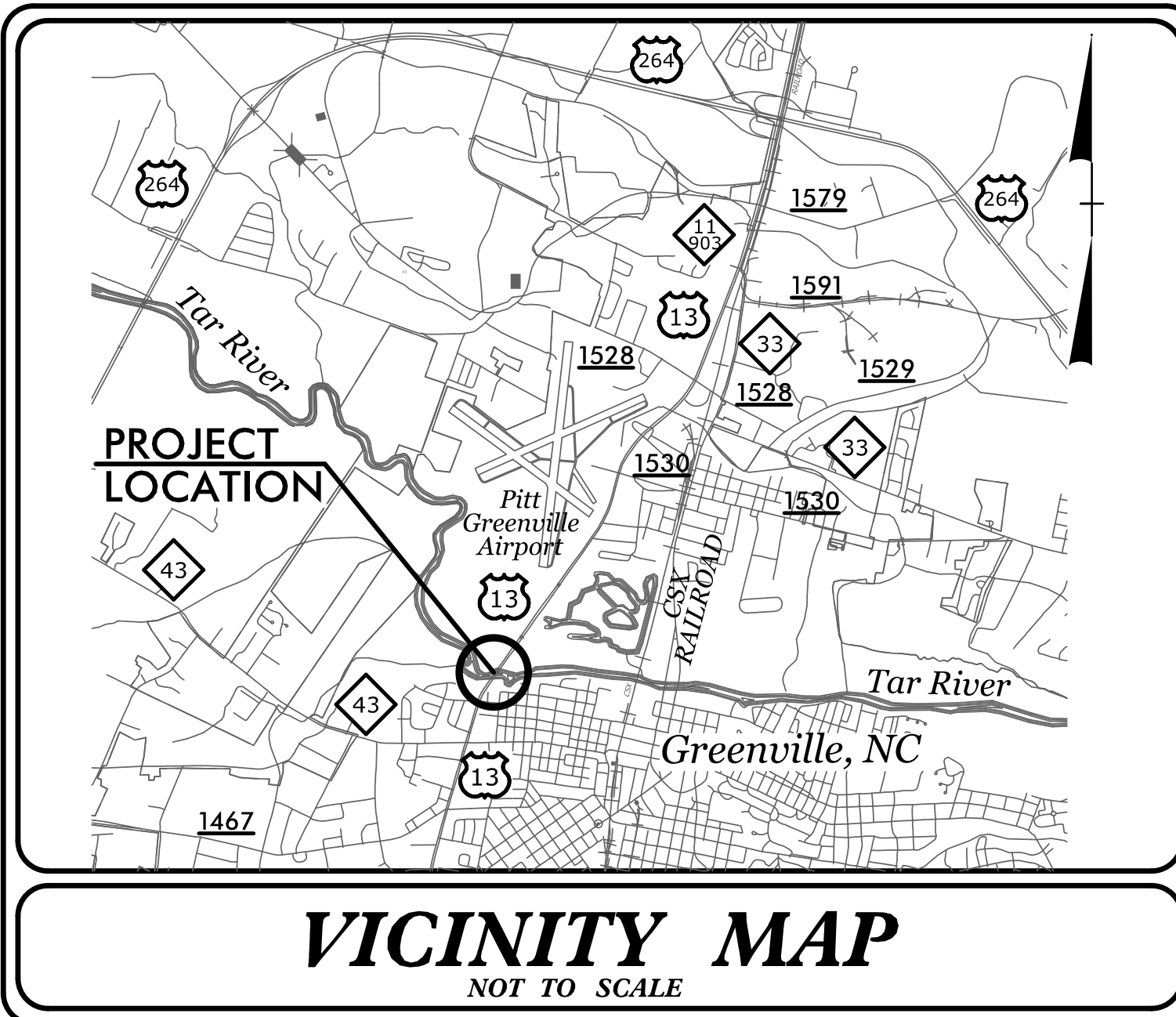


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**The documents contained herein were originally issued
and sealed by the individuals whose names and license
numbers appear on each page, on the dates appearing
with their signature on that page.**

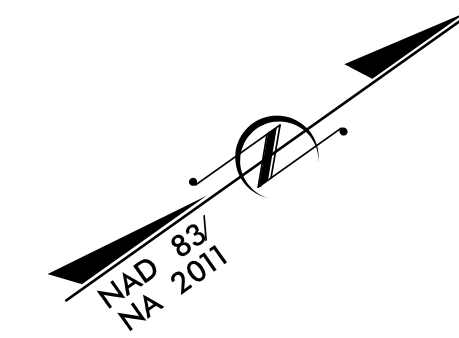
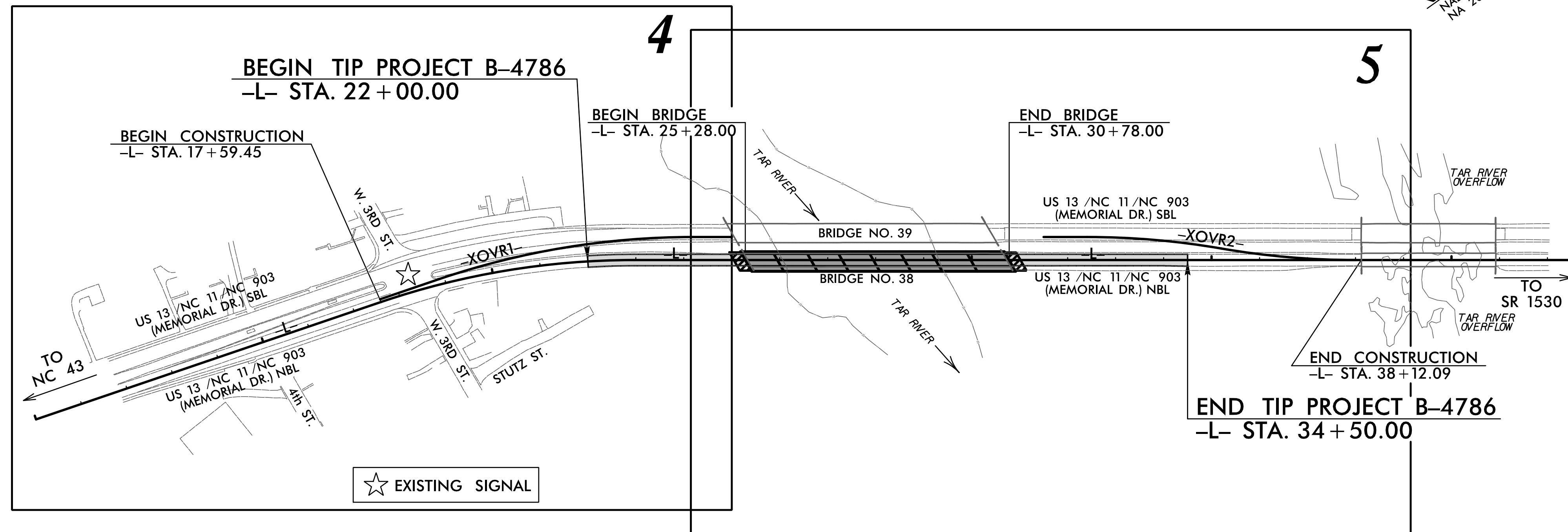
**This file or an individual page
shall not be considered a certified document.**

