



November 4, 2020

Attention: Ms. Sibylle von Knobloch
NAK Design Group
411 Richmond Street East, Suite 104
Mississauga, Ontario, M5A 3S5.

svk@nakdesigngroup.com

Re: Arborist Report and Tree Preservation Plan – 3420 Hurontario Street – Mississauga

Ms. Sibylle von Knobloch

As per your request, I have completed a site visit on October 13, 2020 to 3420 Hurontario Street – Mississauga, in preparation for an arborist report and tree preservation with regards to the proposed mixed-use residential development.

The enclosed report inventories all trees regulated by the City of Mississauga, both on and within 6m of the subject site. This inventory will include individual tag #s, both common and botanical names, DBH, and condition. Additionally, it will determine if any regulated trees are to be negatively impacted by the proposed development and provide a preservation strategy for all trees recommended for preservation.

Thirty-seven regulated trees have been inventoried as part of this project, two of which are City owned. One City owned tree is in conflict with the proposed site entrance and is to be removed. Authorization from the City is required prior to the removal of this tree. Twenty-two trees located on the subject site and three on the adjacent property are in conflict with proposed construction and are to be removed. Pursuant to the City's Private Tree By-law, the client will submit a permit application to remove twenty-three trees.

I trust this report meets your needs, if you have any questions or concerns feel free to contact me at cgavin@canopyconsulting.ca.

Regards,

Cletus Gavin *B.Sc. Earth Science & Biology*
President & Consulting Arborist
ASCA Registered Consulting Arborist #613
ISA Certified Arborist (ON-1576A)
Butternut Health Assessor # 439
TRAQ Certified



Arborist Report
&
Tree Protection Plan

3420 Hurontario Street
Mississauga, ON

Prepared for:

Attention: Ms. Sibylle von Knobloch

NAK Design Group

411 Richmond Street East, Suite 104

Toronto, Ontario, M5A 3S5.

svk@nakdesigngroup.com

Prepared By:

Cletus Gavin, B.Sc Earth Science & Biology

ISA Certified Arborist (ON-1576A)

Canopy Consulting

cgavin@canopyconsulting.ca

1019B College Street

Toronto, On M6H 1A8

416-300-2957

November 4, 2020

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INTRODUCTION:

I have been commissioned by Ms. Sibylle von Knobloch of *NAK Design Group*, to complete an arborist report and tree protection plan for the proposed mixed-use building at 3420 Hurontario Street - Mississauga. The report will identify all trees regulated by the City of Mississauga By-laws, provide a preservation strategy with recommendations and a tree protection plan depicting the trees locations, the existing conditions and any proposed work. All field work and data collection were completed by Cletus Gavin, RCA #613 on October 13, 2020.

HISTORY AND ASSIGNMENT:

Ms. von Knobloch has provided a survey illustrating the existing conditions and a preliminary site plan of the proposed building located at 3420 Hurontario Street - Mississauga. Upon the request of the client or municipality, *Canopy Consulting*, can be further retained beyond the current scope of work to provide on-site monitoring services and to provide any remedial actions deemed necessary.

Scope of work:

1. Inventory all trees regulated by the municipality, both on and within 6m of the subject site. The inventory will include a tag #, species, DBH, condition, comments and recommendations.
2. Determine if any regulated trees are to be negatively impacted by the proposed development.
3. Provide a preservation strategy for all trees recommended for preservation.

ASSUMPTION AND LIMITING CONDITIONS:

1. Care has been taken to obtain all information from reliable sources. *Canopy Consulting* can neither guarantee nor be responsible for the accuracy of information provided by others.
2. 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. Excerpts or alterations to the report, without the authorization of the author or his company invalidates its intent and/or implied conclusions.
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 practices 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: 3420 Hurontario Street - Mississauga

