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URBAN FORESTRY & FOREST MANAGEMENT CONSULTING

December 21, 2023

Angelo M. Spadola Architect
200-1645 Russell Road
Ottawa, ON
K1G 4G5

RE: TREE CONSERVATION REPORT FOR 4000 STRANDHERD DRIVE, OTTAWA

This Tree Conservation Report (TCR) was prepared by IFS Associates Inc. (IFS) on behalf of Angelo M. Spadola Architect in support of the proposed addition to the church building and surrounding surface parking at 4000 Strandherd Drive 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.

Twelve of the fifteen trees identified on the survey prepared by Annis, O'Sullivan Vollebakk Ltd. are fully on the subject property. Three trees are shared with lands to the east. A line juvenile maple (*Acer spp.*) and hackberry (*Celtis occidentalis*) trees are located on City lands along Harthill Way to the northwest. These trees are considered far enough away to not be impacted by the proposed construction.

The approval of this tree conservation report 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. Further, the removal of any trees shared with or fully on neighbouring properties will require written permission of the adjacent landowner.**

Field work for this report was completed in July 2023.



TREE SPECIES, CONDITION, SIZE AND STATUS

Table 1 below details the species, ownership, size (diameter), condition and status of the trees on the subject property and shared with adjacent lands. Tree locations are referenced by the numbers plotted on the tree conservation plan on page 5 of this report.

Table 1. Species, ownership, diameter, condition and status of trees at 4000 Strandherd Drive

| 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) |
|----------|---|-------------------------|-----------------------|---|
| 1 | Little-leaf linden (<i>Tilia cordata</i>) | Private | 39 | Good; mature; co-dominant leaders at 2.5m – acutely angled; suppressed laterals starting at 1.5m from grade; dense crown; heavy basal sprouting; introduced species; to be preserved and protected |
| 2 | Little-leaf linden (<i>Tilia cordata</i>) | Private | 34 | Good; mature; tri-dominant stems at 1.5m – acutely angled; suppressed laterals starting at 1.5m from grade; very dense crown; introduced species; to be preserved and protected |
| 3 | Little-leaf linden (<i>Tilia cordata</i>) | Private | 42 | Fair; mature; co-dominant stems at 3.25m with weak union; open seam from grade to 2m on south – incipient decay and insect activity; laterals starting at 1.5m from grade; moderately dense crown; introduced species; to be preserved and protected |
| 4 | Little-leaf linden (<i>Tilia cordata</i>) | Private | 37 | Good; mature; central stem with competing laterals at 1.5m on northwest and 4m on west; co-dominant leaders at 5.5m; suppressed laterals starting at 1.5m from grade; dense crown; introduced species; to be preserved and protected |
| 5 | Little-leaf linden (<i>Tilia cordata</i>) | Private | 35 | Good; mature; central stem with competing lateral at 2m on north and suppressed lateral at 2m on south; dense crown; girdling root evident on northwest; introduced species; to be preserved and protected |

Table 1. Species, ownership, diameter, condition and status of trees at 4000 Strandherd Drive

