

**Tree Inventory and Preservation Plan Report
2105, 2087, 2097, and 2077 Royal Windsor Drive
Mississauga, Ontario**

**DARC submission: 22-226 W2
(Temporary) EPlans Number: OPZR-91934**

prepared for

**CRW 1 LP and CRW 2 LP
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Site visit: 1 November 2022

Report prepared: 2 November 2022, revised 9 December 2022

KUNTZ FORESTRY CONSULTING Inc. Project P3438

Introduction

Kuntz Forestry Consulting Inc. was retained by CRW 1 LP and CRW 2 LP to complete a Tree Inventory and Preservation Plan for the proposed development for the property located at 2105, 2087, 2097, and 2077 Royal Windsor Drive in the City of Mississauga, Ontario. The subject property is located on the northwest corner of Royal Windsor Drive and Southdown Road, within a commercial area.

The work plan for this tree preservation study included the following:

- Prepare inventory of the tree resources greater than 10cm DBH on and within six metres of the subject property;
- Evaluate potential tree saving opportunities based on proposed site plans; and,
- Document the findings in a Tree Inventory and Preservation Plan Report.

Methodology

Trees greater than 10cm DBH on and within six metres of the subject property were identified in the tree inventory. Trees were located using the topographic survey provided for the subject property and measurements taken from known points in-field. Trees were tagged with the numbers 671-712. Trees that could not be tagged were identified using the letters A and B.

Tree resources were assessed utilizing the following parameters:

Tree # - number assigned to tree that corresponds to Figure 1.

Species - common and botanical names provided in the inventory table.

DBH - diameter (centimeters) at breast height, measured at 1.4 metres above the ground.

Condition - condition of tree considering trunk integrity, crown structure, crown vigour, and root zone environment. Condition ratings include poor (P), fair (F) and good (G).

Dripline – radius (metres) of the tree crown, measured from the stem to the outer branches of the crown.

Crown Dieback – percentage of crown that has died.

Comments - additional relevant detail.

Refer to Figure 1 for the tree locations and Table 1 for the results of the tree inventory. The results of the evaluation are provided below.

Existing Site Conditions

The subject property is currently occupied by four one-storey brick buildings, associated asphalt parking lots, and a private road, with an easement in favour of Metrolinx, to provide access to Royal Windsor Drive to the south and Clarkson GO Station to the north. Tree resources exist in the form of landscape trees and natural generations. Refer to Figure 1 for the existing site conditions.

Tree Resources

The tree inventory was conducted on 1 November 2022. The inventory documented 43 trees on and within six metres of the subject property. Refer to Table 1 for the detailed tree inventory, Figure 1 for the location of trees reported in the tree inventory, and Appendix A for photographs of the trees.

Tree resources were comprised of Manitoba Maple (*Acer negundo*), Norway Maple (*Acer platanoides*), Silver Maple (*Acer saccharinum*), White Spruce (*Picea glauca*), Austrian Pine (*Pinus nigra*), White Ash (*Fraxinus americana*) and Little Leaf Linden (*Tilia cordata*).

Proposed Development

The proposed development includes the demolition of the existing buildings and a mixed-use development proposal: the west block consists of two high-rise residential buildings connected by an 8-storey podium with retail and live/ work units at grade, and the east block consists of two high-rise residential buildings connected by a 8-storey podium with retail and live/work units at grade. There are approximately 5 levels of underground proposed on the west block and 3 levels of underground on the east block. Refer to Figure 1 for the proposed site plan.

Discussion

The following sections provide a discussion and analysis of tree impacts and tree preservation relative to the proposed work and existing conditions.

Development Impacts / Tree Removal

The removal of 42 trees is required to accommodate the proposed development. Required tree removals include Trees 671-712 and B.

The removal of Trees 671-676, 680-684, 686-688, 696-711, and B will be required to accommodate proposed grading works. Trees 677-679, 685, 689-695, and 712 conflict directly with the proposed buildings.

Forty (40) of the trees that require removal are greater than 15cm DBH and protected by the City of Mississauga Private Tree By-law; a permit will be required prior to their removal. Tree B is located on the adjacent property; written consent from the respective property owner is required prior to their removal. The removal of Trees 673, 699, 705, 707, and B would be recommended for removal regardless of the site plan due to their hazardous condition.

Refer to Figure 1 for the required and recommended tree removal.

Tree Preservation

The preservation of Tree A will be possible as indicated on Figure 1. The minimum tree protection zone and dripline of this tree is fully offsite; as such, designated tree protection fencing will not be required.

Tree Compensation

The City of Mississauga requires replacement trees for any by-law protected tree removal. The ratio of required replacement plantings per tree is below:

DBH of Trees to be Removed	Number of Replacement Trees
16-30cm	2
31-45cm	3
46-60cm	4
61-75cm	5
76-90cm	6

As such, a total of 92 replacement trees is required on the subject property. Refer to Landscape Plan for the proposed plantings. Replacement trees that will not be planted on the subject property will be provided in cash-in-lieu. Refer to Table 1 for the number of replacement tree for individual tree removals.

