

# Appendix E: ARBORIST REPORT AND TREE INVENTORY



Clarkson Rd. and Lakeshore Rd. W.

Date: December 4, 2020

B001266

#### CIMA+

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## City of Mississauga

## **Arborist Report**

**Clarkson Road** 

Project no B001266

**PREPARED BY:** 

Sean Nailer, ISA Certified Arborist

Senior Technician

**VERIFIED BY:** 

Lisa Cullen, OALA, ISA Certified Arborist

Associate Partner, Senior Project Manager

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#### 1 Introduction

CIMA+ has been retained by the City of Mississauga to review the trees potentially affected by the proposed intersection improvements at Clarkson Rd North/South and Lakeshore Rd W.

This report includes all trees within the right-of-way and all trees over 15cm within the area as shown below in Figure 1. City of Mississauga Private Tree Protection By-law requires a permit for removal of three or more trees 15cm or greater in diameter, including dead or dying trees, per calendar year.

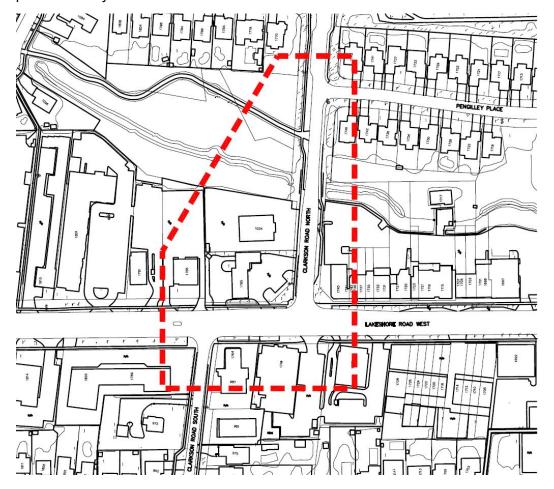


Fig.1 – Location Map

## 2 Limitations

The assessment presented in this report has been made using accepted standard arboriculture techniques as outlined in the Council of Tree and Landscape Appraisers Guide for Plant Appraisal, 10th Edition, Second Printing (2019). These techniques include visual examination of above ground parts of each tree or trees in each group. The trees observed were not climbed, cored, or dissected, and excavation for detailed root crown inspection was not performed. Since

some symptoms may only be present seasonally, the extent of observations that can be made may be limited by the time of year in which the inspection took place.

Since trees are living organisms, their health and vigour continually change over time due to seasonal variations, changes in site conditions, and other factors. For this reason, the assessment presented in this report is valid at the time of inspection, and no guarantee is made about the continued health of trees that are deemed to be in good condition. It is recommended that the trees be re-assessed periodically to identify changes in condition. While every standing tree has the potential for failure and therefore poses some risk, a tree assessment is a good indication of present health and potential problems that could arise in the future.

CIMA+ has prepared this report for the sole use of the client. Any use of this report by a third party, as any decision based on this report, is the singular responsibility of the third party. CIMA+ will not be held responsible for eventual damages towards a third party resulting from decisions taken, or based, on this report.

## 3 Methodology

An ISA Certified Arborist from CIMA+ conducted a site visit on October 20, 2020 to complete the following inventory and assessment.

All trees within the right-of-way and all trees over 15cm within the area as shown in Figure 1 were inventoried.

Trees were numbered, identified, measured, and assessed for condition. The tree inventory table containing this information is included on drawing TI-3 along with drawings TI-1 and TI-2 that show the locations of the numbered trees surveyed.

#### 3.1 Tree Size

Size refers to trunk diameter (caliper or DBH) measured in centimetres at 1.4 m above the ground. Where trees had more than one trunk from the base, the size of each trunk was recorded. Where trees forked to codominant trunks, each trunk was measured, or the diameter was measured under the flare and the approximate height of the measurement was noted.

#### 3.2 Observations

Several structural defects and health problems are included in the Comments section of the tree inventory and assessment table. Following is an explanation of the short forms used in the table:

GR Girdling roots

COD Codominant trunks or codominant leaders

NA Narrow branch angles

INCL Included bark

CRB Crossing branches

MBR Multiple branches from the same point of attachment

DPR Decay at pruning wounds

SMD Small dead branches

ADV Adventitious shoots

These observations are defined below.

Structural defects are often insignificant when a tree is small but can pose problems when the tree grows larger and the weight of branches put added stress on defects that can cause weakness. Larger trees also have the potential to cause more damage should they fail. The following is an explanation of some of the observations included in the inventory and assessment table, and how they can affect trees over time.

- Adventitious shoots are vigorous growth of shoots from pruning cuts, inner branches, or along the trunk that usually occur in response to stress.
- Codominant leaders (2 trunks or branches of approximately equal size) often have narrow branch angles and are associated with weak branch attachment. Strong branch attachments occur between 2 limbs of unequal size with enough space for branch enlargement and formation of a branch bark ridge.
- Crossing branches are often associated with narrow branch angles. Branches that cross
  over each other often rub, causing damage and therefore weakness to one or both
  branches, and crossing branches can eventually girdle each other.
- Decay at pruning wounds can occur when pruning (or other bark-penetrating abrasions)
  expose a tree's heartwood, which can then be affected by a rot-causing fungi. The decay
  can lead to cavities and internal decay, and potentially affect the structural integrity of
  the tree.
- Dieback refers to the ends of branches dying, which is often associated with root problems.
- Exposed surface roots can be a result of erosion and soil compaction combined with increasing root diameter. It is important to protect exposed roots from pedestrian and vehicular traffic, and lawn mowers. Damage to roots can cause stress and can result in canopy dieback.
- *Girdling roots* are roots that cross over each other or around the trunk of the tree. As these roots grow larger, they can restrict the uptake of nutrients and water, and inhibit structural anchorage.
- Included bark is bark that has become embedded in a crotch where limbs join, and causes weakened branch attachments. As the trunk and branch increase in diameter,

the bark of each stem in the tight crotch begin to push apart, increasing the likelihood of failure.

