SWM POND MASTER PLANT LIST

PROJECT NAME:
DIXIE ROAD SOUTH (ABAL 3416)

In the event of a discrepancy between the planting plan and the plant list quantities, the planting plan shall govern.

KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	CALIPER	HEIGHT	SPREAD	ROOT	REMARKS	SPACING
		DECIDUOUS TREES							
A	7	ACER RUBRUM	RED MAPLE	45mm	3000mm	1200mm	W.B.	EQUAL FORM	- - - -
AI	3	ACER RUBRUM	RED MAPLE	- - - -	1750mm	- - - -	15 gal. POT	- - - -	- - - -
B	5	ACER SACCHARINUM	SILVER MAPLE	60mm	3500mm	1500mm	W.B.	EQUAL FORM	- - - -
BI	9	ACER SACCHARINUM	SILVER MAPLE	- - - -	1750mm	- - - -	15 gal. POT	- - - -	- - - -
C	5	CARYA OVATA	SHAGBARK HICKORY	60mm	3500mm	1500mm	W.B.	EQUAL FORM	- - - -
CI	17	CARYA OVATA	SHAGBARK HICKORY	- - - -	1750mm	- - - -	15 gal. POT	- - - -	- - - -
D	2	POPULUS BALSAMIFERA	BALSAM POPLAR	45mm	2000mm	1200mm	W.B.	EQUAL FORM	- - - -
DI	26	POPULUS BALSAMIFERA	BALSAM POPLAR	- - - -	2000mm	- - - -	15 gal. POT	- - - -	- - - -
E	4	QUERCUS BICOLOR	SWAMP WHITE OAK	50mm	3000mm	1200mm	W.B.	EQUAL FORM	- - - -
EI	8	QUERCUS BICOLOR	SWAMP WHITE OAK	- - - -	1500mm	- - - -	15 gal. POT	- - - -	- - - -
F	3	QUERCUS MACROCARPA	BUR OAK	45mm	3000mm	1200mm	W.B.	EQUAL FORM	- - - -
FI	7	QUERCUS MACROCARPA	BUR OAK	- - - -	1750mm	- - - -	15 gal. POT	- - - -	- - - -
G	8	QUERCUS RUBRUM	RED OAK	50mm	3000mm	1500mm	W.B.	EQUAL FORM	- - - -
H	3	SALIX NIGRA	BLACK WILLOW	40mm	2000mm	1200mm	W.B.	EQUAL FORM	- - - -
HI	6	SALIX NIGRA	BLACK WILLOW	- - - -	1500mm	- - - -	1 gal. POT	- - - -	- - - -
K	11	QUERCUS BICOLOR	AMERICAN ELM	50mm	3500mm	1500mm	W.B.	EQUAL FORM	- - - -
		CONIFEROUS TREES							
M	36	PICEA GLAUCA	WHITE SPRUCE	- - - -	2000mm	- - - -	W.B.	SPECIMEN	- - - -
N	20	PINUS STROBUS	EASTERN WHITE PINE	- - - -	2000mm	- - - -	W.B.	SPECIMEN	
P	50	THUJA OCCIDENTALIS	WHITE CEDAR	- - - -	1750mm	- - - -	F. POT	SPECIMEN	- - - -
		DECIDUOUS SHRUBS							
aa	120	AMELANCHIER LAEVIS	SMOOTH SERVICEBERRY	- - - -	1500mm	- - - -	7 gal. POT	MULTI-STEM	1500mm
bb	90	CORNUS RACEMOSA	GRAY DOGWOOD	- - - -	500mm	- - - -	3 gal. POT	MIN. 10 STEMS	1000mm
cc	245	CORNUS SERICEA	RED OSIER DOGWOOD	- - - -	600mm	- - - -	3 gal. POT	MIN. 10 STEMS	1000mm
dd	330	DIERVILLA LONICERA	BUSH HONEYSUCKLE	- - - -	400mm	- - - -	3 gal. POT	MIN. 10 STEMS	1000mm
ee	105	RHUS TYPHINA	STAGHORN SUMAC	- - - -	500mm	- - - -	3 gal. POT	- - - -	1000mm
ff	360	ROSA BLANDA	MEADOW ROSE	- - - -	500mm	- - - -	2 gal. POT	MIN. 10 STEMS	1000mm
gg	235	SAMBUCUS CANADENSIS	COMMON ELDERBERRY	- - - -	300mm	- - - -	1 gal. POT	MIN. 10 STEMS	1000mm
hh	255	PHYSOCARPUS OPULIFOLIUS	COMMON NINEBARK	- - - -	500mm	- - - -	3 gal. POT	MIN. 10 STEMS	1000mm
jj	220	SALIX DISCOLOR	PUSSY WILLOW	- - - -	600mm	- - - -	3 gal. POT	MIN. 10 STEMS	1000mm

