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ARBORIST REPORT

PROPOSED MIXED-USE DEVELOPMENT
CITY OF MISSISSAUGA

SITE LOCATION:
805 DUNDAS STREET EAST
MISSISSAUGA, ONTARIO

PREPARED FOR:
KJC PROPERTIES INC.
1940 ELLESMERE ROAD
SCARBOROUGH, ONTARIO

ATTENTION: PATRICK JABBAZ

PREPARED BY:
STRYBOS BARRON KING LTD.
5770 HURONTARIO STREET
SUITE 320
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L5R 3G5

ISA CERTIFIED ARBORIST
MATTHEW GEHRES – ON1114A
OUR PROJECT NO:
22-5788

November 8, 2022 – Issued for Rezoning Submission

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Enclosed: Full Size *V100 – Tree Inventory & Preservation Plan*

Introduction

Strybos Barron King Ltd. was retained by KJC Properties Inc. to prepare an Arborist Report for the subject property in accordance with City of Mississauga tree bylaw requirements. The owner is proposing to demolish the existing commercial plaza and construct a new Multi-use development within the site. This report is to be read in conjunction with a completed *V100 – Tree Inventory, Preservation Plan* also prepared by Strybos Barron King Ltd.

Site Context

The subject site (805 Dundas Street East) is located at the northwest corner of Dundas Street East and Haines Road. The property abuts an existing residential development to the north and a cemetery to the west. The property is currently a commercial plaza with associated buildings, parking areas, driveways and traffic islands. The majority of the existing trees are composed of planted landscape accent buffer plantings and traffic island plantings.

Plans Utilized

A Topographic Survey prepared by Aksan Piller Corporation Ltd. along with a Site Plan provided by Kirkor Architects and Planners and a Grading Plan prepared by Husson engineering & Management were used to determine the location of existing trees in relation to the proposed development works.

Methodology

For the purposes of determining a Diameter Breast Height (D.B.H.) for each of the trees, trunk diameters were measured by the arborist using a caliper tape at 1.4 metres from existing grade and recorded in centimetres. The trees were assessed using a health and condition rating of poor, fair or good, depending on overall vigour, presence of disease and structural integrity as recommended in the Guide for Plant Appraisal, 9th Edition, published by the International Society of Arboriculture.

Tree Inventory (See Appendix A – Contextual Tree Inventory Plan for *context* and refer to enclosed V100 – Tree Inventory & Preservation Plan)

Trees were identified both within and immediately adjacent to the subject property. The trees are described in terms of species and a diameter at breast height (DBH – measured at 1.4m from grade). They have been assessed in terms of their general health from poor to good; **GOOD** – trees in good overall health and condition with desirable structure, **FAIR** – trees in moderate health and condition with less desirable structure, and **POOR** – trees displaying prominent health issues such as decay and disease and/or poor form and structure.

Table 1 - Tree Inventory Descriptions

Key#	This number refers to the inventory number for the tree/grouping.
Species	The common names are provided for each tree.
DBH	This refers to Diameter (in centimetres) at Breast Height and is measured at 1.4m above the ground for each tree.
Crown	Estimated diameter of tree canopy (in metres), measured from dripline to dripline (varies in most cases considering the nature of tree groupings)
Health	An assessment of the general health and vigour of the tree, derived partly through a comparison of deadwood and live growth relative to a 100% healthy tree. The size and colour of foliage are also considered in this category. During the leaf-off season, the amount and distribution of buds is an important determinant of canopy vitality. This indicator is also measured on an ascending scale of poor-fair good.
Structure	A term describing key distinguishing structural character or defect.