Summary and Recommendations

Kuntz Forestry Consulting Inc. was retained by CRW 1 LP and CRW 2 LP to complete a Tree Inventory and Preservation Plan for the proposed development for the property located at 2105, 2087, 2097, and 2077 Royal Windsor Drive in the City of Mississauga, Ontario. A tree inventory was conducted and reviewed in the context of the proposed site plan.

The findings of the study indicate a total of 43 trees on and within six metres of the subject property. Forty-two (42) trees will require removal to accommodate the proposed development. One (1) tree can be saved without the use of designated tree protection measures.

The following recommendations are suggested to minimize impacts to trees identified for preservation. Refer to Figure 1 for the general Tree Protection Plan Notes.

- Branches and roots that extend beyond prescribed tree protection zones that require pruning must be pruned by a qualified Arborist or other tree professional. All pruning of tree roots and branches must be in accordance with Good Arboricultural Standards.

Respectfully Submitted,

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Limitations of Assessment

Only the tree(s) identified in this report were included in the inventory. The assessment of the trees presented in this report has been made using accepted arboricultural techniques. These may include a visual examination taken from the ground of all the above-ground parts of the tree for structural defects, scars, external indications of decay such as fungal fruiting bodies, evidence of attack by insects, discoloured foliage, the condition of any visible root structures, the degree of lean (if any), the general condition of the trees and the identification of potentially hazardous trees or recommendations for removal (if applicable). Where trees could not be directly accessed (ie. due to obstructions, and/or on neighbouring properties), trees were assessed as accurately as possible from nearby vantage points.

Locations of trees provided in the report are determined as accurately as possible based on the best information available. If official survey information is not provided, tree location in the report may not be exact. In this case, if trees occur on or near property boundaries, an official site survey may be required to determine ownership utilizing specialized survey protocol to gain precise location.

Furthermore, recommendations made in this report are based on the site plans that have been provided at the time of reporting. These recommendations may no longer be applicable should changes be made to the site plan and/or grading, servicing, or landscaping plans following report submission.

Notwithstanding the recommendations and conclusions made in this report, it must be recognized that trees are living organisms, and their health and vigor constantly change over time. They are not immune to changes in site conditions or seasonal variations in the weather conditions. Any tree will fail if the forces applied to the tree exceed the strength of the tree or its parts.

Although every effort has been made to ensure that this assessment is reasonably accurate, the trees should be re-assessed periodically. The assessment presented in this report is valid at the time of inspection.

