TREE PROTECTION BARRIER

1. THE REQUIRED BARRIER IS A 1.2METRE (4 FT.) HIGH ORANGE PLASTIC WEB SNOW FENCING ON 2" X 4" FRAME. WHERE ORANGE PLASTIC WEB SNOW FENCING CREATES A RESTRICTION OF 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 HTE ENTIRE DURATION OF CONSTRUCTION OPERATIONS WITH BREAKS AND UNSUPPORTED SECTIONS REPAIRED IMMEDIATELY. TREE PROTECTION MAY 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 NEAR A MTPZ. ALL SUPPORTS AND BRACING SHOULD BE MINIMIZE DAMAGE TO ROOTS.
4. WHERE SOME FILL OR EXCAVATION MATERIAL MUST BE TEMPORARILY LOCATED NEAR 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 REFUELED WITHIN THE MTPZ.
7. NO CONSTRUCTION ACTIVITY, GRADE CHANGES, SURFACE TREATMENT OF 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 250mm X 350mm (10" X 14").

TREE IDENTIFICATION NAME

NO.	COMMON NAME	BOTANICAL NAME	ORIGIN
1	NORWAY MAPLE	ACER PLATINOIDES	INVASIVE
2	PAPER BIRCH	BETULA PAPYRIFERA	NATIVE
3	SHAGBARK HICKORY	CARYA OVATA	NATIVE
4	BITTERNUT HICKORY	CARYA CORDIFORMIS	NATIVE
5	HONEY LOCUST	GLEDITSIA TRICANTHOS	NATIVE
6	BLACK WALNUT	JUGLANS NIGRA	NATIVE
7	IRONWOOD	OSTRYA VIRGINIANA	NATIVE
8	HAWTHORN	CRATAEGUS	NATIVE
9	WHITE ASH	FRAXINUS AMERICANA	NATIVE
10	AMERICAN BEECH	FAGUS GRANDIFOLIA	NATIVE
11	WILD APPLE	MALUS SYVESTRIS	NATIVE
12	CHOKE CHERRY	PRUNUS VIRGINIANA	NATIVE
13	AMERICAN BASSWOOD	TILIA AMERICANA	NATIVE
14	LITTLE LEAF LINDEN	TILIA CORDATA	NATIVE
15	BUR OAK	QUERCUS MACROCARPA	NATIVE
16	RED OAK	QUERCUS RUBRA	NATIVE
17	WHITE PINE	PINUS STROBUS	NATIVE
18	BLACK PINE	PINUS NIGRA	NATIVE
19	SCOTCH PINE	PINUS SYLVESTRIS	INVASIVE
20	WHITE CEDAR	THUJA OCCIDENTALIS	NATIVE

TREE PROTECTION SIGN TP-3

4

350 mm

250 mm

City of Burlington

TREE PROTECTION ZONE (TPZ)

No equipment or vehicle 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 Burlinton, Urban Forestry Department.

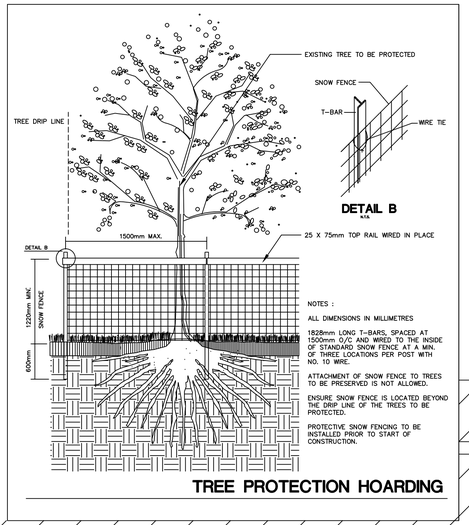
For information, contact:
City of Burlington, Development and Infrastructure Division,
905–335–7642

