ARBORIST REPORT AND TREE PRESERVATION PLAN

LOCATION:

1148 and 1154 Mona Road

Mississauga, ON

PROPERTY OWNER/APPLICANT:

Queenscorp Inc.

c/o

Alexander Budrevics + Associates Ltd.

Landscape Architects

895 Don Mills Road, Second Tower, Suite 212

Toronto, ON

M3C 1W3

2 August 2024, revised 25 March 2025

Amy Choi Consulting

www.achoiconsulting.ca

info@achoiconsulting.ca

647.983.8817

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INTRODUCTION

An Arborist Report and Tree Preservation Plan was completed for 1148 and 1154 Mona Road, Mississauga, Ontario. The subject property is located north of Lakeshore Road East and west of Hurontario Street.

The City of Mississauga's Public Tree Protection By-law 0020-2002 and Private Tree Protection By-law 0021-2022 are applicable to the subject property. A permit is required prior to impacts to any Public trees, and private trees greater than 15 centimetres in diameter.

Existing Conditions and Proposed Works

The subject area consists of two single residential (detached) lots. The proposed development consists of a residential complex with two semi-detached buildings, and a six-unit townhouse building. Refer to Figure A below for an aerial photo of the subject property and adjacent properties, taken from the City of Mississauga online mapping. Refer to Tree Preservation Plan (L100) for the topographic survey (existing conditions) and proposed development.

Figure A. Area photo of Site and Abutting Properties (Mississauga Maps, 2022)

METHODOLOGY

Tree Inventory

Field assessments to collect tree inventory data were completed on17 July 2024. All trees greater than 5 cm diameter on the subject property and within 6m of the subject property, and all City-owned tree resources greater than 6cm diameter within 6m of the subject property, were included in the inventory.

Trees were numbered 1 to 33. Species, diameter at breast height (DBH), health, condition, dripline and relevant comments were recorded for each of the trees. Trees were located using the topographic survey provided. Trees located on neighbouring property were assessed to the greatest extent possible from subject property limits. All assessments were limited to ground survey.

Tree Valuation

The appraised value of individual City trees was calculated using the Trunk Formula Technique as described in International Society of Arboriculture's 'Guide to Plant Appraisal, 10th Edition'.

RESULTS

Tree Inventory

A total of 33 individual trees were identified within the subject property limits, within 6m on neighbouring property, and within the City road allowance. Trees 1 to 3, 5, 8, 11 to 23, 29, and 33 are located within the subject property limits. Trees 6, 9 and 10 are located on neighbouring property. Trees 4 and 7 are boundary trees. Trees 24 to 28, and 30 to 32 are located within the City road allowance. All trees are greater than 15cm DBH, with the exception of Trees 22 and 33.

Species found include: Red Maple (*Acer rubrum*), Norway Maple (*Acer platanoides*), White Pine (*Pinus strobus*), Black Cherry (*Prunus serotina*), Little-leaf Linden (*Tilia cordata*), Green Ash (*Fraxinus pennsylvanica*), Blue Spruce (*Picea pungens*), Apple species (*Malus* sp.), Austrian Pine (*Pinus nigra*), and Eastern White Cedar (*Thuja occidentalis*). Refer to Table 1 for the detailed tree inventory, Appendix A for photos of the trees and the Tree Preservation Plan (L100) for the locations of the trees.

ANALYSIS AND DISCUSSION

Tree Removal

The removal of a total of 23 trees will be required to accommodate the proposed development or due to their condition. Twenty-one (21) trees will require removal to accommodate the proposed development and two (2) trees are recommended for removal due to their condition, regardless of the proposed development.

Trees 1, 2, and 6 to 8 will require removal to accommodate the excavation for the proposed townhouse foundations and/or the acoustic barrier. Trees 11 to 23, 28, 29, 31 and 33 will require removal to accommodate the proposed buildings and/or new paved surfaces (road, driveways, walkways).

