



ARBORIST REPORT

TREE INVENTORY & PROTECTION PLAN

Regarding:

377 Williams St,
Cobourg, Ontario

Prepared for:

Mike Foster

Prepared by:

James Guthrie
ISA Certified Arborist #ON-1306A
DreamWorks Tree Services
8799 Concession 5
Uxbridge, ON, L9P 1R1

Report # : ARD-010519
Date of inspection: April 22, 2019

INTRODUCTION :

DreamWorks Tree Services was retained by Mike Foster to complete a Tree Protection Plan for 377 Williams ST in the Town of Cobourg. The report was requested relative to the construction of 14 new 1.5 and 2 storey residential units.

The purpose of this report is to:

- Establish species, size and condition of trees protected by the Town of Cobourg.
- Provide a prescription for the preservation and protection of selected trees during the project.
- Provide a tree replacement calculation based on the quantity and size of trees removed.
- Provide a Tree Protection Plan showing the location of required tree protection measures based on the site plan.

METHOD :

1. The subject site was assessed by James Guthrie on April 22, 2019.
2. Photos were taken and the most representative are presented in Appendix II.
3. The methods used to collect data and the information provided below comply with the details and instructions provided in the Town of Cobourg, Bylaw document entitled "By-law 020-2006 ", March 2006.
4. Only trees above 30cm DBH with crowns or potential structural roots within or bordering the site were assessed.
5. Trunk diameter was measured using a calibrated diameter tape and/or callipers. The measurement was taken at 1.4 meters above ground level, referred to as the diameter at breast height (DBH). DBH for multi-stemmed trees were taken at breast height for each and added as such to DBH column in inventory.
6. Trees were assessed in consideration of overall health and structural integrity and assigned a condition rating ranging from good, fair to poor.
7. The Tree Inventory is attached referencing relevant data, actions of intent and prescription for preservation in Appendix I.
8. The Tree Protection Plan was created by James Guthrie. Tree protection barriers were added to a survey provided by the above-identified client in Appendix III.

TREE PROTECTION PRESCRIPTION:***Pre-Construction:*** TREE PROTECTION ZONES

1. Upon approval of the Tree Protection Plan, tree removal and stump grinding may begin. A large amount of yard waste piled in the SE corner of the property and piles of debris around trees 20 and 21 will require careful removal. Only the use of a light tracked skid steer should be used under the crowns of the trees with no breaking of the top soil in these areas.
2. Remaining trees should be pruned to standard clearances from proposed buildings and roadway, deadwood removed and storm damaged limbs corrected.
3. Areas within the TPZ of trees 20 and 21 shall have all woody shrubs removed beneath crowns and a 8 cm layer of wood mulch to be distributed by hand rake and wheelbarrow in protected areas to fence line.
4. The following tree protection measures must be read in conjunction with the Tree Protection Plan Survey Overlay. Both documents must be provided to the site supervisor prior to any work commencing on the site.
5. No disturbance is allowed within the Tree Protection Zone (TPZ) of protected trees without permission from the Town of Cobourg. Disturbance includes soil compaction from foot traffic and construction materials, excavation, grade changes, or storage of materials.
6. The Tree Protection Barriers shall be 1.2m (4 feet) high and are to be constructed of sheets of plywood on a wooden 2x4 frame. All tree protection measures shall be in compliance with and approved by the Town of Cobourg Arborist before construction commences.
7. The suggested minimum TPZ radius from the base of tree shall be the below minimum standard.

Trunk Diameter (DBH)	Tree Protection Zone - Minimum Protection Distances Required
30 – 41 cm	3.5 m
41 – 50 cm	4 m
51 – 60 cm	4.5 m
61 – 70 cm	5 m
71 – 80 cm	5.5 m
81 – 90 cm	6 m
91 – 100cm	7 m

Construction Phase

1. It is the responsibility of the site supervisor to inspect the condition of the tree protection measures outlined on the plan and within this report each morning. If disturbance is observed, it is to be repaired prior to work commencing on site that day. A breach of the tree protection bylaw could result in an immediate “stop-work” order being issued for the site.
2. Regarding additional parking spaces in conflict with root zones of trees 20 and 21.
 - Recommend proposed parking area be modified by splitting the 6 proposed spaces in two with an island of protected root zone at minimum 8m wide centred on tree 21.
 - Recommend visitors parking be constructed last after completion of roadway and residences. While under the supervision of a qualified arborist to oversee the pruning of exposed roots to prevent unnecessary damage.
3. All staging will take place outside of the tree protection hoarding.
4. During construction, if any tree roots are exposed or disturbed outside the tree protection fencing, care is to be taken to minimize their disturbance. If roots must be removed outside the TPZ, they must be cleanly pruned with a saw intended for that purpose.

