



URBAN FORESTRY & FOREST MANAGEMENT CONSULTING

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November 21, 2022

Mustapha Arkadan, Land Development Manager
Ashcroft Homes
18 Antares Drive
Ottawa ON
K2E 1A9

**RE: TREE CONSERVATION REPORT FOR SILVER MAPLE #38 AT 114 RICHMOND ROAD,
ASHCROFT HOMES' Q WEST DEVELOPMENT**

Dear Mustapha,

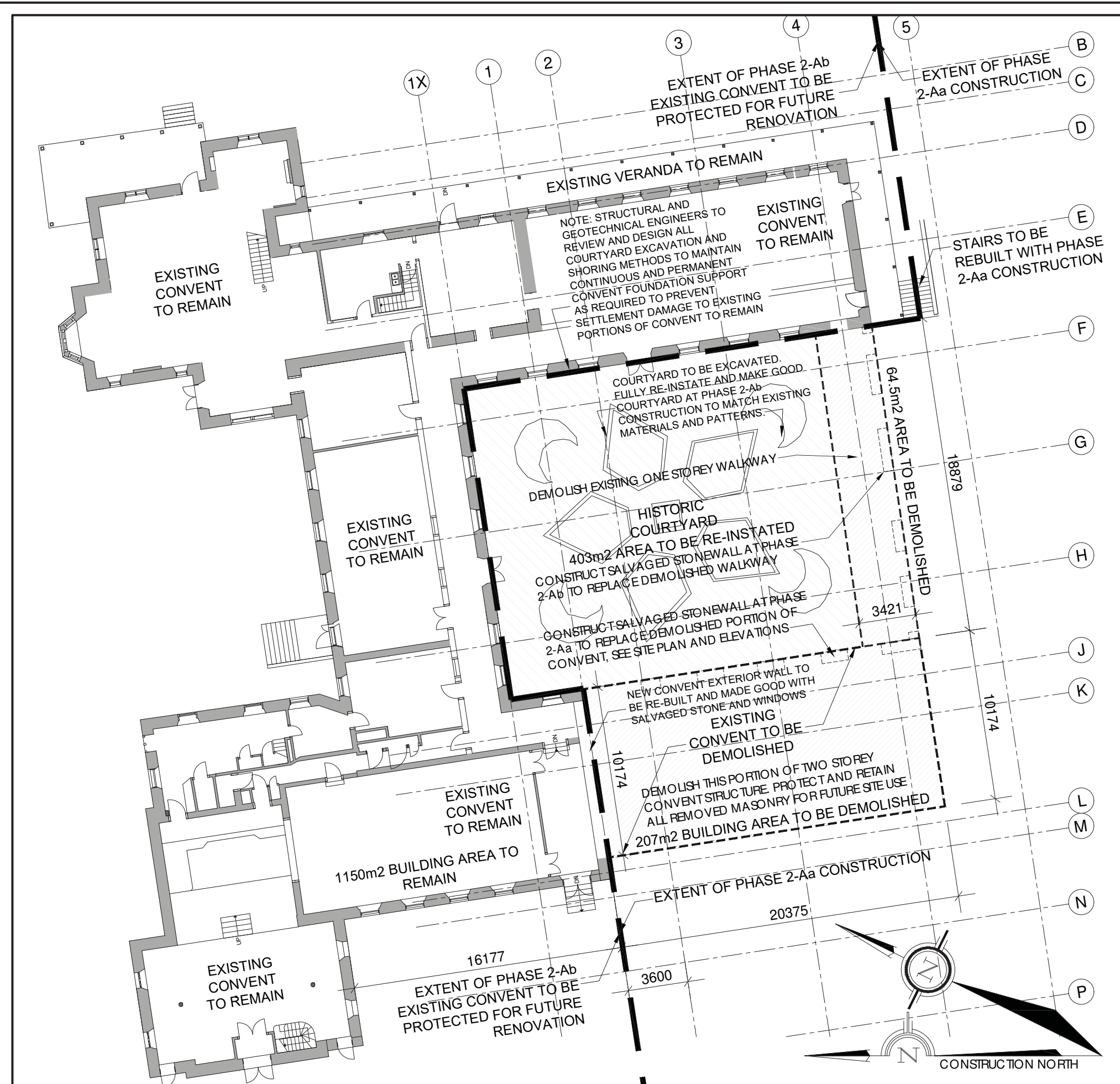
This letter report adds to several earlier reports related to trees on this development site. In particular, the preservation of a single, 78cm diameter silver maple (*Acer saccharinum*) impacted by excavation necessary for a fire route and turning circle within its critical rooting zone (see site plan prepared by M. David Blakely Architect on page 2 of this report). This tree is identified as number 38 in all reports.

