ACCESS SELFSTORAGE INC.

TREE CONSERVATION REPORT

864 LADY ELLEN PLACE, OTTAWA, ONTARIO

MARCH 24, 2023

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ACCESS SELFSTORAGE INC.

PROJECT NO.: 221-04646-00
DATE: MARCH 24, 2023

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SIGNATURES

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March 24, 2023
Date

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March 24, 2023
Date

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TABLE OF CONTENTS

TABLES

FIGURES

APPENDICES

1 INTRODUCTION

WSP Canada Inc. (WSP), was retained by Access Selfstorage Inc., to complete a Tree Conservation Report (TCR) for the proposed development located at 864 Lady Ellen Place in the Carlington neighborhood, City of Ottawa, Ontario (the Site). A TCR is required for development sites where there is a tree 10 cm in diameter or greater within the Site limits, and / or where there are trees situated on adjacent lands with a Critical Root Zone (CRZ) extending onto the property (Ottawa, 2020).

The Site is a 3.348-acre lot on the south side of Highway 417, currently occupied by a 2.5-storey 38,000 square foot office building. The proposed development is comprised of two (2) low-rise self-storage/warehouse buildings. The first of these will be a 4-storey light industrial building containing self-storage units on the upper three (3) storeys and warehouse space on the ground floor. The ground floor will also contain ancillary administrative office space to serve clients of the self-storage use. The second building will consist of a single-storey self-storage building (Figure 2).

This TCR has been prepared in accordance with the City of Ottawa's TCR Guidelines (Ottawa 2022) and the City of Ottawa's Tree Protection By-law (By-law No. 2020-340). Revisions to the Site Plan Control Application submitted on December 20, 2022 have been made based on the City of Ottawa's First Submission Circulation Response (D07-12-22-0175; February 27, 2023).

2 QUALIFICATIONS

This report was prepared by Carlene Perkin, Terrestrial Ecologist and Arborist at WSP (226-220-8243).

Carlene Perkin is a Terrestrial Ecologist and ISA Certified Arborist and is experienced in coordinating and conducting arborist surveys at WSP. Carlene has 4 years of experience as an ISA Certified Arborist conducting tree inventories and assessments of trees in natural areas and valleylands, municipal street trees, trees within railway corridors and on private property. She has expertise coordinating and conducting tree inventories and health assessments, managing tree inventory data, providing recommendations to remove or retain trees based on proximity to proposed works and preparing Arborist Reports, Tree Conservation Reports and Tree Protection Plans. As a certified Butternut Health Assessor, Carlene is also qualified to identify and assess Butternut (*Juglans cinerea*).

3 GENERAL SITE INFORMATION

The detailed location of the Site for which the TCR was completed is outlined below.

Table 3.1 – Site Information

Municipal Address	864 Lady Ellen Place, Ottawa, Ontario
Legal Description	Lots 9, 10, 11, 12 and Part of Lot 13, Registered Plan 387939 City of Ottawa
Current Land Use Designation	Official Plan: Mixed Industrial – Inner Urban Transect (Ottawa 2022)
Current Zoning	Light Industrial, Urban Exception 278, Height Limit 30 (IL[278] H(30))
Current Site Owner	Access Selfstorage Inc.
Name, Address and Phone Number of Site Owner	Access Selfstorage Inc., 100 Canadian Road, Toronto, ON M1R 4Z5

There are no other ongoing applications affecting the land upon which trees are to be protected, injured or destroyed.

4 DEFINITIONS

Terms used throughout this report have been defined in the tables below.

Table 4.1 – Definitions

ACRONYM/ DEFINITION	DESCRIPTION
Adjacent Tree	A tree that has a trunk growing on a property with a shared boundary with the Site (Ottawa 2020).
Boundary Tree	A tree, which has a trunk growing on one or more property lines (Ottawa 2020).
Critical Root Zone	The area of land within a radius from the trunk of a tree calculated as 10 cm for every 1 cm of trunk diameter (Ottawa 2020).
DBH	Diameter (in cm) at breast height and is measured at 1.4 m above the ground for each tree.
Imminently Hazardous Tree	A destabilized or structurally compromised tree that is in imminent danger of causing damage or injury to life or property.
Injure and Injury	Any act that will harm a tree's health, including failure to protect in accordance with standards set by the City (Ottawa 2020).
Municipal Tree	A tree, which is located on or partially on municipal property and includes boundary trees (Ottawa 2020).
Protected Tree	Includes trees to be retained / protected and requires an approval / permit for injury or destruction (Ottawa 2020).
Retained Tree	A tree that is proposed to be retained / protected and for which an approval / permit is not required (Ottawa 2020).
Root Zone	The subterranean area around the tree measured from the trunk up to 2 - 3m beyond the dripline.
Tree Number	The number on the tree tag or alpha-numeric, alphabetical or tree grouping label listed in the Tree Conservation Plan (e.g., 1).