Trees 7 and 30 are in declining condition and are recommended for removal regardless of the proposed development. A permit will be required for the removal of trees greater than 15 cm DBH, including the aforementioned trees with the exception of Trees 22 and 33. Permission will be required from the neighbouring property owner(s) prior to the removal of any shared/neighbouring trees.

Vegetation removals should not take place during the established core local breeding bird season, which extends from April 1st to August 31st in the local area (as per Environmental and Climate Change Canada Guidelines).

Tree Retention and Tree Preservation Recommendations

The preservation of all remaining trees will be possible given the appropriate tree preservation measures discussed in this report and plan are implemented.

Trees 9 and 10 are located on neighbouring property and away from the proposed works. Tree preservation hoarding has not been prescribed for these trees. This tree should not be impacted assuming all construction activities, equipment, materials, and/or fill, remain within subject property limits.

Trees 3 to 5 will be protected by solid board (plywood) framed hoarding. Trees 24 to 27 and 32 will be protected by plastic snow fence framed hoarding within the road allowance and solid board (plywood) framed hoarding within the subject property.

Moderate encroachment into the minimum Tree Protection Zones (mTPZs) of Tree 3 to 5 will be required to for foundation over-dig and to install the proposed fence and for minor grading. Excavation within mTPZs for foundation to be completed using hydro-vac excavation to a minimum depth of 0.5m to exposed roots for pruning according to good arboricultural practices. The privacy fence and grading should be completed in the final landscaping phase of development. Any post holes to be dug using air or hydro vac excavation. Any work within the mTPZs should be supervised by a Certified Arborist. These trees should be monitored closely for changes in health, condition, and structural stability, annually for a minimum of 2 years following construction.

Minor to moderate encroachment into the mTPZs of Tree 24 and 25 will be required to install the proposed fence. The fence should be installed during the final landscaping phase of development, under supervision of a Certified Arborist. The post holes should be dug by hand and any exposed roots pruned according to good arboricultural practices. These trees should be monitored annually during the growing season for changes in health and condition for a minimum period of two years following construction completion.

Minor to moderate encroachment into the mTPZ of Tree 32 will be required to backfill the ditch and to install the proposed fence. The fence should be installed during the final landscaping phase of development, under supervision of a Certified Arborist. The post holes should be dug by hand and any exposed roots pruned according to good arboricultural practices. This tree should be monitored annually during the growing season for changes in health and condition for a minimum period of two years following construction completion. This tree will benefit from watering during and for a minimum period of two years following construction.

Tree preservation hoarding should be installed prior to construction and remain in place throughout the construction process, as specified in the Tree Preservation Plan (L100). No grade changes, storage of materials or equipment is permitted within the tree protection zone (TPZ), unless specified above. The driplines, mTPZs, tree preservation hoarding locations, tree preservation hoarding detail, and tree protection notes, are shown on the Tree Preservation Plan (L100). Dripline distances are shown in Table 1. Refer to Appendix A for photos of these trees.

Tree Replacement Requirements

Replacement trees should be planted at a rate of one tree per 15 cm DBH of City trees or private trees greater than 15 cm DBH to be removed, space permitting. A total of 88 trees will need to be planted to compensate for the required tree removals. Any trees that cannot be planted will need to be compensated through cash-in-lieu.

Tree Valuation

The total appraised value of individual City-owned trees is $30,629. Refer to Table 2 for the tree valuation calculations.

CONCLUSION AND RECOMMENDATIONS

A total of 33 individual trees were identified within the subject property limits, within 6m on neighbouring property, and within the City road allowance. The removal of a total of 23 trees will be required to accommodate the proposed development or due to their condition. Twenty-one (21) trees will require removal to accommodate the proposed development and two (2) trees are recommended for removal due to their condition, regardless of the proposed development. A permit will be required for the removal of trees greater than 15 cm DBH. All remaining trees may be preserved assuming the tree protection measures noted in this report and the Tree Preservation Plan (L100) are implemented.

