

BUFFER PLANTING CONCEPT

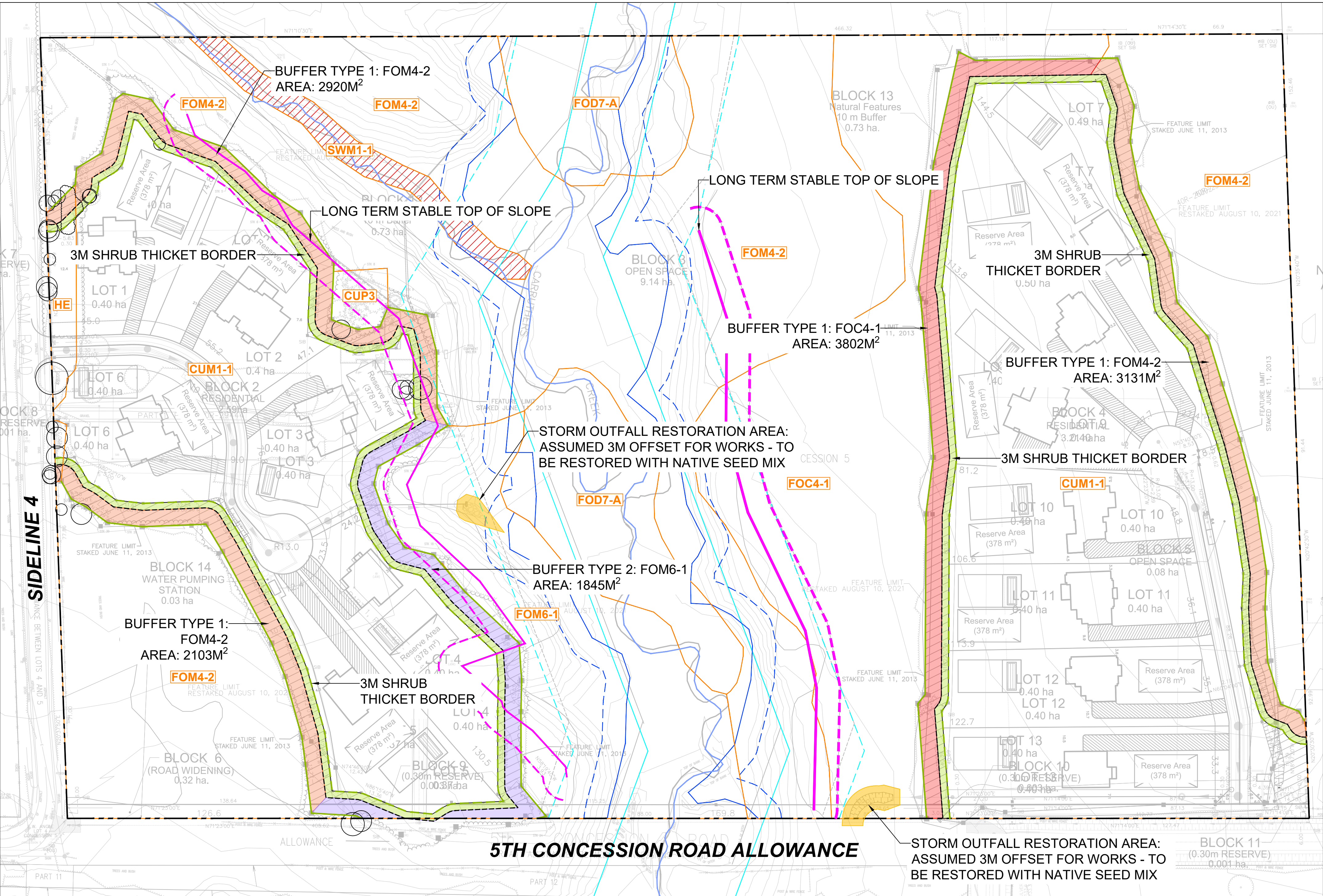
This buffer planting concept is designed to mimic a naturally vegetated and tapered successional woodland edge that helps shelter and protect the adjacent woodland interior. The outer 3m perimeter of the buffers will be densely planted with a selection of hardy native thicket forming shrubs. The primary purpose of this perimeter shrub thicket planting is to create a dense vegetation barrier that discourages encroachment and access into the adjacent natural feature. The design intent is to provide for 55% total initial coverage within the outer shrub thicket of the buffer zones, with the long term expectation of 100% coverage as plantings mature and spread. The inner 7m buffer interior shall be densely planted with a range of both native trees and shrubs. Shrubs will be specified in quantities to provide 30% initial coverage, planted in nodal groupings of 10-15 specimens spaced 1.25m on centre, with nodes spaced +/-3-4 m apart. Trees shall be spaced 4m apart (on average) in spaces between shrub nodes, specified in quantities to provide 75% coverage. Trees and shrubs will provide 105% total combined coverage within the buffer interiors.

As depicted on the concept, three different buffer planting compositions are proposed, with species selections generally modelled on the 3 different Ecological Land Classifications (ELCs) that interface with the buffers, as depicted in the Beacon Environmental Impact Study (September, 2023).

Tree selections include both the dominant and associated species cited in EIS, excluding difficult to transplant or diseased species such as Hemlock (*Tsuga canadensis*), White Ash (*Fraxinus americana*) and American Beech (*Fagus grandifolia*). A limited selection of tree species native to southern Ontario is also specified to diversify the plantings. The proposed tree species selections are outlined below for each buffer planting type. Trees shall be specified as either 100-125cm/2-3 Gal seedlings or 150-200cm/7-10 Gal whips, planted 4m apart in open spaces between shrub groupings.

Shrub selections are also loosely based on species cited in the Beacon EIS. However, the vegetation survey found only a very limited number of native shrub species, likely due to the type, maturity and sparse understory of the woodland communities. Consequently, a broader palette of shrub species composed of hardy early succession species is proposed and will be applied to all buffers, including the following: Canadian Serviceberry (*Amelanchier canadensis*); Smooth Serviceberry (*Amelanchier laevis*); Pagoda dogwood (*Cornus alternifolia*); Grey Dogwood (*Cornus racemosa*); Redosier Dogwood (*Cornus sericea*); Witchhazel (*Hamamelis virginiana*); Fly Honeysuckle (*Lonicera canadensis*); Chokecherry (*Prunus virginiana*); Raspberry (*Rubus idaeus*); Purple Flowering Raspberry (*Rubus odoratus*); Staghorn Sumac (*Rhus typhina*); Elderberry (*Sambucus racemosa*); and Nannyberry (*Viburnum lentago*). All shrubs shall be specified as 68-80 cm/1-2 Gal CG, planted 1.25m apart in continuously mulched planting beds.

The majority of plantings will occur in cultural meadow conditions where no supplemental ground flora seeding is required. However, graded portions of the buffer will require the application of an appropriate native seed mix to stabilize disturbed ground. The concept also designates restoration zones in the vicinity of the two stormwater outfalls depicted in the site and grading plans, to be installed with directional drilling technologies. The scope of disturbance and resulting restoration requirements are subject to field verification. Restoration works, if required, may include a combination of native seed mixes, shrubs and trees to revegetate and stabilize disturbed areas around each outfall.



BUFFER TYPE 1: FOM4-2

TOTAL AREA = 8154M²

Zone 1 - Shrub Thicket Perimeter Planting (2394m²):

- Shrub Quantity:** 1 shrub per 1.56m² (6250 shrub / ha) x 55% coverage = +/- 830 shrubs

Zone 2 - Buffer Interior Planting (5760m²):

- Shrub Quantity:** 1 shrub per 1.56m² (6250 shrub / ha) x 30% coverage = +/- 1107 shrubs
- Tree Quantity:** 1 tree per 16m² (625 trees / ha) x 75% coverage = 270 trees

Tree Selections:

Primary Species (75%): White Cedar (*Thuja occidentalis*); Trembling Aspen (*Populus tremuloides*); Large Tooth Aspen (*P. grandidentata*); White Pine (*Pinus strobus*); Sugar Maple (*Acer saccharum*)

Associated Species (25%): Red Maple (*Acer rubrum*); Basswood (*Tilia americana*); White Birch (*Betula papyrifera*)

BUFFER TYPE 2: FOM6-1

TOTAL AREA = 1845m²

Zone 1 - Shrub Thicket Perimeter Planting (900m²):

- Shrub Quantity:** 1 shrub per 1.56m² (6250 shrub / ha) x 55% coverage = +/- 317 shrubs

Zone 2 - Tree and Shrub Buffer Planting (1845m²):

- Shrub Quantity:** 1 shrub per 1.56m² (6250 shrub / ha) x 30% coverage = +/- 354 shrubs
- Tree Quantity:** 1 tree per 16m² (625 trees / ha) x 75% coverage = 86 trees

Tree Selections:

Primary Species (50%): Sugar Maple (*Acer saccharum*); White Cedar (*Thuja occidentalis*);

Associated Species (30%): Ironwood (*Ostrya virginiana*); Blue Beech (*Carpinus caroliniana*); Black Cherry (*Prunus serotina*);

Additional Species 20%: White Pine (*Pinus strobus*); Trembling Aspen (*Populus tremuloides*); Red Maple (*Acer rubrum*), Basswood (*Tilia americana*); Birch (*Betula papyrifera*)

BUFFER TYPE 3: FOC4-1

TOTAL AREA = 3802m²

Zone 1 - Shrub Thicket Perimeter Planting (1222m²):

- Shrub Quantity:** 1 shrub per 1.56m² (6250 shrub / ha) x 55% coverage = +/- 430 shrubs

Zone 2 - Tree and Shrub Buffer Planting (2580m²):

- Shrub Quantity:** 1 shrub per 1.56m² (6250 shrub / ha) x 30% coverage = +/- 496 shrubs
- Tree Quantity:** 1 tree per 16m² (625 trees / ha) x 75% coverage = 120 trees

Trees Selections:

Primary Species (50%): White Cedar (*Thuja occidentalis*); Red Maple (*Acer rubrum*), Large Tooth Aspen (*P. grandidentata*);

Additional Species 50%: Trembling Aspen (*Populus tremuloides*); Basswood (*Tilia americana*); Birch (*Betula papyrifera*); Ironwood (*Ostrya virginiana*); Black Cherry (*Prunus serotina*)

