ARBORIST REPORT
DVP Hotel Development LP
175 Wynford Drive

Prepared for:

Jimmy Sun
Vice President, Development
Freed Developments
552 Wellington Street West Suite 1500
Toronto, ON M5V 2V5
E: jimmy.sun@freeddevelopments.com
P: 647.557.9631. C: 416.303.8634

&

Urban Forestry Planner
Ravine and Natural Feature Protection
Parks Forestry & Recreation, Urban Forestry
18 Dyas Road, 1st Floor
Toronto, Ontario
M3B 1V5
(t) 416-392-7815

&

Urban Forestry
Tree Protection & Plan Review
North York Civic Centre
5100 Yonge Street, 3rd, Floor
Toronto, ON
M2N 5V7
T: 416.395.6670
E: tpprnorth@toronto.ca

Prepared by:

Tony Molnar RPF Forester & Consulting Arborist
Bras d'Or Forestry Services Ltd.
3 Hilo Road
Toronto, ON
M8W 1L8
T: 416.550.4081
E: tpz1@sympatico.ca

August 2020

Table of Contents

1.0 Background

Bras d'Or Forestry Ltd. has been retained by Freed Developments to prepare an Arborist Report to support the rezoning application for the site known as 175 Wynford Drive in the City of Toronto. This project involves the re-development of the site with the demolition of the existing Don Valley Hotel and associated structures and parking areas; the indoor pool and outdoor pool patio area retaining walls will remain intact. The purpose of this project is to allow for the construction of two parallel structures with one housing a central 8 storey podium area with flanking 45 storey and 54 storey height towers, and the second similar central 8 storey podium with flanking 47 storey and 49 storey high towers.

1.1 Existing Site

The project is located at 175 Wynford Drive east of the Don Valley Parkway north highway onramp, south of 133 and 135 Wynford Drive, north of Delmanor Retirement Home at 187 Wynford Drive, adjacent Wynford Drive itself. The north part of the site is considered ravine area dominated by mature deciduous (i.e. hardwood) tree species. Between the site parking area and Wynford Drive a heavily forested Norway maple occupies the sloped micro-site area. Additional landscape established trees occur around the site and are mainly located adjacent either parking areas or drive isles associated with the access around the site.

1.2 Purpose of Report

The Arborist Report and Tree Protection Plans have been prepared to support the re-development at the site. The report and plans have been prepared to provide the necessary information on regulated-sized trees associated with a proposed new development at 175 Wynford Drive.

The report will address the municipal requirements as set out in the relevant tree bylaws and the tree protection policy that is approved implemented by the City of Toronto Urban Forestry section. All recommendations and conclusions in this report are based on a combination assessment of the trees in the field and a review of the proposed site works.

2.0 Legislation Context

As part of any development review process by the City of Toronto, the impact on regulated-sized trees must be addressed through a formal procedure. Whenever privately-owned trees of significant size (possessing a diameter of 30cm or greater) or city-owned trees are present the City of Toronto under Article II and III, Chapter 813 of the City of Toronto Municipal Code requires an assessment of those trees with a submission of an Arborist Report including a Tree Protection Plan to be provided to the Urban Forestry for review.

Since the existing property is partially within the Ravine designated area a number of trees are regulated by the Ravine and Natural Features Protection Bylaw. As such, tree assessments of those particular tree located in the ravine area are included in this report and along with the Tree Protection Plan will be submitted the City of Toronto RNFP section for review and approval.

Trees within the City of Toronto and their *injury* or *destruction* (i.e. removal) both on city property or private property are regulated by municipal bylaws. The following bylaw list provides guidance for development initiatives and reference as to the limits set by the city and the regulatory requirements:

1. City Street Tree By-Law (Article II of Chapter 813)
   http://www.toronto.ca/legdocs/municode/1184_813.pdf
2. Private Tree By-Law (Article III of Chapter 813)
   http://www.toronto.ca/legdocs/municode/1184_813.pdf
3. Ravine and Natural Feature and Protection By-Law
   http://www.toronto.ca/legdocs/municode/1184_658.pdf
4. Parks By-Law and the Pesticide By-Law

In addition to the bylaws described above, these bylaws are also supported by policies and procedural documents some of which are listed here:

1. Tree Protection Policy and Specifications for Construction Near Trees
   https://www.toronto.ca/data/parks/pdf/trees/tree-protection-specs.pdf
2. Application to Injury or Destroy Trees
   https://www.toronto.ca/data/parks/pdf/trees/application-to-injure-or-destroy-trees.pdf
3. Ravine and Natural Feature Permit Application
   https://www.toronto.ca/data/parks/pdf/trees/ravine-natural-feature-permit-application.pdf
4. Arborist Report for Development Application
   https://www.toronto.ca/data/parks/pdf/trees/arborist-report-for-development-applications.pdf
5. https://www.toronto.ca/data/parks/pdf/trees/boundary-line-trees-policy-form.pdf
6. Owners Authorization to Submit an Application
   https://web.toronto.ca/data/parks/pdf/trees/owners-authorization-to-submit-an-application.pdf

3.0 Assignment

At the request of Freed Developments Bras d'Or Forestry Services Ltd. has been retained to conduct a tree inventory outlining details on regulated-sized trees that are located in both the ravine and tableland areas. This report will address the following items:

1. Identify all regulated-sized trees that are located on 1) the subject site, 2) abutting private properties that are positioned within 6m of the adjoining property line, and 3) all municipal trees, and all relevant trees in the ravine area close to the proposed development. Existing surveys or plans that missed regulated trees are generally included in the Arborist Report and any discrepancies will be conveyed to the applicant/owner.

2. Collect relevant tree data.

3. Compile an Arborist Report that is consistent with the proposed site development.

4. As part of the Arborist Report provide detailed information as to those trees that require removal and those trees being preserved and any necessary preservation & protection measures deemed necessary to ensure the long-term preservation of the retained trees.

5. Tree information collected includes tree species identification, tree diameter at DBH (diameter at breast height measured at 1.4m above ground level), and tree health condition rating (based on ISA protocol).

6. Document tree information including specific observations that may be relevant to understanding the micro-site of the tree/s.

7. Discussion relating to the impact of the site development on the trees and any protection and preservation measures warranted, and make a recommendation for removal or retention of each tree based on either the physiological condition of the tree or the influence of the proposed site design.

Appendix A summarizes the tree inventory and assessment that was performed on June 6, 7, 18, and August 3, 2020.

Appendix B includes the tree protection details relevant to the retained tree.

4.0 Tree Assessment Methodology

4.1 Site Review

A tree inventory and assessment were conducted by Tony Molnar RPF on June 6, 7, 18, and August 3, 2020. The site assessment included a review of regulated-sized trees associated with the proposed project limits and any adjacently located trees with a minimum Tree Protection Zone (TPZo which potentially would be impacted by the re-development project works. Trees were also reviewed for their potential of being classed as rare, protected, or endangered, which would require future study and possible expanded tree preservation measures.

Relevant to potential endangered classed trees, an assessed was carried out to determine whether any trees inventoried as part of this project were classed as *endangered* pursuant to the Ontario Regulation (O. Reg.) 242/08 made under the Endangered Species Act, 2007 (ESA), and whether a tree is listed as endangered on the Species at Risk in Ontario List (SARO List) under O. Reg. 230/08.

4.2 Tree Assessment Criteria

The following information outlines tree data and methodology by which the tree information was collected as well as the preparation of this report.

The following information and observations were collected on each regulated-sized tree;

a) Species identification including the proper Latin name: when an unknown hybrid is found only the genus name with a hybrid reference is used.

b) Trunk diameter, in centimetres, at breast height measured at 1.4m above ground level, otherwise known as diameter at breast height (DBH).

c) Trunk condition: description of the structural health components, etc.

d) Crown condition: description of the vigour, structure, health, etc.

e) Overall health condition rating: the condition rating is determined based on International Society of Arboriculture (I.S.A.) protocol and is a combination rating of all tree observations; trees have been rated either extremely poor, poor, fair, good, or excellent. The template for *Plant Condition Rating* is included in the Appendix of this report.
A tree that is classed as “dead” possesses no signs of life. A winter judgement call on a “dead” tree may require a re-assessment of the tree in the growing season for confirmation.

Information collected on the trees were based on a visual inspection and includes notable observations made on the tree’s aboveground characteristics; trunk flare, trunk, limbs, branches, twigs, and foliage (if present) as well as the tree’s growing environment/habitat. In addition, both abiotic (ex. mechanical injury) and biotic (ex. pest infestations) influences were also included, if noteworthy. Trees were not assessed for risk potential and if required can be performed under a separate project request.

Architect	Quadrangle Architects 910 King Street West, Toronto, ON T: 416.598.1240
Reference Plan:	Site Plan
Surveyor	J. D. Barnes Limited 140 Renfrew Drive Suite 100 Markham, ON L3R 6B3 T: 905.477.3600
Reference Plan:	Plan of Survey latest dated May 29, 2020
Arborist Plans:	Tree Inventory & Protection Plan TP 1.0 Tree Inventory & Protection Plan Details TP 1.1

5.0 Site Investigation and Comments

The site visit to collect all tree data was carried out on July 6, 7, 18, and August 3, 2020; trees not tagged for this project.
All inventoried trees are summarized in the following table for ease of reference.

5.1 Tree Summary Table

Tree Identification & Species	DBH* (cm.)	Overall Plant Condition Rating (Health & Structural Conditions)	Minimum Tree Protection Zones (m.)**	Ownership Category***	Retain without Injury	Retain with Injury	Remove
1 Norway maple *Acer platanoides*	Est. 18	Fair	3.6	2		X	
2 Norway maple *Acer platanoides*	Est. 14	Fair	3.6	2		X	
3 Norway maple *Acer platanoides*	Est. 5, 5, 11	Fair	3.6	2	X		
4 Austrian pine *Pinus nigra*	Est. 15	Poor to fair	3.6	2		X	
5 Smooth serviceberry *Amelanchier laevis*	Est. 8	Fair	1.2	2	X		
6 Smooth serviceberry *Amelanchier laevis*	Est. 8	Poor	1.2	2	X		
7 Norway maple *Acer platanoides*	Est. 5	Poor	1.2	2	X		
8 Norway maple *Acer platanoides*	Est. 8	Poor	1.2	2	X		
9 Red maple hybrid. *Acer rubrum x sp.* Tag 28*	28	Fair	3.6	2	X		
10 Red maple hybrid. *Acer rubrum x sp.* Tag 29	24.5	Fair	3.6	2	X		

11 Colorado blue spruce *Picea pungens*	13	Poor	3.6	2	X		
12 Colorado blue spruce *Picea pungens* Tag 232	14	Poor	3.6	2	X		
13 Tulip tree. *Liriodendron tulipifera* Tag 36	26.5	Fair	3.6	2	X		
14 Eastern cottonwood *Populus deltoides* Tag 34 *ssp. deltoides*	31	Fair	4.8	2	X		
15 Tulip tree. *Liriodendron tulipifera* Tag 33	22	Fair	3.6	2	X		
16 Colorado spruce *Picea pungens* Tag 227	Est. 30	Poor to fair	4.8	2	X		
17 Colorado spruce *Picea pungens* Tag 29	Est. 29	Poor to fair	3.6	2	X		
18 Colorado spruce *Picea pungens* Tag 35	19.5	Poor to fair	3.6	2	X		
19 Colorado spruce *Picea pungens* Tag 226	27	Poor to fair	3.6	2	X		
20 Red maple hybrid. *Acer rubrum x sp.* Tag 30	23	Fair	3.6	2	X		
21 Red maple hybrid. *Acer rubrum x sp.* Tag 31	28.5	Fair	3.6	2	X		
22 Colorado spruce *Picea pungens* Tag 223	21.5	Poor to fair	3.6	2	X		
23 Colorado spruce *Picea pungens* Tag 32	22	Fair	3.6	2	X		

