

# **Tree Preservation Report 4.0**

THIS REPORT IS STILL UNDER REVIEW BY STAFF AND IS NOT CONSIDERED THE FINAL APPROVED DOCUMENT.

THIS DOCUMENT IS PROVIDED FOR INFORMATIONAL PURPOSES TO SUPPORT THE PUBLIC TREE REMOVAL REPORT TO COUNCIL RPF 25-22 FOR TREE #1 and 6-10.

Site Address:

1294 Coric Ave, Burlington, ON L7R 3S3

Date:

April 12, 2022

# Summary

The scope of this report assesses **twenty** trees (referred to as the "Subject Trees") that are or may potentially be affected by the proposed project at **1294 Coric Ave, Burlington, ON** (referred to as the "Subject Site"). Arborwood Tree Service Inc. conducted a tree inventory and an assessment to evaluate the species, health and impact on the Subject Trees due to the **proposed new home construction** project at the Subject Site.

All inventoried trees are numbered and noted within the attached Tree Inventory Table referred to as **Appendix 1** and their locations are noted within the attached Tree Preservation Plan referred to as **Appendix 2**. Photographs of the Subject Trees are attached within **Appendix 3**. Reference material from the governing/regulating body, which in this case is the **City of Burlington**, is linked within **Appendix 4**. These references have been noted to help assist the applicant/owner of the proposed project during this process and when working with the governing/regulating body.

# **Assignment**

Arborwood Tree Service Inc. was retained by **Constant Shape Design Studio** to assess the Subject Trees at or near the Subject Site and compile a Tree Inventory. In addition, a Tree Preservation Plan for this finished and proposed project was created and will contain preservation fencing comments/methodology with locations noted to scale. The field work/report was completed by Consulting Arborist John Stewart, whose qualifications are set out in **Appendix 5**.

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# Limitations of the Scope of work/Assignment

Arborwood Tree Service Inc. was contracted to conduct an identification, health and structure assessment of the inventoried trees as well as to provide a preservation report and plan. It is the project contractor's obligation to ensure that the recommendations provided in this report are carried out, as deemed appropriate by the **City of Burlington's** governing staff.

Anyone reading this report should be familiar with trees and all their potential reactive physiological responses to the proposed project; otherwise further discussion with the consulting arborist will be required to understand the impact on the Subject Trees.

The trees presented in this report were assessed using conventional arboricultural techniques. This includes a visual examination of all the above ground parts of the tree. In this visual examination arborists look for scars, defects, external indications of decay (i.e. Fungal fruiting bodies), evidence of attack by insects, discoloured foliage, the conditions of any visible root structures, the degree and direction of lean (if applicable), the general condition of the tree and surrounding area and the nearness of property and people. Unless otherwise stated the trees have not been cored, probed, climbed and there was no detailed inspection completed of the root crowns.

Trees are living organisms that are susceptible to changes in health and vitality at any time. They are not immune to the changes in site condition or seasonal variations in weather conditions. Trees will always pose some risk to surrounding property or persons. Only complete removal of all trees would eliminate all risk, and as such, the arborist cannot be liable for any damages caused in whole or in part by tree failure. Most trees have the potential for failure in extreme weather and that risk can only be eliminated if the tree is removed.

Sensible efforts have been made to ensure that the trees listed are healthy from a visual stand point. Implementation of the report is the responsibility of the client and Arborwood Tree Service Inc. does not hold any responsibility to ensure that the recommendations provided herein are followed.

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### **Arboriculture Considerations**

Tree preservation is a pro-active measure that starts at the planning stage and continues throughout the project until completion. It is important to understand that tree root protection affects overall tree health and survivability and is essential to effective tree preservation.

The roots provide nutrients and water to the leaves and branches, while supporting the tree in wind storms and preventing injury. Once a tree is injured, it is never the same. An injured tree allocates a great deal of energy to try to repair itself, often times at the expense of its vitality and sometimes leading it into a spiral decline.

### **Tree Preservation Fencing**

The installation of tree preservation fencing is detailed in the Tree Preservation Plan attached as **Appendix 2**. Each tree in the inventory requires a minimum separation distance for adequate protection, and these requirements are listed in Tree Inventory Table.

Preservation fencing must remain in good condition throughout the construction project until completion and must not be removed for any reason without prior consent from the **City of Burlington**'s approved staff. There must not be any unauthorized access within or storage in the tree protection zone during the project. Design specifications are listed are attached with in **Appendix 4**.

