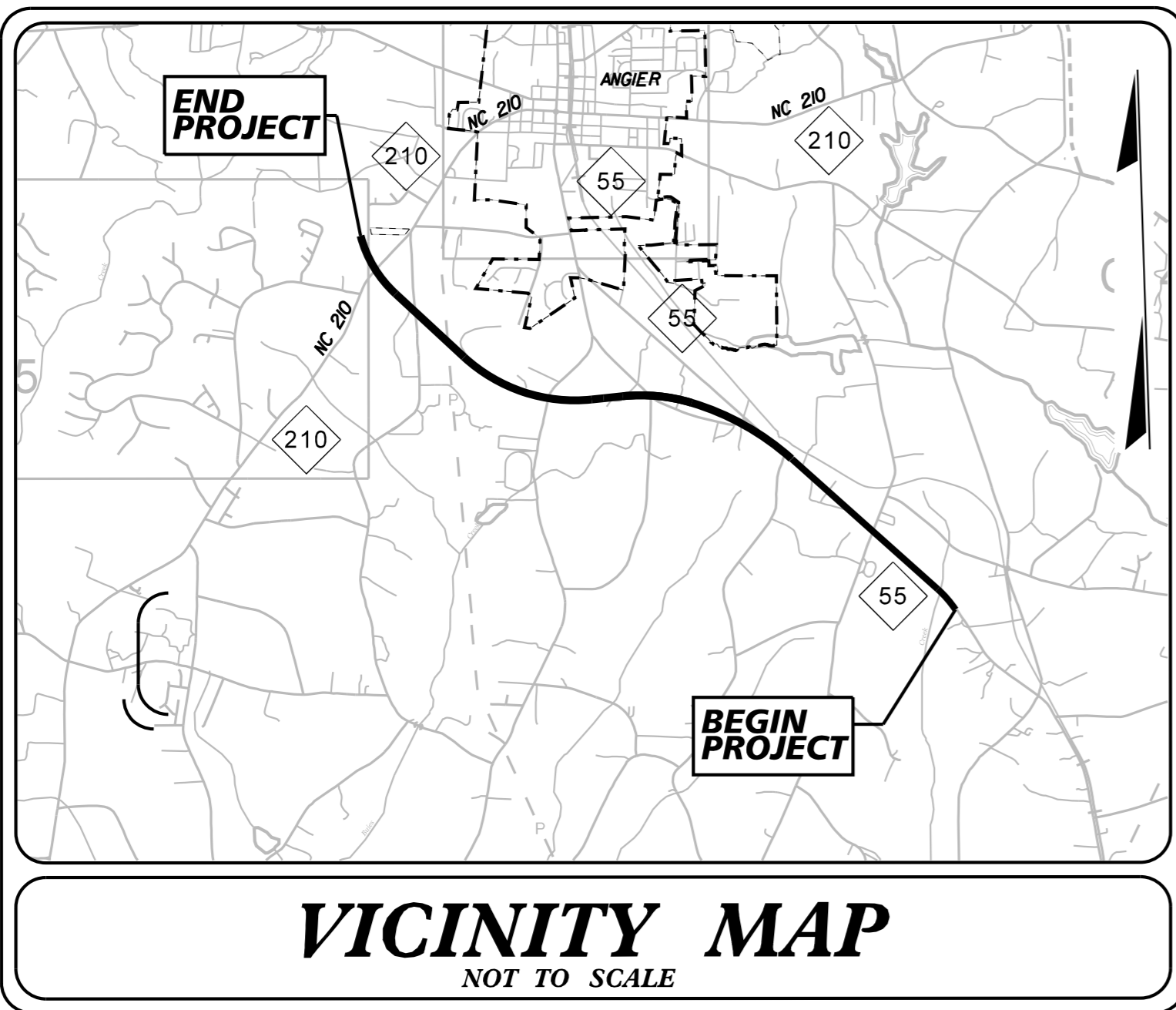


TIP PROJECT: R-5705A

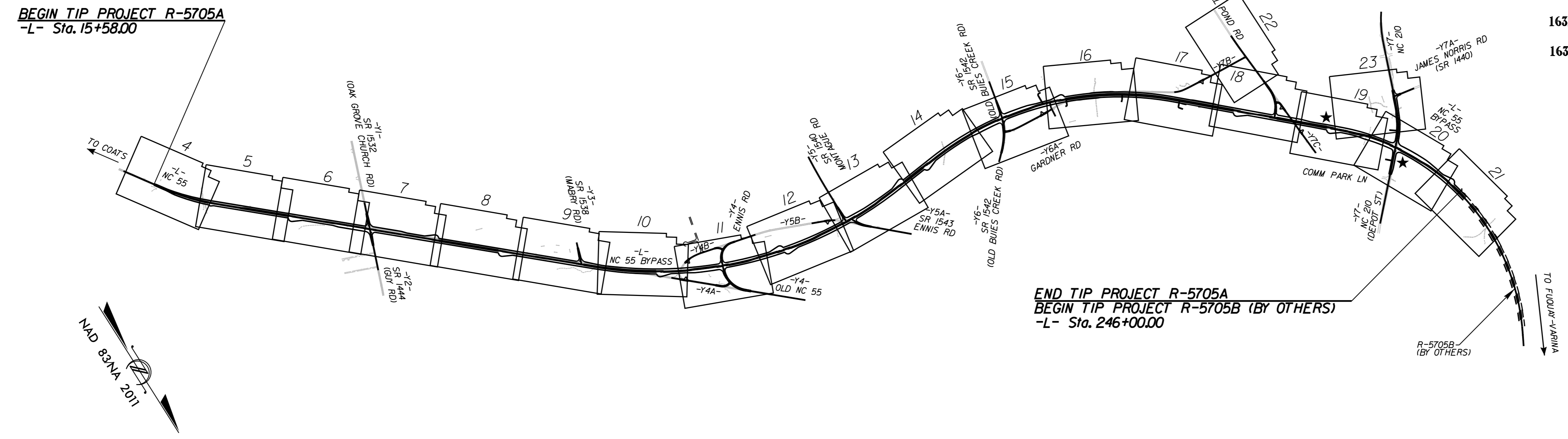


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

HARNETT COUNTY

**LOCATION: NC 55 FROM SOUTH OF SR 1532 (OAK GROVE CHURCH ROAD)
TO NORTH OF NC 210**

TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNING, SIGNALS, AND CULVERTS



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5705A	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
46377.1.2		P.E.	

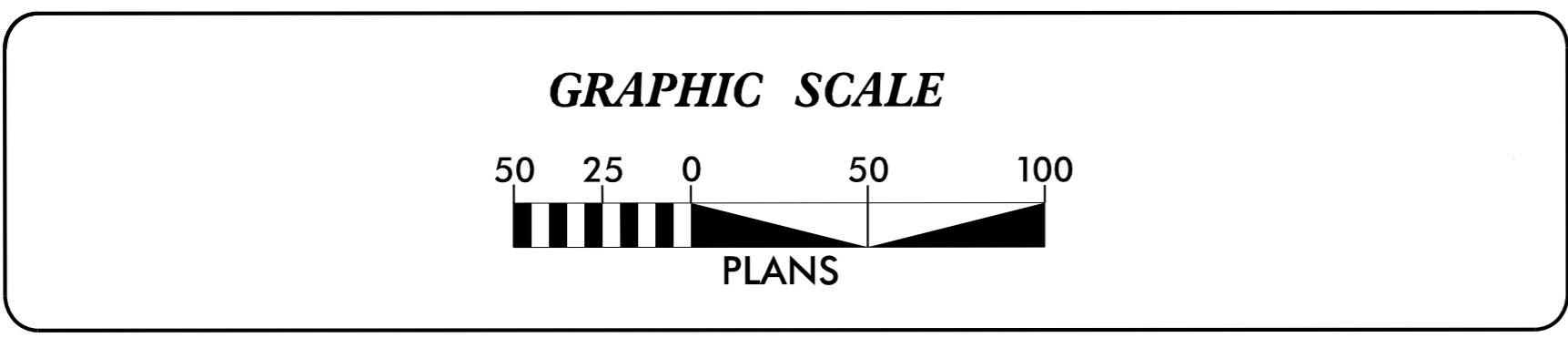
EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	P.E.	Symbol
1630.03	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		III III III
1630.02	Silt Basin Type B		III III III
1633.01	Temporary Rock Silt Check Type-A		III III III
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)		III III III
1633.02	Temporary Rock Silt Check Type-B		III III III
	Wattle / Coir Fiber Wattle		III III III
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)		III III III
1634.01	Temporary Rock Sediment Dam Type-A		III III III
1634.02	Temporary Rock Sediment Dam Type-B		III III III
1655.01	Rock Pipe Inlet Sediment Trap Type-A		III III III
1655.02	Rock Pipe Inlet Sediment Trap Type-B		III III III
1630.04	Stilling Basin		III III III
1630.06	Special Stilling Basin		III III III
	Rock Inlet Sediment Trap:		
1632.01	Type A		III III III
1632.02	Type B		III III III
1632.03	Type C		III III III
	Skimmer Basin		III III III
	Tiered Skimmer Basin		III III III
	Infiltration Basin		III III III

**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.

Kimley » Horn

Prepared in the Office of:
Kimley-Horn
421 Fayetteville Street, Suite 600
Raleigh, NC 27601

Designed by:
VANCE BLANTON 3708
NAME LEVEL III CERTIFICATION NO.

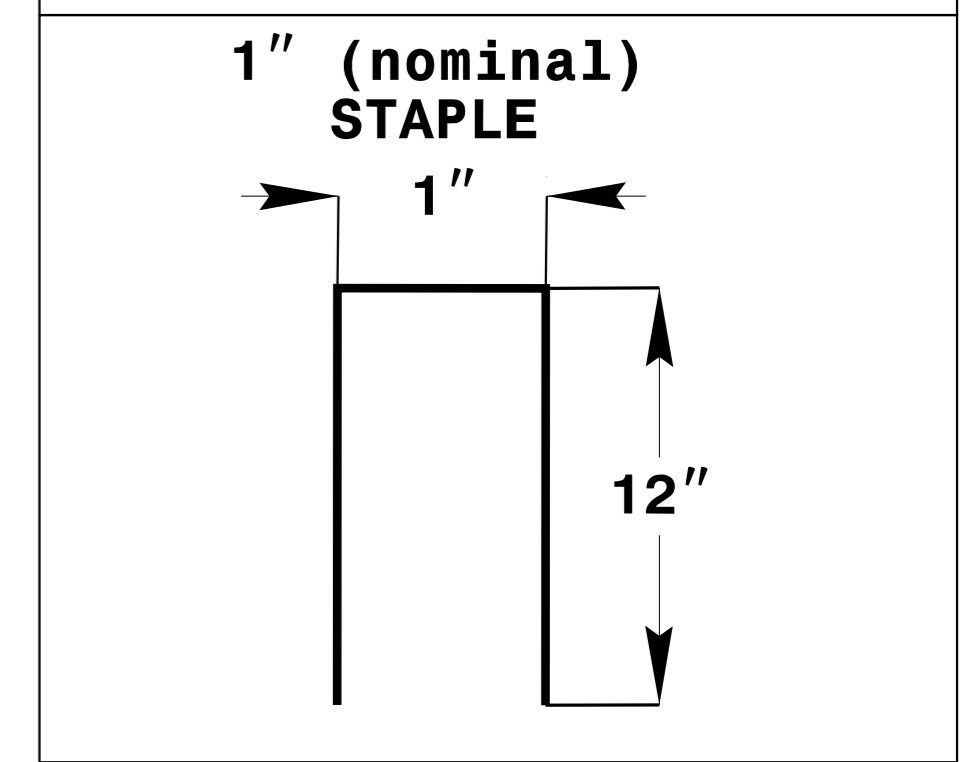
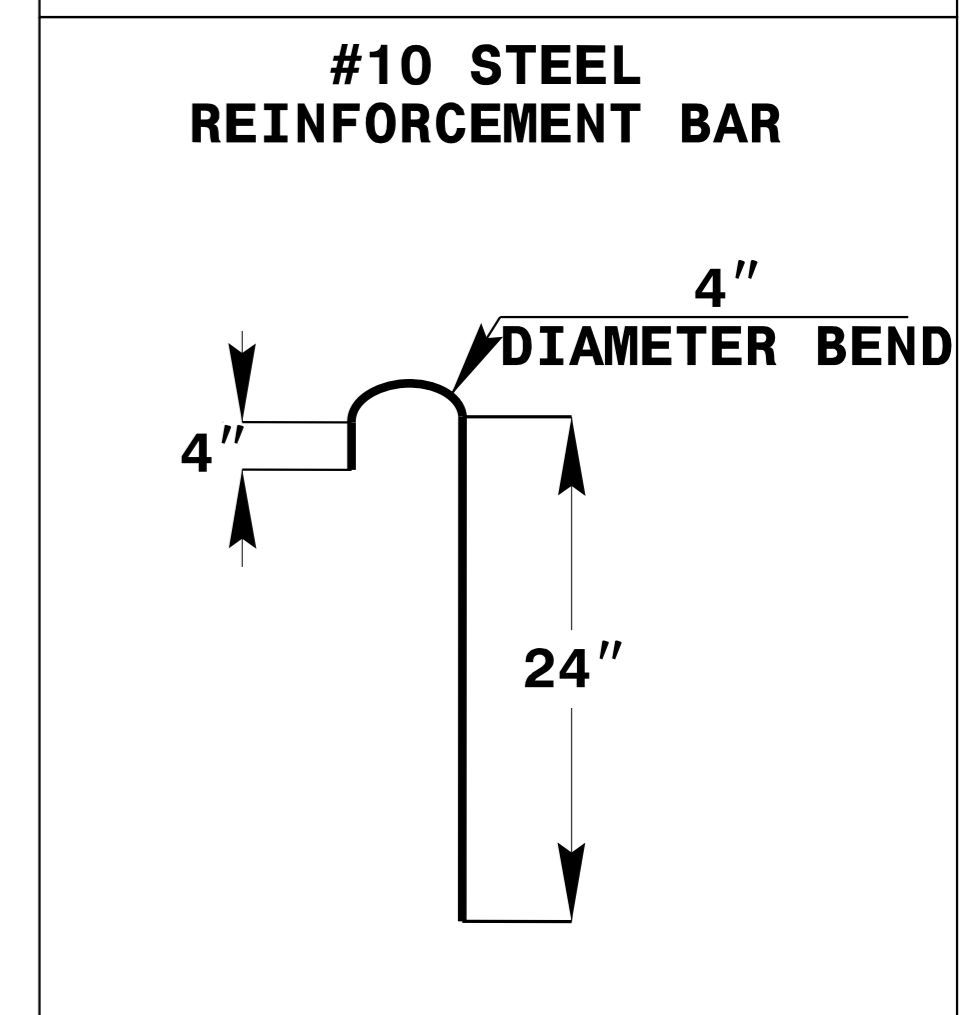
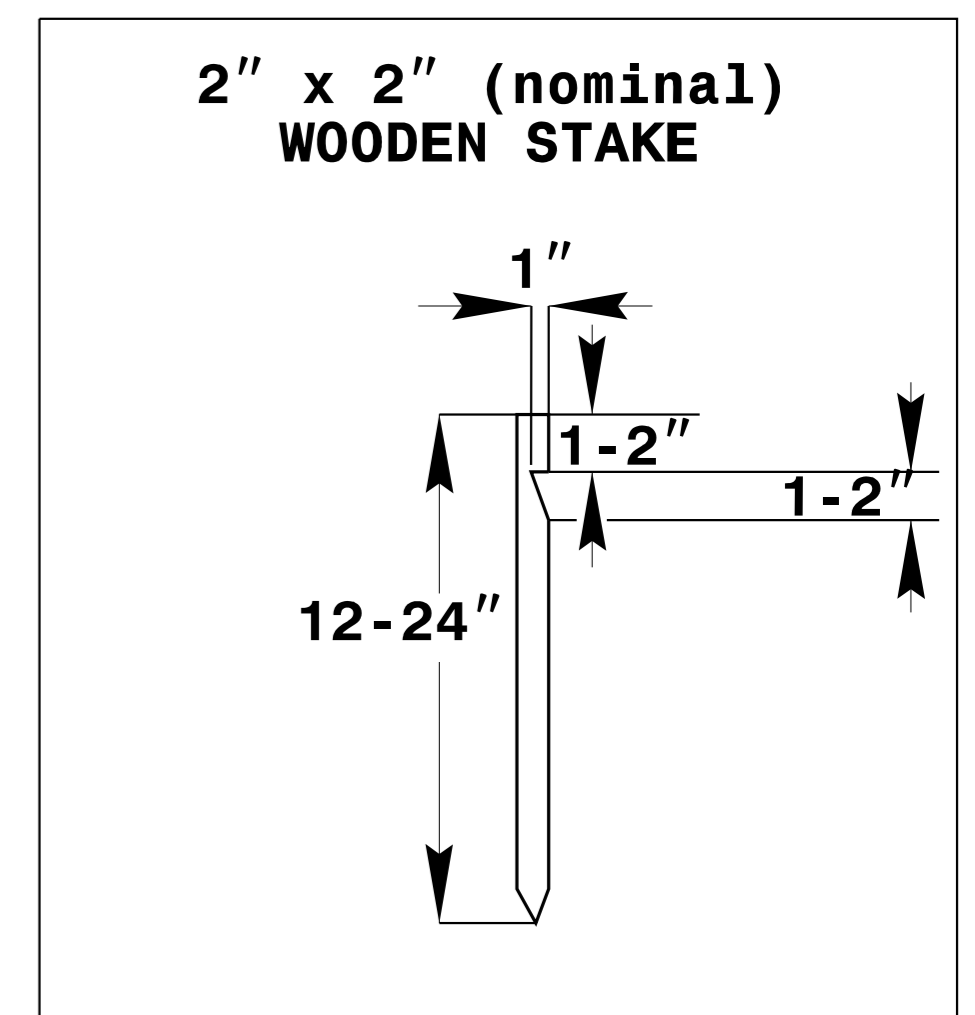
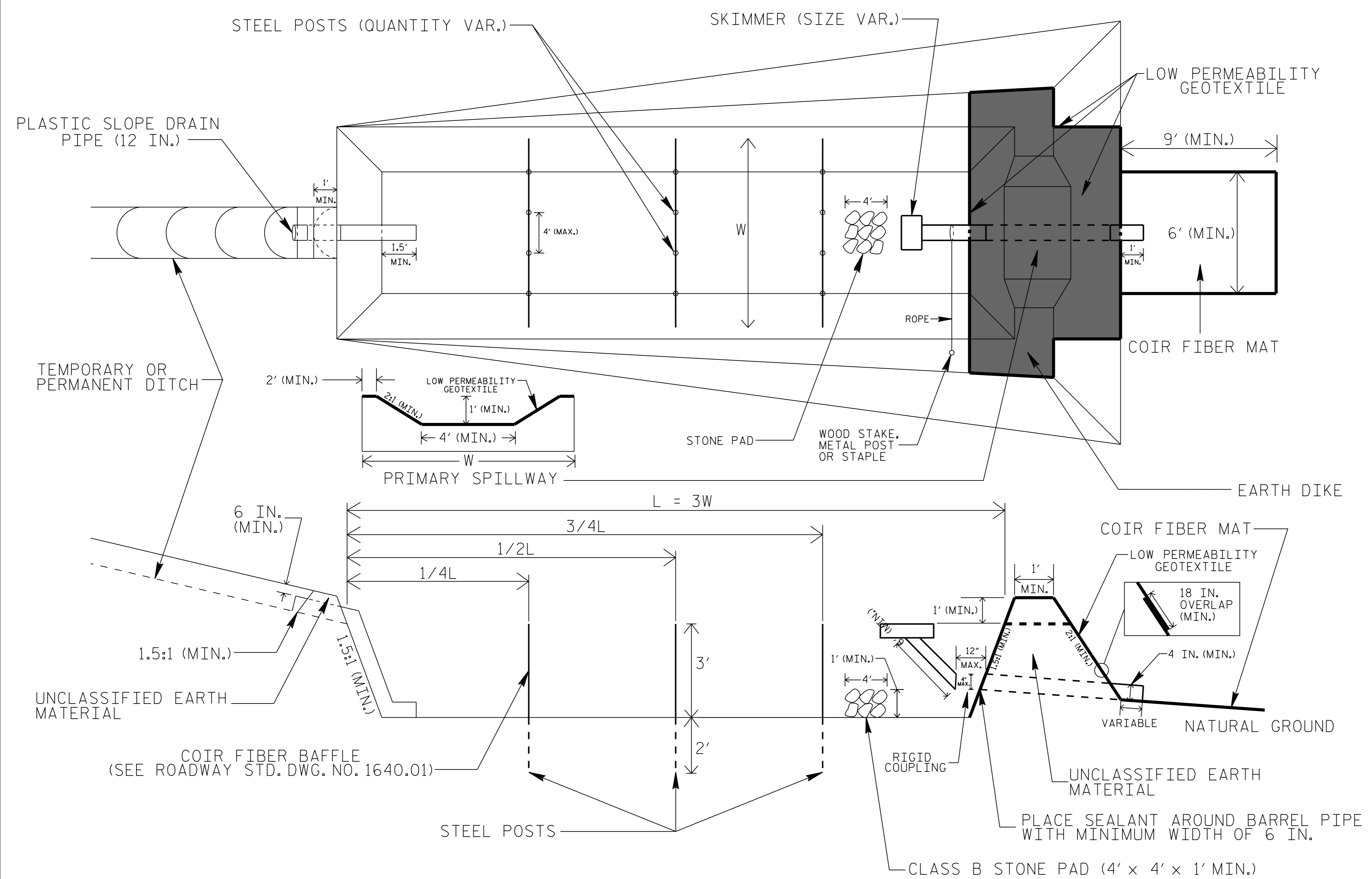
Roadway Standard Drawings

