



URBAN FORESTRY & FOREST MANAGEMENT CONSULTING

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H4N 2B6

RE: TREE CONSERVATION REPORT FOR 1649 MONTREAL ROAD/741 BLAIR ROAD, OTTAWA

This Tree Conservation Report (TCR) was prepared by IFS Associates Inc. (IFS) on behalf of Bertone Development Corporation in support of the development of 1649 Montreal Road/741 Blair Road in Ottawa. The need for this report is related to trees protected under the City of Ottawa's Tree Protection By-law (By-law No. 2020-340). The By-law reflects Section 4.8.2. of the City of Ottawa's Official Plan which calls for the retention of the City's urban forestry canopy and, in particular, the protection of large, healthy trees.

Under the Tree Protection By-law a TCR is required for all Plans of Subdivision, Site Plan Control Applications, Common Elements Condominium Applications, and Vacant Land Condominium Applications where there is a tree of 10 cm in diameter at breast height (DBH) or greater on a site and/or if there is a tree on an adjacent site that has a critical root zone (CRZ) extending onto a development site. Trees of any size on adjacent City lands must also be documented in a TCR. A "tree" is defined in the By-law as any species of woody perennial plant, including its root system, which has reached or can reach a minimum height of at least 450 cm at physiological maturity. The CRZ is calculated as DBH x 10 cm.

The inventory in this report details the assessment of all individual living trees on the subject property and adjacent properties, including City of Ottawa lands. Field work for this report was completed in April 2021 and August 2022.

The development proposed for the site includes the demolition of the two existing buildings, a single family dwelling and one-storey car repair garage with surface parking, and construction of a 26-storey mixed use building with underground parking. The proposed construction will result in the removal of the majority of existing trees on the subject property. However, most trees within the northern portion of the property will be retained. All trees fully on adjacent private property and City lands will be preserved and protected during construction. Several trees shared with adjacent property owners will be removed. In such cases written permission of affected landowners is required before the trees can be removed.



TREE SPECIES, CONDITION, SIZE AND STATUS

Table 1 below details the species, condition, size (diameter) and status of the individual trees on the subject and adjacent properties. Each of these trees is referenced by the numbers plotted on the tree conservation plan on page 8 of this report.

Table 1. Species, ownership, diameter, condition and preservation status of trees at 1649 Montreal Road/741 Blair Road

Tree No.	Tree Species	Ownership	DBH ¹ (cm)	Tree Condition; Condition Notes; Species Origin & Preservation Status (to be removed or preserved and protected)
1	White elm (<i>Ulmus americana</i>)	Private	20 avg.	Good; seven stemmed from grade; crown asymmetric due to influence of tree #2; no outward signs of Dutch elm disease (<i>Ophiostoma novo-ulmi</i>); native species; to be removed (conflicts with construction)
2	Cottonwood (<i>Populus deltoides</i>)	Private	25 avg.	Good; five-stemmed from 0.5m; stems divergent - broad crown; native species; to be removed (conflicts with construction)
3	White elm (<i>Ulmus americana</i>)	Private	13 avg.	Poor; previously topped below Hydro lines; no outward signs of Dutch elm disease (<i>Ophiostoma novo-ulmi</i>); native species; to be removed (conflicts with construction)
4	Cottonwood (<i>Populus deltoides</i>)	Private	36	Good; single upright stem; native species; to be removed (conflicts with construction)
5	Manitoba maple (<i>Acer negundo</i>)	Private	11 avg.	Fair; double stemmed from grade; naturalized species; to be removed (conflicts with construction)
6	Colorado spruce (<i>Picea pungens</i>)	Private	21	Very poor; previously topped below Hydro lines; crown asymmetric; good density; increment and needle colour where exposed to direct sunlight; introduced species; to be removed (due to condition)
7	Colorado spruce (<i>Picea pungens</i>)	Private	23	Very poor; previously topped below Hydro lines; crown asymmetric; good density; increment and needle colour where exposed to direct sunlight; introduced species; to be removed (due to condition)
8	Manitoba maple (<i>Acer negundo</i>)	Private	16	Poor; single stemmed; heavily divergent towards south; naturalized species; to be removed (due to condition)
9	White pine (<i>Pinus strobus</i>)	Neighbour	+/-25	Fair; narrow crown; fair crown density, annual increment and needle colour; native species; to be preserved



