1.8	Retain	v at base	
S350	Acer negundo	Manitoba Maple	2	20, 15	25	F	G	G		CPR Property	-	1.8	Retain	v at 1.5m	
S351	Acer negundo	Manitoba Maple	2	14,6	15	F	F	F		CPR Property	-	1.8	Retain	multi at base, slight lean, dead branches	
S352	Acer negundo	Manitoba Maple	2	8,20	22	G	G	G		CPR Property	-	1.8	Retain	multi at base	
S353	Acer negundo	Manitoba Maple	2	10,16	19	F	F	F		CPR Property	-	1.8	Retain	leaning	
S354	Acer negundo	Manitoba Maple	1	13	13	F	G	G		CPR Property	-	1.8	Retain	slight lean	
S355	Acer negundo	Manitoba Maple	2	13,12	18	P	F	F		CPR Property	-	1.8	Retain	one dead branch, multi at base	
S356	Acer negundo	Manitoba Maple	2	12,15	19	F	G	G		CPR Property	-	1.8	Retain	wild grape competition	
S357	Acer negundo	Manitoba Maple	1	15	15	F	G	G		CPR Property	-	1.8	Retain	curved top	
S358	Acer negundo	Manitoba Maple	2	19,8	21	F	G	G		CPR Property	-	1.8	Retain	multi at base	
S359	Acer negundo	Manitoba Maple	2	8,6	10	P	F	F		CPR Property	-	1.8	Retain	wound at trunk, slight lean	
S360	Acer negundo	Manitoba Maple	1	10	10	G	G	G		CPR Property	-	1.8	Retain		
S361	Acer negundo	Manitoba Maple	2	15,11	19	F	F	F		CPR Property	-	1.8	Retain	multi at base, dead branches	
S369	Acer rubrum	Red Maple	4	16,20,8,5	27	F	G	G		CPR Property	-	#N/A	Retain	wounds on trunk, dead branches	
S370	Acer rubrum	Red Maple	3	10,11,8	17	F	G	G		CPR Property	-	#N/A	Retain	included bark	
S371	Acer rubrum	Red Maple	2	14,7	16	P	P	P		CPR Property	-	#N/A	Retain	wounds on trunk, dead branches	
S372	Pinus nigra	Black Pine	1	33	33	G	G	G		CPR Property	2	#N/A	Retain		
S373	Pinus nigra	Black Pine	1	25	25	F	G	G		CPR Property	-	#N/A	Retain	v at 3.5m	
S374	Acer rubrum	Red Maple	1	12	12	F	F	F		CPR Property	-	#N/A	Retain	dead branches	
S375	Acer rubrum	Red Maple	1	12	12	F	F	F		CPR Property	-	#N/A	Retain	dead branches	
S376	Pinus nigra	Black Pine	1	30	30	G	G	G		CPR Property	2	#N/A	Retain		
S377	Pinus nigra	Black Pine	1	25	25	F	G	G		CPR Property	-	#N/A	Retain	2 m south, curved branches	
S378	Pinus nigra	Black Pine	1	30	30	G	G	G		CPR Property	2	#N/A	Retain	1 m south	
S379	Acer rubrum	Red Maple	1	10	10	G	G	G		CPR Property	-	#N/A	Retain		
S380	Acer rubrum	Red Maple	1	12	12	G	G	G		CPR Property	-	#N/A	Retain	one side no branches	
S381	Pinus nigra	Black Pine	1	25	25	G	G	G		CPR Property	-	#N/A	Retain	4 m south	
S382	Pinus nigra	Black Pine	1	30	30	P	P	P		CPR Property	2	#N/A	Retain	shedding bark	
S383	Pinus nigra	Black Pine	1	35	35	G	G	G		CPR Property	2	#N/A	Retain	2 m south	
S384	Pinus nigra	Black Pine	1	30	30	G	G	G		CPR Property	2	#N/A	Retain	3 m south	
S385	Pinus nigra	Black Pine	1	25	25	G	G	G		CPR Property	-	#N/A	Retain	1m south	
S386	Tilia cordata	Little-leaf Linden	1	13	13	F	G	G		CPR Property	-	#N/A	Retain		
S387	Acer rubrum	Red Maple	6	11,15,3,3,8,11	23	P	F	G		CPR Property	-	#N/A	Retain	multi at base	
S388	Acer rubrum	Red Maple	5	10,6,7,4,9	17	P	F	G		CPR Property	-	#N/A	Retain	wound at trunk, ulti at base	
S389	Acer rubrum	Red Maple	2	11,8	14	F	G	G		CPR Property	-	#N/A	Retain	v at base	
S390	Tilia cordata	Little-leaf Linden	1	38	38	F	F	F		CPR Property	2	#N/A	Retain		
S391	Acer negundo	Manitoba Maple	3	8,10,5	14	F	F	F		CPR Property	-	#N/A	Retain	multi base, wounds on trunks	
S392	Acer negundo	Manitoba Maple	5	22,35,10,17,16	49	P	P	P		Private	2	3	Retain	growing into fence, dead branches, wound trunk	
S393	Salix sp.	Willow sp.	5	18,24,14,21,24	46	P	P	P		Private	2	3	Remove	nest, epicormic shoots	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S394	Acer negundo	Manitoba Maple	2	10,57	58	F	P	P		Private	2	3.6	Remove	garbage in canopy	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S395	Ulmus pumila	Siberian Elm	6	5,24,10,9,24,20	42	P	P	P		Private	2	3	Remove	multi at base	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S396	Ulmus pumila	Siberian Elm	3	34,23,20	46	F	F	F		Private	2	3	Remove	dead branches	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree

