198-200 and 206 Plains Road East, Burlington, ON

Arborist Report and Tree Protection Plan

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June 2025
Project 2500052

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1. Introduction

GEI Consultants Canada Ltd. (GEI) was contracted by Landwise (the Client) to complete a tree inventory, Arborist Report and Tree Protection Plan for a proposed development at the properties located at 198-200 and 206 Plains Road East in Burlington, Ontario (Subject Lands; **Appendix A1**). The site currently consists of two residential buildings with paved parking.

The proposed development includes an Official Plan Amendment and Zoning By-law Amendment to permit a six-storey mixed-used building with 60 residential units and two levels of underground parking, which encompasses the entire Subject Lands. In addition to the development of the Subject Lands, the overall stormwater management design for the site requires the landscaped portion of the site to be directed to Plains Road East. The proposed grading facilitates this design be elevating the grades in the existing boulevard towards Plains Road East. Additionally, the stormwater sewer is currently routed through the existing boulevard in order to capture the rooftop drainage and runoff generated by the parking lot at a connection along the southwestern side of the proposed development. The proposed grading and stormwater sewer renders the preservation of the existing trees as unfeasible given the site constraints.

This report presents the results of a tree inventory that was conducted for the proposed development, identifies opportunities for tree preservation and protection, recommends measures to protect retainable trees, and proposes compensation for tree removals. The objective of the preservation plan is to retain existing tree cover wherever feasible and to minimize the risk of injury to trees identified for protection. The preparation of this report was guided by the City of Burlington's *Private Tree By-law* (2022b), *Public Tree By-Law* (2013), *A Guide to Tree Protection* (n.d.), *Specifications Index for Tree Protection and Preservation* (2020), *Forest Protection and Tree Permits* (2022a) and the Development Application Pre-Consultation Form for 198-200 and 206 Plains Road East (2023).

2. Methodology

2.1 Tree Inventory and Assessment

GEI completed the tree inventory within the Study Area which is inclusive of the Subject Lands plus a 6 m buffer area, on May 2, 2025, in accordance with the City of Burlington's *A Guide to Tree Protection* (n.d.). All trees within the Study Area with a diameter-at-breast-height (DBH) of 10 cm located within private property, as well as trees of all sizes located on public property, were inventoried and tagged. The locations for all inventoried trees on the Study Area were recorded in UTM coordinates using a sub-metre capable GPS unit. Other information recorded for all live trees consisted of species, DBH, crown radius, ownership, tree condition (biological, structural, and overall), and notes regarding the assigned tree condition.

Tree condition was categorized as good, fair, poor or dead.

- Trees categorized as "good" overall had at least 80% live crown and showed no significant structural defects (e.g., weak limbs, girdling roots, stem lean) or evidence of biological damage (e.g., insect damage, fungal growth, leaf dieback).
- "Fair" trees were those with 50% to 80% live crown and showed no significant structural or biological defects, or the tree had over 80% live crown but did show some evidence of structural defects and/or biological damage.
- Trees categorized as "poor" were those with less than 50% live crown and/or had significant structural defects and/or biological damage.
- Trees rated as "very poor" had an overall condition of at least 15% rating, had poor vigour, were dying, had multiple severe defects and were visually unappealing.
- Trees categorized as "dead" were those with no live crown.

2.2 Tree Impact Analysis

Using data collected during the tree inventory and assessment, a desktop-based tree impact analysis was performed by GEI staff. Recommendations for each tree's proposed action (i.e., remove, injure, or preserve) were based on several factors including each tree's current condition, species specific sensitivity to construction, its location, the proposed work impacting the tree, and the extent of encroachment into the tree's tree protection zone (TPZ).

The TPZ is an area around each tree, typically established based on the species and size of the tree, intended to provide a buffer protecting the tree from potential impacts including root and soil compaction and mechanical damage. In accordance with Table 1 within the City's *Specifications Index for Tree Protection and Preservation* (2020) the TPZ and the critical root zone (CRZ) for a tree found within the Study Area was determined based on the tree's diameter class. For multi-stemmed trees, the sum of squares of the DBH of the five largest stems was calculated and used to determine the TPZ. Additionally, the structural root zone (SRZ) of each tree was calculated, which is considered the minimum structural

distance away from a tree for any type of encroachment under ideal conditions where encroachment could lead to tree failure due to structural root loss (Coder, 2018). The TPZ and CRZ are illustrated respectively, to scale, for all trees in the Tree Inventory and Protection Plan (**Appendix A2**).

Generally, the following guidelines were followed in determining the recommended action for each tree:

- Trees, including dead trees, whose SRZ is impacted by the proposed works were recommended for **removal**.
- Trees with equal to or greater than 30% of their TPZ affected by proposed work activities were recommended for **removal** as the impacts are expected to lead to their decline.
- Trees with less than 30% of their TPZ affected by proposed work activities were recommended for **injury and protection** to mitigate further damage to the trees' below- and above-ground parts.
- Where the proposed work is not expected to encroach into their TPZ based on the impact analysis described above, **no impact** is anticipated to the subject trees. Depending on the location of the trees in relation to the proposed work activities, including construction laydown and site access, tree protection may be proposed to prevent encroachment into their TPZ and to protect them from injury.

Tree recommendations were reviewed manually by GEI's certified arborists, based on the proposed site plans, with the support of GEI's interdisciplinary teams. Overall results of the tree impact analysis are summarized in **Section 3.**

3. Tree Inventory

Within the Study Area a total of 55 trees were inventoried. The inventoried trees included 10 different species. Of the 55 inventoried trees, 38 are located on the Client's property, 13 are located on neighbouring private property, and four are located on public land (i.e., the Plains Road East right-of-way) owned by the City of Burlington (**Appendix A2**).

Appendix B outlines the results of the tree inventory, including the tree identification number, species, DBH, tree condition (biological, structural, and overall), crown radius, and notes regarding the assigned tree condition. **Appendix B** also provides recommendations for tree preservation or removal, compensation, and whether tree ownership is public or private.

Based on the results of the tree impact analysis, it was determined that 44 trees are recommended for removal due to proposed construction impacts, three trees are recommended for injury and eight trees are recommended for preservation. Further detail is provided in the following subsections.

3.1 Removal Trees

Removal trees include trees that are within the proposed work limits or are likely to be significantly impacted by the proposed works, as described in **Section 2.2**. Of the 55 trees inventoried, 44 are proposed for removal based on all alternatives having been considered to mitigate removal for the project. Specifically, the proposed construction works shall include the instillation of a complex "jellyfish unit" storm sewer drain system, which shall require excavation in the City's right-of-way and will impact four City-owned trees (Tree IDs 3480, 3481, 3482, and 3483). In addition, the entire Subject Lands is being graded to support the proposed development, which shall impact the remaining 40 trees recommended for removal including two neighbouring trees (Tree IDs 793 and 798) which are in close proximity to the property line. Letters of Consent must be obtained by the Client from the adjacent property owners for the removal of these two neighbouring trees. Removal trees requiring compensation are discussed in **Section 5**.

The proponent should ensure that the works are in conformance with the *Migratory Birds Convention Act, 1994* and the *Endangered Species Act, 2007*. Specifically, tree removals should comply with timing window restrictions with regards to the protection of nesting birds (April 1 to August 31) and Species at Risk bats (March 15 to November 30). Where these timing windows cannot be avoided, it is recommended that a qualified biologist conduct a nest search and bat habitat assessment.

3.2 Preservation Trees

Preservation trees are those that are unlikely to be significantly impacted by the proposed construction or can likely be preserved using tree protection measures as described in **Section 4**. Of the 55 trees inventoried, 11 trees are recommended to be preservation, inclusive of three neighbouring trees (Tree IDs T1, T2, and T7) that are recommended to be injured and eight that are recommended for no impact (Tree IDs T3-6, T8-11). Letters of Consent must be obtained by the Client from the adjacent property owners for the injury of these three neighbouring trees.

4. Tree Preservation Plan

Tree preservation shall be achieved through avoidance and the use of appropriate tree protection measures. GEI inventoried 55 trees within the Study Area, 11 of which are identified for preservation as illustrated in **Appendix A2** and detailed in **Appendix B**. The proposed Tree Protection Plan for these preservation trees is described in the following subsections.

