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30 McLaughlin Road South – Tree Evaluation Report and Tree Protection Plan

Palmer Project #

1901608

Prepared For

Blackthorn Development Corporation

December 6, 2021

December 6, 2021

2706376 Ontario Inc.
Mr. Balbir Babra
45 Timberland Drive
Brampton, Ontario
L6Y 4B3

c/o: Mr. Maurizio Rogato, Principal
Blackthorn Development Corp.
mrogato@blackthorncorp.ca

Dear Maurizio Rogato:

Re: 30 McLaughlin Road South – Tree Evaluation Report and Tree Protection Plan
Project #: 1901608

Palmer is pleased to submit the following Arborist Report and Tree Protection Plan (TPP) as part of the proposed development process of a mid-rise concept development located at 30 McLaughlin Road South in the City of Brampton.

A total of 40 trees were inventoried for this project. Of these, 19 trees are proposed to be retained and protected using tree protection fencing during construction activities. The removal of 21 trees is to be compensated with the planting of 40 native trees, following criteria within the *Tableland Tree Assessment Guidelines* (City of Brampton, 2018).

Yours truly,

Palmer™

Prepared By:



Angela Zhou, B.E.S.
Jr. Ecologist

Reviewed By:



Austin Adams, M.Sc., EP
Sr. Ecologist, ISA Certified Arborist ON-2000A

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1. Introduction

Palmer has completed a Tree Evaluation (Arborist) Report and Tree Protection Plan (TTP) for the proposed residential subdivision located at 30 McLaughlin Road South, Lot 5 and Concession 1, in the City of Brampton, Region of Peel (the Subject Property, **Figure 1**).

The Subject Property is mainly comprised of cultural meadow with a few scattered trees, along with a deciduous woodland along the northern edge of the property, which surrounds the Fletchers Creek Tributary of the Credit River. Palmer understands that the proposed development has applied a 30 m natural feature setback to this area. Anthropogenic features are also found on-site, including a house and landscaping trees. The tree inventory was completed within and adjacent to the proposed developable area. The proposed development includes a mid-rise concept development that will occupy most of the existing cultural meadow.

This report includes an assessment of applicable policy, methods and results of the tree inventory completed within the Subject Property and the identification of trees to be retained and trees to be removed. The compensation requirements for tree removals, including replacement tree species and recommended planting locations are also provided, as well as recommended tree protection measures for trees to be retained. Recommendations for construction methods are also detailed, as they pertain to trees.

2. Policy Review

Relevant City of Brampton by-laws and guidelines were referenced to ensure that the tree inventory, removal requirements and compensation recommendations satisfy the City's requirements.

2.1 Woodlot Conservation By-law (316-2012)

The *Woodlot Conservation By-law* (316-2012) is intended to protect and conserve woodland/woodlots within the City of Brampton. The Deciduous forest beyond the developable area may qualify as woodland/woodlot, as defined in the 2006 Official Plan (City of Brampton, 2012).

There are no policy implications for By-law 316-2012, as the proposed development will not encroach on the woodlot within the natural feature area.

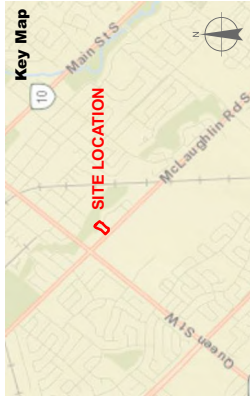
This By-law is also not considered to be applicable, as Section 10(d) and 10(e) provide an exemption for the removal of trees imposed as a condition to the approval of a site plan, a plan of subdivision or a consent under Section 41, 51 or 53, respectively, of the *Planning Act* or as a requirement of a site plan agreement of subdivision agreement entered into under those sections.



LEGEND:

 Subject Site

Imagery (2019) provided by City of Brampton WMS. Contains information licensed under the Open Government Licence – Ontario.



