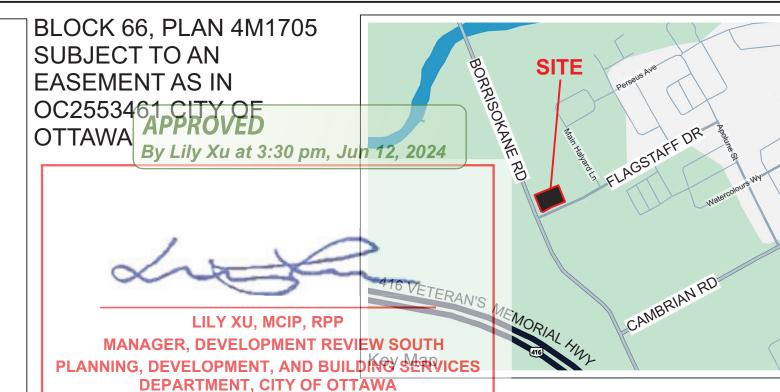


CONCRETE	CONCRETE 1 SOIL VOLUME AREA & ID					
		OTTAWA	Design	Coil		
Soil Volume Area, Tree Quantity and Size	Tree Quantity	Target Soil	Design Soil	Soil Adequacy		
		Volume (m ³)	Volume	percentage		
AREA 1 - 4 large trees, 4 medium trees, 1 conifer						
plant bed (160 sq m x 0.9 metre deep)	9	147.0	144.0	97.96%		
AREA 2 - 2 large trees, 4 medium trees, 4 conifers						
plant bed (245 sq m x 0.7 metre deep)	10	156.0	171.5	109.94%		
AREA 3 - 1 small ornamental tree (15cm DBH)*						
plant bed (7 sq m x 0.9 metre deep)	1	7.0	6.3	90.00%		
* Small ornamental trees with growth to 8-15cm DBH	, large shru	ıbs, and colun	nnar conif	ers		
calculated using 'How much soil to grow a big tree' by						

	ION)	
o be used inside eastern property	line adjacent to curb	
Meadow Seed mix		
Bromus ciliatus	Fringed Brome	
Elymus canadensis	Canada Wild Rye	
Monarda fistulosa	Wild Bergamot	
Rudbeckia fulgida	Blackeyed Susan	
Schizachyrium scoparium	Little bluestem	
Sporobolus compositus	Rough Dropseed	
Symphyotrichum novae-angliae	New England Aster	
Spartina pectinata	Prairie Cord Grass	
o be used along eastern edge of	property for reinstatement	
o be used along eastern edge of Riperian Seed Mix	property for reinstatement	
	property for reinstatement Autumn Bentgrass	
Riperian Seed Mix		
Riperian Seed Mix Agrostis perennans	Autumn Bentgrass	
Riperian Seed Mix Agrostis perennans Agrostis scabra	Autumn Bentgrass Ticklegrass	
Riperian Seed Mix Agrostis perennans Agrostis scabra Carex vulpinoidea	Autumn Bentgrass Ticklegrass Fox Sedge	
Riperian Seed Mix Agrostis perennans Agrostis scabra Carex vulpinoidea Elymus virginicus	Autumn Bentgrass Ticklegrass Fox Sedge Virginia Wild Rye.	
Riperian Seed Mix Agrostis perennans Agrostis scabra Carex vulpinoidea Elymus virginicus Poa palustris	Autumn Bentgrass Ticklegrass Fox Sedge Virginia Wild Rye. Fowl Bluegrass	
Riperian Seed Mix Agrostis perennans Agrostis scabra Carex vulpinoidea Elymus virginicus Poa palustris Puccinellia nuttalliana	Autumn Bentgrass Ticklegrass Fox Sedge Virginia Wild Rye. Fowl Bluegrass Nuttall's Alkali Grass	
Riperian Seed Mix Agrostis perennans Agrostis scabra Carex vulpinoidea Elymus virginicus Poa palustris Puccinellia nuttalliana Asclepias incamata	Autumn Bentgrass Ticklegrass Fox Sedge Virginia Wild Rye. Fowl Bluegrass Nuttall's Alkali Grass Marsh Milkweed	

