

**Tree Inventory and Preservation Plan Report  
Sandalwood Square – Phase 1  
Mississauga, Ontario**

prepared for

**Studio TLA  
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prepared by



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KUNTZ FORESTRY CONSULTING Inc. Project P2047

## Introduction

Kuntz Forestry Consulting Inc. was retained by Studio TLA to complete a Tree Inventory and Preservation Plan in support of a development application for Sandalwood Square, Phase 1 in Mississauga, Ontario. The property is located in the southeast corner of Hurontario Street and Bristol Road East in Mississauga, within a commercial area. Phase 1 is located in the northwest corner of the site.

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

- Prepare inventory of the tree resources over 15 cm on and within six metres of the subject area;
- 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 (centimeters) at breast height, measured at 1.4 m above the ground.

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

**Condition** - condition of tree considering trunk integrity, crown structure and crown vigor. Condition ratings include poor (P), fair (F) and good (G).

**Comments** - additional relevant detail.

The results of the evaluation are provided below.

## Policy Framework

The trees on the property are subject to the provisions of the City of Mississauga's Private Tree Protection By-law 254-12. This by-law regulates tree injury or destruction of individual trees on private lands, and applies to trees 15cm DBH or greater. A permit is required prior to the removal of three or more by-law protected trees on one lot within a calendar year.

The Forestry Act, R.S.O 1990 provides legislation for the definition and treatment of boundary trees. Per section 10 of the Act, "Every tree whose trunk is growing on the boundary between adjoining lands is the common property of the owners of the adjoining lands", and consent from all property owners must be obtained prior to the removal of common trees.

## Methodology

Trees measuring over 15cm DBH on and within six metres of the subject property were identified in the tree inventory. Trees were located using the topographic survey provided and estimations made in field. The City of Mississauga requires dripline as the limit of protection and as such the dripline of each tree was measured in field. Trees included in the inventory within the Phase 1 area were tagged with the numbers 1078-1101. Trees

that could not be tagged were identified with the letters A and B. Tree locations are shown on Figure 1. See Table 1 for the results of the inventory.

## **Existing Site Conditions**

The subject area is currently occupied by a commercial plaza. Tree resources exist in the form of landscape trees. Refer to Figure 1 for the existing site conditions.

## **Tree Resources**

The tree inventory was conducted on 05 February 2019. The inventory documented 26 trees on and within six metres of the Phase 1 area. Refer to Table 1 for the full tree inventory and Figure 1 for the location of trees reported in the tree inventory.

Tree resources were comprised of Shademaster Honey Locust (*Gleditsia triacanthos 'inermis'*), English Oak (*Quercus robur*), and Green Ash (*Fraxinus pennsylvanica*).

## **Proposed Development**

The proposed development of Phase 1 includes the demolition of the existing structures in the northwest corner of the property and the construction of a residential condominium with underground parking. Refer to Figure 1 for the proposed development.

## **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 20 trees is required to accommodate the proposed development. Required tree removals include Trees 1078-1083, 1090-1101, A, and B. Trees 1078-1083, 1090, 1091, 1093-1097, 1099-1101, A, and B are greater than 15cm DBH; a permit is required prior to their removal. Tree 1090 and 1091 are Green Ash. All trees identified for removal due to the development are located on the subject property.

Refer to Figure 1 for the proposed tree removals and Table 1 for the list of required tree removals.

### *Tree Preservation*

The preservation of Trees 1084-1089 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 development to ensure tree resources designated for retention are minimally impacted by the development. Refer to Figure 1 for the location of required tree preservation fencing, general Tree Protection Notes, and tree preservation fence detail.

Trees 1084-1089 are located within the Bristol Road East right-of-way. The City of Mississauga requires tree protection fencing to be installed at the driplines of trees identified for preservation; however, slight encroachment into the driplines of these trees will be required to accommodate the underground parking and streetscaping through this

limit. The minimum tree protection zones (mTPZ's) for these trees as utilized by most surrounding municipalities are also shown on Figure 1. Specifications are based on tree diameter as follows:

Tree DBH (cm)	mTPZ (m), as measured from edge of tree stem
<10cm	1.2
10-29	1.8
30-40	2.4
41-50	3.0
51-60	3.6
61-70	4.2
71-80	4.8

Except where preservation fencing is to be installed along the existing sidewalk to maintain access during construction, the mTPZ's of trees can be protected during construction. Any required crown pruning must occur by a certified Arborist in accordance with Good Arboricultural Standards. Preservation fencing for the other trees surrounding Phase 1 can be installed along the limits of their planters.

