



December 9, 2022

Marietta Ruhland
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Suite 200 - 1750 Courtwood Crescent
Ottawa, ON
K2C 2B5

RE: TREE CONSERVATION INVENTORY FOR 5254 BANK STREET, OTTAWA

This Tree Conservation Report (TCR) was prepared by IFS Associates Inc. (IFS) in support of the development of 5254 Bank Street 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, 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 trees on the subject property and adjacent private properties and City of Ottawa land. Field work for this report was completed in October 2022.

The approval of this TCR by the city 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 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.**

The development proposed for this property includes the construction of a multi-bay industrial building with adjacent surface parking. No trees greater than 10cm diameter were found fully on the subject property. However, several trees shared with adjacent private property may be lost as a result of conflicts with proposed parking stalls and retaining walls. **Permission from adjacent landowners is required prior to the removal of any trees shared with or fully on adjacent private property.**



TREE SPECIES, CONDITION, SIZE AND STATUS

Table 1 below details the species, ownership, size (diameter), condition and status of the individual and groups of trees on the subject and adjacent properties. Each of these trees is referenced by the numbers plotted on the tree conservation plans on pages 4 (existing trees) and 5 (proposed retention) of this report.

Table 1. Species, ownership, diameter, condition and status of trees at 5254 Bank Street

Tree No.	Tree species	Ownership ¹	DBH ² (cm)	Tree Condition; Age Class; Condition Notes; Species Origin & Preservation Status (to be removed or preserved and protected)
1	Crab apple (<i>Malus</i> spp.)	Shared	26	Fair; mature; central stem with competing laterals starting at 0.5m; broad, very dense crown; cultivar; to be removed (conflicts with excavation for edge of parking lot)
2	Norway maple (<i>Acer platanoides</i>)	Shared	20	Good; maturing; central stem with competing laterals at 3m on west and 5m on southwest; dense crown; introduced invasive species; to be removed (conflicts with excavation for edge of parking lot)
3	Manitoba maple (<i>Acer negundo</i>)	Neighbour	52 & 30	Fair; mature; double stemmed at grade; dominant stem upright but asymmetric towards south with divergent competing lateral on north; naturalized species; to be preserved and protected
4	Butternut (<i>Juglans cinerea</i>)	Neighbour	58 & 47	Fair; very mature; double-stemmed at 0.6m; very broad crown; native (endangered) species; to be preserved and protected (butternut health assessment to be completed in spring 2023)
5	White cedar (<i>Thuja occidentalis</i>)	Shared		Poor; mature; multi-stemmed from 1.75m – topped in distant past; covered with heavy vine growth; native species; to be removed (conflicts with retaining wall)
6	Bitternut hickory (<i>Carya cordiformis</i>)	Neighbour	31 & 27	Fair; mature; co-dominant stems at 0.3m; covered with heavy vine growth; native species; to be removed (conflicts with retaining wall)
7	Ash (<i>Fraxinus</i> spp.)	Neighbour	18	Dead due to emerald ash borer (<i>Agilus planipennis</i>); native species; to be removed (for safety considerations)
8	White cedar (<i>Thuja occidentalis</i>)/ Poplar (<i>Populus</i> spp.)	Neighbour	30 avg.	Fair; mature; cedar/poplar thicket; native species; to be preserved and protected (though some trees may be terminally impacted by excavation for nearby retaining wall and so may need to be removed for safety considerations)

Table 1. Con't

Tree No.	Tree species	Owner-ship ¹	DBH ² (cm)	Tree Condition; Age Class; Condition Notes; Species Origin & Preservation Status (to be removed or preserved and protected)
9	Red maple (<i>Acer rubrum</i>)	City	39 & 59	Good; very mature; co-dominant stems 0.2m; dominant stem with competing lateral on south; broad, dense generally symmetric crown; native species; to be preserved and protected
10	'Emerald' cedar (<i>Thuja occidentalis</i> 'Smaragd')	City	13 avg.	Fair; mature; fair crown density, growth increment and needle colour; cultivar; to be preserved and protected

¹As determine from topographic survey prepared by Farley, Smith & Denis Surveying Ltd.; ²Diameter at breast height, or 1.3m from grade (unless otherwise indicated)

Pictures 1 through 5 on pages 8 to 11 of this report show selected trees and stands shared with and adjacent to the subject property. All pictures were taken in October 2022.