24 Colorado spruce Tag 221	*Picea pungens*	23	Fair	3.6	2	X		
25 Colorado spruce Tag 220	*Picea pungens*	19	Fair	3.6	2	X		
26 Smooth serviceberry	*Amelanchier laevis*	Est. 8	Very poor	1.2	2		X	
27 Smooth serviceberry	*Amelanchier laevis*	Est. 8	Poor	1.2	2		X	
28 Smooth serviceberry	*Amelanchier laevis*	Est. 8	Fair	1.2	2		X	
29 Smooth serviceberry	*Amelanchier laevis*	Est. 8	Very poor	1.2	2		X	
30 Smooth serviceberry	*Amelanchier laevis*	Est. 8	Very poor	1.2	2		X	
31 Smooth serviceberry	*Amelanchier laevis*	Est. 8	Very poor	1.2	2		X	
32 Smooth serviceberry	*Amelanchier laevis*	Est. 8	Fair	1.2	2		X	
33 Norway maple	*Acer platanoides*	8	Poor	1.2	2		X	
34 Norway maple No tag	*Acer platanoides*	7	Very Poor	1.2	4			X
35 Norway maple Tag 236	*Acer platanoides*	7.5, 17.5	Poor	3.6	2			X
36 Norway maple Tag 237	*Acer platanoides*	16.5	Poor	3.6	4			X
37 Norway maple Tag 238	*Acer platanoides*	16.5	Fair	3.6	4			X
38 Norway maple Tag 240	*Acer platanoides*	20.5	Poor	3.6	4			X
39 Norway maple Tag 239	*Acer platanoides*	17.5	Poor	3.6	4			X

40 Norway maple No tag	*Acer platanoides*	11.5	Poor	3.6	4			X
41 Norway maple Tag 241	*Acer platanoides*	22	Fair	3.6	4			X
42 Norway maple Tag embedded	*Acer platanoides*	17	Fair	3.6	4			X
43 Norway maple Tag 244	*Acer platanoides*	28.5	Fair	3.6	4			X
44 Norway maple Tag 249	*Acer platanoides*	19.5	Fair	3.6	4			X
45 Norway maple Tag 254	*Acer platanoides*	28.5	Poor	3.6	4			X
46 Norway maple No tag	*Acer platanoides*	5.5	Poor to fair	1.2	4			X
47 Norway maple Tag 259	*Acer platanoides*	13	Very poor	3.6	4			X
48 Norway maple	*Acer platanoides*	6.5	Poor	1.2	4			X
49 Norway maple	*Acer platanoides*	9	Poor	1.2	4			X
50 Norway maple	*Acer platanoides*	13.5	Poor	3.6	4			X
51 Norway maple Tag 248	*Acer platanoides*	13.5	Fair	3.6	4			X
52 Norway maple Tag 245	*Acer platanoides*	17	Poor to fair	3.6	4			X
53 Norway maple Tag 246	*Acer platanoides*	13	Poor to fair	3.6	4			X

54 Norway maple Tag 247	*Acer platanoides*	15.5	Poor to fair	3.6	4			X
55 Norway maple Tag 251	*Acer platanoides*	17	Fair	3.6	4			X
56 Norway maple Tag 252	*Acer platanoides*	19	Fair	3.6	4			X
57 Norway maple Tag 253	*Acer platanoides*	16.5	Poor to fair	3.6	4			X
58 Norway maple Tag 256	*Acer platanoides*	22.5	Fair	3.6	4			X
59 Norway maple	*Acer platanoides*	12.5	Poor	3.6	4			X
60 Norway maple Tag 257	*Acer platanoides*	16	Fair	3.6	4			X
61 Norway maple	*Acer platanoides*	19	Poor	3.6	4			X
62 Norway maple	*Acer platanoides*	14	Poor to fair	3.6	4			X
63 Norway maple Tag 255	*Acer platanoides*	14.5	Poor to fair	3.6	4			X
64 Norway maple Tag 258	*Acer platanoides*	18	Poor to fair	3.6	4			X
65 Norway maple Tag 258	*Acer platanoides*	24.5	Poor to fair	3.6	4			X
66 Norway maple	*Acer platanoides*	10.5	Poor	3.6	4			X
67 Norway maple	*Acer platanoides*	10	Poor	3.6	4			X

68 Norway maple Tag 261	*Acer platanoides*	25.5	Fair	3.6	4			X
69 Norway maple Tag 262	*Acer platanoides*	16.5, 27	Fair	3.6	4			X
70 Norway maple Tag 264	*Acer platanoides*	16.5	Poor	3.6	4			X
71 Maidenhair tree.	*Gingko biloba*	10	Good	3.6	4			X
72 Norway maple Tag 265	*Acer platanoides*	28.5	Fair	3.6	4			X
73 Austrian pine Tag 266	*Pinus nigra*	35	Extremely poor	4.8	4			X
74 Norway maple	*Acer platanoides*	6	Good	1.2	4			X
75 Austrian pine Tag 267	*Pinus nigra*	44	Extremely poor	6.0	4			X
76 Little leaf linden	*Tilia cordata*	3, 6, 8.5	Fair	1.2	4			X
77 Austrian pine Tag 268	*Pinus nigra*	32	Poor	4.8	4			X
78 Norway maple	*Acer platanoides*	7, 9, 10	Poor to fair	3.6	4			X
79 Austrian pine Tag 269	*Pinus nigra*	37	Poor	3.6	4			X
80 Smooth serviceberry Tag 270	*Amelanchier laevis*	6, 11, 11.5	Poor to fair	3.6	4			X
81 Austrian pine Tag 271	*Pinus nigra*	30	Poor	4.8	4			X

82 Austrian pine Tag 272	*Pinus nigra*	23.5	Very poor	3.6	4			X
83 Austrian pine Tag 273	*Pinus nigra*	23.5	Very poor	3.6	4			X
84 Little leaf linden Tag 924	*Tilia cordata*	45.5	Poor to fair	6.0	4			X
85 Little leaf linden	*Tilia cordata*	44	Poor to fair	6.0	4			X
86 Maidenhair tree	*Ginkgo biloba*	5	Fair to good	1.2	4			X
87 Colorado blue spruce	*Picea pungens*	19.5	Poor	3.6	4			X
88 Colorado blue spruce	*Picea pungens*	17.5	Poor	3.6	4			X
89 Colorado blue spruce	*Picea pungens*	31.5	Fair	4.8	4			X
90 Smooth serviceberry	*Amenlanchier laevis*	5, 8.5	Extremely poor	1.2	4			X
91 Crabapple var.	*Malus var.*	13	Extremely poor	3.6	4			X
92 Crabapple var.	*Malus var.*	14.5	Poor	3.6	4			X
93 White birch	*Betula papyrifera*	15, 26	Poor	3.6	4			X
94 Crabapple var.	*Malus var.*	10, 13.5, 14.5	Poor	3.6	4			X
95 Colorado blue spruce	*Picea pungens*	37	Poor	4.8	4			X
96 Colorado blue spruce	*Picea pungens*	27	Poor	3.6	4			X
97 Ivory silk lilac	*Syringa reticula*	5.5, 8, 8, 8	Poor	1.2	4			X
98 Colorado blue spruce	*Picea pungens*	27.5	Poor	3.6	4			X

99 Colorado blue spruce	*Picea pungens*	23.5	Very poor	3.6	4			X
100 Sugar maple	*Acer saccharum*	76.5	Fair	9.6 [10.0][2]	4	X		
101 Sugar maple	*Acer saccharum*	25	Poor	3.6[3.8]	4	X		
102 American beech	*Fagus americana*	10.5	Poor	3.6[3.8]	4	X		
103 Sugar maple	*Acer saccharum*	7.5, 13.5	Poor	3.6[3.8]	4	X		
104 Sugar maple	*Acer saccharum*	33	Fair	4.8[5.0]	4	X		
105 Sugar maple	*Acer saccharum*	69	Fair to good	8.4[8.8]	4	X		
106 Sugar maple	*Acer saccharum*	62.5	Fair to good	8.4[8.8]	4	X		
107 Sugar maple	*Acer saccharum*	20	Fair	3.6[3.7]	4	X		
108 American beech	Fagus grandifolia	63	Fair	8.4[8.8]	4		X	
109 Sugar maple	*Acer saccharum*	63	Fair	8.4[8.8]	4		X	
110 Sugar maple	*Acer saccharum*	18.5	Poor to fair	3.6[3.8]	4	X		
111 Sugar maple	*Acer saccharum*	10, 12.5	Poor	3.6[3.8]	4	X		
112 Basswood	*Tilia americana*	56	Poor	7.2[7.5]	4		X	
113 Sugar maple	*Acer saccharum*	11	Fair	3.6[3.8]	4	X		
114 Sugar maple	*Acer saccharum*	42	Fair	6.0[6.3]	4		X	
115 Sugar maple	*Acer saccharum*	23	Fair to good	3.6[3.8]	4	X		
116 Sugar maple	*Acer saccharum*	51.5	Fair	7.2[7.5]	4	X		
117 Sugar maple	*Acer saccharum*	20.5	Poor	3.6[3.8]	4	X		
118 Sugar maple	*Acer saccharum*	???	Fair		4	X		

119 White pine	*Pinus strobus*	56	Poor	7.2[7.5]	4	X		
120 Sugar maple	*Acer saccharum*	34	Poor	4.8[5.0]	4		X	
121 Sugar maple	*Acer saccharum*	9	Poor	1.2[1.3]	4	X		
122 Sugar maple	*Acer saccharum*	37, 60	Poor to fair	7.2[7.6]	4	X		
123 Sugar maple	*Acer saccharum*	12.5	Fair	3.6[3.8]	4		X	
124 Sugar maple	*Acer saccharum*	15	Fair	3.6[3.8]	4		X	
125 Sugar maple	*Acer saccharum*	8.5, 16.5	Fair	3.6[3.8]	4		X	
126 Sugar maple	*Acer saccharum*	29	Very poor	3.6[3.8]	4		X	
127 Sugar maple	*Acer saccharum*	65	Fair	8.4[8.8]	4		X	
128 Sugar maple	*Acer saccharum*	22.5	Poor	3.6[3.8]	4		X	
129 Sugar maple	*Acer saccharum*	????	Very poor		4	X		
130 Ironwood	*Ostrya virginiana*	10, 13, 21.5	Poor to fair	3.6[3.8]	4	X		
131 Sugar maple	*Acer saccharum*	50	Fair	6.0[6.3]	4		X	
132 Smooth serviceberry	*Amenlanchier laevis*	10	Poor	3.6[3.8]	4			X
133 Smooth serviceberry	*Amenlanchier laevis*	3, 4, 4	Poor	1.2[1.3]	4			X
134 Sugar maple	*Acer saccharum*	26.5	Fair	3.6[3.8]	4	X		
135 Sugar maple	*Acer saccharum*	22.5	Poor	3.6[3.8]	4	X		
136 Sugar maple	*Acer saccharum*	73	Fair	10.8[11.2]	4		X	
137 Sugar maple	*Acer saccharum*	33	Very poor	4.8[5.0]	4			X

138 Little leaf linden Tag 923	*Tilia cordata*	25.5	Poor to fair	N/A	1			X
139 Little leaf linden Tag 279	*Tilia cordata*	45	Poor	N/A	1			X
140 Little leaf linden Tag 280	*Tilia cordata*	43	Poor	3.0	1			X
141 Little leaf linden	*Tilia cordata*	29.5	Good	N/A	1			X
142 Thornless honey locust.	*Gleditsia triacanthos*	31	Fair	2.4	2	X		

Notes.
n/a – not applicable, private tree is undersized and not regulated by municipal tree bylaw
- continued on next page
*Trunk diameter measured at 1.4m above ground level, in centimetres, generally known as diameter at breast height (DBH).
1 These tree diameters were estimated.

**Minimum Tree Protection Zone (TPZ) limits are to be measured from edge of the tree trunk.
***Ownership categories consistent with the City of Toronto *Arborist Report for Development Applications* form
1. Trees with diameters of 30cm or more situated on private property on the subject site.
2. Trees with diameters of 30cm or more situated on private property, within 6m of the subject site.
3. Trees of all diameters situated on city-owned parkland within 6m of the subject site.
4. On lands designated under City of Toronto Municipal Code, Chapter 658, Ravine and Natural Feature Protection, trees of all diameters situated within 10 metres of any construction activity.
5. Trees of all diameters situated within the City road allowance adjacent to the subject site.