PROJECT STATISTICS		
A. ESTIMATED BUFFER AREA IN M ²		
BUFFER TYPE 1: FOM4-2	8,154	
BUFFER TYPE 2: FOM6-1	3,010	
BUFFER TYPE 3: FOC4-1	3,802	
TOTAL APPROXIMATE BUFFER AREA	14,966	
B. PLANTING QUANTITIES		
BUFFER TYPE	TREES	SHRUBS
BUFFER TYPE 1: FOM4-2	270	1,937
BUFFER TYPE 2: FOM6-1	86	671
BUFFER TYPE 3: FOC4-1	120	926
TOTAL ESTIMATED PLANTINGS	476	3534

KEYMAP

LEGEND

Property Boundary

Staked Feature Limit (TRCA, Aug 2021)

Staked Feature Limit +10m

Watercourse

Meander Belt

Limit of Redside Dace Occupied Habitat (Meander Belt + 30m)

TRCA Floodline (Approximate)

TRCA Floodline + 10m

Long Term Stable Top of Slope (LTSTS)

LTSTS + 10m

Contributing Redside Dace Habitat

Ecological Community Boundary

Buffer Type 1: FOM4-2 (Area: 5760m²)

Buffer Type 2: FOM6-1 (Area: 1845m²)

Buffer Type 3: FOC4-1 (Area: 2691m²)

Storm Outfall Area (Area: 428m²)

3m Shrub Thicket Border (Area: 4516m²)

Tree to be Preserved (Refer to Arborist Report by Beacon; September 15, 2023)

Notes: Scale shown is for an 36" x 24" page. For illustrative purposes. Do not scale

REVISIONS

DATE

BY

6

5

4

3

DPS, ZBLA, AND CONDO SUBMISSION

2025/06/25

JMD

2

RE-ISSUED FOR CLIENT REVIEW

2025/05/30

JMD

1

ISSUED FOR CLIENT REVIEW

2025/05/15

JMD

SCALE

1:1000

0

10

20

50m

NORTH ARROW

ON

MINIATURE

ON

MINIATURE

BEACON ENVIRONMENTAL

MARKHAM OFFICE
80 MAIN ST NORTH
MARKHAM, ON L3P 1X5

T) 905-201-7622
F) 905-201-0639
www.beaconenviro.com

CLIENT

869547 ONTARIO INC.

PROJECT

3225 5TH CONCESSION ROAD (PART OF LOTS 3 AND 4), CITY OF PICKERING

SHEET TITLE

BUFFER PLANTING CONCEPT PLAN

DESIGN BY:

JA

PROJECT N°:

221050

DRAWN BY:

JA

FIGURE N°:

L-1

CHECKED BY:

JMD

DATE:

25 June 2025

BLOCK 13

120 TREE SEEDLINGS AND SAPLINGS TO BE PLANTED
+/- 5m OC IN SPACES BETWEEN PLANTING BEDS.
REFER TO BUFFER TYPE 3: FOC 4-1 PLANT SCHEDULE
ON SHEET L-6 FOR TREE SPECIES
0.73 ha.

LOT 7
0.49 ha

FEATURE LIMIT
STAKED JUNE 11, 2013

98 TREE SEEDLINGS AND SAPLINGS TO BE PLANTED
+/- 5m OC IN SPACES BETWEEN PLANTING BEDS.
REFER TO BUFFER TYPE 1: FOM 4-2 PLANT
SCHEDULE ON SHEET L-6 FOR TREE SPECIES

GRADED AREAS WITHIN BUFFER TO BE
TERRASEEDED WITH UPLAND SEED MIX
0.50 ha

Reserve Area
(378 m²)

Reserve Area
(378 m²)

LOT 8
0.50 ha

LOT 9
0.40 ha

Reserve Area
(378 m²)

BLOCK 4
RESIDENTIAL
3.014 ha

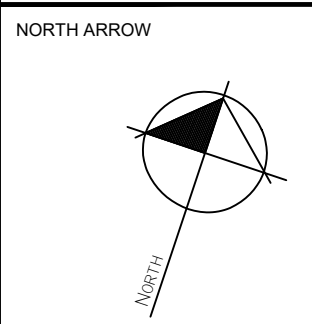
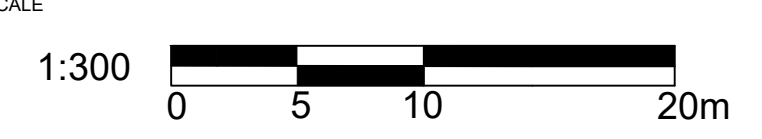
KEYMAP

LEGEND

- Property Boundary
- Staked Feature Limit (TRCA, Aug 2021)
- Staked Feature Limit +10m
- Buffer Type 1: FOM4-2 (Area: 5760m²)
- Buffer Type 3: FOC4-1 (Area: 2691m²)
- 3m Shrub Thicket Border (Area: 4516m²)
- Upland Seed Mix (Area: 1225m²) (Refer to Sheet L-6)
- Proposed Shrub Module (Refer to Sheet L-6)
- Proposed Coniferous Tree
- Proposed Deciduous Tree

Notes: Scale shown is for an 36" x 24" page.
For illustrative purposes. Do not scale.

№	REVISIONS	DATE	BY:
6			
5			
4			
3			
2	DPS, ZBLA, AND CONDO SUBMISSION	2025/06/25	JMD
1	ISSUED FOR CLIENT REVIEW	2025/05/30	JMD



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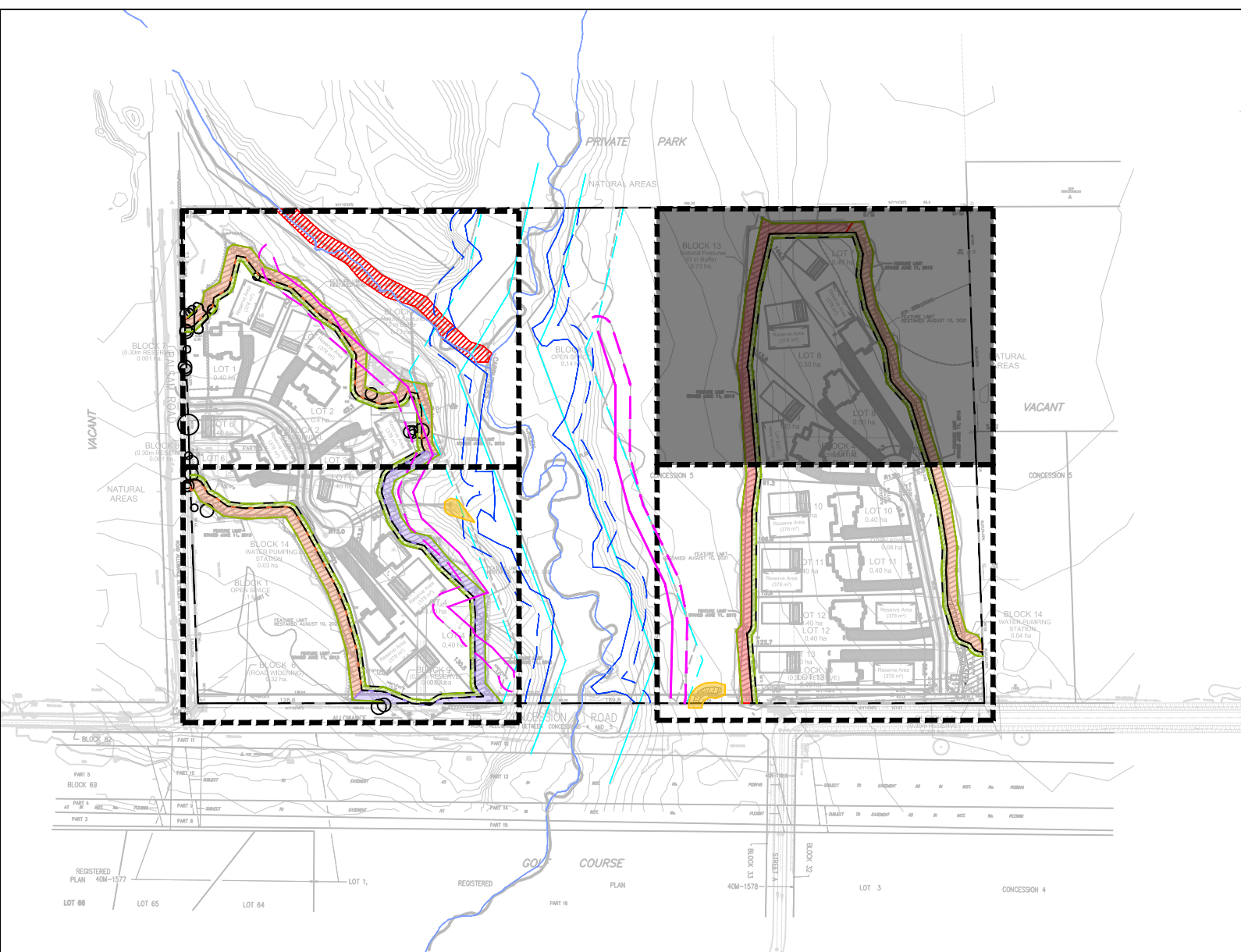
PROJECT

