



JACKSON ARBORICULTURE INC.

CONSULTING AND GIS ANALYSIS

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Tree Inventory and Preservation Plan Report

Subject Property:

116 Four Mile Creek Road
Niagara-on-the-Lake, ON

Prepared For:

Pinewood Homes (Niagara) Ltd.
2125 Fruitbelt Parkway
Niagara Falls, ON L2J 0A5

Prepared By:

Jackson Arboriculture Inc.
118 Pleasant Ridge Road
Brantford, ON N3R 0B8

22 August 2025

Jackson Arboriculture Inc. Project No. 584

1.0 Introduction

Jackson Arboriculture Inc. was retained by Pinewood Homes (Niagara) Ltd. to complete a Tree Inventory and Preservation Plan report for a property situated at 116 Four Mile Creek Road in the Town of Niagara-on-the-Lake, Ontario, hereby referred to as the subject property. It is understood that an application will be filed with the Town for the construction of a residential development.

This study has been completed in accordance with the Town of Niagara-on-the-Lake private tree by-law No. 5139-19. The private tree by-law regulates the removal of trees 12.5 cm in diameter and larger.

2.0 Methodology

At the onset of the project the scope of work was coordinated with the client and the consulting team. Prior to conducting a site visit, the topographic survey and current aerial photography were overlaid utilizing geographic information software for use on site during the completion of the tree inventory. The tree locations and the site plan were then overlaid and a tree preservation analysis was completed to determine the impacts to the trees included in the inventory.

2.1 Tree Inventory

A site visit was conducted on the 6th of August 2025 to complete the tree inventory. All trees 12.5 cm in diameter and larger situated on subject property, on neighbouring property within 6 m and within the road allowance were included in the inventory. A visual assessment was completed on each tree included in the inventory and the following information is provided in the tree inventory table (Table 1):

- **Tree #:** A number assigned to each tree corresponding to the tree inventory (Table 1) and the Tree Preservation Plan (Sheet 1).
- **Species:** Common and scientific (Latin) species names.
- **DBH:** The trunk diameter at breast height, measured in centimeters at 1.4 m from the ground.
- **Condition:** The health of the tree considering the trunk integrity, the crown structure and the crown vigour; each rated as good, fair or poor. The condition ratings are based on the signs, symptoms and defects exhibited by each tree, considering the surroundings in which it is growing.
- **Dripline:** The distance from the trunk to the tips of the branches.
- **mTPZ:** Minimum tree preservation zone distance as measured in meters from the base of the tree. This is the distance at which tree protection fence is to be installed (unless noted otherwise below).
- **Location:** The property where the tree is situated, based on the topographic survey and observations made on site.
- **Comments:** Any additional notes relevant to the tree's health or growing conditions.
- **Recommendation:** The recommended removal or preservation of each tree based on the results of the impact assessment.

The trees included in the inventory were identified with numbers 1-77 and were located using the topographic survey provided.

2.2 Impact Assessment

A tree preservation analysis was completed on each tree included in the tree inventory considering the impacts from the proposed development and many other factors including, but not limited to, tree condition, species, DBH and the existing site conditions. The impacts from the proposed development will occur where tree roots conflict with construction machinery during pre-grading, construction, grading and servicing.

During the tree preservation analysis the minimum Tree Preservation Zone (mTPZ) distance was utilized to determine the potential impacts to each tree included in the inventory. Where encroachment is required within the mTPZ, tree removal may be required.

The mTPZ distance is the minimum distance at which development can safely occur without considerably impacting a tree's root system. The mTPZ distance is based on the diameter of the tree and measured in meters from the base of the stem. Refer to Table 2 for the mTPZ distances based on trunk diameter.

Table 2. Minimum tree preservation zone distances.

DBH (cm)	Min. Tree Preservation Zone Distance (m)*
	Radius
< 10	1.8
11 – 40	2.4
41 – 50	3.0
51 – 60	3.6
61 – 70	4.2
71 – 80	4.8
81 – 90	5.4
91 – 100	6.0
101 – 110	6.6

*As measured from the outside of the tree trunk.

3.0 Existing Conditions

The subject property is currently occupied by a commercial building, asphalt parking and cherry tree orchard. The property is bound by residential development to the north, south and west, and Four Mile Creek Road to the east.

4.0 Tree Inventory Results

The results of the tree inventory indicate that a total of 77 trees 12.5 cm in diameter or larger reside on subject property, on neighbouring property within 6 m and within the road allowance. The trees included in the inventory appear to be comprised of landscape plantings.

