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TIP PROJECT: 14C.045165

CONTRACT: DN00525

04262018

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

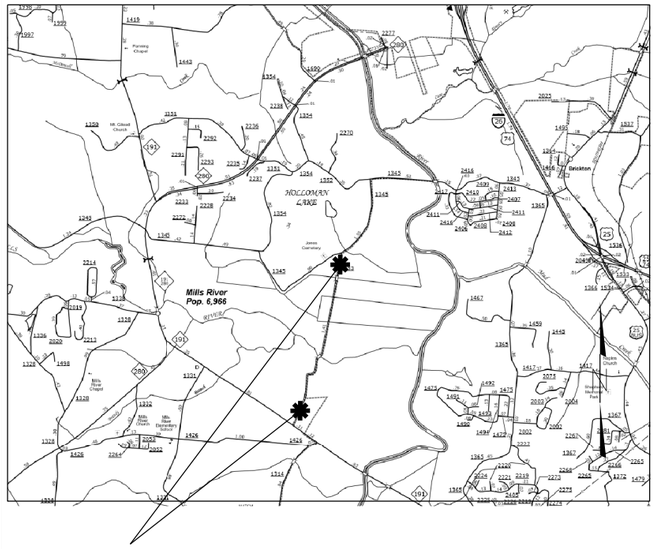
HENDERSON COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	14C.045165	1	17

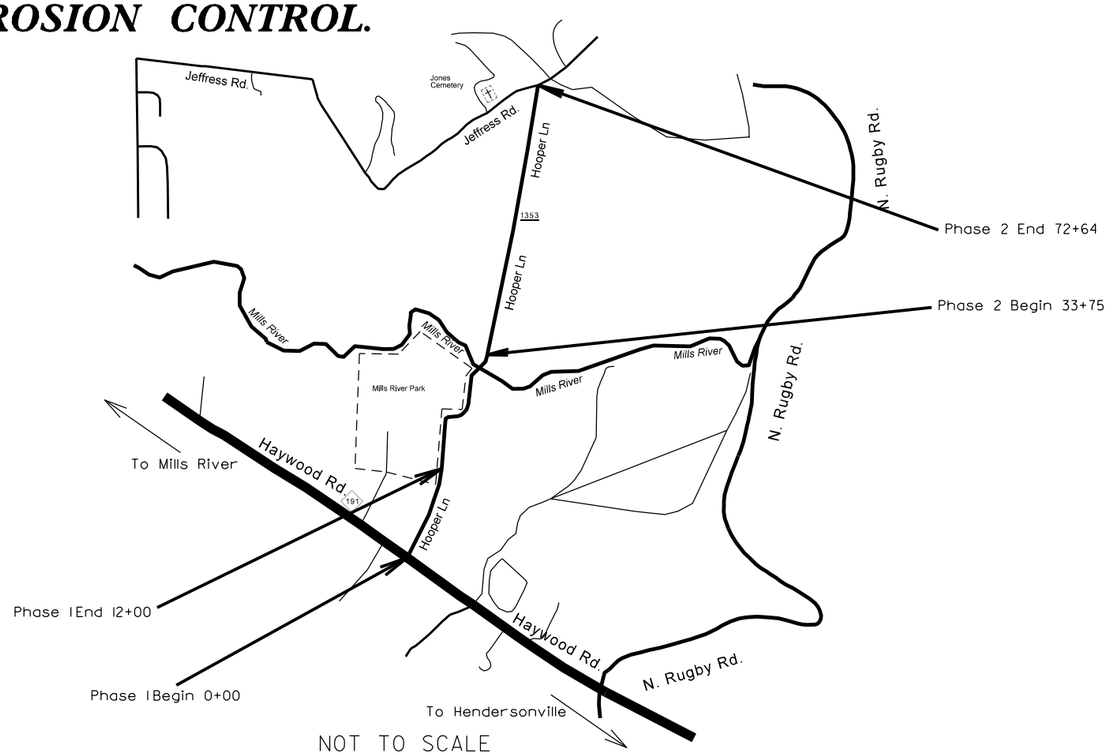
TIP NO.	WBS NO	DESCRIPTION
	14C.045165	

LOCATION: BEGIN AT THE INTERSECTION OF NC 191 AND SR 1353, HOOPER LANE, AND CONTINUE IN A NORTHERLY DIRECTION FOR A DISTANCE OF 1,200 FEET TO THE END OF PHASE 1 AT STA 12+00. BEGIN PHASE 2 AT STA 33+75 AND CONTINUE CONSTRUCTION AGAIN FOR AN ADDITIONAL LENGTH OF 3,889 FEET TO THE END OF PROJECT AT STA 72+64 THE INTERSECTION OF SR 1353, HOOPER LANE, AND SR 1345, JEFFRESS RD.

TYPE OF WORK: SECONDARY RD CONSTRUCTION. GRADING, CONSTRUCTION OF DRAINAGE, BASE, PAVEMENT, AND EROSION CONTROL.



SR 1353 Hooper Lane
NOT TO SCALE



NOT TO SCALE

PROJECT LENGTH

HOOPER LANE– 14C.045165

PHASE 1: 0+00 to 12+00 ***(0.23 MILES)***

PHASE 2: 33+75 TO 72+64 ***(0.74 MILES)***

TOTAL PROJECT LENGTH ***(0.97 MILES)***

Prepared In the Office of:

DIVISION OF HIGHWAYS

4142 Haywood Rd., Mills River NC, 28759

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
April 22, 2016

LETTING DATE:
May 23, 2018

S.L. Cannon, PE
PROJECT ENGINEER

T.J. Wagner, EI
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE:

ROADWAY DESIGN ENGINEER

P.E.

SIGNATURE:

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION

04/26/18

PROJECT REFERENCE NO.	SHEET NO.
14C.045165	1A

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

INDEX OF SHEETS

GENERAL NOTES:

ALL THE STANDARD DRAWINGS LISTED IN THIS CONTRACT, MAY OR MAY NOT BE APPLICABLE.

UTILITY OWNERS ON THIS PROJECT ARE:

MORRIS BROADBAND LLC. (828–772–1167), AT&T (1–800–778–9140), PSNC ENERGY (877–776–2427), DUKE ENERGY (800–769–3766),

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

2018 STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES EFF. 01–16–2018

The following Roadway Specifications as appear in "Standard Specifications For Roads And Structures" Highway Design Branch – N. C. Department of Transportation – Raleigh, N. C., Dated January, 2018 are applicable to this project and by reference hereby are considered a part of these plans:

SPEC NO. TITLE

DIVISION 5 – SUBGRADE, BASES AND SHOULDERS
Section 535 Conditioning Existing Base

DIVISION 6 – ASPHALT PAVEMENTS
Section 660 Asphalt Surface Treatment
Section 610 Asphalt Concrete Plant Mix Pavements
Section 620 Asphalt Binder For Plant Mix

DIVISION 11 – WORK ZONE TRAFFIC CONTROL
Section 1105 Temporary Traffic Control Devices

DIVISION 12 – PAVEMENT MARKINGS, MARKERS AND DELINEATION
Section 1205 Pavement Marking General Requirements

PROJECT REFERENCE NO.	SHEET NO.
14C.045165	1B

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale **S.U.E. = Subsurface Utility Engineering*

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin — EIP
- Computed Property Corner
- Property Monument — ECM
- Parcel/Sequence Number — 123
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary — WLB
- Proposed Wetland Boundary — WLB
- Existing Endangered Animal Boundary — EAB
- Existing Endangered Plant Boundary — EPB
- Existing Historic Property Boundary — HPB
- Known Contamination Area: Soil
- Potential Contamination Area: Soil
- Known Contamination Area: Water
- Potential Contamination Area: Water
- Contaminated Site: Known or Potential

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
- Sign — S
- Well — W
- Small Mine
- Foundation
- Area Outline
- Cemetery
- Building
- School
- Church
- Dam

HYDROLOGY:

- Stream or Body of Water
- Hydro, Pool or Reservoir
- Jurisdictional Stream — JS
- Buffer Zone 1 — BZ 1
- Buffer Zone 2 — BZ 2
- Flow Arrow
- Disappearing Stream
- Spring
- Wetland
- Proposed Lateral, Tail, Head Ditch — FLOW
- False Sump

RAILROADS:

- Standard Gauge — CSX TRANSPORTATION
- RR Signal Milepost — MILEPOST 35
- Switch — SWITCH
- RR Abandoned
- RR Dismantled

RIGHT OF WAY & PROJECT CONTROL:

- Secondary Horiz and Vert Control Point
- Primary Horiz Control Point
- Primary Horiz and Vert Control Point
- Exist Permanent Easment Pin and Cap
- New Permanent Easement Pin and Cap
- Vertical Benchmark
- Existing Right of Way Marker
- Existing Right of Way Line
- New Right of Way Line — RW
- New Right of Way Line with Pin and Cap — RW
- New Right of Way Line with Concrete or Granite R/W Marker — RW
- New Control of Access Line with Concrete C/A Marker — CA
- Existing Control of Access — CA
- New Control of Access — CA
- Existing Easement Line — E
- New Temporary Construction Easement — E
- New Temporary Drainage Easement — TDE
- New Permanent Drainage Easement — PDE
- New Permanent Drainage / Utility Easement — DUE
- New Permanent Utility Easement — PUE
- New Temporary Utility Easement — TUE
- New Aerial Utility Easement — AUE

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut — C
- Proposed Slope Stakes Fill — F
- Proposed Curb Ramp — CR
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal

VEGETATION:

- Single Tree
- Single Shrub

- Hedge
- Woods Line
- Orchard
- Vineyard — Vineyard

EXISTING STRUCTURES:

MAJOR:

- Bridge, Tunnel or Box Culvert — CONC
- Bridge Wing Wall, Head Wall and End Wall — CONC WW

MINOR:

- Head and End Wall — CONC HW
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB — CB
- Paved Ditch Gutter
- Storm Sewer Manhole — S
- Storm Sewer — S

UTILITIES:

POWER:

- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole — P
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole
- H–Frame Pole
- U/G Power Line LOS B (S.U.E.*) — P
- U/G Power Line LOS C (S.U.E.*) — P
- U/G Power Line LOS D (S.U.E.*) — P

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole — T
- Telephone Pedestal — T
- Telephone Cell Tower
- 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.*) — T
- U/G Telephone Cable LOS D (S.U.E.*) — T
- U/G Telephone Conduit LOS B (S.U.E.*) — TC
- U/G Telephone Conduit LOS C (S.U.E.*) — TC
- U/G Telephone Conduit LOS D (S.U.E.*) — TC
- U/G Fiber Optics Cable LOS B (S.U.E.*) — T FO
- U/G Fiber Optics Cable LOS C (S.U.E.*) — T FO
- U/G Fiber Optics Cable LOS D (S.U.E.*) — T FO

WATER:

- Water Manhole — W
- Water Meter
- Water Valve
- Water Hydrant
- U/G Water Line LOS B (S.U.E*)
- U/G Water Line LOS C (S.U.E*)
- U/G Water Line LOS D (S.U.E*)
- Above Ground Water Line — A/G Water

TV:

- TV Pedestal — C
- TV Tower
- U/G TV Cable Hand Hole — HH
- U/G TV Cable LOS B (S.U.E.*) — TV
- U/G TV Cable LOS C (S.U.E.*) — TV
- U/G TV Cable LOS D (S.U.E.*) — TV
- U/G Fiber Optic Cable LOS B (S.U.E.*) — TV FO
- U/G Fiber Optic Cable LOS C (S.U.E.*) — TV FO
- U/G Fiber Optic Cable LOS D (S.U.E.*) — TV FO

GAS:

- Gas Valve
- Gas Meter
- U/G Gas Line LOS B (S.U.E.*) — G
- U/G Gas Line LOS C (S.U.E.*) — G
- U/G Gas Line LOS D (S.U.E.*) — G
- Above Ground Gas Line — A/G Gas

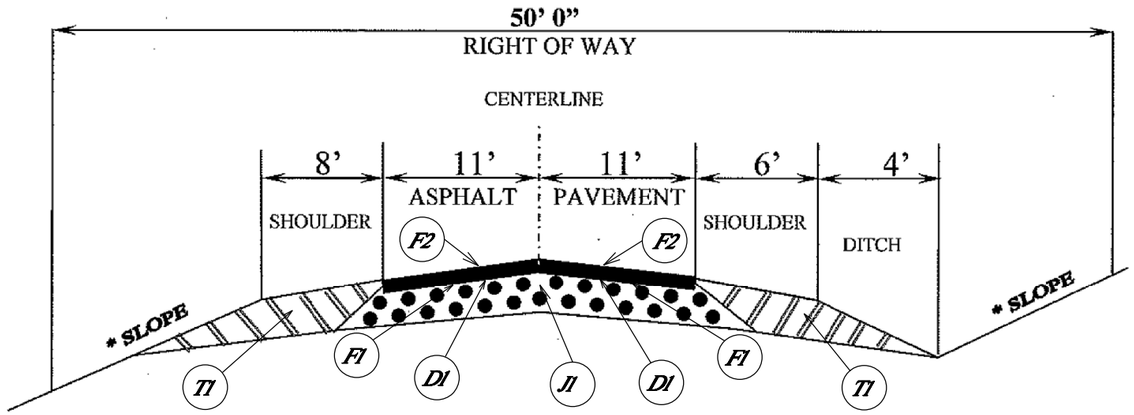
SANITARY SEWER:

- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line — SS
- Above Ground Sanitary Sewer — A/G Sanitary Sewer
- SS Forced Main Line LOS B (S.U.E.*) — FSS
- SS Forced Main Line LOS C (S.U.E.*) — FSS
- SS Forced Main Line LOS D (S.U.E.*) — FSS

MISCELLANEOUS:

- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box — S
- Utility Unknown U/G Line LOS B (S.U.E.*) — ?UTL
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc. — UST
- A/G Tank; Water, Gas, Oil
- Geoenvironmental Boring
- U/G Test Hole LOS A (S.U.E.*)
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

PROJECT REFERENCE NO.	SHEET NO.
14C.045165	2A
SR1353 – HOOPER LANE	



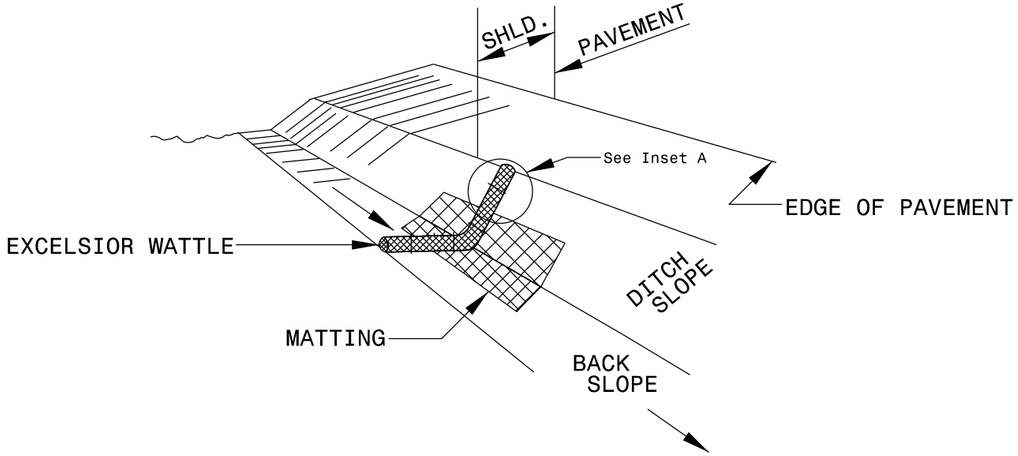
MAX SLOPE

FILL 1½:1
CUT 1:1

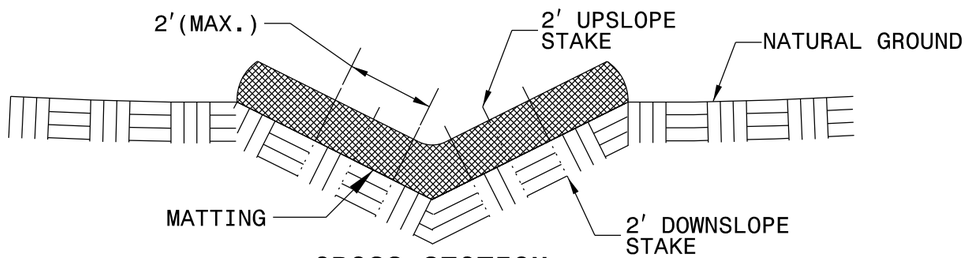
PAVEMENT SCHEDULE	
F1	AST DOUBLE SEAL
F2	FOG SEAL
D1	PROP. APPROX. 2½" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 114 LBS/SY/IN
T1	SHOULDER RECONSTRUCTION - EARTH MATERIAL
J1	8" AGGREGATE BASE COURSE

PROJECT REFERENCE NO.	SHEET NO.
14C.045165	2D-1
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

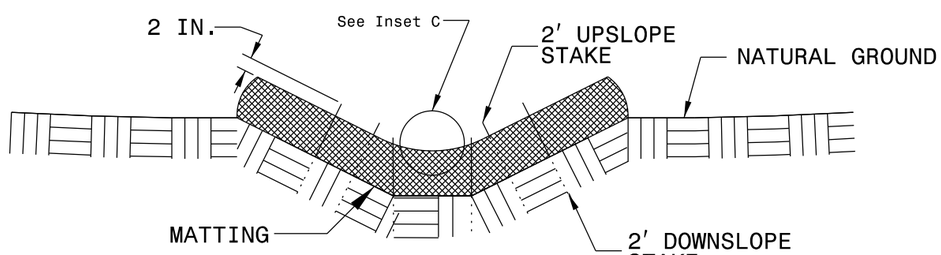
WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR 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.