Plant	LIST					
ID	Qty	Botanical Name	Common Name	Sched. Size	Remarks	Origin
		TREES				
Ar	3	Acer rubrum	Red Maple	70mm caliper	WB, Staked	Ntv
Ag	2	Aesculus glabra	Ohio Buckeye	50mm caliper	WB, Staked	Ntv
Вр	2	Betula papyrifera	Paper Birch, Canoe Birch	60mm caliper	WB, Staked	Ntv
Со	4	Celtis occidentalis	Common Hackberry	60mm caliper	WB, Staked	Ntv
Pg	2	Picea glauca	White Spruce	200cm ht	WB, Staked	Ntv
Pst	2	Pinus strobus	Eastern White Pine	200cm ht	WB, Staked	Ntv
Qr	3	Quercus rubra	Northern Red Oak	70mm caliper	WB, Staked	Ntv
Тс	1	Tsuga canadensis	Canadian Hemlock	200cm ht	WB, Staked	Ntv
		SHRUBS			,	
Am	9	Aronia melanocarpa	Black Chokeberry	50cm ht.	Bare root	Ntv
CoBB	14	Cephalanthus occidentalis	Buttonbush	50cm ht.	Potted	Ntv
Cr	9	Cornus racemosa	Gray Dogwood	50cm ht	Potted	Ntv
DI	14	Diervilla Ionicera	Dwarf Bush-honeysuckle	2 gallon pot	Potted	Ntv
Pf	17	Potentilla fruticosa	Bush Cinquefoil	2 gallon pot	Potted	Ntv
Ra	36	Rhus aromatica	Fragrant Sumac	50cm ht.	Potted	Ntv
Sa	27	Symphoricarpos albus	Snowberry	50cm ht.	Potted	Ntv
To(NC)	11	Thuja occidentalis (Nursery grown, Clumps)	White Cedar, Eastern Arborivitae	200cm ht	B&B	Ntv H
	20	CLIMBERS	,			
Ld	6	Lonicera dioica	Glaucous Honeysuckle	3 year	Potted	Ntv
Cvir	8	Clematis virginiana	Virgin's Bower Clematis	3 year	Potted	Ntv
Cleo	6	Clematis occidentalis	Blue Virgin's Bower	3 year	Potted	Ntv
	675	PERENNIALS				
PvA	61	Ornamental Grasses - Mixed	Karl Foerster Featherreed Grass, Switch Grass, Big Bluestem	3 year	Potted	Mix
PvB	42	Ornamental Grasses - Native	Hall's Fescue, Bottlebrush Grass, Canada Wild Rye, Little Bluestem	3 year	Potted	Ntv
	Planter Qty	Perennial planter type				
РрА	11	Planter type A	Per planter: 2 Rodgersia, 14 (Wild Strawberry, Pink Coreopsis, Candytuft			Mix
РрВ	13	Planter type B	Per planter: 2 Little Bluestem Grass, 17 (trailing sedum varieties, Wild Strawberry, Pink Coreopsis)			Mix
РрС	10	Planter type C	Per planter: 2 Prairie Dropseed Grass, 17 (Trailing sedum varieties, Wild Strawberry, trailing Phlox) 18 Hosta spp. 50 (Phlox			Mix



.1 All general site information and conditions compiled from existing plans, surveys and consultant's field notes. Report all discrepancies prior

to any work. No responsibility is born by the Consultant for unknown

.2 The location of the utilities is approximate only, and the exact location should be determined by consulting the municipal authorities and utility

companies concerned. The Contractor shall prove the location of utilities

construction. No deviations are to be made from the layouts as shown on this plan without prior consultation with the Landscape Architect and Owner.

.5 Stake planting locations and receive approval of Landscape Architect, prior to excavation of any planting pits. No substitutions of plant material

.7 Maintain positive surface runoff through the entire construction period.

THIS PLAN IS ISSUED FOR SITE PLAN CONTROL SUBMISSION ONLY.

ADDITIONAL DETAILING AND SPECIFICATIONS ARE REQUIRED

PRIOR TO TENDERING OR CONSTRUCTION.

EXISTING SITE CONDITIONS

THE SITE HAS BEEN CLEARED OF VEGETATION. NO TREES OVER 10cm DBH EXIST ON THE SITE.

.8 Reinstate all areas and items damaged as a result of construction

.4 Obtain approval of Landscape Architect for granular base and layout of

and shall be responsible for adequate protection from damage. .3 All dimensions shown are to be verified on site prior to any

shall be made without prior approval of the Landscape Architect. .6 Where clay is encountered proper drainage must be ensured in tree/shrub pits, prior to planting. Have method approved by Landscape

GENERAL NOTES

subsurface conditions.

all pavement areas prior to construction.













GRADIENTWIND





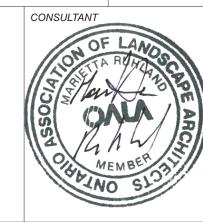


Ruhland & Associates Ltd landscape architecture • urban design • site planning

3 Re-Issued for SPC 2024/02/22 Re-Issued for SPC 2023/12/14

NUMBER/ NUMÉRO MILESTONE / FAIT SAILLANT DESIGNED BY / CONCU PAR M. Ruhland M. Ruhland DRAWN BY / DESSINE PAR SCALE / ECHELLE T.Frost / V. Odusanya

ARCHITECT



CONSULTANT

CONSULTANT

THE NUKK

652 FLAGSTAFF DRIVE, OTTAWA ON.

LANDSCAPE PLAN

SHEET NO. PROJECT NO.