FEDERAL AND PROVINCIAL REGULATIONS

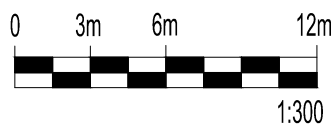
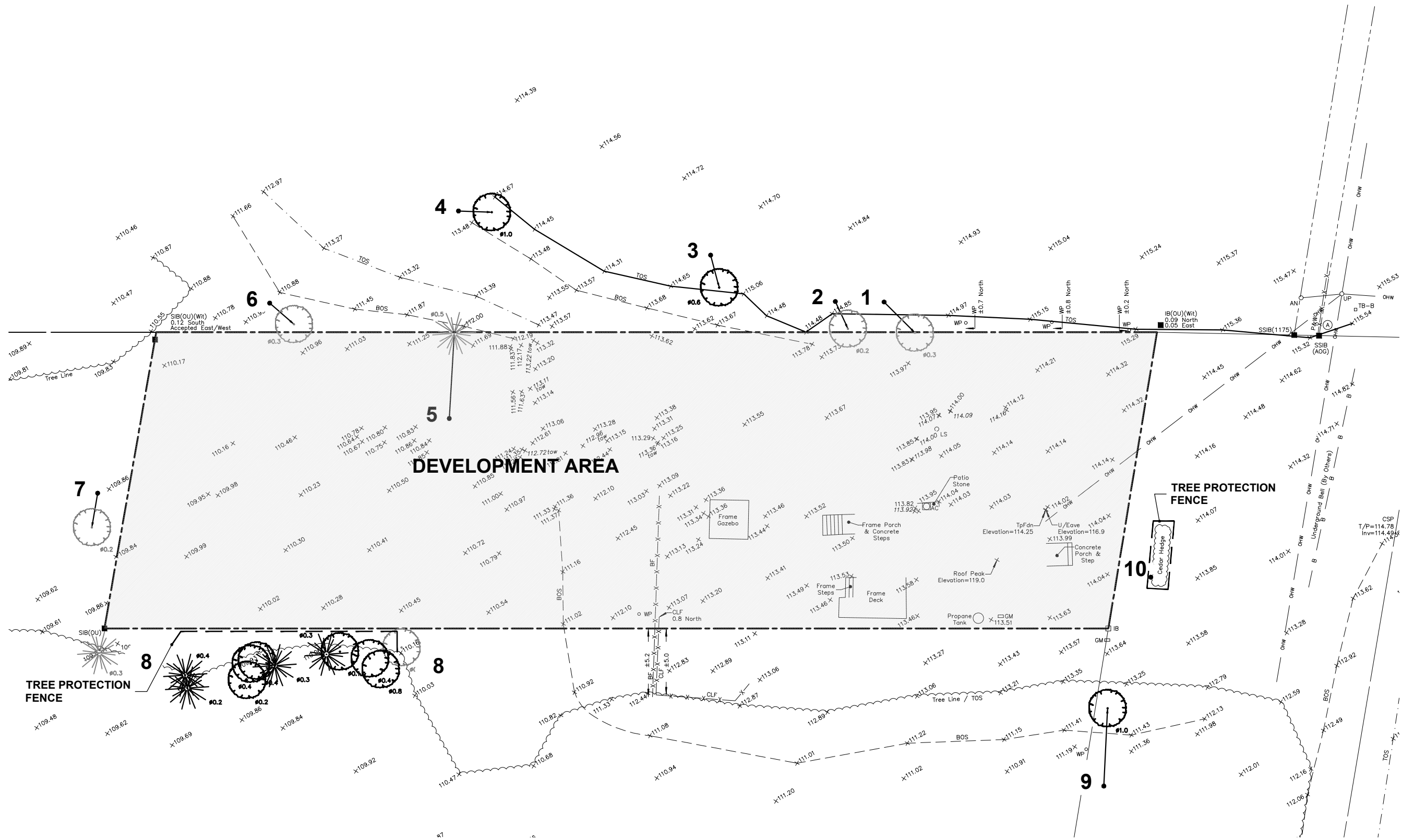
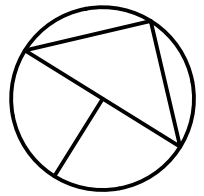
Federal and provincial regulations can be applicable to trees on private property. In particular, the following two regulations have been considered for this property:

- 1) Endangered Species Act (2007): A mature butternut (*Juglans cinerea*) tree was identified on adjacent private property. This species of tree is listed as threatened under the Province of Ontario's Endangered Species Act (ESA, 2007) and so is protected from harm. This tree will be assessed following ESA protocol in spring 2023.
- 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 MEASURES

