

**200 John Street East and 588  
Charlotte Street, Niagara-On-  
The-Lake, Ontario Arborist Report  
and Tree Inventory Report**

March 10, 2022

Prepared for:

Solmar (Niagara 2) Corp.  
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in Association With:


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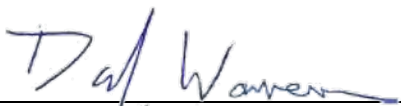
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**200 JOHN STREET EAST AND 588 CHARLOTTE STREET, NIAGARA-ON-THE-LAKE, ONTARIO  
ARBORIST REPORT AND TREE INVENTORY REPORT**

This document entitled 200 John Street East and 588 Charlotte Street, Niagara-on-the-Lake, Ontario Arborist Report and Tree Inventory Report was prepared by Buchanan Expert Tree Care Inc. (BETC) in association with Stantec Consulting Ltd. The report was prepared for Solmar (Niagara 2) Corp. in support of the development applications for lands located on the aforementioned properties, 200 John Street East and 588 Charlotte Street in Niagara-on-the-Lake, Ontario (the "Project"). In connection thereto, this document may be reviewed and used by the provincial and municipal government agencies participating in the permitting process in the normal course of their duties. Except as set forth in the previous sentence, any reliance on this document by any third party for any other purpose is strictly prohibited. The material in this document reflects BETC's and Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between BETC, Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec and BETC did not verify information supplied to it by others. Any unauthorized use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec and BETC shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on unauthorized use of this document.

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**Bill Buchanan, HBSc Forestry  
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**David Waverman, CAHP, OALA, CSLA  
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# 200 JOHN STREET EAST AND 588 CHARLOTTE STREET, NIAGARA-ON-THE-LAKE, ONTARIO ARBORIST REPORT AND TREE INVENTORY REPORT

Introduction  
March 9, 2022

## 1.0 INTRODUCTION

Buchanan Expert Tree Care (BETC), was retained by Solmar (Niagara 2) Corp. (the Property Owner) to prepare a Tree Inventory and Arborist Report for the properties located at 200 John Street and 588 Charlotte Street (the Study Area), in the Town of Niagara-on-the-Lake, Ontario. Adjacent to the Study Area are the designated properties 144 John Street East and 176 John Street East. Together, the properties historically made up the estate known as “Randwood”. Other lands adjacent to the properties were also formerly part of the Randwood Estate but have been severed into subdivisions surrounding Christopher Street and Weatherstone Court.

On August 23, 2018, the Town issued notices of intention to designate (NOID) the properties at 200 John Street East at 588 Charlotte Street East. The owner originally objected to the NOIDs on the basis of the identification of heritage attributes, initiating a hearing at the Conservation Review Board (CRB). The objective of this Tree Inventory and Arborist Report was originally to support the location any cultural heritage value or interest (CHVI) within the property and to specifically assist the team with the identification heritage attributes that are specified as items of issues in the CRB hearing, particularly which elements of the property relate to the Dunnington-Grubb landscape architect duo.

As of March 3, 2022, 200 John St. East was designated under Part IV of the Ontario Heritage Act as a designated heritage site, by-law 5389-22 as was 588 Charlotte Street, by-law 5390-22.

With the completion of revised Site Plan of Subdivision and Concept Landscape Plan by SGL Planning and Design Inc. (March 10, 2022) and Schaeffer’s Engineering, Engineering Drawings also dated March 10, 2022, the tree inventory has been revised to include preliminary tree preservation and removal information. Information on tree protection measures have also been added to the report. (see Section 5.0: TREE PRESERVATION, PROTECTION & MANAGEMENT). Also during the winter of 2022, several dead and hazardous trees were removed with permit and the plans and charts have been updated to reflect these removals.

All tree inventory and assessments conducted by Bill Buchanan, HBSc Forestry, ISA Board Certified Master Arborist NY-0392B. Graphic preparation and field technician support was provided by Stantec.

The tree inventory was led by Bill Buchanan, ISA Board Certified Master Arborist. Mr. Buchanan was assisted by David Waverman, Senior Landscape Architect and Cultural Heritage Specialist, Frank Smith, Stantec, Cultural Heritage Specialist and Kimberley Beech, Stantec, Landscape Architect Intern.

The tree inventory was conducted on the following dates:

- March 8, 2021 (Bill Buchanan, David Waverman, Frank Smith, Kimberley Beech).
- March 10, 2021 (Bill Buchanan, Frank Smith, Kimberley Beech).
- May 12, 2021 (Bill Buchanan, David Waverman, Frank Smith, Kimberley Beech).



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- June 17, 2021 (Bill Buchanan, Kimberley Beech, David Waverman).
- Winter 2022 dead and hazardous trees were identified and removed with permit.



Methodology  
 March 9, 2022

## 2.0 METHODOLOGY

### 2.1.1 Report Framework

The report content and structure was originally guided by the CRB *Guidance to Parties on Expert Reports & Other Disclosure Materials* (Attachment 6 in the Conservation Review Board Procedural Order dated March 24, 2021). The Report Framework provided is outlined in Table 1. Consequently the hearings were cancelled but the format of the report has remained primarily intact.

**Table 1: Report Framework**

Reference #	CRB Report Guidance	Relevant Section
1a.	An analysis of the property as it exists, describing its features in terms, and placing such features and overall design in the context of architectural history by citing academically credible secondary sources on such history. Images appropriate for highlighting features described should be included. Accurate reference to the architectural lexicon is expected when describing architectural features.	Section 3.0
1b	Where applicable, an analysis of the property as it relates to the available corpus of work of the architect or craftsman in question with reference to primary/archival sources, including contemporaneous issues of relevant architectural journals. Reference should also be made to academically credible secondary sources including, if applicable, the Biographical Dictionary of Architects in Canada.	N.A.
1c	Where applicable, a review of the history of the property and the historically relevant themes, events, beliefs, persons, activities, organizations or institutions connected with the property (whichever is applicable), placing the property or such relevant factors in its historical context by citing primary/archival sources, including (but not limited to) archival photographs, historical atlases, archival newspapers, fire insurance plans, original business directories, and archival diaries and correspondence, together with academically credible secondary sources.	N.A.
1d	A detailed and criterion-by-criterion evaluation of the property, in light of the analysis conducted, as it applies to the criteria set out in O. Reg. 9/06.	N.A.
1e	A conclusion, drawing together these various analytical elements	Section 4.0
1f	A bibliography	N.A.



Methodology  
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**Table 1: Report Framework**

Reference #	CRB Report Guidance	Relevant Section
1g	Appendices consisting of: <ul style="list-style-type: none"> <li>Fully and clearly replicated historic and archival materials relied upon in the expert report.</li> <li>Relevant extracts from secondary sources relied upon in the expert report.</li> </ul>	Appendix A

## 2.1.2 Tree Inventory Methodology

At the request of the Town, the following information on the individual and tree groups was inventoried and appears graphically on the tree inventory plans; as text in the tree inventory charts, and as photographs, found in Appendices B, C and D.

- 3.1 **Tree species**, scientific and common name.
- 3.2 **Trees on private and public adjacent lands** within 6 metres of the subject properties.
- 3.3 **Diameter at Breast Height (DBH)** (metric). Measurement of the trunk at 1.4m above grade. Expressed as diameter in centimetres.
- 3.4 **Tree Canopies/Dripline**: All tree canopies (also referred to as “Dripline”) of individual trees inventoried have their approximate dripline mapped onto the tree inventory plan. All tree driplines had the measurements of the approximate extents of the branches measured from the trunk of the tree. This also represents the general root zone of the tree. Note that tree canopies are not entirely symmetrical nor perfectly circular in shape, canopies indicated are based on the main distance radiating out from the tree.  
 Outline of tree grouping canopies based on air photo interpretation.
- 3.5 **Health Rating System**: The following health rating system has been used and has been based on visual inspection on the days of the field work:
  - 0 – Dead, hazardous, or uprooting. Tree exhibits no signs of life. Needs removal.
  - 1 – Declining or diseased tree. Too weak to survive construction. Recommend removal.
  - 2 – Relatively healthy but less vigorous. Will struggle with construction.
  - 3 – Healthy and vigorous. Defects if present are minor (e.g. twig dieback, small wounds) Good chance of survival with construction depending on proximity.
- 3.6 **Natural (occurring) or Cultural (planted)**: The tree inventory also included identifying if the tree appeared as per professional opinion of the ISA Certified Master Arborist and Senior Landscape Architect to be naturally occurring (labelled natural on tree inventory plans) or cultural (planted).



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This information will help inform the municipality whether the trees and their associated siting's are part of a CHL and/or an original DG designed landscape.

- 3.7 **Photographic Record:** A photographic record of each individual tree was recorded and can be found in Appendix C.

## 2.1.3 Town of Niagara-on-the-lake Tree Inventory Requirements

The methodology used for the tree inventory was adopted from the tree inventory requirements provided by the Town of Niagara-on-the-lake. These requirements were acquired from the Town for the purpose of the initial "200 John Street East and 588 Charlotte Street, Niagara-on-the-lake, Ontario Arborist Report and Tree Inventory Report" completed on April 9<sup>th</sup>, 2021 for the Solmar subdivision application. Refer to Appendix A for the full list of requirements.

## 2.1.4 Methodology of Sectioned Properties

The tree inventory of properties 200 John Street East and 588 Charlotte Street was conducted and organized into smaller parcels of land, or 'sections', to allow a more thorough analysis of each specific 'section'. Both properties were divided into three sections, based on geographic location. Within each section individual trees and groupings of trees were inventoried. The decision to inventory an 'individual tree' verse a 'grouping of trees' was based on:

1. Which form of field data would provide the best-informed understanding of the particular landscape;
2. Where it was determined that inventoring trees in groups, where the individual specimen of a uniform species and size would not provide any benefit in understanding the nature of the landscape, and;
3. The municipal requirements did not require trees under 10cm caliper to be inventoried, therefore it was determined that immature species would be best accounted for in a group composition.

The groupings were also assessed as to their composition pertained to natural versus planted/cultural character and the approximate age of these groupings.

The reasoning for these choices is listed below.

### 200 John Street East

- Linear Strip Accessed via John Street East
  - Individual trees were inventoried due to their potential cultural value, and age.



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- Northwest Section
  - Individual trees were inventoried as the Northwest Section is known to be of cultural interest. However, tree groupings were used for Groups 5 and 6 within this section because these areas are monoculture plantings of the same species and of similar age.
- Southeast Section
  - Individual trees and groups of trees were inventoried within this section. The individual trees noted in this section were not included in a tree group due to their geographical distance from the tree groupings inventoried. The tree groupings were formulated based on geographical location.

## 588 Charlotte Street

- Strip Providing Access to Charlotte Street Section
  - Individual trees were inventoried in this section because there were no tree groupings, and the trees in this section are of significant age.
- North Section
  - Individual trees and groups of trees were inventoried within this section. The individual trees noted in this section were not included in a tree group due to their geographical distance from the tree grouping inventoried. The tree grouping inventoried, Group 4, is a mass planting intended to provide screening for the Weatherstone Court subdivision.
- Southeast Section
  - Individual trees and groups of trees were inventoried within this section. The individual trees noted in this section were not included in a tree group due to their geographical distance from the tree groupings inventoried, and the trees are of significant age. The tree groupings were formulated based on geographical location.



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Description of the Study Area.  
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### 3.0 DESCRIPTION OF THE STUDY AREA.

#### 3.1 200 JOHN STREET EAST

The 200 John Street East property is an irregularly shaped parcel of land that can be accessed via John Street East. The property borders 210 John Street east and 240 John Street east to the east, 588 Charlotte Street, 144 John Street East, 176 John Street East, and the residential subdivisions along Weatherstone Court and Christopher Street to the west, and the Upper Canada Heritage Trail (formerly the Erie and Ontario Railway line) to the south. The tree inventory for 200 John Street East will be described in three sections as illustrated in Appendix D and as listed: Linear Strip Access, Northwest Section, and Southeast Section.

##### 3.1.1 Linear Strip Accessed via John Street East

200 John Street East is accessed via a linear strip of land 66 feet (20.1 metres) wide located along John Street East. The access entrance is between 176 John Street East and 210 John Street East. The linear strip of land that provides access to 200 John Street East consists of a mix of both coniferous and deciduous tree and shrub species. There were 47 trees inventoried within the property lines of this section, and 34 inventoried within a 6 metre buffer along the adjacent properties. The trees inventoried in this area range from 10 to 100 years of age. Of the trees inventoried 44 were classified as natural and 35 were classified as cultural/planted. Horsechestnut (*Aesculus hippocastanum*), White Pine (*Pinus strobus*), Norway Spruce (*Picea abies*), Honey Locust (*Gleditsia triacanthos*), Black Walnut (*Juglans nigra*), Big Shell Bark Hickory (*Carya laciniosa*) species were documented as 80-100 years old and cultural/planted.

**Table 2: Tree Inventory, Linear Strip Accessed via John Street East Section, 200 John Street East**

Tag #	Botanical Name	Common Name	DBH (cm)	Health (Overall Condition)	Canopy Dripline Dia. (m)	Cultural (C) or Natural (N)	Approx. Age
2	<i>Pinus strobus</i>	White Pine	36	2	5	C	30
3	<i>Pinus sylvestris</i>	Scots Pine	Tree has been removed (Dead)				
4*	<i>Pinus sylvestris</i>	Scots Pine	38	0	6	C	30
5	<i>Fraxinus americana</i>	White Ash	38	0	7	N	30
6	<i>Pinus strobus</i>	White Pine	56	2	8	C	30
7	<i>Betula papyrifera</i>	Paper Birch	28	2	4	N	20
8	<i>Betula papyrifera</i>	Paper Birch	29	2	6	N	20



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**Table 2: Tree Inventory, Linear Strip Accessed via John Street East Section, 200 John Street East**

Tag #	Botanical Name	Common Name	DBH (cm)	Health (Overall Condition)	Canopy Dripline Dia. (m)	Cultural (C) or Natural (N)	Approx. Age
9	<i>Acer saccharinum</i>	Silver Maple	32	3	6	N	20
10	<i>Aesculus hippocastanum</i>	Horsechestnut	22	3	6	N	20
11	<i>Pinus strobus</i>	White Pine	50	2	7	C	40
12	<i>Pinus strobus</i>	White Pine	48	2	7	C	40
13	<i>Pinus strobus</i>	White Pine	24	1	4	C	30
14	<i>Ailanthus altissima</i>	Tree of Heaven	31	1	4	N	10
15*	<i>Fraxinus americana</i>	White Ash	96	0	10	N	70
16	<i>Pinus strobus</i>	White Pine	31	0	3	C	30
17	<i>Salix nigra</i>	Black Willow	107	1	8	C	50
18	<i>Pinus strobus</i>	White Pine	57	2	8	N	40
19	<i>Pinus strobus</i>	White Pine	42	2	4	N	20
20	<i>Pinus strobus</i>	White Pine	88	3	12	C	100
21	<i>Prunus serotina</i>	Black Cherry	60	0	3	N	50
22	<i>Prunus serotina</i>	Black Cherry	89	1	8	C	60
23	<i>Ailanthus altissima</i>	Tree of Heaven	79	0	0	N	40
24	<i>Ailanthus altissima</i>	Tree of Heaven	24	1	5	N	20
25	<i>Aesculus hippocastanum</i>	Horsechestnut	76	2	13	C	100
26	<i>Aesculus hippocastanum</i>	Horsechestnut	59	2	8	C	100
27	<i>Pinus strobus</i>	White Pine	80	3	12	C	100
28	<i>Picea abies</i>	Norway Spruce	74	3	9	C	100
29*	<i>Aesculus hippocastanum</i>	Horsechestnut	79	0	2	C	100
30	<i>Tilia cordata</i>	Little Leaf Linden	24	2	7	C	20



