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P.O. BOX 13593, STN. KANATA, OTTAWA, ON K2K 1X6 Telephone: (613) 838-5717 Website: www.ifsassociates.ca

URBAN FORESTRY & FOREST MANAGEMENT CONSULTING

February 8, 2021

Tony Saritoprak 51 Rothwell Drive Ottawa, ON K1J 7G3

Committee of Adjustment Received | Reçu le

2024-11-20

RE: TREE INFORMATION RI PORT (LONG) FOR 49 ROTHWELL I RIVE, OTTAWA

Dear Tony,

City of Ottawa | Ville d'Ottawa Comité de dérogation

This report details pre-construction tree information for the above noted property in Ottawa. The need for this report is related to trees protected under the Urban Tree Conservation By-law 2020-340. The work proposed for the subject property consists of the construction of a new single-family dwelling. Presently the property is in a naturally forested state with no dwelling or infrastructure present.

Tree information reports are to include assessments of all impacted distinctive trees on the subject and adjacent private properties. Distinctive trees are identified as having diameters of 30 cm or greater. Seventeen such trees were found to be present. All city-owned trees are also to be included in tree information reports. Many trees of varying diameters were found on city property, including two distinctive trees. Field work for this report was completed in January and February 2021.

The attributes of all distinctive trees found on and adjacent to the property are noted in table 1 on pages 2, 3 and 4 of this report. The location of each tree is shown on the tree information plan on page 5.

FEDERAL AND PROVINCIAL REGULATIONS

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

- 1) <u>Endangered Species Act (2007)</u>: 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) <u>Migratory Bird Convention Act (1994)</u>: 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 SPECIES, CONDITION, SIZE AND STATUS

Table 1 below details the species, ownership, size (diameter), condition and reason for removal of the individual trees on and adjacent to the subject property. Each of these trees is referenced by the numbers plotted on the plan included on page 5.

| Tree | Tree species | Owner- | DBH ¹ | Tree condition, age class and | Reason for removal | Forester's opinion |
|------|--|----------------|------------------|---|---|------------------------------|
| No. | | ship | (cm) | condition notes | | re. removal |
| 1 | Basswood (Tilia americana) | Neigh- bour | 60 | Fair; mature; co-dominant stems at 6m; upper crown dominated by sprouts resulting from past storm damage; basal stem strongly divergent towards north (road); native species | Not applicable (to be preserved) | NA |
| 2 | Ash (Fraxinus spp.) | Shared | 33 | Standing dead; mature; likely killed by emerald ash borer (<i>Agrilus planipennis</i>); broken at 16m; native species | Hazardous | To be removed for safety |
| 3 | Mixed | City | 10 avg. | Poor to good; immature to mature; densely-stocked area of native deciduous species | Conflicts with proposed driveway, site servicing and access requirements | Selected trees to be removed |
| | Bitternut hickory (Carya cordiformis) | City | 36 | Good; mature; co-dominant leaders at 10m from grade; divergent and asymmetric towards north; native species | As above | To be removed |
| | Sugar maple (Acer saccharum) | City | 30 | Good; mature; co-dominant stems at 4m; generally upright and symmetric; native species | As above | To be removed |
| 4 | Sugar maple | Private | 49 | Good; mature; mildly divergent towards north; crown broadens above surrounding canopy | Conflicts with construction | To be removed |

Table 1. Tree information for 49 Rothwell Drive



Table 1. Con't

| Tree | Tree species | Owner- | DBH ¹ | Tree condition, age class and | Reason for removal | Forester's opinion |
|------|--------------|----------------|------------------|---|----------------------------------|--------------------|
| No. | | ship | (cm) | condition notes | | re. removal |
| 5 | Sugar maple | Neigh- bour | 54 | Fair; mature; co-dominant leaders at 10m; cavities in main stem | Not applicable (to be preserved) | NA |
| 6 | Sugar maple | Private | 34 | Poor; mature; co-dominant stems at 5m; divergent towards north- west; poor vigour - suppressed | Conflicts with construction | To be removed |
| 7 | Sugar maple | Private | 38 | Good; mature; co-dominant stems at 6m; moderately divergent towards west | Conflicts with construction | To be removed |
| 8 | Sugar maple | Private | 53 | Good; mature; upright form with major laterals at 2 and 10m on north – upper lateral competing | Conflicts with construction | To be removed |
| 9 | Sugar maple | Private | 45 | Poor; mature; generally upright stem; competing leaders and lateral at 12m; major deadwood; large sections of bark missing from main stem | Conflicts with construction | To be removed |
| 10 | Sugar maple | Private | 35 | Very good; mature; crown broadens above surrounding canopy; good vigour | Conflicts with construction | To be removed |
| 11 | Sugar maple | Private | 36 | Fair; mature; crown asymmetric towards southwest due to competition with tree #12 | Conflicts with construction | To be removed |
| 12 | Sugar maple | Private | 64 | Good; very mature; co-dominant stems at 8m; crown broadens above surrounding canopy; fair vigour | Conflicts with construction | To be removed |



