ge nterchan and Brunswick

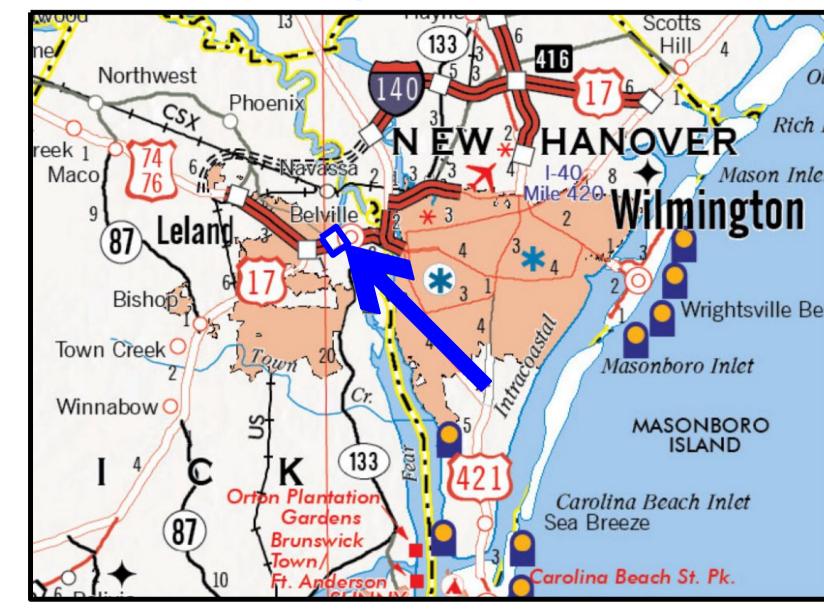
PROPOSED HIGHWAY LANDSCAPE DEVELOPMENT PROJECT

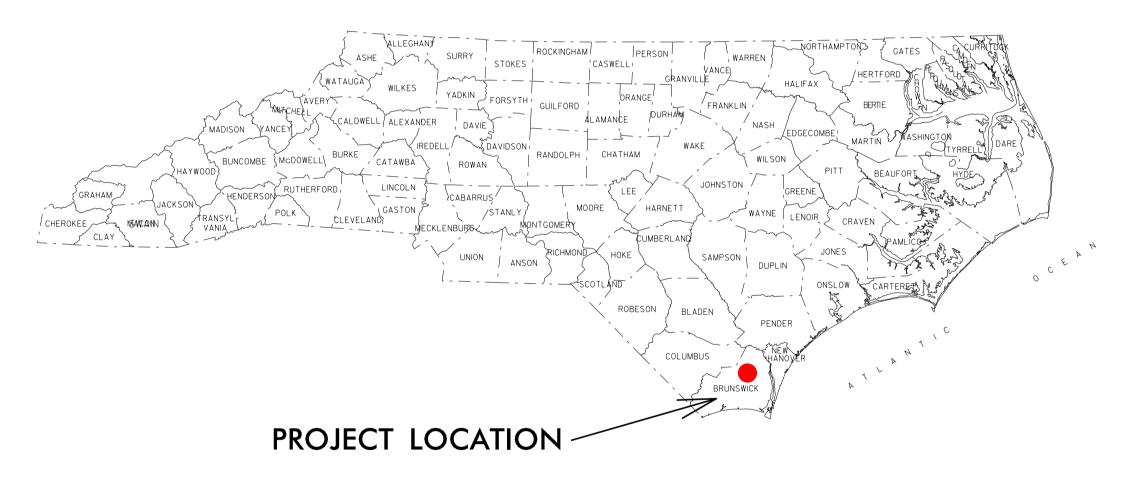
SHEET	DIVISION	WBS#	TIP#			
1	R-3601(L) 38868.3.4 3					
TOTAL SHEETS	PROJECT DESCRIPTION					
C	S 74/17 Interchange with NC 133, River Road SE					
О	and SR 1472, Village Road NE					

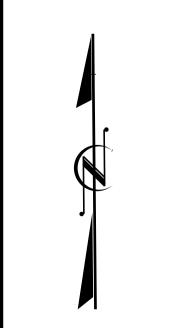
SUMMARY OF QUANTITIES

Plant Materials									
Quantity	Key	Unit	Botanical Name	Common Name	Furnish	ASNS	Spacing		
1081	BG	Each	Bouteloua gracilis 'Blond Ambition' PP22048	Blonde Ambition Blue Grama	2.5" Cell, 32 per tray, Must be fully rooted into this container with full top growth and weed free	12.1.3	2' OC		
465	CL	Each	Chasmanthium latifolium	Northern Sea Oats	2.5" Cell, 32 per tray, Must be fully rooted into this container with full top growth and weed free	12.1.3	3' OC		
1881	ES	Each	Eragrostis spectabilis	Puple Love Grass	2.5" Cell, 32 per tray, Must be fully rooted into this container with full top growth and weed free	12.1.3	12" OC		
12	J۷	Each	Juniperus virginiana 'Burkii'	Burkii Eastern Red Cedar	7-8', B&B, Heavy, Branched to Ground	1.2.3	As shown		
28	LB	Each	Lagerstroemia x 'Biloxi'	Biloxi Crape Myrtle	12-14', 3 to 5 stemed tree form, B&B, No branches below 4', Matched Specimens	1.2.3	As shown		
2339	ML	Each	Muhlenbergia lindheimeri	Lindheimer's Muhly	2.5" Cell, 32 per tray, Must be fully rooted into this container with full top growth and weed free	12.1.3	3' OC		
4272	PV	Each	Panicum virgatum 'Cape Breeze'	Cape Breeze Switchgrass	2.5" Cell, 32 per tray, Must be fully rooted into this container with full top growth and weed free	12.1.3	2' OC		
81	RO	Each	Rosmarinus officinalis 'Huntington Carpet'	Huntington Carpet Rosemary	# 1 Cont., Must be fully rooted into this container with full top growth and weed free	12.1.3	3' OC		
1129	ss	Each	Schizachryirum scoparium The Blues'	The Blues Little Bluestem	2.5" Cell, 32 per tray, Must be fully rooted into this container with full top growth and weed free	12.1.3	2' OC		
286	SR	Each	Sedum rupestre 'Angelina'	Angelina Stonecrop	# 1 Cont., Must be fully rooted into this container with full top growth and weed free	12.1.3	12" OC		
501	SB	Each	Spartina bakeri	Cord Grass	2.5" Cell, 32 per tray, Must be fully rooted into this container with full top growth and weed free	12.1.3	5' OC		
				Other Items					
Quantity	Unit	Desc	ription						
1	LS	Mobil	Mobilization (15%)						
5	EA	Selec	Select Tree Removal						
14	TON	River	Stone (for Drop Inlet Surround)						
8	CY	Tops	oil (for Backfill)						
100	SY	Sodd	ling						
12	M/G	Wate	r for Sod						
1	Acre	Seed	ing and Mulching						
3215	SY	Matti	ng for Erosion Control (Excelsior)						
64	LF	Wattl	Wattle						
668	LBS	Seed	Seed for Supplemental Seeding						
2.3	TON	Fertilizer Topdressing							
13	EA	Mowing Cycle (Approximately 8 Acres per Cycle)							
684	CY	Organic Soil Amendment (3" depth in plant beds)							
8205	SY	Post-	Emergent Herbicidal Treatment for Plant Beds						
8205	SY	Pre-E	mergent Herbicidal Treatment for Plant Beds						
1140	CY	Mulci	Mulch for Planting						
40	M/G	Water for Planting							









