STATE OF NORTH CAROLINA N.C. 17BP.1.C.1 1 DIVISION OF HIGHWAYS PROJECT TYRRELL COUNTY I7BP. Columbia, Pop. 836 LOCATION: SR 1214 NEW RD - 0.5 MILES NORTH OF SR 1209 PROJECT: TYPE OF WORK: CULVERT REPLACEMENT [64] VICINITY MAP BEGIN CONST. STATE PROJECT WBS# 17BP.1.C.1 END CONST. STATE PROJECT WBS# 17BP.1.C.1 -L-STA.10+00.00-L-STA.14 + 72.58Prepared in the Office of: GRAPHIC SCALES **DIVISION OF HIGHWAYS** ONTRA **DIVISION ONE OFFICE** 113 Airport Dr., Suite 100, Edenton NC, 27932 Nothing Compares 2012 STANDARD SPECIFICATIONS

D. HEATH STALLINGS

DRAWN BY

CONVENTIONAL

PLAN SHEET SYMBOLS *S.U.E. = Subsurface Utility Engineering

BOUNDARIES AND PROPERTY:		Note: Not to S	Scale
State Line — — — — — — — — — — — — — — — — — — —			
Township Line		RAILROADS:	
		Standard Gauge —————	CSX TRANSPORTATION
City Line Reservation Line		RR Signal Milepost	⊕ MILEPOST 35
Property Line —		Switch —	
		RR Abandoned —————	SWITCH
Existing Iron Pin		RR Dismantled —————	
Property Corner		RIGHT OF WAY:	
Property Monument		Baseline Control Point	•
Parcel/Sequence Number —	- (23)	Existing Right of Way Marker	\wedge
Existing Fence Line			
Proposed Woven Wire Fence		Existing Right of Way Line	
Proposed Chain Link Fence		Proposed Right of Way Line	
Proposed Barbed Wire Fence		Proposed Right of Way Line with Iron Pin and Cap Marker	
Existing Wetland Boundary		Proposed Right of Way Line with	
Proposed Wetland Boundary —		Concrete or Granite R/W Marker	
Existing Endangered Animal Boundary ———		Proposed Control of Access Line with Concrete C/A Marker	
Existing Endangered Plant Boundary ———		Existing Control of Access	(Ĉ)
Existing Historic Property Boundary ————	нрв	Proposed Control of Access ————	
Known Contamination Area: Soil ————		Existing Easement Line	—— F——
Potential Contamination Area: Soil ————	X X	Proposed Temporary Construction Easement -	_
Known Contamination Area: Water ———		Proposed Temporary Drainage Easement —	
Potential Contamination Area: Water ———		Proposed Permanent Drainage Easement —	
Contaminated Site: Known or Potential ——	- X X		
BUILDINGS AND OTHER CULT	URE:	Proposed Permanent Drainage / Utility Easemen	
Gas Pump Vent or U/G Tank Cap ————	- 0	Proposed Permanent Utility Easement ———	
Sign —		Proposed Temporary Utility Easement ———	
Well —		Proposed Aerial Utility Easement ————	AUE——
Small Mine		Proposed Permanent Easement with	
Foundation —		Iron Pin and Cap Marker	~
Area Outline		ROADS AND RELATED FEATURE	
Cemetery		Existing Edge of Pavement —	
Building —		Existing Curb	
School —		Proposed Slope Stakes Cut ————	
Church —	#	Proposed Slope Stakes Fill ————	F
		Proposed Curb Ramp ————	CR
Dam -		Existing Metal Guardrail —————	
HYDROLOGY:		Proposed Guardrail —————	
Stream or Body of Water —		Existing Cable Guiderail —————	
Hydro, Pool or Reservoir		Proposed Cable Guiderail	
Jurisdictional Stream		Equality Symbol	•
Buffer Zone 1		Pavement Removal ————————————————————————————————————	
Buffer Zone 2		VEGETATION:	
Flow Arrow		Single Tree	£
Disappearing Stream ————		Single Shrub	٥
Spring —		Hedge ———	
Wetland		Woods Line	
Proposed Lateral, Tail, Head Ditch ————	← FLOW		
False Sump —	\Leftrightarrow		

Orchard ————	6 6 6 6
/ineyard —	Vineyard
EXISTING STRUCTURES:	
MAJOR:	
Bridge, Tunnel or Box Culvert ————	CONC
Bridge Wing Wall, Head Wall and End Wall -	
AINOR:	
Head and End Wall —	
Pipe Culvert ————	
Footbridge	
Drainage Box: Catch Basin, DI or JB ———	СВ
Paved Ditch Gutter	
Storm Sewer Manhole —	S
Storm Sewer —	s
UTILITIES:	
POWER:	
Existing Power Pole —	•
Proposed Power Pole —	b
Existing Joint Use Pole	
Proposed Joint Use Pole —	-
Power Manhole —	P
Power Line Tower —	\boxtimes
Power Transformer ———————————————————————————————————	otan
U/G Power Cable Hand Hole —	
H-Frame Pole	•—•
U/G Power Line LOS B (S.U.E.*)	
U/G Power Line LOS C (S.U.E.*)	
U/G Power Line LOS D (S.U.E.*)	Р
ELEPHONE:	
Existing Telephone Pole	-•-
Proposed Telephone Pole ——————	- o -
Telephone Manhole	①
Telephone Pedestal —	
Telephone Cell Tower —	<u>,</u>
U/G Telephone Cable Hand Hole ———	HH
U/G Telephone Cable LOS B (S.U.E.*)	t
U/G Telephone Cable LOS C (S.U.E.*)	
U/G Telephone Cable LOS D (S.U.E.*)	
U/G Telephone Conduit LOS B (S.U.E.*) —	
U/G Telephone Conduit LOS C (S.U.E.*)	
U/G Telephone Conduit LOS D (S.U.E.*)—	
U/G Fiber Optics Cable LOS B (S.U.E.*)	
U/G Fiber Optics Cable LOS C (S.U.E.*)	
U/G Fiber Optics Cable LOS D (S.U.E.*)	