PROJECT NO.	1901608	REVISION:	1
DATE	Sep 24, 2020	SCALE:	1:1000
DRAWN:	CV	DATUM:	NAD 1983
CHECKED:	AZ	PROJECTION:	UTM zone 17

CLIENT: **Blackthorn Development**

PREPARED BY: **Palmer™**

PROJECT: 30 McLaughlin Road South

TITLE: **Site Location**

Figure 1

599400

599300

4836600

4836500

599400

599300

2.2 The Tree Preservation By-law (317-2012)

The *Tree Preservation By-law* (317-2012) is intended to conserve and protect trees on private land within the City of Brampton (City of Brampton, 2012). This by-law applies to all inventoried trees ≥ 30 centimetres (cm) of diameter at breast height (DBH) proposed to be removed. However, this Tree Evaluation Report has been prepared in support of a Development Application process. Tree removal as part of an approved Development Plan is an exempt activity under Sections 10(d) and 10(e) of the By-law, similar to the Woodlot Conservation By-law.

2.3 Tableland Tree Assessment Guidelines (2018)

The City of Brampton developed the *Tableland Tree Assessment Guidelines* to help coordinate technical report requirements for planning applications (City of Brampton, 2018). In this document, the City provides tableland tree compensation ratios, tree replacement size and recommendations for planting locations. Site-specific details are provided in **Section 6** below. The City of Brampton *Landscape Development Guidelines* (2019) also provide guidance on compensation plantings, including boulevard plantings.

3. Methods

A tree inventory was completed for all trees ≥ 15 cm DBH within and adjacent (10 m) to the developable area within the Subject Property, in accordance with the City of Brampton Tree Preservation By-law 317-2012 and the *Tableland Tree Assessment Guidelines* (2018). The tree inventory was completed by an International Society of Arboriculture (ISA) Certified Arborist on June 26, 2020. Information collected during the inventory includes species name, tree tag number, geo-location, DBH, a general health assessment and notes on tree trunk and canopy conditions.

4. Results

4.1 Tree Inventory

The tree inventory comprised 40 individual trees, of which 14 (35%) are native and 26 (65%) are non-native trees (**Table 1; Figure 2**). Trees within the proposed development area are largely former landscape trees including Apple (*Malus* species), White Spruce (*Picea glauca*) and Silver Maple (*Acer saccharinum*). Landscaped Silver Maple individuals are also found in the natural feature setback area. The adjacent woodlot is a mixed diversity of species, but are largely non-native species, including Norway Maple (*Acer plantanoides*) and Manitoba Maple (*Acer negundo*), over a dense cover of invasive European Buckthorn (*Rhamnus cathartica*) shrubs. There was no Species at Risk (SAR), such as Butternut (*Juglans cinerea*), and no trees at high risk of disease or infestation such as native ash species (*Fraxinus* species). Data collected during the tree inventory is provided in **Appendix A**.

Table 1. Summary of Tree Inventory Results

Common Name	Species Name	Quantity
Blue Spruce*	<i>Picea pungens</i>	3
Chokecherry	<i>Prunus virginiana</i>	1
Common Apple*	<i>Malus pumila</i>	5
European Ash*	<i>Fraxinus excelsior</i>	5
Little-leaved Linden	<i>Tilia cordata</i>	1
Manitoba Maple*	<i>Acer negundo</i>	4
Northern Catalpa*	<i>Catalpa speciosa</i>	1
Norway Maple*	<i>Acer platanoides</i>	9
Scarlet Hawthorn	<i>Crataegus coccinea</i>	1
Silver Maple	<i>Acer saccharinum</i>	8
White Spruce	<i>Picea glauca</i>	2
Total inventoried trees		40

* Non-native species

4.2 Trees to be Retained

A total of 19 inventoried trees are proposed to be retained (**Table 2**). This includes six (32%) native trees, mostly located within the northern portion of the Subject Property, within the natural feature setback. Additionally, 13 (68%) non-native trees are to be retained, largely Norway Maple, also in the natural feature setback portion of the Subject Property, beyond the proposed Tree Protection Fencing area. All the trees to be retained are in good to fair health.