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-5705A	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKIMMER BASIN WITH BAFFLES DETAIL (EAST)



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. LOW PERMEABILITY GEOTEXTILE FOR PRIMARY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

BORROW PIT DEWATERING BASIN DETAIL

PROJECT REFERENCE NO. R-5705A	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

GENERAL NOTES:

DETERMINE BORROW PIT DEWATERING BASIN SIZE USING $V = 8.0203 * Q * T$, WHERE V IS VOLUME (FT³), Q IS PUMP FLOW RATE (GPM), AND T IS DEWATERING TIME (HR). USE MAXIMUM FLOW RATE OF 1000 GPM AND A MINIMUM DEWATERING TIME OF 2 HOURS.

RISER SHALL BE A NON-PERFORATED, SMOOTH OR CORRUGATED MATERIAL WITH A FLASHBOARD OPTION.

CONSTRUCT THE COIR FIBER BAFFLE IN ACCORDANCE WITH ROADWAY STANDARD DRAWING 1640.01 AND WITH MATERIAL THAT MEETS THE SPECIFICATIONS OF ROADWAY STANDARD 1640-14.

PROVIDE 5' STEEL POSTS OF THE SELF-FASTENER ANGLE STEEL TYPE. INSTALL STEEL POSTS WITH NO MORE THAN 3' OF THE POST APPEARING ABOVE THE GROUND.

ATTACH THE COIR FIBER MAT TO THE STEEL POSTS WITH WIRE OR OTHER ACCEPTABLE MEANS AND STAPLED INTO THE BOTTOM AND SIDE SLOPES OF THE BASIN WITH 12" STAPLES.

INSTALL TYPE 2 GEOTEXTILE ON SIDESLOPES AND BOTTOM OF BASIN AT INLET AS SHOWN IN THE DETAIL.

USE THE TYPICAL SECTION SHOWN FOR THE BORROW PIT DEWATERING BASIN AS A GUIDE. THE BASIN MAY HAVE ANY TYPE CONFIGURATION AS LONG AS SUFFICIENT VOLUME IS PROVIDED AND PROVISIONS ARE MADE FOR A NON-PERFORATED RISER.

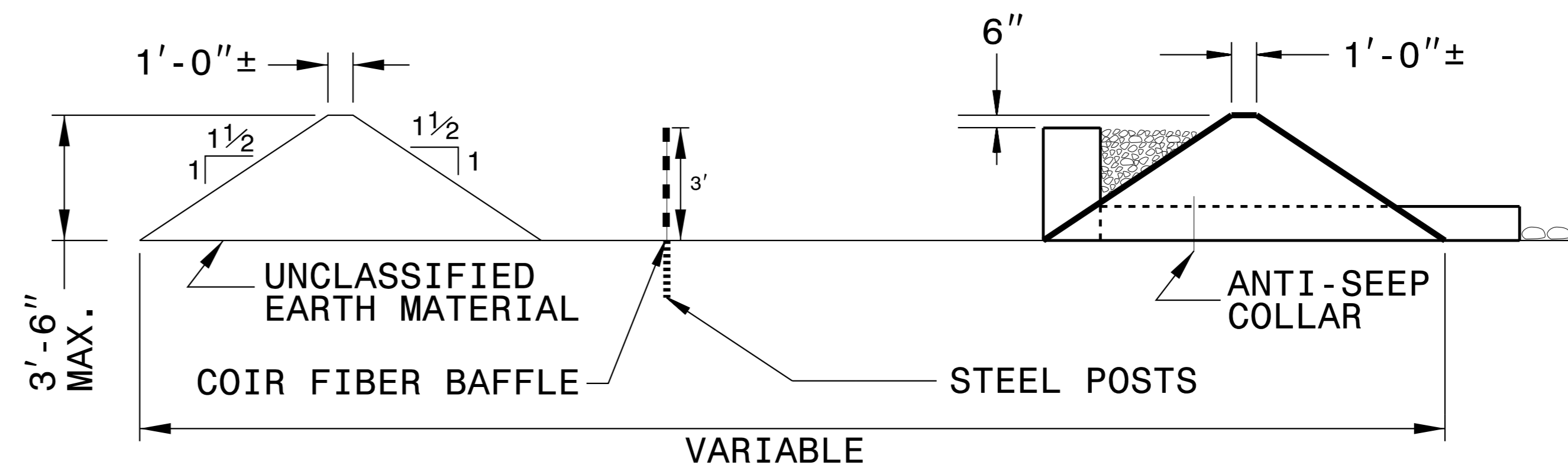
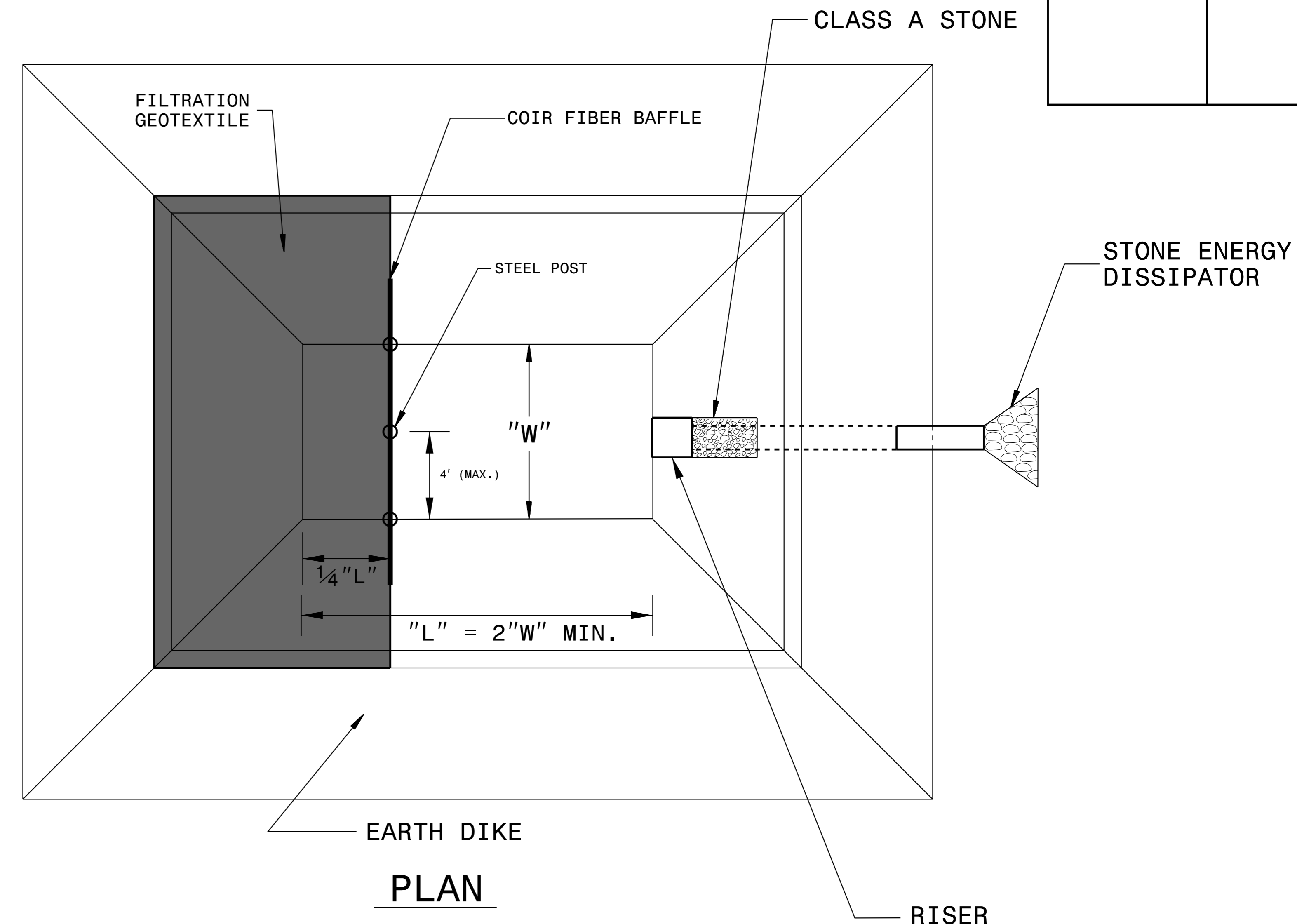
DO NOT EXCEED 3½ FT. IN HEIGHT FOR THE EARTH DIKES REQUIRED FOR BORROW PIT DEWATERING BASIN.

THE BORROW PIT DEWATERING BASIN SIZE IS VARIABLE AND DEPENDENT ON SPECIFIC SITE REQUIREMENTS AS WELL AS PROPOSED CONSTRUCTION OPERATIONS.

SUBMIT THE SIZE, LOCATION AND RISER PIPE MATERIAL FOR APPROVAL PRIOR TO CONSTRUCTION.

PUMP THE EFFLUENT INTO THE BORROW PIT DEWATERING BASIN TO A MAXIMUM DEPTH OF 6 IN. BELOW TOP OF EARTH DIKE.

PROVIDE A STONE ENERGY DISSIPATOR PAD AT THE OUTLET OF THE PUMP DISCHARGE HOSE AND OUTLET OF THE RISER BARREL IN ACCORDANCE WITH ROADWAY STANDARD DRAWING 876.02 FOR OUTLET W/O DITCH.