If the sidewalk is to be replaced within the mTPZ's of trees, the following mitigation measures should be employed:

- The existing sidewalk within mTPZ's of trees should be removed by hand, taking care to leave the existing subsurface intact.
- The new sidewalk should be installed on the existing subsurface wherever possible.
- If grade corrections are required, any cutting should be done by hand under the supervision of a certified Arborist. Roots should be kept intact wherever possible.
- Roots that require cutting should be pruned by a certified Arborist in accordance with Good Arboricultural Standards. If significant structural or feeder roots are encountered that require pruning, the roots should be maintained and Urban Forestry contacted right away.
- Raising the grade is permitted if required, to occur by hand under the supervision of a certified Arborist.

## Summary and Recommendations

Kuntz Forestry Consulting Inc. was retained by Studio TLA to complete a Tree Inventory and Preservation Plan in support of a development application for Sandalwood Square in 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 26 trees on and within six metres of the Phase 1 area. The removal of 20 trees is required to accommodate the proposed development. Six trees within the right-of-way can be saved provided appropriate tree protection measures are installed prior to the proposed development.

The following recommendations are suggested to minimize impacts to trees identified for preservation. Refer to Figure 1 for the location of required tree preservation fencing, general Tree Protection Plan Notes, and tree preservation fence detail.

- Tree protection barriers and fencing should be erected at locations as prescribed on Figure 1. All tree protection measures should follow the guidelines as set out in the tree preservation plan notes and the tree preservation fencing detail.
- No construction activity including surface treatments, excavations of any kind, storage of materials or vehicles, unless specifically outlined above, is permitted within the area identified on Figure 1 as a tree protection zone (TPZ) at any time during or after construction.
- 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.
- Site visits, pre, during and post construction is 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 measures are implemented.

**Respectfully Submitted,  
Kuntz Forestry Consulting Inc.**

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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: Sandalwood Square, Mississauga

Date: 05 February 2019 Surveyors: SA

Tree #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	DL	mTPZ	Comments	Action
1078	Honey Locust (shademaster)	<i>Gleditsia triacanthos inermis</i>	23	F-G	F-G	F-G		4.0	1.8	Lean (VL), Co-dominant at ~2.7m, Deadwood (L), Root restriction (L)	Remove
1079	Honey Locust (shademaster)	<i>Gleditsia triacanthos inermis</i>	21	F-G	F-G	F-G		4.0	1.8	Crook at ~1.5m, Deadwood (L), Broken branches (L), Epicormic branching (L), Root restriction (L)	Remove
1080	Honey Locust (shademaster)	<i>Gleditsia triacanthos inermis</i>	19.5	F-G	F-G	F-G		4.5	1.8	Crooked stem (L), Epicormic branching (L), Deadwood (L), Root restriction (L)	Remove
1081	Honey Locust (shademaster)	<i>Gleditsia triacanthos inermis</i>	18.5	F-G	F	F	10	4.0	1.8	Stem wounds (L), Co-dominant at ~1.6m, Deadwood (L), Epicormic branching (M), Winter snow pile at base of tree, Root restriction (M)	Remove
1082	Honey Locust (shademaster)	<i>Gleditsia triacanthos inermis</i>	20	F-G	F-G	F-G		4.5	1.8	Epicormic branching (L), Deadwood (L), Root restriction (M), Crooked stem (L)	Remove
1083	Honey Locust (shademaster)	<i>Gleditsia triacanthos inermis</i>	20	F-G	F-G	F-G		4.0	1.8	Co-dominant at ~1.5m, Epicormic branching (M), Deadwood (L), Root restriction (L)	Remove
1084	English Oak	<i>Quercus robur</i>	26.5	G	G	G		4.0	1.8	Pruning wounds (L), Lean (VL), Epicormic branching (L)	Retain
1085	English Oak	<i>Quercus robur</i>	21	G	F-G	G		4.0	1.8	Pruning wounds (L), Asymmetric crown (L), Epicormic branching (M)	Retain
1086	English Oak	<i>Quercus robur</i>	24	F	G	G		4.5	1.8	Pruning wounds (L), Co-dominant at ~2.1m with split (L) - sealing, Bow (VL)	Retain
1087	English Oak	<i>Quercus robur</i>	28	F-G	G	F-G		4.0	1.8	Epicormic branching (M), Deadwood (L), Frost crack (L)	Retain