23-1719

TREE CANOPY COVERAGE

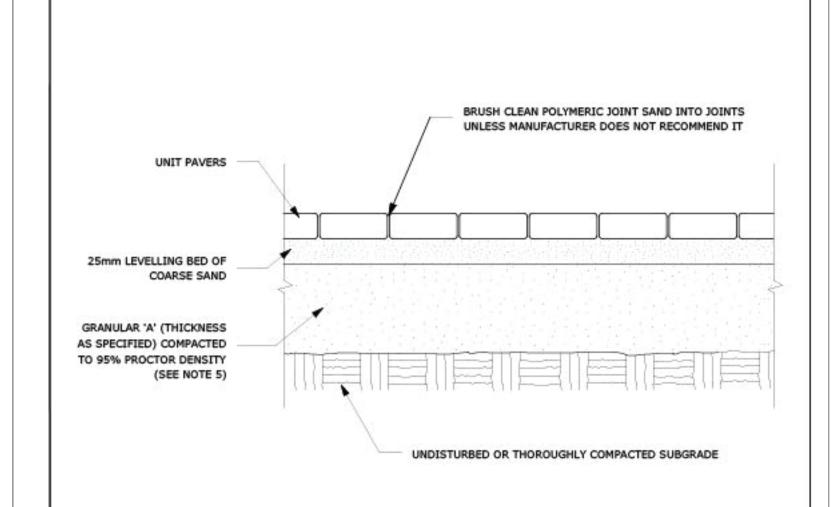
TOTAL CANOPY AREA | 1319 23

PERCENT COVERAGE 30%

4390 m2

TOTAL SITE AREA

L-01



- 1. THE LEVELING COURSE (BEDDING SAND) SHALL BE PLACED LOOSE, IN A UNIFORM LAYER AT A MAXIMUM DEPTH OF 25mm TO ACHIEVE THE FINAL COMPACTED THICKNESS AND GRADE AS SPECIFIED
- 2. INSTALL SOLID EDGE RESTRAINT BETWEEN UNIT PAVERS AND ANY SOFT SURFACE (SOD, PLANTING BED, ETC.)
- 3. UNIT PAVERS ARE THEN PLACED ON TOP OF THE LEVELING COURSE AND ADDITIONAL SAND SWEPT BETWEEN THE UNIT PAVERS
- 4. THE UNIT PAVERS ARE THEN VIBRATED INTO PLACE WITH A VIBRA-PLATE AND WATER IS ADDED TO ASSIST IN THE SETTLING OF THE JOINT SAND
- 5. GRANULAR 'A' DEPTH TO BE 100mm FOR PEDESTRIAN AREAS AND 150mm FOR VEHICULAR ACCESSES. OR AS
- RECOMMENDED BY GEOTECHNICAL INVESTIGATION

