



TREE PRESERVATION REPORT FOR ZONING BY-LAW AMENDMENT

**1350 & 1352 WEBSTER STREET
LONDON, ONTARIO**

Report prepared by
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RKLA Project #23-252



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1.0 INTRODUCTION AND EXECUTIVE SUMMARY

1.1 INTRODUCTION

Ron Koudys Landscape Architects Inc. (RKLA) was retained by the developer to prepare a tree assessment report in conjunction with the proposed development at 1350 & 1352 Webster Street, London. The intent of this report is to summarize the findings of the tree assessment and make recommendations regarding tree preservation and removal based on tree health, the current site plan, and anticipated site grading for the purpose of application for rezoning.

Note that refinement of these recommendations will be made upon design refinement at the time of application for site plan approval.

1.2 EXECUTIVE SUMMARY

The inventory captured 71 individual trees and 2 vegetation units. Trees were identified within the subject site, and within 3 meters of the legal property boundary. No species classified as endangered or threatened under the Ontario Endangered Species Act, 2007, S.O. 2007, c. 6 were observed during the tree inventory. All trees observed are common to the current land uses and can be characterized as anthropogenic or opportunistic. The subject site is NOT within or immediately adjacent to a City of London Tree Protection Area.

1.2.1 TREE SPECIES COMPOSITION CHART

The following chart summarizes the amount of each tree species observed.

%	Qty.	Botanical Name	Common Name	%	Qty.	Botanical Name	Common Name
21%	15	<i>Juglans nigra</i>	Black Walnut	3%	2	<i>Malus</i> spp.	Apple
14%	10	<i>Acer saccharum</i>	Sugar Maple	3%	2	<i>Morus alba</i>	White Mulberry
10%	7	<i>Tilia americana</i>	Basswood	3%	2	<i>Picea pungens</i>	Colorado Blue Spruce
7%	5	<i>Tilia cordata</i>	Little Leaf Linden	3%	2	<i>Prunus</i> spp.	Cherry
7%	5	<i>Ulmus pumila</i>	Siberian Elm	1%	1	<i>Fraxinus</i> spp.	Ash
6%	4	<i>Acer negundo</i>	Manitoba Maple	1%	1	<i>Picea glauca</i>	White Spruce
6%	4	<i>Carya cordiformis</i>	Bitternut	1%	1	<i>Pinus</i> spp.	Pine
3%	2	<i>Acer platanoides</i>	Norway Maple	1%	1	<i>Prunus serotina</i>	Black Cherry
3%	2	<i>Catalpa speciosa</i>	Catalpa	1%	1	<i>Thuja occidentalis</i>	Eastern White Cedar
3%	2	<i>Celtis occidentalis</i>	Hackberry	100%	71	Total	

1.2.2 TREE REMOVAL AND PRESERVATION RECOMMENDATIONS

- Removal of 54 from the subject site and property boundaries. Review tree inventory chart in section 4.0 for consent requirements. Note there are multiple boundary trees associated with this site.
- Preservation of 16 trees located within the subject site and beyond the subject site.
- Follow pre, during, and post construction recommendations outlined in the Construction Impact Mitigation Recommendations in this report.

2.0 SUBJECT SITE AND SCOPE OF WORK

The subject site is located in the rear of 1352 & 1350 Webster Street. The site is generally an open grasses area with trees scattered throughout. Multiple trees are located in proximately to the property boundary.

Refer to Figure 1 for scope of tree inventory.



Figure 1 - City of London mapping with 2023 aerial imagery. NTS

Red dashed line - Limit of inventory

3.0 METHODOLOGY

Field work was completed on March 7th, 2024 by RKLA staff member Luke Koudys, ISA certified arborist ON 2865A. A topographic survey provided by MTE dated January 31st, 2024 was used as a base for the field work and determined tree location/ownership. All trees with a minimum DBH of 10cm within the given scope were identified and assessed. Groups of trees and hedges were identified and assessed as vegetation units, and include trees smaller than 10cm DBH. Trees were NOT tagged in the field. Each tree and vegetation unit was assigned a number which are identified in the tree data table and on the tree preservation plan. Tree identification numbers include 1-71 & veg unit 1-2. Note there is no # 12 included in the inventory chart.

The following information was recorded for each individual tree:

- Genus + specific epithet (Species)
- Diameter at breast height (DBH) (centimetres)
- Crown radius (metres)
- Crown Condition (overall general vigour of crown)
- Structural Form (excellent, good, fair, poor)
- Structural Integrity (good, fair, poor, hazard)

General Comments

3.1 HEALTH ASSESSMENT

Trees were assessed following accepted arboricultural techniques and best practices using a limited visual inspection. The inspection included a 360-degree visual examination of the above-ground parts of each tree for structural defects including cavities, wounds, scars, external indicators of internal decay, evidence of insect presence, discoloured or deformed foliage, canopy and root distribution, and the overall condition of the tree. Evaluation of tree health was based on visible tree health indicators including live buds, foliage condition, deadwood, structural defects, form, and signs of disease or insect infestation. If needed, field observations were reviewed against available online imagery of the site to assist in determining tree canopy health. Quantified health assessments included in the inventory are explained here:

Crown Condition Assessment

- 5 Healthy: less than 10% crown decline
- 4 Slight decline: 11% - 30% crown decline
- 3 Moderate decline: 31% - 60% crown decline
- 2 Severe decline: 61% - 90% crown decline
- 1 Dead - No visible indication of living foliage or buds in crown

