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1.0 INTRODUCTION

GEMTEC Consulting Engineers and Scientists Limited (GEMTEC) was retained by ASB Greenworld Ltd. to carry out a Tree Conservation Report (TCR) for the property located at 2545 9th Line 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 amendment for the property located at 2545 9th Line Road, in Ottawa, Ontario. The property has an approximate size of 14.3-hectares (ha). The proposed site development will be carries out in phases. This report is intended to address Phase 1 of the proposed development. As a part of Phase 1, the proponents are re-using the existing buildings for a new soil mixing and packaging business, with no new developments, buildings or site alterations proposed at this time.

As a component of the zoning 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 in 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 1.2 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 centimeters from the trunk of the tree for every one centimeter 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 colour air photos of the site available from GeoOttawa were reviewed from 1976 to 2022 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 site and surrounding area has not undergone any significant change since at least 1976. Development on-site has been present since 1976, with the site at present day configuration since 2005. No alterations to land use were noted during review.

2.2 Field Investigations

In addition to the completion of a desktop review of historical air photos, a site visit was conducted on November 4, 2022, from 12:00 to 3:45, 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 the 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: 19°C, 10% cloud cover, Beaufort 3 and no precipitation.

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

3.0 RESULTS

3.1 Existing Conditions

Development on-site currently consists of a mushroom pasteurization facility, a doughnut factory, an office building, a warehouse, and storage bunkers. Other existing features on the property include two agricultural fields, road access to 9th Line Road, existing driveways for site access, and paved areas for parking. Existing development, including the existing structures and associated parking areas, occupies a combined approximate area of 6.7 ha. Impermeable surfaces account for 47% of the total property area.

Outside of the existing development, the subject site consists of cultural meadow, deciduous forest, regenerative thicket, ponds and active agricultural fields. Numerous trees are present on the property, primarily along the property lines, a summary of all trees on-site is provided in Section 3.2 below.



The land use in the vicinity of the site is characterized by agriculture and residential land uses. Natural environmental features in the vicinity of the project, as summarized in Table 3.1 below, include surface water features. Surface water features on-site include the stormwater ponds, mapped local, unevaluated wetland, and an unnamed watercourse.

Based on NHIC observation data, the following Species at Risk (SAR) have been observed within 1 km of the subject property: snapping turtle (reptilian SAR) and butternut (tree SAR). 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 snapping turtle. 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	Present
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 Suitable Habitat On-site or within the Study Area
Significant Wildlife Habitat	Present – On-site ponds may support amphibian breeding SWH

3.2 Tree Inventory Summary

A tree inventory was conducted on November 4, 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. CRZ 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.3, in Appendix A.

Per the City of Ottawa's Tree Protection (By-law No. 2020-340), 8 (eight) 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 in the distinctive tree list, 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
1	Manitoba Maple	56	Healthy
5	Manitoba Maple	58	Healthy
8	American Elm	51	Healthy
24	Manitoba Maple	52	Healthy
40	Manitoba Maple	57	Healthy
51	Manitoba Maple	58	Healthy
74	Manitoba Maple	61	Poor
94	Sugar Maple	100	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 a few mature and semi-mature trees. Dominant tree species on-site were represented by Manitoba maple (*Acer negundo*) in areas of disturbance and sugar maple (*Acer saccharum*) in more naturalized tree stands. Most of the observed white ash identified on-site were of poor health or dead, 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. The majority of 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.2, the following conclusions are provided:

- Out of 96 trees identified on-site with a DBH greater or equal to 10 cm, all trees were identified as retainable;
- 8 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;
- 88 trees are in good/healthy condition and 8 trees are in poor or dead condition;
- 14 of the trees present on-site was observed to provide potential wildlife habitat (snag, active nest);
- No Butternut trees were identified on-site or in the area immediately adjacent to site;



- None of the 96 trees present on-site are protected under the Endangered Species Act,
 Ontario 2007:
- None of the trees on-site were identified to represent High Quality Specimen Tree; and
- All trees identified to be retained will have their existing elevations around the critical root zone maintained;

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. Based on the proposed Phase 1 plan it is assumed that all of the trees on the subject property are retainable. Future development plans should give consideration to maintaining the distinctive trees identified in this report, in addition to other healthier more mature trees.

Future development that requires vegetation clearing should be offset through landscape planting. 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 during potential future construction. Construction contractors shall apply the following measures outlined below to prevent damage 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;
- 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;
- 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;
- 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 March 15 November 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 ASB Greenworld Ltd. and is intended for the exclusive use of ASB Greenworld Ltd.. This report may not be relied upon by any other person or entity without the express written consent of GEMTEC and ASB Greenworld Ltd.. 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 extrapolates 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,

Emily Young, B.Sc.

Junior Biologist

Taylor Warrington, B.Sc.