NATURALIZATION SEEDING

LOCATION OF SEED TYPES ARE NOTED ON PLAN

SEED WITH THE FOLLOWING SEED MIXTURES AS SUPPLIED BY ONTARIO SEED COMPANY (1-800-465-5849) OR APPROVED EQUAL

TYPE 1

UPLAND:

CUSTOM UPLAND MIX

CANADIAN WILD RYE (*Elymus canadensis*)	15%
BOTTLEBRUSH GRASS (*Elmus hystrix*)	25%
VIRGINIA WILD RYE (*Elymus virgibicus*)	15%
FOX SEDGE (*Carex vulpinoidea*)	15%
COMMON MILKWEED (*Asclepias syriaca*)	5%
WILD BERGAMOT (*Monadarda fistulosa*)	5%
NEW ENGLAND ASTER (*Aster novae-anglais*)	5%
EARLY GOLDENROD (*Solidago juncea*)	5%
BROWN EYED SUSAN (*Rudbeckia triloba*)	5%
EVENING PRIMROSE (*Oenothera biennis*)	5%

SEED RATE: 22-25 kg/ha

NURSE CROP

ANNUAL RYE GRASS *(Lolium multiflorum)*
SEED RATE: 28kg/ha

TYPE 3

WETLAND

OSC # 8175 - FACW WETLAND MIXTURE

BEBB'S SEDGE (*Carex bebbii*)	1%
BLUE LOBELIA (Lobelia siphilitica)	1%
BLUE VERVAIN (Verbena hastata)	4%
BLUNT BROOM SEDGE (*Carex scoparia*)	1%
BONSET (*Eupatorium perfoliatum*)	1%
FOX SEDGE (*Carex vulpinoidea*)	25%
GREEN BULRUSH (Scipus atrovirens)	8%
HEATH ASTER (Aster pilosus)	1%
LURID SEDGE (*Carex lurida*)	10%
NEW ENGLAND ASTER (Aster novae-anglaie)	1%
PURPLE STEMMED ASTER (*Aster puniceus*)	1%
SOFT RUSH (*Juncus effusus*)	1%
SPOTTED JOE PYE WEED (*Eupatorium maculatum*)	1%
SQUARE STEMMED MONKEY FLOWER (*Mimulus ringens*)	1%
SWAMP MILKWEED (*Asclepias incarnata*)	1%
TALL MANNA GRASS (Glyceria grandis)	1%
VIRGINIA WILD RYE (*Elymus virginicus*)	40%
WOOLGRASS (*Scirpus cyperinus*)	1%