The following comments have been made as a result of the field assessment of the inventoried trees as well as reviewing the Site Plan drawing:

5.2 Subject Site Tableland Trees for Removal (2 trees)

A total 2 regulated sized trees are located on the tableland area of the property that relates to a review by the City of Toronto Urban Forestry section. These 2 trees are 139 and 140 both little leaf linden trees located between the parking area and the hotel building. Both trees are proposed for removal based on the site design and conflicts with new building footprint.

For the approval to remove these regulated trees, the applicant will submit to the City of Toronto Urban Forestry an *Application to Injure or Destroy Trees* form with applicable fees, as well as a copy of the Arborist Report and Tree Protection Plan for review.

There is also 2 additional undersized trees mentioned in this report that possess diameters that are close the 30cm DBH threshold. These trees are 138 (25.5cm DBH) and 141 (29cm DBH) both little leaf linden trees. Tree 138 is located close to tree 139 and tree 141 is positioned in the outdoor pool area. Both trees will be removed as part of this project.

Additional small diameter tableland trees are present on the property and are located surrounding the parking area, hotel building, and outdoor pool areas. These trees are undersized (i.e. <30cm DBH) and therefore unregulated by the city's Private Tree Bylaw. These trees are noted on the tree plans as "US" (undersized).

5.3 Subject Site Ravine Trees for Removal (68 trees)

The "east ravine area section", located between the sloped entrance driveway, parking area, and Wynford Drive, includes the following 49 trees proposed for removal:

Trees 34, 36 through to 70, 72, 74, and 78 are 39 Norway maples (*Acer* platanoides) considered an invasive tree species, proposed for removal due to the conflict with the layout of a new two-towered structure along the east portion of the property. In general these 39 trees are all positioned on an east facing slope between the existing parking area and Wynford Drive; associated with the new building is the construction of an underground parking structure.

In summary health condition ratings of the maple trees are as follows:

Two (2) trees possess a "very poor" health condition rating.
Thirteen (13) trees possess a "poor" health condition rating.
Ten (10) trees possess a "poor to fair" health condition rating.
Thirteen (13) trees possess a "fair" health condition rating.
One (1) trees possess a "good" health condition rating.

Trees 73, 75, 77, 79, 81, 82, and 83 are 7 Austrian pines (*Pinus nigra*) are located between the sloped entrance driveway and Wynford Drive. All 7 Austrian pines are proposed for removal due to the conflict with the new building and entrance design. Aside from removing these pines associated with the development the trees should be removed based on their declining health conditions.

In summary health condition ratings of the pines trees are as follows:

Three (3) trees possess a "poor" health condition rating.
Three (3) trees possess a "very poor" health condition rating.
One (1) tree possess an "extremely poor" health condition rating.

In addition to the above noted trees there are an additional 3 trees for removal in the east ravine area proposed for removal. These include the following:

One (1) little leaf linden (*Tilia cordata*) 76 possessing a "fair" health condition rating,
One (1) Maidenhair tree (*Ginkgo biloba*) 71 possessing a "good" health condition rating, and
One (1) smooth serviceberry (*Amelanchier laevis*) 80 possessing a "poor to fair" health condition rating.

Refer to Appendix A for information on the tree health rating assessment protocol.

The northern ravine section comprising the area west of the sloped entrance driveway and north of the hotel site includes a total of trees with 17 trees proposed for removal.

Trees 84 and 85 are 2 little leaf lindens that are located adjacent the existing hotel building possessing a health condition rating of "poor to fair". These 2 trees are proposed for removal as they are in conflict with the associated construction of new buildings on the site.

Tree 86 is a small diameter (5cm DBH) Maidenhair tree (*Ginkgo biloba*) located adjacent the existing sloped driveway and hotel building. The tree is proposed for removal as it is in conflict with the layout of the tower building.

Trees 87, 88, 89, 95, 96, 98, and 99 are 7 Colorado blue spruce (*Picea pungens*) trees located adjacent the sloped entrance driveway. All but 1 tree possesses a "poor" to "very poor" health condition rating and are declining in overall health. It is recommended that all 7 trees be removed and replaced with appropriate tree species that are well suited for ravine areas. Though Colorado spruce is not considered an invasive tree species an opportunity to replace these unhealthy non-native trees as part of this development proposal is strongly advised.

Tree 90 is a small two-stemmed (5cm and 8.5cm DBH) smooth serviceberry and is located adjacent the sloped entrance driveway. The serviceberry possesses an "extremely poor" health condition rating and is recommended for removal based on its declining health condition.

Trees 91, 92, and 94 are 3 crabapple sp. also located adjacent the sloped entrance driveway. Similar to the serviceberry these tree are declining in health and possess a health condition rating of "poor" to "extremely poor". These tree are recommended to be removed based on their declining health condition.

Tree 93 is sole white birch (*Betula papyrifera*) located behind (west) of the crabapple trees. The tree is in severe decline and possesses a "poor" health condition rating. It is recommended to remove the tree and replace the tree with an appropriate native tree species sited for the ravine area.

Tree 97 is a small multi-stemmed (5.5cm, 8cm, 8cm, 8cm DBH) ivory silk lilac tree positioned under (i.e. suppressed) by 2 Colorado spruce trees beside the sloped entrance driveway. The tree is in decline and presently possesses a "poor" health condition rating. It is recommended that the tree be removed and replaced with an appropriate native tree species sited for the ravine area.

Trees 132 and 133 are 2 smooth serviceberries are located close to the hotel, south of tree 131, and is proposed for removal. The 2 small ornamental sized trees possess a "poor" health condition rating. Due to the location of the trees and their declining health it is recommended to remove the trees and replace them with an appropriate ravine species.

Tree 137 is a sugar maple tree in a restricted growing habitat and abuts a concrete patio foundation and extremely closed to the hotel building itself. The health condition rating is "very poor" with poor crown characteristics partly due to past pruning operations. Due to the declining tree health and with the demolition of the patio area some supporting tree roots are anticipated to be exposed the tree is recommended to be removed.

As a compensation for the removal of the 63 trees, 49 ravine trees within the east ravine area and 19 trees within north ravine area, a Ravine Stewardship Plan will be prepared and submitted to the City of Toronto Ravine and Natural Features Protection section once approval by the city has been granted.

5.4 Subject Site Ravine Trees for Retention with No *Injury* (22 trees)

A total of 22 trees are proposed to be retained with full tree protection. These trees are located in the north ravine area and north of the existing hotel building. A summary of trees are as follows:

A total of 18 sugar maples identified as trees 100, 101, 103, 104, 105, 106, 107, 110, 111, 113, 115, 116, 117, 118, 121, 122, 129, and 134 are being retained with full tree protected provided for the entire duration of the project construction Tree health varies from "poor" to "fair to good" with the average "fair" rating.

Tree 102 a small diameter American beech is being retained with full tree protected provided for the entire duration of the project construction.

One white pine being tree 119 is located well away from the TRCA T.O.B limit and will be fully protected during all phases of construction.

One ironwood, tree 130, identified as a small multi-stemmed is located well away from the TRCA T.O.B limit and will be fully protected during all phases of construction.

Tree 135 a small diameter silver maple is being retained with full tree protected provided for the entire duration of the project construction.

5.5 Subject Site Ravine Trees with *Injury* (14 trees)

A total of 14 trees are considered "injured" as defined by the City of Toronto Tree Protection Policy and Specifications for Construction Near Trees document. These trees are located in the north ravine area and north of existing hotel, indoor pool structure, and outdoor circular patio area.

Trees 109 (sugar maple), 112 (basswood), 114 and 120 (sugar maple) are trees affected by the demolition of the existing indoor pool structure and foundation. Tree 108 (American beech) is impacted to a minimal degree by the removal of the existing vent structure.
Trees 122, 123, 124, 125, 126, 127, 128, and 131 all sugar maple trees will be impacted to a limited degree by the demolition of the indoor pool structure while still maintaining the peripheral retaining wall that faces the ravine area. The existing outdoor patio area and retaining wall facing the ravine area will remain intact and be incorporated into the future outdoor space area.

No tree injuries are attributed to any new built elements.

In order to preserve the tree roots to the maximum extent possible for the tree affected by the demolition of the indoor pool structure, special demolition steps with the involvement of the project Arborist will be implemented.

The following measures are to be followed with respect to the excavation of the pool structure:

1. The Project Arborist is to be on-site to monitor demolition of the existing outdoor pool structure.
2. Removal of the concrete foundation, by an excavator, will be carried out with care and the concrete foundation closest to the trees pulled away from the existing soil-root profile area.
3. If required, the Arborist will prune exposed roots that are encountered that are not possible to retain. The root pruning operation will follow the root pruning protocol as outlined in Appendix C.
4. Any exposed soil-root profile is to be covered immediately with topsoil to prevent root desiccation.
5. Watering of the soil-root profile and area at least once per week, or as specifically instructed by the Arborist, is recommended to maintain soil moisture.
6. Where there is a need to provide ground protection within the TPZ the inclusion of Horizontal Tree Protection (HTP) may be necessary. The details of HTP are added in the Appendix of this report for reference. Should Urban Forestry require HTP one of the 3 types of ground protection may be used for preserving the soil structure, texture, and tree roots that occur.

Tree 136 is a large sugar maple tree that may be root injured to some degree by the demolition of the existing hotel and a small concrete patio area associated with a ground floor hotel room. To preserve any tree roots that may be encountered by the demolition work similar preservation steps will be implemented, see notes above, as for the trees surrounding the pool structure and outdoor pool area.

These preservation steps will ensure that no critical roots are injured and that the health of the tree will be maintained. In this effective area there is to be no machinery used, as this load will cause soil compaction and reduce the effectiveness for the preserved roots to survive. It is important to remember that the project Arborist should be onsite to monitor this critical phase.

5.6 Neighbouring Property Ravine Trees with *Injury* (11 trees)

These tree are located to the southeast of the subject property between the parking area of the subject site and a concrete curved retaining wall that drops in elevation to an area serving an entrance driveway for Delmanor Retirement Home.

Trees 1, 2, and 33 are 3 Norway maple trees that are positioned close to the property line and will be "injured" to some degree by the development at the subject site. Considering these 3 trees are categorized as invasive tree species, it is recommended that they be removed and replaced with an appropriate ravine tree species. However since ownership of these trees are with the neighbouring property owner, and if the trees remain, care must be taken in preserving the trees during the construction period. As such during the first phase of excavation and after the installation of the tree protection fencing, special arboricultural measures are to take place.

The following measures for trees 1, 2 and 33 are to be followed with respect to the manual excavation:

1. Dig the initial 60cm of soil by hand and prune any tree roots.
   Similar to all manual excavation procedures within the TPZ, removal of the soil is to be done with care and no significant-sized roots (i.e. equal to or greater than 2.5cm dia.) are to be injured during this procedure. This excavation work is to utilize only hand tools; narrow planting type shovels, picks, small one-handed shovels, brick layers trowels, soft brushes, and steel bars. Excavation is to be done carefully especially when exposing the larger diameter roots (i.e. >2.5cm dia.). The smaller diameter roots (ex. feeding roots) can be severed during the manually excavation phase.
   Any pruning including the handling of significant-sized roots (i.e. >2.5cm dia.) is to be performed by the project Arborist. The root pruning is to follow "good arboricultural practices" and be guided by the Root Pruning Protocol details as included in the appendix of this report.
2. The project Arborist should monitor the excavation and advise on the amount of root pruning needed.
3. Project Arborist should be on-site to monitor demolition of the existing dwelling foundation in areas where the foundation falls within the minimum TPZ.
4. The Arborist is to prune the exposed roots that arise along the soil-root profile.
5. The exposed soil-root profile is to be covered to prevent root desiccation. Material for the cover can be 6mm poly over a burlap layer.
6. Water the soil-root profile to maintain soil moisture.
7. Where there is a need to provide ground protection within the TPZ the inclusion of Horizontal Tree Protection (HTP) may be necessary. The details of HTP are added in the Appendix of this report for reference. Should Urban Forestry require HTP the detail showing wood chips in Appendix B will be implemented.

These steps will ensure that no critical roots are injured and that the health of the tree will be maintained. In this effective area there is to be no machinery used, as this load will cause soil compaction and reduce the effectiveness for the preserved roots to survive. The project Arborist should be onsite to monitor this critical phase.

Tree 4 is the sole Austrian pine that is located in this area and as a small portion of its TPZ area overlaps the subject and construction area this tree will also be considered injured. As with the preservation measures for the Norway maple trees, steps to minimize root injury for tree 4 will also be undertaken. Similar preservation measures will be taken for tree 4 as with the Norway maples.