Table 1. Tree Inventory

Location: 2077-2105 Royal Windsor Drive, Mississauga

Date: 1 November 2022

Surveyors: IB

Tree #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	DL	mTPZ	Ownership	DL in SP	Comments	Action	Comp.
671	Little Lead Linden	<i>Tilia cordata</i>	24	F/P	G/F	F		2.5	1.8	Private		Trunk injury (H), epicormic branching (H), poor vigor (L)	Remove	2
672	Little Lead Linden	<i>Tilia cordata</i>	24	F/P	G/F	F		2.5	1.8	Private		Epicormic branching (M), asymmetrical crown (L), poor vigor (L)	Remove	2
673	Little Lead Linden	<i>Tilia cordata</i>	20	-	-	-	-	-	-	Private	-	Dead.	Remove (condition)	2
674	Little Lead Linden	<i>Tilia cordata</i>	21	F/P	F	F		2	1.8	Private		Leaning south (M), asymmetrical crown (M), epicormic branching (H)	Remove	2
675	Norway Maple	<i>Acer platanoides</i>	16	P	P	P	70	2	1.8	Private		Cracks (H), poor form (H), trunk injury (H), crown dieback (H)	Remove	2
676	Norway Maple	<i>Acer platanoides</i>	23	G	G/F	G/F		3	1.8	Private		Asymmetrical crown (L), poor form (L)	Remove	2
677	Norway Maple	<i>Acer platanoides</i>	22	G/F	G/F	G		3	1.8	Private		Exposed roots (L), asymmetrical crown (L)	Remove	2
678	Norway Maple	<i>Acer platanoides</i>	23	G/F	G	G		3	1.8	Private		Exposed roots (L), root injury (L), leaning south (L)	Remove	2
679	Norway Maple	<i>Acer platanoides</i>	16	G	G	F	20	2.3	1.8	Private		Crown dieback (M)	Remove	2
680	White Spruce	<i>Picea glauca</i>	31.5	F	G/F	F		2	2.4	Private		Leaning south (L), exposed roots (L), trunk injury (L), poor vigor (L)	Remove	3
681	White Spruce	<i>Picea glauca</i>	23	G/F	G/F	G/F		2	1.8	Private		Trunk injury (L), pruning wounds (L), asymmetrical crown (L)	Remove	2
682	White Spruce	<i>Picea glauca</i>	18	F	F/P	F	20	1.5	1.8	Private		Leaning south (L), pruning wounds (L), crown dieback (L), poor form (M)	Remove	2
683	Norway Maple	<i>Acer platanoides</i>	25	F	G/F	G/F		3	1.8	Private		Exposed roots (L), root injury (L), leaning south (L)	Remove	2
684	Norway Maple	<i>Acer platanoides</i>	20	G/F	G	F/P	20	2.5	1.8	Private		Exposed roots (L), root injury (L), crown dieback (M)	Remove	2
685	Norway Maple	<i>Acer platanoides</i>	19	G/F	G/F	F	10	1.5	1.8	Private		Crown dieback (L), cracks (L)	Remove	2
686	Austrian Pine	<i>Pinus nigra</i>	35	F	F	G		4	2.4	Private		Bowed (L), poor form (M), pruning wounds (L)	Remove	3
687	Austrian Pine	<i>Pinus nigra</i>	20	F	F	G		3.5	1.8	Private		Crook (L), poor form (M)	Remove	2
688	Austrian Pine	<i>Pinus nigra</i>	34	G/F	F	G		4	2.4	Private		Poor form (L), pruning wounds (L)	Remove	3
689	Norway Maple	<i>Acer platanoides</i>	17	G	G/F	G/F		2	1.8	Private		Asymmetrical crown (L), broken branches (L)	Remove	2
690	Norway Maple	<i>Acer platanoides</i>	16	F	G/F	G/F		2	1.8	Private		Leaning east (L), union at 2.2m	Remove	2
691	Norway Maple	<i>Acer platanoides</i>	12	G/F	G/F	G		2	1.8	Private		Trunk injury (L), asymmetrical crown (L)	Remove	
692	Austrian Pine	<i>Pinus nigra</i>	26	G/F	F	G		3	1.8	Private		Exposed roots (L), poor form (L)	Remove	2
693	Austrian Pine	<i>Pinus nigra</i>	31	F	F	G		3.5	2.4	Private		Exposed roots (M), bowed (L), pruning wounds (L)	Remove	3
694	Austrian Pine	<i>Pinus nigra</i>	34	G/F	F	G		3.5	2.4	Private		Exposed roots (L), bowed (L), poor form (L)	Remove	3
695	Austrian Pine	<i>Pinus nigra</i>	35	G/F	F	F	10	4	2.4	Private		Exposed roots (L), union at 2.1m, poor vigor (M)	Remove	3
696	Norway Maple	<i>Acer platanoides</i>	28.5	G	F	G/F		1.5	1.8	Private		Cracks (M), crown dieback (L), union at 2.5m	Remove	2
697	Norway Maple	<i>Acer platanoides</i>	17.5	G/F	F	G		1.5	1.8	Private		Trunk injury (L), union at 1.6m	Remove	2
698	Norway Maple	<i>Acer platanoides</i>	30	F/P	G/F	G/F		2	2.4	Private		Trunk injury (M)	Remove	2
699	Norway Maple	<i>Acer platanoides</i>	19	-	-	-	-	-	-	Private	-	Dead.	Remove (condition)	2
700	Norway Maple	<i>Acer platanoides</i>	21.5	F	F	F		1.5	1.8	Private		Frost crack (M), asymmetrical crown (M), poor vigor (M) Union at 2.1m, asymmetrical crown (M), poor vigor (M)	Remove	2
701	Norway Maple	<i>Acer platanoides</i>	23	G	F	F		3	1.8	Private		Union at 2.1m, asymmetrical crown (M), poor vigor (M)	Remove	2
702	Norway Maple	<i>Acer platanoides</i>	21	F	F	F	20	2.5	1.8	Private		Trunk injury (M), union at 1.5m, crown dieback (M)	Remove	2
703	Norway Maple	<i>Acer platanoides</i>	25	G	F/P	F/P	20	2	1.8	Private		Crown dieback (M), epicormic branching (H)	Remove	2
704	Norway Maple	<i>Acer platanoides</i>	~18	G	F	G/F		1.5	1.8	Private		Poor vigor (L), asymmetrical crown (M)	Remove	2
705	White Ash	<i>Fraxinus americana</i>	22	P	P	P	95	4	1.8	Private		Almost dead. Hazard.	Remove (condition)	2
706	Little Leaf Linden	<i>Tilia cordata</i>	30	F	F	G/F		3	2.4	Private		Leaning east (L), epicormic branching (H), pruning wounds (L)	Remove	2
707	Norway Maple	<i>Acer platanoides</i>	15	-	-	-	-	-	-	Private	-	Dead.	Remove (condition)	
708	Little Leaf Linden	<i>Tilia cordata</i>	24	G/F	G	G		2.5	1.8	Private		Epicormic branching (M)	Remove	2
709	Little Leaf Linden	<i>Tilia cordata</i>	19	G	G/F	G		2.5	1.8	Private		Bowed (L)	Remove	2
710	Little Leaf Linden	<i>Tilia cordata</i>	18	G	F	F		2	1.8	Private		Dead branches (L), asymmetrical crown (L)	Remove	2
711	Little Leaf Linden	<i>Tilia cordata</i>	21	G/F	G	G		2.5	1.8	Private		Exposed roots (L)	Remove	2
712	Norway Maple	<i>Acer platanoides</i>	17	G	G/F	F/P	25	2	1.8	Private		Crown dieback (M)	Remove	2
A	Manitoba Maple	<i>Acer negundo</i>	~10	P	P	F		4.5	1.8	Neighbour		Co-dominant at base, leaning south (H), poor form (M)	Preserve	
B	Silver Maple	<i>Acer saccharinum</i>	~83	F	P	F/P		10	5.4	Neighbour	8	Co-dominant at 1.4m, lost leader (M), epicormic branching (M), broken branched (H), poor form (H)	Remove (condition)	6
TOTAL														92