Tree #	Species Common Name (Biological Name)	D ¹ B H (cm)	Condition ²	Category ³	Comments	Recommendation ⁴	M ⁵ T P Z (M)
252	Little Leaf Linden <i>Tilia cordata</i>	12	F	1	- in conflict with proposed construction	R	
253	Honey Locust <i>Gleditsia triacanthos</i>	23	F	1	- deadwood, roots exposed - in conflict with proposed construction	R	
254	Honey Locust <i>Gleditsia triacanthos</i>	20	F	1	- deadwood, in decline - in conflict with proposed construction	R	
255	Honey Locust <i>Gleditsia triacanthos</i>	23	F	1	- deadwood, roots exposed - in conflict with proposed construction	R	
256	Honey Locust <i>Gleditsia triacanthos</i>	22	F	1	- deadwood, unbalanced - in conflict with proposed construction	R	
257	Honey Locust <i>Gleditsia triacanthos</i>	25	F	1	- deadwood, roots exposed, in decline, epicormic shoot - in conflict with proposed construction	R	
258	Honey Locust <i>Gleditsia triacanthos</i>	25	F	1	- deadwood, roots exposed, poor form, storm break - in conflict with proposed construction	R	
259	Norway Maple <i>Acer platanoides</i>	30	F	1	- deadwood, roots exposed - in conflict with proposed construction	R	

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 #:**

1. Trees with diameters of 10 cm or more, situated on private property on the subject site.
2. Trees with diameters of 6 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 Municipal road allowance adjacent to the subject site.

⁴ **Recommendation:** Preserve (**P**), Preserve with Injury (**PI**), Remove (**R**), Transplant (**T**)

⁵ **MTPZ:** Minimum tree protection zone distance as mandated by City of Mississauga.

Tree #	Species Common Name (Biological Name)	D B H (cm)	Condition	Category	Comments	Recommendation	M T P Z (M)
260	Norway Maple <i>Acer platanoides</i>	29	F	1	- deadwood, roots exposed - in conflict with proposed construction	R	
261	Norway Maple <i>Acer platanoides</i>	25	F	1	- deadwood, roots exposed, in decline - in conflict with proposed construction	R	
262	Norway Maple <i>Acer platanoides</i>	20	F	1	- deadwood, roots exposed, in decline - in conflict with proposed construction	R	
263	DEAD	15	D	0	- 100% dead	R	
264	DEAD	16	D	0	- 100% dead	R	
265	Norway Maple <i>Acer platanoides</i>	15	P	1	- deadwood, epicormic shoots, in decline - in conflict with proposed construction	R	
266	Siberian Elm <i>Ulmus pumila</i>	18	P	1	- cavity in trunk, decay, in decline, roots exposed, unbalanced - in conflict with proposed construction	R	
267	DEAD ASH	16	D	0	- 100% dead	R	
268	DEAD ASH	15	D	0	- 100% dead	R	
269	DEAD ASH	23	D	0	- 100% dead	R	
270	Callery Pear <i>Pyrus calleryana</i> (Clump)	31 (3x18)	F	1	- deadwood, in decline, - in conflict with proposed construction	R	
271	DEAD ASH	16	D	0	- 100% dead	R	
272	Siberian Elm <i>Ulmus pumila</i>	10	F	1	- deadwood, poor form - in conflict with proposed construction	R	
273	Siberian Elm <i>Ulmus pumila</i>	11	F	1	- deadwood, poor form - in conflict with proposed construction	R	
C1	Crabapple <i>Malus baccata</i>	32	P	4	- 80% dead, cavity at base - in conflict with proposed construction	R	
C2	Honey Locust <i>Gleditsia triacanthos</i>	31	F	4	- clear of proposed development - shall retain their prescribed TPZ	P	2.4
N1	Austrian Pine <i>Pinus nigra</i>	26	F	2	- poor union, codominate stem - clear of proposed development - shall retain their prescribed TPZ	P	1.8
N2	Austrian Pine <i>Pinus nigra</i>	21	F	2	- deadwood, unbalanced - clear of proposed development - shall retain their prescribed TPZ	P	1.8
N3	Austrian Pine <i>Pinus nigra</i>	11	P	2	- deadwood, in decline - clear of proposed development - shall retain their prescribed TPZ	P	1.8
N4	Austrian Pine <i>Pinus nigra</i>	22	F	2	- deadwood - clear of proposed development - shall retain their prescribed TPZ	P	1.8

