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Tree Conservation Report
Proposed Re-Zoning Application
555, 591, 595 and 603 March Road
Ottawa, Ontario

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Submitted to:

March and Main
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Tree Conservation Report
Proposed Re-Zoning Application
555, 591, 595 and 603 March Road
Ottawa, Ontario

October 24, 2022
Project: 102220.001 - V01

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1.0 INTRODUCTION

GEMTEC Consulting Engineers and Scientists Ltd. (GEMTEC) was retained by March and Main, to carry out a Tree Conservation Report (TCR) for a proposed re-zoning application for the properties located at 555, 591, 595 and 603 March Road, in Ottawa, Ontario, hereafter referred to as the “Subject Property”. The site location is provided in Figure A.1 in Appendix A.

1.1 Purpose

The proponent is seeking a zoning plan amendment for the four properties located at 555, 591, 595 and 603 March Road in Ottawa, Ontario. Currently there are existing commercial developments on 555, 591 and 603 March Road. 595 March Road is currently vacant. The collective property has a total approximate size of 5.55 hectares (ha). The proposed development includes the construction of 2,100 new multi-use units for office, retail, residential, amenity, and parking usages, as well as bike lanes and a public park.

As a component of the zoning plan amendment application, the City of Ottawa is requesting a TCR for the collective property. In accordance with the City of Ottawa’s Tree Protection (By-law No. 2020-340) a TCR is required to identify trees to be retained and protected under future development scenarios and, where feasible, identify opportunities to offset the loss of trees that cannot be retained or contribute to the City’s forest cover targets.

The existing site layout is provided in Figure A.2 with the proposed development provided in Figure A.3, Appendix A.

1.2 Definitions

Terms and abbreviations used throughout the remainder of this report are summarized below.

Diameter at Breast Height (DBH), is defined as the diameter of the tree trunk measured at a height of 1.3 metres above ground surface for trees of 10 centimeters in diameter and greater.

Critical Root Zone (CRZ), is defined as the ground area within a circumference around the tree trunk calculated as 10 centimetres from the trunk of the tree for every one centimetre of tree truck diameter at breast height.

Distinctive Tree, within the City of Ottawa, is defined as any tree with a DBH of 30 cm or greater within the inner urban area and with a DBH of 50 cm or greater within the suburban area and rural area. For the purposes of this report, a distinctive tree is considered to be a tree with a DBH of 50 cm or greater, as the subject property is located within the suburban boundary.

2.0 METHODOLOGY

2.1 Desktop Review

To complete the TCR, digital color air photos available from GeoOttawa were reviewed from 1976 – 2021 to identify natural features, including historical trees, present on-site and in the vicinity of the site.

Based on a review of historical air photos, the subject site appears to have been mostly undeveloped and unvegetated prior to 1991, except for a single residential building on 591 March Road and a small commercial building on 603 March Road. The following alterations were noted during review:

- 1976: The subject site is occupied by a single residential building on 591 March Road and a small commercial building on 603 March Road. Vegetation on-site is minimal, consisting of a few planted shrubs and areas of short vegetative growth.
- 1991: Light commercial buildings as they currently exist on 555, 591, and 603 March are in place. Vegetation within 595 and 603 March Road is sparse, with the exception of some planted shrubs around 603 March Road. A successional shrub thicket has grown in the vacant rear area of 555 March Road.
- 2005: Successional shrub thicket on 595 March Road begins to start growing. Vegetation of the remainder of the site remains unaltered.
- 2021: Vegetation on-site remains unaltered, continuing to grow in becoming denser throughout.

2.2 Field Investigations

In addition to the completion of a desktop review of historical air photos, one site visit was conducted on September 27, 2022, from 09:00 - 16:45 to document and identify all trees on-site with a DBH greater than 10 cm. The site investigation utilized transects bisecting the property to document the health of each tree greater than 10 cm in DBH, the trees location and tree species.

To determine the presence or absence of species at risk on-site and adjacent to site, butternut were searched for during the transect surveys.

Site conditions during the site investigation were as follows: 12°C, 100% cloud cover, Beaufort wind 1 and no precipitation.

Site photographs taken during the field investigations are provided in Appendix B.

3.0 RESULTS

3.1 Existing Conditions

Existing commercial developments are present on 555, 591 and 603 March Road, whereas 595 March Road is currently vacant. Developments on 555 and 591 March Road are single story buildings fronting to March Road, while 603 is occupied by a two-story building, fronting to March Road and Terry Fox Drive. Including the existing structures and associated parking areas on the subject site have a combined approximate area of 2.5 ha. Impermeable surfaces account for 45% of the total property area.

Outside of the existing development, the subject site consists of cultural meadow habitat, deciduous forest, and regenerative thickets. Numerous trees are present on the property, a summary of all trees on-site is provided in Section 3.2 below. Other existing features on the property include a pedestrian path from the back lot of 555 March Road to Hines Road.

The land use in the vicinity of the site is characterized by commercial, light industrial, and residential land uses. There are no other natural environmental features in the vicinity of the project, as summarized in Table 3.1 below. The nearest significant feature is the South March Highlands Wetland Complex PSW, located approximately 1.6 km west of the site.

Based on NHIC observation data, the following Species at Risk (SAR) have been observed within 1 km of the subject property: bobolink (avian SAR), eastern meadowlark (avian SAR), wood thrush (avian SAR), butternut (tree SAR), and a restricted species. No SAR species were identified on-site or in the area immediately adjacent to the property during the site investigation. Furthermore, the site also lacks specific habitats to support bobolink, eastern meadowlark or wood thrush. No suitable habitat is present on-site to support SAR reptiles (i.e. turtles). Butternut trees were specifically targeted for presence/absence during the survey, no butternut were observed on-site or within the study area.

There are no other natural environmental features in the vicinity of the project, as summarized in Table 3.1 below.

Table 3.1 Summary of Natural Features Present On-site or Adjacent to Site

Natural Feature	Present On-site or Adjacent
Surface water or wetlands present	None
Steep slopes, valleys or escarpments	None
Urban Natural Features or Natural Environment Areas	None
Significant Woodlands	None
Greenspace Linkages	None
High Quality Specimen Trees	None

Rare plant communities or unique environmental features	None
Presence of Species at Risk	No Habitat On-site and Suitable Habitat outside of Study Area
Significant Wildlife Habitat	None

3.2 Tree Inventory Summary

A tree inventory was conducted on September 27, 2022. Trees on-site were identified, enumerated and assessed for visual signs of distress and disease. Table C.1 in Appendix C provides a summary of all tree specimens on-site whose DBH was greater than 10 cm. CRZ values for trees with DBH greater than 10 cm are also present in Table C.1 in Appendix C. Critical Root Zones were not calculated for dead trees. The square root of the sum of squares method was used to calculate the DBH of trees with multiple stems. All trees with a DBH greater than 10 cm and their CRZ are illustrated on Figure A.4, in Appendix A. It is important to note that based on standard GPS accuracy deviations, some of the trees illustrated in Figure A.4 appear to be situated in the parking area of the adjacent property to the south. These trees were in fact within the property boundaries of 555 March Road. In general, the tree community assemblage can be described as containing a few mature, semi-mature and immature opportunistic trees.

Per the City of Ottawa's Tree Protection (By-law No. 2020-340), 11 (eleven) trees on the subject site, were identified as a distinctive tree (DBH > 50 cm). Table 3.2 below details the results. For the purpose of this report, dead standing trees were not included even if the DBH was greater than 50 cm.

Table 3.2 Summary of Distinctive Trees Present On-Site or Adjacent

Tree #	Species	DBH (cm)	Condition
35	Bur Oak	90	Healthy
336	Eastern White Pine	70	Healthy
337	Eastern White Pine	70	Healthy
438	Little Leaf Linden	68	Healthy
16	Bur Oak	64	Healthy
55	Bur Oak	60	Healthy
434	Basswood	56	Healthy
436	Basswood	56	Healthy
6	Red Pine	52	Healthy
442	Blue Spruce	52	Healthy
467	Eastern White Cedar	50	Healthy

None of the trees identified on-site are listed under the provincial Endangered Species Act.

In general, the tree community assemblage can be described as containing few mature and semi-mature and immature opportunistic trees, with dense growth throughout the lower canopies and understory. Dominant tree species on-site was represented by white ash (*Fraixnus americana)* while the shrub layer was dominated by European buckthorn (*Rhamnus cathartica*). Most of the observed white ash were dead or of poor health, likely due to the presence of emerald ash borer. Many of the white ash were observed to have epicormic shoots (young shoots growing from near the base of the tree) indicative of stress and poor health conditions. Most of the other tree species were observed to be in good or healthy conditions.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on a review of the information summarized in Section 3.2, Table C.1 in Appendix C, and the proposed development concept illustrated on Figure A.3, the following conclusions are provided:

- Many trees on-site are of an early successional nature and do not represent a high quality forest community.
- Based on the current development plan, only significant trees within the proposed park block are to be retained. Outside of the park block, many of the trees are anticipated to be impacted and/or removed.
- 11 distinctive trees, meeting the City of Ottawa's Tree Protection (By-law No. 2020-340), requirements of DBH > 50 cm, were identified on-site;
- Trees on-site are of a typical upland or early successional species;
- 253 trees are in good/healthy condition and 237 trees are poor or dead condition;
- No Butternut trees were identified on-site or in the area immediately adjacent to site;
- 1 of the trees present on-site was observed to provide potential wildlife habitat (snag);
- None of the 490 trees present on-site are protected under the Endangered Species Act, Ontario 2007; and
- None of the trees on-site were identified to represent High Quality Specimen Tree.

4.1 Tree Conservation Recommendations

As discussed above, none of the trees on-site represent exceptional tree specimens, rare communities, nor do they provide any conservation value or great ecological benefit.

As mentioned above, based on the proposed development plan it is assumed that most of the trees on the subject property are non-retainable, with the exception of significant trees present within the proposed park block. In an effort to offset the removal of trees, consideration should be given to selective cutting and removal of only those trees that are necessary for development. Future development plans should give consideration to maintaining the distinctive trees identified in this report, in addition to other healthier more mature trees.

In effort to offset the effect of vegetation clearing, consideration should be given to landscape planting with native tree species indicative of the Great Lakes – St. Lawrence Forest Region, such as white cedar, white spruce, red maple and red oak.