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Tag #	Botanical Name	Common Name	DBH (cm)	Health (Overall Condition)	Canopy Dripline Dia. (m)	Cultural (C) or Natural (N)	Approx. Age
31	<i>Abies pseudotsuga</i>	Douglas Fir	43	2	4	C	100
32	<i>Tilia cordata</i>	Little Leaf Linden	29	3	6	C	20
33	<i>Picea abies</i>	Norway Spruce	73	3	11	C	100
34	<i>Picea abies</i>	Norway Spruce	61	2	9	C	100
35	<i>Aesculus hippocastanum</i>	Horsechestnut	75	1	10	C	100
36	<i>Abies pseudotsuga</i>	Douglas Fir	25	2	3	C	20
37	<i>Abies pseudotsuga</i>	Douglas Fir	25	2	3	C	20
38*	<i>Pinus strobus</i>	White Pine	50	0	0	C	100
39	<i>Pinus strobus</i>	White Pine	51	2	6	C	100
40	<i>Pinus strobus</i>	White Pine	45	2	6	C	100
41	<i>Aesculus hippocastanum</i>	Horsechestnut	27	1	4	N	20
42	<i>Picea abies</i>	Norway Spruce	63	3	8	C	100
43	<i>Picea abies</i>	Norway Spruce	47	3	6	C	100
44	<i>Picea abies</i>	Norway Spruce	66	3	14	C	100
45	<i>Picea abies</i>	Norway Spruce	62	3	12	C	100
46	<i>Juglans nigra</i>	Black Walnut	27	3	6	N	15
47	<i>Quercus rubra</i>	Red Oak	29	2	8	N	25
1A	<i>Juglans nigra</i>	Black Walnut	83	3	13	N	100
2A	<i>Juglans nigra</i>	Black Walnut	59	3	11.5	N	40
3A	<i>Quercus alba</i>	White Oak	41	3	5.5	N	40
4A	<i>Carya laciniosa</i>	Big Shell Bark Hickory	63	3	11.5	N	100
5A	<i>Pinus strobus</i>	White Pine	37	3	6	N	20



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**Table 2: Tree Inventory, Linear Strip Accessed via John Street East Section, 200 John Street East**

Tag #	Botanical Name	Common Name	DBH (cm)	Health (Overall Condition)	Canopy Dripline Dia. (m)	Cultural (C) or Natural (N)	Approx. Age
6A	<i>Pinus strobus</i>	White Pine	44	2	10	N	40
7A	<i>Pinus strobus</i>	White Pine	49	2	7	N	40
8A	<i>Prunus serotina</i>	Black Cherry	54	1	7	N	30
9A	<i>Carya laciniosa</i>	Big Shell Bark Hickory	30	3	5	N	25
10A	<i>Juglans nigra</i>	Black Walnut	44	2	9	N	40
11A	<i>Picea abies</i>	Norway Spruce	39	2	5	N	40
12A	<i>Quercus rubra</i>	Red Oak	46	3	8	C	40
13A	<i>Aesculus hippocastanum</i>	Horsechestnut	22	1	4	N	20
14A	<i>Prunus serotina</i>	Black Cherry	38	1	3	N	30
15A	<i>Ailanthus altissima</i>	Tree of Heaven	24	1	3	N	10
16A	<i>Ailanthus altissima</i>	Tree of Heaven	34	1	5	N	20
17A	<i>Ailanthus altissima</i>	Tree of Heaven	29	1	5	N	20
18A	<i>Gymnocladus dioicus</i>	Kentucky Coffee-Tree	45	3	8	C	40
19A	<i>Gymnocladus dioicus</i>	Kentucky Coffee-Tree	25	2	5	N	20
20A	<i>Juglans nigra</i>	Black Walnut	31	0	0	N	20
21A	<i>Ailanthus altissima</i>	Tree of Heaven	34	1	5	N	20
22A	<i>Juglans nigra</i>	Black Walnut	26	2	6	N	20
23A	<i>Quercus rubra</i>	Red Oak	28	2	7	N	15
24A	<i>Ailanthus altissima</i>	Tree of Heaven	21	2	5	N	10
25A	<i>Juglans nigra</i>	Black Walnut	31	3	6	N	20
26A	<i>Acer platanoides</i>	Norway Maple	36	1	5	C	20
27A	<i>Juglans nigra</i>	Black Walnut	63	3	15	N	60
28A	<i>Quercus rubra</i>	Red Oak	57	3	11	N	40
29A	<i>Quercus alba</i>	White Oak	43	3	9	C	50



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Tag #	Botanical Name	Common Name	DBH (cm)	Health (Overall Condition)	Canopy Dripline Dia. (m)	Cultural (C) or Natural (N)	Approx. Age
30A	<i>Picea abies</i>	Norway Spruce	78	3	13	C	100
31A	<i>Carya laciniosa</i>	Big Shell Bark Hickory	55	3	11	N	100
32A	<i>Juglans nigra</i>	Black Walnut	52	3	16	N	75
33A	<i>Ulmus americana</i>	American Elm	25	1	5	N	15
34A	<i>Fraxinus americana</i>	White Ash	22	0	0	N	10

\*Denotes dead/hazardous trees removed by permit during winter of 2022

### 3.1.2 Northwest Section

The northwest section of 200 John Street East contains the pool area and a couple groupings of tree species. There were 57 trees inventoried within the property lines of this section, and 6 inventoried within a 6 metre buffer along the adjacent properties. Within this section, 54 trees were categorized as cultural and 12 natural. The following species were categorized as cultural and documented between ages 80-100: White Pine (*Pinus strobus*), Big Shell Bark Hickory (*Carya laciniosa*), Eastern White Cedar (*Thuja occidentalis*), Scots Pine (*Pinus sylvestris*), Austrian Pine (*Pinus nigra*), and Boxwood (*Buxus sp.*).

The north corner of this section has a pool area that is bordered to the south with Purple Plum (*Prunus pissardii nigra*), Group 6. At the 66ft access the pool entrance is framed by two Eastern White Cedars (*Thuja occidentalis*) (trees 57 and 58), both approximately 100 years of age. Within the pool area the Tea House is cornered by four Boxwoods (*Buxus sp.*) (BW1, BW2, BW3, BW4), all approximately 100 years of age. To the south of the pool area there is a row of Austrian pine (*Pinus nigra*) and Scots pine trees (*Pinus sylvestris*).

Between the Calvin Rand summer house, the carriage house and the 176 John Street East property there is a buffer of plantings identified as Group 5. Group 5 is comprised of a grove of Lilac species (*Syringa sp.*) approximately 100 years old. Within this area there is also a row of Rose of Sharon (*Hibiscus syriacus*), and a row of cedar (*Platyclusus orientalis*).



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**Table 3: Tree Inventory, Northwest Section, 200 John Street East**

Tag #	Botanical Name	Common Name	DBH (cm)	Health (Overall Condition)	Canopy Dripline Dia. (m)	Cultural (C) or Natural (N)	Approx. Age
48	<i>Prunus serotina</i>	Black cherry	35	1	6	N	30
49	<i>Pinus strobus</i>	White Pine	70	2	11	C	100
50	<i>Juglans nigra</i>	Black Walnut	36	2	10	N	25
51	<i>Pinus sylvestris</i>	Scots Pine	48	2	8	C	50
52	<i>Pinus nigra</i>	Austrian Pine	32	1	5	C	50
53*	<i>Pinus nigra</i>	Austrian Pine	45	0	7	C	50
54	<i>Pinus sylvestris</i>	Scots Pine	46	2	7	C	50
55	<i>Pinus sylvestris</i>	Scots Pine	34	1	4	C	50
56	<i>Carya laciniosa</i>	Big Shell Bark Hickory	60	3	16	N	100
57	<i>Thuja occidentalis</i>	Eastern White Cedar	42	2	4	C	100
58	<i>Thuja occidentalis</i>	Eastern White Cedar	41	2	4	C	100
59	<i>Pinus sylvestris</i>	Scots Pine	53	2	6	C	100
60	<i>Pinus nigra</i>	Austrian Pine	46	0	5	C	100
61	<i>Pinus sylvestris</i>	Scots Pine	39	1	5	C	100
62	<i>Pinus sylvestris</i>	Scots Pine	21	1	1	C	50
63	<i>Pinus sylvestris</i>	Scots Pine	41	1	5	C	50
64	<i>Pinus nigra</i>	Austrian Pine	36	1	4	C	50
65*	<i>Pinus nigra</i>	Austrian Pine	39	0	4	C	50
66*	<i>Pinus sylvestris</i>	Scots Pine	49	0	8	C	50
67*	<i>Pinus nigra</i>	Austrian Pine	33	0	4	C	50
68	<i>Pinus sylvestris</i>	Scots Pine	29	1	4	C	50
69*	<i>Pinus sylvestris</i>	Scots Pine	36	0	3	C	50
70	<i>Pinus nigra</i>	Austrian Pine	56	2	8	C	50
82	<i>Fraxinus americana</i>	White Ash	23	0	3	N	15
83	<i>Pinus sylvestris</i>	Scots Pine	44	0	3	C	30
84	<i>Pinus sylvestris</i>	Scots Pine	43	0	6	C	30
85	<i>Pinus sylvestris</i>	Scots Pine	39	0	6	C	30
86	<i>Populus deltoides</i>	Cottonwood	24	1	4	N	10



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**Table 3: Tree Inventory, Northwest Section, 200 John Street East**

Tag #	Botanical Name	Common Name	DBH (cm)	Health (Overall Condition)	Canopy Dripline Dia. (m)	Cultural (C) or Natural (N)	Approx. Age
87	<i>Populus deltoides</i>	Cottonwood	35	1	6	N	20
88	<i>Picea abies</i>	Norway Spruce	68	2	11	C	75
89	<i>Acer platanoides</i>	Norway Maple	22	2	3	N	10
90	<i>Morus alba</i>	White Mulberry	42	1	5	N	15
91	<i>Pinus sylvestris</i>	Scots Pine	61	2	8	C	75
92	<i>Pinus nigra</i>	Austrian Pine	65	1	10	C	75
93	<i>Pinus sylvestris</i>	Scots Pine	43	1	6	C	75
94	<i>Pinus nigra</i>	Austrian Pine	48	1	6	C	75
95	<i>Cercidiphyllum japonicum</i>	Katsura	44	2	4	C	20
96	<i>Betula nigra</i>	River Birch	31	3	6	C	20
97	<i>Acer rubrum</i>	Red Maple	20	2	6	C	20
98	<i>Pinus strobus</i>	White Pine	25	3	7	C	20
99	<i>Pinus strobus</i>	White Pine	30	3	7	C	20
100	<i>Pinus strobus</i>	White Pine	30	3	7	C	20
101	<i>Fraxinus americana</i>	White Ash	27	0	5	N	20
102	<i>Quercus palustris</i>	Pin Oak	29	3	6	C	20
103	<i>Acer rubrum</i>	Red Oak	23	3	5	C	20
104	<i>Ulmus pumila</i>	Siberian Elm	21	3	4	N	10
105	<i>Metasequoia glyptostroboides</i>	Dawn Redwood	25	3	5	C	20
106	<i>Pinus strobus</i>	White Pine	22	3	7	C	20
107	<i>Pinus strobus</i>	White Pine	21	3	7	C	20
108	<i>Pinus nigra</i>	Austrian Pine	71	1	11	C	75
109	<i>Juglans nigra</i>	Black Walnut	61	2	11	N	50
110	<i>Ulmus pumila</i>	Siberian Elm	53	2	10	C	40
111	<i>Chamaecyparis sp.</i>	Cypress	42	3	5	C	40



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**Table 3: Tree Inventory, Northwest Section, 200 John Street East**

Tag #	Botanical Name	Common Name	DBH (cm)	Health (Overall Condition)	Canopy Dripline Dia. (m)	Cultural (C) or Natural (N)	Approx. Age
112	<i>Taxus cuspidata</i>	Japanese Yew	21	2	5	C	40
147	<i>Gymnocladus dioicus</i>	Kentucky Coffee-Tree	32	3	5	C	20
148	<i>Betula papyrifera</i>	Paper Birch	23	3	5	C	20
149	<i>Pinus nigra</i>	Austrian Pine	38	2	5	C	20
60A	<i>Ulmus pumila</i>	Siberian Elm	36	2	8	N	30
61A	<i>Ulmus pumila</i>	Siberian Elm	40	2	8	N	30
62A	<i>Chamaecyparis sp.</i>	Cypress	26	3	4	C	20
63A	<i>Chamaecyparis sp.</i>	Cypress	26	3	4	C	20
64A	<i>Acer platanoides</i>	Norway Maple	50	1	6	C	20
65A	<i>Acer platanoides</i>	Norway Maple	50	1	6	C	20
BW1	Buxus sp.	Boxwood	19 & 14	3		C	100
BW2	Buxus sp.	Boxwood	31	3		C	100
BW3	Buxus sp.	Boxwood	15	3		C	100
BW4	Buxus sp.	Boxwood	16	3		C	100
Group 5	Refer to Table 17						
Group 6	Refer to Table 17						

\*Denotes dead/hazardous trees removed by permit during winter of 2022

### 3.1.3 Southeast Section

The Southeast section of 200 John Street East is predominantly an open field with low growing herbaceous material. The trees inventoried are primarily along the borders this section. There are three main groupings identified within this section.

The north grouping bordering 210 John Street, is Group 1. Group 1 consists of one Cottonwood (*Populus deltoides*), 49 % White Ash (*Fraxinus americana*), and 49% Silver Maple (*Acer saccharinum*). This grouping is approximately 30 years in age.



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The east grouping borders 210 John Street East and 240 John Street East, identified at Group 2. This grouping contains trees in various stages of growth ranging from 20-150 years, including: 20% White Oak (*Quercus alba*), 5% Hawthorn (*Crataegus sp.*), 10% White Ash (*Fraxinus americana*), 5% Elm (*Ulmus americana*), 35% Shagbark Hickory (*Carya ovata*), 5% Pin Oak (*Quercus palustris*), 5% Cottonwood (*Populus deltoides*), 5% Black Cherry (*Prunus serotina*), 5% Linden (*Tilia americana*), 5% Honey Locust (*Gleditsia triacanthos*). The understory of this grouping is less dense and is easily accessible on foot.

The south grouping bordering the Upper Canada Trail is identified as Group 3. Group 3 consists of trees ranging from 20-75 years of age. The trees within this grouping comprise of the following species: 7% White Pine (*Pinus strobus*), 3% Norway Spruce (*Picea abies*), 65% White Ash (*Fraxinus americana*), 10 % White Oak (*Quercus alba*), 10% Pin Oak (*Quercus palustris*), and 5% Black Walnut (*Juglans nigra*).