Structural Form Assessment

- Excellent: An ideal expression of a specific tree species, true to form, balanced canopy, good flare, typical internode length, full crown, etc.
- Good: A satisfactory and generally expected expression of a specific tree species, with only minor or typical variances from an ideal form.
- Fair: Nearly satisfactory, with defects or a combination of defects such as codominant leaders, unbalanced crown, poor/no flare, shortened internodes, has been poorly pruned, etc.
- Poor: Significantly flawed expression of a specific tree species

Structural Integrity Assessment

- Good: Defects if present are minor (e.g. twig dieback, small wounds); defective tree part is small (e.g. 5-8 cm diameter limb) providing little if any risk.
- Fair: Defects are numerous or significant (e.g. dead scaffold limbs); defective parts are moderate in size (e.g. limb greater than 5-8 cm in diameter).
- Poor: Defects are severe (trunk cavity in excess of 50%); defective parts are large (e.g. majority of crown).
- Hazard: Defects are severe and acute; defective part or collective defective parts render the tree a high risk threat to potential targets.

3.2 CRITICAL ROOT ZONES

The critical root zone of a tree is the portion of the root system that is the minimum necessary to maintain tree vitality and stability. Critical root zones are commonly prescribed by municipal bylaws based solely on DBH and/or drip line, and are typically expressed as a circular shape around the tree. There are a number of other factors, however, that are considered when establishing a critical root zone.

Factors that inform location and extent of a tree preservation barriers to protect the critical root zone include: species tolerance to root loss and other construction impacts

(as established by authoritative resources and professional experience), tree trunk size (DBH), tree health and vigour, structural condition, landscape context, soil type, moisture availability, topography, ground cover, crown size (drip line) and balance, current physical root restrictions, visible root arrangement, relationship to neighbouring trees, relationship between tree and proposed construction, type of proposed construction, etc.

The City of London Tree Protection By-Law (C.P.-1555-252) defines the Critical Root Zone as “the area of land within a radius of ten (10) cm from the trunk of a tree for every one (1) cm of trunk diameter”. The Tree Preservation drawing graphically represents this radius for trees to be preserved.

4.0 TREE INVENTORY AND PRESERVATION/REMOVAL RECOMMENDATIONS

4.1 TREE DATA TABLE

The following recommendations are based on requirements of the current site plan. Grey indicates recommended removal.

GENERAL INFORMATION				SIZE		HEALTH & CONDITION				RECOMMENDATIONS	
ID #	COMMON NAME	BOTANICAL NAME	LOCATION	DBH (cm)	CANOPY RADIUS (m)	CROWN CONDITION	STRUCTURAL FORM	STRUCTURAL INTEGRITY	COMMENTS	PRESERVE OR REMOVE	IMPACT MITIGATION OR REMOVAL RATIONALE
1	Apple, Miscellaneous	<i>Malus spp</i>	Subject Site	18	4	3	Fair	Fair	Heavily pruned, lots of dead wood	remove	construction impacts & tree condition
2	Maple, Sugar	<i>Acer saccharum</i>	City ROW Croatia Road	13,15, 18	3	5	Good	Good	Healing basal wound	remove	construction impacts & tree condition, Consent from City required at SPA
3	Maple, Manitoba	<i>Acer negundo</i>	Subject Site	14	4.5	5	Fair	Good		remove	construction impacts
4	Maple, Manitoba	<i>Acer negundo</i>	Subject Site	20,11,11,9,7,9	3	5	Fair	Good		remove	construction impacts
5	Elm, Siberian	<i>Ulmus pumila</i>	Subject Site	17	4.5	4	Fair	Fair	Basal wounds	remove	construction impacts & tree condition
6	Linden, Basswood	<i>Tilia americana</i>	Subject Site	17,26, 17	3	5	Fair	Fair	Lopsided canopy to east, butting fence, odd bark	remove	construction impacts & tree condition
7	Linden, Basswood	<i>Tilia americana</i>	Boundary - City ROW Croatia Road and Subject Site	56	7	5	Poor	Fair	Tight branches, big dead branch, butting fence, trunk wounds	remove	construction impacts & tree condition, Consent from City required at SPA

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8	Walnut, Black	<i>Juglans nigra</i>	Subject Site	21	4.5	5	Good	Good	Some prunes, dead branches, competing leaders	remove	construction impacts & tree condition
9	Walnut, Black	<i>Juglans nigra</i>	Subject Site	20	3.5	5	Good	Good	Minor dead branches	preserve	tree preservation fence
10	Walnut, Black	<i>Juglans nigra</i>	Subject Site	37	6	4	Good	Good	Large boles 2 a metre off ground	preserve	tree preservation fence
11	Hackberry, Native	<i>Celtis occidentalis</i>	Subject Site	42	6	5	Good	Good	Lopsided crown overtopped by walnut	preserve	tree preservation fence
13	Maple, Norway	<i>Acer platanoides</i>	Subject Site	47,11	4	5	Good	Good	dB taken below low primary union, old trunk seam healed well, burls, some old prune primary unions	preserve	tree preservation fence
14	Linden, Basswood	<i>Tilia americana</i>	Subject Site	12	2.5	5	Fair	Fair	primary union at grade	remove	construction impacts & tree condition
15	Linden, Basswood	<i>Tilia americana</i>	Subject Site	27	5	5	Good	Good	Low branched, suppressed	remove	construction impacts
16	Hickory, Bitternut	<i>Carya cordiformis</i>	Subject Site	28	4.5	5	Fair	Fair	Some dead broken branches, canopy heavily lopsided south	remove	construction impacts
17	Maple, Manitoba	<i>Acer negundo</i>	Subject Site	28,12 11	3.5	5	Fair	Poor	Leaning west, many dead suckers, major epicormic growth, dead branches	remove	Tree condition
18	Elm, Siberian	<i>Ulmus pumila</i>	Subject Site	21,26	3	4	Fair	Fair	Dead branches, primary union at grade, epicormic growth, poorly pruned	remove	Tree condition
19	Hickory, Bitternut	<i>Carya cordiformis</i>	Subject Site	29	6	4	Fair	Fair	Serious phomopsis infection visible in trunk and branches, low primary union	remove	construction impacts & tree condition
20	Elm, Siberian	<i>Ulmus pumila</i>	Subject Site	18,11 6	4	3	Good	Good	Lopsided canopy to the west, dead suckers	remove	construction impacts