/Warrington

Biologist

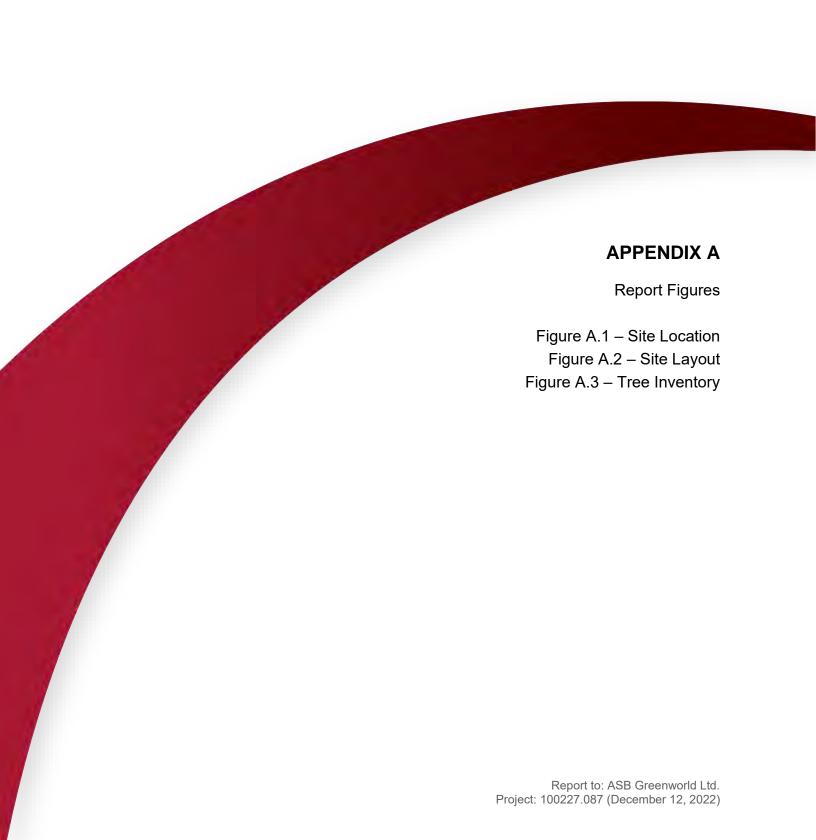
6.0 REFERENCES

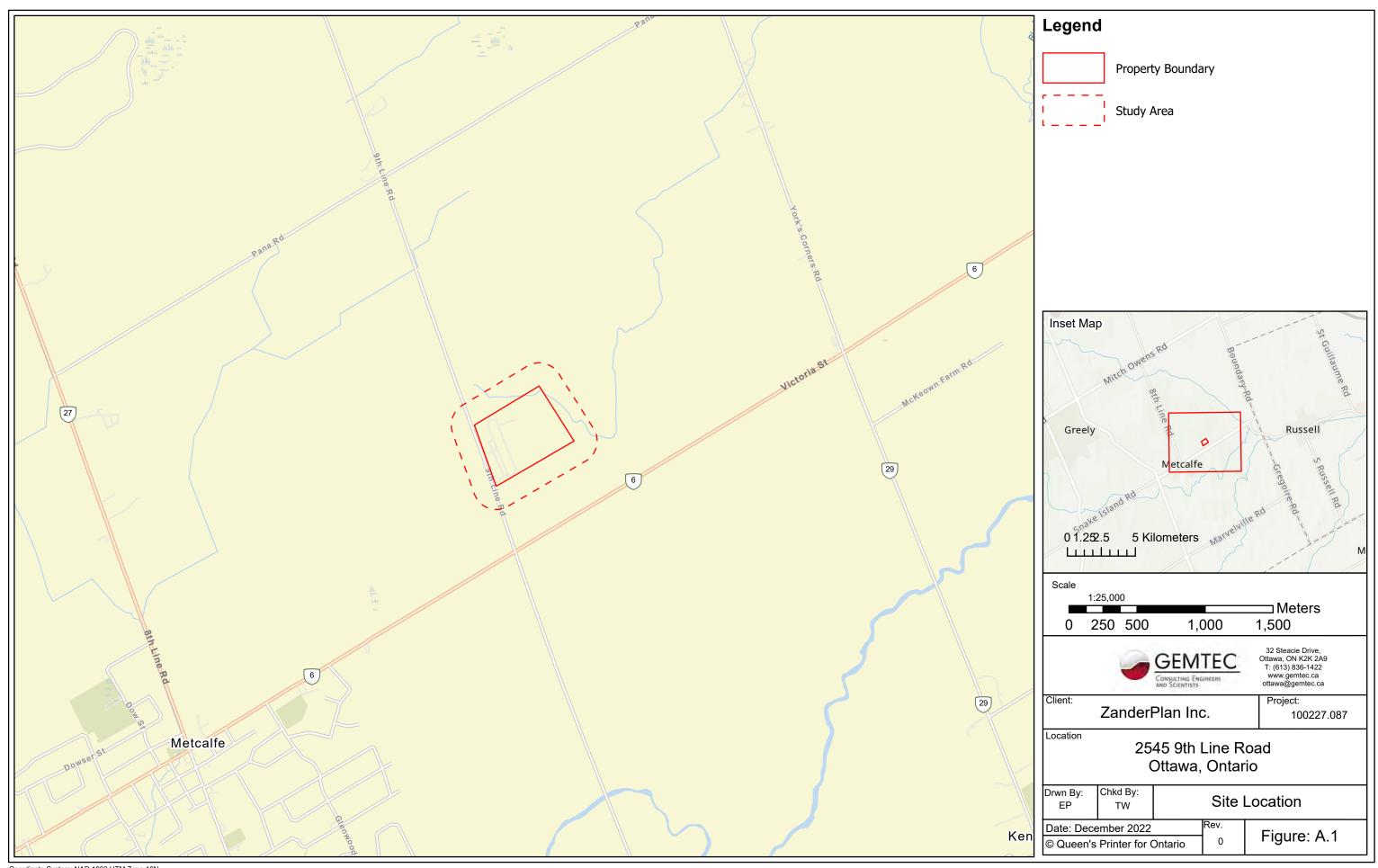