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Project: Agincourt EA		Field Work Completed By: Carlene Perkin & Carly Van Daele (Section A); Leanne Wallis & Tiffany Waters (Section B); Whitney Black & Shannon Ritchie (Section C)				Date(s) of Fieldwork: 5/4/2020, 5/6/2020, 5/7/2020 and 5/13/2020				Remark Legend:					
Tree Condition Assessment Criteria:						Tree Condition:						MS: Multistem			
TI - Trunk Integrity: assessment of the trunk for any defects or weaknesses.						Good (G): tree displays less than 15% deficiency/defect within the given tree assessment criteria (TI,CS,CV)						Dead (D): trees is dead			
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CV - Canopy vigour: assessment of the health of the tree, based on the % of deadwood, disease, pests & live crown						Poor (P): tree displays greater than 40% deficiency/defect within the given tree assessment criteria (TI,CS,CV)						EAB: Emerald Ash Borer			
Recommendation Legend:												ZL: 2 leaders or codominant stems			
Location		Minimum TPZ reduction / Injury		Hazard trees								SI: Soil impacts (backfilled or compacted soil)			
Trees to be Retained		Minimum TPZ reduction / No Injury		Trees to be Removed		Trees to be Preserved						DB: dead branches (include %)			
Tree #	Botanical Name	Common Name	No.	DBH (cm)	Effective DBH	Tree Condition			Dripline Radius (m)	Tree Location / By-law	City of Toronto Category	Tree Protection Zone	Recommendation	Remarks	Tree Preservation / Impact Comments
						TI	CS	CV							
S397	Acer negundo	Manitoba Maple	3	21,4,5	22	P	P	P		Private	-	1.8	Remove	grown into fence	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S398	Ulmus pumila	Siberian Elm	1	37	37	F	F	F		Private	2	2.4	Preserve	wounds up trunk	Tree can be fully protected
S399	Ulmus pumila	Siberian Elm	2	10,8	13	P	P	P		Private	-	1.8	Preserve	main leader dead	Tree can be fully protected
S400	Ulmus pumila	Siberian Elm	6	11,9,6,15,18,10	30	P	P	P		Private	2	1.8	Preserve		Tree can be fully protected
S401	Elaeagnus angustifolia	Russian Olive	1	29,19	35	F	F	F		Private	2	2.4	Remove	multi at base	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S402	Acer negundo	Manitoba Maple	8	11,12,5,13,6,6,5,11	24	P	P	P		Private	-	1.8	Preserve	dead branches	Tree can be fully protected
S403	Acer negundo	Manitoba Maple	10	6,7,7,5,8,11,9,7,9,5	24	P	P	P		Private	-	1.8	Preserve	dead branches wounds on trunk	Tree can be fully protected
S404	Acer negundo	Manitoba Maple	1	8,13,4,4,7,13,6,8,8,5,13	29	P	P	P		Private	-	1.8	Remove	wounds on trunk, mutli at base, dead branches	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
T17		Deciduous sp.	1	<10		G	G	G		Private	-	1.2	Remove		Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
T18		Deciduous sp.	1	<10		G	G	G		Private	-	1.2	Remove		Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
T19		Deciduous sp.	1	<10		G	G	G		Private	-	1.2	Remove		Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
T20		Deciduous sp.	1	<10		G	G	G		Private	-	1.2	Remove		Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
T21	Picea sp.	Spruce sp.	1	<10		G	G	F		Private	-	1.2	Preserve		Tree can be fully protected
T22	Picea sp.	Spruce sp.	1	<10		G	G	F		Private	-	1.2	Retain		
T23	Picea sp.	Spruce sp.	1	<10		G	G	G		Private	-	1.2	Retain		
T24		Deciduous sp.	1	<10		G	G	G		Private	-	1.2	Retain		
T25		Deciduous sp.	1	<10		G	G	G		Private	-	1.2	Retain		
S405	Acer rubrum	Red Maple	1	7	7	G	G	G		Private	-	1.2	Remove	slight lean	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S406	Acer rubrum	Red Maple	1	6	6	G	G	G		Private	-	1.2		frost crack	Tree can be fully protected
S407	Acer rubrum	Red Maple	1	6	6	G	G	G		Private	-	1.2	Remove	wounds up trunk	Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S408	Quercus rubra	Northern Red Oak	1	10	10	G	G	G		Private	-	1.8	Remove		Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S409	Syringa sp	Lilac sp.	1	9	9	G	G	G		City	5	1.2	Remove		Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S410	Cercidiphyllum sp.	Katsura species	1	18	18	F	F	G		City	5	1.8	Retain		
S411	Cercidiphyllum sp.	Katsura species	1	18	18	F	F	G		City	5	1.8	Retain		
S412	Cercidiphyllum sp.	Katsura species	1	18	18	G	P	G		City	5	1.8	Retain		
S430	Ulmus sp.	Elm sp.	1	14	14	G	G	G		City	5	1.8	Retain	some pruning	
S431	Ulmus sp.	Elm sp.	1	12	12	G	G	G		City	5	1.8	Retain		
S432	Syringa sp.	Lilac sp.	1	6	6	G	G	G		City	5	1.2	Remove		Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S433	Ulmus pumila	Siberian Elm	1	8	8	G	G	G		Private	-	1.2	Retain	bird's nest	
S434	Acer rubrum	Red Maple	1	9	9	F	G	G		City	5	1.2	Retain	small wound at trunk base	
S435	Acer rubrum	Red Maple	1	9	9	G	G	G		City	5	1.2	Preserve		Tree can be fully protected
S436	Tilia sp.	Basswood sp.	1	7	7	G	G	G		Private	-	1.2	Preserve	slight bend in trunk	Tree can be fully protected
S437	Tilia sp.	Basswood sp.	1	5	5	G	G	G		City	5	1.2	Remove		Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S438	Tilia sp.	Basswood sp.	1	6	6	G	G	G		City	5	1.2	Remove		Tree is within limit of the proposed north/south road alignment. Proposed works will occur within 100% of TPZ and impact entire tree
S439	Gleditsia triacanthos	Honey-locust	1	5	5	G	G	G		Private	-	1.2	Preserve		Tree can be fully protected
S440	Gleditsia triacanthos	Honey-locust	1	6	6	G	G	G		Private	-	1.2	Preserve		Tree can be fully protected
S441	Gleditsia triacanthos	Honey-locust	1	6	6	G	G	G		City	5	1.2	Preserve		Tree can be fully protected
S442	Tilia sp.	Basswood sp.	1	6	6	G	G	G		City	5	1.2	Retain		

Appendix A: Tree Inventory and Preservation Charts

Project: Agincourt EA		Field Work Completed By:		Carlene Perkin & Carly Van Daele (Section A); Leanne Wallis & Tiffany Waters (Section B); Whitney Black & Shannon Ritchie (Section C)		Date(s) of Fieldwork:		5/4/2020, 5/6/2020, 5/7/2020 and 5/13/2020		Remark Legend:					
Tree Condition Assessment Criteria:						Tree Condition:						MS: Multistem			
TI - Trunk Integrity: assessment of the trunk for any defects or weaknesses.						Good (G): tree displays less than 15% deficiency/defect within the given tree assessment criteria (TI,CS,CV)						Dead (D): trees is dead		LS: Lean showing direction	
CS - Canopy Structure: assessment of scaffold branches, unions and canopy						Fair (F): tree displays 15-40% deficiency/defect within the given tree assessment criteria (TI,CS,CV)								G: Girdling	
CV - Canopy vigour: assessment of the health of the tree, based on the % of deadwood, disease, pests & live crown						Poor (P): tree displays greater than 40% deficiency/defect within the given tree assessment criteria (TI,CS,CV)								EAB: Emerald Ash Borer	
Recommendation Legend:												2L: 2 leaders or codominant stems			
Location				Minimum TPZ reduction / Injury		Hazard trees				Trees to be Preserved		SI: Soil impacts (backfilled or compacted soil)			
Trees to be Retained				Minimum TPZ reduction / No Injury		Trees to be Removed						DB: dead branches (include %)			
Tree #	Botanical Name	Common Name	No.	DBH (cm)	Effective DBH	Tree Condition			Dripline Radius (m)	Tree Location / By-law	City of Toronto Category	Tree Protection Zone	Recommendation	Remarks	Tree Preservation / Impact Comments
						TI	CS	CV							
S443	Tilia sp.	Basswood sp.	1	5	5	G	G	G		City	5	1.2	Retain		
S444	Picea sp.	Spruce sp.	1	10	10	G	G	G		Private	-	1.8	Retain		
S445	Picea sp.	Spruce sp.	1	10	10	G	G	G		Private	-	1.8	Retain		
S446	Picea sp.	Spruce sp.	1	10	10	G	G	G		City	5	1.8	Retain		
S447	Picea pungens	Blue Spruce	1	13	13	G	G	G		Private	-	1.8	Retain		
S448	Picea pungens	Blue Spruce	1	13	13	G	G	G		Private	-	1.8	Retain		
S449	Picea pungens	Blue Spruce	1	13	13	G	G	G		Private	-	1.8	Retain		
S450	Tilia sp.	Basswood sp.	3	8	8	G	G	G		Private	-	1.2	Retain		
S451	Cercidiphyllum japonicum	Katsura Tree	1	6	6	G	G	G		City	5	1.2	Retain		
S452	Cercidiphyllum japonicum	Katsura Tree	1	9	9	G	G	G		City	5	1.2	Retain		
S453	Cercidiphyllum japonicum	Katsura Tree	1	7	19	G	G	G		City	5	1.8	Retain		
S454	Cercidiphyllum japonicum	Katsura Tree	1	7	7	G	G	G		City	5	1.2	Retain		
S455	Cercidiphyllum japonicum	Katsura Tree	1	7	7	G	G	G		City	5	1.2	Preserve		Tree can be fully protected
S487	Acer rubrum	Red Maple	1	15	15	P	G	G		Private	-	1.8	Retain	crack in trunk, exposed roots with mower damage	
S488	Elaeagnus angustifolia	Russian Olive	1	22	22	P	P	F		Private	-	1.8	Retain	lean, stems pruned at base, some decay, exposed roots, pruned branches	
S489	Acer negundo	Manitoba Maple	3	20, 15, 9	27	P	P	G		Private	-	1.8	Retain	lean, multi at base, pruned	
S490	Elaeagnus angustifolia	Russian Olive	3	31, 17, 7	36	P	F	G		Private	2	2.4	Retain	lean, multi at base and 1 m, pruned, exposed damaged roots	
S491	Pinus nigra	Black Pine	1	28	28	G	G	G		Private	-	#N/A	Retain		20
S492	Pinus nigra	Black Pine	1	34	34	F	G	G		Private	2	#N/A	Retain	girdled trunk at 2 m	20
S493	Pinus nigra	Black Pine	1	36	36	G	G	G		Private	2	#N/A	Retain		<10
S494	Pinus nigra	Black Pine	1	29	29	F	G	G		Private	-	#N/A	Retain	girdled trunk and bulge at 2 m	20
S495	Pinus nigra	Black Pine	1	29	29	G	G	G		Private	-	#N/A	Retain		<10
S496	Picea glauca	White Spruce	1	6	6	G	G	G		Private	-	#N/A	Retain		<10
S497	Tilia sp.	Basswood sp.	1	35	35	F	G	G		Private	2	#N/A	Retain	bulge at 1 m, exposed roots	<10
S498	Tilia sp.	Basswood sp.	1	32	32	F	G	G		City	5	#N/A	Retain	epicormic shoots, exposed roots	<10
S499	Acer rubrum	Red Maple	1	15	15	G	G	G		City	5	#N/A	Retain		<10
S500	Elaeagnus angustifolia	Russian Olive	1	19	19	P	G	G		City	5	#N/A	Retain	lean, V at base	<10
S579	Quercus robur 'Fastigiata'	Pyramidal English Oak	1	9	9	G	G	G		City	5	1.2	Retain		
S580	Quercus robur 'Fastigiata'	Pyramidal English Oak	2	8, 4	9	G	G	G		City	5	1.2	Retain		
S581	Quercus robur 'Fastigiata'	Pyramidal English Oak	1	9	9	G	G	G		City	5	1.2	Retain		
TG001	Picea pungens	Blue Spruce	7	10	10	G	G	G		Private	-	1.8	Retain		
TG15	Acer negundo	Manitoba Maple	12	<10-20	20	G	G	G		Private	-	1.8	Remove		Trees are within limits of proposed multi-use trail alignment. Significant impact to critical roots and stability and likely to cause irreversible decline
	Ulmus pumila	Siberian Elm	8	<15-30	30	G	G	G		Private	2	2.4	Remove		Trees are within limits of proposed multi-use trail alignment. Significant impact to critical roots and stability and likely to cause irreversible decline
	Fraxinus americana	Dead White Ash	10	-	-	-	-	-		Private	-	-	Remove	dead ash	Trees are within limits of proposed multi-use trail alignment. Significant impact to critical roots and stability and likely to cause irreversible decline
Section C (South) - Metrogate Park															
P477	Quercus rubra	Northern Red Oak	1	10	10	G	G	G	1	Park	3	1.8	Retain		
P478	Quercus bicolor	Swamp White Oak	1	9	9	F	G	G	0.5	Park	3	1.2	Retain	Wound at base with poor compartmentalization	
P479	Quercus bicolor	Swamp White Oak	1	8	8	F	G	G	0.5	Park	3	1.2	Retain	Wound at base with poor compartmentalization	
P480	Acer rubrum	Red Maple	1	8	8	G	G	G	0.5	Park	3	1.2	Retain		
P481	Quercus bicolor	Swamp White Oak	1	9	9	G	G	G	0.5	Park	3	1.2	Retain	Exposed roots	
P482	Gleditsia triacanthos	Honey-locust	1	7	7	F	G	G	0.5	Park	3	1.2	Retain	Garbage bag in canopy, bulge at base	
P483	Gleditsia triacanthos	Honey-locust	1	7	7	F	G	G	0.5	Park	3	1.2	Retain	Garbage bag in canopy, bulge at base	
P484	Gleditsia triacanthos	Honey-locust	1	9	9	F	G	G	0.5	Park	3	1.2	Retain	Bulge at base	
P485	Gleditsia triacanthos	Honey-locust	1	6	6	F	G	G	0.5	Park	3	1.2	Retain	Exposed roots	
P486	Gleditsia triacanthos	Honey-locust	1	6	6	G	G	G	0.5	Park	3	1.2	Retain	Planted high above ground	
P487	Gleditsia triacanthos	Honey-locust	1	7	7	F	G	G	0.5	Park	3	1.2	Retain	Wounds on trunk	
P488	Tilia sp.	Basswood sp.	1	7	7	G	G	G	0.5	Park	3	1.2	Retain		
P489	Tilia sp.	Basswood sp.	1	6	6	F	G	G	0.5	Park	3	1.2	Retain	Planted high above ground	

