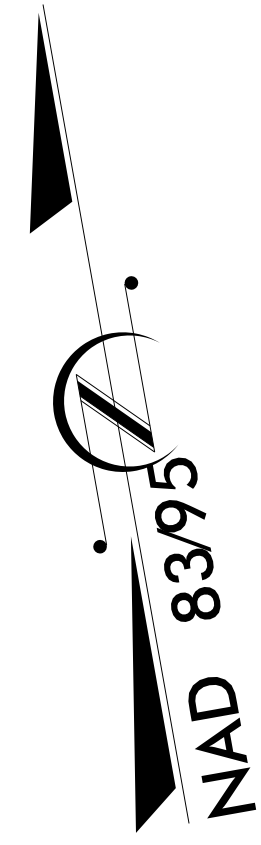


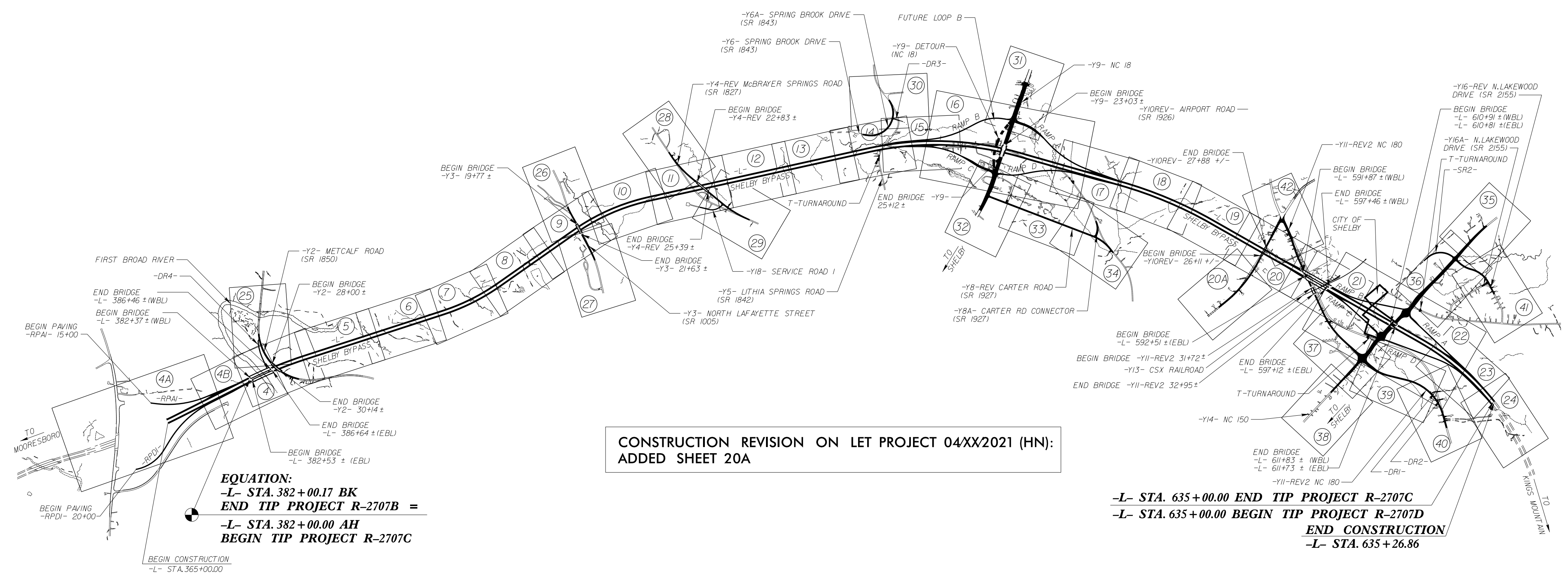
TIP PROJECT: R-2707C



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

**LOCATION: US 74 SHELBY BYPASS FROM EAST OF NC 226
TO EAST OF NC 150**

**TYPE OF WORK: GRADING, PAVING, DRAINAGE, SIGNING,
RETAINING WALLS, CULVERTS, AND STRUCTURE**



EQUATION:
-L- STA. 382+00.17 BK
END TIP PROJECT R-2707B =
-L- STA. 382+00.00 AH
BEGIN TIP PROJECT R-2707C

-L- STA. 635+00.00 END TIP PROJECT R-2707C
-L- STA. 635+00.00 BEGIN TIP PROJECT R-2707D
END CONSTRUCTION
-L- STA. 635+26.86

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	X-XXXX	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

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	~ ~ ~ ~ ~
1622.01	Temporary Berms and Slope Drains	T
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
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	[Symbol]
	Tiered Skimmer Basin	[Symbol]
	Infiltration Basin	[Symbol]

**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.*

ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY
WITH THE REGULATIONS SET FORTH BY THE
NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019
ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL
QUALITY DIVISION OF WATER RESOURCES.

Prepared in the Office of:
ROADSIDE ENVIRONMENTAL UNIT
1 South Wilmington St.
Raleigh, NC 27611
2018 STANDARD SPECIFICATIONS
Designed by:
Noelle Ring 3456
NAME LEVEL III CERTIFICATION NO.

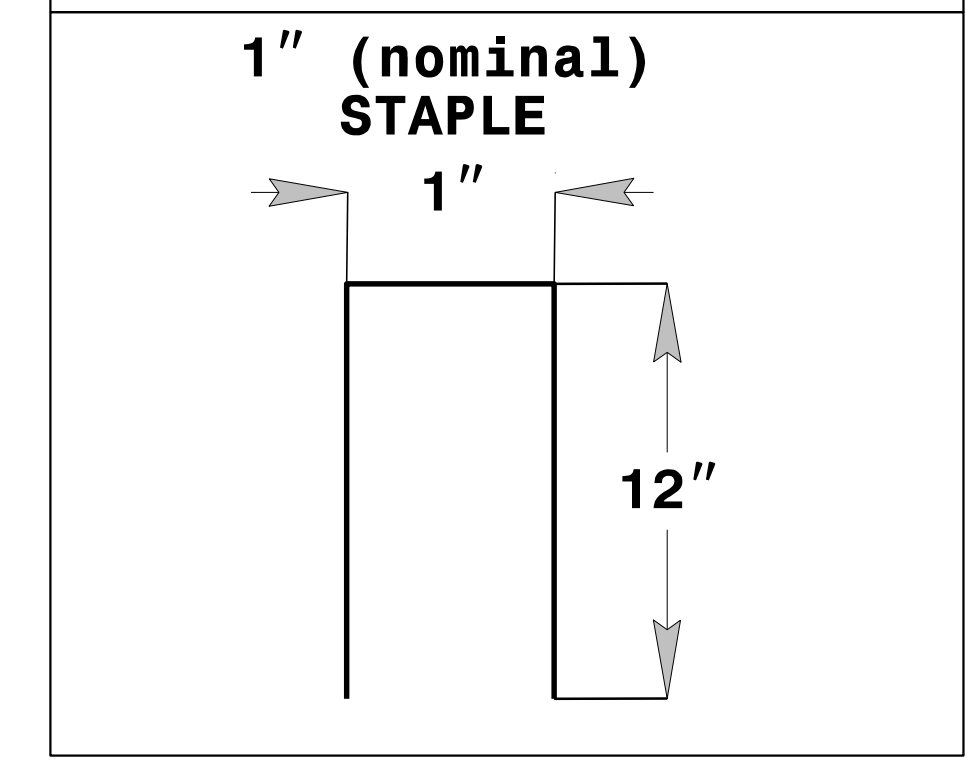
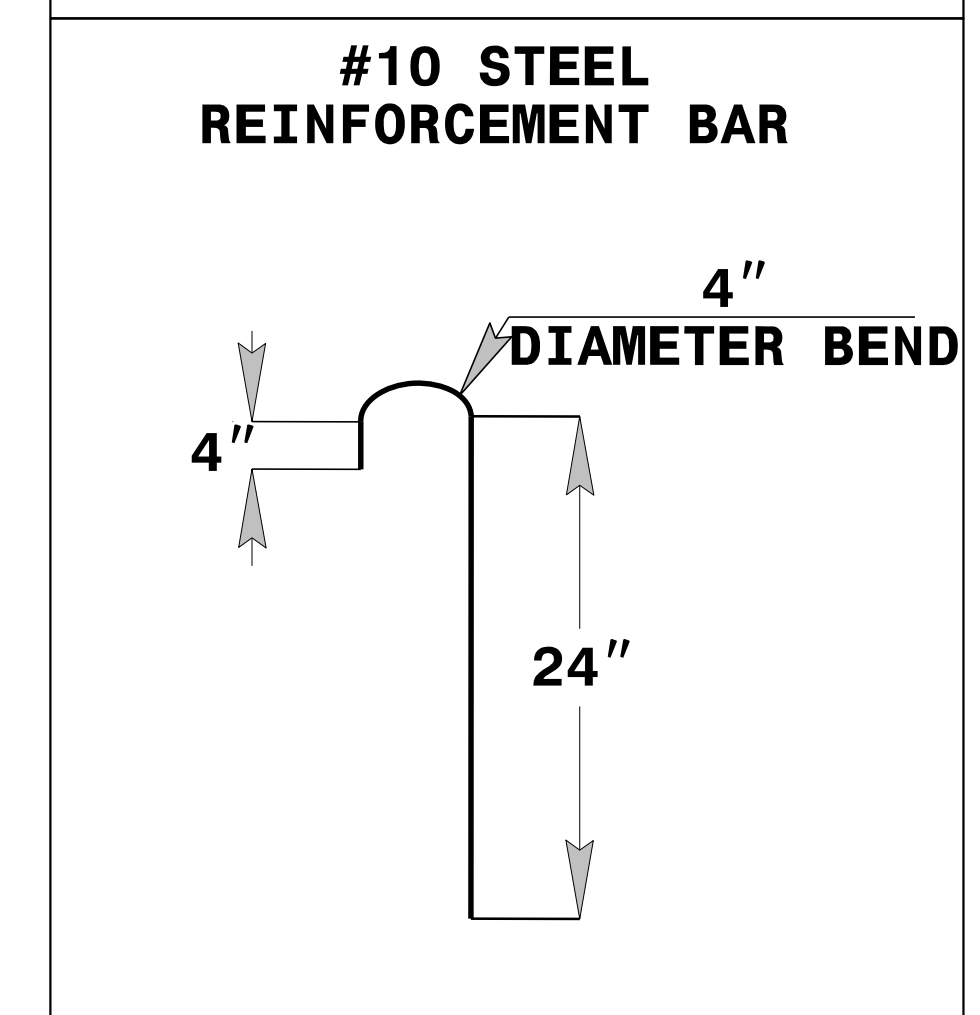
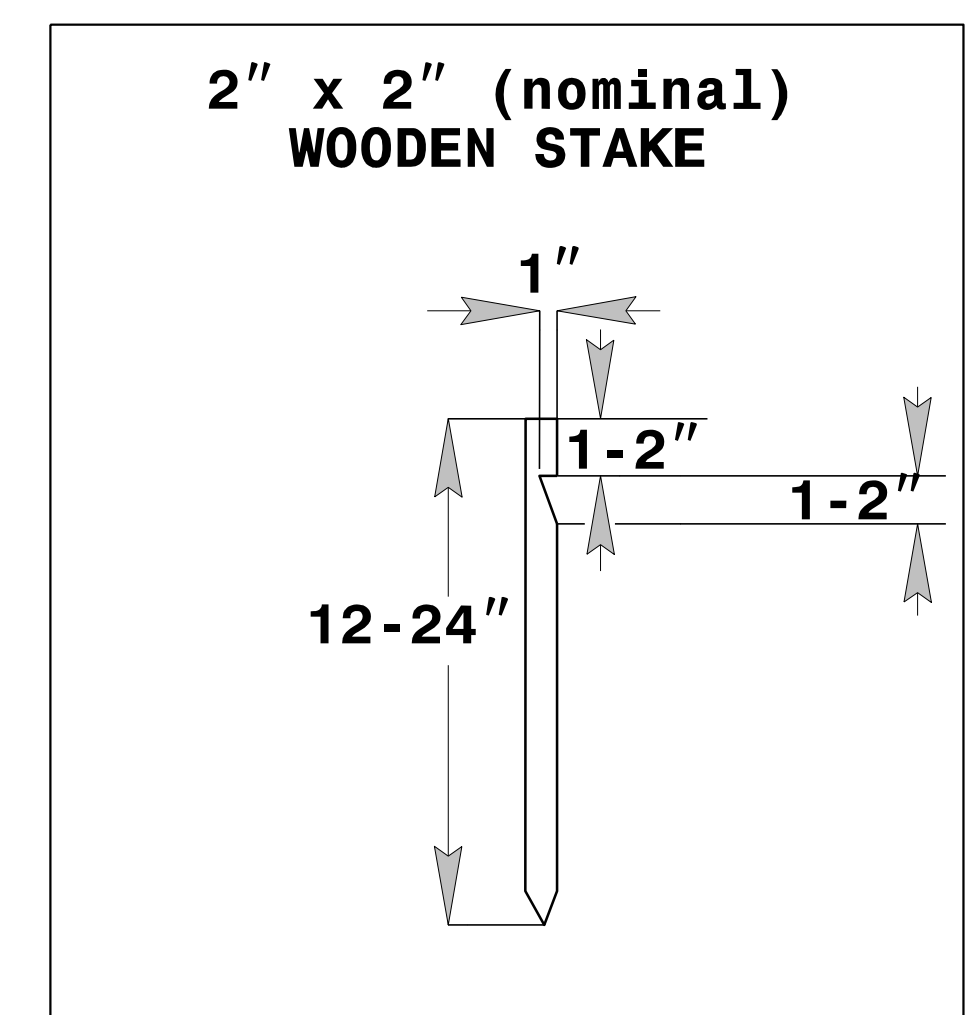
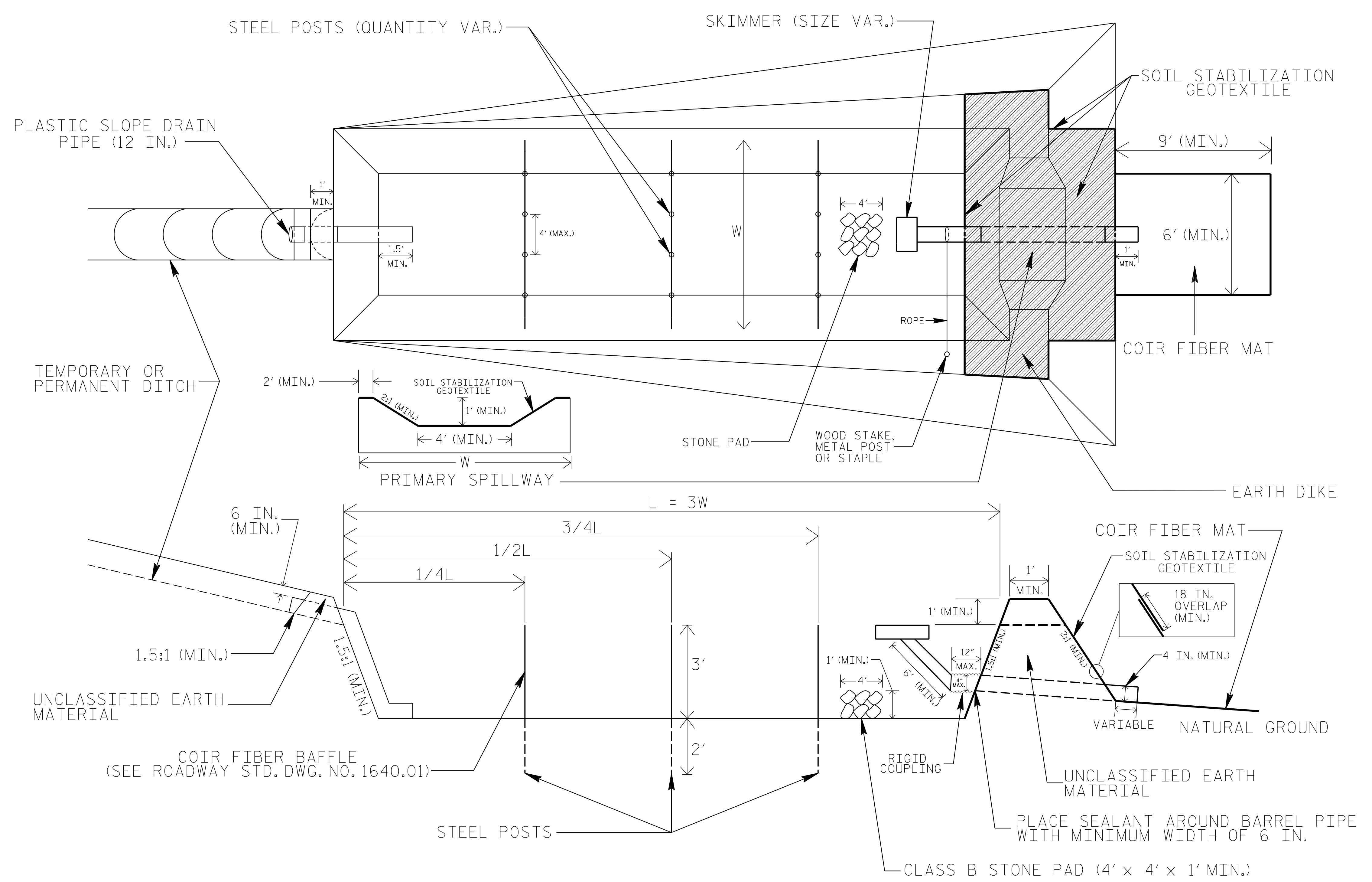
Roadway Standard Drawings

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 J
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 J
1630.01 Riser Basin	1634.01 Temporary Rock Sediment Dam Type A
1630.02 Silt Basin Type J	1634.02 Temporary Rock Sediment Dam Type J
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 J
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. <i>R-2707C</i>	SHEET NO. <i>EC-2</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKIMMER BASIN WITH BAFFLES DETAIL



COIR FIBER MAT ANCHOR OPTIONS

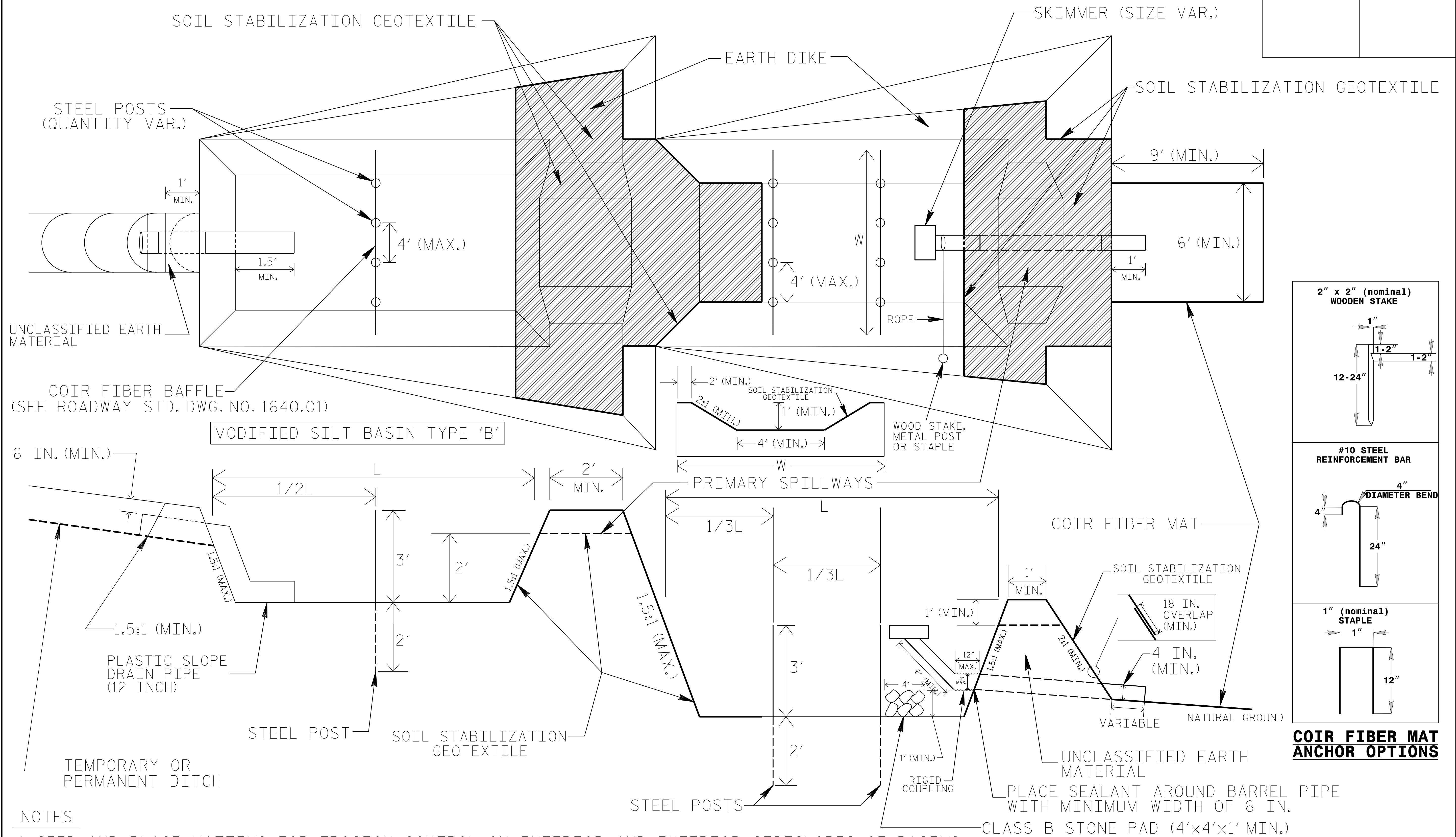
NOTES

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

TIERED SKIMMER BASIN DETAIL

PROJECT REFERENCE NO. R-2707C	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



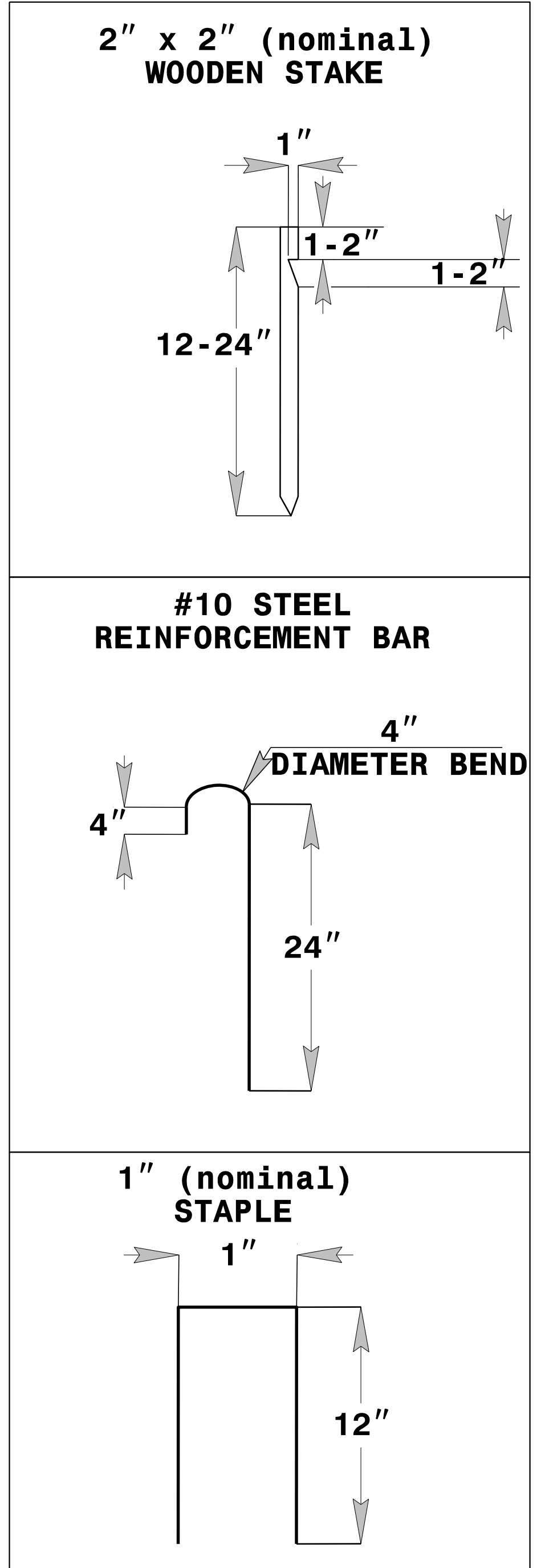
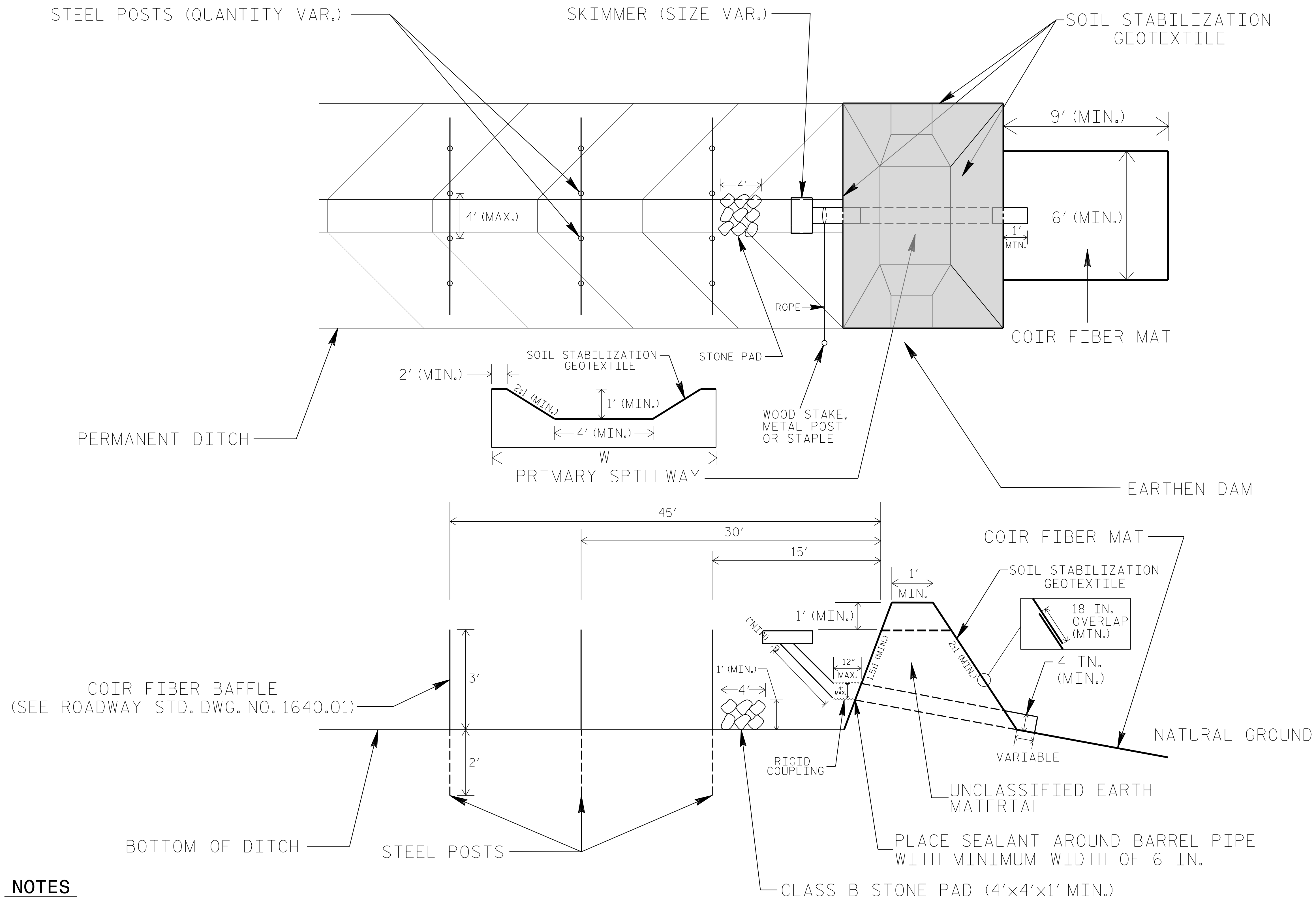
NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES OF BASINS.
2. LIMIT HEIGHT OF EARTH DIKES TO 5 FT.
3. ADDITIONAL MODIFIED SILT BASINS TYPE 'B' MAY BE NEEDED DEPENDING ON SLOPE.
4. FOR BASIN DEPTHS OF 3FT., THE MINIMUM BASIN WIDTHS SHALL BE 9 FT.
5. DETERMINE PRIMARY SPILLWAY WEIR LENGTHS (FT.) USING $Q/0.8$, WHERE Q IS FLOW RATE (CFS) INTO UPPER BASIN.
6. SOIL STABILIZATION GEOTEXTILE FOR PRIMARY SPILLWAYS SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

PROJECT REFERENCE NO. R-2707C	SHEET NO. EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

EARTHEN DAM WITH SKIMMER

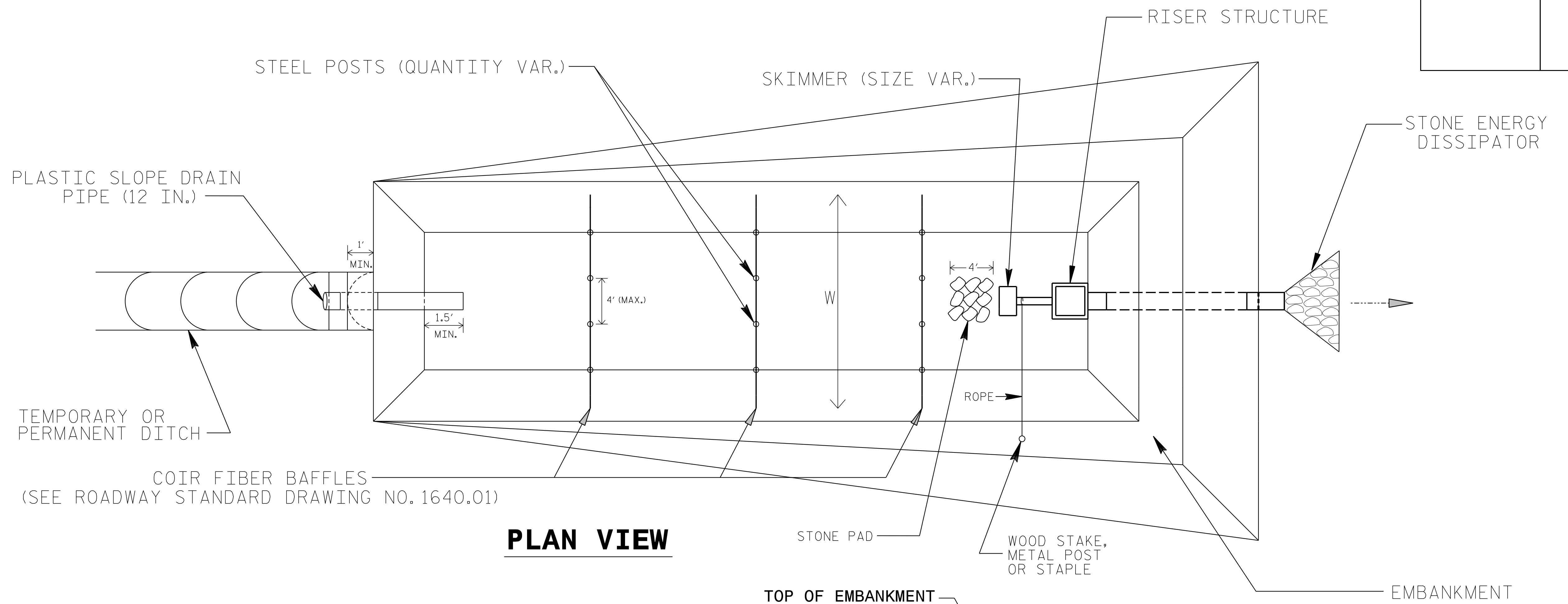


- NOTES**
1. LIMIT EARTHEN DAM HEIGHT TO 5 FT.
 2. DETERMINE PRIMARY SPILLWAY LENGTH (FT.) USING $Q/0.8$, WHERE Q IS FLOW RATE (CFS) INTO BASIN.
 3. SOIL STABILIZATION GEOTEXTILE FOR PRIMARY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

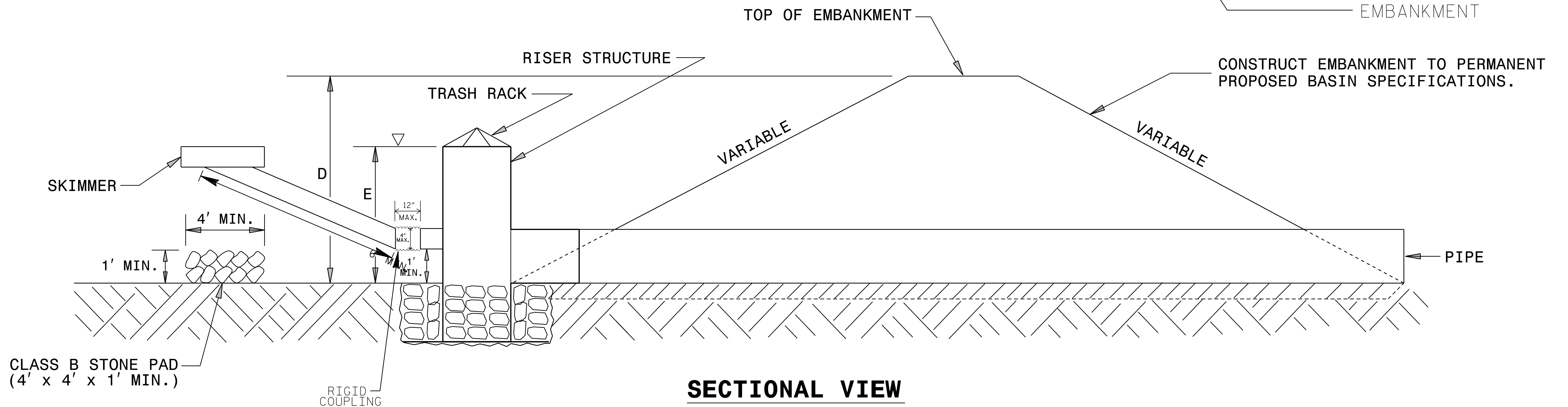
NOT TO SCALE

PROJECT REFERENCE NO. <i>R-2707C</i>	SHEET NO. <i>EC-2C</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-2707C</i>	SHEET NO. <i>EC-2D</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL

NOTES:

USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE.