As excavation occurs within the CRZs of tree #6 and those within stand #8, the following measures will be taken:

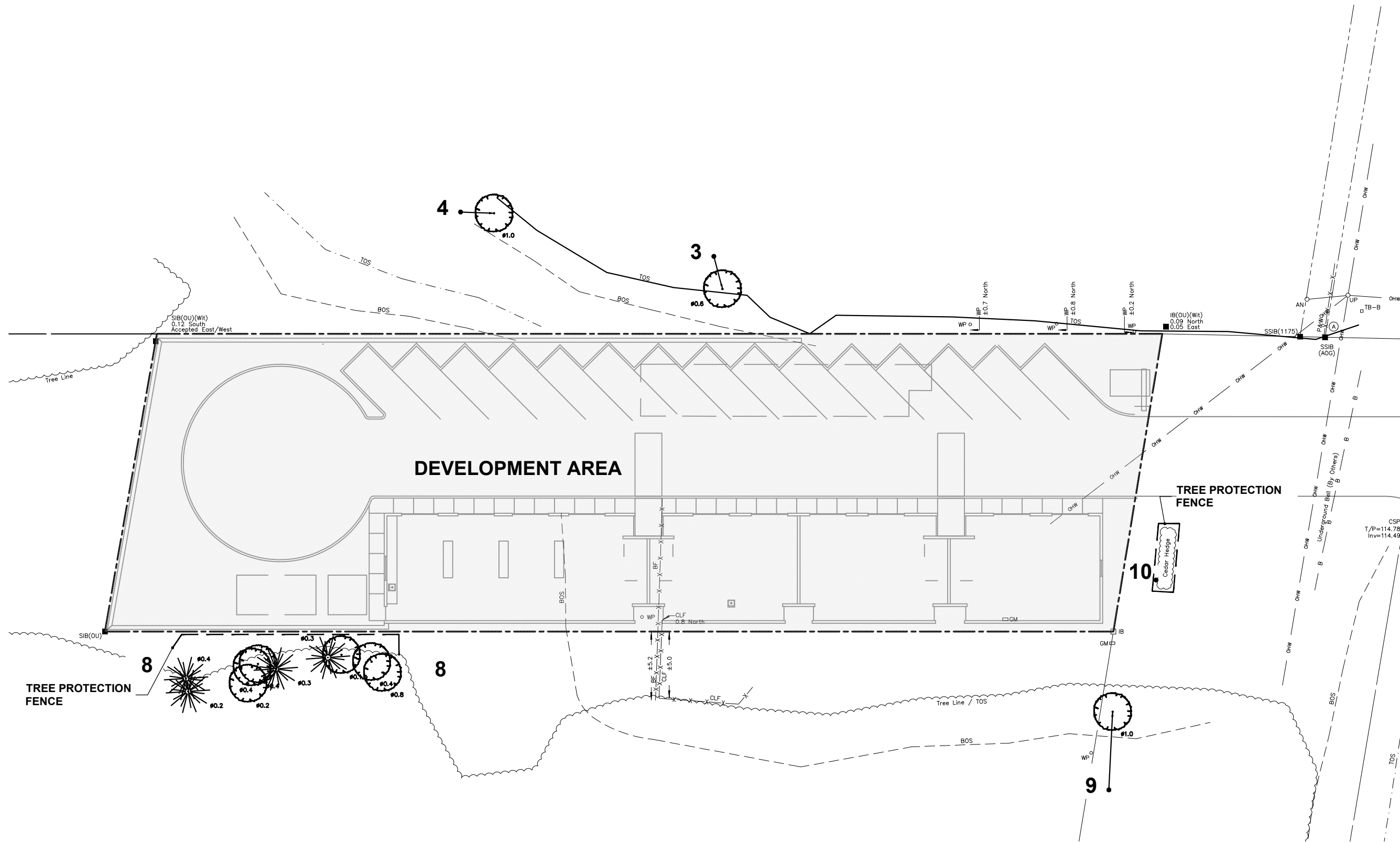
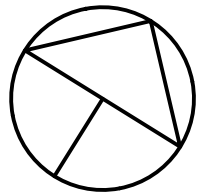
1. Hydro excavation along the edge of excavation in proximity to the tree(s) to carefully expose roots. Exposed roots will then be cleanly cut and sealed before being reburied. Excavation can then resume using traditional mechanical means. Sealing the cleanly cut root ends with a beeswax product will help prevent the loss of moisture and facilitate healing.
2. If the excavation is to be left open for any time a covering of at least three layers of moistened burlap is to be draped over the exposed face of excavation closet to the tree. This will help reduce the loss of soil moisture.



