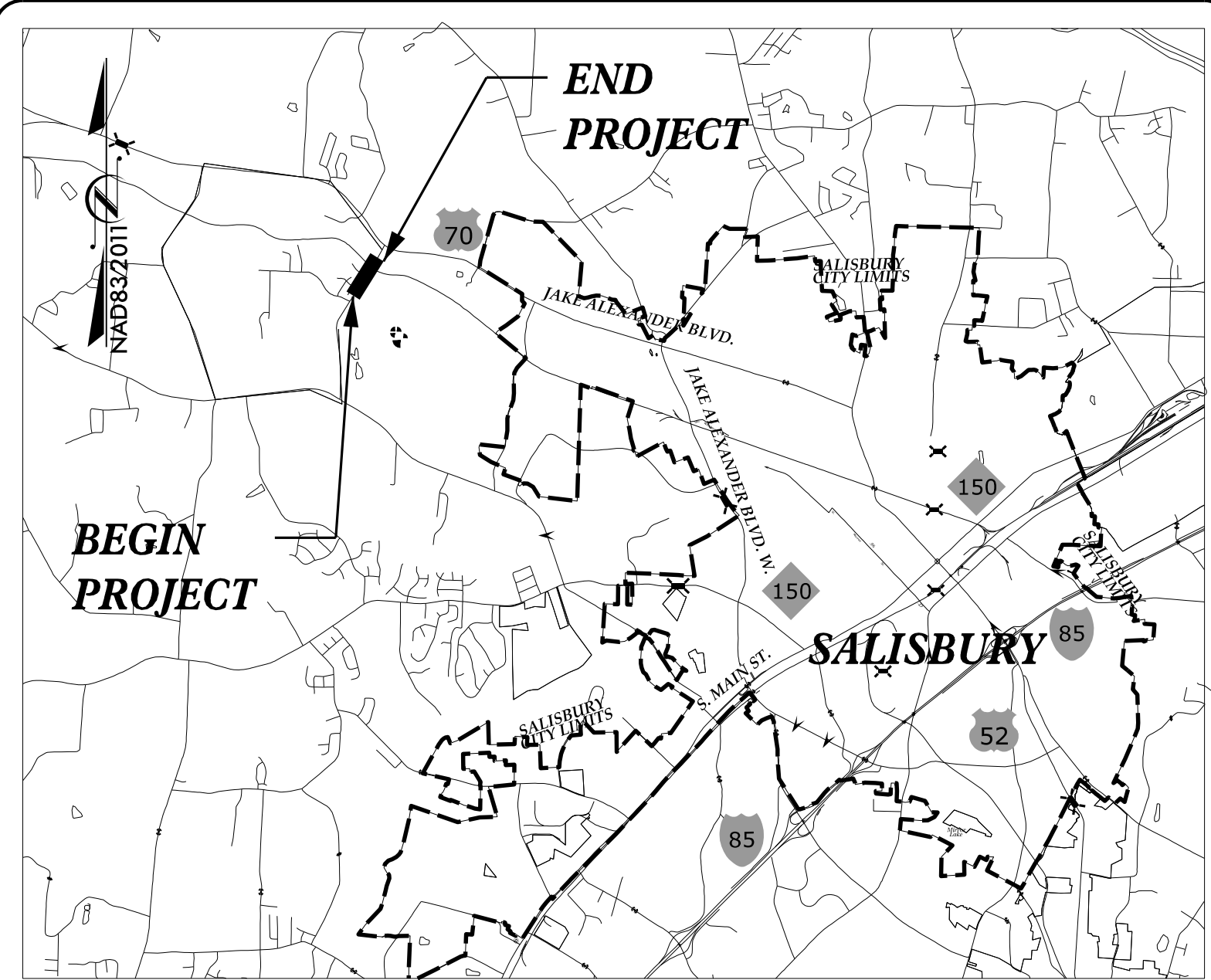


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**TIP PROJECT: B-5772**



**VICINITY MAP**

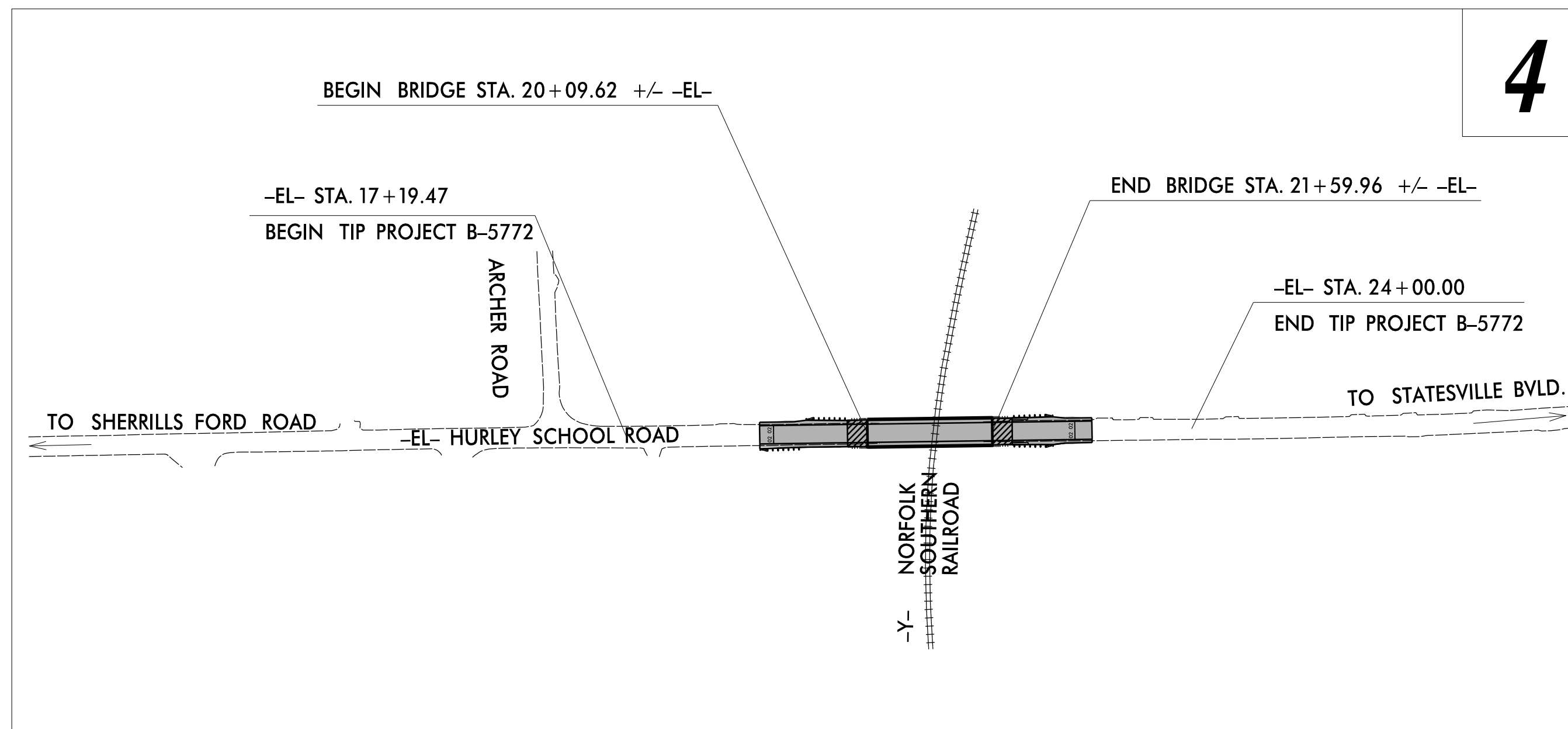
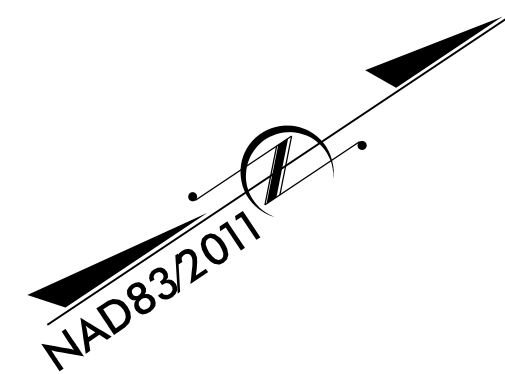
OFF SITE DETOUR