Post-Construction

1. Urban Forestry may request to be notified prior to removal of the tree protection fencing on the site. With approval, the fencing may be dismantled.
2. Upon removal of TPZ around tree's 20 and 21, deep root fertilizing shall applied to the area beneath the crowns of these trees.
3. Its is highly recommended that beneath all preserved trees there be a wood mulch circle 8cm thick installed and spread out to the edge of the drip lines.
4. If sod is to be installed around trees no more than 5cm of top soil is to be applied in addition to the rolls of sod for grading purposes.

Location: 377 Williams St, Cobourg, ON.

Date of inspection:

April 22, 2019

Tree Compensation Calculation.

1. As a condition of approval of a Draft Plan of Subdivision, Zoning By-law Amendment, Land Division or Site Plan application, compensation shall be provided for the removal of all existing live trees with a calliper of 30cm DBH and greater (excluding Ash trees), to be removed from the subject lands for the purpose of development, or that die prior to the end of the maintenance period due to development impacts. Compensation shall be made in the form of replacement plantings or cash-in-lieu, to be paid to the Town of Cobourg to fund tree planting initiatives elsewhere within the City.
2. Replacement planting may be done on the development site or on other publicly owned lands in proximity of the site that have been approved by the Town of Cobourg and with written authorization of the subject landowner(s). Replacement planting shall be in the form of deciduous trees with a minimum calliper of 60 mm and/or coniferous trees with a minimum height of 1.8 m. The required boulevard tree planting for municipal right-of-ways will **not** be considered as part of the tree replacement compensation. Should compensation planting take the form of naturalization planting in an open space area where smaller size plant material may be more suitable, the City will determine the appropriate total quantity/ value of the plant material that will be required. Reasonable effort must be taken to compensate for tree loss through on-site and/or off-site plantings by the developer.
5. Suggested Tree compensation Calculation Table.

Existing tree sizes	1:1 Ratio	2:1 Ratio	3:1 Ratio	Number of Trees Required
Trees with 30 to 40cm DBH	6			6
Trees with 40 to 50 cm DBH		9		18
Trees with 51 cm DBH +			2	6
Total trees required for compensation.				30

Assumptions and Limiting Conditions

- Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant can neither guarantee nor be responsible for the accuracy of information provided by others.
- The consultant shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services.
- Loss or alteration of any part of this report invalidates the entire report.
- Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior expressed written or verbal consent of the consultant.
- All trees were visually inspected from the ground only. Trees were not climbed, probed or drilled. Root crowns were not inspected by excavation.
- Every effort has been made to visually determine any defect that may contribute to hazard potential. The consultant cannot guarantee the structural integrity of the trees inspected. It is impossible to determine that all structural components of a tree are sound. Most trees have the potential to fail under extreme weather conditions and removing the tree can only eliminate that risk.

If there are any additional questions with respect to this report ARD-010519, please call 647-261-2627.

James Guthrie I.S.A. Certified Arborist ON-1306A

Location: 377 Williams St, Cobourg, ON.