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

ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

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

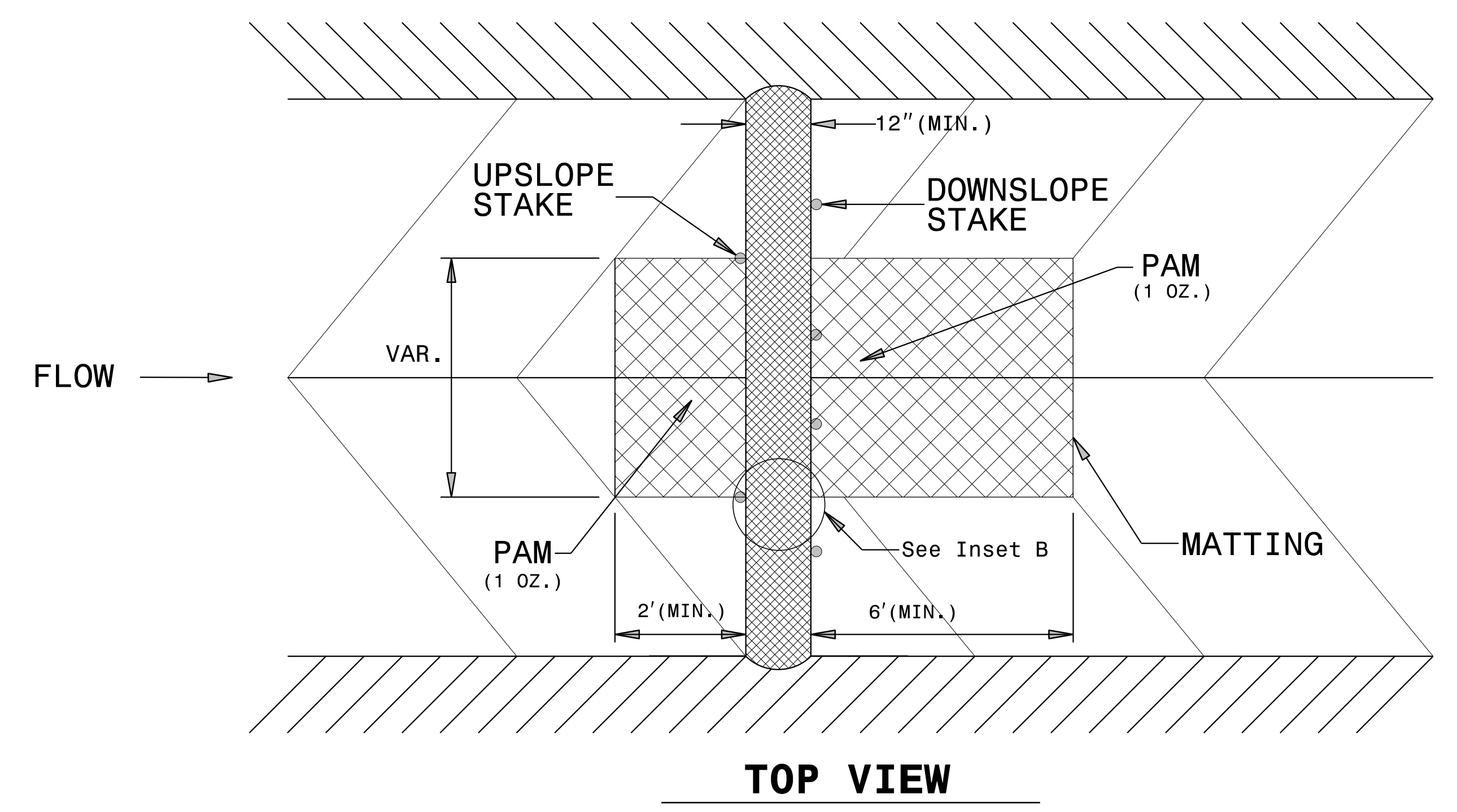
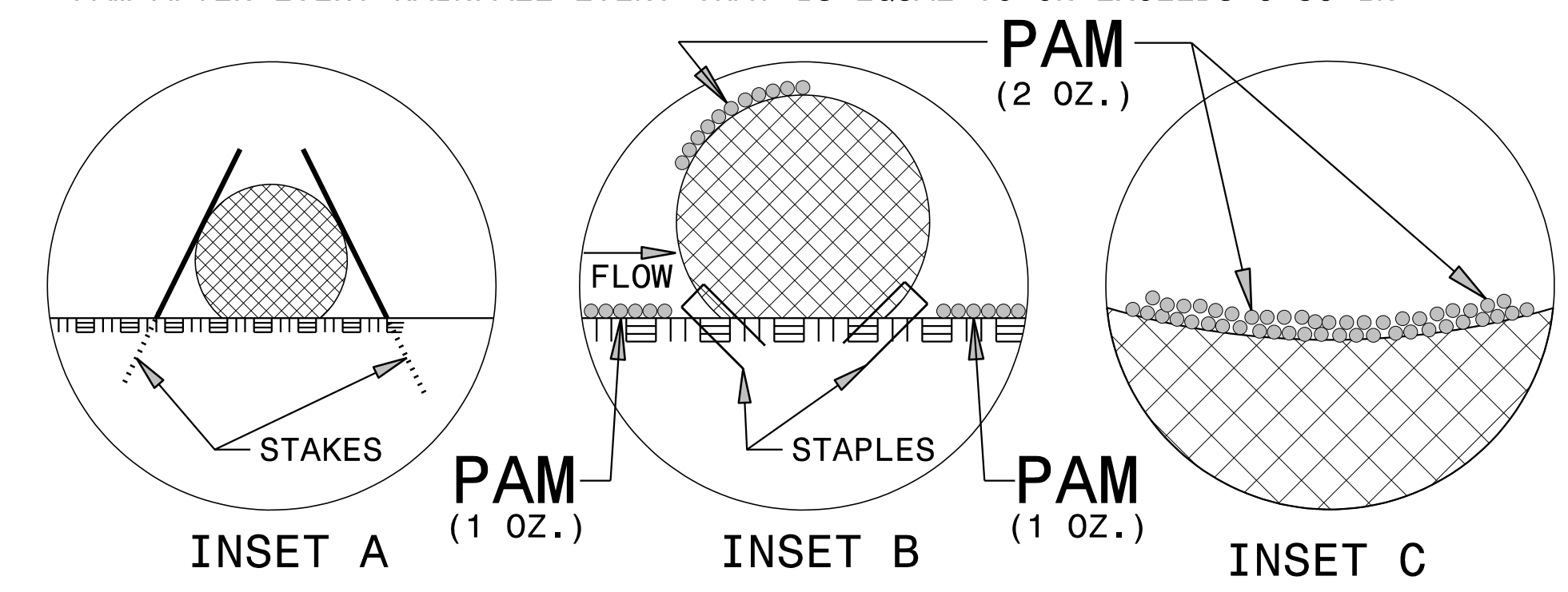
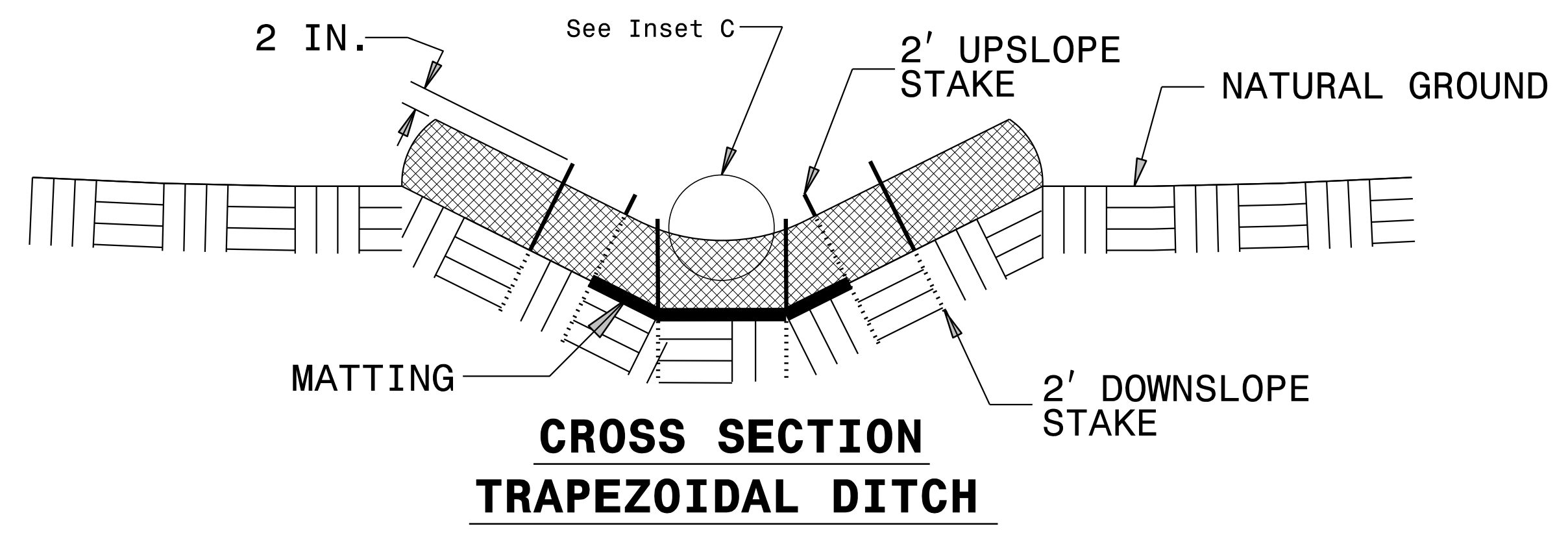
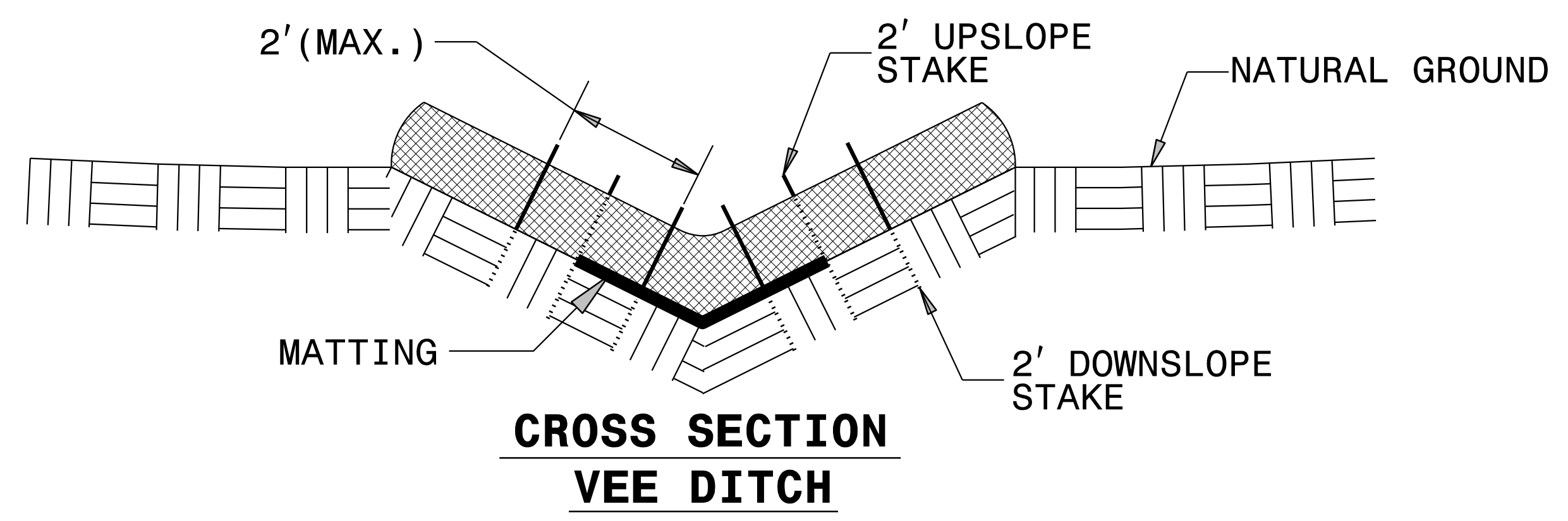
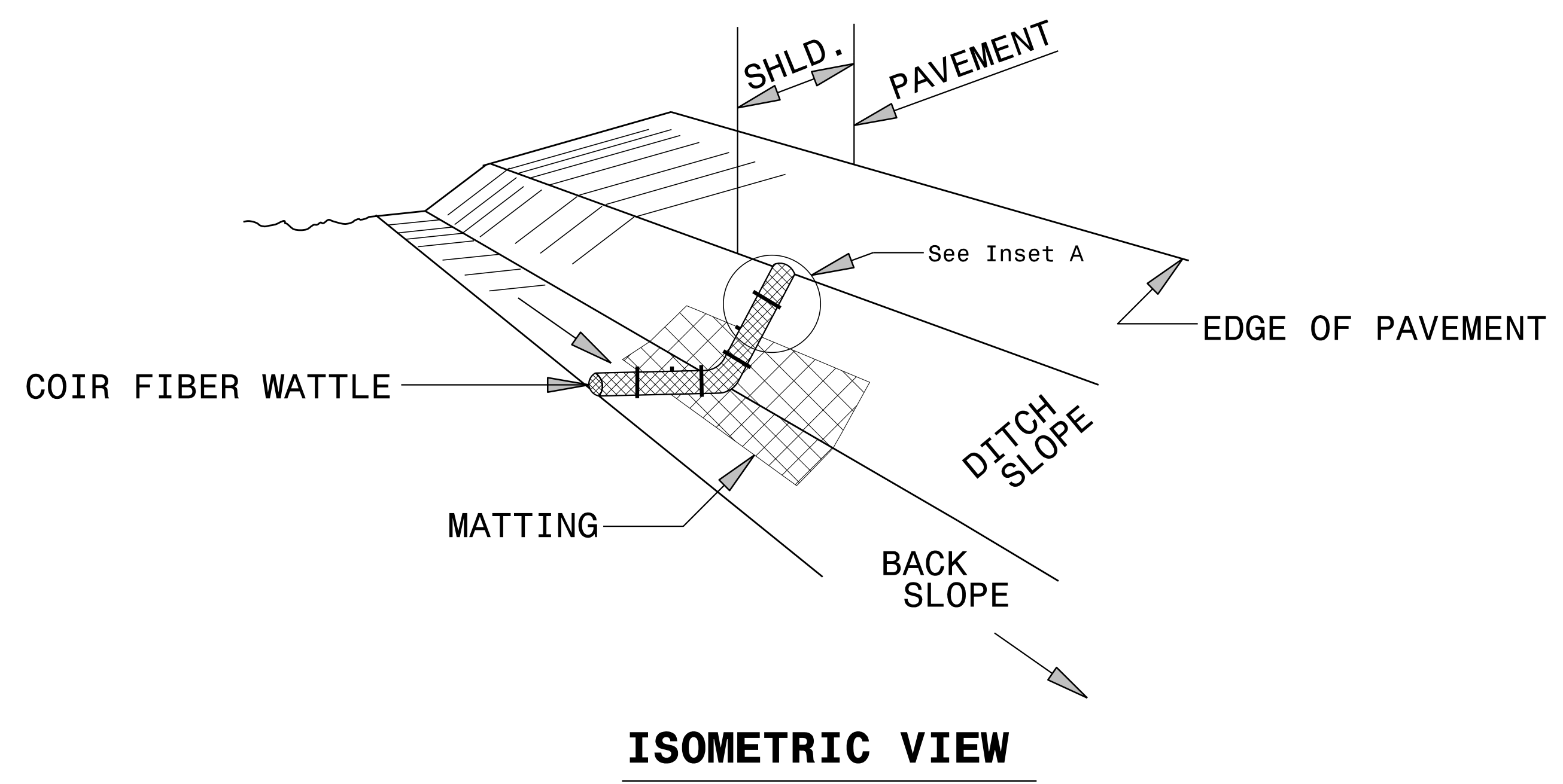
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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

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

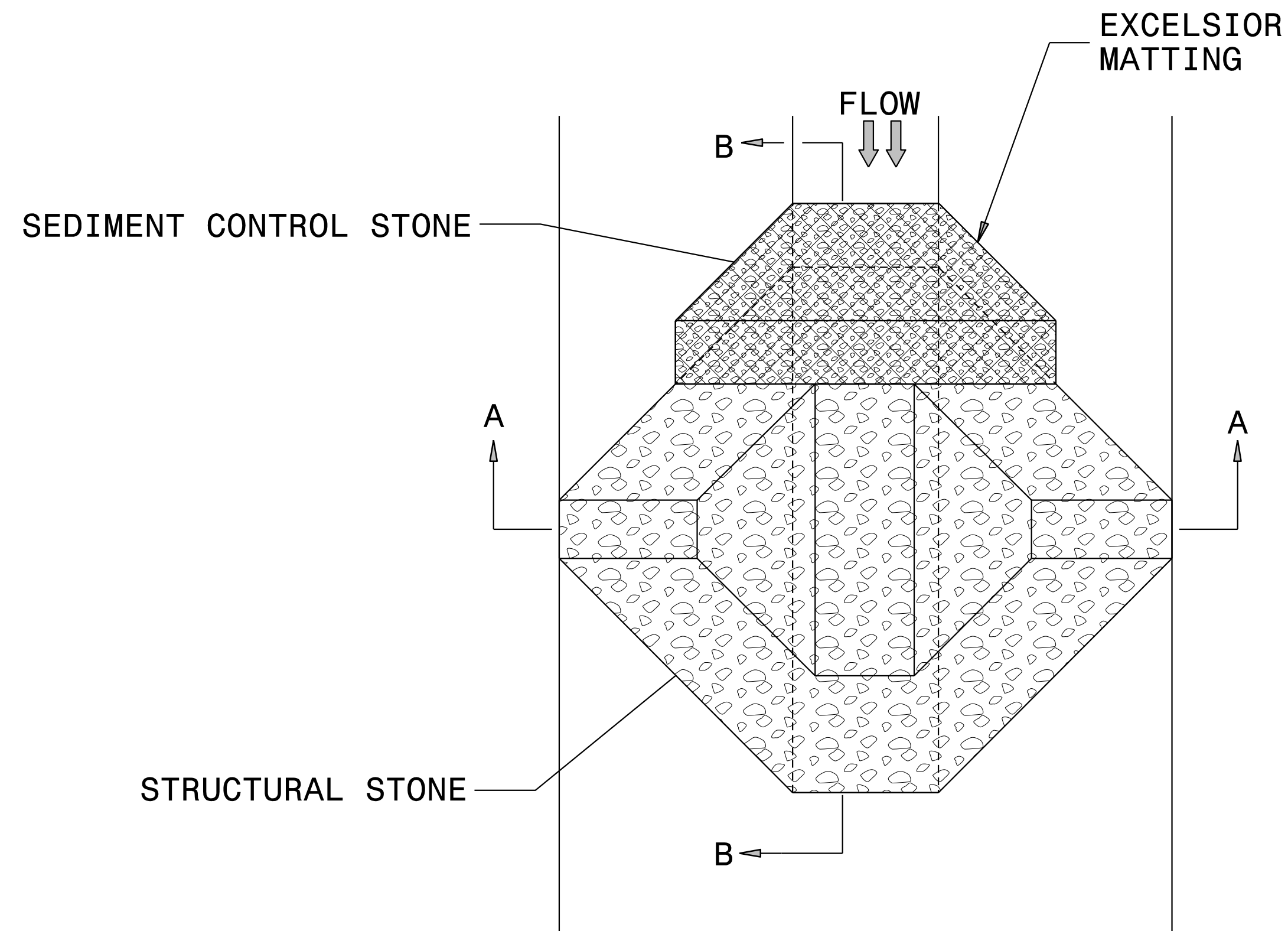
PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.

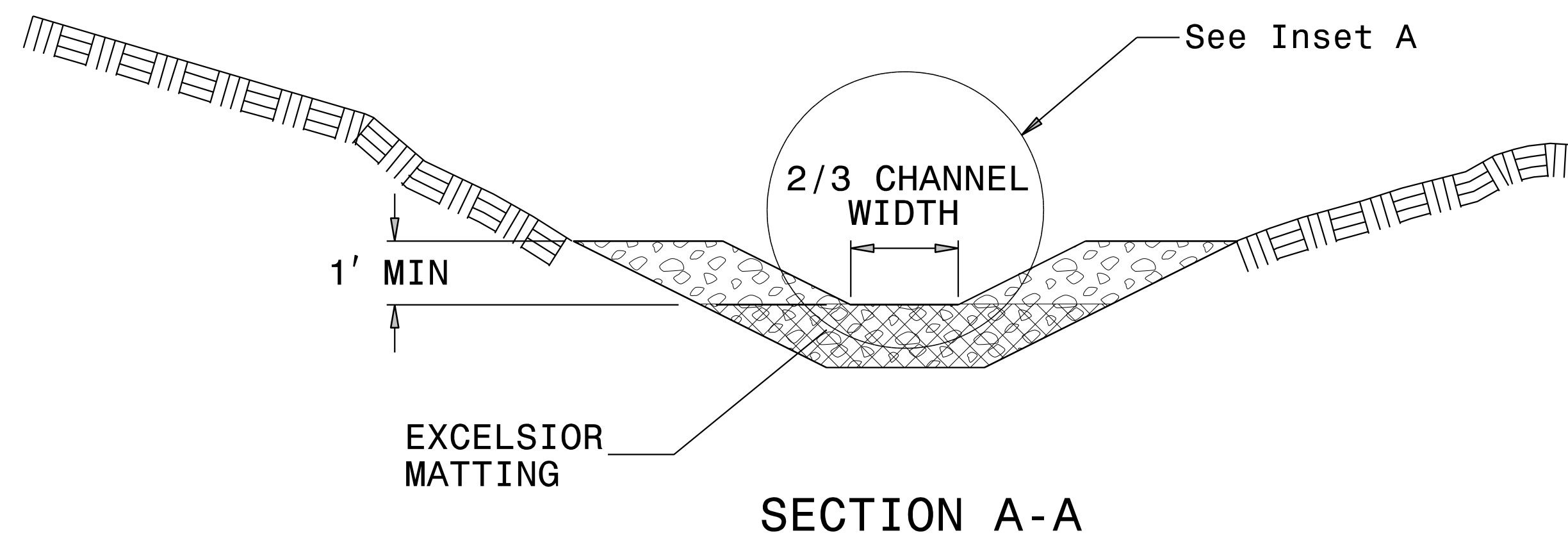


PROJECT REFERENCE NO. <i>R-2707C</i>	SHEET NO. <i>EC-2E</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



PLAN



SECTION A-A

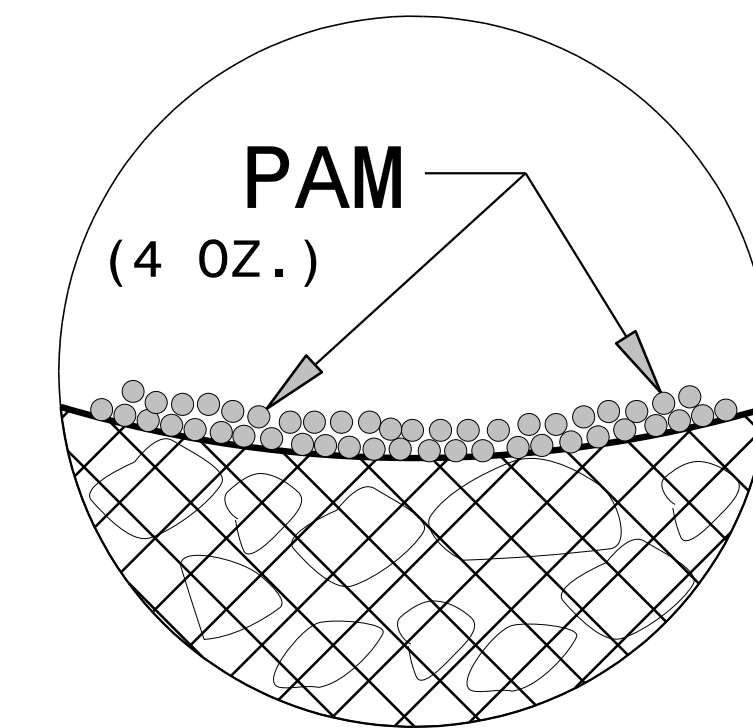
NOTES:

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

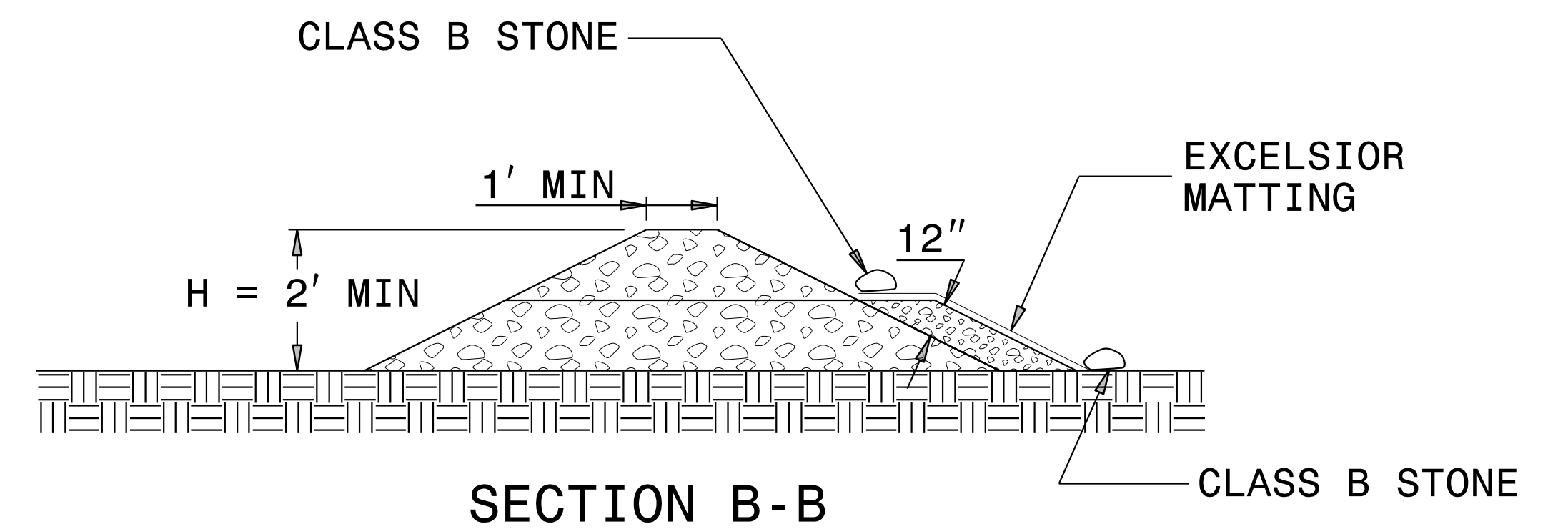
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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

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



INSET A



SECTION B-B

NOT TO SCALE

RAILROAD EROSION CONTROL DETAIL

PROJECT REFERENCE NO. R-2707C	SHEET NO. EC-2F
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

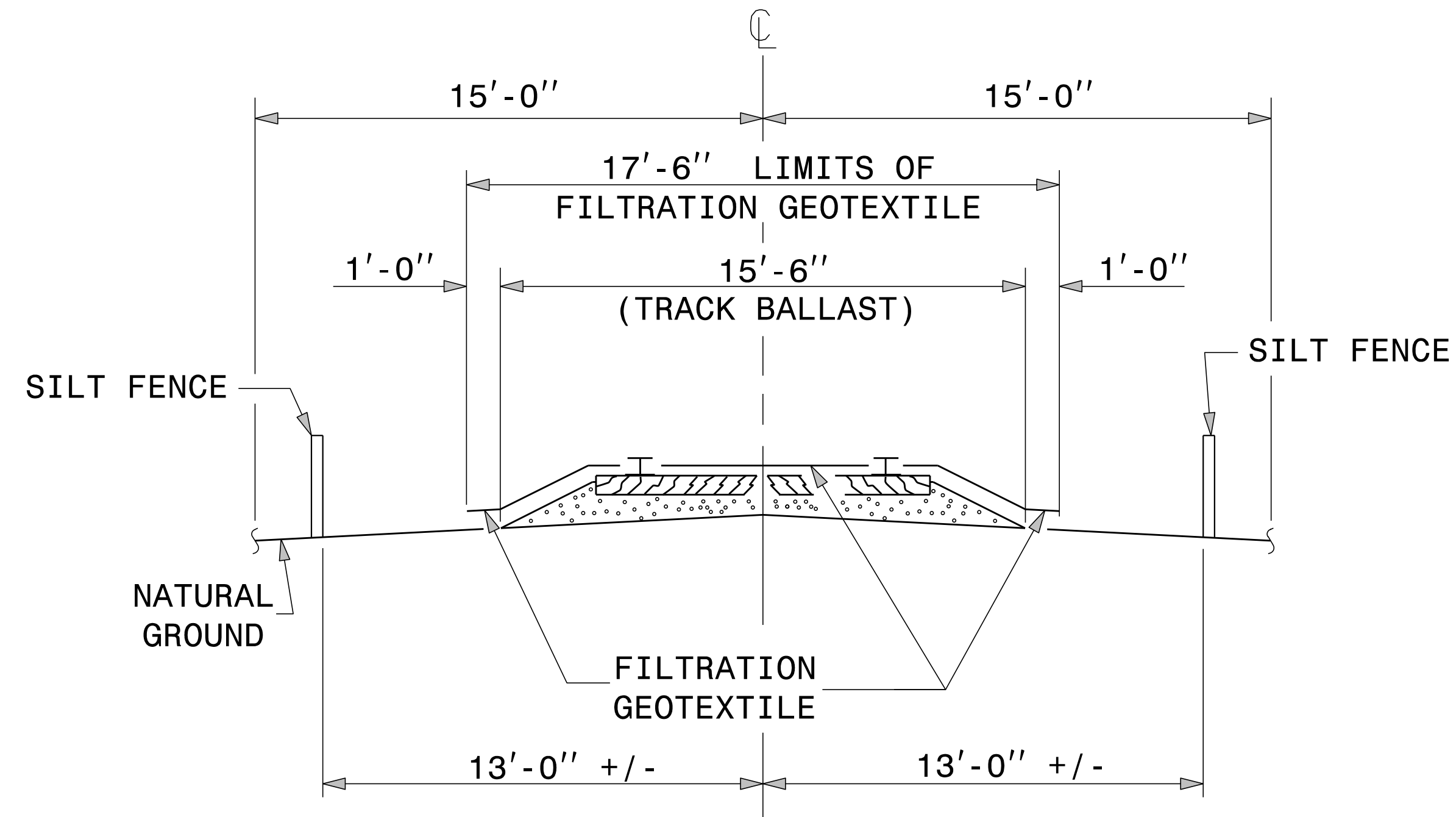
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

1-12

ENGLISH STANDARD DRAWING FOR
RAILROAD EROSION CONTROL DETAIL

SHEET 1 OF 1

1604.01



NOTES

INSTALL RAILROAD EROSION CONTROL MEASURES PRIOR TO PERFORMING ANY WORK IN THE RAILROAD RIGHT-OF-WAY.

ADDITIONAL EROSION CONTROL MEASURES FOR PROTECTION OF RAILROAD DITCHES MAY BE REQUIRED AS DIRECTED.

MAKE NO SEPARATE PAYMENT FOR RAILROAD EROSION CONTROL MEASURES.

EXTEND LIMITS OF SILT FENCE AND FILTRATION GEOTEXTILE PARALLEL TO RAILROAD A MINIMUM OF 10'-0" OUTSIDE EDGE OF SUPERSTRUCTURE OR TOE OF SLOPE ON CONSTRUCTION. A GREATER LENGTH OF SILT FENCE OR FILTRATION GEOTEXTILE MAY BE REQUIRED AS DIRECTED.

NAIL FILTRATION GEOTEXTILE TO TIMBER RAIL TIES WITH PRIME SOURCE "GRIP CAP" OR EQUIVALENT. SECURE FILTRATION GEOTEXTILE ON SHOULDER AS DIRECTED BY THE RAILROAD AND NCDOT.