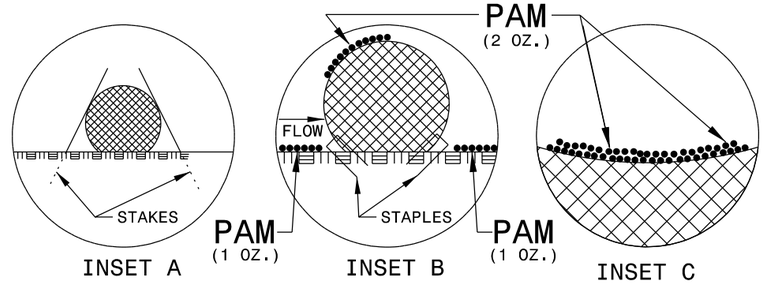
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12″ IN LENGTH.

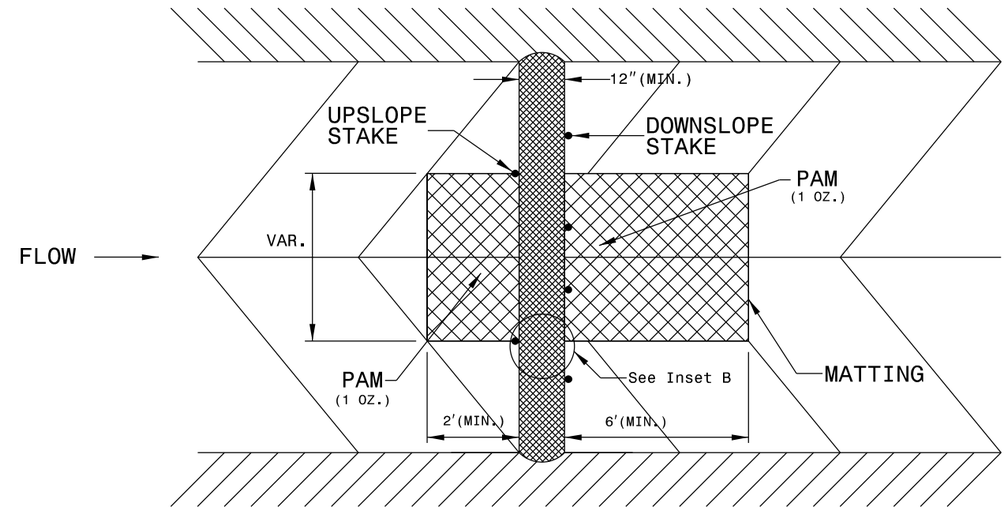
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

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

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.





TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
14C.045165	2D-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

ROCK INLET SEDIMENT TRAP TYPE 'C' DETAIL

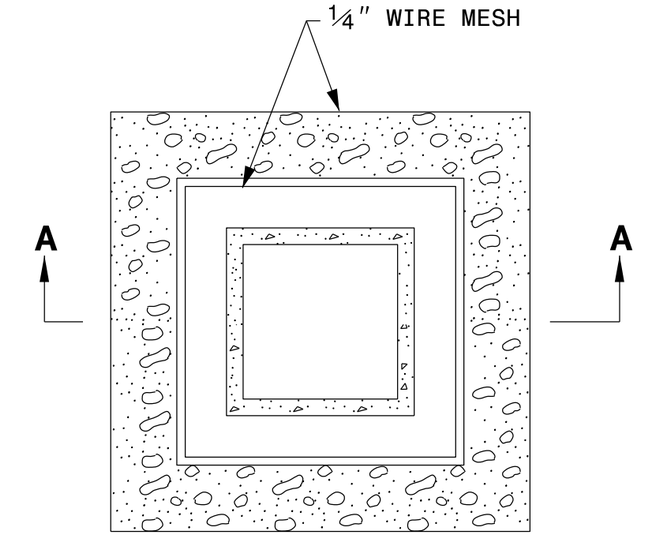
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

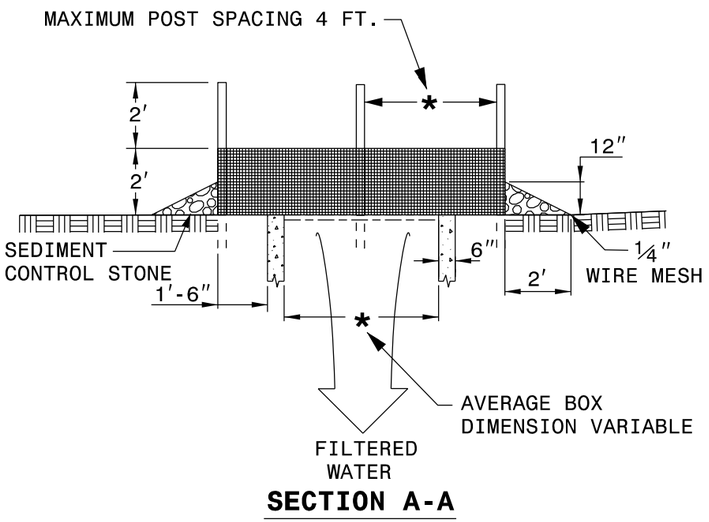
ROCK INLET SEDIMENT TRAP TYPE 'C'

ENGLISH STANDARD DRAWING FOR

SHEET 1 OF 1

1632.03

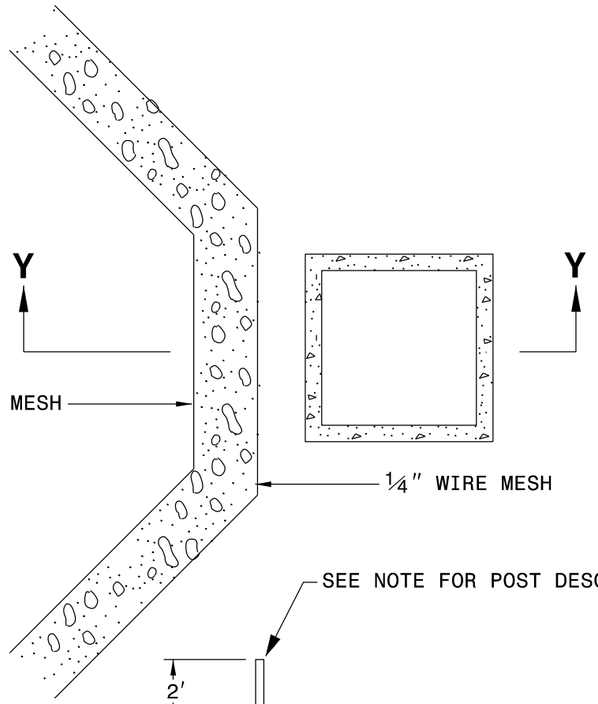


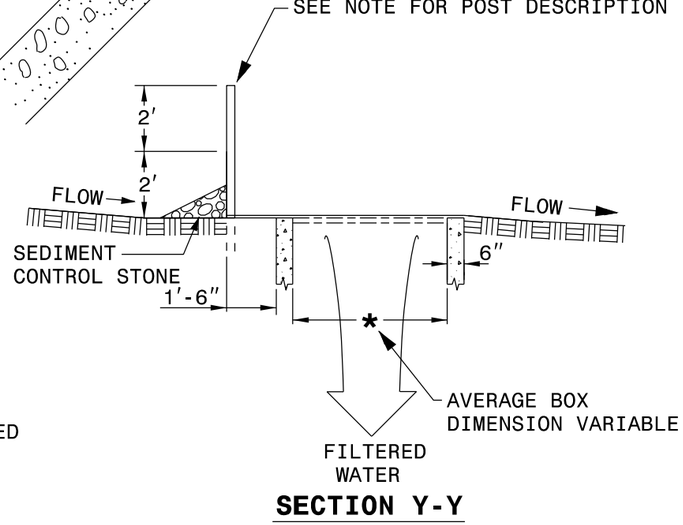


SECTION A-A

MULTI-DIRECTIONAL FLOW

NOTE
USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL STONE.
USE 24 GAUGE MINIMUM WIRE MESH HARDWARE CLOTH WITH 1/4 INCH MESH OPENINGS.
PLACE TOP OF WIRE MESH A MINIMUM OF ONE FOOT BELOW THE SHOULDER OR ANY DIVERSION POINT.
INSTALL WIRE MESH UNDER SEDIMENT CONTROL STONE.
USE 5' STEEL POST, INSTALLED 1.5' DEEP MINIMUM, AND OF THE SELF-FASTENER ANGLE STEEL TYPE.
SPACE POST A MAXIMUM OF 4'.





