

TREE INVENTORY, ASSESSMENT, AND PRESERVATION PLAN REPORT: 66-90 RIVER STREET EAST, TOWN OF WASAGA BEACH, ONTARIO

For Submission to:
Bremont Homes
4908 Highway 7
Woodbridge, Ontario
L4L 1S8



Prepared by: Stefan Bolliger Associates Inc.
Stefan Bolliger, BLA, MLA, OALA; Certified Landscape Architect

Date: June 26, 2017

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1 Introduction

In preparation for anticipated site development, a qualified landscape architect from Stefan Bolliger Associates Inc. and a landscape designer have conducted a site investigation to determine quality and size of the trees on site.

This report is to be read in conjunction with the associated drawings, dated June 22, 2017. These drawings include:

- L1 Tree Inventory and Assessment
- L2 Tree Preservation Recommendation Plan

This report addresses the trees with a diameter at breast height (DBH) of 10 cm or greater that may be affected by the proposed works at 66-90 River Street East, Town of Wasaga Beach, Ontario. It provides an inventory and recommendations for the preservation and/or removal of these trees.

The intent of the tree preservation recommendation plan is to retain as many trees as is reasonable and minimize the potential impact of construction. This is done by indicating the location of tree protection fencing, which indicates the boundaries of Tree Protection Zones (TPZs).

Further tree preservation details will be included in the landscape plan submission for site plan approval and they are based on the observations and recommendations consistent with this report. Stefan Bolliger Associates Inc. has been retained by Bremont Homes to complete landscape drawings for the site plan submission.

2 Background

Our firm was retained by Bremont Homes to complete the Tree Inventory, Assessment, and Preservation Plan for site works to be undertaken at above noted site. These items are required by the Town of Wasaga Beach for Site Plan Approval in order to minimize the impact of proposed construction, and, where possible, further enhance the landscape. This report shall aid in identifying specific trees to be retained or removed, indicate maintenance that may be required during and after construction, and to create a safer environment for the contractor and others on-site.

The subject site is located at 66-90 River Street East, in the Town of Wasaga Beach, Ontario. The proposed works include a 4-Storey Apartment Building, associated parking spaces, and amenity spaces.

3 Methods of Tree Inventory and Assessment

This report is limited to assessing and documenting the health and structural condition of the trees with a DBH of 10cm or greater during our site visit on June 20, 2017. Evaluation is based

on a visual inspection of the trees from ground level. Excavations were not performed on any trees. Spreads were measured using scaled, leaf-on aerial photography.

The observations documented within this report are true for only the period that the Landscape Architect was on site, and therefore do not include any other activity that may have occurred on site or to the trees before or after that period.

It must be understood that trees are not immune to changes in the site conditions or seasonal variations in weather conditions, therefore their health constantly changes over time. The attached drawings are intended only as visual aids, and shall not be construed as engineering reports or surveys.

4 Tree Inventory and Assessment

Appendices A and B contain a tree inventory and preservation plan tables for the subject lands. All trees were assigned numbers; Tree ID numbers found in tables correspond to the numbers on the corresponding Tree Inventory and Assessment Plans. Diameter at breast height (DBH), Species, maturity, form, condition, and preservation recommendation were noted.

Thirty-four trees had been identified on site during a previously completed survey. This information was provided to us by the developer and was used as the base for our tree inventory and assessment.

During our inventory, it was determined that there were 33 trees on site. The missing tree has been noted in the Tree Inventory and Assessment Table.