2014 American Standard for Nursery Stock

2018 NCDOT STANDARD SPECIFICATIONS

INDEX OF L SHEETS:

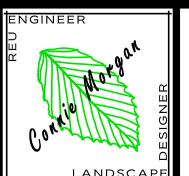
- 1 Title, Description and Summary of Quantities
- 2.... Planting Details
- 3 Drainage Details
- 4.... Vegetation and Drainage Management Plan
- 5.... Planting Plan
- 6 Wall Planting Details



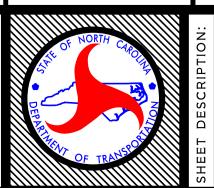
NCDOT - Roadside Environmental Unit **Aesthetic Engineering Section**

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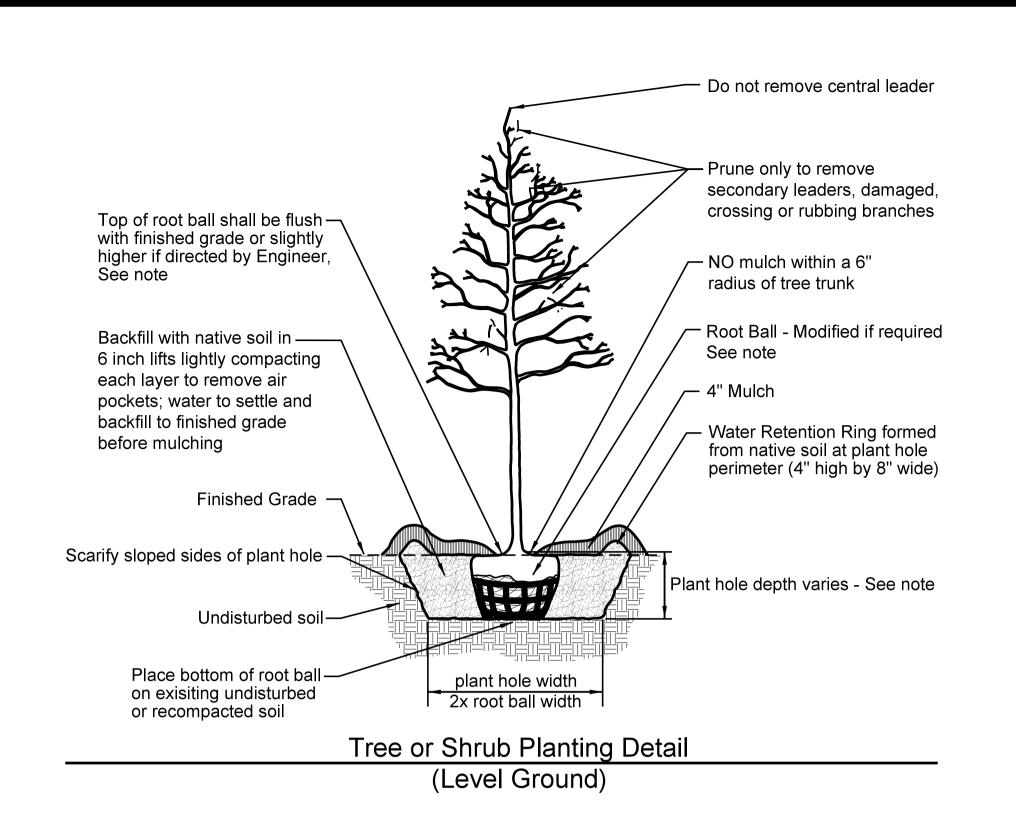
Landscape Enhancement Project - R-3601 **Brunswick County** US 74/17 Interchange with NC 133, River Road SE and SR 1472, Village Road NE

