Tree Inventory and Preservation Plan
2083 Old Lakeshore Road
Burlington, Ontario

prepared for

Marton Smith Landscape Architects
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prepared by

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KUNTZ FORESTRY CONSULTING INC. Project P4457

Introduction

Kuntz Forestry Consulting Inc. (KFCI) was retained by Marton Smith Landscape Architects to complete a Tree Inventory and Preservation Plan as part of a development application for the property located at 2083 Old Lakeshore Road in the City of Burlington, Ontario. The subject property is located on the northwest side of Old Lakeshore Road and the southeast side of Lakeshore Road, and east of Pearl Street, within a mixed-use area.

The work plan for this tree preservation study included the following:

- Prepare an inventory of the tree resources greater than 10cm diameter at breast height (DBH) on and within six metres of the subject property and trees of all sizes within the road right-of-way;
- Evaluate potential tree saving opportunities based on proposed development plans, and;
- Document the findings in a Tree Inventory and Preservation Plan.

The results of the evaluation are provided below.

Policy Framework

The City of Burlington By-law 40-2022 (Private Tree By-law) applies to trees with a DBH greater than 20cm growing on private property within the Urban Planning Boundary of the City of Burlington. The subject property is situated within the Urban Planning Boundary and as such, the trees located on private lands on and adjacent to the subject property are subject to the provisions of this by-law.

The City of Burlington By-law 68-2013 (Public Tree By-law) applies to trees of all sizes located on public property, including within the road right-of-way.

Methodology

Trees greater than 10cm DBH on and within six metres of the subject property and all trees of all sizes within the road right-of-way were included in the tree inventory. Trees were located using the topographic survey provided for the subject property, aerial imagery, and estimations made from known points in the field. Trees included in the inventory were identified as Trees 1417 – 1420 and A – E. Where appropriate, trees were tagged with their identification numbers. Trees that were not tagged were identified using the alphabetic sequence. See Table 1 for the results of the tree inventory and Figure 1 for the locations of the trees included in the inventory.

Tree resources were visually assessed for condition utilizing the following parameters:

Tree # – Number assigned to trees that corresponds to Figure 1.
Species – Common and botanical names provided in the inventory table.
DBH – Diameter (cm) at breast height, measured at 1.4m above the ground.
Condition – Condition of tree considering trunk integrity (TI), crown structure (CS) and crown vigor (CV). Condition ratings include poor (P), fair (F), and good (G).
Crown Dieback – Percentage of dead branches within the crown.
Dripline – Crown radius (m).
Comments – Any other relevant tree condition information.

Existing Site Conditions

The subject property is a vacant asphalt-covered lot functioning as a construction yard. Tree resources exist in the form of landscape trees and naturally-occurring trees. Refer to Figure 1 for existing site conditions.

Individual Tree Resources

The tree inventory was conducted on 10 December 2024. The inventory documented nine trees on and adjacent to the subject property and within the road right-of-way. Refer to Table 1 for the full tree inventory and Figure 1 for the locations of trees reported in the tree inventory.

Tree resources were comprised of Black Walnut (*Juglans nigra*), Little-leaf Linden (*Tilia cordata*), and Manitoba Maple (*Acer negundo*).

Proposed Development

The proposed works includes the removal of the existing asphalt and the construction of a 27-storey residential building with an associated subsurface parking garage. Vehicular access is proposed from Old Lakeshore Road. Refer to Figure 1 for the proposed site plan.

Discussion

The following sections provide a discussion and analysis of tree impacts and tree preservation relative to the proposed development and existing conditions.

Development Impacts / Tree Removal

The removal of five trees will be required to accommodate the proposed development, including Trees 1418, 1420, B, D, and E. These trees either conflict directly with the proposed development or the level of encroachment into their minimum tree protection zones (mTPZs) and / or critical root zones (CRZs) resulting from the proposed work would be at an intolerable level such that the trees would not be expected to overcome the injury. The removal of two additional trees, identified as Trees 1417 and 1419, is recommended regardless of the proposed development due to their poor condition.