Table 4.2 – Tree Assessment Criteria

DEFINITION	DESCRIPTION
Trunk Integrity (T.I.)	Assessment of the trunk for any defects or weaknesses. It is measured on a scale of poor, fair, or good.
Canopy Structure (C.S.)	Assessment of the scaffold branches, unions and the canopy of the tree. This is measured on a scale of poor, fair, or good.
Canopy Vigour (C.V.)	Assessment of the health of the tree and considers the amount of deadwood and live growth in the crown as compared to a 100% healthy tree. The size, colour and amount of foliage are also considered in this category. This is measured on a scale of poor, fair, or good.
Good	Tree displays less than 15% deficiency / defect within the given tree assessment criteria (TI, CS, CV).
Fair	Tree displays 15% to 40% deficiency / defect within the given tree assessment criteria (TI, CS, CV).
Poor	Tree displays greater than 40% deficiency / defect within the given tree assessment criteria (TI, CS, CV).

5 METHODS

During a one-day site visit on December 12, 2022, an inventory of all trees greater than 10 cm diameter at breast height (DBH) on the Site was undertaken (excluding invasive Common Buckthorn [*Rhamnus cathartica*]), including a description of the sizes and health condition of the trees. Additional information on the environmental value of the trees, including presence of any significant trees, was documented and marked in the field.

6 PROPOSED WORKS AND SCHEDULE

The proposed development consists of two (2) low-rise self-storage/warehouse buildings, with a proposed total gross floor area (GFA) of 17,663 m^2 (190,122.95 ft^2). As shown on the Site Plan, prepared by Architecture49 (A100; dated March 21, 2023), 'Building A' will be four (4) storeys in height and will be located at the east side of the site. The proposed GFA of Building A is 15,913 m^2 (171,292 ft^2). The single-storey 'Building B' will be located on the west side of the site and has a proposed GFA of 1,750 m^2 (18,844 ft^2). The existing 2.5-storey office building on the site would be demolished to accommodate the proposed development.

Construction is anticipated to commence in Spring 2024.

7 EXISTING PLANT COMMUNITIES AND TREE COVER ON THE SITE

The majority of the Site is already developed as office and parking facilities, with industrial and office uses adjacent. Although the site visit was outside of the growing season, vegetation was observed to consist of primarily Common Buckthorn and Manitoba Maple (*Acer negundo*), with a few individuals of other species, primarily non-natives, along the edges of the Site. No tree groupings are present on the Site.

7.1 EXISTING TREE COVER

The following table (Table 7.1) provides an inventory of trees on the Site, with representative photographs of the tree cover provided in Appendix A.

A total of 31 trees were assessed.

Table 7.1 – Individual Trees Identified on the Site and Recommendations (Figures 1 to 2)

TREE #	SPECIES	DBH (CM)	LOCATION	CONDITION / NOTES	RECOMMENDATION
1	Blue Spruce (*Picea pungens*)	42	On-Site	Poor	Remove
2	Blue Spruce	47	On-Site	Good	Remove
3	Red Maple (*Acer rubrum*)	46	On-Site	Good – pruned	Retain
4	Manitoba Maple	40,32	Adjacent private property	Fair – 2-stemmed	Retain
5	White Elm (*Ulmus americana*)	28	Adjacent private property	Good	Retain
7	Manitoba Maple	14	Adjacent private property	Good	Retain
8	Manitoba Maple	54	Boundary	Good	Injure
9	Manitoba Maple	82	On-Site	Good	Remove
10	Manitoba Maple	33	On-Site	Good	Injure
11	Manitoba Maple	29	On-Site	Good	Injure
12	Manitoba Maple	41	Boundary	Good	Injure
13	Siberian Elm (*Ulmus pumila*)	19	Boundary	Good	Injure
14	Manitoba Maple	17	Adjacent private property	Good	Retain
15	Manitoba Maple	24	On-Site	Good	Injure
16	Siberian Elm	14	On-Site	Good	Remove
17	Manitoba Maple	36,28,26	On-Site	Good – 3-stemmed	Remove

