Industrial Development (Phase 2)

12304 Heart Lake Road

Caledon, ON L7C 2J2

prepared for

Town of Caledon

6311 Old Church Road

Caledon ON L7C 1J6

prepared by

ISA© Certified Arborist
Zara Brown, ON-2252A
PROJECT NO: 121870

Submission Date: April 6, 2022

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Introduction

IBI Group was retained by Brocollini Construction (Ontario) Inc. to conduct a Tree Inventory, and to prepare a Tree Protection Plan and Arborist Report, in support of the application for Phase 2 of the property development at 12304 Heart Lake Road in Caledon, Ontario. The report will provide:

- A tree species inventory
- A visual assessment of trees for health and condition
- Recommendations for tree removals or preservation based on construction activity, in relation to tree health/risk status and/or species concerns

Existing Site Conditions

The subject site (Appendix A) is approximately 18 ac (7 ha) in size and is located on the west side of Heart Lake Road, just north of Highway 410. The site is to the northeast of the proposed Phase 1 (Report dated 2021-11-21). North of the subject site are agricultural and rural lands, as well as some lands within the Provincial Greenbelt Plan Area. East of the subject site are designated employment lands affected by the GTA West corridor. South of the subject site is Highway 410 and west of the subject site is a low-rise residential community (Mayfield West Phase 1).

There is one existing residential structure at the northwest corner on the subject site. Most of the existing trees are located around the residential structure and within the municipal right of way of Heart Lake Road. Site photos are shown in Appendix B.

Methodology

Tree resources were assessed and are reported using the following attributes:

Tree No.	identifier assigned to the tree corresponding to those indicated in the Tree Protection Plan TPP-1 (Appendix D).
Botanical Name	formal scientific name.
Common name	locally known English name.
DBH	diameter at breast height, in centimetres, measured at 1.4m above the adjacent ground.
Condition	condition of the specimen based on the visual assessment of the tree health reported as: Good (G) - dead branches less than 10%; signs of good compartmentalization on any wounds; no structural defects Fair (F) -10-30% dead branches; size or occurrence of wounds present some concerns; minor structural defects Poor (P) - more than 30% dead branches; weak compartmentalization; early leaf drop; presence of insects or disease; major structural defects

	Dead (D) - tree shows no signs of life
Comments	observations on tree structure, condition, location and highlighting any attributes that may require specific attention (e.g. invasive species, pest infestation, etc.)
Impacts of Development	determination of whether or not the specimen is impacted by the proposed construction: None – no construction impact within the dripline Limited – construction activity occurs at or within the dripline (less than 30%) and requires precautionary measures. Impacted – construction activity occurs within a significant portion of the dripline or requires the removal of the specimen.
Recommendation	determination to retain/preserve or remove the specimen.

The tree survey was conducted on October 28, 2021. Trees with a DBH of 10cm or more within the site of disturbance within the subject property, any trees within 6m of the area of disturbance, and all specimen found in the right-of-way (ROW) (regardless of DBH) were included in the inventory. Trees were located triangulated using Google Map aerials. This information is summarized in Existing Tree Identification Table (Appendix E).

Tree Species

A total of thirty-seven (37) trees were observed, a combination of eight (8) individual trees and the balance contained in five (5) tree groups. Tree species included:

Norway Maple	*(Acer platanoides)*
Silver Maple	*(Acer saccharinum)*
Black Walnut	*(Juglans nigra)*
Eastern Red Cedar	*(Juniperus virginiana)*
Norway Spruce	*(Picea abies)*
White Spruce	*(Picea glauca)*

Proposed Development

This project is a proposal to redevelop the subject site to contain a warehousing, logistics, and distribution centre. The proposed building footprint is currently just under 29,900 square metres and includes a warehouse and office space. Surface parking, landscape area, and amenity spaces are also proposed. The Overall Site Plan is shown in Appendix C.

Findings

The development requires the removal of thirty (30) trees on site to facilitate the construction of the structure and associated grading of the site. Particular care will have to be taken when grading close to the Minimum Tree Protection Zone (MPTZ) as shown in Appendix D. Trees are impacted largely as a result of the layout of the buildings, including roadways and parking, and the grading activities associated with construction.

Management and Quality Assurance

Pre-Construction Phase

1. TPZ Fencing: Tree Protection measures shall be installed prior to any site work per Town of Caledon standards and specifications (Appendix F)
2. TPZ Signage: Tree Protection Zone (TPZ) barriers shall be clearly marked with signs stating that the area within is a TPZ and that no one is allowed to enter or disturb this area without authorization from the project Arborist.
3. Trunk Protection: Where there is potential mechanical damage to the tree trunk or buttress, the exposed area should be protected by thick wood planks on a closed cell foam pad (or other protective material), bound in place by straps or wires.
4. Root Pruning: Standard arboricultural practices shall be employed where root pruning is necessary to maintain the tree health and structural stability. Hand excavation or other approved methods shall be used where necessary to minimize root damage.
5. Grade Changes: Every effort shall be made to maintain the existing grades within the tree dripline of trees to remain, at minimum.
6. Soil Decompaction: Newly exposed soil shall be manually decompacted to prepare the soil to receive new topsoil and plant material.
7. Irrigation: Areas within the TPZ shall be watered and maintained to an acceptable level throughout the course of construction.
8. Pruning: Removal of dead, diseased and dying branches before construction is recommended to reduce risk of failure within the subject site during construction.

