

**Tree Inventory and Preservation Plan
76 Wyndham Street South
Guelph, ON**

prepared for

**M. Flaman Productions
223 Lincoln Road
Waterloo, ON
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prepared by



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Introduction

Kuntz Forestry Consulting was retained by M. Flaman Productions to complete a Tree Inventory and Preservation Plan in support of a development application for the property located at 76 Wyndham Street South in Guelph, Ontario. The subject property is located east of Wyndham Street South and south of Wellington Street East within a residential area. The entire property is regulated by the Grand River Conservation Authority.

The work plan for this study included the following:

- Prepare an inventory of trees greater than 10cm DBH on and within six metres of the subject property and trees of all sizes within the City right-of-way,
- Evaluate potential tree saving opportunities based on the proposed development plan; and
- Document the findings in a Tree Inventory and Tree Preservation Plan report.

Methodology

The tree inventory was conducted on 05 March 2021. Trees greater than 10cm DBH on and within six metres of the subject property and trees of all sizes located within the right-of-way were included in the tree inventory. Trees were located using the topographic survey provided, aerial imagery, and estimations made in the field. Trees located on the property were identified with the numbers 1 – 6, while trees located within the City right-of-way or on neighbouring properties were identified with the numbers N1 – N6.

Tree resources were visually assessed for condition utilizing the following parameters:

Tag # - numbers of trees that correspond to Figure 1 and the inventory.

Species - common and scientific names provided in the inventory table.

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

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

Crown Dieback – percentage of dead branches within the crown.

Dripline – crown radius (metres).

Comments – any other relevant tree condition information.

Refer to Table 1 for the results of the tree inventory and Figure 1 for the location of the trees.

Existing Site Conditions

The subject property is occupied by a residential dwelling with an associated driveway and garage to the south and a construction site to the north. Tree resources exist in the form of landscape trees and natural regeneration. Refer to Figure 1 for the existing site conditions.

Individual Tree Resources

The tree inventory was conducted on 05 March 2021. The inventory documented 12 trees on and within six metres of the subject property. Trees included in the inventory are composed of Manitoba Maple (*Acer negundo*), Norway Maple (*Acer platanoides*), Honey Locust (*Gleditsia triacanthos*), Black Walnut (*Juglans nigra*), White Spruce (*Picea glauca*), Blue Spruce (*Picea pungens*), Willow species (*Salix* sp.), and White Elm (*Ulmus americana*). Refer to Table 1 for the complete tree inventory, Figure 1 for the location of trees included in the inventory, and Appendix A for photographs of the trees impacted by the proposed work.

A potential hazard tree was noted approximately eight metres east of the southeast corner of the subject property. This tree is leaning west (towards the subject property). Its crown is resting in the crown of Tree N2. This tree's imminent removal is advised regardless of the site plan. Refer to Figure 1 for the location of the hazard tree.

Proposed Development

The proposed development includes the demolition of the existing structures and the construction of a duplex, an apartment building, and an above-ground parking lot. Vehicle access will be permitted from Wyndham Street South. Refer to Figure 1 for the proposed development plan.

Discussion

The following sections provide a discussion and analysis of development impacts, tree removal requirements, and tree preservation relative to the proposed development.

Development Impacts / Tree Removal

The removal of Trees 1 – 6 and N3 will be required to accommodate the proposed development. Trees 3 and 4 have trunks that conflict with the proposed parking lot. Trees 1, 2, and N3 are located close to the proposed parking lot such that their roots would be significantly impacted by construction. Trees 5 and 6 have trunks that conflict with the proposed apartment building. Tree N1 may need to be removed due to the proposed road widening on Wyndham Street South, however, this will be unrelated to the development. It is the Client's intention to plant new trees on the property to compensate for the trees removed due to the development.