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21	Elm, Siberian	<i>Ulmus pumila</i>	Subject Site	10	3	3	Fair	Fair	Peeling weeping trunk wound, lopsided canopy to the west	remove	construction impacts & tree condition
22	Elm, Siberian	<i>Ulmus pumila</i>	Subject Site	82	8	2	Fair	Fair	Fused branches, included bark, storm damage snapped large scaffold branch	remove	construction impacts & tree condition
23	Maple, Sugar	<i>Acer saccharum</i>	Subject Site	35	5	5	Fair	Good	Short internodes, epicormic growth	remove	construction impacts & tree condition
24	Linden, Basswood	<i>Tilia americana</i>	Subject Site	58,35	5.5	4	Fair	Good	Diameter taken below primary union and BH, tight primary union, rubbing branched, trunk cavity	remove	construction impacts & tree condition
25	Hackberry, Native	<i>Celtis occidentalis</i>	Subject Site	40	6	4	Good	Good	Grape vine in canopy, low primary union, Fence tight to trunk, DBH approximated	preserve - to be reviewed with civil plans	tree preservation fence
26	Apple, Miscellaneous	<i>Malus spp</i>	Subject Site	28,22	3	4	Poor	Poor	Cavity at primary union, diameter taken below BH/PU, several other trunk cavities, major epicormic growth, rubbing branches	remove	construction impacts & tree condition
27	Apple, Miscellaneous	<i>Malus spp</i>	Subject Site	28,34	5	3	Poor	Fair	Many cavities and wounds	remove	construction impacts & tree condition
28	Catalpa, Northern	<i>Catalpa speciosa</i>	Subject Site	41	5	4	Fair	Fair	DBH taken below low primary union, many dead branches, bark on trunk is split and peeling	remove	construction impacts & tree condition
29	Catalpa, Northern	<i>Catalpa speciosa</i>	Subject Site	54	5	4	Good	Good		remove	construction impacts
30	Walnut, Black	<i>Juglans nigra</i>	Subject Site	40,7	4	5	Good	Good	Slightly atypical crown with 90-degree upward bend in scaffold branch	remove	construction impacts
31	Linden, Basswood	<i>Tilia americana</i>	Subject Site	19,12 12 6 15	4	5	Fair	Fair	Suppressed canopy, basal wound 30cm up, suckering	remove	construction impacts & tree condition

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32	Linden, Basswood	<i>Tilia americana</i>	Subject Site	30	7.5	4	Poor	Fair	Primary union at grade, dead wood throughout crown major epicormic growth, coppice-grown multistems, suppressed canopy	remove	construction impacts & tree condition
33	Walnut, Black	<i>Juglans nigra</i>	Subject Site	49	9	4	Fair	Good	Dead wood throughout crown, some ragged wounds	remove	construction impacts & tree condition
34	Walnut, Black	<i>Juglans nigra</i>	Subject Site	16	4.5	3	Good	Good	Suppressed canopy with grape vine throughout, burls on trunk	remove	construction impacts
35	Walnut, Black	<i>Juglans nigra</i>	Subject Site	14	2.5	5	Fair	Good	Crooked trunk, suppressed canopy with grapevine growing in it	remove	construction impacts
36	Walnut, Black	<i>Juglans nigra</i>	Subject Site	18	3.5	3	Good	Good	Suppressed canopy with grape vine growing in it	remove	construction impacts
37	Walnut, Black	<i>Juglans nigra</i>	Subject Site	33	5	5	Fair	Good	Broken leader, grape vine in canopy. onesided crown SW	remove	construction impacts
38	Walnut, Black	<i>Juglans nigra</i>	Boundary - 1346 Webster Street and subject site	67	9	5	Good	Good	Low primary union, diameter taken below PU/BH, healing prune wounds, treehouse in canopy	remove	construction impacts, consent from neighbour required at SPA
39	Maple, Norway	<i>Acer platanoides</i>	Subject Site	59	7	5	Poor	Poor	Rotting cavity at primary union, healing prune wounds	remove	construction impacts & tree condition, Consent from City required at SPA
40	Walnut, Black	<i>Juglans nigra</i>	Subject Site	59	8	4	Good	Good		remove	construction impacts
41	Walnut, Black	<i>Juglans nigra</i>	Subject Site	65	7	5	Good	Good	Minor epicormic growth, some dead wood	remove	construction impacts
42	Linden, Littleleaf	<i>Tilia cordata</i>	1346 Webster Street	57	5	5	Good	Good		preserve	tree preservation fence

