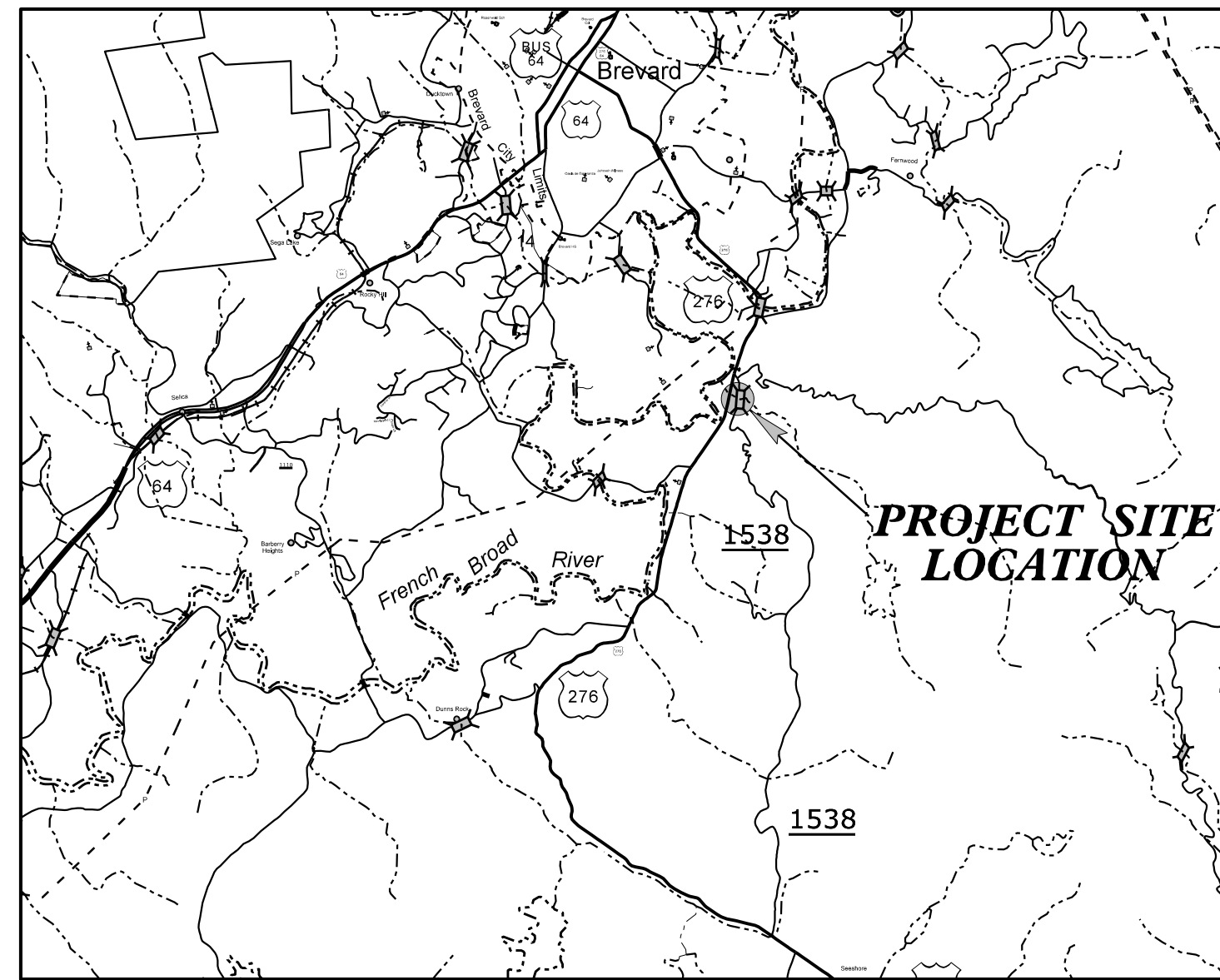


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**TIP PROJECT: B-4823**



**VICINITY MAP**

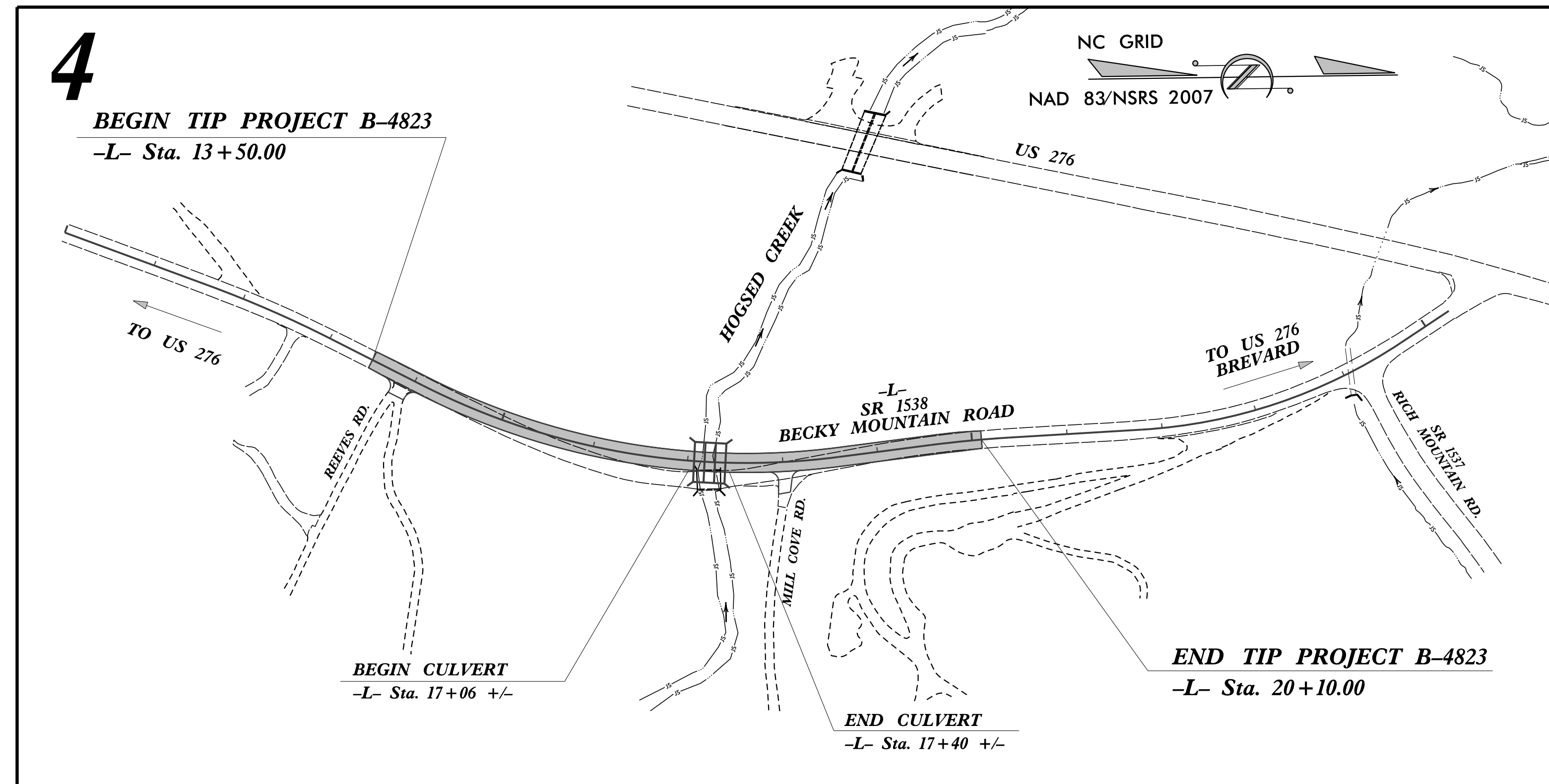
N.T.S.

