



URBAN FORESTRY & FOREST MANAGEMENT CONSULTING

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January 31, 2023

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206-555 Legget Drive (Tower A)
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RE: TREE CONSERVATION REPORT FOR 3484 INNES ROAD, 240 AND 270 LAMARCHE AVENUE, OTTAWA

This Tree Conservation Report (TCR) was prepared by IFS Associates Inc. (IFS) on behalf of Lepine Corporation in support of their proposed Plan of Subdivision application related to the redevelopment of 3484 Innes Road and 240-270 Lamarche Avenue 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). Presently, 3484 Innes Road is occupied by a single-family dwelling while 240-Lamarche Avenue is occupied two abandoned buildings and a surface parking lot. 270 Lamarche Avenue is free of all structures. The proposed redevelopment includes three development blocks with up to eight multi-storey apartment buildings (with underground parking), a park and a street to accommodate residential and potentially commercial uses. A fence is proposed along the western property line.

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 approval of this TCR by the by the City's General Manager and the issuing of a permit authorizes the removal of approved trees. **Importantly, although this report may be used to support the application for a City tree removal permit, it does not by itself constitute permission to remove trees or begin site clearing activities. No such work should occur before a tree removal permit is issued authorizing the injury or destruction of a tree in accordance with the By-law. Further, the removal of any trees shared with or fully on neighbouring properties will require written permission of the adjacent landowner.**

The inventory in this report details the assessment of all individual trees on the subject property and those shared with neighbouring private property and adjacent City of Ottawa property. Field work for this report was completed on May 2019 and July 2022.



The footprint of the buildings, in addition to the excavation necessary for the underground parking, will result in the removal of the majority of trees currently on the three subject properties. Further, the proposed fence will likely require the removal of those trees located in close proximity to the western property line. Certain higher quality trees (typically planted) are slated for preservation when they do not conflict with construction. All trees on adjacent private and City of Ottawa property will be retained. The tree preservation and protection measures cited in this report will be followed to ensure the survival of trees proposed for retention.

TREE SPECIES, CONDITION, SIZE AND STATUS

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

Table 1. Species, condition, diameter, ownership and status of trees at 3484 Innes Road and 240-270 Lamarche Avenue.

Tree No.	Tree Species	Condition (VP→E)	DBH ¹ (cm)	Owner -ship	Age Class, Tree Condition Notes & Preservation Status (to be removed or preserved and protected)
1	Sugar maple (<i>Acer saccharum</i>) & red oak (<i>Quercus rubra</i>)	Very good	5 avg.	City	Immature; eight recently planted trees; to be preserved and protected
2	Sugar maple (<i>Acer saccharum</i>)	Very good	5	City	Immature; recently planted tree; to be removed (conflicts with proposed street entrance)_
3	Sugar maple (<i>Acer saccharum</i>)	Very good	5	City	Immature; recently planted tree; to be removed (conflicts with proposed street entrance)_
4	Sugar maple (<i>Acer saccharum</i>)	Very good	5	City	Immature; recently planted tree; to be removed (conflicts with proposed street entrance)_
5	Sugar maple (<i>Acer saccharum</i>)	Very good	5	City	Immature; recently planted tree; to be removed (conflicts with proposed street entrance)_
6	Linden (<i>Tilia spp.</i>) & Red oak (<i>Quercus rubra</i>)	Very good	5 avg.	City	Immature; eight recently planted trees; to be preserved and protected
7	Sugar maple (<i>Acer saccharum</i>)	Very good	5	City	Immature; recently planted tree; to be removed (conflicts with proposed street entrance)_
8	Sugar maple (<i>Acer saccharum</i>)	Very good	5	City	Immature; recently planted tree; to be removed (conflicts with proposed street entrance)_