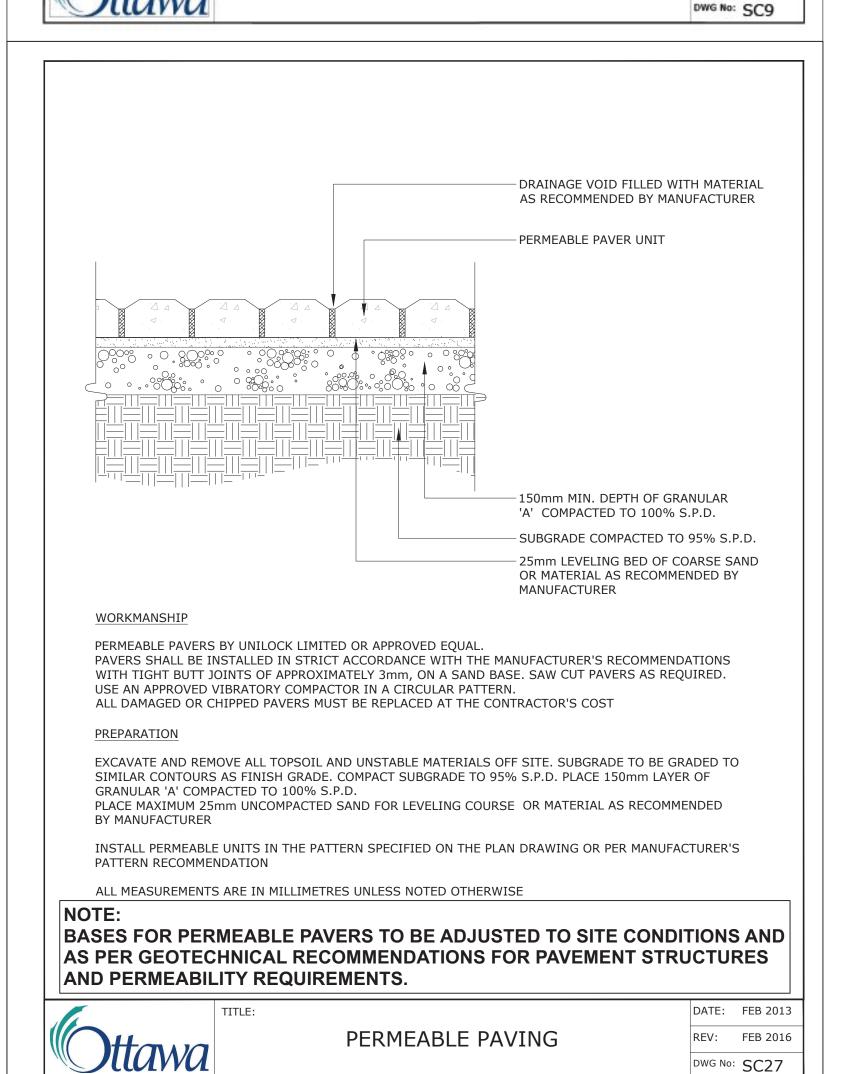
6. USE OF THIS DETAIL REQUIRES THE PRIOR APPROVAL OF THE GENERAL MANAGER

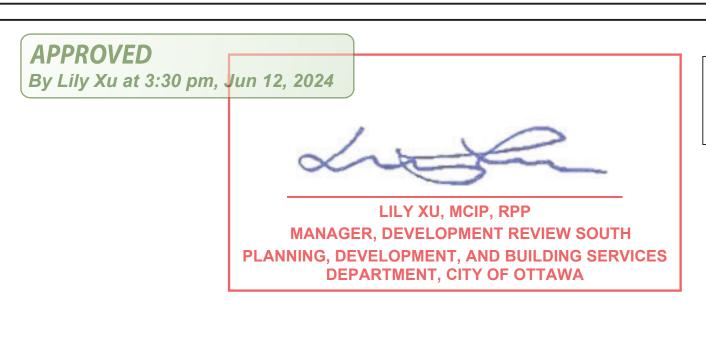
ADDITIONAL NOTES FOR NUMBER 5: PRECAST PAVERS IN PEDESTRIAN AREAS WHERE NORMAL SNOW REMOVALS ARE DONE IS TO RECEIVE A MINIMUM 200mm GRANULAR 'A'. FURTHER ADJUSTMENTS TO BE SPECIFIED IN RELATION TO SITE CONDITIONS AND

GEOTECHNICAL RECOMMENDATIONS.

UNIT PAVING - ON GRANULAR BASE

DATE: MAY 2001 REV: FEB 2016





PLANTER

—EQUIPARC 5950 BIKE RACK

9.5mm SECURITY NUT ZINC

-PLATED WITH STAINLESS

PRECAST PAVERS

STEEL WASHER AND LOCK

GALVANIZED STEEL TUBE

STEEL THREADED ROD

ANCHOR

10 X 25mm

CONCRETE SLAB

Bike rack attachment through pavers

PROVIDE SHOP DRAWINGS FOR ANCHORS AND CONCRETE PAD

9.5mm - 16x200mm STAINLESS

9.5mm Ø ZINC PLATED DROP-IN

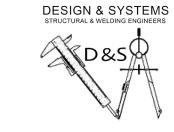
DRILLED HOLE IN CONCRETE:

Bike Rack layout

THIS PLAN IS ISSUED FOR SITE PLAN CONTROL SUBMISSION ONLY. ADDITIONAL DETAILING AND SPECIFICATIONS ARE REQUIRED PRIOR TO TENDERING OR CONSTRUCTION.

















