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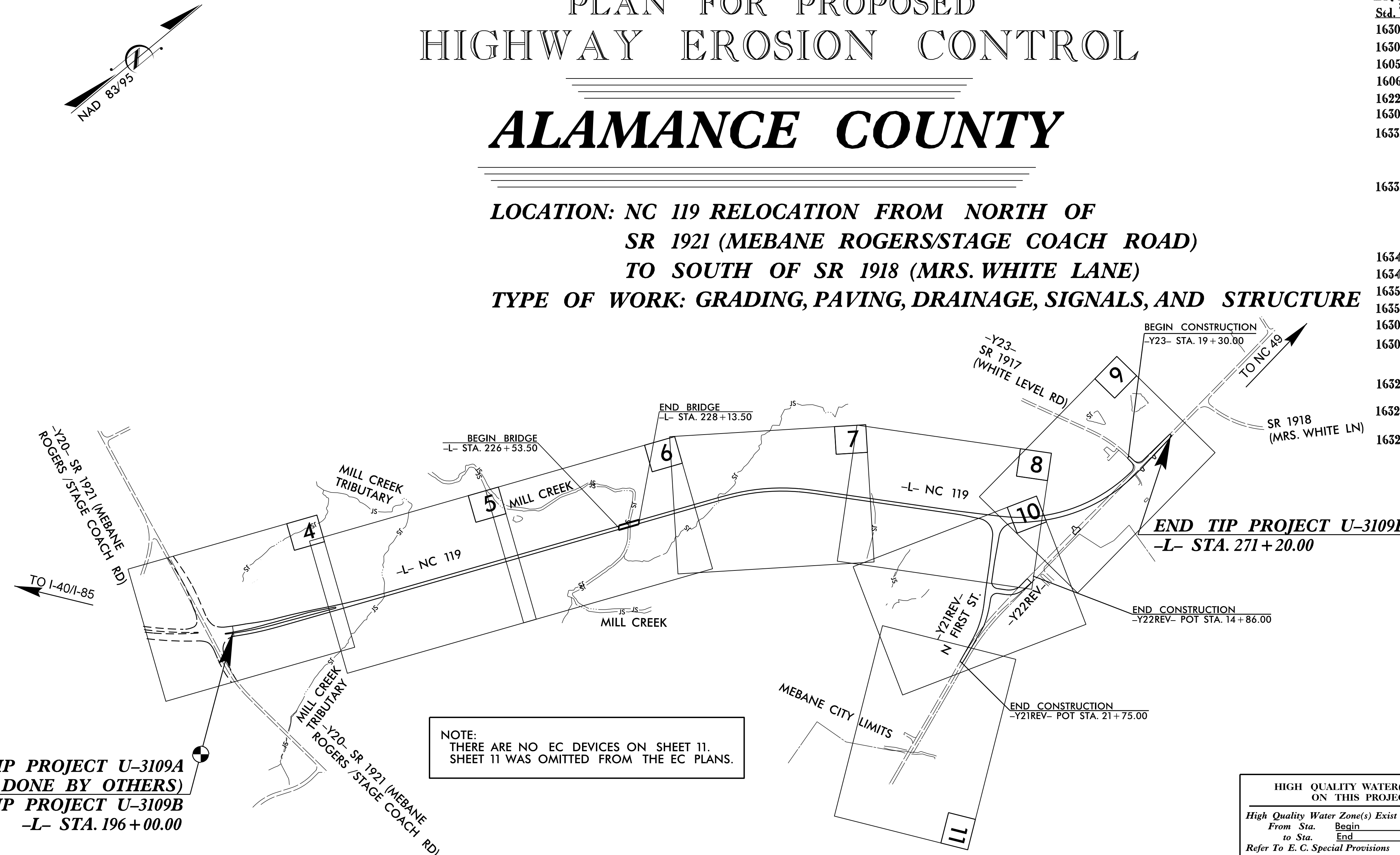
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TIP PROJECT: U-3109B

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

**LOCATION: NC 119 RELOCATION FROM NORTH OF
 SR 1921 (MEBANE ROGERS/STAGE COACH ROAD)
 TO SOUTH OF SR 1918 (MRS. WHITE LANE)
 TYPE OF WORK: GRADING, PAVING, DRAINAGE, SIGNALS, AND STRUCTURE**



NOTE:
 THERE ARE NO EC DEVICES ON SHEET 11.
 SHEET 11 WAS OMITTED FROM THE EC PLANS.

**END TIP PROJECT U-3109A
 (TO BE DONE BY OTHERS)
 BEGIN TIP PROJECT U-3109B
 -L- STA. 196 + 00.00**

**END TIP PROJECT U-3109B
 -L- STA. 271 + 20.00**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-3109B	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

EROSION AND SEDIMENT CONTROL MEASURES

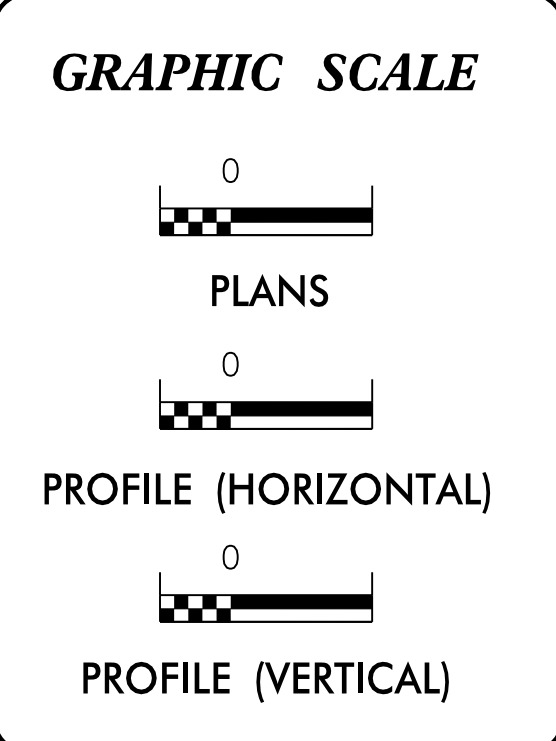
Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	III III III
1606.01	Special Sediment Control Fence	~ ~ ~ ~ ~
1622.01	Temporary Berms and Slope Drains	— T —
1630.02	Silt Basin Type B	[Symbol]
1633.01	Temporary Rock Silt Check Type-A	[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 [Symbol]
1632.02	Type B	B [Symbol]
1632.03	Type C	C [Symbol]
	Skimmer Basin	[Symbol]
	Tiered Skimmer Basin	[Symbol]
	Infiltration Basin	[Symbol]

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

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.

HIGH QUALITY WATER(S) EXIST ON THIS PROJECT
 High Quality Water Zone(s) Exist
 From Sta. Begin to Sta. End
 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 AUGUST 1, 2016 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

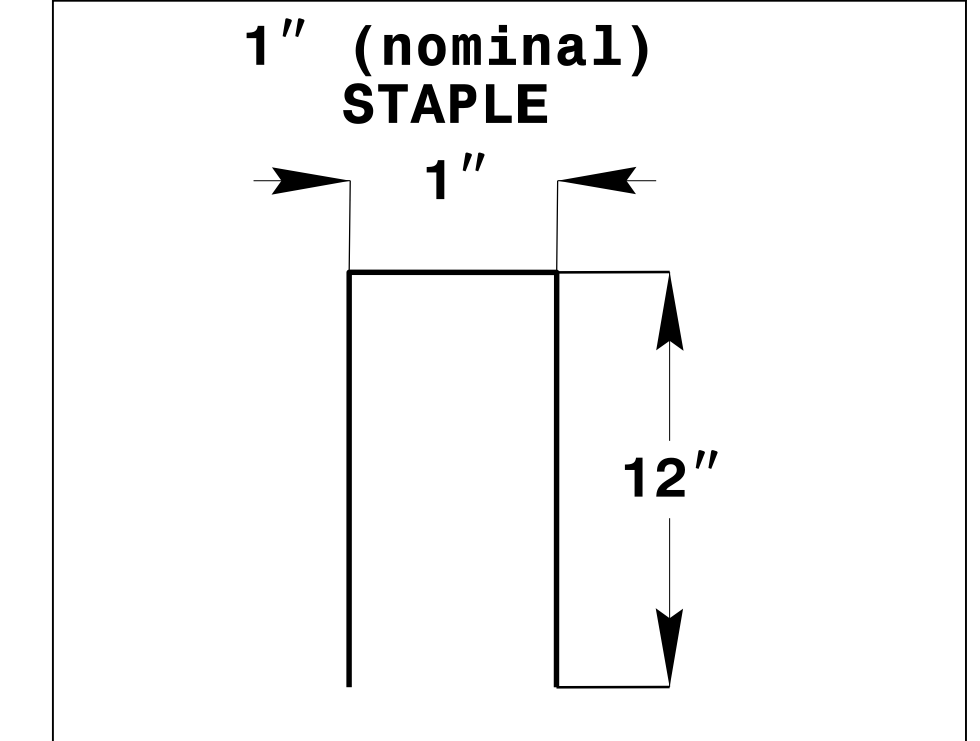
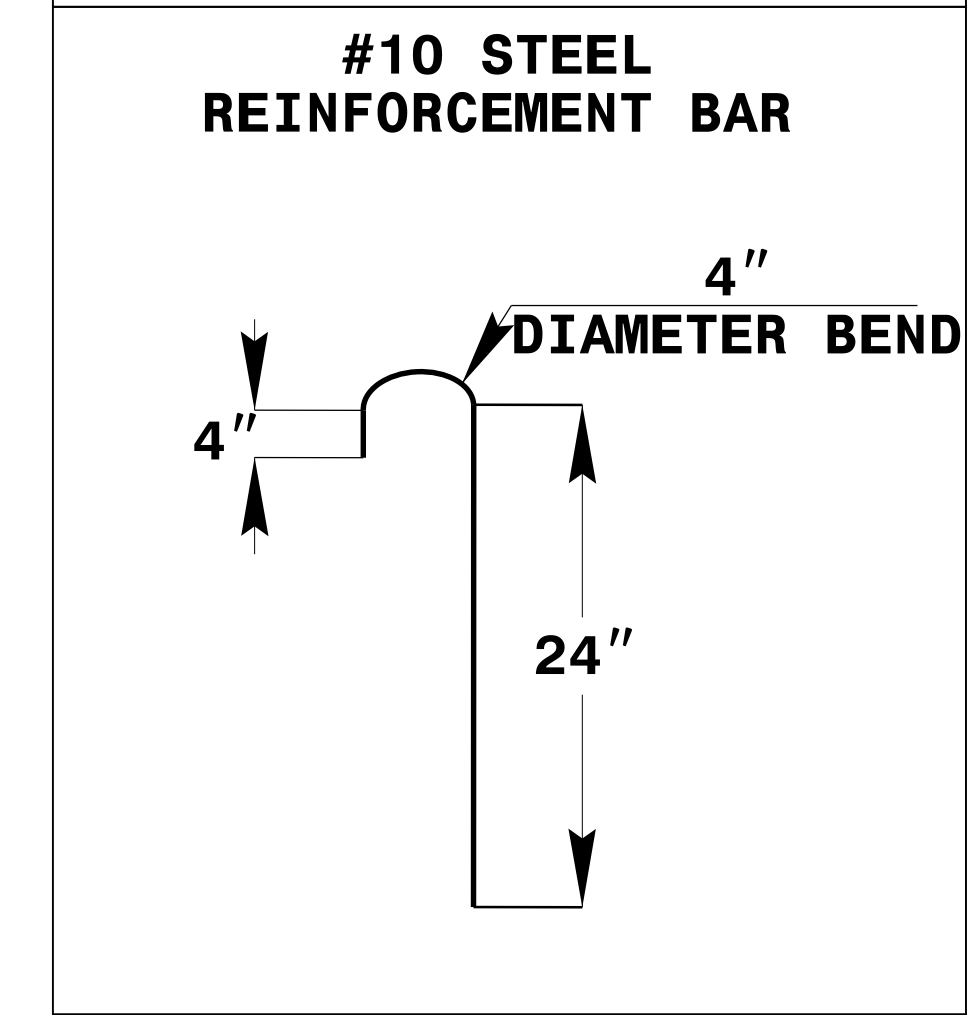
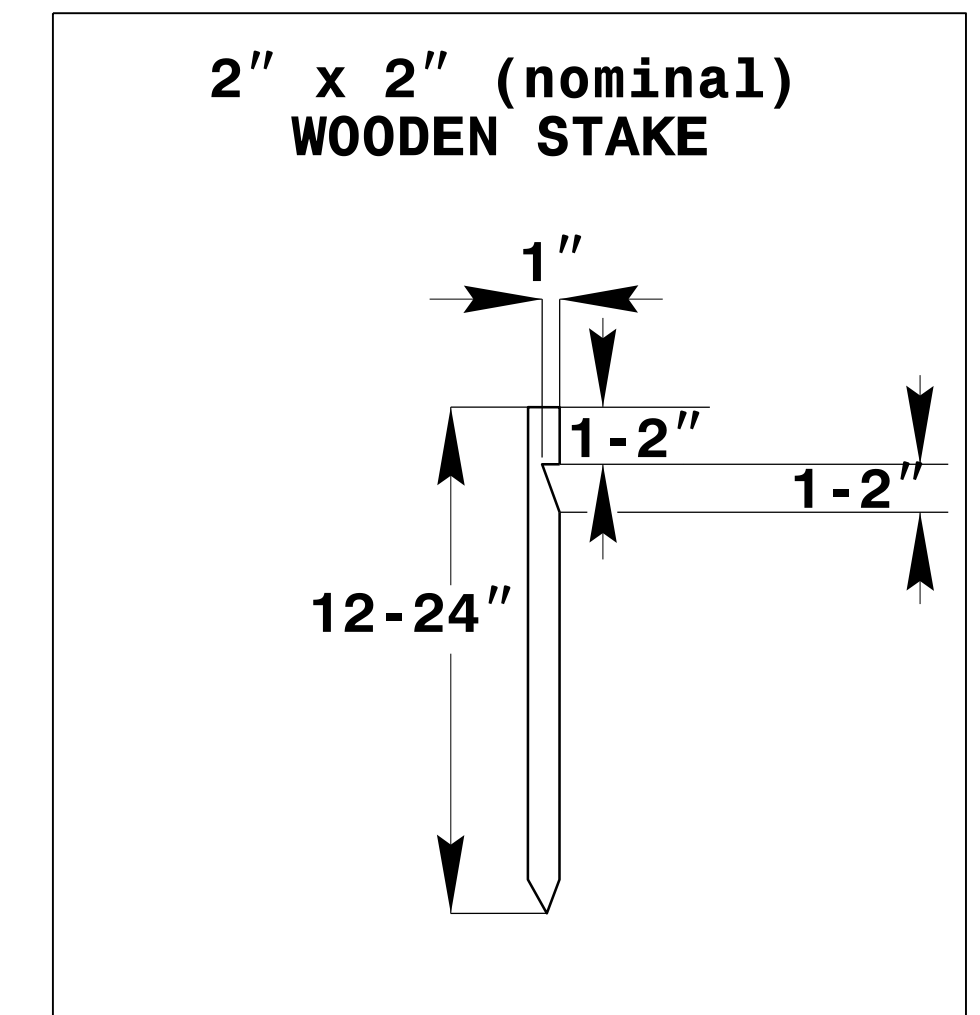
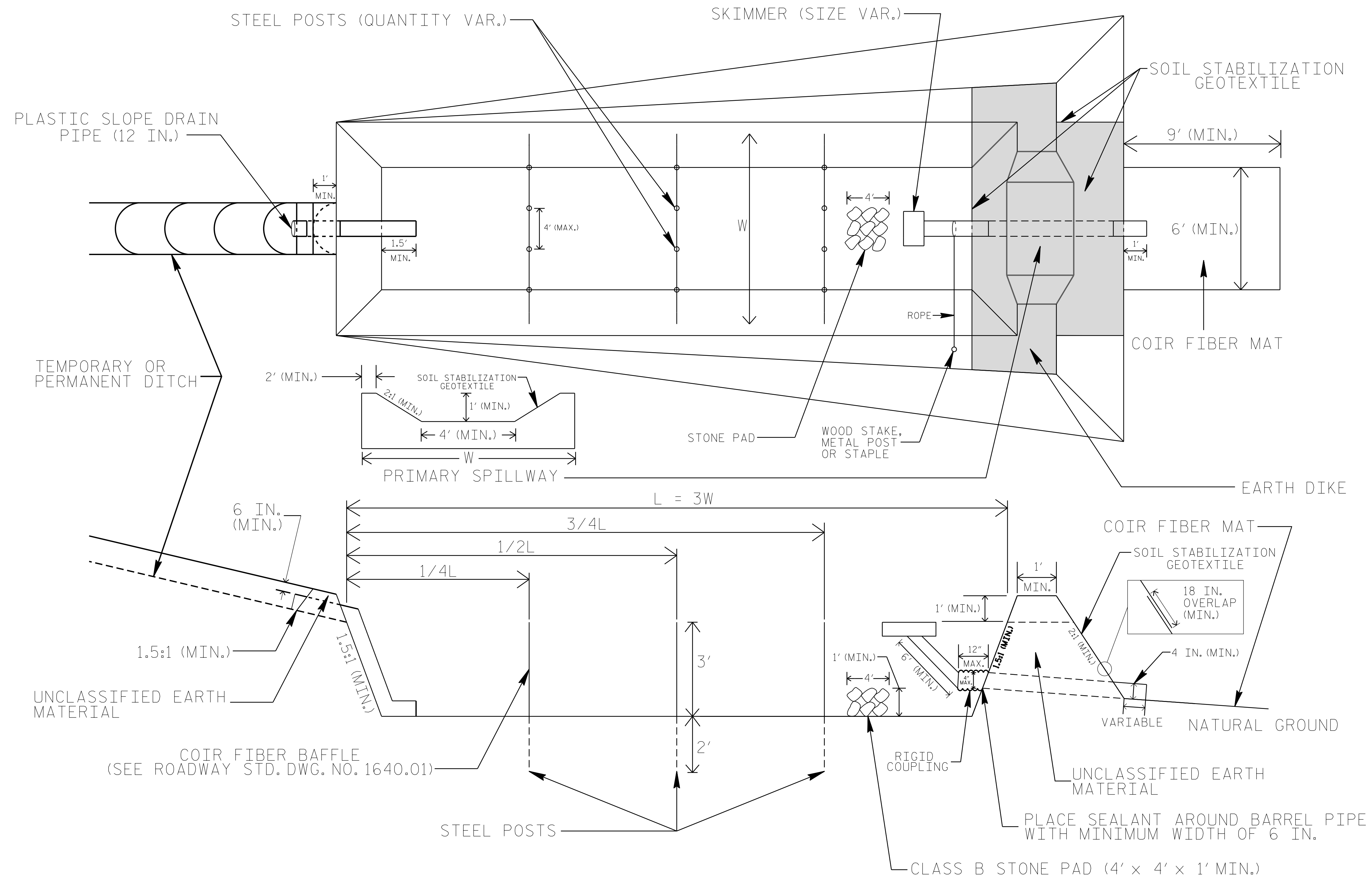
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2018 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