Construction Phase

Site Monitoring: Site monitoring is recommended to be completed at least three (3) times during construction to detect any decline in plant health and to institute mitigative measures. These inspections should be no more than six (6) months apart.

Post-Construction Phase:

1. TPZ Fencing Removal: All tree protection measures may be removed once all work on the subject site is complete or in order to facilitate proposed landscape plantings. All plant material, existing and new must be maintained until the final inspection.
2. Plant Health Mitigation: If required, treatments should be prescribed where evidence suggests that it may be beneficial.
3. Plant Replacement: Existing trees shall be maintained in an acceptable condition for two (2) years after the completion of construction. Any tree that declines beyond acceptable depreciation, and fails to recover following treatment, shall be replaced with the same or alternate local species appropriate to the site.
4. Landscape Inspection: Upon completion of construction an inspection shall be completed to verify that plant health of preserved trees has been maintained. This can be held in conjunction with the inspections of the landscape works.

Additional Recommendations

1. Tree preservation methods must conform to Town Standards (Appendix F) for tree preservation and as indicated in the Tree Protection Plan, TPP-1 (Appendix D).
2. Tree protection barriers shall be erected prior to construction and shall remain in place, in good condition, for the duration of the project.
3. Tree roots typically spread well beyond the dripline of trees, up to 3.5 times the dripline radius, and are located predominantly in the top 30cm of soil. As this area is not protected, activity should be kept to a minimum to prevent root damage and soil compaction. Where root systems of trees are exposed or damaged by construction work, the Town must be advised first before the roots are trimmed neatly and the area back-filled with topsoil.
4. Tree protection barriers shall be erected a minimum 1m outside of the dripline of trees proposed to be preserved. Barriers shall be erected prior to construction and shall remain in place, in good condition, for the duration of the project. Because tree locations and driplines have been estimated, field verification will be required to determine whether or not construction impact will occur within the Tree Protection Zone (TPZ) as shown in Appendix D.
5. Any pruning required for branches and roots that may extend past the TPZ or critical root zone must be carried out by a qualified Arborist or other tree professional, only as necessary – to

prevent damage from construction activity or to prune broken limbs or roots. All pruning of tree roots and branches must be in accordance with good arboricultural standards.

6. Opportunities for compensation and canopy expansion exist within the designated landscape areas along the perimeter of the site and proposed planting islands.

Regards,

Zara Brown, OALA, CSLA, RLA, PMP
ISA© Certified Arborist # ON-2252A, Landscape Architect
Zara.Brown@IBIGroup.com

APPENDIX A – EXISTING SITE


BONNIEGLEN FARM BOULEVARD
HEART LAKE ROAD
LEARMONT AVENUE
KENNEDY ROAD
DOUGALL AVE
LARSON PEAK ROAD
ABBOTTSIDE WAY
PHASE 2
PHASE 1
HIGHWAY 410
MAYFIELD ROAD
N

