

**Tree Inventory and Preservation Plan Report
136 Bayfield Street
City of Barrie, Ontario**

prepared for

**Mark Setter Associates Ltd.
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prepared by



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KUNTZ FORESTRY CONSULTING Inc. Project P2287

Introduction

Kuntz Forestry Consulting Inc. was retained by Mark Setter Associates Ltd. to complete a Tree Inventory and Preservation Plan Report in support of a development application for the property located at 136 Bayfield Street in Barrie, Ontario. The property is located at the northwest corner of Sophia Street West and Bayfield Street in Barrie, within a commercial area.

The work plan for this study included the following:

- Prepare field mapping;
- Prepare inventory of all tree resources 10 cm in diameter and larger occurring on subject property and on neighbouring property adjacent to the subject property, and trees of all sizes within the road right-of-ways;
- Evaluate potential tree saving opportunities based on proposed site plans; and,
- Document the findings in a Tree Inventory and Preservation Plan report.

Methodology

Field assessments were conducted on 8 January 2020. Trees were located using the topographic survey, aerial imagery, and estimations made in-field. Trees located on the subject property and within the road right-of-ways were tagged using numbers 962-970 and trees located on neighbouring properties and those that could not be tagged were identified with the letters A-F. All tree resources included in the inventory were visually assessed for condition utilizing the following parameters:

Tree # - numbers assigned to trees that corresponds to Figure 1.

Species - common and botanical names provided in the inventory table (Table 1).

DBH - diameter (centimeters) at breast height, measured at 1.4 m above the ground.

Condition - condition of tree considering trunk integrity, crown structure and crown vigor. Condition ratings include poor (P), fair (F) and good (G).

Dripline – size of crown radius, as measured from the stem to the outermost reaches of the branches

Crown Dieback – the percentage of dead branches located in the crown.

Comments - additional relevant detail.

Existing Site Conditions

The subject site is currently occupied by a commercial building and surface parking. Tree resources exist in the form of landscape and self-seeded trees.

The tree inventory documented a total of 15 trees located on and within six metres of the subject property. Refer to Figure 1 for tree locations and Table 1 for the complete tree inventory.

Tree resources included in the inventory are comprised of Norway Maple (*Acer platanoides*), Manitoba Maple (*Acer negundo*), Siberian Elm (*Ulmus pumila*), Shademaster Honey Locust (*Gleditsia triacanthos 'inermis'*), Japanese Zelkova (*Zelkova serrata*), Sugar Maple (*Acer saccharum*), and Weeping White Mulberry (*Morus alba 'pendula'*).

Proposed Development

The construction of a new residential development including a condominium tower and two townhome blocks is proposed for the subject property. Access will be provided from Maple Avenue. Refer to Figure 1 for the existing conditions and proposed site plan.

Discussion

The following sections provide a discussion and analysis of development impacts, tree removals and tree preservation relative to both concept plans.

Development Impacts/Tree Removals

The removal of Trees 963-970, A, and D-F will be required to accommodate the proposed development. Tree A is located within the Maple Avenue right-of-way. Trees D and 968-970 are located partially or fully on the neighbouring properties to the north. Permission from these property owners is required prior to their removal. Refer to Figure 1 for the location of tree removals.

Tree Preservation

The preservation of Trees 962, B, and C will be possible with appropriate tree protection measures as indicated on Figure 1. Tree protection measures will have to be implemented prior to the commencement of construction to ensure that trees identified for preservation are not impacted by the proposed development. Trees will be hoarded at their dripline or their minimum tree protection zone required by the City of Barrie, whichever is greater. All grading and other disturbance should be kept outside of the TPZ's.

Any crown pruning required should occur by a certified Arborist according to Good Arboricultural Standards.

Refer to Figure 1 for the location of prescribed tree protection fence locations, the tree protection fence detail and further tree preservation plan notes.

Summary and Recommendations

Kuntz Forestry Consulting Inc. was retained by Mark Setter Associates Ltd. to complete a Tree Inventory and Preservation Plan Report in support of a development application for a property situated at 136 Bayfield Street in Barrie, Ontario. A tree inventory was conducted and reviewed in the context of the proposed site plan.

The findings of the study indicate a total 15 trees situated on and adjacent to the subject property. The removal of 12 trees will be required to accommodate the proposed development.

The following recommendations are suggested to minimize impacts to trees identified for preservation. Refer to Figure 1 for the location of tree preservation fence, further tree protection plan notes and the tree preservation fence detail.

- Tree protection barriers and fencing should be erected at locations as prescribed on Figure 1. All tree protection measures should follow the guidelines as set out in the tree preservation plan notes and the tree preservation fencing detail on Figure 1.
- Tree protection measures are to be implemented prior to the demolition phase to ensure the trees identified for preservation are not impacted by the development.
- Branches and roots that extend beyond prescribed tree protection zones that require pruning must be pruned by a qualified Arborist or other tree professional as approved by the City of Barrie. All pruning of tree roots and branches must be in accordance with good arboricultural standards.
- Site visits, pre, during and post construction is recommended by either a certified consulting arborist (I.S.A.) or registered professional forester (R.P.F.) to ensure proper utilization of tree protection barriers. Trees should also be inspected for damage incurred during construction to ensure appropriate pruning or other measures are implemented.