Table 1. Con't

Tree No.	Tree Species	Condition (VP→E)	DBH ¹ (cm)	Owner -ship	Age Class, Tree Condition Notes & Preservation Status (to be removed or preserved and protected)
9	Sugar maple (<i>Acer saccharum</i>)	Very good	5	City	Immature; recently planted tree; to be removed (conflicts with proposed street entrance)_
10	Bur oak (<i>Quercus macrocarpa</i>) & Red oak (<i>Quercus rubra</i>)	Very good	5 avg.	City	Immature; six recently planted trees; to be preserved and protected
11	Planted mixedwood grouping	Good	<10	Private	Immature; 1 red oak (<i>Quercus rubra</i>), 2 Freeman maple (<i>Acer x freemanii</i>), 2 white spruce (<i>Picea glauca</i>), 1 white pine (<i>Pinus strobus</i>) and 2 hackberry (<i>Celtis occidentalis</i>); 1 Japanese tree lilac (<i>Syringa reticulata</i>); to be removed
12	White elm (<i>Ulmus americana</i>)	Good	25 avg.	Private	Mature; five-stemmed from grade; broad, open grown crown; native species; no outward signs of Dutch elm disease (<i>Ophiostoma novo-ulmi</i>); to be removed
13	Crab apple (<i>Malus spp.</i>)	Poor	34	Private	Overmature; second stem previously removed from north side; cavity with advanced decay in remaining stem; to be removed
14	Manitoba maple (<i>Acer negundo</i>)	Fair	36 avg.	Private	Mature; double-stemmed from grade; third stem previously removed; crown divergent and asymmetrical towards south; to be removed
15	White cedar (<i>Thuja occidentalis</i>)	Good	12 avg.	Private	Maturing; two clusters – one with 7 stems, one with 11 stems; good crown density and needle colour; to be removed
16	Manitoba maple (<i>Acer negundo</i>)	Fair	41	Private	Mature; upright form with co-dominant leaders at 4.5m; lateral stem removed from east side at 1m; to be removed
17	Manitoba maple (<i>Acer negundo</i>)	Fair	47	Private	Mature; upright form with major wound in main stem 1.5-4m on south side; lateral stem removed from east side at 1m; to be removed

Table 1. Con't

Tree No.	Tree Species	Condition (VP→E)	DBH ¹ (cm)	Owner -ship	Age Class, Tree Condition Notes & Preservation Status (to be removed or preserved and protected)
18	Manitoba maple (<i>Acer negundo</i>)	Poor	62	Private	Mature; divergent towards northwest; to be removed
19	White elm (<i>Ulmus americana</i>)	Dead	44 avg.	Private	Mature; double-stemmed from grade; hazardous; to be removed
20	Manitoba maple (<i>Acer negundo</i>)	Poor	21 avg.	Private	Mature; double-stemmed at 0.5m; divergent towards west; to be removed
21	Manitoba maple (<i>Acer negundo</i>)	Poor	25 avg.	Private	Mature; double-stemmed from grade, third stem previously removed; co-dominant leaders at 3m; divergent towards west; to be removed
22	Amur maple (<i>Acer tataricum</i> subsp. <i>ginnala</i>)	Very poor	17 avg.	Private	Overmature; multi-stemmed from grade; in advanced decline – almost completely dead; to be removed
23	White spruce (<i>Picea glauca</i>)	Poor	12 & 16	Private	Mature; double-stemmed from grade; crown fully asymmetric towards southwest; poor crown density and growth increment, fair needle colour to be removed
24	Crab apple (<i>Malus</i> spp.)	Dead	35	Private	Tree is dead; to be removed
25	Norway maple (<i>Acer platanoides</i>)	Poor	25	Private	Mature; heavily divergent towards southwest; to be removed
26	Manitoba maple (<i>Acer negundo</i>)	Fair	35 avg.	Private	Mature; double-stemmed from grade; asymmetrical towards north due to tree #13; to be removed
27	White elm (<i>Ulmus americana</i>)	Good	19	Private	Mature; tri-dominant leaders at 5.5m; no outwards signs of no outward signs of Dutch elm disease (<i>Ophiostoma novo-ulmi</i>); to be removed
28	White spruce (<i>Picea glauca</i>)	Good	33	Private	Mature; good crown density, growth increment and needle colour; to be removed
29	Trembling aspen (<i>Populus tremuloides</i>)	Good	23	Private	Mature; double-stemmed from grade; to be removed