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 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 Jaffle
1630.06 Special Stilling Basin	1645.01 Temporary Stream Crossing
1631.01 Matting Installation	

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PROJECT REFERENCE NO. U-3109B	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKIMMER BASIN WITH BAFFLES DETAIL



COIR FIBER MAT ANCHOR OPTIONS

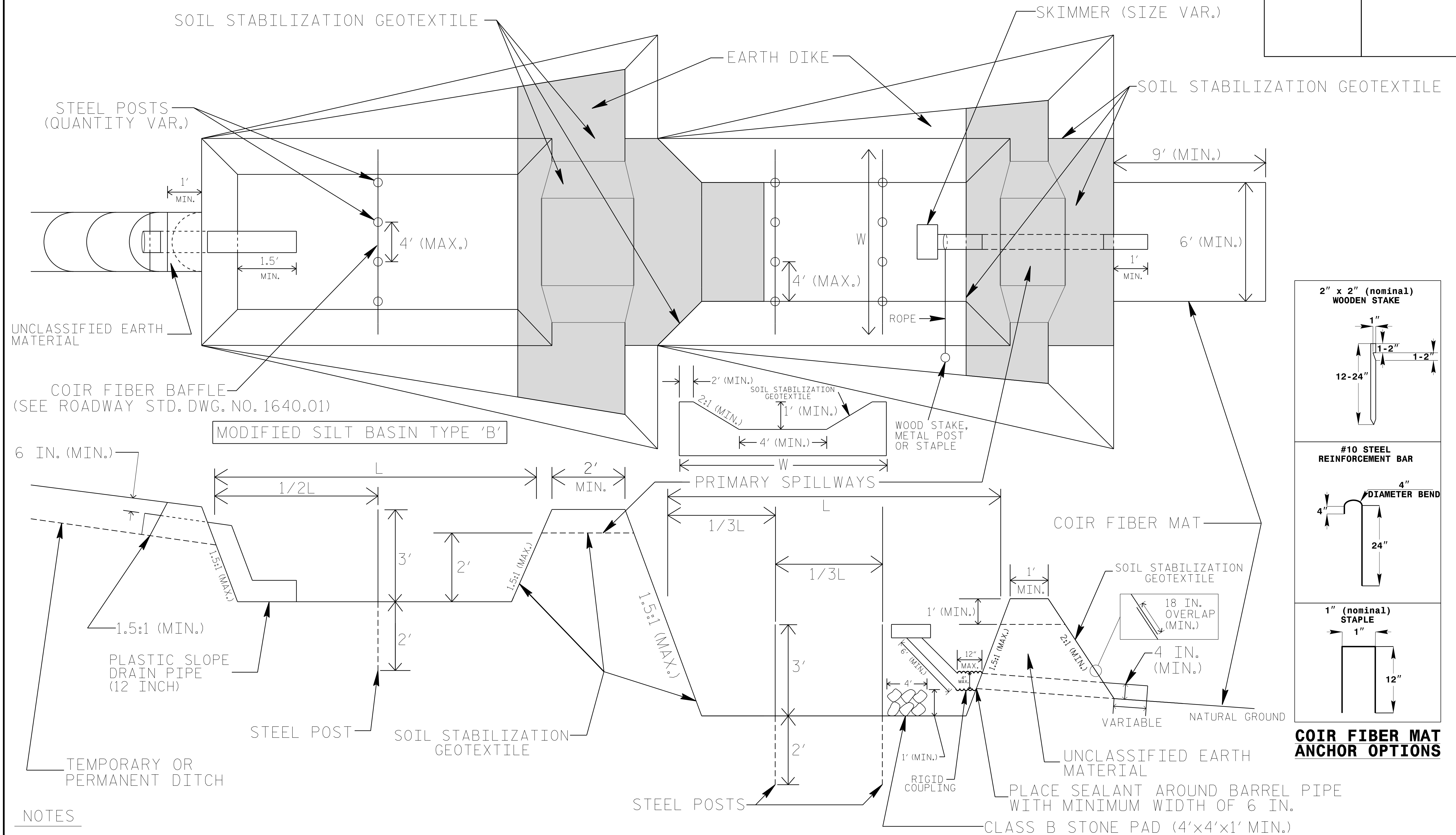
NOTES

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

NOT TO SCALE

TIERED SKIMMER BASIN DETAIL

PROJECT REFERENCE NO. U-3109B	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 WEIRLENGTHS (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. U-3109B	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.

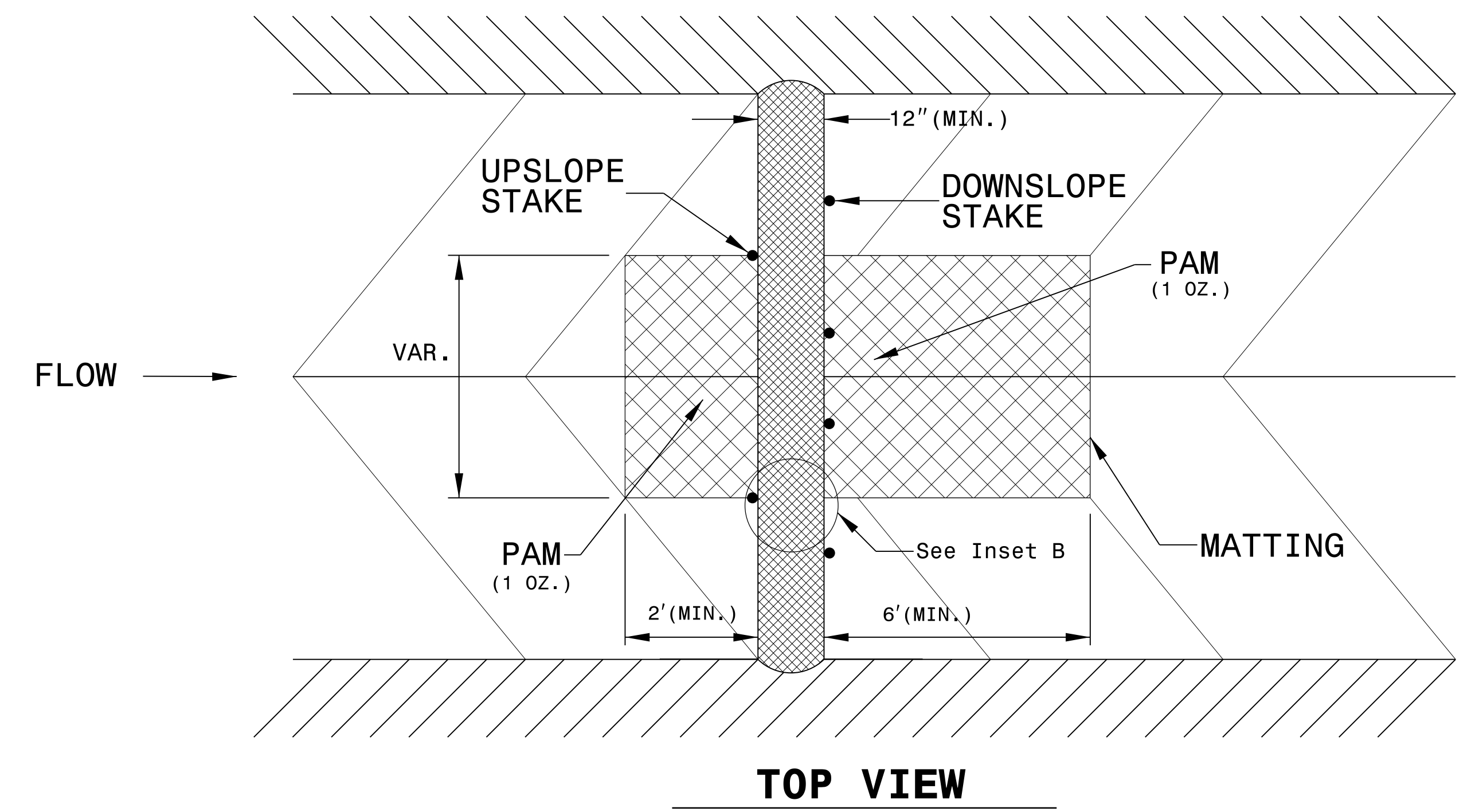
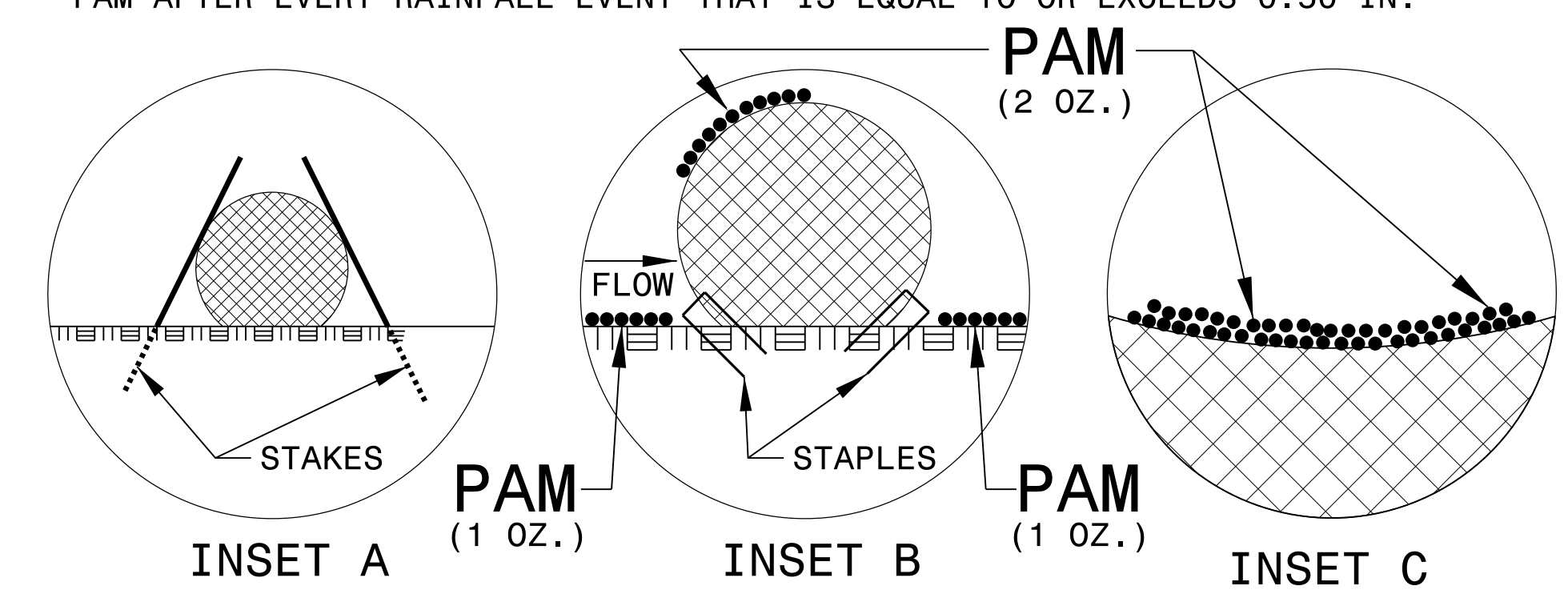
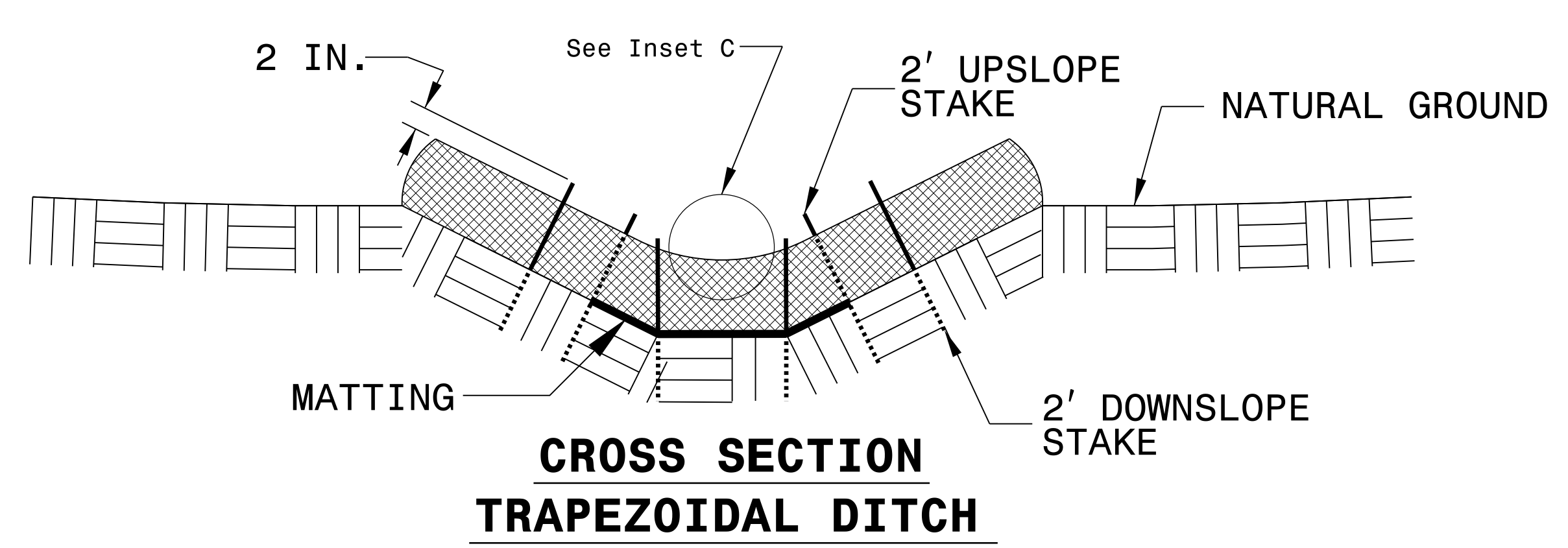
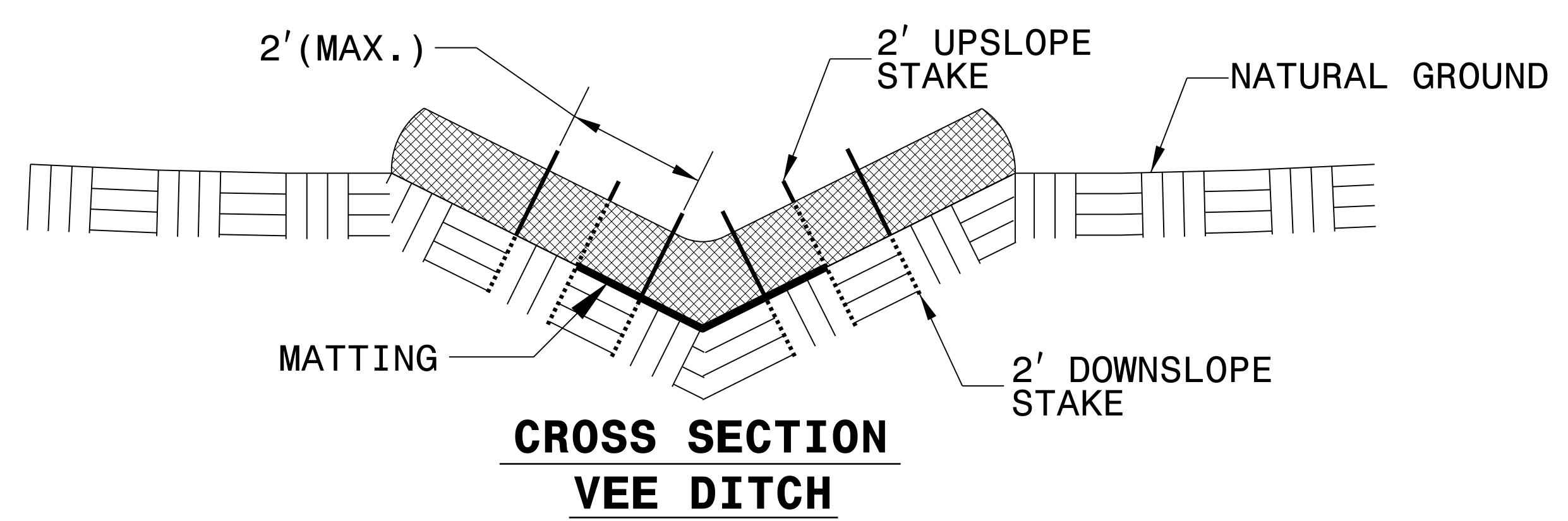
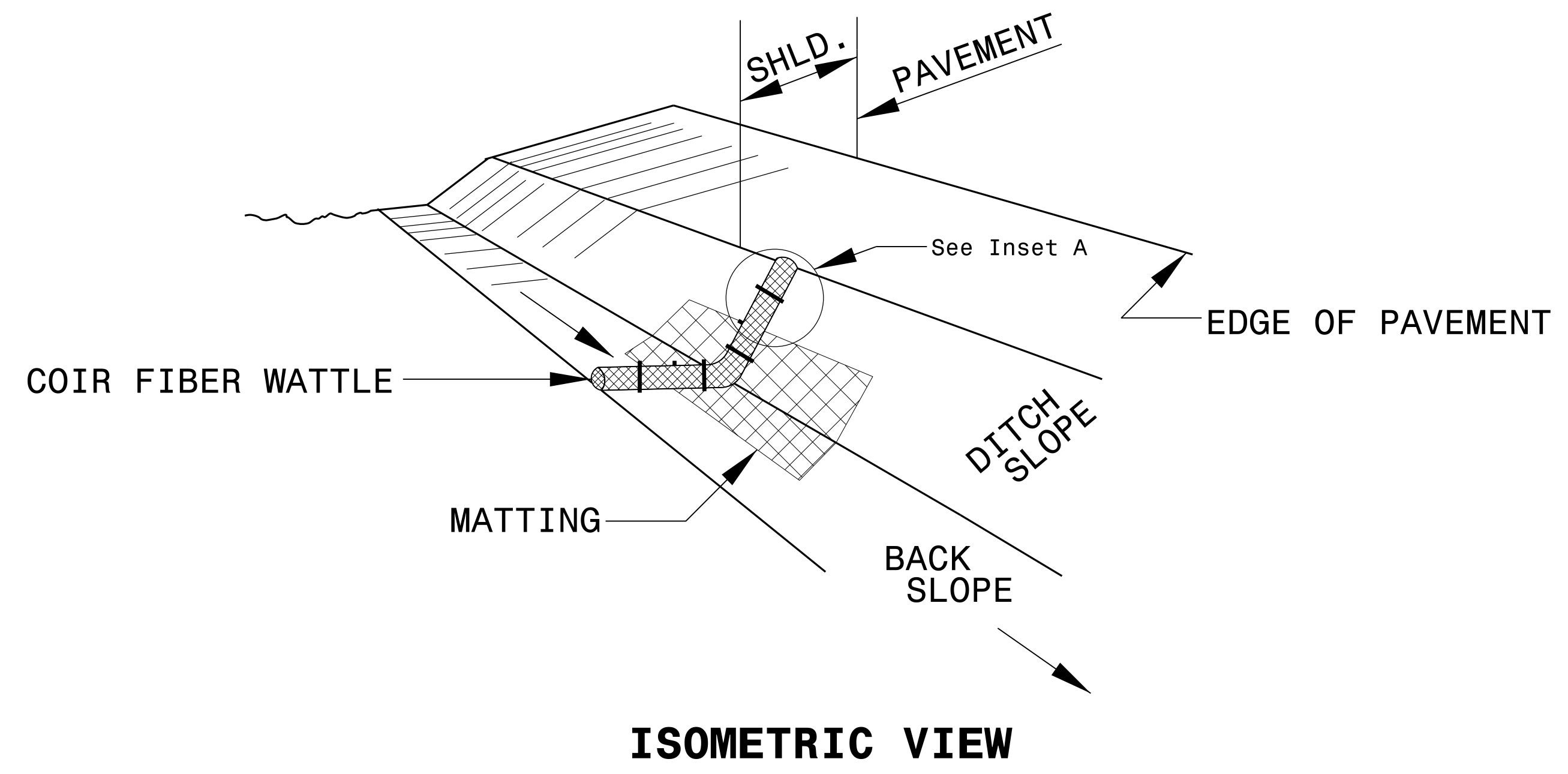
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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.