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

**TRANSYLVANIA COUNTY**

LOCATION: BRIDGE NO. 12 OVER HOGSED CREEK  
ON SR 1538 (BECKY MOUNTAIN ROAD)

TYPE OF WORK: GRADING, PAVING, DRAINAGE AND CULVERT



| STATE           | STATE PROJECT REFERENCE NO. | SHEET NO.   | TOTAL SHEETS |
|-----------------|-----------------------------|-------------|--------------|
| N.C.            | B-4823                      | EC-1        |              |
| STATE PROJ. NO. | F.A. PROJ. NO.              | DESCRIPTION |              |
|                 |                             |             |              |
|                 |                             |             |              |
|                 |                             |             |              |

**EROSION AND SEDIMENT CONTROL MEASURES**

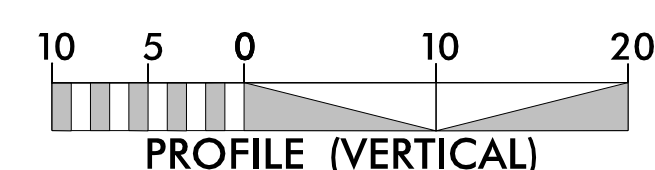
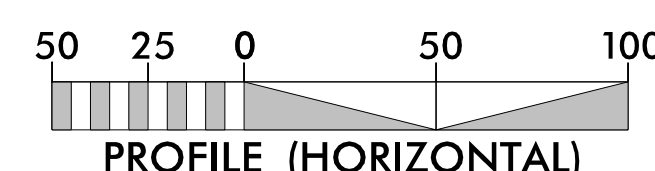
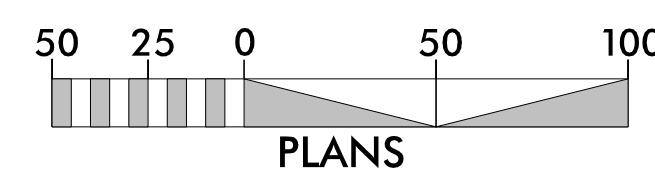
| Std. #  | Description  | Symbol     |
|---------|--|------------|
| 1630.03 | Temporary Silt Ditch   | ---        |
| 1630.05 | Temporary Diversion  | --- TD --- |
| 1605.01 | Temporary Silt Fence   |            |
| 1606.01 | Special Sediment Control Fence   | ▲▲▲▲▲▲▲▲   |
| 1622.01 | Temporary Berms 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   | — 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                                   | ⊓          |
| 1635.02 | Rock Pipe Inlet Sediment Trap Type-B                                   | ⊓          |
| 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.

**GRAPHIC SCALES**



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 1, 2016 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER RESOURCES.

Prepared in the Office of:  
**SUNGATE DESIGN GROUP, P.A.**

905 JONES FRANKLIN ROAD  
RALEIGH, NORTH CAROLINA 27606  
TEL (919) 859-2243  
ENG FIRM LICENSE NO. C-890

Designed by:

**Randal C. Howard, PE, PLS** 3491  
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:

**Jennifer Parish, CPESC, CPSWQ**

**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.<br>B-4823 | SHEET NO.<br>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.