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43	Linden, Littleleaf	<i>Tilia cordata</i>	1346 Webster Street	29	3	4	Fair	Good	Several cavities forming in trunk, suppressed canopy	preserve	tree preservation fence
44	Hickory, Bitternut	<i>Carya cordiformis</i>	Subject Site	41	7	5	Fair	Good	Phomopsis infection, canopy lopsided to the north	remove	construction impacts & tree condition
45	Maple, Sugar	<i>Acer saccharum</i>	Boundary - 59 Stonehenge Road and subject site	80	8	5	Good	Good	Fence build against trunk, dB approximated, lower limbs dead, some cavities forming in branches	preserve - to be reviewed with civil plans	tree preservation fence
46	Cherry, misc.	<i>Prunus spp.</i>	67 Stonehenge Road	35	4	5	Fair	Good	DBH Approximate, lower branches not visible	preserve	tree preservation fence
47	Cherry, misc.	<i>Prunus spp.</i>	Subject Site	35	4	5	Fair	Good	DBH Approximate, pruning wounds	preserve	tree preservation fence
48	Linden, Littleleaf	<i>Tilia cordata</i>	Boundary - 67 Stonehenge Road and subject site	55,52,43,42,41,36	7	5	Fair	Fair	Primary union at grade, trunk cavity, narrow union with included bark, rubbing branches, Stems hitting fence	preserve - to be reviewed with civil plans	tree preservation fence
49	Linden, Littleleaf	<i>Tilia cordata</i>	Subject Site	48,35	6	4	Fair	Fair	Broken stems, primary union at grade, epicormic growth, grape vine overtaking canopy	remove	construction impacts & tree condition
50	Linden, Littleleaf	<i>Tilia cordata</i>	Subject Site	18,9,7,6,5	2.5	3	Fair	Good	Grape vine overtaking canopy, mature suckers	remove	construction impacts & tree condition
51	Maple, Sugar	<i>Acer saccharum</i>	Subject Site	67	5.5	4	Good	Good	Lower branches suppressed, grape vine growing up trunk	remove	construction impacts & tree condition
52	Maple, Sugar	<i>Acer saccharum</i>	Subject Site	78	6	5	Good	Good	Vine covering trunk	remove	construction impacts & tree condition
53	Maple, Sugar	<i>Acer saccharum</i>	Subject Site	44	5	4	Fair	Good	Suppressed, old leader dead and a new leader has established, low pruning wounds, English ivy on trunk	preserve	tree preservation fence

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54	Maple, Sugar	<i>Acer saccharum</i>	Subject Site	98	8	4	Fair	Good	One-sided canopy to the south	remove	construction impacts & tree condition
55	Maple, Sugar	<i>Acer saccharum</i>	Subject Site	53	6	3	Poor	Hazard	giant trunk cavity -2m up on north side, frass at base, suppressed, lopsided canopy northwest, old leader dead and a new leader has established	remove	construction impacts & tree condition
56	Cherry, Black	<i>Prunus serotina</i>	Boundary - 21 Sandra Road and subject site	43	7	3	Fair	Hazard	Several large trunk wounds, large cavity through trunk, frass at base, suppressed, canopy one-sided to the north, trunk leaning north	remove	construction impacts & tree condition, consent from neighbour required at SPA
57	Ash, misc.	<i>Fraxinus spp.</i>	Subject Site	53	6	4	Good	Good	Some dead wood in canopy, no boreholes observed, canopy lopsided south	remove	construction impacts & tree condition
58	Hickory, Bitternut	<i>Carya cordiformis</i>	Subject Site	52	7	5	Good	Good	Abutting fence	remove	construction impacts & tree condition
59	Maple, Sugar	<i>Acer saccharum</i>	Boundary - 26 Sandra Road and subject site	13,11,9	2.5	5	Poor	Fair	Growing into fence, low primary union, rubbing branches	remove	construction impacts & tree condition, consent from neighbour required at SPA
60	Mulberry, White	<i>Morus alba</i>	Boundary - 26 Sandra Road and subject site	23,22,21	5	4	Poor	Poor	Large trunk split, broken and frayed wounds, tight branching, rubbing branches, included bark, frass, epicormic growth, diameter measured below BH, low primary union	remove	construction impacts & tree condition, consent from neighbour required at SPA
61	Walnut, Black	<i>Juglans nigra</i>	Subject Site	26	5	4	Fair	Good	Grape vine in canopy, low branching, some dead branches and burls	remove	construction impacts & tree condition

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62	Walnut, Black	<i>Juglans nigra</i>	Subject Site	18	4	3	Poor	Fair	Old leader has died and a new one has established, grape vine in canopy, fallen tree leaning against trunk	remove	construction impacts & tree condition
63	Walnut, Black	<i>Juglans nigra</i>	Subject Site	39,26,21	8	4	Fair	Fair	Included bark, low primary union, epicormic growth	remove	construction impacts & tree condition
64	Maple, Sugar	<i>Acer saccharum</i>	Boundary - 27 Croatia Road and subject site	-100	10	4	Poor	Fair	Healing trunk wound, approximated dB, fence built against trunk, trunk cavities joining at primary union, cavity heavy south, tight branching	remove	construction impacts & tree condition, consent from neighbour required at SPA
65	Mulberry, White	<i>Morus alba</i>	Subject Site	16,15	8	2	Poor	Poor	Primary union at grade, trunk cavity and split, grape vine in canopy, suppressed, dead wood in canopy	remove	construction impacts & tree condition
66	Maple, Manitoba	<i>Acer negundo</i>	Subject Site	36	4.5	5	Poor	Good	Large buris on trunk, epicormic growth, bad prunes all on the north side, lopsided canopy south	remove	construction impacts & tree condition
67	Eastern White Cedar	<i>Thuja occidentalis</i>	1350 Webster street (retained parcel)	-40	3.5	5	Good	Good		preserve	tree preservation fence
68	Blue Colorado Spruce	<i>Picea pungens 'glauca'</i>	1350 Webster street (retained parcel)	30	3	5	Excellent	Good		preserve	tree preservation fence
69	Pine, misc.	<i>Pinus</i> spp.	Subject Site	-45	3.5	4	Good	Good		remove	construction impacts
70	White Spruce	<i>Picea glauca</i>	Subject Site	-45	4	4	Good	Good		preserve	tree preservation fence
71	Blue Colorado Spruce	<i>Picea pungens 'glauca'</i>	1346 Webster Street	-35	3	5	Good	Good		preserve - to be reviewed with civil plans	tree preservation fence

