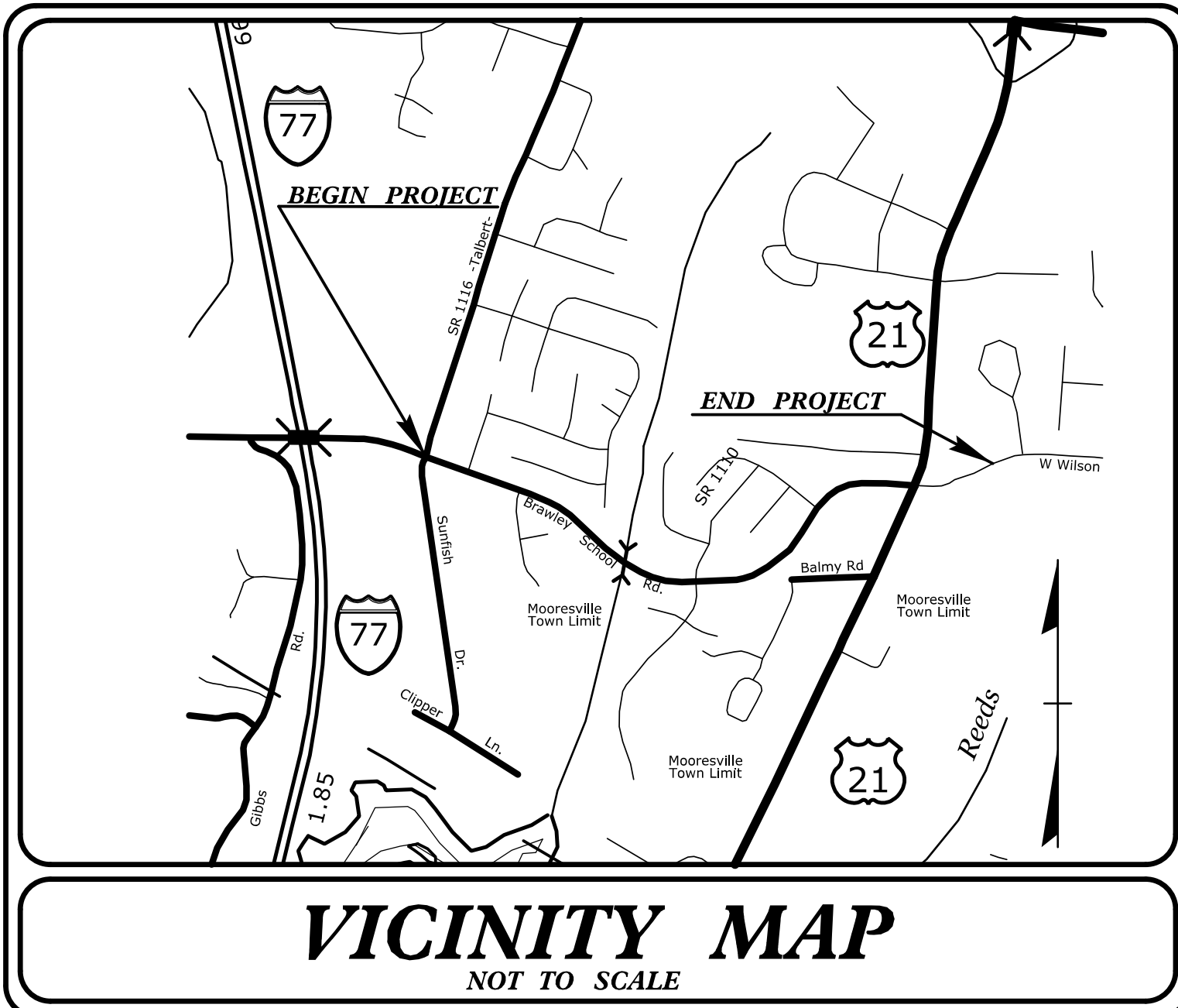


TIP PROJECT: R-3833C

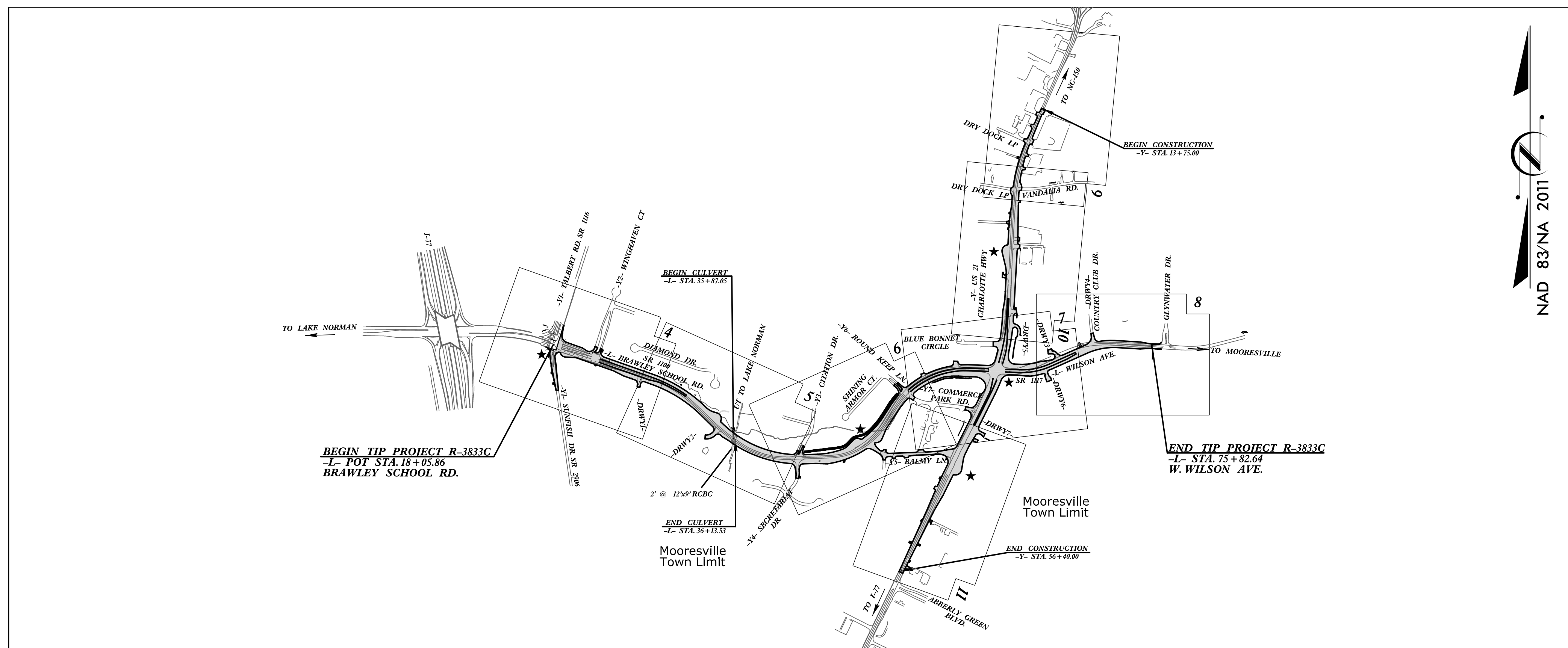


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

IREDELL COUNTY

**LOCATION: SR 1100 BRAWLEY SCHOOL ROAD FROM
SR 1116 TALBERT ROAD TO 1000' EAST OF US 21**

**TYPE OF WORK: GRADING, PAVING, DRAINAGE, CULVERT, WALLS, SIGNALS,
PAVEMENT MARKINGS, PAVEMENT MARKERS**



NAD 83/NA 2011

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-3833C	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34554.1.FD1		P.E.	
34554.2.4		R/W	
34554.2.5		UTIL	

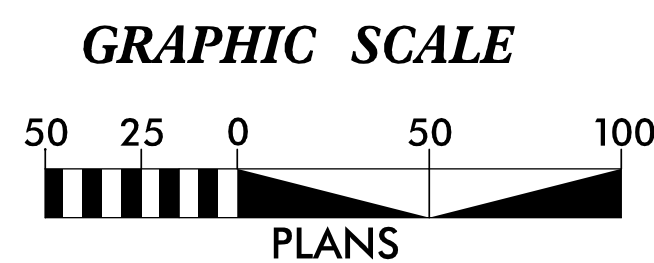
EROSION AND SEDIMENT CONTROL MEASURES

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	TBSD
1630.02	Silt Basin Type B	SB
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
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	W-PAM
1634.01	Temporary Rock Sediment Dam Type-A	TRSDA
1634.02	Temporary Rock Sediment Dam Type-B	TRSDB
1635.01	Rock Pipe Inlet Sediment Trap Type-A	RPISTRA
1635.02	Rock Pipe Inlet Sediment Trap Type-B	RPISTRB
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

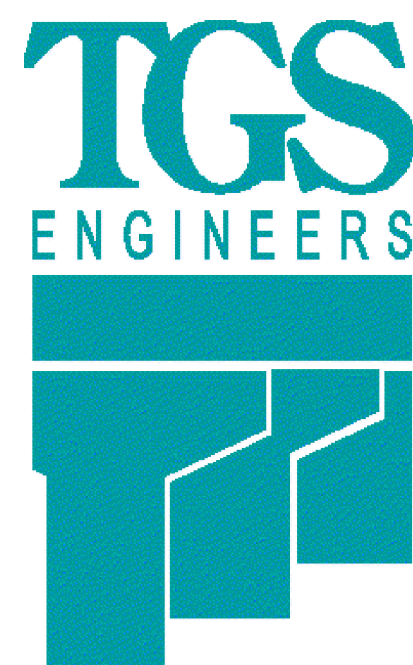
THIS PROJECT CONTAINS
EROSION CONTROL PLANS
FOR CLEARING AND
GRUBBING PHASE OF
CONSTRUCTION.

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.

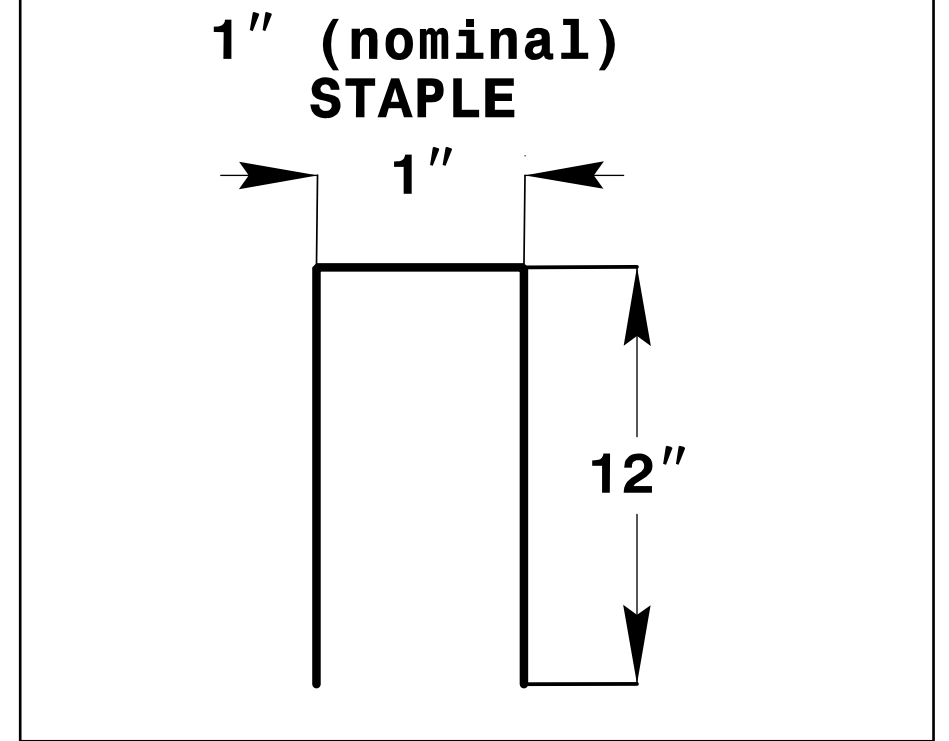
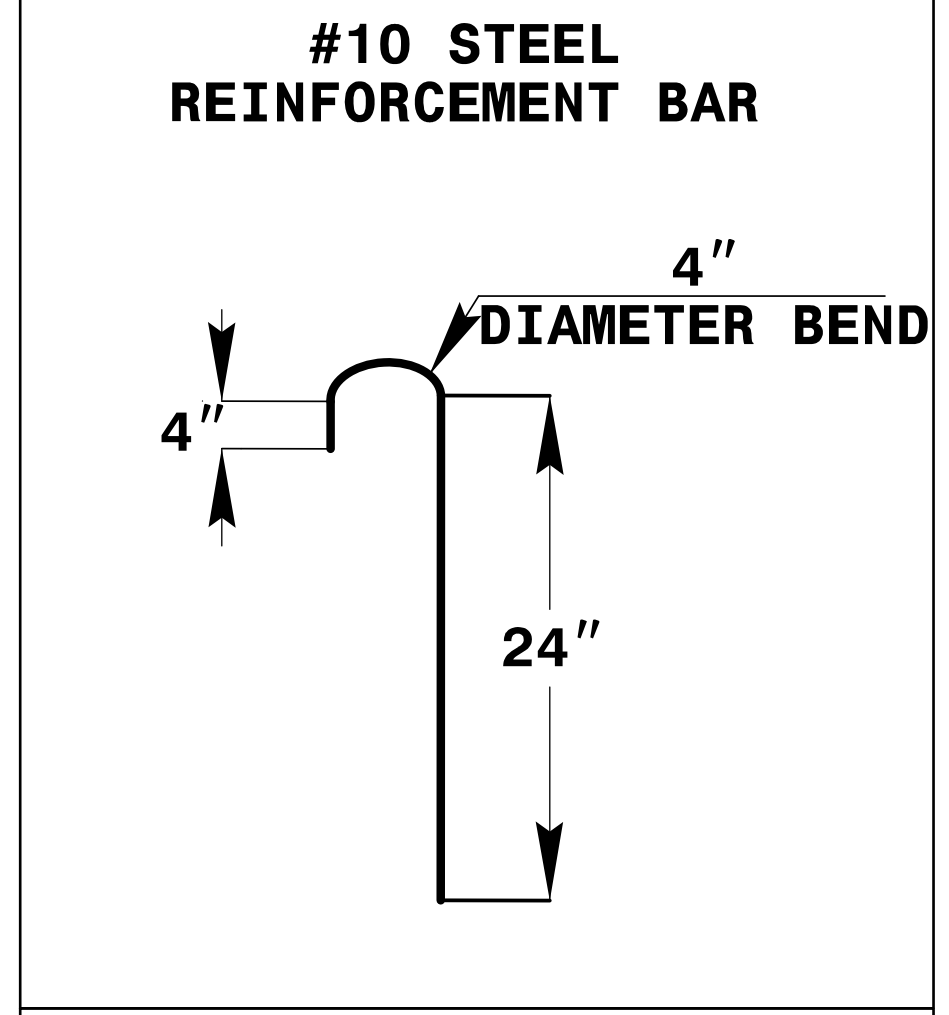
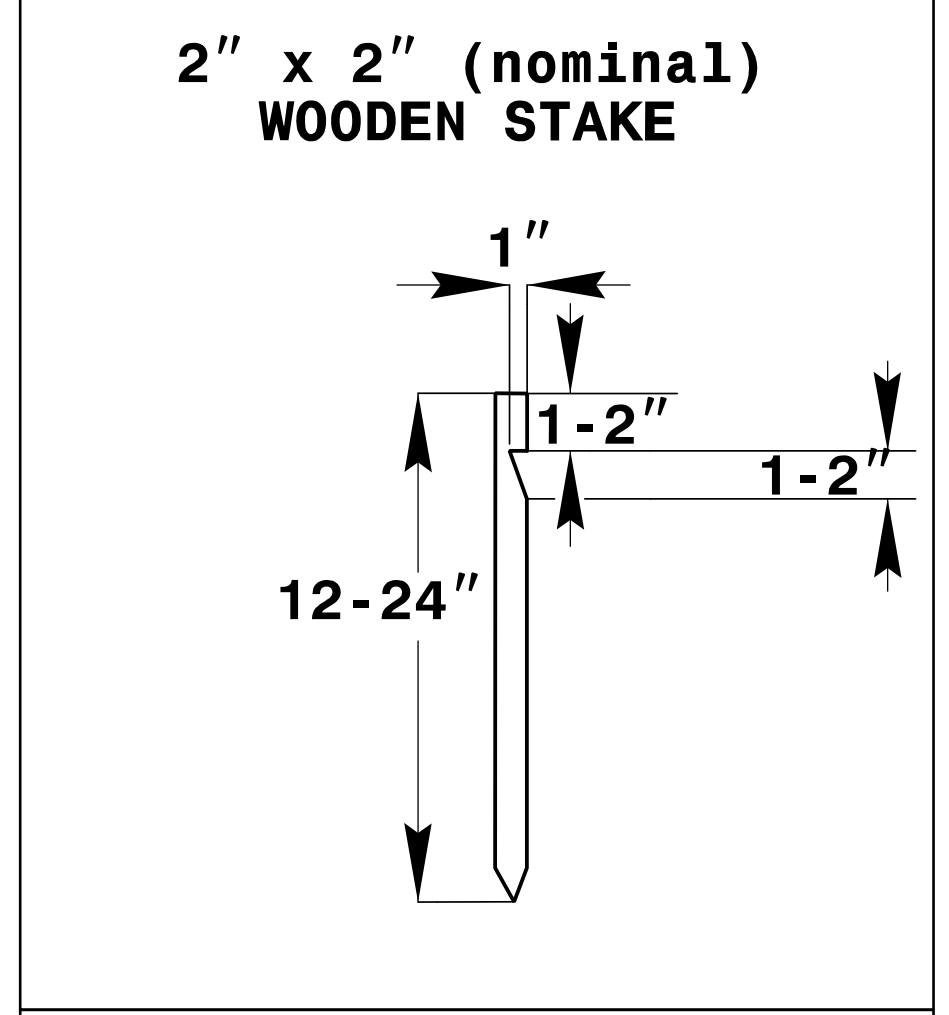
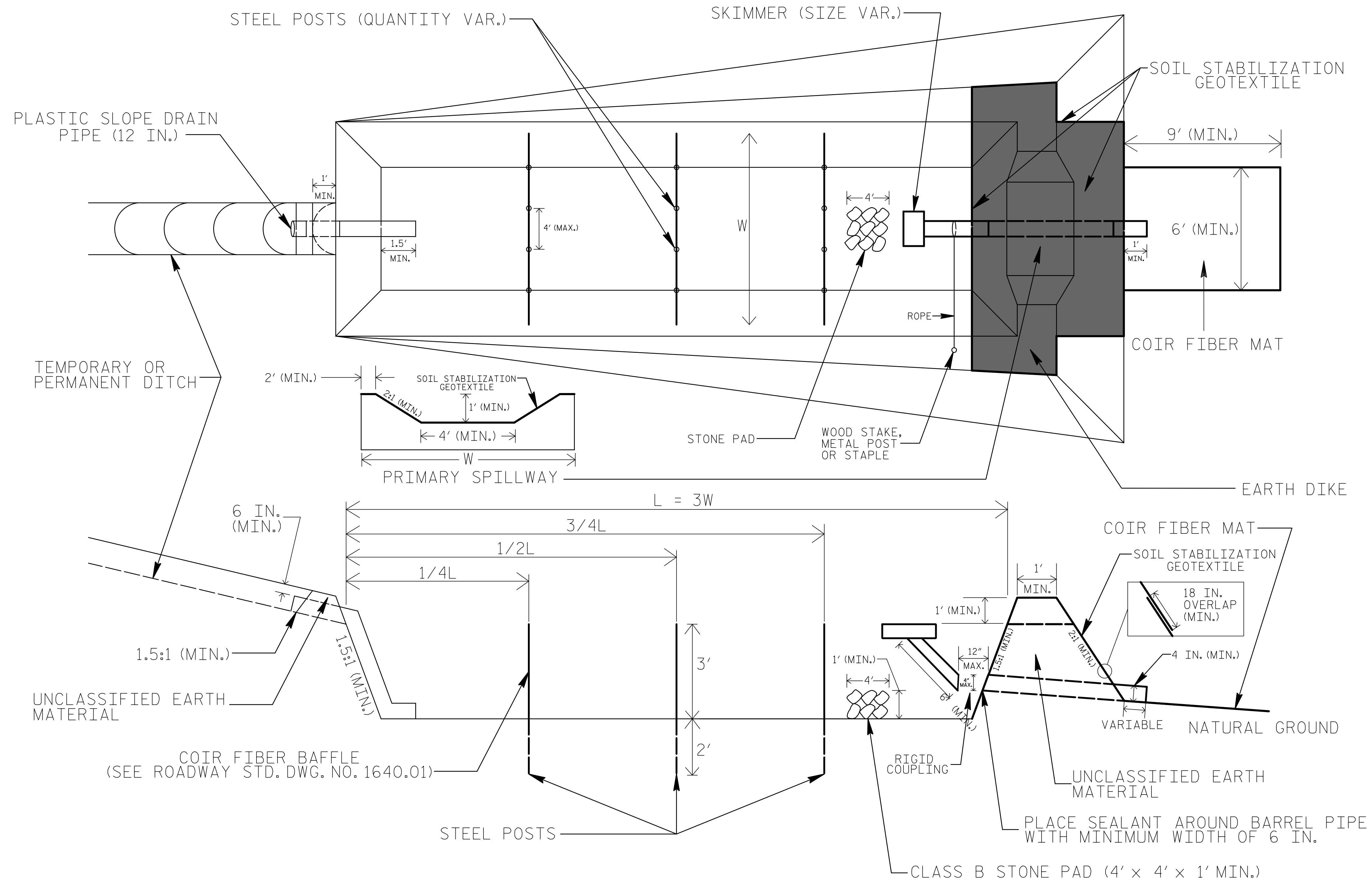
Roadway Standard Drawings

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. R-3833C	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKIMMER BASIN WITH BAFFLES DETAIL