**REFER TO CHART FOR TREE ID,
CONDITION, ACTION**

stamp	project		drawing			
	SERVICE REPAIR FACILITY 5254 Bank Street, Ottawa ON		MAP # 1 - CURRENT VEGETATION			
			scale	date	project no.	dwg. no.
	<small>200-1750 Courtwood Crescent, Ottawa, Ontario K2C 2B5 P (613) 224-4744 x 222 F (613) 224-1931 info@rala.ca www.rala.ca</small>		1:300	Dec. 2022	22-1693	
			drawn by	checked by	revision no.	MAP #1
			M.Malkov	M.Ruhland	.	





**REFER TO CHART FOR TREE ID,
CONDITION, ACTION**

stamp	project		drawing			
	SERVICE REPAIR FACILITY 5254 Bank Street, Ottawa ON		MAP # 2 - PROPOSED DEVELOPMENT			
			scale	date	project no.	dwg. no.
	<small>200-1750 Courtwood Crescent, Ottawa, Ontario K2C 2B5 P (613) 224-4744 x 222 F (613) 224-1131 info@rala.ca www.rala.ca</small>		1:300	Dec. 2022	22-1693	
			drawn by	checked by	revision no.	MAP #2
			M.Malkov	M.Ruhland	.	



TREE PROTECTION MEASURES

Protection measures intended to mitigate damage during construction will be applied for the trees to be retained. 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 the following page), erect a fence as close as possible to the CRZ of the tree(s).
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.

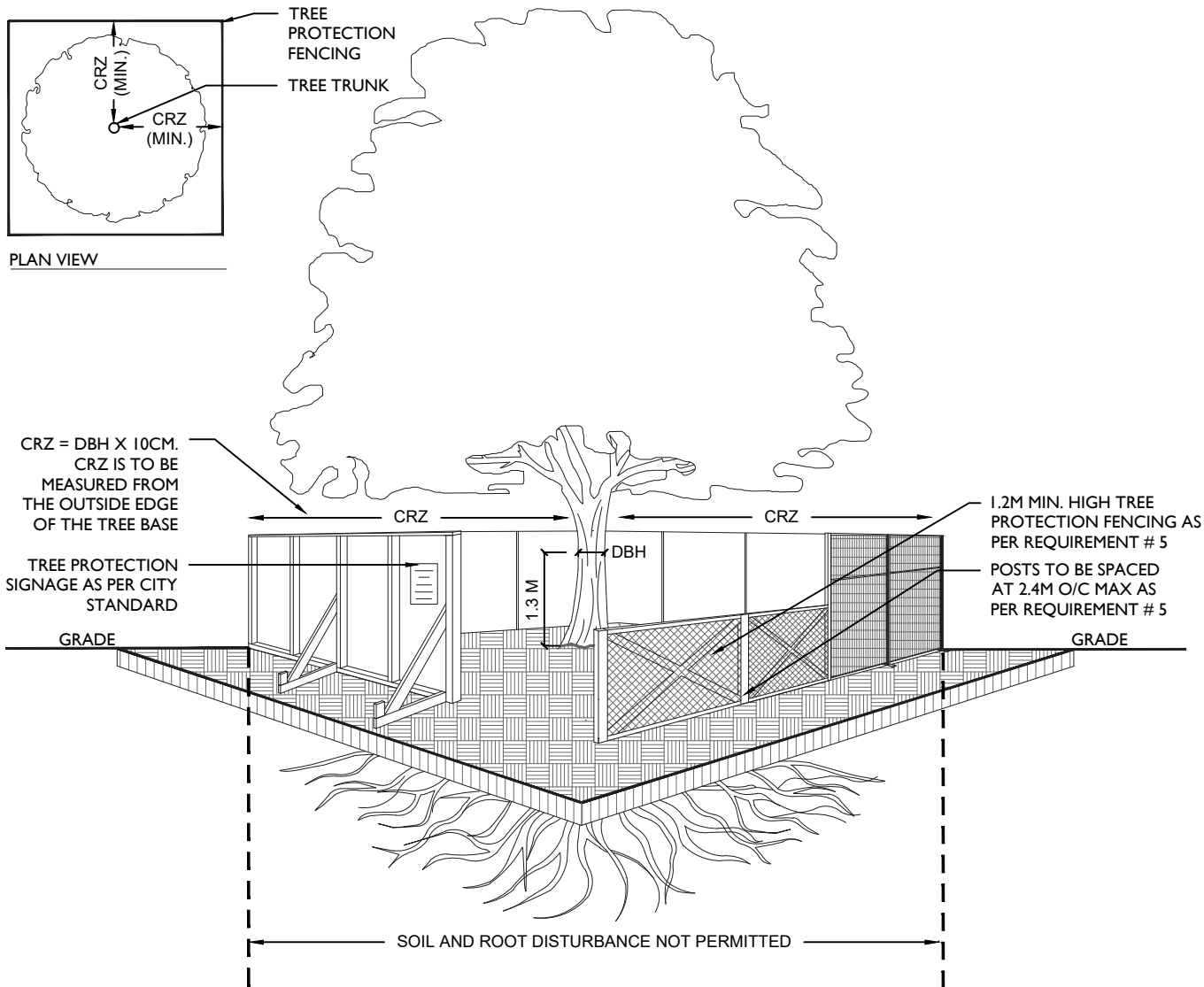
Please do not hesitate to contact me with any questions concerning this report.