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

1-12

ENGLISH STANDARD DRAWING FOR
RAILROAD EROSION CONTROL DETAIL

SHEET 1 OF 1

1604.01

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>R-2707C</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)
4	-L-	390+50	403+00	RT	1675
4	-L-	390+00	400+75.56	LT	1440
4	-L-	387+00	394+00	MED	940
4	-Y2-	32+00	33+00	LT	70
5	-L-	394+00	406+00	MED	1610
6	-L-	408+26.08	415+00	RT	905
6	-L-	416+00	425+00	RT	1205
6	-L-	407+50	412+50	LT	670
6	-L-	416+50	424+50	LT	1075
6	-L-	406+00	418+00	MED	1610
7	-L-	427+50	438+50	RT	1475
7	-L-	427+16	438+20.82	LT	1480
7	-L-	418+00	430+00	MED	1610
8	-L-	440+00	449+50	RT	1275
8	-L-	440+50	449+50	LT	1205
8	-L-	430+00	442+00	MED	1610
9	-L-	442+00	449+50	MED	1005
9	-L-	450+50	454+00	MED	470
9	-Y3-	22+50	26+50	RT	540
10	-L-	461+50	462+50	RT	135
10	-L-	463+50	465+00	RT	175
10	-L-	465+40.20	472+50	RT	950
10	-L-	460+00	471+50	LT	1540
10	-L-	454+00	466+00	MED	1610
11	-L-	476+50	477+00	RT	50
11	-L-	477+50	487+50	RT	1340
11	-L-	477+00	488+00	LT	1475
11	-L-	466+00	472+50	MED	870
11	-L-	476+50	478+00	MED	205
11	-Y4REV-	25+50	28+50	RT	150

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
11	-Y18-	12+50	16+00	RT	395
11	-Y18-	12+50	16+00	LT	395
12	-L-	478+00	490+00	MED	1610
13	-L-	498+50	500+50	RT	270
13	-L-	501+00	502+50	RT	205
13	-L-	490+00	502+00	MED	1610
14	-L-	502+00	512+00	MED	1340
15	-RPC2-	00+72.41	11+00	RT	1380
15	-L-	512+00	520+00	MED	1075
15	-RPB2-	01+87.86	05+43.15	LT	480
15	-L-	519+50	528+50	RT	1205
15	-L-	519+00	529+00	LT	1340
16	-L-	520+00	529+50	MED	1275
16	-L-	533+00	543+00	MED	1340
16	-L-	534+00	535+50	RT	205
16	-L-	538+00	542+00	RT	365
16	-L-	533+48.40	536+50	LT	405
16	-L-	538+00	547+00	LT	820
16	-RPC2-	06+70.60	16+00	LT	1245
16	-RPB2-	07+53.61	11+00	RT	465
16	-RPB2-	12+50	19+50	RT	940
16	-RPB2-	06+47.13	09+50	LT	410
16	-RPB2-	11+50	18+50	LT	940
16	-RPD2-	15+50	16+00	RT	70
16	-RPA2-	12+50	17+00	RT	225
16	-RPA2-	19+50	20+50	LT	135
16	-Y9DET-	13+00	15+20	LT	155
16	-Y9DET-	15+20	16+20	LT	70
16	-Y9DET-	15+20	23+00	RT	550
16	-Y9DET-	18+75	22+00	LT	330

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>R-2707C</i>	SHEET NO. <i>EC-3A</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)
17	-L-	543+00	555+00	MED	1610
18	-L-	555+00	567+00	MED	1610
19	-L-	567+00	579+00	MED	1610
19	-L-	574+50	577+00	RT	335
19	-L-	571+50	584+00	LT	1675
20	-L-	579+00	590+00	MED	1475
20	-L-	579+50	583+50	RT	540
20	-L-	584+50	589+00	LT	325
20	-L-	589+00	589+70	LT	35
20	-Y11REV2-	23+15.78	31+50	LT	585
21	-L-	590+00	590+50	MED	70
21	-L-	598+00	603+00	MED	670
21	-Y11REV2-	33+00	47+33.31	LT	1920
21	-Y11REV2-	33+50	47+33.31	RT	1855
22	-L-	605+50	607+50	RT	145
22	-RPC3-	10+22.40	11+45.09	RT	165
22	-RPC3-	10+50	11+74.48	LT	140
22	-L-	603+00	610+50	MED	1005
22	-L-	609+00	610+00	RT	95
22	-RPB3-	10+50	13+01.79	RT	340
22	-RPB3-	12+50	13+62	LT	150
22	-L-	612+50	621+00	MED	1140
22	-L-	620+00	621+50	RT	170
22	-RPD3-	09+00	14+00	RT	455
22	-RPD3-	14+00	16+90	RT	330
22	-RPD3-	09+00	14+00	LT	670
22	-RPA3-	11+50	12+50	LT	135
22	-L-	617+50	619+50	LT	270
22	-Y14-	41+73.80	45+50	RT	350
23	-L-	621+00	633+00	MED	1610

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
23	-L-	620+00	634+00	RT	1875
23	-L-	621+50	622+00	LT	70
23	-L-	623+50	634+50	LT	1475
24	-L-	633+00	635+00	MED	270
25	-Y2-	24+00	24+50	LT	35
28	-Y4REV-	15+50	21+00	RT	385
28	-Y4REV-	15+50	18+50	LT	405
29	-Y4REV-	29+30	32+00	RT	245
29	-Y4REV-	30+50	34+50	LT	325
30	-DR3-	10+20	11+20	LT	50
31	-Y9-	14+00	15+50	RT	105
32	-Y8REV-	10+50	26+00	RT	1575
32	-Y8REV-	11+50	17+50	LT	675
34	-Y8REV-	32+00	33+00	LT	95
34	-Y8A-	33+00	34+50	RT	170
34	-Y8A-	33+00	35+00	LT	185
35	-Y14-	13+00	23+50	RT	735
35	-Y14-	13+50	16+00	LT	285
36	-Y14-	23+50	27+50	RT	540
36	-Y14-	21+42	26+59.64	LT	695
37	-Y14-	47+15	50+00	RT	265
37	-Y14-	50+00	55+00	RT	670
37	-Y14-	48+00	51+00	LT	405
37	-Y14-	51+50	53+50	LT	405
38	-Y14-	54+00	55+00	LT	135
39	-Y11REV2-	57+50	62+50	LT	360
40	-Y11REV2-	65+00	70+00	LT	670
40	-Y11REV2-	67+50	69+00	RT	205
41	Y16REV-	16+00	19+00	RT	405
41	-Y16REV-	16+50	19+50	LT	405

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>R-2707C</i>	SHEET NO. <i>EC-3B</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)
41	-Y16A-	14+00	14+50	RT	35
42	-Y11REV2-	18+50	26+00	RT	1005
			SUBTOTAL		88,265
	MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER				408,735
			TOTAL		497,000
			SAY		497,000

PERMANENT SOIL REINFORCEMENT MAT

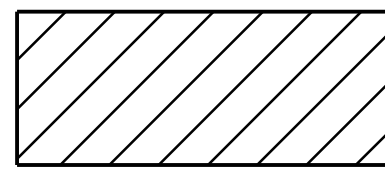
CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-Y2-	32+00	33+00	RT	70
14	-Y6A-	10+50	20+70	LT	820
16	-RPD2-	09+50	11+50	RT	140
30	-Y6A-	16+50	20+70	RT	385
33	-Y8REV-	19+00	22+00	LT	340
41	-Y16REV-	10+50	12+00	LT	170
			SUBTOTAL		1,925
	ADDITIONAL PSRM TO BE INSTALLED				440
			TOTAL		2,365
			SAY		2,500

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>R-2707C</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.

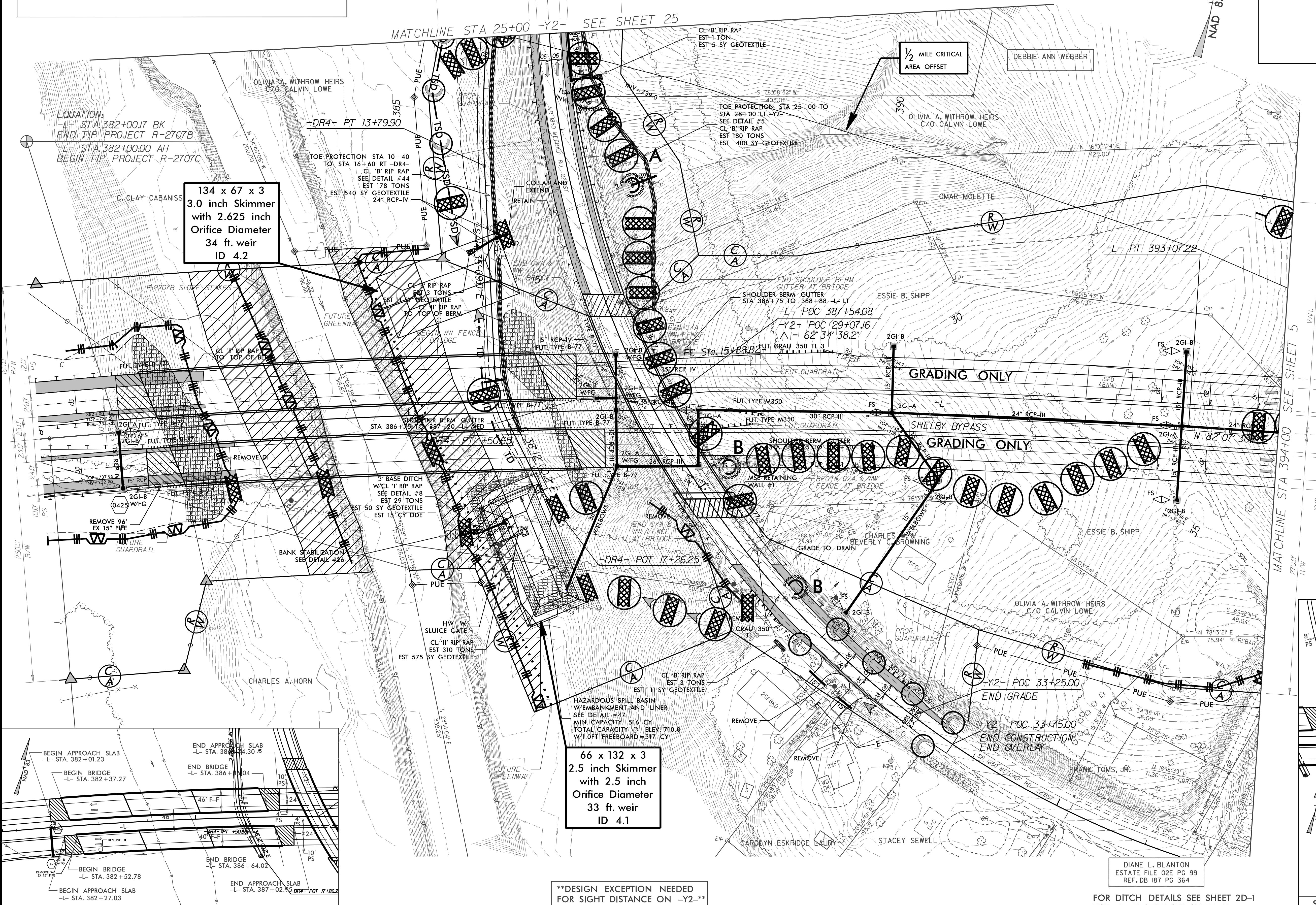


ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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

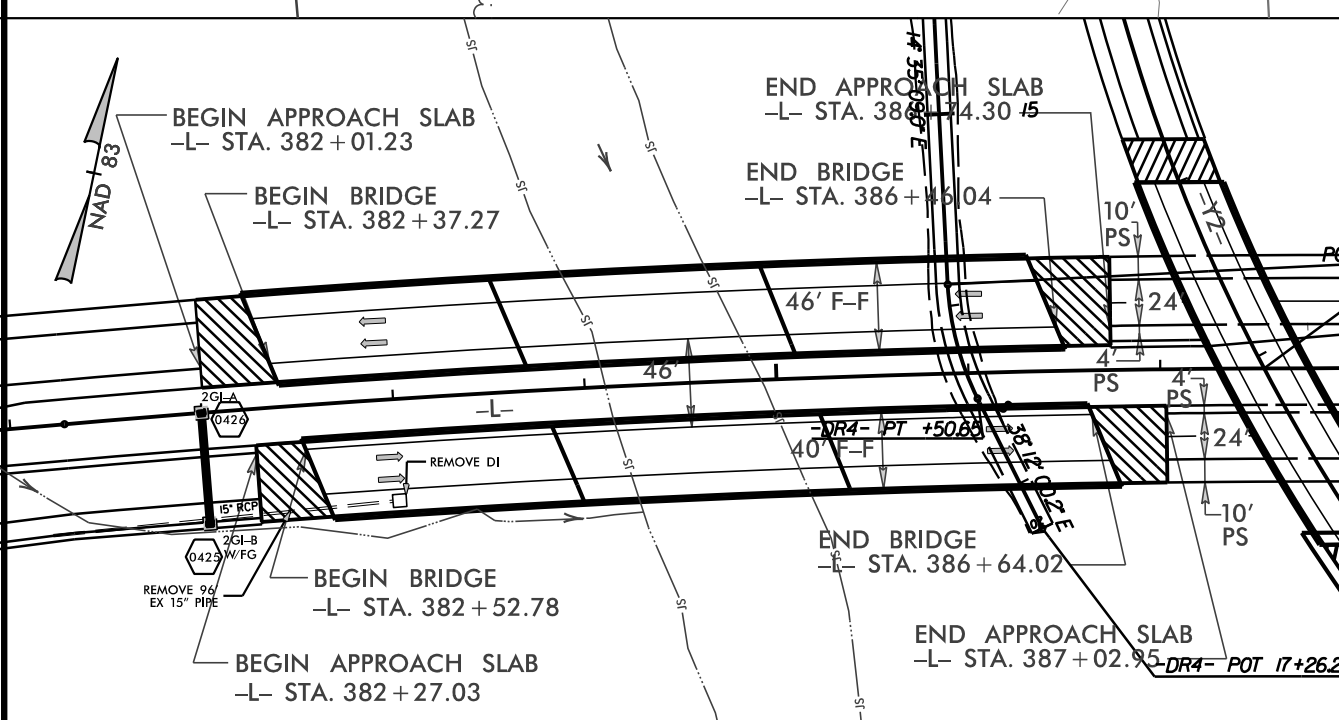
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 04

PROJECT REFERENCE NO.	SHEET NO.
R-2707C	EC-04/CONST.04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

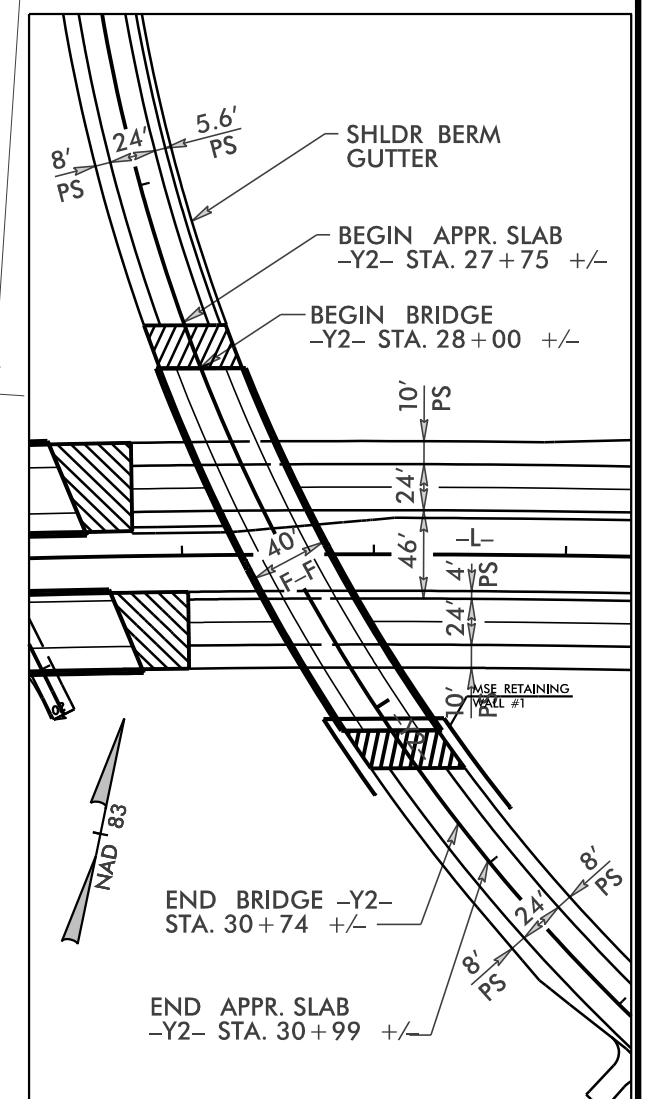


134 x 67 x 3
3.0 inch Skimmer
with 2.625 inch
Orifice Diameter
34 ft. weir
ID 4.2

66 x 132 x 3
2.5 inch Skimmer
with 2.5 inch
Orifice Diameter
33 ft. weir
ID 4.1



SKETCH SHOWING BRIDGE RELATIVE
TO PROPOSED PAVEMENT



SKETCH SHOWING BRIDGE
RELATIVE TO PROPOSED
PAVEMENT

**DESIGN EXCEPTION NEEDED
FOR SIGHT DISTANCE ON -Y2-**

FOR DITCH DETAILS SEE SHEET 2D-1
FOR -L- PROFILE SEE SHEET 43
FOR -Y2- PROFILE SEE SHEET 56

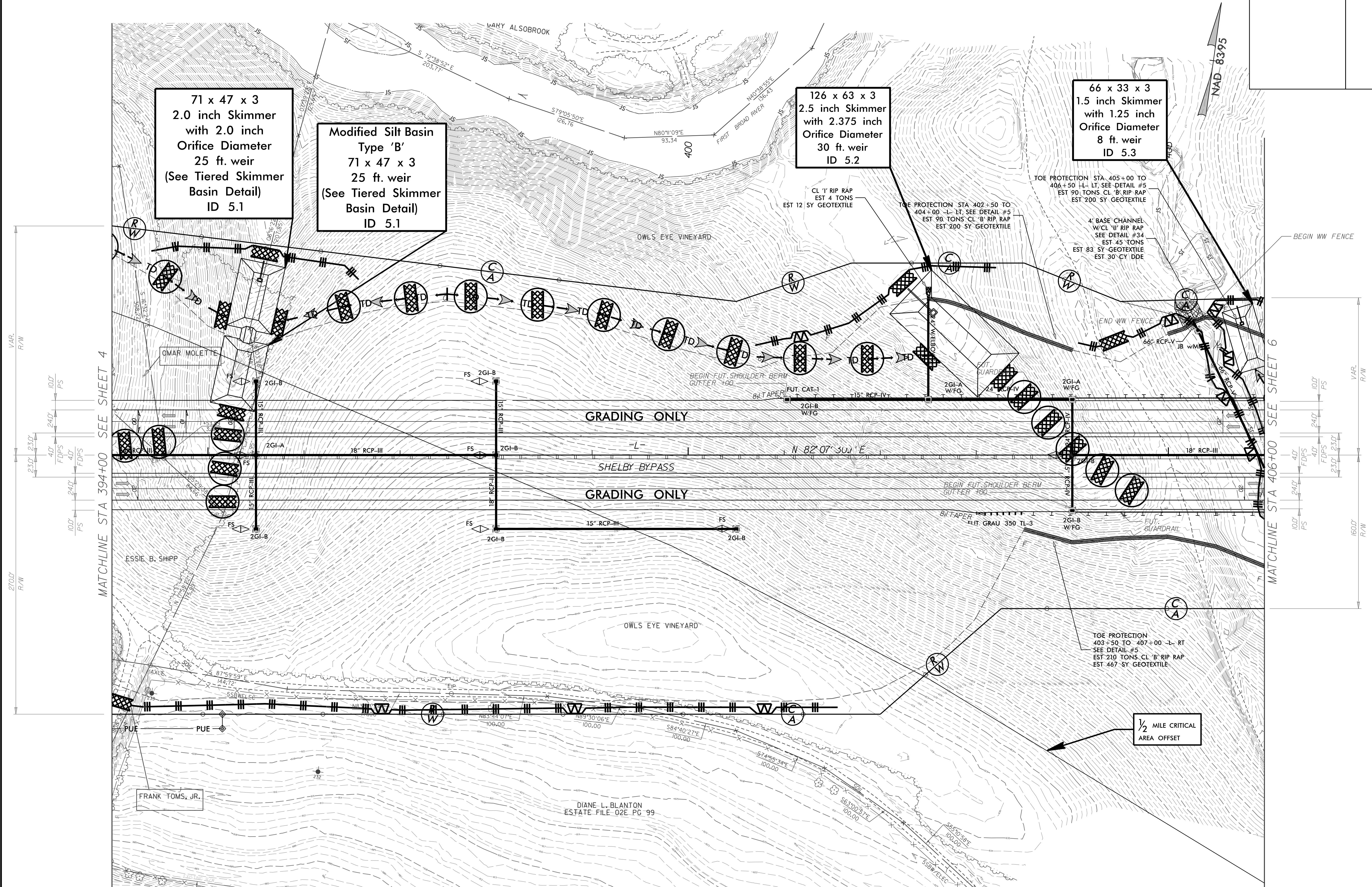
DIANE L. BLANTON
ESTATE FILE 02E PG 99
REF. DB 187 PG 364

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.

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

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 05

PROJECT REFERENCE NO. <i>R-2707C</i>	SHEET NO. <i>EC-05/CONST.05</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCHLINE STA 394+00 SEE SHEET 4

MATCHLINE STA 406+00 SEE SHEET 6

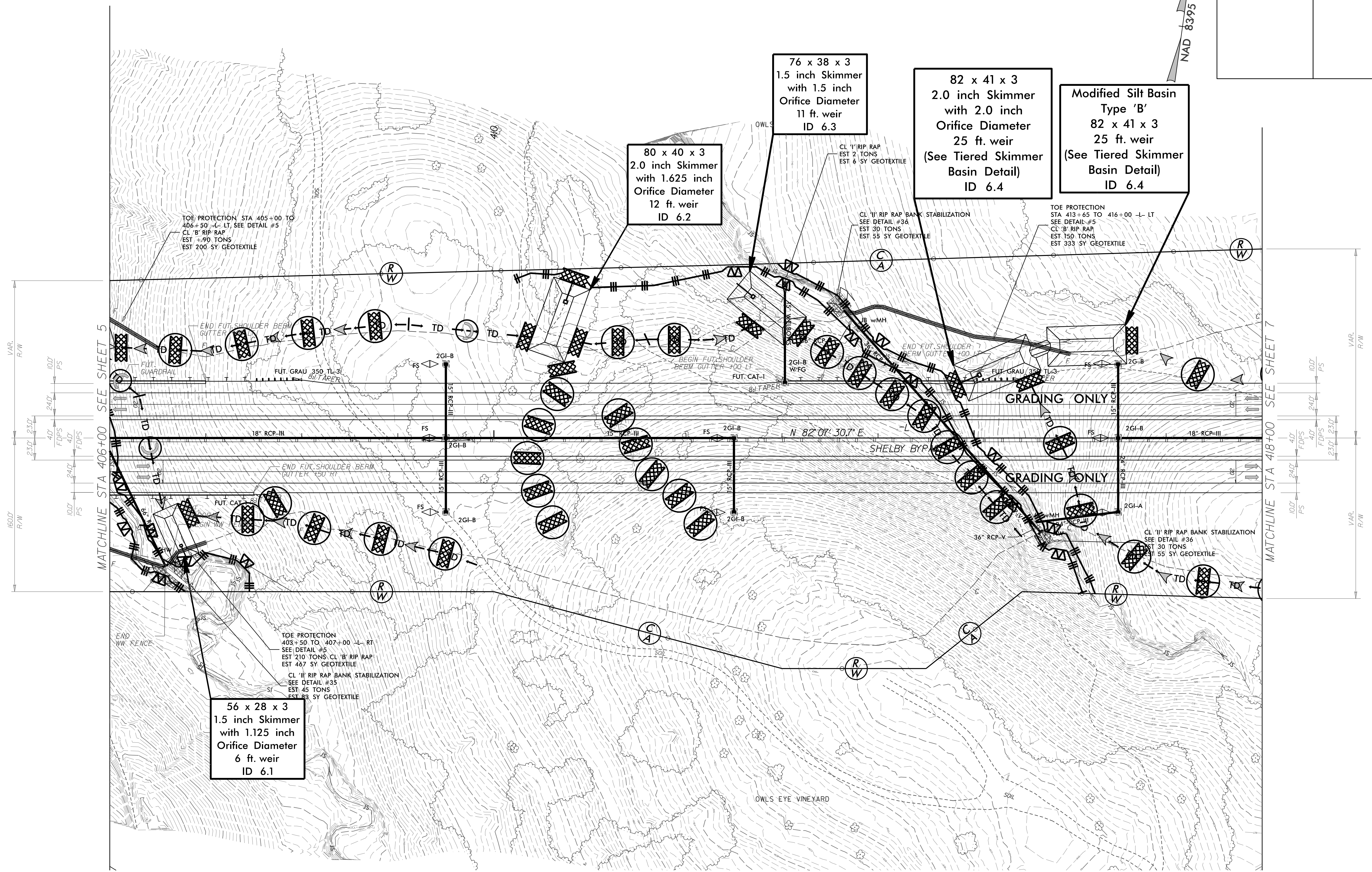
1/2 MILE CRITICAL AREA OFFSET

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.

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

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 06

PROJECT REFERENCE NO. R-2707C	SHEET NO. EC-06/CONST.06
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



66" RCP CONSTRUCTION SEQUENCE STA. 405 + 93 -L- UT TO WILLIAMS CREEK

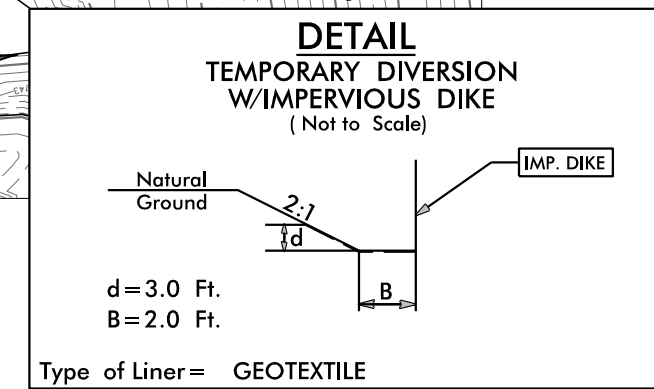
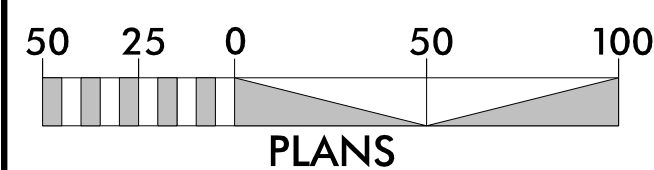
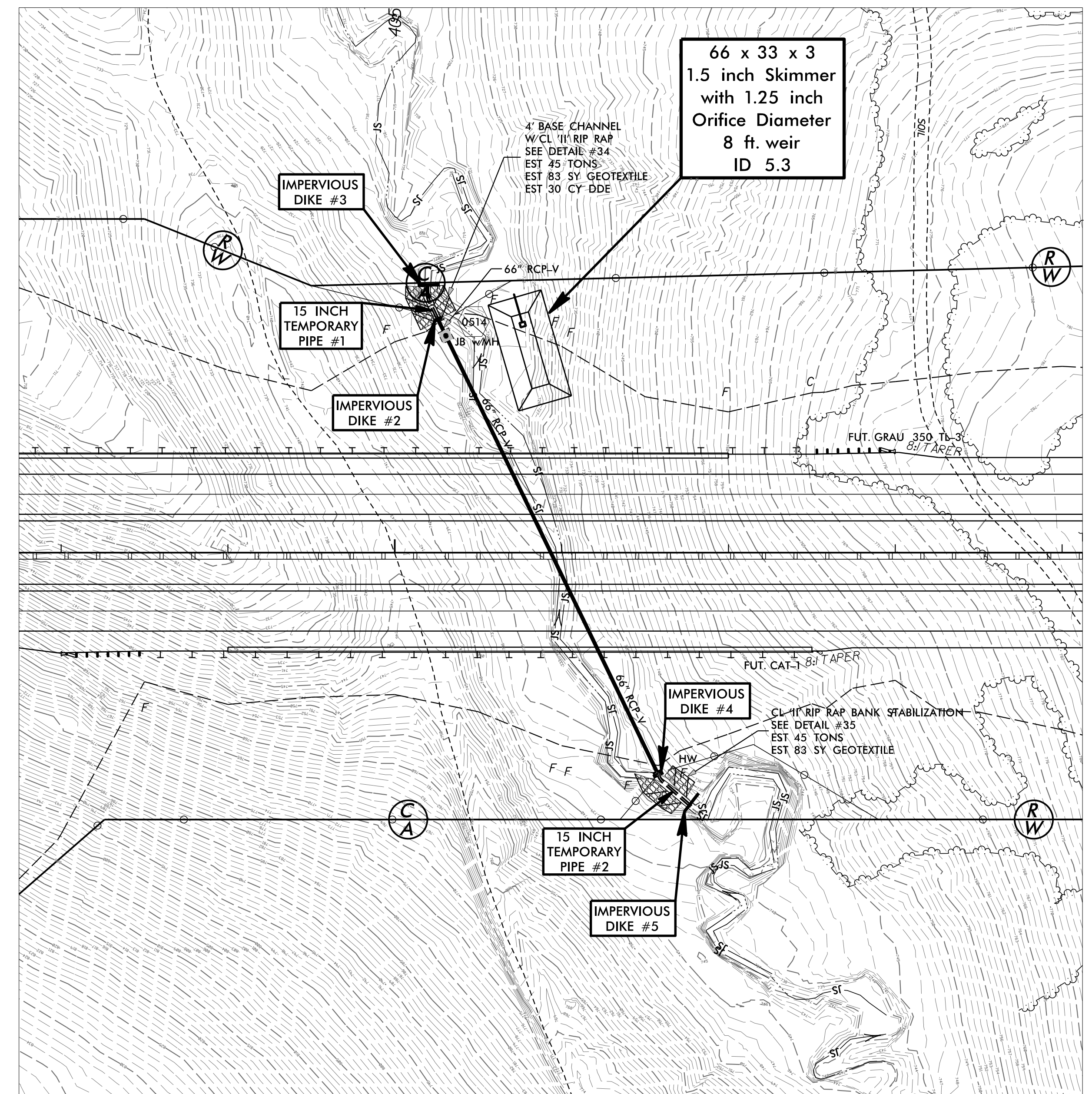
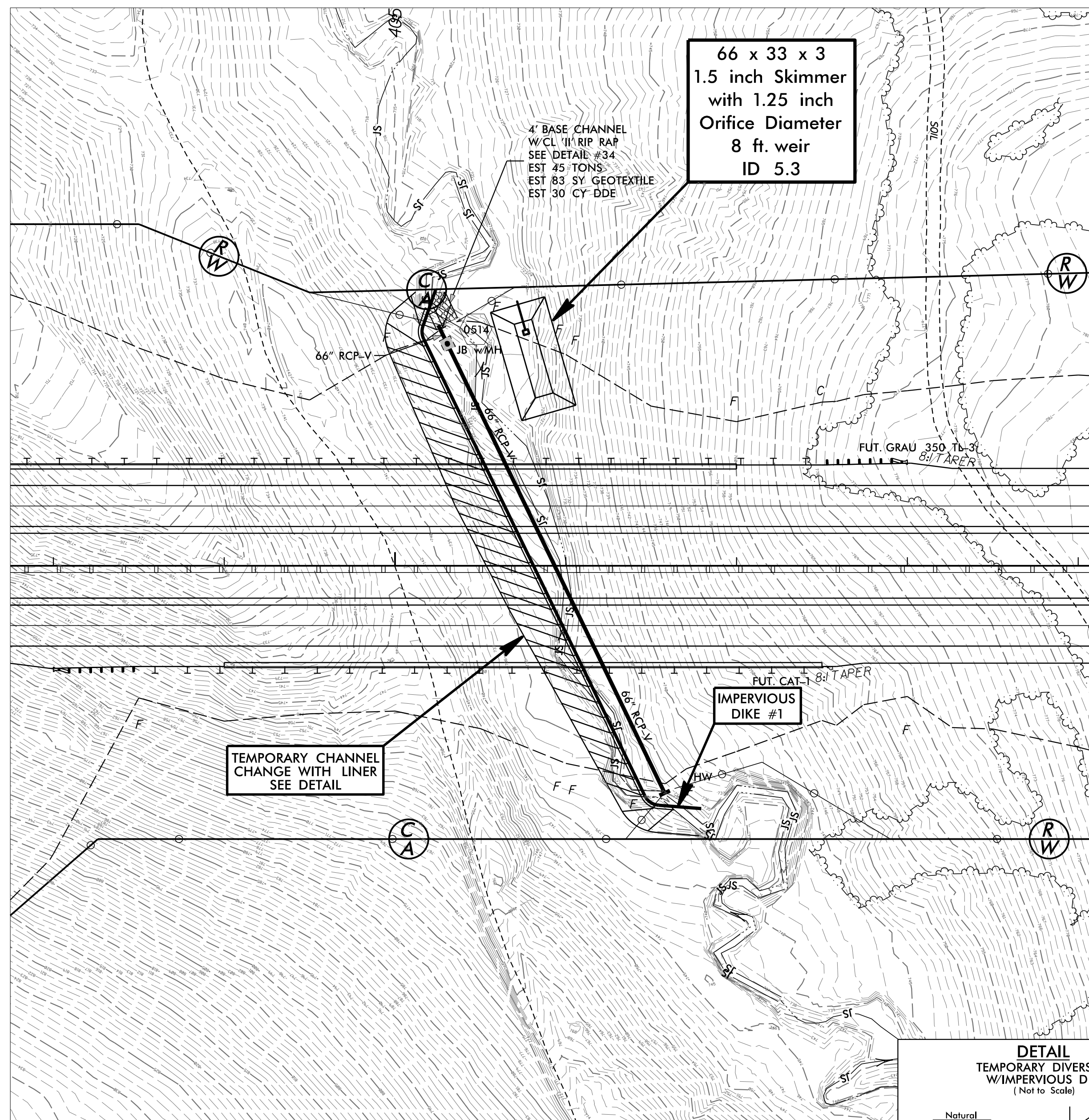
PROJECT REFERENCE NO. R-2707C	SHEET NO. EC-06A/CONST.06
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PHASE I

- 1.) CONSTRUCT SKIMMER BASIN 5.3.
- 2.) CONSTRUCT TEMPORARY CHANNEL CHANGE W/LINER AND IMPERVIOUS DIKE #1 (SEE DETAIL).
- 3.) DEWATER CONSTRUCTION AREA, UTILIZING SKIMMER BASIN 5.3 FOR PUMPED EFFLUENT.
- 4.) CONSTRUCT PROPOSED 66" RCP W/HEADWALL, JUNCTION BOX #0514 AND +/- 10' OF DOWNSTREAM CHANNEL IN ACCORDANCE WITH THE PLANS.
- 5.) REMOVE TEMPORARY CHANNEL AND DIKE #1 AND DIRECT FLOW THROUGH 66" RCP.

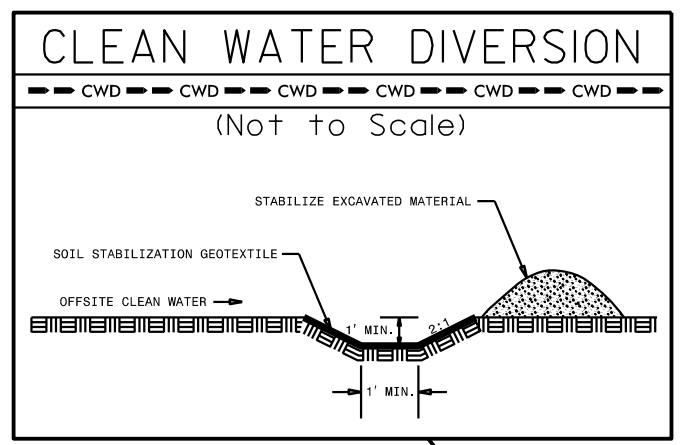
PHASE II

- 1.) INSTALL IMPERVIOUS DIKES #2, #3, #4 AND #5 AND TEMPORARY 15" FLEXIBLE PIPES #1 AND #2.
- 2.) DEWATER CONSTRUCTION AREAS, UTILIZING SKIMMER BASIN 5.3 AND/OR SPECIAL STILLING BASIN(S) FOR PUMPED EFFLUENT.
- 3.) CONSTRUCT UPSTREAM BANK STABILIZATION AND DOWNSTREAM CHANNEL W/RIP RAP IN ACCORDANCE WITH THE PLANS.
- 4.) REMOVE IMPERVIOUS DIKES #2, #3, #4 AND #5, AND TEMPORARY PIPES #1 AND #2.
- 5.) COMPLETE ROADWAY.