APPENDIX B – EXISTING SITE PHOTOS

1.0 Existing structure and trees, looking west

2.0 Existing structure and trees, looking north

3.0 View looking east towards group 1 and 1005-1007

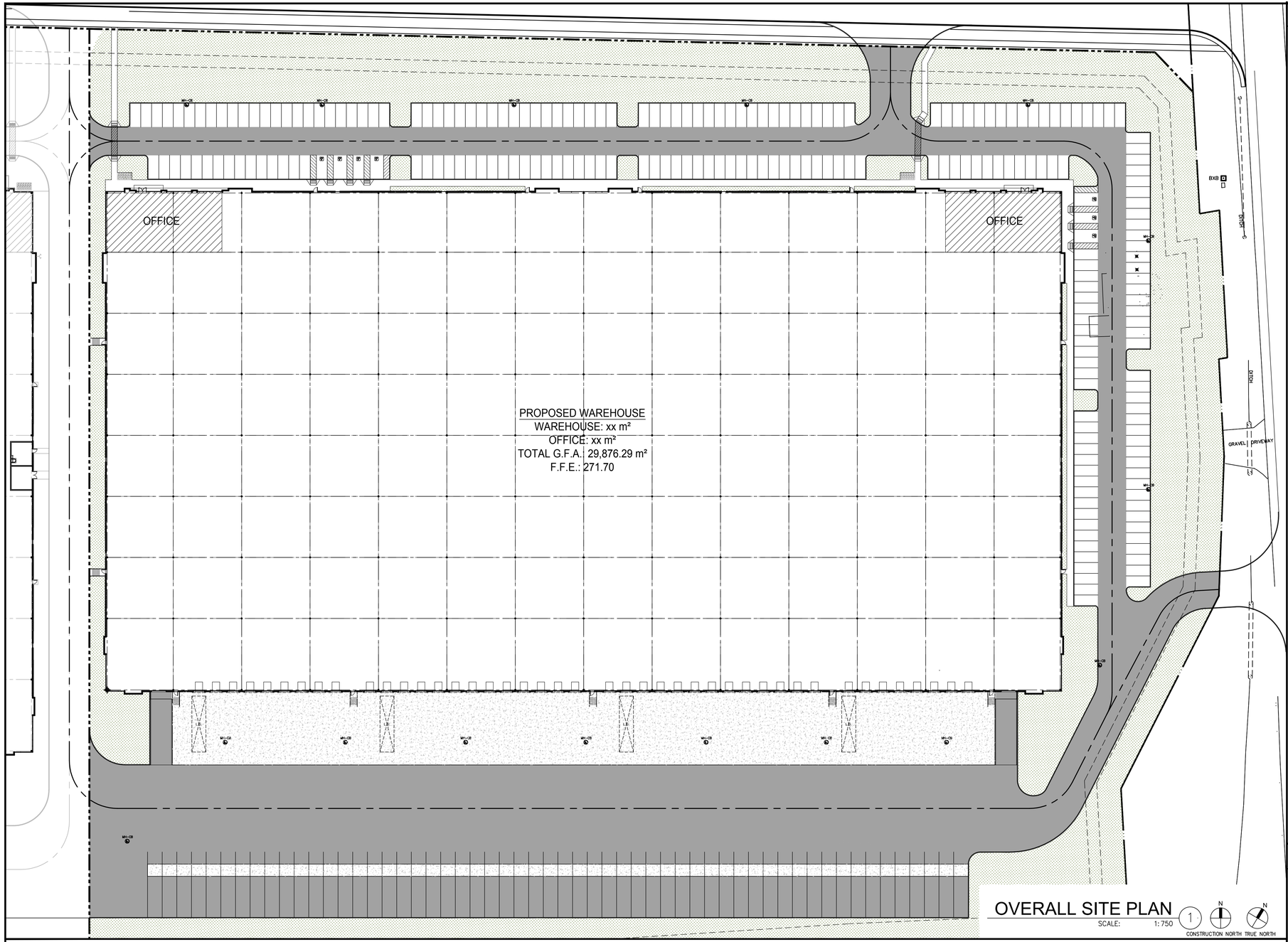
4.0 Tree 403

5.0 Group 4

6.0 Trees 401 & 402

APPENDIX C – OVERALL SITE PLAN

CAUTION: IF THIS SHEET IS NOT 24"x36" IT IS A REDUCED PRINT



OVERALL SITE PLAN

SCALE: 1: 750 (1) CONSTRUCTION NORTH TRUE NORTH

SITE PLAN NOTES

1. PROPERTY LINE
2. 2.75x6.00m PARKING STALL, PAINTED PARKING STRIPPING PER CITY STANDARDS.
3. PRINCIPLE ENTRY – TO HAVE AUTOMATIC DOOR OPERATOR INSTALLED AND BE KEPT CLEAR OF ANY BARRIERS OR OBSTRUCTIONS.
4. 1500mm MIN. WIDE SIDEWALK TYPICAL U.N.O – TO BE POURED CONCRETE, UNIT PAVING, OR PERMEABLE PAVEMENT
5. DRIVE–IN RAMP, SEE CIVIL DRAWING FOR SLOPE %
6. ACCESSIBLE PARKING SIGNS CENTERED AT THE END OF ALL ACCESSIBLE PARKING SPACES, TO BE MIN MOUNTED 1.0M (MAX 2.0M) ABOVE PARKING LOT SURFACE, POLE MOUNTED AND DESIGNED IN ACCORDANCE WITH SECTION 11 OF REG. 581 WITHIN THE HIGHWAY TRAFFIC ACT. ALL SIGNAGE AT 'TYPE A' SPACES TO IDENTIFY SPACE AS "VAN ACCESSIBLE"
7. CONCRETE APRON – SEE CIVIL DWGS.
8. LANDSCAPE AREA – SEE LANDSCAPE DWGS.
9. PROVIDE CONCRETE FILLED PROTECTION BOLLARDS AT BOTTOM OF STEEL STAIRS AT EACH GUARDRAIL.
10. TYPICAL SHARED ACCESSIBLE PARKING STALLS, PAINTED PARKING STRIPING PER CITY STANDARDS. EACH PAIR OF SHARED STALLS TO HAVE (1) TYPE A (3.40x6.00m) & (1) TYPE B (2.75x6.00m) STALL C/W A 1.5m PAINTED AISLE – REFER TO SCHEDULE 'K' TOWN OF CALEDON STANDARDS AND DETAIL A/A1.2 C/W ACCESSIBLE PARKING SIGNAGE
11. 150mm WIDE CURB TYPICAL
12. LOADING SPACE – L.S. (3.5m x 14.0m)
13. FIRE DEPARTMENT CONNECTION / SIAMESE
14. TRUCK LOADING DOCK, TYP.
15. FIRE ACCESS ROUTE W/ 12.0m TURNING RADIUS (————————) PROVIDE FIRE ROUTE SIGNAGE AS REQUIRED BY TOWN OF CALEDON BY–LAW BL–2015–058, AS PER DETAIL B/A1.2.
16. PEDESTRIAN WALKWAY WITH PAINTED LINE PER TOWN OF CALEDON STANDARDS.
17. LINE OF CANOPY ABOVE
18. PROPOSED LOCATION OF ELECTRICAL ROOM
19. PROPOSED LOCATION OF MECHANICAL ROOM
20. HATCHED AREA DENOTES HEAVY DUTY ASPHALT. TYPICAL FOR ALL AREAS REQUIRING FIRE TRUCK OR TRACTOR TRUCK ACCESS. FIRE ACCESS ROUTE WILL BE DESIGNED TO SUPPORT A LOAD OF NOT LESS THAN 11,363 Kg. PER AXLE AND HAVE A CHANGE IN GRADIENT OF NOT MORE THAN 1 IN 12.5 OVER A MINIMUM DISTANCE OF 15 M.
21. FIRE HYDRANT
22. ROAD CURB AND SIDEWALK TO BE CONTINUOUS THROUGH THE DRIVEWAY. DRIVEWAY GRADE TO BE COMPATIBLE WITH EXIST. SIDEWALK AND A CURB DEPRESSION WILL BE PROVIDED AT EACH ENTRANCE. SITE ENTRANCE PER CITY STANDARD DRAWING NO. 402, OPSD 350.010. SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 80.27 OF THE IAS.
23. DETECTABLE TACTILE WARNING SURFACE. CONFORIMNG TO 2012 O.B.C
24. ACCESSIBLE CURB RAMP
25. PEDESTRIAN RAIL SET INTO RETAINING WALL WHERE GRADE CHANGE GREATER THAN 0.60m. PROVIDE CONCRETE–FILLED STEEL BOLLARD AT END OF RETAINING WALL – SEE CIVIL DWGS.
26. AMENITY AREA – REFER TO LANDSCAPE DWGS
27. ACCESSIBLE RAMP
28. LOCATION OF BICYCLE RACK – SEE LANDSCAPE DWGS.
29. RETAINING WALL – SEE CIVIL DWGS.

