



Arborist Report
&
Tree Preservation Plan

9773 Keele Street
Vaughan, ON

Prepared for:
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INTRODUCTION:

I have been retained by Mr. Matthew Baldassarra of *Baldassarra Architects Inc.*, to complete an arborist report concerning the above subject site. The purpose of this report is to provide a tree preservation plan, with recommendations, regarding all regulated trees affected by the proposed development. The revisions for this report were completed by Davide Carnevale ASCA Registered #370 on March 17, 2020 whereas all field work was completed by Cletus Gavin ISA Certified Arborist ON 1576-A on July 13, 2016.

HISTORY AND ASSIGNMENT:

I have been advised by Mr. Baldassarra that the above subject site is scheduled for development, which includes the relocation of the existing dwelling and the construction of a townhouse development as per the Tree Preservation Plan – TPP-1 in Appendix I. As the consulting arborist retained for this project, *The Tree Specialists Inc.*, can be further retained (if necessary) to act as the Project Consulting Arborist (PCA) to provide on-site monitoring and any necessary remedial actions as required by the municipality.

The assignment is as follows:

1. Survey all regulated trees that will be affected by the proposed project, assess their condition and determine if they are suitable for preservation.
2. Provide recommendations for tree preservation.
3. Determine if proposed construction will adversely affect the health of such trees.

ASSUMPTION AND LIMITING CONDITIONS:

1. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however *The Tree Specialists, Inc.* can neither guarantee nor be responsible for the accuracy of information provided by others.
2. Excerpts or alterations to the report, without the authorization of the author or his company invalidates its intent and/or implied conclusions. This report may not be used for any expressed purpose other than its intended purpose and alteration of any part of this report invalidates the report.
3. Unless expressed otherwise: 1) information contained in this report covers only those items that were examined and reflect the condition of those items at the time of inspection; and 2) the inspection was made using accepted arboricultural techniques and is limited to visual examination of accessible items without climbing, dissection, probing or coring and detailed root examination involving excavation. While reasonable efforts have been made to assess trees outlined in this report, there is no warranty or guarantee, expressed or implied, that problems or deficiencies with the tree(s) or any part(s) of them may not arise in the future. All trees should be inspected and re-assessed periodically.
4. The determination of ownership of any subject tree(s) is the responsibility of the owner and any civil or common-law issues, which may exist between property owners with respect to trees, must be resolved by the owner. A recommendation to remove or maintain tree(s) does not grant authority to encroach in any manner onto adjacent private properties

TREE SURVEY AND RECOMMENDATIONS:

See TPP-1 plan in Appendix I for tree location, Table #1 for species identification, condition, and recommendations and Appendix II for corresponding Digital Images.

Table #1: 9773 Keele Street - Vaughan

Tree #	Species	D ¹ B H (cm)	Drip line (m)	Condition ²	Category ³	Comments	Suitability ⁴ for Conservation	Recommendation ⁵	M ⁶ T P Z (M)
103	<i>Acer platanoides</i>	28	3	F	1	- deadwood - clear of proposed construction - shall retain its existing root structure	M	Ps	1.9
104	<i>Acer platanoides</i>	39	4	F	4	- deadwood, cavity at base - clear of proposed construction - shall retain its existing root structure	M	Ps	2.4
105	<i>Aesculus hippocastanum</i>	41	4	P	4	- 40% dead, poor union cavity in trunk - clear of proposed construction - shall retain its existing root structure - preserve as instructed by client	P	Ps	3.0
106	<i>Acer platanoides</i>	50	4	F	4	- deadwood, unbalanced, storm break - clear of proposed construction - shall retain its existing root structure	M	Ps	3.0
107	<i>Acer platanoides</i>	58	4	F	4	- deadwood, unbalanced - clear of proposed construction - shall retain its existing root structure	M	Ps	3.6
108	<i>Acer platanoides</i>	65	5	F	4	- deadwood, in decline - shall retain its existing root structure	M	Ps	3.6

¹ **DBH:** Diameter at Breast Height is a measurement in centimeters, using a caliper tape, of the tree stem at 1.37 meters above existing grade.