Of the trees:

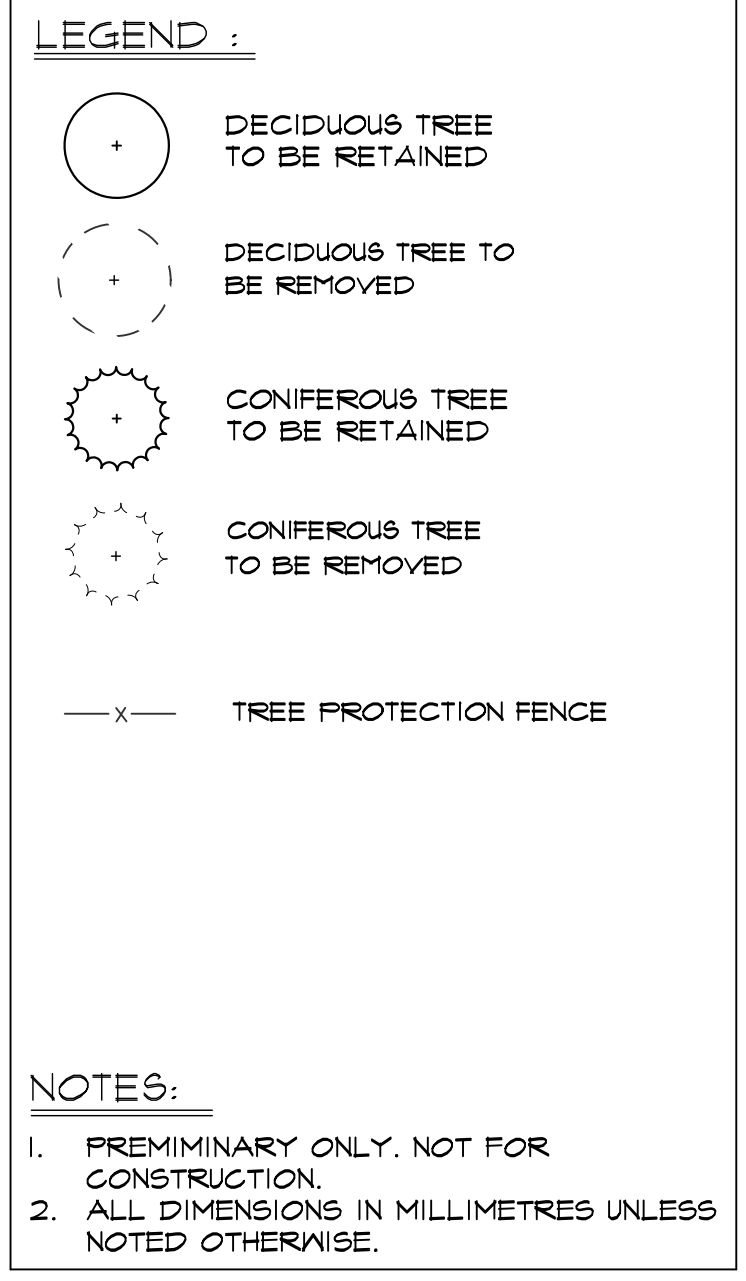
- Eleven (11) are not on the development site. Eight (8) of these are recommended to be preserved (Trees 14, 15, 16, 17, 18, 19, 20 and 33). The other three (3) trees are located where the main vehicular entrance to the site is proposed and they must be removed (29, 30 and 31).
- Six (6) trees are near the property line to the east side (Trees 1, 2, 3, 4, 5 and 7). Two (2) of these trees are slated to be retained and will need fencing for protection (Trees 1 and 2). One tree can be removed due to its unkempt growth and low preservation value (Tree 7). The other three (3) trees (Trees 3, 4, and 5) are located where a proposed swale will be built and can be removed. They are not a species of high value.
- The remaining sixteen (16) trees are on the subject site (Trees 6, 8-13, 21-28 and 34). Of these, fourteen (14) are planned for removal and two (2) will be preserved (Trees 21 and 34).

An additional survey will need to be completed to determine the ground elevation at the bottom of the trees that will be retained as well as their precise location.