EXISTING TREE INVENTORY

KEY	SPECIES	DBH	CROWN	STRUCTURE	COMMENTS	PRESERVATION	OWNERSHIP	MIN. TPZ	KEY
		(centimetres)	(metres)			DIRECTION		(metres)	
1	Siberian Elm	34	10	Symmetrical	Street tree, minor die back, leaf damage (insect / decease)	PRESERVE	CITY	2.4	1
2	Siberian Elm	11-17	8	Multi-stem	Street tree, minor dieback, leaf damage (insect/decease)	PRESERVE	CITY	1.8	2
3	Siberian Elm	23	7	One-sided	Street tree, minor dieback, leaf damage (insect/decease)	PRESERVE	CITY	1.8	3
4	Siberian Elm	14-17	8	Symmetrical	Street tree, minor dieback, leaf damage (insect/decease),open wound on stem	PRESERVE	CITY	1.8	4
5	Siberian Elm	39	10	Symmetrical	Street tree, minor dieback, leaf damage (insect/decease)	REMOVE	CITY	2.4	5
6	Norway Maple	27	6	Narrow Form	Boulevard tree, major dieback in canopy, damage to bark	REMOVE	PRIVATE	1.8	6
7	Norway Maple	34	6	Narrow Form	On Neighbouring Property, Growing into Fence	REMOVE	PRIVATE	2.4	7
8	White ash	18	5	One-sided	Crowded by adjacent tree, adjacent to fence	REMOVE	PRIVATE	1.8	8
9	Black locust	25	9	Symmetrical	Crowded by adjacent tree, adjacent to fence, minor dieback in canopy	REMOVE	PRIVATE	1.8	9
10	Austrian pine	40	8	One-sided	Crowded by adjacent tree, adjacent to fence	REMOVE	PRIVATE	2.4	10
11	Black locust	14-16	4	Multi-stem	Crowded by adjacent tree, adjacent to fence	REMOVE	PRIVATE	1.8	11
12	Black locust	16	4	Multi-stem	Crowded by adjacent tree, adjacent to fence, minor dieback in canopy	REMOVE	PRIVATE	1.8	12
13	Black locust	<10	3	Multi-stem	Crowded by adjacent tree, adjacent to fence	REMOVE	EXEMPT	1.2	13
14	Colorado Spruce	35	6	Columnar	Crowded by adjacent tree, adjacent to fence	PRESERVE	NEIGHBOUR	2.4	14
15	Colorado Spruce	35	8	Columnar	Crowded by adjacent tree, adjacent to fence	PRESERVE	NEIGHBOUR	2.4	15
16	Colorado Spruce	35	6	Columnar	Crowded by adjacent tree, adjacent to fence	PRESERVE	NEIGHBOUR	2.4	16
17	Norway Maple	29	8	Narrow Form	Adjacent to fence, crowded by overhead wire, minor dieback	REMOVE	PRIVATE	2.4	17
18	Norway Maple	25	8	One-sided	Adjacent to fence, crowded by overhead wire,major dieback ,peeling bark	REMOVE	PRIVATE	2.4	18
19	Norway Maple	36	10	Onesided	Adjacent to fence, crowded by overhead wire,major dieback , peeling bark	REMOVE	PRIVATE	2.4	19
20	Norway Maple	32	8	Symetrical	Adjacent to fence, crowded by overhead wire,minor dieback	PRESERVE	PRIVATE	2.4	20
21	Norway Maple	35	8	Narrow Form	Adjacent to fence, crowded by overhead wire	PRESERVE	BOUNDARY	2.4	21
22	Norway Maple	26	8	Symetrical	Crowded by adjacent tree, adjacent to fence, minor dieback in canopy	PRESERVE	BOUNDARY	1.8	22
23	White Spruce	20	3	Columnar	Crowded by adjacent tree, raised canopy,minor dieback in canopy	PRESERVE	BOUNDARY	1.8	23
