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URBAN FORESTRY & FOREST MANAGEMENT CONSULTING

November 7, 2023

Don Wight, President Barbican Construction Ltd. 800 Industrial Avenue, Unit #6 Ottawa, ON K1G 4B8

RE: TREE CONSERVATION REPORT FOR 263 ST. LAURENT BOULEVARD, OTTAWA

This Tree Conservation Report (TCR) was prepared by IFS Associates Inc. (IFS) on behalf of Barbican Construction Ltd. in support of their proposed redevelopment of 263 St. Laurent Boulevard 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 a single-family house and detached garage. The proposed redevelopment will include the demolition of both existing buildings and construction of four new townhouses.

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 December 2021 and September 2023.

Committee of Adjustment Received | Reçu le

2023-12-19

City of Ottawa | Ville d'Ottawa

Comité de dérogation



TREE SPECIES, CONDITION, SIZE AND STATUS

Table 1 below details the species, condition, size (diameter) 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 plan included on page 7 of this report.

Table 1. Species, condition, size, ownership and status of trees at 263 St. Laurent Blvd.

					A se aloss tree condition notes θ_{-}
Tree	Tree species	Condition	DBH ¹	Ownership	Age class, tree condition notes &
No.		(very poor	(cm)		preservation status (to be
		→			removed or preserved and
		excellent)			protected)
1	Silver maple	Fair	+/-40	Neighbour	Mature; five moderately
	(Acer		avg.		divergent stems from grade;
	saccharinum)				symmetric crown; native
					species; to be preserved and
					protected
2	Manitoba maple	Poor	<10	City	Mature; all previously topped at
	(Acer negundo);		avg.		1.5m to form hedge except
	Norway maple				single red maple (21cm dbh); red
	(Acer				maple is native, Manitoba maple
	platanoides);				is naturalized, Norway maple,
	common				buckthorn and peashrub are all
	buckthorn				introduced invasive species; to
	(Rhamnus				be removed (conflicts with site
	cathartica);				servicing and proposed
	Siberian				driveways)
	peashrub				,
	(Caragana				
	arborescens);				
	red maple (Acer				
	rubrum)				
3	White spruce	Very poor	34.4	Private	Mature; top 10m dead; poor
	(Picea glauca)	J 1			crown density, annual increment
					and needle colour; native
					species; to be removed
					(conflicts with construction)
4	White spruce	Fair	14.5	Private	Mature; suppressed growth; fair
	(Picea glauca)	2 442	1	2 22 , 400	crown density, annual increment
	(2 10001 810111001)				and needle colour; native
					species; to be removed
					(conflicts with construction)



Table 1. Con't

Table I	. Con't				
Tree	Tree species	Condition	DBH ¹	Ownership	Age class, tree condition notes &
No.		(very poor	(cm)		preservation status (to be
		\rightarrow			removed or preserved and
		excellent)			protected)
5	White spruce	Fair	17.1	Private	Mature; suppressed growth; fair
	(Picea glauca)				crown density, annual increment
					and needle colour; native
					species; to be removed
					(conflicts with construction)
6	White spruce	Fair	15.4	Private	Mature; suppressed growth; fair
	(Picea glauca)				crown density, annual increment
					and needle colour; native
					species; to be removed
					(conflicts with construction)
7	White spruce	Fair	22.8	Private	Mature; moderately divergent
	(Picea glauca)				towards north; good crown
					density, annual increment and
					needle colour at apex, fair
					elsewhere; native species; to be
					removed (conflicts with
					construction)
8	White spruce	Fair	46.2	Private	Mature; crown apex very thin,
	(Picea glauca)				remaining crown with fair
					density, annual increment and
					needle colour; scattered
					deadwood; native species; to be
					removed (conflicts with
					construction)
9	Common lilac	Poor	<10	Shared	Mature; all previously topped at
	(Syringa		avg.		1.5m to form hedge except
	vulgaris);				single red maple (21cm dbh); red
	common				maple and white elm are native,
	buckthorn				Manitoba maple is naturalized,
	(Rhamnus				Norway maple, buckthorn and
	cathartica);				peashrub are all introduced
	Siberian				invasive species; to be removed
	peashrub				(conflicts with site servicing and
	(Caragana				proposed driveways)
	arborescens);				
	white elm				
	(Ulmus				
	americana)				