Appendix A: Tree Inventory and Preservation Charts

Project: Agincourt EA		Field Work Completed By:				Carlene Perkin & Carly Van Daele (Section A); Leanne Wallis & Tiffany Waters (Section B); Whitney Black & Shannon Ritchie (Section C)				Date(s) of Fieldwork: 5/4/2020, 5/6/2020, 5/7/2020 and 5/13/2020				Remark Legend:			
Tree Condition Assessment Criteria:						Tree Condition:						MS: Multistem					
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CS - Canopy Structure: assessment of scaffold branches, unions and canopy						Fair (F): tree displays 15-40% deficiency/defect within the given tree assessment criteria (TI,CS,CV)									G: Girdling		
CV - Canopy vigour: assessment of the health of the tree, based on the % of deadwood, disease, pests & live crown						Poor (P): tree displays greater than 40% deficiency/defect within the given tree assessment criteria (TI,CS,CV)									EAB: Emerald Ash Borer		
Recommendation Legend:												ZL: 2 leaders or codominant stems					
Location				Minimum TPZ reduction / Injury				Hazard trees				Trees to be Preserved			SI: Soil impacts (backfilled or compacted soil)		
Trees to be Retained				Minimum TPZ reduction / No Injury				Trees to be Removed							DB: dead branches (include %)		
Tree #	Botanical Name	Common Name	No.	DBH (cm)	Effective DBH	Tree Condition			Dripline Radius (m)	Tree Location / By-law	City of Toronto Category	Tree Protection Zone	Recommendation	Remarks	Tree Preservation / Impact Comments		
						TI	CS	CV									
P490	Tilia sp.	Basswood sp.	1	7	7	F	G	G	0.5	Park	3	1.2	Retain	Wounds at base			
P491	Tilia sp.	Basswood sp.	1	7	7	F	G	G	0.5	Park	3	1.2	Retain	Wounds at base			
P492	Ulmus sp.	Elm sp.	1	8	8	F	G	G	0.5	Park	3	1.2	Retain	Wounds at base			
Section C (South) - Street trees adjacent to Metrogate Park																	
P521	Acer rubrum	Red Maple	1	10	10	G	G	G	1	City	5	1.8	Retain				
P522	Acer rubrum	Red Maple	1	11	11	G	G	G	1	City	5	1.8	Retain				
P523	Acer rubrum	Red Maple	1	11	11	G	G	G	1	City	5	1.8	Retain				
P524	Acer rubrum	Red Maple	1	10	10	G	G	G	1	City	5	1.8	Retain				
P525	Acer rubrum	Red Maple	1	12	12	G	G	G	1	City	5	1.8	Retain				
P526	Acer rubrum	Red Maple	1	10	10	G	G	G	1	City	5	1.8	Retain				
P527	Acer ginnala	Amur Maple	1	10,12	16	F	G	G	1.5	Private	-	1.8	Retain	Exposed roots			
256	Tilia sp.	Basswood sp.	1	11	11	G	G	G	1	City	5	1.8	Retain				
257	Tilia sp.	Basswood sp.	1	11	11	G	G	G	1	City	5	1.8	Retain				
258	Quercus rubra	Northern Red Oak	1	12	12	G	G	G	1	City	5	1.8	Retain				

APPENDIX

B

PHOTOS





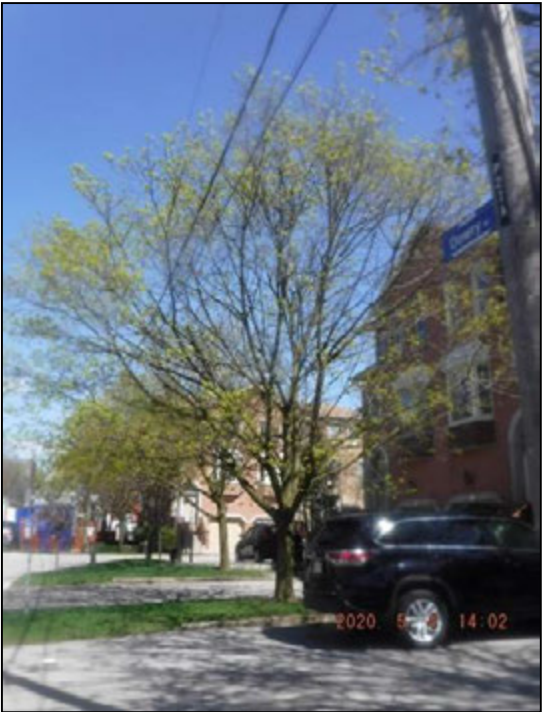
Section A (North Section). Cardwell Avenue.
May 4, 2020



Section A (North Section). Cardwell Avenue
(behind houses). May 4, 2020



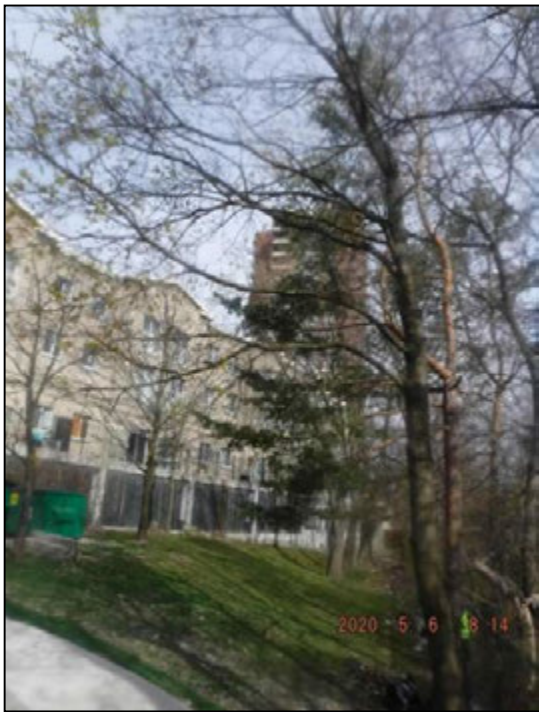
Section A (North Section). Reidmount Avenue.
May 4, 2020