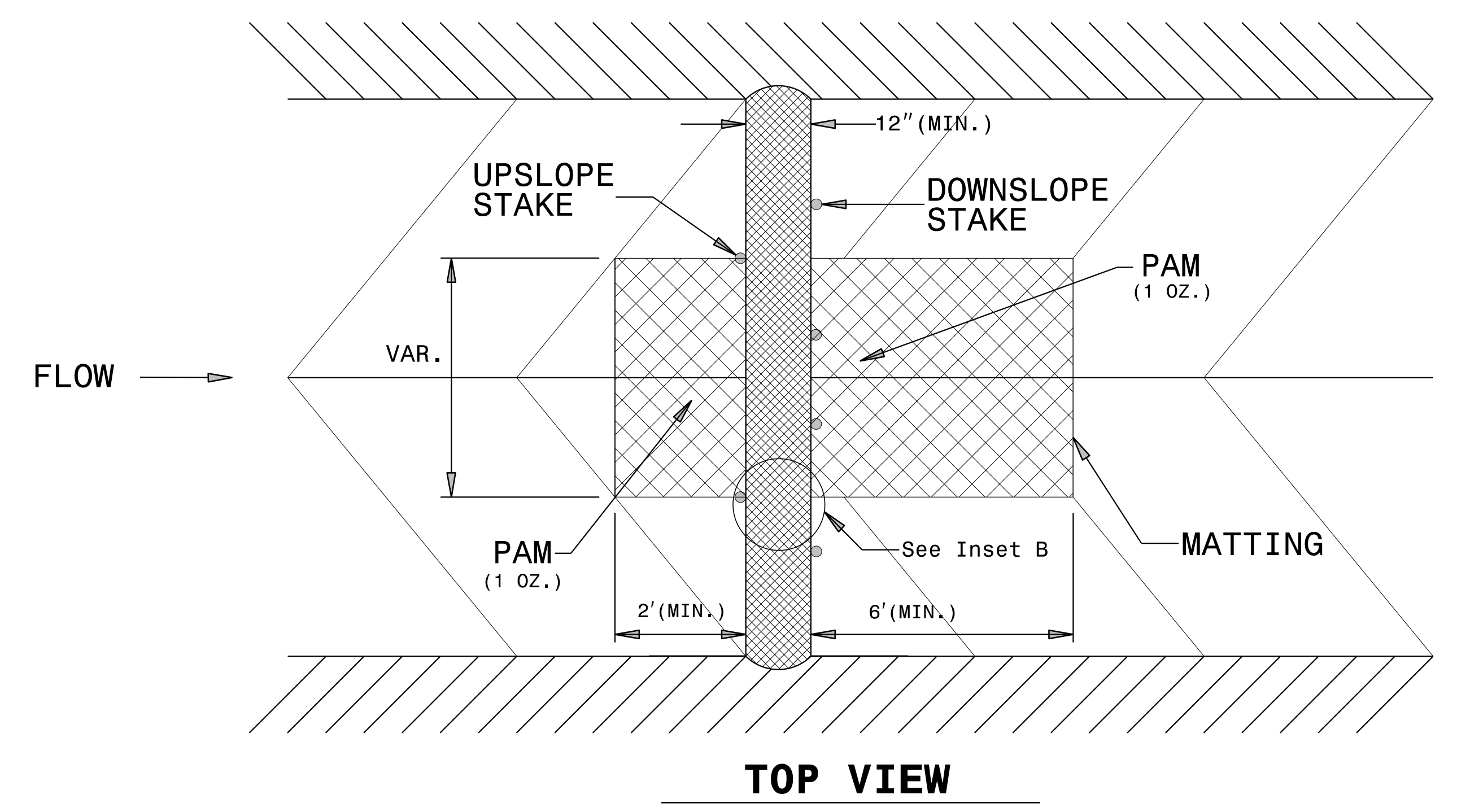
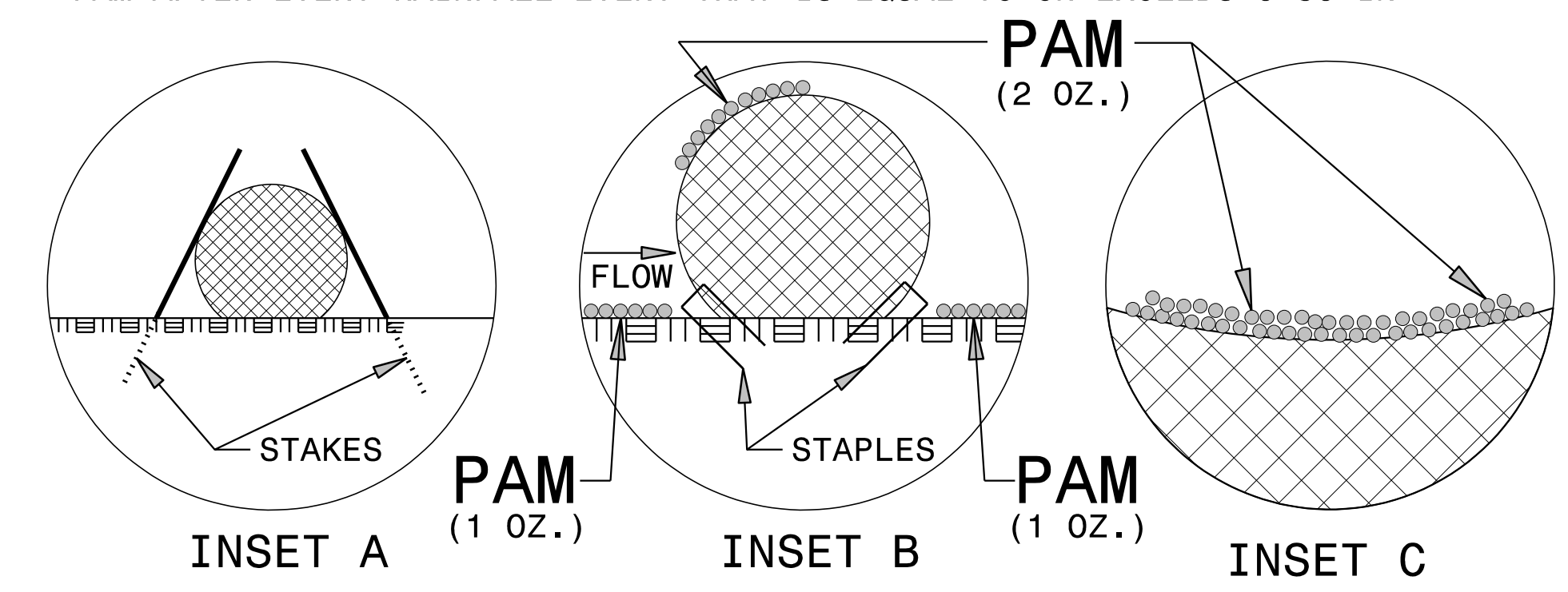
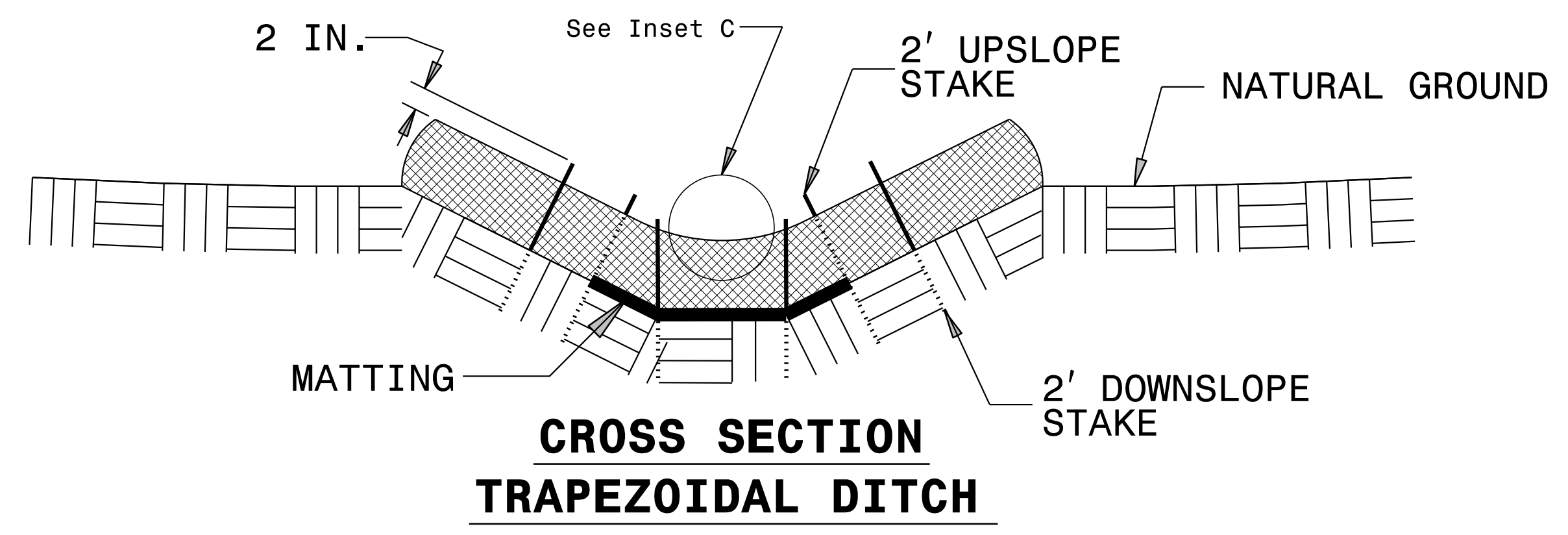
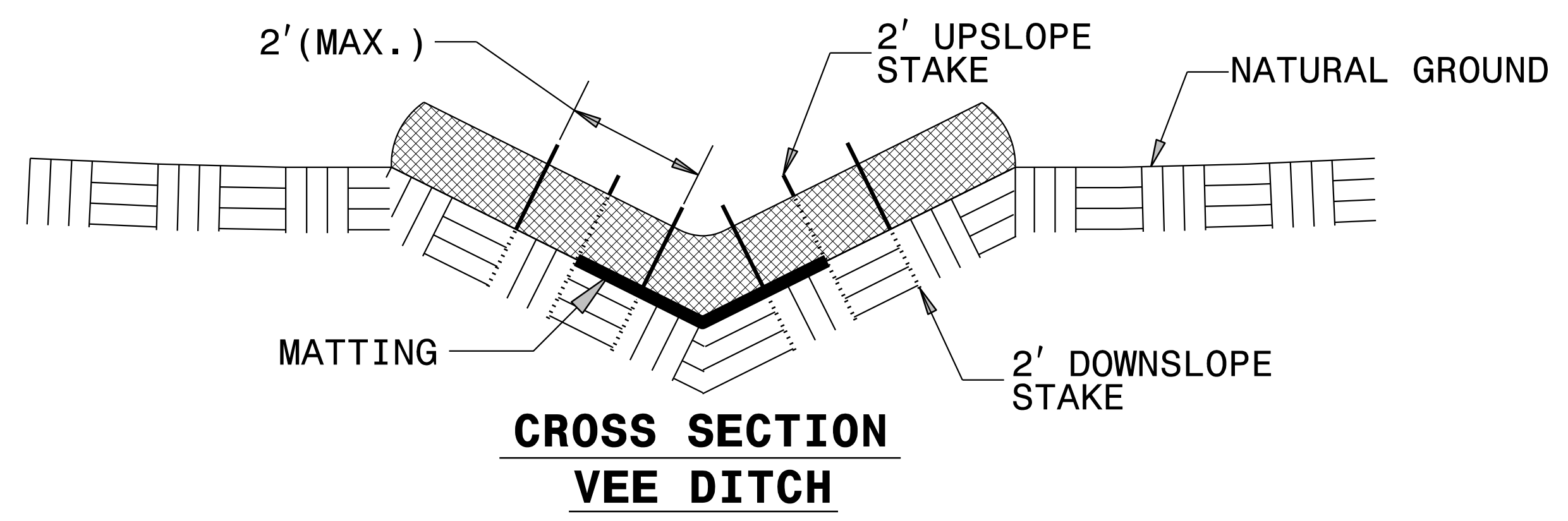
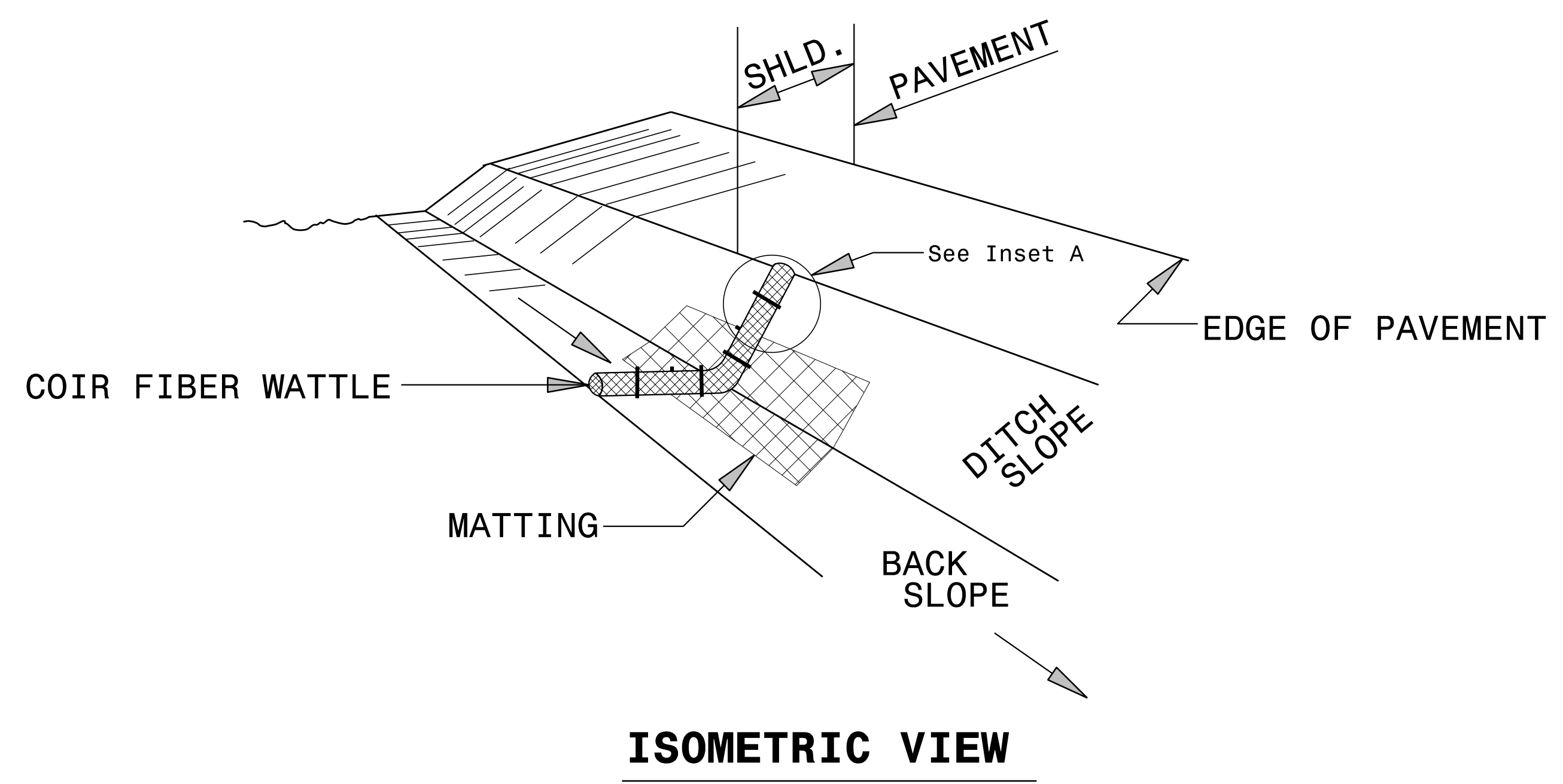
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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.