Tree #	Species Common Name (Biological Name)	D B H (cm)	Condition	Category	Comments	Recommendation	M T P Z (M)
N5	Austrian Pine <i>Pinus nigra</i>	13	F	2	- deadwood, unbalanced - clear of proposed development - shall retain their prescribed TPZ	P	1.8
N6	Austrian Pine <i>Pinus nigra</i>	19	F	2	- deadwood, in decline - clear of proposed development - shall retain their prescribed TPZ	P	1.8
N7	Austrian Pine <i>Pinus nigra</i>	27	F	2	- deadwood, unbalanced - clear of proposed development - shall retain their prescribed TPZ	P	1.8
N8	Honey Locust <i>Gleditsia triacanthos</i>	14	F	2	- clear of proposed development - shall retain their prescribed TPZ	P	1.8
N9	Honey Locust <i>Gleditsia triacanthos</i>	13	F	2	- clear of proposed development - shall retain their prescribed TPZ	P	1.8
N10	Siberian Elm <i>Ulmus pumila</i>	41	F	2	- multiple storm breaks, in decline, poor union, deadwood, girdled and exposed roots - clear of proposed development - shall retain their prescribed TPZ	P	3.0
N11	Callery Pear <i>Pyrus calleryana</i>	18	P	2	- 60% dead, in decline - heavily encroached upon by proposed construction	R	
N12	Siberian Elm <i>Ulmus pumila</i>	12	F	2	- deadwood, in decline - heavily encroached upon by proposed construction	R	
N13	Manitoba Maple <i>Acer negundo</i>	12	F	2	- deadwood, in decline - heavily encroached upon by proposed construction	R	

Discussion:

City Owned Trees:

- As listed above, there are thirty-seven regulated trees involved with this project, two of which are located within the City road allowance, being trees no. C1 and C2. Tree no. C2 is clear of proposed development, shall retain its prescribed TPZ and as such, will not be disturbed during construction. Tree protection hoarding is not required for this tree as no part of its prescribed TPZ encroaches upon the subject site.
- Tree no. C1 is in conflict with proposed site entrance and as such, is to be removed. Authorization from the City is required prior to the removal of this tree.
- The appraised value of trees no. C1-C2 is \$4,960.00. The Trunk Formula Method (TFM) was used to appraise the tree as described in the “Guide for Plant Appraisal”, prepared under contract by the “Council of Tree and Landscape Appraisers, an official publication of the International Society of Arboriculture (I.S.A.), 9th Edition, 2000”, see Appendix III for Key Inputs and Trunk Formula Summary.

Privately Owned Trees Located on or within 6.0m of the Subject Site:

1. There are thirteen regulated trees located on the adjacent private property, being trees no. N1-N13. Trees no. N2-N5 and N7-N10 are clear of the proposed development, shall retain their prescribed TPZs and as such, will not be disturbed during construction.
2. Trees no. N1 and N6 are situated adjacent to the existing wood retaining wall and no part of their canopy encroaches upon the subject site. With the above in mind, the existing retaining wall will protect the tree's roots from disturbance and proposed construction will not affect the trees current health or condition. Tree protection hoarding is not necessary for these trees as no part of their root structure encroaches upon the subject site and the existing wood fence will provide sufficient protection.
3. Trees no. N11-N13 are heavily encroached upon by the proposed shoring. Such an encroachment is sure to sever critical roots, predisposing these trees to irreversible decline and an increased risk of wind throw damage. With the above in mind, these trees are recommended for removal. Pursuant to the City's Private Tree By-law, the client will submit a permit application to remove three trees.

Privately Owned Trees Located on the Subject Site:

1. There are twenty-two regulated trees located on the subject site, being trees no. 252-273. These trees are in conflict with proposed construction and as such, are to be removed. Please note trees no. 263, 264, 267, 268, 269 and 273 are 100% dead trees. Pursuant to the City's Private Tree By-law, the client will submit a permit application to remove nineteen trees (two trees greater than 15cm can be removed each calendar year without a permit)
2. All other trees located on or within 6.0m of the subject site have a DBH of less than 6cm, are non-regulated trees and as such, were not included in this report.

