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URBAN FORESTRY & FOREST MANAGEMENT CONSULTING

September 27, 2024

Dean Philip Michaud, LL.L.  
Heritage Investments Ltd.  
1010 Polytek, Unit 5  
Ottawa, ON  
K1J 9H8

**RE: TREE CONSERVATION REPORT FOR 593, 601-603 LAURIER AVE WEST, OTTAWA**

This revised Tree Conservation Report (TCR) was prepared by IFS Associates Inc. (IFS) on behalf of Heritage Investments Ltd. in support of their proposed redevelopment of 593, 601-603 Laurier Avenue West 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 the subject property is occupied by two multi-storey buildings and one multi-storey heritage dwelling. The proposed redevelopment will include the demolition of the two existing buildings and construction of a 28-storey apartment building with three levels of below grade parking. The heritage dwelling will be retained.

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 City of Ottawa and the issuing of a permit by them authorize 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 by the City's General Manager 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 and adjacent private property, including trees on nearby City of Ottawa property. Field work for this report was completed in August and September 2024.

## **TREE SPECIES, CONDITION, SIZE AND STATUS**

Table 1 below details the species, size (diameter), ownership, condition and status of the individual trees on and adjacent to the subject property. Each of these trees is referenced by the numbers plotted on the tree conservation plans included on page 6 and 7 of this report.

Table 1. Species, condition, size, ownership and status of trees at 593, 601-603 Laurier Avenue West

Tree No.	Tree species	DBH <sup>1</sup> (cm)	Ownership	Age class, tree condition notes & <b>preservation status</b> (to be removed or preserved and protected)
1	Crab apple ( <i>Malus</i> spp.)	30 (at 1m)	City	Mature; fair – crown heavily asymmetric towards east; <b>to be removed</b> (conflicts with high voltage underground line)
2	Emerald cedar ( <i>Thuja occidentalis</i> 'Emerald')	13 avg.	Private	Mature; fair; tri-stemmed from grade; mildly divergent & asymmetric due to proximity of building; <b>to be removed</b> (conflicts with construction)
3	Japanese tree lilac ( <i>Syringa reticulata</i> )	11	City	Maturing; good; <b>to be removed</b> (conflicts with high voltage underground line)
4	Honey-locust ( <i>Gleditsia triacanthos</i> )	42	City	Mature; good – mildly pruned from overhead Hydro lines; <b>to be removed</b> (conflicts with high voltage underground line)
5	Norway maple ( <i>Acer platanoides</i> )	49	City	Mature; fair - moderately pruned from overhead Hydro lines; <b>to be removed</b> (conflicts with high voltage underground line)
6	Honey-locust ( <i>Gleditsia triacanthos</i> )	27	City	Mature; fair - moderately pruned from overhead Hydro lines; <b>to be removed</b> (conflicts with high voltage underground line and ramp to below grade parking)
7	Honey-locust ( <i>Gleditsia triacanthos</i> )	42	City	Mature; fair - moderately pruned from overhead Hydro lines; <b>to be removed</b> (conflicts with high voltage underground line)
8	Norway maple ( <i>Acer platanoides</i> )	35	Private	Mature; fair - generally upright form; <b>to be removed</b> (conflicts with excavation – will not survive root loss)
9	Manitoba maple ( <i>Acer negundo</i> )	28 avg.	Private	Mature; poor – double-stemmed at grade (one stem has failed); <b>to be removed</b> (conflicts with construction)
10	Manitoba maple ( <i>Acer negundo</i> )	40	Private	Mature; fair; <b>to be removed</b> (conflicts with construction)
11	Manitoba maple ( <i>Acer negundo</i> )	47	City	Mature; fair; <b>to be removed</b> (conflicts with excavation – will not survive root loss)

Table 1. Cont.