COIR FIBER MAT ANCHOR OPTIONS

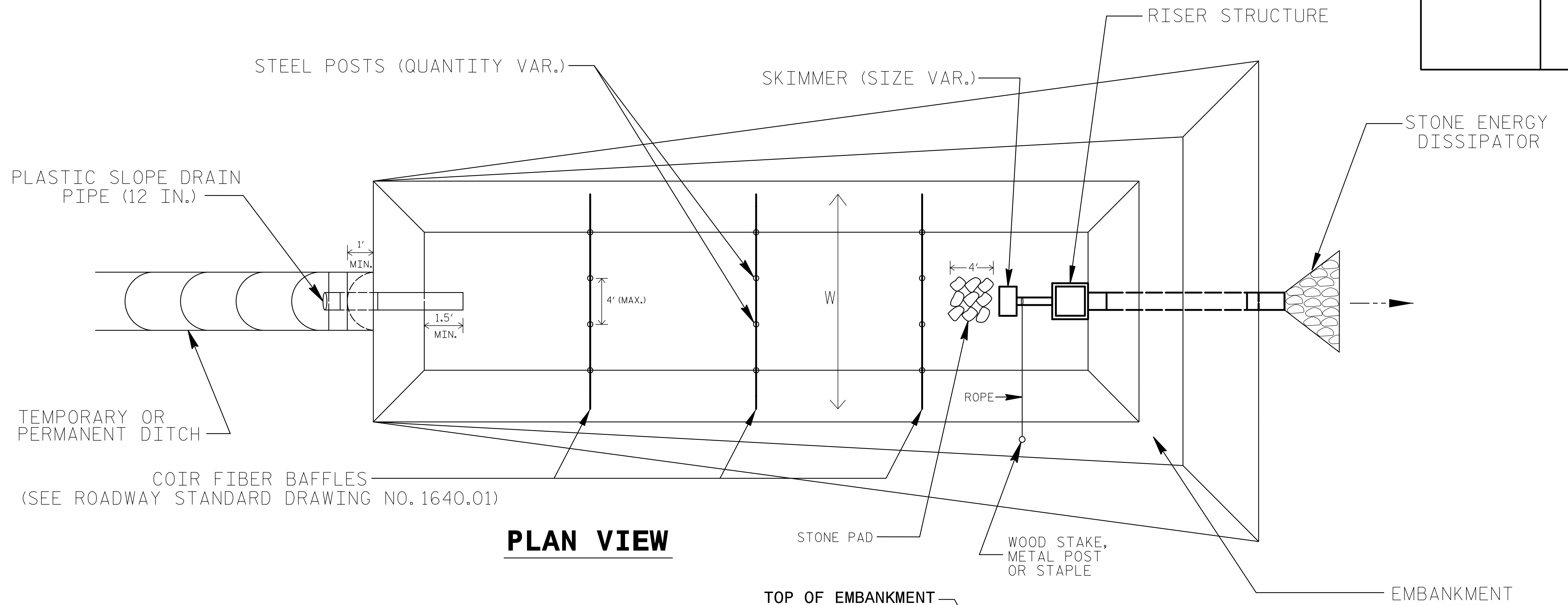
NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.
3. FOR BASIN DEPTH OF 3 FT., THE MINIMUM BASIN WIDTH SHALL BE 9 FT.
4. DETERMINE PRIMARY SPILLWAY WEIR LENGTH (FT.) USING $Q/0.8$, WHERE Q IS FLOW RATE (CFS) INTO BASIN.
5. PLASTIC SLOPE DRAIN PIPE AT INLET OF BASIN MAY BE REPLACED BY FILTRATION GEOTEXTILE OR TARP AS DIRECTED.
6. SOIL STABILIZATION GEOTEXTILE FOR PRIMARY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

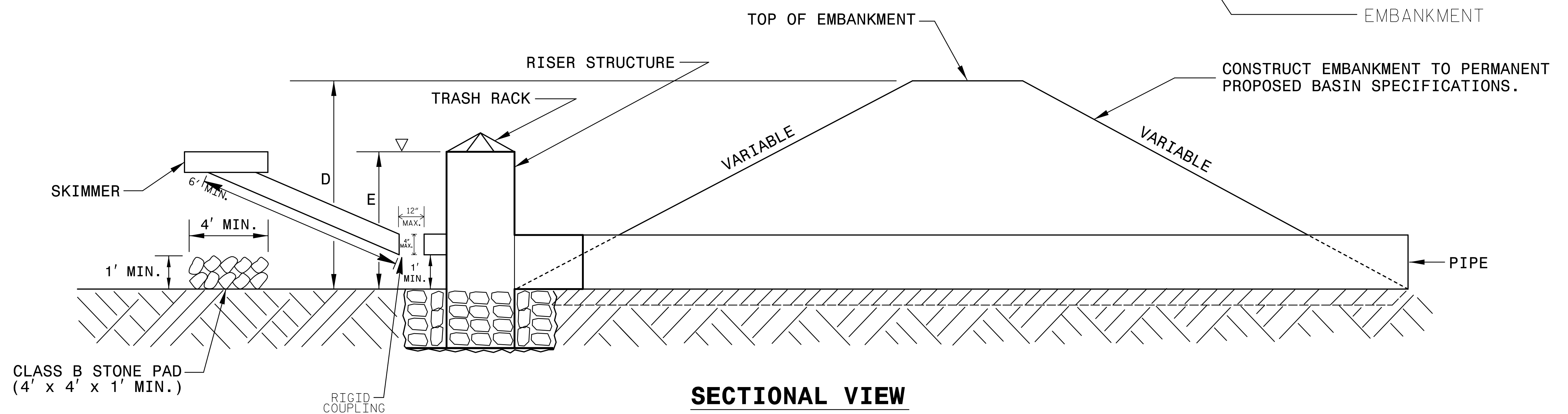
NOT TO SCALE

PROJECT REFERENCE NO. <i>R-3833C</i>	SHEET NO. <i>EC-2B</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

STORMWATER BASIN WITH SKIMMER



PLAN VIEW



SECTIONAL VIEW

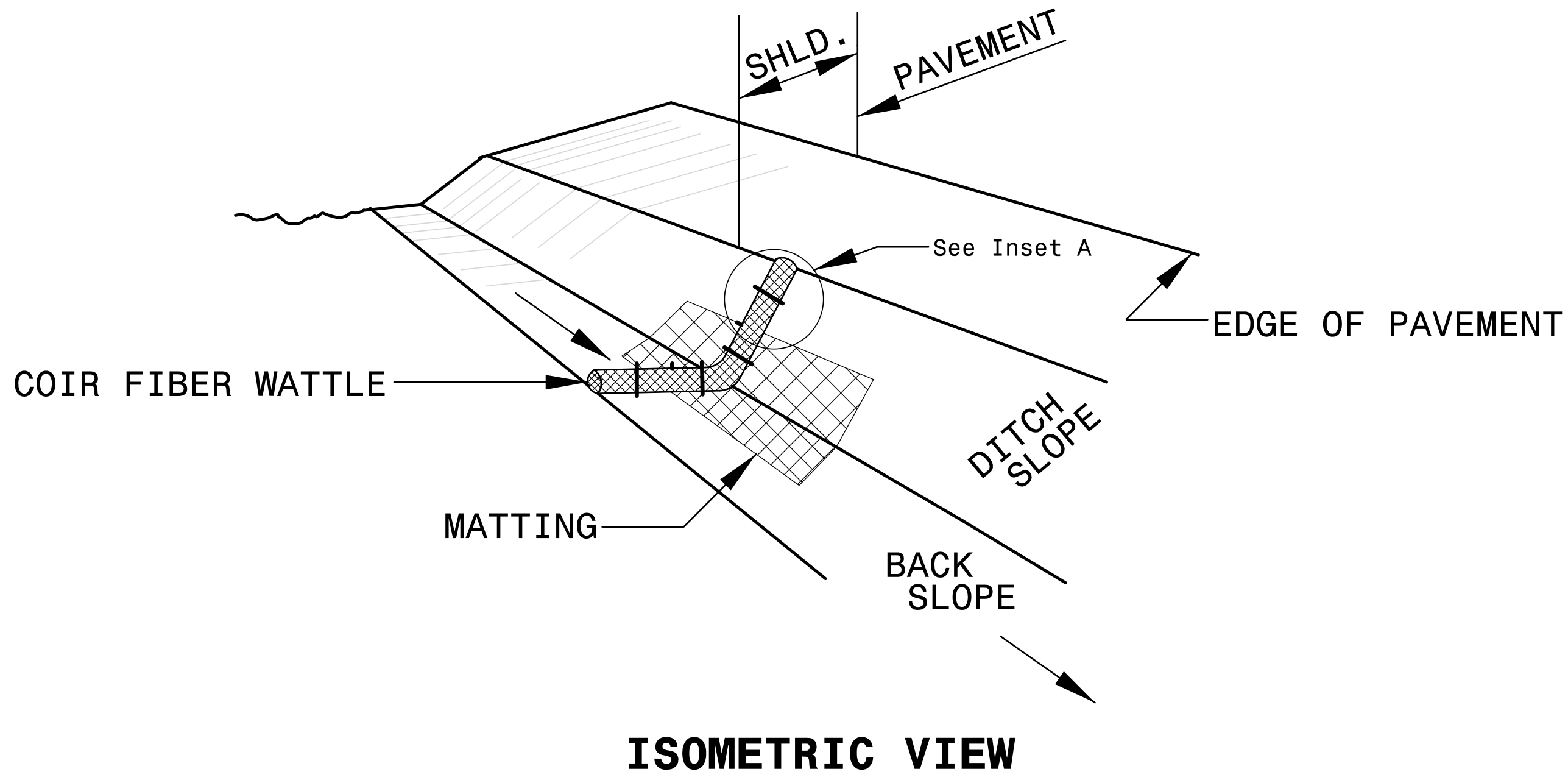
NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES.
2. INSTALL A MINIMUM OF 3 COIR FIBER BAFFLES IN ACCORDANCE WITH ROADWAY STD. DRAWING 1640.01.
3. INSTALL SKIMMER AND COUPLING TO RISER STRUCTURE OR DIRECTLY INTO EMBANKMENT 1 FT. FROM BOTTOM OF BASIN.
4. THE ARM PIPE SHALL HAVE A MINIMUM LENGTH OF 6 FT. BETWEEN THE SKIMMER AND COUPLING.
5. PLASTIC SLOPE DRAIN PIPE AT INLET OF BASIN MAY BE REPLACED BY FILTRATION GEOTEXTILE AS DIRECTED.
6. THE DIFFERENCE BETWEEN LENGTHS "D" AND "E" REPRESENT THE FREEBOARD AND SHOULD BE 1 FT. MINIMUM.

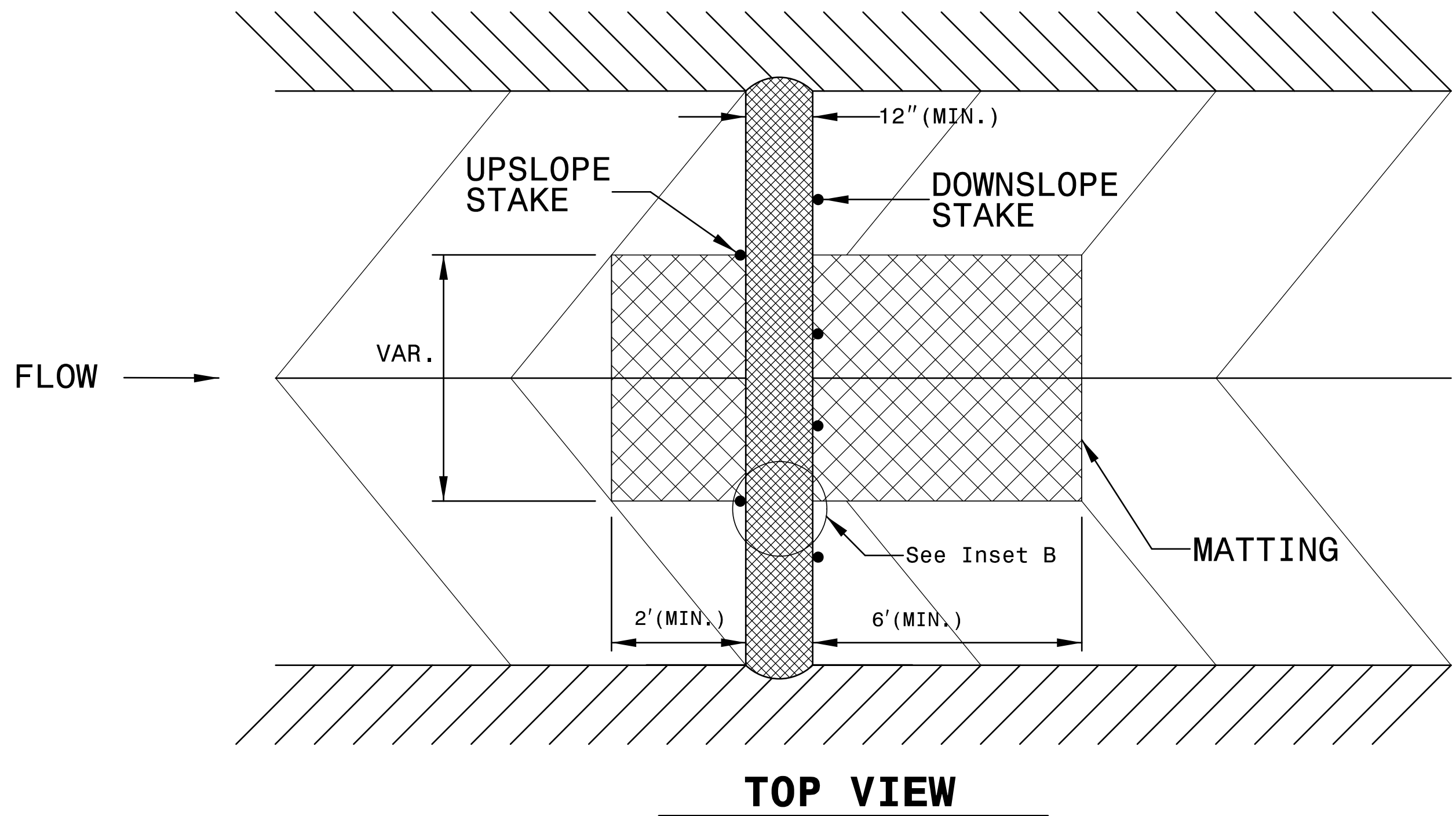
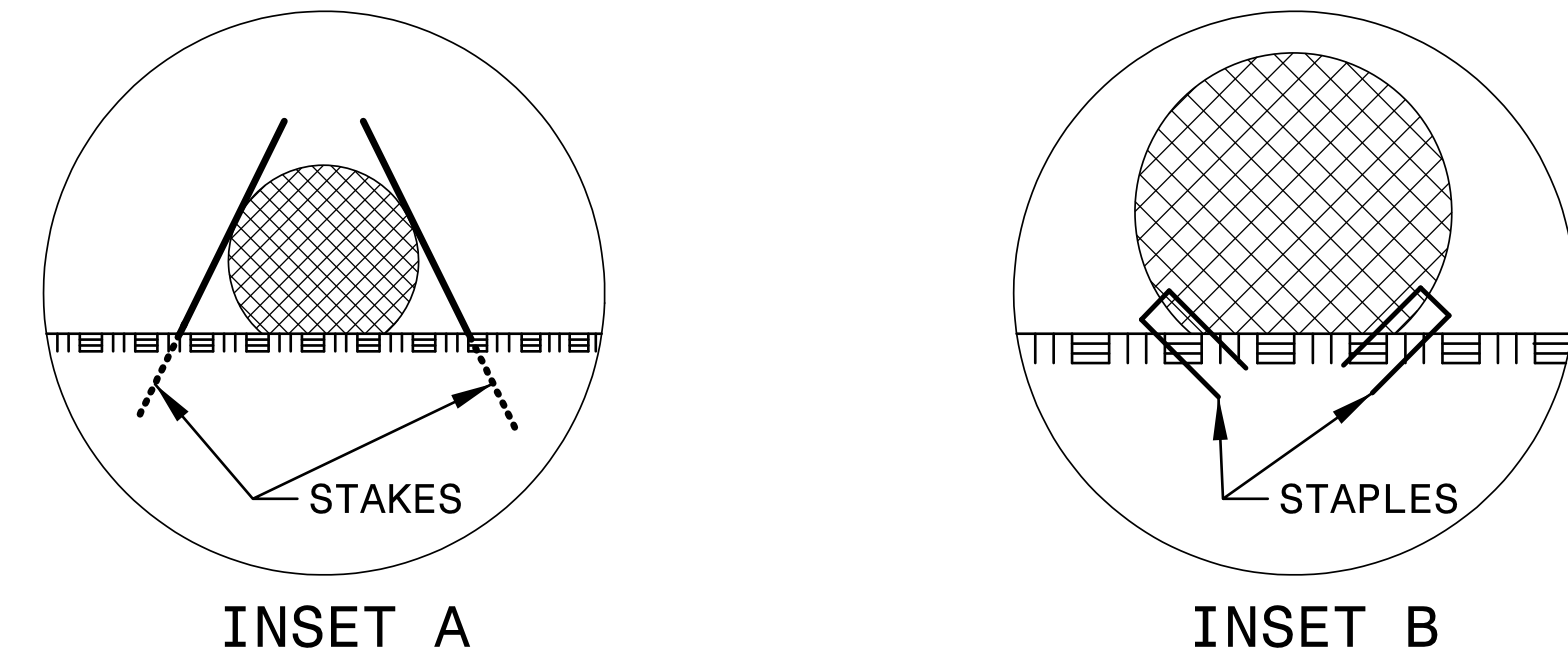
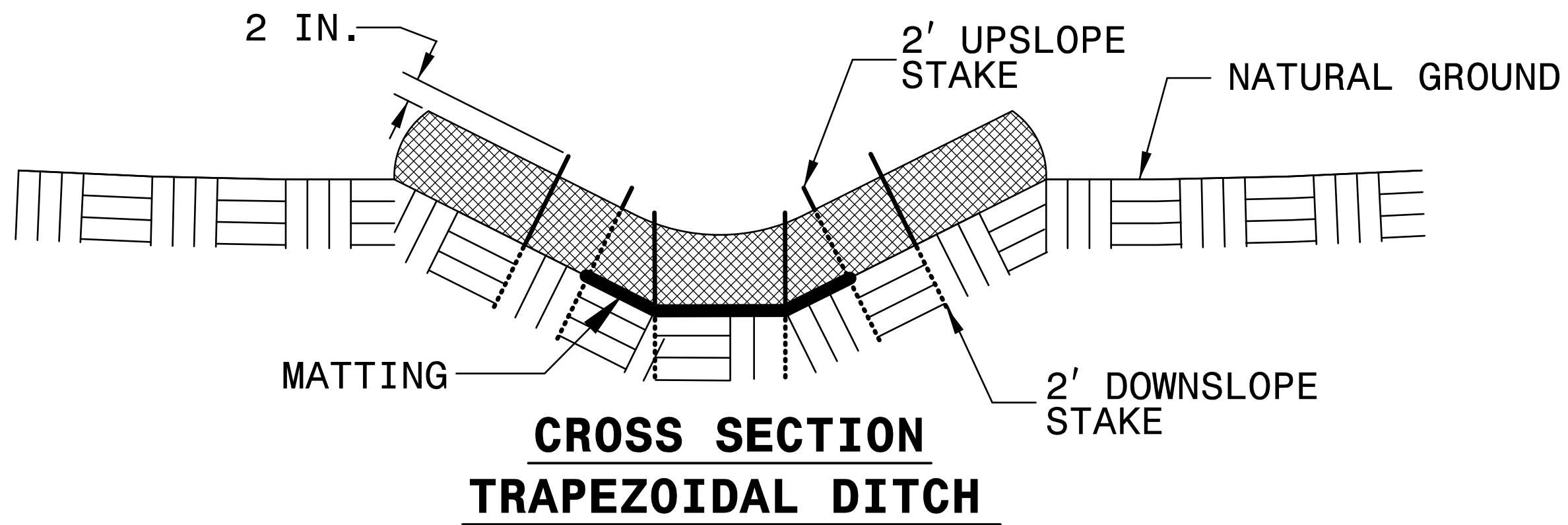
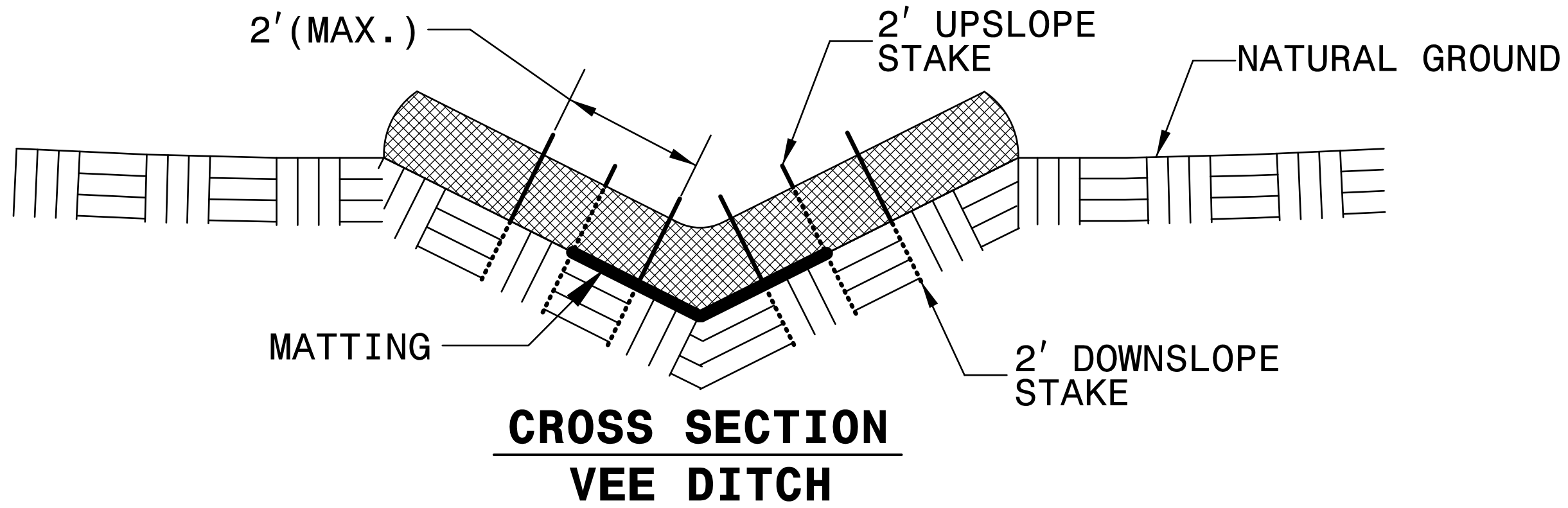
NOT TO SCALE

