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

June 28, 2021

Prepared for:

Solmar (Niagara 2) Corp.
122 Romina Drive
Concord, ON L4K 4Z7

Prepared by:

Stantec Consulting Ltd.

in Association With:

Buchanan Expert Tree Care Inc.

161414045

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.

Prepared by _____
(signature)

Bill Buchanan, HBSc Forestry
ISA Board Certified Master Arborist NY-0392B

Reviewed by _____
(signature)

David Waverman, CAHP, OALA, CSLA
Senior Landscape Architect

Table of Contents

LIST OF TABLES

LIST OF APPENDICES

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 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 is 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 Dunington-Grubb landscape architect duo.

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.

Note that as per Attachment 6: Guidance to Parties on Expert Reports & Other Disclosure Materials of the March 24, 2021 Procedural Order this Tree Inventory and Arborist Report may vary from the expert report guidelines on the basis that it is not a heritage report, but rather an arborist report.

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).
- June 17^{t} 2021 (Bill Buchanan, Kimberley Beech, David Waverman).

2.0 METHODOLOGY

2.1.1 Report Framework

The report content and structure has been 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.

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 craftsperson 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	Section 7.0

Table 1: Report Framework

Reference #	CRB Report Guidance	Relevant Section
1g	Appendices consisting of: • Fully and clearly replicated historic and archival materials relied upon in the expert report. • Relevant extracts from secondary sources relied upon in the expert report.	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).

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 9th, 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 inventorying 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.
- 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.

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 Diameter (m)	Cultural (C) or Natural (N)	Approx. Age
2	*Pinus strobus*	White Pine	36	2	5	C	30
3	*Pinus sylvestris*	Scots Pine	Tree has been removed (Dead).				
4	*Pinus sylvestris*	Scots Pine	38	0	6	C	30
5	*Fraxinus americana*	White Ash	38	0	7	N	30
6	*Pinus strobus*	White Pine	56	2	8	C	30
7	*Betula papyrifera*	Paper Birch	28	2	4	N	20
8	*Betula papyrifera*	Paper Birch	29	2	6	N	20
9	*Acer saccharinum*	Silver Maple	32	3	6	N	20

10	*Aesculus hippocastanum*	Horsechestnut	22	3	6	N	20
11	*Pinus strobus*	White Pine	50	2	7	C	40
12	*Pinus strobus*	White Pine	48	2	7	C	40
13	*Pinus strobus*	White Pine	24	1	4	C	30
14	*Ailanthus altissima*	Tree of Heaven	31	1	4	N	10
15	*Fraxinus americana*	White Ash	96	0	10	N	70
16	*Pinus strobus*	White Pine	31	0	3	C	30
17	*Salix nigra*	Black Willow	107	1	8	C	50
18	*Pinus strobus*	White Pine	57	2	8	N	40
19	*Pinus strobus*	White Pine	42	2	4	N	20
20	*Pinus strobus*	White Pine	88	3	12	C	100
21	*Prunus serotina*	Black Cherry	60	0	3	N	50
22	*Prunus serotina*	Black Cherry	89	1	8	C	60
23	*Ailanthus altissima*	Tree of Heaven	79	0	0	N	40
24	*Ailanthus altissima*	Tree of Heaven	24	1	5	N	20
25	*Aesculus hippocastanum*	Horsechestnut	76	2	13	C	100
26	*Aesculus hippocastanum*	Horsechestnut	59	2	8	C	100
27	*Pinus strobus*	White Pine	80	3	12	C	100
28	*Picea abies*	Norway Spruce	74	3	9	C	100
29	*Aesculus hippocastanum*	Horsechestnut	79	0	2	C	100
30	*Tilia cordata*	Little Leaf Linden	24	2	7	C	20
31	*Abies pseudotsuga*	Douglas Fir	43	2	4	C	100
32	*Tilia cordata*	Little Leaf Linden	29	3	6	C	20
33	*Picea abies*	Norway Spruce	73	3	11	C	100
34	*Picea abies*	Norway Spruce	61	2	9	C	100
35	*Aesculus hippocastanum*	Horsechestnut	75	1	10	C	100
36	*Abies pseudotsuga*	Douglas Fir	25	2	3	C	20
37	*Abies pseudotsuga*	Douglas Fir	25	2	3	C	20
38	*Pinus strobus*	White Pine	50	0	0	C	100
39	*Pinus strobus*	White Pine	51	2	6	C	100
40	*Pinus strobus*	White Pine	45	2	6	C	100

41	*Aesculus hippocastanum*	Horsechestnut	27	1	4	N	20
42	*Picea abies*	Norway Spruce	63	3	8	C	100
43	*Picea abies*	Norway Spruce	47	3	6	C	100
44	*Picea abies*	Norway Spruce	66	3	14	C	100
45	*Picea abies*	Norway Spruce	62	3	12	C	100
46	*Juglans nigra*	Black Walnut	27	3	6	N	15
47	*Quercus rubra*	Red Oak	29	2	8	N	25
1A	*Juglans nigra*	Black Walnut	83	3	13	N	100
2A	*Juglans nigra*	Black Walnut	59	3	11.5	N	40
3A	*Quercus alba*	White Oak	41	3	5.5	N	40
4A	*Carya laciniosa*	Big Shell Bark Hickory	63	3	11.5	N	100
5A	*Pinus strobus*	White Pine	37	3	6	N	20
6A	*Pinus strobus*	White Pine	44	2	10	N	40
7A	*Pinus strobus*	White Pine	49	2	7	N	40
8A	*Prunus serotina*	Black Cherry	54	1	7	N	30
9A	*Carya laciniosa*	Big Shell Bark Hickory	30	3	5	N	25
10A	*Juglans nigra*	Black Walnut	44	2	9	N	40
11A	*Picea abies*	Norway Spruce	39	2	5	N	40
12A	*Quercus rubra*	Red Oak	46	3	8	C	40
13A	*Aesculus hippocastanum*	Horsechestnut	22	1	4	N	20
14A	*Prunus serotina*	Black Cherry	38	1	3	N	30
15A	*Ailanthus altissima*	Tree of Heaven	24	1	3	N	10
16A	*Ailanthus altissima*	Tree of Heaven	34	1	5	N	20
17A	*Ailanthus altissima*	Tree of Heaven	29	1	5	N	20
18A	*Gymnocladus dioicus*	Kentucky Coffee-Tree	45	3	8	C	40
19A	*Gymnocladus dioicus*	Kentucky Coffee-Tree	25	2	5	N	20
20A	*Juglans nigra*	Black Walnut	31	0	0	N	20
21A	*Ailanthus altissima*	Tree of Heaven	34	1	5	N	20
22A	*Juglans nigra*	Black Walnut	26	2	6	N	20
23A	*Quercus rubra*	Red Oak	28	2	7	N	15
24A	*Ailanthus altissima*	Tree of Heaven	21	2	5	N	10
25A	*Juglans nigra*	Black Walnut	31	3	6	N	20

26A	*Acer platanoides*	Norway Maple	36	1	5	C	20
27A	*Juglans nigra*	Black Walnut	63	3	15	N	60
28A	*Quercus rubra*	Red Oak	57	3	11	N	40
29A	*Quercus alba*	White Oak	43	3	9	C	50
30A	*Picea abies*	Norway Spruce	78	3	13	C	100
31A	*Carya laciniosa*	Big Shell Bark Hickory	55	3	11	N	100
32A	*Juglans nigra*	Black Walnut	52	3	16	N	75
33A	*Ulmus americana*	American Elm	25	1	5	N	15
34A	*Fraxinus americana*	White Ash	22	0	0	N	10

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 where 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 syricus*), and a row of cedar (*Platycladus orientalis*).

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

Tag #	Botanical Name	Common Name	DBH (cm)	Health (Overall Condition)	Canopy Dripline Diameter (m)	Cultural (C) or Natural (N)	Approx. Age
48	*Prunus serotina*	Black cherry	35	1	6	N	30
49	*Pinus strobus*	White Pine	70	2	11	C	100
50	*Juglans nigra*	Black Walnut	36	2	10	N	25
51	*Pinus sylvestris*	Scots Pine	48	2	8	C	50
52	*Pinus nigra*	Austrian Pine	32	1	5	C	50

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

Tag #	Botanical Name	Common Name	DBH (cm)	Health (Overall Condition)	Canopy Dripline Diameter (m)	Cultural (C) or Natural (N)	Approx. Age
53	*Pinus nigra*	Austrian Pine	45	0	7	C	50
54	*Pinus sylvestris*	Scots Pine	46	2	7	C	50
55	*Pinus sylvestris*	Scots Pine	34	1	4	C	50
56	*Carya laciniosa*	Big Shell Bark Hickory	60	3	16	N	100
57	*Thuja occidentalis*	Eastern White Cedar	42	2	4	C	100
58	*Thuja occidentalis*	Eastern White Cedar	41	2	4	C	100
59	*Pinus sylvestris*	Scots Pine	53	2	6	C	100
60	*Pinus nigra*	Austrian Pine	46	0	5	C	100
61	*Pinus sylvestris*	Scots Pine	39	1	5	C	100
62	*Pinus sylvestris*	Scots Pine	21	1	1	C	50
63	*Pinus sylvestris*	Scots Pine	41	1	5	C	50
64	*Pinus nigra*	Austrian Pine	36	1	4	C	50
65	*Pinus nigra*	Austrian Pine	39	0	4	C	50
66	*Pinus sylvestris*	Scots Pine	49	0	8	C	50
67	*Pinus nigra*	Austrian Pine	33	0	4	C	50
68	*Pinus sylvestris*	Scots Pine	29	1	4	C	50
69	*Pinus sylvestris*	Scots Pine	36	0	3	C	50
70	*Pinus nigra*	Austrian Pine	56	2	8	C	50
82	*Fraxinus americana*	White Ash	23	0	3	N	15
83	*Pinus sylvestris*	Scots Pine	44	0	3	C	30
84	*Pinus sylvestris*	Scots Pine	43	0	6	C	30
85	*Pinus sylvestris*	Scots Pine	39	0	6	C	30
86	*Populus deltoides*	Cottonwood	24	1	4	N	10
87	*Populus deltoides*	Cottonwood	35	1	6	N	20
88	*Picea abies*	Norway Spruce	68	2	11	C	75
89	*Acer platanoides*	Norway Maple	22	2	3	N	10
90	*Morus alba*	White Mulberry	42	1	5	N	15
91	*Pinus sylvestris*	Scots Pine	61	2	8	C	75
92	*Pinus nigra*	Austrian Pine	65	1	10	C	75
93	*Pinus sylvestris*	Scots Pine	43	1	6	C	75
94	*Pinus nigra*	Austrian Pine	48	1	6	C	75
95	*Cercidiphyllum japonicum*	Katsura	44	2	4	C	20
96	*Betula nigra*	River Birch	31	3	6	C	20
97	*Acer rubrum*	Red Maple	20	2	6	C	20
98	*Pinus strobus*	White Pine	25	3	7	C	20
99	*Pinus strobus*	White Pine	30	3	7	C	20
100	*Pinus strobus*	White Pine	30	3	7	C	20
101	*Fraxinus americana*	White Ash	27	0	5	N	20
102	*Quercus palustris*	Pin Oak	29	3	6	C	20
103	*Acer rubrum*	Red Oak	23	3	5	C	20
104	*Ulmus pumila*	Siberian Elm	21	3	4	N	10
105	*Metasequoia glyptostroboides*	Dawn Redwood	25	3	5	C	20
106	*Pinus strobus*	White Pine	22	3	7	C	20
107	*Pinus strobus*	White Pine	21	3	7	C	20
108	*Pinus nigra*	Austrian Pine	71	1	11	C	75
109	*Juglans nigra*	Black Walnut	61	2	11	N	50
110	*Ulmus pumila*	Siberian Elm	53	2	10	C	40
111	*Chamaecyparis sp.*	Cypress	42	3	5	C	40
112	*Taxus cuspidata*	Japanese Yew	21	2	5	C	40
147	*Gymnocladus dioicus*	Kentucky Coffee-Tree	32	3	5	C	20
148	*Betula papyrifera*	Paper Birch	23	3	5	C	20
149	*Pinus nigra*	Austrian Pine	38	2	5	C	20
60A	*Ulmus pumila*	Siberian Elm	36	2	8	N	30

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

Tag #	Botanical Name	Common Name	DBH (cm)	Health (Overall Condition)	Canopy Dripline Diameter (m)	Cultural (C) or Natural (N)	Approx. Age
61A	*Ulmus pumila*	Siberian Elm	40	2	8	N	30
62A	*Chamaecyparis sp.*	Cypress	26	3	4	C	20
63A	*Chamaecyparis sp.*	Cypress	26	3	4	C	20
64A	*Acer platanoides*	Norway Maple	50	1	6	C	20
65A	*Acer platanoides*	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						

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.

