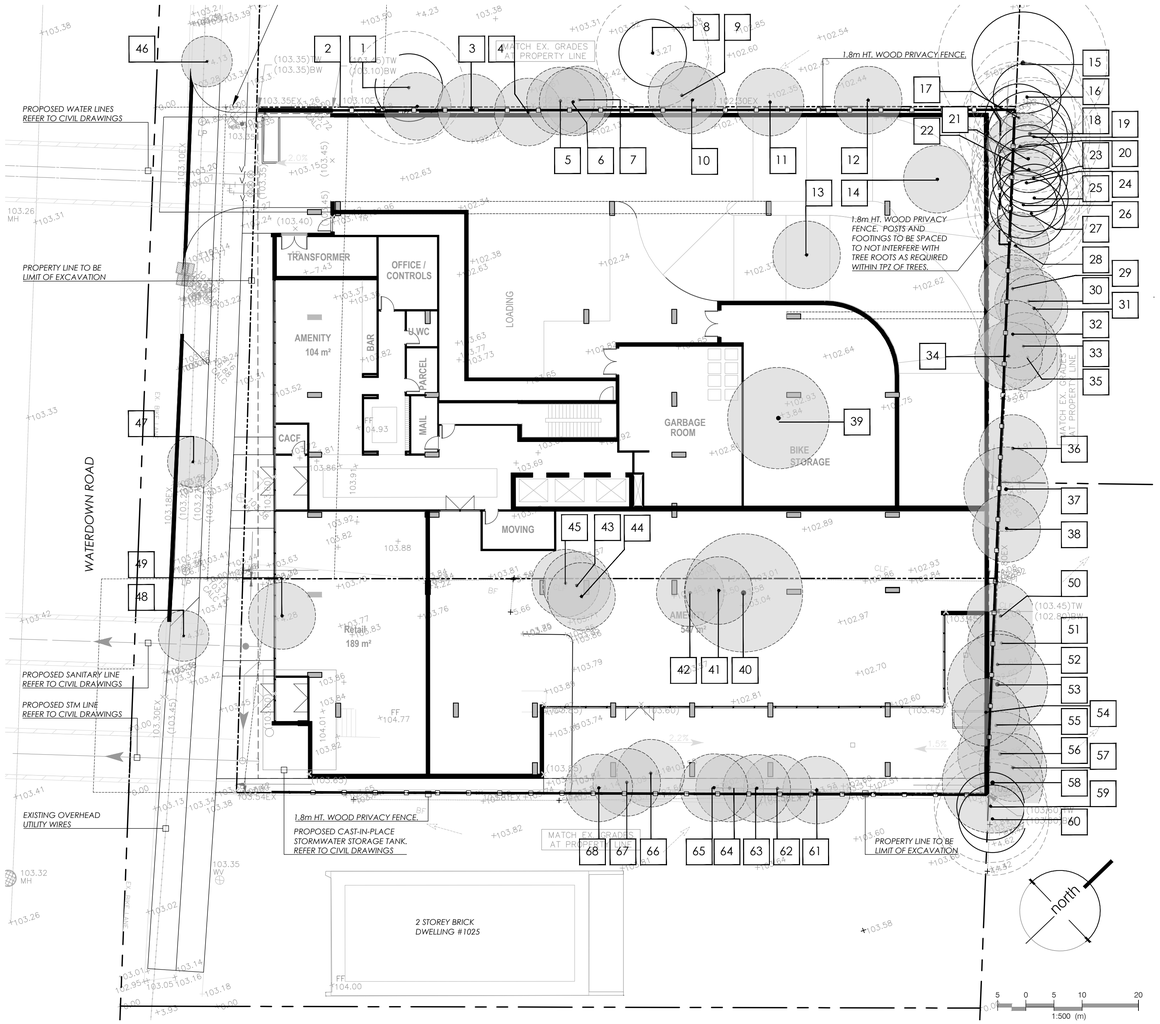
project #: 21-132



Tree Protection and Preservation
Specification No.: SS12

Detail TP-1 – Tree Protection Detail

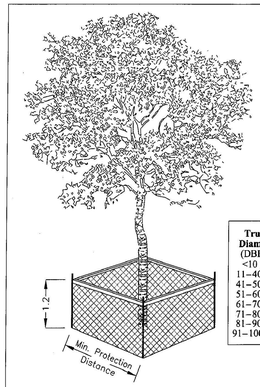


Table 1– Tree Protection Zones

Trunk Diameter (DBH)[2]	Tree Protection Zone (TPZ) Minimum Protection Distances Required[3]	Critical Root Zone (CRZ) Distances Required[3&4]
<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

TREE PROTECTION BARRIER

1. Tree protection barriers for trees situated on the City road allowance where visibility must be maintained can be 1.2m high and consist of orange plastic web snow fencing on a wood frame of 2" x 4" s, supported on metal * T * bars, 2.0m c/c max. Where orange plastic web snow fencing creates a restriction to sightlines, page wire fencing shall be used.

