



# JACKSON ARBORICULTURE INC.

*CONSULTING AND GIS ANALYSIS*  
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## Tree Inventory and Preservation Plan Report

Subject Property:

**Shayne Ave. Extension – Evelyn Ave. to Orchard Ave.**  
Fort Erie, ON

Prepared For:

**Bridge & Quarry Ltd.**  
18 Cabot St.  
Welland, ON L3C 5W4

Prepared By:

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

5 July 2022

Jackson Arboriculture Inc. Project No. P295

## 1.0 Introduction

Jackson Arboriculture Inc. was retained by Bridge and Quarry Ltd. to complete a Tree Inventory and Preservation Plan report for a property situated on Shayne Avenue between Evelyn Avenue and Orchard Avenue, in the Town of Fort Erie, Ontario, hereby referred to as the subject property. It is understood that a development application will be filed with the Town for the extension of Shayne Avenue including home construction on the lots owned by the applicant.

## 2.0 Methodology

At the onset of the project the arborological 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 24<sup>th</sup> of March 2022 to complete the tree inventory. All trees 10 cm in diameter and larger situated on subject property, on neighbouring property within 6 m and within the road allowances were included in the tree 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 stem to the tips of the live branches.
- **Location:** The property where the tree is situated, based on the topographic survey.
- **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 1-91 and were located using the topographic survey provided and a tablet computer with a GPS chip.

## 2.2 Impact Assessment

A tree preservation analysis was completed on each tree included in the 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 and branches conflict with machinery during pre-grading and construction.

During the tree preservation analysis the distance of dripline was utilized to assess the impacts to the trees included in the tree inventory. Where appreciable encroachment is required within the dripline tree removal may be required.

## 3.0 Existing Conditions

The subject property is currently occupied by regenerating cultural meadow with scattered tree resources. The property is bound by Orchard Avenue and residential development to the north, residential development to the east and west, and Evelyn Avenue to the south.

## 4.0 Tree Inventory Results

The results of the tree inventory indicate that a total of 91 trees reside on subject property, on neighbouring property within 6 m and within the road allowances. The trees included in the inventory appear to be comprised of naturally occurring trees and some landscape plantings.

The trees included in the inventory are comprised of the following species:

- Black Walnut (*Juglans nigra*),
- Apple species (*Malus sp.*),
- Willow species (*Salix sp.*),
- Eastern Cottonwood (*Populus deltoides*),
- Silver Maple (*Acer saccharinum*),
- Pussy Willow (*Salix discolor*),
- White Elm (*Ulmus americana*),
- Green Ash (*Fraxinus pennsylvanica*),
- Sweet Cherry (*Prunus avium*),
- Norway Maple (*Acer platanoides*),
- White Spruce (*Picea glauca*),
- Scots Pine (*Pinus sylvestris*),
- Norway Spruce (*Picea abies*),
- Red Maple (*Acer rubrum*),
- White Birch (*Betula papyrifera*),
- Shagbark Hickory (*Carya ovata*),
- Sugar Maple (*Acer saccharum*),
- Eastern White Cedar (*Thuja occidentalis*) and
- Pear species (*Pyrus sp.*).

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 tree locations.

## **5.0 Proposed Development**

The proposed development is comprised of the Shayne Avenue extension between Evelyn Avenue to Orchard Avenue. The applicant owns 22 lots that will be serviced by the road extension and the construction of single family dwellings on the applicants lots is also included in the proposed development.

## **6.0 Discussion**

The following sections discuss the tree removal requirements, tree preservation opportunities and tree preservation recommendations.

### **6.1 Tree Removal**

The removal of Trees 1-18, 20-27, 31-33, 35-45, 47, 48, 51-61, 72, 73 and 78-90 will be required to accommodate the proposed development.

Trees 23, 59, 61 and 72 appear to reside partially or fully on neighbouring property. Permission from the respective property owners will be required prior to the removal of trees residing partially or fully on neighbouring property.

Tree 59 is exhibiting root rot which appears to have spread into the trunk of the tree. Tree 59 must be removed to mitigate the elevated hazard potential associated with the tree.

### **6.2 Tree Preservation**

The preservation of Trees 19, 28-30, 34, 46, 49, 50, 62-71, 74-77 and 91 will be possible with the use of appropriate tree protection measures. Tree protection fence must be installed prior to the commencement of pre-grading to ensure that the trees identified for preservation are not impacted by the proposed development.

Where swales/ditches are proposed within tree preservation zones of Trees 28-30, 34, 70 and 74-77 they must be constructed using an air spade, where excavation is required. Any other grading required within a tree preservation zone must be completed by hand to ensure that tree roots are not damaged by the swale/ditch construction.

