

ARBORIST REPORT

(Refer also to Tree Inventory & Preservation Plan By Baker Turner Inc., August 18, 2020)

Ann St. & High St. Mississauga, Ontario

Owner
10 West GO GP Inc.

Prepared By

Baker Turner inc

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August 18, 2020

INTRODUCTION

Site Context

The site was visited in January 2020. It is located in Mississauga between Park St to the north, Hurontario St to the east, High St. to the south, and Ann St. to the west. Surrounding the site are large condominium buildings and a mix of shops. To the north is the Port Credit GO station which has a large parking lot that is across the street from the site.



Figure 1. Context Map

Assignment

Baker Turner Inc. was retained to complete an inventory of the site/city trees and subsequently prepare an Arborist Report and a Tree Inventory & Preservation Plan. Trees were measured for approximate canopy width and trunk diameter at breast height (DBH), and assessed for structural and biological condition. Please refer to the inventory provided on the tree inventory & preservation plan for details.

Site Description and Proposed Project

The subject site occupies nearly a full block in downtown Port Credit, Mississauga. The site is currently occupied by a large open space in the north quadrant of the site. Along High St. and Ann St. there are single detached houses that are occupied by small businesses and residential tenants. The proposed work will impact the existing trees on the subject site and municipal boulevard.

The proposed plan is for a multi-storey building in the north and eastern side of the property. On the east side of the property there is a plan to preserve city park land and in the south end of the site, two existing buildings are proposed for preservation. Several large trees are present on the east and south portions of the site that align with these areas of preservation. Elsewhere on the site particularly along existing fence lines there are several large trees that will require removal.



Figure 2: Tree number 2 mid-block along Hurontario St.



Figure 3: Trees 6, 7, and 66 along the south east property line of city-owned property.



Figure 4: Trees at the south corner of the city-owned property.



Figure 5: Trees X – X along south west property line of city-owned property.



Figure 6: Trunks of trees 8 to 10 in the south corner of the city-owned property.



Figure 7: West corner of city-owned property with tree 23 – 25, tree 27 and 28 in distance, and tree 19 on the right.



Figure 8: Trees 57– 60 along fence line between existing houses on High St.



Figure 9: Trees 51 and 52.



Figure 10: Tree 67.



Figure 11: Trees 70 – 75 along High St. at corner of Hurontario St.



Figure 12: Trees 70.

TREE INVENTORY

Tree Inventory Legend

DBH - Diameter of tree at breast height (1.37m) measured in centimetres.

Canopy Diameter (m) - Approximate diameter of canopy in meters.

Biological Health -

H (High Quality) - Desirable urban tree species with vigorous growth and no apparent symptoms of disease or pests.

MH (Medium-High Quality) - Desirable urban tree species with moderate growth or minor symptoms of disease that are aesthetic only and less than 5% dieback.

M (Medium Quality) – Any species with moderate growth and minor dieback of less than 20% of canopy and/or minor symptoms of disease or pests.

ML (Medium-Low Quality) - Low vigour, with dieback of 15% - 50% of canopy and/or major symptoms of disease or pests.

L (Low Quality) - More than 50% of the canopy is dead.

Structural Condition -

H (High Quality) - No apparent defects to root crown, trunk, leader, or major limbs.

MH (Medium-High Quality) - Only insignificant defects to root crown or trunk and minor defects to canopy including limbs.

M (Medium Quality) - Minor defects to root crown, trunk and major limbs.

ML (Medium-Low Quality) – Major defects to long-term structure particularly at root crown, trunk and major limbs.

L (Low Quality) - Major defects that have an immediate risk of failure.

