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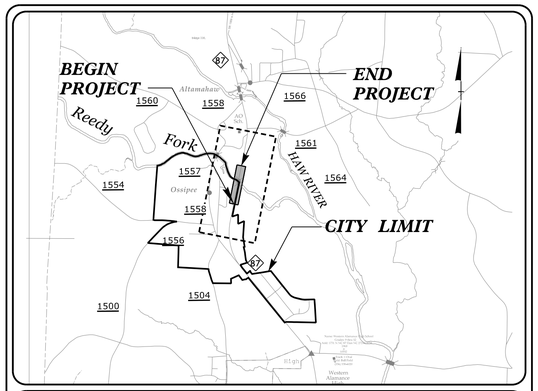
TIP PROJECT: B-5728



VICINITY MAP
NOT TO SCALE

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

ALAMANCE COUNTY

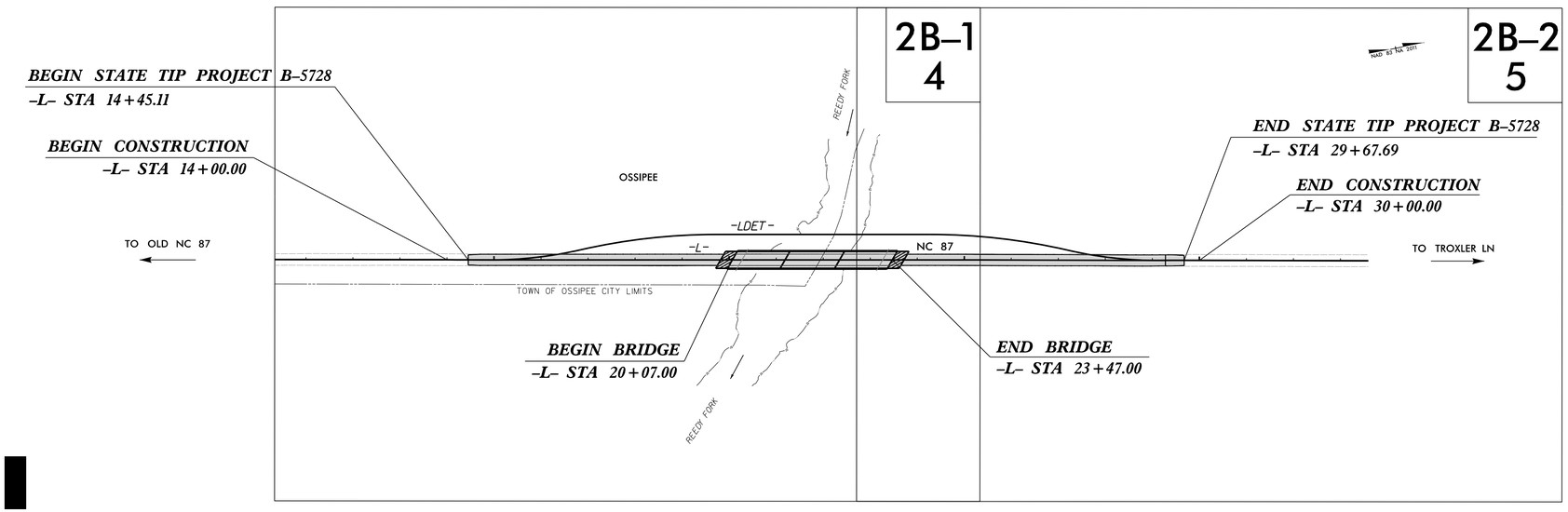
LOCATION: REPLACEMENT OF BRIDGE NO. 000112 OVER REEDY FORK ON NC 87

TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURE

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5728	EC-1	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
45684.1.1	NA	PE	

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
1633.02	Temporary Rock Silt Check Type-B	
	Wattle / Coir Fiber Wattle	EW CFW
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	
1634.01	Temporary Rock Sediment Dam Type-A	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
1630.04	Stilling Basin	
1630.06	Special Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	SK
	Tiered Skimmer Basin	
	Infiltration Basin	



NOTES:

CLEARING AND GRUBBING ON THIS PROJECT WILL BE METHOD III.

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

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT

Refer To E. C. Special Provisions for Special Considerations.

GRAPHIC SCALE

50 25 0 50 100

PLANS

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

Prepared in the Office of:

MOFFATT & NICHOL

4700 FALLS OF NEUSE ROAD, SUITE 300
RALEIGH, NORTH CAROLINA 27609
(919)781-4626 PHONE (919)781-4869 FAX

Designed by:

JEREMY SMITHHEART ***4347***

NAME *LEVEL III CERTIFICATION NO.*

Roadway Standard Drawings

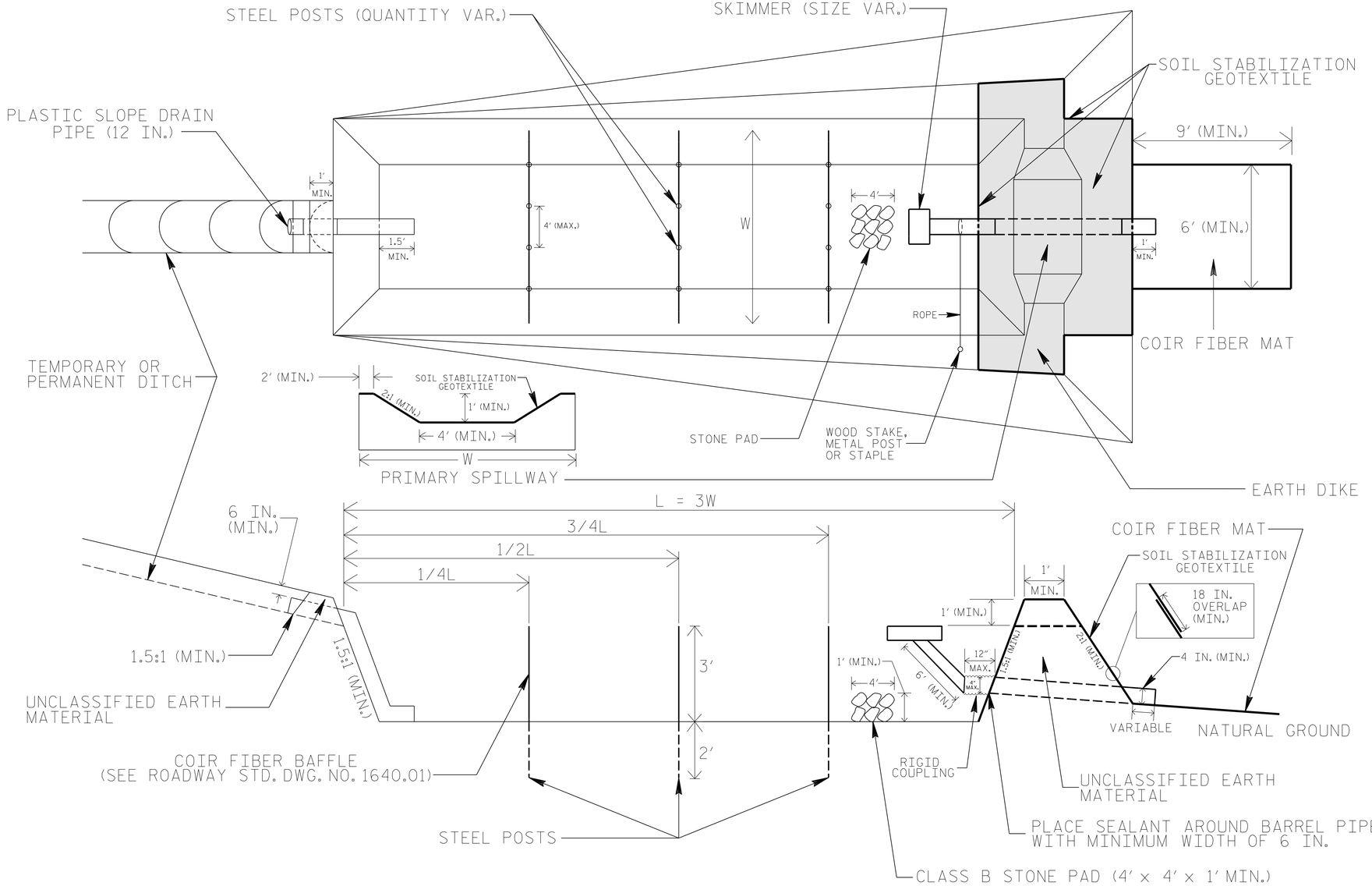
The following roadway english standards as appear in "Roadway Standard Drawings"– Roadway Design Unit – N. C. Department of Transportation – Raleigh, N. C., dated January 2018 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01	Railroad Erosion Control Detail	1632.01	Rock Inlet Sediment Trap Type A
1605.01	Temporary Silt Fence	1632.02	Rock Inlet Sediment Trap Type B
1606.01	Special Sediment Control Fence	1632.03	Rock Inlet Sediment Trap Type C
1607.01	Gravel Construction Entrance	1633.01	Temporary Rock Silt Check Type A
1622.01	Temporary Berms and Slope Drains	1633.02	Temporary Rock Silt Check Type B
1630.01	Riser Basin	1634.01	Temporary Rock Sediment Dam Type A
1630.02	Silt Basin Type B	1634.02	Temporary Rock Sediment Dam Type B
1630.03	Temporary Silt Ditch	1635.01	Rock Pipe Inlet Sediment Trap Type A
1630.04	Stilling Basin	1635.02	Rock Pipe Inlet Sediment Trap Type B
1630.05	Temporary Diversion	1640.01	Coir Fiber Baffle
1630.06	Special Stilling Basin	1645.01	Temporary Stream Crossing
1631.01	Matting Installation		

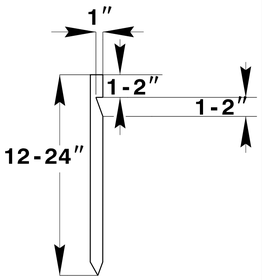
12/6/2021
...\10211-101\B5728_Roadside\Sheets\B5728_REU_EC01_TSH.dgn
...