- A tree with a *lean* can be more susceptible to windthrow and soil failure. Self-correcting lean refers to a natural correction of the lean by development of new growth that counteracts the lean of the trunk to provide a more balanced form.
- When a tree has *multiple branches from the same point of attachment*, the branches usually have characteristics of weakly attached branches.
- *Narrow branch angles*, especially where there is *included bark*, can be a problem as trees grow larger because the inner wood is poorly attached.
- Ribs and seams are often associated with included bark, but can also indicate internal defects or decay that cause irregular growth.
- The root flare refers to the base of the trunk where it widens as it transitions to the root system.
- Small dead branches are an indicator of crown dieback and can be an early sign of stress.
- Suppressed trees are growing under the canopies of neighbouring trees, which can diminish vigour and affect structural form.
- Tar spot is a fungal disease also known as rhytisma acerinum, does not usually have an adverse effect on trees and is generally a cosmetic problem.

The detailed observations made concerning tree species, size, and condition are included in the tree inventory and assessment table in Appendix A.

#### 3.3 Tree Condition

Each tree was given a subjective rating for trunk integrity, canopy structure, and crown vigour, and an overall health condition rating of Excellent, Good, Fair, Poor, or Dead. The following is a summary of how the ratings are determined:

EXCELLENT (E): no apparent health problems; good structural form

• GOOD (G): minor problems with health and/or structural form

FAIR(F): more serious problems with health and/or structural form

POOR (P): major problems with health and structural form

DEAD (D): dead

## 4 Summary

A total of 100 trees were surveyed and include all trees numbered 1 through to 100. See Tree Inventory Drawings TI-1 through TI-3 in Appendix A for further information about the locations and descriptions of the trees surveyed.

## 5 Protected Species

The Migratory Birds Convention Act, 1994 protects the nests of migratory birds. This effectively means that trees to be removed from the site should be removed outside of the migratory birdnesting window, the timing of which differs regionally across Canada as determined by Environment Canada. Following Environment Canada's guidelines, the window at this site is from April 1 to August 31. Trees may be removed during this restricted period only when trees are inspected for nests of protected bird species by a qualified avian biologist immediately prior to removal.

Habitat essential to the life cycle of four Ontario bat Species at Risk are also protected under the Endangered Species Act. The features of a tree known to support the potential for maternal bat roosting include cracks, hollows, loose bark, dying or dead leaf clusters, snag decay, and height relative to surrounding trees. Tree size (e.g., > 25 cm DBH) and species (e.g., oak, maple, yellow birch, shagbark hickory) indicate whether the tree is more likely to provide these conditions. Based on these attributes, 1 tree was identified as potential maternal bat roosting trees, (Trees #57). This tree should be retained and protected during construction if possible.

## **6 Construction Management**

The most typical construction damage to trees is root damage from compaction and severance. While the dripline of a tree's canopy is typically thought to be associated with the root area, the root zone can actually extend significantly beyond the dripline of the tree where root space is available, sometimes up to 2 or 3 times the height of the tree. Some of the trees inventoried are in close proximity to where work is likely to take place. When grading limits have been determined, impacts to trees can be assessed to determine required tree removals and branch pruning. It is recommended that tree protection fencing be installed as far as possible from the trees prior to construction.

Generally, to protect trees, grade changes and construction activities that could cause soil compaction should be kept away from trees as much as possible. If roots will be damaged by excavation equipment, it is better to cut roots cleanly with sharp pruning tools rather than allow them to be torn by large equipment. Clean cuts will help to minimize decay and entry points for disease. If branches are likely to hang in the way of passing equipment, the branches should be pruned by a qualified arborist to avoid tearing and undue injury to the tree.

Equipment and materials should not be stored near trees, and equipment should not be left idling where exhaust could burn foliage.

## 7 Certification and Closure

We certify that all the statements of fact in this assessment are true, complete, and correct to the best of our knowledge and belief, and that they are made in good faith.

We trust that this report meets your needs at this time. If you have any questions, please do not hesitate to contact the undersigned.