ter Manhole ter Meter – ter Valve ter Hydrant – Water Line LOS B (S.U.E*) Water Line LOS C (S.U.E*) Water Line LOS D (S.U.E*) ove Ground Water Line ——— C Pedestal — TV Cable Hand Hole ----TV Cable LOS B (S.U.E.*) -------TV Cable LOS C (S.U.E.*) TV Cable LOS D (S.U.E.*) — TV— Fiber Optic Cable LOS D (S.U.E.*) — TV FO TV FO Valve ----Gas Line LOS B (S.U.E.*) ------Gas Line LOS C (S.U.E.*) Gas Line LOS D (S.U.E.*) ove Ground Gas Line —— TARY SEWER: itary Sewer Manhole itary Sewer Cleanout ----Sanitary Sewer Line ove Ground Sanitary Sewer ________A/G Sanitary Sewer Forced Main Line LOS B (S.U.E.*) — ----FSS----Forced Main Line LOS D (S.U.E.*) — FSS — F CELLANEOUS: ity Pole — ity Pole with Base — ity Located Object — ity Traffic Signal Box —— ity Unknown U/G Line LOS B (S.U.E.*) Tank; Water, Gas, Oil — lerground Storage Tank, Approx. Loc. — UST Tank; Water, Gas, Oil —— penvironmental Boring — Test Hole LOS A (S.U.E.*) **(** ındoned According to Utility Records — **AATUR** of Information —— E.O.I.

WATER:

PROJECT NO.	SHEET NO.	TOTAL NO.
17BP.1.C.1	2	

SUMMARY OF QUANTITIES

PROJECT	COUNTY	MAP	ROUTE	DESCRIPTION	TYP	LENGTH	WIDTH	MOBILIZATION	GRADING	BASE	SURFACE	ASPHALT	RIP RAP,	GEOTEXTILE FOR	TEMPORARY
										COURSE,	COURSE,	BINDER FOR	CLASS B	DRAINAGE	TRAFFIC
										B25.0B	SF9.5A	PLANT MIX			CONTROL
NO		NO			NO	MI	FT	LS	LS	TONS	TONS	TONS	TON	SY	
17BP.1.C.1	Tyrrell	1	SR 1214 NEW RD	REPLACE PIPE CULVERT		0.09	25	1	1	50	40	5	20	100	1
	GRAN	D TOT	AL			0.09		1	1	50	40	5	20	100	1

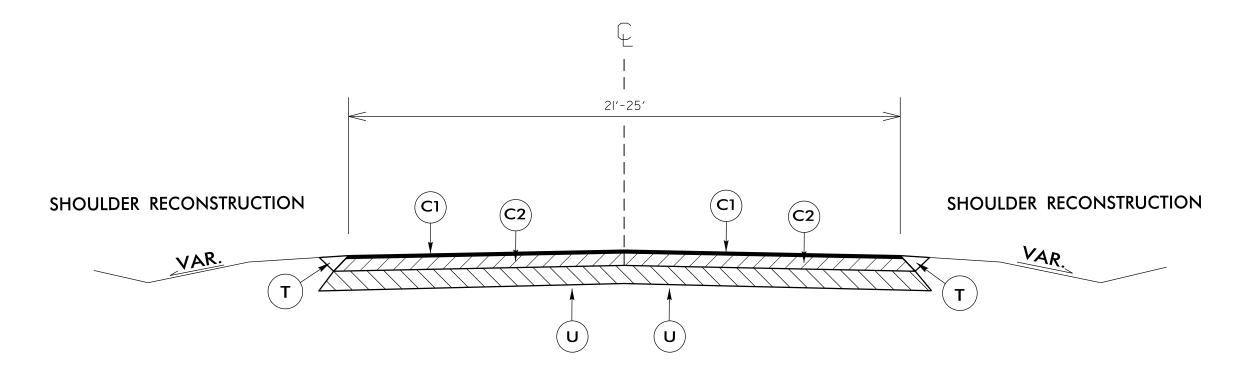
PROJECT	COUNTY	MAP	ROUTE	DESCRIPTION	TYP	LENGTH	WIDTH	TEMPORARY	SAFETY	COIR FIBER	SEEDING &	RESPONSE	GENERIC	GENERIC CULVERT	GENERIC
								SILT FENCE	FENCE	WATTLE	MULCHING	FOR	EROSION	ITEM	CULVERT ITEM
												EROSION	CONTROL ITEM	(2@87"X63"X54' CAP)	(ADDITIONAL
												CONTROL	(DEWATERING)		CULVERT
															UNDERCUT)
NO		NO			NO	MI	FT	LF	LF	LF	ACR	EA	LS	EA	CY
17BP.1.C.1	Tyrrell	1	SR 1214 NEW RD	REPLACE PIPE CULVERT		0.09	25	250	200	100	0.10	5	1	1	75
	GRAN	ID TOT	AL			0.09		250	200	100	0.10	5	1	1	75

Р	Α	V	F	М	F	N	Т	S	C	Н	F	D	U	1	F
	$\overline{}$	v	_	171		11		J	v		_	$\boldsymbol{\nu}$	U		_

PROJECT REFERENCE NO.	SHEET NO.
17BP.1.C.1	3

C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 5½" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.
U	FILL MATERIAL (#5 OR #57 STONE)
Т	EARTH MATERIAL.

