## Tree Inventory and Preservation Plan 210 Burnhamthorpe Road East Oakville, Ontario

prepared for

## Argo Oakville Woods Corporation 4900 Palladium Way, Suite 105 Burlington, Ontario L7M 0W7

prepared by



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KUNTZ FORESTRY CONSULTING INC. Project P3211

# **Table of Contents**

1.0	INTRODUCTION	
2.0		
2.1	1 Tree Inventory and Preservation Plan	
3.0		
4.0	INDIVIDUAL TREE RESOURCES	
5.0	PROPOSED WORKS	
6.0	DISCUSSION	
	1 DEVELOPMENT IMPACTS / TREE REMOVALS	
6.2	2 Tree Preservation	
7.0	SUMMARY AND RECOMMENDATIONS	Į

#### 1.0 Introduction

Kuntz Forestry Consulting Inc. was retained by Argo Oakville Woods Corporation to complete a Tree Inventory and Preservation Plan as part of a proposed development for the subject site located at 210 Burnhamthorpe Road East, in the Town of Oakville, Ontario. The subject site is located on the east side of Burnhamthorpe Road East, south of Trafalgar Road, and north of Sixth Line, within a rural area. A woodlot, identified as part of a Natural Heritage System (NHS), exists along the southeast boundary of the subject site.

The work plan for the tree preservation study included the following:

- Prepare an inventory of tree resources measuring 10cm diameter at breast height (DBH) and greater on and within six metres of the subject site outside of the NHS feature and along the edge of the woodlot within the NHS feature (i.e. within six metres of the dripline of the woodlot), and trees of all sizes within the road right-ofway;
- Evaluate potential tree saving opportunities based on proposed development plans;
   and
- Document the findings in a Tree Inventory and Preservation Plan.

The results of the evaluation are provided below.

#### 2.0 Methodology

#### 2.1 Tree Inventory and Preservation Plan

Trees measuring 10cm DBH and greater on and within six metres of the subject site outside of the NHS feature and along the edge of the woodlot within the NHS feature (i.e. within six metres of the dripline of the woodlot), and trees of all sizes within the road right-of-way were identified in the tree inventory. Trees were located using a backpack GPS unit (Trimble R2 GNSS receiver) accurate to  $\pm 1$  metre and estimations made from known points in the field. Trees and polygons included in the inventory were identified as Trees / Polygons 352-480 and A - O. Trees that were not tagged were identified using the alphabetic sequence or were denoted with "(NT)" following their numeric identifier.

Individual tree resources were visually assessed utilizing the following parameters:

**Tree #** – Number assigned to trees that corresponds to Figure 1.

**Species** – Common and botanical names provided in the inventory table.

**DBH** – Diameter (cm) at breast height, measured at 1.4 metres above the ground.

**Condition** – Condition of tree considering trunk integrity (TI), crown structure (CS) and crown vigor (CV). Condition ratings include poor (P), fair (F), and good (G).

**Crown Dieback** – Percentage of dead branches within the crown.

**Dripline** – Crown diameter (m).

**Comments** – Any other relevant tree condition information.

Where trees were situated in groups they were inventoried as polygons. These polygons are denoted with a "P" preceding their numeric identifier. Tree polygons were inventoried using a 100% tally analysis by species, size class, and quality. Trees with a DBH of 10cm or greater were included in the stand tally analysis. Trees were assessed for condition utilizing the following parameters.

**Species:** Common and botanical names provided in the inventory table.

**Size Class (DBH):** 10cm – 14cm, 15cm – 24cm, 25cm – 34cm, 35cm – 44cm, 45cm – 54cm,

55cm - 64cm, 65cm - 74cm, 75cm - 84cm, 85cm - 94cm, and 95cm and above.

Quality Class: Acceptable Growing Stock (AGS), Unacceptable Growing Stock (UGS).

Trees classified as AGS are trees with no major defects in the bole and a relatively good crown structure and vigour. Trees classified as UGS are trees with a major defect in the bole and / or those exhibiting a relatively poor crown structure or vigour. Refer to Table 1 and Table 2 for the detailed tree inventory, Figure 1 for the location of the trees / polygons, and Appendix A for photographs of the trees / polygons.

#### 3.0 Existing Site Conditions

The subject site is currently occupied by a one-storey dwelling, a shop / office building, multiple outbuildings including two garages and a barn, and agricultural land. Tree resources exist in the form of landscape trees, orchard trees, and natural regeneration. Refer to Figure 1 for the existing site conditions.

#### 4.0 Individual Tree Resources

Field assessments for the tree inventory were conducted on 14 and 20 April 2023. The tree inventory documented 140 trees and four polygons on and within six metres of the subject site outside of the NHS feature, along the edge of the woodlot within the NHS feature (i.e. within six metres of the dripline of the woodlot), and within the road right-of-way.

Tree resources are comprised of Apple species (*Malus sp.*), Basswood (*Tilia americana*), Black Walnut (*Juglans nigra*), Blue Spruce (*Picea pungens*), Bur Oak (*Quercus macrocarpa*), Cherry species (*Prunus sp.*), Eastern White Cedar (*Thuja occidentalis*), Green Ash (*Fraxinus pennsylvanica*), Ironwood (*Ostrya virginiana*), Manitoba Maple (*Acer negundo*), Norway Maple (*Acer platanoides*), Pear species (*Pyrus sp.*), Poplar species (*Populus sp.*), Red Oak (*Quercus rubra*), Shagbark Hickory (*Carya ovata*), Silver Maple (*Acer saccharinum*), Sugar Maple (*Acer saccharum*), White Elm (*Ulmus americana*), White Pine (*Pinus strobus*), White Spruce (*Picea glauca*), and Willow species (*Salix sp.*).

