



TREE CONSERVATION REPORT V2.0

30 Auriga Drive, Part 10

Tree Conservation Report submitted as Partial
Requirements for a Site Plan Control Application,
July 12, 2023

Dendron Forestry Services



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613.805.WOOD (9663)

info@dendronforestry.ca

Tree Conservation Report v2.0

Submitted as part of Site Plan Control Application

Address: 30 Auriga Drive

Date of Report: July 12, 2023

Date of Site Visit: November 11 and 22, 2022

Prepared by: Astrid Nielsen, MFC, RPF (Registered Professional Forester)
ISA Certified Arborist®, ON-1976
Principal, Dendron Forestry Services
Astrid.nielsen@dendronforestry.ca

Client: Corsim, Philippe Blais, ing., PMP Gestionnaire de projet
819-598-1766
pblais@corsim.ca

This Report must be read in its entirety, including the Assumptions and Limiting Conditions attached herein.

Introduction

This revised TCR takes into account city comments from April 19, 2023.

This Tree Conservation Report has been prepared for Philip Blais from Corsim, as partial requirements for the Site Plan Control Application submitted to the City of Ottawa. The property is located in a commercial area along Auriga Drive and is separated into two sections: the north and south. This report has been prepared as part of the Site Plan Control Application for the first phase of development which includes the north section. The inventory (current vegetation, map#1) includes the entire site, but the proposed development analysis (map#2, proposed development, and conserved vegetation) includes only this first phase of development. A separate Tree Conservation Report will be prepared for the second phase on the south side at a later date.

Purpose of the Report

The objectives of this Tree Conservation Report are:

- To describe all trees on the site, recording their species, size, and current health condition. This includes trees on adjacent private property 10 cm or greater in diameter, with critical root zones that extend onto the subject property. It also includes city trees of all sizes that will be impacted by the proposed development.
- To evaluate the impact of the trees by the proposed development and what the recommended action is (retain and protect or remove)
- To provide recommendations on how to mitigate damage to retained trees during construction



Methodology

The following materials were reviewed as part of this report:

- Geotechnical survey prepared by Anis, O’Sullivan and Vollebakk
- Site Plan prepared by Rossman Architecture dated August 31, 2022
- Grading and Servicing plan by McIntosh Perry, dated July 6, 2023
- GeoOttawa tree inventory layer and aerial photography
- Google© Street View imagery – various years

A site visit was conducted to collect the following information from the trees on the site:

- Diameter ranges at breast height (1.3 m from grade)
- Species
- Tree/forest health

Current Vegetation

The vegetation on the site is consistent with that of a remnant farm field common throughout the outer Ottawa area. The historical photography on GeoOttawa confirms that most of the property was an agricultural field, and the southern tip was part of a hedgerow that separated two fields. No development has occurred on the site since it was farmed with the exception of a gravel parking lot in the northern section. Over the years, trees and shrubs have started to grow through natural seeding. Most of the tree species are native to the area except for some buckthorn (*Rhamnus spp.*).

Using the 2021 imagery from GeoOttawa, the tree inventory has been parceled into five polygons with similar vegetation types as identified in the *Current Vegetation Map#1*. The boundaries of these polygons are approximate, and the vegetation is described generally as follows:

Polygon A

This area has only recently seeded in with trembling aspen (*Populus tremuloides*) which are 1-8 cm in diameter. Although small, this area is dense, and the trees are young and vigorous.

Polygon B

Trees began establishing in this area approximately 30 years ago and consist mainly of *Populus tremuloides* which range from approximately 10 – 30 cm in diameter. There is an abundance of regeneration of *Tilia americana* and *Fraxinus spp.* One 13 cm black walnut (*Juglans nigra*) was also identified in this section.

Polygon C

This area in the southwest corner is a depression and was impenetrable due to severe blowdown. Few standing trees exist in this section, and it is likely that part of this blowdown occurred during the Derecho storm that affected this area significantly in May 2022.



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Polygon D

This section is mostly young trees including American elm (*Ulmus americana*), ash (*Fraxinus spp*), serviceberry (*Amelanchier spp*), trembling aspen (*Populus tremuloides*) and hawthorn (*Crataegus spp*). With the loss of the ash canopy due to the emerald ash borer, the area has become a dense thicket, and there is a high abundance of vines (Virginia creeper and wild grape).

