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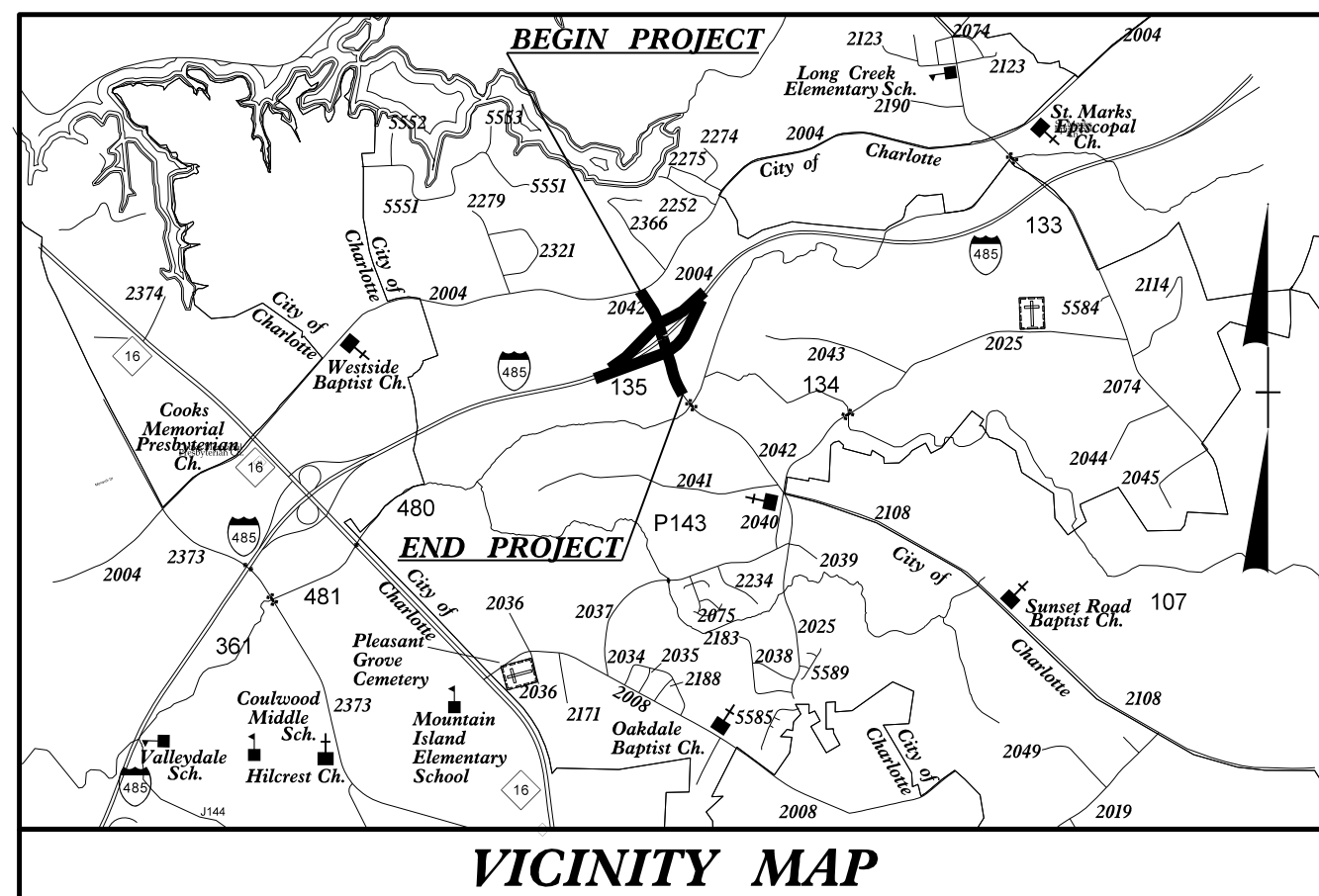
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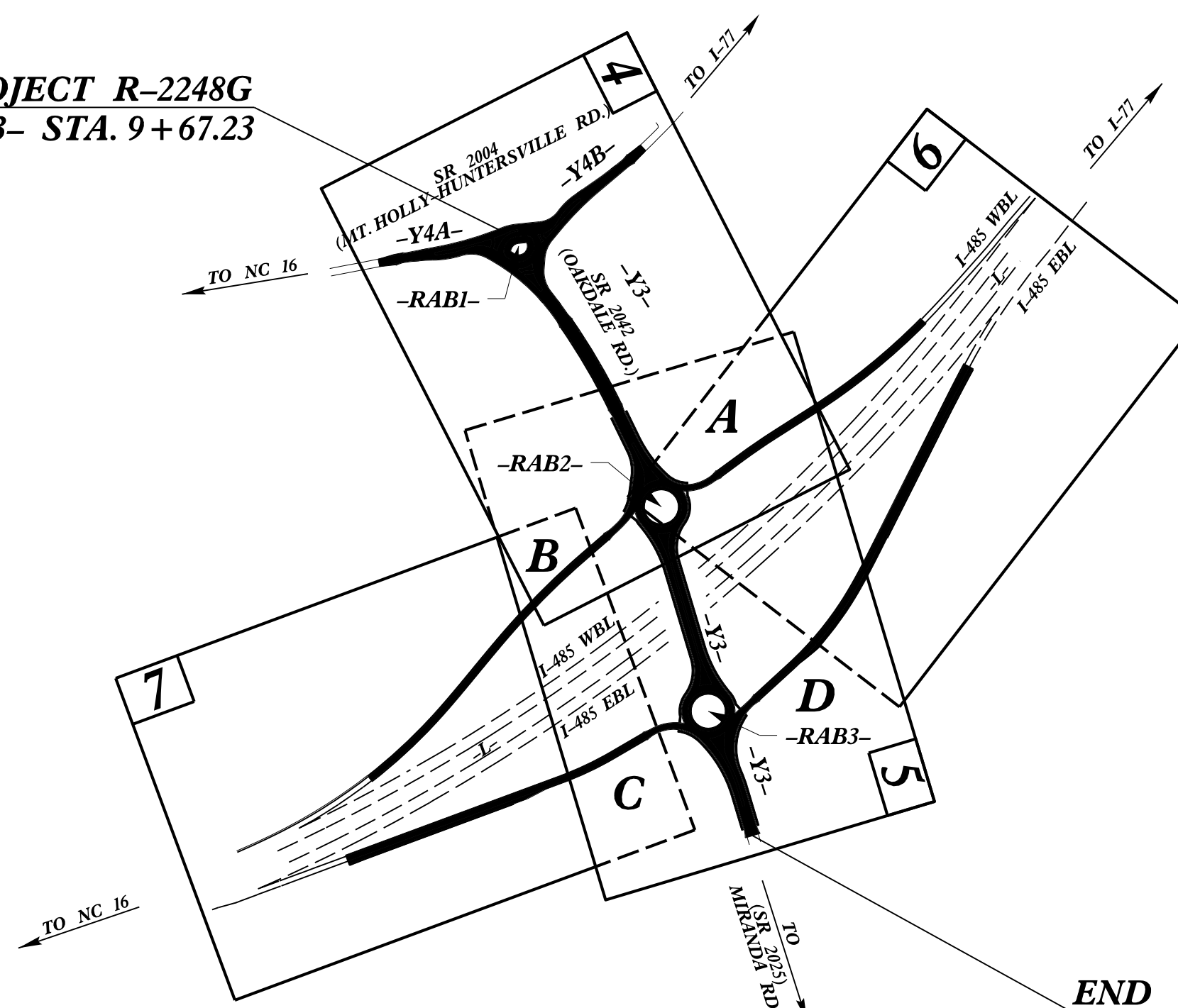
TIP PROJECT: R-2248G

