COHEN & MASTER™

TREE AND SHRUB SERVICES

TREE VEGETATION STUDY
&
TREE LOCATION PLAN

530, 550, 580 Kerr Street and 131, 171 Speers Road

Oakville, ON

Date: Jan. 22, 2022
Revised: Jan. 31, 2022

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Table of Contents

1 Introduction

This report has been prepared by Cohen and Master Tree and Shrub Services on behalf of April Investments Limited (owner of 588 Kerr Street), 527079 Ontario Limited (owner of 530 Kerr Street), Trans County Development Corporation Limited (owner of 131 Speers Road), and Oakville Developments (2010) Inc. (owner of 550 Kerr Street) **(together known as the "landowners")**. This document is in support of a phased Official Plan Amendment **(the "OPA")** to permit the redevelopment of lands municipally addressed 530, 550, 580 Kerr Street, 131 and 171 Speers Road **(together known as the "subject site"**) into a comprehensive mixed use, transit supportive neighbourhood **(the "Proposal")**.

1.1. Proposal Description

The Proposal plans for the high-density, mixed-use intensification of a large, underutilized site within a planned Growth Area and adjacent to a Regional Transit Corridor in the Town of Oakville. In keeping with the Town's Official Plan policies, a Comprehensive Development Plan has been created which considers the phased and full build out potential of the subject site. In preparing the block design, the redevelopment has been considered on the basis of a coordinated approach to achieve full build out potential on the site.

The Proposal includes an enhanced public realm, an urban street and block pattern that connects to the surrounding urban fabric, and a compact built form which responds to the surrounding context through appropriate transitions. Massing and height have been strategically distributed across the blocks in a manner that creates a pedestrian-friendly and animated public realm, optimizes solar access to the conceptual public park (approximately 1-acre), and places the tallest heights at identified gateway locations. A range of uses and amenities are vertically integrated within a series of buildings with heights ranging from eight to 28 storeys.A range of uses and amenities are vertically integrated within buildings.

The Proposal and its implementing Official Plan Amendment will enable the delivery of a comprehensive, phased development of a mixed-use complete community containing seven urban development blocks, which will accommodate a total GFA of 194,200m2 and a density of 3.4 FSI.

1.2 Arborist Report Assignment

The following report has been prepared to fulfil the tree vegetation study requirement as per the Town of Oakville's development guidelines.

The purpose of this report is to:

- Establish species, size and condition of trees located on the subject site and within 6 meters of the subject site.

- Provide a tree location plan showing the locations of inventoried trees and minimum Tree Protection Zones (TPZs) to inform the design process.
- Provide photo documentation of existing vegetation.
- Provide an overview of the relevant tree policies and legislation, including the Town of Oakville's tree By-laws and tree protection/removal requirements.
- Provide general recommendations for tree protection based on the proposed site development as per the Town of Oakville's tree protection procedure.

The following report must be read in conjunction with the Tree Location Plan (TLP), Appendix III.

1.3 Study Limits

The subject site, comprised of five properties, is a 194,200 m2 parcel, currently occupied by a range of buildings used for retail and commercial uses, including a grocery store, department store, cinema, and their associated parking areas. Refer to Figure 1.

Figure 1. The Subject Site

The tree vegetation study was carried out within the following site limits,

- The west side of Kerr St., from the CN Rail corridor to Speers Rd.
- The north side of Speers Rd., from Kerr St. to the west property boundary of 171 Speers Rd.
- The south side of the CN Rail corridor, west of Kerr St. to the west property boundary of 171 Speers Rd.
- Within 6 meters of the west property boundary of 171 Speers Rd.

2 Regulatory and Other Requirements

2.1 Municipal Tree Protection By-laws and legislation

- Livable Oakville 2009 (revised 2021), The Town of Oakville official Plan, Part C, Section 10.12, considers its municipally owned urban forest as green infrastructure and mandates no net loss of Town tree canopy policy in municipal rights-of-way.
- Town Tree Protection By-law 2009-025 regulates the planting, care, maintenance and removal of trees on Town property.
- Private Tree Protection By-law 2017-038 regulates or prohibits the injury or destruction of trees on private property within the Town of Oakville.
- Parks Trees By-law 2013-013 prescribes rules and regulations for Town of Oakville Parks.
- Site Alteration By-law 2003-21 requires a mandatory review of existing trees for site alterations within the Town.
- By-law 2003-021 requires a review of existing trees for any site alteration within the town.
- Halton Region Tree By-law # 121-05 prohibits the destruction and/ or injuring of any tree located in Greenlands or in Woodlands 0.5ha or larger.

Relevance to Subject Site: Trees on the subject site are located on private and municipal lands, subject to the Town's site alteration, private and municipal By-laws.

2.2 Regional Regulations

2.2.1 Conservation Halton

Under Ontario Regulation 166/06 and Land Use Planning Policy (Apr. 27, 2006, amended Nov. 26, 2020), Conservation Halton regulates areas where flooding, erosion, or dynamic beaches may affect development, and where interference with wetlands and alterations to shorelines and watercourses might adversely affect those environmental features.

Relevance to subject site: *The subject site does not fall within Conservation Halton regulation*.

2.3 Provincial Regulatory Requirements

2.3.1 Endangered Species Act, 2007

The Endangered Species Act (ESA, 2007) determines mandatory protection of species and their habitats (i.e., areas essential for breeding, rearing, feeding, hibernation and migration) that are designated as Threatened or Endangered by the Committee on the Status of Species at Risk in Ontario (COSSARO), otherwise known as Species at Risk in Ontario (SARO). The statute is administered by the Ministry of the Environment, Conservation and Parks. The purpose of the Act is to prevent listed species from becoming extirpated or extinct.

32 (1) "No person shall,

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

Clause 10(1) (a) of the ESA states that: "No person shall damage or destroy the habitat of a species that is listed on the SARO list as an endangered or threatened species".

Relevance to Subject Site: *No trees listed under SARO trees were identified on the site*.