24	White Spruce	18	3	Columnar	Crowded by adjacent tree, raised canopy,minor dieback in canopy	PRESERVE	BOUNDARY	1.8	24
25	Manitoba Maple	45	8	Onesided	Thin, major dieback Crowded by adjacent tree	PRESERVE	NEIGHBOUR	3	25
26	Norway Maple	24	8	Onesided	Double leader, minor dieback, Crowded by adjacent tree	PRESERVE	BOUNDARY	1.8	26
27	Black locust	42	10	Narrow Form	Crowded by adjacent tree,dual leader. major dieback	PRESERVE	NEIGHBOUR	3	27
28	Black locust	44	10	Narrow Form	Crowded by adjacent tree,dual leader. minor dieback	PRESERVE	NEIGHBOUR	3	28
29	Manitoba Maple	16	6	Narrow Form	Crowded by adjacent tree, minor dieback in canopy	PRESERVE	NEIGHBOUR	1.8	29
30	Manitoba Maple	40	12	Onesided	Crowded by adjacent tree, minor dieback in canopy	PRESERVE	NEIGHBOUR	2.4	30
31	White Spruce	22	4	Narrow Form	Crowded by adjacent tree, raised canopy,minor dieback in canopy	PRESERVE	PRIVATE	1.8	31
32	White Spruce	19	3	Narrow Form	Crowded by adjacent tree, raised canopy,minor dieback in canopy	PRESERVE	PRIVATE	1.8	32
33	White Spruce	30	6	Narrow Form	Crowded by adjacent tree, raised canopy,minor dieback in canopy	PRESERVE	PRIVATE	2.4	33
34	Norway Maple	28	7	Onesided	Crowded by adjacent tree minor dieback	PRESERVE	PRIVATE	1.8	34
35	Norway Maple	28	7	Onesided	Crowded by adjacent tree minor dieback	PRESERVE	PRIVATE	1.8	35
36	White Spruce	21	3	Onesided	Crowded by adjacent tree minor dieback	PRESERVE	PRIVATE	1.8	36
37	White Spruce	27	4	Columnar	Broken leader , Crowded by adjacent tree , minor dieback	PRESERVE	PRIVATE	1.8	37
38	White Spruce	23	3	Narrow Form	Street tree, minor die back, raised canopy leaning	PRESERVE	PRIVATE	1.8	38
39	Fruit tree	27	6	Good Form	Street tree , major dieback	REMOVE	PRIVATE	1.8	39
40	Ginkgo	16	2	Narrow Form	Island tree , minor dieback , dead leader ,damaged lower branches, damage to bark	REMOVE	PRIVATE	1.8	40
41	Ginkgo	19	6	Narrow Form	Island tree , minor dieback , dead leader ,damaged lower branch	REMOVE	PRIVATE	1.8	41
42	Ginkgo	14	1	Narrow Form	No leader, damage to bark, almost dead	REMOVE	EXEMPT	1.8	42
43	Ginkgo	17	2	Narrow Form	Dieback , damaged lower branches	REMOVE	PRIVATE	1.8	43
44	Ginkgo	13	4	Narrow Form	Island tree , minor dieback , dead leader ,damaged lower branch	REMOVE	EXEMPT	1.8	44
45	Ginkgo	18	4	Narrow Form	Island tree , minor dieback , dead leader ,damaged lower branch	REMOVE	PRIVATE	1.8	45
46	Honey locust	13	4	Leaning	Island tree , minor dieback	REMOVE	EXEMPT	1.8	46
47	Honey locust	11	3	Leaning	Island tree , minor dieback	REMOVE	EXEMPT	1.8	47
48	Honey locust	19	6	Symetrical	Island tree , minor dieback	REMOVE	PRIVATE	1.8	48