Trees 26, 27, 28, 29, 30, 31, and 32 are 7 small ornamental smooth serviceberries that are located close to the metal fence adjacent the parking area for the subject site. The majority of the shrubs possess a "very poor" to "poor" health condition rating. The shrubs are declining in health due to maintenance neglect as most of the shrubs are overgrown with vines. As such these shrubs should be removed and replaced with more robust and long-lived vegetation. However, similar to tree 4 since ownership lies with the neighbouring property owner and if these shrubs remain, similar preservation steps will be undertaken as with the Norway maple trees described above.

5.7 Neighbouring Property Ravine Trees with No *Injury* (22 trees)

The following 22 trees are located on the neighbouring property and beyond the curved concrete retaining, in a lower/dropped elevation area, that is associated with the entrance driveway area for Delmanor Retirement Home site. These trees are comprised of 3 Norway maple (*Acer platanoides*) numbered 3, 7, and 8; 2 smooth serviceberry shrubs (*Amelanchier laevis*) numbered 5 and 6; 4 red maple hybrids (*Acer rubrum* x) numbered 9, 10, 20, and 21; 10 Colorado blue spruce (*Picea pungens*) numbered 11, 12, 16 to 19, and 22 to 25; 2 tulip trees (*Liriodendron tulipifera*) numbered 13 and 15; and tree 14 an Eastern cottonwood (*Populus deltoides* ssp. *deltoides*).
On the Tree Inventory & Protection Plan one will see that the TPZ limits for some trees overlap the subject site and as such assume "injured" to the tree roots. However due to the location of the trees and the fact that there can be no root extension beyond the retaining wall and foundation, some portions set well inside the abutting property, it is my opinion that "injury" to these trees relating to the construction works at the subject site will not occur and should not be considered. A review of the survey indicates that the retaining wall ranges in height is approximately 7m tall.

5.8 Neighbouring Property Ravine Trees to Remove

Tree 35 is a two-stemmed (7.5 and 17.5cm DBH) Norway maple tree located within 1m of the adjoining property line and the proposed construction at the site. The tree will not survive the construction both because the close proximity to the construction limit and the fact that the tree possesses a "poor" health condition rating. As such it is recommended that communication with Delmanor be undertaken and a tree replacement initiative be planned.

5.9 Neighbouring Property Tableland Tree for Retention

A sole regulated sized tree identified as a little leaf linden tree 142 is located on the neighbouring property close to the outdoor pool area. The tree is 31cm DBH and possesses a "fair" health condition rating. The tree is positioned well away from the property line and the general construction fencing for the project will serve as tree protection for all phases of construction.

5.10 Trees & Loss of Green Space

According to the Ravine and Natural Features Bylaw compensation for tree planting is required whenever there is a loss (i.e. net loss from existing hard surfaces) of open green space as a result of new development. The formula for compensation is 1 newly planted tree for every 25sq. metres (m_2) of ravine open space lost. For this project, there will be approximately 400m_2 of ravine open area net gain as a result of the proposed new development design. As part of this calculation and in an attempt to maintain the ravine terrain form and stability around the existing indoor pool structure and outdoor patio area these two structures will be kept intact. Therefore, based on the fact the new project will create a net open/green space within the designated ravine area of the property no compensatory tree planting will be proposed at this time.

However it is important to remember that aside from this municipal tree compensatory policy, Ravine and Natural Features Protection section of forestry may require, at part of a possible Site Plan application the submission of a Ravine Stewardship Plan.

6.0 Ravine Regeneration Tree Vegetation

A general description of the ravine tree regeneration generally occurring within the vegetation strip for the Tree Drip Line limit and inventoried trees or Staked Top of Bank whichever to farther, is added in this section.

Tree regeneration within the general area northwest, north, and northeast of tree 137 to 130 is summarized as follows:

1) Staghorn sumac (*Rhus typhina*) average height 3m; less than 4cm diameter; patchy distribution.
2) Manitoba maple (*Acer negundo*) average height 4m; average diameter 2.5cm; scattered to patchy distribution.
3) White mulberry (*Morus alba*) average height 3m; average diameter 2cm; scattered distribution.
4) One white elm (*Ulmus americana*) height 4m; diameter 4cm.
5) Sugar maple (*Acer saccharum*) <0.5m height; dense occurrence with patchy to scattered distribution, average height 3.5m; 1cm diameter; patchy distribution.
6) Choke cherry (*Prunus virginiana L var. virginiana*) up to 4m in height; patchy distribution.
7) Two white spruce (*Picea glauca*) 1.6m in height; 1cm diameter.
8) White ash (*Fraxinus americana*) <0.5m in height; scattered distribution.
9) One white oak (*Quercus alba*) 0.1m in height.
10) One white pine (*Pinus strobus*) 1.5m in height; extremely poor health.
11) One basswood (*Tilia americana*) 7m in height; 10cm in diameter.
12) Two Eastern hemlock (*Tsuga canadensis*) <1.5m in height.
13) One American beech (*Fagus grandifolia*) 1.8m in height; 1cm in diameter.

Tree regeneration in the vicinity of tree 131 is limited with choke cherry growth dominating site. Tree height varies from 0.2m to over 2m with patchy distribution and heavier occurrence near the forest edge.

Tree regeneration north of the indoor pool from approximately tree 110 to 122 is dominated by sugar maple less that 2m in height with scattered distribution, and, choke cherry less that 1.5m in height with patchy and dense distribution. In addition there are common yew shrubs mainly in rows located near the pool concrete edge wall.

Tree regeneration south of tree 108 and located adjacent a grassy access route near the hotel building is heavily dominated by a strip area of sugar maple. The sugar maple is approximately 3m in height, very dense, and is growing well. This sugar maple patch has emerged and developed in limited daily sunlight.

In general and with respect to the existing tree regeneration vegetation the overall direct sunlight availability is presently limited. The hotel building obstructs some of the daily direct sunlight occurrence even through the summer months. As such tree vegetation is dominated mainly by tolerant hardwood tree species. Tolerant tree species here include sugar maple, basswood, eastern hemlock, and beech. Tolerance is defined as "The capacity of a tree or plant to develop and grow in the shade of (and in competition with) other trees or plants; a general term for the relative ability of a species to survive a deficiency of an essential growth requirement (light, moisture, nutrient supply)." (OMNR, 1998, Glossary of Technical Terms).
With added sunlight available occurring at the forest edge, species requiring more sunlight are present and often in dense occurrence. Trees species found here include choke cherry, Manitoba maple, staghorn sumac, and white mulberry.

In respect to the proposed development it is anticipated that a reduction in sunlight availability will occur in general. However as the majority of the inventoried trees are shade tolerant it is expected that no significant loss of trees or tree growth will occur.

7.0 Endangered, Rare or Protected Tree Species

Trees were also reviewed for their potential of being classed as rare, protected, or endangered, which would require future study and possible expanded tree preservation measures. As part of this tree inventory no trees assessed were classed as either rare, protected, or endangered by provincial regulations.

8.0 Tree Protection and Mitigation Measures

To protect the structural integrity and health of the significant trees during construction activities, a temporary tree protection barrier is required. While it is often impractical to cordon off all construction activity to preserve all tree roots, erecting a tree protection zone (TPZ) based on tree diameter is considered a realistic approach. Having calculated the TPZ and erecting the barrier, the protected area is restricted to all construction and foot traffic, hoarding of materials, and soil disturbances. Aside from protecting the above ground part of the tree from possible damage, tree roots are also affected. Soil compaction from construction machinery and repeated foot traffic

effectively reduces soil oxygen levels and eventually retards tree crown growth. Symptoms observed in the tree crown from soil compaction often take 3 years to express themselves. TPZ barriers can have enormous impact on design and construction plans. It is important to note that following the removal of the TPZ barrier, grade change within the TPZ is not recommended. Grade change usually involves landscape elements and disturbing the site at this post-construction stage would negate the purpose the TPZ barrier.

For jurisdiction in the City of Toronto, the Urban Forestry Services department has compiled guidelines for the purpose of deriving the minimum distances for TPZ barriers. Refer to the City of Toronto Urban Forestry document *Tree Specifications for Construction Near Trees* for details.

The installation of TPZ barrier surrounding all retained trees will be installed prior to the commencement of any site construction activity. The developer of the site is aware of the type of Tree Protection Barrier materials required. For this project the onsite tree protection, plywood material using 4 X 8 feet sheets positioned 1.25m high and supported by 2 x 4 inch wood will be used. All supports or bracing of the barrier will be located outside the TPZ, and no construction activity, hoarding of materials, or excavation will occur within the TPZ. Following the erection of the barriers and prior to excavation work, the TPZ structures will be inspected by City of Toronto, Urban Forestry Services staff. The barriers will remain installed and in good shape for the duration of the construction of the residence. Prior to disassembly of the barriers, City of Toronto Forestry staff will be notified.

For purposes of preserving the injured trees to the maximum extent possible the following general tree protection steps should be implemented:

Pre-Construction Phase

1. Install on-site tree protection barriers at the limits as per the Tree Protection Plan. Refer to Appendix B for details on hoarding material and installation instructions.
2. Submit photographs of tree hoarding to Urban Forestry for approval.

Construction Phase

1. The installed and approved tree protection barrier is to remain intact and is period.
2. The tree protection hoarding is to not to removed or relocated without the consent/approval of city forestry staff.
3. Within the tree protection hoarding (TPH) there is to be no grade changes, machinery movement, or activity that constitute an encroachment that may "injure" the tree. Unacceptable encroachments may indicate an infraction to the municipal tree protection bylaws and precipitate to charges or a stop work order.
4. All supervisors and construction workers should be aware of the purpose of the tph and subsequent penalties when a contravention to the tree protection bylaws and/or tree protection policy develops.
5. In the event an unacceptable encroachment occurs into the tph the project Arborist is to assess the possible injury and recommend a follow-up treatment or mitigating action.
6. The project Arborist should carry out periodic site visits to ensure that all tree protection remains as originally installed and that no harm is being done to the retained trees.

Post-Construction Phase

4. Following the completion of construction including the associated driveways, the tree protection is to be inspected by Urban Forestry for sign-off. Upon Forestry's inspection and clearance the tree protection hoarding can be removed and the remainder of the soft type landscaping can be finished.
5. Root fertilizing is not recommended at this time, as the trees do not appear to exhibit symptoms of mineral or nutrient deficiencies. However, in the future if evidence does show possible connections to these types of deficiencies, a soil sample testing should first be performed to determine the possible link to a deficiency. Appropriate fertilization measures should then follow is deemed necessary.

9.0 Protection of Migratory Birds and Development

Most bird species in Ontario are protected under the federal Migratory Birds Convention Act, 1994 (MBCA) or the provincial regulation Fish and Wildlife Conservation Act 1994. In addition the Canadian Wildlife Service has set a period during the year called the Core Nesting Period when activities resulting in the disturbance, destruction, or removal of breeding bird habitats should not be allowed. The period is set between May 1 and July 31 in the Lower Great Lakes/St. Lawrence Plain (North American Bird Conservation Area 13).

In the event site alterations and tree removals are planned during the restricted Core Nesting Period a number of steps are to be taken in order to avoid any potential disruptive activities affecting any of the migratory bird species.

The following process is to be undertaken when tree removals are anticipated during the general nesting period:

1. Contact a qualified Wildlife Biologist to carry out a comprehensive survey to identify locations where birds are present and are either nesting, incubating eggs, or rearing their young.
2. If a nesting site is found any site disturbance activities planned are to be postponed or if the biologist deems acceptable sets out parameters and buffer, a “no touch zone”, where site disturbance/tree removals are not to occur. Site disturbances and/tree removal maybe occur once the biologist has identified that the fledglings have left the nesting habitat.
3. If the biologist determines that there are no nesting sites within the disturbance area the contractor is allowed 7 days to carry out tree removals. Following this 7 day period if tree removal/chipping is not finished, the biologist will reassess the area and determine if bird activity relating to either nesting, incubating eggs, or rearing their young is occurring. If no birds are present the tree removal operations may continue.
4. A separate site assessment for nesting activities by the biologist is recommended if site disturbances/tree removals will occur outside the Core Nesting Period, especially during the 2 months prior and 1 month following the Core Nesting Period. The assessment would ensure that no early or late breeding bird activities would be impacted.

