Tree Inventory and Preservation Plan Report
45 Oaklands Avenue
Toronto, Ontario

prepared for

Conica Glen Home Corp.
1681 Langstaff Road
Vaughan, ON L4K 5T3

prepared by

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22 September 2014

KUNTZ FORESTRY CONSULTING INC Project P872

Introduction

Kuntz Forestry Consulting Inc. (KFCI) was retained by Conica Glen Home Corp. to complete a Tree Inventory and Preservation Plan in support of a development application for the property located at 45 Oaklands Avenue in Toronto. The property is located on the northeast corner of Avenue Road and Oaklands Avenue in Toronto.

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

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

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 (centimetres) at breast height, measured at 1.4 m above the ground.
Condition - condition of tree considering trunk integrity, crown structure, and crown vigour. Condition ratings include poor (P), fair (F) and good (G).
Comments - additional relevant detail.

The results of the evaluation are provided below.

Policy Framework

Portions of the proposed development are subject to provisions of the City of Toronto Ravine and Natural Feature Protection (RNFP) By-law (Chapter 658 of the Municipal Code) as the majority of the property is situated within Ravine and Natural Features Protection Area.

The City of Toronto's Ravine Protection By-law prohibits and regulates the injury and destruction of trees, filling, grading, and dumping in ravines and associated wooded areas within the Ravine Protection Line. Trees are subject to the Ravine By-law regardless of species or diameter. The Urban Forestry Services defines a tree as any woody species that will grow to tree size (4.5m height).

The Private Tree-By-law (Chapter 813) regulates tree injury and destruction of individual trees. Preliminary information is acquired on individual trees which are then categorized in compliance with the by-law in support of development applications (refer to Table 1). Tree categories range from one through five and are as follows:

> ***Categories***
> ***1.*** *Trees with diameters of 30 cm or more situated on private property on the subject site.*
> ***2.*** *Trees with diameters of 30 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.*** *On lands designated under City of Toronto Municipal Code, Chapter 658, Ravine and Natural Feature Protection, trees of all diameters within 10 metres of any construction activity.*
> ***5.*** *Trees of all diameters situated within the City road allowance adjacent to the subject site.* (City of Toronto, 2008).

Methodology

The tree inventory was conducted on 18 September 2014. Trees over 15cm DBH on and within six metres of the subject area outside of Ravine and Natural Feature Protection (RNFP) Lands, and trees of all sizes within the road right-of-way and within 12 metres of the area within Ravine and Natural Feature Protection Lands were included in the inventory. Trees less than 15cm DBH located within the feature along Oaklands Avenue are generally described on Figure 1. Trees were located using the topographic survey and measurements taken from known points in-field. Trees were numbered 1-69 and are shown on Figure 1. Polygons (groups of trees) were identified with the prefix "P". See Table 1 for the results of the inventory.

Existing Site Conditions

The subject area is a portion of De La Salle College. It is currently occupied by the school track and a two storey brick and stucco house. A treed area is located along Oaklands Avenue and a treed ravine feature exists along the northern portion of the area. Tree resources exist in the form of landscape and naturally-occurring trees.

Tree Resources

The tree inventory was conducted on 18 September 2014. The inventory documented 69 trees and tree polygons on and within six metres of the subject property. Trees 1-14 and 18 are located within the road right-of-way (Category 5 trees). Trees 15-17, 19, 24, 26, 27, 31-33, 42, 44, and 45 are greater than 30cm DBH and are located on the subject property (Category 1 trees), and Trees 46-69 are located within Ravine and Natural Feature Protection Lands (Category 4 trees). Refer to Table 1 for the full tree inventory and Figure 1 for the location of trees reported in the tree inventory.

Tree resources included in the inventory are comprised of Manitoba Maple (*Acer negundo*), Norway Maple (*Acer platanoides*), White Mulberry (*Morus alba*), Scotch Elm (*Ulmus glabra*), Hawthorne species (*Crataegus sp.*), Cherry species (*Prunus sp.*), White Elm (*Ulmus americana*), Yew species (*Taxus sp.*), Black Locust (*Robinia pseudoacacia*), and Black Walnut (*Juglans nigra*).

Proposed Development

The construction of a townhome complex fronting onto Oaklands Avenue and Avenue Road is proposed for the subject property. Refer to Figure 1 for the existing conditions and proposed site plan.