No.	Veg Unit	Botanical Name	Common Name	End'd or Rare?	DBH (cm)	Form/ Spread	Maturity	Health/ Quality	Significance/ Additional Comments
18	Group	Quercus rubra	Red Oak	No	30	Fair	Young	Good	
19	Group	Quercus rubra	Red Oak	No	30	Fair	Young	Good	
20	Group	Quercus rubra	Red Oak	No	30	Fair	Young	Good	
21	Group	Quercus rubra	Red Oak	No	60	Good	Mature	Good	
22	Group	Pinus strobus	White Pine	No	40	Fair	Mature	Good	
23	Group	Pinus strobus	White Pine	No	30	Fair	Mature	Good	
24	Individual	Pinus resinosa	Red Pine	No	35	Fair	Mature	Good	
25	Individual	Acer rubrum	Sugar Maple	No	40	Fair	Mature	Fair	
26	Individual	Pinus resinosa	Red Pine	No	30	Fair	Mature	Good	
27	Individual	Pinus strobus	White Pine	No	35	Good	Mature	Fair	
28	Individual	Quercus rubra	Red Oak	No	70	Fair	Mature	Fair	Needs maintenance if kept
29	Individual	Quercus rubra	Red Oak	No	60	Fair	Mature	Good	
30	Individual	Quercus rubra	Red Oak	No	150- multi- stem	Good	Mature	Good	Compromised because it's multi-stem, has been graffitied with spray-paint
31	Individual	Quercus rubra	Red Oak	No	45	Fair	Mature	Poor	
32	Individual	Not on the site							
33	Group	Quercus rubra	Red Oak	No	30	Fair	Young	Good	
34	Group	Quercus rubra	Red Oak	No	30	Good	Young	Good	

PROJECT NO. 2017-0015	SHEET: L1
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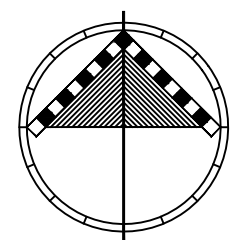
Nº.		REVISION DESCRIPTION	BY
DATE PRINTED			

This drawing has been created electronically. Handwritten or manual revisions to the drawing are only valid when accompanied by the Landscape Architect's initials.

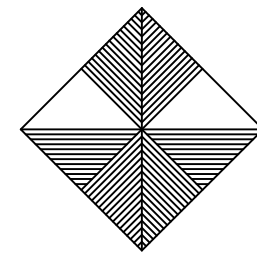
Contractor must verify all dimensions on the project and report any discrepancy to the Landscape Architect before proceeding with the work.

All drawings and specifications are the property of the Landscape Architect.
All drawings to be used for construction only when signed by the Landscape Architect.

signed _____ date _____



ASSOCIATION OF LANDSCAPE ARCHITECTS
STEFAN BOLLIGER
MEMBER



STEFAN BOLLIGER ASSOCIATES
Landscape Architects

58 Morrow Road
Barrie, Ontario L4N 3V8
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stefanbolliger@stefanbolligerassociates.com

Client:

BREMONT HOMES

LOCATION:

66-90 RIVER ROAD EAST ROAD
WASAGA BEACH, ON

Drawings:

TREE PRESERVATION PLAN

SCALE: 1:200	DATE: JUNE 22, 2017
DRAWN BY: SM/KS	CHECKED BY: SB
PROJECT NO. 2017-0015	SHEET: L2

No.	Veg Unit	Botanical Name	Common Name	Maturity	Health/Quality	Pres. Value	Rec. Level	Pres. Measures	Significance/Additional Comments
1	Boundary	Quercus rubra	Red Oak	Mature	Good	High	1	Retain, install preservation fencing	
2	Boundary	Quercus rubra	Red Oak	Mature	Good	High	1	Retain, install preservation fencing	
3	Boundary	Robinia Pseudoacacia	Black Locust	Young	Good	High	1	Remove	Conflicts with site plan
4	Boundary	Robinia Pseudoacacia	Black Locust	Young	Good	High	1	Remove	Conflicts with site plan
5	Boundary	Robinia Pseudoacacia	Black Locust	Young	Good	High	1	Remove	Conflicts with site plan
6	Individual	Ulmus parvifolia	Chinese Elm	Young	Good	Low	-	Remove	Low preservation value
7	Boundary	Prunus serotina	Black Cherry	Young	Good	Low	-	Remove	Low preservation value
8	Individual	Populus deltoides	Cottonwood	Young	Fair	Low	-	Remove	Low preservation value
9	Individual	Populus deltoides	Cottonwood	Young	Good	Low	-	Remove	Low preservation value
10	Individual	Acer negundo	Manitoba Maple	Young	Good	Low	-	Remove	Low preservation value
11	Individual	Ulmus parvifolia	Chinese Elm	Young	Good	Low	-	Remove	Low preservation value
12	Individual	Acer negundo	Manitoba Maple	Young	Poor	Low	-	Remove	Low preservation value
13	Individual	Acer negundo	Manitoba Maple	Young	Good	Low	-	Remove	Low preservation value
14	Group	Picea glauca	White Spruce	Mature	Good	Low-Overcrowded	-	Retain, install preservation fencing	Off property limits
15	Group	Fraxinus americana	White Ash	Young	Good	Low-Overcrowded	-	Retain, install preservation fencing	Off property limits
16	Group	Quercus rubra	Red Oak	Young	Good	High	1	Retain, install preservation fencing	Off property limits
17	Group	Quercus rubra	Red Oak	Young	Good	High	1	Retain, install preservation fencing	Off property limits