² **Condition:** A rating of **H**azardous/**D**ead/**P**oor/**F**air/**G**ood/**E**xcellent was determined for each tree by visually assessing all the above ground components of the tree, using acceptable arboricultural procedures as recommended in the “*Guide for Plant Appraisal*”, prepared under contract by the “*Council of Tree & Landscape Appraisers (CTLA)*”, an official publication of the *International Society of Arboriculture (I.S.A.)*, 9th Edition, 2000”.

³ **Category #:**

0. Tree NOT regulated under City of Vaughan Tree by-laws.
1. Trees with diameters of 20 cm or more, situated on private property on the subject site.
2. Trees with diameters of 20 cm or more, situated on private property, within 6 m of the subject site.
3. Trees of all diameters situated on City owned parkland within 6 m of the subject site.
4. Trees of all diameters situated within the City road allowance adjacent to the subject site.

⁴ **Suitability for Conservation:**

A rating of **P**oor/**M**oderate/**G**ood is assigned to each tree taking in to account four factors which include, 1) Tree health 2) Structural integrity 3) Species response and 4) Tree Age and longevity, as recommended in the “*For Tree Care Operation – Trees, Shrubs, and Other Woody Plant Maintenance Standard Practice*” prepared as part of the “*ANSI A300 Standards*.”

⁵ **Recommendation:** Preserve (**Ps**), Preserve with Injury (**PsI**), Remove (**Rv**), Transplant (**Tp**)

⁶ **MTPZ:** Minimum tree protection zone distance as mandated by City of Toronto as per the “*Tree Protection Policy And Specification For Construction Near Trees*” document - http://www1.toronto.ca/staticfiles/city_of_toronto/parks_forestry_recreation/urban_forestry/file/s/pdf/TreeProtSpecs.pdf

Tree #	Species	D B H (cm)	Drip line (m)	Condition	Category	Comments	Suitability for Conservation	Recommendation	M T P Z (M)
109	<i>Acer platanoides</i>	34	4	F	4	- lean, vines - clear of proposed construction - shall maintain prescribed TPZ	M	Ps	2.4
110	<i>Acer platanoides</i>	33	4	F	4	- lean, vines - clear of proposed construction - shall maintain prescribed TPZ	M	Ps	2.4
111	<i>Gleditsia triacanthos</i>	28	3	F	4	- lean, deadwood, in decline - in conflict with proposed construction	M	Rv	
112	<i>Gleditsia triacanthos</i>	11	2	F	4	- poor form, in decline - in conflict with proposed construction	M	Rv	
113	<i>Acer platanoides</i>	26	3	F	1	- deadwood - in conflict with proposed construction	M	Rv	
114	<i>Acer platanoides</i>	40	4	F	1	- deadwood - in conflict with proposed construction	M	Rv	
115	<i>Acer platanoides</i>	33	4	F	1	- deadwood - in conflict with proposed construction	M	Rv	
116	<i>Ulmus parvifolia</i>	21	3	F	1	- deadwood, poor form and union - in conflict with proposed construction	M	Rv	
117	<i>Ulmus parvifolia</i>	21	3	F	1	- deadwood, poor form and union - in conflict with proposed construction	M	Rv	
118	<i>Ulmus parvifolia</i>	28	2	F	1	- deadwood, poor form and union, multiple large storm breaks - in conflict with proposed construction	M	Rv	
119	<i>Acer platanoides</i>	26	3	F	1	- deadwood, poor form and union, in decline - in conflict with proposed construction	M	Rv	
120	<i>Acer platanoides</i>	22	3	F	1	- deadwood, poor form and union - in conflict with proposed construction	M	Rv	
121	<i>Acer platanoides</i>	33	3	F	1	- deadwood, poor form and union, in decline - in conflict with proposed construction	M	Rv	
122	<i>Acer platanoides</i>	45	4	F	1	- poor union, cavity ion trunk, girdled roots - in conflict with proposed construction	M	Rv	
123	<i>Dead</i>	33		D	1	- 100% dead - not a suitable candidate for preservation	P	Rv	
124	<i>Picea glauca</i>	30	2	P	1	- 15% live crown ratio, vines, lean - in conflict with proposed construction	P	Rv	
125	<i>Juglans nigra</i>	23	4	F	1	- deadwood, lean - in conflict with proposed construction	M	Rv	
126	<i>Acer platanoides</i>	21	3	F	1	- deadwood, lean - in conflict with proposed construction	M	Rv	
127	<i>Acer platanoides</i>	24	3	F	1	- deadwood - in conflict with proposed construction	M	Rv	
128	<i>Acer platanoides</i>	36	4	F	1	- deadwood, poor union with included bark - in conflict with proposed construction	M	Rv	
129	<i>Acer platanoides</i>	31	4	F	1	- deadwood, poor union - in conflict with proposed construction	M	Rv	
130	<i>Acer platanoides</i>	30	3	F	1	- deadwood, lean - in conflict with proposed construction	M	Rv	
131	<i>Acer platanoides</i>	21	3	F	1	- deadwood, poor union - in conflict with proposed construction	M	Rv	
132	<i>Acer platanoides</i>	21	3	F	1	- deadwood, poor union and form - in conflict with proposed construction	M	Rv	
133	<i>Acer platanoides</i>	28	3	F	1	- deadwood - in conflict with proposed construction	M	Rv	