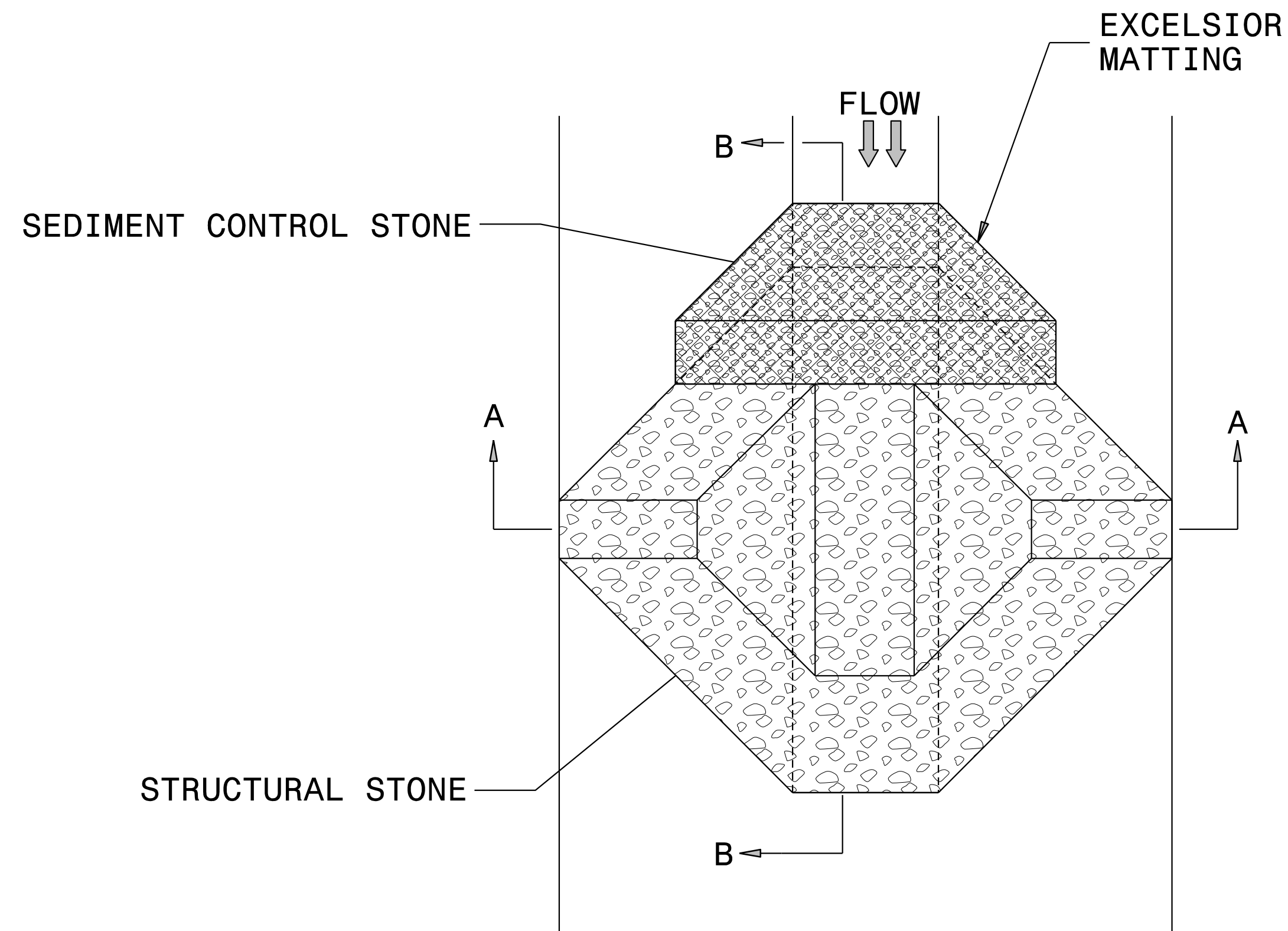
PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

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.

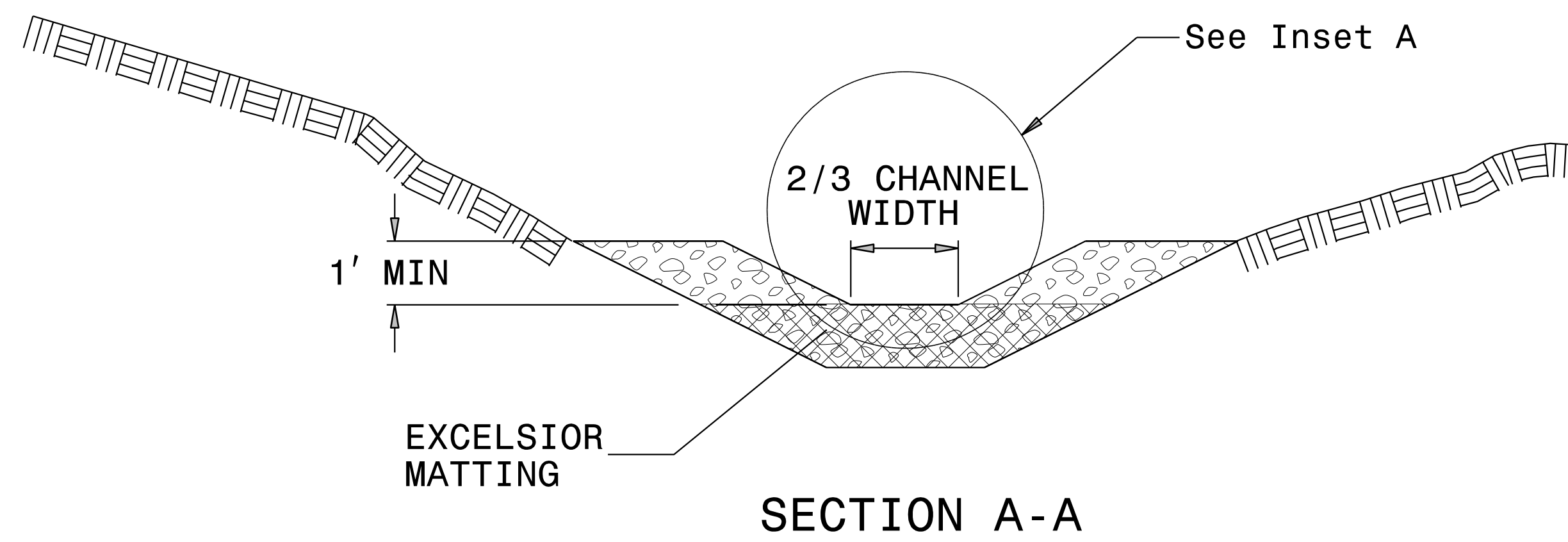


|                                 |                     |
|---------------------------------|---------------------|
| PROJECT REFERENCE NO.<br>B-4823 | SHEET NO.<br>EC-2A  |
| RW SHEET NO.                    |                     |
| ROADWAY DESIGN ENGINEER         | HYDRAULICS ENGINEER |