10.0 Conclusion

A total of 140 regulated trees were inventoried as part of this Arborist Report; 3 subject site tableland trees, 103 subject site ravine trees, 34 neighbouring property ravine trees. Associated with this project a total of 68 subject site ravine trees and 1 neighbouring ravine tree is proposed for removal and 14 subject site ravine trees and 11 neighbouring ravine trees are considered injured, as defined by municipal tree bylaws, with the remaining trees being retained with no injury. Tree protection will be provided for all retained trees and remain intact for the entire construction duration.

11.0 References

Legal References

Endangered Species Act, 2007

Ontario Regulation 242/08 (General) made under the Endangered Species Act, 2007

Ontario Regulation 230/08 (Species at Risk in Ontario List) made under the Endangered Species Act, 2007.

Technical References

OMNR. 1998. *A silvicultural guide for the tolerant hardwood forest in Ontario.* Ont. Min. Nat. Resour. Queen's Printer for Ontario. Toronto. 500p.

Farrar, John Laird. *Trees in Canada*. Markham. Fitzhenry & Whiteside Limited & CFS, 1995. Print.

12.0 Assumptions and Limiting Conditions

Bras d'Or Forestry Services Ltd

1. Care has been taken to obtain information from reliable sources. All data and literature cited has been verified insofar as possible; Bras d'Or Forestry Services Ltd. can neither guarantee nor be responsible for the accuracy of information provided by others.

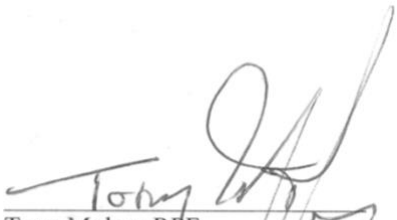
2. **Unless expressed otherwise: 1) information contained in this report covers only those items that were examined and reflect the condition of those items at the time of inspection; and 2) the inspections was made using accepted arboricultural techniques and is limited to visual examination of accessible items without climbing, dissection, probing or coring and detailed root examination involving excavation. While reasonable efforts have been made to access trees outlined in this report, there is no warranty or guarantee, expressed or implied, that problems or deficiencies with the trees or any parts of them may not arise in the future. All trees should be inspected and re-assessed periodically.**

3. This report and any information expressed herein represent the opinion of the author and his fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be report.

4. The determination of ownership of any subject tree(s) is the responsibility of the owner. Any civil or common-law issue which may exist between property owners with respect to trees, must be resolved by the owner. A recommendation to remove or maintain trees does not grant authority to encroach in any manner onto adjacent private properties.

5. Unless otherwise required by law, possession of this report or a copy thereof does not imply right of publication or use for any purpose in whole or in part by any other than the person to whom is being addressed, without the prior expressly written or verbal consent of the author or his company.

6. Excerpts or alterations to the report without the authorization of the author or his company will invalidate its intent and/or implied conclusions. This report may not be used for any expressed purpose other than its intended purpose and alteration of any part of this report invalidates the report.



Tony Molnar RPF
Forester & Consulting Arborist
ISA Tree Risk Assessor Certified
Butternut Health Assessor #667

13.0 Appendix A
Tree Inventory Table

Tree inventory completed on July 6, 7, 18, and August 3, 2020; 28 to 32oC and sunny
Tree not tagged for this project; some trees possess tags from previous and separate work.

Neighbouring Property Ravine Trees

Tree No.	Tree Species	Latin Name	DBH (cm.)	Crown Diameter (m.)	Trunk Integrity	Crown Vigour & Structure	Plant Condition (Health & Structure Conditions)	Observations & Comments
1	Norway maple	*Acer platanoides*	Est. 18	5	Fair	Fair	Fair	Small ravine tree; crown somewhat imbalanced due to competition with adjacent tree. **Retain tree with injury.**
2	Norway maple	*Acer platanoides*	Est. 14	5	Fair	Fair	Fair	Small ravine tree; crown somewhat imbalanced due to competition with adjacent tree. **Retain tree with injury.**
3	Norway maple	*Acer platanoides*	Est. 5, 5, 11	4	Fair	Fair	Fair	Multi-stemmed tree at 1m located on a slight slope; no major trunk or crown visible defects. **Retain without injury full tree protection provided.**
4	Austrian pine	*Pinus nigra*	Est. 15	3	Fair	Poor	Poor to fair	No major visible trunk defects; crown suffering from decline with deadwood present, possible *Diplodia Tip Blight* infected. **Retain without injury full tree protection provided.**
5	Smooth serviceberry	*Amelanchier laevis*	Est. 8	1	Fair	Fair	Fair	Small landscape tree with low live crown ratio (LCR). **Retain without injury full tree protection provided.**
6	Smooth serviceberry	*Amelanchier laevis*	Est. 8	1	Poor	Poor	Poor	Small landscape tree with poor form; tree leaning. **Retain tree with no injury**.
7	Norway maple	*Acer platanoides*	Est. 5	2	Poor	Poor	Poor	Small poor formed landscape tree; trunk lean; competing crown, asymmetrical form. **Retain without injury full tree protection provided**
8	Norway maple	*Acer platanoides*	Est. 8	2	Poor	Poor	Poor	Small poor formed landscape tree; trunk lean; competing crown, asymmetrical form. **Retain without injury full tree protection provided**
9 Tag 28*	Red maple hybrid	*Acer rubrum x sp.*	28	7	Good	Fair	Fair	Balanced crown form; high LCR; tree is irrigated. **Retain tree – no injury**.
10 Tag 29	Red maple hybrid	*Acer rubrum x sp.*	24.5	5	Good	Fair	Fair	Balanced crown form; high LCR; tree is irrigated. **Retain tree – no injury**.
11	Colorado blue spruce	*Picea pungens*	13	3	Poor	Poor	Poor	Tree located near concrete retaining wall; lower branches dead due to lack of sunlight. **Retain tree – no injury**.

12 Tag 232	Colorado blue spruce	*Picea pungens*	14	3	Poor	Poor	Poor	Tree located near concrete retaining wall; lower branches dead due to lack of sunlight. **Retain tree – no injury**.
13 Tag 36	Tulip tree	*Liriodendron tulipifera*	26.5	6	Fair	Fair	Fair	Trunk splits at 1.4m into 2 upright stems – strong attachment; vines growing into crown. **Retain tree – no injury**.
14 Tag 34	Eastern Cottonwood	*Populus deltoides ssp. deltoides*	31	6	Fair	Fair	Fair	No large visible trunk defects; some minor crown deadwood; vines growing into crown. **Retain tree – no injury**.
15 Tag 33	Tulip tree	*Liriodendron tulipifera*	22	7	Fair	Fair	Fair	Trunk with no large visible defects; balanced crown form; minor crown deadwood; few broken branches present. **Retain tree – no injury.**
16 Tag 227	Colorado spruce	*Picea pungens*	Est. 30	6	Fair	Poor	Poor to fair	Lower crown dead due to lack of sunlight. **Retain tree – no injury.**
17 Tag 29	Colorado spruce	*Picea pungens*	Est. 29	5	Fair	Poor	Poor to fair	Lower crown dead due to lack of sunlight; vines growing into crown. **Retain tree – no injury**.
18 Tag 35	Colorado spruce	*Picea pungens*	19.5	5	Fair	Poor	Poor to fair	Lower crown dead due to lack of sunlight; vines growing into crown. **Retain tree – no injury**.
19 Tag 226	Colorado spruce	*Picea pungens*	27	5	Fair	Poor	Poor to fair	Lower crown dead due to lack of sunlight; vines growing into crown. **Retain tree – no injury**.
20 Tag 30	Red maple hybrid	*Acer rubrum x sp.*	23	5	Fair	Fair	Fair	Trunk with no visible defects; balanced crown; high LCR. **Retain tree – no injury.**
21 Tag 31	Red maple hybrid	*Acer rubrum x sp.*	28.5	6	Fair	Fair	Fair	Trunk with no visible defects; balanced crown; high LCR. **Retain tree – no injury**.
22 Tag 223	Colorado spruce	*Picea pungens*	21.5	5	Fair	Poor	Poor to fair	Lower crown branches dead due to lack of sunlight; vines growing into crown. **Retain tree – no injury**.
23 Tag 32	Colorado spruce	*Picea pungens*	22	4	Fair	Fair	Fair	Tree located between concrete retaining wall and entrance driveway. **Retain tree – no injury**.
24 Tag 221	Colorado spruce	*Picea pungens*	23	4.5	Fair	Fair	Fair	Tree located between concrete retaining wall and entrance driveway. **Retain tree – no injury**.
25 Tag 220	Colorado spruce	*Picea pungens*	19	3.5	Fair	Fair	Fair	Tree located between concrete retaining wall and entrance driveway. **Retain tree – no injury.**
26	Smooth serviceberry	*Amelanchier laevis*	Est. 8	1	Very poor	Very poor	Very poor	Small landscape tree located behind metal property fence within 1m of the parking concrete curb limit; heavy vine growth on crow; very little live crown. **Retain tree with injury.**
27	Smooth serviceberry	*Amelanchier laevis*	Est. 8	1	Poor	Poor	Poor	Small landscape tree located behind metal property fence within 1m of the parking concrete curb limit; crown deadwood present. **Retain tree with injury.**
28	Smooth serviceberry	*Amelanchier laevis*	Est. 8	1	Fair	Fair	Fair	Small landscape tree located behind metal property fence within 1m of the parking concrete curb limit; normal tree growth with little vine growth obstructing crown formation. **Retain tree with injury**.

29	Smooth serviceberry	*Amelanchier laevis*	Est. 8	1	Very poor	Very poor	Very poor	Small landscape tree located behind metal property fence within 1m of the parking concrete curb limit; heavy vine growth on crow; very little live crown. **Retain tree with injury.**
30	Smooth serviceberry	*Amelanchier laevis*	Est. 8	1	Very poor	Very poor	Very poor	Small landscape tree located behind metal property fence within 1m of the parking concrete curb limit; heavy vine growth on crow; very little live crown. **Retain tree with injury**.
31	Smooth serviceberry	*Amelanchier laevis*	Est. 8	1	Very poor	Very poor	Very poor	Small landscape tree located behind metal property fence within 1m of the parking concrete curb limit; heavy vine growth on crow; very little live crown. **Retain tree with injury**.
32	Smooth serviceberry	*Amelanchier laevis*	Est. 8	1	Fair	Fair	Fair	Small landscape tree located behind metal property fence within 1m of the parking concrete curb limit; normal tree growth with little vine growth obstructing crown formation. **Retain tree with injury**.
33	Norway maple	*Acer platanoides*	8	3	Poor	Poor	Poor	Tree positioned on slope with a trunk lean eastward; poor crown form (asymmetrical form). **Retain tree with injury**.
35 Tag 236	Norway maple	*Acer platanoides*	7.5, 17.5	5	Poor	Poor	Poor	Edge tree with good crown growth on west side; poor trunk and crown forms (asymmetrical form); crown deadwood present. **Remove tree – conflict with new building construction**.