Trees 1417 – 1420 are located fully within the boundaries of the subject property. Trees B, D, and E are located fully or partially on neighbouring properties and as such, written permission from the respective neighbouring property owners will be required prior to the removal of these trees.

Trees 1417, 1419, 1420, B, D, and E measure 20cm DBH or greater and as such, a permit will be required prior to their removal, in accordance with the City of Burlington's By-law 02-2020 (Private Tree By-law).

Tree Preservation

The preservation of the remaining two trees, including Trees A and C, will be possible with the use of appropriate tree protection measures, as indicated on Figure 1. Tree protection measures must be implemented prior to the commencement of the proposed works to ensure tree resources designated for retention are not impacted by the proposed development. Refer to Figure 1 for

the locations of the required tree preservation fencing, general Tree Protection Plan Notes, and tree preservation fence detail.

Where the minimum tree protection zone (mTPZ) and / or critical root zone (CRZ) of a tree cannot be fully respected, including for Tree A, special mitigation measures have been prescribed and are outlined below.

Tree A

Encroachment into the CRZ of Tree A will be required to facilitate the removal of the existing asphalt, the construction of a building support, and the construction of an air shaft associated with the proposed subsurface parking garage. Tree preservation fencing has been prescribed at the anticipated limit of disturbance within the CRZ of this tree. If the following mitigation measures are employed, long-term adverse effects are not anticipated for this tree.

1. Prior to the commencement of the proposed works, tree preservation fencing should be installed as shown on Figure 1.
2. The existing asphalt should be removed carefully using small machinery (i.e. a skidsteer or mini-excavator) and by pulling material radially away from the trunk of the tree.
3. Given the long-term presence and the extent of the existing asphalt, it is anticipated that few roots, if any, extend beneath the asphalt within the area to be excavated for the construction of the building support and air shaft. As such, the excavation associated with the construction of these features is unlikely to cause notable impact to the roots of Tree A.
4. Any branches that require pruning to accommodate the proposed works should be pruned by a Certified Arborist or other tree professional in accordance with Good Arboricultural Standards.

Compensation Plantings

The City of Burlington requires compensation plantings for the removal of any tree private trees measuring 20cm DBH and greater in accordance with the following ratios:

DBH of Tree Identified for Removal	Compensation Ratio
20cm – 35cm	2:1
36cm – 74cm	3:1
Greater than or equal to 75cm	4:1

As such, a total of 18 compensation plantings will be required within the boundaries of the subject property. Alternatively, cash-in-lieu may be provided at a rate of $250.00 per tree should there be insufficient space within the boundaries of the subject property to install some or all of the required compensation plantings.

Summary and Recommendations

Kuntz Forestry Consulting Inc. was retained by Marton Smith Landscape Architects to complete a Tree Inventory and Preservation Plan as part of a development application for the property located at 2083 Old Lakeshore Road in the City of Burlington, Ontario. A tree inventory was conducted and reviewed in the context of the proposed site plan.

The findings of the study indicate a total of nine trees on and adjacent to the subject property. The removal of five trees will be required to accommodate the proposed development. The removal of two additional trees is recommended regardless of the proposed development due to their poor condition. The remaining trees can be saved with the use of appropriate tree protection measures, as outlined in Figure 1.

The following recommendations are suggested to minimize impacts to trees identified for preservation. Refer to Figure 1 for tree preservation fencing locations and general Tree Protection Plan Notes and tree preservation fence details.

- Tree protection barriers and fencing should be erected at locations as prescribed on Figure 1. All tree protection measures should follow the guidelines as set out in the tree preservation plan notes and the tree preservation fencing detail.

- No construction activity including surface treatments, excavations of any kind, storage of materials or vehicles, unless specifically outlined above, is permitted within the area identified on Figure 1 as a tree protection zone (TPZ) at any time during or after construction.