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VEG-1	Cedar Hedge	<i>Thuja occidentalis</i>	Subject Site	-5-25	3	5	Fair	Good	Approx. 34 individuals, some buckthorn growing within hedge, minor lower dieback	remove	construction impacts
VEG-2	Cedar Hedge	<i>Thuja occidentalis</i>	1350 Webster street (retained parcel)	-5-25	3	5	Fair	Good	View partially obstructed, minor lower dieback	preserve	tree preservation fence

5.0 POTENTIAL CONSTRUCTION IMPACTS ON TREES

Some trees have been recommended for removal due to direct conflict with the proposed development. Some trees that have been recommended for preservation may be in proximity to the proposed construction. Trees to be preserved may be affected by the construction process, or by the construction itself. It is imperative that the design team and the construction crew understand the potential for, and the causes of tree damage. Trees recommended for preservation may experience some or all of the following potential construction impacts. Strategies and methods to avoid these impacts are outlined in the Construction Impact Mitigation Recommendations section of this report.

5.1 SOIL COMPACTION

Soil compaction is caused by heavy or repeated compression or vibration of the soil around the tree. Soil compaction reduces the amount and size of macro and micro pore space that is vital for subsurface movement of air and water. The harmful effects of soil compaction include, but are not limited to: slower water infiltration, poor aeration, reduced root growth and an overall increased susceptibility to biotic and abiotic stressors.

5.2 ROOT LOSS

Root loss occurs when roots are severed. The majority of roots are typically located within the top 60cm of soil and can extend outward up to three times the extent of the tree drip line. Excavation of any kind within the critical root zone* can sever roots. Two categories of roots need to be considered when evaluating impacts of root loss - small, fibrous absorbing roots, and large structural roots. Significant loss of either or both of these functions can cause stress and/or affect the structural stability of the tree. Note, however, that it is commonly accepted that healthy trees can typically tolerate and recover from the removal of approximately 33% (up to a maximum of 50%) of their root mass. Thorough consideration regarding extent of acceptable root removal is dependent on individual species characteristics, root loss distribution, and site specific conditions (*ref. Trees and Development: A Technical Guide to Preservation of Trees During Land Development by Nelda Matheny and James R. Clark, 1998. Pg 72*).

* Refer to ‘Critical Root Zones’ in this report for definition.

5.3 GRADE CHANGES

Lowering of the grade around trees has immediate and long term effects on trees. Lowering of grade requires immediate root loss from cutting the roots which results in water stress from the root removal and potential reduced structural stability.

Raising the grade around a tree can be equally damaging. The addition of fill over the root zone of a tree alters the roots' ability for normal water and gas exchange that is necessary for healthy root growth and stability. Fill essentially suffocates the roots and can lead to the slow and eventual decline of the tree.

5.4 MECHANICAL DAMAGE

Mechanical damage is caused by physical contact with a tree that damages the tree to any degree. During land development and construction activities, there is an increased risk of both minor and fatal mechanical damage to trees from construction equipment. Minor damage can create entry points for insects and pathogens, and fatal damage can cause irreparable structural damage.

5.5 CHANGES TO EXPOSURE - SUN AND WIND

Trees can be negatively affected by increased exposure to sun or wind when neighbouring trees are removed. This can be of particular concern when 'interior trees' (trees that have developed surrounded by other trees) are suddenly exposed to forest edge conditions. These trees may experience higher intensity of direct sunlight resulting in leaf scald, and instability due to increased wind and snow loads.

Trees can be negatively affected by decreased exposure to sunlight. Proposed development that includes tall buildings located to the south and west of mature existing trees can greatly reduce the amount of daily direct sunlight. While this change in environment may not cause the immediate or eventual death of a tree, it can certainly slow development and alter growing habits and patterns, and must therefore be a consideration when evaluating trees for potential preservation.

5.6 SOIL CONTAMINATION

Soil health around a tree can be compromised by contamination from spills or leaks of fuels, solvents, or other construction related fluids.

5.7 WATER AVAILABILITY

Grading and servicing requirements for development can affect water availability for trees. Trees may experience a loss of available water due to a lowered water table or the capture or redirection of subsurface and/or overland flow. Conversely, trees may experience an increase of available water due to changes in site grading and storm water retention efforts.

The successful survival of the trees to be preserved is largely dependent on adhering to the construction impact mitigation recommendations that follow.

6.0 CONSTRUCTION IMPACT MITIGATION RECOMMENDATIONS

The following general recommendations are provided to guide the removal process, mitigate construction impacts, and ensure compliance with provincial, federal, and municipal regulatory requirements. Some of the recommendations listed below are noted to be undertaken by an ISA certified arborist.