SEED RATE: 22-25 kg/ha

NURSE CROP

ANNUAL RYE GRASS *(Lolium multiflorum)*
SEED RATE: 28kg/ha

AQUATIC PLANTINGS IN THE SWM POND

		FOREBAY										SWM POND WET CELL																						TOTAL QTY.	SIZE	SPACING
ZONE	SPECIES	AREA:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32			
ZONE 1 - SUBMERGED SPECIES PLANTED IN WATER DEPTHS AS SHOWN																																					
	COMMON FLOATING PONDWEED (Potamogeton natans)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	25	25	20	25	25	25	20	25	25	25	20	285	PLUG	400mm
	AMERICAN WATER-LILY (Nymphea odorata)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	25	20	25	25	25	20	25	25	25	20	25	285	PLUG	400mm
	CANADA WATERWEED (Elodea canadensis)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	20	25	25	25	20	25	25	25	20	25	25	285	PLUG	400mm
	COMMON HORNWORT (Ceratophyllum demersum)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	25	25	25	20	25	25	25	20	25	25	25	285	PLUG	400mm
	ANNUAL WATER-STARWORT (Callitriche hermaphroditica)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	20	20	20	20	20	20	20	20	20	20	20	240	PLUG	400mm
ZONE 2 - INTERIM VEGETATION PLANTED IN WATER DEPTHS AS SHOWN																																					
(Robust)	COMMON CATTAIL (Typha latifolia)		60	55	60	55	60	55	60	55	60	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	575	PLUG	400mm
ZONE 2 - EMERGENT SPECIES PLANTED IN WATER DEPTHS OF LESS THAN 0.5m																																					
(Robust)	AMERICAN GREAT BULRUSH (Schoenoplectus tabernaemontani)		-	-	-	-	-	-	-	-	-	-	20	15	15	15	15	20	15	15	15	15	-	-	-	-	-	-	-	-	-	-	-	-	160	PLUG	400mm
(Broad)	BROAD-LEAVED ARROWHEAD (Sagittaria latifolia)		-	-	-	-	-	-	-	-	-	-	15	20	15	15	15	15	20	15	15	15	-	-	-	-	-	-	-	-	-	-	-	-	160	PLUG	400mm
(Broad)	NORTHERN WATER-PLANTAIN (Alisma triviale)		-	-	-	-	-	-	-	-	-	-	15	15	20	15	15	15	15	20	15	15	-	-	-	-	-	-	-	-	-	-	-	-	160	PLUG	400mm
(Narrow leaved)	NUTTALL'S BUR-REED (Sparganium americanum)		-	-	-	-	-	-	-	-	-	-	15	15	15	20	15	15	15	15	20	15	-	-	-	-	-	-	-	-	-	-	-	-	160	PLUG	400mm
(Narrow leaved)	BEAKED SEDGE (Carex utriculata)		-	-	-	-	-	-	-	-	-	-	15	15	15	15	20	15	15	15	15	20	-	-	-	-	-	-	-	-	-	-	-	-	160	PLUG	400mm
	TOTAL PLUGS PER AREA:		60	55	60	55	60	55	60	55	60	55	80	80	80	80	80	80	80	80	80	80	115	115	115	115	115	115	115	115	115	115	115	115	2755		

SPECIFICATIONS continued from previous panel

G. INTERIM ACCEPTANCE

i) One year after Preliminary Acceptance is granted by the Town, the Consulting Landscape Architect shall submit a Certificate of Completion for Interim Acceptance to the Town of Caledon certifying that all maintenance requirements as outlined in Section G and in accordance with the approved plans have been completed.

iii) Upon the receipt of the Certification of Completion, Town Staff will conduct an interim inspection of the site and, provided the works are in satisfactory condition, will grant Interim Acceptance of the landscaping.

H. GUARANTEE

i) All naturalized landscaping shall carry a guarantee/maintenance of **THREE** (3) years, commencing from the date that preliminary acceptance is granted by the Municipality. The Owner shall provide the Municipality with a copy of the maintenance agreement between the Owner and the Contractor. In each of the next three summers, the consulting Landscape Architect shall conduct an inspection and prepare a report, recommending the replacements and/or works needed to achieve the intent of the approved landscape plan. The Landscape Architect shall file a copy of the report with the Municipality. Replacement plant material shall be guaranteed for a period of time determined by the Municipality.