Refer to Table 1 and Table 2 for the detailed tree inventory and Figure 1 for the location of trees / polygons reported in the inventory.

#### 5.0 Proposed Works

The proposed development includes the construction of multiple residential blocks, roadways, and a village square block. Burnhamthorpe Road East is to be subject to road widening which is taken into consideration by the proposed concept plan. The NHS feature is to be retained as-is with the exception of the construction of a pedestrian trail along the northwest boundary of the feature. Refer to Figure 1 for the existing site conditions and the proposed concept plan.

#### 6.0 Discussion

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

#### 6.1 Development Impacts / Tree Removals

The removal of 73 trees and four polygons, including Trees / Polygons 352 – 417, 419, 420, A, B, D, F, G, J, and M – O, will be required to accommodate the proposed development.

Trees / Polygons 387, 409, 417, 420, A, B, D, F, G, J, and M – O are located fully or partially on a neighbouring property. As such, written permission from the respective neighbouring property owner will be required prior to the removal of these trees / polygons. Trees 352, 360, 384, and 385 are located fully or partially within the Burnhamthorpe Road right-of-way and as such, permission from the Town of Oakville will be required prior to their removal.

Trees 353 - 355, 357, 359, 361 - 368, 370 - 376, 378 - 383, 386 - 389, 391 - 403, 405 - 409, 411 - 417, 420, A, B, D, F, G, J, and M - O, and some trees within Polygons 366, 387, 408, and 409, are greater than 15cm DBH and located on private property. As such, a permit will be required prior to the removal of these trees.

It should be noted that additional tree removals may be required in order to accommodate the construction of the proposed pedestrian trail located adjacent to the NHS feature, as shown on Figure 1. Based on the preliminary grading plan for the proposed trail, the trees that may require removal include Trees 418, 421 - 432, 474, and 476 - 480. However, as the grading plan is preliminary in nature, the trees that appear to be impacted by the trail and associated grading works have been identified for preservation until the grading plan has been finalized. Once the trail grading plan has been finalized, the preservation planning for these trees will be reviewed and revised as necessary.

#### 6.2 Tree Preservation

The preservation of 67 trees, including Trees 418, 421 – 480, C, E, H, I, K, and L, 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 commencement of the proposed works to ensure tree resources designated for retention are not impacted. Refer to Figure 1 for the location of required tree preservation fencing, general Tree Protection Plan Notes, and tree preservation fence details.

Where the minimum tree protection zone (mTPZ) of a tree cannot be fully respected, including for Trees 418 and 421, special mitigation measures have been prescribed and are outlined below.

#### Trees 418 and 421

Encroachment into the mTPZs of Trees 418 and 421 will be required to accommodate the construction of the extension of Settlers Road through the subject property. Tree preservation fencing has been prescribed at the anticipated limit of disturbance within the mTPZs of these trees. If the following mitigation measures are employed, long-term adverse effects are not anticipated for these trees.

- 1. Prior to the commencement of the proposed works, tree preservation should be installed as shown on Figure 1 and maintained throughout the proposed works.
- 2. Where excavation is required within the mTPZs of Trees 418 and 421, it should occur using small machinery (i.e. a skidsteer) and under the supervision of a Certified Arborist.

- 3. Any roots exposed during the excavation process are to be pruned by a Certified Arborist in accordance with Good Arboricultural Standards.
- Any branches that require pruning in order to accommodate the proposed works should be pruned by a Certified Arborist or other tree professional in accordance with Good Arboricultural Standards.

Tree preservation fencing has not been prescribed for Trees C, E, H, I, K, or L as their mTPZs do not intersect the property boundary.

It should be noted that Trees 426 – 428, 474, and 480 are noted as being in poor overall condition. As such, individuals should exercise caution while working within close proximity to these trees.

#### 7.0 Summary and Recommendations

Kuntz Forestry Consulting Inc. was retained by Argo Oakville Woods Corporation to complete a Tree Inventory and Preservation Plan as part of a development application for the subject site located at 210 Burnhamthorpe Road East, in the Town of Oakville, Ontario. A tree inventory was conducted and reviewed in the context of the proposed development plans.

The findings of the study indicate a total of 140 trees and four polygons on and within six metres of the subject site outside of the NHS feature, along the edge of the woodlot within the NHS feature (i.e. within six metres of the dripline of the woodlot), and within the road right-of-way. The removal of 73 trees and four polygons will be required to accommodate the proposed development. All remaining trees can be saved provided appropriate tree protection measures are installed prior to the commencement of the proposed works.