Sincerely,

Sean Nailer

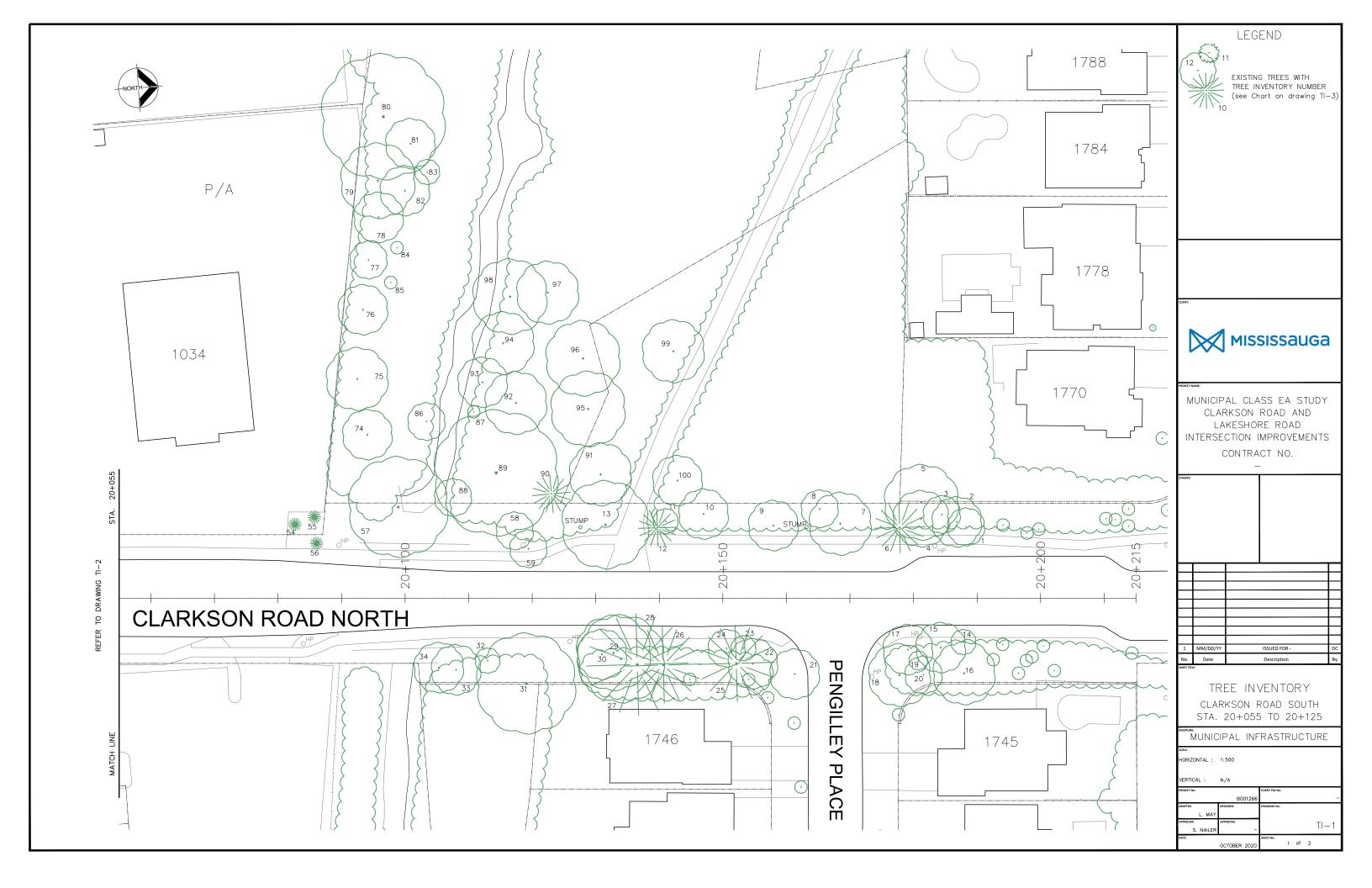
ISA Certified Arborist ON-2622A

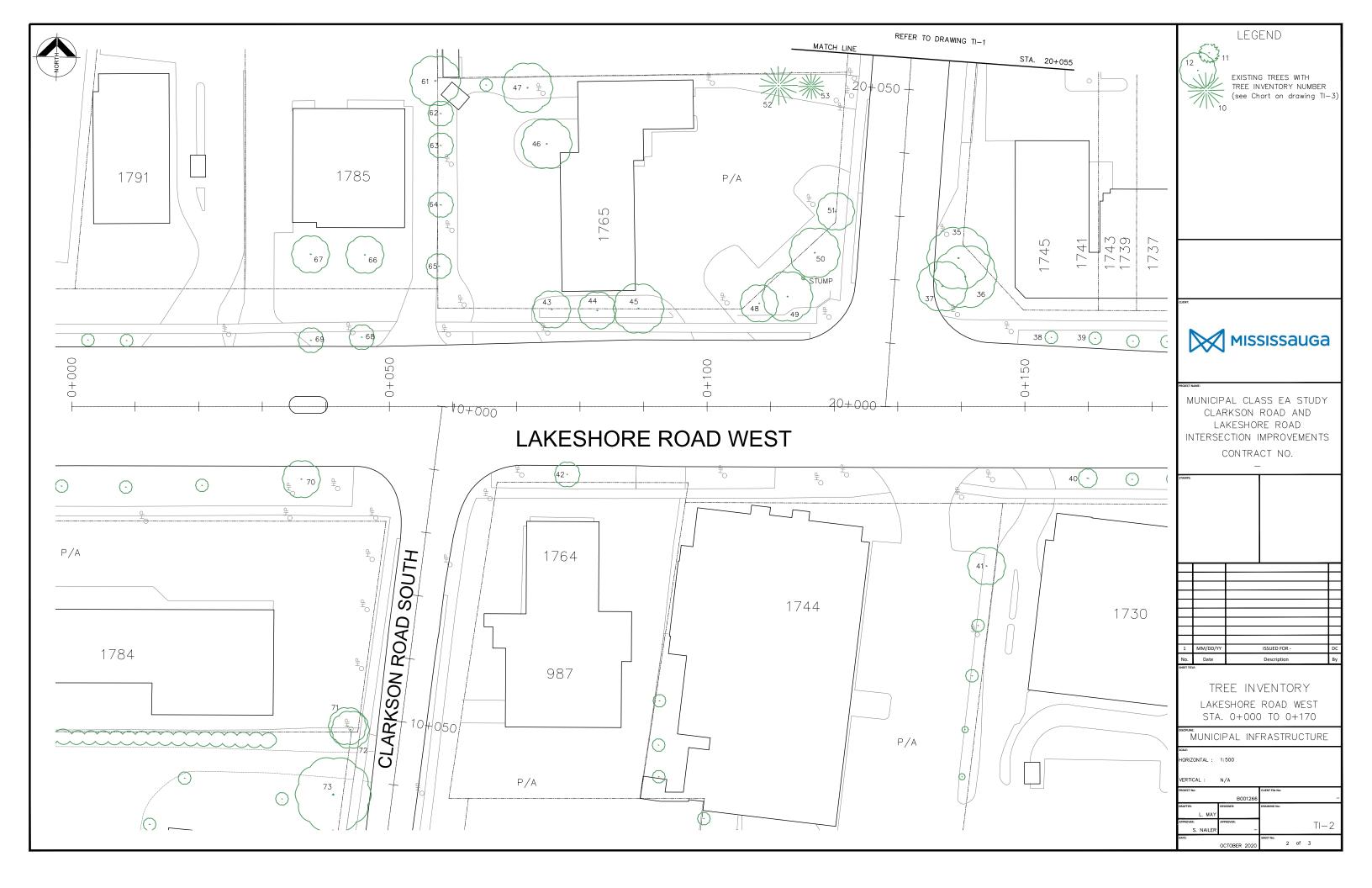
Attachments: Appendix A



**Appendix A: Tree Inventory Drawings TI-1 to TI-3** 







_	_	2 : 475	DBH		Overall				Str	uctur	al Def	ects				- Comments	
Tree No.	Common name	Scientific name	(cm) * approx.	Spread (m)	Condition (D), (P), (F), (G), or (E)	GR	COD	NA	INCL	CRB	MBR	DPR	SMD	ADV	LN		
1	Black Walnut	Juglans nigra	10	6	G								х			vine growing up trunk, suppressed tree	
2	Oak	Quercus sp.	30	8	G							х				marked with orange dot	
3	Black Walnut	Juglans nigra	25	6	G							х					
4	Oak	Quercus sp.	31	9	G							х	х			marked with orange dot	
5	Black Walnut	Juglans nigra	±40	12	G							х				rope fastened to crotch of tree above head height tied to neighbouring tree	
6	Scots Pine	Pinus sylvestris	43.5	8	F							x	х			significant deadwood in canopy, vine growing throughout	
7	Black Walnut	Juglans nigra	41	10	G							х	х			vine growing up trunk	
8	Manitoba Maple	Acer negundo	33	6	F							х				significant deadwood in canopy, decay in crotch	
9	Oak	Quercus sp.	35	8	G							х				marked with orange dot	
10	Oak	Quercus sp.	45	8	G												
11	Elm	Ulmus sp.	13	4	G											old birds nest present	
12	Scots Pine	Pinus sylvestris	33	6	F							X	Х			significant deadwood in canopy, heavily pruned/broken branches	
13	Elm	Ulmus sp.	46	14	G			Х				х	Х			old birds nest present	
14	Elm	Ulmus sp.	14.5	4	G						Х	х					
15	Black Walnut	Juglans nigra	33	8	G												
16	Oak	Quercus sp.	39	10	G												
17	Manitoba Maple	Acer negundo	27, 29	8	F		Х					х	х				
18	Manitoba Maple	Acer negundo	39	10	F							х	х			trees growing from base	
19	White Mulberry	Morus alba	15.5	3	G												
20	Manitoba Maple	Acer negundo	36	6	F												
21	Norway Maple	Acer platanoides	29	8	F	х		х				х	х			damage at base of trunk (homeowner advised that damage was from a car accident), tar spot on leaves	
22	Norway Maple	Acer platanoides	34	8	F			х				х	х			tar spot on leaves	
23	Elm	Ulmus sp.	13.5	4	F								х		х	suppressed tree, leaning towards road	
24	Elm	Ulmus sp.	24.5	6	Р							х	х			significant deadwood	
25	Spruce	Picea sp.	49.5	12	D											tree is dead	