The subject property is less than 0.2 hectares in size; therefore, a permit will not be required prior to the removal of Trees 1 – 6 and N3. Tree N3 is located on the shared property boundary and written permission from the neighbouring landowners will be required prior to its removal. Refer to Figure 1 for the locations of the proposed tree removals and Appendix A for the photographs of trees proposed for removal.

Tree Preservation

The preservation of Trees N1, N2, and N4 – N6 will be possible with the use of appropriate tree protection measures as indicated on Figure 1. Tree protection measures must be implemented prior to the proposed work to ensure tree resources designated for retention are not impacted by the proposed development. Refer to Figure

1 for the location of required tree preservation fencing, general Tree Protection Plan Notes, and tree preservation fence details. Special mitigation measures have been prescribed for Tree N2, as described below.

Tree N2

Encroachment into the minimum Tree Protection Zone (mTPZ) of Tree N2 will be required to accommodate construction of the proposed parking lot and wooden fence. If the following protection and mitigation measures are employed before, during, and after construction, long-term adverse effects are not anticipated to this tree.

1. The removal of the existing garage within the mTPZ of Tree N2 should be conducted with minimal impact by machinery. The foundation of the existing garage can be carefully lifted with an excavator.
2. Prior to parking lot construction, air-spading technology should be used to excavate a trench at the southeast limit of the proposed parking lot within the mTPZ of Tree N2, as shown in Figure 1.
3. The roots of Tree N2 are to be pruned inside the trench by a Certified Arborist in accordance with Good Arboricultural Standards.
4. The trench is to be backfilled with clean topsoil.
5. Vertical tree protection fencing should be installed adjacent to the backfilled trench within the mTPZ of N2, as shown in Figure 1.
6. Prior to fence installation, air-spading technology should be used to excavate fence post holes within the mTPZ of Tree N2.
7. Any roots of Tree N2 that will be damaged due to fence installation are to be pruned inside the holes by a Certified Arborist in accordance with Good Arboricultural Standards. If structural roots (>5cm diameter) are encountered, the fence post hole should be relocated to an area where no structural roots are encountered.
8. The exploratory holes that will not be used should be backfilled with clean topsoil.
9. Fence posts and fencing are to be installed within the mTPZ of Tree N2 with minimal impact by hand.
10. All works should be supervised by a Certified Arborist in accordance with Good Arboricultural Standards.

As Tree N2 belongs to a neighbouring property, all works prescribed should be discussed with the neighbouring landowner. In addition to the mitigation measures advised for Tree N2, it is recommended that this tree is pruned to remove existing deadwood in the crown. The tree should be periodically monitored due to its age and species.

Summary and Recommendations

Kuntz Forestry Consulting was retained by M. Flaman Productions to complete a Tree Inventory and Preservation Plan in support of a development application for 76 Wyndham Street South in Guelph, Ontario. A tree inventory was conducted and reviewed in the context of the proposed site plan.

The findings of the study indicate a total of 12 trees on and within six metres of the subject property. The removal of seven trees is required to accommodate the proposed development. All other trees can be preserved providing appropriate tree protection measures are implemented prior to construction.

The following recommendations are suggested to minimize impacts to trees identified for preservation. Refer to Figure 1 for the location of the required tree protection fencing, general Tree Protection Plan Notes, and tree preservation details.

- 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.
- No construction activity including surface treatments, excavations of any kind, storage of materials or vehicles, unless specifically outlined above, is permitted within the area identified on Figure 1 as a tree protection zone (TPZ) at any time during or after construction.
- Branches and roots that extend beyond prescribed tree protection zones that require pruning must be pruned by a qualified Arborist or other tree professional. 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.
- No vegetation removal should occur during the breeding (nesting) bird season (generally April 1 – August 31) as per the Migratory Birds Convention Act (MBCA). Consultation with the Canadian Wildlife Service (CWS) may be required. Prior to site disturbance the owner must confirm that no migratory birds are making use of the site for nesting. The owner must ensure that the works are in conformance with the Migratory Bird Convention Act and that no migratory bird nests will be impacted by the proposed work no less than 48 hours prior to conducting any specified work.