Multiple inspections of the tree have been completed, the latest being earlier this month. All inspections have found it to be in good physiological health, without any underlying issues which would compromise its longevity.

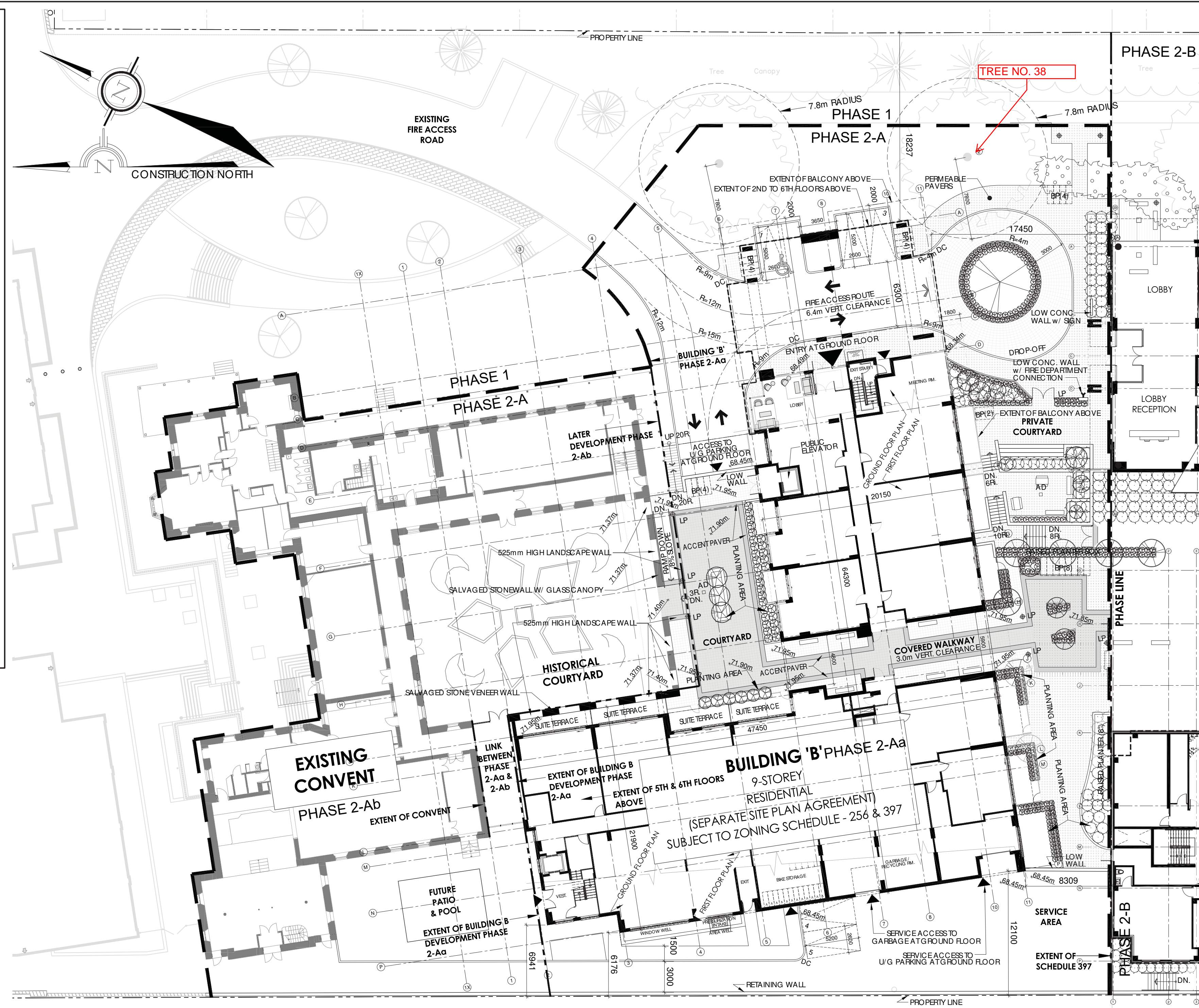
In March 2020, an exploratory hydro excavation was undertaken to determine the number of roots present at a distance of 7.8m from the tree – a distance equal to its critical rooting zone (CRZ). Many fine feeding roots and several larger roots were encountered (see Picture 1 on page 3). Under the present development proposal, the curb of the fire lane is 5.4m away. The inside edge of the turning circle will be roughly half that distance from the tree. In order to lessen the amount of root loss associated with the proposed excavation, the following general construction methods and materials are recommended. An engineer should be consulted for exact design details:

1. Hydro excavation along the edge of excavation in closest proximity to the tree to carefully expose roots. Exposed roots will then be cleanly cut and sealed with an organic beeswax-based product. Excavation can then resume using traditional mechanical means. Sealing the cleanly cut root ends will help prevent the loss of moisture and facilitate healing. If the excavation is to be left open for any amount of time a covering of at least three layers of moistened burlap is to be draped over the exposed face of excavation. This will help reduce the loss of soil moisture.

