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URBAN FORESTRY & FOREST MANAGEMENT CONSULTING

September 28, 2022

Jack Mangan, Manager, Acquisitions & Corporate Development
Homestead Land Holdings Limited
80 Johnson Street
Kingston, ON
K7L 1X7

RE: TREE CONSERVATION REPORT FOR 210 CLEARVIEW AVENUE, OTTAWA

This Tree Conservation Report (TCR) was prepared by IFS Associates Inc. (IFS) on behalf of Homestead Land Holdings Limited in support of the re-zoning of 210 Clearview Avenue 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). The By-law reflects Section 4.8.2. of the City of Ottawa's Official Plan which calls for the retention of the City's urban forestry canopy and, in particular, the protection of large, healthy trees.

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 inventory in this report details the assessment of all individual trees on the subject property, adjacent private property and nearby City of Ottawa land. Field work for this report was completed in August 2022.

TREE SPECIES, CONDITION, SIZE AND STATUS

Table 1 on page 2 details the species, condition, size (diameter) and status of the six individual trees on the subject property and one on adjacent private property. Each of these trees is referenced by the numbers plotted on the tree conservation plan on page 8 of this report.

Table 1. Species, condition, size (diameter) and status of trees at 210 Clearview Avenue

Tree No.	Tree species	DBH[1] (cm)	Owner -ship[2]	Condition, age class, tree condition notes & species origin
1	White elm *(Ulmus americana)*	16	Shared	Good; maturing; single stemmed with three competing leaders at 3.5m; no outward signs of Dutch elm disease *(Ophiostoma novo-ulmi)*; native species
2	White elm *(Ulmus americana)*	17	Shared	Fair; maturing; divergent form and crown asymmetric towards southeast; no outward signs of Dutch elm disease *(Ophiostoma novo-ulmi)*; native species
3	White elm *(Ulmus americana)*	14	Shared	Good; maturing; generally upright in form; co-dominant leaders at 4m; intertwined with tree #2; no outward signs of Dutch elm disease *(Ophiostoma novo-ulmi)*; native species
4	Bur oak *(Quercus macrocarpa)*	88	Private	Fair; very mature; upright form; co-dominant stems at 8.5m with cavity in between; extremely restricted rooting area; good crown density and leaf colour; dieback pruned in past; native species
5	White elm *(Ulmus americana)*	12	Shared	Fair; maturing; divergent form towards northwest; leader offset due to past clearance pruning from over property line; no outward signs of Dutch elm disease *(Ophiostoma novo-ulmi)*; native species
6	White elm *(Ulmus americana)*	16	Shared	Good; maturing; generally upright form with co-dominant leaders at 4m; no outward signs of Dutch elm disease *(Ophiostoma novo-ulmi)*; native species
7	White elm *(Ulmus americana)*	16	Shared	Good; maturing; generally upright form with suppressed lateral at 3m on northwest and co-dominant leaders at 4m; no outward signs of Dutch elm disease *(Ophiostoma novo-ulmi)*; native species
8	White elm *(Ulmus americana)*	14 avg.	Shared	Fair; maturing; double stemmed at grade; divergent and asymmetric towards southeast; no outward signs of Dutch elm disease *(Ophiostoma novo-ulmi)*; native species
9	White elm *(Ulmus americana)*	12 avg.	Shared	Fair; maturing; double stemmed at grade; divergent and asymmetric towards northwest; growing through chain link fence; no outward signs of Dutch elm disease *(Ophiostoma novo-ulmi)*; native species