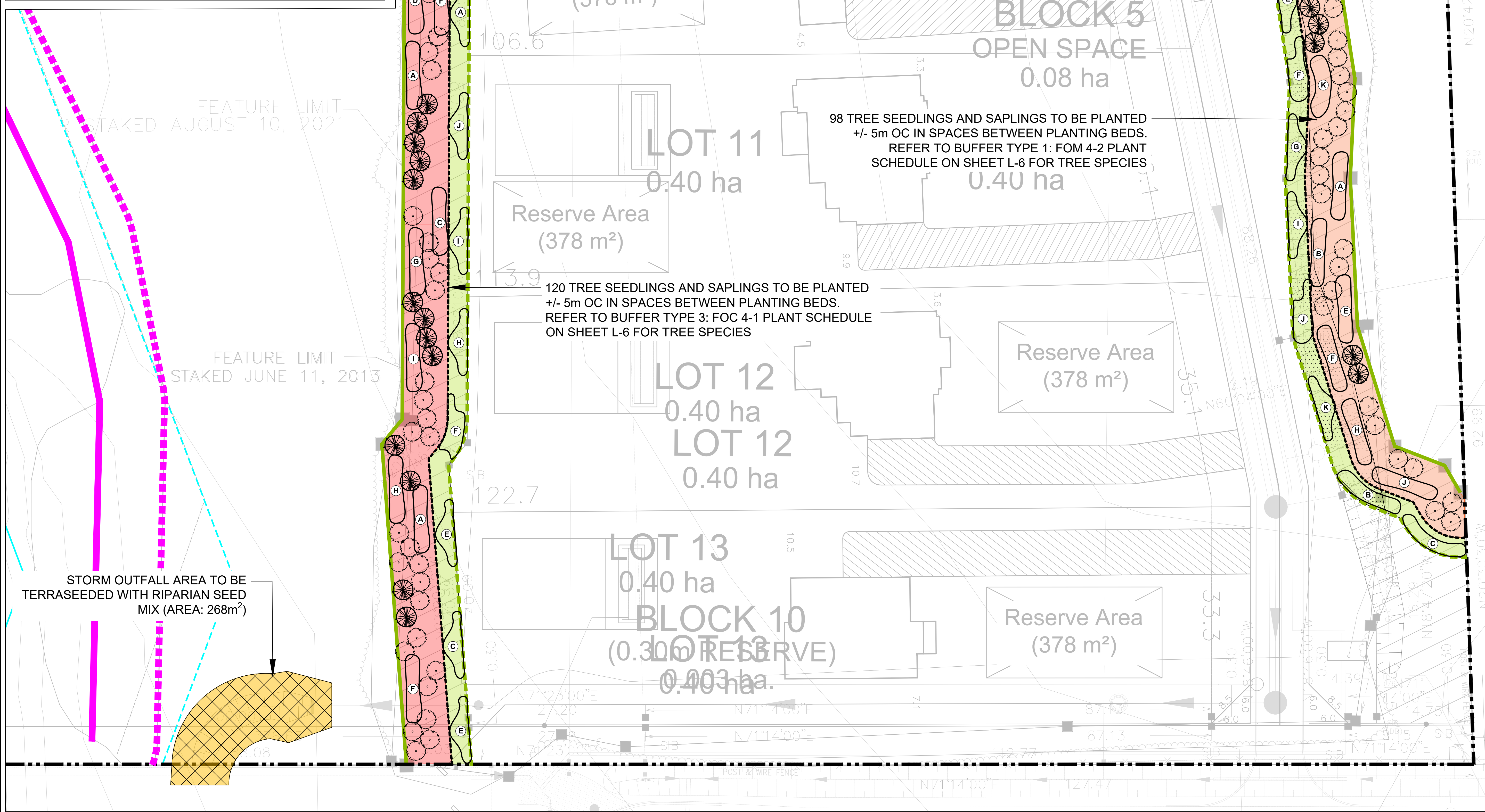
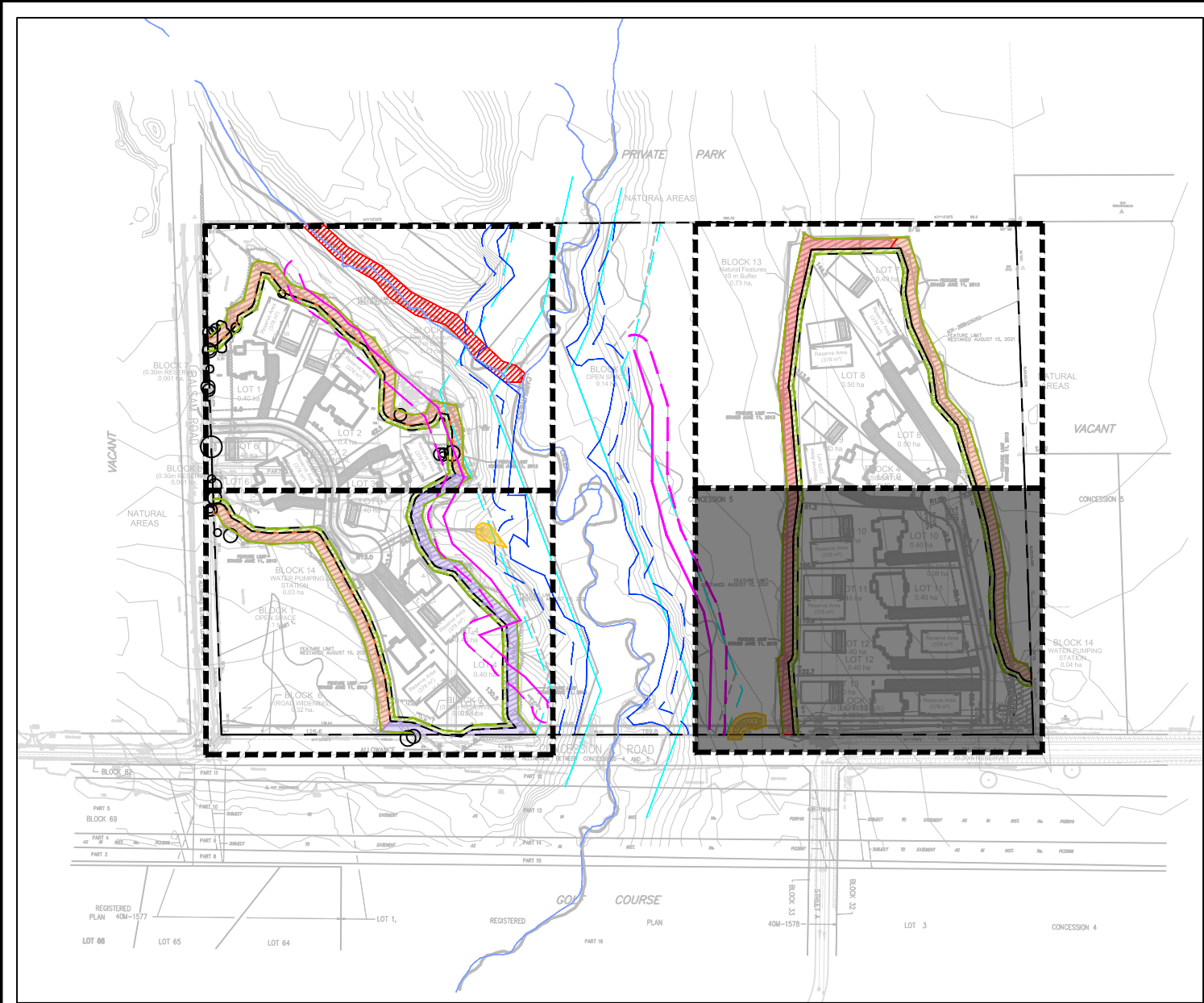
3225 5TH CONCESSION ROAD (PART OF LOTS 3 AND 4), CITY OF PICKERING

SHEET TITLE

BUFFER PLANTING PLAN

DESIGN BY:	JA	PROJECT №:	221050
DRAWN BY:	JA	FIGURE №:	L-4
CHECKED BY:	JMD		
DATE:	25 June 2025		





KEYMAP

LEGEND

--- Property Boundary

--- Staked Feature Limit (TRCA, Aug 2021)

--- Staked Feature Limit +10m

--- Long Term Stable Top of Slope (LTSTS)

--- LTSTS + 10m

Buffer Type 1: FOM4-2 (Area: 5760m²)

Buffer Type 3: FOC4-1 (Area: 2691m²)

Storm Outfall Area (Area: 428m²)

3m Shrub Thicket Border (Area: 4516m²)

Upland Seed Mix (Area: 1225m²) (Refer to Sheet L-6)

Riparian Seed Mix (Total Area: 428m²) (Refer to Sheet L-6)

Proposed Shrub Module (Refer to Sheet L-6)

Proposed Coniferous Tree

Proposed Deciduous Tree

Notes: Scale shown is for an 36" x 24" page. For illustrative purposes. Do not scale.

NO	REVISIONS	DATE	BY:
6			
5			
4			
3			
2	DPS, ZBLA, AND CONDO SUBMISSION	2025/06/25	JMD
1	ISSUED FOR CLIENT REVIEW	2025/05/30	JMD

SCALE

1:300

0 5 10 20m

NORTH ARROW

BEACON ENVIRONMENTAL

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80 MAIN ST NORTH
MARKHAM, ON L3P 1X5

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CLIENT

869547 ONTARIO INC.

PROJECT

3225 5TH CONCESSION ROAD (PART OF LOTS 3 AND 4), CITY OF PICKERING

SHEET TITLE

BUFFER PLANTING PLAN

DESIGN BY:	JA	PROJECT NO:	221050
DRAWN BY:	JA	FIGURE NO:	L-5
CHECKED BY:	JMD		
DATE:	25 June 2025		

SHRUB THICKET BORDER PLANT LIST

SHRUBS					
Al	149	<i>Amelanchier laevis</i>	Allegheny Serviceberry	80cm	2 gal 1.25m O.C.
Ca	96	<i>Cornus alternifolia</i>	Alternate-Leaved Dogwood	80cm	2 gal 1.25m O.C.
Cr	144	<i>Cornus racemosa</i>	Gray Dogwood	80cm	2 gal 1.25m O.C.
Cs	162	<i>Cornus sericea</i>	Redosier Dogwood	80cm	2 gal 1.25m O.C.
Hv	144	<i>Hamamelis virginiana</i>	American Witch-Hazel	80cm	2 gal 1.25m O.C.
Pv	126	<i>Prunus virginiana</i>	Chokecherry	80cm	2 gal 1.25m O.C.
Rt	162	<i>Rhus typhina</i>	Staghorn Sumac	80cm	2 gal 1.25m O.C.
Ra	144	<i>Rubus allegheniensis</i>	Common Blackberry	80cm	2 gal 1.25m O.C.
Ro	162	<i>Rubus odoratus</i>	Purple-flowering Raspberry	80cm	2 gal 1.25m O.C.
Vi	232	<i>Viburnum lentago</i>	Nannyberry	80cm	2 gal 1.25m O.C.
Sr	63	<i>Sambucus racemosa</i>	Red Elderberry	80cm	2 gal 1.25m O.C.
Total	1584				