Recommended Action -

P - Preserve

R - Remove for poor condition

RC - Remove for Construction

TABLE 1: TREE INVENTORY

Tree No.	Species	dbh (cm)	Canopy diameter (m)	Biological Health	Structural Condition	Recommended Action	Comments	Subject Site (developer-owned)	Subject Site (city-owned)	City-owned boulevard
1	Acer platanoides	26	6	M	M	P	Large wound at base, 15% dia trunk damage, Backfilled, and one medium-sized dead branch.			X

Tree No.	Species	dbh (cm)	Canopy diameter (m)	Biological Health	Structural Condition	Recommended Action	Comments	Subject Site (developer-owned)	Subject Site (city-owned)	City-owned boulevard
2	Juglans nigra	102	15	MH	MH	P	Grown over former fence still embedded in trunk, large hole/wound at 1m (15cm dia), some broken branches in interior of canopy but vigorous growth for size. Oe large crack and injury in upper canopy on central leader.			X
3	Acer platanoides	~55	10	M	M	P	Wounds from fence. Main union is in poor condition with 2 long healed cracks up to 8m height. There are 2 lower dead branches and one large broken branch. 10% of canopy covered in vine.			X
4	Morus alba	15, 15.5	7	MH	ML	RC	Multistem tree with included bark at unions. Leans towards park site. Some crossing branches.			X
5	Aesculus hippocastanum	35	5	ML	ML	RC	Growing through fence and vine covers 70% of canopy.		X	
6	Acer platanoides	22, 11	6	ML	ML	RC	Vine covers 70% of canopy and one med.-sized dead branch.		X	
7	Acer platanoides	31	6	M	M	RC	Growing through fence mesh and has thicket creeper in canopy.		X	
8	Acer saccharinum	32, 44.5	10	MH	M	RC	Co-dominant leaders, two large dead branches, growing through fence mesh.		X	

Tree No.	Species	dbh (cm)	Canopy diameter (m)	Biological Health	Structural Condition	Recommended Action	Comments	Subject Site (developer-owned)	Subject Site (city-owned)	City-owned boulevard
9	Acer platanoides	~32	10	M	M	RC	Growing through fence mesh, leans 10° to north east.		X	
10	Acer platanoides	31, 46.5	9	M	M	RC	Co-dominant leaders with included bark at base to 30cm ht. Leans 10° to north west. Has girdling root at base.		X	
11	Acer platanoides	22	6	M	ML	RC	Grows through fence mesh, suppressed, and leans 10° to north west.		X	
12	Acer platanoides	14, 15x2, 18x2, 19x2, 15, 26.5	10	M	ML	RC	Multistem tree with included bark between all trunks. Girdling roots across the base. Three large injuries from fuse branches.		X	
13	Acer platanoides	25, 33	8	M	M	RC	Included bark at base, leans 10° to east and a girdling root.		X	
14	Acer platanoides	16	4	M	M	RC	Girdling root with tree #13 and has a small canopy.		X	
15	Acer platanoides	91.5	15	M	ML	RC	Girdling root across 50% of base and over 15 medium-sized dead branches.		X	
16	Acer platanoides	15.5	6	M	M	RC			X	
17	Acer negundo	19.5	5	ML	ML	RC	45°L to east, slight canopy with 50% of branches with tip dieback.		X	
18	Acer negundo	22.5	7	M	M	RC	Fused with another small tree at base to 1m ht.		X	

Tree No.	Species	dbh (cm)	Canopy diameter (m)	Biological Health	Structural Condition	Recommended Action	Comments	Subject Site (developer-owned)	Subject Site (city-owned)	City-owned boulevard
19	Acer negundo	35.5, 40	9	M	M	RC	Co-dominant leader with one leader leaning 45° to north east. Some grape vine covers 5% of canopy.		X	
20	Fraxinus pennsylvanicus	14	5	MH	M	RC	Grape covers the lower 25% of canopy, but no EAB obvious yet.		X	
21	Acer platanoides	17	5	M	ML	RC	Supporting tree #22 and grows through a fence mesh.		X	
22	Acer negundo	27.5	8	M	ML	RC	45°L to south on tree #21.		X	
23	Acer platanoides	24, 25	8	M	ML	RC	Large central leader cut at 1.7m ht. an and wound from cut on remaining leader. Has included bark from 0.5 to 1.7m ht. One leader leans 30° to south. Has several small dead branches.		X	
24	Acer platanoides	35, 41	12	M	M	RC	Included bark from 1m to 1.7m, tight branching causing injury from fusing trunk.		X	
25	Acer negundo	23	6	M	ML	RC	Leans 45° to north east and has a sparse canopy.		X	
26	Gleditsia tricanthos var. inermis	62	16	H	H	RC	Many 10 small dead branches.	X		
27	Acer negundo	35	7	M	M	RC	Large pruned limb at 4m, medium-sized wound at base of 3% trunk damage.	X		