PROJECT REFERENCE NO.	SHEET NO.
B-5728	EC-2

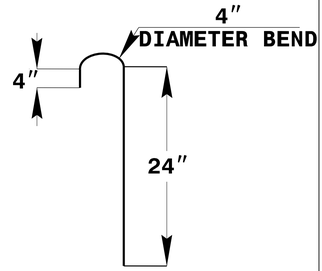
SKIMMER BASIN WITH BAFFLES DETAIL



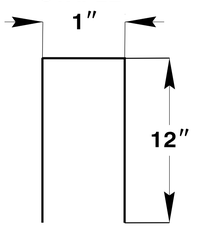
2" x 2" (nominal) WOODEN STAKE



#10 STEEL REINFORCEMENT BAR



1" (nominal) STAPLE



COIR FIBER MAT ANCHOR OPTIONS

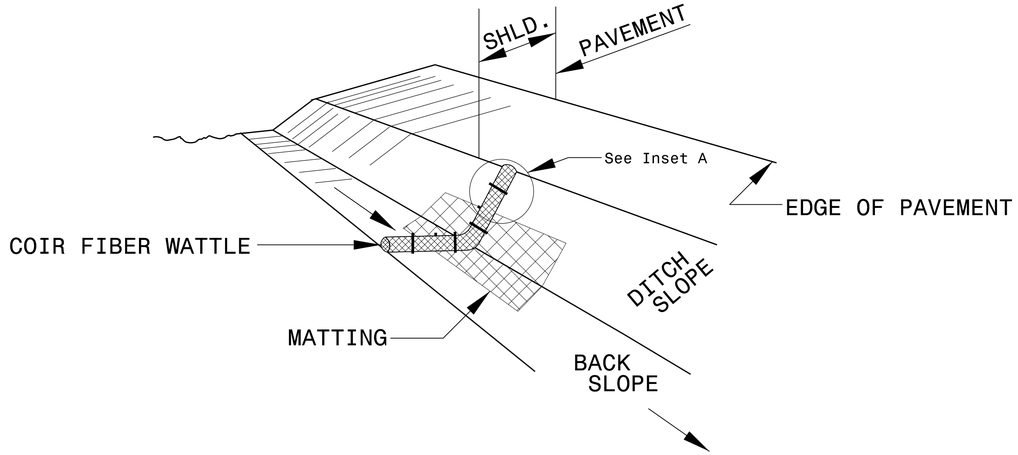
NOTES

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

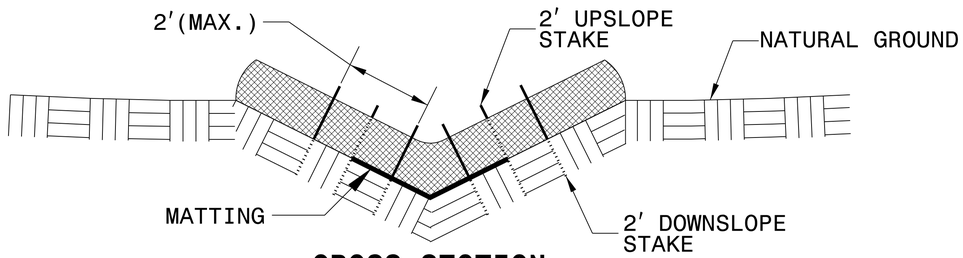
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
B-5728	EC-2A

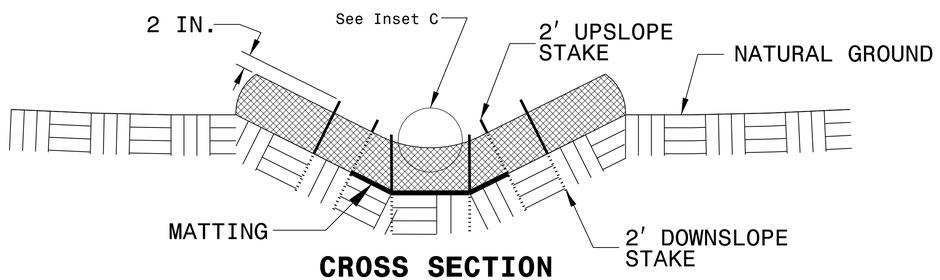
COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

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.

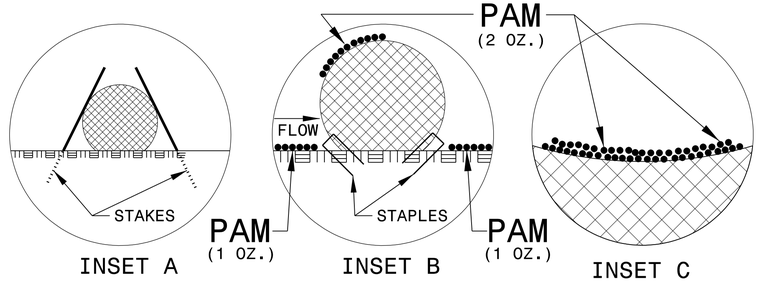
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12″ IN LENGTH.

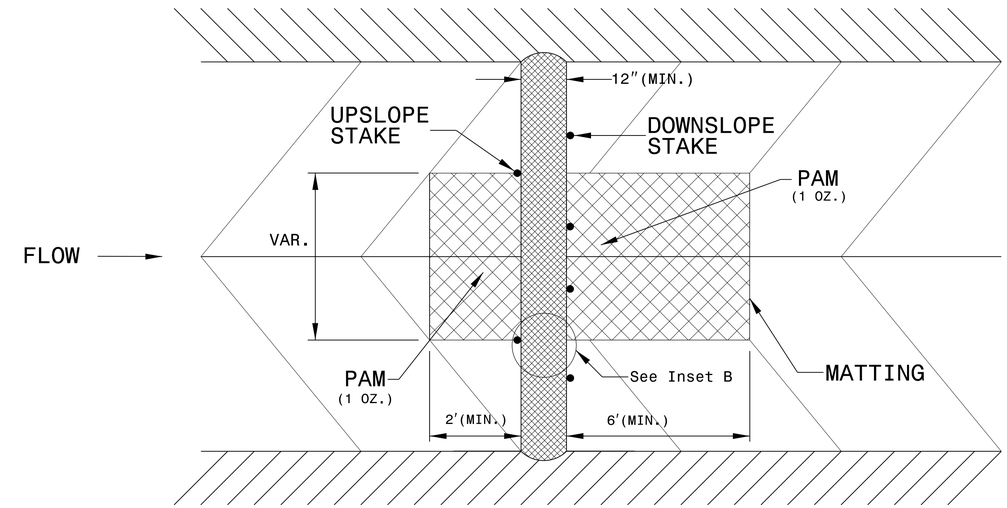
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

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.

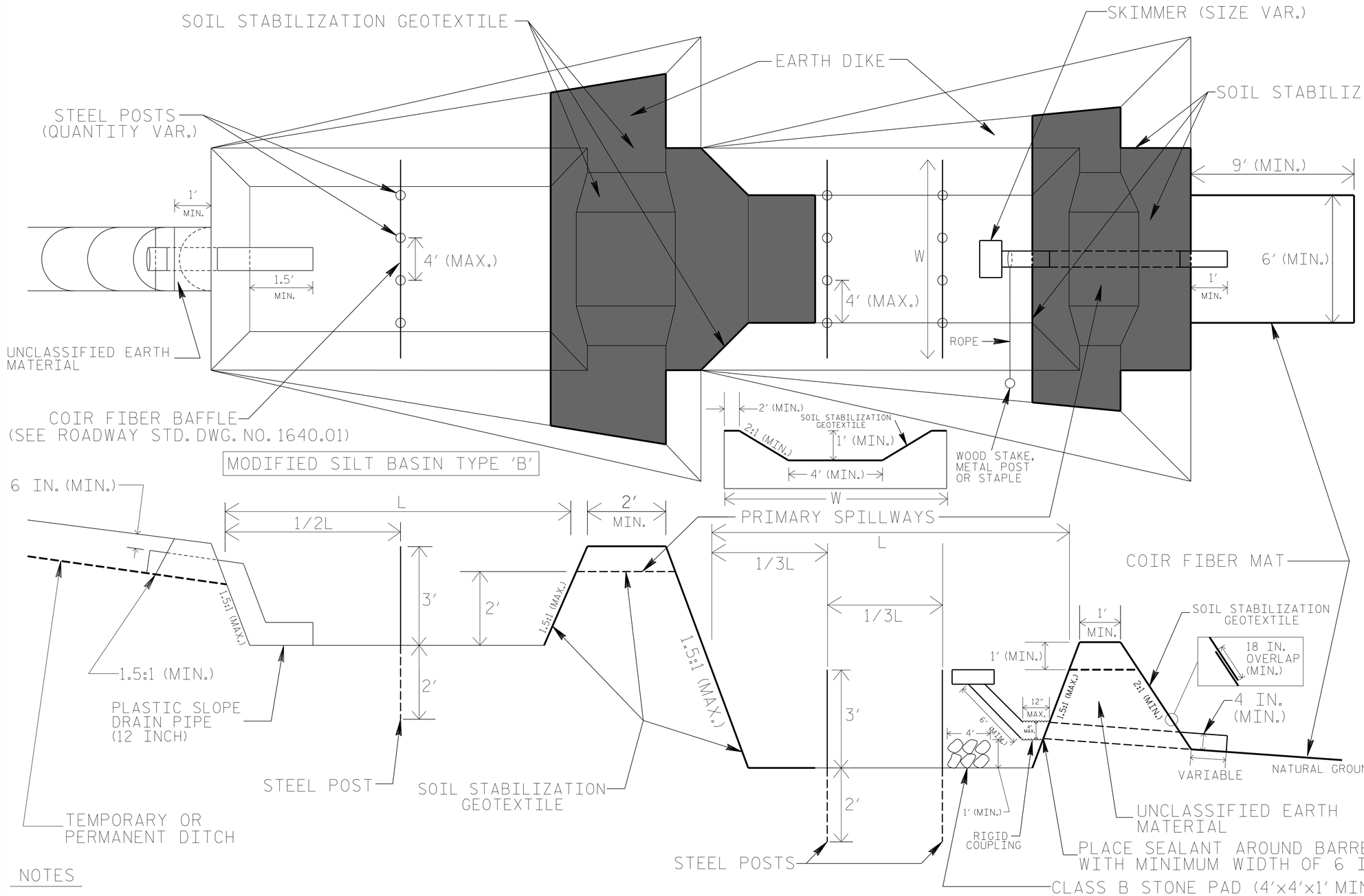




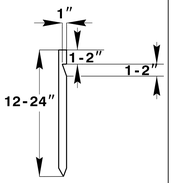
TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
B-5728	EC-2B