The following recommendations are suggested to minimize impacts to trees identified for preservation. Refer to Figure 1 for the location of the required tree preservation fencing, general Tree Protection Plan Notes, and tree preservation 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.
- 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.
- Special mitigation measures have been prescribed for select trees, as outlined in the *Tree Preservation* section of this report.
- 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 are 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,

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#### <u>Limitations of Assessment</u>

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 locations in the report may not be exact. Where KFCl's in-house GPS unit is used (if applicable), tree locations are accurate only to the extent that the technology allows, which can be variable based on satellite available, RTK network / cell coverage, canopy coverage, and/or projection transformation limitations. 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 development plans that have been provided at the time of reporting. These recommendations may no longer be applicable should changes be made to the development 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: <u>210 Burnhamthorpe Road East, Oakville</u> Date: <u>14 and 20 April 2023</u> Surveyors: <u>KNH</u>

Tree #	Common Name	Botanical Name	DBH	Multistem DBH	ті	cs	cv	CDB	DL	mTPZ	A. mTPZ	Oakville Tree #	Comments	Ownership	Action
352	Manitoba Maple	Acer negundo	12	-	F	F	F	20	2.5	2.4	-	-	Stem wounds (M), lean (L), asymmetrical crown (L), deadwood (L)	Private / City (Subject Site / Right-of-Way)	Remove
353	White Elm	Ulmus americana	19, 18, 14.5	30	F	F	PF	20	4.5	2.4	-	-	Union at base, bow (L-M), epicormic branching (L), asymmetrical crown (M), deadwood (L)	Private (Subject Site)	Remove
354	White Elm	Ulmus americana	25.5, 17	30.5	F	F	PF	20	4.5	2.4	-	-	Bark peeling (M), union at base, epicormic branching (M), deadwood (L)	Private (Subject Site)	Remove
355	White Elm	Ulmus americana	21	-	G	F	F	20	4.0	2.4	-	-	Epicormic branching (L), deadwood (L)	Private (Subject Site)	Remove
356	Manitoba Maple	Acer negundo	13.5	-	F	FG	FG	-	2.0	2.4	-	-	Crook (L), lean (L), deadwood (L), epicormic branching (L)	Private (Subject Site)	Remove
357	White Elm	Ulmus americana	17, 16	23.5	F	PF	Р	80	2.5	2.4	-	-	V-union at base, deadwood (H)	Private (Subject Site)	Remove
358	Eastern White Cedar	Thuja occidentalis	12	-	FG	G	G	-	1.5	2.4	-	-	Lean (L), bow (L)	Private (Subject Site)	Remove
359	Eastern White Cedar	Thuja occidentalis	13.5, 10	17	F	FG	G	-	1.5	2.4	-	-	Sweep (M), v-union at 1.2m with included bark	Private (Subject Site)	Remove
360	Manitoba Maple	Acer negundo	39	-	Р	PF	PF	30	3.0	3.0	-	-	Decay (H) in trunk, cavities (H), lean (L), deadwood (M), epicormic branching (M)	City (Right-of-Way)	Remove
361	Silver Maple	Acer saccharinum	48, 40	62.5	PF	FG	F	-	6.0	4.2	-	-	Union at 1m with one lost leader and decay (M), stem wounds (L) in crown, broken branches (L)	Private (Subject Site)	Remove
362	Silver Maple	Acer saccharinum	32, 31	44.5	F	FG	FG	-	6.5	3.0	-	-	V-union at 1m with included bark, bow (L)	Private (Subject Site)	Remove
363	Silver Maple	Acer saccharinum	57	-	FG	FG	FG	-	6.0	3.6	-	-	Lean (L), broken branches (L)	Private (Subject Site)	Remove
364	Basswood	Tilia americana	26, 25.5	36.5	F	PF	F	-	4.0	3.0	-	-	V-union at base with included bark, lean (L), asymmetrical crown (M), suppressed by Tree 363	Private (Subject Site)	Remove
365	Eastern White Cedar	Thuja occidentalis	27	-	F	F	F	20	2.0	2.4	-	-	Deadwood (L), lean (L), stem wounds (M), v- union at 1.5m	Private (Subject Site)	Remove
P366							5	See Table	e 2					Private (Subject Site)	Remove
367	Manitoba Maple	Acer negundo	24.5	-	FG	FG	FG	-	2.2	2.4	-	-	Lean (L), epicormic branching (L)	Private (Subject Site)	Remove
368	Manitoba Maple	Acer negundo	38.5, 19	43	F	PF	PF	30	3.0	3.0	-	-	Deadwood (M), lean (L), v-union at 1m with included bar, epicormic branching (L)	Private (Subject Site)	Remove
369	Cherry species	Prunus sp.	12.5	-	Р	Р	Р	60	1.0	2.4	-	-	Decay (H) in trunk, deadwood (M)	Private (Subject Site)	Remove
370	Cherry species	Prunus sp.	26	-	Р	F	PF	20	2.5	2.4	-	-	V-union at 1.4m with included bark, decay (H) in trunk, deadwood (L)	Private (Subject Site)	Remove
371	Cherry species	Prunus sp.	24	-	PF	Р	Р	80	2.5	2.4	-	-	Decay (H) in trunk, Black Knot fungus (H), lean (L), deadwood (H)	Private (Subject Site)	Remove
372(NT)	Manitoba Maple	Acer negundo	~50	-	PF	F	F	-	3.5	3.0		-	Sweep (H), v-union at 1.5m, pruning wounds (L), lean (M), epicormic branching (L), growing out of barn foundation, poor branch unions, vine competition (M)	Private (Subject Site)	Remove
373	Willow species	Salix sp.	~130	-	Р	Р	PF	-	6.0	9.0	-	-	Broken branches (H), epicormic branching (M), cavities (H), bow (H), fused branches in crown	Private (Subject Site)	Remove
374	Silver Maple	Acer saccharinum	47	-	PF	FG	F	-	4.0	3.0	-	-	Decay column (H), lean (H), epicormic branching (L), cavities (L) in crown	Private (Subject Site)	Remove
375	White Spruce	Picea glauca	21	-	G	FG	F	10	2.5	2.4	-	-	Deadwood (L)	Private (Subject Site)	Remove

