

TIP PROJECT: B-4189

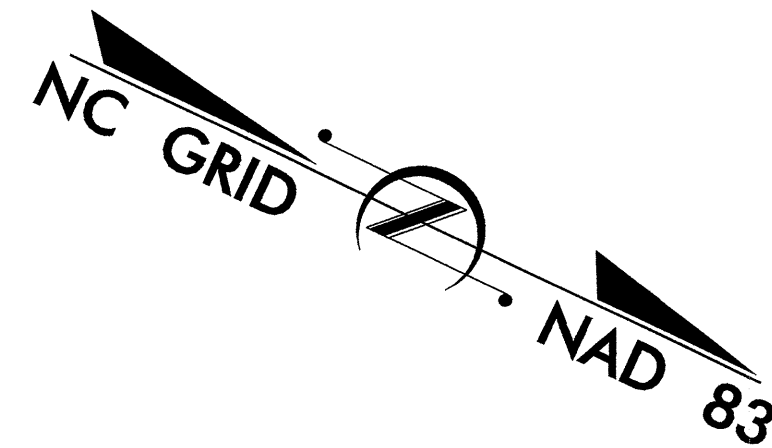
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

MCDOWELL COUNTY

**LOCATION: BRIDGE NO. 49 OVER SOUTH MUDDY CREEK
ON NC 226**

**TYPE OF WORK: GRADING, DRAINAGE, PAVING,
STRUCTURES, AND GUARDRAIL.**

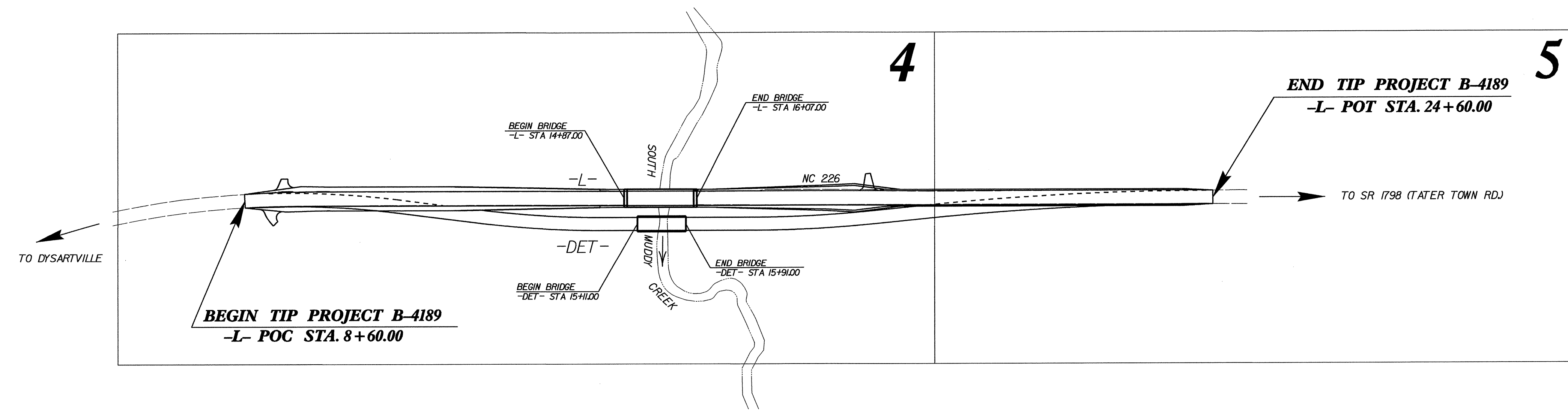


STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4189	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
	Streambank Reforestation.....	
1630.03	Temporary Silt Ditch.....	
1630.05	Temporary Diversion.....	
1605.01	Temporary Silt Fence.....	
1606.01	Special Sediment Control Fence.....	
1622.01	Temporary Berms and Slope Drains.....	
1630.01	Riser Basin.....	
1630.02	Silt Basin Type B.....	
1633.01	Temporary Rock Silt Check Type-A.....	
	Temporary Rock Silt Check Type-B.....	
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.....	
	Rock Inlet Sediment Trap:	
1632.01	Type A.....	
1632.02	Type B.....	
1632.03	Type C.....	
	Skimmer Basin.....	
	Tiered Skimmer Basin.....	
	Infiltration Basin.....	

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



GRAPHIC SCALE

0

PLANS

0

PROFILE (HORIZONTAL)

0

PROFILE (VERTICAL)

ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

Prepared In the Office of:
ROADSIDE ENVIRONMENTAL UNIT
1 South Wilmington St.
Raleigh, NC 27611
2006 STANDARD SPECIFICATIONS

Roadway Standard Drawings

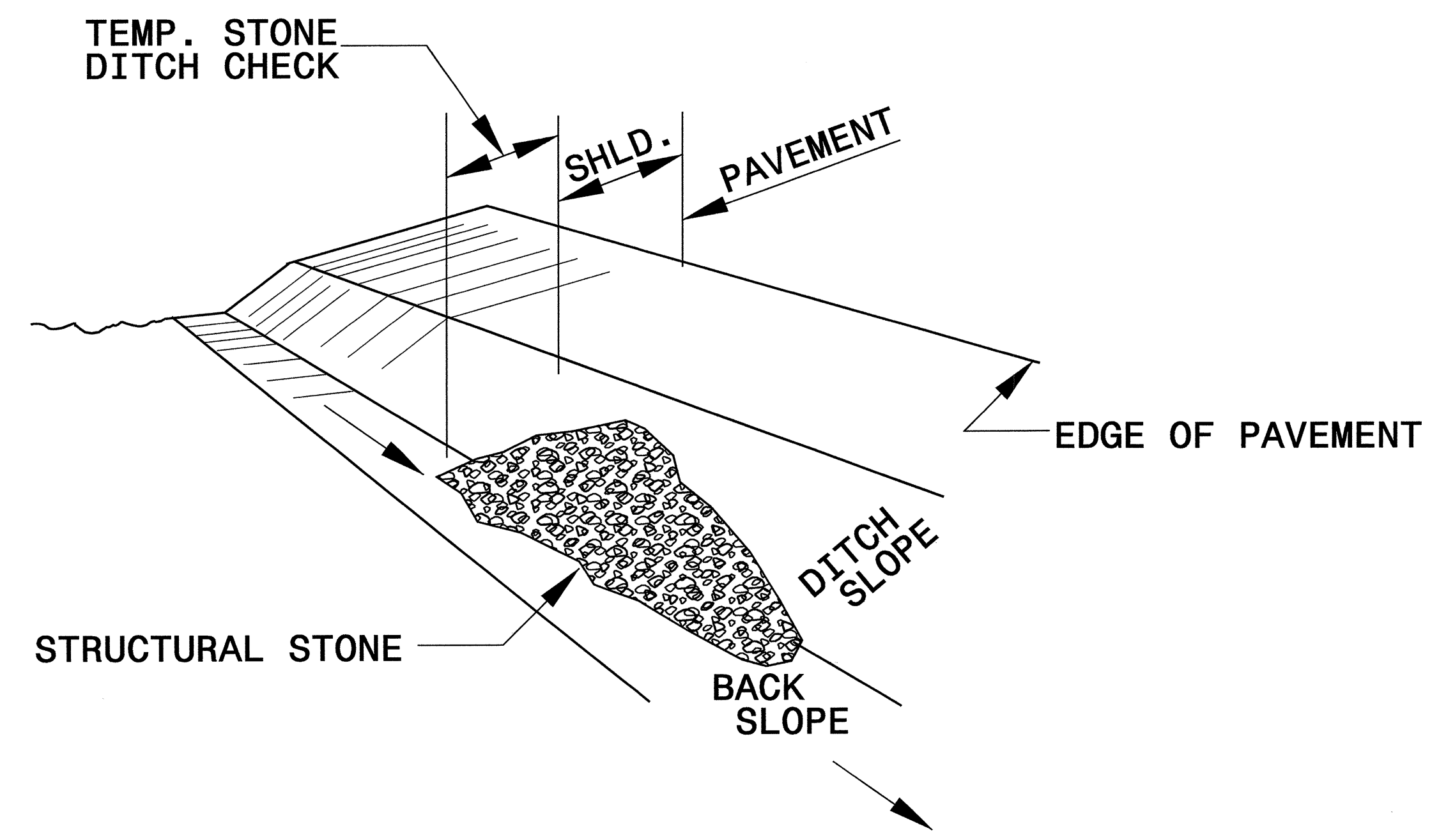
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated July 18, 2006 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1605.01 Temporary Silt 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	1634.02 Temporary Rock Sediment Dam Type B
1630.03 Temporary Silt Ditch	1635.02 Rock Pipe Inlet Sediment Trap Type B
1630.05 Temporary Diversion	