Adherence to SARO may require faunal surveying and coordinating tree removals outside of active periods.

2.4 Federal Regulatory Requirements

2.4.1 Migratory Birds Convention Act, 1994

The Migratory Birds Convention Act (MBCA, 1994) and complimentary regulations prohibit potentially harmful human activities to migratory birds, their eggs, and nests. Implemented by Environment and Climate Change Canada, no work is permitted that would result in the destruction of nests or eggs, or wounding or killing of birds under the MBCA.

Compliance with the MBCA is required to ensure that site clearing, including the removal of landscape trees, shrubs, grasses, and other structures, are to be avoided within the typical breeding bird period under Environment Canada (generally between April 1st and August 31st).

If work is proposed during this period, the proponent must demonstrate due diligence, including a risk evaluation as per Environment and Climate Change Canada guidelines. Additional information on due diligence to minimize the risk to migratory birds and achieve compliance with this legislation may be found on the Environmental and Climate Change Canada website.

Relevance: The MBCA and its regulations must be adhered to on this project. Avoidance of vegetation clearing within the Primary Nesting Period for migratory birds (April 1 to August 31) where feasible. If clearing during this time period cannot be avoided, a non-intrusive breeding bird survey is to be undertaken to confirm the presence or absence of active nests. In general, vegetation clearing is to be conducted between October 1 to March 31.

2.4.2 Canadian Food Inspection Agency Policy Directive D-03-08

Under the Canadian Food Inspection Agency (CFIA) policy D-03-08 (Phytosanitary Requirements to Prevent the Introduction Into and Spread Within Canada of the Emerald Ash Borer, *Agrilus planipennis* (Fairmaire)), the movement of all ash (*Fraxinus spp*.) materials, including wood, bark, chips, or bark chips are restricted from being transported outside of the Regulated Area. The Regulated area includes south and central Ontario, south Quebec and west New Brunswick (See https://inspection.canada.ca/DAM/DAM-plants-vegetaux/STAGING/text-texte/pestrava_agrpla_ministerial_pdf_1337372111445_eng.pdf) for a map of the Regulated Area). The CFIA requires a Movement Certificate for ash materials to be moved from the Regulated Area.

Relevance to subject site: *No ash trees were observed within the scope of work.*

3 Vegetation Assessment

3.1 Inventory Method

1. The subject site was assessed on January 7 and 8, 2022 by the Consulting Arborist.

2. Photos were taken at the time and the most representative are attached as Appendix I.

3. The methods used to collect data and the information provided below are consistent with the Town of Oakville's Tree Protection During Construction Procedure.

4. Trees were included in the tree inventory as follows,

    - Individual planted trees or trees within maintained landscape areas of any size on or within 6 m of the subject site

- Natural occurring trees 10 cm DBH or greater

5. Trees were assessed for species, crown diameter, structural and biological condition, and location.

6. Trunk diameter was measured using a calibrated diameter tape. The measurement was taken at 1.37 meters above ground level, generally referred to as the diameter at breast height (DBH). DBH was estimated for trees located on adjacent private property and for trees located at 171 Speers Rd., for which permission had not been granted.

7. Trees were assessed by external visual inspection from the ground and assigned a condition rating ranging from good to poor in consideration of biological and structural condition.

8. Tree ownership was determined based on a topographic survey prepared by KRCMAR dated Jan. 26, 2022. Trees that were absent from the survey were field measured with respect to existing site features (e.g., sidewalks, chain-link fencing, etc.). Ownership of missing trees may require confirmation with an updated survey if impacted by the development footprint.

9. The tree inventory is attached as Appendix II.

10. Cohen and Master created a Tree Location Plan by adding tree icons representing inventoried trees to a topographic survey prepared by Verhaegen, Stubberfield, Hartley, Brewer, Bexaire Inc. O.L.S. dated Dec. 21, 2017, overlaid onto an orthophoto image from Google Earth. Trees added to the Tree Location Plan were field measured. The Tree Location Plan is found in Appendix III.

3.2 Tree Vegetation Overview

A total of 80 trees were inventoried on/adjacent to the subject site for this report. Approximately half of the inventoried trees are planted landscape elements, and the remaining half were naturally occurring (self-seeded) trees. Of the inventoried trees, 6 were located within the municipal right-of-way; the remaining 74 were located on private property on the subject site or on adjacent private land. It may be noted, on this site, 40 inventoried trees are located on land owned by Metrolinx or on/over the shared property line with Metrolinx (boundary trees). For the purposes of this report, and in accordance with Metrolinx policy to adhere to local tree protection regulations, these trees are classified as private trees.

Tree Species Composition

A total of 12 species were captured on the site, with Siberian elm (*Ulmus pumila*) and honey locust (*Gleditsia triacanthos*) forming the largest component, at 33% and 27% respectively.

Species	Percent Composition
Siberian elm	33
honey locust	27.5
Austrian pine	15
Manitoba maple	9
Colorado spruce	2.5
juniper	2.5

Species	Percent Composition
Norway maple	2.5
silk tree lilac	2.5
English oak (columnar)	<2
littleleaf linden	<2
white mulberry	<2
staghorn sumac	<2

It may be noted that in addition to the inventoried trees, additional small diameter naturally occurring (self-seeded) trees (<10 cm DBH) composed of Siberian elm, Manitoba maple, and staghorn sumac, as well as multi-stem common buckthorn (*Rhamnus cathartica*) and dense wild grape vine (*Vitis riparia*) were observed growing along the fence line to the north of the subject site and along the east and west fence lines of 171 Speers Rd.

Size Class

The size of inventoried trees was as follows:

DBH	Percent Composition
1-10	11
11-20	30
21-30	18
31-40	18
41-50	18
51-60	3
61-70	1
71-80	1

Inventoried trees on the subject site ranged from 3 cm DBH to between 70-80 cm DBH. The largest tree on the site was Tree 33, a Siberian elm, located on Metrolinx property.