4.1 Tree Protection Zones

The area of protection around a tree is referred to as the Tree Protection Zone (TPZ) and is measured outward from the trunk (**Table 1**). TPZs were determined in accordance with the guidelines set by the City of Burlington's *A Guide to Tree Protection* (n.d.). **Appendix B** indicates the TPZ for each preservation tree.

Table 1: City of Burlington Tree Protection and Critical Root Zone Table

Trunk Diameter at Breast Height (DBH)	Minimum Tree Protection Zone (TPZ)	Critical Root Zone (CRZ)
Less than 10 cm	1.8 m	1.8 m
11 to 40 cm	2.4 m	4.0 m
41 to 50 cm	3.0 m	5.0 m
51 to 60 cm	3.6 m	6.0 m
61 to 70 cm	4.2 m	7.0 m
71 to 80 cm	4.8 m	8.0 m
81 to 90 cm	5.4 m	9.0 m
91 to 100 cm	6.0 m	10.0 m

The TPZs of preservation trees are recommended be fenced off in accordance with the City of Burlington's *Specifications Index for Tree Protection and Preservation* (2020), whereby 1.2 m high snow fencing shall be erected around all trees recommended for preservation prior to any construction activities and must be maintained until project completion and approval by the Manager of Urban Forestry (**Appendix C**). To prevent physical damage to the tree, the preservation TPZ shall remain fully intact and cannot be altered, moved or removed in any way without the written authorization of the City of Burlington. There must be no grade change, and TPZs shall not be used for the temporary storage of any material or equipment, washing of equipment, nor the dumping of any debris. The TPZ sign must be posted to each TPZ and follow details outlined in section 6 of the City of Burlington's *Specifications Index for Tree Protection and Preservation* (2020). As such, the specified laminated signage (minimum 10" by 14" sizing) must be placed at the most visible edge of the TPZ fencing. Refer to the City of Burlington's *Specifications Index for Tree Protections and Preservation* (2020) for further details (**Appendix C**). The Developer's and Consultant's contact information should be provided, should there be questions or concerns regarding the tree protection fencing.

The objective of the TPZ is to maximize protection of the tree to ensure its long-term survival. It is recognized, however, that encroachment into the TPZ will sometimes be necessary to facilitate construction. Some healthy trees are known to withstand construction impacts such as root cutting, soil compaction, and soil saturation; however, these individual responses are dependent on the species, site condition, and degree of impacts (Matheny & Clark 1998).

4.2 Tree Mitigation Techniques and Best Practices

Encroachment into preservation tree TPZs may sometimes be necessary to facilitate construction, which generally needs to be authorized by the local authority. Protection and mitigation techniques are expected to prevent these activities from impacting the preservation trees and adjacent vegetation communities. Where construction activity is proposed and approved to occur within a TPZ, the TPZ must be properly prepared and protected. The Project Arborist should be on site during all site alteration activities within the TPZ of preservation trees, including tree removal, crown or root pruning, and soil stripping, to monitor these activities and propose site-specific mitigation, where appropriate. Moreover, the following tree protection and mitigation measures should be implemented in adherence to latest arboricultural standards and best practices:

- The limit of disturbance or work areas should be delineated with tree protection fencing to prevent accidental encroachment into retained features, resulting in accidental harm or damage to trees. If a tree is accidentally damaged during construction, the Project Arborist should be contacted to review the damage and assess whether remediation measures are required;
- All relevant contractors should meet with the Project Arborist prior to the beginning of site alteration to review tree protection procedures;
- Low hanging branches that are likely to be damaged or restrict vehicular movement during construction may be pruned ahead of the work, pending approval by the relevant authorities. Pruning obstructing branches shall mitigate branches being broken off and bark being torn inadvertently. Any branches that overhang the work area and require pruning are to be pruned using clean tools as per the latest arboricultural practices (TCIA, 2008);
- All tree removals should comply with the timing restrictions with regards to the protection of nesting birds and species at risk bats, as described in **Section 3.1**;
- Trees to be removed should be felled in a manner that directs the tree removals away from adjacent preservation trees and their TPZs;
- Any brush clearing required within the TPZs should be completed using hand-operated equipment and should be lifted out manually and not skidded out;
- Roots encountered during excavation in or outside TPZs should be preserved wherever feasible. However, if it is determined that root pruning must occur to facilitate a grade change or other earthworks, where authorized by the applicable authorities, root pruning shall be conducted in accordance with acceptable arboricultural standards:
    - Methods of excavation within the TPZ of trees proposed for preservation shall include those which are less harmful to the tree, such as hand digging or excavation using a hydro-vac or air spade. Hydro-vac excavation is to be conducted at a low pressure of less than 100 psi and at the lowest temperature setting to ensure roots are not unnecessarily damaged;

- Tree roots damaged during construction are to be exposed and cut neatly and cleanly, at the edge of disturbance, using sanitized, hand operated equipment such as a sharp saw or loppers to minimize decay and entry points for disease;
- If excavation is to occur within a TPZ, fill within the TPZ shall not be permitted unless mitigated in a way that maintains air and water availability for roots. Any approved grade changes or earthworks within TPZs shall be undertaken in accordance with the previously specified tree protection guidelines (**Section 4.1**).
- To prevent desiccation, exposed roots should be wrapped with dampened burlap so that the roots maintain optimum soil moisture during construction and backfilling operations. These affected trees should also be irrigated and have wood mulch applied to their respective TPZs at a depth of 5–10 cm to help maintain adequate soil moisture levels and moderate soil temperatures;
- Where construction activity is proposed to occur within or near the TPZs, irrigation should be implemented during periods of drought, especially during the summer months. A slow soaking of the entire TPZ to a depth encompassing the root system is the preferred method of irrigation, but it may vary depending on the tree species and soil texture and porosity. Water should not be directed at or near the trunks. The frequency of irrigation will depend on air temperature and precipitation at the time of construction;
- Upon completion of any works within the TPZ, the excavated area should be backfilled with the excavated material and reinstated to the original condition or better. Where needed, the use of clean, uncontaminated topsoil from an approved source may be used. It is recommended that the texture of backfill be coarser than existing soils, and that the backfill is applied directly onto existing soils (i.e., remove air pockets, sod, etc.);
- Upon completion of any works within the TPZ, tree protection hoarding should be reinstated to maximize protection of the minimum TPZ;

- Sediment control fencing should be installed to provide a protective barrier between areas intended for stockpiling of excavated soil and candidate preservation trees. The sediment control fencing should be installed to Ontario Provincial Standard 219.130 (Ontario Provincial Standards, 2021);
- The contractor(s) must report immediately to the Project Arborist any accidental 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;
- If any accidental tree damage or encroachment into the TPZ occurs or is observed, the Project Arborist should be notified in order to take appropriate action on site.
- All tree maintenance and pruning should be carried out by a qualified tree care specialist that is also an ISA Certified Arborist or under the supervision of an ISA Certified Arborist.

If preservation trees cannot be adequately protected during construction or if they exhibit crown dieback post construction, they shall be recommended for removal and may require compensation as described in **Section 5**.

5. Tree Compensation

As per the Development Application Pre-consultation Form for 198-200 and 206 Plains Road East (City of Burlington, 2023), the City of Burlington requires compensation for the removal of any public trees, and live private trees (excluding Ash spp.) with a DBH of 15 cm and greater. Of the 44 trees proposed for removal, 32 are eligible for compensation based on these criteria, as the remaining 12 trees are either dead or have a DBH smaller than 15 cm. The number of replacement trees was determined using the aggregate caliper method. This method is based on the total DBH of all eligible trees proposed for removal, as well as the City of Burlington's 50 mm caliper requirements, as show in the equation below:

A ÷ B = C

C X D = E

A. Total DBH (cm) of all trees proposed for removal that are eligible for compensation

B. Replacement trees of 5 cm (50 mm) caliper

C. Number of trees to replace through replanting on site or as cash-in-lieu

D. Value of $500 per replacement tree

E. Total Cost for Replacement Trees (Cash-in-lieu)

Accordingly, 209 (rounded whole number) replacement trees of at least 50 mm caliper in size, or $104,500.00 cash-in-lieu, is recommended to compensate for the proposed removal of the 32 eligible trees with a total DBH of 1044 cm (**Appendix B**).