Table 2. Summary of Trees Proposed to be Retained

Common Name	Scientific Name	Good to Fair Health	Poor Health	Dead	Total
Blue Spruce*	<i>Picea pungens</i>	3	0	0	3
Chokecherry	<i>Prunus virginiana</i>	1	0	0	1
European Ash*	<i>Fraxinus excelsior</i>	2	0	0	2
Manitoba Maple	<i>Acer negundo</i>	2	0	0	2
Norway Maple*	<i>Acer platanoides</i>	8	0	0	8
Silver Maple	<i>Acer saccharinum</i>	3	0	0	3
Total inventoried trees to be retained		19	0	0	19

* Non-native species

4.3 Trees to be Removed

A total of 21 inventoried trees are proposed to be removed (**Table 3**). This includes 11 (52%) native trees and 10 (48%) that are non-native trees. The trees proposed to be removed are located within and along the edges of the proposed development area. The majority of trees (76%) are in good to fair health and the other 24% are in poor health.

Table 3. Summary of Trees to be Removed

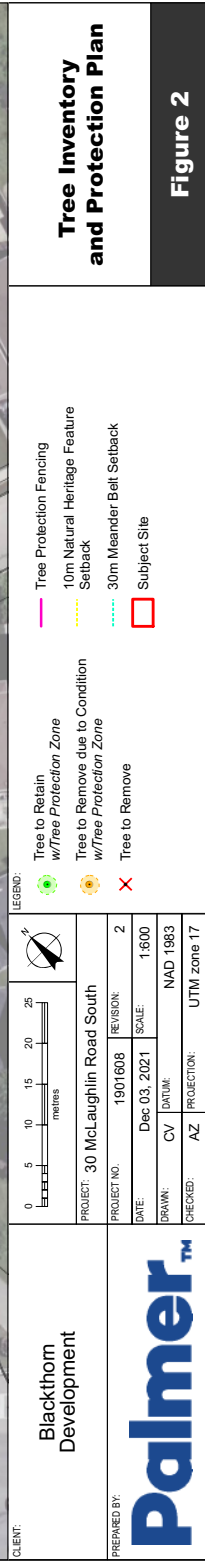
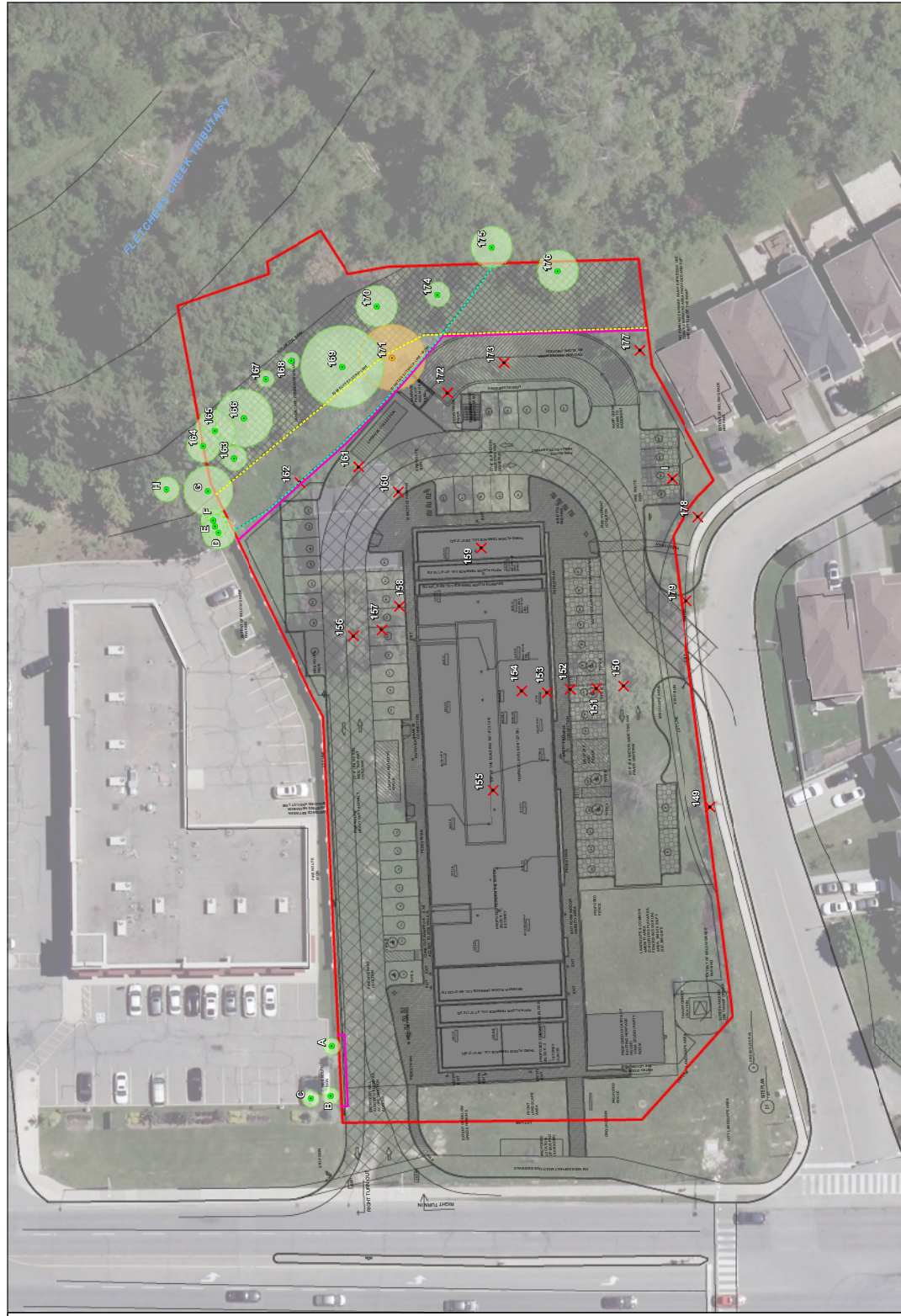
Common Name	Scientific Name	Good to Fair Health	Poor Health	Dead	Total
Common Apple*	<i>Malus pumila</i>	5	0	0	5
European Ash*	<i>Fraxinus excelsior</i>	3	0	0	3
Little-leaved Linden	<i>Tilia cordata</i>	1	0	0	1
Manitoba Maple	<i>Acer negundo</i>	0	2	0	2
Northern Catalpa*	<i>Catalpa speciosa</i>	1	0	0	1
Norway Maple*	<i>Acer platanoides</i>	0	1	0	1
Scarlet Hawthorn	<i>Crataegus coccinea</i>	0	1	0	1
Silver Maple	<i>Acer saccharinum</i>	4	1	0	5
White Spruce	<i>Picea glauca</i>	2	0	0	2
Total inventoried trees to be removed		16	5	0	21

* Non-native