Tree preservation measures should be installed prior to any construction work, as discussed in this report. Tree preservation hoarding should be implemented at dripline or mTPZ distances noted in Table 1 and/or shown in the Tree Preservation Plan (L100) and maintained throughout the construction process. Refer to the tree preservation hoarding detail and tree protection notes on the Tree Preservation Plan (L100) for further information regarding tree preservation as outlined by the City of Mississauga. Refer to Appendix A for photos of the trees.

Respectfully Submitted,

Amy Choi, B.Sc.(Env.), M.Sc.F.
Principal, Consulting Arborist and Forest Ecologist
ISA Certified Arborist #ON-1609A
ISA Tree Risk Assessment Qualified
Certified Butternut Assessor #024

Amy Choi Consulting
www.achoiconsulting.ca
info@achoiconsulting.ca
647.983.8817

TABLE 1. DETAILED TREE INVENTORY

Location: 1148 and 1154 Mona Road, Mississauga Date: 17 July 2024 Surveyors: KA

Tree #	Common Name	*Scientific Name*	Diameter at Breast Height (DBH)[1]	Trunk Integrity	Crown Structure	Crown Vigour	Crown Dieback	Dripline (radius)	minimum Tree Protection Zone (mTPZ) (radius)[2]	Comments	Proposed Action	Preservation Comments	Ownership
			(cm)	*Good (G), Fair (F), Poor (P)*			*%*	*(m)*	*(m)*				
1	Red Maple	*Acer rubrum*	48	F	FG	FG		3	3.0	Co-dominant at 1.5m with significant included bark, vertical scaffold limbs, minor epicormic branches, minor pruning wounds	Remove (development)		Subject
2	Norway Maple	*Acer platanoides*	53	FG	FG	G		3.5	3.6	Co-dominant at 2.5m, minor pruning wounds, minor broken branches	Remove (development)		Subject
3	White Pine	*Pinus strobus*	72	G	G	G		3	4.8	Moderate pruning wounds due to a raised crown	Preserve - injure	Excavation within mTPZs for foundation to be completed using hydro-vac excavation to a minimum depth of 0.5m to exposed roots for pruning according to good arboricultural practices. Privacy fence and grading to be completed in the final landscaping phase of development. Any post holes to be dug using air or hydro vac excavation. All work within the mTPZs to be supervised by a Certified Arborist.	Subject
4	White Pine	*Pinus strobus*	78	G	FG	FG		3	4.8	Moderate pruning wounds due to a raised crown, sparse	Preserve - injure		Boundary
5	White Pine	*Pinus strobus*	56	FG	FG	G		3	3.6	Moderate pruning wounds due to a raised crown, crooks	Preserve - injure		Subject

Tree #	Common Name	*Scientific Name*	Diameter at Breast Height (DBH)[1]	Trunk Integrity	Crown Structure	Crown Vigour	Crown Dieback	Dripline (radius)	minimum Tree Protection Zone (mTPZ) (radius)[2]	Comments	Proposed Action	Preservation Comments	Ownership
			(cm)	*Good (G), Fair (F), Poor (P)*			*%*	*(m)*	*(m)*				
6	Red Maple	*Acer rubrum*	35	FG	FG	FG		3.5	2.4	Moderate lean, minor broken branches, minor pruning wounds	Remove (development)		Neighbouring
7	Black Cherry	*Prunus serotina*	61	F	FP	F		3.5	4.2	Union at 4.5m, 1 stem dead, significant deadwood	Remove (condition)		Boundary
8	Little-leaf Linden	*Tilia cordata*	29	G	G	G		3	1.8		Remove (development)		Subject
9	White Pine	*Pinus strobus*	~60	G	FG	G		2.5	3.6	Moderate pruning wounds due to a raised crown, small live crown ratio	Preserve		Neighbouring
10	White Pine	*Pinus strobus*	~60	G	FG	G		2.5	3.6	Moderate pruning wounds due to a raised crown, small live crown ratio	Preserve		Neighbouring
11	White Pine	*Pinus strobus*	72	G	FG	FG		4.5	4.8	minor pruning wounds due to a raised crown, minor broken branches	Remove (development)		Subject
12	White Pine	*Pinus strobus*	71	FG	FG	FG		5	4.8	minor pruning wounds due to a raised crown, minor broken branches, multiple leaders	Remove (development)		Subject
13	Red Maple	*Acer rubrum*	27	G	G	G		3.5	1.8	Minor broken branches	Remove (development)		Subject
14	White Pine	*Pinus strobus*	54	FG	FG	F		3	3.6	Moderate pruning wounds due to a raised crown, minor deadwood, minor broken branches	Remove (development)		Subject