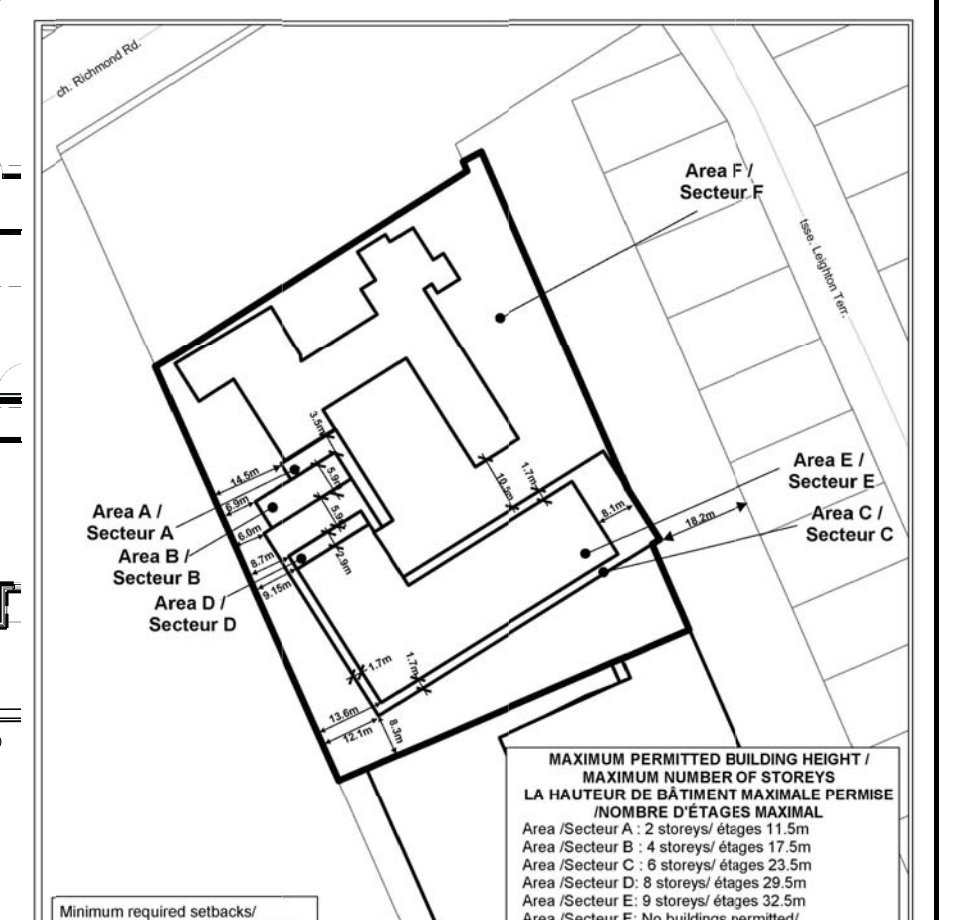
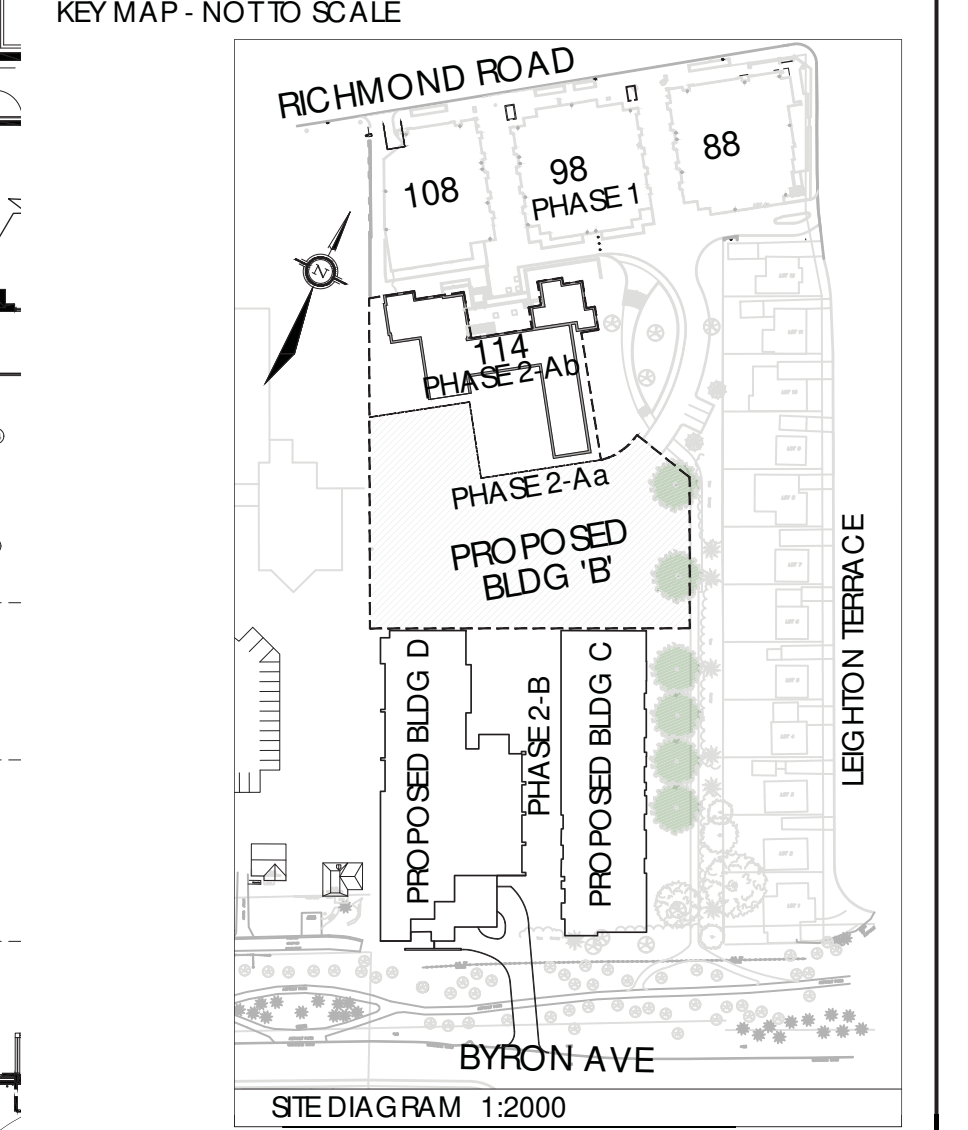