LRL ENGINEERING



Ruhland & Associates Ltd

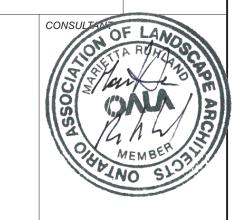
3 Re-Issued for SPC 2024/02/22 Re-Issued for SPC 2023/12/14 Issued for SPC 2023/08/22

DATE: (Y/M/D) INITIALS INITIALE MBER/ MILESTONE / FAIT SAILLANT DESIGNED BY / CONCU PAR CHECKED BY / VERIFIE PAR M. Ruhland M. Ruhland

ARCHITECT

DRAWN BY / DESSINE PAR

T.Frost / V. Odusanya



CONSULTANT

SCALE / ECHELLE

AS SHOWN

CONSULTANT

THE NUKK

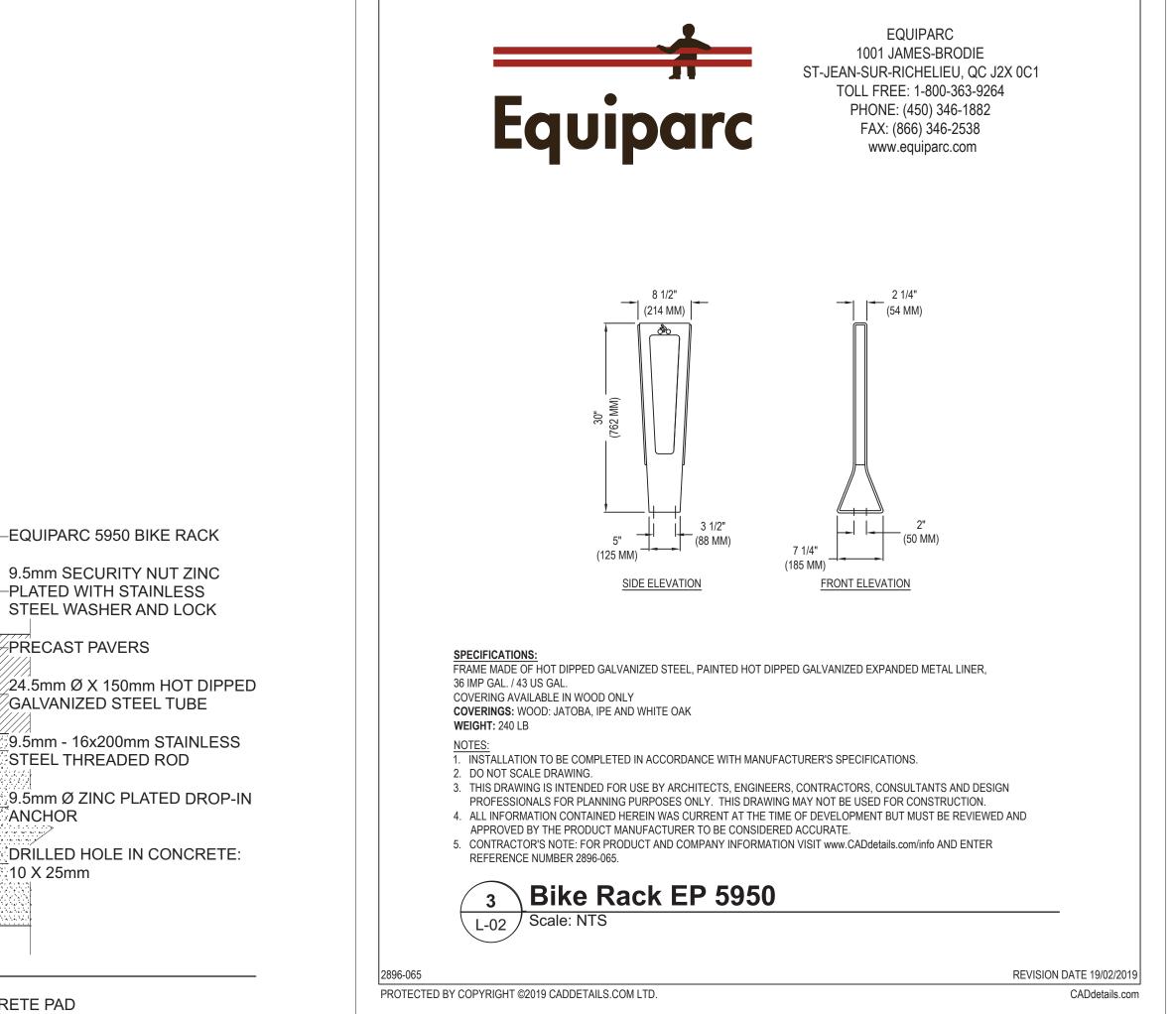
PROJECT / LOCATION

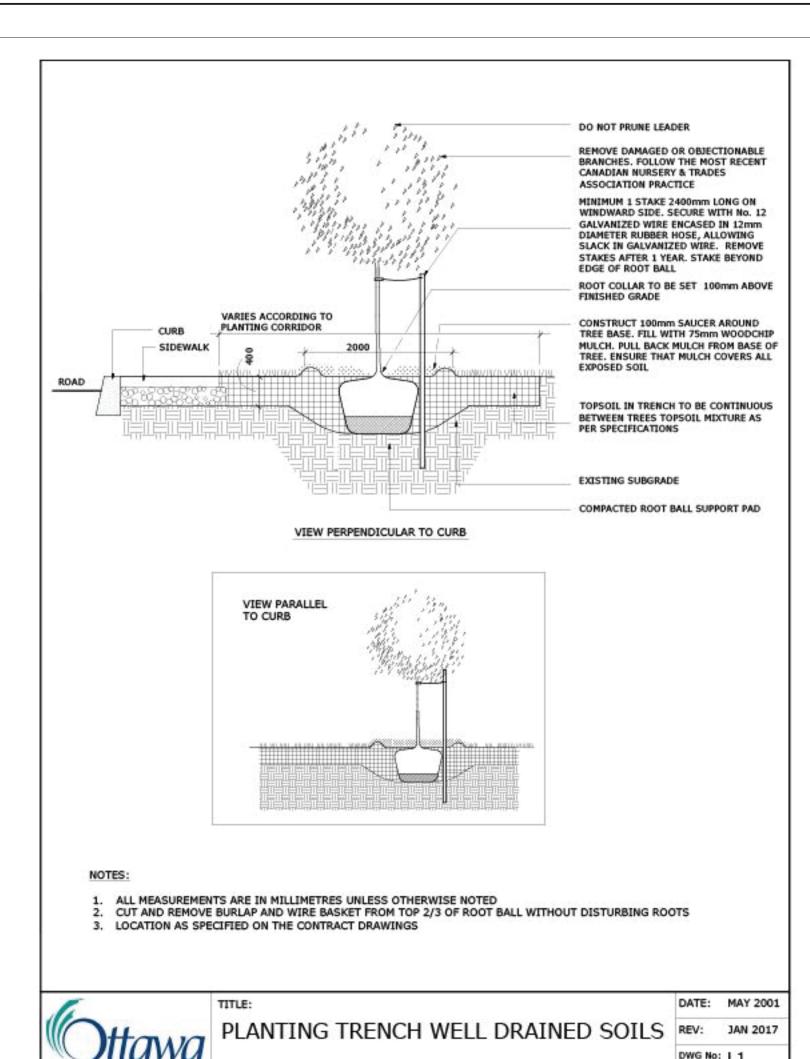
652 FLAGSTAFF DRIVE, OTTAWA ON.

LANDSCAPE PLAN

SHEET NO. PROJECT NO.

23-1719





VARIES. WITH SPECIES

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

3. PROVIDE 100MM HIGH EARTH SAUCER AROUND PERENNIAL/GRASS BED.

PERENNIAL AND ORNAMENTAL

GRASS PLANTING

2. PLANTING SOIL MIXTURE AS PER SPECIFICATION.

REMOVE FROM POT

75mm SHREDDED BARK

PLANT PERENNIALS AND

25mm HIGHER THAN

PLANTING SOIL MIX: LIGHTLY COMPACT TO ELIMINATE AIR POCKETS AND PREVENT SETTLEMENT

SCARIFY SUBGRADE OF PLANTING BED