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 Diameter (m)	Cultural (C) or Natural (N)	Approx. Age
35A	*Juglans nigra*	Black Walnut	35	1	5	N	15
36A	*Carya laciniosa*	Big Shell Bark Hickory	43	3	7	N	75
37A	*Carya laciniosa*	Big Shell Bark Hickory	42	3	7	N	75
38A	*Carya laciniosa*	Big Shell Bark Hickory	43	3	10	N	75
39A	*Carya laciniosa*	Big Shell Bark Hickory	37	3	5	N	75
40A	*Carya laciniosa*	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 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 Diameter (m)	Cultural (C) or Natural (N)	Approx. Age
79	*Quercus alba*	White Oak	92	3	11.5	N	175
80	*Quercus alba*	White Oak	119	3	23	N	250
81	*Aesculus hippocastanum*	Horsechestnut	66	2	9	N	50
66A	*Juglans regia*	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 Diameter (m)	Cultural (C) or Natural (N)	Approx. Age
77	*Pinus nigra*	Austrian Pine	33	1	4	C	20
78	*Ulmus pumila*	Siberian Elm	30	2	4	N	20
41A	*Pinus nigra*	Austrian Pine	28	1	4	C	20
42A	*Pinus nigra*	Austrian Pine	32	1	4	C	20
43A	*Pinus nigra*	Austrian Pine	45	1	7	C	20
44A	*Pinus nigra*	Austrian Pine	38	1	7	C	20
45A	*Ulmus pumila*	Siberian Elm	59	2	9	N	40
46A	*Ulmus pumila*	Siberian Elm	21	2	3	N	10
47A	*Ulmus pumila*	Siberian Elm	22	2	3	N	10
48A	*Ulmus pumila*	Siberian Elm	23	2	3	N	10
49A	*Ulmus pumila*	Siberian Elm	40	2	5	N	10
50A	*Ulmus pumila*	Siberian Elm	38	2	5	N	10
51A	*Ulmus pumila*	Siberian Elm	36	2	5	N	10
52A	*Ulmus pumila*	Siberian Elm	91	2	14	N	40
53A	*Ulmus pumila*	Siberian Elm	24	2	5	N	20
54A	*Ulmus pumila*	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 225 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 Diameter (m)	Cultural (C) or Natural (N)	Approx. Age
71	*Quercus alba*	White Oak	82	2	10	N	75
72	*Quercus alba*	White Oak	76	2	15	N	125
73	*Quercus rubra*	Red Oak	113	1	18	N	225
74	*Juglans nigra*	Black Walnut	44	3	8	N	30
75	*Quercus alba*	White Oak	74	1	14	N	125
76	*Fraxinus americana*	White Ash	32	0	5	N	30

4.0 SUMMARY OF FINDINGS

This report was prepared for the Conservation Review Board (CRB) for the 200 John Street East and 588 Charlotte Street properties. The purpose of this report is 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 and Grubb canon.

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	20
7	Total Number of Dead Trees on Adjacent Properties	2

The following sections outline observations.

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.

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.

4.2.2 North Section

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

Item	Description	Quantity	Percentage
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

Item	Description	Quantity	Percentage
1	Total Number of Individual Trees Inventoried	6	100
2	Total Number of Naturally Occuring 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.

4.2.4 Tree Groupings Summary

Table 15 Summary of Tree Grouping

Tree Group	General Composition: Planted/Cultural or Naturally Occurring	Approx Age of Grouping
1A	Natural Occuring	75-100
1	Natural Occuring	30
2A	Natural Occuring	20-50
2	Natural Occuring	20-150
3	Natural Occuring	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**").

5.0 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

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 16: Individually Inventoried Trees

Tag #	Botanical Name	Common Name	DBH(cm)	Health (Overall Condition)	Canopy Dripline Diameter (m)	Cultural (C) or Natural (N)	Age
1A	*Juglans nigra*	Black Walnut	83	3	13	N	100
2A	*Juglans nigra*	Black Walnut	59	3	11.5	N	40
3A	*Quercus alba*	White Oak	41	3	5.5	N	40
4A	*Carya laciniosa*	Big Shell Bark Hickory	63	3	11.5	N	100
5A	*Pinus strobus*	White Pine	37	3	6	N	20
6A	*Pinus strobus*	White Pine	44	2	10	N	40
7A	*Pinus strobus*	White Pine	49	2	7	N	40
1	*Gleditsia triacanthos*	Honey Locust	73	3	13	N	100
2	*Pinus strobus*	White Pine	36	2	5	C	30
3	*Pinus sylvestris*	Scots Pine	Tree has been removed (Dead).				
4	*Pinus sylvestris*	Scots Pine	38	0	6	C	30
5	*Fraxinus americana*	White Ash	38	0	7	N	30
8A	*Prunus serotina*	Black Cherry	54	1	7	N	30
6	*Pinus strobus*	White Pine	56	2	8	C	30
7	*Betula papyrifera*	Paper Birch	28	2	4	N	20
8	*Betula papyrifera*	Paper Birch	29	2	6	N	20
9	*Acer saccharinum*	Silver Maple	32	3	6	N	20
10	*Aesculus hippocastanum*	Horsechestnut	22	3	6	N	20
11	*Pinus strobus*	White Pine	50	2	7	C	40
12	*Pinus strobus*	White Pine	48	2	7	C	40
13	*Pinus strobus*	White Pine	24	1	4	C	30
14	*Ailanthus altissima*	Tree of Heaven	31	1	4	N	10
15	*Fraxinus americana*	White Ash	96	0	10	N	70
16	*Pinus strobus*	White Pine	31	0	3	C	30
17	*Salix nigra*	Black Willow	107	1	8	C	50
18	*Pinus strobus*	White Pine	57	2	8	N	40
19	*Pinus strobus*	White Pine	42	2	4	N	20
20	*Pinus strobus*	White Pine	88	3	12	C	100
21	*Prunus serotina*	Black Cherry	60	0	3	N	50
9A	*Carya laciniosa*	Big Shell Bark Hickory	30	3	5	N	25
10A	*Juglans nigra*	Black Walnut	44	2	9	N	40
11A	*Picea abies*	Norway Spruce	39	2	5	N	40
12A	*Quercus rubra*	Red Oak	46	3	8	C	40
13A	*Aesculus hippocastanum*	Horsechestnut	22	1	4	N	20
14A	*Prunus serotina*	Black Cherry	38	1	3	N	30
22	*Prunus serotina*	Black Cherry	89	1	8	C	60
23	*Ailanthus altissima*	Tree of Heaven	79	0	0	N	40
15A	*Ailanthus altissima*	Tree of Heaven	24	1	3	N	10
16A	*Ailanthus altissima*	Tree of Heaven	34	1	5	N	20
17A	*Ailanthus altissima*	Tree of Heaven	29	1	5	N	20
18A	*Gymnocladus dioicus*	Kentucky Coffee-Tree	45	3	8	C	40
19A	*Gymnocladus dioicus*	Kentucky Coffee-Tree	25	2	5	N	20
20A	*Juglans nigra*	Black Walnut	31	0	0	N	20
21A	*Ailanthus altissima*	Tree of Heaven	34	1	5	N	20
22A	*Juglans nigra*	Black Walnut	26	2	6	N	20
23A	*Quercus rubra*	Red Oak	28	2	7	N	15
24A	*Ailanthus altissima*	Tree of Heaven	21	2	5	N	10
25A	*Juglans nigra*	Black Walnut	31	3	6	N	20
26A	*Acer platanoides*	Norway Maple	36	1	5	C	20
27A	*Juglans nigra*	Black Walnut	63	3	15	N	60
28A	*Quercus rubra*	Red Oak	57	3	11	N	40
24	*Ailanthus altissima*	Tree of Heaven	24	1	5	N	20
25	*Aesculus hippocastanum*	Horsechestnut	76	2	13	C	100
26	*Aesculus hippocastanum*	Horsechestnut	59	2	8	C	100
27	*Pinus strobus*	White Pine	80	3	12	C	100
28	*Picea abies*	Norway Spruce	74	3	9	C	100
29A	*Quercus alba*	White Oak	43	3	9	C	50
30A	*Picea abies*	Norway Spruce	78	3	13	C	100
29	*Aesculus hippocastanum*	Horsechestnut	79	0	2	C	100
30	*Tilia cordata*	Little Leaf Linden	24	2	7	C	20
31	*Abies pseudotsuga*	Douglas Fir	43	2	4	C	100
32	*Tilia cordata*	Little Leaf Linden	29	3	6	C	20
33	*Picea abies*	Norway Spruce	73	3	11	C	100
34	*Picea abies*	Norway Spruce	61	2	9	C	100
35	*Aesculus hippocastanum*	Horsechestnut	75	1	10	C	100
36	*Abies pseudotsuga*	Douglas Fir	25	2	3	C	20
37	*Abies pseudotsuga*	Douglas Fir	25	2	3	C	20
38	*Pinus strobus*	White Pine	50	0	0	C	100
39	*Pinus strobus*	White Pine	51	2	6	C	100
40	*Pinus strobus*	White Pine	45	2	6	C	100
41	*Aesculus hippocastanum*	Horsechestnut	27	1	4	N	20
42	*Picea abies*	Norway Spruce	63	3	8	C	100
43	*Picea abies*	Norway Spruce	47	3	6	C	100
44	*Picea abies*	Norway Spruce	66	3	14	C	100
31A	*Carya laciniosa*	Big Shell Bark Hickory	55	3	11	N	100
45	*Picea abies*	Norway Spruce	62	3	12	C	100
32A	*Juglans nigra*	Black Walnut	52	3	16	N	75
33A	*Ulmus americana*	American Elm	25	1	5	N	15