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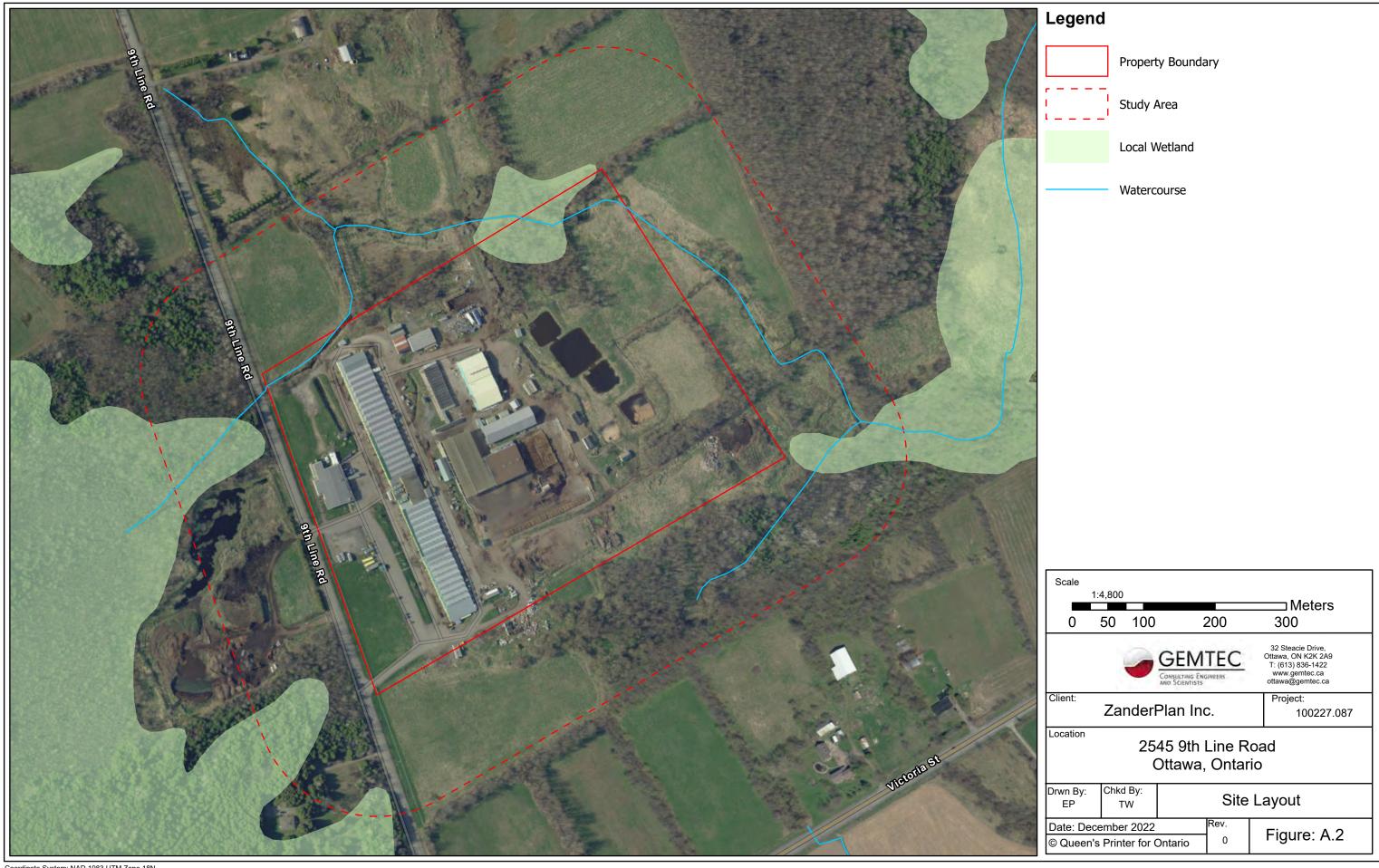
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