Section A (North Section). Cardwell Avenue.
May 4, 2020



Section A (North Section). Kennedy Road, look-
ing north. May 6, 2020



Section A (North Section). Kennedy Road
(behind apartment building). May 6, 2020



Section A (North Section). Kennedy Road
(behind apartment building). May 6, 2020



Section A (North Section). Kennedy Road. May 6,
2020



Section A (North Section). Kennedy Road
(manicured grounds of apartment building).
May 6, 2020



Section A (North Section). Kennedy Road
(manicured grounds of an apartment building).
May 6, 2020



Section A (North Section). Kennedy Road
(manicured grounds of an apartment building).
May 6, 2020



Section A (North Section). Intersection of Ken-
nedy Road and Bonis Avenue, northwest cor-
ner. May 6, 2020



Section B (Central Section). Kennedy Road. May 6, 2020



Section B (Central Section). Kennedy Road. May 6, 2020



Section B (Central Section). Golden Avenue looking towards
Collingwood Street. May 6, 2020



Section B (Central Section). Sheppard Avenue East. May 6, 2020



AGINCOURT EA
TREE INVENTORY PHOTOGRAPHS

Date: June 2023
Project No: 19M-01888-00
Appendix B



Section B (Central Section). Collingwood Park. May 7, 2020



Section B (Central Section). Collingwood Park. May 7, 2020



Section B (Central Section). Collingwood Park. May 7, 2020



Section B (Central Section). Collingwood Park. May 7, 2020



Section C (South Section). CPR Right-of-way.
May 4, 2020



Section C (South Section). Cowdray Court. May
4, 2020



Section C (South Section). Cowdray Court. May
4, 2020



Section C (South Section). Cowdray Court. May
4, 2020

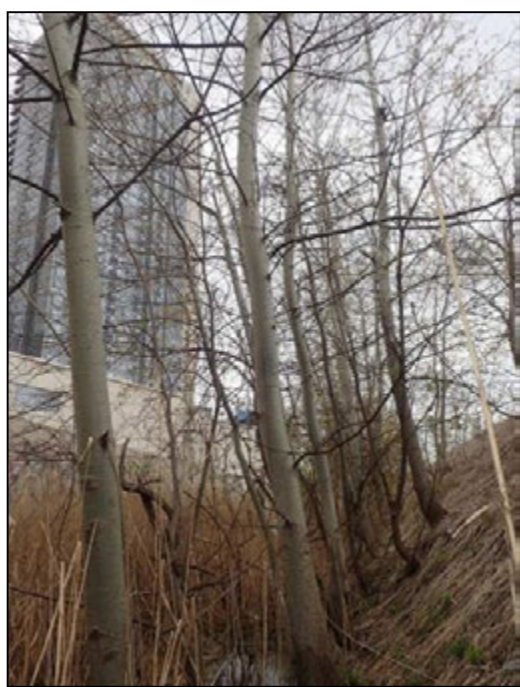


AGINCOURT EA
TREE INVENTORY PHOTOGRAPHS

Date: June 2023
Project No: 19M-01888-00
Appendix B



Section C (South Section). CPR Right-of-way.
May 7, 2020



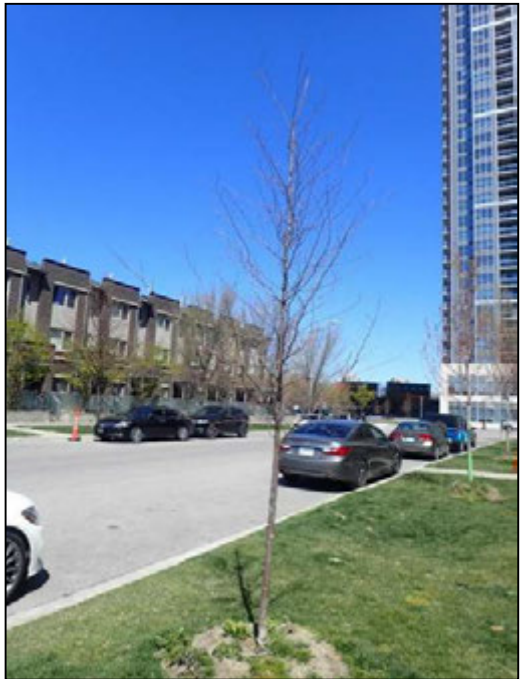
Section C (South Section). CPR Right-of-way.
May 7, 2020



Section C (South Section). Village Green
Square. May 7, 2020



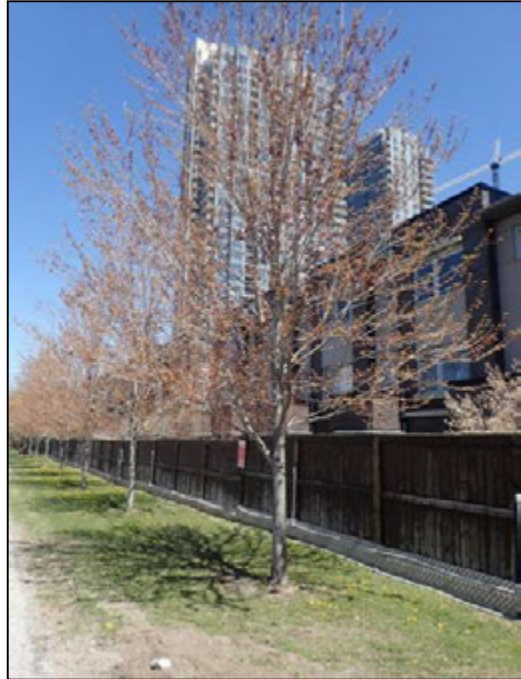
Section C (South Section). Village Green
Square. May 7, 2020



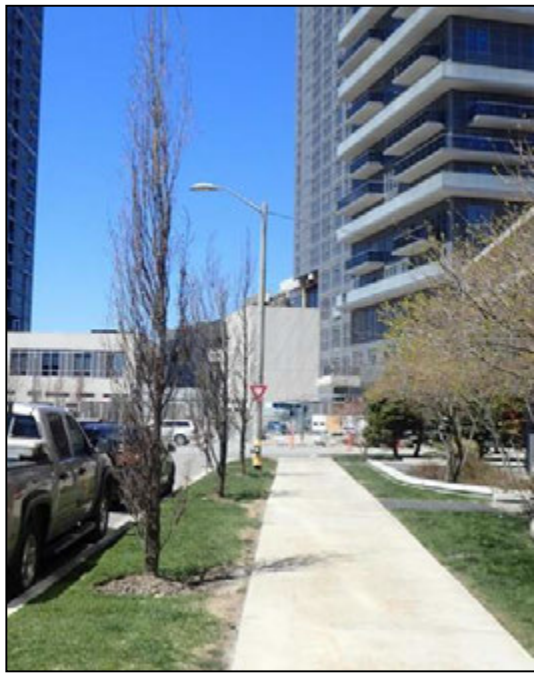
Section C (South Section). Village Green
Square. May 13, 2020



Section C (South Section). Village Green
Square. May 13, 2020



Section C (South Section). Village Green
Square. May 13, 2020



Section C (South Section). Village Green
Square. May 13, 2020



AGINCOURT EA
TREE INVENTORY PHOTOGRAPHS

Date: June 2023
Project No: 19M-01888-00
Appendix B

APPENDIX

C

TREE PRESERVATION
PLANS

GENERAL RECOMMENDATIONS:

- ### ROOT PRUNING PRACTICES:

1. SOIL EXCAVATION USING SUPERSONIC AIR TOOLS, PRESSURIZED WATER OR HAND TOOLS, FOLLOWED BY SELECTIVE ROOT CUTTING
2. CUTTING THROUGH THE SOIL ALONG A PREDETERMINED LINE ON THE SURFACE USING TOOL SPECIFICALLY DESIGNED TO CUT ROOTS
3. MECHANICALLY EXCAVATING (e.g. BACKHOE) THE SOIL AND PRUNING WHAT IS LEFT OF THE REMAINING ROOTS
4. CUTS TO BE MADE WITH HAND PRUNING SHEARS, BY-PASS BLADE, PRUNING SAW. DO NOT USE AX/ILY TYPE PRUNERS
5. AFTER ROOTS EXCAVATION, GRADING AND CONSTRUCTION HAVE COMPLETED SOIL WITHIN A REDUCED TYP. AT THE COMPLETION OF CONSTRUCTION, SCARIFY SOIL TO A DEPTH OF 100MM, RESTORE DISTURBED AREAS AS PER LANDSCAPE PLANS AND/OR NOTES ON TYP.
6. WATER TREES PERIODICALLY DURING CONSTRUCTION
7. AFTER CONSTRUCTION, ADD A 100MM DEPTH LAYER OF MULCH PLACE MULCH IN A 2M RADIUS AROUND THE TRUNKS OF THESE TREES.