SHRUB MODULE QUANTITIES

A: 8 B: 9 C: 7 D: 8 E: 9 F: 7 G: 8 H: 9 I: 8 J: 9 K: 6

FOM 4-2 PLANT LIST

SHRUBS					
Al	130	<i>Amelanchier laevis</i>	Allegheny Serviceberry	80cm	2 gal 1.25m O.C.
Ca	72	<i>Cornus alternifolia</i>	Alternate-Leaved Dogwood	80cm	2 gal 1.25m O.C.
Cr	126	<i>Cornus racemosa</i>	Gray Dogwood	80cm	2 gal 1.25m O.C.
Cs	162	<i>Cornus sericea</i>	Redosier Dogwood	80cm	2 gal 1.25m O.C.
Hv	126	<i>Hamamelis virginiana</i>	American Witch-Hazel	80cm	2 gal 1.25m O.C.
Pv	72	<i>Prunus virginiana</i>	Chokecherry	80cm	2 gal 1.25m O.C.
Rt	108	<i>Rhus typhina</i>	Staghorn Sumac	80cm	2 gal 1.25m O.C.
Ra	72	<i>Rubus allegheniensis</i>	Common Blackberry	80cm	2 gal 1.25m O.C.
Ro	72	<i>Rubus odoratus</i>	Purple-flowering Raspberry	80cm	2 gal 1.25m O.C.
Vi	134	<i>Viburnum lentago</i>	Nannyberry	80cm	2 gal 1.25m O.C.
Sr	42	<i>Sambucus racemosa</i>	Red Elderberry	80cm	2 gal 1.25m O.C.
Total	1116				

SHRUB MODULE QUANTITIES

A: 7 B: 6 C: 3 D: 4 E: 6 F: 8 G: 7 H: 4 I: 6 J: 3 K: 7

DECIDUOUS TREES						
KEY	QTY	SCIENTIFIC NAME	COMMON NAME	HEIGHT	CONDITION	SPACING
AR	17	<i>Acer rubrum</i>	Red Maple	150-200cm	7-10 gal	max. 5m O.C. - field fitted
AR1	17	<i>Acer rubrum</i>	Red Maple	100-125cm	2-3 gal	max. 5m O.C. - field fitted
AS	21	<i>Acer saccharum</i>	Sugar Maple	150-200cm	7-10 gal	max. 5m O.C. - field fitted
AS1	21	<i>Acer saccharum</i>	Sugar Maple	100-125cm	2-3 gal	max. 5m O.C. - field fitted
BP	16	<i>Betula papyrifera</i>	Paper Birch	150-200cm	7-10 gal	max. 5m O.C. - field fitted
BP1	16	<i>Betula papyrifera</i>	Paper Birch	100-125cm	2-3 gal	max. 5m O.C. - field fitted
PT	40	<i>Populus tremuloides</i>	Trembling Aspen	150-200cm	7-10 gal	max. 5m O.C. - field fitted
PG	40	<i>Populus grandidentata</i>	Large Tooth Aspen	150-200cm	7-10 gal	max. 5m O.C. - field fitted
TA	16	<i>Tilia americana</i>	Basswood	150-200cm	7-10 gal	max. 5m O.C. - field fitted
TA1	16	<i>Tilia americana</i>	Basswood	100-125cm	2-3 gal	max. 5m O.C. - field fitted
Total	220					
CONIFEROUS TREES						
PI	25	<i>Pinus strobus</i>	White Pine	100cm	BBC	max. 5m O.C. - field-fitted
TO	25	<i>Thuja occidentalis</i>	White Cedar	100cm	BBC	max. 5m O.C. - field-fitted
Total	50					

FOM 6-1 PLANT LIST

SHRUBS					
Al	38	<i>Amelanchier laevis</i>	Allegheny Serviceberry	80cm	2 gal 1.25m O.C.
Ca	24	<i>Cornus alternifolia</i>	Alternate-Leaved Dogwood	80cm	2 gal 1.25m O.C.
Cr	36	<i>Cornus racemosa</i>	Gray Dogwood	80cm	2 gal 1.25m O.C.
Cs	30	<i>Cornus sericea</i>	Redosier Dogwood	80cm	2 gal 1.25m O.C.
Hv	36	<i>Hamamelis virginiana</i>	American Witch-Hazel	80cm	2 gal 1.25m O.C.
Pv	36	<i>Prunus virginiana</i>	Chokecherry	80cm	2 gal 1.25m O.C.
Rt	36	<i>Rhus typhina</i>	Staghorn Sumac	80cm	2 gal 1.25m O.C.
Ra	36	<i>Rubus allegheniensis</i>	Common Blackberry	80cm	2 gal 1.25m O.C.
Ro	18	<i>Rubus odoratus</i>	Purple-flowering Raspberry	80cm	2 gal 1.25m O.C.
Vi	56	<i>Viburnum lentago</i>	Nannyberry	80cm	2 gal 1.25m O.C.
Sr	14	<i>Sambucus racemosa</i>	Red Elderberry	80cm	2 gal 1.25m O.C.
Total	360				

SHRUB MODULE QUANTITIES

A: 2 B: 2 C: 2 D: 2 E: 2 F: 2 G: 2 H: 1 I: 2 J: 2 K: 1

DECIDUOUS TREES						
KEY	QTY	SCIENTIFIC NAME	COMMON NAME	HEIGHT	CONDITION	SPACING
AR	3	<i>Acer rubrum</i>	Red Maple	150-200cm	7-10 gal	max. 5m O.C. - field fitted
AR1	3	<i>Acer rubrum</i>	Red Maple	100-125cm	2-3 gal	max. 5m O.C. - field fitted
AS	6	<i>Acer saccharum</i>	Sugar Maple	150-200cm	7-10 gal	max. 5m O.C. - field fitted
AS1	6	<i>Acer saccharum</i>	Sugar Maple	100-125cm	2-3 gal	max. 5m O.C. - field fitted
BP	3	<i>Betula papyrifera</i>	Paper Birch	150-200cm	7-10 gal	max. 5m O.C. - field fitted
BP1	3	<i>Betula papyrifera</i>	Paper Birch	100-125cm	2-3 gal	max. 5m O.C. - field fitted
CC	6	<i>Carpinus caroliniana</i>	Blue Beech	100-125cm	2-3 gal	max. 5m O.C. - field fitted
OV	3	<i>Ostrya virginiana</i>	Ironwood	150-200cm	7-10 gal	max. 5m O.C. - field fitted
OV1	3	<i>Ostrya virginiana</i>	Ironwood	100-125cm	2-3 gal	max. 5m O.C. - field fitted
PT	13	<i>Populus tremuloides</i>	Trembling Aspen	150-200cm	7-10 gal	max. 5m O.C. - field fitted
PG	13	<i>Populus grandidentata</i>	Large Tooth Aspen	150-200cm	7-10 gal	max. 5m O.C. - field fitted
PS	3	<i>Prunus serotina</i>	Black Cherry	150-200cm	7-10 gal	max. 5m O.C. - field fitted
PS1	3	<i>Prunus serotina</i>	Black Cherry	100-125cm	2-3 gal	max. 5m O.C. - field fitted
TA	3	<i>Tilia americana</i>	Basswood	150-200cm	7-10 gal	max. 5m O.C. - field fitted
TA1	3	<i>Tilia americana</i>	Basswood	100-125cm	2-3 gal	max. 5m O.C. - field fitted
Total	74					
CONIFEROUS TREES						
PI	4	<i>Pinus strobus</i>	White Pine	100cm	BBC	max. 5m O.C. - field-fitted
TO	8	<i>Thuja occidentalis</i>	White Cedar	100cm	BBC	max. 5m O.C. - field-fitted
Total	12					

TOTAL PLANTING QUANTITIES

BUFFER TYPE	SEEDLINGS	SAPLINGS	SHRUBS
SHRUB THICKET	0	0	1584
BUFFER TYPE 1: FOM4-2	120	150	1116
BUFFER TYPE 2: FOM6-1	39	47	360
BUFFER TYPE 3: FOC4-1	55	65	504
TOTAL PLANTINGS	214	262	3564

FOC 4-1 PLANT LIST

SHRUBS					
Al	58	<i>Amelanchier laevis</i>	Allegheny Serviceberry	80cm	2 gal 1.25m O.C.
Ca	48	<i>Cornus alternifolia</i>	Alternate-Leaved Dogwood	80cm	2 gal 1.25m O.C.
Cr	72	<i>Cornus racemosa</i>	Gray Dogwood	80cm	2 gal 1.25m O.C.
Cs	48	<i>Cornus sericea</i>	Redosier Dogwood	80cm	2 gal 1.25m O.C.
Hv	54	<i>Hamamelis virginiana</i>	American Witch-Hazel	80cm	2 gal 1.25m O.C.
Pv	36	<i>Prunus virginiana</i>	Chokecherry	80cm	2 gal 1.25m O.C.
Rt	36	<i>Rhus typhina</i>	Staghorn Sumac	80cm	2 gal 1.25m O.C.
Ra	18	<i>Rubus allegheniensis</i>	Common Blackberry	80cm	2 gal 1.25m O.C.
Ro	36	<i>Rubus odoratus</i>	Purple-flowering Raspberry	80cm	2 gal 1.25m O.C.
Vi	84	<i>Viburnum lentago</i>	Nannyberry	80cm	2 gal 1.25m O.C.
Sr	14	<i>Sambucus racemosa</i>	Red Elderberry	80cm	2 gal 1.25m O.C.
Total	504				

