

NOTE:
SURVEY WAS COMPLETED DURING A PERIOD OF SNOW COVER. SITE WILL HAVE TO BE REVISITED AFTER THAW TO VERIFY EXISTING FEATURES.

BENCH MARK NOTE:
CITY OF BURLINGTON BENCH MARK No 153

HOUSE # 5289 BANTING COURT, BLOCK 'B', REGISTERED PLAN 1445, BRONZE CAP, SOUTHERLY WALL, 0.46m FROM WESTERLY CORNER, 0.30m APPROXIMATELY ABOVE GRASE.

ELEVATION – 82.910 metres

LEGEND:

□	DENOTES	MONUMENT SET
■	"	MONUMENT FOUND
IB	"	IRON BAR
SIB	"	STANDARD IRON BAR
SSIB	"	SHORT STANDARD IRON BAR
OLS	"	ONTARIO LAND SURVEYOR, OLS.
Meas	"	MEASURED
MH	"	MANHOLE
CB	"	CATCH BASIN
HP	"	HYDRO POLE
GM	"	GAS METER
DS	"	DOOR SILL
FH	"	FIRE HYDRANT

NOTE:
TREE PROTECTION FENCING PER CITY OF BURLINGTON STANDARDS.

THE FINAL LOCATION OF THE EXTENT OF PROPOSED TREE PROTECTION FENCING WILL BE CO-ORDINATED BETWEEN THE PROJECT ARBORIST AND PROJECT ENGINEER TO ENSURE THAT DAMAGE TO EXISTING TREES IS MINIMIZED DURING CONSTRUCTION.

Burlington

TREE PROTECTION ZONE (TPZ)

No equipment or vehicles shall be operated, parked, repaired or refueled within the Tree Protection Zone.

No construction activity, grade changes, surface treatment or excavations of any kind is permitted within the Tree Protection Zone.

No materials or fill may be stored within the Tree Protection Zone.

This tree protection barrier must not be removed prior to the completion of construction without written authorization from the City of Burlington, Urban Forestry Department.

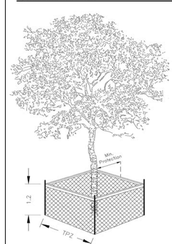
For information, contact:
City of Burlington, Development and Infrastructure Division,
905-335-7642.

Tree Protection Barrier Specification, No. SS12A
Detail TP-1 – Minimum Tree Protection Zone Sign

1 TI-1 Tree Inventory, Preservation and Removals Plan
Scale 1: 500

Tree Protection and Preservation Specification No.: SS12A

Detail TP-1 – Tree Protection Detail.



Trunk Diameter (DBH) [2]	Minimum Tree Protection Zone (MTPZ) Distances Required [3]	Critical Root Zone (CRZ) Distances Required [3&5]
< 10 cm	1.8 m	1.8 m
11 – 40 cm	2.4 m	4.0 m
41 – 50 cm	3.0 m	5.0 m
51 - 60 cm	3.6 m	6.0 m
61 - 70 cm	4.2 m	7.0 m
71 - 80 cm	4.8 m	8.0 m
81 - 90 cm	5.4 m	9.0 m
91 - 100 cm	6.0 m	10.0 m

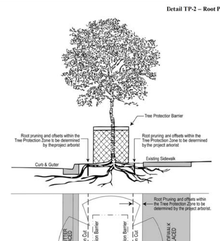
NOTES:
[1] The roots of a tree can extend from the trunk to approximately 2-3 times the distance of the drip line.
[2] Diameter at breast height (DBH) is the measurement of tree trunk taken at 1.4 metres above ground.
[3] Minimum Tree Protection Zone and Critical Root Zone distances are to be measured from the outside edge of the tree base towards the drip line and may be limited by an existing paved surface, provided the existing paved surface remains intact throughout the construction work and is subject to Section 6 of this specification.
[4] Where work is being performed beyond the Minimum Tree Protection Zone but within the Critical Root Zone the works are subject to Section 8 of this specification.

TREE PROTECTION BARRIER

1. The required barrier is a 1.2 metre (4 ft) high orange plastic web snow fencing on 2" x 4" frame. Where orange plastic web snow fencing creates a restriction in sightlines, page wire fencing with reflective tape can be used.
2. Tree protection barriers are to be erected prior to the commencement of any construction or grading activities on the site and are to remain in place throughout the entire duration of the project. The barriers shall be maintained erect and in good repair throughout the duration of construction operations with breaks and unsupported sections repaired immediately. Tree protection may be not be removed prior to the completion of construction without written authorization from the City Arborist.
3. All supports and bracing used to safely secure the barrier should be located outside the MTPZ. All supports and bracing should minimize damage to roots.
4. Where some fill or excavated material must be temporarily located near a MTPZ, a wooden barrier with silt fencing must be used to ensure no material enters the MTPZ.
5. No materials or fill may be stored within the MTPZ.
6. Equipment or vehicles shall not be operated, parked, repaired, or refuelled within the MTPZ.
7. No construction activity, grade changes, surface treatment or excavations of any kind is permitted within the MTPZ without written authorization from the City Arborist.
8. A laminated Minimum Tree Protection Zone sign (See Detail TP-3 – Minimum Tree Protection Zone Sign) must be attached to the side of the Tree Protection where it will be visible by persons entering the site. Minimum size must be 10"x14".