Respectfully Submitted,

Kuntz Forestry Consulting Inc.

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Limitations of Assessment

Only the tree(s) identified in this report were included in the inventory. The assessment of the trees presented in this report has been made using accepted arboricultural techniques. These may include a visual examination taken from the ground of all the above-ground parts of the tree for structural defects, scars, external indications of decay such as fungal fruiting bodies, evidence of attack by insects, discoloured foliage, the condition of any visible root structures, the degree of lean (if any), the general condition of the trees and the identification of potentially hazardous trees or recommendations for removal (if applicable). Where trees could not be directly accessed (ie. due to obstructions, and/or on neighbouring properties), trees were assessed as accurately as possible from nearby vantage points.

Locations of trees provided in the report are determined as accurately as possible based on the best information available. If official survey information is not provided, tree location in the report may not be exact. In this case, if trees occur on or near property boundaries, an official site survey may be required to determine ownership utilizing specialized survey protocol to gain precise location.

Furthermore, recommendations made in this report are based on the site plans that have been provided at the time of reporting. These recommendations may no longer be applicable should changes be made to the site plan and/or grading, servicing, or landscaping plans following report submission.

Notwithstanding the recommendations and conclusions made in this report, it must be recognized that trees are living organisms, and their health and vigor constantly change over time. They are not immune to changes in site conditions or seasonal variations in the weather conditions. Any tree will fail if the forces applied to the tree exceed the strength of the tree or its parts.

Although every effort has been made to ensure that this assessment is reasonably accurate, the trees should be re-assessed periodically. The assessment presented in this report is valid at the time of inspection.

Table 1. Tree Inventory

Location: 136 Bayfield Street, Barrie

Date: 8 January 2020

Surveyors: CB

Tree #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	DL	mTPZ	Comments	Action
962	Norway Maple	<i>Acer platanoides</i>	31.5	F-G	G	F		4.5	2.0	V-union at 1.6m	Retain
963	Norway Maple	<i>Acer platanoides</i>	10.5, 14	F-G	F	F		3	1.5	Pruning wounds (L)	Remove
964	Norway Maple	<i>Acer platanoides</i>	21.5, 17, 14	F-G	F	F		3	1.5	Union at 0.1m, pruning wounds (M)	Remove
965	Norway Maple	<i>Acer platanoides</i>	39	F-G	F	P-F	20	5	2.0	Pruning wounds (M), epicormic branching (L), deadwood (M)	Remove
966	Norway Maple	<i>Acer platanoides</i>	61	F-G	F-G	F		7.5	3.0	Asphalt at base and in root zone, pruning wounds (M), broken branches (L), epicormic branching (M), asymmetrical crown (L)	Remove
967	Manitoba Maple	<i>Acer negundo</i>	14, 7.5	F-G	F	F		3	1.5	Union at base, asymmetrical crown (L), one lost leader	Remove
968	Siberian Elm	<i>Ulmus pumila</i>	~15	F-G	F-G	F-G		2.5	1.5	Included fence (L), technically a shared tree	Remove
969	Siberian Elm	<i>Ulmus pumila</i>	13.5	F-G	F-G	F		2.5	1.5	Included fence (L), technically a shared tree, v-union at 2m, very restricted root zone	Remove
970	Siberian Elm	<i>Ulmus pumila</i>	~12	F-G	G	G		2.5	1.5	Included fence (L), technically a shared tree, very restricted root zone	Remove
A	Honey Locust (shademaster)	<i>Gleditsia triacanthos inermis</i>	3	G	G	G		0.5	1.0	Pruning wounds (L)	Remove
B	Japanese Zelkova	<i>Zelkova serrata</i>	5.5	G	G	F	20	0.5	1.0		Retain
C	Japanese Zelkova	<i>Zelkova serrata</i>	5.5	G	G	F	20	0.5	1.0		Retain
D	Sugar Maple	<i>Acer saccharum</i>	83	F-G	F	F		9	4.0	Shared tree, deadwood (M), asymmetrical crown (L), cavities (M), poor form (M), multiple branch attachments (L) -> prune	Remove
E	Weeping White Mulberry	<i>Morus alba 'pendula'</i>	12	G	F	G		1.5	1.5	In raised planter	Remove
F	Weeping White Mulberry	<i>Morus alba 'pendula'</i>	12.5	G	F	G		1.5	1.5	In raised planter	Remove

Codes		
DBH	Diameter at Breast Height	(cm)
TI	Trunk Integrity	(G, F, P)
CS	Crown Structure	(G, F, P)
CV	Crown Vigor	(G, F, P)
CDB	Crown Die Back	(%)
DL	Dripline	(metres)
~ = estimate; (VL) = very light; (L) = light; (M) = moderate; (H) = heavy		