PROJECT REFERENCE NO.	SHEET NO.
R-2707C	EC-07/CONST.07
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 07



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

SAFETY FENCE ENDANGERED PLANT BOUNDARY

SEE PLAN SHEET 2P FOR ADDITIONAL ROW LIMITS DUE TO ENDANGERED HERITAGE PLANTS

ENVIRONMENTALLY SENSITIVE AREA DO NOT DISTURB

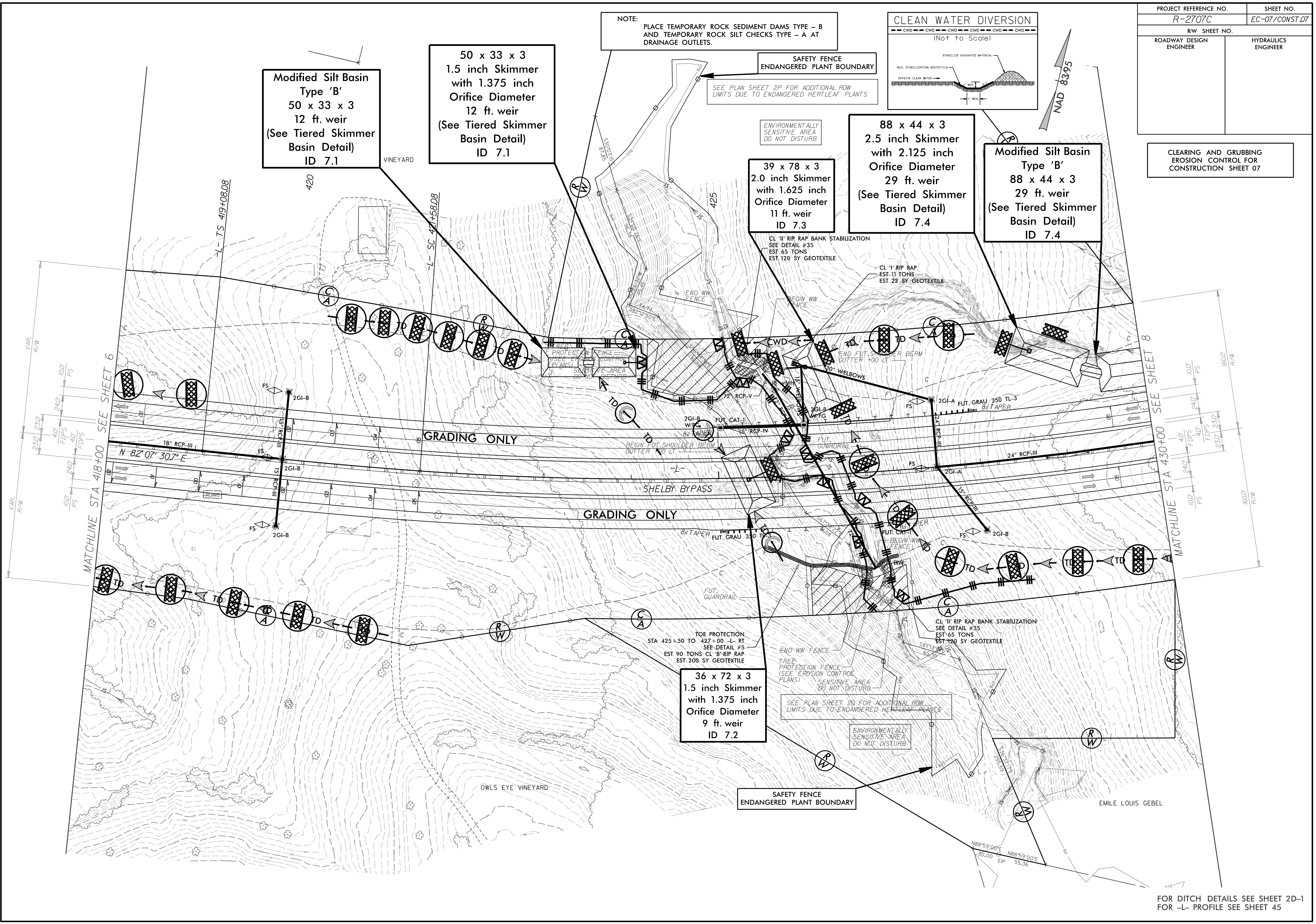
88 x 44 x 3
2.5 inch Skimmer
with 2.125 inch Orifice Diameter
29 ft. weir
(See Tiered Skimmer Basin Detail)
ID 7.4

Modified Silt Basin
Type 'B'
88 x 44 x 3
29 ft. weir
(See Tiered Skimmer Basin Detail)
ID 7.4

39 x 78 x 3
2.0 inch Skimmer
with 1.625 inch Orifice Diameter
11 ft. weir
ID 7.3

50 x 33 x 3
1.5 inch Skimmer
with 1.375 inch Orifice Diameter
12 ft. weir
(See Tiered Skimmer Basin Detail)
ID 7.1

Modified Silt Basin
Type 'B'
50 x 33 x 3
12 ft. weir
(See Tiered Skimmer Basin Detail)
ID 7.1



36 x 72 x 3
1.5 inch Skimmer
with 1.375 inch Orifice Diameter
9 ft. weir
ID 7.2

SEE PLAN SHEET 2G FOR ADDITIONAL ROW LIMITS DUE TO ENDANGERED HERITAGE PLANTS

ENVIRONMENTALLY SENSITIVE AREA DO NOT DISTURB

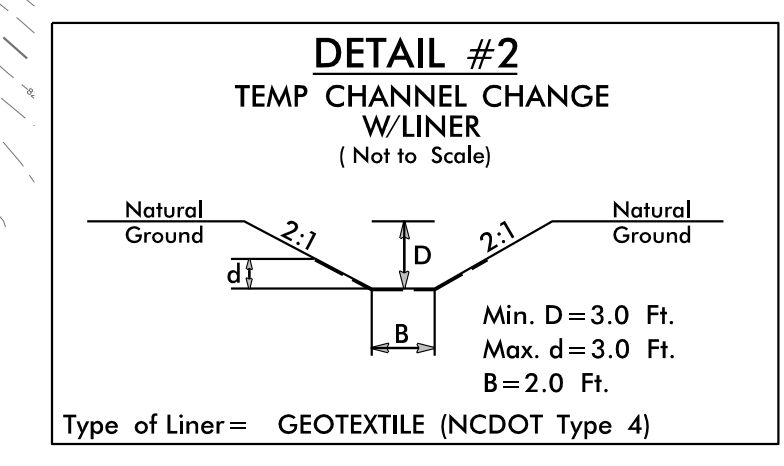
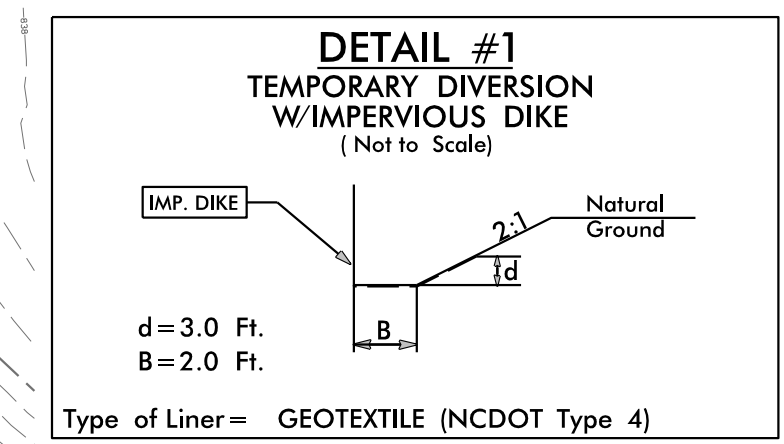
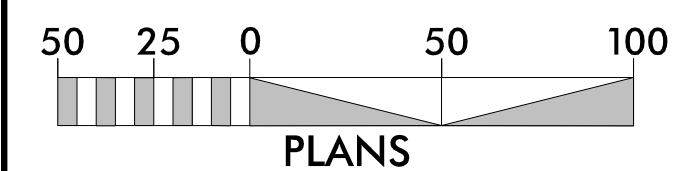
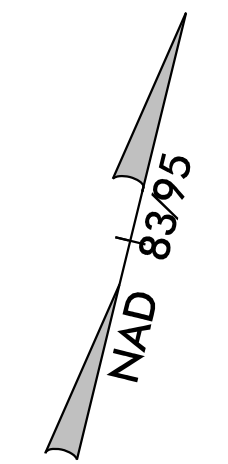
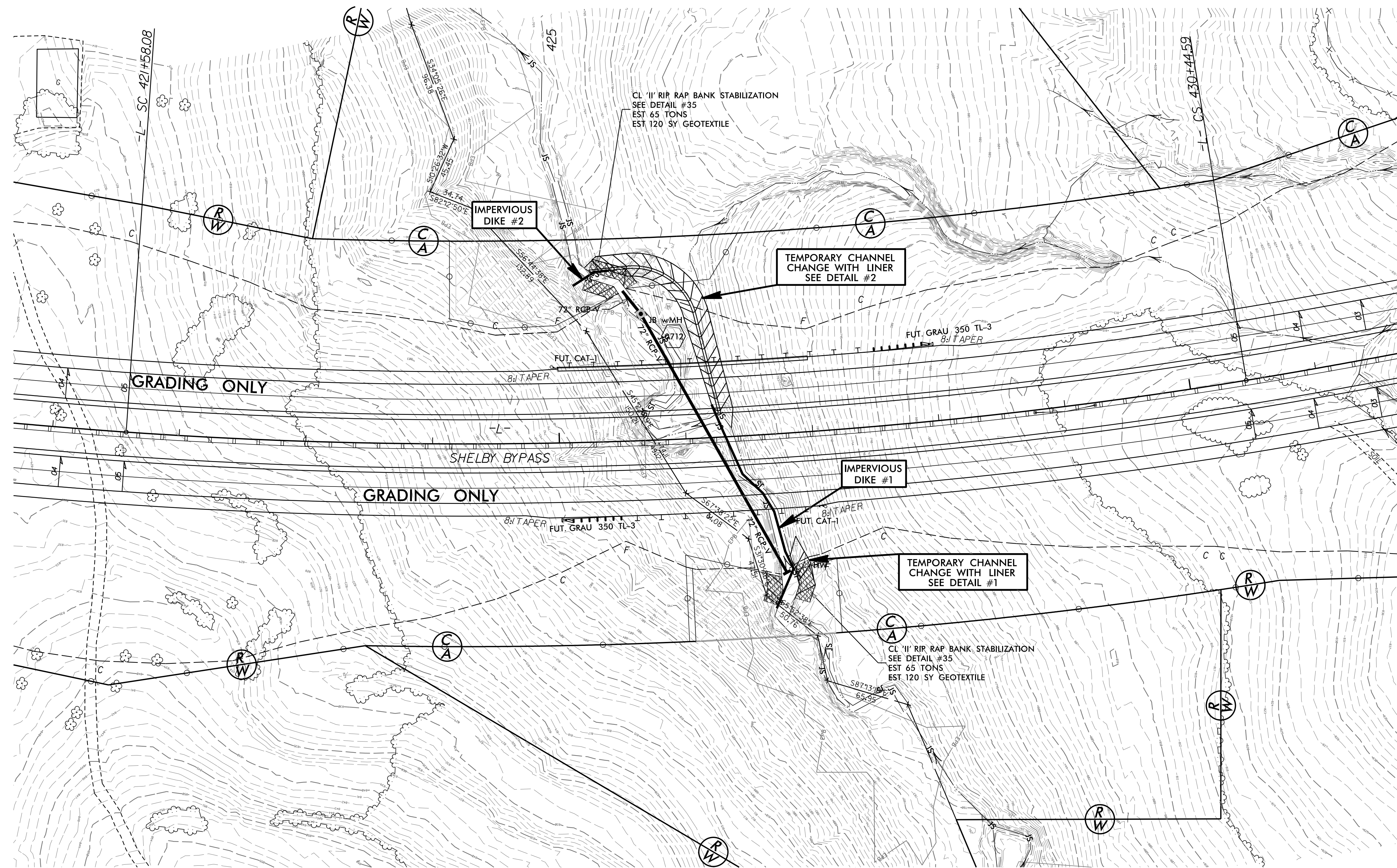
SAFETY FENCE ENDANGERED PLANT BOUNDARY

FOR DITCH DETAILS SEE SHEET 2D-1
FOR -L- PROFILE SEE SHEET 45

72" RCP CONSTRUCTION SEQUENCE STA. 426+20 -L- UT TO WILLIAMS CREEK

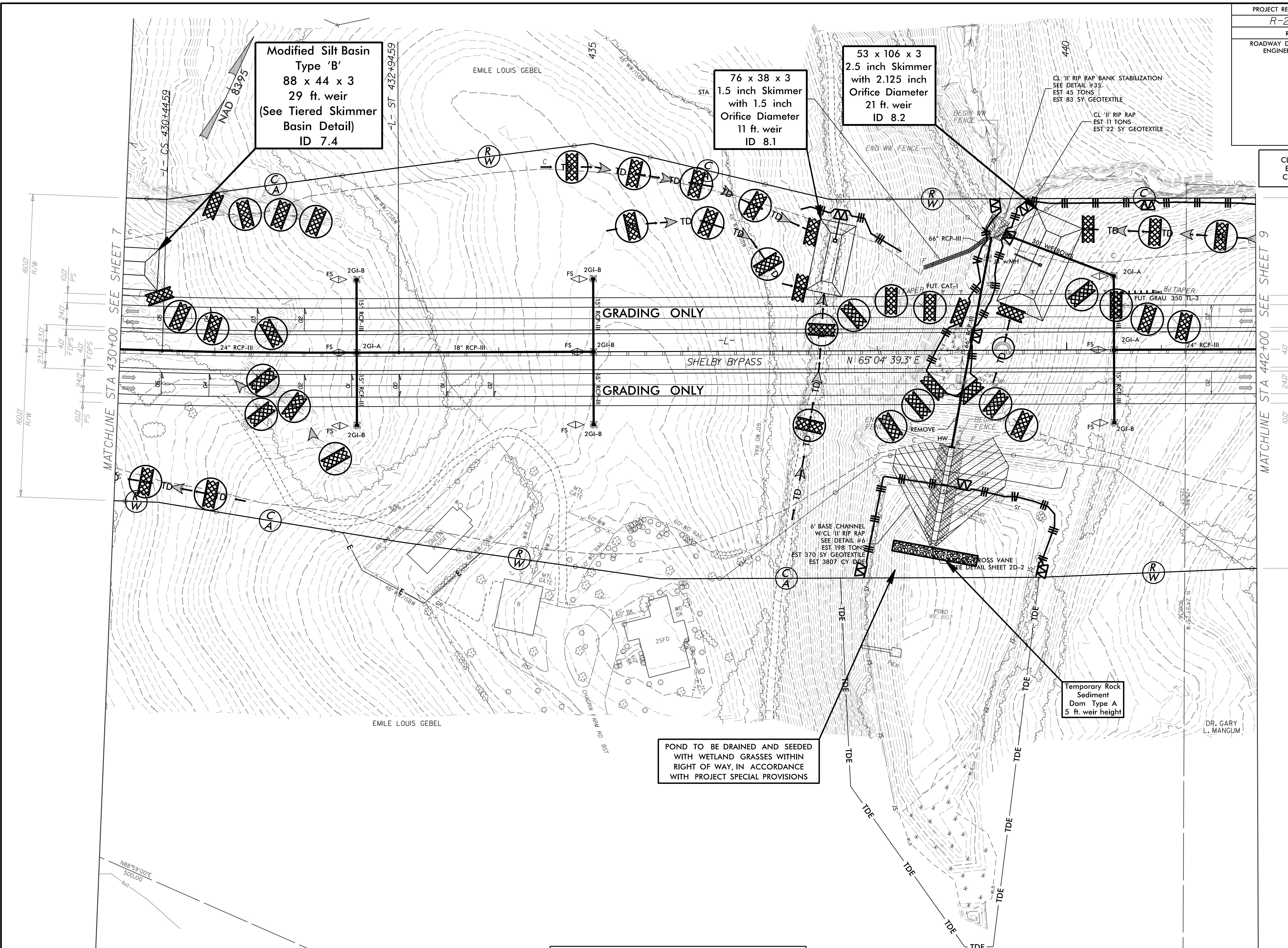
PROJECT REFERENCE NO. R-2707C	SHEET NO. EC-07A/CONST.07
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

- 1.) CONSTRUCT TEMPORARY CHANNEL #1 AND #2, INSTALL IMPERVIOUS DIKES #1 AND #2, AND DIVERT FLOW INTO TEMPORARY CHANNELS.
- 2.) DEWATER CONSTRUCTION AREA UTILIZING SPECIAL STILLING BASIN(S) FOR PUMPED EFFLUENT.
- 3.) INSTALL PROPOSED 72" RCP W/HEADWALL, JUNCTION BOX #0712 AND UPSTREAM AND DOWNSTREAM BANK STABILIZATION IN ACCORDANCE WITH THE PLANS.
- 4.) REMOVE IMPERVIOUS DIKES #1 AND #2, AND TEMPORARY CHANNELS #1 AND #2, DIRECTING FLOW THROUGH 72" RCP.
- 5.) COMPLETE ROADWAY.



PROJECT REFERENCE NO.	SHEET NO.
R-2707C	EC-08/CONST.08
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 08



MATCHLINE STA 430+00 SEE SHEET 7

MATCHLINE STA 442+00 SEE SHEET 9

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

POND TO BE DRAINED AND SEEDED
WITH WETLAND GRASSES WITHIN
RIGHT OF WAY, IN ACCORDANCE
WITH PROJECT SPECIAL PROVISIONS

FOR DITCH DETAILS SEE SHEET 2D-1
FOR -L- PROFILE SEE SHEET 45

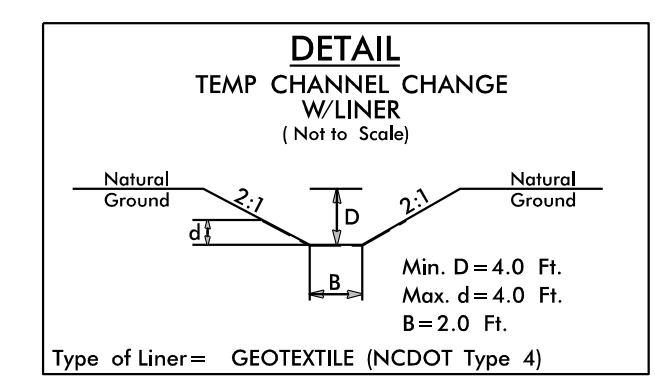
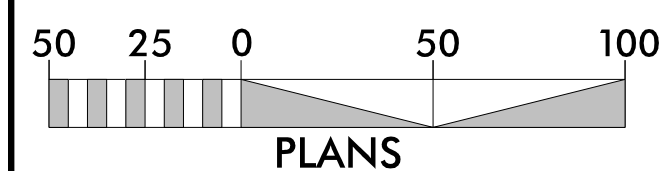
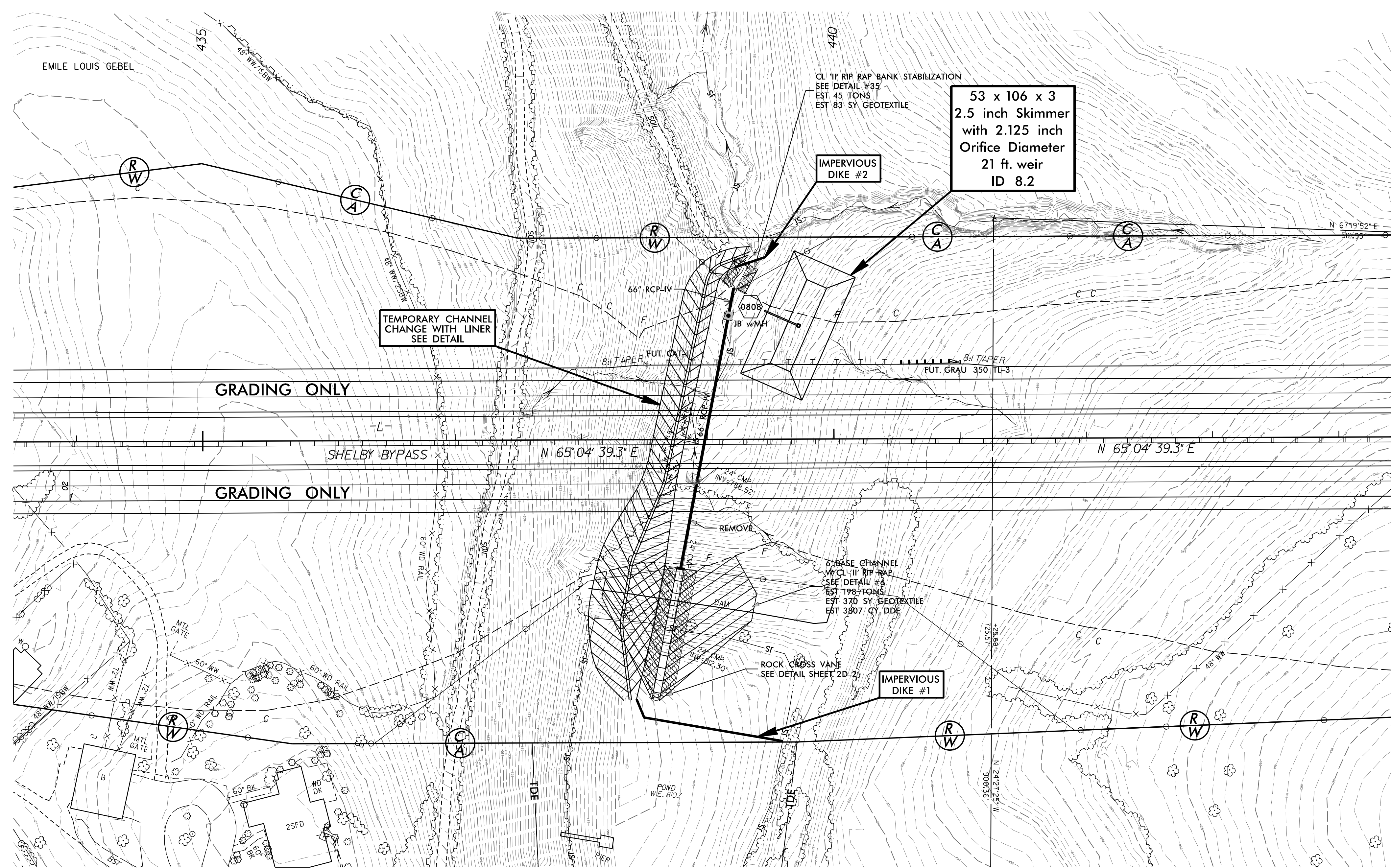
DR. GARY
L. MANGUM

66" RCP CONSTRUCTION SEQUENCE STA. 438 + 98 -L- UT TO WILLIAMS CREEK

PROJECT REFERENCE NO. R-2707C	SHEET NO. EC-08A/CONST.08
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

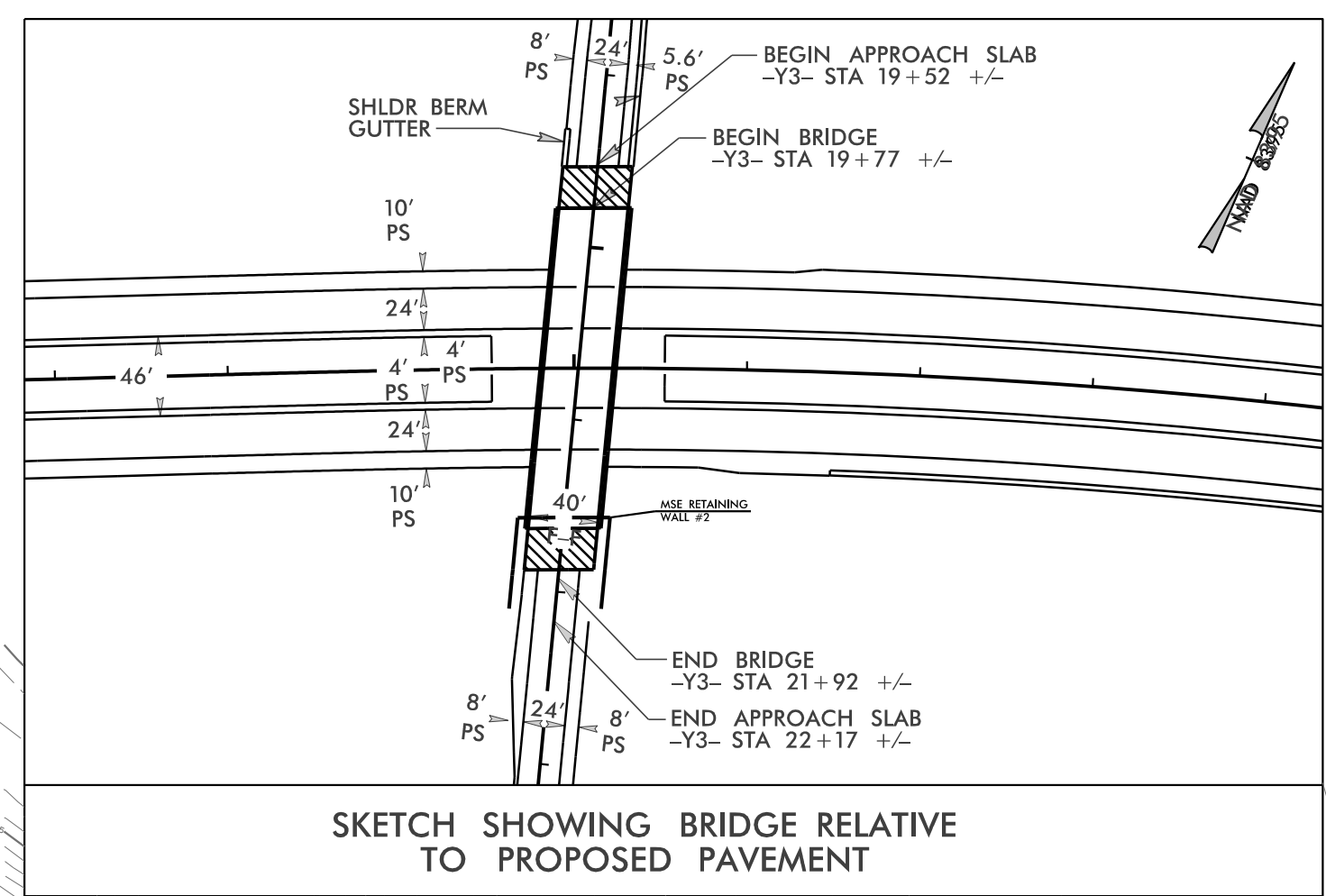
- 1.) DRAIN POND IN ACCORDANCE WITH THE SPECIAL PROVISIONS FOR EROSION CONTROL.
- 2.) CONSTRUCT SKIMMER BASIN 8.2.
- 3.) CONSTRUCT TEMPORARY CHANNEL CHANGE WITH LINER (SEE DETAIL).
- 4.) INSTALL IMPERVIOUS DIKES #1 AND #2 AND DIVERT FLOW INTO TEMPORARY CHANNEL.
- 5.) DEWATER CONSTRUCTION AREA, UTILIZING SKIMMER BASIN 8.2 FOR PUMPED EFFLUENT.
- 6.) REMOVE EXISTING 24" CMP AND INSTALL 66" RCP W/HEADWALL AND JUNCTION BOX #0808.
- 7.) CONSTRUCT PROPOSED UPSTREAM CHANNEL AND DOWNSTREAM BANK STABILIZATION AS WORK ALLOWS.

- 8.) REMOVE IMPERVIOUS DIKES #1, #2 AND TEMPORARY CHANNEL AND DIRECT FLOW THROUGH 66" RCP.
- 9.) COMPLETE CONSTRUCTION OF UPSTREAM CHANNEL AND DOWNSTREAM BANK STABILIZATION, IN ACCORDANCE WITH THE PLANS.
- 10.) COMPLETE ROADWAY.

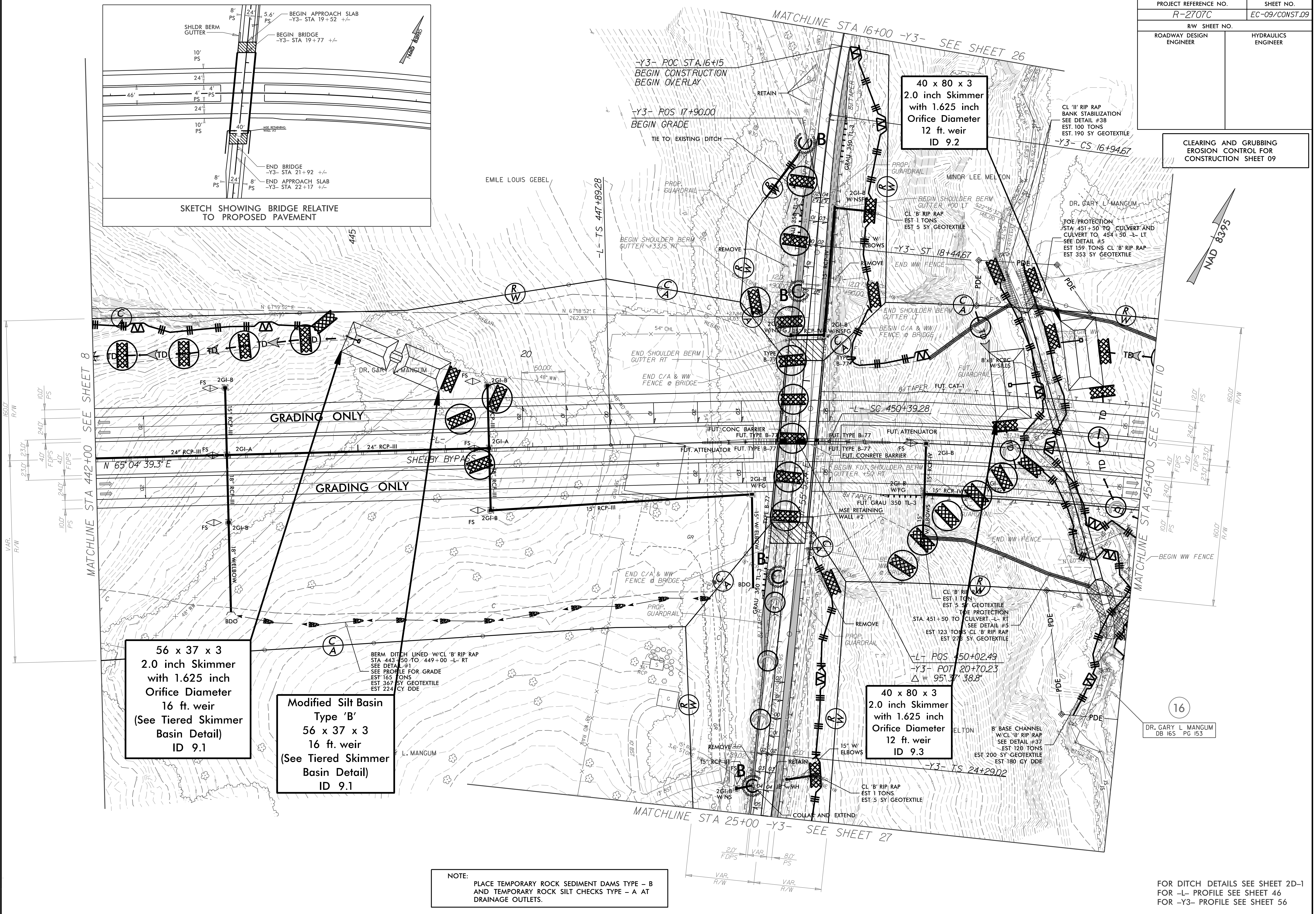


PROJECT REFERENCE NO.	SHEET NO.
R-2707C	EC-09/CONST.09
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 09



SKETCH SHOWING BRIDGE RELATIVE TO PROPOSED PAVEMENT



56 x 37 x 3
2.0 inch Skimmer
with 1.625 inch
Orifice Diameter
16 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 9.1

Modified Silt Basin
Type 'B'
56 x 37 x 3
16 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 9.1