Polygon E

This area is part of the old hedgerow that separated two agriculture fields prior to 1991. Some of the trembling aspen trees are very large and are in decline. Smaller trees (10-30 cm) that are present in this section include white birch (*Betula papyrifera*), black cherry (*Prunus serotina*), basswood, and American elm. All of the trees are in either fair or poor condition. Many have lost larger branches during the recent Derecho storm.

In addition to the above polygons, nine trees have been identified separately due to their larger sizes.

Tree ^{1,2}	Species	Diameter at breast height (dbh)	Ownership	Condition	Forester recommendations
1	American elm (<i>Ulmus americana</i>)	44 cm	City	Good/fair; crown has a lean towards the road	Retain and protect
2	Large-tooth aspen (<i>Populus grandidentata</i>)	100 cm +	Subject property	Poor; significant crown loss	Retain and protect
3	Basswood (<i>Tilia americana</i>)	44 cm	Subject property	Fair; some recent crown loss	Retain and protect
4	Large-tooth aspen (<i>Populus grandidentata</i>)	70 cm	Subject property	Poor; mostly dead top, recent loss of significant branches	Retain and protect
5	Large-tooth aspen (<i>Populus grandidentata</i>)	100 cm +	Subject property	Poor; dead top	Retain and protect
6	Willow (<i>Salix spp</i>)	100 cm +	Subject property	Poor; significant crown loss during recent storm	Retain and protect
7	Black walnut (<i>Juglas nigra</i>)	32 cm	Subject property	Good; on edge of slope of depression	Remove based on plans
8	Trembling aspen (<i>Populus tremuloides</i>)	30 cm	Subject property	Good/fair	Remove based on plans
9	Manitoba maple (<i>Acer negundo</i>)	Clump, 10-30 cm	Subject property	Fair/poor; under hydro lines	Remove based on plans

¹ Refer to the enclosed Tree Conservation Report maps for tree numbers

²The location of these trees was not provided and has been estimated



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Presence of natural elements

There were no natural elements identified on the site except for some of the larger trees that may be considered hazardous in a construction setting. No tree Species at Risk were identified on the site.

Proposed Development and Conserved Vegetation

The Proposed Development and Conserved Vegetation map (Map #2) shows the area that will be developed as part of Phase 1 with the tree layer from Map #1 transposed on top. The locations are approximate but are sufficient for the purposes of this Tree Conservation Report. The proposed development will involve paving the back section of the upper lot to accommodate the turnaround for trucks. As a result, all the trees in the northern section, including those in Polygons A, B, and tree 7 will require removal.

In an attempt to reduce tree loss, drainage on site has been controlled by use of a berm along the southern property edge, and a drainage pond immediately south of the proposed paved surface. While these measures will necessitate the **removal of Tree 8 and 9**, as well as some trees in **Polygon C and D**, it will allow a large area in the undeveloped southern portion of the property to keep existing grades. This maintaining of grade should allow for the trees in these areas to be retained. Map #2 has been updated to show a Tree Protection Area within which no tree removal should occur:

Tree protection measures

Prior to any site works, protective fencing should be installed around the Tree Protection Area as indicated in the attached Map #2 and maintained until all construction on site has been completed as per the City of Ottawa Tree Protection Specifications (March 2021). **Failure to install and maintain fencing as indicated in the attached map may result in fines from the city.**

Within the fenced area, the following tree protection guidelines should be applied:

- Do not change the grade
- Do not store construction material
- Do not operate machinery
- Do not convert to hard surface or change the landscaping
- Do not excavate unless it is a method that has been pre-approved by the City
- Do not place signs, notices or posters to any tree
- Do not damage the root system, trunk, or branches of any tree
- Direct the exhaust away from the tree

The tree protection fencing must be 1.2 m in height and constructed of a rigid or framed material (e.g. modulus – steel, plywood hoarding, or snow fence on a 2"X4" wood frame) with posts 2.4 m apart such that the fence location cannot be altered. All supports must be placed outside of the CRZ and installation must minimize damage to existing roots.



