



TREE CONSERVATION
REPORT V2.0
1983 Carling Ave

Tree Conservation Report submitted as Partial
Requirements for a Site Plan Control Application

Dendron Forestry Services

March 29, 2023



Dendron Forestry Services

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Tree Conservation Report

Submitted as part of Site Plan Control Application

Address: 1983 Carling Ave

Date: March 29, 2023

Prepared by: Astrid Nielsen, MFC, RPF (Registered Professional Forester)
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Prepared for: Keegan Gomes,
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Site Visit: January 15, 2021, and January 24, 2022; 30-40 cm snow cover at each visit

Introduction

This Tree Conservation Report has been prepared for Keegan Gomes, as partial requirements for the Site Plan Control Application submitted to the City of Ottawa. It is an update to the Tree Conservation Report prepared on January 22, 2022. The following documents were provided to Dendron Forestry and reviewed as part of this report:

- 1) Site Servicing Plan prepared by Stantec, dated March 24, 2023
- 2) Site Plan prepared by Stantec and Figurr dated September 16, 2021, that includes the area of excavation marked in red
- 3) Grading Plan prepared by Stantec, dated March 24, 2023
- 4) Existing Conditions and Removals Plan, dated June 18, 2021

The objectives of this Tree Conservation Report are:

- To describe all trees over 10 cm on the site, recording their species, size, and current health condition
- 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



Current Vegetation

The following is an inventory of all trees that are protected under City of Ottawa Tree Protection (By-law No. 2020-340) on the site and adjacent City property. This includes private trees with a diameter at breast height (dbh) of 10 cm or greater and city-owned trees of all sizes. It also includes trees 10 cm or greater in diameter on adjacent properties whose Critical Root Zone (CRZ) extend into the subject area. The CRZ is an area around the trunk with a radius equivalent to 10 times the diameter of the trunk. This does not take into account infrastructure such as buildings and asphalt and assumes the tree has no restrictions on root growth.

Tree ¹	Species	Diameter at breast height (dbh)	Ownership ²	Condition ³	Action
1	Bur oak (<i>Quercus macrocarpa</i>)	111 cm	Private	Fair; large cavity at the base; salt damage on branches along Carling	Retain and protect; certified arborist to sever roots prior to excavation and re-assess for stability, certified arborist to prune conflicting branches, walkway to be built above grade and no roots to be severed
2	Ginkgo (<i>Ginkgo biloba</i>)	28 cm	Private	Good	None – not impacted by construction
3	Red maple (<i>Acer rubrum</i>)	38 cm	Private	Good/Fair	None – not impacted by construction
4	Siberian elm (<i>Ulmus pumila</i>)	40 cm	Private, jointly owned with adjacent property on Bromley Rd	Fair; hydro pruning; lean towards adjacent property	Apply root mitigation measures when replacing asphalt
5	Manitoba maple (<i>Acer negundo</i>)	67 cm	Private, jointly owned with adjacent property on Bromley Rd	Poor; topped by hydro, epicormic shoots at base	Apply root mitigation measures when replacing asphalt
6	Manitoba maple (<i>Acer negundo</i>)	32 cm	Private	Fair; hydro pruned, epicormic shoots throughout	Apply root mitigation measures when replacing asphalt
7	Manitoba	21 cm	Private	Fair/poor; hydro	Apply root mitigation measures



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	maple (<i>Acer negundo</i>)			pruned, epicormic shoots throughout	when Apply root mitigation measures when replacing asphalt
8	Siberian elm (<i>Ulmus pumila</i>)	35, 38 cm	Private, jointly owned with adjacent property on Bromley Rd	Fair/poor; hydro pruned	Apply root mitigation measures when replacing asphalt
9	Siberian elm (<i>Ulmus pumila</i>)	Row of 32 trees ranging from 10 to 35 cm	Private, some possibly jointly owned with adjacent property on Bromley Rd	Fair/poor; hydro pruned	Apply root mitigation measures when replacing asphalt and keep excavation for new subdrain at least 70 cm from trees

¹ Please refer to the enclosed Tree Conservation Report map for tree numbers. Note that this map includes a tree layer added to the grading plan (in pdf format) provided by the client. This layer includes only information about the trees and the original grading plan is not altered in this process.