SHRUB MODULE QUANTITIES

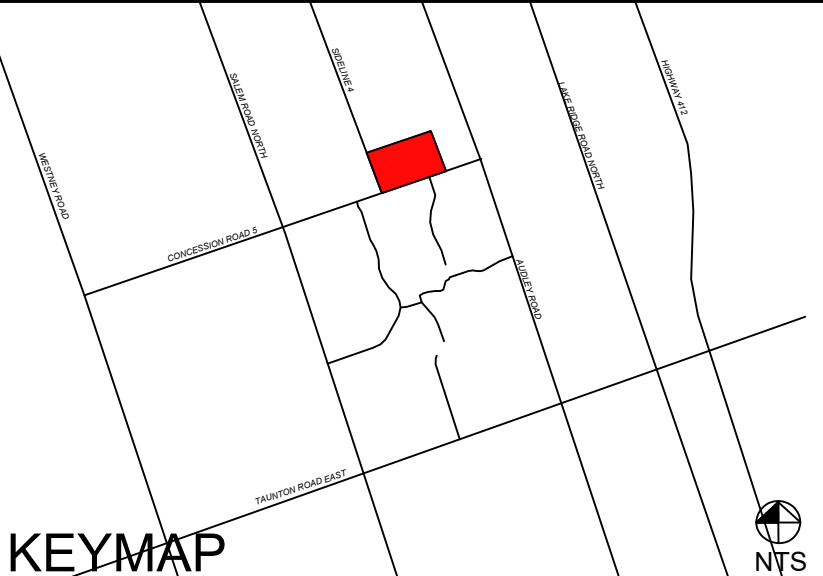
A: 4 B: 2 C: 2 D: 1 E: 2 F: 3 G: 2 H: 2 I: 4 J: 3 K: 2

DECIDUOUS TREES					
KEY	QTY	SCIENTIFIC NAME	COMMON NAME	HEIGHT	CONDITION
AR	10	<i>Acer rubrum</i>	Red Maple	150-200cm	7-10 gal
AR1	10	<i>Acer rubrum</i>	Red Maple	100-125cm	2-3 gal
AS	5	<i>Acer saccharum</i>	Sugar Maple	150-200cm	7-10 gal
AS1	5	<i>Acer saccharum</i>	Sugar Maple	100-125cm	2-3 gal
BP	4	<i>Betula papyrifera</i>	Paper Birch	150-200cm	7-10 gal
BP1	4	<i>Betula papyrifera</i>	Paper Birch	100-125cm	2-3 gal
PT	18	<i>Populus tremuloides</i>	Trembling Aspen	150-200cm	7-10 gal
PG	18	<i>Populus grandidentata</i>	Large Tooth Aspen	150-200cm	7-10 gal
PS	5	<i>Prunus serotina</i>	Black Cherry	150-200cm	7-10 gal
PS1	5	<i>Prunus serotina</i>	Black Cherry	100-125cm	2-3 gal
TA	5	<i>Tilia americana</i>	Basswood	150-200cm	7-10 gal
TA1	5	<i>Tilia americana</i>	Basswood	100-125cm	2-3 gal
Total	94				
CONIFEROUS TREES					
PI	4	<i>Pinus strobus</i>	White Pine	100cm	BBC
TO	22	<i>Thuja occidentalis</i>	White Cedar	100cm	BBC
Total	26				

UPLAND MEADOW SEED MIX			
SCIENTIFIC NAME	COMMON NAME	SEEDING RATE PLS per/10 000 sq. m)	PROPORTION OF SEED MIX(%)
FORBS			
<i>Desmodium canadense</i>	Tick-Trefoil	3.75	15
<i>Lespedeza capitata</i>	Round-Headed Bushclover	3	12
<i>Monarda fistulosa</i>	Showy Wild Bergamont	0.25	1
<i>Oenothera biennis</i>	Common Evening Primrose	0.25	1
<i>Pycnanthemum virginianum</i>	Virginia Mountain Mint	0.05	0.2
<i>Rudbeckia hirta</i>	Black-eyed Susan	0.25	1
<i>Solidago juncea</i>	Early Goldenrod	0.125	0.5
<i>Solidago nemoralis</i> ssp. <i>nemoralis</i>	Grey Goldenrod	0.075	0.3
<i>Solidago rugosa</i> ssp. <i>Rugosa</i>	Rough Goldenrod	0.125	0.3
<i>Symphiotrichum (Aster) ericoides</i>	White Heath Aster	0.125	0.5
<i>Symphiotrichum (Aster) laevis</i>	Smooth Aster	0.25	1
<i>Symphiotrichum (Aster) novae-angliae</i>	New England Aster	0.375	1.5
<i>Veberna stricta</i>	Hoary vervain	0.375	1.5
GRASSES			
<i>Andropogon gerardii</i>	Big Bluestem	2.5	10
<i>Schizachyrum scoparius</i>	Little Bluestem	1.25	5
<i>Elymus canadensis</i>	Canada Wild Rye	5	20
<i>Elymus trachycaulus</i>	Slender Wheat Grass	2.5	10
<i>Elymus hystrix</i>	Bottlebrush Grass	1.25	5
<i>Panicum virgatum</i>	Switch Grass	1	4
<i>Sorghastrum nutans</i>	Indian Grass	2.5	10
TOTAL NATIVE SPECIES		25	100
NURSE CROP SEED MIX			
SCIENTIFIC NAME	COMMON NAME	SEEDING RATE (kg PLS per/10 000 sq. m)	PROPORTION OF SEED MIX (%)
FORBS			
<i>Lolium multiflorum</i>	Annual rye grass	35	50
<i>Avena sativa</i>	Oats	35	50
TOTAL NURSE CROP		70	100

SHRUB MODULE SPECIES AND TOTALS

A	22m ² Continuously Mulched Bed 18 <i>Cornus racemosa</i> - Grey Dogwood	QTY: 24
B	22m ² Continuously Mulched Bed 5 <i>Amelanchier laevis</i> - Allegheny Serviceberry 6 <i>Cornus sericea</i> - Red-osier Dogwood 7 <i>Sambucus racemosa</i> - Red Elderberry	QTY: 19
C	22m ² Continuously Mulched Bed 18 <i>Prunus virginiana</i> - Chokecherry	QTY: 14
D	22m ² Continuously Mulched Bed 18 <i>Rubus allegheniensis</i> - Common Blackberry	QTY: 15
E	22m ² Continuously Mulched Bed 18 <i>Rhus typhina</i> - Staghorn Sumac	QTY: 19
F	22m ² Continuously Mulched Bed 8 <i>Amelanchier laevis</i> - Allegheny Serviceberry 10 <i>Viburnum lentago</i> - Nannyberry	QTY: 20
G	22m ² Continuously Mulched Bed 18 <i>Hamamelis virginana</i> - American Witch-Hazel	QTY: 19
H	22m ² Continuously Mulched Bed 18 <i>Rubus odoratus</i> - Purple Flowering Raspberry	QTY: 16
I	22m ² Continuously Mulched Bed 12 <i>Cornus alternifolia</i> - Alternate-leaved Dogwood 6 <i>Amelanchier laevis</i> - Allegheny Serviceberry	QTY: 20
J	22m ² Continuously Mulched Bed 18 <i>Viburnum lentago</i> - Nannyberry	QTY: 17
K	22m ² Continuously Mulched Bed 18 <i>Cornus sericea</i> - Red-osier Dogwood	QTY: 16



LEGEND

Notes: Scale shown is for an 36" x 24" page.
For illustrative purposes. Do not scale

Nº	REVISIONS	DATE:	BY:
6			
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2	DPS, ZBLA, AND CONDO SUBMISSION	2025/06/25	JMD
1	ISSUED FOR CLIENT REVIEW	2025/05/30	JMD