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



TYPICAL SECTION NO. 1

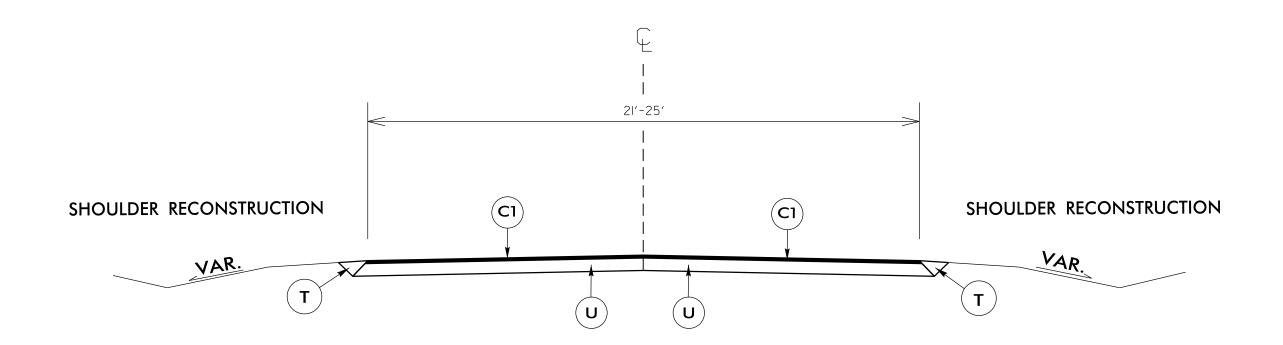
USE IN PIPE TRENCH ONLY

Р	Α	V	F	М	F	N	Т	S	C	Н	F	D	П	1	F
	$\overline{}$	v		171		1.1	- 1	J	v			$\boldsymbol{\nu}$	U	_	

PROJECT REFERENCE NO.	SHEET NO.
17BP.1.C.1	3- A

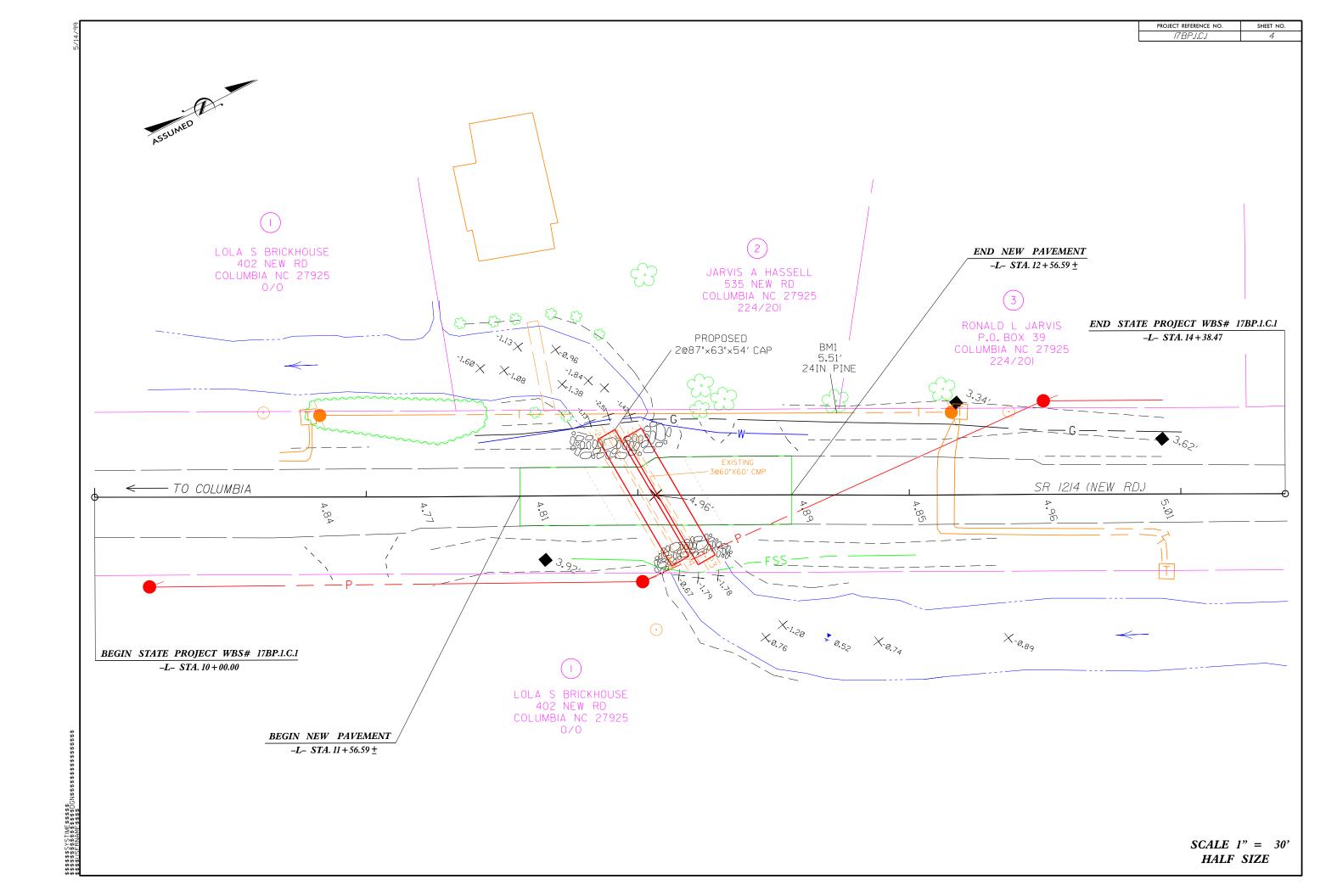
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
U	EXISTING PAVEMENT
Т	EARTH MATERIAL.