Tree No.	Species	dbh (cm)	Canopy diameter (m)	Biological Health	Structural Condition	Recommended Action	Comments	Subject Site (developer-owned)	Subject Site (city-owned)	City-owned boulevard
28	Acer negundo	32	7	M	M	RC	Medium-size wound from cut co-dominant leader covering 15% trunk damage. Girdling root also present.	X		
29	Thuja occidentalis (Hedge)	25x 2, 30x5, 15x2	5	M	M	RC	All multi-stem from 0.5m height.	X		
30	Acer negundo	14	4	MH	H	RC	Leans 15° to west.			X
31	Thuja occidentalis	20.5	5	M	M	RC	45oL to south west and 20% trunk wounded.			X
32	Thuja occidentalis	16	3	ML	M	RC	Suppressed.			X
33	Acer negundo	78	17	M	ML	RC	45oL, with more than 6 large branches cut of over 15cm dia. Also 2 large cuts of 30cm dia.	X		
34	Fraxinus pennsylvanicus	25, 25				R	DEAD	X		
35	Acer negundo	44	9	M	M	RC	Tip dieback of 10% and 2 large dead branches.	X		
36	Fraxinus pennsylvanicus	14				R	DEAD	X		
37	Acer platanoides	28, 38	9	MH	M	RC	tip dieback of 10% and 2 large dead branches.	X		
38	Acer platanoides	28.5	9	MH	M	RC	Large prune cut of 15cm at 2m	X		
39	Acer platanoides	22	6	MH	M	RC	Large wound at 30% trunk damage at root crown.	X		
40	Acer platanoides	32	9	MH	M	RC		X		
41	Acer platanoides	23	6	MH	MH	RC	Small dead branches and small cuts at base.	X		

Tree No.	Species	dbh (cm)	Canopy diameter (m)	Biological Health	Structural Condition	Recommended Action	Comments	Subject Site (developer-owned)	Subject Site (city-owned)	City-owned boulevard
42	Fraxinus pennsylvanicus	~30				R	DEAD	X		
43A	Acer platanoides	~15	6	MH	MH	RC	45° lean to south, branch fused creating wound at 43A.	X		
43B	Acer platanoides	~25	6	MH	MH	RC	10°L to west.	X		
44	Fraxinus pennsylvanicus	~30				R	DEAD	X		
45	Acer platanoides	20	7	MH	MH	RC	Hanging branch in canopy.	X		
46	Fraxinus pennsylvanicus	~30				R	DEAD	X		
47	Fraxinus pennsylvanicus	~35				R	DEAD	X		
48	Acer platanoides	29	9	MH	MH	RC	Backfilled and unbalanced canopy to east.	X		
49	Acer platanoides	17	5	H	MH	RC		X		
50	Acer platanoides	31	7	MH	M	RC	Crack from 0.5m to 2m, unbalanced canopy to west and second crack from 2m to 4m ht.	X		
51	Picea pungens	39	4	M	M	RC	Backfilled.	X		
52	Picea pungens	46	4	M	ML	RC	Large wound of 15% of trunk diameter at base with sawdust and backfill over base.	X		
53A	Morus alba	18	5	M	M	RC	slight canopy and unbalanced crown to south.	X		
53B	Fraxinus pennsylvanicus	14				R	DEAD	X		
54	Acer platanoides	21	6	MH	MH	RC	crack from 1m to 1.5m ht.	X		

