TIP PROJECT: U-4007B

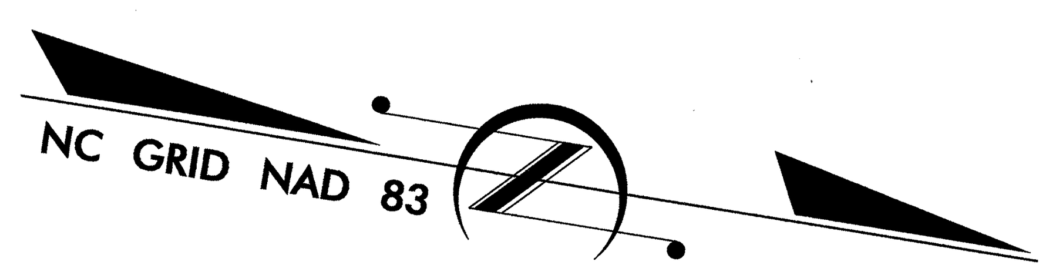
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-4007B	EC-1	

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

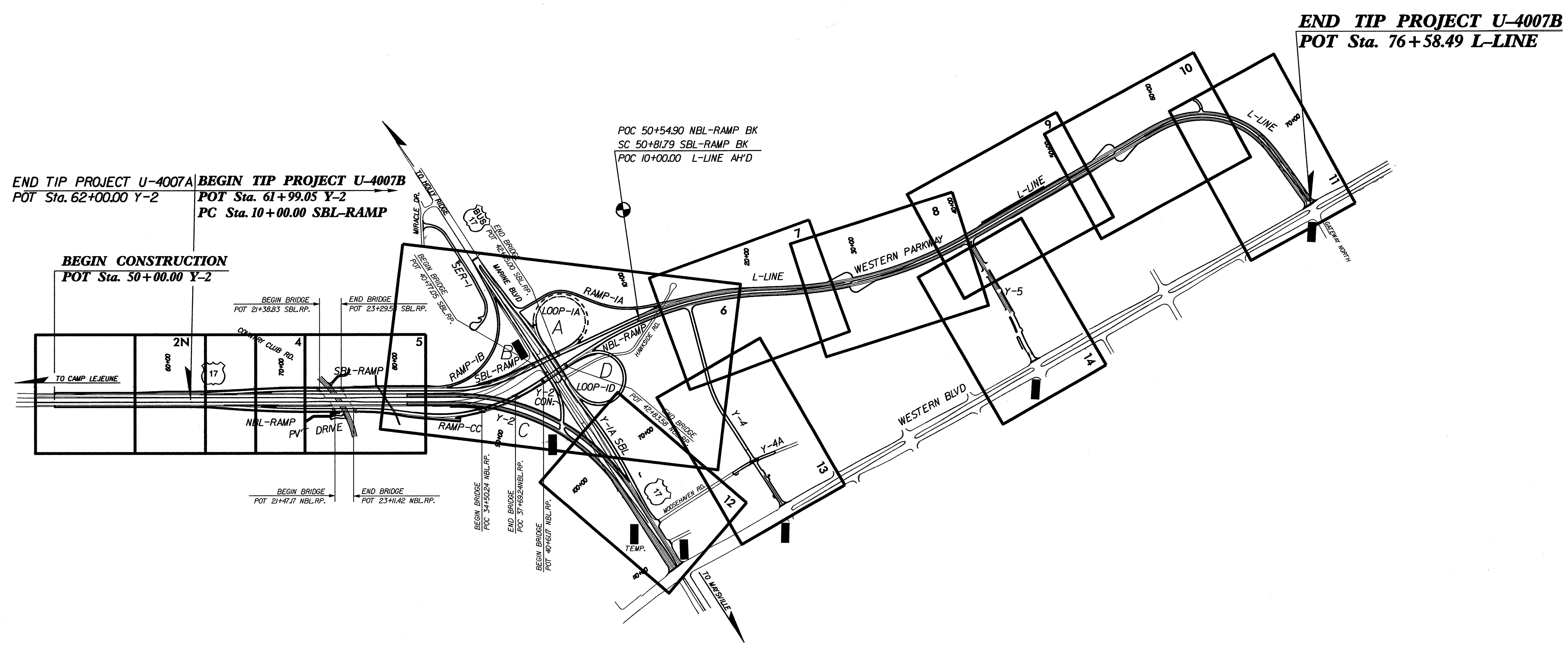
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

ONSLOW COUNTY



LOCATION: WESTERN PARKWAY FROM APPROXIMATELY 1300' SOUTH OF COUNTRY CLUB RD. TO WESTERN BLVD.

TYPE OF WORK: GRADING, PAVING, DRAINAGE, SIGNALS CURB, GUTTER, STRUCTURES, & CULVERT.



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	
	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
	Temporary Rock Silt Check Type-B	
	Wattle/ Coir Fiber Wattle	
	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	
	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

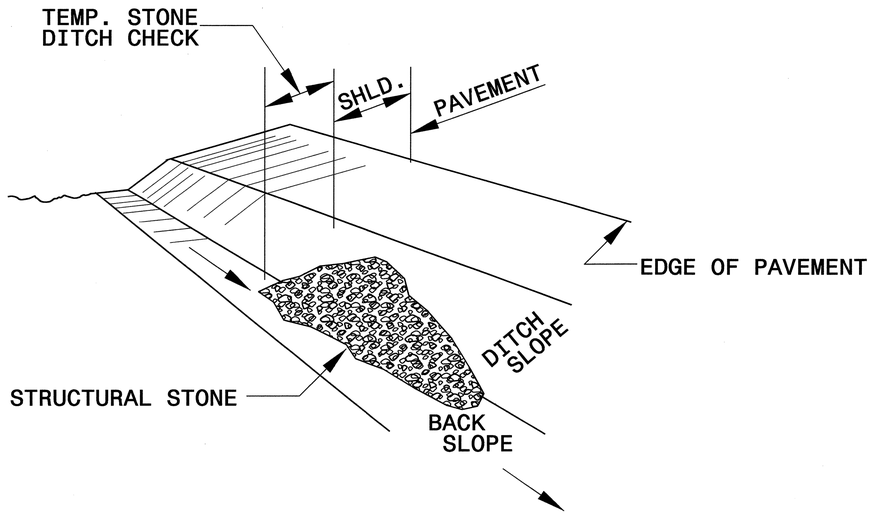
Roadway Standard Drawings

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 revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

1605.01 Temporary Silt Fence
1606.01 Special Sediment Control Fence
1607.01 Gravel Construction Entrance
1622.01 Temporary Berms and Slope Drains
1630.03 Temporary Silt Ditch
1630.04 Stilling Basin
1630.05 Temporary Diversion
1632.02 Rock Inlet Sediment Trap Type B
1632.03 Rock Inlet Sediment Trap Type C
1633.01 Temporary Rock Silt Check Type A
1634.01 Temporary Rock Sediment Dam Type A
1635.01 Rock Pipe Inlet Sediment Trap Type A

PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL

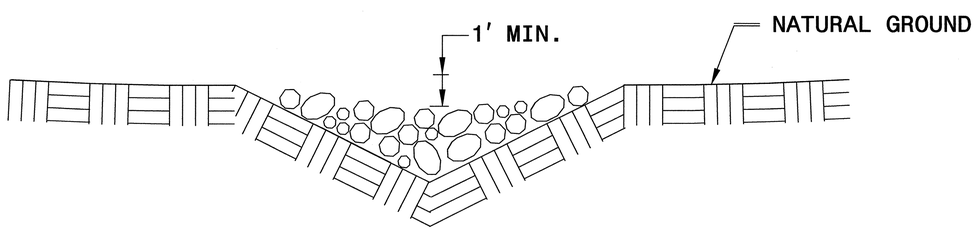


ISOMETRIC VIEW

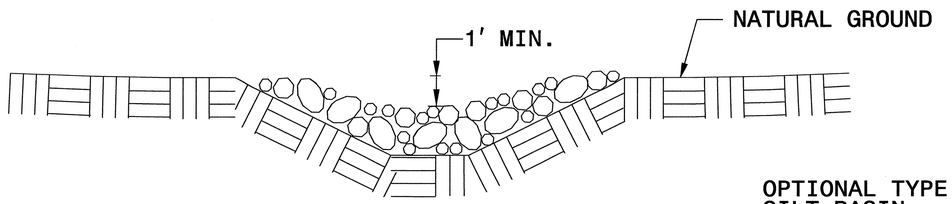
NOTES:

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

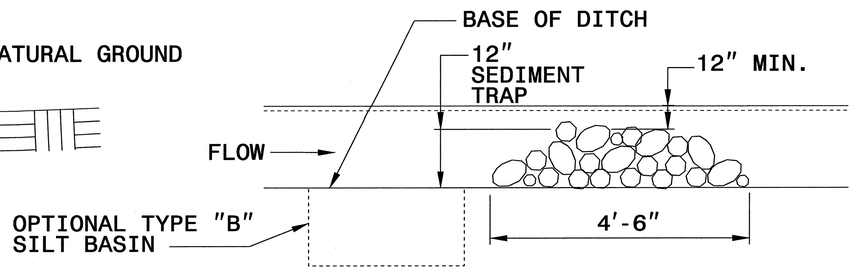
THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



CROSS SECTION VEE DITCH



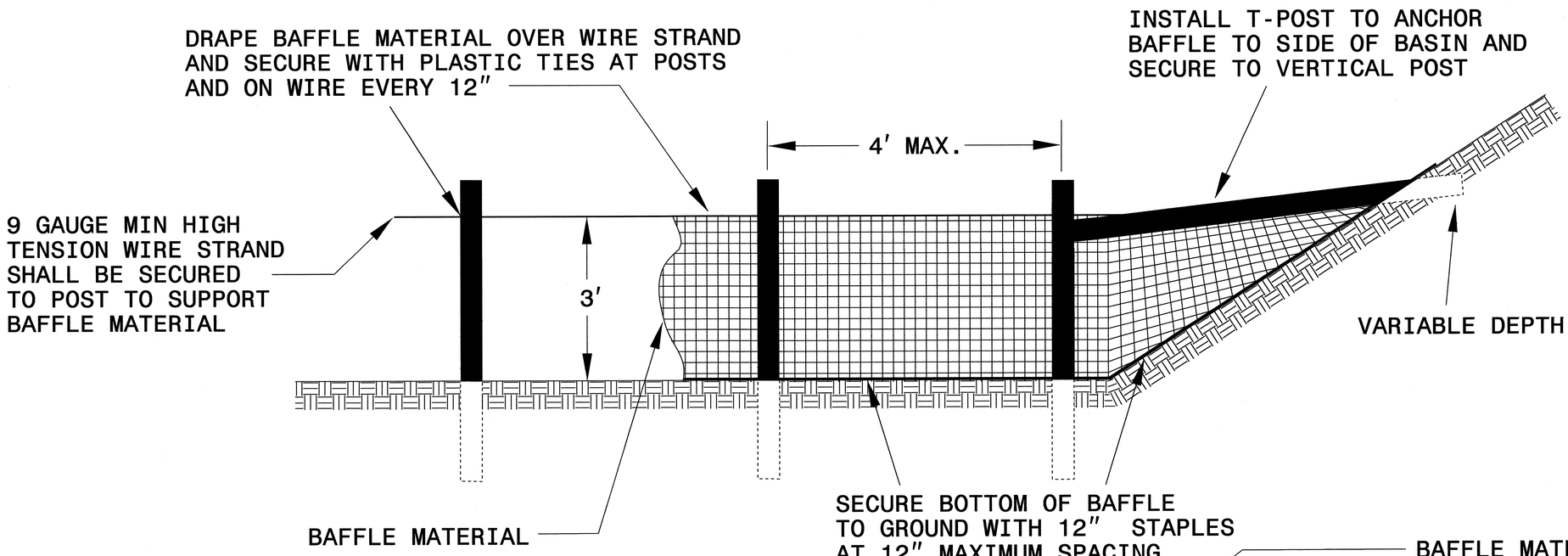
CROSS SECTION TRAPEZOIDAL DITCH

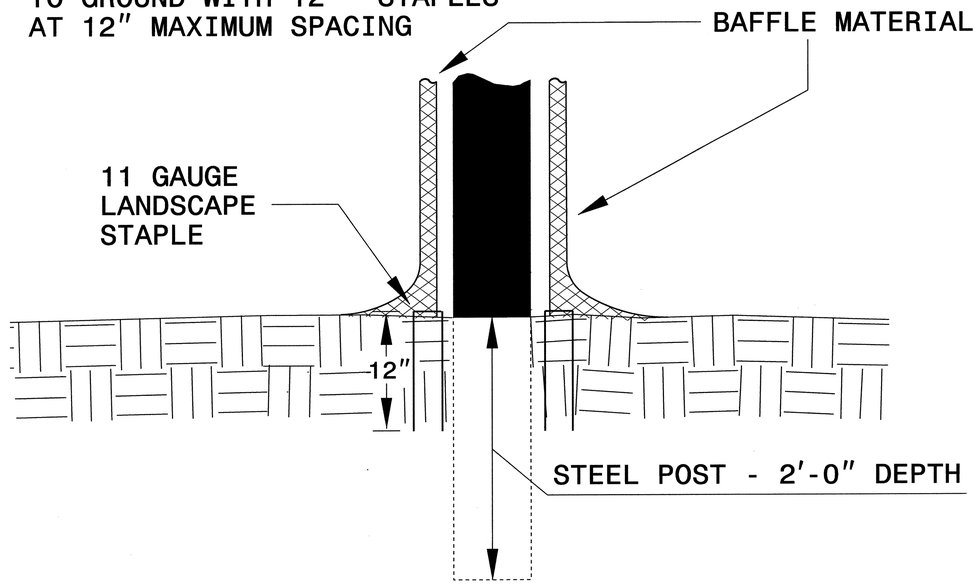


ELEVATION VIEW

PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-2A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER BAFFLE DETAIL





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

NOTES:

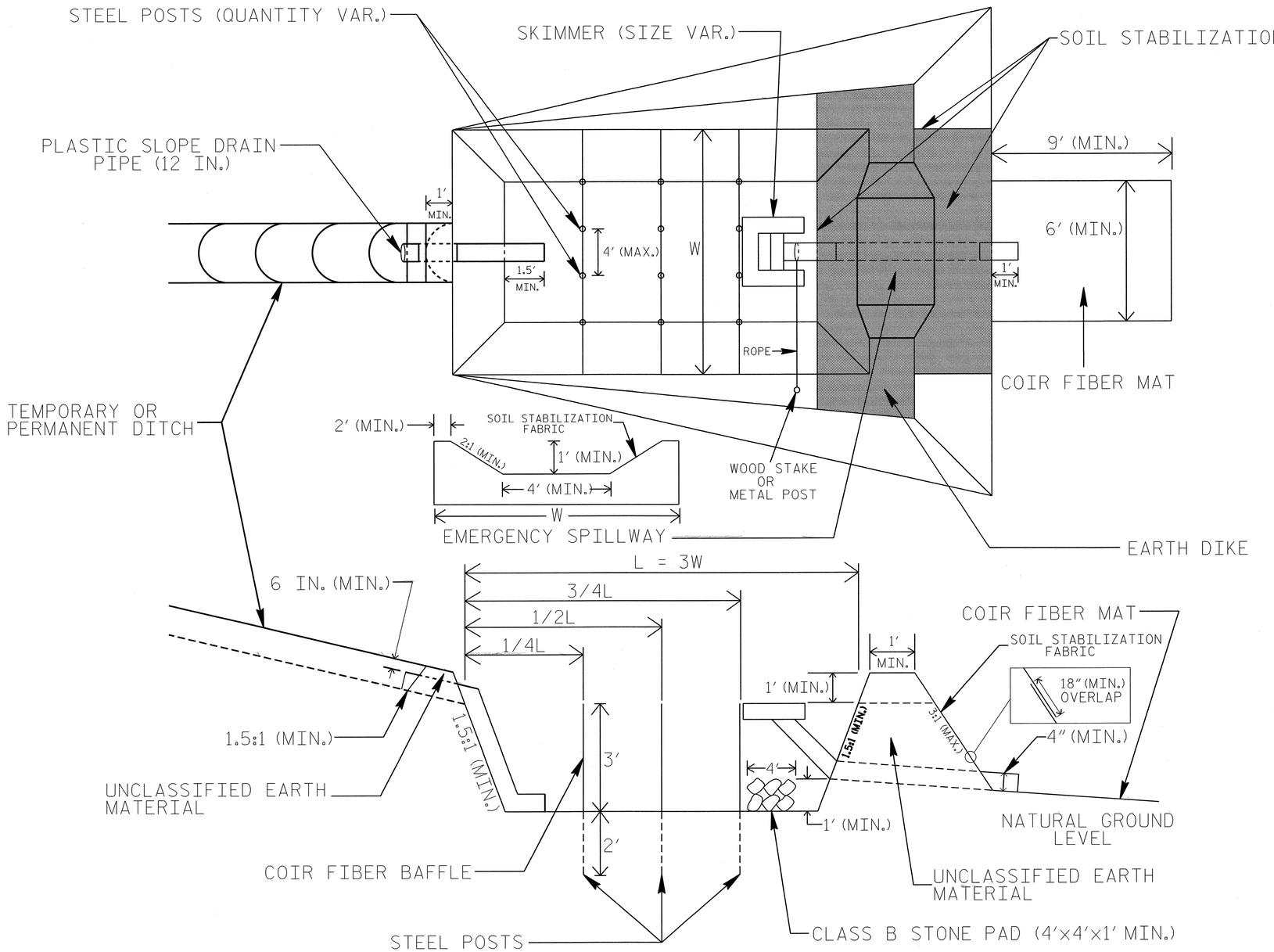
1. INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF ¼ THE BASIN LENGTH.

2. TWO(2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 20 FT. IN LENGTH WITH A SPACING OF 1/3 THE BASIN LENGTH.

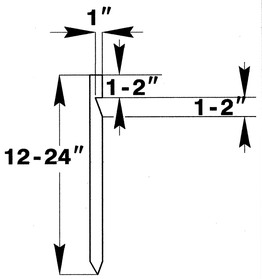
3. TOP HEIGHT OF COIR FIBER BAFFLES SHALL NOT BE BELOW BASE OF EMERGENCY SPILLWAY ELEVATION.

PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-2B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

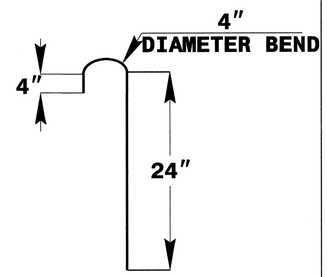
SKIMMER BASIN WITH BAFFLES DETAIL



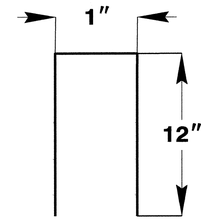
2" x 2" (nominal) WOODEN STAKE



#10 STEEL REINFORCEMENT BAR



1" (nominal) STAPLE



COIR FIBER MAT ANCHOR OPTIONS

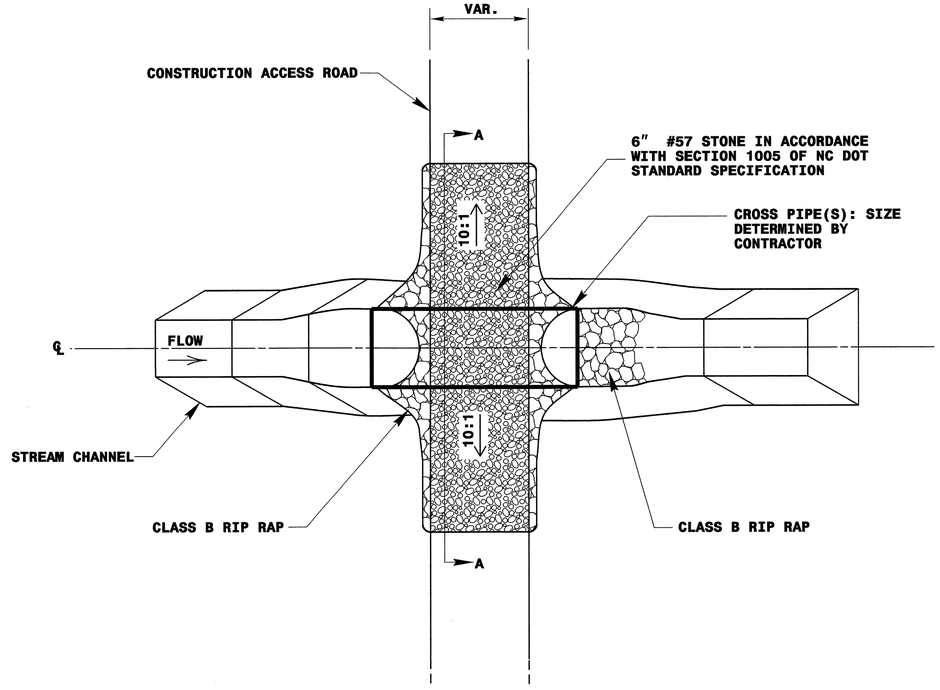
NOTES

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 EMERGENCY SPILLWAY 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 FILTER FABRIC AS DIRECTED.
6. SOIL STABILIZATION FABRIC FOR EMERGENCY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18" AS SHOWN.

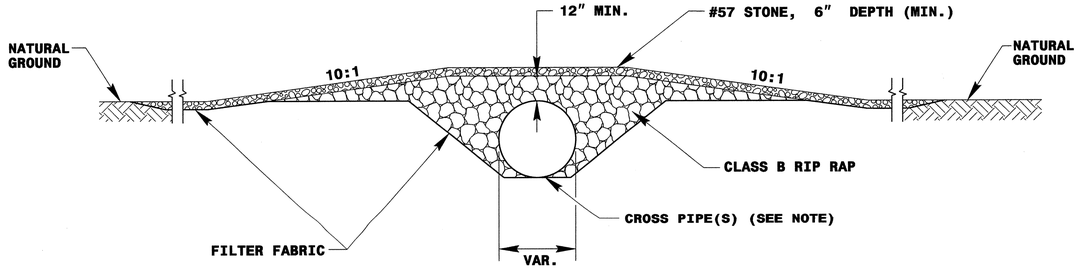
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-2C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY STREAM CROSSING



PLAN VIEW



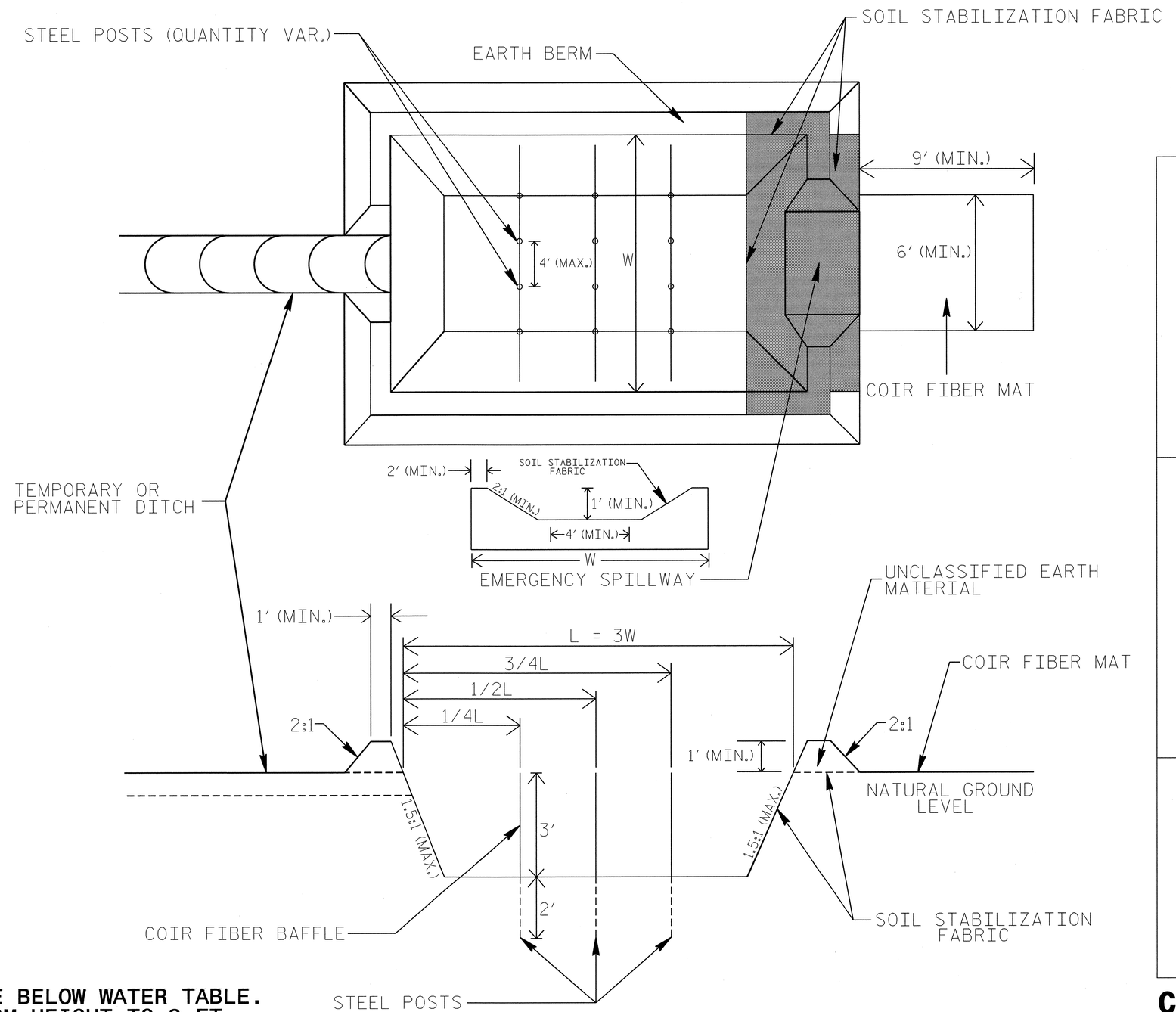
SECTION A-A

NOT TO SCALE

NOTE: PIPE(S) FOR TEMPORARY STREAM CROSSING SHALL BE DESIGNED TO PASS THE PEAK OR BANKFULL FLOW, WHICHEVER IS LESS, FROM A 2-YEAR PEAK STORM, WITHOUT OVER TOPPING.

INFILTRATION BASIN WITH BAFFLES DETAIL

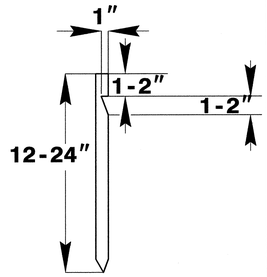
PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-2D
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



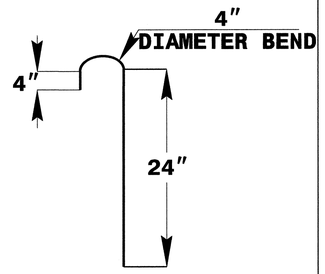
NOTES

1. DO NOT EXCAVATE BELOW WATER TABLE.
2. LIMIT EARTH BERM HEIGHT TO 3 FT.
3. AVOID COMPACTING BOTTOM OF BASIN.
4. FOR BASIN DEPTH OF 3 FT., THE MINIMUM BASIN WIDTH SHALL BE 9 FT.
5. DETERMINE EMERGENCY SPILLWAY LENGTH (FT.) USING Q/0.8, WHERE Q IS FLOW RATE (CFS) INTO BASIN.

