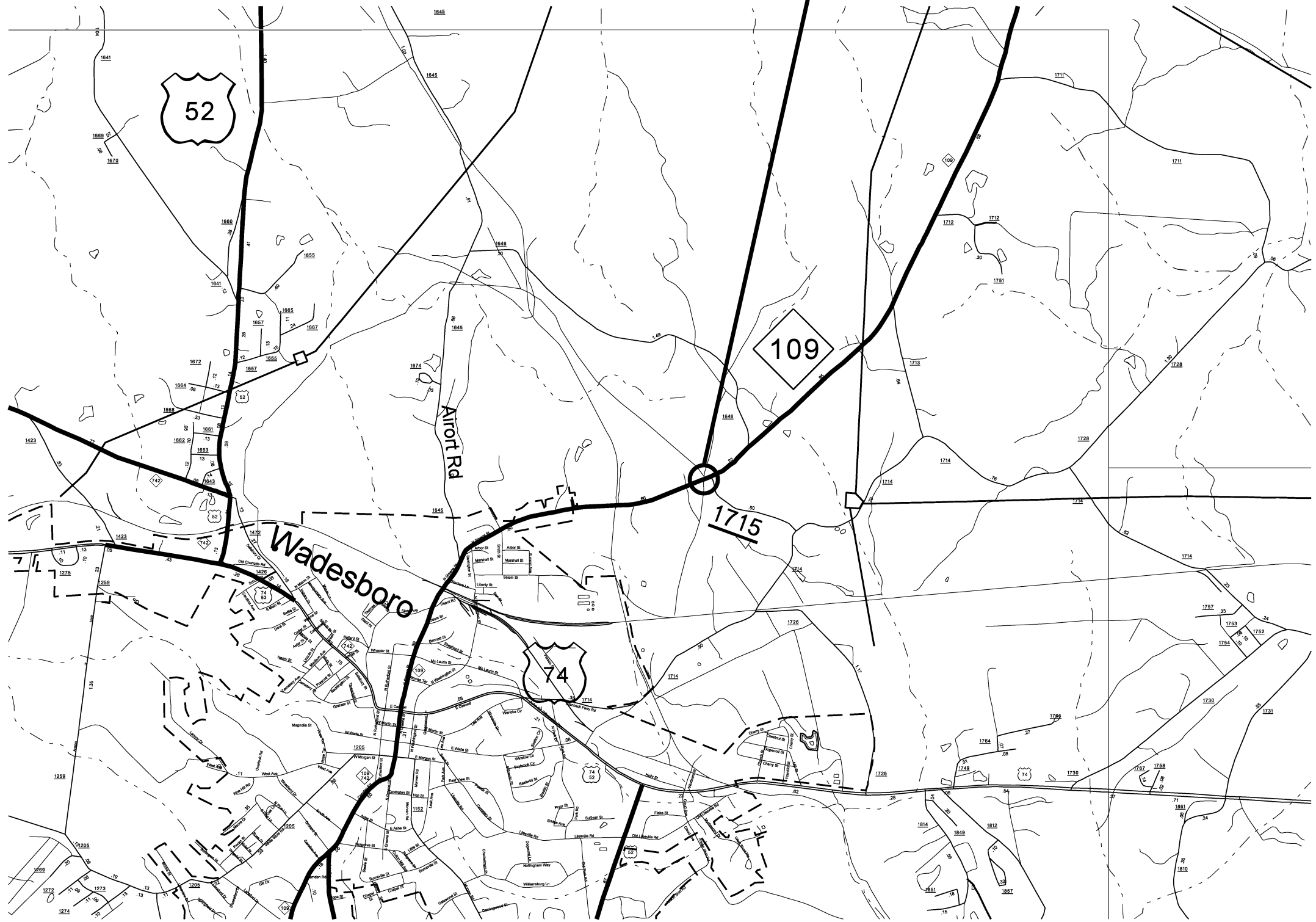


STATE	PURCHASE ORDER NO.	SHEET NO.	TOTAL SHEETS
N.C.			
F.A. PROJECT NO. WBS # 15410.1004026			

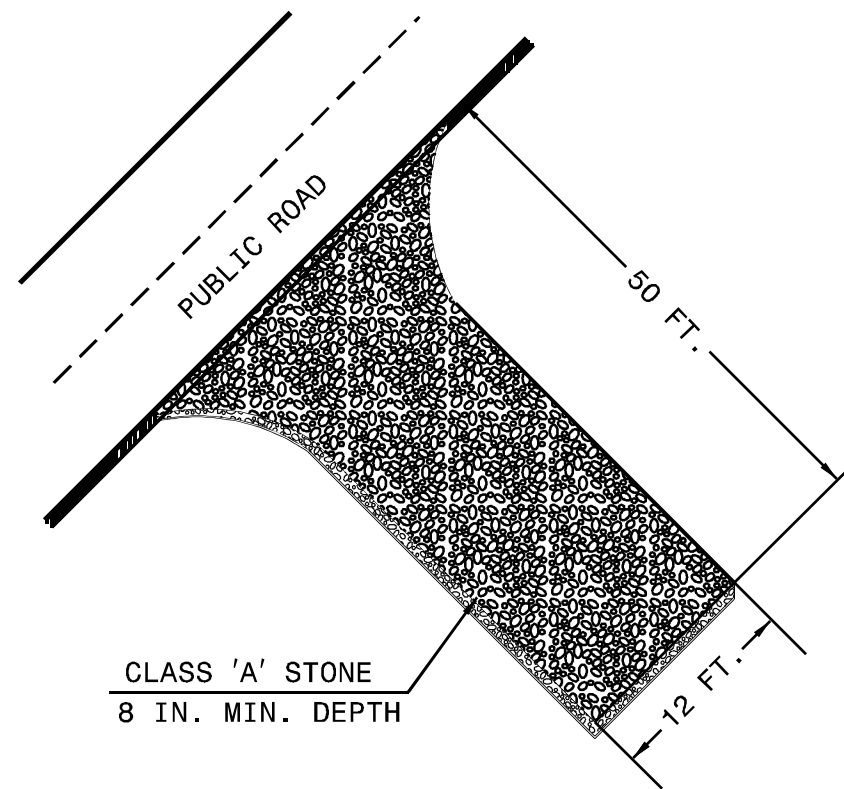
PROJECT SITE



ENLARGED MUNICIPAL AND SUBURBAN AREAS  
**ANSON COUNTY**  
 NORTH CAROLINA

PREPARED BY THE  
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS - DIVISION 10 DISTRICT 3

**TRENCHLESS INSTALLATION  
 OF 90' X 36"  
 WELDED STEEL DRAINAGE PIPE  
 LOCATED APPROXIMATELY 300'  
 SOUTHWEST OF SR 1715**



NOTES

1. PROVIDE TURNING RADIUS SUFFICIENT TO ACCOMMODATE LARGE TRUCKS.
2. LOCATE ENTRANCES TO PROVIDE FOR UTILIZATION BY ALL CONSTRUCTION VEHICLES.
3. MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOPDRESSING WITH STONE WILL BE NECESSARY.
4. ANY MATERIAL TRACKED ONTO THE ROADWAY MUST BE CLEANED UP IMMEDIATELY.
5. LOCATE GRAVEL CONSTRUCTION ENTRANCE AT ALL POINTS OF INGRESS AND EGRESS UNTIL SITE IS STABILIZED. PROVIDE FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE.
6. NUMBER AND LOCATION OF CONSTRUCTION ENTRANCES TO BE DETERMINED BY THE ENGINEER.
7. USE CLASS 'A' STONE OR OTHER COARSE AGGREGATE APPROVED BY THE ENGINEER.
8. INSTALL CONSTRUCTION ENTRANCES IN A WAY TO PREVENT VEHICLES FROM BYPASSING CONSTRUCTION ENTRANCE LEAVING PROJECT SITE.