Tree No.	Species	dbh (cm)	Canopy diameter (m)	Biological Health	Structural Condition	Recommended Action	Comments	Subject Site (developer-owned)	Subject Site (city-owned)	City-owned boulevard
55	Acer platanoides	20	6	MH	MH	RC	Several medium-sized prune cuts.	X		
56	Morus alba	14.5	5	H	MH	P	Small branch stubs	X		
57	Ailanthus altissima	51	8	H	MH	P	large pruned limb with ripping wound and two other medium-sized broken branch wounds.	X		
58	Morus alba	35	8	M	M	P	leans 30° to south.	X		
59	Ailanthus altissima	17	4	H	H	RC	unbalanced canopy to south.	X		
60	Acer platanoides	16	4	M	M	RC	backfilled, has 5 small prune cuts and a thin wound from 30cm to 1m ht.	X		
61	Acer platanoides	20.5	4	MH	MH	RC		X		
62	Acer negundo	19.5	5	M	M	RC	30° lean to south, one dead trunk fallen.	X		
63	Acer platanoides	35	6	MH	MH	RC		X		
64	Salix alba 'Tristis'	19	4	M	ML	RC	multibranch node.	X		
65	Salix alba 'Tristis'	25	6	MH	M	RC	10°L to north east.	X		
66	Ulmus americana	44.5	8	L	L	R	50% of canopy is dead. Vine is covering 50% of remaining canopy.	X		
67	Gingko biloba	131.5	18	L	L	R	80% of canopy dead. Three leaders and included bark from base to 2m height also at 4 to 8m ht. Large cut at 1m height.	X		

Tree No.	Species	dbh (cm)	Canopy diameter (m)	Biological Health	Structural Condition	Recommended Action	Comments	Subject Site (developer-owned)	Subject Site (city-owned)	City-owned boulevard
68	Malus sp.	29, 17	7	MH	MH	P	10% trunk damaged at 30cm ht. and greater than 2 medium-sized dead branches.	X		
69	Malus sp.	10, 10	6	M	ML	P	Leans 45° to east.			X
70	Acer saccharinum	126.5	18	ML	M	P	Three of eight leaders showing dieback, central trunk largely dead with tight branches at multibranch nodes, but no included bark	X		
71	Prunus avium	29.5	7	M	ML	P	large prune cut at 1.5m height and 15° lean to south.	X		
72	Prunus avium	22, 23.5, 25, 31	9	MH	ML	P	Multi-leader with included bark at base of trunk with 2 of 4 limbs leaning 45° to south east and south west.	X		
73	Picea pungens	24.5	24.5	H	H	P		X		
74	Picea pungens	25	4	H	H	P		X		
75	Picea pungens	32	5	H	H	P		X		
76	Acer platanoides	14.5	4	MH	MH	RC	Medium dead branches and small injuries at 6m height.	X		
77	Thuja occidentalis	20, 15x3	3	M	MH	P	tight unions			X
78	Thuja occidentalis	22	3	M	MH	P				X
79	Thuja occidentalis	15.5	2	M	MH	P				X
80	Thuja occidentalis	16,16, 19	3	M	MH	P	tight unions with included bark			X
81	Thuja occidentalis	15, 18	3	M	MH	P	tight unions with included bark			X

RECOMMENDATIONS

The following recommendations follow from the conceptual plan for the site development. Servicing and grading have not been considered in developing these recommendations. As this projects moves forward a fuller spectrum of development requirements will be necessary. See figure 13 for details on tree protection and see the tree Inventory Plan for locations. Please note that some trees just below the 15cm DBH cut-off for regulated trees have been included in the inventory (#20, 36, 53B, 76); however, these trees have not been counted in the lists below as they are not subject to municipal by-law.