SECTION Y-Y

SINGLE-DIRECTIONAL FLOW

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROCK INLET SEDIMENT TRAP TYPE 'C'

ENGLISH STANDARD DRAWING FOR

SHEET 1 OF 1

1632.03

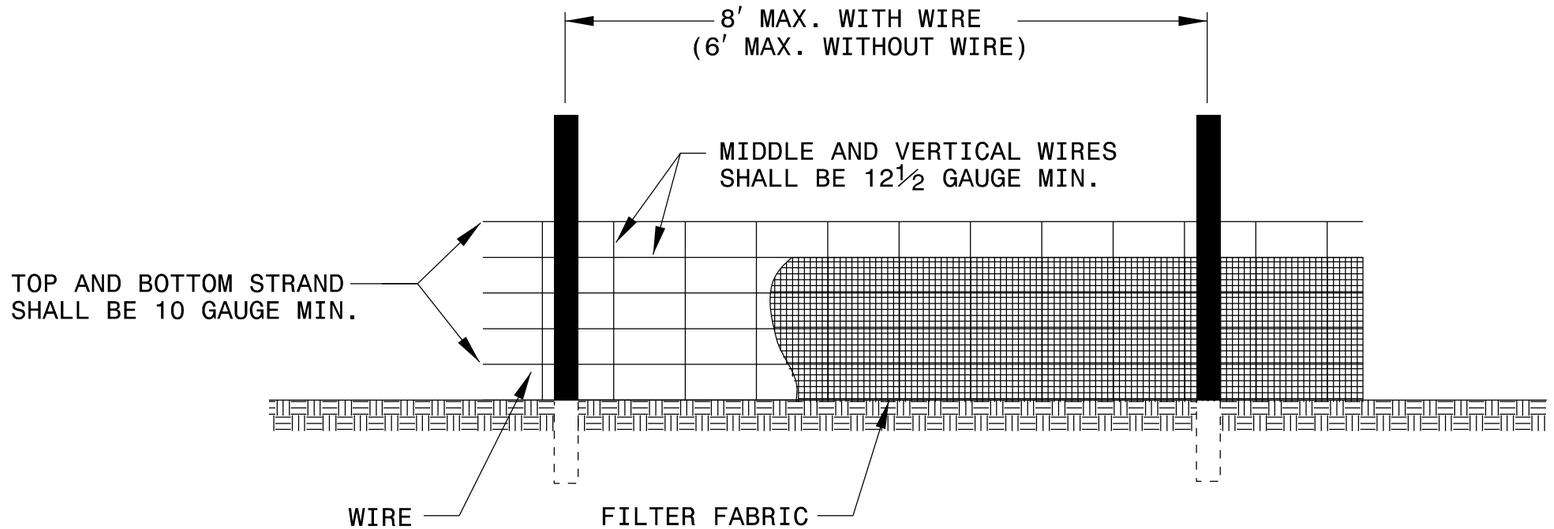
PROJECT REFERENCE NO.	SHEET NO.
14C.045165	2D-3
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY SILT FENCE DETAIL

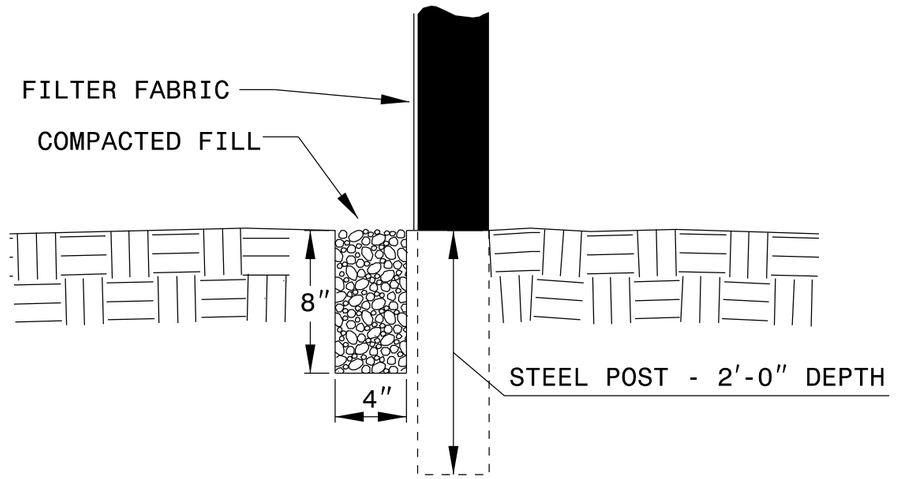
STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR
TEMPORARY SILT FENCE

SHEET 1 OF 1
1605.01



NOTES
USE WIRE A MINIMUM OF 32″ IN WIDTH AND WITH A MINIMUM OF 6 LINE WIRES WITH 12″ STAY SPACING.
USE FILTER FABRIC A MINIMUM OF 36″ IN WIDTH AND FASTEN ADEQUATELY TO THE WIRE AS DIRECTED BY THE ENGINEER.
PROVIDE 5′-0″ STEEL POST OF THE SELF-FASTENER ANGLE STEEL TYPE.



EXTENSION OF FABRIC AND
WIRE INTO TRENCH

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR
TEMPORARY SILT FENCE

SHEET 1 OF 1
1605.01

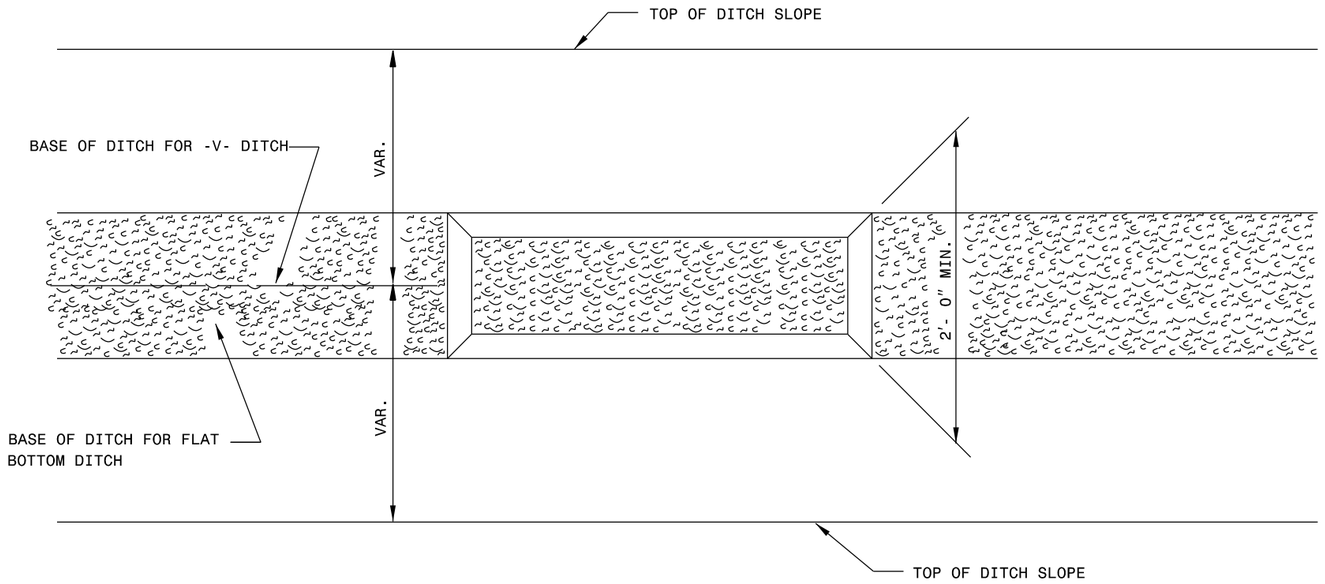
PROJECT REFERENCE NO.	SHEET NO.
14C.045165	2D-4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SILT BASIN TYPE 'B'