34A	*Fraxinus americana*	White Ash	22	0	0	N	10
46	*Juglans nigra*	Black Walnut	27	3	6	N	15
47	*Quercus rubra*	Red Oak	29	2	8	N	25
48	*Prunus serotina*	Black cherry	35	1	6	N	30
49	*Pinus strobus*	White Pine	70	2	11	C	100
50	*Juglans nigra*	Black Walnut	36	2	10	N	25
51	*Pinus sylvestris*	Scots Pine	48	2	8	C	50
52	*Pinus nigra*	Austrian Pine	32	1	5	C	50
53	*Pinus nigra*	Austrian Pine	45	0	7	C	50
54	*Pinus sylvestris*	Scots Pine	46	2	7	C	50
55	*Pinus sylvestris*	Scots Pine	34	1	4	C	50
56	*Carya laciniosa*	Big Shell Bark Hickory	60	3	16	N	100
57	*Thuja occidentalis*	Eastern White Cedar	42	2	4	C	100
58	*Thuja occidentalis*	Eastern White Cedar	41	2	4	C	100
59	*Pinus sylvestris*	Scots Pine	53	2	6	C	100
60	*Pinus nigra*	Austrian Pine	46	0	5	C	100
61	*Pinus sylvestris*	Scots Pine	39	1	5	C	100
35A	*Juglans nigra*	Black Walnut	35	1	5	N	15
36A	*Carya laciniosa*	Big Shell Bark Hickory	43	3	7	N	75
37A	*Carya laciniosa*	Big Shell Bark Hickory	42	3	7	N	75
62	*Pinus sylvestris*	Scots Pine	21	1	1	C	50
63	*Pinus sylvestris*	Scots Pine	41	1	5	C	50
64	*Pinus nigra*	Austrian Pine	36	1	4	C	50
65	*Pinus nigra*	Austrian Pine	39	0	4	C	50
66	*Pinus sylvestris*	Scots Pine	49	0	8	C	50
67	*Pinus nigra*	Austrian Pine	33	0	4	C	50
68	*Pinus sylvestris*	Scots Pine	29	1	4	C	50
69	*Pinus sylvestris*	Scots Pine	36	0	3	C	50
70	*Pinus nigra*	Austrian Pine	56	2	8	C	50
38A	*Carya laciniosa*	Big Shell Bark Hickory	43	3	10	N	75
39A	*Carya laciniosa*	Big Shell Bark Hickory	37	3	5	N	75
40A	*Carya laciniosa*	Big Shell Bark Hickory	29	3	5	N	30
71	*Quercus alba*	White Oak	82	2	10	N	75
72	*Quercus alba*	White Oak	76	2	15	N	125
73	*Quercus rubra*	Red Oak	113	1	18	N	225
74	*Juglans nigra*	Black Walnut	44	3	8	N	30
75	*Quercus alba*	White Oak	74	1	14	N	125
76	*Fraxinus americana*	White Ash	32	0	5	N	30
41A	*Pinus nigra*	Austrian Pine	28	1	4	C	20
42A	*Pinus nigra*	Austrian Pine	32	1	4	C	20
43A	*Pinus nigra*	Austrian Pine	45	1	7	C	20
44A	*Pinus nigra*	Austrian Pine	38	1	7	C	20
45A	*Ulmus pumila*	Siberian Elm	59	2	9	N	40
46A	*Ulmus pumila*	Siberian Elm	21	2	3	N	10
47A	*Ulmus pumila*	Siberian Elm	22	2	3	N	10
48A	*Ulmus pumila*	Siberian Elm	23	2	3	N	10
49A	*Ulmus pumila*	Siberian Elm	40	2	5	N	10
50A	*Ulmus pumila*	Siberian Elm	38	2	5	N	10
51A	*Ulmus pumila*	Siberian Elm	36	2	5	N	10
52A	*Ulmus pumila*	Siberian Elm	91	2	14	N	40
53A	*Ulmus pumila*	Siberian Elm	24	2	5	N	20
54A	*Ulmus pumila*	Siberian Elm	24	2	5	N	20
60A	*Ulmus pumila*	Siberian Elm	36	2	8	N	30
61A	*Ulmus pumila*	Siberian Elm	40	2	8	N	30
77	*Pinus nigra*	Austrian Pine	33	1	4	C	20
78	*Ulmus pumila*	Siberian Elm	30	2	4	N	20
79	*Quercus alba*	White Oak	92	3	11.5	N	175
80	*Quercus alba*	White Oak	119	3	23	N	250
81	*Aesculus hippocastanum*	Horsechestnut	66	2	9	N	50
82	*Fraxinus americana*	White Ash	23	0	3	N	15
83	*Pinus sylvestris*	Scots Pine	44	0	3	C	30
84	*Pinus sylvestris*	Scots Pine	43	0	6	C	30
85	*Pinus sylvestris*	Scots Pine	39	0	6	C	30
86	*Populus deltoides*	Cottonwood	24	1	4	N	10
87	*Populus deltoides*	Cottonwood	35	1	6	N	20
88	*Picea abies*	Norway Spruce	68	2	11	C	75
89	*Acer platanoides*	Norway Maple	22	2	3	N	10
90	*Morus alba*	White Mulberry	42	1	5	N	15
91	*Pinus sylvestris*	Scots Pine	61	2	8	C	75
92	*Pinus nigra*	Austrian Pine	65	1	10	C	75
93	*Pinus sylvestris*	Scots Pine	43	1	6	C	75
94	*Pinus nigra*	Austrian Pine	48	1	6	C	75
95	*Cercidiphyllum japonicum*	Katsura	44	2	4	C	20
96	*Betula nigra*	River Birch	31	3	6	C	20
97	*Acer rubrum*	Red Maple	20	2	6	C	20
98	*Pinus strobus*	White Pine	25	3	7	C	20
99	*Pinus strobus*	White Pine	30	3	7	C	20
100	*Pinus strobus*	White Pine	30	3	7	C	20
101	*Fraxinus americana*	White Ash	27	0	5	N	20
102	*Quercus palustris*	Pin Oak	29	3	6	C	20
103	*Acer rubrum*	Red Oak	23	3	5	C	20
104	*Ulmus pumila*	Siberian Elm	21	3	4	N	10
105	*Metasequoia glyptostroboides*	Dawn Redwood	25	3	5	C	20
106	*Pinus strobus*	White Pine	22	3	7	C	20
107	*Pinus strobus*	White Pine	21	3	7	C	20

108	*Pinus nigra*	Austrian Pine	71	1	11	C	75
109	*Juglans nigra*	Black Walnut	61	2	11	N	50
110	*Ulmus pumila*	Siberian Elm	53	2	10	C	40
111	*Chamaecyparis sp.*	Cypress	42	3	5	C	40
112	*Taxus cuspidata*	Japanese Yew	21	2	5	C	40
147	*Gymnocladus dioicus*	Kentucky Coffee-Tree	32	3	5	C	20
148	*Betula papyrifera*	Paper Birch	23	3	5	C	20
149	*Pinus nigra*	Austrian Pine	38	2	5	C	20
62A	*Chamaecyparis sp.*	Cypress	26	3	4	C	20
63A	*Chamaecyparis sp.*	Cypress	26	3	4	C	20
64A	*Acer platanoides*	Norway Maple	50	1	6	C	20
65A	*Acer platanoides*	Norway Maple	50	1	6	C	20
66A	*Juglans regia*	Persian Walnut	55	3	12	C	40
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

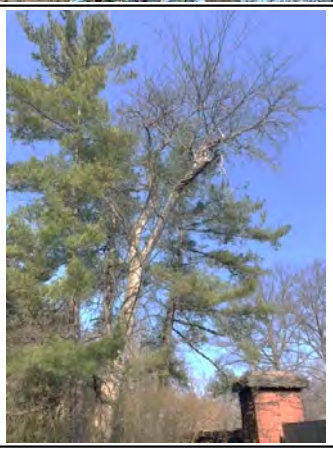
Table 17: Inventoried Tree Groupings

Group #	Botanical Name	Common Name	Percentage	Approximate Age (Years)
1A	*Carya laciniosa*	Shell bark Hickory	98	75-100
	Platanus occidentalis	Syacmore (1 tree)	2	
1	*Populus deltoides*	Cottonwood (1 tree)	2	30
	Fraxinus americana	White Ash	49	
	Acer saccharinum	Silver maple	49	
2A	*Fraxinus americana*	White Ash	35	20-50
	Quercus alba	White Oak	15	
	Tilia americana	Linden	2	
	Prunus sp.	Sweet Cherry	2	
	Pyrus sp.	Pear	1	
	Carya ovata	Hickory	5	
	Ulmus americana	Elm	10	
	Juglans nigra	Black Walnut	20	
	Acer negundo	Manitoba Maple	10	
2	*Quercus alba*	White Oak	20	20-150
	Crataegus sp.	Hawthorn	5	
	Fraxinus americana	White Ash	10	
	Ulmus americana	Elm	5	
	Carya ovata	Shagbark Hickory	35	
	Quercus palustris	Pin Oak	5	
	Populus deltoides	Cottonwood	5	
	Prunus serotina	Black Cherry	5	
	Tilia americana	Linden	5	
	Gleditsia triacanthos	Honey Locust	5	
3	*Pinus strobus*	White Pine	7	20-75
	Picea abies	Norway Spruce	3	
	Fraxinus americana	White Ash	65	
	Quercus alba	White Oak	10	
	Quercus palustris	Pin Oak	10	
	Juglans nigra	Black Walnut	5	
4	*Pinus nigra*	Austrian Pine	80	27
	Picea pungens	Blue Spruce	5	
	Pinus strobus	White Pine	5	
	Ulmus pumila	Siberian Elm	2	
	Pinus sylvestris	Scots Pine	3	
	Picea glauca	White Spruce	3	
	Salix discolor	Pussy Willow	2	
5	*Syringa sp.*	Lilac	100	Existing trunks 30 years, possible regeneration
6	*Prunus Pissardii nigra*	Purple Plum	100	40

APPENDIX C

Photographic Inventory

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

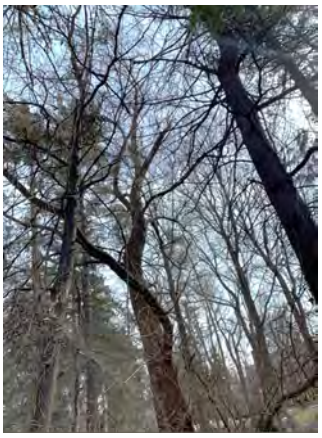
5A	*Pinus strobus*	White Pine	
6A	*Pinus strobus*	White Pine	
7A	*Pinus strobus*	White Pine	
1	*Gleditsia triacanthos*	Honey Locust	

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

8A	*Prunus serotina*	Black Cherry	
6	*Pinus strobus*	White Pine	
7	*Betula papyrifera*	Paper Birch	
8	*Betula papyrifera*	Paper Birch	

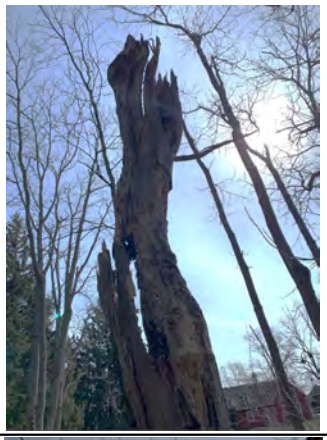
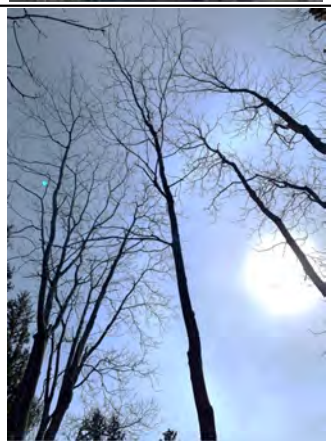
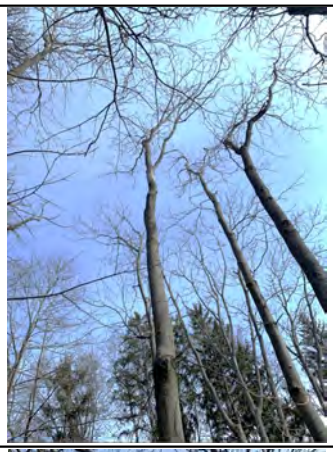
9	*Acer saccharinum*	Silver Maple		
10	*Aesculus hippocastanum*	Horsechestnut		
11	*Pinus strobus*	White Pine		
12	*Pinus strobus*	White Pine		

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

17	*Salix nigra*	Black Willow	
18	*Pinus strobus*	White Pine	
19	*Pinus strobus*	White Pine	
20	*Pinus strobus*	White Pine	

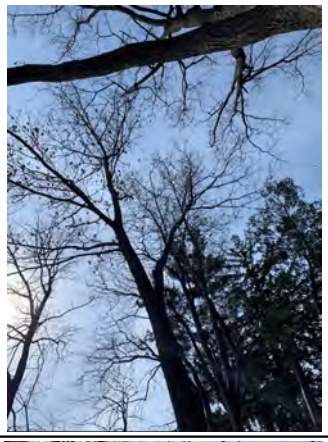
21	*Prunus serotina*	Black Cherry	
9A	*Carya laciniosa*	Big Shell Bark Hickory	
10A	*Juglans nigra*	Black Walnut	
11A	*Picea abies*	Norway Spruce	

12A	*Quercus rubra*	Red Oak		
13A	*Aesculus hippocastanum*	Horsechestnut		
14A	*Prunus serotina*	Black Cherry		
22	*Prunus serotina*	Black Cherry		

23	*Ailanthus altissima*	Tree of Heaven	
15A	*Ailanthus altissima*	Tree of Heaven	
16A	*Ailanthus altissima*	Tree of Heaven	
17A	*Ailanthus altissima*	Tree of Heaven	

18A	*Gymnocladus dioicus*	Kentucky Coffee-Tree		
19A	*Gymnocladus dioicus*	Kentucky Coffee-Tree		
20A	*Juglans nigra*	Black Walnut		
21A	*Ailanthus altissima*	Tree of Heaven		

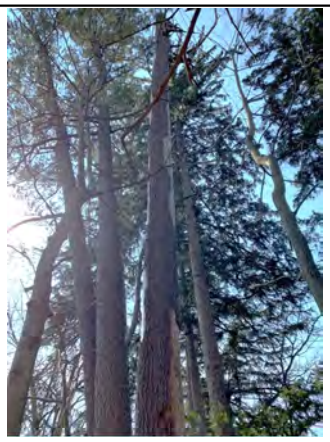
22A	*Juglans nigra*	Black Walnut	
23A	*Quercus rubra*	Red Oak	
24A	*Ailanthus altissima*	Tree of Heaven	
25A	*Juglans nigra*	Black Walnut	