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 Roadside Environmental Details\B-4189_rdy_tsh.dgn
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PROJECT REFERENCE NO. B-4189	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL

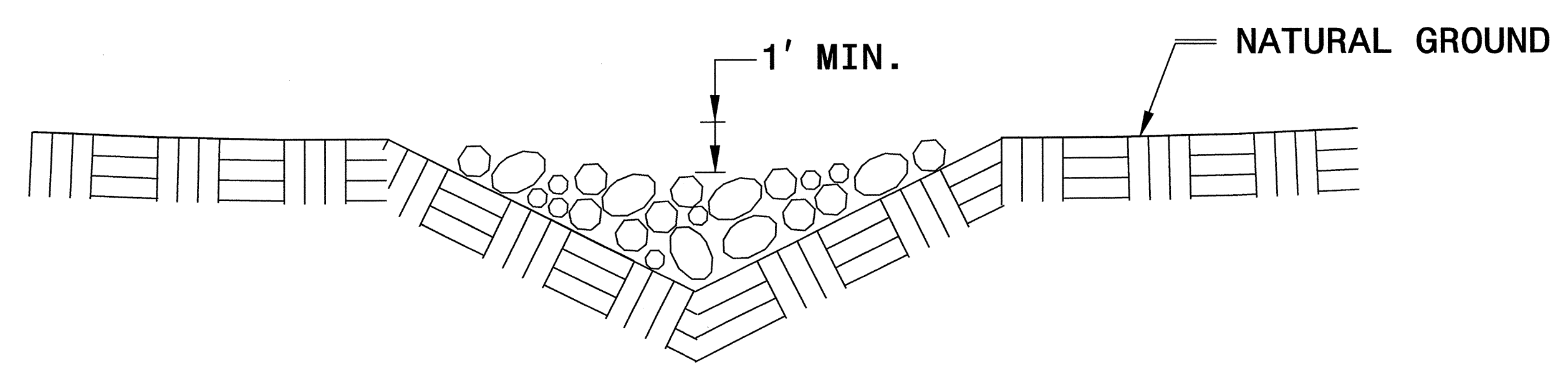


ISOMETRIC VIEW

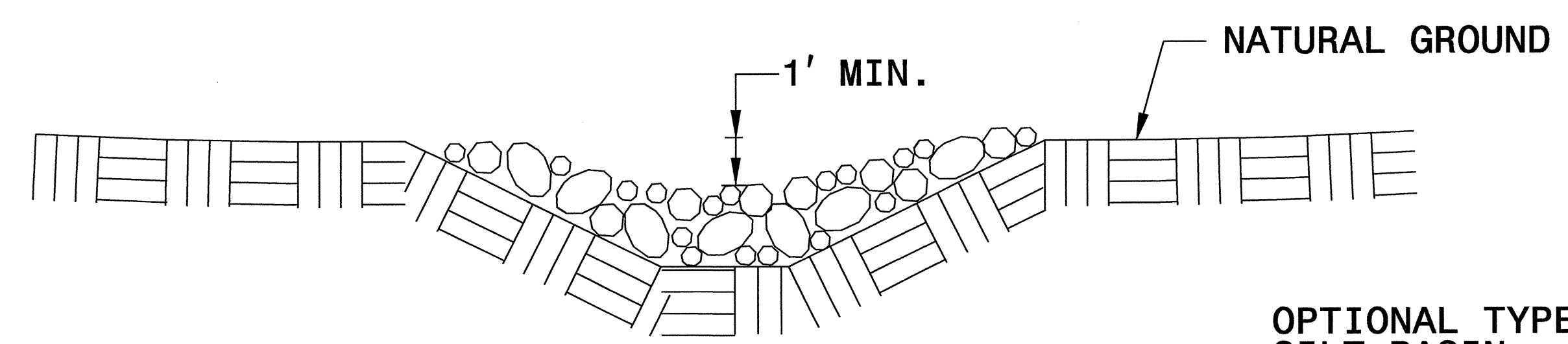
NOTES:

USE CLASS 'B' EROSION CONTROL STONE FOR STRUCTURAL STONE.

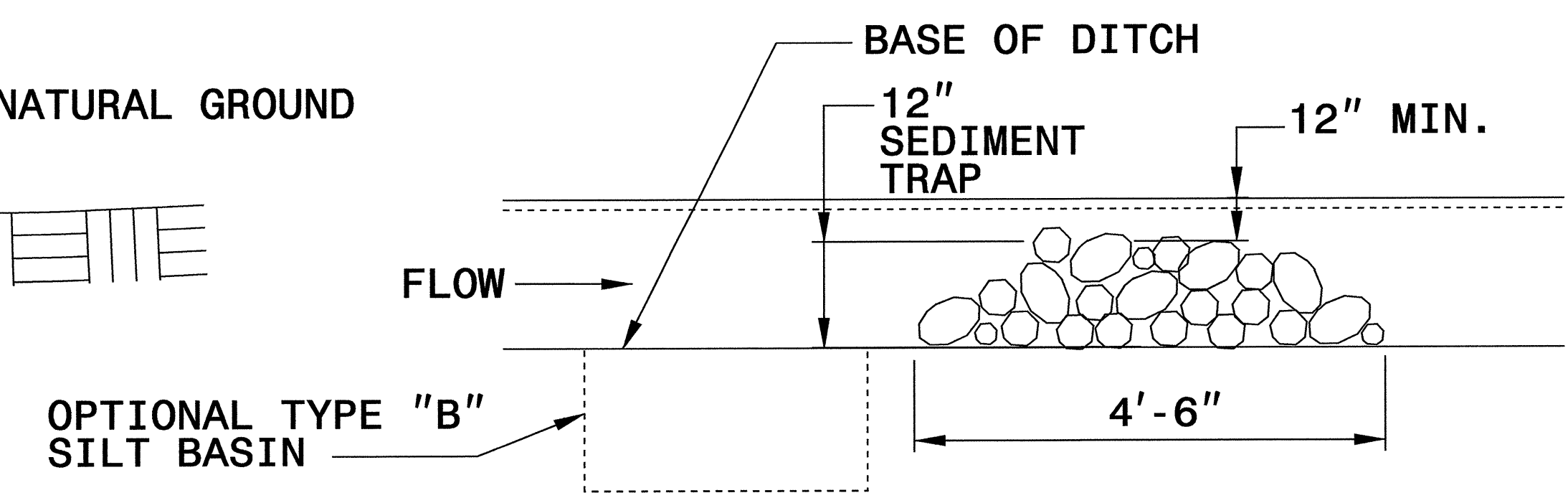
THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