#### **Staging areas and Construction Access**

Staging areas are understood to be outside of all TPZ and at no time are materials, vehicles, traffic or debris to be stacked, staged, or piled inside the tree preservation fencing. If these areas are required to complete the proposed project they must be listed and shown within the tree preservation plan. Approval of these areas must be approved by the **City of Burlington**'s appropriate governing staff prior to commencement of construction of proposed project.

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### **Observations**

Consulting arborist John Stewart visited the Subject Site and compiled the tree inventory near the proposed reconstruction of a new home project. **Twenty** Subject Trees on or near the Subject Site were noted and assessed.

The Subject Trees were assessed for health, structure and potential effects if any of the proposed construction project. Also, during the assessment and inspection process, recommended preservation and retention methods were noted. In general, it was the opinion of the onsite consulting arborist that the Subject Trees appeared to have a healthy growth pattern and was developing at a normal rate for their appropriate species.

## Recommendations

The inventoried Subject Trees at a minimum will require preservation considerations and/or protection throughout the project. If Subject Trees #13 - 14 and 20 cannot have the adequate preservation distances applied to ensure survival during the proposed project, there will have to be mitigating procedures such as the following required:

#### Root Exploration and Pruning for Dew Driveway Construction/Foundation Limits

Such infrastructure will potentially require root pruning and exploration methodology, an accepted arboricultural practice, but must be approved by the **City of Burlington's** appropriate governing staff. It is to be understood that Subject Trees #13 - 14 and 20 will need root pruning at the limits of the new excavation for the proposed project within the TPZ of this Subject Trees. The limits of excavation will be performed by a Dry Vac, Air Spade, or hand digging application to gently expose the affected areas. A Certified Arborist familiar and experienced

with such processes should be on the subject site during the excavation procedure to monitor, direct the process, and ensure that proper accepted arboriculture standards are followed.

Note and as quoted by City of Burlington's reviewing staff "An exploratory excavation including a follow up report is required where indicated in the arborist report dated May 6, 2021. This exploratory excavation can be carried out using a pneumatic air-spade device or by hydro-vac truck. The exploratory excavation must be completed to a minimum depth of 30cm beyond the extent of excavation within the TPZs of affected tree(s). A certified arborist must be obtained to oversee the excavation, properly prune roots according to good arboricultural practices and provide a follow-up report including photo documentation. The report must include an assessment of any potential health or structural impacts. Exploratory excavations and follow up report must be completed and reviewed prior to forestry clearance to the Zoning Department and issuance of a tree permit".

The Subject Trees must be protected by the rules and regulations regarding private trees within the **By-law Number:02-2020** for the **City of Burlington.** 

Description: A by-law to conserve and protect trees on private land within the Urban Planning Area Boundary of **City of Burlington** and to repeal **By-law 43-2018**, **The City of Burlington Pilot Private Tree By-law**.

For further reference to the rules of the said bylaws, please see attached Appendix 4 – References.

### Conclusion

If the remaining inventoried Subject Trees on or near the Subject Site are properly cared for and monitored during construction, they will incur no injuries from this proposed project and should continue with an appropriate survival rate. Any alteration to the Tree Preservation Plan or this report recommendations must be approved prior to work commencing by the **City of Burlington**'s Forestry Manager or approved delegate.

Note and as quoted by City of Burlington's reviewing staff

"In order to proceed with the proposed exploratory excavation on City trees# 6-10, the following must be supplied to forestry for review and approval:

- a. Identification of Contractor proposed. Note, all proposed works must be carried out by a certified arborist;
- b. Provide proof of Contractor WSIB to Forestry representative or designate; and
- c. Provide proof of Contractor Commercial General Liability insurance insuring all services, operations, products, and work as described in the contract. The policy will be extended to include bodily injury, property damage, personal injury and advertising injury, contractual liability, products- completed operations, contingent employer's, and owners and contractor's protective liability to a limit of not less than two million dollars (\$2,000,000) per occurrence. The policy shall include a cross liability and severability of interest clause and be endorsed to name The Corporation of the City of Burlington as an additional insured."