Discussion

The following sections provide a discussion and analysis of development impacts, tree removal requirements, and tree preservation relative to the proposed development and existing conditions.

Development Impacts/Tree Removals

The proposed development will preclude the retention of 39 trees included in the inventory. The removal of Trees 6-45 will be required to accommodate the proposed development. Trees 6-19, 24, 26, 27, 31-33, 42, 44, and 45 are greater than 30cm DBH and/or are located within the road right-of-way. A permit from the City of Toronto is required prior to the removal of these trees. Refer to Figure 1 for the location of the proposed tree removals.

Tree Preservation

Preservation of Trees 1-5 and 46-69 will be possible with the use of appropriate tree protection measures as indicated on Figure 1. Tree protection measures will have to be implemented prior to construction to ensure tree resources designated for retention are not impacted by the development. Refer to Figure 1 for the location of required tree preservation fencing and the fence detail.

Minor encroachment into the mTPZ of Trees 46, 50, and 51 will be required to accommodate the proposed development. However, given the limited degree of encroachment necessary, negative impacts to these trees are not anticipated. Very minor crown pruning may be required. Any crown pruning must be completed by a certified Arborist according to good arboricultural standards.

Summary and Recommendations

Kuntz Forestry Consulting Inc. was retained by Conica Glen Home Corp. to complete a Tree Inventory and Preservation Plan in support of a development application for the property located at 45 Oaklands Avenue in Toronto, Ontario. A tree inventory was conducted and reviewed in the context of the proposed site plan.

The findings of the study identified a total of 69 trees and tree polygons. The removal of 40 trees and tree polygons will be required to accommodate the proposed construction. All other trees can be saved provided appropriate tree protection measures are installed prior to construction.

The following recommendations are suggested to minimize impacts to trees identified for preservation. Refer to Figure 1 for additional tree preservation notes and the preservation fence detail.

- Tree protection barriers and fencing should be erected at locations prescribed on Figure 1.

- Tree protection measures will have to be implemented prior to construction to ensure the trees identified for preservation are not impacted by the development.

- Branches and roots that extend past 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.

- Site visits, pre, during, and post construction are recommended by either a certified consulting arborist (I.S.A.) or registered professional forester (R.P.F.) to ensure proper utilization of tree protection barriers. Trees should also be inspected for damage incurred during construction to ensure appropriate pruning or other mitigation measures are implemented.

Respectfully Submitted,

Kuntz Forestry Consulting Inc.

Celine Batterink

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Table 1. Tree Inventory

Location: 45 Oaklands Avenue Date: 18 September 2014 Surveyors: CB

Tree #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	cat.	Comments	Action
1	Manitoba Maple	*Acer negundo*	29	F	F	F		5	Stem wound (L), bowed (M) south	Retain
2	Norway Maple	*Acer platanoides*	24.5	F-G	F	F	20	5	Asymmetrical crown (M), tar spot (L)	Retain
3	Manitoba Maple	*Acer negundo*	41	F	P-F	F		5	Union at 2m with included bark (M), included fence (M) on one stem, damaging fence, bowed crown (H) north	Retain
4	Norway Maple	*Acer platanoides*	15	F	F-G	F		5	Included fence (H), tar spot (L)	Retain
5	Norway Maple	*Acer platanoides*	23.5	F-G	F	F-G		5	Asymmetrical crown (M), lean (L), tar spot (L)	Retain
6	White Mulberry	*Morus alba*	20	F	F	F		5	Bowed (H) south, coppice growth pruned at base	Remove
7	Norway Maple	*Acer platanoides*	21	G	F-G	F-G		5	Bowed crown (L) south, tar spot (L)	Remove
8	Scotch Elm	*Ulmus glabra*	8.5, 21, 14.5	F-G	F	F		5	Union at 0.2m, epicormic branching (M), asymmetrical crown (M)	Remove
9	Hawthorne species	*Crataegus sp.*	14	F	F	F		5	Bowed (M), epicormic branching (M)	Remove
10	Norway Maple	*Acer platanoides*	9.5	F	G	G		5	Included fence (H)	Remove
11	Hawthorne species	*Crataegus sp.*	16	F	F	F		5	Bowed (M) south, epicormic branching (M), coppice growth (M)	Remove
12	Norway Maple	*Acer platanoides*	10.5, 12.5	F-G	F-G	F-G		5	Union at 0.1m, asymmetrical crown (L), tar spot (L)	Remove
13	Norway Maple	*Acer platanoides*	14	F-G	F	F		5	Asymmetrical crown (M), union at 1.7m, leaf scorch, tar spot (L)	Remove
14	White Mulberry	*Morus alba*	64	F	F	F		5	Pruning wounds (H), bowed (L), deadwood (L), lifting root plate	Remove
15	Manitoba Maple	*Acer negundo*	43	P	P	P		1	Bowed (H) north, leader pruned, epicormic branching (H), stem wound (H)	Remove
16	Manitoba Maple	*Acer negundo*	40.5	F-G	F-G	F-G		1	Bows (L)	Remove
17	Manitoba Maple	*Acer negundo*	46.5	F-G	F	F-G		1	Union at 2m, bowed (M)	Remove
18	Norway Maple	*Acer platanoides*	~111	F	F	F		5	Union at 1.5m, 1 dead stem, rot in union, woundwood at union, deadwood (M), tar spot (L)	Remove
19	Norway Maple	*Acer platanoides*	37	F-G	G	G		1	Bowed (L), tar spot (L)	Remove
20	Manitoba Maple	*Acer negundo*	25.5	F	P-F	F			Bowed (H) north	Remove
21	Norway Maple	*Acer platanoides*	16.5	F-G	G	G			Tar spot (L), bowed (L)	Remove