CROSS SECTION VEE DITCH



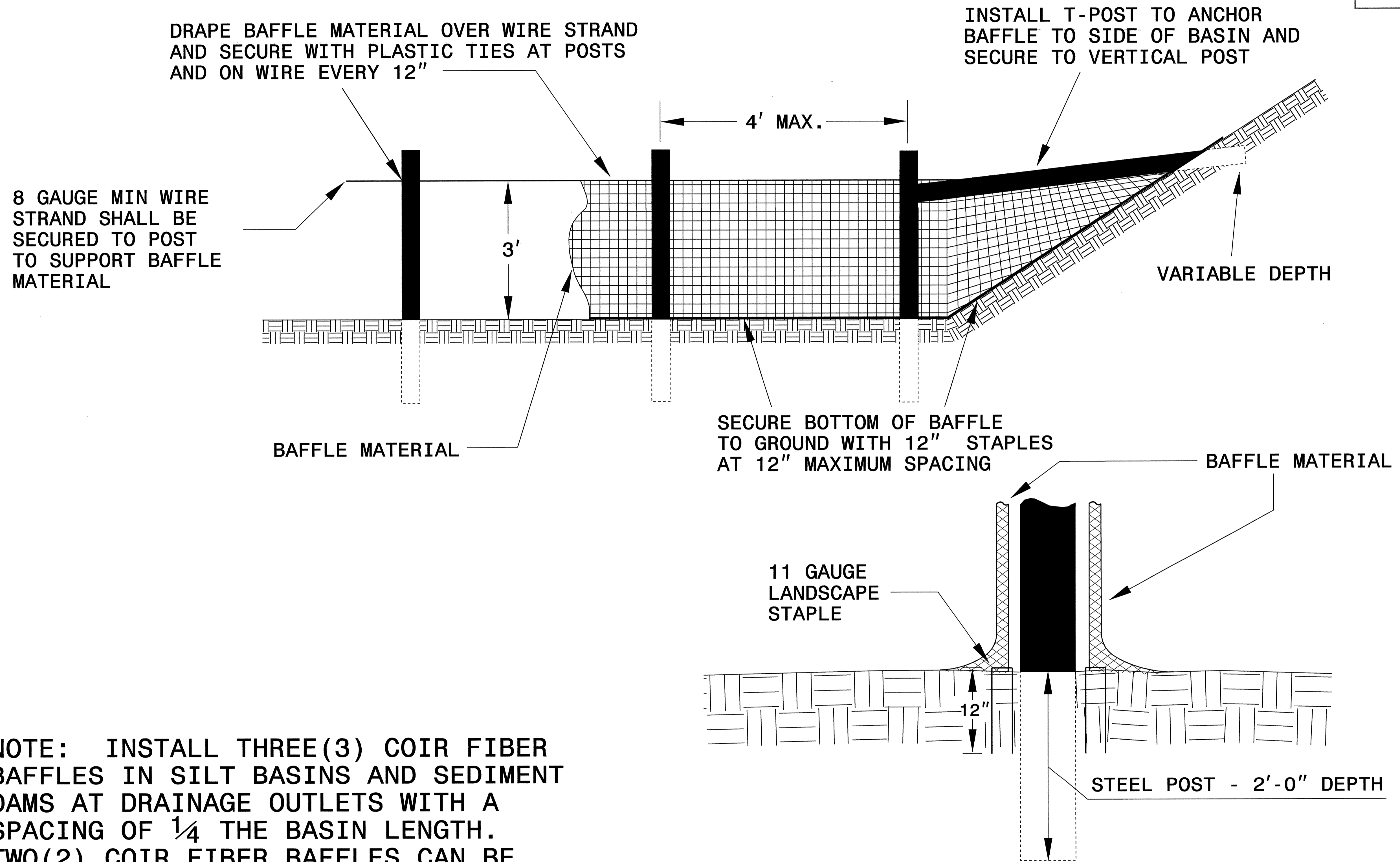
CROSS SECTION TRAPEZOIDAL DITCH



ELEVATION VIEW

PROJECT REFERENCE NO. B-4189	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

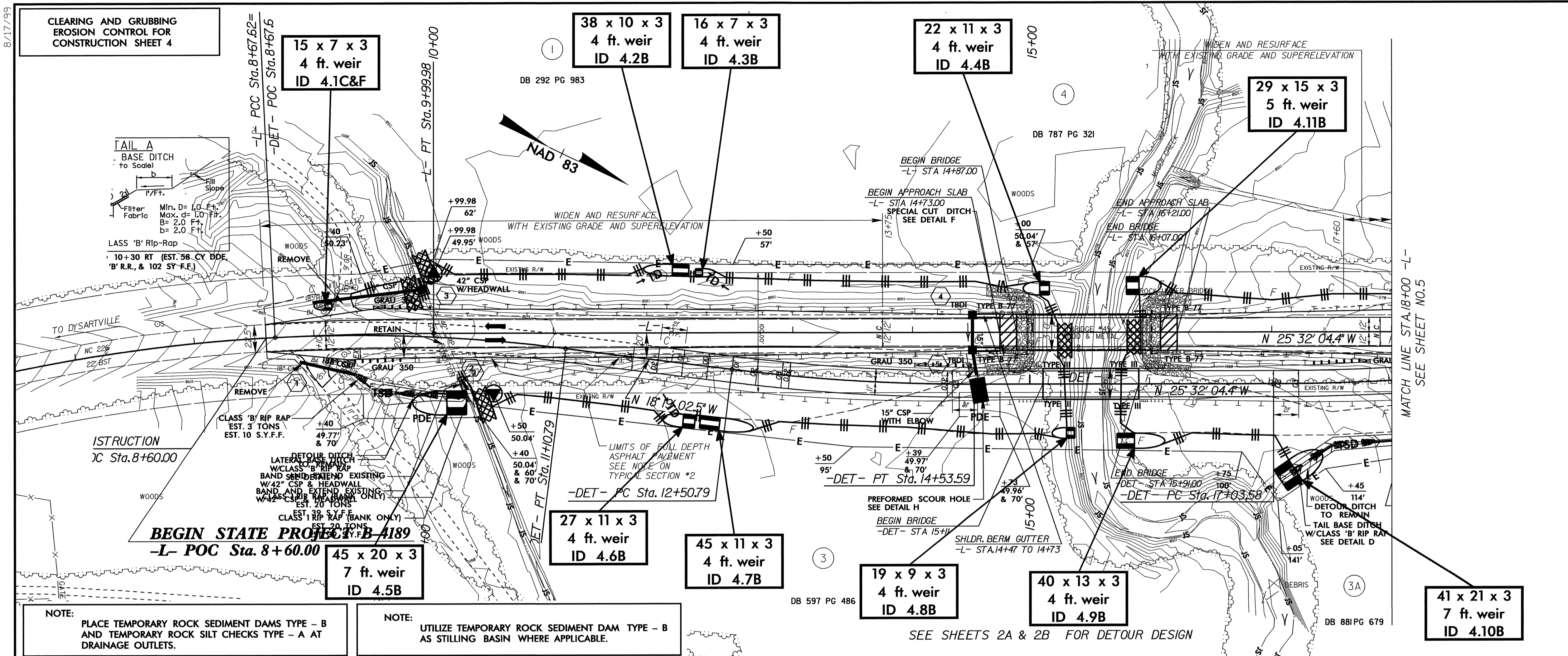
COIR FIBER BAFFLE DETAIL



NOTE: INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF $\frac{1}{4}$ THE BASIN LENGTH. TWO(2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 20 FT. IN LENGTH WITH A SPACING OF $\frac{1}{3}$ THE BASIN LENGTH.

