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URBAN FORESTRY & FOREST MANAGEMENT CONSULTING

July 7, 2023

Crolla/Bastianelli  
20 Jamie Avenue  
Ottawa, ON  
K2E 6T6

**RE: TREE INFORMATION REPORT (FULL) FOR 185 KAMLOOPS AVENUE**

This Tree Information Report (TIR) was prepared by IFS Associates Inc. (IFS) on behalf of Crolla Construction Corporation in support of their severance application for 185 Kamloops Avenue. 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 property is occupied by a one-storey single family dwelling. The proposed redevelopment will include the demolition of the existing dwelling and construction of a new single-family dwelling on each of the two new lots.

Within the inner urban area of Ottawa a TIR is required for infill developments and/or demolitions when a 'distinctive' tree is present (*i.e.* 30 cm in diameter at breast height (DBH) or greater). This includes distinctive trees on adjacent properties which have critical root zones (CRZ) extending onto a property slated for development or demolition. 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 TIR 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 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 lands. Field work for this report was completed in September 2022 and April and June of 2023.

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

Table 1 on pages 2 through 5 details the individual distinctive trees on and adjacent to the subject property. Each of these trees is referenced by the numbers plotted on the tree information plan included on page 6 of this report.



Table 1. Tree information for 185 Kamloops Avenue

Tree No.	Tree species /Tolerance to Construction <sup>1</sup>	Owner -ship	DBH <sup>2</sup> (cm)	CRZ <sup>3</sup> (m)	Distance to excavation (m) <sup>4</sup>	Tree Condition, Age Class, Condition Notes, Species Origin and <b>Status (to be removed or preserved and protected)</b>	Reason for removal	Forester's Opinion re. Removal
1	Redbud ( <i>Cercis canadensis</i> ) / Moderate	City	20.1 (at 1m)	2.0	+/-2	Poor; mature; four competing stems at 1.3m and one suppressed lateral at 0.6m on southeast; very poor unions – all failing; very broad crown; introduced species to Eastern Ontario; <b>to be preserved and protected</b>	Not applicable – to be preserved	NA
2	White spruce ( <i>Picea glauca</i> ) / Moderate-Good	Private	60.1	-	-	Very poor; mature; main stem broke off at 14m in May 2022 wind storm; native species; <b>to be removed</b>	Very poor condition	Tree be removed
3	White spruce ( <i>Picea glauca</i> ) / Moderate-Good	Private	53.5	-	-	Hazardous; mature; partially uplifted in May 2022 wind storm - now moderately divergent towards northeast; native species; <b>to be removed</b>	Hazardous	Tree be removed
4	Scots pine ( <i>Pinus sylvestris</i> ) / Moderate-Good	Private	42.5	4.3	+/-6	Fair; mature; mildly divergent and very asymmetric towards northwest due to influence of tree #2; good crown density, annual increment and needle colour; introduced invasive species; <b>to be removed</b>	Conflicts with pool	Tree be removed
5	White pine ( <i>Pinus strobus</i> ) / Moderate-Good	Private	77.6	7.8	+/-7	Poor; very mature; central dominant main stem to 14m; co-dominant parallel leaders at 22m; multiple competing and suppressed laterals on south side starting at 4m; suffered major damage in April 2023 ice storm; native species; <b>to be removed</b>	Hazardous	Tree be removed



