

110394936 CANADA INC.

TREE CONSERVATION REPORT

265 CATHERINE STREET

CIMA+ file number: A001359
April 25, 2023 – Review 000



110394936 CANADA INC.

TREE CONSERVATION REPORT

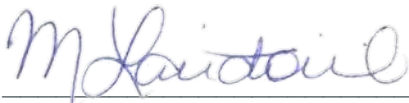
265 CATHERINE STREET

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April 11, 2023 – Review 000

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Appendix A Tree Inventory and Assessment Table and Figure

1. Introduction

CIMA+ has been retained by 110394936 Canada Inc. (Brigil) to prepare a Tree Conservation Report (TCR) for the planned development located at 265 Catherine Street, Ottawa, ON K1R 7S5. This report follows the *City of Ottawa Tree Conservation Report Guidelines* (City of Ottawa, 2021). The field work was completed by Casey Little who has an Ecosystems Management Diploma and has 16 years of experience completing natural environment assessments, including tree inventories. Ms. Little is also a certified Butternut Health Assessor (#530) and is trained and certified in Ecological Land Classification (ELC) for Southern Ontario, and Ontario Wetland Evaluation System (OWES).

1.1 Project Location

Brigil is proposing to build a mixed-use commercial and residential development at 265 Catherine Street that extends between Kent Street and Lyon Street, located at Part Lot F, Concession C, in Ottawa, Ontario.

Refer to **Figure 1** below to view the Site location.

1.2 Objective

The intention of this TCR is to determine what woody vegetation would be retained and protected on the site. In the paragraphs below, we have outlined the field methodology and findings of the tree inventory. Using the Surveyor's Real Property Report (i.e., drawings; dated December 23, 2021) as reference, this report will help determine the project's potential impacts and provide general recommendations to avoid and/or mitigate tree loss and injury.

2. Limitations

The assessment presented in this report has been made using accepted standard arboriculture techniques as outlined in the *Council of Tree and Landscape Appraisers Guide for Plant Appraisal, 10th Edition, Second Printing (2020)*. These techniques include visual examination of above-ground parts of each tree or trees in each group. The trees observed were not climbed, cored, or dissected, and excavation for detailed root crown inspection was not performed. Since some symptoms may only be present seasonally, the extent of observations that can be made may be limited by the time of year in which the inspection took place.

Since trees are living organisms, their health and vigour continually change over time due to seasonal variations, changes in site conditions, and other factors. For this reason, the assessment presented in this report is valid at the time of inspection, and no guarantee is made about the continued health of trees that are deemed to be in good condition. It is recommended that the trees be reassessed periodically to identify changes in condition. While every standing tree has the potential for failure and therefore poses some risk, a tree assessment is a good indication of present health and potential problems that could arise in the future.

CIMA+ has prepared this report for the sole use of the client. Any use of this report by a third party, as any decision based on this report, is the singular responsibility of the third party. **CIMA+** will not be held responsible for eventual damages towards a third party resulting from decisions taken, or based, on this report.