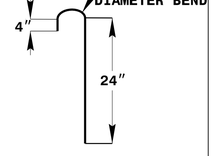
TIERED SKIMMER BASIN DETAIL



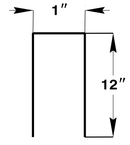
2" x 2" (nominal) WOODEN STAKE



#10 STEEL REINFORCEMENT BAR



1" (nominal) STAPLE



COIR FIBER MAT ANCHOR OPTIONS

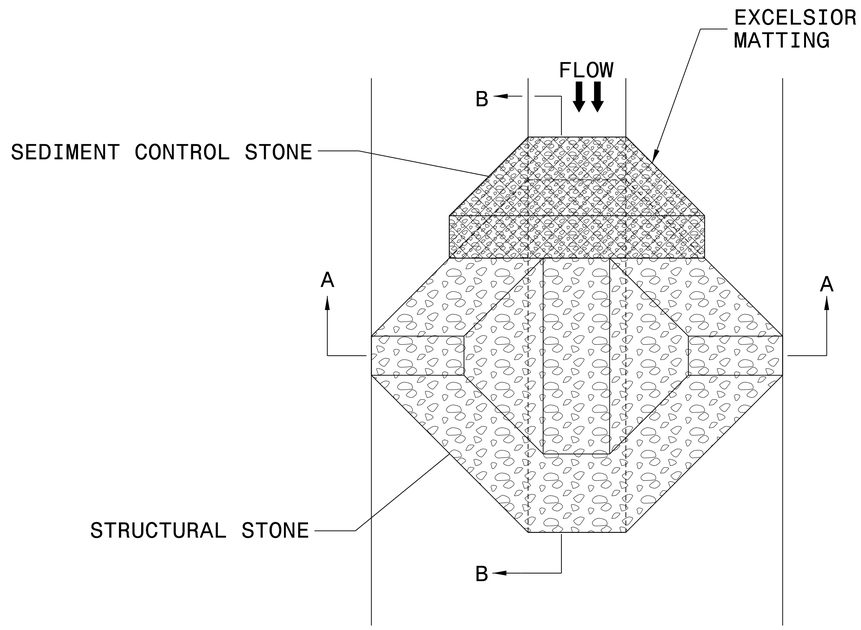
NOTES

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.	SHEET NO.
B-5728	EC-2C

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



PLAN

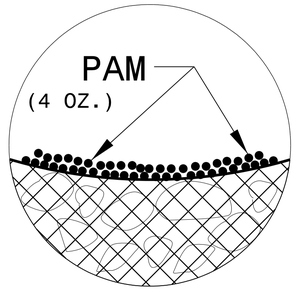
NOTES:

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

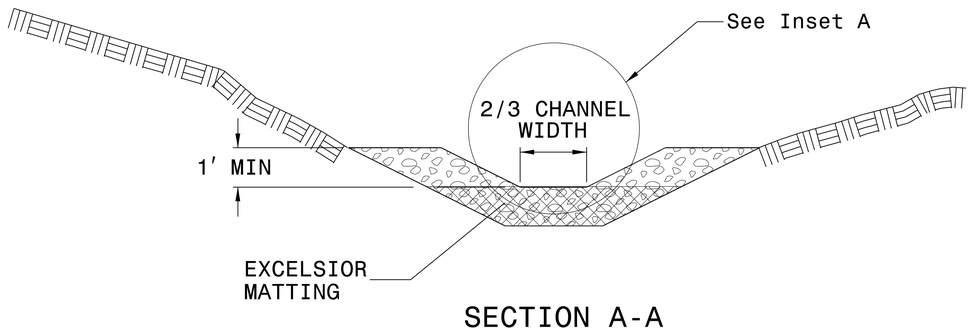
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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.

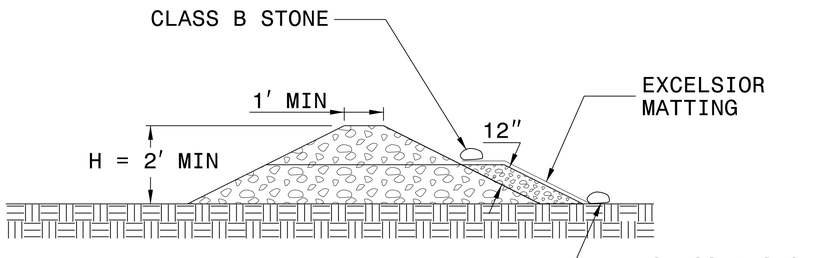
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A



SECTION B-B

NOT TO SCALE

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
B-5728	EC-3

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

STRAW MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
20-1	LDET	14+75	14+95	LT	40
20-1	LDET	14+95	16+00	LT	205
20-1	LDET	16+00	18+50	LT	245
20-1	LDET	17+00	18+50	RT	150
20-1	LDET	18+50	19+87	RT	150
20-1	LDET	23+80	25+00	RT	195
20-1	LDET	26+05	26+40	LT	45
20-1	LDET	26+50	28+00	LT	200
20-1	LDET	28+40	29+25	LT	200
20-1	LDET	29+25	29+76	LT	80
4	L	14+00	14+45	LT	115
4	L	14+45	19+50	LT	990
4	L	14+50	15+00	RT	190
4	L	15+00	18+00	RT	1115
5	L	25+75	29+68	RT	970
5	L	25+75	26+10	RT	90
5	L	29+68	30+00	LT	100
5	L	29+68	30+00	RT	135
5	L	26+00	29+68	LT	1365
			SUBTOTAL		6,580
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					7,500
				TOTAL	14,080
				SAY	15,000

EXCELSIOR MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
20-1	LDET	18+75	19+20	LT	50
			SUBTOTAL		50
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					100
				TOTAL	150
				SAY	200 SY

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8/17/95

PROJECT REFERENCE NO.	SHEET NO.
B-5728	EC-3A

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
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.

12/6/2021
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smithbar

PROJECT REFERENCE NO.	SHEET NO.
B-5728	EC-04/CONST.04

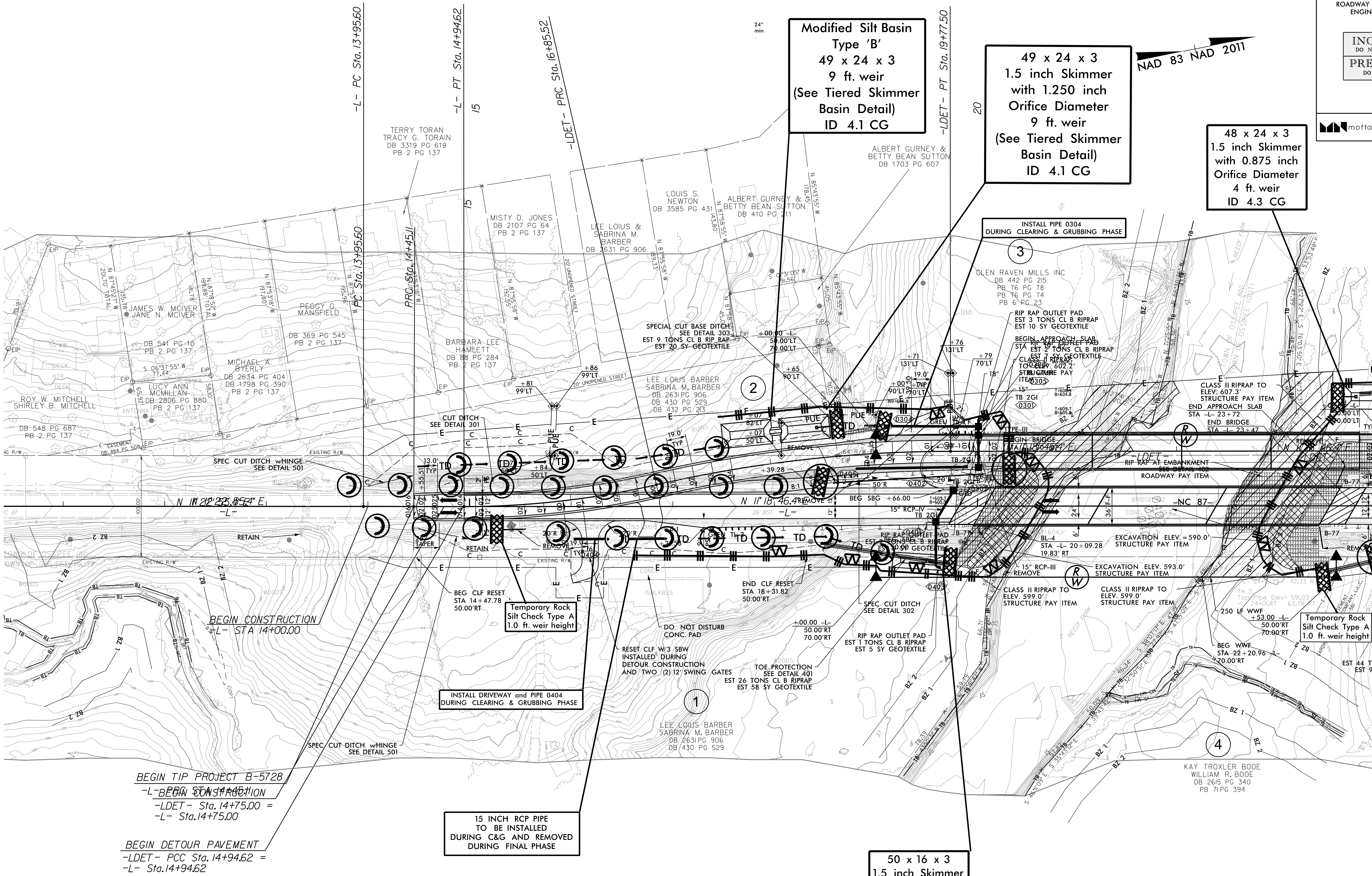
R/W SHEET NO.