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1088	English Oak	<i>Quercus robur</i>	21	F-G	G	G		4.0	1.8	Bow (VL), Epicormic branching (L), Deadwood (VL), Stem wounds (M)	Retain
1089	English Oak	<i>Quercus robur</i>	30	F-G	G	G		5.0	2.4	Frost crack (M) - sealed, Pruning wounds (L), Deadwood (VL)	Retain
1090	Green Ash	<i>Fraxinus pennsylvanica</i>	34	F-G	F-G	F		6.0	2.4	Signs of Emerald Ash Borer (L), Lean (L), Co-dominant at ~2.5m, Deadwood (L), Since close to bus shelter - <b>Removal recommended</b>	Remove
1091	Green Ash	<i>Fraxinus pennsylvanica</i>	34	F-G	F-G	F-G		6.0	2.4	Treated with TreeAzin, Lean (L), Epicormic branching (M), Deadwood (L), Signs of Emerald Ash Borer (L)	Remove
1092	Honey Locust (shademaster)	<i>Gleditsia triacanthos inermis</i>	14	F-G	F-G	F-G		2.5	1.8	Co-dominant at ~1.5m, Epicormic branching (L), Deadwood (L), Crook at ~1.5m, Root restriction (M)	Remove
1093	Honey Locust (shademaster)	<i>Gleditsia triacanthos inermis</i>	15	G	G	G		3.0	1.8	Pruning wounds (L), Deadwood (VL), Co-dominant at ~2.0m, Root restriction (M)	Remove
1094	Green Ash	<i>Fraxinus pennsylvanica</i>	36	F-G	F-G	F-G		6.0	2.4	Epicormic branching (M), Deadwood (L), Signs of Emerald Ash Borer (VL), Broken branches (L), Lean (VL), Bow (L)	Remove
1095	Honey Locust (shademaster)	<i>Gleditsia triacanthos inermis</i>	18.5	F	F-G	F-G		4.0	1.8	Co-dominant at ~1.7m, Crooked stem (M), Deadwood (L), Broken branches (L), Stem wounds (L), Root restriction (M)	Remove
1096	Honey Locust (shademaster)	<i>Gleditsia triacanthos inermis</i>	24.5	F-G	G	G		6.0	1.8	Lean (L), Co-dominant at ~1.8m, Pruning wounds (L), Deadwood (VL), Root restriction (L)	Remove
1097	Honey Locust (shademaster)	<i>Gleditsia triacanthos inermis</i>	17	F-G	F-G	G		4.0	1.8	Poor form, Pruning wounds (L), Root restriction (L), Co-dominant at ~1.8m with 'V' union	Remove
1098	Honey Locust (shademaster)	<i>Gleditsia triacanthos inermis</i>	14.5	G	G	G		3.0	1.8	Root restriction (M)	Remove



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1099	Honey Locust (shademaster)	<i>Gleditsia triacanthos inermis</i>	25	F-G	G	G		5.0	1.8	Lean (L), Co-dominant at ~1.8m, Epicormic branching (L), Pruning wounds (L), Deadwood (VL)	Remove
1100	Honey Locust (shademaster)	<i>Gleditsia triacanthos inermis</i>	15	F-G	G	G		3.0	1.8	Pruning wounds (L), Lean (L), Co-dominant at ~2.2m	Remove
1101	Honey Locust (shademaster)	<i>Gleditsia triacanthos inermis</i>	18.5	F-G	G	G		4.0	1.8	Pruning wounds (L), Bow (M), Epicormic branching (VL), Deadwood (VL)	Remove
A	Honey Locust (shademaster)	<i>Gleditsia triacanthos inermis</i>	~18	F-G	F	F	10	4.0	1.8	Co-dominant at ~1.6m, Asymmetric crown (L), Deadwood (L), Epicormic branching (L), Broken branches (L), Root restriction (L)	Remove
B	Honey Locust (shademaster)	<i>Gleditsia triacanthos inermis</i>	~21	F-G	F-G	F-G		4.0	1.8	Deadwood (L), Broken branches (L), Epicormic branching (L), Root restriction (L)	Remove

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	(m)
mTPZ	Minimum tree protection zone	(m)
~ = estimate; (VL) = very light; (L) = light; (M) = moderate; (H) = heavy		