2. Where some excavate or fill has to be temporarily located near a tree protection barrier plywood must be used to ensure no material enters the Tree Protection Zone.

3. All supports and bracing should be outside the Tree Protection Zone. All such supports should minimize damaging roots outside the Tree Protection Barrier.

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

NOTES:

1. *The area within the tree protection zone (TPZ) of all existing trees shall be properly protected with temporary fencing as shown on the plan.*
2. *The area within the protective fencing shall remain undisturbed with no construction activity, grade changes, surface treatment, compaction, or excavation. Area shall not be used for the storage of building materials or equipment access/storage or project related garbage.*
3. *A laminated Minimum Tree Protection Zone sign (See detail 2 on L-2) must be attached to the most visible side of the Tree Protection, where it will be visible by those persons entering the site. Minimum size must be 10"x14".*
4. *Tree protection measures shall be installed prior to any demolition, tree removal or construction and shall remain until the completion of fine grading and sodding or seeding.*
5. *Prune all trees for dead, diseased, weak or hazardous branches only, also trim back branches which will interfere with construction, prune for structural restoration where necessary.*
6. *No stockpiles and/or excavated material shall be placed within the tree preservation area.*
7. *No rigging cable shall be wrapped around or installed to trees.*
8. *Where root systems of protected trees are exposed directly adjacent to or damaged by construction work they are to be root pruned and the area back filled with topsoil to prevent root desiccation.*
9. *Any fine grading within the preservation area is to be done by hand, no heavy equipment is permitted within the preservation zone.*
10. *Sediment accumulations to be removed by subdivider/builder when sediment deposits reach within 150mm of top of filter fabric barrier.*
11. *A copy of the approved and signed Vegetation Management Plan will be on site for the duration of construction and available upon request.*
12. *This detail does not represent any particular tree species.*
13. *No alternative to removal of noted trees due to excavation to the property line required for development of current site plan.*
14. *Compensation will be required for all trees noted for removal in accordance with City of Burlington Guidelines. The number of replacement or cash-in-leiu to be determined at site plan stage.*

Tree Protection Fencing (City of Burlington) — 1 / L-1


Trees #1-2

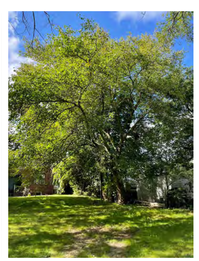

Trees #2-6


Trees #13


Trees #22-29


Trees #30-38


Trees #35-15


Trees #40


Trees #43-45


Trees #46


Trees #47

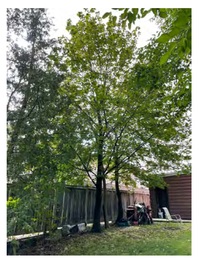


Trees #48

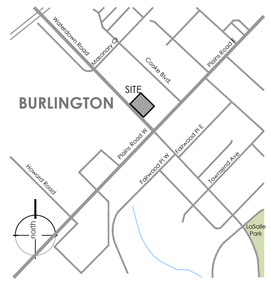

Trees #49


Trees #50-60


Trees #61-65


Trees #66-68

KEY MAP - N.T.S.



LEGEND

- property line
- UNIT 2 — vegetation unit (refer to chart)
- 2 — existing tree number (refer to chart)
- existing vegetation to remain Minimum Tree Protection Zone (MTPZ)
- existing vegetation to be removed Minimum Tree Protection Zone (MTPZ)
- critical root zone (CRZ)
- existing elevations
- tree protection fence - see detail D1, L-1

NOT FOR CONSTRUCTION
ISSUED FOR REVIEW & COMMENTS ONLY

NOTE:
Vegetation inventory undertaken by Jackson Arboriculture Inc., Jemery Jackson, ISA Certified Arborist (ON-1089A) on September 30, 2021.