DATE: JAN 2015

DWG No: L21

ADJACENT GRADE

SAUCER

TREE SOIL VOLUME REQUIREMENTS:

STANDARD TREE SOIL VOLUMES QUANTITIES INCLUDE THE TOP 900-1000mm OF SOIL/EXISTING SUBSOIL LAYER TO CALCULATE TOTAL SOIL VOLUMES REQUIRED BY CITY OF OTTAWA FOR SUSTAINABLE TREE GROWTH. WHERE LARGER SOFT AREAS ARE AVAILABLE, THE TOP 400-500mm LAYER IS USED TO CALCULATE SOIL VOLUMES.

WHERE EXISTING MATERIAL BELOW THE SPECIFIED TOPSOIL IS NOT CONDUCIVE TO TREE GROWTH, AN ADDITIONAL LAYER OF PLANTING MEDIUM IS TO BE INSTALLED BELOW SPECIFIED TOPSOIL DEPTH TO OBTAIN THE SOIL VOLUME DEPTH REQUIRED.

REFER TO SOIL VOLUME CHART AND PLANS FOR AREA WHERE TREE SOIL VOLUMES ARE REQUIRED.

TREE SOIL VOLUME REQUIREMENTS:

STANDARD TREE SOIL VOLUMES QUANTITIES INCLUDE THE TOP 900-1000mm OF IMPORTED AND EXISTING SOIL/SUBSOIL LAYER TO CALCULATE TOTAL SOIL VOLUMES REQUIRED BY CITY OF OTTAWA FOR SUSTAINABLE TREE GROWTH. WHERE LARGER SOFT AREAS ARE AVAILABLE WITH APPROVED EXISTING TOPSOIL AND SUBSOIL, IMPORTED TOPSOIL ONLY AS PER DETAIL L-2.