**90% PLAN SUBMITTAL**

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

**LOCATION: BRIDGE NO. 66 ON SR 1724 (HURLEY SCHOOL ROAD)  
OVER NORFOLK SOUTHERN RAILROAD**

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



**4**

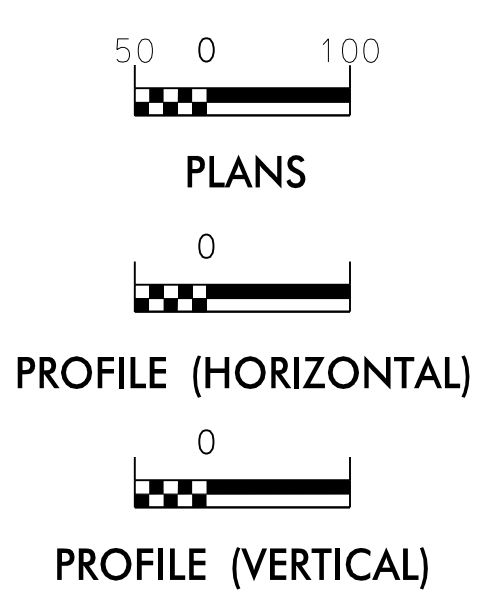
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|-----------------|-----------------------------|-------------|--------------|
| STATE           | STATE PROJECT REFERENCE NO. | SHEET NO.   | TOTAL SHEETS |
| N.C.            | B-5772                      | EC-1        | 9            |
| STATE PROJ. NO. | F.A. PROJ. NO.              | DESCRIPTION |              |
| 45728.1.2       |                             | P.E.        |              |
| 45728.2.1       | 1724002                     | ROW         |              |
| 45728.2.2       | 1724002                     | UTILITIES   |              |
| 45728.3.1       | 1724002                     | CONST.      |              |

**EROSION AND SEDIMENT CONTROL MEASURES**

| Std. #  | Description  | Symbol      |
|---------|--|-------------|
| 1630.05 | 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                                       | TBD         |
| 1630.02 | Silt Basin Type B  | [Symbol]    |
| 1633.01 | Temporary Rock Silt Check Type-A                                       | [Symbol]    |
|         | Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM) | [Symbol]    |
| 1633.02 | Temporary Rock Silt Check Type-B                                       | [Symbol]    |
|         | Wattle / Coir Fiber Wattle   | [Symbol]    |
|         | Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)                   | [Symbol]    |
| 1634.01 | Temporary Rock Sediment Dam Type-A                                     | [Symbol]    |
| 1634.02 | Temporary Rock Sediment Dam Type-B                                     | [Symbol]    |
| 1635.01 | Rock Pipe Inlet Sediment Trap Type-A                                   | [Symbol]    |
| 1635.02 | Rock Pipe Inlet Sediment Trap Type-B                                   | [Symbol]    |
| 1630.04 | Stilling Basin   | [Symbol]    |
| 1630.06 | Special Stilling Basin   | [Symbol]    |
|         | Rock Inlet Sediment Trap:  |             |
| 1632.01 | Type A   | A [Symbol]  |
| 1632.02 | Type B   | B [Symbol]  |
| 1632.03 | Type C   | C [Symbol]  |
|         | Skimmer Basin  | [Symbol]    |
|         | Tiered Skimmer Basin   | [Symbol]    |
|         | Infiltration Basin   | [Symbol]    |

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

**GRAPHIC SCALE**



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:  
**DAVENPORT**  
119 BROOKSTOWN AVENUE, SUITE PH1  
WINSTON-SALEM, NC 27101  
336.744.1636 www.davenportworld.com  
NCBELS FIRM LICENSE NO. C-2522

Designed by:  
**RICHARD BUTT, PE** 4229  
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:

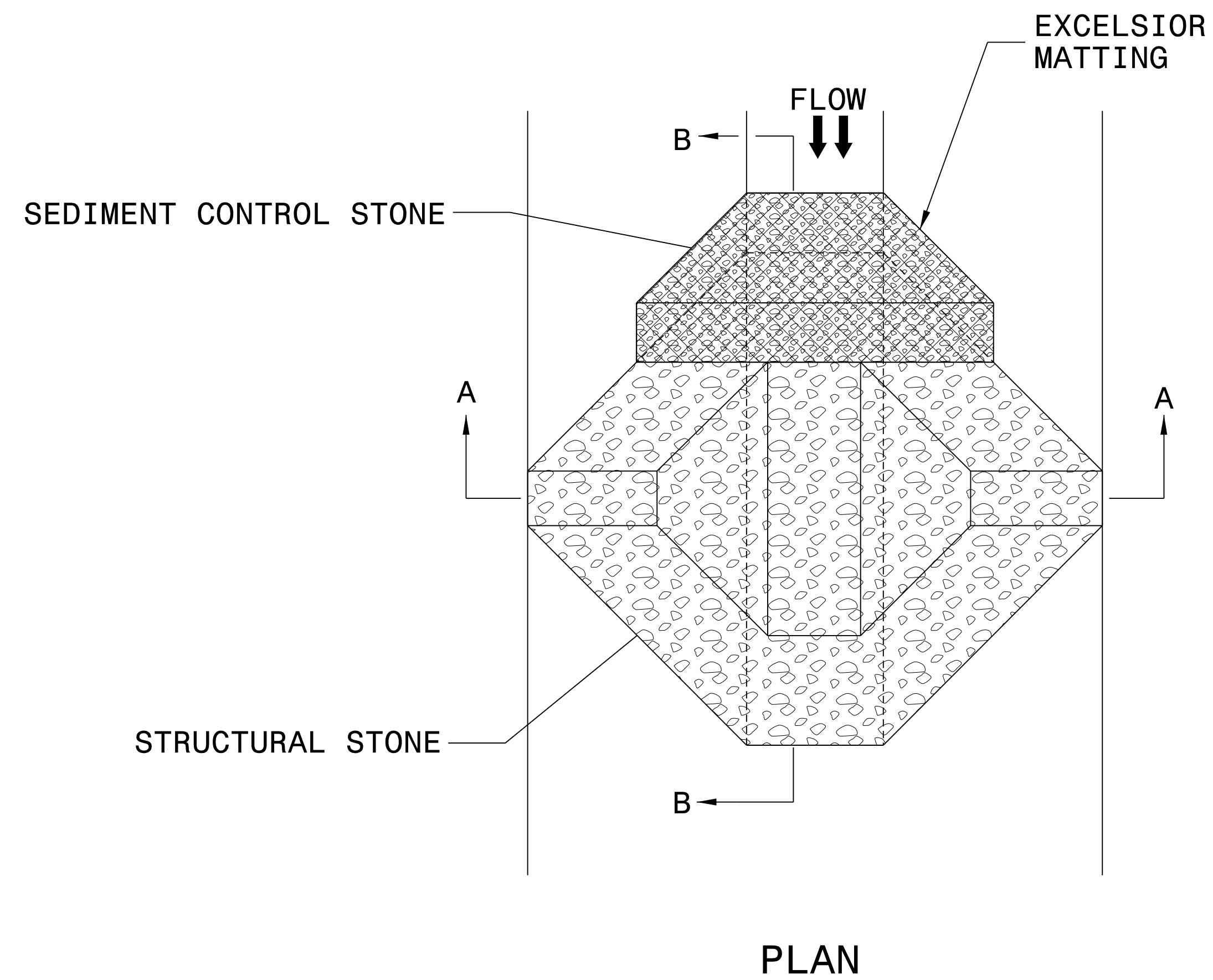
Roadway Standard Drawings

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 Wattle                    |
| 1630.06 Special Stilling Basin           | 1645.01 Temporary Stream Crossing            |
| 1631.01 Matting Installation             |  |

|  |                    |
|--|--------------------|
| PROJECT REFERENCE NO.<br>B-5772        | SHEET NO.<br>EC-2A |
| RW SHEET NO.<br>HYDRAULICS<br>ENGINEER |                    |

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



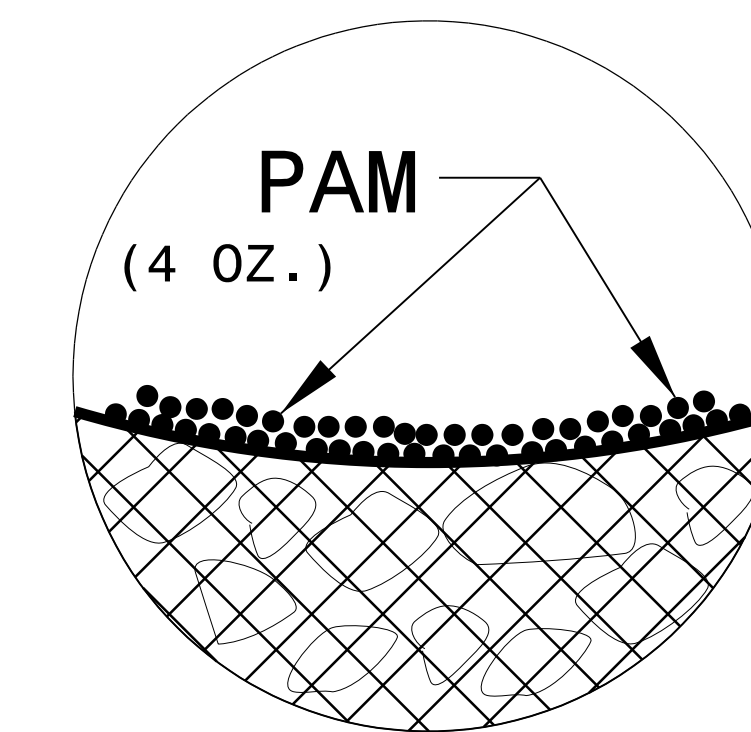
## NOTES:

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

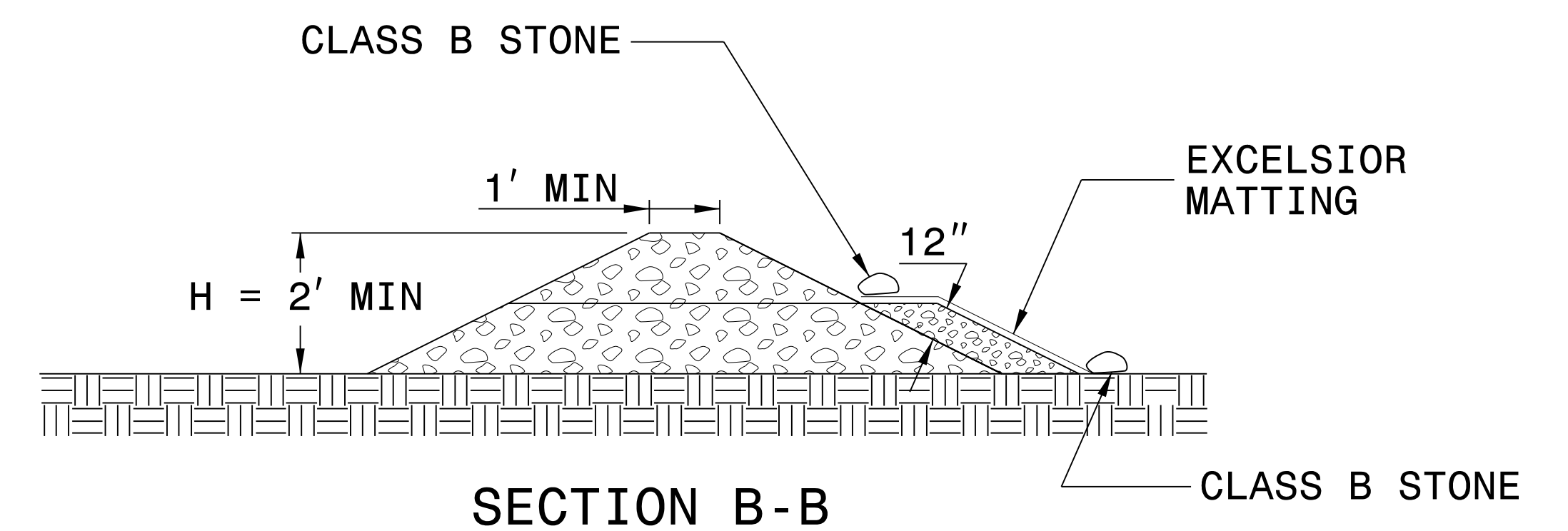
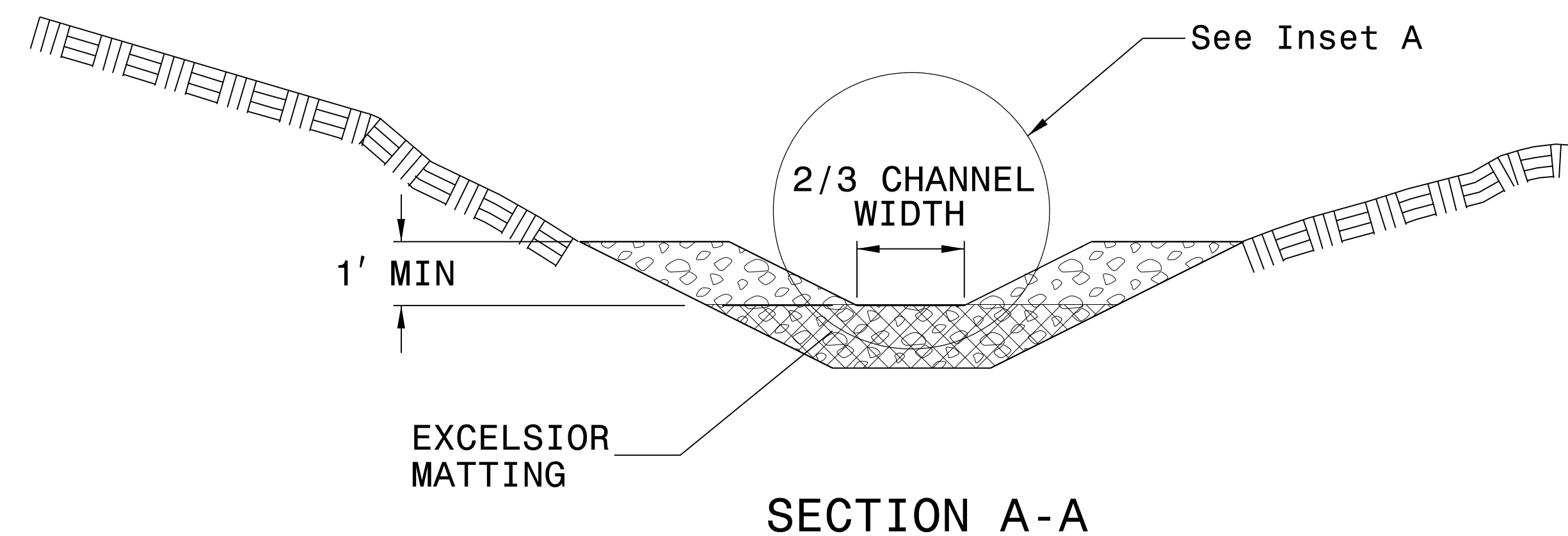
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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.