Subject Site Property Ravine Trees

Tree No.	Tree Species	Latin Name	DBH (cm.)	Crown Diameter (m.)	Trunk Integrity	Crown Vigour & Structure	Plant Condition (Health & Structure Conditions)	Observations & Comments
34 No tag	Norway maple	*Acer platanoides*	7	3	Very poor	Very poor	Very poor	Small ravine tree with a suppressed crown; poor form crown. Remove tree – within footprint of new building. **Remove tree – conflict with new building construction**
36 Tag 237	Norway maple	*Acer platanoides*	16.5	5	Poor	Poor	Poor	Edge tree with good crown growth on west side; poor trunk and crown forms (asymmetrical form); crown deadwood present. Remove tree – conflict with new building construction. **Remove tree – conflict with new building construction**
37 Tag 238	Norway maple	*Acer platanoides*	16.5	6	Fair	Fair	Fair	Edge tree with good crown growth on west side; poor trunk and crown forms (asymmetrical form); crown deadwood present. Remove tree – conflict with new building construction. **Remove tree – conflict with new building construction**
38 Tag 240	Norway maple	*Acer platanoides*	20.5	8	Poor	Poor	Poor	Trunk lean; poor crown form (asymmetrical form); crown competing with adjacent tree crowns. Remove tree – conflict with new building construction. **Remove tree – conflict with new building construction**
39 Tag 239	Norway maple	*Acer platanoides*	17.5	7	Fair	Poor	Poor	Trunk with no visible major defects; poor crown form. **Remove tree – conflict with new building construction**

40 no tag	Norway maple	*Acer platanoides*	11.5	4	Poor	Poor	Poor	Trunk with lean to east; poor crown form competing with adjacent trees. **Remove tree – conflict with new building construction**
41 Tag 241	Norway maple	*Acer platanoides*	22	7	Fair	Fair	Fair	Trunk with no visible major defects; generally balanced crown form. **Remove tree – conflict with new building construction**
42 tag embedded	Norway maple	*Acer platanoides*	17	8	Fair	Fair	Fair	Edge located tree with heavy crown formation on west side; trunk and crown conditions fair. **Remove tree – conflict with new building construction**
43 Tag 244	Norway maple	*Acer platanoides*	28.5	8	Fair	Fair	Fair	Trunk and crown conditions fair – no major defect. **Remove tree – conflict with new building construction**
44 Tag 249	Norway maple	*Acer platanoides*	19.5	8	Fair	Fair	Fair	Edge located tree with heavy crown formation on west side; trunk and crown conditions fair. **Remove tree – conflict with new building construction**
45 Tag 254	Norway maple	*Acer platanoides*	28.5	9	Fair	Poor	Poor	Trunk splits at 3m into 2 upright stems; vertical branch scar. **Remove tree – conflict with new building construction**
46 No tag	Norway maple	*Acer platanoides*	5.5	3	Fair	Poor	Poor to fair	Trunk with no major visible defects; suppressed tree with poor crown form. **Remove tree – conflict with new building construction**
47 Tag 259	Norway maple	*Acer platanoides*	13	4	Very poor	Very poor	Very poor	Crooked trunk form; very poor crown form – asymmetrical form. **Remove tree – conflict with new building construction**
48	Norway maple	*Acer platanoides*	6.5	3	Poor	Poor	Poor	Crooked trunk form; very poor crown form. **Remove tree – conflict with new building construction**
49	Norway maple	*Acer platanoides*	9	3	Poor	Poor	Poor	Crooked trunk form; very poor crown form. **Remove tree – conflict with new building construction**
50	Norway maple	*Acer platanoides*	13.5	5	Poor	Poor	Poor	Poor form tree; competing tree crowns – asymmetrical form. **Remove tree – conflict with new building construction**
51 Tag 248	Norway maple	*Acer platanoides*	13.5	4	Fair	Fair	Fair	Edge tree with heavy crown form on west side; slight trunk lean. **Remove tree – conflict with new building construction**
52 Tag 245	Norway maple	*Acer platanoides*	17	7	Fair	Poor	Poor to fair	Edge tree with heavy crown form on west side; slight trunk lean; poor crown form (asymmetrical form) due to competing tree crowns. **Remove tree – conflict with new building construction**
53 Tag 246	Norway maple	*Acer platanoides*	13	4	Fair	Poor	Poor to fair	Slight trunk lean; poor crown form (asymmetrical form) due to competing tree crowns. **Remove tree – conflict with new building construction**
54 Tag 247	Norway maple	*Acer platanoides*	15.5	7	Fair	Poor	Poor to fair	Poor crown form (asymmetrical form) due to competing tree crowns. **Remove tree – conflict with new building construction**
55 Tag 251	Norway maple	*Acer platanoides*	17	6	Fair	Fair	Fair	Poor crown form (asymmetrical form) due to competing tree crowns. **Remove tree – conflict with new building construction**
56 Tag 252	Norway maple	*Acer platanoides*	19	6	Fair	Fair	Fair	Poor crown form (asymmetrical form) due to competing tree crowns; crooked trunk form at 3m. **Remove tree – conflict with new building construction**
57 Tag 253	Norway maple	*Acer platanoides*	16.5	6	Fair	Poor	Poor to fair	Edge tree facing west; Poor crown form (asymmetrical form) due to competing tree crowns. **Remove tree – conflict with new building construction**

58 Tag 256	Norway maple	*Acer platanoides*	22.5	8	Fair	Fair	Fair	Edge tree facing west; Poor crown form (asymmetrical form) due to competing tree crowns. **Remove tree – conflict with new building construction**
59	Norway maple	*Acer platanoides*	12.5	5	Poor	Poor	Poor	Edge tree facing west; very poor crown form (asymmetrical form) due to competing tree crowns. **Remove tree – conflict with new building construction**
60 Tag 257	Norway maple	*Acer platanoides*	16	4	Fair	Fair	Fair	Edge tree facing west; very poor crown form (asymmetrical form) due to competing tree crowns. **Remove tree – conflict with new building construction**
61	Norway maple	*Acer platanoides*	19	6	Poor	Poor	Poor	Trunk lean to east; Poor crown form (asymmetrical form) due to competing tree crowns. **Remove tree – conflict with new building construction**
62	Norway maple	*Acer platanoides*	14	3	Fair	Poor	Poor to fair	Poor crown form (asymmetrical form) due to competing tree crowns. **Remove tree – conflict with new building construction**
63 Tag 255	Norway maple	*Acer platanoides*	14.5	4	Fair	Poor	Poor to fair	Trunk with lean to east; poor crown form (asymmetrical form) due to competing tree crowns. **Remove tree – conflict with new building construction**
64 Tag 258	Norway maple	*Acer platanoides*	18	7	Fair	Poor	Poor to fair	Poor crown form (asymmetrical form) due to competing tree crowns; some crown deadwood present. **Remove tree – conflict with new building construction**
65 Tag 258	Norway maple	*Acer platanoides*	24.5	8	Fair	Poor	Poor to fair	Poor crown form (asymmetrical form) due to competing tree crowns; some crown deadwood present. **Remove tree – conflict with new building construction**
66	Norway maple	*Acer platanoides*	10.5	2	Poor	Poor	Poor	Poor crown form (asymmetrical form) due to competing tree crowns; some crown deadwood present. **Remove tree – conflict with new building construction**
67	Norway maple	*Acer platanoides*	10	3	Poor	Poor	Poor	Crooked trunk form; poor crown form (asymmetrical form) due to competing tree crowns; some crown deadwood present. **Remove tree – conflict with new building construction**
68 Tag 261	Norway maple	*Acer platanoides*	25.5	8	Fair	Fair	Fair	Trunk splits at 1.6m into 2 upright trunk stems; edge tree with most of live branches]edge tree with most of live branches on west side. **Remove tree – conflict with new building construction**
69 Tag 262	Norway maple	*Acer platanoides*	16.5, 27	10	Fair	Fair	Fair	Edge tree with most of live branches on west side; trunk with slight lean; large stem splits at 2.2m; balanced crown form. **Remove tree – conflict with new building construction**
70 Tag 264	Norway maple	*Acer platanoides*	16.5	8	Poor	Poor	Poor	Slight trunk lean; Poor crown form (asymmetrical form) due to competing tree crowns. **Remove tree – conflict with new building construction**
71	Maidenhair tree	*Ginkgo biloba*	10	3	Good	Good	Good	Small tree located near parking and driveway corner; trunk with no major visible defects; crown balanced with normal foliage colour and size. **Remove tree – conflict with new building construction**
72 Tag 265	Norway maple	*Acer platanoides*	28.5	9	Fair	Fair	Fair	Balanced crown form; high live crown ratio (LCR). **Remove tree – conflict with new building construction**
73 Tag 266	Austrian pine	*Pinus nigra*	35	9	Very poor	Extremely poor	Extremely poor	Significant crown mortality, symptoms and signs of *Diplodia Tip Blight* (DTB); trunk with lean; crown previously pruned. **Remove tree – conflict with new building construction**

74	Norway maple	*Acer platanoides*	6	5	Good	Good	Good	Balanced crown form; trunk with no major visible defects. **Remove tree – conflict with new building construction**
75 Tag 267	Austrian pine	*Pinus nigra*	44	9	Very poor	Extremely poor	Extremely poor	Significant crown mortality – 5% remaining live crown volume; symptoms and signs of DTB; trunk with lean; crown previously pruned. **Remove tree – conflict with new building construction**
76	Little leaf linden	*Tilia cordata*	3, 6, 8.5	4	Fair	Fair	Fair	Understory tree but still possesses a somewhat balanced crown form.
77 Tag 268	Austrian pine	*Pinus nigra*	32	9	Poor	Poor	Poor	Poor formed crown with evidence of DTB; crown deadwood present. **Remove tree – conflict with new building construction**
78	Norway maple	*Acer platanoides*	7, 9, 10	4	Fair	Poor	Poor to fair	Low LCR; one broken branch; crown deadwood present. **Remove tree – conflict with new building construction**
79 Tag 269	Austrian pine	*Pinus nigra*	37	9	Poor	Poor	Poor	Poor crown form; crown with DTB; crown deadwood present; crown previously pruned. **Remove tree – conflict with new building construction**
80 Tag 270	Alleghany serviceberry	*Amelanchier laevis*	6, 11, 11.5	4	Fair	Poor	Poor to fair	Suppressed tree – positioned under pine tree; trunk base suckers present. **Remove tree – conflict with new building construction**
81 Tag 271	Austrian pine	*Pinus nigra*	30	8	Poor	Poor	Poor	Poor trunk form and crown form tree; evidence of DTP. **Remove tree – conflict with new building construction**
82 Tag 272	Austrian pine	*Pinus nigra*	23.5	6	Very poor	Very poor	Very poor	Crown with deadwood; evidence of DTB; very poor crown form – asymmetrical form. **Remove tree – conflict with new building construction**
83 Tag 273	Austrian pine	*Pinus nigra*	23.5	6	Very poor	Very poor	Very poor	Crooked trunk form; crown with deadwood; evidence of DTB; very poor crown form – asymmetrical form. **Remove tree – conflict with new building construction**
84 Tag 924	Little leaf linden	*Tilia cordata*	45.5	8	Fair	Poor	Poor to fair	Tree located adjacent building, beside concrete retaining wall, with poor form crown due to pruning; trunk with 2 stems at 1.7m with *included bark* formation; trunk lean away from building; crown with some deadwood present. **Remove tree – conflict with new building construction.**
85	Little leaf linden	*Tilia cordata*	44	8	Fair	Poor	Poor to fair	Tree located adjacent building, beside concrete retaining wall, with poor form crown due to pruning; trunk lean away from building; crown with some deadwood present; asymmetrical crown form. **Remove tree – conflict with new building construction**.
86	Maidenhair tree	*Ginkgo biloba*	5	1	Good	Fair	Fair to good	Small tree planted between building and entrance driveway; narrow crown form. **Remove tree – conflict with new building construction.**
87 Tag 402	Colorado blue spruce	*Picea pungens*	19.5	3	Poor	Poor	Poor	Tree between building and entrance driveway rendering a small root habitat area; compacted soils; lower crown pruned; poor crown form (asymmetrical form); lower crown with deadwood. **Remove tree – conflict with new building construction**.
88 Tag 401	Colorado blue spruce	*Picea pungens*	17.5	3	Poor	Poor	Poor	Tree between building and entrance driveway rendering a small root habitat area; compacted soils; lower crown pruned; poor crown form (asymmetrical form); lower crown with deadwood. **Remove tree – conflict with new building construction.**