Table 1. Con't

Tree No.	Tree species	DBH[1] (cm)	Owner -ship[2]	Condition, age class, tree condition notes & species origin
10	White elm *(Ulmus americana)*	27	Shared	Fair; mature; moderately divergent; co-dominant stems at 2.5m; broad crown; embedded in chain link fence; no outward signs of Dutch elm disease *(Ophiostoma novo-ulmi)*; native species
11	Manitoba maple *(Acer negundo)*	30 avg.	Shared	Fair; mature; double stemmed at 0.2m - central stem with suppressed lateral on west; second suppressed lateral at 1.5m on southeast; central stem bisects at 2m and is divergent; broad crown; naturalized species (a 21cm diameter white elm is growing below)
12	Honey-locust *(Gleditsia triacanthos)*	26	Shared	Fair; mature; upright bole and stem; suppressed and competing laterals starting at 2m; upper crown asymmetric toward north due to ongoing need to clearance prune from nearby Hydro lines; good crown density and leaf colour; introduced species to Eastern Ontario
13	Honey-locust *(Gleditsia triacanthos)*	29	Shared	Fair; mature; upright bole; main stem mildly divergent towards east at 3.25m; suppressed and competing laterals starting at 3m; upper crown very asymmetric toward north due to ongoing need to clearance prune from nearby Hydro lines; good crown density and leaf colour; introduced species to Eastern Ontario
14	Sugar maple *(Acer saccharum)*	32	Shared	Fair; mature; central stem with branch cluster at 2m; two laterals previously removed from east – insect activity and early decay in wounds; crown asymmetric toward north due ongoing need to clearance prune from nearby Hydro lines; native species
15	Colorado spruce *(Picea pungens)*	16	Private	Good; maturing; living crown held to ground; good crown density, growth increment and needle colour; introduced species
16	Colorado spruce *(Picea pungens)*	16	Private	Good; maturing; living crown held to ground; good crown density, growth increment and needle colour; introduced species
17	Colorado spruce *(Picea pungens)*	18	Private	Good; maturing; living crown held to ground; good crown density, growth increment and needle colour; introduced species
18	Buckthorn *(Rhamnus* spp.*)*	10 avg.	Private	Fair; mature; multi-stemmed from grade; introduced invasive species

Table 1. Con't

Tree No.	Tree species	DBH[1] (cm)	Owner -ship[2]	Condition, age class, tree condition notes & species origin
19	Red oak *(Quercus rubra)*	85	Private	Fair; very mature; main stem mildly divergent towards east with co-dominant leaders at 7m; suppressed laterals starting at 3m; broad crown with good density and leaf colour; moderately restricted rooting area – roots deflecting away from edge of edge of asphalt parking lot; native species
20	Red maple *(Acer rubrum)*	36	Private	Good; mature; generally upright form – central dominant stem with parallel competing laterals at 1.5-1.75m; native species
21	Red maple *(Acer rubrum)*	31	Private	Good; mature; co-dominant stems at 3m; primary union weak; crown asymmetric towards northwest due to influence of tree #20; several binding roots; native species
22	Norway spruce *(Picea abies)*	36	Private	Fair; mature; planted on slight rise in elevation – droughty location; fair crown density, growth increment and needle colour; introduced species
23	Austrian pine *(Pinus nigra)*	32	Private	Good; mature; upright form; crown mildly asymmetric towards east/northeast due to influence of trees #20 and 21; good crown density, growth increment and needle colour; mild diplodia tip blight (*Sphaeropsis sapinea)*; introduced species
24	Russian-olive *(Elaeagnus angustifolia)*	33 avg.	Private	Fair; mature; four stemmed from grade; stems mildly to heavily divergent towards west; crown asymmetric due to ongoing need to clearance prune from garage ramp; introduced invasive species
25	Crab apple *(Malus* spp.*)*	21	Private	Good; maturing; bole divergent towards northeast; central stem straightens at 2.25m; laterals start at 1.5m; dense crown; cultivar
26	Little-leaf linden *(Tilia cordata)*	41	Private	Good; mature; upright form; co-dominant stems at 4m – parallel; crown dense, asymmetric towards west; multiple binding roots; introduced species
27	Little-leaf linden *(Tilia cordata)*	42	Private	Good; mature; central stem with competing lateral at 1.5m on west; mildly divergent and moderately asymmetric towards south due to influence of trees #26 and 28; several girdling roots; broad, moderately dense crown; introduced species

