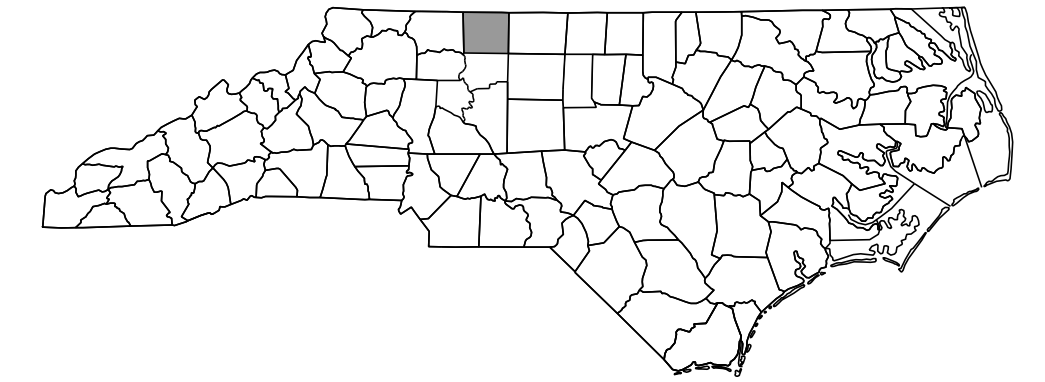


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**This file or an individual page
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STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5768	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
44670.1.1	STP-0311(035)	PE	
44670.2.1	STP-0311(035)	RW	
44670.3.1	STP-0311(035)	CONST.	

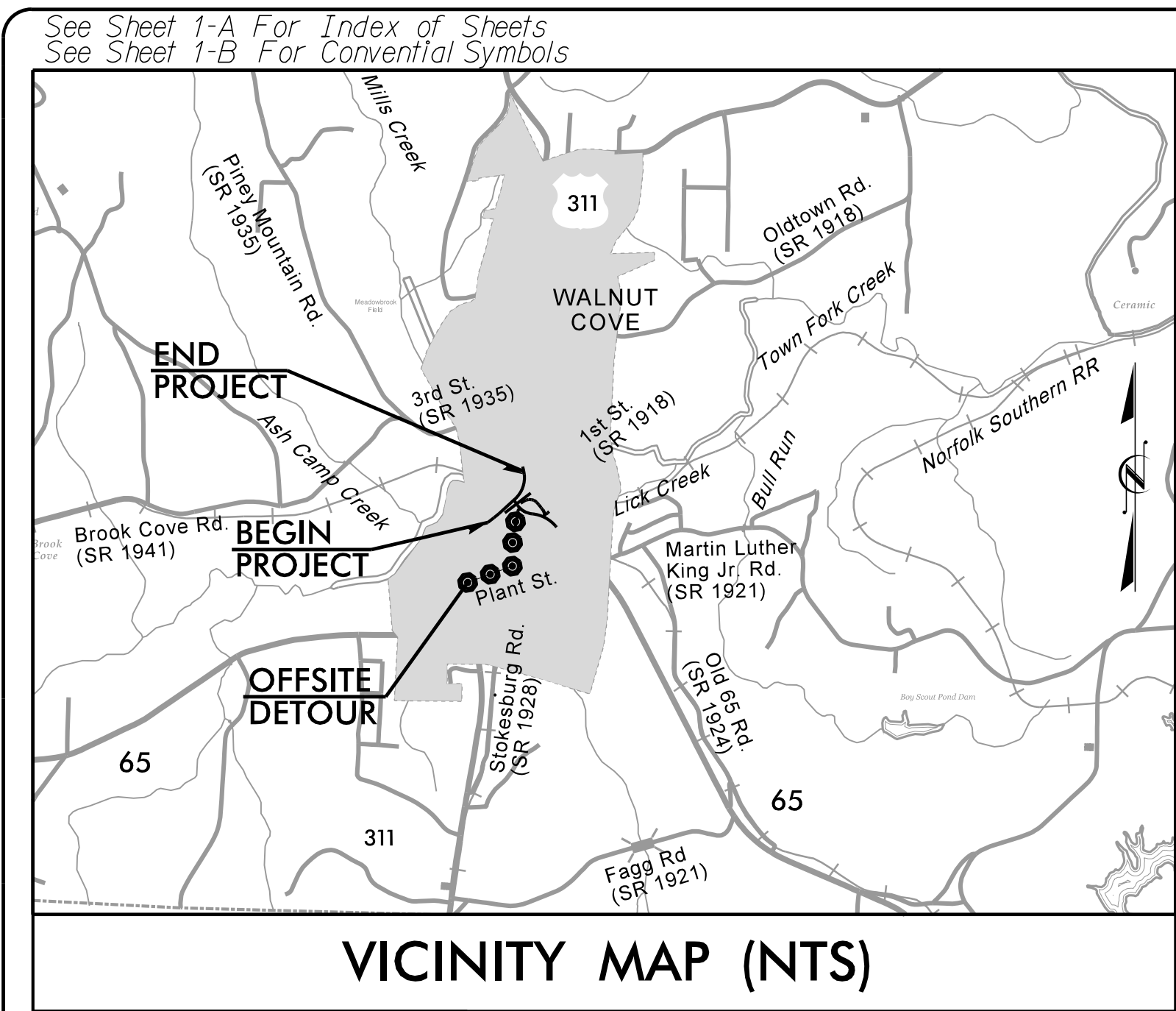


STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS
 PLAN FOR PROPOSED
 HIGHWAY EROSION CONTROL

STOKES COUNTY

LOCATION: US 311 / NC 65 IN VICINITY OF SR 1928 (STOKESBURG RD.)
 IN WALNUT COVE

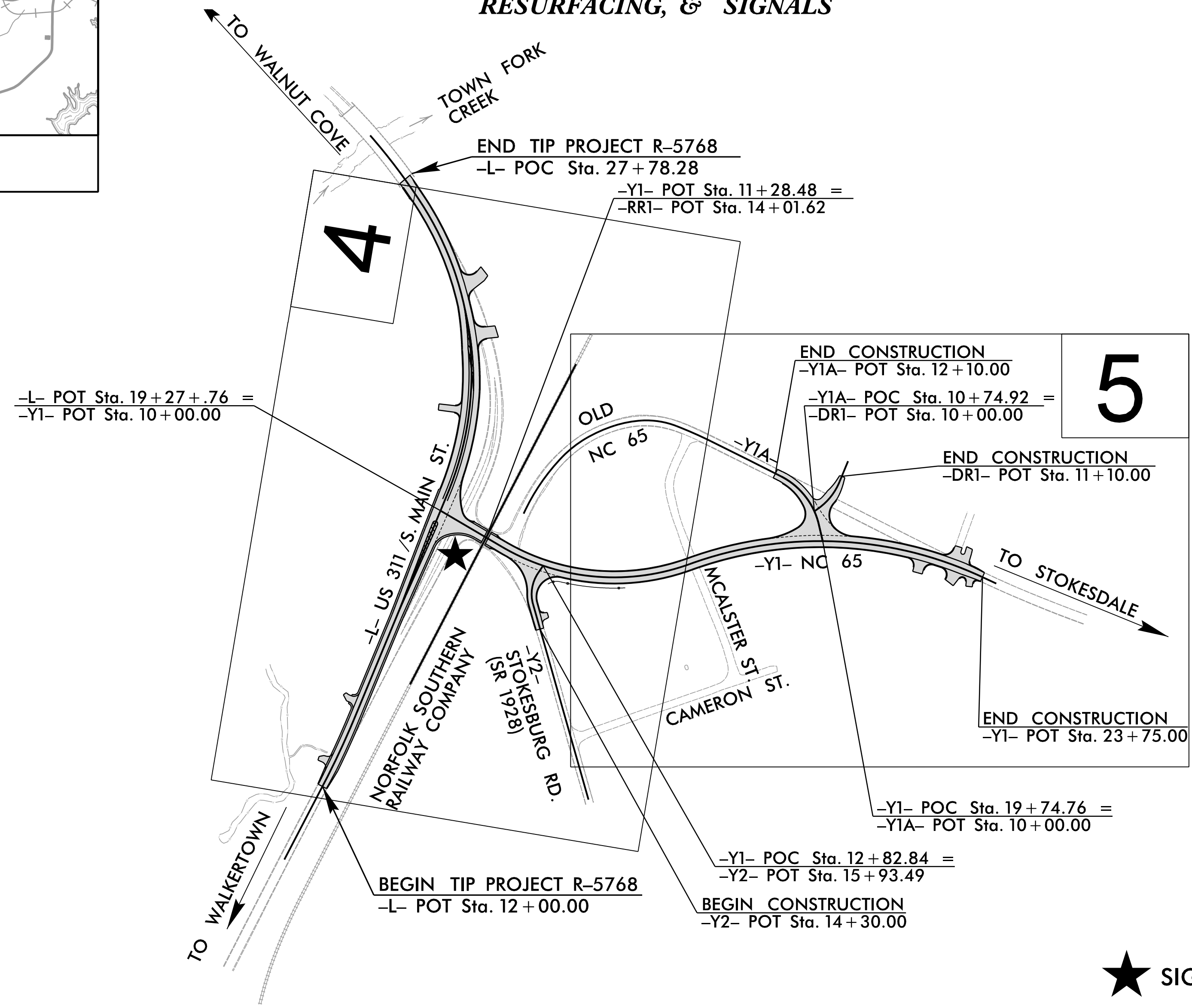
TYPE OF WORK: GRADING, DRAINAGE, PAVING, WIDENING,
 RESURFACING, & SIGNALS



VICINITY MAP (NTS)

☉☉☉ OFFSITE DETOUR

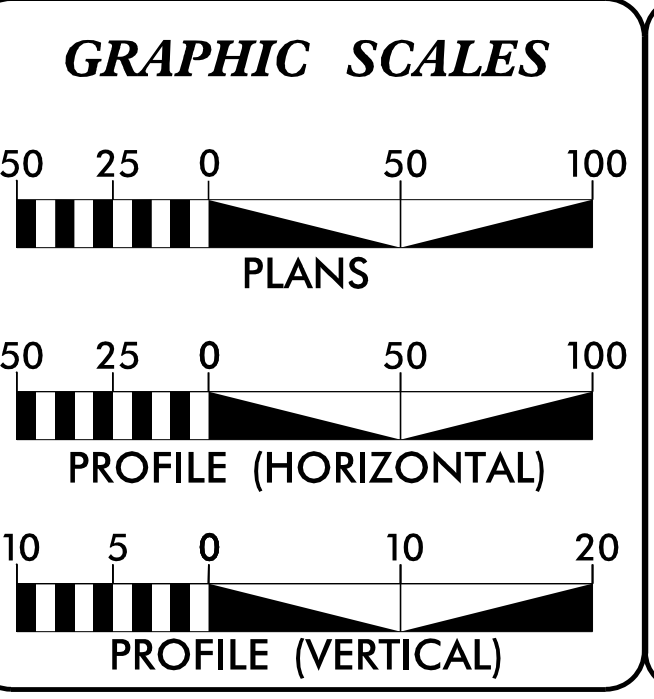
THIS PROJECT CONTAINS
 EROSION CONTROL PLANS
 FOR CLEARING AND
 GRUBBING PHASE OF
 CONSTRUCTION.



EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	III III III
1606.01	Special Sediment Control Fence	III III III
1622.01	Temporary Berms and Slope Drains	—
1630.02	Silt Basin Type B	□
1633.01	Temporary Rock Silt Check Type-A	▨
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	▨
1633.02	Temporary Rock Silt Check Type-B	▨
	Wattle/Coir Fiber Wattle	—
	Wattle/Coir Fiber Wattle with Polyacrylamide (PAM)	—
1634.01	Temporary Rock Sediment Dam Type-A	▨
1634.02	Temporary Rock Sediment Dam Type-B	▨
1635.01	Rock Pipe Inlet Sediment Trap Type-A	U
1635.02	Rock Pipe Inlet Sediment Trap Type-B	U
1630.04	Stilling Basin	□
1630.06	Special Stilling Basin	□
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	□
	Tiered Skimmer Basin	□
	Infiltration Basin	□

★ SIGNALIZED INTERSECTION



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER RESOURCES.

Prepared in the Office of:
RK&K
 8601 SIX FORKS ROAD, FORUM 1, SUITE 700
 RALEIGH, NORTH CAROLINA 27615-3960
 NC LICENSE NO. F-0112

Designed by:
COURTLAND A. HOFFMAN, PE 4312
 NAME LEVEL III CERTIFICATION NO.