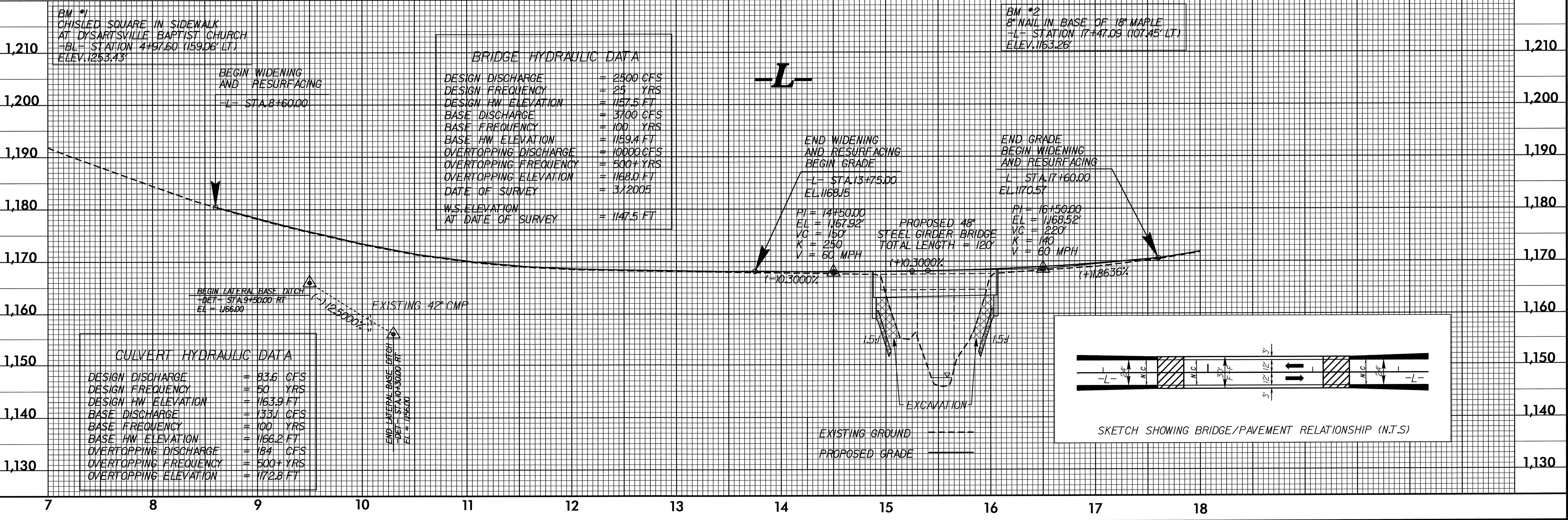
BAFFLE MATERIAL SHALL BE SECURED TO THE BOTTOM AND SIDES OF BASIN USING 12" LANDSCAPE STAPLES

PROJECT REFERENCE NO. B-4189	SHEET NO. EC-4/CONST.4
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.

NOTE: UTILIZE TEMPORARY ROCK SEDIMENT DAM TYPE - B AS STILLING BASIN WHERE APPLICABLE.

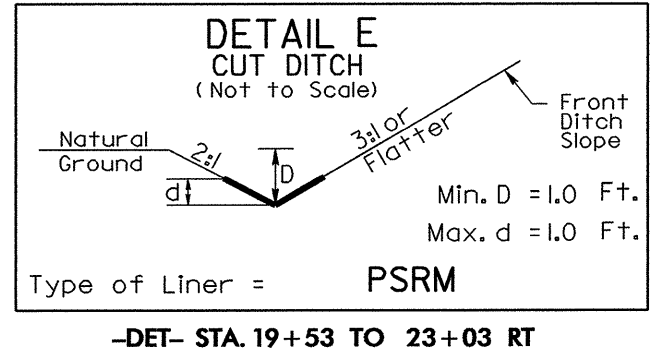
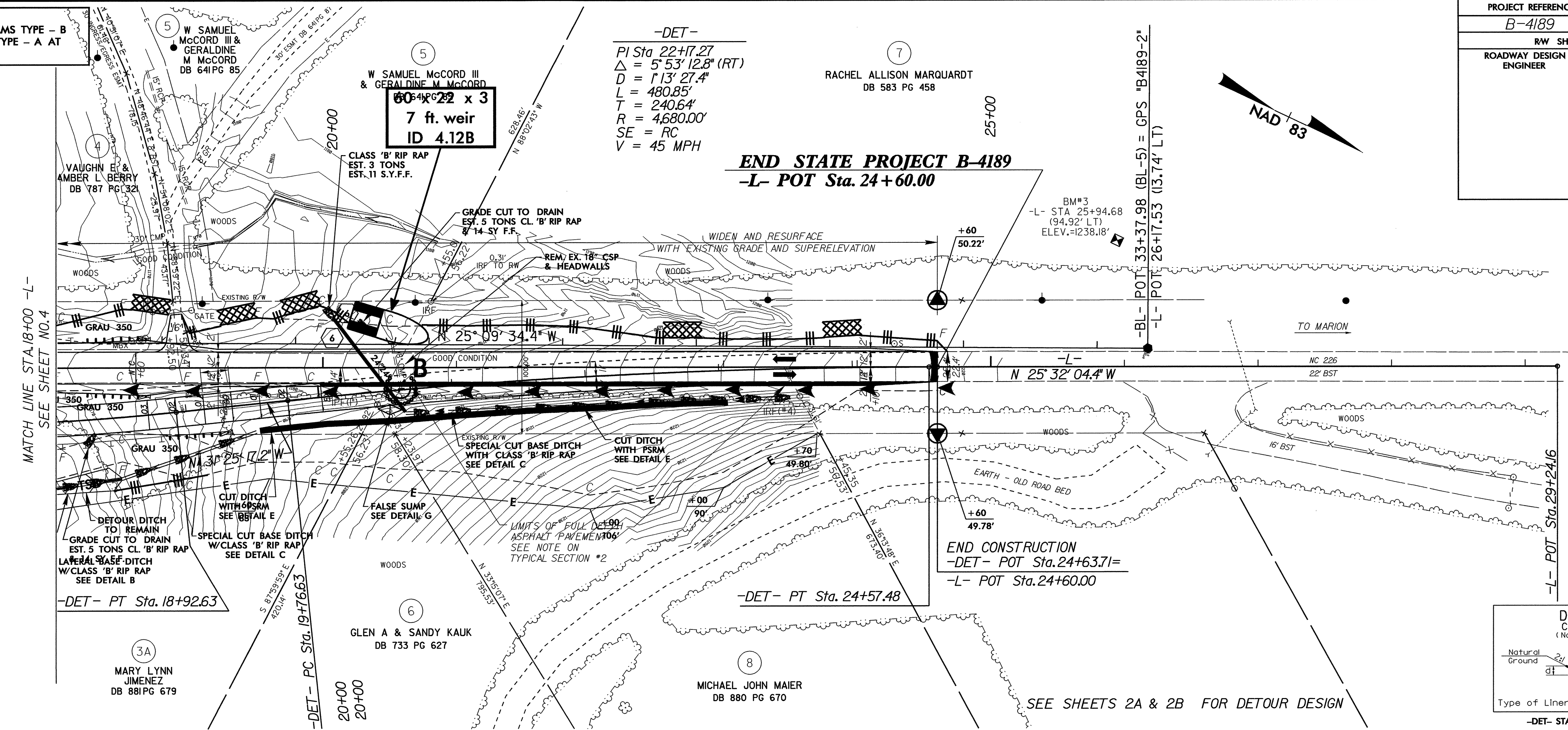