BRANCH PRUNING PRACTICES:

- ## MINIMUM TREE PROTECTION HOARDING DISTANCES

THROUGHOUT THE STUDY AREA THERE ARE TREES ON CITY, PRIVATE, PARK AND RNP/ T RACS LANDS AND PROPERTY. SHOULD THE PROJECT PROCEED TO DETAILED DESIGN TREE PROTECTION FENCING TYPES SHOULD CONSIST OF THE FOLLOWING, BASED ON APPLICABLE BY-LAWS.

- 1.2m HIGH BOWND FENCE ATTACHED TO 2"x4" WOOD FRAME, INSTALLED WITHIN CITY'S ROAD ALLOWANCE.
- 1.2M HIGH SOLID BOARD FENCE ATTACHED TO 2"x4" WOOD FRAME. INSTALLED ON PRIVATE PROPERTY.
- 1.2M HIGH BOWND FENCE ATTACHED TO 2"x4" WOOD FRAME. INSTALLED ON RNP/ T RACS LANDS.
- 1.8m HIGH CHAIN LINK FENCE, BY FENCE FENCE INC. OR APPROVED EQUAL, INSTALLED OFFSET FROM LIMIT OF WORK FOR TREES IN RNP/ FENCE AREAS WHERE TERRAIN IS UNEVEN OR DIFFICULT TO INSTALL.

RECOMMENDATIONS www.burien.ca/67-1751-377

TREE REMOVALS / INJURY

- REFER TO APPENDIX A: TREE PRESERVATION TABLES INCLUDED IN ARBORIST REPORT FOR DETAILS ON INJURY AND REMOVALS.

ROOT AND BRANCH PRUNING

- IT IS LIKELY THAT SOME BRANCH PRUNING WILL BE NECESSARY WHERE EXISTING PRESERVED TREES ARE CLOSE TO SERVICE CONNECTION INSTALLATIONS. BRANCH PRUNING LOCATIONS ARE TO BE REVIEWED IN THE FIELD BY THE CONTRACT ADMINISTRATOR. THIS WORK IS TO BE CONDUCTED BY AN ISA CERTIFIED ARBORIST OR UNDER THE SUPERVISION OF ONE AND IN ACCORDANCE WITH THE GUIDELINES ON THIS SHEET.
- TREE ROOTS ARE LIKELY TO BE IMPACTED WHERE THERE WILL BE ENCROACHMENT INTO THE MINIMUM TREE PROTECTION ZONE. ROOTS ARE TO BE PRUNED BY A CERTIFIED ARBORIST OR UNDER THE SUPERVISION OF ONE AND IN ACCORDANCE WITH THE ROOT PRUNING GUIDELINES ON THIS SHEET.

TREE INJURY / REMOVAL POLICIES

TREE INJURY:
TREE INJURY AS DETAILED IN THE CITY OF TORONTO'S TREE BY-LAWS IS DEFINED AS "ANY ACT THAT WILL HARM A TREE'S HEALTH IN ANY MANNER, INCLUDING FAILURE TO PROTECT IN ACCORDANCE WITH STANDARDS SET BY THE GENERAL MANAGER." WHERE THIS OCCURS COMPENSATION FOR INJURY WILL BE REQUIRED FOR RNFP BY-LAW REGULATED TREES. NO COMPENSATION IS REQUIRED FOR PRIVATE, CITY OR PARK TREES, HOWEVER TREE INJURY WILL BE INCLUDED IN PERMIT APPLICATIONS.

TREE REMOVALS / MBCA COMPLIANCE
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 TO AUGUST 31**. SOME BIRDS MAY NEST BEFORE AND AFTER THIS PEAK BIRD NESTING SEASON DUE TO ANNUAL SEASONAL FLUCTUATIONS.

ARBORIST REPORT NOTES

- FOR A DETAILED DESCRIPTION OF TREE SPECIES, SIZE, CONDITION AND RECOMMENDATIONS REFER TO THE TREE PRESERVATION TABLES IN THE ARBORIST REPORT PREPARED BY WSP CANADA INC., DATED: FEBRUARY 8, 2023 AND REVISED: JUNE 1, 2023 AND NOVEMBER 10, 2023.
- REFER TO THE ARBORIST REPORT FOR SPECIFIC RECOMMENDATIONS, PROTECTIVE AND MITIGATION MEASURES.

TREE INJURY CRITERIA

- ENCROACHMENTS INTO THE TPZ

TREE REMOVAL CRITERIA

- ENCROACHMENTS THAT EXCEED 3 TIMES THE DIAMETER OF THE TRUNK

TREE PRESERVATION CRITERIA

- TREES WITHIN 6M OF THE PROPOSED WORKS WHERE THERE WILL BE NO ENCROACHMENT INTO THE TPZ

TREE RETENTION CRITERIA

- TREES BEYOND 6M OF THE PROPOSED WORKS

TPZ ENCROACHMENT MITIGATION MEASURES - AIR-SPADE EXCAVATION

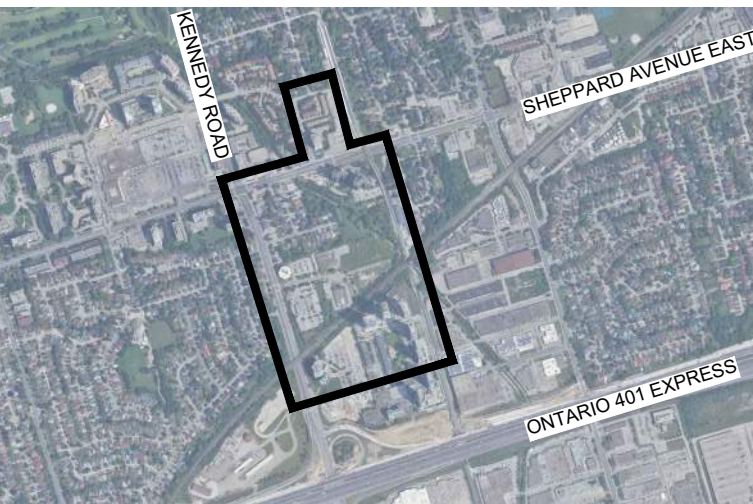
WHERE PROPOSED WORKS WILL ENCROACH INTO TREE PROTECTION ZONES, AIR-SPADE EXCAVATION IS RECOMMENDED. PRIOR TO EXCAVATION AND CONSTRUCTION THIS MEASURE IS RECOMMENDED TO BE APPLIED AT ALL TREES THAT HAVE BEEN IDENTIFIED TO BE 'INJURED', SPECIFICALLY: 27, 41, 48, 53, 63, 64, 65, 66, 73, 74, 76, 80, P189, S104, S119.

- AT THE END OF EXCAVATION, AIR-SPADE EXCAVATE TO A WIDTH OF 5m AND TO A DEPTH OF 300mm TO EXPOSE ROOTS SO THEY CAN BE PRUNED;
- AIR SPADE EXCAVATE ON THE OUTSIDE OF THE TREE PROTECTION HOARDING LINE;
- ENSURE THAT THE AIR/WATER PRESSURE USED IS SUCH THAT IT WILL NOT DAMAGE ROOTS DURING EXCAVATION;
- PRUNE ROOTS IN ACCORDANCE WITH NOTES THIS SHEET OR UNDER THE SUPERVISION OF A CERTIFIED ARBORIST
- TEMPORARILY BACKFILL WITH EXCAVATED MATERIAL UNTIL CONSTRUCTION COMMENCES, TO PROTECT ROOTS FROM DRYING OUT;
- WATER TREES PERIODICALLY DURING CONSTRUCTION;
- AT THE COMPLETION OF CONSTRUCTION, APPLY 50mm DEPTH SHROUDED BARK MULCH IN A MINIMUM OF 100mm AROUND THE TREE MAY VARY DEPENDING ON TREE LOCATION;
- IT IS RECOMMENDED THAT THIS MEASURE BE APPLIED WHILE A CERTIFIED ARBORIST IS PRESENT.

















KENNEDY RD.