No.	Veg Unit	Botanical Name	Common Name	Maturity	Health/ Quality	Pres. Value	Rec. Level	Pres. Measures	Significance/ Additional Comments
18	Group	Quercus rubra	Red Oak	Young	Good	High	1	Retain	Off property limits
19	Group	Quercus rubra	Red Oak	Young	Good	High	1	Retain	Off property limits
20	Group	Quercus rubra	Red Oak	Young	Good	High	1	Retain	Off property limits
21	Group	Quercus rubra	Red Oak	Mature	Good	High	1	Retain. Install preservation fencing	
22	Group	Pinus strobus	White Pine	Mature	Good	High	1	Remove	Conflicts with site plan.
23	Group	Pinus strobus	White Pine	Mature	Good	High	1	Remove	Conflicts with site plan.
24	Individual	Pinus resinosa	Red Pine	Mature	Good	Medium	3	Remove	Conflicts with site plan.
25	Individual	Acer rubrum	Sugar Maple	Mature	Fair	Low	-	Remove	Conflicts with site plan.
26	Individual	Pinus resinosa	Red Pine	Mature	Good	Medium	3	Remove	Conflicts with site plan.
27	Individual	Pinus strobus	White Pine	Mature	Fair	Medium	3	Remove	Conflicts with site plan.
28	Individual	Quercus rubra	Red Oak	Mature	Fair	Medium	3	Remove	Conflicts with site plan.
29	Individual	Quercus rubra	Red Oak	Mature	Good	High	2	Remove	Conflicts with site plan.
30	Individual	Quercus rubra	Red Oak	Mature	Good	Medium	3	Remove	Conflicts with site plan.
31	Individual	Quercus rubra	Red Oak	Mature	Poor	Low	-	Remove	Conflicts with site plan.
32	Individual	Not on the site							
33	Group	Quercus rubra	Red Oak	Young	Good	High	1	Retain	Off property limits
34	Group	Quercus rubra	Red Oak	Young	Good	High	1	Retain. Install preservation fencing	

APPENDIX A: TREE INVENTORY AND ASSESSMENT TABLE

Tree Inventory and Assessment

DATE of FIELD WORK: June 20, 2017



STEFAN BOLLIGER ASSOCIATES INC.
58 Morrow Road, Barrie, ON L4N 3V8
stefan.bolliger@stefanbolligerassociates.com
705-737-2142

No. = Tree or Vegetation Unit

Identification Number

Vegetation Unit = Tree unit category (individual tree, specimen tree, Heritage Tree, boundary tree, groups of trees, hedgerow, plantation)

Botanical Name = Include names of dominant AND Secondary Species for groups of vegetation

Common Name = Include names of dominant AND Secondary Species for groups of vegetation

Endangered or Rare = Fill out if tree species is either endangered or rare in the environment

DBH (cm) = Diameter at Breast Height; diameter of the stem of a tree measured at 1.37 m above the ground in an undisturbed state at the base of the tree

Form / Spread = Describe the form and spread of the tree canopy

Maturity = Relative age of the tree (Young, Semi-mature, Mature, Over-mature)

Health/Quality = i.e. Condition (specimen, good, fair, poor, dead, or hazardous)

Preservation Value = Potential to survive after development (high, medium, or low)

Based on: i) Existing maturity and condition, ii) Sensitivity to proposed changes in wind/sun exposure, iii) Sensitivity to proposed change in grading and soil strata, iv) Proposed density and proximity of development or lot coverage, v) Additional observations, relevant comments, photos.