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

LOCATION: I-485 CHARLOTTE OUTER LOOP INTERCHANGE WITH
SR 2042 (OAKDALE ROAD)
TYPE OF WORK: GRADING, DRAINAGE & PAVING



BEGIN TIP PROJECT R-2248G
-Y3- STA. 9+67.23



END TIP PROJECT R-2248G
-Y3- STA. 29+75.00

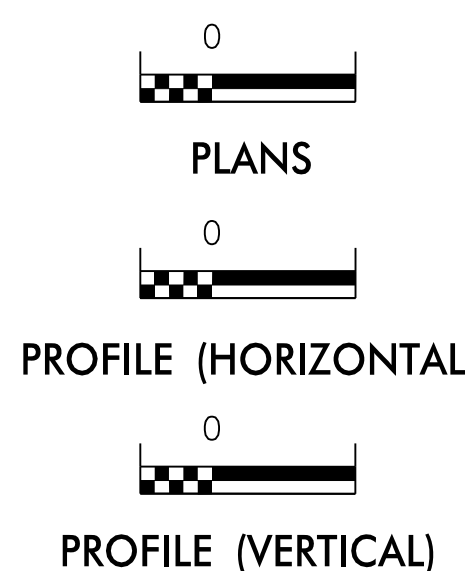
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2248G	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	TSF
1606.01	Special Sediment Control Fence	SCF
1622.01	Temporary Berms and Slope Drains	BSD
1630.02	Silt Basin Type B	SBS
1633.01	Temporary Rock Silt Check Type-A	TRSCA
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	TRSCA-PAM
1633.02	Temporary Rock Silt Check Type-B	TRSCB
	Wattle / Coir Fiber Wattle	W/CFW
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	W/CFW-PAM
1634.01	Temporary Rock Sediment Dam Type-A	TRSDA
1634.02	Temporary Rock Sediment Dam Type-B	TRSDA-B
1635.01	Rock Pipe Inlet Sediment Trap Type-A	RPIST-A
1635.02	Rock Pipe Inlet Sediment Trap Type-B	RPIST-B
1630.04	Stilling Basin	SB
1630.06	Special Stilling Basin	SSB
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	SKB
	Tiered Skimmer Basin	TSKB
	Infiltration Basin	IB

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

GRAPHIC SCALE



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

Prepared in the Office of:
WETHERILL ENGINEERING
559 JONES FRANKLIN RD. SUITE 164
RALEIGH, NC 27606
2012 STANDARD SPECIFICATIONS

Designed by:
ANDREW HOLLEN 3490
NAME LEVEL III CERTIFICATION NO.

Reviewed in the Office of:
ROADSIDE ENVIRONMENTAL UNIT
1 South Wilmington St.
Raleigh, NC 27611
2012 STANDARD SPECIFICATIONS

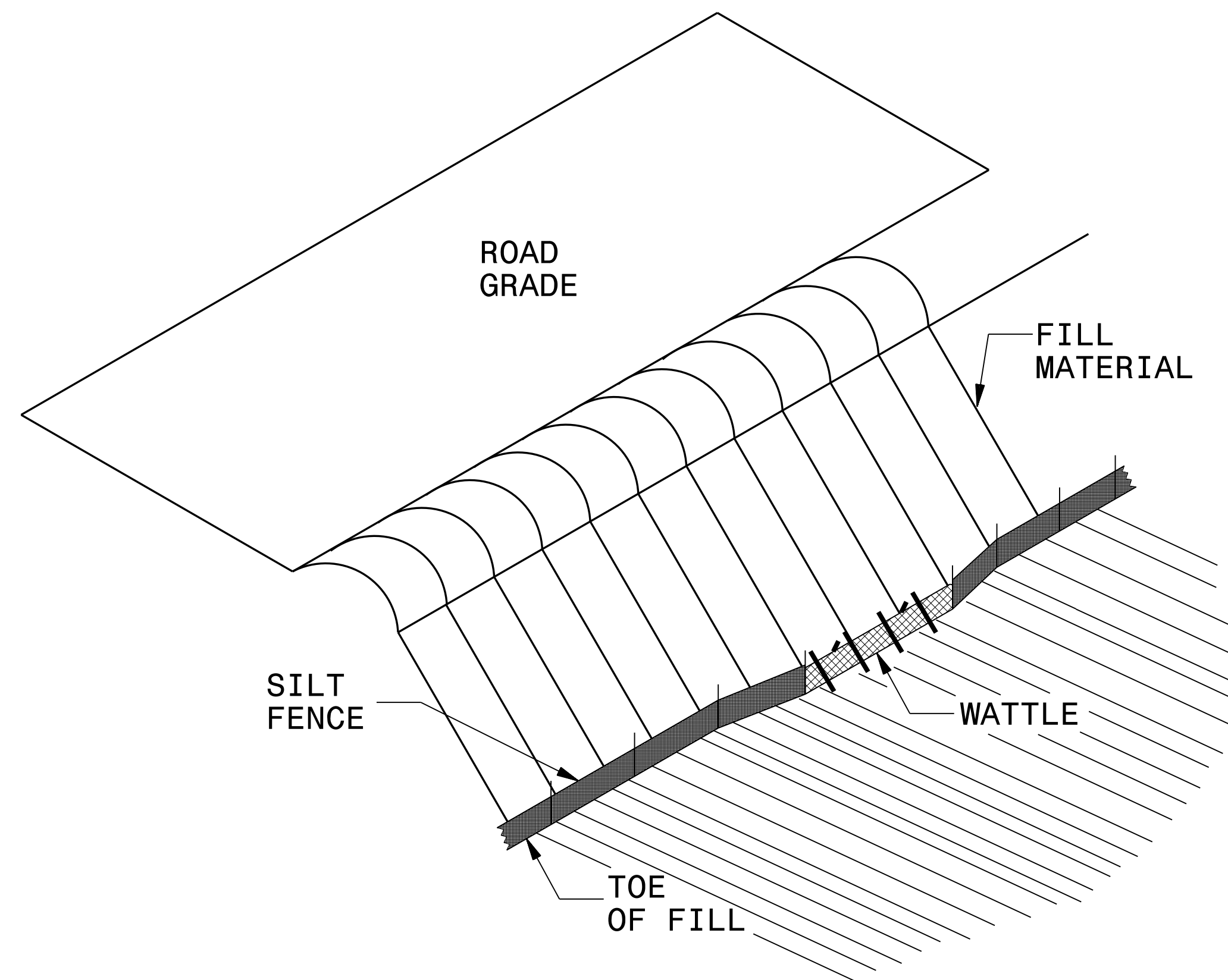
Reviewed by:
NATALIE CHAN, P.E.

Roadway Standard Drawings

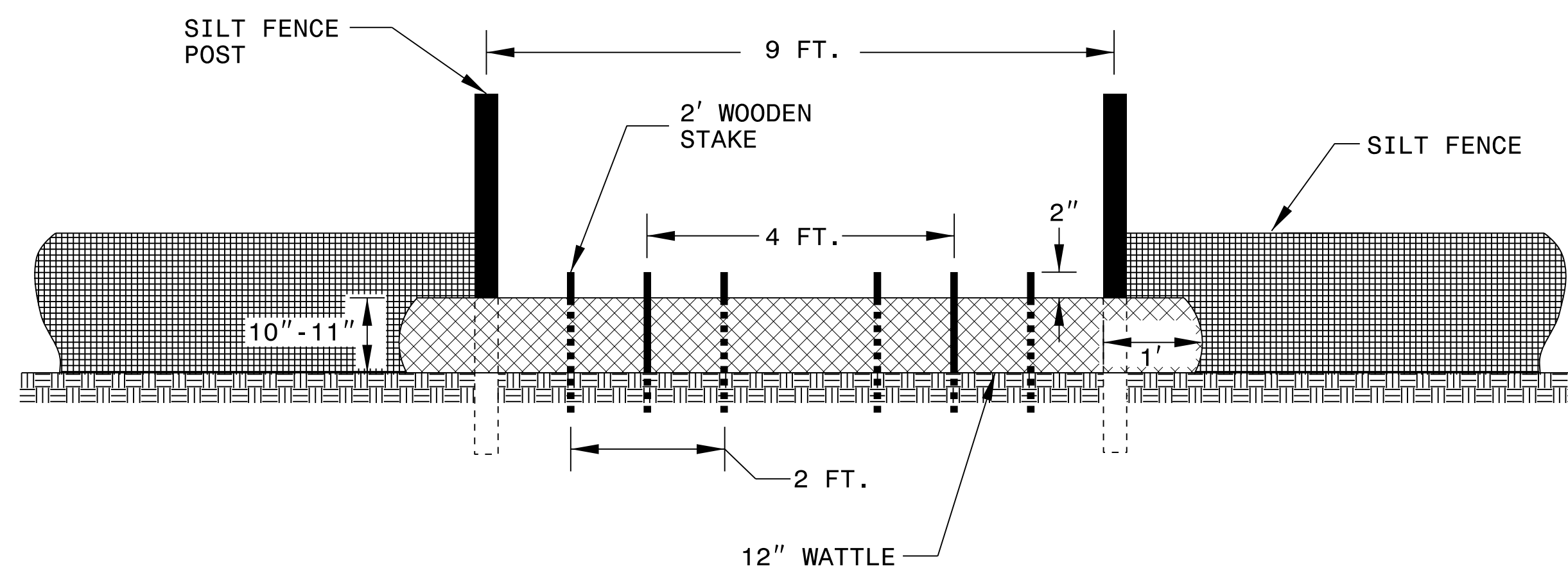
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2012 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