NOTE: PLACE GEOTEXTILE FOR DRAINAGE BENEATH STONE

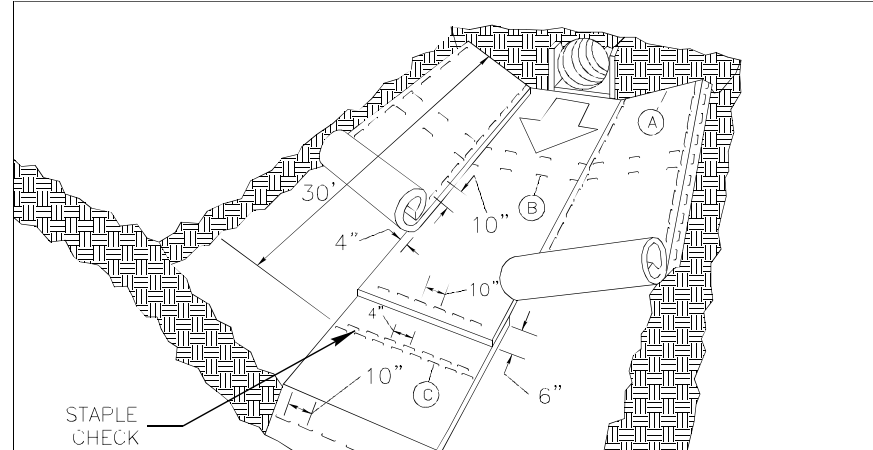
1-18

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

ROADWAY STANDARD DRAWING FOR  
**GRAVEL CONSTRUCTION ENTRANCE**

SHEET 1 OF 1

**1607.01**



**MATTING IN DITCHES**

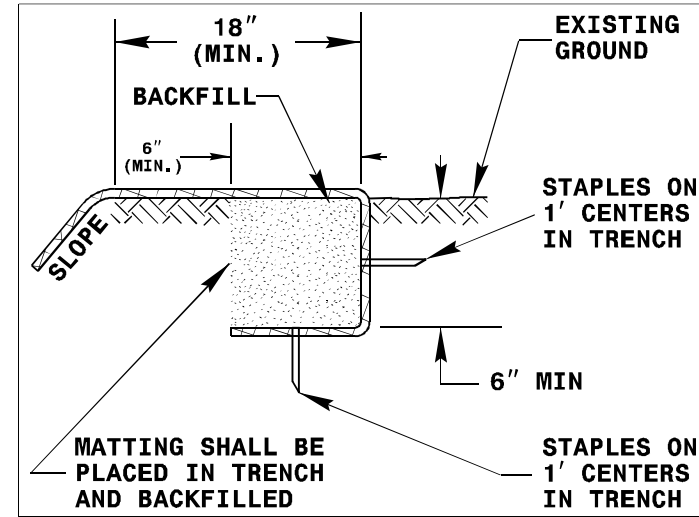
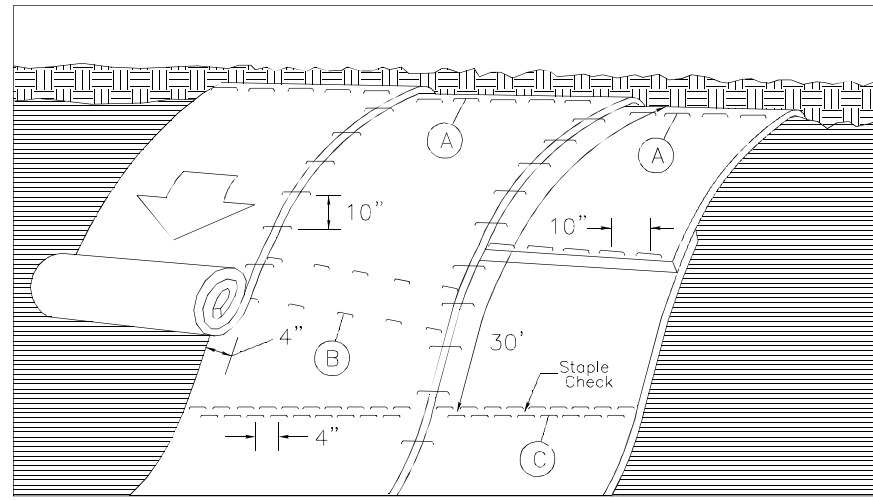


DIAGRAM (A)



**MATTING ON SLOPES**

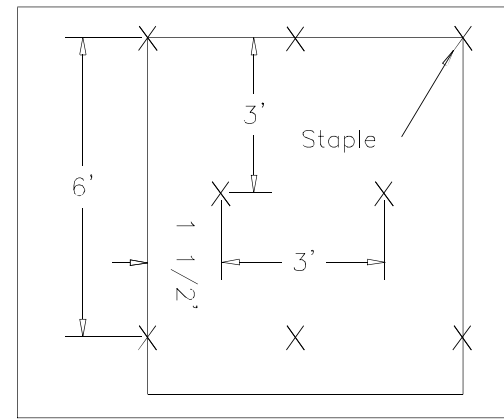


DIAGRAM (B)

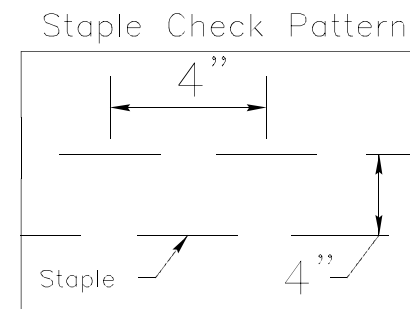


DIAGRAM (C)

**NOTES**

THIS DETAIL APPLIES TO STRAW, EXCELSIOR, COIR FIBER MAT AND PERMANENT SOIL REINFORCEMENT MAT (PSRM) INSTALLATION AND AS DIRECTED.