Replacement costs of $500 per replacement tree are based on communications with the City of Burlington's Forest Protection Officer (City of Burlington, 2025a). Replacement trees shall be protected under a security deposit (City of Burlington, 2023 & 2025b). For further details refer to the City of Burlington's *Pre-building approval – Forestry checklist and FAQ* (2025b). It is understood that tree compensation for the proposed removal of these trees will be discussed and confirmed by the Client, through consultation with the City of Burlington.

6. Summary

GEI inventoried a total of 55 trees within the Study Area. Based on the results of the tree impact analysis, of the 55 trees inventoried it is anticipated that 44 trees will require removal, 32 of which are eligible for compensation, and three trees will have construction impacts within their TPZs (**Table 2**). The remaining eight trees shall not be impacted based on the proposed work and if the preservation recommendations are followed. For the 32 trees that are being removed that are eligible for compensation, 209 replacement trees will be required or $104,500.00 cash-in-lieu. It is understood that tree compensation for the proposed removal of these trees will be discussed and confirmed by the Client, through consultation with the City of Burlington.

Table 2. Summary of Anticipated Impacts to Trees

Tree Ownership	Anticipated Removal	Anticipated Injury	Total Impacts
Private – Client	38	0	38
Private – Neighbour	2	3	5
Public – City	4	0	4
Total	44 (32 trees eligible for compensation)	3	47

Letters of Consent must be obtained by the Client from the adjacent property owners for the removal (Tree IDs 793 and 798) and injury (Tree IDs T1, T2, and T7) of neighbouring trees.

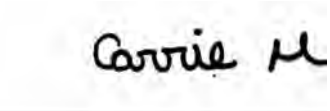
The proposed work should be reviewed alongside the results of the tree impact analysis to help ensure proposed impacts to trees are reduced wherever feasible. Should the limits or nature of the proposed work change, a certified arborist shall be retained to review the additional impacts and determine if the recommended actions in this report are still applicable.

Regarding trees that are identified for removal prior to construction operations commencing, it is recommended that a certified arborist be retained during tree removal operations to ensure proper arboricultural techniques are employed prior to and during proposed activities and to confirm the need to remove or preserve trees within proximity to the Subject Lands. Additionally, it is recommended that a certified arborist return at the conclusion of construction to assess the health of preserved trees to report on and mitigate risks associated with projected construction impacts.

Tree protection hoarding shall be installed prior to initiation of the work. It is recommended any necessary pruning be conducted prior to commencement of construction work by a certified arborist or trained professional with adequate arboricultural experience to ensure trees for preservation do not experience unnecessary stress or damage.

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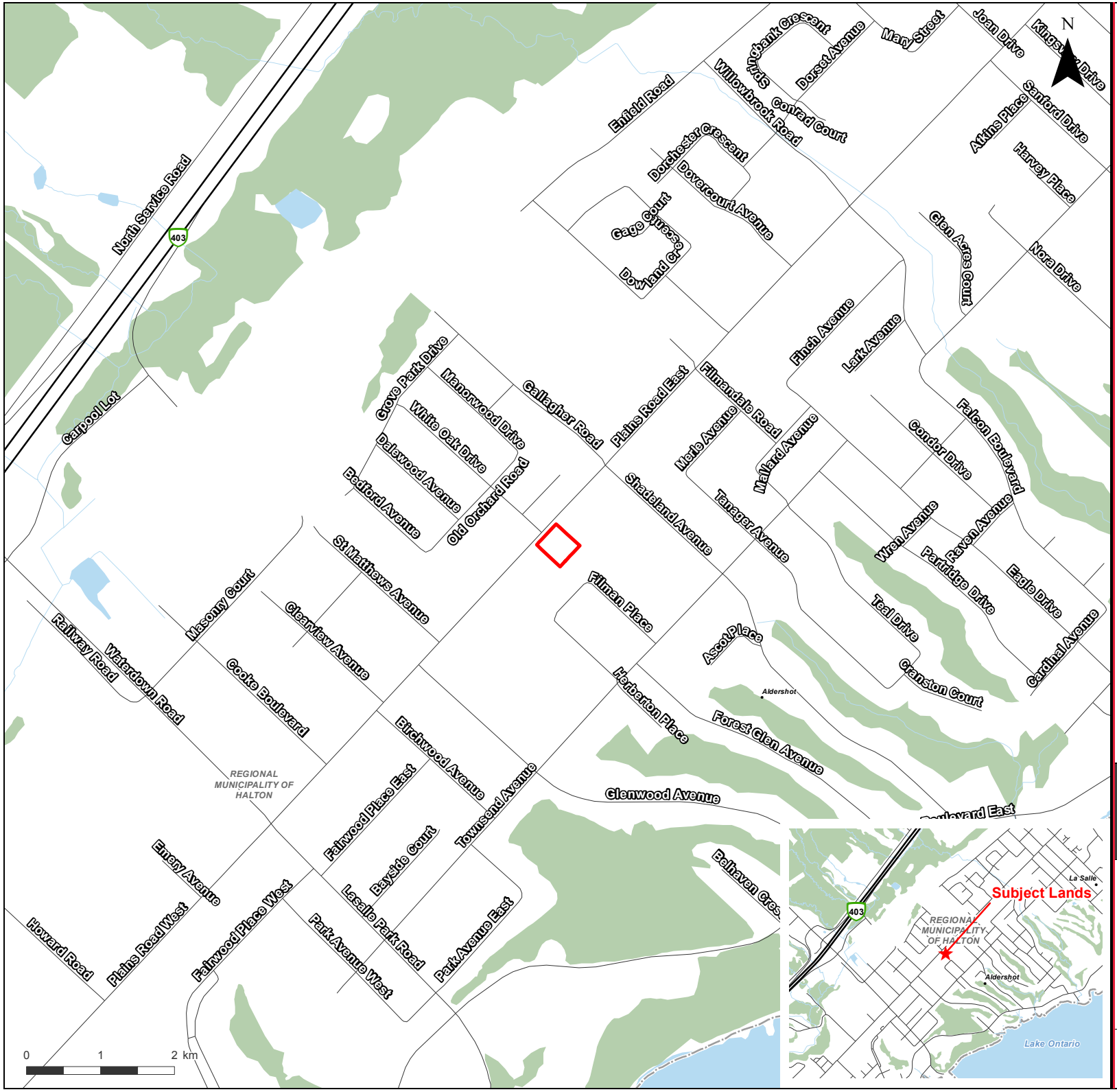
APPENDIX A

Figures

A1 – Subject Lands

A2 – Tree Inventory and Protection Plan

A1: Subject Lands



Reference(s):

1. Coordinate System: NAD 1983 CSRS UTM Zone 17N.
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © King's Printer for Ontario, 2025.