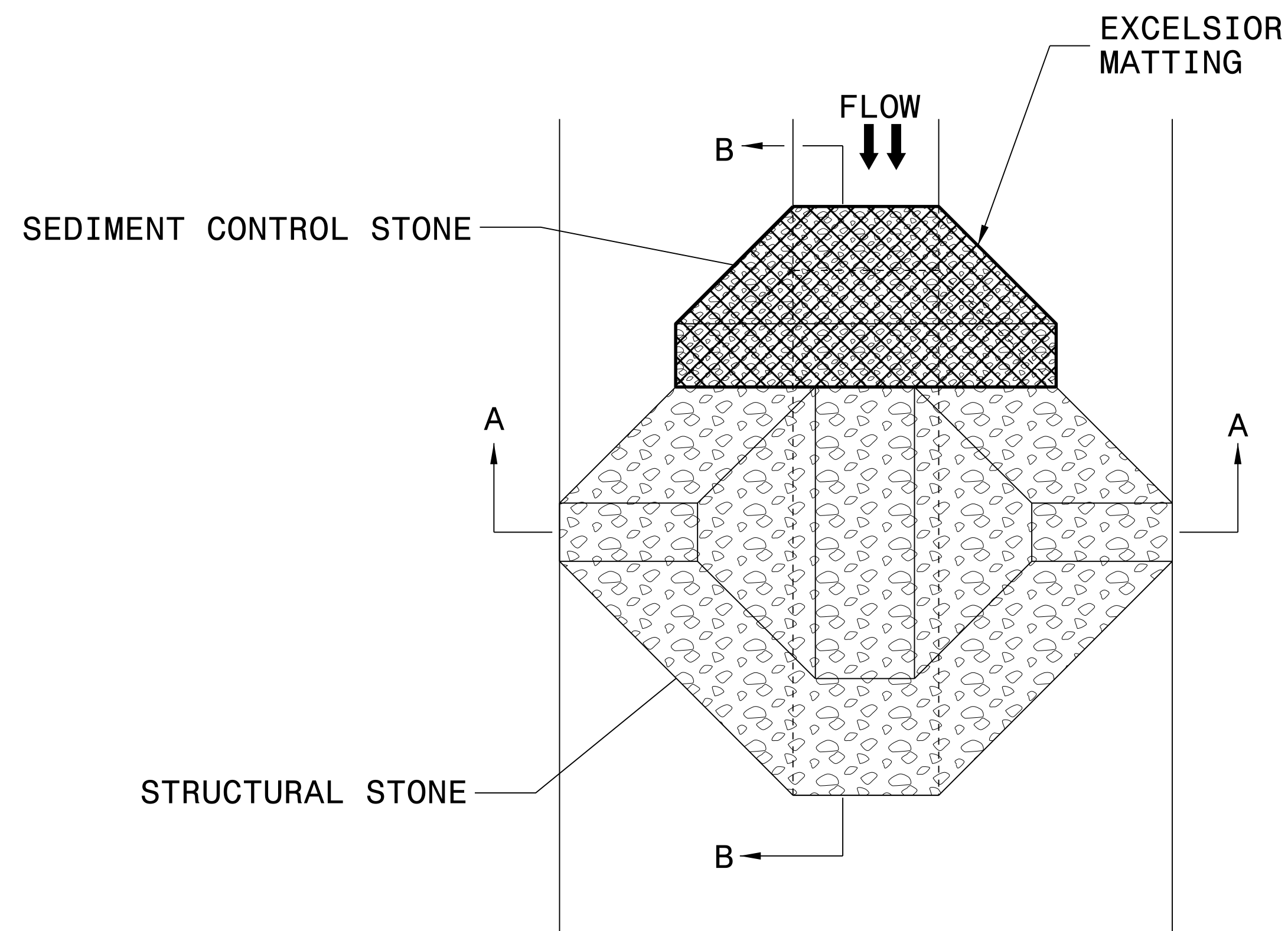
PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

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.



PROJECT REFERENCE NO. U-3109B	SHEET NO. EC-2C
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



PLAN

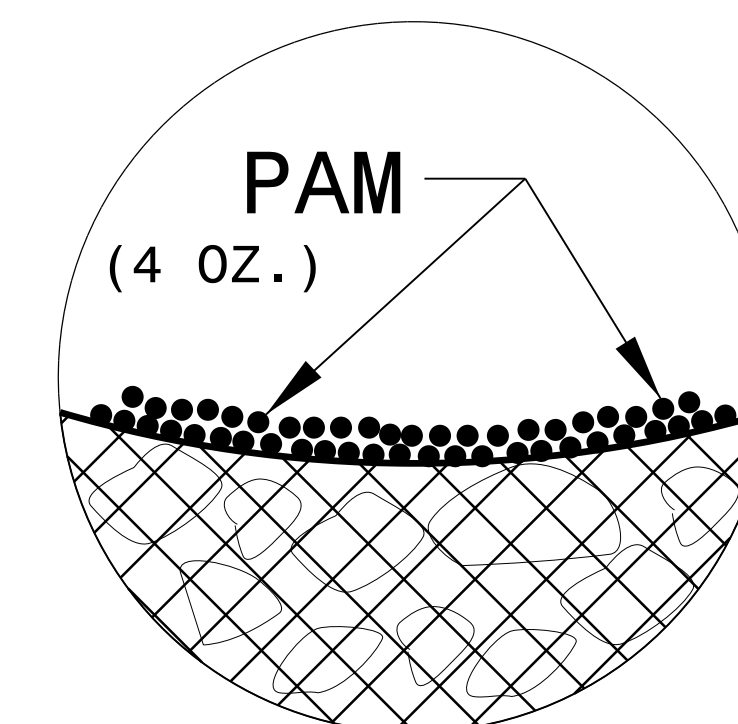
NOTES:

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

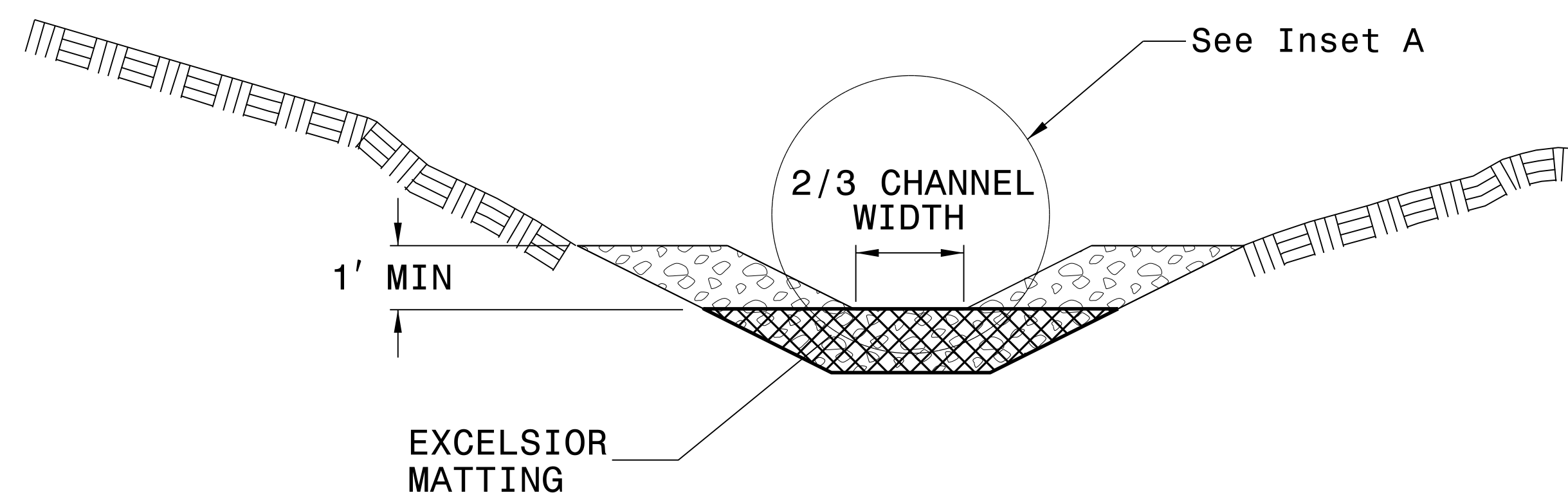
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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.