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Tree Clearing and Migratory Birds

Following the guidelines under the *Migratory Birds Convention Act, 1994*, removal of vegetation should be avoided during the nesting periods for migratory birds which extends from April 15 to as late as August 15th. If tree removal is required during this period, a nesting survey should be completed by a biologist within 5 days of tree removal to confirm that no nests are present.

Tree Planting Recommendation

To compensate for the loss of tree cover on this site, tree planting should be considered in all the soft landscaped areas. To maintain some of the biodiversity of the site, a combination of native trees and shrubs is recommended that helps maintain biodiversity and provides habitat for local flora and fauna.

The undersigned personally inspected the property and issues associated with this report on November 11 and 22, 2022. On Behalf of Dendron Forestry Services,



Astrid Nielsen, MFC, RPF (Registered Professional Forester)
ISA Certified Arborist®, ON-1976
ISA Tree Risk Assessment Qualified
Principal, Dendron Forestry Services



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Figure 1: Taken from centre of property looking north. Small poplars in Polygon A on right, and black walnut (tree 7) on left



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Figure 2: Polygon B, medium sized poplars in the northern section



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Figure 3: Polygon C - depression with blowdown



Figure 4: Example of dense thicket in Polygon D



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Figure 5: Trees in the southern tip (polygon E) part of the old hedgerow. Elm tree (Tree #1) is on the right



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ASSUMPTIONS AND LIMITING CONDITIONS

Intended Use of the Report

This Report was prepared by Dendron Forestry Services (hereafter “Dendron”) at the request of the Client. The results, observations, interpretations, analysis, recommendations, and conclusions contained within this Report are to be used solely for the purposes outlined within this Report. All other uses are impermissible and unintended, unless specifically stated in writing in the Report.

Intended User of the Report

This Report was prepared by Dendron for the exclusive use of the Client and may not be used or relied upon by any other party. All other users are unintended and unauthorized, unless specifically stated in writing in the Report.

Limitations of this Report

This Report is based on the circumstances and on-site conditions as they existed at the time of the site inspection and the information provided by the Client and/or third parties to Dendron. On-site conditions may limit the extent of the on-site inspection(s) conducted by Dendron, including weather events such as rain, flooding, storms, winds, tornados, snowfall, snow cover, hail; obstructions including fencing, dwellings, buildings, sheds, plants, and animals; lack of access to the entire perimeter of the tree due to adjacent properties; the shape of the tree; and accessibility of the tree crown, branches, trunk, or roots for examination.

In the event that information provided by the Client or any third parties, including but not limited to documents, records, site and grading plans, permits, or representations or any site conditions are updated or change following the completion of this Report, this Report is no longer current and valid and cannot be relied upon for the purpose for which it was prepared. Dendron and its agents, assessors, and/or employees are not liable for any damages, injuries, or losses arising from amendments, revisions, or changes to the documents, records, site and grading plans, permits, representations, or other information upon which Dendron relied in preparing this Report.

No assessment of any other trees or plants has been undertaken by Dendron. Dendron and its agents, assessors, and/or employees are not liable for any other trees or plants on or around the subject Property except those expressly identified herein. The results, observations, interpretations, analysis, recommendations, and conclusions contained within this Report apply only to the trees identified herein.

Trees and plants are living organisms and subject to change, damage, and disease, and the results, observations, interpretations, analysis, recommendations, and conclusions as set out in this Report are valid only as at the date any inspections, observations, tests, and analysis took place. No guarantee, warranty, representation, or opinion is offered or made by Dendron as to the length of the validity of the results, observations, interpretations, analysis, recommendations, and conclusions contained within this Report. As a result the Client shall only rely upon this Report as representing the results, observations, interpretations, analysis, recommendations, and conclusions that were made as at the date of such inspections, observations, tests, and analysis. The trees discussed in this Report should be re-assessed periodically and at least within one year of the date of this Report.