89 Tag 400	Colorado blue spruce	*Picea pungens*	31.5	4	Fair	Fair	Fair	Tree between building and entrance driveway rendering a small root habitat area; compacted soils; lower crown pruned; poor crown form (asymmetrical form); lower crown with deadwood. **Remove tree – conflict with new building construction**.
90	Alleghany serviceberry	*Amelanchier laevis*	5, 8.5	4	Extremely poor	Extremely poor	Extremely poor	Very poor trunk and crown forms; suppressed tree located under spruce tree; large basal rot site. **Remove tree – conflict with new building construction**.
91	Crabapple variety	*Malus cv.*	13	4	Very poor	Extremely poor	Extremely poor	Small tree located close to entrance driveway; large white-faced scar on trunk; trunk with lean; suppressed tree located under spruce tree. **Remove tree – conflict with new building construction**.
92 Tag 398	Crabapple variety	*Malus cv.*	14.5	4	Poor	Poor	Poor	Trunk lean to east; poor crown form; crown deadwood present; crown with epicormic shoots. **Remove tree – conflict with new building construction**.
93 Tag 397	White birch	*Betula papyrifera*	15, 26	5	Poor	Poor	Poor	Trunk base with rot cavity; crown with deadwood and broken branch; poor crown form (asymmetrical form). **Remove tree – conflict with new building construction**.
94 Tag 396	Crabapple variety	*Malus cv.*	10, 13.5, 14.5	7	Poor	Poor	Poor	Trunk with lean to east; poor crown form (asymmetrical form) with deadwood and epicormic shoots. **Remove tree – conflict with new building construction**.
95 Tag 395	Colorado blue spruce	*Picea pungens*	37	4	Poor	Poor	Poor	Poor crown form, one sided, competing with adjacent tree; crown with deadwood; poor trunk health condition. **Remove tree – conflict with new building construction**.
96 Tag 394	Colorado blue spruce	*Picea pungens*	27	4	Poor	Poor	Poor	Poor crown form, one sided, competing with adjacent tree; crown with deadwood; poor trunk health condition. **Remove tree – conflict with new building construction**.
97 Tag 393	Ivory silk lilac	*Syringa reticulata*	5.5, 8, 8, 8	6	Poor	Poor	Poor	Poor trunk and crown forms; suppressed tree positioned under spruce tree. **Remove tree – conflict with new building construction**.
98	Colorado blue spruce	*Picea pungens*	27.5	4	Poor	Poor	Poor	Trunk lean to east; poor crown form (asymmetrical form) – one sided live crown. **Remove tree – conflict with new building construction.**
99 Tag 391	Colorado blue spruce	*Picea pungens*	23.5	2	Very poor	Very poor	Very poor	Trunk lean to east; very poor crown form (asymmetrical form) – one sided live crown. **Remove tree – conflict with new building construction**.
100 Tag 105	Sugar maple	*Acer saccharum*	76.5	15	Fair	Fair	Fair	Girdling root present; straight trunk form; tree located on slope; defined trunk flare; min. crown deadwood; tree lean towards ravine; thinning upper crown.
101 Tag 8	Sugar maple		25	7	Poor	Poor	Poor	Rot site at branch stub; poor crown form competing with tree 105, suppressed tree crown; trunk flare with rot.
102 Tag 9	American beech	*Fagus americana*	10.5	3.5	Poor	Poor	Poor	Rot at branch stub; suppressed tree; dead crown top; >>>
103 Tag 10	Sugar maple	*Acer saccharum*	7.5, 13.5	5	Poor	Poor	Poor	Very poor crown form;' suppressed tree; trunk with branch stub rot; hole under trunk area.
104 Tag 13	Sugar maple	*Acer saccharum*	33	11	Good	Fair	Fair	Straight trunk form; high live crown ratio (LCR); balanced crown form.
105 Tag 27	Sugar maple	*Acer saccharum*	69	14	Good	Fair	Fair to good	Straight trunk form; defined trunk flare; min. crown deadwood.
106 Tag 26	Sugar maple	*Acer saccharum*	62.5	12	Good	Fair	Fair to good	Very little live crown on east side – competing with tree 105; straight trunk form; defined trunk flare; min. crown deadwood.
107 Tag 25	Sugar maple	*Acer saccharum*	20	9	Fair	Fair	Fair	Suppressed tree; straight trunk form; poor crown form.

108 No tag	Beech		63	11	Fair	Fair	Fair	Straight trunk form; defined root flare; branch stub rot; small girdling root; min. crown deadwood; few broken branches; crown reach to south 7m. **Retain tree with injury**.
109 No tag	Sugar maple	*Acer saccharum*	63	11	Fair	Fair	Fair	Defined trunk flare; hole seen between trunk flares near ground level; virus tissue growth at 4.5m; min. crown deadwood; balanced crown form. **Retain tree with injury.**
110 Tag 24	Sugar maple	*Acer saccharum*	18.5	6	Fair	Poor	Poor to fair	Straight trunk form; min. crown deadwood; poor crown form.
111 Tag 23	Sugar maple	*Acer saccharum*	10, 12.5	7	Poor	Poor	Poor	Suppressed tree; poor crown form – asymmetrical crown form.
112 Tag 15	Basswood	*Tilia americana*	56	14	Poor to fair	Poor	Poor	Trunk with small stems (15cm diameter) from base cut at approx. 2m with epicormic shoots from stems; crown overlapping pool; crooked trunk form; trunk lean with majority of crown over pool; poor crown form. **Retain tree with injury**.
113 Tag 14	Sugar maple	*Acer saccharum*	11	5	Fair	Fair	Fair	Crown reaches pool structure; partially suppressed tree; poor crown form.
114 No tag	Sugar maple	*Acer saccharum*	42	8	Fair	Fair	Fair	Straight trunk form; crown reaches pool. **Retain tree with injury**.
115 Tag 22	Sugar maple	*Acer saccharum*	23	7	Good	Fair	Fair to good	Trunk with no major defects; thinning crown top.
116 Tag 17	Sugar maple	*Acer saccharum*	51.5	9	Fair	Fair	Fair	Straight trunk form; crown reaches pool overlap by 1m; min. crown deadwood present; asymmetrical crown form.
117 Tag 18	Sugar maple	*Acer saccharum*	20.5	6	Poor	Poor	Poor	Very poor trunk form, raps around trunk of tree 116; min. crown deadwood.
118 Tag 20	Sugar maple	*Acer saccharum*	29	8	Fair	Fair	Fair	Straight trunk form; crown with generally good form.
119 Tag 21	White pine	*Pinus strobus*	56	6	Poor	Poor	Poor	Straight trunk form; defined root flare; very little live crown volume; abundant branch mortality; many broken branches.
120	Sugar maple	*Acer saccharum*	34	6	Poor	Poor	Poor	Trunk lean to SE; exposed root collar and trunk flare; very poor crown form; irregular crown form; girdling root. **Retain tree with injury**.
121	Sugar maple	*Acer saccharum*	9	3	Poor	Poor	Poor	Suppressed tree; rot site at branch stub at 1.5m; poor crown form.
122	Sugar maple	*Acer saccharum*	37, 60	13	Fair	Poor	Poor to fair	Two-stemmed tree from base; diverging stems; south stem overlapping pool; thinning crown; some crown deadwood; broken branches on south side; trunk white face scar on south stem.
123	Sugar maple	*Acer saccharum*	12.5	4	Fair	Fair	Fair	Suppressed tree; balanced crown form. **Retain tree with injury**.
124	Sugar maple	*Acer saccharum*	15	4	Fair	Fair	Fair	Suppressed tree; balanced crown form; dead branch stub present. **Retain tree with injury**.
125	Sugar maple	*Acer saccharum*	8.5, 16.5	7	Fair	Fair	Fair	Trunk with no major defects; normal crown form. **Retain tree with injury**.
126	Sugar maple	*Acer saccharum*	29	6	Very poor	Very poor	Very poor	Very poor crown form competing with tree 127; irregular crown form; crown overlapping pool; rot at branch stub at 3m. **Retain tree with injury**.
127	Sugar maple	*Acer saccharum*	65	10	Fair	Fair	Fair	Trunk with no major defects; trunk splits at 6m with possible *included bark* formation; some crown deadwood. **Retain tree with injury**.

128	Sugar maple	*Acer saccharum*	22.5	6	Poor	Poor	Poor	Suppressed tree with very poor crown form; crown with rot sites. **Retain tree with injury**.
129	Sugar maple	*Acer saccharum*	45	9	Very poor	Very poor	Very poor	Trunk lean to west; poor crown form; min. crown deadwood; vertical trunk rot up to 3m.
130	Ironwood	*Ostrya virginiana*	10, 13, 21.5	10	Fair	Poor	Poor to fair	Diverging trunk stems; largest stem facing ravine; poor crown form; crown deadwood present.
131	Sugar maple	*Acer saccharum*	50	13	Fair	Fair	Fair	Tree located on elevated landscape area; exposed roots and trunk flare; straight trunk form; slight trunk lean to south; some root collar rot. **Retain tree with injury**.
132	Choke cherry	*Prunus virginiana L var. virginiana*	10	3	Fair	Fair	Poor	Small ornamental tree. **Remove tree – poor condition**.
133	Choke cherry	*Prunus virginiana L var. virginiana*	3, 4, 4	3	Poor	Poor	Poor	Small ornamental tree with poor crown characteristics. **Remove tree – poor condition**.
134	Sugar maple	*Acer saccharum*	26.5	8	Fair	Fair	Fair	Straight trunk form; balanced crown form.
135	Silver maple	*Acer saccharinum*	22.5	7	Poor	Poor	Poor	Crooked trunk form; poor crown form; thinning crown condition.
136	Sugar maple	*Acer saccharum*	73	14	Fair	Fair	Fair	Girdling root present; defined root flare; generally balanced crown form; trunk lean to SW; crown reaches building. **Retain tree with injury**.
137	Sugar maple	*Acer saccharum*	33	8	Very poor	Very poor	Very poor	Trunk located in restricted habitat, adjacent concrete patio foundation and immediately beside building; poor crown form – asymmetrical form. **Remove tree – conflict with demolition work + very poor health**.

Subject Site Tableland Trees

Tree No.	Tree Species	Latin Name	DBH (cm.)	Crown Diameter (m.)	Trunk Integrity	Crown Vigour & Structure	Plant Condition (Health & Structure Conditions)	Observations & Comments
138 Tag 923	Little leaf linden	*Tilia cordata*	25.5	6	Fair	Poor	Poor to fair	Tree located between building and concrete retaining wall; poor trunk condition – scars and rot sites; scaffold branch at 1.3m with rot site; poor crown form.
139 Tag 279	Little leaf linden	*Tilia cordata*	45	9	Poor	Poor	Poor	Tree located between building and concrete retaining wall; multi-stemmed at 1.6m trunk with lean away from building and overhanging parking spaces; poor crown form.
140 Tag 280	Little leaf linden	*Tilia cordata*	43	8	Poor	Poor	Poor	Tree located between building and concrete retaining wall; multi-stemmed at 1.5m trunk with lean away from building and overhanging parking spaces; poor crown form.
141	Little leaf linden	*Tilia cordata*	29.5	6	Good	Good	Good	Presently undersized tree and not regulated by Private Tree Bylaw; tree in outdoor pool area; normal trunk form; balanced crown form.

Trees in red are undersized (i.e. < 30cm DBH) and therefore unregulated at the present time.

Neighbouring Property Tableland Tree

Tree No.	Tree Species	Latin Name	DBH (cm.)	Crown Diameter (m.)	Trunk Integrity	Crown Vigour & Structure	Plant Condition (Health & Structure Conditions)	Observations & Comments
142	Thornless honey locust	*Gleditsia triacanthos*	31	11	Fair	Fair	Fair	Tree located in landscape area – other trees removed that were in the same defined landscape area; balanced crown form; girdling root present; trunk with no major visible defects; crown pruned.