Figure 1
Location of Subject Lands

Project Name:
198-200 and 206 Plains Road East, Burlington

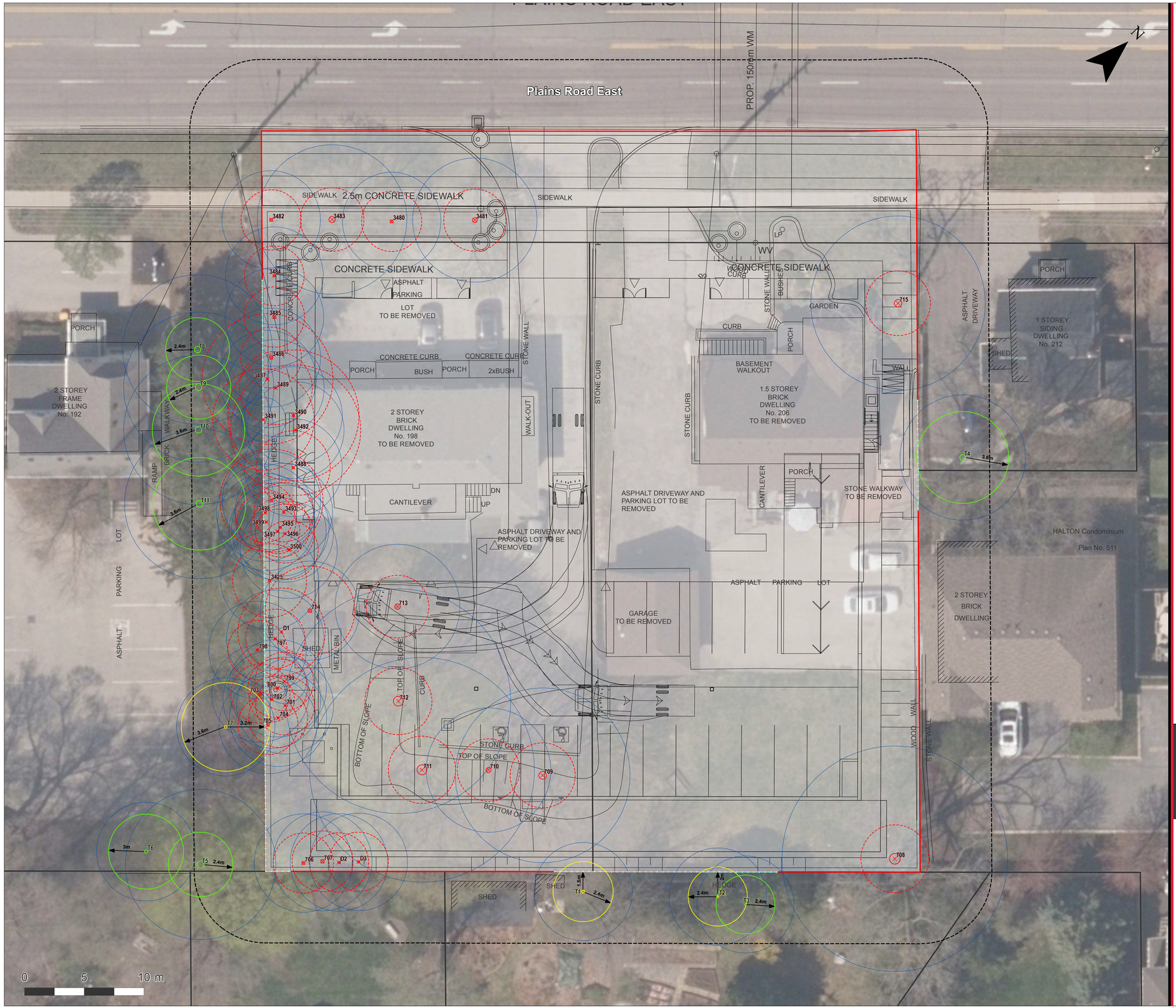
Client Name:
Landwise
(Ontario, Canada)

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Last Updated: June 2025
Document ID: 2500052

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A2: Tree Inventory and Protection Plan



Subject Lands
Tree Inventory Area (Subject Lands + 6 metre Buffer Area)
Property Parcel
Proposed Development
Critical Root Zone

Tree Impact Analysis – Recommended Action

Preserve - No Impact
Preserve - Injure
Remove

Tree Protection Zone (TPZ)

Preserve – No Impact
Preserve – Injure
Remove

Tree Protection Hoarding

Tree Protection Fencing

Reference(s):

1. Coordinate System: NAD 1983 CSRS UTM Zone 17N.
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © King's Printer for Ontario, 2025.
3. Orthoimagery © First Base Solutions, 2025. Imagery taken in 2023.

Figure 2
Tree Inventory and Protection Plan

Project Name:
198-200 and 206 Plains Road East, Burlington

Client Name:
Landwise
(Ontario, Canada)