Tree #	Species	D B H (cm)	Drip line (m)	Condition	Category	Comments	Suitability for Conservation	Recommendation	M T P Z (M)
134	<i>Acer platanoides</i>	29	3	F	1	- deadwood - in conflict with proposed construction	M	Rv	
135	<i>Acer platanoides</i>	41	4	F	1	- deadwood, lean - in conflict with proposed construction	M	Rv	
136	<i>Acer negundo</i>	25	4	F	1	- deadwood, poor form and union - in conflict with proposed construction	M	Rv	
137	<i>Acer platanoides</i>	37	4	F	1	- deadwood - in conflict with proposed construction	M	Rv	
138	<i>Dead</i>	30		D	1	- 100% dead - not a suitable candidate for preservation	P	Rv	
139	<i>Acer platanoides</i>	39	4	F	1	- deadwood, poor form, vines - in conflict with proposed construction	M	Rv	
140	<i>Acer negundo</i>	28	3	F	1	- poor form, lean - in conflict with proposed construction	M	Rv	
141	<i>Ulmus parvifolia</i>	23	3	F	1	- deadwood, vines - in conflict with proposed construction	M	Rv	
142	<i>Acer platanoides</i>	40	4	F	1	- deadwood, poor union, lean - in conflict with proposed construction	M	Rv	
143	<i>Acer platanoides</i>	36	4	P	1	- deadwood, cavity in trunk, central leader dying, heavily pruned - clear of proposed development - shall maintain prescribed TPZ	M	Rv	
144	<i>Acer platanoides</i>	32	4	F	1	- deadwood - in conflict with proposed grading and retaining wall	M	Rv	
145	<i>Picea abies</i>	49	4	F	1	- deadwood, in decline, cavity in trunk - in conflict with proposed construction	M	Rv	
146	<i>Acer negundo</i>	49	3	P	1	- canopy removed - not a suitable candidate for preservation - preserve as instructed by client	P	Ps	3.6
147	<i>Picea pungens</i>	21	3	F	1	- deadwood - in conflict with proposed construction	M	Rv	
148	<i>Picea pungens</i>	23	3	F	1	- deadwood - in conflict with proposed construction	M	Rv	
149	<i>Pinus nigra</i>	25	2	F	1	- deadwood, vines, in decline - in conflict with proposed construction	M	Rv	
150	<i>Pinus nigra</i>	22	2	P	1	- deadwood, vines, in decline - in conflict with proposed construction	P	Rv	
151	<i>Pinus nigra</i>	27	2	F	1	- deadwood, codominate stem - in conflict with proposed construction	M	Rv	
152	<i>Pinus nigra</i>	22	2	F	1	- deadwood, codominate stem - in conflict with proposed construction	M	Rv	
153	<i>Morus alba</i>	22	3	F	1	- deadwood, poor form and union - in conflict with proposed construction	M	Rv	
154	<i>Morus alba</i>	24	3	F	1	- deadwood, poor form and union - in conflict with proposed construction	M	Rv	
N1	<i>Picea pungens</i>	22	3	F	2	- deadwood - clear of proposed construction - shall retain its existing root structure	M	Ps	1.8
N2	<i>Acer platanoides</i>	22	3	F	2	- deadwood - clear of proposed construction - shall retain its existing root structure	M	Ps	1.8
N3	<i>Juglans nigra</i>	30	4	F	2	- deadwood - clear of proposed construction - shall retain its existing root structure	M	Ps	2.4
N4	<i>Picea pungens</i>	23	3	G	2	- clear of proposed construction - shall retain its existing root structure	G	Ps	1.8