10	White pine (<i>Pinus strobus</i>)	Neighbour	+/-25	Fair; no dominant leader; fair crown density, annual increment and needle colour; native species; to be preserved
11	White spruce (<i>Picea glauca</i>);	Neighbour	+/- 15 avg.	Approximately 12 trees – all dead or in poor condition; native species; to be preserved
	Trembling aspen (<i>Populus tremuloides</i>);		+/-20	Good condition; single tree; native species; to be preserved
	White pine (<i>Pinus strobus</i>)		+/-25	Fair condition; single tree; native species; to be preserved
12	Manitoba maple (<i>Acer negundo</i>)	Shared	16	Poor; single stemmed; heavily divergent towards south; naturalized species; to be preserved
13	White cedar (<i>Thuja occidentalis</i>)	Shared	19	Good; upright form; living crown held high; native species; to be preserved
14	White cedar (<i>Thuja occidentalis</i>)	Shared	28	Good; co-dominant stems at 2.25m – parallel; living crown held high; native species; to be preserved
15	White cedar (<i>Thuja occidentalis</i>)	Private	19	Fair; single stemmed; slightly divergent towards east; woodpecker damage; native species; to be preserved
16	White cedar (<i>Thuja occidentalis</i>)	Private	23	Poor; single stemmed; heavily divergent towards southeast – almost horizontal; native species; to be removed (due to condition)
17	White cedar (<i>Thuja occidentalis</i>)	Private	46 & 57	Fair; very mature; double stemmed from grade; good density, increment and colour; to be removed (conflicts with construction)
18	English oak (<i>Quercus robur</i>)	Private	32	Very good; upright form; multiple seams on east side of trunk; introduced species (planted); to be removed (conflicts with construction)
19	Serviceberry (<i>Amelanchier</i> spp.)	Private	11	Poor; mature; heavily suppressed by adjacent trees #18 and 20; native species; to be removed (conflicts with construction)
20	Manitoba maple (<i>Acer negundo</i>)	Private	28	Fair; single stemmed; heavily divergent towards north; naturalized species; to be removed (conflicts with construction)
21	White cedar (<i>Thuja occidentalis</i>)	Neighbour	+/-15	Good; upright form; living crown held high; native species; to be preserved

22	Manitoba maple (<i>Acer negundo</i>)	Private	43	Poor; co-dominant stems at 2m; divergent towards southwest; heavy vine (<i>Vitis</i> spp.) growth throughout crown; naturalized species; to be preserved
23	Manitoba maple (<i>Acer negundo</i>)	Private	43	Poor; co-dominant stems at 1.5m; broken with major wound; naturalized species; to be removed (conflicts with construction)
24	White cedar (<i>Thuja occidentalis</i>)	Private	40 avg.	Poor; four stemmed from grade; very divergent; heavy vine (<i>Vitis</i> spp.) growth throughout crown; poor density, increment and needle colour; native species; to be removed (conflicts with construction)
25	Siberian elm (<i>Ulmus pumila</i>)	Private	21 avg.	Fair; three stemmed from grade; broad crown; introduced invasive species; to be removed (conflicts with construction)
26	Siberian elm (<i>Ulmus pumila</i>)	Private	17 & 32	Fair; double stemmed from grade; introduced invasive species; to be removed (conflicts with construction)
27	Colorado spruce (<i>Picea pungens</i>)	Private	38	Good; single dominant stem; living crown held high; heavy vine growth (<i>Vitis</i> spp.) in lower crown; good density; increment and needle colour where exposed to direct sunlight; introduced species; to be preserved
28	White cedar (<i>Thuja occidentalis</i>)	Neighbour	+/-20	Poor; previously topped at 2.5m; poor density and increment, fair needle colour; native species; to be preserved
29	Basswood (<i>Tilia americana</i>)	Neighbour	+/-35 avg.	Good; double stemmed at grade; moderately divergent; two basal sprouts (15cm avg.); native species; to be preserved
30	White cedar (<i>Thuja occidentalis</i>)	Neighbour	+/-25	Good; single upright stem; fair density, increment and needle colour; native species; to be preserved
31	White spruce (<i>Picea glauca</i>)	Neighbour	+/-25 avg.	Good; double stemmed at grade; crown asymmetric towards south; fair density, increment and needle colour where exposed to sunlight; native species; to be preserved
32	Norway maple (<i>Acer platanoides</i>)	Private	26	Fair; co-dominant stems at 1.5m from grade; broad crown; introduced invasive species; to be preserved
33	Siberian elm (<i>Ulmus pumila</i>)	Private	20	Good; single stemmed; introduced invasive species; to be removed (conflicts with construction)