**Table 4: Tree Inventory, Southeast Section, 200 John Street East**

Tag #	Botanical Name	Common Name	DBH (cm)	Health (Overall Condition)	Canopy Dripline Dia. (m)	Cultural (C) or Natural (N)	Approx. Age
35A	<i>Juglans nigra</i>	Black Walnut	35	1	5	N	15
36A	<i>Carya laciniosa</i>	Big Shell Bark Hickory	43	3	7	N	75
37A	<i>Carya laciniosa</i>	Big Shell Bark Hickory	42	3	7	N	75
38A	<i>Carya laciniosa</i>	Big Shell Bark Hickory	43	3	10	N	75
39A	<i>Carya laciniosa</i>	Big Shell Bark Hickory	37	3	5	N	75
40A	<i>Carya laciniosa</i>	Big Shell Bark Hickory	29	3	5	N	30
Group 1A	Refer to Table 17						
Group 1	Refer to Table 17						
Group 2	Refer to Table 17						
Group 3	Refer to Table 17						

## 3.2 588 CHARLOTTE STREET

### 3.2.1 Introduction

The 588 Charlotte Street property borders 200 John Street East to the east, Charlotte Street and the residential subdivisions along Weatherstone Court and Christopher Street to the west, 144 John Street East to the north, and the Upper Canada Heritage Trail to the south. The property can be accessed via a gated strip of land found along Charlotte Street. The tree inventory for 588 Charlotte Street will be



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described in three sections as illustrated in Appendix D and as listed: Strip Providing Access to Charlotte Street Section, North Section, and South Section.

**3.2.2 Strip Providing Access to Charlotte Street Section**

The Strip Providing Access to Charlotte Street section of 588 Charlotte provides access to the entire site via a gate along Charlotte Street. There were 4 trees inventoried within this section of the property, and one tree inventoried within a 6m buffer on the adjacent property along Weatherstone Court. There are two significant trees within this section of the property, trees 71 and 72. Both trees 71 and 72 are White oaks (*Quercus alba*), approximately 175 to 250 years old respectively. The north part of this section bordering the residential subdivision at Weatherstone Court is screened by a row of White cedar (*Thuja occidentalis*).

**Table 5: Tree Inventory, Strip Providing Access to Charlotte Street, 588 Charlotte Street**

Tag #	Botanical Name	Common Name	DBH (cm)	Health (Overall Condition)	Canopy Dripline Dia. (m)	Cultural (C) or Natural (N)	Approx. Age
79	<i>Quercus alba</i>	White Oak	92	3	11.5	N	175
80	<i>Quercus alba</i>	White Oak	119	3	23	N	250
81	<i>Aesculus hippocastanum</i>	Horsechestnut	66	2	9	N	50
66A	<i>Juglans regia</i>	Persian Walnut	55	3	12	C	40

**3.2.3 North Section**

The north section of 588 Charlotte Street borders Weatherstone Court to the west. There is a grouping of trees, Group 4, which provides a privacy screen between both properties. Group 4 is approximately 27 years old consisting of: 80% Austrian Pine (*Pinus nigra*), 5% Blue Spruce (*Picea pungens*), 5% White Pine (*Pinus strobus*), 2% Siberian Elm (*Ulmus pumila*), 3% Scots Pine (*Pinus sylvestris*), 3% White Spruce (*Picea glauca*), 2% Pussy Willow (*Salix discolor*). The remainder of the north section consists of lower herbaceous grass material.

**Table 6: Tree Inventory, North Section, 588 Charlotte Street**

Tag #	Botanical Name	Common Name	DBH (cm)	Health (Overall Condition)	Canopy Dripline Dia. (m)	Cultural (C) or Natural (N)	Approx. Age
77	<i>Pinus nigra</i>	Austrian Pine	33	1	4	C	20
78	<i>Ulmus pumila</i>	Siberian Elm	30	2	4	N	20
41A	<i>Pinus nigra</i>	Austrian Pine	28	1	4	C	20
42A	<i>Pinus nigra</i>	Austrian Pine	32	1	4	C	20



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**Table 6: Tree Inventory, North Section, 588 Charlotte Street**

Tag #	Botanical Name	Common Name	DBH (cm)	Health (Overall Condition)	Canopy Dripline Dia. (m)	Cultural (C) or Natural (N)	Approx. Age
43A	<i>Pinus nigra</i>	Austrian Pine	45	1	7	C	20
44A	<i>Pinus nigra</i>	Austrian Pine	38	1	7	C	20
45A	<i>Ulmus pumila</i>	Siberian Elm	59	2	9	N	40
46A	<i>Ulmus pumila</i>	Siberian Elm	21	2	3	N	10
47A	<i>Ulmus pumila</i>	Siberian Elm	22	2	3	N	10
48A	<i>Ulmus pumila</i>	Siberian Elm	23	2	3	N	10
49A	<i>Ulmus pumila</i>	Siberian Elm	40	2	5	N	10
50A	<i>Ulmus pumila</i>	Siberian Elm	38	2	5	N	10
51A	<i>Ulmus pumila</i>	Siberian Elm	36	2	5	N	10
52A	<i>Ulmus pumila</i>	Siberian Elm	91	2	14	N	40
53A	<i>Ulmus pumila</i>	Siberian Elm	24	2	5	N	20
54A	<i>Ulmus pumila</i>	Siberian Elm	24	2	5	N	20
Group 4	Refer to Table 17						

### 3.2.4 South Section

The south section of 588 Charlotte Street consists of 6 inventoried trees all categorized as natural. The trees inventoried in this section are located along the south border lining the Upper Canada Heritage Trail. Of the 6 trees inventoried in this section 3 are of a significant age: tree 72 White Oak (*Quercus alba*) is approximately 125 years old; tree 73 Red Oak (*Quercus rubra*) is approximately 125 years old; and tree 75 White Oak (*Quercus alba*) is approximately 125 years old.

**Table 7: Tree Inventory, South Section, 588 Charlotte Street**

Tag #	Botanical Name	Common Name	DBH (cm)	Health (Overall Condition)	Canopy Dripline Dia. (m)	Cultural (C) or Natural (N)	Approx. Age
71	<i>Quercus alba</i>	White Oak	82	2	10	N	75
72	<i>Quercus alba</i>	White Oak	76	2	15	N	125
73	<i>Quercus rubra</i>	Red Oak	113	1	18	N	125
74	<i>Juglans nigra</i>	Black Walnut	44	3	8	N	30
75	<i>Quercus alba</i>	White Oak	74	1	14	N	125
76	<i>Fraxinus americana</i>	White Ash	32	0	5	N	30



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Summary of Findings  
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## 4.0 SUMMARY OF FINDINGS

This report was revised from the original report that was prepared for the Conservation Review Board (CRB) for the 200 John Street East and 588 Charlotte Street properties. It has been revised to reflect the revised Site and Landscape Plan from SGL Planning and Design Inc. (March 10, 2022) and the Schaeffers Consulting Engineers Engineering Drawings also dated March 10, 2022., and the removal under permit of dead and hazardous trees winter of 2022. The purpose of this revised report was originally to provide supporting information for the Stantec Cultural Heritage Landscape team to aid in their determination what vegetation on the property can be attributed to the Dunington-Grubb canon and to determine preliminary preservation / removal status based on the current site and engineering plans.

Note that any species ranked as Endangered, Threatened, or of Special Concern, located on the Subject Lands or within 6 m of the property lines were inventoried and assessed.

**There are no trees identified as *species at risk or regionally significant/endangered* species identified for removal.**

Consistent with the original reports, all inventoried trees have been identified by their scientific name and regionally used common name.

**Table 8: Summary of Inventory**

Item	Description	Quantity
1	Total Number of Individual Trees Inventoried	176
2	Total Tree Groups Inventoried	8
3	Total Number of Trees Inventoried on Adjacent Properties	61
4	Total Number of Inventoried Cultural Trees on Subject Properties	79
5	Total Number of Inventoried Natural Trees on Subject Properties	37
6	Total Number of Dead Trees on Subject Properties	10
7	Total Number of Dead Trees on Adjacent Properties	2

The following sections outline observations.



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## 4.1 200 JOHN STREET EAST

### 4.1.1 Linear Strip Accessed via John Street East Section

**Table 9: Summary of Findings, Linear Strip Accessed via John Street East Section, 200 John Street East**

Item	Description	Quantity	Percentage
1	Total Number of Individual Trees Inventoried	80	100
2	Total Number of Naturally Occurring Trees	46	57.5
3	Total Number of Planted/Cultural Trees	34	42.5
4	Total Number of Trees Approximately 100 years and older	21	26.25
5	Total Number of Tree Groupings	0	N/A

Due to the higher percentage of naturally occurring trees the linear strip access via John Street East is not believed to be a man-made landscape.

### 4.1.2 Northwest Section

**Table 10: Summary of Findings, Northwest Section, 200 John Street East**

Item	Description	Quantity	Percentage
1	Total Number of Individual Trees Inventoried	67	100
2	Total Number of Naturally Occurring Trees	12	18
3	Total Number of Planted/Cultural Trees	54	80.5
4	Total Number of Trees Approximately 100 years and older	11	16.5
5	Total Number of Tree Groupings	2	N/A

Due to the percentage of planted/cultural trees this section it is believed to be a man-made landscape. The north corner of this section contains a man-made pool area that is bordered to the south by Group 6. The pool area is a man-made landscape.



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## 4.1.3 Southeast Section

**Table 11: Summary of Findings, Southeast Section, 200 John Street East**

Item	Description	Quantity	Percentage
1	Total Number of Individual Trees Inventoried	6	100
2	Total Number of Naturally Occurring Trees	6	100
3	Total Number of Planted/Cultural Trees	0	0
4	Total Number of Trees Approximately 100 years and older	0	0
5	Total Number of Tree Groupings	4	N/A

Due to the percentage of naturally occurring trees the southeast section of 200 John Street East is not believed to be a man-made landscape.

## 4.2 588 CHARLOTTE STREET

### 4.2.1 Strip Providing Access to Charlotte Street Section

**Table 12: Summary of Findings, Strip Providing Access to Charlotte Street Section, 588 Charlotte Street**

Item	Description	Quantity	Percentage
1	Total Number of Individual Trees Inventoried	4	100
2	Total Number of Naturally Occurring Trees	3	75
3	Total Number of Planted/Cultural Trees	1	25
4	Total Number of Trees Approximately 100 years and older	2	50
5	Total Number of Tree Groupings	0	N/A

Due to the percentage of naturally occurring trees the strip providing access to Charlotte Street section is not believed to be a man-made landscape. However, the two trees older than 100 years old are significant, and preservation should be highly considered.



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#### **4.2.2 North Section**

**Table 13: Summary of Findings, North Section, 588 Charlotte Street**

<b>Item</b>	<b>Description</b>	<b>Quantity</b>	<b>Percentage</b>
1	Total Number of Individual Trees Inventoried	16	100
2	Total Number of Naturally Occurring Trees	11	68.75
3	Total Number of Planted/Cultural Trees	5	31.25
4	Total Number of Trees Approximately 100 years and older	0	0
5	Total Number of Tree Groupings	1	N/A

Due to the percentage of naturally occurring trees this not believed to be a man-made landscape. However, Group 4 is believed to be planted/cultural to provide screening for the Weatherstone Court properties.

#### **4.2.3 South Section**

**Table 14: Summary of Findings, Southeast Section, 200 John Street East**

<b>Item</b>	<b>Description</b>	<b>Quantity</b>	<b>Percentage</b>
1	Total Number of Individual Trees Inventoried	6	100
2	Total Number of Naturally Occurring Trees	6	100
3	Total Number of Planted/Cultural Trees	0	0
4	Total Number of Trees Approximately 100 years and older	3	50
5	Total Number of Tree Groupings	0	N/A

Due to the percentage of naturally occurring trees this not believed to be a man-made landscape. However, the three trees older than 100 years old are significant.



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**4.2.4 Tree Groupings Summary**

**Table 15: Summary of Tree Grouping**

<b>Tree Group</b>	<b>General Composition: Planted/ Cultural or Naturally Occurring</b>	<b>Approx. Age of Grouping</b>
1A	Naturally Occurring	75-100
1	Naturally Occurring	30
2A	Naturally Occurring	20-50
2	Naturally Occurring	20-150
3	Naturally Occurring	20-75
4	Planted/Cultural	27
5	Planted/Cultural	Existing trunks 30 years, possible regeneration
6	Planted/Cultural	40

The original reports were prepared by BETC in support of the Applicant’s submission on July 10, 2020 for an Official Plan Amendment, Zoning By-Law Amendment and Draft Plan of Subdivision approval to facilitate the construction of a residential community on the Subject Lands consisting of single and semi-detached dwellings (Applications).

Please refer to the September 9, 2020 Arborist Report and Tree Preservation Plan for specification, direction regarding:

1. Detailed information on the methodology of the tree inventory.
2. Tree Preservation, Protection & Management.
3. Tree Protection Barriers.
4. Tree Maintenance (Pre-Construction, During Construction and Post-Construction).
5. Town By-law 4571-12, *A By-law to Authorize and Regulate the Planting, Care, Maintenance and Removal of Trees on the Town of Niagara-on-the-Lake’s Property* (the “**Public Tree By-law**”).
6. Town By-law 5139-19, *A By-law to Regulate the Destruction or Injuring of Trees on Private Property in the Urban Areas of the Municipality and to Rescind By-law 5106-18* (the “**Private Tree Bylaw**”).



Tree Preservation, Protection & Management  
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## 5.0 TREE PRESERVATION, PROTECTION & MANAGEMENT

This section outlines the prescriptions for tree preservation, protection and maintenance. This includes the required tree removals, pruning, fertilizing, root pruning and protection, mulching, and installation of tree protection hoarding. All tree maintenance shall be carried out to the most current arboricultural standards and only by qualified arborists who are certified to practice in the province of Ontario.

Trees recorded in the inventory are assigned one of two levels of protection and/or preservation/removal:

### 1. **Preserve, Protect & Maintain**

Includes protection with tree preservation hoarding, as well as pre- and post-construction arboricultural works

### 2. **Remove**

Due to site or development constraints, tree condition or location, retention is not warranted

## 5.1 TREE PROTECTION BARRIERS: FENCING AND HOARDING

All trees scheduled to be Preserved, Protected & Maintained or Preserved & Protected shall have their critical rooting zones protected with the installation of tree protection barriers to form a Tree Protection Zone (TPZ).

Tree protection barriers shall be installed as per International Society of Arboriculture standards.

The tree protection barriers shall be installed at the approved location and shall be maintained in its original location and condition until all construction activities within the site have ceased and all equipment is removed from the site. No equipment or material storage, flushing of fuel or washing of equipment is allowed within the TPZ

## 5.2 TREE MAINTENANCE

Specifications for tree maintenance are outlined in this section. This includes maintenance prior to construction, remedial action during construction and post-construction maintenance.

## 5.3 PRE-CONSTRUCTION MAINTENANCE

Prior to any construction works commencing, all trees scheduled to be Preserved, Protected & Maintained shall undergo preventative maintenance. This may include:



# 200 JOHN STREET EAST AND 588 CHARLOTTE STREET, NIAGARA-ON-THE-LAKE, ONTARIO ARBORIST REPORT AND TREE INVENTORY REPORT

Tree Preservation, Protection & Management  
March 9, 2022

## **i. Pruning**

Trees shall be properly pruned to encourage healthy, vigorous growth. This includes the removal of deadwood, and crown cleaning and thinning. Additionally, any branches or limbs found to interfere with the proposed construction works shall be removed at this time to prevent improper pruning or mechanical injury.

## **ii. Root Bio-stimulants**

The critical rooting zones specified to be protected with tree protection hoarding shall be deep root bio-stimulated to assist the tree in mitigating any possible impacts or stresses caused by the proposed construction. A suspension formulation of sea kelp hormonal bio-stimulant with a complete micronutrient package shall be used. Delivery of the bio-stimulant formulation shall be by high pressure injection using water as a medium

## **5.4 TREE MAINTENANCE DURING CONSTRUCTION**

During the construction phase of development, mitigation of problems caused by excavation and other construction activities must be addressed. This shall include:

### **i. Excavation Monitoring & Root Pruning**

During construction, any excavation that will affect the critical rooting zones of a tree shall be monitored by a certified arborist. If, during the excavation, roots are injured or cut, the arborist shall prune or cut the injured root with a sharp implement. This will encourage callous formation and adventitious root sprouting.