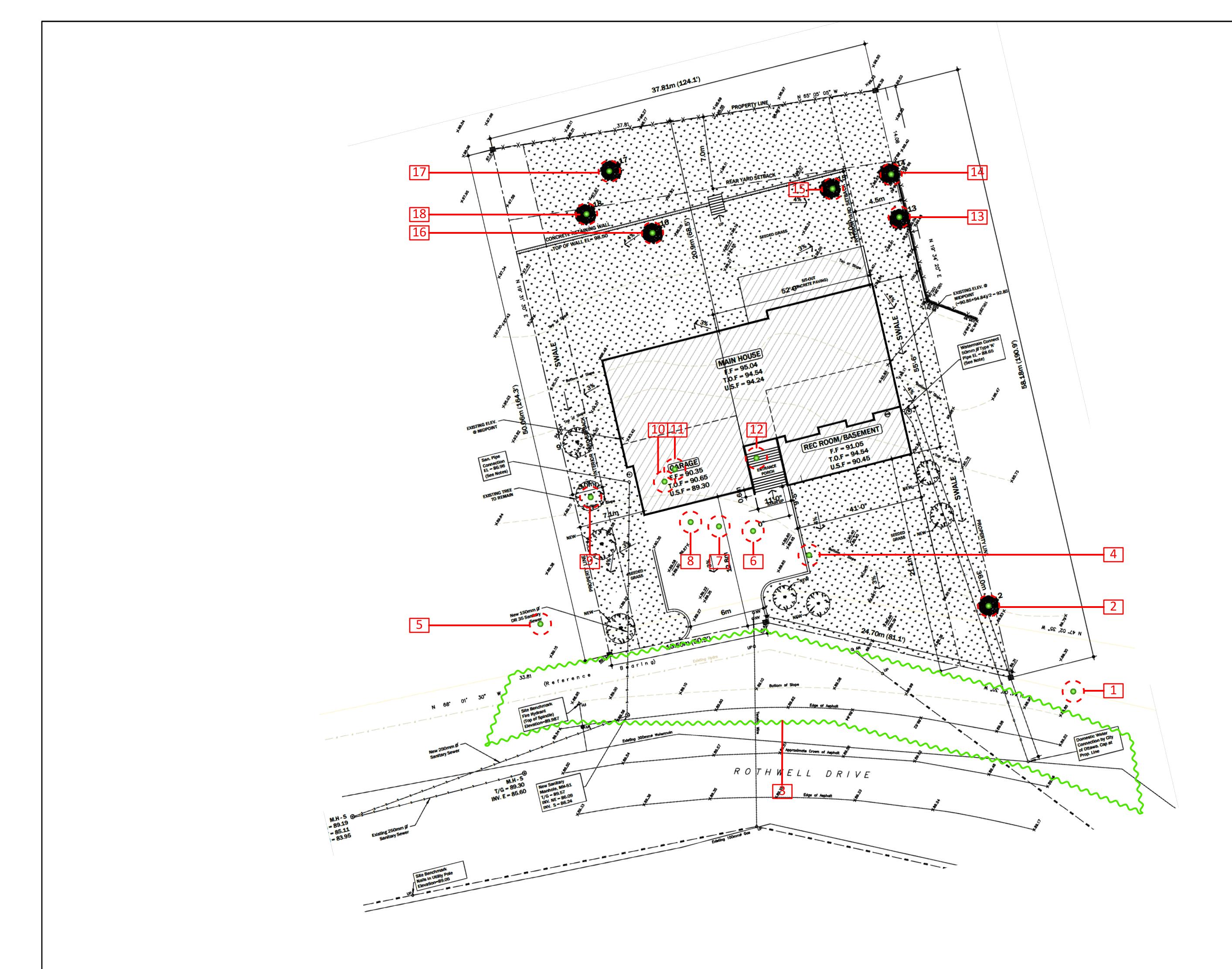
Table 1. Con't

| Tree | Tree species | Owner- | DBH ¹ | Tree condition, age class and | Reason for removal | Forester's opinion |
|------|------------------------------------|---------|------------------|--|--|--------------------------|
| No. | | ship | (cm) | condition notes | | re. removal |
| 13 | Norway maple (Acer platanoides) | Private | 34 | Poor; mature; divergent and asymmetric towards northwest; frost crack from grade to 3m on southeast side of stem with recent woodpecker activity; originated from seed – introduced invasive species | Hazardous | To be removed for safety |
| 14 | Norway maple | Shared | 32 | Fair; mature; dog's leg at 3m; upright above but crown asymmetric towards west | Not applicable (to be preserved) | NA |
| 15 | Norway maple | Private | 36 | Poor; mature; loss of two major laterals on north side has left crown heavily asymmetric towards south | Conflicts with construction of rear retaining wall | To be removed |
| 16 | Norway maple | Private | 33 | Good; mature; generally upright form with symmetric crown; co- dominant leaders at 7m | Conflicts with construction of rear retaining wall | To be removed |
| 17 | White elm (Ulmus americana) | Private | 38 | Standing dead; mature; likely killed by Dutch elm disease (Ophiostoma ulmi/novo-ulmi) | Hazardous | To be removed for safety |
| 18 | Norway maple | Private | 44 | Fair; mature; central stem with competing laterals at 3m on south side and 4m on north; seam from grade to 2m on east side with recent wood pecker activity | Conflicts with construction of rear retaining wall | To be removed |

¹diameter at breast height, or 1.3m from grade (unless otherwise indicated)

Pictures 1 and 2 on page 8 of this report show the typical forest conditions now present on the subject property.





| GENERAL NOTES |
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| SEWER NOTES: 1) SPECIFICATIONS: ITEM SPEC. No. REFERENCE |
| SEWER SERVICE CONNECTION - RIGID PIPE S11 CITY OF OTTAWA SEWER SERVICE ABANDONMENT S11.4 CITY OF OTTAWA / OPSD SEWER TRENCH - BEDDING (GRANULAR A) S6, S7, W17 CITY OF OTTAWA / OPSD |
| COVER (GRANULAR A OR GRANULAR B TYPE 1, S6, S7, W17 WITH MAXIMUM PARTICLE SIZE = 25mm) STORM SEWER PVC DR 35 |
| 2) INSULATE ALL PIPES (SAN/STM) THAT HAVE LESS THAN 1.5m COVER WITH 50mm x 1200mm HI-40 INSULATION. PROVIDE 150mm CLEARANCE BETWEEN PIPE AND INSULATION. |
| 3) SERVICES ARE TO BE CONSTRUCTED TO 1.0m FROM FACE OF BUILDING AT A MINIMUM SLOPE OF 1.0%. 4) PIPE BEDDING, COVER AND BACKFILL ARE TO BE COMPACTED TO AT LEAST 95% |
| OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY, THE USE OF CLEAR CRUSHED STONE AS A BEDDING LAYER SHALL NOT BE PERMITTED. 5) FLEXIBLE CONNECTIONS ARE REQUIRED FOR CONNECTING PIPES TO MANHOLES |