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Tree No.	Tree Species	Condition (VP→E)	DBH ¹ (cm)	Owner -ship	Age Class, Tree Condition Notes & Preservation Status (to be removed or preserved and protected)
30	Trembling aspen (<i>Populus tremuloides</i>)	Good-dead	13 avg.	Private	Maturing; grouping of four trees – likely originating from root sprouts; one dead due to Hypoxylon canker (<i>Hypoxylon mammatum</i>); to be removed
31	White elm (<i>Ulmus americana</i>)	Good	23 avg.	Private	Mature; double-stemmed from grade – one stem suppressed by the other; co-dominant leaders at 3.5m; no outward signs of Dutch elm disease (<i>Ophiostoma novo-ulmi</i>); to be removed
32	Manitoba maple (<i>Acer negundo</i>)	Fair	21	Shared	Maturing; divergent towards adjacent property; to be removed
33	Bur oak (<i>Quercus macrocarpa</i>)	Good	34 & 14	Private	Two trees – one mature, the other maturing (and suppressed by its neighbour); upright growth form; to be preserved and protected
34	White elm (<i>Ulmus americana</i>)	Very poor	23	Neighbour	Mature; upright form; co-dominant leaders at 4m; advanced infection of Dutch elm disease (<i>Ophiostoma novo-ulmi</i>); recommended for removal
35	White elm (<i>Ulmus americana</i>)	Fair	18 avg.	Private	Maturing; double-stemmed from grade; no outward signs of Dutch elm disease (<i>Ophiostoma novo-ulmi</i>); to be removed
36	White elm (<i>Ulmus americana</i>)	Good	19	Private	Maturing; no outward signs of Dutch elm disease (<i>Ophiostoma novo-ulmi</i>); to be removed
37	White elm (<i>Ulmus americana</i>)	Fair	11	Private	Maturing; divergent towards south; no outward signs of Dutch elm disease (<i>Ophiostoma novo-ulmi</i>); to be removed
38	Manitoba maple (<i>Acer negundo</i>)	Fair	12	Private	Immature; divergent towards south; to be removed
39	Manitoba maple (<i>Acer negundo</i>)	Fair	15 avg.	Neighbour	Maturing; small grouping of trees; to be preserved and protected
40	White spruce (<i>Picea glauca</i>)	Good	16	Private	Mature; planted tree; good crown density, growth increment and needle colour; to be preserved and protected

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Tree No.	Tree Species	Condition (VP→E)	DBH ¹ (cm)	Owner -ship	Age Class, Tree Condition Notes & Preservation Status (to be removed or preserved and protected)
41	White spruce (<i>Picea glauca</i>)	Good	16	Private	Mature; planted tree; good crown density, growth increment and needle colour; to be preserved and protected
42	White spruce (<i>Picea glauca</i>)	Good	14	Private	Mature; planted tree; good crown density, growth increment and needle colour; to be preserved and protected
43	Manitoba maple (<i>Acer negundo</i>)	Good	13	Private	Immature; vine (<i>Vitis</i> spp.) growing into crown; to be removed
44	White elm (<i>Ulmus americana</i>)	Good	12		Immature; co-dominant leaders at 1.5m; vine (<i>Vitis</i> spp.) growth throughout crown; to be removed
45	White cedar (<i>Thuja occidentalis</i>)	Fair	14	Private	Mature; planted tree; fair crown density, growth increment and needle colour; to be preserved and protected
46	Manitoba maple (<i>Acer negundo</i>)	Fair	17 (at 1m)	Private	Maturing; co-dominant stems at 1.2m from grade; growth form divergent towards west; to be removed
47	White elm (<i>Ulmus americana</i>)	Dead	17	Private	Tree is dead – likely due to Dutch elm disease (<i>Ophiostoma novo-ulmi</i>); to be removed
48	Manitoba maple (<i>Acer negundo</i>)	Fair	15	Private	Maturing; co-dominant stems at 1.5m from grade; growth form divergent towards southeast; to be removed
49	White spruce (<i>Picea glauca</i>)	Fair	16	Private	Mature; planted tree; good crown density, growth increment and needle colour; to be preserved and protected

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

Pictures 1 through 5 on pages 10, 11 and 12 show selected trees on and adjacent to the subject property.