Date of inspection: April 22, 2019

Appendix I : Inventory

Tree #	Species	DBH (cm)	Ownership/ Location	Condition and Comments	Min TPZ (m)	Action and Tree Protection Methodology
T1	Horse Chestnut (<i>Aesculus hippocastanum</i>)	38	Private, W fence line, possible shared tree, Property line uncertain.	Condition: Poor	R	Request permission to Remove: Due to condition and proximity property line.
T2	Manitoba Maple (<i>Acer nugundo</i>)	32	Private, W fence line	Condition: Fair	R	Request permission to Remove: Due to Species, Condition and Location.
T3	Manitoba Maple (<i>Acer nugundo</i>)	85	Private, W fence line	Condition: Poor	R	Request permission to Remove: Due to Species, Condition and Location.
T4	Manitoba Maple (<i>Acer nugundo</i>)	38, 19	Private, W fence line	Condition: Fair	R	Request permission to Remove: Due to Species, Condition and Location.
T5	Black Walnut (<i>Juglans nigra</i>)	Approx. 38, 26	Private, W fence line, Neighbouring tree.	Condition: Good	NA	Preserve: No additional protection necessary.
T6	White Spruce (<i>Picea glauca</i>)	41	Private, SW fence line	Condition: Fair	4m	Preserve: Install Tree protection barrier along proposed Minimum distance from trunk. See TPZ overlay, App. IV
T7	Black Walnut (<i>Juglans nigra</i>)	26, 30	Private, SW fence line	Condition: Good	3.5m	Preserve: Install Tree protection barrier along proposed Minimum distance from trunk. See TPZ overlay, App. IV
T8	Black Walnut (<i>Juglans nigra</i>)	37	Private, S centre area	Condition: Good	R	Request permission to Remove: Due to Location.
T9	Sugar Maple (<i>Acer saccharum</i>)	48	Private, SW fence line, neighbouring tree	Condition: Good	4m	Preserve: Install Tree protection barrier along proposed Minimum distance from trunk. See TPZ overlay, App. IV
T10	Manitoba Maple (<i>Acer nugundo</i>)	32	Private, S centre area	Condition: Fair	R	Request permission to Remove: Due to Species, Condition and Location.

Arborist Report: ARD-010519 Tree Inventory and Protection Plan

Page 8 of 15

Location: 377 Williams St, Cobourg, ON.

Date of inspection:

April 22, 2019

Tree #	Species	DBH (cm)	Ownership/ Location	Condition and Comments	Min TPZ (m)	Action and Tree Protection Methodology
T11	Manitoba Maple (<i>Acer nugundo</i>)	38	Private, SE area	Condition: Poor	R	Request permission to Remove: Due to Species, Condition and Location.
T12	White Spruce (<i>Picea glauca</i>)	50	Private, SE fence line, neighbouring tree	Condition: Poor	4m	Preserve: Install Tree protection barrier along proposed Minimum distance from trunk. See TPZ overlay, App. IV
T13	Siberian Elm (<i>Ulmus pumila</i>)	36	Private, E Fence line	Condition: Good	3.5m	Preserve: Install Tree protection barrier along proposed Minimum distance from trunk. See TPZ overlay, App. IV
T14	Siberian Elm (<i>Ulmus pumila</i>)	44	Private, E Fence line	Condition: Good	4m	Preserve: Install Tree protection barrier along proposed Minimum distance from trunk. See TPZ overlay, App. IV
T15	Siberian Elm (<i>Ulmus pumila</i>)	34	Private, E Fence line	Condition: Good	3.5m	Preserve: Install Tree protection barrier along proposed Minimum distance from trunk. See TPZ overlay, App. IV
T16	Siberian Elm (<i>Ulmus pumila</i>)	48, 28	Private, E Fence line	Condition: Good	4m	Preserve: Install Tree protection barrier along proposed Minimum distance from trunk. See TPZ overlay, App. IV
T17	Siberian Elm (<i>Ulmus pumila</i>)	43	Private, E Fence line	Condition: Good	4m	Preserve: Install Tree protection barrier along proposed Minimum distance from trunk. See TPZ overlay, App. IV
T18	Siberian Elm (<i>Ulmus pumila</i>)	38	Private, E Fence line	Condition: Fair	3.5m	Request permission to Remove: Due to Condition and Proximity to Proposed building.
T19	Siberian Elm (<i>Ulmus pumila</i>)	46, 33	Private, E Fence line	Condition: Fair	4m	Request permission to Remove: Due to Condition and Proximity to Proposed building.
T20	Black Walnut (<i>Juglans nigra</i>) Possible Butter nut, (<i>Juglans cineria</i>) or hybrid	91.5	Private, E Fence line	Condition: Fair	7m	Preserve and Request permission to injure: Install Tree protection barrier along proposed Minimum distance from trunk. See TPZ overlay, App. IV.