4.2 Recommended Mitigation Measures

The following mitigation measures and best practice recommendations are provided by GEMTEC in order to minimize and eliminate negative impacts to trees identified in Appendix C as retainable. Construction contractors shall apply the following measures below to prevent damages to trees identified to be retained in the redevelopment plan for the site;

- All trees identified to be retained should be clearly marked and the CRZ delineated with fencing to prevent encroachment and damage during construction. General prohibitions of activities within the fencing include:
    - No placement of construction material (including fill and equipment);
    - No construction activities (i.e. grading, machine operation, etc) to avoid soil compaction and direct injury to the tree or its root system; and
    - No refueling or disposal of liquids.
    - Do not attach any signs, notices or posters to any tree identified to be retained;
- Tree protection should follow the tree protection specification provided by the City of Ottawa (2019). The Specification is provided in Appendix D.
- If existing pavement surface around trees to be retained is going to be removed than temporary fencing should be installed to delineate the CRZ of each tree;
- If trees to be removed overlap with the CRZ of trees to be retained, cut roots at the edge of the retained CRZ and grind down stumps after tree removal, do not pull out stumps. If roots must be cut, roots 20 cm or larger should be cut at right angles with clean, sharp, horticultural tools, without tearing, crushing, or pulling;
- All tree service activities (i.e. removal, branch / root pruning, etc.) will be completed by or under the direction of an ISA certified arborist;
- As per the City of Ottawa's Tree Protection (By-law No. 2020-340), a tree compensation plan may be brought forth by the City of Ottawa, by means of offsetting overall tree and vegetation removal;
- Do not damage the root system, trunk, or branches or any tree identified to be retained;
- Ensure that exhaust fumes from all equipment are directed away from tree canopy; and
- For the protection of migratory birds and SAR bat species, tree removal shall occur outside of April 1 to September 30 of any given year, to avoid the key breeding bird period as identified by Environment Canada and the bat active season as identified by the Ministry of Environment, Conservation and Parks (MECP). Adhering to the timing window will also avoid contravention of the Migratory Bird Convention Act and the Endangered Species Act. If vegetation clearing activities must take place outside of the aforementioned timing window than a nest and roost survey shall be conducted by a qualified professional.

5.0 CLOSURE

This letter and the work referred to within it have been undertaken by GEMTEC Consulting Engineers and Scientists Ltd. (GEMTEC), and was prepared for March and Main, and is intended for the exclusive use of March and Main. This report may not be relied upon by any other person or entity without the express written consent of GEMTEC and March and Main. Nothing in this report is intended to provide a legal opinion.

The investigation undertaken by GEMTEC with respect to this report and any conclusions or recommendations made in this report reflect the best judgements of GEMTEC based on the site conditions observed during the investigations undertaken at the date(s) identified in the report and on the information available at the time the report was prepared.

This letter has been prepared for the application notes and it is based in part, on visual observations made at the site, all as described in the report. Unless otherwise states, the findings contained in this report cannot be extrapolated or extended to previous or future site conditions or for portions of the site that were unavailable for direct investigation.

Should new information become available during future work, or other studies, GEMTEC should be requested to review the information and, if necessary, re-assess the conclusions present herein.

We trust this report provides sufficient information for your present purposes. If you have any questions concerning this report, please do not hesitate to contact our office.

Sincerely,

Adam Alaimo, B.Sc.
Biologist

Taylor Warrington, B.Sc.
Biologist

6.0 REFERENCES

Ontario Ministry of Natural Resources and Forestry (OMNRF). 2019. Natural Heritage Information Centre. Make a Map: Natural Heritage Areas.

Ottawa, City of (Ottawa). 2003. City of Ottawa Official Plan. May

Ottawa, City of (Ottawa), By-law No. 2020-340, Tree Protection (Updated: January, 2021).

APPENDIX A

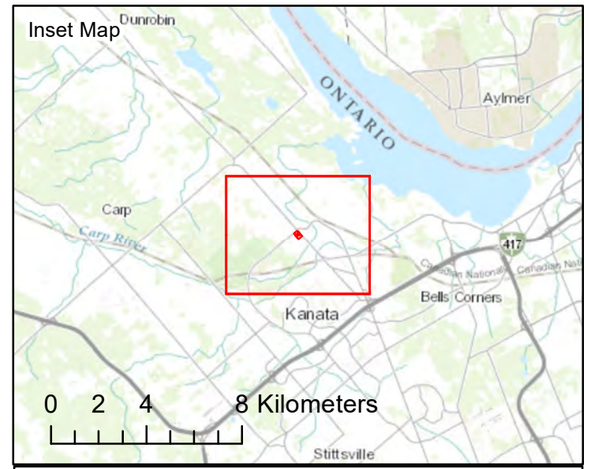
Report Figures

N

Legend

- Property Boundary
- Study Area

Inset Map



Scale

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March and Main	102220.001

Location

555, 591, 595 and 603 March Road
Ottawa, Ontario

Drwn By:	Chkd By:	
EP	TW	Site Location

Date: October 2022	Rev.	
	0	Figure A.1

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Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Legend

- Property Boundary
- Study Area
- Local Wetland

Scale
1:2,500
0 15 30 60 90 120 Meters

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March and Main	102220.001

Location
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Drwn By:	Chkd By:	
EP	TW	Site Layout

Date: October 2022	Rev.	
	0	Figure A.2

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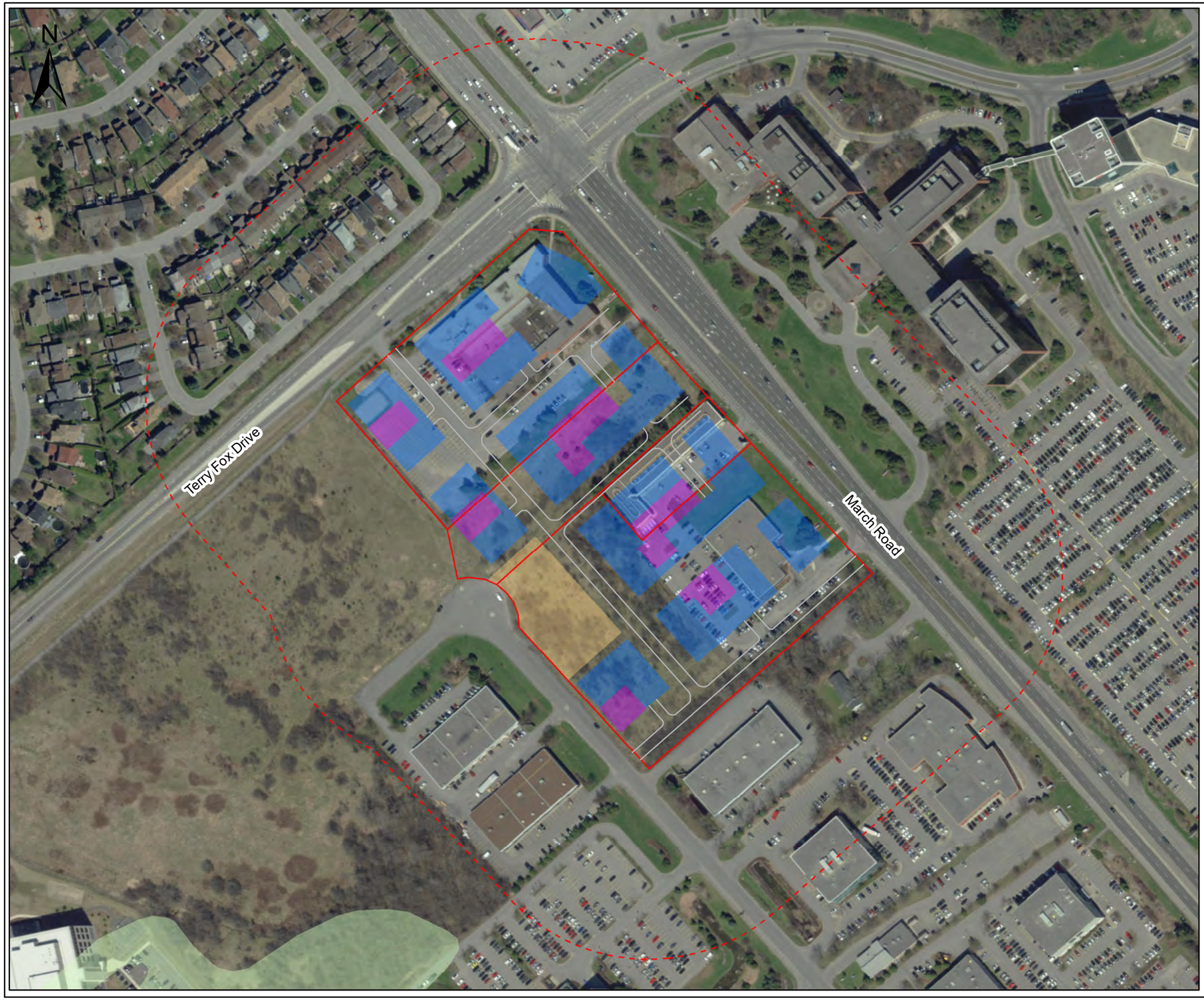
Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



Legend

- Property Boundary
- Study Area
- Local Wetland

Development Concept

- Proposed Building
- Parking
- Public Park
- Proposed Road

Scale
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0 15 30 60 90 120 Meters

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Drwn By:	Chkd By:	
EP	TW	Development Concept

Date: October 2022	Rev.	
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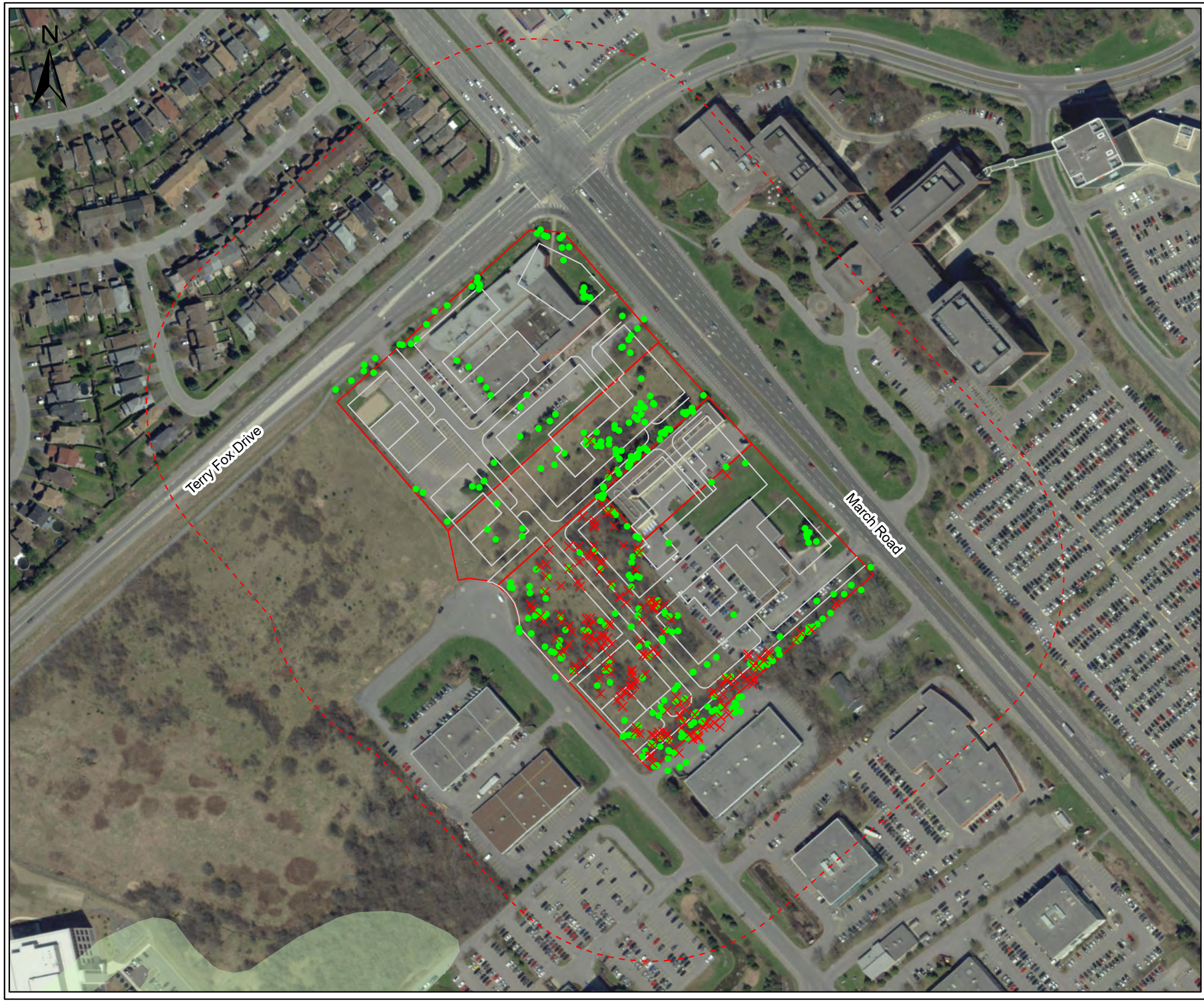
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community