| 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) |
|----------|---|-------------------------------|-----------------------|---|
| 6 | Little-leaf linden (<i>Tilia cordata</i>) | Private | 41 | Very poor; mature; east half of crown previously failed – fractures in bole between lost and remaining halves; risk of failure is high towards church building; introduced species; to be removed (due to condition) |
| 7 | White spruce (<i>Picea glauca</i>) | Private | 26 | Poor; maturing; very poor form – suffering from growing stress likely related to girdling roots or planting ropes/wire basket; native species; to be removed (due to condition) |
| 8 | Manitoba maple (<i>Acer negundo</i>) | Shared with adjacent property | 45 | Fair; mature; remaining stem of co-dominants from grade; divergent and heavily asymmetric towards south (direction of church building); co-dominant leaders at 4m; suppressed lateral at 3.5m on southwest; naturalized species; to be preserved and protected (though recommended for removal) |
| 9 | Manitoba maple (<i>Acer negundo</i>) | Shared with adjacent property | 35 | Poor; mature; heavily divergent towards west (direction of church building); co-dominant leaders at 4.5m; suppressed lateral at 3m on north; naturalized species; to be preserved and protected (though recommended for removal) |
| 10 | Manitoba maple (<i>Acer negundo</i>) | Shared with adjacent property | 41 | Fair; mature; central bole with co-dominant leaders at 3.5m; north stem bisects at 5m; suppressed lateral at 3.5m on southeast; crown asymmetric towards north/west due to influence of ash previously located on east; heavy vine growth into lower crown; naturalized species; to be preserved and protected |
| 11 | Norway maple (<i>Acer platanoides</i>) | Private | 47 | Fair; mature; central stem constricted by multiple competing laterals at 1.5m – forming branch cluster; binding roots at surface; introduced invasive species; to be removed (conflicts with footprint of new addition to church) |
| 12 | Honey-locust (<i>Gleditsia triacanthos</i>) | Private | 41 | Good; mature; central stem with competing laterals at 1.75m on west and 2.75m on north; dense crown for species; mild basal damage from mowers; introduced species; to be removed (conflicts with footprint of new addition to church) |

Table 1. Species, ownership, diameter, condition and status of trees at 4000 Strandherd Drive

| 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) |
|----------|--|------------------------|-----------------------|--|
| 13 | White spruce (<i>Picea glauca</i>) | Private | 29 | Fair; mature; mildly divergent toward east; some damage to lower crown from snow piling; good crown density, annual increment, and needle colour; native species; to be removed (conflicts with new parking area) |
| 14 | White spruce (<i>Picea glauca</i>) | Private | 34 | Good; mature; good form; good crown density, annual increment, and needle colour; native species; to be removed (conflicts with new parking area) |
| 15 | Colorado blue spruce (<i>Picea pungens</i> var. <i>glauca</i>) | Private | 29 | Good; mature; good form; good crown density, annual increment, and needle colour; introduced species; to be removed (conflicts with new parking area) |

¹Tree locations are only approximate and, as a result, ownership cannot be fully defined; ² Diameter at breast height, or 1.3m from grade (unless otherwise indicated)

Pictures 1 to 5 on pages 8 through 10 of this report shows the trees full on and shared with the subject property.