SITE NOTES AND COMMENTS:

City Owned Trees:

1. As listed above, there are fifty-six regulated trees involved with this project, nine of which are City owned, being trees no. 104-112. Trees no. 104-110 are situated adjacent to existing structures, being the concrete walkway and asphalt roadway. Roots located underneath these surfaces are inherently protected from compaction. With the above in mind, all roots within the prescribed TPZs will be protected from excavation or compaction by installing hoarding along the edges of the walkway/roadway and along the outer edge of the remaining prescribed TPZ zone – see Tree Protection Plan in Appendix I for details. This preservation methodology ensures 100% of the roots within the prescribed TPZs are protected and as such will not be disturbed during construction.
2. Trees no. 111 and 112 are in conflict with proposed construction and as such, are to be removed. Authorization from the City is required prior to the removal of these trees.

Privately Owned Trees located within 6.0m of the Subject Site:

1. There are four regulated trees located on the adjacent private property, being trees no. N1-N4. All four trees are clear of proposed development, shall retain their prescribed TPZ and as such, will not be disturbed during construction. Tree protection hoarding is not required for these trees as no part of their prescribed TPZs encroach upon the subject site.

Privately Owned Trees located on the Subject Site:

1. There are forty-three regulated trees situated on the subject site, being trees no. 103 and 113-154. Tree no. 143 is in irreversible decline, was heavily pruned and as such is not a suitable candidate for preservation and is recommended for removal rather than attempting to preserve and protect during construction.
2. Tree no. 103 and 144 are clear of the proposed development, shall retain their prescribed TPZs and as such, will not be disturbed during construction.
3. The remaining thirty-nine regulated trees are in conflict with proposed construction or are 100% dead and as such, are to be removed. Pursuant to the City's Private Tree By-law, the client will submit a permit application to remove thirty-nine trees.
4. The remaining non-regulated trees (<20cm) is comprised mainly of multi-stemmed Norway maple with buckthorn and Manitoba maple scattered throughout.
4. Removal of these thirty-nine regulated trees and remaining non-regulated trees will result in the loss of 95% of the canopy cover for this property.
5. All remaining trees located on or within 6.0m of the subject site have a DBH less than 20cm, are non-regulated trees and therefore, were not included in this report.