Condition Summary

Condition Overall	Percent Composition
Good	26
Good – Fair	1
Fair	28
Fair - Poor	14
Poor	29
Dead	2

A total of 55% trees within the inventory were assessed in fair or better than fair condition. A total of 43% trees were rated in less than fair condition, and 2% of the trees were dead. It should be noted that the inventory assessment of trees located at 171 Speers Rd. was limited to viewing the trees from the adjacent property. These trees (30 trees) were generally rated in good condition; condition rating may change upon further inspection.

In general, trees were rated in poor condition as a result of conflict with structures on the site, such as parking lot curbs, chain link fencing, and overhead wires (and associated poor pruning practices), as well as competition with dense grape vine and adjacent trees. In most instances these trees were naturally occurring trees rather than planted landscape elements.

4 General Tree Protection Measures During Construction

4.1 General Tree Protection Comments

1. It is recommended that existing trees be considered in the design process and maintained where feasible. Through design refinement, the exact limits of disturbance on the subject site are to be determined and impacts to trees assessed at that time.

2. Tree protection is specified to prevent damage to existing trees. Damage to trees is cumulative and often irreversible. Mature trees are especially sensitive to injury or changes in the environment. Disturbance during construction includes soil compaction from foot and equipment traffic and construction materials, excavation, trenching, grade changes, mechanical damage, or storage or disposal of materials, including those toxics to plants, as well as alteration of site conditions to which the tree has adapted (alteration of soil moisture, soil quality, sunlight, wind speed and direction, air temperature, etc.). Visible symptoms of damage to trees may not be apparent for several years after the occurrence.

3. Tree protection measures are required by the Town of Oakville during construction, as per the Town's Tree Protection During Construction Procedure (https://www.oakville.ca/townhall/en-tre-001-001.html) and associated SCHEDULE documents.

4. No disturbance is allowed within the Tree Protection Zone (TPZ) of By-law protected trees without permission from the Town of Oakville. The Town defines the Tree Protection Zone (TPZ) as the minimum setback required to maintain the structural integrity of the tree's anchor roots, based on generally accepted arboricultural principles. If trees are protected to the TPZ then the tree's anchor root structure is expected to be maintained.

5. The minimum TPZ radius is specified by the Town of Oakville in the table below:

Trunk Diameter (DBH) at 1.37m from Ground Level	Tree Protection Zone (distance from trunk)
< 10cm	1.8m
10-30cm	2.4m
31-50cm	3.0m
51-60cm	3.6m
61-70cm	4.2m
71-80cm	4.8m
81-90cm	5.4m
91-100cm	6.0m
> 100cm	10cm protection for each 1cm of diameter

6. The Tree Protection Zone radius must be measured from the outside edge of the base of the trunk. Existing hard or paved surfaces may limit the TPZ and must remain intact throughout construction.

7. Any work proposed inside the TPZ of a By-law protected tree must be overseen by a qualified arborist, or as specified. A qualified arborist is who has graduated from an accredited college or university with a diploma or degree in Urban Forestry, Arboriculture or equivalent and satisfies at least one of the following requirements:

    - is certified by the Ontario Training and Adjustment Board or the International Society of Arboriculture;
    - is currently accepted as consulting arborist with the American Society of Consulting Arborists;

- is a Registered Professional Forester (RPF) as defined in the Professional Foresters Act, 2000, S.O. 2000, c. 18; or

- has comparable qualifications to those set out under clauses (a) to (c) above as approved by the Designated Official.

8. A Tree Protection Plan (TPP) is to be prepared based on the determined development footprint, and must take into consideration site grading, servicing, access, staging, and soil remediation (if applicable). The TPP indicates trees that require removal, as well as a tree protection prescription for trees that are to be retained on the site, including the location of tree protection barriers and construction mitigation measures (e.g., root-sensitive excavation, root pruning under arborist supervision, clearance pruning, etc.).

4.2 Tree Removal Compensation

For trees that require removal from the subject site as a result of the proposed development, required permits, permissions, and compensation requirements are to be adhered to, pending Town review.

Compensation for the removal of private, By-law protected trees is as follows,

- One tree must be planted for every 10 cm DBH of healthy tree removed.
- A $300 security deposit is required for each tree to be planted. The security deposit will be refunded once a final inspection of the replacement plantings is complete.
- Replacement trees must be planted on the same property as those removed. Where it is not possible to properly grow replacement trees on the site, the security deposit may be donated to the town to plant on nearby town property.
- The minimum tree replacement size is a 30-mm caliper (3 cm width) deciduous tree, or a 150-cm high coniferous tree in a five-gallon container, balled in burlap, or in a wire basket.

Compensation for the removal of Town trees is as follows,

- The applicant assumes all costs involved and shall either:

    - pay the amenity value of the tree(s) calculated in accordance with the most recent International Society of Arboriculture Guide for Plant Appraisal; or
    - plant the equivalent number of trees based upon a “no net loss or canopy cover” objective as determined by the Town Forester or designate. Where tree relocation is approved, the applicant will assume all relocation and establishment costs.

5 Limitations of Assessment

It is the policy of Cohen and Master Tree and Shrub Services to provide the following clause in regard to limitations. This is to ensure that the client is fully aware of what is technically and professionally realistic in the preservation and assessment of trees in the urban environment.

The assessment of the trees in this report has been done in conjunction with and according to accepted arboriculture methods and techniques. These include an examination of the above ground parts of the tree for structural defects, scars, cracks, the overall condition of the root structures, the severity and direction of lean (if any), the general condition of the trees and the surrounding environment, external indications of decay such as fungal fruiting bodies, evidence of attack by insects, symptoms of infestation and pathogens, discoloured foliage, and the proximity of potential targets should a tree fail. Except where specifically noted, the trees were not cored, probed, or climbed and there was no detailed inspection of the root crowns involving excavations, or samples taken to be scientifically tested.

Notwithstanding the recommendations and conclusions presented in this report, it must be acknowledged that trees are living organisms. They are not immune to changes in site conditions, dramatic weather events or seasonal variations in climate. Therefore, it should always be recognized that trees are ever evolving, and their health and vigour constantly vary over time. While all reasonable efforts have been made to ensure that the subject trees are healthy, no guarantees are offered or implied that these trees or part(s) of any trees will remain intact.