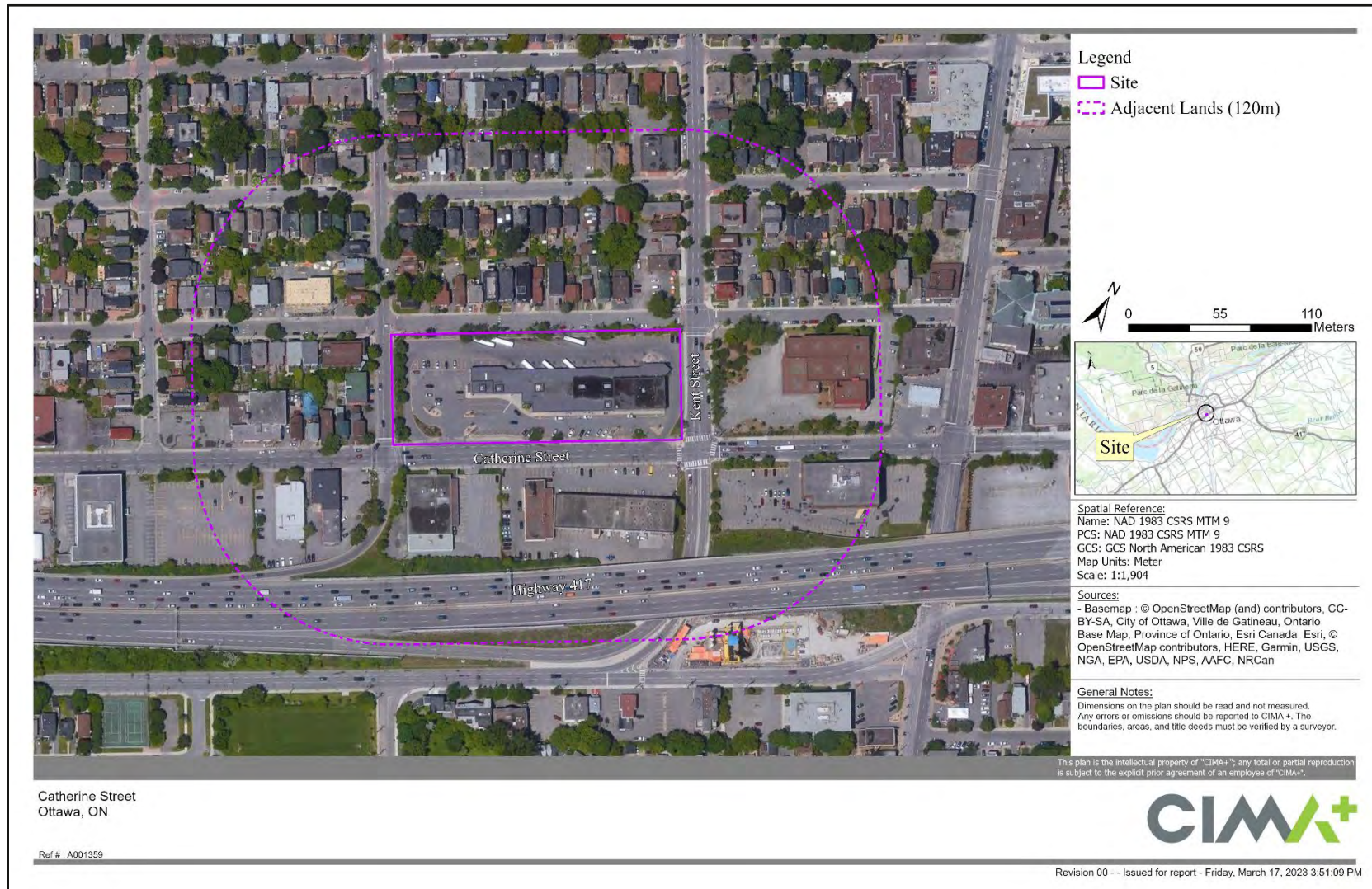


Figure 1: Site Location

3. Methodology

The tree inventory was undertaken on February 27, 2023. Trees were numbered, identified, measured, and assessed for condition. Information collected on the individual trees included:

- + Species
- + Diameter at breast height (DBH)
- + Approximate crown spread
- + Height
- + Condition

The assessment methodology is outlined in the sections below. The tree inventory table containing this information is included in **Appendix A** along with the drawings that show the locations of the numbered trees assessed.

3.1 Tree Size

Size refers to trunk diameter at breast height (DBH or caliper) measured in centimetres at 1.4 m above the ground. Where trees had more than one trunk from the base, the size of each trunk was recorded. Where trees forked to codominant trunks, each trunk was measured, or the diameter was measured at the narrowest point below the fork.

3.2 Observations

Several structural defects and health problems are included in the Tree Inventory and Assessment Table (**Appendix A**). The following list provides an explanation of the short forms used in the table of the top eight (8) deficiencies observed on Site:

- + BNL - Broken / No Leader occurs if the central leader is broken, damaged or very weak, or has a dead terminal bud.
- + UC - Unbalanced Crown is a tree's crown that is much more extensive in one direction than another, often due to competition from the crown of a nearby tree or exposure.
- + SMD - Small dead branches are an indicator of crown dieback and can be an early sign of stress.
- + ADV - Adventitious shoots are vigorous growth of shoots from pruning cuts, inner branches, or along the trunk that usually occur in response to stress.
- + INC - Included bark is bark that has become embedded in a crotch where limbs join and causes weakened branch attachments. As the trunk and branch increase in diameter, the bark of each stem in the tight crotch begin to push apart, increasing the likelihood of failure.
- + FC - Frost cracking is a winter injury caused by temperature fluctuations on bark and inner wood when the sun warms a tree trunk and then temperatures drop quickly, causing splitting of the bark that can extend into the wood below. Frost cracking can be associated with snow reflection

and southwest-facing trunk exposures, and particularly affects young trees and species with thin bark.