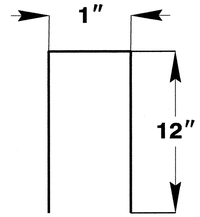
2″ x 2″ (nominal) WOODEN STAKE



#10 STEEL REINFORCEMENT BAR



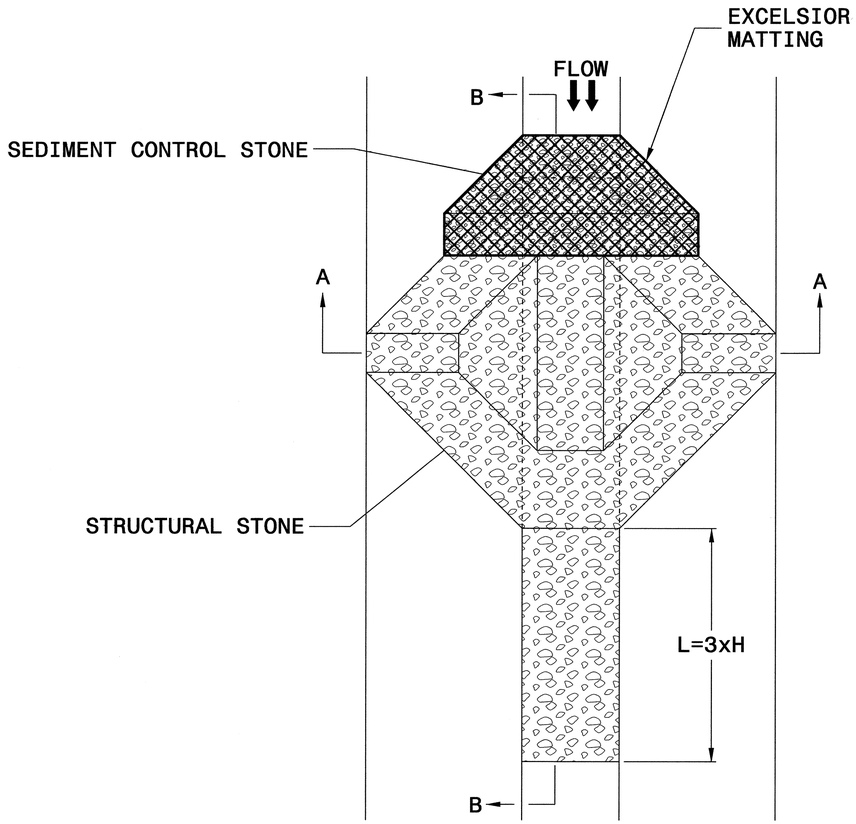
1″ (nominal) STAPLE



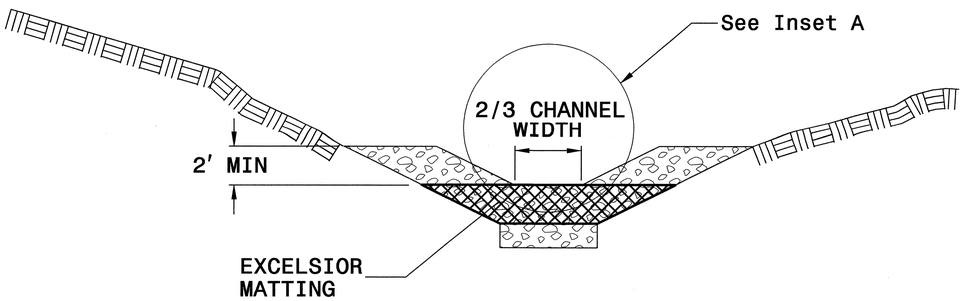
COIR FIBER MAT ANCHOR OPTIONS

PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-2E
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



PLAN



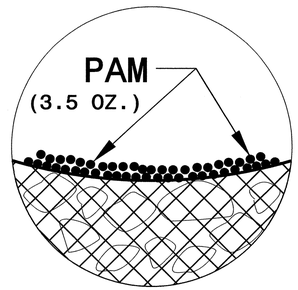
SECTION A-A

NOTES

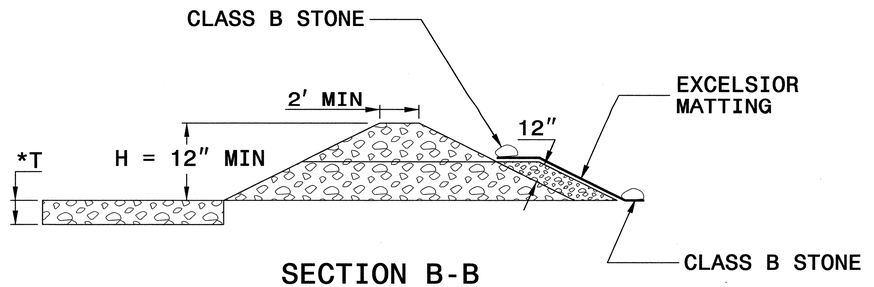
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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



INSET A



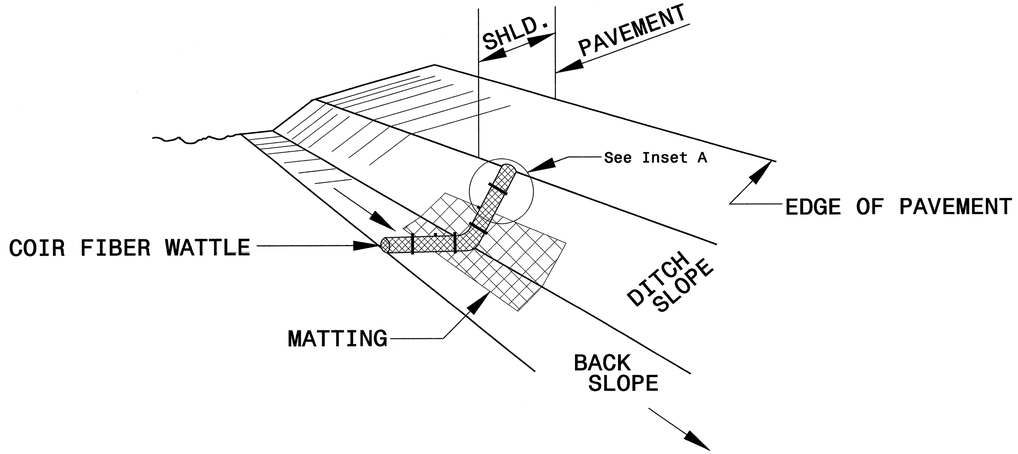
SECTION B-B

*T = 12" MIN., 18" MAX.

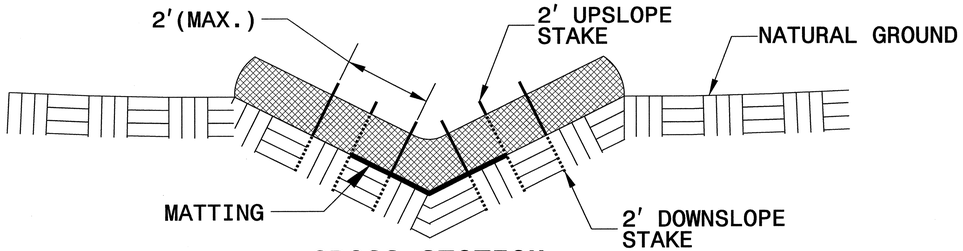
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-2F
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

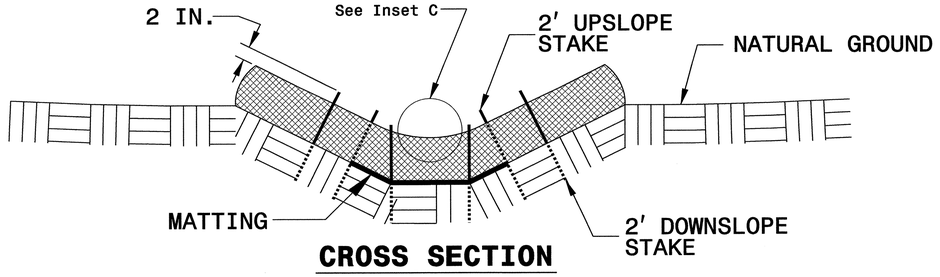
COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



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.

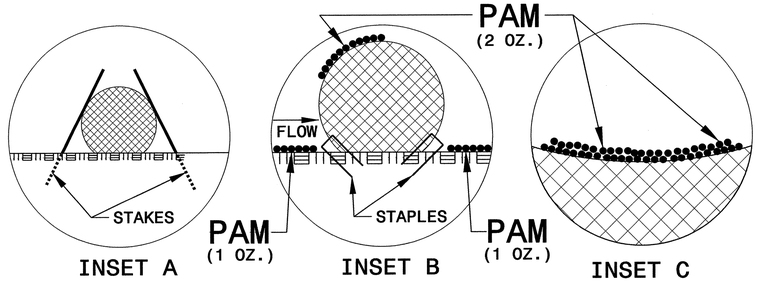
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

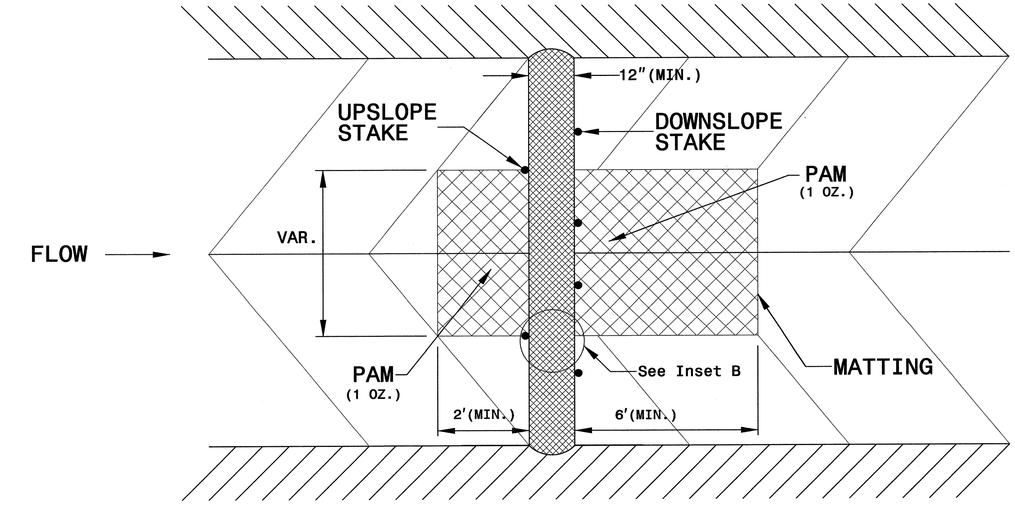
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

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.
U-4007B	EC-2G
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

BORROW PIT DEWATERING BASIN DETAIL

GENERAL NOTES:

DETERMINE BORROW PIT DEWATERING BASIN SIZE USING V = 8.0203 * Q * T, WHERE V IS VOLUME (FT^3), Q IS PUMP FLOW RATE (GPM), AND T IS DEWATERING TIME (HR). USE MAXIMUM FLOW RATE OF 1000 GPM AND A MINIMUM DEWATERING TIME OF 2 HOURS.

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

CONSTRUCT THE COIR FIBER BAFFLE WITH A MATERIAL THAT MEETS THE SPECIFICATIONS OF THE COIR FIBER MAT SPECIAL PROVISION PROVIDED IN THE CONTRACT.

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

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

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

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

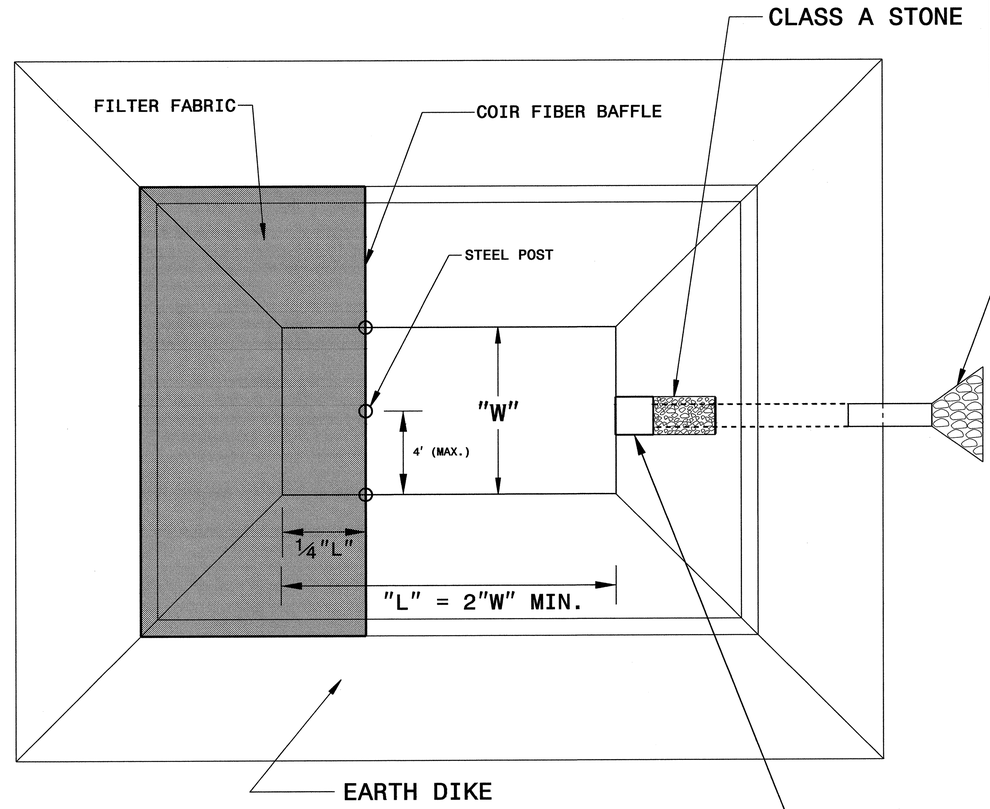
DO NOT EXCEED 3½ FT. IN HEIGHT FOR THE EARTH DIKES REQUIRED FOR BORROW PIT DEWATERING BASIN.

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

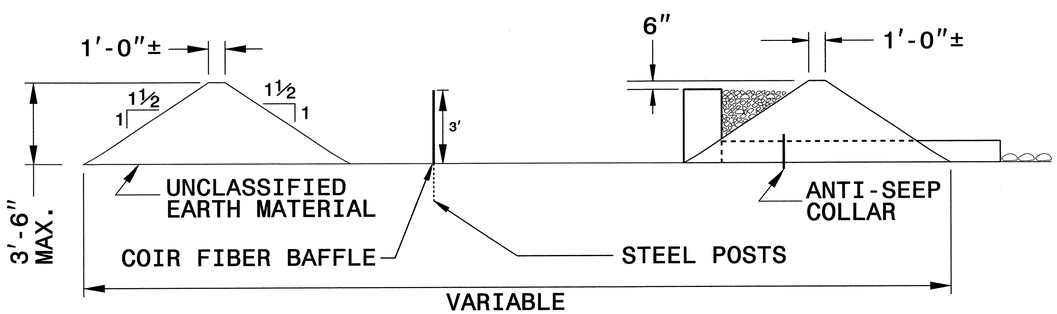
SUBMIT THE SIZE, LOCATION AND RISER PIPE MATERIAL FOR APPROVAL PRIOR TO CONSTRUCTION.