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

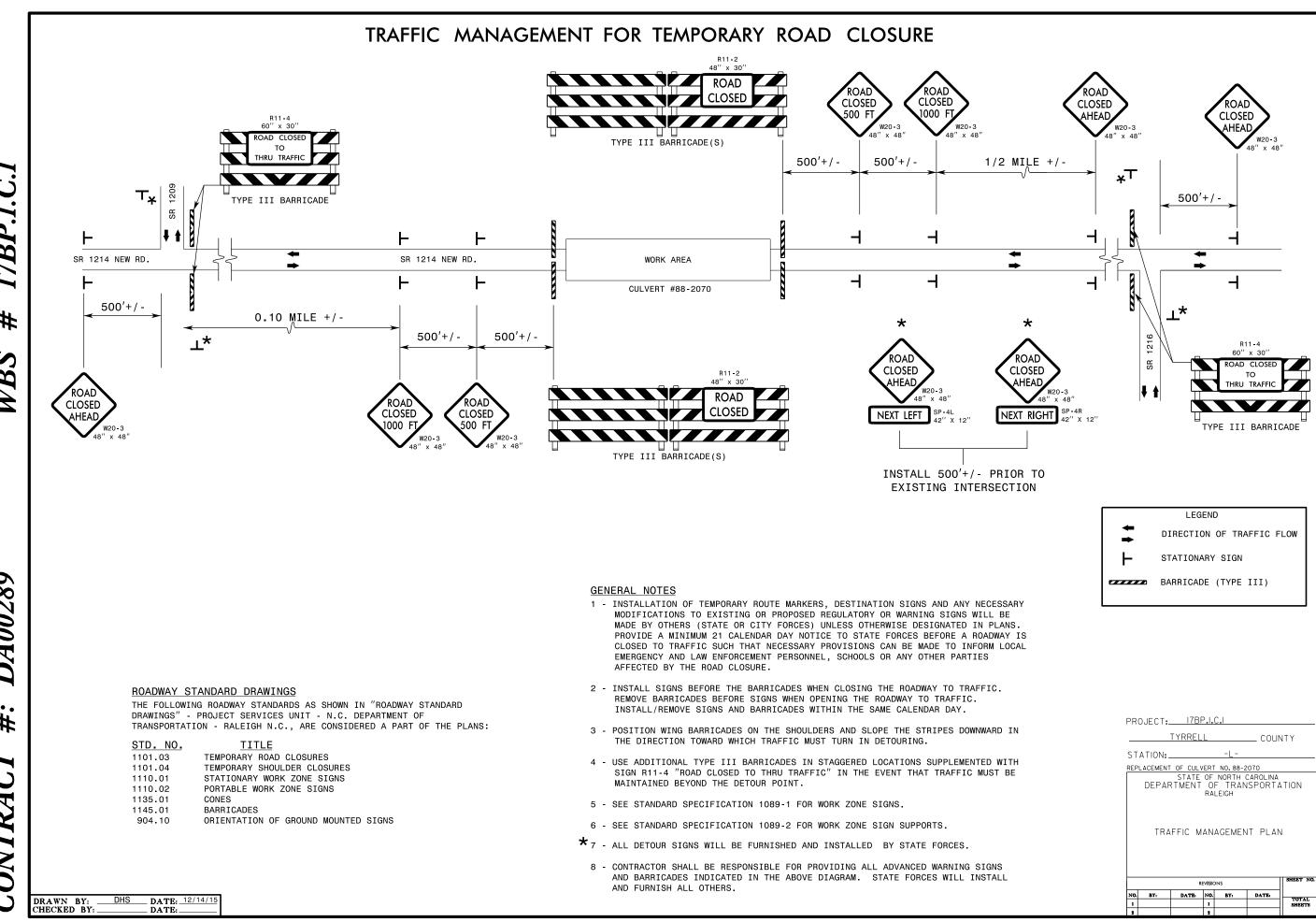


TYPICAL SECTION NO. 2

USE IN NON TRENCH AREAS







STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

PLAN FOR PROPOSED

HIGHWAY EROSION CONTROL

Pipe Installation Schedule

- 1) Install erosion control devices per plans. 2) Remove material and existing pipe
- while limiting, as much as possible, material and sediment from entering the stream and/or escaping from the project.
- 3) Prepare pipe foundation while taking care to limit material and sediment from entering the stream and/or escaping from the project. Bury the pipe in accordance with the permit. If needed, bedding material will be clean stone (especially in Trout and HQW waters).
- 4) Place new pipe and compact fill.
- 5) Install slope protection on outlet ends of pipe according to permit drawing. Also complete installation of erosion control measures and perform maintenance as needed on existing measures.
- 6) Establish permanent vegetaion as soon as possible.

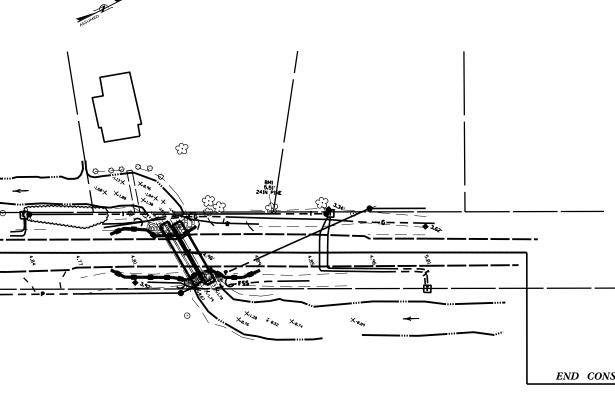
← TO COLUMBIA

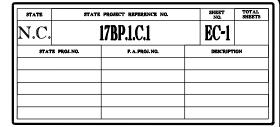
1) Install erosion control measures according to plans at all outlets and at other discharge points after clearing but before grubbing.