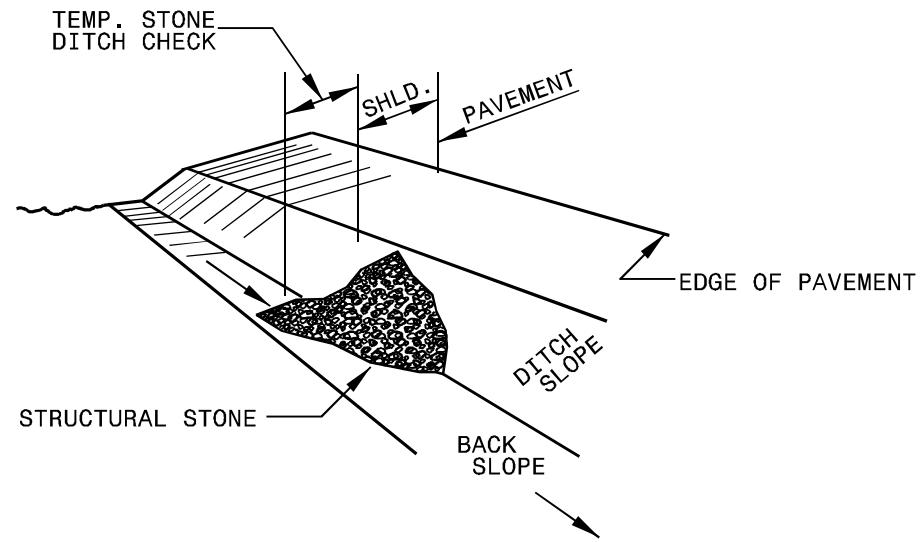
STAPLES SHALL BE NO. 11 GAUGE STEEL WIRE FORMED INTO A "U" SHAPE WITH A MINIMUM THROAT WIDTH OF 1 INCH AND NOT LESS THAN 6 INCHES IN LENGTH.

NOT TO SCALE

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

ROADWAY STANDARD DRAWING FOR MATTING INSTALLATION

SHEET 1 OF 1 1631.01

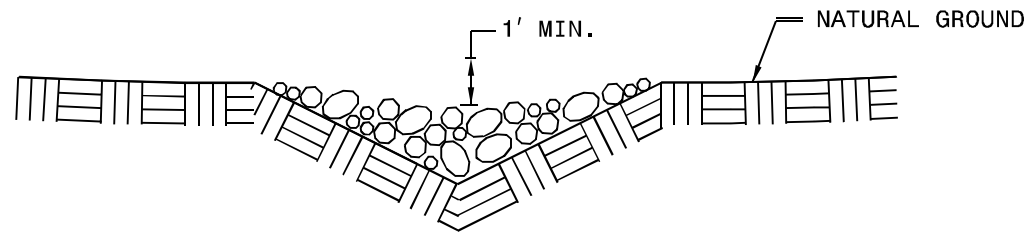


**ISOMETRIC VIEW**

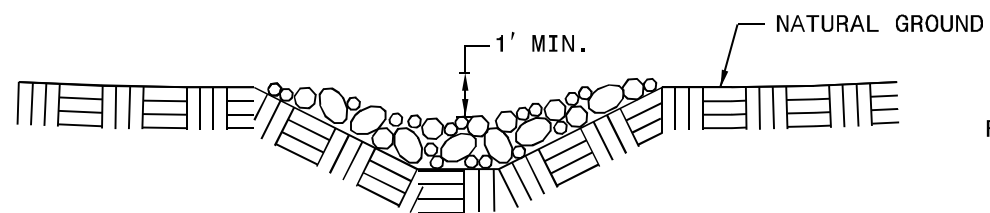
**NOTES**

USE CLASS B EROSION CONTROL STONE FOR STRUCTURAL STONE.