Reviewed in the Office of:
ROADSIDE ENVIRONMENTAL UNIT
 1 South Wilmington St.
 Raleigh, NC 27611

2018 STANDARD SPECIFICATIONS

Reviewed by:
WES CHANDLER, PE

Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2018 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

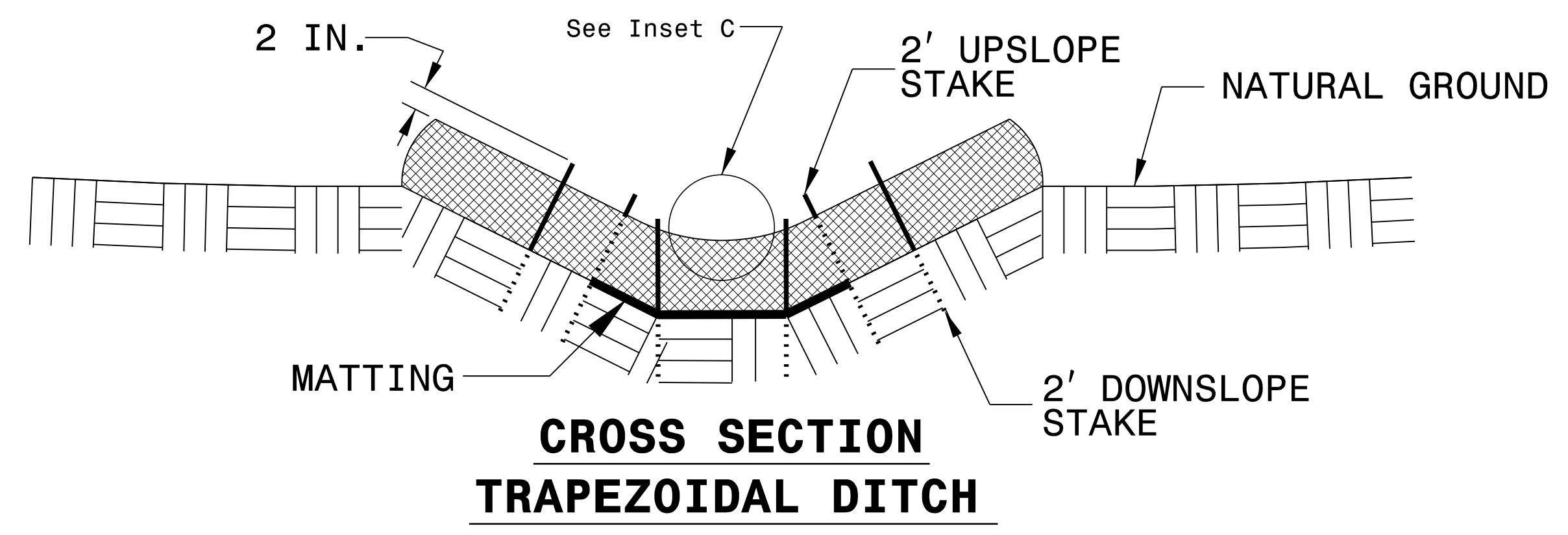
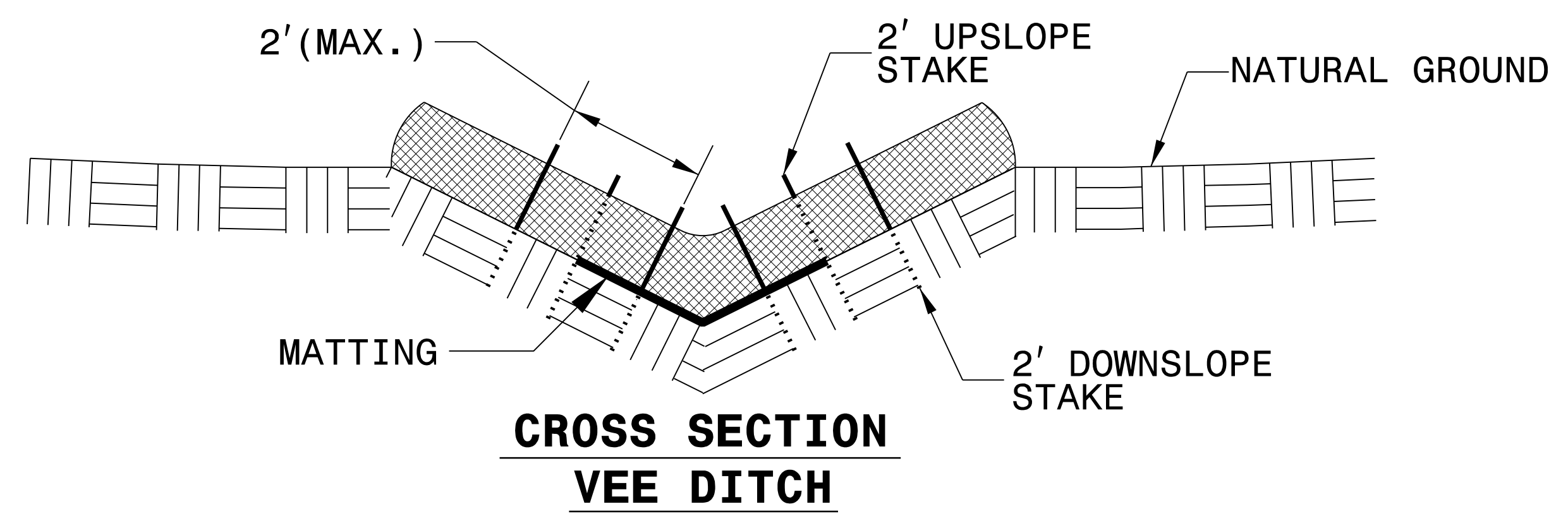
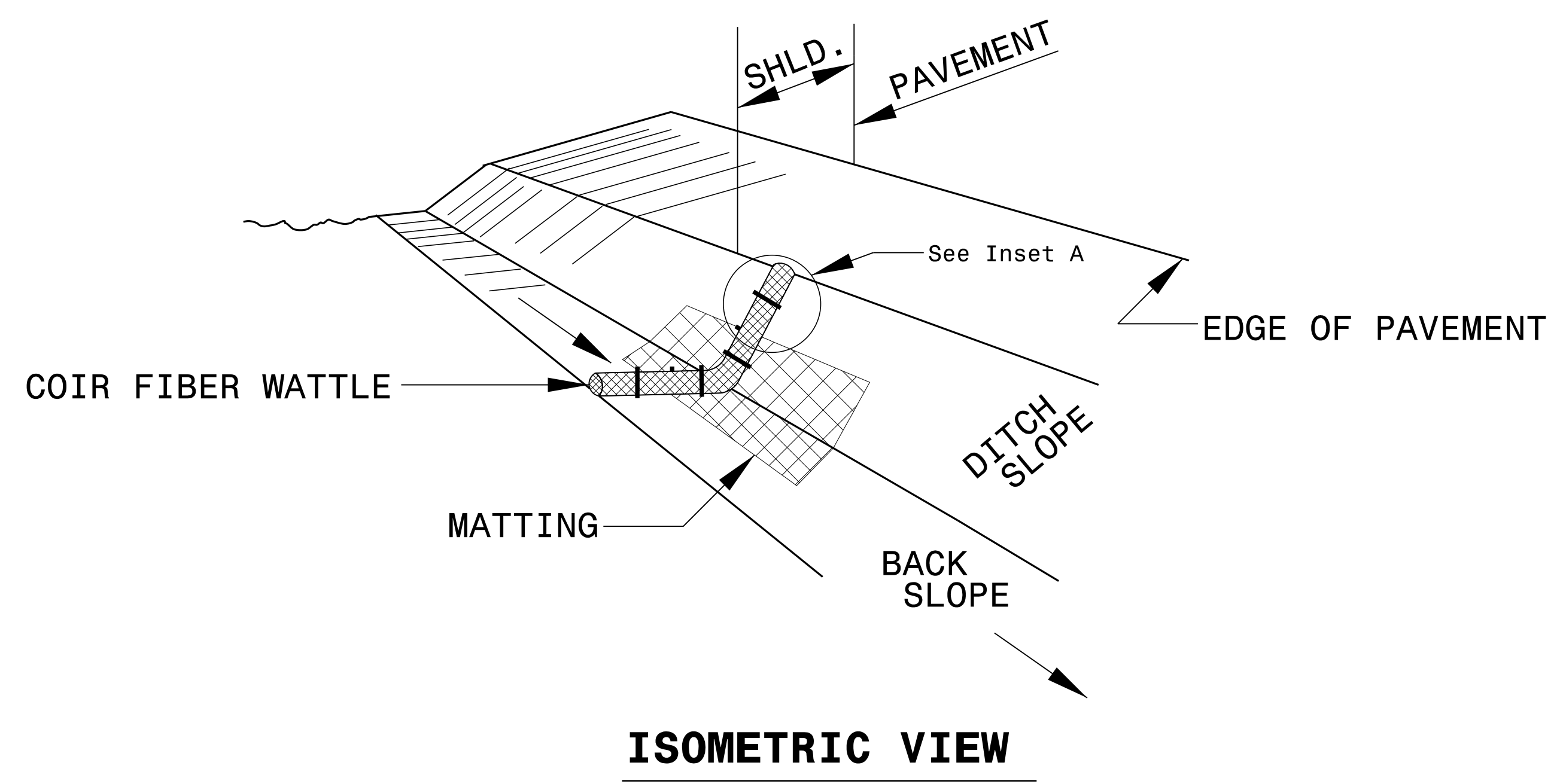
1604.01	Railroad Erosion Control Detail	1632.01	Rock Inlet Sediment Trap Type A
1605.01	Temporary Silt Fence	1632.02	Rock Inlet Sediment Trap Type B
1606.01	Special Sediment Control Fence	1632.03	Rock Inlet Sediment Trap Type C
1607.01	Gravel Construction Entrance	1633.01	Temporary Rock Silt Check Type A
1622.01	Temporary Berms and Slope Drains	1633.02	Temporary Rock Silt Check Type B
1630.01	Riser Basin	1634.01	Temporary Rock Sediment Dam Type A
1630.02	Silt Basin Type 1	1634.02	Temporary Rock Sediment Dam Type B
1630.03	Temporary Silt Ditch	1635.01	Rock Pipe Inlet Sediment Trap Type A
1630.04	Stilling Basin	1635.02	Rock Pipe Inlet Sediment Trap Type B
1630.05	Temporary Diversion	1640.01	Coir Fiber Jaffle
1630.06	Special Stilling Basin	1645.01	Temporary Stream Crossing
1631.01	Matting Installation		

TIP PROJECT: R-5768

CONTRACT: C204800

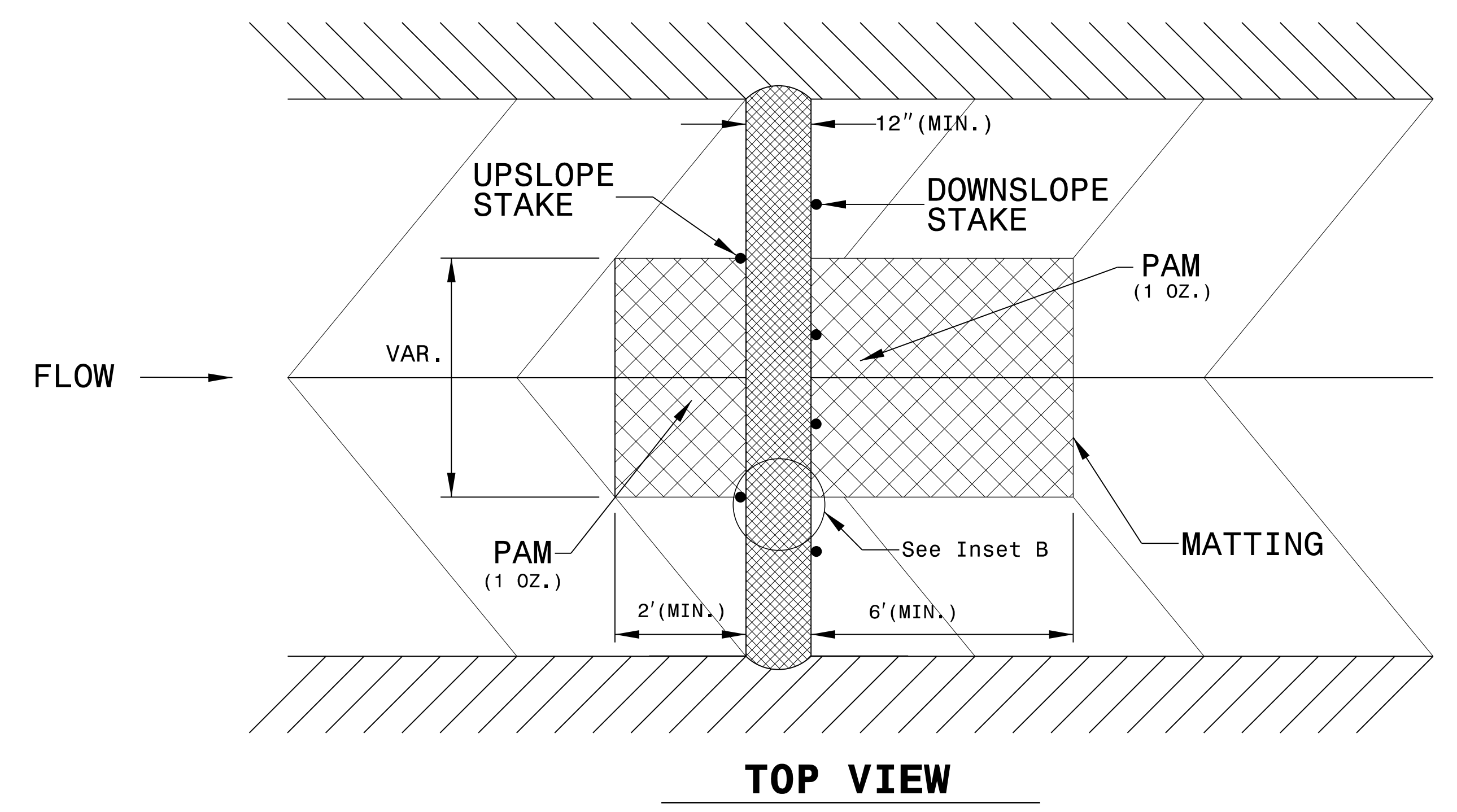
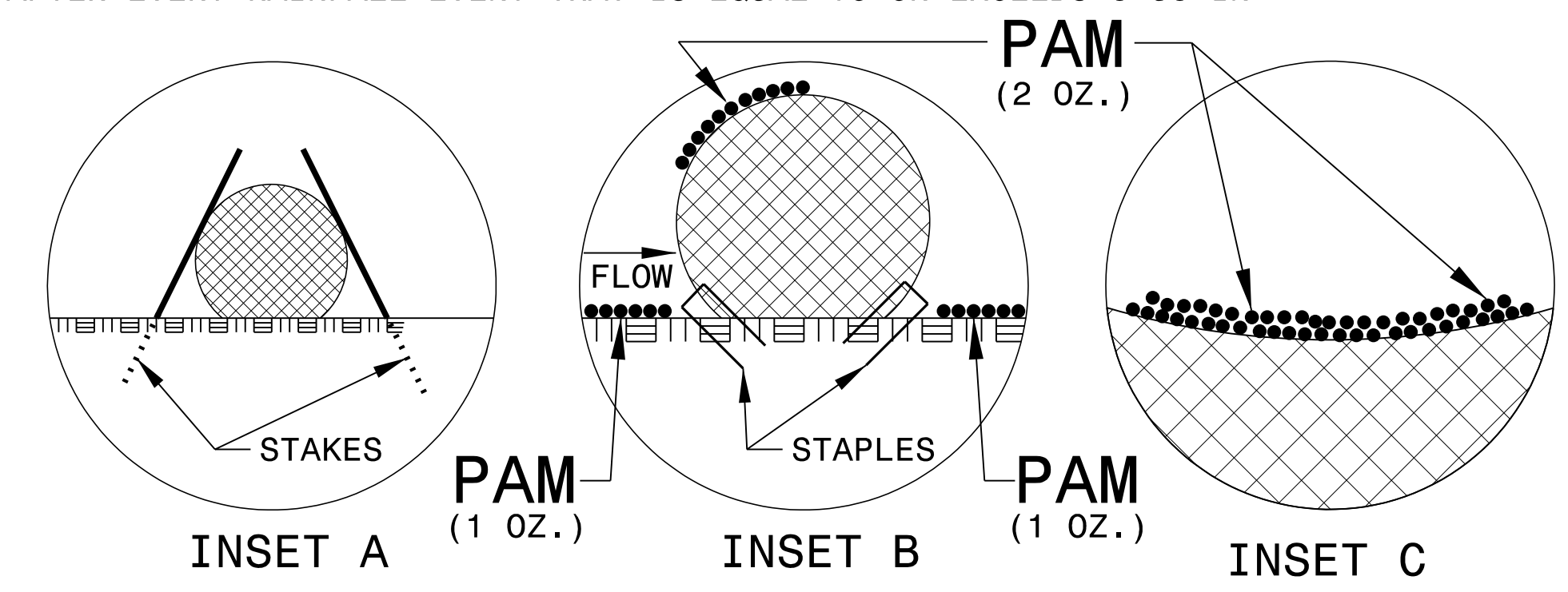
PROJECT REFERENCE NO. R-5768	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