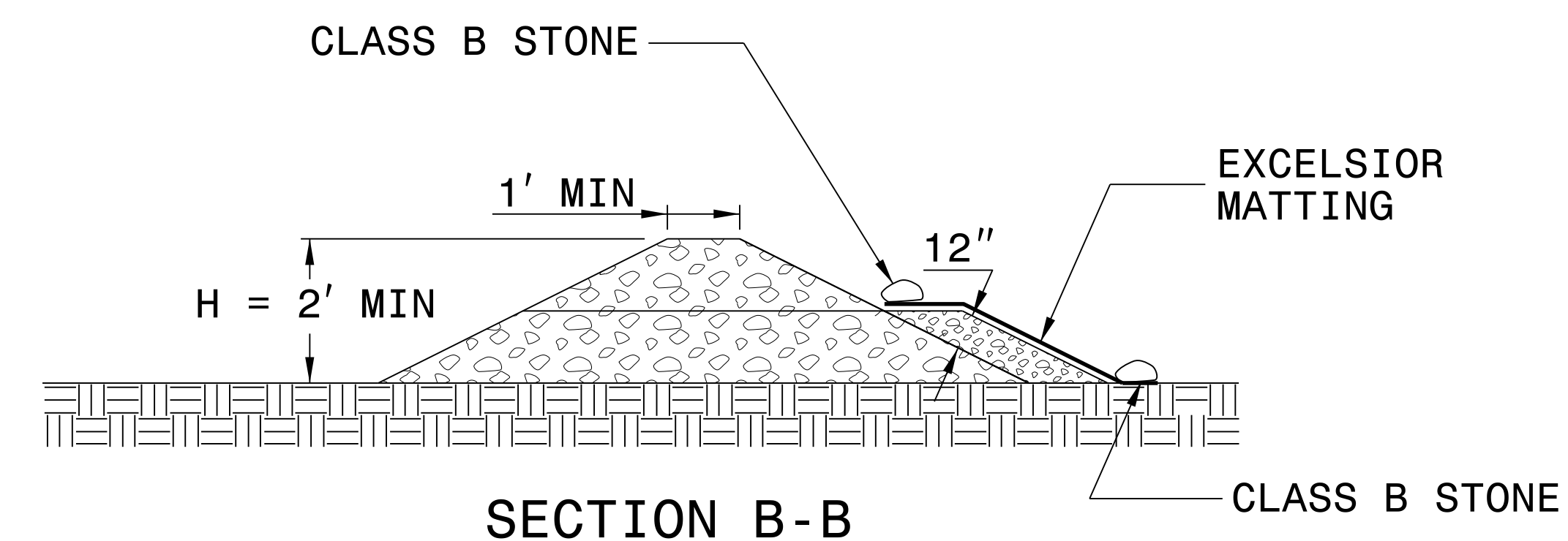
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A



SECTION B-B

NOT TO SCALE

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>U-3109B</i>	SHEET NO. <i>EC-3</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.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>U-3109B</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)
4/5	-L-	203+00	205+00	RT	410
4/5	-L-	203+50	205+50	LT	410
5	-L-	206+00	207+00	RT	125
5	-L-	207+50	208+50	RT	280
5	-L-	212+50	214+00	RT	155
6	-L-	222+00	224+00	RT	205
6	-L-	224+00	224+50	LT	45
6	-L-	230+00	230+50	LT	55
7	-L-	234+50	235+50	LT	140
7/8	-L-	243+50	246+00	LT	1020
8	-L-	250+00	253+00	LT	420
8	-L-	251+50	252+50	RT	120
8	-Y21-	10+50	13+50	LT	630
8	-Y21-	12+00	14+00	RT	140
10	-Y21-	16+50	17+50	LT	95
10	-Y21-	18+00	19+50	RT	205
10	-Y21-	19+50	20+00	RT	55
10	-Y22-	11+00	12+00	RT	95
SUBTOTAL					4605
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					26290
TOTAL					30895
SAY					31000

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
6	-L-	230+00	232+00	RT	410
6/7	-L-	232+00	234+00	LT	200
7	-L-	233+50	234+50	LT	280
7	-L-	234+50	237+00	RT	755
7	-L-	237+00	243+00	LT	300
7/8	-L-	243+50	246+00	LT	125
8	-L-	254+00	255+50	LT	105
8	-L-	254+00	255+50	LT	90
8	-L-	246+50	248+00	LT	185
10	-Y21-	17+50	18+00	RT	115
SUBTOTAL					2565
ADDITIONAL PERM TO BE INSTALLED					0
TOTAL					2565
SAY					2600

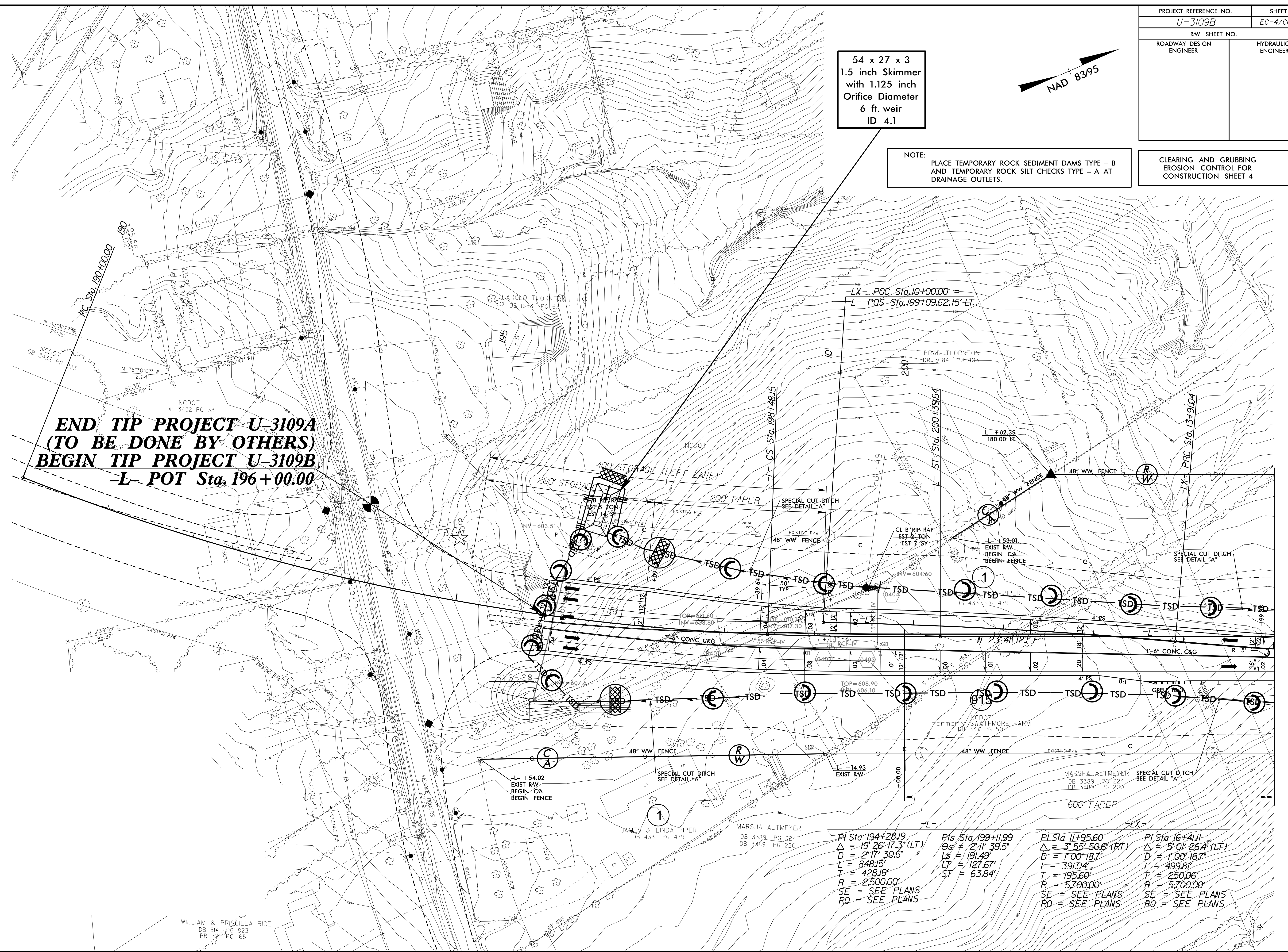
PROJECT REFERENCE NO. U-3109B	SHEET NO. EC-4/CONST.4
RW SHEET NO. ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



54 x 27 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
6 ft. weir
ID 4.1

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 4



**END TIP PROJECT U-3109A
(TO BE DONE BY OTHERS)
BEGIN TIP PROJECT U-3109B
-L- POT Sta. 196+00.00**

-L- POC Sta. 10+00.00 =
-L- POS Sta. 199+09.62, 15' LT

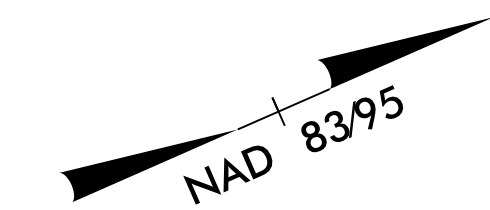
<p>PI Sta. 194+28.19 Δ = 19' 26' 17.3" (LT) D = 2' 17' 30.6" L = 848.15' T = 428.19' R = 2,500.00' SE = SEE PLANS RO = SEE PLANS</p>	<p>PI Sta. 199+11.99 Δ = 2' 11' 39.5" D = 1' 00' 18.7" L = 391.04' T = 195.60' R = 5,700.00' SE = SEE PLANS RO = SEE PLANS</p>	<p>PI Sta. 11+95.60 Δ = 3' 55' 50.6" (RT) D = 1' 00' 18.7" L = 499.81' T = 250.06' R = 5,700.00' SE = SEE PLANS RO = SEE PLANS</p>	<p>PI Sta. 16+41.11 Δ = 5' 01' 26.4" (LT) D = 1' 00' 18.7" L = 499.81' T = 250.06' R = 5,700.00' SE = SEE PLANS RO = SEE PLANS</p>
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8/17/99
 DATE \$
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MATCH LINE -L- STA. 204+10 SEE SHEET 5

WILLIAM & PRISCILLA RICE
DB 514 PG 823
PB 32 PG 165

PROJECT REFERENCE NO. U-3109B	SHEET NO. EC-5/CONST.5
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

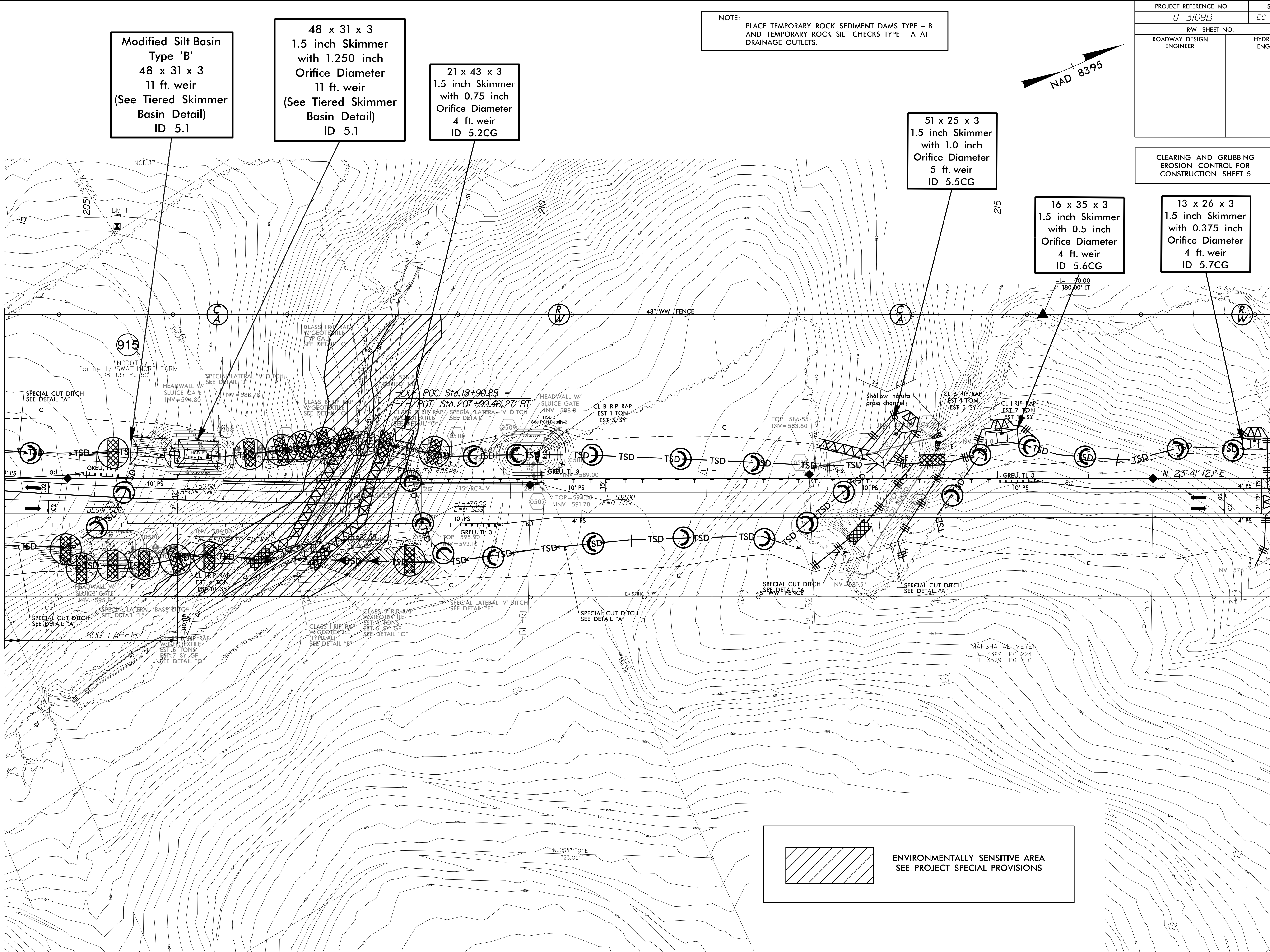


NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5

MATCH LINE -L- STA. 204+10 SEE SHEET 4

MATCH LINE -L- STA. 218+00 SEE SHEET 6

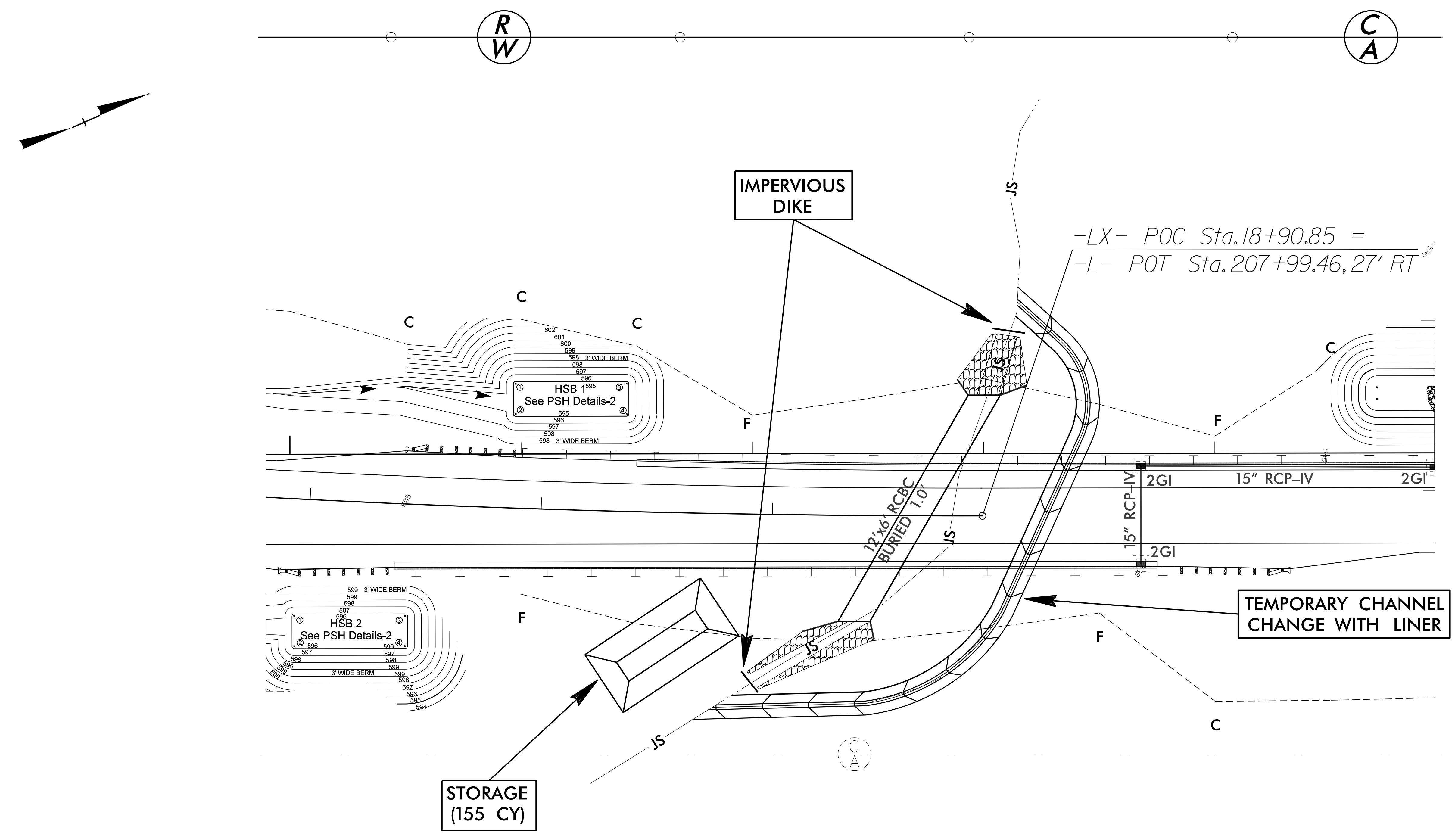


 ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

PROJECT REFERENCE NO. <i>U-3109B</i>	SHEET NO. <i>EC-6/CONST.5</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CULVERT CONSTRUCTION SEQUENCE STA. 207+73 -L-