No Opinion regarding ownership of the Tree

This Report was not prepared to make a determination as to ownership of the subject tree(s). Where ownership of the subject tree(s) is identified within this Report, said identification is based on the information provided by the Client and third parties, including surveys, permits, and site and grading plans and may not be relied upon as a guarantee, warranty, or representation of ownership.

Assumptions

This Report is based on the circumstances and conditions as they existed at the time of the site inspection and the information provided by the Client and/or third parties to Dendron. Where documents, records, site and grading plans, permits, representations, and any other information was provided to Dendron for the purpose of preparing this Report, Dendron assumed that said information was correct and up-to-date and prepared this Report in reliance on that information. Dendron and its agents, assessors, and/or employees, are not responsible for the veracity or accuracy of such information. Dendron and its agents, assessors, or employees are not liable for any damages, injuries, or losses arising from inaccuracies, errors, and/or omissions in the documents, records, site and grading plans, permits, representations, or other information upon which Dendron relied in preparing this Report.

For the purpose of preparing this Report, Dendron and its agents, assessors, and/or employees assumed that the property which is the subject of this Report is in full compliance with all applicable federal, provincial, municipal, and local statutes, regulations, by-laws, guidelines, and other related laws. Dendron and its agents, assessors, and/or employees are not liable for any issues with respect to non-compliance with any of the above-referenced statutes, regulations, bylaws, guidelines, and laws as it may pertain to or affect the property to which this Report applies.

For the purpose of preparing this Report, Dendron and its agents, assessors, and/or employee assumed that there are no hidden or unapparent conditions affecting the results, observations, interpretations, analysis, recommendations, and conclusions contained within this Report.

No Publication

The Client acknowledges and agrees that all intellectual property rights and title, including without limitation, all copyright in this Report shall remain solely with Dendron Forestry. Possession of this Report, or a copy thereof, does not entitle the Client or any third party to the right of publication or reproduction of the Report for any purpose save and except where Dendron has given its prior written consent.



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Neither all nor any part of the contents of this Report shall be disseminated to the public through advertising, public relations, news, sales, the internet or other media (including, without limitation, television, radio, print or electronic media) without the prior written consent of Dendron Forestry.

Implementing the Report Recommendations

Dendron and its agents, assessors, and/or employees accept no responsibility for the implementation of any part of this Report unless specifically requested to provide oversight on the implementation of the recommendations. In the event that inspection or supervision of all or part of the implementation of the within recommendations is requested, that request shall be in writing and the details agreed to in writing by both parties.

Dendron and its agents, assessors, and/or employees are not liable for any damages or injuries arising from the manner in which the recommendations in this Report are implemented, including failure to, incorrect, or negligent implementation of the recommendations.

Further Services

Neither Dendron nor any assessor employed or retained by Dendron for the purpose of preparing or assisting in the preparation of this Report shall be required to provide any further consultation or services to the Client, save and except as already carried out in the preparation of this Report and including, without limitation, to act as an expert witness or witness in any court in any jurisdiction unless the Client has first made specific arrangements with respect to such further services, including, without limitation, providing the payment of the Report's regular hourly billing fees.

Limits of Liability

In carrying out this Report, Dendron and its agents, assessors, and/or employees have exercised a reasonable standard of care, skill, and diligence as would be customarily and normally provided in carrying out this Report. While reasonable efforts have been made to ensure that the trees recommended for retention are healthy, no guarantees are offered, or implied, that these trees, or all parts of them will remain standing. It is professionally impossible to predict with absolute certainty the behaviour of any single tree or group of trees, or all their component parts, in all given circumstances. Inevitably, a standing tree will always pose some risk. Most trees have the potential to fall, lean, or otherwise pose a danger to property and persons in the event of adverse weather conditions, and this risk can only be eliminated if the tree is removed.

Without limiting the foregoing, no liability is assumed by Dendron for:

- a) any legal description provided with respect to the Property;
- b) issues of title and or ownership respect to the Property;
- c) the accuracy of the Property line locations or boundaries with respect to the Property; and
- d) the accuracy of any other information provided to Dendron by the Client or third parties;
- e) 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
- f) the unauthorized distribution of the Report.