NOTES:

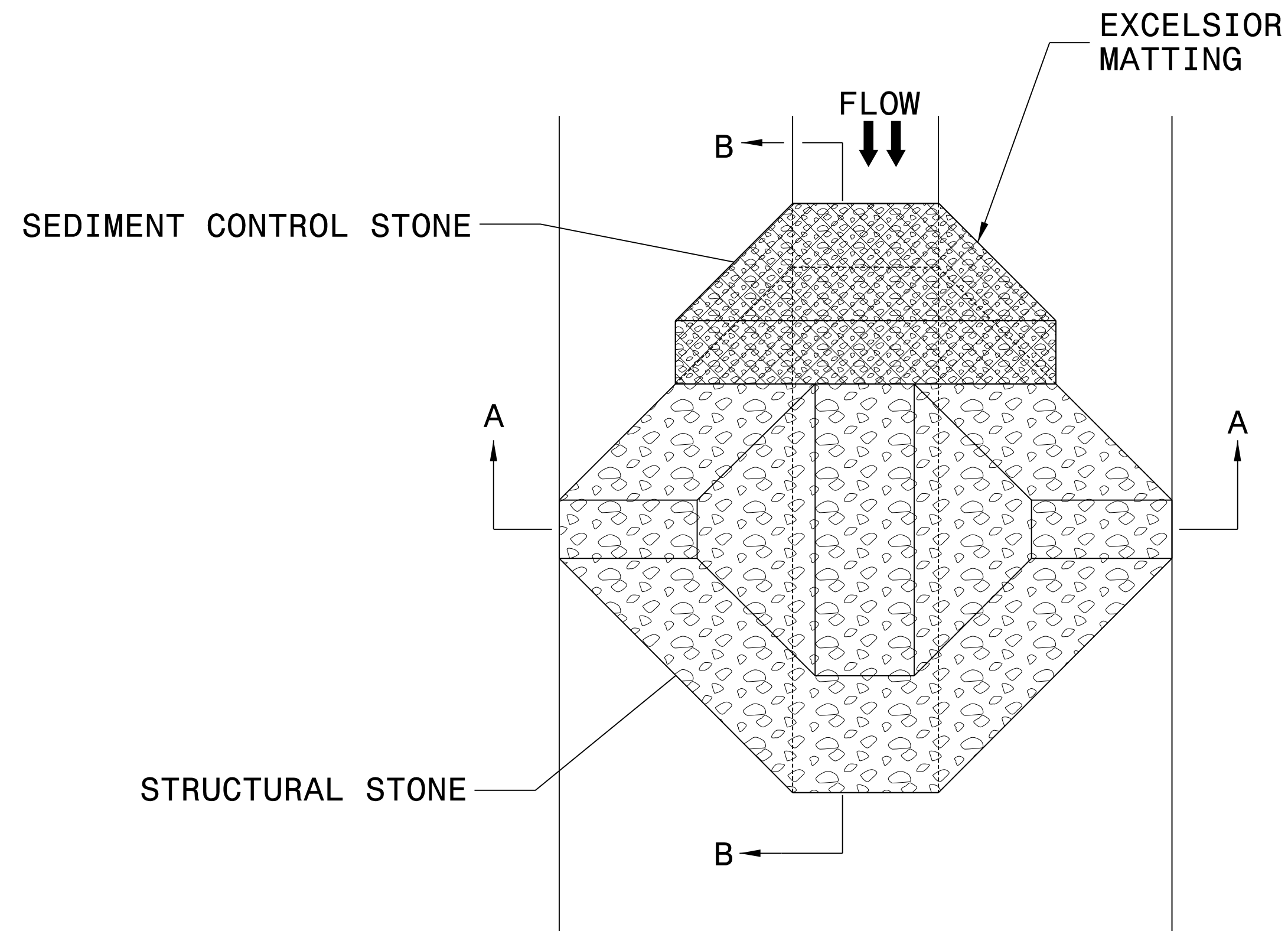
- USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 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.
- 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.



11/7/2022
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PROJECT REFERENCE NO. <i>R-5768</i>	SHEET NO. <i>EC-2A</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY ROCK SILT CHECK TYPE 'A' WITH EXCELSIOR MATTING AND POLYACRYLAMIDE (PAM)



PLAN

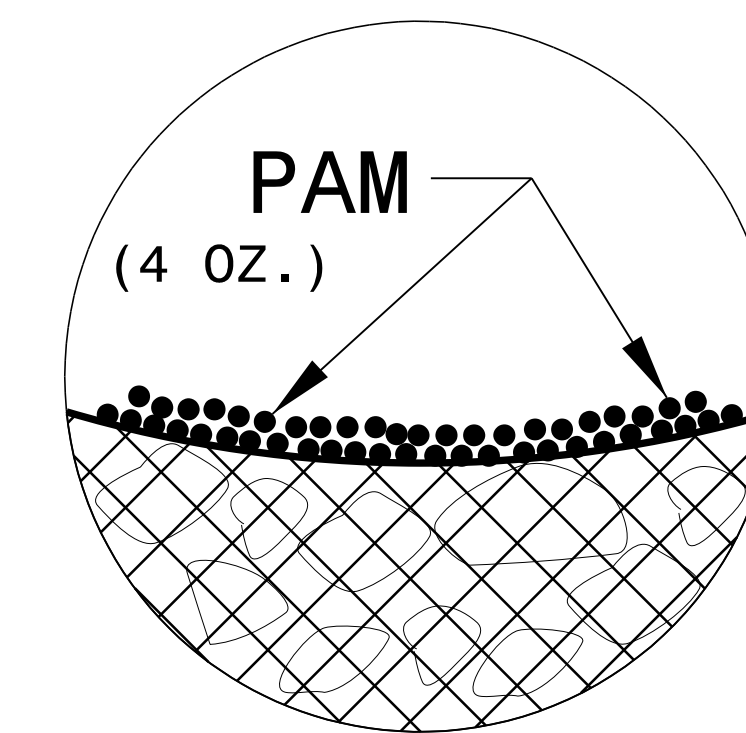
NOTES:

INSTALL TEMPORARY ROCK SILT CHECK TYPE A IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1633.01.

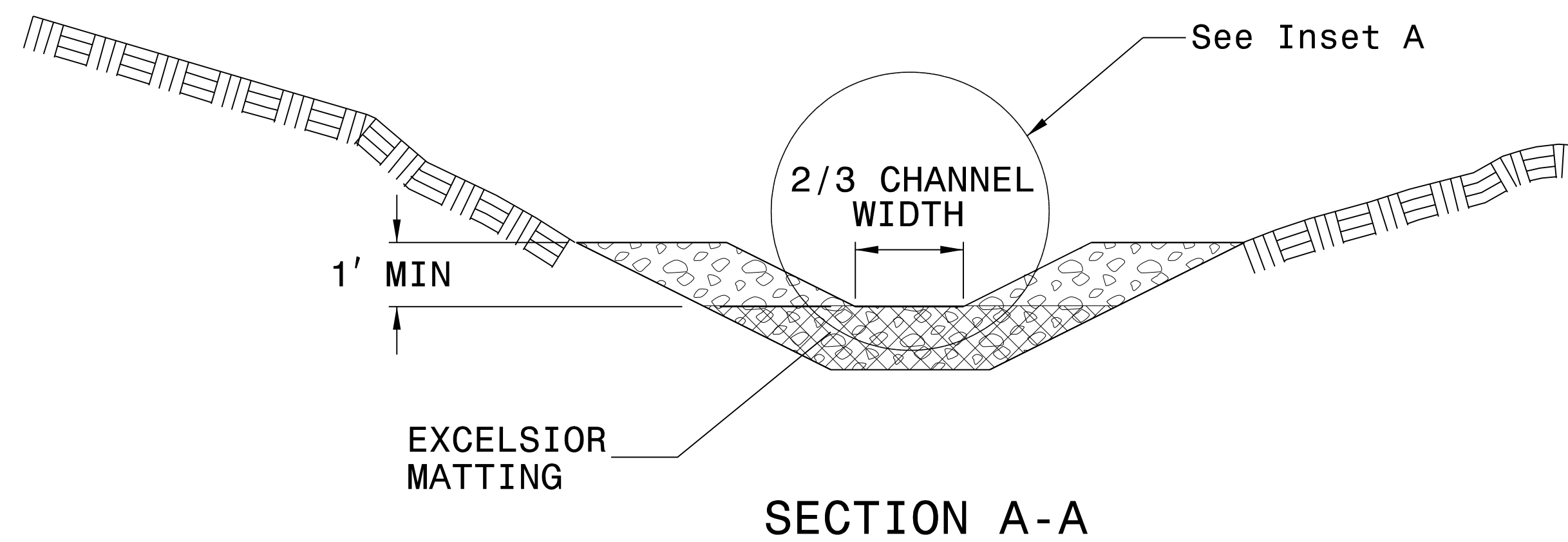
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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 ROCK SILT CHECK.