1. CONSTRUCT STILLING BASIN (155 CY).
2. CONSTRUCT IMPERVIOUS DIKES AND TEMPORARY CHANNEL CHANGE WITH LINER (2 FT. DEEP, 2FT. BASE, 2:1 SIDE SLOPES).
3. DIVERT FLOW THROUGH TEMPORARY CHANNEL CHANGE.
4. CONSTRUCT PROPOSED CULVERT AND CHANNEL IMPROVMENTS.
5. REMOVE IMPERVIOUS DIKES AND TEMPORARY CHANNEL CHANGE ALLOWING NORMAL FLOW THROUGH PROPOSED CULVERT.
6. REMOVE STILLING BASIN.
7. COMPLETE PROPOSED ROADWAY CONSTRUCTION.



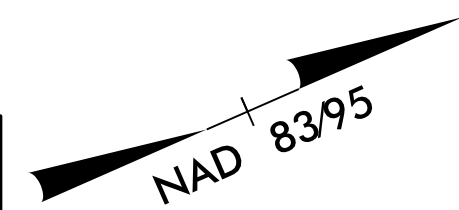
MATCH LINE -L- STA. 218+00 SEE SHEET 5

MATCH LINE -L- STA. 232+10 SEE SHEET 7

 ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

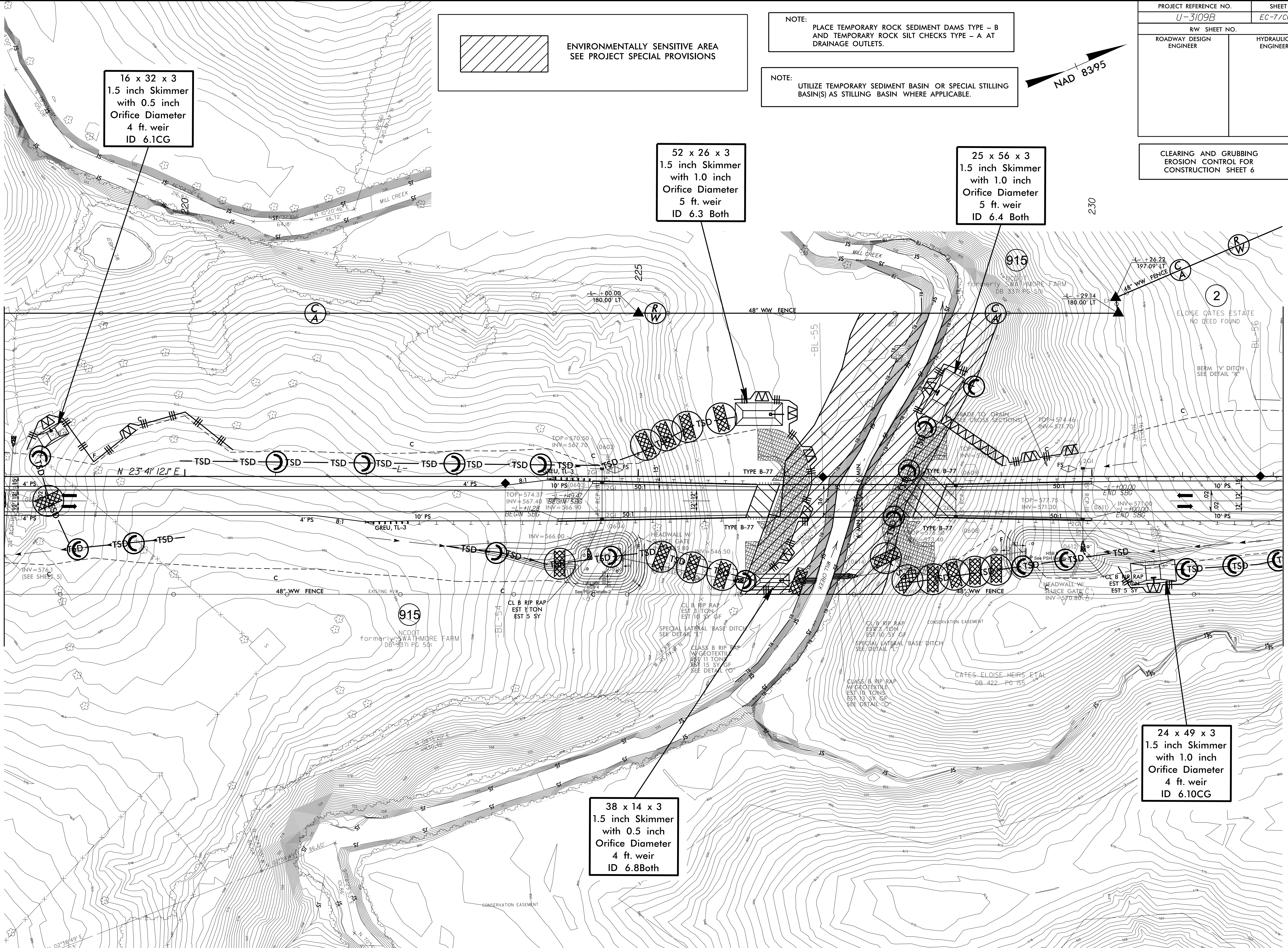
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

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



PROJECT REFERENCE NO. U-3109B	SHEET NO. EC-7/CONST.6
RW SHEET NO. ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6



16 x 32 x 3
1.5 inch Skimmer
with 0.5 inch
Orifice Diameter
4 ft. weir
ID 6.1CG

52 x 26 x 3
1.5 inch Skimmer
with 1.0 inch
Orifice Diameter
5 ft. weir
ID 6.3 Both

25 x 56 x 3
1.5 inch Skimmer
with 1.0 inch
Orifice Diameter
5 ft. weir
ID 6.4 Both

38 x 14 x 3
1.5 inch Skimmer
with 0.5 inch
Orifice Diameter
4 ft. weir
ID 6.8Both

24 x 49 x 3
1.5 inch Skimmer
with 1.0 inch
Orifice Diameter
4 ft. weir
ID 6.10CG

915

2

230

225

915

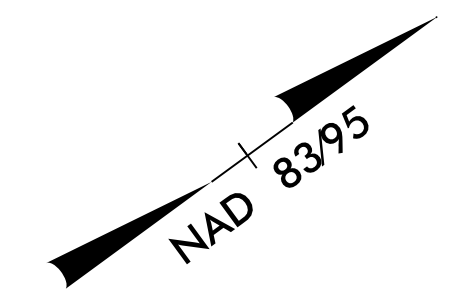
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915

915

PROJECT REFERENCE NO. U-3109B	SHEET NO. EC-8/CONST.7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 7



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

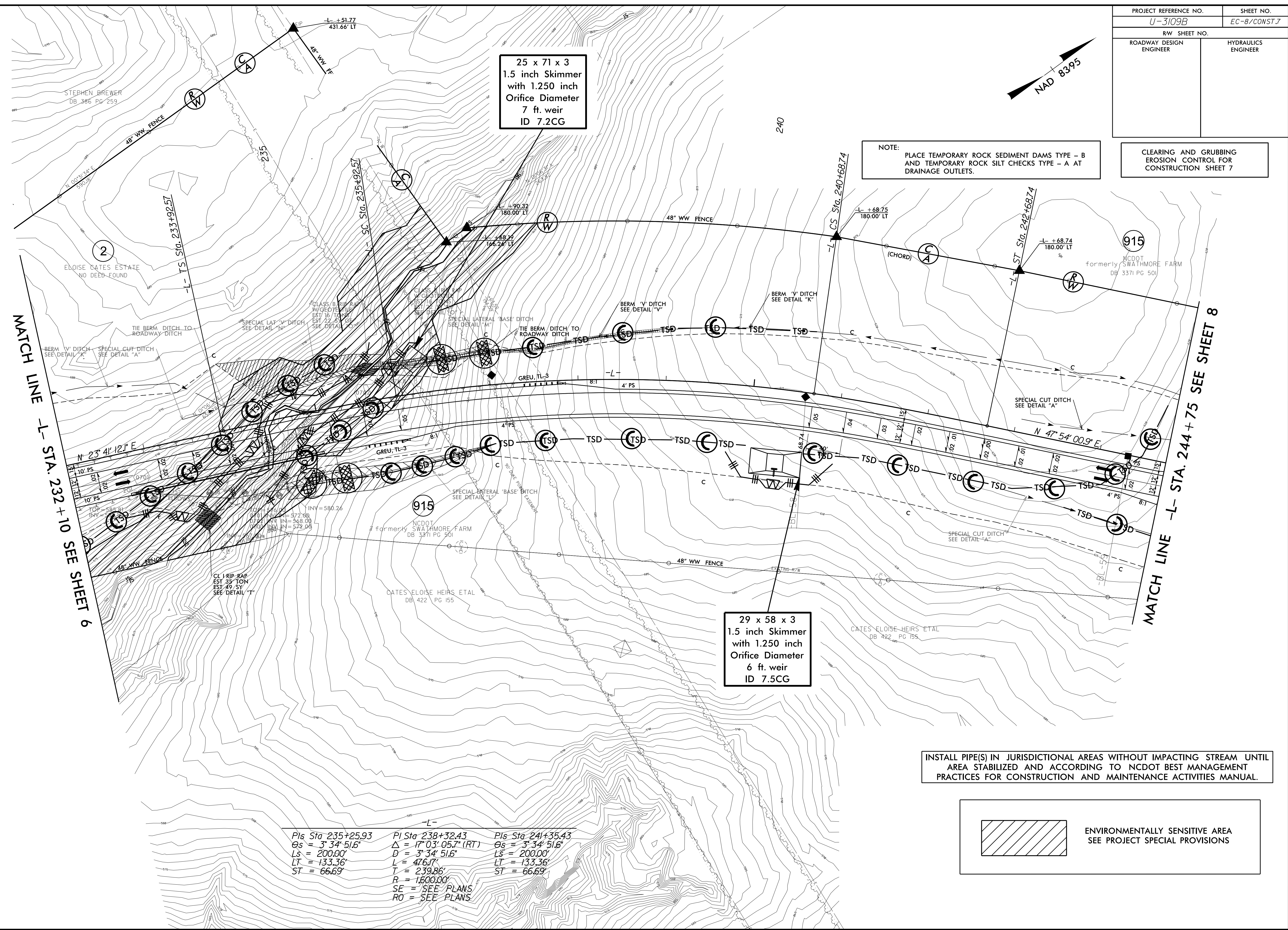
25 x 71 x 3
1.5 inch Skimmer
with 1.250 inch
Orifice Diameter
7 ft. weir
ID 7.2CG

29 x 58 x 3
1.5 inch Skimmer
with 1.250 inch
Orifice Diameter
6 ft. weir
ID 7.5CG

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.



Pls Sta 235+25.93 θs = 3° 34' 51.6" Ls = 200.00' LT = 133.36' ST = 66.69'	Pl Sta 238+32.43 Δ = 17° 03' 05.7" (RT) D = 3° 34' 51.6" L = 476.17' T = 239.86' R = 1,600.00' SE = SEE PLANS RO = SEE PLANS	Pls Sta 241+35.43 θs = 3° 34' 51.6" Ls = 200.00' LT = 133.36' ST = 66.69'
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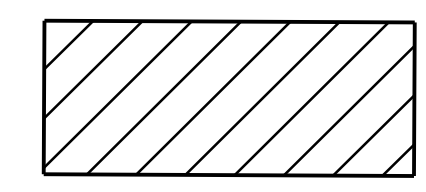


MATCH LINE -L- STA. 232 + 10 SEE SHEET 6

MATCH LINE -L- STA. 244 + 75 SEE SHEET 8

8/17/99
DATE: 8/17/99
DRAWN BY: J. B. BRYAN
CHECKED BY: J. B. BRYAN
SCALE: AS SHOWN
PROJECT: U-3109B-EC-8/CONST.7

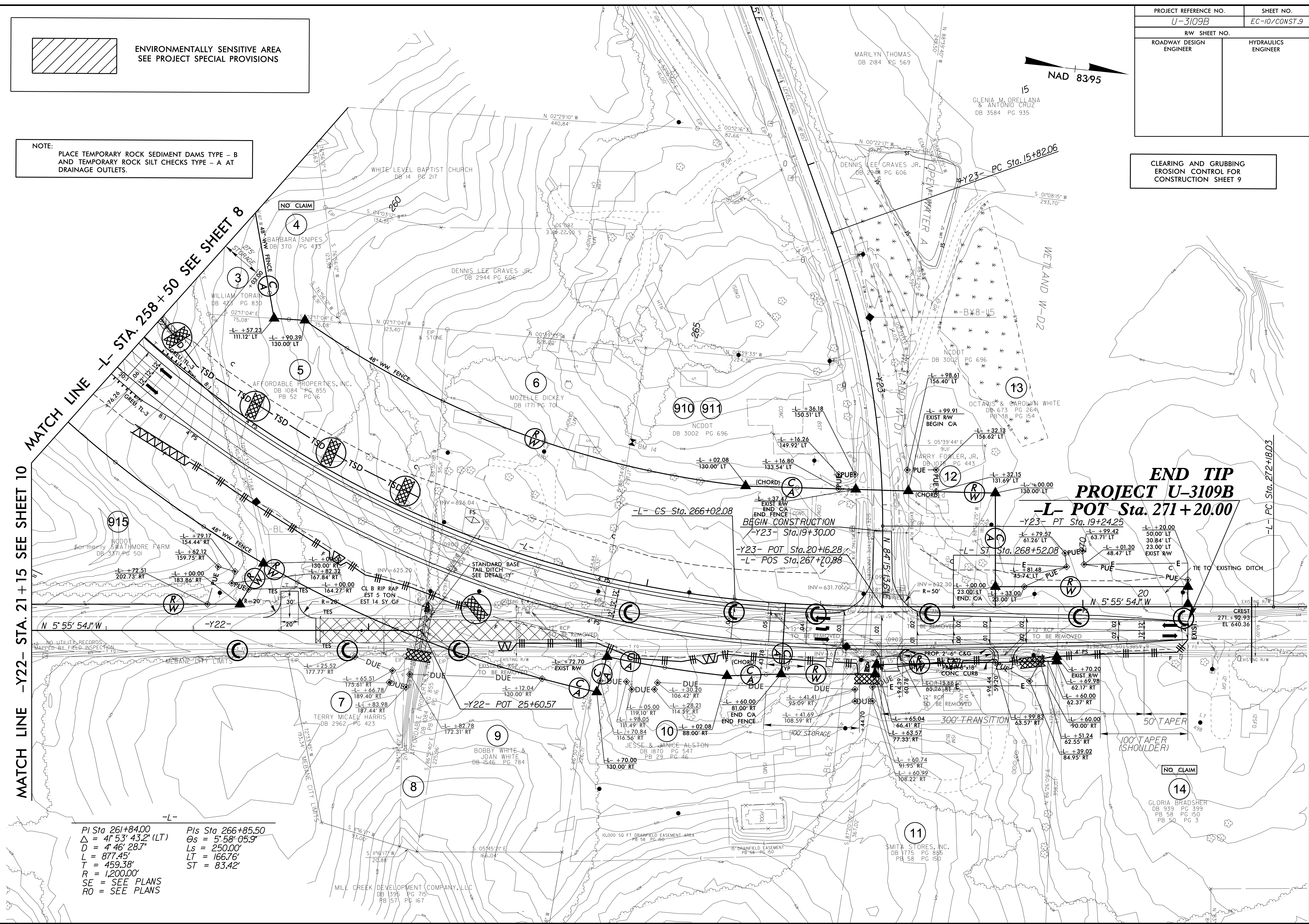
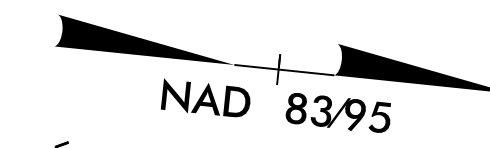
PROJECT REFERENCE NO. U-3109B	SHEET NO. EC-10/CONST.9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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 9