Table 1. Con't

Tree No.	Tree species	DBH[1] (cm)	Owner -ship[2]	Condition, age class, tree condition notes & species origin
28	Little-leaf linden *(Tilia cordata)*	34	Private	Good; mature; co-dominant stems at 2m; mildly divergent and moderately asymmetric towards east/northeast; crown moderately dense; root collar obscured; introduced species
29	Mugho pine *(Pinus mugo)*	14 avg.	Private	Fair; very mature; three stems at grade – all heavily divergent towards east; fair crown density, growth increment and needle colour; introduced species
30	Norway maple *(Acer platanoides)*	26	City	Good; mature; 'Crimson King' variety; central stem with co-dominant leaders at 5.5m; upper stem divergent towards north due to influence of tree #31; exposed root collar – planted high; seam on north side of bole to 1.5m; introduced invasive species
31	Little-leaf linden *(Tilia cordata)*	57	Private	Good; very mature; co-dominant stems at 4m; mildly divergent towards north/northeast; crown mildly asymmetric due to ongoing clearance pruning from building; multiple binding roots; several exposed, damaged surface roots; introduced species
32	Norway maple *(Acer platanoides)*	30	City	Good; mature; 'Crimson King' variety; central upright stem; co-dominant divergent leaders at 5.5m; divergent form and crown asymmetric due to influence of tree #33; exposed root collar – planted high; introduced invasive species
33	Little-leaf linden *(Tilia cordata)*	44	Private	Good; mature; central dominant stem for most of height; mildly divergent form towards north; living crown held at 4m due to influence of surrounding trees; major girdling roots on west and east; exposed, damaged surface root; introduced species
34	Japanese tree lilac *(Syringa reticulata)*	20 avg.	Private	Fair; mature; four stemmed from grade - two upright dominant stems and two heavily suppressed and divergent stems towards southeast; entire crown asymmetric towards south/southwest due to influence of tree #33; cultivar

Table 1. Con't

Tree No.	Tree species	DBH[1] (cm)	Owner -ship[2]	Condition, age class, tree condition notes & species origin
35	Norway maple *(Acer platanoides)*	29	City	Good; mature; 'Crimson King' variety; central upright stem; co-dominant divergent leaders at 5.5m; divergent form and crown asymmetric due to influence of trees #33 and 34; exposed root collar – planted high; girdling root on west; introduced invasive species
36	Norway maple *(Acer platanoides)*	27	City	Good; mature; 'Crimson King' variety; central stem with co-dominant leaders at 3.5m – both divergent towards east; exposed root collar – planted high; introduced invasive species
37	Norway maple *(Acer platanoides)*	28	City	Good; mature; 'Crimson King' variety; central stem with co-dominant leaders at 5.5m; dense crown; exposed root collar – planted high; introduced invasive species
38	Russian-olive *(Elaeagnus angustifolia)*	32	Private	Very poor; one remaining stem of four; divergent towards southeast; in advanced decline; introduced invasive species
39	White spruce *(Picea glauca)*	29	Private	Fair; mature; scattered dieback; planted on slight rise in elevation – droughty location; fair crown density, growth increment and needle colour; native species
40	Norway spruce *(Picea abies)*	33	Private	Fair; mature; planted on slight rise in elevation – droughty location; poor crown density, fair growth increment and needle colour; introduced species

[1] diameter at breast height, or 1.4m from grade (unless otherwise indicated); average diameters indicate multi-stemmed trees; [2]As determine from topographic survey prepared by Farley, Smith & Denis Surveying Ltd.

Pictures 1 to 9 on pages 9 through 14 of this report show selected trees on and adjacent to the subject property.

FEDERAL AND PROVINCIAL REGULATIONS

Federal and provincial regulations can be applicable to trees on private and public property. In particular, the following regulation has 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.

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 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 CRZ 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] critical root zone (CRZ) is established as being 10 centimetres from the trunk of a tree for every centimetre of DBH. The CRZ is calculated as DBH x 10 cm.

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

GENERAL NOTES

SITE PLANS COMPLETED BY FARLEY, SMITH & DENIS SURVEYING LTD.(02/08/22)