Legend

- Property Boundary
- Study Area
- Local Wetland
- Development Concept

Tree with DBH Greater than 10 cm

- Alive
- Dead

Scale 1:2,500

0 15 30 60 90 120 Meters

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Figure A.4

Coordinate System: NAD 1983 UTM Zone 18N
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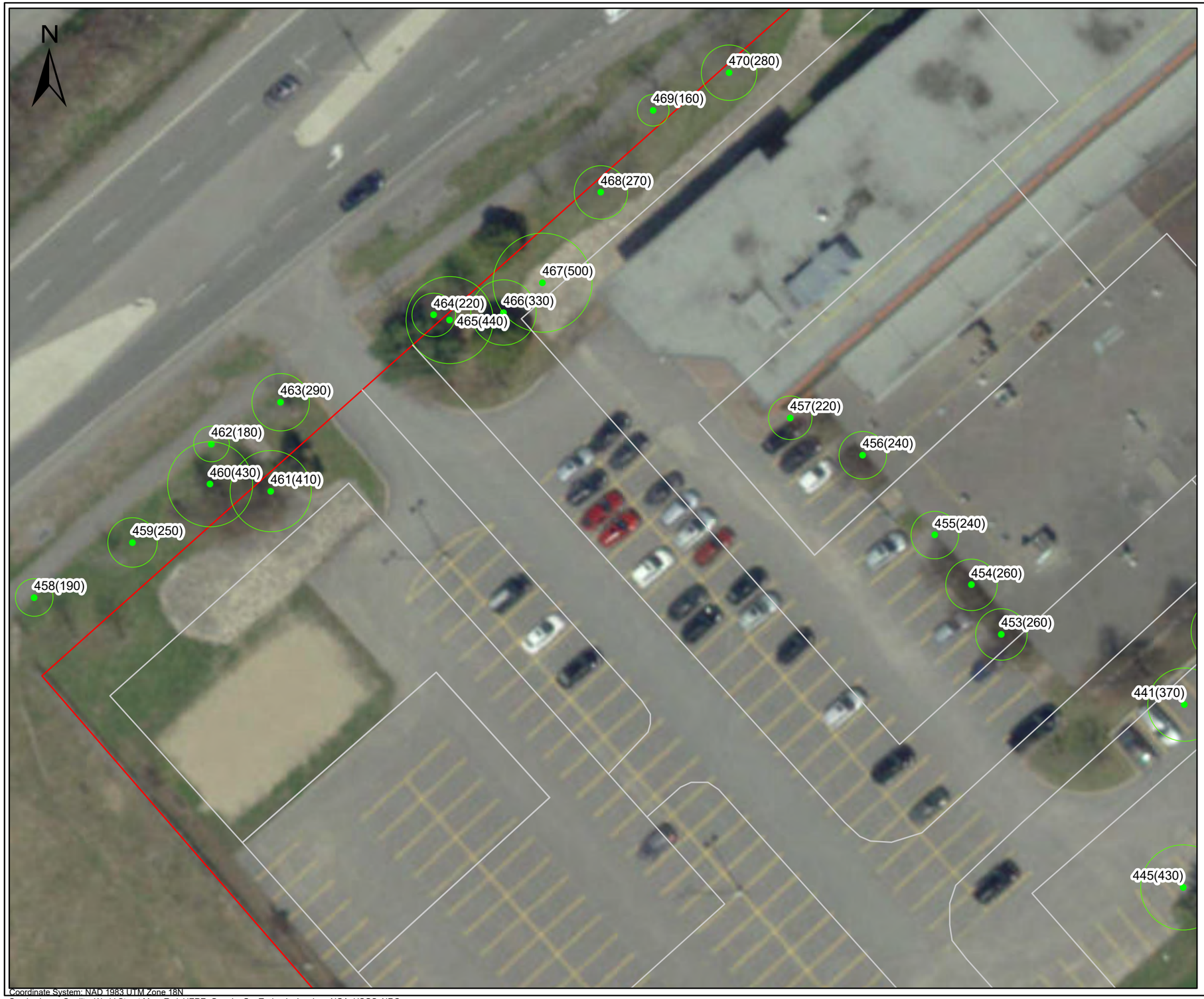
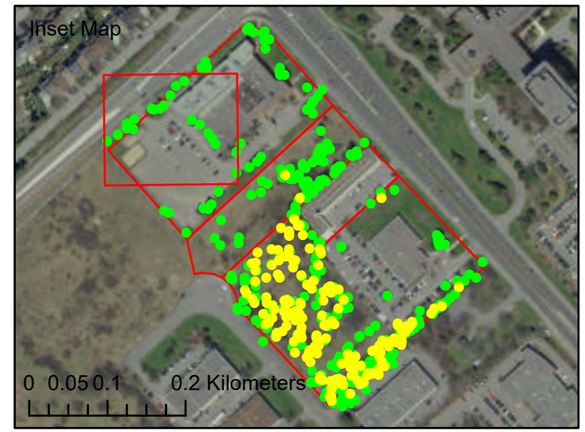


Legend

- Property Boundary
- Study Area
- Local Wetland
- Development Concept

Tree Number (Critical Root Zone [cm])

- Alive
- Dead



Scale 1:400

0 2.75 5.5 11 16.5 22 Meters

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Date: October 2022	Rev.	
	0	Figure A.4a

Coordinate System: NAD 1983 UTM Zone 18N
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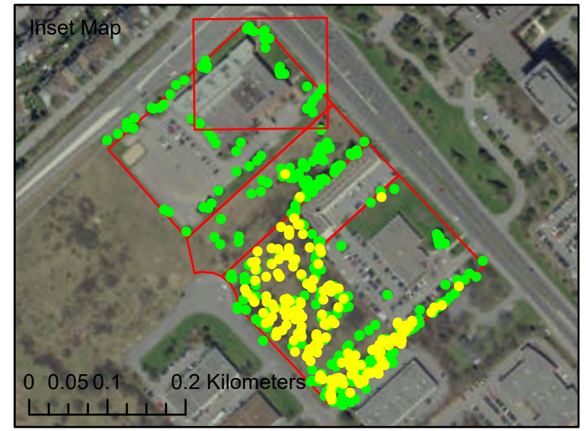
LIO DRAPE_2014_TPK:
World Imagery: Maxar

Legend

- Property Boundary
- Study Area
- Local Wetland
- Development Concept

Tree Number (Critical Root Zone [cm])

- Alive
- Dead



Scale 1:400

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© Queen's Printer for Ontario	0	Figure A.4b

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LIO DRAPE_2014_TPK:
World Imagery: Maxar

Legend

- Property Boundary
- Study Area
- Local Wetland
- Development Concept

Tree Number (Critical Root Zone [cm])

- Alive
- Dead

Scale 1:400

0 2.75 5.5 11 16.5 22 Meters

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Coordinate System: NAD 1983 UTM Zone 18N
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World Imagery: Maxar

N

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395(128)
258
260
259

Legend

- Property Boundary
- Study Area
- Local Wetland
- Development Concept

Tree Number (Critical Root Zone [cm])

- Alive
- Dead

Inset Map

0 0.05 0.1 0.2 Kilometers

Scale 1:400

0 2.75 5.5 11 16.5 22 Meters

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Figure A.4d

Coordinate System: NAD 1983 UTM Zone 18N
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LIO DRAPE_2014_TPK:
World Imagery: Maxar

Coordinate System: NAD 1983 UTM Zone 18N
Service Layer Credits: World Street Map: Esri, HERE, Garmin, GeoTechnologies, Inc., NGA, USGS, NRCan
LIO DRAPE_2014_TPK:
World Imagery: Maxar

Legend

- Property Boundary
- Study Area
- Local Wetland
- Development Concept

Tree Number (Critical Root Zone [cm])