34	White cedar (<i>Thuja occidentalis</i>)	Private	12 & 17	Good; double stemmed at grade – central with competing lateral on south; native species; to be removed (conflicts with construction)
35	Austrian pine (<i>Pinus nigra</i>)	Private	21	Fair; single dominant stem; living crown held high and very asymmetric; good density; increment and needle colour where exposed to direct sunlight; introduced species; to be removed (conflicts with construction)
36	Emerald cedar (<i>Thuja occidentalis</i> 'Smaragd')	Private	12 & 17	Fair; double stemmed at 1m; fair density, increment and needle colour; cultivar; to be removed (conflicts with construction)
37	White elm (<i>Ulmus americana</i>)	Private	27	Good; single stemmed; typical open grown form of species; no outward signs of Dutch elm disease (<i>Ophiostoma novo-ulmi</i>); native species; to be removed (conflicts with construction)
38	White cedar (<i>Thuja occidentalis</i>)	Shared	10 avg.	Fair; mature hedge; fair density, increment and needle colour (poor in spots where shaded by vine and seeded, ingrown trees); native species; to be removed (conflicts with construction)
39	Basswood (<i>Tilia americana</i>)	Shared	17	Good; upright form; dense crown; native species; to be removed (conflicts with construction)
40	White spruce (<i>Picea glauca</i>)	Shared	17	Good; single dominant stem; living crown held high; good density; increment and needle colour where exposed to direct sunlight; native species; to be removed (conflicts with construction)
41	Basswood (<i>Tilia americana</i>)	Shared	19	Good; upright crown form; dense; native species; to be removed (conflicts with construction)
42	Catalpa (<i>Catalpa speciosa</i>)	Private	26	Fair; dominant central stem with competing lateral on north at 3.5m; introduced species; to be removed (conflicts with construction)
43	White elm (<i>Ulmus americana</i>)	Private	28	Poor; bent under weight of vine (<i>Vitis</i> spp.) – divergent towards southeast; heavily pruned from over neighbouring roof; no outward signs of Dutch elm disease (<i>Ophiostoma novo-ulmi</i>); native species; to be removed (conflicts with construction)
44	White cedar (<i>Thuja occidentalis</i>)	Private	16 & 18	Good; double stemmed at grade; good density, increment and needle colour; native species; to be removed (conflicts with construction)

45	White elm (<i>Ulmus americana</i>)	City	10	Good; juvenile tree from seed; no outward signs of Dutch elm disease (<i>Ophiostoma novo-ulmi</i>); native species; to be preserved
46	White elm (<i>Ulmus americana</i>)	City	13	Good; juvenile tree from seed; no outward signs of Dutch elm disease (<i>Ophiostoma novo-ulmi</i>); native species; to be preserved
47	White elm (<i>Ulmus americana</i>)	Private	14	Fair; single stemmed; very divergent form towards south due to influence of tree #48; no outward signs of Dutch elm disease (<i>Ophiostoma novo-ulmi</i>); native species; to be removed (conflicts with construction)
48	Sugar maple (<i>Acer saccharum</i>)	Private	38	Good; single stemmed; crown asymmetric towards west; native species; to be removed (conflicts with construction)
49	English oak (<i>Quercus robur</i>)	Private	15 avg.	Poor; five stemmed at grade – several dead; in decline; introduced species; to be removed (conflicts with construction)
50	Manitoba maple (<i>Acer negundo</i>)	Private	31	Fair; moderately divergent towards southeast; naturalized species; to be removed (conflicts with construction)
51	Juniper (<i>Juniperus</i> spp.)	Private	30	Fair; very mature; four stemmed at 0.5m from grade; one dominant stem (30cm dbh); cultivar; to be removed (conflicts with construction)
52	Manitoba maple (<i>Acer negundo</i>)	Private	23 & 25	Fair; double stemmed from grade; 23cm mainly upright, 25cm divergent towards southeast; naturalized species; to be removed (conflicts with construction)
53	Juniper (<i>Juniperus</i> spp.)	Private	23	Poor; one remaining stem of two co-dominants at 1.3m from grade; cultivar; to be removed (conflicts with construction)
54	Crab apple (<i>Malus</i> spp.)	Private	27	Very poor; in advanced decline – almost dead; cultivar; to be removed (conflicts with construction)
55	Manitoba maple (<i>Acer negundo</i>)	Private	17	Fair; heavily divergent towards southeast; naturalized species; to be removed (conflicts with construction)
56	Norway maple (<i>Acer platanoides</i>)	Private	65 (at 1m)	Fair; very mature; co-dominant stems at 1.5m from grade – moderately divergent; broad crown; introduced invasive species; to be removed (conflicts with construction)
57	White spruce (<i>Picea glauca</i>)	City/ Shared	15 avg.	Fair; three individual trees heavily sheared into ball forms; native species; to be preserved

¹Diameter at breast height, or 1.4m from grade.