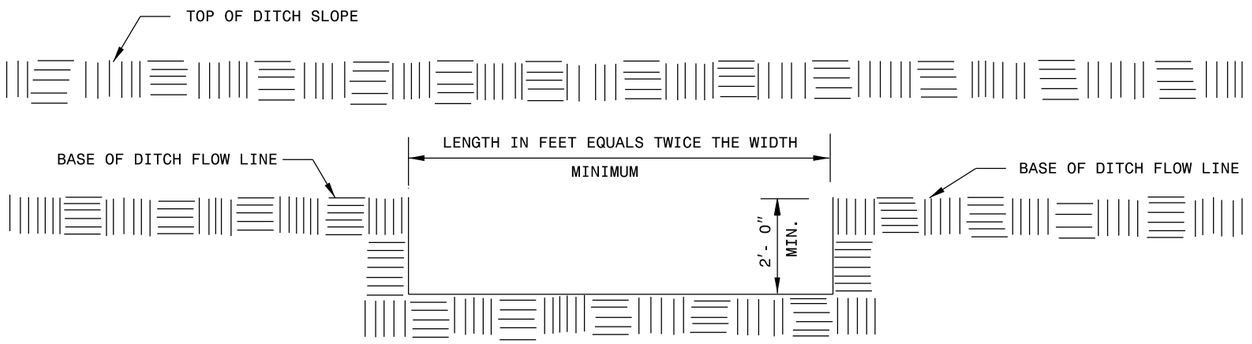
STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR
SILT BASIN TYPE 'B'

SHEET 1 OF 1
1630.02



PLAN



ELEVATION

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR
SILT BASIN TYPE 'B'

SHEET 1 OF 1
1630.02

PROJECT REFERENCE NO.	SHEET NO.
14C.045165	2D-5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

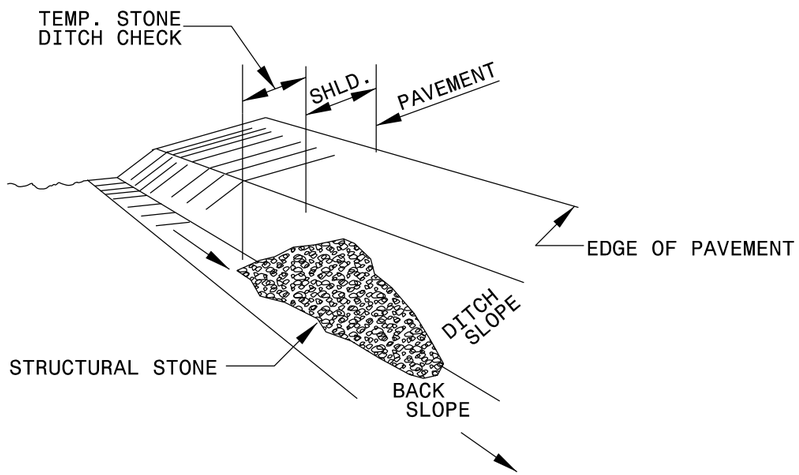
TEMPORARY ROCK SILT CHECK TYPE 'B'

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

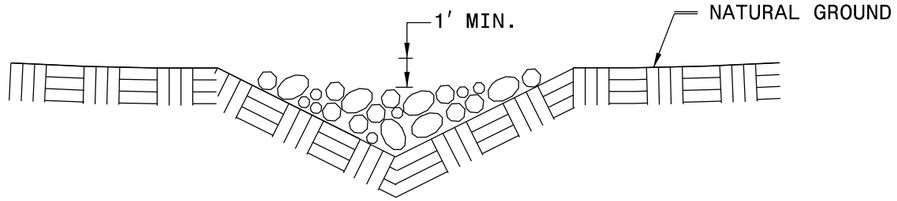
7-06

ENGLISH STANDARD DRAWING FOR

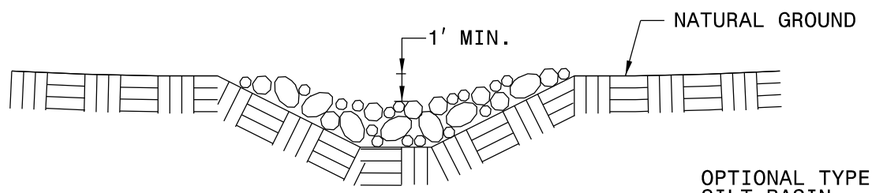
TEMPORARY ROCK SILT CHECK TYPE 'B'



ISOMETRIC VIEW



CROSS SECTION
VEE DITCH



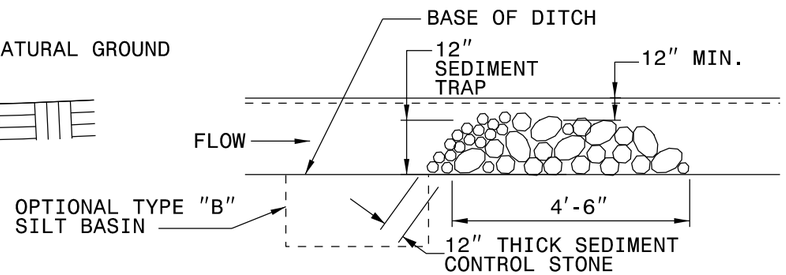
CROSS SECTION
TRAPEZOIDAL DITCH

NOTES:

USE CLASS 'B' EROSION CONTROL STONE FOR STRUCTURAL STONE.

THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.

USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL. PLACE SEDIMENT CONTROL STONE AS DIRECTED BY THE ENGINEER.



ELEVATION VIEW

SHEET 1 OF 1

1633.02

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

7-06

ENGLISH STANDARD DRAWING FOR

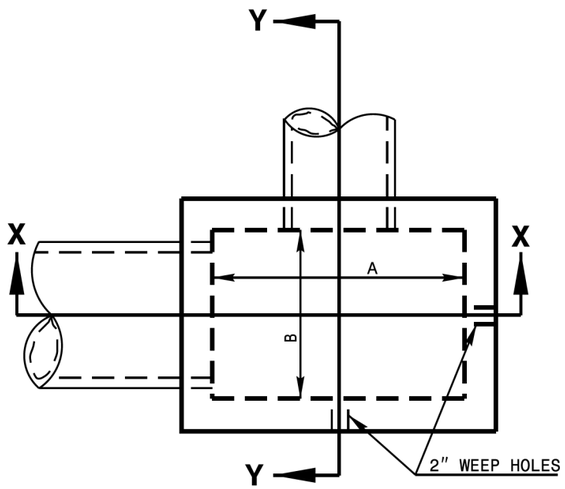
TEMPORARY ROCK SILT CHECK TYPE 'B'

SHEET 1 OF 1

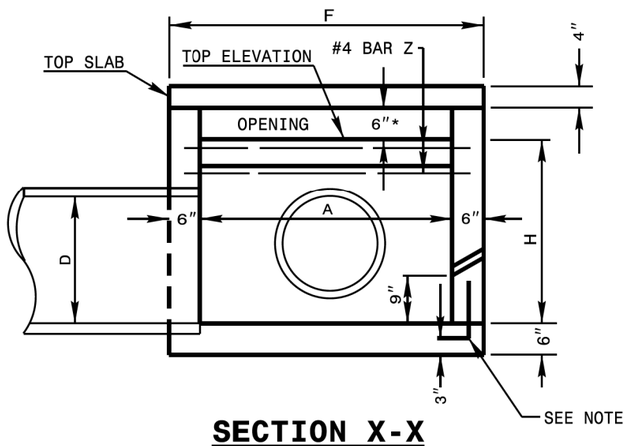
1633.02

PROJECT REFERENCE NO.	SHEET NO.
14C.045165	2D-6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

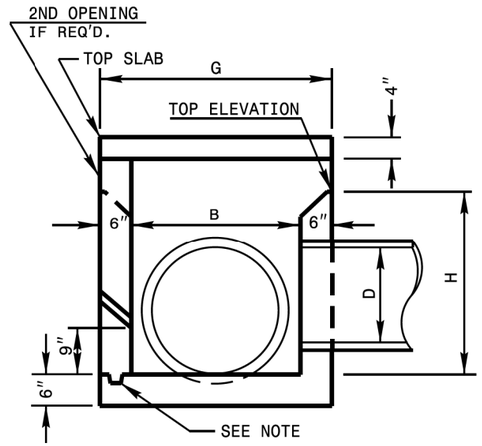
CONCRETE OPEN THROAT CATCH BASIN DETAIL SHEET 1 OF 2



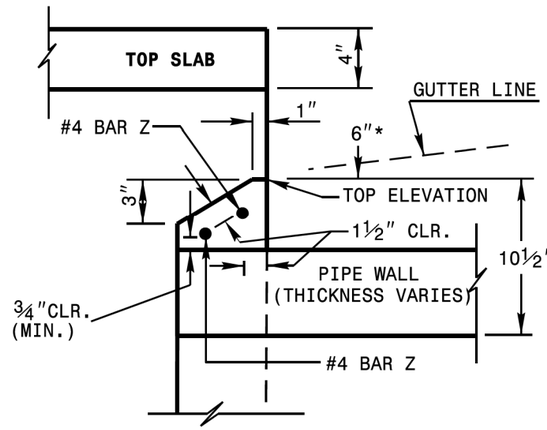
PLAN



SECTION X-X



SECTION Y-Y



PART SECTION Y-Y

SHOWING DETAILS AT OPENING

NOTES: USE CLASS "B" CONCRETE THROUGHOUT.