REVISIONS/ SUBMISSIONS

#	DATE	DESCRIPTION
1	2021-12-03	Issued for ZBA

STAMP

ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS — MARIO PANTUSO — OALA MEMBER

CLIENT
INFINITY DEVELOPMENT GROUP

MUNICIPALITY
City of Burlington

PROJECT
Waterdown Road
1029-1033 Waterdown Rd
Burlington, ON

MUNICIPAL FILE NUMBER

SHEET
Tree Protection Plan
L-1

adesso design inc.
landscape architecture

218 Locke Street South, 2nd Floor
Hamilton, ON L8P 4B4
t. 905.526.8876
www.adessodesigninc.ca

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project #: 21-132

Tree #	Common Name	Scientific Name	DBH (cm)	TI	CS	CV	DL	mTPZ	CC	Comments	% of Injury	Potential Impacts from Construction	Ownership	Recommendation
1	Black Locust	*Robinia pseudoacacia*	13, 12	FG	G	G	3	2.4	CD	Union at 0.4 m	<10%		Neighbouring	Save**
2	Tree-of-heaven	*Ailanthus altissima*	12, 14	FG	G	G	4	2.4	CD	Union at ground		Conflicts with proposed grading & building	Boundary	Remove *permission from neighbour required
3	White Elm	*Ulmus americana*	10, 11, 12	FG	FG	G	3	2.4	CD	Union at ground, bowed, grapevine competition		Conflicts with proposed grading & building	Boundary	Remove *permission from neighbour required
4	White Mulberry	*Morus alba*	14, 10, 8, 9	FG	FG	G	3	2.4	CD	Union at ground		Conflicts with proposed grading & building	Boundary	Remove *permission from neighbour required
5	White Mulberry	*Morus alba*	~20	G	G	G	4	2.4	CD			Conflicts with proposed grading & building	Neighbouring	Remove *permission from neighbour required
6	Manitoba Maple	*Acer negundo*	~10, 10, 10	FG	G	G	3	1.8	CD	Union at ground		Conflicts with proposed grading & building	Neighbouring	Remove *permission from neighbour required
7	White Mulberry	*Morus alba*	~11, 10	F	G	G	3	2.4	CD	Union at ground, crook		Conflicts with proposed grading & building	Neighbouring	Remove *permission from neighbour required
8	Sweet Cherry	*Prunus avium*	~25	G	G	G	3	2.4	CD		0%		Neighbouring	Save
9	White Mulberry	*Morus alba*	~14	FG	G	G	3	2.4	CD	Union at 1.5 m		Conflicts with proposed building	Neighbouring	Remove *permission from neighbour required
10	Manitoba Maple	*Acer negundo*	10, 7, 8	F	FG	G	4	1.8	CD	Union at ground, bow/lean south		Conflicts with proposed building	Neighbouring	Remove *permission from neighbour required
11	White Mulberry	*Morus alba*	13	FG	FG	G	4	2.4	CD	Bowed west		Conflicts with proposed building	Neighbouring	Remove *permission from neighbour required
12	White Mulberry	*Morus alba*	8, 11, 12	F	F	G	4	2.4	CD	Cluster of stems		Conflicts with proposed building	Neighbouring	Remove *permission from neighbour required
13	Apricot	*Prunus armeniaca*	36	PF	PF	PF	4	2.4	D	Pruning wounds with heart rot, 40% crown dieback		Conflicts with proposed building	On Property	Remove
14	Norway Maple	*Acer platanoides*	~15	G	G	G	4	2.4	I			Conflicts with proposed building	On Property	Remove
15	Siberian Elm	*Ulmus pumila*	~55	G	FG	FG	5	3.6	CD	10% crown dieback, bowed west	0%		Neighbouring	Save**
16	Siberian Elm	*Ulmus pumila*	~25	G	FG	FG	5	2.4	CD	10% crown dieback	0%		Neighbouring	Save**
17	Siberian Elm	*Ulmus pumila*	~35	G	FG	FG	5	2.4	CD	10% crown dieback, bowed, pruning wounds	10%		Neighbouring	Save**
18	Siberian Elm	*Ulmus pumila*	~41	F	FG	FG	4	3.0	CD	Union at 3.5m, 10% crown dieback, bowed, pruning wound	<10%		Neighbouring	Save**
19	Norway Maple	*Acer platanoides*	~20	FG	G	G	4	2.4	CD	Light crook	0%		Neighbouring	Save**
20	Siberian Elm	*Ulmus pumila*	~20	F	F	FG	5	2.4	I	Bowed south		Root zone conflicts with proposed building	Neighbouring	Remove *permission from neighbour required
21	Norway Maple	*Acer platanoides*	~15	G	G	G	3	2.4	I		<5%		Neighbouring	Save**