Tree #	Common Name	*Scientific Name*	Diameter at Breast Height (DBH)[1]	Trunk Integrity	Crown Structure	Crown Vigour	Crown Dieback	Dripline (radius)	minimum Tree Protection Zone (mTPZ) (radius)[2]	Comments	Proposed Action	Preservation Comments	Ownership
			(cm)	*Good (G), Fair (F), Poor (P)*			*%*	*(m)*	*(m)*				
15	Norway Maple	*Acer platanoides*	84	F	FP	FG		6	5.4	Vertical scaffold limbs, narrow branch unions, cross branches, minor branch unions, exposed roots	Remove (development)		Subject
16	White Pine	*Pinus strobus*	77	G	G	FG		3.5	4.8	Moderate pruning wounds due to a raised crown, moderate broken branches	Remove (development)		Subject
17	White Pine	*Pinus strobus*	106	F	FG	FG		5.5	6.4	Co-dominant at 2.5m, moderate pruning wounds due to a raised crown, crooks	Remove (development)		Subject
18	Red Maple	*Acer rubrum*	49	F	F	FG		4	3.0	Curved, moderate pruning wounds/failure	Remove (development)		Subject
19	Red Maple	*Acer rubrum*	22.5	FG	F	F		2.5	1.8	Root zone excavated, significant pruning wounds due to a raised crown	Remove (development)		Subject
20	Little-leaf Linden	*Tilia cordata*	21	FG	FG	G		2.5	1.8	Minor pruning wounds, root zone excavated	Remove (development)		Subject
21	Green Ash	*Fraxinus pennsylvanica*	15	FG	FG	G		2	1.5	Co-dominant at 3.5m, minor pruning wounds, root zone excavated	Remove (development)		Subject
22	Little-leaf Linden	*Tilia cordata*	12.5	FG	FG	FG		1.5	1.5	Utility lines through crown	Remove (development)		Subject
23	Blue Spruce	*Picea pungens*	25	G	G	F		2	1.8	Utility lines through crown, minor pruning wounds due to a raised crown, minor asymmetrical crown due to competition	Remove (development)		Subject

Tree #	Common Name	*Scientific Name*	Diameter at Breast Height (DBH)[1]	Trunk Integrity	Crown Structure	Crown Vigour	Crown Dieback	Dripline (radius)	minimum Tree Protection Zone (mTPZ) (radius)[2]	Comments	Proposed Action	Preservation Comments	Ownership
			(cm)	*Good (G), Fair (F), Poor (P)*			*%*	*(m)*	*(m)*				
24	Little-leaf Linden	*Tilia cordata*	21.5	G	G	G		2.5	1.8	Minor pruning wounds, minor epicormic branches	Preserve		City ROW
25	Little-leaf Linden	*Tilia cordata*	15	FG	FG	G		2	1.5	Co-dominant at 4m, minor pruning wounds	Preserve – injure	Fence to be installed during final landscaping phase of development, under supervision of a Certified Arborist. Post holes to be hand-dug.	City ROW
26	Little-leaf Linden	*Tilia cordata*	12.5	G	G	G		1.5	1.5	Minor pruning wounds	Preserve - injure		City ROW
27	Apple species	*Malus sp.*	27.5	F	FP	FP		2.5	1.8	Utility lines through crown, significant pruning wounds with decay, moderate epicormic branches			City ROW
28	Norway Maple	*Acer platanoides*	63	FG	F	FG		4	4.2	Moderate pruning wounds, vertical scaffold limbs, girdling roots	Remove (development)		City ROW (Boundary)
29	Little-leaf Linden	*Tilia cordata*	65	FP	F	FG		5	4.2	Narrow branch unions with moderate decay, significant epicormic branches	Remove (development)		Subject
30	Red Maple	*Acer rubrum*	25,30,39 [55]	FP	FP	F		6	3.6	Multi-stemmed near base, moderate pruning wounds with decay, fruiting bodies, vertical scaffold limbs	Remove (condition)		City ROW
31	Norway Maple	*Acer platanoides*	56	F	FP	F		6	3.6	Union at 2m, vertical scaffold limbs, minor broken branches with decay	Remove (development)		City ROW
32	Austrian Pine	*Pinus nigra*	55	FG	F	F		4	3.6	Utility lines through crown, moderate pruning wounds due to a raised crown, sparse	Preserve - injure	Fence to be installed during final landscaping phase of development, under supervision of a Certified Arborist. Post holes to be hand-dug.	City ROW