### **ii. Irrigation During construction**

Any trees that are subject to drought conditions shall have their critical rooting zones waters to maintain a moist/fresh moisture regime

### **iii. Accidental Damage to Trees**

If, during any phase of construction, damage occurs to any trees that are scheduled to be preserved, the Consulting Arborist shall be notified immediately. The consulting arborist shall prescribe the remedial works which shall commence immediately and at the owner's expense.

## **5.5 POST-CONSTRUCTION MAINTENANCE**

Once construction activities are completed, any required remedial works shall be prescribed by the consulting arborist. This will include:



**200 JOHN STREET EAST AND 588 CHARLOTTE STREET, NIAGARA-ON-THE-LAKE, ONTARIO  
ARBORIST REPORT AND TREE INVENTORY REPORT**

Tree Preservation, Protection & Management  
March 9, 2022

**i. Post-Construction Inspection**

Once all construction activities have ceased, evaluation of the current condition of the trees scheduled for preservation should be conducted. This will include examination of the critical rooting zone and examination of the tree for any mechanical injury.

**ii. Removal of Tree Protection Barriers**

Upon the approval of the Town of Niagara of the Lake, all tree protection barriers can be removed



# 200 JOHN STREET EAST AND 588 CHARLOTTE STREET, NIAGARA-ON-THE-LAKE, ONTARIO ARBORIST REPORT AND TREE INVENTORY REPORT

Disclaimer  
March 9, 2022

## 6.0 DISCLAIMER

The assessment of the trees presented within this report has been made using accepted arboricultural techniques. These include a visual examination of the above-ground parts of each tree for structural defects, scars, external indications of decay, evidence of insect presence, discoloured foliage, the general condition of the trees and the surrounding site, as well as the proximity of property and people. None of the trees examined were dissected except where noted for the dead limb of a purple plum and previously removed juniper, cored, probed, or climbed, and detailed root crown examinations involving excavation were not undertaken.

Notwithstanding the recommendations and conclusions made in this report, it must be realized that trees are living organisms and their health and vigour is constantly changing. They are not immune to changes in site conditions or seasonal variations in the weather.

While reasonable efforts have been made to ensure the trees recommended for retention are healthy, no guarantees are offered or implied, that these trees or any part of them will remain standing. It is both professionally and practically impossible to predict with absolute certainty the behavior of any single tree or group of trees in all circumstances. Inevitably a standing tree will always pose some risk. Most trees have the potential for failure if provided with the necessary combinations of stresses and elements. This risk can only be eliminated if the tree is removed.

Although every effort has been made to ensure that this assessment is reasonably accurate, the trees should be re-assessed periodically. The assessment presented in this report is valid at the time of inspection.



# **APPENDIX A**

## **Town of Niagara-On-The-Lake List of Tree Inventory Requirements**

## **Original List of Tree Inventory Requirements from the Town of Niagara-on-the-Lake**

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### ***TERMS OF REFERENCE***

*Given this history and context, we are looking for an Arborist Report and Tree Inventory that includes:*

- 1. Trees on adjacent private and municipal lands that are within 6 m of the Subdivision Property boundary.*
- 2. Identification and use of the minimum DBH for trees to be surveyed as per ISA standards. Survey all trees that meet that standard. Include DBH in Tree Inventory Chart.*
- 3. DBH in metric.*
- 4. An indication as to whether tree canopies shown are conceptual or accurate.*
- 5. A Health Rating System based on the tree health in its current condition.*
- 6. A Tree Inventory that identifies and differentiates trees proposed for removal due to poor health v. the proposed development.*
- 7. Photos sufficient to assess tree character and the basis for the health rating assigned.*
- 8. The dates for site visits or visual inspections.*

# **APPENDIX B**

## **Tree Inventory Charts**

Table 17: Inventoried Tree Groupings

Group #	Botanical Name	Common Name	Percentage	Approximate Age (Years)	Trees to be preserved (Yes, No, Partial, or To Be Relocated)
1A	<i>Carya laciniosa</i>	Shell bark Hickory	98	75-100	Yes
	<i>Platanus occidentalis</i>	Sycamore (1 tree)	2		
1	<i>Populus deltoides</i>	Cottonwood (1 tree)	2	30	Partial
	<i>Fraxinus americana</i>	White Ash	49		
	<i>Acer saccharinum</i>	Silver maple	49		
2A	<i>Fraxinus americana</i>	White Ash	35	20-50	Yes
	<i>Quercus alba</i>	White Oak	15		
	<i>Tilia americana</i>	Linden	2		
	<i>Prunus sp.</i>	Sweet Cherry	2		
	<i>Pyrus sp.</i>	Pear	1		
	<i>Carya ovata</i>	Hickory	5		
	<i>Ulmus americana</i>	Elm	10		
	<i>Juglans nigra</i>	Black Walnut	20		
<i>Acer negundo</i>	Manitoba Maple	10			
2	<i>Quercus alba</i>	White Oak	20	20-150	Yes
	<i>Crataegus sp.</i>	Hawthorn	5		
	<i>Fraxinus americana</i>	White Ash	10		
	<i>Ulmus americana</i>	Elm	5		
	<i>Carya ovata</i>	Shagbark Hickory	35		
	<i>Quercus palustris</i>	Pin Oak	5		
	<i>Populus deltoides</i>	Cottonwood	5		
	<i>Prunus serotina</i>	Black Cherry	5		
	<i>Tilia americana</i>	Linden	5		
<i>Gleditsia triacanthos</i>	Honey Locust	5			
3	<i>Pinus strobus</i>	White Pine	7	20-75	No
	<i>Picea abies</i>	Norway Spruce	3		
	<i>Fraxinus americana</i>	White Ash	65		
	<i>Quercus alba</i>	White Oak	10		
	<i>Quercus palustris</i>	Pin Oak	10		
	<i>Juglans nigra</i>	Black Walnut	5		
4	<i>Pinus nigra</i>	Austrian Pine	80	27	Yes
	<i>Picea pungens</i>	Blue Spruce	5		
	<i>Pinus strobus</i>	White Pine	5		
	<i>Ulmus pumila</i>	Siberian Elm	2		
	<i>Pinus sylvestris</i>	Scots Pine	3		
	<i>Picea glauca</i>	White Spruce	3		
	<i>Salix discolor</i>	Pussy Willow	2		
5	<i>Syringa sp.</i>	Lilac	100	Existing trunks 30 years, possible regeneration	TBR
6	<i>Prunus pissardii nigra</i>	Purple Plum	100	40	Yes

Table 16: Individually Inventoried Trees





Tag #	Botanical Name	Common Name	DBH(cm)	Health (Overall Condition)	Canopy Dripline Diameter (m)	Cultural (C) or Natural (N)	Age	Trees to be preserved (Yes or No)
1A	<i>Juglans nigra</i>	Black Walnut	83	3	13	N	100	Y
2A	<i>Juglans nigra</i>	Black Walnut	59	3	11.5	N	40	Y
3A	<i>Quercus alba</i>	White Oak	41	3	5.5	N	40	Y
4A	<i>Carya laciniosa</i>	Big Shell Bark Hickory	63	3	11.5	N	100	Y
5A	<i>Pinus strobus</i>	White Pine	37	3	6	N	20	Y
6A	<i>Pinus strobus</i>	White Pine	44	2	10	N	40	Y
7A	<i>Pinus strobus</i>	White Pine	49	2	7	N	40	Y
1	<i>Gleditsia triacanthos</i>	Honey Locust	73	3	13	N	100	N
2	<i>Pinus strobus</i>	White Pine	36	2	5	C	30	N
3	<i>Pinus sylvestris</i>	Scots Pine			Tree has been removed (Dead).			Y
4*	<i>Pinus sylvestris</i>	Scots Pine	38	0	6	C	30	Y
5	<i>Fraxinus americana</i>	White Ash	38	0	7	N	30	N
8A	<i>Prunus serotina</i>	Black Cherry	54	1	7	N	30	Y
6	<i>Pinus strobus</i>	White Pine	56	2	8	C	30	N
7	<i>Betula papyrifera</i>	Paper Birch	28	2	4	N	20	Y
8	<i>Betula papyrifera</i>	Paper Birch	29	2	6	N	20	N
9	<i>Acer saccharinum</i>	Silver Maple	32	3	6	N	20	N
10	<i>Aesculus hippocastanum</i>	Horsechestnut	22	3	6	N	20	Y
11	<i>Pinus strobus</i>	White Pine	50	2	7	C	40	N
12	<i>Pinus strobus</i>	White Pine	48	2	7	C	40	N
13	<i>Pinus strobus</i>	White Pine	24	1	4	C	30	N
14	<i>Ailanthus altissima</i>	Tree of Heaven	31	1	4	N	10	N
15*	<i>Fraxinus americana</i>	White Ash	96	0	10	N	70	N
16	<i>Pinus strobus</i>	White Pine	31	0	3	C	30	N
17	<i>Salix nigra</i>	Black Willow	107	1	8	C	50	N
18	<i>Pinus strobus</i>	White Pine	57	2	8	N	40	N
19	<i>Pinus strobus</i>	White Pine	42	2	4	N	20	N
20	<i>Pinus strobus</i>	White Pine	88	3	12	C	100	N
21	<i>Prunus serotina</i>	Black Cherry	60	0	3	N	50	Y
9A	<i>Carya laciniosa</i>	Big Shell Bark Hickory	30	3	5	N	25	Y
10A	<i>Juglans nigra</i>	Black Walnut	44	2	9	N	40	Y
11A	<i>Picea abies</i>	Norway Spruce	39	2	5	N	40	Y
12A	<i>Quercus rubra</i>	Red Oak	46	3	8	C	40	Y
13A	<i>Aesculus hippocastanum</i>	Horsechestnut	22	1	4	N	20	Y
14A	<i>Prunus serotina</i>	Black Cherry	38	1	3	N	30	Y
22	<i>Prunus serotina</i>	Black Cherry	89	1	8	C	60	Y
23	<i>Ailanthus altissima</i>	Tree of Heaven	79	0	0	N	40	N
15A	<i>Ailanthus altissima</i>	Tree of Heaven	24	1	3	N	10	Y
16A	<i>Ailanthus altissima</i>	Tree of Heaven	34	1	5	N	20	Y
17A	<i>Ailanthus altissima</i>	Tree of Heaven	29	1	5	N	20	Y
18A	<i>Gymnocladus dioica</i>	Kentucky Coffee-Tree	45	3	8	C	40	Y
19A	<i>Gymnocladus dioica</i>	Kentucky Coffee-Tree	25	2	5	N	20	Y
20A	<i>Juglans nigra</i>	Black Walnut	31	0	0	N	20	N
21A	<i>Ailanthus altissima</i>	Tree of Heaven	34	1	5	N	20	Y
22A	<i>Juglans nigra</i>	Black Walnut	26	2	6	N	20	Y
23A	<i>Quercus rubra</i>	Red Oak	28	2	7	N	15	Y
24A	<i>Ailanthus altissima</i>	Tree of Heaven	21	2	5	N	10	Y
25A	<i>Juglans nigra</i>	Black Walnut	31	3	6	N	20	Y
26A	<i>Acer platanoides</i>	Norway Maple	36	1	5	C	20	Y
27A	<i>Juglans nigra</i>	Black Walnut	63	3	15	N	60	Y
28A	<i>Quercus rubra</i>	Red Oak	57	3	11	N	40	Y
24	<i>Ailanthus altissima</i>	Tree of Heaven	24	1	5	N	20	Y
25	<i>Aesculus hippocastanum</i>	Horsechestnut	76	2	13	C	100	Y
26	<i>Aesculus hippocastanum</i>	Horsechestnut	59	2	8	C	100	Y
27	<i>Pinus strobus</i>	White Pine	80	3	12	C	100	N
28	<i>Picea abies</i>	Norway Spruce	74	3	9	C	100	Y
29A	<i>Quercus alba</i>	White Oak	43	3	9	C	50	Y
30A	<i>Picea abies</i>	Norway Spruce	78	3	13	C	100	N
29*	<i>Aesculus hippocastanum</i>	Horsechestnut	79	0	2	C	100	Y
30	<i>Tilia cordata</i>	Little Leaf Linden	24	2	7	C	20	Y
31	<i>Abies pseudotsuga</i>	Douglas Fir	43	2	4	C	100	N
32	<i>Tilia cordata</i>	Little Leaf Linden	29	3	6	C	20	N
33	<i>Picea abies</i>	Norway Spruce	73	3	11	C	100	N
34	<i>Picea abies</i>	Norway Spruce	61	2	9	C	100	N
35	<i>Aesculus hippocastanum</i>	Horsechestnut	75	1	10	C	100	N
36	<i>Abies pseudotsuga</i>	Douglas Fir	25	2	3	C	20	Y
37	<i>Abies pseudotsuga</i>	Douglas Fir	25	2	3	C	20	Y
38*	<i>Pinus strobus</i>	White Pine	50	0	0	C	100	N
39	<i>Pinus strobus</i>	White Pine	51	2	6	C	100	Y
40	<i>Pinus strobus</i>	White Pine	45	2	6	C	100	Y
41	<i>Aesculus hippocastanum</i>	Horsechestnut	27	1	4	N	20	Y
42	<i>Picea abies</i>	Norway Spruce	63	3	8	C	100	N
43	<i>Picea abies</i>	Norway Spruce	47	3	6	C	100	N
44	<i>Picea abies</i>	Norway Spruce	66	3	14	C	100	N
31A	<i>Carya laciniosa</i>	Big Shell Bark Hickory	55	3	11	N	100	Y
45	<i>Picea abies</i>	Norway Spruce	62	3	12	C	100	N
32A	<i>Juglans nigra</i>	Black Walnut	52	3	16	N	75	Y
33A	<i>Ulmus americana</i>	American Elm	25	1	5	N	15	Y
34A	<i>Fraxinus americana</i>	White Ash	22	0	0	N	10	Y
46	<i>Juglans nigra</i>	Black Walnut	27	3	6	N	15	N
47	<i>Quercus rubra</i>	Red Oak	29	2	8	N	25	N
48	<i>Prunus serotina</i>	Black cherry	35	1	6	N	30	N
49	<i>Pinus strobus</i>	White Pine	70	2	11	C	100	N
50	<i>Juglans nigra</i>	Black Walnut	36	2	10	N	25	Y
51	<i>Pinus sylvestris</i>	Scots Pine	48	2	8	C	50	N
52	<i>Pinus nigra</i>	Austrian Pine	32	1	5	C	50	N
53*	<i>Pinus nigra</i>	Austrian Pine	45	0	7	C	50	N
54	<i>Pinus sylvestris</i>	Scots Pine	46	2	7	C	50	N
55	<i>Pinus sylvestris</i>	Scots Pine	34	1	4	C	50	N
56	<i>Carya laciniosa</i>	Big Shell Bark Hickory	60	3	16	N	100	N