PROJECT DATA

TOR21-0032-00 HEART LAKE ROAD - OVERALL SITE

SITE STATISTICS		
Zoning Category	MP/MS	
Proposed Use	Warehouse	
Building Classification	Group F2 (O.B.C. A- 3.1.2.1.(1))	
GROSS SITE AREA	65,226.64m²	702,093.03 ft²
Zone Permitted Use *(CALEDON BY-LAW NO. 2006-50)*		
Proposed Use	Warehouse	
Regulations (Prestige Industrial, Exceptions - 462)		
	Proposed	**Required**
Min. Lot Area	65,226.64m²	0.8ha
Min. Lot Frontage (m)	219.13	30.0m min
Min. Front Yard Building Setback (m)		15.0(W), 6.0(E)
Min. Interior Side Yard Building Set back (m)		NIC
Min. Exterior Side Yard Building Set back (m)		7.5
Min.Rear Yard Building Setback (m)		14.0
Min.Landscape Buffer		3.0
BUILDING HEIGHT	12.5	18m max
BUILDING FLOOR AREA		
Warehouse		
Future Accessory Office		
TOTAL BUILDING GFA	**29,876.29m²**	
BUILDING COVERAGE	45.80%	max 50%
PARKING REQUIREMENT		
	PROPOSED	***REQUIRED***
Warehouse		
1st 7000m² @ 1.0/90 m²		78
7000m² - 20,000m² @ 1.0/145 m²		90
OVER 20,000m² @ 1.0/168 m²		59
Total No. of Parking Spaces	227	227
Total No. of Accessible Parking Spaces	7	7
Parking Stall Dimensions	STANDARD - 2.75m X 6.0m ACCESSIBLE TYPE A - 3.4m X 5.2m TYPE B - 2.75m X 6.0m	
Loading Space	4	4
Loading Space Dimensions	3.5m X 14.0m	
Dock High Doors	67	N/A
Drive-In Doors	2	
Landscape area		min 10%

SITE LEGEND

- NEW HEAVY DUTY PAVEMENT (HATCHED)
- NEW LANDSCAPED AREA (HATCHED)
- FIRE ACCESS ROUTE MIN. 12.0M TURNING RADIUS
- MAN DOOR ENTRY
- TRUCK LOADING DOCK DOOR
- DRIVE IN DOOR
- PROPOSED FIRE HYDRANT (VERIFY LOCATION W/CIVIL DWGS)
- EXISTING FIRE HYDRANT VERIFY LOCATION W/CIVIL DWGS)
- (F) FIRE ROUTE SIGNAGE 30CM X 45CM – AS PER TOWN OF CALEDON BY–LAW 2015 – REFER TO DETAIL 2/A1.0
- RC–93 BARRIER–FREE PARKING SIGNS FOR ALL ACCESSIBLE PARKING SPACES
- SIAMESE CONNECTION (VERIFY LOCATION W/CIVIL DWGS)
- DENOTES CATCHBASIN (SEE CIVIL DWGS)
- DENOTES MANHOLE (SEE CIVIL DWGS)
- DC DEPRESSED CURB.(SEE DETAIL 2/A1.0)
- LS LOADING SPACE (3.5m X 9.0m) TYP.
- (#) NO. OF PARKING SPACES
- EXTERIOR WALL LIGHTS (SEE PHOTOMETRICS DWGS)
- EXTERIOR LIGHTS POLES (SEE PHOTOMETRICS DWGS)
- BICYCLE PARKING

WARE MALCOMB
Leading Design for Commercial Real Estate
architecture
planning
interiors
graphics
civil engineering
180 bass pro mills drive, unit 103
vaughan, ontario, L4K 5W9
p 905.760.1221
f 905.248.3344
a business name of WMA Inc.