6.1 PRE-CONSTRUCTION RECOMMENDATIONS

- a) Prior to any construction activity, tree preservation fencing is to be installed as per the attached tree preservation drawings and detail.
- b) Trees approved for removal are to be clearly indicated in the field (marked with spray paint or other agreed upon method) by the project arborist or landscape architect prior to any tree removal operations. All removals to be undertaken by an ISA certified arborist.
- c) In accordance with the Migratory Birds Convention Act, 1994, all removals must take place between September 1st and March 31st to avoid disturbing nesting migratory birds. If tree removal occurs between April 1st and August 31st, a biologist is required to complete a search for nests. Once cleared, the contractor has 48 hours to remove. If removal does not occur within 48 hours, another search will be required.
- d) Care should be taken during the felling operation to avoid damaging the branches, stems, trunks, and roots of nearby trees to be preserved. Where possible, all trees are to be felled towards the construction zone to minimize impacts on adjacent vegetation. All removals to be undertaken by an ISA certified arborist.
- e) It is recommended that the existing ground-layer vegetation at the base of trees to be preserved remain intact within the critical root zone so as not to disturb the soil around the base of the existing trees.
- f) Final site grading plans should ensure that the existing soil moisture conditions are maintained.

6.2 RECOMMENDATIONS RELATED TO THE CONSTRUCTION PROCESS

- a) Tree preservation fencing is to be maintained in good condition and effective for the duration of construction until all construction activity is complete or as per the project arborist or landscape architect.
- b) Tree preservation fencing is to remain intact as per the tree preservation drawings, and can only be temporarily removed with the express written consent from the project arborist or landscape architect. Should tree preservation fencing be temporarily relocated or moved, it is to be reinstated as per the tree preservation plans as soon as possible.
- c) No construction, excavation, adding of fill, stockpiling of construction material, or heavy equipment is permitted within the critical root zone/within the tree preservation fencing.
- d) When excavation near a tree is required, and it is anticipated that roots will be severed and exposed, duration of exposure is to be minimized to prevent root desiccation.
- e) During the excavation process, roots 25mm or larger that are severed and exposed should be hand pruned to leave a clean-cut surface. To be undertaken by an ISA certified arborist. Exposed severed roots that cannot be covered in soil on the same day as the cuts are made are to be kept moist. Exposed roots are to be kept moist by covering them with water soaked burlap or any other means available to prevent them from drying out.
- f) Avoid idling heavy equipment under or within close proximity to trees to be preserved to prevent canopy damage from exposure to the heat of the exhaust.
- g) Broken branches on trees within the subject site to be preserved should be cleanly cut as soon as possible after the damage has occurred. To be undertaken by an ISA certified arborist.

6.3 POST-CONSTRUCTION RECOMMENDATIONS

- a) Avoid discharging rain water leaders adjacent to retained trees, as this may result in an overly moist environment which can cause root rot.
- b) After all work is completed, tree preservation fences and any other impact mitigation paraphernalia must be removed.
- c) A final review must be undertaken by the project arborist or landscape architect to ensure that all mitigation measures as described above have been met.

7.0 DISCLAIMER

The assessment of the trees presented within this report has been made using accepted arboricultural techniques. These include a visual examination of the above-ground parts of each tree for structural defects, scars, external indications of decay, evidence of insect presence, discoloured foliage, the general condition of the trees and the surrounding site, as well as the proximity of property and people. None of the trees examined were dissected, cored, probed, or climbed, and detailed root crown examinations involving excavation were not undertaken.

Notwithstanding the recommendations and conclusions made in this report, it must be realized that trees are living organisms and their health and vigour is constantly changing. They are not immune to changes in site conditions or seasonal variations in the weather.

While reasonable efforts have been made to ensure the trees recommended for retention are healthy, no guarantees are offered or implied, that these trees or any part of them will remain standing.