LEGEND

- DECIDUOUS TREE
- CONIFEROUS TREE

Meters
0 1.5 3 6 9 12 15

DRAWING: Tree Information Plan

PROJECT: 210 CLEARVIEW AVENUE CITY OF OTTAWA

IFS ASSOCIATES
613-838-5717
Andrew K. Boyd, R.P.F

SCALE:	1:255
DATE:	2022-09-07
DRAWN BY:	SS
SHEET NO.	1
DRAWING NO.	210C

Picture 1. Trees #5 to 11 at 210 Clearview Avenue

Picture 2. Trees #15-17 at 210 Clearview Avenue

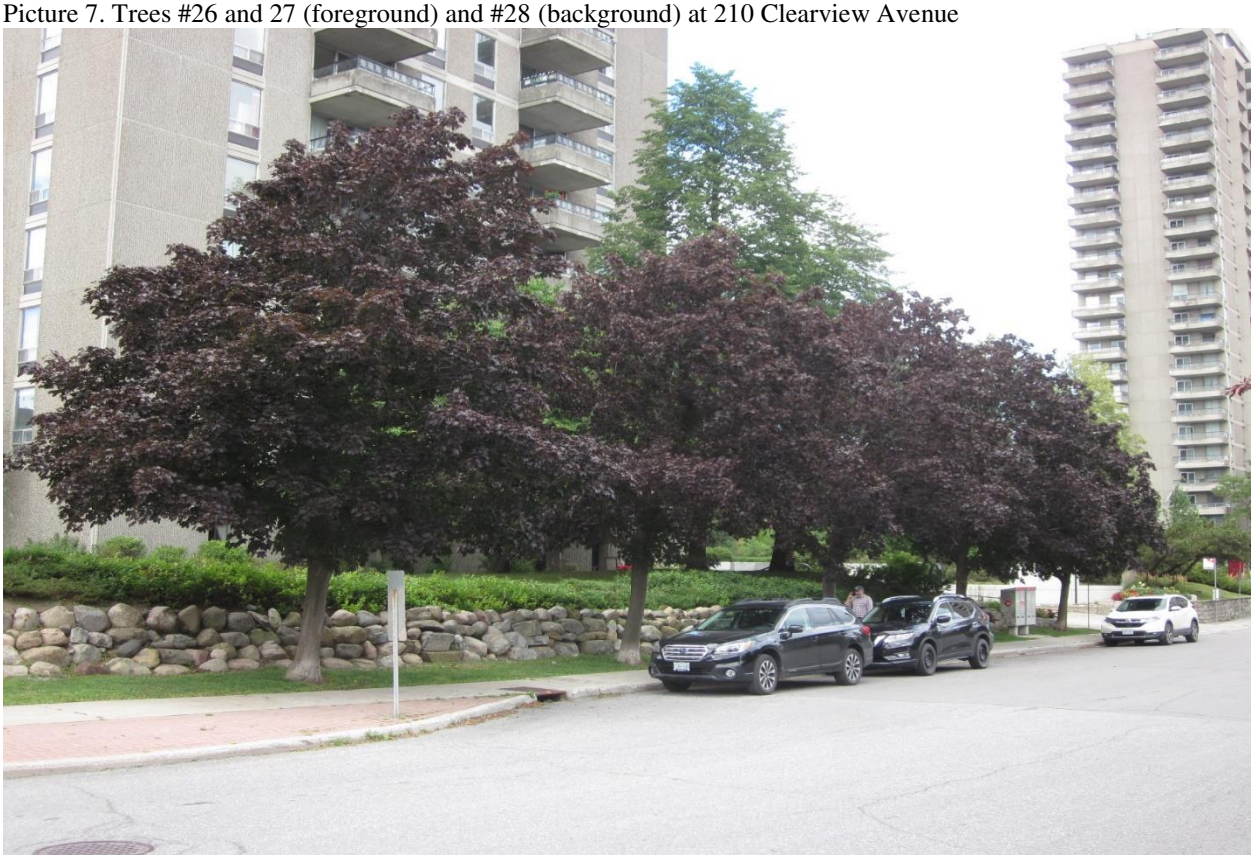
Picture 3. Tree #4 at 210 Clearview Avenue

Picture 4. Tree #19 at 210 Clearview Avenue

Picture 5. Trees #20, 21 and 22 (right to left) at 210 Clearview Avenue

Picture 6. Tree #25 at 210 Clearview Avenue

Picture 7. Trees #26 and 27 (foreground) and #28 (background) at 210 Clearview Avenue



Picture 8. Trees #30, 32 and 35-37 (right to left) at 210 Clearview Avenue

Picture 9. Trees #39 and 40 (right to left) at 210 Clearview 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.

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.