376	Norway Maple	Acer platanoides	19	-	FG	G	G	-	2.5	2.4	•	-	Lean (L)	Private (Subject Site)	Remove
377	Norway Maple	Acer platanoides	14	-	G	FG	G	-	2.0	2.4	-	-	Asymmetrical crown (L)	Private (Subject Site)	Remove
378	Willow species	Salix sp.	~57, 32, 30	~72	F	PF	PF	30	5.5	4.8	-	-	Bow (L), broken branches (M), deadwood (M), unions at 0.5m and 1m	Private (Subject Site)	Remove
379	Willow species	Salix sp.	18	-	PF	G	F	-	2.0	2.4	-	-	Lean (M), sweep (M)	Private (Subject Site)	Remove
380	Manitoba Maple	Acer negundo	15	-	F	F	F	-	2.0	2.4	-	-	Lean (M), epicormic branching (M), asymmetrical crown (L)	Private (Subject Site)	Remove
381	Willow species	Salix sp.	60.5	-	F	F	F	10	7.0	3.6	-	-	Lean (M), bow (L), deadwood (L)	Private (Subject Site)	Remove
382	Manitoba Maple	Acer negundo	~22, 22, 18	~36	PF	Р	Р	70	3.0	3.0	-	-	V-union at 0.2m and 0.5m with included bark, epicormic branching (L), deadwood (H), cavities (L)	Private (Subject Site)	Remove
383	Manitoba Maple	Acer negundo	27, 24	36	F	PF	PF	20	3.0	3.0	-	-	V-union at 0.5m with included bark, deadwood (L), bow (L), epicormic branching (M)	Private (Subject Site)	Remove
384	Manitoba Maple	Acer negundo	~38, 14, 10, 10, 8, 6	~44	PF	PF	PF	20	3.5	3.0		-	V-union at base, lean (M), epicormic branching (M), deadwood (L), vine competition (L)	City (Right-of-Way)	Remove
385	Manitoba Maple	Acer negundo	11	-	F	F	FG	-	2.0	2.4	-	-	Sweep (L), crook (L), asymmetrical crown (M), bow (L)	City (Right-of-Way)	Remove
386	Manitoba Maple	Acer negundo	18.5	-	PF	F	PF	30	3.5	2.4	-	-	Lean (M), deadwood (M), sweep (M)	Private (Subject Site)	Remove
P387								See Tabl	e 2					Private (Subject Site / Neighbour)	Remove
388	Manitoba Maple	Acer negundo	23.5	-	FG	FG	FG	-	3.0	2.4	-	-	Lean (L), crook (L), asymmetrical crown (L)	Private (Subject Site)	Remove
389	Norway Maple	Acer platanoides	28	-	FG	FG	F	20	3.0	2.4	-	-	Bow (L), deadwood (L)	Private (Subject Site)	Remove
390	Black Walnut	Juglans nigra	14	-	G	G	G	-	2.0	2.4	-	-		Private (Subject Site)	Remove
391	Norway Maple	Acer platanoides	~40	-	Р	G	PF	-	3.0	3.0	-	-	Stem wounds (H) with decay (H), lean (M)	Private (Subject Site)	Remove
392	Poplar species	Populus sp.	~28, 20	~34.5	PF	FG	F	-	3.0	3.0	-	-	V-union at 1m with included bark, lean (L), crook (L)	Private (Subject Site)	Remove
393	Norway Maple	Acer platanoides	13.5, 13	18.5	F	F	PF	20	2.5	2.4	,	-	Lean (L), bow (L), deadwood (L)	Private (Subject Site)	Remove
394	Norway Maple	Acer platanoides	20	-	G	FG	F	20	2.0	2.4	-	-	Deadwood (L)	Private (Subject Site)	Remove
395(NT)	Manitoba Maple	Acer negundo	~20	-	PF	F	F	-		2.4	-	-	Sweep (M), included (M) boat, multiple branch attachments	Private (Subject Site)	Remove
396	Manitoba Maple	Acer negundo	13, 12.5	18	F	F	F	20	2.0	2.4	-	-	V-union at 0.5m with included bark, bow (M), deadwood (L)	Private (Subject Site)	Remove
397	Manitoba Maple	Acer negundo	16	-	FG	G	FG	-	2.0	2.4	-	-	Crook (L)	Private (Subject Site)	Remove
398	Manitoba Maple	Acer negundo	~20, 18, 12, 12, 8	~33	FG	F	F	-	2.0	3.0	-	-	Union at base, seam (L), epicormic branching (L)	Private (Subject Site)	Remove
399	Manitoba Maple	Acer negundo	18.5	-	F	F	F	-	2.5	2.4	-	-	Lean (L), included (M) rope, epicormic branching (M), multiple branch attachments	Private (Subject Site)	Remove
400	Manitoba Maple	Acer negundo	42	-	Р	PF	PF	-	5.0	3.0	-	-	V-union at 2.5m with included bark, broken branches (H), bow (H), epicormic branching (M)	Private (Subject Site)	Remove
401	Norway Maple	Acer platanoides	11, 10.5	15	F	FG	G	-	2.5	2.4	-	-	V-union at base with included bark, lean (L)	Private (Subject Site)	Remove
402	Manitoba Maple	Acer negundo	31	-	Р	F	PF	20	2.5	3.0	-	-	Sweep (H), decay (H) in trunk, multiple branch attachments, epicormic branching (M), deadwood (L)	Private (Subject Site)	Remove
403	Manitoba Maple	Acer negundo	~11, 10, 8, 6, 6, 6	~20	F	F	F	-	2.0	2.4	-	-	V-union at base with included bark, union at 0.75m and 1m, epicormic branching (L)	Private (Subject Site)	Remove
404	Black Walnut	Juglans nigra	10	-	G	G	G	-	2.0	2.4	-	-	Pruning wounds (L)	Private (Subject Site)	Remove