40 x 80 x 3
2.0 inch Skimmer
with 1.625 inch
Orifice Diameter
12 ft. weir
ID 9.3

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

16
DR. GARY L. MANGUM
DB 165 PG 153

FOR DITCH DETAILS SEE SHEET 2D-1
FOR -L- PROFILE SEE SHEET 46
FOR -Y3- PROFILE SEE SHEET 56

1@8'X8' RCBC CONSTRUCTION SEQUENCE STA. 453 + 07 -L- UT TO WILLIAMS CREEK

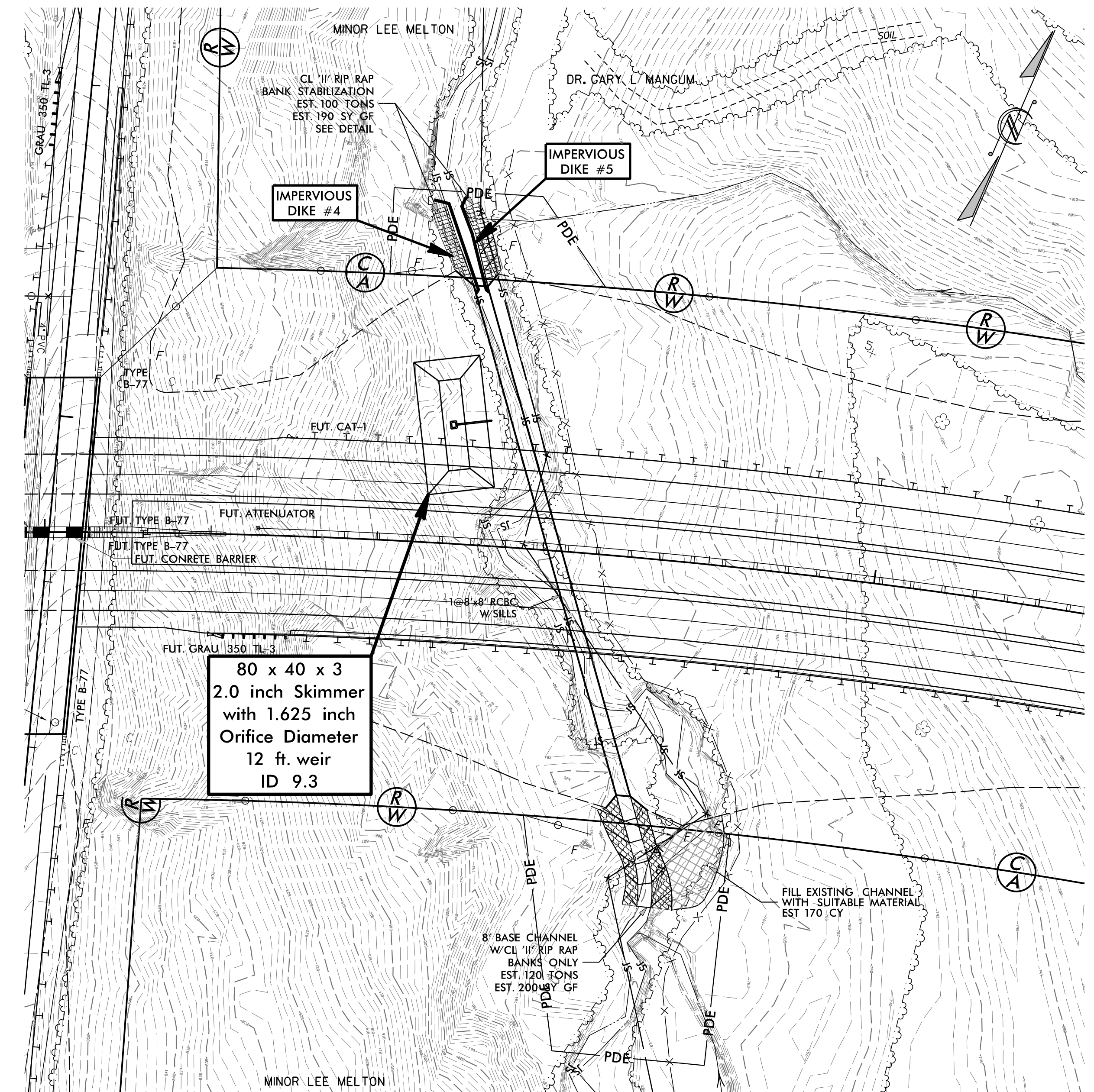
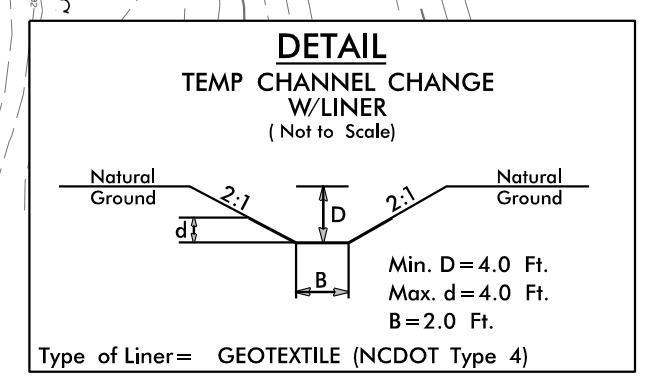
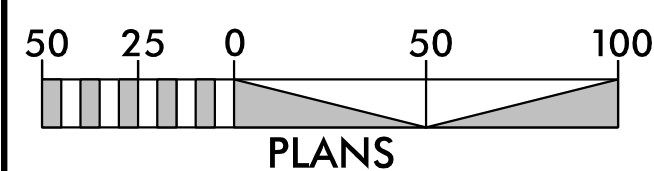
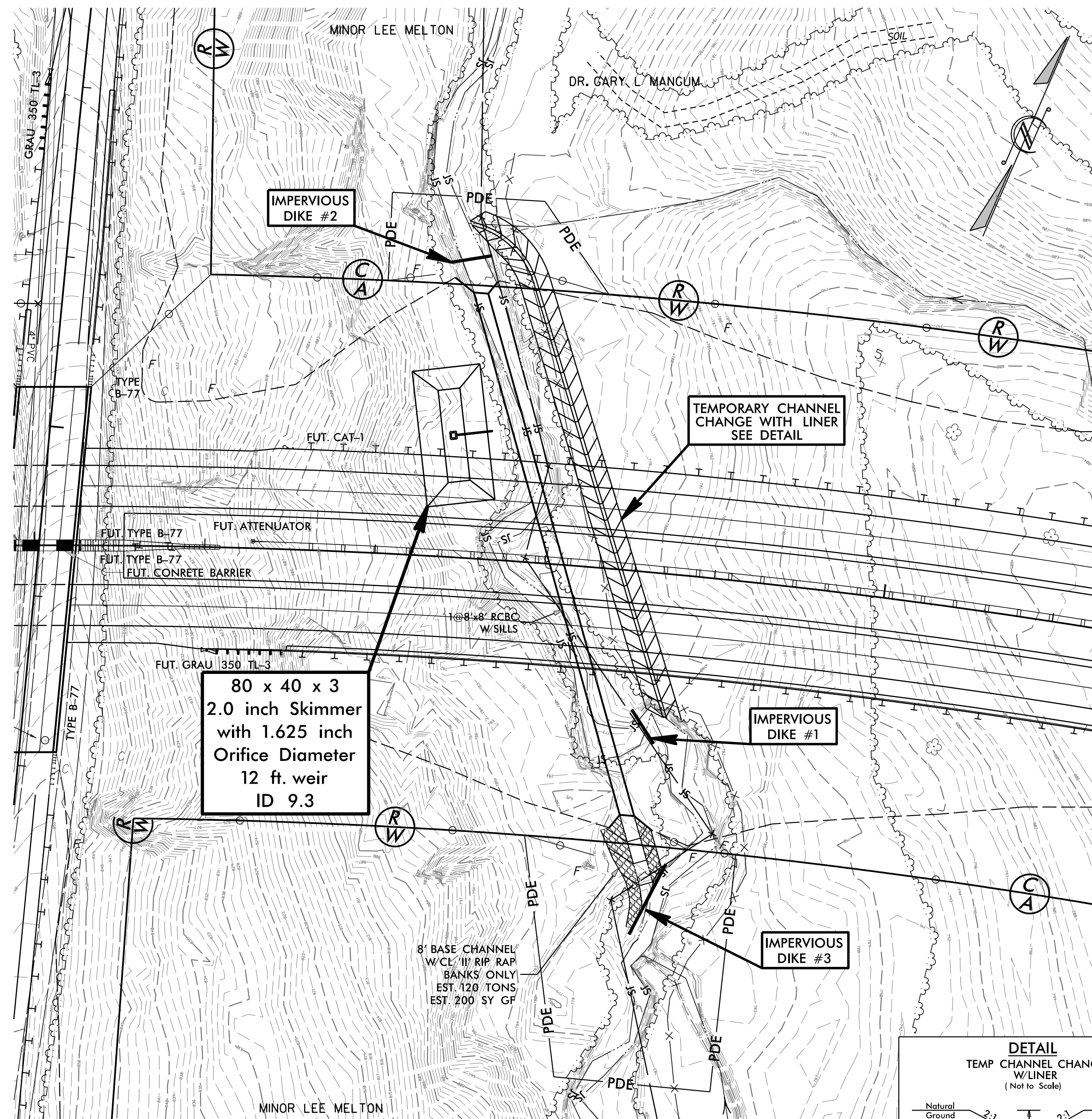
PROJECT REFERENCE NO. R-2707C	SHEET NO. EC-09A/CONST.09
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PHASE I

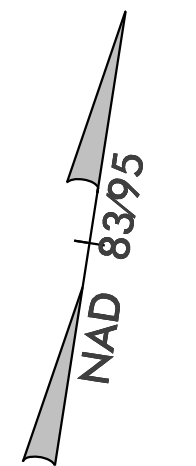
- 1.) CONSTRUCT SKIMMER BASIN 9.3.
- 2.) CONSTRUCT TEMPORARY CHANNEL CHANGE WITH LINER (SEE DETAIL)
- 3.) INSTALL IMPERVIOUS DIKES #1 AND #2 AND DIVERT FLOW THROUGH TEMPORARY CHANNEL CHANGE AND DEWATER CONSTRUCTION AREA, UTILIZING SKIMMER BASIN 9.3 FOR PUMPED EFFLUENT.
- 4.) CONSTRUCT PROPOSED CULVERT, INSTALL IMPERVIOUS DIKE #3 AND CONSTRUCT +/-50 FT OF INLET CHANNEL.
- 5.) AFTER INLET CHANNEL IS STABILIZED, REMOVE IMPERVIOUS DIKE #2 AND #3 AND DIRECT FLOW INTO NEW CHANNEL AND THROUGH CULVERT.

PHASE II

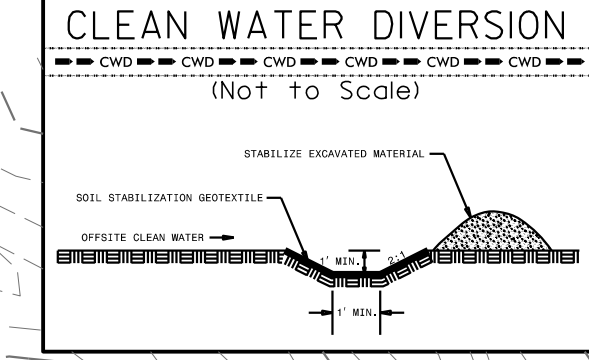
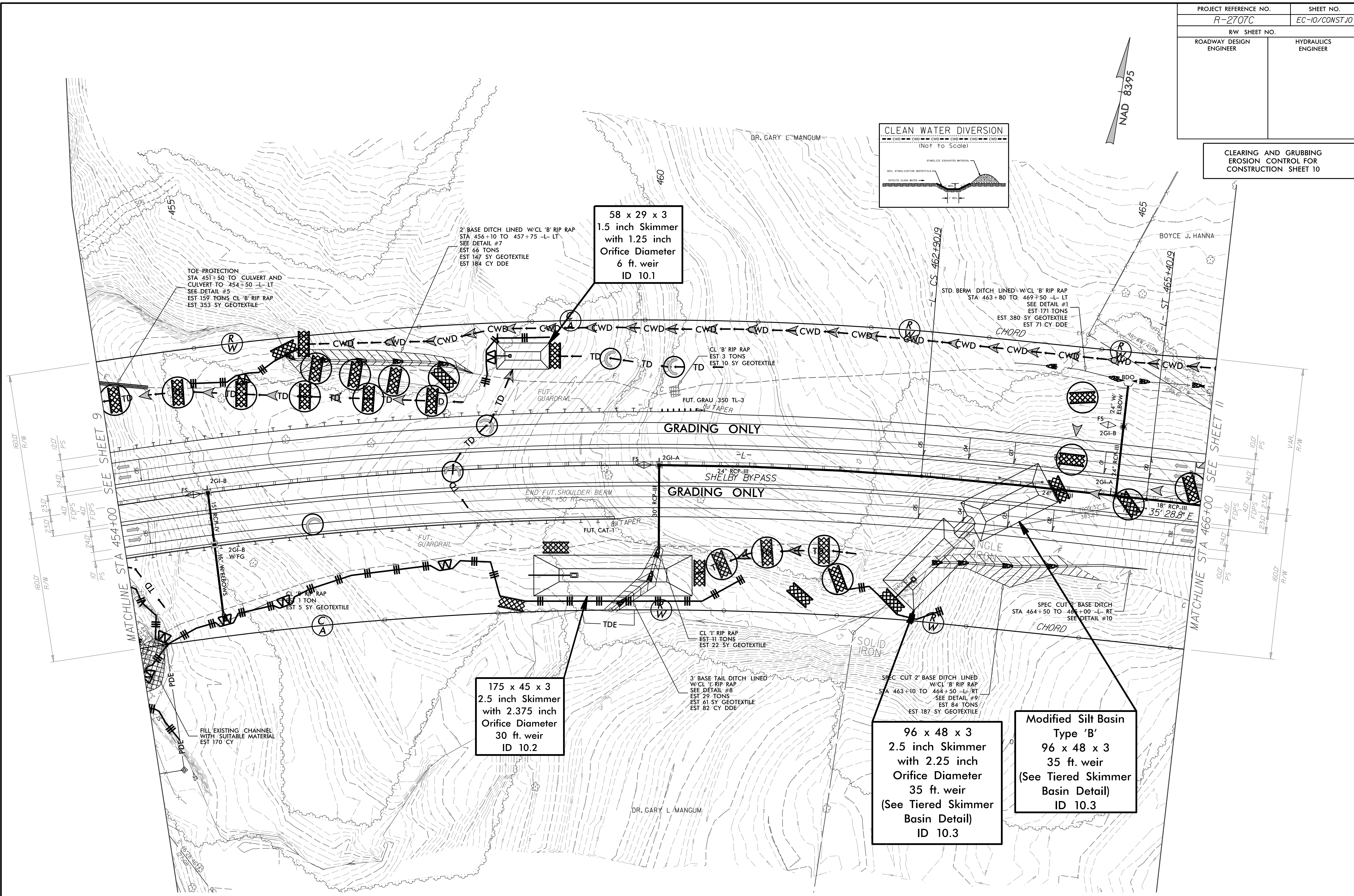
- 1.) FILL EXISTING CHANNEL IN ACCORDANCE WITH PLANS AND REMOVE IMPERVIOUS DIKE #1 AND TEMPORARY CHANNEL CHANGE.
- 2.) INSTALL IMPERVIOUS DIKES #4 AND #5 AND DEWATER.
- 3.) CONSTRUCT OUTLET CHANNEL BANK STABILIZATION.
- 4.) REMOVE IMPERVIOUS DIKES #4 AND #5.
- 5.) COMPLETE ROADWAY.



PROJECT REFERENCE NO.	SHEET NO.
R-2707C	EC-10/CONST-10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 10



58 x 29 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
6 ft. weir
ID 10.1

175 x 45 x 3
2.5 inch Skimmer
with 2.375 inch
Orifice Diameter
30 ft. weir
ID 10.2

96 x 48 x 3
2.5 inch Skimmer
with 2.25 inch
Orifice Diameter
35 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 10.3

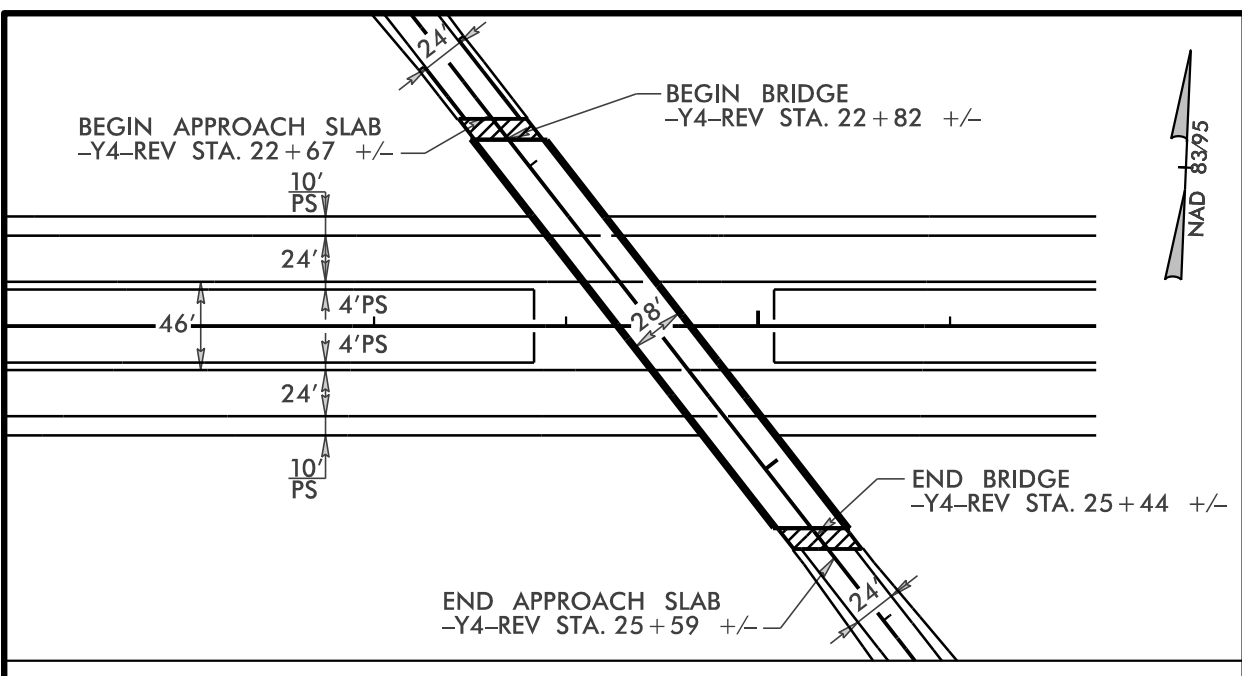
Modified Silt Basin
Type 'B'
96 x 48 x 3
35 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 10.3

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

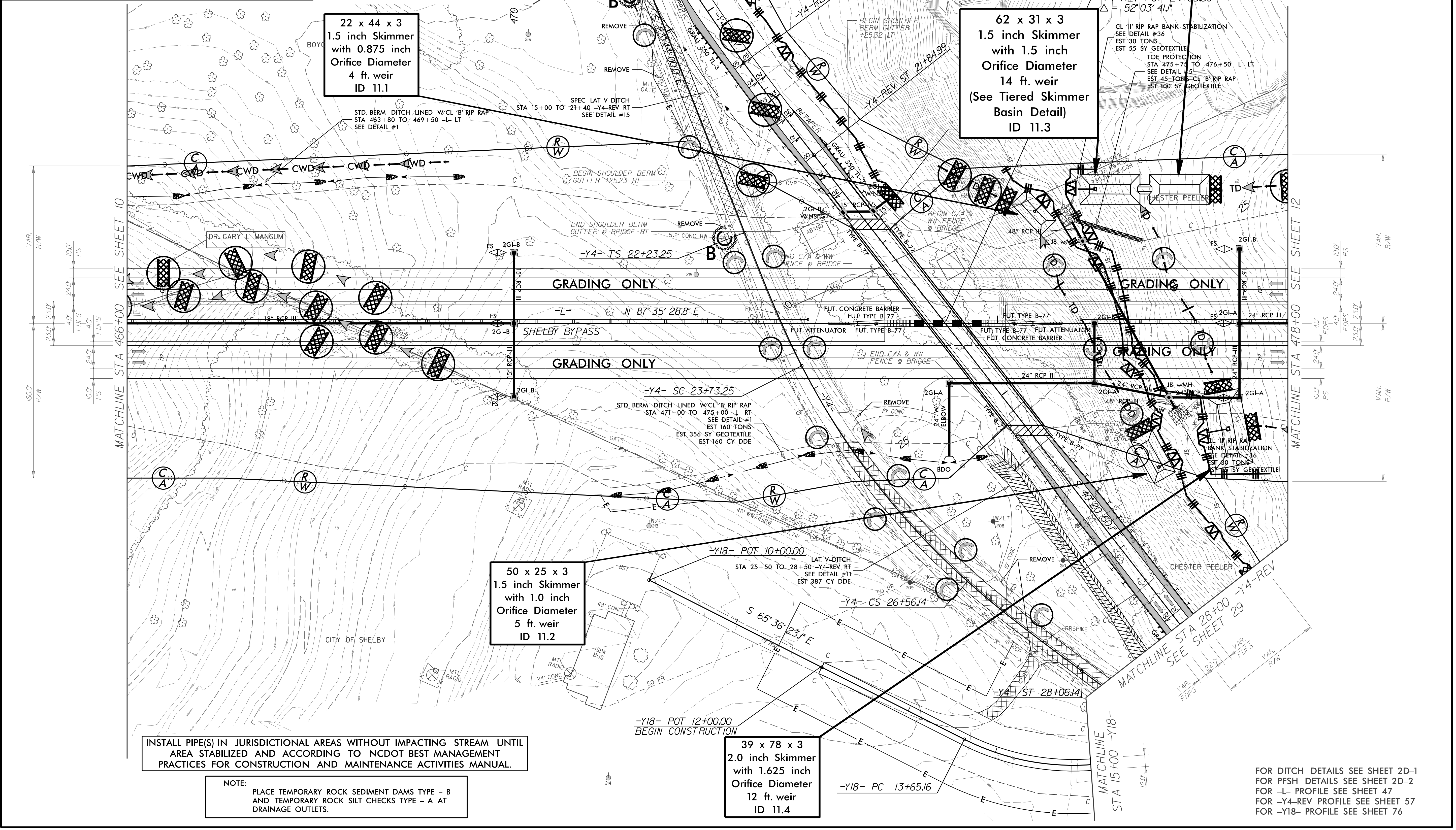
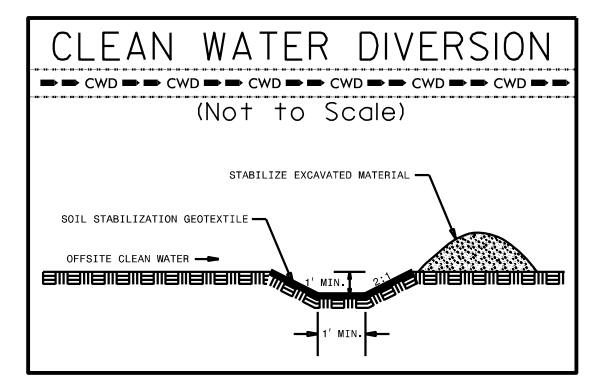
FOR DITCH DETAILS SEE SHEET 2D-1
FOR PFSH DETAILS SEE SHEET 2D-2
FOR -L- PROFILE SEE SHEET 46

PROJECT REFERENCE NO.	SHEET NO.
R-2707C	EC-II/CONST.II
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 11



SKETCH SHOWING BRIDGE RELATIVE TO PROPOSED PAVEMENT



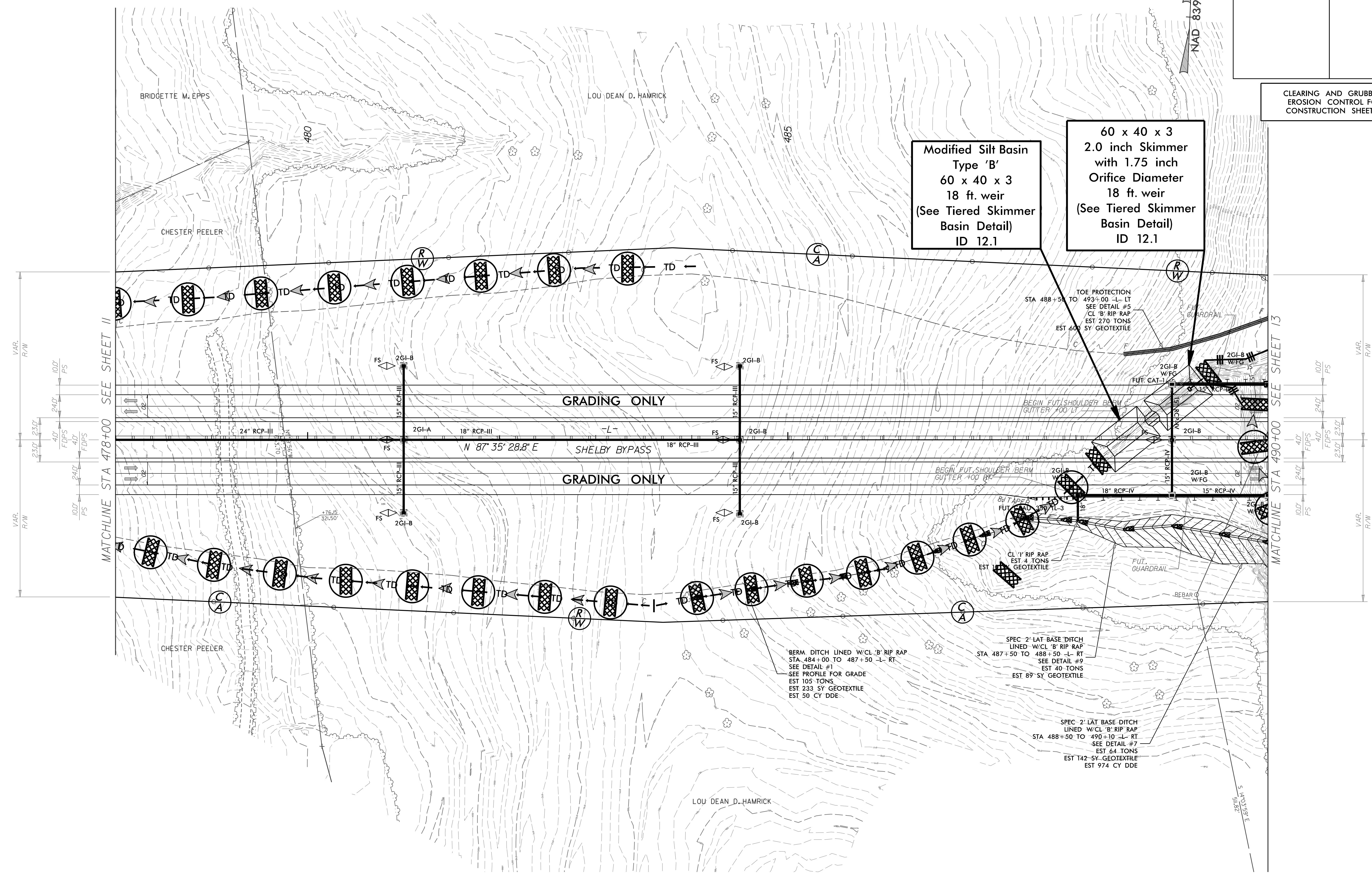
INSTALL PIPE(S) IN JURISDICTIONAL AREAS WITHOUT IMPACTING STREAM UNTIL AREA STABILIZED AND ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

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

FOR DITCH DETAILS SEE SHEET 2D-1
FOR PFSH DETAILS SEE SHEET 2D-2
FOR -L- PROFILE SEE SHEET 47
FOR -Y4-REV PROFILE SEE SHEET 57
FOR -Y18- PROFILE SEE SHEET 76

PROJECT REFERENCE NO.	SHEET NO.
R-2707C	EC-12/CONST J2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 12



Modified Silt Basin
Type 'B'
60 x 40 x 3
18 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 12.1

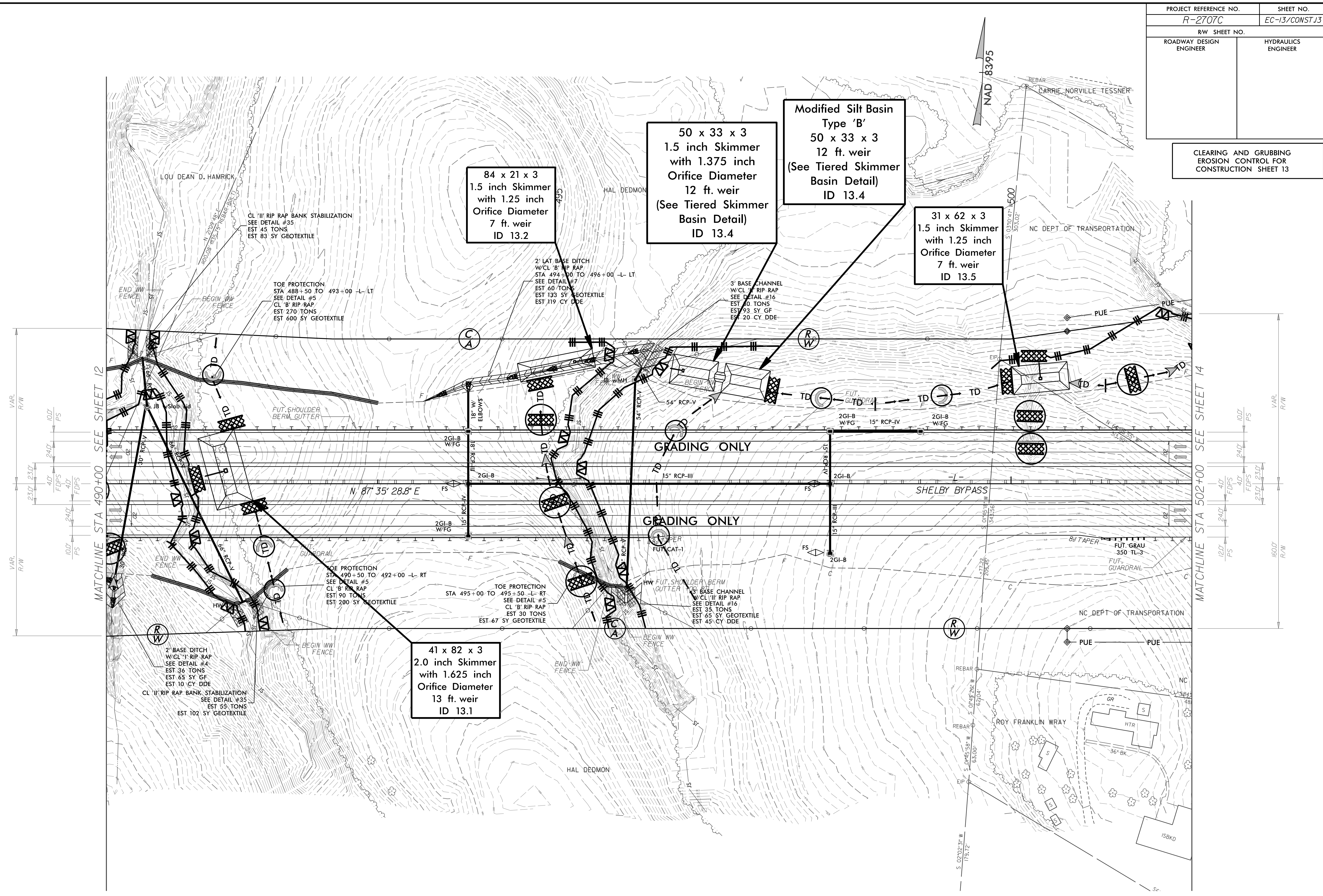
60 x 40 x 3
2.0 inch Skimmer
with 1.75 inch
Orifice Diameter
18 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 12.1

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

FOR DITCH DETAILS SEE SHEET 2D-1
FOR -L- PROFILE SEE SHEET 47

PROJECT REFERENCE NO.	SHEET NO.
R-2707C	EC-13/CONST J3
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 13



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

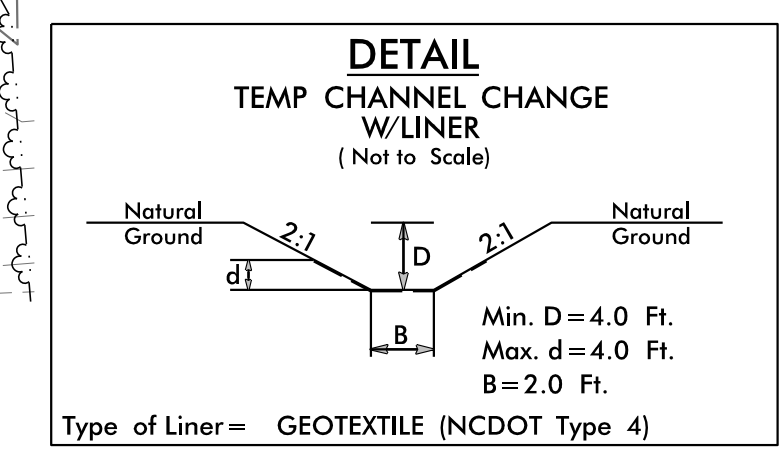
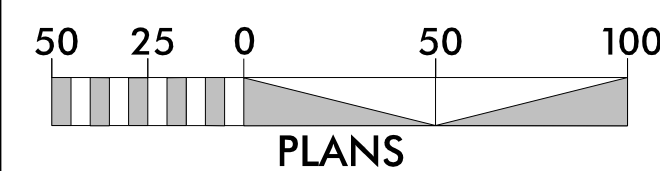
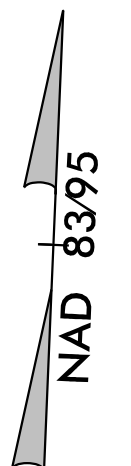
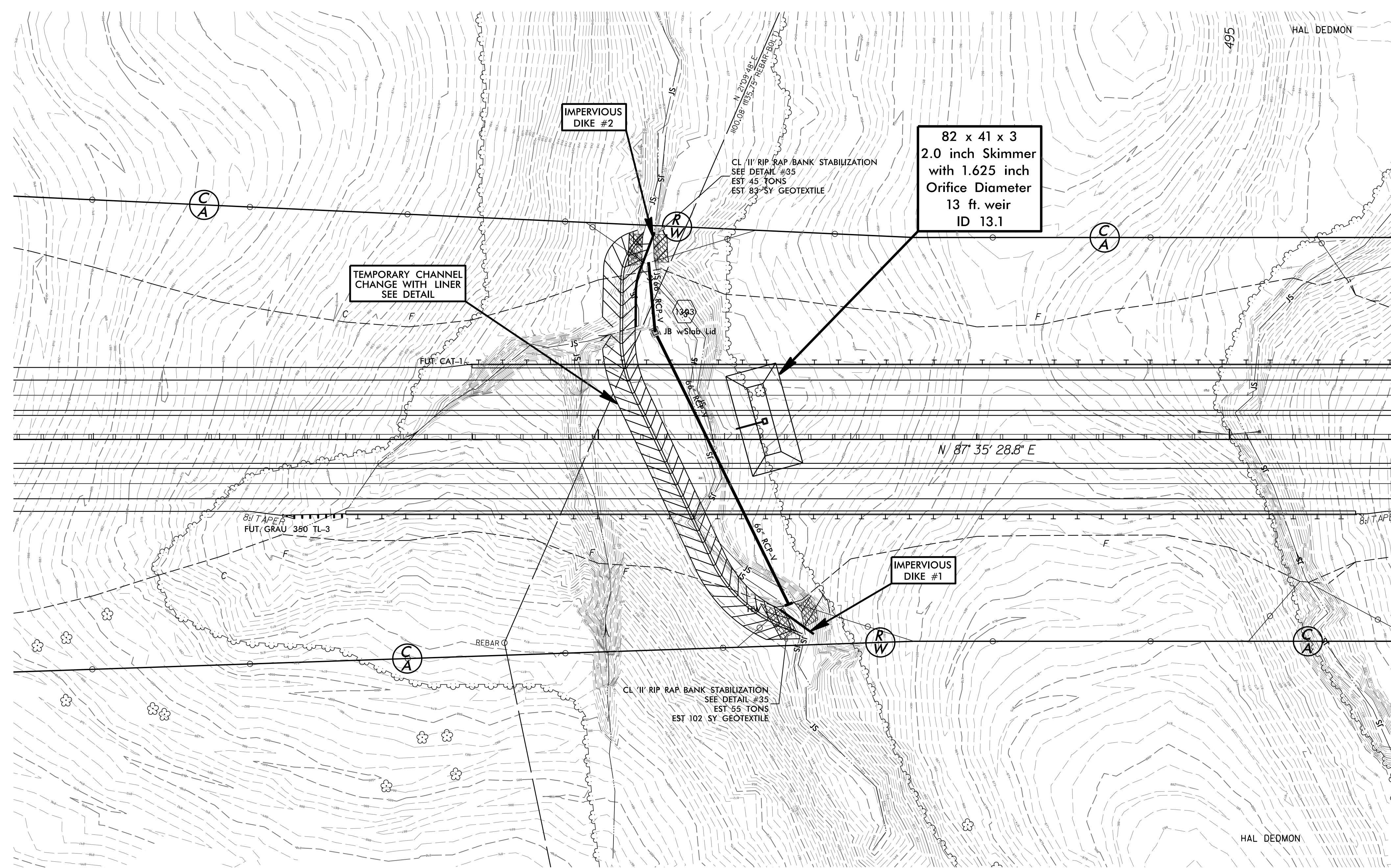
INSTALL PIPE(S) IN JURISDICTIONAL AREAS WITHOUT IMPACTING STREAM UNTIL
AREA STABILIZED AND ACCORDING TO NCDOT BEST MANAGEMENT
PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