- + MEC - Mechanical Damage is a generalized term to describe damage to vegetation from using equipment and from weather related events. Damage to vegetation from equipment can be simple carelessness or incorrect use of the equipment.
- + SC – Scarring or wounds are areas on a tree where the bark has been stripped away to the wood that had been underneath that bark, and the bark has grown up scar tissue around the sides of the wound.

3.3 Tree Condition

Each tree was given an overall health condition rating of: Excellent, Good, Fair, Poor, or Dead. The following is a summary of how the ratings are determined:

- + EXCELLENT: No apparent health problems; good structural form.
- + GOOD: Minor problems with health and/or structural form.
- + FAIR: Significant problems with health and/or structural form.
- + POOR: Major problems with health and structural form.
- + DEAD: Dead.

3.4 Tree Protection

The minimum Critical Root Zone (CRZ) of each tree canopy is illustrated on the drawings to help determine possible injury and branch pruning that may be required (**Appendix A**). The Comments section of the Tree Inventory Table also includes notes about tree form and canopy location that can help to determine pruning that may be required to accommodate construction equipment.

The CRZ was determined using the *City of Ottawa’s Tree Conservation Report Guidelines*. The CRZ is established as being 10 centimetres from the trunk of a tree for every centimetre of trunk DBH measured in a radius around the tree. The CRZ is calculated as DBH x 10 cm.

Tree Impact (retain, injury, or removal) has been determined and is included in the Tree Inventory and Assessment Table in **Appendix A**.

4. Results

The dates, timing, and environmental conditions at the time of the assessments are presented below in **Table 1**.

Table 1: Site Investigation Details

Date	Start/End Time	Field Surveys	Weather Conditions
2023/02/22	1135 ~ 1330 hrs	Visual assessment of all trees ≥10 cm dbh on-site	Temperature: -16°C Cloud cover / Precip: mixed sun/clouds, moderate wind.

The approximate 2.5-acre site has been cleared and is surrounded by a chain-link fence around the west, east and southern extents, and a cement wall is situated at the northern extent of the site along Arlington Avenue. The property is located along a busy arterial road surrounded by residential and commercial properties. All trees assessed were situated along the perimeter of the site.

A total of 31 trees were assessed as part of this inventory within the site boundaries, all of which were alive. The most common species were northern red oak, Norway maple, and Manitoba maple. The condition of the trees on site ranged from Good to Poor.

A summary of the trees surveyed on site is provided in **Table 2** below.

Table 2: Summary of Tree Inventory

Species	Count	Size Range (DBH cm)	Height Range (m)	Crown Spread (m)
Northern red oak	10	13-48	4-20	2-10
Norway maple	7	25-32	8-15	5-10
Manitoba maple	7	11-31	4-15	3-8
Maidenhair	4	20-26	8-11	3-4
Honey locust	2	30	4-11	7-9
Apple	1	37	8-11	11
Total	31	11-48	4-20	2-11

5. Impact Assessment

An impact assessment was undertaken to determine impacts to the trees within the site because of the proposed project construction. Trees recommended for removal include trees within or outside the limit of work that would not be able to withstand construction-related impacts. Trees identified as being injured require work within the minimum CRZ; however, impacts to these trees are anticipated to be minor and it is likely that these trees will survive post construction. Trees identified as being retained are expected to be minimally damaged by the project and are proposed to be protected through mitigation measures outlined below.

The results of the impact assessment are summarized below in **Table 3**. These details are also included in the Tree Inventory and Assessment Table and Figure included in **Appendix A**.

Based on the species and conditions of the trees located within the site and the extent of the grading limits of the proposed project design it has been decided to remove 26 trees and protect five (5) trees on site.

Table 3: Impact Assessment for Trees on Site

Trees to be Removed	Trees to be Injured	Trees to be Retained
26	0	5

6. Mitigation Measures and Construction Management

6.1 Tree Protection Measures

The most typical construction damage to trees is a root damage from compaction and severance. While the drip line of a tree's canopy is typically thought to be associated with the root area, the root zones can extend significantly beyond the drip line of the tree, sometimes up to 2 or 3 times the height of the tree. All trees inventoried are growing close to the edge of the proposed construction limits and will be at risk of contact with, and damage from, heavy equipment. Generally, to protect trees, grade changes and construction activities that could cause soil compaction should be kept away from trees as much as possible.