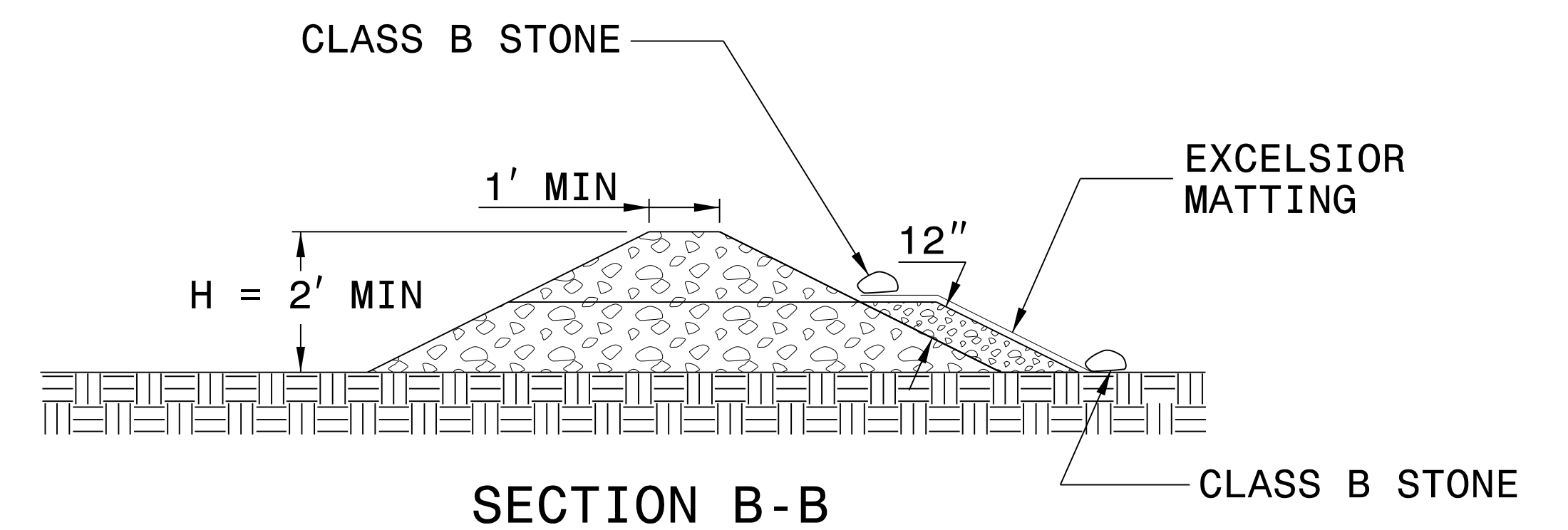
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A



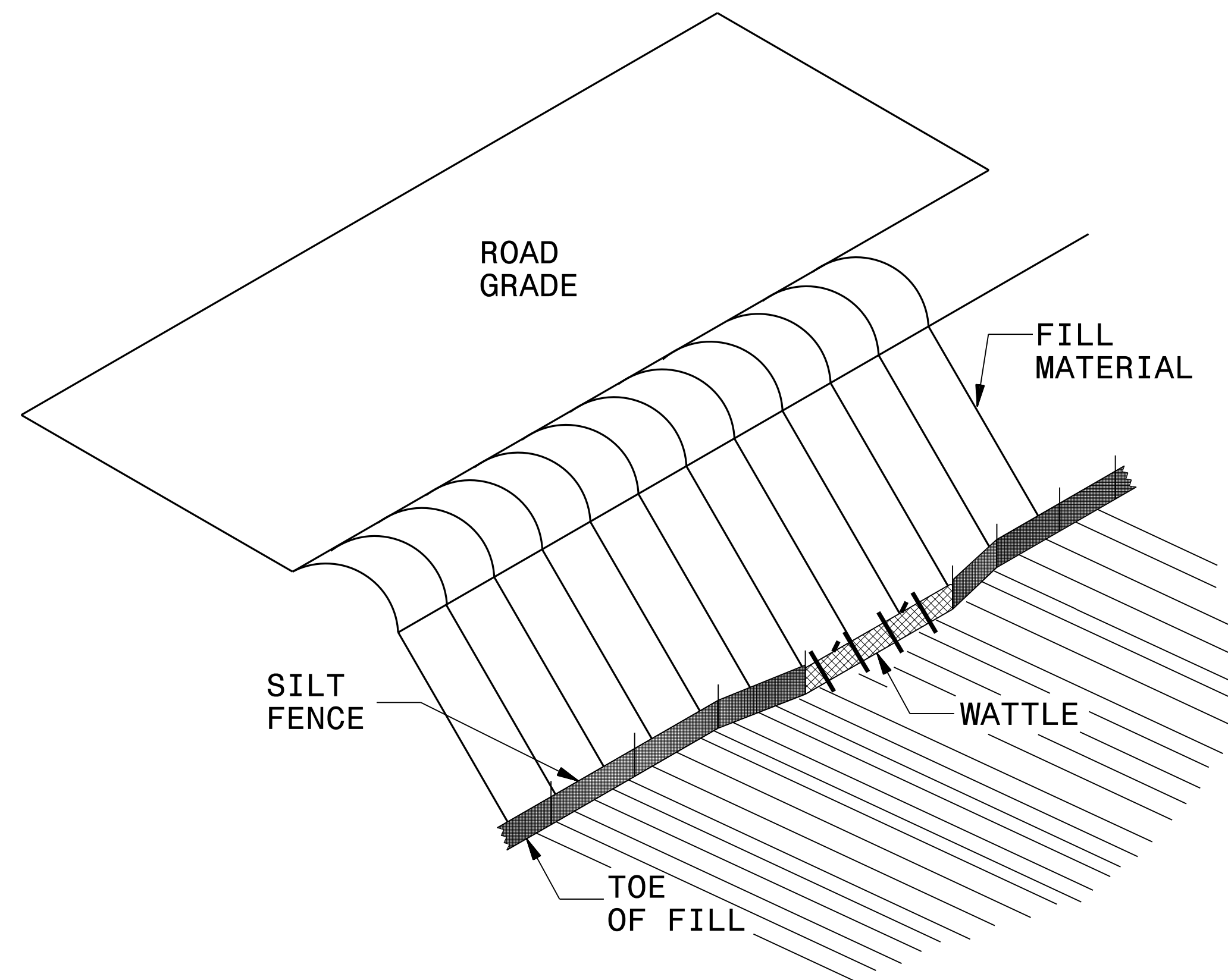
SECTION B-B

NOT TO SCALE

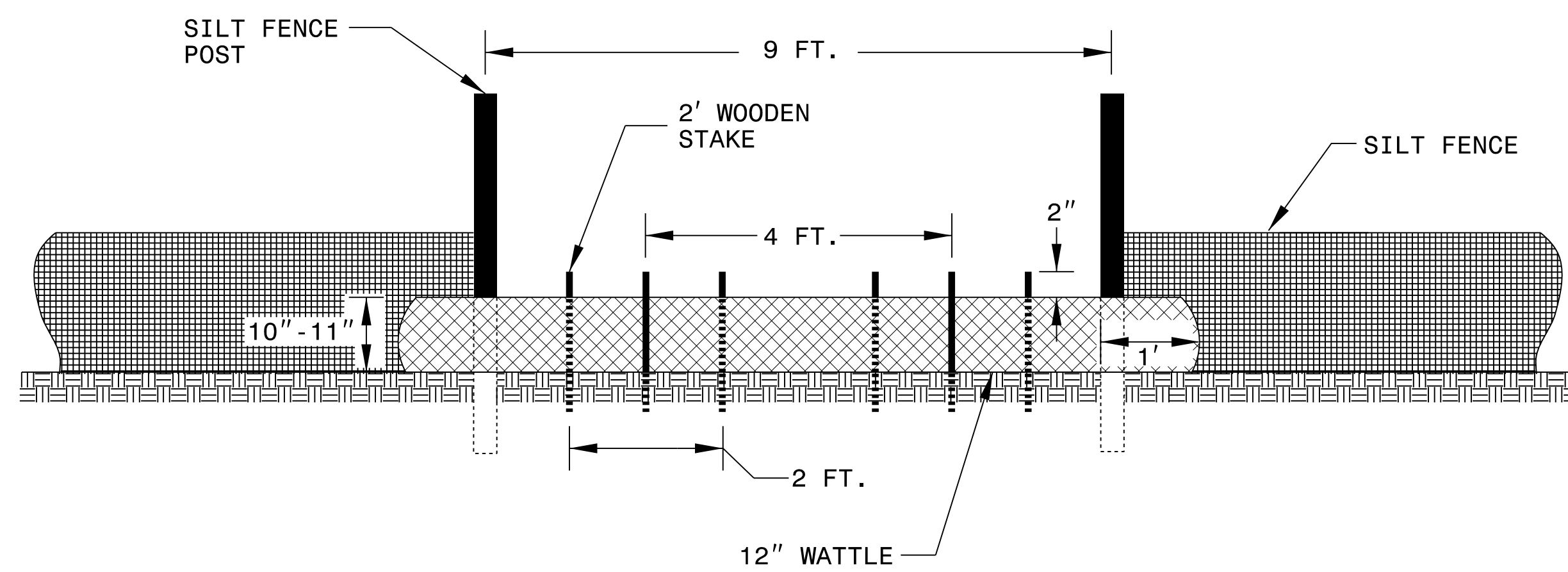
11/7/2022 R:\Hatch\Drawings\CADD\PSH\Erosion_Control\NR-5768.EC_psh02a.dgn chofman

PROJECT REFERENCE NO. R-5768	SHEET NO. EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SILT FENCE COIR FIBER WATTLE BREAK DETAIL



ISOMETRIC VIEW

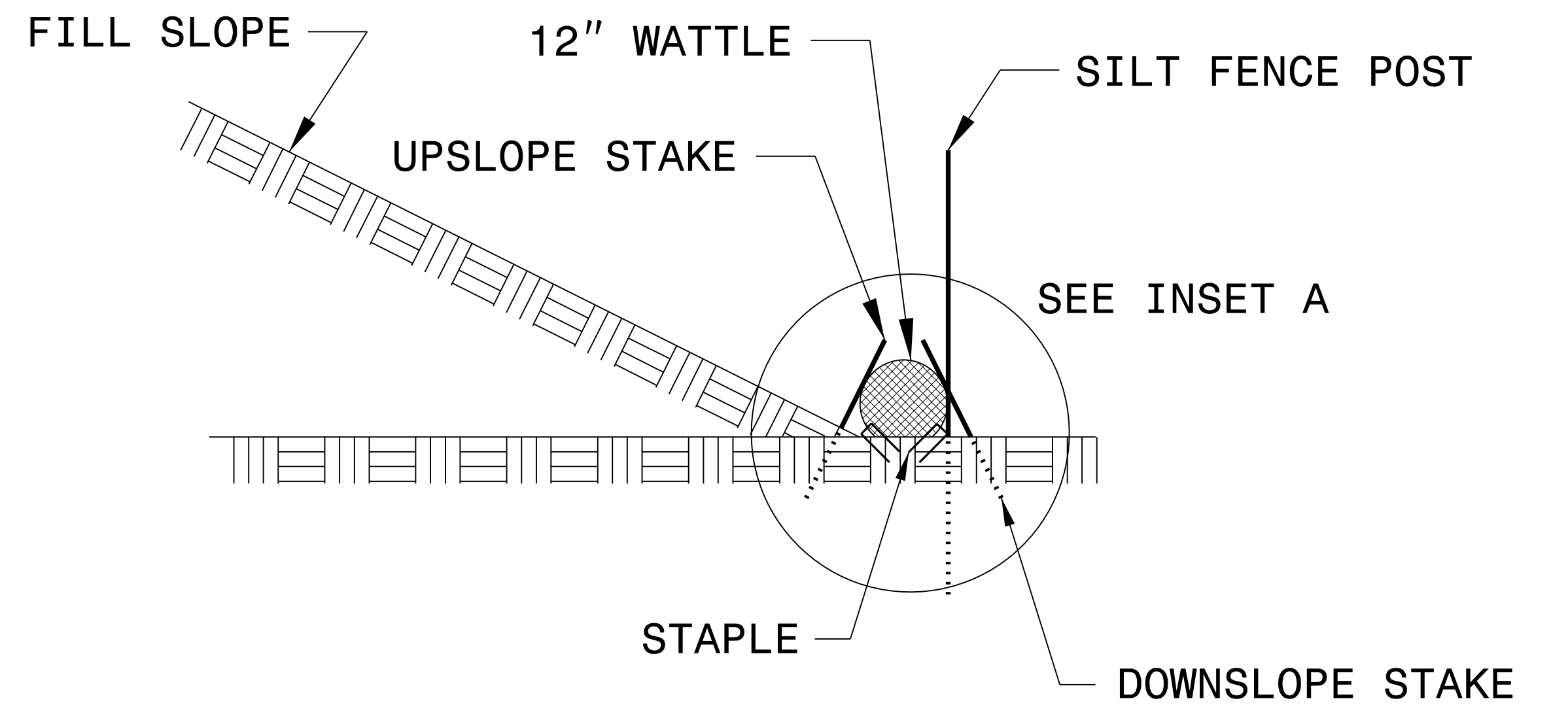
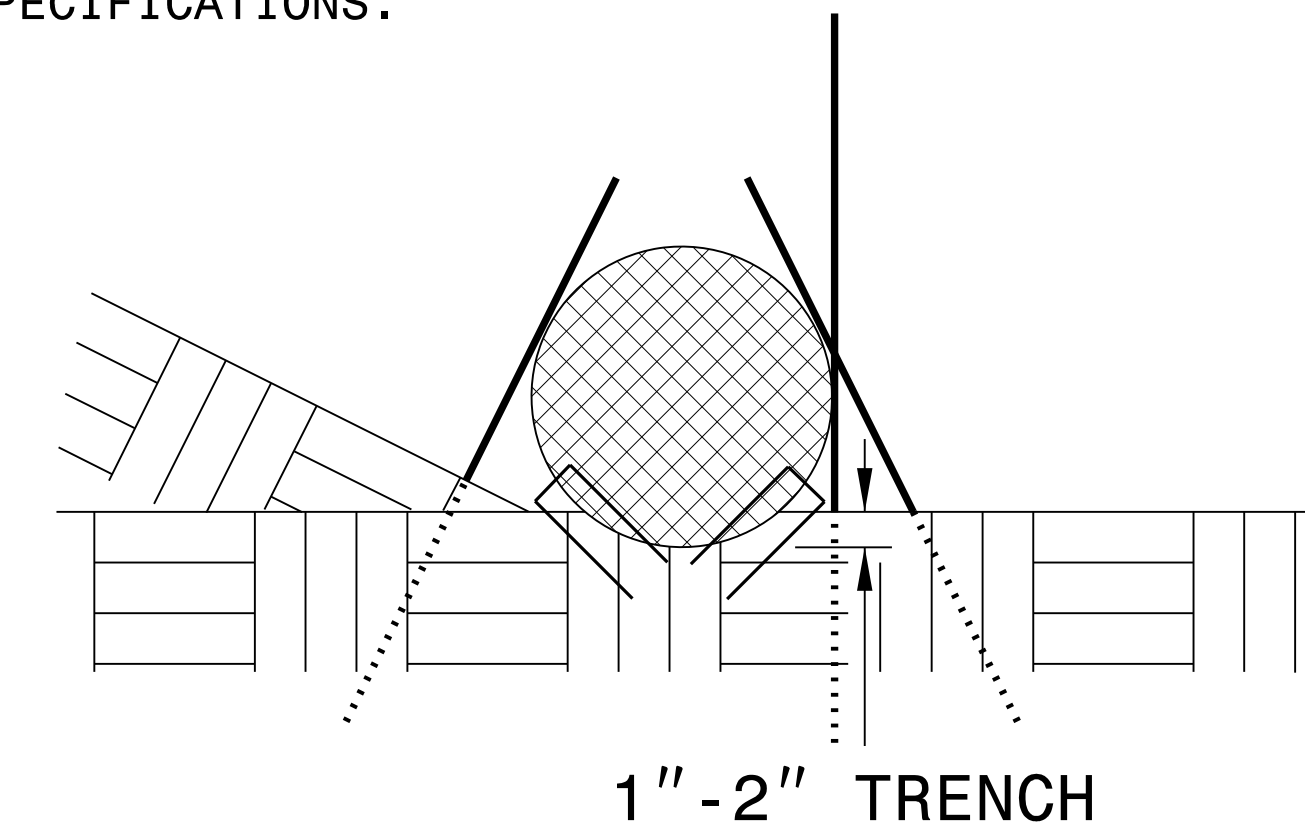


VIEW FROM SLOPE

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.