Tree Protection and Preservation Specification No.: SS12A

Detail TP-2 – Root Pruning Detail



NOTE:
For excavations perpendicular to to the curbing (ie. sidewalk, curbing, water or sewer laterals renewal)

(a) The contractor is to use a trench box to minimize the width of the open cut.
(b) When the lateral replacement is within the Tree Protection Zone of a tree, the contractor is to complete the works using trenchless technologies.

2 TI-1 Tree Protection Fencing Specification
NTS

Tree Inventory Notes

Tree No.	Common Name	Botanical Name	DBH (CM)	Cond.	TPZ Size (m)	Comments	Recommendation
1	Ash sp.	Fraxinus sp.	11	D			Remove due to health
2	Ash sp.	Fraxinus sp.	9	D			Remove due to health
3	Ash sp.	Fraxinus sp.	55	F/P	3.6	Signs of Emerald Ash Borer	Remove due to construction
4	Ash sp.	Fraxinus sp.	40	F/P	2.4	Signs of Emerald Ash Borer	Retain
5	Austrian Pine	Pinus nigra	31	F	2.4		Retain
6	Austrian Pine	Pinus nigra	28	F	2.4		Retain
7	Ornamental Pear	Pyrus calleryana	11	F	2.4		Retain
8	Austrian Pine	Pinus nigra	33	F	2.4		Retain
9	Austrian Pine	Pinus nigra	38	F	2.4		Retain
10	Silver Maple	Acer saccharinum	69	F	4.2	Heavily limbed due to hydro lines	Retain
11	Austrian Pine	Pinus nigra	22	F	2.4		Retain
12	Ash sp.	Fraxinus sp.	23	F/P	2.4		Retain
13	Austrian Pine	Pinus nigra	35	F	2.4		Retain
14	Ash sp.	Fraxinus sp.	39	F/P	2.4		Retain
15	Austrian Pine	Pinus nigra	37	F	2.4		Retain
16	Maple sp.	Acer sp.	14	F/G	2.4		Retain
17	Ash sp.	Fraxinus sp.	41	F/P	3.0		Retain
18	Maple sp.	Acer sp.	13	F	2.4		Retain
19	Ash sp.	Fraxinus sp.	42	F/P	3.0		Retain
20	Austrian Pine	Pinus nigra	41	F	3.0		Retain
21	Austrian Pine	Pinus nigra	30	F	2.4		Remove due to construction
22	Maple sp.	Acer sp.	21	F	2.4		Remove due to construction
23	Ash sp.	Fraxinus sp.	42	F/P	3.0		Retain
24	Maple sp.	Acer sp.	18	F	2.4		Retain
25	Austrian Pine	Pinus nigra	40	F	2.4		Retain
26	Pine sp.	Pinus sp.	17	F	2.4		Retain
27	Austrian Pine	Pinus nigra	36	F	2.4		Retain
28	Ash sp.	Fraxinus sp.	41	F	3.0		Retain
29	Austrian Pine	Pinus nigra	37	F	2.4		Retain
30	Silver Maple	Acer saccharinum	19	F	2.4		Retain
31	Ornamental Pear	Pyrus calleryana	26	F/G	2.4		Retain
32	Ornamental Pear	Pyrus calleryana	25	F	2.4		Retain
33	Ornamental Pear	Pyrus calleryana	25	F/G	2.4		Retain
34	Maple sp.	Acer sp.	22	F/G	2.4		Retain
35	Maple sp.	Acer sp.	20	F/G	2.4		Retain
36	Ornamental Pear	Pyrus calleryana	27	F/G	2.4		Retain
37	Ornamental Pear	Pyrus calleryana	24	F/G	2.4		Retain
38	Maple sp.	Acer sp.	16	F	2.4		Retain
39	Maple sp.	Acer sp.	20	F	2.4		Retain
40	Ash sp.	Fraxinus sp.	37	F/P	2.4		Retain
41	Maple sp.	Acer sp.	19	F	2.4		Retain
42	Austrian Pine	Pinus nigra	35	F	2.4		Retain
43	Austrian Pine	Pinus nigra	27	F	2.4		Retain
44	Austrian Pine	Pinus nigra	26	F	2.4		Retain
45	Ash sp.	Fraxinus sp.	53	F/P	3.6		Retain
46	Austrian Pine	Pinus nigra	44	F	3.0		Retain
47	Austrian Pine	Pinus nigra	25	F	2.4		Retain
48	Austrian Pine	Pinus nigra	26	F	2.4		Retain
49	Apple sp.	Malus sp.	17	F	2.4		Retain
50	Austrian Pine	Pinus nigra	27	F	2.4		Retain
51	Apple sp.	Malus sp.	16	F	2.4		Remove due to construction
52	Apple sp.	Malus sp.	23	F	2.4		Retain
53	Austrian Pine	Pinus nigra	25	F	2.4		Retain
54	Austrian Pine	Pinus nigra	27	F	2.4		Retain
55	Austrian Pine	Pinus nigra	25	F	2.4		Remove due to construction
56	Austrian Pine	Pinus nigra	25	F	2.4		Retain
57	Ivory Silk Lilac	Syringa reticulata 'Ivory Silk'	6	F	1.8		Retain
58	Ivory Silk Lilac	Syringa reticulata 'Ivory Silk'	6	F	1.8		Retain
59	Linden sp.	Tilia sp.	19	F/P	2.4	Leaning heavily; Signs of rot; Compartmentalization in trunk	Remove due to construction
60	Cherry sp.	Prunus sp.	9, 10	F	1.8	2 stem	Remove due to construction
61	Austrian Pine	Pinus nigra	24	F	2.4		Remove due to construction
62	Ivory Silk Lilac	Syringa reticulata 'Ivory Silk'	6	F	1.8		Retain
63	Ivory Silk Lilac	Syringa reticulata 'Ivory Silk'	6	F	1.8		Retain
64	Ivory Silk Lilac	Syringa reticulata 'Ivory Silk'	6	F	1.8		Retain
65	Ivory Silk Lilac	Syringa reticulata 'Ivory Silk'	5	F	1.8		Retain
66	Linden sp.	Tilia sp.	22	F	2.4	Exposed roots	Remove due to construction
67	Linden sp.	Tilia sp.	23	F	2.4	Exposed roots	Remove due to construction
68	Linden sp.	Tilia sp.	25	F	2.4	Exposed roots	Remove due to construction
69	Ash sp.	Fraxinus sp.	10-15	F	2.4	8 stem Ash clump; Grown into fence	Retain
70	Maple sp.	Acer sp.	45	P	2.4	Main leader cut; Grown into fence; Signs of insect infestation and rot	Retain
71	Apple sp.	Malus sp.	31	F	2.4		Retain