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



TREE PROTECTION REQUIREMENTS:

1. PRIOR TO ANY ACTIVITY IN PROXIMITY TO A PROTECTED TREE THAT COULD RESULT IN DIRECT OR INDIRECT INJURY TO THAT TREE OR ITS ROOTING AREA, TREE PROTECTION FENCING MUST BE INSTALLED AROUND THE CRITICAL ROOT ZONE (CRZ), AND REMAIN IN PLACE UNTIL THE WORK IS COMPLETE.
2. WITHIN THE CRZ THERE MUST BE:
 - NO GRADING CHANGES
 - NO PLACEMENT OR STORAGE OF CONSTRUCTION MATERIALS OR SITE 'FURNITURE' SUCH AS OUTHOUSES
 - NO OPERATION OR STORAGE OF EQUIPMENT
 - NO EXTENSION OF HARD SURFACE OR CHANGE OF LANDSCAPING
 - NO EXCAVATION OTHER THAN APPROVED METHODS UNLESS OTHERWISE APPROVED BY THE CITY
3. THE LOCATION OF THE TREE PROTECTION FENCING MUST BE DETERMINED BY A TREE CARE PROFESSIONAL AND DETAILED ON ANY ASSOCIATED PLANS FOR THE SITE, IF PART OF A BUILDING PERMIT APPLICATION. THE PLAN AND CONSTRUCTED FENCING MUST BE APPROVED BY THE CITY PRIOR TO THE COMMENCEMENT OF WORK.
4. PLANS FOR MOVEMENT AND STORAGE OF EQUIPMENT AND MATERIALS ON SITE MUST BE DETERMINED AND DISCUSSED WITH ALL CONTRACTORS TO ACCOUNT FOR THE EXCLUSION OF THE TREE PROTECTION AREAS
5. 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 TO BE SPACED AT A MAXIMUM OF 2.4 M 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)
6. IF THE TREE PROTECTION FENCING AREA MUST BE REDUCED TO FACILITATE CONSTRUCTION ACCESS, THE CRITICAL ROOT ZONE MUST BE PROTECTED WITH PLYWOOD, WOOD CHIPS, OR STEEL PLATING OR OTHER MITIGATION TECHNIQUES PRESCRIBED BY THE TREE CARE PROFESSIONAL AND APPROVED BY THE CITY.

BY-LAWS

ALL CITY-OWNED TREES ARE PROTECTED UNDER THE MUNICIPAL TREES AND NATURAL AREAS PROTECTION BY-LAW (2006-279). PRIVATELY-OWNED TREES GREATER THAN 50CM DIAMETER ARE PROTECTED UNDER THE URBAN TREE CONSERVATION BY-LAW (2009-200).



TREE PROTECTION BARRIER SPEC.

SCALE: NTS

DATE: MARCH 2019

DRAWING NO.: 1 of 1



Picture 1. Trees #1 and 2 (right to left), shared crab apple and Norway maple located at 5254 Bank Street





Picture 2. Tree #3, Manitoba maple adjacent to 5254 Bank Street



Picture 3. Crown of butternut tree #4 adjacent to 5254 Bank Street



Picture 4. Stand #8, poplar and cedar trees adjacent to 5254 Bank Street



Picture 5. Tree #9 and 10 (right to left), maple and emerald cedar trees on City of Ottawa property adjacent to 5254 Bank Street



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.