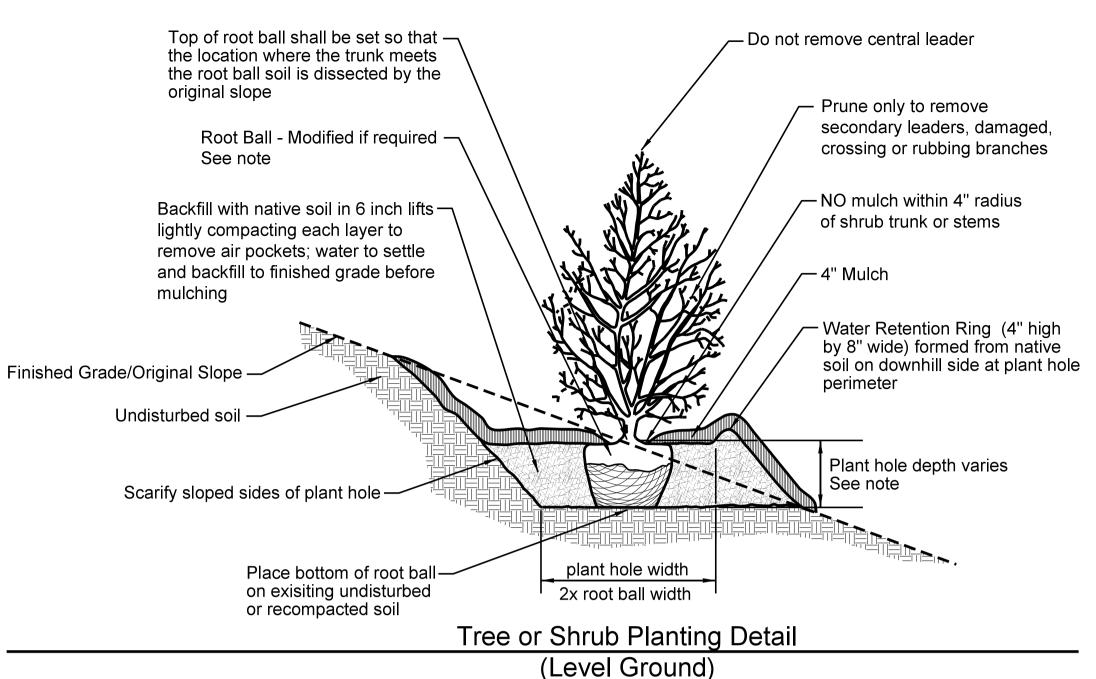


Landscape Development Plans

Title Sheet

		. •
PROJECT:		SHEET NUMBER
US 74/17 & NC 133/9	1	
DIVISION AND COUNTY:		
Division 3 - E	Brunswick	TOTAL SHEETS
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— 2 x 2 Untreated Pine cross member (Resting - 2 x 2 Untreated Pine on root ball) attached cross member (Resting with two 3" drywall on root ball) attached screws at each stake with two 3" drywall screws at each stake 2 x 2 Untreated — Pine Stake (TYP) Root Ball Root Ball 2 x 2 Untreated Pine Stake (TYP) Section Plan View

> Root Ball Staking Detail Trees or Shrubs 8' or Taller

all roots growing

Girdling roots

on periphery

here to remove

See Standard Specifications for Plant Bed preparation and herbicidal treatment.

Plant hole width shall be a minimum of 2 times the diameter of the container or the root ball. Plant hole depth shall be equal to the final depth of the root ball after any modifications. The root ball shall be set on undisturbed soil or re-compacted soil and the root collar shall be visible.

In average to well drained soils, the root collar shall be set level with the surrounding finished grade. If planting in heavy clay or otherwise poorly draining soils, the Engineer may require the root ball to be slightly higher than the surrounding finished grade.

Fertilizer shall be applied at time of planting. Fertilizer shall be a slow release pellet or tablet. Formulation shall be approved by engineer in field. Rates shall be per manufacturer's recommendations and approved by engineer in field. Thoroughly mix with backfill, topsoil or scarified soil.

Backfill plant hole with native soil unless soil is determined to be unacceptable.

Remove rocks greater than 3 inches, foreign materials and construction debris from backfill material. If native soil cannot be used, use soil with properties similar to that in the area and approved by the Engineer.

Do not place mulch within 4" of tree or shrub trunk. Root collar should be visible.

When a mulched bed is adjacent to a guardrail run mulch to front edge of guardrail.

Pruning shall be done as indicated on detail and as directed by the Engineer. Any pruning necessary shall follow current standard arboricultural practices and the International Society of Arboriculture recommendations.

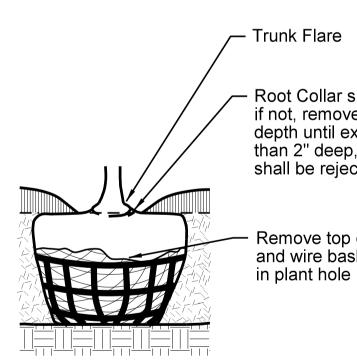
Trees or large shrubs shall be root ball staked if needed and at the direction of the Engineer. Any substitutions of material or method must be approved by the Engineer

All trees and shrubs shall be planted in an upright, plumb position. If a tree or shrub needs to be straightened, it shall be dug and replanted in correct position.

All plant material tags and/or flagging tape shall be removed from all plants prior to final acceptance of the project.

Note: Prune only to remove Loosen roots if removing from container or bag; damaged vegetation. Cut if root bound, cut through outer edge of root ball back top growth if directed to eliminate girdling roots and spread roots. Place by the Engineer. plant in the hole so that the crown is at the same level as the finished grade or slightly above, but never more than 2". Backfill the hole with the tilled soil and lightly compact. Water bed immediately upon completion of installation. Create pockets in the mulch for the plants, do not cover with mulch - 4" Mulch - Finished Grade Fill entire plant bed area to a minimum depth of 6", or 2" deeper than the root mass or the plant container, whichever is greatest Undisturbed soil Plant Bed Detail

> (Herbaceous Perennials, Ornamental Grasses, Groundcovers, Vines, Bulbs, Corms and Tubers) (Small Containers or Bare Root)



 Root Collar should be visible; if not, remove soil up to 2" in depth until exposed. If greater than 2" deep, tree or shrub shall be rejected.

Remove top one third of burlap and wire basket after placing

Section

*Inspect all plants to locate root collar prior to acceptance. Plants with root collar depth greater than 2" from the top of the root ball shall be rejected

Root Ball Depth /Root Collar

Root Ball Shaving

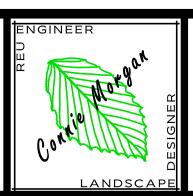
Root Ball Modification Details Balled and Burlapped or Container



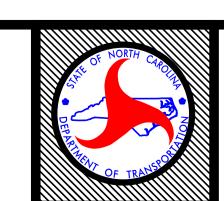
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Landscape Enhancement Project - R-3601 **Brunswick County** US 74/17 Interchange with NC 133, River Road SE and SR 1472, Village Road NE



Landscape Development Plans

Planting Details

PROJECT:		SHEET NUM
US 74/17 & NC 133/5	SR 1472 Interchange	2
DIVISION AND COUNTY:		
Division 3 - B	Brunswick	TOTAL SHE
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Plan View Girdling roots – Shave outer periphery of root ball up to a maximum of 2" using a sharp blade or hand saw; remove only as much as necessary to remove the girdling roots Exposed root tips; all girdling roots around root ball periphery have been removed