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

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



PLAN

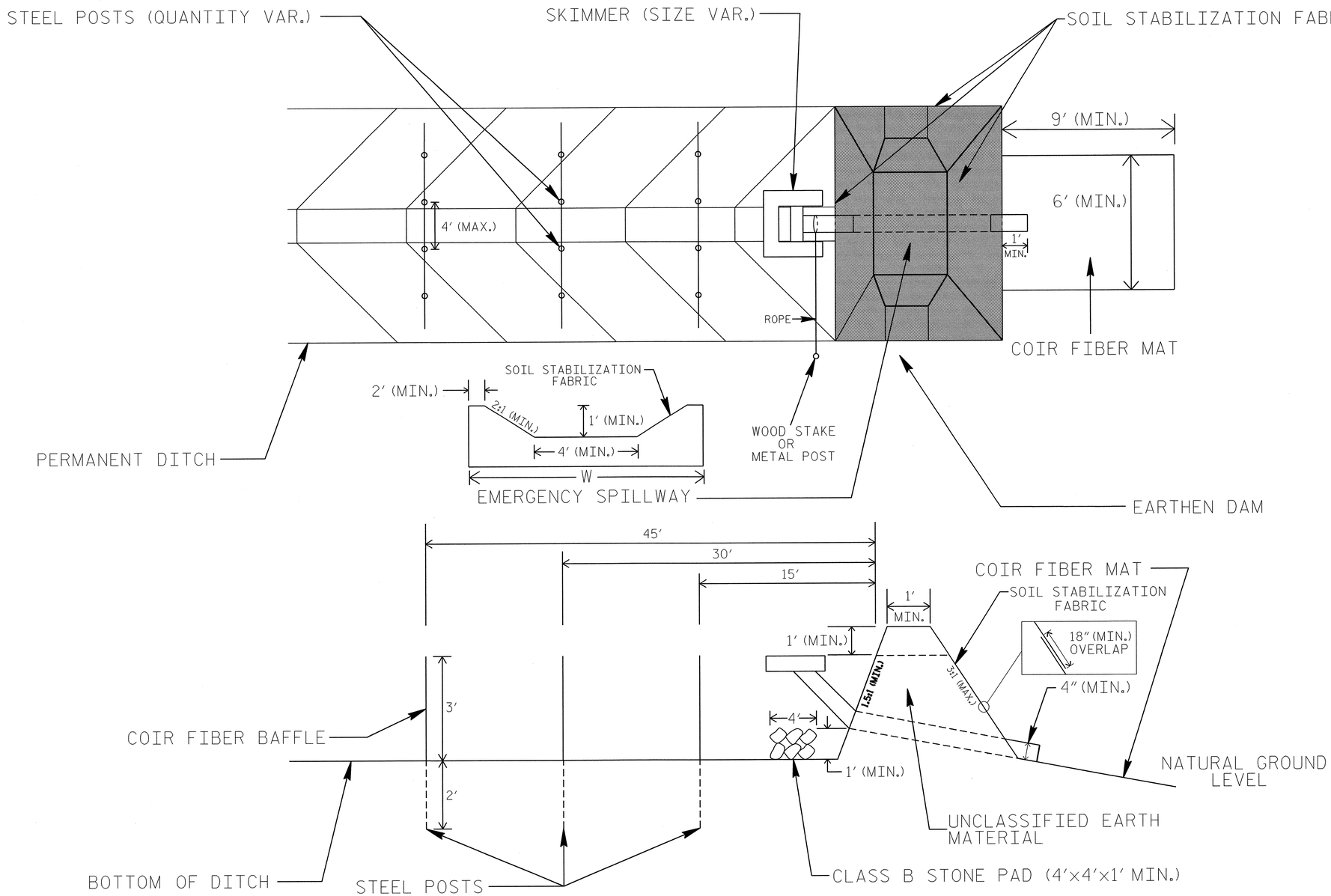


TYPICAL SECTION VIEW

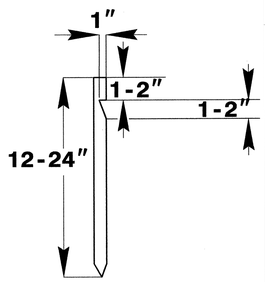
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-2H
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

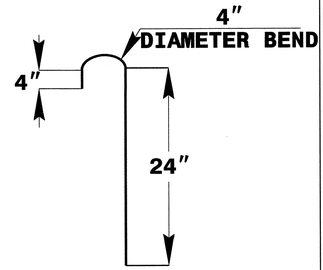
EARTHEN DAM WITH SKIMMER



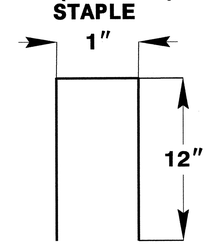
2″ x 2″ (nominal) WOODEN STAKE



#10 STEEL REINFORCEMENT BAR



1″ (nominal) STAPLE



COIR FIBER MAT ANCHOR OPTIONS

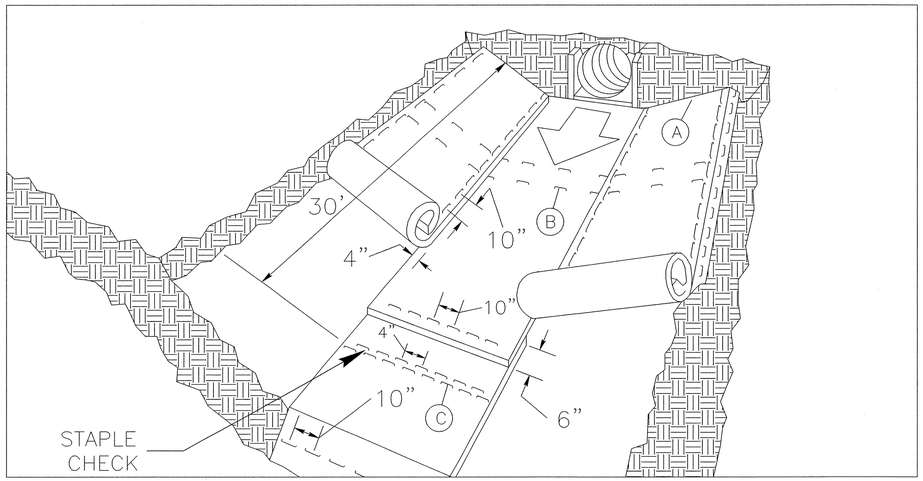
NOTES

1. LIMIT EARTHEN DAM HEIGHT TO 5 FT.
2. DETERMINE EMERGENCY SPILLWAY LENGTH (FT.) USING Q/0.8, WHERE Q IS FLOW RATE (CFS) INTO BASIN.
3. SOIL STABILIZATION FABRIC FOR EMERGENCY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18″ AS SHOWN.

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATTING INSTALLATION DETAIL



MATTING IN DITCHES

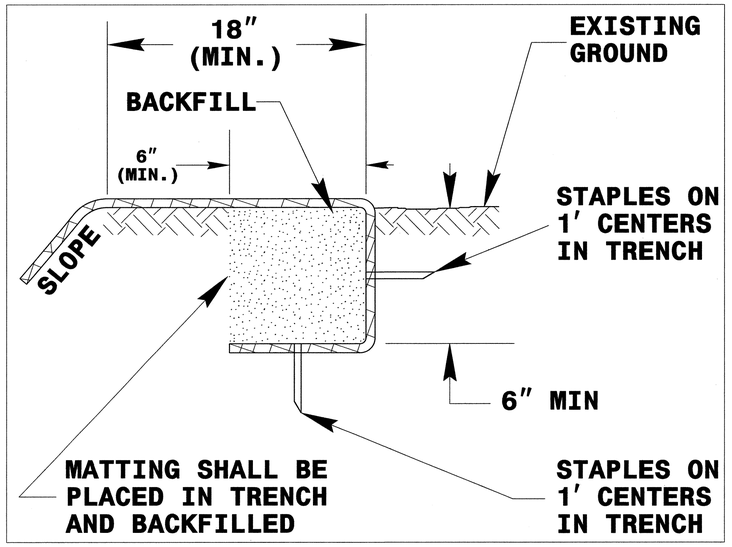
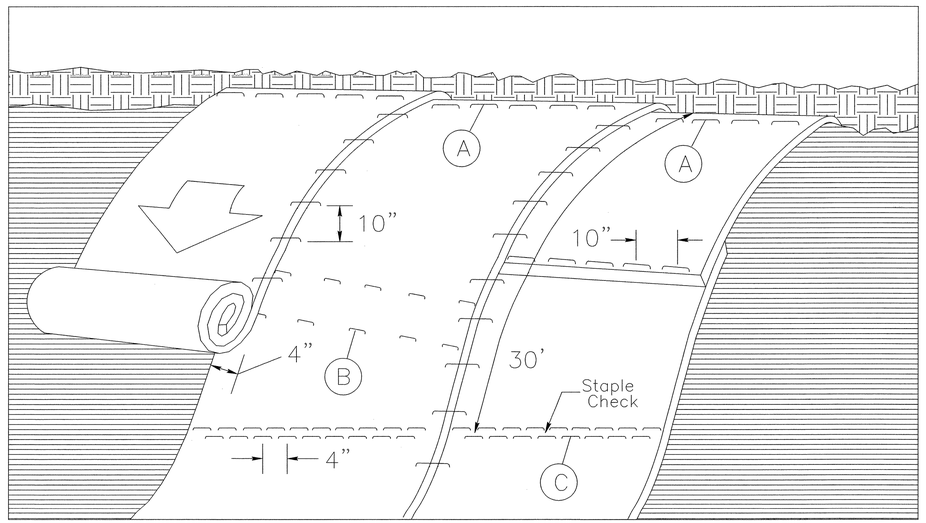


DIAGRAM (A)



MATTING ON SLOPES

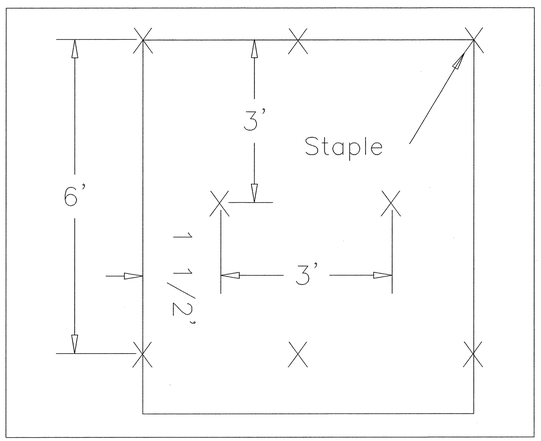


DIAGRAM (B)

Staple Check Pattern

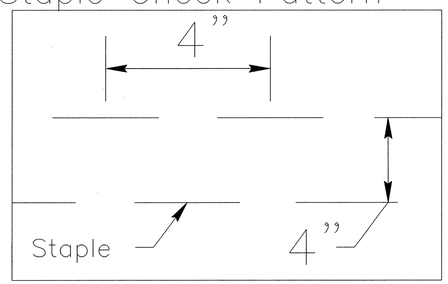


DIAGRAM (C)

NOTES:

THIS DETAIL APPLIES TO STRAW, EXCELSIOR, AND PERMANENT SOIL REINFORCEMENT MAT (PSRM) INSTALLATION.

STAPLES SHALL BE NO. 11 GAUGE STEEL WIRE FORMED INTO A "U" SHAPE WITH A MINIMUM THROAT WIDTH OF 1 INCH AND NOT LESS THAN 6 INCHES IN LENGTH.

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-3
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-NBL-RAMP-	16+50	21+00	LT	1015
5	-NBL-RAMP-	23+23	26+50	LT	555
5	-SBL-RAMP-	17+50	21+28	RT	425
5	-SBL-RAMP-	23+71	29+10	RT	910
6	-L-	10+00	12+00	LT	415
6	-NBL-RAMP-	27+45	30+25	RT	1265
6	-NBL-RAMP-	37+94	40+54	LT	2835
6	-SBL-RAMP-	26+40	32+00	LT	1355
6	-SBL-RAMP-	37+50	40+71	RT	3495
6	-SBL-RAMP-	43+03	47+00	RT	2525
6	-LOOP-1A-	15+50	15+90	RT	105
6	-RAMP-1B-	23+00	24+20	RT	165
6	-LOOP-1D-	17+50	19+00	LT	405
6	-Y-1A SBL-	50+00	52+80	LT	1425
6	-Y-1A SBL-	53+00	54+70	LT	895
6	-Y-1A SBL-	68+00	69+50	RT	305
6	-NBL-RAMP-	27+78	31+28	LT	790
6	-NBL-RAMP-	27+45	30+25	RT	1460
6	-Y-2 CONN-	12+50	14+49	LT	610
6	-Y2-	92+25	110+00	LT	2440
6	-Y2-	95+20	97+00	LT	460
6	-Y-1A SBL-	57+57	58+13	RT	5
10	-L-	58+75	61+50	LT	635
11	-L-	66+50	68+60	RT	340
11	-L-	76+50	76+58	LT	25
11	-L-	76+50	76+58	RT	25
12	-Y2-	100+50	101+50	LT	350
12	-Y2-	102.50	104.52	LT	605

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
			SUBTOTAL		25840
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					7760
				TOTAL	33600
				SAY	34000

PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-3A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

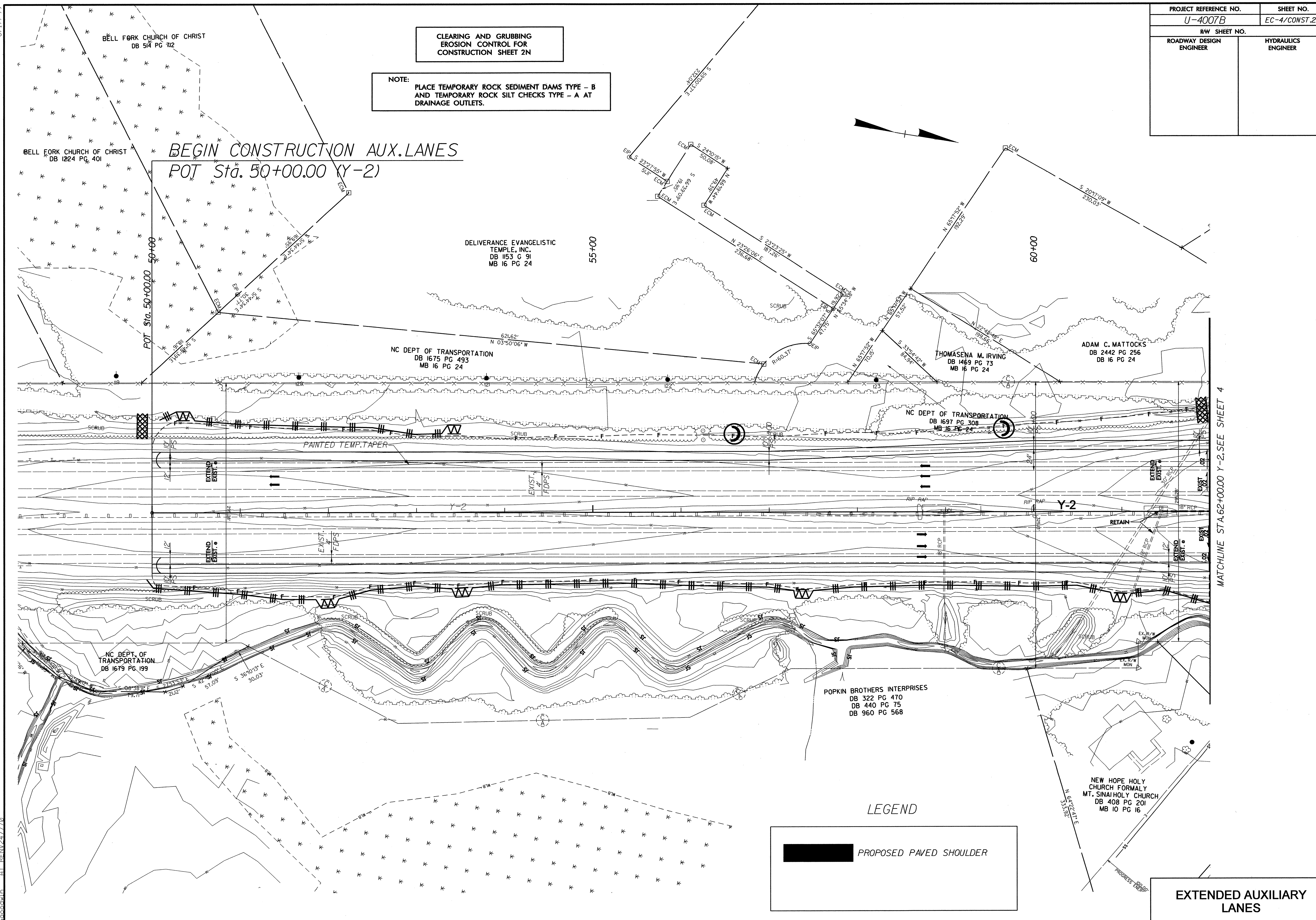
SOIL STABILIZATION SUMMARY SHEET

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
6	-SBL-RAMP-	34+01	34+51	LT	140
6	-Y-1A SBL-	62+00	63+00	LT	270
				SUBTOTAL	410
	ADDITIONAL PSRM TO BE INSTALLED				5630
				TOTAL	6040
				SAY	6100