TREE #	SPECIES	DBH (CM)	LOCATION	CONDITION / NOTES	RECOMMENDATION
18	Manitoba Maple	16	Adjacent private property	Good	Retain
19	Manitoba Maple	8 stems 19 to 36	On-Site	Good	Remove
20	Manitoba Maple	12	Boundary	Fair	Retain
21	Manitoba Maple	25	On-Site	Good	Injure
22	Siberian Elm	22	Boundary	Good	Retain
23	Siberian Elm	12	On-Site	Good	Retain
24	Manitoba Maple	14	On-Site	Poor	Retain
25	Siberian Elm	26	On-Site	Poor	Injure
26	Manitoba Maple	18	Boundary	Fair – second stem dead	Retain
27	Austrian Pine (*Pinus nigra*)	27	Adjacent private property	Fair	Retain
28	Austrian Pine	14	Adjacent private property	Fair	Retain
29	Manitoba Maple	12	Adjacent private property	Fair	Retain
30	Norway Maple (*Acer platanoides*)	11	Adjacent private property	Good	Retain
31	Austrian Pine	18	Adjacent private property	Fair	Retain
32	Norway Maple	44	Lady Ellen Place right-of-way	Good	Retain

Note: For boundary trees where part of the trunk is situated on one or more property lines, the applicant must provide the written consent of other property owner(s) to the General Manager (Ottawa 2020).

7.2 SPECIES AT RISK

During the site investigations, a screening was undertaken for vegetative Species at Risk (SAR), planted or naturally occurring, within and adjacent to the Site. No SAR were observed within the study limits, and no suitable habitat for SAR wildlife appears to be present on the Site.

8 NATURAL ENVIRONMENT FEATURES ON-SITE

The Site is urbanized and contains a 2.5-storey office building and parking lot. The ground surface on the existing Site is generally flat and paved. It is generally impervious with the exception of parking lot boulevards consisting of narrow grass strips and treed areas adjacent to the property boundary. Trees observed within the study area consist of young to mature trees that are both native and introduced species.

Tree cover on the Site is composed of abundant young to mature Manitoba Maple; occasional Siberian Elm; and rare amounts of Blue Spruce, Red Maple, American Elm, Austrian Pine and Norway Maple. Canopy height ranges between 2 and 25 m tall. Shrub species consist primarily of Common Buckthorn. Invasive species observed to be present and occur throughout this vegetation type included Norway Maple and Common Buckthorn.

Surrounding the existing office building and within parking lot boulevards, vegetation consisted of lawn with planted vegetation that is being maintained / cared for. Planted trees consisted of Blue Spruce and Red Maple.

The ecological importance of the trees within the study area is low, given the highly urbanized context of the Site and surrounding landscape, and the Site's location adjacent to the highway.

Currently the Site is almost entirely paved. The ratio of imperviousness will be decreased from the current conditions due to the increased in landscape area (Architecture49: A100 2023). Infiltration and evaporation will only take place along the proposed enhanced grass swale since it is used as the major overland flow route for the Site and external area in the new plan.

9 PROPOSED ALTERATIONS TO TREE COVER AND POTENTIAL TREE RETENTION

Of the 31 individually assessed trees, 6 trees (Trees #1, 2, 9, 16, 17 and 19; Figure 2) must be removed as they are within the proposed development area. For these trees, the recommended critical root zone, (CRZ) cannot be maintained and encroachment is greater than three times the trunk diameter. Details for trees proposed for removal and injury are shown on Figure 2.

Where the proposed development may encroach within CRZs, but the ratio of encroachment will be less than three times the trunk diameter, these trees will be considered injured. For these 8 trees within the site boundary (Trees #8, 10 to 13, 15, 21 and 25; Figure 2), specific preservation measures are required to protect the majority of the CRZs from the construction activities. These specific measures are listed in Section 10.0.

Seventeen (17) trees located beyond the limits of construction and with CRZs outside of the proposed development envelope will be retained (Trees #3, 4, 5, 7, 14, 18, 20, 22 to 24 and 26 to 32; Figure 2). Impacts to the vegetation proposed for retention will be minimal, given that the tree species observed at the Site are commonly found in areas that have been previously disturbed, and the species are typically tolerant of disturbance.