Observations

The majority of the trees identified within and immediately adjacent to the property can be described as planted, landscape accent and buffer trees along the property limits as well as throughout the parking areas. A naturalized grouping of trees occurs beyond the southwest corner of the site on the neighbouring lands to the west. The trees along Haines Road and the north and west property limits are mostly semi-mature while many of the trees internal to the site are less mature and have likely been replaced since the original landscaping of the site. The health and condition of the trees vary.

Tree Preservation

In determining the tree preservation recommendations for the site, the criteria noted below were considered:

- Overall tree health, form, size, species and predicated longevity.
- Anticipated impact from construction of buildings and proposed landscape features, road works, site servicing and grading.

Each tree was assigned a minimum Tree Preservation Zone (TPZ) as per standard requirements used by municipal by-laws *(Refer to Table 2-Tree Protection Zones).*

Table 2 - Tree Protection Zones

Trunk Diameter (DBH)	***Minimum Protection Zone***
<10 cm	1.2m
10-29 cm	1.8 m
30-40 cm	2.4 m
41-50 cm	3.0 m
51-60 cm	3.6 m
61-70 cm	4.2 m
71-80 cm	4.8 m
81-90 cm	5.4 m
91-100 cm	6.0 m
< 100 cm	6cm per 1cm DBH

Private Tree By-Law

Table 3 – Tree Categories

CITY OF MISSISSAUGA TREE CATEGORIES	
1	Trees with diameters of 15cm or more, situated on private property, on the subject site.
2	Trees with diameters of 15cm or more, situated on private property, within 6m of the subject site.
3	Trees of all diameters situated within the City road allowance adjacent to the subject site.
4 *(exempt)*	Trees that are less than 15cm diameter and located on private property.

The City of Mississauga Private Tree Bylaw protects trees found on private property that are greater than 15cm DBH (Diameter at Breast Height) as well as trees of all diameters situated within the City road allowance.

The By-law states that:

- No Person shall Injure or Destroy a Tree with a Diameter of 15 centimeters or greater located on private property without a valid permit.
- No Person shall interfere with Hoarding that is erected in accordance with this By-law.
- No Person shall injure or destroy a Replacement Tree without a valid Permit.
- Permission is required for Ash or dead tree removals, but no permit fee is required.

Tree Removals

The following is a summary of proposed tree removals for this site that will require a permit for removal in accordance with the City of Mississauga Private Tree Bylaw. A total of seventeen (17) trees are to be removed to accommodate the proposed site plan and grading requirements. As per City of Mississauga requirements, compensation planting for the removal of these trees will be required.

Table 4 – Tree Removals subject to Private Tree Bylaw
(Refer to Existing Tree Inventory List for details pertaining to specific trees)

TAG	SPECIES	CALIPER (cm)	HEALTH G/F/P	REASON	STATUS	OWNERSHIP
5	Siberian Elm	39	Fair	New driveway	Remove	City
6	Norway Maple	27	Poor	New driveway	Remove	Private
7	Norway Maple	34	Fair	Building envelope	Remove	Private
8	White ash	18	Fair	Grading and Servicing	Remove	Private
9	Black locust	25	Fair	Grading and Servicing	Remove	Private
10	Austrian pine	40	Good	Grading and Servicing	Remove	Private
11	Black locust	14-16	Good	Grading and Servicing	Remove	Private
12	Black locust	16	Fair	Grading and Servicing	Remove	Private
17	Norway Maple	29	Fair	Grading and Servicing	Remove	Private
18	Norway Maple	25	Poor	Grading and Servicing	Remove	Private
19	Norway Maple	36	Poor	Grading and Servicing	Remove	Private
39	Fruit tree	27	Poor	Grading and Servicing	Remove	Private
40	Ginkgo	16	Poor	Building envelope	Remove	Private
41	Ginkgo	19	Poor	Building envelope	Remove	Private
43	Ginkgo	17	Poor	Building envelope	Remove	Private
45	Ginkgo	18	Poor	Building envelope	Remove	Private
48	Honey locust	19	Fair	Building envelope	Remove	Private

Total of 17 Trees to be Removed

Tree Protection (Refer to Appendix C – *Tree Protection Hoarding Detail*).

All trees eligible for preservation shall be protected in accordance with City of Mississauga tree protection standards. Tree protection is to be installed along the limit of the minimum TPZ or as outlined on the V100 - Tree Inventory & Preservation Plan. Hoarding is to remain in place throughout the duration of construction and should be periodically reviewed by the Consulting Arborist to ensure that it remains in good working condition.