Trees located on the developer-owned portion of the subject site

Remove trees #26 – 29, 33, 35, 37 – 41, 43A, 43B, 45, 48 – 52, 53A, 54, 55, 59, 60 and 61- 65 for construction as identified on the Tree Inventory & Preservation Plan.

Remove trees #34, 42, 44, 46, 47, 66, and 67 for poor health or dead as identified on the Tree Inventory & Preservation Plan.

Preserve trees #56 – 58, 68, and 71 – 75 as identified on the Tree Inventory & Preservation Plan. Preserved trees should be enclosed within tree protection hoarding.

Trees located on the city-owned portion of the subject site

Remove trees #5 – 19, 21 - 25 for construction as identified on the Tree Inventory & Preservation Plan.

Trees located in the city-owned street boulevard

Remove trees #4 and 30 - 32 for construction as identified on the Tree Inventory & Preservation Plan.

Preserve trees #1, 2, 3, 69, 70, 77 – 81 as identified on the Tree Inventory & Preservation Plan. Preserved trees should be enclosed within tree protection hoarding.

Where shown on the tree inventory plan, tree protection must be present and in good condition throughout construction. Additionally, within the tree protection zone there may be no:

- Demolition, construction, replacement or alteration of permanent or temporary buildings or structures.
- Installation of large stones, boulders or additional hard surface treatment
- Altering grade by adding or removing soil or fill, excavating, trenching, topsoil or fill scraping, compacting soil or fill, dumping or disturbance of any kind
- Storage of construction materials, equipment, wood, branches, leaves, soil or fill, construction waste or debris of any sort
- Application, discharge or disposal of any substance or chemical that may adversely affect the health of a tree e.g. concrete sludge, gas, oil, paint, pool water or backwash water from a swimming pool
- Causing or allowing water or discharge, to flow over slopes or through natural areas
- Access, parking or movement of vehicles, equipment or pedestrians related to construction activities.
- Cutting, breaking, tearing, crushing, exposing or stripping tree's roots, trunk and branches.
- Nailing or stapling into a tree, including attachment of fences, electrical wires or signs
- Stringing of cables or installing lights on trees
- Soil remediation, removal of contaminated fill
- Excavating for directional or micro-tunneling and boring

For excavation within 1m of tree protection hoarding areas in areas under the canopy of an existing tree, it is advisable to perform root pruning by cutting all roots cleanly to the depth of excavation and a maximum of 3 feet using accepted arboricultural techniques. Hydrovac is recommended as the preferred method for excavation in these locations.

Excavation taking place at a distance greater than 1m from tree protection hoarding may make use of equipment such as a backhoe. Where roots greater than 2.5cm in diameter are encountered that likely come from a tree to be protected, large equipment must be stopped and any roots encountered should be exposed by removing soil by hand tools. Roots must be unearthed to the limit of excavation at which point they may be cut cleanly with a saw perpendicular to the direction of the root.

Individual Tree Protection Notes

Tree 1, 2, 3, 68 and 69.

Trees 1, 2 and 3 are large trees within the city owned boulevard. These trees will be proximate to the excavation of parking on the site. It is likely possible to preserve these trees by making use of shoring at the limit of excavation and root sensitive pruning.

Detailed shoring plans are not within the scope of this report and must be designed, detailed and stamped by civil and/or geotechnical engineer to ensure workplace safety.

Prior to excavation a trench should be dug at the limit of excavation. This trench must be dug by hand or hydrovac. Where roots are encountered these must be cut with a sharp blade at the limit of excavation. The exposed soil must then be watered lightly with a fine mist in order to prevent further soil erosion and then covered with a light-coloured tarpaulin. Hoarding must be placed as close to this excavation edge as permissible from construction activities.