Impacts to trees proposed to be injured / retained will be mitigated through the implementation of the mitigation measures listed under Section 10.0 in addition to Specific Preservation Methods described in Table 10.1.

A landscape plan has been prepared for the Site that addresses restoration requirements and includes specific tree species, number of trees, and locations within the development (Architecture49: L100 2023).

This TCR report and a tree permit (as per the Tree Protection By-law [2020]) must be approved prior to the removal of trees.

10 RECOMMENDATIONS AND MITIGATION MEASURES

There are a number of mitigation measures that can be considered through development of the Site restoration plans, including:

- In order to comply with the *Migratory Birds Convention Act* (MBCA), there will be no removal of vegetation during the active season for breeding birds (April 1 to August 15), without input from a qualified biologist (i.e., nesting surveys). Note that even with completion of nesting surveys, scheduled clearing during the active season may lead to construction delays if nests are located.
- Planting trees as per the Landscape Plan (Architecture49: L100 2023), will help to offset the minimal tree loss associated with the proposed development. Replacement planting species and densities will be addressed through a site-specific landscape plan that takes into consideration and prioritizes the planting of native trees. There will be 34 new trees planted on site with an additional 135 shrubs. Tree species proposed to be planted include Red Maple, Oakleaf Mountain Ash (*Sorbus* × *hybrida* 'Fastigiata'), Snowbird Hawthorn (*Crataegus* x *mordenensis* 'Snowbird'), Paper Birch (*Betula papyrifera*), Red Oak (*Quercus rubra*), Japanese Tree Lilacs (*Syringa reticulata* 'Ivory Silk') and Blue Spruce.
- Wherever tree planting is to take place on the Site, first consideration should be given to the use of native species that occur in the local landscape, such as: Sugar Maple (*Acer saccharum*), White Spruce (*Picea glauca*), Eastern White Cedar (*Thuja occidentalis*), White Pine (*Pinus strobus*) and Red Oak (*Quercus rubra*). Cultivars of native species designed for urban conditions can be used as deemed suitable by the City. Alien non-invasive species and cultivars should only be used where it is not reasonable to use native species or native cultivars. Alien invasive species such as Norway Maple should not be used in any circumstance.
- For any trees that will be retained during development, the following measures, as recommended by the City of Ottawa (2020), should be employed to ensure their protection and survival:

    a) Under the guidance of a landscape architect, erect tree protection fencing at the CRZ of off-Site trees to be injured and retained. The fence must remain in place until the work is complete. The CRZ is calculated as the DBH (in cm) multiplied by 10 cm. Fencing must be at least 1.2 m high and installed such that it cannot be altered.

    b) Do not place any material or equipment within the CRZ of the trees.

    c) Do not raise or lower the existing grade within the CRZ without approval.

    d) Do not extend hard surfaces, or significantly change landscaping within the CRZ.

    e) Do not attach any signs, notices or posters to the trees.

    f) Tunnel or bore when digging within the CRZ of the trees.

    g) Do not damage the root system, trunk or branches of the trees.

    h) Ensure that exhaust fumes from all equipment are not directed towards any tree's canopy.

i) When trees proposed for removal overlap with the CRZs of trees proposed to be preserved: cut roots at the CRZ edge and do not pull out the stumps, but grind stumps down after removal. There must not be root pulling, or disturbance within the CRZs of the trees to be preserved.

j) If root cutting is necessary, those with a diameter of 20 mm or greater shall be cut at right angles with clean, bypass secateurs. There should not be any tearing, crushing, or pulling of the roots. Refer to City of Ottawa's specifications for Tree Protection (Ottawa 2021).

k) If the fenced CPZ must be reduced for construction activities, mitigation measures must be proposed by a Certified Arborist and approved by City Forestry staff. Mitigation measures may include placement of plywood, wood chips, or steel plating over roots or proper pruning methods and care of roots, if encountered (Ottawa 2021).

l) Approval from the City of Ottawa General Manager must be provided prior to reductions to the fenced CRZ area, if reductions are required to facilitation construction, or any of the mitigation measures listed above must be deviated from.

The mitigation measures in the following table refer specifically for those trees proposed to be injured.