Tree #	Common Name	*Scientific Name*	Diameter at Breast Height (DBH)[1]	Trunk Integrity	Crown Structure	Crown Vigour	Crown Dieback	Dripline (radius)	minimum Tree Protection Zone (mTPZ) (radius)[2]	Comments	Proposed Action	Preservation Comments	Ownership
			(cm)	*Good (G), Fair (F), Poor (P)*			*%*	*(m)*	*(m)*				
33	Eastern White Cedar	*Thuja occidentalis*	13	G	G	G		1	1.5		Remove (development)		Subject
END													

[1] The effective DBH of multi-stemmed trees was calculated by taking the square root of the sum of the squares of the DBH of each stem.
[2] MTPZ distances are to be measured from the outside edge of the tree base towards the dripline and may be limited by an existing paved surface, provided the existing paved surface remains intact throughout the construction work.

TABLE 2. TREE VALUATION CALCULATIONS

SUBJECT TREE									FUNCTIONAL REPLACEMENT TREE			CALCULATIONS			TOTAL VALUE
Tree #	Common Name	Scientific Name	Line 1	Line 2 (Line 1² x 0.7854)	Line 3		Line 4	Line 5	Line 6	Line 7: Line 6² x 0.7854	Line 8	Line 9: RPAC	Line 10 (line 2 x line 9)	Line 11 (line 10 x line 3 x line 4 x line 5)	
			Diameter at Breast Height (DBH)	Cross-sectional Area	Overall Condition Rating		Functional Limitations	External Limitations	Size (60mm caliper)	Cross-sectional Area	Functional replacement tree cost	Unit Tree Cost	Basic functional replacement cost	Depreciated functional replacement cost	
			cm	*cm²*	*Health, Structure, form*		*%*	*%*	*cm*	*cm²*	*$*	*$*	*$*	*$*	*$*
24	Little-leaf Linden	*Tilia cordata*	21.5	363	G	0.9	0.65	0.8	6	28	849.91	6.51	2363	1106	30629
25	Little-leaf Linden	*Tilia cordata*	15	177	FG	0.8	0.65	0.8	6	28	849.91	6.51	1150	849.91 (479)	
26	Little-leaf Linden	*Tilia cordata*	12.5	123	G	0.95	0.7	0.8	6	28	849.91	6.51	799	849.91 (425)	
27	Apple species	*Malus sp.*	27.5	594	PF	0.4	0.8	0.8	6	28	849.91	6.51	3867	990	
28	Norway Maple	*Acer platanoides*	63	3117	F	0.65	0.85	0.8	6	28	849.91	6.51	20293	8970	
30	Red Maple	*Acer rubrum*	55	2376	PF	0.4	0.8	0.8	6	28	849.91	6.51	15467	3959	
31	Norway Maple	*Acer platanoides*	56	2463	PF	0.6	0.85	0.8	6	28	849.91	6.51	16034	6542	
32	Austrian Pine	*Pinus nigra*	55	2376	F	0.7	0.85	0.8	6	28	849.91	6.51	15467	7362	
END															