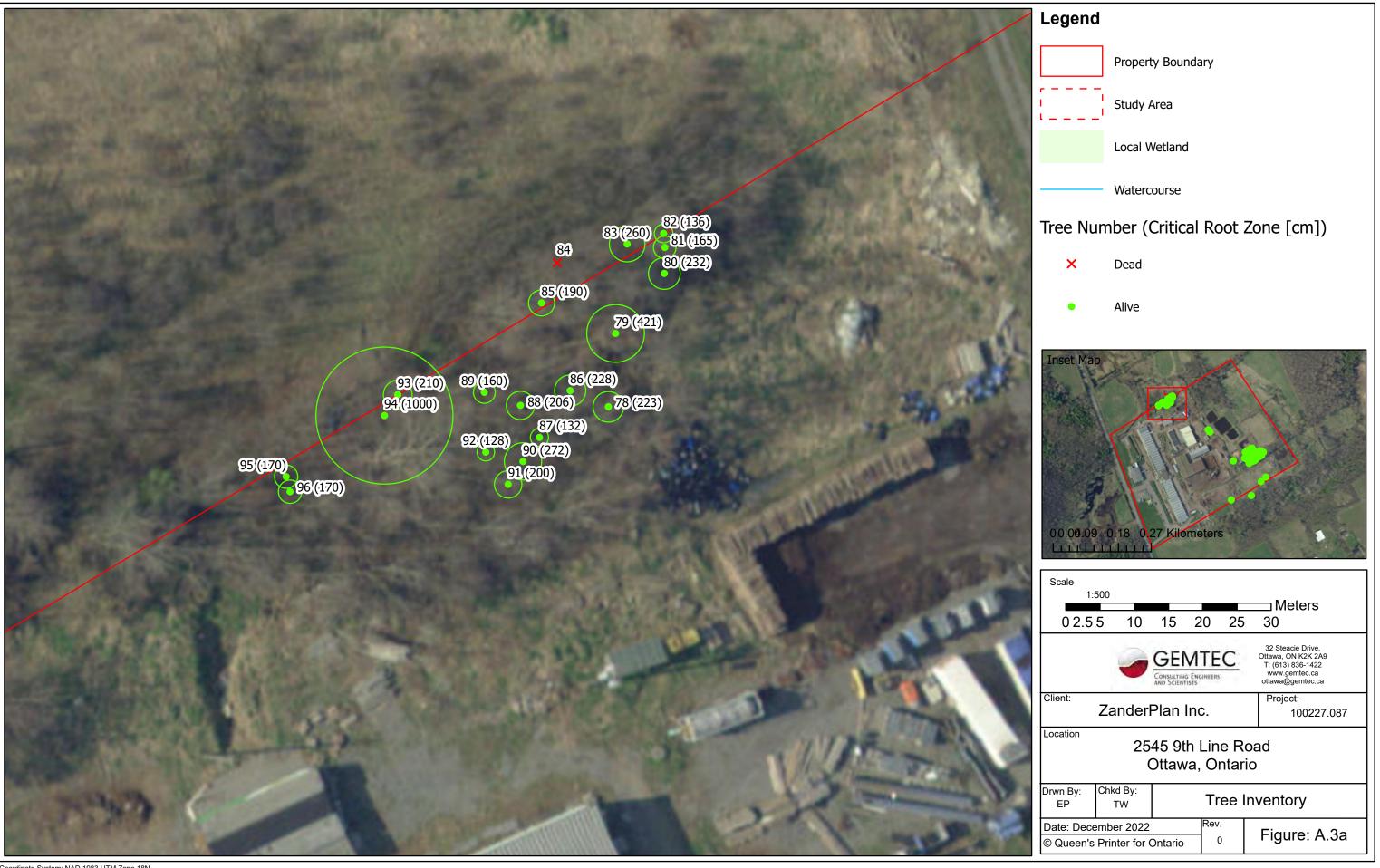
Ottawa, City of (Ottawa), By-law No. 2020-340, Tree Protection (Updated: January, 2021).