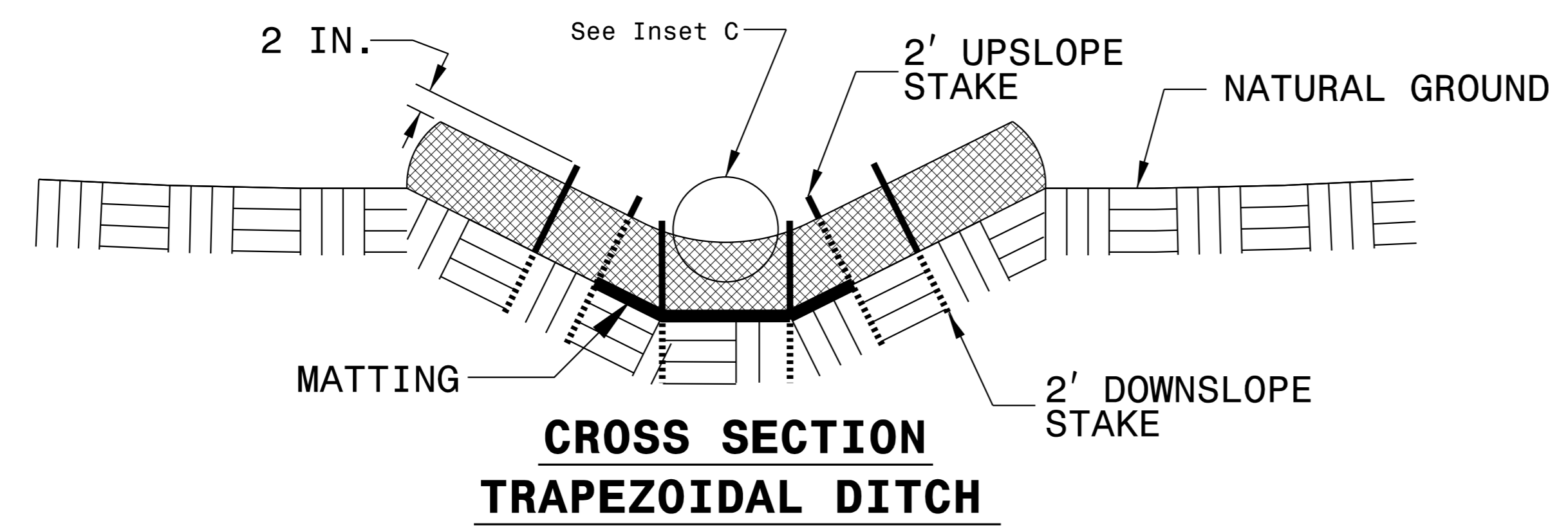
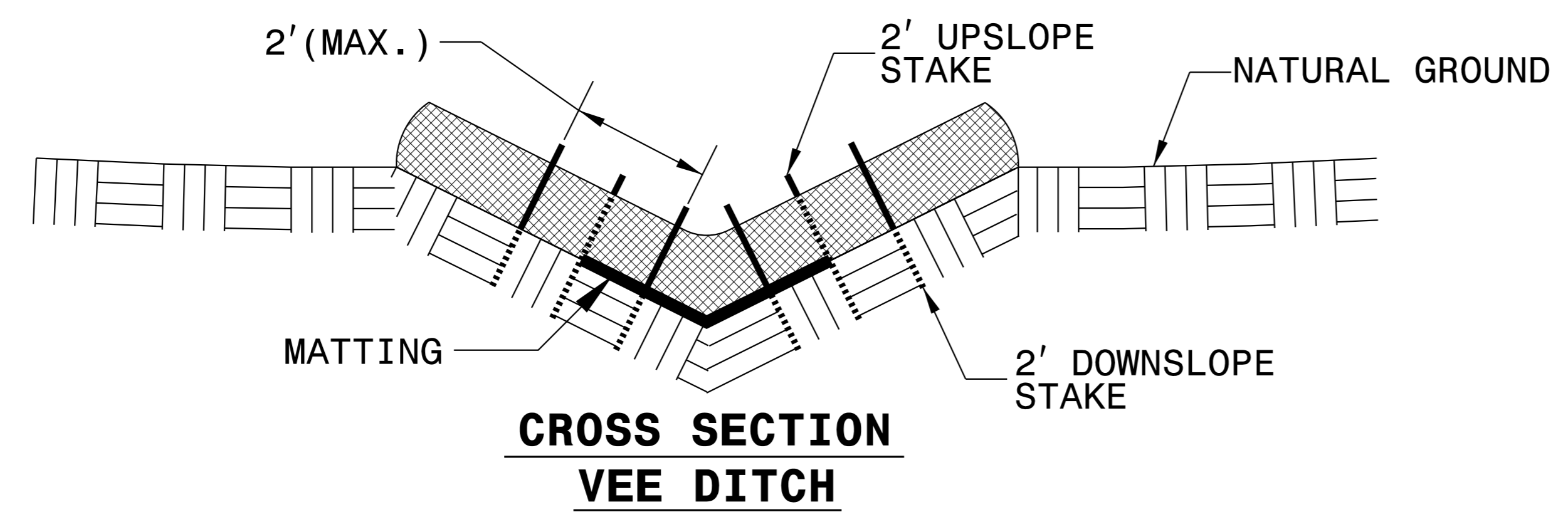
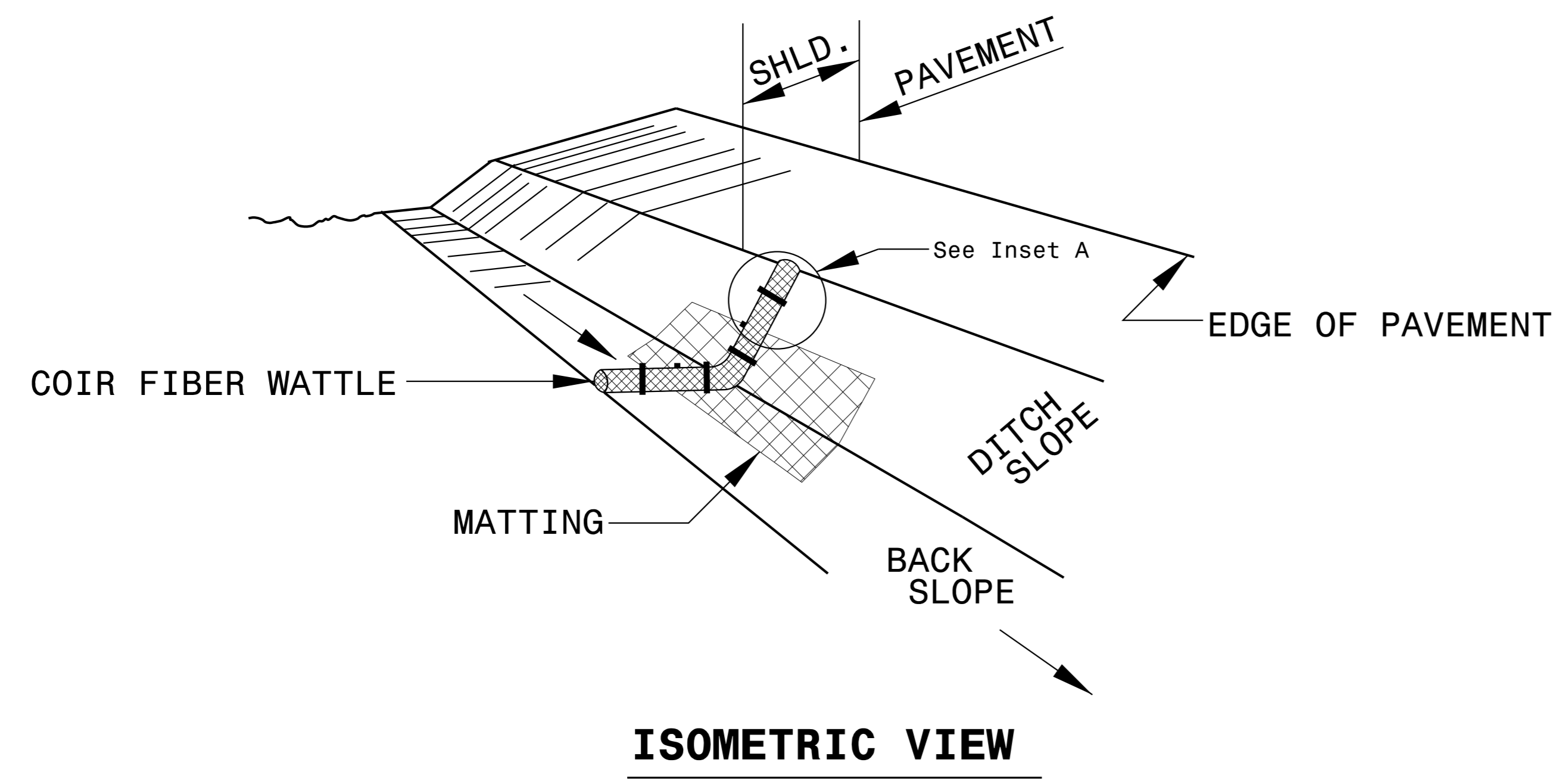


TYPICAL SECTION VIEW

NOT TO SCALE

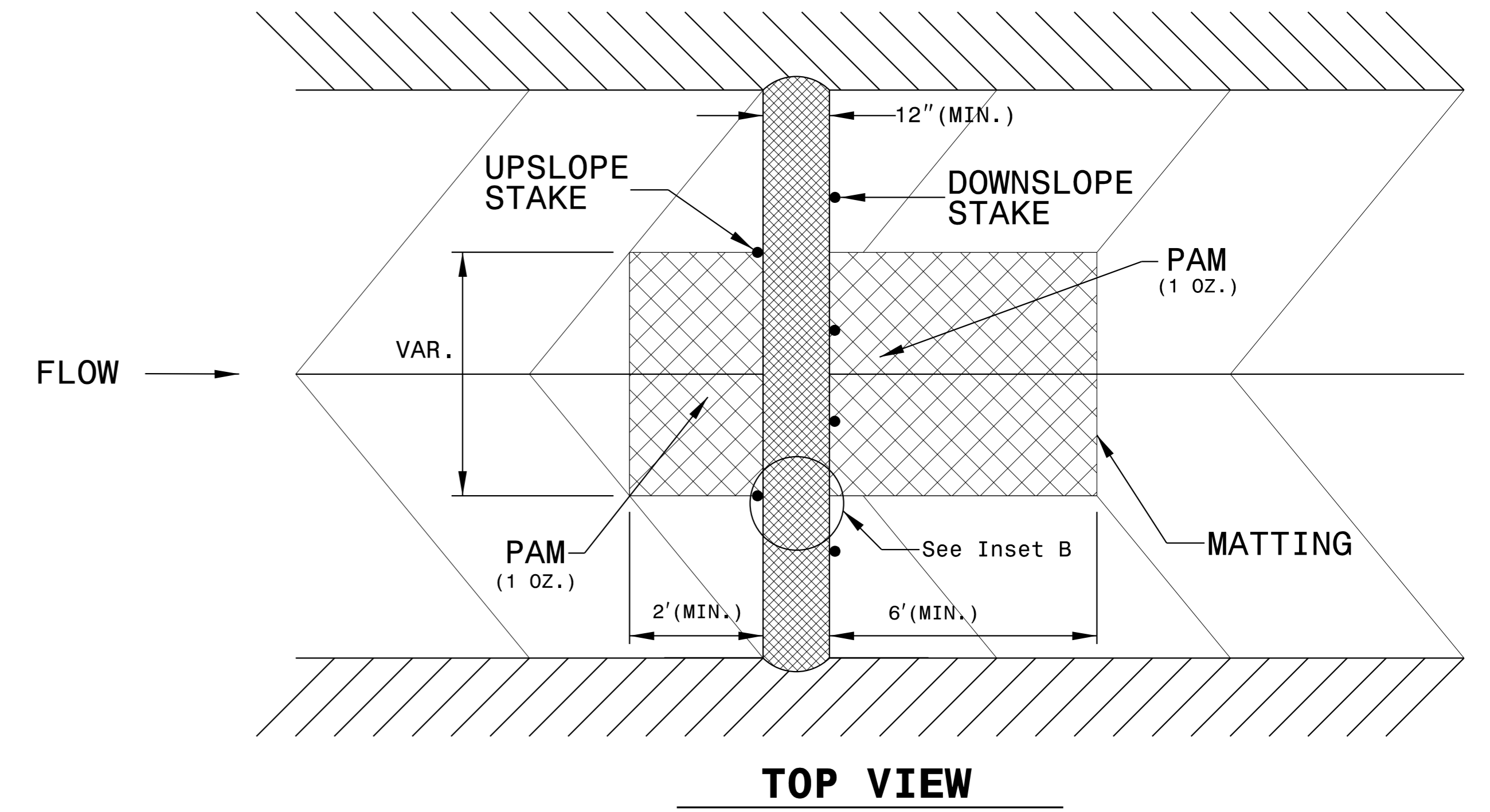
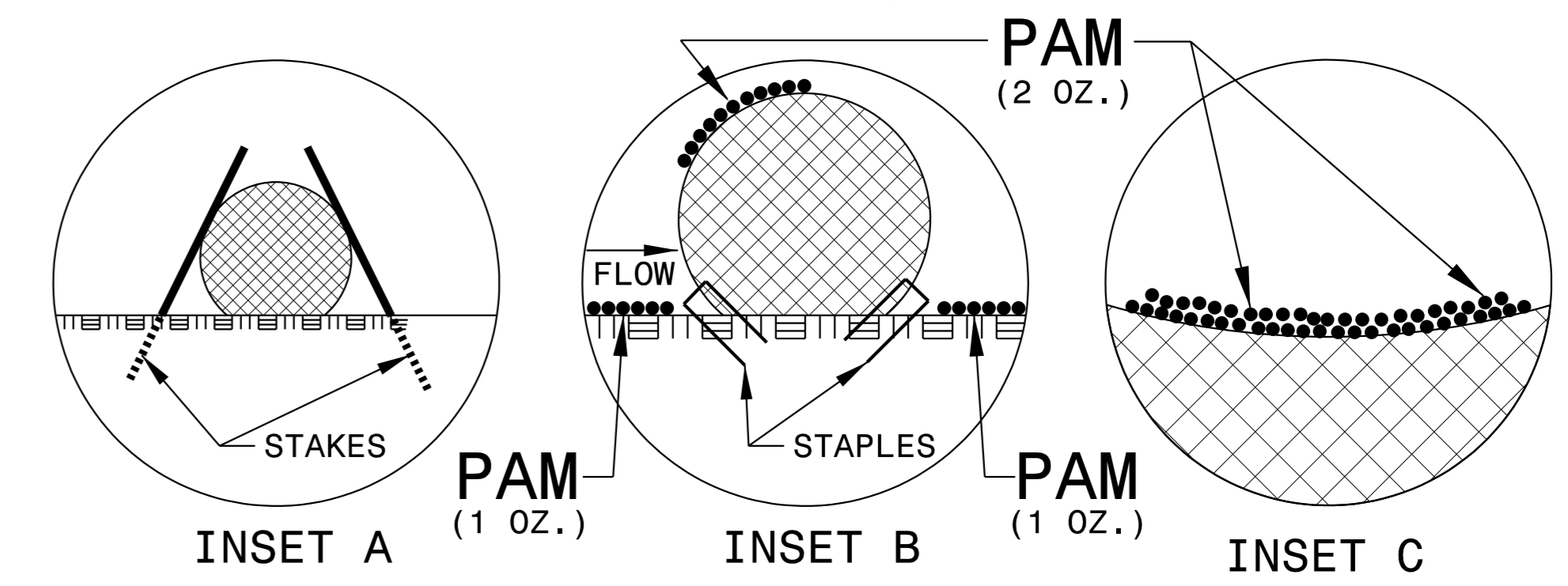
PROJECT REFERENCE NO. R-5705A	SHEET NO. EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