PROJECT REFERENCE NO. <i>R-3833C</i>	SHEET NO. <i>EC-2C</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER WATTLE DETAIL

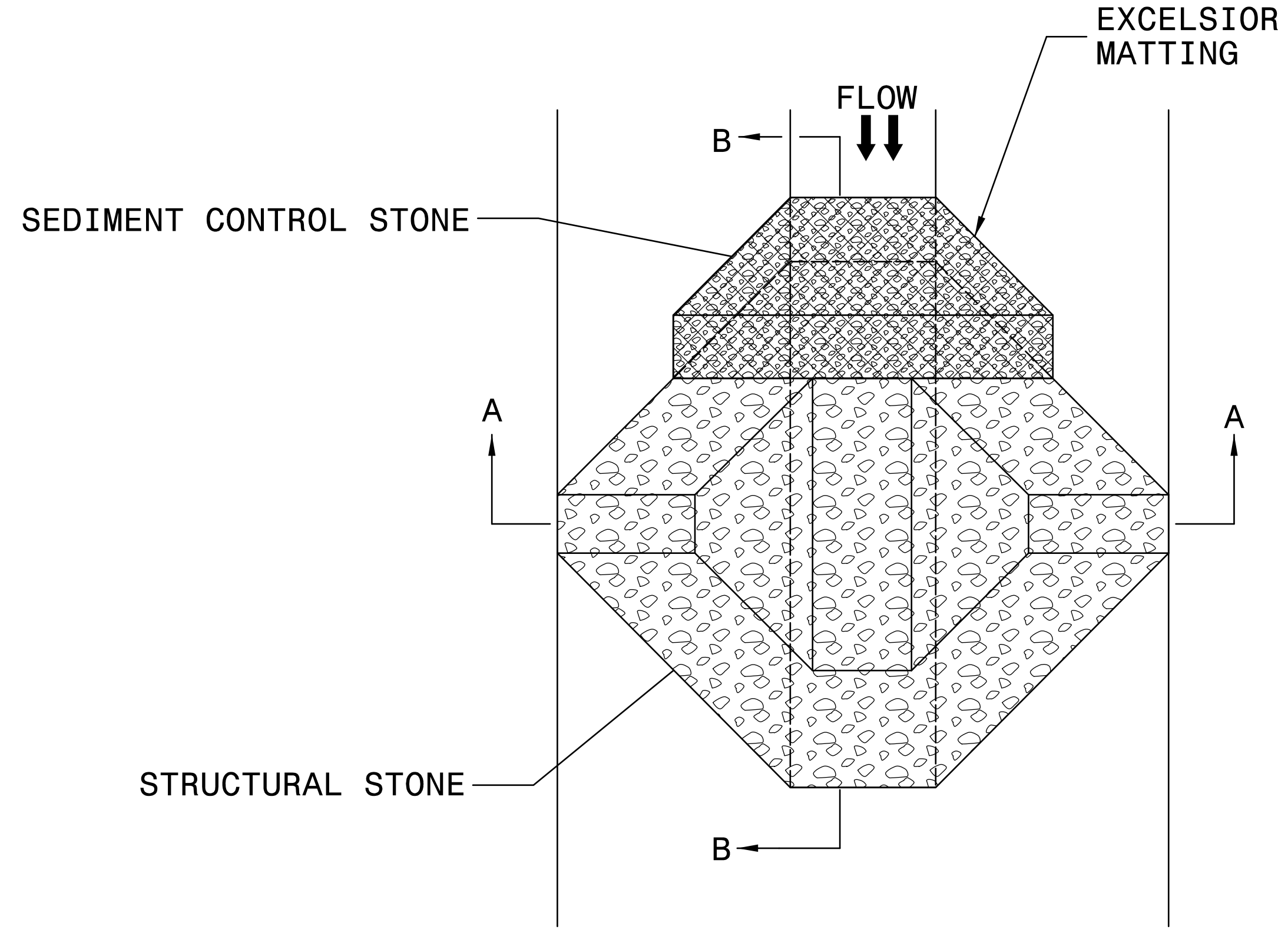


- NOTES:
- USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE.
 - USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
 - ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
 - INSTALL A MINIMUM OF 2 UPSLOPE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



PROJECT REFERENCE NO. <i>R-3833C</i>	SHEET NO. <i>EC-2D</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



PLAN

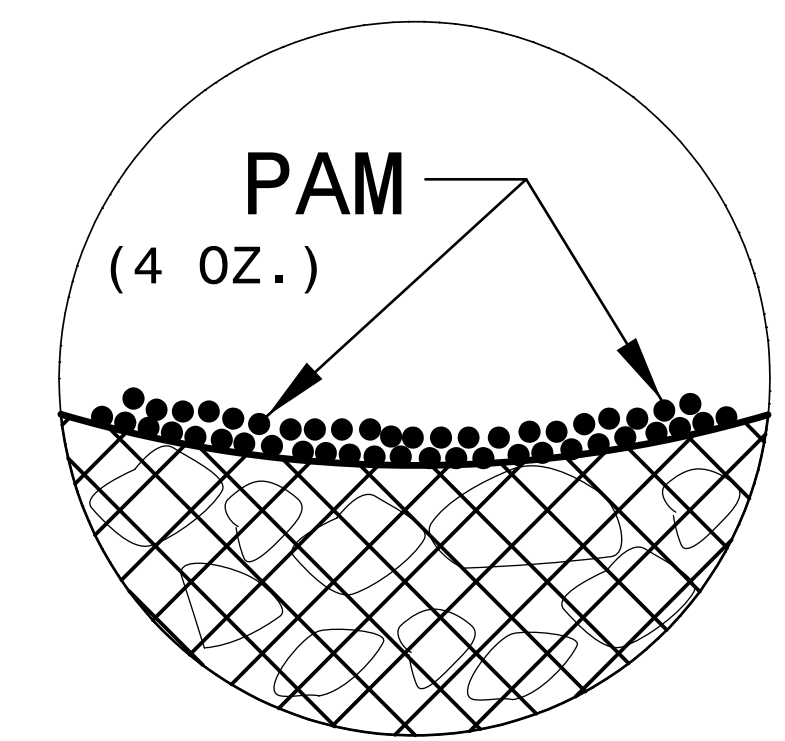
NOTES:

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

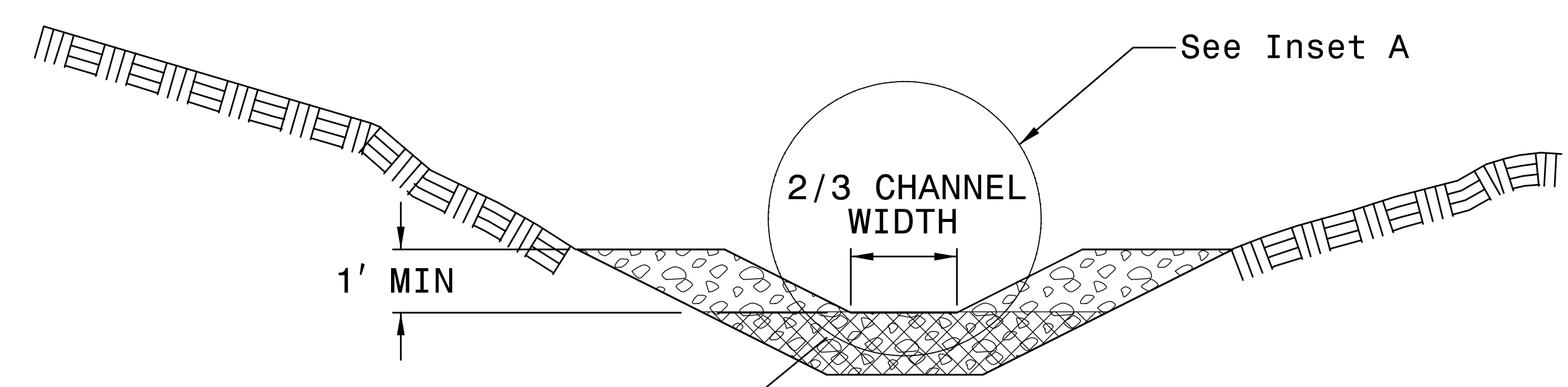
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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.

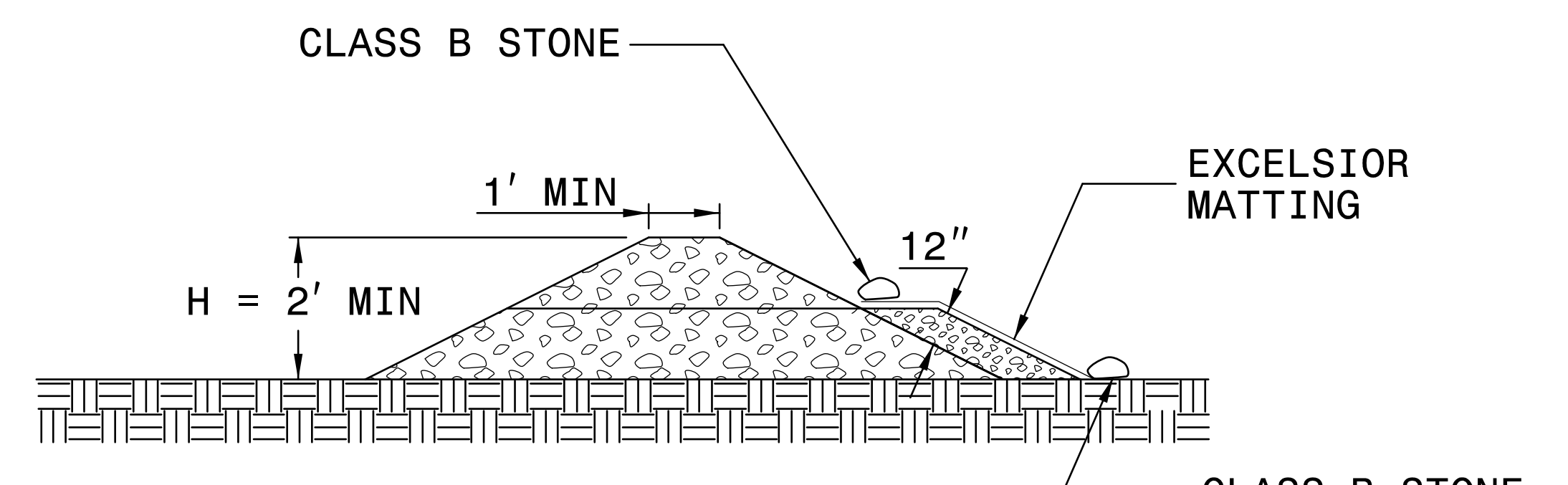
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A



SECTION B-B


NOT TO SCALE

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>R-3833C</i>	SHEET NO. <i>EC-3A</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.

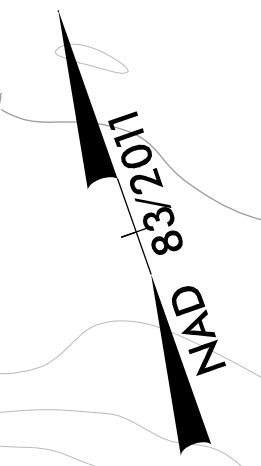
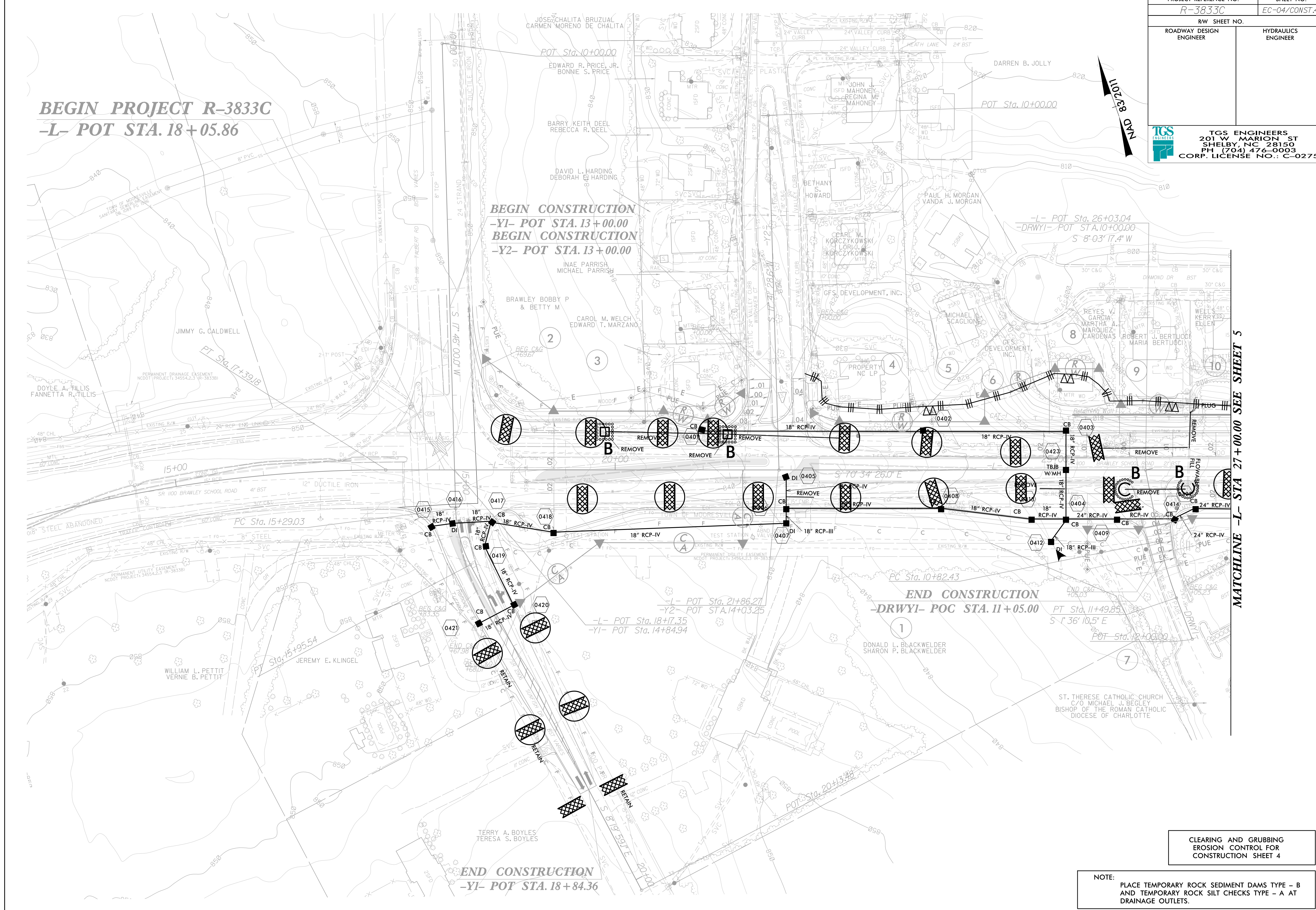
PROJECT REFERENCE NO.	SHEET NO.
R-3833C	EC-04/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 TGS ENGINEERS 201 W MARION ST SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	

BEGIN PROJECT R-3833C
-L- POT STA. 18+05.86

BEGIN CONSTRUCTION
-Y1- POT STA. 13+00.00
BEGIN CONSTRUCTION
-Y2- POT STA. 13+00.00

END CONSTRUCTION
-DRWYI- POC STA. 11+05.00

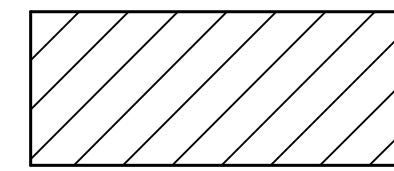
END CONSTRUCTION
-Y1- POT STA. 18+84.36



MATCHLINE -L- STA 27+00.00 SEE SHEET 5

**CLEARING AND GRUBBING
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 4**

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

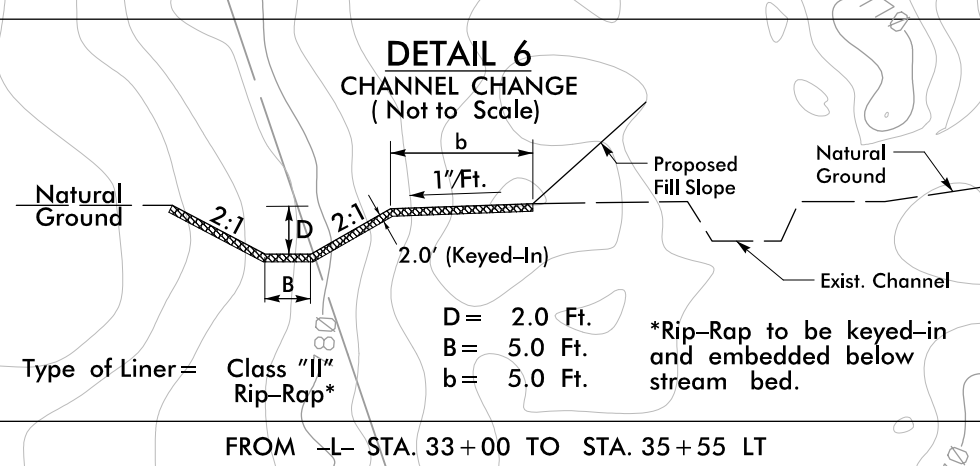
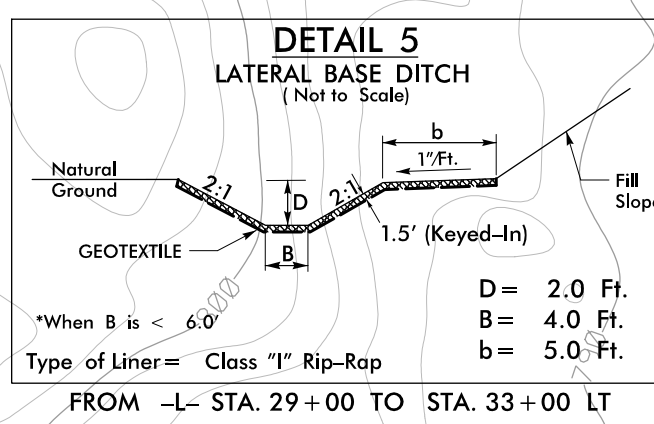


ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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

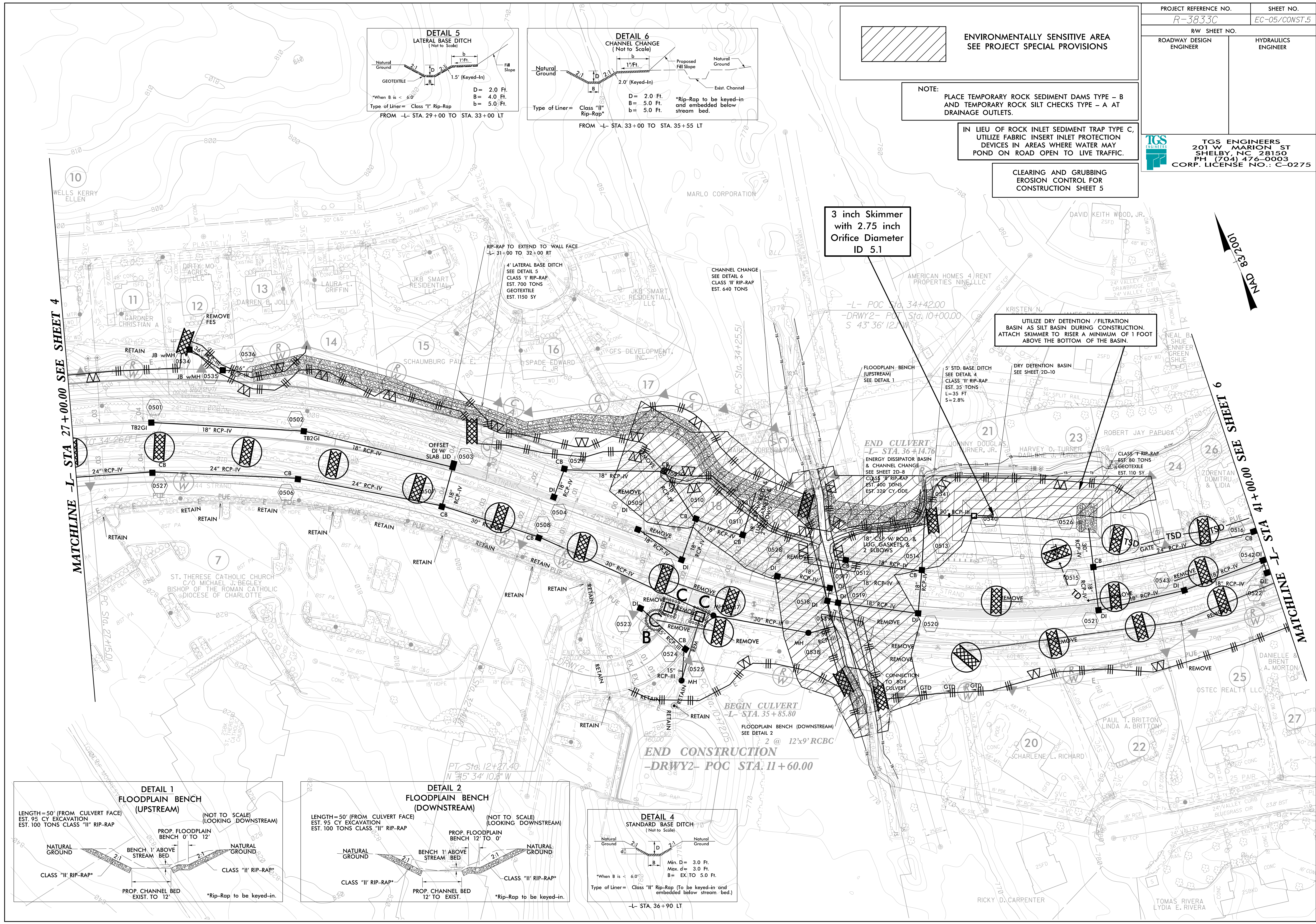
IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C, UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 5