Tree #171 is a Silver Maple, located in the northwest portion of the Subject Property where most trees are to be retained beyond the proposed Tree Protection Fencing (**Figure 2**). This tree is in Very Poor condition due to the loss of its main stem and is considered a hazard tree (**Photos 1 and 2**). It is recommended that this tree be removed for safety considerations.



Photos 1 and 2: Tree #171 - base and crown.



5. Tree Preservation Plan

5.1 Tree Protection

The specifications for tree protection are detailed on the Tree Preservation Plan (**Figure 2**), including the locations of required tree protection fencing. The Tree Preservation Plan is intended to act in concert with this Tree Evaluation Report; it is expected that the recommendations of both instruments be implemented for the Project. Most trees proposed to be retained will be primarily protected by tree protection fencing, which is to be placed at minimum beyond the Critical Root Protection Zone (CRPZ) of trees adjacent to the fencing. A CRPZ for each tree has been determined as per the *Tableland Tree Assessment Guidelines* (City of Brampton, 2018); specific CRPZ radii follow the Tree Protection Zone criteria outlined in the *Tree Protection Policy and Specifications for Construction Near Trees* (City of Toronto, 2016), which follow standard calculations developed by the ISA. Fencing provides protection from potential damage during construction activities such as the use of machinery near trees and branches, and stockpiling of materials over the root zone. Root pruning has also been proposed to preserve the root system of certain trees adjacent to the proposed development where the proposed works may result in mechanical injury to the roots.