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	

SILT FENCE COIR FIBER WATTLE BREAK DETAIL



ISOMETRIC VIEW

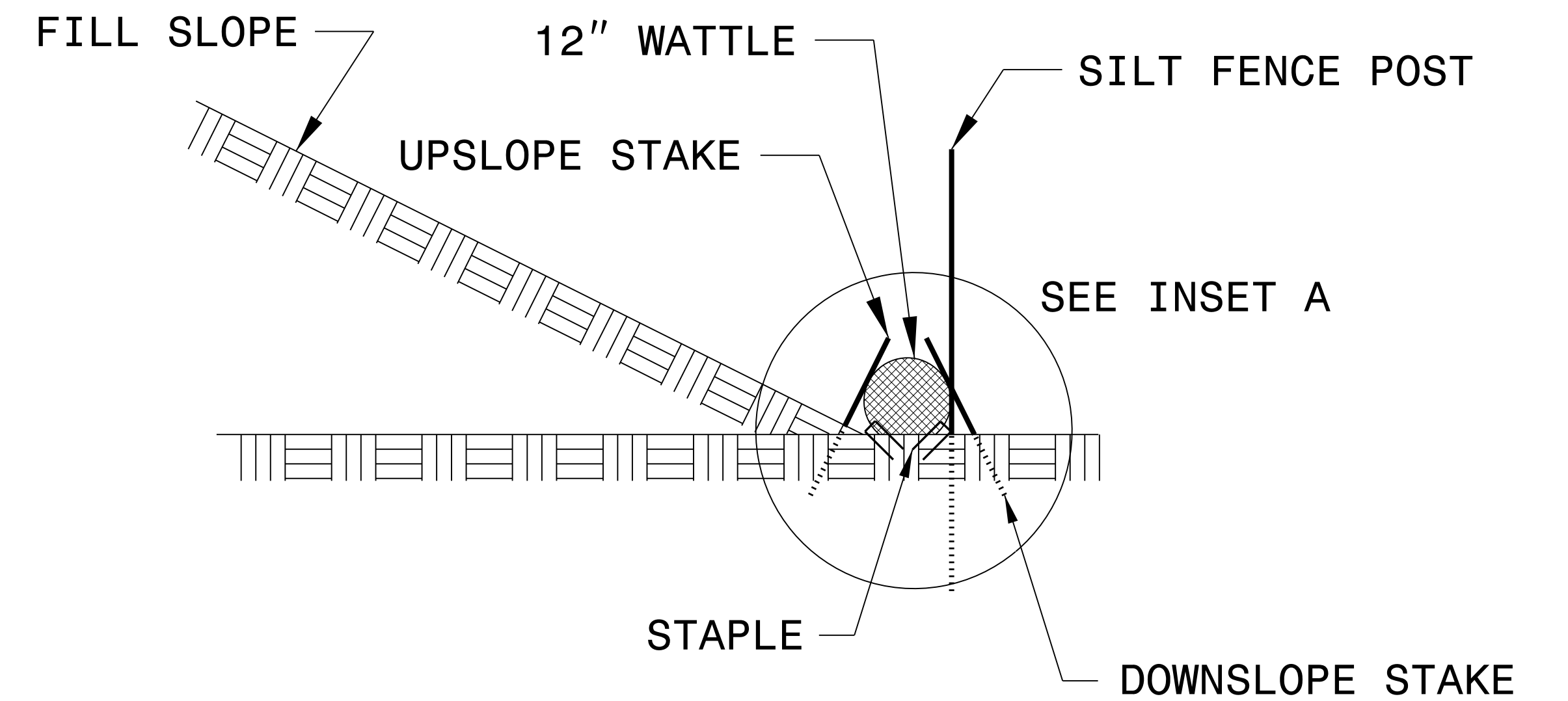
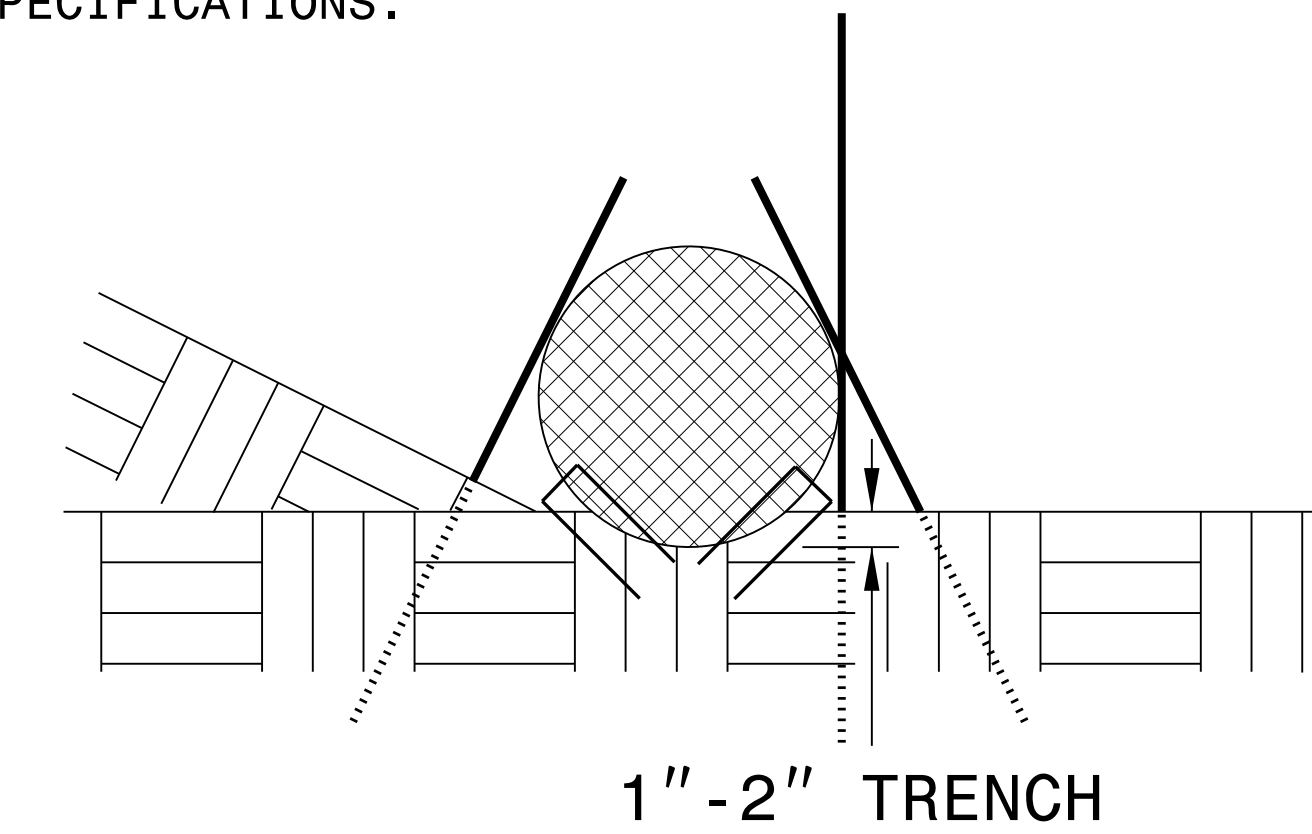


VIEW FROM SLOPE

NOTES:

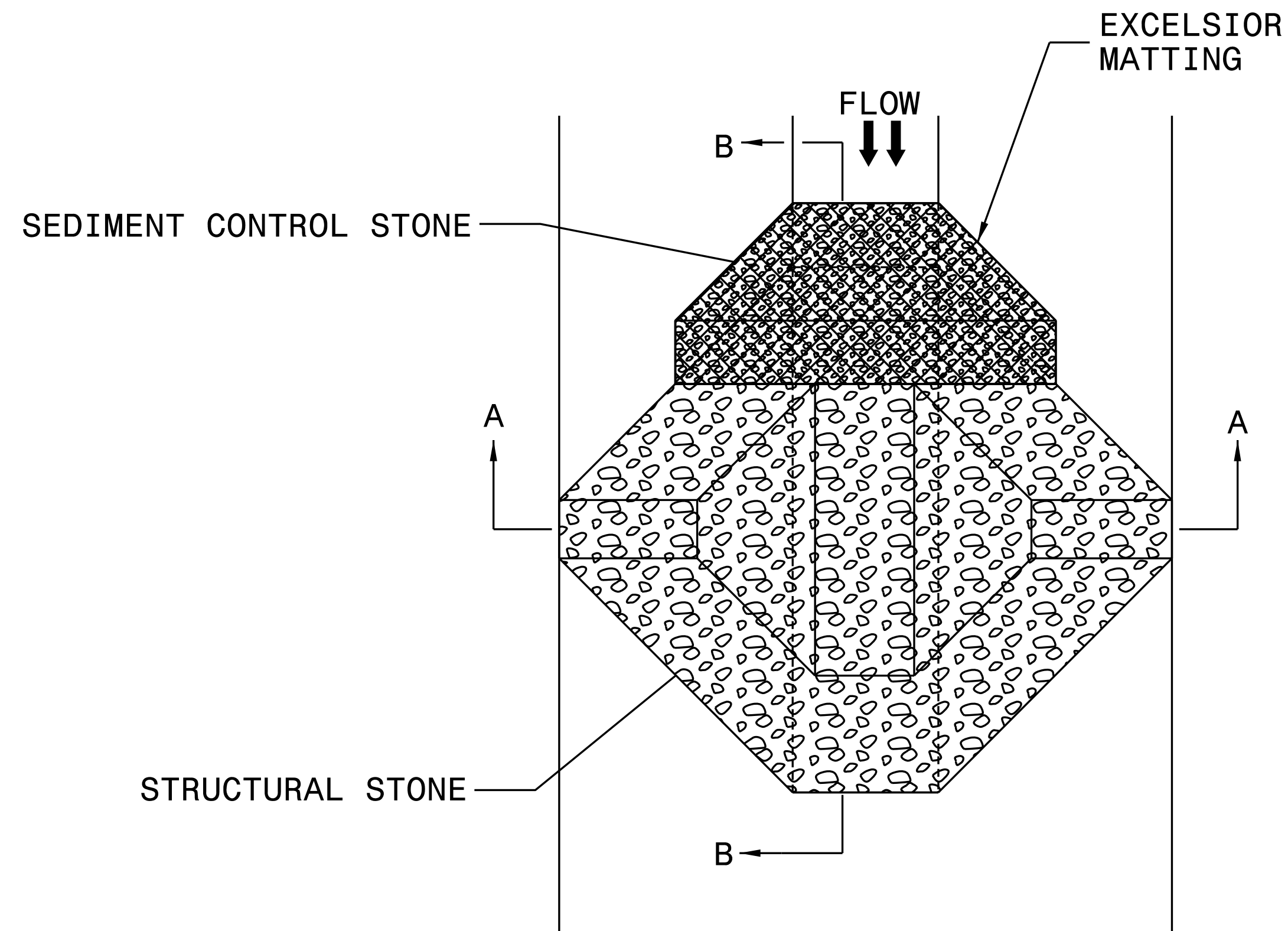
- USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE AND LENGTH OF 10 FT.
- EXCAVATE A 1 TO 2 INCH TRENCH FOR WATTLE TO BE PLACED.
- DO NOT PLACE WATTLE ON TOE OF SLOPE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE 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

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



PLAN

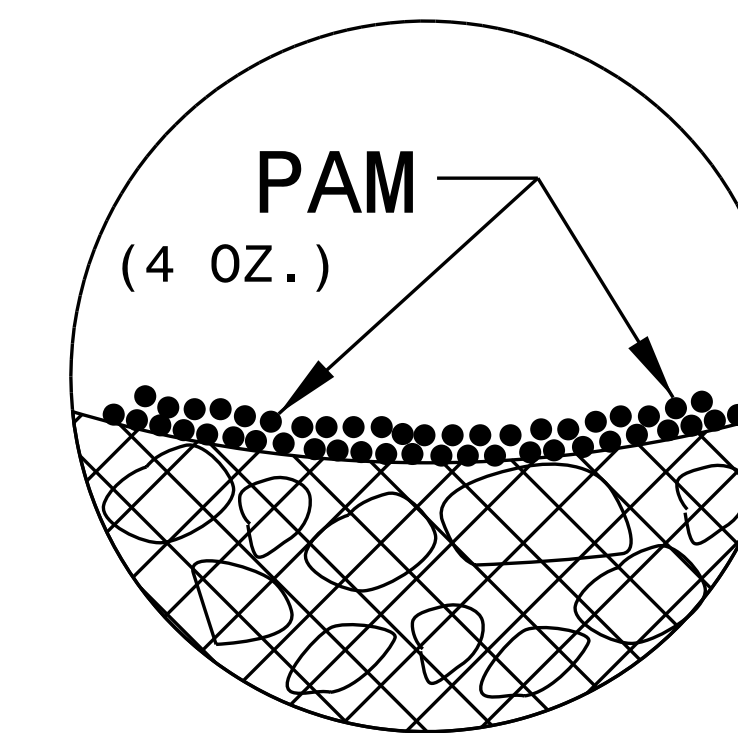
NOTES:

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

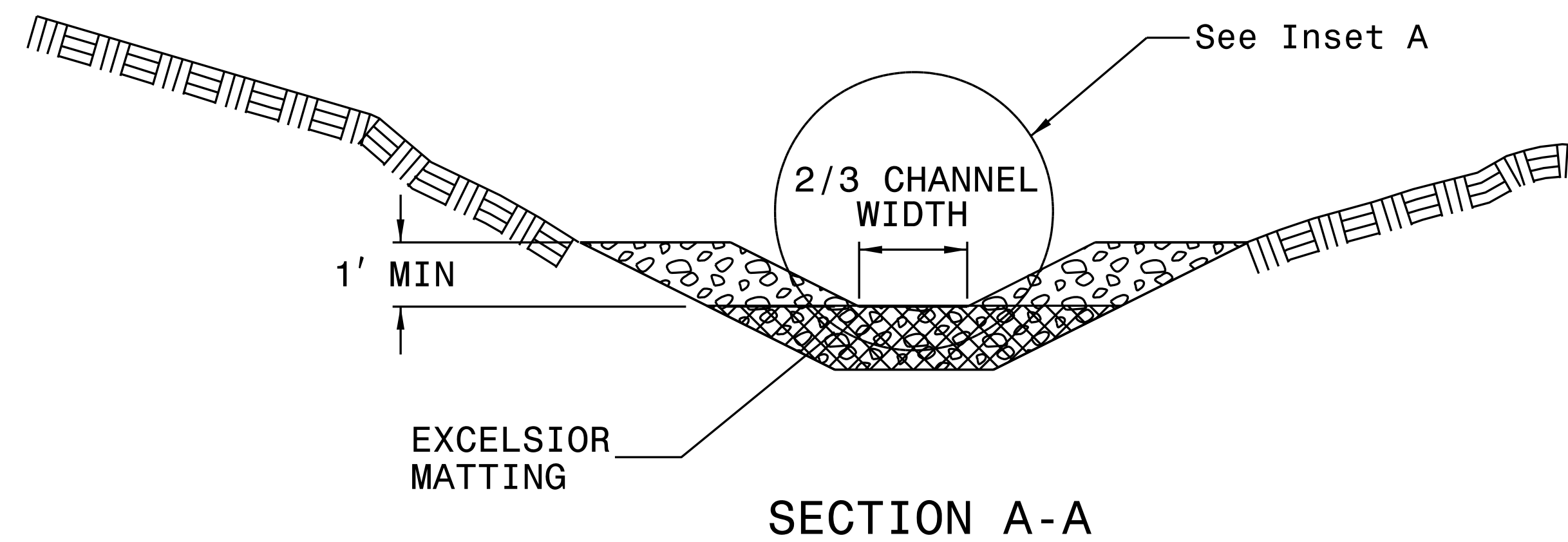
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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.

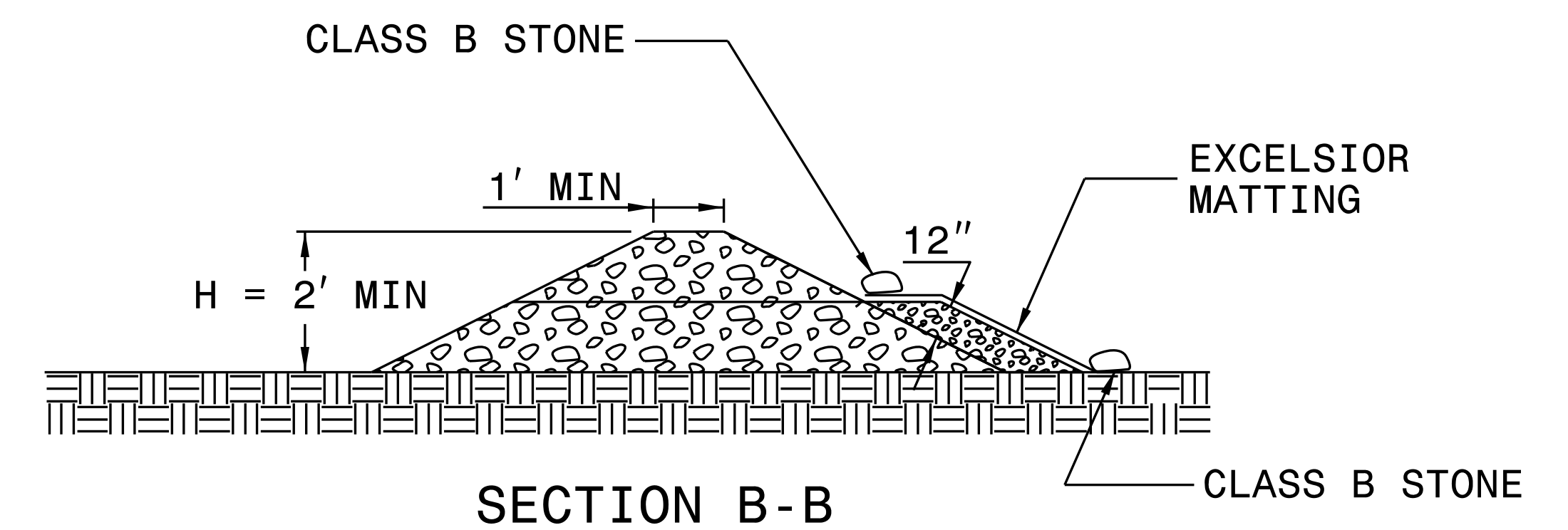
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