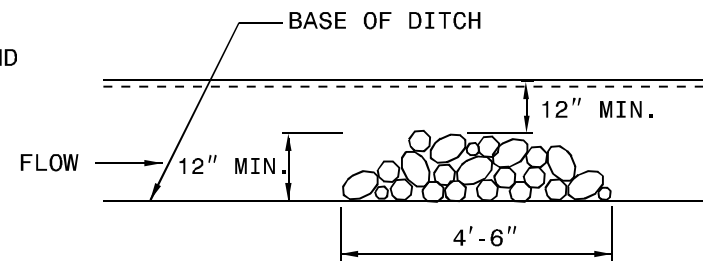
THE ENGINEER MAY DIRECT THE OPTION OF CLASS A STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



**CROSS SECTION VEE DITCH**



**CROSS SECTION TRAPEZOIDAL DITCH**

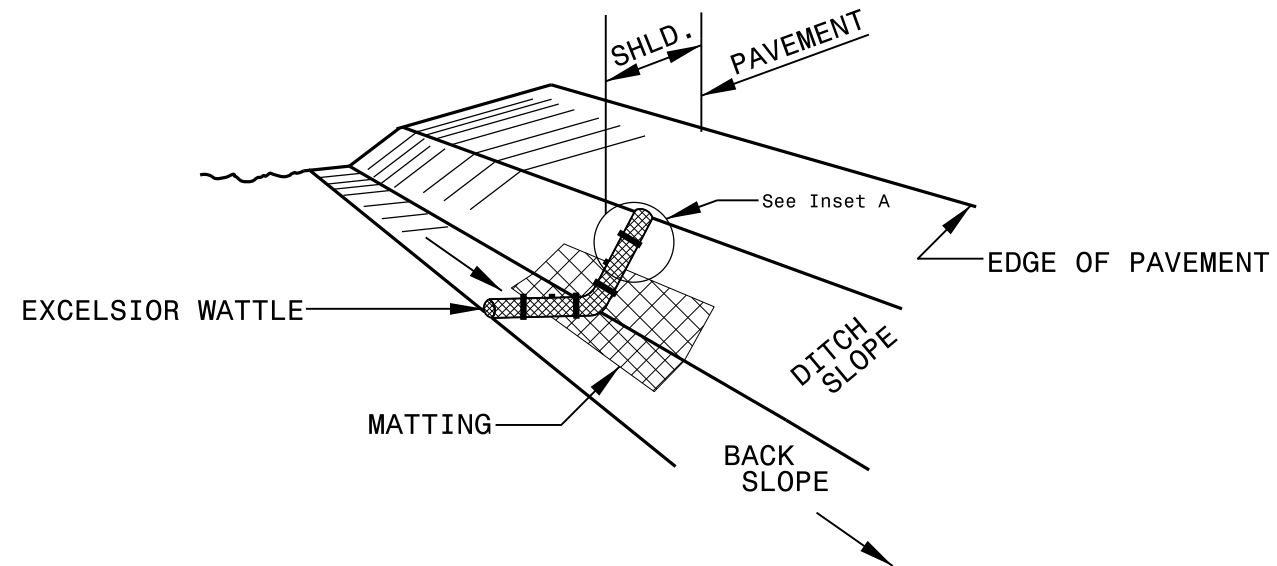


**ELEVATION VIEW**

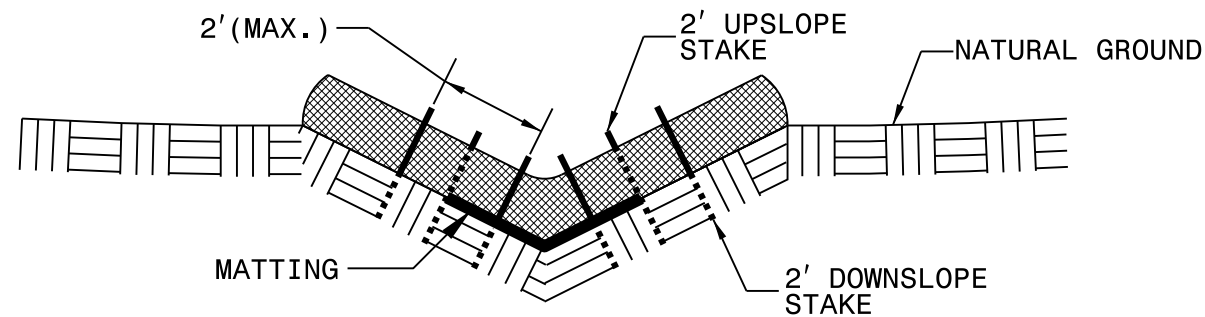
1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR  
**TEMPORARY ROCK SILT CHECK TYPE B**