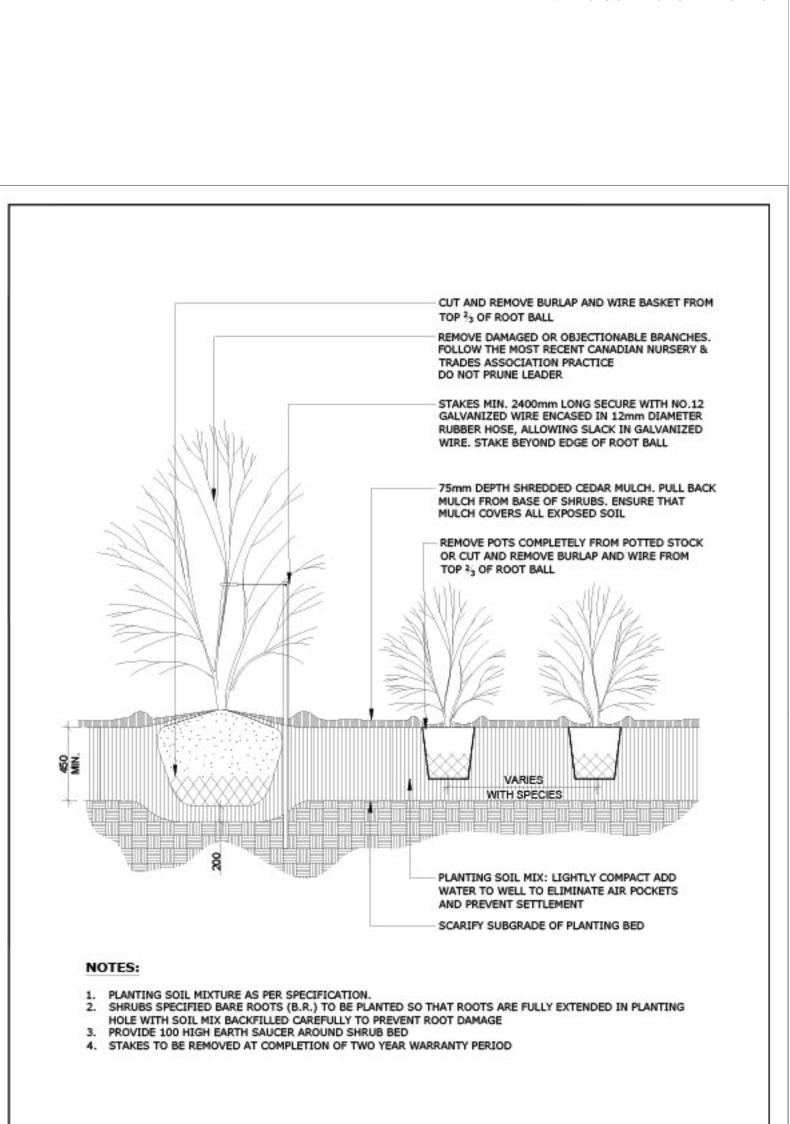
WHERE EXISTING MATERIAL BELOW THE SPECIFIED TOPSOIL IS NOT CONDUCIVE TO TREE GROWTH, AN ADDITIONAL LAYER OF 400mm PLANTING MEDIUM AND APPROVED SUBSOIL IS TO BE INSTALLED BELOW SPECIFIED TOPSOIL DEPTH TO OBTAIN THE SOIL VOLUME DEPTH REQUIRED.

REFER TO SOIL VOLUME NOTES.