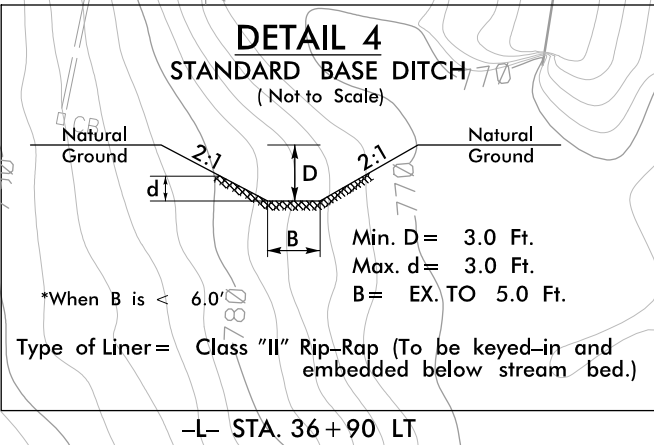
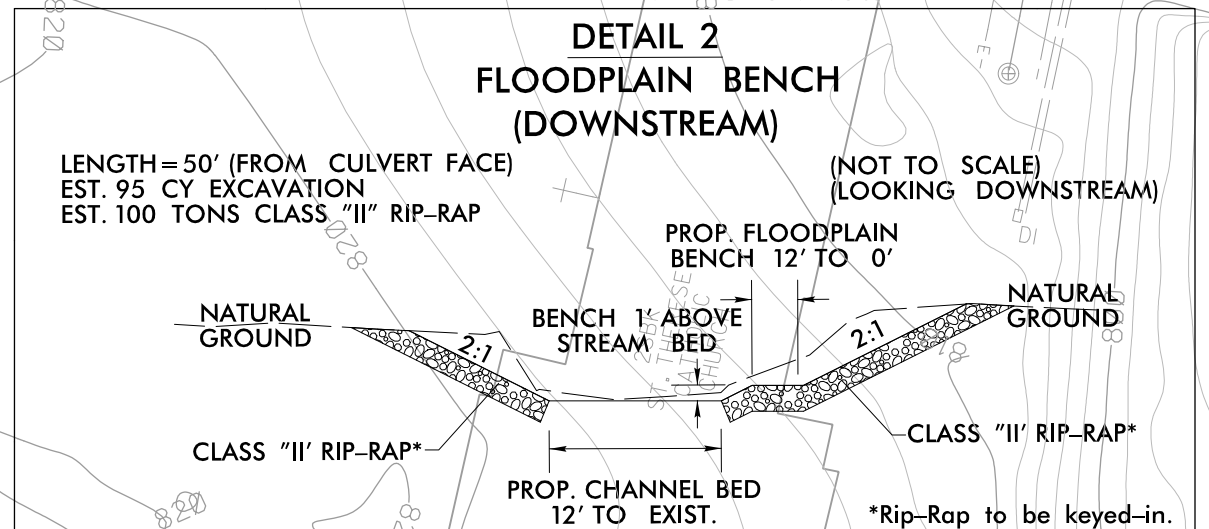
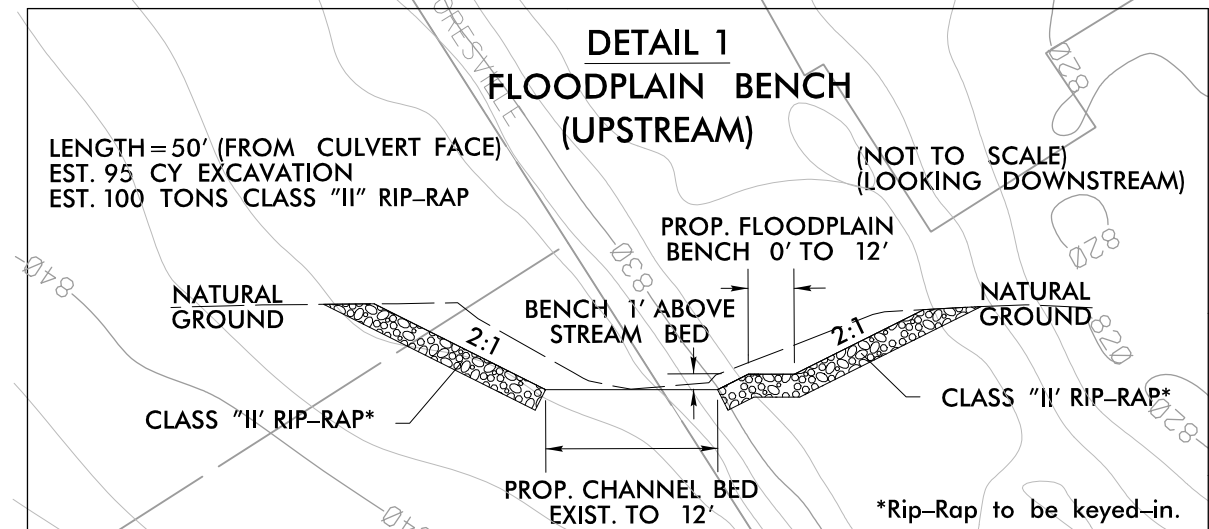
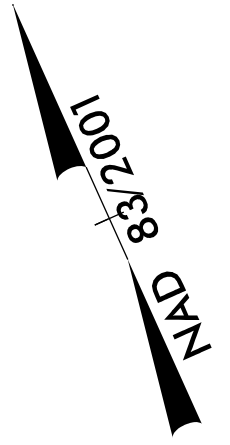
3 inch Skimmer with 2.75 inch Orifice Diameter ID 5.1

UTILIZE DRY DETENTION / FILTRATION BASIN AS SILT BASIN DURING CONSTRUCTION. ATTACH SKIMMER TO RISE A MINIMUM OF 1 FOOT ABOVE THE BOTTOM OF THE BASIN.



MATCHLINE -L STA 27+00.00 SEE SHEET 4

MATCHLINE -L STA 41+00.00 SEE SHEET 6

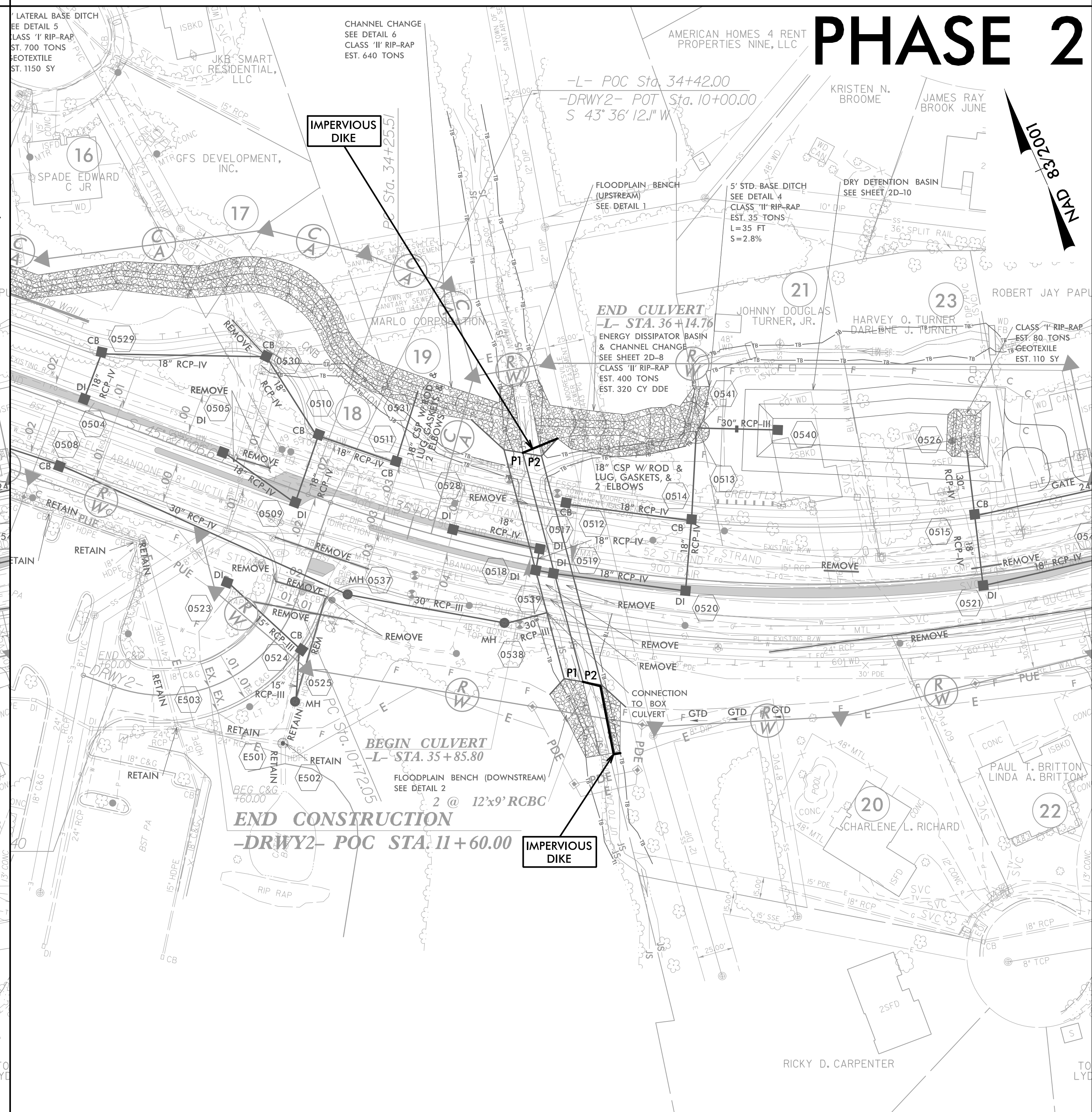
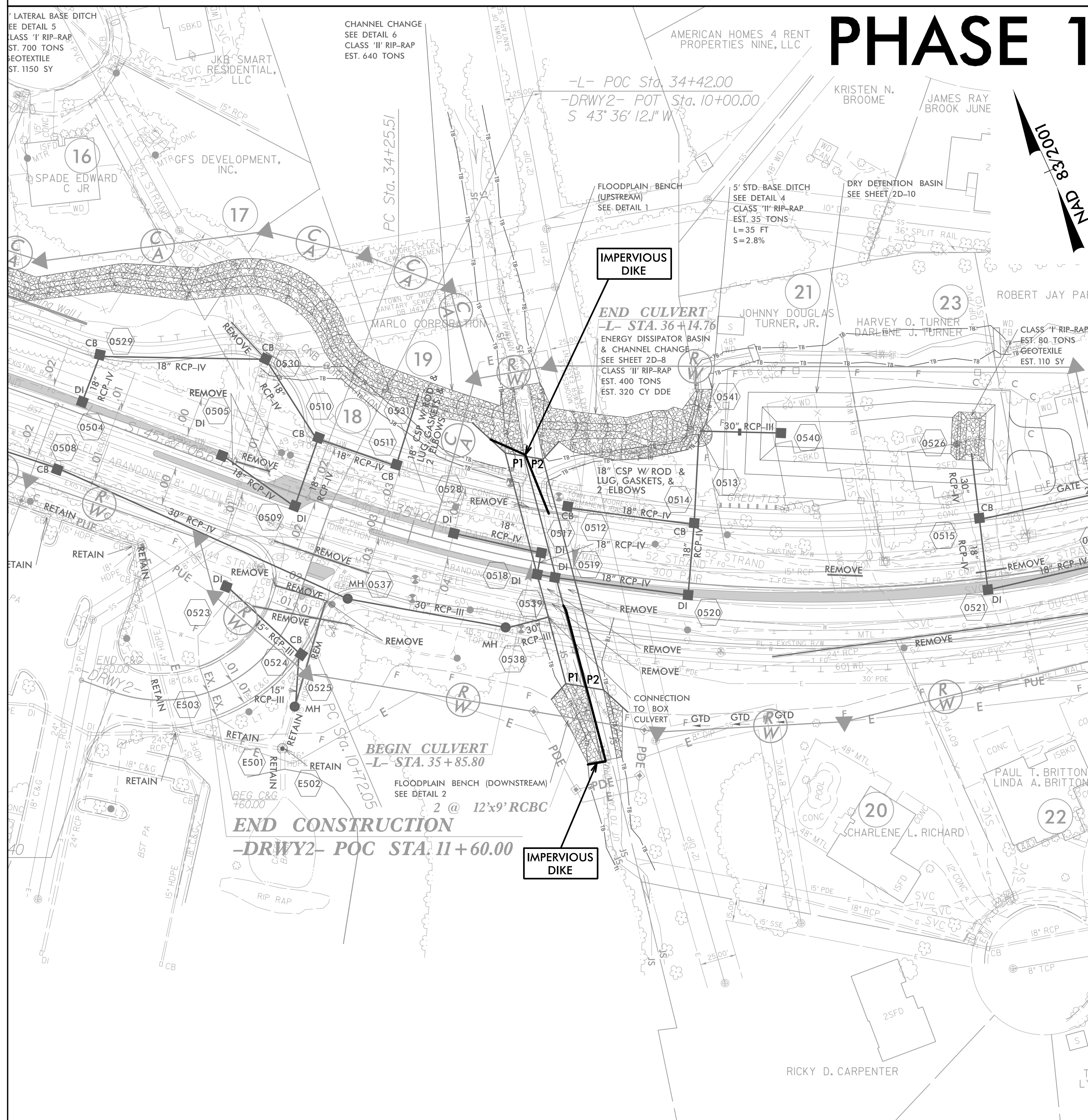



PROJECT REFERENCE NO.	SHEET NO.
R-3833C	EC-06/CONST.5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

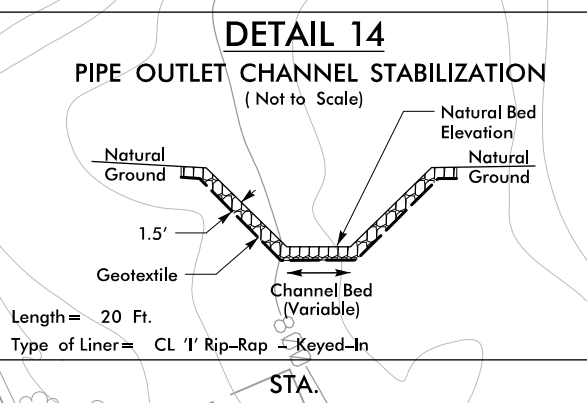
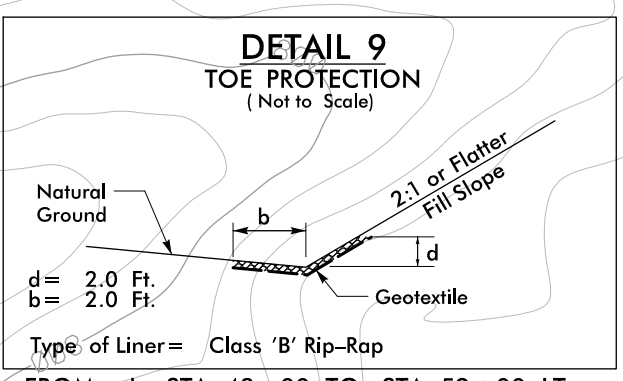
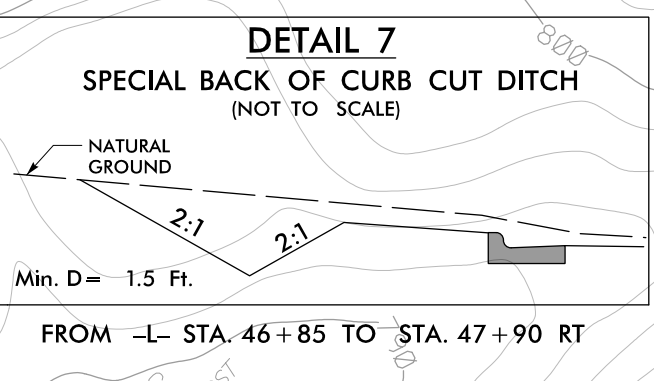
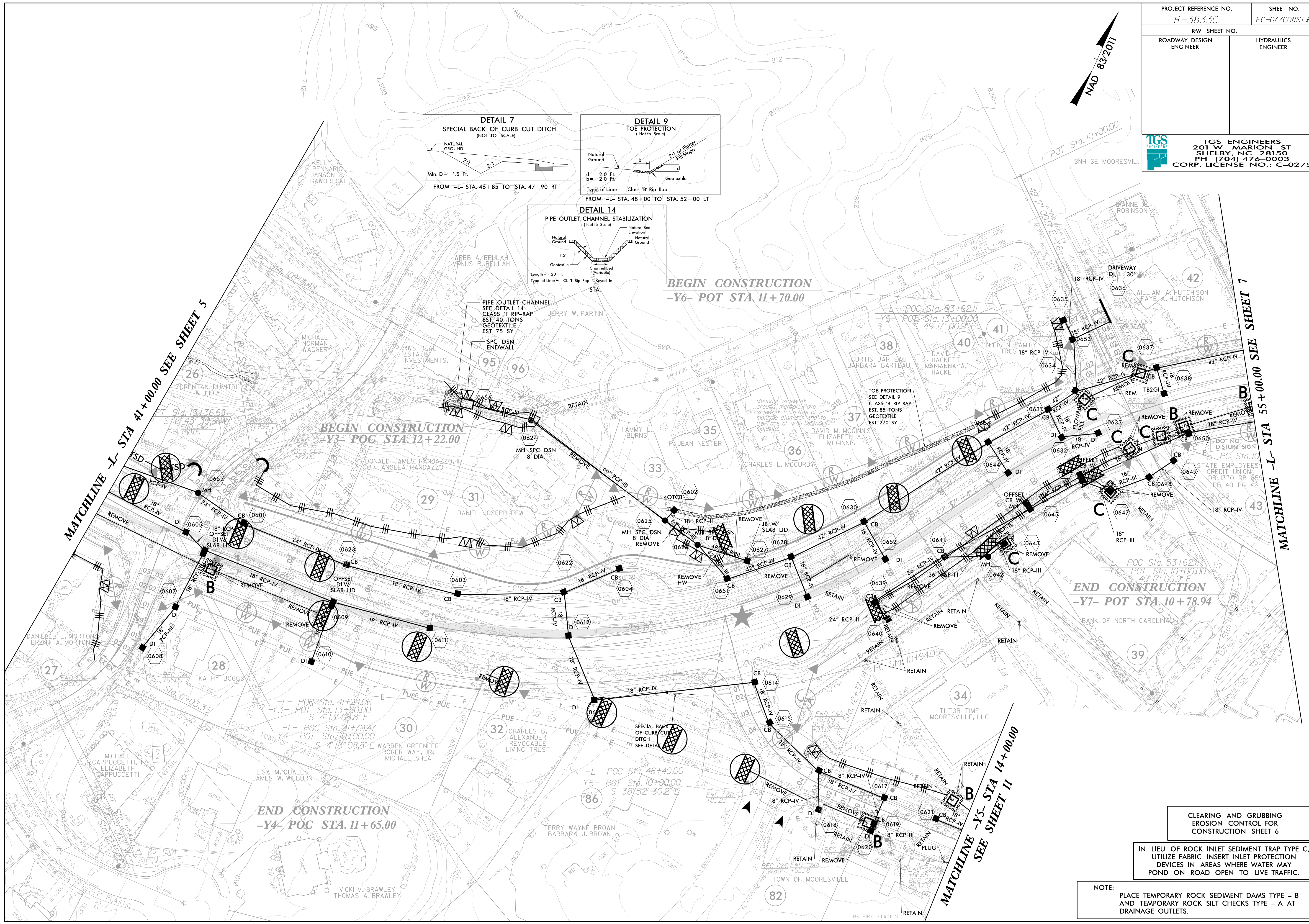
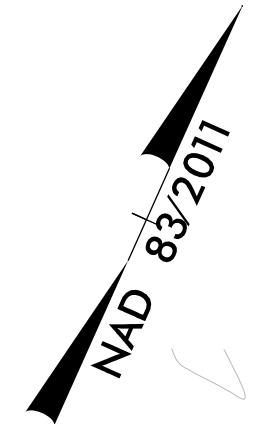
CULVERT CONSTRUCTION SEQUENCE STA. 36+00 -L-

1. UTILIZE SPECIAL STILLING BASIN(S) AS NEEDED THROUGHOUT CULVERT CONSTRUCTION.
2. CONSTRUCT BOTH CHANNEL CHANGES AS SHOWN ON PLANS.
3. INSTALL PHASE 1 IMPERVIOUS DIKES AND DIVERT FLOW THROUGH EXISTING 142" X 91" CMAP.
4. REMOVE EXISTING WESTERNMOST 142" X 91" CMAP.
5. CONSTRUCT 12' X 9' RCBC P1 AND WESTERN OUTLET CHANNEL IMPROVEMENTS ACCORDING TO PLANS.
6. REMOVE PHASE 1 IMPERVIOUS DIKES.

1. INSTALL PHASE 2 IMPERVIOUS DIKES AS SHOWN TO DIVERT WATER INTO COMPLETED RCBC P1.
2. REMOVE REMAINING EXISTING 142" X 91" CMAP.
3. CONSTRUCT 12' X 9' RCBC P2 AND EASTERN OUTLET CHANNEL IMPROVEMENTS ACCORDING TO PLANS.
4. REMOVE PHASE 2 IMPERVIOUS DIKES.
5. CONSTRUCT ANY REMAINING INLET CHANNEL IMPROVEMENTS.
6. REMOVE ANY REMAINING SPECIAL STILLING BASIN(S) AND COMPLETE ROADWAY.