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 REVISIONS
 REVISION NO. 1
 REVISION DESCRIPTION
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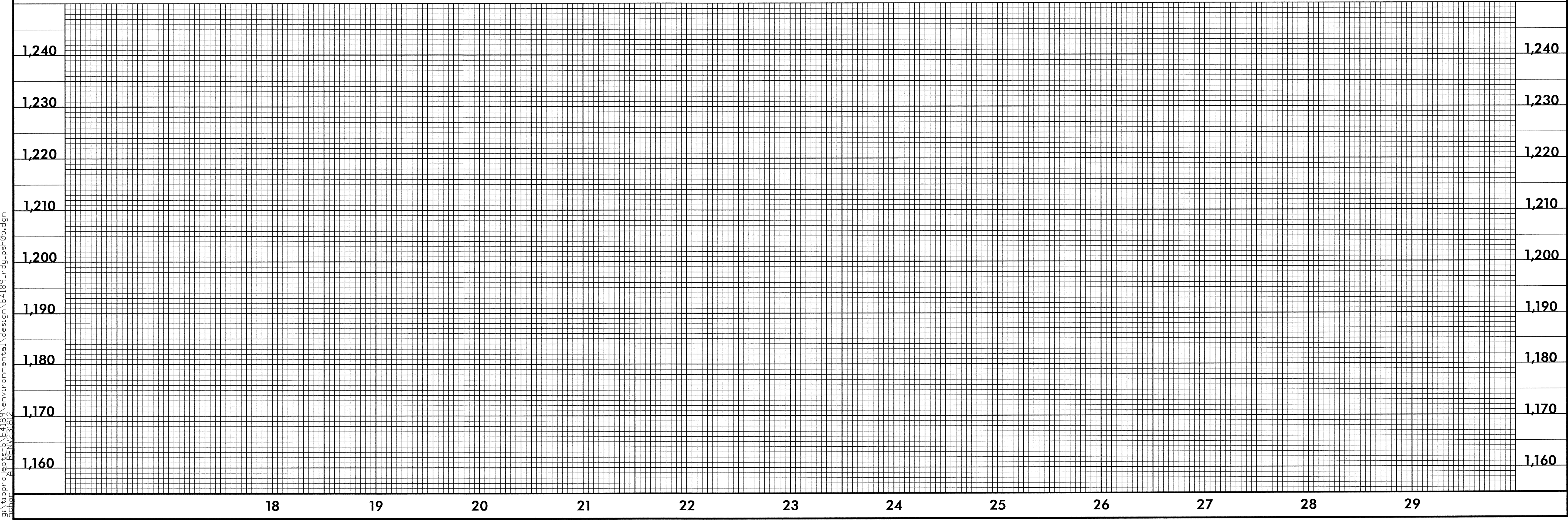
PROJECT REFERENCE NO.	SHEET NO.
B-4189	EC-5/CONST.5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

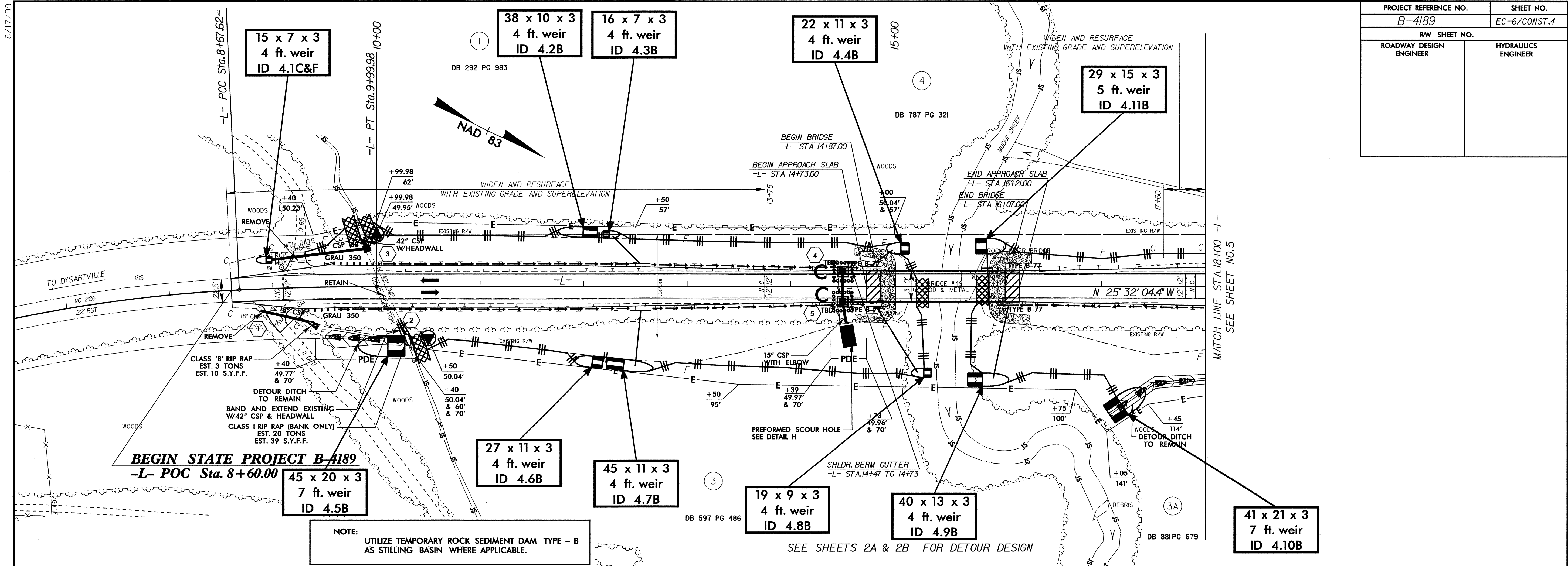
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 5



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At REV 2/18/12



PROJECT REFERENCE NO. B-4189	SHEET NO. EC-6/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



NOTE: UTILIZE TEMPORARY ROCK SEDIMENT DAM TYPE - B AS STILLING BASIN WHERE APPLICABLE.

BM #1
CHISLED SQUARE IN SIDEWALK
AT DYSARTVILLE BAPTIST CHURCH
BL - STATION 4+97.60 (159.06' LT)
ELEV. 1253.43'

BM #2
8" NAIL IN BASE OF 18" MAPLE
BL - STATION 17+47.09 (107.45' LT)
ELEV. 1163.26'

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 2500 CFS
DESIGN FREQUENCY	= 25 YRS
DESIGN HW ELEVATION	= 1187.5 FT
BASE DISCHARGE	= 3700 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 1189.4 FT
OVERTOPPING DISCHARGE	= 10000 CFS
OVERTOPPING FREQUENCY	= 500+ YRS
OVERTOPPING ELEVATION	= 1188.0 FT
DATE OF SURVEY	= 3/2005
W.S. ELEVATION AT DATE OF SURVEY	= 1147.5 FT

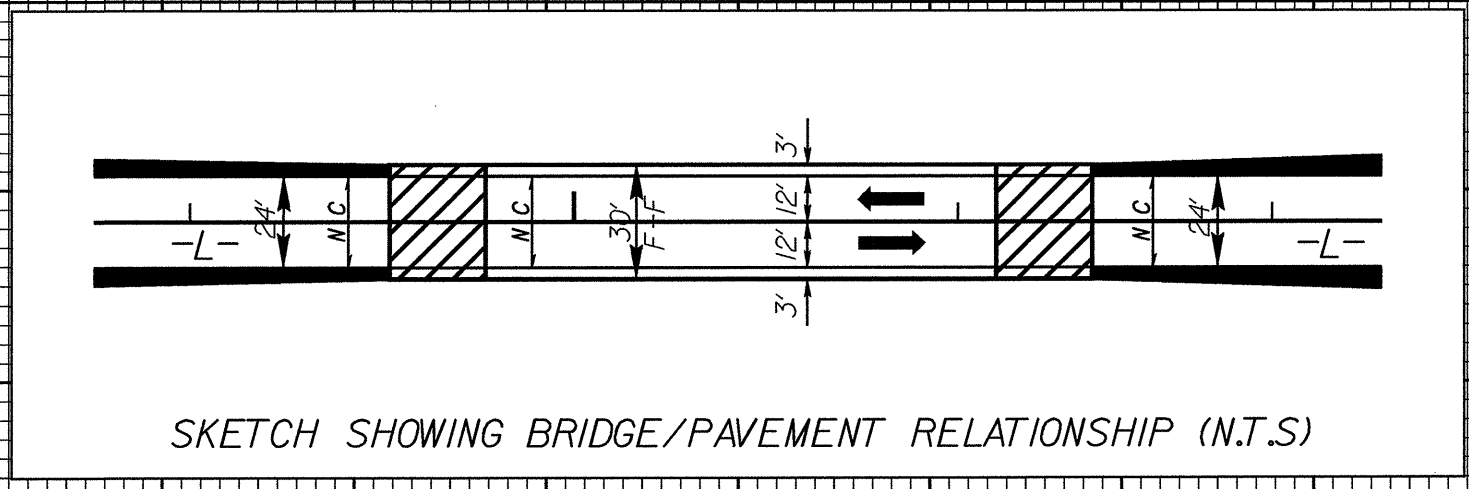
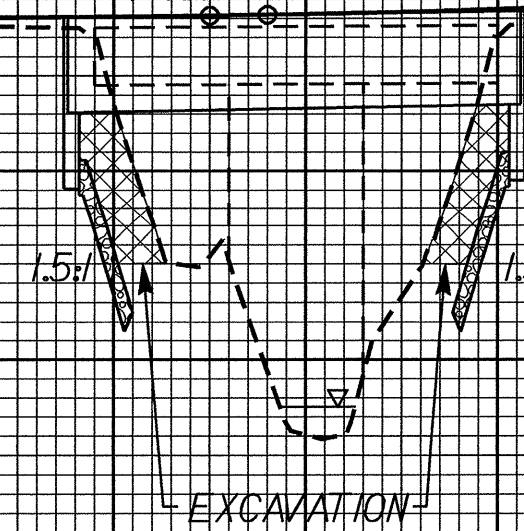
CULVERT HYDRAULIC DATA