Recommendation Level = Recommendation Level; recommendation for tree preservation (Level 1, Level 2, Level 3)

Level 1: Trees that must be protected due to: i) Endangered species and/or their habitat, ii) Heritage Trees, or iii) Boundary trees which the adjacent property owner does not provide written consent to remove.

Level 2: Where feasible, protect any tree or tree group assigned a “high” preservation value that would result in minor/no impact on the proposed development plan and/or grading limits. Accommodations to be considered for site development in terms of grading and/or lot fabrics. The qualified professional will Recommend modifications to proposed development plans which are sensitive to Level 2 Protection Trees.

Level 3: Protect, where feasible, any tree or group of trees assigned a “medium” preservation value that would not result in any impact to the proposed development plan and/or grading limits.

Preservation Measures = Describe any specific measures required (e.x. selective cutting, pruning, tree wells, retaining walls, irrigation and aeration pipes)

Significance = Describe any buffering and aesthetic significance

Bremont Homes: 66-90 River Road East, Town of Wasaga Beach, ON

No.	Veg Unit	Botanical Name	Common Name	End'd or Rare?	DBH (cm)	Form/ Spread	Maturity	Health/ Quality	Significance/ Additional Comments
1	Boundary	Quercus rubra	Red Oak	No	70	Good	Mature	Good	Privacy screen to adjacent property
2	Boundary	Quercus rubra	Red Oak	No	35	Good	Mature	Good	Privacy screen to adjacent property
3	Boundary	Robinia Pseudoacacia	Black Locust	No	20	Fair	Young	Good	Privacy screen to adjacent property
4	Boundary	Robinia Pseudoacacia	Black Locust	No	20	Fair	Young	Good	Privacy screen to adjacent property
5	Boundary	Robinia Pseudoacacia	Black Locust	No	20	Fair	Young	Good	Privacy screen to adjacent property
6	Individual	Ulmus parvifolia	Chinese Elm	No	25	Fair	Young	Good	
7	Boundary	Prunus serotina	Black Cherry	No	8	Fair	Young	Good	Close to neighbouring fence
8	Individual	Populus deltoids	Cottonwood	No	20	Fair	Young	Fair	
9	Individual	Populus deltoids	Cottonwood	No	15	Fair	Young	Good	
10	Individual	Acer negundo	Manitoba Maple	No	15	Fair	Young	Good	Hazard tree
11	Individual	Ulmus parvifolia	Chinese Elm	No	15	Fair	Young	Good	
12	Individual	Acer negundo	Manitoba Maple	No	15	Fair	Young	Poor	Hazard tree
13	Individual	Acer negundo	Manitoba Maple	No	10	Fair	Young	Good	Hazard tree
14	Group	Picea glauca	White Spruce	No	35	Poor	Mature	Good	
15	Group	Fraxinus americana	White Ash	No	20	Poor	Young	Good	