Pictures 1 to 8 on pages 9 through 13 of this report show selected trees on and adjacent to the subject property. All pictures were taken in August 2022.



FEDERAL AND PROVINCIAL REGULATIONS

Federal and provincial regulations can be applicable to trees on private property. In particular, the following two regulations have been considered for this property:

- 1) Endangered Species Act (2007): No butternuts (*Juglans cinerea*) were identified on the subject or adjacent properties. This species of tree is listed as threatened under the Province of Ontario's Endangered Species Act (2007) and so is protected from harm.
- 2) Migratory Bird Convention Act (1994): In the period between April and August of each year nest surveys are required to be performed by a suitably trained person no more than five (5) days before trees or other similar nesting habitat are to be removed.

TREE PRESERVATION AND PROTECTION MEASURES

Preservation and protection measures intended to mitigate damage during construction will be applied for the trees to be retained. The following measures are required by the City of Ottawa to ensure tree survival during construction:

1. Erect a fence at the critical root zone (CRZ¹) of trees;
2. Do not place any material or equipment within the CRZ of the tree;
3. Do not attach any signs, notices or posters to any tree;
4. Do not raise or lower the existing grade within the CRZ without approval;
5. Tunnel or bore when digging within the CRZ of a tree;
6. Do not damage the root system, trunk or branches of any tree;
7. Ensure that exhaust fumes from all equipment are NOT directed towards any tree's canopy.

¹ The critical root zone (CRZ) is established as being 10 centimetres from the trunk of a tree for every centimetre of trunk Diameter at breast height (DBH). The CRZ is calculated as DBH x 10 cm.

Please do not hesitate to contact me with any questions concerning this Tree Conservation Report.

This report is subject to the attached Limitations of Tree Assessments and Liability to which the reader's attention is directed.

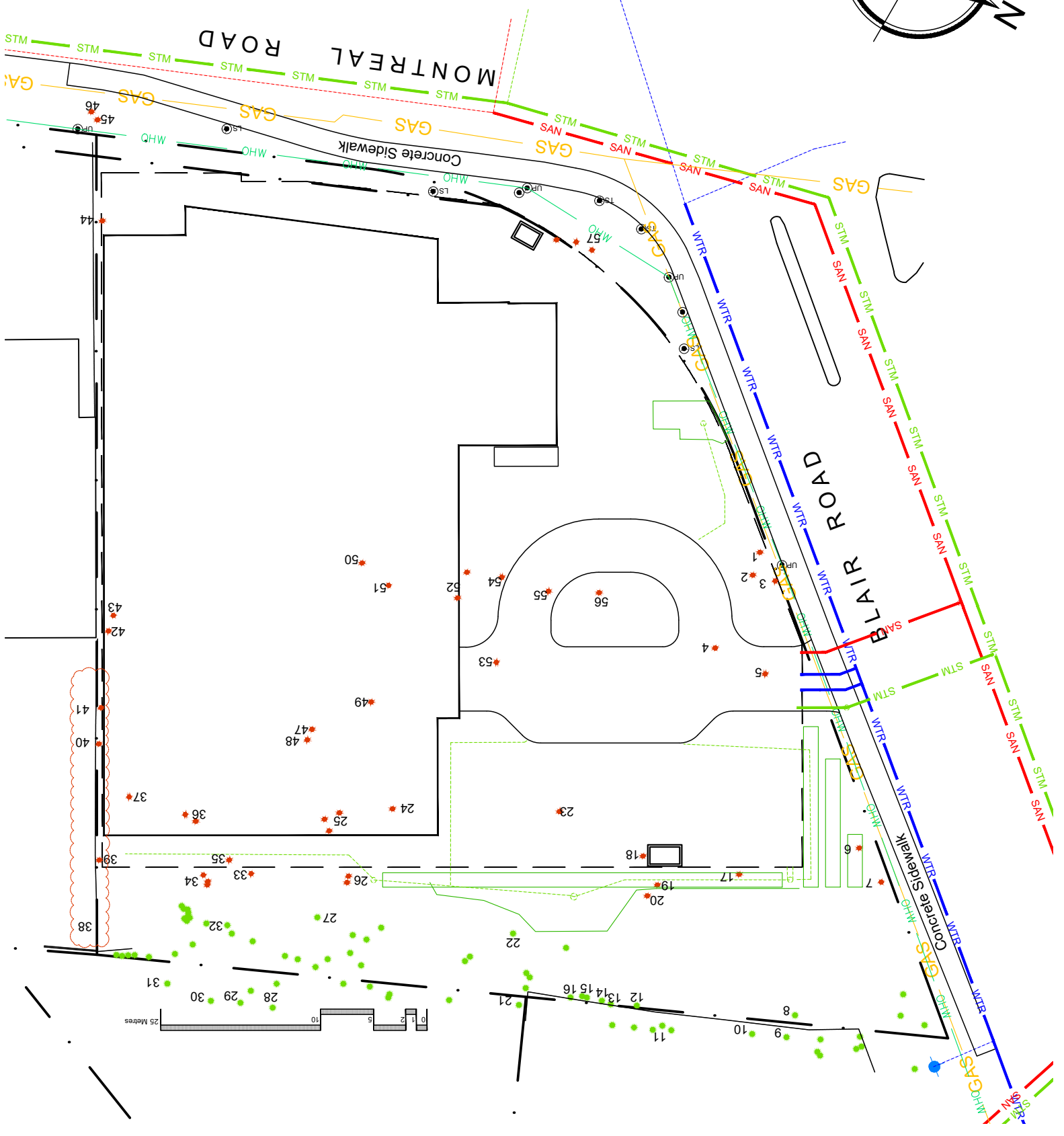
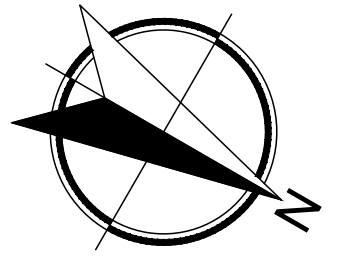
Yours,