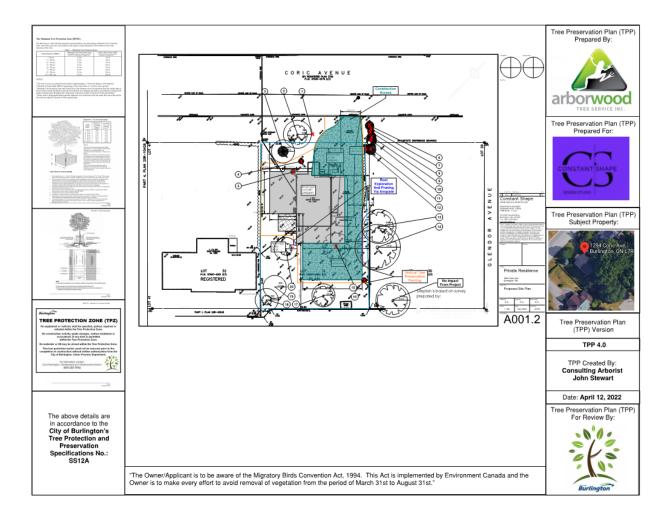
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# **Appendix 1 - Tree Inventory Table**

Tree/Tag Number	Common Name	Botanical Name	dbh (cm) @ 1.4 m	Tree Ownership	Tree Protection Zone (m)	Health	Structure	Construction Impact (None, Low, Medium, High)	Preservation Fencing Required	Removal	Field Observations	Recommendations
1	spruce, Dwarf Alberta	Picea glauca 'Conica'	10	Municipality	2.4	Good	Good	Medium	No	Yes	Medium Impact From Project	Remove Due To Project
2	mountainash, American	Sorbus americana	46	Municipality	3.0	Good	Fair	None	Yes	No	No Impact From Project	Preservation Measures As Per Spec SS12A
3	spruce, Colorado	Picea pungens	28	Client	2.4	Good	Good	None	Yes	No	No Impact From Project	Preservation Measures As Per Spec SS12A
4	spruce, Dwarf Alberta	Picea glauca 'Conica'	16	Client	2.4	Good	Good	High	No	Yes	High Impact From Project	Remove Due To Project
5	cedar, Emerald	Thuja occidentalis 'Smaragd'	30	Client	2.4	Good	Fair	High	No	Yes	10/10/10/High Impact From Project	Remove Due To Project
6	cedar, Eastern	Thuja occidentalis	24	Municipality	2.4	Good	Fair	Medium	No	Yes	Medium Impact From Project	Remove Due To Project
7	cedar, Eastern	Thuja occidentalis	16	Municipality	2.4	Good	Fair	Medium	No	Yes	Medium Impact From Project	Remove Due To Project
8	cedar, Eastern	Thuja occidentalis	14	Municipality	2.4	Good	Fair	Medium	No	Yes	Medium Impact From Project	Remove Due To Project
9	cedar, Eastern	Thuja occidentalis	22	Municipality	2.4	Good	Fair	Medium	No	Yes	Medium Impact From Project	Remove Due To Project
10	cedar, Eastern	Thuja occidentalis	28	Municipality	2.4	Good	Fair	Medium	No	Yes	Medium Impact From Project	Remove Due To Project
11	mulberry, white	Morus alba	36	Client	2.4	Good	Fair	Medium	No	Yes	18/28/ Medium Impact From Project	Remove Due To Project
12	cedar, Eastern	Thuja occidentalis	28	Client	2.4	Good	Fair	Medium	No	Yes	Medium Impact From Project	Remove Due To Project
13	maple, silver	Acer saccharinum	60	Neighbour	3.6	Fair	Fair	Medium	Yes	No	Medium Impact From Project	Preservation Measures As Per Spec SS12A/Root Exploration And Pruning Via Airspade
14	maple, silver	Acer saccharinum	80	Neighbour	4.8	Good	Fair	Medium	Yes	No	Medium Impact From Project	Preservation Measures As Per Spec SS12A/Root Exploration And Pruning Via Airspade
15	maple, silver	Acer saccharinum	160	Client	6	Good	Fair	High	No	Yes	54/50/56/ High Impact From Project	Remove Due To Project
16	yew, spp.	Taxus spp.	126	Client	6	Good	Fair	Medium	No	Yes	10/10/10/10/10/1 0/10/10/10/10/10/ 10/10/10/10/ Medium Impact From Project	Remove Due To Project
17	maple, silver	Acer saccharinum	26	Client	2.4	Good	Fair	None	Yes	No	12/14/No Impact From Project	Preservation Measures As Per Spec SS12A
18	maple,Manitoba	Acer negundo	28	Client	2.4	Good	Fair	None	Yes	No	16/16/14/14/14/1 4/No Impact From Project	Preservation Measures As Per Spec SS12A
19	magnolia, saucer	Magnolia x soulangiana	16	Client	2.4	Poor	Poor	None	Yes	No	No Impact From Project	Preservation Measures As Per Spec SS12A
20	crabapple, flowering	Malus spp.	34	Client	2.4	Good	Fair	Medium	Yes	No	18/14/24/ Medium Impact From Project	Preservation Measures As Per Spec SS12A/Root Exploration And Pruning Via Airspade