To successfully preserve trees that are recommended for on-site retention the following series of mitigation measures is recommended. These recommended measures largely center on the minimum CRZ of trees, as defined by the City's *Tree Conservation Report Guidelines*. The following measures are being recommended to protect the CRZ of all trees slated for retention:

- + Delineation of the disturbance limits within work areas will be clearly defined on drawings and on the site prior to construction;
- + Install Tree Protection Fencing prior to commencement of construction activities, and retain fencing until construction activities have been completed, as per City of Ottawa's Tree Protection (By-law No. 2020-340), Part VI:
 - Tree protection fencing shall be at least 1.2 metres in height and installed in such a way that the fence cannot be altered.
- + Do not place any material or equipment within the CRZ of a tree;
- + Do not raise or lower the existing grade within the CRZ of a tree;
- + Do not extend any hard surface or significantly change landscaping;
- + If the construction will have to encroach into a tree's minimum CRZ, installing a temporary layer of 150 mm deep partially composed wood chips mulch over the root zone can help to protect roots from compaction damage, and conserve soil moisture levels;
- + Equipment and materials should not be stored near trees;
- + Ensure that exhaust fumes from all equipment are not directed towards any tree's canopy;
- + Do not attach any signs, notices, or posters to trees;
- + Ensure that site clearing is carried out only in areas where it is specifically required, and that the areas to be cleared are carefully and clearly delineated.

6.2 Tree and Root Pruning

- + Do not damage the root system, trunk, or branches of any tree; if any roots are encountered during excavation while working outside the CRZ, they should be cut off cleanly with sharp pruning tools rather than allow them to be torn by large equipment; clean cuts will help to minimize decay and entry points for disease;

- + All exposed roots of trees to be retained should be covered in a minimum of 5 cm of firm soil within 24 hours of exposure;
- + If root pruning is implemented, the crown of the tree should be reduced proportionately under the direction of a Certified Arborist or Registered Forester, to decrease wind sail. Pruning should be kept to thinning cuts (no major limb removal), and crowns should be monitored, and maintenance carried out for two (2) years after root pruning to remove any dieback under the direction of a Certified Arborist or Registered Forester;
- + If branches are likely to hang in the way of passing equipment, the branches should be pruned by a Certified Arborist or Registered Forester to avoid tearing and undue injury to the tree;
- + All pruning work must be performed under the supervision and guidance of a qualified tree professional in accordance with the latest ANSI A300 Pruning Standards and best management practices identified by the International Society of Arboriculture.

7. Permits and Approvals

The City of Ottawa's Tree Protection By-law No. 2020-340 describes the rules that govern tree ownership in Ottawa and the responsibility of tree maintenance, including administration and enforcement. As per Part IV: Sections 42 – 44 Prohibition: *No person shall injure or destroy a tree without a permit.* Sections 45 to 48 - Application for tree permit stipulates the process to apply for a permit under this by-law.

Therefore, it is recommended that consultation should be undertaken with the City prior to construction to confirm the requirements for tree removal permits associated with the municipal tree protection by-law. Where required, tree removal permits must be obtained from the City prior to the start of construction.

8. Certification and Closure

We certify that all the statements of fact in this assessment are true, complete, and correct to the best of our knowledge and belief, and that they are made in good faith.