GEI Consultants Canada

Last Updated: June 2025
Document ID: 2500052

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APPENDIX B

Tree Inventory Table

GEI Consultants Canada

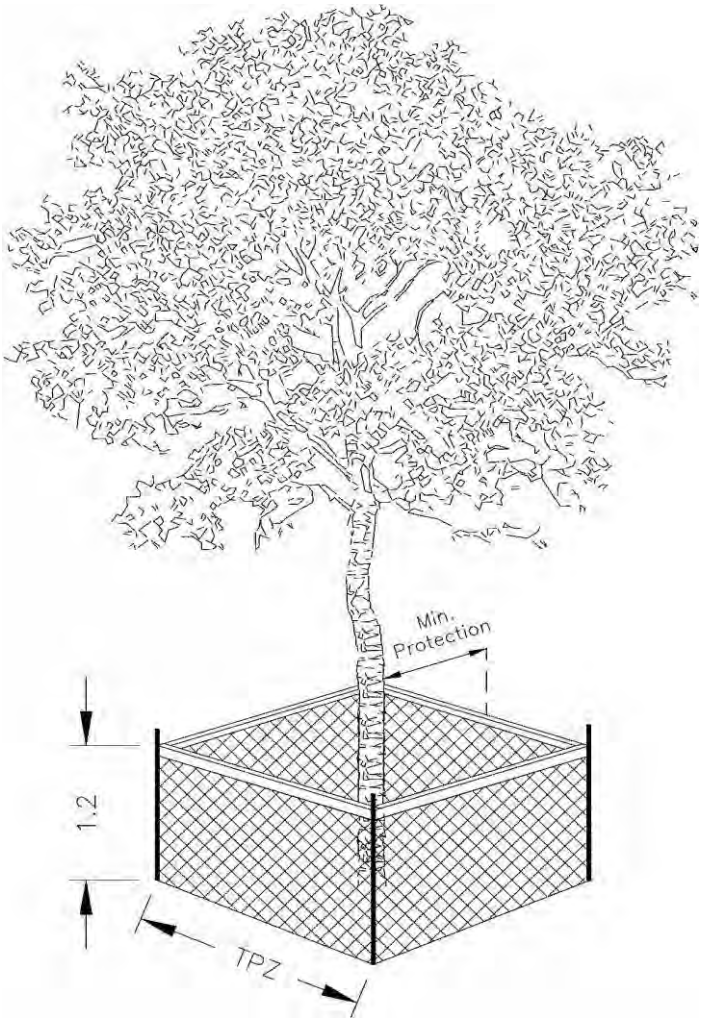
Tree Inventory Table

Tree ID	Common Name	Scientific Name	DBH 1 (cm)	DBH 2 (cm)	DBH 3 (cm)	DBH 4 (cm)	DBH 5 (cm)	Multi-stem DBH (cm)	Crown Radius (m)	TPZ (m)	CRZ (m)	SRZ (m)	Biological Condition	Structural Condition	Overall Condition	SRZ - Injury Factor (%)	CRZ - Injury Factor (%)	TPZ - Injury Factor (%)	Ownership	Recommended Action	Justification for Recommended Action	Tree Compensation	Comments
701	Eastern White Cedar	*Thuja occidentalis*	12	-	-	-	-	12	1.5	2.4	4.0	0.3	Fair	Fair	Fair	100%	76%	91%	Private - Client	Remove	Within planned grading area	N/A < 15 cm DBH	Leaning, crown dieback, rubbing branches
702	Eastern White Cedar	*Thuja occidentalis*	19	-	-	-	-	19	1.5	2.4	4.0	0.5	Good	Good	Good	100%	59%	70%	Private - Client	Remove	Within planned grading area	Yes - Aggregate Caliper Method	
703	Eastern White Cedar	*Thuja occidentalis*	16	-	-	-	-	16	1	2.4	4.0	0.5	Good	Good	Good	6%	44%	41%	Private - Neighbour	Remove	Grading impact more than 30% of TPZ	Yes - Aggregate Caliper	
704	Eastern White Cedar	*Thuja occidentalis*	13	-	-	-	-	13	1	2.4	4.0	0.4	Good	Fair	Fair	100%	67%	78%	Private - Client	Remove	Within planned grading area	N/A < 15 cm DBH	Leaning on nearby cedar, dense branching in crown, crown dieback
705	Eastern White Cedar	*Thuja occidentalis*	13	13	10	6	-	22	2	2.4	4.0	0.6	Fair	Fair	Fair	76%	54%	57%	Private - Client	Remove	Within planned grading area	Yes - Aggregate Caliper	Crown dieback, spreading/leaning form
706	White Spruce	*Picea glauca*	24	-	-	-	-	24	2	2.4	4.0	0.7	Poor	Good	Poor	100%	57%	68%	Private - Client	Remove	Within planned grading area	Yes - Aggregate Caliper	Severe crown dieback
707	White Spruce	*Picea glauca*	30	-	-	-	-	30	1.5	2.4	4.0	0.9	Poor	Good	Poor	100%	63%	72%	Private - Client	Remove	Within planned grading area	Yes - Aggregate Caliper	Severe crown dieback
708	Sugar Maple	*Acer saccharum*	89	-	-	-	-	89	8	5.4	9.0	2.6	Good	Good	Good	73%	37%	76%	Private - Client	Remove	Within planned grading area	Yes - Aggregate Caliper	
709	Norway Maple	*Acer platanoides*	64	-	-	-	-	64	6	4.2	7.0	1.8	Good	Fair	Good	100%	100%	100%	Private - Client	Remove	Within planned grading area	Yes - Aggregate Caliper	Included bark at stem union
710	Norway Maple	*Acer platanoides*	43	-	-	-	-	43	6	3.0	5.0	1.2	Good	Good	Good	100%	100%	100%	Private - Client	Remove	Within planned grading area	Yes - Aggregate Caliper	
711	Norway Maple	*Acer platanoides*	83	-	-	-	-	83	8	5.4	9.0	2.4	Good	Fair	Good	100%	99%	100%	Private - Client	Remove	Within planned grading area	Yes - Aggregate Caliper	Included bark at stem union, codominant stems, broken branches
712	Norway Maple	*Acer platanoides*	82	-	-	-	-	82	8	5.4	9.0	2.4	Good	Fair	Good	100%	100%	100%	Private - Client	Remove	Within planned grading area	Yes - Aggregate Caliper	Included bark at stem union, codominant stems, broken branches, seeping at stem union, girdling roots
713	Norway Maple	*Acer platanoides*	45	-	-	-	-	45	4	3.0	5.0	1.3	Good	Good	Good	100%	100%	100%	Private - Client	Remove	Within planned grading area	Yes - Aggregate Caliper	Cut branches, near clothesline
714	Norway Maple	*Acer platanoides*	31	-	-	-	-	31	3	2.4	4.0	0.9	Good	Good	Good	100%	99%	100%	Private - Client	Remove	Within planned grading area	Yes - Aggregate Caliper	Some crown dieback
715	Black Walnut	*Juglans nigra*	62	-	-	-	-	62	8	4.2	7.0	1.8	Fair	Fair	Fair	98%	64%	89%	Private - Client	Remove	Within planned grading area	Yes - Aggregate Caliper	Asymmetrical crown, broken branches, crown dieback
797	Eastern White Cedar	*Thuja occidentalis*	17	-	-	-	-	17	1	2.4	4.0	0.5	Good	Good	Good	100%	64%	74%	Private - Client	Remove	Within planned grading area	Yes - Aggregate Caliper	Slight lean
798	Eastern White Cedar	*Thuja occidentalis*	17	-	-	-	-	17	1	2.4	4.0	0.5	Good	Good	Good	-	41%	35%	Private - Neighbour	Remove	Grading impact more than 30% TPZ	Yes - Aggregate Caliper	Some crown dieback
799	Eastern White Cedar	*Thuja occidentalis*	10	-	-	-	-	10	0.5	1.8	1.8	0.3	Fair	Good	Good	100%	99%	90%	Private - Client	Remove	Within planned grading area	N/A < 15 cm DBH	Crown dieback, small crown to trunk diameter
800	Eastern White Cedar	*Thuja occidentalis*	19	-	-	-	-	19	1.5	2.4	4.0	0.5	Good	Fair	Fair	100%	67%	78%	Private - Client	Remove	Within planned grading area	Yes - Aggregate Caliper	Asymmetrical crown, codominant branches broken off and hanging nearby
3425	Eastern White Cedar	*Thuja occidentalis*	19	-	-	-	-	19	1.25	2.4	4.0	0.5	Fair	Good	Fair	97%	57%	60%	Private - Client	Remove	Within planned grading area	Yes - Aggregate Caliper	Asymmetrical crown, crown dieback
3480	Norway Maple	*Acer platanoides*	24	-	-	-	-	24	2	2.4	4.0	0.7	Fair	Fair	Fair	100%	100%	100%	Public - City	Remove	Within planned grading area	Yes - Aggregate Caliper	Asymmetrical crown, crown dieback, near sidewalk and hydro lines
3481	Norway Maple	*Acer platanoides*	41	-	-	-	-	41	3	3.0	5.0	1.2	Good	Fair	Good	100%	100%	100%	Public - City	Remove	Within planned grading area	Yes - Aggregate Caliper	Some branches cut back, included bark at branch unions, near sidewalk and hydro lines
3482	Norway Maple	*Acer platanoides*	25	-	-	-	-	25	3	2.4	4.0	0.7	Fair	Good	Fair	100%	62%	70%	Public - City	Remove	Within planned grading area	Yes - Aggregate Caliper	Asymmetrical crown, near sidewalk and hydro lines
3483	Norway Maple	*Acer platanoides*	53	-	-	-	-	53	4	3.6	6.0	1.5	Good	Good	Good	100%	100%	100%	Public - City	Remove	Within planned grading area	Yes - Aggregate Caliper	Some twig dieback, near sidewalk and hydro lines
3484	Norway Maple	*Acer platanoides*	20	-	-	-	-	20	3	2.4	4.0	0.6	Fair	Fair	Fair	100%	66%	76%	Private - Client	Remove	Within planned grading area	Yes - Aggregate Caliper	Asymmetrical crown, hydro lines, crown dieback, trunk wavy
3485	Norway Maple	*Acer platanoides*	26	-	-	-	-	26	3	2.4	4.0	0.7	Good	Fair	Fair	100%	66%	76%	Private - Client	Remove	Within planned grading area	Yes - Aggregate Caliper	Asymmetrical crown, hydro lines