$PI\ Sta\ 261+84.00$
 $\Delta = 4^{\circ} 53' 43.2'' (LT)$
 $D = 4^{\circ} 46' 28.7''$
 $L = 877.45'$
 $T = 459.38'$
 $R = 1,200.00'$
 $SE = SEE PLANS$
 $RO = SEE PLANS$

$PIs\ Sta\ 266+85.50$
 $\Theta_s = 5^{\circ} 58' 05.9''$
 $L_s = 250.00'$
 $LT = 166.76'$
 $ST = 83.42'$

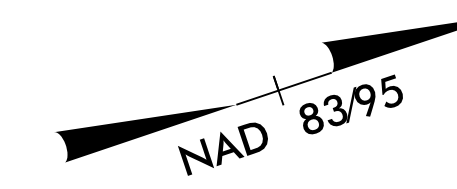
8/17/99

DATE: 8/17/99
 FILE: C:\projects\ec\10\3109B.ec.dsh_09.dgn
 DRAWN BY: J. BRUNY
 CHECKED BY: J. BRUNY

PROJECT REFERENCE NO. U-3109B	SHEET NO. EC-II/CONST.10
RW SHEET NO. ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 10

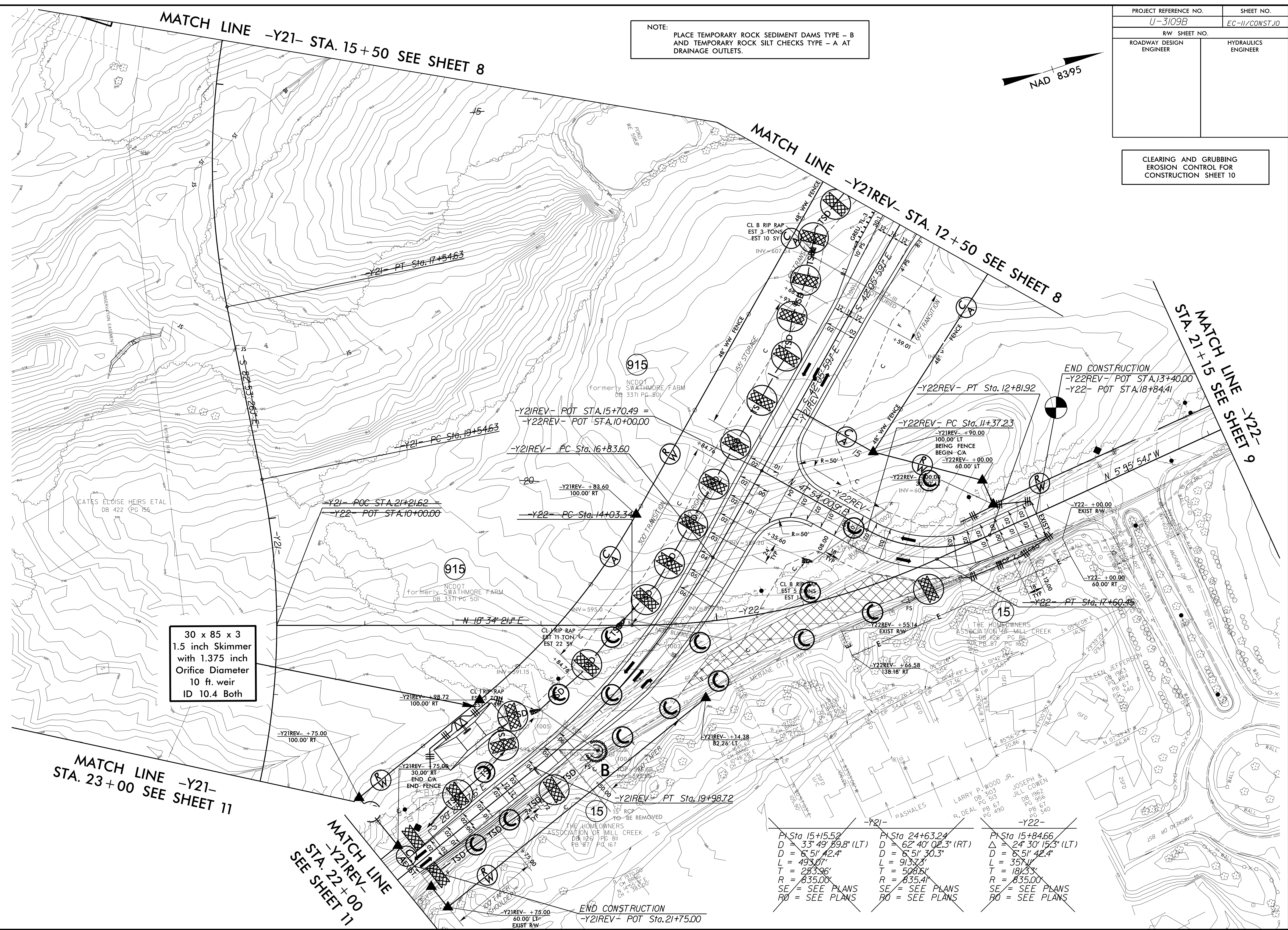
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.



MATCH LINE -Y21- STA. 15+50 SEE SHEET 8

MATCH LINE -Y21REV- STA. 12+50 SEE SHEET 8

MATCH LINE -Y22- STA. 21+15 SEE SHEET 9



30 x 85 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
10 ft. weir
ID 10.4 Both

MATCH LINE -Y21-
STA. 23+00 SEE SHEET 11

MATCH LINE -Y21REV-
STA. 22+00
SEE SHEET 11

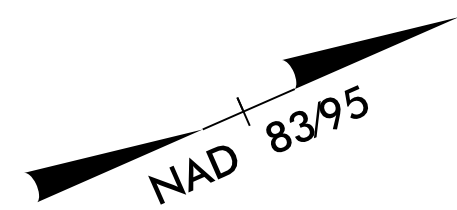
PI Sta 15+15.52 D = 33' 49" 89.8" (LT) D = 6' 51" 42.4" L = 493.07' T = 283.96' R = 835.00' SE = SEE PLANS RO = SEE PLANS	PI Sta 24+63.24 D = 62' 40" 02.3" (RT) D = 6' 51" 30.3" L = 913.73' T = 508.61' R = 835.41' SE = SEE PLANS RO = SEE PLANS	PI Sta 15+84.66 Δ = 24' 30" 15.3" (LT) D = 6' 51" 42.4" L = 357.11' T = 181.33' R = 835.00' SE = SEE PLANS RO = SEE PLANS
--	--	--

END CONSTRUCTION
-Y21REV- POT Sta. 21+75.00

END CONSTRUCTION
-Y22REV- POT STA. 13+40.00
-Y22- POT STA. 18+84.41

8/17/99
DATE \$
FILE \$
DRAWING \$
PROJECT \$
DRAWN \$
CHECKED \$
SCALE \$

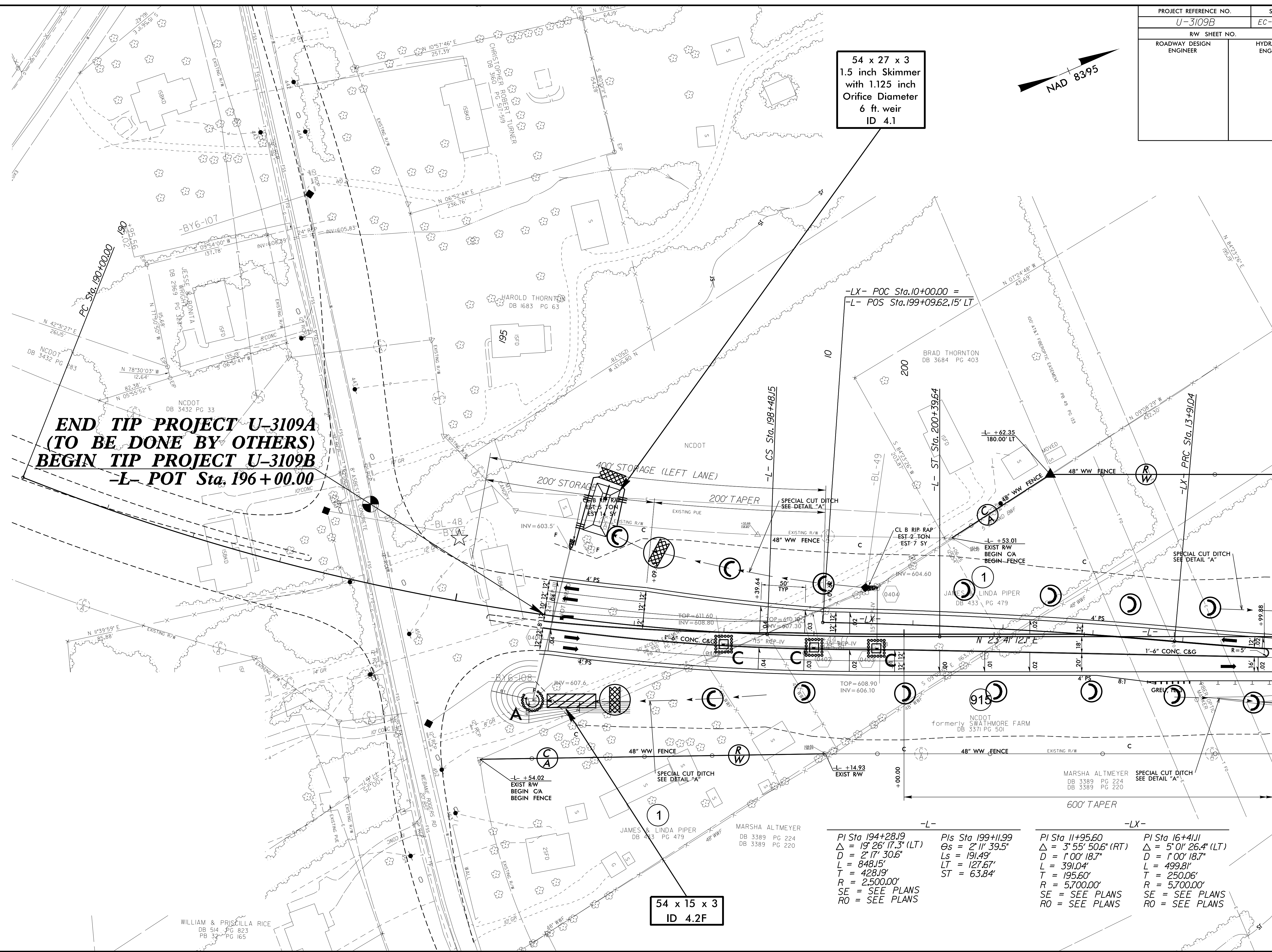
PROJECT REFERENCE NO. <i>U-3109B</i>	SHEET NO. <i>EC-12/CONST.4</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



54 x 27 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
6 ft. weir
ID 4.1

**END TIP PROJECT U-3109A
(TO BE DONE BY OTHERS)
BEGIN TIP PROJECT U-3109B
-L- POT Sta. 196+00.00**

MATCH LINE -L- STA. 204+10 SEE SHEET 5



54 x 15 x 3
ID 4.2F

PI Sta 194+28.19
 $\Delta = 19' 26' 17.3" (LT)$
 $D = 2' 17' 30.6"$
 $L = 848.15'$
 $T = 428.19'$
 $R = 2,500.00'$
SE = SEE PLANS
RO = SEE PLANS

PIs Sta 199+11.99
 $\Theta_s = 2' 11' 39.5"$
 $L_s = 191.49'$
 $LT = 127.67'$
 $ST = 63.84'$

PI Sta 11+95.60
 $\Delta = 3' 55' 50.6" (RT)$
 $D = 1' 00' 18.7"$
 $L = 391.04'$
 $T = 195.60'$
 $R = 5,700.00'$
SE = SEE PLANS
RO = SEE PLANS