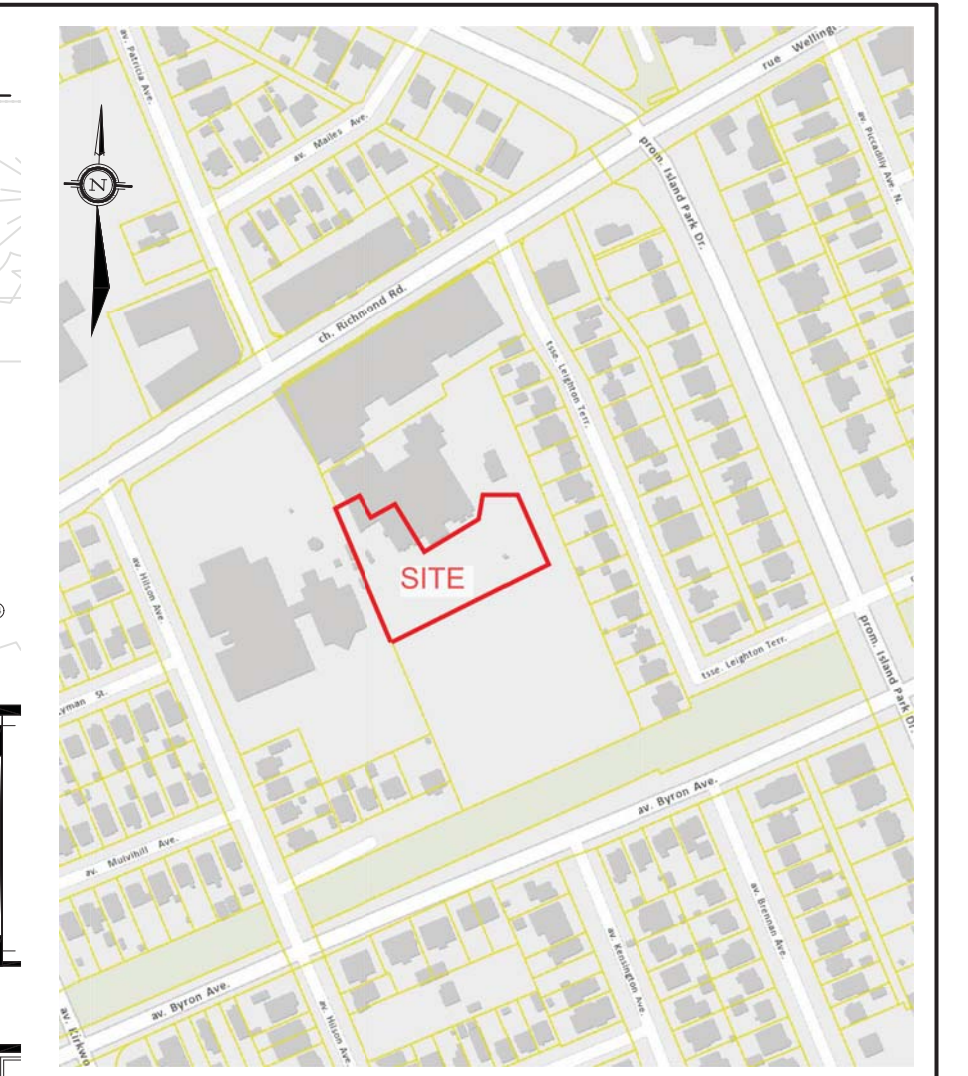