SUMMARY TABLE:

Tree Category	Total	Preserve	Preserve with Injury	Remove	Transplant
1 (Tree located on the subject site)	22	0	0	22	0
2 (Tree located on adjacent property)	13	10	0	3	0
4 (City owned tree)	2	1	0	1	0
Total	37	11	0	26	0

CONCLUSIONS:

As listed in the Summary Table above, thirty-seven regulated trees are involved with this project, two of which are located within the City road allowance. One City owned tree is in conflict with the proposed site entrance and is to be removed. Authorization from the City is required prior to the removal of this tree. Twenty-two trees located on the subject site and three on the adjacent property are in conflict with proposed construction and are to be removed. Pursuant to the City's Private Tree By-law, the client will submit a permit application to remove twenty-three trees. Finally, with the above in mind, it is the consultant's opinion that if the above tree preservation recommendations are implemented, which includes installing tree protection hoarding as mandated by the City of Mississauga as outlined in this report, proposed construction will not adversely affect the long-term health, safety and/or existing condition of all trees scheduled for preservation.

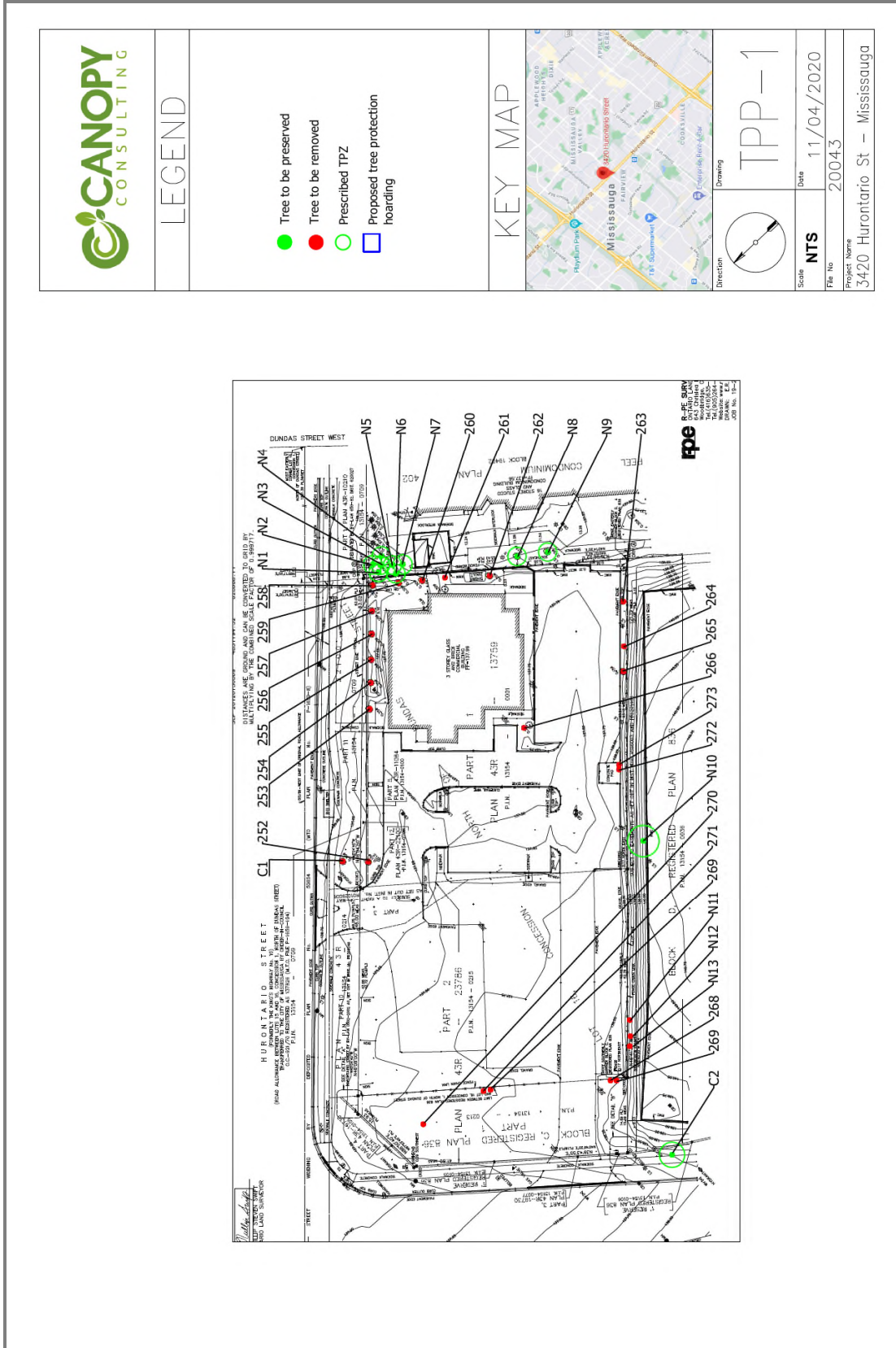
Trusting this report meets your needs. For further information, you may contact me directly at (416) 300-2957 or by email at cgavin@canopyconsulting.ca.