Bremont Homes: 66-90 River Road East, Town of Wasaga Beach, ON

No.	Veg Unit	Botanical Name	Common Name	End'd or Rare?	DBH (cm)	Form/ Spread	Maturity	Health/ Quality	Significance/ Additional Comments
16	Group	Quercus rubra	Red Oak	No	30	Fair	Young	Good	
17	Group	Quercus rubra	Red Oak	No	30	Fair	Young	Good	
18	Group	Quercus rubra	Red Oak	No	30	Fair	Young	Good	
19	Group	Quercus rubra	Red Oak	No	30	Fair	Young	Good	
20	Group	Quercus rubra	Red Oak	No	30	Fair	Young	Good	
21	Group	Quercus rubra	Red Oak	No	60	Good	Mature	Good	
22	Group	Pinus strobus	White Pine	No	40	Fair	Mature	Good	
23	Group	Pinus strobus	White Pine	No	30	Fair	Mature	Good	
24	Individual	Pinus resinosa	Red Pine	No	35	Fair	Mature	Good	
25	Individual	Acer rubrum	Sugar Maple	No	40	Fair	Mature	Fair	
26	Individual	Pinus resinosa	Red Pine	No	30	Fair	Mature	Good	
27	Individual	Pinus strobus	White Pine	No	35	Good	Mature	Fair	
28	Individual	Quercus rubra	Red Oak	No	70	Fair	Mature	Fair	Needs maintenance if kept
29	Individual	Quercus rubra	Red Oak	No	60	Fair	Mature	Good	
30	Individual	Quercus rubra	Red Oak	No	150- multi- stem	Good	Mature	Good	Compromised because it's multi- stem, has been graffitied with spray-paint
31	Individual	Quercus rubra	Red Oak	No	45	Fair	Mature	Poor	
32	Individual	Not on the site							
33	Group	Quercus rubra	Red Oak	No	30	Fair	Young	Good	
34	Group	Quercus rubra	Red Oak	No	30	Good	Young	Good	

APPENDIX B: TREE PRESERVATION RECOMMENDATION TABLE

Tree Preservation Recommendation

DATE of FIELD WORK: June 20, 2017



STEFAN BOLLIGER ASSOCIATES INC.
58 Morrow Road, Barrie, ON L4N 3V8
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705-737-2142

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Botanical Name = Include names of dominant AND Secondary Species for groups of vegetation

Common Name = Include names of dominant AND Secondary Species for groups of vegetation

Endangered or Rare = Fill out if tree species is either endangered or rare in the environment

DBH (cm) = Diameter at Breast Height; diameter of the stem of a tree measured at 1.37 m above the ground in an undisturbed state at the base of the tree

Form / Spread = Describe the form and spread of the tree
canopy

Maturity = Relative age of the tree (Young, Semi-mature, Mature, Over-mature)

Health/Quality = i.e. Condition (specimen, good, fair, poor, dead, or hazardous)

Preservation Value = Potential to survive after development (high, medium, or low)

Based on: i) Existing maturity and condition, ii) Sensitivity to proposed changes in wind/sun exposure, iii) Sensitivity to proposed change in grading and soil strata,
iv) Proposed density and proximity of development or lot coverage, v) Additional observations, relevant comments, photos.

Recommendation Level = Recommendation Level; recommendation for tree preservation (Level 1, Level 2, Level 3)

Level 1: Trees that must be protected due to: i) Endangered species and/or their habitat, ii) Heritage Trees, or
iii) Boundary trees which the adjacent property owner does not provide written consent to remove.

Level 2: Where feasible, protect any tree or tree group assigned a “high” preservation value that would result in minor/no impact on the proposed development
plan and/or grading limits. Accommodations to be considered for site development in terms of grading and/or lot fabrics. The qualified professional will
Recommend modifications to proposed development plans which are sensitive to Level 2 Protection Trees.

Level 3: Protect, where feasible, any tree or group of trees assigned a “medium” preservation value that would not result in any impact to the proposed
development plan and/or grading
limits.

Preservation Measures = Describe any specific measures required (e.x. selective cutting, pruning, tree wells, retaining walls, irrigation and aeration pipes)

