

Tree Conservation Report submitted as Partial Requirements for a Heritage Application to the City of Ottawa



Dendron Forestry Services www.dendronforestry.ca 613.805.WOOD (9663) info@dendronforestry.ca

TREE CONSERVATION REPORT

1 Coltrin Place, Rockliffe Park



Introduction

This Tree Conservation Report has been prepared for 1 Coltrin Place, in Rockcliffe, as partial requirements for the Heritage Application submitted to the City of Ottawa. The site visit was conducted by Astrid Nielsen, Registered Professional Forester and Certified Arborist[®], ON-1976, on Friday, April 21, 2017.

The objectives of this Tree Conservation Report are:

- To describe the trees 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 (Map 1)

There are currently twenty-one trees on the site, and most are in relatively good health (see Table 1).

Tree ¹	Species	Diameter at breast height (dbh)	Critical Root Zone (m)	Ownership	Condition	Action
1	Crabapple (multi- stemmed)	14,14,19 cm	3 m	City	Good	Retain
2	White birch	25 cm	2.5 m	City	Good	Retain
3	Lilac (multi- stemmed)	13,16,16,12,17 cm	3 m	Private	Good	Retain and protect
4	Crabapple (multi- stemmed)	14,15 cm	2 m	Private	Fair/good	Retain
5	White spruce	42 cm	4.2 m	Private	Fair/Good	Retain and protect
6	Buckthorn	10 cm	1 m	Private	Good	Remove
7	Buckthorn	10 cm	1 m	Private	Good	Remove
8	Lilac	16 cm	1.6 m	Private	Good	Retain and protect
9	Crabapple	12 cm	1.2 m	Private	Good	Retain and protect
10	Eastern white cedar	10 cm	1.0 m	Private	Good	Retain and protect
11	Eastern white cedar	16 cm	1.6 m	Private	Good	Retain and protect
12	Eastern white cedar	27 cm	2.7 m	Private	Good	Retain and protect



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Tree ¹	Species	Diameter at breast height (dbh)	Critical Root Zone (m)	Ownership	Condition	Action
<mark>13</mark>	White Spruce	<mark>56 cm</mark>	<mark>5.6 m</mark>	<mark>Private</mark>	<mark>Good</mark>	Retain and protect
14	Red pine	38 cm	3.8 m	Private	Good	Retain and protect
<mark>15</mark>	Norway maple	<mark>59 cm</mark>	<mark>5.9 m</mark>	<mark>Private</mark>	Fair/Good	Retain and protect
16	Honey locust	23 cm	2.3 m	Private	Good	Remove
17	Apple	27 cm	2.7 m	Private	Fair/good	Remove
18	Eastern white cedar	19 cm	1.9 m	Private	Good	Retain and protect
19	Eastern white cedar	19 cm	1.9 m	Private	Good	Retain and protect
20	Red maple	5 cm	0.5 m	City	Good	Retain and protect
21	White birch (multi- stemmed)	15,17,21,21 cm	3 m	City	Fair	Retain and protect

¹ Please refer to the attached survey and grading plan for tree numbers

Table 1: Tree Inventory. The highlighted trees are Distinctive Trees which are private trees over 50 cmin diameter

Proposed Development and Conserved Vegetation (Map 2)

The proposed development on the property will follow closely to the original footprint, resulting in relatively low impact to most trees. An approximate proposed footprint and new driveway are showing in Map 2. Trees that will need to be removed to accommodate the new residence include 6,7, 16 and 17. Trees 6 and 7 are buckthorn, an aggressive and invasive species. Tree number 16, a honey locust, will need to be removed to accommodate an addition as well as re-landscaping of the entrance way. Tree 17, a crabapple, follows along the proposed new driveway edge, and is also recommended for removal. This tree is leaning over the proposed new driveway and could be in the way of vehicles and it is in relatively poor health.