No rare, threatened or endangered tree species were documented in the tree inventory. Refer to Table 1 for the complete tree inventory and Sheet 1 for the tree locations.

5.0 Proposed Development

The proposed development includes the construction of a 4-storey 77 unit apartment building and asphalt parking.

6.0 Discussion

The following sections discuss the tree removal requirements, tree preservation opportunities and tree preservation recommendations based on the results of the impact assessment.

6.1 Tree Removal

The results of the impact assessment indicate that the removal of Trees 5-8, 14-55, 58, 61-71 and 73-75 will be required to accommodate the proposed development.

Trees 5 and 8 reside within the Town road allowance. Permission from the appropriate Town department will be required prior to removal.

Tree 14 resides on neighbouring property to the south. Permission from the respective property owner will be required prior to removal.

6.2 Tree Preservation

The results of the impact assessment indicate that the preservation of Trees 1-4, 9-13, 56, 57, 59, 60, 72, 76 and 77 will be possible with the use of appropriate tree protection measures.

It appears that encroachment within the mTPZ of Trees 2 and 4 will be required to accommodate the proposed development. However, the area of encroachment is currently occupied by asphalt parking. It is anticipated that few, if any, tree roots will reside below the asphalt and as such there should be no impacts to Trees 2 and 4 by the encroachment. The tree protection fence for Trees 2 and 4 should be installed at the edge of the existing asphalt parking lot.

The tree protection fence must be installed prior to the commencement of demolition to ensure that the trees identified for preservation are not impacted by the proposed development. Tree

protection fence must be installed at the mTPZ distance unless noted otherwise in this report and on Sheet 1.

Refer to Sheet 1 for the prescribed tree protection fence locations, additional tree protection plan notes and the tree protection fence detail.

6.3 Tree Preservation Recommendations

The following recommendations are made in attempts to reduce the impacts to trees identified for preservation:

- Tree protection fence must be installed prior to the commencement of demolition to ensure that the trees identified for preservation are not damaged during construction.
- Tree protection fence must be installed at the mTPZ distance unless noted otherwise in this report and on Sheet 1.
- Once tree protection fence has been installed it must not be moved, relocated or altered in any way (unless repairing fallen fence etc.) for the duration of the construction period.
- No intrusion into an area identified on Sheet 1 as a tree preservation zone (TPZ) is allowed at anytime during construction.
- No storage of machinery, construction debris, materials, waste or any other items is allowed within a TPZ.
- Any tree branches and roots that conflict with the proposed development must be pruned by a Certified Arborist in accordance with good arboricultural practice.
- Tree protection fencing should be inspected by a Certified Arborist prior to and during construction to ensure that the fencing remains intact and in good repair throughout the stages of development.

7.0 Summary

Jackson Arboriculture Inc. was retained by Pinewood Homes (Niagara) Ltd. to complete a Tree Inventory and Preservation Plan report for a property situated at 116 Four Mile Creek Road in the Town of Niagara-on-the-Lake, Ontario. A tree inventory was conducted and an impact assessment was completed in the context of the proposed development plan.

The tree inventory documented a total of 77 trees situated on subject property, in the road allowance and on neighbouring property within 6 m. The results of the impact assessment indicate that the removal of 61 trees will be required to accommodate the proposed development.

Respectfully submitted,
Jackson Arboriculture Inc.

Jeremy Jackson

Jeremy Jackson, H.B.Sc.,
ISA Certified Arborist #ON-1089A
GIS Analyst

8.0 Limitations of Assessment

It is our policy to attach the following limitations of assessment to ensure that the client, municipalities and agencies are fully aware of what is technically and professionally realistic when visually assessing and retaining trees.

The assessment of the trees presented in this report has been made using accepted arboricultural techniques. These include a visual examination of the above ground parts of each 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 and direction of any lean, the general condition of the trees and the surrounding site, and the proximity of property and people.

Notwithstanding the recommendations and conclusions made in this report, it must be realized that trees are living organisms and their health and vigour constantly change. They are not immune to changes in site conditions, or seasonal variations in the weather conditions, including severe storms with high-speed winds.

While reasonable efforts have been made to ensure that the trees recommended for retention are healthy no guarantees are offered, or implied, that these trees, or any parts of them, will remain standing. It is both professionally and practically impossible to predict with absolute certainty the behaviour of any single tree or group of trees or their component parts in all circumstances. Inevitably a standing tree will always pose some risk. Most trees have the potential for failure under adverse weather conditions, and the risk can only be eliminated if the tree is removed.