General Notes

1. Do not scale the drawings. All dimensions are in millimetres unless noted otherwise.
2. This drawing is to be read in conjunction with project site plan, landscape drawings and engineering plans.
3. The tree inventory includes assessment of all on site trees and all trees within 6.0m of the subject property. The trees have been assessed based on species, size and condition.
4. The contractor is to have required Municipailty Tree Removal Permits in hand prior to the removal of any trees.
5. The contractor shall check and verify all existing and proposed grading and conditions on the project and immediately report any discrepancies to the consultant before proceeding with any removals.
6. The contractor is to be aware of all existing and proposed services and utilities. The contractor is responsible for having all underground services and utility lines staked by each agency having jurisdiction prior to commencing work.
7. This drawing is to be used for development approval only. No trees are to be removed unless permits have been issued by the City of Burlington.
8. Do not leave any holes open overnight.
9. Keep area outside construction zone clean and useable by others at all times. Contractor shall throughly clean areas surrounding the construction zone at the end of each work day.
10. Contractor shall maintain a detailed record of all authorized changes in the form of a redline mark-up drawing. These records shall be submitted to the the Landscape Architect as a condition of obtaining substantial completion.
11. Contractor to make good any and all damages outside of the development area that may occur as a result of tree removals at no extra cost.
12. This drawing is Copyright MHBC Planning, 2018.

Legend

- CONIFEROUS TREE – TO BE RETAINED
- DECIDUOUS TREE – TO BE RETAINED
- CONIFEROUS TREE – TO BE REMOVED
- DECIDUOUS TREE – TO BE REMOVED
- # TREE IDENTIFICATION KEY TREE to be RETAINED
- # TREE IDENTIFICATION KEY TREE to be REMOVED
- TREE PROTECTION FENCING

Revision No.	Date	Issued / Revision	By
3	January 03, 2018	Issued for Review	SN
2	January 04, 2017	Issued for Review	SN
1	December 01, 2016	Issued for Review	SN

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Stamp

ASSOCIATION OF LANDSCAPE ARCHITECTS ONTARIO — NICOLA A. MIGE — OALA MEMBER

NOT FOR CONSTRUCTION

All drawings and specifications are instruments of service and will remain the property of MHBC Planning and must be returned at the completion of the work. This drawing shall not be used for construction purposes unless the drawings are marked "Issued for Construction" and the professional seal is signed and dated by the landscape architect.

Date: November, 2016
Drawn By: S.N.
Plan Scale: as noted
File No.: 15218 B
Checked By: N.M.
Other

Project

LAKESIDE VILLAGE PLAZA
5353 Lakeshore Road
Burlington, ON

File Name

TREE INVENTORY, PROTECTION AND REMOVALS PLAN

Dwg No.

TI-1 of 1