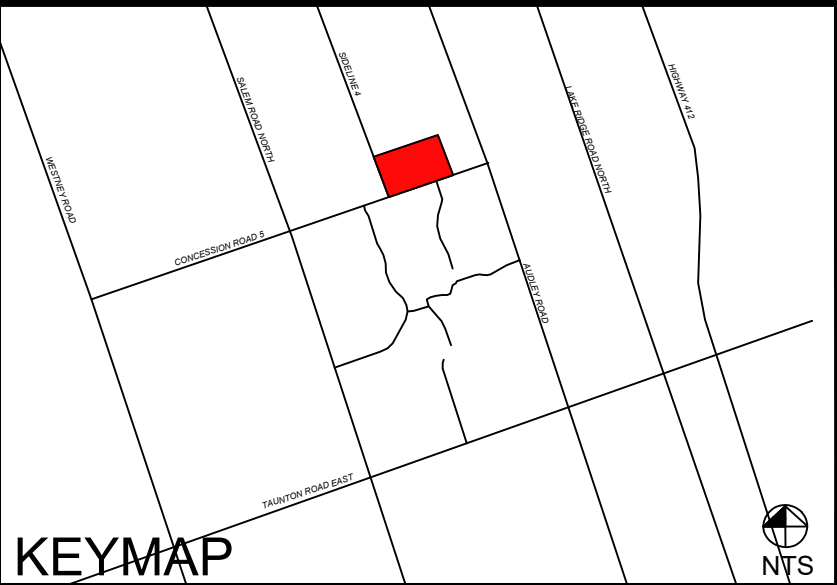
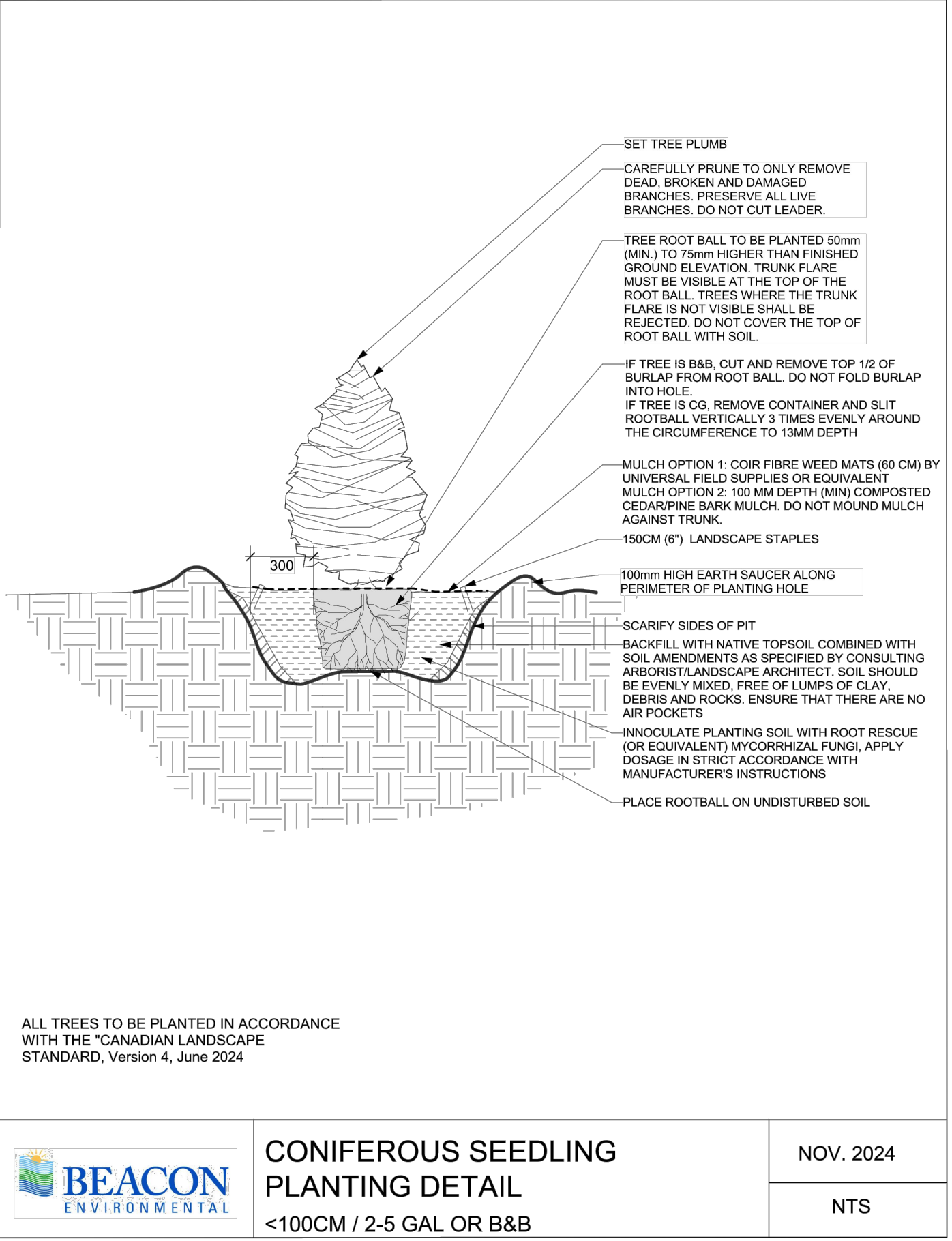
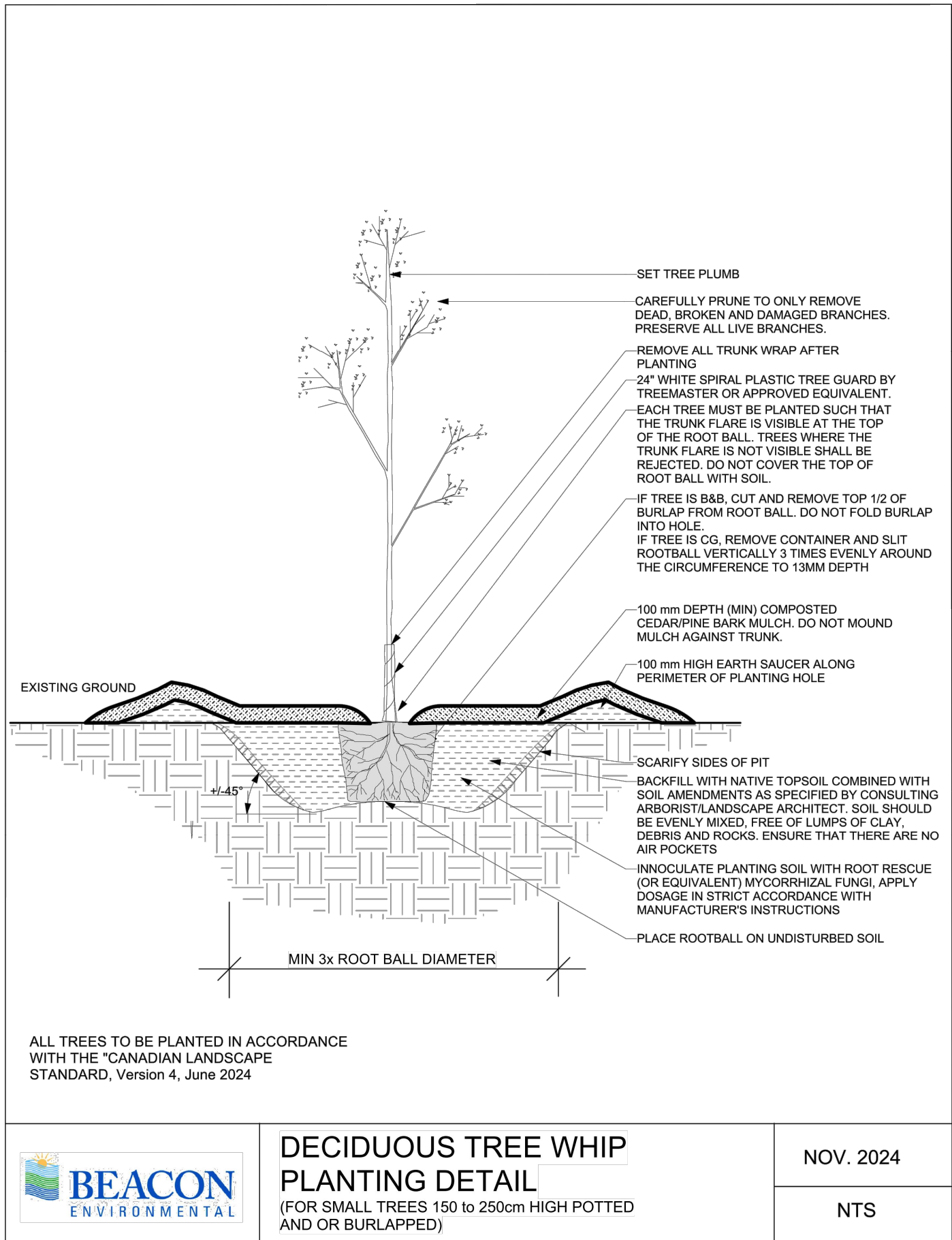
SCALE	
NORTH ARROW	

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CLIENT	
869547 ONTARIO INC.	
PROJECT	
3225 5TH CONCESSION ROAD (PART OF LOTS 3 AND 4), CITY OF PICKERING	
SHEET TITLE	
PLANT LISTS	
DESIGN BY: ..	PROJECT Nº: 221050
DRAWN BY: JA	FIGURE Nº:
CHECKED BY: JMD	L-6
DATE: 25 June 2025	

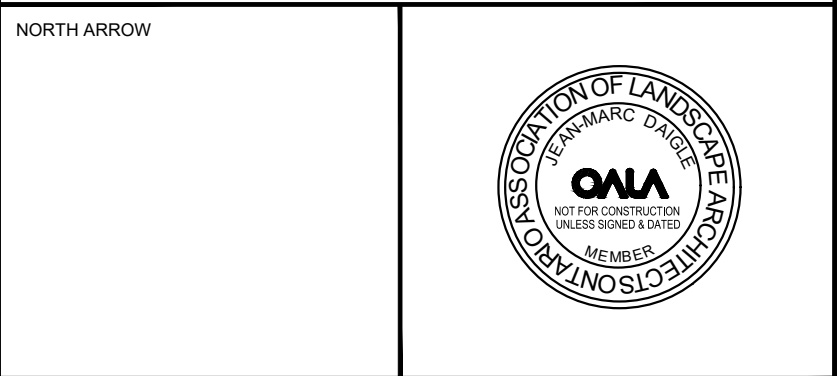


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For illustrative purposes. Do not scale

Nº	REVISIONS	DATE	BY:
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2	DPS, ZBLA, AND CONDO SUBMISSION	2025/06/25	JMD
1	ISSUED FOR CLIENT REVIEW	2025/05/30	JMD