Tree No.	Tree species	DBH <sup>1</sup> (cm)	Ownership	Age class, tree condition notes & <b>preservation status</b> (to be removed or preserved and protected)
12	Manitoba maple ( <i>Acer negundo</i> )	56	City	Mature; fair; <b>to be removed</b> (conflicts with excavation – will not survive root loss)
13	Manitoba maple ( <i>Acer negundo</i> )	27 / 34	Private	Mature; fair – two trees in close proximity; <b>to be removed</b> (conflicts with construction)
14	Manitoba maple ( <i>Acer negundo</i> )	15	Private	Maturing; fair; <b>to be removed</b> (conflicts with construction)
15	Manitoba maple ( <i>Acer negundo</i> )	25	Private	Mature; fair; <b>to be removed</b> (conflicts with construction)
16	Manitoba maple ( <i>Acer negundo</i> )	25 avg,	Private	Mature; poor – double stemmed. both stems failed; <b>to be removed</b> (conflicts with construction)
17	Manitoba maple ( <i>Acer negundo</i> )	32	Private	Mature; fair- moderately divergent form; <b>to be removed</b> (conflicts with construction)
18	Manitoba maple ( <i>Acer negundo</i> )	24	Private	Mature; poor- heavily divergent form; <b>to be removed</b> (conflicts with excavation – will not survive root loss)
19	Norway maple ( <i>Acer platanoides</i> )	39	Private	Mature; good – generally upright form; <b>to be removed</b> (conflicts with excavation – will not survive root loss)
20	Manitoba maple ( <i>Acer negundo</i> )	45	Private	Mature; fair- broad, asymmetric crown; <b>to be removed</b> (conflicts with construction)
21	Manitoba maple ( <i>Acer negundo</i> )	45	Private	Mature; <b>to be removed</b> (conflicts with construction)
22	Manitoba maple ( <i>Acer negundo</i> )	32 / 15 &17	Private	Mature; fair – two trees in close proximity, one double-stemmed at grade; <b>to be removed</b> (conflicts with construction)
23	Manitoba maple ( <i>Acer negundo</i> )	23 & 29	Private	Mature; poor – double-stemmed at grade, one failed at 3.5m; <b>to be removed</b> (conflicts with construction)
24	Manitoba maple ( <i>Acer negundo</i> )	27	Private	Mature; fair- moderately divergent form; <b>to be removed</b> (conflicts with construction)
25	Manitoba maple ( <i>Acer negundo</i> )	45	Private	Mature; fair -major deadwood present; <b>to be removed</b> (conflicts with construction)
26	Manitoba maple ( <i>Acer negundo</i> )	53	Private	Mature; fair – mildly divergent form; <b>to be removed</b> (conflicts with construction)
27	Norway maple ( <i>Acer platanoides</i> )	29	Private	Mature; good- mildly divergent form due to tree #25; <b>to be removed</b> (conflicts with construction)

Table 1. Cont.

Tree No.	Tree species	DBH <sup>1</sup> (cm)	Ownership	Age class, tree condition notes & <b>preservation status</b> (to be removed or preserved and protected)
28	Manitoba maple ( <i>Acer negundo</i> )	17 & 25	Shared	Mature; poor - double-stemmed from grade – moderately divergent; <b>to be preserved and protected</b>

<sup>1</sup> diameter at breast height, or 1.4m from grade (unless otherwise indicated)

Pictures 1 through 4 on pages 9 and 10 of this report show the condition of selected individual trees and the escarpment forest 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 this property:

- 1) Endangered Species Act (2007): No butternuts (*Juglans cinerea*) or black ash (*Fraxinus nigra*) were identified on the subject or adjacent properties. These two species of tree are listed as threatened under the Province of Ontario's Endangered Species Act (2007) and so are protected from harm. A single black walnut (*Juglans nigra*) was found and although closely related to butternut, is not a threatened species.
- 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 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 (see page 8), 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.
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 crown.

8. If any roots are exposed during excavation, they will be cleanly cut and sealed before being reburied. Sealing the root ends with a beeswax product will help prevent the loss of moisture and facilitate healing.

<sup>1</sup> The critical root zone (CRZ) is established as being 10 centimetres from the trunk of a tree for every centimeter of trunk diameter at breast height (DBH). The CRZ is calculated as DBH x 10 cm.