- Alive
- Dead

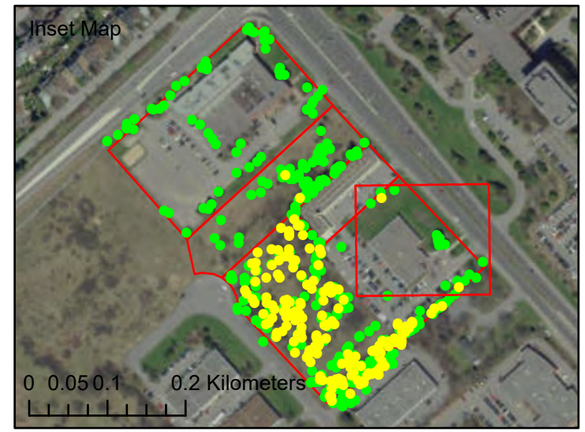

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Figure A.4f

Coordinate System: NAD 1983 UTM Zone 18N
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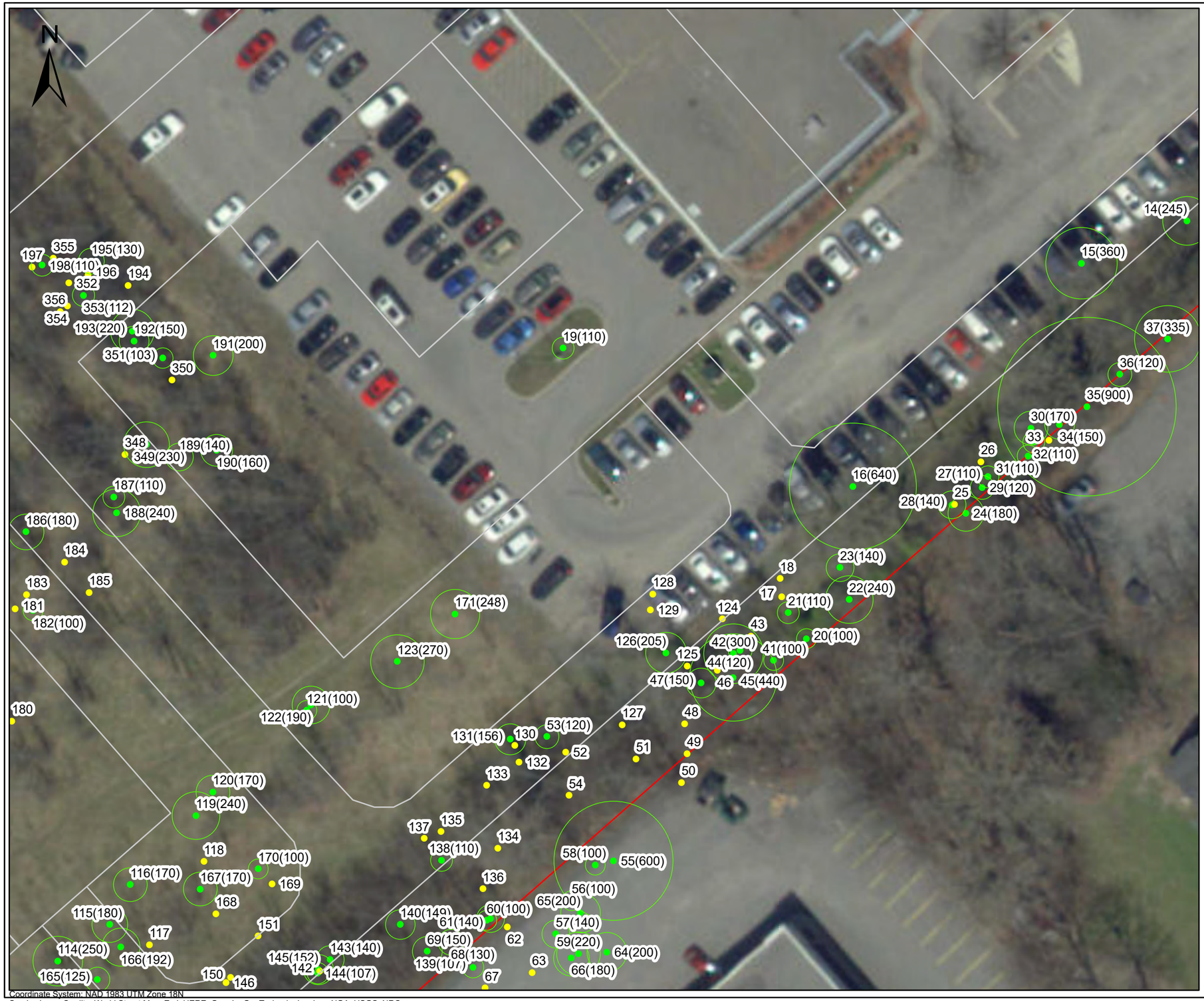

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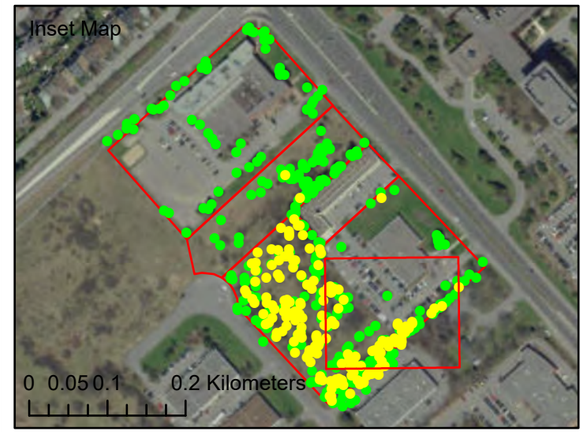
Legend

- Property Boundary
- Study Area
- Local Wetland
- Development Concept

Tree Number (Critical Root Zone [cm])

- Alive
- Dead



Scale
1:400
0 2.75 5.5 11 16.5 22 Meters

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Client:	Project:
March and Main	102220.001

Location
555, 591, 595 and 603 March Road
Ottawa, Ontario

Drwn By:	Chkd By:	
EP	TW	Tree Inventory

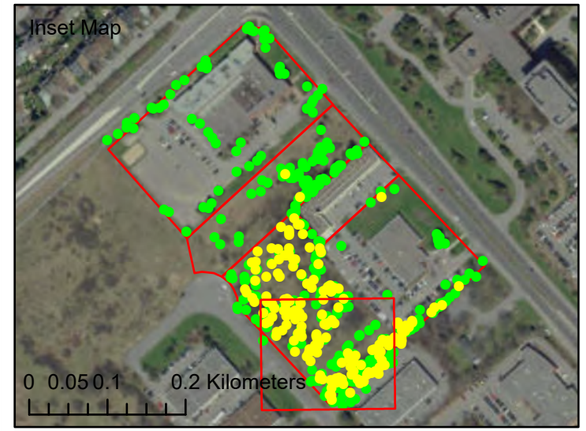
Date: October 2022	Rev.	
	0	Figure A.4g

Legend

- Property Boundary
- Study Area
- Local Wetland
- Development Concept

Tree Number (Critical Root Zone [cm])

- Alive
- Dead



Scale 1:400

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Drwn By:	Chkd By:	
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Date: October 2022	Rev.	
	0	Figure A.4h

Coordinate System: NAD 1983 UTM Zone 18N
Service Layer Credits: World Street Map: Esri, HERE, Garmin, GeoTechnologies, Inc., NGA, USGS, NRCan
LIO DRAPE_2014_TPK:
World Imagery: Maxar

APPENDIX B

Site Photographs

Site Photograph 1 – Dense vegetation adjacent to commercial area of property.

Site Photograph 2 – Example of larger tree specimens, part of landscaping.

Site Photograph 3 – Example of dense shrub vegetation, common throughout the site.

Site Photograph 4 – Example of meadow area on-site.

APPENDIX C

Tree Inventory Summary Table

Tree Number	Common Name	Scientific Name	Diameter at breast height (DBH) (cm)	Critical Root Zone (cm)	Condition	Distinctive Tree? (>50 cm DBH)	Wildlife Tree?
1	Red Oak	*Quercus rubra*	13	130	Healthy	No	No
2	Bur Oak	*Quercus macrocarpa*	28	280	Healthy	No	No
3	Bur Oak	*Quercus macrocarpa*	17, 12	210	Healthy	No	No
4	White Ash	*Fraxinus americana*	30	N/A	Dead	No	No
5	Bur Oak	*Quercus macrocarpa*	12	120	Healthy	No	No
6	Red Pine	*Pinus resinosa*	52	520	Healthy	Yes	No
7	Red Pine	*Pinus resinosa*	41.5	415	Healthy	No	No
8	Red Pine	*Pinus resinosa*	42	420	Healthy	No	No
9	Red Pine	*Pinus resinosa*	34.5	345	Healthy	No	No
10	Pitch Pine	*Pinus rigida*	35.5	355	Healthy	No	No
11	Red Pine	*Pinus resinosa*	48.5	485	Healthy	No	No
12	European Buckthorn	*Rhamnus cathartica*	10	100	Healthy	No	No
13	Bur Oak	*Quercus macrocarpa*	10, 10	140	Healthy	No	No
14	Bur Oak	*Quercus macrocarpa*	24.5	245	Good	No	No
15	White Ash	*Fraxinus americana*	36	360	Poor	No	No
16	Bur Oak	*Quercus macrocarpa*	64	640	Healthy	Yes	Yes
17	White Ash	*Fraxinus americana*	16.5	N/A	Dead	No	No
18	White Ash	*Fraxinus americana*	16	N/A	Dead	No	No
19	Red Oak	*Quercus rubra*	11	110	Healthy	No	No
20	Eastern White Cedar	*Thuja occidentalis*	10	100	Healthy	No	No
21	Eastern White Cedar	*Thuja occidentalis*	11	110	Poor	No	No
22	Bur Oak	*Quercus macrocarpa*	20, 10, 10	240	Good	No	No
23	Basswood	*Tilia americana*	14	140	Healthy	No	No
24	Basswood	*Tilia americana*	14, 11	180	Healthy	No	No
25	White Ash	*Fraxinus americana*	17.5	N/A	Dead	No	No
26	White Ash	*Fraxinus americana*	25	N/A	Dead	No	No
27	Eastern White Cedar	*Thuja occidentalis*	11	110	Healthy	No	No
28	Eastern Red Cedar	*Juniperus virginiana*	14	140	Good	No	No
29	Eastern White Cedar	*Thuja occidentalis*	12	120	Healthy	No	No
30	Eastern White Cedar	*Thuja occidentalis*	17	170	Good	No	No
31	Eastern White Cedar	*Thuja occidentalis*	11	110	Good	No	No
32	Eastern White Cedar	*Thuja occidentalis*	11	110	Good	No	No
33	White Ash	*Fraxinus americana*	11	N/A	Dead	No	No
34	Euroean buckthorn	*Rhamnus cathartica*	15	150	Good	No	No
35	Bur Oak	*Quercus macrocarpa*	90	900	Healthy	Yes	No
36	White Ash	*Fraxinus americana*	12	120	Poor	No	No
37	Basswood	*Tilia americana*	33.5	335	Healthy	No	No
38	Basswood	*Tilia americana*	22, 19	290	Good	No	No
39	American Elm	*Ulmus americana*	23	230	Healthy	No	No
40	White Ash	*Fraxinus americana*	15	N/A	Dead	No	No
41	European buckthorn	*Rhamnus cathartica*	10	100	Good	No	No
42	American Elm	*Ulmus americana*	30	300	Healthy	No	No
43	White Ash	*Fraxinus americana*	15	N/A	Dead	No	No
44	Bur Oak	*Quercus macrocarpa*	12	120	Good	No	No
45	Basswood	*Tilia americana*	44	440	Healthy	No	No
46	White Ash	*Fraxinus americana*	30	N/A	Dead	No	No
47	Bur Oak	*Quercus macrocarpa*	15	150	Healthy	No	No
48	White Ash	*Fraxinus americana*	13	N/A	Dead	No	No
49	Balsam Fir	*Abies balsamea*	13, 12, 11	N/A	Dead	No	No
50	American Elm	*Ulmus americana*	12	N/A	Dead	No	No
51	American Elm	*Ulmus americana*	10	N/A	Dead	No	No
52	White Ash	*Fraxinus americana*	21	N/A	Dead	No	No
53	European buckthorn	*Rhamnus cathartica*	12	120	Healthy	No	No
54	White Ash	*Fraxinus americana*	18	N/A	Dead	No	No
55	Bur Oak	*Quercus macrocarpa*	60	600	Healthy	Yes	No
56	European buckthorn	*Rhamnus cathartica*	10	100	Healthy	No	No
57	Bur Oak	*Quercus macrocarpa*	14	140	Good	No	No
58	American Elm	*Ulmus americana*	10	100	Good	No	No
59	Basswood	*Tilia americana*	12, 11, 10, 10	220	Healthy	No	No
60	Ironwood	*Ostrya virginiana*	10	100	Good	No	No
61	Bur Oak	*Quercus macrocarpa*	14	140	Good	No	No
62	White Ash	*Fraxinus americana*	12	N/A	Dead	No	No
63	White Ash	*Fraxinus americana*	13	N/A	Dead	No	No
64	American Elm	*Ulmus americana*	20	200	Poor	No	No
65	Basswood	*Tilia americana*	20	200	Healthy	No	No
66	American Elm	*Ulmus americana*	18	180	Good	No	No
67	White Ash	*Fraxinus americana*	12	N/A	Dead	No	No
68	Bur Oak	*Quercus macrocarpa*	13	130	Good	No	No
69	Burk Oak	*Quercus macrocarpa*	15	150	Good	No	No
70	White Ash	*Fraxinus americana*	10	N/A	Dead	No	No
71	White Ash	*Fraxinus americana*	14	N/A	Dead	No	No
72	Bur Oak	*Quercus macrocarpa*	10	100	Good	No	No