DESIGN DISCHARGE	= 83.6 CFS
DESIGN FREQUENCY	= 50 YRS
DESIGN HW ELEVATION	= 1163.9 FT
BASE DISCHARGE	= 133.1 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 1166.2 FT
OVERTOPPING DISCHARGE	= 184 CFS
OVERTOPPING FREQUENCY	= 500+ YRS
OVERTOPPING ELEVATION	= 1172.8 FT

END WIDENING AND RESURFACING
BEGIN GRADE
BL - STA. 13+75.00
EL. 1168.15

END GRADE BEGIN WIDENING AND RESURFACING
BL - STA. 17+60.00
EL. 1170.57

PROPOSED 48" STEEL GIRDER BRIDGE
TOTAL LENGTH = 120'
K = 230
V = 60 MPH

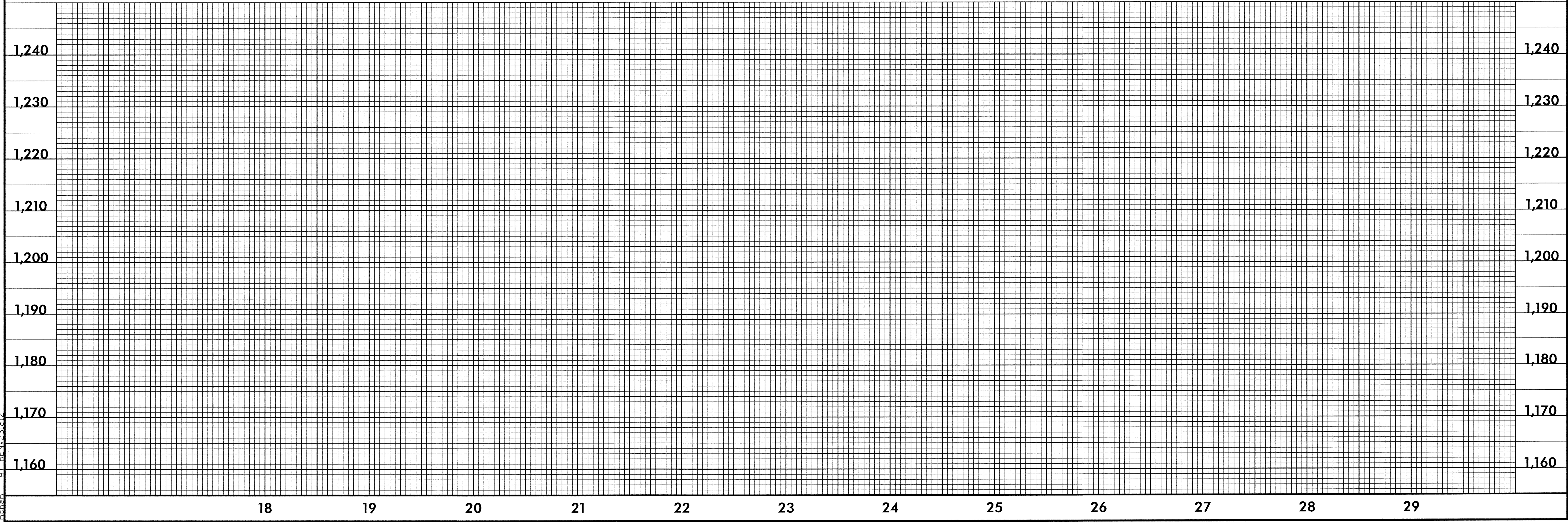
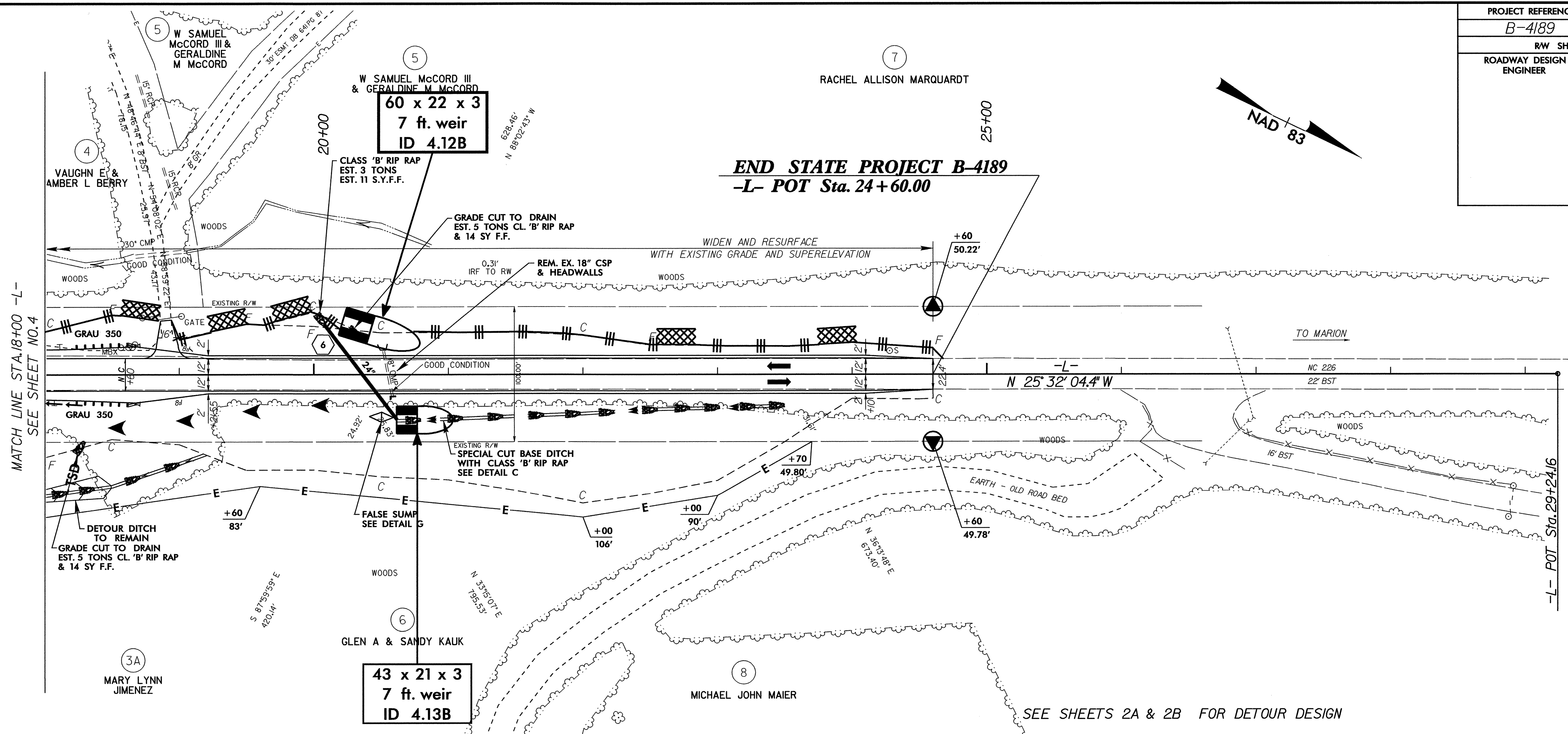