FOR DITCH DETAILS SEE SHEET 2D-1
FOR -L- PROFILE SEE SHEET 48

66" RCP CONSTRUCTION SEQUENCE STA. 490+87 -L- UT TO WILLIAMS CREEK

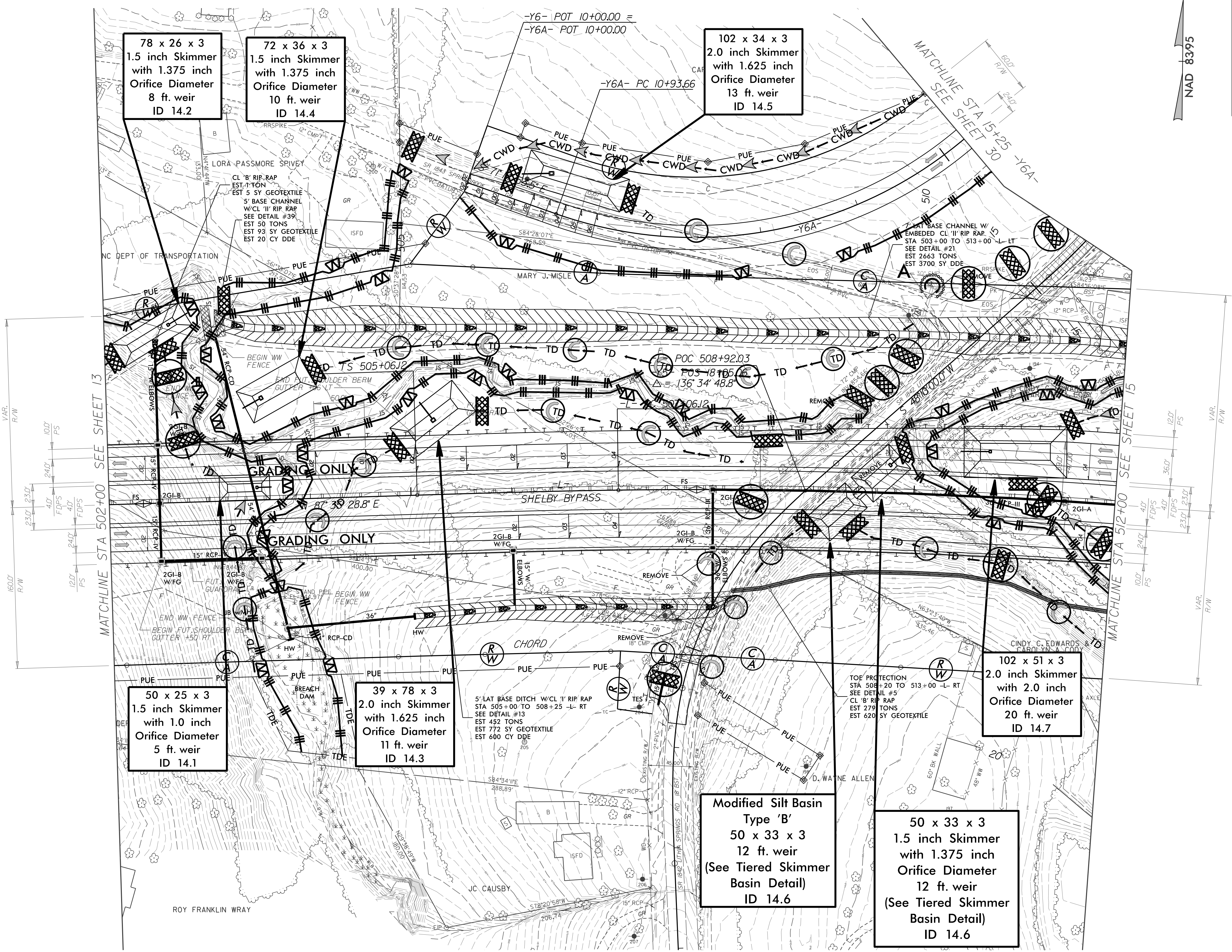
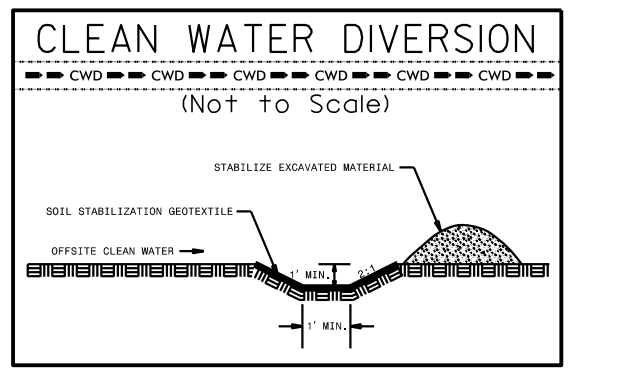
PROJECT REFERENCE NO. R-2707C	SHEET NO. EC-13A/CONST13
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

- 1.) CONSTRUCT SKIMMER BASIN 13.1.
- 2.) CONSTRUCT TEMPORARY CHANNEL CHANGE WITH LINER (SEE DETAIL).
- 3.) INSTALL IMPERVIOUS DIKES #1 AND #2 AND DIVERTING FLOW INTO TEMPORARY CHANNEL.
- 4.) DEWATER CONSTRUCTION AREA, UTILIZING SKIMMER BASIN 13.1 FOR PUMPED EFFLUENT.
- 5.) INSTALL 66" RCP W/HEADWALL, JUNCTION BOX #1303 AND BANK STABILIZATION IN ACCORDANCE WITH THE PLANS.
- 6.) REMOVE IMPERVIOUS DIKES #1, #2 AND TEMPORARY CHANNEL AND DIRECT FLOW THROUGH 66" RCP.
- 7.) COMPLETE ROADWAY.



PROJECT REFERENCE NO.	SHEET NO.
R-2707C	EC-14/CONST J4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 14



78 x 26 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
8 ft. weir
ID 14.2

72 x 36 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
10 ft. weir
ID 14.4

102 x 34 x 3
2.0 inch Skimmer
with 1.625 inch
Orifice Diameter
13 ft. weir
ID 14.5

50 x 25 x 3
1.5 inch Skimmer
with 1.0 inch
Orifice Diameter
5 ft. weir
ID 14.1

39 x 78 x 3
2.0 inch Skimmer
with 1.625 inch
Orifice Diameter
11 ft. weir
ID 14.3

102 x 51 x 3
2.0 inch Skimmer
with 2.0 inch
Orifice Diameter
20 ft. weir
ID 14.7

Modified Silt Basin
Type 'B'
50 x 33 x 3
12 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 14.6

50 x 33 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
12 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 14.6

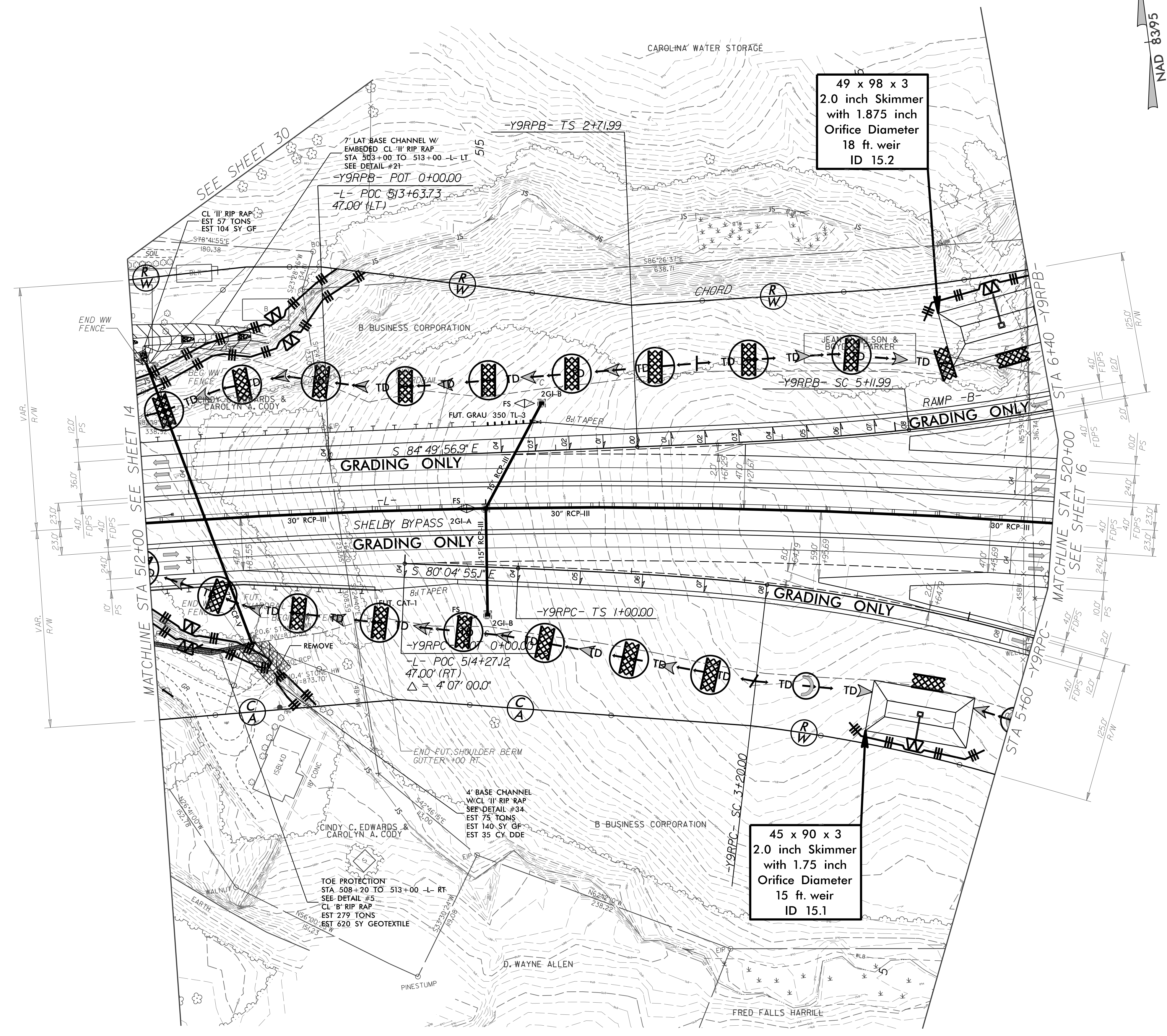
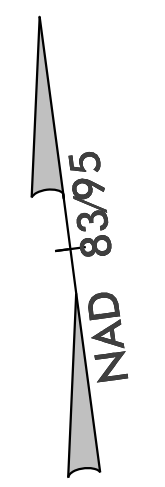
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

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.

FOR DITCH DETAILS SEE SHEET 2D-1
FOR PFSH DETAILS SEE SHEET 2D-2
FOR -L- PROFILE SEE SHEET 48
FOR -Y6A- PROFILE SEE SHEET 58

PROJECT REFERENCE NO.	SHEET NO.
R-2707C	EC-15/CONST J5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 15



49 x 98 x 3
2.0 inch Skimmer
with 1.875 inch
Orifice Diameter
18 ft. weir
ID 15.2

45 x 90 x 3
2.0 inch Skimmer
with 1.75 inch
Orifice Diameter
15 ft. weir
ID 15.1

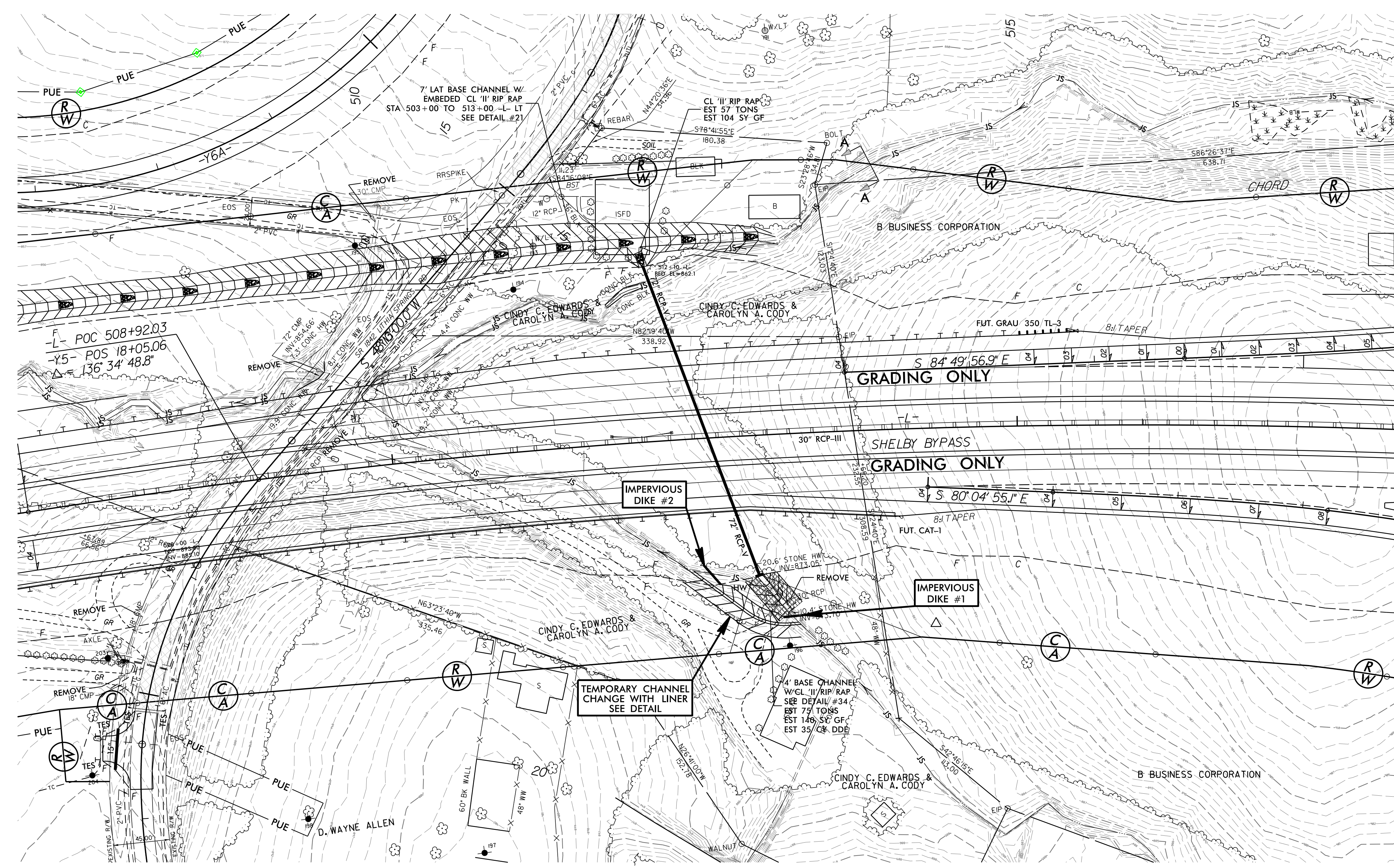
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

FOR DITCH DETAILS SEE SHEET 2D-1
FOR -L- PROFILE SEE SHEET 49
FOR -Y9RPB- PROFILE SEE SHEET 62
FOR -Y9RPC- PROFILE SEE SHEET 63

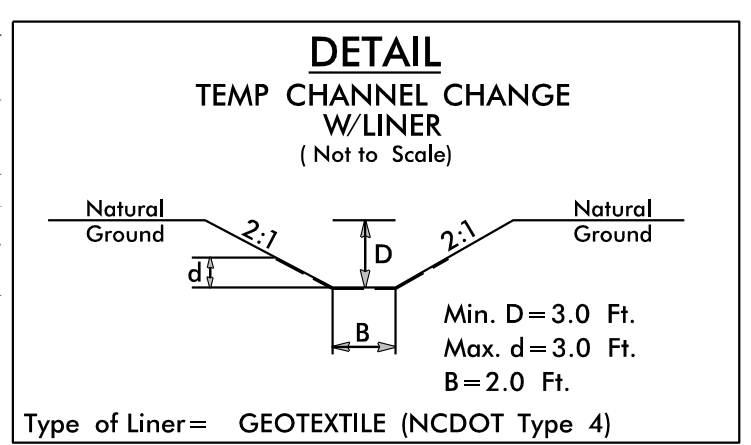
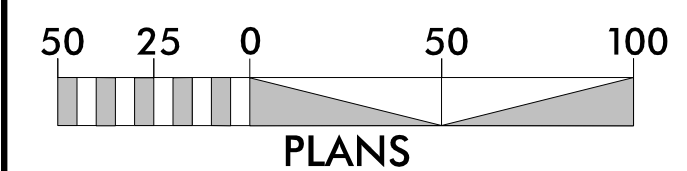
72" RCP CONSTRUCTION SEQUENCE STA. 512+52 -L- UT TO WILLIAMS CREEK

PROJECT REFERENCE NO. R-2707C	SHEET NO. EC-15A/CONST.15
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

- 1.) CONSTRUCT 7' LATERAL BASE CHANNEL FROM STA. 503+00 TO 513+00 -L- RT.
- 2.) CONSTRUCT TEMPORARY CHANNEL CHANGE WITH LINER (SEE DETAIL).
- 3.) INSTALL IMPERVIOUS DIKES #1 AND #2 AND DIVERT FLOW INTO TEMPORARY CHANNEL.
- 4.) DEWATER CONSTRUCTION AREA, UTILIZING SPECIAL STILLING BASIN(S) FOR PUMPED EFFLUENT.
- 5.) INSTALL 72" RCP W/HEADWALL AND INLET CHANNEL IN ACCORDANCE WITH THE PLANS.
- 6.) REMOVE IMPERVIOUS DIKES #1, #2 AND TEMPORARY CHANNEL AND DIRECT FLOW THROUGH 72" RCP.
- 7.) COMPLETE ROADWAY.



NAD 83/95



PROJECT REFERENCE NO. R-2707C	SHEET NO. EC-W/CONST.6
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

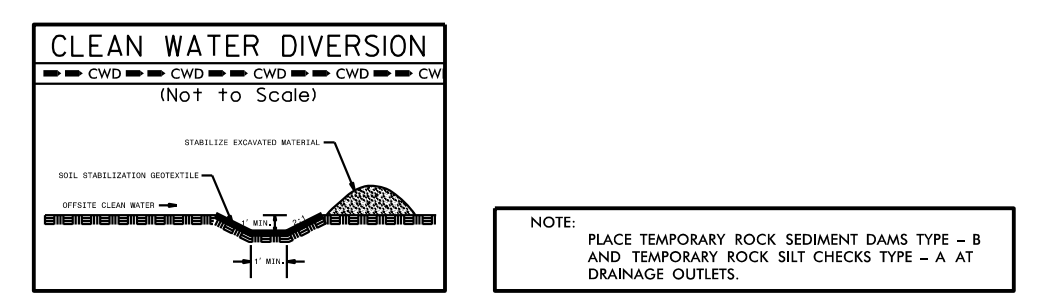
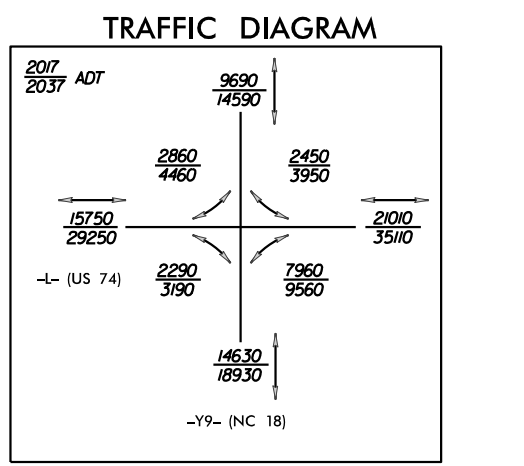
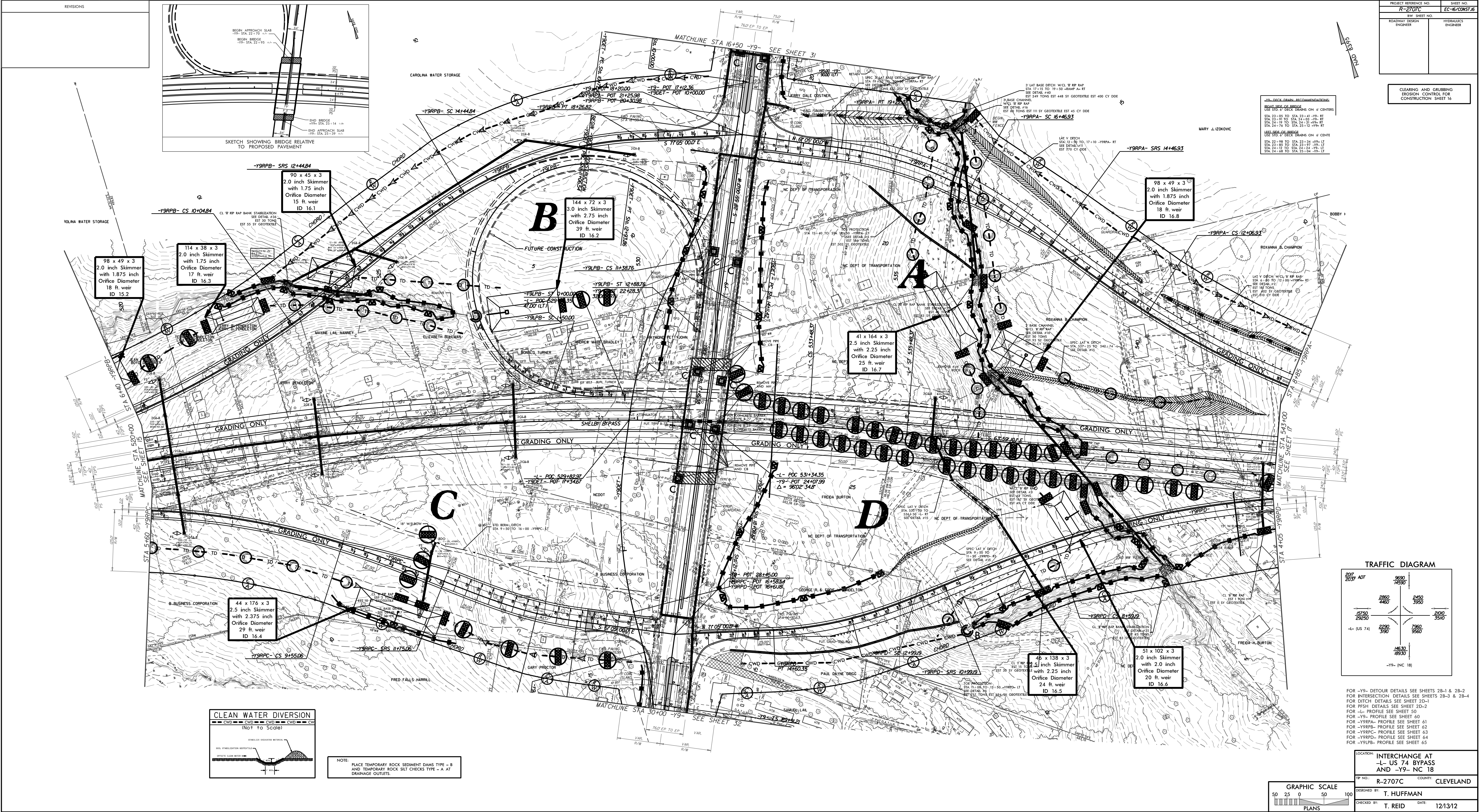
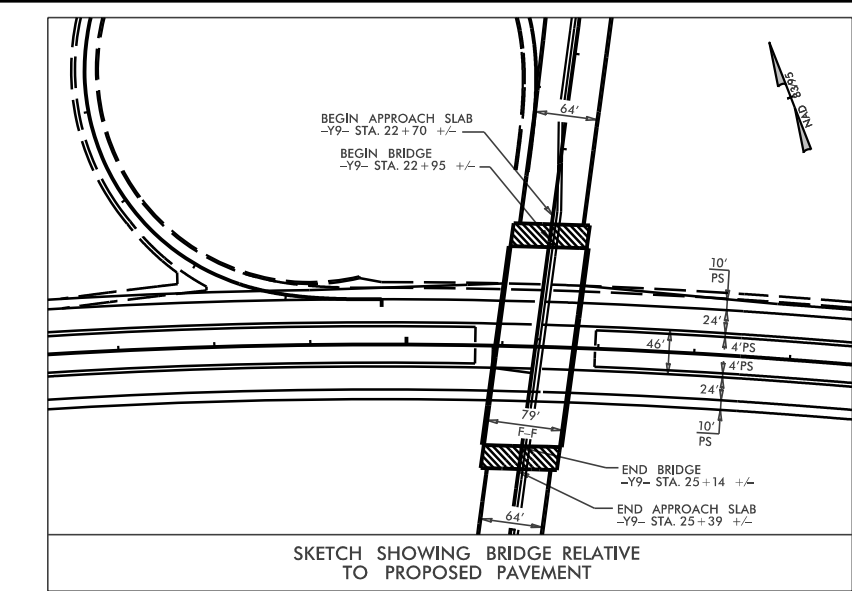
CLEANING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 16

CHECK REVISIONS

NO.	DESCRIPTION
1	ADD 1" SKIMMER AT STA 23+41
2	ADD 1" SKIMMER AT STA 23+41
3	ADD 1" SKIMMER AT STA 23+41
4	ADD 1" SKIMMER AT STA 23+41
5	ADD 1" SKIMMER AT STA 23+41
6	ADD 1" SKIMMER AT STA 23+41
7	ADD 1" SKIMMER AT STA 23+41
8	ADD 1" SKIMMER AT STA 23+41
9	ADD 1" SKIMMER AT STA 23+41
10	ADD 1" SKIMMER AT STA 23+41

REVISIONS

NO.	DESCRIPTION
1	ADD 1" SKIMMER AT STA 23+41
2	ADD 1" SKIMMER AT STA 23+41
3	ADD 1" SKIMMER AT STA 23+41
4	ADD 1" SKIMMER AT STA 23+41
5	ADD 1" SKIMMER AT STA 23+41
6	ADD 1" SKIMMER AT STA 23+41
7	ADD 1" SKIMMER AT STA 23+41
8	ADD 1" SKIMMER AT STA 23+41
9	ADD 1" SKIMMER AT STA 23+41
10	ADD 1" SKIMMER AT STA 23+41



GRAPHIC SCALE

50 25 0 50 100

PLANS

DESIGNED BY T. HUFFMAN	CHECKED BY T. REID	DATE 12/13/12
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LOCATION: **INTERCHANGE AT
L- US 74 BYPASS
AND -Y9- NC 18**

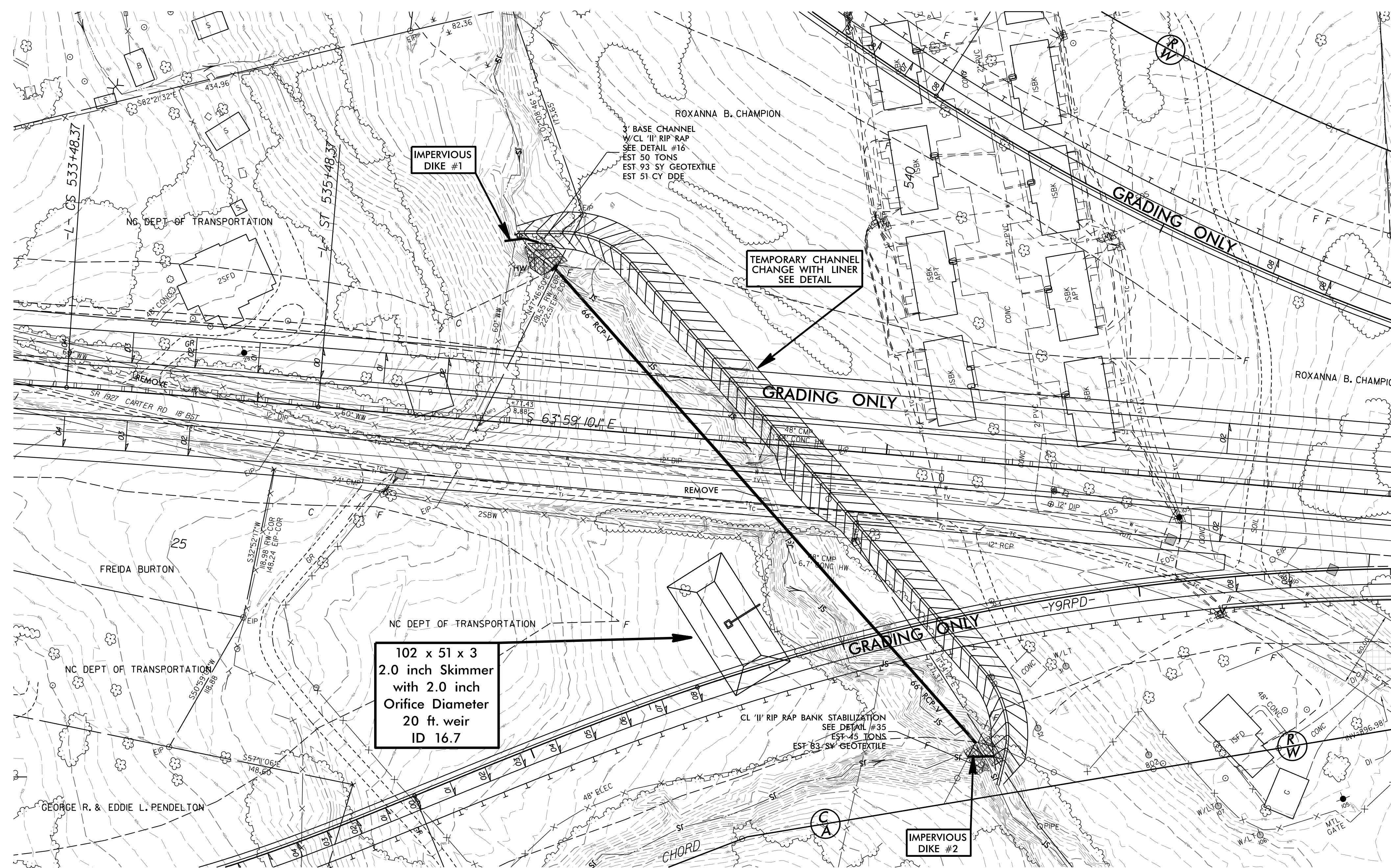
TP NO: **R-2707C** COUNTY: **CLEVELAND**

FOR -Y9- DETOUR DETAILS SEE SHEETS 2B-1 & 2B-2
FOR INTERSECTION DETAILS SEE SHEETS 2B-3 & 2B-4
FOR DITCH DETAILS SEE SHEET 2D-1
FOR FISH DETAILS SEE SHEET 2D-2
FOR -L- PROFILE SEE SHEET 50
FOR -Y9- PROFILE SEE SHEET 60
FOR -Y9RPA- PROFILE SEE SHEET 61
FOR -Y9RPB- PROFILE SEE SHEET 62
FOR -Y9RPC- PROFILE SEE SHEET 63
FOR -Y9RPD- PROFILE SEE SHEET 64
FOR -Y9RPE- PROFILE SEE SHEET 65

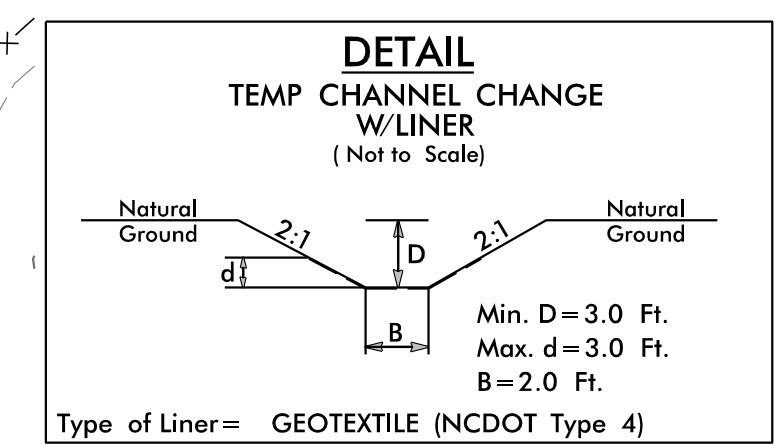
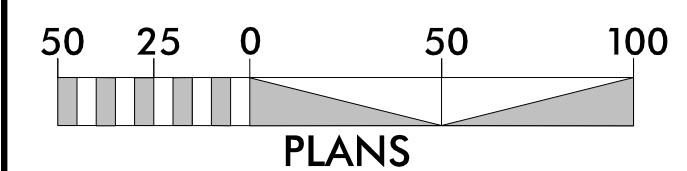
66" RCP CONSTRUCTION SEQUENCE STA. 538+57 -L- UT TO HICKORY CREEK

PROJECT REFERENCE NO. R-2707C	SHEET NO. EC-16A/CONST.16
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

- 1.) CONSTRUCT SKIMMER BASIN 16.7.
- 2.) CONSTRUCT TEMPORARY CHANNEL CHANGE WITH LINER (SEE DETAIL).
- 3.) INSTALL IMPERVIOUS DIKES #1 AND #2 AND DIVERT FLOW INTO TEMPORARY CHANNEL.
- 4.) DEWATER CONSTRUCTION AREA, UTILIZING SKIMMER BASIN 16.7 FOR PUMPED EFFLUENT.
- 5.) INSTALL 66" RCP W/HEADWALL, UPSTREAM CHANNEL AND DOWNSTREAM BANK STABILIZATION IN ACCORDANCE WITH THE PLANS.
- 6.) REMOVE IMPERVIOUS DIKES #1, #2 AND TEMPORARY CHANNEL AND DIRECT FLOW THROUGH 66" RCP.
- 7.) COMPLETE ROADWAY.