57	<i>Thuja occidentalis</i>	Eastern White Cedar	42	2	4	C	100	N
58	<i>Thuja occidentalis</i>	Eastern White Cedar	41	2	4	C	100	N
59	<i>Pinus sylvestris</i>	Scots Pine	53	2	6	C	100	N
60	<i>Pinus nigra</i>	Austrian Pine	46	0	5	C	100	N
61	<i>Pinus sylvestris</i>	Scots Pine	39	1	5	C	100	N
35A	<i>Juglans nigra</i>	Black Walnut	35	1	5	N	15	Y
36A	<i>Carya laciniosa</i>	Big Shell Bark Hickory	43	3	7	N	75	Y
37A	<i>Carya laciniosa</i>	Big Shell Bark Hickory	42	3	7	N	75	N
62	<i>Pinus sylvestris</i>	Scots Pine	21	1	1	C	50	N
63	<i>Pinus sylvestris</i>	Scots Pine	41	1	5	C	50	N
64	<i>Pinus nigra</i>	Austrian Pine	36	1	4	C	50	N
65*	<i>Pinus nigra</i>	Austrian Pine	39	0	4	C	50	N
66*	<i>Pinus sylvestris</i>	Scots Pine	49	0	8	C	50	N
67*	<i>Pinus nigra</i>	Austrian Pine	33	0	4	C	50	N
68	<i>Pinus sylvestris</i>	Scots Pine	29	1	4	C	50	N
69*	<i>Pinus sylvestris</i>	Scots Pine	36	0	3	C	50	N
70	<i>Pinus nigra</i>	Austrian Pine	56	2	8	C	50	N
38A	<i>Carya laciniosa</i>	Big Shell Bark Hickory	43	3	10	N	75	Y
39A	<i>Carya laciniosa</i>	Big Shell Bark Hickory	37	3	5	N	75	Y
40A	<i>Carya laciniosa</i>	Big Shell Bark Hickory	29	3	5	N	30	Y
71	<i>Quercus alba</i>	White Oak	82	2	10	N	75	Y
72	<i>Quercus alba</i>	White Oak	76	2	15	N	125	Y
73	<i>Quercus rubra</i>	Red Oak	113	1	18	N	225	N
74	<i>Juglans nigra</i>	Black Walnut	44	3	8	N	30	Y
75	<i>Quercus alba</i>	White Oak	74	1	14	N	125	Y
76	<i>Fraxinus americana</i>	White Ash	32	0	5	N	30	Y
41A	<i>Pinus nigra</i>	Austrian Pine	28	1	4	C	20	N
42A	<i>Pinus nigra</i>	Austrian Pine	32	1	4	C	20	N
43A	<i>Pinus nigra</i>	Austrian Pine	45	1	7	C	20	N
44A	<i>Pinus nigra</i>	Austrian Pine	38	1	7	C	20	N
45A	<i>Ulmus pumila</i>	Siberian Elm	59	2	9	N	40	N
46A	<i>Ulmus pumila</i>	Siberian Elm	21	2	3	N	10	N
47A	<i>Ulmus pumila</i>	Siberian Elm	22	2	3	N	10	N
48A	<i>Ulmus pumila</i>	Siberian Elm	23	2	3	N	10	N
49A	<i>Ulmus pumila</i>	Siberian Elm	40	2	5	N	10	N
50A	<i>Ulmus pumila</i>	Siberian Elm	38	2	5	N	10	N
51A	<i>Ulmus pumila</i>	Siberian Elm	36	2	5	N	10	N
52A	<i>Ulmus pumila</i>	Siberian Elm	91	2	14	N	40	Y
53A	<i>Ulmus pumila</i>	Siberian Elm	24	2	5	N	20	Y
54A	<i>Ulmus pumila</i>	Siberian Elm	24	2	5	N	20	Y
60A	<i>Ulmus pumila</i>	Siberian Elm	36	2	8	N	30	Y
61A	<i>Ulmus pumila</i>	Siberian Elm	40	2	8	N	30	Y
77	<i>Pinus nigra</i>	Austrian Pine	33	1	4	C	20	N
78	<i>Ulmus pumila</i>	Siberian Elm	30	2	4	N	20	N
79	<i>Quercus alba</i>	White Oak	92	3	11.5	N	175	Y
80	<i>Quercus alba</i>	White Oak	119	3	23	N	250	Y
81	<i>Aesculus hippocastanum</i>	Horsechestnut	66	2	9	N	50	Y
82	<i>Fraxinus americana</i>	White Ash	23	0	3	N	15	Y
83	<i>Pinus sylvestris</i>	Scots Pine	44	0	3	C	30	N
84	<i>Pinus sylvestris</i>	Scots Pine	43	0	6	C	30	N
85	<i>Pinus sylvestris</i>	Scots Pine	39	0	6	C	30	N
86	<i>Populus deltoides</i>	Cottonwood	24	1	4	N	10	Y
87	<i>Populus deltoides</i>	Cottonwood	35	1	6	N	20	N
88	<i>Picea abies</i>	Norway Spruce	68	2	11	C	75	N
89	<i>Acer platanoides</i>	Norway Maple	22	2	3	N	10	N
90	<i>Morus alba</i>	White Mulberry	42	1	5	N	15	Y
91	<i>Pinus sylvestris</i>	Scots Pine	61	2	8	C	75	N
92	<i>Pinus nigra</i>	Austrian Pine	65	1	10	C	75	N
93	<i>Pinus sylvestris</i>	Scots Pine	43	1	6	C	75	N
94	<i>Pinus nigra</i>	Austrian Pine	48	1	6	C	75	N
95	<i>Cercidiphyllum japonicum</i>	Katsura	44	2	4	C	20	N
96	<i>Betula nigra</i>	River Birch	31	3	6	C	20	Y
97	<i>Acer rubrum</i>	Red Maple	20	2	6	C	20	Y
98	<i>Pinus strobus</i>	White Pine	25	3	7	C	20	Y
99	<i>Pinus strobus</i>	White Pine	30	3	7	C	20	Y
100	<i>Pinus strobus</i>	White Pine	30	3	7	C	20	Y
101	<i>Fraxinus americana</i>	White Ash	27	0	5	N	20	N
102	<i>Quercus palustris</i>	Pin Oak	29	3	6	C	20	Y
103	<i>Acer rubrum</i>	Red Oak	23	3	5	C	20	Y
104	<i>Ulmus pumila</i>	Siberian Elm	21	3	4	N	10	Y
105	<i>Metasequoia glyptostroboides</i>	Dawn Redwood	25	3	5	C	20	Y
106	<i>Pinus strobus</i>	White Pine	22	3	7	C	20	Y
107	<i>Pinus strobus</i>	White Pine	21	3	7	C	20	Y
108	<i>Pinus nigra</i>	Austrian Pine	71	1	11	C	75	Y
109	<i>Juglans nigra</i>	Black Walnut	61	2	11	N	50	Y
110	<i>Ulmus pumila</i>	Siberian Elm	53	2	10	C	40	Y
111	<i>Chamaecyparis sp.</i>	Cypress	42	3	5	C	40	Y
112	<i>Taxus cuspidata</i>	Japanese Yew	21	2	5	C	40	Y
147	<i>Gymnocladus dioica</i>	Kentucky Coffee-Tree	32	3	5	C	20	N
148	<i>Betula papyrifera</i>	Paper Birch	23	3	5	C	20	N
149	<i>Pinus nigra</i>	Austrian Pine	38	2	5	C	20	N
62A	<i>Chamaecyparis sp.</i>	Cypress	26	3	4	C	20	Y
63A	<i>Chamaecyparis sp.</i>	Cypress	26	3	4	C	20	Y
64A	<i>Acer platanoides</i>	Norway Maple	50	1	6	C	20	Y
65A	<i>Acer platanoides</i>	Norway Maple	50	1	6	C	20	Y
66A	<i>Juglans regia</i>	Persian Walnut	55	3	12	C	40	Y
BW1	<i>Buxus sp.</i>	Boxwood	19 & 14	3		C	100	Y
BW2	<i>Buxus sp.</i>	Boxwood	31	3		C	100	Y
BW3	<i>Buxus sp.</i>	Boxwood	15	3		C	100	Y
BW4	<i>Buxus sp.</i>	Boxwood	16	3		C	100	Y


\* Denotes dead/hazardous trees removed by permit during winter of 2022

# **APPENDIX C**





## **Photographic Inventory**

Tag #	Botanical Name	Common Name	Tree Photo
1A	<i>Juglans nigra</i>	Black Walnut	
2A	<i>Juglans nigra</i>	Black Walnut	
3A	<i>Quercus alba</i>	White Oak	
4A	<i>Carya laciniosa</i>	Big Shell Bark Hickory	





5A	<i>Pinus strobus</i>	White Pine	
6A	<i>Pinus strobus</i>	White Pine	
7A	<i>Pinus strobus</i>	White Pine	
1	<i>Gleditsia triacanthos</i>	Honey Locust	




2	<i>Pinus strobus</i>	White Pine	
3	<i>Pinus sylvestris</i>	Scots Pine	<p>Has been removed (Dead).</p>
4*	<i>Pinus sylvestris</i>	Scots Pine	
5	<i>Fraxinus americana</i>	White Ash	





8A	<i>Prunus serotina</i>	Black Cherry	
6	<i>Pinus strobus</i>	White Pine	
7	<i>Betula papyrifera</i>	Paper Birch	
8	<i>Betula papyrifera</i>	Paper Birch	

9	<i>Acer saccharinum</i>	Silver Maple	
10	<i>Aesculus hippocastanum</i>	Horsechestnut	
11	<i>Pinus strobus</i>	White Pine	
12	<i>Pinus strobus</i>	White Pine	


13	<i>Pinus strobus</i>	White Pine	
14	<i>Ailanthus altissima</i>	Tree of Heaven	
15*	<i>Fraxinus americana</i>	White Ash	
16	<i>Pinus strobus</i>	White Pine	

17	<i>Salix nigra</i>	Black Willow	
18	<i>Pinus strobus</i>	White Pine	
19	<i>Pinus strobus</i>	White Pine	
20	<i>Pinus strobus</i>	White Pine	

21	<i>Prunus serotina</i>	Black Cherry	
9A	<i>Carya laciniosa</i>	Big Shell Bark Hickory	
10A	<i>Juglans nigra</i>	Black Walnut	
11A	<i>Picea abies</i>	Norway Spruce	

12A	<i>Quercus rubra</i>	Red Oak			
13A	<i>Aesculus hippocastanum</i>	Horsechestnut			
14A	<i>Prunus serotina</i>	Black Cherry			
22	<i>Prunus serotina</i>	Black Cherry			





23	<i>Ailanthus altissima</i>	Tree of Heaven			
15A	<i>Ailanthus altissima</i>	Tree of Heaven			
16A	<i>Ailanthus altissima</i>	Tree of Heaven			
17A	<i>Ailanthus altissima</i>	Tree of Heaven			

18A	<i>Gymnocladus dioicus</i>	Kentucky Coffee-Tree	
19A	<i>Gymnocladus dioicus</i>	Kentucky Coffee-Tree	
20A	<i>Juglans nigra</i>	Black Walnut	
21A	<i>Ailanthus altissima</i>	Tree of Heaven	

22A	<i>Juglans nigra</i>	Black Walnut	
23A	<i>Quercus rubra</i>	Red Oak	
24A	<i>Ailanthus altissima</i>	Tree of Heaven	
25A	<i>Juglans nigra</i>	Black Walnut	





26A	<i>Acer platanoides</i>	Norway Maple	
27A	<i>Juglans nigra</i>	Black Walnut	
28A	<i>Quercus rubra</i>	Red Oak	
24	<i>Ailanthus altissima</i>	Tree of Heaven	

25	<i>Aesculus hippocastanum</i>	Horsechestnut			
26	<i>Aesculus hippocastanum</i>	Horsechestnut			
27	<i>Pinus strobus</i>	White Pine			
28	<i>Picea abies</i>	Norway Spruce			





29A	<i>Quercus alba</i>	White Oak			
30A	<i>Picea abies</i>	Norway Spruce			
29*	<i>Aesculus hippocastanum</i>	Horsechestnut			
30	<i>Tilia cordata</i>	Little Leaf Linden			

31	<i>Abies pseudotsuga</i>	Douglas Fir	
32	<i>Tilia cordata</i>	Little Leaf Linden	
33	<i>Picea abies</i>	Norway Spruce	
34	<i>Picea abies</i>	Norway Spruce	

35	<i>Aesculus hippocastanum</i>	Horsechestnut	
36	<i>Abies pseudotsuga</i>	Douglas Fir	
37	<i>Abies pseudotsuga</i>	Douglas Fir	
38*	<i>Pinus strobus</i>	White Pine	

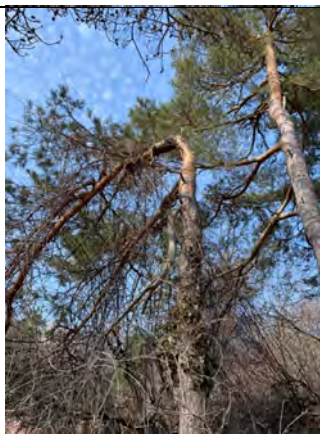
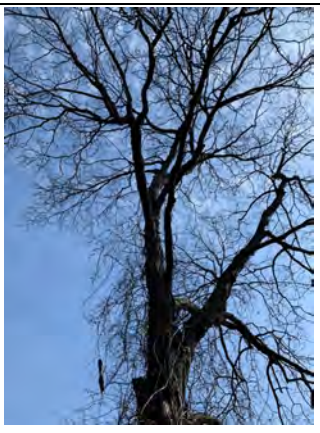


39	<i>Pinus strobus</i>	White Pine			
40	<i>Pinus strobus</i>	White Pine			
41	<i>Aesculus hippocastanum</i>	Horsechestnut			
42	<i>Picea abies</i>	Norway Spruce			

43	<i>Picea abies</i>	Norway Spruce			
44	<i>Picea abies</i>	Norway Spruce			
31A	<i>Carya laciniosa</i>	Big Shell Bark Hickory			
45	<i>Picea abies</i>	Norway Spruce			





32A	<i>Juglans nigra</i>	Black Walnut			
33A	<i>Ulmus americana</i>	American Elm			
34A	<i>Fraxinus americana</i>	White Ash			
46	<i>Juglans nigra</i>	Black Walnut			

47	<i>Quercus rubra</i>	Red Oak			
48	<i>Prunus serotina</i>	Black cherry			
49	<i>Pinus strobus</i>	White Pine			
50	<i>Juglans nigra</i>	Black Walnut			





51	<i>Pinus sylvestris</i>	Scots Pine	
52	<i>Pinus nigra</i>	Austrian Pine	
53*	<i>Pinus nigra</i>	Austrian Pine	
54	<i>Pinus sylvestris</i>	Scots Pine	





55	<i>Pinus sylvestris</i>	Scots Pine			
56	<i>Carya laciniosa</i>	Big Shell Bark Hickory			
57	<i>Thuja occidentalis</i>	Eastern White Cedar			
58	<i>Thuja occidentalis</i>	Eastern White Cedar			





59	<i>Pinus sylvestris</i>	Scots Pine			
60	<i>Pinus nigra</i>	Austrian Pine			
61	<i>Pinus sylvestris</i>	Scots Pine			
35A	<i>Juglans nigra</i>	Black Walnut			

36A	<i>Carya laciniosa</i>	Big Shell Bark Hickory	
37A	<i>Carya laciniosa</i>	Big Shell Bark Hickory	
62	<i>Pinus sylvestris</i>	Scots Pine	
63	<i>Pinus sylvestris</i>	Scots Pine	

64	<i>Pinus nigra</i>	Austrian Pine	
65*	<i>Pinus nigra</i>	Austrian Pine	
66*	<i>Pinus sylvestris</i>	Scots Pine	
67*	<i>Pinus nigra</i>	Austrian Pine	