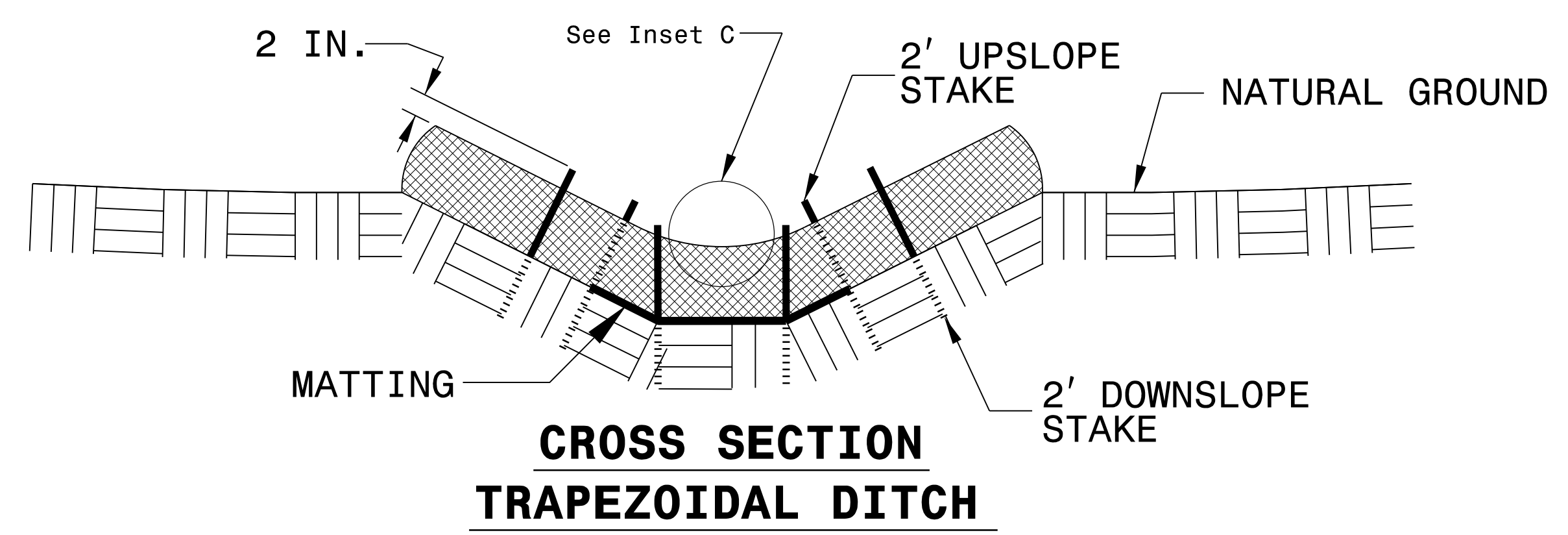
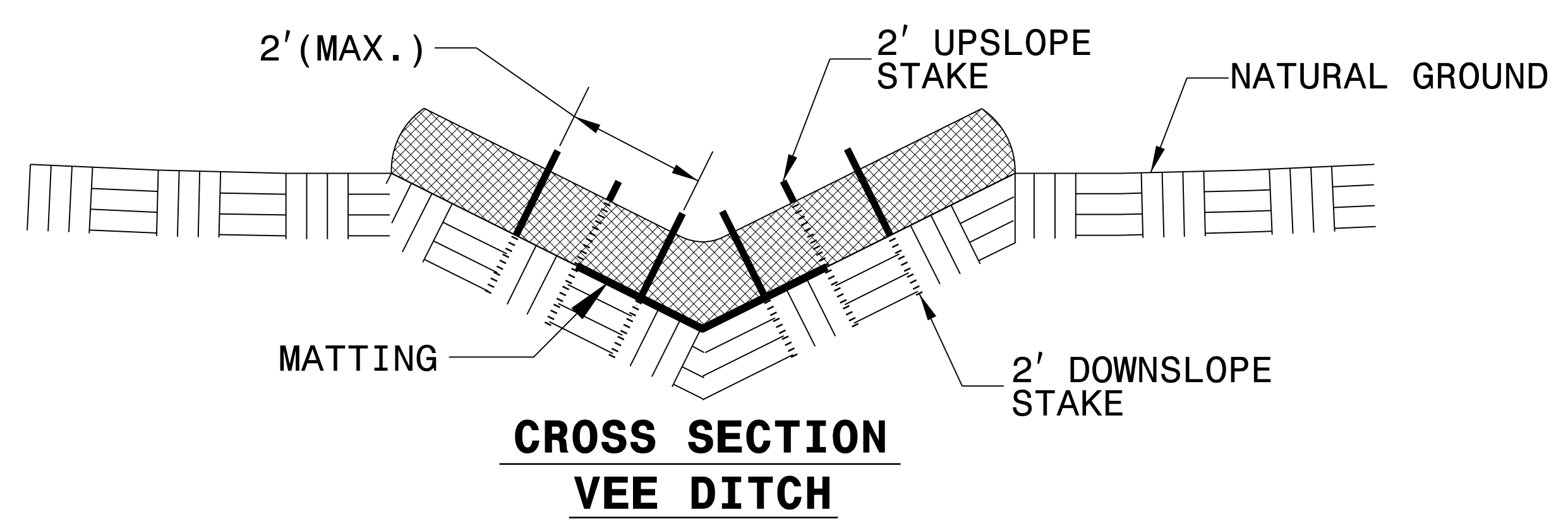
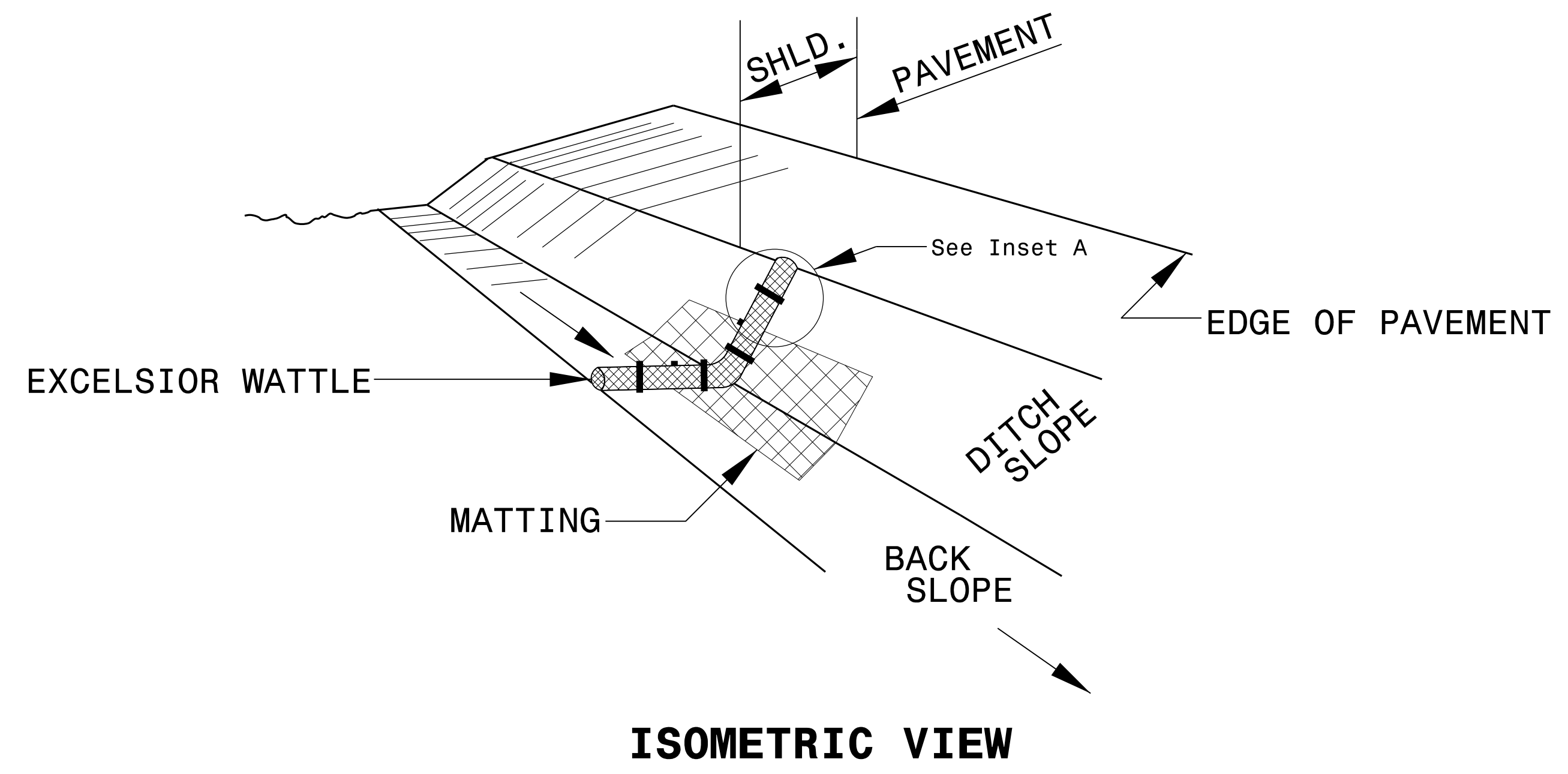
INSET A