5.1.1 Tree Protection Fencing

Tree protection fencing is to be installed as per City of Brampton Engineering Standard L110 (**Appendix B**). In general, trees that are to be retained with <30cm DBH will have protection fencing installed at the tree dripline or CRPZ, whichever is greatest. Trees that are to be retained with ≥ 30 cm DBH will have protection fencing at twice the dripline as per Specification L110 (**Figure 2**). As per L110, tree protection fencing is to be 1.2 m tall Paige wire, secured on existing grade by T-bar posts every 1.2 m on-centre. However, every third post should be a 10 cm x 10 cm wood post (pressure treated jack pine or cedar) rather than a T-bar. The wood posts are to be secured a minimum of 92 cm into the ground. The Paige wire should be secured to each post with wire ties every 30 cm (i.e. 4 times per post).

Tree protection zones demarcated by the fencing are to include signs (as per below) secured at regular intervals on the fencing. The signs are recommended to be 40 cm x 60 cm and made of white corrugated plastic board or equivalent material. It is recommended that the City of Brampton logo be included on signage.

Tree Protection Zone (TPZ)

All construction related activities, including grade alteration, excavation, soil compaction, any materials or equipment storage, disposal of liquid and vehicular traffic are NOT permitted within this TPZ.

This tree protection barrier must remain in good condition and must not be removed or altered without authorization of City of Brampton Planning and Infrastructure Services. Concerns or inquiries regarding this TPZ can be directed to 3-1-1 OR DEV-Construction@brampton.CA.

5.1.2 Felling and Grinding

Trees to be removed will be felled into the Subject Property by an ISA certified arborist using good arboricultural practices to limit potential damage to the trees being retained.

For removals adjacent to trees to be retained, including **Trees #171, 172 and 176**, it is recommended that they be stumped and grinded as required rather than root removal (e.g. stump pulling), as root pulling has the potential to adversely affect trees to be retained. Note that **Tree #171** should be felled prior to the installation of tree protection fencing.

5.1.3 Root Pruning

Due to the location of trees to be retained, root pruning is not predicted to be required. In the event that any root pruning be required to accommodate development, it is to be completed by a qualified arborist and must be performed in accordance to good arboricultural practices. Any roots or branches that extend beyond the CRPZ, which require pruning, must also be completed by a qualified arborist and must be performed in accordance to good arboricultural practices and the area back filled with appropriate material to maintain moisture/prevent desiccation. The Construction Manager must advise the City of Brampton Open Space Development Section a minimum of 48 hours prior to commencing any specified work.

6. Compensation Plantings

The compensation plan for trees to be removed as part of the project area detailed in the following sections. The information regarding the tree removal compensation ratios, tree species planting selection, and plantings locations provided below follows the *Tableland Tree Assessment Guidelines* (City of Brampton, 2018).

6.1 Tree Removal Compensation

Compensation for healthy trees ≥ 15 cm DBH is required for development plans (City of Brampton, 2018). The compensation ratios for *healthy trees* ≥ 15 cm DBH are outlined in the *Tableland Tree Assessment Guidelines*. For the purposes of this report, *healthy trees* are defined as those that were evaluated with a Good to Fair health rating. The following ratios must apply:

- 1:1 for trees 15 to 20 cm DBH;
- 2:1 for trees 21 to 35 cm DBH;
- 3:1 for trees 36 to 50 cm DBH;
- 4:1 for trees 51 to 65 cm DBH; and
- 5:1 for trees greater than 65 cm DBH.