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 (i.e. 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: 76 Wyndham Street South, Guelph

Date: 05 March 2021

Surveyors: KD

Tree #	Common Name	Scientific Name	DBH	TI	CS	CV	OC	CDB	DL	mTPZ	HGT	Comments	Owner	Action	Compensation
1	Black Walnut	<i>Juglans nigra</i>	12	F-G	G	G	G		1.5	1.8	~6	Pruning wounds (L), stem wound (L), union at 2.25 metres	Private	Remove	Y
2	White Spruce	<i>Picea glauca</i>	38	F-G	F-G	F-G	F-G		4	2.4	~15	Deadwood (L), pruning wounds (L), crook (M), co-dominant stems at 6 metres, epicormic branching (L)	Private	Remove	Y
3	Manitoba Maple	<i>Acer negundo</i>	11	G	F-G	G	F-G		1	1.8	~5	Union at base, sweep (L), pruning wounds (L)	Private	Remove	Y
4	Honey Locust	<i>Gleditsia triacanthos</i>	69	F-G	F-G	F-G	F-G		5	4.2	~15	Co-dominant stems at 1.5 metres, pruning wounds (M), asymmetrical crown (L), deadwood (L), broken branches (L), epicormic branching (L)	Private	Remove	Y
5	Norway Maple	<i>Acer platanoides</i>	73	P-F	F	F-G	F		5	4.8	~15	Girdling roots (M), pruning wounds (M), co-dominant stems at 1.5 metres, included bark (M), crack (H) from base to 1.5 metres with response growth	Private	Remove	Y
6	White Spruce	<i>Picea glauca</i>	57	F-G	F-G	G	F-G		4	3.6	~20	Union at 1.5 metres, pruning wounds (L), asymmetrical crown (L), growth deficit (L)	Private	Remove	Y
N1	Blue Spruce	<i>Picea pungens</i>	~50	F-G	F-G	F-G	F-G		4	3	~20	Deadwood (L), asymmetrical crown (L)	Neighbouring	Retain	N
N2	Willow species	<i>Salix sp.</i>	~100, ~80, ~70, ~70	P-F	F	F	P-F		8	10	~25	Stem wound (H) on large stem from previous stem failure, multi-stem at base, epicormic branching (M), deadwood (L), burls (L), pruning wounds (M), broken branches (H), hazard tree leaning into crown --> Prune and monitor	Neighbouring	Retain	N
N3	Black Walnut	<i>Juglans nigra</i>	~22	G	G	G	G		2	1.8	~10	Pruning wounds (L)	Shared	Remove	Y
N4	Norway Maple	<i>Acer platanoides</i>	~30	F-G	G	G	G		3	2.4	~10	Healed crack from base to 3 metres	Neighbouring	Retain	N
N5	Manitoba Maple	<i>Acer negundo</i>	~14, ~10	F	F	G	F-G		2	1.8	~5	Co-dominant stems at base, included fence (H), pruning wounds (M), sweep (L), included bark (L), asymmetrical crown (M)	Neighbouring	Retain	N
N6	White Elm	<i>Ulmus americana</i>	~20	G	F-G	G	F-G		3	1.8	~15	Co-dominant stems in crown	Neighbouring	Retain	N

Legend		
DBH	Diameter at Breast Height	(cm); ~ = estimate
TI	Trunk Integrity	G=good, F=fair, P=poor
CS	Crown Structure	G=good, F=fair, P=poor
CV	Crown Vigor	G=good, F=fair, P=poor
OC	Overall Condition	G=good, F=fair, P=poor
CDB	Crown Die Back	(%)
DL	Dripline (radius)	(m)
mTPZ	Recommended minimum tree protection zone based on City of Toronto standards; radius from edge of tree	
HGT	Height	(m)
Comments	Relevant comments to health and condition of the tree (L) = light; (M) = moderate; (H) = heavy	
Owner	Private, Neighbouring, City, Shared	
Action	Retain or Remove	