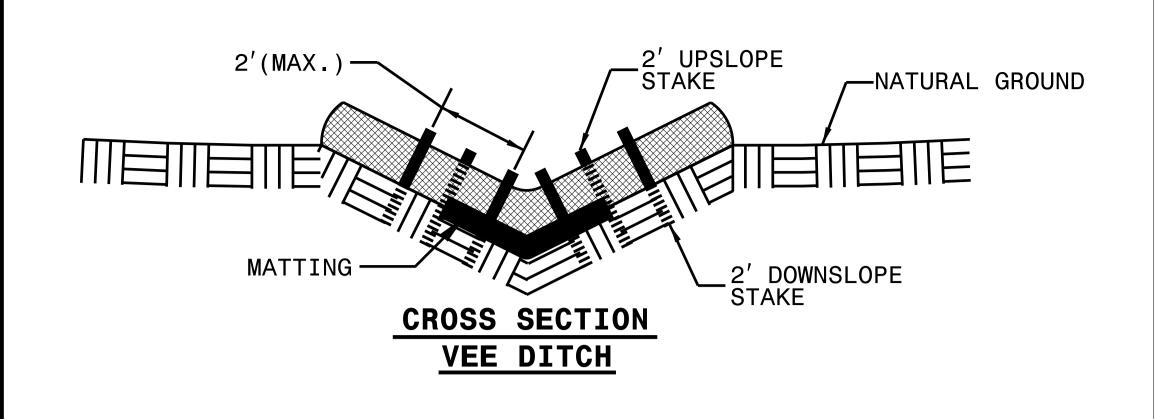
Section

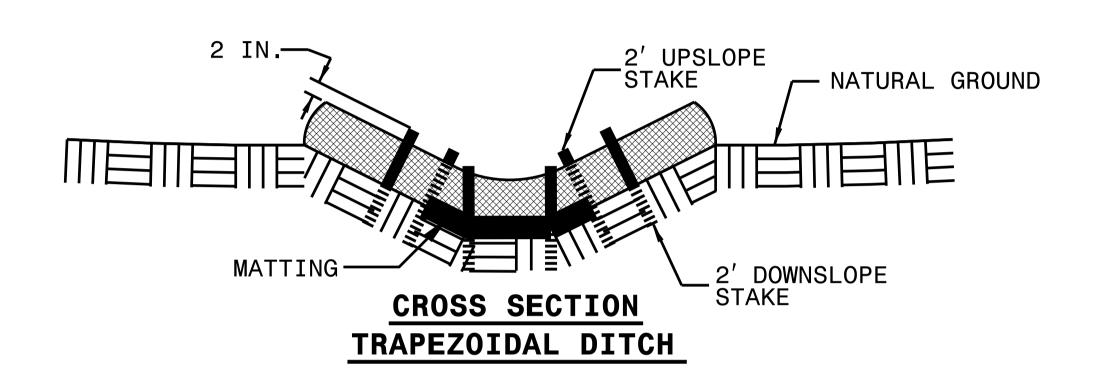
*Inspect and perform for all plants that exhibit girdling root systems. Root ball shaving may be done just prior to or after placing in planting hole.

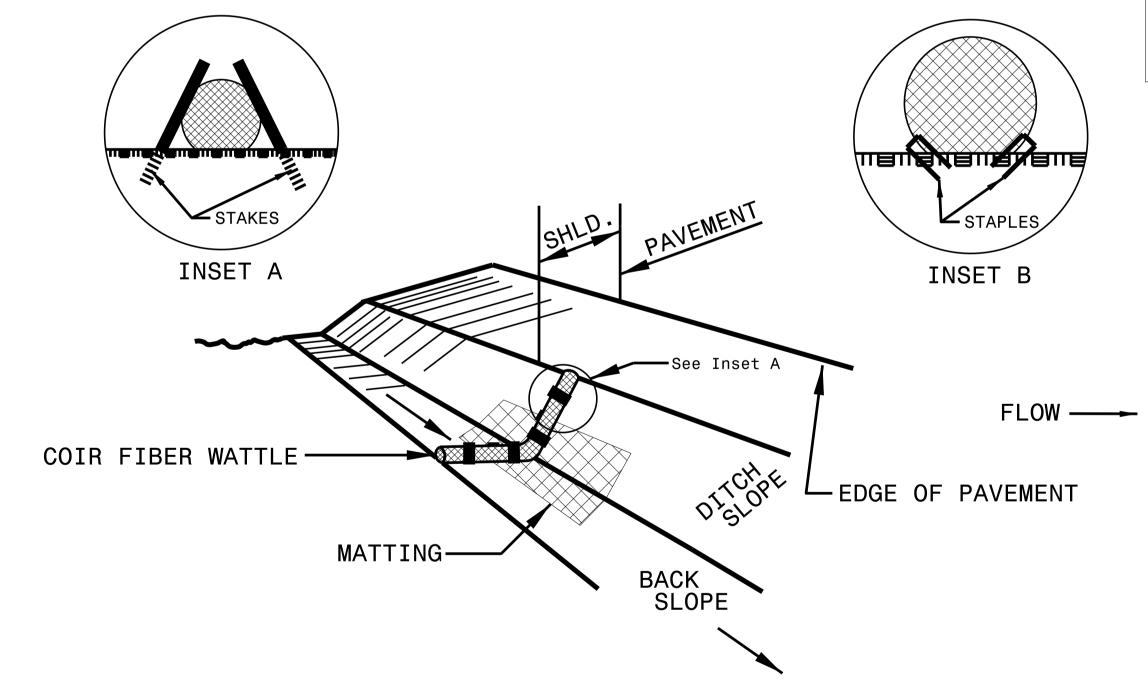
prior to installation.

Planting Detail Notes:

Drawings are not to scale





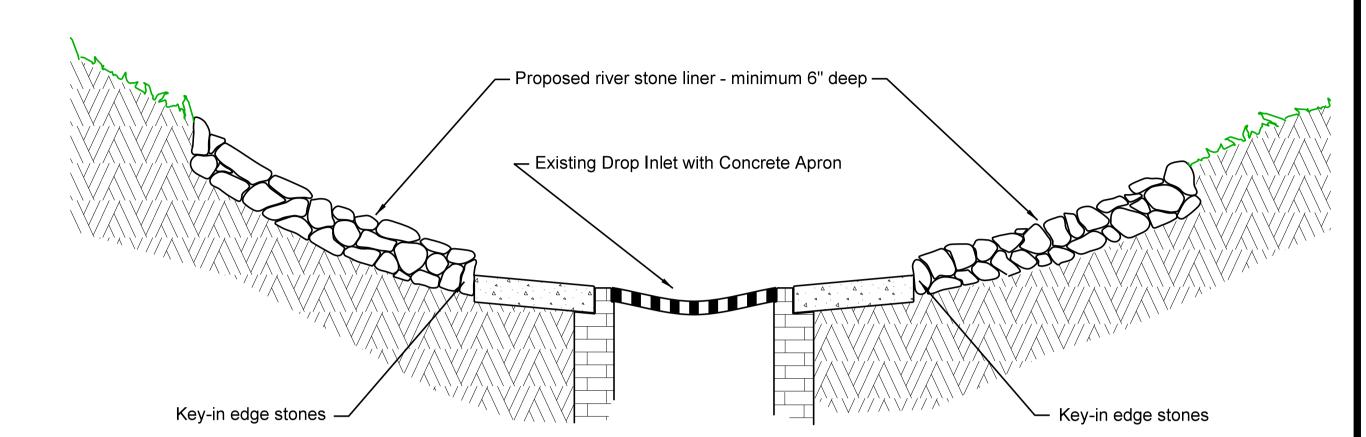


ISOMETRIC VIEW

Existing Drop Inlet — Proposed River Stone Liner _ Existing drainage ditch, Existing Curb and Gutter

NOTE: The drainage ditches in all four quadrants are to be renovated at the direction of the Engineer in the field. Remove any woody vegetation and regrade as needed to provide a smooth flow of runoff. Install erosion control devices as needed and as directed by the Engineer. Once positive drainage has been achieved and any irregular depressions or 'washes' have been filled with topsoil, prepare and seed to establish a vegetative cover as soon as possible.