APPENDIX A. PHOTOS OF THE TREES

Photo 1. Trees 1 and 2 (left and right), view looking south

Photo 2. Trees 3 to 5 (left to right), view looking west

Photo 3. Trees 6 to 8 (centre foreground, left to right), view looking west

Photo 4. Trees 9 and 10 (left and right), view looking northwest

Photo 5. Trees 11 and 12 (right and left), view looking east

Photo 6. Tree 13 (centre, foreground), view looking north

Photo 7. Trees 14 and 15 (left and right), view looking east

Photo 8. Trees 16 to 19 (left to right), view looking west

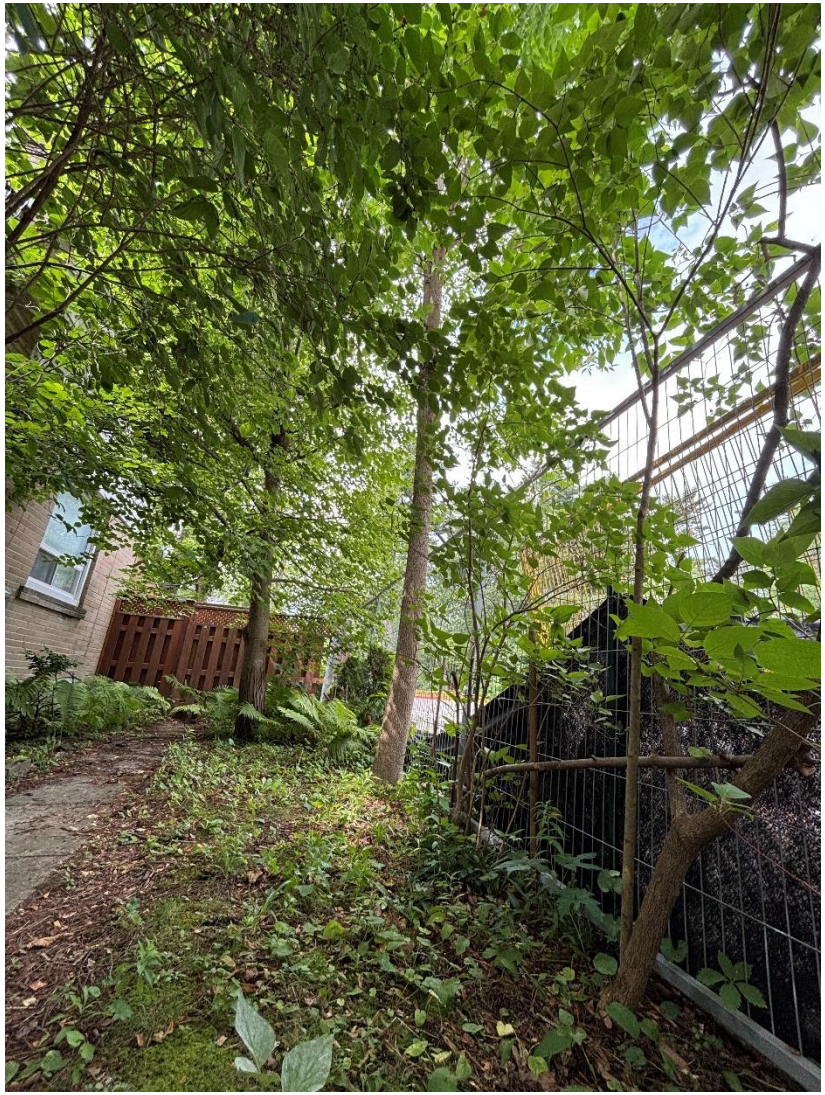

Photo 9. Trees 20 and 21 (left and right), view looking southwest

Photo 10. Tree 22, view looking west

Photo 11. Tree 23 (centre), view looking north

Photo 12. Trees 24 to 27 (left to right), view looking north

Photo 13. Tree 28 (centre), view looking south

Photo 14. Tree 29 (centre), view looking northwest

Photo 15. Trees 30 to 32 (right to left), view looking southwest

Photo 16. Tree 33 (centre, foreground), view looking northeast