It is professionally and practically impossible to predict with absolute certainty the behaviour of any tree or its component parts under all circumstances and variables. Most trees have the potential for failure under adverse weather conditions and the risk can only be completely eliminated if the tree is removed. Inherently, a standing tree will always pose some level of risk. Although every effort has been made to ensure that this assessment is reasonably accurate, trees should be re-assessed periodically. The assessment presented in this report is valid at the time of inspection.

This report is property of Cohen and Master Tree and Shrub Services Ltd. and/or its agents and may not be used until payment is made in full unless written permission is granted. Cohen and Master Tree and Shrub Services reserves the right to withdraw this report and its recommendations, if any requirements are not met. All details and graphics are copyright of Cohen and Master Tree and Shrub Services Ltd.

6 Literature Cited

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On behalf of **Cohen and Master Tree and Shrub Services**,

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Appendices

Attached

Appendix I – Photographs

Photo 1. Siberian elms in boulevard adjacent to Speers Rd., looking east.

Photo 2. Siberian elms in boulevard adjacent to Speers Rd., looking west.

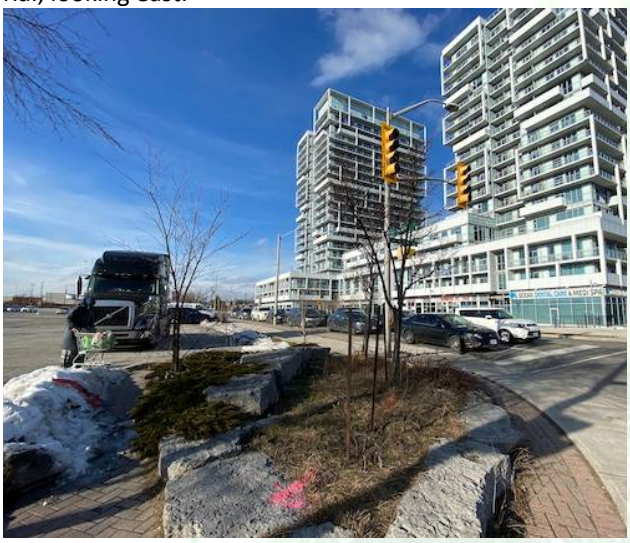


Photo 3. Trees 18, 19, 20 at Speers Rd. and Kerr St.

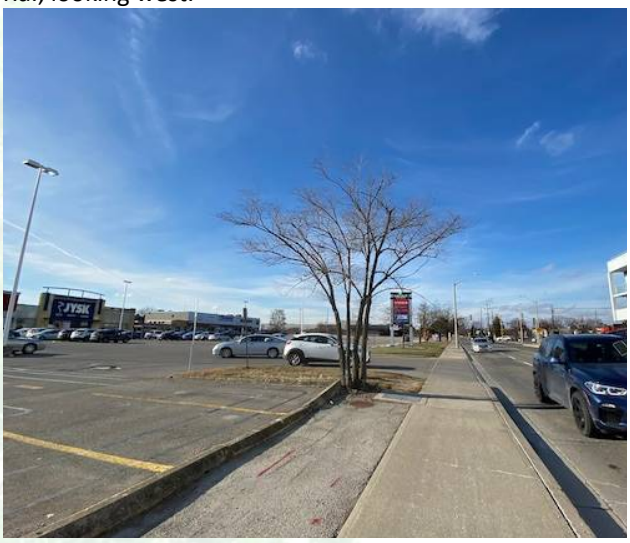


Photo 4. Tree 21

Photo 5. Tree 22

Photo 6. Trees 23, 24, 25.

Photo 7. Trees 25 (right) and 26 (left).

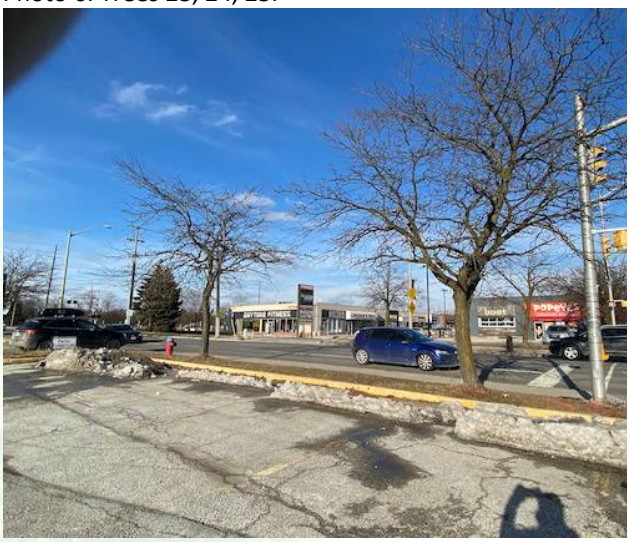


Photo 8. Trees 27, 28.

Photo 9. Tree 29.

Photo 10. Trees 30, 31, 32.

Photo 11. Tree 33.

Photo 12. Trees 34, 35.

Photo 13. Tree 36.

Photo 14. Tree 37.

Photo 15. Trees 38, 39, 40.

Photo 15. Trees 41, 42, 43 right to left.

Photo 16. Tree 44.

Photo 17. Trees 46, 47 (honey locust), Tree 51 on right.

Photo 18. Tree 49.

Photo 19. Tree 50 and small diameter sumac, grape vine along fence.

Photo 20. Trees 63-67.

Photo 21. Tree 68.

Photo 22. Trees 69-71.

Photo 23. Trees 71-74, right to left.

Photo 24. Trees 75-79.

Photo 25. Tree 80.