26	Spruce	Picea sp.	39.5	12	D											tree is dead, marked with orange dot	
27	Spruce	Picea sp.	68	16	F											marked with orange dot	
28	White Mulberry	Morus alba	±40	14	F											vertical seam of suspected rot, marked with orange dot	
29	White Mulberry	Morus alba	±30	12	F											vertical seam of suspected rot, marked with orange dot, leaning over road	
30	White Mulberry	Morus alba	±20	8	F										х	suppressed tree, leaning south	
31	Oak	Quercus sp.	93	16	G							х			х	second leader growing from base has lean	
32	Manitoba Maple	Acer negundo	10	4	F								х		х	vine growing throughout, leaning towards road	
33	Willow	Salix sp.	±40	8	F							х	х		х	vine growing throughout, leaning towards creek	
34	Willow	Salix sp.	±40	8	F							х	х		х	vine growing throughout, leaning towards creek	
35	Honeylocust	Gleditsia triacanthos	29.5	10	G				х				х		х	marked with orange dot	
36	Honeylocust	Gleditsia triacanthos	32.5	10	G				х				х			marked with orange dot	
37	Honeylocust	Gleditsia triacanthos	29	8	D											tree is dead, vertical seams	
38	Ivory Silk Tree	Syringa reticulata	7	2	G											guard present	
39	Ivory Silk Tree	Syringa reticulata	6	2	G											guard present	
40	Honeylocust	Gleditsia triacanthos	11	3	F								х				
41	Honeylocust	Gleditsia triacanthos	25	6	G												
42	Honeylocust	Gleditsia triacanthos	10.5	4	F											marked with orange dot, timber box is falling apart	
43	Honeylocust	Gleditsia triacanthos	32	6	G							х	х			marked with orange dot	
44	Honeylocust	Gleditsia triacanthos	33	6	G							Х	х			marked with orange dot, exposed roots	
45	Honeylocust	Gleditsia triacanthos	30.5	8	G							Х	х			marked with orange dot	
46	Crimson Norway Maple	Acer platanoides	36.5	8	G							х	х			exposed roots, vertical seams/ribs up trunk	
47	Crimson Norway Maple	Acer platanoides	32	8	F							Х	х			significant deadwood in canopy, marked with orange dot	
48	Norway Maple	Acer platanoides	±30	6	Р				Х			Х	х			significant deadwood in canopy, tar spot on leaves, broken leader	
49	Honeylocust	Gleditsia triacanthos	34	8	F							Х				suckers, heavily pruned due to hydro lines	
50	Norway Maple	Acer platanoides	34	8	F				х			x	x			heavily pruned, mechanical damage on trunk	