SCALE



CLIENT

869547 ONTARIO INC.

PROJECT

3225 5TH CONCESSION ROAD (PART OF LOTS 3 AND 4), CITY OF PICKERING

SHEET TITLE

PLANTING DETAILS

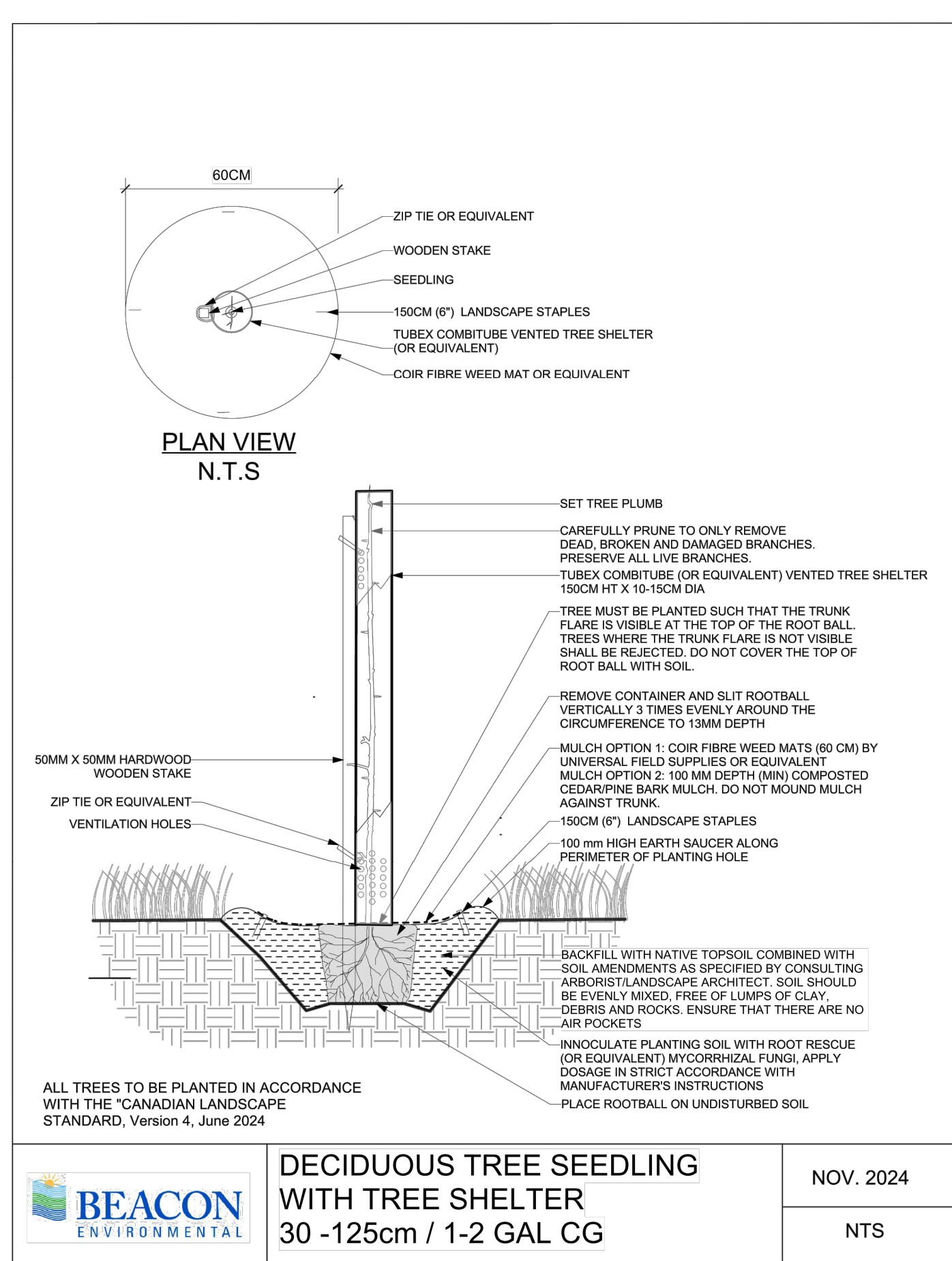
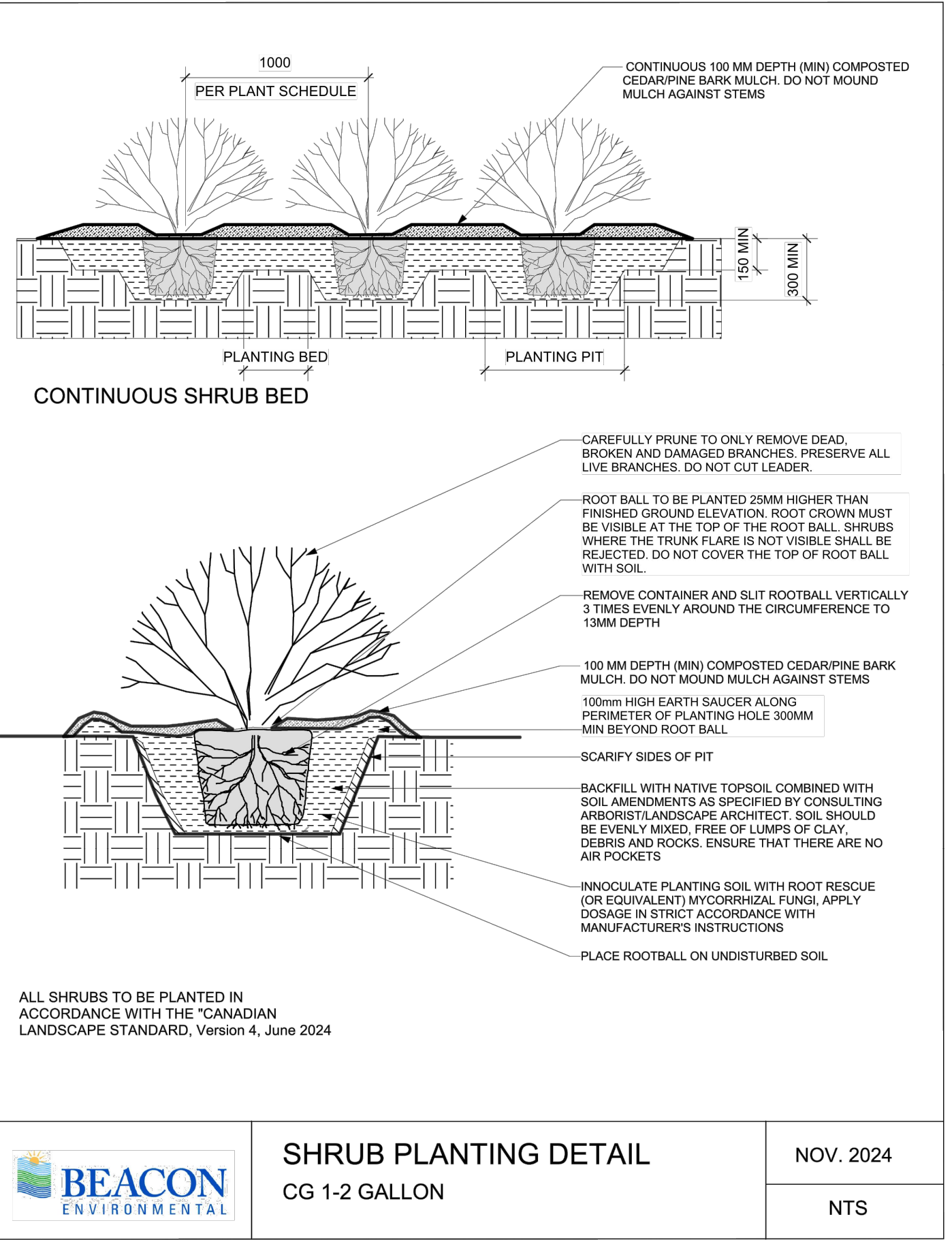
DESIGN BY:	..	PROJECT Nº:	221050
DRAWN BY:	JA	FIGURE Nº:	L-6
CHECKED BY:	JMD		
DATE:	25 June 2025		

1
L-7

DECIDUOUS TREE WHIP

2
L-7

CONIFEROUS SEEDLING



3
L-7

DECIDUOUS SHRUB

4
L-7

DECIDUOUS TREE SEEDLING

GENERAL NOTES

1. This drawing is to be read in conjunction with the written specifications for the project and all other drawings.
2. Any ambiguity in this drawing or accompanying details is to be reported to the Beacon Landscape Architect. The Contractor is not to proceed in uncertainty.
3. Limits or work to be clearly understood by the Contractor prior to any work taking place on site.
4. The Contractor shall visit the site to confirm all site conditions prior to submitting a bid. Report all discrepancies in writing to the Beacon Landscape Architect.
5. The Contractor must notify the Beacon Landscape Architect a minimum of 5 (five) days prior to the commencement of any construction work.
6. Construction access shall be arranged with the General Contractor and/or Owner's representative for the site.
7. Verify locations of pertinent site improvements under this contract. If any part of this plan cannot be followed due to site conditions, contact Owner's representative for instruction prior to commencing work.
8. Drawings may be scaled for layout measurement, but the dimensions and elevations shown are subject to verification on site.
9. The Contractor shall maintain all areas until Owner's acceptance of the project in accordance with the specifications.
10. It is the responsibility of the Contractor and/ or Owner to ensure that the drawings with the latest revisions are used for construction.
11. It is the responsibility of the Contractor to be aware of all surface and subsurface conditions, and to report any circumstances that will negatively impact drainage. Do not proceed with the work until unsatisfactory conditions have been corrected. Proceeding with work constitutes acceptance of existing or corrected conditions.

SEDIMENT CONTROL AND TREE PROTECTION FENCING

12. All erosion control and tree protection fencing installed within the buffer shall be removed prior to proceeding with the site preparation and planting work.
13. The applicant is responsible for ensuring that tree protection hoarding is maintained through to completion of all planting and construction activities in the location and condition as approved by the City.

PLANTING BED PREPARATION

14. Plantings within undisturbed portions of the buffer with established meadow groundcover shall be installed directly into the existing native soil with amendments as noted below.
15. All proposed planting areas located within disturbed / graded portions of the buffer shall be fine graded with stockpile topsoil.
16. Prior to planting, the Contractor shall brush cut all existing herbaceous groundcover vegetation to allow unfettered access to the planting zones.
17. The Contractor shall stake out the buffer boundaries and the location of all shrub planting beds and individual trees for field review and approval by the Beacon Landscape Architect prior to commencing planting works.
18. The Contractor shall adhere to the prescribed tree and shrub module layouts as depicted in the drawings, with some field-fitting as required based on site conditions. No existing native vegetation is to be harmed or removed to accommodate new plantings.
19. The shrub module configurations are flexible and can be field fitted. However, where the Contractor deviates from the prescribe configuration, they shall adhere to the area (in m2) depicted in the plans by multiplying the prescribed number of shrubs by the specified spacing for individual species.
20. Existing herbaceous ground vegetation within each designated shrub bed shall be cleared of existing vegetation by grubbing to a depth of +/- 75mm. and disposed of off-site unless otherwise directed by the Beacon Landscape Architect.

PLANTING NOTES

21. All plant material to meet horticultural standards of the Canadian Nursery Trades Association Guide Specification for Nursery Stock. All plant material to be No. 1 Grade and to the approval of the Beacon Landscape Architect.
22. No plant substitutions will be permitted without the written approval of the Beacon Landscape Architect. Plant identification tags for all plant material are to remain on material until inspected.
23. All damaged material will be rejected. Trees without central leaders, with trunk wounds, or damaged major limbs will be rejected. Shrubs with damaged branches or insufficient root mass will be rejected.
24. All material that cannot be planted within 48 hours of delivery shall be heeled in on site and be kept properly protected from desiccation by wind or sun.

25. The selection and distribution of species across the site shall be reviewed and approved on site by the Beacon Landscape Architect at the time of planting operation.
26. Shrubs MUST be planted 1.25m on center to achieve the prescribed vegetation coverage within the buffers.
27. The Contractor shall relocate any trees or shrubs on the property as directed by the Beacon Landscape Architect.
28. Any dead or damaged branches are to be pruned according to horticultural standards and timing appropriate to each species.
29. All plant materials shall be planted in naturalistic groupings and in accordance with the layout and planting details and written specifications.
30. All tree seedlings and saplings shall be tagged with high visibility flagging tape for easy identification during warranty inspections.
31. Trees and shrubs shall be backfilled with native topsoil amended with compost at a ratio of 4:1 topsoil to compost. Compost shall conform to the following specifications:
 - Grade AA or A Ontario Compost Quality Standards;
 - Be a mature and stable product - Solvita Maturity Index of 7 or 8;
 - Have a pH between 6 and 8;
 - Have an electrical conductivity of less than 4.0 mmhos cm-1;
 - Have a C:N ratio between 10:1 and 20:1;
 - Have an organic matter content greater than 35%;
 - Have a phosphorus (P2O5 dry mass) content below 1.0%; and
 - Have an exchangeable sodium content below 500ppm.