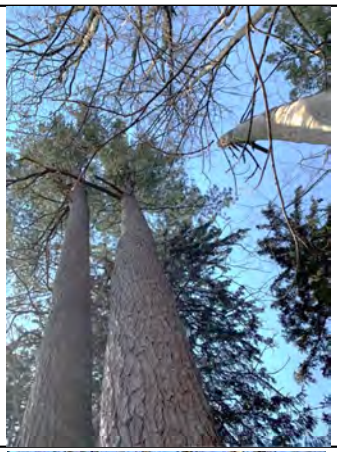
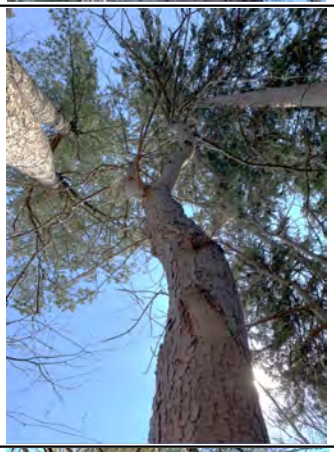
26A	*Acer platanoides*	Norway Maple	
27A	*Juglans nigra*	Black Walnut	
28A	*Quercus rubra*	Red Oak	
24	*Ailanthus altissima*	Tree of Heaven	

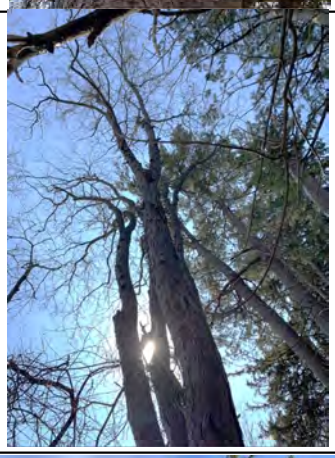
25	*Aesculus hippocastanum*	Horsechestnut		
26	*Aesculus hippocastanum*	Horsechestnut		
27	*Pinus strobus*	White Pine		
28	*Picea abies*	Norway Spruce		

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

31	*Abies pseudotsuga*	Douglas Fir	
32	*Tilia cordata*	Little Leaf Linden	
33	*Picea abies*	Norway Spruce	
34	*Picea abies*	Norway Spruce	

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

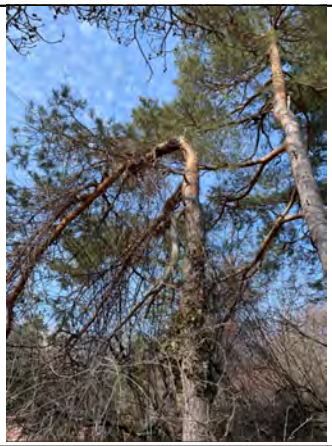
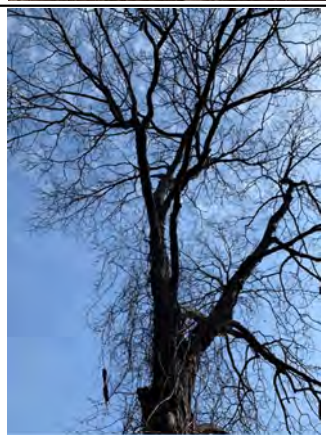
39	*Pinus strobus*	White Pine		
40	*Pinus strobus*	White Pine		
41	*Aesculus hippocastanum*	Horsechestnut		
42	*Picea abies*	Norway Spruce		

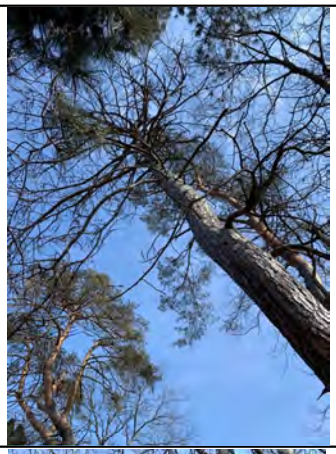
43	*Picea abies*	Norway Spruce	
44	*Picea abies*	Norway Spruce	
31A	*Carya laciniosa*	Big Shell Bark Hickory	
45	*Picea abies*	Norway Spruce	

32A	*Juglans nigra*	Black Walnut		
33A	*Ulmus americana*	American Elm		
34A	*Fraxinus american*	White Ash		
46	*Juglans nigra*	Black Walnut		

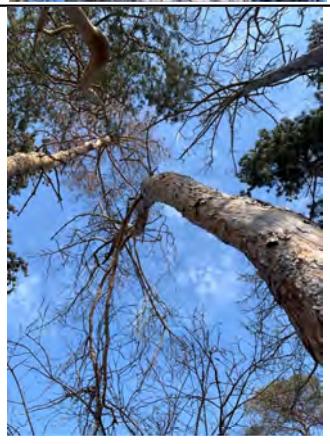
47	*Quercus rubra*	Red Oak		
48	*Prunus serotina*	Black cherry		
49	*Pinus strobus*	White Pine		
50	*Juglans nigra*	Black Walnut		

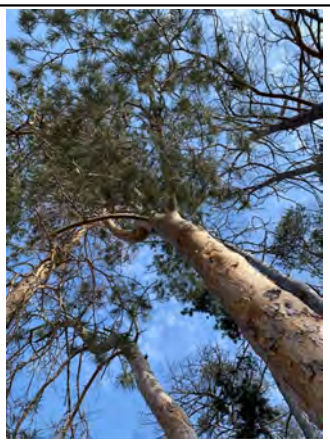
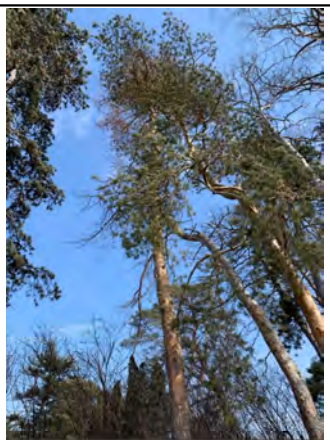
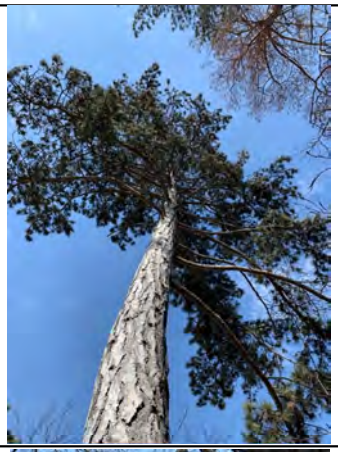
51	*Pinus sylvestris*	Scots Pine	
52	*Pinus nigra*	Austrian Pine	
53	*Pinus nigra*	Austrian Pine	
54	*Pinus sylvestris*	Scots Pine	

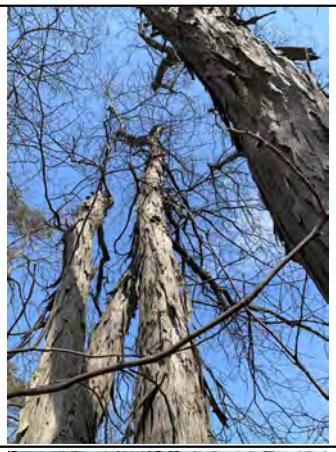
55	*Pinus sylvestris*	Scots Pine		
56	*Carya laciniosa*	Big Shell Bark Hickory		
57	*Thuja occidentalis*	Eastern White Cedar		
58	*Thuja occidentalis*	Eastern White Cedar		

59	*Pinus sylvestris*	Scots Pine		
60	*Pinus nigra*	Austrian Pine		
61	*Pinus sylvestris*	Scots Pine		
35A	*Juglans nigra*	Black Walnut		

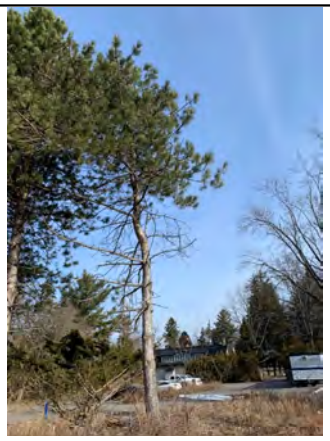
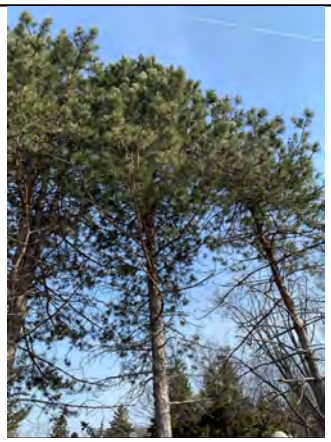
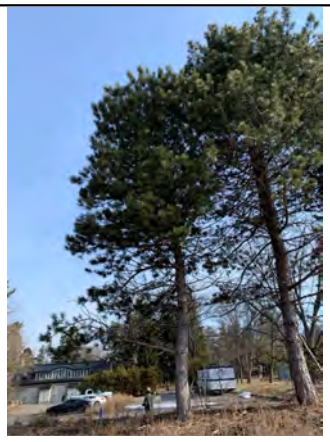
36A	*Carya laciniosa*	Big Shell Bark Hickory		
37A	*Carya laciniosa*	Big Shell Bark Hickory		
62	*Pinus sylvestris*	Scots Pine		
63	*Pinus sylvestris*	Scots Pine		

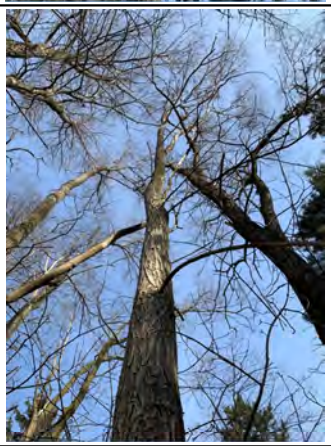
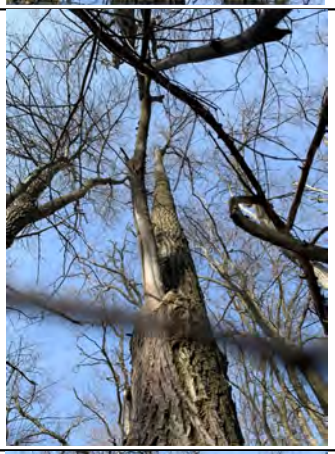
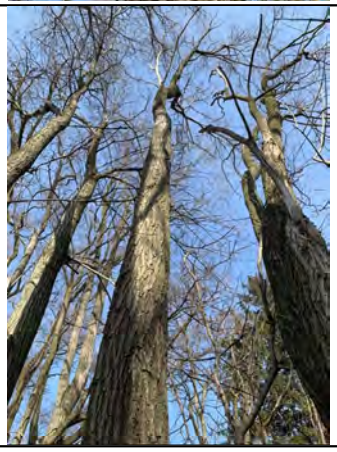
64	*Pinus nigra*	Austrian Pine	
65	*Pinus nigra*	Austrian Pine	
66	*Pinus sylvestris*	Scots Pine	
67	*Pinus nigra*	Austrian Pine	

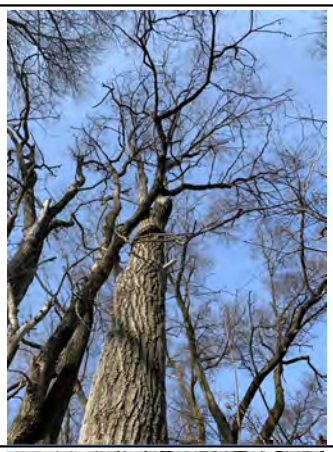
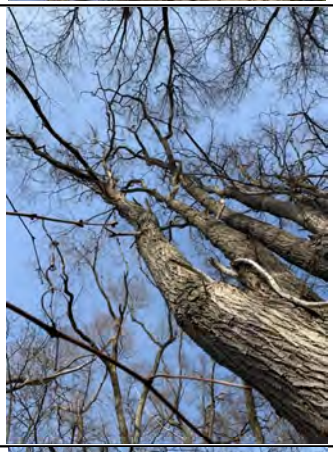
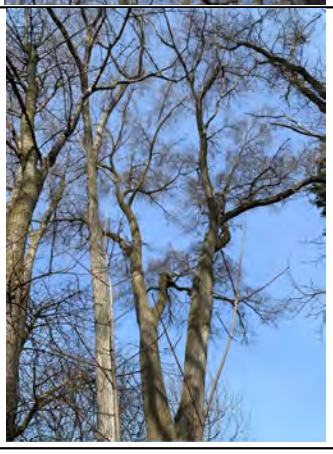
68	*Pinus sylvestris*	Scots Pine		
69	*Pinus sylvestris*	Scots Pine		
70	*Pinus nigra*	Austrian Pine		
38A	*Carya laciniosa*	Big Shell Bark Hickory		