MATCHLINE - REFER TO SHEET TP-2

KEY MAP



LEGEND:

- | | |
|---|--|
|  | REGIONAL FLOODLINE TRCA - WSP REVISID |
|  | REGIONAL FLOODLINE TRCA |
|  | RAVINE AND NATURAL FEATURE PROTECTION LIMIT (RNFP) |
|  | EXISTING INDIVIDUAL SURVEYED TREE |
|  | EXISTING SHRUBS |
|  | EXISTING INDIVIDUAL TREE (NOT SURVEYED) LOCATIONS ARE APPROXIMATE. |
|  | EXISTING TREE GROUPING |
|  | EXISTING TREE GROUPING TO BE REMOVED |
|  | EXISTING TREE LOCATION / ID (PER HANDHELD GPS) TO BE RETAINED |
|  | EXISTING TREE LOCATION / ID (PER HANDHELD GPS) TO BE PRESERVED |
|  | EXISTING TREE LOCATION / ID (PER HANDHELD GPS) WILL BE INJURED |
|  | EXISTING TREE LOCATION / ID (PER HANDHELD GPS) TO BE REMOVED |
|  | TREE PROTECTION ZONE |
|  | TREE PROTECTION HOARDING - SNOW FENCE FOR CITY TREES |
|  | TREE PROTECTION HOARDING - SOLID BOARD FENCE FOR PRIVATE TREES |
|  | TREE PROTECTION HOARDING - 1.8m HIGH |

1	ISSUED FOR FINAL EA SUBMISSION	PM	2023.11.10	-
No.	REVISIONS	BY	DATE	APP
ALL PREVIOUS ISSUES OF THIS DRAWING ARE SUPERSEDED				

CLIENT

CITY OF TORONTO

MUNICIPALITY


TORONTO

PROJECT TITLE
SOUTHWEST AGINCOURT MUNICIPAL CLASS
ENVIRONMENTAL ASSESSMENT STUDY

SHEET TITLE

TREE PRESERVATION
PLAN



CERTIFIED ARBORIST
**ISA**

PETER McNAMARA
ISA Certified Arborist
ON-1140A
Peter McNamara

DESIGNED	PM	DRAWN	PM	CHECKED	CB
SCALE			DATE		
1 : 750			JANUARY 2021		
DRAWING NUMBER			SHEET NUMBER		
19M-01888-00			TP-1		

LENAME: C:\Users\mcnamarop\WSP_0365\Thornhill LAUD - Documents\2021\19M-01888-00 SW Agincourt EA\30_Drawings\TP1 to TPXX... TREE PRESERVATION PLANS & DETAILS.dwg

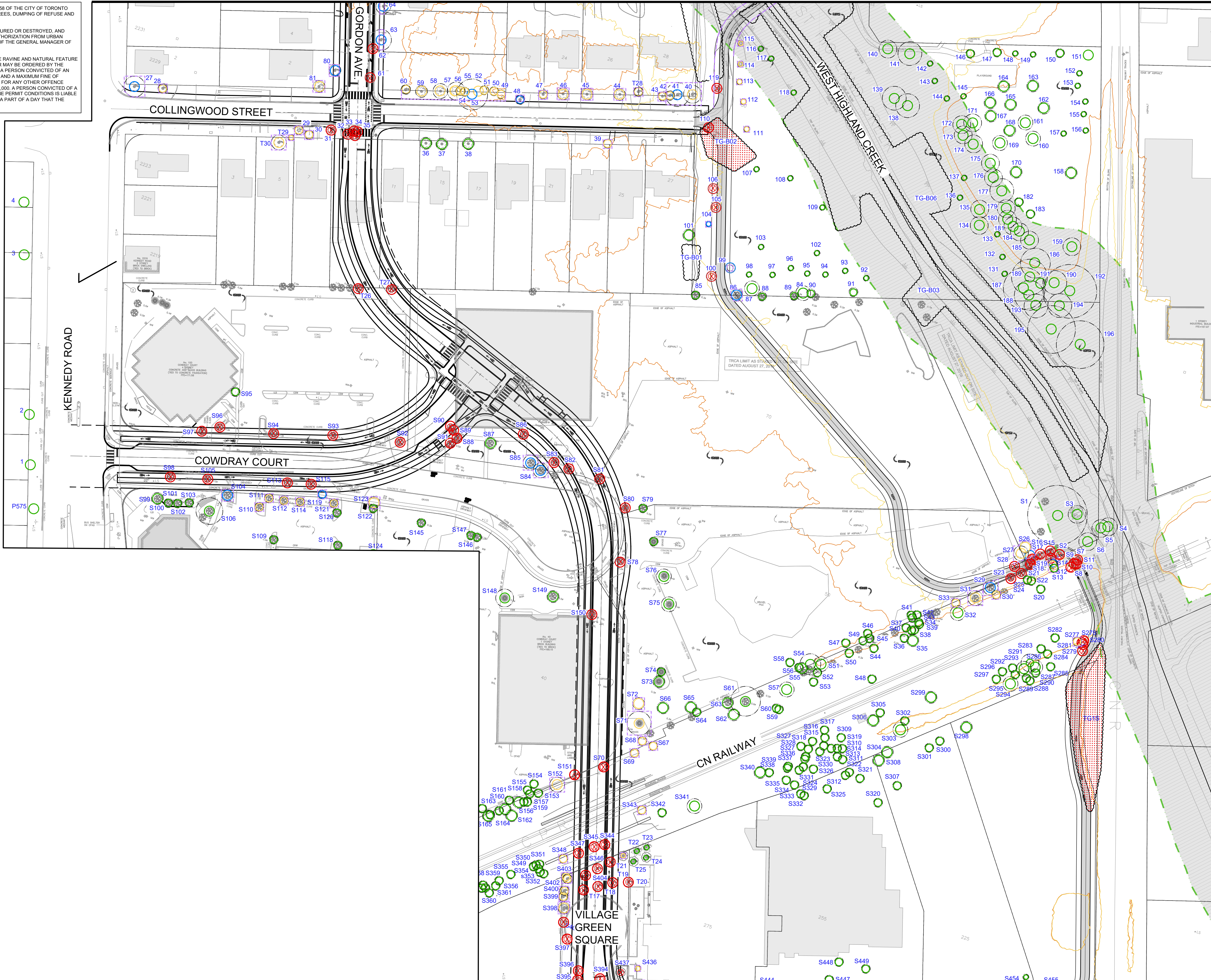
RAVINE & NATURAL FEATURE PROTECTION BY-LAW

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 AUTHORIZATION 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 BY-LAW 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.

MATCHLINE - REFER TO SHEET TP-1

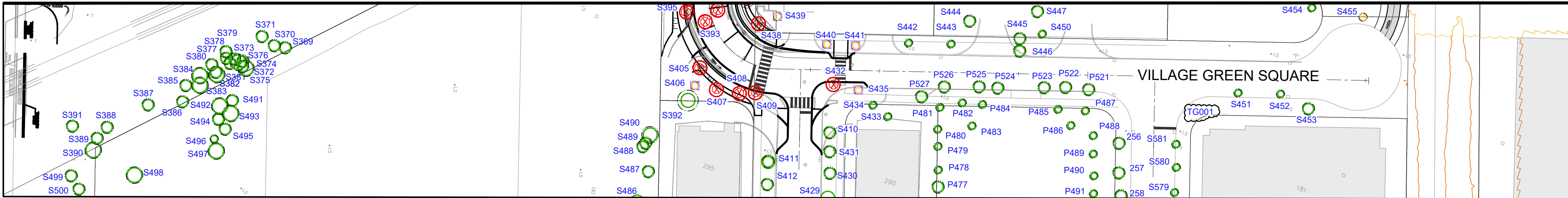


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2. Protecting Trees

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 613, 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
<10cm	1.2 m	Whichever of the two is greater: The drip line ⁴ or 1.2 m
10 - 29 cm	1.6 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 ⁴

Table 1: Minimum Tree Protection Zone (TPZ) Determination

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7. Tree Protection Plan Details

The following diagrams provide details for tree protection barriers and sediment protection barriers:

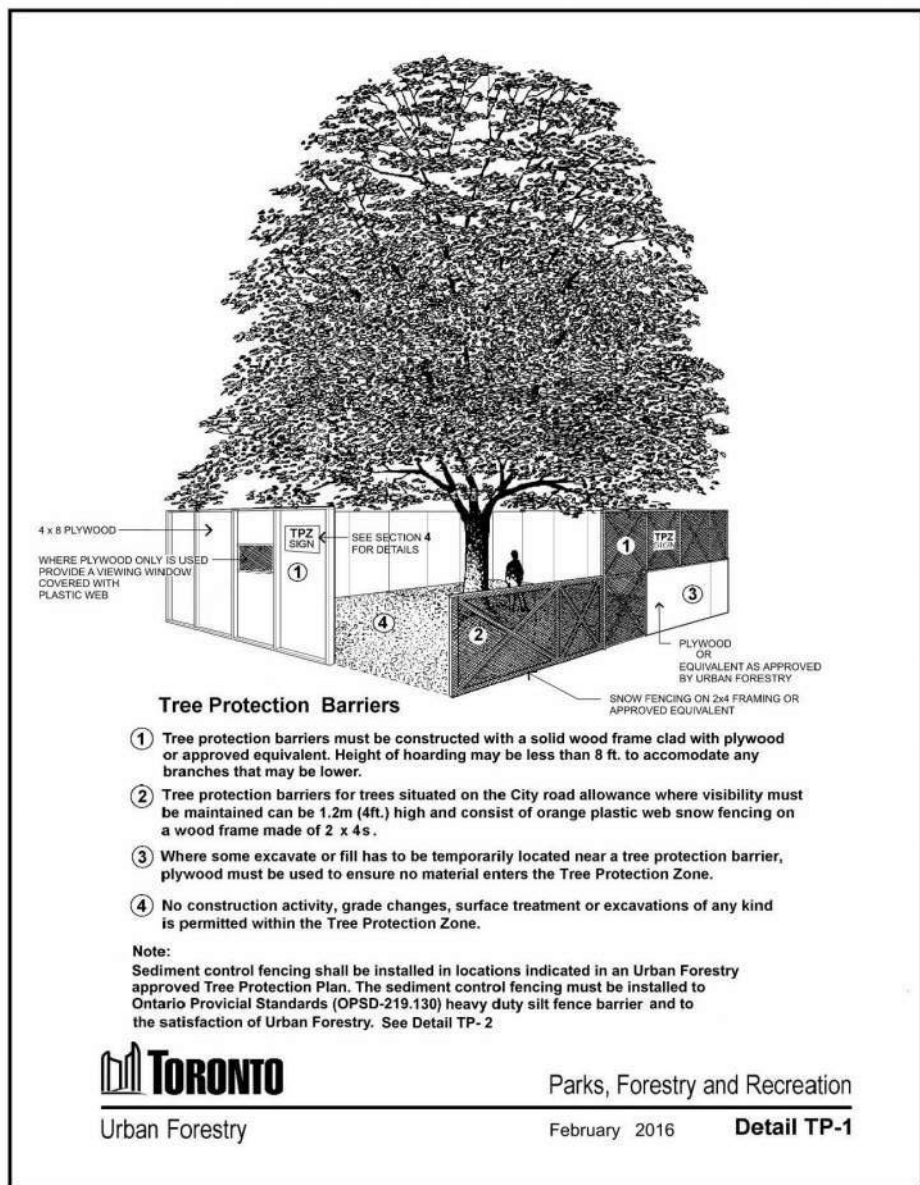


Figure 4: Urban Forestry Detail TP-1

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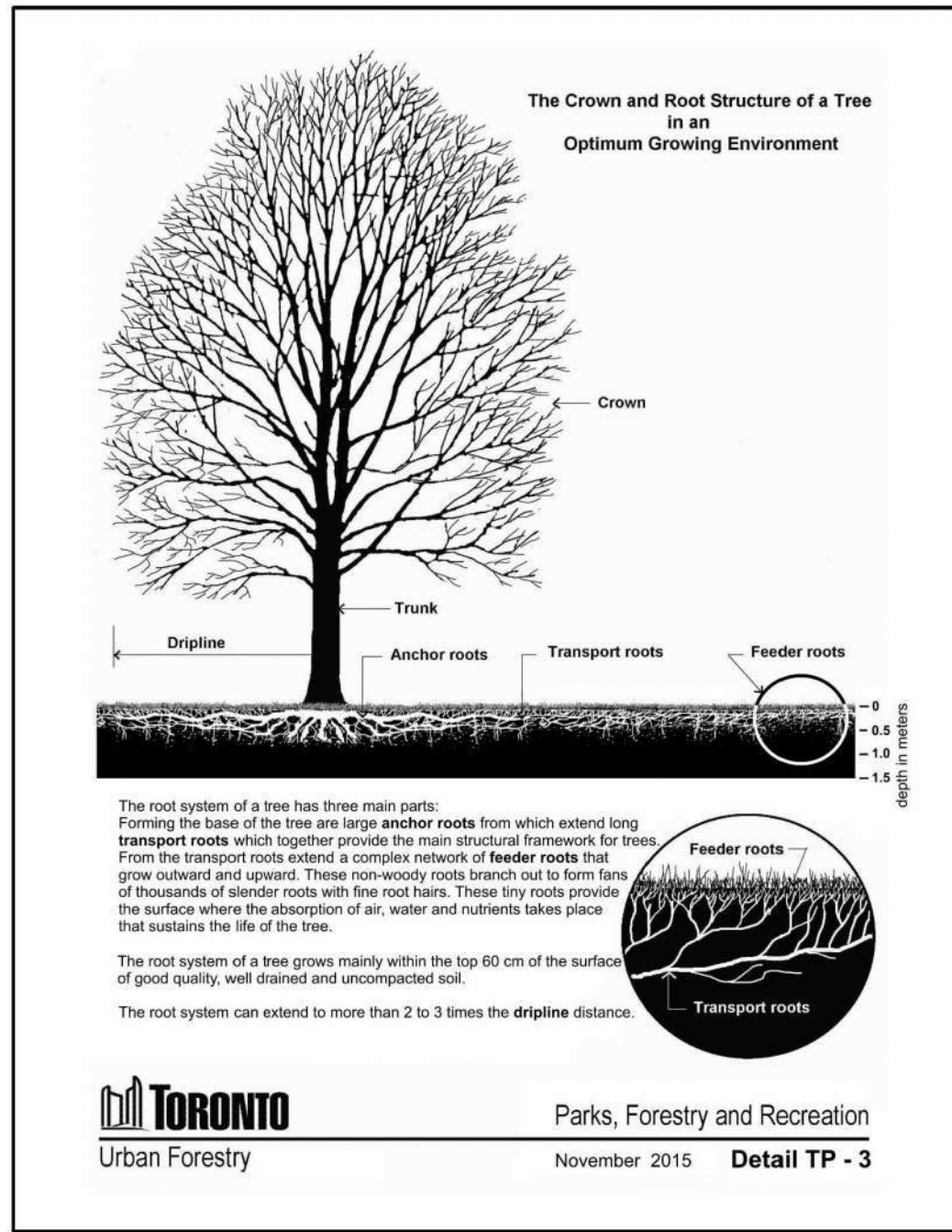


Figure 1: Urban Forestry Detail TP-3

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- ¹Diameter at breast height (DBH) measurement of tree stem taken at 1.4 metres (m) above the ground.
²Minimum Tree 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:

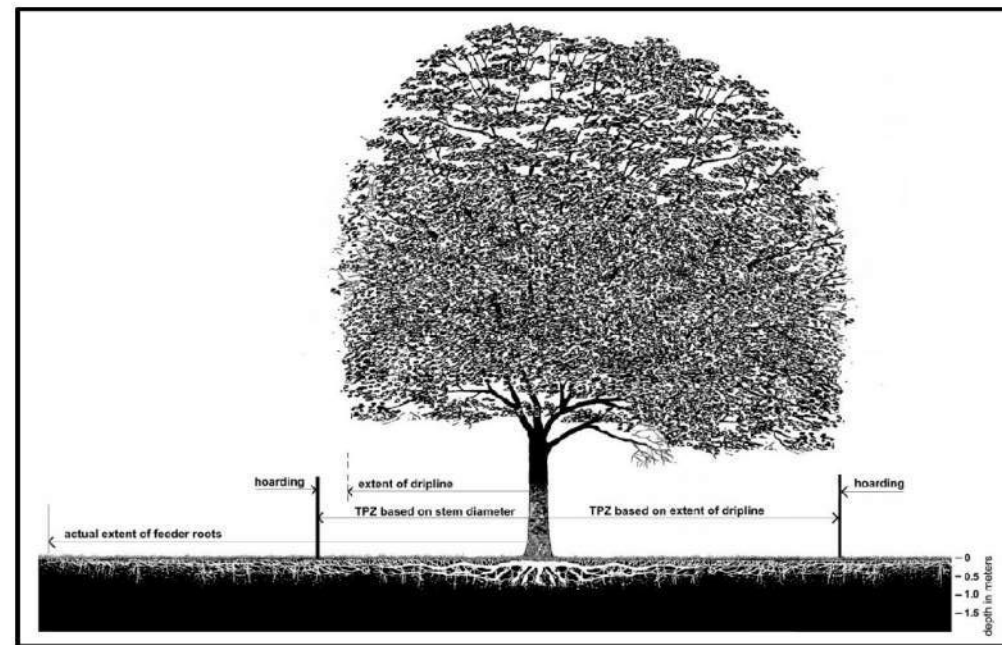


Figure 2: Minimum Tree Protection Zone (TPZ) Determination

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 complement 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

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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, 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 drip line.