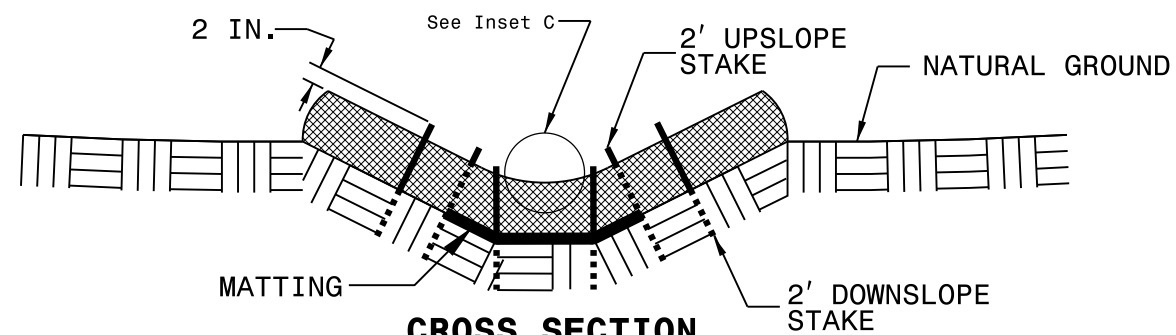
# WATTLE WITH POLYACRYLAMIDE DETAIL



**ISOMETRIC VIEW**



**CROSS SECTION  
VEE DITCH**



**CROSS SECTION  
TRAPEZOIDAL DITCH**

**NOTES:**

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. CROSS SECTION.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

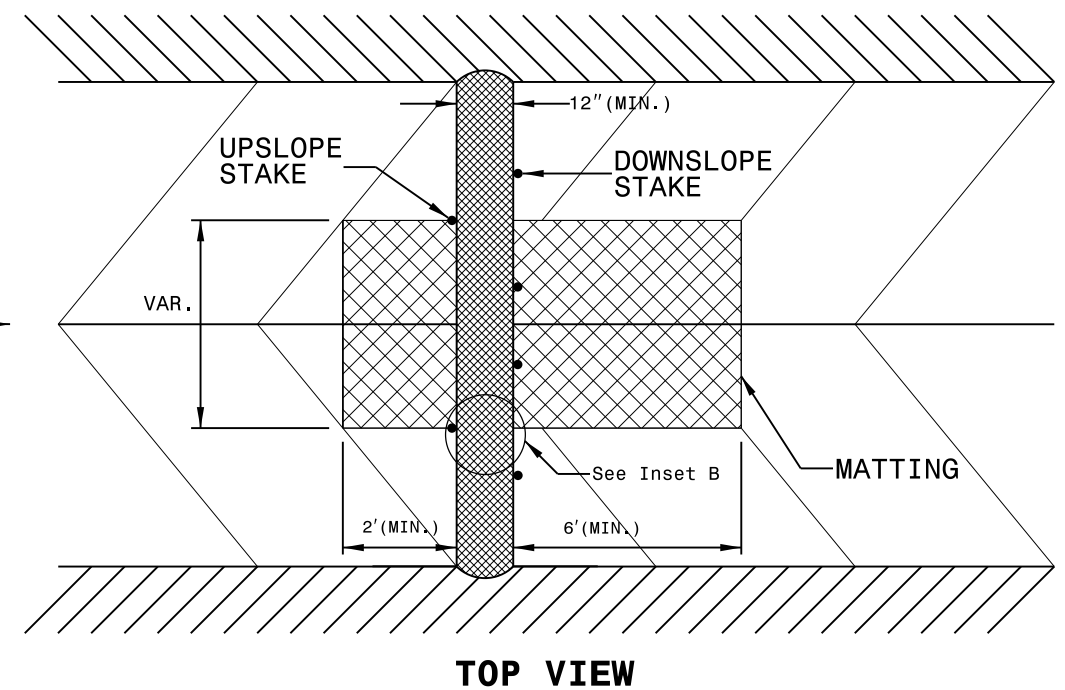
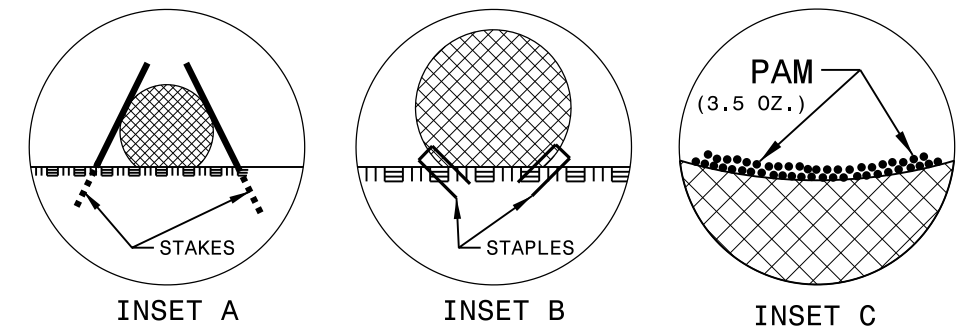
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