A

Appendix A Tree Inventory and Assessment Table and Figure



APPENDIX A: 265 Catherine Street Tree Inventory and Assessment Table

Tree No.	Common Name / Scientific Name	No. Stems	DBH (cm)	Height (m)	Crown Spread (m)	Structural Defects ⁱ								Overall Condition ⁱⁱ	Comments	Ownership	Recommendation	CRZ (m)
						BNL	UC	SND	ADV	INC	FC	MEC	SO					
1	Norway maple / <i>Acer platanoides</i>	1	30	8-11	8	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fair	Under power lines	Private	Remove	-
2	Norway maple / <i>Acer platanoides</i>	1	29	8-11	6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Fair	Under power lines. Scarring on majority of trunk	City	Remove	-
3	Norway maple / <i>Acer platanoides</i>	1	32	8-11	8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good	Under power lines	Private	Remove	-
4	Norway maple / <i>Acer platanoides</i>	1	29	8-11	9	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fair	Under power lines	Private	Remove	-
5	Norway maple / <i>Acer platanoides</i>	1	25	12-15	10	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good	Under power lines	Private	Remove	-
6	Norway maple / <i>Acer platanoides</i>	1	28	12-15	9	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Good	Under power lines. Scarring on majority of trunk	Private	Remove	-
7	Manitoba maple / <i>Acer negundo</i>	1	11	4-7	4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fair	Growing into fence	City	Remove	-
8	Norway maple / <i>Acer platanoides</i>	1	28	12-15	5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Poor	Under power lines. Covered in wild grape. Extensive mechanical damage.	City	Remove	-
9	northern red oak / <i>Quercus rubra</i>	1	37	12-15	10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good	Under power lines	City	Retain	3.7
10	northern red oak / <i>Quercus rubra</i>	1	35	12-15	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good	Under power lines	City	Retain	3.5
11	northern red oak / <i>Quercus rubra</i>	1	31	12-15	9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good	Under power lines	City	Retain	3.1
12	northern red oak / <i>Quercus rubra</i>	1	39	12-15	10	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Good	Under power lines	City	Remove	-
13	maidenhair tree / <i>Ginkgo biloba</i>	1	20	8-11	4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Fair	Under power lines. Covered in wild grape	City	Retain	2.0
14	maidenhair tree / <i>Ginkgo biloba</i>	1	20	8-11	3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good	Under powerlines	City	Remove	-
15	maidenhair tree / <i>Ginkgo biloba</i>	1	26	8-11	4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good	Under power lines. Covered in wild grape	City	Remove	-
16	maidenhair tree / <i>Ginkgo biloba</i>	1	23	8-11	3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good	Under power lines	City	Remove	-
17	northern red oak / <i>Quercus rubra</i>	1	39	12-15	5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Poor	Under power lines	City	Remove	-
18	northern red oak / <i>Quercus rubra</i>	1	43	16-20	9	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good	Under power lines	City	Remove	-



Tree No.	Common Name / Scientific Name	No. Stems	DBH (cm)	Height (m)	Crown Spread (m)	Structural Defects ⁱ								Overall Condition ⁱⁱ	Comments	Ownership	Recommendation	CRZ (m)
						BNL	UC	SMD	ADV	INC	FC	MEC	SC					
19	northern red oak / <i>Quercus rubra</i>	1	21	8-11	3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Poor	Under power lines	City	Remove	-
20	northern red oak / <i>Quercus rubra</i>	1	44	12-15	9	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fair	Under power lines	City	Remove	-
21	northern red oak / <i>Quercus rubra</i>	1	48	12-15	10	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good	Under power lines	City	Retain	4.8
22	apple species / <i>Malus</i> spp.	3	37	8-11	11	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Fair	Under power lines	City	Remove	-
23	Manitoba maple / <i>Acer negundo</i>	1	20	4-7	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Poor	Scarring on majority of trunk	City	Remove	-
24	Manitoba maple / <i>Acer negundo</i>	1	16	4-7	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Poor	Growing into fence	City	Remove	-
25	Manitoba maple / <i>Acer negundo</i>	2	31	8-11	7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Poor	Scarring on majority of trunk	City	Remove	-
26	Manitoba maple / <i>Acer negundo</i>	2	25	8-11	8	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Poor	Scarring on majority of trunk	City	Remove	-
27	Manitoba maple / <i>Acer negundo</i>	1	23	12-15	6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good		City	Remove	-
28	Manitoba maple / <i>Acer negundo</i>	1	31	8-11	6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Fair	Under power lines	City	Remove	-
29	northern red oak / <i>Quercus rubra</i>	1	13	4-7	2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Excellent	Wire cage around trunk	City	Remove	-
30	honey locust species / <i>Gleditsia</i> spp.	1	30	8-11	7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good	Under power lines	City	Remove	-
31	honey locust species / <i>Gleditsia</i> spp.	1	30	8-11	9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good	Under power lines. Inside fence - estimated dbh	Private	Remove	-

ⁱ

BNL: Broken / No Leader occurs if the central leader is broken, damaged or very weak, or has a dead terminal bud.