# Appendix 2 - Tree Preservation Plan



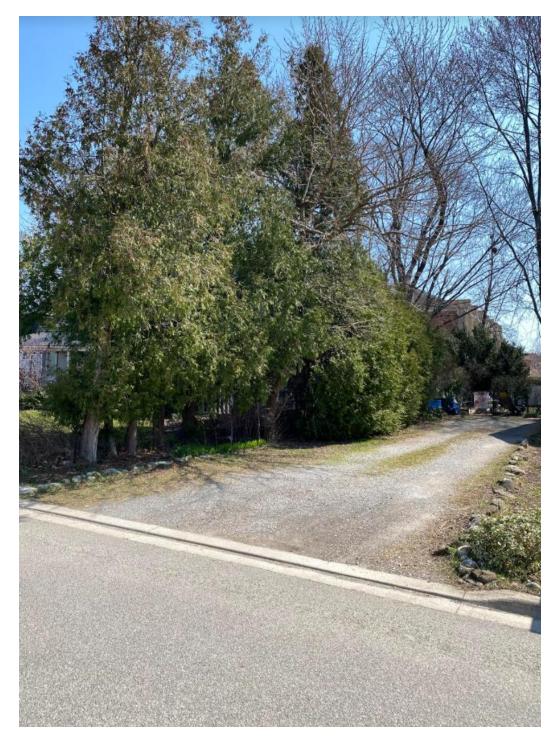
# **Appendix 3 - Pictures**



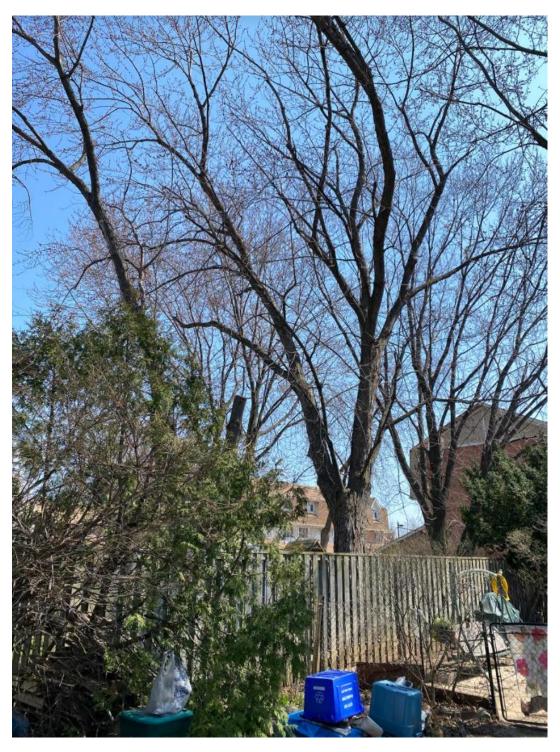
Subject Trees #1 - 5



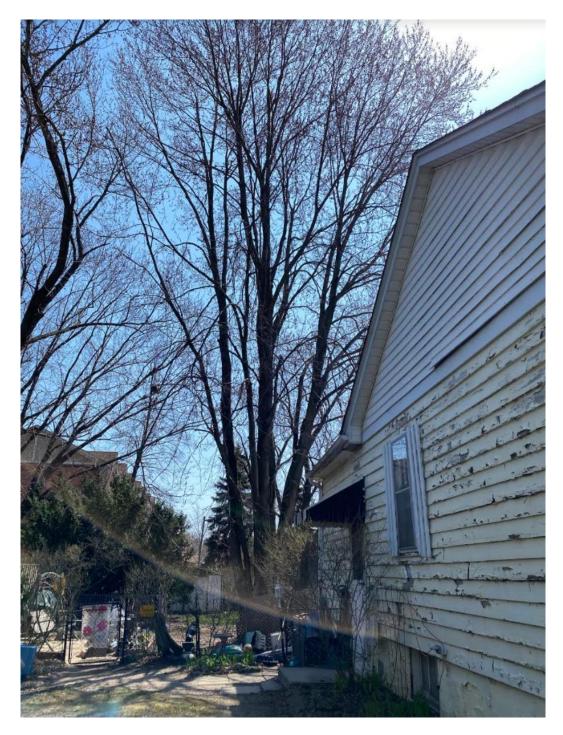
Subject Trees #6 - 12



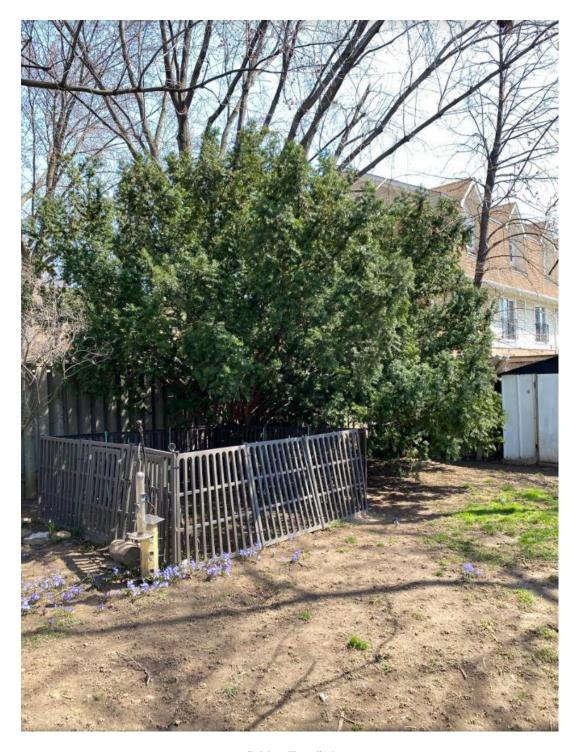
Subject Trees #6 - 14



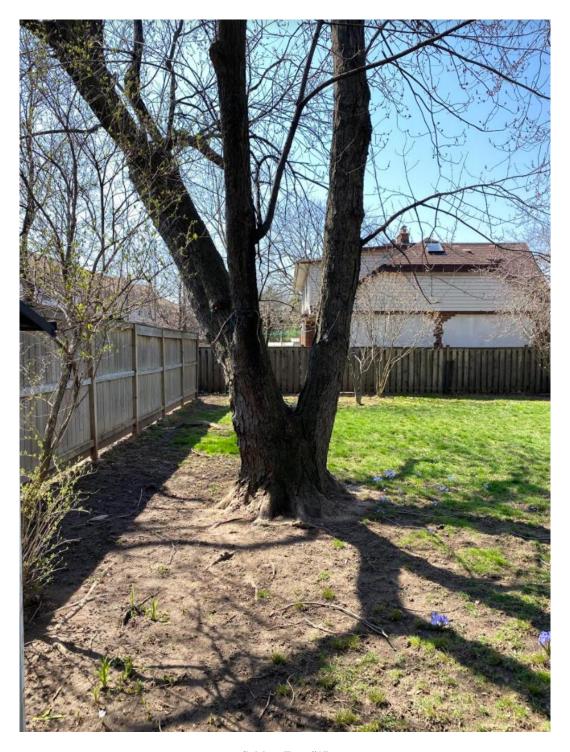
Subjects Tree #13 - 14



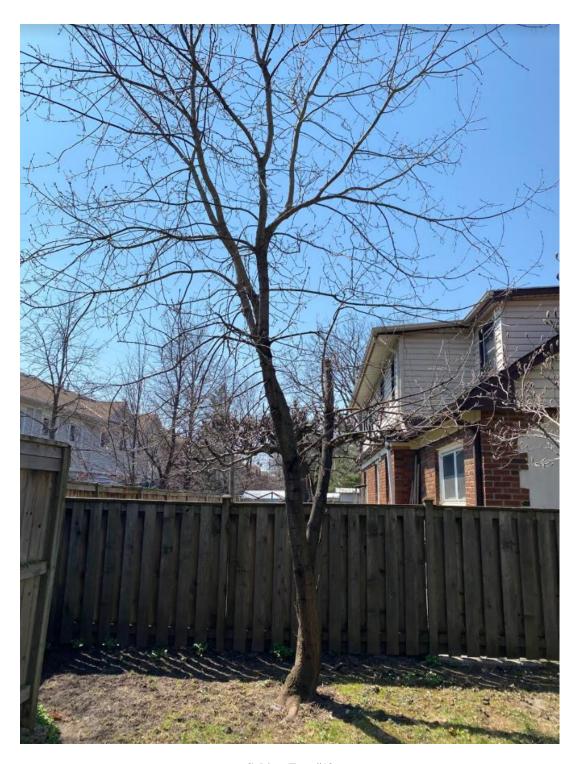
Subject Tree #15



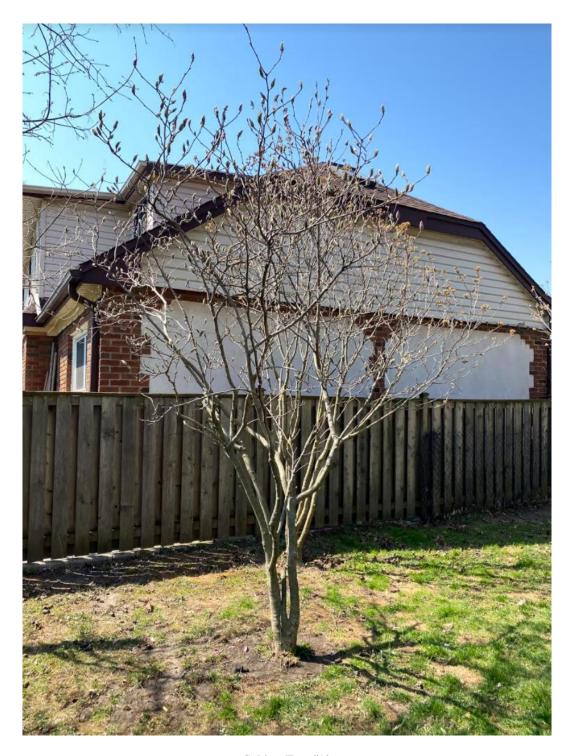
Subject Tree #16



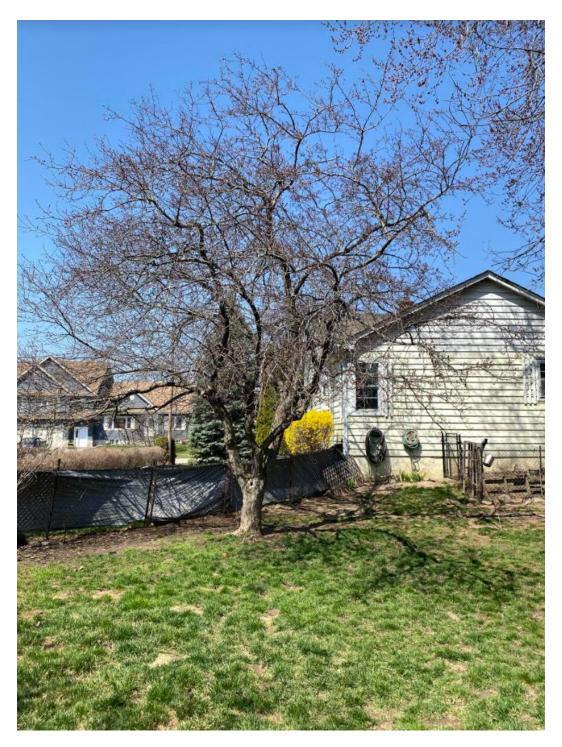
Subject Tree #17



Subject Tree #18



Subject Tree #19



Subject Tree #20

# **Appendix 4 - References**

- https://www.burlington.ca/en/services-for-you/tree-protection-standards.asp