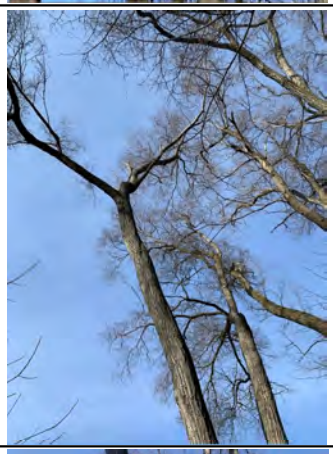
39A	*Carya laciniosa*	Big Shell Bark Hickory		
40A	*Carya laciniosa*	Big Shell Bark Hickory		
71	*Quercus alba*	White Oak		
72	*Quercus alba*	White Oak		

73	*Quercus rubra*	Red Oak		
74	*Juglans nigra*	Black Walnut		
75	*Quercus alba*	White Oak		
76	*Fraxinus americana*	White Ash		

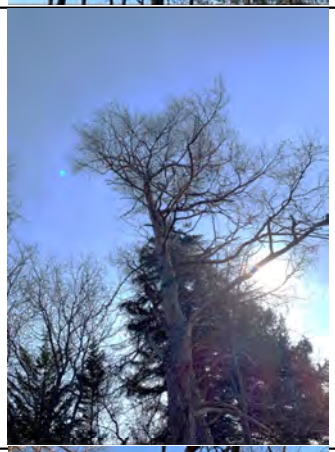
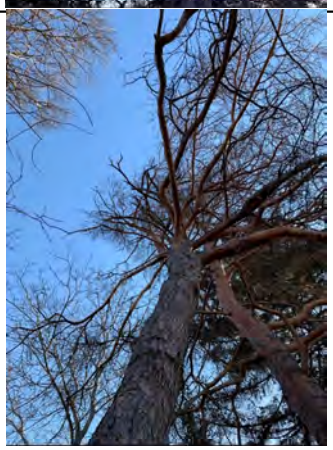
41A	*Pinus nigra*	Austrian Pine	
42A	*Pinus nigra*	Austrian Pine	
43A	*Pinus nigra*	Austrian Pine	
44A	*Pinus nigra*	Austrian Pine	

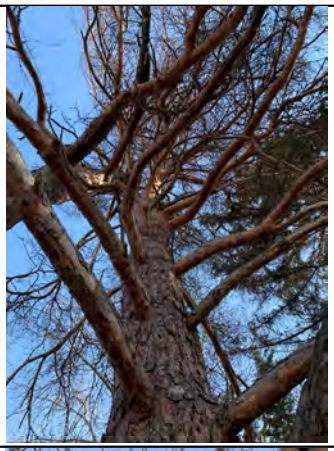
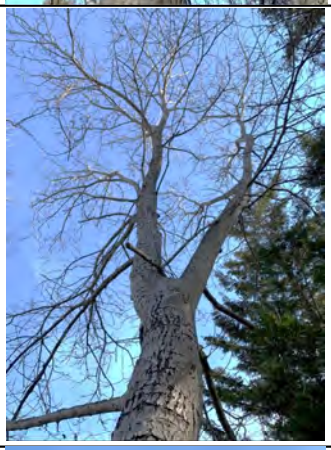
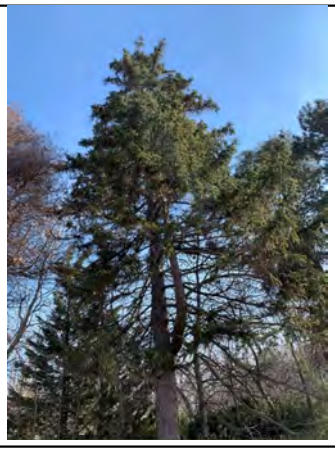
45A	*Ulmus pumila*	Siberian Elm		
46A	*Ulmus pumila*	Siberian Elm		
47A	*Ulmus pumila*	Siberian Elm		
48A	*Ulmus pumila*	Siberian Elm		

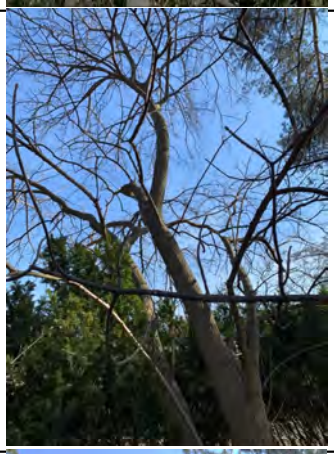
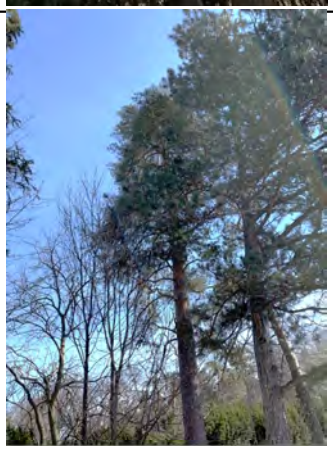
49A	*Ulmus pumila*	Siberian Elm	
50A	*Ulmus pumila*	Siberian Elm	
51A	*Ulmus pumila*	Siberian Elm	
52A	*Ulmus pumila*	Siberian Elm	

53A	*Ulmus pumila*	Siberian Elm	
54A	*Ulmus pumila*	Siberian Elm	
60A	*Ulmus pumila*	Siberian Elm	
61A	*Ulmus pumila*	Siberian Elm	

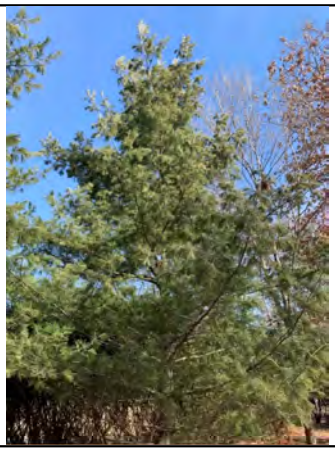
77	*Pinus nigra*	Austrian Pine		
78	*Ulmus pumila*	Siberian Elm		
79	*Quercus alba*	White Oak		
80	*Quercus alba*	White Oak		

81	*Aesculus hippocastanum*	Horsechestnut		
82	*Fraxinus americana*	White Ash		
83	*Pinus sylvestris*	Scots Pine		
84	*Pinus sylvestris*	Scots Pine		

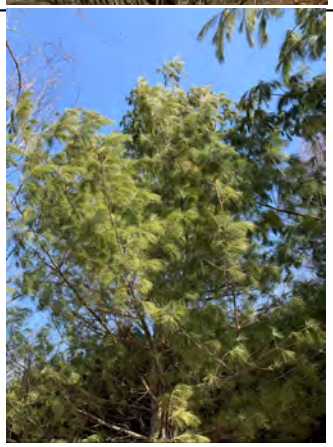
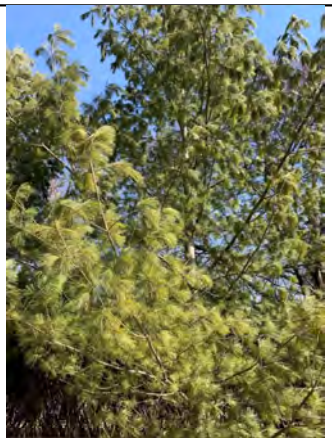
85	*Pinus sylvestris*	Scots Pine			
86	*Populus deltoides*	Cottonwood			
87	*Populus deltoides*	Cottonwood			
88	*Picea abies*	Norway Spruce			

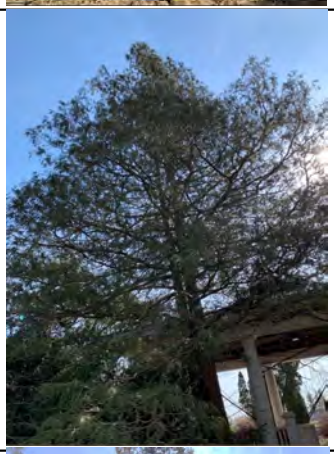
89	*Acer platanoides*	Norway Maple			
90	*Morus alba*	White Mulberry			
91	*Pinus sylvestris*	Scots Pine			
92	*Pinus nigra*	Austrian Pine			

93	*Pinus sylvestris*	Scots Pine		
94	*Pinus nigra*	Austrian Pine		
95	*Cercidiphyllum japonicum*	Katsura		
96	*Betula nigra*	River Birch		

97	*Acer rubrum*	Red Maple			
98	*Pinus strobus*	White Pine			
99	*Pinus strobus*	White Pine			
100	*Pinus strobus*	White Pine			

101	*Fraxinus americana*	White Ash		
102	*Quercus palustris*	Pin Oak		
103	*Acer rubrum*	Red Oak		
104	*Ulmus pumila*	Siberian Elm		

105	*Metasequoia glyptostroboides*	Dawn Redwood		
106	*Pinus strobus*	White Pine		
107	*Pinus strobus*	White Pine		
108	*Pinus nigra*	Austrian Pine		

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

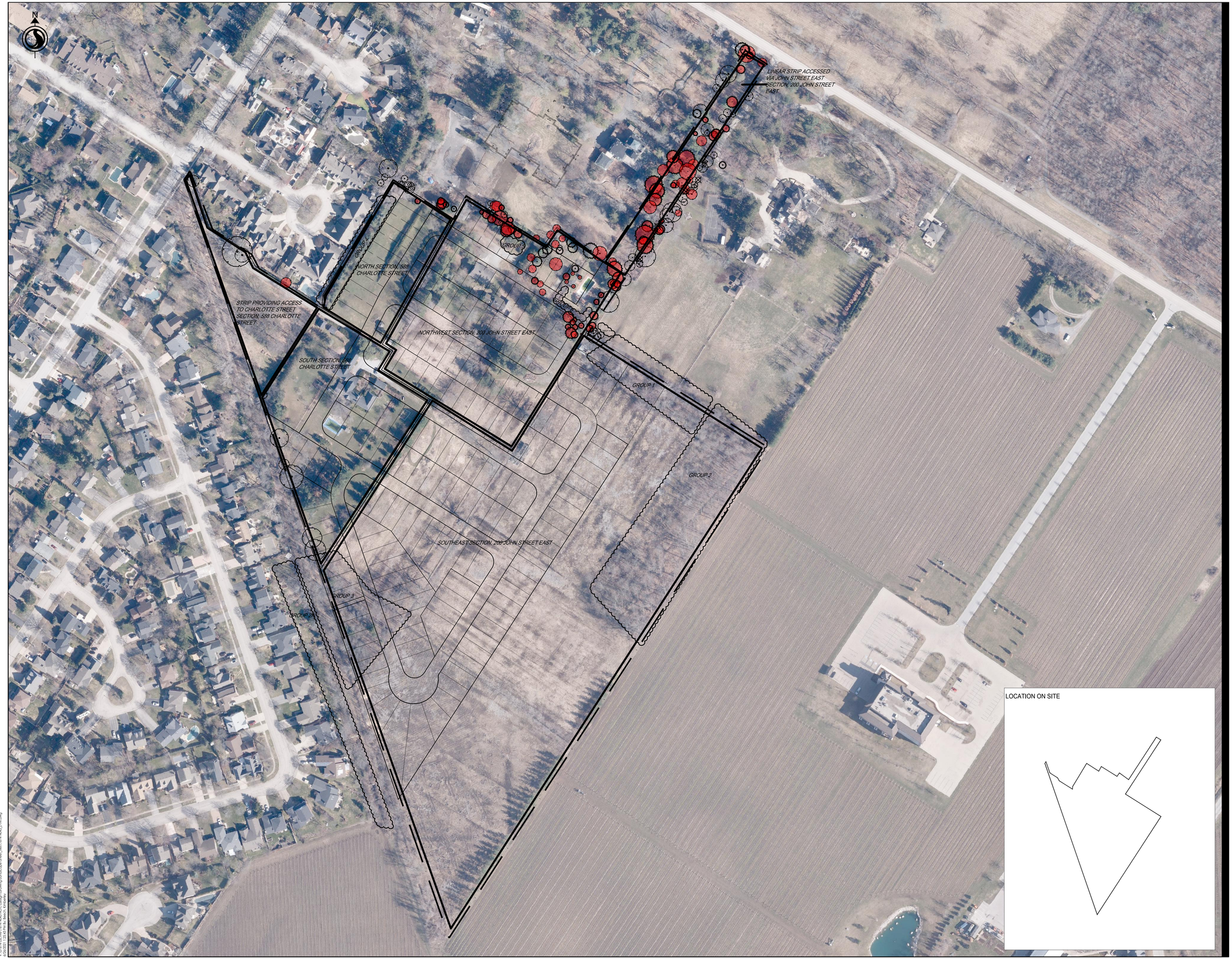
147	*Gymnocladus dioicus*	Kentucky Coffee-Tree		
148	*Betula papyrifera*	Paper Birch		
149	*Pinus nigra*	Austrian Pine		
62A	*Chamaecyparis sp.*	*Cypress*		