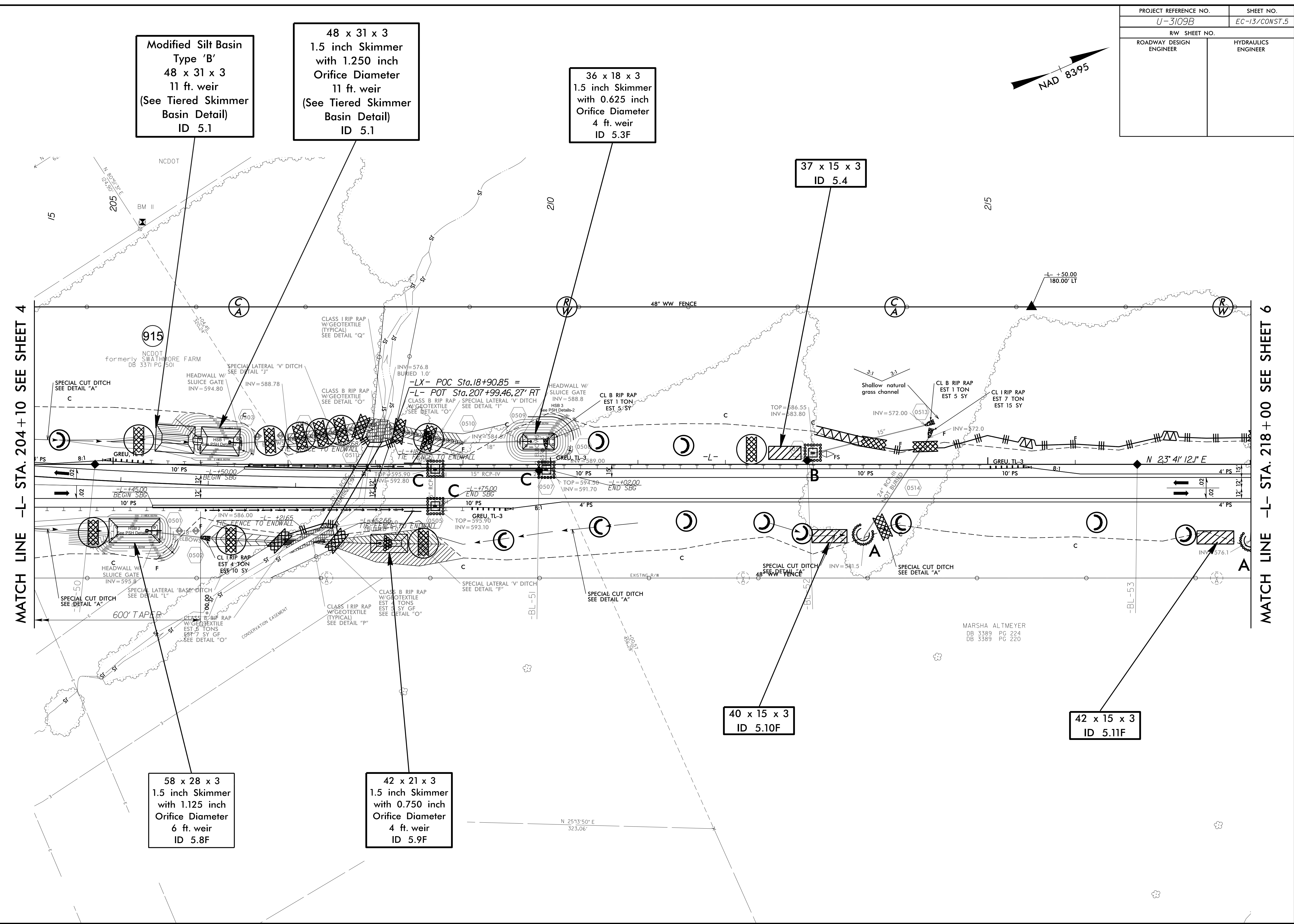
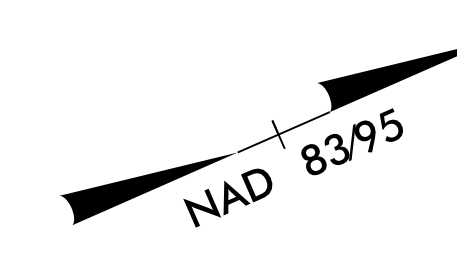
PI Sta 16+41.11
 $\Delta = 5' 01' 26.4" (LT)$
 $D = 1' 00' 18.7"$
 $L = 499.81'$
 $T = 250.06'$
 $R = 5,700.00'$
SE = SEE PLANS
RO = SEE PLANS

8/17/99

DATE: 8/17/99
DRAWN: J. BRYAN
CHECKED: J. BRYAN
SCALE: AS SHOWN

WILLIAM & PRISCILLA RICE
DB 514 PG 823
PB 32 PG 165

PROJECT REFERENCE NO. U-3109B	SHEET NO. EC-13/CONST.5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



Modified Silt Basin
Type 'B'
48 x 31 x 3
11 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 5.1

48 x 31 x 3
1.5 inch Skimmer
with 1.250 inch
Orifice Diameter
11 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 5.1

36 x 18 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
4 ft. weir
ID 5.3F

37 x 15 x 3
ID 5.4

40 x 15 x 3
ID 5.10F

42 x 15 x 3
ID 5.11F

58 x 28 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
6 ft. weir
ID 5.8F

42 x 21 x 3
1.5 inch Skimmer
with 0.750 inch
Orifice Diameter
4 ft. weir
ID 5.9F

MATCH LINE -L- STA. 204+10 SEE SHEET 4

MATCH LINE -L- STA. 218+00 SEE SHEET 6

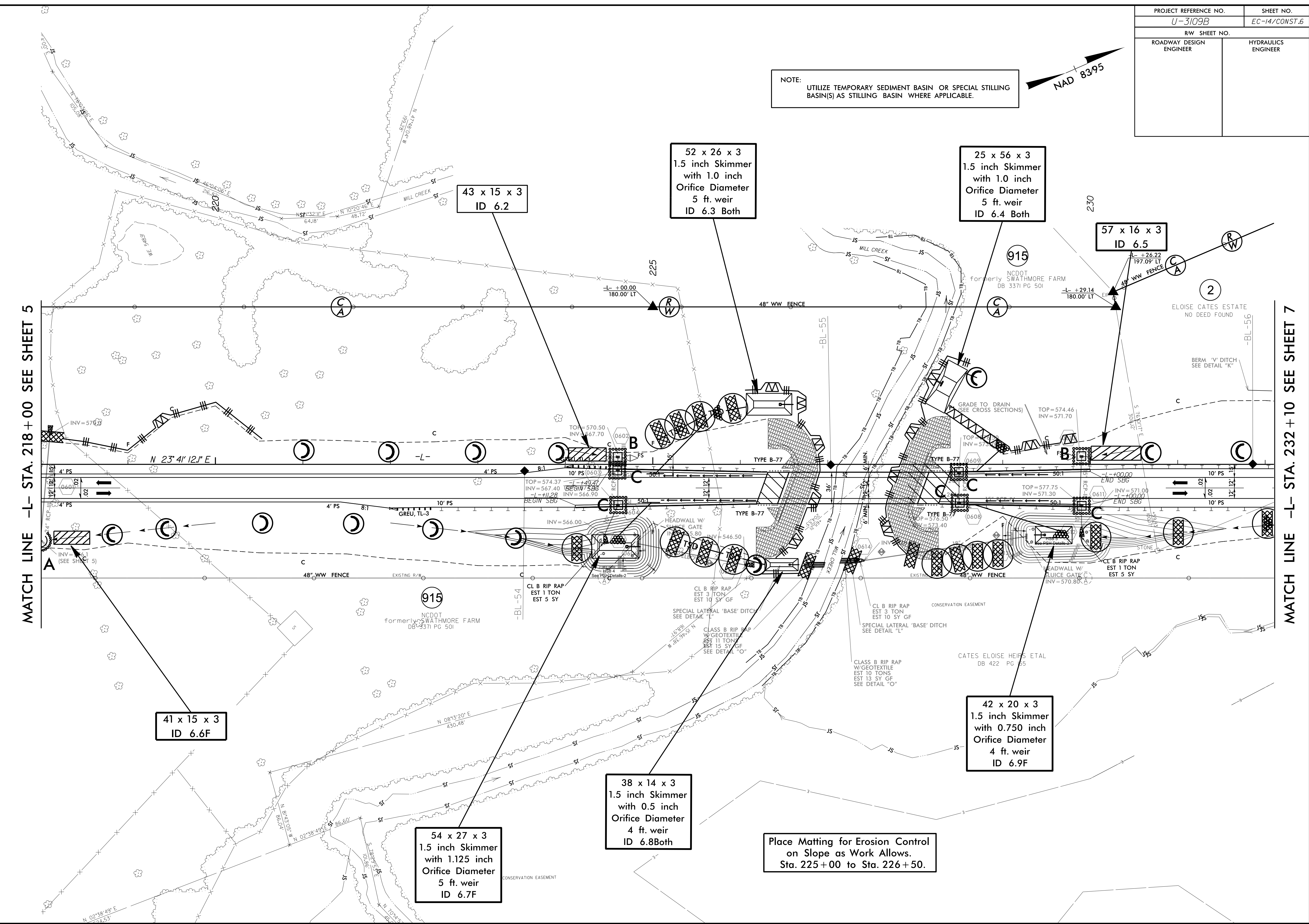
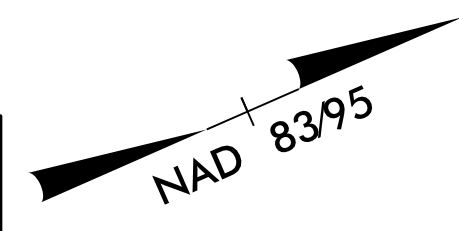
8/17/99

DATE: 8/17/99
BY: J. L. ...
PROJECT: U-3109B, EC, PSH-05.dgn

MARSHA ALTMAYER
DB 3389 PG 224
DB 3389 PG 220

PROJECT REFERENCE NO. U-3109B	SHEET NO. EC-14/CONST.6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



MATCH LINE -L- STA. 218+00 SEE SHEET 5

MATCH LINE -L- STA. 232+10 SEE SHEET 7

41 x 15 x 3
ID 6.6F

43 x 15 x 3
ID 6.2

52 x 26 x 3
1.5 inch Skimmer
with 1.0 inch
Orifice Diameter
5 ft. weir
ID 6.3 Both

25 x 56 x 3
1.5 inch Skimmer
with 1.0 inch
Orifice Diameter
5 ft. weir
ID 6.4 Both

57 x 16 x 3
ID 6.5

54 x 27 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
5 ft. weir
ID 6.7F

38 x 14 x 3
1.5 inch Skimmer
with 0.5 inch
Orifice Diameter
4 ft. weir
ID 6.8Both

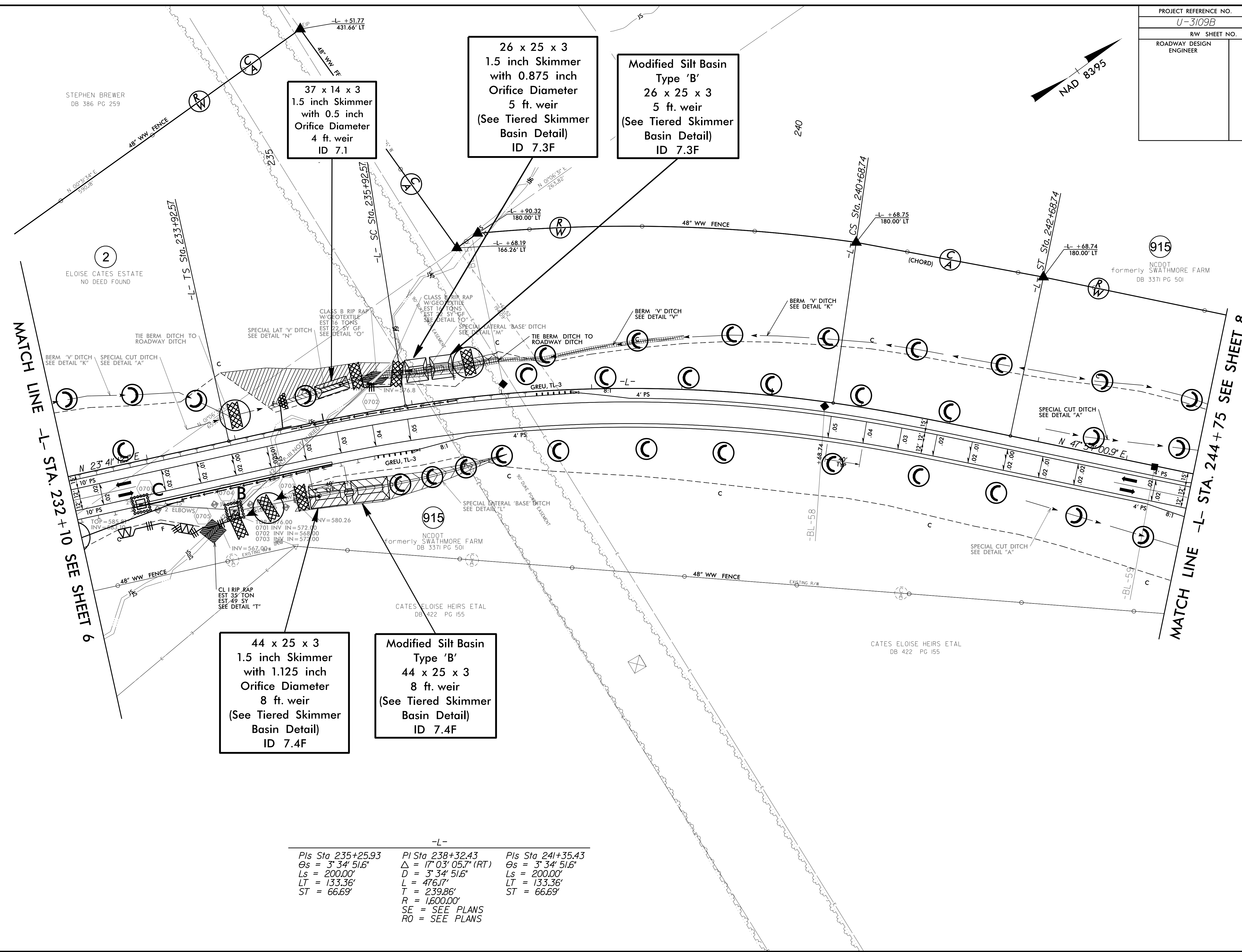
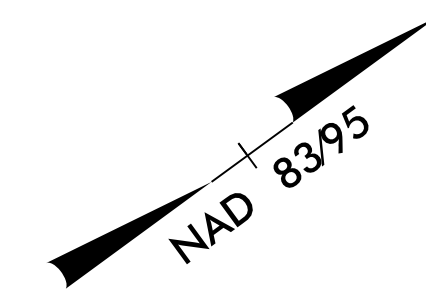
42 x 20 x 3
1.5 inch Skimmer
with 0.750 inch
Orifice Diameter
4 ft. weir
ID 6.9F

Place Matting for Erosion Control
on Slope as Work Allows.
Sta. 225+00 to Sta. 226+50.

8/17/99

DATE: 8/17/99
BY: J. W. BROWN
CHECKED: J. W. BROWN
PROJECT: U-3109B, EC, PSH, 06, DGN

PROJECT REFERENCE NO. U-3109B	SHEET NO. EC-15/CONST.7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



37 x 14 x 3
1.5 inch Skimmer
with 0.5 inch
Orifice Diameter
4 ft. weir
ID 7.1

26 x 25 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
5 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 7.3F

Modified Silt Basin
Type 'B'
26 x 25 x 3
5 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 7.3F

44 x 25 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
8 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 7.4F

Modified Silt Basin
Type 'B'
44 x 25 x 3
8 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 7.4F