²Ownership of the tree in this report is based on the information provided and should not be used as a determination of ownership. For ownership disputes, a survey should be relied on. For boundary trees, consent from the adjacent property owner is required for removal as part of the application.

³Trees on adjacent properties do not include a full assessment. The diameters are estimated, and the health is estimated based on what is visible from the subject property. Trees along the property line may also have limited health assessments if part of the tree is not visible.

The large bur oak located close to the sidewalk and along Carling Avenue is the tree of concern that will be most impacted by the proposed development. This tree has a diameter of 111 cm, and its root system likely extends at least 11 m in all directions, except for where there is infrastructure such as the road and building. Although the tree appears in good health, it does have some health concerns to note. The crown is extensive, but since this tree is overhanging a major thoroughfare, it has been damaged by salt spray which is visible along the south side. Also, there is a large cavity at the base of the tree that measures 80 cm long; 15 cm wide; and 40 cm deep. A metal rod was inserted and extended past the cavity wall an additional 30 cm. Therefore, the decay and cavity extend 70 cm into the trunk at the widest point. The extent of decay is over 1 m up the tree in the centre of the decay column – the 1 m rod did not reach the end. These observations on decay were made using tools for a basic assessment. To understand better the extent of internal decay in this tree, a Level 3 risk assessment would be required using an advanced technique such as sonic topography or resistance drilling. These tools can map out the decay in the stem at different heights up the trunk and are relatively non-invasive. Combining these results with a good understanding of the dynamics of how internal decay impacts large oak trees would help to assess the structural integrity of the tree. Although extensive decay can give the impression of structural weakness, this may not always be the case. Trees can learn to adapt to weaknesses by refocusing their growth on strengthening their stem and reducing the crown weight naturally.



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Proposed Development and Conserved Vegetation

Bur oak

The intent of this development is to work around and retain the existing bur oak tree (tree#1). Excavation for the new building will extend well into the critical root zone and may impact the structural integrity of the tree. It is recommended that a certified arborist prune the roots ahead of excavation to ensure that a clean cut that offers the tree a better chance of sealing the wound properly. At the time of root cutting, the arborist should inspect the roots to ensure that no key stabilizing roots are being severed that would increase the risk of failure of this tree.

The walkway around the tree will be built above grade and will limit the requirement to sever any roots be severed. Furthermore, any grading within the critical should be limited to additions of no more than 10 cm, and no soil is to be placed against the tree trunk.

Trees long northern property line

The intention is to retain the trees along the northern property line, particularly those that are jointly owned with the adjacent property owners. The area is currently covered in asphalt, and the Landscape Plan prepared by Stantec shows that some of the asphalt will be replaced with soft landscaping around tree grouping #9. There is a subdrain that will be installed along this northern property line (see site servicing plan), and the extent of the trench should not extend closer than 70 cm from the trees. Most of the surface on the subject property within the critical root zones of these trees is currently asphalt.

Because the area is covered in asphalt, no tree protective fencing is required during site works. However, the following mitigation measures should be applied when replacing the asphalt and installing the subdrain:

- Avoid tearing of the roots. If the roots do tear, they should be pruned with a clean cut to increase the likelihood of sealing properly and reduce the risk of pathogens from entering the tree.
- Roots should not be left exposed and be covered with soil as quickly as possible, or temporarily with a moist, organic material such as mulch and/or burlap



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The undersigned personally inspected the property and issues associated with this report on January 15, 2021, and January 24, 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: Large bur oak along Carling, facing east



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Figure 2: Wound at base of trunk along the west side