Mitigation - Wall along North Property Line

A new wall is proposed along the majority of the north property limit, retaining the higher elevation of the adjacent townhouse lands. This wall is in the vicinity of three existing trees on the neighbour's property (Tree Inventory #'s 14-16). Currently, the site contains an existing retaining wall along the north property limit, close these trees, however, it is located approximately 2.5m inside the subject lands.

As a result of the proposed new wall location, the limit of excavation will encroach a portion of the trees' minimum root protection zones. In order to determine the extent of root material present within the limit of work, and to mitigate the root impacts, it is recommended that a root investigation be undertaken along the limit of wall disturbance, within the affected TPZ area. This work is to take place prior to construction, and shall be further defined at the SPA stage, based on wall construction layout and details. Permission from the neighbouring property owner will be required prior to mobilization.

Tree Compensation

The City of Mississauga requires replacement trees be provided for one or more trees 15cm or greater on your property.

A Tree Replacement security deposit determined by the City is required to ensure that the replacement trees are planted on private property. If there is no sufficient space to accommodate the trees, you must pay to plant replacement trees on City property.

The requirements for replacement tree planting are:

- At least 1.8 m tall if it's a coniferous (evergreen) tree or at least 6 cm in diameter if it's a deciduous (leaved) tree
- One replacement tree is required for every 15 cm (6 inches) diameter of the private or public tree removed. For example, when a tree 45 cm (18 inches) diameter is removed, three replacement trees are required.

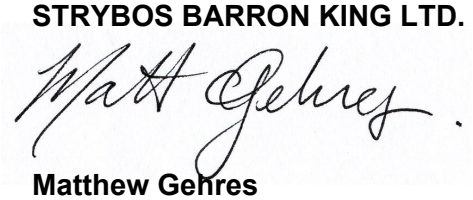
Based on the above, a total of twenty-eight (28) trees are required for compensation.

All trees eligible for preservation shall be protected in accordance with City of Mississauga tree protection standards. Tree protection is to be installed along the limit of the minimum TPZ or as outlined on the V100 - Tree Inventory & Preservation Plan. Hoarding is to remain in place throughout the duration of construction and should be periodically reviewed by the Consulting Arborist to ensure that it remains in good working condition.

Conclusion

Strybos Barron King Ltd. was retained by KJC Properties Inc. to prepare an Arborist Report for the subject property in accordance with City of Mississauga tree bylaw requirements. The owner is proposing to demolish the existing commercial plaza and construct a new multi-use development on site. Due to the proposed construction, grading, and servicing constraints, seventeen (17) trees, subject to the private tree bylaw require removal. A permit to remove these trees will be required. A total of twenty-eight (28) trees are required for compensation. All other trees are to be preserved and protected in accordance with City of Mississauga tree protection standards.