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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 3/4"), 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 59mm (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

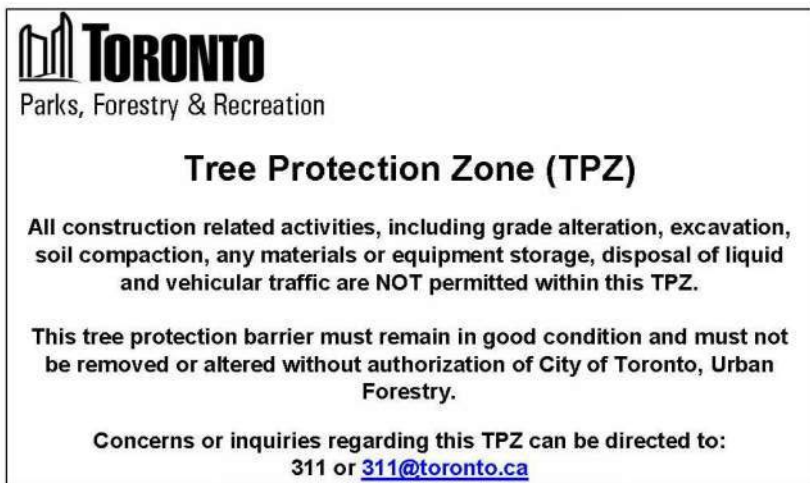


Figure 3: Tree Protection Sign

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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

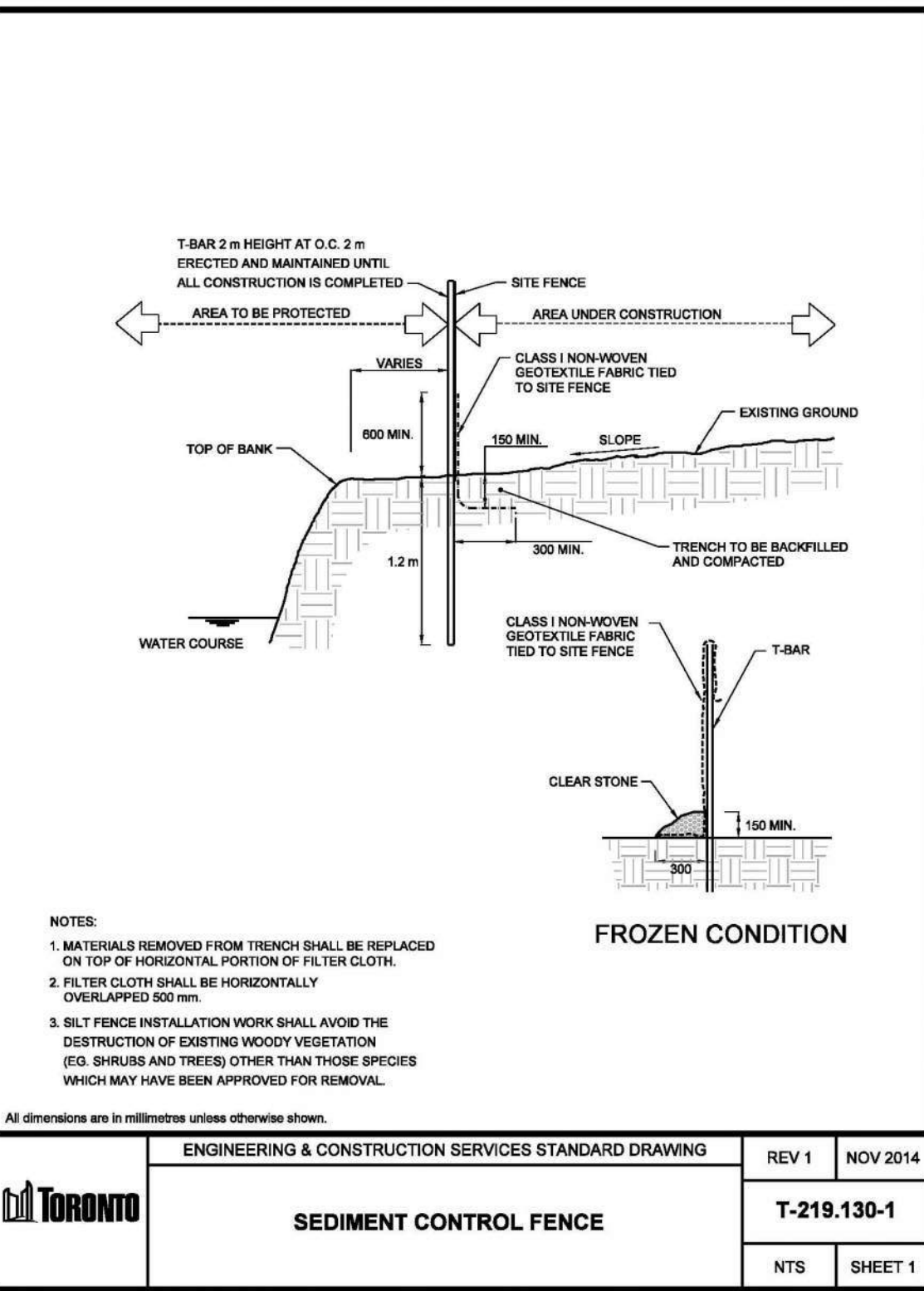
Urban Forestry may request a tree planting security deposit in an amount equal to the cost of planting and maintenance for two (2) years in order to ensure compliance with approved landscape or replanting plans. The security deposit may be held by the City after the planting of the trees for a period 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.

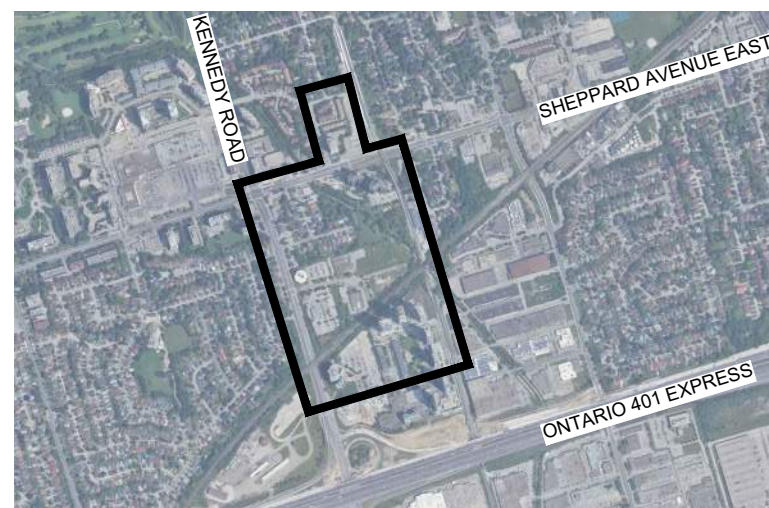
It is the applicant's responsibility to submit a written request to Urban Forestry for the refund of a Tree Guarantee Deposit, two (2) years after the completion of all construction activity and/or two (2) years after tree planting. This request should be made during the growing season, not while

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KEY MAP



LEGEND:

- PROPERTY LINE
- REGIONAL FLOODLINE TRCA - WSP REVISED
- REGIONAL FLOODLINE TRCA
- RAVINE AND NATURAL FEATURE PROTECTION LIMIT (RNFP)
- EXISTING INDIVIDUAL SURVEYED TREED
- EXISTING SHRUBS
- EXISTING INDIVIDUAL TREE (NOT SURVEYED) LOCATIONS ARE APPROXIMATE.
- EXISTING TREE GROUPING
- EXISTING TREE GROUPING TO BE REMOVED
- EXISTING TREE LOCATION / ID (PER HANDHELD GPS) TO BE RETAINED
- EXISTING TREE LOCATION / ID (PER HANDHELD GPS) TO BE PRESERVED
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- TREE PROTECTION ZONE
- TREE PROTECTION HOARDING - SNOW FENCE FOR CITY TREES
- TREE PROTECTION HOARDING - SOLID BOARD FENCE FOR PRIVATE TREES
- TREE PROTECTION HOARDING - 1.8m HIGH CHAIN LINK PANEL FENCE

1	ISSUED FOR FINAL EA SUBMISSION	PM	2023.11.10	-
No.	REVISIONS	BY	DATE	APPR.
ALL PREVIOUS ISSUES OF THIS DRAWING ARE SUPERSEDED				

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MUNICIPALITY

TORONTO

PROJECT TITLE

SOUTHWEST AGINCOURT MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT STUDY

SHEET TITLE

TREE PRESERVATION PLAN



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SCALE	1 : 750	DATE	JANUARY 2021		
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