Table 1. Con't

Tree No.	Tree species /Tolerance to Construction <sup>1</sup>	Owner -ship	DBH <sup>2</sup> (cm)	CRZ <sup>3</sup> (m)	Distance to excavation (m) <sup>4</sup>	Tree Condition, Age Class, Condition Notes, Species Origin and <b>Status (to be removed or preserved and protected)</b>	Reason for removal	Forester's Opinion re. Removal
6	Mountain-ash ( <i>Sorbus</i> spp.) / Moderate	Private	34.3	3.4	+/-10	Fair; mature; topped at 3m in distant past; central stem with competing lateral at 2m on southwest; native species; <b>to be removed</b>	Conflicts with retaining wall	Tree be removed
7	Ginkgo ( <i>Ginkgo biloba</i> ) / Good	Private	30.1	3.0	+/-3	Very good; mature; central dominant stem for most of height; lower crown moderately asymmetric towards south due to influence of nearby cedar hedge; introduced species; <b>to be removed</b>	Will not survive root loss related to pool and house excavation	Tree be removed
8	Norway maple ( <i>Acer platanoides</i> ) / Moderate-Good	Neighbour	+/-60	+/6	+/-7	Fair; mature; co-dominant stems at 3.5m with suppressed lateral at 2m on north; broad crown; introduced invasive species; <b>to be preserved and protected</b>	Not applicable – to be preserved	NA
9	Scots pine ( <i>Pinus sylvestris</i> ) / Moderate-Good	Private	49.5	5.0	+/-3	Poor; mature; central stem with competing lateral at 3m on southwest; central stem bisects at 6m – poor form; poor crown density (holding only 1 year of growth), fair growth increment and needle colour; introduced invasive species; <b>to be removed</b>	Will not survive root loss related to driveway excavation	Tree be removed



Table 1. Con't

Tree No.	Tree species /Tolerance to Construction <sup>1</sup>	Owner -ship	DBH <sup>2</sup> (cm)	CRZ <sup>3</sup> (m)	Distance to excavation (m) <sup>4</sup>	Tree Condition, Age Class, Condition Notes, and Species Origin	Reason for removal	Forester's Opinion re. Removal
10	Scots pine ( <i>Pinus sylvestris</i> ) / Moderate-Good	City	35.3	-	-	Dead; introduced invasive species; <b>to be removed</b>	Dead	Tree be removed
11	Colorado spruce ( <i>Picea pungens</i> ) / Moderate-Good	City	50.8	5.1	+/-7	Poor; mature; main stem broken at 8m in distant past – two offset leaders have regenerated; fair crown density, annual increment and needle colour; introduced species; <b>to be preserved and protected</b>	Not applicable – to be preserved	NA
12	Colorado spruce ( <i>Picea pungens</i> ) / Moderate-Good	City	55.8	5.6	+/-7	Fair; mature; co-dominant leaders at 10m – mildly divergent; lower crown asymmetric towards east; needle cast ( <i>Rhizosphaera</i> spp.) thinning crown; fair crown density, good annual increment and needle colour; introduced species; <b>to be preserved and protected</b>	Not applicable – to be preserved	NA
13	Norway maple ( <i>Acer platanoides</i> ) / Moderate-Good	City	75.2	7.5	+/-6	Fair; mature; co-dominant stems at 2m with included bark to grade; both stems bisect at 5-7m – broad crown; fair root collar – several binding roots; multiple spiral and longitudinal seams in lower stems; introduced invasive species; <b>to be preserved and protected</b>	Not applicable – to be preserved	NA

Table 1. Con't

Tree No.	Tree species /Tolerance to Construction <sup>1</sup>	Owner -ship	DBH <sup>2</sup> (cm)	CRZ <sup>3</sup> (m)	Distance to excavation (m) <sup>4</sup>	Tree Condition, Age Class, Condition Notes, and Species Origin	Reason for removal	Forester's Opinion re. Removal
14	White spruce ( <i>Picea glauca</i> ) / Moderate-Good	Private	34.2	3.4	<1	Fair; mature; upright form, crown narrow, asymmetric towards southwest due to influence of tree #13; poor crown density and annual increment, fair needle colour; native species; <b>to be removed</b>	Will not survive root loss related to nearby excavation	Tree be removed
15	White pine ( <i>Pinus strobus</i> ) / Moderate-Good	Private	68.9	6.9	<1	Good; mature; single dominant stem for most of height; crown asymmetric towards southwest due to trees #13 and 14; good crown density, annual increment and needle colour; native species; <b>to be removed</b>	Will not survive root loss related to nearby excavation	Tree be removed
16	White spruce ( <i>Picea glauca</i> ) / Moderate-Good	Private	34.2	-	-	Poor; mature; main stem broken at 5.5m in distant past – single offset leader has regenerated; crown asymmetric towards south/west due to influence of trees #14 and 17; good crown density, annual increment and needle colour where exposed to sunlight; native species; <b>to be removed (due to poor condition)</b>	Poor condition	Tree be removed
17	White pine ( <i>Pinus strobus</i> ) / Moderate-Good	Private	62.1	-	-	Very poor; mature; multiple dead and declining branches on south and east sides of crown; many others with chlorotic foliage, including at crown apex; tree is in advanced decline; native species; <b>to be removed (due to poor condition)</b>	Very poor condition	Tree be removed