PROJECT REFERENCE NO. R-3833C	SHEET NO. EC-07/CONST.6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 TGS ENGINEERS 201 W MARION ST SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	



PIPE OUTLET CHANNEL
SEE DETAIL 14
CLASS '1' RIP-RAP
EST. 40 TONS
GEOTEXTILE
EST. 75 SY

SPC DSN
ENDWALL

BEGIN CONSTRUCTION
-Y6- POT STA. 11+70.00

BEGIN CONSTRUCTION
-Y3- POC STA. 12+22.00

END CONSTRUCTION
-Y7- POT STA. 10+78.94

END CONSTRUCTION
-Y4- POC STA. 11+65.00

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6


IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C,
UTILIZE FABRIC INSERT INLET PROTECTION
DEVICES IN AREAS WHERE WATER MAY
POND ON ROAD OPEN TO LIVE TRAFFIC.

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

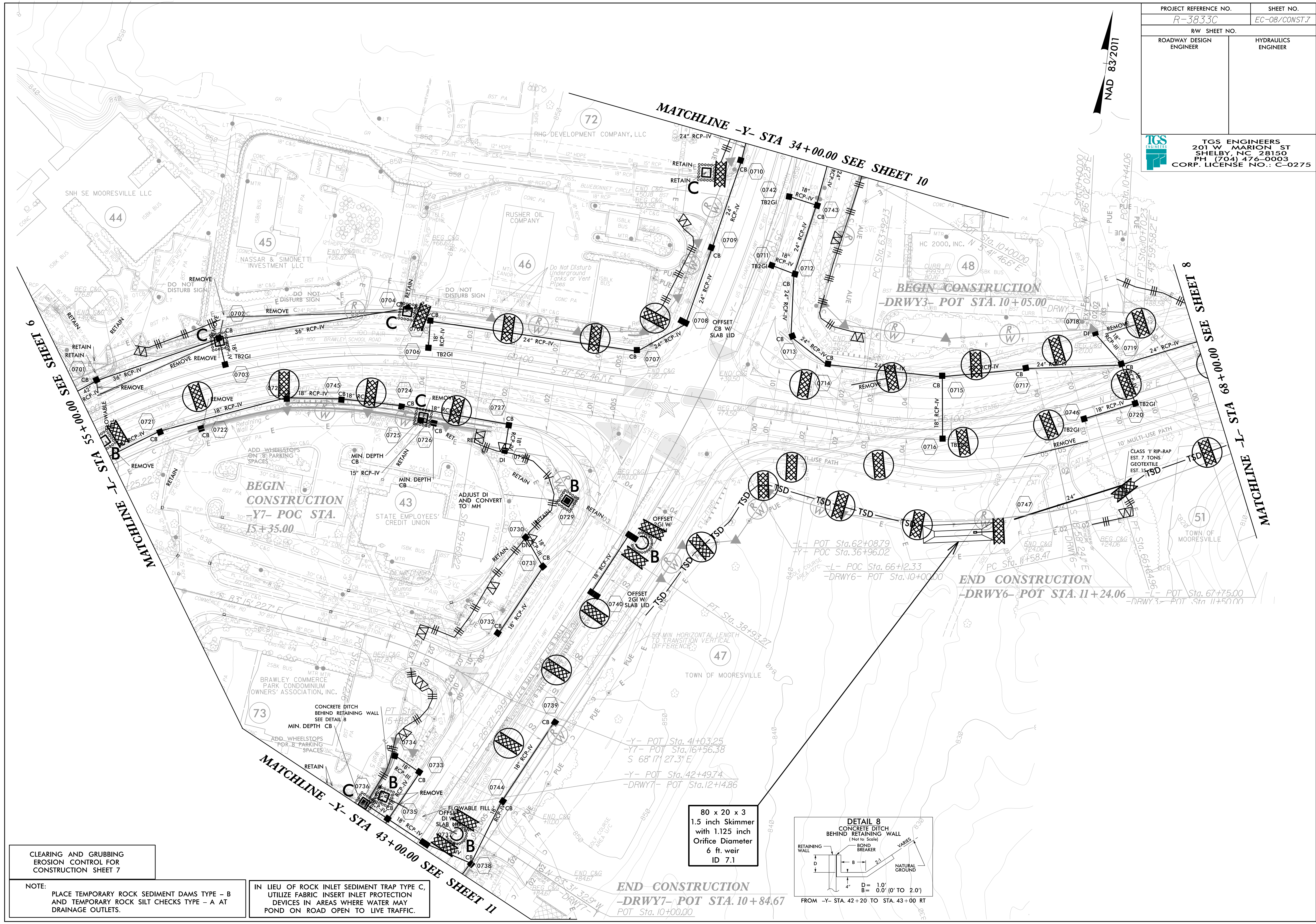
MATCHLINE -L- STA 41+00.00 SEE SHEET 5

MATCHLINE -L- STA 55+00.00 SEE SHEET 7

MATCHLINE -Y5- STA 14+00.00
SEE SHEET 11

PROJECT REFERENCE NO. R-3833C	SHEET NO. EC-08/CONST.7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 TGS ENGINEERS 201 W MARION ST SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	

NAD 83/2011

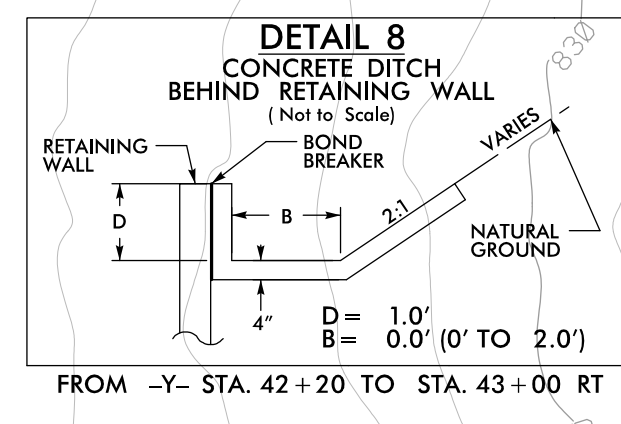


CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 7

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

IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C,
UTILIZE FABRIC INSERT INLET PROTECTION
DEVICES IN AREAS WHERE WATER MAY
POND ON ROAD OPEN TO LIVE TRAFFIC.

80 x 20 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
6 ft. weir
ID 7.1



END CONSTRUCTION
-DRWY7- POT STA. 10 + 84.67
POT Sta. 10+00.00

END CONSTRUCTION
-DRWY6- POT STA. 11 + 24.06

MATCHLINE -Y- STA 43+00.00 SEE SHEET 11

MATCHLINE -T- STA 35+00.00 SEE SHEET 9

MATCHLINE -Y- STA 34+00.00 SEE SHEET 10

MATCHLINE -L- STA 68+00.00 SEE SHEET 8

BEGIN CONSTRUCTION
-Y7- POC STA. 15 + 35.00

BEGIN CONSTRUCTION
-DRWY3- POT STA. 10 + 05.00

-L- POT Sta. 62+08.79
-Y- POC Sta. 36+96.02
-L- POC Sta. 66+12.33
-DRWY6- POT Sta. 10+00.00

-L- POT Sta. 67+75.00
-DRWY3- POT Sta. 11+50.00

-Y- POT Sta. 41+03.25
-Y7- POT Sta. 16+56.38
S 68° 17' 27.3" E
-Y- POT Sta. 42+49.74
-DRWY7- POT Sta. 12+14.86

CONCRETE DITCH
BEHIND RETAINING WALL
SEE DETAIL 8
MIN. DEPTH CB

BRAWLEY COMMERCE
PARK CONDOMINIUM
OWNERS' ASSOCIATION, INC.

ADD WHEELSTOPS
FOR 8' PARKING
SPACES

ADD WHEELSTOPS
ON 8' PARKING
SPACES

MIN. DEPTH
CB

REMOVE
REMOVE

REMOVE
REMOVE

DO NOT
DISTURB SIGN

DO NOT
DISTURB SIGN


DO NOT
DISTURB SIGN

DO NOT
DISTURB SIGN

DO NOT
DISTURB SIGN

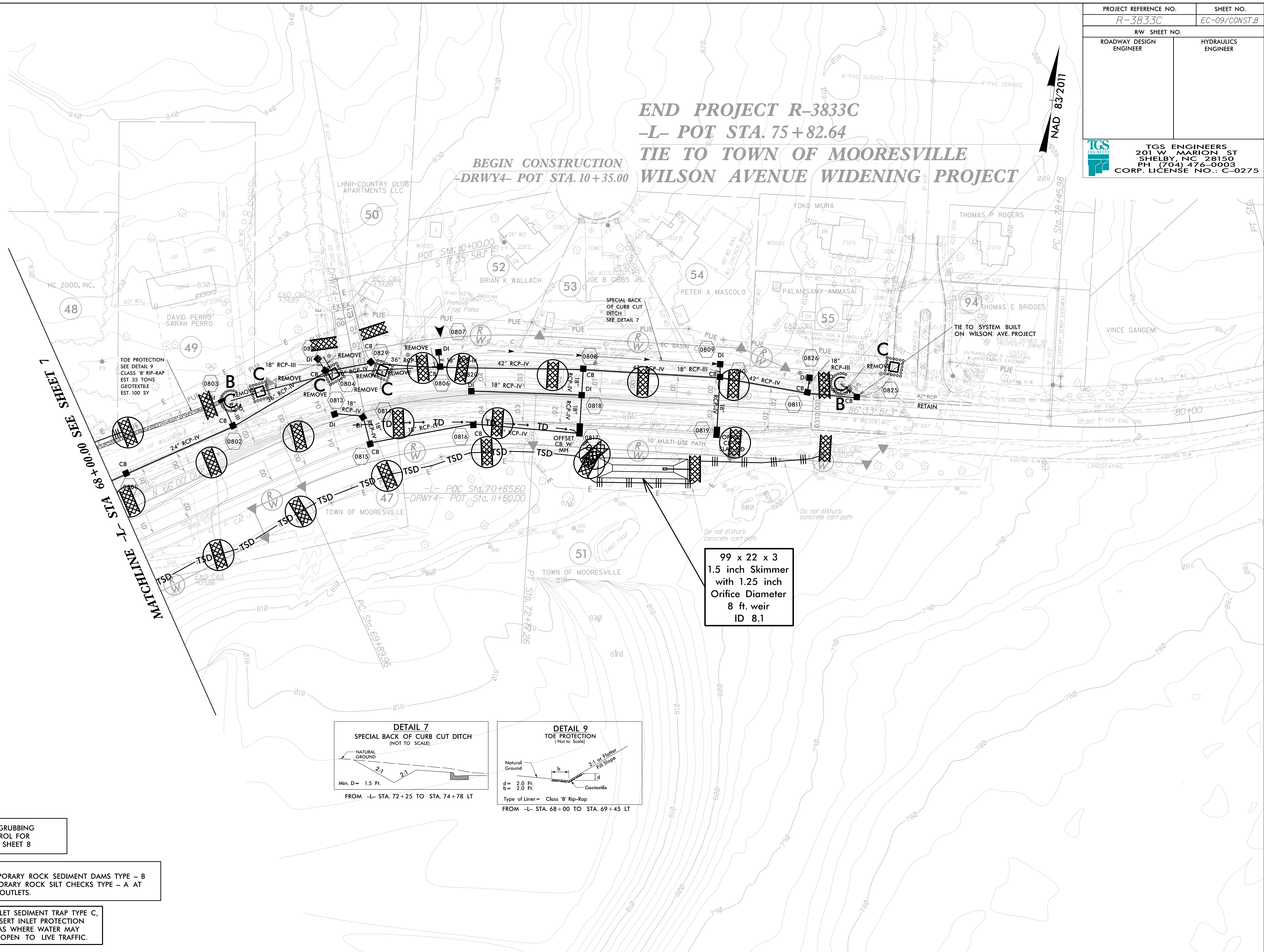
DO NOT
DISTURB SIGN

DO NOT
DISTURB SIGN

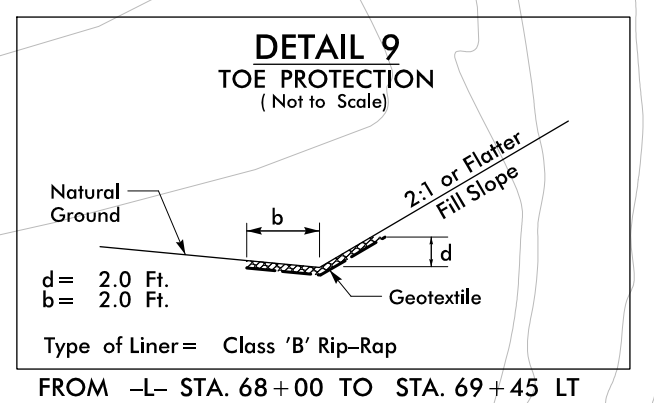
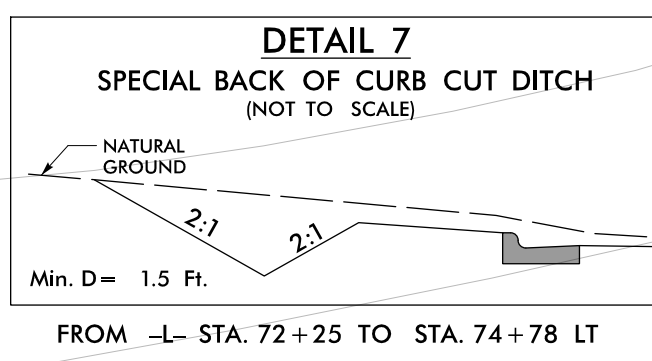
PROJECT REFERENCE NO. <i>R-3833C</i>	SHEET NO. <i>EC-09/CONST.B</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 TGS ENGINEERS 201 W MARION ST SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	

END PROJECT R-3833C
-L- POT STA. 75 + 82.64
TIE TO TOWN OF MOORESVILLE
WILSON AVENUE WIDENING PROJECT

BEGIN CONSTRUCTION
-DRWY4- POT STA. 10 + 35.00



99 x 22 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
8 ft. weir
ID 8.1



CLEARING AND GRUBBING
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 8

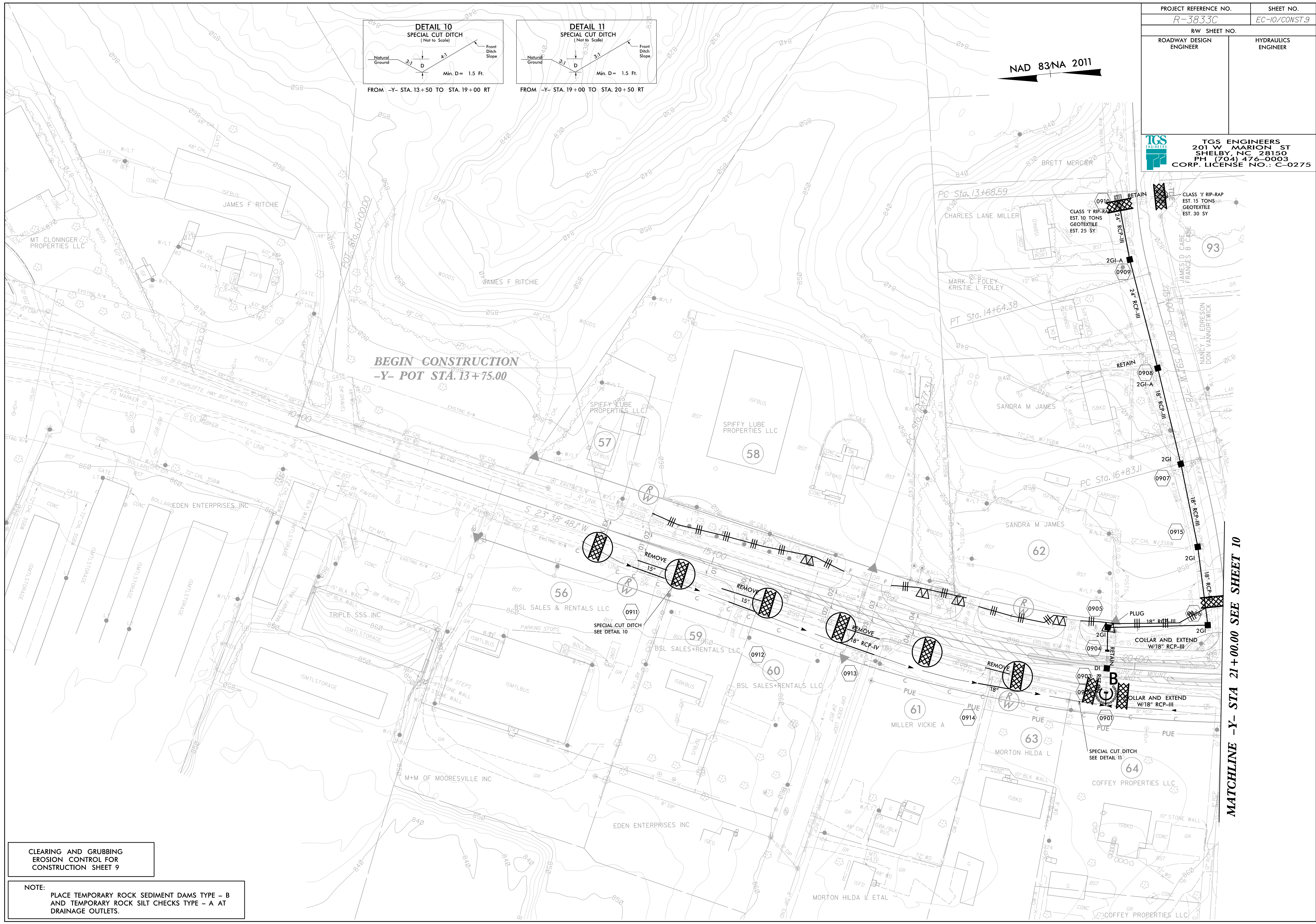
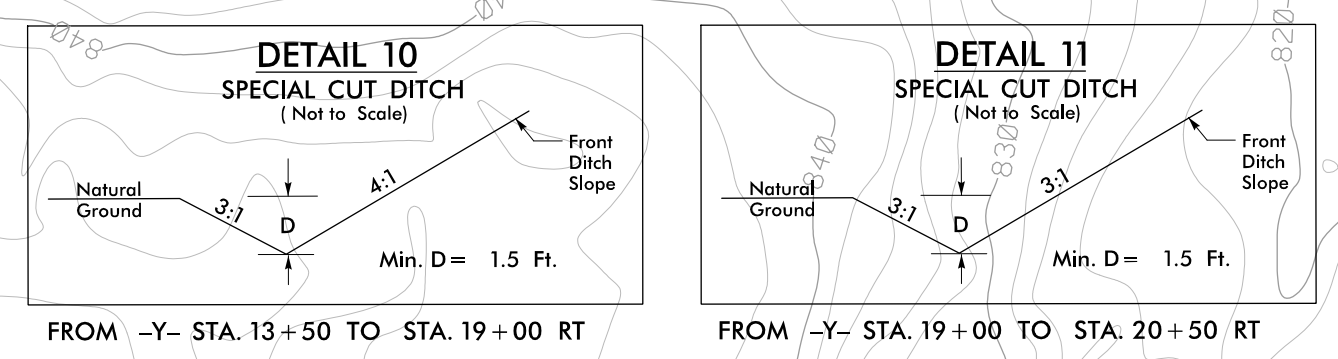
NOTE:
 PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
 AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
 DRAINAGE OUTLETS.

IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C,
 UTILIZE FABRIC INSERT INLET PROTECTION
 DEVICES IN AREAS WHERE WATER MAY
 POND ON ROAD OPEN TO LIVE TRAFFIC.