Sincerely,



Cletus Gavin *B.Sc. Earth Science & Biology*
President & Consulting Arborist
ASCA Registered Consulting Arborist #613
ISA Certified Arborist (ON-1576A)
Butternut Health Assessor # 439
TRAQ Certified

Appendix I: Tree Protection Plan – TPP-1



Appendix II: Digital Images



Photo #1: Trees no. 252 and C1 looking east.



Photo #2: Trees no. 253-257 looking northwest.



Photo #3: Trees no. 258-262 and N4-N7 looking southwest.



Photo #4: Trees no. 263-266, 272-273 and N10 looking south.



Photo #5: Trees no. 268-269, N11-N13 and non-regulated trees looking west.



Photo #6: Trees no. 269-271 and non-regulated trees looking northwest.

Appendix III:

TRUNK FORMULA METHOD

The method that will be used to appraise the tree is the Trunk Formula Method (TFM) as described in the “*Guide for Plant Appraisal*”, prepared under contract by the “*Council of Tree and Landscape Appraisers*, an official publication of the *International Society of Arboriculture (I.S.A.)*, 9th Edition, 2000”. The trunk formula method is used to appraise the monetary value of trees considered too large to be replaced with nursery or field-grown stock. Determination of the value of a tree is based on the cost of the largest commonly available transplantable tree and its cost of installation, plus the increase in value due to the larger size of the tree being appraised. These values are adjusted according to the species, health and location. This method of appraisal is endorsed by several reputable organizations including the *American Society of Consulting Arborist*, the *I.S.A.* and the *Tree Care Industry*.

TABLE 1: KEY INPUTS

Replacement Cost	\$815.00
Species factor ⁶	
<ul style="list-style-type: none"> ▪ Crabapple (<i>Malus baccata</i>) ▪ Honey Locust (<i>Gleditsia triacanthos</i>) ▪ 	<p>56%</p> <p>68%</p>
Basic Price ⁷	\$6.51 cm²
Location Factor considers the following:	
<ul style="list-style-type: none"> ▪ Site Rating – (75%) ▪ Contributing Rating – (77%) ▪ Placement Rating – (78%) 	77%

TABLE 2: TRUNK FORMULA SUMMARY FOR TREES >20CM

TREE #	DBH (CM)	Replacement Cost	BASIC PRICE	TRUNK AREA DIFFERENCE	SPECIES %	CONDITION %	LOCATION %	APPRAISED VALUE \$
C1	32	391	19.55	754	0.56	0.20	0.77	1330
C2	32	524	13.79	754	0.68	0.62	0.77	3630
							TOTAL	\$4,960

⁶ Ontario Supplement to the Guide for Plant Appraisal, 8th Edition

⁷ See above.