| (FOR EXAMPLE KOR-N-SEAL, PSX: POSITIVE SEAL AND DURASEAL). THE CONCRETE CRADLE FOR THE PIPE CAN BE ELIMINATED. 6) THE OWNER SHALL REQUIRE THAT THE SITE SERVICING CONTRACTOR PERFORM |
| FIELD TESTS FOR QUALITY CONTROL OF ALL SANITARY SEWERS. LEAKAGE TESTING SHALL BE COMPLETED IN ACCORDANCE WITH OPSS 410.07.16.04 AND 407.07.24. DYE TESTING IS TO BE COMPLETED ON ALL SANITARY SERVICES TO CONFIRM PROPER |
| CONNECTION TO THE SANITARY SEWER MAIN. 7) FULL PORT BACKWATER VALVES ARE REQUIRED ON THE SANITARY SERVICES. INSTALLED AS PER THE MANUFACTURERS RECOMMENDATIONS AND A BACKWATER |
| VALVE IS REQUIRED ON THE STORM SERVICES / FOUNDATION DRAINS FOR EACH BUILDING; INSTALLED AS PER STD. DWG S14. 8) REINSTATE ALL EXISTING PAVEMENT, CURB AND BOULEVARDS AS PER CITY OF |
| OTTAWA R10. 9) MONITORING TEST PORTS FOR BUILDING SERVICES TO BE INSTALLED IN PARKING GARAGE. |
| WATERMAIN NOTES: |
| 1) SPECIFICATIONS: ITEM SPEC. No. REFERENCE WATERMAIN TRENCHING W17 CITY OF OTTAWA |
| THERMAL INSULATION IN SHALLOW TRENCHES W22 CITY OF OTTAWA VALVE BOX ASSEMBLY W24 CITY OF OTTAWA |
| CONNECTION DETAIL FROM EXISTING TO NEW WM W25.1 CITY OF OTTAWA WATERMAIN CROSSING BELOW SEWER W25 CITY OF OTTAWA |
| WATERMAIN CROSSING OVER SEWER W25.2 CITY OF OTTAWA WATERMAIN (150mm Ø) PVC DR 18 WATERMAIN (50mm Ø) TYPE 'K' COPPER |
| THERMAL INSULATED AT OPEN STRUCTURE W23 CITY OF OTTAWA WATER SERVICE INSULATION AT SEWER CROSSING, W38 CITY |
| OF OTTAWA 2) SUPPLY AND CONSTRUCT ALL WATERMAINS AND |
| APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARD AND SPECIFICATIONS. EXCAVATION, INSTALLATION, BACKFILL AND RESTORATION OF |
| ALL WATERMAINS BY THE CONTRACTOR. CONNECTIONS AND SHUT-OFFS AT THE MAIN AND CHLORINATION OF THE WATER SYSTEM SHALL BE PERFORMED BY CITY OFFICIALS. |
| 3) WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED, OTHERWISE THERMAL INSULATION IS REQUIRED AS PER STD. DWG W22. |
| 4) PROVIDE MINIMUM 0.50m CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS WHEN WATERMAIN IS BELOW AND MINIMUM 0.25m CLEARANCE WHEN WATERMAIN IS |
| ABOVE. 5) WATER SERVICE IS TO BE CONSTRUCTED TO WITHIN 1m OF FOUNDATION WALL AND CAPPED, UNLESS OTHERWISE |
| INDICATED. CONTRACTOR TO COORDINATE WITH CITY OF OTTAWA INFRASTRUCTURE DEPARTMENT. |
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| PLANS COMPLETED BY J.C. ENENDU (22/05/21) |
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| CONIFEROUS TREE |
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| 0 2.5 5 DRAWING: Tree Information Plan PROJECT: PART OF LOTS 15 AND 16 REGISTERED PLAN 462 AND PART OF BLOCK D REGISTERED PLAN 652 CITY OF OTTAWA CITY OF OTTAWA Andrew K. Boyd, R.P.F SCALE: 1:160 DRAWING NO. |