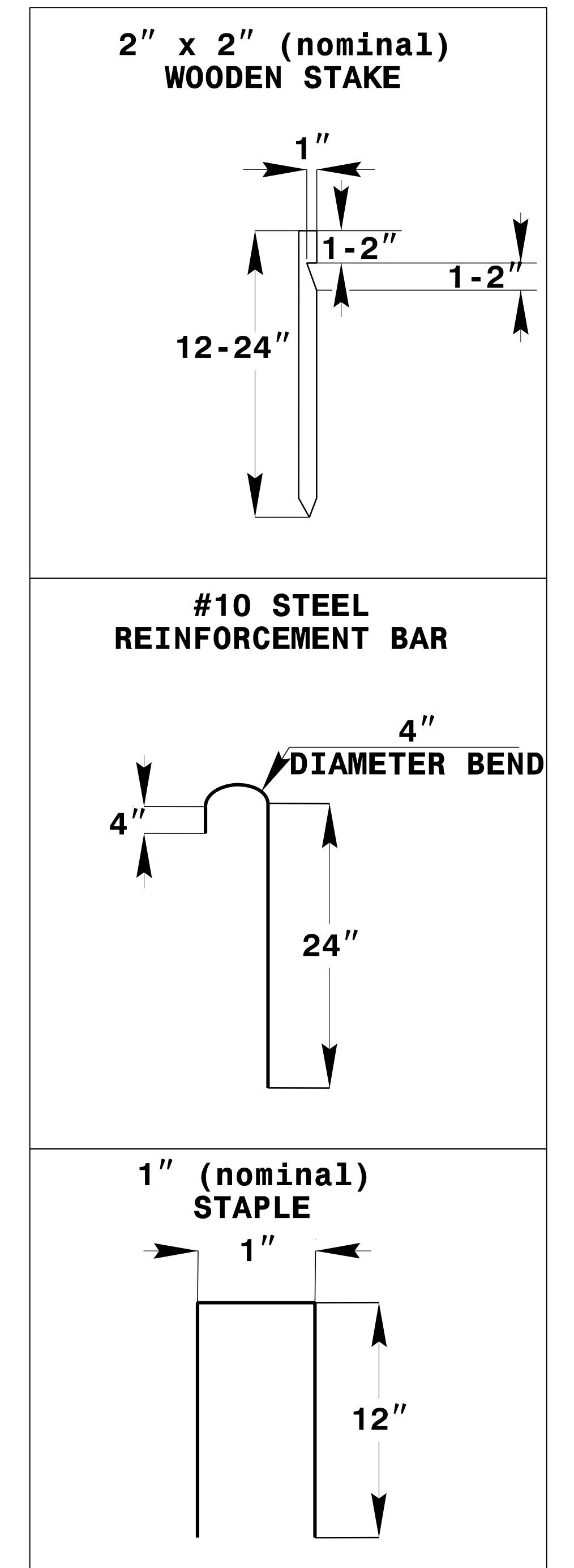
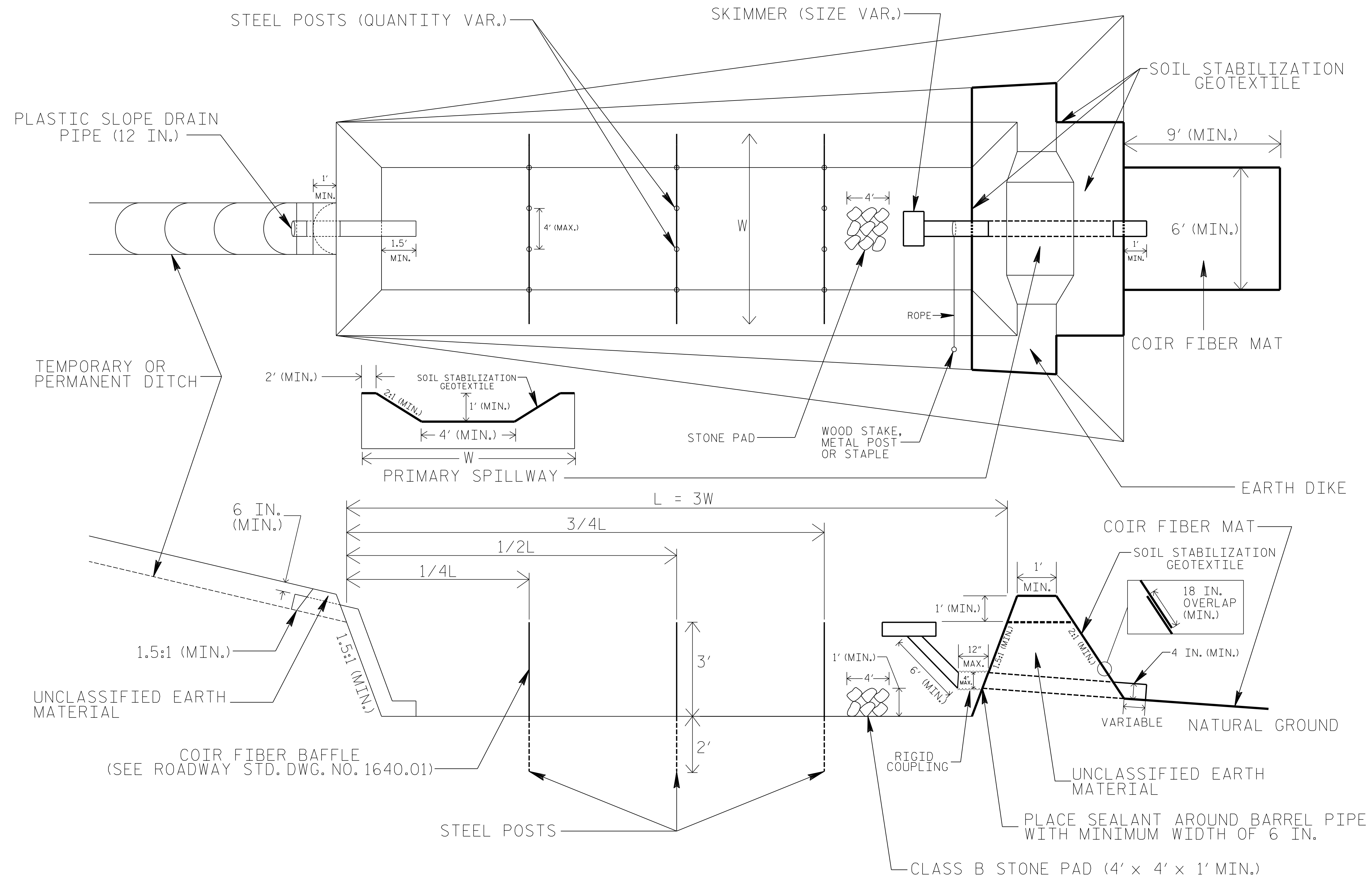
INSET A



SIDE VIEW

PROJECT REFERENCE NO. R-5768	SHEET NO. EC-2C
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKIMMER BASIN WITH BAFFLES DETAIL



COIR FIBER MAT ANCHOR OPTIONS

NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.
3. FOR BASIN DEPTH OF 3 FT., THE MINIMUM BASIN WIDTH SHALL BE 9 FT.
4. DETERMINE PRIMARY SPILLWAY WEIR LENGTH (FT.) USING $Q/0.8$, WHERE Q IS FLOW RATE (CFS) INTO BASIN.
5. PLASTIC SLOPE DRAIN PIPE AT INLET OF BASIN MAY BE REPLACED BY FILTRATION GEOTEXTILE OR TARP AS DIRECTED.
6. SOIL STABILIZATION GEOTEXTILE FOR PRIMARY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

1/7/2022
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 sheet1.dwg

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

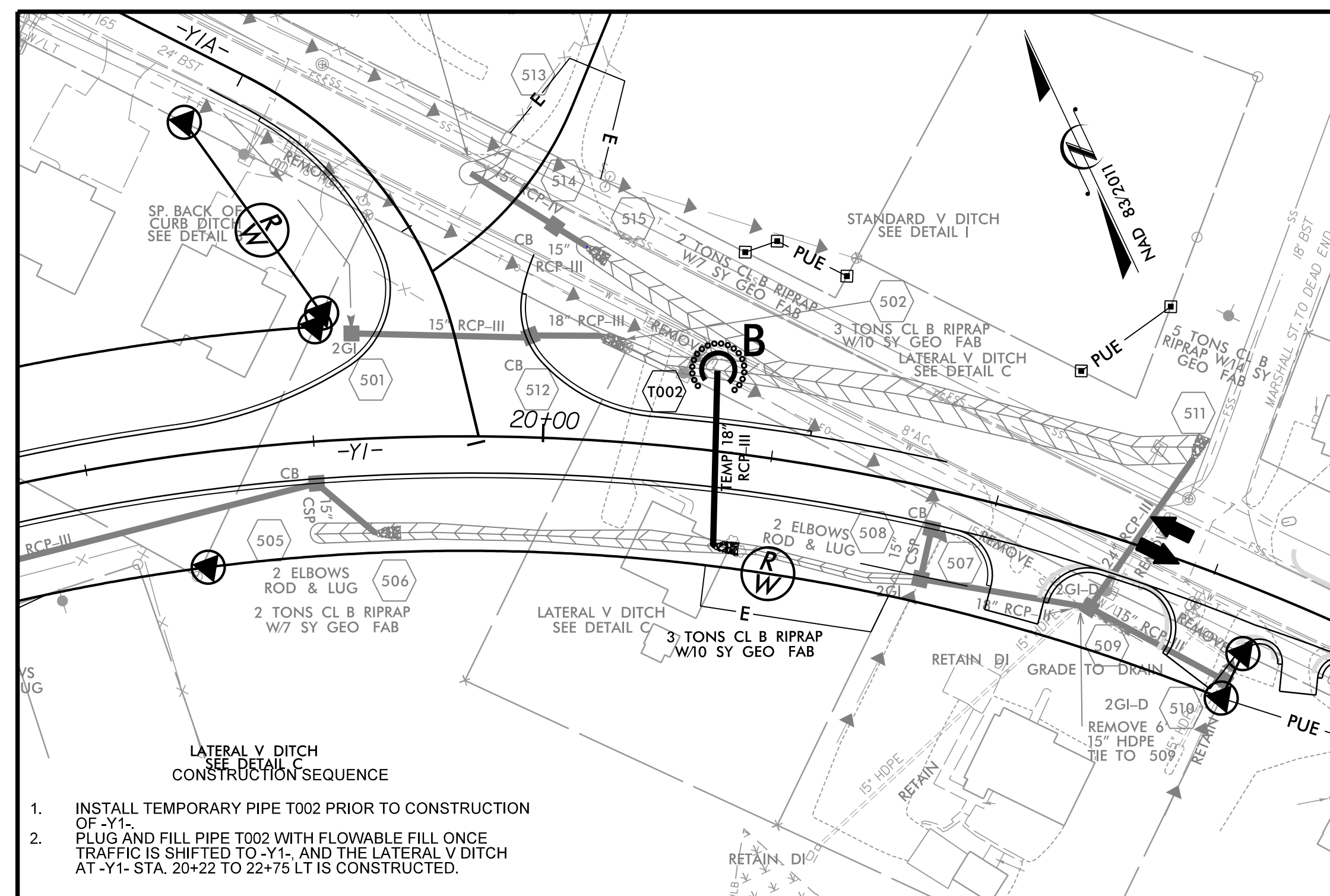
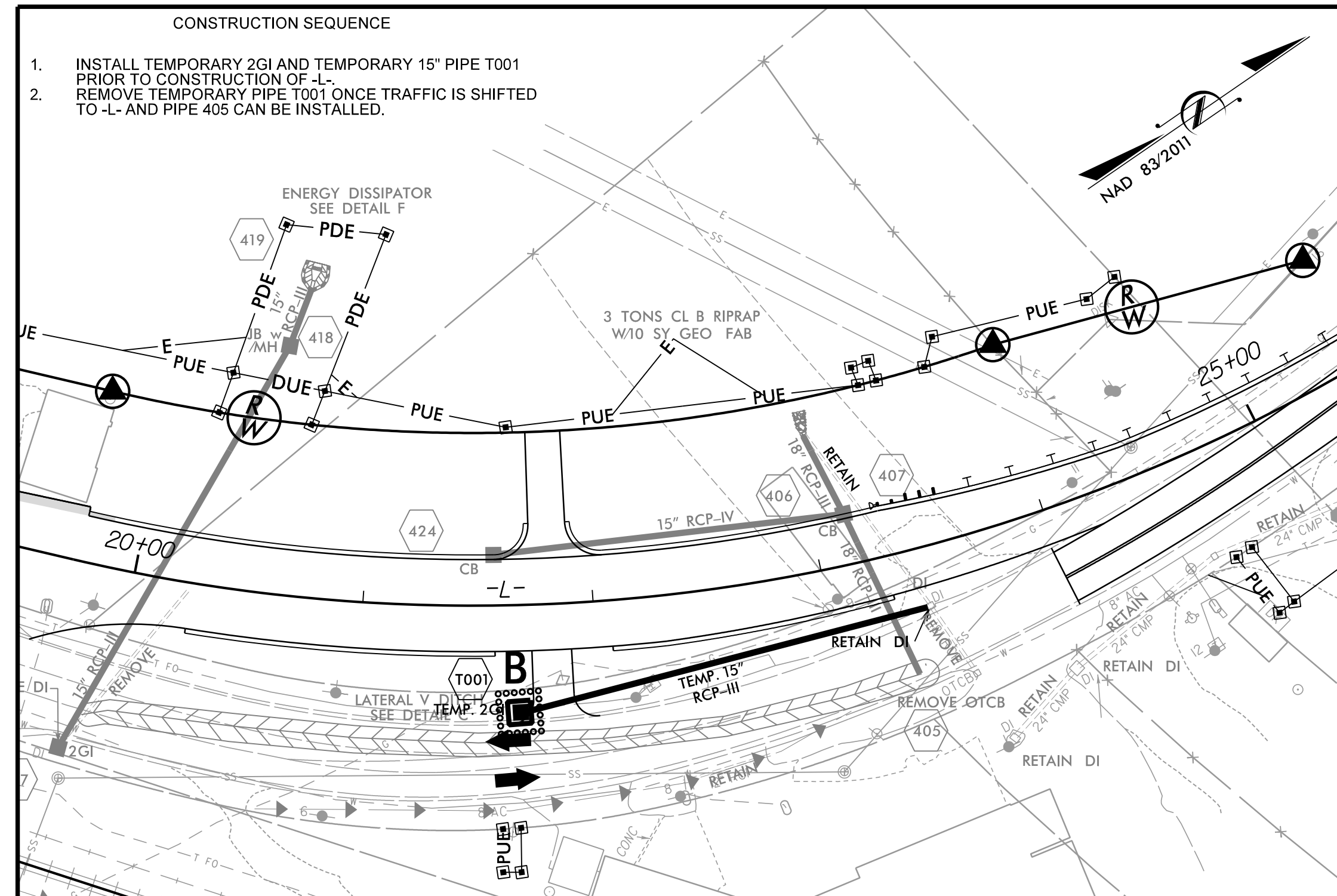
PROJECT REFERENCE NO. <i>R-5768</i>	SHEET NO. <i>EC-3A</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION TIMEFRAMES