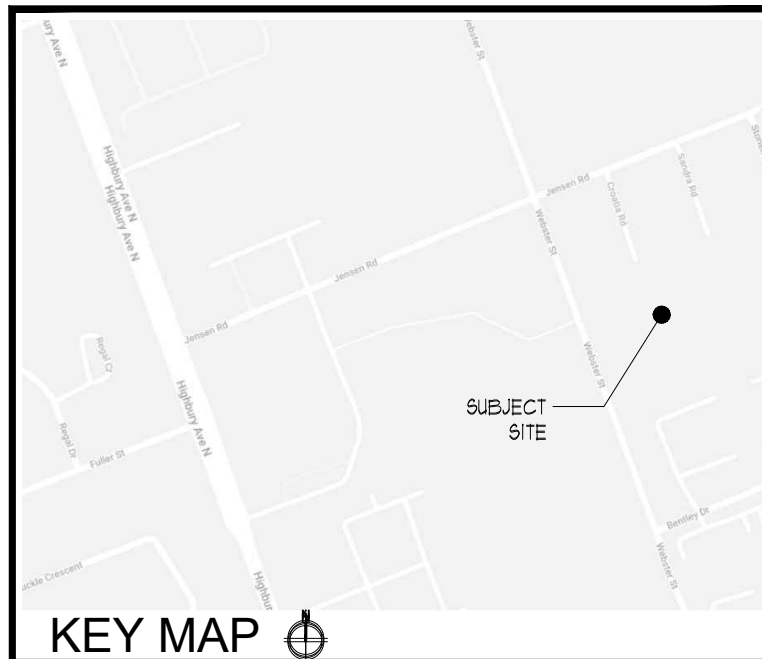
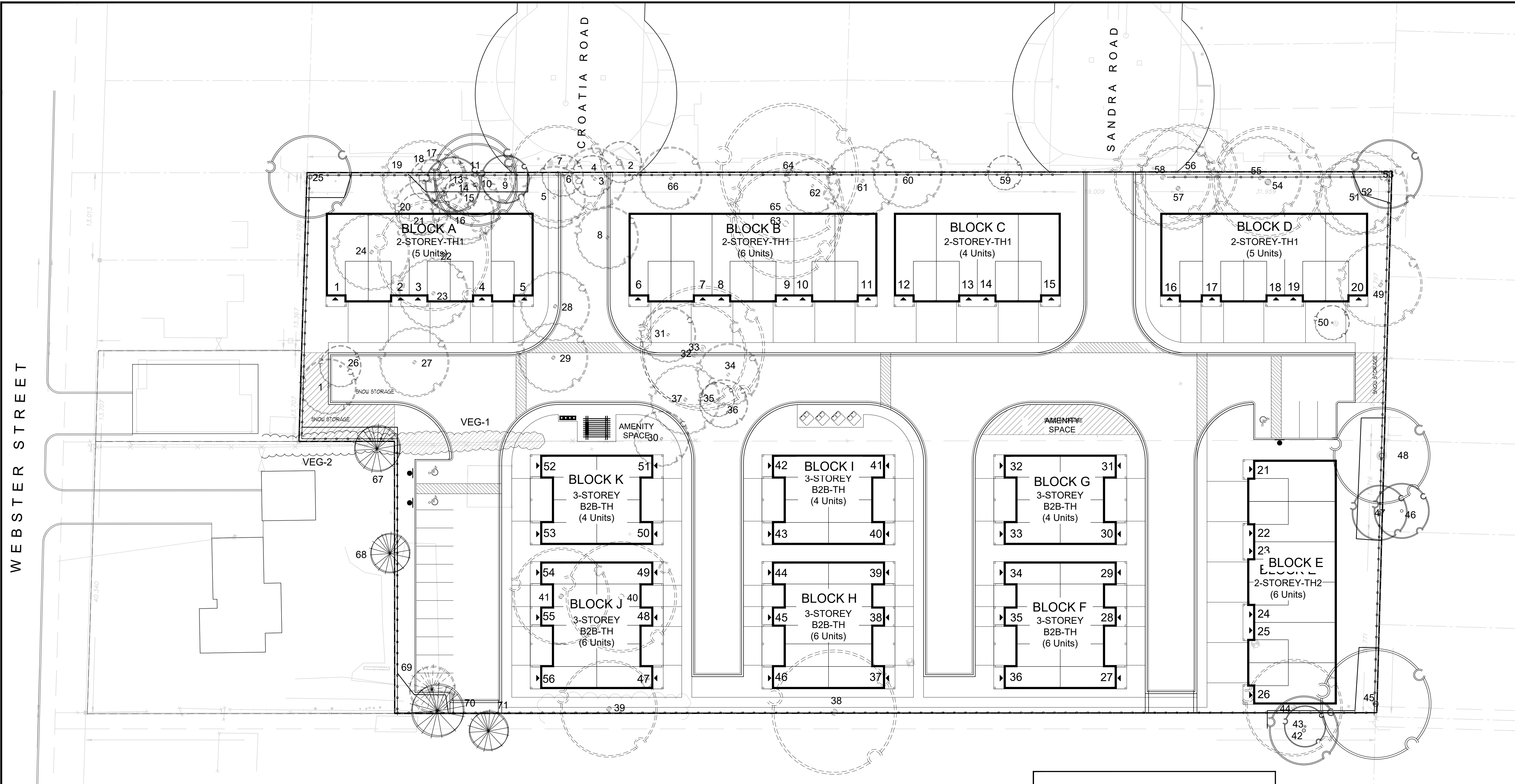
Note that this arborist report has been prepared using the latest drawings and information provided by the client. Any subsequent design or site plan changes affecting trees may require revisions to this report. Any new information or drawings are to be provided to RKLA prior to report submission to planning authorities.

8.0 CONTACT INFORMATION

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Field work and report author:
Kathleen Garrett, ISA Certified Arborist ON-3009A – katie@rkla.ca

9.0 APPENDIX A - TREE PRESERVATION DRAWINGS



ALL DRAWINGS REMAIN THE PROPERTY OF THE LANDSCAPE ARCHITECT AND SHALL NOT BE REPRODUCED OR REUSED WITHOUT THE LANDSCAPE ARCHITECTS WRITTEN PERMISSION.

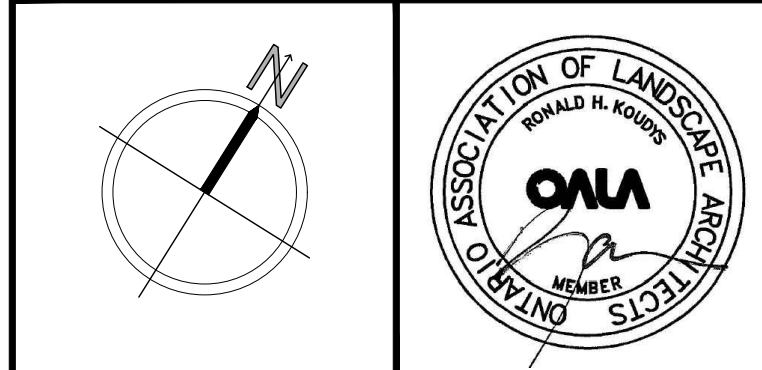
THIS DRAWING SHALL NOT BE USED FOR CONSTRUCTION OR TENDER PURPOSES UNLESS SIGNED AND DATED BY RONALD H. KOUDYS, O.A.L.A. C.S.L.A. LANDSCAPE ARCHITECT, LONDON, ONTARIO (519) 667-3322.