-L-

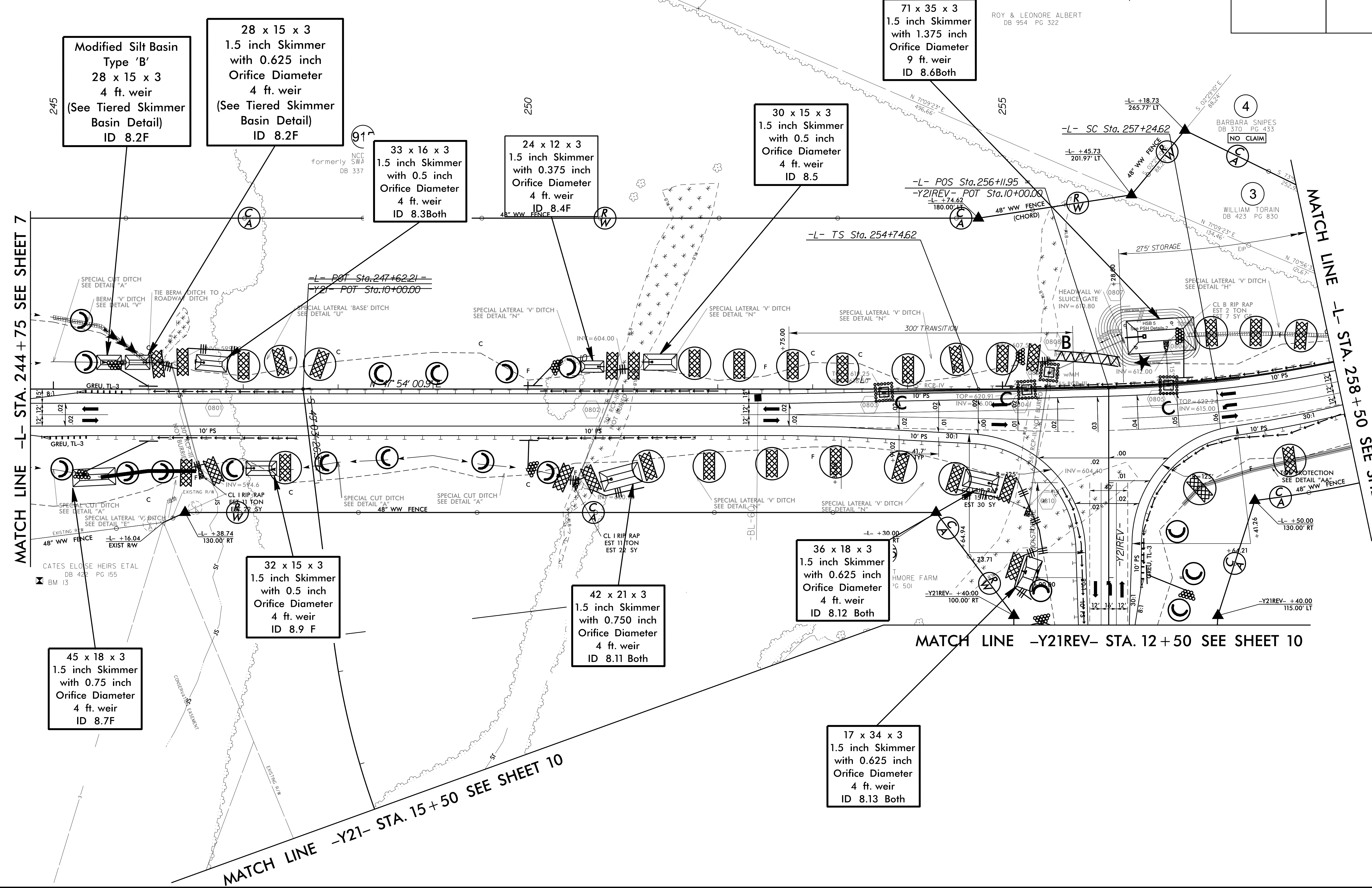
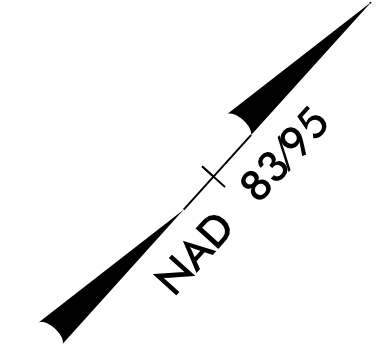
Pls Sta 235+25.93 θs = 3° 34' 51.6" Ls = 200.00' LT = 133.36' ST = 66.69'	Pl Sta 238+32.43 Δ = 17° 03' 05.7" (RT) D = 3° 34' 51.6" L = 476.17' T = 239.86' R = 1,600.00' SE = SEE PLANS RO = SEE PLANS	Pls Sta 241+35.43 θs = 3° 34' 51.6" Ls = 200.00' LT = 133.36' ST = 66.69'
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8/17/99

4:51 TIME
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 2/10/00

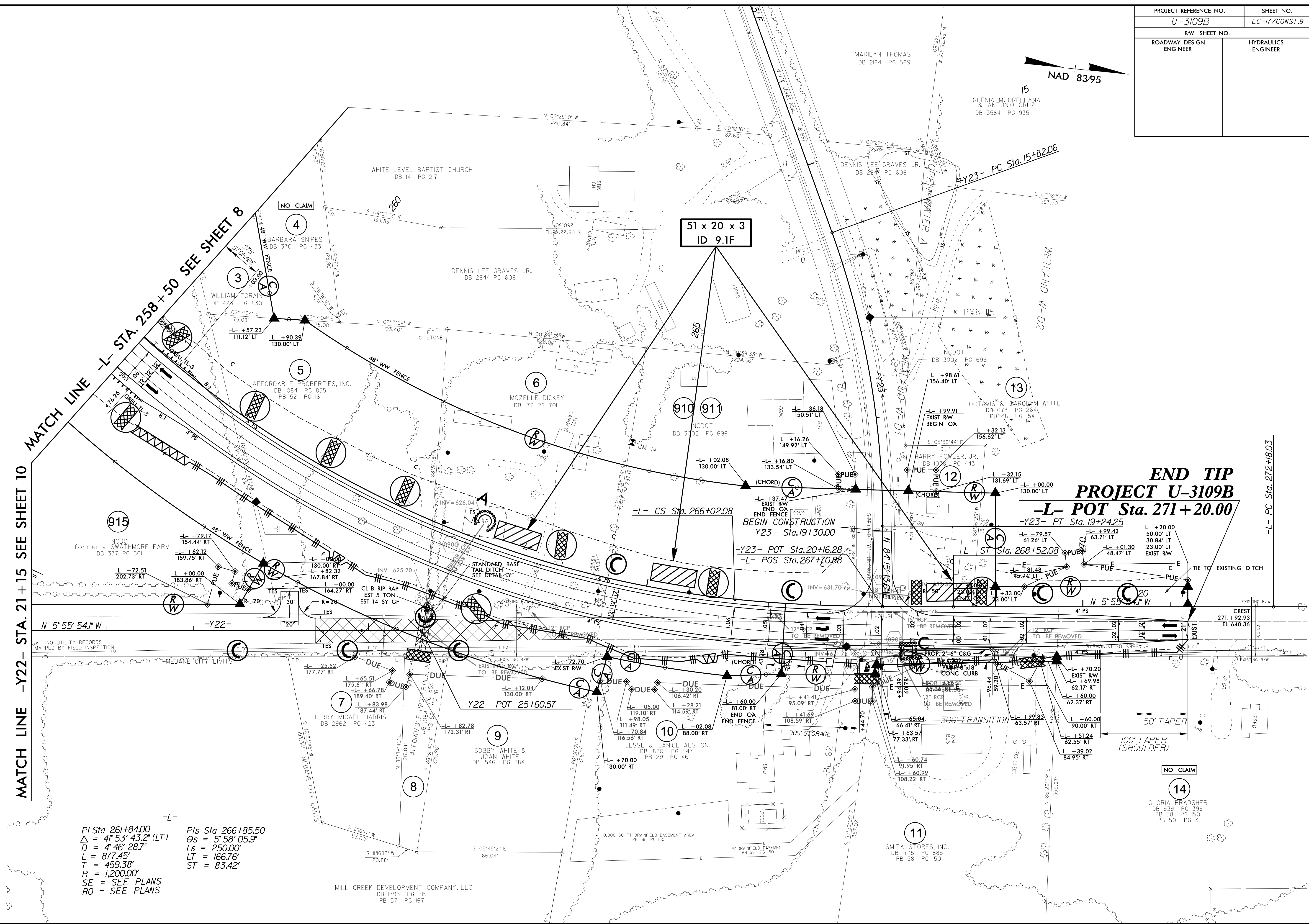
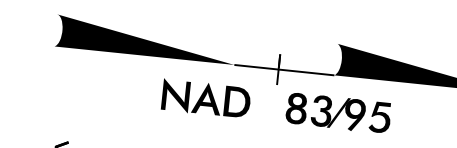
PROJECT REFERENCE NO. U-3109B	SHEET NO. EC-16/CONST.8
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

-L-
 Pls Sta 256+41.38 Pls Sta 261+84.00
 $\theta_s = 5^\circ 58' 05.9''$ $\Delta = 41^\circ 53' 43.2''$ (LT)
 $L_s = 250.00'$ $D = 4^\circ 46' 28.7''$
 $LT = 166.76'$ $L = 877.45'$
 $ST = 83.42'$ $T = 459.38'$
 $R = 1,200.00'$
 SE = SEE PLANS
 RO = SEE PLANS



8/17/99
 DATE: 8/17/99
 FILE: C:\Program Files\Autodesk\AutoCAD 2000\Projects\U3109B\EC-REV.psh_08.dgn
 USER: JACOB
 PLOT: 8/17/99 2:07:52 PM

PROJECT REFERENCE NO. U-3109B	SHEET NO. EC-17/CONST.9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



8/17/99

MATCH LINE -Y22- STA. 21+15 SEE SHEET 10

MATCH LINE -L- STA. 258+50 SEE SHEET 8

MATCH LINE -L- PC Sta. 272+18.03

-L-

PI Sta 261+84.00	PIs Sta 266+85.50
$\Delta = 4^\circ 53' 43.2''$ (LT)	$\Theta_s = 5^\circ 58' 05.9''$
$D = 4' 46'' 28.7''$	$L_s = 250.00'$
$L = 877.45'$	$LT = 166.76'$
$T = 459.38'$	$ST = 83.42'$
$R = 1,200.00'$	
SE = SEE PLANS	
RO = SEE PLANS	

DATE: 8/17/99

DRAWN BY: J. BRADSHAW

CHECKED BY: J. BRADSHAW

SCALE: AS SHOWN

MILL CREEK DEVELOPMENT COMPANY, LLC
DB 1395 PG 715
PB 57 PG 167

NO CLAIM

14

GLORIA BRADSHAW
DB 939 PG 399
PB 58 PG 150
PB 50 PG 3

11

SMITA STORES, INC.
DB 1775 PG 885
PB 58 PG 150

9

BOBBY WHITE &
JOAN WHITE
DB 1546 PG 784

7

TERRY MICHAEL HARRIS
DB 2962 PG 423

915

NCDOT
formerly SWATHMORE FARM
DB 3371 PG 501

6

MOZELLE DICKEY
DB 1771 PG 701

5

AFFORDABLE PROPERTIES, INC.
DB 1084 PG 855
PB 52 PG 16

3

WILLIAM TORAIN
DB 425 PG 830

4

BARBARA SNIPES
DB 370 PG 433

WHITE LEVEL BAPTIST CHURCH
DB 14 PG 217

DENNIS LEE GRAVES JR.
DB 2944 PG 606

MARILYN THOMAS
DB 2184 PG 569

15

GLENIA M. ORELLANA
& ANTONIO CRUZ
DB 3584 PG 935

DENNIS LEE GRAVES JR.
DB 2944 PG 606

13

OCTAVIS & BARBARA WHITE
DB 673 PG 264
PB 38 PG 154

12

HARRY FOWLER, JR.
DB 1074 PG 443

51 x 20 x 3
ID 9.1F

910 911

NCDOT
DB 3002 PG 696

-L- CS Sta. 266+02.08

(CHORD) A

EXIST RW
END CA
END FENCE

BEGIN CONSTRUCTION
-Y23- Sta. 19+30.00

-Y23- POT Sta. 20+16.28

-L- POS Sta. 267+0.88

END TIP
PROJECT U-3109B
-L- POT Sta. 271+20.00

-Y23- PT Sta. 19+24.25

-L- ST Sta. 268+52.08

TIE TO EXISTING DITCH

CREST
271+92.93
EL 640.36

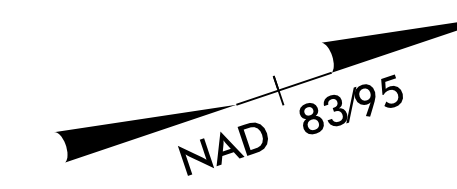
50' TAPER

100' TAPER (SHOULDER)

NO CLAIM

14

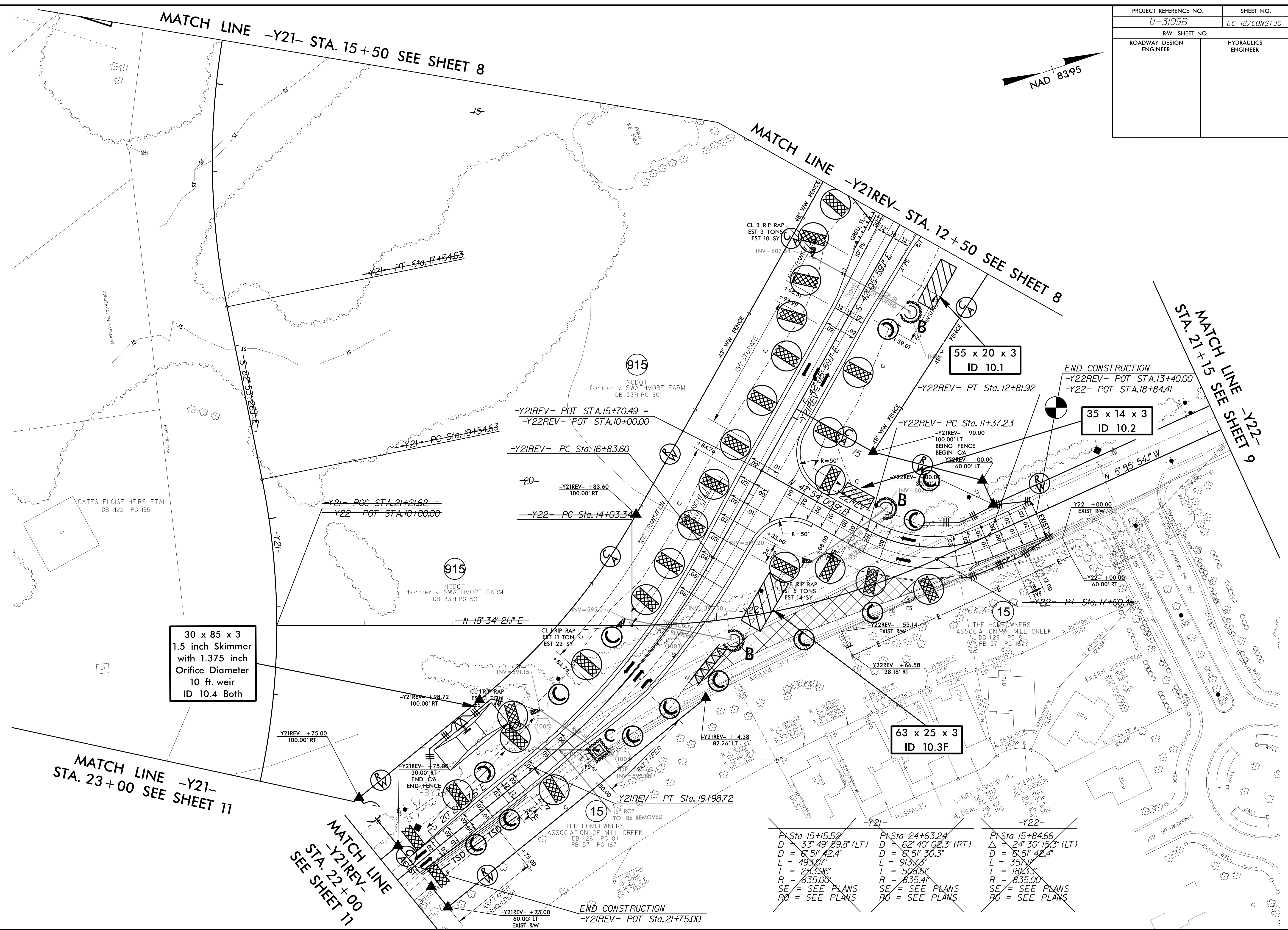
PROJECT REFERENCE NO. U-3109B	SHEET NO. EC-18/CONST.10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCH LINE -Y21- STA. 15+50 SEE SHEET 8

MATCH LINE -Y21REV- STA. 12+50 SEE SHEET 8

MATCH LINE -Y22- STA. 21+15 SEE SHEET 9



30 x 85 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
10 ft. weir
ID 10.4 Both

63 x 25 x 3
ID 10.3F

MATCH LINE -Y21-
STA. 23+00 SEE SHEET 11

MATCH LINE -Y21REV-
STA. 22+00
SEE SHEET 11

PI Sta 15+15.52	PI Sta 24+63.24	PI Sta 15+84.66
D = 33' 49" 89.8" (LT)	D = 62' 40" 02.3" (RT)	Δ = 24' 30" 15.3" (LT)
D = 6' 51" 42.4"	D = 6' 51" 30.3"	D = 6' 51" 42.4"
L = 493.07'	L = 913.73'	L = 357.1'
T = 283.96'	T = 508.61'	T = 183.3'
R = 835.00'	R = 835.41'	R = 835.00'
SE = SEE PLANS	SE = SEE PLANS	SE = SEE PLANS
RO = SEE PLANS	RO = SEE PLANS	RO = SEE PLANS

END CONSTRUCTION
-Y21REV- POT Sta. 21+75.00

8/17/99
 \$DATE\$
 P:\LEVEL\Projects\103109B_EC-REV.psh_10.dgn
 PLOT DATE: 2/25/2004