Tree	Common	Scientific	DBH	Spread	Overall Condition				Stru	ıctural	Defe	ects				ertical seams, significant deadwood, suckers ee is dead  betential for bat habitat, trunk cavities appressed tree, vine growing throughout aning towards road, tree is dead, recommend removal arked with orange dot own into chain link fence, main leader broken, significant deadwood ackers, significant deadwood, tree is 99% dead ackers, significant deadwood, tree is 99% dead ackers, significant deadwood, damage to trunk/bark arked with orange dot arked with green dot, significant deadwood accay at base of tree, suspected rot arked with pink dot, to uspected rot arked with pink dot, to uspected rot arked with pink dot, totally white ee is dead, debarked, totally white ee is dead, marked with pink dot ackers, marked with pink dot ackers, marked with pink dot ackers, marked with pink dot guirrels nest present, marked with pink dot ackers, marked with pink dot ackers is dead ace is in severe decline, vine growing throughout agnificant deadwood in canopy arase canopy
No.	name	name	(cm) * approx.	(m)	(D), (P), (F), (G), or (E)	GR	COD	NA	INCL	CRB	WBR	DPR	SMD	ADV	LN	Contrents
51	Crimson Norway Maple	Acer platanoides	22.5	6	F							Х	х			tip dieback on one main leader, marked with orange dot
52	Spruce	Picea sp.	27	6	Р							Х	х			vertical seams, significant deadwood, suckers
53	Dead coniferous	Dead coniferous	28	4	D											tree is dead
54	Spruce	Picea sp.	5	2	G											
55	Spruce	Picea sp.	6	2	G											
56	Spruce	Picea sp.	5	2	G				х		Х	Х	Х			
57	Willow	Salix sp.	±60	16	F											potential for bat habitat, trunk cavities
58	White Mulberry	Morus alba	15.5	6	F											suppressed tree, vine growing throughout
59	Common Buckthorn	Rhamnus cathartica	15	6	D										Х	leaning towards road, tree is dead, recommend removal
60	Honeylocust	Gleditsia triacanthos	31.5	10	G							Х	Х			marked with orange dot
61	Black Walnut	Juglans nigra	±35	8	F				х			Х	х			grown into chain link fence, main leader broken, significant deadwood
62	Crimson Norway Maple	Acer platanoides	25	4	Р							Х	х			suckers, significant deadwood, tree is 99% dead
63	Crimson Norway Maple	Acer platanoides	23	4	Р							Х	Х			suckers, significant deadwood, tree is 99% dead
64	Crimson Norway Maple	Acer platanoides	25	4	D							Х	Х			suckers, significant deadwood, damage to trunk/bark
65	Crimson Norway Maple	Acer platanoides	21	4	F							Х	х			marked with orange dot
66	Honeylocust	Gleditsia triacanthos	14	6	G											marked with orange dot
67	Maidenhair Tree	Ginkgo biloba	22.5	6	G											tree guard present, tree grate present
68	Flowering Crabapple	Malus sp.	15	4	F							Х	х			marked with orange dot
69	Flowering Crabapple	Malus sp.	11	4	F							х	х			marked with orange dot
	Norway Maple	Acer platanoides	27	6	F							Х	х			marked with orange dot
	Black Walnut	Juglans nigra	18	6	F								х			suppressed tree, hydro pole adjacent
	Norway Maple	Acer platanoides	15, 22	6	Р		х					Х	х			
73	Black Walnut	Juglans nigra	141	12	F				х			х	х			
	Black Walnut	Juglans nigra	33	8	F											
	Dead deciduous	Dead deciduous	±50	10	D											
	Oak	Quercus sp.	±40	8	P											
	Dead deciduous	Dead deciduous	±25	6	D											
	Oak	Quercus sp.	23	8	G								Х			·
			63	12	G								х			
	Oak Black Walnut	Quercus sp.	84.5	20								Х	х			squirreis nest present, marked with pink dot
		Juglans nigra			G								х			
	Oak	Quercus sp.	30	8	G								х			
	Oak	Quercus sp.	±20	4	G								Х			
83	Beech	Fagus americana	±30	8	G											
84	Dead deciduous	Dead deciduous	±20	2	D											
	Dead deciduous	Dead deciduous	±25	2	D											tree is dead
	Willow	Salix sp.	±30	6	P											
	Dead deciduous	Dead deciduous	±20	2	D							х	х			
	Black Walnut	Juglans nigra	±15	6	P					$\dashv$		X	×	$\vdash$		
	Oak	Quercus sp.	88	20	F					+		×	×	$\vdash$		significant deadwood in canopy
	Pine	Pinus sp.	±30	6	P					+		X	×			sparse canopy
	Oak	Quercus sp.	±35	10	G					$\dashv$		٨	^	H		
	Beech	Fagus americana	±35	10	G					$\dashv$				$\vdash$		
	Black Walnut	Juglans nigra	±20	8	G					$\dashv$				$\vdash$		
94	Black Walnut	Juglans nigra	±30	10	G					$\dashv$				$\vdash$		
95	Black Walnut	Juglans nigra	84	12	F					$\dashv$				$\vdash$		
96	Black Walnut	Juglans nigra	93	12	G					$\dashv$				$\vdash$		
97	Black Walnut	Juglans nigra	51	10	F											
98	Basswood	Tilia americana	±30, 30	12	F					-						
99	Oak	Quercus sp.	49	10	G					$\dashv$					Х	leaning over trail
100	Oak	Quercus sp.	20.5	8	G											



MUNICIPAL CLASS EA STUDY
CLARKSON ROAD AND
LAKESHORE ROAD
INTERSECTION IMPROVEMENTS
CONTRACT NO.