<sup>1</sup>As taken from Managing Trees during Construction; 2<sup>nd</sup> Ed., Fite and Smiley; <sup>2</sup>Diameter at breast height, or 1.3m from grade (unless otherwise indicated); <sup>3</sup>Critical root zone (CRZ) is considered as being 10 centimetres from the trunk of a tree for every centimetre of DBH. The CRZ is calculated as DBH x 10 cm;

<sup>4</sup>Approximate distances only.



GENERAL NOTES

LEGEND

- DECIDUOUS TREE TO BE REMOVED
- ★ CONIFEROUS TREE TO BE REMOVED
- CRITICAL ROOT ZONE
- DECIDUOUS TREE TO REMAIN
- ★ CONIFEROUS TREE TO REMAIN
- CRITICAL ROOT ZONE
- PROTECTIVE FENCING
- PROPOSED REPLANTING LOCATIONS

REPLACEMENT TREE OPTIONS

<b>Large-sized Coniferous Trees</b>
White pine ( <i>Pinus strobus</i> )
White spruce ( <i>Picea glauca</i> )
Larch species ( <i>Larix</i> spp.)
Norway spruce ( <i>Picea abies</i> )
<b>Small/medium-sized Coniferous Trees</b>
Serbian spruce ( <i>Picea omorika</i> )
Hemlock ( <i>Tsuga canadensis</i> )
<b>Large-sized Deciduous Trees</b>
Bur oak ( <i>Quercus macrocarpa</i> )
Red oak ( <i>Quercus rubra</i> )
Sugar maple ( <i>Acer saccharum</i> )
Red maple ( <i>Acer rubrum</i> )
Black walnut ( <i>Juglans nigra</i> )
<b>Medium-sized Deciduous Trees</b>
Kentucky coffee tree ( <i>Gymnocladus dioica</i> )
Hackberry ( <i>Celtis occidentalis</i> )
Red mulberry ( <i>Morus rubra</i> )
Chinese elm ( <i>Ulmus parvifolia</i> )
Ginkgo ( <i>Ginkgo biloba</i> )
<b>Small-sized Deciduous Trees</b>
Serviceberry ( <i>Amelanchier</i> spp.)
Japanese tree lilac ( <i>Syringa reticulata</i> )
Magnolia ( <i>Magnolia</i> spp.)
Thorn-less Hawthorn ( <i>Crataegus</i> spp.)
Pagoda dogwood ( <i>Cornus alternifolia</i> )
Redbud ( <i>Cercis canadensis</i> )