The total monetary amount of all claims or causes of action the Client may have as against Dendron Forestry, including but not limited to claims for negligence, negligent misrepresentation, and breach of contract, shall be strictly limited solely to the total amount of fees paid by the Client to Dendron Forestry pursuant to the Contract for Services dated November 16, 2022, for which this Assessment was carried out.

Further, under no circumstance may any claims be initiated or commenced by the Client against Dendron or any of its directors, officers, employees, contractors, agents, assessors, or Assessors, in contract or in tort, more than 12 months after the date of this Report.

No Third Party Liability

This Report was prepared by Dendron exclusively for the Client for the purpose set out in the Report. Any use which a third party makes of this Report, or any reliance on or decisions a third party may make based upon this Report, are made at the sole risk of any such third parties. Dendron Forestry accepts no responsibility for any damages or loss suffered by any third party or by the Client as a result of decisions made or actions based upon the unauthorized use or reliance of this Report by any such party.

General

Any plans and/or illustrations in this Report are included only to help the Client visualize the issues in this Report and shall not be relied upon for any other purpose. This report is best viewed in colour. Any copies printed in black and white may make some details difficult to properly understand. Dendron accepts no liability for misunderstandings due to a black and white copy of the report.

Notwithstanding any of the above, nothing in this Report is taken to absolve the Client of the responsibility of obtaining a new Report in the event that the circumstances of the tree change.