Encroachment within the driplines of Trees 28, 34, 46, 64, 69, 71 and 91 will be required to accommodate the proposed development. If any roots are exposed during construction they must be pruned by a Certified Arborist in accordance with good arboricultural practice.

Tree protection fence must be installed at the dripline of trees identified for preservation 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 fencing 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 at the locations outlined on Sheet 1 prior to the commencement of pre-grading.
- 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 unless noted otherwise in this report and on Sheet 1.
- 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 Bridge and Quarry Ltd. to complete a Tree Inventory and Preservation Plan report for a property situated on Shayne Avenue between Evelyn Avenue and Orchard Avenue, in the Town of Fort Erie, 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 91 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 68 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

## **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 as the time of the inspection.

**Table 1. Tree Inventory**

Location: Shayne Ave., Ft Erie

Date: 24 March 2022

Surveyors: JJJ

Tree #	Common Name	Scientific Name	DBH	TI	CS	CV	DL	Location	Comments	Recom.
1	Black Walnut	<i>Juglans nigra</i>	30, 32	FG	G	G	6	Subject Property	Union at ground	Remove
2	Apple species	<i>Malus sp.</i>	12	F	FG	G	3	Subject Property	Bowed south	Remove
3	Willow species	<i>Salix sp.</i>	53	G	G	G	5	Subject Property		Remove
4	Eastern Cottonwood	<i>Populus deltoides</i>	39, 65, 63	F	FG	G	10	Subject Property	Union at ground, light cavity at flare with heart rot	Remove
5	Black Walnut	<i>Juglans nigra</i>	11	FG	G	G	2	Subject Property	Light crook	Remove
6	Silver Maple	<i>Acer saccharinum</i>	54	G	G	G	6	Subject Property		Remove
7	Silver Maple	<i>Acer saccharinum</i>	21, 36, 11, 11	F	FG	G	7	Subject Property	Union at 0.4 m, seam	Remove
8	Silver Maple	<i>Acer saccharinum</i>	31, 20, 11, 10	F	FG	G	6	Subject Property	Union at 0.3 m	Remove
9	Silver Maple	<i>Acer saccharinum</i>	21, 37, 31, 13	F	FG	G	6	Subject Property	Unions at g and 0.5 m	Remove
10	Black Walnut	<i>Juglans nigra</i>	12	G	G	G	4	Subject Property	Understorey	Remove
11	Pussy Willow	<i>Salix discolor</i>	15, 18, 18, 15	F	FG	G	6	Subject Property	Unions at g and 0.8 m	Remove
12	Silver Maple	<i>Acer saccharinum</i>	70	FG	G	G	5	Subject Property	Union at 1.6 m	Remove
13	White Elm	<i>Ulmus americana</i>	18	G	G	G	3	Subject Property		Remove
14	White Elm	<i>Ulmus americana</i>	18	G	G	G	4	Subject Property		Remove
15	Silver Maple	<i>Acer saccharinum</i>	12	FG	G	G	4	Subject Property	Bowed Est	Remove
16	Silver Maple	<i>Acer saccharinum</i>	12	FG	FG	G	4	Subject Property	Bowed east	Remove
17	Green Ash	<i>Fraxinus pennsylvanica</i>	16	P	P	P	3	Subject Property	50% crown dieback, EAB infestation	Remove
18	Green Ash	<i>Fraxinus pennsylvanica</i>	19	P	P	P	3	Subject Property	90% crown dieback, epicormic branching, EAB infestation	Remove
19	Black Walnut	<i>Juglans nigra</i>	~32	G	G	G	4	Neighbouring		Preserve
20	Black Walnut	<i>Juglans nigra</i>	10	G	G	G	2	Subject Property		Remove
21	Green Ash	<i>Fraxinus pennsylvanica</i>	12	P	P	P	3	Subject Property	90% crown dieback, epicormic branching, EAB infestation	Remove
22	Black Walnut	<i>Juglans nigra</i>	21	FG	G	G	4	Subject Property	Union at base of crown	Remove
23	Silver Maple	<i>Acer saccharinum</i>	44, 64, 23	F	FG	G	7	Boundary	Union at ground with included bark	Remove
24	Sweet Cherry	<i>Prunus avium</i>	14	FG	FG	G	3	Subject Property	Bowed west	Remove
25	Green Ash	<i>Fraxinus pennsylvanica</i>	15	P	P	P	3	Subject Property	80% crown dieback, EAB infestation	Remove
26	Black Walnut	<i>Juglans nigra</i>	19	FG	G	G	4	Subject Property	Union at base of crown	Remove
27	Green Ash	<i>Fraxinus pennsylvanica</i>	19	P	P	P	3	Subject Property	Poor form, 60% crown dieback, EAB infestation	Remove
28	Silver Maple	<i>Acer saccharinum</i>	~70	G	G	G	8	Neighbouring		Preserve