Of the 21 trees to be removed (Section 3), 13 are in good health and are ≥ 15 cm DBH, therefore requiring compensation. Based on the above ratios, a total of 40 native trees are recommended to be planted within the Subject Property in compensation of the trees proposed to be removed (**Table 4**). In order to be considered as compensation for loss trees, the 43 trees proposed in compensation must exceed the City

of Brampton tree planting standards; therefore, standard landscaping would be excluded from the compensation count.

Table 4. Tree Removal Compensation

Compensation per tree size category	15-20 cm DBH 1:1	21-35 cm DBH 2:1	36-50 cm DBH 3:1	51-65 cm DBH 4:1	> 65 cm DBH 5:1	Totals
Total Trees to be Removed	1	5	1	4	2	14
Total Compensation Trees Required	1	10	3	16	10	40

6.2 Tree Species

Replacement tree species are to be native to southern Ontario. As much of the replacement trees could be planted in the open, south-facing, natural feature setback, the following recommended species were selected based on the adjacent vegetation community, existing trees, and sunlight availability:

- Eastern White Pine (*Picea strobus*)
- Ironwood (*Ostrya virginiana*)
- Red Oak (*Quercus rubra*)
- Red Maple (*Acer rubrum*)
- Trembling Aspen (*Populus tremuloides*)

It is recommended that the 40 trees be a mix of the above species, balancing coniferous (pines) species with deciduous species. Generally, compensation trees should be minimum 70 mm caliper trees (7 cm DBH) or equivalent (for conifers), unless otherwise specified by the City (City of Brampton, 2018).

6.3 Planting Locations and Cash in Lieu

Efforts should be made to create compensation planting opportunities on-site or adjacent to it. Following the City of Brampton *Landscape Development Guidelines*, planting of compensation trees is to be in addition to the landscaping standard (City of Brampton, 2019). For all trees, adequate soil volumes must be demonstrated on landscaping plans.

The *Tableland Tree Assessment Guidelines* provide for a Cash in Lieu option when developments are unable to meet the City's requirements for compensation. This payment is used by the City to plant trees in other locations within the municipality. The outlined Cash in Lieu rate is \$500/tree for any of the 50 required compensation trees not able to be planted on Site.

Compensation plantings should be pursued on available space on the Site, as plantings would be beneficial towards the restoration objectives of the proposed development. Should the landscaping plan not be able to provide adequate space/soil volumes for both landscape standards and compensation requirements, a combination of compensation plantings and Cash in Lieu can be accepted by the City. It is recommended that once the landscaping and compensation planting plan has been implemented, any amount of Cash in

Lieu required should be prorated to account for those trees planted on-site, in consultation with the City of Brampton.

It is noted that there is a City easement along McLaughlin Road (**Figure 2**). The planting of street trees in this location might also be an opportunity for the location of compensation trees, subject to discussions with the City of Brampton. Plantings within the easement would need to follow the City Standards for Boulevards within the *Landscape Development Guidelines* (City of Brampton, 2019). With approximately 60 m of frontage, about 6 to 7 trees might be planted along McLaughlin Road, using an 8 – 10 m spacing as per the *Guidelines*.

7. Tree Protection

7.1 Pre-Construction

Tree protection fencing is recommended to be installed along the north and northwest limits of development and in the southwest corner near McLaughlin Road South (**Figure 2**), and no closer than the dripline of trees to be preserved. Felling and grinding of Tree #171 should occur before tree protection fencing is installed. Existing neighbouring fencing is also to be maintained. The implementation of these protection measures is intended to reduce impacts such as breaking tree limbs, wounding tree trunks, and damaging tree roots by soil compaction during construction works. As per the *Guidelines*, the Construction Manager and/or project arborist will provide written certification to the City that all protective fencing/hoarding measures have been satisfactorily installed prior to the issuance of a Fill Permit.

All trees to be removed should be felled into the Subject Property so as to avoid damage to adjacent trees and property.