PROJECT REFERENCE NO. R-3833C	SHEET NO. EC-10/CONST.9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TGS ENGINEERS
201 W MARION ST
SHELBY, NC 28150
PH (704) 476-0003
CORP. LICENSE NO.: C-0275


NAD 83/NA 2011



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 9

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

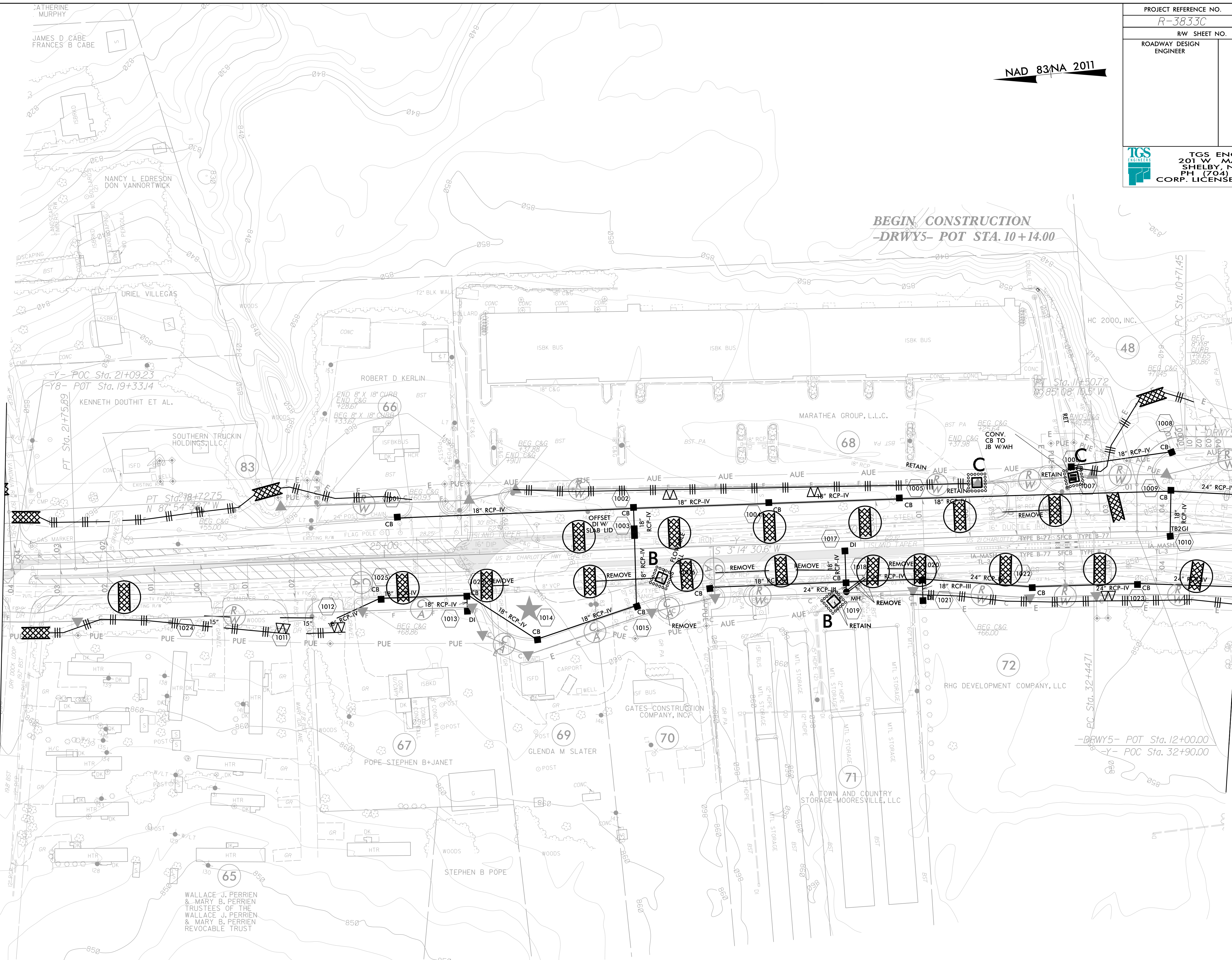
MATCHLINE -Y- STA 21+00.00 SEE SHEET 10

PROJECT REFERENCE NO. R-3833C	SHEET NO. EC-11/CONST.10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 TGS ENGINEERS 201 W MARION ST SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	

NAD 83/NA 2011

MATCHLINE -Y- STA 21+00.00 SEE SHEET 9


MATCHLINE -Y- STA 34+00.00 SEE SHEET 7

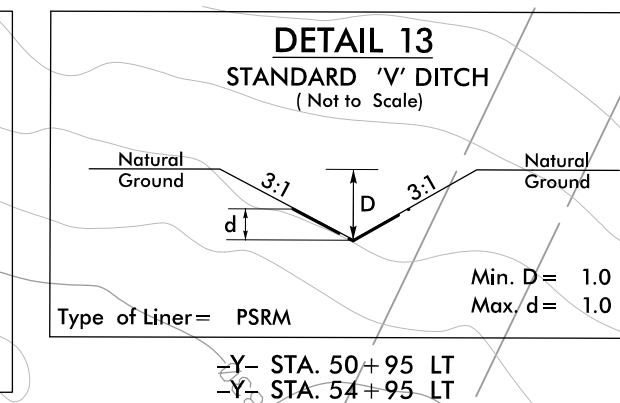
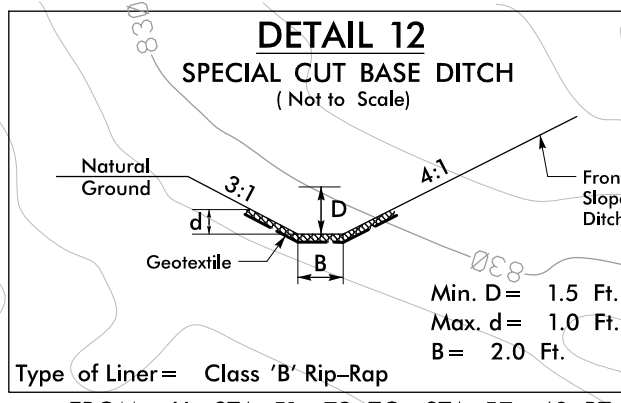
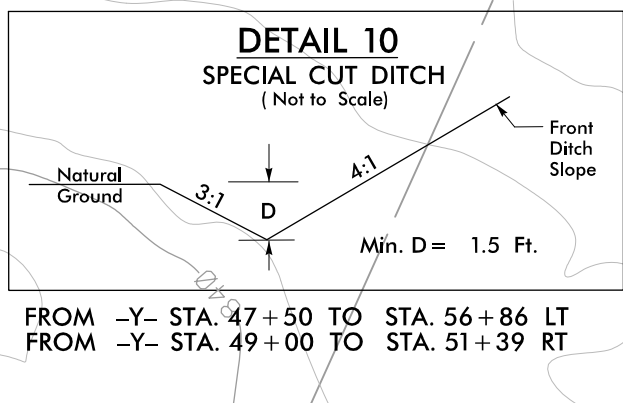
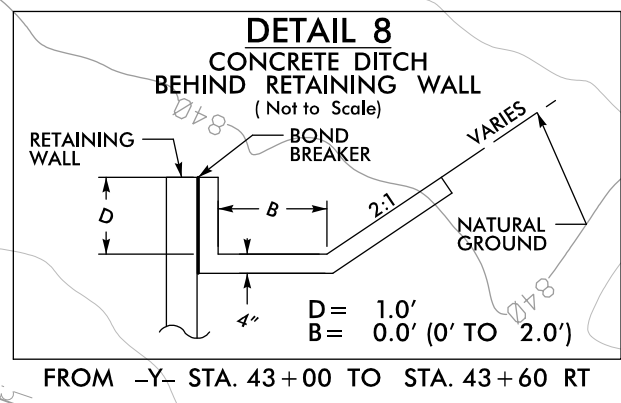
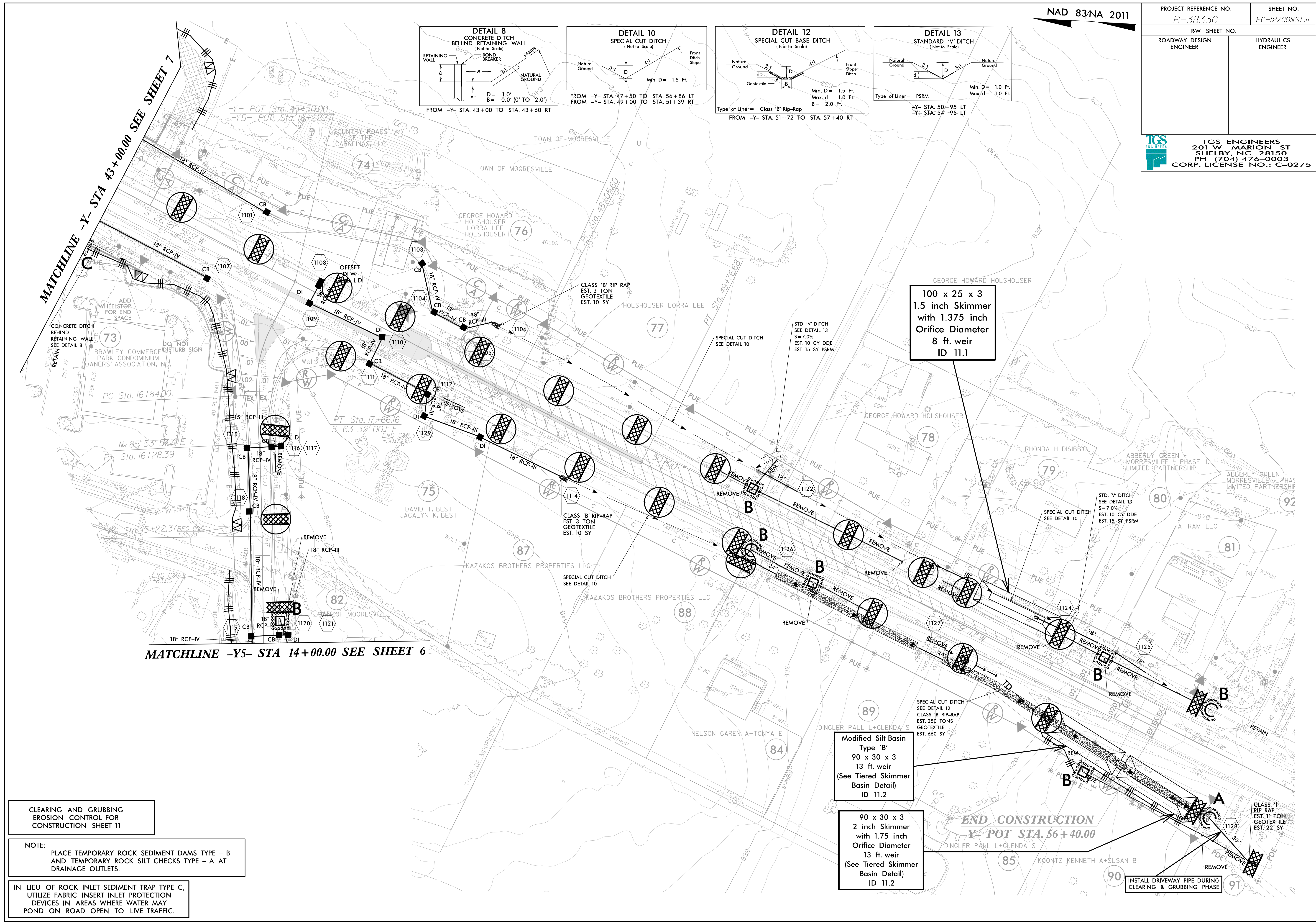


BEGIN CONSTRUCTION
-DRWY5- POT STA. 10+14.00

-DRWY5- POT STA. 12+00.00
-Y- POC STA. 32+90.00

- | | | |
|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>CLEARING AND GRUBBING
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 10</p> | <p>NOTE:
 PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
 AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
 DRAINAGE OUTLETS.</p> | <p>IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C,
 UTILIZE FABRIC INSERT INLET PROTECTION
 DEVICES IN AREAS WHERE WATER MAY
 POND ON ROAD OPEN TO LIVE TRAFFIC.</p> |
|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

PROJECT REFERENCE NO. R-3833C	SHEET NO. EC-12/CONST.11
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 TGS ENGINEERS 201 W MARION ST SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	



100 x 25 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
8 ft. weir
ID 11.1

Modified Silt Basin
Type 'B'
90 x 30 x 3
13 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 11.2

90 x 30 x 3
2 inch Skimmer
with 1.75 inch
Orifice Diameter
13 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 11.2

INSTALL DRIVEWAY PIPE DURING
CLEARING & GRUBBING PHASE

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 11


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

IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C,
UTILIZE FABRIC INSERT INLET PROTECTION
DEVICES IN AREAS WHERE WATER MAY
POND ON ROAD OPEN TO LIVE TRAFFIC.

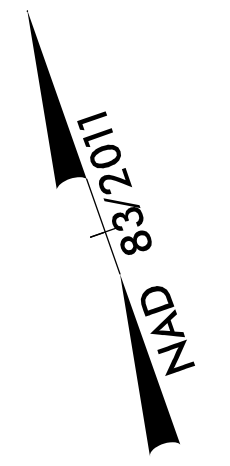
MATCHLINE -Y- STA 43+00.00 SEE SHEET 7

MATCHLINE -Y5- STA 14+00.00 SEE SHEET 6

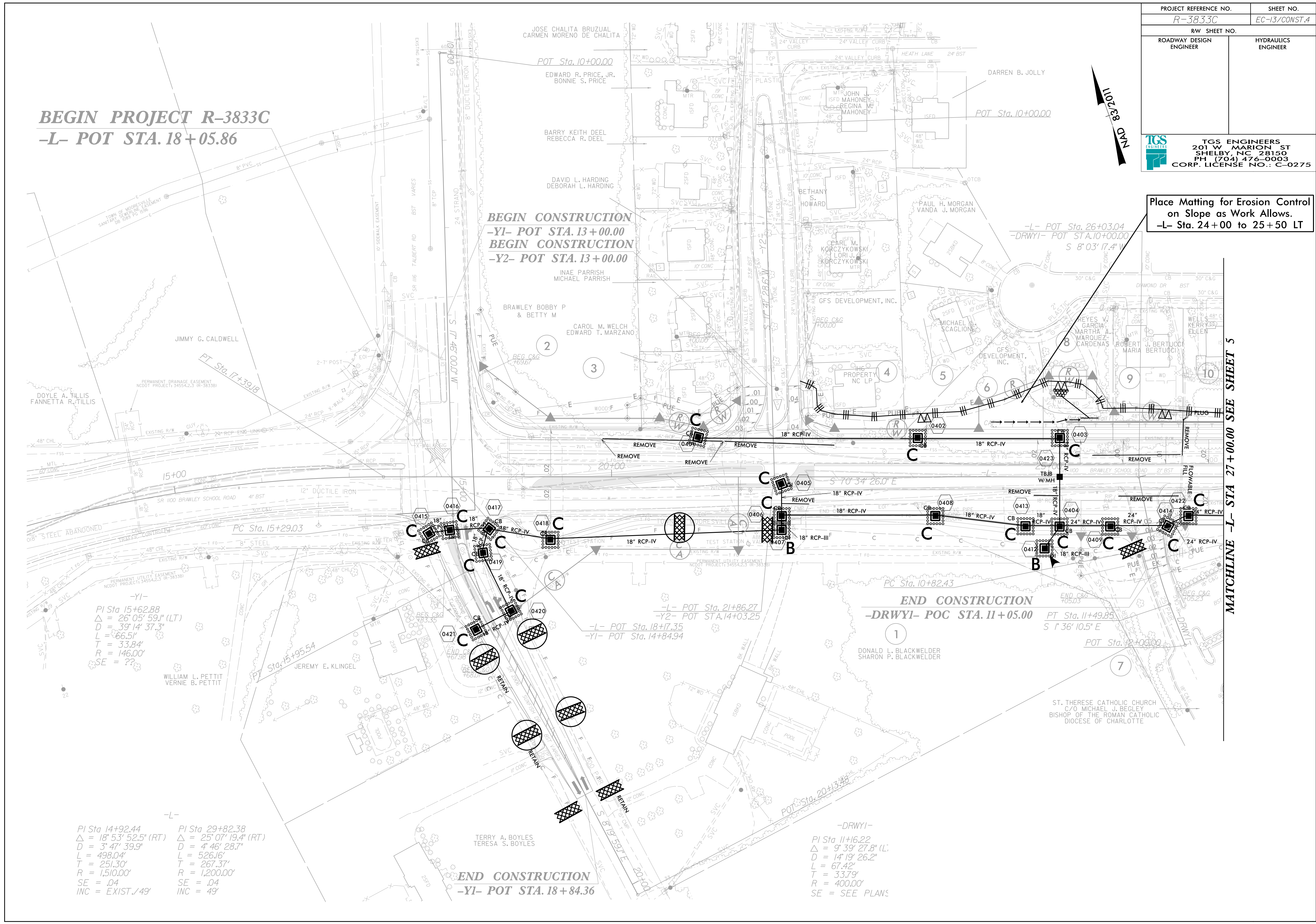
END CONSTRUCTION
-Y- POT STA. 56+40.00

PROJECT REFERENCE NO. <i>R-3833C</i>	SHEET NO. <i>EC-13/CONST.4</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 TGS ENGINEERS 201 W. MARION ST SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	

BEGIN PROJECT R-3833C
-L- POT STA. 18+05.86



Place Matting for Erosion Control
 on Slope as Work Allows.
 -L- Sta. 24+00 to 25+50 LT



-Y1-
 PI Sta 15+62.88
 $\Delta = 26^{\circ} 05' 59.1''$ (LT)
 $D = 39' 14' 37.3''$
 $L = 66.51'$
 $T = 33.84'$
 $R = 146.00'$
 $SE = ??$

-L-
 PI Sta 14+92.44 PI Sta 29+82.38
 $\Delta = 18^{\circ} 53' 52.5''$ (RT) $\Delta = 25^{\circ} 07' 19.4''$ (RT)
 $D = 3' 47' 39.9''$ $D = 4' 46' 28.7''$
 $L = 498.04'$ $L = 526.16'$
 $T = 251.30'$ $T = 267.37'$
 $R = 1,510.00'$ $R = 1,200.00'$
 $SE = .04$ $SE = .04$
 $INC = EXIST./49'$ $INC = 49'$

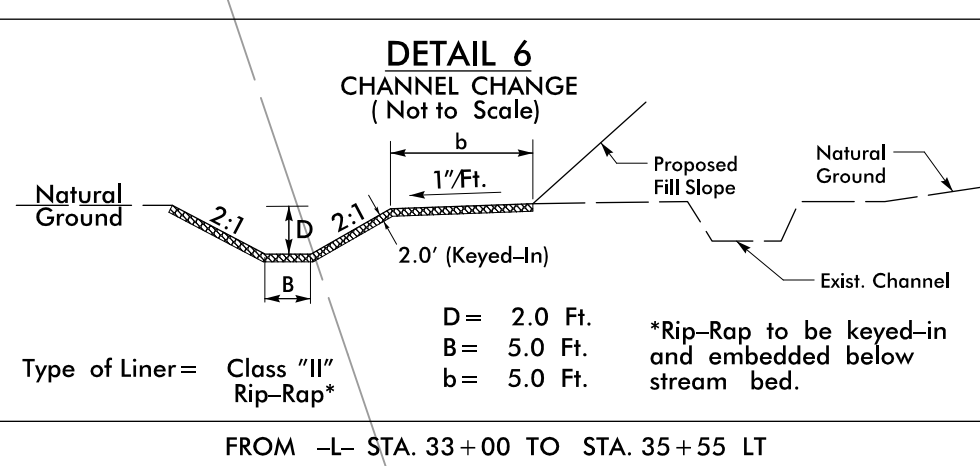
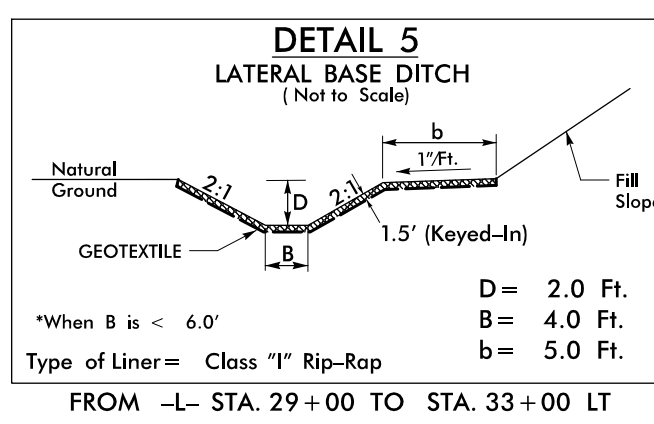
-DRWYI-
 PI Sta 11+16.22
 $\Delta = 9^{\circ} 39' 27.8''$ (L)
 $D = 14' 19' 26.2''$
 $L = 67.42'$
 $T = 33.79'$
 $R = 400.00'$
 $SE = SEE PLANS$

MATCHLINE -L- STA 27+00.00 SEE SHEET 5

-L-
 PI Sta 29+82.38
 $\Delta = 25^{\circ} 07' 19.4" (RT)$
 $D = 4' 46' 28.7"$
 $L = 526.16'$
 $T = 267.37'$
 $\Delta = 1,200.00'$
 $\Delta = .04$
 $\Delta = 49'$

-DRWY2-
 PI Sta 38+56.09
 $\Delta = 46^{\circ} 35' 27.8" (LT)$
 $D = 5' 43' 46.5"$
 $L = 813.17'$
 $T = 430.58'$
 $R = 1,000.00'$
 $SE = .04$
 $INC = 49'$