Erosion Control Schedule

- 2) Begin grading of roadway ditches. Place erosion control measures along roadway ditches as grading progresses and conditions allow.
- 3) Seed and mulch all disturbed areas as soon as any phase of grading is completed. Exposed areas can not lay idle for more than 21 calendar days without being provided adequate groundcover..
- 4) Clean out and/or rework all temporary erosion control measures after any significant rainfall event (or as otherwise needed). These measures should be maintained until a permanent vegetative cover is established

TYRRELL COUNTY





EROSION AND SEDIMENT CONTROL MEASURES 1630.03 Temporary Silt Ditch_____ 1630.05 Temporary Silt Fence _____ | III | III | III 1605 01 Special Sediment Control Fence Temporary Berms and Slope Drains 1622.01 Silt Basin Type B_____ Temporary Rock Silt Check Type-A.... Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM) Temporary Rock Silt Check Type-B_____ Wattle / Coir Fiber Wattle_____ Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)_____ Temporary Rock Sediment Dam Type-A____ Temporary Rock Sediment Dam Type B. 1635.01 Rock Pipe Inlet Sediment Trap Type A__ 1635.02 Rock Pipe Inlet Sediment Trap Type-B___ 1630.04 Stilling Basin Special Stilling Basin 1630.06 Rock Inlet Sediment Trap: 1632.01 Туре А......А 1632.02 Туре В......В 1632.03

> THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CULVERT REPLACEMENT PHASE OF CONSTRUCTION.

END CONST. STATE PROJECT WBS# 17BP.1.C.1

-L- STA. 14 + 72.58

GRAPHIC SCALE



PROFILE (HORIZONTAL)

PROFILE (VERTICAL)

LEVEL III-A: DESIGNER OF **EROSION AND** SEDIMENT CONTROL **PLANS**

BEGIN CONST. STATE PROJECT WBS# 17BP.1.C.1

-L-STA.10+00.00

D. Heath Stallings

CERTIFICATION NUMBER: 290

SR 1214 (NEW RO.)

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER QUALITY.

Prepared in the Office of:

ROADSIDE ENVIRONMENTAL UNIT

1 South Wilmington St. Raleigh, NC 27611

2012 STANDARD SPECIFICATIONS

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2012 and the latest

1604.01 Railroad Erosion Control Detail 1605.01 Temporary Silt Fence 1606.01 Special Sediment Control Fence 1607.01 Gravel Construction Entrance 1622.01 Temporary Berms and Slope Drains 1630.01 Riser Basin 1630.02 Silt Basin Type B 1630.02 Silt Basin Type B
1630.03 Temporary Silt Ditch
1630.04 Stilling Basin
1630.05 Temporary Diversion
1630.06 Special Stilling Basin
1631.01 Matting Installation

1633.02 Temporary Rock Silt Check Type B 1634.01 Temporary Rock Sediment Dam Type B 1634.02 Temporary Rock Sediment Dam Type B 1635.01 Rock Pipe Inlet Sediment Trap Type B 1635.02 Rock Pipe Inlet Sediment Trap Type B

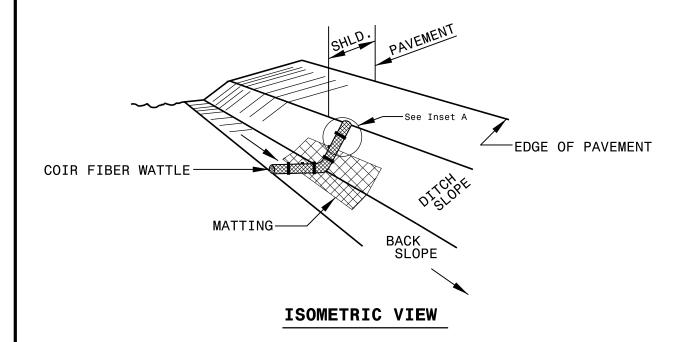
1632.01 Rock Inlet Sediment Trap Type A 1632.02 Rock Inlet Sediment Trap Type B 1632.03 Rock Inlet Sediment Trap Type C

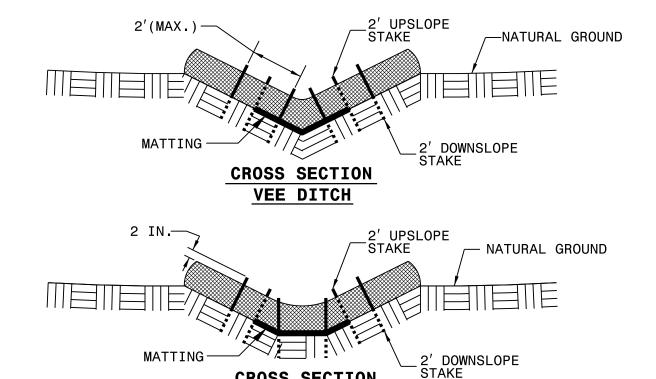
1633.01 Temporary Rock Silt Check Type A

1640.01 Coir Fiber Baffle

COIR FIBER WATTLE DETAIL

PROJECT REFERENCE NO	SHEET NO.						
I7BPJ.CJ	I7BP.J.C.J						
R/W SHEET N	10.						
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER					





CROSS SECTION
TRAPEZOIDAL DITCH

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.

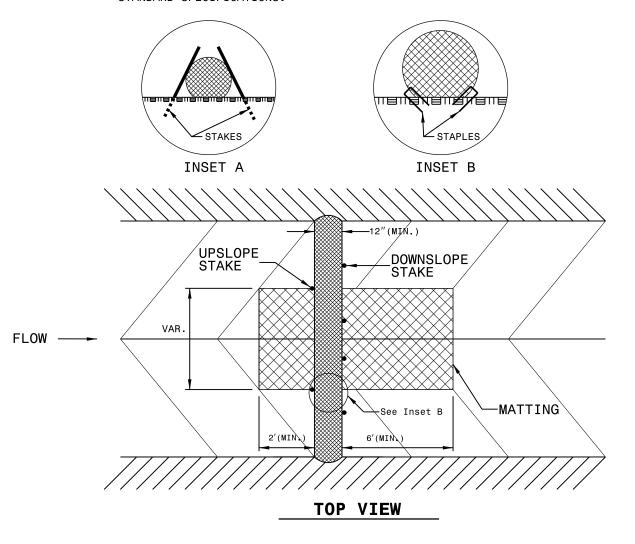
 $\underline{\text{ONLY}}$ INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

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.