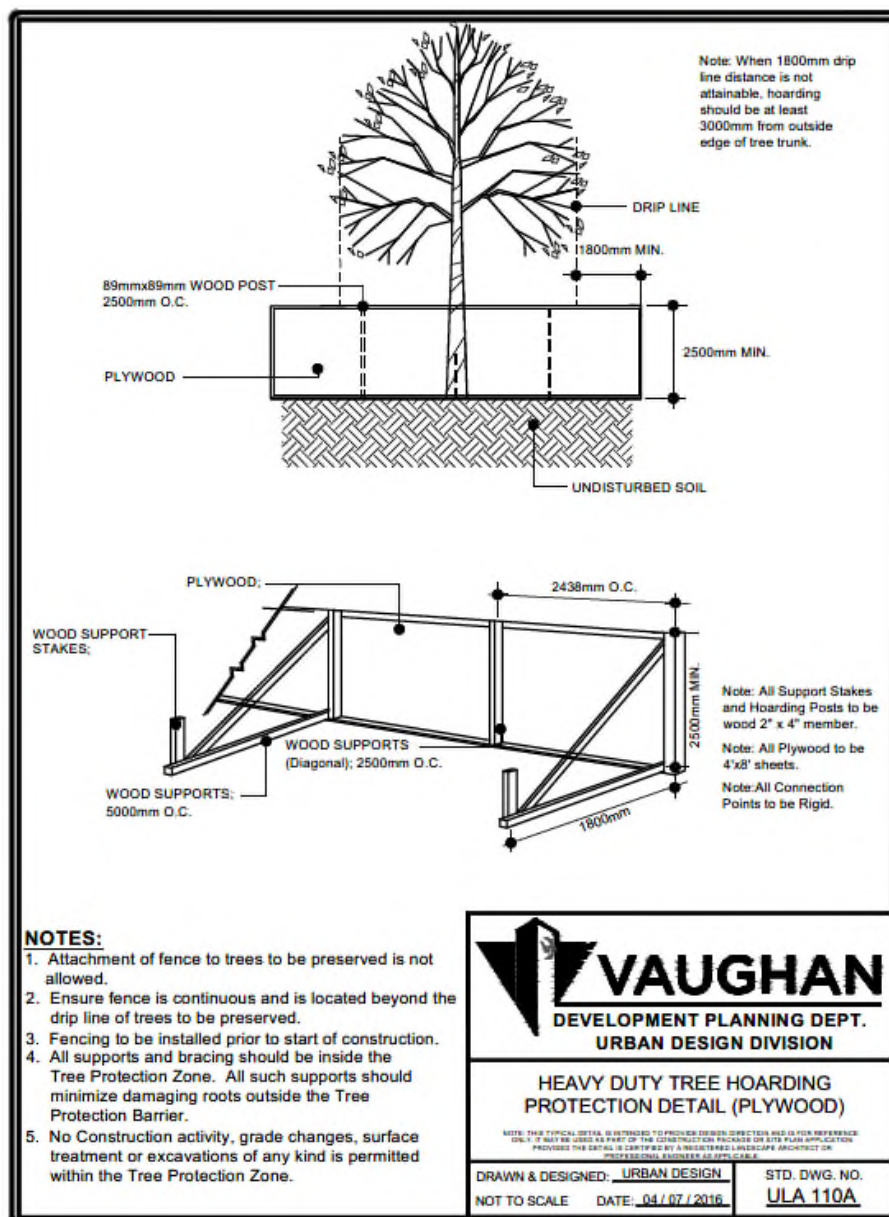
6. To further protect each tree scheduled for preservation from the potential of construction disturbance, it is recommended that the below listed tree preservation recommendations are implemented.