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

Table 1. Tree Inventory

Location: 116 Four Mile Creek Rd, NOTL

Date: 24 July 2025

Surveyors: JJJ

Tree #	Common Name	Scientific Name	DBH	TI	CS	CV	DL	mTPZ	Location	Comments	Action
1	Blue Spruce	<i>Picea pungens</i>	~31	FG	FG	G	3	2.4	Neighbouring	Unions at 2.5 and 3.5 m	Preserve
2	Copper Beech	<i>Fagus sylvatica</i> 'Purpurea'	~55, 55, 41	F	FG	G	7	4.2	Neighbouring	Unions at 0.3 m	Preserve
3	Norway Maple	<i>Acer platanoides</i>	~25	G	G	G	4	2.4	Neighbouring	Weed species	Preserve
4	Copper Beech	<i>Fagus sylvatica</i> 'Purpurea'	~65, 65	FG	G	G	8	4.8	Neighbouring	Union at 1.2 m	Preserve
5	Sweet Cherry	<i>Prunus avium</i>	33, 33	FG	F	G	3	3.0	ROW	Union at 1 m, 20% crown dieback	Remove
6	Sweet Cherry	<i>Prunus avium</i>	22, 23, 23, 30, 22	F	F	F	3	3.0	Subject Property	Union at 1 m, 20% crown dieback	Remove
7	Sweet Cherry	<i>Prunus avium</i>	31, 33	FG	FG	F	3	3.0	Subject Property	Union at 1 m, 10% crown dieback	Remove
8	Sweet Cherry	<i>Prunus avium</i>	23, 22, 24	FG	G	FG	3	2.4	ROW	Unions at 0.5 and 1 m, 10% crown dieback, pruning wound	Remove
9	Silver Maple	<i>Acer saccharinum</i>	86	F	FG	G	8	5.4	ROW	Lean east, stem wounds at flare - likely lawn mower damage	Preserve
10	Silver Maple	<i>Acer saccharinum</i>	~55	FG	F	G	6	3.6	ROW	Union at 2 m, top cut - hydro	Preserve
11	Sweet Cherry	<i>Prunus avium</i>	~17, 17, 15, 18	FG	G	G	4	2.4	Neighbouring	Unions at 0.4 and 0.8 m	Preserve
12	Sweet Cherry	<i>Prunus avium</i>	~35, 25, 20	FG	G	G	4	3.0	Neighbouring	Union at 0.6 m	Preserve
13	Sweet Cherry	<i>Prunus avium</i>	~31, 25, 25	FG	G	G	4	3.0	Neighbouring	Union at 0.5 m, stems top cut at 1.7 m	Preserve
14	Sweet Cherry	<i>Prunus avium</i>	~14, 11	P	F	FG	3	2.4	Neighbouring	Stem wound with heart rot	Remove
15	Sweet Cherry	<i>Prunus avium</i>	23, 23	FG	F	F	3	2.4	Subject Property	Union at 0.7 m, 20% crown dieback	Remove
16	Sweet Cherry	<i>Prunus avium</i>	28	G	F	F	3	2.4	Subject Property	Union at 1.6 m, 20% crown dieback	Remove
17	Sweet Cherry	<i>Prunus avium</i>	25, 19	P	P	P	3	2.4	Subject Property		Remove
18	Sweet Cherry	<i>Prunus avium</i>	31, 24, 23	F	F	F	3	2.4	Subject Property		Remove
19	Sweet Cherry	<i>Prunus avium</i>	27, 26, 25	F	FG	FG	3	2.4	Subject Property		Remove
20	Sweet Cherry	<i>Prunus avium</i>	39	FG	G	G	4	3.0	Subject Property	Union at 1.6 m	Remove
21	Sweet Cherry	<i>Prunus avium</i>	31	F	FG	FG	3	2.4	Subject Property	Stem wound with heart rot and frass	Remove
22	Sweet Cherry	<i>Prunus avium</i>	25, 19, 19	F	FG	FG	5	2.4	Subject Property	Union at 0.5 m, 10% crown dieback	Remove
23	Sweet Cherry	<i>Prunus avium</i>	23, 21	F	PF	PF	5	2.4	Subject Property	Union at 0.5 m with pruning wound and heart rot, broken branches, 30% crown dieback	Remove
24	Sweet Cherry	<i>Prunus avium</i>	32, 28, 31	P	F	FG	5	3.0	Subject Property	Union at 0.5 m with cavity and heart rot, pruning wounds	Remove
25	Sweet Cherry	<i>Prunus avium</i>	42	F	PF	PF	3	3.0	Subject Property	Lean south, cavity with heart rot, 30% crown dieback	Remove
26	Sweet Cherry	<i>Prunus avium</i>	36, 28, 28	F	FG	FG	4	3.0	Subject Property	Union at 0.5 m, broken branches	Remove