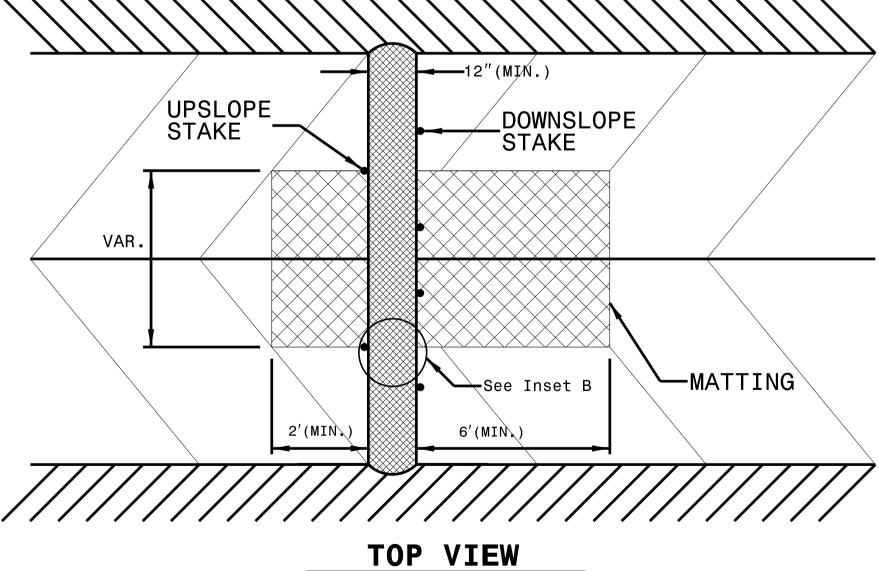
The area immediately around the existing drop inlets is to be lined with river stone as shown in the details.



Drop Inlet River Stone Liner Detail Plan View

Drop Inlet River Stone Liner Detail Cross Section A-A

Drawings are not to scale



Wattle Notes:

USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

COIR FIBER WATTLE DETAIL



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Landscape Enhancement Project - R-3601 **Brunswick County** US 74/17 Interchange with NC 133, River Road SE and SR 1472, Village Road NE

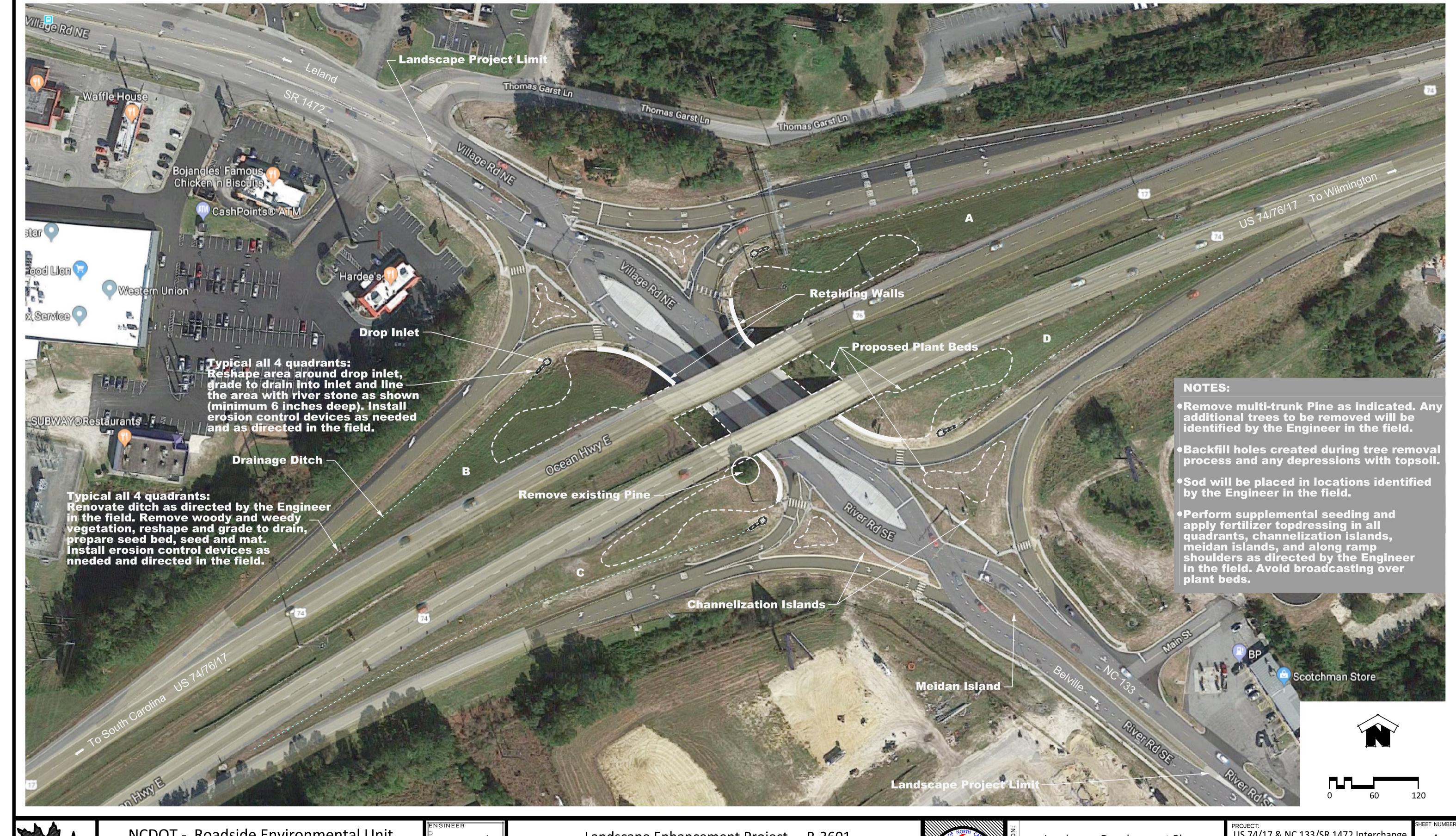


RIPTION:	Landscape Development Plans
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Drainage Details