68	<i>Pinus sylvestris</i>	Scots Pine	
69*	<i>Pinus sylvestris</i>	Scots Pine	
70	<i>Pinus nigra</i>	Austrian Pine	
38A	<i>Carya laciniosa</i>	Big Shell Bark Hickory	





39A	<i>Carya laciniosa</i>	Big Shell Bark Hickory	
40A	<i>Carya laciniosa</i>	Big Shell Bark Hickory	
71	<i>Quercus alba</i>	White Oak	
72	<i>Quercus alba</i>	White Oak	

73	<i>Quercus rubra</i>	Red Oak	
74	<i>Juglans nigra</i>	Black Walnut	
75	<i>Quercus alba</i>	White Oak	
76	<i>Fraxinus americana</i>	White Ash	


41A	<i>Pinus nigra</i>	Austrian Pine			
42A	<i>Pinus nigra</i>	Austrian Pine			
43A	<i>Pinus nigra</i>	Austrian Pine			
44A	<i>Pinus nigra</i>	Austrian Pine			

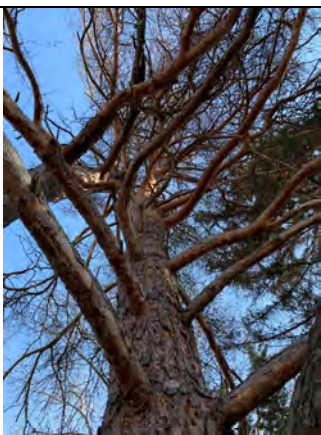

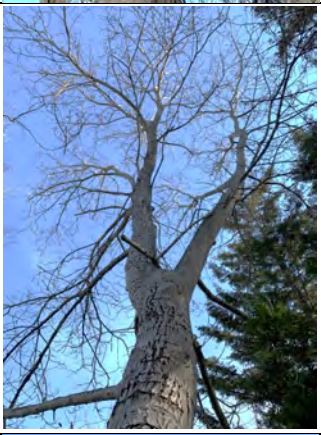

45A	<i>Ulmus pumila</i>	Siberian Elm			
46A	<i>Ulmus pumila</i>	Siberian Elm			
47A	<i>Ulmus pumila</i>	Siberian Elm			
48A	<i>Ulmus pumila</i>	Siberian Elm			

49A	<i>Ulmus pumila</i>	Siberian Elm	
50A	<i>Ulmus pumila</i>	Siberian Elm	
51A	<i>Ulmus pumila</i>	Siberian Elm	
52A	<i>Ulmus pumila</i>	Siberian Elm	

53A	<i>Ulmus pumila</i>	Siberian Elm	
54A	<i>Ulmus pumila</i>	Siberian Elm	
60A	<i>Ulmus pumila</i>	Siberian Elm	
61A	<i>Ulmus pumila</i>	Siberian Elm	





77	<i>Pinus nigra</i>	Austrian Pine	
78	<i>Ulmus pumila</i>	Siberian Elm	
79	<i>Quercus alba</i>	White Oak	
80	<i>Quercus alba</i>	White Oak	

81	<i>Aesculus hippocastanum</i>	Horsechestnut			
82	<i>Fraxinus americana</i>	White Ash			
83	<i>Pinus sylvestris</i>	Scots Pine			
84	<i>Pinus sylvestris</i>	Scots Pine			

85	<i>Pinus sylvestris</i>	Scots Pine			
86	<i>Populus deltoides</i>	Cottonwood			
87	<i>Populus deltoides</i>	Cottonwood			
88	<i>Picea abies</i>	Norway Spruce			

89	<i>Acer platanoides</i>	Norway Maple			
90	<i>Morus alba</i>	White Mulberry			
91	<i>Pinus sylvestris</i>	Scots Pine			
92	<i>Pinus nigra</i>	Austrian Pine			





93	<i>Pinus sylvestris</i>	Scots Pine			
94	<i>Pinus nigra</i>	Austrian Pine			
95	<i>Cercidiphyllum japonicum</i>	Katsura			
96	<i>Betula nigra</i>	River Birch			





97	<i>Acer rubrum</i>	Red Maple			
98	<i>Pinus strobus</i>	White Pine			
99	<i>Pinus strobus</i>	White Pine			
100	<i>Pinus strobus</i>	White Pine			

101	<i>Fraxinus americana</i>	White Ash			
102	<i>Quercus palustris</i>	Pin Oak			
103	<i>Acer rubrum</i>	Red Oak			
104	<i>Ulmus pumila</i>	Siberian Elm			

105	<i>Metasequoia glyptostroboides</i>	Dawn Redwood			
106	<i>Pinus strobus</i>	White Pine			
107	<i>Pinus strobus</i>	White Pine			
108	<i>Pinus nigra</i>	Austrian Pine			

109	<i>Juglans nigra</i>	Black Walnut			
110	<i>Ulmus pumila</i>	Siberian Elm			
111	<i>Chamaecyparis sp.</i>	Cypress			
112	<i>Taxus cuspidata</i>	Japanese Yew			

147	<i>Gymnocladus dioicus</i>	Kentucky Coffee-Tree			
148	<i>Betula papyrifera</i>	Paper Birch			
149	<i>Pinus nigra</i>	Austrian Pine			
62A	<i>Chamaecyparis sp.</i>	Cypress			

63A	<i>Chamaecyparis</i> <i>sp.</i>	Cypress			
64A	<i>Acer platanoides</i>	Norway Maple			
65A	<i>Acer platanoides</i>	Norway Maple			
BW1	<i>Buxus</i> sp.	Boxwood			

BW2	Buxus sp.	Boxwood			
BW3	Buxus sp.	Boxwood			
BW4	Buxus sp.	Boxwood			

\* Denotes dead/hazardous trees removed by permit during winter of 2022

# **APPENDIX D**

## **Tree Inventory Plans**







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Key Map NTS.



- Legend**
- Dead Standing Tree
  - Existing Natural Deciduous Tree
  - Existing Natural Coniferous Tree
  - Existing Cultural/Planted Deciduous Tree
  - Existing Cultural/Planted Coniferous Tree
  - Cultural/Planted Tree
  - Natural Tree
  - Cultural/Planted Trees Within 5m on Adjacent Properties
  - Natural Tree Within 5m on Adjacent Properties
  - Tree Grouping
  - Tree Grouping To Be Removed
  - Tree To Be Removed
  - Schematic Tree Protection Fencing (TD-1)
  - Schematic Tree Protection Hoarding (TD-2)

**CRITICAL NOTES:**

1. TREE STATUS FOR PRESERVATION OR REMOVAL: PRELIMINARY ONLY. FINAL TREE PRESERVATION/REMOVAL STATUS TO BE BASED ON TOP-FINAL ENGINEERING DRAWINGS, INCLUDING GRADING, LAYOUT AND CONCRETE UTILITY PLANS.  
2. TREE PRESERVATION FENCING SHALL BE COORDINATED WITH ARCHITECTURAL CONSERVATION TO MAXIMIZE COORDINATION BETWEEN DUAL HERITAGE CONSERVATION MEASURES AND TREE PRESERVATION. THIS IS SPECIFIC TO TREE PRESERVATION SCHEMATIC SHOWING THE MINIMUM DISTANCE FROM THE TREE TRUNK. ACTUAL CONSERVATION OF THE TREE HOUSE AND RELOCATION OF THE BATH HOUSE POLYLY. NOTE THAT THE DESTRUCTION OF TREE PROTECTION FENCING IS SCHEMATIC ONLY SHOWING THE MINIMUM DISTANCE FROM THE TREE TRUNK. ACTUAL INSTALLATION MAY VARY TO IMPROVE EFFICIENCIES.  
3. KINDS OF ROADS AND PEDESTRIAN PATH OFF, JOHN STREET EAST. AS THE GOAL IS TO MAXIMIZE TREE PRESERVATION IN THE "HANDLE" AND SUSTAINABLE EFFORTS, WHERE WARRANTED, THE PEDESTRIAN PATH AND MICRO-GRADING MAY BE ADJUSTED DURING TAKE OUT IF THERE IS AN OPPORTUNITY TO INCREASE THE NUMBER OF PRESERVED TREES. TREE PRESERVATION FENCING MAY BE ADJUSTED ON SITE TO REFLECT THESE PRESERVATION EFFORTS.

Revision/Issue	By	Appd	YYYY.MM.DD
File Name: 161414045_L-1M_with eng site plan_030822	Dwn.	Dsgn.	2022.03.10
	Dwn.	Chkd.	YYYY.MM.DD

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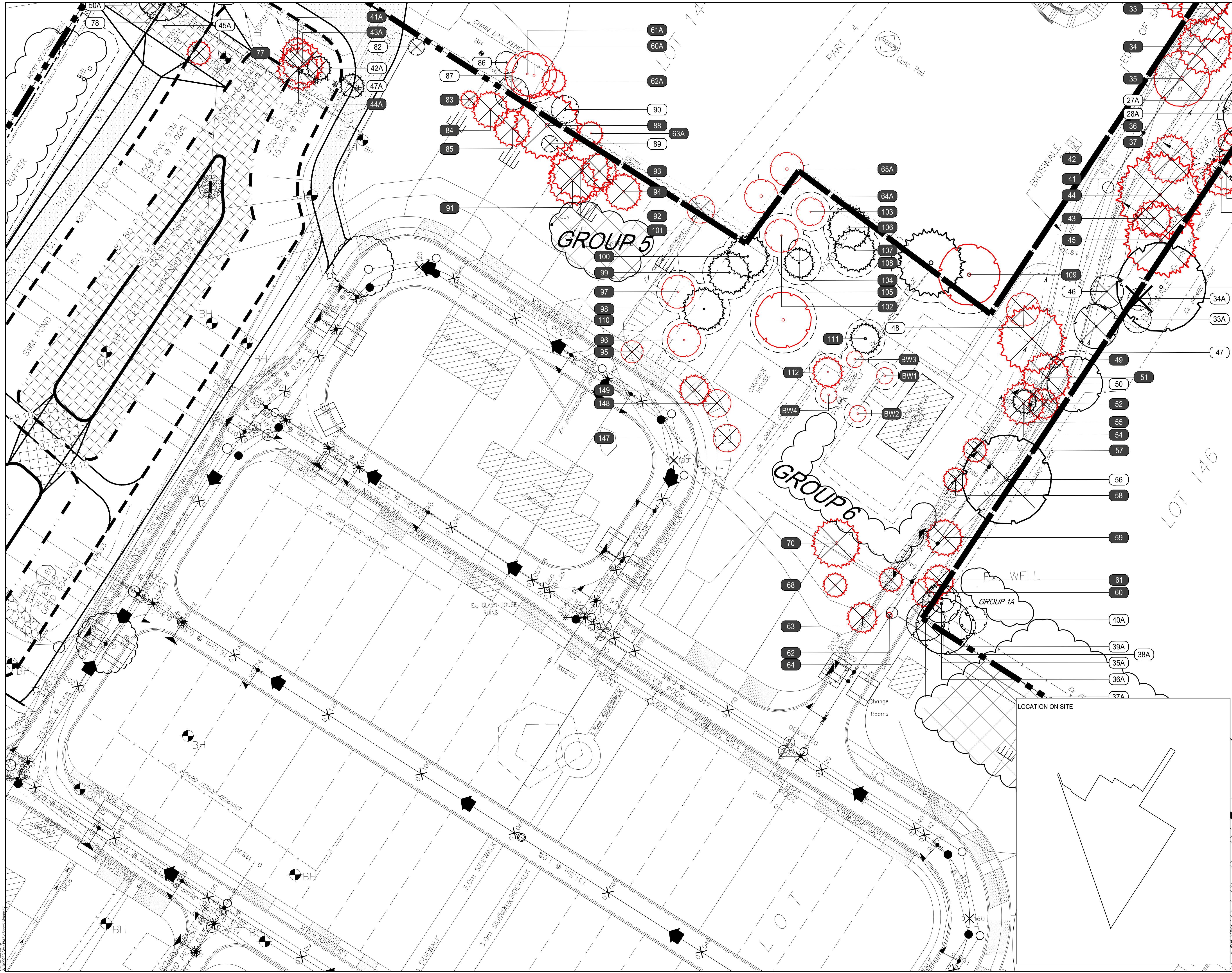
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**Client/Project**  
SOLMAR

200 JOHN STREET EAST & 588 CHARLOTTE STREET  
NIAGARA-ON-THE-LAKE  
ONTARIO, CANADA

**Title**  
EXISTING TREE INVENTORY  
AND PRESERVATION PLAN  
Northwest Section, 200 John Street East

Project No.	Scale	
161414045	1:300	
Revision	Sheet	Drawing No.
	3 of 10	L-900B



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Key Map NTS.



Legend

- Dead Standing Tree
- Existing Natural Deciduous Tree
- Existing Natural Coniferous Tree
- Existing Cultural/Planted Deciduous Tree
- Existing Cultural/Planted Coniferous Tree
- Cultural/Planted Tree
- Natural Tree
- Cultural/Planted Trees Within 5m on Adjacent Properties
- Natural Tree Within 5m on Adjacent Properties
- Tree Grouping
- Tree Grouping To Be Removed
- Tree To Be Removed
- Schematic Tree Protection Fencing (TD-1)
- Schematic Tree Protection Hoarding (TD-2)

CRITICAL NOTES:

1. TREE STATUS FOR PRESERVATION OR REMOVAL PRELIMINARY ONLY. FINAL TREE PRESERVATION/REMOVAL STATUS TO BE BASED ON FINAL ENGINEERING DRAWINGS, INCLUDING GRADING, LAYOUT AND COMPOSITE UTILITY PLANS.
2. TREE PRESERVATION FENCING PRELIMINARY ONLY. TO BE COORDINATED WITH ARCHITECTURAL CONSERVATION TO MAXIMIZE COORDINATION BETWEEN BUILT HERITAGE CONSERVATION MEASURES AND TREE PRESERVATION. THIS IS SPECIFIC TO TREE PRESERVATION FENCING ONLY AND DOES NOT APPLY TO ARCHITECTURAL CONSERVATION. CONSERVATION OF THE TREE HOUSE AND RELICATION OF THE BATH HOUSE POLY. NOTE THAT THE DEPICTION OF TREE PROTECTION FENCING IS SCHEMATIC ONLY SHOWING THE MINIMUM DISTANCE FROM THE TREE TRUNK. ACTUAL INSTALLATION MAY VARY TO IMPROVE EFFICIENCIES.
3. LAYOUT OF ROAD AND PEDESTRIAN PATH OFF JOHN STREET EAST. AS THE GOAL IS TO MAXIMIZE TREE PRESERVATION IN THE "HANDLE" AND SUSTAINABLE EFFORTS, WHERE WARRANTED, THE PEDESTRIAN PATH AND MICRO GRADING MAY BE ADJUSTED DURING TAKE OUT IF THERE IS AN OPPORTUNITY TO INCREASE THE NUMBER OF PRESERVED TREES. TREE PRESERVATION FENCING MAY BE ADJUSTED ON SITE TO REFLECT THESE PRESERVATION EFFORTS.