Tree no 5, the white spruce at the corner of the current garage, is showing signs of decay at the base and should be monitored over time. Removal of the vines from this tree would help it as they compete for critical resources (water, food) and can also girdle the tree. Care should also be taken when removing the hard surface from the base of this tree to avoid soil compaction and root damage. Depending on the depth of the driveway, it is possible that there are roots growing underneath it.

Tree no. 15, the Norway maple in the NW corner is in relatively good condition, and with careful techniques, should be able to withstand the construction. The tree is already leaning towards the neighbour's property, and should be monitored over time to ensure that the lean does not worsen. The



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footprint of the new underground garage will fall within the static root zone of the tree, an area that contains the roots providing the most stability to the tree. It is recommended that the area around the tree be hydro-vacuumed and the remaining roots be pruned by hand. Any exposed roots should be covered with organic material such as burlap and kept moist until covered again. It important that those roots that will not be cut be protected from any type of soil compaction. The best method to protect remaining roots is to install protective fencing and ensure that it stays intact during all phases of construction. The guidelines below should also be followed within the protection zone:

- Do not place any material or equipment
- Do not attach any signs, notices or posters to any tree;
- Do not raise or lower the existing grade;
- Tunnel or bore when digging;
- Do not damage the root system, trunk or branches of any tree;
- Ensure that exhaust fumes from all equipment are NOT directed towards any tree's canopy.

The above guidelines should apply to all trees that will be retained within the protection zone outlined on the map. Note that the fencing on the map is approximate. When installing fencing in the field, it should be kept at a distance equal to the critical root zone (crz) around the tree which is equivalent to an area with a radius ten times the diameter of the tree. Any exposed roots should be kept moist and, if possible, covered with burlap or wood chips. If it is not possible to avoid using heavy machinery in the CRZ of a tree, a protective layer on the ground made up of wood chips or plywood would help to lessen the impact of machinery and lessen soil compaction.

Tree Pruning

Prior to construction, those trees that have branches in the way of the new buildings and the driveway should be pruned by a Certified Arborist. This pruning should not occur until after the leaves have come out in the spring. At this time, dead wood and hazardous limbs should also be removed, but avoid removing more live branches than necessary. Pruning limbs in anticipation of root pruning is not a recommended practice and only removes leaf surface area unnecessarily causing additional stress on the tree.

The Norway maple should have all the dead wood pruned from the tree prior to construction, but not any live branches unless they are in the way of machinery or the new garage. Pruning live branches would put undue stress on the tree. Normally, they withstand this short-term stress and good pruning can improve tree health, but when coupled with construction and major root pruning, the stress may prove to be too great. Additional pruning of live branches could be considered several years after construction.

Tree Monitoring

During the heat of the summer months, all trees impacted by the development should receive regular watering to help withstand the stresses of construction. The water should soak down to the top metre of soil by applying a slow trickle throughout the spread of the tree's roots. Fertilizer can be considered



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for those trees damaged by construction, particularly the Norway maple, but not until a year after the completion of construction.

Tree Planting Recommendations

The lot is already well treed, and it may be difficult to find sufficient space to plant a new tree. One potential spot may be where the existing driveway will be torn up and re-greened.

Report Preparation

This report has been prepared by Astrid Nielsen, of Dendron Forestry Services. Astrid is a Registered Professional Forester licensed in Ontario as well as an ISA Certified Arborist. If there are any questions about this report, please contact the undersigned. I would be happy to accommodate any site visits, if required, to address on site construction issues.

Sincerely,

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Astrid Nielsen, MFC, RPF, ISA Certified Arborist ®, ON-1976

Principal, Dendron Resource Surveys







Current Vegetation – 1 Coltrin Road Tree layer prepared by Dendron Forestry Services Version 1.0, May 4, 2017

For more information, please contact info@dendronforestry.ca

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New Building Footprint



Recommended Protective Fencing

New Driveway Footprint



Proposed Development and Conserved Vegetation – 1 Coltin Road Tree layer prepared by Dendron Forestry Services Version 1.0, May 4, 2017

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