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

moffatt & nichol
4700 FALLS OF NEUSE ROAD, SUITE 300
RALEIGH, NORTH CAROLINA 27609
(919) 781-4626 VOICE (919) 781-4869 FAX
NC License NO.: F-0105


Modified Silt Basin
Type 'B'
49 x 24 x 3
9 ft. weir
(See Tiered Skimmer Basin Detail)
ID 4.1 CG
49 x 24 x 3
1.5 inch Skimmer
with 1.250 inch
Orifice Diameter
9 ft. weir
(See Tiered Skimmer Basin Detail)
ID 4.1 CG
NAD 83 NAD 2011
48 x 24 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
4 ft. weir
ID 4.3 CG
-L- PC Sta. 13+95.60
-L- PT Sta. 14+94.62
-LDET- PRC Sta. 16+85.52
-LDET- PT Sta. 19+77.50
TERRY TORAN
TRACY G. TORAIN
DB 3319 PG 619
PB 2 PG 137
ALBERT GURNEY &
BETTY BEAN SUTTON
DB 1703 PG 607
INSTALL PIPE 0304
DURING CLEARING & GRUBBING PHASE
GLEN RAVEN MILLS INC
DB 442 PG 215
JAMES W. MCIVER
JANE N. MCIVER
PEGGY G. MANSFIELD
BARBARA LEE HAMLETT
DB 88 PG 284
PB 2 PG 137
MICHAEL A. BYERLY
DB 2634 PG 404
LUCY ANN MCMILLAN
DB 2806 PG 880
ROY W. MITCHELL
SHIRLEY B. MITCHELL
DB 548 PG 687
PB 2 PG 137
MISTY D. JONES
DB 2107 PG 64
LEE LOUIS & SABRINA M. BARBER
DB 2631 PG 906
LOUIS S. NEWTON
DB 3585 PG 431
LEE LOUIS BARBER
SABRINA M. BARBER
DB 2631 PG 906
DB 430 PG 529
DB 432 PG 213
SPECIAL CUT BASE DITCH
SEE DETAIL 303
EST 9 TONS CL B RIP RAP
EST 20 SY GEOTEXTILE
RIP RAP OUTLET PAD
EST 3 TONS CL B RIPRAP
EST 10 SY GEOTEXTILE
BEGIN APPROACH SLAB
CLASS II RIPRAP TO
ELEV. 607.3'
STRUCTURE PAY ITEM
END APPROACH SLAB
STA -L- 23+72
END BRIDGE
STA -L- 23+47
MATCHLINE SHEET 5
-L- STA 24+00.00
CUT DITCH
SEE DETAIL 301
SPEC CUT DITCH w/HINGE
SEE DETAIL 501
N 11°18'46.4" E
-L-
RIP RAP AT EMBANKMENT
SEE DETAIL 402
ROADWAY PAY ITEM
-NC 87-
BEG SBG +66.00
15" RCP-IV
EXCAVATION ELEV. = 590.0'
STRUCTURE PAY ITEM
BL-4
STA -L- 20+09.28
19.83' RT
EXCAVATION ELEV. 593.0'
STRUCTURE PAY ITEM
15" RCP-III
REMOVE
CLASS II RIPRAP TO
ELEV. 599.0'
STRUCTURE PAY ITEM
RETAIN
BEG CLF RESET
STA 14+47.78
50.00'RT
Temporary Rock
Silt Check Type A
1.0 ft. weir height
BEGIN CONSTRUCTION
-L- STA 14+00.00
END CLF RESET
STA 18+31.82
50.00'RT
SPEC CUT DITCH
SEE DETAIL 302
DO NOT DISTURB
CONC. PAD
RIP RAP OUTLET PAD
EST 1 TONS CL B RIPRAP
EST 5 SY GEOTEXTILE
RESET CLF W/3 SBW
INSTALLED DURING
DETOUR CONSTRUCTION
AND TWO (2) 12' SWING GATES
TOE PROTECTION
SEE DETAIL 401
EST 26 TONS CL B RIPRAP
EST 58 SY GEOTEXTILE
250 LF WWF
BEG WWF
STA 22+20.96 -L-
70.00'RT
Temporary Rock
Silt Check Type A
1.0 ft. weir height
INSTALL DRIVEWAY and PIPE 0404
DURING CLEARING & GRUBBING PHASE
LEE LOUIS BARBER
SABRINA M. BARBER
DB 2631 PG 906
DB 430 PG 529
KAY TROXLER BOOE
WILLIAM R. BOOE
DB 2615 PG 340
PB 71 PG 394
SPEC CUT DITCH w/HINGE
SEE DETAIL 501
BEGIN TIP PROJECT B-5728
-L- POC STA 14+00
BEGIN CONSTRUCTION
-LDET- Sta. 14+75.00 =
-L- Sta. 14+75.00
15 INCH RCP PIPE
TO BE INSTALLED
DURING C&G AND REMOVED
DURING FINAL PHASE
BEGIN DETOUR PAVEMENT
-LDET- PCC Sta. 14+94.62 =
-L- Sta. 14+94.62
50 x 16 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
4 ft. weir
ID 4.2 CG

-L-

PI Sta 14+20.36	PI Sta 14+69.86	PI Sta 15
Δ = 0° 11' 12.1" (RT)	Δ = 0° 15' 21.1" (LT)	Δ = 12
D = 0° 22' 37.7"	D = 0° 31' 00.6"	D = 6° 4
L = 49.51'	L = 49.51'	L = 190.
T = 24.75'	T = 24.75'	T = 95.
R = 15,192.72'	R = 11,085.86'	R = 85(
	DS = 55 MPH	DS = 4(
	e = NC	

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 04

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

FOR DETOUR SEE SHEET NO. 2B-1
FOR -L- PROFILE SEE SHEET NO. 6

8/17/99
12/8/2020
G:\RA\0011-101\B5728\Roadside\Sheets\B5728_REU_EC04_PSH04_CG.dgn

PROJECT REFERENCE NO.	SHEET NO.
B-5728	EC-05/CONST.05
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

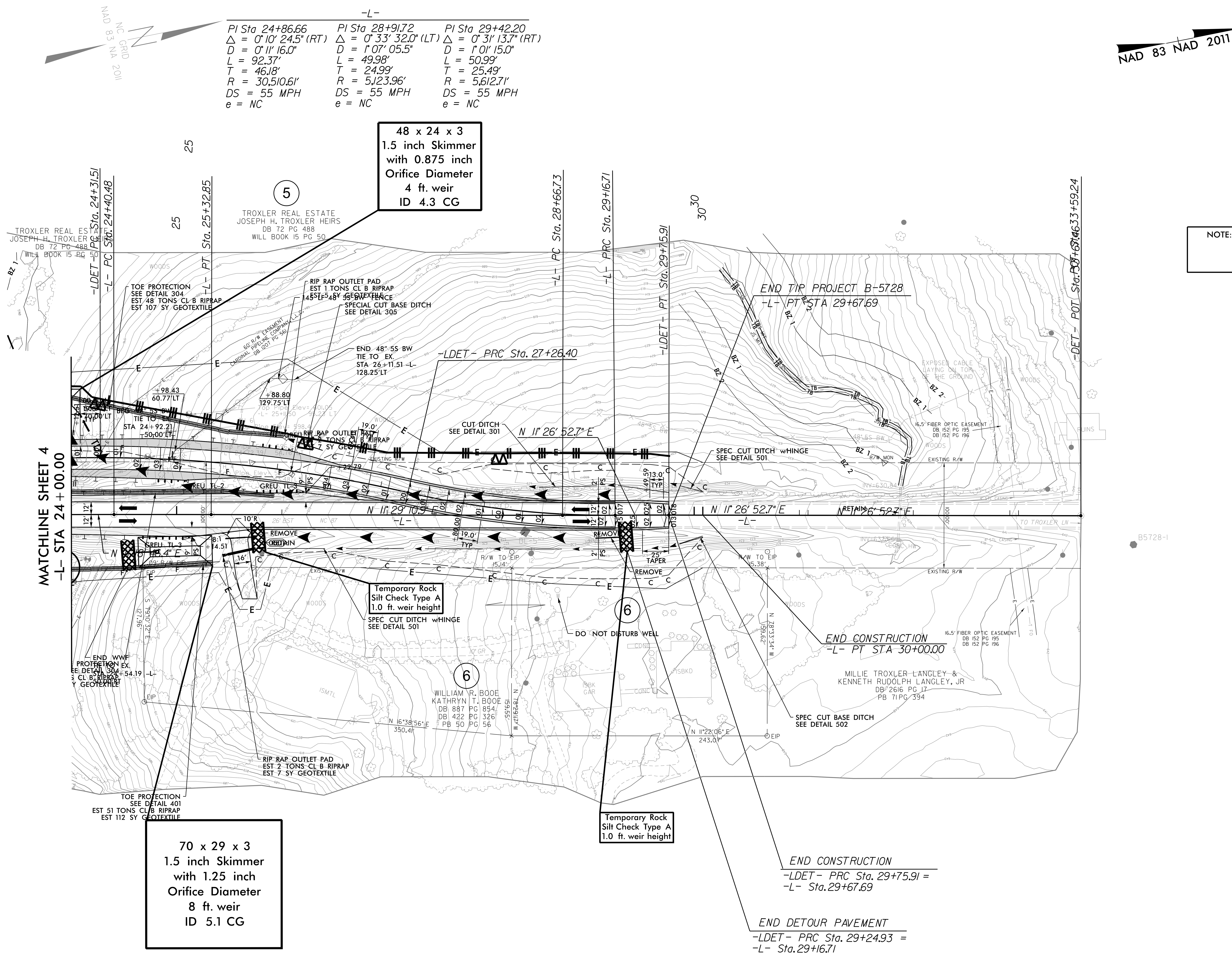
moffatt & nichol — 4700 FALLS OF NEUSE ROAD, SUITE 300, RALEIGH, NORTH CAROLINA 27609 (919) 781-4626 VOICE (919) 781-4869 FAX, NC License NO.: F-0105