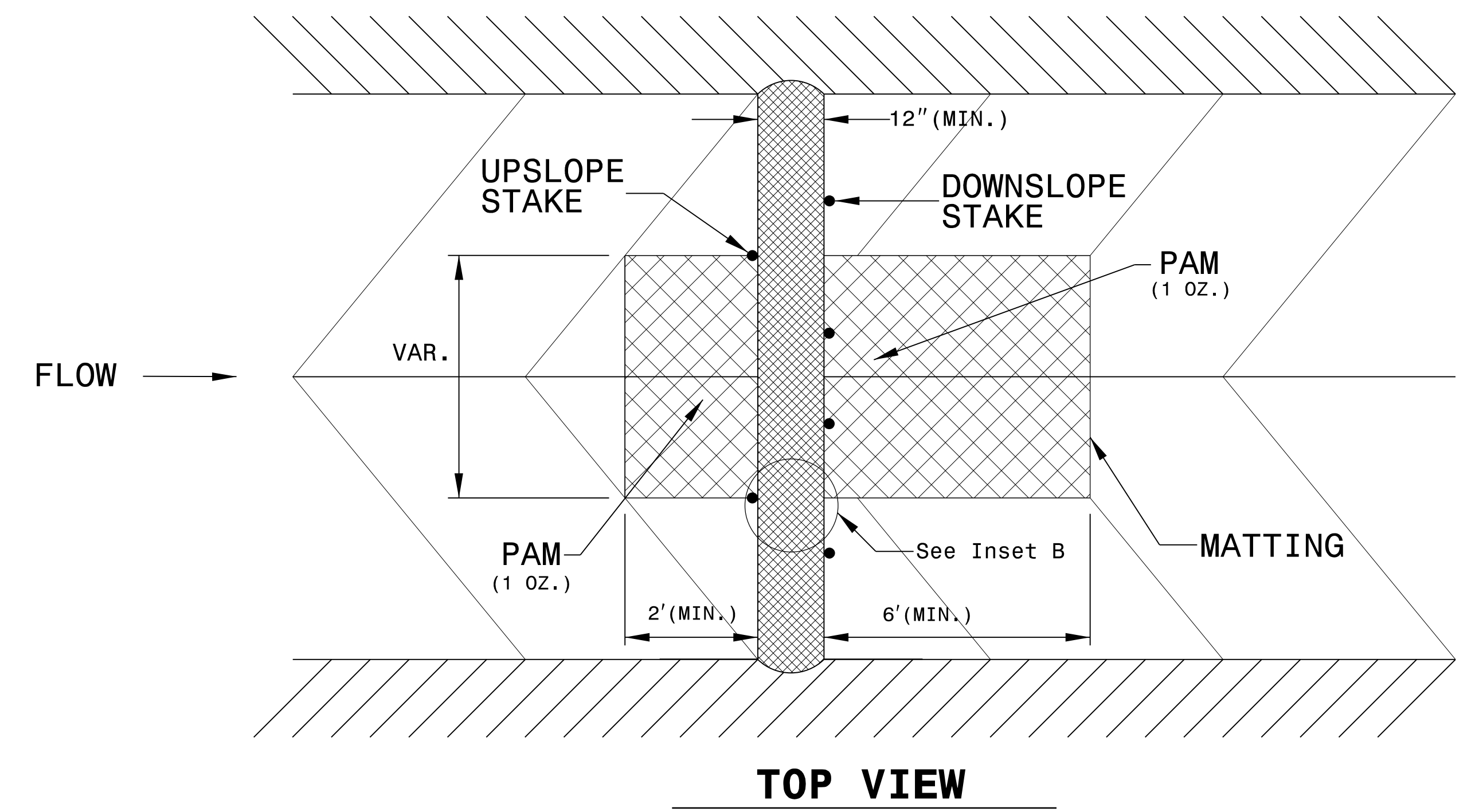
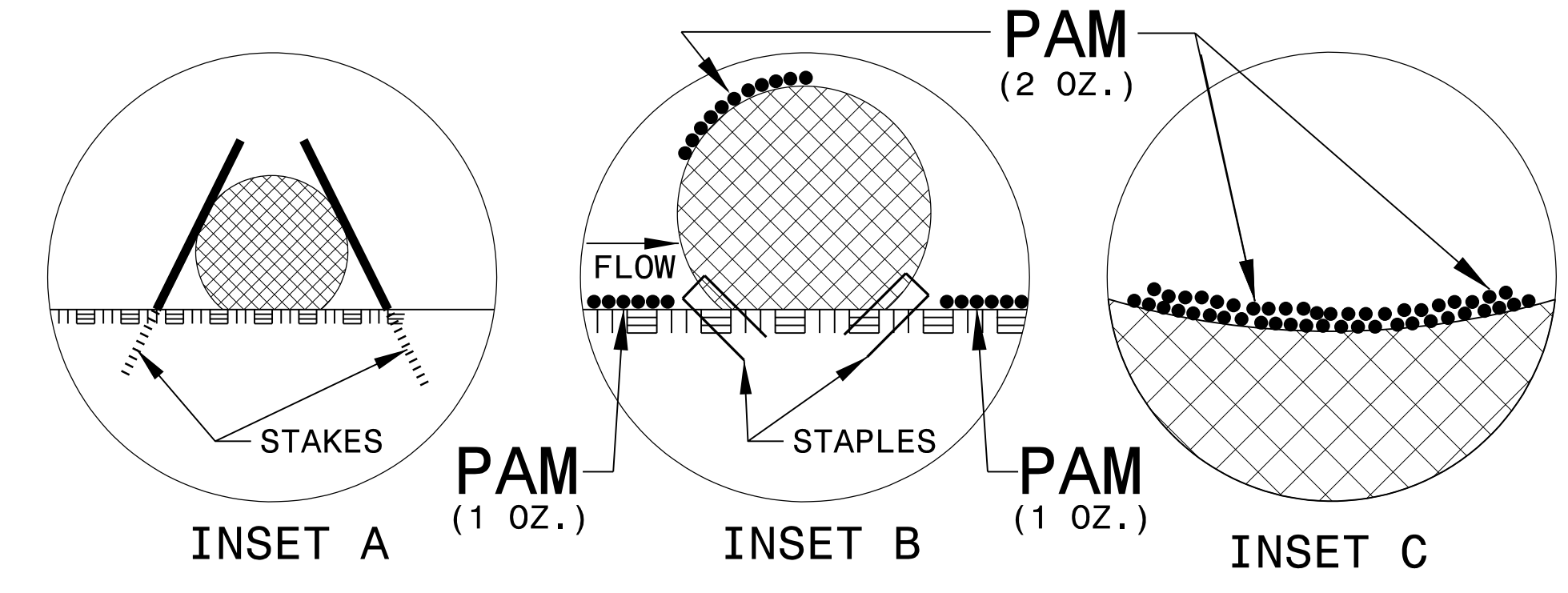
NOT TO SCALE

|  |                    |
|--|--------------------|
| PROJECT REFERENCE NO.<br>B-5772        | SHEET NO.<br>EC-2B |
| RW SHEET NO.<br>HYDRAULICS<br>ENGINEER |                    |

# WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL

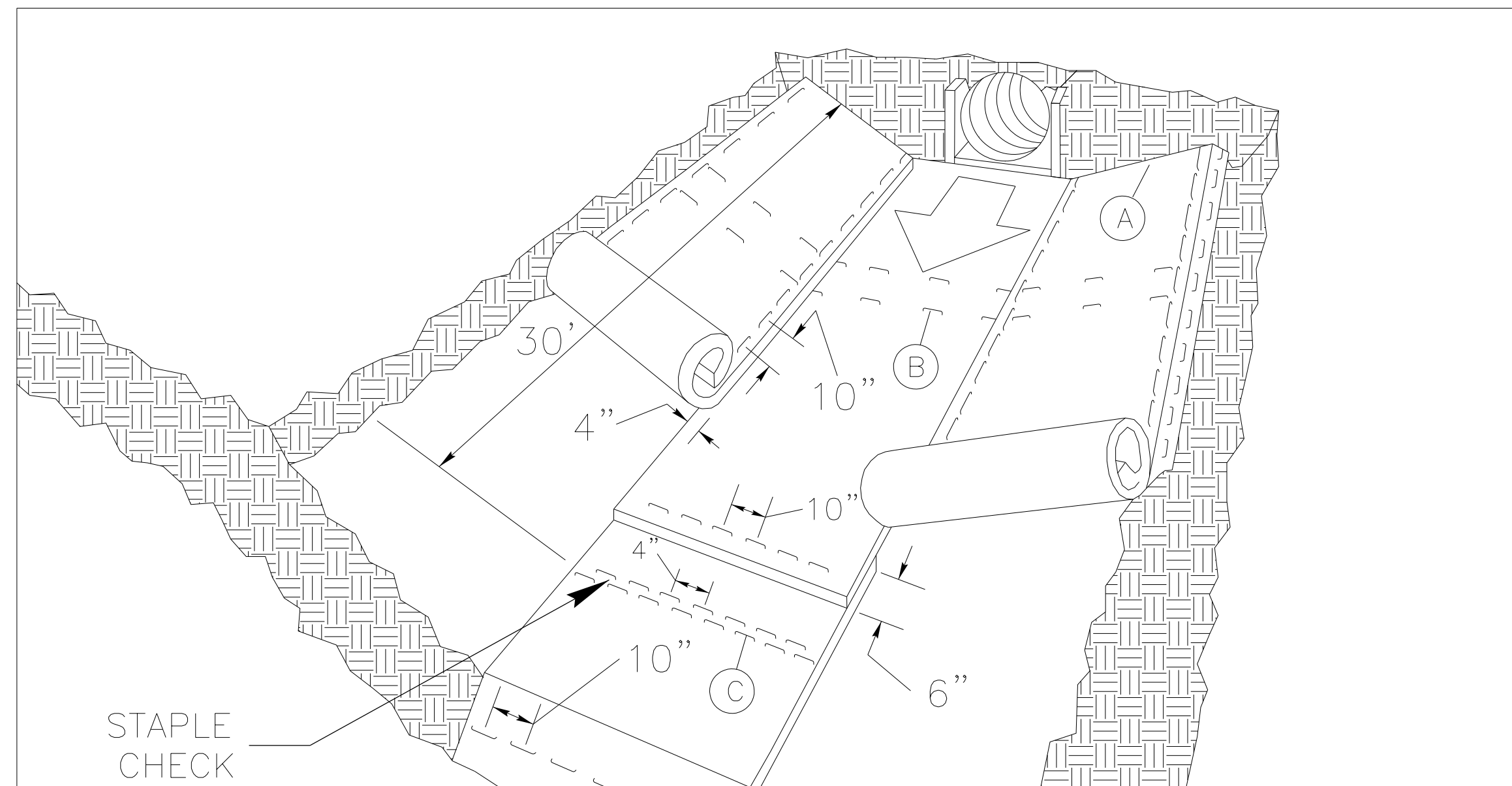


- NOTES:
- USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.
  - USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
  - ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
  - INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 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.