63A	*Chamaecyparis sp.*	Cypress			
64A	*Acer platanoides*	Norway Maple			
65A	*Acer platanoides*	Norway Maple			
BW1	Buxus sp.	Boxwood			

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

APPENDIX D

Tree Inventory Plans



V:\01614\active\161414045 NOTL\design\drawing\landscape\sheet_files\161414045_L-TM.dwg
6/26/2021 1:25:43 PM By: Beech, Kimberley

ORIGINAL SHEET - ARCH D

Stantec

Stantec Consulting Ltd.
100-300 Hagey Boulevard
Waterloo ON N2L 0A4
Tel: (519) 579-4410
www.stantec.com

BUCHANAN
expert tree care

Copyright Reserved

Key Map NTS.

Legend

⊠	Dead Standing Tree
⊙	Existing Natural Deciduous Tree
⊙	Existing Natural Coniferous Tree
◎	Existing Cultural Deciduous Tree
◎	Existing Cultural Coniferous Tree
0000	Cultural Tree
0000	Natural Tree
000A	Cultural Trees Within 5m on Adjacent Properties
000A	Natural Tree Within 5m on Adjacent Properties
☁	Tree Grouping

Revision/Issue	By	Appd	YYYY.MM.DD

File Name: 161414045_L-TM	KB		DW/WB	2021.04.09
	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Permit-Seal

**PRELIMINARY
NOT FOR
CONSTRUCTION**

Not for permits, pricing or other official purposes. This document has not been completed or checked and is for general information or comment only.

Client/Project
SOLMAR

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

ONTARIO, CANADA

Title
EXISTING TREE INVENTORY PLAN
FULL SITE

Project No.
161414045

Scale
1:1250

Revision

Sheet
1 of 8

Drawing No.
L-900

Stantec

Stantec Consulting Ltd.
100-300 Hagey Boulevard
Waterloo ON N2L 0A4
Tel: (519) 579-4410
www.stantec.com

BUCHANAN
expert tree care

Key Map NTS.

Legend

- Dead Standing Tree
- Existing Natural Deciduous Tree
- Existing Natural Coniferous Tree
- Existing Cultural Deciduous Tree
- Existing Cultural Coniferous Tree
- 0000 Cultural Tree
- 0000 Natural Tree
- 000A Cultural Trees Within 5m on Adjacent Properties
- 000A Natural Tree Within 5m on Adjacent Properties
- Tree Grouping

Revision/Issue	By	Appd	YYYY.MM.DD

File Name: 161414045_L-TM	KB		DW/WB	2021.04.09
	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Permit-Seal

PRELIMINARY
NOT FOR
CONSTRUCTION

Not for permits, pricing or other official purposes. This document has not been completed or checked and is for general information or comment only.

Client/Project
SOLMAR

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

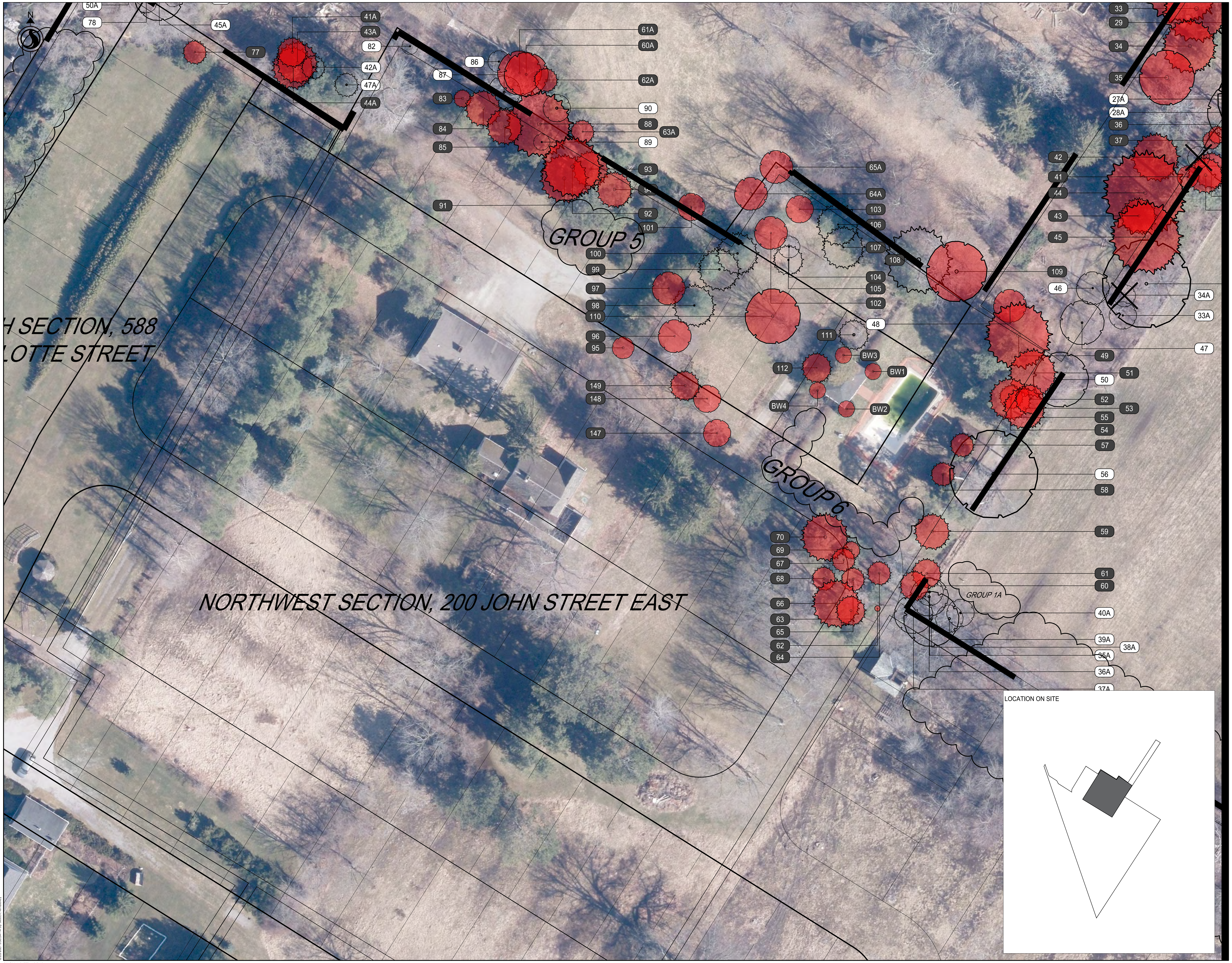
ONTARIO, CANADA

Title
EXISTING TREE INVENTORY PLAN
Linear Strip Accessed via John Street East
Section, 200 John Street East

Project No.	Scale
161414045	1:500

Revision	Sheet	Drawing No.
	2 of 8	**L-900A**

ORIGINAL SHEET - ARCH D



Stantec

Stantec Consulting Ltd.
100-300 Hagey Boulevard
Waterloo ON N2L 0A4
Tel: (519) 579-4410
www.stantec.com

BUCHANAN
expert tree care

Key Map NTS.

Legend

- Dead Standing Tree
- Existing Natural Deciduous Tree
- Existing Natural Coniferous Tree
- Existing Cultural Deciduous Tree
- Existing Cultural Coniferous Tree
- 0000 Cultural Tree
- 0000 Natural Tree
- 000A Cultural Trees Within 5m on Adjacent Properties
- 000A Natural Tree Within 5m on Adjacent Properties
- Tree Grouping

Revision/Issue	By	Appd	YYYY.MM.DD

File Name: 161414045_L-TM	KB		DW/WB	2021.04.09
	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Permit-Seal

PRELIMINARY NOT FOR CONSTRUCTION

Not for permits, pricing or other official purposes. This document has not been completed or checked and is for general information or comment only.

Client/Project

SOLMAR

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

ONTARIO, CANADA

Title

EXISTING TREE INVENTORY PLAN
Northwest Section, 200 John Street East

Project No.	Scale
161414045	1:300

Revision	Sheet	Drawing No.
	3 of 8	L-900B

ORIGINAL SHEET - ARCH D

Stantec

Stantec Consulting Ltd.
100-300 Hagey Boulevard
Waterloo ON N2L 0A4
Tel: (519) 579-4410
www.stantec.com

BUCHANAN
expert tree care

Key Map NTS.

Legend

- Dead Standing Tree
- Existing Natural Deciduous Tree
- Existing Natural Coniferous Tree
- Existing Cultural Deciduous Tree
- Existing Cultural Coniferous Tree
- 0000 Cultural Tree
- 0000 Natural Tree
- 000A Cultural Trees Within 5m on Adjacent Properties
- 000A Natural Tree Within 5m on Adjacent Properties
- Tree Grouping

Revision/Issue		By	Appd	YYYY.MM.DD
File Name: 161414045_L-TM	KB		DW/WB	2021.04.09
	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Permit-Seal

PRELIMINARY NOT FOR CONSTRUCTION

Not for permits, pricing or other official purposes. This document has not been completed or checked and is for general information or comment only.