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



PLAN



SECTION A-A

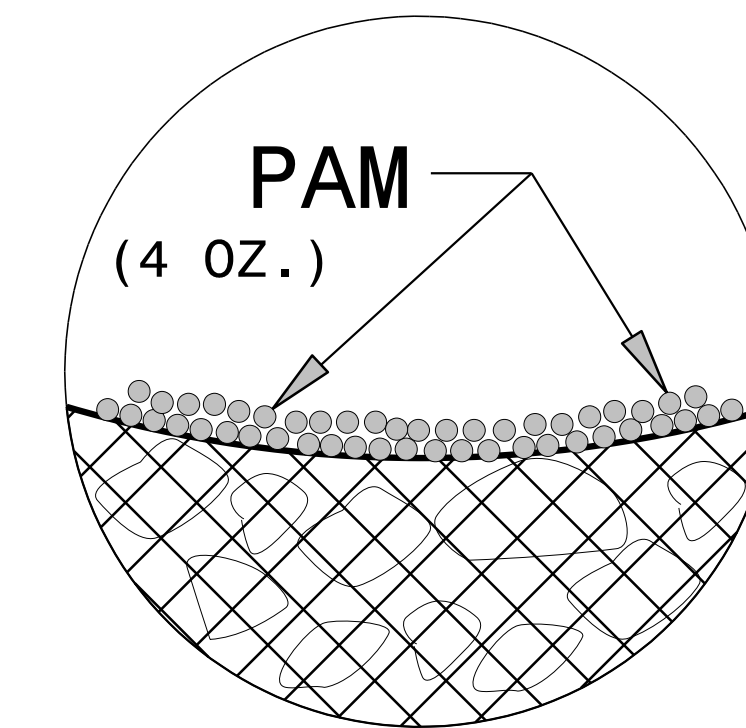
NOTES:

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

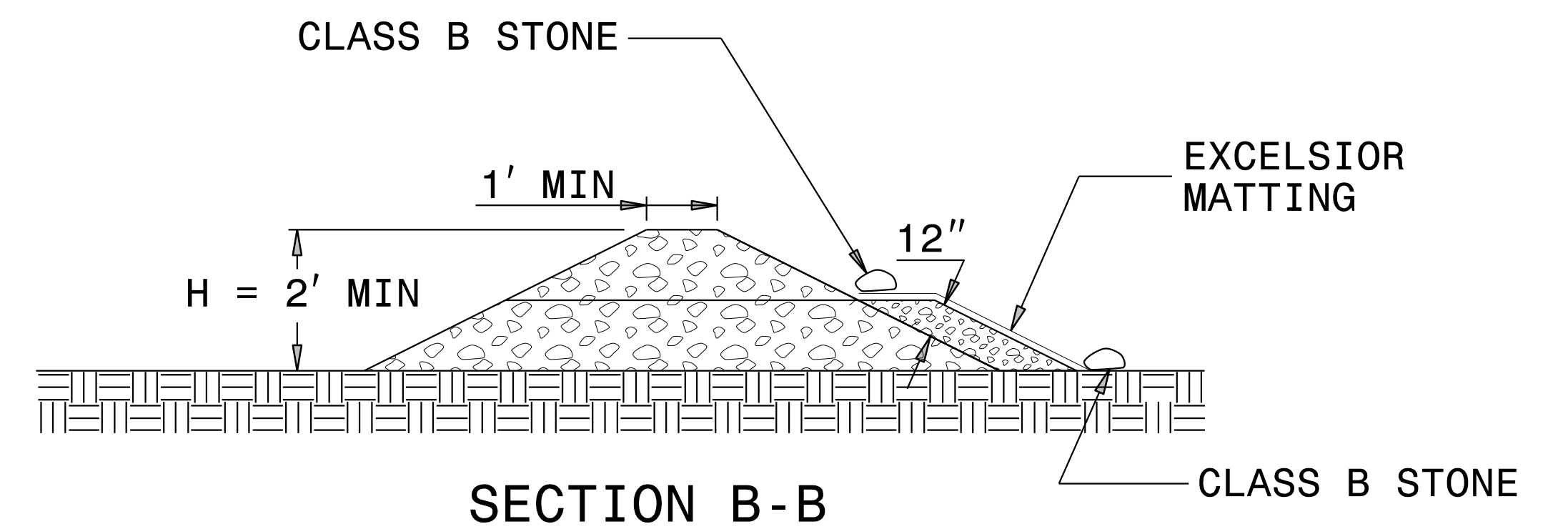
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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 B-B

NOT TO SCALE





DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

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|  |                           |
|--|---------------------------|
| PROJECT REFERENCE NO.<br><i>B-4823</i> | SHEET NO.<br><i>EC-3A</i> |
| ROADWAY DESIGN<br>ENGINEER             | HYDRAULICS<br>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.   |

8/17/99

|                         |                     |
|-------------------------|---------------------|
| PROJECT REFERENCE NO.   | SHEET NO.           |
| B-4823                  | EC-04/CONST.04      |
| R/W SHEET NO.           |                     |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 04