UC: Unbalanced Crown is a tree’s crown that is much more extensive in one direction than another, often due to competition from the crown of a nearby tree or exposure.

SMD: Small dead branches are an indicator of crown dieback and can be an early sign of stress.

ADV: Adventitious shoots are vigorous growth of shoots from pruning cuts, inner branches, or along the trunk that usually occur in response to stress.

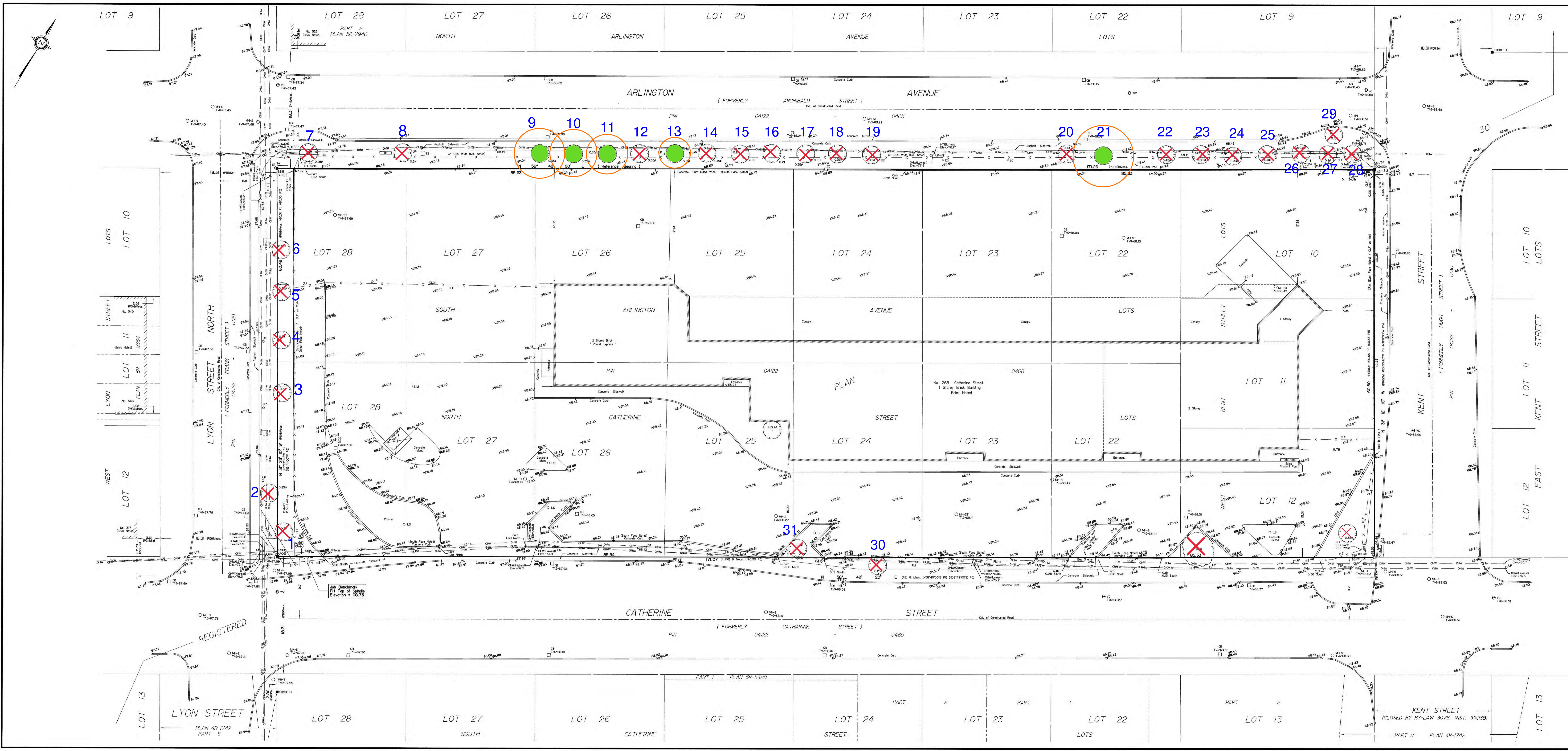
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FC: Frost cracking is a winter injury caused by temperature fluctuations on bark and inner wood when the sun warms a tree trunk and then temperatures drop quickly, causing splitting of the bark that can extend into the wood below. Frost cracking can be associated with snow reflection and southwest-facing trunk exposures, and particularly affects young trees and species with thin bark.

