TREE CONSERVATION REPORT

Preliminary report for 1983 Carling Ave

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

Dendron Forestry Services

January 24, 2021

Dendron Forestry Services
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Tree Conservation Report

Submitted as part of Site Plan Control Application

Address: 1983 Carling Ave

Date: January 22, 2022

Prepared by: Astrid Nielsen, MFC, RPF (Registered Professional Forester)
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Prepared for: Keegan Gomes, Keegan.Gomes@scotiawealth.com

Site Visit: January 15, 2021; 30 cm snow cover

Introduction

This preliminary Tree Conservation Report has been prepared for Keegan Gomes, as partial requirements for the Site Plan Control Application submitted to the City of Ottawa. At the time of preparation, neither the site plan or grading were available, and this plan uses the survey to reference the location of the trees for the current vegetation report. Once the development plans are finalized, the report can be updated to include the proposed development and conserved vegetation, if required.

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 or protect)
- To provide recommendations on how to mitigate damage to retained trees during construction

Current Vegetation

The following is an inventory of all trees 10 cm or greater on the property and adjacent properties that may be impacted by development.

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Tree Inventory

Tree[1]	Species	Diameter at breast height (dbh)	Critical Root Zone [2] (m)	Ownership[3]	Condition[4]	Action
1	Bur oak (*Quercus macrocarpa*)	111 cm	11 m	Private	Fair; large cavity at the base; salt damage on branches along Carling	Retain and protect
2	Gingko (*Gingko biloba*)	28 cm	3 m	Private	Good	None – not impacted by construction
3	Red maple (*Acer rubrum*)	38 cm	4 m	Private	Good/Fair	None – not impacted by construction
4	Siberian elm (*Ulmus pumila*)	40 cm	4 m	Private, jointly owned with adjacent property on Bromley Rd	Fair; hydro pruning; lean towards adjacent property	None – not impacted by construction
5	Manitoba maple (*Acer negundo*)	67 cm	7 m	Private, jointly owned with adjacent property on Bromley Rd	Poor; topped by hydro, epicormic shoots at base	None – not impacted by construction
6	Manitoba maple (*Acer negundo*)	32 cm	3 m	Private	Fair; hydro pruned, epicormic shoots throughout	None – not impacted by construction
7	Manitoba maple (*Acer negundo*)	21 cm	2 m	Private	Fair/poor; hydro pruned, epicormic shoots throughout	None – not impacted by construction
8	Siberian elm (*Ulmus pumila*)	35, 38 cm	4 m	Private, jointly owned with adjacent property on Bromley Rd	Fair/poor; hydro pruned	None – not impacted by construction
9	Siberian elm (*Ulmus pumila*)	Row of 32 trees ranging from 10 to 35 cm	3 m	Private, some possibly jointly owned with adjacent property on Bromley Rd	Fair/poor; hydro pruned	None – not impacted by construction

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

[2] Critical Root Zone 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 it assumed the tree has no restrictions on root growth.

[3]Ownership 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.

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 m 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.

Based on the initial site plan provided by the client, the proposed building will be approximately 3.5 m from the trunk of the tree. When adding in the space required to construct this building, the excavation extends to approximately 2.5 m from the trunk. Looking at the existing critical root zone, approximately 30% of the potential rooting area would be removed as part of this development. However, most of this potential rooting area is currently covered by asphalt, and it is possible that there are not many roots under this surface, especially if it has been resurfaced. Mitigating any damage to the roots will be important to reducing the impact of the construction to the tree. Recommended mitigation measures include:

- Avoid tearing of the roots prior to the excavation. 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
- The tree should be watered during dry summer months to reduce stress it will encounter from the construction

Those branches that are in conflict with the new building will also need to be pruned back. When pruning this tree, balancing the weight should be factored in while considering the root loss. Reducing the crown in response to root loss should be done only to improve stability and otherwise be kept at a minimum to reduce the stress response by the tree. Other mitigations factors could help to reduce the stress response by the tree including:

- Ensure the remaining root zone is well protected during all construction by following the protection measures below
- Mulching the rooting area with 5-10 cm of quick-decomposing mulch (e.g. hardwood)

- Consider a deep-root fertilizer a year after construction is complete

Note that this tree should be assessed for structural stability once the excavation has begun to observe whether any structural roots have been severed. A Level 3 risk assessment would provide the best information to make conclusions around the risk of failure associated with this tree.

Based on the preliminary site plan, it appears as though there would be no impact to the remaining trees on the site.

Tree Protection Fencing

Prior to any site works, protective fencing should be installed around the trees as indicated in the attached Tree Disclosure Map and maintained until all construction on site has been completed as per the **City of Ottawa Tree Protection Specifications (April 2019)**. 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.