22	Siberian Elm	*Ulmus pumila*	~35	F	G	G	4	2.4	CD	Union at 1.5 m	<5%		Neighbouring	Save**
23	Norway Maple	*Acer platanoides*	~15	G	G	G	3	2.4	I		0%		Neighbouring	Save**
24	Siberian Elm	*Ulmus pumila*	~35	FG	G	G	4	2.4	CD	Union at base of crown	5%		Neighbouring	Save**
25	Norway Maple	*Acer platanoides*	~12, 14	FG	G	G	3	2.4	I	Union at ground	0%		Neighbouring	Save**
26	Siberian Elm	*Ulmus pumila*	~35, 25	F	FG	FG	4	2.4	CD	Union at 1.2 m, pruning wound, bowed southeast, heavy stem wound from failed limb	<10%		Neighbouring	Save**
27	Norway Maple	*Acer platanoides*	~18	G	G	G	4	2.4	I		<5%		Neighbouring	Save**
28	Siberian Elm	*Ulmus pumila*	~20	G	PF	PF	4	2.4	CD	Union at base of crown, 40% crown dieback, bowed south		Root zone conflicts with proposed building	Neighbouring	Remove *permission from neighbour required
29	Siberian Elm	*Ulmus pumila*	~30	FG	P	P	5	2.4	I	Bowed west, 50% crown dieback		Root zone conflicts with proposed building	Neighbouring	Remove *permission from neighbour required
30	Siberian Elm	*Ulmus pumila*	~18	FG	F	F	3	2.4	CD	Bowed east, 20% crown dieback		Root zone conflicts with proposed building	Neighbouring	Remove *permission from neighbour required
31	Norway Maple	*Acer platanoides*	~10	G	G	G	3	2.4	I			Root zone conflicts with proposed building	Neighbouring	Remove *permission from neighbour required
32	Siberian Elm	*Ulmus pumila*	~15	PF	P	P	1	2.4	I	Top of crown missing, fruiting body in crown		Root zone conflicts with proposed building	Neighbouring	Remove *permission from neighbour required
33	Siberian Elm	*Ulmus pumila*	~15	F	F	FG	3	2.4	I	Union at 1.8 m		Root zone conflicts with proposed building	Neighbouring	Remove *permission from neighbour required
34	Siberian Elm	*Ulmus pumila*	~55	F	F	F	9	3.6	CD	Union at 2 m, bowed south, 10% crown dieback		Root zone conflicts with proposed building	Neighbouring	Remove *permission from neighbour required
35	Black Walnut	*Juglans nigra*	~30	G	G	G	4	2.4	CD			Root zone conflicts with proposed building	Neighbouring	Remove *permission from neighbour required
36	Siberian Elm	*Ulmus pumila*	~35	FG	F	F	4	2.4	CD	20% crown dieback		Root zone conflicts with proposed building	Neighbouring	Remove *permission from neighbour required
37	Siberian Elm	*Ulmus pumila*	~41	F	F	FG	9	3.0	CD	Union at base of crown, stem wounds		Root zone conflicts with proposed building	Neighbouring	Remove *permission from neighbour required
38	Siberian Elm	*Ulmus pumila*	~15, 15	P	P	P	3	2.4	I	Union at ground, peeling bark, failed stem		Root zone conflicts with proposed building	Neighbouring	Remove *permission from neighbour required
39	White Mulberry	*Morus alba*	50, 52	F	FG	G	9	3.6	CD	Union at ground with included bark, union at 2 m		Root zone conflicts with proposed building	Neighbouring	Remove *permission from neighbour required
40	White Mulberry	*Morus alba*	68	FG	FG	FG	7	4.2	CD	Union at base of crown, bacterial wetwood		Root zone conflicts with proposed building	On Property	Remove
41	Norway Maple	*Acer platanoides*	26	G	G	G	4	2.4	CD			Root zone conflicts with proposed building	On Property	Remove
42	Norway Maple	*Acer platanoides*	35, 28	FG	G	G	5	2.4	CD	Union at 0.5 m		Root zone conflicts with proposed building	On Property	Remove
43	Manitoba Maple	*Acer negundo*	~15, 20	F	F	FG	4	2.4	I	Pruning wounds, lean north, epicormic branching		Root zone conflicts with proposed building	On Property	Remove
44	Eastern White Cedar	*Thuja occidentalis*	~12, 15	FG	FG	FG	2	2.4	CD	Union at ground, pruning wound		Root zone conflicts with proposed building	On Property	Remove