Appendix II – Tree Inventory

Inventory date: Jan. 7 & 8, 2022

Chart Details:

Tree #: Identification number assigned to inventoried trees, corresponding to the Tree Location Plan (Appendix III).
Common Name: Local or regional tree name.
Botanical Name: Scientific name consisting of genus and species of tree.
DBH (cm): Diameter in cm measured at 1.37 meters from the ground (diameter at breast height).
Crown Diameter (m): Farthest edge or diameter of the tree's branches.
Condition Rating: Overall condition rating from good to fair to poor based on overall health and structure.
Observations: Specific observations from the visual assessment that have informed the condition rating and action.
TPZ: Minimum required tree protection zone radius in meters.
Ownership Category: Private subject site; Private (Metrolinx); Boundary; Municipal.

Tree #	Common Name	Botanical Name	DBH (cm)	Crown Diameter (m)	Condition Rating	Observations	TPZ (m)	Ownership Category
1	Siberian elm	*Ulmus pumila*	21.5	4.5	Fair - Poor	Base of tree against concrete parking lot curb; T-bar embedded in trunk; minor small diameter dead wood in lower crown; fair to poor trunk structure; fair crown structure; good health.	2.4	Private (Metrolinx)
2	Siberian elm	*Ulmus pumila*	12, 11	4	Fair	Codominant at grown level; multiple small diam. prunin wounds on trunk with good wound wood; fair crown structure; branches conflicting with light standard; good health.	2.4	Private (Metrolinx)
3	Siberian elm	*Ulmus pumila*	10	2.5	Fair	Multiple trunk wounds and pruning wounds with good wound wood; fair structure; minor bend; good health.	2.4	Private (Metrolinx)
4	Siberian elm	*Ulmus pumila*	9.5, 9	4	Fair	Codominant stems at approx. 10cm from ground with a seam below union; old tear out on south stem; fair structure; minor small diameter dead wood; good health.	2.4	Private (Metrolinx)
5	Siberian elm	*Ulmus pumila*	16	n/a	Dead	Dead	n/a	Private (Metrolinx)

Tree #	Common Name	Botanical Name	DBH (cm)	Crown Diameter (m)	Condition Rating	Observations	TPZ (m)	Ownership Category
6	Siberian elm	*Ulmus pumila*	10.5	3	Fair - Poor	Trunk wound on north side 1/4 circumference, some decay into trunk; basal wound to west with good wound wood; fair crown structure; minor small diameter dead wood; good health.	2.4	Private (Metrolinx)
7	Siberian elm	*Ulmus pumila*	12, 12	4	Fair - Poor	Codominant stems at approx. 45 cm from ground with a fair union; seam on south side, up to union; rubbing branches; moderate small diameter dead wood; moderate to low vitality.	2.4	Private (Metrolinx)
8	Siberian elm	*Ulmus pumila*	8	2.5	Fair	Multiple small diameter trunk wounds with good wound wood; fair crown structure; minor small diameter dead wood; good health.	1.8	Private (Metrolinx)
9	Siberian elm	*Ulmus pumila*	6	2.5	Poor	Large number of trunk wounds with good wound wood; small diameter branch tear outs; moderate vitality; under canopy of adjacent tree.	1.8	Private (Metrolinx)
10	Siberian elm	*Ulmus pumila*	17	5	Fair	Trunk wound on south side with inner wood exposed, good wound wood; multiple pruning wounds; fair structure; good health.	2.4	Private (Metrolinx)
11	Siberian elm	*Ulmus pumila*	11.5, 8	3	Fair - Poor	Codominant branches near ground level; base of tree close to concrete curb; seam from union to ground; old pruning wounds and tear outs on stem to east; good health.	2.4	Private (Metrolinx)
12	Siberian elm	*Ulmus pumila*	14.5	4	Fair - Poor	Base of trunk against concrete curb; multiple pruning wounds on trunk with good wound wood; surface root extending to south; minor trunk bend; parking sign nailed into trunk; old tear out on north side; good health.	2.4	Private (Metrolinx)
13	Littleleaf linden	*Tilia cordata*	14	4	Fair	Some epicormic shoots on trunk; fair structure; fair health.	2.4	Private (Metrolinx)

Tree #	Common Name	Botanical Name	DBH (cm)	Crown Diameter (m)	Condition Rating	Observations	TPZ (m)	Ownership Category
14	Siberian elm	*Ulmus pumila*	14.5	n/a	Dead		n/a	Private (Metrolinx)
15	Siberian elm	*Ulmus pumila*	15.5	4	Fair - Poor	Surface root extending west; base very close to concrete curb; parking sign nailed to trunk; minor small diameter dead wood; fair health.	2.4	Private (Metrolinx)
16	Siberian elm	*Ulmus pumila*	12, 11	4.5	Fair - Poor	Codominant stems approx. 60cm from ground with a seam from the union on both sides; fair crown structure, asymmetrical below adjacent tree; good health.	2.4	Private (Metrolinx)
17	Siberian elm	*Ulmus pumila*	16	3	Good - Fair	Multiple surface roots within 1.5m of trunk; good to fair structure; base very close to concrete curb; good health.	2.4	Private (Metrolinx)
18	Silk tree lilac	*Syringa reticulata*	10	3	Fair	Narrow open seam on south side of tr; short shoot extension; fair to poor trunk structure; fair crown structure; short shoot extension.	2.4	Municipal
19	Silk tree lilac	*Syringa reticulata*	8.5	1.5	Poor	Codominant stems; longitudinal wound on northwest side of stem with some suckering; codominant leader on north stem dead; limited branching; low vitality.	1.8	Municipal
20	Siberian elm	*Ulmus pumila*	3, 3	2	Fair - Poor	Wind-seeded at edge of planting bed; codominant stems joined at ground; vigorous.	1.8	Private (Metrolinx)
21	Siberian elm	*Ulmus pumila*	15.5, 14, 14, 10.5	5.5	Poor	Stems joined at ground level, additional stems removed in past at base; base of trunk against concrete parking stops; multiple small diameter pruning wounds with good wound wood; some branch dieback at top and to north and west; poor structure; fair to poor health.	2.4	Private (Metrolinx)