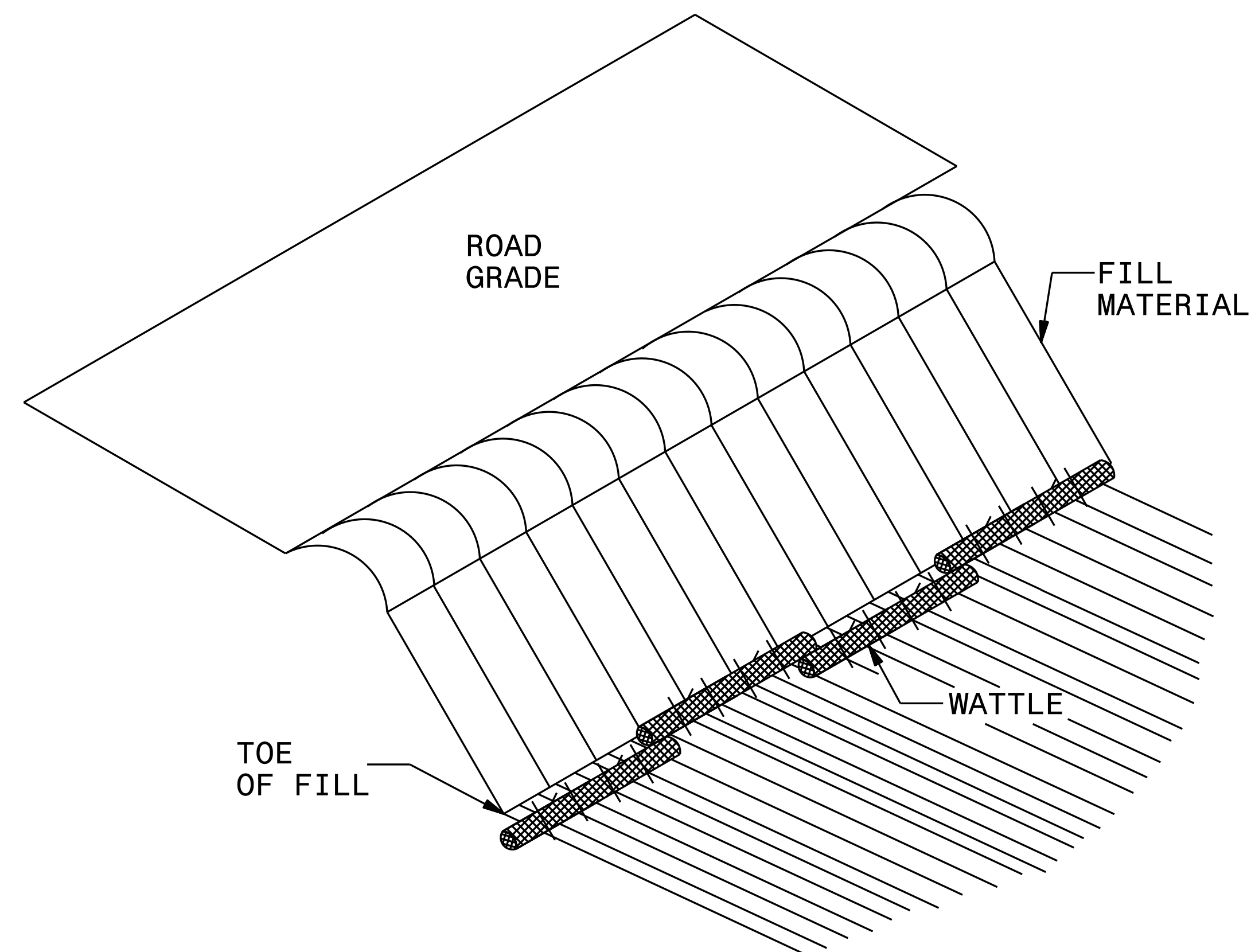
SECTION A-A



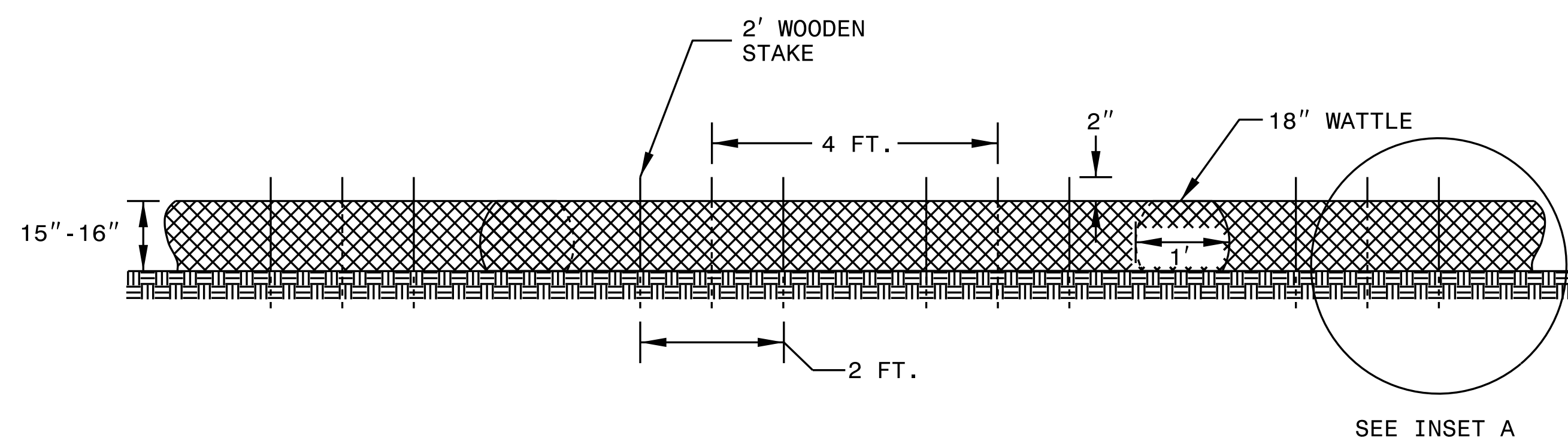
SECTION B-B

NOT TO SCALE

COIR FIBER WATTLE BARRIER DETAIL



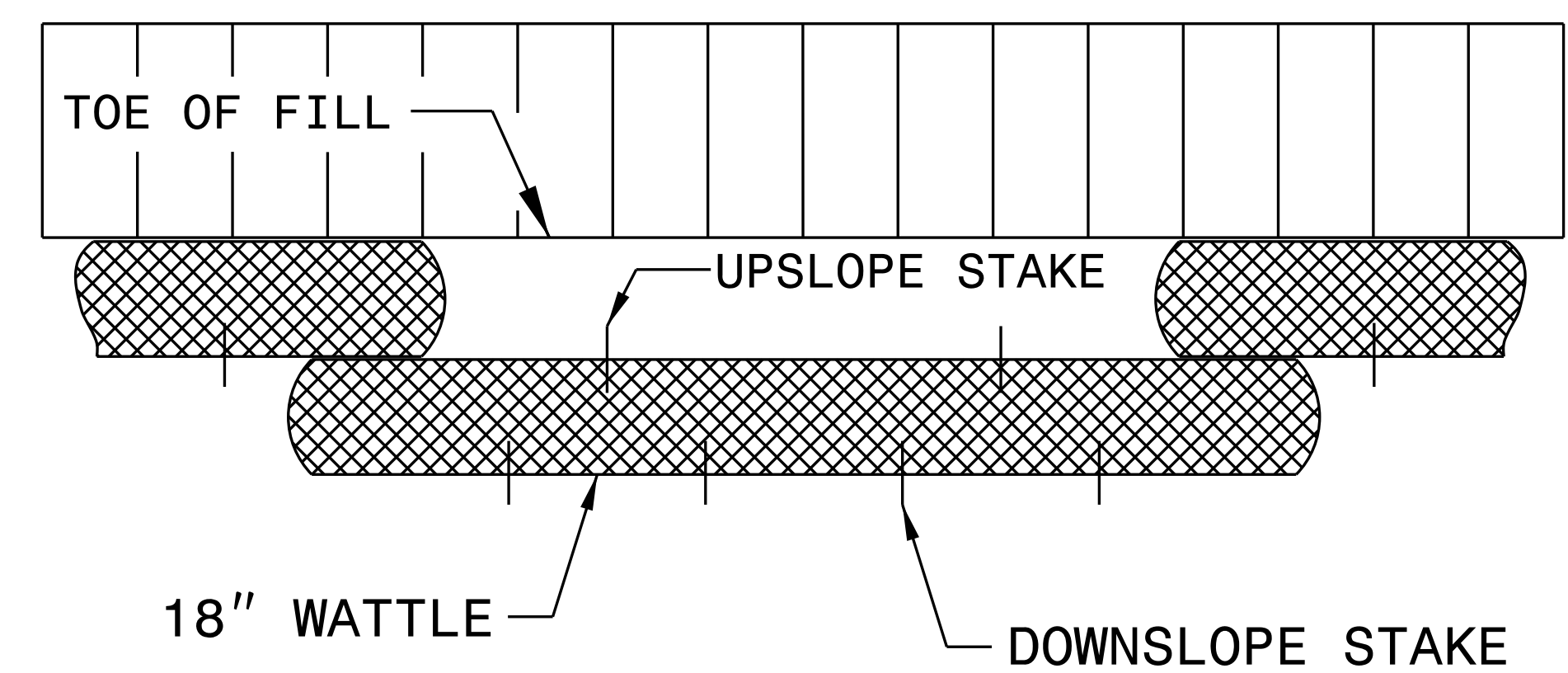
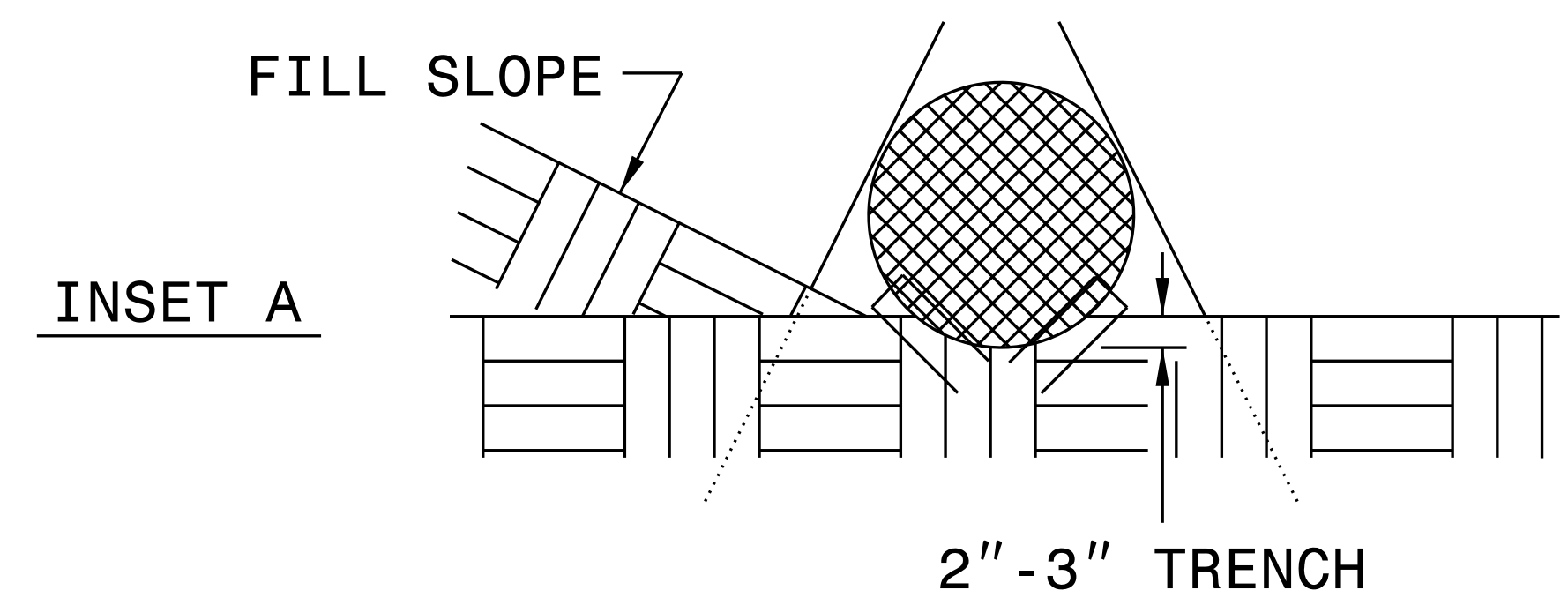
ISOMETRIC VIEW



FRONT VIEW

NOTES:

- USE MINIMUM 18 IN. NOMINAL DIAMETER COIR FIBER (COCONUT) WATTLE AND LENGTH OF 10 FT.
- EXCAVATE A 2 TO 3 INCH TRENCH FOR WATTLE TO BE PLACED.
- DO NOT PLACE WATTLES 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.
- FOR BREAKS ALONG LARGE SLOPES, USE MAXIMUM SPACING OF 20 FT.



TOP VIEW

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

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.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE
INSTALLED DURING CLEARING AND GRUBBING PHASE.

WETHERILL ENGINEERING
559 Jones Franklin Rd. Suite 164
Raleigh, N.C. 27606
License No. E-0377
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2248G	EC-06/CONST.06
RW SHEET NO.	