- <a href="https://www.burlington.ca/en/Modules/Bylaws/Bylaw/Details/90a453d0-638f-480e-9022-93869f9e22ab">https://www.burlington.ca/en/Modules/Bylaws/Bylaw/Details/90a453d0-638f-480e-9022-93869f9e22ab</a>
- <a href="https://www.burlington.ca/en/services-for-you/private-tree-by-law.asp#">https://www.burlington.ca/en/services-for-you/private-tree-by-law.asp#</a>

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# **Appendix 5 - Arborist Qualifications**

# John Stewart

arboristreports@arborwood.ca (905) 979 8244

#### WORK EXPERIENCE

#### PRINCIPAL CONSULTING ARBORIST, THE URBAN TREE MANAGEMENT GROUP

2016 - PRESENT

Conduct site monitoring and reporting for public and private sector construction projects for delivery to municipal foresters to ensure adherence to Tree Protection bylaws and specifications. Reports include mitigating recommendations as needed if subject trees are negatively impacted.

Perform vegetation impact assessments and pre-construction reports for civil infrastructure projects for various municipalities.

Complete tree risk assessments in both public and private settings through the utilization of TRAQ/QTRA/TRACE protocols and procedures.

Provide expert witness testimony in a variety of municipal and private tree risk related situations.

Conduct various tree health assessments and provide mitigating options and procedures. Create and carry out Plant Health Care (PHC) programs.

Perform professional expert arboriculture practices necessary to provide complete and ethical tree care.

Comprehensive knowledge of tree dendrology of over 150 trees with the ability to identify trees in all seasons.