NAD 83/NSRS 2007

# EROSION CONTROL PLAN

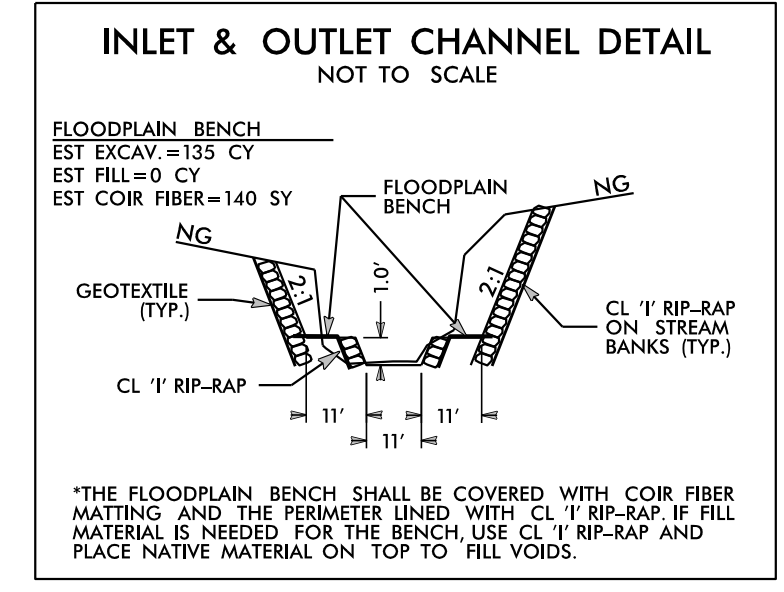
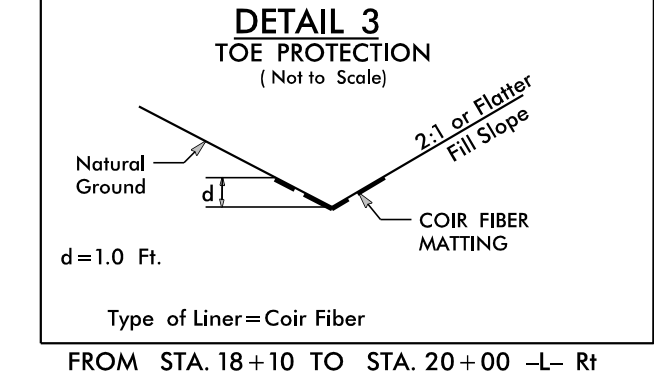
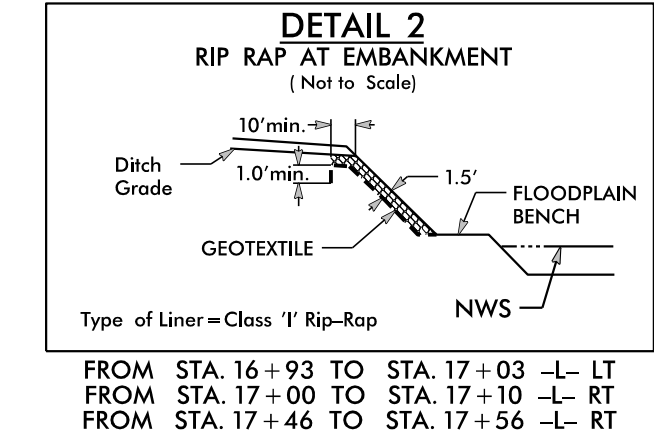
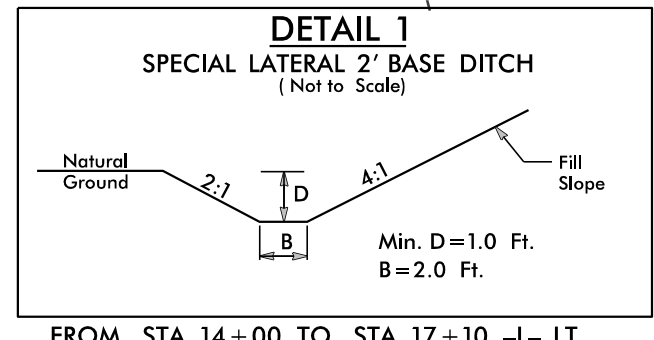
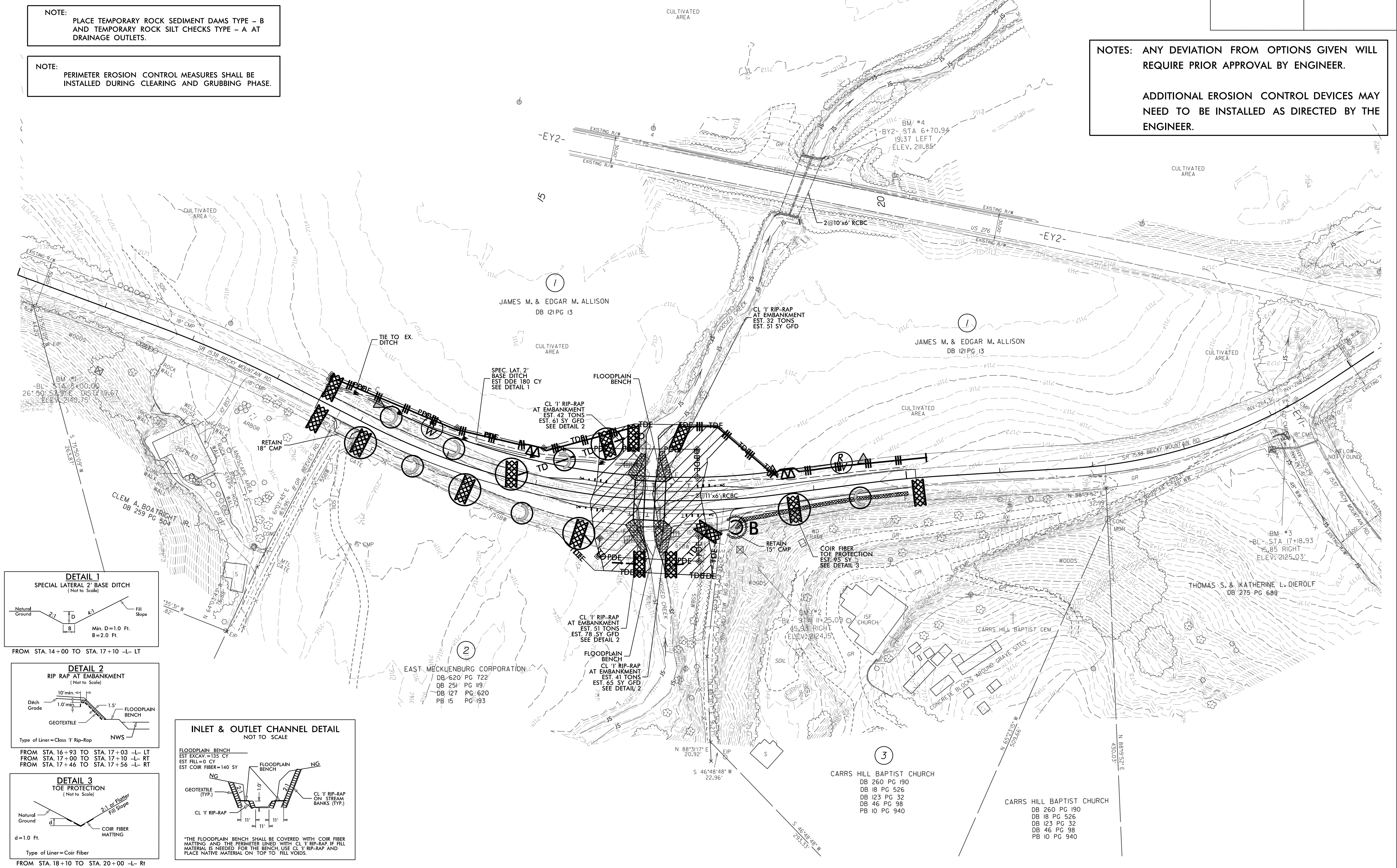
 ENVIRONMENTALLY SENSITIVE AREA  
SEE PROJECT SPECIAL PROVISIONS

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

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

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL  
REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY  
NEED TO BE INSTALLED AS DIRECTED BY THE  
ENGINEER.



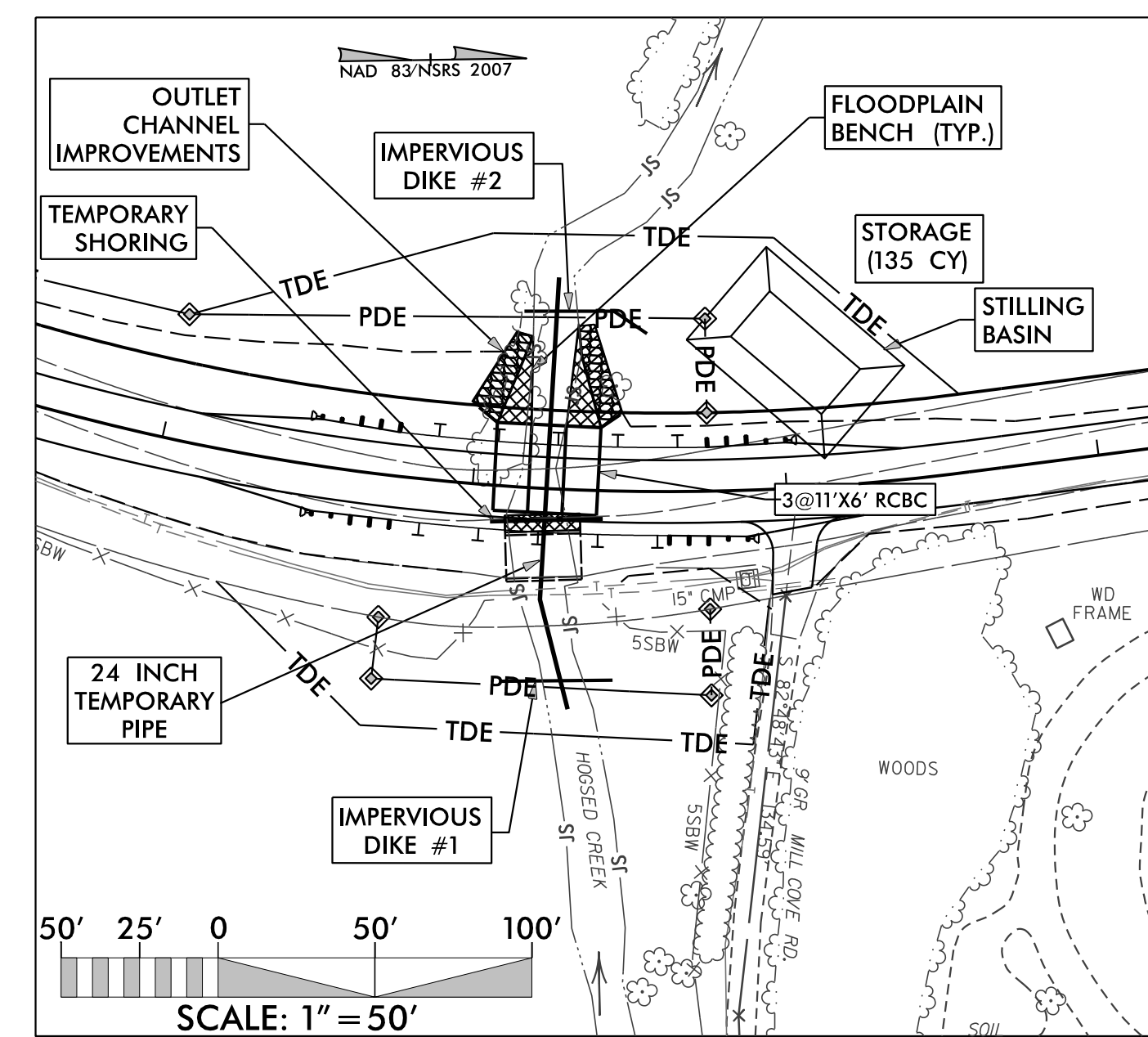
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5/14/99