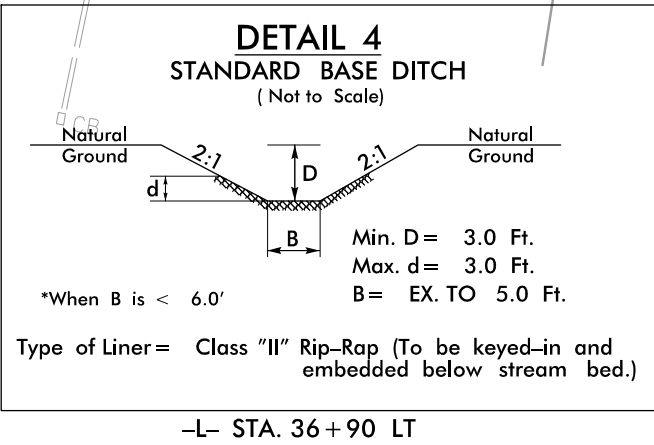
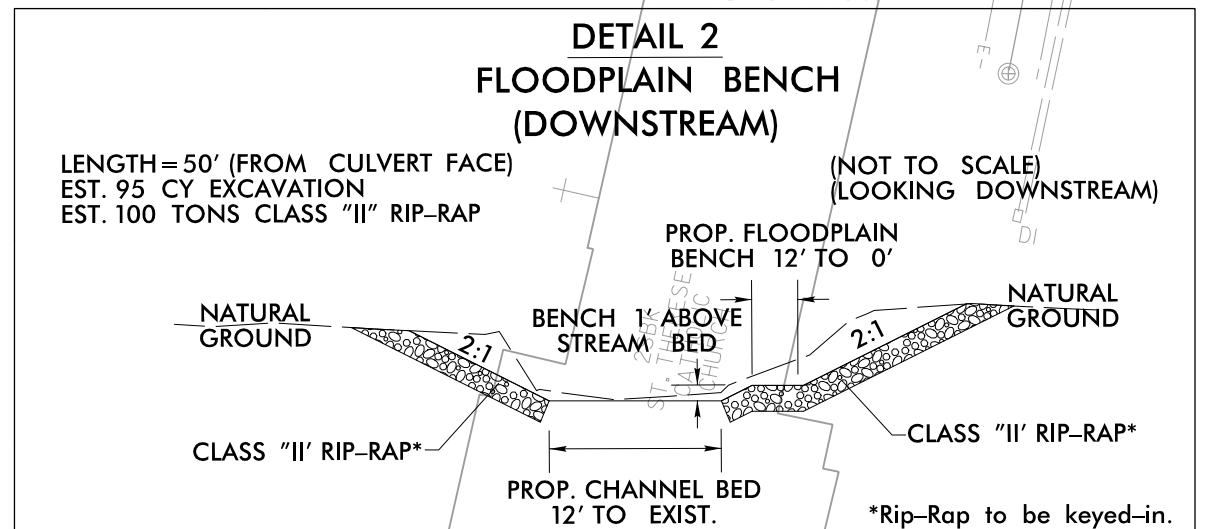
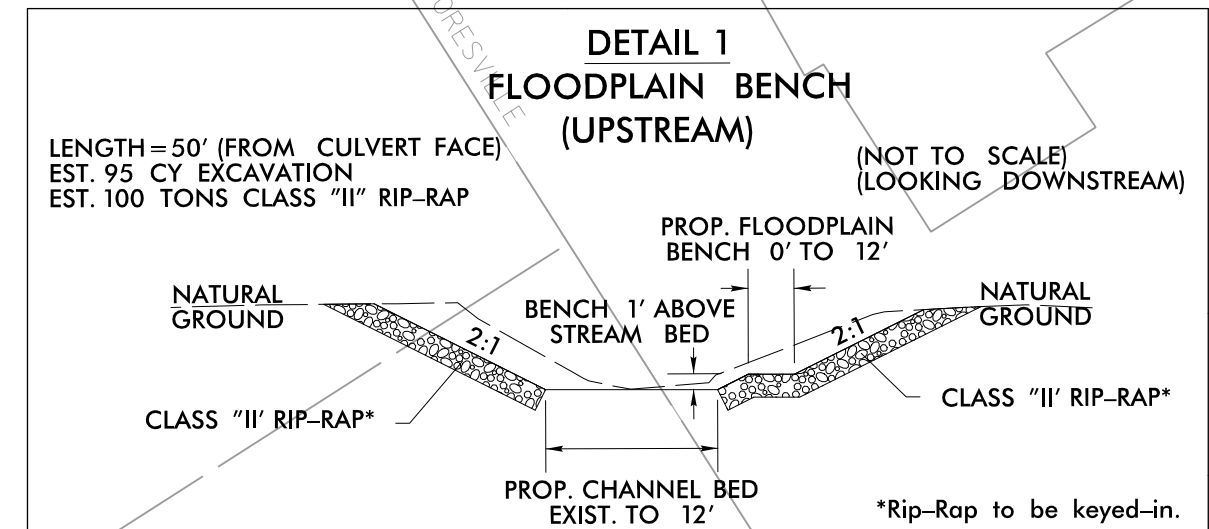
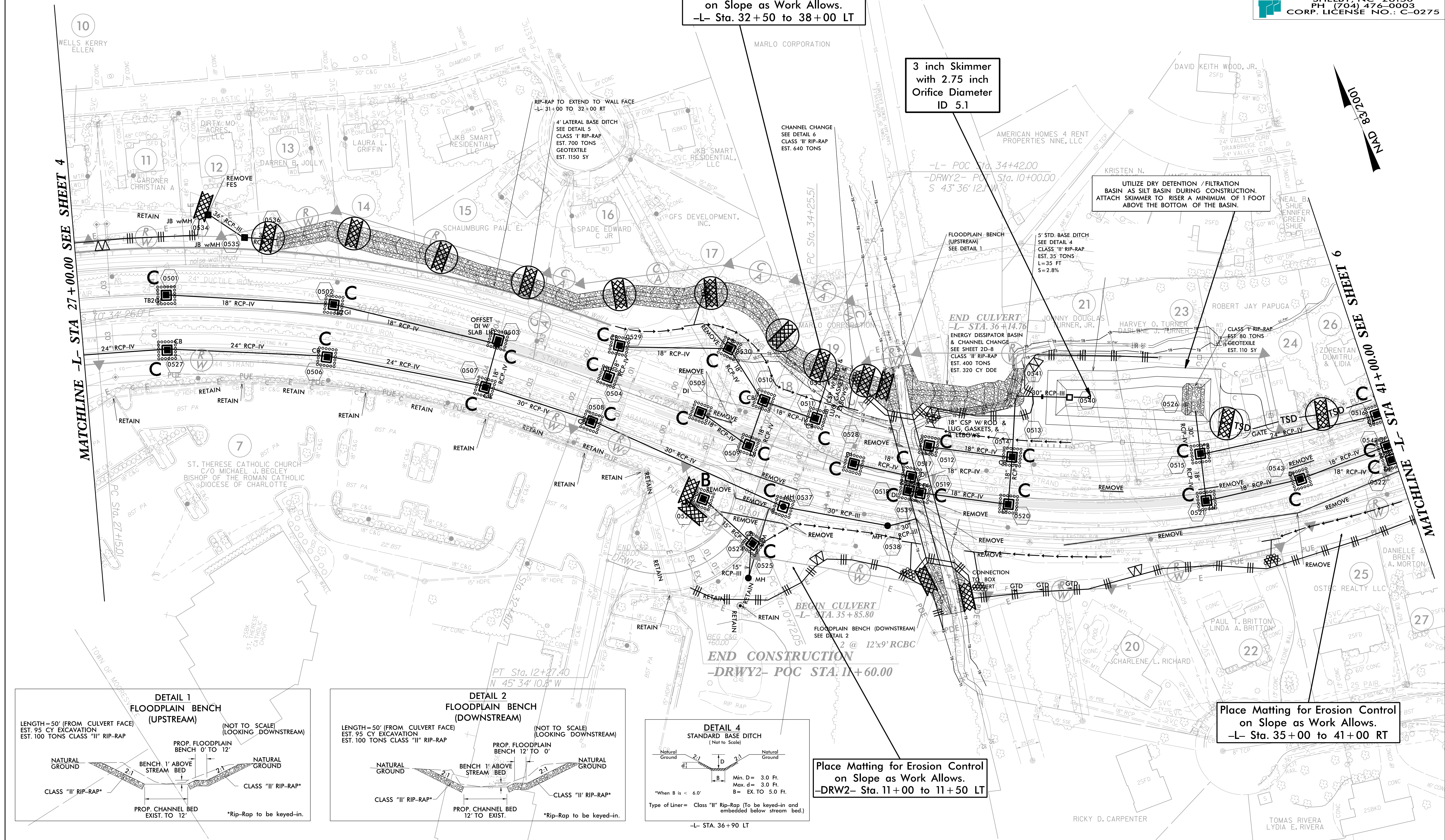
-DRWY2-
 PI Sta 11+71.47
 $\Delta = 90^{\circ} 49' 37.1" (RT)$
 $D = 58' 27' 54.3"$
 $L = 155.35'$
 $T = 99.42'$
 $R = 98.00'$
 $SE = SEE PLANS$
 $INC = 18'$



Place Matting for Erosion Control on Slope as Work Allows.
 -L- Sta. 32+50 to 38+00 LT

3 inch Skimmer with 2.75 inch Orifice Diameter ID 5.1

UTILIZE DRY DETENTION / FILTRATION BASIN AS SILT BASIN DURING CONSTRUCTION. ATTACH SKIMMER TO RISER A MINIMUM OF 1 FOOT ABOVE THE BOTTOM OF THE BASIN.



Place Matting for Erosion Control on Slope as Work Allows.
 -DRWY2- Sta. 11+00 to 11+50 LT

Place Matting for Erosion Control on Slope as Work Allows.
 -L- Sta. 35+00 to 41+00 RT

MATCHLINE -L- STA 27+00.00 SEE SHEET 4

MATCHLINE -L- STA 41+00.00 SEE SHEET 6

NAD 83 200'

END CONSTRUCTION
 -DRWY2- POC STA: 11+60.00

END CULVERT
 -L- STA. 36+14.76
 ENERGY DISSIPATOR BASIN & CHANNEL CHANGE
 SEE SHEET 2D-8
 CLASS "II" RIP-RAP
 EST. 400 TONS
 L=35 FT
 S=2.8%

4' LATERAL BASE DITCH
 SEE DETAIL 5
 CLASS "I" RIP-RAP
 EST. 700 TONS
 GEOTEXTILE
 EST. 1150 SY

CHANNEL CHANGE
 SEE DETAIL 6
 CLASS "II" RIP-RAP
 EST. 640 TONS


5' STD. BASE DITCH (UPSTREAM)
 SEE DETAIL 4
 CLASS "II" RIP-RAP
 EST. 35 TONS
 L=35 FT
 S=2.8%

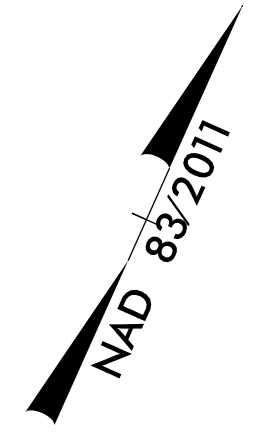
FLOODPLAIN BENCH (UPSTREAM)
 SEE DETAIL 1

RIP-RAP TO EXTEND TO WALL FACE
 -L- 31+00 TO 32+00 RT

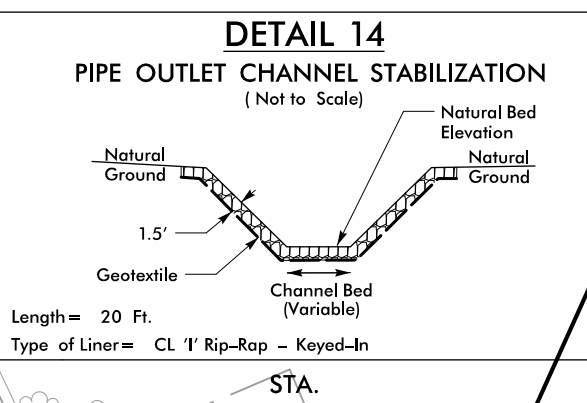
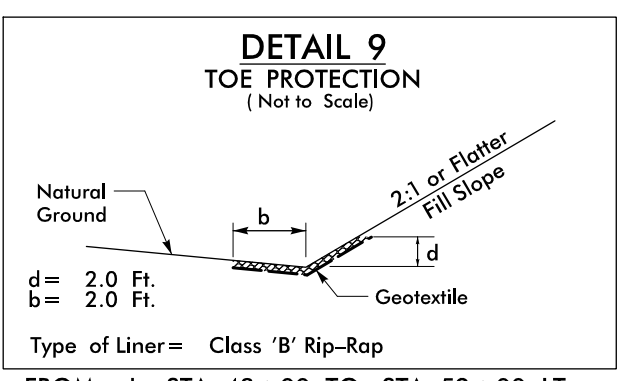
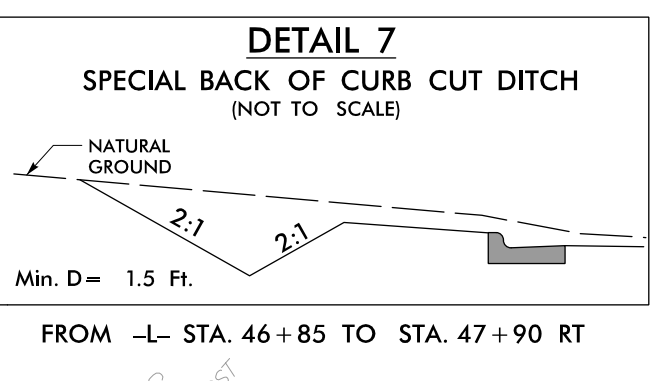
BEGIN CULVERT
 -L- STA. 35+85.80
 FLOODPLAIN BENCH (DOWNSTREAM)
 SEE DETAIL 2
 2 @ 12x9' RCBC

END CONSTRUCTION
 -DRWY2- POC STA: 11+60.00

PROJECT REFERENCE NO. R-3833C		SHEET NO. EC-15/CONST.6	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
 TGS ENGINEERS 201 W MARION ST SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275			



-L- PI Sta 38+56.09 $\Delta = 46^{\circ} 35' 27.8" (LT)$ $D = 5' 43" 46.5"$ $L = 813.17'$ $T = 430.58'$ $R = 1,000.00'$ $SE = .04$ $INC = 49'$	-L- PI Sta 47+51.00 $\Delta = 55^{\circ} 20' 14.2" (LT)$ $D = 7' 38" 22.0"$ $L = 724.36'$ $T = 393.24'$ $R = 750.00'$ $SE = .04$ $INC = 49'$	-L- PI Sta 56+10.32 $\Delta = 59^{\circ} 26' 02.5" (RT)$ $D = 7' 38" 22.0"$ $L = 777.99'$ $T = 428.09'$ $R = 750.00'$ $SE = .04$ $INC = 49'$	-L- PI Sta 10+70.41 $\Delta = 27^{\circ} 38' 58.0" (RT)$ $D = 24' 45" 47.2"$ $L = 111.66'$ $T = 56.94'$ $R = 231.38'$ $SE = SEE PLANS$ $INC = 10'$	-L- PI Sta 12+80.38 $\Delta = 29^{\circ} 20' 09.7" (LT)$ $D = 25' 27" 53.2"$ $L = 115.20'$ $T = 58.89'$ $R = 225.00'$ $SE = SEE PLANS$ $INC = 10'$	-L- $\Delta = 31'$ $D = 137.03'$ $L = 72.00'$ $R = 180.61'$ $SE = SEE PLANS$ $INC = 18'$
-Y5- PI Sta 11+71.7 $\Delta = 53^{\circ} 12' 03.0" (LT)$ $D = 37' 12" 18.2"$ $L = 142.99'$ $T = 77.12'$ $R = 154.00'$ $SE = SEE PLANS$ $INC = 18'$	-Y7- PI Sta 11+15.22 $\Delta = 33^{\circ} 58' 21.8" (LT)$ $D = 19' 26" 48.7"$ $L = 174.70'$ $T = 90.00'$ $R = 294.63'$ $SE = .04$ $INC = N/A$				



Place Matting for Erosion Control on Slope as Work Allows.
 -L- Sta. 44+50 to 51+50 LT

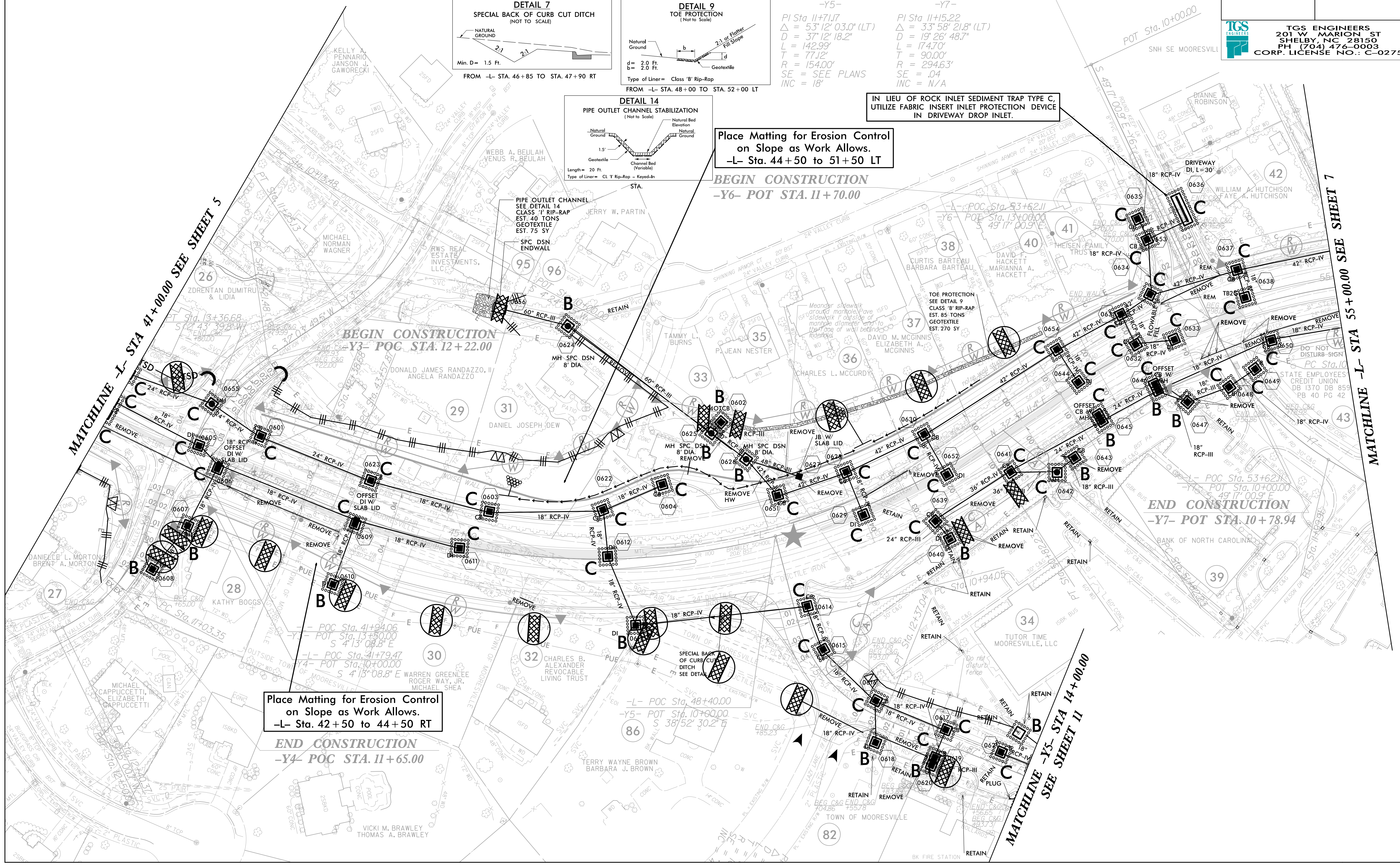
IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C, UTILIZE FABRIC INSERT INLET PROTECTION DEVICE IN DRIVEWAY DROP INLET.

BEGIN CONSTRUCTION
 -Y6- POT STA. 11+70.00

Place Matting for Erosion Control on Slope as Work Allows.
 -L- Sta. 42+50 to 44+50 RT

END CONSTRUCTION
 -Y4- POC STA. 11+65.00


END CONSTRUCTION
 -Y7- POT STA. 10+78.94



MATCHLINE -L- STA 41+00.00 SEE SHEET 5

MATCHLINE -L- STA 55+00.00 SEE SHEET 7

MATCHLINE -Y5- STA 14+00.00 SEE SHEET 11

PROJECT REFERENCE NO. R-3833C		SHEET NO. EC-17/CONST.8	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
 TGS ENGINEERS 201 W MARION ST SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275			

PI Sta 71+36.42 PI Sta 79+88.35
 $\Delta = 27^{\circ} 26' 06.9''$ (RT) $\Delta = 17^{\circ} 58' 41.5''$ (LT)
 $D = 9^{\circ} 32' 57.5''$ $D = 6^{\circ} 21' 58.3''$
 $L = 287.30'$ $L = 282.40'$
 $T = 146.46'$ $T = 142.37'$
 $R = 600.00'$ $R = 900.00'$
 $SE = .04$ $SE = EXIST$
 $INC = 42'$ $INC = EXIST$

Place Matting for Erosion Control
 on Slope as Work Allows.
 -L- Sta. 68+50 to 69+50 LT

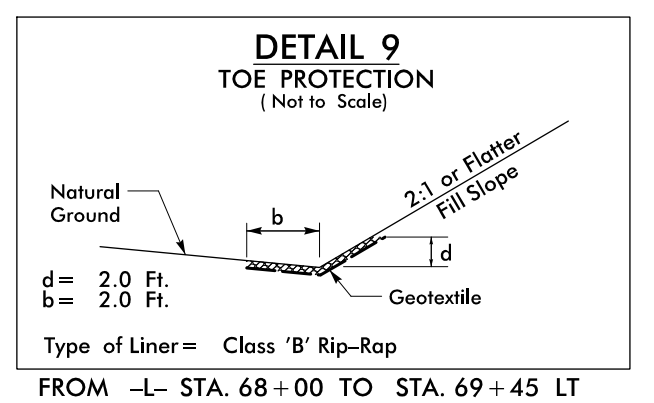
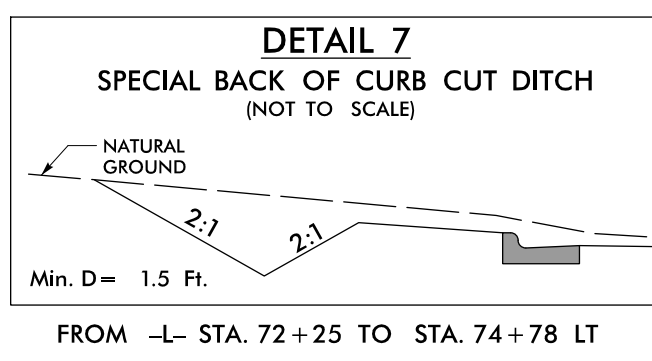
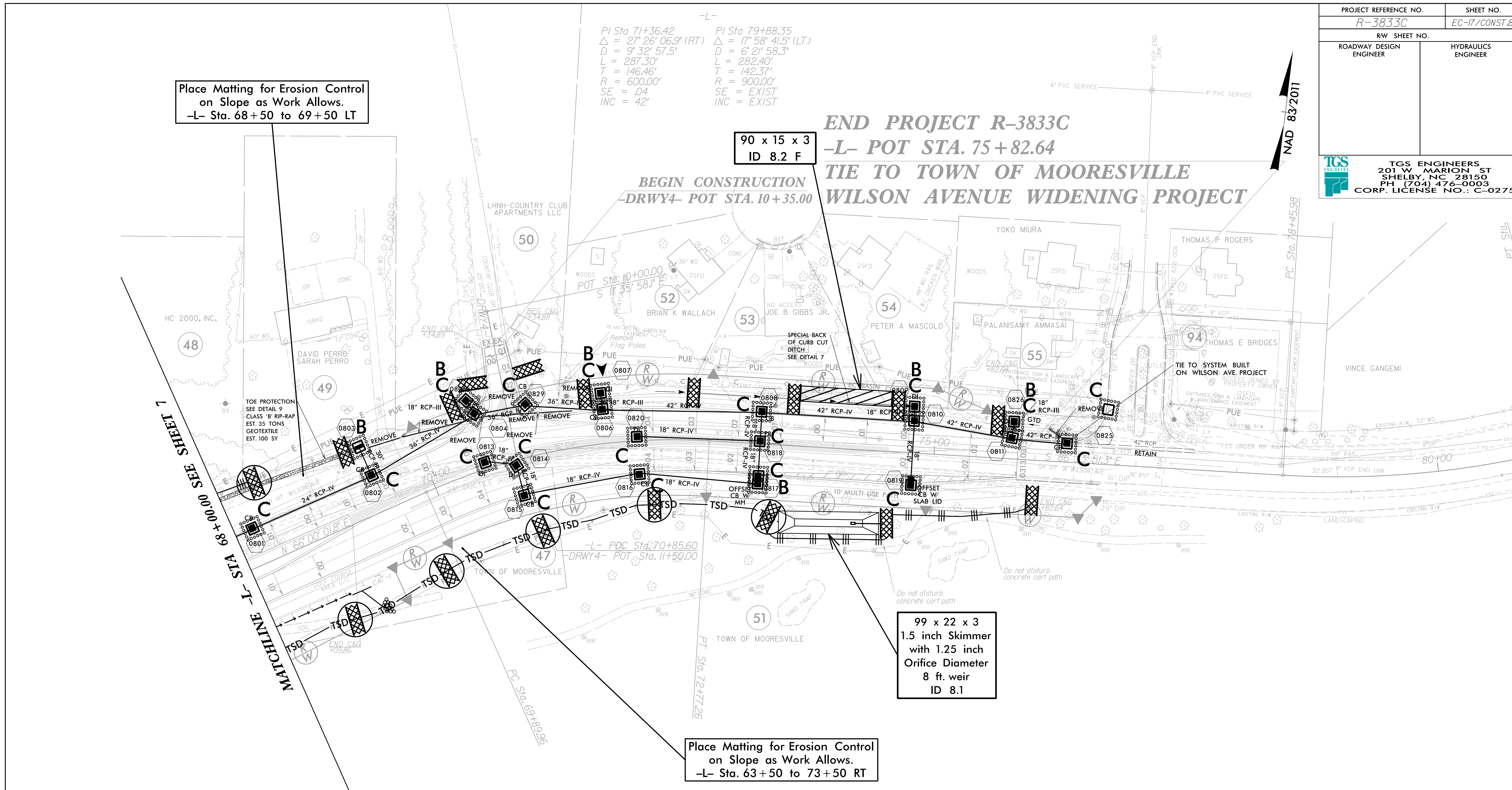
90 x 15 x 3
 ID 8.2 F