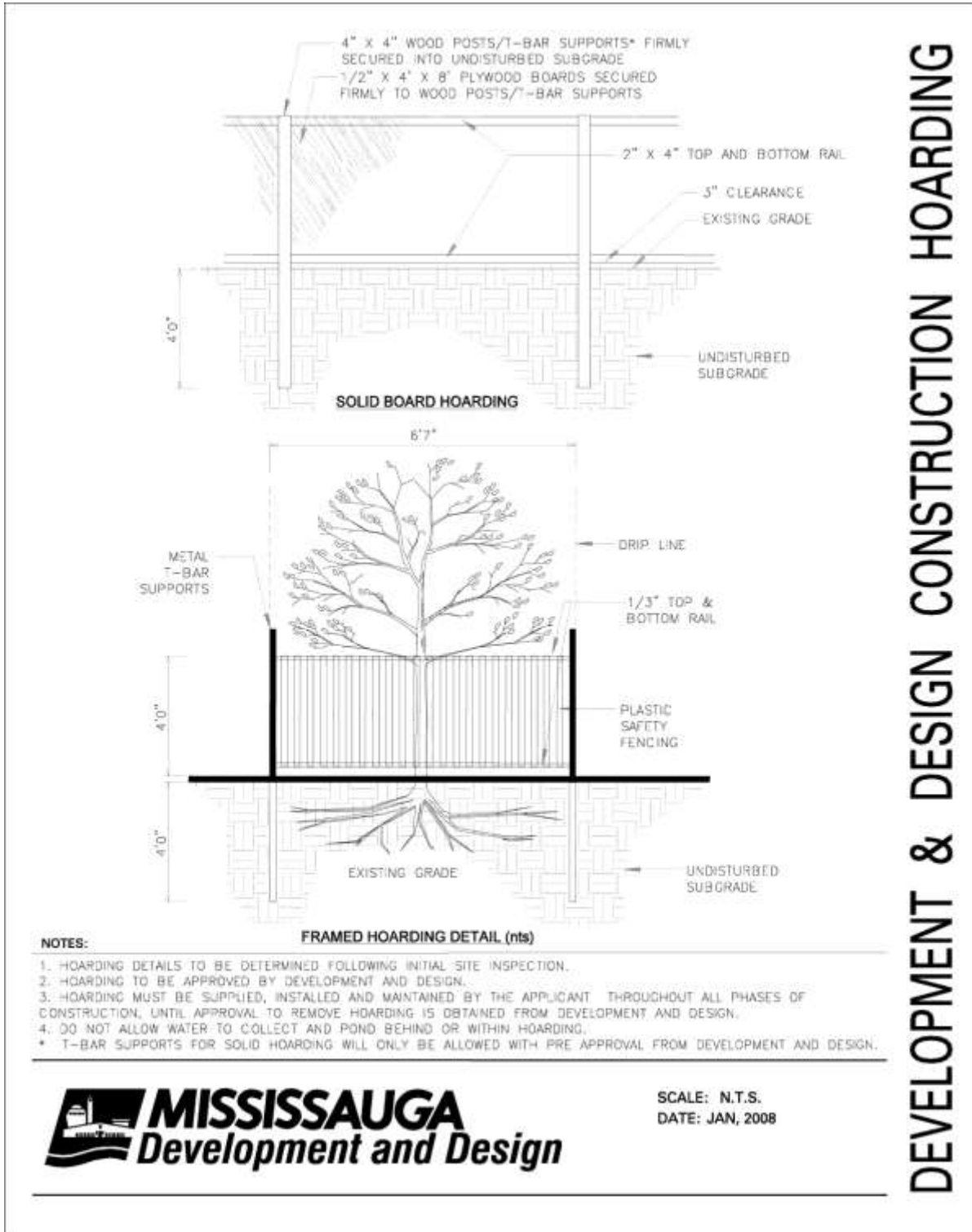


Figure 13: Mississauga Tree Protection Hoarding

TREE MAINTENANCE

Prior to construction:

When tree removals are completed for those trees that have been approved by the city, pruning should also take place to remove deadwood, broken branches in protected trees that may be unsafe during construction. Where tree branches conflict with construction activities and clearance for vehicles, pruning should be identified on site with both the contracting arborist and general contractor present.