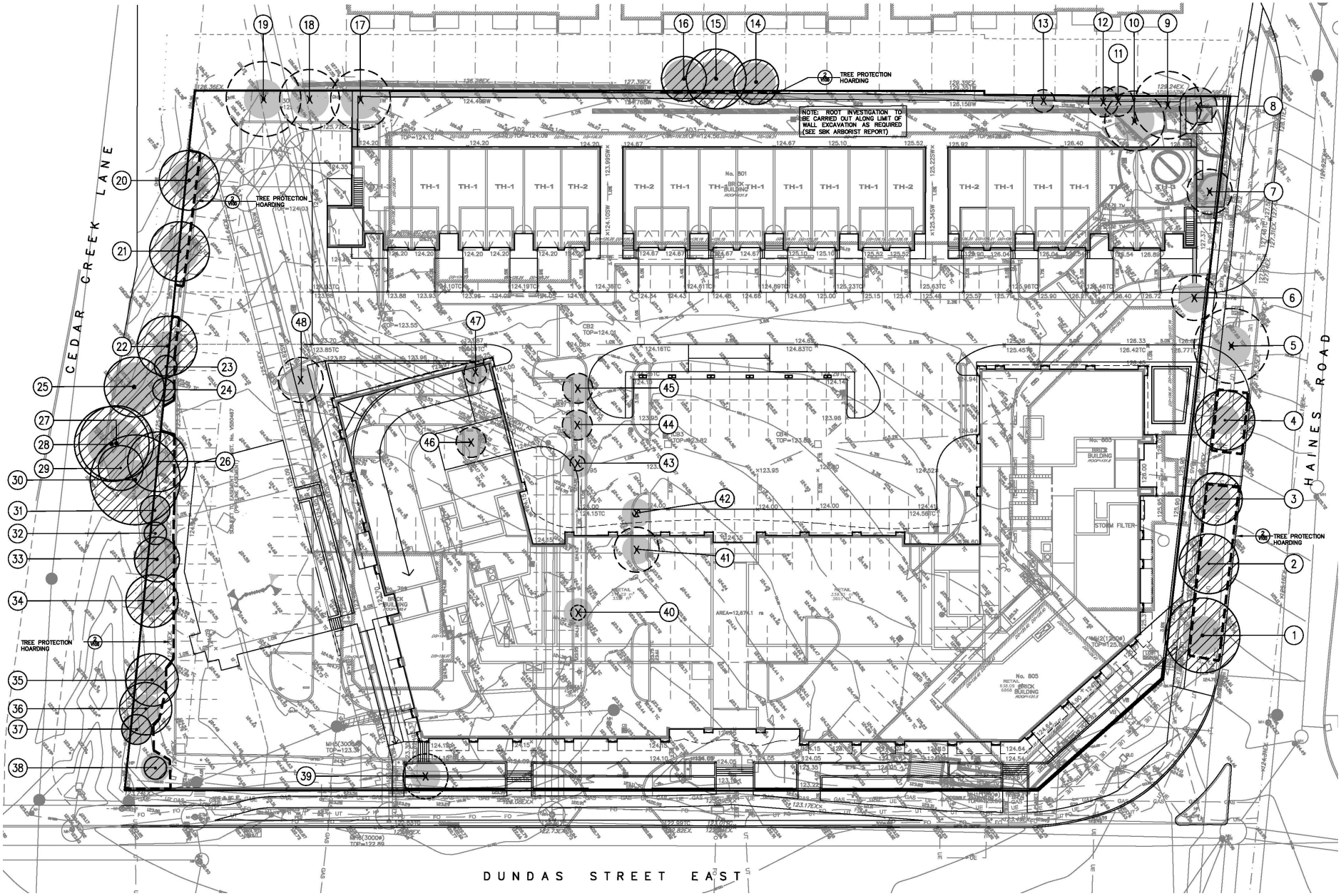
Prepared By:
STRYBOS BARRON KING LTD.



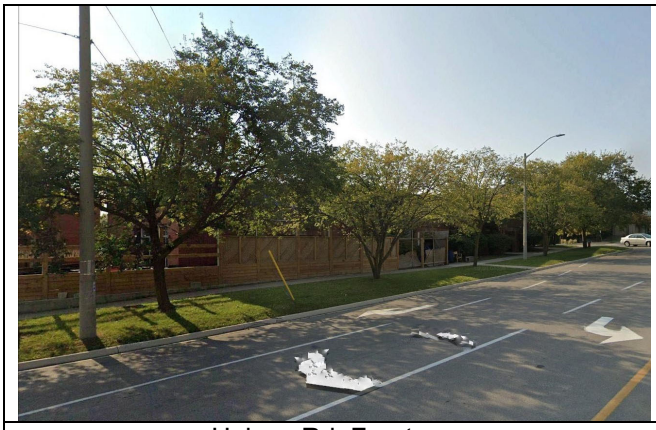
Matthew Gehres
ISA Certified Arborist ON-1114A
Senior Landscape Technologist