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 05

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

-L-

PI Sta 24+86.66	PI Sta 28+91.72	PI Sta 29+42.20
△ = 0° 10' 24.5" (RT)	△ = 0° 33' 32.0" (LT)	△ = 0° 31' 13.7" (RT)
D = 0° 11' 16.0"	D = 1° 07' 05.5"	D = 1° 01' 15.0"
L = 92.37'	L = 49.98'	L = 50.99'
T = 46.18'	T = 24.99'	T = 25.49'
R = 30,510.61'	R = 5,123.96'	R = 5,612.71'
DS = 55 MPH	DS = 55 MPH	DS = 55 MPH
e = NC	e = NC	e = NC



NC GRID NAD 83 NA 2011
NAD 83 NAD 2011
48 x 24 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
4 ft. weir
ID 4.3 CG
70 x 29 x 3
1.5 inch Skimmer
with 1.25 inch
Orifice Diameter
8 ft. weir
ID 5.1 CG
MATCHLINE SHEET 4
-L- STA 24+00.00
TROXLER REAL ESTATE
JOSEPH H. TROXLER HEIRS
DB 72 PG 488
WILL BOOK 15 PG 50
-LDET- PC Sta. 24+31.51
-L- PC Sta. 24+40.48
-L- PT Sta. 25+32.85
-L- PC Sta. 28+66.73
-L- PRC Sta. 29+16.71
-LDET- PT Sta. 29+75.91
-DET- POT Sta. 33+59.24
-LDET- PRC Sta. 27+26.40
TOE PROTECTION
SEE DETAIL 304
EST 48 TONS CL B RIPRAP
EST 107 SY GEOTEXTILE
RIP RAP OUTLET PAD
EST 1 TONS CL B RIPRAP
EST 5 SY GEOTEXTILE
SPECIAL CUT BASE DITCH
SEE DETAIL 305
END 48" SS BW
TIE TO EX.
STA 26+11.51 -L-
128.25' LT
CUT DITCH
SEE DETAIL 301
N 11° 26' 52.7" E
END TIP PROJECT B-5728
-L- PT STA 29+67.69
SPEC CUT DITCH w/HINGE
SEE DETAIL 501
Temporary Rock
Silt Check Type A
1.0 ft. weir height
DO NOT DISTURB WELL
END CONSTRUCTION
-L- PT STA 30+00.00
MILLIE TROXLER LANGLEY &
KENNETH RUDOLPH LANGLEY, JR
DB 2616 PG 17
PB 71 PG 394
WILLIAM R. BOOE
KATHRYN T. BOOE
DB 887 PG 854
DB 422 PG 326
PB 50 PG 56
SPEC CUT BASE DITCH
SEE DETAIL 502
RIP RAP OUTLET PAD
EST 2 TONS CL B RIPRAP
EST 7 SY GEOTEXTILE
TOE PROTECTION
SEE DETAIL 401
EST 51 TONS CL B RIPRAP
EST 112 SY GEOTEXTILE
END CONSTRUCTION
-LDET- PRC Sta. 29+75.91 =
-L- Sta. 29+67.69
END DETOUR PAVEMENT
-LDET- PRC Sta. 29+24.93 =
-L- Sta. 29+16.71

FOR -L- PROFILE SEE SHEET 6

PROJECT REFERENCE NO.	SHEET NO.
B-5728	EC-06/CONST.2B-1
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

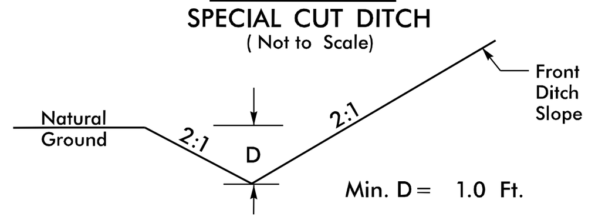
moffatt & nichol
4700 FALLS OF NEUSE ROAD, SUITE 300
RALEIGH, NORTH CAROLINA 27609
(919) 781-4626 VOICE (919) 781-4869 FAX
NC License No.: F-0105

-DETOUR-

NAD 83 NAD 2011

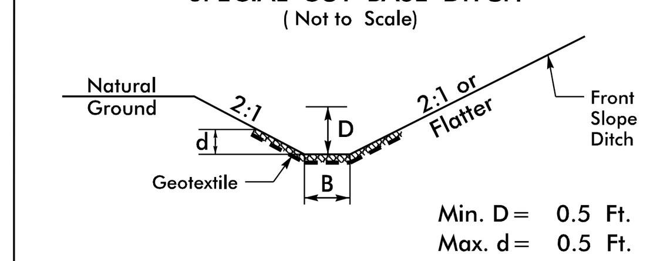
UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF TEMPORARY ROCK INLET SEDIMENT TRAPS TYPE-C WHERE PONDING MAY OCCUR ON ROADWAY OPEN TO TRAFFIC.

DETAIL 302
SPECIAL CUT DITCH
(Not to Scale)



FROM STA. -LDET- 18+50 RT TO STA. -LDET- 19+87 RT

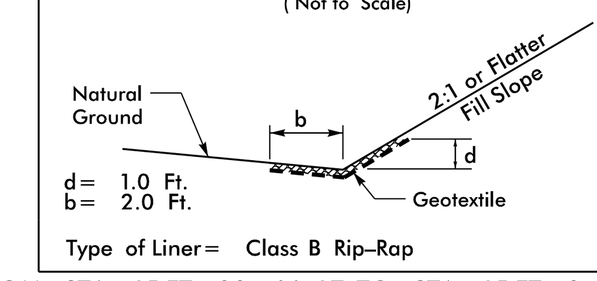
DETAIL 303
SPECIAL CUT BASE DITCH
(Not to Scale)



Type of Liner= Class B Rip-Rap

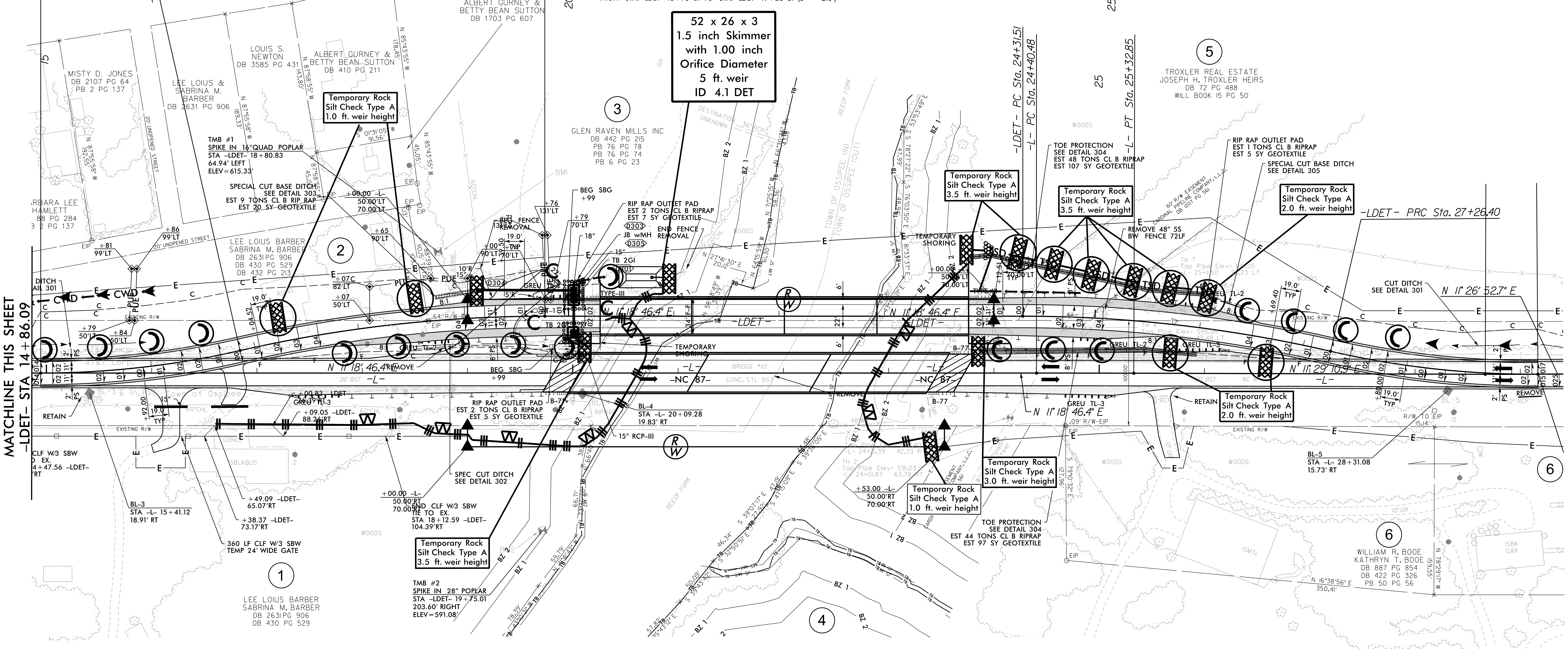
FROM STA. -LDET- 18+75 LT TO STA. -LDET- 19+20 LT (B = 2.0')