1 MM/DD/YY ISSUED FOR - DO

TREE INVENTORY
CHART

MUNICIPAL INFRASTRUCTURE

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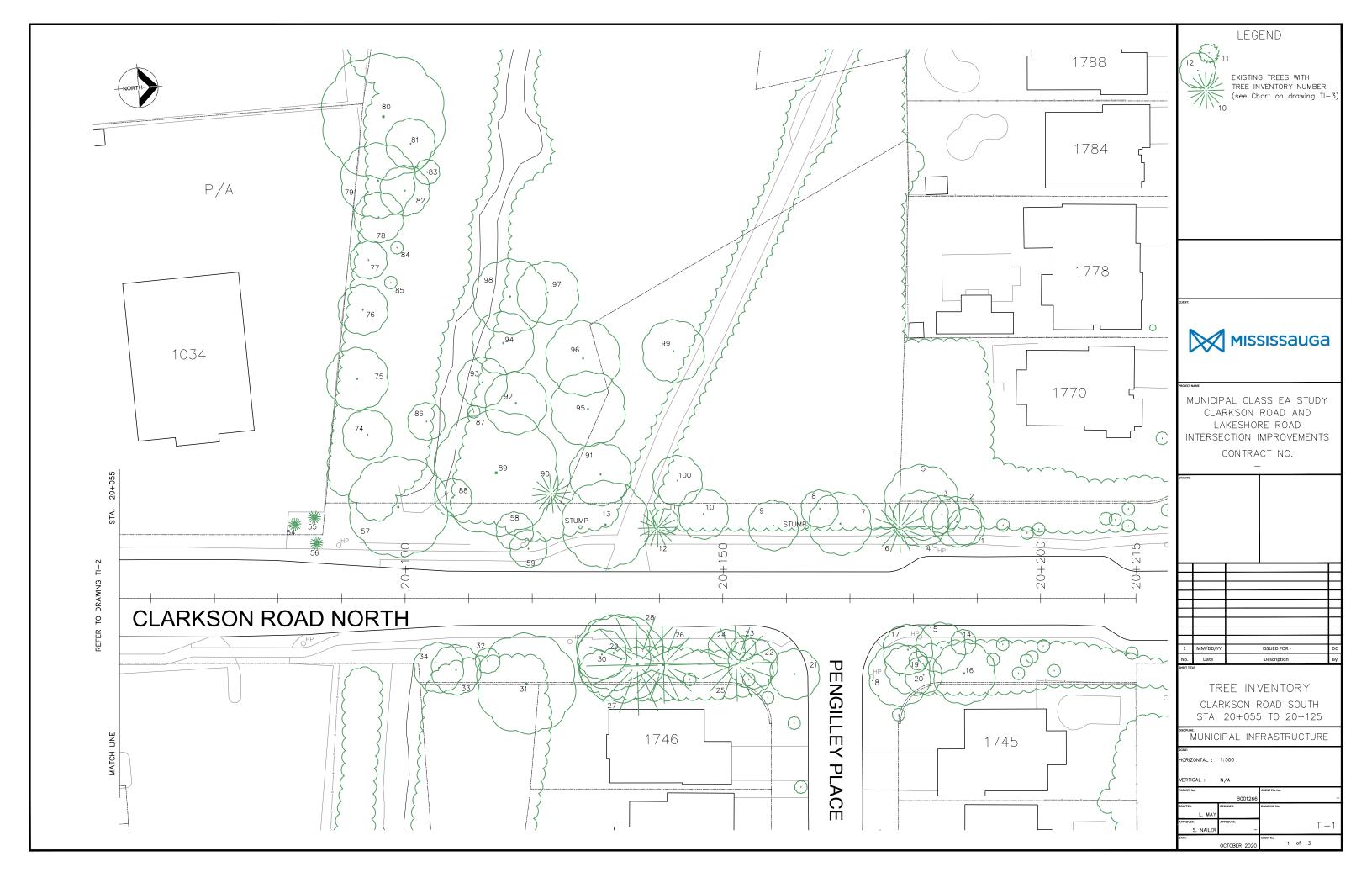
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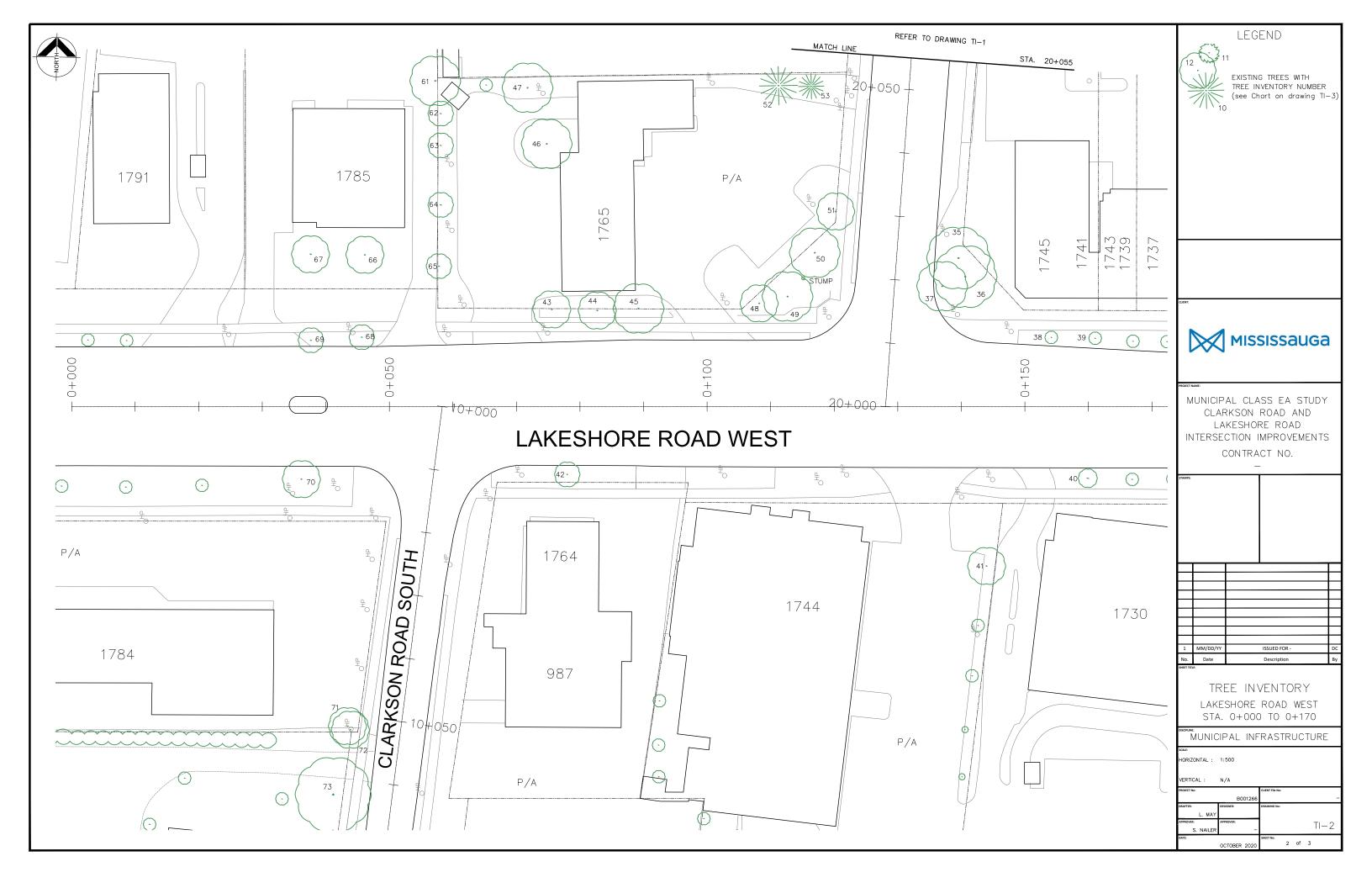
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#### CIMA+