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Drawings are not to scale



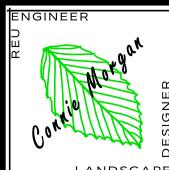


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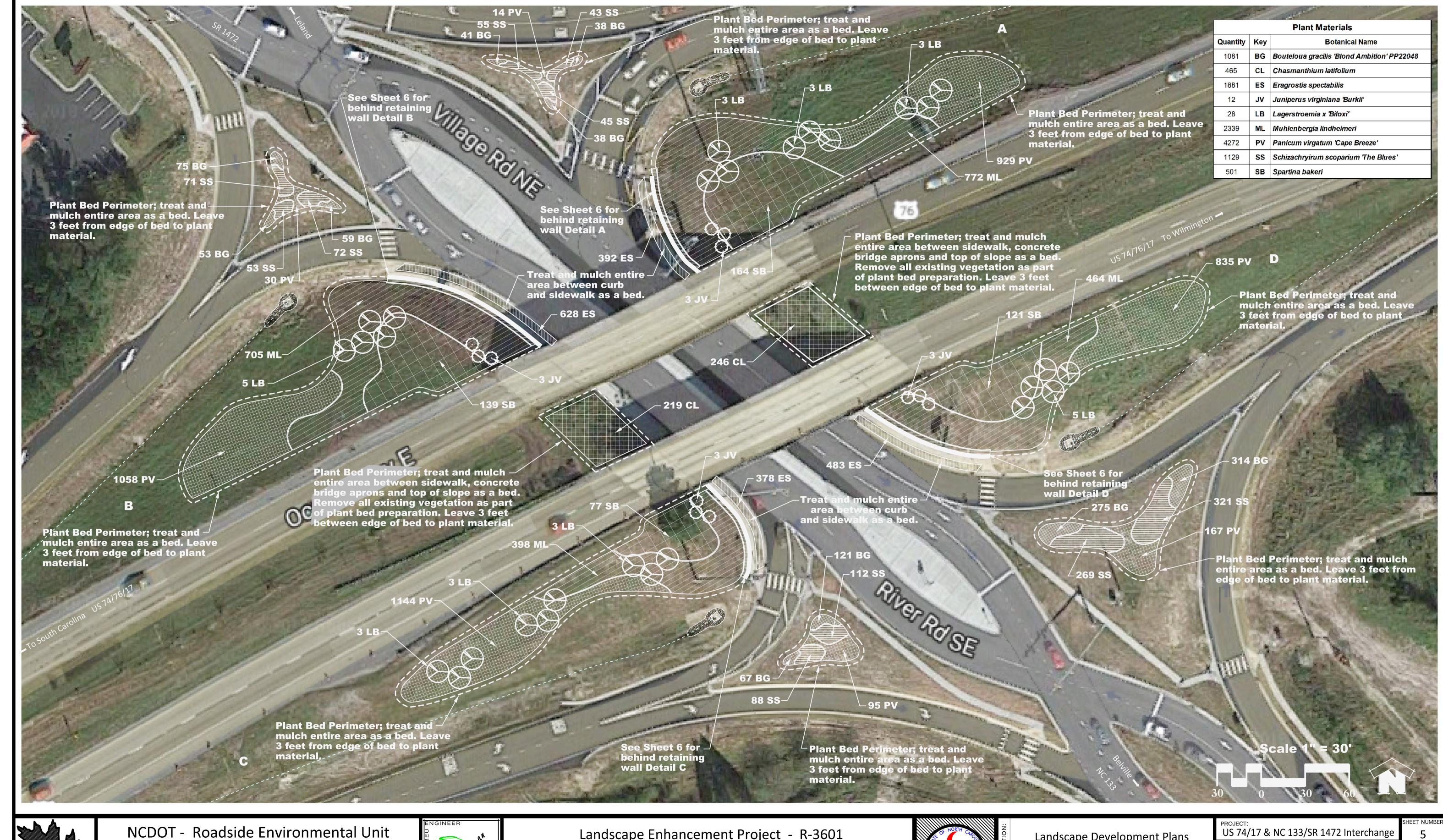
Landscape Enhancement Project - R-3601 **Brunswick County** US 74/17 Interchange with NC 133, River Road SE and SR 1472, Village Road NE