DATE: FEB 2013

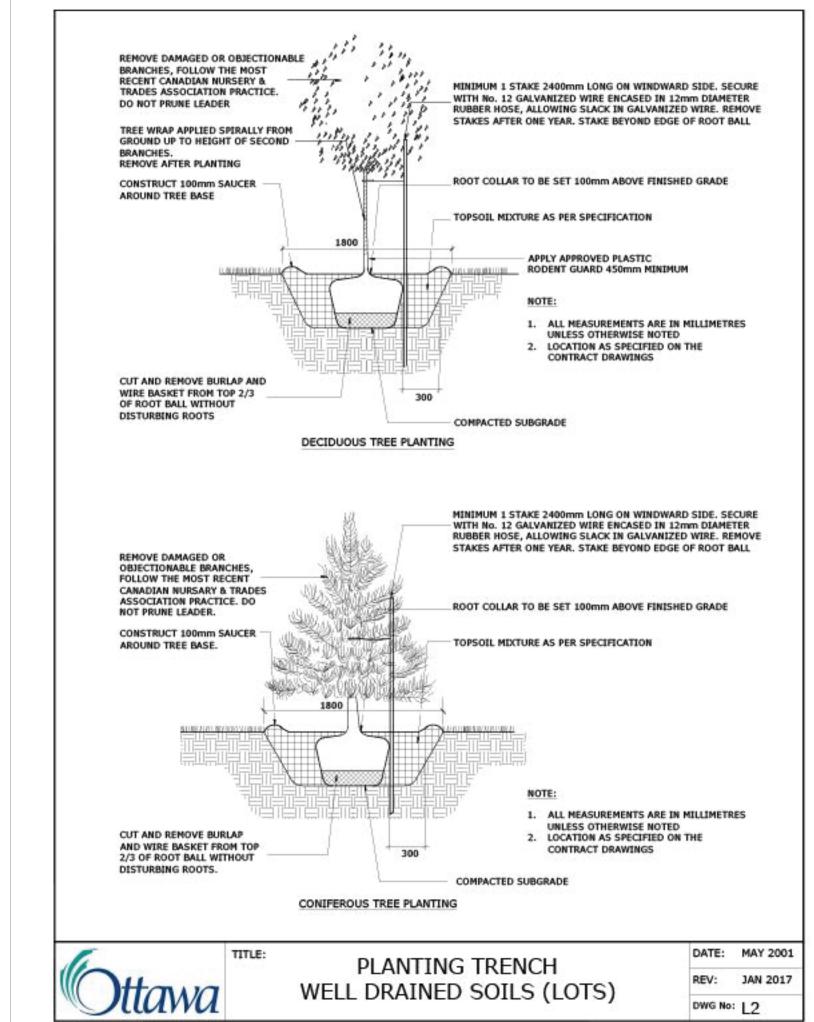
REV: FEB 2014

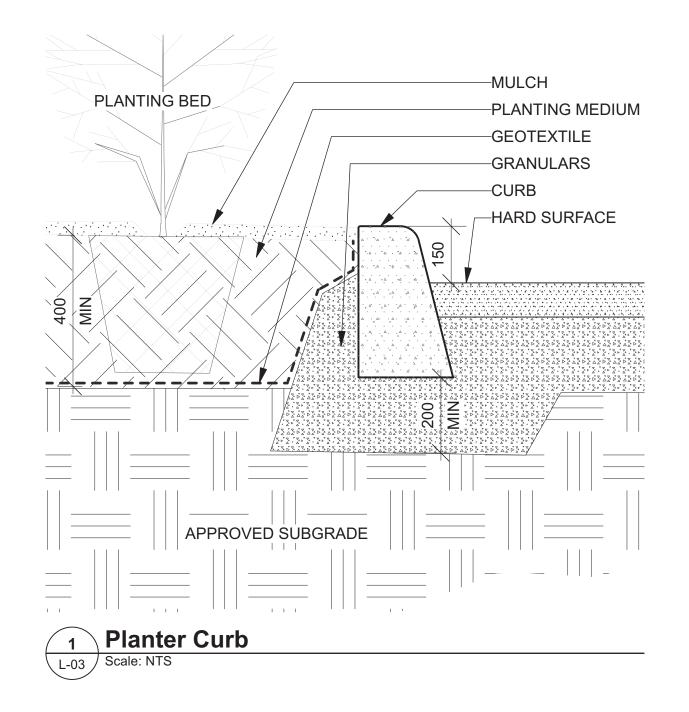
DWG No: L17



CONTINUOUS SHRUB BED

PLANTING







PLANNING, DEVELOPMENT, AND BUILDING SERVICES

DEPARTMENT, CITY OF OTTAWA







DESIGN & SYSTEMS



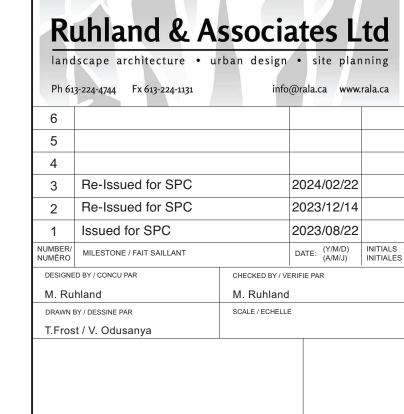












ARCHITECT CONSULTANT CONSULTANT CONSULTANT

PROJECT / LOCATION

THE NUKK

652 FLAGSTAFF DRIVE, OTTAWA ON.

DRAWING

DETAILS

SHEET NO. PROJECT NO.

23-1719