1.0 ESTABLISH TREE PROTECTION ZONE

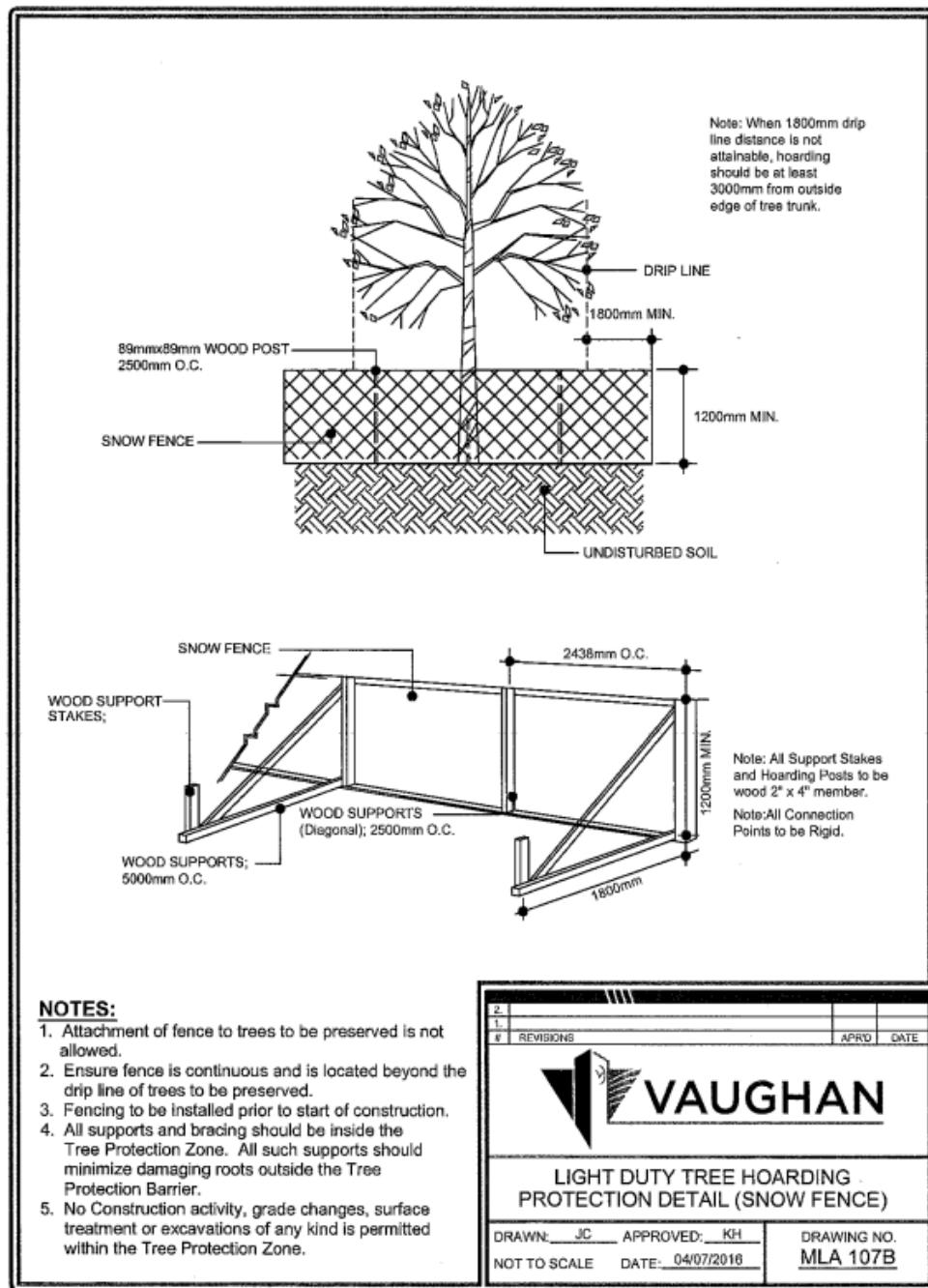
The purpose of the tree protection zone (TPZ) is to prevent root damage, soil compaction and soil contamination. Workers and machinery shall not disturb the tree protection zone in any way. To prevent access, the following is required:

- 1.1 Install hoarding as per attached Tree Protection Plan in Appendix I.

- 1.2 Heavy Duty Plywood hoarding shall be used as per the following detail:



- 1.3 When visibility is a consideration, Light Duty Tree Hoarding (Snow Fence) shall be used as per the following detail:



- 1.4 No fill, equipment or supplies are to be stored within the tree protection zone.
- 1.5 Activities, which are likely to injure or destroy tree(s), are not permitted within the TPZ.
- 1.6 No objects may be attached to tree(s) within the TPZ.

- 1.7 Tree protection barriers are to be erected prior to the commencement of any construction or grading activities on the site and are to remain in place in good condition throughout the entire duration of the project.
- 1.8 Once all tree/site protection measures have been installed you must notify Urban Forestry staff to arrange for an inspection of the site and approval of the site protection requirements.
- 1.9 All Hoarding shall not be removed until all construction activity is complete.
- 1.10 A sign that is similar to the illustration below must be mounted on all sides of a tree protection barrier for the duration of the project. The sign should be a minimum of 40cm X 60cm and made of white gator board, laminates or equivalent material.

TREE PROTECTION ZONE (TPZ)

No grade change, storage of materials or equipment is permitted within the TPZ. The tree protection barrier must not be removed without the written authorization of City of Toronto, Urban Forestry.