3486	Hemlock	*Tsuga canadensis*	29	-	-	-	-	29	2	2.4	4.0	0.8	Good	Fair	Fair	96%	61%	68%	Private - Client	Remove	Within planned grading area	Yes - Aggregate Caliper	Leaning trunk, some crown dieback, broken branches, near hydro lines and house
3487	Eastern White Cedar	*Thuja occidentalis*	13	10	-	-	-	16	1	2.4	4.0	0.5	Good	Fair	Good	96%	56%	55%	Private - Client	Remove	Within planned grading area	Yes - Aggregate Caliper	Slight lean, near house and walkway, rubbing branches
3488	Eastern White Cedar	*Thuja occidentalis*	20	-	-	-	-	20	1.25	2.4	4.0	0.6	Good	Good	Good	100%	87%	96%	Private - Client	Remove	Within planned grading area	Yes - Aggregate Caliper	
3489	Eastern White Cedar	*Thuja occidentalis*	11	4	5	-	-	13	1.25	2.4	4.0	0.4	Good	Fair	Good	100%	67%	72%	Private - Client	Remove	Within planned grading area	N/A < 15 cm DBH	Near house and walkway
3490	Eastern White Cedar	*Thuja occidentalis*	18	-	-	-	-	18	1.5	2.4	4.0	0.5	Good	Good	Good	100%	88%	79%	Private - Client	Remove	Within planned grading area	Yes - Aggregate Caliper	
3491	Eastern White Cedar	*Thuja occidentalis*	10	-	-	-	-	10	1	1.8	1.8	0.3	Good	Fair	Good	57%	51%	50%	Private - Client	Remove	Within planned grading area	N/A < 15 cm DBH	Slight lean, near house and walkway
3492	Eastern White Cedar	*Thuja occidentalis*	12	-	-	-	-	12	1	2.4	4.0	0.3	Good	Good	Good	100%	90%	81%	Private - Client	Remove	Within planned grading area	N/A < 15 cm DBH	
3493	Eastern White Cedar	*Thuja occidentalis*	18	-	-	-	-	18	1	2.4	4.0	0.5	Good	Good	Good	100%	76%	91%	Private - Client	Remove	Within planned grading area	Yes - Aggregate Caliper	
3494	Eastern White Cedar	*Thuja occidentalis*	24	-	-	-	-	24	1	2.4	4.0	0.7	Good	Fair	Fair	99%	60%	60%	Private - Client	Remove	Within planned grading area	Yes - Aggregate Caliper	Leaning, dense crown, rubbing branches
3495	Eastern White Cedar	*Thuja occidentalis*	16	-	-	-	-	16	1	2.4	4.0	0.5	Fair	Good	Fair	100%	72%	85%	Private - Client	Remove	Within planned grading area	Yes - Aggregate Caliper	Crown dieback, codominant in upper crown
3496	Eastern White Cedar	*Thuja occidentalis*	11	7	-	-	-	13	1.25	2.4	4.0	0.4	Good	Fair	Fair	100%	77%	92%	Private - Client	Remove	Within planned grading area	N/A < 15 cm DBH	Leaning, codominant stems, rubbing branches
3497	Eastern White Cedar	*Thuja occidentalis*	14	-	-	-	-	14	1.5	2.4	4.0	0.4	Fair	Fair	Fair	100%	68%	88%	Private - Client	Remove	Within planned grading area	N/A < 15 cm DBH	Crown dieback, codominant branches in crown, broken and irregular form branch
3498	Eastern White Cedar	*Thuja occidentalis*	16	-	-	-	-	16	1.25	2.4	4.0	0.5	Good	Fair	Fair	67%	52%	53%	Private - Client	Remove	Within planned grading area	Yes - Aggregate Caliper	Codominant branches in crown, girdling by wire on one of codominant branches
3499	Eastern White Cedar	*Thuja occidentalis*	12	9	-	-	-	15	1	2.4	4.0	0.4	Good	Fair	Fair	81%	54%	56%	Private - Client	Remove	Within planned grading area	Yes - Aggregate Caliper	Some crown dieback
3500	Eastern White Cedar	*Thuja occidentalis*	12	-	-	-	-	12	1	2.4	4.0	0.3	Fair	Poor	Fair	100%	82%	97%	Private - Client	Remove	Within planned grading area	N/A < 15 cm DBH	Main stem topped, cavities in trunk
D1	Dead	*Dead*	11	7	-	-	-	13	0	0	0.0	0.4	Dead	Dead	Dead	100%	-	75%	Private - Client	Remove	Within planned grading area	N/A - Dead	
D2	Dead	*Dead*	17	-	-	-	-	17	0	0	4.0	0.5	Dead	Dead	Dead	100%	62%	70%	Private - Client	Remove	Within planned grading area	Yes - Aggregate Caliper	
D3	Dead	*Dead*	17	-	-	-	-	17	0	0	4.0	0.5	Dead	Dead	Dead	100%	63%	71%	Private - Client	Remove	Within planned grading area	Yes - Aggregate Caliper	Crack vertically along trunk
T1	Norway Maple	*Acer platanoides*	24	-	-	-	-	24	4	2.4	4.0	0.7	Good	Good	Good	-	24%	10%	Private - Neighbour	Preserve - Injure	Neighbouring outside of grading limits	N/A - Preserve	In neighbouring property, slight lean
T10	Norway Spruce	*Picea abies*	54	-	-	-	-	54	4	3.6	6.0	1.6	Good	Good	Good	-	2%	-	Private - Neighbour	Preserve - No Impact	Neighbouring outside of grading limits	N/A - Preserve	In neighbouring property
T11	Norway Spruce	*Picea abies*	56	-	-	-	-	56	4	3.6	6.0	1.6	Good	Good	Good	-	2%	-	Private - Neighbour	Preserve - No Impact	Neighbouring outside of grading limits	N/A - Preserve	In neighbouring property
T2	Eastern White Cedar	*Thuja occidentalis*	15	-	-	-	-	15	2	2.4	4.0	0.4	Good	Good	Good	-	19%	3%	Private - Neighbour	Preserve - Injure	Neighbouring outside of grading limits	N/A - Preserve	In neighbouring property
T3	Eastern White Cedar	*Thuja occidentalis*	13	-	-	-	-	13	2	2.4	4.0	0.4	Good	Good	Good	-	10%	-	Private - Neighbour	Preserve - No Impact	Neighbouring outside of grading limits	N/A - Preserve	In neighbouring property
T4	Red Oak	*Quercus rubra*	50	-	-	-	-	50	6	3.0	5.0	1.4	Good	Good	Good	-	7%	-	Private - Neighbour	Preserve - No Impact	Neighbouring outside of grading limits	N/A - Preserve	In neighbouring property
T5	Norway Maple	*Acer platanoides*	60	-	-	-	-	60	8	3.6	6.0	1.7	Good	Good	Good	-	1%	-	Private - Neighbour	Preserve - No Impact	Neighbouring outside of grading limits	N/A - Preserve	In neighbouring property
T6	Cherry sp.	*Prunus sp.*	13	18	13	10	-	28	2.5	2.4	4.0	0.8	Good	Fair	Good	-	-	-	Private - Neighbour	Preserve - No Impact	Neighbouring outside of grading limits	N/A - Preserve	In neighbouring property, included bark at stem union, asymmetrical crown
T7	Apple sp.	*Malus sp.*	23	-	-	-	-	23	2	2.4	4.0	0.7	Fair	Fair	Fair	-	4%	2%	Private - Neighbour	Preserve - Injure	Small area of TPZ impacted by grading	N/A - Preserve	In neighbouring property, crown dieback
T8	Norway Spruce	*Picea abies*	54	-	-	-	-	54	5	3.6	6.0	1.6	Good	Good	Good	-	2%	-	Private - Neighbour	Preserve - No Impact	Neighbouring outside of grading limits	N/A - Preserve	In neighbouring property
T9	Norway Spruce	*Picea abies*	57	-	-	-	-	57	4	3.6	6.0	1.6	Good	Good	Good	-	2%	-	Private - Neighbour	Preserve - No Impact	Neighbouring outside of grading limits	N/A - Preserve	In neighbouring property