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Figure 3: Picture showing cavity. Decay and cavity extend 70 cm into tree



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Figure 4: Trees grouping #9 - Siberian elm along northern property line under hydro – to be retained



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Figure 5: Tree 8, Siberian elm to be retained



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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



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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 January, 2021, 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

- PROPOSED WATERMAIN
- PROPOSED VALVE AND VALVE BOX
- PROPOSED REDUCER
- PROPOSED FIRE HYDRANT
- PROPOSED WATER METER
- PROPOSED REMOVE WATER METER
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- PROPOSED CATCH-BASIN
- EXISTING WATERMAIN
- EXISTING VALVE CHAMBER
- EXISTING FIRE HYDRANT
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING CATCH-BASIN
- PROPOSED DEPRESSURE CURB LOCATIONS
- APPROXIMATE LOCATION OF PROPOSED SCOPPER. REFER TO ARCHITECTURAL PLANS FOR DETAILS.
- APPROXIMATE LOCATION OF PROPOSED ROOF DRAIN. REFER TO ARCHITECTURAL PLANS FOR DETAILS.
- EXISTING OVERHEAD WIRES

- Notes**
- EXISTING AS-RECORDED SEWER AND WATER INFORMATION HAS BEEN OBTAINED FROM AS-BUILT INFORMATION PROVIDED BY THE CITY OF OTTAWA.
 - CONTRACTOR TO VERIFY AS-RECORDED INFORMATION AND IMMEDIATELY REPORT ANY DISCREPANCIES OR CONFLICTS TO CIVIL ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
 - SERVICES AND ELEVATIONS TO BE CONFIRMED BY MECHANICAL ENGINEER.

Revised	As Per City Comments	WAL	EJK	22.02.24
4	REVISED AS PER CITY COMMENTS	WAL	EJK	22.11.19
5	REVISED AS PER CITY COMMENTS	WAL	EJK	22.04.10
4	REVISED SITE PLAN	WAL	EJK	22.08.25
3	REVISED SITE PLAN	WAL	EJK	22.08.25
2	REVISED AS PER CITY COMMENTS	WAL	EJK	22.03.24
1	ISSUED FOR REVIEW	WAL	EJK	21.06.18

Revision By App'd. Y.Y.M.A.L.D.O.

File Name: 16040167-06.dwg
 DWG: WJL
 CHG: EJK
 DGN: WJL
 Date: 21.06.18
 Title: Y.Y.M.A.L.D.O.