- Special mitigation measures have been prescribed for select trees, as outlined in the *Tree Preservation* section of this report.

- Branches and roots that extend beyond prescribed tree protection zones that require pruning must be pruned by a qualified Arborist or other tree professional. All pruning of tree roots and branches must be in accordance with Good Arboricultural Standards.

- Site visits, pre, during, and post construction are recommended by either a certified consulting arborist (I.S.A.) or registered professional forester (R.P.F.) to ensure proper utilization of tree protection barriers. Trees should also be inspected for damage incurred during construction to ensure appropriate pruning or other measures are implemented.

Respectfully Submitted,

Kuntz Forestry Consulting Inc.

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Limitations of Assessment

Only the tree(s) identified in this report were included in the inventory. The assessment of the trees presented in this report has been made using accepted arboricultural techniques. These may include a visual examination taken from the ground 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 of lean (if any), the general condition of the trees and the identification of potentially hazardous trees or recommendations for removal (if applicable). Where trees could not be directly accessed (i.e. due to obstructions, and/or on neighbouring properties), trees were assessed as accurately as possible from nearby vantage points.

Locations of trees provided in the report are determined as accurately as possible based on the best information available. If official survey information is not provided, tree locations in the report may not be exact. Where KFCI's in-house GPS unit is used (if applicable), tree locations are accurate only to the extent that the technology allows, which can be variable based on satellite available, RTK network / cell coverage, canopy coverage, and/or projection transformation limitations. In this case, if trees occur on or near property boundaries, an official site survey may be required to determine ownership utilizing specialized survey protocol to gain precise location.

Furthermore, recommendations made in this report are based on the development plans that have been provided at the time of reporting. These recommendations may no longer be applicable should changes be made to the development plan and/or grading, servicing, or landscaping plans following report submission.

Notwithstanding the recommendations and conclusions made in this report, it must be recognized that trees are living organisms, and their health and vigor constantly change over time. They are not immune to changes in site conditions or seasonal variations in the weather conditions. Any tree will fail if the forces applied to the tree exceed the strength of the tree or its parts.

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

Table 1. Tree Inventory

Location: 2083 Old Lakeshore Road, Burlington Date: 10 December 2024 Surveyor: KNH

Tree #	Common Name	Scientific Name	DBH	Multistem DBH	TI	CS	CV	S/H Rating	DL	CDB	mTPZ	Encr. mTPZ	CRZ	Encr. CRZ	Comments	Owner	Action
1417	Black Walnut	*Juglans nigra*	53	-	P	P	P	0.200	4.0	80	3.6	-	6.0	-	Main leader lost in crown, broken branches (H), decay (M) in trunk, poor form (H)	Subject	Remove (Condition)
1418	Manitoba Maple	*Acer negundo*	15, 9	17.5	PF	PF	F	0.375	3.5		2.4	-	4.0	-	Union at base, lean (M), stem wounds (M), vine competition (M), epicormic branching (M), asymmetrical crown (M)	Subject	Remove
1419	Black Walnut	*Juglans nigra*	45, 40	60	P	P	P	0.200	4.0	80	3.6	-	6.0	-	Union at base with smaller stem dead, broken branches (H), decay (M) in trunk, poor form (H)	Subject	Remove (Condition)
1420	Black Walnut	*Juglans nigra*	95	-	PF	PF	PF	0.375	10.0	40	6.0	-	10.0	-	Broken branches (M), epicormic branching (L), girdling roots (M), decay (L) in trunk, cavities (L)	Subject	Remove
A	Little-leaf Linden	*Tilia cordata*	47	-	PF	F	PF	0.375	3.5		3.0	0	5.0	7	Lean (L), burls (M), multiple branch attachments, poor branch unions, pruning wounds (M), epicormic branching (L)	Neighbour (2075 Old Lakeshore Road)	Preserve (Injure)
B	Little-leaf Linden	*Tilia cordata*	43	-	PF	PF	PF	0.375	4.5		3.0	-	5.0	-	Lean (L), burls (M), multiple branch attachments, poor branch unions, pruning wounds (M), epicormic branching (M)	Neighbour (2075 Old Lakeshore Road)	Remove
C	Little-leaf Linden	*Tilia cordata*	32.5	-	F	F	F	0.550	4.0		2.4	0	4.0	0	Lean (L), multiple branch attachments, poor branch unions, pruning wounds (L), epicormic branching (M), asymmetrical crown (L)	Public	Preserve
D	Manitoba Maple	*Acer negundo*	35	-	PF	PF	F	0.375	5.5	20	2.4	-	4.0	-	Lean (M), bow (L), cavities (M) at base, included shed (L), poor form (L), epicormic branching (L), stem wounds (L)	Shared (Subject / Neighbour (2093 Old Lakeshore Road))	Remove
E	Manitoba Maple	*Acer negundo*	~38, 18	~42	PF	PF	F	0.375	5.5	20	3.0	-	5.0	-	V-union at base with included bark and one leader cut at 0.5m, lean (M), sweep (L), crook (M), epicormic branching (M), poor form (L)	Shared (Subject / Neighbour (2093 Old Lakeshore Road))	Remove