1 PHASE 2-Ab CONVENT PARTIAL DEMOLITION PLAN
SP-1b / SCALE 1 : 250



2 BUILDING 'B' PHASE 2-Aa SITE PLAN
SP-1b / SCALE 1 : 250



SITE INFORMATION (PHASE 2A)		BUILDING 'B' STATISTICS - 9 STOREYS GROSS BUILDING AREAS		BUILDING 'B' AMENITY AREA		PARKING	
ZONING : TM [1763] S256 & S397	SITE AREA : 6257m ²	Zoning GFA	Gross Overall	REQUIRED = 187 x 6m ² / D.U. = 1122m ²		REQUIRED = 187 D.U. - 12 X 0.5 = 88 SPACES REQUIRED	
BUILDING 'B' HEIGHT = 32.2m (PERMITTED = 32.5m as per S397)	REFER TO DRAWINGS SA300, A301, A400 and A401	P3 PARKING LEVEL	1020m ²	3m ² / D.U. REQ'D TO BE COMMUNAL = 561m ² MINIMUM		PROVIDED = 174 SPACES UNDERGROUND	
BUILDING 'B' STATISTICS		P2 PARKING LEVEL	1495m ²	PROVIDED: 325m ² COMMUNAL GROUND FLOOR FITNESS		7 SURFACE SPACES	
UNIT TYPES:		P1 PARKING LEVEL / GROUND FLOOR	1782m ²	160m ² COMMUNAL LOBBY FUNCTION AND MEETING		181 SPACES PROVIDED (WITHIN PHASE 2A)	
1 BED	93 UNITS	1st Floor	1590m ²	892m ² COMMUNAL AMENITY PROVIDED			
2 BED	94 UNITS	2nd Floor	1590m ²	EACH APARTMENT IS PROVIDED WITH A BALCONY OR ROOF TERRACE OF 6m ² OR GREATER IN AREA.		BIKE PARKING REQUIRED = 187 D.U. X 0.5 / D.U. = 94 BIKE PARKING SPACES	
TOTAL APARTMENT DWELLING UNITS = 187		3rd Floor	1590m ²			PROVIDED = 156 INTERIOR BIKE PARKING SPACES	
		4th Floor	1590m ²			14 EXTERIOR BIKE PARKING AT SURFACE	
		5th Floor	1512m ²			170 TOTAL BIKE PARKING SPACES (WITHIN PHASE 2A)	
		6th Floor	1512m ²				
		7th Floor	1060m ²				
		8th Floor	1060m ²				
		9th Floor	1010m ²				
		Total Area Above Grade:	12901m ²				

3 BUILDING 'B' PHASE 2-Aa INFORMATION
SP-1b

4 SCHEDULE 397 to BY-LAW No. 2008-250
SP-1b

Maximum required setbacks / Retenue requises: ---

This is Schedule 397 to Zoning By-law No. 2008-250
Annexe 397 au Règlement de zonage n° 2008-250

This is Attached 2 to By-law Number 2018-225, passed June 20, 2019
Pièce jointe n° 2 du Règlement municipal n° 2018-225, adopté le 20 juin 2019