DETAIL 304
TOE PROTECTION
(Not to Scale)

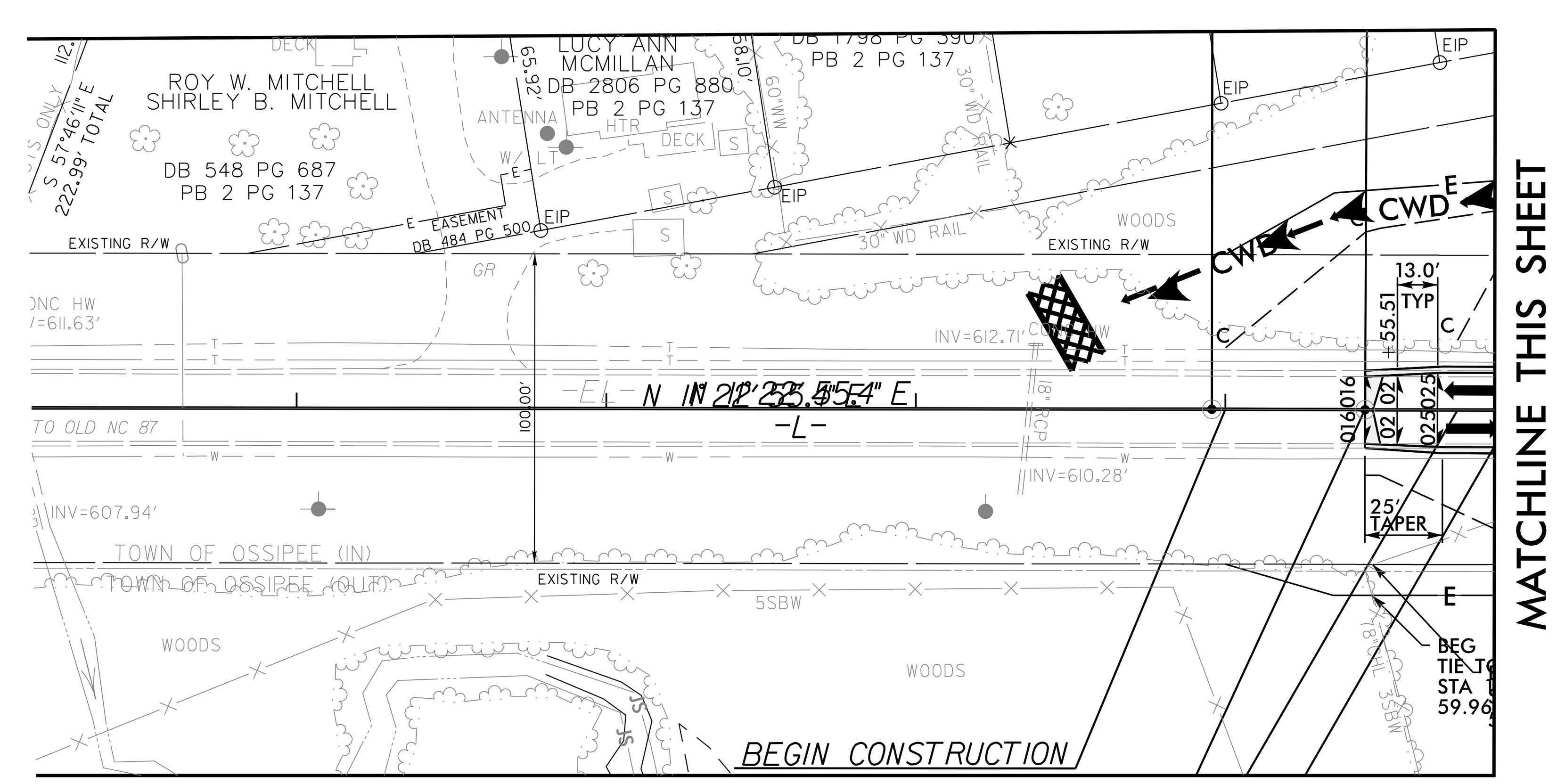


Type of Liner= Class B Rip-Rap

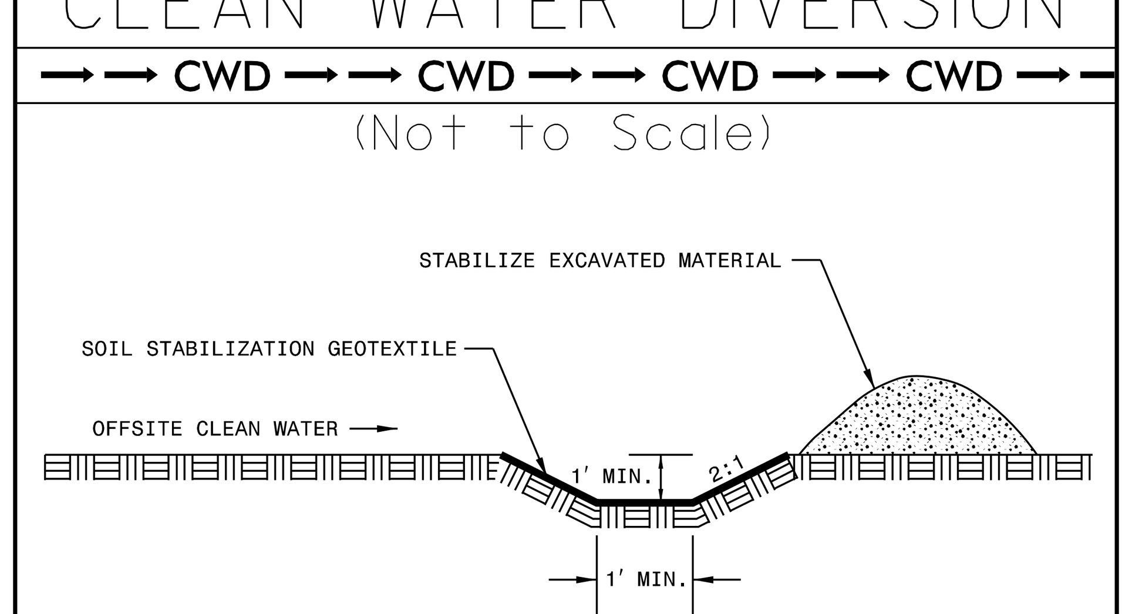
FROM STA. -LDET- 23+80 LT TO STA. -LDET- 25+95 LT
FROM STA. -LDET- 23+89 RT TO STA. -LDET- 26+00 RT



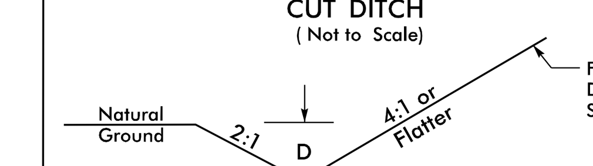
-L- PT Sta. 14+94.62
-LDET- PRC Sta. 16+85.52
-LDET- PT Sta. 19+77.50
-LDET- PC Sta. 24+31.51
-L- PC Sta. 24+40.48
-L- PT Sta. 25+32.85
-LDET- PRC Sta. 27+26.40
MATCHLINE THIS SHEET -LDET- STA 14+86.09
52 x 26 x 3
1.5 inch Skimmer
with 1.00 inch
Orifice Diameter
5 ft. weir
ID 4.1 DET
MISTY D. JONES DB 2107 PG 64 PB 2 PG 137
LEE LOUIS & SABRINA M. BARBER DB 2631 PG 906
LOUIS S. NEWTON DB 3585 PG 431
ALBERT GURNEY & BETTY BEAN SUTTON DB 410 PG 211
ALBERT GURNEY & BETTY BEAN SUTTON DB 1703 PG 607
GLEN RAVEN MILLS INC DB 442 PG 215 PB 76 PG 78 PB 76 PG 74 PB 6 PG 23
TROXLER REAL ESTATE JOSEPH H. TROXLER HEIRS DB 72 PG 488 WILL BOOK 15 PG 50
LEE LOIUS BARBER SABRINA M. BARBER DB 2631PG 906 DB 430 PG 529 DB 432 PG 213
LEE LOIUS BARBER SABRINA M. BARBER DB 2631PG 906 DB 430 PG 529
WILLIAM R. BOOE KATHRYN T. BOOE DB 887 PG 854 DB 422 PG 326 PB 50 PG 56
Temporary Rock Silt Check Type A 1.0 ft. weir height
Temporary Rock Silt Check Type A 3.5 ft. weir height
Temporary Rock Silt Check Type A 2.0 ft. weir height
Temporary Rock Silt Check Type A 3.0 ft. weir height
TMB #1 SPIKE IN 16" QUAD POPLAR STA -LDET- 18+80.83 64.94' LEFT ELEV=615.33'
TMB #2 SPIKE IN 28" POPLAR STA -LDET- 19+75.01 203.60' RIGHT ELEV=591.08'
SPECIAL CUT BASE DITCH SEE DETAIL 303 EST 9 TONS CL B RIP RAP EST 20 SY GEOTEXTILE
RIP RAP OUTLET PAD EST 2 TONS CL B RIPRAP EST 7 SY GEOTEXTILE
RIP RAP OUTLET PAD EST 2 TONS CL B RIPRAP EST 5 SY GEOTEXTILE
RIP RAP OUTLET PAD EST 1 TONS CL B RIPRAP EST 5 SY GEOTEXTILE
TOE PROTECTION SEE DETAIL 304 EST 48 TONS CL B RIPRAP EST 107 SY GEOTEXTILE
TOE PROTECTION SEE DETAIL 304 EST 44 TONS CL B RIPRAP EST 97 SY GEOTEXTILE
SPECIAL CUT BASE DITCH SEE DETAIL 305
SPEC CUT DITCH SEE DETAIL 302
CUT DITCH SEE DETAIL 301
REMOVE 48" SS BW FENCE 72LF
TEMPORARY SHORING
BL-3 STA -L- 15+41.12 18.91' RT
BL-4 STA -L- 20+09.28 19.83' RT
BL-5 STA -L- 28+31.08 15.73' RT
360 LF CLF W/3 SBW TEMP 24' WIDE GATE
N 11° 18' 46.4" E
N 11° 29' 10.9" E
N 11° 26' 52.7" E
TOWN OF OSSIPEE (IN)
TOWN OF OSSIPEE (OUT)
REEDY FORK
WOODS