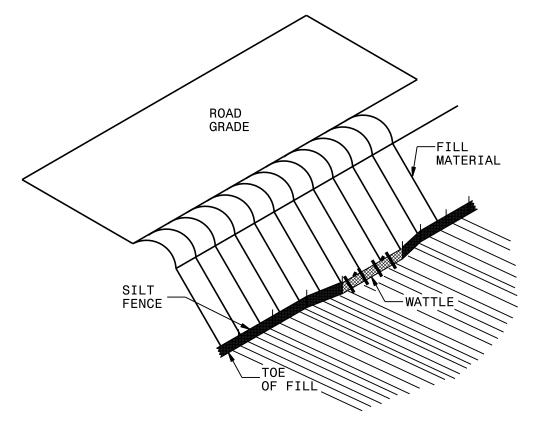
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

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

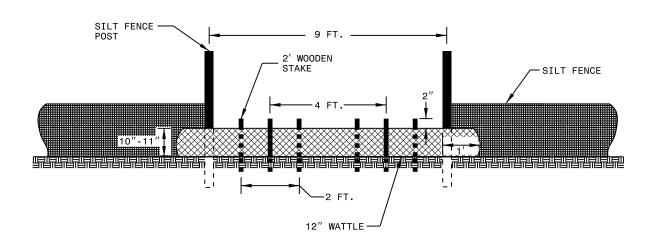


SILT FENCE COIR FIBER WATTLE BREAK DETAIL

PROJECT REFERENCE NO		
I7BPJ.CJ	EC-2C	
R/W SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	



ISOMETRIC VIEW



VIEW FROM SLOPE

NOTES:

USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE AND LENGTH OF 10 FT.

EXCAVATE A 1 TO 2 INCH TRENCH FOR WATTLE TO BE PLACED.

DO NOT PLACE WATTLE ON TOE OF SLOPE.

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

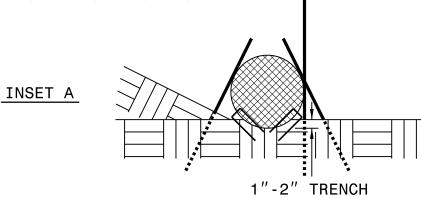
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO GROUND.

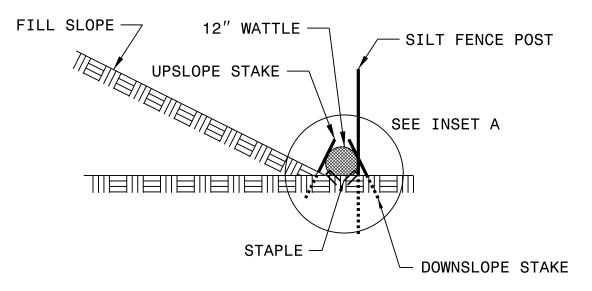
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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

WATTLE INSTALLATION CAN BE ON OUTSIDE OF THE SILT FENCE AS DIRECTED.

INSTALL TEMPORARY SILT FENCE IN ACCORDANCE WITH SECTION 1605 OF THE STANDARD SPECIFICATIONS.