Landscape Development Plans

Vegetation and Drainage Management Plan

PROJECT:		SHEET NU
US 74/17 & NC 133/9	SR 1472 Interchange	4
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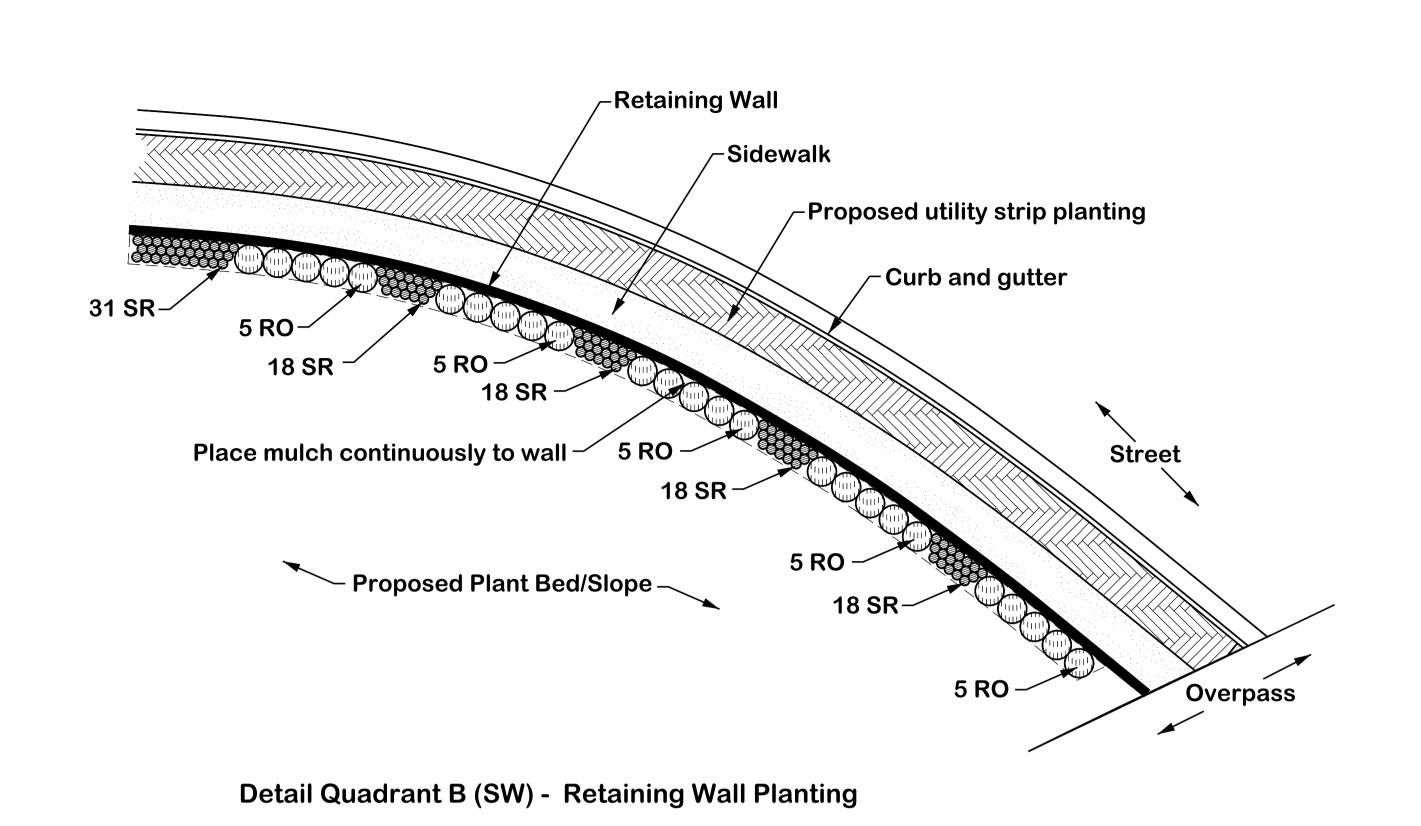
Landscape Enhancement Project - R-3601 **Brunswick County** US 74/17 Interchange with NC 133, River Road SE and SR 1472, Village Road NE