Tree #	Common Name	Scientific Name	DBH	TI	CS	CV	DL	Location	Comments	Recom.
29	Silver Maple	<i>Acer saccharinum</i>	~55, 45, 45	FG	FG	G	7	Neighbouring	Union at 0.5 m	Preserve
30	Norway Maple	<i>Acer platanoides</i>	~20	G	G	G	3	Neighbouring		Preserve
31	Black Walnut	<i>Juglans nigra</i>	20	FG	G	G	4	Subject Property	Crook	Remove
32	Silver Maple	<i>Acer saccharinum</i>	14, 11, 28, 20	F	FG	G	6	Subject Property	Unions at ground and 1.3 m	Remove
33	White Elm	<i>Ulmus americana</i>	14	G	G	G	3	Subject Property		Remove
34	Silver Maple	<i>Acer saccharinum</i>	~81	FG	G	G	9	Neighbouring	Union at 2 m	Preserve
35	White Spruce	<i>Picea glauca</i>	17	G	F	F	3	Subject Property	Small live crown ratio, 20% crown dieback	Remove
36	Scots Pine	<i>Pinus sylvestris</i>	14	FG	FG	G	3	Subject Property	Bowed south	Remove
37	White Spruce	<i>Picea glauca</i>	23	F	G	G	4	Subject Property	Crook	Remove
38	White Spruce	<i>Picea glauca</i>	15	FG	FG	FG	0	Subject Property	Union in crown	Remove
39	White Spruce	<i>Picea glauca</i>	21	G	G	G	4	Subject Property		Remove
40	White Spruce	<i>Picea glauca</i>	10	G	F	F	3	Subject Property	Understorey	Remove
41	White Spruce	<i>Picea glauca</i>	21	G	G	G	4	Subject Property		Remove
42	White Spruce	<i>Picea glauca</i>	32	FG	G	G	5	Subject Property	Lean east	Remove
43	Scots Pine	<i>Pinus sylvestris</i>	36	G	G	G	4	Subject Property		Remove
44	White Spruce	<i>Picea glauca</i>	16	G	G	G	3	Subject Property		Remove
45	White Spruce	<i>Picea glauca</i>	18	G	F	F	3	Subject Property	20% crown dieback	Remove
46	Norway Spruce	<i>Picea abies</i>	~15	G	G	G	3	Neighbouring		Preserve
47	Scots Pine	<i>Pinus sylvestris</i>	22	FG	G	G	4	Subject Property	Crook	Remove
48	Scots Pine	<i>Pinus sylvestris</i>	21	G	F	G	3	Subject Property	Poor form	Remove
49	Norway Spruce	<i>Picea abies</i>	~15	G	G	G	3	Neighbouring		Preserve
50	Norway Spruce	<i>Picea abies</i>	~45	G	G	G	5	Neighbouring		Preserve
51	Silver Maple	<i>Acer saccharinum</i>	78	G	G	G	11	Subject Property		Remove
52	Silver Maple	<i>Acer saccharinum</i>	61	FG	G	G	8	Subject Property	Union at 2.2 m	Remove
53	Silver Maple	<i>Acer saccharinum</i>	75	G	G	G	9	Subject Property		Remove
54	Silver Maple	<i>Acer saccharinum</i>	48	G	F	G	7	Subject Property	Pruning wounds	Remove
55	Silver Maple	<i>Acer saccharinum</i>	48	FG	G	G	6	Subject Property	Union at 3 m, light cavity in crown	Remove
56	Pussy Willow	<i>Salix discolor</i>	~5-10, avg:7	F	FG	G	4	Subject Property	Union at ground	Remove
57	Silver Maple	<i>Acer saccharinum</i>	12, 17	F	G	G	4	Subject Property	Union at 0.2 m	Remove
58	Silver Maple	<i>Acer saccharinum</i>	25	FG	FG	FG	4	Subject Property	Union at 2.2 m, 10% crown dieback	Remove
59	Silver Maple	<i>Acer saccharinum</i>	44, 58	P	F	PF	11	Neighbouring	Union at 0.4 m, heavy fruiting bodies -> root rot, stem wound with heart rot, 30% crown dieback, HAZARD	Remove