I. MAINTENANCE

i) The maintenance of all landscape installations throughout the guarantee period shall include but not be limited to the following:

1) applying appropriate fertilizer to promote growth,
2) pruning dead or diseased tissue,
3) removing dead plant material,
4) replacing dead coniferous naturalization species to maintain a minimum live-stocking standard of 90%,
5) replacing dead deciduous and shrub naturalization species to maintain a minimum live-stocking standard of 90%, and
6) suppressing weed growth around newly planted trees and shrubs by adding more mulch and/or removing weeds by hand, *not* by cutting the weeds down with power trimmers.

J. CERTIFICATE OF ASSUMPTION

i) At the end of the guarantee period, the Contractor shall remove all tree stakes, rodent guards, and bark wrap, and shall add extra mulch where necessary. Additional items my be included as directed by the municipality.

ii) When these final tasks have been completed, and all items as outlined in the Development Standards have been submitted, all landscape work will be inspected by the Municipality. If satisfied that all work has been completed in accordance with the approved landscape plans, the Municipality will issue a Certificate of Assumption and release any outstanding funds.

end of specifications

K. ADDITIONAL NOTES

Refer to the most recent version of the Development Standards for any additional requirement and submission items.

TOWN OF CALEDON					APR'D: C.C.	DATE: JUNE 08
NATURALIZATION SPECIFICATIONS STANDARD NOTES PART 3	2	STANDARD No. 717 NOW 706		JAN 18	DRAWN: abal	SCALE: NTS
	1	STANDARD No. 1175.03 NOW 717		JUNE 08		
	NO.	REVISION	APR'D	DATE	STANDARD No. 706	

SPECIFICATIONS *

A. GENERAL

i) Upland and flood fringe plantings are generally stable and should not need much maintenance or re-establishment. Shoreline fringe areas are harder to establish because of frequent wetting and drying. It is expected that this vegetation might require some re-establishment during the Contractor's three-year maintenance period. Therefore, the Contractor should include a contingency for the re-establishment of aquatic plantings and some shoreline fringe plantings during the maintenance period.

ii) Planting methods can be separated into three main categories, based on three principal habitat zones in the pond system: (1) uplands and flood fringe, (2) shoreline fringe, and (3) shallow and deep water.

B. UPLAND / FLOOD FRINGE

i) Planting shall include ground cover (grasses and herbs) and woody shrubs and trees.

ii) If possible, planting shall be done in the spring, after water levels have stabilized.

iii) **Ground cover** shall be installed either by hydroseeding or by using a custom seed mix in a nutrient-rich medium impregnated in a geojute, biodegradable blanket.

iv) **Shrubs and trees** shall be planted manually, as per the applicable details. If geojute is used, openings in the material shall be made for each plant.

C. SHORELINE FRINGE

i) Shoreline fringe plantings shall be carried out in mid-May to early June, after water levels have stabilized. Geojute mat shall be used for seed mixture protection (and the protection of a soil nutrient medium, if required) in this zone of water level fluctuation. Shrubs and trees shall be planted through openings cut in the mat.

D. SHALLOW WATER (<0.5m) & DEEP WATER (>0.5m)

i) *Shallow water* (<0.5m) shall be planted with emergent plants where the water is less than 0.3m deep, and with a mix of emergent and submergent vegetation in depths between 0.3m and 0.5m. The Contractor should note that the establishment of plantings in this zone will likely require special work and monitoring, both in the short and long term. *Deep water* (>0.5m) shall be planted solely with submergent vegetation.

ii) **Emergent vegetation** shall be planted by hand. Plants shall consist of young shoots (sprigs and/or plugs), and shall be at least 10cm tall. Planting shall be done in late May to early June.

iii) **Submerged, rooted plants** (including pondweeds) shall, if planted in late spring to early summer, be planted as mature vegetation. Plantings in early spring (or fall) shall be vegetative propagules (such as turions or rhizome plugs), which can germinate in the spring or overwinter and begin growing the following spring.

iv) **Water lilies** shall be planted either directly into the substrate or pre-planted in biodegradable pots and then installed in the substrate.

v) **Coontail** is a floating macrophyte that can be put in the pond at any time in the growing season.