TIP PROJECT: B-4786



STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS
 PLAN FOR PROPOSED
 HIGHWAY EROSION CONTROL
 PITT COUNTY
 LOCATION: BRIDGE NO. 38 OVER TAR RIVER
 ON US 13 IN GREENVILLE

TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURE



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4786	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
38222.1.FR2	BRSTP-0013(041)	PE	
38222.2.2	BRSTP-0013(041)	R/W, UTIL	

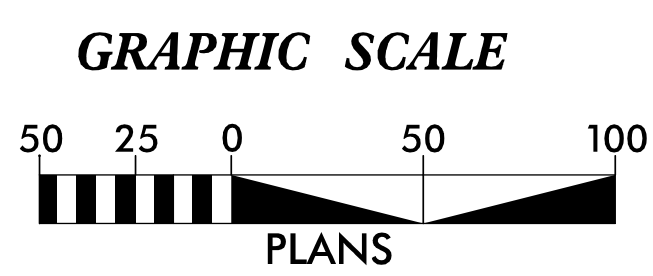
EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	---
1630.05	Temporary Diversion	--- TD ---
1605.01	Temporary Silt Fence	---
1606.01	Special Sediment Control Fence	--- X X X ---
1622.01	Temporary Berms and Slope Drains	--- T ---
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	--- W ---
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	--- W ---
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	▭

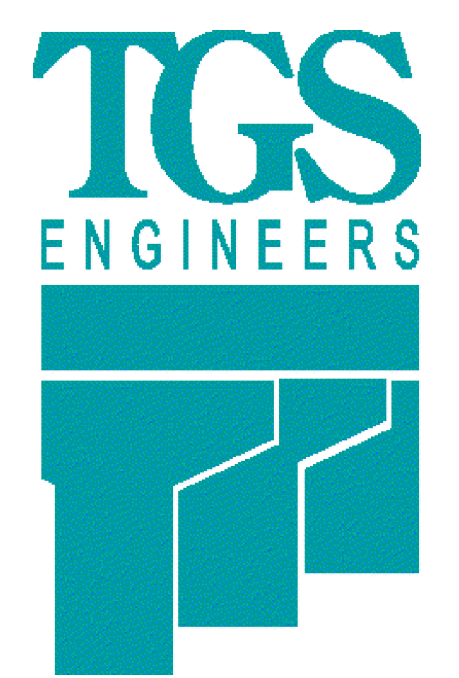
THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT
 Refer To E. C. Special Provisions for Special Considerations.



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE APPLICABLE 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:
TGS ENGINEERS
 201 W. MARION ST-STE 200
 SHELBY, NC 28150

Designed by:
Andrew H. Cochran, PE 3015
 NAME LEVEL III CERTIFICATION NO.