Tree #	Common Name	Botanical Name	DBH (cm)	Crown Diameter (m)	Condition Rating	Observations	TPZ (m)	Ownership Category
22	Norway maple	*Acer platanoides*	17	4	Poor	Poor trunk; poor crown; fair health; trunk wound 75cm length, 1/3 circumference; almost 90 degree bend in trunk; minor lean; very asymmetrical crown, only extending south.	2.4	Private (Metrolinx)
23	Norway maple	*Acer platanoides*	27.5	7	Poor	Central stem dead; no trunk flare; crown asymmetrical; 65% live crown.	2.4	Private (Metrolinx)
24	Columnar English oak	*Quercus robur* 'Fastigiata'	6, 5	1.5	Fair	Memorial tree; poorly planted, structural roots exposed, damaged within 30cm of base of trunk; good aboveground structure; good health.	1.8	Private (Metrolinx)
25	Austrian pine	*Pinus nigra*	23	6	Poor	30% live crown; live crown limited to south; good trunk structure; poor crown structure; poor health.	2.4	Private (Metrolinx)
26	honey locust	*Gleditsia triacanthos*	34	8	Good	Good structure; very minor small diameter interior dead wood (<10%); somewhat short shoot extension; poor flare towards sidewalk.	3	Municipal
27	honey locust	*Gleditsia triacanthos*	28	10	Good	Good structure; very minor small diameter interior dead wood (<5%); somewhat short shoot extension.	2.4	Municipal
28	honey locust	*Gleditsia triacanthos*	23	7	Fair	Good trunk structure; fair crown structure; codominant stems with a narrow union; crossing branches; no dead wood; good health.	2.4	Municipal
29	honey locust	*Gleditsia triacanthos*	38	12	Good	Poor flare to north and south; fair trunk structure; good crown structure; spreading canopy; very minor small diameter interior dead wood (<5%); somewhat short shoot extension.	3	Municipal
30	Austrian pine	*Pinus nigra*	38	9	Fair - Poor	Leader topped due to OH wires; very asymmetrical, no branches to north; surface roots to north; cohort with adjacent trees.	3	Private (Metrolinx)

Tree #	Common Name	Botanical Name	DBH (cm)	Crown Diameter (m)	Condition Rating	Observations	TPZ (m)	Ownership Category
31	Colorado spruce	*Picea pungens*	30	6	Poor	Leader topped due to OH wires; very asymmetrical, no branches to south; cohort with adjacent trees.	2.4	Private (Metrolinx)
32	Colorado spruce	*Picea pungens*	24	6	Poor	Leader topped due to OH wires; very asymmetrical, no branches to east; cohort with adjacent trees; outcompeted; old planting ties exposed around base.	2.4	Private (Metrolinx)
33	Siberian elm	*Ulmus pumila*	70-80	12	Fair	Located north of fence, base under fence; pruned all branches to south due to OH wires; fair unions between 3 main stems; starting to grow into CL fence; vigorous at old tear outs.	4.8	Private (Metrolinx)
34	Siberian elm	*Ulmus pumila*	< 6	2	Poor	Grouping of small diameter Siberian elm trees growing through the CL fence; some topped at top rail.	1.8	Private (Metrolinx)
35	Manitoba maple	*Acer negundo*	10-15 x 5	4.5	Poor	Located north of chain link fence, growing through CL fence; 4 of the stems topped; vigorous shoots.	2.4	Private (Metrolinx)
36	Siberian elm	*Ulmus pumila*	15	3	Poor	Located mostly on subject site, base under fence; asphalt 60cm from base of tree; tear out at main union; grape vine in crown; poor structure; good health.	2.4	Boundary, private (subject site and Metrolinx)
37	Manitoba maple	*Acer negundo*	10-15, 10-20, 5-10	5	Poor	Multiple stems joined near ground; growing through fence, mostly north of fence; suckers topped from subject site; vigorous; largest stems engulfing top rail; included bark at union of two stems.	2.4	Boundary, private (subject site and Metrolinx)

Tree #	Common Name	Botanical Name	DBH (cm)	Crown Diameter (m)	Condition Rating	Observations	TPZ (m)	Ownership Category
38	Siberian elm	*Ulmus pumila*	24, 20	6	Poor	Mostly on subject site, trunk through fence; asphalt up to base of tree; smaller stem topped at top rail of fence; codominant limb removed over subject site; old tear outs with sucker growth; asymmetrical; poor structure; fair health.	3	Boundary, private (subject site and Metrolinx)
39	Siberian elm	*Ulmus pumila*	30-40 x2, 15-25	8	Poor	Located mostly north of fence; starting to conflict with fence; tear outs with sucker growth; pruned from subject site; asymmetrical; moderate small dead wood; included bark at union with seam, stems fused above.	4.2	Private (Metrolinx)
40	Siberian elm	*Ulmus pumila*	20-30, 25-35	7	Poor	Joined near ground level; branch from adjacent tree growing into union of west stem; fair to poor structure; good health.	3	Private (Metrolinx)
41	Siberian elm	*Ulmus pumila*	10-15	2.5	Poor	Located mostly north of fence; growing into top rail of fence; extensive grape vine; poor structure; fair health.	2.4	Private (Metrolinx)
42	Manitoba maple	*Acer negundo*	15-25 x2	6	Poor	Stems joined near ground level, fair union; suckers pruned from subject site; east stem engulfing top rail creating wound 1/2 circumference; tear out on east stem 1/2 circumference; west stem topped in past with sucker growth at top; extensive grape vine in crown.	3	Private (Metrolinx)
43	Manitoba maple	*Acer negundo*	15-25	5	Poor	Extensive grape vine in crown; 5cm dia. branch tear out; moderate bend from adjacent tree; some branches failed due to grape; poor structure; fair health.	2.4	Private (Metrolinx)
44	Siberian elm	*Ulmus pumila*	15-25	3	Poor	Trunk engulfing top rail; codominant stem failed in past; extensive grape vine in crown.	2.4	Private (Metrolinx)