Ronald H. Koudys, O.A.L.A. C.S.L.A. DATE

DATE	DESCRIPTION	No.
2024-05-08	ISSUED FOR ZBA	2.
2024-03-14	ISSUED FOR REVIEW	1.

PLOTTING INFORMATION:
 PLOTTED DATE + 2024-05-08
 PLOTTED SCALE + 1:1

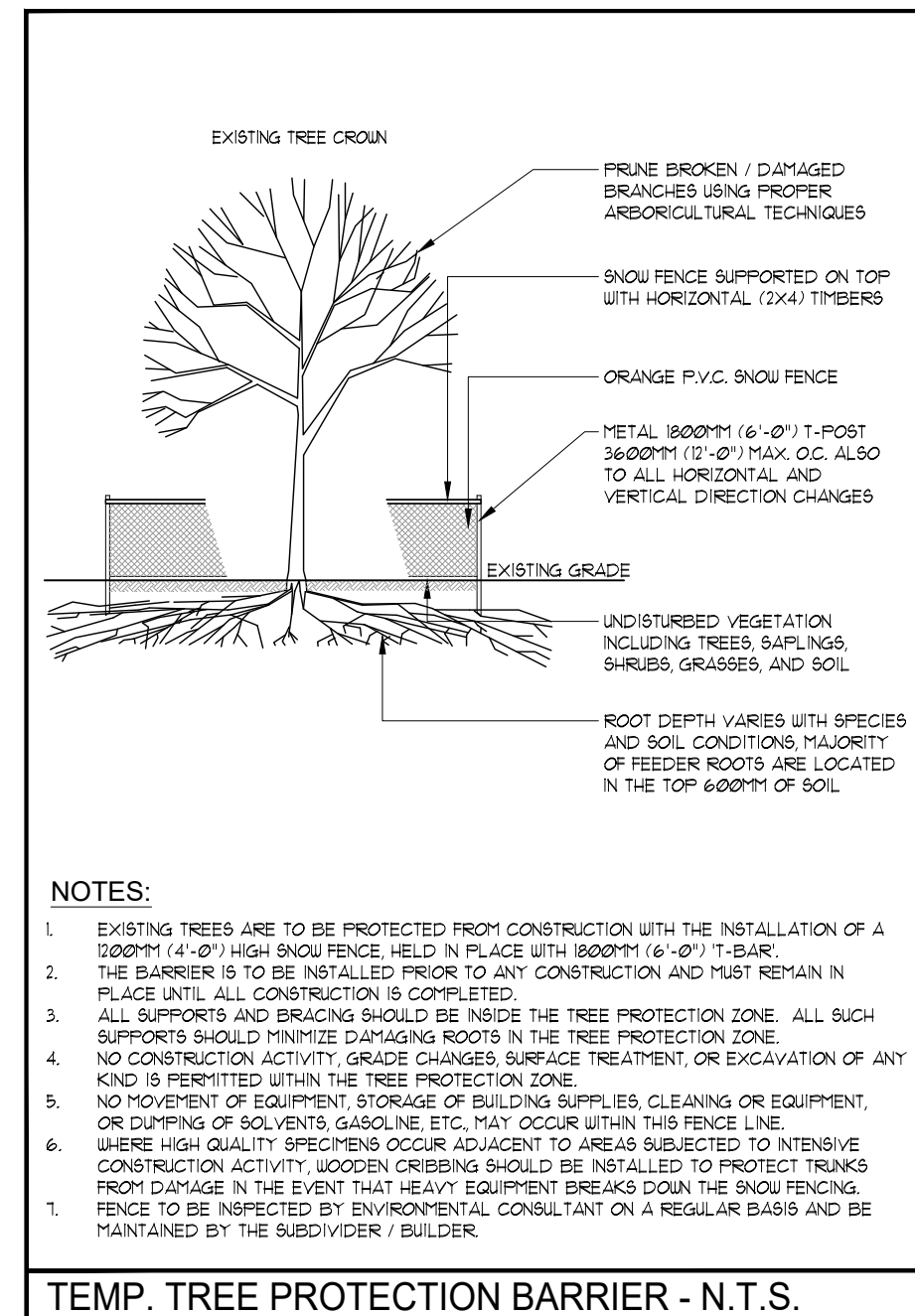


PROJECT TITLE:
2 STOREY TOWNHOMES
 1356 WEBSTER STREET
 LONDON, ON

DRAWING TITLE:
TREE PRESERVATION PLAN

DATE: MARCH, 2024	SCALE: AS NOTED	DRAWING No. T-1
DRAWN: RKL/A Inc.	CHECKED BY: RHK	
PROJECT No. 23-252Lc		

TREE PRESERVATION PLAN
 SCALE = 1:300



LEGEND

	EXISTING DECIDUOUS TREES TO REMAIN
	EXISTING DECIDUOUS TREES TO BE REMOVED
	EXISTING CONIFEROUS TREES TO REMAIN
	EXISTING CONIFEROUS TREES TO BE REMOVED
	EXISTING PLANTINGS TO REMAIN
	EXISTING PLANTINGS TO BE REMOVED
	TREE PROTECTION BARRIER