TREE PROTECTION DETAIL TP-1

4

TRUNK DIAMETER (DBH) [3]	MINIMUM TREE PROTECTION ZONE (MTPZ) 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

NOTES:
1. THE ROOTS OF A TREE CAN EXTEND FROM THE TRUNK TO APPROXIMATEIY 2–3 TIMES THE DISTANCE OF THE DRIP LINE.
2. DIAMETER AT BREAST HEIGHT (DBH) IS THE MEASUREMENT OF THE 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 THE TREE PROTECTION BARRIER.
4. WHERE WORK IS BEING PERFORMED BEYOND THE MINIMUM TREE PROTECTION ZONE THE WORKS ARE SUBJECT TO THE TREE PROTECTION ZONE SIGN. (DETAIL TP–3)



TREE PROTECTION HOARDING

LEGEND

- 6 — EXISTING HIGH BRANCHING DECIDUOUS TREE
- 9 — EXISTING HIGH BRANCHING DECIDUOUS TREE (TO BE PROTECTED)
- 3 — EXISTING CONIFEROUS TREE
- 2 — EXISTING CONIFEROUS TREE (TO BE PROTECTED)
- EXISTING CONIFEROUS HEDGE ROW
- EXISTINGTREE MASS
- PROPOSED TREE PROTECTION HOARDING