The undersigned personally inspected the property and issues associated with this report on January 15, 2021. On Behalf of Dendron Forestry Services,

Astrid Nielsen, MFC, RPF (Registered Professional Forester)
ISA Certified Arborist ®, ON-1976
ISA Tree Risk Assessment Qualified
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Figure 1: Large bur oak along Carling, facing east

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

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

Intended Use of the Report

This Information Report was carried out by Dendron Forestry Services (hereafter Dendron) at the request of the Client. The information, interpretation and analysis contained within this Report is to be used solely for the purposes outlined within this Report. This Report is for the exclusive use of the Client.

Limitations of this Report

This Report is based on the circumstances and observations as they existed at the time of the site inspection of the Client's Property and the trees situate thereon by Dendron and upon information provided by the Client to Dendron. The opinions in this Report are given based on observations made and using generally accepted professional judgment, however, because trees and plants are living organisms and subject to change, damage and disease, the results, observations, recommendations, and analysis as set out in this Report are valid only as at the date any such testing, observations and analysis took place and no guarantee, warranty, representation or opinion is offered or made by Dendron as to the length of the validity of the results, observations, recommendations and analysis contained within this Report As a result the Client shall not rely upon this Report, save and except for representing the circumstances and observations, analysis and recommendations that were made as at the date of such inspections. It is recommended that the trees discussed in this Report should be re-assessed periodically.

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.

Dendron accepts no responsibility for the implementation of all or any part of the Report, unless specifically request to examine the implementation of such activities recommended herein. In the event that inspection or supervision of all or part of the implementation is request, that request shall be in writing and the details agreed to in writing by both parties.

Assumptions

The Client is hereby notified and does hereby acknowledge and agree that where any of the facts and information set out and referenced in this Report are based on assumptions, facts or information provided to Dendron by the Client and/or third parties and unless otherwise set out within this Report, Dendron will in no way be responsible for the veracity or accuracy of any such information. Further, the Client acknowledges and agrees that Dendron has, for the purposes of preparing their Report, 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 explicitly denies any legal liability for any and all 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.

Professional Responsibility

In carrying out this Report, Dendron and any Assessor appointed for and on behalf of Dendron to perform and carry out the Report has 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.

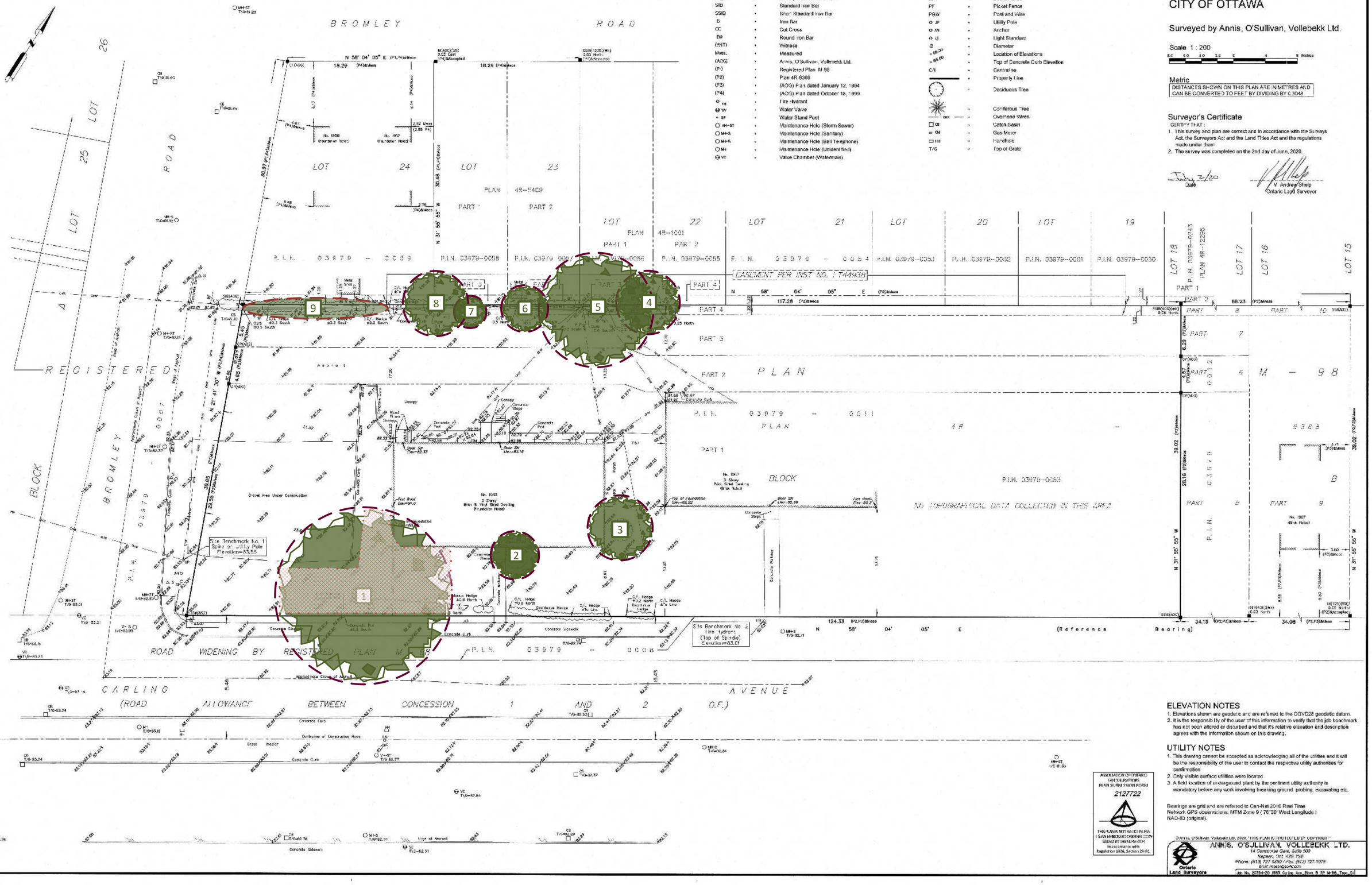
Without limiting the foregoing, no liability is assumed by Dendron for:

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.

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 or Assessors, in contract or in tort, more than 12 months after the date of this Report.

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.



TOPOGRAPHICAL PLAN OF SURVEY OF

PART OF BLOCK B
REGISTERED PLAN 4M-98
CITY OF OTTAWA

Surveyed by Annis, O'Sullivan, Vollebekk Ltd.

Scale 1 : 200

8.0 6.0 4.0 2.0 0 4 8 Metres

Metric

DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

Surveyor's Certificate

CERTIFY THAT :

1. This survey and plan are correct and in accordance with the Surveys Act, the Surveyors Act and the Land Titles Act and the regulations made under them.
2. The survey was completed on the 2nd day of June, 2020.

July 2/20
Date

V. Andrew Shelp
Ontario Land Surveyor

Notes & Legend

	Denotes	
—□—	•	Survey Monument Planted
—■—	•	Survey Monument Found
SIB	•	Standard Iron Bar
SSIB	•	Short Standard Iron Bar
IB	•	Iron Bar
CC	•	Cut Cross
IBø	•	Round Iron Bar
(WIT)	•	Witness
Meas.	•	Measured
(AOG)	•	Annis, O'Sullivan, Vollebekk Ltd.
(P1)	•	Registered Plan M-98
(P2)	•	Plan 4R-9368
(P3)	•	(AOG) Plan dated January 12, 1994
(P4)	•	(AOG) Plan dated October 18, 1999
○ FH	•	Fire Hydrant
⊖ W	•	Water Valve
∘ SF	•	Water Stand Post
○ MH-ST	•	Maintenance Hole (Storm Sewer)
○ MH-S	•	Maintenance Hole (Sanitary)
○ MH-B	•	Maintenance Hole (Bell Telephone)
○ MH	•	Maintenance Hole (Unidentified)
⊖ VC	•	Valve Chamber (Watermain)
△ S	•	Sign
BF	•	Board Fence
PF	•	Picket Fence
P&W	•	Post and Wire
○ UP	•	Utility Pole
○ AN	•	Anchor
○ LS	•	Light Standard
∅	•	Diameter
+ 65.00	•	Location of Elevations
+ 65.00	•	Top of Concrete Curb Elevation
C/L	•	Centreline
━━	•	Property Line
◌	"	Deciduous Tree
✳	"	Coniferous Tree
— OHW —	"	Overhead Wires
□ CB	"	Catch Basin
= GM	"	Gas Meter
▭ HH	"	Handhole
T/G	"	Top of Grate

ELEVATION NOTES

1. Elevations shown are geodetic and are referred to the CGVD28 geodetic datum.
2. It is the responsibility of the user of this information to verify that the job benchmark has not been altered or disturbed and that it's relative elevation and description agrees with the information shown on this drawing.

UTILITY NOTES

1. This drawing cannot be accepted as acknowledging all of the utilities and it will be the responsibility of the user to contact the respective utility authorities for confirmation.
2. Only visible surface utilities were located.
3. A field location of underground plant by the pertinent utility authority is mandatory before any work involving breaking ground, probing, excavating etc.

Bearings are grid and are referred to Can-Net 2016 Real Time Network GPS observations, MTM Zone 9 (76°30' West Longitude) NAD-83 (original).

ASSOCIATION OF ONTARIO LAND SURVEYORS
PLAN SUBMISSION FORM
2127722
THIS PLAN IS NOT VALID UNLESS IT IS AN EMBOSSED ORIGINAL COPY ISSUED BY THE SURVEYOR
In accordance with Regulation 1026, Section 29 (3).

Ontario Land Surveyors
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Job No. 20394-20 1983 Carling Ave_Block B RP M-98_Topo_D

▨ Recommended Tree Protection Fencing Area

◌ Critical Root Zone

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

Tree Conservation Report – 1983 Carling
Tree layer prepared by Dendron Forestry Services
Version 1.0, January 15, 2021
For more information, please contact info@dendronforestry.ca