Municipal Trees

Tree No.	Tree Species	DBH (cm.) *	Crown Dia. (m.)	Trunk integrity	Crown Vigour & Structure	Plant Condition ** Health & Structure Elements	Tree Protection Zones (m.) radius from tree edge	Observations & Comments***

14.0 Appendix B
Tree Protection Details

For details regarding standard tree protection measures for the City of Toronto use the document mentioned below:

Reference:
Sourced from the City of Toronto Urban Forestry section
Tree Protection Policy and Specifications for Construction Near Trees
March 2016

Source:
http://www.toronto.ca/trees/pdfs/TreeProtSpecs.pdf

Tree Protection Details

7. Tree Protection Plan Details

The following diagrams provide details for tree protection barriers and sediment protection barriers:

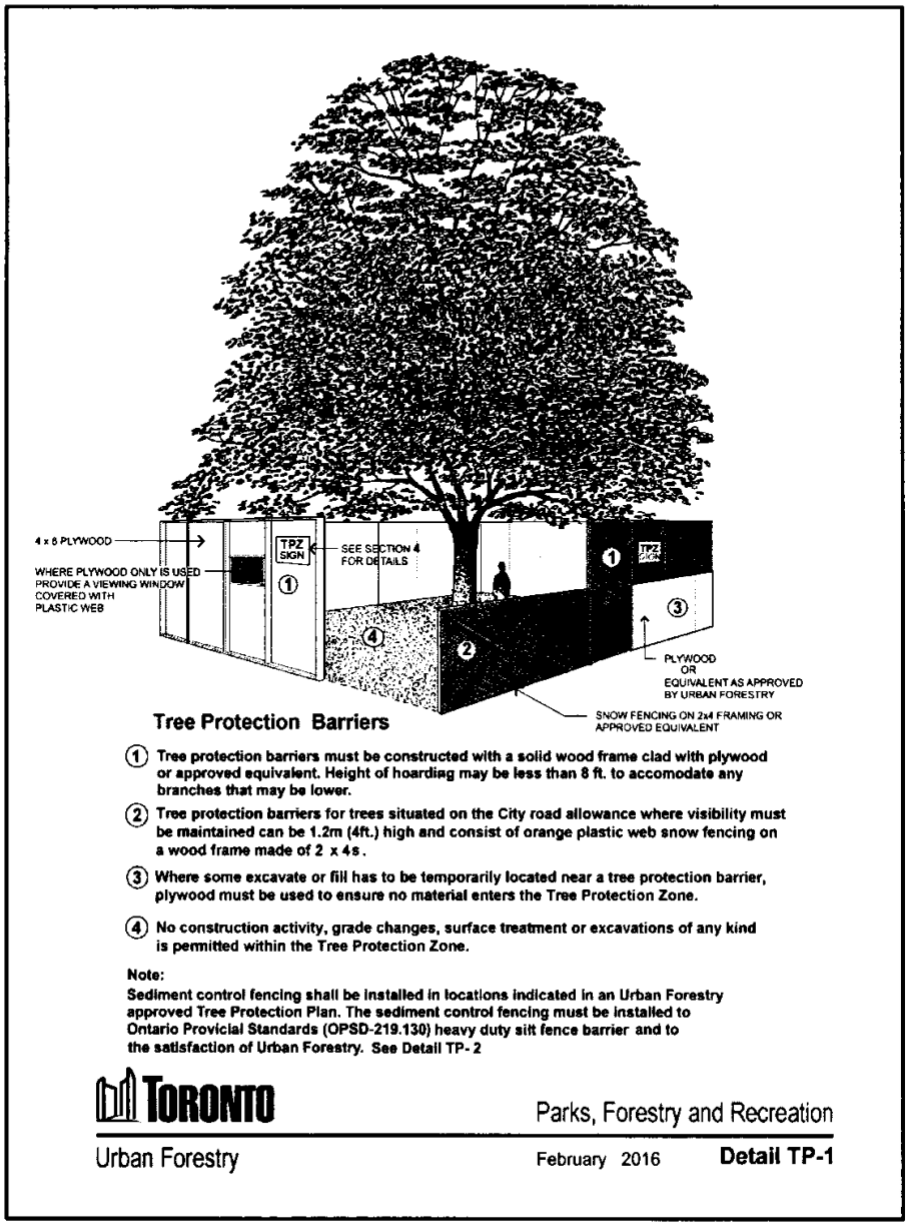
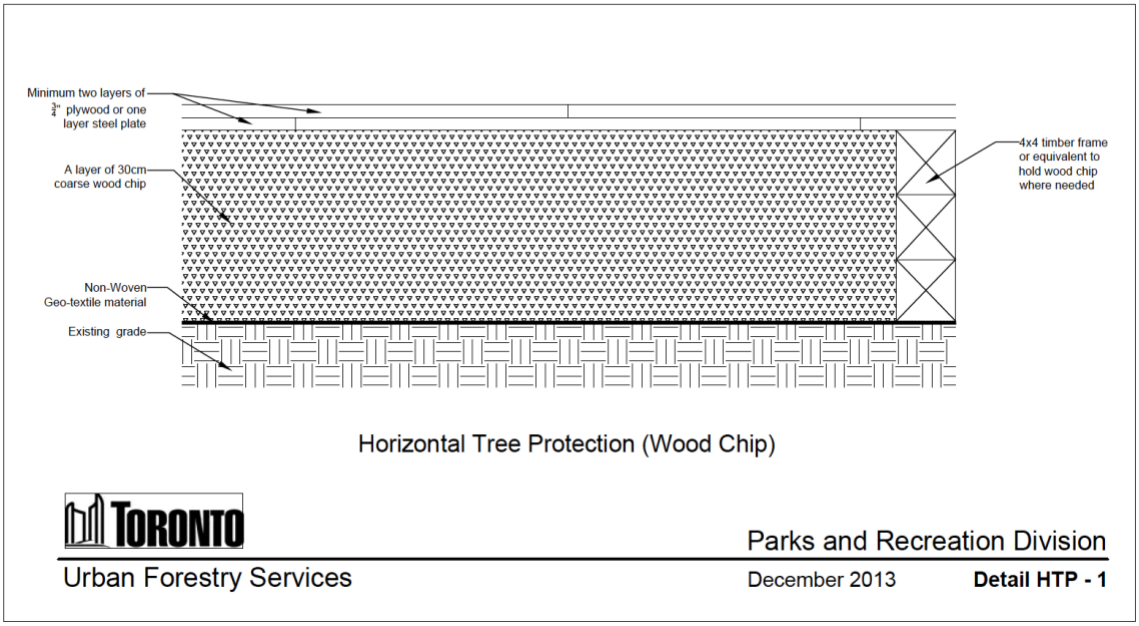


Figure 4: Urban Forestry Detail TP-1

Horizontal Tree Protection Detail



15.0 Appendix C
Root Pruning Protocol

The purpose of root pruning is to prevent tissue injury, reduce infection entry-points, and encourage compensatory root growth elsewhere within the remaining root system. Root pruning and its relation with new development normally always requires the involvement of the project Arborist or Qualified Tree Consultant (QTC).

For this particular project, the following arboricultural measures will be implemented as part of the root pruning process:

1. Exposed roots shall be severed at the soil-root profile and will be performed using any of the listed tools:
    - Large or small loppers
    - Hand pruners (ex. secateurs)
    - Small branch saws
    - Wound scribers

2. Tree roots that are greater 2.5cm in diameter that are "injured" or "diseased" shall be performed through a "Directional Root Pruning (DRP) operation. DRP is a recommended technique approach and should be used during hand excavation around tree roots. Roots are similar to branches in their physiological response to pruning. With DRP, severely injured and undesirable roots are properly cut to a lateral root that is growing vertically down or within a desirable environment.

3. No wound dressing (ex. pruning paint) shall be used to cover the ends of exposed roots whether pruned or otherwise.

4. Exposed roots shall be protected for the entire construction process. Following the root pruning, the soil-root profile should be immediately covered with a burlap material with an overlaid poly-material (6mm thick). The terrain area near the new excavated soil line shall be kept moist and irrigated accordingly.

5. All root pruning or removal of roots shall be performed by a QTC or the project Arborist. Root pruning shall be carried out using industry standard protocol according to good arboricultural practices.

16.0 Appendix D

PLANT CONDITION WORKSHEET

Factor Rating: *Each of the five factors is designated a rating from 1 to 5 derived from evaluating if possible, all of the items listed. A condition rating allocating a five indicates a high rating.*

No problem [3]	*5*	*S_2 = item is primarily structural*
No apparent problem(s)	*4*	*H_2 = item is primarily health*
Minor problem(s)	*3*	*S, H_2 = item may involve both structure and health*
Major problem(s)	*2*	
Extreme problem(s)	*0 or 1*	**TREE NO. & SPECIES** _____

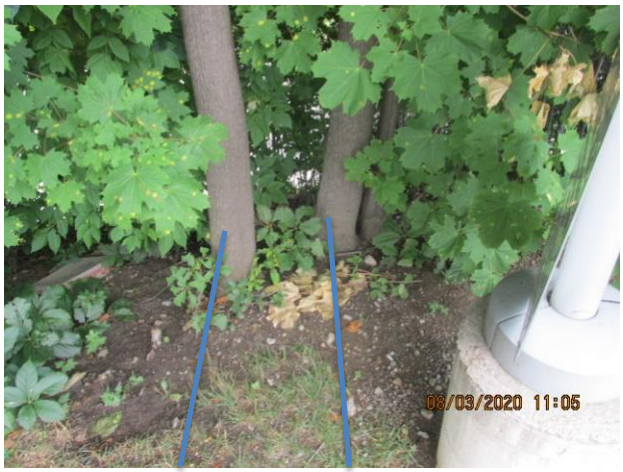
Factors	Condition Points
ROOTS [3]	
Root anchorage S_2	
Confined relative to top S	
Collar soundness S, H_2	
Mechanical injury S, H	
Girdling or kinked roots S, H	
Compaction or water-logged roots H_2	
Toxic gases & chemical symptoms H	
Presence of insects or diseases H	_____
TRUNK[3]	
Sound bark & wood, no cavities S, H	
Upright trunk (well tapered) S	
Mechanical or fire injury S, H	
Cracks - frost, etc. S, H	
Swollen or sunken areas S, H	
Presence of insects or diseases H	_____
SCAFFOLD BRANCHES[3]	
Strong attachments S	
Smaller diameter than trunk	
Vertical branch distribution	
Free of included bark	
Free of decay and cavities S, H	
Well-pruned, no severe heading back S, H	
Well-proportioned – tapered, laterals along branches S	
Wound closure H	
Amount of dead wood or fire injury S, H	
Presence of decay, insects or diseases H	_____
SMALLER BRANCHES & TWIGS	
Vigour of current shoots, compared to that of 3-5 previous years H	
Well-distributed through canopy H	
Normal appearance of buds – colour, shape & size for species	
Presence of weak or dead twigs H	
Presence of insects or diseases H	_____
FOLIAGE	
Normal appearance – size & colour H	
Nutrient deficiencies H	
Herbicide, chemical or pollutant injury symptoms H	
Wilted or dead leaves H	_____
Presence of insects or diseases H	
Total Points	_____

Total Points	Condition	Rating
23 –25	Excellent	90 –100
19 – 22	Good	70 – 89
15 – 18	Fair	50 – 69
11 – 14	Poor	25 – 49
05 – 10	Very Poor	05 – 24

[3]A rating of "5" indicates no problems found having done a root-collar inspection and/or climbing the tree to inspect the trunks and major limbs.

17.0 Tree Photographs (additional photographs held on file)

Tree 34 Property corner with tree 35 behind and adjacent tree 34



Tree 34 Tree 35 refer to survey and tree plan for locations

East ravine trees 34 to 83

Neighbouring ravine trees 1-8 & 26-33 in upper area, above the high circular concrete retaining wall

Neighbouring ravine trees 9-25 with 7m high concrete retaining wall behind trees

Ravine trees 78-83 down east side of entrance driveway

Tree 85 Tree 84

Ravine trees 87-99 on west side down entrance driveway

North side of hotel facing west from gate between building and tree 108
Note the advanced sugar maple regeneration

Trees 112, 113, 114 adjacent indoor pool structure

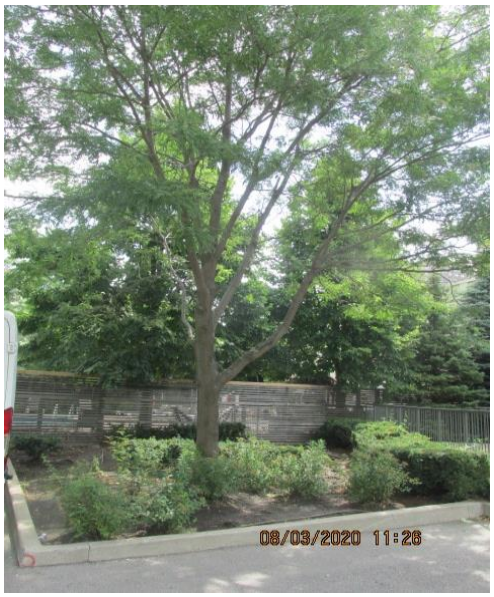
Indoor pool structure & Tree 120

Outdoor patio & Trees 126, 127, & 128

Small serviceberries tree 132 & 133 Tree 131

Tree 137 located in a very restricted environment

Tree 137 Tree 136



Neighbouring Tree 142

Tree 140 Tree 139