Revision/Issue By Appd YYYY.MM.DD

File Name: 161414045\_L-1M\_with\_eng\_site\_plan\_030822 Dwn. Dsgn. Chkd. YYYY.MM.DD

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NIAGARA-ON-THE-LAKE

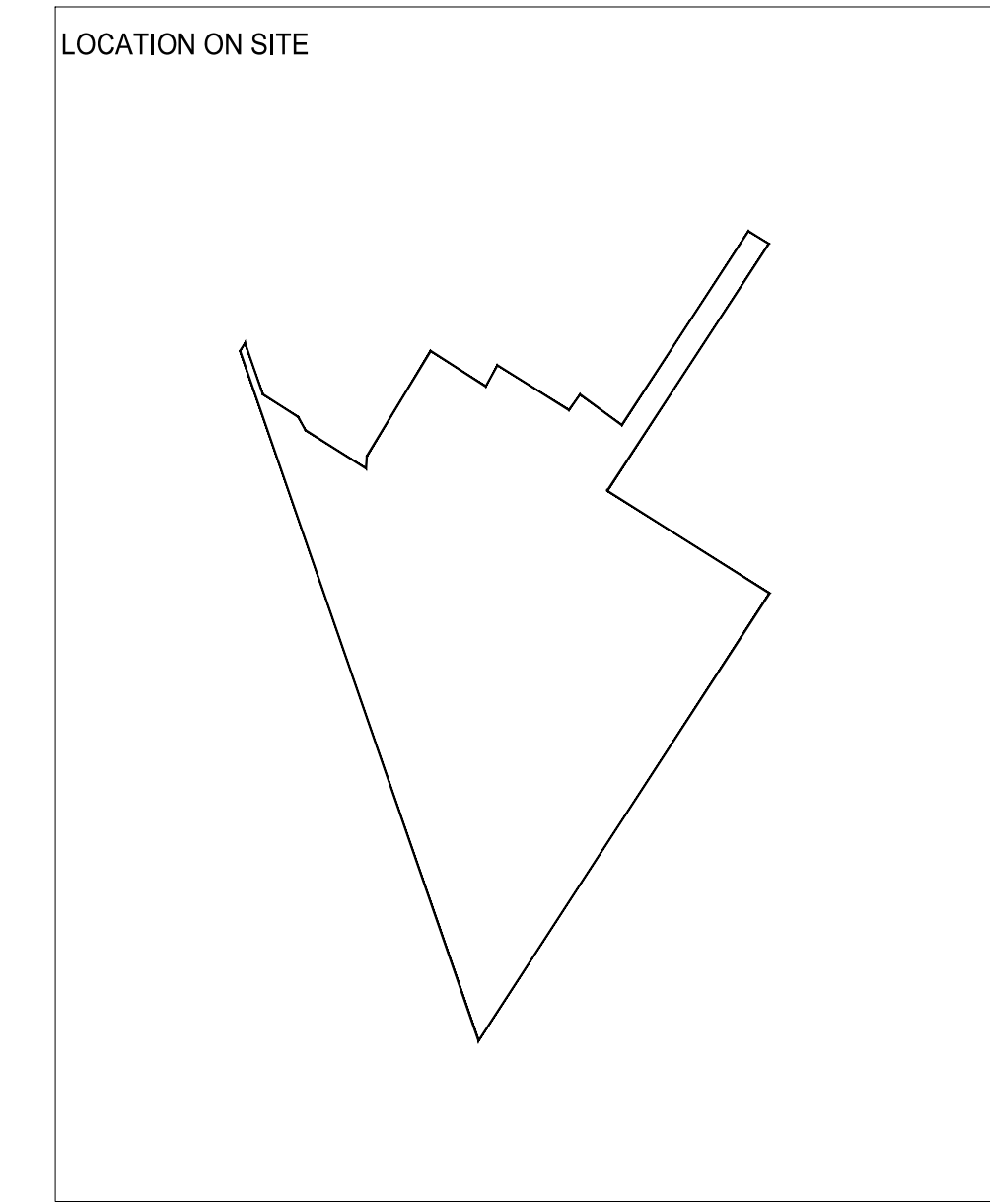
ONTARIO, CANADA

Title  
**EXISTING TREE INVENTORY  
AND PRESERVATION PLAN**  
Southeast Section, 200 John Street East

Project No. Scale  
161414045 1:750

Revision Sheet Drawing No.  
4 of 10

**L-900C**









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Key Map NTS.



- Legend**
- Dead Standing Tree
  - Existing Natural Deciduous Tree
  - Existing Natural Coniferous Tree
  - Existing Cultural/Planted Deciduous Tree
  - Existing Cultural/Planted Coniferous Tree
  - Cultural/Planted Tree
  - Natural Tree
  - Cultural/Planted Trees Within 5m on Adjacent Properties
  - Natural Tree Within 5m on Adjacent Properties
  - Tree Grouping
  - Tree Grouping To Be Removed
  - Tree To Be Removed
  - Schematic Tree Protection Fencing (TD-1)
  - Schematic Tree Protection Hoarding (TD-2)

**CRITICAL NOTES:**

- THIS STATUS FOR PRESERVATION OR REMOVAL IS PRELIMINARY ONLY. FINAL TREE PRESERVATION/REMOVAL STATUS TO BE BASED ON FINAL ENGINEERING DRAWINGS, INCLUDING GRADING, LAYOUT AND CONCRETE UTILITY PLANS.
- THE PRESERVATION FENCING SHALL BE COORDINATED WITH ARCHITECTURAL CONSIDERATIONS TO MAXIMIZE COORDINATION BETWEEN BUILT HERITAGE CONSERVATION MEASURES AND TREE PRESERVATION. THIS IS SPECIFIC TO TREE PRESERVATION AND DOES NOT APPLY TO OTHER PRESERVATION MEASURES.
- CONSERVATION OF THE TREE HOUSE AND RELOCATION OF THE BATH HOUSE POLY. NOTE THAT THE DESTRUCTION OF TREE PROTECTION FENCING IS SCHEMATIC ONLY SHOWING THE MINIMUM DISTANCE FROM THE TREE TRUNK. ACTUAL INSTALLATION MAY VARY TO IMPROVE EFFICIENCIES.
- LAYOUT OF ROAD AND PEDESTRIAN PATH OFF GLEN STREET EAST. AS THE GOAL IS TO MAXIMIZE TREE PRESERVATION IN THE "HANDLE" AND SUSTAINABLE EFFORTS, WHERE WARRANTED, THE PEDESTRIAN PATH AND MICRO-GRADING MAY BE ADJUSTED DURING TAKE OUT IF THERE IS AN OPPORTUNITY TO INCREASE THE NUMBER OF PRESERVED TREES. TREE PRESERVATION FENCING MAY BE ADJUSTED ON SITE TO REFLECT THESE PRESERVATION EFFORTS.

Revision/Issue	By	Appd	YYYY.MM.DD

File Name: 161414045\_L-IVL with eng site plan\_0308.22  
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200 JOHN STREET EAST & 588 CHARLOTTE STREET  
NIAGARA-ON-THE-LAKE  
ONTARIO, CANADA

Title  
**EXISTING TREE INVENTORY  
AND PRESERVATION PLAN**  
South Section, 588 Charlotte Street

Project No. 161414045 Scale 1:500

Revision Sheet 7 of 10 Drawing No.

**L-900F**





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Key Map NTS.



Legend

- Dead Standing Tree
- Existing Natural Deciduous Tree
- Existing Natural Coniferous Tree
- Existing Cultural/Planted Deciduous Tree
- Existing Cultural/Planted Coniferous Tree
- Cultural/Planted Tree
- Natural Tree
- Cultural/Planted Trees Within 5m on Adjacent Properties
- Natural Tree Within 5m on Adjacent Properties
- Tree Grouping
- Tree Grouping To Be Removed
- Tree To Be Removed
- Schematic Tree Protection Fencing (TD-1)
- Schematic Tree Protection Hoarding (TD-2)

CRITICAL NOTES:

1. TREE STATUS FOR PRESERVATION OR REMOVAL: PRELIMINARY ONLY. FINAL TREE PRESERVATION/REMOVAL STATUS TO BE BASED ON FINAL ENGINEERING DRAWINGS, INCLUDING GRADING, LAYOUT AND COMPOSITE UTIL PLAN.  
2. TREE PRESERVATION FENCING: THE BARRIER OR CONSERVATION FENCING SHALL BE COORDINATED WITH ARCHITECTURAL CONSERVATION TO MAXIMIZE COORDINATION BETWEEN BUILT HERITAGE CONSERVATION MEASURES AND TREE PRESERVATION. THIS IS SPECIFIC TO TREE PRESERVATION FENCING ONLY AND DOES NOT APPLY TO OTHER TYPES OF FENCING.  
3. CONSERVATION OF THE TREE HOUSE AND RELOCATION OF THE BATH HOUSE: FULLY. NOTE THAT THE DESTRUCTION OF TREE PROTECTION FENCING IS SCHEMATIC ONLY, SHOWING THE MINIMUM DISTANCE FROM THE TREE TRUNK. ACTUALLY, INSTALLATION MAY VARY TO IMPROVE EFFICIENCIES.  
4. KIND OF OF ROADS AND PAVED DRIVEWAYS: JOHN STREET EAST. AS THE GOAL IS TO MAXIMIZE TREE PRESERVATION IN THE "HANDLE" AND SUSTAINABLE EFFORTS, WHERE WARRANTED, THE PEDESTRIAN PATH AND MICRO GRADING MAY BE ADJUSTED DURING CONSTRUCTION TO INCREASE THE NUMBER OF PRESERVED TREES. TREE PRESERVATION FENCING MAY BE ADJUSTED ON SITE TO REFLECT THESE PRESERVATION EFFORTS.

Revision/Issue By Appd YYYY.MM.DD

File Name: 161414045\_L-IVL\_eng site plan\_030822 Dwn. Dsgn. DW/WB 2022.03.10  
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Title

**EXISTING TREE INVENTORY  
AND PRESERVATION PLAN  
TREE INVENTORY CHARTS**

Project No. Scale  
161414045

Revision Sheet Drawing No.  
8 of 10 L-900G

Table 16: Individually Inventoried Trees

Tag #	Botanical Name	Common Name	DBH(cm)	Health (Overall Condition)	Canopy Diameter (m)	Cultural (C) or Natural (N)	Age	Trees to be preserved (Yes or No)
1A	Juglans nigra	Black Walnut	83	3	13	N	100	Y
2A	Juglans nigra	Black Walnut	59	3	11.5	N	40	Y
3A	Quercus alba	White Oak	41	3	5.5	N	40	Y
4A	Carya laciniosa	Big Shell Bark Hickory	43	3	11.5	N	100	Y
5A	Pinus strobus	White Pine	37	3	6	N	20	Y
6A	Pinus strobus	White Pine	44	2	10	N	40	Y
7A	Pinus strobus	White Pine	49	2	7	N	40	Y
1	Gleditsia triacanthos	Honey Locust	73	3	13	N	100	N
2	Pinus strobus	White Pine	36	2	5	C	30	N
3	Pinus sylvestris	Scots Pine						
4*	Pinus sylvestris	Scots Pine	0					Y
5	Fraxinus americana	White Ash	38	0	7	N	30	N
8A	Prunus serotina	Black Cherry	54	1	7	N	30	Y
6	Pinus strobus	White Pine	56	2	8	C	30	N
7	Betula papyrifera	Paper Birch	28	2	4	N	20	Y
8	Betula papyrifera	Paper Birch	29	2	6	N	20	N
9	Acer saccharinum	Silver Maple	32	3	6	N	20	N
10	Aesculus hippocastanum	Horsechestnut	22	3	6	N	20	Y
11	Pinus strobus	White Pine	50	2	7	C	40	N
12	Pinus strobus	White Pine	48	2	7	C	40	N
13	Pinus strobus	White Pine	24	1	4	C	30	N
14	Ailanthus altissima	Tree of Heaven	31	1	4	N	10	N
15*	Fraxinus americana	White Ash	96	0	10	N	70	N
16	Pinus strobus	White Pine	31	0	3	C	30	N
17	Salk nigra	Black Willow	107	1	8	C	50	N
18	Pinus strobus	White Pine	57	2	8	N	40	N
19	Pinus strobus	White Pine	42	2	4	N	20	N
20	Pinus strobus	White Pine	88	3	12	C	100	N
21	Prunus serotina	Black Cherry	60	0	3	N	50	Y
9A	Carya laciniosa	Big Shell Bark Hickory	40	3	5	N	25	Y
10A	Juglans nigra	Black Walnut	44	2	9	N	40	Y
11A	Picea abies	Norway Spruce	39	2	5	N	40	Y
12A	Aesculus hippocastanum	Horsechestnut	46	3	8	C	40	Y
13A	Aesculus hippocastanum	Horsechestnut	22	1	4	N	20	Y
14A	Prunus serotina	Black Cherry	38	1	3	N	30	Y
22	Prunus serotina	Black Cherry	89	1	8	C	60	Y
23	Ailanthus altissima	Tree of Heaven	79	0	0	N	40	N
15A	Ailanthus altissima	Tree of Heaven	24	1	3	N	10	Y
16A	Ailanthus altissima	Tree of Heaven	34	1	5	N	20	Y
17A	Ailanthus altissima	Tree of Heaven	29	1	5	N	20	Y
18A	Gymnocladus dioica	Kentucky Coffee-Tree	45	3	8	C	40	Y
19A	Gymnocladus dioica	Kentucky Coffee-Tree	25	2	5	N	20	Y
20A	Juglans nigra	Black Walnut	31	0	0	N	20	N
21A	Ailanthus altissima	Tree of Heaven	34	1	5	N	20	Y
22A	Juglans nigra	Black Walnut	34	2	4	N	20	Y
23A	Quercus rubra	Red Oak	28	2	7	N	15	Y
24A	Ailanthus altissima	Tree of Heaven	21	2	5	N	10	Y
25A	Juglans nigra	Black Walnut	31	3	6	N	20	Y
26A	Acer patens	Norway Maple	36	1	6	C	20	Y
27A	Juglans nigra	Black Walnut	63	3	15	N	60	Y
28A	Quercus rubra	Red Oak	57	3	11	N	40	Y
24	Ailanthus altissima	Tree of Heaven	24	1	5	N	20	Y
25	Aesculus hippocastanum	Horsechestnut	76	2	13	C	100	Y
26	Aesculus hippocastanum	Horsechestnut	59	2	8	C	100	Y
27	Pinus strobus	White Pine	80	3	12	C	100	N
28	Picea abies	Norway Spruce	74	3	9	C	100	Y
29A	Quercus alba	White Oak	43	3	9	C	50	Y
30A	Picea abies	Norway Spruce	78	3	13	C	100	N
29*	Aesculus hippocastanum	Horsechestnut	79	0	2	C	100	Y
30	Tilia cordata	Little Leaf Linden	24	2	7	C	20	Y
31	Abies pseudotsuga	Douglas Fir	43	2	4	C	100	N
32	Tilia cordata	Little Leaf Linden	29	3	6	C	20	N
33	Picea abies	Norway Spruce	73	3	11	C	100	N
34	Picea abies	Norway Spruce	41	2	9	C	100	N
35	Aesculus hippocastanum	Horsechestnut	75	1	10	C	100	N
36	Abies pseudotsuga	Douglas Fir	25	2	3	C	20	Y
37	Abies pseudotsuga	Douglas Fir	25	2	3	C	20	Y
38*	Pinus strobus	White Pine	50	0	0	C	100	N
39	Pinus strobus	White Pine	51	2	6	C	100	Y
40	Pinus strobus	White Pine	45	2	6	C	100	Y
41	Aesculus hippocastanum	Horsechestnut	27	1	4	N	20	Y
42	Picea abies	Norway Spruce	63	3	8	C	100	N
43	Picea abies	Norway Spruce	47	3	6	C	100	N
44	Picea abies	Norway Spruce	66	3	14	C	100	N
31A	Carya laciniosa	Big Shell Bark Hickory	55	3	11	N	100	Y
45	Picea abies	Norway Spruce	62	3	12	C	100	N
32A	Juglans nigra	Black Walnut	52	3	16	N	75	Y
33A	Ulmus americana	American Elm	25	1	5	N	15	Y
34A	Fraxinus americana	White Ash	22	0	0	N	10	Y
46	Juglans nigra	Black Walnut	27	3	6	N	15	N
47	Quercus rubra	Red Oak	29	2	8	N	25	N
48	Prunus serotina	Black Cherry	35	1	6	N	30	N
49	Pinus strobus	White Pine	70	2	11	C	100	N
50	Juglans nigra	Black Walnut	36	2	10	N	25	Y
51	Pinus sylvestris	Scots Pine	48	2	8	C	50	N
52	Pinus nigra	Austrian Pine	32	1	5	C	50	N
53*	Pinus nigra	Austrian Pine	45	0	7	C	50	N
54	Pinus sylvestris	Scots Pine	46	2	7	C	50	N
55	Pinus sylvestris	Scots Pine	34	1	4	C	50	N
56	Carya laciniosa	Big Shell Bark Hickory	60	3	16	N	100	N