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, erect a fence as close as possible to the critical root zone (CRZ¹) 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.

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.

REPLACEMENT TREE PLANTING OR COMPENSATION

The following ratios are used to determine compensation for the loss of trees from development sites: 2:1 for each distinctive tree measuring 30-49 cm in diameter and 3:1 for each distinctive tree measuring 50 cm or greater in diameter. The city has set the replacement cost as \$400 per tree. With nine trees between 30-49cm and two trees larger than 50cm being removed, the total replacement tree cost is \$9600 (24 x \$400). This does not include trees removed for safety reasons. Presently seven new trees are proposed for planting on private property. If achieved this will reduce the total owing to \$6800.

The loss of trees from city property will require compensation in the form of the appraised value (as determined by City staff). This can be compensated through planting of replacement tree(s) in the municipal right of way.

I trust this report satisfies your requirements. Please do not hesitate to contact the undersigned with any questions or comments you may have. This report is subject to the attached Limitations of Tree Assessments 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



SELF-DECLARATION STATEMENT (TO BE SIGNED BY PROPERTY OWNER):

Signature

Printed Name

Phone Number

By signing the application you are acknowledging and understanding that a city forestry inspector or municipal law enforcement officer may enter the property at a reasonable time for the purpose of carrying out an inspection. You also acknowledge and understand that through failure to abide by the recommendations of the approved Tree Information Report, damaging or destructing trees identified for protection, you alone will be responsible to bear fully the cost of compensation, removal, and replacement. Further, you are acknowledging having read and agreed to the Limitations of Tree Assessments and Liability included at the end of this report.





Picture 1. Typical forest conditions now present at 51 Rothwell Drive (facing northward)



Picture 2. Typical forest conditions now present at 51 Rothwell Drive (facing southwestward)



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 activates 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.