TREE INVENTORY AND ANALYSIS

NO.	SPECIES	4	D.B.H. (mm)	CROWN (mm)	QUALITY	SURVIVABILITY	RATING	RECOMMENDATION	OWNER
1	BLACK PINE		210	6000	GOOD	H	M	PROTECT	(M.)
2	BLACK PINE		180	4500	GOOD	H	M	PROTECT	(M.)
3	BLACK PINE	4	190	6000	GOOD	L	M–L	REMOVE (1.)	(M.)
4	BLACK WALNUT		370	7500	GOOD	NONE	L	REMOVE (1.)	(M.)
5	WHITE ASH		420	3650	FAIR	NONE	L	REMOVE (1.)	(M.)
6	BLACK WALNUT		250	3650	GOOD	NONE	L	REMOVE (1.)	(M.)
7	HONEY LOCUST		520	6000	GOOD	NONE	L	REMOVE (1.)	(P.)
8	WHITE ASH		100	2000	GOOD	NONE	L	REMOVE (1.)	(P.)
9	BUR OAK		200	2440	GOOD	M	M	PROTECT	(M.)
10	WHITE PINE		250	3650	GOOD	NONE	L	REMOVE (1.)	(P.)
11	SCOTCH PINE		320	6000	DEAD	NONE	L	REMOVED (3.)	(P.)
12	SCOTCH PINE		220	4650	POOR	NONE	L	REMOVE (1.)	(P.)
13	NORWAY MAPLE		100	2440	GOOD	NONE	L	REMOVE (1.)	(P.)
14	BITTERNUT HICKORY	6	250	7500	GOOD	L	M–L	REMOVE (1.)	(P.)
15	IRONWOOD		130	2000	GOOD	L	L	REMOVE (1.)	(P.)
16	IRONWOOD		130	2000	GOOD	NONE	L	REMOVE (1.)	(P.)
17	IRONWOOD		160	2000	GOOD	NONE	L	REMOVE (1.)	(P.)
18	IRONWOOD		140	2000	GOOD	NONE	L	REMOVE (1.)	(P.)
19	IRONWOOD		120	1800	GOOD	M	M	PROTECT	(P.)
20	HAWTHORN		120	1800	FAIR	NONE	L	REMOVE (1.)	(P.)
21	HAWTHORN		120	1800	GOOD	NONE	L	REMOVE (1.)	(P.)
22	SHAGBARK HICKORY		280	2440	GOOD	NONE	L	REMOVE (1.)	(P.)
23	WHITE ASH		180	2500	POOR	NONE	L	REMOVE (1.)	(P.)
24	WILD APPLE		250	7500	FAIR	NONE	L	REMOVE (1.)	(P.)
25	WHITE CEDAR		100	1800	GOOD	NONE	L	REMOVE (1.)	(P.)
26	IRONWOOD		100	1800	GOOD	NONE	L	REMOVE (1.)	(P.)
27	IRONWOOD		110	1800	GOOD	NONE	L	REMOVE (1.)	(P.)
28	IRONWOOD		150	1500	POOR	NONE	L	REMOVE (1.)	(P.)
29	IRONWOOD		140	1500	GOOD	NONE	L	REMOVE (1.)	(P.)
30	BITTERNUT HICKORY		860	10500	DEAD	NONE	L	REMOVED (3.)	(P.)
31	SCOTCH PINE		220	6000	POOR	NONE	L	REMOVE (1.)	(P.)
32	SCOTCH PINE		300	9000	POOR	NONE	L	REMOVE (1.)	(P.)
33	NORWAY MAPLE		200	3650	FAIR	NONE	L	REMOVE (1.)	(P.)
34	BITTERNUT HICKORY		310	6000	GOOD	NONE	L	REMOVE (1.)	(P.)
35	NORWAY MAPLE		200	3650	GOOD	NONE	L	REMOVE (1.)	(P.)
36	NORWAY MAPLE		380	7500	GOOD	NONE	L	REMOVE (1.)	(P.)
37	SHAGBARK HICKORY		420	9000	GOOD	NONE	L	REMOVE (1.)	(P.)
38	NORWAY MAPLE		250	6000	FAIR	NONE	L	REMOVE (1.)	(P.)
39	WHITE PINE		450	9000	FAIR	NONE	L	REMOVE (1.)	(P.)
40	RED OAK		270	4650	POOR	NONE	L	REMOVE (1.)	(P.)
41	CHOKE CHERRY		180	3650	GOOD	NONE	L	REMOVE (1.)	(P.)
42	WILD APPLE		180	3000	FAIR	NONE	L	REMOVE (1.)	(P.)
43	WILD APPLE		180	3000	FAIR	NONE	L	REMOVE (1.)	(P.)
44	WILD APPLE		150	2000	FAIR	NONE	L	REMOVE (1.)	(P.)
45	WHITE PINE		700	10500	POOR	NONE	L	REMOVE (1.)	(P.)
46	WHITE PINE		200	7500	GOOD	NONE	L	REMOVE (1.)	(P.)
47	AMERICAN BEECH		380	7500	GOOD	H	M	PROTECT	(P.)
48	WHITE PINE		670	9000	POOR	L	L	REMOVE (1.)	(P.)
49	WHITE PINE		330	7500	POOR	M–L	L	PROTECT	(P.)
50	WHITE PINE		250	7500	POOR	L	L	PROTECT	(P.)
51	WHITE PINE		250	9000	DEAD	L	L	REMOVED (3.)	(P.)
52	WHITE PINE		250	9000	FAIR	NONE	L	REMOVE (1.)	(P.)
53	PAPER BIRCH		CLUMP 900 300	9000	FAIR	M	M	PROTECT	(P.)
54	WHITE PINE		300	7500	FAIR	NONE	L	REMOVE (1.)	(P.)
55	WHITE PINE		300	7500	POOR	M	M–L	PROTECT	(M.)
56	HONEY LOCUST		280	9000	GOOD	M	M	PROTECT	(M.)
57	HONEY LOCUST		150	3650	FAIR	M	M	PROTECT	(M.)
58	NORWAY MAPLE		120	3650	GOOD	M	M	PROTECT	(M.)
59	NORWAY MAPLE		120	3650	POOR	M–L	M–L	PROTECT	(M.)
60	NORWAY MAPLE		120	3650	GOOD	M	M	PROTECT	(M.)
61	LITTLE LEAF LINDEN		120	3650	GOOD	M	M	PROTECT	(M.)
62	RED OAK		600	9000	GOOD	M	M	PROTECT	(M.)
63	X		X	X	X	X	X	X	
64	X		X	X	X	X	X	X	
65	X		X	X	X	X	X	X	

EXISTING TREES TO BE REMOVED AND DISPOSED OF.

TREE NO. ------ REFERS TO SITE PLAN FOR THE CORRELATION OF TREE NUMBER TO SITE LOCATION.