CLEAN WATER DIVERSION



DETAIL 301
CUT DITCH
(Not to Scale)



FROM STA. -LDET- 14+75 LT TO STA. -LDET- 14+94.62 LT
FROM STA. -LDET- 14+94.62 LT TO STA. -LDET- 16+00 LT
FROM STA. -LDET- 28+40 LT TO STA. -LDET- 29+75.91 LT

FOR -LDET- PROFILE SEE SHEET NO. 2B-2
FOR -L- PLAN SEE SHEET NO. 4 AND NO. 5

8/17/99
12/8/2020
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8/17/99

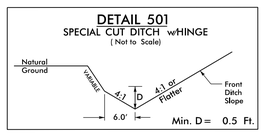
PROJECT REFERENCE NO.	SHEET NO.
B-5728	EC-07/CONST.04
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

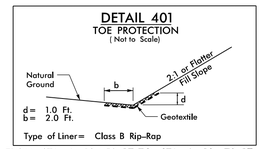
moffatt & nichol
4700 FALLS OF NEUSE ROAD, SUITE 300
RALEIGH, NORTH CAROLINA 27609
(919) 781-4626 VOICE (919) 781-4869 FAX
NC License NO.: F-0105

DETAIL 501
SPECIAL CUT DITCH wHINGE
(Not to Scale)



FROM STA. –L– 14+00 LT TO STA. –L– 14+45.11 LT
FROM STA. –L– 14+50 RT TO STA. –L– 15+00 RT
FROM STA. –L– 25+75 RT TO STA. –L– 29+67.69 RT
FROM STA. –L– 29+67.69 LT TO STA. –L– 30+00 LT

DETAIL 401
TOE PROTECTION
(Not to Scale)



Type of Liner = Class B Rip-Rap

FROM STA. –L– 18+50 RT TO STA. –L– 19+70 RT
FROM STA. –L– 23+50 RT TO STA. –L– 26+00 RT

DETAIL 402
RIP RAP AT EMBANKMENT
(Not to Scale)

Type of Liner = 380 TONS CL II Rip-Rap
Geotextile = 384 sy

FROM STA. –L– 22+45 TO STA. –L– 22+90

UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF TEMPORARY ROCK INLET SEDIMENT TRAPS TYPE–C WHERE PONDING MAY OCCUR ON ROADWAY OPEN TO TRAFFIC.

NAD 83 NAD 2011

–L– PC Sta. 13+95.60

–L– PT Sta. 14+94.62

–L– PC Sta. 24+40.48

MATCHLINE SHEET 5
–L– STA 24+00.00

TERRY TORAN
TRACY G. TORAIN
DB 3319 PG 619
PB 2 PG 137

MISTY D. JONES
DB 2107 PG 64
PB 2 PG 137

LOUIS S. NEWTON
DB 3585 PG 431

LEE LOUIS & SABRINA M. BARBER
DB 2631 PG 906

ALBERT GURNEY & BETTY BEAN SUTTON
DB 410 PG 211

ALBERT GURNEY & BETTY BEAN SUTTON
DB 17

JAMES W. MCIVER
JANE N. MCIVER
DB 541 PG 10
PB 2 PG 137

PEGGY G. MANSFIELD
DB 369 PG 545
PB 2 PG 137

MICHAEL A. BYERLY
DB 2634 PG 404
DB 1798 PG 390
PB 2 PG 137

LUCY ANN MCMILLAN
DB 2806 PG 880
PB 2 PG 137

ROY W. MITCHELL
SHIRLEY B. MITCHELL
DB 548 PG 687
PB 2 PG 137

BARBARA LEE HAMLETT
DB 88 PG 284
PB 2 PG 137

LEE LOUIS BARBER
SABRINA M. BARBER
DB 2631 PG 906
DB 430 PG 529
DB 432 PG 213

GLEN RAVEN MILLS INC
DB 442 PG 215
PB 76 PG 78
PB 76 PG 74
PB 6 PG 23

TROXLER REAL ESTATE
JOSEPH H. TROXLER HEIRS
DB 72 PG 488
WILL BOOK 15 PG 50

**76 x 34 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
10 ft. weir
ID 4.1 F**

**51 x 25 x 3
1.5 inch Skimmer
with 1.0 inch
Orifice Diameter
5 ft. weir
ID 4.2 F**

RIP RAP OUTLET PAD
EST 3 TONS CL B RIPRAP
EST 10 SY GEOTEXTILE

BEGIN APPROACH SLAB
STA –L– 19+82

CLASS II RIPRAP
TO ELEV. 602.2'
STRUCTURE PAY ITEM

CLASS II RIPRAP TO
ELEV. 607.3'
STRUCTURE PAY ITEM

END APPROACH SLAB
STA –L– 23+72

END BRIDGE
STA –L– 23+47

BEGIN BRIDGE
STA –L– 20+07

RIP RAP AT EMBANKMENT
SEE DETAIL 402
ROADWAY PAY ITEM

SPEC CUT DITCH wHINGE
SEE DETAIL 501

BEGIN CONSTRUCTION
–L– STA 14+00.00

BEGIN TIP PROJECT B-5728
–L– PRC STA 14+45.11

BEG CLF RESET
STA 14+47.78 –L–
50.00'RT

BL-3
STA –L– 15+41.12
18.91' RT

Temporary Rock
Silt Check Type A
3.0 ft. weir height

RESET CLF W/3 SBW
INSTALLED DURING
DETOUR CONSTRUCTION
AND TWO (2) 12' SWING GATES

DO NOT DISTURB
CONC. PAD

END CLF RESET
STA 18+31.82
50.00'RT

TOE PROTECTION
SEE DETAIL 401
EST 26 TONS CL B RIPRAP
EST 58 SY GEOTEXTILE

RIP RAP OUTLET PAD
EST 1 TONS CL B RIPRAP
EST 5 SY GEOTEXTILE

BL-4
STA –L– 20+09.28
19.83' RT

EXCAVATION ELEV. = 590.0'
STRUCTURE PAY ITEM

EXCAVATION ELEV. 593.0'
STRUCTURE PAY ITEM

CLASS II RIPRAP TO
ELEV. 599.0'
STRUCTURE PAY ITEM

CLASS II RIPRAP TO
ELEV. 599.0'
STRUCTURE PAY ITEM

250 LF WWF
+53.00 –L–
50.00'RT
70.90'RT

Temporary Rock
Silt Check Type A
1.0 ft. weir height

BEG WWF
STA 22+20.96 –L–
70.00'RT

SPEC CUT DITCH wHINGE
SEE DETAIL 501

1
LEE LOUIS BARBER
SABRINA M. BARBER
DB 2631 PG 906
DB 430 PG 529

2

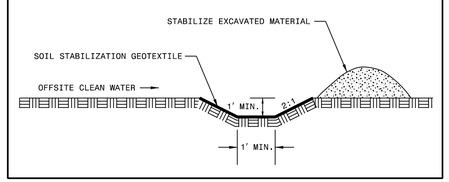
3

4
KAY TROXLER BOOE
WILLIAM R. BOOE
DB 2615 PG 340
PB 71 PG 394

–L–

PI Sta 14+20.36	PI Sta 14+69.86
Δ = 0° 11' 12.1" (RT)	Δ = 0° 15' 21.1" (LT)
D = 0° 22' 37.7"	D = 0° 31' 00.6"
L = 49.51'	L = 49.51'
T = 24.75'	T = 24.75'
R = 15,192.72'	R = 11,085.86'
	DS = 55 MPH
	e = NC

CLEAN WATER DIVERSION
→→ CWD →→ CWD →→ CWD →→ CWD →→
(Not to Scale)



**Place Matting for Erosion Control on Slope as Work Allows.
Sta. 18+50 to Sta. 20+00 RT
Sta. 23+50 to Sta. 24+00 RT**

FOR DETOUR SEE SHEET NO. 2B-1
FOR –L– PROFILE SEE SHEET NO. 6

12/8/2021
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smithgar

PROJECT REFERENCE NO.	SHEET NO.
B-5728	EC-08/CONST.05

R/W SHEET NO.