Appendix A – COTEXTUAL TREE INVENTORY & PRESERVATION PLAN

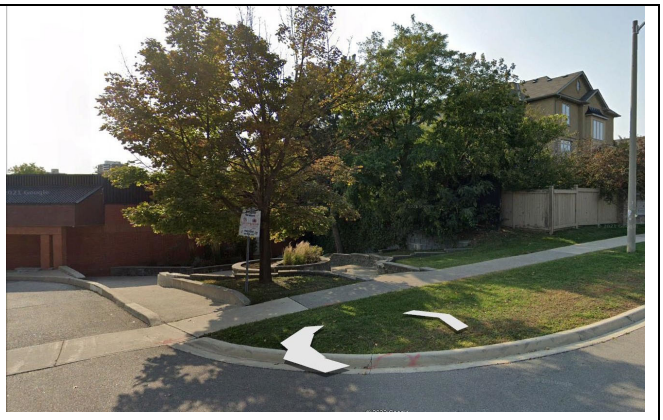
(for context only – refer to full size V100 Tree Inventory, Preservation and Removals Plan for details)



Appendix B – SITE PHOTOGRAPHS

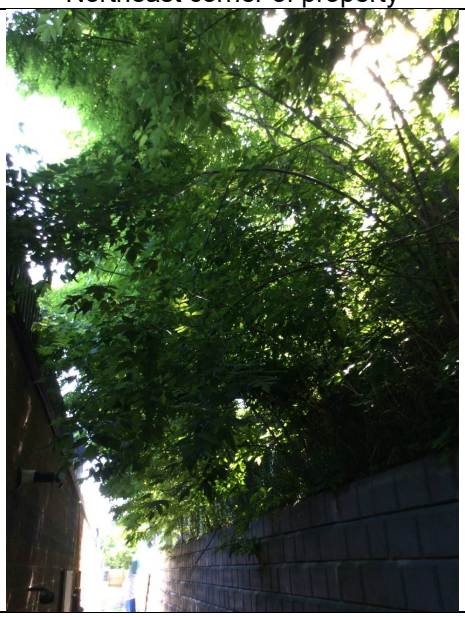


Haines Rd. Frontage



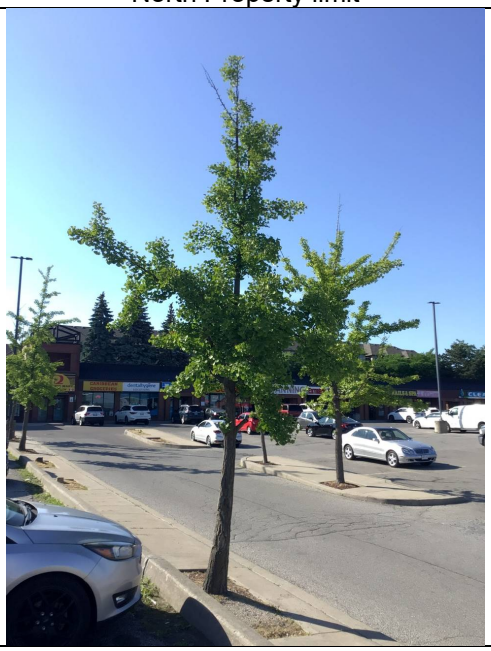
Northeast corner of property

North property limit (view east)



