



December 16, 2021

Vincent P. Colizza Architects Incorporated
Suite 100, 5 Creeks End Lane
Ottawa, ON
K2H 1C7

RE: ELM TREE ROOT INVESTIGATION – 667 BANK STREET

Dear Vincent,

This report details the results of an investigation performed earlier this month in regards to the roots of a very mature white elm (*Ulmus americana*) located in close proximity to 667 Bank Street – a presently open lot slated for a multi-storey mixed use building. The elm is located fully within the adjacent Exploration Garden, a property owned by the City of Ottawa. This investigation serves as an addendum to an above-ground assessment of the same tree prepared by *IFS Associates* in June of 2016.

Specifically, City of Ottawa staff requested the following issues be addressed in this investigation: 1) *Confirmation from an RPF that the tree will not be negatively impacted by the construction. The confirmation can be an addendum to the 2016 TCR or an entirely new one, but it must clearly state that based on the current building plan and the trees current health status that it will have a high probability of survival. We will need the RPF to provide his/her professional stamp on the report as well.* 2) *Included with the above: a) Details on how the construction will manage any below ground rooting issues – note that I have recommended that consideration for hydrovacating the area just outside the limits of excavation be given. b) Recommendations on any above ground pruning that might be required to accommodate the building.*

To address these requests an investigative excavation took place on December 3, 2021 using a hydrovac truck. A total of four pits were excavated outside the limits of the proposed future building – on the far side of an existing concrete retaining wall located fully on the development property. In all pits minimal numbers and sizes of roots were encountered (see Picture 1 on page 2). Obviously, the retaining wall served as an effective root barrier over the many years of its existence. In short, it appears few elm roots have grown into the development property.

With the above results in mind, it is my opinion that the tree's health and longevity will not be adversely impacted by root loss related to excavation for the proposed building. This conclusion is further solidified by the fact that areas of the proposed building basement nearest the tree will remain unexcavated (see Colizza drawing number A1.0).



In terms of recommended pruning, the tree was aggressively reduction pruned and crown raised by a City contractor in 2016 or 2017. If further pruning is now required it is recommend a City crew (not contractor) be employed for this work. To help reduce the risk of exposing the tree to Dutch elm disease (*Ophiostoma novo-ulmi*) all pruning saws should be sterilized with rubbing alcohol before the work begins. Also, the work should only be performed in the period from October 1 to March 31. This will ensure the bark beetles which vector the disease are not active at the time.

I trust this report satisfies your requirements. Please do not hesitate to contact me with any questions or comments you may have.

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

Yours,

This report is not a valid copy unless signed and stamped.

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



Picture 1. Typical size and number of roots encountered below concrete wall located at 667 Bank Street

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 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.