SPECIES ------- TYPE OF TREE (GENUS AND SPECIES)

D.B.H. -------- DIAMETER MEASURED AT BREAST HEIGHT IN MILLIMETRES

CROWN ------- SPREAD OF TREE MEASURED IN METRES

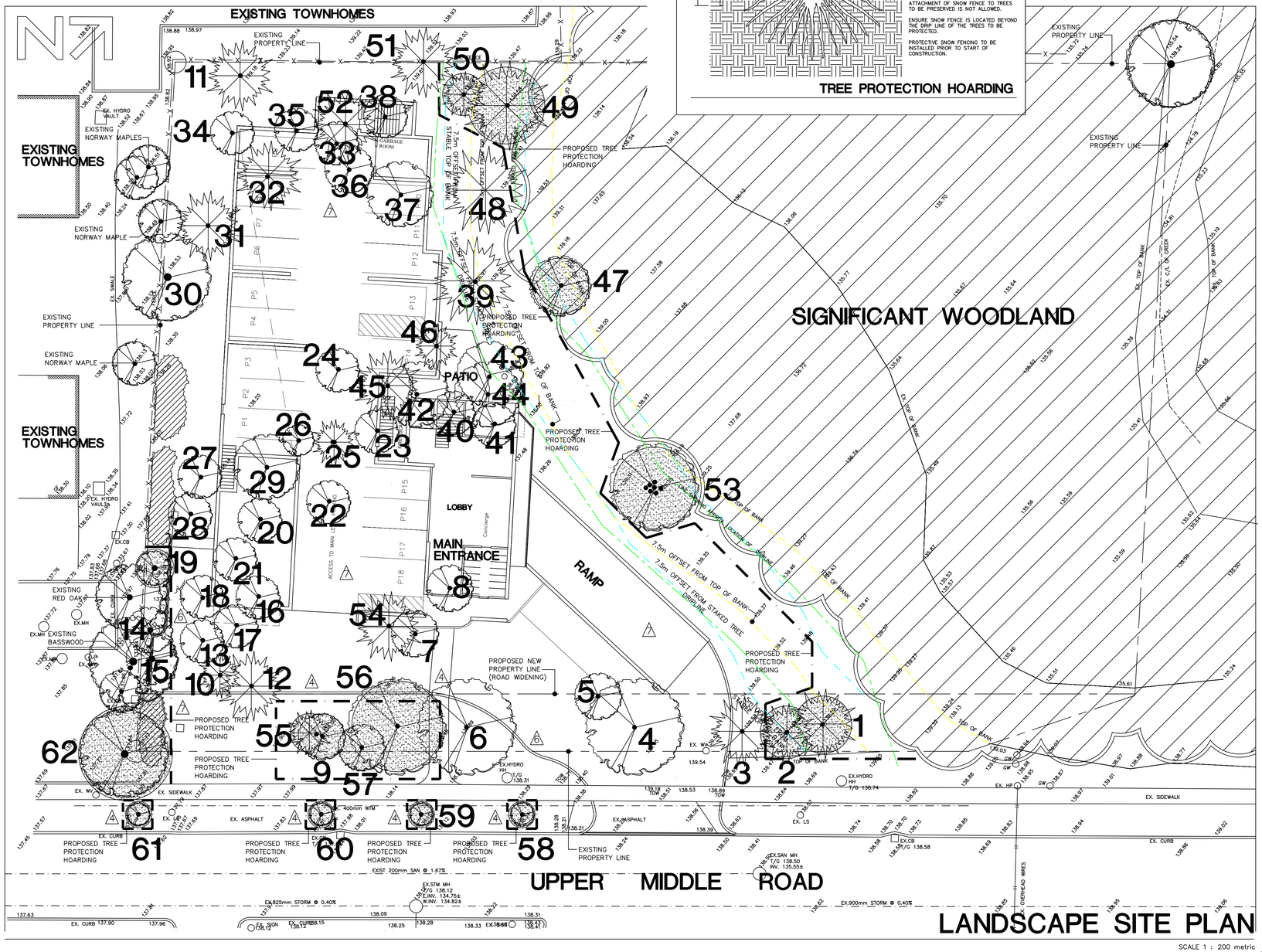
QUALITY ------- THE PRESENT CONDITION OF THE TREE, BIOLOGICAL CONDITION AND PHYSICAL APPEARANCE
- * GOOD: DEAD BRANCHES LESS THAN 10% SIGNS OF GOOD COMPARTMENTALIZATION ON ANY WOUNDS, NO STRUCTURAL DEFECTS.
- * FAIR: 10–30% DEAD BRANCHES, SIZE OR OCCURRENCE OF WOUNDS PRESENT SOME CONCERNS, MINOR STUCTURAL DEFECTS
- * POOR: MORE THAN 30% DEAD BRANCHES, WEAK COMPARTMENTALIZATION, EARLY LEAF DROP, PRESENCE OF INSECTS OR DISEASE, MAJOR STRUCTURAL DEFECTS
- * DEAD: TREE SHOWS NO SIGNS OF LIFE OR ALREADY REMOVED.