Arborist Report: ARD-010519 Tree Inventory and Protection Plan

Page 9 of 15

Location: 377 Williams St, Cobourg, ON.

Date of inspection: April 22, 2019

Tree #	Species	DBH (cm)	Ownership/ Location	Condition and Comments	Min TPZ (m)	Action and Tree Protection Methodology
T21	Black Walnut (<i>Juglans nigra</i>) <i>Possible Butter nut, (Juglans cineria) or hybrid</i>	100	Private, E Fence line	Condition: Good	7m	<p>Preserve and Request permission to injure: Install Tree protection barrier along proposed Minimum distance from trunk. See TPZ overlay, App. IV.</p> <ul style="list-style-type: none"> Recommend proposed parking area be modified by Splitting the 6 proposed spaces in two with an island of protected root zone at Approximately 8m wide centred on tree 21. Recommend parking cut out be done last after completion of roadway and residences.
T22	Black Walnut (<i>Juglans nigra</i>)	33	Private, E Fence line	Condition: Good	3.5m	Preserve: Install Tree protection barrier along proposed Minimum distance from trunk. See TPZ overlay, App. IV
T23	Siberian Elm (<i>Ulmus pumila</i>)	32	Private, E Fence line	Condition: Poor	R	Request permission to Remove: Due to Condition and Location.
T24	Little Leaf Linden (<i>Tillia cordata</i>)	30	Private, E Fence line	Condition: Poor	R	Request permission to Remove: Due to Condition and Location.
T25	Black Locust (<i>Robinia pseudo acacia</i>)	32, 46	Private, E Fence line	Condition: Good	4m	Preserve: Install Tree protection barrier along proposed Minimum distance from trunk. See TPZ overlay, App. IV
T26	Black Locust (<i>Robinia pseudo acacia</i>)	50	Private, E Fence line	Condition: Good	4m	Preserve: Install Tree protection barrier along proposed Minimum distance from trunk. See TPZ overlay, App. IV
T27	Black Walnut (<i>Juglans nigra</i>)	33	Private, E Fence line	Condition: Good	3.5m	Preserve: Install Tree protection barrier along proposed Minimum distance from trunk. See TPZ overlay, App. IV