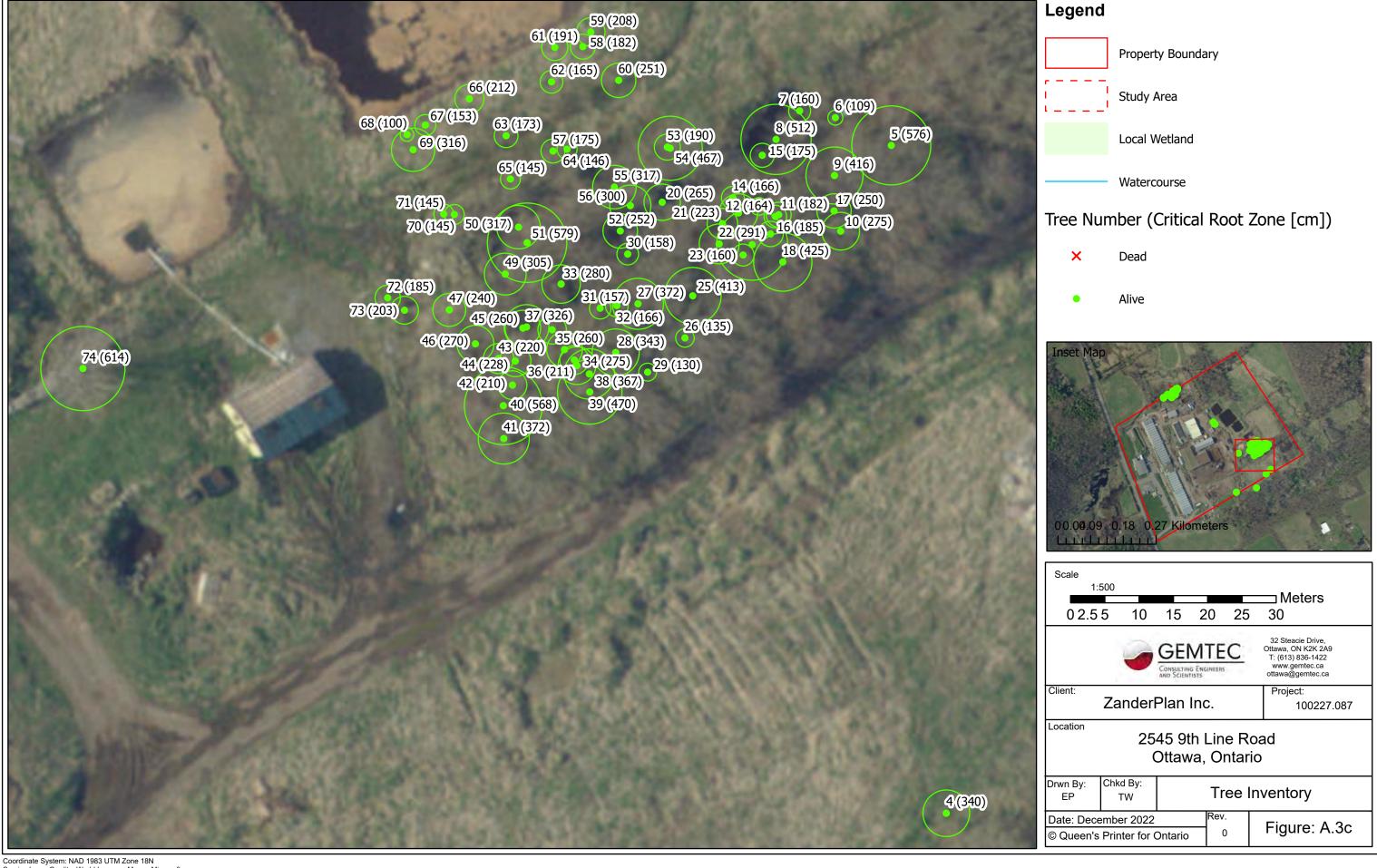


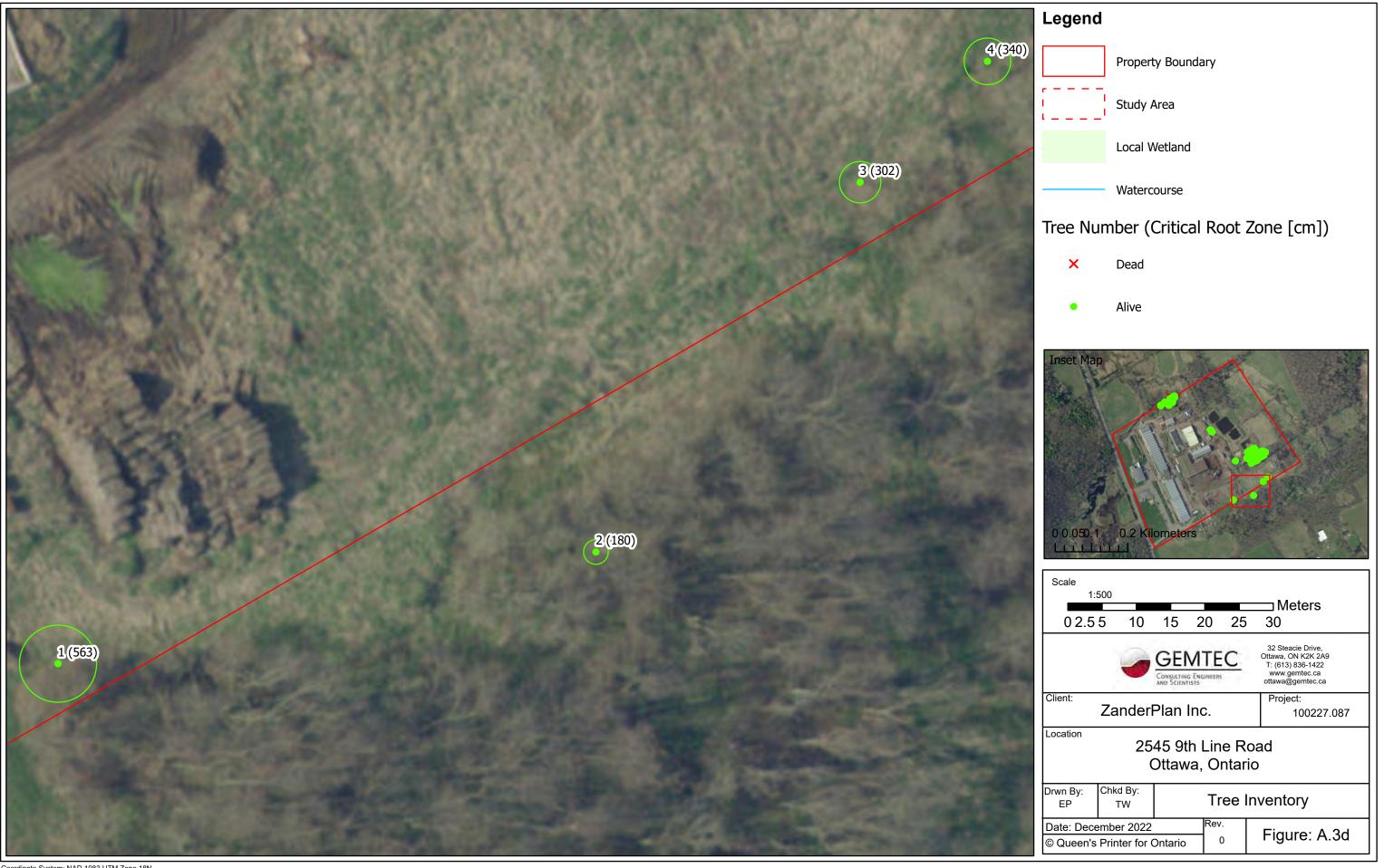


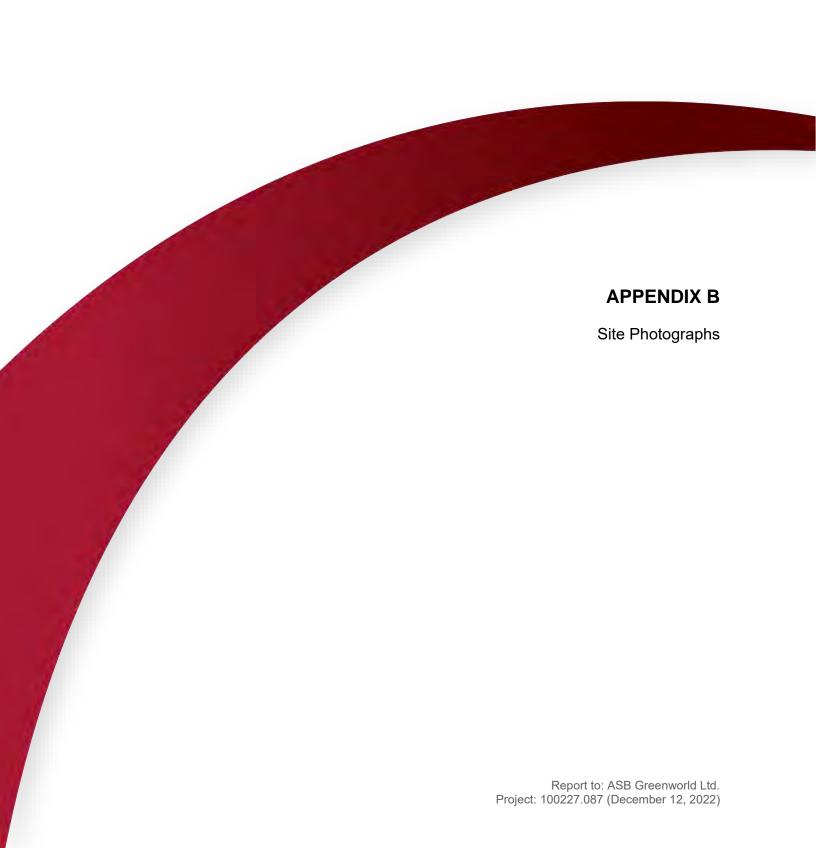














Site Photo 1 – Manitoba Maple



Site Photo 2 – Manitoba Maple



Site Photo 3 – Manitoba Maple and Pond



Site Photo 4 – Manitoba Maple Stand



Project

Tree Conservation Report Proposed Re-Zoning Application 2545 9th Line Road Ottawa, Ontario

ATTACHEMNT B

File No.