#### SENIOR CONSULTING ARBORIST, DAVEY RESOURCE GROUP

2014 - 2016

Perform vegetation impact assessments and pre-construction reports for civil infrastructure projects for various municipalities throughout the Golden Horseshoe and Greater Toronto Areas.

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Conduct site monitoring and reporting for public and private sector construction projects for delivery to municipal foresters' to ensure adherence to Tree Protection bylaws and specifications. Reports include mitigating recommendations as needed if subject trees were negatively impacted.

Supervision and management of consulting arborists.

Completion of tree risk assessments utilizing GIS software in both public and private settings through the utilization of TRAQ protocols.

Completion of several visual tree inventory projects within a municipal context. Tree data was recorded electronically in a GIS program for future access by the municipality.

Comprehensive knowledge of tree dendrology for over 150 trees with the ability to identify trees in all seasons.

Provide expert witness testimony in a variety of municipal and private tree risk related situations.

#### MANAGER OF FORESTRY AND HORTICULTURE, CITY OF WATERLOO

2010 - 2014

Responsible for the daily activities and programs of the Forestry and Horticulture Departments.

Create and maintain budgets, report writing, briefing notes, strategies and council presentations.

Developed Emerald Ash Borer Management Plan and oversaw execution of plan.

Responsible for tree maintenance on Region of Waterloo right of ways.

Filled in as Acting Director of Environment and Parks on a regular basis.

Liaised with local media as necessary.

Oversaw winter snow removal operations for Parks Department.

Liaised with community groups such as TD Green Streets, Trees Canada and 10000 Trees.

Negotiated easement and secondary land use agreements with organizations such as Hydro One and Grand River Conservation Authority.

# FORESTRY OPERATIONS COORDINATOR, GRAND RIVER CONSERVATION AUTHORITY

Responsible for the daily activities of the forestry operations.

Risk assessment and hazard mitigation within the conservation areas and lands.

Responsible for the care of nursery stock including bare root refrigerated stock and potted material.

Liaised with tree planting initiative groups such as Trees for Guelph, Trees for Mapleton and Green Legacy.

Responsible for noxious weed management with all conservation properties.

Responsible for chainsaw safety training for all GRCA employees.

Developed Forestry Operations Safety Protocol.

#### URBAN FORESTRY FOREMAN, CITY OF BRAMPTON

2006 - 2008

Responsible for the daily activities and scheduling of the cities forestry department.

Met with residents, councilors and consultants to discuss, diagnosis and prescribe courses of action on Brampton's urban forest.

Had a key role in several events and initiatives such as the Communities in Bloom competition in which the City of Brampton was named the National Champion 2006 and World Champion 2008. During the 2008 event our forestry department received the highest ranking amongst Canada's other municipality forestry departments.

Acted as Brampton's delegate in a cooperative with Trees Canada and Toronto Conservation. This cooperative designed and created a community education forest from a regional buffer zone in order to help educate local schools and community groups on their urban forest.

Led a team from Brampton's forestry department to help out the Callander Bay community, which was devastated by a summer storm in 2006.

Oversaw winter snow removal operations within Parks Department.

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# EDUCATION AND TRAINING

#### INTERNATIONAL SOCIETY OF ABORICULTURE

CERTIFIED ARBORIST: ON 0455AM

CERTIFIED MUNICIPAL SPECIALIST

CERTIFIED TREE RISK ASSESSMENT QUALIFIED

#### **HUMBER COLLEGE**

HORTICULTURE APPRENTICESHIP PROGRAM

ABORICULTURE APPRENTICESHIP PROGRAM

#### **EUSA**

SAFETY AND AWARENESS FOR LINE CLEARING CERTIFICATE

SAFETY IN LINE CLEARING CERTIFICATE

8 TON CRANE CERTIFICATE

#### ABORICULTURE CANADA

CHAINSAW SAFETY AND TECHNICAL TREE FELLING CERTIFICATE

HAZARD AND DANGER TREE CUTTING AND FELLING CERTIFICATE

TREE DYNAMICS AND INTEGRATED RISK ASSESSMENT CERTIFICATE

#### ONTARIO ARBORIST PROVINCIAL DESGINATION 444A-373728 HORTICULTUREALIST LANDSCAPER GREENSKEEPER 441B-31950

PNW-International Society of Arboriculture – Certified Tree Risk Assessor Qualification (TRACE)

Quantified Tree Risk Assessment System – Quantified Tree Risk Assessor (QTRA No.4426) Butternut Health Assessor – BHA # 569 designated by the Ministry of Natural Resources and Forestry (MNRF).