### **ESCARPMENT FOREST PRESERVATION MEASURES**

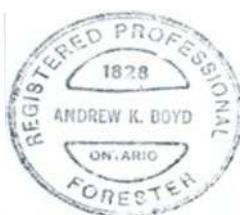
The forest within the escarpment has been deemed a natural heritage feature in the City of Ottawa's Official Plan. As a result, its preservation is critical. To that end, the following measures are recommended:

- 1) Due to the depth of excavation necessary for the three levels of below grade parking, shoring at the limits of subject property will be necessary. At the rear of the property this will serve the important dual purpose of avoiding any over excavation into the escarpment forest.
- 2) Blasting will be necessary to remove bedrock. If not done carefully this work will impact the escarpment trees as their root-soil interfaces will likely be disturbed within their critical rooting zones. It is these intimate interfaces which allow for the absorption of moisture and nutrients from the soil. To mitigate damage from blasting the following specifications should be adhered to:
  - i) Prior to any blasting the soil within any nearby trees' CRZ should be soaked with water to help increase the cohesiveness of the soil matrix.
  - ii) Prior to blasting the bedrock must be pre-sheared to create a fissure between the CRZ to be protected and the blasting work. This is achieved by drilling closely spaced holes and using 'Primeaflex' as the explosive product. Pre-shearing will reduce the likelihood of fractures and reverberations traveling into the CRZ.
  - iii) During blasting only dynamite should be used as the explosive product. Since dynamite is oxygen-balanced as well as waterproof it will completely burn off, leaving only CO<sub>2</sub> as the by-product of the explosion. An incomplete burn will produce unburnt gases which are toxic to tree roots.

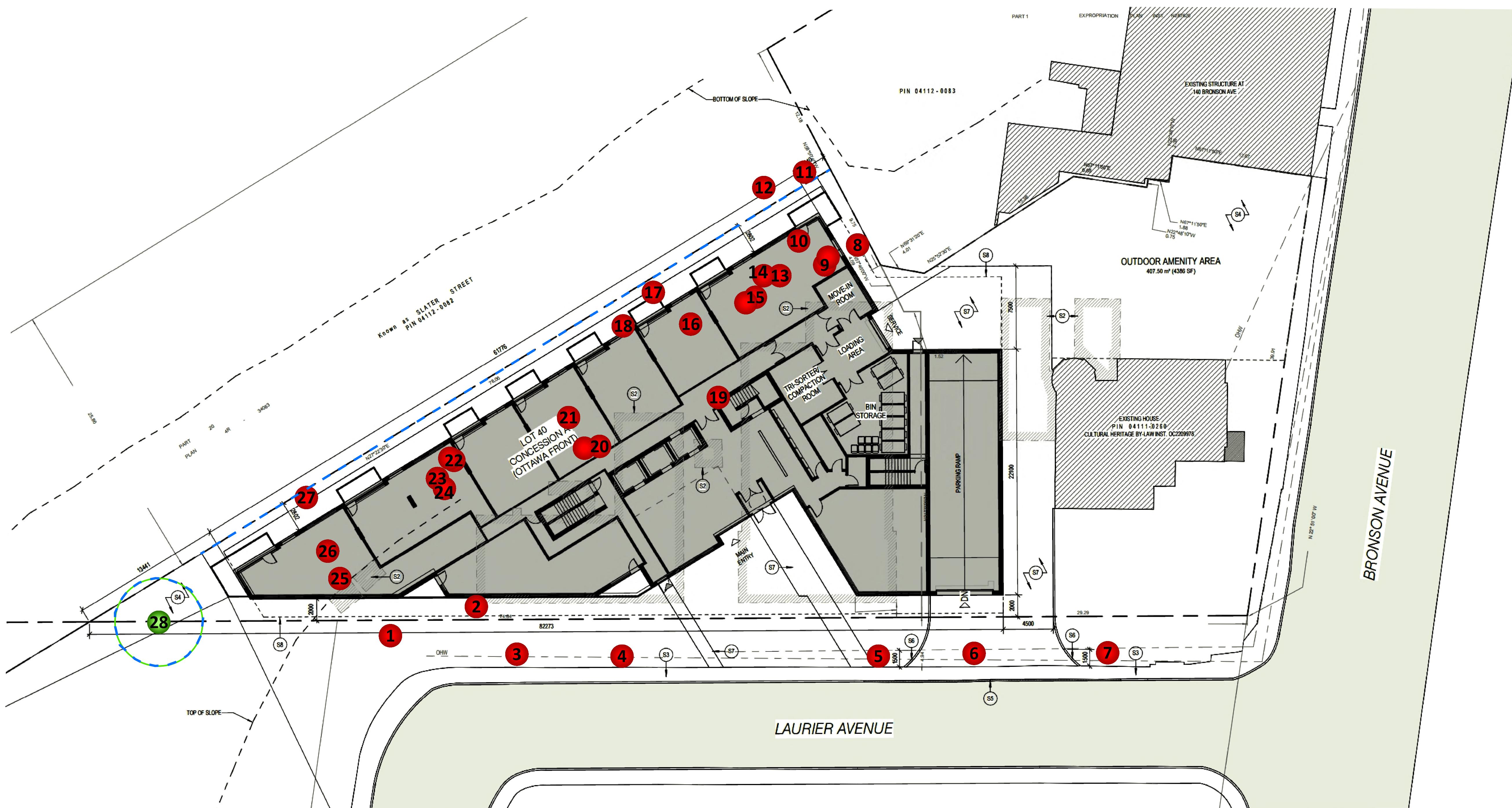
This report is subject to the attached Limitations of Tree Assessments and Liability to which the reader's attention is directed.