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)



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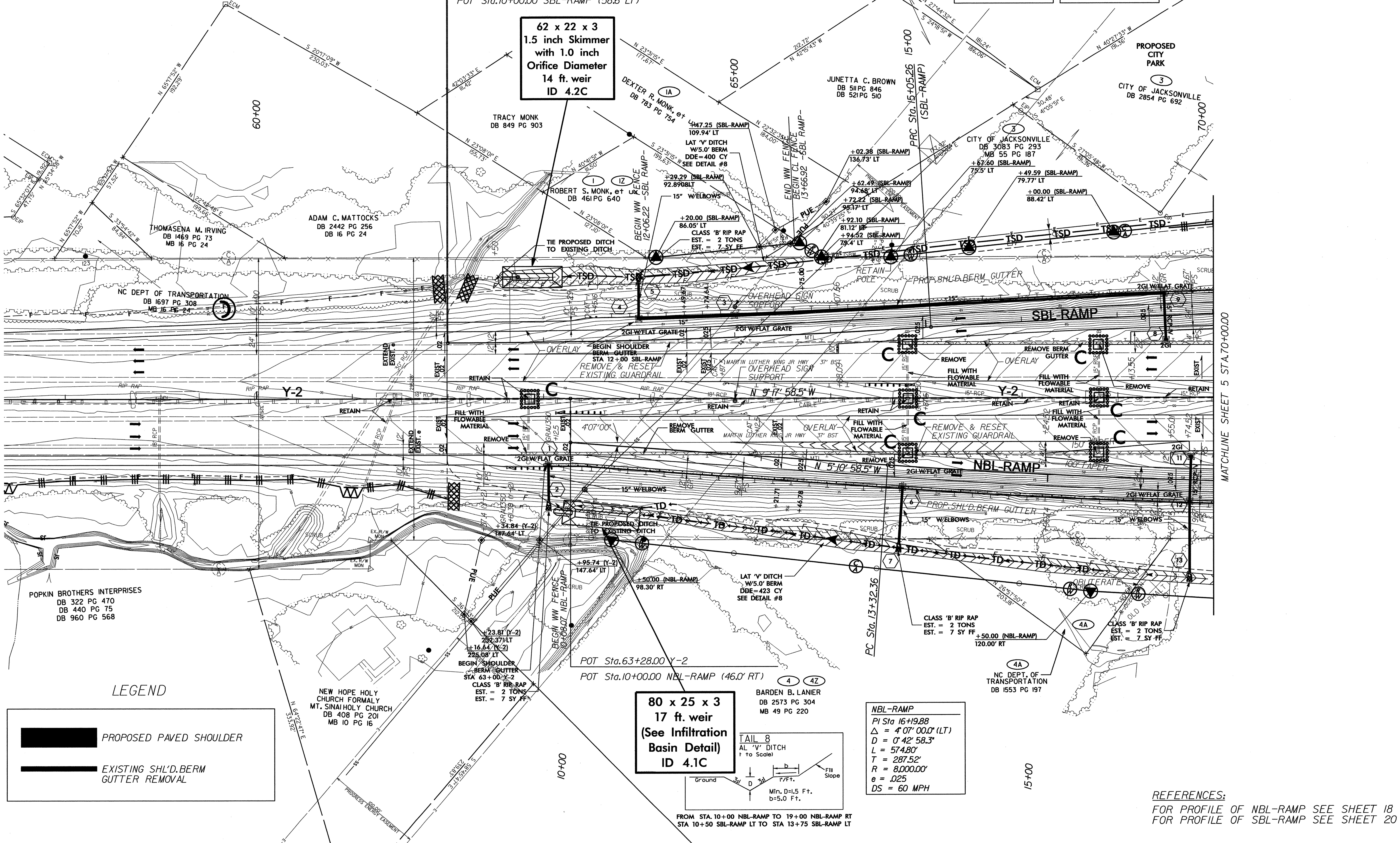
PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-5/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

END PROJECT U-4007A — BEGIN PROJECT U-4007B

POT Sta. 62+00.00 (Y-2) BK | POT Sta. 61+99.05 (Y-2) AHD

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

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



DETAIL 8
LAT. 'V' DITCH
(Not to Scale)
Min. D=1.5 Ft.
b=5.0 Ft.
FROM STA. 10+00 NBL-RAMP TO 19+00 NBL-RAMP RT
STA 10+50 SBL-RAMP LT TO STA 13+75 SBL-RAMP LT

SBL-RAMP	SBL-RAMP	NBL-RAMP
PI Sta 12+52.71	PI Sta 17+57.97	PI Sta 16+19.88
Δ = 3° 37' 07.1" (LT)	Δ = 3° 37' 07.1" (RT)	Δ = 4° 07' 00.0" (LT)
D = 0° 42' 58.3"	D = 0° 42' 58.3"	D = 0° 42' 58.3"
L = 505.26'	L = 505.26'	L = 574.80'
T = 252.71'	T = 252.71'	T = 287.52'
R = 8,000.00'	R = 8,000.00'	R = 8,000.00'
e = .025	e = .025	e = .025
D = 60 MPH	D = 60 MPH	DS = 60 MPH

LEGEND

PROPOSED PAVED SHOULDER

EXISTING SHL'D. BERM GUTTER REMOVAL

REFERENCES:
FOR PROFILE OF NBL-RAMP SEE SHEET 18
FOR PROFILE OF SBL-RAMP SEE SHEET 20

8/17/99

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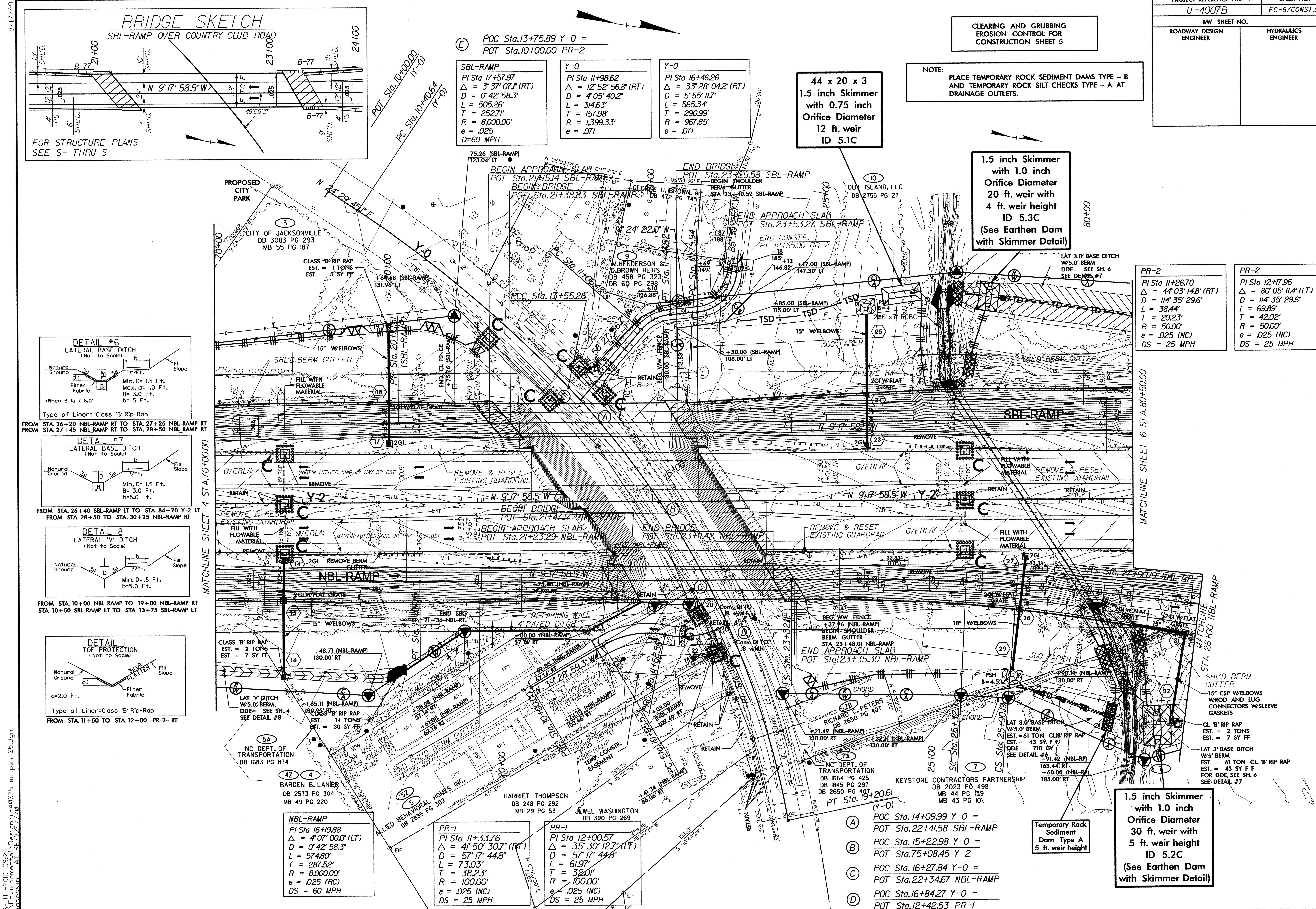
PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-6/CONST.5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5

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



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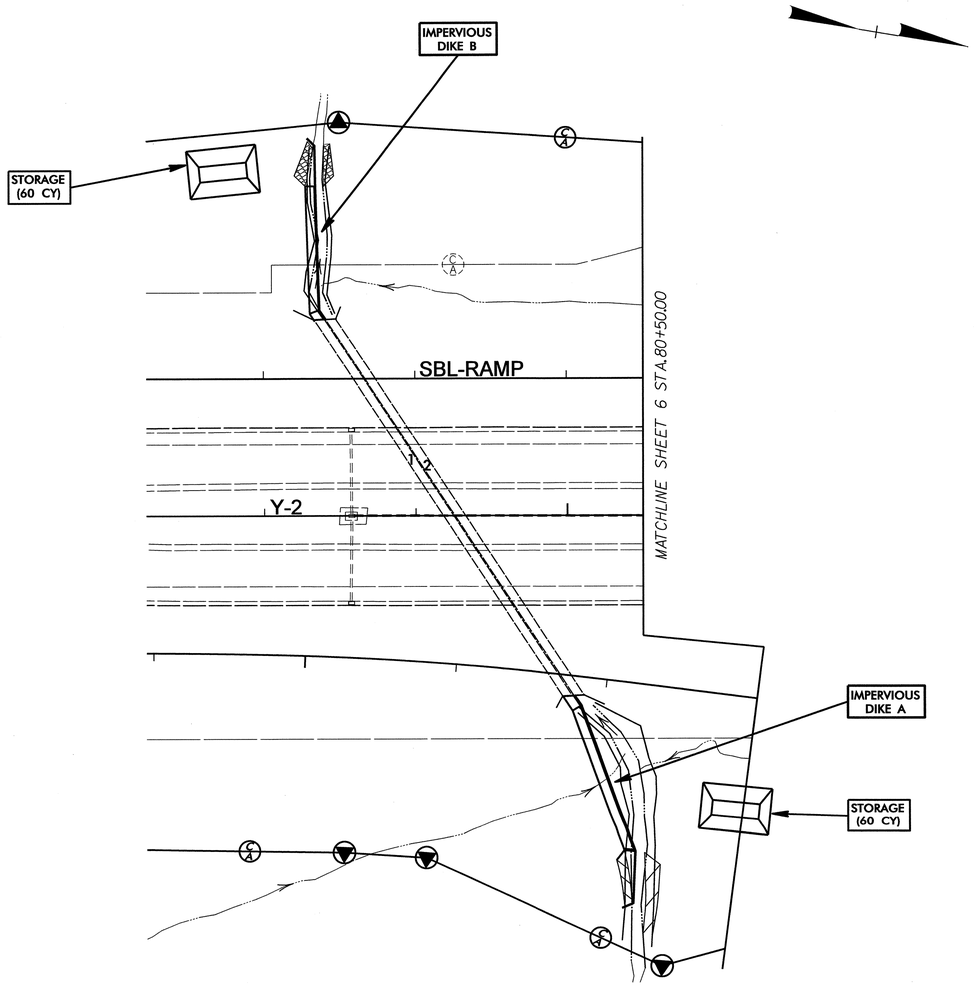
CULVERT CONSTRUCTION SEQUENCE STA. 79+25.5 –Y2–

PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-7/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