Table 1. Con't

Table 1	. Con t				
Tree	Tree species	Condition	DBH ¹	Ownership	Age class, tree condition notes &
No.		(very poor	(cm)		preservation status (to be
		\rightarrow			removed or preserved and
1.0		excellent)	20.2	- ·	protected)
10	White spruce	Fair	30.3	Private	Mature; crown very asymmetric
	(Picea glauca)				towards east due to clearance
					from Hydro lines; good crown
					density, annual increment and
					needle colour; native species; to
	~		0.5	~:	be preserved and protected
11	Silver maple	Fair	86.5	City	Mature; tri-stemmed at 1m from
	(Acer		(at		grade, stems strongly divergent;
	saccharinum)		0.4m)		pruned heavily for clearance
					from Hydro lines; native species;
12		.	10	C:	to be preserved and protected
12	Common	Fair	<10	City	Mature; previously topped at 1m
	buckthorn				to form hedge; white elm is a
	(Rhamnus				native species, buckthorn is an
	cathartica);				introduced invasive species; to
	white elm				be preserved and protected
	(Ulmus				
12	americana)	Fair	z10	City	Matural marianaly tagged at 1 m
13	Common	Fair	<10	City	Mature; previously topped at 1m
	buckthorn				to form hedge; introduced
	(Rhamnus				invasive species; to be
1.4	cathartica)	D	20.0	C:	preserved and protected
14	Red maple	Poor	39.8	City	Mature; multi-stemmed at 1-2m
	(Acer rubrum)		(at		from grade; pruned heavily for
			0.7m)		clearance from Hydro lines;
					native species; to be preserved
15	Dad min a	Doi:	20.7	Noi al-l- au :	and protected
15	Red pine	Fair	30.7	Neighbour	Mature; moderately divergent
	(Pinus resinosa)				and strongly asymmetric towards
					north; native species; to be
16	Colorado ammico	Good	1/60	Naighbaus	preserved and protected
16	Colorado spruce	Good	+/-60	Neighbour	Mature; lower crown thin,
	(Picea pungens)				slightly asymmetric due to
					influence of tree #15; good
					crown density, annual increment
					and needle colour elsewhere;
					introduced species; to be
					preserved and protected



Table 1. Con't

Tree	Tree species	Condition	DBH ¹	Ownership	Age class, tree condition notes &
No.		(very poor	(cm)		preservation status (to be
		\rightarrow			removed or preserved and
		excellent)			protected)
17	Red pine	Fair	+/-40	Neighbour	Mature; single dominant stem
	(Pinus resinosa)				and leader; sweep at 9m and
					suppressed lateral at 11m; good
					crown density, annual increment
					and needle colour; native
					species; to be preserved and
					protected

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

Pictures 1 through 4 on pages 9, 10 and 11 of this report show the current condition of selected trees 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*) 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. A single black walnut (*Juglans nigra*) was found and although closely related to butternut, is not a threatened species.
- 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 PROTECTION MEASURES

Preservation and 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.

TREE PRESERVATION MEASURES

A proposed townhouse will fall within the CRZ of silver maple #1. This will lead to root loss as roots will be encountered wherever any depth of excavation occurs within the tree's CRZ.

Measures intended to preserve tree #1 will centre on minimizing root loss. To this end the following measures are recommended to ensure no long term harm comes to this tree:

- 1) Use of hydro excavation along the edge of the foundation closest to the tree to carefully expose roots.
- 2) Cut and seal exposed roots before excavation resumes using traditional mechanical means. Sealing the cleanly cut root ends with a beeswax product will help prevent the loss of moisture and facilitate healing.