BEGIN CONSTRUCTION
 -DRWY4- POT STA. 10+35.00

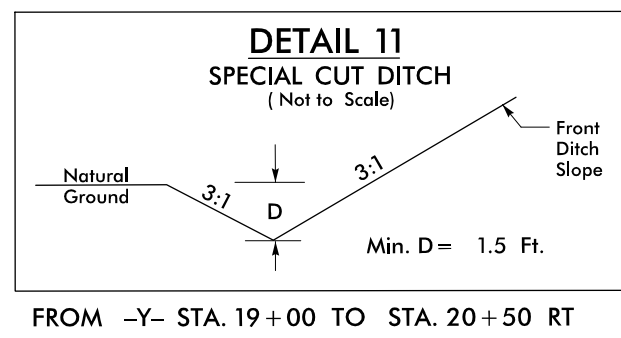
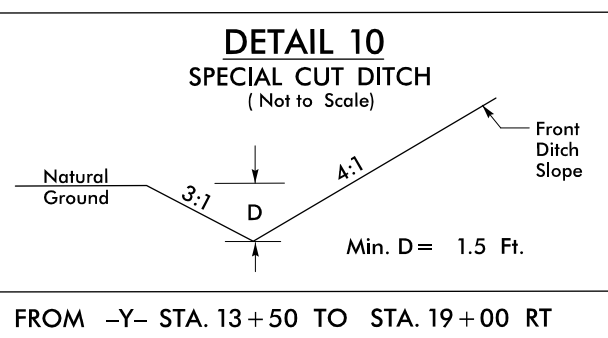
END PROJECT R-3833C
-L- POT STA. 75+82.64
TIE TO TOWN OF MOORESVILLE
WILSON AVENUE WIDENING PROJECT

99 x 22 x 3
 1.5 inch Skimmer
 with 1.25 inch
 Orifice Diameter
 8 ft. weir
 ID 8.1

Place Matting for Erosion Control
 on Slope as Work Allows.
 -L- Sta. 63+50 to 73+50 RT



IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C,
 UTILIZE FABRIC INSERT INLET PROTECTION
 DEVICES IN AREAS WHERE WATER MAY
 POND ON ROAD OPEN TO LIVE TRAFFIC.

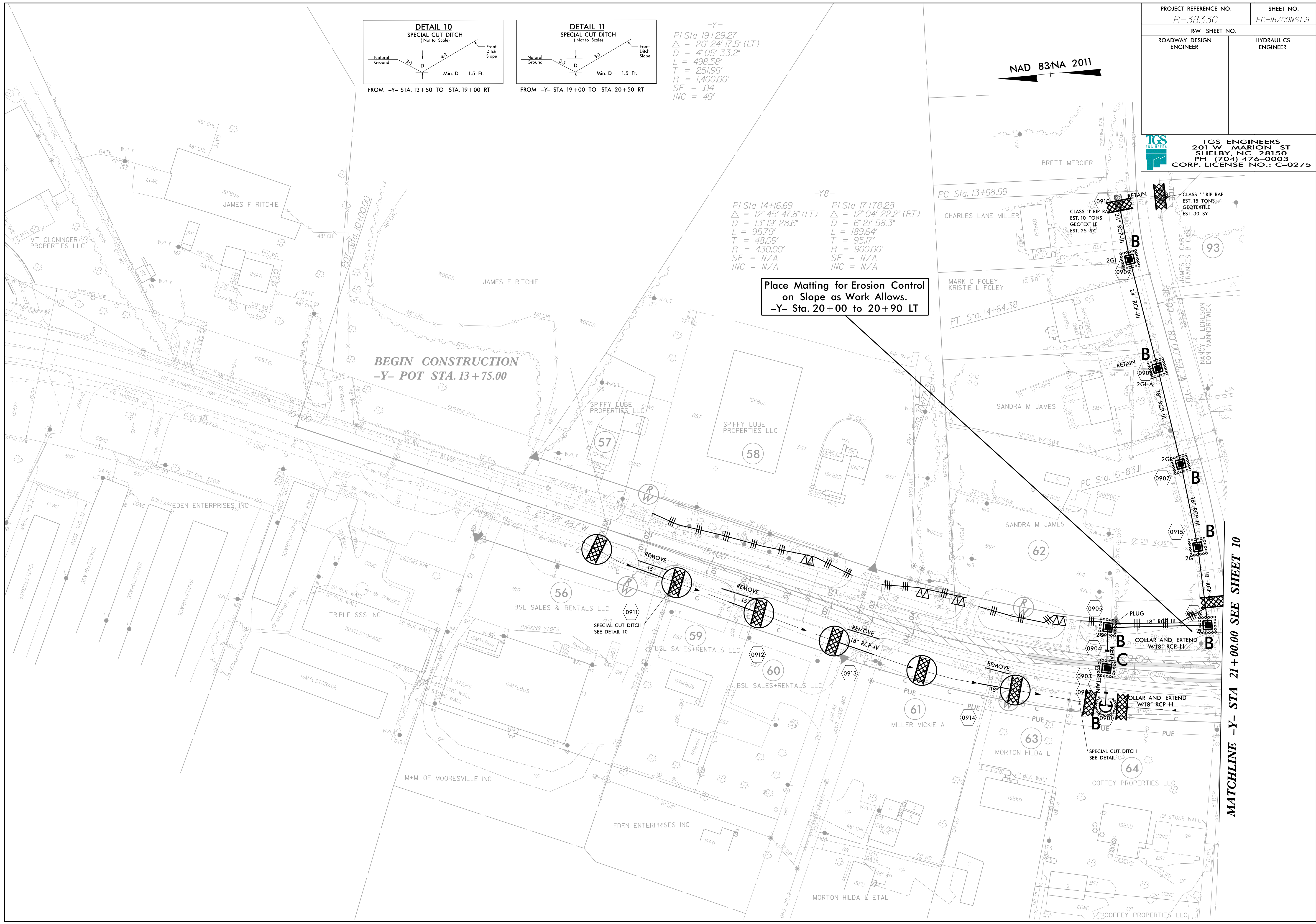


-Y-
 PI Sta 19+29.27
 $\Delta = 20' 24" 17.5" (LT)$
 $D = 4' 05" 33.2"$
 $L = 498.58'$
 $T = 251.96'$
 $R = 1,400.00'$
 $SE = .04$
 $INC = 49'$


-Y8-
 PI Sta 14+16.69 PI Sta 17+78.28
 $\Delta = 12' 45" 47.8" (LT)$ $\Delta = 12' 04" 22.2" (RT)$
 $D = 13' 19" 28.6"$ $D = 6' 21" 58.3"$
 $L = 95.79'$ $L = 189.64'$
 $T = 48.09'$ $T = 95.17'$
 $R = 430.00'$ $R = 900.00'$
 $SE = N/A$ $SE = N/A$
 $INC = N/A$ $INC = N/A$

Place Matting for Erosion Control
 on Slope as Work Allows.
 -Y- Sta. 20+00 to 20+90 LT

NAD 83/NA 2011



MATCHLINE -Y- STA 21+00.00 SEE SHEET 10

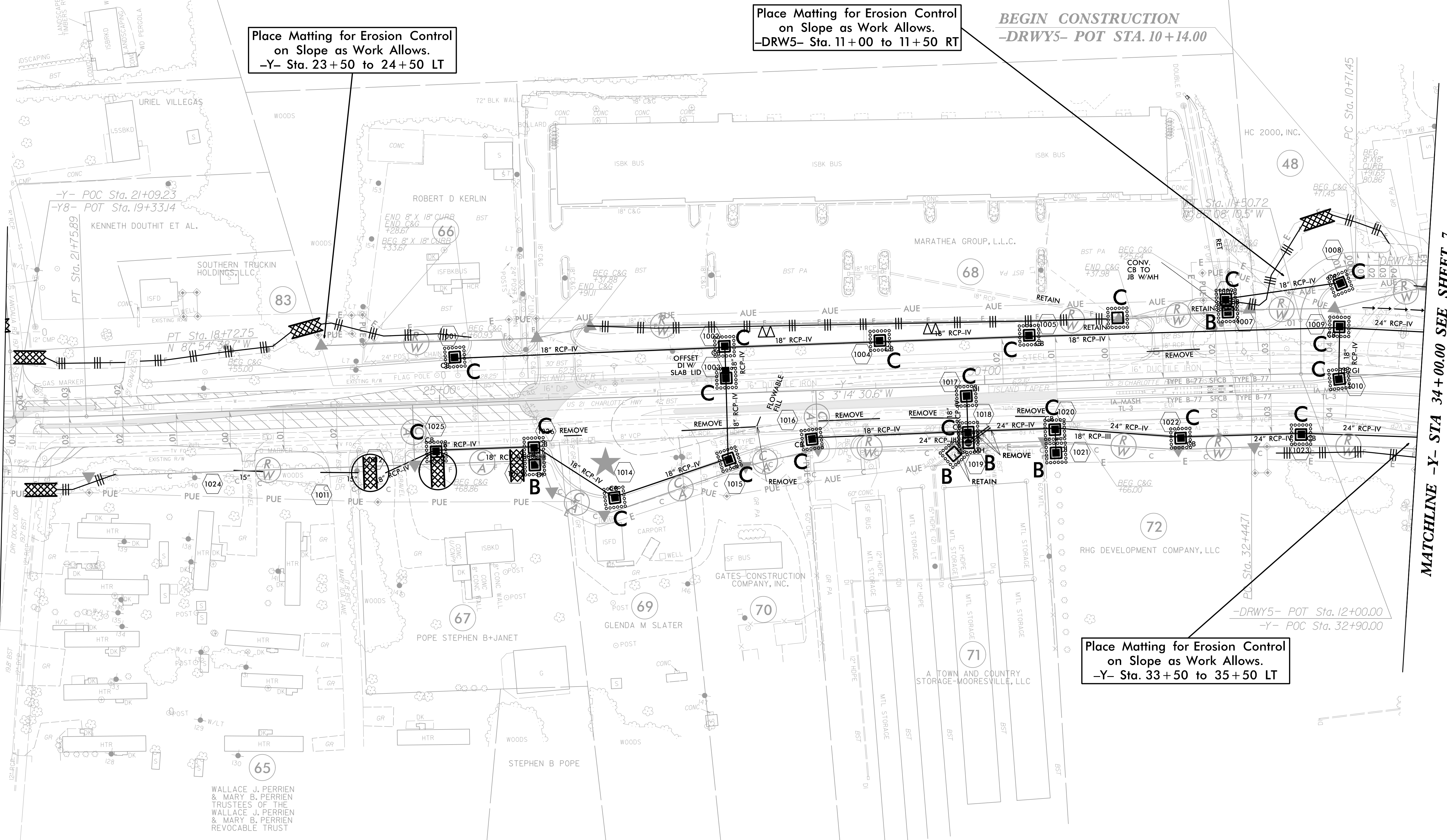
PROJECT REFERENCE NO.	SHEET NO.
R-3833C	EC-19/CONST.10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 TGS ENGINEERS 201 W MARION ST SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	

NAD 83/NA 2011

-Y8-	-Y-	-DRWY5-
PI Sta 17+78.28 Δ = 12° 04' 22.2" (RT) D = 6' 21' 58.3" L = 189.64' T = 95.17' R = 900.00' SE = N/A INC = N/A	PI Sta 19+31.22 Δ = 20° 21' 13.5" (LT) D = 4' 05' 33.2" L = 497.34' T = 251.32' R = 1,400.00' SE = .04 INC = 49'	PI Sta 35+73.50 Δ = 23° 13' 29.2" (RT) D = 3' 34' 51.6" L = 648.56' T = 328.79' R = 1,600.00' SE = .04 INC = 49'
		PI Sta 11+22.18 Δ = 90° 49' 57.1" (LT) D = 114' 35' 29.6" L = 79.27' T = 50.73' R = 50.00' SE = SEE PLANS INC = 10'

MATCHLINE -Y- STA 21+00.00 SEE SHEET 9

MATCHLINE -Y- STA 34+00.00 SEE SHEET 7



Place Matting for Erosion Control
on Slope as Work Allows.
-Y- Sta. 23+50 to 24+50 LT

Place Matting for Erosion Control
on Slope as Work Allows.
-DRWY5- Sta. 11+00 to 11+50 RT

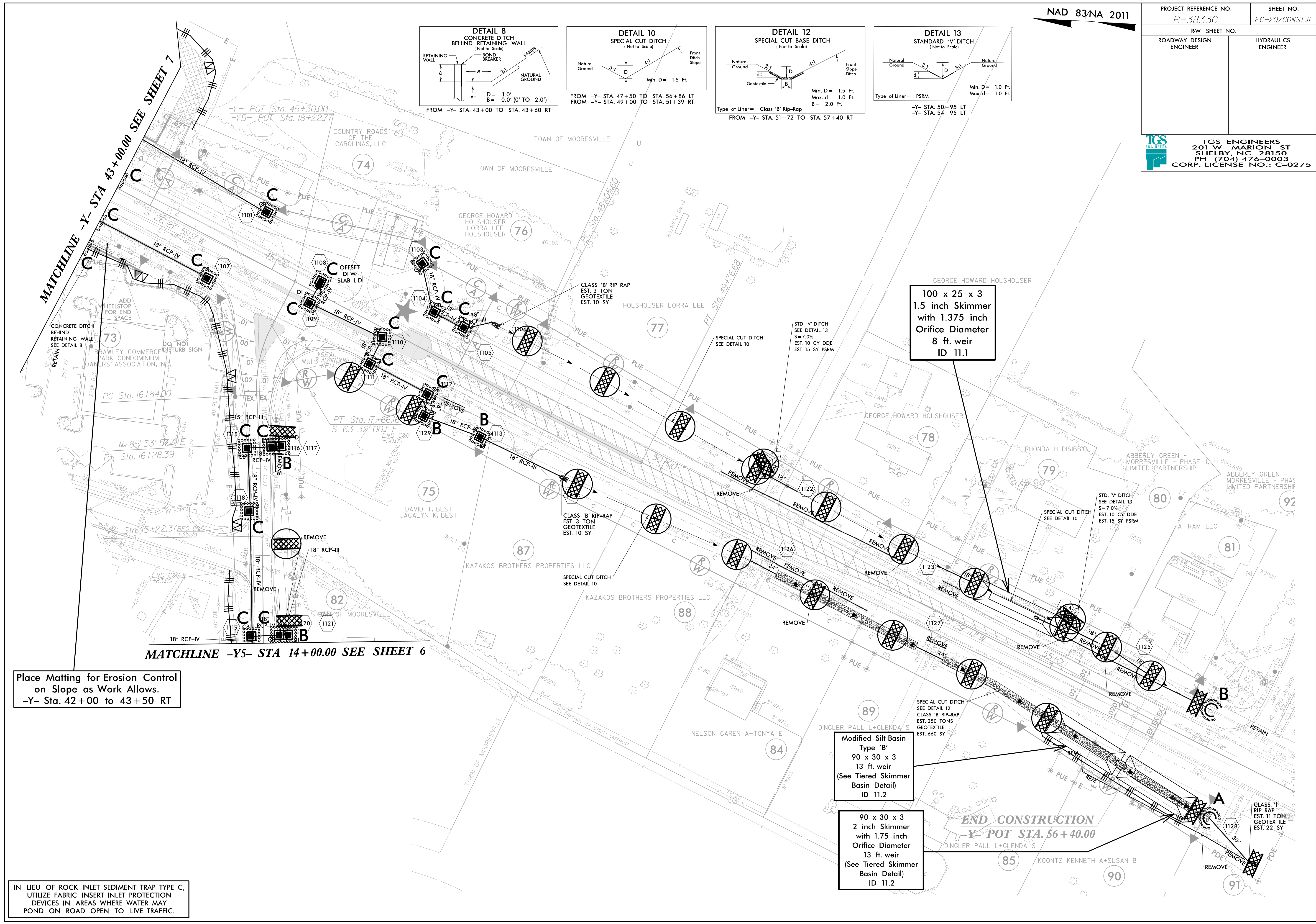
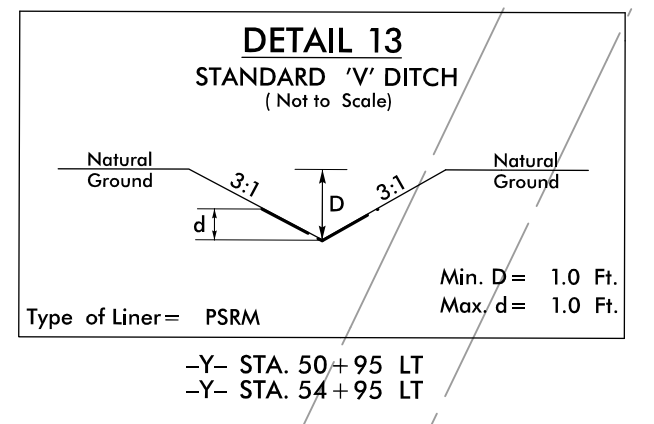
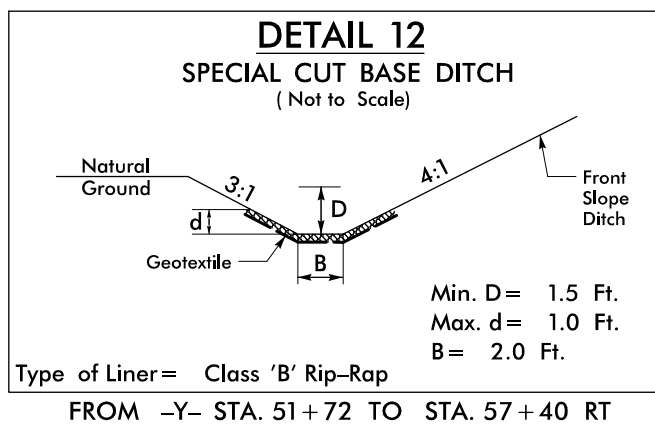
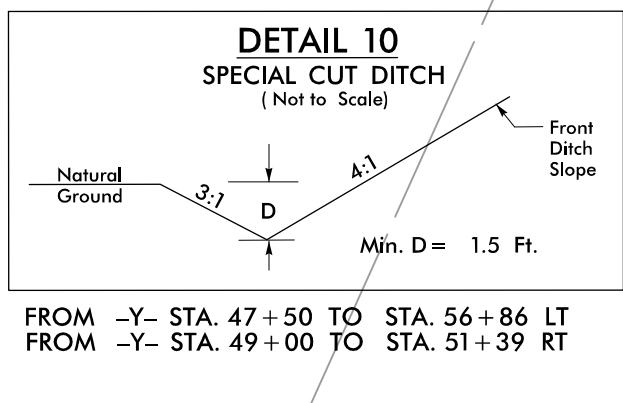
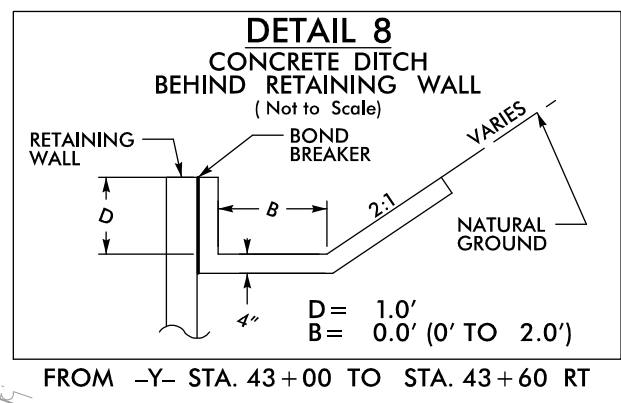
BEGIN CONSTRUCTION
-DRWY5- POT STA. 10+14.00

Place Matting for Erosion Control
on Slope as Work Allows.
-Y- Sta. 33+50 to 35+50 LT

IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C,
UTILIZE FABRIC INSERT INLET PROTECTION
DEVICES IN AREAS WHERE WATER MAY
POND ON ROAD OPEN TO LIVE TRAFFIC.

PROJECT REFERENCE NO. R-3833C	SHEET NO. EC-20/CONST.II
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TGS ENGINEERS
201 W MARION ST
SHELBY, NC 28150
PH (704) 476-0003
CORP. LICENSE NO.: C-0275



Place Matting for Erosion Control on Slope as Work Allows. -Y- Sta. 42+00 to 43+50 RT

IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C, UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.

100 x 25 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
8 ft. weir
ID 11.1

Modified Silt Basin
Type 'B'
90 x 30 x 3
13 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 11.2

90 x 30 x 3
2 inch Skimmer
with 1.75 inch
Orifice Diameter
13 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 11.2

END CONSTRUCTION
-Y- POT STA. 56+40.00