North Property limit

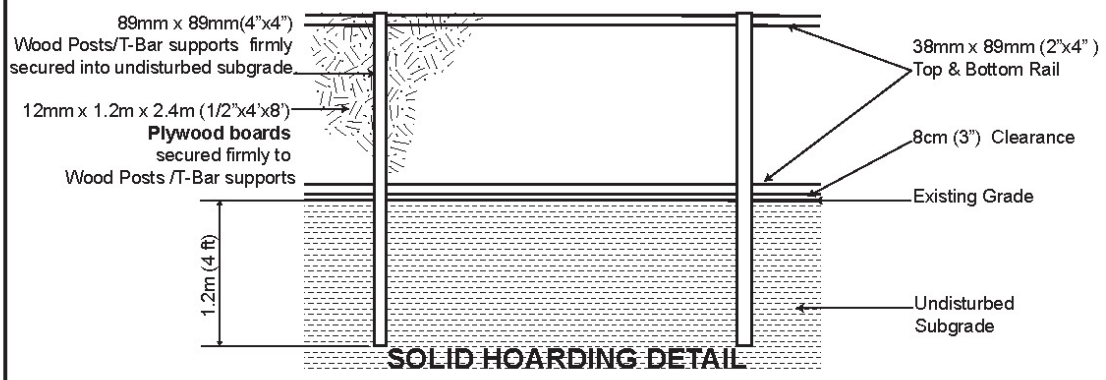
Northwest Property limit



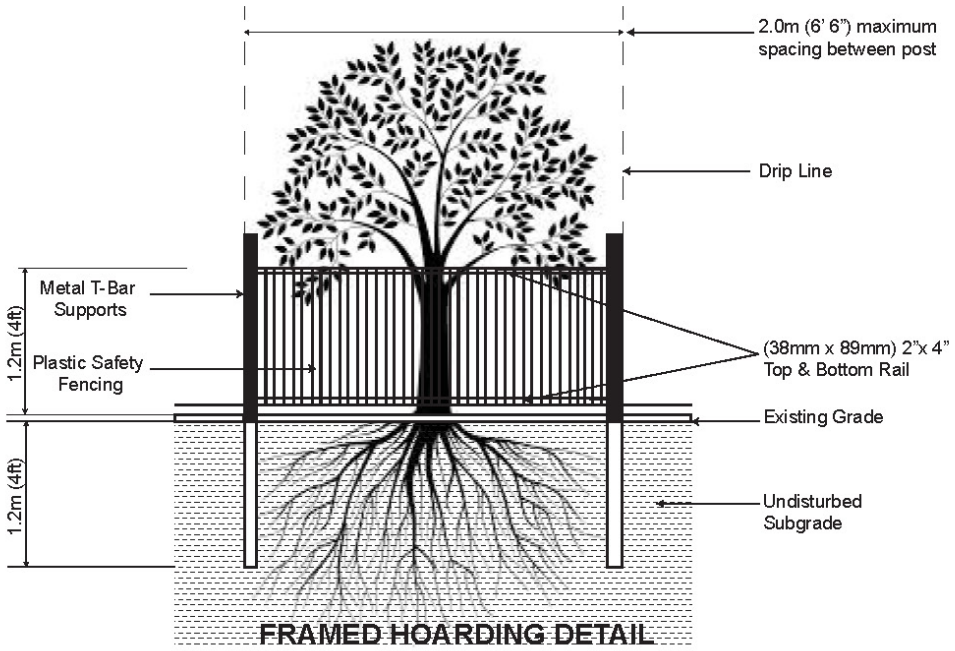
Typical internal site condition

	
West property limit (view north)	West property limit (view south)

Appendix C - TREE PROTECTION HOARDING DETAIL



SOLID HOARDING DETAIL



FRAMED HOARDING DETAIL

NOTES:

1. Hoarding details to be determined following initial site inspection.
2. Private tree hoarding to be approved by Development & Design ;
   City tree hoarding to be approved by Community Services Dept.
3. Hoarding must be supplied, installed and maintained by the applicant throughout all phases of construction.
   Inspection must be conducted by the Development and Design Division prior to removing any/all private hoarding.
4. Do not allow water to collect and pond behind or within hoarding.
5. **T-bar supports are acceptable alternative to 4x4 posts. U-shaped metal supports will not be accepted.**
6. **Plywood** must be utilized for 'solid' hoarding. OSB/Chipboard will not be accepted for solid hoarding. Plywood sheets must be installed on "construction" side of frame.
7. Applicant is responsible to ensure utility locates are completed within city boulevard prior to installing framed hoarding.

TREE PRESERVATION HOARDING

MISSISSAUGA

SCALE : N.T.S DATE : June 2017