32. All trees and shrubs shall be inoculated with Root RescueTM/ (or equivalent) mycorrhizal fungi during planting operations. Dosages and application methodology to be in strict conformance with manufacturer's instructions.
33. In advance of proceeding with the planting work, the Contractor shall submit to the Beacon Landscape Architect for review and approval samples of the compost and mycorrhizal amendments, certificates of analysis, and shipping slips.
34. All 100-125cm deciduous tree seedlings shall be planted with Tubex (or equivalent) Tree Shelters as indicated in the planting details.

WATERING REQUIREMENTS

35. All material delivered to site shall be either watered immediately or within 24 hours as warranted by the moisture content of the root balls/containers.
36. All material shall be watered at the time of planting.
37. It is the Contractor's responsibility to ensure that all planted trees and shrubs are watered regularly as dictated by site conditions during the first two years of establishment. More frequent watering will be required during periods of drought.
38. Trees and shrubs shall be watered deeply rather than frequently.
39. Trees and shrubs shall be watered well in the Fall to prevent root death over winter.

MULCHING REQUIREMENTS

40. All shrub beds are to be continuously mulched with a partially composted cedar pine bark strip mulch to a depth of 100mm unless otherwise indicated on the drawings, or as field directed by the Beacon Landscape Architect.
41. All tree saplings/whips shall be individually mulched with a partially composted cedar pine bark strip mulch to a depth of 100mm.
42. All tree seedlings shall be individually mulched with 600mm coir fibre WeedmatsTM by Universal Field Supplies or equivalent, anchored in place with 150mm landscape staples in accordance with manufacturer's instructions.
43. Mulch shall be topped up to ensure the specified minimum depth is maintained on all planting beds.
44. Shrub pit, saucer and planting beds shall be soaked with water & mulched immediately following planting. Top dress area immediately over root mass (saucer area) with bone meal or compost.

WARRANTY PERIOD AND MAINTENANCE ACTIVITIES

45. All workmanship and plant materials to be guaranteed for a period of two years following the date of initial acceptance of the project by the Beacon Landscape Architect. The Contractor shall provide replacements for plant losses in exceeding of 20% of the total planting.
46. It is the responsibility of the Contractor to maintain plant materials in good condition from the date of initial planting to the end of the 2 years warranty period.
47. General maintenance requirements for trees, shrubs and perennials shall be performed a minimum of once per month during the growing season and shall include, but not limited to the following activities:

- Watering at the time of planting;
- Watering regularly on a weekly basis during the first year of establishment depending on weather conditions;
- Weeding;
- Pruning;
- Mulching; and
- Replacement.

48. The Contractor shall be responsible for the replacement of unacceptable or dead material, straightening trees that lean, and any other procedure consistent with good horticultural practice necessary to ensure normal, healthy growing condition of plant material.
49. Prior to acceptance of the end of the warranty period all planting beds are to be supplemented, where necessary, with additional mulch in order that the specified minimum thickness described for each of the planting areas is maintained.
50. The Beacon Landscape Architect reserves the right to extend Contractor's warranty responsibilities for an additional year if, at the end of the warranty period, leaf development and growth is not sufficient to ensure future survival.

RODENT PROTECTION

51. The Contractor shall be responsible for the protection of all trees and shrubs from rodent injury for the duration of the guarantee period.
52. Install an approved wrap-around type plastic tree guard on all deciduous and coniferous for rodent protection. Refer to planting detail and specification.
53. All shrubs and coniferous trees shall have an application of "Skoot"TM/ or approved equivalent rodent formula, to be applied at the end of October. Follow manufacturer's directions for application.

TERRASEEDING NOTES

54. The Contractor shall be responsible for seeding and stabilizing all disturbed areas within the buffer unless otherwise instructed on site by the Beacon Landscape Architect. All grading areas within the buffer shall be terraseeded as depicted in the drawings. Additional Terraseeding may be required beyond those areas to restore additional disturbed areas not shown on drawings. Prior to proceeding with Terraseeding, the Contractor shall measure out all areas that require Terraseed and shall obtain approvals from the Owner for additional seeding work prior to proceeding.
55. The Contractor shall be responsible for all labor, materials and equipment necessary to Terraseed the specified seed mixtures as designated on this plan and in accordance with the specifications.
56. Terraseeding operation shall not commence until the Beacon Landscape Architect is in receipt of the Certificate of Seed Analysis for the seed being applied and has approved the seed test results.
57. Terraseeding is to be executed following completion of the planting operations.
58. Seeding to be completed by pneumatic Terraseeding (hydraulic seeding is not acceptable). Seed and topsoil mix will be blown over all disturbed areas and around all planted shrubs and perennials.
59. Depth of composted soil/seed mix will vary dependent upon the slope as follows:
 - 0-25% slopes: 20-25 mm depth; and
 - 26% and greater slopes: 50 mm depth.
60. Fine grading with stockpile topsoil shall be completed within no more than 14 days in advance of planting and Terraseeding, to avoid weed colonization. If the fine grading occurs more than 14 days in advance of planting and seeding, the Beacon Landscape Architect shall assess the site for excessive weed growth. If and as required, the Beacon Landscape Architect shall prescribe herbicidal applications followed by a light cultivation to a depth of 75mm (3") to ensure a friable and uniform seed bed.
61. All surfaces to be Terraseeded shall be prepared not more than 3 days before the seeding operation. The surface shall not have stones greater than 25 mm in diameter, weeds or other unwanted vegetation.
62. Terraseeding operation shall not commence until the Beacon Landscape Architect has inspected and approved the surface preparation including verification of the seed mixtures being applied and the layout of the permanent seed mixtures locations as demarcated in the field by the Contractor.
63. Seeding and or re-seeding shall not be carried out under adverse field conditions such as high wind, frozen ground or ground covered with snow, ice or standing water.
64. Ensure that seeds are spread only in the top 2cm of compost. Seeds should not be buried in soil but should be on the top. To achieve this an initial layer of compost may need to be put down before mixing seed in with the final layer of compost for spreading.

65. The preferred seeding (and/or re-seeding) window is either between April 15 and June 15, or between August 31 to October 15, avoiding the peak summer months. Alternatively, a dormant seeding may be performed between October 15 to November 30. If seeding occurs after September 30, additional erosion and sediment control measures may be required on sloped sites to minimize sediment transport off-site.
66. Refer to specifications for submission requirements, supplier, seeding rates, construction schedule and performance measure.

TERRASEEDING QUALITY ASSURANCE AND WARRANTY

67. All Terraseeded areas will be inspected by the Beacon Landscape Architect to ensure compliance with this specification at 30-, 60- and 90-day periods following the seeding operation, as follows:
30-Day Inspection:
 - The composted cover shall be visually intact and shall form a uniform cohesive mat; and
 - Germination of the nurse crop shall be visually evident.60-Day Inspection:
 - The nurse crop shall be evident at mature height, forming an evenly dispersed, uniform vegetation cover;
 - Germination of the specified, permanent seed species shall be visually evident in an evenly dispersed uniform cover;
 - There shall not be any significant bare areas, both in terms of quantity and size; and
 - Non-Seeded, non-specified vegetation shall not exceed 20% of the seeded earth area.90-Day Inspection:
 - The permanent seed species shall be at an average height of 50 mm in an evenly dispersed, uniform cover, representative of the specified seed mixes;
 - There shall not be any significant bare areas, both in terms of quantity and size; and
 - Non-seeded, non-specified vegetation shall not exceed 20% of the seeded earth area.

- A survivability percentage shall be required in excess of 60% of sown species;
- An average of 30% cover of sown native species and 80 % combined cover for all sown species shall be required for successful completion. This shall be based on sampling of 10 random one (1) sq. m plots performed by the Beacon Landscape Architect; and
- Bare soil shall constitute less than 10% of the total with individual bare areas not to be larger than 1 sq. m.

No inspections will be held during the winter dormant period or when site conditions prohibit a visual field inspection. The timing intervals between inspections will be suspended during the winter dormant period.

At the Second Full Growing Season Inspection (end of August), within the seeded areas:

68. If the completed work does not meet the Performance Measure after the 30-day inspection, the Beacon Landscape Architect shall document the failure areas, notify the Contractor of those areas, and shall reassess at the sixty-day inspection.
69. If the completed work does not meet the Performance Measure after the 60- or 90- day inspection, the Beacon Landscape Architect shall notify the Contractor in writing and the Contractor shall re-apply the specified materials in accordance with this specification within 14 calendar days of receiving the notification, or as directed by Beacon.
70. If the completed work does not meet the performance measures of the 30 Day inspection, the Landscape Architect shall document the failed areas, notify the Contractor of those areas, and re-inspect at the 60 Day inspection.
71. If the completed work does not meet the performance measures for the 60 Day inspection, the Beacon Landscape Architect shall notify the Contractor in writing of the failed areas. The Contractor shall re-apply the specified material in accordance with this specification within 14 Days of receiving the notification or as directed by the Beacon Landscape Architect. The Landscape Architect will re-inspect the seeded earth area at the 90 Day inspection. If the completed work does not meet the performance measures of the 90 Day inspection, the Beacon Landscape Architect shall notify the Contractor in writing of the failed areas. The Contractor shall re-apply the specified material according to this specification within 14 Days of receiving the notification, or as directed. The Beacon Landscape Architect will re-inspect the re-seeded area 30 Days after re-application.

KEYMAP

LEGEND

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5			
4			
3			
2	DPS, ZBLA, AND CONDO SUBMISSION	2025/06/25	JMD
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SCALE

NORTH ARROW

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CLIENT

PROJECT

869547 ONTARIO INC.

SHEET TITLE

3225 5TH CONCESSION ROAD (PART OF LOTS 3 AND 4), CITY OF PICKERING

DESIGN BY: --

PROJECT №: 221050

DRAWN BY: JA

FIGURE №:

CHECKED BY: JMD

L-7

DATE: 25 June 2025

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