2.0 ROOT PRUNING

When working within the tree protection zone, hand dig areas closest to each tree to prevent any unnecessary tearing or pulling of roots. Removal of roots that are greater than 2.5 centimetres in diameter or roots that are injured or diseased should be performed as follows:

- 2.1 Preserve the root bark ridge (similar in structure to the branch bark ridge). Directional Root Pruning (DRP) is the recommended technique and should be used during hand excavation around tree roots. Roots are similar to branches in their response to pruning practices. With DRP, objectionable and severely injured roots are properly cut to a lateral root that is growing downward or in a favorable direction.
- 2.2 All roots needing to be pruned or removed shall be cut cleanly with sharp hand tools, by a Certified Arborist or by the PCA.
- 2.3 No wound dressings/pruning paint shall be used to cover the ends of each cut.
- 2.4 All roots requiring pruning shall be cut using any of the following tools:
 - Large or small loppers
 - Hand pruners
 - Small hand saws
 - Wound scribers

- 2.5 Avoid prolonged exposure of tree roots during construction - keep exposed roots moist and dampened with mulching materials, irrigation or wrap in burlap if exposed for longer than 4 hours.

3.0 ESTABLISH MAINTENANCE PROGRAM

All maintenance work must be completed by the approved Project Consulting Arborist or an equivalent qualified arborist.

Pre-Construction:

- 3.1 Prune trees to remove deadwood, objectionable limbs while maintaining crown form.

During- Construction:

- 3.2 Irrigate tree preservation zones during drought conditions, June – September, to reduce drought stress.

- 3.3 Inspect the site every month to ensure that all hoarding is in place and in good condition. Inspect the trees to monitor condition.

Post-Construction:

- 3.4 Inspect the trees two times per year – May and September – to monitor condition for a minimum of 2 additional years.

4.0 LANDSCAPING

Any landscaping completed within the tree preservation zones, after construction is completed and hoarding has been removed, cannot cause damage to any of the trees or their roots. The trees must be protected for the same reasons listed above but without using hoarding.

- 4.1 **No grade changes** are permitted which include adding and/or removing soil.
- 4.2 **No excavation** is permitted that can cause damage to the roots of the tree.
- 4.3 **No heavy equipment** can be used to compact the soil within the tree preservation zone.
- 4.4 Any hard -surface sidewalks, paths, etc. should be constructed using permeable products such as interlocking stone, etc.

SUMMARY TABLE:

Tree Category	Total	Scheduled for Preservation		Remove
		Preserve	Preserve with Injury	
4 (City owned trees)	9	7	0	2
2 (Regulated tree located on adjacent private property)	4	4	0	0
1 (Regulated tree located on the Subject Site)	43	2	0	41
Total	56	13	0	43

CONCLUSIONS:

As listed in the Summary Table above, there are fifty-six regulated trees involved in this project, nine of which are City owned. Two City-owned trees are in conflict with proposed construction and are recommended for removal. Pursuant to the City Street Tree Bylaw, the client will submit a permit application to remove 2 City owned trees. Forty-one regulated trees located on the subject site are either in conflict with proposed construction, are 100% dead and/or are in irreversible decline and are recommended for removal. Pursuant to the Private Tree By-law, the client will submit a permit application to remove forty-one trees. Finally, with the above in mind, it is the consultant's opinion that if the above tree preservation recommendations are implemented, proposed construction will not adversely affect the long-term health, safety and/or existing condition of all trees scheduled for preservation.

Trusting this report meets your needs. For further information, you may contact me directly at (905)-469-1717 or at dcarnevale@thetreespecialists.com.

THE TREE SPECIALISTS, INC.



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Appendix I: Tree Preservation Plan – TPP-1



Appendix II:

DIGITAL IMAGES

Photo #1: Trees no. 103-108 looking southeast.



Photo #2: Trees no. 113-118 and non-regulated trees looking west.



Photo #3: Trees no. 123-126 and non-regulated trees looking northeast.



Photo #4: Trees no. 135-136 looking west.