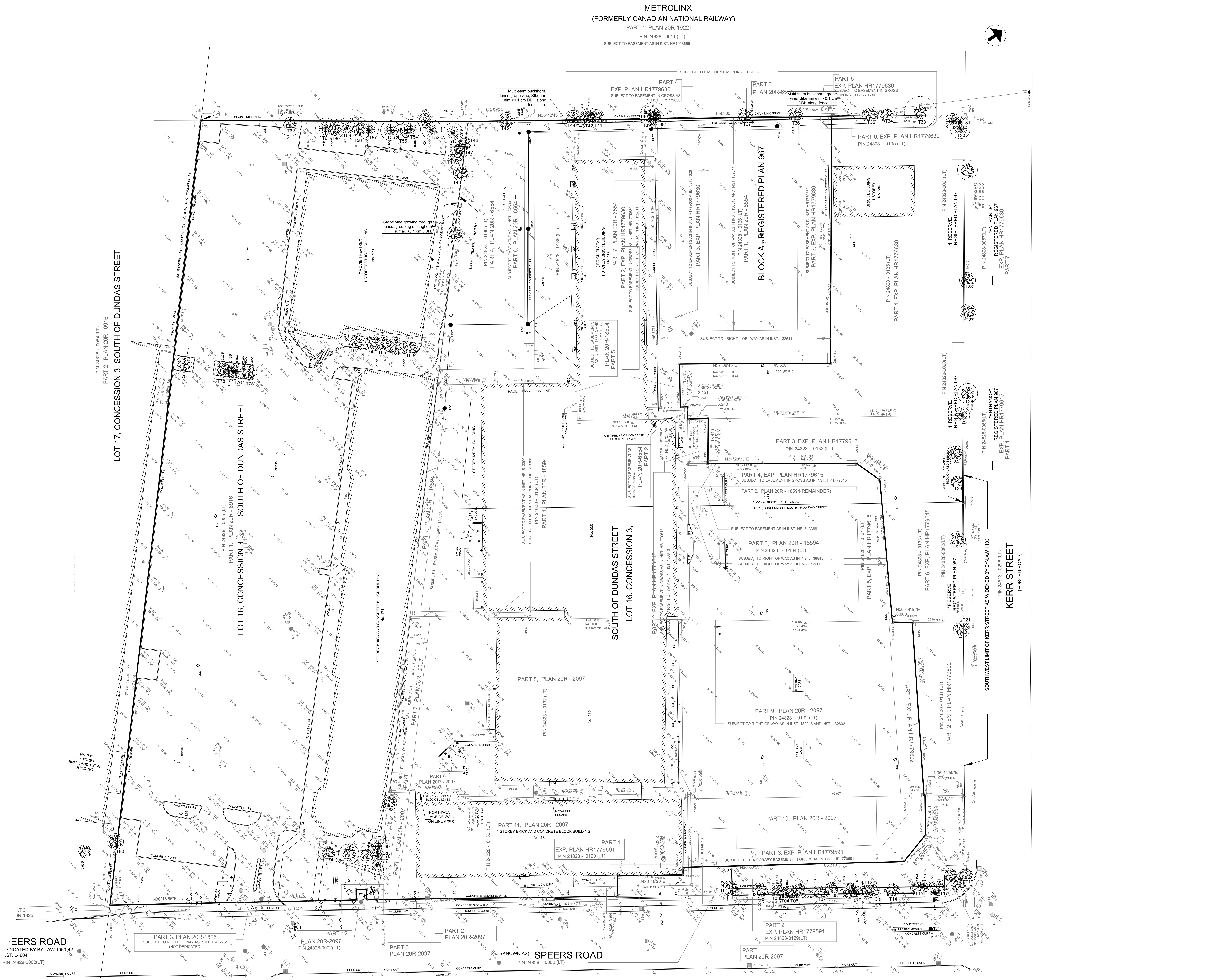
Tree #	Common Name	Botanical Name	DBH (cm)	Crown Diameter (m)	Condition Rating	Observations	TPZ (m)	Ownership Category
45	Manitoba maple	*Acer negundo*	10-20 x 2	4.5	Poor	West stem topped in past; contorted due to grape vine; east stem extending over subject site; additional stems pruned; extensive grape; poor structure; vigorous.	2.4	Private (Metrolinx)
46	honey locust	*Gleditsia triacanthos*	30-40	8	Fair	Trunk against top rail; tree is located on 171 Speers Rd., with approximately 50% of crown extending over north-south fence; asphalt parking lot extends to fence; fair structure; fair health.	3	Private, subject site
47	honey locust	*Gleditsia triacanthos*	35-45	8	Fair	Base very close to Tree 46; codominant stems with included bark at union; fair structure; fair health; minor small dead wood in lower crown (<10%); some grape vine in crown; tree is located on 171 Speers; 70% of crown extending over north-south fence; asphalt parking lot extends to fence.	3	Private, subject site
48	Manitoba maple	*Acer negundo*	10-15 x 4	4	Poor	Metal disposal bin adjacent to tree, tree growing over bin; poor structure; moderate to extensive dead wood; poor structure; fair to poor health.	2.4	Private, subject site
49	Manitoba maple	*Acer negundo*	5-10 x 3	4	Poor	Extensive grape in crown; base growing against curb at 171 Speers; poor unions between stems with included bark and seams below; moderate dead wood (20%), crossing branches; poor structure; fair health.	2.4	Private, subject site
50	staghorn sumac	*Rhus typhina*	10-20	3	Poor	Extensive dead wood in crown (90%); reassess in Spring if any live branches.	2.4	Private, subject site
51	Austrian pine	*Pinus nigra*	40-50	5	Fair	Limited lower branching due to shade; minor curve in trunk; fair structure; fair health.	3	Private, subject site