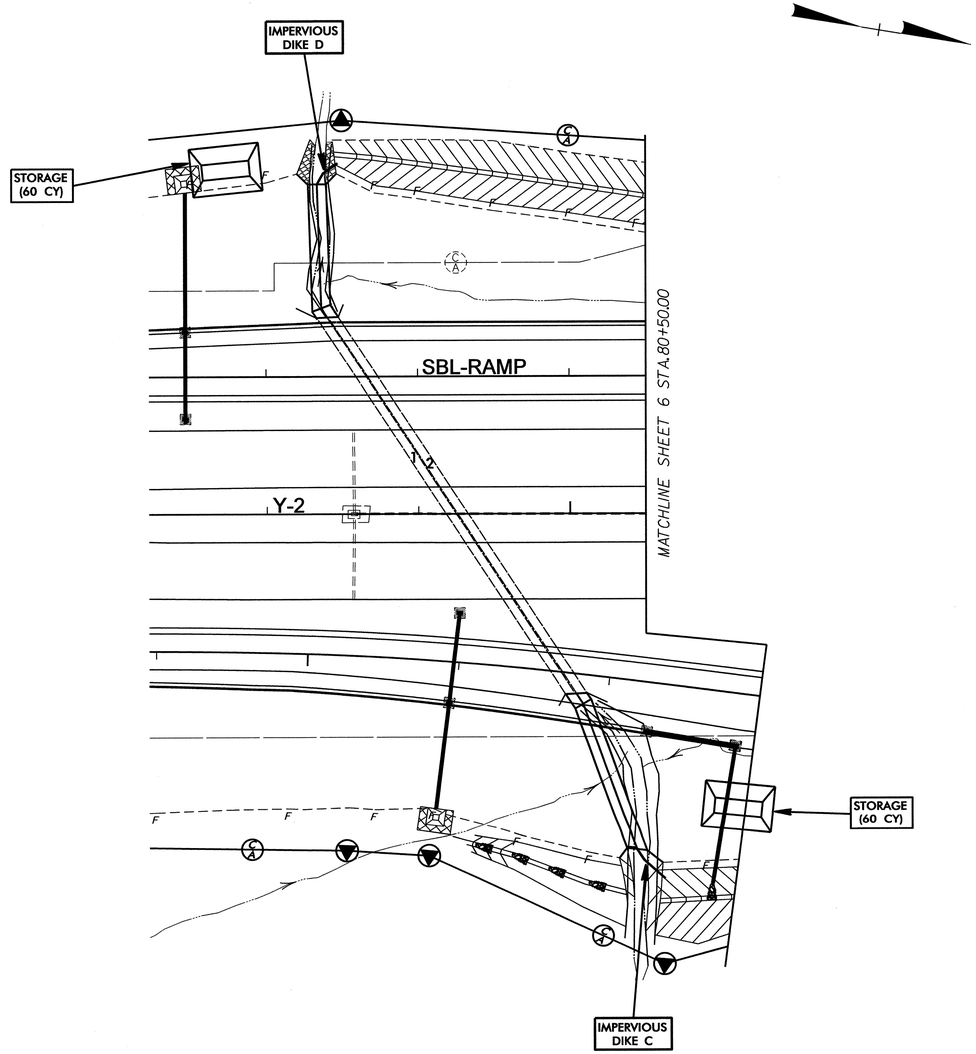
PHASE I

1. CONSTRUCT STILLING BASINS (60 CY EACH).
2. CONSTRUCT IMPERVIOUS DIKES A AND B, DIVERTING FLOW INTO BARREL 2.
3. REMOVE EXISTING SILL IN BARREL 1.
4. CONSTRUCT PROPOSED EXTENSIONS FOR BARREL 1.
5. CONSTRUCT INLET/OUTLET CHANNEL IMPROVEMENTS.
6. REMOVE IMPERVIOUS DIKES A AND B.



PHASE II

7. CONSTRUCT IMPERVIOUS DIKES C AND D, DIVERTING FLOW INTO COMPLETED BARREL 1.
8. REMOVE EXISTING SILL IN BARREL 2.
9. CONSTRUCT PROPOSED EXTENSIONS FOR BARREL 2.
10. CONSTRUCT OUTLET HEADWALL AND WINGWALLS, AND ANY REMAINING INLET/OUT CHANNEL IMPROVEMENTS.
11. REMOVE IMPERVIOUS DIKES C AND D, AND BOTH STILLING BASINS.
12. COMPLETE ROADWAY.

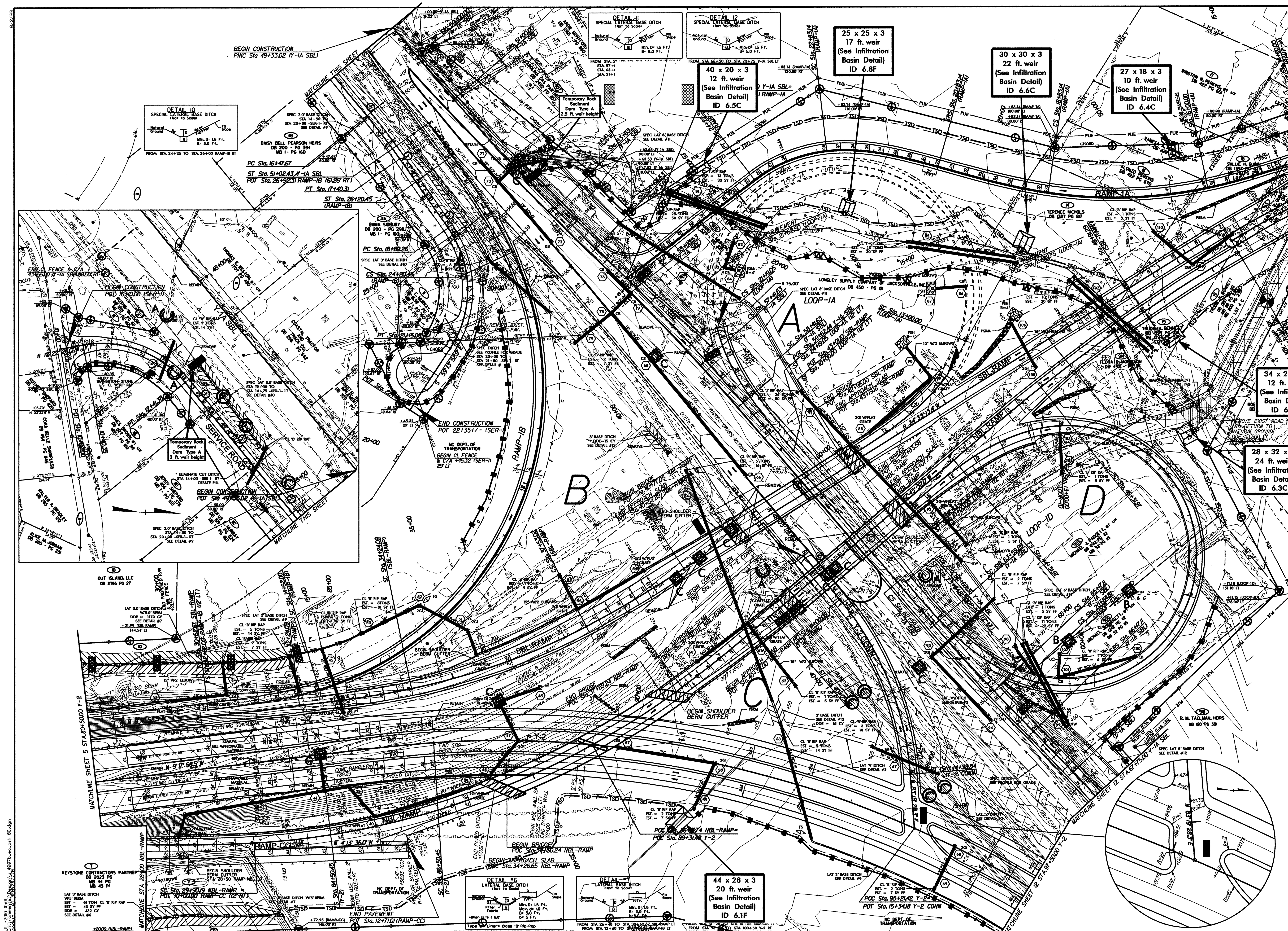


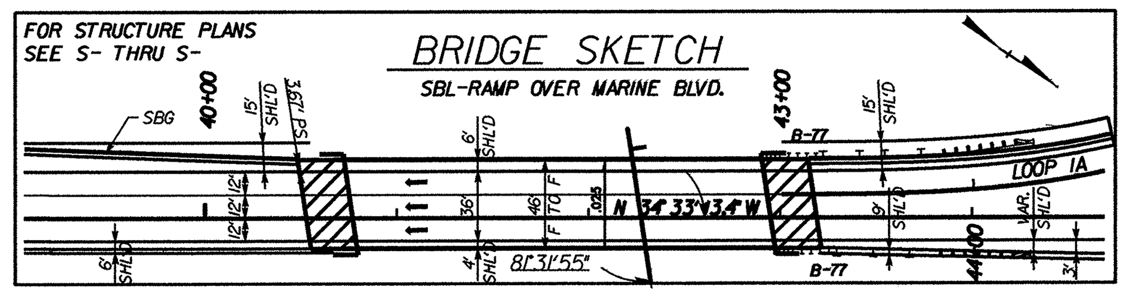
PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-8/CONST.6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

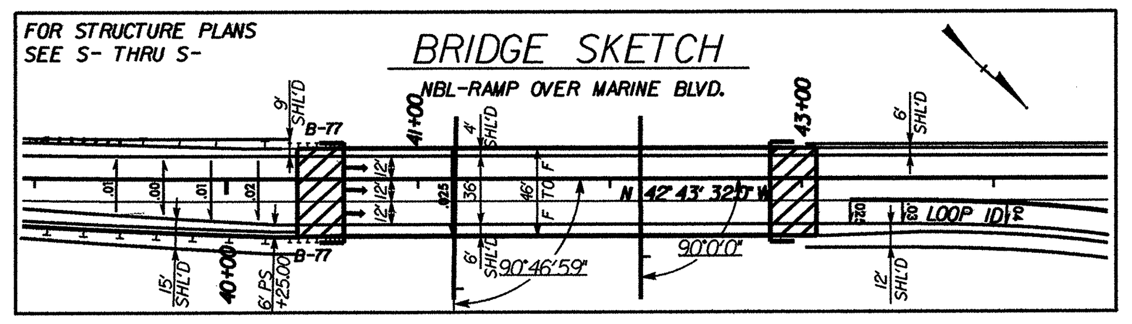
GRAPHIC SCALE
50' 25' 0 50' 100'
PLANS

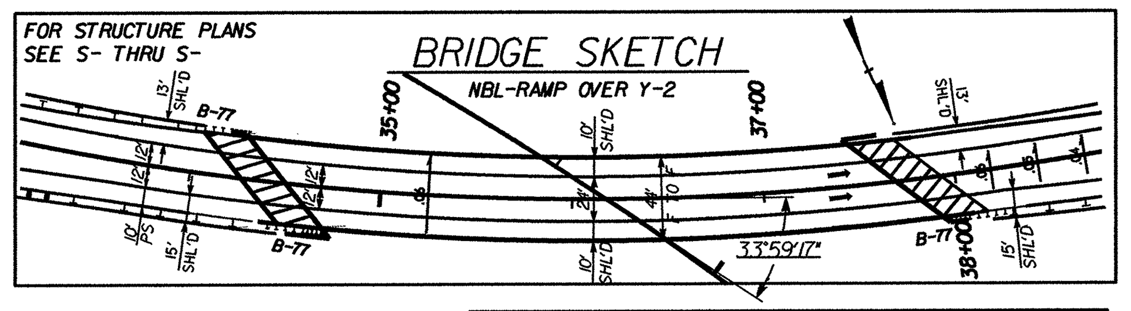
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6

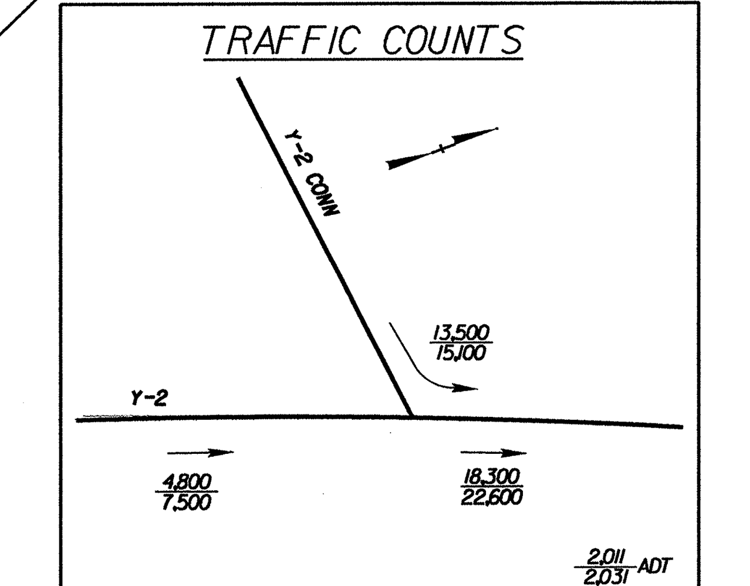
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

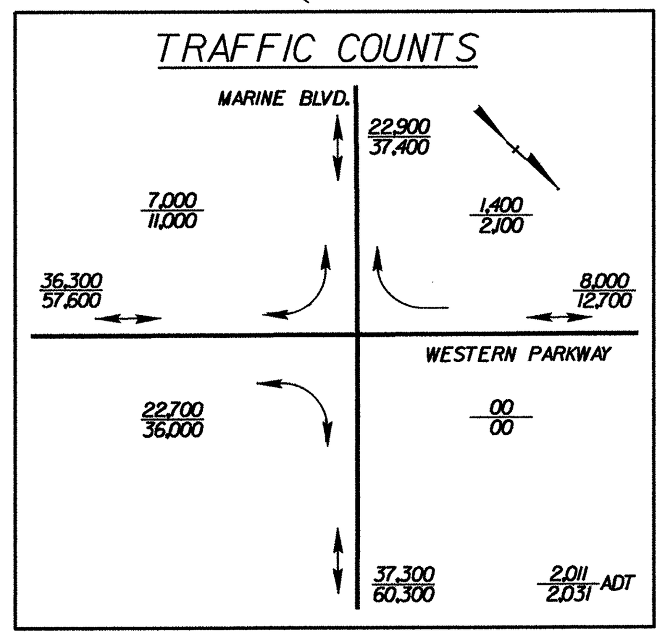












Ⓐ POT Sta. 42+27.41 SBL-RAMP=
POC Sta. 60+35.83 Y-1A SBL

Ⓑ POT Sta. 41+19.38 NBL-RAMP=
POT Sta. 10+42.83 Y-2 CONN

Ⓒ POT Sta. 42+15.92 NBL-RAMP=
POC Sta. 61+59.28 Y-1A SBL

REFERENCES:
FOR CURVE DATA,SEE SHEET 6A
FOR PROFILE OF L-LINE,SEE SHEETS 15
FOR PROFILE OF NBL-RAMP,SEE SHEETS 19
FOR PROFILE OF SBL-RAMP,SEE SHEETS 21
FOR PROFILE OF RAMP-1A,SEE SHEET 22
FOR PROFILE OF RAMP-1B,SEE SHEET 23
FOR PROFILE OF RAMP CC,SEE SHEET 23
FOR PROFILE OF LOOP-1A,SEE SHEET 24
FOR PROFILE OF LOOP-1D,SEE SHEET 24
FOR PROFILE OF Y-1A SBL,SEE SHEET 25
FOR PROFILE OF Y-2 CONN,SEE SHEET 26
FOR PROFILE OF Y-2 SEE,SHEET 27
FOR PROFILE OF SERV.RD,SEE SHEET 31
FOR SHEAR POINT LAYOUT,SEE SHEET 2G
FOR RET.WALL ENVELOPE,SEE SHEET 2H