Tree #	Common Name	Scientific Name	DBH	TI	CS	CV	DL	Location	Comments	Recom.
60	Silver Maple	<i>Acer saccharinum</i>	22, 22, 20, 18	F	F	FG	6	Subject Property	Union at 0.3 m, pruning wounds, poor form	Remove
61	Silver Maple	<i>Acer saccharinum</i>	65	FG	G	G	5	Neighbouring	Union at 1.8 m	Remove
62	Silver Maple	<i>Acer saccharinum</i>	44	G	G	G	6	Neighbouring		Preserve
63	Red Maple	<i>Acer rubrum</i>	~42	G	FG	G	6	Neighbouring	Vertical scaffold limb	Preserve
64	Silver Maple	<i>Acer saccharinum</i>	~95	FG	G	G	10	Neighbouring	Union at 2 m	Preserve
65	Silver Maple	<i>Acer saccharinum</i>	54	G	G	G	7	Neighbouring	Union at 2 m	Preserve
66	Apple species	<i>Malus sp.</i>	29	G	FG	FG	4	Neighbouring	Epicormic branching	Preserve
67	Silver Maple	<i>Acer saccharinum</i>	74	FG	G	G	6	Neighbouring		Preserve
68	White Birch	<i>Betula papyrifera</i>	~12, 12, 15	FG	F	F	3	Neighbouring	Union at 1 m, 20% crown dieback	Preserve
69	Shagbark Hickory	<i>Carya ovata</i>	39	G	G	G	8	Neighbouring		Preserve
70	Shagbark Hickory	<i>Carya ovata</i>	35	G	G	G	5	Boundary		Preserve
71	Black Walnut	<i>Juglans nigra</i>	39	G	G	G	6	Neighbouring		Preserve
72	Silver Maple	<i>Acer saccharinum</i>	29	G	G	G	4	Neighbouring		Remove
73	Silver Maple	<i>Acer saccharinum</i>	46	P	F	PF	3	Neighbouring	Cavity with heart rot, 20% crown dieback	Remove
74	Sugar Maple	<i>Acer saccharum</i>	~65	FG	FG	FG	5	Neighbouring	Union at 1.8 m, broken branches	Preserve
75	Sugar Maple	<i>Acer saccharum</i>	~51	P	F	F	4	Neighbouring	Heavy stem wound, broken branches, 20% crown dieback, girdling root	Preserve
76	Sugar Maple	<i>Acer saccharum</i>	~45	FG	FG	G	5	Neighbouring	Union at 1.8 m	Preserve
77	Sugar Maple	<i>Acer saccharum</i>	~40	F	F	F	3	Neighbouring	Stem wound, main stem missing in crown	Preserve
78	Norway Maple	<i>Acer platanoides</i>	41	FG	G	G	8	Subject Property	Lean west	Remove
79	Silver Maple	<i>Acer saccharinum</i>	44, 21	F	G	G	6	Subject Property	Unions at 0.5 and 1.2 m	Remove
80	Eastern White Cedar	<i>Thuja occidentalis</i>	8, 9, 17	FG	G	G	2	Subject Property	Union at ground, understorey	Remove
81	Silver Maple	<i>Acer saccharinum</i>	14, 21	F	FG	FG	4	Subject Property	Union at 0.3 m, bowed	Remove
82	Silver Maple	<i>Acer saccharinum</i>	38, 20, 23, 49	F	FG	G	6	Subject Property	Unions at g and 1.7 m	Remove
83	Eastern White Cedar	<i>Thuja occidentalis</i>	15, 30, 10	FG	G	G	3	Subject Property	Union at ground	Remove
84	Norway Maple	<i>Acer platanoides</i>	14	FG	FG	G	4	Subject Property	Union at 1 m	Remove
85	Pear species	<i>Pyrus sp.</i>	~20, 15, 13	F	F	FG	3	Subject Property	Union at ground	Remove
86	Black Walnut	<i>Juglans nigra</i>	12	G	G	G	3	Subject Property		Remove
87	Black Walnut	<i>Juglans nigra</i>	12	G	G	G	3	Subject Property		Remove
88	Black Walnut	<i>Juglans nigra</i>	29	G	G	G	4	Subject Property		Remove
89	Black Walnut	<i>Juglans nigra</i>	19	G	G	G	4	Subject Property		Remove

Tree #	Common Name	Scientific Name	DBH	TI	CS	CV	DL	Location	Comments	Recom.
90	Black Walnut	<i>Juglans nigra</i>	14, 15	FG	G	G	3	Subject Property	Union at ground	Remove
91	White Spruce	<i>Picea glauca</i>	38	G	FG	F	4	ROW	15% crown dieback	Preserve

**Table 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)
Recom.	Recommendation (preserve/remove)
G	Good
F	Fair
P	Poor
EAB	Emerald Ash Borer
~	Estimate