NOT TO SCALE

# MATTING INSTALLATION DETAIL



**MATTING IN DITCHES**

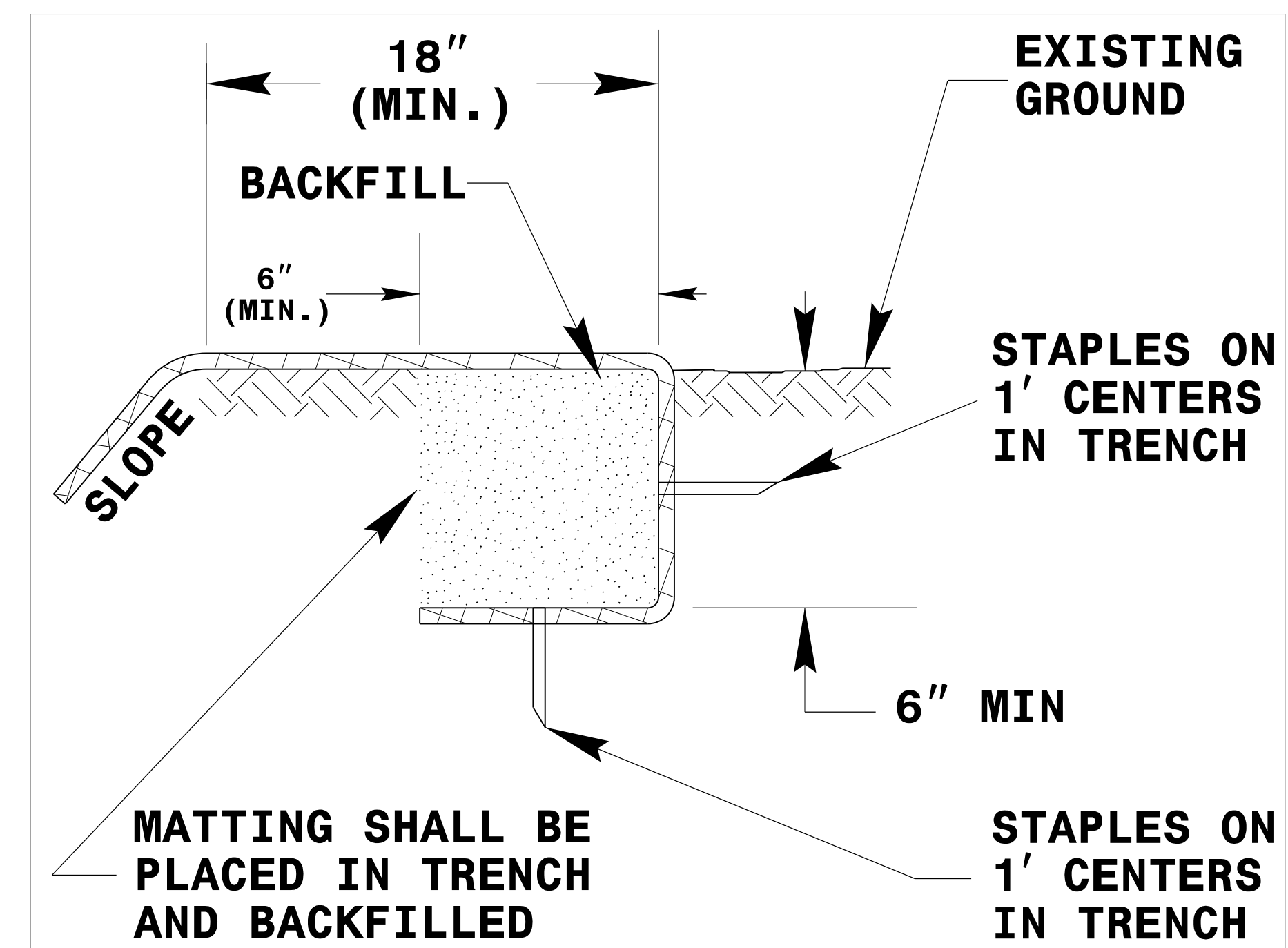
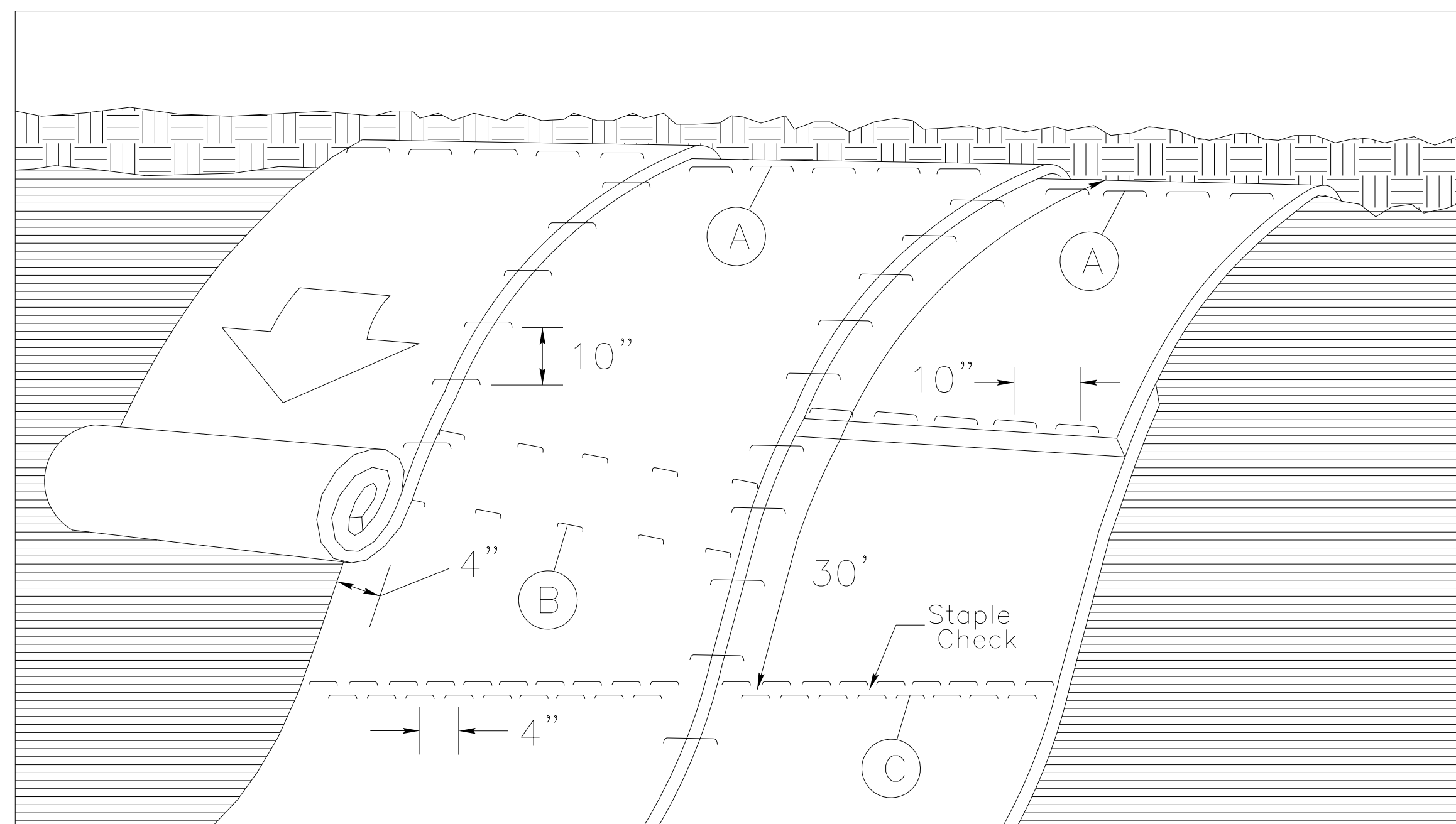


DIAGRAM (A)