Codes		
DBH	Diameter at Breast Height	(cm)
TI	Trunk Integrity	(G, F, P)
CS	Crown Structure	(G, F, P)
CV	Crown Vigor	(G, F, P)
S/H Rating	Structural / Health Rating	(%)
DL	Dripline (Radius)	(m)
CDB	Crown Dieback	(%)
mTPZ	Minimum Tree Protection Zone (Measured from Edge of Trunk)	(m)
Encr. mTPZ	Amount of Encroachment into the Minimum Tree Protection Zone	(%)
CRZ	Critical Root Zone	(m)
Encr. CRZ	Amount of Encroachment into the Critical Root Zone	(%)
Owner	Ownership of Tree	Public, Subject, Neighbour
P = poor, F = fair, G = good, ~ = estimate, (VL) = very light, (L) = light, (M) = moderate, (H) = heavy		

Appendix A: Site Photographs


Image 1. Tree 1417


Image 2. Tree 1418


Image 3. Tree 1419


Image 4. Tree 1420


Image 5. Tree A


Image 6. Tree B


Image 7. Tree C

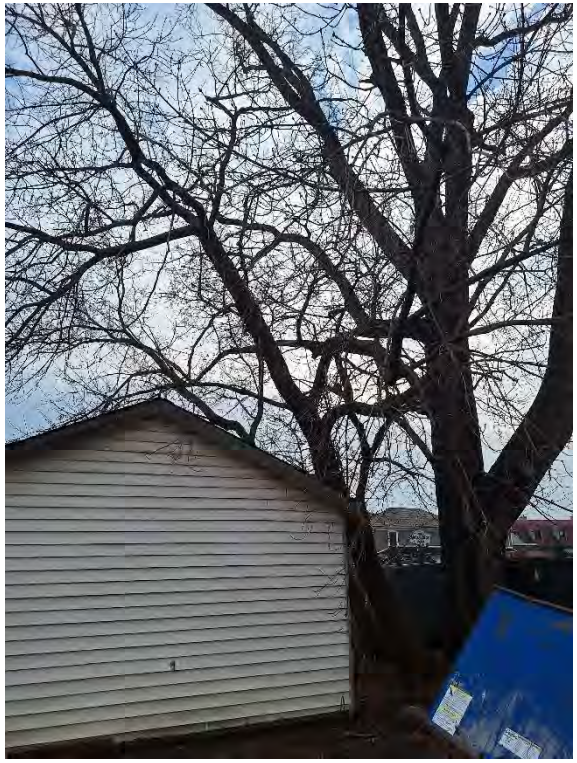

Image 8. Tree D


Image 9. Tree E