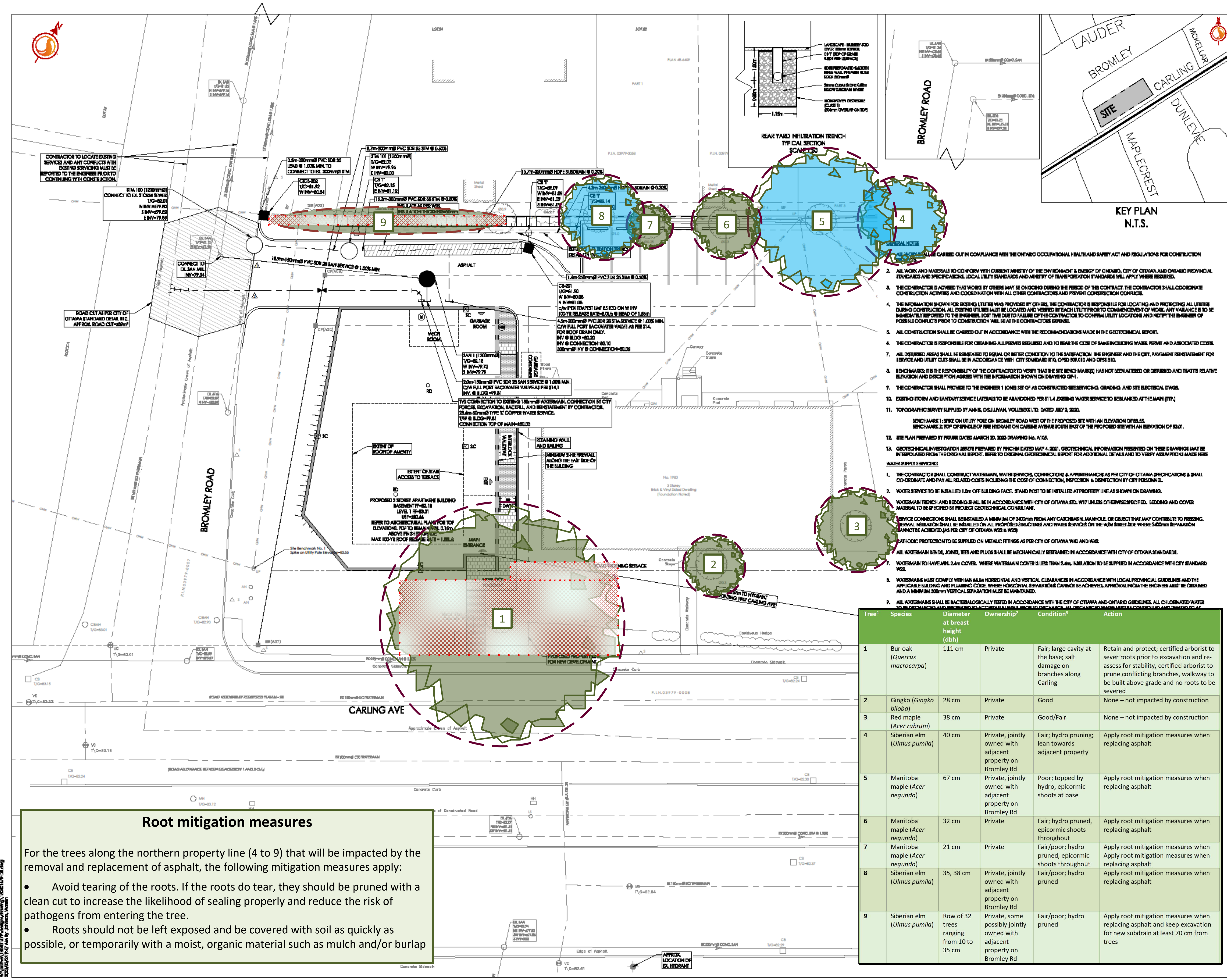
Client/Project
2473493 ONTARIO INC

1983 CARLING AVE

Ottawa, ON

Title
SITE SERVICING PLAN

Project No. 160401679
 Scale 0 1.5 4.5 7.5m
 Drawing No. Sheet 2 of 6
 Revision 6
 PLAN No. 18587



Root mitigation measures

For the trees along the northern property line (4 to 9) that will be impacted by the removal and replacement of asphalt, the following mitigation measures apply:

- Avoid tearing of the roots. If the roots do tear, they should be pruned with a clean cut to increase the likelihood of sealing properly and reduce the risk of pathogens from entering the tree.
- Roots should not be left exposed and be covered with soil as quickly as possible, or temporarily with a moist, organic material such as mulch and/or burlap

Tree #	Species	Diameter at breast height (dbh)	Ownership	Condition	Action
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- Critical Root Zone
- Recommended Tree Protection Fencing Area
- Tree to be removed
- Private Tree
- Tree either fully or partly on city property
- Tree either fully or partly on adjacent property

Note that the tree layer has been added to the original site servicing plan supplied by the client in pdf format. This layer refers to the trees only, and the original plan has not been altered in the process.



Tree Conservation Report – 1983 Carling Ave
 Proposed Development and Conserved Vegetation (site servicing)
 Tree layer prepared by Dendron Forestry Services
 Version 2.0, March 29, 2023
 For more information, please contact info@dendronforestry.ca