**MATTING ON SLOPES**

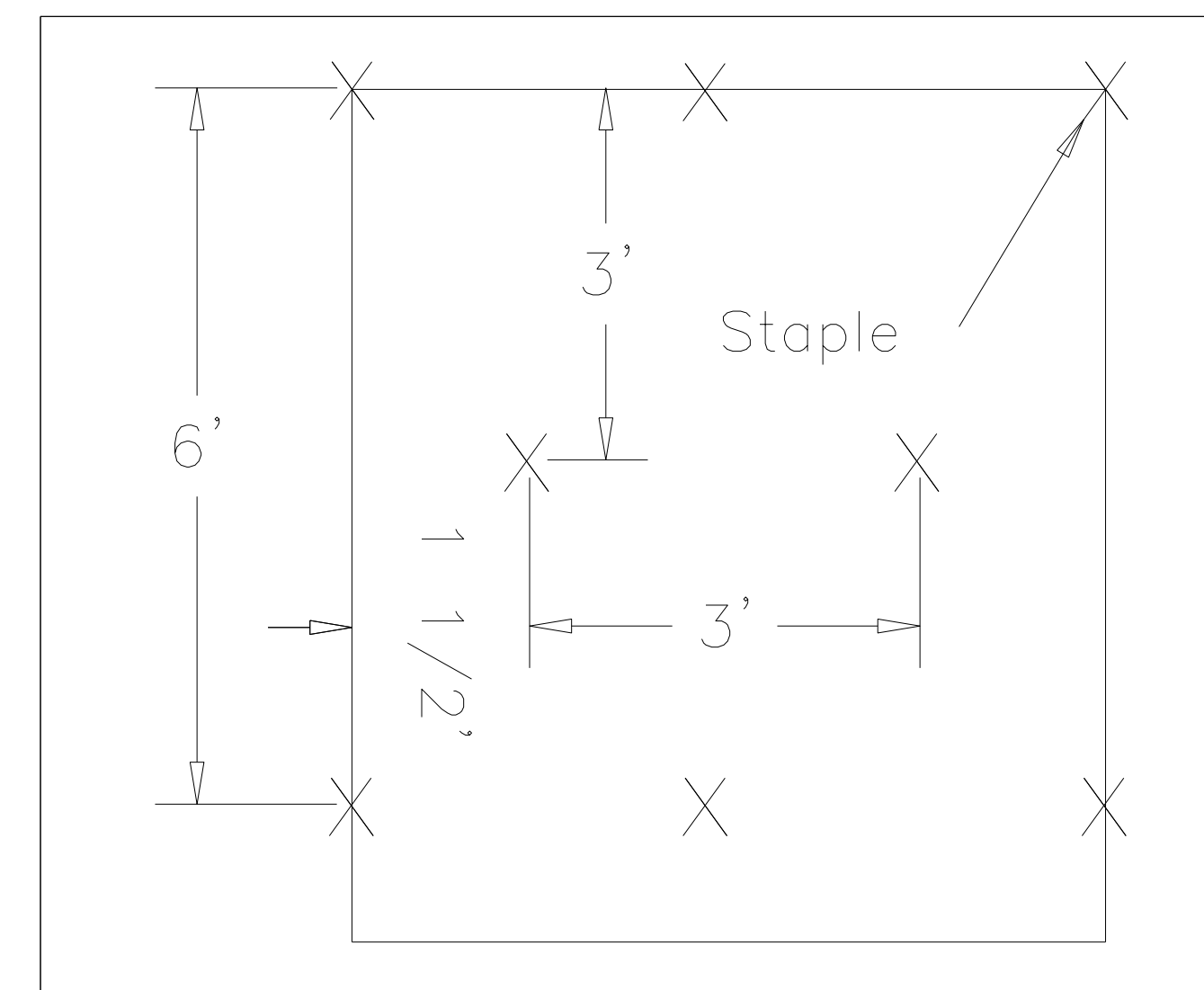


DIAGRAM (B)

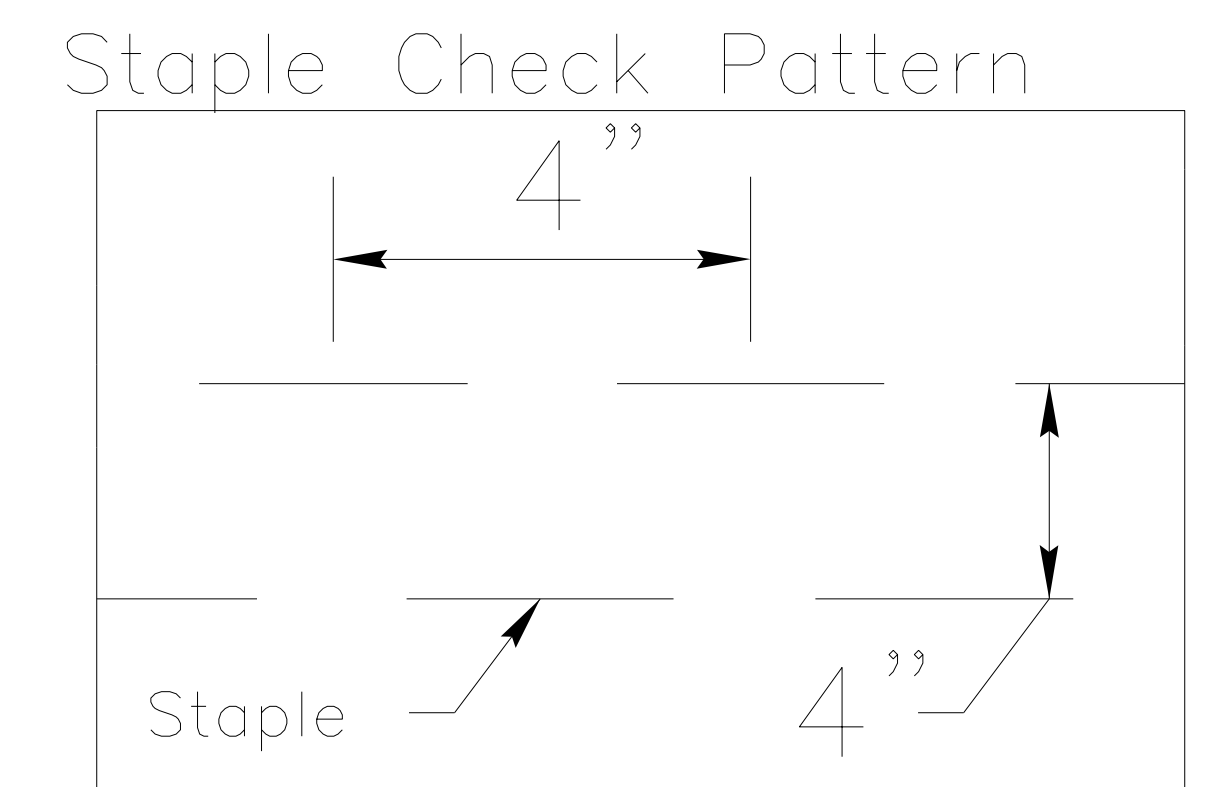
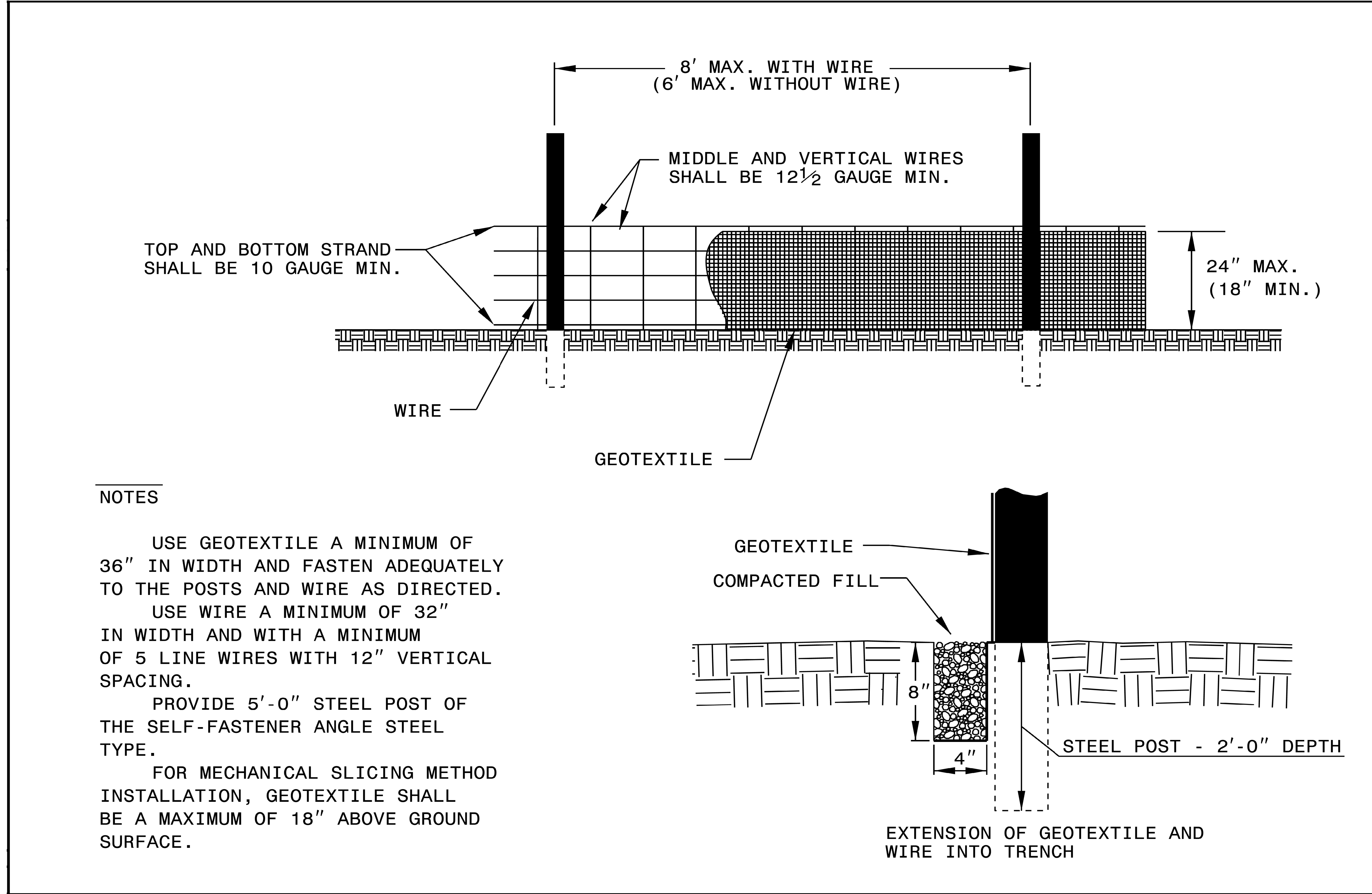


DIAGRAM (C)

**NOTES:**

THIS DETAIL APPLIES TO STRAW, EXCELSIOR, AND PERMANENT SOIL REINFORCEMENT MAT (PSRM) INSTALLATION.  
 STAPLES SHALL BE NO. 11 GAUGE STEEL WIRE FORMED INTO A "U" SHAPE WITH A MINIMUM THROAT WIDTH OF 1 INCH AND NOT LESS THAN 6 INCHES IN LENGTH.