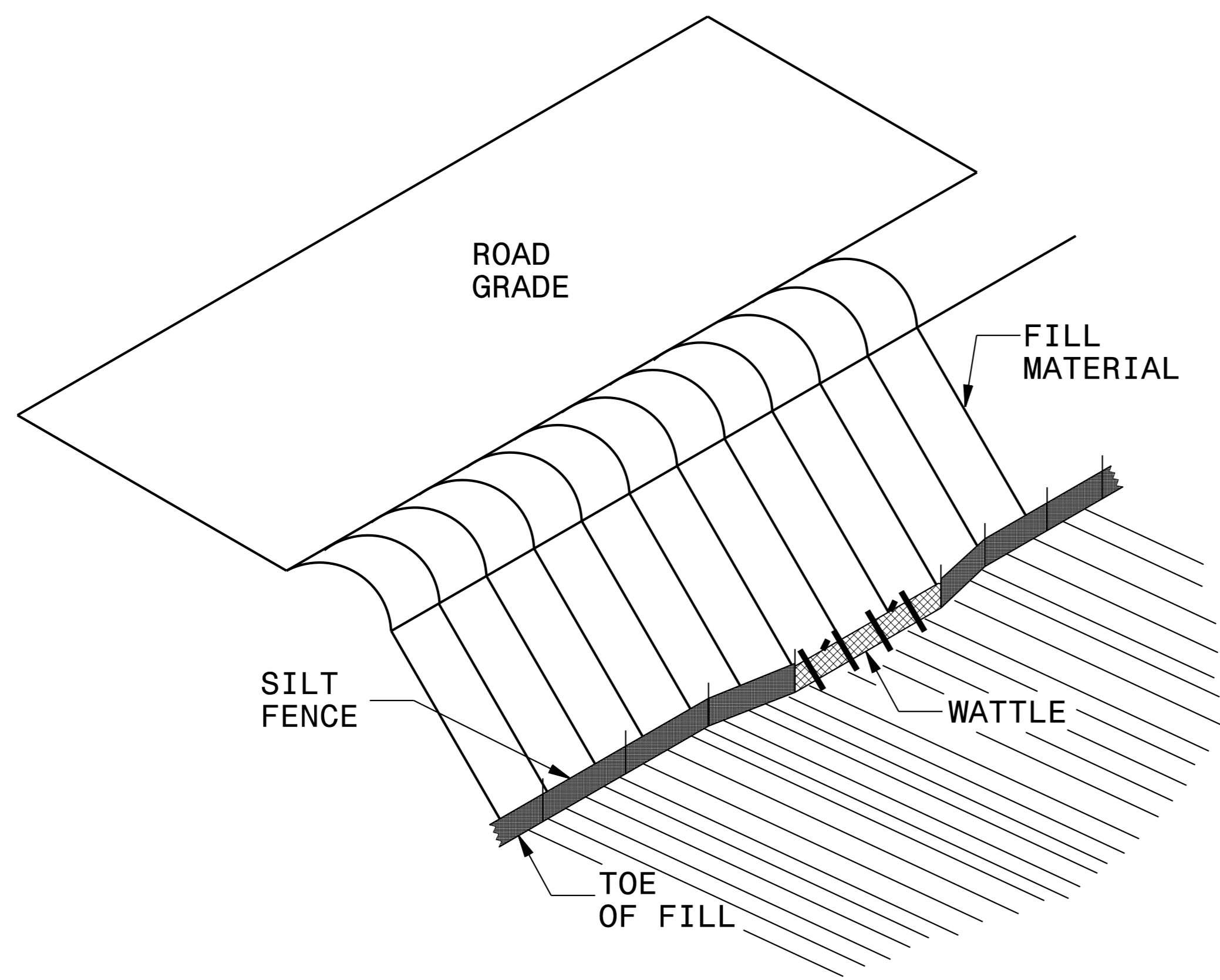
NOTES:

- 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 MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.

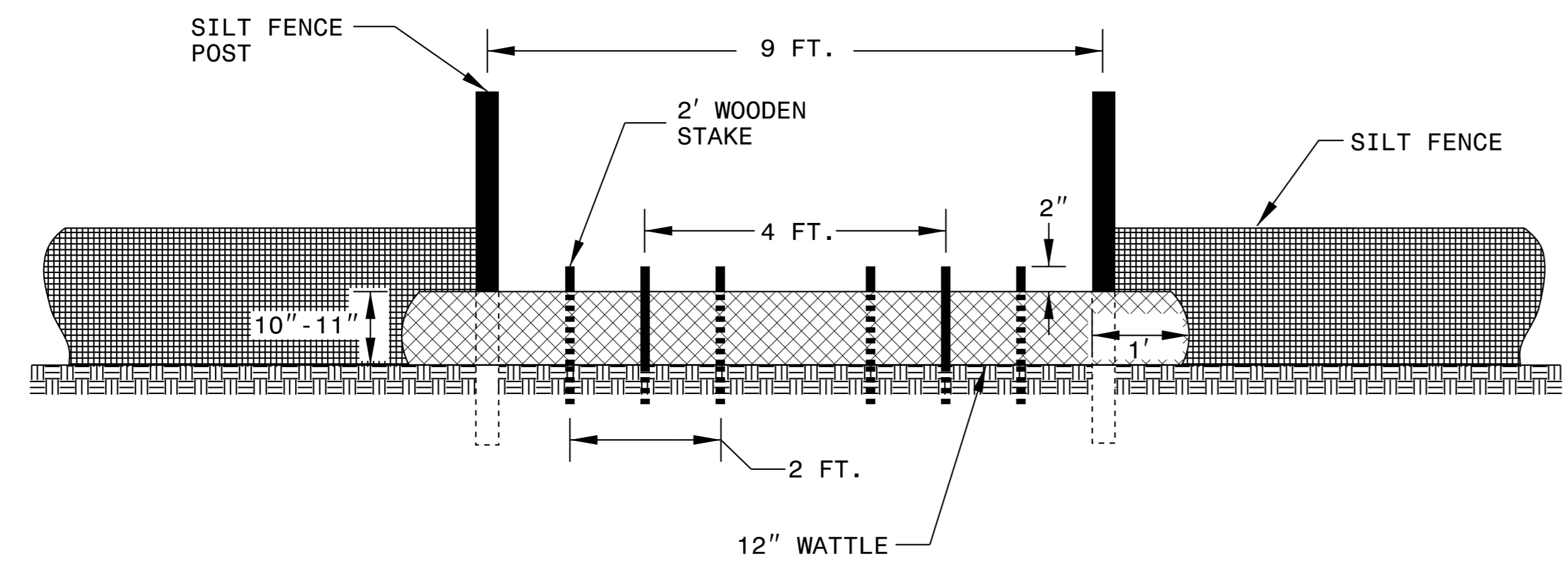


SILT FENCE COIR FIBER WATTLE BREAK DETAIL

PROJECT REFERENCE NO. <i>R-5705A</i>	SHEET NO. <i>EC-2C</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



ISOMETRIC VIEW

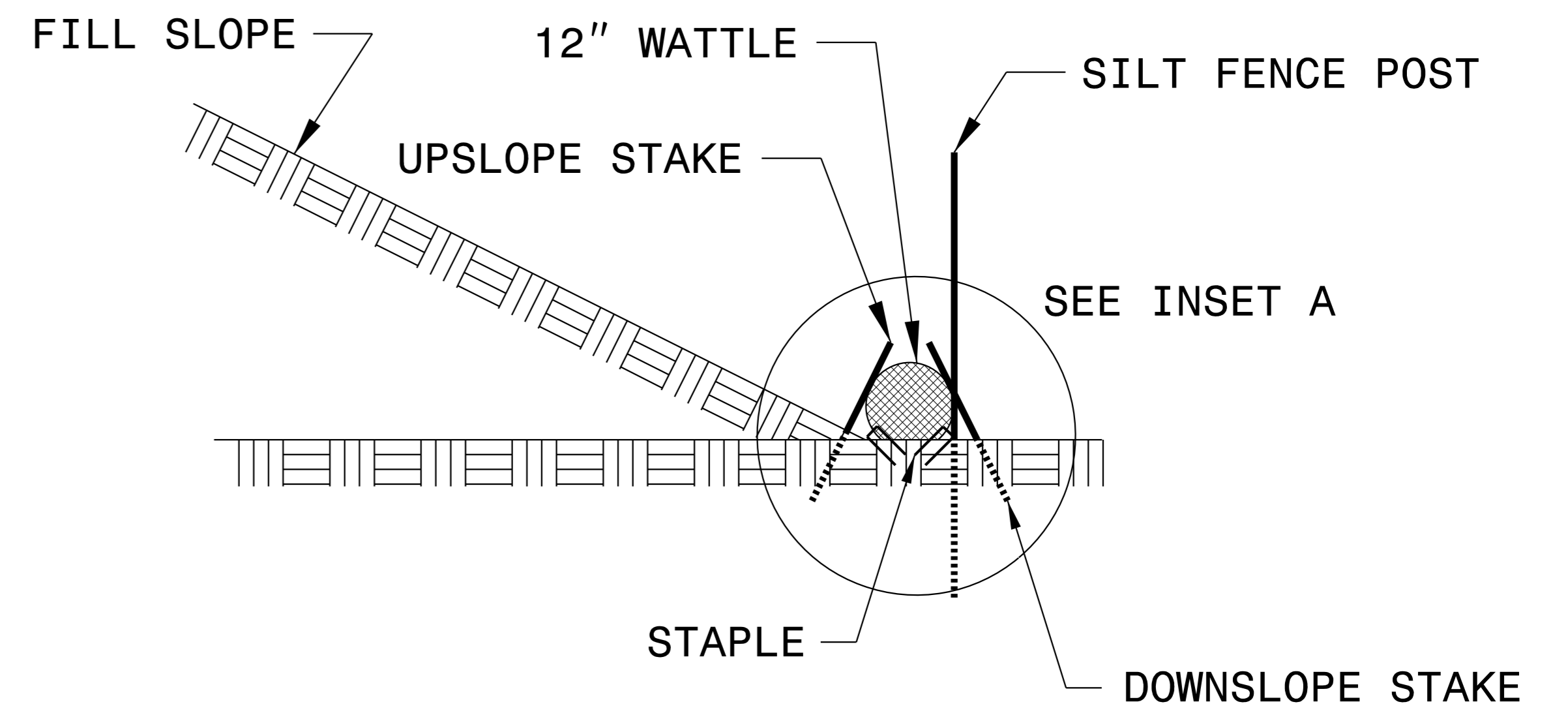
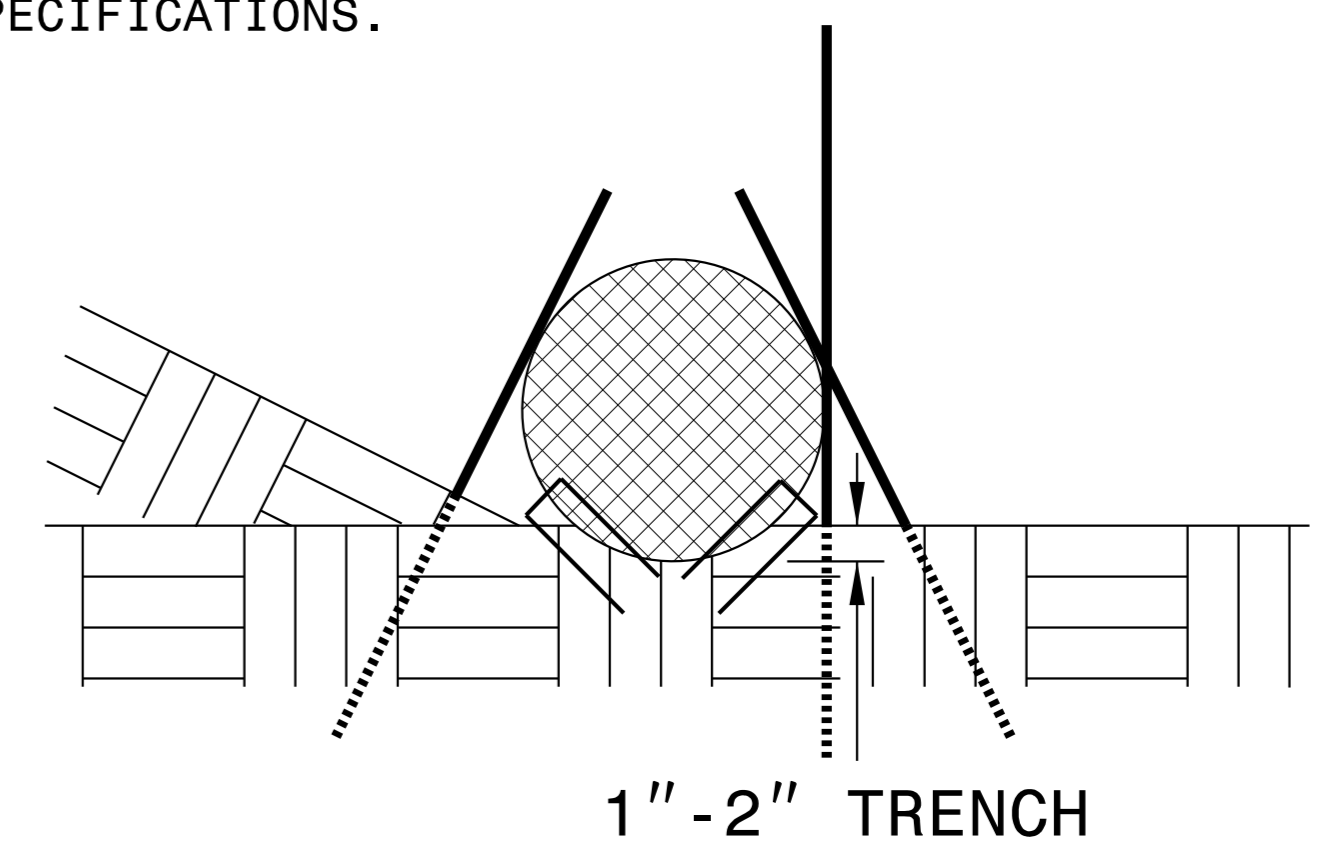


VIEW FROM SLOPE

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.