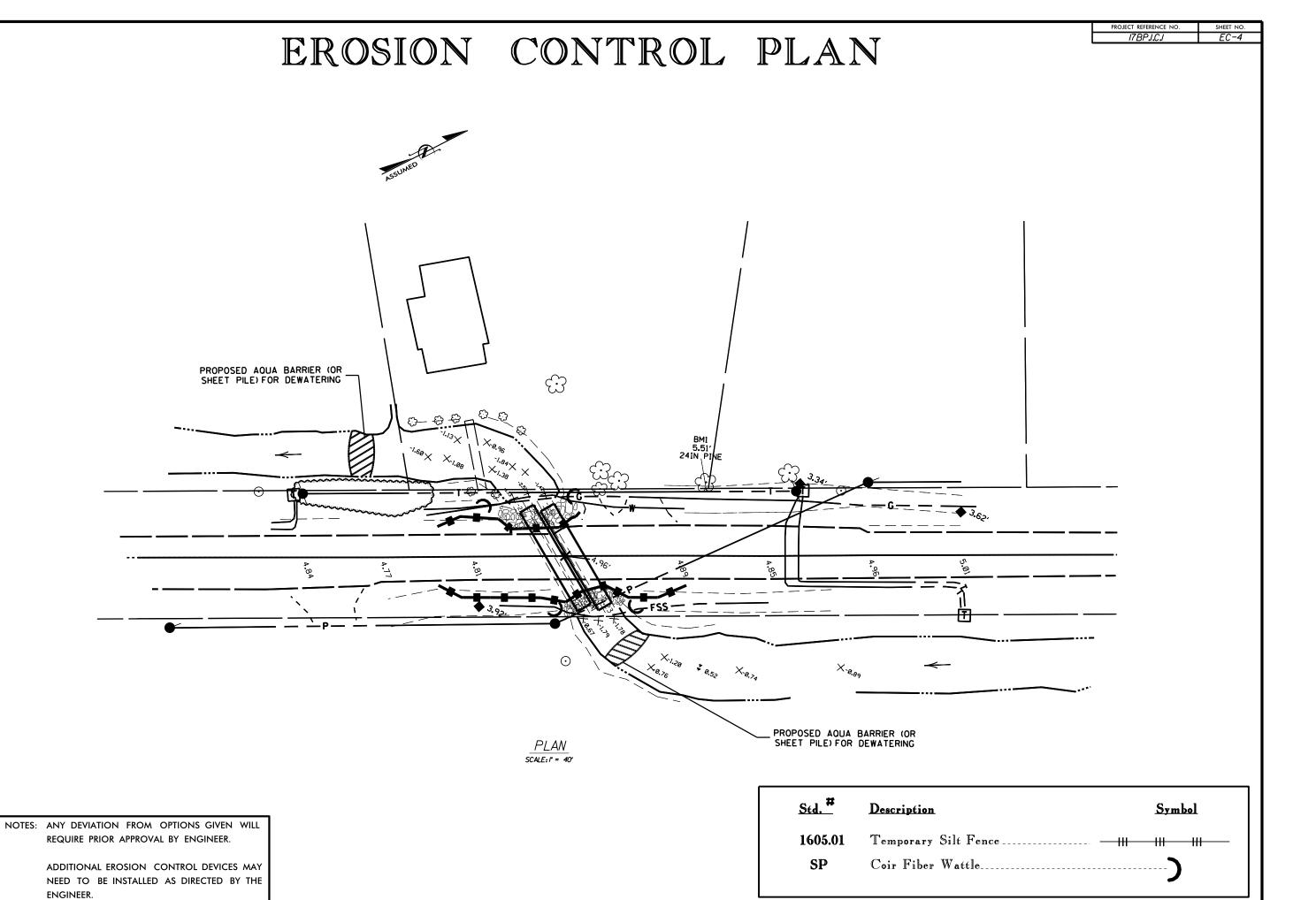
SIDE VIEW

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

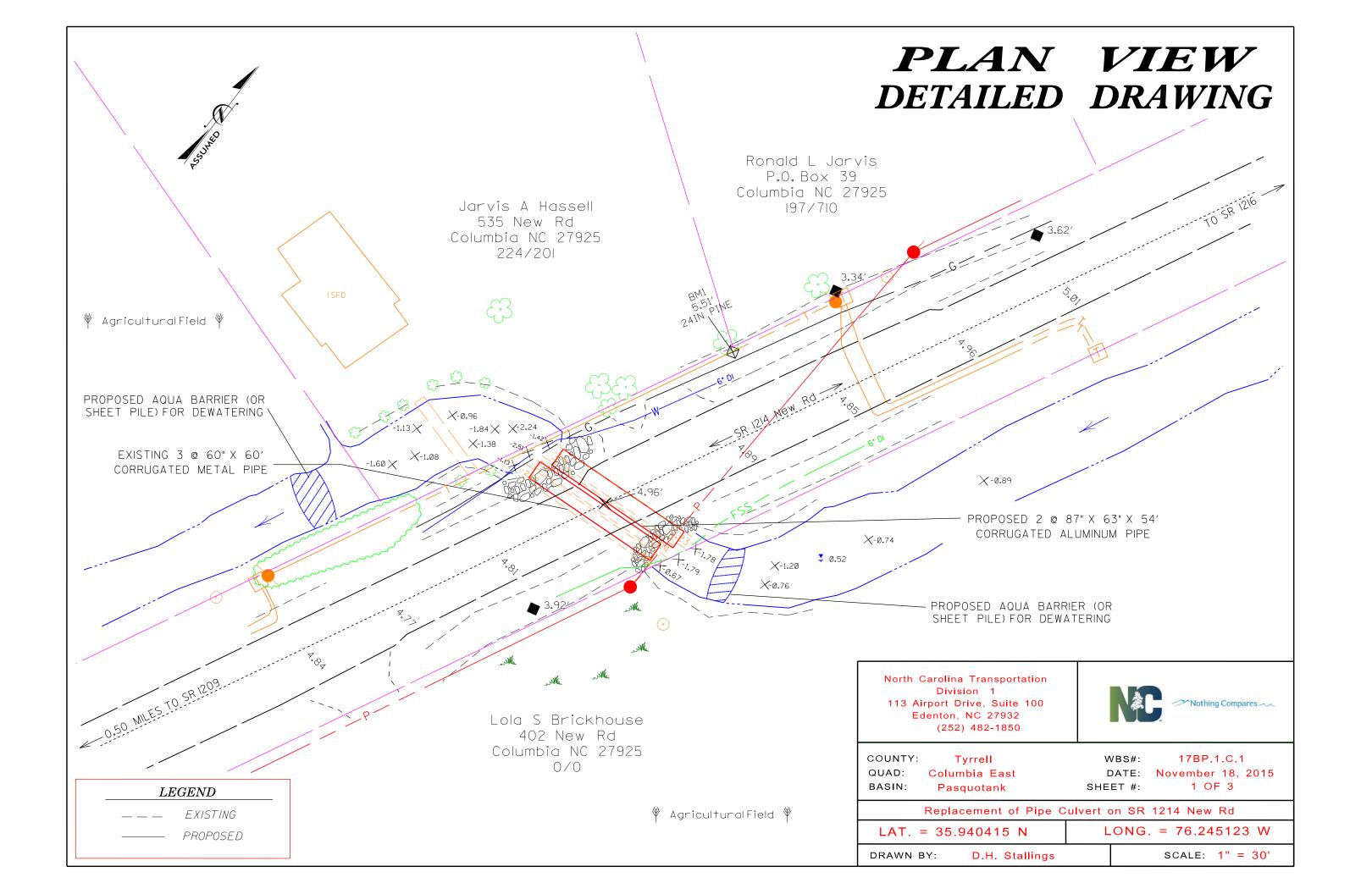
PROJECT REFERENCE NO.		SHEET NO.
I7BPJ.CJ		EC-3
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER

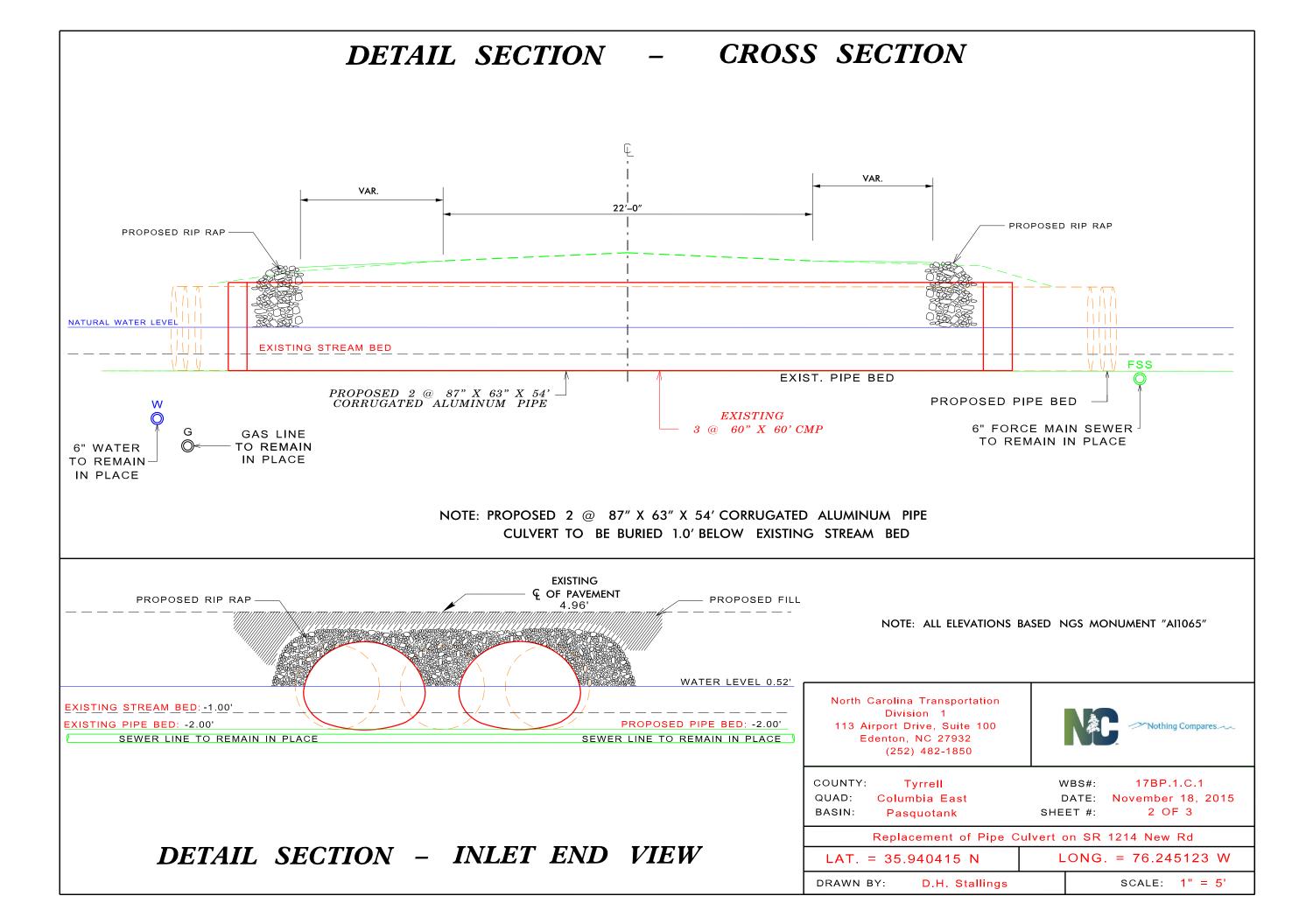
SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10'OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50'IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	I4 DAYS	NONE, EXCEPT FOR PERIMETERS AND HOW ZONES.

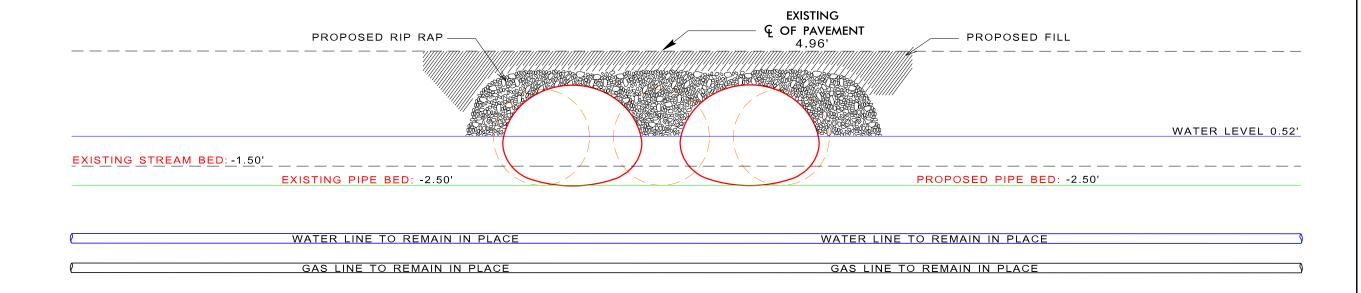


ENGINEER.





DETAIL SECTION - OUTLET END VIEW



NOTES: PROPOSED 2 @ 87" X 63" X 54' CORRUGATED ALUMINUM PIPE

CULVERT TO BE BURIED 1.0' BELOW EXISTING STREAM BED

ALL ELEVATIONS BASED ON NGS MONUMENT "AI1065"

North Carolina Transportation
Division 1

113 Airport Drive, Suite 100
Edenton, NC 27932
(252) 482-1850



COUNTY: Tyrrell
QUAD: Columbia East
BASIN: Pasquotank

WBS#: 17BP.1.C.1

DATE: November 18, 2015

SHEET #: 3 OF 3

Replacement of Pipe Culvert on SR 1214 New Rd

LAT. = 35.940415 N LONG. = 76.245123 W

DRAWN BY: D.H. Stallings SCALE: 1" = 5'