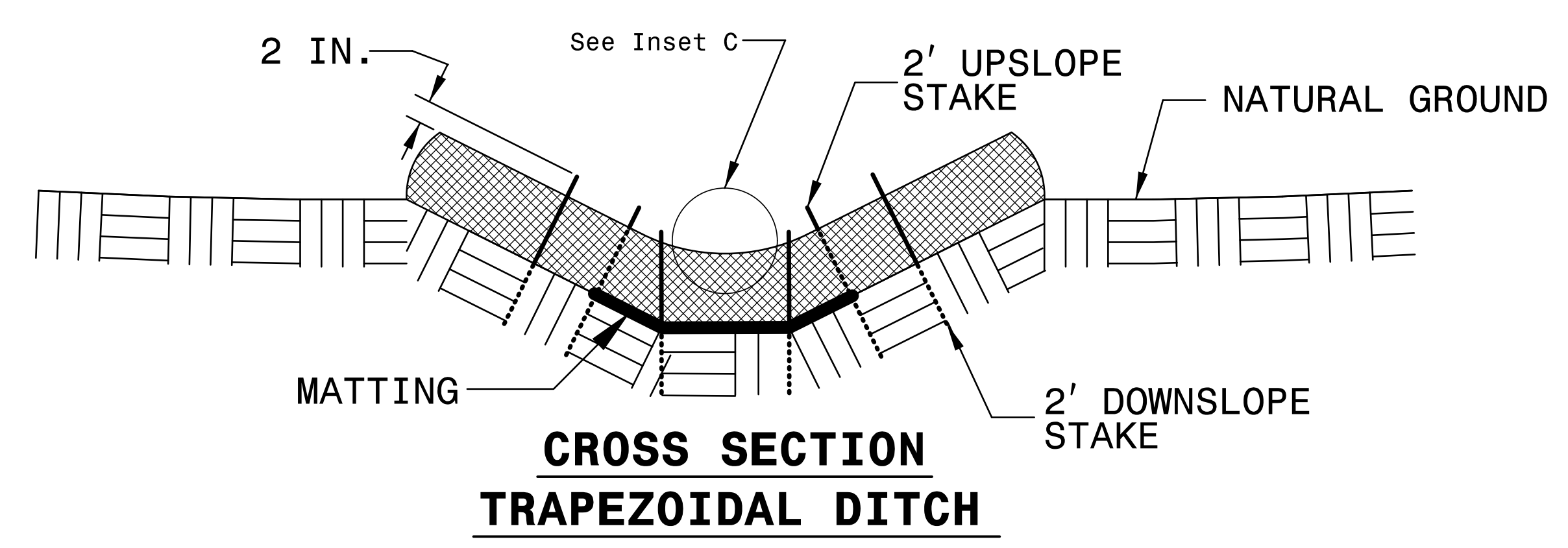
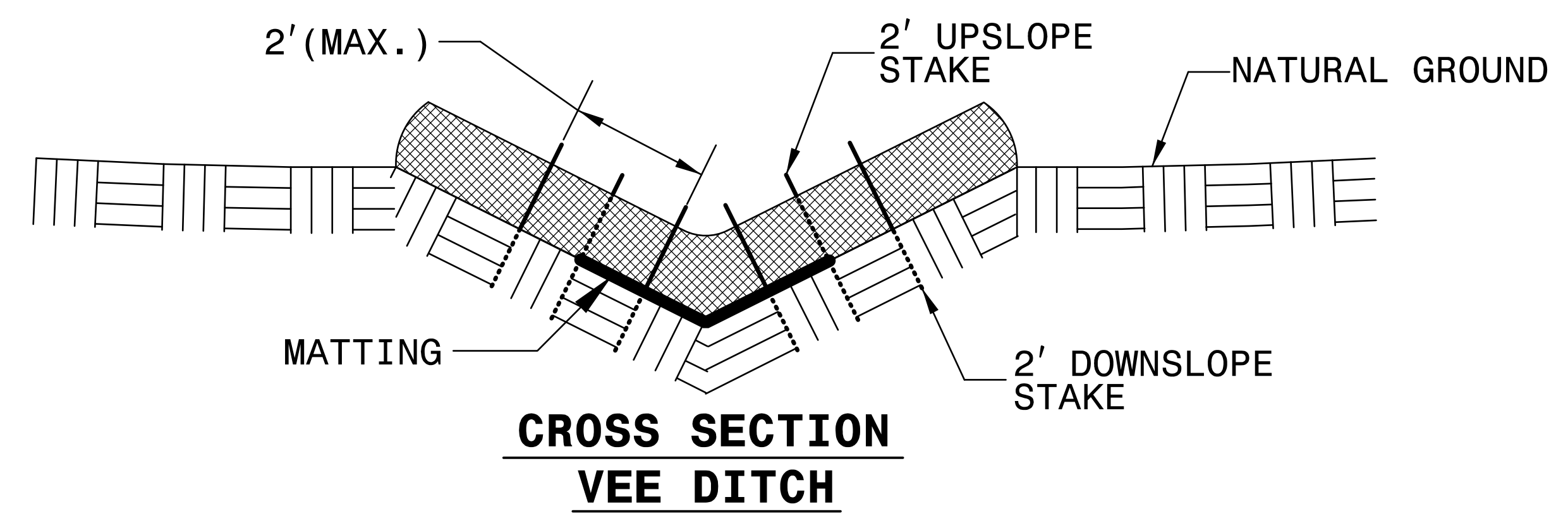
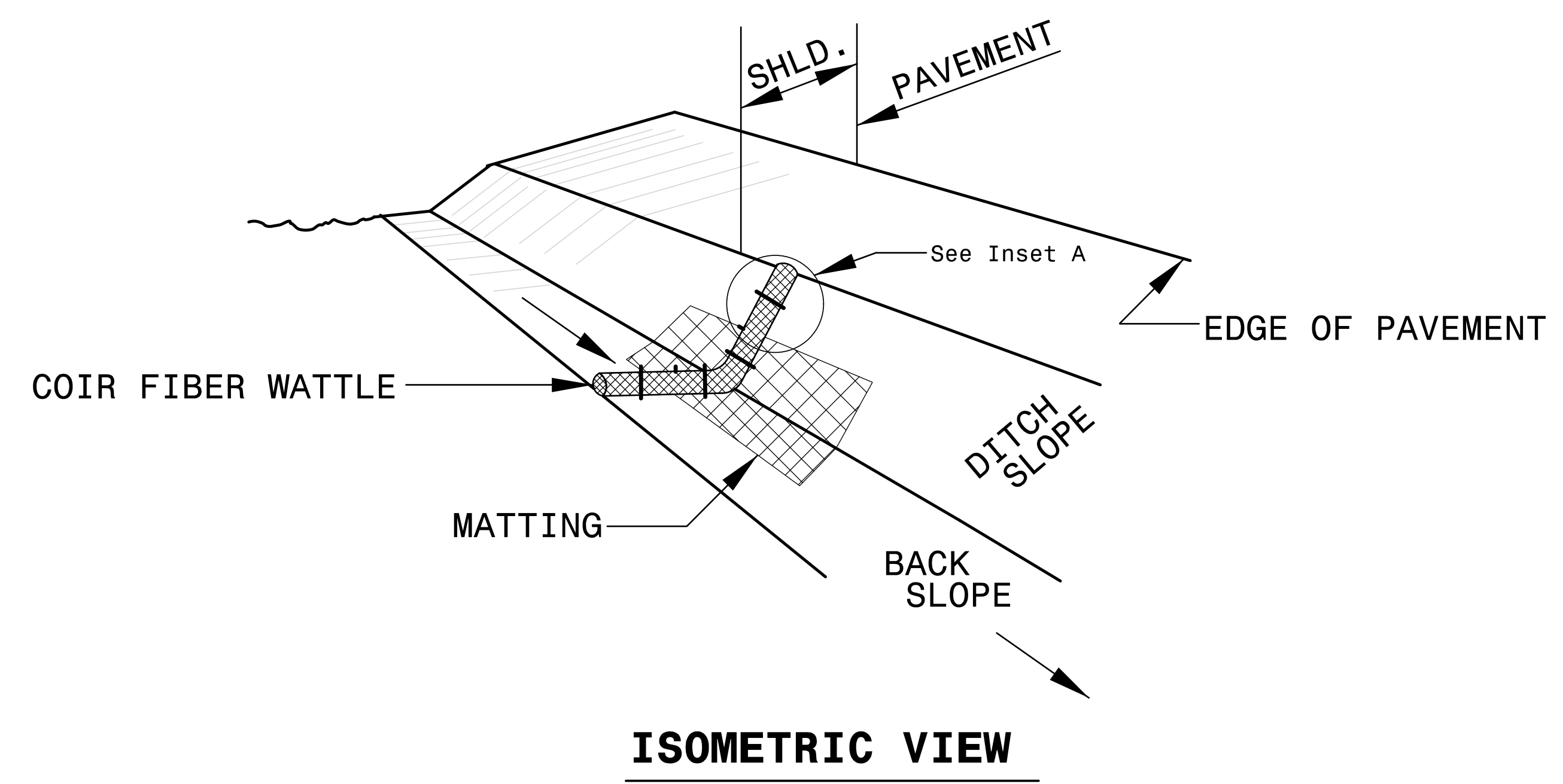
Roadway Standard Drawings

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 B	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 Baffle
1630.06 Special Stilling Basin	1645.01 Temporary Stream Crossing
1631.01 Matting Installation	

PROJECT REFERENCE NO. B-4786	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.

