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Urban Forestry & Forest Management Consulting

April 7, 2017

Roy Nandram RND Construction 1155 Lola Street, Unit 5-B Ottawa, ON K1K 4C1

Re: Tree Conservation Report – Kingston Avenue

Dear Roy,

This report details a pre-construction Tree Conservation Report (TCR) for the above-noted property in Ottawa. The need for this TCR is related to the future re-development of the property by RND Construction to include two detached and eight semi-detached homes. Tree Conservation Reports are required for all site plan control applications for properties on which a tree of 10 centimetres in diameter or greater is present. The approval of this TCR by the City of Ottawa and the issuing of a permit constitutes authorization to remove the approved trees. No trees should be removed until such a permit has been issued.

The inventory in this report details the assessment of nine individual trees now present on adjacent City of Ottawa property (please see accompanying concept site study by Barry J. Hobin & Associates Architects). Field work for this report was completed on March 30, 2017. The construction proposed for the site includes driveways for the ten homes. Consequently several existing trees will be lost either due to direct conflicts with the proposed driveway locations or root loss due to nearby excavation.

The two maples close to the subject property, trees #8 and 9, are not anticipated to be impacted by construction. All other trees on adjacent properties can be retained as they do not conflict with the proposed construction. Lastly, none of the existing trees are of suitable species, health condition and/or size which would allow them to be successfully transplanted out of the way of construction.

TREE SPECIES, SIZE, CONDITION AND STATUS

Table 1 on pages 2 and 3 details the species, condition, size (diameter) and status of the trees on the adjacent city property. Each tree is referenced by the numbers plotted on the accompanying survey.



Table 1. Species, condition, diameter and status of trees at Kingston Avenue, Ottawa.

Table 1.	Species, condition, diameter and status of trees at Kingston Avenue, Ottawa.						
Tree	Tree Species	Condition	D.B.H	Tree Condition Notes & Status (to be			
No.		(VP→E)	(cm)	removed or retained)			
1	Norway maple	Poor	34.3	Mature; co-dominant stems at 2.5m-			
	(Acer platanoides)			parallel with weak union; symmetrical			
				crown; trunk infected with Eutypella			
				canker (Eutypella parasitica) 0.25-0.75m			
				on south side-incipient decay now present			
				(will become hazardous); seam on north			
				side of trunk grade to 2m-healed; good			
				annual increment (vigour); root collar			
				lacking flares-likely due to girdling roots;			
				undesirable, invasive species; to be			
				retained			
2	Norway maple	Very poor	41.9	Mature; central stem with multiple			
				competing laterals – broad, symmetrical			
				crown; cluster of branches at 2m			
				constricting growth above; trunk infected			
				with Eutypella canker (Eutypella			
				parasitica) 1-1.5m on southwest side -			
				advanced decay now present (potentially			
				hazardous); good annual increment; good			
				flaring at root collar; undesirable,			
				invasive species; to be removed with			
3	Ash	Dead	10.1	agreement of City			
3	(Fraxinus spp.)	Dead	10.1	Immature; coppice growth arising from stump cut at 0.3m; dead due to Emerald			
	(Traxinus spp.)			ash borer (Agrilus planipennis); to be			
				removed with agreement of City			
4	Sugar maple	Good	36.6	Mature; co-dominant stems at 3m with			
7	(Acer saccharum)	Good	30.0	strong union; broad, dense &			
	(Meer succuurum)			symmetrical crown; good annual			
				increment; fair flaring at root collar;			
				desirable species; to be retained			
5	Norway maple	Fair	42.6.	Mature; central stem with multiple			
	-			competing laterals starting at 2m-most			
				with weak unions; broad, symmetrical			
				crown; root collar with multiple girdling			
				and binding roots; fair annual increment;			
				undesirable, invasive species; to be			
				removed with agreement of City			



Table 1 con't

Table 1		Fair	44.9	Matura, as dominant stame at 1.75
6	Norway maple	raii	44.9	Mature; co-dominant stems at 1.75m with very weak union (previously rod braced);
				secondary union at 2.5m also weak;
				broad, symmetrical crown; good annual
				1
				increment; fair flaring at root collar – girdling roots for 1/3 of circumference;
				undesirable, invasive species; to be
				<u> </u>
7	Morryay manla	Fair	45.8	removed with agreement of City Mature; co-dominant stems at 1.75m with
/	Norway maple	ran	43.6	weak union, secondary union at 1.5m
				<u> </u>
				very weak; neither union rod braced-
				potentially hazardous if not addressed;
				broad, symmetrical crown; good annual
				increment; fair flaring at root collar –
				girdling roots for 1/3 of circumference;
				surface roots damaged by mowers;
				undesirable, invasive species; to be
0	M	37	20.4	retained
8	Manitoba maple	Very poor	38.4	Mature; likely originated from seed;
	(Acer negundo)			primary union at 2.5m with co-dominant
				stems and two competing laterals; union
				weak due to fissure and missing bark;
				located on slope by drain – root plate
				undermined by erosion; root collar one-
				sided with missing bark (likely due to
				root death making tree potentially
				hazardous); fair annual increment;
				undesirable, naturalized species; to be
	Name 1 - 1 -	De!:	20.5	retained
9	Norway maple	Fair	39.5	Mature; primary union at 3m with co-
				dominant stems-strong union; secondary
				union at 2.5m is very weak (included
				bark and reaction wood present); flaring
				at root collar for 1/2 of circumference-
				girdling roots likely suppressing rest;
				surface roots damaged by mowers; fair
				annual increment; undesirable, invasive
				species; to be retained

Pictures 1 through 4 on pages 4 and 5 show all trees except #3 on adjacent City of Ottawa property.





Picture 1. Trees # 1 and 2 on Kingston Avenue.



Picture 2. Trees #4 and 5 on Kingston Avenue.



Picture 3. Trees #6 and 7 on Kingston Avenue.



Picture 4. Trees #8 and 9 on Kingston Avenue.

TREE PRESERVATION AND 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 required by the City of Ottawa to ensure tree survival during construction:

- 1. Erect a fence at the critical root zone (CRZ¹) of trees;
- 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 canopy.

This report is subject to the limitations detailed on the following pages.

Please do not hesitate to contact me if you have any questions concerning this Tree Conservation Report.

Yours,

Andrew Boyd

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.

LIMITATIONS OF TREE ASSESSMENTS

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.

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 property and people. 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) recommended 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 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. Inevitably, a standing tree will always pose some risk. Most trees have the potential for failure in the event of adverse weather conditions, and this risk can only be eliminated through 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 experience and so it is recommended that *IFS Associates* be employed to re-inspect the tree(s) with sufficient frequency to detect if conditions have changed significantly.

No responsibility is assumed for matters legal in character. Statements made to *IFS Associates Inc.* in regards to the condition or history of the tree(s) are assumed to be correct. Any and all property is assessed or evaluated as though free and clear, under responsible ownership and competent management. It is assumed that any property is not in violation of any applicable codes, ordinances, statues or other government regulations.

Neither the author of this report nor anyone else in association with *IFS Associates Inc.* shall be required to give testimony or attend court by reason of this report unless contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contact of engagement, or as previously accepted.

The information, recommendations and opinions expressed in this report are for the sole benefit of the client(s) named above. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior expressly written consent of the author. 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 advertising, public relations, news, sales 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, the occurrence of a subsequent event, 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.

Lastly, loss or alteration of any part of this report invalidates the entire report.