405	Norway Maple	Acer platanoides	21	-	G	G	FG	-	2.0	2.4	-	-		Private (Subject Site)	Remove
406	Norway Maple	Acer platanoides	36	-	Р	F	PF	20	2.5	3.0	-	-	Decay (H) in trunk, v-union at 2m, deadwood (L), cavities (L)	Private (Subject Site)	Remove
407	Norway Maple	Acer platanoides	18, 12	21.5	PF	PF	PF	20	2.5	2.4	-	-	V-union at 1m with one lost leader and decay (H) at union, deadwood (L), poor form (L)	Private (Subject Site)	Remove
P408							5	See Tabl	e 2					Private (Subject Site)	Remove
P409							5	See Tabl	e 2					Private (Subject Site / Neighbour)	Remove
410	Manitoba Maple	Acer negundo	~6 - 14	-	F	F	FG	-	2.0	2.4	-	-	V-union at base, lean (L), epicormic branching (L), average DBH = 10cm	Private (Subject Site)	Remove
411(NT)	Willow species	Salix sp.	~30, 28, 15	~43.5	F	PF	PF	10	4.0	3.0	-	-	Epicormic branching (H), stem wounds (M) in crown, lean (L), deadwood (L)	Private (Subject Site)	Remove
412	Pear species	Pyrus sp.	~16, 16	~22.5	F	F	F	-	2.0	2.4	-	-	V-union at 1m with included bark, epicormic branching (M)	Private (Subject Site)	Remove
413	Apple species	Malus sp.	~34, 28, 26	~51	PF	PF	PF	30	3.0	3.6	-	-	V-union at 0.2m and 1m with leaders fused to 2m, cavities (H), deadwood (M)	Private (Subject Site)	Remove
414(NT)	Willow species	Salix sp.	~40, 26	~47.5	PF	Р	PF	20	5.0	3.0	-	-	Union at base, smaller leader lean (H), broken branches (H), epicormic branching (H), deadwood (L)	Private (Subject Site)	Remove
415(NT)	Willow species	Salix sp.	~20, 20, 14	~31.5	PF	PF	PF	-	3.0	3.0	-	-	Union at base, lean (M-H), epicormic branching (H), asymmetrical crown (L)	Private (Subject Site)	Remove
416	Pear species	Pyrus sp.	31	-	FG	F	F	20	2.0	3.0	-	-	Deadwood (L), epicormic branching (M), broken branches (M)	Private (Subject Site)	Remove
417	Pear species	Pyrus sp.	22, 22, 12	33.5	PF	F	F	20	3.0	3.0	-	-	Epicormic branching (M), union at base, lean (L-M), decay (L) in trunk, cavities (L), deadwood (L)	Private (Neighbour)	Remove
418	Pear species	Pyrus sp.	~16, 9	~18.5	PF	F	F	20	1.0	2.4	1.9	-	V-union at 1.4m with included bark and decay (M) at union, deadwood (L), broken branches (L), epicormic branching (M)	Private (Neighbour)	Preserve (Injure)
419	Pear species	Pyrus sp.	~14	-	G	F	F	10	1.0	2.4	-	-	Deadwood (L), epicormic branching (M)	Private (Subject Site)	Remove
420	Pear species	Pyrus sp.	~15, 10	~18	PF	PF	PF	20	1.0	2.4	-	-	V-union at base with one leader dead, epicormic branching (M), deadwood (L)	Private (Subject Site / Neighbour)	Remove
421	White Elm	Ulmus americana	~16	-	PF	PF	FG	-	2.5	2.4	1.5	-	Lean (M), crook (M), spiralling leaders with Tree 420, asymmetrical crown (M), bow (M)	Private (Neighbour)	Preserve (Injure)
422	Pear species	Pyrus sp.	~13	-	FG	PF	PF	-	1.0	2.4	2.4	-	Lean (L), epicormic branching (H)	Private (Subject Site / Neighbour)	Preserve
423	Pear species	Pyrus sp.	13.5	-	FG	FG	F	10	1.0	2.4	2.4	-	Lean (L), bow (L), broken branches (L), epicormic branching (L)	Private (Neighbour)	Preserve
424	Pear species	Pyrus sp.	~15	-	Р	F	F	-	1.5	2.4	2.4	-	Decay (H) in trunk, lean (M), bow (L), epicormic branching (M)	Private (Neighbour)	Preserve
425	Pear species	Pyrus sp.	24	-	Р	F	PF	20	2.0	2.4	2.4	-	Lean (M), decay (H) in trunk, epicormic branching (M), deadwood (L), broken branches (L)	Private (Neighbour)	Preserve
426	Pear species	Pyrus sp.	~18	-	Р	PF	Р	40	1.2	2.4	2.4	-	Lean (H), vertical crack (H) epicormic branching (M), bow (M), deadwood (M)	Private (Neighbour)	Preserve
427	White Elm	Ulmus americana	12.5	-	G	G	G	-	1.0	2.4	2.4	-		Private (Neighbour)	Preserve
428	Red Oak	Quercus rubra	12	-	G	F	F	30	1.0	2.4	2.4	-	Deadwood (M)	Private (Neighbour)	Preserve
429	Shagbark Hickory	Carya ovata	13	-	G	G	G	-	3.0	2.4	2.4	-		Private (Neighbour)	Preserve
430	White Elm	Ulmus americana	20	-	F	PF	FG	-	3.5	2.4	2.4	-	Poor form (M), crook (M), asymmetrical crown (M)	Private (Neighbour)	Preserve
431	White Elm	Ulmus americana	12	-	G	FG	F	20	1.5	2.4	2.4	-	Deadwood (L)	Private (Neighbour)	Preserve