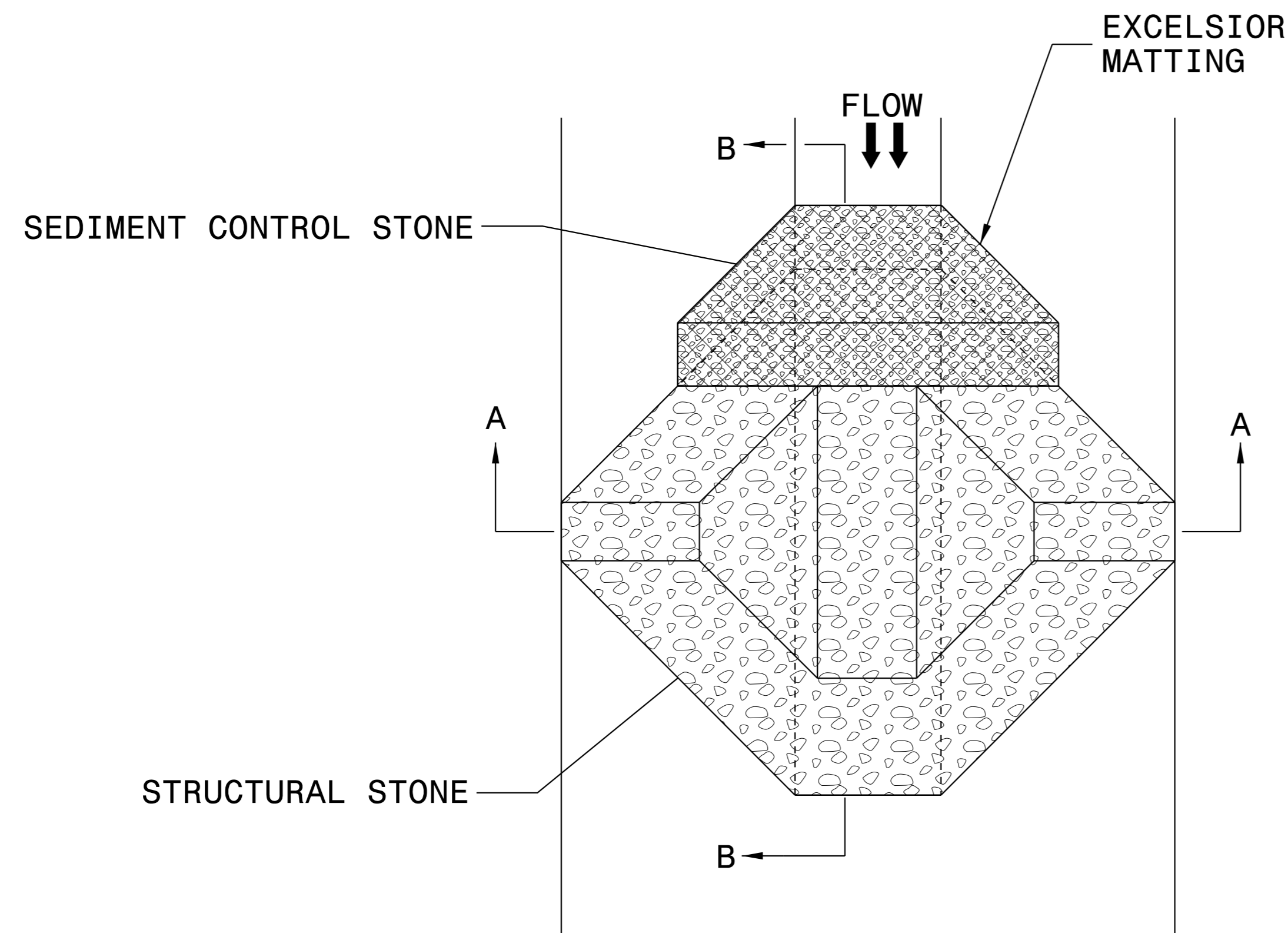
INSET A



SIDE VIEW

PROJECT REFERENCE NO. R-5705A	SHEET NO. EC-2D
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



PLAN

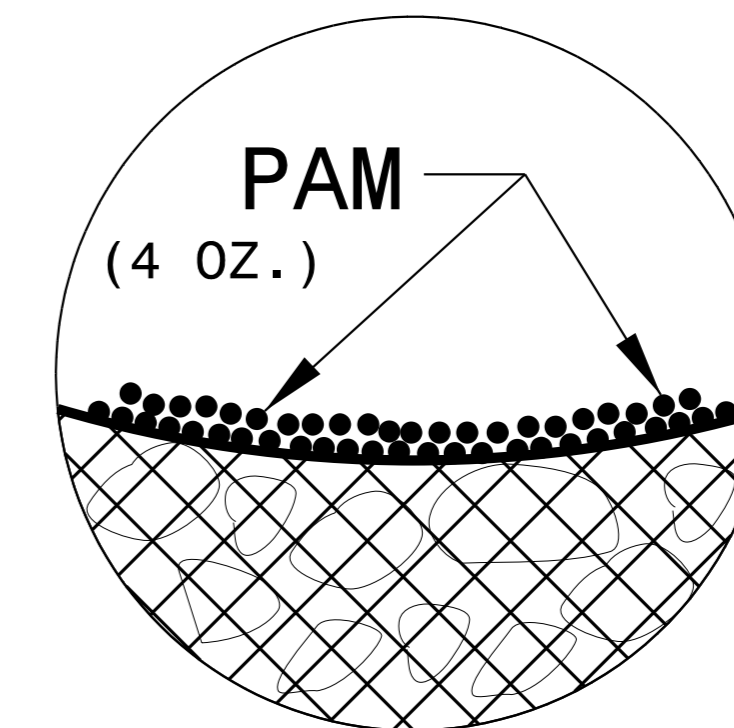
NOTES:

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

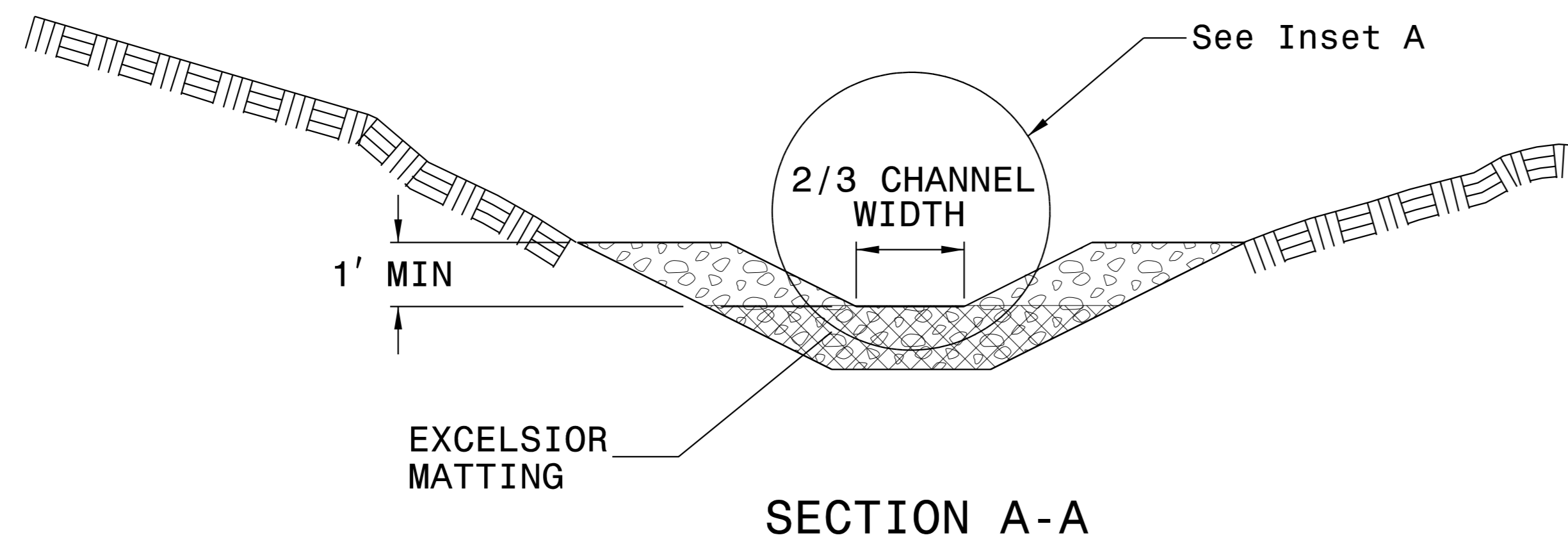
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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.

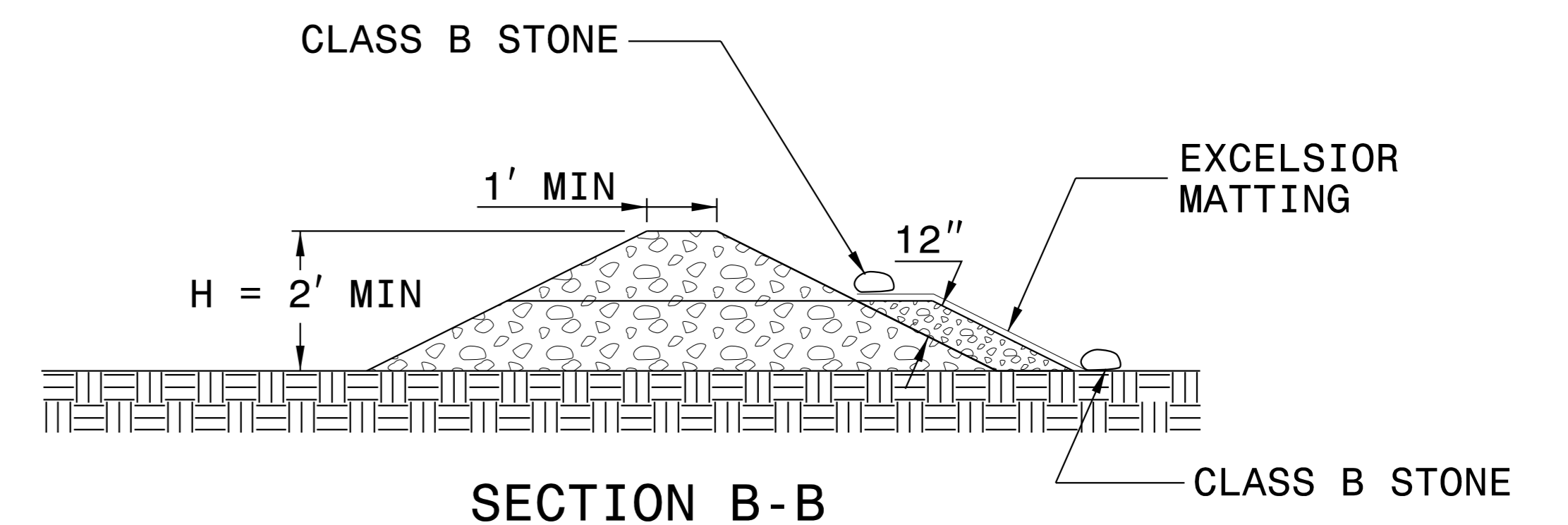
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A



SECTION B-B

NOT TO SCALE

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>R-5705A</i>	SHEET NO. <i>EC-3</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
<i>SLOPES</i>					
4/5	-L-	23+00	25+00	L	710
4/5	-L-	23+00	26+00	R	1100
5/6	-L-	36+50	39+00	R	900
6	-L-	40+00	45+50	R	2300
9	-L-	89+00	90+50	R	520
11	-L-	108+50	111+00	R	970
12	-L-	122+50	124+00	R	520
12	-L-	127+50	132+50	R	1730
14	-L-	153+00	157+00	L	1520
15	-L-	161+50	164+00	L	1060
15	-L-	161+50	162+50	R	400
15	-L-	167+50	174+00	L	2270
16	-L-	179+00	182+00	R	740
16	-L-	179+50	184+50	L	1500
17	-L-	194+50	201+00	L	1940
17	-L-	196+50	201+50	R	1600
18	-L-	203+00	205+00	R	700
19	-L-	227+00	230+00	R	1060
19/20	-L-	225+50	231+00	L	2610
			<i>SUBTOTAL</i>		24150

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
<i>DITCHES</i>					
5	-L-	26+85	28+00	L	215
5	-L-	28+00	28+75	L	145
6	-L-	25+00	26+00	L	195
7	-Y1-	12+00	13+15	L	270
7	-L-	55+00	57+00	L	375
7	-L-	53+50	56+00	R	465
7	-L-	56+00	60+50	R	835
7	-Y2-	13+00	13+50	R	100
7	-L-	63+30	64+25	R	180
8	-L-	69+00	72+50	R	660
8	-L-	74+50	75+50	L	190
8	-L-	75+50	76+75	L	235
8	-L-	76+00	77+20	R	225
9	-L-	78+50	80+50	R	375
9	-L-	82+50	83+50	L	225
9	-L-	83+50	85+00	L	335
9	-Y3-	11+50	12+85	R	180
9	-L-	88+64	90+50	L	460
9/10	-L-	91+50	94+50	R	570
10	-L-	92+25	93+00	L	180
10	-L-	93+00	96+00	L	560
10	-L-	100+00	101+00	R	150
10	-L-	101+00	101+50	R	80
11	-L-	107+00	108+50	R	290
11	-L-	105+50	106+30	L	275
11	-L-	108+40	109+00	L	115
11	-L-	109+00	110+00	L	185
11	-Y4B-	15+15	16+00	L	115
11	-Y4B-	16+00	16+63	L	85

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>R-5705A</i>	SHEET NO. <i>EC-3A</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
11	-Y4-	13+13	15+00	L	250
11	-Y4-	22+00	23+50	L	325
11	-Y4-	23+50	24+50	L	175
11	-L-	112+85	118+75	L	2190
12	-L-	121+00	122+15	L	430
12	-L-	122+15	123+18	L	195
12	-L-	123+18	124+85	L	310
12	-L-	130+39	132+50	L	405
12	-L-	132+50	133+50	L	190
13	-Y5-	19+76	20+50	L	115
13	-L-	132+10	134+80	R	505
13	-Y5A-	10+65	11+50	R	115
13	-Y5A-	11+50	13+50	R	270
13	-L-	134+58	136+50	L	360
13	-L-	136+50	140+00	L	650
13	-L-	136+20	140+00	R	710
13	-L-	140+00	142+50	R	465
13	-L-	145+50	148+50	L	665
14	-L-	153+00	154+75	L	265
14	-L-	151+50	153+75	R	480
14	-L-	154+05	156+50	R	520
14	-L-	159+50	160+50	R	190
14	-L-	160+50	161+80	R	305
15	-L-	162+50	164+00	R	360
15	-L-	164+00	164+80	R	180
15	-Y6-	14+50	15+40	L	140
15	-Y6-	17+65	20+00	R	275
15	-Y6-	20+00	22+44	R	285
15	-Y6-	17+50	21+00	L	410
15	-Y6A-	10+30	11+00	R	95

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
15	-L-	166+10	171+00	R	1515
15	-L-	172+00	173+00	R	245
15	-L-	173+00	173+00	R	195
16	-L-	178+00	179+50	L	280
16	-L-	179+50	180+50	L	155
16	-L-	182+50	185+00	L	465
16	-L-	185+00	186+20	L	230
17	-L-	194+50	196+20	R	530
18	-L-	203+80	205+00	L	295
18	-Y7C-	15+00	15+50	L	60
18	-Y7D-	18+50	19+20	R	95
18	-Y7D-	18+50	19+20	L	95
19	-L-	220+50	221+50	R	190
19	-L-	224+50	227+00	R	470
19	-Y7-	24+70	27+45	L	515
20	-Y7-	34+00	36+00	L	375
20	-L-	233+35	234+40	L	205
			SUBTOTAL		26015

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>R-5705A</i>	SHEET NO. <i>EC-3B</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION SUMMARY SHEET

EXCELSIOR FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)	CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
<i>DITCHES</i>											
4	-L-	21+00	23+00	R	390						
5	-L-	25+75	26+50	R	155						
5	-L-	26+70	29+00	R	435						
5	-L-	29+00	31+00	R	380						
8	-L-	68+50	69+00	R	100						
9	-Y3-	10+88	11+50	R	85						
9	-Y3-	10+88	11+50	L	85						
9	-Y3-	11+50	12+95	L	175						
14	-L-	151+00	153+00	L	385						
15	-Y6-	21+00	22+00	L	235						
15	-L-	171+00	172+00	R	190						
16	-L-	177+50	179+50	R	385						
17	-L-	198+25	201+50	L	615						
19	-Y7-	29+00	31+95	L	555						
20	-L-	233+90	235+00	R	210						
			<i>SUBTOTAL</i>		4380						
			<i>SLOPES SUBTOTAL</i>		24150						
			<i>DITCHES SUBTOTAL</i>		30395						
			<i>TOTAL SUBTOTAL</i>		54545						
	<i>MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER</i>				77005						
				<i>TOTAL</i>	131550						
				<i>SAY</i>	132000						

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>R-5705A</i>	SHEET NO. <i>EC-3C</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.