Ontario Exterminator License - Landscape Exterminator 047496

OFSWA - PROFESSIONAL CHAINSAW OPERATOR AND TRAINER

EMERGENCY FIRST AID, CPR/AED A

MENTAL FIRST AID CANADA - BASIC MENTAL FIRST AID CERTIFICATE

ONTARIO DZ DRVER'S LICENSE

OCCUPATIONAL HEALTH AND SAFETY, SUPERVISOR HEALTH AND SAFETY AWARENESS TOWN OF OAKVILLE BUSINESS LICENCE TYPE: ARBORIST/NO. 19-102706

# TEACHING AND TRAINING EXPERIENCE

**HUMBER COLLEGE OF APPLIED TECHNOLOGIES,** Teacher Arboriculture Apprenticeship Program

Taught the classes of Plant Health Care and Arboriculture Theory for three years Technician for the Advanced Climbing class for two years

COLLEGE OF THE NORTH ATLANTIC, Instructor, Skills Development Program

Contract Instructor for the college delivering modern climbing and felling techniques for this skills development program

UNIVERSITY OF TORONTO, Instructor, Employee Safety Training

Delivered chainsaw safety and operation, chipper and stumper operation and felling procedures programs to the maintenance staff for the university.

PROFESSIONAL VOLUNTEER ACTIVITIES

ISAO Past President Executive Board of Directors

ISAO President 2018

ISAO Board Member with duties including Trade Magazine and MAUF Liaison

Technical Editor of Ontario Arborist magazine for ISAO

ISAO Climbing Competition Committee Member

ISA Exam Proctor for ISA Certifications

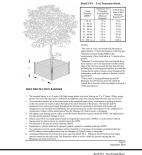
MTCU Industry Committee Member - Arboriculture

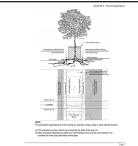
Part of a risk management for woodlots committee for MAUF (Municipal Arborist and Urban  $\,$ 

Foresters Association).



Table 1 - Minimum Tree Protection Zones								
Trunk Diameter (DBH) <sup>2</sup>	Minimum Tree Protection Zone (MTPZ) Distances Required	Critical Root Zone (CRZ) Distances Required 164						
< 10 cm	LSn	1.8 m						
11 - 40 cm	2.4 m	4.0 m						
41 - 50 cm	3.0 m	5.0 m						
51 - 60 cm	3.6 m	6.0 m						
61 - 70 cm	4.2 m	7.0 m						
71 - 80 cm	4.8 m	8.0 m						
81 - 90 cm	5.4 m	9.0 m						
91 - 100+ cm	6.0 m	10.0 m						

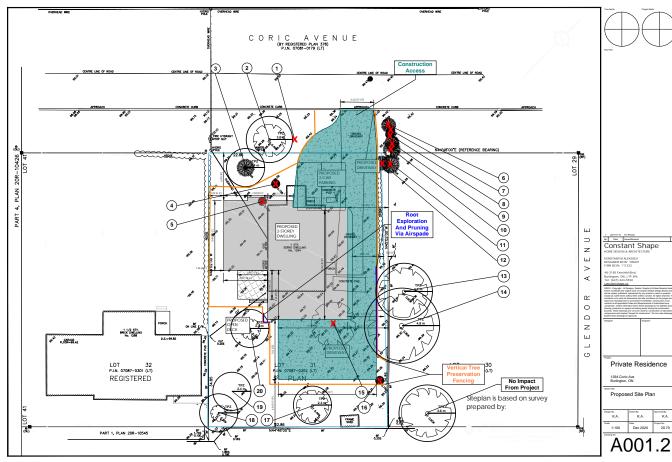






The above details are in accordance to the City of Burlington's Tree Protection and Preservation Specifications No.: SS12A

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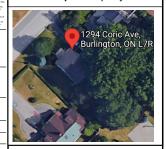
Tree Preservation Plan (TPP) Prepared By:



Tree Preservation Plan (TPP) Prepared For:



Tree Preservation Plan (TPP) Subject Property:



Tree Preservation Plan (TPP) Version

**TPP 4.0** 

TPP Created By: **Consulting Arborist** John Stewart

Date: April 12, 2022

Tree Preservation Plan (TPP) For Review By:



"The Owner/Applicant is to be aware of the Migratory Birds Convention Act, 1994. This Act is implemented by Environment Canada and the Owner is to make every effort to avoid removal of vegetation from the period of March 31st to August 31st."