LOCATION:
WESTERN PARKWAY
MARTIN LUTHER KING FREEWAY
@ MARINE BOULEVARD, IN THE CITY OF JACKSONVILLE, NC

TIP NO.: U-4007B COUNTY: ONSLOW

DESIGNED BY: ROBERT WILLIAMS

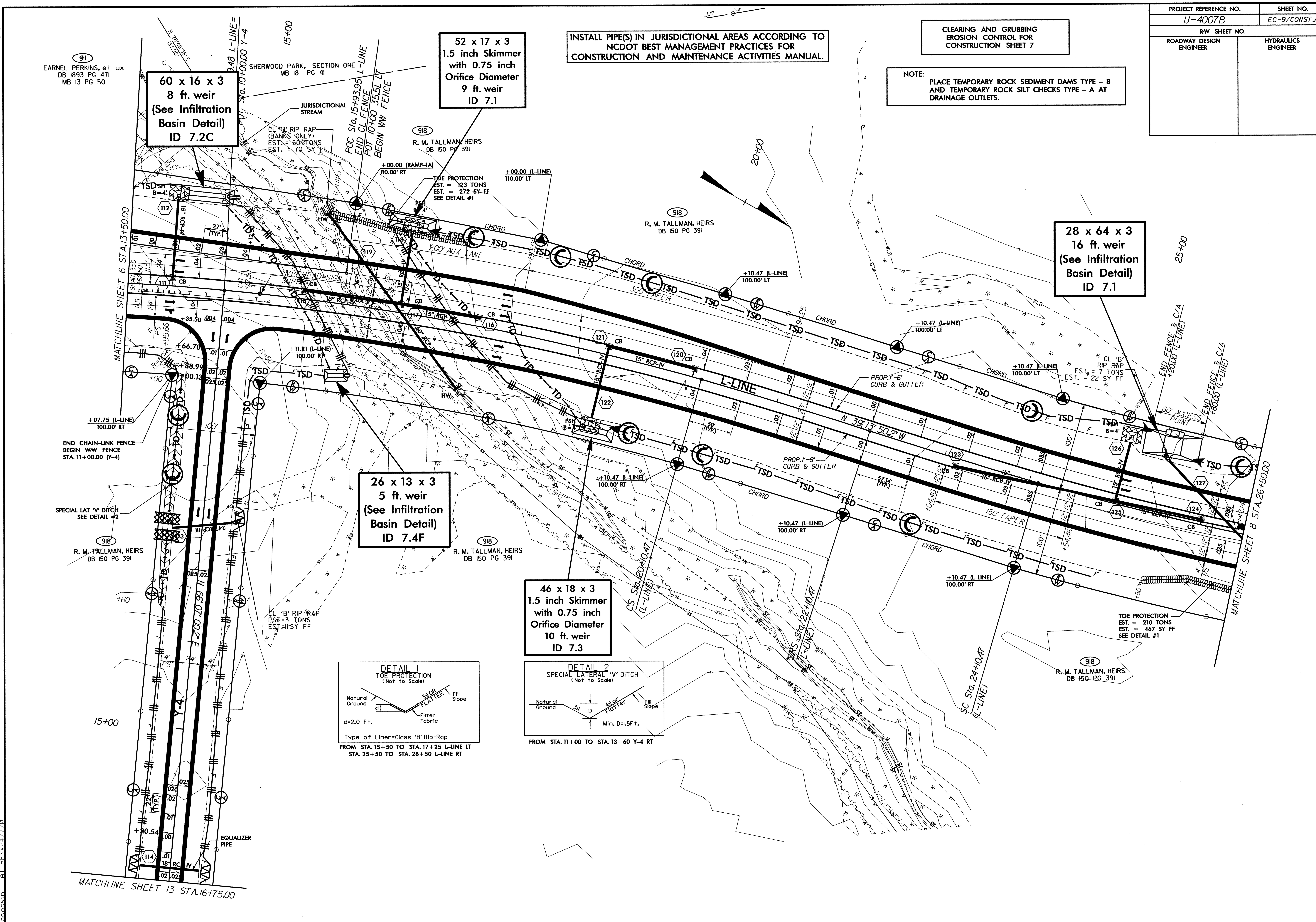
CHECKED BY: KEITH F. HUDSON DATE: NOVEMBER 24, 2008

PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-9/CONST.7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 7

INSTALL PIPE(S) IN JURISDICTIONAL AREAS 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.



60 x 16 x 3
8 ft. weir
(See Infiltration Basin Detail)
ID 7.2C
52 x 17 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
9 ft. weir
ID 7.1
28 x 64 x 3
16 ft. weir
(See Infiltration Basin Detail)
ID 7.1
26 x 13 x 3
5 ft. weir
(See Infiltration Basin Detail)
ID 7.4F
46 x 18 x 3
1.5 inch Skimmer
with 0.75 inch
Orifice Diameter
10 ft. weir
ID 7.3
EARNEL PERKINS, et ux
DB 1893 PG 471
MB 13 PG 50
SHERWOOD PARK, SECTION ONE
MB 18 PG 41
R. M. TALLMAN, HEIRS
DB 150 PG 391
JURISDICTIONAL STREAM
CL "II" RIP RAP (BANKS ONLY)
EST. = 50 TONS
EST. = 70 SY FF
TOE PROTECTION
EST. = 123 TONS
EST. = 272 SY FF
SEE DETAIL #1
POC Sta. 15+93.95 L-LINE
END CL FENCE
POT 10+00 35.5L LT
BEGIN WW FENCE
L-LINE
N 39°13' 50.2" W
PROP. 1'-6' CURB & GUTTER
CL 'B' RIP RAP
EST. = 7 TONS
EST. = 22 SY FF
END FENCE & C/A +20.00 (L-LINE)
END FENCE & C/A +80.00 (L-LINE)
60' ACCESS POINT
END CHAIN-LINK FENCE
BEGIN W/W FENCE
STA. 11+00.00 (Y-4)
SPECIAL LAT 'V' DITCH
SEE DETAIL #2
CL 'B' RIP RAP
EST=3 TONS
EST=11 SY FF
EQUALIZER PIPE
TOE PROTECTION
EST. = 210 TONS
EST. = 467 SY FF
SEE DETAIL #1
MATCHLINE SHEET 6 STA. 13+50.00
MATCHLINE SHEET 8 STA. 26+50.00
MATCHLINE SHEET 13 STA. 16+75.00
CS Sta. 20+10.47 (L-LINE)
SPRS Sta. 22+10.47 (L-LINE)
SC Sta. 24+10.47 (L-LINE)
DETAIL 1
TOE PROTECTION
(Not to Scale)
Natural Ground
Fill Slope
Filter Fabric
d=2.0 Ft.
Type of Liner=Class 'B' Rip-Rap
FROM STA. 15+50 TO STA. 17+25 L-LINE LT
STA. 25+50 TO STA. 28+50 L-LINE RT
DETAIL 2
SPECIAL LATERAL 'V' DITCH
(Not to Scale)
Natural Ground
Fill Slope
Min. D=1.5Ft.
FROM STA. 11+00 TO STA. 13+60 Y-4 RT

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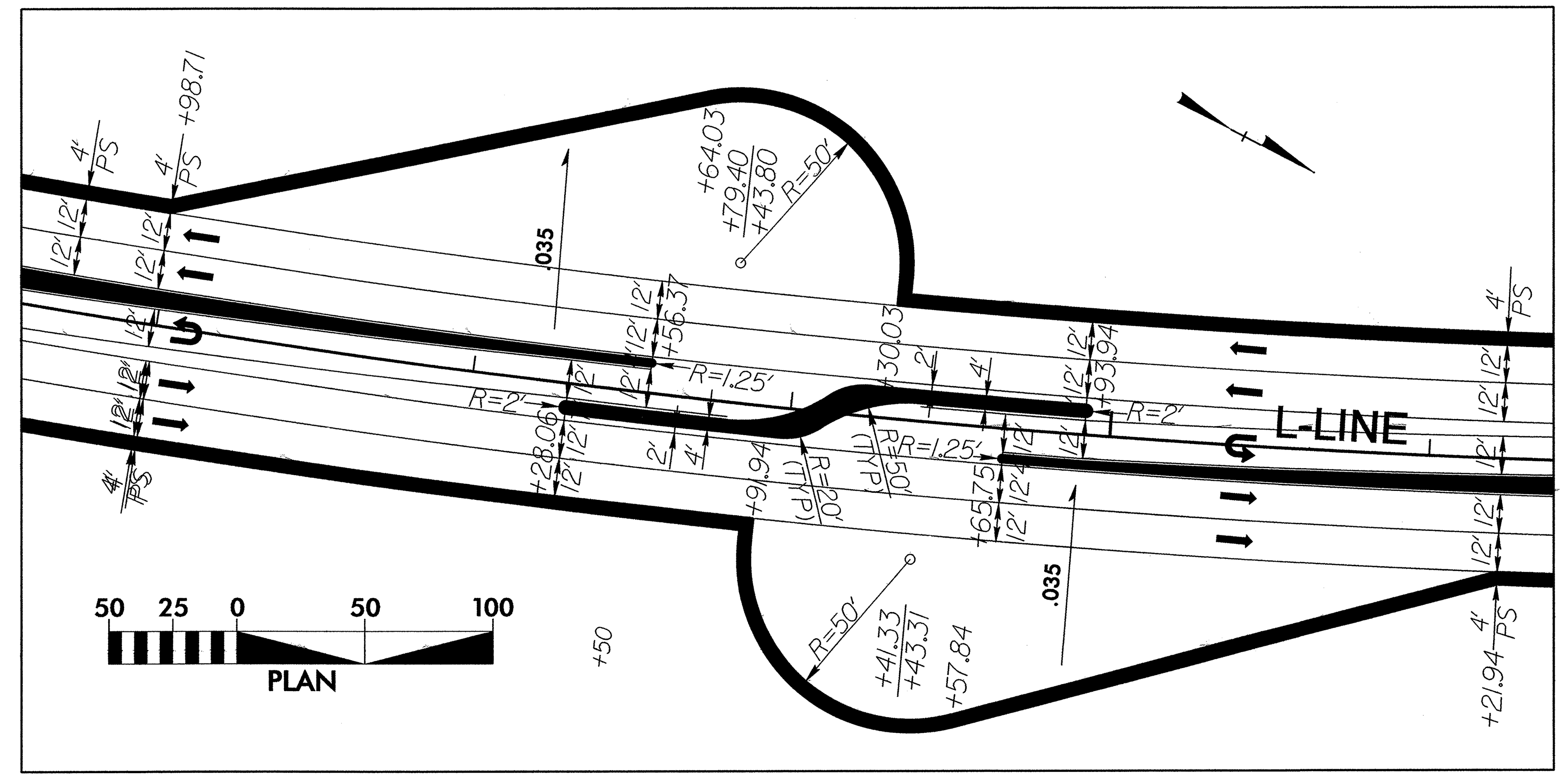
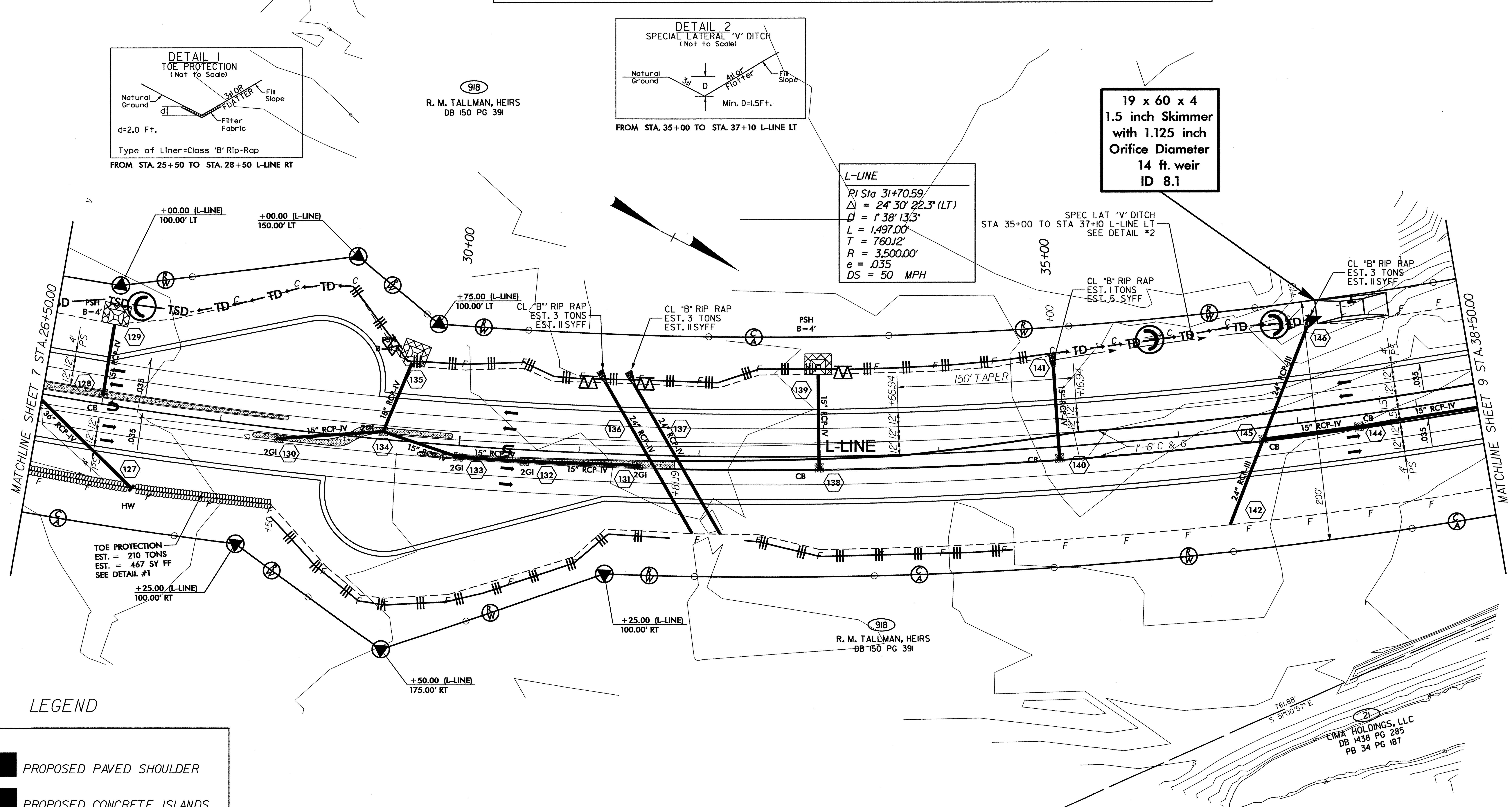
PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-10/CONST.8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 8