SITE BOUNDARIES DERIVED FROM PLAN 4R-26424,
PLAN OF SURVEY OF
PART OF LOT 133 CONCESSION 1 (OTAWA FRONT)
REGISTERED PLAN 152,
LOT 133,
REGISTERED PLAN 449 And
PART OF LOT 133 CONCESSION 1 (OTAWA FRONT)
GEOGRAPHIC TOWNSHIP OF NEPEAN,
CITY OF OTTAWA
SURVEYED BY ANNIS O'SULLIVAN VOLLEBK LTD.
DATED AUG 15, 2012

SITE PLAN TO BE READ IN CONJUNCTION WITH:
SITE SERVICING PLAN SSP-1 AND GRADING PLAN GP-1 PREPARED BY STANTEC OTTAWA
LANDSCAPE PLAN L-1 PREPARED BY KALLALA DESIGN.

NOTE: SP1b TO BE READ IN CONJUNCTION WITH SP-1a

M. David Blakely Architect Inc.
2300 Place de Wexley Dr. Suite 101 Ottawa, Ontario
Phone (613) 226-8811 Fax (613) 226-7942 k2E629

GENERAL NOTES:
1. THE CONTRACTOR IS RESPONSIBLE FOR CHECKING AND VERIFYING ALL DIMENSIONS. ANY DISCREPANCY MUST BE REPORTED TO M. DAVID BLAKELY ARCHITECT INC.
2. ALL WORK AND MATERIALS TO BE IN COMPLIANCE WITH ALL CODES, REGULATIONS & BY-LAWS.
3. ADDITIONAL DRAWINGS MAY BE ISSUED FOR CLARIFICATION TO ASSIST THE PROPER EXECUTION OF WORK. SUCH DRAWINGS WILL HAVE THE SAME MEANING AND INTENT AS IF THEY WERE INCLUDED WITH THE PLANS IN CONTRACT DOCUMENTS.
4. DO NOT SCALE DRAWINGS.
5. THIS DRAWING SHALL NOT BE USED OR COPIED WITHOUT THE AUTHORIZATION OF THE ARCHITECT.
6. THIS DRAWING SHALL NOT BE USED FOR PERMIT OR CONSTRUCTION UNLESS THE DRAWING BEARS THE ARCHITECT'S SEAL AND SIGNATURE.

NOTE: SEE SP1a FOR ADDITIONAL SITE PLAN INFORMATION

ONTARIO ASSOCIATION OF ARCHITECTS
M. DAVID BLAKELY
LICENCE 3658

No.	DATE	DESCRIPTION / REVISIONS	INIT.	No.	DATE	DESCRIPTION / REVISIONS	INIT.
12.				24.			
11.				23.			
10.				22.			
9.				21.			
8.				20.			
7.				19.			
6.				18.			
5.				17.			
4.				16.			
3.				15.			
2.				14.			
1.	02/06/22	FOR SITE PLAN CONTROL SUBMISSION	KB	13.			

A - DETAIL NUMBER
B - SHEET NUMBER (DETAIL REQUIRED)
C - SHEET NUMBER (DETAIL LOCATION)

PROJECT: **Q WEST**
114 RICHMOND ROAD
OTTAWA, ONTARIO

CUSTOMER: **ASHCROFT HOMES**

DRAWING TITLE: **SITE PLAN - PHASE 2-Aa BUILDING 'B' AND DEMOLITION PLAN - PHASE 2-Aa**

DATE: MARCH 2022
SCALE: 1 : 250
DRAWN BY: KB
CHECKED: MDB

SHEET NO.: **SP1b**

000-00-00-0000



Picture 1. Results of hydro excavation 7.8m from tree #38 (photo taken March 2020).

2. All construction of the road base within the critical root zone of the tree is to be completed using light, tracked machines to minimize the compaction of the subgrade. No trucks or rubber-tired equipment is to be operated within the critical root zone of the tree until a minimum granular depth of 300mm is in place.
3. Following the removal of the tree protection barrier (see details on page 7), the topsoil is to be stripped using a light tracked machine equipped with a ditching bucket. The ditching bucket is to have a sharp cutting edge to minimize pulling on the roots. The excavation is to take place under the direction of an arborist and a geotechnical engineer. The depth of excavation is to be limited to the depth of organic material (approximately 0.25m based on observations from the hydro excavation).
4. A non-woven geotextile (Class II geotextile) is to be placed on the subgrade. Any minor levelling required is to be completed with sand. No compaction is to be completed prior to the placement of the roadway subbase.
5. A rigid ground reinforcement product (Ecoraster E50 or equivalent) is to be placed directly on the prepared subgrade. The ground reinforcement product is to be backfilled with limestone chip.
6. CU-structural soil is to be placed for the fire route and turning circle subgrade. The exact timing of the CU-soil placement and the placement of the ground reinforcement product will need to be determined during construction.
7. The granular subgrade is to be compacted using a walk behind vibratory roller. Compaction should consist of no less than 7 passes of the roller under full vibration and no more than ten passes.
8. A non-woven geotextile separation layer (Class 1 geotextile) and 100-150mm of granular A is to be placed for access during construction.
9. Following the completion of construction, the granular A is to be removed down to and including the geotextile and replaced with permeable pavers.
10. A tree protection barrier of wooden hoarding (see page 7 for details) is to be placed along the back edge of the turning circle for the remainder of construction.