415 Baseline Road West, 2<sup>nd</sup> Floor Bowmanville, ON L1C 5M2 T 905 697 4464 F 905 697 0443 **cima.ca** 







_	_	2 : 475	DBH		Overall				Str	uctur	al Def	ects				- Comments	
Tree No.	Common name	Scientific name	(cm) * approx.	Spread (m)	Condition (D), (P), (F), (G), or (E)	GR	COD	NA	INCL	CRB	MBR	DPR	SMD	ADV	LN		
1	Black Walnut	Juglans nigra	10	6	G								х			vine growing up trunk, suppressed tree	
2	Oak	Quercus sp.	30	8	G							х				marked with orange dot	
3	Black Walnut	Juglans nigra	25	6	G							х					
4	Oak	Quercus sp.	31	9	G							х	х			marked with orange dot	
5	Black Walnut	Juglans nigra	±40	12	G							х				rope fastened to crotch of tree above head height tied to neighbouring tree	
6	Scots Pine	Pinus sylvestris	43.5	8	F							x	х			significant deadwood in canopy, vine growing throughout	
7	Black Walnut	Juglans nigra	41	10	G							х	х			vine growing up trunk	
8	Manitoba Maple	Acer negundo	33	6	F							х				significant deadwood in canopy, decay in crotch	
9	Oak	Quercus sp.	35	8	G							х				marked with orange dot	
10	Oak	Quercus sp.	45	8	G												
11	Elm	Ulmus sp.	13	4	G											old birds nest present	
12	Scots Pine	Pinus sylvestris	33	6	F							X	Х			significant deadwood in canopy, heavily pruned/broken branches	
13	Elm	Ulmus sp.	46	14	G			Х				х	Х			old birds nest present	
14	Elm	Ulmus sp.	14.5	4	G						Х	х					
15	Black Walnut	Juglans nigra	33	8	G												
16	Oak	Quercus sp.	39	10	G												
17	Manitoba Maple	Acer negundo	27, 29	8	F		Х					х	х				
18	Manitoba Maple	Acer negundo	39	10	F							х	х			trees growing from base	
19	White Mulberry	Morus alba	15.5	3	G												
20	Manitoba Maple	Acer negundo	36	6	F												
21	Norway Maple	Acer platanoides	29	8	F	х		х				х	х			damage at base of trunk (homeowner advised that damage was from a car accident), tar spot on leaves	
22	Norway Maple	Acer platanoides	34	8	F			х				х	х			tar spot on leaves	
23	Elm	Ulmus sp.	13.5	4	F								х		х	suppressed tree, leaning towards road	
24	Elm	Ulmus sp.	24.5	6	Р							х	х			significant deadwood	
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26	Spruce	Picea sp.	39.5	12	D											tree is dead, marked with orange dot	
27	Spruce	Picea sp.	68	16	F											marked with orange dot	
28	White Mulberry	Morus alba	±40	14	F											vertical seam of suspected rot, marked with orange dot	
29	White Mulberry	Morus alba	±30	12	F											vertical seam of suspected rot, marked with orange dot, leaning over road	
30	White Mulberry	Morus alba	±20	8	F										х	suppressed tree, leaning south	
31	Oak	Quercus sp.	93	16	G							х			х	second leader growing from base has lean	
32	Manitoba Maple	Acer negundo	10	4	F								х		х	vine growing throughout, leaning towards road	
33	Willow	Salix sp.	±40	8	F							х	х		х	vine growing throughout, leaning towards creek	
34	Willow	Salix sp.	±40	8	F							х	х		х	vine growing throughout, leaning towards creek	
35	Honeylocust	Gleditsia triacanthos	29.5	10	G				х				х		х	marked with orange dot	
36	Honeylocust	Gleditsia triacanthos	32.5	10	G				х				х			marked with orange dot	
37	Honeylocust	Gleditsia triacanthos	29	8	D											tree is dead, vertical seams	
38	Ivory Silk Tree	Syringa reticulata	7	2	G											guard present	
39	Ivory Silk Tree	Syringa reticulata	6	2	G											guard present	
40	Honeylocust	Gleditsia triacanthos	11	3	F								х				
41	Honeylocust	Gleditsia triacanthos	25	6	G												
42	Honeylocust	Gleditsia triacanthos	10.5	4	F											marked with orange dot, timber box is falling apart	
43	Honeylocust	Gleditsia triacanthos	32	6	G							х	х			marked with orange dot	
44	Honeylocust	Gleditsia triacanthos	33	6	G							Х	х			marked with orange dot, exposed roots	
45	Honeylocust	Gleditsia triacanthos	30.5	8	G							Х	х			marked with orange dot	
46	Crimson Norway Maple	Acer platanoides	36.5	8	G							х	х			exposed roots, vertical seams/ribs up trunk	
47	Crimson Norway Maple	Acer platanoides	32	8	F							Х	х			significant deadwood in canopy, marked with orange dot	
48	Norway Maple	Acer platanoides	±30	6	Р				Х			Х	х			significant deadwood in canopy, tar spot on leaves, broken leader	
49	Honeylocust	Gleditsia triacanthos	34	8	F							Х				suckers, heavily pruned due to hydro lines	
50	Norway Maple	Acer platanoides	34	8	F				х			x	x			heavily pruned, mechanical damage on trunk	