57	Thuja occidentalis	Eastern White Cedar	42	2	4	C	100	N
58	Thuja occidentalis	Eastern White Cedar	41	2	4	C	100	N
59	Pinus sylvestris	Scots Pine	53	2	4	C	100	N
60	Pinus nigra	Austrian Pine	46	0	5	C	100	N
61	Pinus sylvestris	Scots Pine	39	1	5	C	100	N
35A	Juglans nigra	Black Walnut	35	1	5	N	15	Y
36A	Carya laciniosa	Big Shell Bark Hickory	43	3	7	N	75	Y
37A	Carya laciniosa	Big Shell Bark Hickory	42	3	7	N	75	N
62	Pinus sylvestris	Scots Pine	21	1	1	C	50	N
63	Pinus sylvestris	Scots Pine	41	1	5	C	50	N
64	Pinus nigra	Austrian Pine	36	1	4	C	50	N
65*	Pinus nigra	Austrian Pine	39	0	4	C	50	N
66*	Pinus sylvestris	Scots Pine	49	0	8	C	50	N
67*	Pinus nigra	Austrian Pine	33	0	4	C	50	N
68	Pinus sylvestris	Scots Pine	29	1	4	C	50	N
69*	Pinus sylvestris	Scots Pine	36	0	3	C	50	N
70	Pinus nigra	Austrian Pine	56	2	8	C	50	N
38A	Carya laciniosa	Big Shell Bark Hickory	43	3	10	N	75	Y
39A	Carya laciniosa	Big Shell Bark Hickory	37	3	5	N	75	Y
40A	Carya laciniosa	Big Shell Bark Hickory	29	3	5	N	30	Y
71	Quercus alba	White Oak	82	2	10	N	75	Y
72	Quercus alba	White Oak	76	2	15	N	125	Y
73	Quercus rubra	Red Oak	113	1	18	N	225	N
74	Juglans nigra	Black Walnut	44	3	8	N	30	Y
75	Quercus alba	White Oak	74	1	14	N	125	Y
76	Fraxinus americana	White Ash	32	0	5	N	30	Y
41A	Pinus nigra	Austrian Pine	28	1	4	C	20	N
42A	Pinus nigra	Austrian Pine	32	1	10	N	20	N
43A	Pinus nigra	Austrian Pine	45	1	7	C	20	N
44A	Pinus nigra	Austrian Pine	38	1	7	C	20	N
45A	Ulmus pumila	Siberian Elm	59	2	9	N	40	N
46A	Ulmus pumila	Siberian Elm	21	1	3	N	10	N
47A	Ulmus pumila	Siberian Elm	22	2	3	N	10	N
48A	Ulmus pumila	Siberian Elm	23	2	3	N	10	N
49A	Ulmus pumila	Siberian Elm	40	2	5	N	10	N
50A	Ulmus pumila	Siberian Elm	38	2	5	N	10	N
51A	Ulmus pumila	Siberian Elm	36	2	5	N	10	N
52A	Ulmus pumila	Siberian Elm	91	2	14	N	40	Y
53A	Ulmus pumila	Siberian Elm	24	2	5	N	20	Y
54A	Ulmus pumila	Siberian Elm	24	2	5	N	20	Y
60A	Ulmus pumila	Siberian Elm	36	2	8	N	30	Y
61A	Ulmus pumila	Siberian Elm	40	2	8	N	30	Y
77	Pinus nigra	Austrian Pine	33	1	4	C	20	N
78	Ulmus pumila	Siberian Elm	30	2	4	N	20	N
79	Quercus alba	White Oak	92	3	11.5	N	175	Y
80	Quercus alba	White Oak	119	3	23	N	250	Y
81	Aesculus hippocastanum	Horsechestnut	66	2	9	N	50	Y
82	Fraxinus americana	White Ash	23	0	3	N	30	Y
83	Pinus sylvestris	Scots Pine	44	0	3	C	50	N
84	Pinus sylvestris	Scots Pine	43	0	6	C	30	N
85	Pinus sylvestris	Scots Pine	39	0	6	C	30	N
86	Populus deltoides	Cottonwood	24	1	4	N	10	Y
87	Populus deltoides	Cottonwood	35	1	6	N	20	N
88	Picea abies	Norway Spruce	68	2	11	C	75	N
89	Acer platanoides	Norway Maple	22	2	3	N	10	N
90	Morus alba	White Mulberry	42	1	5	N	15	Y
91	Pinus sylvestris	Scots Pine	61	2	8	C	75	N
92	Pinus nigra	Austrian Pine	65	1	10	C	75	N
93	Pinus sylvestris	Scots Pine	43	1	6	C	75	N
94	Pinus nigra	Austrian Pine	48	1	6	C	75	N
95	Cercidiphyllum japonicum	Kotinus	44	2	4	C	20	N
96	Betula nigra	River Birch	31	3	6	C	20	Y
97	Acer rubrum	Red Maple	20	2	6	C	20	Y
98	Pinus strobus	White Pine	25	3	7			



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Key Map NTS.



Legend

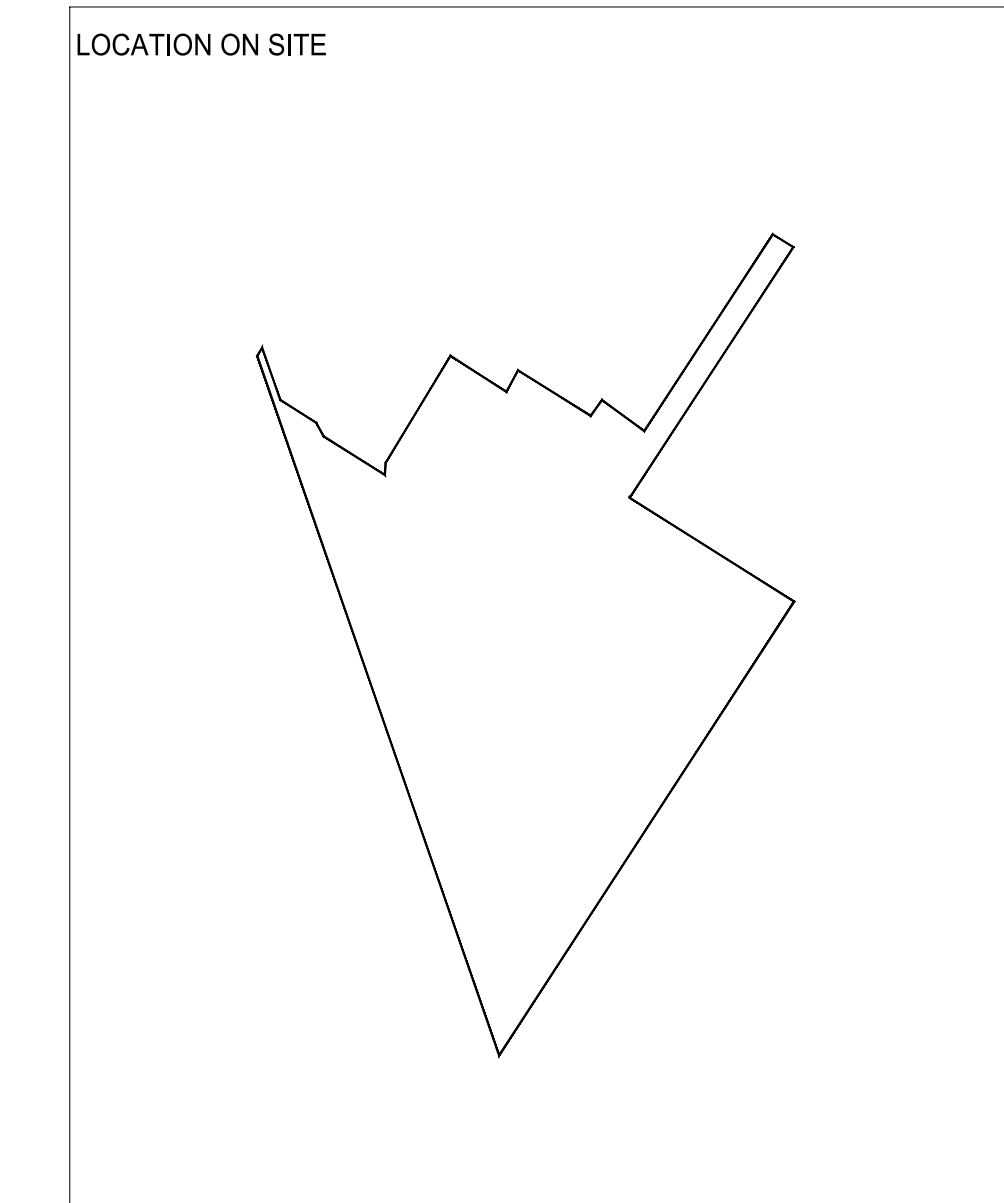
- Dead Standing Tree
- Existing Natural Deciduous Tree
- Existing Natural Coniferous Tree
- Existing Cultural/Planted Deciduous Tree
- Existing Cultural/Planted Coniferous Tree
- Cultural/Planted Tree
- Natural Tree
- Cultural/Planted Trees Within 5m on Adjacent Properties
- Natural Tree Within 5m on Adjacent Properties
- Tree Grouping
- Tree Grouping To Be Removed
- Tree To Be Removed
- Schematic Tree Protection Fencing (TD-1)
- Schematic Tree Protection Hoarding (TD-2)

CRITICAL NOTES:

1. TREE STATUS FOR PRESERVATION OR REMOVAL PRELIMINARY ONLY. FINAL TREE PRESERVATION/REMOVAL STATUS TO BE BASED ON FINAL ENGINEERING DRAWINGS, INCLUDING GRADING, LAYOUT AND COMPOSITE UTILITY PLAN.
2. TREE PRESERVATION FENCING PRELIMINARY ONLY. TO BE COORDINATED WITH ARCHITECTURAL CONSERVATION TO MAXIMIZE COORDINATION BETWEEN BUILT HERITAGE CONSERVATION MEASURES AND TREE PRESERVATION. THIS IS SPECIFIC TO TREE PRESERVATION ALONG STREETS AND TREE PROTECTIVE FENCING AND THE HERITAGE PARK CONSERVATION OF THE TRAM HOUSE AND RELATION OF THE BATH HOUSE POLY. NOTE THAT THE DEPICTION OF TREE PROTECTION FENCING IS SCHEMATIC ONLY SHOWING THE MINIMUM DISTANCE FROM THE TREE TRUNK. ACTUAL INSTALLATION MAY VARY TO IMPROVE EFFICIENCIES.
3. LAYOUT OF ROAD AND PEDESTRIAN PATH OFF JOHN STREET EAST. AS THE GOAL IS TO MAXIMIZE TREE PRESERVATION IN THE "PINNACLE" AND SUSTAINABLE EFFORTS, WHERE WARRANTED, THE PEDESTRIAN PATH AND MICRO GRADING MAY BE ADJUSTED DURING STAKE OUT IF THERE IS AN OPPORTUNITY TO INCREASE THE NUMBER OF PRESERVED TREES. TREE PRESERVATION FENCING MAY BE ADJUSTED ON SITE TO REFLECT THESE PRESERVATION EFFORTS.

Table 17: Inventoried Tree Groupings

Group #	Botanical Name	Common Name	Percentage	Approximate Age (Years)	Trees to be preserved (Yes, No, Partial, or To Be Relocated)
1A	<i>Carya laciniosa</i>	Shell bark Hickory	98	75-100	Yes
	<i>Platanus occidentalis</i>	Sycamore (1 tree)	2		
1	<i>Populus deltoides</i>	Cottonwood (1 tree)	2	30	Partial
	<i>Fraxinus americana</i>	White Ash	49		
	<i>Acer saccharinum</i>	Silver maple	49		
2A	<i>Fraxinus americana</i>	White Ash	35	20-50	Yes
	<i>Quercus alba</i>	White Oak	15		
	<i>Tilia americana</i>	Linden	2		
	<i>Prunus sp.</i>	Sweet Cherry	2		
	<i>Pyrus sp.</i>	Pear	1		
	<i>Carya ovata</i>	Hickory	5		
	<i>Ulmus americana</i>	Elm	10		
	<i>Juglans nigra</i>	Black Walnut	20		
2	<i>Acer negundo</i>	Manitoba Maple	10	20-150	Yes
	<i>Quercus alba</i>	White Oak	20		
	<i>Crataegus sp.</i>	Hawthorn	5		
	<i>Fraxinus americana</i>	White Ash	10		
	<i>Ulmus americana</i>	Elm	5		
	<i>Carya ovata</i>	Shagbark Hickory	35		
	<i>Quercus palustris</i>	Pin Oak	5		
	<i>Populus deltoides</i>	Cottonwood	5		
	<i>Prunus serotina</i>	Black Cherry	5		
	<i>Tilia americana</i>	Linden	5		
3	<i>Gleditsia triacanthos</i>	Honey Locust	5	20-75	No
	<i>Pinus strobus</i>	White Pine	7		
	<i>Picea abies</i>	Norway Spruce	3		
	<i>Fraxinus americana</i>	White Ash	65		
	<i>Quercus alba</i>	White Oak	10		
	<i>Quercus palustris</i>	Pin Oak	10		
4	<i>Juglans nigra</i>	Black Walnut	5	27	Yes
	<i>Pinus nigra</i>	Austrian Pine	80		
	<i>Picea pungens</i>	Blue Spruce	5		
	<i>Pinus strobus</i>	White Pine	5		
	<i>Ulmus pumila</i>	Siberian Elm	2		
	<i>Pinus sylvestris</i>	Scots Pine	3		
	<i>Picea glauca</i>	White Spruce	3		
	<i>Salix discolor</i>	Pussy Willow	2		
5	<i>Syringa sp.</i>	Lilac	100	Existing trunks 30 years, possible regeneration	TBR
6	<i>Prunus pissardii nigra</i>	Purple Plum	100	40	Yes



Revision/Issue By Appd YYYY.MM.DD

File Name: 161414045\_L-1M\_with eng site plan\_0308.22 Dwn. Dsgn. Chkd. DW/WS 2022.03.10 YYYT.MM.DD

Permit-Seal

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SOLMAR

200 JOHN STREET EAST & 588 CHARLOTTE STREET  
NIAGARA-ON-THE-LAKE

ONTARIO, CANADA

Title

**EXISTING TREE INVENTORY  
AND PRESERVATION PLAN  
TREE INVENTORY CHARTS**

Project No. Scale  
161414045

Revision Sheet Drawing No.  
9 of 10 L-900H