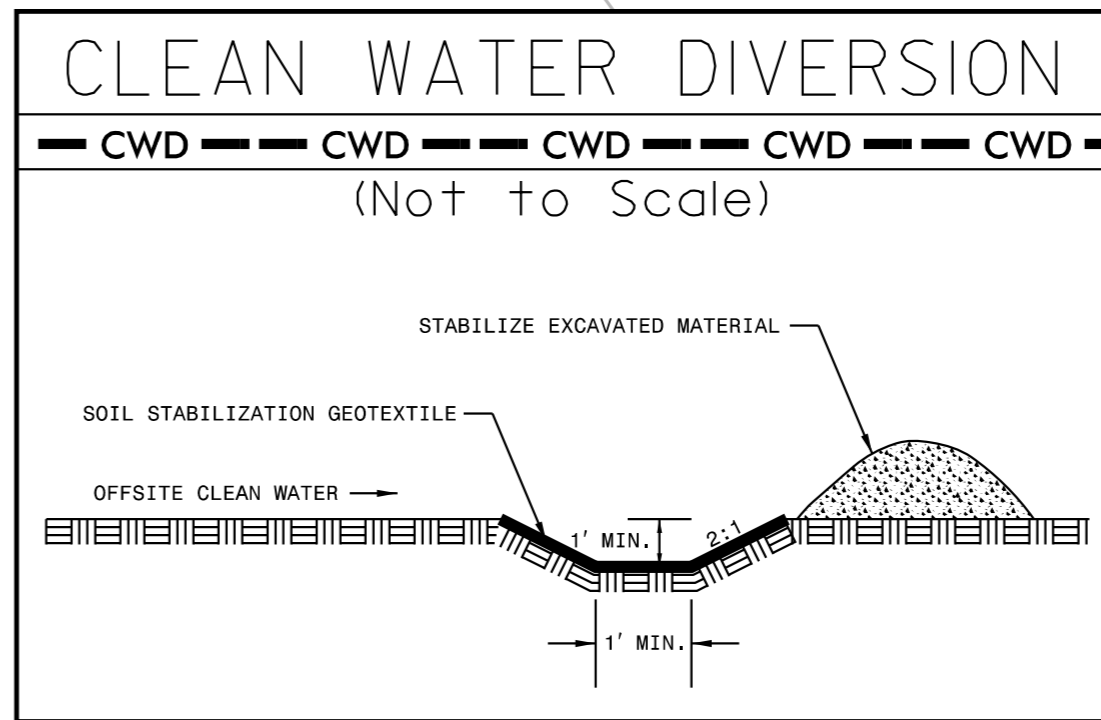
5/14/99

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.

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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PROJECT REFERENCE NO. R-5705A	SHEET NO. EC-4/CONST.4
RW SHEET NO. 4	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

NAD 83/NA 2011

VAN COATS
DB 3459 PG 434
PB 2016 PG 364

(1A) JAMES JOHNSON
DB 615 PG 21
PB 2016 PG 364

(1) JAMES JOHNSON
DB 731 PG 732

(3) TONY WARREN
DB 327 PG 355

(5) DANNY HEDGEPEETH
DB 926 PG 126
PC E PG 76A

(4) HOWARD BRIDGES
DB 1754 PG 517

BEGIN CONSTRUCTION
-L- POT Sta. 12+60.83

BEGIN TIP PROJECT R-5705A
-L- POT Sta. 15+58.00

BEGIN TEMPORARY SHORING TS*1
-L- POC Sta. 24+07 (0.8' LT)
BEGIN TEMPORARY SHORING TS*2
-L- POC Sta. 24+11 (6.5' RT)

DOUGLAS JOHNSON
DB 3605 PG 628
PB 2016 PG 364

(2) JAMES JOHNSON
DB 730 PG 223

	NORTH	EAST	ELEV.
CUL1	624925.48	2088902.82	249.12
CUL2	624928.77	2088898.61	249.13
CE1	624927.00	2088900.66	253.56
HW1	624928.18	2088898.34	255.20
CUL3	624854.02	2088887.29	248.84
CUL4	624857.34	2088882.93	248.64
CE2	624856.33	2088884.79	253.47
HW2	624856.18	2088885.51	255.04

LATERAL 8' BASE DITCH
SEE DETAIL 6
EST. 130 C.Y. DDE
EST. 165 TONS CL-I RIPRAP
EST. 380 S.Y. GFD

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

GREGORY INVESTMENT
PROPERTIES LLC
DB 3497 PG 845

REVISIONS

MATCHLINE -L- STA 24+50 (SEE SHEET 5)

PROJECT REFERENCE NO. R-5705A	SHEET NO. EC-4A/CONST.4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 24+46-L-

PHASE I

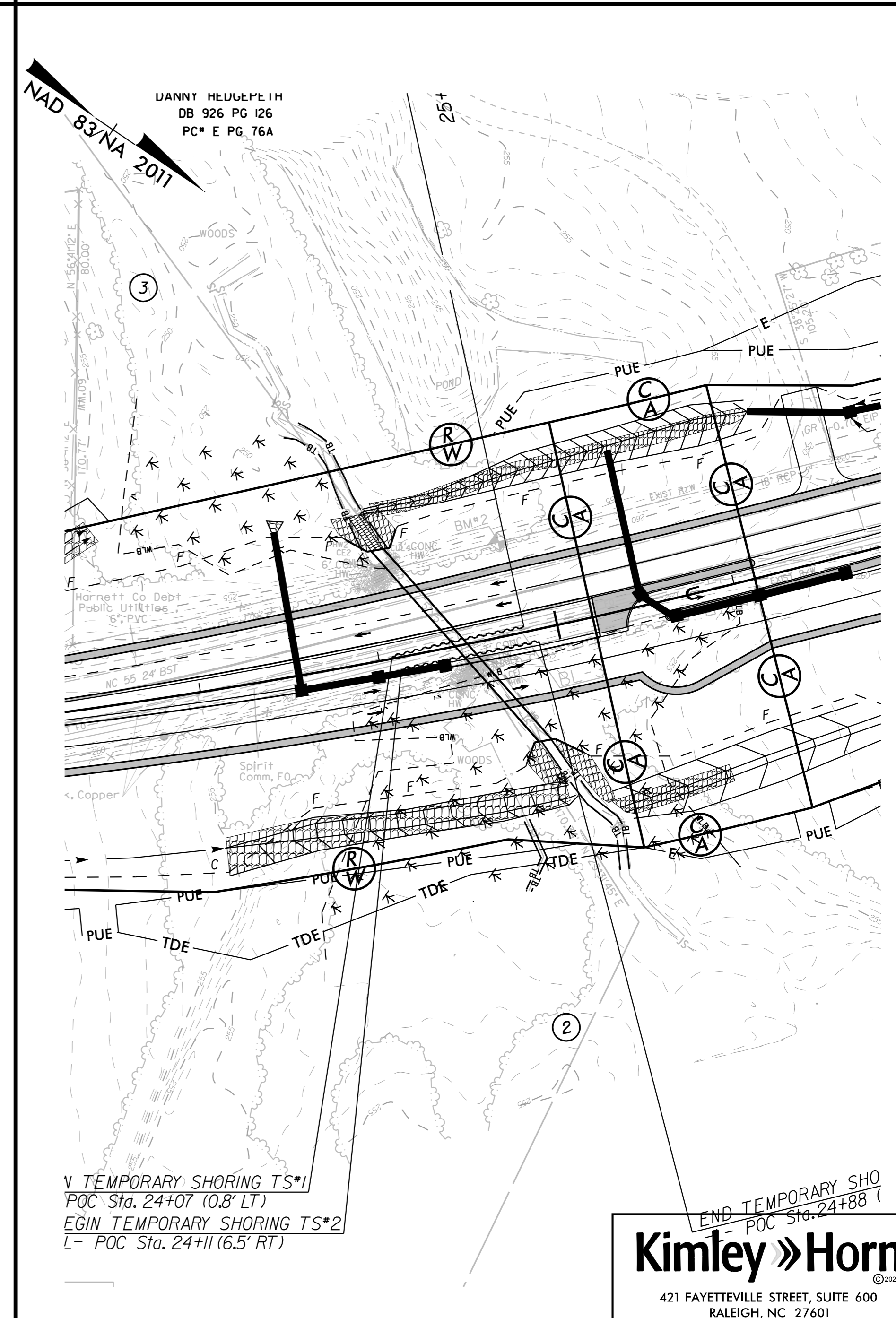
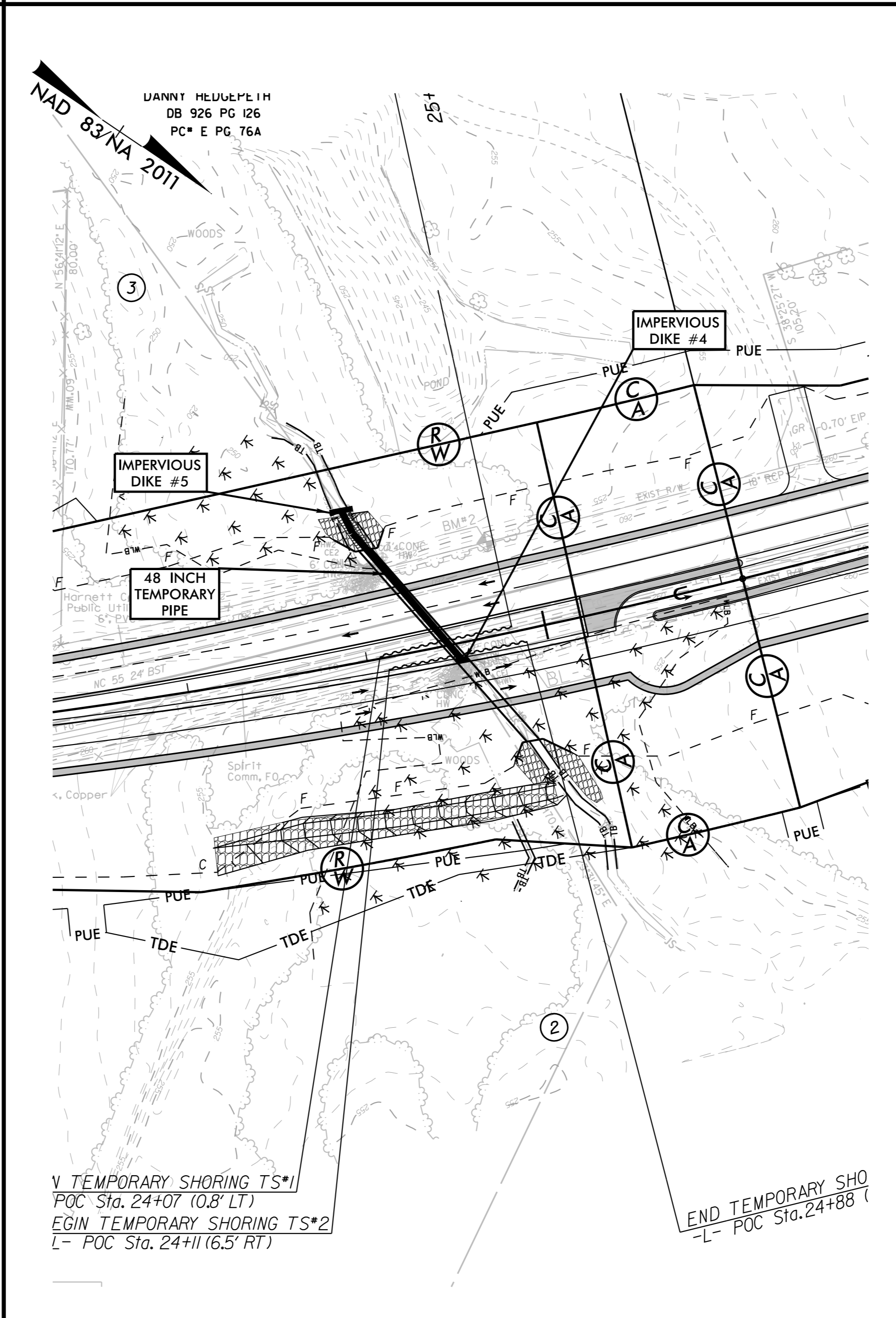
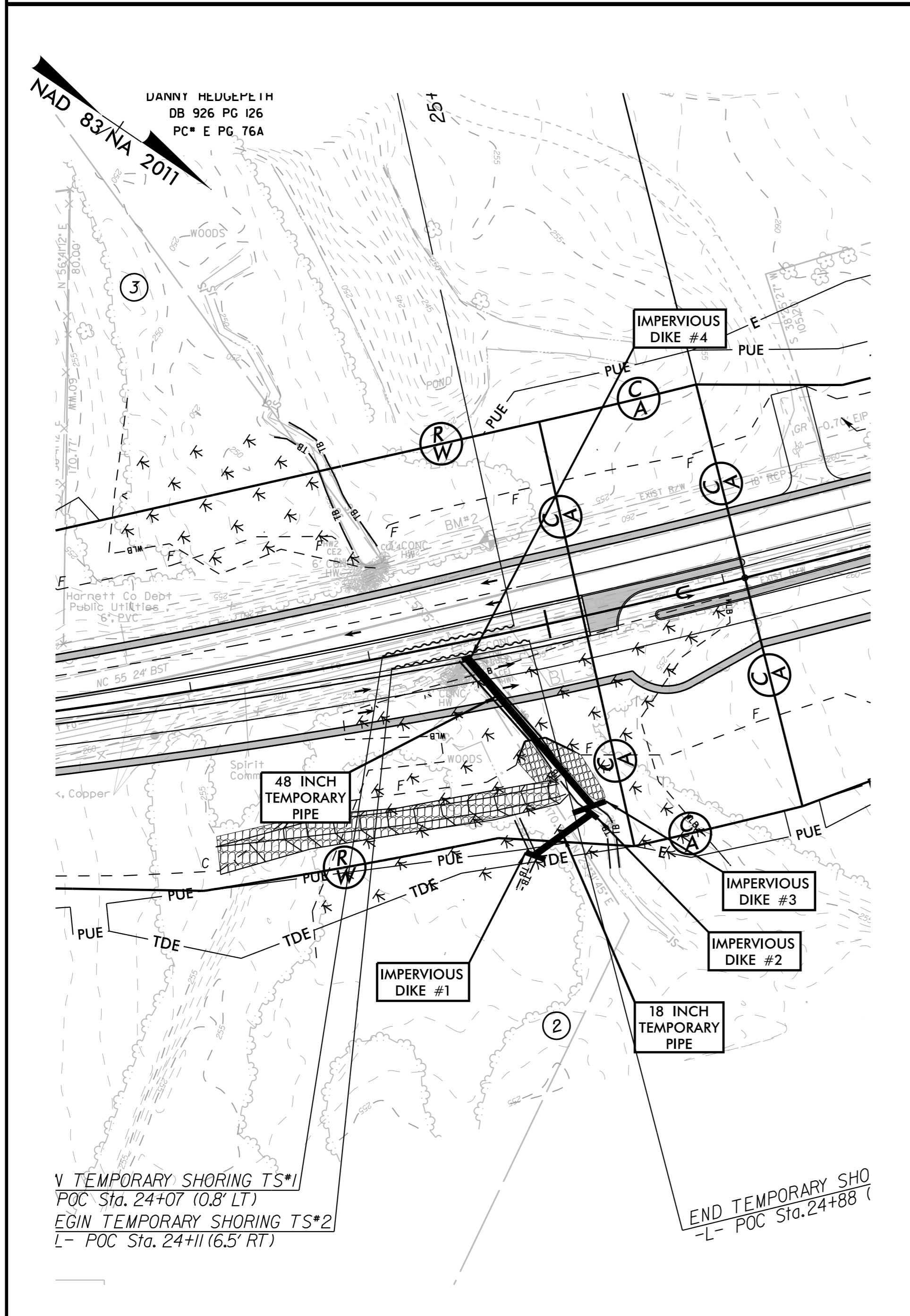
- 1.) UTILIZE SPECIAL STILLING BASIN(S) DURING CONSTRUCTION AS NEEDED TO DEWATER WORK SITE. (TYP.)
- 2.) CONSTRUCT IMPERVIOUS DIKES 1 AND 2 AND INSTALL 18 INCH TEMPORARY PIPE, DIVERTING JS INTO MAIN CHANNEL.
- 3.) CONSTRUCT IMPERVIOUS DIKES 3 AND 4 AND INSTALL 48 INCH TEMPORARY PIPE, DIVERTING FLOW THROUGH THE TEMPORARY PIPE.
- 4.) CONSTRUCT PROPOSED DITCH, APPROX. 60 L.F. OF UPSTREAM PROPOSED 6'x7' RCBC CULVERT AND UPSTREAM CHANNEL IMPROVEMENTS.
- 5.) COMPLETE EASTBOUND ROADWAY IMPROVEMENTS, AND MOVE TRAFFIC OVER AFTER COMPLETION.
- 6.) REFERENCE TRAFFIC CONTROL PLANS FOR ADDITIONAL DETAIL REGARDING TRAFFIC MANAGEMENT.