DRAWING: Tree Information Plan

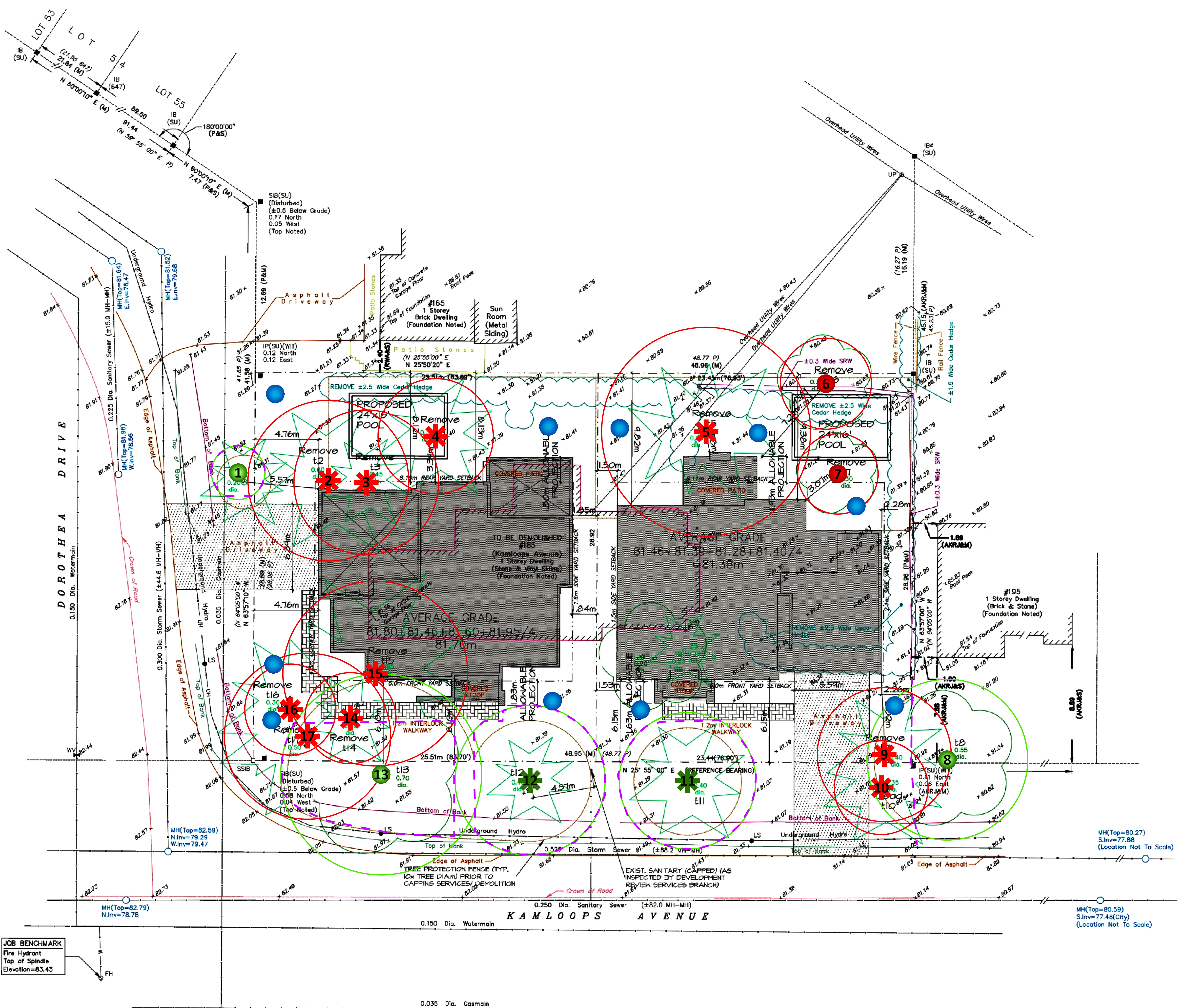
PROJECT: 185 KAMLOOPS AVENUE  
CITY OF OTTAWA



613-838-5717

Andrew K. Boyd, R.P.F.  
SCALE: 1:130  
DATE: 2023-07-07  
DRAWN BY: SS  
SHEET NO: 1

185K



JOB BENCHMARK  
Fire Hydrant  
Top of Spindle  
Elevation=83.43

Pictures 1 through 5 on pages 10 to 14 of this report show selected trees on and adjacent to the subject property (all pictures taken September 2022).

### **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 near the subject property.

### **TREE PROTECTION MEASURES**

Protection measures intended to mitigate damage during construction will be applied for the trees to be preserved. The following measures are the minimum required by the City of Ottawa to ensure tree survival during and following construction:

1. Erect a fence as close as possible to the critical root zone (CRZ) of trees (City of Ottawa tree protection barrier detail included on page 9).
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.

### **REPLACEMENT TREE PLANTING OR COMPENSATION**

As the property is within the inner urban area, the following ratios are used in terms of replacement tree planting: 2:1 for each removed distinctive tree measuring 30-49 cm in diameter and 3:1 for each distinctive tree measuring 50 cm or greater in diameter. As six (6) trees in the range of 30-49cm and six (6) greater than 50cm are to be removed, compensation of thirty (30) new trees is required. Replacement trees must be at least 50mm in caliper if deciduous and 2m in height if coniferous. Suggested replanting locations for ten (10) trees are shown on the tree conservation plan on page 6. The remaining trees will be compensated for monetarily.