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,

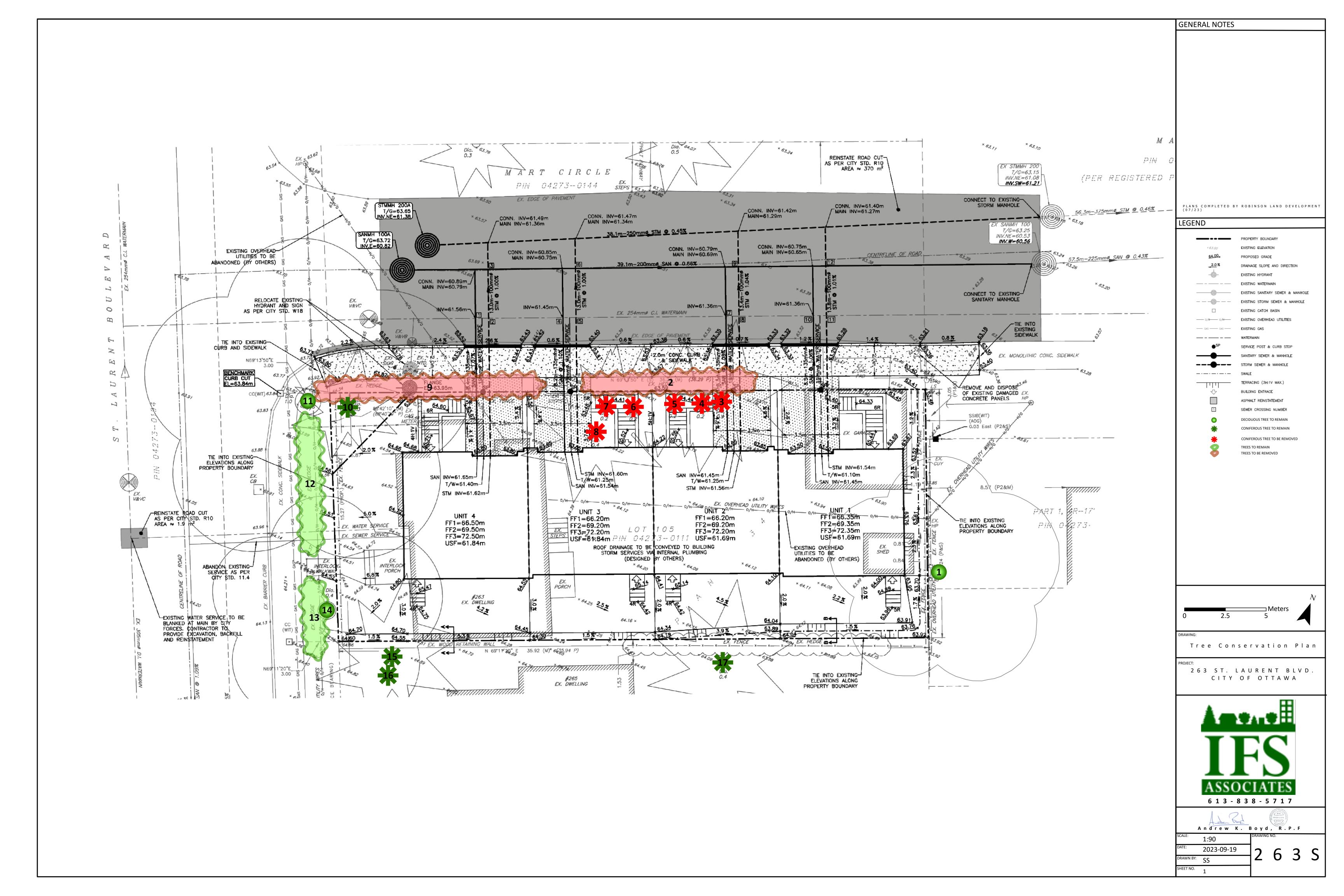
Andrew K. Boyd, B.Sc.F, R.P.F. (#1828)

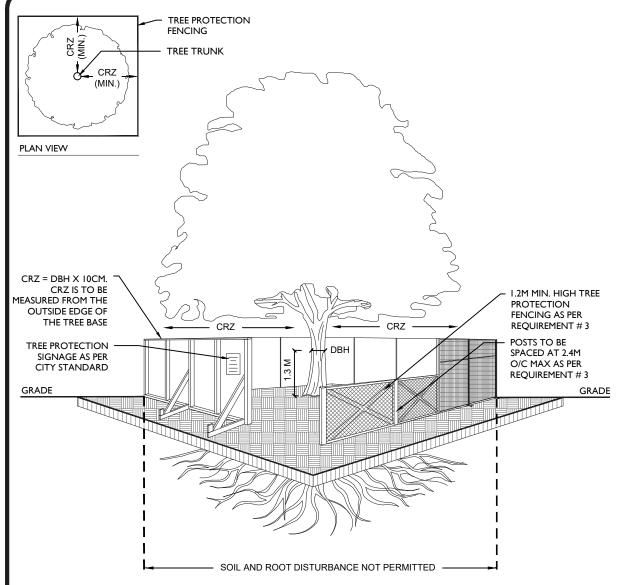
Certified Arborist #ON-0496A and TRAQualified

Consulting Urban Forester



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.





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.
- 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. Tree #17 (right) and #1 (left), neighbouring red pine and silver maple adjacent to 263 St. Laurent Boulevard



Picture 2. Trees #3-8 (right to left) private white spruce at 263 St. Laurent Boulevard



Picture 3. Trees #10 (centre) and 11-14 (left to right) on and adjacent to 263 St. Laurent Boulevard



Picture 4. Trees #13-16 (left to right) adjacent to 263 St. Laurent Boulevard

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 aboveground 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.* 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 of 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 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.