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

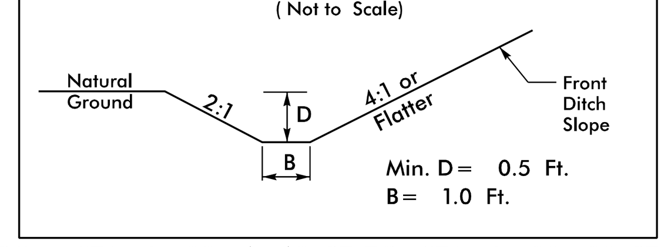
moffatt & nichol
4700 FALLS OF NEUSE ROAD, SUITE 300
RALEIGH, NORTH CAROLINA 27609
(919) 781-4626 VOICE (919) 781-4869 FAX
NC License NO.: F-0105

NAD 83 NAD 2011

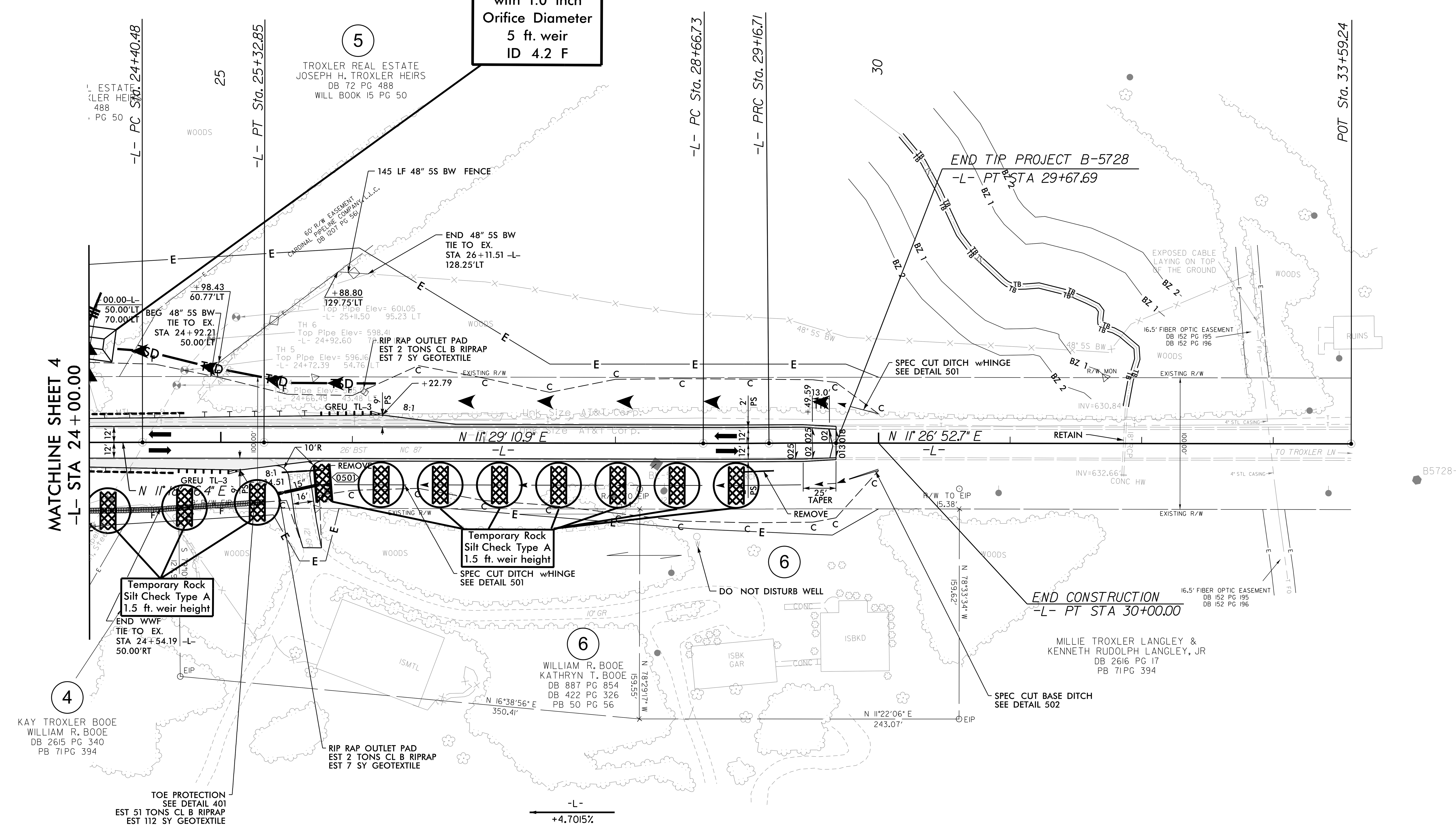
-L-

PI Sta 24+86.66	PI Sta 28+91.72	PI Sta 29+42.20
Δ = 0° 10′ 24.5″ (RT)	Δ = 0° 33′ 32.0″ (LT)	Δ = 0° 31′ 13.7″ (RT)
D = 0° 11′ 16.0″	D = 1° 07′ 05.5″	D = 1° 01′ 15.0″
L = 92.37′	L = 49.98′	L = 50.99′
T = 46.18′	T = 24.99′	T = 25.49′
R = 30,510.61′	R = 5,123.96′	R = 5,612.71′
DS = 55 MPH	DS = 55 MPH	DS = 55 MPH
e = NC	e = NC	e = NC

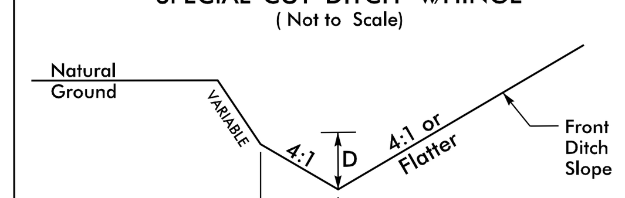
DETAIL 502
SPECIAL CUT BASE DITCH
(Not to Scale)



FROM STA. -L- 29+67.69 RT TO STA. -L- 30+00 RT

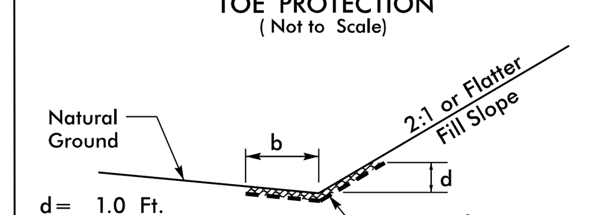

51 x 25 x 3
1.5 inch Skimmer
with 1.0 inch
Orifice Diameter
5 ft. weir
ID 4.2 F
TROXLER REAL ESTATE
JOSEPH H. TROXLER HEIRS
DB 72 PG 488
WILL BOOK 15 PG 50
-L- PC Sta. 24+40.48
-L- PT Sta. 25+32.85
-L- PC Sta. 28+66.73
-L- PRC Sta. 29+16.71
POT Sta. 33+59.24
END TIP PROJECT B-5728
-L- PT STA 29+67.69
145 LF 48" 5S BW FENCE
END 48" 5S BW
TIE TO EX.
STA 26+11.51 -L-
128.25'LT
BEG 48" 5S BW
TIE TO EX.
STA 24+92.21
50.00'LT
RIP RAP OUTLET PAD
EST 2 TONS CL B RIPRAP
EST 7 SY GEOTEXTILE
SPEC CUT DITCH wHINGE
SEE DETAIL 501
EXPOSED CABLE
LAYING ON TOP
OF THE GROUND
16.5' FIBER OPTIC EASEMENT
DB 152 PG 195
DB 152 PG 196
MATCHLINE SHEET 4
-L- STA 24+00.00
N 11° 29' 10.9" E
N 11° 26' 52.7" E
RETAIN
REMOVE
TAPER
Temporary Rock
Silt Check Type A
1.5 ft. weir height
DO NOT DISTURB WELL
END CONSTRUCTION
-L- PT STA 30+00.00
MILLIE TROXLER LANGLEY &
KENNETH RUDOLPH LANGLEY, JR
DB 2616 PG 17
PB 71 PG 394
END WWF
TIE TO EX.
STA 24+54.19 -L-
50.00'RT
WILLIAM R. BOOE
KATHRYN T. BOOE
DB 887 PG 854
DB 422 PG 326
PB 50 PG 56
KAY TROXLER BOOE
WILLIAM R. BOOE
DB 2615 PG 340
PB 71 PG 394
SPEC CUT BASE DITCH
SEE DETAIL 502
RIP RAP OUTLET PAD
EST 2 TONS CL B RIPRAP
EST 7 SY GEOTEXTILE
TOE PROTECTION
SEE DETAIL 401
EST 51 TONS CL B RIPRAP
EST 112 SY GEOTEXTILE
-L-
+4.7015%

DETAIL 501
SPECIAL CUT DITCH w/HINGE
(Not to Scale)



FROM STA. -L- 14+00 RT TO STA. -L- 14+45.11 RT
FROM STA. -L- 14+00 LT TO STA. -L- 14+45.11 LT
FROM STA. -L- 25+75 RT TO STA. -L- 29+67.69 RT
FROM STA. -L- 29+67.69 LT TO STA. -L- 30+00 LT

DETAIL 401
TOE PROTECTION
(Not to Scale)



d = 1.0 Ft.
b = 2.0 Ft.

Type of Liner = Class B Rip-Rap

FROM STA. -L- 18+50 RT TO STA. -L- 19+70 RT
FROM STA. -L- 23+50 RT TO STA. -L- 25+30 RT

Place Matting for Erosion Control
on Slope as Work Allows.
Sta. 24+00 to Sta. 25+33 RT

FOR -L- PROFILE SEE SHEET 6