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

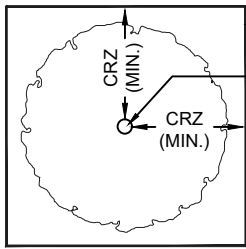
Please do not hesitate to contact me with any questions concerning this report.

Yours,



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





PLAN VIEW

TREE PROTECTION FENCING

TREE TRUNK

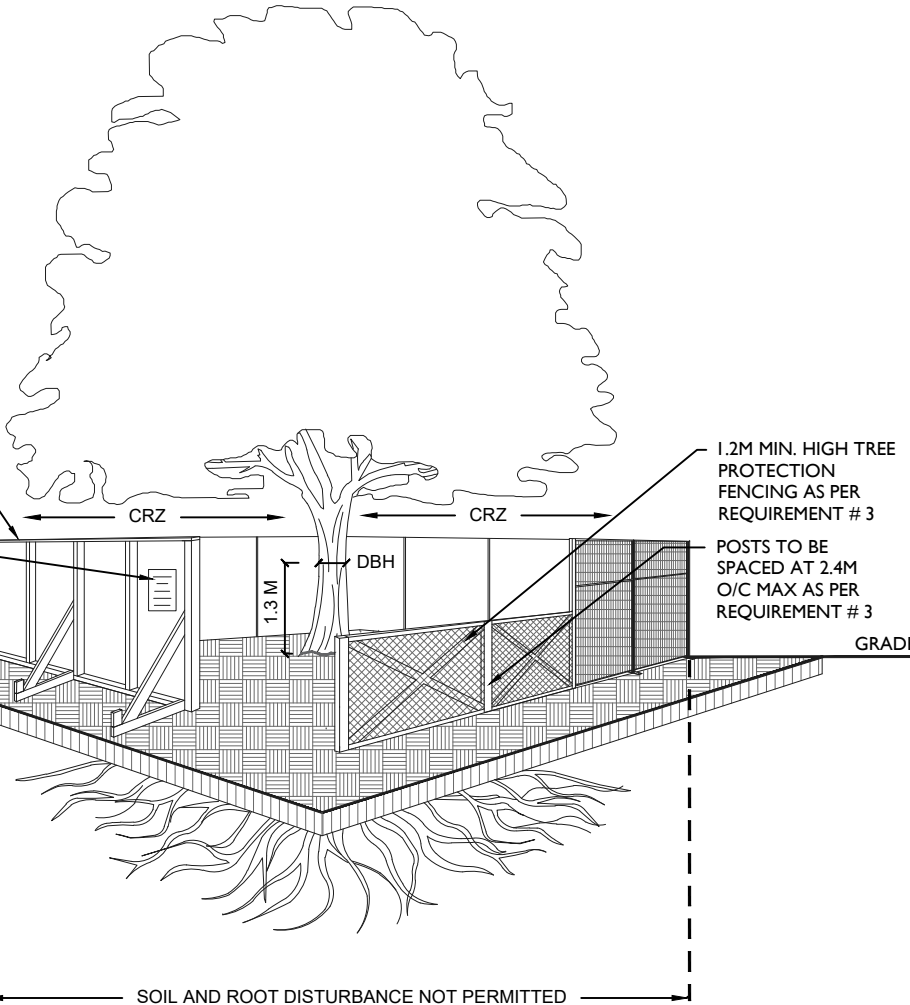
CRZ (MIN.)

CRZ (MIN.)

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



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

SOIL AND ROOT DISTURBANCE NOT PERMITTED

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](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. Trees #1, 2 and 3 (left to right), city redbud and private white spruces at 185 Kamloops Avenue





Picture 2. Tree #5, private white pine at 185 Kamloops Avenue



Picture 3. Trees #8 (neighbouring Norway maple in background), Scots pines #9 and 10 at 185 Kamloops Avenue





Picture 4. Tree #13 (city Norway maple, right) and #17 (private white pine, left) at 185 Kamloops Avenue





Picture 5. Trees #15, 16 and 17 (left to right), private white pines and white spruce (centre-right) at 185 Kamloops Avenue



# 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.