PHASE II

- 1.) REMOVE IMPERVIOUS DIKE 3 AND RETAIN IMPERVIOUS DIKE 4, PLACE IMPERVIOUS DIKE 5 ON DOWNSTREAM END OF CHANNEL OUTSIDE OF CONSTRUCTION LIMITS. ROUTE TEMPORARY PIPE THROUGH IMPERVIOUS DIKES.
- 2.) REMOVE IMPERVIOUS DIKE 1 AND 2 AND 18 INCH TEMPORARY PIPE TO ALLOW JS TO FLOW WITHIN PROPOSED DITCH.
- 3.) REMOVE APPROX. 53' OF EXIST. CULVERT FROM DOWNSTREAM END. USE PUMP AROUND OPERATION AS NEEDED TO COMPLETE WORK IN THE DRY.
- 4.) BUILD APPROX. 80 L.F. OF DOWNSTREAM PROPOSED 6'x7' RCBC CULVERT.
- 5.) MAKE DOWNSTREAM CHANNEL IMPROVEMENTS AND PLACE REQUIRED RIPRAP AND MATTING ON CHANNEL BANKS.
- 6.) REFERENCE TRAFFIC CONTROL PLANS FOR ADDITIONAL DETAIL REGARDING TRAFFIC MANAGEMENT.

PHASE III

- 1.) REMOVE IMPERVIOUS DIKE 4 AND 5 AND 48" TEMPORARY PIPE.
- 2.) REMOVE SPECIAL STILLING BASIN.
- 3.) STABILIZE DISTURBED AREA AND REMOVE ALL EROSION AND SEDIMENT CONTROL DEVICES AS DIRECTED.
- 4.) FINISH ROADWAY AND DRAINAGE CONSTRUCTION.
- 5.) REFERENCE TRAFFIC CONTROL PLANS FOR ADDITIONAL DETAIL REGARDING TRAFFIC MANAGEMENT.



5/14/99

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5

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

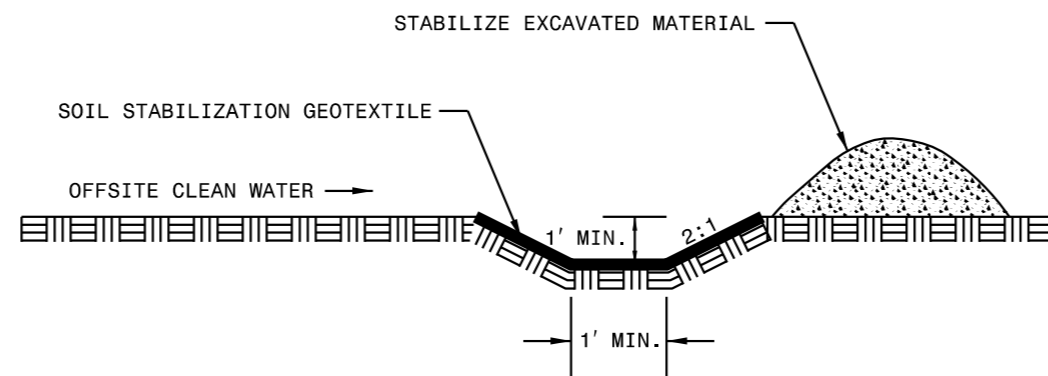
NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL
REQUIRE PRIOR APPROVAL BY ENGINEER.

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

CLEAN WATER DIVERSION

--- CWD --- CWD --- CWD --- CWD --- CWD --- CWD ---

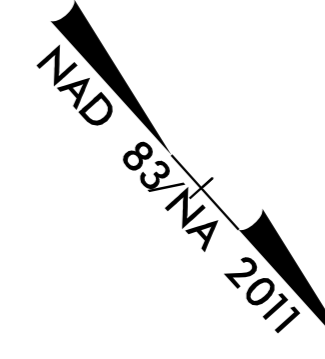
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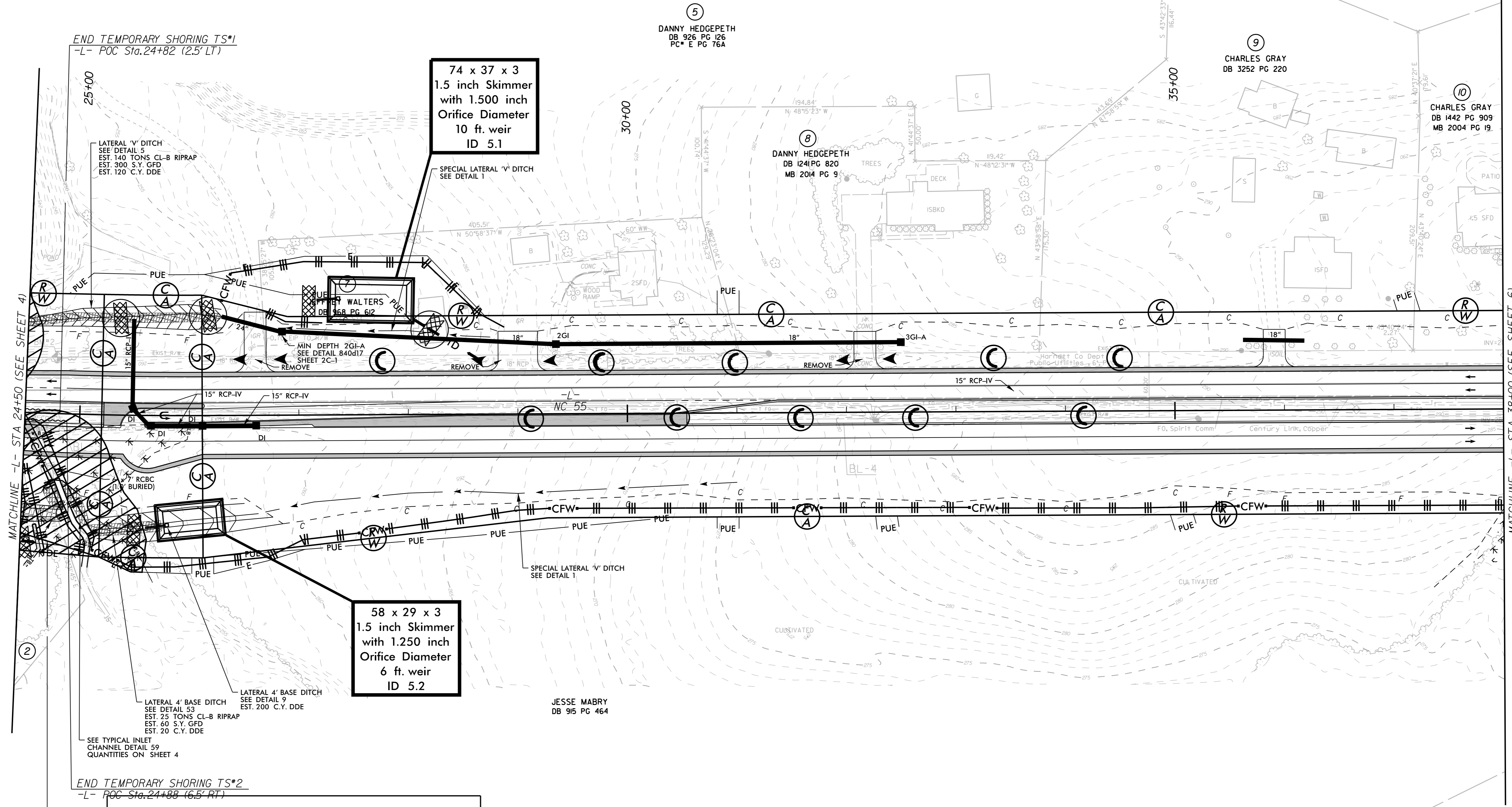
Kimley » Horn

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PROJECT REFERENCE NO. R-5705A	SHEET NO. EC-5/CONST.5
RW SHEET NO. 5	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



REVISIONS



MATCHLINE -L- STA 24+50 (SEE SHEET 4)

MATCHLINE -L- STA 38+00 (SEE SHEET 6)

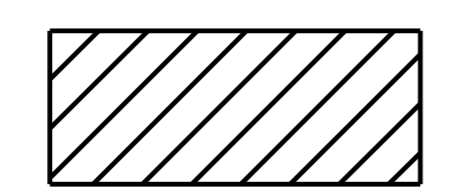
**74 x 37 x 3
1.5 inch Skimmer
with 1.500 inch
Orifice Diameter
10 ft. weir
ID 5.1**

**58 x 29 x 3
1.5 inch Skimmer
with 1.250 inch
Orifice Diameter
6 ft. weir
ID 5.2**

END TEMPORARY SHORING TS*1
-L- POC Sta. 24+82 (2.5' LT)

END TEMPORARY SHORING TS*2
-L- POC Sta. 24+88 (6.5' RT)

GRADE
TO
DRAIN



ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

⑤
DANNY HEDGEPEETH
DB 926 PG 126
PC* E PG 76A

⑧
DANNY HEDGEPEETH
DB 124 PG 820
MB 204 PG 9

⑨
CHARLES GRAY
DB 3252 PG 220

⑩
CHARLES GRAY
DB 1442 PG 909
MB 2004 PG 19

JESSE MABRY
DB 915 PG 464

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6

INSTALL PIPE(S) IN JURISDICTIONAL AREAS WITHOUT IMPACTING STREAM UNTIL
AREA STABILIZED AND ACCORDING TO NCDOT BEST MANAGEMENT
PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

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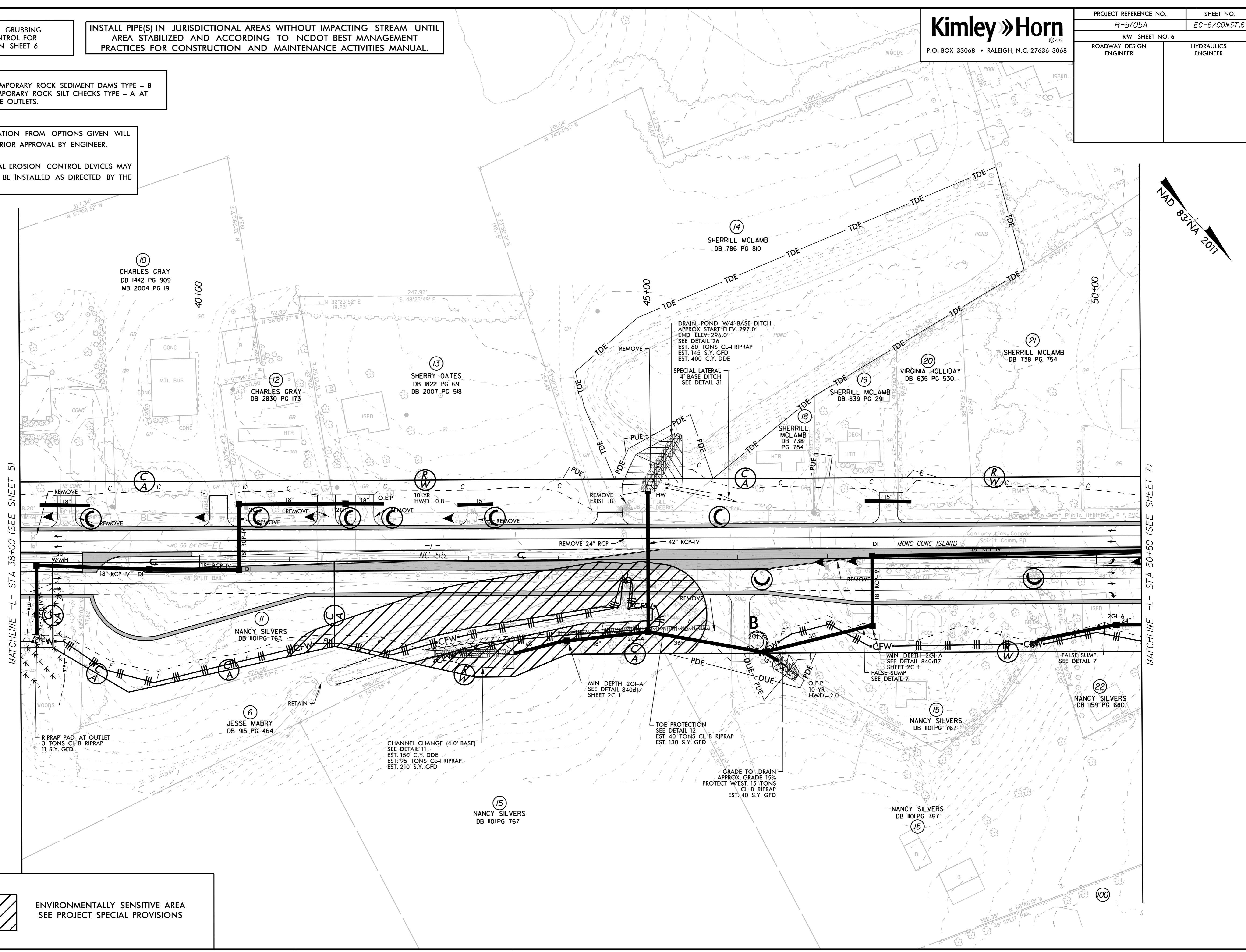
PROJECT REFERENCE NO. R-5705A	SHEET NO. EC-6/CONST.6
RW SHEET NO. 6	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

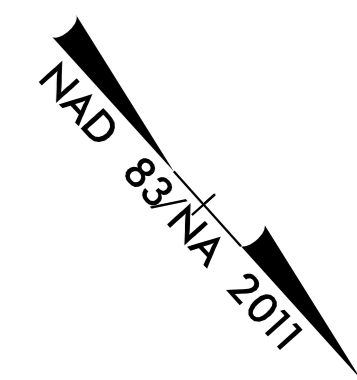
NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL
REQUIRE PRIOR APPROVAL BY ENGINEER.

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

REVISIONS



 ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS



MATCHLINE -L- STA 38+00 (SEE SHEET 5)

MATCHLINE -L- STA 50+50 (SEE SHEET 7)

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 8

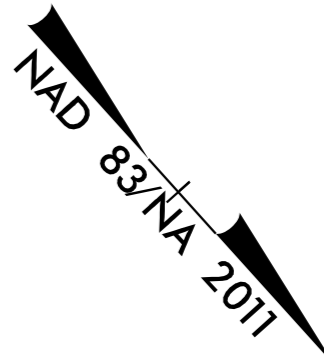
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AST
DRAINAGE OUTLETS.