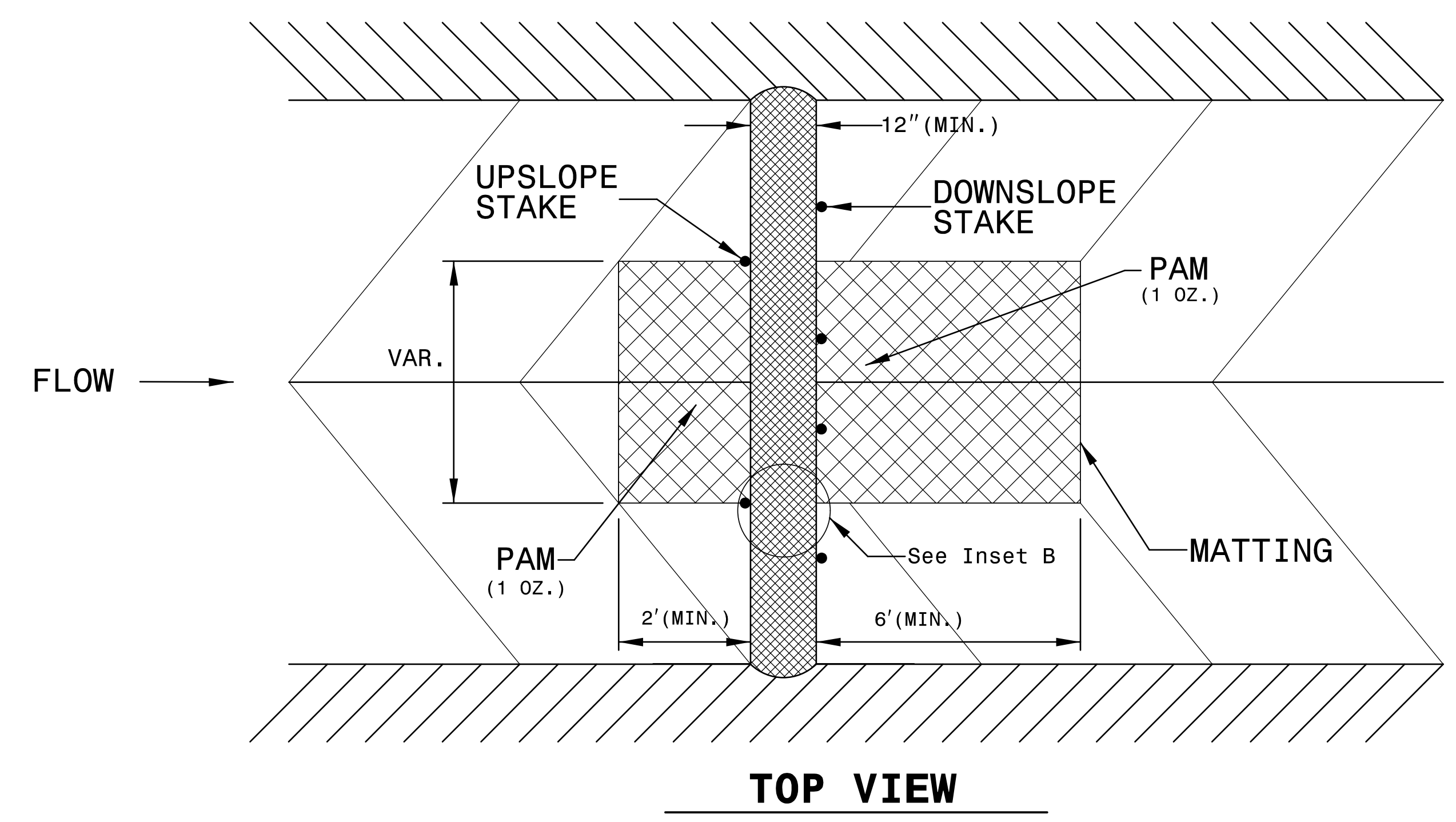
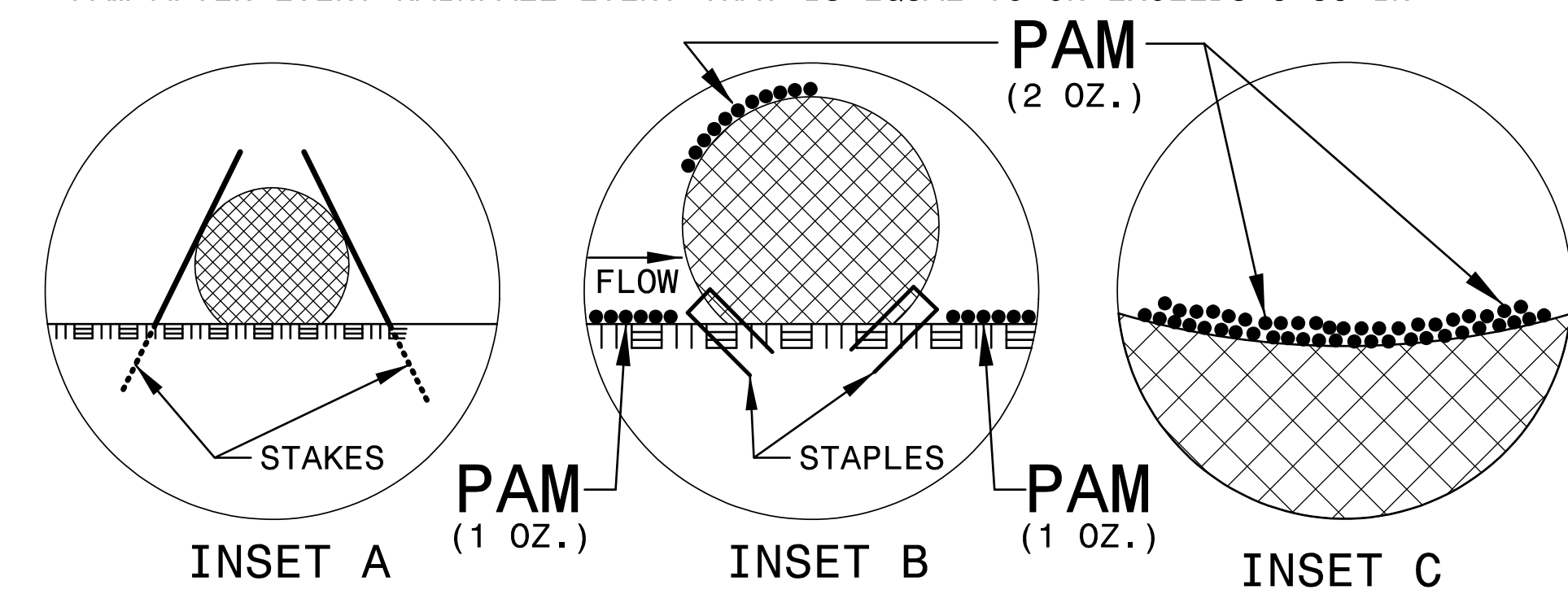
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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 EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.



DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>B-4786</i>	SHEET NO. <i>EC-3</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION TIMEFRAMES

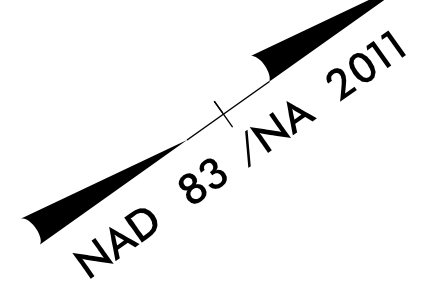
<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES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

 ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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