XXXXX
HEART LAKE ROAD
XXXXX HEART LAKE ROAD
CALEDON, ON

OVERALL SITE PLAN

DATE	REMARKS

PA / PM:	AM
DRAWN BY:	
JOB NO.:	TOR21–0032–00

SHEET
A1.0

2021-11-24_ISSUED FOR SPA

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APPENDIX D – TREE PROTECTION PLAN

ABBOTSIDE WAY

APPROXIMATE LIMIT OF PHASE 2

CONSTRUCTION ACCESS

CONSTRUCTION ACCESS

PROPOSED PARKING LOT

PROPOSED MUD MAT LOCATION FOR CONSTRUCTION

EXISTING BUILDING TO BE REMOVED

EXISTING ASPHALT DRIVEWAY TO BE REMOVED

PROPERTY LINE

HEART LAKE RD

PROPOSED BUILDING

PROPOSED PARKING LOT

PROPOSED DRIVEWAY

EXISTING POST AND WIRE FENCE TO BE REMOVED

PROPOSED PARKING LOT

EXISTING CHAIN LINK FENCE TO REMAIN

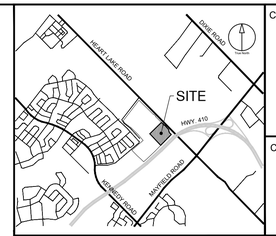
PROPOSED HEAVY-DUTY DOUBLE LAYER SILT FENCE WITH STRAW BALES (AS PER CIVIL)

PROPERTY LINE

403 404 405 406 407 408 401 402 G4 G5 G6 G7 G3

a b c d e f g h i j k l m n

1:500 (m)



KEY PLAN

Town of Caledon
APPROVED
AS NOTED

This approval constitutes a general review and does not certify dimensional accuracy.

This approval is subject to further certification of the "as recorded" works by a Professional Engineer of the Province of Ontario.

Date: _____
Approved By: _____
Print Name: _____

TREE PRESERVATION NOTES:

1. ANY TREES LOCATED ON THE PROPERTY LINE OR ON THE ADJACENT PROPERTY THAT ARE PROPOSED TO BE REMOVED OR PRUNED WILL REQUIRE WRITTEN CONSENT FROM THE ADJACENT LANDOWNER. ALL CORRESPONDENCE IS TO BE FORWARDED TO THE TOWN PRIOR TO ANY REMOVALS.
2. 2:1 TREE COMPENSATION WILL BE REQUIRED FOR ALL TREE REMOVALS. TREE COMPENSATION PLANTING IS IN ADDITION TO THE STANDARD REQUIRED PLANTING. IN THE EVENT THAT TREE COMPENSATION CANNOT BE ACCOMMODATED FOR IN THE PLANTING DESIGN, FINANCIAL COMPENSATION SHALL BE COLLECTED AT A RATE (PER TREE) AS DETERMINED BY THE TOWN.
3. REMOVALS SHOULD OCCUR OUTSIDE OF THE BREEDING BIRD SEASON (APRIL1-AUGUST1). IF THIS IS NOT POSSIBLE, CLEARANCE WITH AN ECOLOGIST SHOULD OCCUR PRIOR TO CONSTRUCTION TO ENSURE NO LOSS OF BIRD NEST, EGG OR UNFLEDGED YOUNG.

CLIENT

BROCCOLINI

2680 SKYMARK AVENUE, SUITE 800
MISSISSAUGA, ON. L4W5L6

ISSUES

No.	DESCRIPTION	DATE
1	ISSUED FOR ZBA AND SPA	2022-04-08

LEGEND

- MINIMUM PROTECTION ZONE
- EX. DECIDUOUS TREE TO REMAIN
- EX. CONIFEROUS TREE TO REMAIN
- EX. DECIDUOUS TREE TO BE REMOVED
- TREE PRESERVATION FENCING SEE DETAIL 1, TPD-1
- TREE GROUP
- 001 TREE TAG / IDENTIFICATION

TREE PRESERVATION DETAILS REFER TO TPD-1

NOT FOR CONSTRUCTION

SEAL

ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS
ZARAA.BROWN
OALA
MEMBER

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PROJECT
12304 HEART LAKE ROAD