Tree	Common	Scientific	DBH	Spread	Overall Condition				Stru	ıctural	Defe	ects				ertical seams, significant deadwood, suckers ee is dead  betential for bat habitat, trunk cavities appressed tree, vine growing throughout aning towards road, tree is dead, recommend removal arked with orange dot own into chain link fence, main leader broken, significant deadwood ackers, significant deadwood, tree is 99% dead ackers, significant deadwood, tree is 99% dead ackers, significant deadwood, damage to trunk/bark arked with orange dot arked with green dot, significant deadwood accay at base of tree, suspected rot arked with pink dot, to uspected rot arked with pink dot, to uspected rot arked with pink dot, totally white ee is dead, debarked, totally white ee is dead, marked with pink dot ackers, marked with pink dot ackers, marked with pink dot ackers, marked with pink dot guirrels nest present, marked with pink dot ackers, marked with pink dot ackers is dead ace is in severe decline, vine growing throughout agnificant deadwood in canopy arase canopy
No.	name	name	(cm) * approx.	(m)	(D), (P), (F), (G), or (E)	GR	COD	NA	INCL	CRB	WBR	DPR	SMD	ADV	LN	Contrents
51	Crimson Norway Maple	Acer platanoides	22.5	6	F							Х	х			tip dieback on one main leader, marked with orange dot
52	Spruce	Picea sp.	27	6	Р							Х	х			vertical seams, significant deadwood, suckers
53	Dead coniferous	Dead coniferous	28	4	D											tree is dead
54	Spruce	Picea sp.	5	2	G											
55	Spruce	Picea sp.	6	2	G											
56	Spruce	Picea sp.	5	2	G				х		Х	Х	Х			
57	Willow	Salix sp.	±60	16	F											potential for bat habitat, trunk cavities
58	White Mulberry	Morus alba	15.5	6	F											suppressed tree, vine growing throughout
59	Common Buckthorn	Rhamnus cathartica	15	6	D										Х	leaning towards road, tree is dead, recommend removal
60	Honeylocust	Gleditsia triacanthos	31.5	10	G							Х	Х			marked with orange dot
61	Black Walnut	Juglans nigra	±35	8	F				х			Х	х			grown into chain link fence, main leader broken, significant deadwood
62	Crimson Norway Maple	Acer platanoides	25	4	Р							Х	х			suckers, significant deadwood, tree is 99% dead
63	Crimson Norway Maple	Acer platanoides	23	4	Р							Х	Х			suckers, significant deadwood, tree is 99% dead
64	Crimson Norway Maple	Acer platanoides	25	4	D							Х	Х			suckers, significant deadwood, damage to trunk/bark
65	Crimson Norway Maple	Acer platanoides	21	4	F							Х	х			marked with orange dot
66	Honeylocust	Gleditsia triacanthos	14	6	G											marked with orange dot
67	Maidenhair Tree	Ginkgo biloba	22.5	6	G											tree guard present, tree grate present
68	Flowering Crabapple	Malus sp.	15	4	F							Х	х			marked with orange dot
69	Flowering Crabapple	Malus sp.	11	4	F							х	х			marked with orange dot
	Norway Maple	Acer platanoides	27	6	F							Х	х			marked with orange dot
	Black Walnut	Juglans nigra	18	6	F								х			suppressed tree, hydro pole adjacent
	Norway Maple	Acer platanoides	15, 22	6	Р		х					Х	х			
73	Black Walnut	Juglans nigra	141	12	F				х			х	х			
	Black Walnut	Juglans nigra	33	8	F											
	Dead deciduous	Dead deciduous	±50	10	D											
	Oak	Quercus sp.	±40	8	P											
	Dead deciduous	Dead deciduous	±25	6	D											
	Oak	Quercus sp.	23	8	G								Х			·
			63	12	G								х			
	Oak Black Walnut	Quercus sp.	84.5	20								Х	х			squirreis nest present, marked with pink dot
		Juglans nigra			G								х			
	Oak	Quercus sp.	30	8	G								х			
	Oak	Quercus sp.	±20	4	G								Х			
83	Beech	Fagus americana	±30	8	G											
84	Dead deciduous	Dead deciduous	±20	2	D											
	Dead deciduous	Dead deciduous	±25	2	D											tree is dead
	Willow	Salix sp.	±30	6	P											
	Dead deciduous	Dead deciduous	±20	2	D							х	х			
	Black Walnut	Juglans nigra	±15	6	P					$\dashv$		X	×	$\vdash$		
	Oak	Quercus sp.	88	20	F					+		×	×	$\vdash$		significant deadwood in canopy
	Pine	Pinus sp.	±30	6	P					+		X	×			sparse canopy
	Oak	Quercus sp.	±35	10	G					$\dashv$		٨	^	H		
	Beech	Fagus americana	±35	10	G					$\dashv$				$\vdash$		
	Black Walnut	Juglans nigra	±20	8	G					$\dashv$				$\vdash$		
94	Black Walnut	Juglans nigra	±30	10	G					$\dashv$				$\vdash$		
95	Black Walnut	Juglans nigra	84	12	F					$\dashv$				$\vdash$		
96	Black Walnut	Juglans nigra	93	12	G					$\dashv$				$\vdash$		
97	Black Walnut	Juglans nigra	51	10	F											
98	Basswood	Tilia americana	±30, 30	12	F					-						
99	Oak	Quercus sp.	49	10	G					$\dashv$					Х	leaning over trail
100	Oak	Quercus sp.	20.5	8	G											



MUNICIPAL CLASS EA STUDY
CLARKSON ROAD AND
LAKESHORE ROAD
INTERSECTION IMPROVEMENTS
CONTRACT NO.

1 MM/DD/YY ISSUED FOR - DO

TREE INVENTORY
CHART

MUNICIPAL INFRASTRUCTURE

HORIZONTAL : 1:500

VERTICAL: N/A

PROJECT No:				CLIENT File No:					
		во	01266						-
DRAFTER:		DESIGNER:		DRAWING No:					
L.	MAY								
APPROVER:		APPROVER:						TI-	7
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DATE:				SHEET No:		٠.			
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