In terms of the projected impact on the tree in relation to the proposed fire route and turning circle construction, it is felt that the associated root loss will not have a lasting impact physiological health. This is due to the known resilience of the species to root loss. With the deeper structural roots remaining in place, the stability of the tree will not be an issue either. However, a great number of the tree's fine feeding roots will be lost to excavation. In order to help offset this loss, the area around the tree, between the turning circle and public sidewalk, should be converted from a surface of bare soil and herbaceous growth to an organic mulch-covered planting bed with added topsoil (see picture 2 below for current rooting zone conditions). This will help the tree to recover by adding volume to and optimizing the full depth of the rooting area available to it.



Picture 2. Typical surface conditions beneath silver maple tree line at 114 Richmond Road (photo taken September 2022).

TREE PROTECTION MEASURES

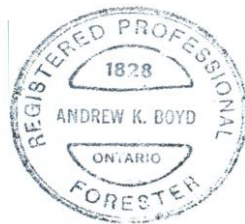
The following protection measures are the minimum required by the City of Ottawa to ensure tree survival during and following construction:

1. As per the City of Ottawa's tree protection barrier specification (included on the following page), erect a barrier as close as possible to the tree's CRZ. At its final location, wooden hoarding is recommended.
2. Do not place any material or equipment within the CRZ.
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.
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.

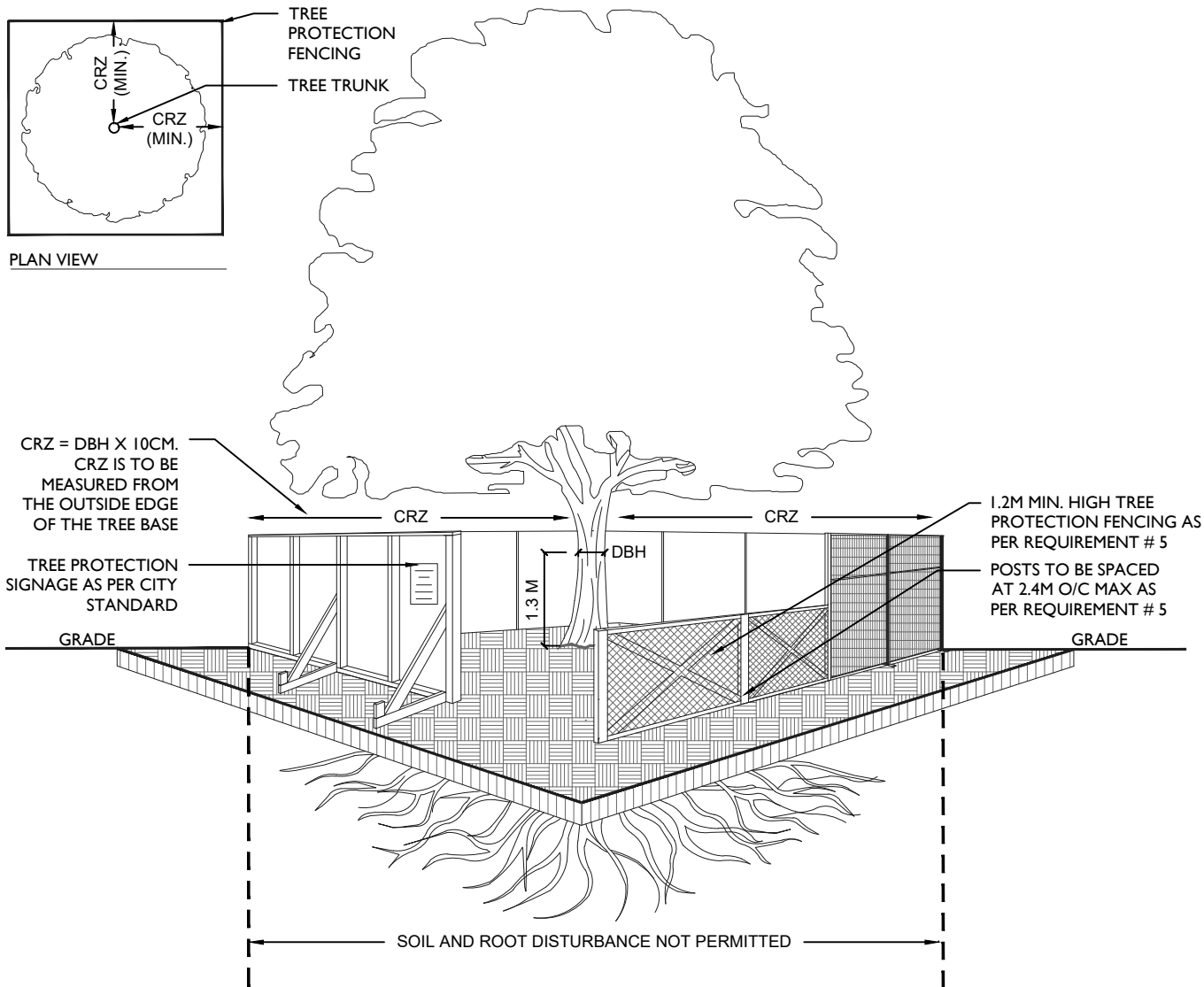
Successful preservation of trees will be directly related to the commitment of the proponent to the measures detailed above. An arborist/ forester should be present when working in proximity to the tree – removal of initial tree protection barrier, stripping to topsoil, pruning and sealing of exposed roots, and placement of the final permanent tree protection barrier.