CALEDON, ON. L7C 2J2

PROJECT NO: 135636	
DRAWN BY: TK	CHECKED BY: TO
PROJECT MGR: SA	APPROVED BY: TO

SHEET TITLE
TREE PROTECTION PLAN
PHASE 2

SHEET NUMBER	ISSUE
TPP-1	01

SCALE CHECK 50mm 1 in

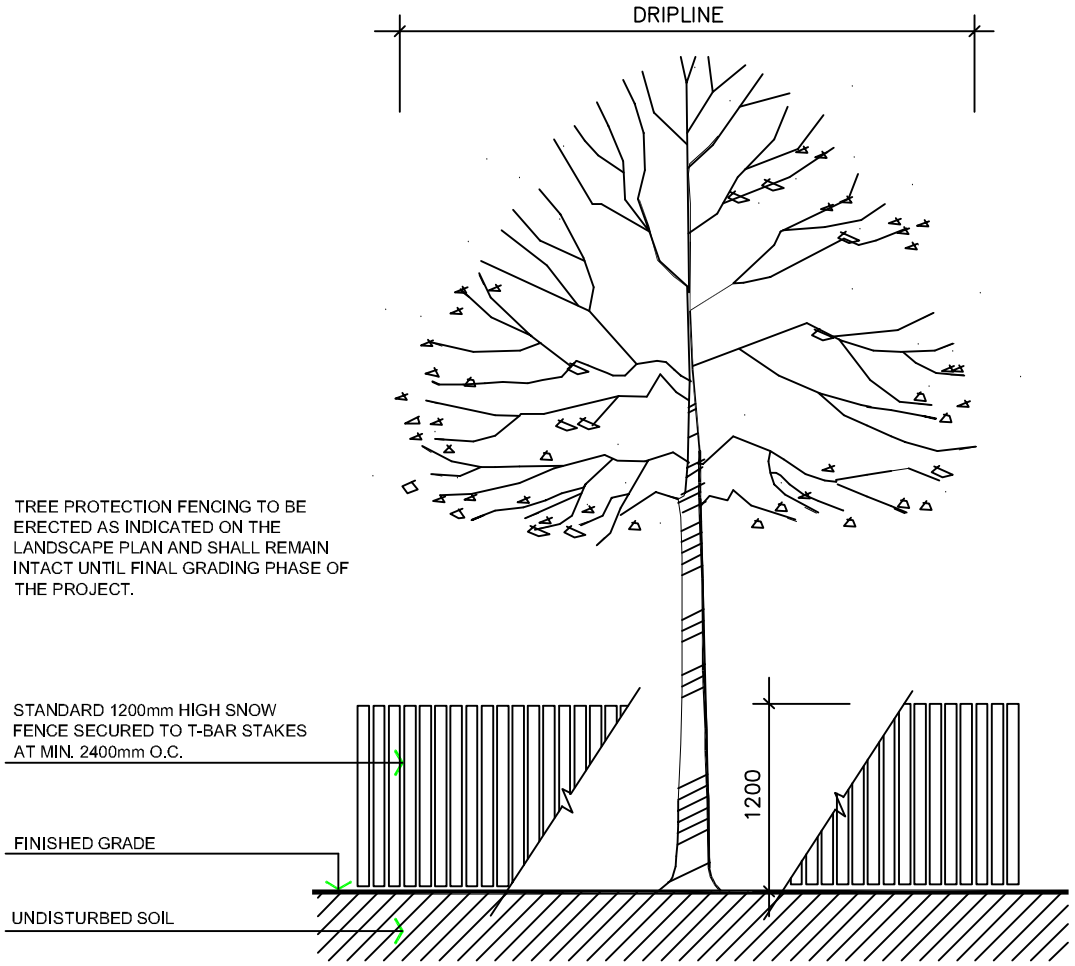
File Location: T:\135636_ 123044\east\7.0_ Production\7.03_ Design\05_Landscape\135636_ VMP.dwg Last Saved: April 6, 2022, by taylor.kemp Plotted: Wednesday, April 6, 2022 10:36:41 AM by Taylor Kemp

APPENDIX E - EXISTING TREE IDENTIFICATION TABLE

TREE NO. OR GRP		BOTANICAL NAME	COMMON NAME	DBH (cm)	CONDITION [2]	MINIMUM TREE PROTECTION ZONE (MTPZ) (m)	OWNERSHIP [3]	IMPACTS OF DEVELOPMENT [4]	RECOMMENDATION [5]	COMMENTS [6]
401		JUGLANS NIGRA	BLACK WALNUT	69.5	G	4.2	S	IMPACTED: PROPOSED PARKING LOT	R	
402		PICEA GLAUCA	WHITE SPRUCE	50.0	P	3.0	S	IMPACTED: PROPOSED PARKING LOT	R	30% CROWN DEATH
403		(DEAD)		62.0	D	0.0	S	IMPACTED: PROPOSED BUILDING	R	
404		ACER SACCHARINUM	SILVER MAPLE	33.5	P	2.4	S	IMPACTED: PROPOSED BUILDING	R	
405		ACER SACCHARINUM	SILVER MAPLE	97.0	G	6.0	S	IMPACTED: PROPOSED BUILDING	R	
406		ACER SACCHARINUM	SILVER MAPLE	50.0	F	3.0	S	IMPACTED: PROPOSED BUILDING	R	
407		JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	50.0	P	3.0	S	IMPACTED: PROPOSED BUILDING	R	SLIGHT LEAN
408		JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	45.0	F	3.0	S	IMPACTED: PROPOSED PARKING LOT, SIDEWALK	R	SEVERAL BRANCHES ARE CUT
G3	a	ACER SACCHARINUM	SILVER MAPLE	10.0	G	1.8	M	NONE	P	
	b	ACER SACCHARINUM	SILVER MAPLE	10.0	G	1.8	M	NONE	P	
	c	ACER SACCHARINUM	SILVER MAPLE	8.0	G	1.8	M	NONE	P	
	d	ACER SACCHARINUM	SILVER MAPLE	12.0	G	2.4	M	NONE	P	
	e	ACER SACCHARINUM	SILVER MAPLE	8.5	G	1.8	M	NONE	P	
	f	ACER SACCHARINUM	SILVER MAPLE	15.0	G	2.4	M	NONE	P	
	g	ACER SACCHARINUM	SILVER MAPLE	11.5	G	2.4	M	NONE	P	
G4	a	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	20.0	G	2.4	S	IMPACTED; PROPOSED BUILDING	R	
	b	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	20.0	G	2.4	S	IMPACTED; PROPOSED BUILDING	R	
G5	a	ACER SACCHARINUM	SILVER MAPLE	84.0	G	5.4	S	IMPACTED; PROPOSED BUILDING	R	
	b	ACER SACCHARINUM	SILVER MAPLE	57.5	G	3.6	S	IMPACTED; PROPOSED BUILDING	R	
G6	a	PICEA ABIES	NORWAY SPRUCE	60.0	F	4.2	S	IMPACTED; PROPOSED BUILDING	R	
	b	PICEA ABIES	NORWAY SPRUCE	90.0	F	5.4	S	IMPACTED; PROPOSED BUILDING	R	
	c	PICEA ABIES	NORWAY SPRUCE	30.0	F	2.4	S	IMPACTED; PROPOSED BUILDING	R	
	d	PICEA ABIES	NORWAY SPRUCE	30.0	F	2.4	S	IMPACTED; PROPOSED BUILDING	R	
	e	PICEA ABIES	NORWAY SPRUCE	25.0	F	2.4	S	IMPACTED; PROPOSED BUILDING, SIDEWALK	R	
	f	PICEA ABIES	NORWAY SPRUCE	30.0	F	2.4	S	IMPACTED; PROPOSED BUILDING, SIDEWALK	R	
	g	PICEA ABIES	NORWAY SPRUCE	27.0	F	2.4	S	IMPACTED; PROPOSED BUILDING, SIDEWALK	R	
	h	PICEA ABIES	NORWAY SPRUCE	40.0	F	2.4	S	IMPACTED; PROPOSED BUILDING, SIDEWALK	R	
	i	PICEA ABIES	NORWAY SPRUCE	20.0	F	2.4	S	IMPACTED; PROPOSED BUILDING, SIDEWALK	R	
	j	PICEA ABIES	NORWAY SPRUCE	30.0	F	2.4	S	IMPACTED; PROPOSED BUILDING, SIDEWALK	R	
	k	PICEA ABIES	NORWAY SPRUCE	32.0	F	2.4	S	IMPACTED; PROPOSED SIDEWALK, PARKING LOT	R	
	l	PICEA ABIES	NORWAY SPRUCE	37.5	F	2.4	S	IMPACTED; PROPOSED SIDEWALK, PARKING LOT	R	
	m	PICEA ABIES	NORWAY SPRUCE	40.0	F	2.4	S	IMPACTED; PROPOSED PARKING LOT	R	