100227.087

Site Photographs



TABLE C.1 TREE INVENTORY

Tree Number	Common Name	Scientific Name	Diameter (cm DBH)	Critical Root Zone (cm)	Condition	Retainable or Conflict	Signficant Tree (> 50 cm)	Wildlife Tree
1	Manitoba maple	Acer negundo	56	563	Healthy	Retainable	Yes	No
2	Manitoba maple	Acer negundo	18	180	Healthy	Retainable	No	No
3	Manitoba maple	Acer negundo	30	302	Healthy	Retainable	No	No
4	Manitoba maple	Acer negundo	34	340	Healthy	Retainable	No	No
5	Manitoba maple	Acer negundo	58	576	Healthy	Retainable	Yes	No
6	Manitoba maple	Acer negundo	11	109	Healthy	Retainable	No	No
7	Manitoba maple	Acer negundo	16	160	Healthy	Retainable	No	No
8	American Elm	Ulmus americana	51	512	Healthy	Retainable	Yes	Yes
9	Manitoba maple	Acer negundo	42	416	Healthy	Retainable	No	No
10	Manitoba maple	Acer negundo	28	275	Poor	Retainable	No	Yes
11	Manitoba maple	Acer negundo	18	182	Healthy	Retainable	No	No
12	Manitoba maple	Acer negundo	16	164	Healthy	Retainable	No	No
13	Manitoba maple	Acer negundo	13	128	Healthy	Retainable	No	No
14	Manitoba maple	Acer negundo	17	166	Healthy	Retainable	No	No
15	Manitoba maple	Acer negundo	18	175	Healthy	Retainable	No	No
16	Manitoba maple	Acer negundo	19	185	Healthy	Retainable	No	Yes
17	Manitoba maple	Acer negundo	25	250	Healthy	Retainable	No	No
18	Manitoba maple	Acer negundo	43	425	Healthy	Retainable	No	Yes
19	Manitoba maple	Acer negundo	28	280	Healthy	Retainable	No	No
20	Manitoba maple	Acer negundo	27	265	Healthy	Retainable	No	No
21	Manitoba maple	Acer negundo	22	223	Healthy	Retainable	No	No
22	Manitoba maple	Acer negundo	29	291	Healthy	Retainable	No	No
23	Manitoba maple	Acer negundo	16	160	Healthy	Retainable	No	No
24	Manitoba maple	Acer negundo	52	519	Healthy	Retainable	Yes	No
25	Manitoba maple	Acer negundo	41	413	Healthy	Retainable	No	Yes
26	Manitoba maple	Acer negundo	14	135	Healthy	Retainable	No	No
27	Sugar maple	Acer saccharum	37	372	Healthy	Retainable	No	Yes
28	Manitoba maple	Acer negundo	34	343	Healthy	Retainable	No	Yes
29	White Ash	Fraxinus americana	13	130	Good	Retainable	No	No
30	Manitoba maple	Acer negundo	16	158	Healthy	Retainable	No	No
31	Manitoba maple	Acer negundo	16	157	Healthy	Retainable	No	No
32	Manitoba maple	Acer negundo	17	166	Good	Retainable	No	No
33	Manitoba maple	Acer negundo	28	280	Healthy	Retainable	No	No
34	Manitoba maple	Acer negundo	28	275	Healthy	Retainable	No	No
35	Manitoba maple	Acer negundo	26	260	Healthy	Retainable	No	No
36	Manitoba maple	Acer negundo	21	211	Healthy	Retainable	No	No
37	Manitoba maple	Acer negundo	33	326	Healthy	Retainable	No	No
38	Manitoba maple	Acer negundo	37	367	Good	Retainable	No	Yes
39	Manitoba maple	Acer negundo	47	470	Good	Retainable	No	Yes
40	Manitoba maple	Acer negundo	57	568	Healthy	Retainable	Yes	No
41	Manitoba maple	Acer negundo	37	372	Healthy	Retainable	No	No
42	Manitoba maple	Acer negundo	21	210	Healthy	Retainable	No	No
43	Manitoba maple	Acer negundo	22	220	Healthy	Retainable	No	No
44	Manitoba maple	Acer negundo	23	228	Healthy	Retainable	No	No
45	Manitoba maple	Acer negundo	26	260	Healthy	Retainable	No	No
46	Manitoba maple	Acer negundo	27	270	Healthy	Retainable	No	No
47	Manitoba maple	Acer negundo	24	240	Healthy	Retainable	No	No
48	Manitoba maple	Acer negundo	21	208	Good	Retainable	No	No
49	Manitoba maple	Acer negundo	31	305	Healthy	Retainable	No	No
50	Manitoba maple	Acer negundo	32	317	Healthy	Retainable	No	No
51	Manitoba maple	Acer negundo	58	579	Healthy	Retainable	Yes	Yes
52	Manitoba maple	Acer negundo	25	252	Poor	Retainable	No	No
	Manitoba maple	Acer negundo	19	190	Healthy	Retainable	No	No