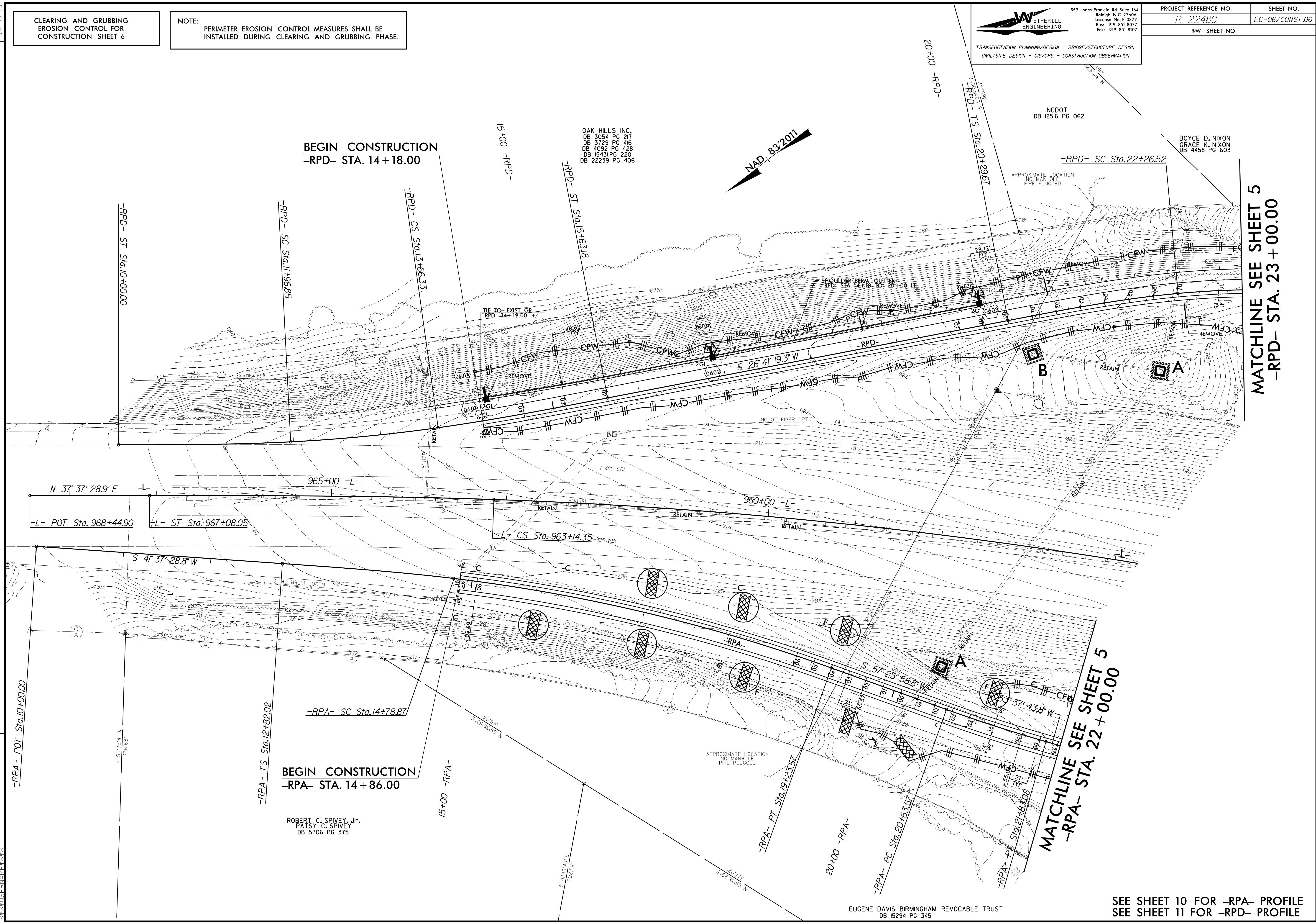
REVISIONS

BEGIN CONSTRUCTION
-RPD- STA. 14 + 18.00

OAK HILLS INC.
DB 3054 PG 217
DB 3729 PG 416
DB 4092 PG 428
DB 15431 PG 220
DB 22239 PG 406



BOYCE D. NIXON
GRACE K. NIXON
DB 4458 PG 603



MATCHLINE SEE SHEET 5
-RPD- STA. 23 + 00.00

MATCHLINE SEE SHEET 5
-RPA- STA. 22 + 00.00

BEGIN CONSTRUCTION
-RPA- STA. 14 + 86.00

ROBERT C. SPIVEY, Jr.
PATSY C. SPIVEY
DB 5706 PG 375

EUGENE DAVIS BIRMINGHAM REVOCABLE TRUST
DB 15294 PG 345

SEE SHEET 10 FOR -RPA- PROFILE
SEE SHEET 11 FOR -RPD- PROFILE

8.17.99

WETHERILL ENGINEERING
 559 Jones Franklin Rd. Suite 164
 Raleigh, N.C. 27606
 License No. K-0377
 Bus: 919 851 8077
 Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
 CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2248G	EC-09/CONST.05
RW SHEET NO.	

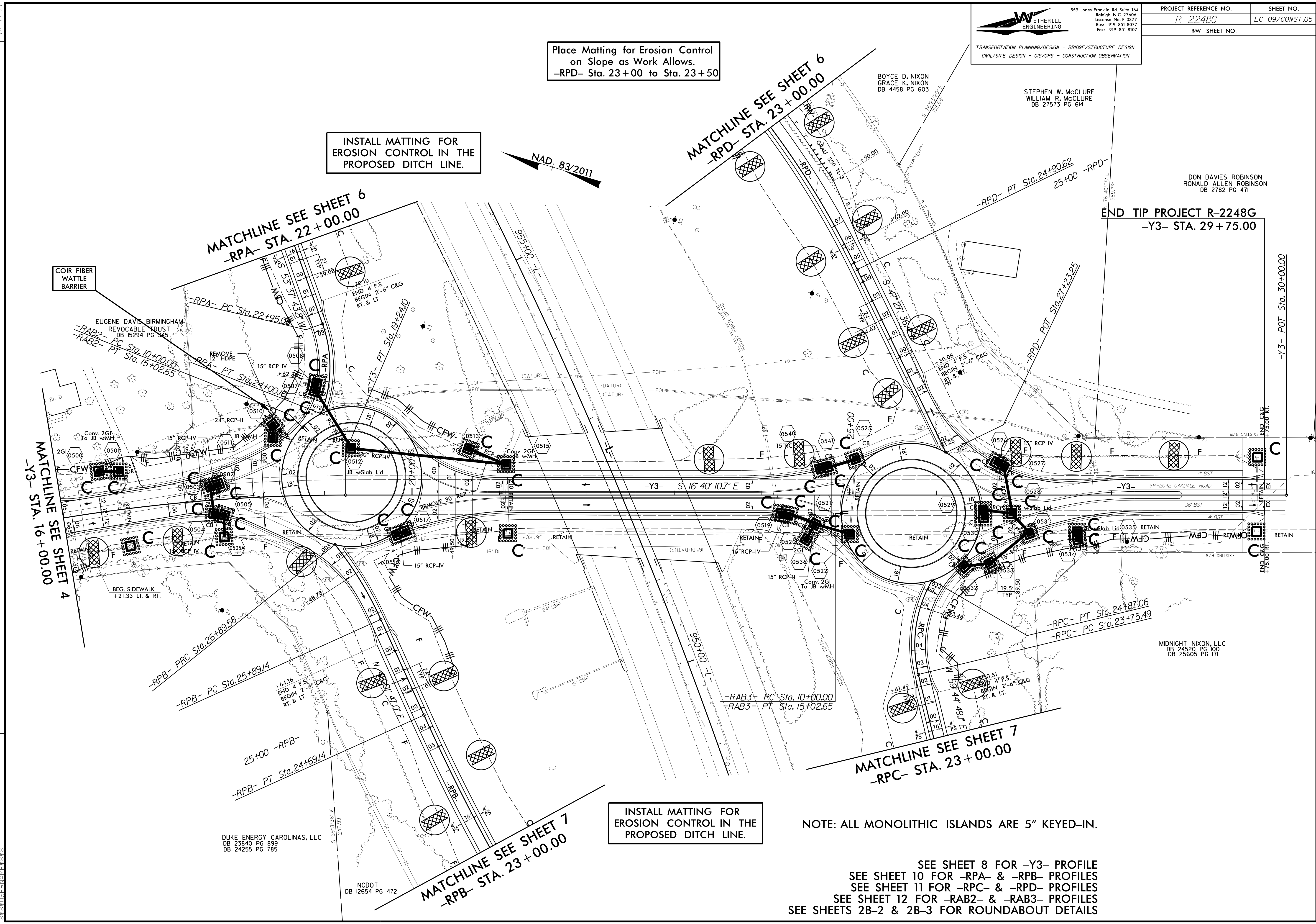
Place Matting for Erosion Control
 on Slope as Work Allows.
 -RPD- Sta. 23+00 to Sta. 23+50

INSTALL MATTING FOR
 EROSION CONTROL IN THE
 PROPOSED DITCH LINE.

INSTALL MATTING FOR
 EROSION CONTROL IN THE
 PROPOSED DITCH LINE.

NOTE: ALL MONOLITHIC ISLANDS ARE 5" KEYED-IN.

SEE SHEET 8 FOR -Y3- PROFILE
 SEE SHEET 10 FOR -RPA- & -RPB- PROFILES
 SEE SHEET 11 FOR -RPC- & -RPD- PROFILES
 SEE SHEET 12 FOR -RAB2- & -RAB3- PROFILES
 SEE SHEETS 2B-2 & 2B-3 FOR ROUNDABOUT DETAILS



REVISIONS

1. 11/12/09
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 100. 11/12/09

END TIP PROJECT R-2248G
 -Y3- STA. 29+75.00

DON DAVIES ROBINSON
 RONALD ALLEN ROBINSON
 DB 2782 PG 471

MIDNIGHT NIXON, LLC
 DB 24520 PG 100
 DB 25605 PG 171

DUKE ENERGY CAROLINAS, LLC
 DB 23840 PG 899
 DB 24255 PG 785

NCDOT
 DB 12654 PG 472

BOYCE D. NIXON
 GRACE K. NIXON
 DB 4458 PG 603

STEPHEN W. McCLURE
 WILLIAM R. McCLURE
 DB 27573 PG 614

COIR FIBER
 WATTLE
 BARRIER

EUGENE DAVIS BIRMINGHAM
 REVOCABLE TRUST
 DB 15294 PG 745

MATCHLINE SEE SHEET 4
 -Y3- STA. 16+00.00

MATCHLINE SEE SHEET 6
 -RPA- STA. 22+00.00

MATCHLINE SEE SHEET 6
 -RPD- STA. 23+00.00

MATCHLINE SEE SHEET 7
 -RPB- STA. 23+00.00

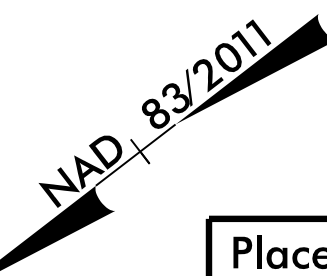
MATCHLINE SEE SHEET 7
 -RPC- STA. 23+00.00

-Y3- POT STA. 30+00.00

BOYCE D. NIXON
GRACE K. NIXON
DB 4458 PG 603

NCDOT
DB 12516 PG 062

OAK HILLS INC.
DB 3054 PG 217
DB 3729 PG 416
DB 4092 PG 428
DB 15431 PG 220
DB 22239 PG 406



Place Matting for Erosion Control
on Slope as Work Allows.
-RPD- Sta. 14+50 to Sta. 16+00