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SC: Scarring or wounds are areas on a tree where the bark has been stripped away to the wood that had been underneath that bark, and the bark has grown up scar tissue around the sides of the wound.

ⁱⁱ Excellent: no apparent health problems; good structural form.
Good: minor problems with health and/or structural form.
Fair: significant problems with health and/or structural form.
Poor: major problems with health and structural form.
Dead: dead.



SURVEYOR'S REAL PROPERTY REPORT
PART 1 Plan of
LOTS 10, 11, 12
 (West Kent Street)
 And
LOTS 22, 23, 24, 25, 26, 27, 28
 (South Arlington Avenue)
 And
LOTS 22, 23, 24, 25, 26, 27, 28
 (North Catherine Street)
REGISTERED PLAN 30
CITY OF OTTAWA
 Surveyed by Annis, O'Sullivan, Vollebek Ltd.

Scale 1 : 200
 Metric
 DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND
 CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

Surveyor's Certificate
 I CERTIFY THAT:
 1. This survey and plan are correct and in accordance with the Survey Act and the Surveyors Act and the regulations made under them.
 2. The survey was completed on the 3rd day of December, 2021.
 Date: Dec 23, 2021
 E. H. Hervey
 Ontario Land Surveyor

PART 2
 THIS PLAN MUST BE READ IN CONJUNCTION WITH
 SURVEY REPORT DATED: December 23, 2021

Notes & Legend

- Denotes
- Survey Monument Planted
- Survey Monument Found
- SIB - Standard Iron Bar
- SIBS - Short Standard Iron Bar
- IB - Iron Bar
- CC - Cut Cross
- Mess. - Measured
- (WT) - Witness
- (AOC) - Annis, O'Sullivan, Vollebek Ltd.
- (P1) - (857) Plan, November 14, 1991
- (P2) - (AOC) Plan, October 20, 1982
- (P3) - (1319) Plan, July 26, 2001
- (P4) - Plan 4R-1742
- (P5) - Registered Plan 30
- (P6) - (AOC) Plan, June 24, 2011
- CLF - Chain Link Fence
- CF - Precast Concrete Fence
- CM - Parking Meter
- OLP - Utility Pole
- U/HT - Hydro Transformer Mounted on Utility Pole
- AN - Anchor
- Deciduous Tree
- Fire Hydrant
- Overhead Wires
- Catch Basin
- Catch Basin Inlet
- MH-ST - Maintenance Hole (Storm Sewer)
- MH-S - Maintenance Hole (Sanitary)
- MH-T - Maintenance Hole (Traffic)
- MH - Maintenance Hole (Unidentified)
- VC - Valve Chamber (Watermain)
- HT - Hydro Transformer
- UTB - Unidentified Terminal Box
- D - Diameter
- Loc. Elev. - Location of Elevations
- Top of Concrete Curb / CRW Elevation
- C/L - Centreline
- EO - Electrical Outlet
- LS - Light Standard
- GV - Gas Valve
- CRW - Concrete Retaining Wall
- TS - Traffic Signal Post

Bearings are grid, derived from Can-Net 2016 Real Time Network GPS observations, MTM Zone 9 (76°30' West Longitude) NAD 83 (original).
 For bearing comparisons, a rotation of 1°18'00" counter-clockwise was applied to bearings on P1, P5 & P6.

ELEVATION NOTES
 1. Elevations shown are geodetic and are referred to the CGVD28 geodetic datum, derived from City of Ottawa Benchmark No. OT229 having an elevation of 70.558 metres.
 2. It is the responsibility of the user of this information to verify that the job benchmark has not been altered or disturbed and that its relative elevation and description agrees with the information shown on this drawing.

Road centrelines were approved by the City of Ottawa July 11, 2011.

× Trees to be Removed
 ● Trees to be Retained
 ○ Critical Root Zone

ASSOCIATION OF ONTARIO LAND SURVEYORS
 PLAN SUBMISSION FORM
 V-19568

THIS PLAN IS NOT VALID UNLESS IT IS ACCOMPANIED BY ORIGINAL COPY ISSUED BY THE SURVEYOR IN ACCORDANCE WITH REGULATION 1026, SECTION 29 (3).

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