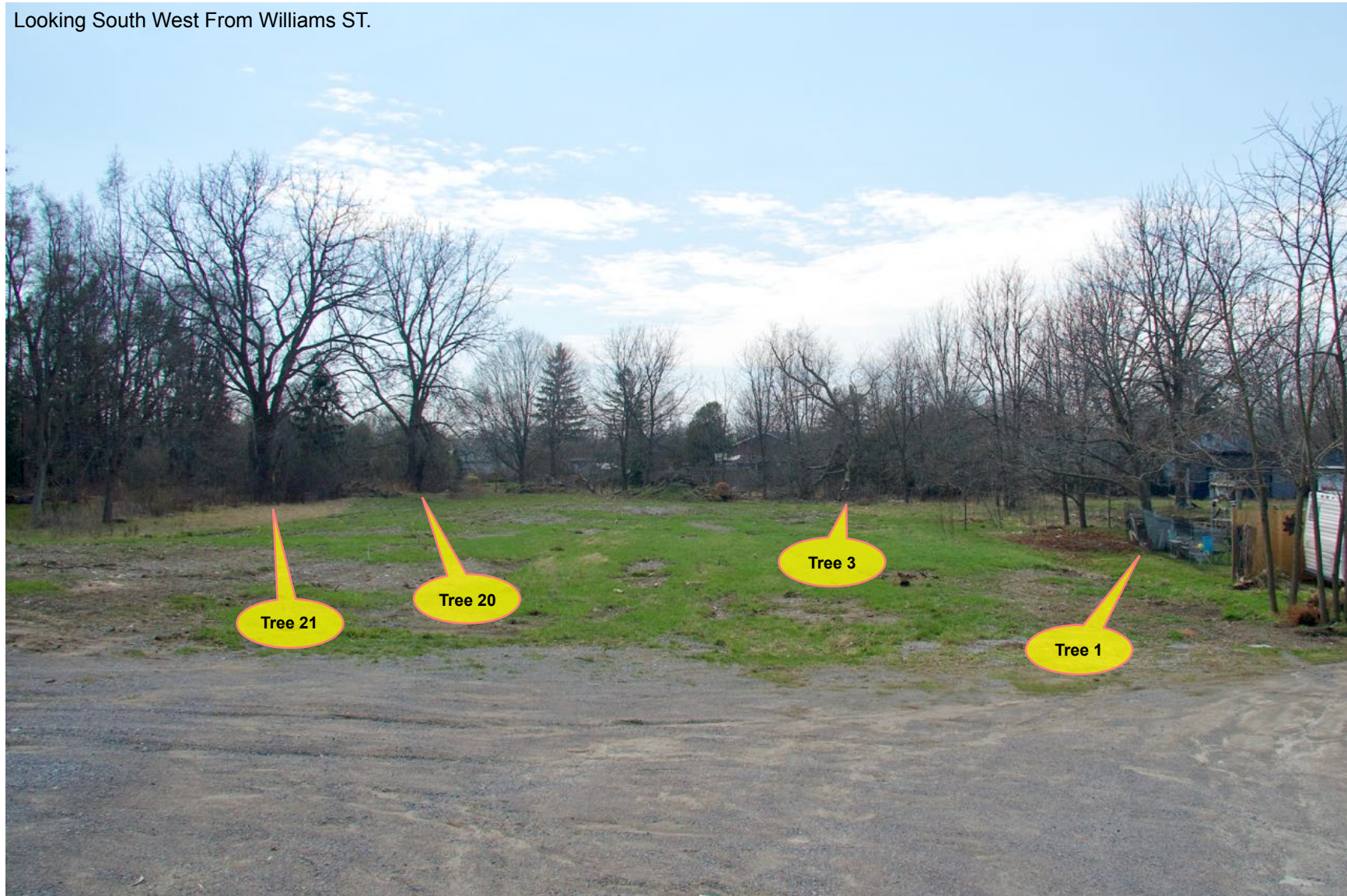
Location: 377 Williams St, Cobourg, ON.

Date of inspection:

April 22, 2019

Appendix II : Photographs

Looking South West From Williams ST.



Arborist Report: ARD-010519 Tree Inventory and Protection Plan

Location: 377 Williams St, Cobourg, ON.

Page 11 of 15

Date of inspection:

April 22, 2019



Location: 377 Williams St, Cobourg, ON.

Date of inspection:

April 22, 2019



Location: 377 Williams St, Cobourg, ON.

Date of inspection:

April 22, 2019



Arborist Report: ARD-010519 Tree Inventory and Protection Plan

Location: 377 Williams St, Cobourg, ON.

Page 14 of 15

Date of inspection:

April 22, 2019



Location: 377 Williams St, Cobourg, ON.

Date of inspection:

April 22, 2019



Arborist Report: ARD-010519 Tree Inventory and Protection Plan

Location: 377 Williams St, Cobourg, ON.

Page 16 of 15

Date of inspection:

April 22, 2019



Location: 377 Williams St, Cobourg, ON.

Date of inspection:

April 22, 2019



Arborist Report: ARD-010519 Tree Inventory and Protection Plan

Location: 377 Williams St, Cobourg, ON.

Page 18 of 15

Date of inspection:

April 22, 2019



Location: 377 Williams St, Cobourg, ON.