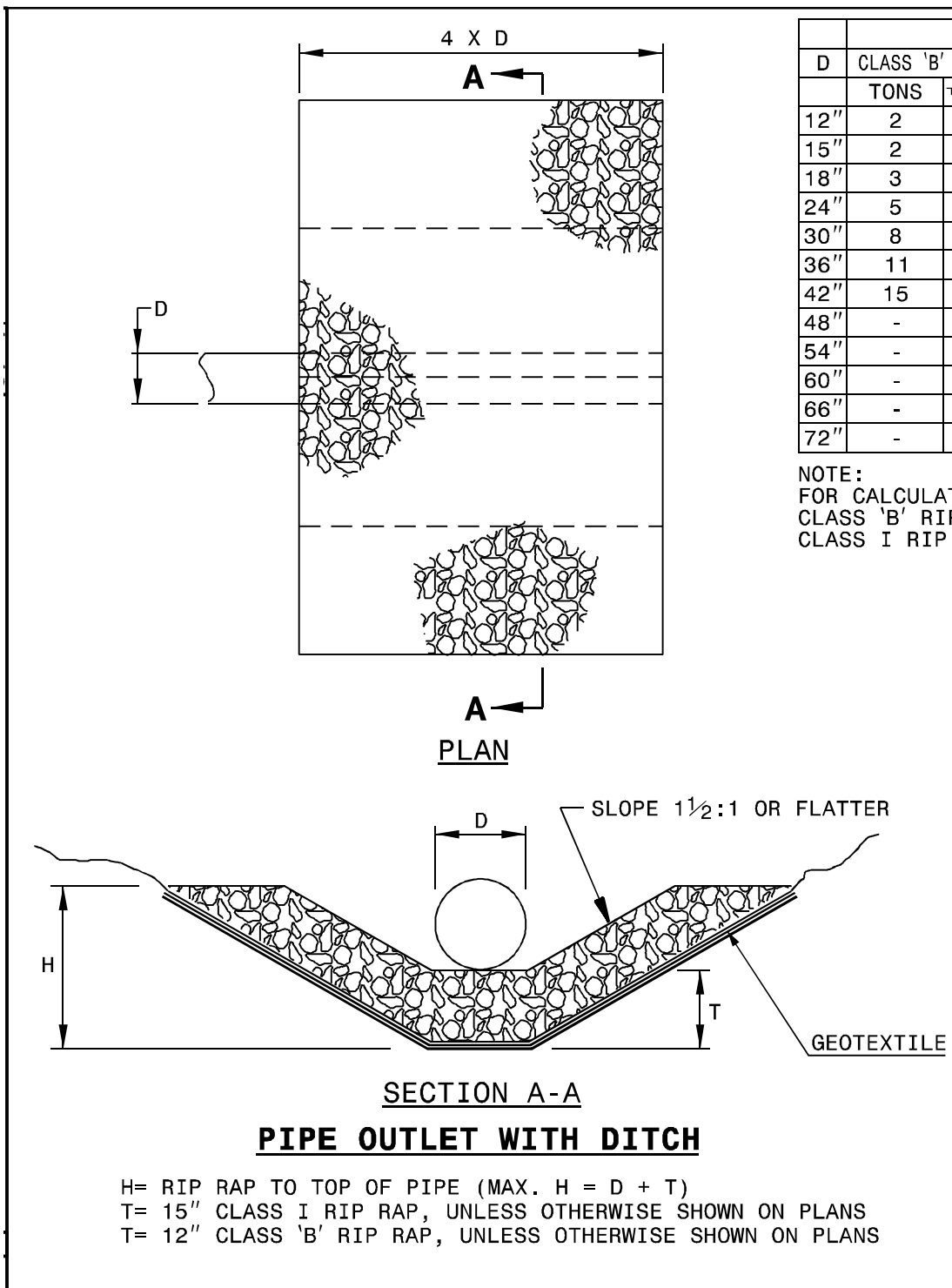
INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

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 3.5 OUNCES OF ANIONIC OR NEUTRALLY CHARGED POLYACRYLAMIDE (PAM) OVER WATTLE WHERE WATER WILL FLOW AND AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.