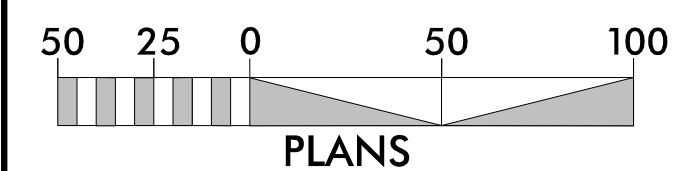
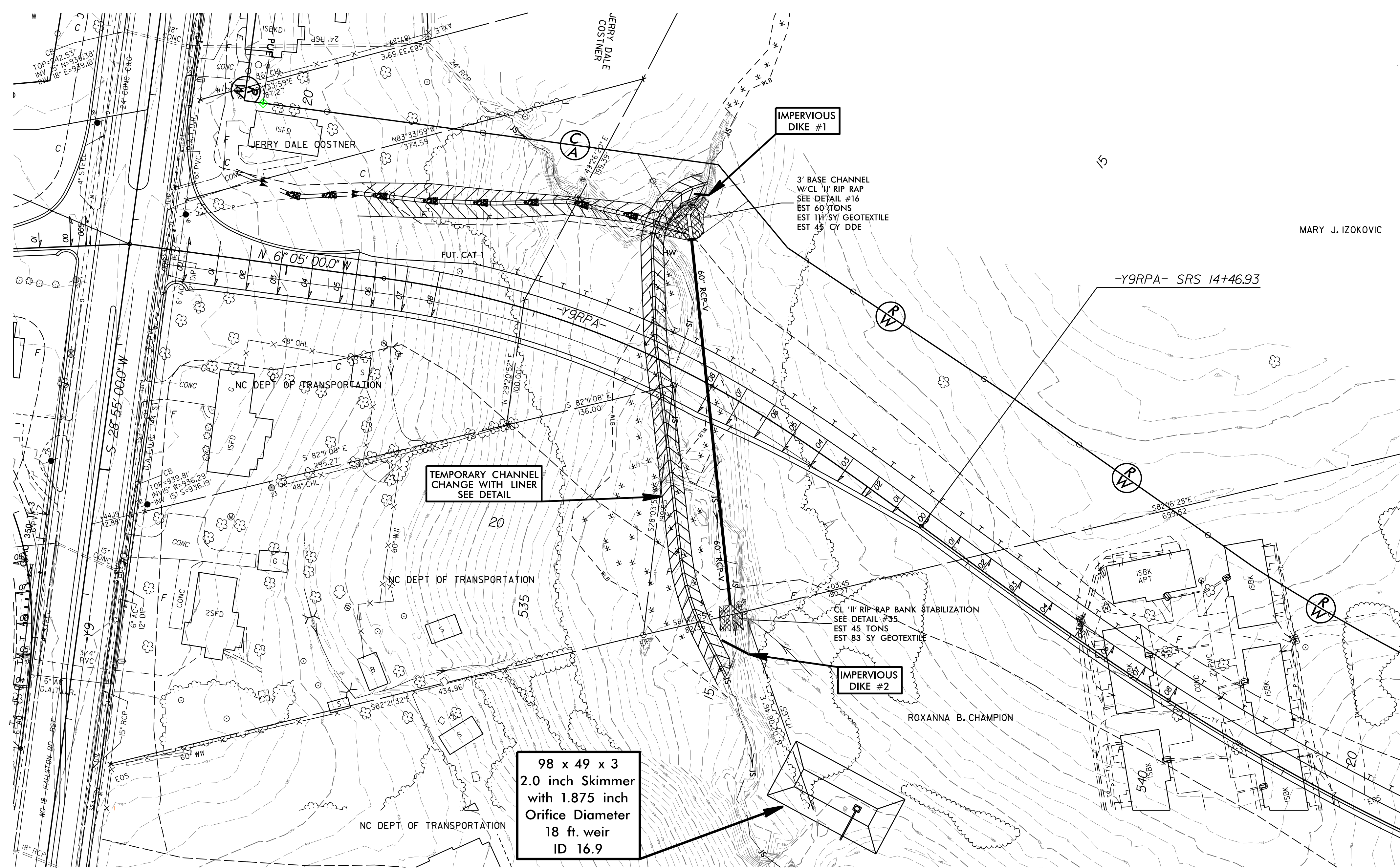
538+57
L
N
A
I
N



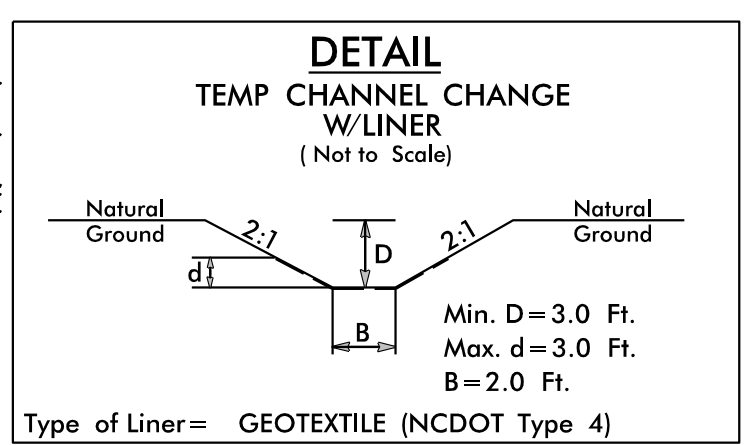
60" RCP CONSTRUCTION SEQUENCE STA. 16+52 -Y9RPA- UT TO HICKORY CREEK

PROJECT REFERENCE NO. R-2707C	SHEET NO. EC-16B/CONST.16
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

- 1.) CONSTRUCT SKIMMER BASIN 16.9.
- 2.) CONSTRUCT TEMPORARY CHANNEL CHANGE WITH LINER (SEE DETAIL).
- 3.) INSTALL IMPERVIOUS DIKES #1 AND #2 AND DIVERT FLOW INTO TEMPORARY CHANNEL.
- 4.) DEWATER CONSTRUCTION AREA, UTILIZING SKIMMER BASIN 16.9 FOR PUMPED EFFLUENT.
- 5.) INSTALL 60" RCP W/HEADWALL, UPSTREAM CHANNEL AND DOWNSTREAM BANK STABILIZATION IN ACCORDANCE WITH THE PLANS.
- 6.) REMOVE IMPERVIOUS DIKES #1, #2 AND TEMPORARY CHANNEL AND DIRECT FLOW THROUGH 60" RCP.
- 7.) COMPLETE ROADWAY.

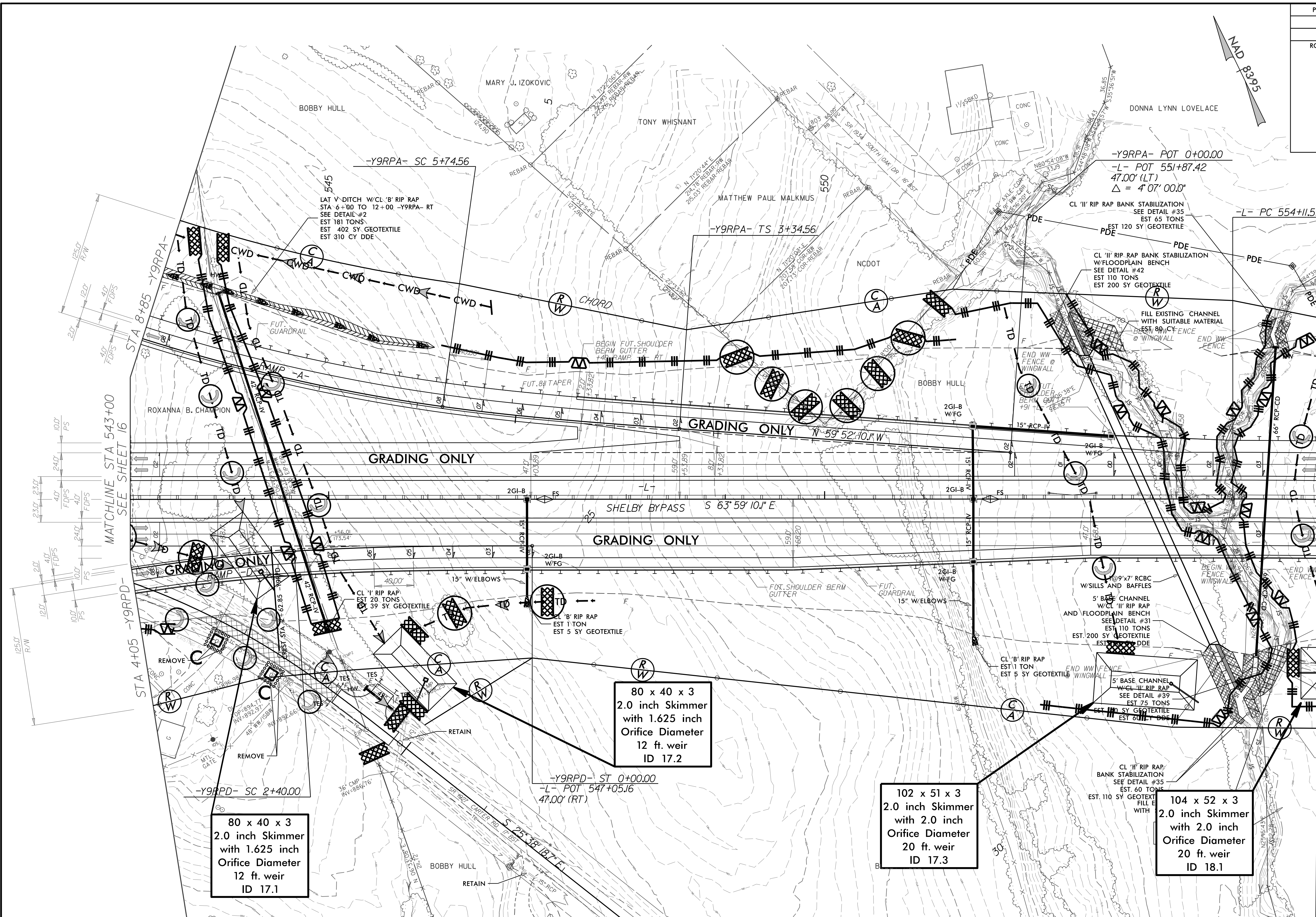


98 x 49 x 3
2.0 inch Skimmer
with 1.875 inch
Orifice Diameter
18 ft. weir
ID 16.9

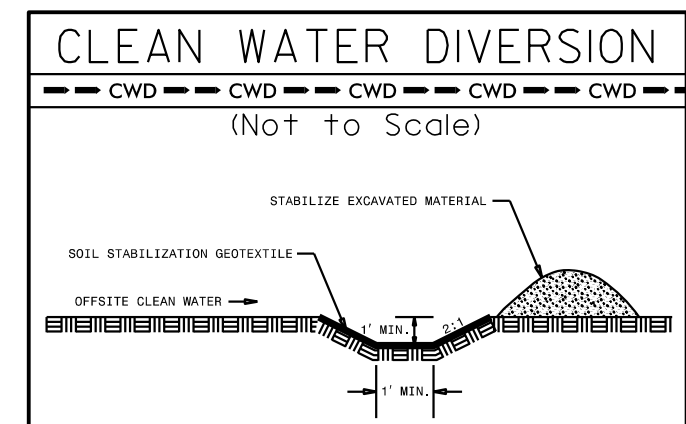


PROJECT REFERENCE NO.	SHEET NO.
R-2707C	EC-17/CONST.17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 17



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



FOR DITCH DETAILS SEE SHEET 2D-1
FOR PFSH DETAILS SEE SHEET 2D-2
FOR -L- PROFILE SEE SHEET 51
FOR -Y9RPA- PROFILE SEE SHEET 61
FOR -Y9RPD- PROFILE SEE SHEET 64

1@9'X7' RCBC + 66" RCP CONSTRUCTION SEQUENCE

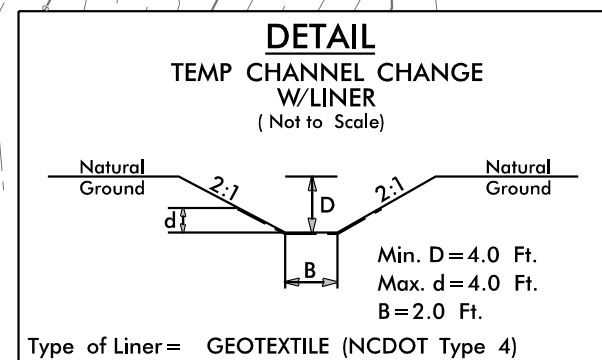
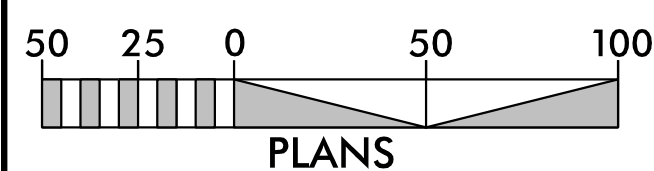
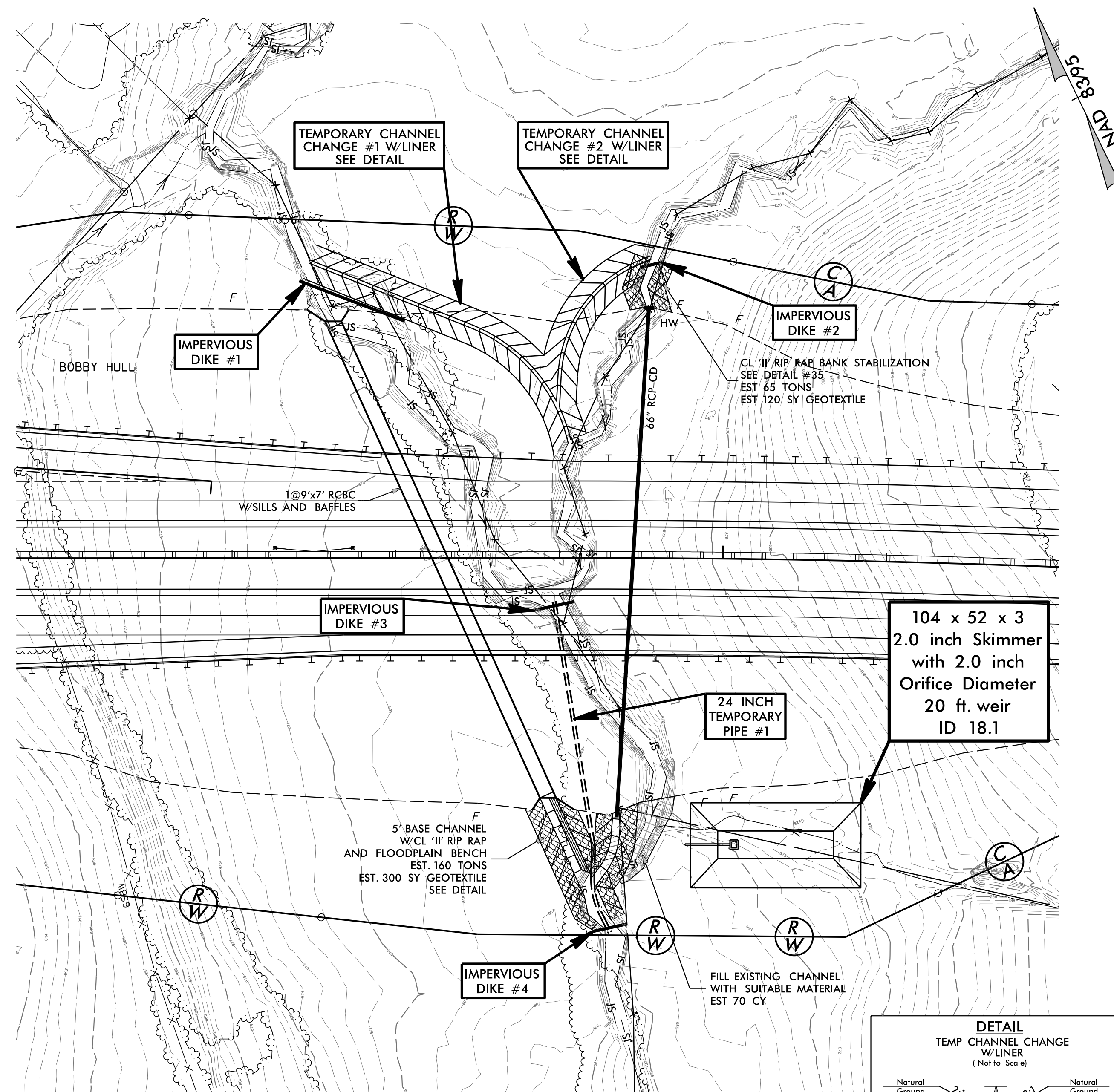
STA. 553+27 -L- & STA. 554+45 -L-

HICKORY CREEK & UT TO HICKORY CREEK

PROJECT REFERENCE NO. R-2707C	SHEET NO. EC-17A/CONST.17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

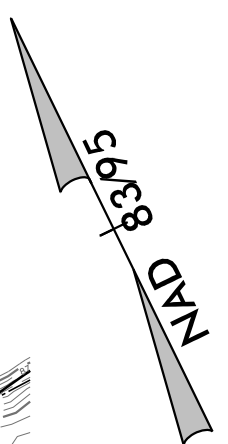
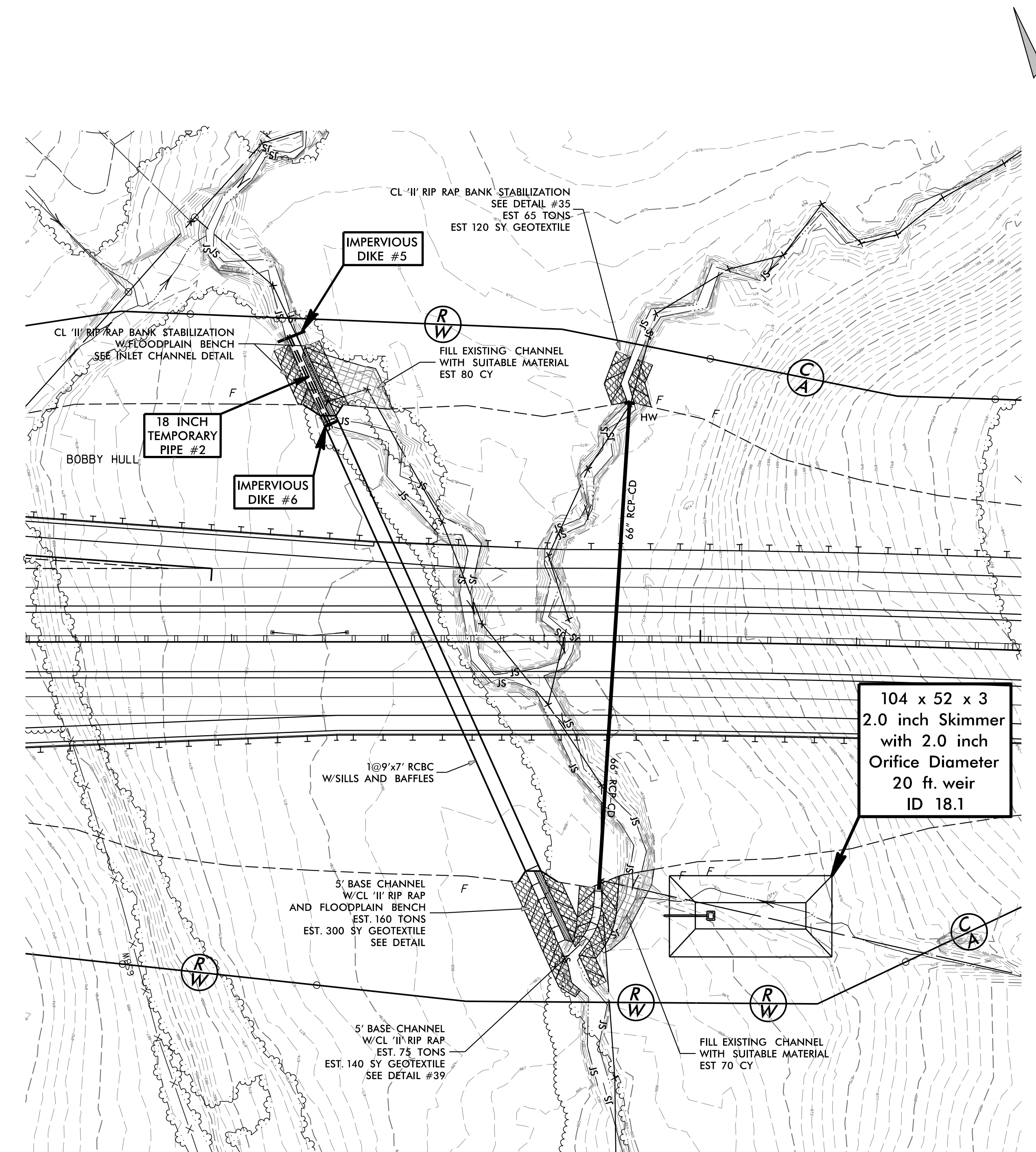
PHASE I

- 1.) CONSTRUCT SKIMMER BASIN 18.1.
- 2.) CONSTRUCT TEMPORARY CHANNEL CHANGE WITH LINER #1 AND #2 (SEE DETAIL).
- 3.) INSTALL IMPERVIOUS DIKES #1 AND #2 AND DIVERT FLOW THROUGH TEMPORARY CHANNEL CHANGES.
- 4.) INSTALL TEMPORARY 24" FLEXIBLE PIPE #1, IMPERVIOUS DIKE #3 AND IMPERVIOUS DIKE #4.
- 5.) DEWATER CONSTRUCTION AREA, UTILIZING SKIMMER BASIN 18.1 FOR PUMPED EFFLUENT.
- 6.) CONSTRUCT PROPOSED 1@9'x7' RCBC, WING WALLS AND OUTLET CHANNEL IN ACCORDANCE WITH THE PLANS.
- 7.) CONSTRUCT 66" RCP, HEADWALL, INLET BANK STABILIZATION AND OUTLET CHANNEL IN ACCORDANCE WITH THE PLANS.
- 8.) REMOVE TEMPORARY CHANNELS #1 AND #2, IMPERVIOUS DIKES #1, #2, #3 AND #4, TEMPORARY PIPE #1, AND DIRECT FLOW THROUGH 1@9'X7' RCBC AND 66" RCP.



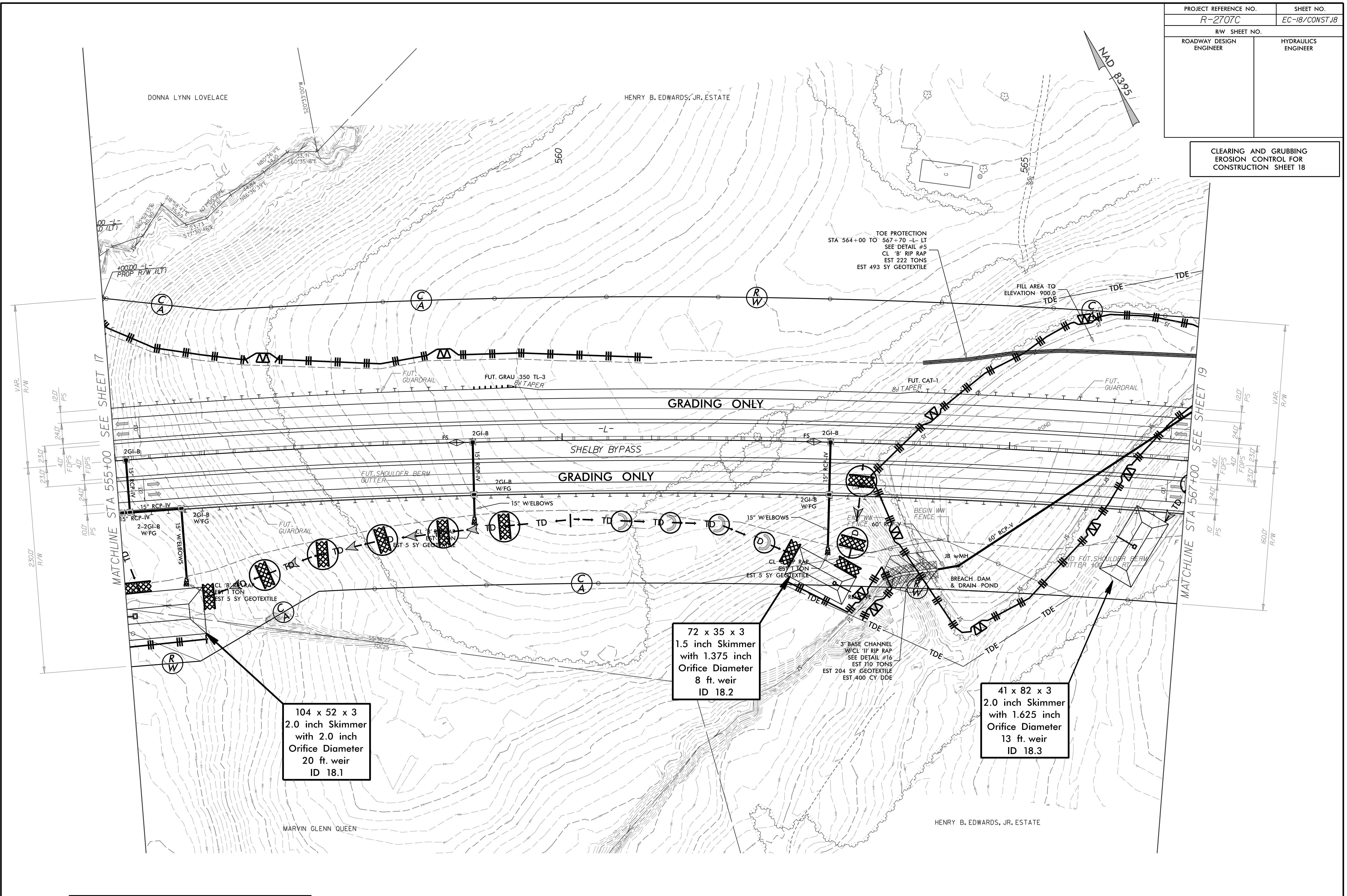
PHASE II

- 1.) INSTALL IMPERVIOUS DIKES #5, TEMPORARY 18" FLEXIBLE PIPE #2 AND IMPERVIOUS DIKE #6..
- 2.) CONSTRUCT INLET BANK STABILIZATION, FLOODPLAIN BENCH AND FILL EXISTING CHANNELS WITH SUITABLE MATERIAL.
- 3.) REMOVE IMPERVIOUS DIKES #5 AND #6, AND TEMPORARY 18" FLEXIBLE PIPE #2.
- 4.) COMPLETE ROADWAY



PROJECT REFERENCE NO.	SHEET NO.
R-2707C	EC-18/CONST JB
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 18



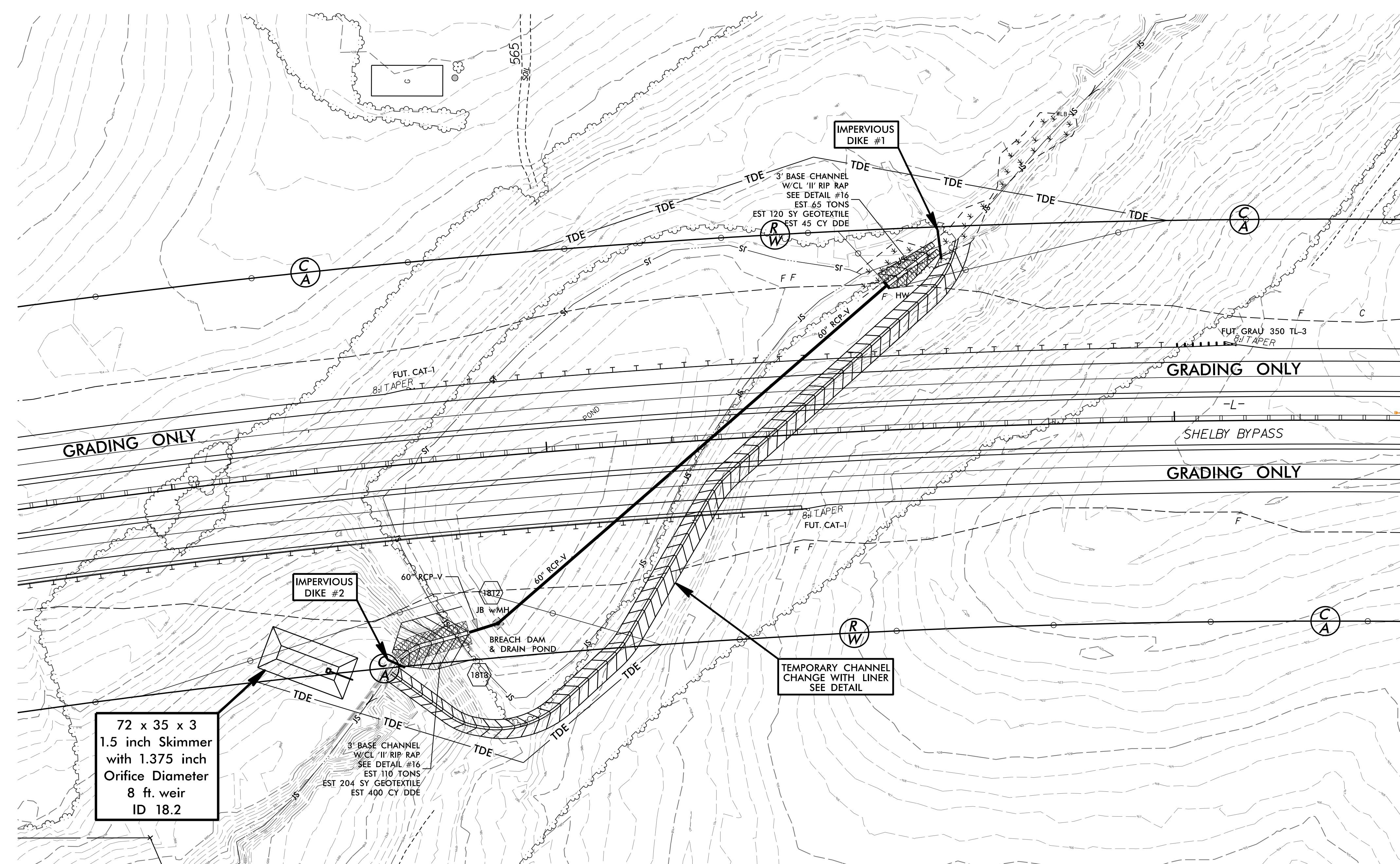
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

FOR DITCH DETAILS SEE SHEET 2D-1
FOR PFSH DETAILS SEE SHEET 2D-2
FOR -L- PROFILE SEE SHEET 51

60" RCP CONSTRUCTION SEQUENCE STA. 566+29 -L- UT TO HICKORY CREEK

PROJECT REFERENCE NO. R-2707C	SHEET NO. EC-18A/CONST.18
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

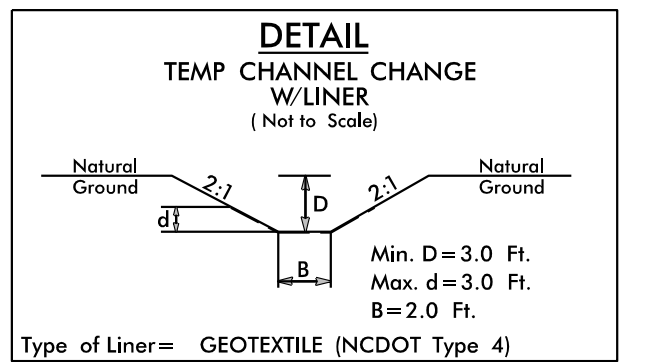
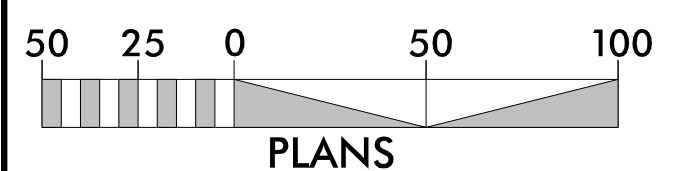
- 1.) DRAIN POND IN ACCORDANCE WITH THE SPECIAL PROVISIONS FOR EROSION CONTROL.
- 2.) CONSTRUCT SKIMMER BASIN 18.2.
- 3.) CONSTRUCT TEMPORARY CHANNEL CHANGE WITH LINER (SEE DETAIL).
- 4.) INSTALL IMPERVIOUS DIKES #1 AND #2 AND DIVERT FLOW INTO TEMPORARY CHANNEL.
- 5.) DEWATER CONSTRUCTION AREA, UTILIZING SKIMMER BASIN 18.2 FOR PUMPED EFFLUENT.
- 6.) REMOVE EXISTING 24" CMP AND INSTALL 60" RCP W/HEADWALL, JUNCTION BOX #1812, AND UPSTREAM AND DOWNSTREAM CHANNELS IN ACCORDANCE WITH THE PLANS.
- 7.) REMOVE IMPERVIOUS DIKES #1 AND #2, STILLING BASIN #1 AND TEMPORARY CHANNEL AND DIRECT FLOW THROUGH 60" RCP.
- 8.) COMPLETE ROADWAY.