E. WARRANTY

i) Refer to Standard No. 705 and 706 for Warranty Requirements

* These specifications are an adaptation of recommendations found in *Stormwater Management Planning and Design Manual, MOE, 2003)*

TOWN OF CALEDON					APR'D: C.C.	DATE: JUNE 08
STORMWATER MANAGEMENT FACILITY PLANTING SPECIFICATIONS STANDARD NOTES	2	STANDARD No.718 NOW 707		JAN 18	DRAWN: abal	SCALE: NTS
	1	STANDARD No. 1177.01 NOW 718		JUNE 08		
	NO.	REVISION	APR'D	DATE	STANDARD No. 707	

SWM POND PLANTING CALCULATIONS:

AREA OF POND BLOCK: 41,046 m2
NON-PLANTABLE AREA (road, rip rap, areas below permanent water level): 25,671 m2
TOTAL PLANTABLE AREA FOR TREES & SHRUBS: 15,375 m2

TOTAL PLANTABLE AREA	COVERAGE		TREES / SHRUBS PROVIDED	CALCULATION	AREA OF COVERAGE (m2)
15,375 m2	50% → COVERAGE	7687.5 m2	TOTAL TREES (5m O.C.): 230 TOTAL SHRUBS (1m O.C.): 1,960	230 X (25/m2) 1,960 X (1/m2)	5,750 1,960 7,710 m2 (PROVIDED COVERAGE)

SPECIFICATIONS

A. GENERAL

i) These Specifications are to be read in conjunction with the General Conditions of the contract, as prepared by and available at the offices of _____ .

ii) Prior to commencing work, the Contractor shall:
1. Become familiar with the plans, details, and specifications of this project,
2. Visit the site to ascertain and take account of existing conditions and any deviations from the plans in work by others, and
3. Finalize all design alternatives in consultation with the Consulting Landscape Architect.

iii) Prior to excavating, the Contractor shall verify the location of all underground utilities. In the event of a conflict between a proposed tree location and an underground service, the exact location of the tree shall be determined on site by the Consulting Landscape Architect and/or the Town's representative.

iv) The Contractor shall, at his or her own expense, repair any damage to existing utilities, structures, facilities, etc. done in the performance of his work.

v) All site work shall conform to the *Canadian National Master Construction Specifications*, a copy of which can be obtained from Construction Specifications Canada, 31 Adelaide Street East P.O Box 36, Toronto M5C 2H8; Tel: 1-844-427-2867; Email: admin@csctoronto.ca. It is the responsibility of the Contractor to be thoroughly familiar with these specifications and their implications for this project.

B. PLANT MATERIAL

i) All plants shall be installed true to specified names, sizes, grades, etc., and shall conform to the standards of the Canadian Nursery Landscapes Association.

ii) All plants shall be nursery grown and sourced from a hardiness zone appropriate to site conditions, as published by Agriculture Canada, titled 'Map of Plant Hardiness Zones in Canada'.

iii) In the event of a discrepancy in plant quantity between the Planting Plan and the Plant List, the Planting Plan shall govern.

iv) The Contractor shall make plants available for inspection by the Consulting Landscape Architect and/or the Town's representative prior to shipping to the site. This does not limit the right of the Consulting Landscape Architect and/or the Town's representative to later reject plant material that is of poor quality, damaged during shipping or installation, performing poorly while the guarantee period is still in effect, or otherwise does not conform to the specifications.

v) Plant substitutions must be approved in writing by the Town and the Consulting Landscape Architect prior to delivery of the material to the site. All substitutions shall be recorded on the as-recorded drawings and planting chart.

vi) The Contractor shall use standard industry methods for planting trees and shrubs. Trees shall be turned to give the best appearance if adjacent to streets or pathways. They shall also be guyed or staked immediately after planting and as detailed on the drawings.

specifications continued on next panel . . .