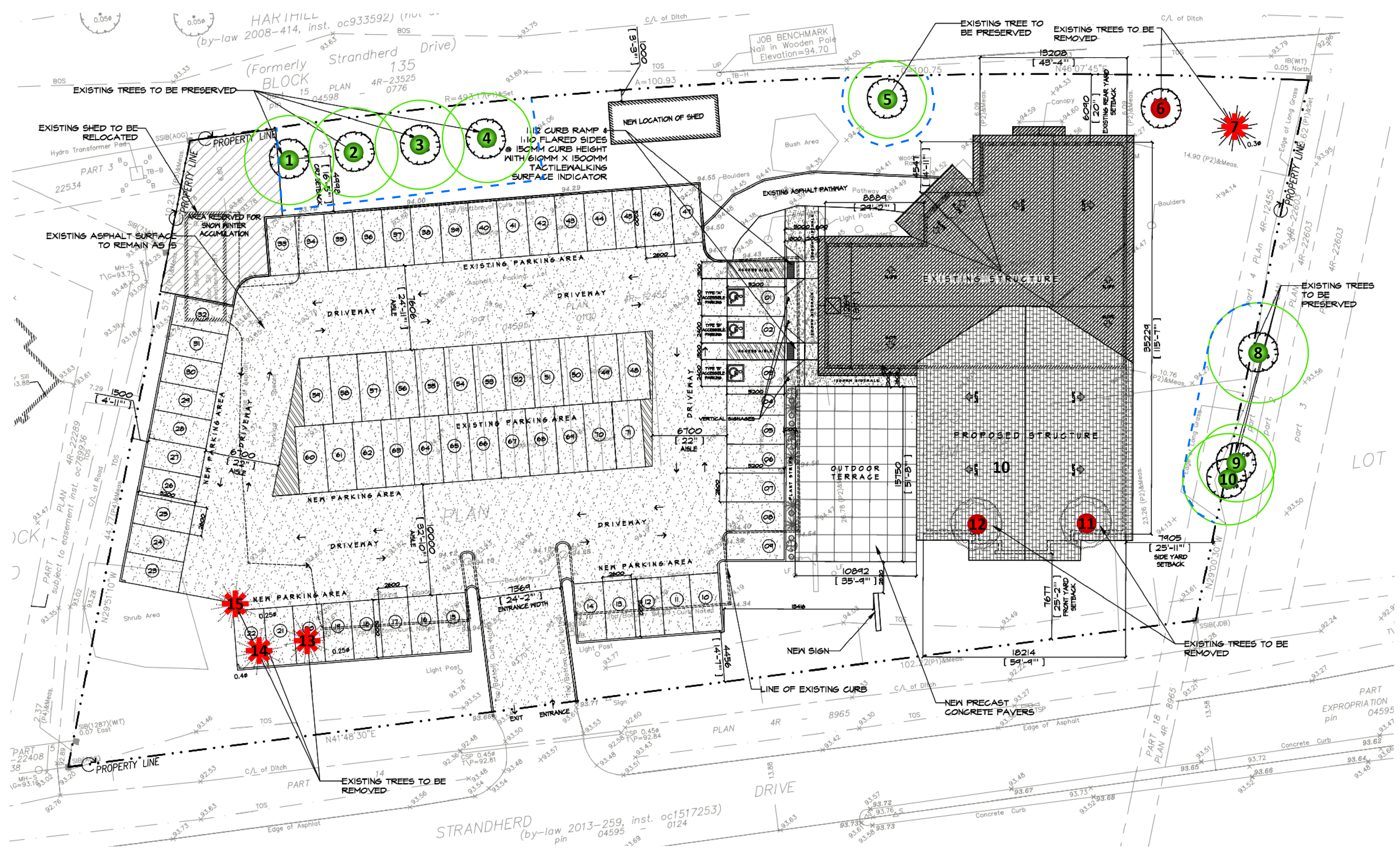
PROVINCIAL REGULATIONS

Certain provincial regulations are applicable to trees on private property. In particular, the Endangered Species Act – ESA (2007) mandates that tree species on the Species at Risk in Ontario (SARO) list be identified. Butternut (*Juglans cinerea*) is present in Eastern Ontario and is listed as threatened on the SARO. Because of this it is protected from harm. No trees of this species were found on or nearby to the subject property.

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 page 7), 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.

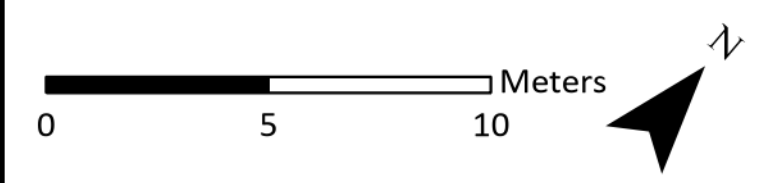


GENERAL NOTES

PLANS COMPLETED BY ANGELO MATTIA SPOLLA ARCHITECT (08/03/23)

LEGEND

- DECIDUOUS TREE TO REMAIN
- ✱ CONIFEROUS TREE TO REMAIN
- CRITICAL ROOT ZONE
- PROTECTIVE FENCING
- ✱ DECIDUOUS TREE TO BE REMOVED
- ✱ CONIFEROUS TREE TO BE REMOVED



DRAWING: Tree Conservation Plan

PROJECT: 4000 STRANDHERD DRIVE CITY OF OTTAWA



Andrew K. Boyd, R.P.F.

| | |
|------------------|------------------|
| SCALE: 1:170 | DRAWING NO. 4000 |
| DATE: 2023-12-21 | |
| DRAWN BY: SS | |
| SHEET NO. 1 | |

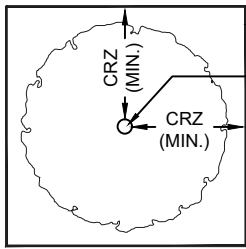
Please do not hesitate to contact me with any questions concerning this report.