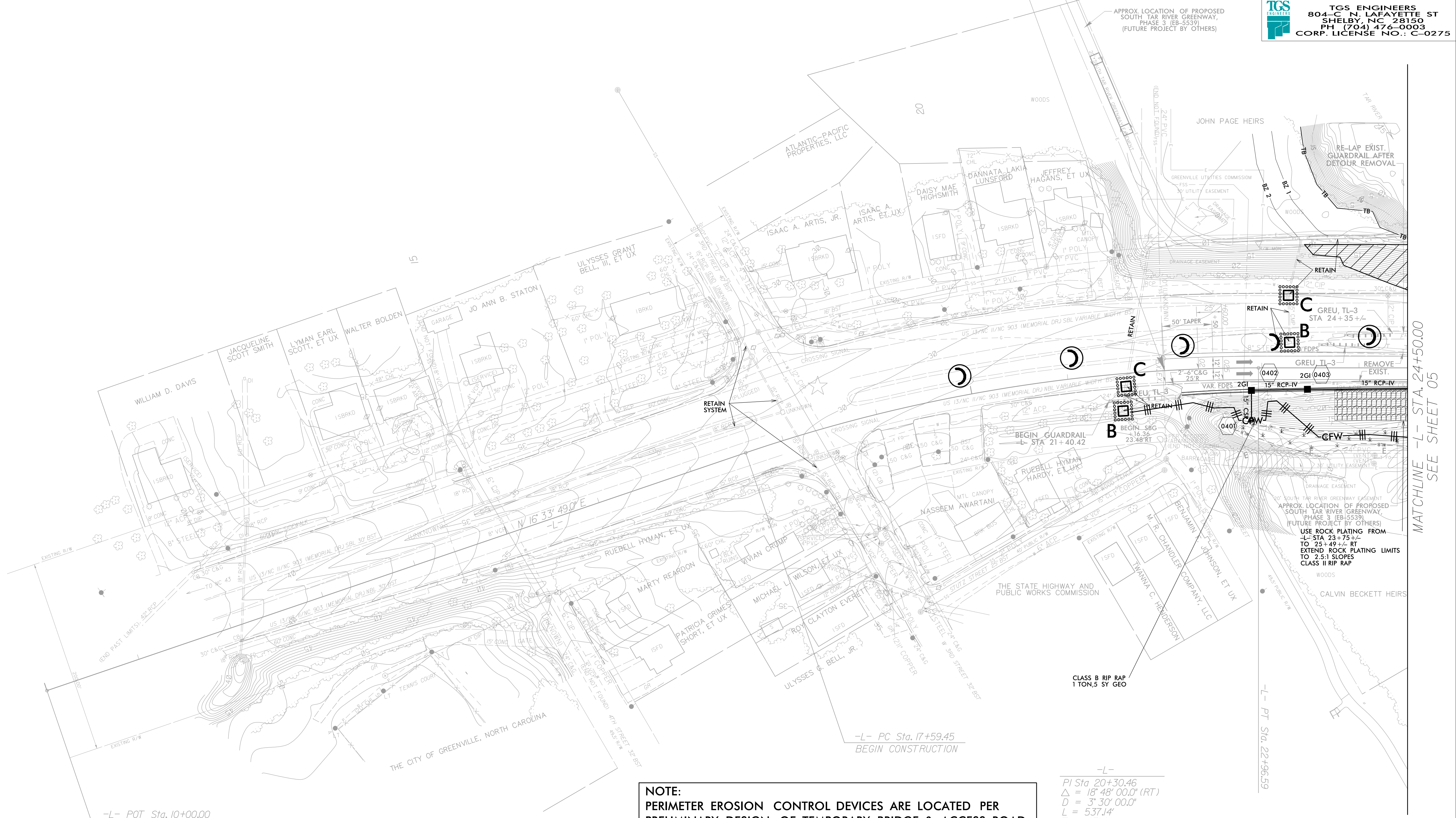
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

BEGIN TIP PROJECT B-4786
-L- POC Sta. 22+00.00



PROJECT REFERENCE NO. B-4786	SHEET NO. EC-04/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TGS ENGINEERS
804-C N. LAFAYETTE ST
SHELBY, NC 28150
PH (704) 476-0003
CORP. LICENSE NO.: C-0275



APPROX. LOCATION OF PROPOSED
SOUTH TAR RIVER GREENWAY,
PHASE 3 (EB-5539)
(FUTURE PROJECT BY OTHERS)


USE ROCK PLATING FROM
-L- STA 23+75+/-
TO 25+49+/- RT
EXTEND ROCK PLATING LIMITS
TO 2.5:1 SLOPES
CLASS II RIP RAP

MATCHLINE -L- STA. 24+50.00
SEE SHEET 05

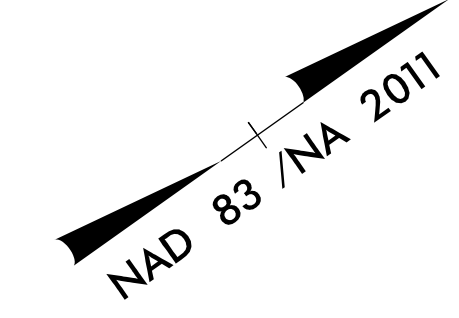
NOTE:
PERIMETER EROSION CONTROL DEVICES ARE LOCATED PER
PRELIMINARY DESIGN OF TEMPORARY BRIDGE & ACCESS ROAD
(AS SHOWN ON EC-08 & EC-09). ADJUST AS NEEDED PER
FINAL DESIGN OF TEMPORARY BRIDGE & ACCESS ROAD.