45	Siberian Elm	*Ulmus pumila*	~13	G	G	G	3	2.4	CD	Grapevine competition		Root zone conflicts with proposed building	On Property	Remove
46	Amur Maple	*Acer ginnala*	6	G	G	G	1.5	1.8	D			Root zone conflicts with proposed building	ROW	Remove *permission from City required
47	Amur Maple	*Acer ginnala*	6	G	G	G	1.5	1.8	D			Root zone conflicts with proposed building	ROW	Remove *permission from City required
48	Amur Maple	*Acer ginnala*	5	G	G	G	1.5	1.8	D			Root zone conflicts with proposed building	ROW	Remove *permission from City required
49	Apple species	*Malus sp.*	18, 18, 17, 8, 9	FG	FG	G	4	2.4	D	Union at ground		Root zone conflicts with proposed building	On Property	Remove
50	Siberian Elm	*Ulmus pumila*	~30	F	PF	F	4	2.4	I	Top of crown failed		Root zone conflicts with proposed building	Neighbouring	Remove *permission from neighbour required
51	Siberian Elm	*Ulmus pumila*	~35	FG	FG	FG	10	2.4	CD	Union at base of crown, bowed west		Root zone conflicts with proposed building	Neighbouring	Remove *permission from neighbour required
52	Siberian Elm	*Ulmus pumila*	~20	F	F	FG	3	2.4	CD	Heavy stem wound with heart rot		Root zone conflicts with proposed building	Neighbouring	Remove *permission from neighbour required
53	Siberian Elm	*Ulmus pumila*	~55	FG	FG	FG	10	3.6	CD	Bacterial wetwood, bowed west		Root zone conflicts with proposed building	Neighbouring	Remove *permission from neighbour required
54	Siberian Elm	*Ulmus pumila*	~18	F	F	F	6	2.4	I	Heavy bow west, 10% crown dieback		Conflicts with proposed building	On Property	Remove
55	Siberian Elm	*Ulmus pumila*	~25	F	F	F	3	2.4	I	Union at base of crown, 20% crown dieback		Root zone conflicts with proposed building	Neighbouring	Remove *permission from neighbour required
56	Siberian Elm	*Ulmus pumila*	~41	F	F	FG	5	3.0	CD	Union at base of crown, pruning wounds, bowed east		Root zone conflicts with proposed building	Neighbouring	Remove *permission from neighbour required
57	Siberian Elm	*Ulmus pumila*	~25, 30	F	FG	G	4	2.4	CD	Union at 0.5 m		Root zone conflicts with proposed building	Neighbouring	Remove *permission from neighbour required
58	Siberian Elm	*Ulmus pumila*	~40, 55	F	FG	FG	10	3.6	CD	Union at 1.2 m, bowed west		Root zone conflicts with proposed building	Neighbouring	Remove *permission from neighbour required
59	Siberian Elm	*Ulmus pumila*	~15	F	P	P	4	2.4	I	Top of crown failed, 50% crown dieback	<5%		Neighbouring	Save**
60	Siberian Elm	*Ulmus pumila*	~12	F	PF	PF	2	2.4	I	Top of crown failed	0%		Neighbouring	Save**
61	Eastern White Cedar	*Thuja occidentalis*	23	G	G	G	3	2.4	CD			Root zone conflicts with proposed building	On Property	Remove
62	Eastern White Cedar	*Thuja occidentalis*	19, 12	FG	FG	G	3	2.4	CD	Union at ground		Root zone conflicts with proposed building	On Property	Remove
63	Eastern White Cedar	*Thuja occidentalis*	12	G	FG	FG	1	2.4	CD	Sparse crown		Root zone conflicts with proposed building	On Property	Remove
64	Eastern White Cedar	*Thuja occidentalis*	16, 22	FG	FG	G	3	2.4	CD	Union at ground		Root zone conflicts with proposed building	On Property	Remove
65	Eastern White Cedar	*Thuja occidentalis*	23, 11	FG	G	G	3	2.4	CD	Union at ground		Root zone conflicts with proposed building	On Property	Remove
66	Norway Maple	*Acer platanoides*	27	G	G	G	4	2.4	CD			Root zone conflicts with proposed building	On Property	Remove
67	White Mulberry	*Morus alba*	18	F	FG	G	3	2.4	CD	Bacterial wetwood at natural branch wound, bowed south		Root zone conflicts with proposed building	On Property	Remove
68	Norway Maple	*Acer platanoides*	24	G	G	G	4	2.4	CD			Root zone conflicts with proposed building	On Property	Remove