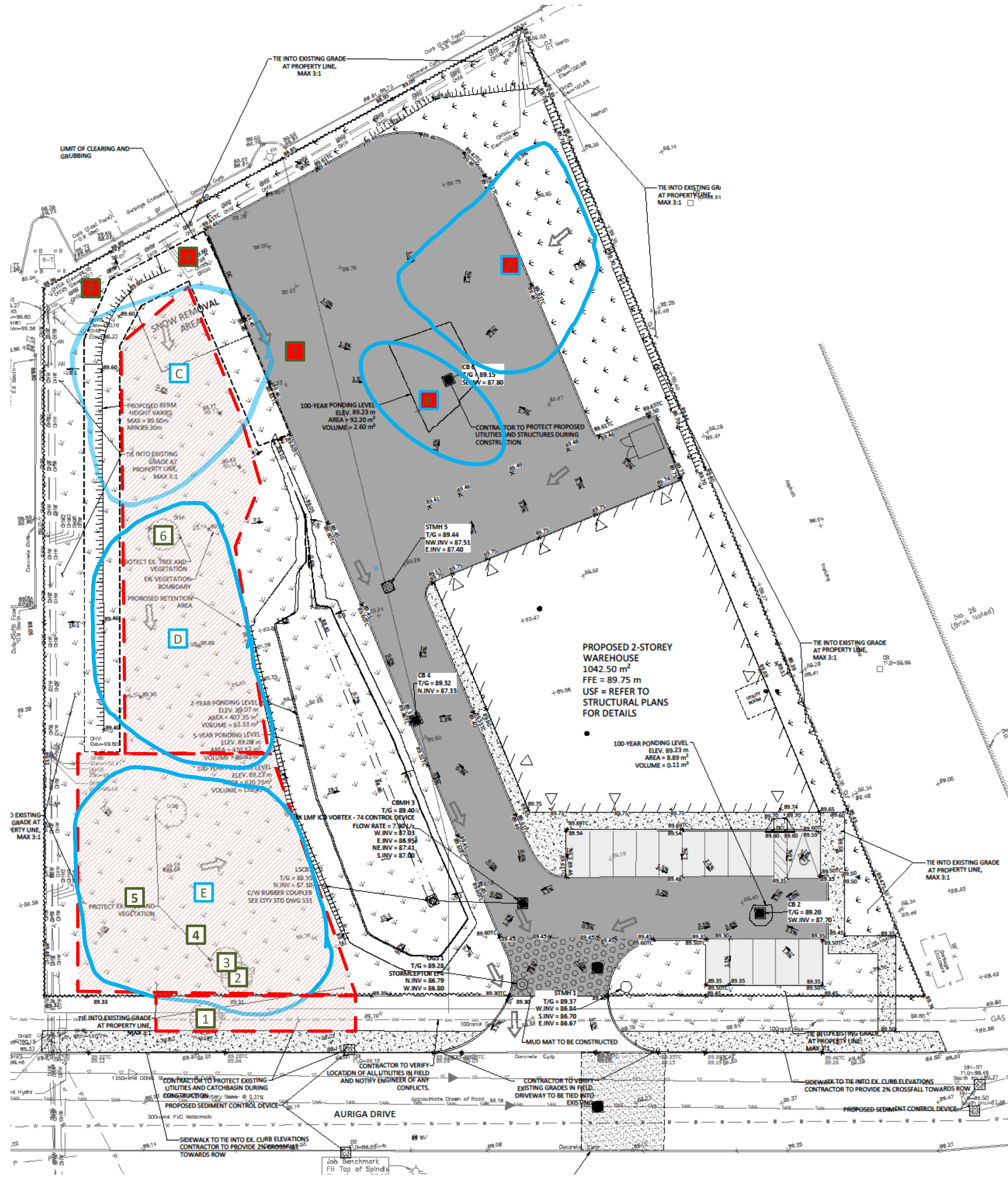
Legend

- A Polygon label representing a group of trees
- 6 Large tree

Note that the tree layer has been added to a 2021 aerial view of the property provided by GeoOttawa. The polygon boundaries and tree locations are approximate.



Tree Conservation Report Map #1 – Current Vegetation
 Tree layer prepared by Dendron Forestry Services
 Version 1.0, November 22, 2022
 For more information, please contact info@dendronforestry.ca



Tree ^{1,2}	Species	DBH (cm)	Ownership	Condition	Forester recommendations
1	American elm (<i>Ulmus americana</i>)	44	City	Good/fair; crown has a lean towards the road	Retain and protect
2	Large-tooth aspen (<i>Populus grandidentata</i>)	>100	Subject property	Poor; significant crown loss	Retain and protect
3	Basswood (<i>Tilia americana</i>)	44	Subject property	Fair; some recent crown loss	Retain and protect
4	Large-tooth aspen (<i>Populus grandidentata</i>)	70	Subject property	Poor; mostly dead top, recent loss of significant branches	Retain and protect
5	Large-tooth aspen (<i>Populus grandidentata</i>)	>100	Subject property	Poor; dead top	Retain and protect
6	Willow (<i>Salix spp</i>)	>100	Subject property	Poor; significant crown loss during recent storm	Retain and protect
7	Black walnut (<i>Juglans nigra</i>)	32	Subject property	Good; on edge of slope of depression	Remove based on plans
8	Trembling aspen (<i>Populus tremuloides</i>)	30	Subject property	Good/fair	Remove based on plans
9	Manitoba maple (<i>Acer negundo</i>)	Clump, 10-30 cm	Subject property	Fair/poor; under hydro lines	Remove based on plans

Tree Protection Area (TPA)

Prior to any site works, protective fencing should be installed around the TPA as indicated in this Map and maintained until all construction on site has been completed as per the City of Ottawa Tree Protection Specifications (March 2021). **Failure to install and maintain fencing as indicated in this report may result in fines from the city.**

Within the fenced area, the following tree protection guidelines should be applied:

- Do not change the grade
- Do not place store construction material of site "furniture" such as outhouses
- Do not operate machinery
- Do not convert to hard surface or change the landscaping
- Do not excavate unless it is a method that has been pre-approved by the City
- Do not place signs, notices or posters to any tree
- Do not damage the root system, trunk, or branches of any tree
- Direct the exhaust away from the tree

The tree protection fencing must be 1.2 m in height and constructed of a rigid or framed material (e.g. modulus – steel, plywood hoarding, or snow fence on a 2"x4" wood frame) with posts 2.4 m apart such that the fence location cannot be altered.

Legend

- Polygon label representing a group of trees
- Trees to be removed
- x Large tree
- Tree Protection Area

Note that the tree layer has been added to the Site Plan provided by the client. The polygon boundaries and tree locations are approximate.



Tree Conservation Report Map #2 – Proposed Development and Conserved Vegetation
 Tree layer prepared by Dendron Forestry Services
 Version 3.0, July 12, 2023
 For more information, please contact info@dendronforestry.ca