22	Norway Maple	*Acer platanoides*	22, 11.5	F-G	F	F-G			Union at 0.1m, asymmetrical crown (M)	Remove
23	Norway Maple	*Acer platanoides*	17.5	F-G	F	F-G			Asymmetrical crown (M), tar spot (L)	Remove
24	Norway Maple	*Acer platanoides*	64.5	F	P-F	P-F	50	1	Deadwood (H), cavity (L), tar spot (L)	Remove
25	Cherry species	*Prunus sp.*	16	F-G	F	F			Lean (M) north, asymmetrical crown (M)	Remove
26	Norway Maple	*Acer platanoides*	55	F-G	F	F	30	1	Deadwood (M), tar spot (L)	Remove
27	Norway Maple	*Acer platanoides*	68	F	F	F	30	1	Deadwood (M), lean (L), pruning wounds (L), tar spot (L)	Remove
28	Norway Maple	*Acer platanoides*	15	G	F	G			Stem wound (L), lean (L), asymmetrical crown (M), tar spot (L)	Remove
29	Norway Maple	*Acer platanoides*	22	F-G	F	G			Tar spot (L), bowed (L) north	Remove
30	Manitoba Maple	*Acer negundo*	25	F	P-F	F			Bowed (H) north, stem wound (L)	Remove
31	Norway Maple	*Acer platanoides*	31	F	G	F		1	Tar spot (L), seam (M)	Remove
32	Norway Maple	*Acer platanoides*	~57, 62	F	F-G	F-G		1	V-union at 1m with seam (L), v-union at 2m with included bark (M), tar spot (L), bowed (L), cavity (L)	Remove
33	Norway Maple	*Acer platanoides*	62	F	P-F	P		1	Lost leader, dead in crown	Remove
34	Norway Maple	*Acer platanoides*	15.5, 12	G	F	G			Union at 0.1m, bowed crown (M) south, tar spot (L)	Remove
35	Norway Maple	*Acer platanoides*	16	F-G	G	G			Lean (L), stem wound (L), tar spot (L)	Remove
36	Norway Maple	*Acer platanoides*	23.5	G	F-G	G			Asymmetrical crown (M), tar spot (L)	Remove
37	Norway Maple	*Acer platanoides*	21.5	F-G	G	G			Bowed (L)	Remove
38	White Elm	*Ulmus americana*	21, 19.5	F-G	F-G	G			V-union at 0.2m, bowed (L)	Remove
39	Norway Maple	*Acer platanoides*	15.5	F-G	G	G			Crook (L), sweep (L), tar spot (L)	Remove
40	Norway Maple	*Acer platanoides*	20, 8.5	F-G	F	F-G			Bowed (L), poor form (L), union at 0.1m, tar spot (L)	Remove
41	Yew species	*Taxus sp.*	28	F	F-G	F-G			Lean (L), stem wounds (M)	Remove
42	Norway Maple	*Acer platanoides*	44	F	G	G		1	Tar spot (L), v-union at 2m with included bark (L), crook (L)	Remove
43	Norway Maple	*Acer platanoides*	29, 21, 18, 22	F	F	F			Union at 0.2m, 1 stem pruned at base, stem wound (L), asymmetrical crown (M), epicormic branching (L), deadwood (L), poor form (L)	Remove
44	Norway Maple	*Acer platanoides*	47.5	F	F-G	F-G		1	V-union at 2m with seam (M), poor form (L), tar spot (L)	Remove
45	Cherry species	*Prunus sp.*	37, 32, 30, 16	F	F-G	F		1	Union at 1m	Remove
46	Black Locust	*Robinia pseudoacacia*	19, 29	F-G	F	F-G		4	Union at 1m, asymmetrical crown (M), bowed (L)	Retain