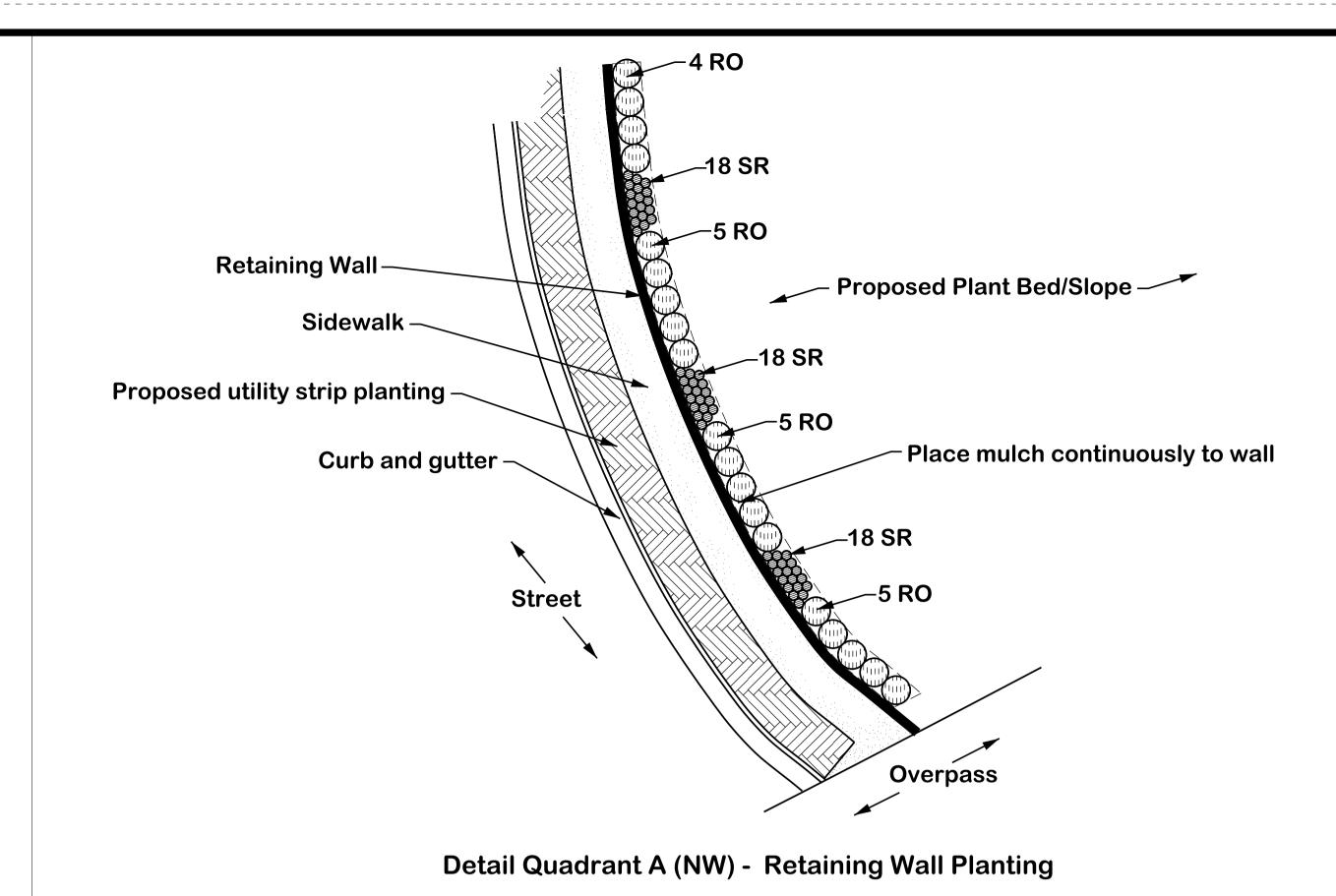


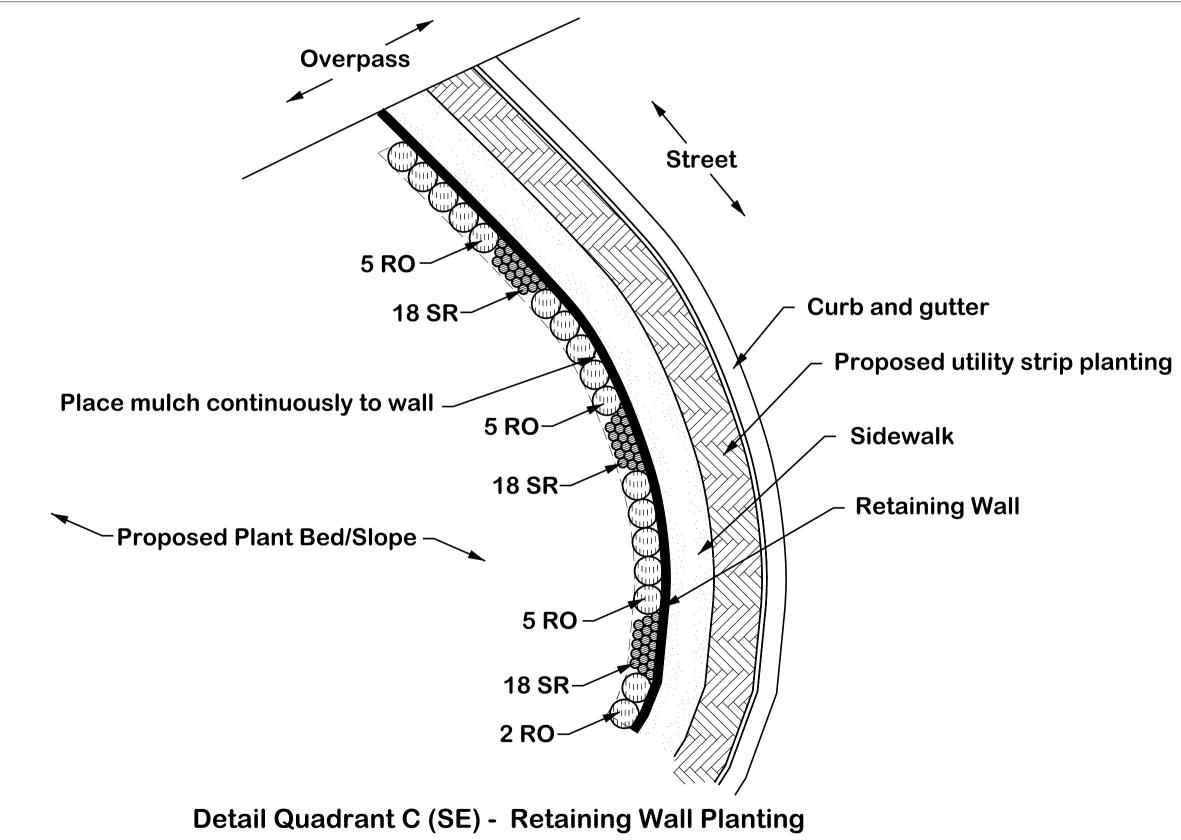
Landscape Development Plans

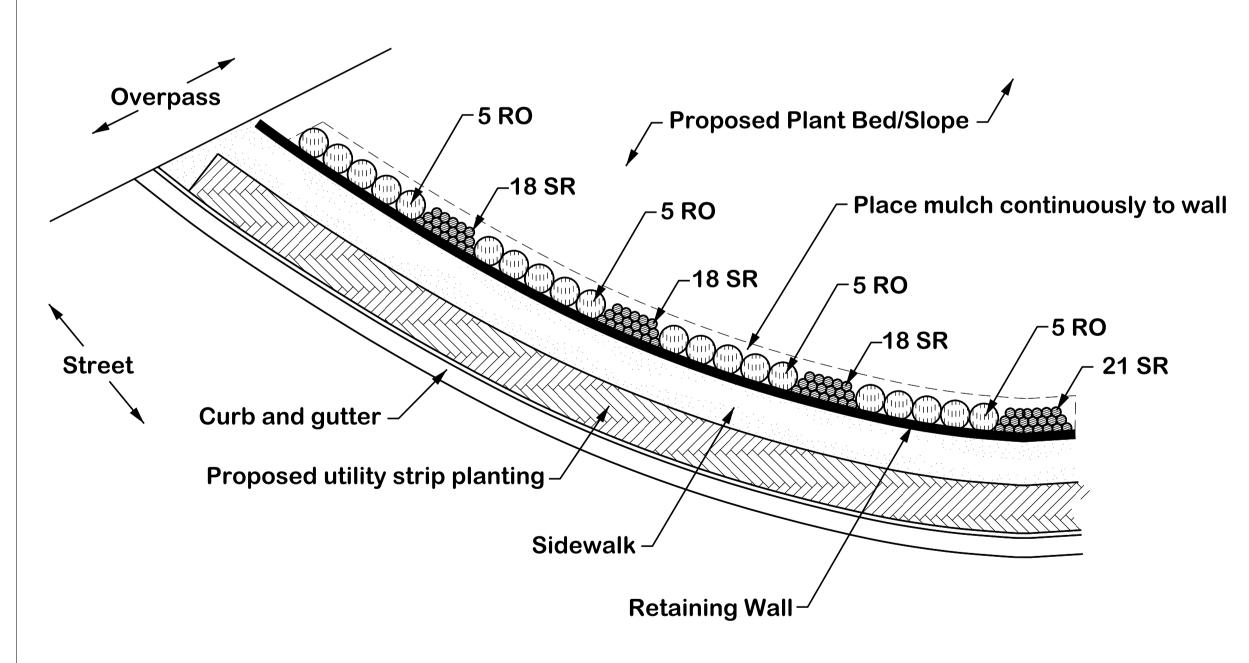
DIVISION AND COUNTY: Planting Plan

Division 3 - Brunswick PRELIMINARY DESIGN DATE : August, 2017 May 25, 2018 FINAL DESIGN DATE: July 10, 2018 REVISION DATES:









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Plant List		Plant List
Quantity	tity Key Botanical Name	
81	RO	Rosmarinus officinalis 'Huntington Carpet'
286	SR	Sedum rupestre 'Angelina'

Detail Quadrant D (NE) - Retaining Wall Planting

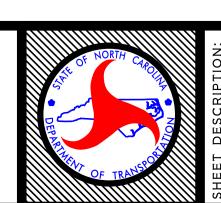
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Landscape Enhancement Project - R-3601
Brunswick County
US 74/17 Interchange with NC 133, River Road SE and SR 1472, Village Road NE



Landscape Development Plans	
Planting Plan Retaining Wall Planting - Details	

PROJECT:	SD 4472 Indianal and	SHEET NUN
US 74/17 & NC 133/5	or 1472 Interchange	6
DIVISION AND COUNTY:		U
Division 3 - B	Brunswick	TOTAL SHE
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