This report is subject to the attached Limitations of Tree Assessments to which the reader's attention is directed. Please do not hesitate to contact me with any questions.

Yours,



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



TREE PROTECTION REQUIREMENTS:

1. PRIOR TO ANY ACTIVITY IN PROXIMITY TO A PROTECTED TREE THAT COULD RESULT IN DIRECT OR INDIRECT INJURY TO THAT TREE OR ITS ROOTING AREA, TREE PROTECTION FENCING MUST BE INSTALLED AROUND THE CRITICAL ROOT ZONE (CRZ), AND REMAIN IN PLACE UNTIL THE WORK IS COMPLETE.
2. WITHIN THE CRZ THERE MUST BE:
 - NO GRADING CHANGES
 - NO PLACEMENT OR STORAGE OF CONSTRUCTION MATERIALS OR SITE 'FURNITURE' SUCH AS OUTHOUSES
 - NO OPERATION OR STORAGE OF EQUIPMENT
 - NO EXTENSION OF HARD SURFACE OR CHANGE OF LANDSCAPING
 - NO EXCAVATION OTHER THAN APPROVED METHODS UNLESS OTHERWISE APPROVED BY THE CITY
3. THE LOCATION OF THE TREE PROTECTION FENCING MUST BE DETERMINED BY A TREE CARE PROFESSIONAL AND DETAILED ON ANY ASSOCIATED PLANS FOR THE SITE, IF PART OF A BUILDING PERMIT APPLICATION. THE PLAN AND CONSTRUCTED FENCING MUST BE APPROVED BY THE CITY PRIOR TO THE COMMENCEMENT OF WORK.
4. PLANS FOR MOVEMENT AND STORAGE OF EQUIPMENT AND MATERIALS ON SITE MUST BE DETERMINED AND DISCUSSED WITH ALL CONTRACTORS TO ACCOUNT FOR THE EXCLUSION OF THE TREE PROTECTION AREAS
5. 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 TO BE SPACED AT A MAXIMUM OF 2.4 M 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)
6. IF THE TREE PROTECTION FENCING AREA MUST BE REDUCED TO FACILITATE CONSTRUCTION ACCESS, THE CRITICAL ROOT ZONE MUST BE PROTECTED WITH PLYWOOD, WOOD CHIPS, OR STEEL PLATING OR OTHER MITIGATION TECHNIQUES PRESCRIBED BY THE TREE CARE PROFESSIONAL AND APPROVED BY THE CITY.

BY-LAWS

ALL CITY-OWNED TREES ARE PROTECTED UNDER THE MUNICIPAL TREES AND NATURAL AREAS PROTECTION BY-LAW (2006-279). PRIVATELY-OWNED TREES GREATER THAN 50CM DIAMETER ARE PROTECTED UNDER THE URBAN TREE CONSERVATION BY-LAW (2009-200).



TREE PROTECTION BARRIER SPEC.

SCALE: NTS

DATE: MARCH 2019

DRAWING NO.: 1 of 1

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.