|                         |                     |
|-------------------------|---------------------|
| PROJECT REFERENCE NO.   | SHEET NO.           |
| B-4823                  | EC-05/CONST.04      |
| RW SHEET NO.            |                     |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# CULVERT CONSTRUCTION SEQUENCE STA. 17+23 -L-

## PHASE 1

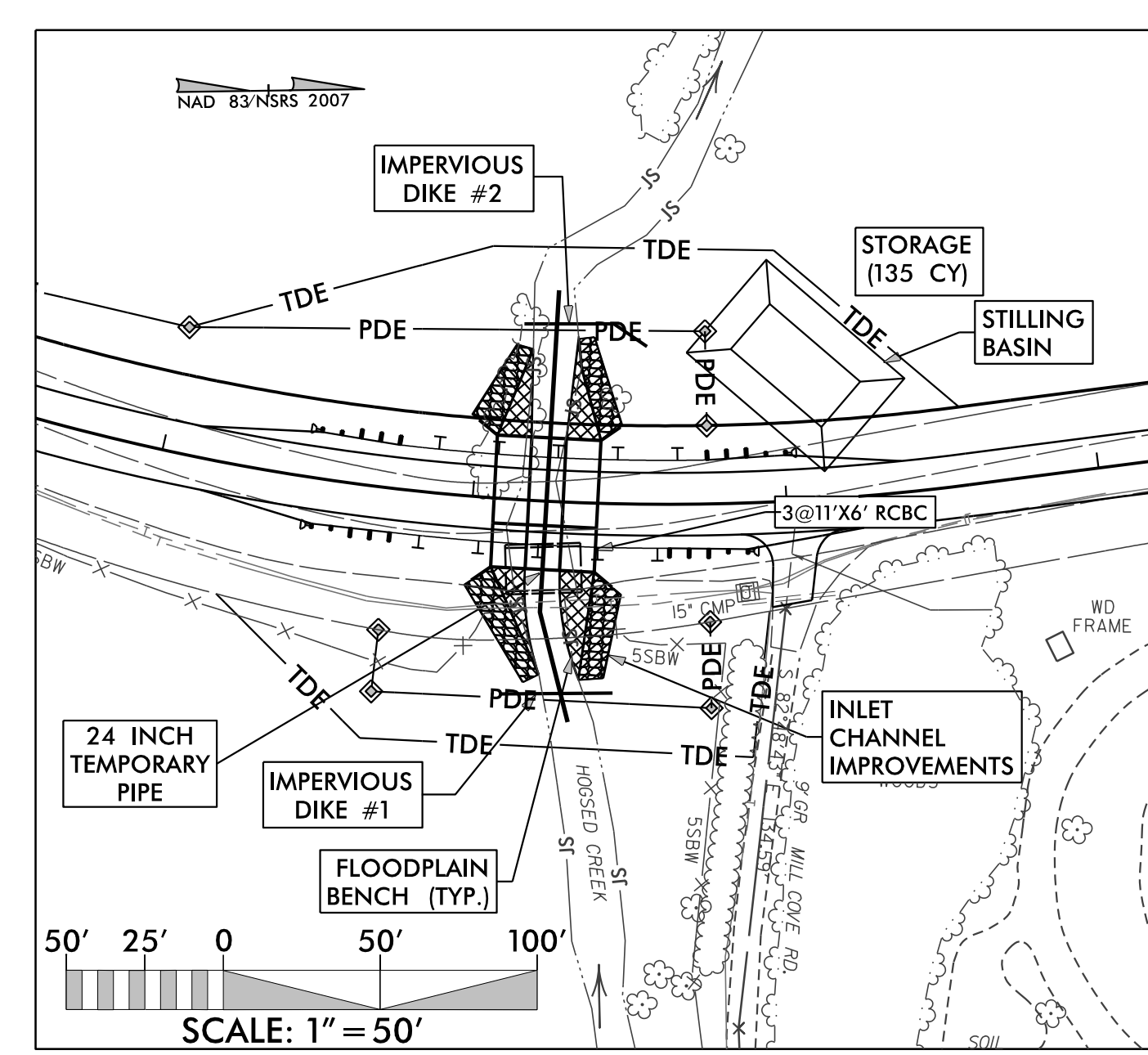


### PHASE 1

1. CONSTRUCT STILLING BASIN. (MIN. CAPACITY=135 CY)
2. INSTALL 24" TEMPORARY PIPE.
3. CONSTRUCT IMPERVIOUS DIKE #1.
4. CONSTRUCT IMPERVIOUS DIKE #2.
5. DEWATER CONSTRUCTION AREA.
6. CONVERT TRAFFIC TO 1-LANE ON UPSTREAM SIDE OF BRIDGE.
7. REMOVE DOWNSTREAM PORTION OF EXISTING BRIDGE, AS SHOWN ON TMP PLAN, AND INSTALL TEMPORARY SHORING AS NEEDED.
8. CONSTRUCT APPROXIMATELY 28 LF OF PROPOSED 3 @ 11' x 6' RCBC. ADJUST 24" TEMP. PIPE LOCATION, AS NEEDED, DURING CULVERT CONSTRUCTION.
9. CONSTRUCT WINGWALLS, FLOODPLAIN BENCH & OUTLET CHANNEL IMPROVEMENTS.
10. CONSTRUCT TRAVEL LANE AT APPROACHES AND ACROSS RCBC. (WEST SIDE OF PROPOSED ROADWAY)

**B-4823  
TRANSYLVANIA COUNTY  
CONSTRUCTION SEQUENCE  
FOR 3@11'x6' RCBC  
STA. 17+23 -L-  
HOGGED CREEK**

## PHASE 2



### PHASE 2

1. DIVERT TRAFFIC FROM 1-LANE BRIDGE TO 1-LANE CULVERT CROSSING.
2. REMOVE REMAINDER OF BRIDGE AND TEMPORARY SHORING.
3. CONSTRUCT REMAINING PORTIONS OF 3 @ 11' x 6' RCBC. ADJUST 24" TEMP. PIPE LOCATION, AS NEEDED, DURING CULVERT CONSTRUCTION.
4. CONSTRUCT WINGWALLS, FLOODPLAIN BENCH & INLET CHANNEL IMPROVEMENTS.
5. REMOVE IMPERVIOUS DIKE #2.
6. REMOVE IMPERVIOUS DIKE #1 AND 24" TEMPORARY PIPE.
7. REMOVE STILLING BASIN.
8. COMPLETE ROADWAY CONSTRUCTION.