BEGIN CONSTRUCTION
-RPD- STA. 14+18.00

Place Matting for Erosion Control
on Slope as Work Allows.
-RPD- Sta. 21+00 to Sta. 23+00

MATCHLINE SEE SHEET 5
-RPD- STA. 23+00.00

MATCHLINE SEE SHEET 5
-RPA- STA. 22+00.00

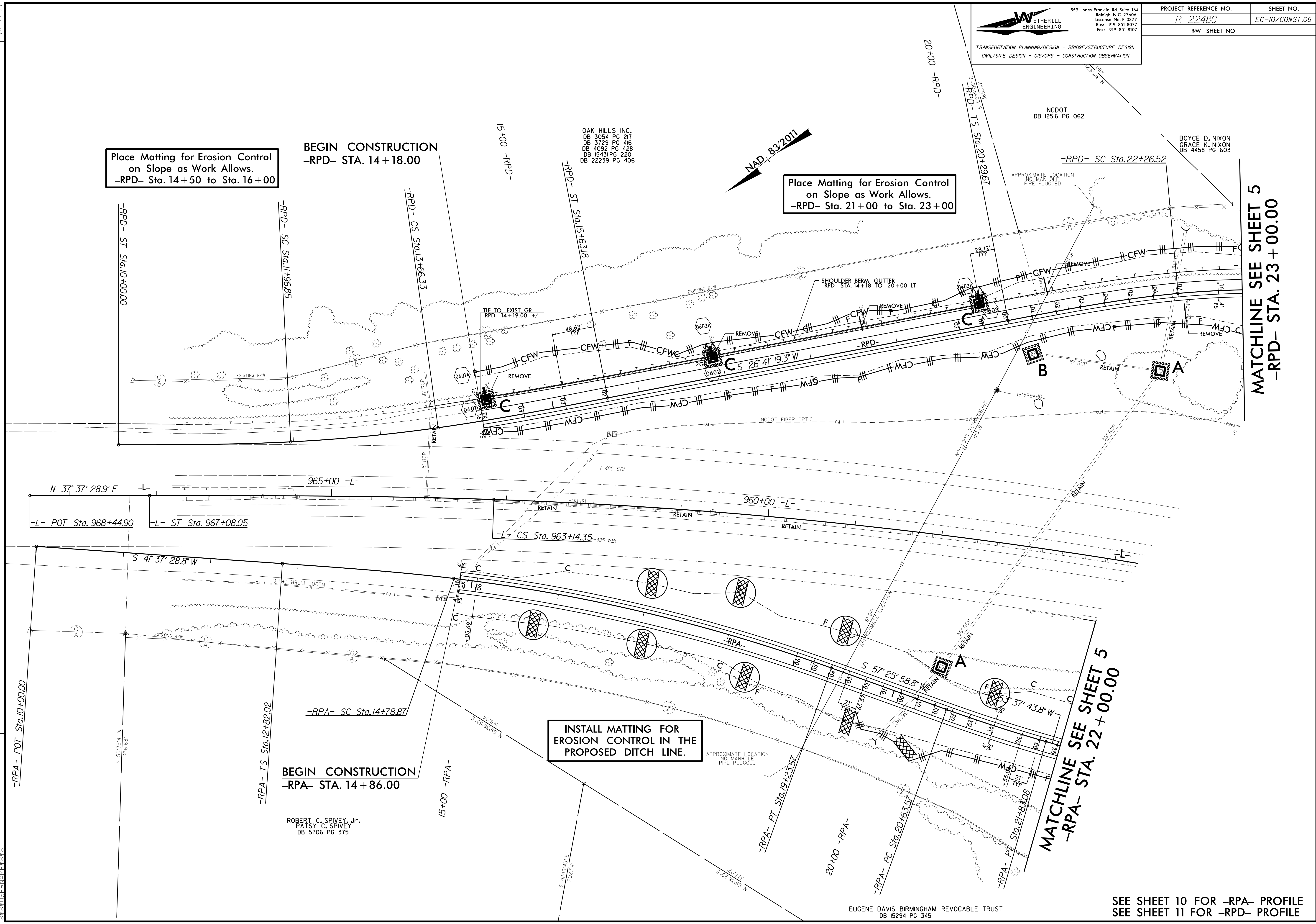
INSTALL MATTING FOR
EROSION CONTROL IN THE
PROPOSED DITCH LINE.

BEGIN CONSTRUCTION
-RPA- STA. 14+86.00

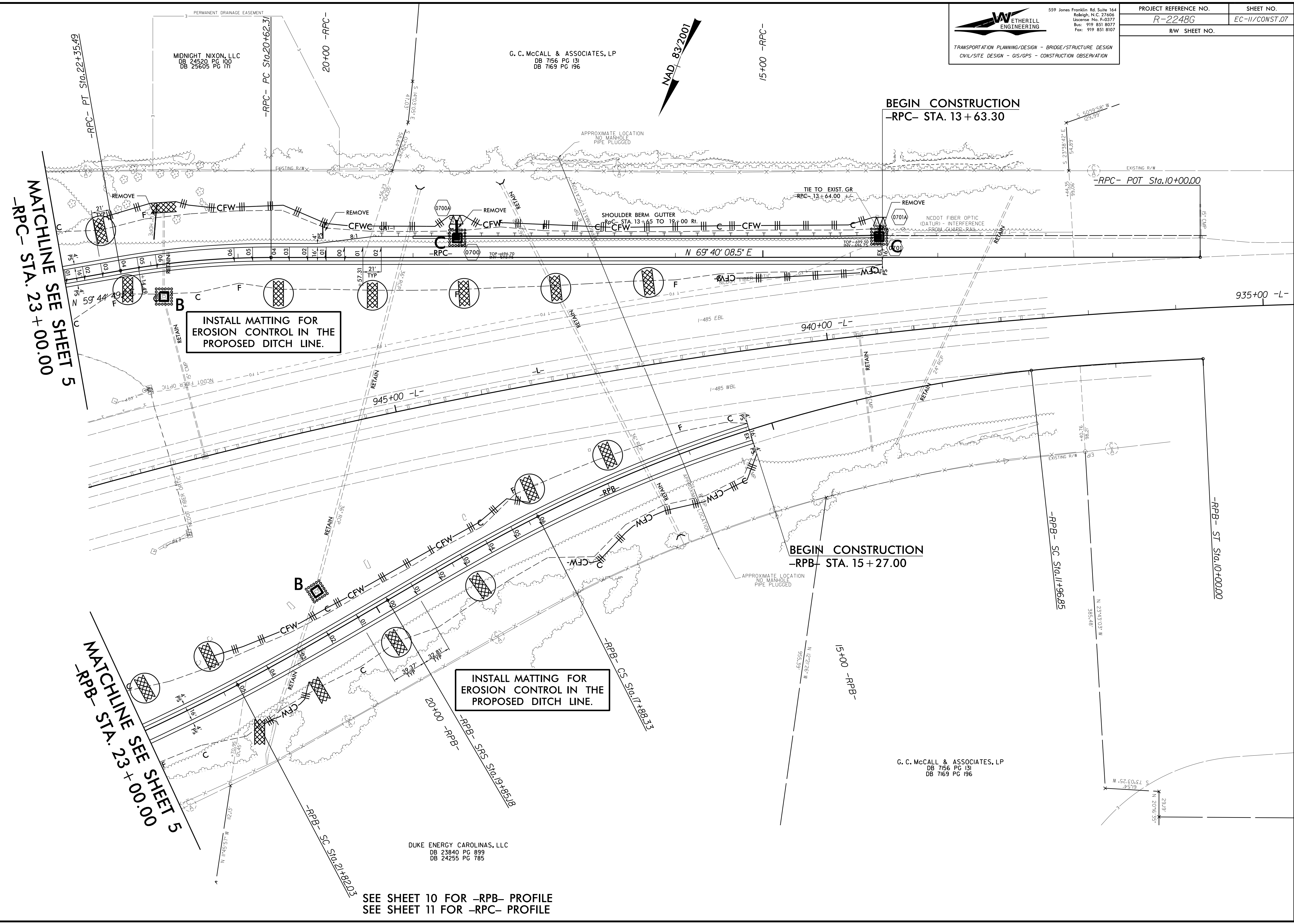
ROBERT C. SPIVEY, Jr.
PATSY C. SPIVEY
DB 5706 PG 375

REVISIONS

8.17.799



8.17.799



REVISIONS

SEE SHEET 10 FOR -RPB- PROFILE
 SEE SHEET 11 FOR -RPC- PROFILE

G. C. McCALL & ASSOCIATES, LP
 DB 7156 PG 131
 DB 7169 PG 196