Appendix A. Photographs of Trees to be Impacted by the Proposed Development



Image 1. Tree 1



Image 2. Tree 2



Image 3. Tree 3 and N3

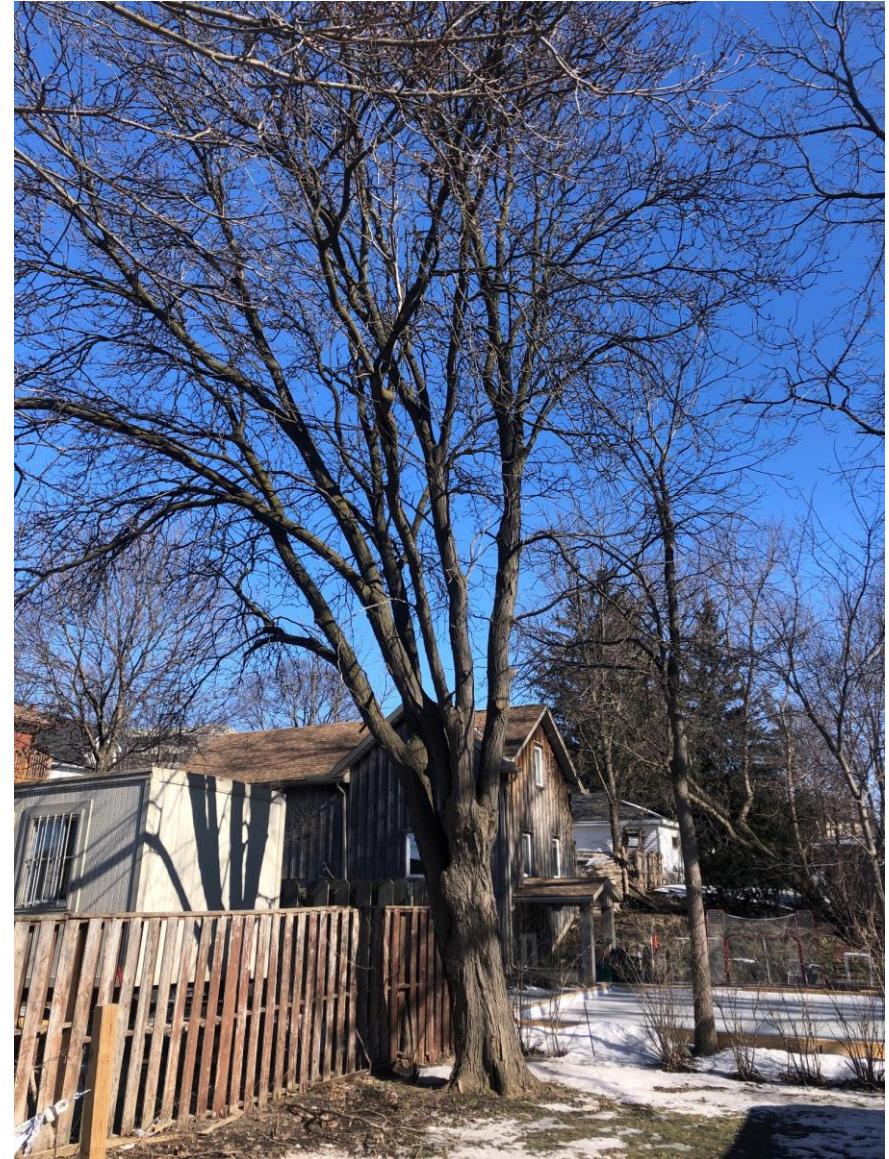


Image 4. Tree 4



Image 5. Tree 5



Image 6. Tree 6



Image 7. Tree N2