Table 10.1 – Specific Preservation Methods Recommended for Trees Proposed to be Injured

METHOD	DETAILS
1	Install tree protection fencing as indicated on the City of Ottawa's specifications for Tree Protection (Ottawa 2021).
2	Prune low branches near the trunk if they will be injured by machinery. Branches should be pruned before access or construction begins. Pruning should be limited to less than 20% of the tree's crown and be completed by a qualified arborist or tree care professional in accordance with good arboricultural standards.
3	A qualified arborist should prune existing broken branches to promote overall tree health.
4	In the presence of a qualified arborist, use a low-pressure water hydro vac method to expose the upper 10 to 15 cm of soil, and if roots are found, the arborist should make clean cuts if excavation goes into the root system(s). Subsequently, put mulch over exposed root and water soil if needed to maintain moisture.
5	Ensure the tree receives adequate water during summer dry periods. Remove mulch only when restoration occurs.

11 CLOSURE

This report has been prepared by WSP Canada Inc. The assessment represents the conditions at the Site only at the time of the assessment and is based on the information referenced and contained in this report. WSP Canada Inc. attests that to the best of our knowledge, the information presented in this report is accurate. The use of this report for other projects without written permission of the Client and WSP Canada Inc. is solely at the user's own risk. This report must be reviewed and approved by the relevant regulating agencies prior to being relied upon for planning and/or construction purposes.

Thank you for the opportunity to complete this report. We trust that this information is satisfactory for your current requirements. Please contact us if we can be of further assistance.

12 LITERATURE CITED

- Architecture49. 2023. A100: Site Plan.
- Architecture49. 2023. L100: Landscape Plan.
- City of Ottawa. 2020. Tree Protection By-law (By-law No. 2020-340).
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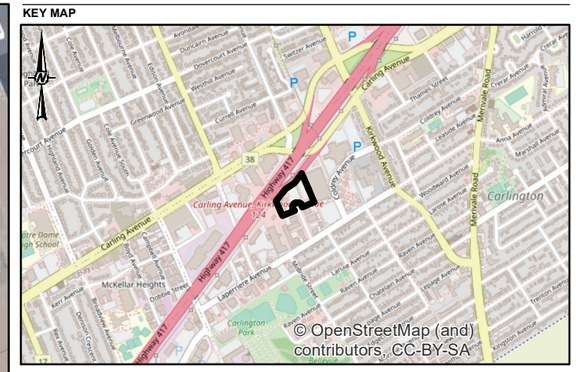
KEY MAP



SCALE 1:25,000

LEGEND

- TREE
- SITE BOUNDARY

0 10 20 40

1:750 METRES

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. COORDINATE SYSTEM: NAD 1983 MTM 9

CLIENT
ACCESS SELFSTORAGE INC.