TOWN OF CALEDON					APR'D: C.C.	DATE: JUNE 08
NATURALIZATION SPECIFICATIONS STANDARD NOTES PART 1	2	STANDARD No. 715 NOW 704		JUNE 18	DRAWN: abal	SCALE: NTS
	1	NOTES EDIT, STANDARD No. 1175.01 NOW 715		JUNE 08		
	NO.	REVISION	APR'D	DATE	STANDARD No. 704	

SPECIFICATIONS continued from previous panel

C. BED PREPARATION

i) The Contractor shall scarify the sides and bottom of excavated tree pits and shrub beds prior to backfilling. Due to the heavy clay soil in the Bolton area, tree and planting beds shall be backfilled to the specified depths with:

2 Parts "triple mix," delivered to the site, to be well-mixed with . . .
1 Part local topsoil (viz., subdivision topsoil that has been removed and stockpiled.) If topsoil is unavailable, topsoil with clay content shall be imported and mixed with triple mix.

ii) Tree pits shall be constructed with saucers and mulch as detailed.

D. TOPSOIL AND FINE GRADING

i) The Contractor shall place 100mm of rich topsoil on approved subgrades. Topsoil shall be imported when insufficient amounts are available on site.

ii) Minor grade deficiencies and irregularities shall be eliminated prior to seeding.

E. HYDROSEEDING

i) The Contractor shall apply 2280 kg/ha fibre mulch over the newly seeded area to form a uniform, blotter-like ground cover that allows the absorption and percolation of water.

ii) The area seeded in a single day shall not exceed the area that can be mulched that same day.

iii) The Contractor shall apply the specified seed mixture using accepted industry methods for hydroseeding and at rates recommended by the seed supplier. The type and rate of fertilizer application shall be as recommended in the topsoil test report for the particular area being seeded.

F. PRELIMINARY ACCEPTANCE

i) When landscaping is completed, the Consulting Landscape Architect shall submit a Certificate of Completion for Preliminary Acceptance to the Town of Caledon certifying that all landscape works have been completed in accordance with the approved plans.

ii) Upon receipt of the Certificate of Completion, the Town Staff will conduct a preliminary inspection of the site and, provided that the works are in satisfactory condition, will grant preliminary acceptance of the landscaping.

specifications continued on next panel . . .

TOWN OF CALEDON					APR'D: C.C.	DATE: JUNE 08
NATURALIZATION SPECIFICATIONS STANDARD NOTES PART 2	2	STANDARD No. 716 NOW 705		APR 19	DRAWN: abal	SCALE: NTS
	1	STANDARD No. 1175.02 NOW 716		JUNE 08		
	NO.	REVISION	APR'D	DATE	STANDARD No. 705	

no.	date	version	by
V1.	MAR 11 2021	ISSUED FOR FIRST SUBMISSION	KM

ASSOCIATION OF LANDSCAPE ARCHITECTS ONTARIO
LESLIE KHLA
OALA MEMBER

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project
PROPOSED INDUSTRIAL DEVELOPMENT
12035 DIXIE ROAD
CALEDON, ONTARIO

TRIBAL PARTNERS CANADA INC.

drawing
MASTER PLANT LIST & LANDSCAPE SPECIFICATIONS

date: MARCH 9 , 2021	drawn: KM
scale*: AS SHOWN	file: 3416PD-5 V1-210311
direction	project no.: 3416
	sheet no.: PD-5

*NOTED SCALE IS APPLICABLE ONLY WHEN PRINTED ON ARCH D (24"x36") SIZE SHEET