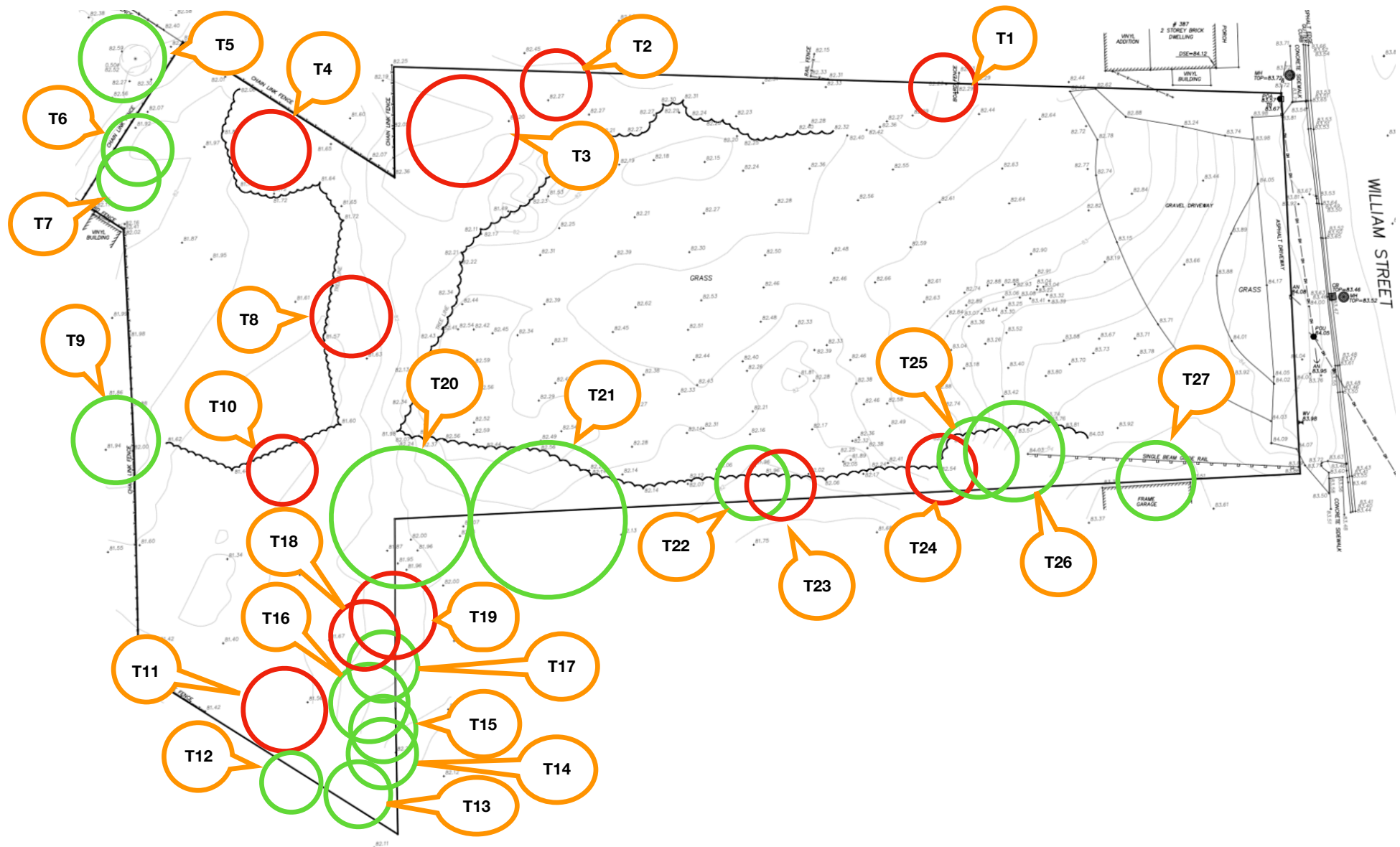
Date of inspection:

April 22, 2019

Appendix III : Survey and Existing tree overlay (Full size PDF attached).

Tree Inventory Survey: 377 Williams St
Existing trees > 30cm DBH

Trees to Preserve in **GREEN**
Trees to Remove in **RED**



Arborist Report: ARD-010519 Tree Inventory and Protection Plan

Page 20 of 15

Location: 377 Williams St, Cobourg, ON.

Date of inspection:

April 22, 2019

Appendix IV : Survey and Preserved tree overlay with Tree Protection Zones (Full size PDF attached).

Tree Protection Zone Survey: 377 Williams St
Preserved trees > 30cm DBH

Trees to Preserve in **GREEN**
Approximate TPZ outlined in **BLUE**
Approximate Parking Space Modification in **RED**