	Shagbark	T	1	1			l	I	1	1	l		V-union at 3m with included bark, included (M)		
432	Hickory	Carya ovata	~48	-	F	G	FG	-	5.0	3.0	3.0	-	fence	Private (Neighbour)	Preserve
433	Shagbark Hickory	Carya ovata	34	-	G	FG	FG	-	3.0	3.0	3.0	-	Broken branches (L)	Private (Subject Site)	Preserve
434	Red Oak	Quercus rubra	10	-	G	G	G	-	1.5	2.4	2.4	-		Private (Subject Site)	Preserve
435	Silver Maple	Acer saccharinum	~62, 60, 28	~90.5	PF	PF	PF	20	7.0	5.4	5.4	-	V-union at 1m with included bark, decay (H) in trunk, crook (M), broken branches (M), deadwood (L)	Private (Subject Site)	Preserve
436	Shagbark Hickory	Carya ovata	20	-	G	FG	FG	-	2.5	2.4	2.4	-	Broken branches (L)	Private (Subject Site)	Preserve
437	Bur Oak	Quercus macrocarpa	51.5	-	PF	PF	F	20	7.0	3.6	3.6	-	Asymmetrical crown (M), poor form (M), crook (M), deadwood (L)	Private (Subject Site)	Preserve
438	Shagbark Hickory	Carya ovata	11.5	-	G	G	G	-	2.0	2.4	2.4	-	Vine competition (M)	Private (Subject Site)	Preserve
439	Shagbark Hickory	Carya ovata	~32, 23	~39.5	FG	FG	FG	10	3.0	3.0	3.0	-	V-union at 1m with included bark, deadwood (L)	Private (Subject Site)	Preserve
440	Pear species	Pyrus sp.	31, 25	40	F	F	F	20	6.0	3.0	3.0	-	V-union at 1m, bow (M), epicormic branching (M), deadwood (L)	Private (Subject Site)	Preserve
441	Sugar Maple	Acer saccharum	20.5	-	FG	FG	F	20	3.0	2.4	2.4	-	Lean (L), deadwood (L)	Private (Subject Site)	Preserve
442	Sugar Maple	Acer saccharum	23	-	FG	FG	FG	-	4.0	2.4	2.4	-	Lean (L), asymmetrical crown (L)	Private (Subject Site)	Preserve
443	Bur Oak	Quercus macrocarpa	55	-	G	PF	PF	40	6.0	3.6	3.6	-	Epicormic branching (H), deadwood (M), broken branches (M)	Private (Neighbour)	Preserve
444	Ironwood	Ostrya virginiana	14	-	FG	FG	FG	-	2.5	2.4	2.4	-	Lean (L), asymmetrical crown (L)	Private (Subject Site)	Preserve
445	Ironwood	Ostrya virginiana	14	-	F	FG	FG	-	3.0	2.4	2.4	-	Bow (M), asymmetrical crown (L)	Private (Subject Site)	Preserve
446	Basswood	Tilia americana	48	-	Р	F	F	-	3.0	3.0	3.0	-	Fused at base to Tree 447, broken branches (M), decay (M) in trunk, cavities (M)	Private (Subject Site)	Preserve
447	Sugar Maple	Acer saccharum	32	-	FG	FG	F	20	5.0	3.0	3.0	-	Fused at base to Tree 446, deadwood (L)	Private (Subject Site)	Preserve
448	Sugar Maple	Acer saccharum	36.5	-	G	FG	F	20	4.0	3.0	3.0	-	Deadwood (L)	Private (Subject Site)	Preserve
449	Bur Oak	Quercus macrocarpa	21	-	PF	PF	PF	-	3.0	2.4	2.4	-	Bow (H), epicormic branching (M)	Private (Subject Site)	Preserve
450	Bur Oak	Quercus macrocarpa	84.5	-	PF	PF	PF	40	6.0	5.4	5.4	-	V-union at 2m and 3m with included bark, deadwood (M), epicormic branching (M)	Private (Subject Site)	Preserve
451	Bur Oak	Quercus macrocarpa	26	-	FG	PF	PF	-	4.0	2.4	2.4	-	Bow (L), epicormic branching (M), asymmetrical crown (M)	Private (Subject Site)	Preserve
452	Sugar Maple	Acer saccharum	17	-	F	G	FG	-	2.5	2.4	2.4	-	Lean (M)	Private (Subject Site)	Preserve
453	Bur Oak	Quercus macrocarpa	~80	-	FG	F	F	30	7.0	4.8	4.8	-	Deadwood (M), broken branches (M)	Private (Subject Site)	Preserve
454	Sugar Maple	Acer saccharum	22	-	G	G	G	-	3.0	2.4	2.4	-		Private (Subject Site)	Preserve
455	Ironwood	Ostrya virginiana	17.5	-	FG	G	FG	-	2.0	2.4	2.4	-	Cavities (L)	Private (Subject Site)	Preserve
456	Ironwood	Ostrya virginiana	14	-	FG	G	FG	-	2.5	2.4	2.4	-	Burls (L)	Private (Subject Site)	Preserve
457	Sugar Maple	Acer saccharum	42	-	G	G	FG	-	4.0	3.0	3.0	-		Private (Subject Site)	Preserve
458	Bur Oak	Quercus macrocarpa	31.5	-	PF	PF	F	-	3.0	3.0	3.0		Bow (H), asymmetrical crown (H), epicormic branching (M)	Private (Subject Site)	Preserve
459	Sugar Maple	Acer saccharum	52	-	F	FG	F	-	5.5	3.6	3.6	-	V-union at 2m with included bark, burls (L)	Private (Subject Site)	Preserve
460	Bur Oak	Quercus macrocarpa	41.5	-	PF	PF	F	20	5.0	3.0	3.0	-	Bow (H), deadwood (L), asymmetrical crown (H)	Private (Subject Site)	Preserve
461	Sugar Maple	Acer saccharum	31.5	-	G	G	G	-	4.0	3.0	3.0	-		Private (Subject Site)	Preserve
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462	Sugar Maple	Acer saccharum	23.5	-	G	G	G	-	3.5	2.4	2.4	-		Private (Subject Site)	Preserve
463	White Pine	Pinus strobus	~46, 30	~55	PF	PF	PF	40	2.5	3.6	3.6	-	V-union at 1.4m with included bark, epicormic branching (H), decay (M) in trunk, deadwood (M)	Private (Subject Site)	Preserve
464	Sugar Maple	Acer saccharum	47	-	G	G	G	-	5.0	3.0	3.0	-		Private (Subject Site)	Preserve
465(NT)	Bur Oak	Quercus macrocarpa	~60	-	G	F	F	20	5.0	3.6	3.6	-	Epicormic branching (M), deadwood (L)	Private (Neighbour)	Preserve
466	Bur Oak	Quercus macrocarpa	~50	-	G	F	PF	30	6.0	3.0	3.0	-	Deadwood (M), epicormic branching (M)	Private (Subject Site)	Preserve
467	Poplar species	Populus sp.	11.5	-	FG	G	G	-	1.0	2.4	2.4	-	Crook (L), lean (L)	Private (Subject Site)	Preserve
468	Poplar species	Populus sp.	17	-	G	G	G	-	2.5	2.4	2.4	-		Private (Subject Site)	Preserve
469	Poplar species	Populus sp.	12	-	F	G	FG	-	2.5	2.4	2.4	-	Crook (L), seam (L)	Private (Subject Site)	Preserve
470	Poplar species	Populus sp.	12	-	F	G	G	-	2.0	2.4	2.4	-	Crook (M)	Private (Subject Site)	Preserve
471	Poplar species	Populus sp.	13	-	F	G	FG	-	2.0	2.4	2.4	-	Crook (L)	Private (Subject Site)	Preserve
472	Poplar species	Populus sp.	12	-	FG	G	FG	-	2.0	2.4	2.4	-	Seam (L)	Private (Subject Site)	Preserve
473(NT)	Bur Oak	Quercus macrocarpa	~16	-	G	G	FG	-	2.0	2.4	2.4	-		Private (Neighbour)	Preserve
474	Green Ash	Fraxinus pennsylvanica	53	-	Р	F	PF	-	5.0	3.6	3.6	-	Decay (H) in trunk, broken branches (M), epicormic branching (M), Emerald Ash Borer (M)	Private (Subject Site)	Preserve
475	Pear species	Pyrus sp.	~18, 16	~24	FG	FG	F	-	2.5	2.4	2.4	-	Union at base, lean (L), epicormic branching (L)	Private (Subject Site)	Preserve
476	Poplar species	Populus sp.	24, 16	~29	F	FG	FG	-	2.0	2.4	2.4	-	V-union at base with included bark	Private (Subject Site)	Preserve
477	Poplar species	Populus sp.	21.5	-	FG	G	FG	-	2.0	2.4	2.4	-	Growth deficit (L)	Private (Subject Site)	Preserve
478	Poplar species	Populus sp.	18	-	F	G	FG	-	2.0	2.4	2.4	-	Cavities (L), seam (L)	Private (Subject Site)	Preserve
479	Poplar species	Populus sp.	17.5	-	F	G	FG	-	1.0	2.4	2.4	-	Seam (L), lean (L)	Private (Subject Site)	Preserve
480	Poplar species	Populus sp.	44	-	Р	PF	Р	30	2.0	3.0	3.0	-	Deadwood (M), cavities (H), decay (H) in trunk, union at 2m with one lost leader	Private (Subject Site)	Preserve
А	Manitoba Maple	Acer negundo	~48, 44	~65	PF	F	F	30	4.0	4.2	-	-	V-union at 0.5m with included bark, lean (M), deadwood (M), epicormic branching (L), decay (M) and cavities (L) in crown	Private (Neighbour)	Remove
В	Poplar species	Populus sp.	~38	-	G	G	FG	-	4.0	3.0	-	-		Private (Subject Site / Neighbour)	Remove
С	Poplar species	Populus sp.	~68	-	G	G	PF	-	3.5	4.2	4.2	-		Private (Neighbour)	Preserve
D	Poplar species	Populus sp.	~42	-	FG	G	F	-	3.5	3.0	-	-	Lean (L)	Private (Subject Site / Neighbour)	Remove
Е	Poplar species	Populus sp.	~14	-	FG	G	FG	-	1.5	2.4	2.4	-	Lean (L)	Private (Neighbour)	Preserve
F	Black Walnut	Juglans nigra	~56	-	F	G	F	-	5.5	3.6	-	-	Decay (M) in trunk	Private (Neighbour)	Remove
G	Silver Maple	Acer saccharinum	~32	-	F	FG	FG	-	2.5	3.0	-	-	V-union at 1.5m, stem wounds (L) in crown	Private (Neighbour)	Remove
Н	Manitoba Maple	Acer negundo	~18, 18	~25.5	F	F	PF	-	2.5	2.4	2.4	-	Lean (L), v-union at 1.3m with included bark, vine competition (M), epicormic branching (M)	Private (Neighbour)	Preserve
I	Blue Spruce	Picea pungens	~28	-	FG	FG	F	10	1.5	2.4	2.4	-	Deadwood (L), sweep (L)	Private (Neighbour)	Preserve