73	Bur Oak	*Quercus macrocarpa*	*10*	100	Good	No	No
74	White Ash	*Fraxinus americana*	*16*	N/A	Dead	No	No
75	White Ash	*Fraxinus americana*	*15*	N/A	Dead	No	No
76	White Ash	*Fraxinus americana*	*15*	N/A	Dead	No	No
77	Basswood	*Tilia americana*	*14*	140	Healthy	No	No
78	American Elm	*Ulmus americana*	*10*	N/A	Dead	No	No
79	Basswood	*Tilia americana*	*19, 12*	220	Healthy	No	No
80	White Ash	*Fraxinus americana*	*12*	N/A	Dead	No	No
81	Basswood	*Tilia americana*	*24, 14*	280	Healthy	No	No
82	White Ash	*Fraxinus americana*	*10*	100	Poor	No	No
83	White Ash	*Fraxinus americana*	*13*	N/A	Dead	No	No
84	European buckthorn	*Rhamnus cathartica*	*13*	130	Good	No	No
85	White Ash	*Fraxinus americana*	*12*	120	Poor	No	No
86	European buckthorn	*Rhamnus cathartica*	*10*	100	Good	No	No
87	White Ash	*Fraxinus americana*	*14*	140	Poor	No	No
88	White Ash	*Fraxinus americana*	*15*	N/A	Dead	No	No
89	European buckthorn	*Rhamnus cathartica*	*11*	110	Good	No	No
90	White Ash	*Fraxinus americana*	*17*	170	Poor	No	No
91	White Birch	*Betula papyrifera*	*14*	N/A	Dead	No	No
92	European buckthorn	*Rhamnus cathartica*	*10, 10*	140	Healthy	No	No
93	Bur Oak	*Quercus macrocarpa*	*10*	100	Healthy	No	No
94	White Ash	*Fraxinus americana*	*19*	190	Poor	No	No
95	European buckthorn	*Rhamnus cathartica*	*10*	100	Healthy	No	No
96	White Ash	*Fraxinus americana*	*17*	170	Poor	No	No
97	White Ash	*Fraxinus americana*	*17*	170	Poor	No	No
98	White Ash	*Fraxinus americana*	*18*	180	Poor	No	No
99	White Ash	*Fraxinus americana*	*15*	150	Poor	No	No
100	White Ash	*Fraxinus americana*	*16*	N/A	Dead	No	No
101	Bur Oak	*Quercus macrocarpa*	*14*	140	Healthy	No	No
102	American Elm	*Ulmus americana*	*15*	150	Poor	No	No
103	White Ash	*Fraxinus americana*	*16*	N/A	Dead	No	No
104	White Ash	*Fraxinus americana*	*17*	N/A	Dead	No	No
105	White Ash	*Fraxinus americana*	*31*	310	Poor	No	No
106	White Ash	*Fraxinus americana*	*15*	N/A	Dead	No	No
107	American Elm	*Ulmus americana*	*16*	160	Healthy	No	No
108	White Ash	*Fraxinus americana*	*17*	170	Poor	No	No
109	Prunus sp.	*Prunus sp.*	*14*	140	Healthy	No	No
110	White Ash	*Fraxinus americana*	*13*	130	Poor	No	No
111	Prunus sp.	*Prunus sp.*	*40*	400	Good	No	No
112	White Ash	*Fraxinus americana*	*14*	140	Poor	No	No
113	White Ash	*Fraxinus americana*	*14*	140	Poor	No	No
114	Trembling Aspen	*Populus tremuloides*	*15, 14, 14*	250	Good	No	No
115	White Ash	*Fraxinus americana*	*18*	180	Good	No	No
116	White Ash	*Fraxinus americana*	*17*	170	Good	No	No
117	Staghorn sumac	*Rhus typhina*	*10*	N/A	Dead	No	No
118	Staghorn sumac	*Rhus typhina*	*10*	N/A	Dead	No	No
119	White Ash	*Fraxinus americana*	*24*	240	Good	No	No
120	White Ash	*Fraxinus americana*	*17*	170	Good	No	No
121	White Ash	*Fraxinus americana*	*10*	100	Good	No	No
122	White Ash	*Fraxinus americana*	*19*	190	Good	No	No
123	White Ash	*Fraxinus americana*	*18, 10, 10, 10, 10*	270	Good	No	No
124	White Ash	*Fraxinus americana*	*13*	N/A	Dead	No	No
125	White Ash	*Fraxinus americana*	*17*	N/A	Dead	No	No
126	Bur Oak	*Quercus macrocarpa*	*20.5*	205	Healthy	No	No
127	White Ash	*Fraxinus americana*	*15.4*	N/A	Dead	No	No
128	White Ash	*Fraxinus americana*	*15.5*	N/A	Dead	No	No
129	White Ash	*Fraxinus americana*	*15.6*	N/A	Dead	No	No
130	American Elm	*Ulmus americana*	*19.8*	N/A	Dead	No	No
131	Basswood	*Tilia americana*	*15.6*	156	Healthy	No	No
132	White Ash	*Fraxinus americana*	*17.4*	N/A	Dead	No	No
133	White Ash	*Fraxinus americana*	*14.3*	N/A	Dead	No	No
134	American Elm	*Ulmus americana*	*25.3*	N/A	Dead	No	No
135	American Elm	*Ulmus americana*	*18.3*	N/A	Dead	No	No
136	White Ash	*Fraxinus americana*	*10.8*	N/A	Dead	No	No
137	White Ash	*Fraxinus americana*	*15*	N/A	Dead	No	No
138	White Ash	*Fraxinus americana*	*11*	110	Poor	No	No
139	Bur Oak	*Quercus macrocarpa*	*10.7*	107	Healthy	No	No
140	Basswood	*Tilia americana*	*14.9*	149	Healthy	No	No
141	White Ash	*Fraxinus americana*	*12.4*	N/A	Dead	No	No
142	White Ash	*Fraxinus americana*	*10.9*	N/A	Dead	No	No
143	Sugar Maple	*Acer saccharum*	*14*	140	Healthy	No	No
144	European buckthorn	*Rhamnus cathartica*	*10.7*	107	Good	No	No
145	European buckthorn	*Rhamnus cathartica*	*15.2*	152	Healthy	No	No
146	Prunus sp.	*Prunus sp.*	*11.7*	N/A	Dead	No	No
147	Staghorn sumac	*Rhus typhina*	*15.3*	153	Healthy	No	No
148	European buckthorn	*Rhamnus cathartica*	*12.4*	N/A	Dead	No	No
149	European buckthorn	*Rhamnus cathartica*	*10.5*	N/A	Dead	No	No
150	European buckthorn	*Rhamnus cathartica*	*11*	N/A	Dead	No	No
151	White Ash	*Fraxinus americana*	*14.1*	N/A	Dead	No	No
152	White Ash	*Fraxinus americana*	*16.3*	N/A	Dead	No	No
153	White Ash	*Fraxinus americana*	*20*	N/A	Dead	No	No
154	White Ash	*Fraxinus americana*	*15*	N/A	Dead	No	No
155	White Ash	*Fraxinus americana*	*15.7*	N/A	Dead	No	No
156	European buckthorn	*Rhamnus cathartica*	*15.4, 15.2, 15.2*	260	Healthy	No	No
157	White Ash	*Fraxinus americana*	*21.4*	N/A	Dead	No	No