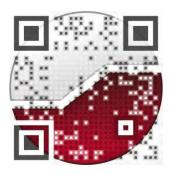
Report to: ASB Greenworld Ltd. Project: 100227.087

TABLE C.1 TREE INVENTORY

54	Manitoba maple	Acer negundo	47	467	Good	Retainable	No	Yes
55	Manitoba maple	Acer negundo	32	317	Healthy	Retainable	No	No
56	Manitoba maple	Acer negundo	30	300	Healthy	Retainable	No	No
57	Manitoba maple	Acer negundo	18	175	Healthy	Retainable	No	No
58	Manitoba maple	Acer negundo	18	182	Healthy	Retainable	No	No
59	Manitoba maple	Acer negundo	21	208	Healthy	Retainable	No	No
60	Manitoba maple	Acer negundo	25	251	Healthy	Retainable	No	No
61	Manitoba maple	Acer negundo	19	191	Healthy	Retainable	No	No
62	Manitoba maple	Acer negundo	17	165	Healthy	Retainable	No	No
63	Manitoba maple	Acer negundo	17	173	Healthy	Retainable	No	No
64	Manitoba maple	Acer negundo	15	146	Healthy	Retainable	No	No
65	Manitoba maple	Acer negundo	15	145	Healthy	Retainable	No	No
66	Manitoba maple	Acer negundo	21	212	Healthy	Retainable	No	No
67	Manitoba maple	Acer negundo	15	153	Healthy	Retainable	No	No
68	Manitoba maple	Acer negundo	10	100	Healthy	Retainable	No	Yes
69	Manitoba maple	Acer negundo	32	316	Healthy	Retainable	No	No
70	Manitoba maple	Acer negundo	15	145	Healthy	Retainable	No	No
71	Manitoba maple	Acer negundo	15	145	Healthy	Retainable	No	No
72	Manitoba maple	Acer negundo	19	185	Healthy	Retainable	No	No
73	Manitoba maple	Acer negundo	20	203	Healthy	Retainable	No	No
74	Manitoba maple	Acer negundo	61	614	Poor	Retainable	Yes	No
75	Sugar maple	Acer saccharum	30	300	Healthy	Retainable	No	No
76	Willow	Salix sp.	38	380	Healthy	Retainable	No	No
77	Willow	Salix sp.	28	283	Healthy	Retainable	No	No
78	Sugar maple	Acer saccharum	22	223	Healthy	Retainable	No	No
79	American Elm	Ulmus americana	42	421	Healthy	Retainable	No	No
80	American Elm	Ulmus americana	23	232	Healthy	Retainable	No	No
81	American Elm	Ulmus americana	17	165	Healthy	Retainable	No	No
82	Sugar maple	Acer saccharum	14	136	Healthy	Retainable	No	No
83	American Elm	Ulmus americana	26	260	Healthy	Retainable	No	No
84	American Elm	Ulmus americana	23	NA	Dead	Retainable	No	No
85	Ironwood	Ostrya virginiana	19	190	Healthy	Retainable	No	No
86	Sugar maple	Acer saccharum	23	228	Healthy	Retainable	No	No
87	Ironwood	Ostrya virginiana	13	132	Healthy	Retainable	No	No
88	American Elm	Ulmus americana	21	206	Healthy	Retainable	No	No
89	White Ash	Fraxinus americana	16	160	Poor	Retainable	No	No
90	White Ash	Fraxinus americana	27	272	Poor	Retainable	No	Yes
91	White Ash	Fraxinus americana	20	200	Poor	Retainable	No	No
92	Ironwood	Ostrya virginiana	13	128	Healthy	Retainable	No	No
93	American Elm	Ulmus americana	21	210	Good	Retainable	No	No
94	Sugar maple	Acer saccharum	100	1000	Good	Retainable	Yes	Yes
95	American Elm	Ulmus americana	17	170	Healthy	Retainable	No	No
96	White Ash	Fraxinus americana	17	170	Poor	Retainable	No	No



Report to: ASB Greenworld Ltd. Project: 100227.087



civil

geotechnical

environmental

field services

materials testing

civil

géotechnique

environnementale

surveillance de chantier

service de laboratoire des matériaux