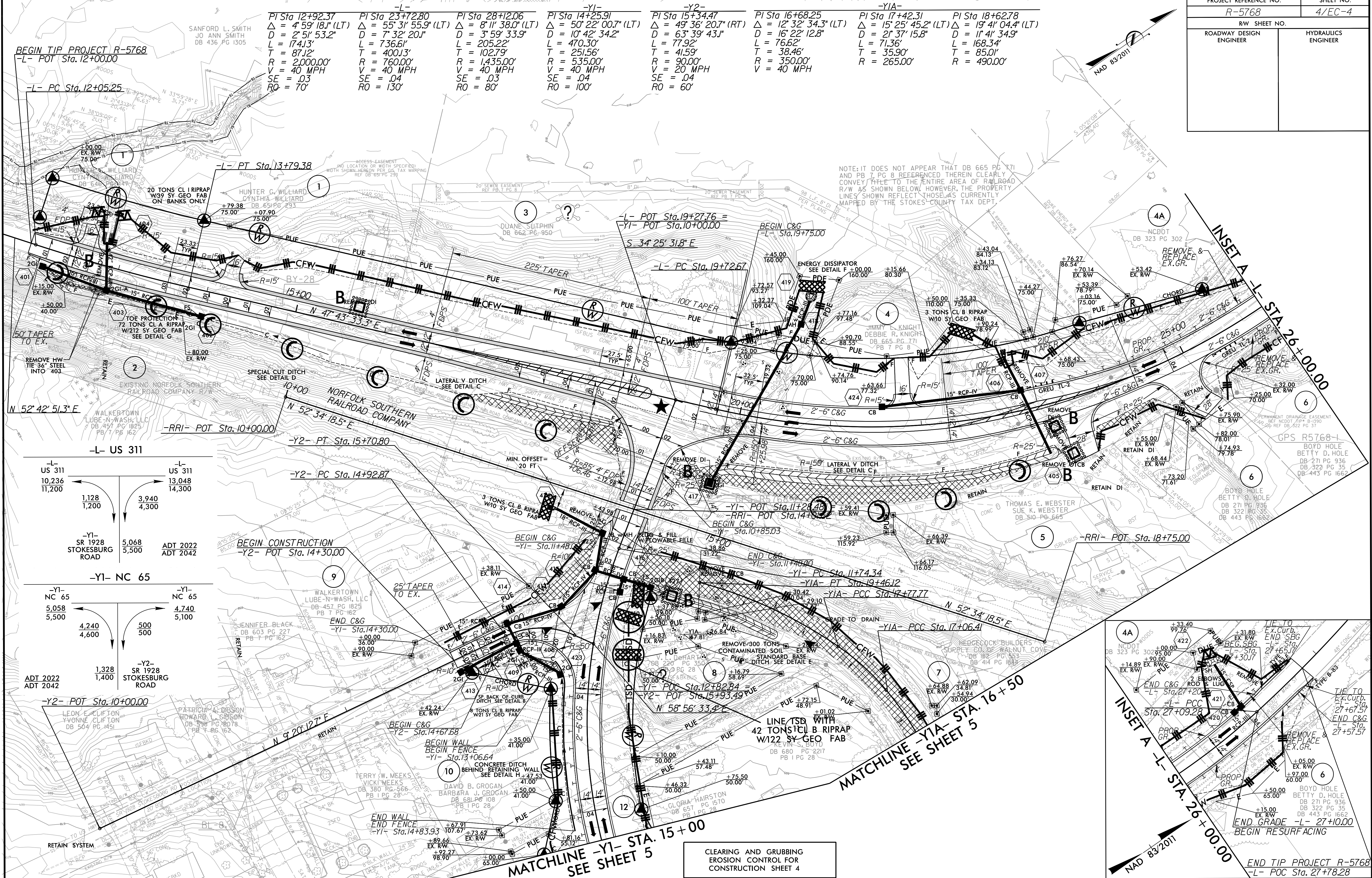
<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES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

TEMPORARY DRAINAGE FOR TRAFFIC PHASING

PROJECT REFERENCE NO. <i>R-5768</i>	SHEET NO. <i>EC-3B/CONST.2B-2</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



PROJECT REFERENCE NO.	SHEET NO.
R-5768	4/EC-4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



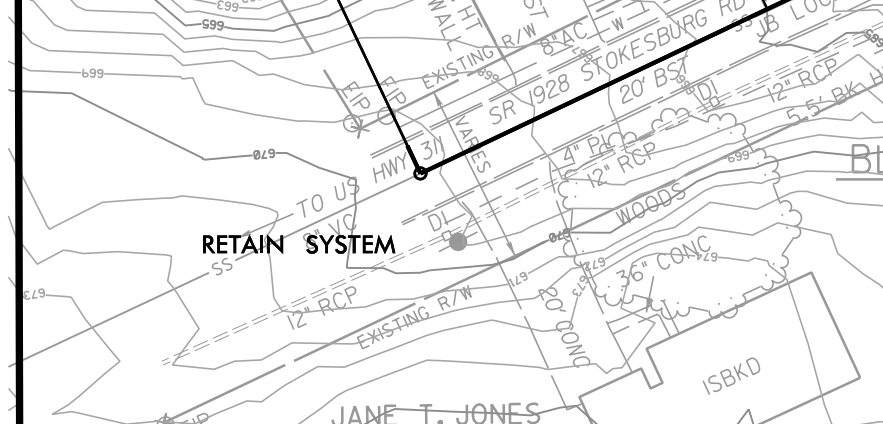
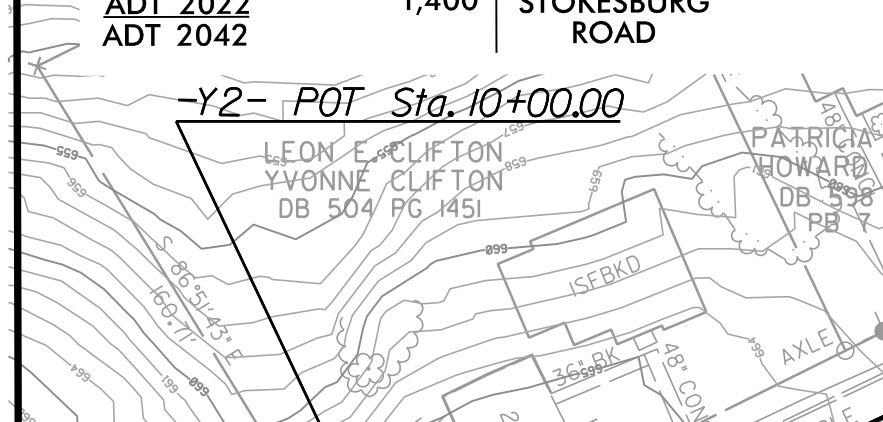
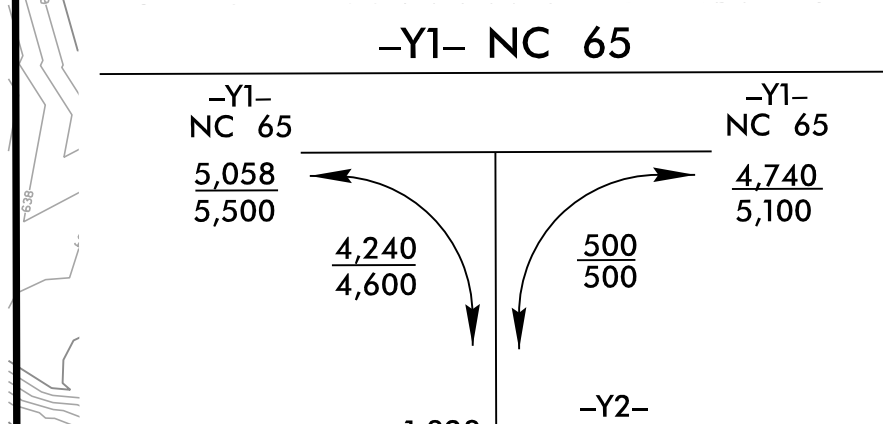
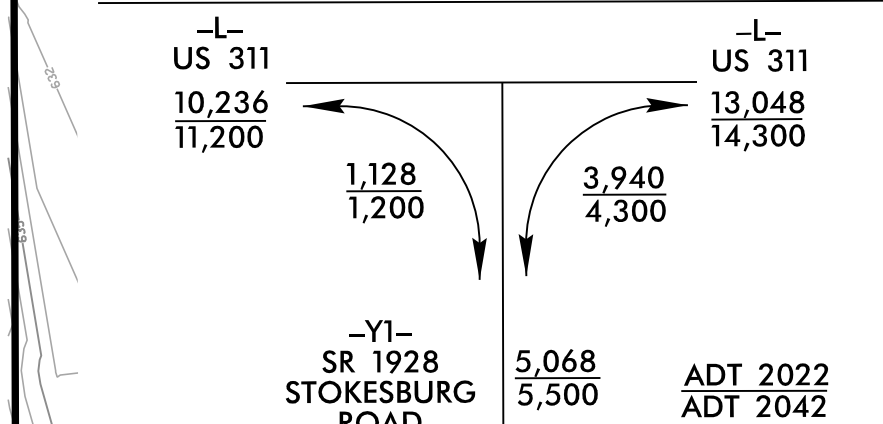
-L-	-Y1-	-Y2-	-Y1A-
PI Sta 12+92.37 Δ = 4° 59' 18.1" (LT) D = 2' 51" 53.2" L = 174.13' T = 87.12' R = 2000.00' V = 40 MPH SE = .03 RO = 70'	PI Sta 23+72.80 Δ = 55° 31' 55.9" (LT) D = 7' 32" 20.1" L = 736.61' T = 400.13' R = 760.00' V = 40 MPH SE = .04 RO = 130'	PI Sta 28+12.06 Δ = 8° 11' 38.0" (LT) D = 3' 59" 33.9" L = 205.22' T = 102.79' R = 1,435.00' V = 40 MPH SE = .03 RO = 80'	PI Sta 14+25.91 Δ = 50° 22' 00.7" (LT) D = 10' 42" 34.2" L = 470.30' T = 251.56' R = 535.00' V = 40 MPH SE = .04 RO = 100'

-Y1-	-Y2-	-Y1A-
PI Sta 14+25.91 Δ = 50° 22' 00.7" (LT) D = 10' 42" 34.2" L = 470.30' T = 251.56' R = 535.00' V = 40 MPH SE = .04 RO = 100'	PI Sta 15+34.47 Δ = 49° 36' 20.7" (RT) D = 6° 39' 43.1" L = 77.92' T = 41.59' R = 90.00' V = 20 MPH SE = .04 RO = 60'	PI Sta 16+68.25 Δ = 12° 32' 34.3" (LT) D = 16° 22' 12.8" L = 76.62' T = 35.46' R = 350.00' V = 40 MPH SE = .04 RO = 60'