158	White Ash	*Fraxinus americana*	*12*	N/A	Dead	No	No
159	White Ash	*Fraxinus americana*	*16.5*	N/A	Dead	No	No
160	White Ash	*Fraxinus americana*	*16.9*	N/A	Dead	No	No
161	Prunus sp.	*Prunus sp.*	*18*	180	Healthy	No	No
162	White Ash	*Fraxinus americana*	*19*	N/A	Dead	No	No
163	White Ash	*Fraxinus americana*	*13*	N/A	Dead	No	No
164	White Ash	*Fraxinus americana*	*12*	N/A	Dead	No	No
165	White Ash	*Fraxinus americana*	*12.5*	125	Poor	No	No
166	White Ash	*Fraxinus americana*	*19.2*	192	Poor	No	No
167	Staghorn sumac	*Rhus typhina*	*13.7, 10.4*	170	Healthy	No	No
168	White Ash	*Fraxinus americana*	*11.5*	N/A	Dead	No	No
169	White Ash	*Fraxinus americana*	*11*	N/A	Dead	No	No
170	White Ash	*Fraxinus americana*	*10*	100	Poor	No	No
171	White Ash	*Fraxinus americana*	*24.8*	248	Poor	No	No
172	White Ash	*Fraxinus americana*	*16*	N/A	Dead	No	No
173	White Ash	*Fraxinus americana*	*11*	N/A	Dead	No	No
174	White Ash	*Fraxinus americana*	*11*	N/A	Dead	No	No
175	White Ash	*Fraxinus americana*	*11*	N/A	Dead	No	No
176	White Ash	*Fraxinus americana*	*17*	N/A	Dead	No	No
177	White Ash	*Fraxinus americana*	*19*	N/A	Dead	No	No
178	White Ash	*Fraxinus americana*	*16*	N/A	Dead	No	No
179	White Ash	*Fraxinus americana*	*11*	N/A	Dead	No	No
180	White Ash	*Fraxinus americana*	*19*	N/A	Dead	No	No
181	White Ash	*Fraxinus americana*	*20*	N/A	Dead	No	No
182	European buckthorn	*Rhamnus cathartica*	*10*	100	Healthy	No	No
183	White Ash	*Fraxinus americana*	*13*	N/A	Dead	No	No
184	White Ash	*Fraxinus americana*	*16*	N/A	Dead	No	No
185	White Ash	*Fraxinus americana*	*20, 14*	N/A	Dead	No	No
186	White Ash	*Fraxinus americana*	*18*	180	Poor	No	No
187	European buckthorn	*Rhamnus cathartica*	*11*	110	Healthy	No	No
188	European buckthorn	*Rhamnus cathartica*	*14, 12, 11, 10*	240	Healthy	No	No
189	White Ash	*Fraxinus americana*	*14*	140	Poor	No	No
190	White Ash	*Fraxinus americana*	*12, 10*	160	Poor	No	No
191	White Ash	*Fraxinus americana*	*20*	200	Poor	No	No
192	White Ash	*Fraxinus americana*	*15*	150	Poor	No	No
193	White Ash	*Fraxinus americana*	*22*	220	Poor	No	No
194	White Ash	*Fraxinus americana*	*17, 13*	N/A	Dead	No	No
195	European buckthorn	*Rhamnus cathartica*	*13*	130	Healthy	No	No
196	White Ash	*Fraxinus americana*	*19*	N/A	Dead	No	No
197	White Ash	*Fraxinus americana*	*10, 10*	N/A	Dead	No	No
198	European buckthorn	*Rhamnus cathartica*	*11*	110	Healthy	No	No
199	White Ash	*Fraxinus americana*	*23*	N/A	Dead	No	No
200	White Ash	*Fraxinus americana*	*14, 12, 11*	210	Poor	No	No
201	American Elm	*Ulmus americana*	*11*	110	Good	No	No
202	White Ash	*Fraxinus americana*	*14*	N/A	Dead	No	No
203	White Ash	*Fraxinus americana*	*15*	N/A	Dead	No	No
204	White Ash	*Fraxinus americana*	*11, 10*	150	Poor	No	No
205	White Ash	*Fraxinus americana*	*21*	N/A	Dead	No	No
206	White Ash	*Fraxinus americana*	*14*	N/A	Dead	No	No
207	American Elm	*Ulmus americana*	*12*	120	Good	No	No
208	American Elm	*Ulmus americana*	*16*	N/A	Dead	No	No
209	White Ash	*Fraxinus americana*	*15, 12*	190	Poor	No	No
210	White Ash	*Fraxinus americana*	*15, 13*	N/A	Dead	No	No
211	Eastern White Pine	*Pinus strobus*	*10*	100	Healthy	No	No
212	Red Maple	*Acer rubrum*	*10*	100	Healthy	No	No
213	American Elm	*Ulmus americana*	*29*	N/A	Dead	No	No
214	Balsam Poplar	*Populus balsamifera*	*16*	160	Healthy	No	No
215	White Ash	*Fraxinus americana*	*11*	110	Poor	No	No
216	European buckthorn	*Rhamnus cathartica*	*12*	120	Healthy	No	No
217	European buckthorn	*Rhamnus cathartica*	*13*	130	Healthy	No	No
218	European buckthorn	*Rhamnus cathartica*	*12, 11*	160	Healthy	No	No
219	White Ash	*Fraxinus americana*	*17*	N/A	Dead	No	No
220	American Elm	*Ulmus americana*	*10*	100	Good	No	No
221	White Ash	*Fraxinus americana*	*13, 11*	N/A	Dead	No	No
222	European buckthorn	*Rhamnus cathartica*	*11*	110	Healthy	No	No
223	White Ash	*Fraxinus americana*	*18*	N/A	Dead	No	No
224	White Ash	*Fraxinus americana*	*19*	N/A	Dead	No	No
225	Hawthorns	*Crataegus sp.*	*12*	120	Good	No	No
226	White Ash	*Fraxinus americana*	*14*	140	Poor	No	No
227	White Ash	*Fraxinus americana*	*21*	N/A	Dead	No	No
228	American Elm	*Ulmus americana*	*23*	N/A	Dead	No	No
229	White Ash	*Fraxinus americana*	*22*	N/A	Dead	No	No
230	White Ash	*Fraxinus americana*	*19*	N/A	Dead	No	No
231	White Ash	*Fraxinus americana*	*17, 14, 10*	240	Poor	No	No
232	White Ash	*Fraxinus americana*	*18*	N/A	Dead	No	No
233	White Ash	*Fraxinus americana*	*15*	150	Poor	No	No
234	White Ash	*Fraxinus americana*	*14*	N/A	Dead	No	No
235	White Ash	*Fraxinus americana*	*21*	N/A	Dead	No	No
236	American Elm	*Ulmus americana*	*18*	180	Good	No	No
237	White Ash	*Fraxinus americana*	*17, 16, 16*	N/A	Dead	No	No
238	White Ash	*Fraxinus americana*	*24*	240	Poor	No	No
239	European buckthorn	*Rhamnus cathartica*	*11, 10*	150	Healthy	No	No
240	White Ash	*Fraxinus americana*	*17*	170	Poor	No	No
241	American Elm	*Ulmus americana*	*23*	N/A	Dead	No	No
242	American Elm	*Ulmus americana*	*20*	200	Good	No	No
243	American Elm	*Ulmus americana*	*28*	280	Good	No	No
244	European buckthorn	*Rhamnus cathartica*	*15, 13, 11*	230	Healthy	No	No
245	White Ash	*Fraxinus americana*	*19*	N/A	Dead	No	No
246	Locust sp	*Robinia pseudoacacia*	*17*	170	Healthy	No	No
247	White Ash	*Fraxinus americana*	*30*	N/A	Dead	No	No
248	White Ash	*Fraxinus americana*	*29*	N/A	Dead	No	No
249	White Ash	*Fraxinus americana*	*21*	N/A	Dead	No	No
250	White Ash	*Fraxinus americana*	*20*	N/A	Dead	No	No

251	Bur Oak	*Quercus macrocarpa*	*21*	210	Healthy	No	No
252	White Ash	*Fraxinus americana*	*30*	N/A	Dead	No	No
253	White Ash	*Fraxinus americana*	*27*	N/A	Dead	No	No
254	White Ash	*Fraxinus americana*	*20, 18*	N/A	Dead	No	No
255	White Ash	*Fraxinus americana*	*22*	N/A	Dead	No	No
256	White Ash	*Fraxinus americana*	*22*	N/A	Dead	No	No
257	European buckthorn	*Rhamnus cathartica*	*11*	110	Healthy	No	No
258	White Ash	*Fraxinus americana*	*27*	N/A	Dead	No	No
259	White Ash	*Fraxinus americana*	*25*	N/A	Dead	No	No
260	White Ash	*Fraxinus americana*	*20*	N/A	Dead	No	No
261	White Ash	*Fraxinus americana*	*20, 19*	N/A	Dead	No	No
262	White Ash	*Fraxinus americana*	*20*	N/A	Dead	No	No
263	American Elm	*Ulmus americana*	*14*	140	Poor	No	No
264	White Ash	*Fraxinus americana*	*21*	N/A	Dead	No	No
265	White Ash	*Fraxinus americana*	*21, 19*	N/A	Dead	No	No
266	European buckthorn	*Rhamnus cathartica*	*11, 10, 10, 10*	210	Healthy	No	No
267	White Ash	*Fraxinus americana*	*17*	N/A	Dead	No	No
268	White Ash	*Fraxinus americana*	*11*	N/A	Dead	No	No
269	White Ash	*Fraxinus americana*	*11*	N/A	Dead	No	No
270	White Ash	*Fraxinus americana*	*11*	N/A	Dead	No	No
271	European buckthorn	*Rhamnus cathartica*	*10*	100	Healthy	No	No
272	White Ash	*Fraxinus americana*	*13, 10*	N/A	Dead	No	No
273	Bur Oak	*Quercus macrocarpa*	*15, 14*	210	Healthy	No	No
274	European buckthorn	*Rhamnus cathartica*	*14, 13, 12, 10, 10*	270	Healthy	No	No
275	European buckthorn	*Rhamnus cathartica*	*13, 11, 11*	200	Healthy	No	No
276	European buckthorn	*Rhamnus cathartica*	*10*	100	Healthy	No	No
277	White Ash	*Fraxinus americana*	*20*	N/A	Dead	No	No
278	European buckthorn	*Rhamnus cathartica*	*10*	100	Healthy	No	No
279	European buckthorn	*Rhamnus cathartica*	*11, 11, 10, 10*	210	Healthy	No	No
280	European buckthorn	*Rhamnus cathartica*	*13, 11, 11, 10, 10*	250	Healthy	No	No
281	White Ash	*Fraxinus americana*	*11, 11, 11*	N/A	Dead	No	No
282	White Ash	*Fraxinus americana*	*11*	N/A	Dead	No	No
283	American Elm	*Ulmus americana*	*10*	100	Good	No	No
284	European buckthorn	*Rhamnus cathartica*	*11, 10, 10, 10*	210	Healthy	No	No
285	White Ash	*Fraxinus americana*	*10*	N/A	Dead	No	No
286	White Ash	*Fraxinus americana*	*15, 10*	180	Poor	No	No
287	White Ash	*Fraxinus americana*	*23, 11*	N/A	Dead	No	No
288	White Ash	*Fraxinus americana*	*49*	490	Good	No	No
289	European buckthorn	*Rhamnus cathartica*	*13, 12, 11, 10, 10*	250	Healthy	No	No
290	European buckthorn	*Rhamnus cathartica*	*11, 10, 10, 10*	210	Healthy	No	No
291	European buckthorn	*Rhamnus cathartica*	*12, 11, 11, 10*	220	Healthy	No	No
292	Eastern White Pine	*Pinus strobus*	*16*	160	Healthy	No	No
293	Eastern White Pine	*Pinus strobus*	*16*	160	Healthy	No	No
294	Scots Pine	*Pinus sylvestris*	*24, 22*	330	Healthy	No	No
295	White Ash	*Fraxinus americana*	*10*	100	Good	No	No
296	European buckthorn	*Rhamnus cathartica*	*11, 11, 10, 10*	210	Healthy	No	No
297	White Ash	*Fraxinus americana*	*11*	N/A	Dead	No	No
298	White Ash	*Fraxinus americana*	*12*	120	Poor	No	No
299	White Ash	*Fraxinus americana*	*11*	110	Poor	No	No
300	White Ash	*Fraxinus americana*	*19*	190	Poor	No	No
301	American Elm	*Ulmus americana*	*17*	170	Good	No	No
302	White Ash	*Fraxinus americana*	*11*	110	Poor	No	No
303	White Ash	*Fraxinus americana*	*11*	110	Poor	No	No
304	White Ash	*Fraxinus americana*	*12*	120	Poor	No	No
305	White Ash	*Fraxinus americana*	*13*	130	Good	No	No
306	Jack Pine	*Pinus banksiana*	*34*	340	Healthy	No	No
307	Jack Pine	*Pinus banksiana*	*28*	280	Healthy	No	No
308	American Elm	*Ulmus americana*	*27*	N/A	Dead	No	No
309	Jack Pine	*Pinus banksiana*	*29*	290	Healthy	No	No
310	Jack Pine	*Pinus banksiana*	*36*	360	Healthy	No	No
311	Jack Pine	*Pinus banksiana*	*27*	270	Healthy	No	No
312	Jack Pine	*Pinus banksiana*	*32*	320	Healthy	No	No
313	Jack Pine	*Pinus banksiana*	*29*	290	Healthy	No	No
314	Jack Pine	*Pinus banksiana*	*25*	250	Healthy	No	No
315	Jack Pine	*Pinus banksiana*	*25*	250	Healthy	No	No
316	Jack Pine	*Pinus banksiana*	*26*	260	Healthy	No	No
317	Jack Pine	*Pinus banksiana*	*24*	240	Healthy	No	No
318	Jack Pine	*Pinus banksiana*	*30*	300	Healthy	No	No
319	American Elm	*Ulmus americana*	*26, 20*	330	Good	No	No
320	Scots Pine	*Pinus sylvestris*	*20*	200	Good	No	No
321	Jack Pine	*Pinus banksiana*	*22*	220	Healthy	No	No
322	Jack Pine	*Pinus banksiana*	*31*	310	Healthy	No	No
323	Jack Pine	*Pinus banksiana*	*32*	320	Healthy	No	No
324	Jack Pine	*Pinus banksiana*	*31*	310	Healthy	No	No
325	Jack Pine	*Pinus banksiana*	*29*	290	Healthy	No	No
326	Jack Pine	*Pinus banksiana*	*29*	290	Healthy	No	No
327	Jack Pine	*Pinus banksiana*	*26*	260	Healthy	No	No
328	Jack Pine	*Pinus banksiana*	*27*	270	Healthy	No	No
329	Jack Pine	*Pinus banksiana*	*22*	220	Healthy	No	No
330	Jack Pine	*Pinus banksiana*	*30*	300	Healthy	No	No
331	Jack Pine	*Pinus banksiana*	*26*	260	Healthy	No	No
332	Jack Pine	*Pinus banksiana*	*44*	440	Healthy	No	No
333	Jack Pine	*Pinus banksiana*	*32*	320	Healthy	No	No
334	Jack Pine	*Pinus banksiana*	*23*	230	Healthy	No	No
335	Jack Pine	*Pinus banksiana*	*23*	230	Healthy	No	No
336	Eastern White Pine	*Pinus strobus*	*70*	700	Healthy	Yes	No