PROVIDE ALL CATCH BASINS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.66.

OPTIONAL CONSTRUCTION - MONOLITHIC POUR, 2" KEYWAY, OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.

USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.

IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.00.

FOR 8'-0" IN HEIGHT OR LESS USE 6" WALLS AND BOTTOM SLAB. OVER 8'-0" TO 16'-0" IN HEIGHT USE 8" WALLS AND BOTTOM SLAB. ADJUST QUANTITIES ACCORDINGLY.

CONSTRUCT WITH PIPE CROWNS MATCHING.

INSTALL 2" WEEPHOLES AS DIRECTED BY THE ENGINEER.

INSTALL STONE DRAINS, OF A MINIMUM OF 1 CUBIC FOOT OF NO. 78M STONE IN A POROUS FABRIC BAG OR WRAP, AT EACH WEEP HOLE OR AS DIRECTED BY THE ENGINEER.

CHAMFER ALL EXPOSED CORNERS 1".

DRAWING NOT TO SCALE.

* INCREASE THE SIZE OF THE 6" OPENING TO 8" MAX., AS DIRECTED BY THE ENGINEER BY ADDING 2" TO THE WALL HIEGHT ABOVE THE TOP ELEVATION. ADJUST QUANTITIES ACCORDINGLY.

MIN. DIMENSIONS AND QUANTITIES FOR CONCRETE CATCH BASIN (BASED ON MIN. HEIGHT, H)

DIM'S OF BOX & PIPE				REINFORCING						TOP & BOT. SLAB DIMENSIONS		CU. YDS. CONC. IN BOX			TOTAL QUANTITIES BOX & SLABS		DEDUCTION ONE PIPE		DED. ONE 6" THROAT OPENING
PIPE	SPAN	WIDTH	HEIGHT	BARS - X		BARS - Y		BARS - Z											
D	A	B	H	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	F	G	TOP SLAB	BOT. SLAB	WALL/FT. HT.	LBS. REINF.	YD^3 (MIN H)	C.S.	R.C.	YD^3
12"	3'-6"	2'-3"	1'-10"	4	3'-0"	6	4'-3"	2	4'-3"	4'-6"	3'-3"	0.181	0.271	0.250	27	1.046	0.015	0.032	0.046
15"	3'-6"	2'-3"	2'-1"	4	3'-0"	6	4'-3"	2	4'-3"	4'-6"	3'-3"	0.181	0.271	0.250	27	1.108	0.023	0.036	0.046
18"	4'-0"	2'-8"	2'-4"	5	3'-5"	7	4'-9"	2	4'-9"	5'-0"	3'-8"	0.226	0.340	0.284	35	1.379	0.033	0.049	0.053
24"	4'-0"	2'-8"	2'-10"	5	3'-5"	7	4'-9"	2	4'-9"	5'-0"	3'-8"	0.226	0.340	0.284	35	1.521	0.059	0.085	0.053
30"	4'-0"	3'-6"	3'-4"	5	4'-3"	9	4'-9"	2	4'-9"	5'-0"	4'-6"	0.278	0.417	0.315	43	1.916	0.092	0.127	0.053
36"	4'-6"	4'-0"	3'-10"	5	4'-9"	10	5'-3"	2	5'-3"	5'-6"	5'-0"	0.340	0.510	0.352	51	2.390	0.132	0.178	0.059
42"	5'-0"	4'-6"	4'-4"	5	5'-3"	12	5'-9"	2	5'-9"	6'-0"	5'-6"	0.407	0.611	0.389	64	2.914	0.180	0.243	0.066
48"	5'-0"	5'-0"	4'-10"	5	5'-9"	13	5'-9"	2	5'-9"	6'-0"	6'-0"	0.444	0.666	0.407	68	3.298	0.235	0.317	0.066

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

1-18

ROADWAY STANDARD DRAWING FOR

CONCRETE OPEN THROAT CATCH BASIN

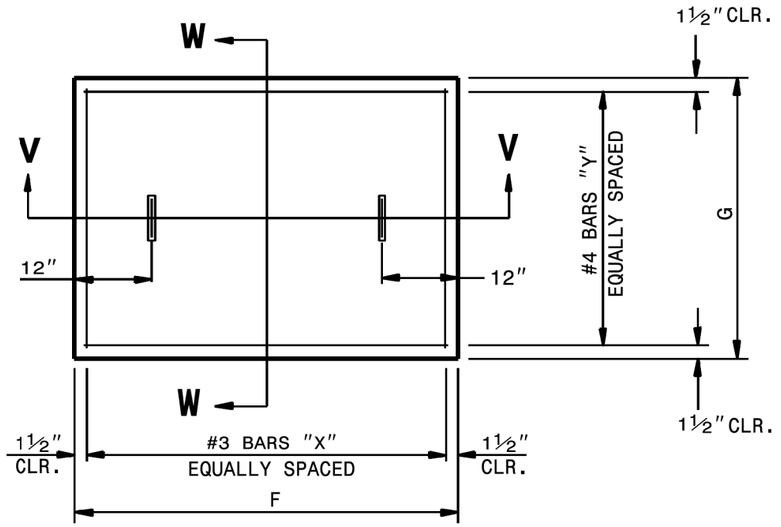
12" THRU 48" PIPE

SHEET 1 OF 2

840.04

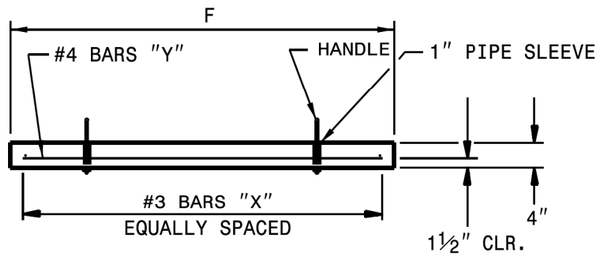
PROJECT REFERENCE NO.	SHEET NO.
14C.045165	2D-7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CONCRETE OPEN THROAT CATCH BASIN DETAIL SHEET 2 OF 2

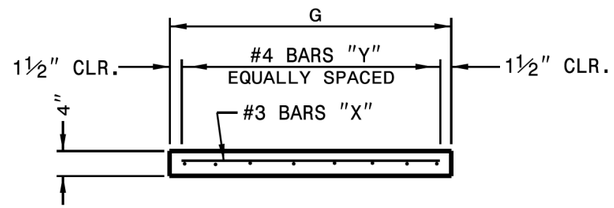


PLAN

PRECAST OR CAST IN PLACE TOP SLAB



SECTION V-V



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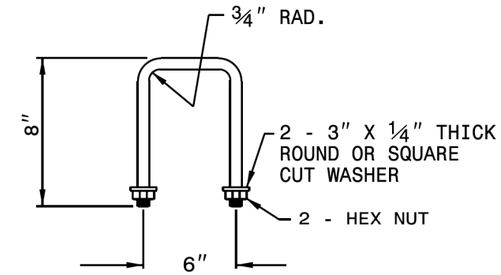
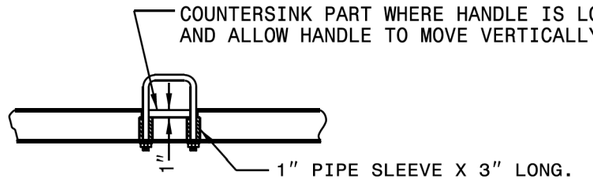
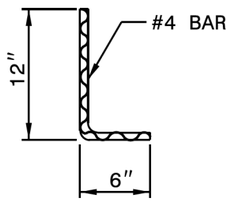


DETAIL OF HANDLE



PART SECTION

THRU COVER SHOWING HANDLE



DOWEL

1-18

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR

CONCRETE OPEN THROAT CATCH BASIN

12" THRU 48" PIPE

SHEET 2 OF 2

840.04

4/04/06

COMPUTED BY: TJW DATE: 4/26/18
CHECKED BY: RHD DATE: 4/26/18

PROJECT REFERENCE NO.	SHEET NO.
14C.045165	3D-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

NOTE: Invert Elevations are for Bid Purposes only and shall not be used for project construction stakeout.
See "Standard Specifications For Roads and Structures, Section 300–5".