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REVISIONS

MATCH LINE STA 18+00 -L- SEE SHEET NO. 5

PROJECT REFERENCE NO. B-4189	SHEET NO. EC-7/CONST.5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

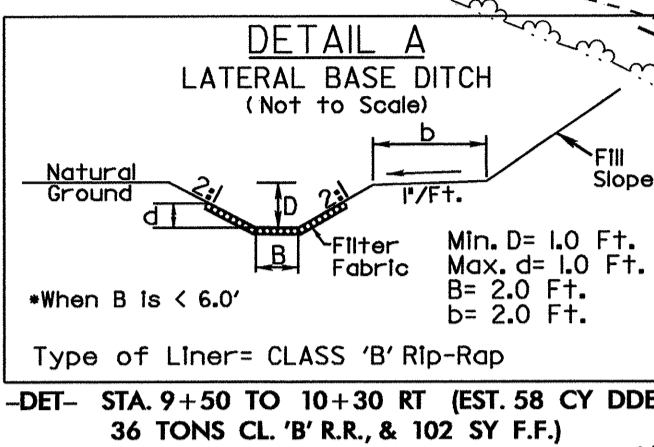
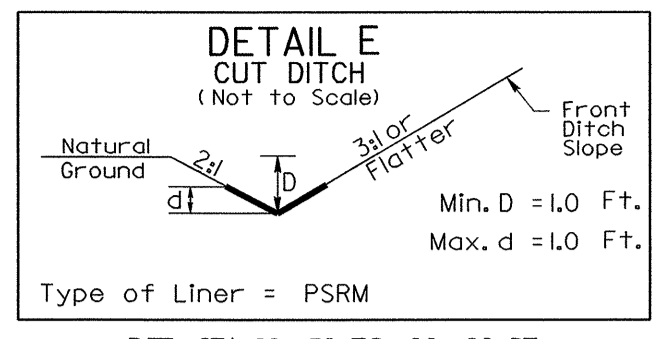


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 Rachel A.

SEE SHEETS 2A & 2B FOR DETOUR DESIGN

DETOUR

NOTE: UTILIZE TEMPORARY ROCK SEDIMENT DAM TYPE - B AS STILLING BASIN WHERE APPLICABLE.



DET- STA. 9+50 TO 10+30 RT (EST. 58 CY DDE, 36 TONS CL 'B' R.R., & 102 SY F.F.)

BEGIN CONSTRUCTION
DET- POC Sta. 8+60.00

45 x 20 x 3
7 ft. weir
ID 4.5B

27 x 11 x 3
4 ft. weir
ID 4.6B

45 x 11 x 3
4 ft. weir
ID 4.7B

19 x 9 x 3
4 ft. weir
ID 4.8B

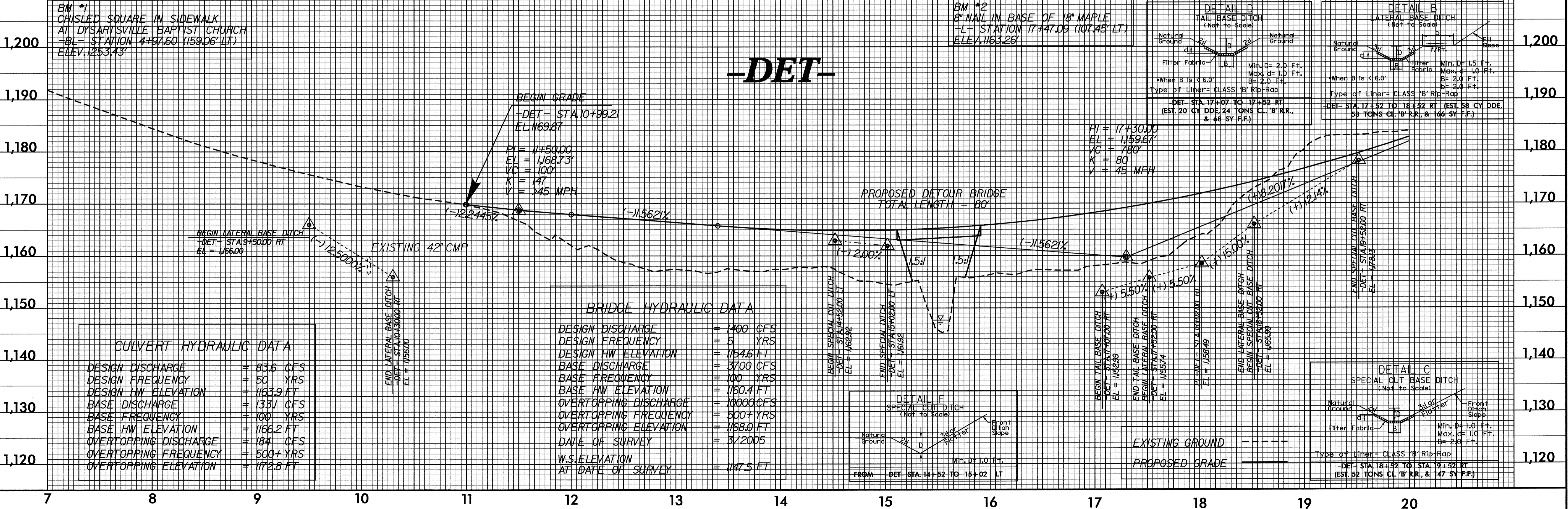
40 x 13 x 3
4 ft. weir
ID 4.9B

41 x 21 x 3
7 ft. weir
ID 4.10B

PI Sta. 7+46.66 Δ = 30° 32' 59.3" (RT) D = 4' 05" 33.2" L = 746.47' T = 382.34' R = 1,400.00' SE = EXISTING SE V = 45 MPH	PI Sta. 13+52.33 Δ = 7° 13' 01.8" (LT) D = 3' 33" 31.5" L = 202.80' T = 101.53' R = 1,610.00' SE = 0.032 V = 45 MPH	PI Sta. 17+98.19 Δ = 5° 53' 12.8" (LT) D = 3' 06" 50.0" L = 189.05' T = 94.61' R = 1,840.00' SE = 0.03 V = 45 MPH	PI Sta. 22+17.27 Δ = 5° 53' 12.8" (RT) D = 1' 13" 27.4" L = 480.85' T = 240.64' R = 4,680.00' SE = RC V = 45 MPH
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MARGARET REGINA REDDEN PASCHALL
& JOHN MITCHELL REDDEN

MARY LYNN JIMENEZ



CULVERT HYDRAULIC DATA

DESIGN DISCHARGE	= 83.6 CFS
DESIGN FREQUENCY	= 50 YRS
DESIGN HW ELEVATION	= 1163.9 FT
BASE DISCHARGE	= 1351 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 1166.2 FT
OVERTOPPING DISCHARGE	= 184 CFS
OVERTOPPING FREQUENCY	= 500 YRS
OVERTOPPING ELEVATION	= 1172.8 FT

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 1400 CFS
DESIGN FREQUENCY	= 5 YRS
DESIGN HW ELEVATION	= 1154.6 FT
BASE DISCHARGE	= 3700 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 1160.4 FT
OVERTOPPING DISCHARGE	= 10000 CFS
OVERTOPPING FREQUENCY	= 500 YRS
OVERTOPPING ELEVATION	= 1168.0 FT
DATE OF SURVEY	= 3/2005
W.S. ELEVATION AT DATE OF SURVEY	= 1147.5 FT