Tree #	Common Name	Scientific Name	DBH	TI	CS	CV	DL	mTPZ	Location	Comments	Action
27	Sweet Cherry	<i>Prunus avium</i>	31, 34	F	FG	FG	4	3.0	Subject Property	Union at 0.6 m, 10% crown dieback	Remove
28	Sweet Cherry	<i>Prunus avium</i>	28, 20, 16	F	FG	G	4	2.4	Subject Property	Union at 1 m, stem wound	Remove
29	Sweet Cherry	<i>Prunus avium</i>	23, 21, 25	F	FG	FG	4	2.4	Subject Property	Union at 1 m, stem wound, 10% crown dieback	Remove
30	Sweet Cherry	<i>Prunus avium</i>	21, 23, 30	F	FG	FG	4	2.4	Subject Property	Unions at 0.7 and 1 m, 10% crown dieback	Remove
31	Sweet Cherry	<i>Prunus avium</i>	22, 21	F	F	F	4	2.4	Subject Property	Union at 1 m, pruning wounds, 20% crown dieback	Remove
32	Sweet Cherry	<i>Prunus avium</i>	25, 28	FG	FG	FG	4	3.0	Subject Property	Union at 0.5 m, 10% crown dieback, pruning wounds	Remove
33	Sweet Cherry	<i>Prunus avium</i>	~31	PF	PF	F	4	2.4	Subject Property	Main stem failed and lying in ground	Remove
34	Sweet Cherry	<i>Prunus avium</i>	25, 38, 28	PF	F	FG	4	2.4	Subject Property	Union at 0.3 m with cavity and heart rot	Remove
35	Sweet Cherry	<i>Prunus avium</i>	32, 18, 16	F	FG	FG	3	3.0	Subject Property	Union at 0.5 m, stem wounds, pruning wounds	Remove
36	Sweet Cherry	<i>Prunus avium</i>	29, 23, 24	FG	F	F	4	2.4	Subject Property	Union at 1 m, 20% crown dieback	Remove
37	Sweet Cherry	<i>Prunus avium</i>	28, 21, 17	PF	F	F	5	2.4	Subject Property	Union at 1 m with cavity and heart rot, 20% crown dieback	Remove
38	Sweet Cherry	<i>Prunus avium</i>	42, 30, 27	F	FG	FG	4	3.6	Subject Property	Unions at 0.5 and 1.2 m, stem wounds	Remove
39	Sweet Cherry	<i>Prunus avium</i>	29, 25	P	P	P	3	2.4	Subject Property	Union at ground with cavity and heart rot, 50% crown dieback	Remove
40	Sweet Cherry	<i>Prunus avium</i>	22, 14	F	P	P	3	2.4	Subject Property	Union at 0.7 m, 40% crown dieback	Remove
41	Sweet Cherry	<i>Prunus avium</i>	30	P	F	FG	3	2.4	Subject Property	Stem wound with heart rot	Remove
42	Sweet Cherry	<i>Prunus avium</i>	16, 20, 22	PF	F	FG	4	2.4	Subject Property	Union at 1.4 m with stem wound and heart rot and pruning wounds	Remove
43	Sweet Cherry	<i>Prunus avium</i>	32, 23, 28	F	F	F	5	3.0	Subject Property	Union at 0.5 m, broken branches, 20% crown dieback	Remove
44	Sweet Cherry	<i>Prunus avium</i>	30	P	PF	F	4	2.4	Subject Property	Union at ground with stump and cavity with heart rot	Remove
45	Sweet Cherry	<i>Prunus avium</i>	21, 18, 19	F	FG	FG	4	2.4	Subject Property	Union at 0.8 m, 10% crown dieback	Remove
46	Sweet Cherry	<i>Prunus avium</i>	30, 24	F	PF	PF	4	3.0	Subject Property	Union at 1 m, stem wound at flare with heart rot, 30% crown dieback	Remove
47	Sweet Cherry	<i>Prunus avium</i>	20, 16, 23	F	FG	G	4	2.4	Subject Property	Union at 1 m	Remove
48	Sweet Cherry	<i>Prunus avium</i>	30, 28, 28	F	FG	FG	4	3.0	Subject Property	Union at 1 m with pruning wounds, 10% crown dieback	Remove
49	Sweet Cherry	<i>Prunus avium</i>	31, 33	PF	F	F	4	3.0	Subject Property	Union at ground with cavity and heart rot, 30% crown dieback	Remove
50	Sweet Cherry	<i>Prunus avium</i>	26, 24,	FG	FG	FG	4	2.4	Subject Property	Union at 0.9 m	Remove
51	Sweet Cherry	<i>Prunus avium</i>	30, 20	F	P	P	3	3.0	Subject Property	Unions at 0.8 and 1.3 m, 40% crown dieback	Remove
52	Sweet Cherry	<i>Prunus avium</i>	17, 20, 22	PF	PF	P	3	2.4	Subject Property	Union at 0.8 m with cavity and heart rot, 30% crown dieback	Remove
53	Sweet Cherry	<i>Prunus avium</i>	31, 23, 27	F	FG	G	4	3.0	Subject Property	Unions at 0.7 and 1.2 m, pruning wounds	Remove