CHART LEGEND/CODES

***DBH** = Diameter at Breast Height (cm)*

***Trunk Integrity (TI):** G = Good, F = Fair, P = Poor*

***Crown Structure (CS):** G = Good, F = Fair, P = Poor*

***Crown Vigor (CV):** G = Good, F = Fair, P = Poor*

***Crown Class:** D = Dominant, CD = Codominant, I = Intermediate, S = Suppressed*

NOTE:
Written permission from the neighbouring property owner is required prior to removal or injury of any boundary tree(shared ownership) or any tree that is not fully on the subject property.

MIGRATORY BIRDS AND NESTS:

1. *The Owner and Contractor must be aware of the Migratory Birds Convention Act, 1994 - specifically:*
   - *No tree removal or construction activity shall contravene the Act.*
   - *Construction activities with the potential to harm migratory birds or their nest should be restricted from March 15 to August 31.*
   - *If work must occur during the migratory bird breeding season, a nest survey should be taken by a qualified avian biologist.*
   - *A mitigation plan (showing active nests and appropriate buffers) may be required for review and approval by the Canadian Wildlife Services.*

TREE REMOVAL:

1. *No trees shall be removed prior to municipal approvals of the Tree Management/Tree Preservation Plan.*

BOUNDARY TREES:

2. *Note that boundary trees are protected under the Ontario Forestry Act. Boundary trees are defined in the Forestry Act (Section 10.2) and are considered shared or co-owned property. The Forestry Act indicates that it is a prosecutable offense for one co-owner to injure or cut down a boundary tree without the other co-owner's permission.*
3. *Written permission from the neighbouring property owner is required prior to removal or injury of any boundary tree(shared ownership) or any tree that is not fully on the subject property.*
4. *An ISA certified Arborist should be on site prior to any work being performed within the rootzone of a boundary or neighbouring tree to perform root pruning as required.*

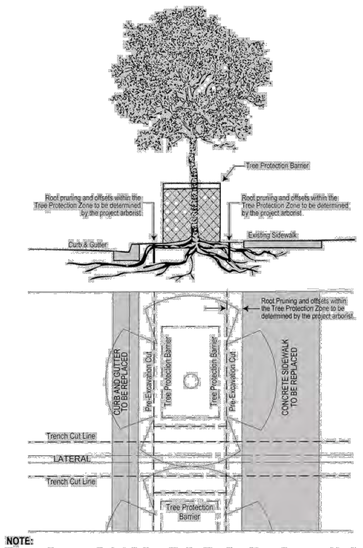
NOTES:

* *Removal or damage of neighbouring or boundary trees requires a letter of consent from adjacent property owners that they are aware of the proposed development and potential impact to their trees or boundary trees and have no objections.*

** *Site works that fall within the limits of the MTPZ and the CRZ and have the potential to damage tree roots,are to be completed with root pruning using a hydro vacuum unit or air powered soil excavation tool, and is to be operated by a qualified arborist or under an arborist's supervision, and completed to a depth of 300mm. Roots are to be cut a maximum of 150 mm from the edge of excavation (grading or removals). The limit of excavation, grading or removals is to be minimized to the greatest extent possible and is to include the use of excavation shoring, smaller excavation equipment or rubber tired machines. See Detail 1 on L-2 (City of Burlington Detail TP-2) for further information.*

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.

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February 2013

Root Pruning Detail (City of Burlington Detail TP-2) — 1 / L-2

NOTES:

1. *A laminated Minimum Tree Protection Zone sign must be attached to the most visible side of the Tree Protection, where it will be visible by those persons entering the site. Minimum size must be 10"x14".*

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 and Preservation Specification No.: SS12A
Detail TP-2 – Minimum Tree Protection Zone Sign
February 2013
Page 3

Tree Protection Zone Signage — 2 / L-2

NOT FOR CONSTRUCTION
ISSUED FOR REVIEW & COMMENTS ONLY

NOTE:
Vegetation inventory undertaken by Jackson Arboriculture Inc., Jemery Jackson, ISA Certified Arborist (ON-1089A) on September 30, 2021.

REVISIONS/ SUBMISSIONS

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1	2021-12-03	Issued for ZBA

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ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS — OALA — Member

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Tree Protection Plan — L-2

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