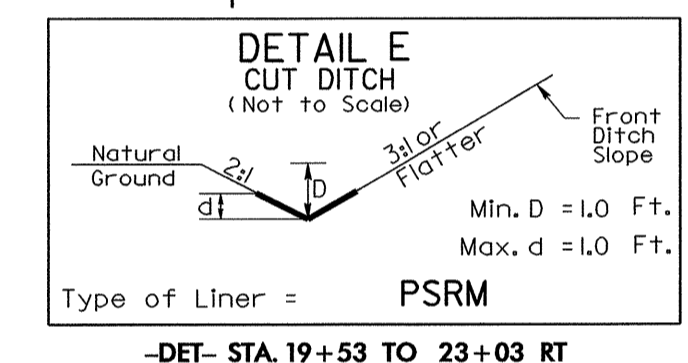
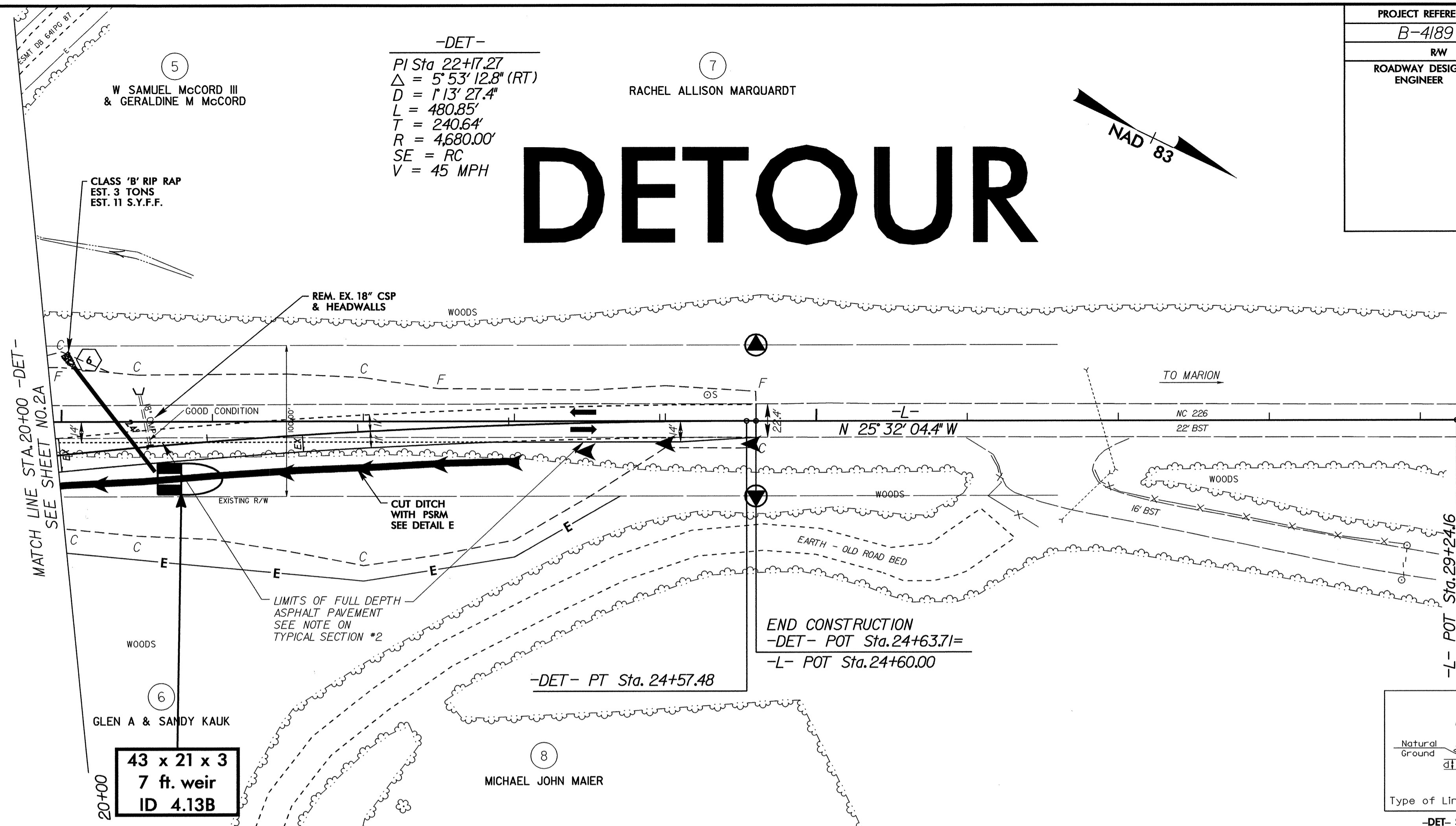
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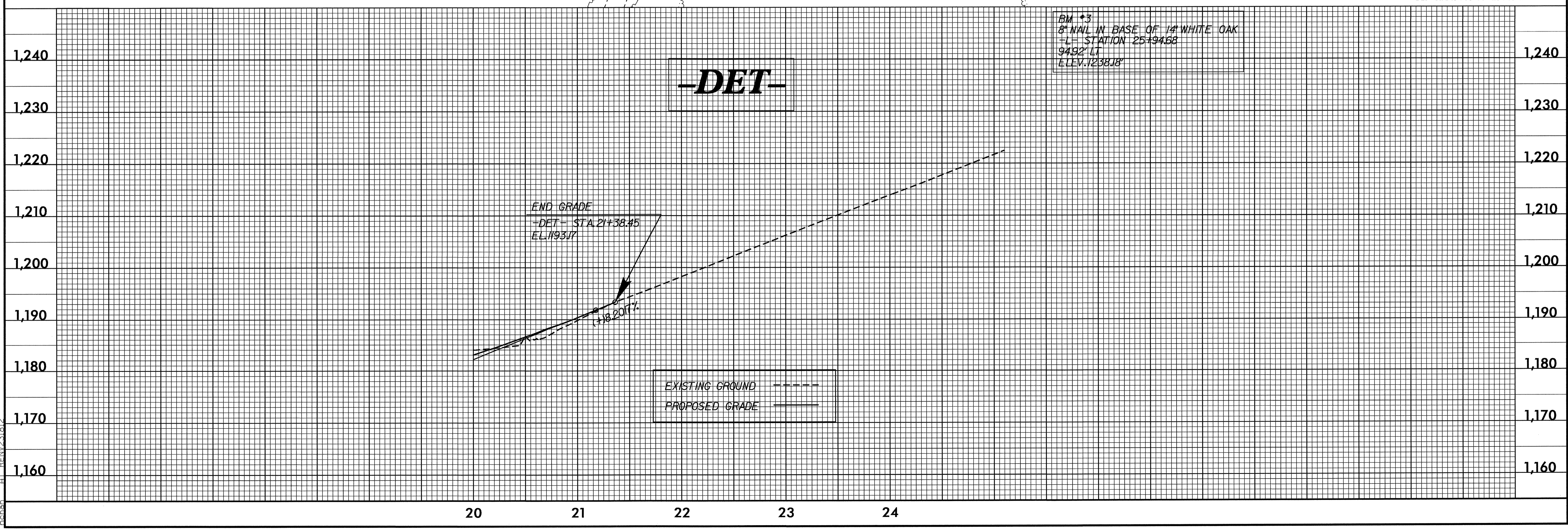
PROJECT REFERENCE NO.	SHEET NO.
B-4189	EC-9/CONST.2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-DET-
 PI Sta 22+17.27
 $\Delta = 5^{\circ} 53' 12.8''$ (RT)
 $D = 113' 27.4''$
 $L = 480.85'$
 $T = 240.64'$
 $R = 4,680.00'$
 $SE = RC$
 $V = 45$ MPH

DETOUR



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 Richard A.



-DET-