J	Willow species	Salix sp.	~110	-	F	F	F	20	7.5	7.0	-	-	Broken branches (M), deadwood (L), coppice growth	Private (Neighbour)	Remove
К	Blue Spruce	Picea pungens	~32	-	G	G	G	-	2.5	3.0	3.0	-		Private (Neighbour)	Preserve
L	Silver Maple	Acer saccharinum	~40	-	FG	PF	F	-	3.0	3.0	3.0	-	Pruning wounds (M), epicormic branching (M), broken branches (M)	Private (Neighbour)	Preserve
М	White Elm	Ulmus americana	~16	-	FG	FG	F	-	1.5	2.4	-	-	Bow (L), epicormic branching (L)	Private (Neighbour)	Remove
N	Silver Maple	Acer saccharinum	~6 - 16	-	FG	FG	FG	-	2.5	2.4	-	-	V-union at base, epicormic branching (L), average DBH = 16cm	Private (Neighbour)	Remove
0	Manitoba Maple	Acer negundo	~32	-	F	G	FG	-	2.5	3.0	-	-	Included (M) fence, lean (L)	Private (Neighbour)	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 Dieback	(%)
DL	Dripline (Radius)	(m)
mTPZ	Minimum Tree Protection Zone	TPZ (m) based on Town of Oakville's Tree Protection During Construction (Procedure EN-TRE-001-011) from base of tree
A. mTPZ	Actual Minimum Tree Protection Zone	Actual mTPZ (m) achievable during construction from base of tree
Ownership	Ownership of Tree	Private, City
~ = estima	ate; (L) = light; (M) = moderate; (H) = heav	y; G = good; F = fair; P = poor