SUB–REGIONAL & REGIONAL
LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48" & UNDER)

STATION (SIZE / THICKNESS OR GAUGE)	LOCATION (LT,RT, OR CL)	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	SIDE DRAIN PIPE (RCP, CSP, CAAP, HDPE, or PVC) 12"	15"	18"	24"	30"	36"	42"	48"
1+15	CL														
2+13	CL														
8+02	RT														
8+82	RT									40'					
1+00	RT														
1+00	RT									150'					
2+50	RT														
2+50	RT									150'					
4+00	RT														
4+00	RT									150'					
5+50	RT														
5+50	RT									150'					
7+00	RT														
7+00	RT									40'					
44+25	LT														
44+61	CL														
44+68	RT														
44+86	RT														
54+73	LT														
54+72	RT														
55+21	CL														
57+80	LT														

STATION	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	C.S. PIPE 12" .064	C.S. 15" .064	C.S. 18" .064	C.S. 24" .064	C.S. 36" .079	C.S. 42" .109	C.S. 48" .109	R.C. PIPE (CLASS III) 15"	18"	24"	30"	36"	42"	48"	R.C. PIPE (CLASS IV) 12"	15"	18"	24"	30"	36"	42"	48"
1+15							50'																			
2+13							50'																			
8+02							50'																			
8+82																										
1+00																										
1+00																										
2+50																										
2+50																										
4+00																										
4+00																										
5+50																										
5+50																										
7+00																										
7+00																										
44+25								30'																		
44+61											50'															
44+68							30'																			
44+86							60'																			
54+73									25'																	
54+72							25'																			
55+21											50'															
57+80							20'																			

STATION	**" R. C. PIPE (CLASS V)	**" R. C. PIPE CULVERTS, CONTRACTOR DESIGN PIPE	**" R. C. PIPE CULVERTS, CONTRACTOR DESIGN PIPE	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	ENDWALLS STD. 838.01, STD. 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YDS. R.C.P.	C.S.P.	QUANTITIES FOR DRAINAGE STRUCTURES PER EACH (0' THRU 5.0')	* TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL.'B') LIN. *FT. A 5.0' THRU 10.0'	B 10.0' AND ABOVE	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES AND HOOD STANDARD 840.03 TYPE OF GRATE E	F	G		CONCRETE TRANSITIONAL SECTION CATCH BASIN	DROP INLET							CORR. STEEL ELBOWS NO. & SIZE	CONC. COLLARS CL. "B" C.Y. STD 840.72	CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71	PIPE REMOVAL LIN.FT.	REMARKS
1+15																												
2+13																												
8+02																												
8+82																												
1+00																C.B.												CATCH BASIN
1+00																												
2+50																C.B.												CATCH BASIN
2+50																												
4+00																C.B.												CATCH BASIN
4+00																												
5+50																C.B.												CATCH BASIN
5+50																												
7+00																C.B.												CATCH BASIN
7+00																												
44+25																												
44+61																												
44+68																												
44+86																												
54+73																												
54+72																												
55+21																												
57+80																												

ABBREVIATIONS

C.B.	CATCH BASIN
N.D.I.	NARROW DROP INLET
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
G.D.I. (N.S.)	GRATED DROP INLET (NARROW SLOT)
J.B.	JUNCTION BOX
M.H.	MANHOLE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUNCTION BOX

PROJECT REFERENCE NO.	SHEET NO.
14C.045165	4

PHASE I

PUBLIC SERVICE CO OF NC INC
400 COX ROAD
PO BOX 139 GASTONIA, NC 28053
9641221198
000882/00164

MILLS RIVER TOWN OF
5046 BOYLSTON HWY SUITE 3
MILLS RIVER, NC 28759
9641233374
001345/00619

CRISP COMMERCIAL
101 HOOPER LANE
MILLS RIVER, NC 28759
9641223409
1570/030

9641221198
000882/00164

COASTAL EXPRESS LLC
116 BELLE VERNON LANE
MILLS RIVER, NC 28759
9641224769
1558/068

MILLS RIVER PARTNERS
1856 JEFFRESS RD
FLETCHER, NC 28732
9641227287
000734/00497

NC 191 BEGIN

BEGIN PHASE I: STA 0+00 BEGIN NC 191

EXISTING GAS LINE TO REMAIN

30' TURNING RADIUS

50' R/W

ROCK SILT CHECK TYPE A

SILT BASIN TYPE B 2'X3'X6' WITH BAFFLE

8" PVC PIPE INLET UNKNOWN

EXISTING CONCRETE SLAB

2" ENCASEMENT PIPE FOR PRIVATE 1" WATER LINE (85 LF) UNDER DRIVE

SILT BASIN TYPE B 2'X3'X6' WITH BAFFLE

12" WATTLE WITH PAM

PAVED DRIVE

ROCK SILT CHECK TYPE A

GAS VALVE

CATCH BASIN

ROCK INLET SEDIMENT TRAP TYPE 'C'

35'X18" CSP REPLACE WITH 50'X18" CSP

18" HDPE

SILT BASIN TYPE B 2'X3'X6' WITH BAFFLE

1" PVC (PRIVATE) •SEE NOTES• WATER LINE APPROXIMATELY 1' DEEP FROM NC 191

CHAIN LINK FENCE

2" ENCASEMENT PIPE FOR PRIVATE 1" WATER LINE (75 LF) UNDER DRIVE

12" WATTLE WITH PAM

GRAVEL DRIVE

IRON PIN FOUND

5+33

MANHOLE COVER (AIR VALVE)

INSTALL YARD DRAINS APPROXIMATELY 150' APART WITH 18" HDPE TO APPROX. STA. 7+40 TO ENSURE DRAINAGE

CATCH BASIN

18" HDPE

ROCK INLET SEDIMENT TRAP TYPE 'C'

28'X18" CSP REPLACE WITH 50'X18" CSP

APPROXIMATE LOCATION OF 24" WATER LINE APPROX. 4'-5' DEEP

CATCH BASIN

ROCK INLET SEDIMENT TRAP TYPE 'C'

PAVED PARKING AREA

6+88

50' R/W

CATCH BASIN

INSTALL YARD DRAINS APPROXIMATELY 150' APART WITH 18" HDPE TO APPROX. STA. 7+40 TO ENSURE DRAINAGE

ROCK INLET SEDIMENT TRAP TYPE 'C'

CATCH BASIN

ROCK INLET SEDIMENT TRAP TYPE 'C'

Gas Valves

18" CSP

12" WATTLE WITH PAM

50'X18" CSP REPLACE WITH 50'X18" CSP

40'X18" HDPE REPLACE WITH 40'X18" HDPE

12" WATTLE WITH PAM

12" WATTLE WITH PAM

END OF PHASE I 12+00

12+17

APPROXIMATE LOCATION OF 24" WATER LINE APPROX. 4'-5' DEEP

GRASS FIELD ENTRANCE

POND

WOVEN WIRE FENCE

STORMWATER SILT RETENTION POND

POND

GRAVEL DRIVE

EXISTING TURNOUT TO SILT RETENTION POND

WOVEN WIRE FENCE WITH GATE

GRASS FIELD ENTRANCE

NOTE DRAWING NOT TO SCALE AND PROPERTY LINES ARE APPROXIMATE

NOTE 1" PRIVATE WATER LINE TO BE INSTALLED BY CONTRACTOR (LOCATION APPROXIMATE)