Client/Project

SOLMAR

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

ONTARIO, CANADA

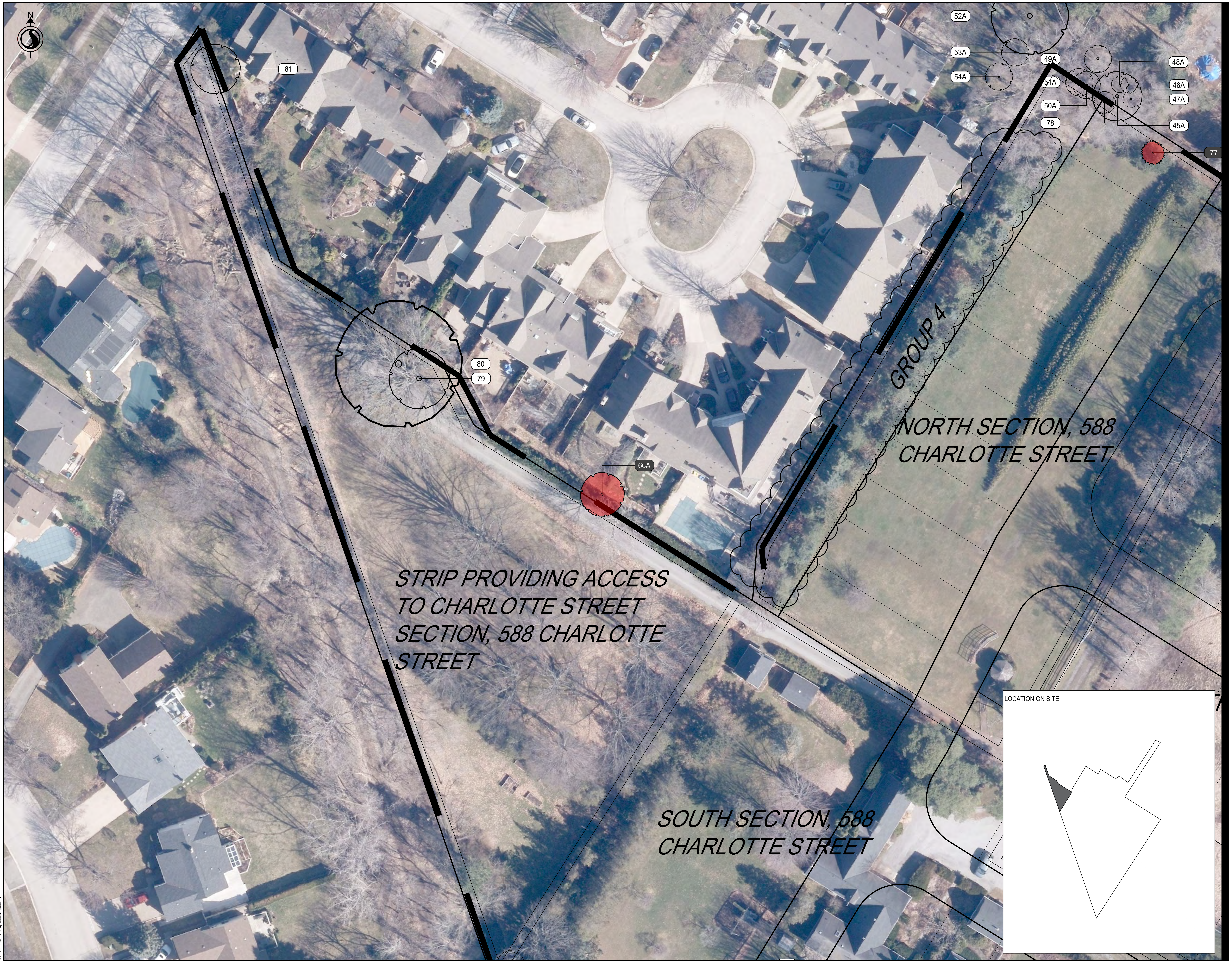
Title

EXISTING TREE INVENTORY PLAN
Southeast Section, 200 John Street East

Project No.	Scale
161414045	1:750

Revision	Sheet	Drawing No.
	4 of 8	L-900C

ORIGINAL SHEET - ARCH D



Stantec

Stantec Consulting Ltd.
100-300 Hagey Boulevard
Waterloo ON N2L 0A4
Tel: (519) 579-4410
www.stantec.com

BUCHANAN expert tree care

Key Map NTS.

Legend

- Dead Standing Tree
- Existing Natural Deciduous Tree
- Existing Natural Coniferous Tree
- Existing Cultural Deciduous Tree
- Existing Cultural Coniferous Tree
- 0000 Cultural Tree
- 0000 Natural Tree
- 000A Cultural Trees Within 5m on Adjacent Properties
- 000A Natural Tree Within 5m on Adjacent Properties
- Tree Grouping

Revision/Issue	By	Appd	YYYY.MM.DD

File Name: 161414045_L-TM	KB		DW/WB	2021.04.09
	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Permit-Seal

PRELIMINARY NOT FOR CONSTRUCTION

Not for permits, pricing or other official purposes. This document has not been completed or checked and is for general information or comment only.

Client/Project

SOLMAR

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

ONTARIO, CANADA

Title

EXISTING TREE INVENTORY PLAN
Strip Providing Access to Charlotte Street Section, 588 Charlotte Street

Project No.	Scale
161414045	1:300

Revision	Sheet	Drawing No.
	4 of 8	**L-900D**

ORIGINAL SHEET - ARCH D

Stantec

Stantec Consulting Ltd.
100-300 Hagey Boulevard
Waterloo ON N2L 0A4
Tel: (519) 579-4410
www.stantec.com

BUCHANAN
expert tree care

Key Map NTS.

Legend

- Dead Standing Tree
- Existing Natural Deciduous Tree
- Existing Natural Coniferous Tree
- Existing Cultural Deciduous Tree
- Existing Cultural Coniferous Tree
- 0000 Cultural Tree
- 0000 Natural Tree
- 000A Cultural Trees Within 5m on Adjacent Properties
- 000A Natural Tree Within 5m on Adjacent Properties
- Tree Grouping

Revision/Issue	By	Appd	YYYY.MM.DD

File Name: 161414045_L-TM	KB		DW/WB	2021.04.09
	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Permit-Seal

PRELIMINARY NOT FOR CONSTRUCTION

Not for permits, pricing or other official purposes. This document has not been completed or checked and is for general information or comment only.

Client/Project
SOLMAR

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

ONTARIO, CANADA

Title
EXISTING TREE INVENTORY PLAN
North Section, 588 Charolette Street

Project No.	Scale
161414045	1:250

Revision	Sheet	Drawing No.
	5 of 8	L-900E

ORIGINAL SHEET - ARCH D

Stantec

Stantec Consulting Ltd.
100-300 Hagey Boulevard
Waterloo ON N2L 0A4
Tel: (519) 579-4410
www.stantec.com

BUCHANAN
expert tree care

Key Map NTS.

Legend

- Dead Standing Tree
- Existing Natural Deciduous Tree
- Existing Natural Coniferous Tree
- Existing Cultural Deciduous Tree
- Existing Cultural Coniferous Tree
- 0000 Cultural Tree
- 0000 Natural Tree
- 000A Cultural Trees Within 5m on Adjacent Properties
- 000A Natural Tree Within 5m on Adjacent Properties
- Tree Grouping

Revision/Issue	By	Appd	YYYY.MM.DD

File Name: 161414045_L-TM	KB		DW/WB	2021.04.09
	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Permit-Seal

PRELIMINARY NOT FOR CONSTRUCTION

Not for permits, pricing or other official purposes. This document has not been completed or checked and is for general information or comment only.