Codes		
DBH	Diameter at Breast Height	(cm)
TI	Trunk Integrity	(G, F, P)
CS	Crown Structure	(G, F, P)
CV	Crown Vigor	(G, F, P)
CDB	Crown Die Back	(%)
DL	Dripline in radius	(m)
mTPZ	minimum Tree Protection Zone	(m)
Ownership	Private, Neighbour, City	
DL in SP	Dripline of neighbour's trees extending over the subject property	(m)
Comp.	Compensation	
~ = estimate; (VL) = very light; (L) = light; (M) = moderate; (H) = heavy		

Appendix A. Photographs of the Trees



Tree 671



Tree 672



Tree 673



Tree 674



Trees 675-677 (left-right)



Trees 678-679 (left-right)



Trees 680-682 (left-right)



Trees 683-684 (left-right)



Tree 685



Trees 686-688 (left-right)



Trees 689-695



Trees 696-697



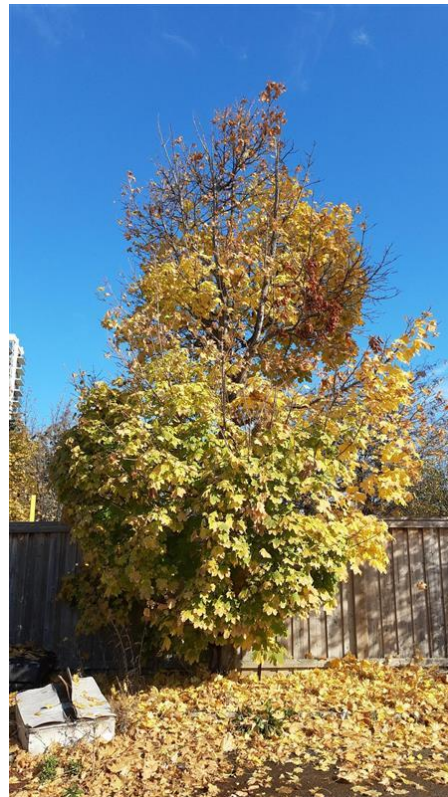
Trees 689-699



Tree 700



Trees 701-702 (right-left)



Tree 703



Tree 704



Tree 705



Tree 706



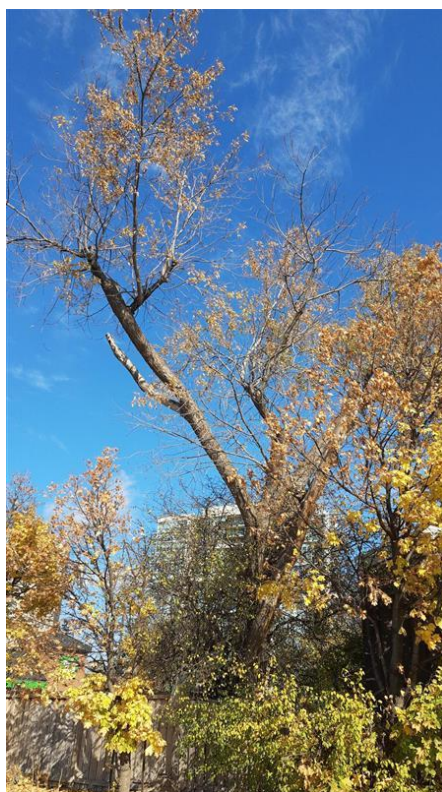
Tree 707



Trees 708-712 (left-right)



Tree A



Tree B