Tree #	Common Name	Scientific Name	DBH	TI	CS	CV	DL	mTPZ	Location	Comments	Action
54	Sweet Cherry	<i>Prunus avium</i>	21, 24, 15, 21, 22, 32	F	F	FG	4	3.0	Subject Property	Union at ground with crack, 10% crown dieback	Remove
55	Sweet Cherry	<i>Prunus avium</i>	22, 21	FG	F	F	3	2.4	Subject Property	0.6 m, 20% crown dieback	Remove
56	Blue Spruce	<i>Picea pungens</i>	~14	G	G	G	2	2.4	Neighbouring		Preserve
57	Blue Spruce	<i>Picea pungens</i>	~20	G	G	G	3	2.4	Neighbouring		Preserve
58	Sweet Cherry	<i>Prunus avium</i>	29, 24, 26, 27	F	P	P	4	3.0	Subject Property		Remove
59	Norway Maple	<i>Acer platanoides</i>	~18	G	G	G	3	2.4	Neighbouring	Weed species	Preserve
60	Norway Maple	<i>Acer platanoides</i>	~13	G	G	G	2	2.4	Neighbouring	Weed species	Preserve
61	Norway Spruce	<i>Picea abies</i>	28	G	G	G	3.5	2.4	Subject Property		Remove
62	Norway Spruce	<i>Picea abies</i>	23	G	G	G	3.5	2.4	Subject Property		Remove
63	Norway Spruce	<i>Picea abies</i>	31	G	G	G	3.5	2.4	Subject Property		Remove
64	Norway Spruce	<i>Picea abies</i>	34	G	G	G	4	2.4	Subject Property		Remove
65	Norway Spruce	<i>Picea abies</i>	32	G	G	G	3.5	3.0	Subject Property		Remove
66	Norway Spruce	<i>Picea abies</i>	26	G	G	G	3.5	2.4	Subject Property		Remove
67	Norway Spruce	<i>Picea abies</i>	19	G	G	G	3.5	2.4	Subject Property		Remove
68	Norway Spruce	<i>Picea abies</i>	34	G	G	G	3.5	2.4	Subject Property		Remove
69	Tulip Tree	<i>Liriodendron tulipifera</i>	20	G	G	G	3	2.4	Subject Property		Remove
70	Norway Spruce	<i>Picea abies</i>	23	G	G	G	3	2.4	Subject Property		Remove
71	Norway Spruce	<i>Picea abies</i>	25	G	G	G	3	2.4	Subject Property		Remove
72	Red Oak	<i>Quercus rubra</i>	~20	G	G	G	3	2.4	Neighbouring		Preserve
73	Norway Spruce	<i>Picea abies</i>	~18	G	G	G	3	2.4	Subject Property		Remove
74	Norway Spruce	<i>Picea abies</i>	20	G	G	G	3	2.4	Subject Property		Remove
75	Norway Spruce	<i>Picea abies</i>	30	G	G	G	3.5	2.4	Subject Property		Remove
76	Red Oak	<i>Quercus rubra</i>	~20	G	G	G	3	2.4	Neighbouring		Preserve
77	Blue Spruce	<i>Picea pungens</i>	~25	G	G	G	3	2.4	Neighbouring		Preserve

Legend		
DBH	Diameter at Breast Height	(cm)
TI	Trunk Integrity	(G, F, P)
CS	Crown Structure	(G, F, P)
CV	Crown Vigor	(G, F, P)
DL	Dripline	(m)
mTPZ	Minimum Tree Preservation Zone	(m)
G	Good	
F	Fair	
P	Poor	
~	Estimate	