Hoarding may be moved temporarily to provide access for pruning and approved tree removal. These trees and branches should be felled away from protected areas to avoid pulling and breaking of roots of trees to remain.

All Pruning must be completed by a qualified arborist following standard ISA procedures and must take place prior to the start of construction.

Individual Pre-construction Tree Maintenance Notes

Tree 70

Tree 70 is a large silver maple at the corner of Hurontario St and High St. This tree is large and beautiful but is showing signs of decline. There are many large limbs at the centre of the canopy that are now dead or dying. These limbs must be removed at the beginning of any work being done on the site. This tree should be monitored throughout construction.

Once construction begins:

Additional monitoring and maintenance may be required. At regular intervals during construction, at the close of construction and one year after the close of construction all preserved trees should be assessed for potential pests and signs of injuries from construction. Injuries from construction weaken trees and provide a vector for infection. A pest management approach may then be initiated where required.

Supplemental irrigation may be required throughout construction. Irrigate tree roots during drought conditions by deep root watering once every two weeks throughout the growing season and the following year after work has been completed. All applications of water should be a minimum of 2.5cm applied over the protected root zone. Watering must be done slowly to ensure that water does not run away from the root zone and to ensure soil around the root system of the tree is well saturated. Additional supplemental watering is required for some trees and detailed in the tree maintenance recommendations.

Before watering ensure that soil is not already overly saturated by removing a handful of soil from 5cm below grade within the root zone. If the soil has a sour smell, do not water in that area and check any irrigation system that may be overwatering the area. When taking soil bear in mind micro variations in the root zone such as depressions where water may be settling. Multiple samples may be required to gauge the need for additional watering.

After Construction is Complete:

After the completion of construction a mulch ring should be added to all trees providing a buffer between the tree trunks and lawn maintenance activities. Mulch rings to have sod cleared by hand and

10cm depth composted pine bark mulch added on an annual basis. This is recommended for both new and existing trees.

- MULCH RING RADIUS
Trees < 150mm DBH: 75cm radius
Trees > 150mm DBH: 150cm radius

Supplements of fertilizer may be helpful after activities to supplement deficiencies however it should not be considered a cure-all. At times fertilizer may spur growth at the expense of tree functions that are defensive in nature. Fertilizer should not be applied to preserved trees from the start of construction activities to one year after the close of construction. One year after the close of construction trees must be re-assessed and soil tested. In cases where soil tests indicate a nutrient deficiency, a fertilizer regime may be required.

LIMITING CONDITIONS

This tree inventory was derived from data gathered on the site using accepted arboricultural practices. This includes a visual examination of all above ground parts of the tree for structural defects and signs of health and vigour. All examination took place from the ground plane and no trees were cored, probed or climbed. There was also no detailed inspection of the root crown where excavation would have been required.

This inventory describes the health, structural stability and identifies potential hazards of the trees to a reasonable extent. Where dead branches or other are identified in the notes it is the owner's responsibility to take action. This inventory does not provide or imply a guarantee that these trees or branches will remain standing intact. The stability of any tree or branches of a tree cannot be predicted with absolute certainty under all circumstances.

There is, likewise, no guarantee of survival for those trees to be preserved during construction but which are subject to injury. Tree preservation guidelines that are provided in this report are generally suitable for the tree as determined by the visual assessment. However, there is no guarantee that these guidelines will be followed throughout construction unless an arborist is retained for complete supervision of the site at all times. Even with complete supervision, roots in an urban environment are unpredictable. Guidelines that suppose an even distribution of roots may not be effective in cases where roots have clustered in small areas.

The assessment in this inventory is valid only at the time of inspection.

All field data was collected and report prepared by Jon Woodside, ISA Certified Arborist.



A handwritten signature in blue ink, appearing to read "JW".

Jon Woodside
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