Significance = Describe any buffering and aesthetic significance

Bremont Homes: 66-90 River Road East, Town of Wasaga Beach, ON

No.	Veg Unit	Botanical Name	Common Name	Maturity	Health/ Quality	Pres. Value	Rec. Level	Pres. Measures	Significance/ Additional Comments
1	Boundary	Quercus rubra	Red Oak	Mature	Good	High	1	Retain. Install prevervation fencing	
2	Boundary	Quercus rubra	Red Oak	Mature	Good	High	1	Retain. Install prevervation fencing	
3	Boundary	Robinia Pseudoacacia	Black Locust	Young	Good	Med	3	Remove	Conflicts with site plan
4	Boundary	Robinia Pseudoacacia	Black Locust	Young	Good	Med	3	Remove	Conflicts with site plan
5	Boundary	Robinia Pseudoacacia	Black Locust	Young	Good	Med	3	Remove	Conflicts with site plan
6	Individual	Ulmus parvifolia	Chinese Elm	Young	Good	Low	-	Remove	Low preservation value
7	Boundary	Prunus serotina	Black Cherry	Young	Good	Low	-	Remove	Low preservation value
8	Individual	Populus deltoids	Cottonwood	Young	Fair	Low	-	Remove	Low preservation value
9	Individual	Populus deltoids	Cottonwood	Young	Good	Low	-	Remove	Low preservation value
10	Individual	Acer negundo	Manitoba Maple	Young	Good	Low	-	Remove	Low preservation value
11	Individual	Ulmus parvifolia	Chinese Elm	Young	Good	Low	-	Remove	Low preservation value
12	Individual	Acer negundo	Manitoba Maple	Young	Poor	Low	-	Remove	Low preservation value
13	Individual	Acer negundo	Manitoba Maple	Young	Good	Low	-	Remove	Low preservation value
No.	Veg Unit	Botanical Name	Common Name	Maturity	Health/ Quality	Pres. Value	Rec. Level	Pres. Measures	Significance/ Additional Comments
14	Group	Picea glauca	White Spruce	Mature	Good	Low-Over- crowded	-	Retain. Install prevervation	Off property limits

Bremont Homes: 66-90 River Road East, Town of Wasaga Beach, ON

								fencing	
15	Group	Fraxinus americana	White Ash	Young	Good	Low-Over-crowded	-	Retain. Install prevervation fencing	Off property limits
16	Group	Quercus rubra	Red Oak	Young	Good	High	1	Retain. Install prevervation fencing	Off property limits
17	Group	Quercus rubra	Red Oak	Young	Good	High	1	Retain. Install prevervation fencing	Off property limits
18	Group	Quercus rubra	Red Oak	Young	Good	High	1	Retain	Off property limits
19	Group	Quercus rubra	Red Oak	Young	Good	High	1	Retain	Off property limits
20	Group	Quercus rubra	Red Oak	Young	Good	High	1	Retain	Off property limits
21	Group	Quercus rubra	Red Oak	Mature	Good	High	1	Retain. Install prevervation fencing	
22	Group	Pinus strobus	White Pine	Mature	Good	High	1	Remove	Conflicts with site plan.
23	Group	Pinus strobus	White Pine	Mature	Good	High	1	Remove	Conflicts with site plan.
24	Individual	Pinus resinosa	Red Pine	Mature	Good	Medium	3	Remove	Conflicts with site plan.
25	Individual	Acer rubrum	Sugar Maple	Mature	Fair	Low	-	Remove	Conflicts with site plan.
26	Individual	Pinus resinosa	Red Pine	Mature	Good	Medium	3	Remove	Conflicts with site plan.
27	Individual	Pinus strobus	White Pine	Mature	Fair	Medium	3	Remove	Conflicts with site plan.
No.	Veg Unit	Botanical Name	Common Name	Maturity	Health/Quality	Pres. Value	Rec. Level	Pres. Measures	Significance/ Additional Comments
28	Individual	Quercus rubra	Red Oak	Mature	Fair	Medium	3	Remove	Conflicts with site plan.
29	Individual	Quercus rubra	Red Oak	Mature	Good	High	2	Remove	Conflicts with site plan.

Bremont Homes: 66-90 River Road East, Town of Wasaga Beach, ON

30	Individual	Quercus rubra	Red Oak	Mature	Good	Medium	3	Remove	Conflicts with site plan.
31	Individual	Quercus rubra	Red Oak	Mature	Poor	Low	-	Remove	Conflicts with site plan.
32	Individual	Not on the site							
33	Group	Quercus rubra	Red Oak	Young	Good	High	1	Retain	Off property limits
34	Group	Quercus rubra	Red Oak	Young	Good	High	1	Retain. Install prevervation fencing	