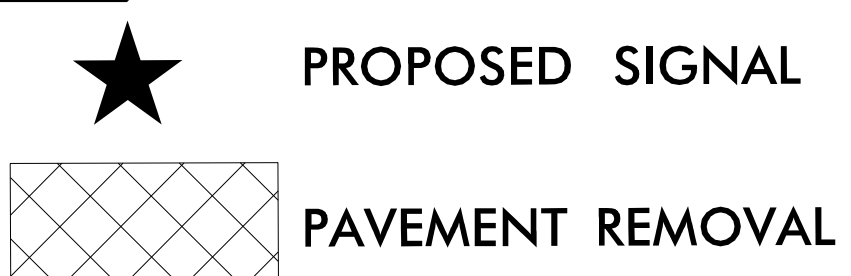
-Y1A-	-Y1-	-Y2-
PI Sta 17+42.31 Δ = 15° 25' 45.2" (LT) D = 21° 37' 15.8" L = 71.36' T = 35.90' R = 265.00'	PI Sta 18+62.78 Δ = 19° 41' 04.4" (LT) D = 17° 41' 34.9" L = 168.34' T = 85.01' R = 490.00'	PI Sta 19+27.76 Δ = 34° 25' 31.8" E S 34° 25' 31.8" E

-Y1-	-Y2-	-Y1A-
PI Sta 19+27.76 Δ = 34° 25' 31.8" E S 34° 25' 31.8" E	PI Sta 19+27.76 Δ = 34° 25' 31.8" E S 34° 25' 31.8" E	PI Sta 19+27.76 Δ = 34° 25' 31.8" E S 34° 25' 31.8" E

-Y1-	-Y2-	-Y1A-
PI Sta 19+27.76 Δ = 34° 25' 31.8" E S 34° 25' 31.8" E	PI Sta 19+27.76 Δ = 34° 25' 31.8" E S 34° 25' 31.8" E	PI Sta 19+27.76 Δ = 34° 25' 31.8" E S 34° 25' 31.8" E



NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

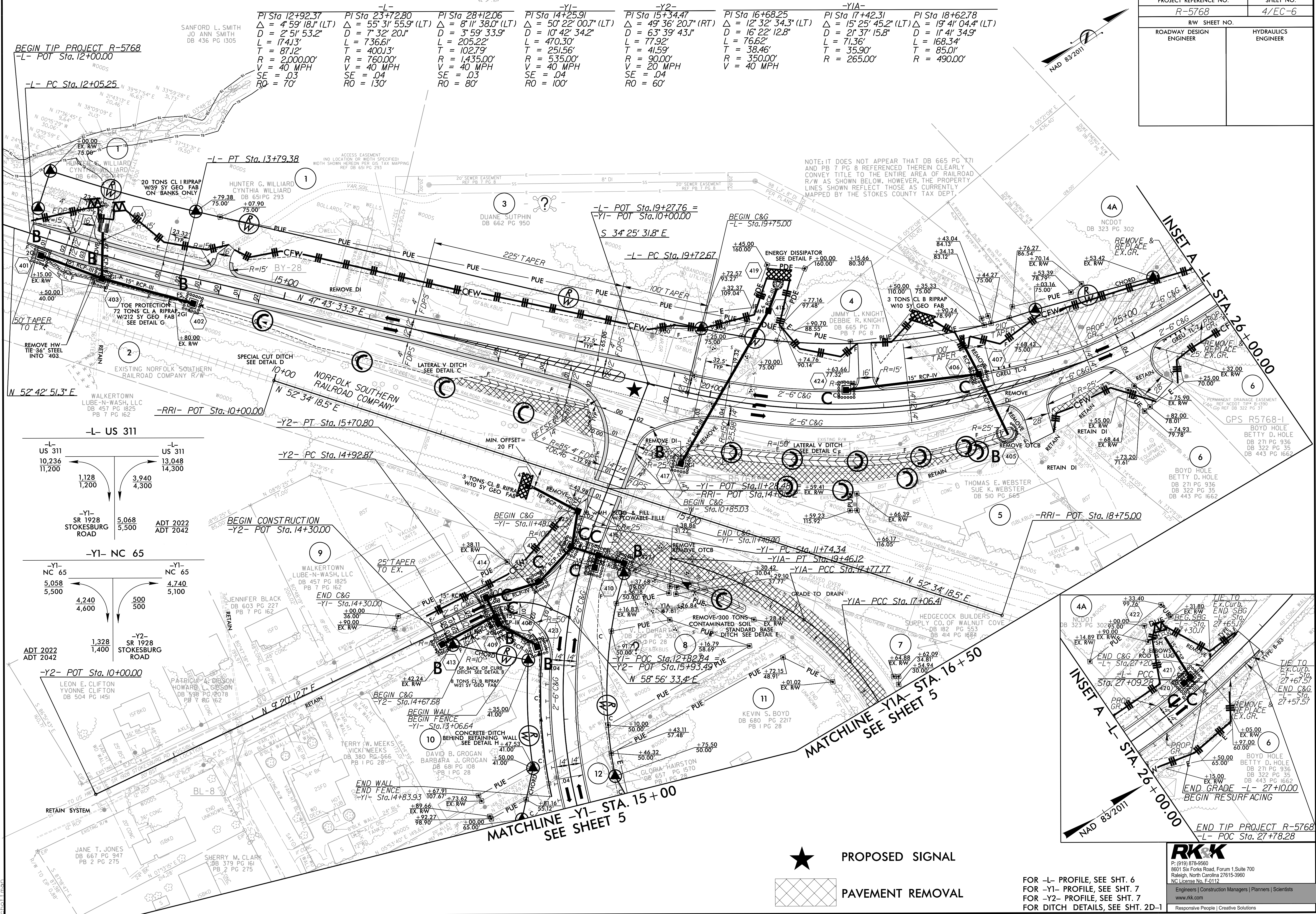


FOR -L- PROFILE, SEE SHT. 6
FOR -Y1- PROFILE, SEE SHT. 7
FOR -Y2- PROFILE, SEE SHT. 8
FOR DITCH DETAILS, SEE SHT. 2D-1

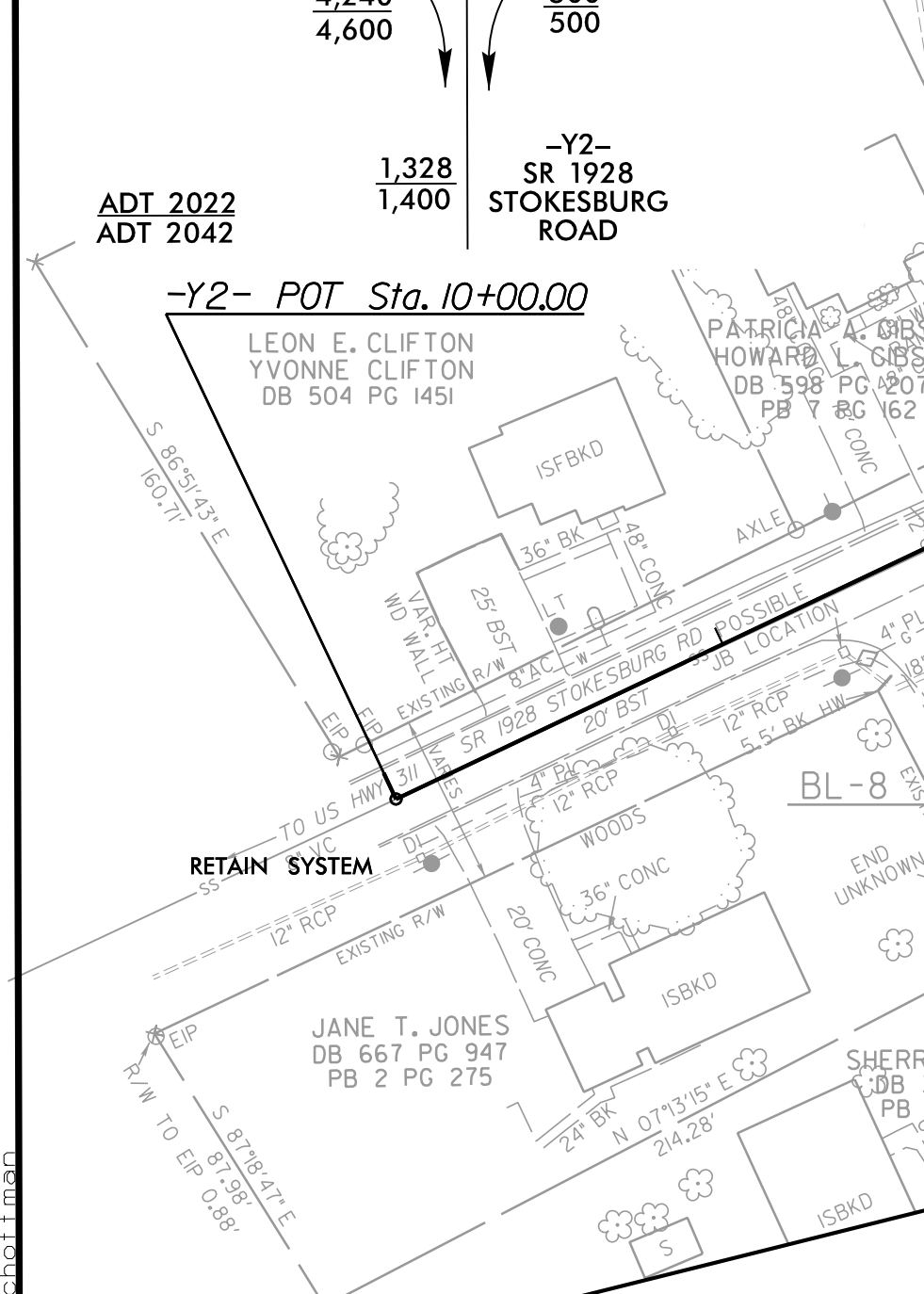
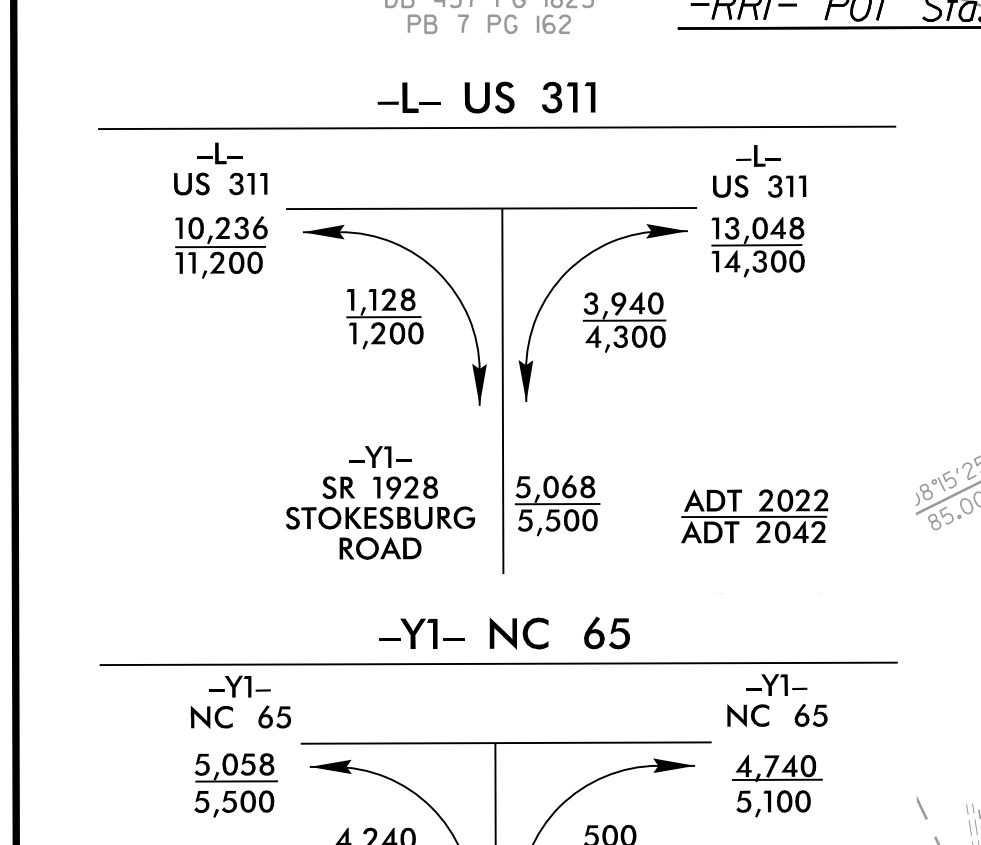
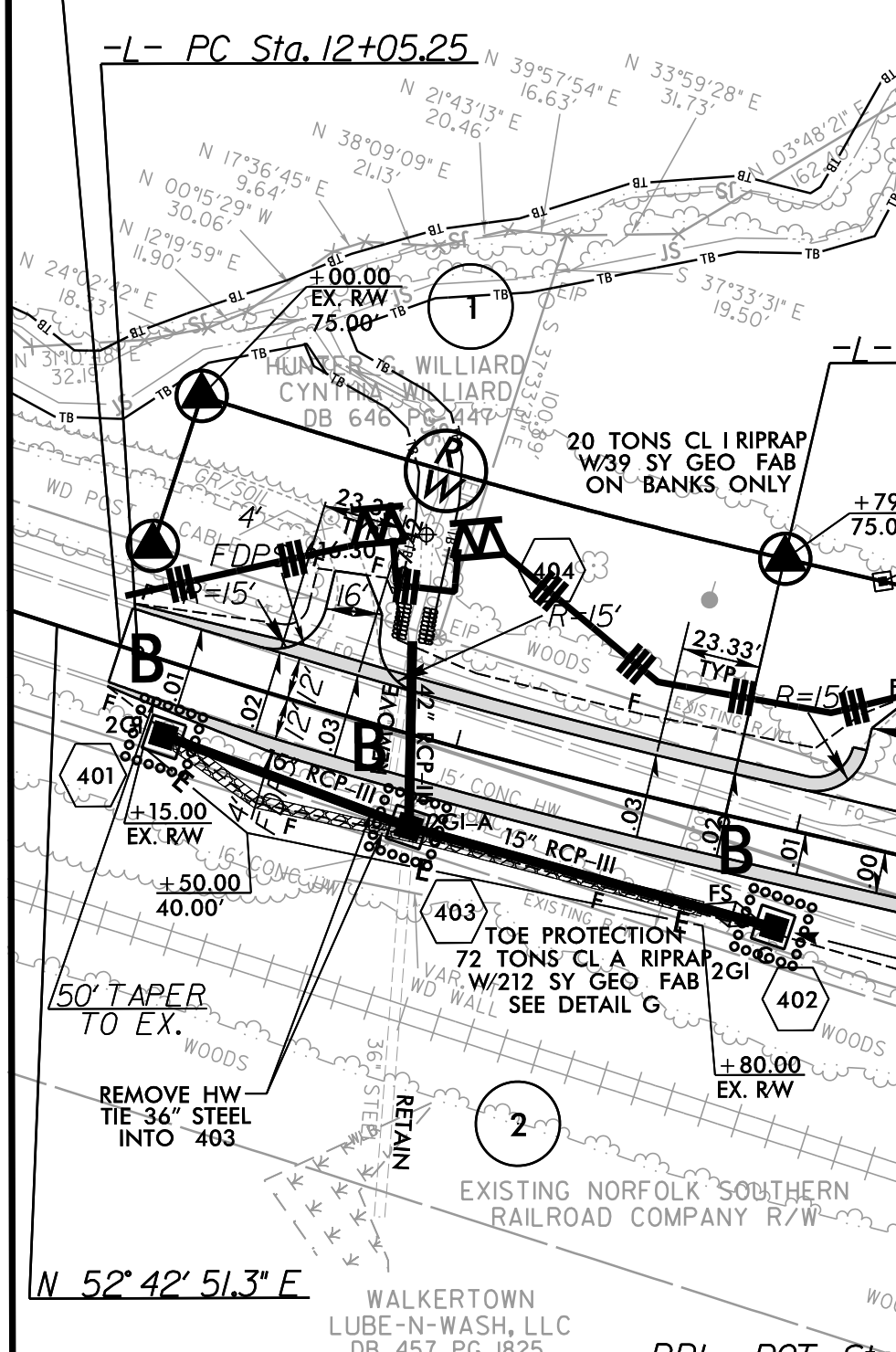
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 PE (919) 878-9560
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 Raleigh, North Carolina 27615-3960
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 Engineers | Construction Managers | Planners | Scientists
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 Responsive People | Creative Solutions