-L-
PI Sta 20+30.46
Δ = 18' 48' 00.0" (RT)
D = 3' 30' 00.0"
L = 537.14'
T = 271.01'
R = 1,637.02'
SE = SEE PLANS

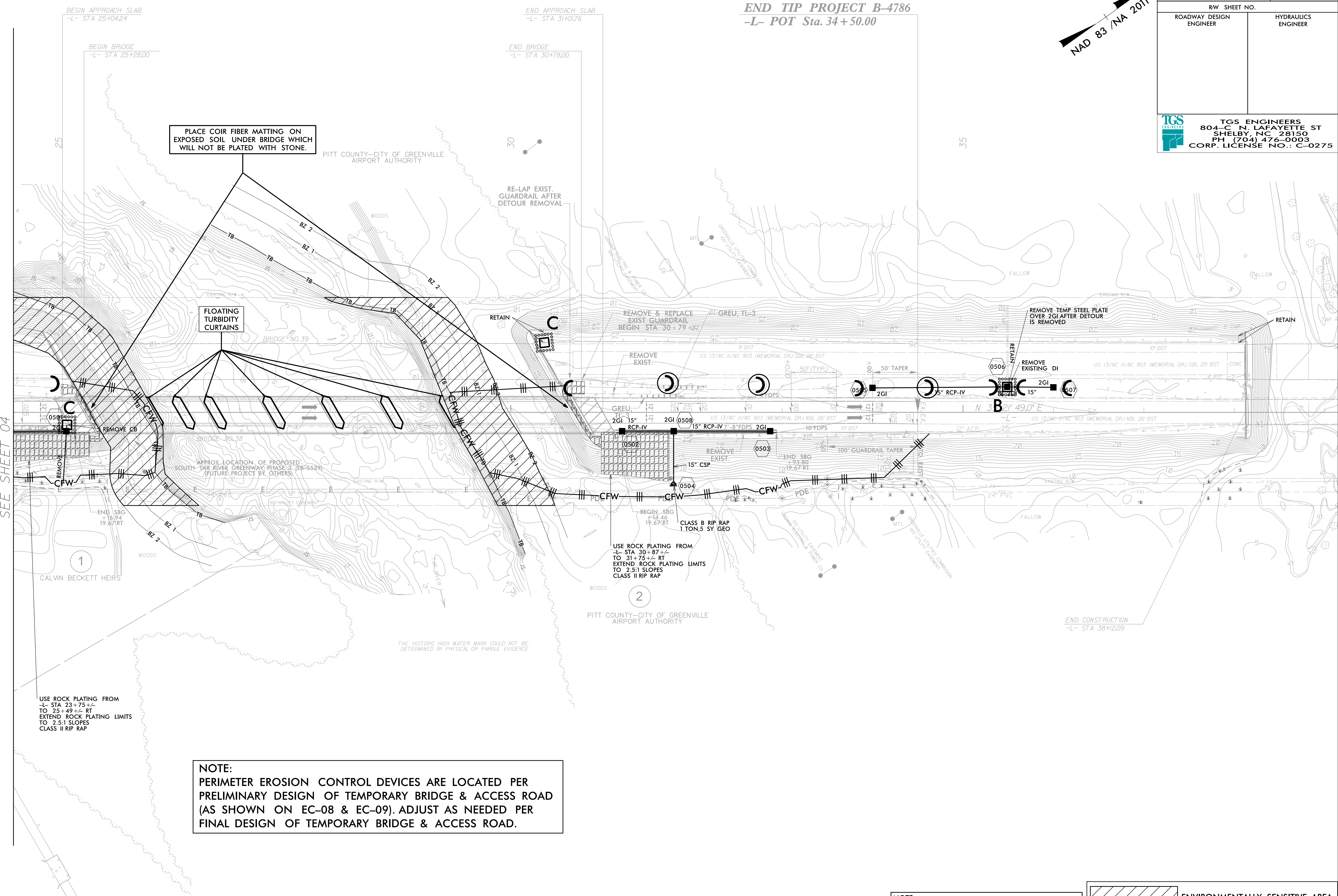
 EXISTING SIGNAL

PROJECT REFERENCE NO. B-4786	SHEET NO. EC-05/CONST.5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 TGS ENGINEERS 804-C N. LAFAYETTE ST SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	

END TIP PROJECT B-4786
-L- POT Sta. 34+50.00



MATCHLINE -L- STA. 24+50.00
SEE SHEET 04



PLACE COIR FIBER MATTING ON EXPOSED SOIL UNDER BRIDGE WHICH WILL NOT BE PLATED WITH STONE.

FLOATING TURBIDITY CURTAINS

NOTE:
 PERIMETER EROSION CONTROL DEVICES ARE LOCATED PER PRELIMINARY DESIGN OF TEMPORARY BRIDGE & ACCESS ROAD (AS SHOWN ON EC-08 & EC-09). ADJUST AS NEEDED PER FINAL DESIGN OF TEMPORARY BRIDGE & ACCESS ROAD.

USE ROCK PLATING FROM -L- STA 23+75 +/- TO 25+49 +/- RT. EXTEND ROCK PLATING LIMITS TO 2.5:1 SLOPES CLASS II RIP RAP

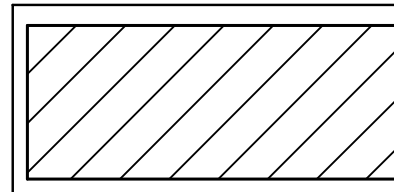
USE ROCK PLATING FROM -L- STA 30+87 +/- TO 31+75 +/- RT. EXTEND ROCK PLATING LIMITS TO 2.5:1 SLOPES CLASS II RIP RAP

THE HISTORIC HIGH WATER MARK COULD NOT BE DETERMINED BY PHYSICAL OR PAROLE EVIDENCE.

NOTE:
 UTILIZE SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

CLEARING AND GRUBBING
 EROSION CONTROL FOR CONSTRUCTION SHEET 5

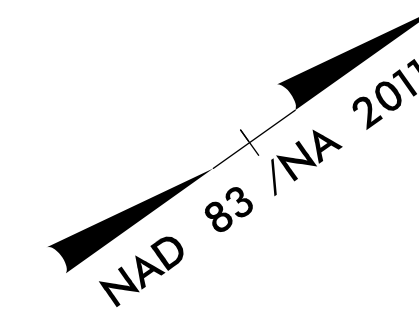
NOTE:
 PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.




ENVIRONMENTALLY SENSITIVE AREA
 SEE PROJECT SPECIAL PROVISIONS

DETOUR

UTILIZE PERIMETER EROSION CONTROL MEASURES AS SHOWN ON SHEETS EC-04 & EC-05. NO ADDITIONAL EROSION CONTROL ITEMS ARE REQUIRED ON THIS SHEET.



PROJECT REFERENCE NO. B-4786	SHEET NO. EC-06/CONST.4&5
RW SHEET NO. ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 TGS ENGINEERS 804 C. N. LAFAYETTE ST SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	