Andrew K. Boyd, B.Sc.F, R.P.F. (#1828)
Certified Arborist #ON-0496A and TRAQualified
Consulting Urban Forester



BERTONE Montreal Road LP Mixed Use Building 1649 Montreal Road @ Blair Road





Picture 1. Trees #1 and #2, white elm (left) and cottonwood (right) at 1649 Montreal Road/741 Blair Road





Picture 2. Trees #6 and #7, Colorado spruce at 1649 Montreal Road/741 Blair Road



Picture 3. Trees #17, white cedar (left) and #18, English oak (right) at 1649 Montreal Road/741 Blair Road



Picture 4. Trees #13 through #16, white cedars at 1649 Montreal Road/741 Blair Road



Picture 5. Trees #35, Austrian pine (centre) and #36, Emerald cedar (right) at 1649 Montreal Road/741 Blair Road



Picture 6. Trees #25, Siberian elm (left background), #24, white cedar covered in vines (left foreground) and #49 English oak (right) at 1649 Montreal Road/741 Blair Road



Picture 7. Trees #38, cedar hedge, and basswoods #39 (right) and #41 (left) at 1649 Montreal Road/741 Blair Road



Picture 8. Trees #44, white cedar (left), and white elms #45 and 46 (right) at 1649 Montreal Road/741 Blair Road

LIMITATIONS OF TREE ASSESSMENTS & LIABILITY

GENERAL

It is the policy of *IFS Associates Inc.* to attach the following clause regarding limitations. We do this to ensure that our clients are clearly aware of what is technically and professionally realistic in assessing trees for retention.

This report was carried out by *IFS Associates Inc.* at the request of the client. The information, interpretation and analysis expressed in this report are for the sole benefit and exclusive use of the client. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the client to whom it is addressed. Unless otherwise required by law, neither all or any part of the contents of this report, nor copy thereof, shall be conveyed by anyone, including the client, to the public through public relations, news or other media, without the prior expressly written consent of the author, and especially as to value conclusions, identity of the author, or any reference to any professional society or institute or to any initialed designation conferred upon the author as stated in his qualifications.

This report and any values expressed herein represent the opinion of the author; his fee is in no way contingent upon the reporting of a specified value, a stipulated result, nor upon any finding to be reported. Details obtained from photographs, sketches, *etc.*, are intended as visual aids and are not to scale. They should not be construed as engineering reports or surveys. Although every effort has been made to ensure that this assessment is reasonably accurate, the tree(s) should be reassessed at least annually. The assessment presented in this report is valid at the time of the inspection only. The loss or alteration of any part of this report invalidates the entire report.