1/8/08 10:23:33-EC\_psh\_05.dgn



8/17/99

NAD 83/NSRS 2007

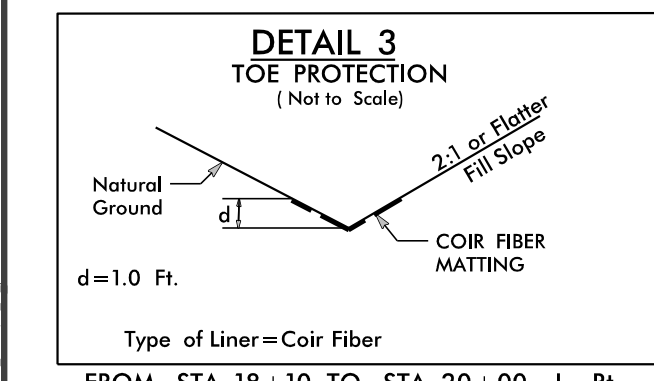
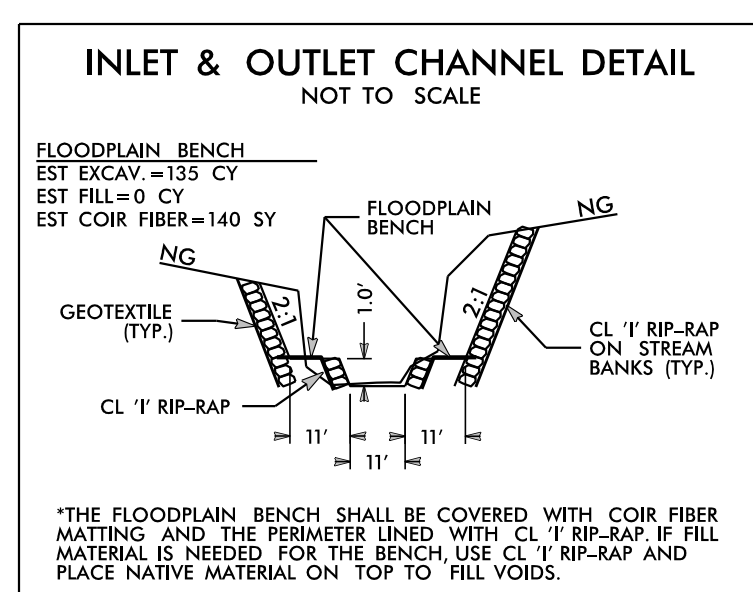
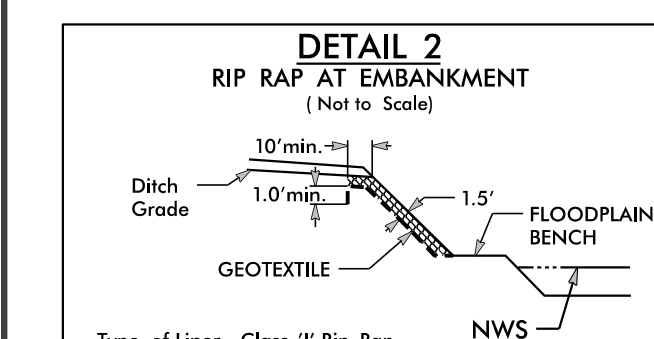
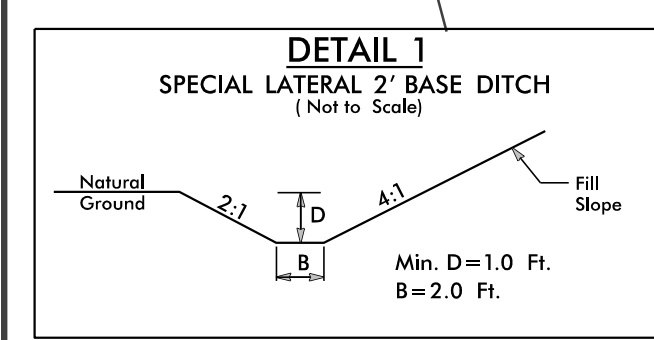
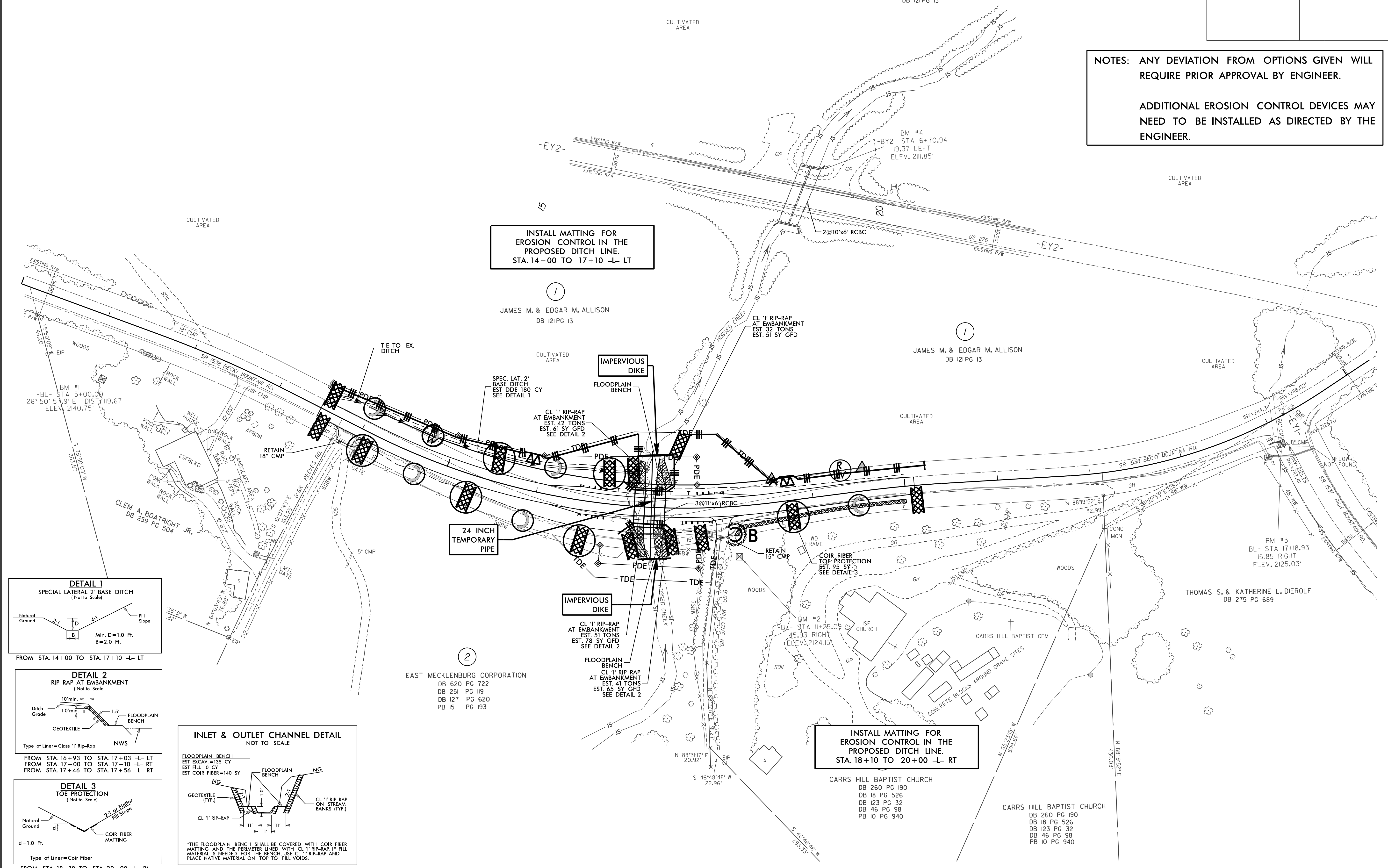
# EROSION CONTROL PLAN

JAMES M. & EDGAR M. ALLISON  
DB 121 PG 13

|  |                                    |
|--|------------------------------------|
| PROJECT REFERENCE NO.<br><i>B-4823</i> | SHEET NO.<br><i>EC-06/CONST.04</i> |
| RW SHEET NO.                           |                                    |
| ROADWAY DESIGN ENGINEER                | HYDRAULICS ENGINEER                |

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.



**2**  
EAST MECKLENBURG CORPORATION  
DB 620 PG 722  
DB 251 PG 119  
DB 127 PG 620  
PB 15 PG 193

1/14/2017  
B4823-EC-psd\_06.dgn