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PROJECT REFERENCE NO.	SHEET NO.
R-5768	4/EC-6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-L-	-Y1-	-Y2-	-Y1A-
PI Sta 12+92.37 Δ = 4° 59' 18.1" (LT) D = 2' 51" 53.2" L = 174.13' T = 87.12' R = 2000.00' V = 40 MPH SE = .03 RO = 70'	PI Sta 23+72.80 Δ = 55° 31' 55.9" (LT) D = 7' 32" 20.1" L = 736.61' T = 400.13' R = 760.00' V = 40 MPH SE = .04 RO = 130'	PI Sta 28+12.06 Δ = 8° 11' 38.0" (LT) D = 3' 59" 33.9" L = 205.22' T = 102.79' R = 1,435.00' V = 40 MPH SE = .03 RO = 80'	PI Sta 14+25.91 Δ = 50° 22' 00.7" (LT) D = 10' 42" 34.2" L = 470.30' T = 251.56' R = 535.00' V = 40 MPH SE = .04 RO = 100'
PI Sta 15+34.47 Δ = 49° 36' 20.7" (RT) D = 6° 39' 43.1" L = 77.92' T = 41.59' R = 90.00' V = 20 MPH SE = .04 RO = 60'	PI Sta 16+68.25 Δ = 12° 32' 34.3" (LT) D = 16' 22" 12.8" L = 76.62' T = 38.46' R = 350.00' V = 40 MPH	PI Sta 17+42.31 Δ = 15° 25' 45.2" (LT) D = 21' 37" 15.8" L = 71.36' T = 35.90' R = 265.00'	PI Sta 18+62.78 Δ = 19° 41' 04.4" (LT) D = 17' 41" 34.9" L = 168.34' T = 85.01' R = 490.00'



★ PROPOSED SIGNAL

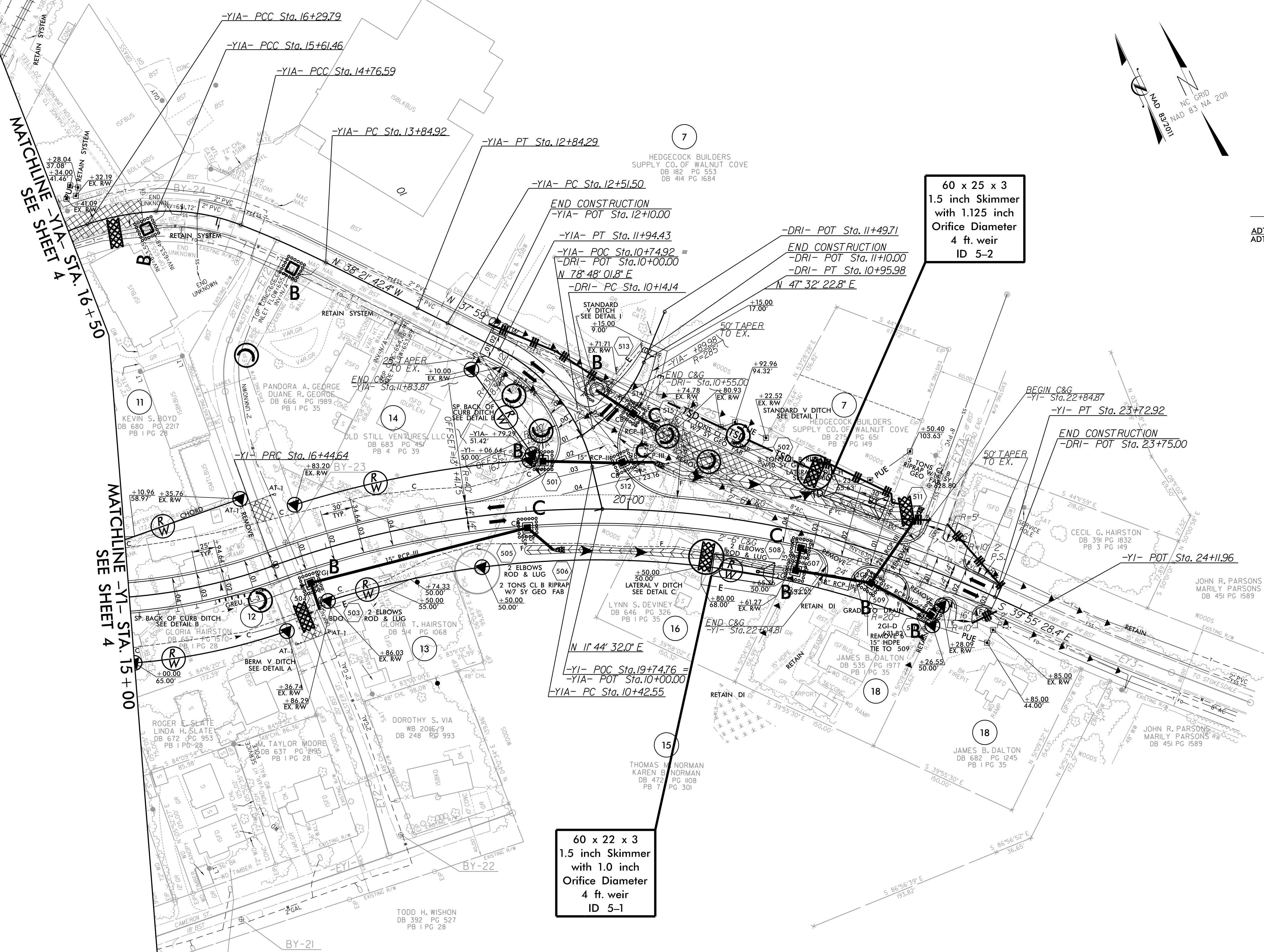
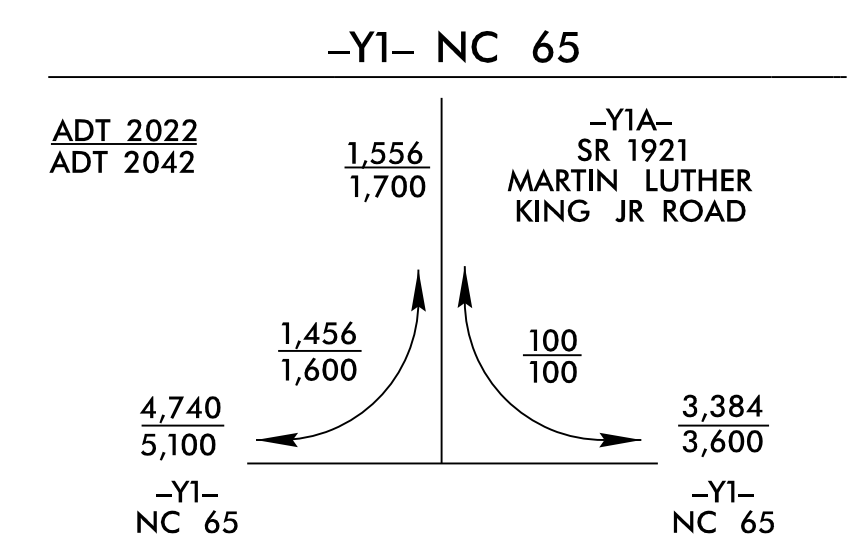
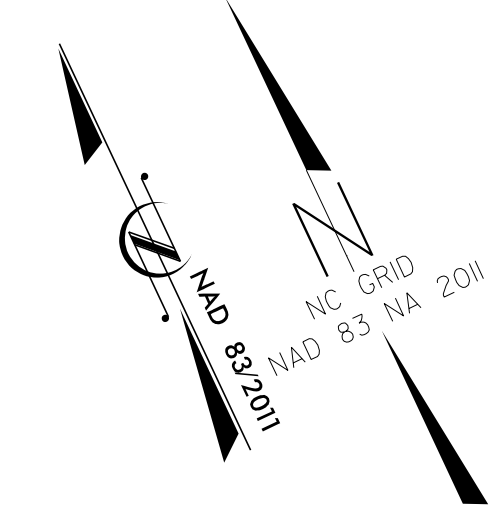
▨ PAVEMENT REMOVAL

FOR -L- PROFILE, SEE SHT. 6
FOR -Y1- PROFILE, SEE SHT. 7
FOR -Y2- PROFILE, SEE SHT. 8
FOR DITCH DETAILS, SEE SHT. 2D-1

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 P: (919) 878-9660
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 Raleigh, North Carolina 27615-3960
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 Engineers | Construction Managers | Planners | Scientists
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 Responsive People | Creative Solutions

1/7/2022
 R:\Highways\CADD\PSH-Erosion Control\R-5768-EC-esh04-FINAL.dgn
 PSH

PROJECT REFERENCE NO.	SHEET NO.
R-5768	5/EC-7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-YI-		-YIA-		-DRI-	
PI Sta 14+25.91	PI Sta 20+28.61	PI Sta 11+23.64	PI Sta 12+67.90	PI Sta 14+30.79	PI Sta 15+95.81
$\Delta = 50' 22' 00.7''$ (LT)	$\Delta = 44' 52' 04.1''$ (RT)	$\Delta = 49' 43' 41.6''$ (LT)	$\Delta = 0' 22' 32.9''$ (LT)	$\Delta = 5' 15' 06.7''$ (LT)	$\Delta = 14' 46' 28.4''$ (LT)
D = 10' 42' 34.2"	D = 6' 09' 39.0"	D = 32' 44' 25.6"	D = 1' 08' 45.3"	D = 5' 43' 46.5"	D = 28' 38' 52.4"
L = 470.30'	L = 728.27'	L = 151.89'	L = 32.79'	L = 91.66'	L = 84.87'
T = 251.56'	T = 383.96'	T = 81.10'	T = 16.40'	T = 45.86'	T = 34.36'
V = 535.00'	V = 930.00'	R = 175.00'	R = 5,000.00'	R = 1,000.00'	R = 200.00'
V = 40 MPH	V = 50 MPH	V = 25 MPH	V = 50 MPH	V = 15 MPH	V = 15 MPH
SE = .04	SE = .04	SE = .04	SE = .04	SE = .04	SE = R.C.
RO = 100'	RO = 120'	RO = 70'	RO = 70'	RO = 70'	RO = 30'

1/17/2022
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 User: jgallagher

FOR -YI- PROFILE, SEE SHT. 7
 FOR -YIA- PROFILE, SEE SHT. 7
 FOR -DRI- PROFILE, SEE SHT. 7
 FOR DITCH DETAILS, SEE SHT. 2D-1

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