72 x 35 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
8 ft. weir
ID 18.2

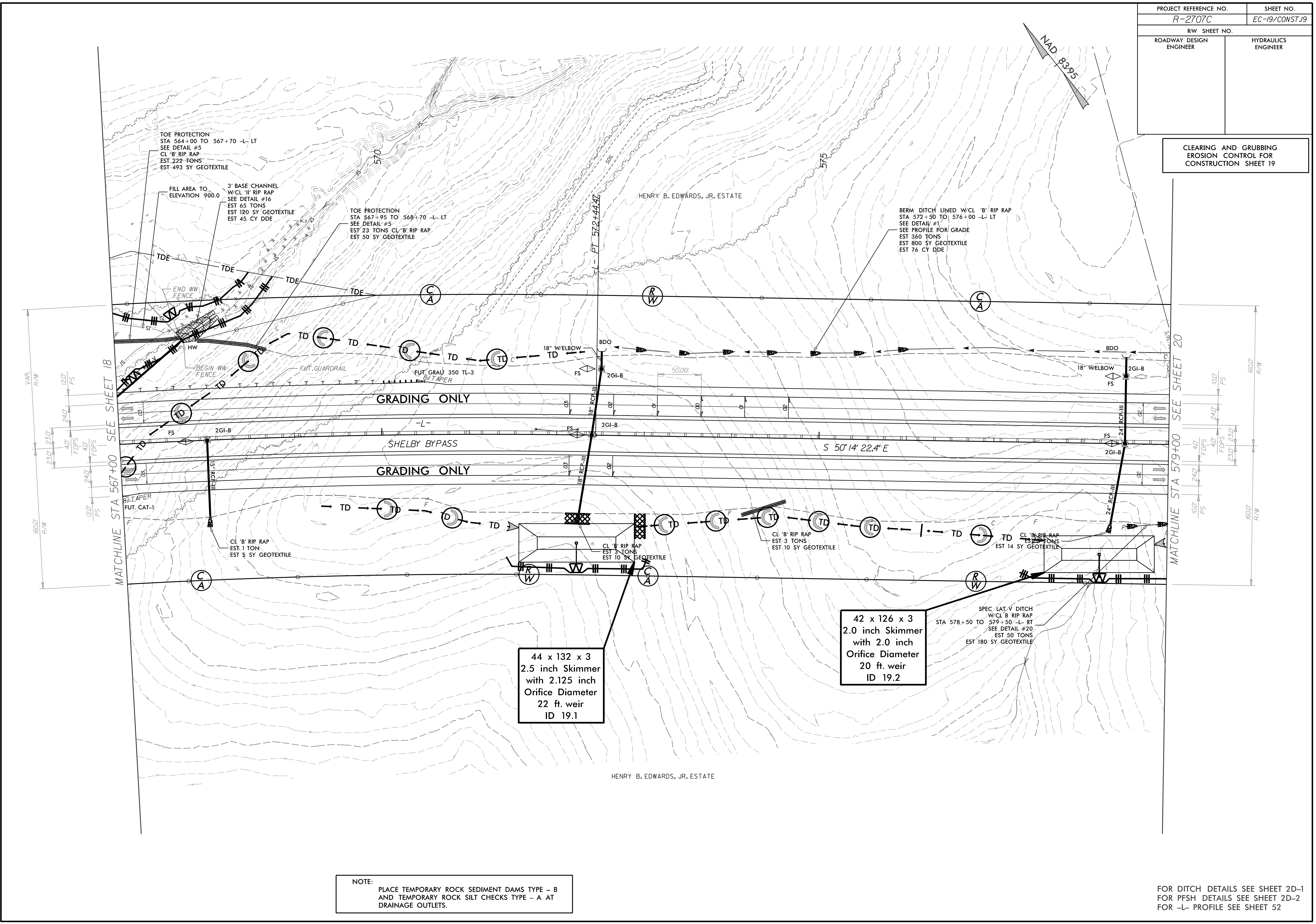
3' BASE CHANNEL
W/CL 11' RIP RAP
SEE DETAIL #16
EST 110 TONS
EST 204 SY GEOTEXTILE
EST 400 CY DDE

TEMPORARY CHANNEL
CHANGE WITH LINER
SEE DETAIL



PROJECT REFERENCE NO.	SHEET NO.
R-2707C	EC-19/CONST J9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 19



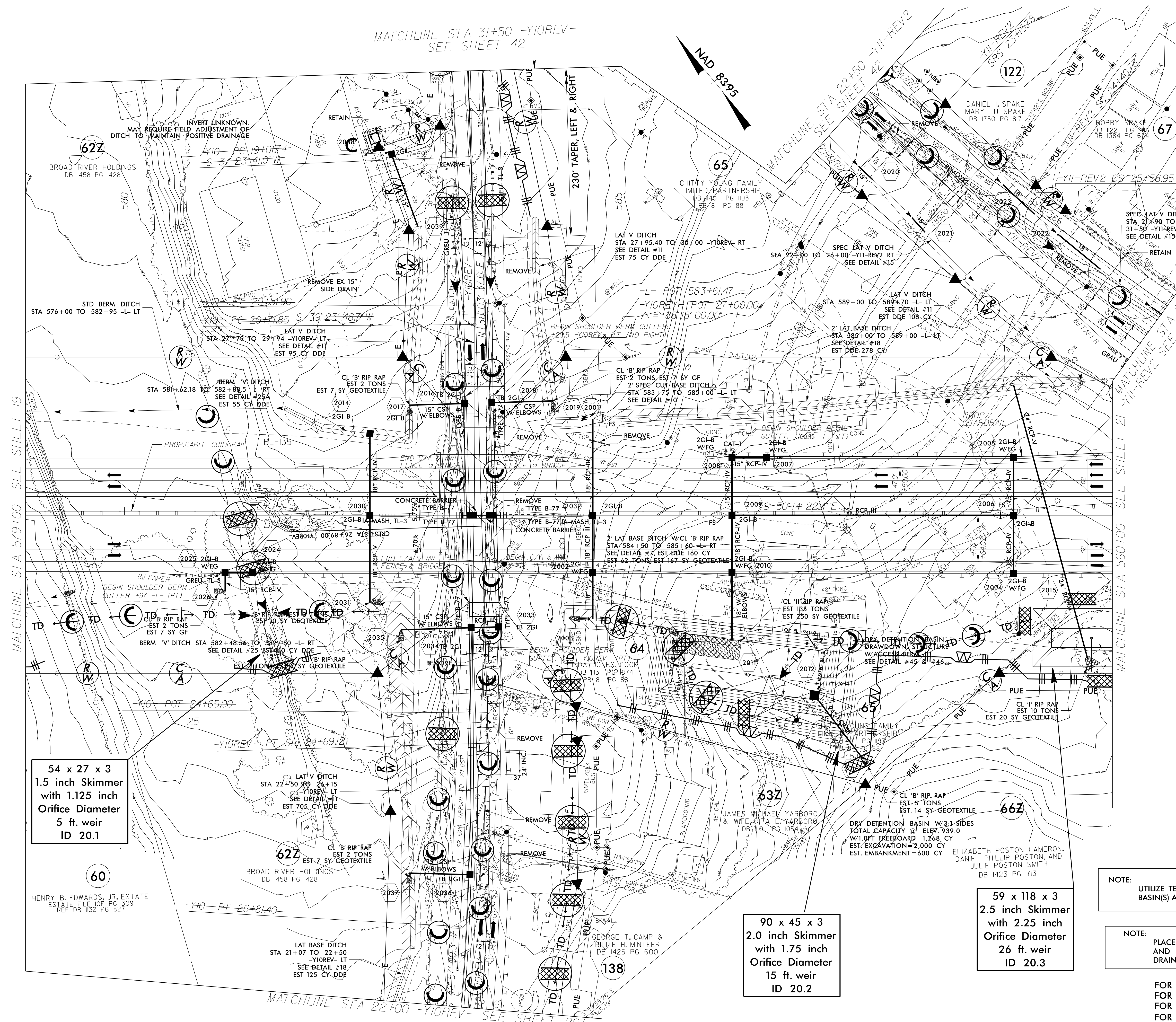
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

FOR DITCH DETAILS SEE SHEET 2D-1
FOR PFSH DETAILS SEE SHEET 2D-2
FOR -L- PROFILE SEE SHEET 52

PROJECT REFERENCE NO. R-2707C	SHEET NO. EC-20/CONST.20
RW SHEET NO. ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 20

REVISIONS
CONST. REV ON LET PROJECT 5-30-19 (TEH) - REVISED -L- FROM GRADING ONLY TO PAVING, ADDED NOISE WALL 7 AND SINGLE FACED BARRIER ALONG -L- (RT)
CONST. REV ON LET PROJECT 5-30-19 (TEH) - REVISED -L- FROM GRADING ONLY TO PAVING, ADDED NOISE WALL 7 AND SINGLE FACED BARRIER ALONG -L- (RT)
CONST. REV 04/XX/2021-REMOVED -YIO- ALIGNMENT AND ADDED -YIOREV- AND BRIDGE REMOVED NOISE WALL ON -L- RIGHT AND ADJUSTED DRAINAGE TO THE PLANS ACCORDINGLY. MODIFIED AND ADDED RW AND EASEMENT LIMITS ON -YIOREV- AND -L- ADDED 2 CLAIMS TO PARCELS 626,65 AND ADDED PARCEL 140,111



MATCHLINE STA 579+00 SEE SHEET 19

MATCHLINE STA 590+00 SEE SHEET 21

54 x 27 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
5 ft. weir
ID 20.1

90 x 45 x 3
2.0 inch Skimmer
with 1.75 inch
Orifice Diameter
15 ft. weir
ID 20.2

59 x 118 x 3
2.5 inch Skimmer
with 2.25 inch
Orifice Diameter
26 ft. weir
ID 20.3

NOTE:
UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

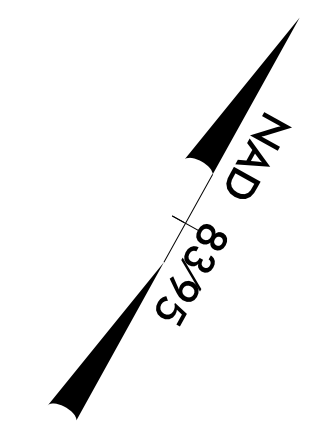
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

FOR DITCH DETAILS SEE SHEETS 2D-1 AND 2D-2
FOR -L- PROFILE SEE SHEET 52
FOR -Y11-REV2 PROFILE SEE SHEET 66
FOR -YIOREV- PROFILE SEE SHEET 78

PROJECT REFERENCE NO. R-2707C	SHEET NO. EC-20A/CONST.20A
RW SHEET NO. ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-YIOREV-
 PI Sta 19+95.80
 $\Delta = 22^\circ 54' 35.3" (LT)$
 $D = 2^\circ 23' 14.4"$
 $L = 959.64'$
 $T = 486.32'$
 $R = 2,400.00'$

-YIOREV_DR2-
 PI Sta 11+62.72
 $\Delta = 24^\circ 11' 49.2" (RT)$
 $D = 57^\circ 17' 44.8"$
 $L = 42.23'$
 $T = 21.44'$
 $R = 100.00'$
 Ⓢ 6' 44' 42.3" E

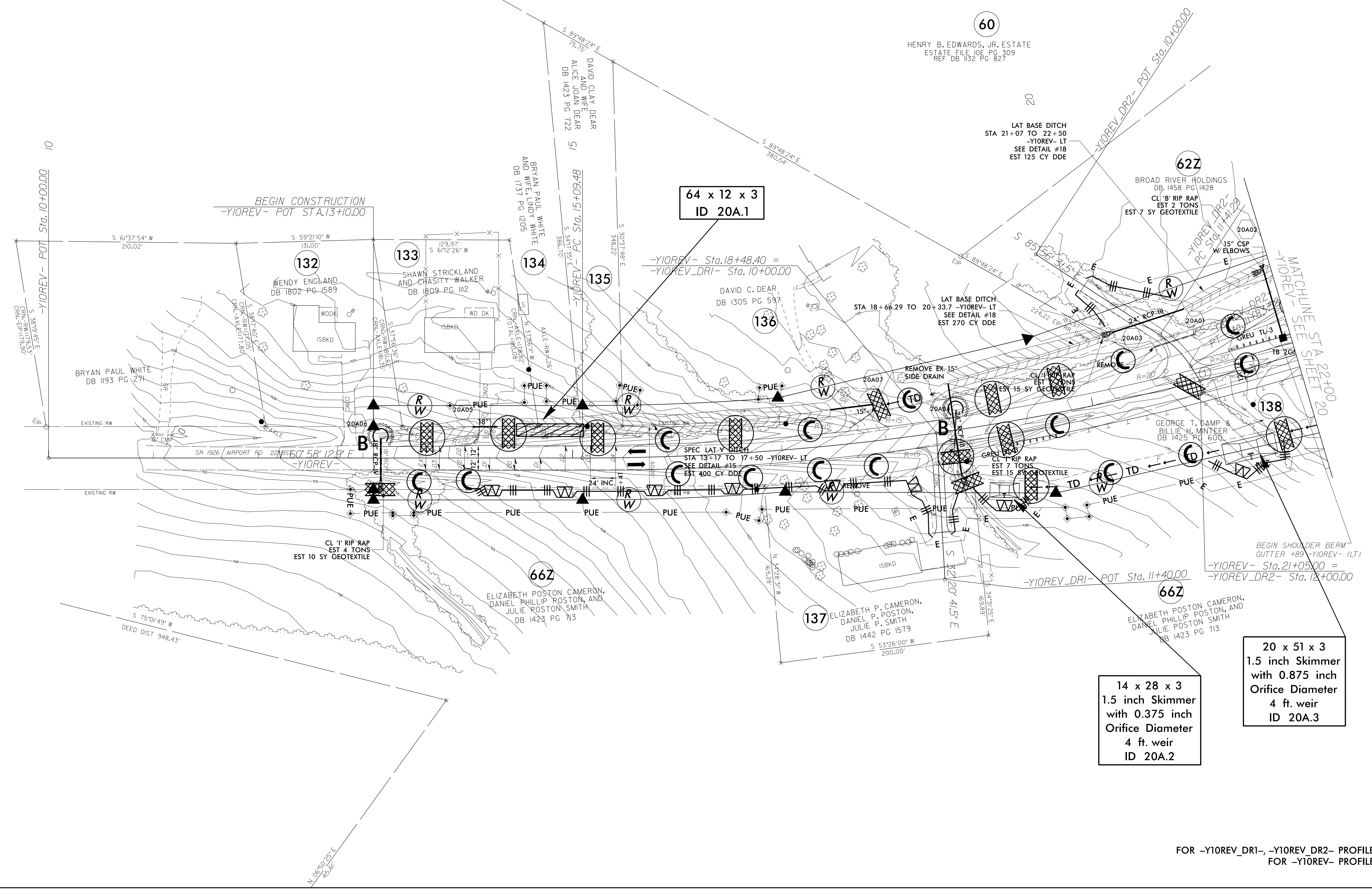


NOTE:
 PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
 AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
 DRAINAGE OUTLETS.

NOTE:
 UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING
 BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

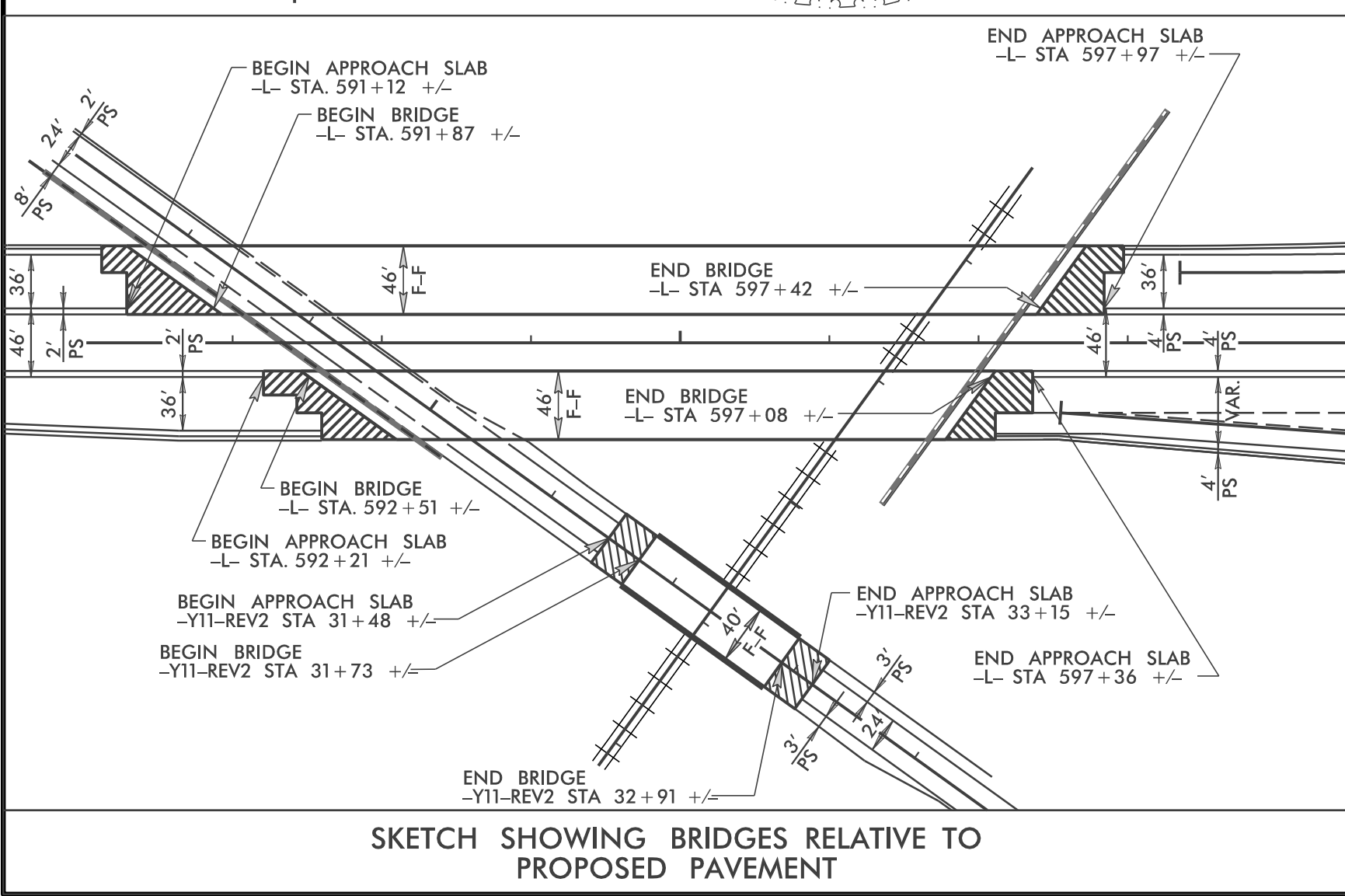
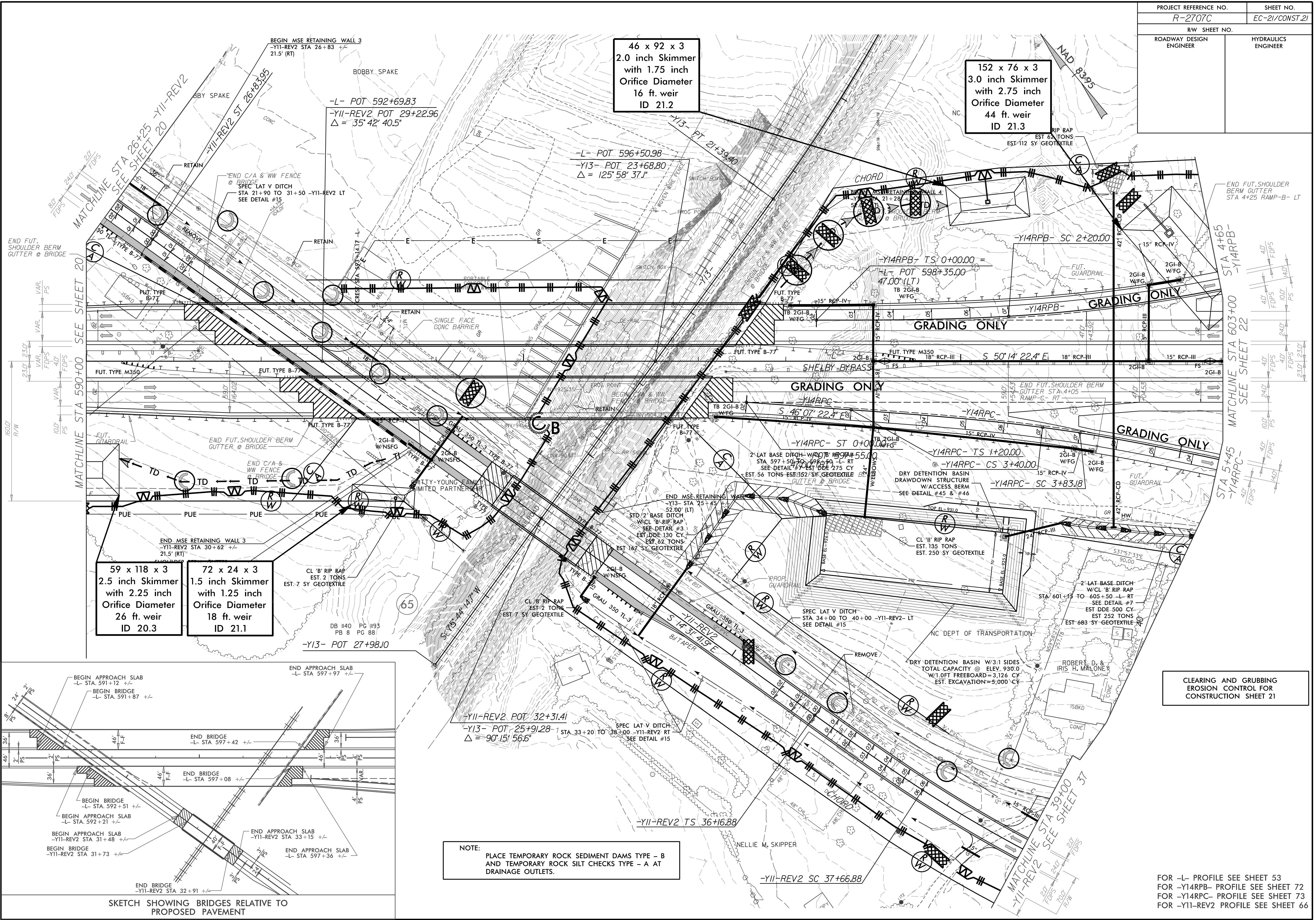
CLEARING AND GRUBBING
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 20A

REVISIONS
 CONST. REV. 03/XX/2020-NEW SHEET ADDED YIOREV AND PARCELS 132 TO 140.HN



FOR -YIOREV_DR1-, -YIOREV_DR2- PROFILE SEE SHEET 77
 FOR -YIOREV- PROFILE SEE SHEET 78

PROJECT REFERENCE NO.	SHEET NO.
R-2707C	EC-21/CONST.21
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



59 x 118 x 3
2.5 inch Skimmer
with 2.25 inch
Orifice Diameter
26 ft. weir
ID 20.3

72 x 24 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
18 ft. weir
ID 21.1

46 x 92 x 3
2.0 inch Skimmer
with 1.75 inch
Orifice Diameter
16 ft. weir
ID 21.2

152 x 76 x 3
3.0 inch Skimmer
with 2.75 inch
Orifice Diameter
44 ft. weir
ID 21.3

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

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 21

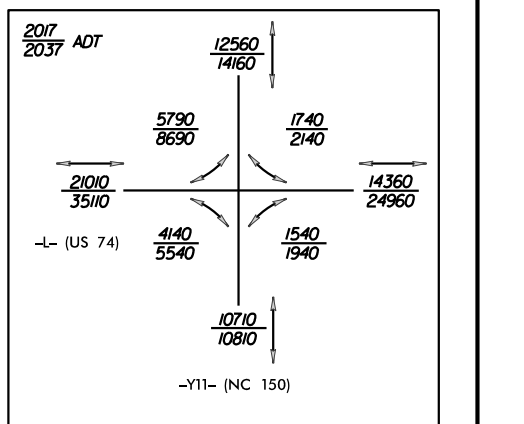
FOR -L- PROFILE SEE SHEET 53
FOR -Y14RPB- PROFILE SEE SHEET 72
FOR -Y14RPC- PROFILE SEE SHEET 73
FOR -Y11-REV2 PROFILE SEE SHEET 66

NO.	DESCRIPTION

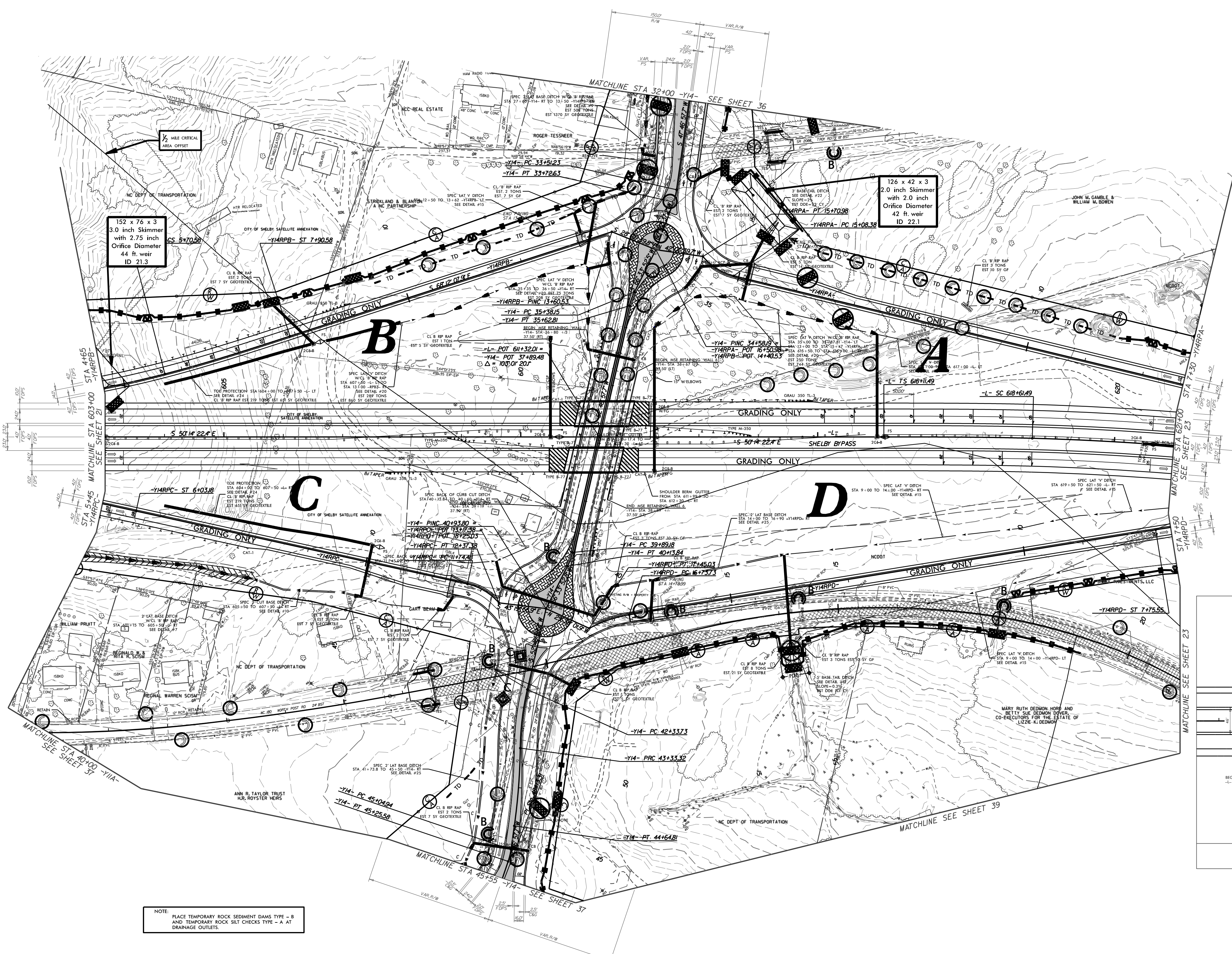
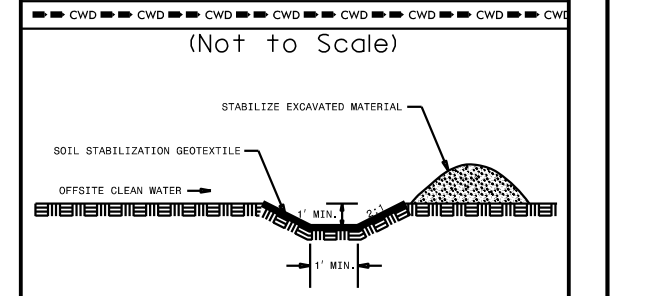
PROJECT REFERENCE NO. R-2707C	SHEET NO. EC-22/CONV 22
RDW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

CLEARING AND GRUBBING BIDDING CONTROL FOR CONSTRUCTION SHEET 22

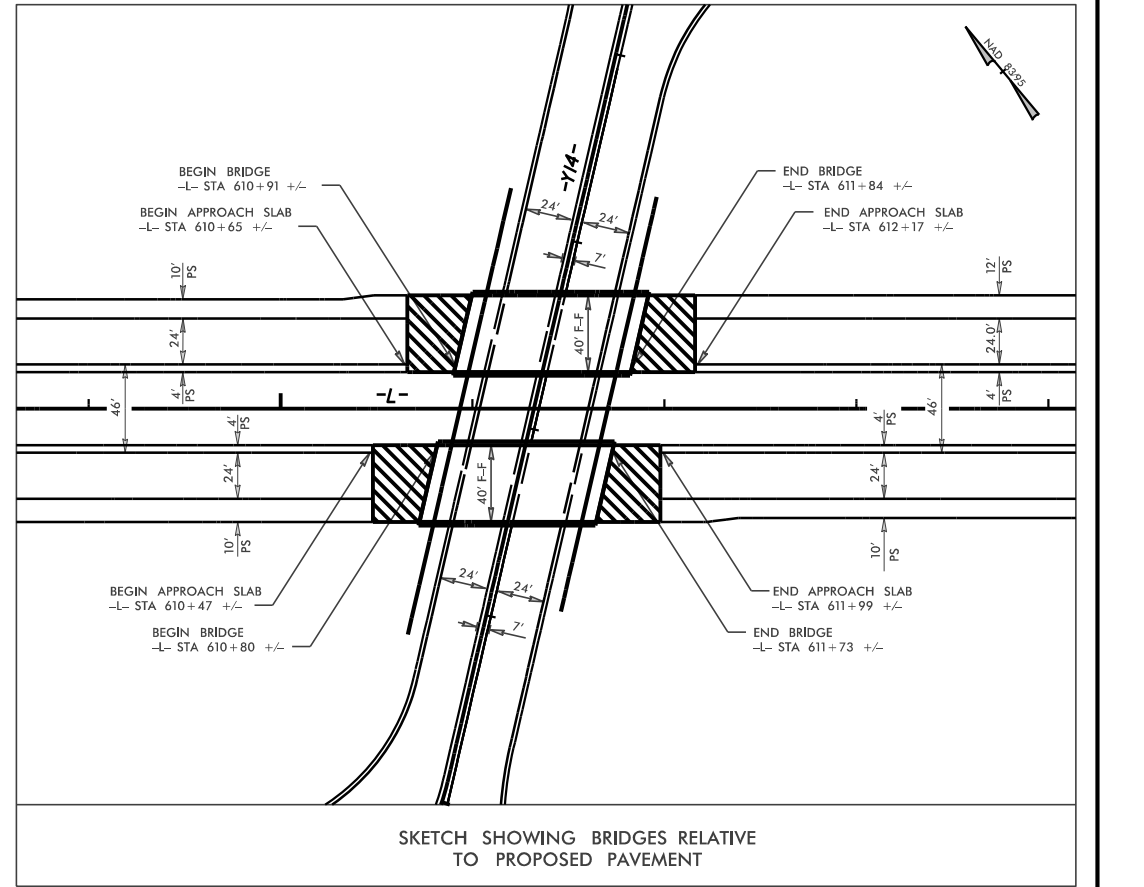
TRAFFIC DIAGRAM



CLEAN WATER DIVERSION



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

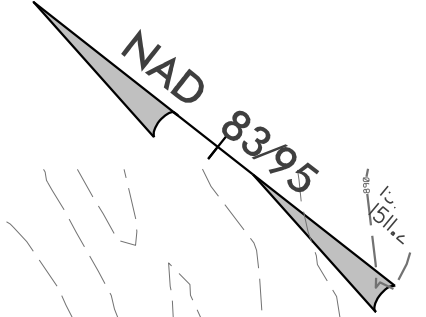


FOR ROUNDABOUT DETAILS SEE SHEETS 28-5 & 28-6
 FOR -L- PROFILE SEE SHEET 54
 FOR -Y14- PROFILE SEE SHEET 69
 FOR -Y14RPA- PROFILE SEE SHEET 71
 FOR -Y14RFB- PROFILE SEE SHEET 72
 FOR -Y14RFB- PROFILE SEE SHEET 73
 FOR -Y14RFB- PROFILE SEE SHEETS 73 & 74

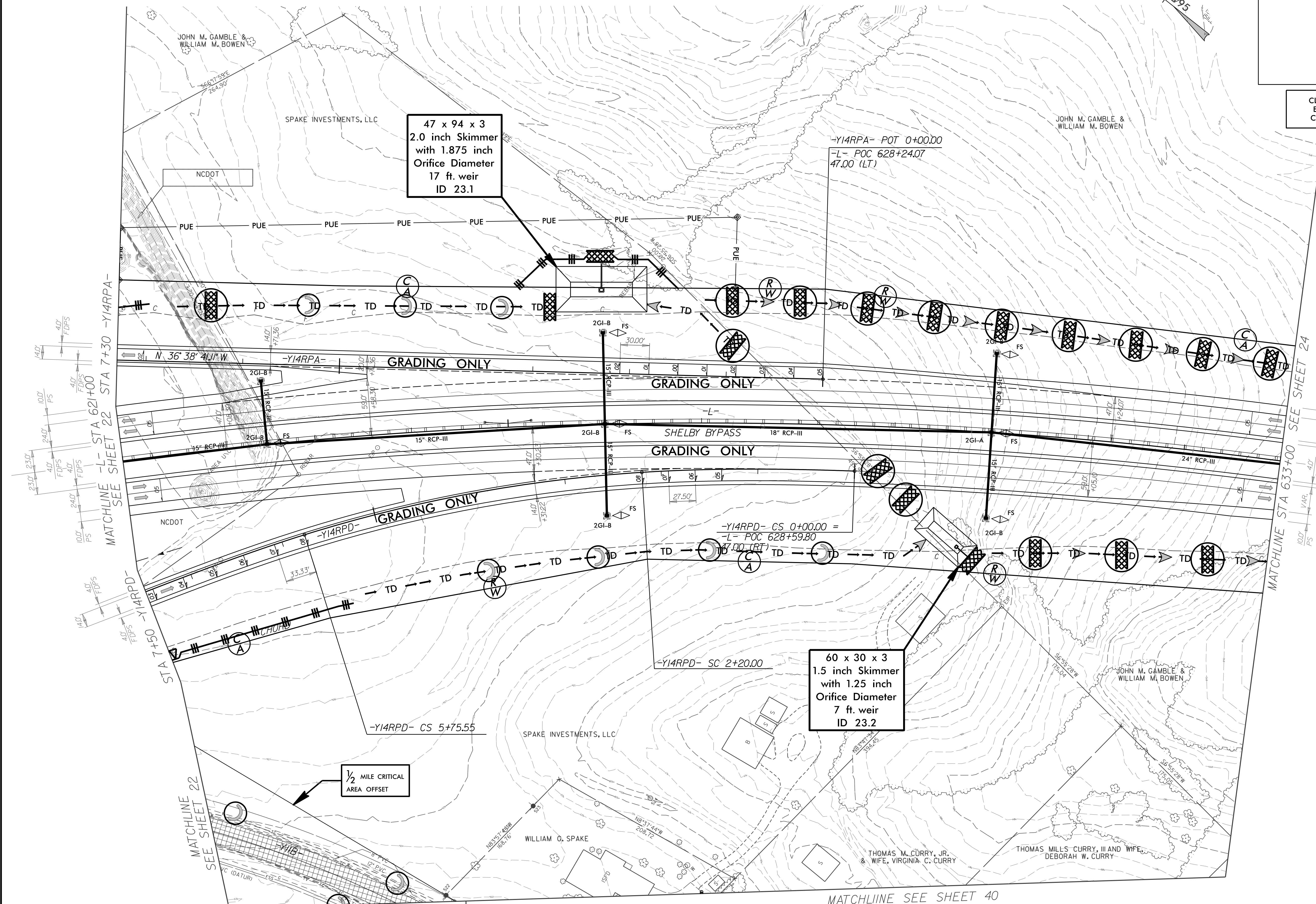
GRAPHIC SCALE 50 25 0 50 100 PLANS	LOCATION: INTERCHANGE AT -L- US 74 BYPASS AND -Y14- NC 150
DESIGNED BY: T. HUFFMAN	COUNTY: CLEVELAND
CHECKED BY: T. REID	DATE: 7/7/15

PROJECT REFERENCE NO.	SHEET NO.
R-2707C	EC-23/CONST.23
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 23



MATCHLINE -L- STA 621+00
SEE SHEET 22

STA 7+50 -Y14RPD-

MATCHLINE SEE SHEET 22

MATCHLINE SEE SHEET 39

MATCHLINE STA 633+00
SEE SHEET 24

MATCHLINE SEE SHEET 40

FOR -L- PROFILE SEE SHEET 55
FOR -Y14RPA- PROFILE SEE SHEET 71
FOR -Y14RPD- PROFILE SEE SHEET 73