TREE NO. OR GRP		BOTANICAL NAME	COMMON NAME	DBH (cm)	CONDITION [2]	MINIMUM TREE PROTECTION ZONE (MTPZ) (m)	OWNERSHIP [3]	IMPACTS OF DEVELOPMENT [4]	RECOMMENDATION [5]	COMMENTS [6]
G6	n	PICEA ABIES	NORWAY SPRUCE	30.0	F	2.4	S	IMPACTED; PROPOSED PARKING LOT	R	
G7	a	ACER PLATANOIDES	NORWAY MAPLE	41.0	G	3.0	S	IMPACTED: PROPOSED BUILDING	R	
	b	ACER PLATANOIDES	NORWAY MAPLE	49.0	G	3.0	S	IMPACTED: PROPOSED BUILDING	R	
	c	ACER PLATANOIDES	NORWAY MAPLE	50.0	G	3.0	S	IMPACTED: PROPOSED BUILDING, SIDEWALK	R	
	d	ACER PLATANOIDES	NORWAY MAPLE	38.5	G	2.4	S	IMPACTED: PROPOSED PARKING LOT	R	

APPENDIX F – TOWN OF CALEDON TREE PRESERVATION STANDARDS AND SPECIFICATIONS



SPECIFICATIONS FOR THE PROTECTION AND PRESERVATION OF EXISTING VEGETATION:

1. PRIOR TO ISSUANCE OF THE BUILDING PERMIT, ALL EXISTING TREES THAT ARE TO BE PRESERVED SHALL BE FULLY PROTECTED WITH HOARDING (IE SNOW FENCING) OUTSIDE THEIR 'DRIPLINES', TO THE SATISFACTION OF THE TOWN.
2. GROUPS OF TREES AND OTHER EXISTING PLANTINGS TO BE PROTECTED SHALL BE TREATED IN A LIKE MANNER WITH HOARDING AROUND THE ENTIRE CLUMP(S).
3. AREAS WITHIN THE PROTECTIVE FENCING SHALL REMAIN UNDISTURBED AND SHALL NOT BE USED FOR THE STORAGE OF BUILDING MATERIALS OR EQUIPMENT.NO CONTAMINANTS SHALL BE DUMPED OR FLUSHED WHERE FEEDER ROOTS OF TREES EXIST.
4. PRUNE BRANCHES TO REMOVE DAMAGED LIMBS ONLY. DO NOT DAMAGE LEADERS. ALL CUTS OVER 25mm SHALL BE TREATED IN ACCORDANCE WITH APPROPRIATE HORTICULTURAL PRACTICES AS APPROVED BYTHE TOWN.
6. CUTTING OF ROOTS OR CHANGING OF GRADES AROUND EXISTING TREES TO BE PRESERVED WILL NOT BE PERMITTED WITHOUT THE APPROVAL OF THE PUBLIC WORKS AND ENGINEERING DEPARTMENT.
7. TREES THAT HAVE DIED, OR HAVE BEEN DAMAGED BEYOND REPAIR SHALL BE REPLACED AT THE DEVELOPER'S EXPENSE, WITH TREES OF A SIZE AND SPECIES APPROVED BY THE TOWN.
8. IF TREES ARE BEING ADVERSLY AFFECTED BY CONSTRUCTION, A WATERING AND FERTILIZING PROGRAM IS TO BE SET UP TO THE SATISFACTION OF THE TOWN.
9. TREE PRESERVATION FENCE TO BE INSPECTED BY THE CONSULTING LANDSCAPE ARCHITECT AND APPROVED PRIOR TO CONSTRUCTION COMMENCING.