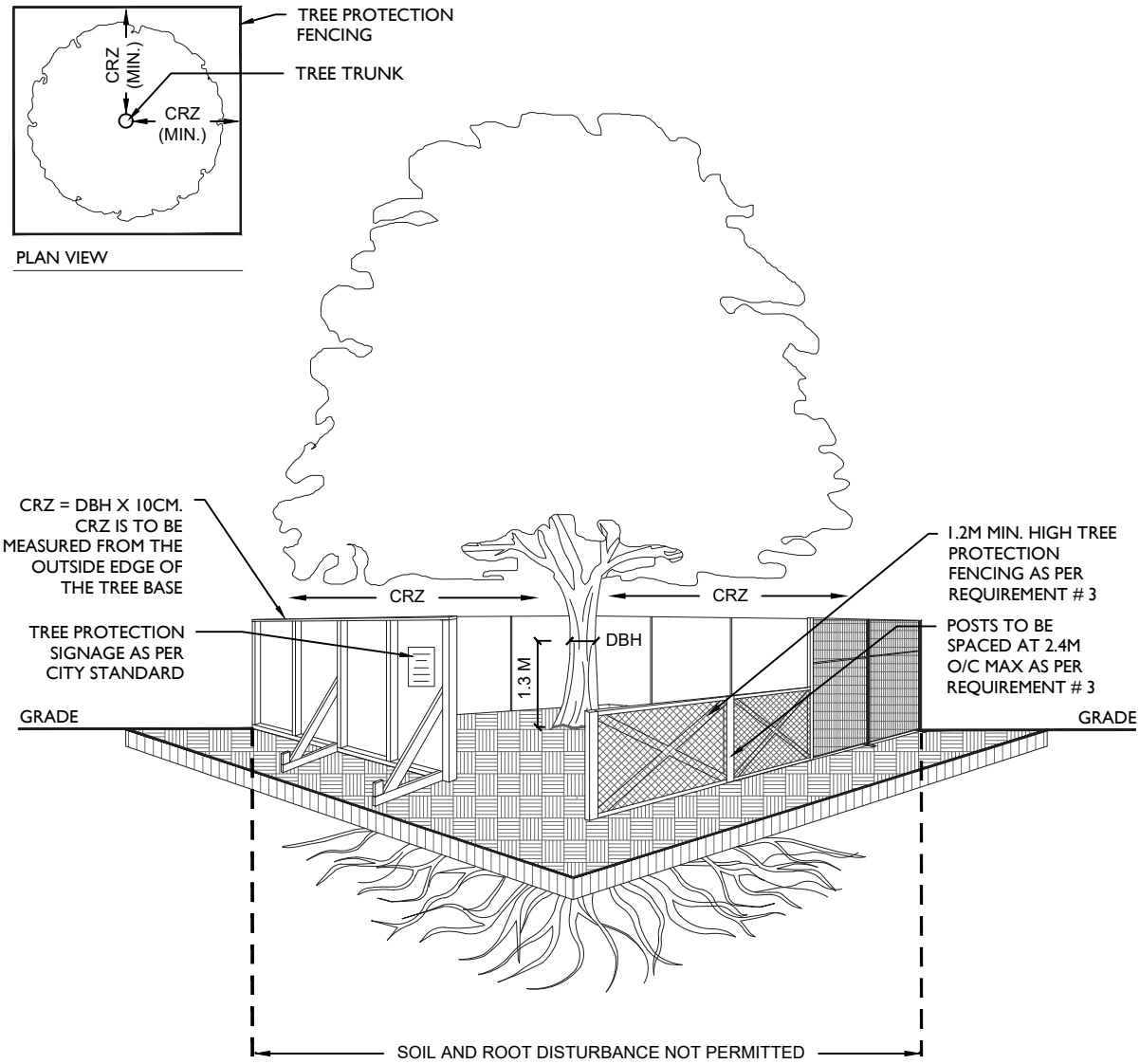
337	Eastern White Pine	*Pinus strobus*	*70*	700	Healthy	Yes	No
338	Red Pine	*Pinus resinosa*	*41*	410	Healthy	No	No
339	White Ash	*Fraxinus americana*	*19.7*	N/A	Dead	No	No
340	White Ash	*Fraxinus americana*	*19.2*	N/A	Dead	No	No
341	White Ash	*Fraxinus americana*	*26*	N/A	Dead	No	No
342	White Ash	*Fraxinus americana*	*16.2*	N/A	Dead	No	No
343	White Ash	*Fraxinus americana*	*14.2*	N/A	Dead	No	No
344	European buckthorn	*Rhamnus cathartica*	*10*	100	Healthy	No	No
345	White Ash	*Fraxinus americana*	*15.3*	N/A	Dead	No	No
346	White Ash	*Fraxinus americana*	*17.3*	N/A	Dead	No	No
347	European buckthorn	*Rhamnus cathartica*	*11.3, 11.3*	160	Healthy	No	No
348	White Ash	*Fraxinus americana*	*17.3*	N/A	Dead	No	No
349	Trembling Aspen	*Populus tremuloides*	*23*	230	Good	No	No
350	White Ash	*Fraxinus americana*	*17.8*	N/A	Dead	No	No
351	European buckthorn	*Rhamnus cathartica*	*10.3*	103	Healthy	No	No
352	White Ash	*Fraxinus americana*	*12.3*	N/A	Dead	No	No
353	European buckthorn	*Rhamnus cathartica*	*11.2*	112	Healthy	No	No
354	White Ash	*Fraxinus americana*	*19.2*	N/A	Dead	No	No
355	White Ash	*Fraxinus americana*	*19*	N/A	Dead	No	No
356	White Ash	*Fraxinus americana*	*20*	N/A	Dead	No	No
357	White Ash	*Fraxinus americana*	*16.8*	N/A	Dead	No	No
358	American Elm	*Ulmus americana*	*11.3*	113	Healthy	No	No
359	White Ash	*Fraxinus americana*	*18.3*	N/A	Dead	No	No
360	White Ash	*Fraxinus americana*	*22.5*	N/A	Dead	No	No
361	White Ash	*Fraxinus americana*	*12*	N/A	Dead	No	No
362	White Ash	*Fraxinus americana*	*18.9*	N/A	Dead	No	No
363	White Ash	*Fraxinus americana*	*15.6*	N/A	Dead	No	No
364	White Ash	*Fraxinus americana*	*19*	N/A	Dead	No	No
365	White Ash	*Fraxinus americana*	*13.5*	N/A	Dead	No	No
366	European buckthorn	*Rhamnus cathartica*	*10.5*	105	Healthy	No	No
367	European buckthorn	*Rhamnus cathartica*	*16*	160	Healthy	No	No
368	White Ash	*Fraxinus americana*	*15.7*	N/A	Dead	No	No
369	White Ash	*Fraxinus americana*	*21.2*	N/A	Dead	No	No
370	White Ash	*Fraxinus americana*	*20.3*	N/A	Dead	No	No
371	White Ash	*Fraxinus americana*	*17, 15.9*	N/A	Dead	No	No
372	White Ash	*Fraxinus americana*	*13.2*	N/A	Dead	No	No
373	White Ash	*Fraxinus americana*	*18.7*	N/A	Dead	No	No
374	White Ash	*Fraxinus americana*	*16.6*	N/A	Dead	No	No
375	White Ash	*Fraxinus americana*	*15.5*	N/A	Dead	No	No
376	European buckthorn	*Rhamnus cathartica*	*14.9, 10.7, 10.5, 12.1, 10.6*	270	Healthy	No	No
377	White Ash	*Fraxinus americana*	*17.8*	N/A	Dead	No	No
378	White Ash	*Fraxinus americana*	*14*	N/A	Dead	No	No
379	White Ash	*Fraxinus americana*	*15*	N/A	Dead	No	No
380	White Ash	*Fraxinus americana*	*21.5*	215	Poor	No	No
381	White Ash	*Fraxinus americana*	*22.6, 22.3*	320	Poor	No	No
382	American Elm	*Ulmus americana*	*24*	N/A	Dead	No	No
383	Jack Pine	*Pinus banksiana*	*31.7*	317	Healthy	No	No
384	European buckthorn	*Rhamnus cathartica*	*13*	130	Healthy	No	No
385	Jack Pine	*Pinus banksiana*	*34.8*	348	Healthy	No	No
386	European buckthorn	*Rhamnus cathartica*	*14*	140	Healthy	No	No
387	European buckthorn	*Rhamnus cathartica*	*11.2*	112	Healthy	No	No
388	American Elm	*Ulmus americana*	*29.5*	N/A	Dead	No	No
389	Bur Oak	*Quercus macrocarpa*	*25.7*	257	Healthy	No	No
390	American Elm	*Ulmus americana*	*33.7*	337	Healthy	No	No
391	Jack Pine	*Pinus banksiana*	*14.1*	141	Healthy	No	No
392	Jack Pine	*Pinus banksiana*	*23.3*	233	Healthy	No	No
393	Jack Pine	*Pinus banksiana*	*24*	240	Healthy	No	No
394	White Ash	*Fraxinus americana*	*19.8, 12.9, 12, 12*	N/A	Dead	No	No
395	American Elm	*Ulmus americana*	*12.8*	128	Healthy	No	No
396	White Ash	*Fraxinus americana*	*18.5, 15*	N/A	Dead	No	No
397	White Ash	*Fraxinus americana*	*15*	N/A	Dead	No	No
398	White Ash	*Fraxinus americana*	*20*	N/A	Dead	No	No