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

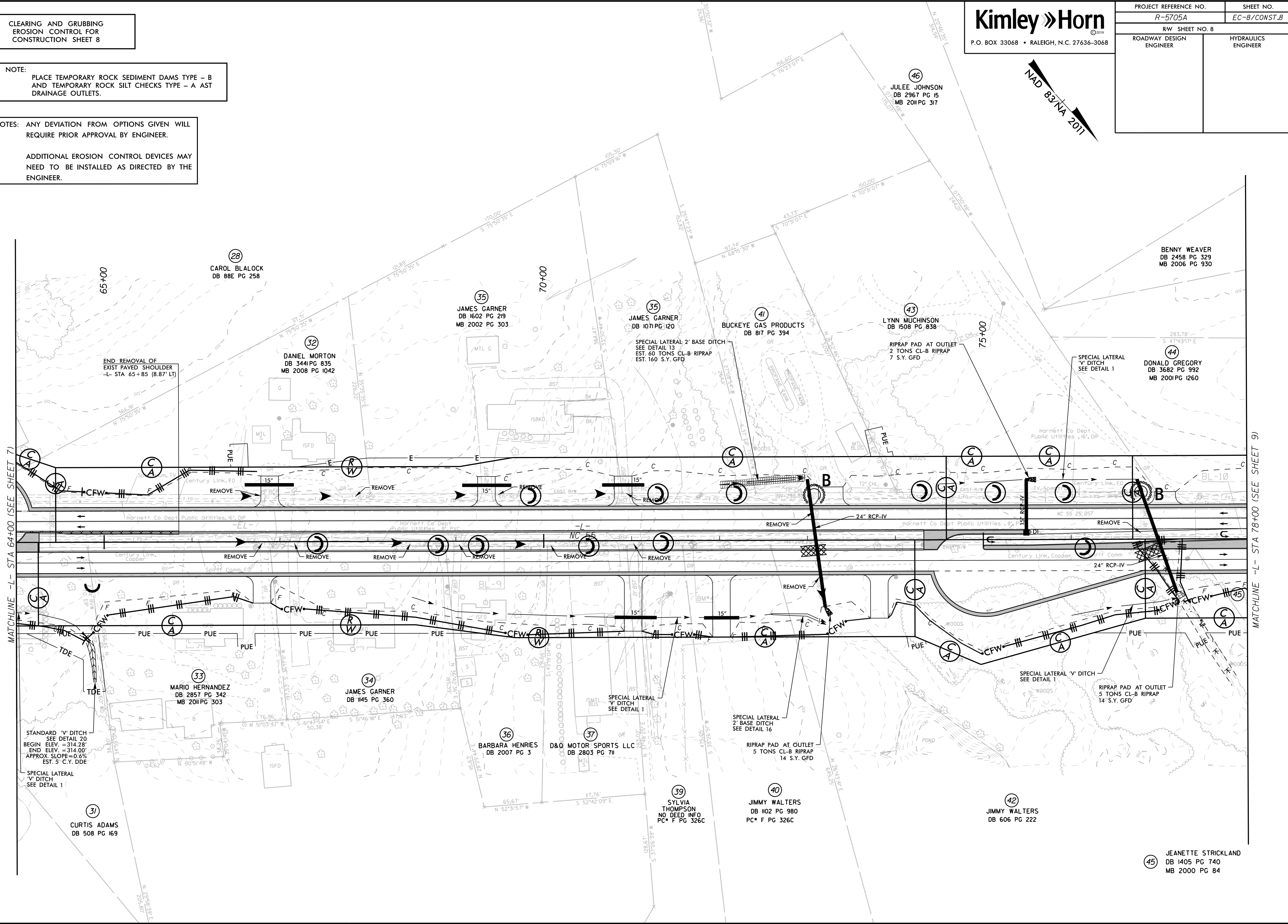
ADDITIONAL EROSION CONTROL DEVICES MAY
NEED TO BE INSTALLED AS DIRECTED BY THE
ENGINEER.

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PROJECT REFERENCE NO. R-5705A	SHEET NO. EC-8/CONST.8
RW SHEET NO. 8	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	



REVISIONS



MATCHLINE -L- STA 64+00 (SEE SHEET 7)

MATCHLINE -L- STA 78+00 (SEE SHEET 9)

STANDARD 'V' DITCH
SEE DETAIL 20
BEGIN ELEV. = 314.28'
END ELEV. = 314.00'
APPROX. SLOPE = 0.6%
EST. 5' C.Y. DDE

SPECIAL LATERAL
'V' DITCH
SEE DETAIL 1

31
CURTIS ADAMS
DB 508 PG 169

33
MARIO HERNANDEZ
DB 2857 PG 342
MB 2011 PG 303

34
JAMES GARNER
DB 145 PG 360

36
BARBARA HENRIES
DB 2007 PG 3

37
D&O MOTOR SPORTS LLC
DB 2803 PG 711

39
SYLVIA THOMPSON
NO DEED INFO
PC* F PG 326C

40
JIMMY WALTERS
DB 1102 PG 980
PC* F PG 326C

42
JIMMY WALTERS
DB 606 PG 222

45
JEANETTE STRICKLAND
DB 1405 PG 740
MB 2000 PG 84

END REMOVAL OF
EXIST PAVED SHOULDER
-L- STA 65+85 (8.87' LT)

28
CAROL BLALOCK
DB 88E PG 258

32
DANIEL MORTON
DB 3441 PG 835
MB 2008 PG 1042

35
JAMES GARNER
DB 1602 PG 219
MB 2002 PG 303

35
JAMES GARNER
DB 1071 PG 120

41
BUCKEYE GAS PRODUCTS
DB 817 PG 394

43
LYNN MUCHINSON
DB 1508 PG 838

44
DONALD GREGORY
DB 3682 PG 992
MB 2001 PG 1260

BENNY WEAVER
DB 2458 PG 329
MB 2006 PG 930

46
JULEE JOHNSON
DB 2967 PG 15
MB 2011 PG 317

SPECIAL LATERAL 2' BASE DITCH
SEE DETAIL 13
EST. 60 TONS CL-B RIPRAP
EST. 160 S.Y. GFD

SPECIAL LATERAL
'V' DITCH
SEE DETAIL 1

SPECIAL LATERAL
2' BASE DITCH
SEE DETAIL 16

SPECIAL LATERAL
'V' DITCH
SEE DETAIL 1

RIPRAP PAD AT OUTLET
5 TONS CL-B RIPRAP
14' S.Y. GFD

SPECIAL LATERAL
2' BASE DITCH
SEE DETAIL 16

RIPRAP PAD AT OUTLET
5 TONS CL-B RIPRAP
14' S.Y. GFD

SPECIAL LATERAL
'V' DITCH
SEE DETAIL 1

RIPRAP PAD AT OUTLET
5 TONS CL-B RIPRAP
14' S.Y. GFD

SPECIAL LATERAL
'V' DITCH
SEE DETAIL 1

RIPRAP PAD AT OUTLET
5 TONS CL-B RIPRAP
14' S.Y. GFD

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 9

INSTALL PIPE(S) IN JURISDICTIONAL AREAS WITHOUT IMPACTING STREAM UNTIL
AREA STABILIZED AND ACCORDING TO NCDOT BEST MANAGEMENT
PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

 ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

PROJECT REFERENCE NO. R-5705A		SHEET NO. EC-9/CONST.9	
RW SHEET NO. 9			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

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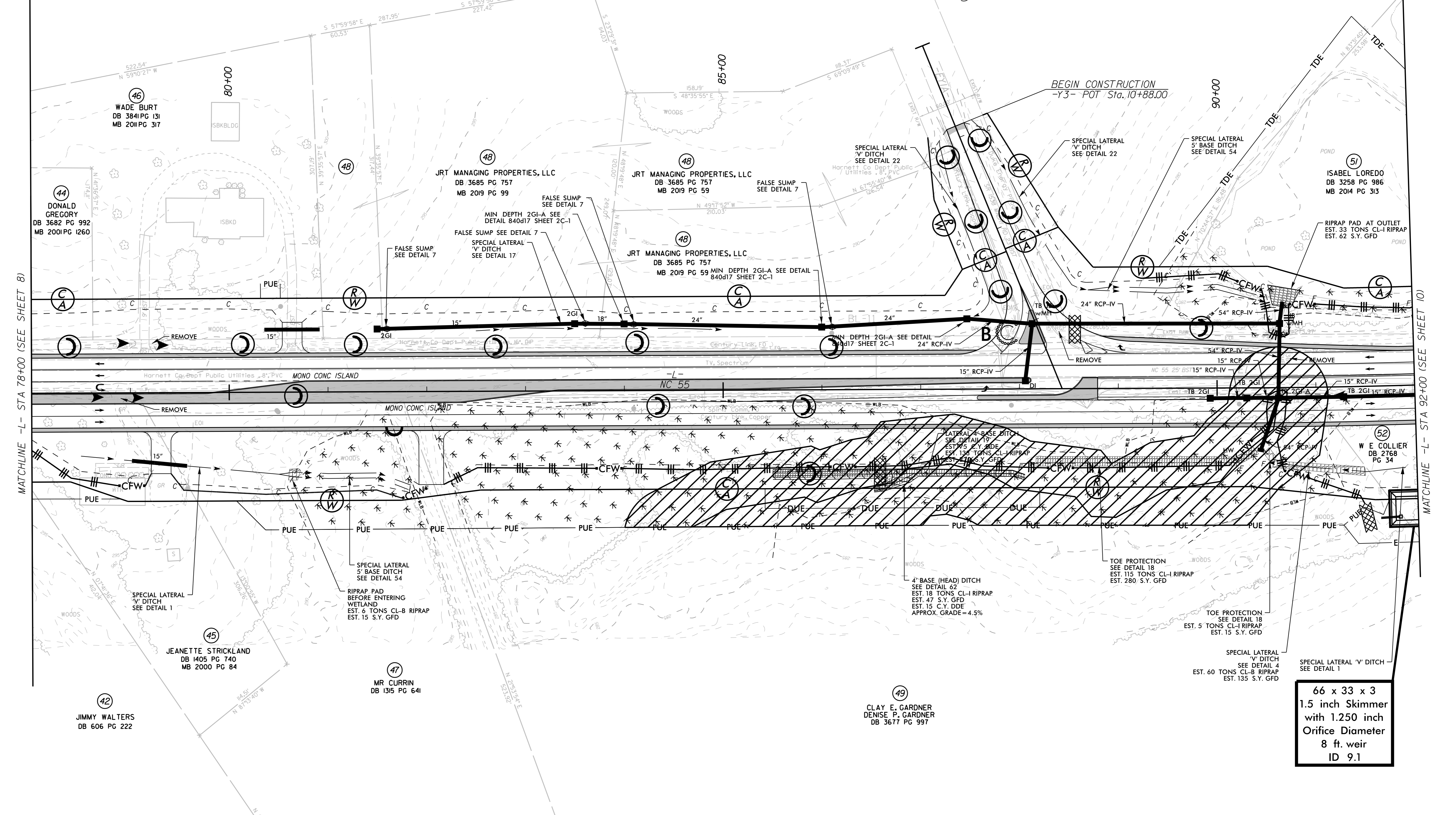
50
FRANK D'ALESSIO
DB 3604 PG 42
MB 2017 PG 390

NAD 83/NA 2011

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

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.



REVISIONS

MATCHLINE -L- STA 78+00 (SEE SHEET 8)

MATCHLINE -L- STA 92+00 (SEE SHEET 10)

66 x 33 x 3
1.5 inch Skimmer
with 1.250 inch
Orifice Diameter
8 ft. weir
ID 9.1

PROJECT REFERENCE NO. R-5705A	SHEET NO. EC-10/CONST.10
RW SHEET NO. 10	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

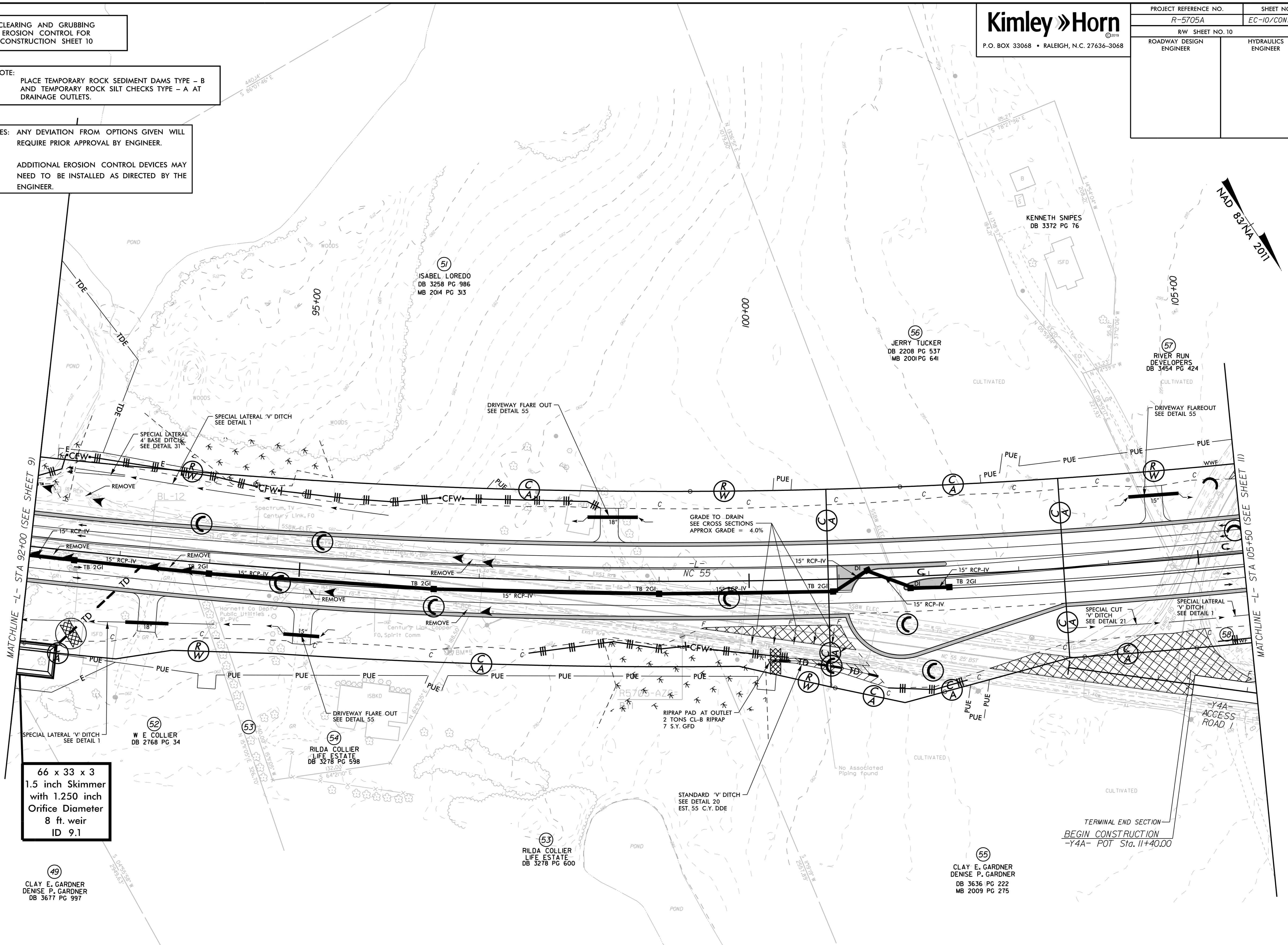
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 10

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

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.

REVISIONS



66 x 33 x 3
1.5 inch Skimmer
with 1.250 inch
Orifice Diameter
8 ft. weir
ID 9.1

49
CLAY E. GARDNER
DENISE P. GARDNER
DB 3677 PG 997

53
RILDA COLLIER
LIFE ESTATE
DB 3278 PG 600

55
CLAY E. GARDNER
DENISE P. GARDNER
DB 3636 PG 222
MB 2009 PG 275

TERMINAL END SECTION
BEGIN CONSTRUCTION
-Y4A- POT Sta. 11+40.00