7.2 Construction Phase

Tree protection fencing will be regularly inspected for damage by construction personnel. Any damage will be reported to the construction supervisor and repaired immediately. Any build-up of sediments at tree bases will be removed as part of fencing repairs. Any accidental damage to trees to be preserved will be reported immediately to the Construction Manager and project arborist.

7.3 Post-Construction Phase

The removal of tree protection barriers will only be initiated once all construction activities have been completed and landscaping has been initiated. Planting of compensation trees as per Section 6 will be initiated as part of landscaping and be completed by nursery professionals or a Certified Arborist. Planting will occur solely during the spring or fall planting seasons when establishment is most successful; being April 15 - July 1, and September 15 – November 15, respectively.

Monitoring of tree establishment within Compensation Areas will be completed for a minimum of two growing seasons post-planting, following preliminary acceptance by the City. Monitoring should be

designed to assess the growth and establishment of the planted trees, ensuring that the conditions any nursery guarantees are met.

8. Conclusion

In summary, 40 trees were inventoried for this project. Of these, 18 trees are proposed to be retained and protected using tree protection fencing during construction activities. The removal of 21 trees is to be compensated with the planting of 40 native trees, following criteria within the *Tableland Tree Assessment Guidelines* (City of Brampton, 2018). Compensation plantings are recommended to be completed on site to the degree feasible, and can be incorporated into landscaping activities, following discussion with the City of Brampton. Any compensation trees that cannot be accommodated in Site above the landscape standards should be compensated via cash in lieu.

Yours truly,

Palmer™

Prepared By:



Angela Zhou, B.E.S.
Jr. Ecologist

Approved By:



Austin Adams, M.Sc., EP
Sr. Ecologist, ISA Certified Arborist ON-2000A

9. References

City of Brampton. (2012). *Tree Preservation By-law 317-2012*. Retrieved from

<http://www.brampton.ca/EN/City-Hall/Bylaws/All%20Bylaws/Trees.pdf>

City of Brampton. (2012). *Woodlot Conservation By-law 316-2012*. Retrieved from City of Brampton:

<https://www.brampton.ca/EN/City-Hall/Bylaws/All%20Bylaws/Woodlots.pdf>

City of Brampton. (2018). *Tableland Tree Assessment Guidelines*. Retrieved July 5, 2018, from

http://www.brampton.ca/EN/Business/planning-development/guidelines-manuals/Documents/Tableland_Tree_Assessment_Guidelines.pdf

City of Brampton. (2019). *Landscape Development Guidelines*. Retrieved from City of Brampton:

https://www.brampton.ca/EN/Business/planning-development/guidelines-manuals/Documents/Landscape_Development_Guidelines_FINAL.pdf

City of Toronto. (2016). *Tree Protection Policy and Specifications for Construction Near Trees*. Toronto.

Retrieved from <https://www.toronto.ca/data/parks/pdf/trees/tree-protection-specs.pdf>