47	White Mulberry	*Morus alba*	9	F-G	F	F-G		4	Bowed crown (M) south, stem wound (L)	Retain
48	White Mulberry	*Morus alba*	6, 6	G	F	F-G		4	Union at 1m, bowed crown (M) south	Retain
49	Manitoba Maple	*Acer negundo*	9	F-G	F	F		4	Asymmetrical crown (M)	Retain
50	Black Locust	*Robinia pseudoacacia*	31	F	F	F		4	Lean (L), bowed crown (M) south	Retain
51	Black Locust	*Robinia pseudoacacia*	39.5	F	F	F		4	Canker (L), lean (L), asymmetrical crown (M)	Retain
P52	Black Walnut	*Juglans nigra*	~1-5	G	F-G	G		4	3 trees	Retain
	Black Locust	*Robinia pseudoacacia*	~5	G	G	G		4	1 tree	Retain
	Norway Maple	*Acer platanoides*	~1	G	G	G		4	~8 trees (regen)	Retain
	Scotch Elm	*Ulmus glabra*	~1	G	G	G		4	1 tree	Retain
53	White Mulberry	*Morus alba*	5	G	F-G	G		4	Asymmetrical crown (L)	Retain
54	Black Locust	*Robinia pseudoacacia*	22	F	F	F		4	Canker (L), epicormic branching (L), poor form (L)	Retain
55	Black Locust	*Robinia pseudoacacia*	25	F	F	F		4	Lean (L), asymmetrical crown (M)	Retain
56	Black Locust	*Robinia pseudoacacia*	12.5	F-G	F	F		4	Poor form (L)	Retain
57	Black Locust	*Robinia pseudoacacia*	16.5	F	F	F		4	Bowed (M) west	Retain
58	Black Locust	*Robinia pseudoacacia*	24	F-G	F	F		4	Asymmetrical crown (H), lean (L)	Retain
59	Black Locust	*Robinia pseudoacacia*	15, 26	F-G	F	F-G		4	Union at base, bowed crown (M) south	Retain
P60	Norway Maple	*Acer platanoides*	~1-3	G	G	G		4	5 trees	Retain
61	Black Locust	*Robinia pseudoacacia*	22.5	F-G	F-G	F-G		4	Bows (M)	Retain
62	Black Locust	*Robinia pseudoacacia*	23	F	F-G	G		4	Bows (M)	Retain
63	Black Locust	*Robinia pseudoacacia*	32	F	F	F		4	Bowed (M), epicormic branching (L)	Retain
P64	Norway Maple	*Acer platanoides*	~1-5	G	G	G		4	5 trees	Retain
65	Black Locust	*Robinia pseudoacacia*	41	F-G	F-G	F		4	Bowed (L), deadwood (L)	Retain
66	Black Locust	*Robinia pseudoacacia*	15	F	F	F		4	Bowed (H) south	Retain
67	Black Locust	*Robinia pseudoacacia*	26.5	G	F-G	F-G		4	Asymmetrical crown (M)	Retain
68	Norway Maple	*Acer platanoides*	14	F	F-G	F-G		4	Crook (M)	Retain
69	Black Locust	*Robinia pseudoacacia*	45	F-G	F-G	F-G		4	Crooks (L)	Retain

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 dieback	%
cat.	City of Toronto Tree By-law Category	1-5
P = poor, F = fair, G = good, ~ = estimate, (VL) = very light, (L) = light, (M) = moderate, (H) = heavy		