LIMITATIONS

The information contained in this report covers only the tree(s) in question and no others. It reflects the condition of the assessed tree(s) at the time of inspection and was limited to a visual examination of the accessible portions only. *IFS Associates Inc.* has prepared this report in a manner consistent with that level of care and skill ordinarily exercised by members of the forestry and arboricultural professions, subject to the time limits and physical constraints applicable to this report. The assessment of the tree(s) presented in this report has been made using accepted arboricultural techniques. These include a visual examination of the above-ground portions of each tree for structural defects, scars, cracks, cavities, external indications of decay such as fungal fruiting bodies, evidence of insect infestations, discoloured foliage, the condition of any visible root structures, the degree and direction of lean (if any), the general condition of the tree(s) and the surrounding site, and the proximity of people and property. Except where specifically noted in the report, the tree(s) examined were not dissected, cored, probed or climbed to gain further evidence of their structural condition. Also, unless otherwise noted, no detailed root collar examinations involving excavation were undertaken.

While reasonable efforts have been made to ensure that the tree(s) proposed for retention are healthy, no warranty or guarantee, expressed or implied, are offered that these trees, or any parts of them, will remain standing. This includes other trees on or off the property not examined as part of this assignment. It is both professionally and practically impossible to predict with absolute certainty the behaviour of any single tree or groups of trees or their component parts in all circumstances, especially when within construction zones. Inevitably, a standing tree will always pose some risk. Most trees have the potential for failure in the event of root loss due to excavation and other construction-related impacts. This risk can only be eliminated through full tree removal.

Notwithstanding the recommendations and conclusions made in this report, it must be realized that trees are living organisms, and their health and vigour constantly change over time. They are not immune to changes in site conditions, or seasonal variations in the weather. It is a condition of this report that *IFS Associates Inc.* be notified of any changes in tree condition and be provided an opportunity to review or revise the recommendations within this report. Recognition of changes to a tree's condition requires expertise and extensive experience. It is recommended that *IFS Associates Inc.* be employed to re-inspect the tree(s) with sufficient frequency to detect if conditions have changed significantly.

ASSUMPTIONS

Statements made to *IFS Associates Inc.* in regards to the condition, history and location of the tree(s) are assumed to be correct. Unless indicated otherwise, all trees under investigation in this report are assumed to be on the client's property. A recent survey prepared by a Licensed Ontario Land Surveyor showing all relevant trees, both on and adjacent to the subject property, will be provided prior to the start of field work. The final version of the grading plan for the project will be provided prior to completion of the report. Any further changes to this plan invalidate the report on which it is based. *IFS Associates Inc.* must be provided the opportunity to revise the report in relation to any significant changes to the grading plan. The procurement of said survey and grading plan, and the costs associated with them both, are the responsibility of the client, not *IFS Associates Inc.*

LIABILITY

Without limiting the foregoing, no liability is assumed by *IFS Associates Inc.* for: 1) any legal description provided with respect to the property; 2) issues of title and/or ownership with respect to the property; 3) the accuracy of the property line locations or boundaries with respect to the property; 4) the accuracy of any other information provided by the client or third parties; 5) any consequential loss, injury or damages suffered by the client or any third parties, including but not limited to replacement costs, loss of use, earnings and business interruption; and, 6) the unauthorized distribution of the report.

INDEMNIFICATION

An applicant for a permit or other approval based on this report shall agree to indemnify and save harmless *IFS Associates Inc.* from any and all claims, demands, causes of action, losses, costs or damages that affected private landowners and/or the City of Ottawa may suffer, incur or be liable for resulting from the issuance of a permit or approval based on this report or from the performance or non-performance of the applicant, whether with or without negligence on the part of the applicant, or the applicant's employees, directors, contractors and agents.

Further, under no circumstances may any claims be initiated or commenced by the applicant against *IFS Associates Inc.* or any of its directors, officers, employees, contractors, agents or assessors, in contract or in tort, more than 12 months after the date of this report.

ONGOING SERVICES

IFS Associates Inc. accepts no responsibility for the implementation of any or all parts of the report, unless specifically requested to supervise the implementation or examine the results of activities recommended herein. In the event that examination or supervision is requested, that request shall be made in writing and the details, including fees, agreed to in advance.