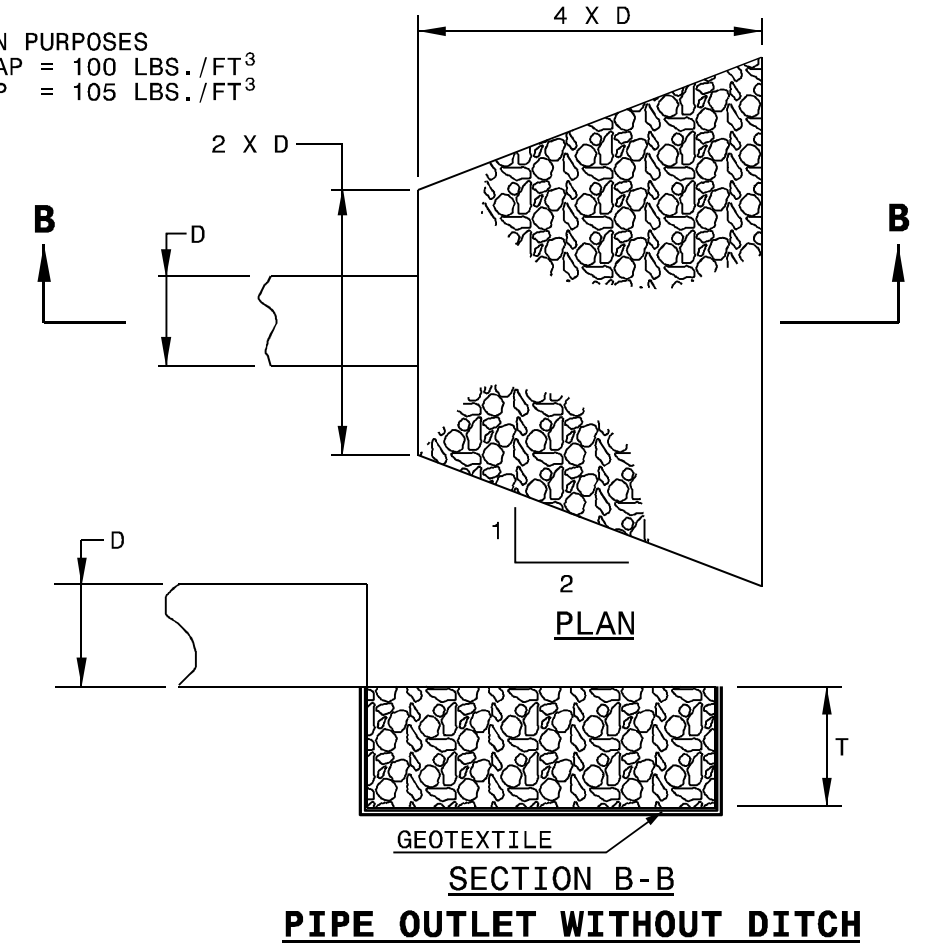


**TOP VIEW**



D	OUTLET W/ DITCH					OUTLET W/O DITCH				
	CLASS 'B' RIP RAP		CLASS I RIP RAP		GEO-TEXTILE (S.Y.)	CLASS 'B' RIP RAP		CLASS I RIP RAP		GEO-TEXTILE (S.Y.)
	TONS	S.Y.	TONS	S.Y.		TONS	S.Y.	TONS	S.Y.	
12"	2	5	5	2	5	1	4	2	1	4
15"	2	7	7	3	7	1	5	3	2	6
18"	3	10	9	4	10	2	7	4	2	8
24"	5	14	15	7	15	3	11	7	4	12
30"	8	21	21	11	22	5	16	11	7	17
36"	11	28	29	15	30	7	22	16	10	23
42"	15	37	39	20	39	10	28	22	13	30
48"	-	-	49	26	50	-	-	28	17	38
54"	-	-	60	33	62	-	-	36	21	47
60"	-	-	73	40	75	-	-	44	26	56
66"	-	-	87	48	89	-	-	54	32	67
72"	-	-	102	57	104	-	-	64	38	78

NOTE:  
 FOR CALCULATION PURPOSES  
 CLASS 'B' RIP RAP = 100 LBS./FT<sup>3</sup>  
 CLASS I RIP RAP = 105 LBS./FT<sup>3</sup>



1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.  
 ROADWAY STANDARD DRAWING FOR **GUIDE FOR RIP RAP AT PIPE OUTLETS**  
 SHEET 1 OF 1  
**876.02**