Client/Project
SOLMAR

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

ONTARIO, CANADA

Title
EXISTING TREE INVENTORY PLAN
South Section, 588 Charolette Street

Project No. 161414045
Scale 1:500

Revision
Sheet 5 of 8
Drawing No. **L-900F**

ORIGINAL SHEET - ARCH D

Tag #	Botanical Name	Common Name	DBH(cm)	Health (Overall Condition)	Canopy Dripline Diameter (m)	Cultural (C) or Natural (N)	Age
1A	*Juglans nigra*	Black Walnut	83	3	13	N	100
2A	*Juglans nigra*	Black Walnut	59	3	11.5	N	40
3A	*Quercus alba*	White Oak	41	3	5.5	N	40
4A	*Carya laciniosa*	Big Shell Bark Hickory	63	3	11.5	N	100
5A	*Pinus strobus*	White Pine	37	3	6	N	20
6A	*Pinus strobus*	White Pine	44	2	10	N	40
7A	*Pinus strobus*	White Pine	49	2	7	N	40
1	*Gleditsia triacanthos*	Honey Locust	73	3	13	N	100
2	*Pinus strobus*	White Pine	36	2	5	C	30
3	*Pinus sylvestris*	Scots Pine	38	1	5	C	30
4	*Pinus sylvestris*	Scots Pine	38	0	6	C	30
5	*Fraxinus americana*	White Ash	38	0	7	N	30
8A	*Prunus serotina*	Black Cherry	54	1	7	N	30
6	*Pinus strobus*	White Pine	56	2	8	C	30
7	*Betula papyrifera*	Paper Birch	28	2	4	N	20
8	*Betula papyrifera*	Paper Birch	29	2	6	N	20
9	*Acer saccharinum*	Silver Maple	32	3	6	N	20
10	*Aesculus hippocastanum*	Horsechestnut	22	3	6	N	20
11	*Pinus strobus*	White Pine	50	2	7	C	40
12	*Pinus strobus*	White Pine	48	2	7	C	40
13	*Pinus strobus*	White Pine	24	1	4	C	30
14	*Ailanthus altissima*	Tree of Heaven	31	1	4	N	10
15	*Fraxinus americana*	White Ash	96	0	10	N	70
16	*Pinus strobus*	White Pine	31	0	3	C	30
17	*Salix nigra*	Black Willow	107	1	8	C	50
18	*Pinus strobus*	White Pine	57	2	8	N	40
19	*Pinus strobus*	White Pine	42	2	4	N	20
20	*Pinus strobus*	White Pine	88	3	12	C	100
21	*Prunus serotina*	Black Cherry	60	0	3	N	50
9A	*Carya laciniosa*	Big Shell Bark Hickory	30	3	5	N	25
10A	*Juglans nigra*	Black Walnut	44	2	9	N	40
11A	*Picea abies*	Norway Spruce	39	2	5	N	40
12A	*Quercus rubra*	Red Oak	46	3	8	C	40
13A	*Aesculus hippocastanum*	Horsechestnut	22	1	4	N	20
14A	*Prunus serotina*	Black Cherry	38	1	3	N	30
22	*Prunus serotina*	Black Cherry	89	1	8	C	60
23	*Ailanthus altissima*	Tree of Heaven	79	0	0	N	40
15A	*Ailanthus altissima*	Tree of Heaven	24	1	3	N	10
16A	*Ailanthus altissima*	Tree of Heaven	34	1	5	N	20
17A	*Ailanthus altissima*	Tree of Heaven	29	1	5	N	20
18A	*Gymnocladus dioicus*	Kentucky Coffee Tree	45	3	8	C	40
19A	*Gymnocladus dioicus*	Kentucky Coffee Tree	25	2	5	N	20
20A	*Juglans nigra*	Black Walnut	31	0	0	N	20
21A	*Ailanthus altissima*	Tree of Heaven	34	1	5	N	20
22A	*Juglans nigra*	Black Walnut	26	2	6	N	20
23A	*Quercus rubra*	Red Oak	28	2	7	N	15
24A	*Ailanthus altissima*	Tree of Heaven	21	2	5	N	10
25A	*Juglans nigra*	Black Walnut	31	3	6	N	20
26A	*Acer platanoides*	Norway Maple	36	1	5	C	20
27A	*Juglans nigra*	Black Walnut	63	3	15	N	60
28A	*Quercus rubra*	Red Oak	57	3	11	N	40
24	*Ailanthus altissima*	Tree of Heaven	24	1	5	N	20
25	*Aesculus hippocastanum*	Horsechestnut	76	2	13	C	100
26	*Aesculus hippocastanum*	Horsechestnut	59	2	8	C	100
27	*Pinus strobus*	White Pine	80	3	12	C	100
28	*Picea abies*	Norway Spruce	74	3	9	C	100
29A	*Quercus alba*	White Oak	43	3	9	C	50
30A	*Picea abies*	Norway Spruce	78	3	13	C	100
29	*Aesculus hippocastanum*	Horsechestnut	79	0	2	C	100
30	*Tilia cordata*	Little Leaf Linden	24	2	7	C	20
31	*Abies pseudotsuga*	Douglas Fir	43	2	4	C	100
32	*Tilia cordata*	Little Leaf Linden	29	3	6	C	20
33	*Picea abies*	Norway Spruce	73	3	11	C	100
34	*Picea abies*	Norway Spruce	61	2	9	C	100
35	*Aesculus hippocastanum*	Horsechestnut	75	1	10	C	100
36	*Abies pseudotsuga*	Douglas Fir	25	2	3	C	20
37	*Abies pseudotsuga*	Douglas Fir	25	2	3	C	20
38	*Pinus strobus*	White Pine	50	0	0	C	100
39	*Pinus strobus*	White Pine	51	2	6	C	100
40	*Pinus strobus*	White Pine	45	2	6	C	100
41	*Aesculus hippocastanum*	Horsechestnut	27	1	4	N	20
42	*Picea abies*	Norway Spruce	63	3	8	C	100
43	*Picea abies*	Norway Spruce	47	3	6	C	100
44	*Picea abies*	Norway Spruce	66	3	14	C	100
31A	*Carya laciniosa*	Big Shell Bark Hickory	55	3	11	N	100
45	*Picea abies*	Norway Spruce	62	3	12	C	100
32A	*Juglans nigra*	Black Walnut	52	3	16	N	75
33A	*Ulmus americana*	American Elm	25	1	5	N	15
34A	*Fraxinus americana*	White Ash	22	0	0	N	10
46	*Juglans nigra*	Black Walnut	27	3	6	N	15
47	*Quercus rubra*	Red Oak	29	2	8	N	25
48	*Prunus serotina*	Black cherry	35	1	6	N	30
49	*Pinus strobus*	White Pine	70	2	11	C	100
50	*Juglans nigra*	Black Walnut	36	2	10	N	25
51	*Pinus sylvestris*	Scots Pine	48	2	8	C	50
52	*Pinus nigra*	Austrian Pine	32	1	5	C	50
53	*Pinus nigra*	Austrian Pine	45	0	7	C	50
54	*Pinus sylvestris*	Scots Pine	46	2	7	C	50
55	*Pinus sylvestris*	Scots Pine	34	1	4	C	50
56	*Carya laciniosa*	Big Shell Bark Hickory	60	3	16	N	100
57	*Thuja occidentalis*	Eastern White Cedar	42	2	4	C	100
58	*Thuja occidentalis*	Eastern White Cedar	41	2	4	C	100
59	*Pinus sylvestris*	Scots Pine	53	2	6	C	100
60	*Pinus nigra*	Austrian Pine	46	0	5	C	100
61	*Pinus sylvestris*	Scots Pine	39	1	5	C	100
35A	*Juglans nigra*	Black Walnut	35	1	5	N	15
36A	*Carya laciniosa*	Big Shell Bark Hickory	43	3	7	N	75
37A	*Carya laciniosa*	Big Shell Bark Hickory	42	3	7	N	75
62	*Pinus sylvestris*	Scots Pine	21	1	1	C	50
63	*Pinus sylvestris*	Scots Pine	41	1	5	C	50
64	*Pinus nigra*	Austrian Pine	36	1	4	C	50
65	*Pinus nigra*	Austrian Pine	39	0	4	C	50
66	*Pinus sylvestris*	Scots Pine	49	0	8	C	50
67	*Pinus nigra*	Austrian Pine	33	0	4	C	50
68	*Pinus sylvestris*	Scots Pine	29	1	4	C	50
69	*Pinus sylvestris*	Scots Pine	36	0	3	C	50
70	*Pinus nigra*	Austrian Pine	56	2	8	C	50
38A	*Carya laciniosa*	Big Shell Bark Hickory	43	3	10	N	75
39A	*Carya laciniosa*	Big Shell Bark Hickory	37	3	5	N	75
40A	*Carya laciniosa*	Big Shell Bark Hickory	29	3	5	N	30
71	*Quercus alba*	White Oak	82	2	10	N	75
72	*Quercus alba*	White Oak	76	2	15	N	125
73	*Quercus rubra*	Red Oak	113	1	18	N	225
74	*Juglans nigra*	Black Walnut	44	3	8	N	30
75	*Quercus alba*	White Oak	74	1	14	N	125
76	*Fraxinus americana*	White Ash	32	0	5	N	30
41A	*Pinus nigra*	Austrian Pine	28	1	4	C	20
42A	*Pinus nigra*	Austrian Pine	32	1	4	C	20
43A	*Pinus nigra*	Austrian Pine	45	1	7	C	20
44A	*Pinus nigra*	Austrian Pine	38	1	7	C	20
45A	*Ulmus pumila*	Siberian Elm	59	2	9	N	40
46A	*Ulmus pumila*	Siberian Elm	21	2	3	N	10
47A	*Ulmus pumila*	Siberian Elm	22	2	3	N	10
48A	*Ulmus pumila*	Siberian Elm	23	2	3	N	10
49A	*Ulmus pumila*	Siberian Elm	40	2	5	N	10
50A	*Ulmus pumila*	Siberian Elm	38	2	5	N	10
51A	*Ulmus pumila*	Siberian Elm	36	2	5	N	10
52A	*Ulmus pumila*	Siberian Elm	91	2	14	N	40
53A	*Ulmus pumila*	Siberian Elm	24	2	5	N	20
54A	*Ulmus pumila*	Siberian Elm	24	2	5	N	20
60A	*Ulmus pumila*	Siberian Elm	36	2	8	N	30
61A	*Ulmus pumila*	Siberian Elm	40	2	8	N	30
77	*Pinus nigra*	Austrian Pine	33	1	4	C	20
78	*Ulmus pumila*	Siberian Elm	30	2	4	N	20
79	*Quercus alba*	White Oak	92	3	11.5	N	175
80	*Quercus alba*	White Oak	119	3	23	N	250
81	*Aesculus hippocastanum*	Horsechestnut	66	2	9	N	50
82	*Fraxinus americana*	White Ash	23	0	3	N	15
83	*Pinus sylvestris*	Scots Pine	44	0	3	C	30
84	*Pinus sylvestris*	Scots Pine	43	0	6	C	30
85	*Pinus sylvestris*	Scots Pine	39	0	6	C	30
86	*Populus deltoides*	Cottonwood	24	1	4	N	10
87	*Populus deltoides*	Cottonwood	35	1	6	N	20
88	*Picea abies*	Norway Spruce	68	2	11	C	75
89	*Acer platanoides*	Norway Maple	22	2	3	N	10
90	*Morus alba*	White Mulberry	42	1	5	N	15
91	*Pinus sylvestris*	Scots Pine	61	2	8	C	75
92	*Pinus nigra*	Austrian Pine	65	1	10	C	75
93	*Pinus sylvestris*	Scots Pine	43	1	6	C	75
94	*Pinus nigra*	Austrian Pine	48	1	6	C	75
95	*Cercidiphyllum japonicum*	Katsura	44	2	4	C	20
96	*Betula nigra*	River Birch	31	3	6	C	20
97	*Acer rubrum*	Red Maple	20	2	6	C	20
98	*Pinus strobus*	White Pine	25	3	7	C	20
99	*Pinus strobus*	White Pine	30	3	7	C	20
100	*Pinus strobus*	White Pine	30	3	7	C	20
101	*Fraxinus americana*	White Ash	27	0	5	N	20
102	*Quercus palustris*	Pin Oak	29	3	6	C	20
103	*Acer rubrum*	Red Oak	23	3	5	C	20
104	*Ulmus pumila*	Siberian Elm	21	3	4	N	10
105	*Metasequoia glyptostroboides*	Dawn Redwood	25	3	5	C	20
106	*Pinus strobus*	White Pine	22	3	7	C	20
107	*Pinus strobus*	White Pine	21	3	7	C	20
108	*Pinus nigra*	Austrian Pine	71	1	11	C	75
109	*Juglans nigra*	Black Walnut	61	2	11	N	50
110	*Ulmus pumila*	Siberian Elm	53	2	10	C	40
111	*Chamaecyparis sp.*	Cypress	42	3	5	C	40
112	*Taxus cuspidata*	Japanese Yew	21	2	5	C	40
147	*Gymnocladus dioicus*	Kentucky Coffee-Tree	32	3	5	C	20
148	*Betula papyrifera*	Paper Birch	23	3	5	C	20
149	*Pinus nigra*	Austrian Pine	38	2	5	C	20
62A	*Chamaecyparis sp.*	Cypress	26	3	4	C	20
63A	*Chamaecyparis sp.*	Cypress	26	3	4	C	20
64A	*Acer platanoides*	Norway Maple	50	1	6	C	20
65A	*Acer platanoides*	Norway Maple	50	1	6	C	20
66A	*Juglans regia*	Persian Walnut	55	3	12	C	40
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

TREE INVENTORY CONDUCTED ON MARCH 8TH & 10TH 2021 BY:
BILL BUCHANAN, HBSCFORESTRY, ISA BOARD CERTIFIED MASTER ARBORIST NY-0392B
DAVID WAVERMAN, CSLA, OALA, CAHP
FRANK SMITH, MA
KIMBERLEY BEECH, MLA

Stantec

Stantec Consulting Ltd.
100-300 Hagey Boulevard
Waterloo ON N2L 0A4
Tel: (519) 579-4410
www.stantec.com

BUCHANAN
expert tree care

Key Map NTS.

Legend
- Dead Standing Tree
- Existing Natural Deciduous Tree
- Existing Natural Coniferous Tree
- Existing Cultural Deciduous Tree
- Existing Cultural Coniferous Tree
- (0000) Cultural Tree
- (0000) Natural Tree
- (000A) Cultural Trees Within 5m on Adjacent Properties
- (000A) Natural Tree Within 5m on Adjacent Properties
- Tree Grouping

Revision/Issue	By	Appd	YYYY.MM.DD

File Name: 161414045_L-TM	KB		DW/WB	2021.04.09
	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Permit-Seal

PRELIMINARY NOT FOR CONSTRUCTION

Not for permits, pricing or other official purposes. This document has not been completed or checked and is for general information or comment only.

Client/Project
SOLMAR

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

ONTARIO, CANADA

Title
EXISTING TREE INVENTORY PLAN
TREE INVENTORY CHARTS

Project No. 161414045
Scale

Revision
Sheet 6 of 8
Drawing No. **L-900G**

ORIGINAL SHEET - ARCH D

Group #	Botanical Name	Common Name	Percentage	Approximate Age (Years)
1A	*Carya laciniosa*	Shell bark Hickory	98	75-100
	Platanus occidentalis	Syacmore (1 tree)	2	
1	*Populus deltoides*	Cottonwood (1 tree)	2	30
	Fraxinus americana	White Ash	49	
	Acer saccharinum	Silver maple	49	
2A	*Fraxinus americana*	White Ash	35	20-50
	Quercus alba	White Oak	15	
	Tilia americana	Linden	2	
	Prunus sp.	Sweet Cherry	2	
	Pyrus sp.	Pear	1	
	Carya ovata	Hickory	5	
	Ulmus americana	Elm	10	
	Juglans nigra	Black Walnut	20	
	Acer negundo	Manitoba Maple	10	
2	*Quercus alba*	White Oak	20	20-150
	Crataegus sp.	Hawthorn	5	
	Fraxinus americana	White Ash	10	
	Ulmus americana	Elm	5	
	Carya ovata	Shagbark Hickory	35	
	Quercus palustris	Pin Oak	5	
	Populus deltoides	Cottonwood	5	
	Prunus serotina	Black Cherry	5	
	Tilia americana	Linden	5	
	Gleditsia triacanthos	Honey Locust	5	
3	*Pinus strobus*	White Pine	7	20-75
	Picea abies	Norway Spruce	3	
	Fraxinus americana	White Ash	65	
	Quercus alba	White Oak	10	
	Quercus palustris	Pin Oak	10	
	Juglans nigra	Black Walnut	5	
4	*Pinus nigra*	Austrian Pine	80	27
	Picea pungens	Blue Spruce	5	
	Pinus strobus	White Pine	5	
	Ulmus pumila	Siberian Elm	2	
	Pinus sylvestris	Scots Pine	3	
	Picea glauca	White Spruce	3	
	Salix discolor	Pussy Willow	2	
5	*Syringa sp.*	Lilac	100	Existing trunks 30 years, possible regeneration
6	*Prunus Pissardii nigra*	Purple Plum	100	40

TREE INVENTORY CONDUCTED ON MARCH 8TH & 10TH 2021 BY:
BILL BUCHANAN, HBSCFORESTRY, ISA BOARD CERTIFIED MASTER ARBORIST NY-0392B
DAVID WAVERMAN, CSLA, OALA, CAHP
FRANK SMITH, MA
KIMBERLEY BEECH, MLA

Stantec

Stantec Consulting Ltd.
100-300 Hagey Boulevard
Waterloo ON N2L 0A4
Tel: (519) 579-4410
www.stantec.com

BUCHANAN
expert tree care

Key Map NTS.

Legend

- Dead Standing Tree
- Existing Natural Deciduous Tree
- Existing Natural Coniferous Tree
- Existing Cultural Deciduous Tree
- Existing Cultural Coniferous Tree
- 0000 Cultural Tree
- 0000 Natural Tree
- 000A Cultural Trees Within 5m on Adjacent Properties
- 000A Natural Tree Within 5m on Adjacent Properties
- Tree Grouping

Revision/Issue	By	Appd	YYYY.MM.DD
File Name: 161414045_L-TM	KB Dwn.	Dsgn.	DW/WB Chkd. 2021.04.09 YYYY.MM.DD

Permit-Seal

PRELIMINARY NOT FOR CONSTRUCTION

Not for permits, pricing or other official purposes. This document has not been completed or checked and is for general information or comment only.

Client/Project
SOLMAR

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

ONTARIO, CANADA

Title
EXISTING TREE INVENTORY PLAN
TREE INVENTORY CHARTS

Project No. 161414045
Scale
Revision
Sheet 7 of 7
Drawing No. **L-900H**