SURVIVABILITY -- ACCORDING TO THE SPECIES, ITS ABILITY TO SURVIVE THE PROPOSED SITE DEVELOPMENT RANKED H– HIGH (MOST TOLERANT), M– MEDIUM (PARTLY TOLERANT), L–LOW (VERY SENSITIVE).

RATING ------- RATING IN ORDER OF DECREASING PRIORITIES, WHICH TREE SHOULD BE GIVEN PRESERVATION PRIORITY OR WHICH TREES ARE LOCATED WITHIN THE PROPOSED SITE CONSTRUCTION AND

REMOVAL RATIONALE
- * (1.) GRADING: GRADING OR BUILDING CONFLICT WITH TREE, REQUIRES REMOVAL
- * (2.) SERVICING: SITE SERVICING CONFLICT WITH TREE, REQUIRES REMOVAL
- * (3.) DEAD: TREE DEADOR VERY POOR, HAZARD TO HEALTH OR PROPERTY, REMOVE.
- * (4.) SAFETY: DAYLIGHT TRIANGLE VISIBILITY CONFLICT WITH TREE, REQUIRES REMOVAL
- * (5.) ESA: ESA CONFLICT WITH TREE SPECIES, REQUIRES REMOVAL

TREE OWNERSHIP
- * (P.) TREE ON PRIVATE LANDS
- * (M.) TREE ON MUNICIPAL LANDS



LANDSCAPE SITE PLAN

SCALE 1 : 200 metric

no	revision	date	by
7	GENERAL REVISIONS AS PER CHANGES TO ARCH. + ENG. SITE PLANS + FINAL MUNICIPAL COMMENTS	04/29/20	RDR
6	GENERAL REVISIONS AS PER MUNICIPAL COMMENTS	01/09/20	RDR
5	ISSUED FOR MUNICIPAL REVIEW	08/31/19	RDR
4	GENERAL REVISIONS AS PER MUNICIPAL COMMENTS/CONCERNS	04/26/19	RDR
3	ISSUED FOR MUNICIPAL REVIEW	12/13/18	RDR
2	GENERAL REVISIONS AS PER MUNICIPAL COMMENTS/CONCERNS	09/17/18	RDR
1	ISSUED FOR CLIENT REVIEW (PRELIMINARY INVENTORY PLAN)	09/10/18	RDR

client
100 HAMILTON LTD.

designer
Think Giraffe ENVIRONMENTAL DESIGN

engineer
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surveyor
GUIDO V. CONSOLI

ecologist / horticulturalist
DEAN FITZGERALD

reviewed by
R. REYNOLDS

drawn by
R.D.R.

date
AUGUST 2018

scale 1: 200 metric

4 0 4 8 12

drawing title
TREE INVENTORY + PRESERVATION PLAN

drawing number
L.1

project title
PROPOSED **RESIDENTIAL BUILDING**
4063 UPPER MIDDLE ROAD, BURLINGTON, ONTARIO.

project number
01705

ASSOCIATION OF LANDSCAPE ARCHITECTS ONTARIO — ROBERT DAWSON PERKINS — OALA — MEMBER

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