399	White Ash	*Fraxinus americana*	24.9	N/A	Dead	No	No
400	White Ash	*Fraxinus americana*	10.4	104	Healthy	No	No
401	White Ash	*Fraxinus americana*	23	230	Good	No	No
402	White Ash	*Fraxinus americana*	13.7	137	Good	No	No
403	White Oak	*Quercus alba*	30.1	N/A	Dead	No	No
404	White Ash	*Fraxinus americana*	39.5	N/A	Dead	No	No
405	Hawthorns	*Crataegus sp.*	10.7	107	Healthy	No	No
406	American Elm	*Ulmus americana*	17.4	174	Healthy	No	No
407	Trembling Aspen	*Populus tremuloides*	35.7	357	Healthy	No	No
408	Trembling Aspen	*Populus tremuloides*	21.4	214	Healthy	No	No
409	Trembling Aspen	*Populus tremuloides*	22.8	228	Good	No	No
410	White Ash	*Fraxinus americana*	20	200	Poor	No	No
411	Eastern White Pine	*Pinus strobus*	10.8	108	Healthy	No	No
412	Eastern White Pine	*Pinus strobus*	28.8	288	Healthy	No	No
413	White Ash	*Fraxinus americana*	11	110	Good	No	No
414	White Ash	*Fraxinus americana*	16.8	168	Poor	No	No
415	White Ash	*Fraxinus americana*	15	150	Poor	No	No
416	White Ash	*Fraxinus americana*	22.3	223	Poor	No	No
417	White Ash	*Fraxinus americana*	32.5	325	Poor	No	No
418	White Ash	*Fraxinus americana*	14.7	147	Good	No	No
419	White Ash	*Fraxinus americana*	14.9	149	Poor	No	No
420	White Ash	*Fraxinus americana*	17.8	178	Poor	No	No
421	White Ash	*Fraxinus americana*	16.5, 13.7	210	Poor	No	No
422	Eastern White Pine	*Pinus strobus*	14.5	145	Healthy	No	No
423	White Ash	*Fraxinus americana*	15.9	159	Poor	No	No
424	White Ash	*Fraxinus americana*	21.3	213	Poor	No	No
425	White Ash	*Fraxinus americana*	14	140	Poor	No	No
426	Eastern White Pine	*Pinus strobus*	12.3	123	Healthy	No	No
427	American Elm	*Ulmus americana*	16.6	166	Healthy	No	No
428	White Ash	*Fraxinus americana*	16	160	Poor	No	No
429	Eastern White Pine	*Pinus strobus*	22.2	222	Healthy	No	No
430	Eastern White Pine	*Pinus strobus*	26.1	261	Healthy	No	No
431	Eastern White Pine	*Pinus strobus*	15.3	153	Healthy	No	No
432	Eastern White Pine	*Pinus strobus*	27.2	272	Healthy	No	No
433	Little leaf linden	*Tilia cordata*	36	360	Good	No	No
434	Basswood	*Tilia americana*	56	560	Healthy	Yes	No
435	Basswood	*Tilia americana*	33	330	Healthy	No	No
436	Basswood	*Tilia americana*	56	560	Healthy	Yes	No
437	Little leaf linden	*Tilia cordata*	35	350	Healthy	No	No
438	Little leaf linden	*Tilia cordata*	68	680	Healthy	Yes	No
439	Little leaf linden	*Tilia cordata*	29	290	Healthy	No	No
440	Little leaf linden	*Tilia cordata*	34	340	Healthy	No	No
441	Little leaf linden	*Tilia cordata*	37	370	Healthy	No	No
442	Blue spruce	*Picea pungens*	52	520	Healthy	Yes	No
443	White Spruce	*Picea glauca*	42	420	Healthy	No	No
444	White Spruce	*Picea glauca*	40	400	Good	No	No
445	White Spruce	*Picea glauca*	43	430	Good	No	No
446	Norway spruce	*Picea abies*	48	480	Healthy	No	No
447	Blue spruce	*Picea pungens*	47	470	Poor	No	No
448	White Spruce	*Picea glauca*	49	490	Healthy	No	No
449	White Spruce	*Picea glauca*	46	460	Healthy	No	No
450	Amur maple	*Acer ginnala*	22	220	Good	No	No
451	Amur maple	*Acer ginnala*	18	180	Good	No	No
452	Amur maple	*Acer ginnala*	16	160	Poor	No	No
453	Little leaf linden	*Tilia cordata*	26	260	Healthy	No	No
454	Little leaf linden	*Tilia cordata*	26	260	Healthy	No	No
455	Little leaf linden	*Tilia cordata*	24	240	Healthy	No	No
456	Little leaf linden	*Tilia cordata*	24	240	Healthy	No	No
457	Little leaf linden	*Tilia cordata*	22	220	Good	No	No
458	Sugar Maple	*Acer saccharum*	19	190	Healthy	No	No
459	Sugar Maple	*Acer saccharum*	25	250	Healthy	No	No
460	Little leaf linden	*Tilia cordata*	43	430	Healthy	No	No
461	Little leaf linden	*Tilia cordata*	41	410	Healthy	No	No
462	Sugar Maple	*Acer saccharum*	18	180	Healthy	No	No
463	Sugar Maple	*Acer saccharum*	29	290	Healthy	No	No
464	Sugar Maple	*Acer saccharum*	22	220	Healthy	No	No
465	Scots Pine	*Pinus sylvestris*	44	440	Healthy	No	No
466	Basswood	*Tilia americana*	33	330	Healthy	No	No
467	Eastern White Cedar	*Thuja occidentalis*	50	500	Healthy	Yes	No
468	Sugar Maple	*Acer saccharum*	27	270	Healthy	No	No
469	Sugar Maple	*Acer saccharum*	16	160	Poor	No	No
470	Sugar Maple	*Acer saccharum*	28	280	Healthy	No	No
471	Blue spruce	*Picea pungens*	33	330	Healthy	No	No
472	Blue spruce	*Picea pungens*	30	300	Healthy	No	No
473	Blue spruce	*Picea pungens*	28	280	Healthy	No	No
474	Blue spruce	*Picea pungens*	27	270	Healthy	No	No
475	Blue spruce	*Picea pungens*	26	260	Healthy	No	No
476	Blue spruce	*Picea pungens*	25	250	Healthy	No	No
477	Blue spruce	*Picea pungens*	27	270	Healthy	No	No
478	Blue spruce	*Picea pungens*	25	250	Healthy	No	No
479	Blue spruce	*Picea pungens*	24	240	Healthy	No	No
480	Blue spruce	*Picea pungens*	21	210	Good	No	No
481	Blue spruce	*Picea pungens*	29	290	Good	No	No
482	Hackberry	*Celtis occidentalis*	27	270	Healthy	No	No

483	Hackberry	*Celtis occidentalis*	*32*	320	Healthy	No	No
484	Hackberry	*Celtis occidentalis*	*33*	330	Healthy	No	No
485	Red Pine	*Pinus resinosa*	*44*	440	Healthy	No	No
486	Red Pine	*Pinus resinosa*	*33*	330	Healthy	No	No
487	Red Pine	*Pinus resinosa*	*41*	410	Healthy	No	No
488	Red Pine	*Pinus resinosa*	*27*	270	Healthy	No	No
489	Red Pine	*Pinus resinosa*	*36*	360	Healthy	No	No
490	Little leaf linden	*Tilia cordata*	*35, 35, 35*	610	Healthy	No	No

APPENDIX D

City of Ottawa Tree Protection Specification



TREE PROTECTION REQUIREMENTS:

1. PRIOR TO ANY WORK ACTIVITY WITHIN THE CRITICAL ROOT ZONE (CRZ = 10 X DIAMETER) OF A TREE, TREE PROTECTION FENCING MUST BE INSTALLED SURROUNDING THE CRITICAL ROOT ZONE, AND REMAIN IN PLACE UNTIL THE WORK IS COMPLETE.
2. UNLESS PLANS ARE APPROVED BY CITY FORESTRY STAFF, FOR WORK WITHIN THE CRZ:
   - DO NOT PLACE ANY MATERIAL OR EQUIPMENT - INCLUDING OUTHOUSES;
   - DO NOT ATTACH ANY SIGNS, NOTICES OR POSTERS TO ANY TREE;
   - DO NOT RAISE OR LOWER THE EXISTING GRADE;
   - TUNNEL OR BORE WHEN DIGGING;
   - DO NOT DAMAGE THE ROOT SYSTEM, TRUNK, OR BRANCHES OR ANY TREE;
   - ENSURE THAT EXHAUST FUMES FROM ALL EQUIPMENT ARE NOT DIRECTED TOWARD ANY TREE CANOPY.
   - DO NOT EXTEND HARD SURFACE OR SIGNIFICANTLY CHANGE LANDSCAPING
3. TREE PROTECTION FENCING MUST BE AT LEAST 1.2M IN HEIGHT, AND CONSTRUCTED OF RIGID OR FRAMED MATERIALS (E.G. MODULOC - STEEL, PLYWOOD HOARDING, OR SNOW FENCE ON A 2"X4" WOOD FRAME) WITH POSTS 2.4M APART, SUCH THAT THE FENCE LOCATION CANNOT BE ALTERED. ALL SUPPORTS AND BRACING MUST BE PLACED OUTSIDE OF THE CRZ, AND INSTALLATION MUST MINIMISE DAMAGE TO EXISTING ROOTS. (SEE DETAIL)
4. THE LOCATION OF THE TREE PROTECTION FENCING MUST BE DETERMINED BY AN ARBORIST AND DETAILED ON ANY ASSOCIATED PLANS FOR THE SITE (E.G. TREE CONSERVATION REPORT, TREE INFORMATION REPORT, ETC). THE PLAN AND CONSTRUCTED FENCING MUST BE APPROVED BY CITY FORESTRY STAFF PRIOR TO THE COMMENCEMENT OF WORK.
5. IF THE FENCED TREE PROTECTION AREA MUST BE REDUCED TO FACILITATE CONSTRUCTION, MITIGATION MEASURES MUST BE PRESCRIBED BY AN ARBORIST AND APPROVED BY CITY FORESTRY STAFF. THESE MAY INCLUDE THE PLACEMENT OF PLYWOOD, WOOD CHIPS, OR STEEL PLATING OVER THE ROOTS FOR PROTECTION OR THE PROPER PRUNING AND CARE OF ROOTS WHERE ENCOUNTERED.

THE CITY'S TREE PROTECTION BY-LAW, 2020-340 PROTECTS BOTH CITY-OWNED TREES, CITY-WIDE, AND PRIVATELY-OWNED TREES WITHIN THE URBAN AREA. PLEASE REFER TO WWW.OTTAWA.CA/TREEBYLAW FOR MORE INFORMATION ON HOW THE TREE BY-LAW APPLIES.

ACCESSIBLE FORMATS AND COMMUNICATION SUPPORTS ARE AVAILABLE, UPON REQUEST

Ottawa

TREE PROTECTION SPECIFICATION

TO BE IMPLEMENTED FOR RETAINED TREES, BOTH ON SITE AND ON ADJACENT SITES, PRIOR TO ANY TREE REMOVAL OR SITE WORKS AND MAINTAINED FOR THE DURATION OF WORK ACTIVITIES ON SITE.

SCALE:	NTS
DATE:	MARCH 2021
DRAWING NO.:	1 of 1

experience • knowledge • integrity

civil	civil
geotechnical	géotechnique
environmental	environnementale
field services	surveillance de chantier
materials testing	service de laboratoire des matériaux

expérience • connaissance • intégrité