NOTE 2" INCASEMENT PIPE FOR 1" PRIVATE WATER LINE TO BE INSTALLED UNDER ALL DRIVES

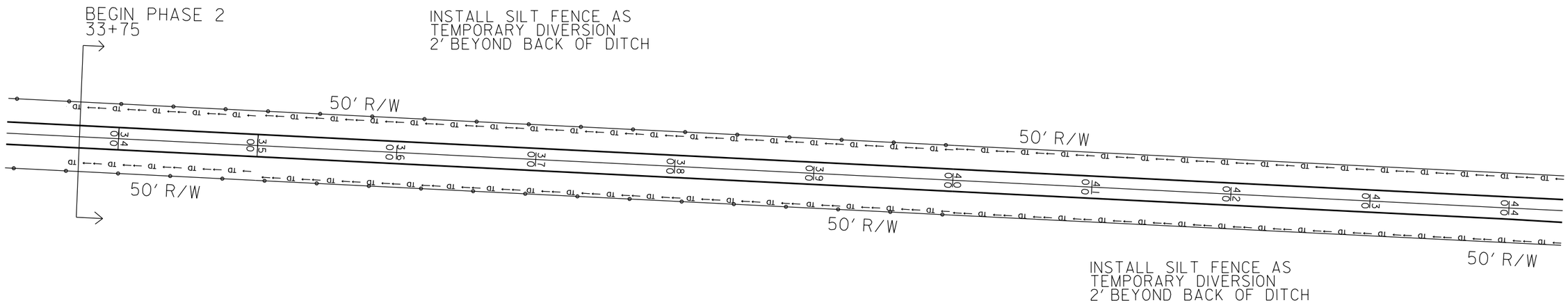
3/30/18

PROJECT REFERENCE NO.	SHEET NO.
14C.045165	5

NOTE EXISTING BRIDGE #147 OVER MILLS RIVER
LOCATED APPROXIMATELY 195FT IN SOUTHERLY
DIRECTION FROM THE BEGINNING OF PHASE 2: STATION 33+75.

VINE RIPE INVESTMENTS INC
PO BOX 609
MILLS RIVER, NC 28759
9641264549
DB 1603/PG 593

PHASE 2



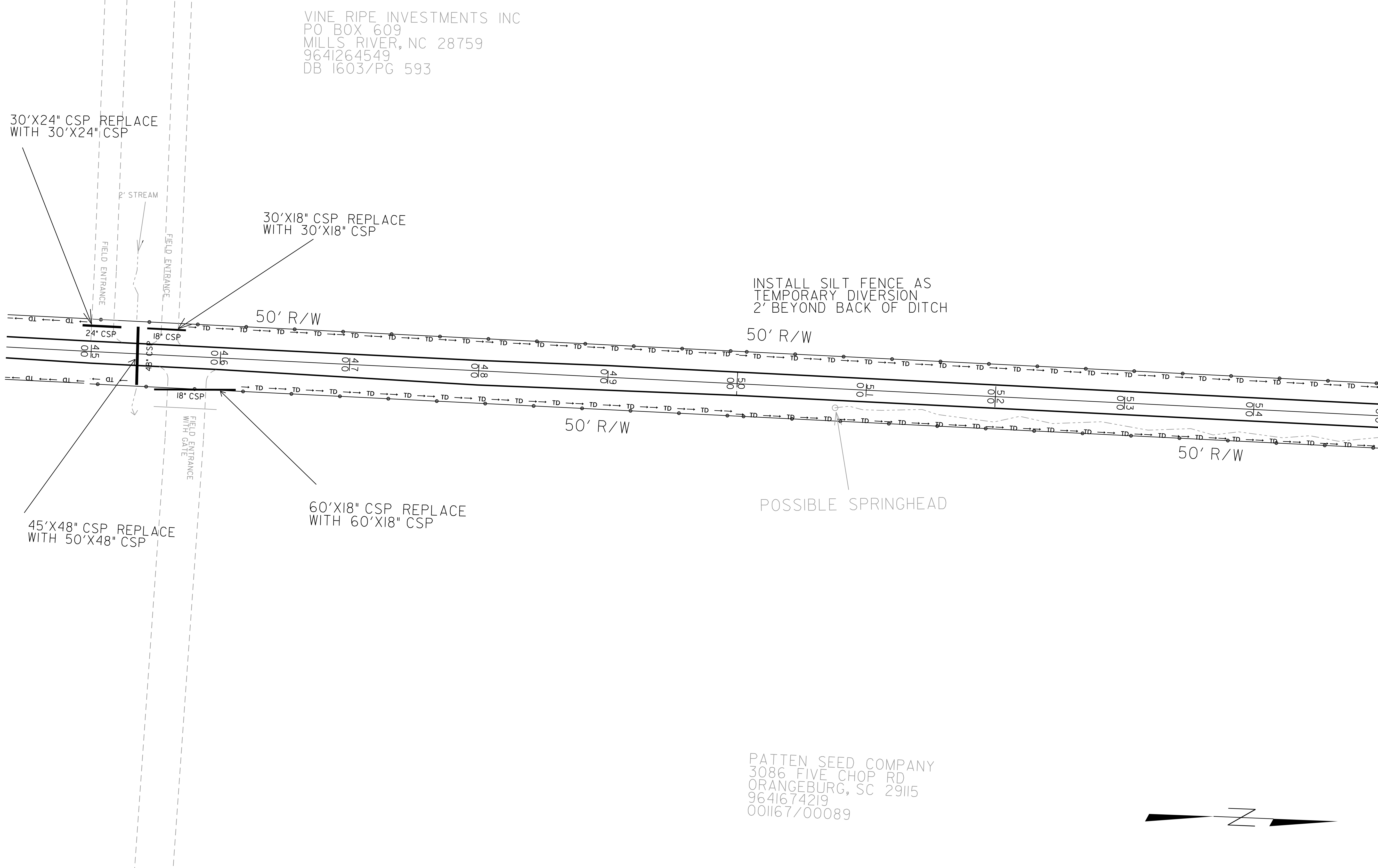
PATTEN SEED COMPANY
3086 FIVE CHOP RD
ORANGEBURG, SC 29115
9641674219
001167/00089

NOTE DRAWING NOT TO SCALE AND PROPERTY LINES ARE APPROXIMATE

PROJECT REFERENCE NO.	SHEET NO.
14C.045165	6

3/30/18

PHASE 2



NOTE DRAWING NOT TO SCALE AND PROPERTY LINES ARE APPROXIMATE

PROJECT REFERENCE NO.	SHEET NO.
14C.045165	7

3/30/18

PHASE 2

VINE RIPE INVESTMENTS INC
PO BOX 609
MILLS RIVER, NC 28759
9641264549
DB 1603/PG 593

25'X36" CSP REPLACE
WITH 25'X36" CSP

45'X48" CSP REPLACE
WITH 50'X48" CSP

20'X18" CSP REPLACE
WITH 20'X18" CSP

INSTALL SILT FENCE
TEMPORARY DIVERSION
2' BEYOND BACK OF DITCH

INSTALL SILT FENCE AS
TEMPORARY DIVERSION
2' BEYOND BACK OF DITCH

EXISTING
18' WIDE BRIDGE
W/ TIMBER & ASPHALT FLOOR

50' R/W

36" CSP

48" CSP

18" CSP

18" CSP

FIELD ENTRANCE

1' STREAM

6' STREAM

FIELD ENTRANCE WITH GATE

FIELD ENTRANCE

METAL POST

FIELD ENTRANCE

25'X18" CSP REPLACE
WITH 25'X18" CSP

PL

PATTEN SEED COMPANY
3086 FIVE CHOP RD
ORANGEBURG, SC 29115
9641674219
001167/00089

PATTEN SEED COMPANY
3086 FIVE CHOP RD
ORANGEBURG, SC 29115
9641674219
001167/00089

METAL POSTS WITH
CABLE AS FENCE

NOTE DRAWING NOT TO SCALE AND PROPERTY LINES ARE APPROXIMATE

N

PROJECT REFERENCE NO.	SHEET NO.
14C.045165	8

PHASE 2

VINE RIPE INVESTMENTS INC
PO BOX 609
MILLS RIVER, NC 28759
9641264549
DB 1603/PG 593

GRASS FIELD ENTRANCE

JEFFRESS RD

INSTALL SILT FENCE AS
TEMPORARY DIVERSION
2' BEYOND BACK OF DITCH

50' R/W

END OF PHASE 2
72+64

50' R/W

50' R/W

50' R/W

65+74

METAL POSTS WITH CABLE AS FENCE

INSTALL SILT FENCE AS
TEMPORARY DIVERSION
2' BEYOND BACK OF DITCH

PAVED APRON

EXISTING GRATED MANHOLE W/SEWER VALVE

73+40

JEFFRESS RD

PATTEN SEED COMPANY
3086 FIVE CHOP RD
ORANGEBURG, SC 29115
9641685213
001217/00529

PATTEN SEED COMPANY
3086 FIVE CHOP RD
ORANGEBURG, SC 29115
9641685213
001217/00529

NOTE DRAWING NOT TO SCALE AND PROPERTY LINES ARE APPROXIMATE

N