# **Table 2. Stand Tally Analysis of Polygons**

P366 - Stand Tally Analysis

Tree Size Class	10cm	- 14cm	15cm	- 24cm	25cm -	- 34cm	35cm	- 44cm	45cm	- 54cm	55cm	- 64cm	65cm	- 74cm	75cm	- 84cm	85cm -	- 94cm	95c	m +	Total A	II Sizes
Species	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS
Apple species (Malus sp.)	0	5	1	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	16
Pear species (Pyrus sp.)	1	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
Total Number of Trees	1	9	1	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	21

P387 - Stand Tally Analysis

Tree Size Class	10cm	- 14cm	15cm -	- 24cm	25cm -	- 34cm	35cm	- 44cm	45cm	- 54cm	55cm	- 64cm	65cm	- 74cm	75cm	- 84cm	85cm	- 94cm	95c	m +	Total A	II Sizes
Species	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS
Eastern White Cedar (Thuja occidentalis)	0	0	1	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	4	0
Ironwood (Ostrya virginiana)	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Norway Maple (Acer platanoides)	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Black Walnut (Juglans nigra)	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Manitoba Maple (Acer negundo)	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Number of Trees	0	1	3	0	4	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	8	2

P408 - Stand Tally Analysis

Tree Size Class	10cm	- 14cm	15cm -	· 24cm	25cm -	- 34cm	35cm	- 44cm	45cm	- 54cm	55cm	- 64cm	65cm	- 74cm	75cm	- 84cm	85cm -	- 94cm	95c	m +	Total A	II Sizes
Species	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS
Black Walnut (Juglans nigra)	2	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0
Apple species (Malus sp.)	0	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Pear species (Pyrus sp.)	1	0	1	0	0	2	0	1	0	1	0	0	0	1	0	0	0	0	0	0	2	5
Cherry species (Prunus sp.)	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Green Ash (Fraxinus pennsylvanica)	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
White Elm (Ulmus americana)	0	0	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1
Manitoba Maple (Acer negundo)	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
Norway Maple (Acer platanoides)	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Total Number of Trees	3	4	11	3	0	5	0	1	1	1	0	0	0	1	0	0	0	0	0	0	15	15

P409 - Stand Tally Analysis

Tree Size Class	10cm	- 14cm	15cm	- 24cm	25cm -	- 34cm	35cm	- 44cm	45cm	- 54cm	55cm	- 64cm	65cm	- 74cm	75cm	- 84cm	85cm	- 94cm	950	m +	Total A	II Sizes
Species	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS
Silver Maple (Acer saccharinum)	0	0	0	0	1	0	4	2	2	4	1	0	0	0	0	0	0	0	0	0	8	6
White Elm (Ulmus americana)	5	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	1
Manitoba Maple (Acer negundo)	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Norway Maple (Acer platanoides)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Total Number of Trees	6	3	1	3	2	0	4	2	2	4	1	0	0	0	0	0	0	0	0	0	16	12