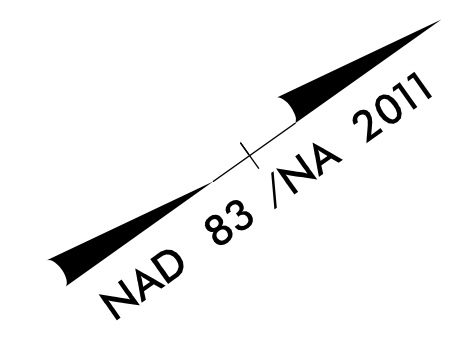



MATCHLINE -L- STA. 28+00.00
SEE SHEET 05

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

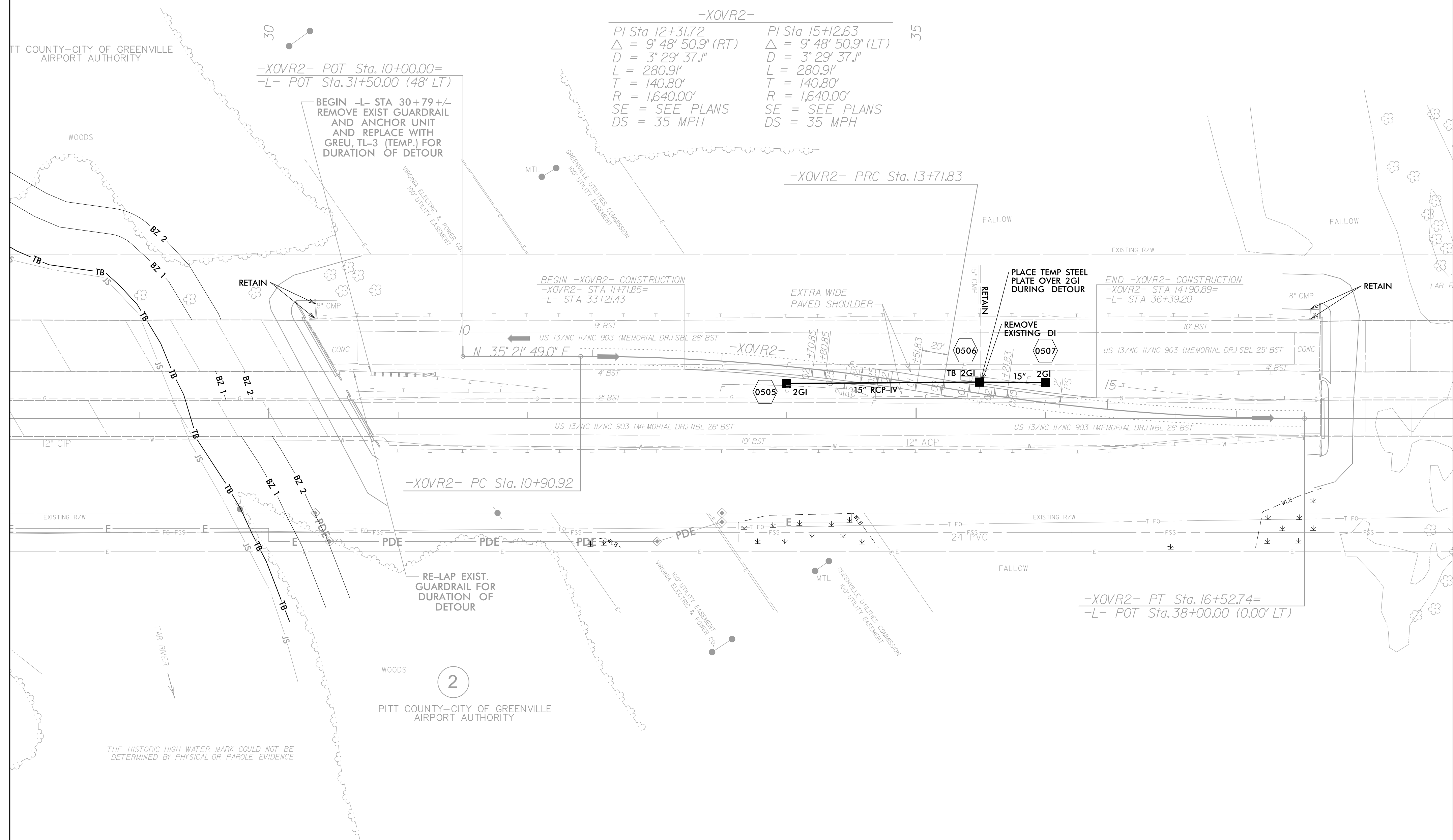
DETOUR

UTILIZE EROSION CONTROL MEASURES AS SHOWN ON SHEETS EC-05 & EC-09. NO ADDITIONAL EROSION CONTROL ITEMS ARE REQUIRED ON THIS SHEET.



PROJECT REFERENCE NO. B-4786	SHEET NO. EC-07/CONST.5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 TGS ENGINEERS 804-C N. LAFAYETTE ST SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	

MATCHLINE -L- STA. 28+00.00
SEE SHEET 04

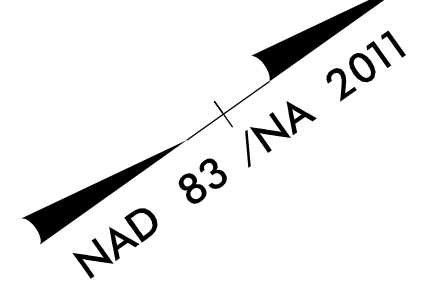



THE HISTORIC HIGH WATER MARK COULD NOT BE DETERMINED BY PHYSICAL OR PAROLE EVIDENCE

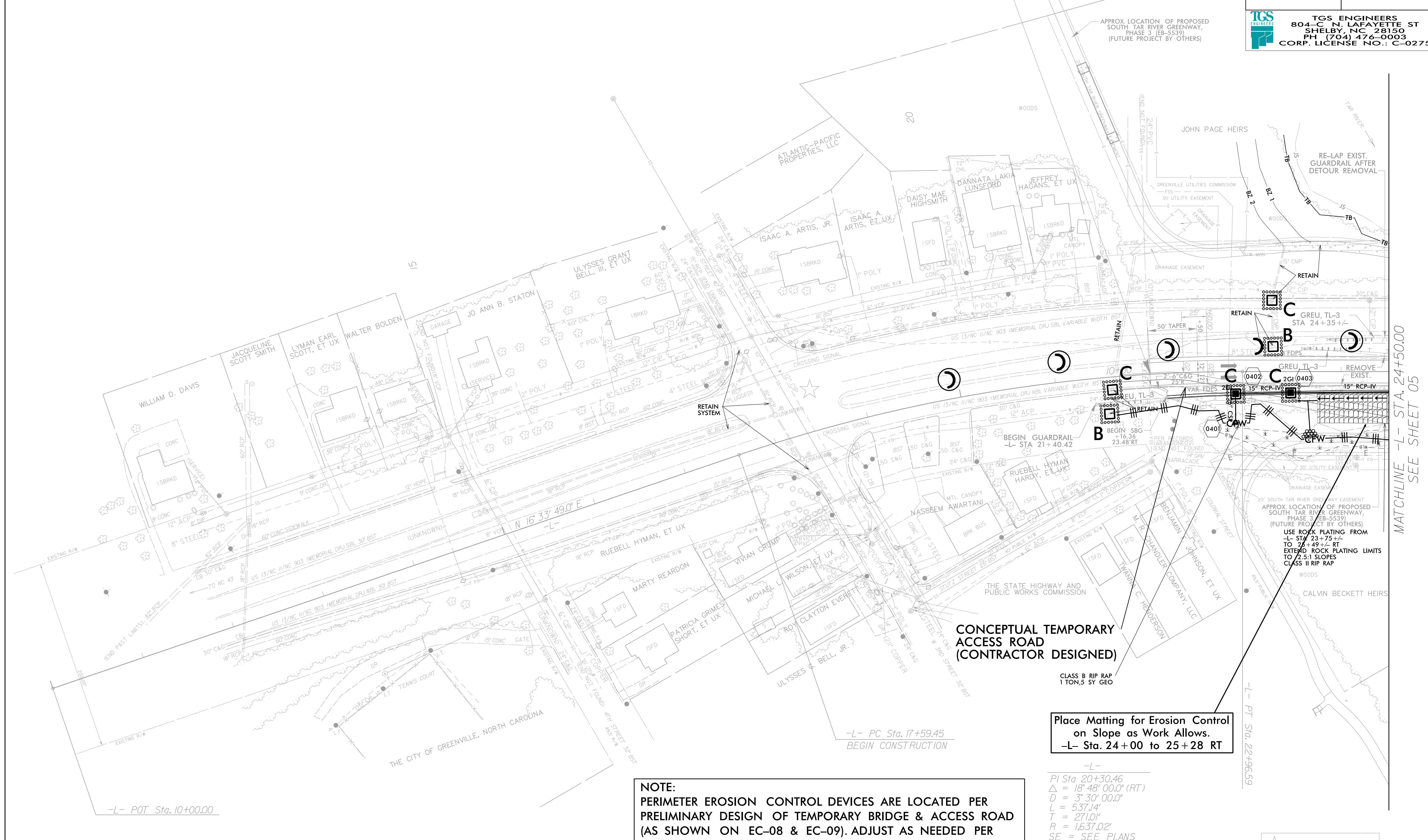
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

Place Matting for Erosion Control on Slopes Adjacent to Permitted Wetlands as Work Allows.

BEGIN TIP PROJECT B-4786
-L- POC Sta. 22+00.00



PROJECT REFERENCE NO. B-4786	SHEET NO. EC-08/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 TGS ENGINEERS 804-C N. LAFAYETTE ST SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	



APPROX. LOCATION OF PROPOSED SOUTH TAR RIVER GREENWAY, PHASE 3 (EB-5539) (FUTURE PROJECT BY OTHERS)

USE ROCK PLATING FROM -L- STA. 23+75+/- TO 26+49+/- RT EXTEND ROCK PLATING LIMITS TO 2.5:1 SLOPES CLASS II RIP RAP

CONCEPTUAL TEMPORARY ACCESS ROAD (CONTRACTOR DESIGNED)

CLASS B RIP RAP
1 TON 5 SY GEO


Place Matting for Erosion Control on Slope as Work Allows.
-L- Sta. 24+00 to 25+28 RT

NOTE:
PERIMETER EROSION CONTROL DEVICES ARE LOCATED PER PRELIMINARY DESIGN OF TEMPORARY BRIDGE & ACCESS ROAD (AS SHOWN ON EC-08 & EC-09). ADJUST AS NEEDED PER FINAL DESIGN OF TEMPORARY BRIDGE & ACCESS ROAD.