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 these properties:



- 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 on and adjacent to the subject property. The following measures are the minimum required by the City of Ottawa to ensure tree survival during and following construction:

1. As per the City of Ottawa's tree protection barrier specification (included on page 9), erect a fence as close as possible to the CRZ¹ of the trees.
2. Do not place any material or equipment within the CRZ of the tree(s).
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 instead of trenching within the CRZ of any 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 critical root zone (CRZ) is established as being 10 centimetres from the trunk of a tree for every centimetre of DBH. The CRZ is calculated as DBH x 10 cm.

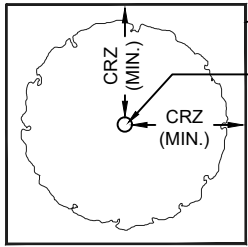
This report is subject to the attached Limitations of Tree Assessments and Liability to which the reader's attention is directed.

Please do not hesitate to contact the undersigned with any questions concerning this report.

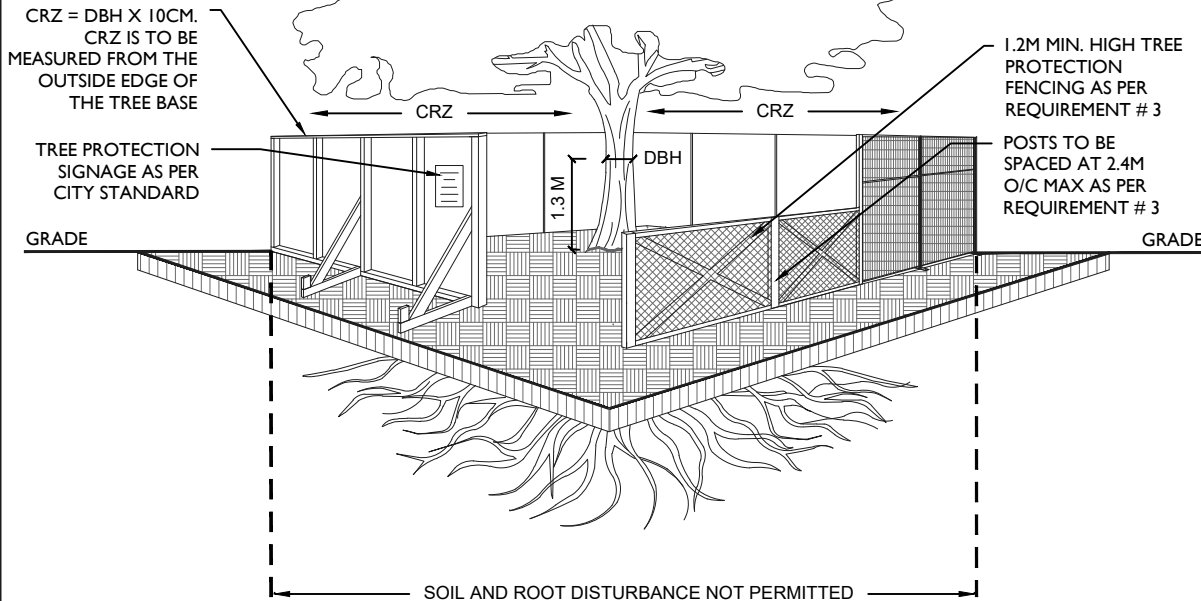
Yours,



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



PLAN VIEW



ACCESSIBLE FORMATS AND COMMUNICATION
SUPPORTS ARE AVAILABLE, UPON REQUEST

TREE PROTECTION REQUIREMENTS:

1. PRIOR TO ANY WORK ACTIVITY WITHIN THE CRITICAL ROOT ZONE (CRZ = 10 X DIAMETER) OF A TREE, TREE PROTECTION FENCING MUST BE INSTALLED SURROUNDING THE CRITICAL ROOT ZONE, AND REMAIN IN PLACE UNTIL THE WORK IS COMPLETE.
2. UNLESS PLANS ARE APPROVED BY CITY FORESTRY STAFF, FOR WORK WITHIN THE CRZ:
 - DO NOT PLACE ANY MATERIAL OR EQUIPMENT - INCLUDING OUTHOUSES;
 - DO NOT ATTACH ANY SIGNS, NOTICES OR POSTERS TO ANY TREE;
 - DO NOT RAISE OR LOWER THE EXISTING GRADE;
 - TUNNEL OR BORE WHEN DIGGING;
 - DO NOT DAMAGE THE ROOT SYSTEM, TRUNK, OR BRANCHES OR ANY TREE;
 - ENSURE THAT EXHAUST FUMES FROM ALL EQUIPMENT ARE NOT DIRECTED TOWARD ANY TREE CANOPY.
 - DO NOT EXTEND HARD SURFACE OR SIGNIFICANTLY CHANGE LANDSCAPING
3. TREE PROTECTION FENCING MUST BE AT LEAST 1.2M IN HEIGHT, AND CONSTRUCTED OF RIGID OR FRAMED MATERIALS (E.G. MODULOC - STEEL, PLYWOOD HOARDING, OR SNOW FENCE ON A 2"X4" WOOD FRAME) WITH POSTS 2.4M APART, SUCH THAT THE FENCE LOCATION CANNOT BE ALTERED. ALL SUPPORTS AND BRACING MUST BE PLACED OUTSIDE OF THE CRZ, AND INSTALLATION MUST MINIMISE DAMAGE TO EXISTING ROOTS. (SEE DETAIL)
4. THE LOCATION OF THE TREE PROTECTION FENCING MUST BE DETERMINED BY AN ARBORIST AND DETAILED ON ANY ASSOCIATED PLANS FOR THE SITE (E.G. TREE CONSERVATION REPORT, TREE INFORMATION REPORT, ETC). THE PLAN AND CONSTRUCTED FENCING MUST BE APPROVED BY CITY FORESTRY STAFF PRIOR TO THE COMMENCEMENT OF WORK.
5. IF THE FENCED TREE PROTECTION AREA MUST BE REDUCED TO FACILITATE CONSTRUCTION, MITIGATION MEASURES MUST BE PRESCRIBED BY AN ARBORIST AND APPROVED BY CITY FORESTRY STAFF. THESE MAY INCLUDE THE PLACEMENT OF PLYWOOD, WOOD CHIPS, OR STEEL PLATING OVER THE ROOTS FOR PROTECTION OR THE PROPER PRUNING AND CARE OF ROOTS WHERE ENCOUNTERED.

THE CITY'S TREE PROTECTION BY-LAW, 2020-340 PROTECTS BOTH CITY-OWNED TREES, CITY-WIDE, AND PRIVATELY-OWNED TREES WITHIN THE URBAN AREA. PLEASE REFER TO WWW.OTTAWA.CA/TREEBYLAW FOR MORE INFORMATION ON HOW THE TREE BY-LAW APPLIES.



TREE PROTECTION SPECIFICATION

TO BE IMPLEMENTED FOR RETAINED TREES, BOTH ON SITE AND ON ADJACENT SITES, PRIOR TO ANY TREE REMOVAL OR SITE WORKS AND MAINTAINED FOR THE DURATION OF WORK ACTIVITIES ON SITE.

SCALE: NTS

DATE: MARCH 2021

DRAWING NO.: 1 of 1



Picture 1. Trees #12, 13 and 14 (right to left) at 240 Lamarche Avenue (picture taken July 2022)



Picture 2. Trees #23-27 (right to left) at 3484 Innes Road (picture taken July 2022)



Picture 3. Trees #18-21 (from right) at 3484 Innes Road (picture taken May 2019)



Picture 4. Trees #33 and 34 (right to left) at 240 Lamarche Avenue (picture taken July 2022)



Picture 5. Tree grouping #11 at 240 Lamarche Avenue (picture taken July 2022)

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.

Further, under no circumstances may any claims be initiated or commenced by the client 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.