Appendix A

Tree Inventory

Appendix A

Tree Inventory

Tag #	Common Name	Scientific Name	DBH (cm)*	Effective DBH (cm)*	CRPZ (m)**	% Dead Branches	Health Assessment		Recommendation
							Structure	Vigour	
149	Norway Maple	<i>Acer platanoides</i>	4, 4, 4	7	1.2	<10	P	F (G)	Remove
150	Common Apple	<i>Malus pumila</i>	21, 20, 12	31	2.4	10	F	G	Remove
151	Common Apple	<i>Malus pumila</i>	18, 15, 14, 16	32	2.4	15	F	G	Remove
152	Common Apple	<i>Malus pumila</i>	29	29	1.8	10	G	G	Remove
153	Common Apple	<i>Malus pumila</i>	26, 22	34	2.4	<10	F	G	Remove
154	Common Apple	<i>Malus pumila</i>	26, 15	30	2.4	<10	F	G	Remove
155	Silver Maple	<i>Acer saccharinum</i>	62	62	4.2	<10	G	G (F)	Remove
156	White Spruce	<i>Picea glauca</i>	59	59	3.6	<10	G	G	Remove
157	White Spruce	<i>Picea glauca</i>	64	64	4.2	<10	G	G	Remove
A	Blue Spruce	<i>Picea pungens</i>	~8	8	1.2	0	G	G	Retain
B	Blue Spruce	<i>Picea pungens</i>	~8	8	1.2	0	G	G	Retain
C	Blue Spruce	<i>Picea pungens</i>	~8	8	1.2	0	G	G	Retain
158	Silver Maple	<i>Acer saccharinum</i>	61	61	4.2	<10	F	G	Remove
159	Silver Maple	<i>Acer saccharinum</i>	90	90	5.4	20	F	G	Remove
160	European Ash	<i>Fraxinus excelsior</i>	4	4	1.2	<10	G	G	Remove
161	European Ash	<i>Fraxinus excelsior</i>	4	4	1.2	<10	G	G	Remove
162	European Ash	<i>Fraxinus excelsior</i>	5	5	1.2	<10	G	G	Remove
163	Norway Maple	<i>Acer platanoides</i>	15	15	1.8	<10	F	G	Retain
164	Norway Maple	<i>Acer platanoides</i>	34	34	2.4	<10	G	G	Retain
165	Silver Maple	<i>Acer saccharinum</i>	50	50	3	20	F	G	Retain
166	Silver Maple	<i>Acer saccharinum</i>	63	63	4.2	20	F	G	Retain
D	Norway Maple	<i>Acer platanoides</i>	31	31	2.4	<10	F	G	Retain

Tag #	Common Name	Scientific Name	DBH (cm)*	Effective DBH (cm)*	CRPZ (m)**	% Dead Branches	Health Assessment		Recommendation
							Structure	Vigour	
E	Norway Maple	<i>Acer platanoides</i>	13	13	1.8	<10	F	G	Retain
F	Norway Maple	<i>Acer platanoides</i>	19	19	1.8	<10	F	G	Retain
G	Norway Maple	<i>Acer platanoides</i>	59	59	3.6	30	F	F	Retain
H	Norway Maple	<i>Acer platanoides</i>	26	26	1.8	10	F	G	Retain
167	European Ash	<i>Fraxinus excelsior</i>	6	6	1.2	0	F	G	Retain
168	European Ash	<i>Fraxinus excelsior</i>	6	6	1.2	0	G	G	Retain
169	Silver Maple	<i>Acer saccharinum</i>	95	95	6	20	F	G (F)	Retain
170	Norway Maple	<i>Acer platanoides</i>	45	45	3	<10	G	G	Retain
171	Silver Maple	<i>Acer saccharinum</i>	71	71	4.8	80	VP	VP	Remove
172	Silver Maple	<i>Acer saccharinum</i>	96	96	6	15	G	G	Remove
173	Northern Catalpa	<i>Catalpa speciosa</i>	44	44	3	<10	F	G	Remove
174	Chokecherry	<i>Prunus virginiana</i>	19, 12	22	1.8	<10	F	F	Retain
175	Manitoba Maple	<i>Acer negundo</i>	49	49	3	10	F (P)	G	Retain
176	Manitoba Maple	<i>Acer negundo</i>	25, 38	45	3	10	P	G	Retain
177	Manitoba Maple	<i>Acer negundo</i>	~45, ~20, ~20, ~10	54	3.6	15	P	F (G)	Remove
I	Scarlet Hawthorn	<i>Crataegus coccinea</i>	Dripline	Dripline	1.2	-	-	-	Remove
178	Little-leaved Linden	<i>Tilia cordata</i>	20	20	1.8	<10	F	G	Remove
179	Manitoba Maple	<i>Acer negundo</i>	Dripline	Dripline	1.2	<10	VP	G	Remove

*DBH: Diameter at Breast Height. For multi-stemmed trees, Effective DBH is calculated as the square root of the sum of squares.

** CRPZ: Critical Root Protection Zone.



Appendix B

City of Brampton Engineering Standard L110