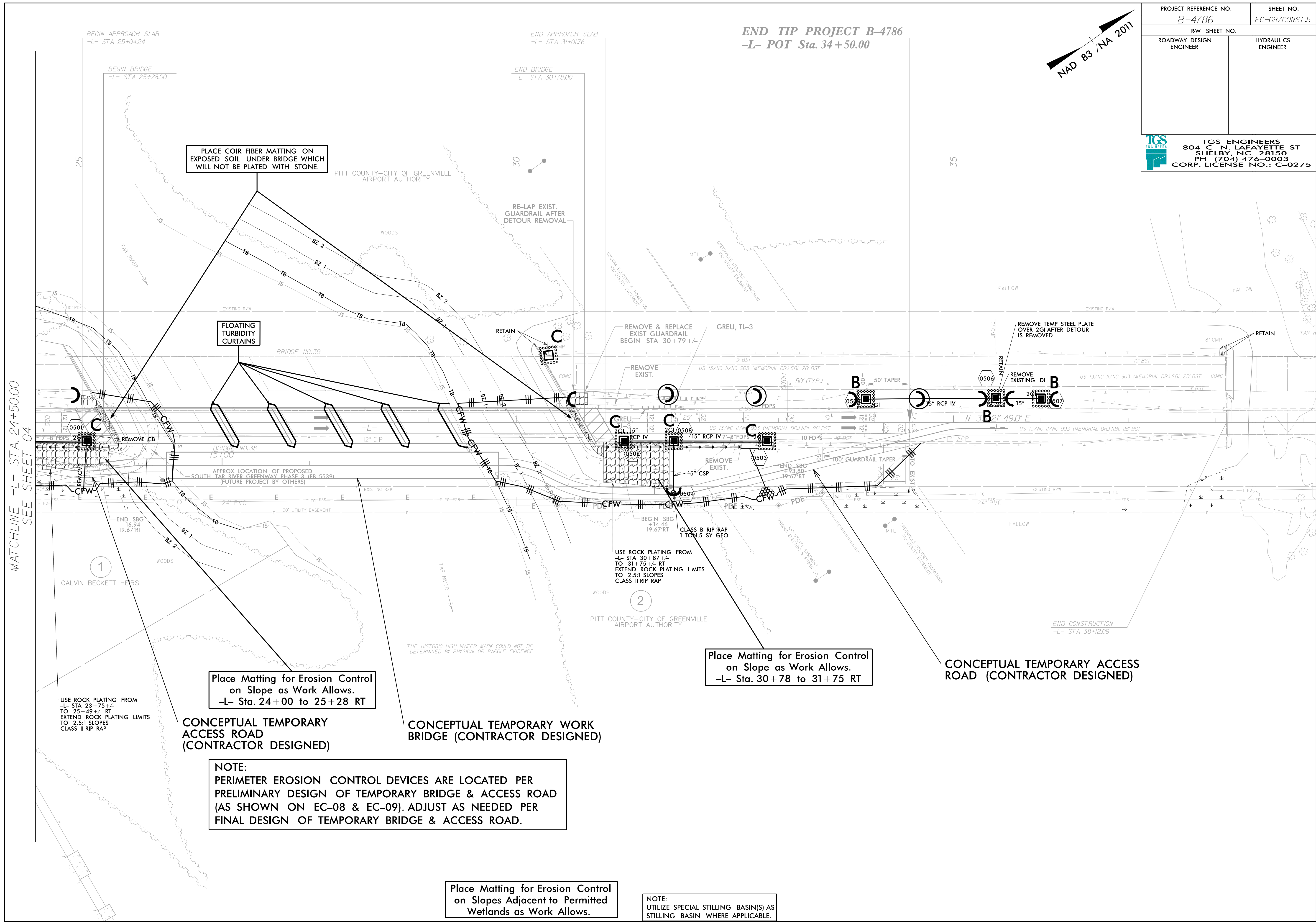
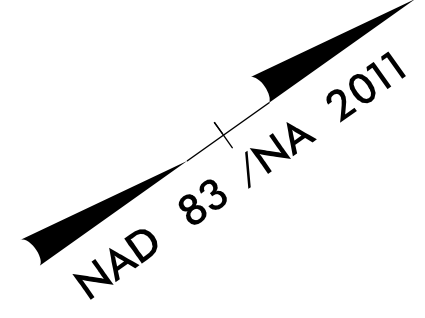
-L-
 PI Sta 20+30.46
 $\Delta = 18' 48" 00.0" (RT)$
 $D = 3' 30" 00.0"$
 $L = 537.14'$
 $T = 271.01'$
 $R = 1,637.02'$
 SE = SEE PLANS

 EXISTING SIGNAL

MATCHLINE -L- STA. 24+50.00
SEE SHEET 05

PROJECT REFERENCE NO. B-4786	SHEET NO. EC-09/CONST.5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 TGS ENGINEERS 804-C N. LAFAYETTE ST SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	

END TIP PROJECT B-4786
-L- POT Sta. 34+50.00



MATCHLINE -L- STA. 24+50.00
SEE SHEET 04

PLACE COIR FIBER MATTING ON EXPOSED SOIL UNDER BRIDGE WHICH WILL NOT BE PLATED WITH STONE.

FLOATING TURBIDITY CURTAINS

Place Matting for Erosion Control on Slope as Work Allows.
-L- Sta. 24+00 to 25+28 RT

CONCEPTUAL TEMPORARY ACCESS ROAD (CONTRACTOR DESIGNED)

CONCEPTUAL TEMPORARY WORK BRIDGE (CONTRACTOR DESIGNED)

NOTE:
PERIMETER EROSION CONTROL DEVICES ARE LOCATED PER PRELIMINARY DESIGN OF TEMPORARY BRIDGE & ACCESS ROAD (AS SHOWN ON EC-08 & EC-09). ADJUST AS NEEDED PER FINAL DESIGN OF TEMPORARY BRIDGE & ACCESS ROAD.

Place Matting for Erosion Control on Slopes Adjacent to Permitted Wetlands as Work Allows.

Place Matting for Erosion Control on Slope as Work Allows.
-L- Sta. 30+78 to 31+75 RT

NOTE:
UTILIZE SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

THE HISTORIC HIGH WATER MARK COULD NOT BE DETERMINED BY PHYSICAL OR PAROLE EVIDENCE.

USE ROCK PLATING FROM -L- STA 23+75 +/- TO 25+49 +/- RT EXTEND ROCK PLATING LIMITS TO 2.5:1 SLOPES CLASS II RIP RAP

USE ROCK PLATING FROM -L- STA 30+87 +/- TO 31+75 +/- RT EXTEND ROCK PLATING LIMITS TO 2.5:1 SLOPES CLASS II RIP RAP

END CONSTRUCTION
-L- STA 38+12.09

CONCEPTUAL TEMPORARY ACCESS ROAD (CONTRACTOR DESIGNED)