PROJECT
TREE CONSERVATION REPORT
864 LADY ELLEN PLACE, OTTAWA, ONTARIO

TITLE
CURRENT VEGETATION

CONSULTANT

wsp

YYYY-MM-DD	2023-03-21
DESIGNED	----
PREPARED	JEM
REVIEWED	CP
APPROVED	KL

PROJECT NO.	CONTROL	REV.	FIGURE
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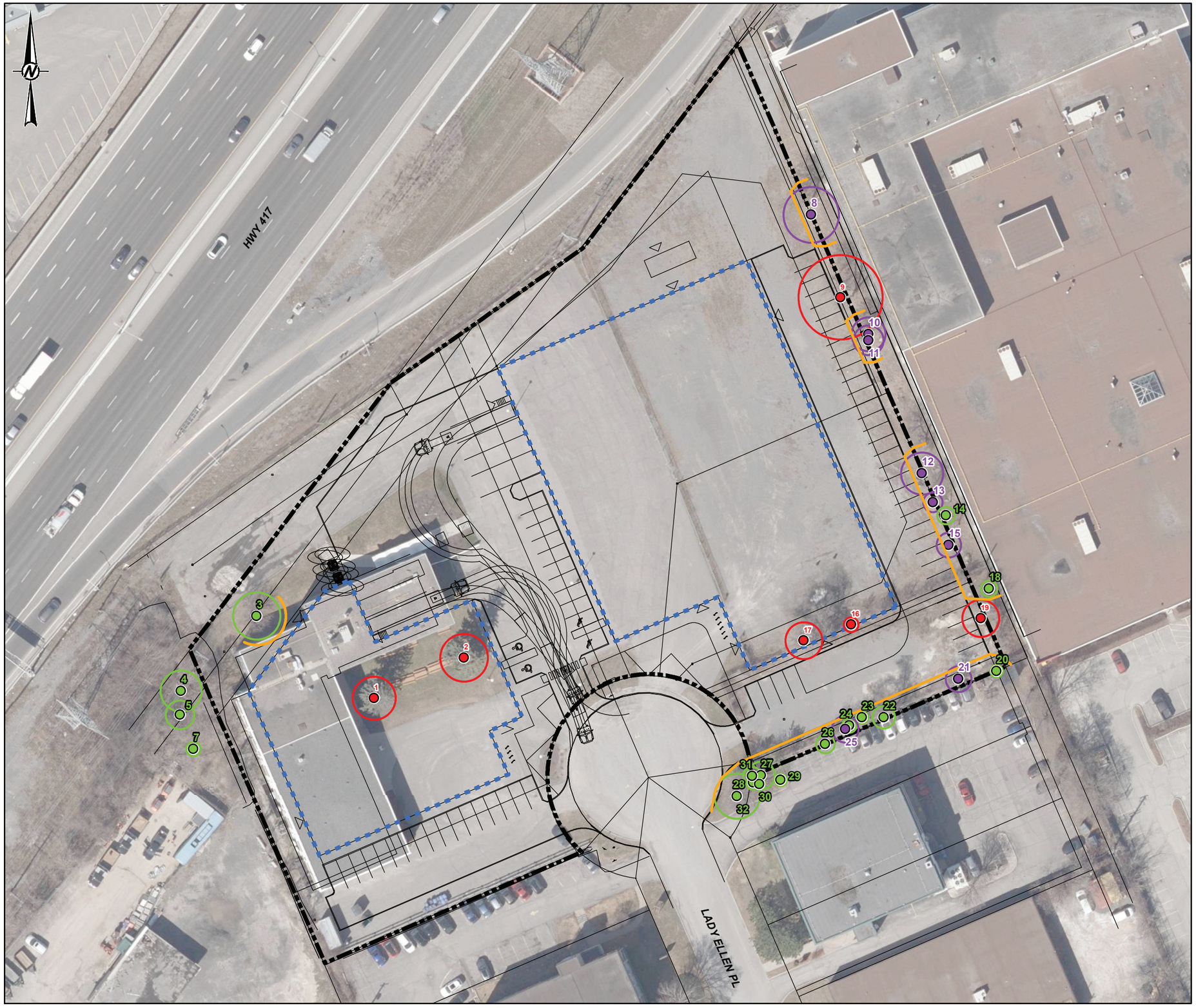

LEGEND

- TREE TO BE REMOVED
- TREE TO BE RETAINED
- TREE TO BE INJURED
- TREE PROTECTION FENCING
- CRITICAL ROOT ZONE OF TREE TO BE REMOVED
- CRITICAL ROOT ZONE OF TREE TO BE RETAINED
- CRITICAL ROOT ZONE OF TREE TO BE INJURED
- PROPOSED BUILDING FOOTPRINT
- SITE BOUNDARY

0 10 20 40
1:750 METRES

NOTE(S)
1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)
1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. COORDINATE SYSTEM: NAD 1983 MTM 9

CLIENT
ACCESS SELFSTORAGE INC.

PROJECT
TREE CONSERVATION REPORT
864 LADY ELLEN PLACE, OTTAWA, ONTARIO

TITLE
PROPOSED DEVELOPMENT AND CONSERVED VEGETATION

CONSULTANT

YYYY-MM-DD	2023-03-21
DESIGNED	----
PREPARED	JEM
REVIEWED	CP
APPROVED	KL

PROJECT NO.	CONTROL	REV.	FIGURE
22524317	0004	0	2

0 25mm

APPENDIX

A PHOTOGRAPHIC INVENTORY

Photo 1. Trees 1 and 2. December 12, 2022.

Photo 2. Tree 3. December 12, 2022.

Photo 3. Trees 8 to 11. December 12, 2022.

Photo 4. Trees 16 and 17. December 12, 2022.

Photo 5. Trees and Common Buckthorn along western edge of Site. December 12, 2022.

Photo 6. Trees at southeast corner of the Site. December 12, 2022.

wsp

864 LADY ELLEN PLACE
PHOTOGRAPHIC INVENTORY

Date: December 2022

Project No: 221-04646-00

Appendix A