	Total Eligible DBH (cm) Proposed for Removal	Total Number of 50 mm Replacement Trees	Total Cost (Cash-in-lieu $500 per tree)
Unrounded Values	1043.17	208.63	104317.28
Rounded Whole Numbers	1043	209	104500

APPENDIX C

Tree Protection Detail



Detail TP-1 – Tree Protection Detail.

Trunk Diameter (DBH) [2]	Minimum Tree Protection Zone (MTPZ) Distances Required [3]	Critical Root Zone (CRZ) Distances Required [3&4]
< 10 cm	1.8 m	1.8 m
11 - 40 cm	2.4 m	4.0 m
41 - 50 cm	3.0 m	5.0 m
51 - 60 cm	3.6 m	6.0 m
61 - 70 cm	4.2 m	7.0 m
71 - 80 cm	4.8 m	8.0 m
81 - 90 cm	5.4 m	9.0 m
91 - 100+ cm	6.0 m	10.0 m

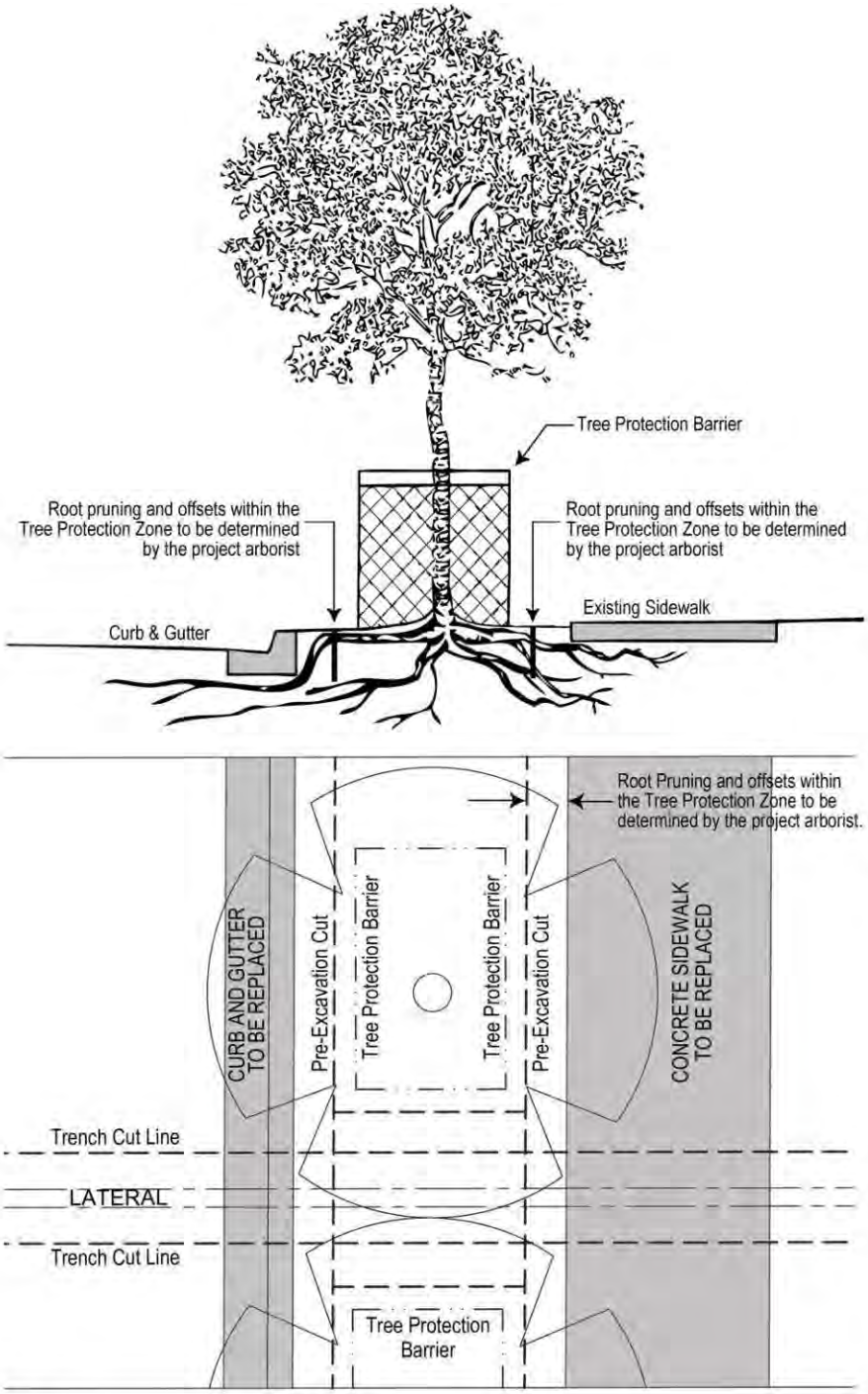
NOTES:

[1] The roots of a tree can extend from the trunk to approximately 2-3 times the distance of the drip line.
[2] Diameter at breast height (DBH) is the measurement of tree trunk taken at 1.4 metres above ground.
[3] Minimum Tree Protection Zone and Critical Root Zone distances are to be measured from the outside edge of the tree base towards the drip line and may be limited by an existing paved surface, provided the existing paved surface remains intact throughout the construction work and is subject to Section 6 of this specification.
[4] Where work is being performed beyond the Minimum Tree Protection Zone but within the Critical Root Zone the works are subject to Section 8 of this specification.

TREE PROTECTION BARRIER

1. The required barrier is a 1.2 metre (4 ft) high orange plastic web snow fencing on 2” x 4” frame. Where orange plastic web snow fencing creates a restriction to sightlines, page wire fencing with reflective tape can be used.
2. Tree protection barriers are to be erected prior to the commencement of any construction or grading activities on the site and are to remain in place throughout the entire duration of the project. The barriers shall be maintained erect and in good repair throughout the duration of construction operations with breaks and unsupported sections repaired immediately. Tree protection may be not be removed prior to the completion of construction without written authorization from the Manager of Urban Forestry or designate.
3. All supports and bracing used to safely secure the barrier should be located outside the MTPZ. All supports and bracing should minimize damage to roots.
4. Where some fill or excavated material must be temporarily located near a MTPZ, a wooden barrier with silt fencing must be used to ensure no material enters the MTPZ.
5. No materials or fill may be stored within the MTPZ.
6. Equipment or vehicles shall not be operated, parked, repaired, or refueled within the MTPZ.
7. No construction activity, grade changes, surface treatment or excavations of any kind is permitted within the MTPZ without written authorization from the Manager of Urban Forestry or designate.
8. A laminated Minimum Tree Protection Zone sign (See Detail TP-3 – Minimum Tree Protection Zone Sign) must be attached to the side of the Tree Protection where it will be visible by persons entering the site. Minimum size must be 10”x14”.

Detail TP-2 – Root Pruning Detail



NOTE:
For excavations perpendicular to to the curbing (ie. sidewalk, curbing, water or sewer laterals renewal)

(a) The contractor is to use a trench box to minimize the width of the open cut.
(b) When the lateral replacement is within the Tree Protection Zone of a tree, the contractor is to complete the works using trenchless technologies.

Detail TP-3 – Minimum Tree Protection Zone Sign

APPENDIX D

Photographic Log

Photographic Record



Photo 1 – Tree ID 701



Photo 2 – Tree ID 702



Photo 3 – Tree ID 703



Photo 4 – Tree ID 704

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Photo 5 – Tree ID 705

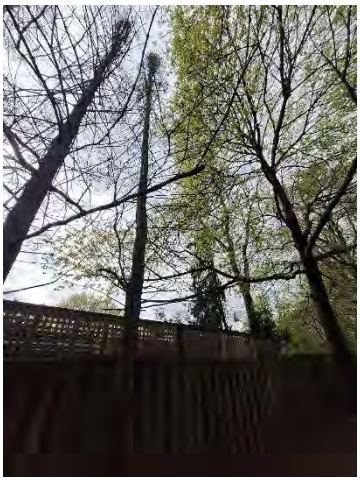


Photo 6 – Tree ID 706

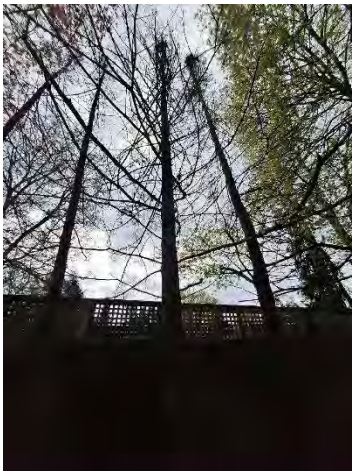


Photo 7 – Tree ID 707

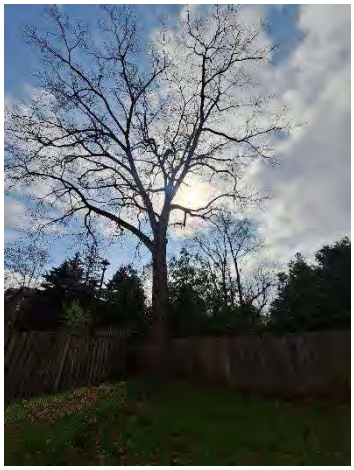


Photo 8 – Tree ID 708

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Photo 9 – Tree ID 709



Photo 10 – Tree ID 710

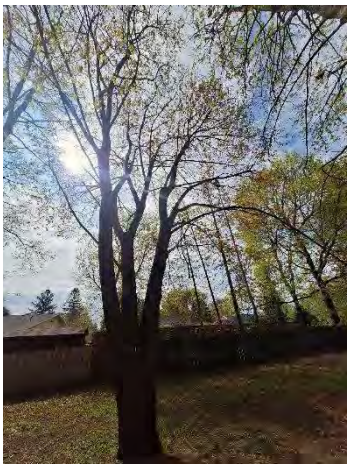


Photo 11 – Tree ID 711



Photo 12 – Tree ID 712

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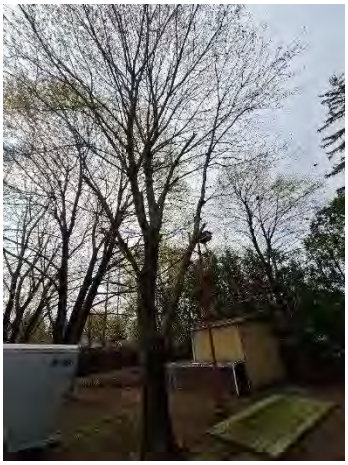