Tree #	Common Name	Botanical Name	DBH (cm)	Crown Diameter (m)	Condition Rating	Observations	TPZ (m)	Ownership Category
52	Austrian pine	*Pinus nigra*	40-50	6	Fair - Poor	Leader lost in past, two codominant stems forming leaders with dogleg bends, self-correcting upwards; fair to poor structure; good health.	3	Private, subject site
53	honey locust	*Gleditsia triacanthos*	10-20	6	Fair	Self-seeded tree located north of CN rail fence; minor lean north; asymmetrical; fair structure; good health.	2.4	Private (Metrolinx)
54	Austrian pine	*Pinus nigra*	40-50	7	Good	Very limited view; low branching; no significant structural defects visible.	3	Private, subject site
55	honey locust	*Gleditsia triacanthos*	35-45	7	Good	Very limited view; fair structure; asymmetrical crown; low branching; good health.	3	Private, subject site
56	Austrian pine	*Pinus nigra*	40-50	5	Good	Very limited view; low branching; no significant structural defects visible.	3	Private, subject site
57	Austrian pine	*Pinus nigra*	35-45	5	Good	Very limited view; low branching; no significant structural defects visible.	3	Private, subject site
58	honey locust	*Gleditsia triacanthos*	50-60	8	Good	Very limited view; low branching; no significant structural defects visible.	3.6	Private, subject site
59	Austrian pine	*Pinus nigra*	35-45	5	Good	Very limited view; low branching; no significant structural defects visible.	3	Private, subject site
60	honey locust	*Gleditsia triacanthos*	40-50	7	Good	Very limited view; low branching; no significant structural defects visible.	3	Private, subject site
61	Austrian pine	*Pinus nigra*	40-50	6	Good	Very limited view; low branching; no significant structural defects visible.	3	Private, subject site
62	honey locust	*Gleditsia triacanthos*	50-60	9	Good	Very limited view; low branching; no significant structural defects visible.	3.6	Private, subject site
63	honey locust	*Gleditsia triacanthos*	15-25	5	Fair	Fair trunk structure; limited flare; codominant branches with included bark; vigorous.	2.4	Private, subject site
64	honey locust	*Gleditsia triacanthos*	15-25	4	Good	Single, straight trunk; limited flare; diverging codominant stems; pruned from building.	2.4	Private, subject site

Tree #	Common Name	Botanical Name	DBH (cm)	Crown Diameter (m)	Condition Rating	Observations	TPZ (m)	Ownership Category
65	honey locust	*Gleditsia triacanthos*	15-25	5	Fair	Very limited view; codominant stems; limited lateral branching.	2.4	Private, subject site
66	honey locust	*Gleditsia triacanthos*	15-25	5	Fair	Very limited view; codominant stems; limited lateral branching.	2.4	Private, subject site
67	honey locust	*Gleditsia triacanthos*	15-25	5	Fair	Very limited view; somewhat asymmetrical due to building.	2.4	Private, subject site
68	Siberian elm	*Ulmus pumila*	24.5	5.5	Fair - Poor	Growing between concrete walkway and asphalt lane; base growing over concrete walkway; poor flare to east; lower branches pruned, and dead through self-pruning; included bark on scaffold limbs; crown rubbing against building to west; fair health.	2.4	Private, subject site
69	Austrian pine	*Pinus nigra*	40-50	8	Good	Good structure; good health; asymmetrical, cohort with adjacent tree.	3	Private, subject site
70	Austrian pine	*Pinus nigra*	30-40	8	Fair	Minor lean to south from adjacent tree; fair structure; good health.	3	Private, subject site
71	Austrian pine	*Pinus nigra*	30-40	6	Fair	Moderate dead wood (three 5cm dia. branches to south, dieback to east); competing with adjacent trees; asymmetrical.	3	Private, subject site
72	honey locust	*Gleditsia triacanthos*	35-45	7	Good	Limited visibility; no significant structural defects; good health.	3	Private, subject site
73	honey locust	*Gleditsia triacanthos*	35-45	8	Good	Limited visibility; no significant structural defects; good health.	3	Private, subject site
74	honey locust	*Gleditsia triacanthos*	35-45	9	Good	Limited visibility; no significant structural defects; good health.	3	Private, subject site
75	honey locust	*Gleditsia triacanthos*	10-20	5	Good	Limited view; located within parking lot island; no significant structural defects; good health.	2.4	Private, subject site

Tree #	Common Name	Botanical Name	DBH (cm)	Crown Diameter (m)	Condition Rating	Observations	TPZ (m)	Ownership Category
76	juniper	*Juniperus sp.*	5-10 x 3	2.5	Good	Limited view; located within parking lot island; no significant structural defects; minor lean; good health.	2.4	Private, subject site
77	juniper	*Juniperus sp.*	10-15	2	Fair	Limited view; located within parking lot island; tree likely topped in past; good health.	2.4	Private, subject site
78	honey locust	*Gleditsia triacanthos*	10-20	5	Good	Limited view; located within parking lot island; no significant structural defects; good health.	2.4	Private, subject site
79	honey locust	*Gleditsia triacanthos*	15-25	7	Good	Limited view; located within parking lot island; no significant structural defects; good health.	2.4	Private, subject site
80	white mulberry	*Morus alba*	10-15 x2, 5-10 x2	5	Fair	Multiple stems joined near ground; narrow unions; poor trunk structure; good health; vigorous.	2.4	Private, subject site

Appendix III – Tree Location Plan



GENERAL NOTES

1. This plan must be read in conjunction with the Tree Vegetation Study pepared by Cohen & Master.

2. Cohen & Master provided the tree numbers, tree icons for trees 18-33 (inclusive), 28, 29, 41, 45, 48 (locations field measured), general vegetatio comments, and tree protection zones. Survey information prepared KRCMAR dated Jan. 26, 2022.

LEGEND

T1	Tree ID number
	Inventoried tree
	Minimum Tree Protection Zone (TPZ)

No.	DATE
2	Jan. 31 2022
1	Jan. 22 2022

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TITLE
TREE LOCATION PLAN

SITE
530, 550, 580 Kerr Street and 131, 171 Speers Road, Oakville, Ontario

CM FILE 53070 SCALE 1:500

TLP-1