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

Yours,



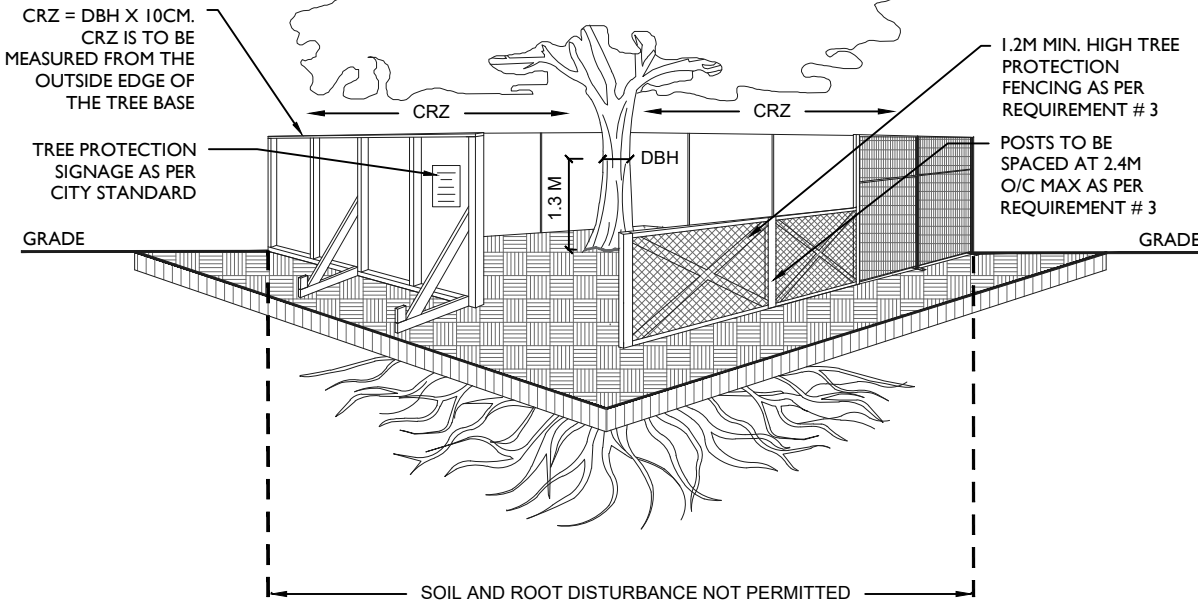
Andrew K. Boyd, B.Sc.F, R.P.F. (#1828)
Certified Arborist #ON-0496A and TRAQualified
Consulting Urban Forester



TREE PROTECTION FENCING

TREE TRUNK

PLAN VIEW



CRZ = DBH X 10CM.
CRZ IS TO BE MEASURED FROM THE OUTSIDE EDGE OF THE TREE BASE

TREE PROTECTION SIGNAGE AS PER CITY STANDARD

GRADE

SOIL AND ROOT DISTURBANCE NOT PERMITTED

1.2M MIN. HIGH TREE PROTECTION FENCING AS PER REQUIREMENT # 3

POSTS TO BE SPACED AT 2.4M O/C MAX AS PER REQUIREMENT # 3

CRZ

CRZ

DBH

1.3 M

GRADE

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.

ACCESSIBLE FORMATS AND COMMUNICATION SUPPORTS ARE AVAILABLE, UPON REQUEST



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 #1-4 (right to left) and #5 in background, little-leaf linden trees at 4000 Strandherd Drive



Picture 2. Trees #6 and 7 (left to right), little-leaf linden and white spruce trees at 4000 Strandherd Drive



Picture 3. Tree #8, 9 and 10 (left to right), Manitoba maples shared with 4000 Strandherd Drive



Picture 4. Trees #11 and 12 (left to right), Norway maple and honey-locust trees at 4000 Strandherd Drive



Picture 5. Trees #13, 14 and 15, white and Colorado spruce trees at 4000 Strandherd Drive

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.