TOWN OF CALEDON

TREE PRESERVATION

NO.	REVISION	APR'D	DATE
2	STANDARD No. 1135 NOW 707, NOTES EDIT		JUNE 08
1	NOTE NO. 9 ADDED		MARCH 08

APR'D: C.C. | DATE: JUNE 08

DRAWN: abal | SCALE: NTS

STANDARD No. 707

SPECIFICATIONS

A. General

The following Tree Preservation and Protection Measures will be undertaken to help eliminate and/or significantly reduce construction injury to all trees recommended for preservation. All temporary tree protection measures cited for retained trees must comply with the Town of Caledon Tree Protection Specifications and Details. Any variation from the standard tree protection measures must be approved in writing by the Town of Caledon.

B. Pre-Construction Phase

1. Prior to construction, the trees to be preserved shall be protected with a Tree Protection Barrier. The barrier shall consist of 1.2m (4ft) high orange plastic snow fence wired to T-bars (see Town of Caledon Tree Preservation Fencing, STD 606).
2. If applicable, attach a filter cloth 600mm high to the construction side of the hoarding to act as sediment control. Sediment control fencing shall meet or exceed OPSD-219.110, and be installed to the satisfaction of the Town of Caledon.
3. All supports and bracing used to safely secure the barrier should be located outside the Tree Protection Zone (TPZ). All supports and bracing should minimize damage to roots.
4. The TPZ fence is to be installed along the edge of the tree protection zones. This hoarding is to remain in place and remain in good condition throughout the entire duration of the project. Dismantling the tree protection barrier prior to approval by the Town of Caledon staff may constitute a contravention.
5. The applicant shall notify the Town of Caledon and the consulting certified arborist or landscape architect to confirm that the tree protection barriers are in place.
6. Where fill or excavated material must be temporarily located near a TPZ, a wooden barrier must be used to ensure no material enters the TPZ.
7. Remove any garbage and foreign debris from the tree protection zones, daily.
8. For the trees that were recommended for removal and/or crown pruning that are within the TPZ limits, these activities are to be performed by a qualified ISA certified arborist prior to the installation of the Tree Protection Zone barriers and prior to the commencement of any construction activities. Install the Tree Protection Zone barrier as per Tree Preservation Fencing, STD 606 at the limits shown on the tree inventory and protection plan after the tree removal, whichever is greater, and crown pruning activities are completed.
9. A **Tree Protection Zone** sign must be mounted on all sides of the tree protection barrier for the duration of site construction. The sign should be a minimum of 40cm x 60cm and made of white gator board or equivalent material.
10. The sign must be similar to the illustration shown below, or as directed by the Town of Caledon.

TREE PROTECTION ZONE

No work is permitted in the Tree Protection Zone

This includes construction works, grading, storage of trash or materials.

The tree protection barrier must not be removed without written authorization of the Town of Caledon.

11. All contractors and site visitors should be informed of the tree preservation and protection measures at a pre-construction meeting.

specifications continued on next panel...

TOWN OF CALEDON						
TREE PRESERVATION STANDARD NOTES - PART 1					APR'D: B.B.	DATE: AUGUST 17
					DRAWN: B.M.	SCALE: NTS
	NO.	REVISION	APR'D	DATE	STANDARD No. 710	

SPECIFICATIONS continued from previous panel

C. During Construction Phase

1. All areas within the TPZ shall remain undisturbed for the duration of construction. There will be no grade changes, dumping, and storage of any materials, structures or equipment within these areas. The Tree Protection Barrier must not be removed without the written authorization of the Town of Caledon.
2. Minor grading works will be permitted at the edge of the preservation zone as required to correct localized depressions, and blend to existing grades.This work to be undertaken under the direct supervision of an ISA certified arborist.
3. A certified ISA arborist will undertake proper root pruning in accordance with acceptable arboriculture practices when and if roots of retained trees are to be exposed, damaged, or severed by construction work. The exposed roots will be backfilled with appropriate material as soon as possible to prevent desiccation. Root pruning prior to excavation will help prevent necessary damage to tree roots.The use of low pressure hydrovac to expose roots is recommended, at no additional cost.
4. The Town of Caledon must be notified for all work that impacts the TPZ for temporary removal of a section of hoarding to gain access for fine grading or other works. All works are to be supervised by the Town of Caledon.
5. No cables, wire or ropes of any kind shall be wrapped around or installed in trees to be preserved.
6. No contaminants will be dumped or flushed in the TPZ areas or where feeder roots of trees exist (generally beyond the TPZ areas).
7. Irrigate tree protection zones during drought conditions, June to September to reduce drought stress.
8. Inspect the site daily to ensure hoarding is in place and in good condition. Inspect trees to monitor condition.

D. Post Construction Phase

1. Following the completion of all site works including landscaping, and after review and approval by the Town of Caledon staff, the protective hoarding may be removed.
2. After removal of the protective hoarding, the Tree Preservation Zones shall be inspected by the Town of Caledon staff. Any remaining dead, diseased, or hazardous limbs or trees are to be removed by an ISA certified arborist as directed by the consulting arborist or Town of Caledon staff.

end of specifications

TOWN OF CALEDON					APR'D: B.B.	DATE: AUGUST 17
TREE PRESERVATION STANDARD NOTES - PART 2					DRAWN: B.M.	SCALE: NTS
	NO.	REVISION	APR'D	DATE	STANDARD No. 711	