Photo 13 – Tree ID 713



Photo 14 – Tree ID 714



Photo 15 – Tree ID 715



Photo 16 – Tree ID 797

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Photo 17 – Tree ID 798



Photo 18 – Tree ID 799



Photo 19 – Tree ID 800



Photo 20– Tree ID 3425

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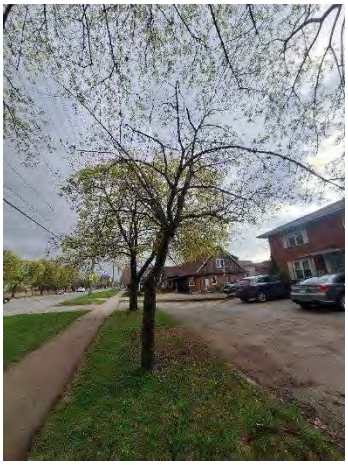


Photo 21 – Tree ID 3480



Photo 22 – Tree ID 3481

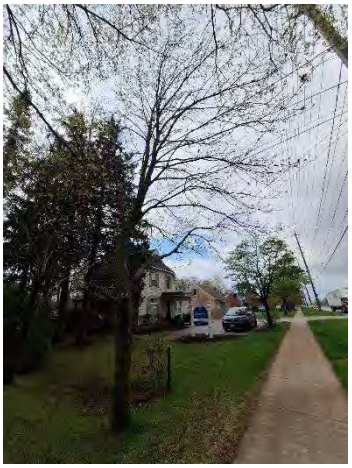


Photo 23 – Tree ID 3482



Photo 24 – Tree ID 3483

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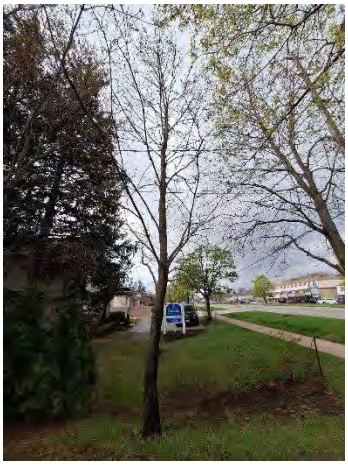


Photo 25 – Tree ID 3484



Photo 26 – Tree ID 3485



Photo 27 – Tree ID 3486



Photo 28 – Tree ID 3487

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Photo 29 – Tree ID 3488



Photo 30 – Tree ID 3489



Photo 31 – Tree ID 3490



Photo 32 – Tree ID 3491

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Photo 33 – Tree ID 3492



Photo 34 – Tree ID 3493



Photo 35 – Tree ID 3494

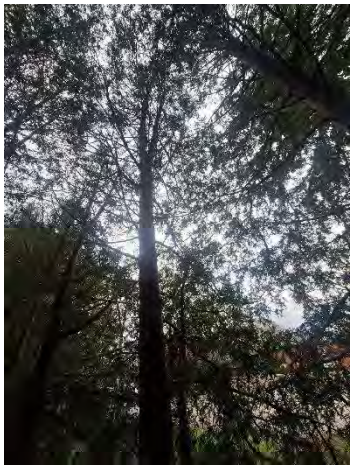


Photo 36 – Tree ID 3495

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Photo 37 – Tree ID 3496

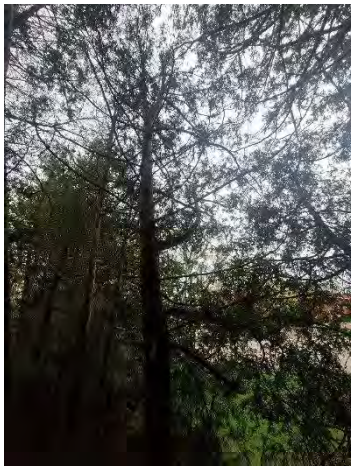


Photo 38 – Tree ID 3497



Photo 39 – Tree ID 3498



Photo 40 – Tree ID 3499

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Photo 41 – Tree ID 3500



Photo 42 – Tree ID D1

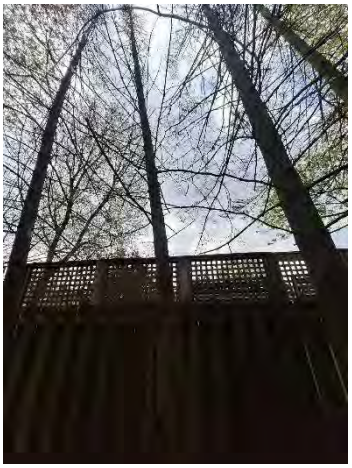


Photo 43 – Tree ID D2

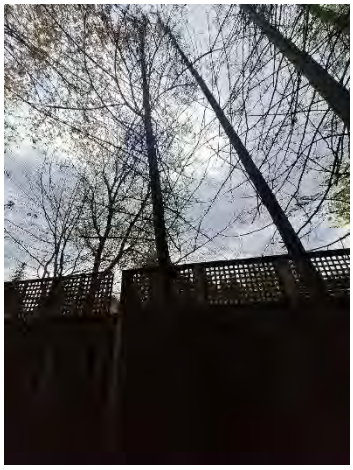


Photo 44 – Tree ID D3

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Photo 45 – Tree ID T1

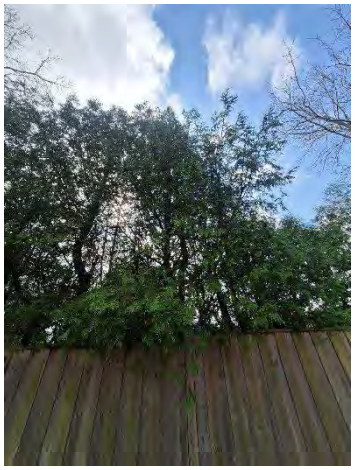


Photo 46 – Tree ID T2

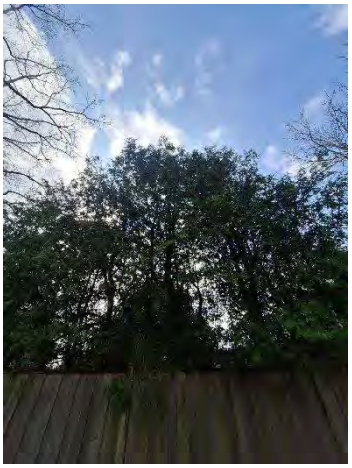


Photo 47 – Tree ID T3



Photo 48 – Tree ID T4

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Photo 49 – Tree ID T5

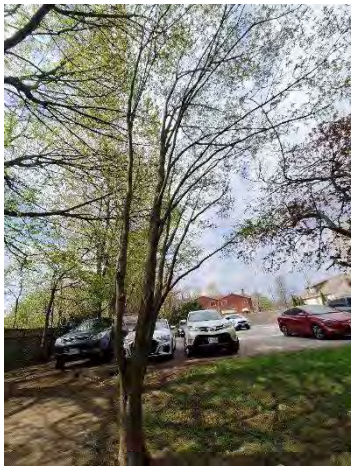


Photo 50 – Tree ID T6



Photo 51 – Tree ID T7

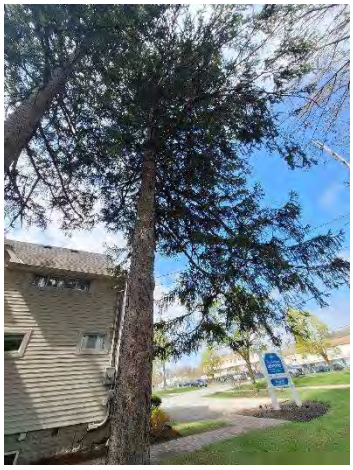


Photo 52 – Tree ID T8

APPENDIX D

198-200 and 206 Plains Road East, Burlington, ON

Arborist Report and Tree Protection Plan

June 19, 2025

PHOTOGRAPHIC RECORD



Photo 53 – Tree ID T9



Photo 54 – Tree ID T10



Photo 55 – Tree ID T11

APPENDIX D

198-200 and 206 Plains Road East, Burlington, ON

Arborist Report and Tree Protection Plan

June 19, 2025

PHOTOGRAPHIC RECORD