**NOTES**

USE GEOTEXTILE A MINIMUM OF 36" IN WIDTH AND FASTEN ADEQUATELY TO THE POSTS AND WIRE AS DIRECTED.

USE WIRE A MINIMUM OF 32" IN WIDTH AND WITH A MINIMUM OF 5 LINE WIRES WITH 12" VERTICAL SPACING.

PROVIDE 5'-0" STEEL POST OF THE SELF-FASTENER ANGLE STEEL TYPE.

FOR MECHANICAL SLICING METHOD INSTALLATION, GEOTEXTILE SHALL BE A MAXIMUM OF 18" ABOVE GROUND SURFACE.

1-18  
STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR  
**TEMPORARY SILT FENCE**







DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

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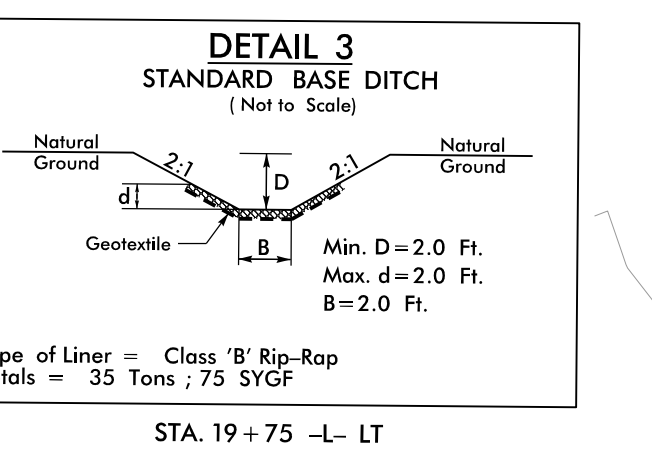
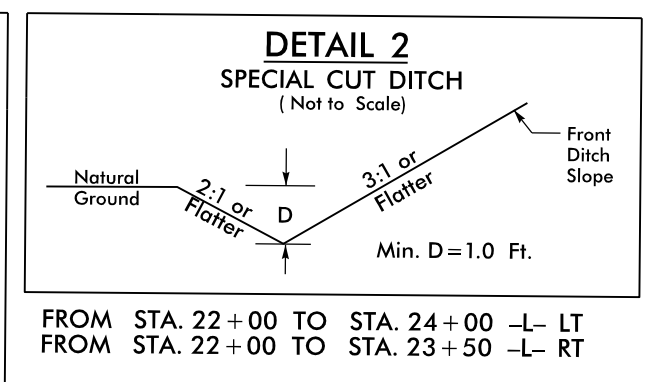
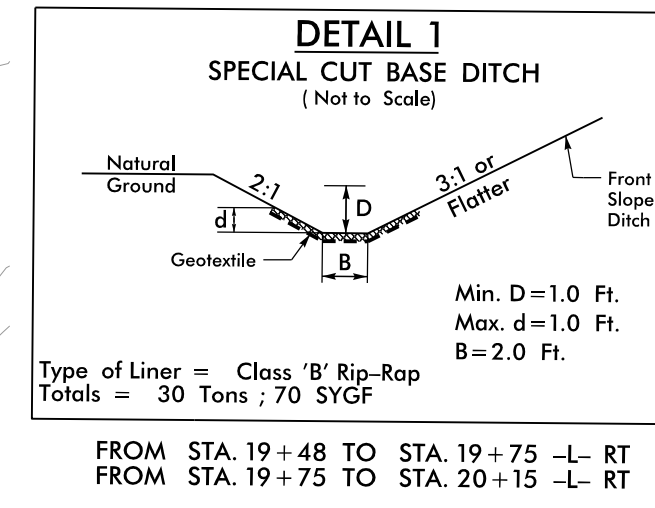
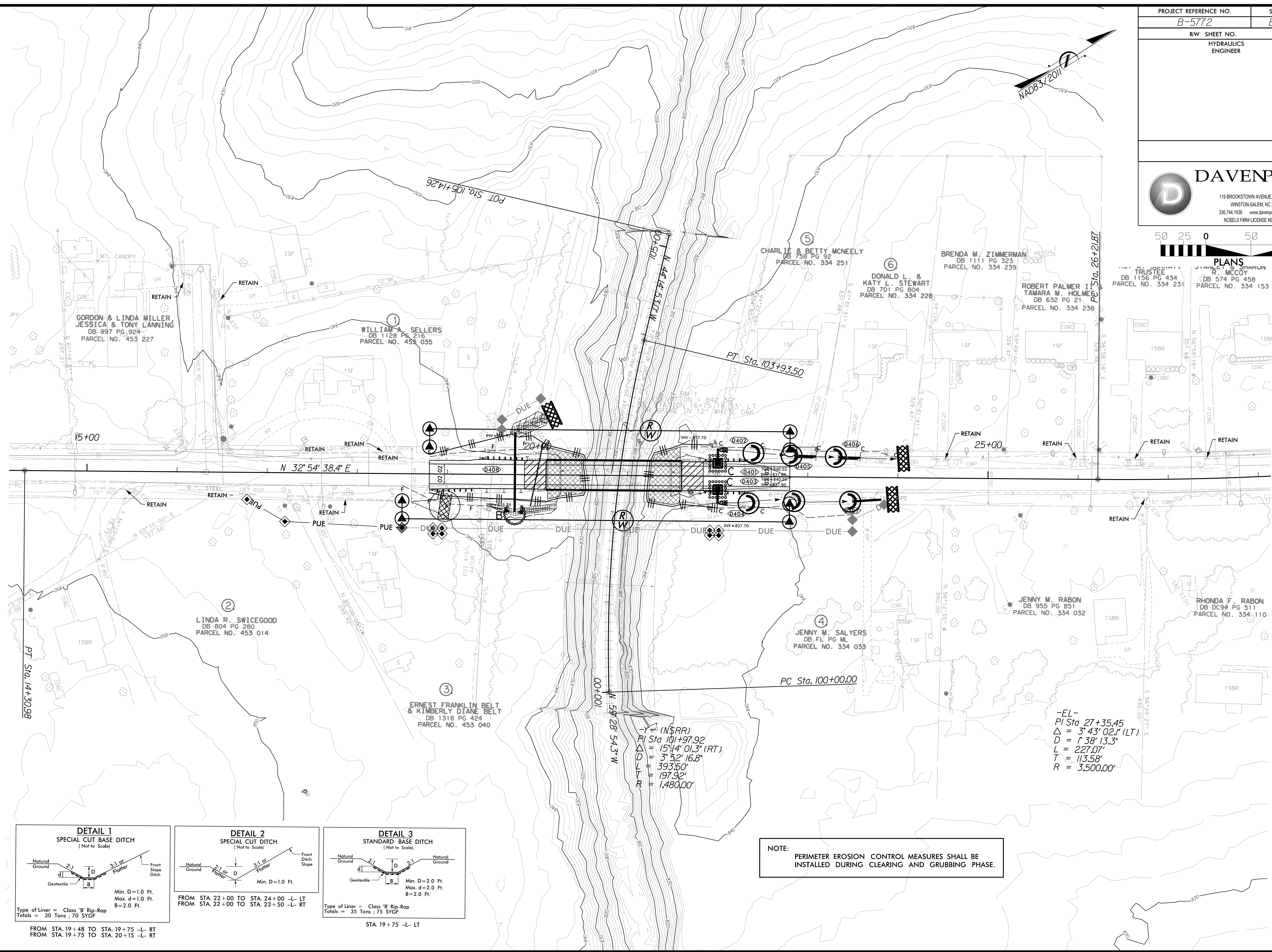
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| PROJECT REFERENCE NO.  | SHEET NO.    |
| <i>B-5772</i>          | <i>EC-3B</i> |
| RW SHEET NO.           |              |
| HYDRAULICS<br>ENGINEER |              |

# ***SOIL STABILIZATION TIMEFRAMES***

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



**PLANS**  
 TRUSTEE R. MCCOY DB 1156 PG 434 PARCEL NO. 334 231  
 JIMMIE B. SHANKLIN DB 574 PG 458 PARCEL NO. 334 153  
 CHARLIE & BETTY MCNEELY DB 758 PG 92 PARCEL NO. 334 251  
 DONALD L. & KATY L. STEWART DB 701 PG 804 PARCEL NO. 334 228  
 BRENDA M. ZIMMERMAN DB 1111 PG 323 PARCEL NO. 334 239  
 ROBERT PALMER I. TAMARA M. HOLMES DB 632 PG 21 PARCEL NO. 334 238



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

-EL-  
 PI Sta 27+35.45  
 $\Delta = 3' 43' 02.1''$  (LT)  
 $D = 1' 38' 13.3''$   
 $L = 227.07'$   
 $T = 113.58'$   
 $R = 3,500.00'$

(N&RR)  
 PI Sta 101+97.92  
 $\Delta = 15' 4' 01.3''$  (RT)  
 $D = 3' 52' 16.8''$   
 $L = 393.50'$   
 $T = 197.92'$   
 $R = 1,480.00'$