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  
Consulting Urban Forester



## GENERAL NOTES

ANS COMPLETED BY PROJECT1 STUDIO INC.  
9/04/24)

## LEGEND

- TREE TO REMAIN
- CRITICAL ROOT ZONE
- TREE TO BE REMOVED
- PROTECTIVE FENCING

1 Meters

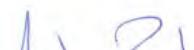
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# Tree Conservation Plan

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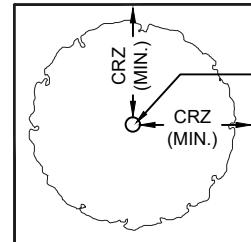


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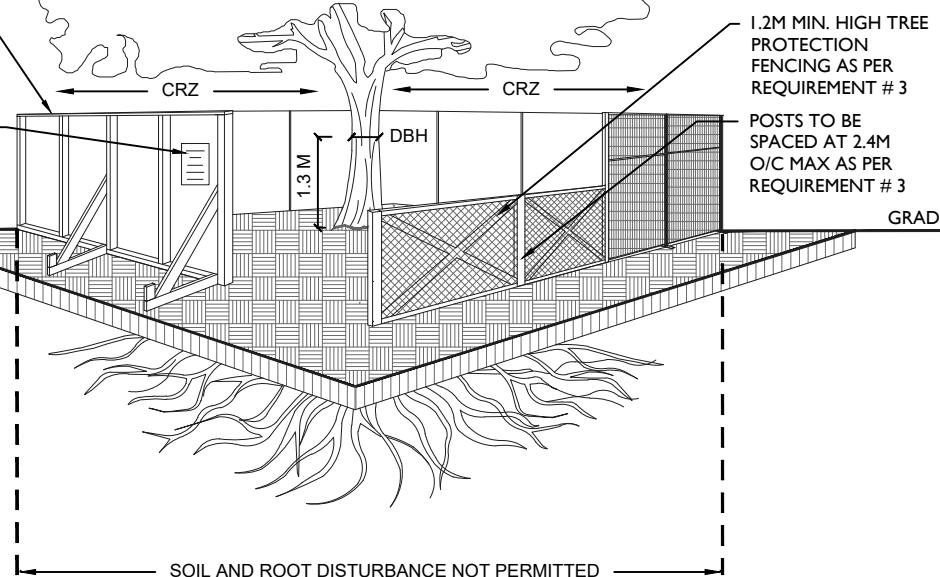


PLAN VIEW

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



ACCESSIBLE FORMATS AND COMMUNICATION  
SUPPORTS ARE AVAILABLE, UPON REQUEST

#### TREE PROTECTION REQUIREMENTS:

- 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.
- 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
- 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)
- 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.
- 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](http://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. Tree #3 - city owned locust tree adjacent 593, 601-603 Laurier Avenue West



Picture 2. Trees #4, 5 and 6 – city owned maple and locust trees adjacent 593, 601-603 Laurier Avenue West



Picture 3. Representative picture of trees within escarpment forest at 593, 601-603 Laurier Avenue West



Picture 4. Representative picture of trees within escarpment forest at 593, 601-603 Laurier Avenue West

# 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 prepared 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 (which is recommended in this case).

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.* regarding 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 with 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. If examination or supervision is requested, that request shall be made in writing and the details, including fees, agreed to in advance.