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



LEGEND

▬	PROPOSED PAVED SHOULDER
▬	PROPOSED CONCRETE ISLANDS

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PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-II/CONST.9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 9

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

INSTALL PIPE(S) IN JURISDICTIONAL AREAS ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

DETAIL 2
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

FROM STA. 40+25 TO STA. 46+00 L-LINE LT

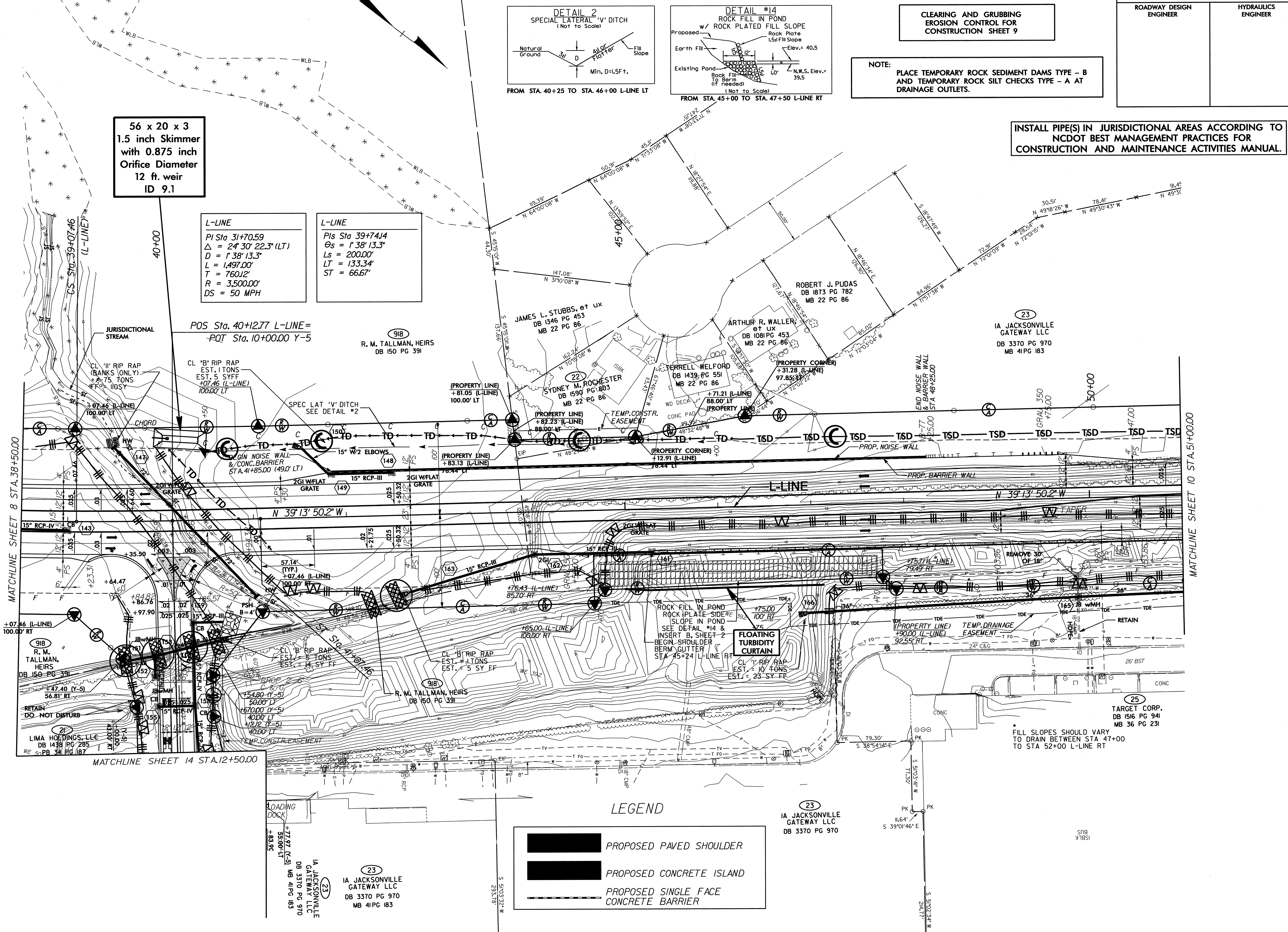
DETAIL #14
ROCK FILL IN POND
w/ ROCK PLATED FILL SLOPE
(Not to Scale)

FROM STA. 45+00 TO STA. 47+50 L-LINE RT

56 x 20 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
12 ft. weir
ID 9.1

L-LINE	
PI Sta 31+70.59	
Δ = 24° 30' 22.3" (LT)	
D = 1° 38' 13.3"	
L = 1,497.00'	
T = 760.12'	
R = 3,500.00'	
DS = 50 MPH	

L-LINE	
PIs Sta 39+74.14	
θs = 1° 38' 13.3"	
Ls = 200.00'	
LT = 133.34'	
ST = 66.67'	



Natural Ground
D
3:1
4:1 or Flatter
Fill Slope
Min. D=1.5Ft.
Proposed
Rock Plate
1.5:1 Fill Slope
Earth Fill
Elev.= 40.5
Existing Pond
Rock Fill To Berm (If needed)
N.W.S. Elev.= 39.5
POS Sta. 40+12.77 L-LINE=
POT Sta. 10+00.00 Y-5
JURISDICTIONAL STREAM
CL 'II' RIP RAP (BANKS ONLY) EST. 75 TONS EST. 110SY
CL 'B' RIP RAP EST. 1 TONS EST. 5 SYFF
SPEC LAT 'V' DITCH SEE DETAIL #2
BEGIN NOISE WALL & CONC.BARRIER STA.41+85.00 (49.0' LT)
15" W/2 ELBOWS
15" RCP-III
2GI W/FLAT GRATE
L-LINE
N 39° 13' 50.2" W
PROP. NOISE WALL
PROP. BARRIER WALL
END NOISE WALL & BARRIER WALL STA 48+25.00
MATCHLINE SHEET 8 STA.38+50.00
MATCHLINE SHEET 10 STA.51+00.00
MATCHLINE SHEET 14 STA.12+50.00
R. M. TALLMAN, HEIRS DB 150 PG 391
JAMES L. STUBBS, et ux DB 1346 PG 453 MB 22 PG 86
SYDNEY M. ROCHESTER DB 1590 PG 803 MB 22 PG 86
TERRELL WELFORD DB 1439 PG 551 MB 22 PG 86
ARTHUR R. WALLER, et ux DB 1081 PG 453 MB 22 PG 86
ROBERT J. PUDAS DB 1873 PG 782 MB 22 PG 86
IA JACKSONVILLE GATEWAY LLC DB 3370 PG 970 MB 41 PG 183
LIMA HOLDINGS, LLC DB 1438 PG 285 PB 34 PG 187
TARGET CORP. DB 1516 PG 941 MB 36 PG 231
RETAIN DO NOT DISTURB
ROCK FILL IN POND ROCK PLATE SIDE SLOPE IN POND SEE DETAIL #14 & INSERT B, SHEET 2
BEGIN SHOULDER BERM GUTTER STA 45+24 L-LINE RT
FLOATING TURBIDITY CURTAIN
CL 'I' RIP RAP EST. = 10 TONS EST. = 23 SY FF
CL 'B' RIP RAP EST. = 1 TONS EST. = 5 SY FF
TEMP.CONSTR. EASEMENT
TEMP.DRAINAGE EASEMENT
REMOVE 30' OF 18"
FILL SLOPES SHOULD VARY TO DRAIN BETWEEN STA 47+00 TO STA 52+00 L-LINE RT
LOADING DOCK
LEGEND
PROPOSED PAVED SHOULDER
PROPOSED CONCRETE ISLAND
PROPOSED SINGLE FACE CONCRETE BARRIER

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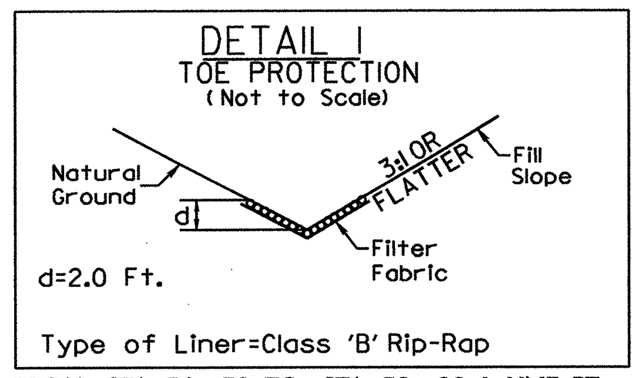
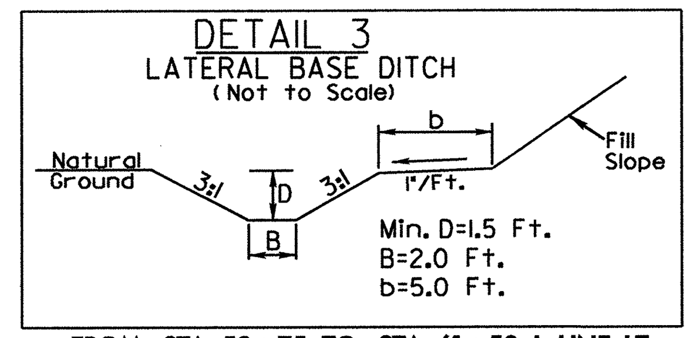
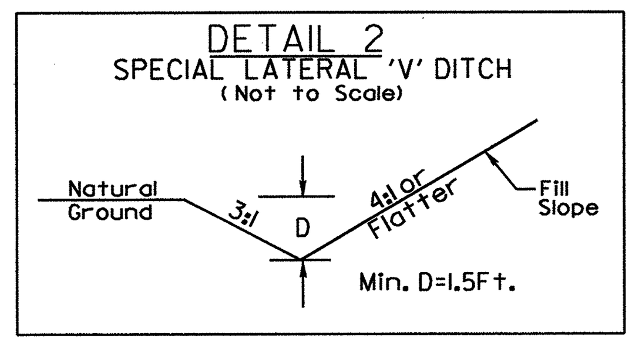
PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-12/CONST.10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



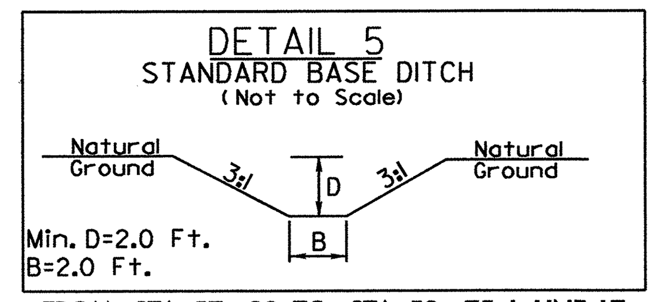
FROM STA. 56+50 TO STA. 58+00 L-LINE RT
FROM STA. 60+00 TO STA. 60+80 L-LINE RT



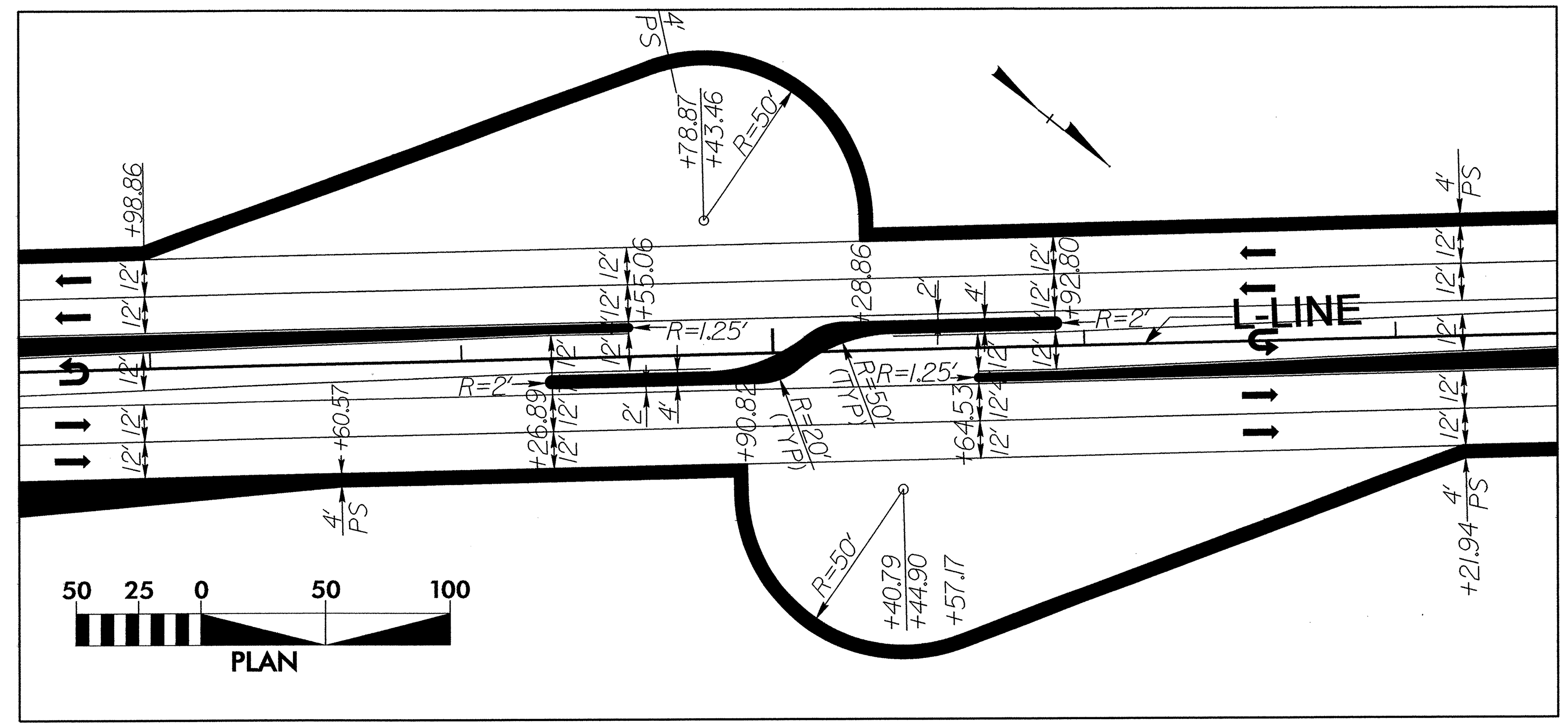
FROM STA. 58+75 TO STA. 61+50 L-LINE LT



FROM STA. 52+50 TO STA. 56+50 L-LINE RT
FROM STA. 61+50 TO STA. 62+50 L-LINE LT



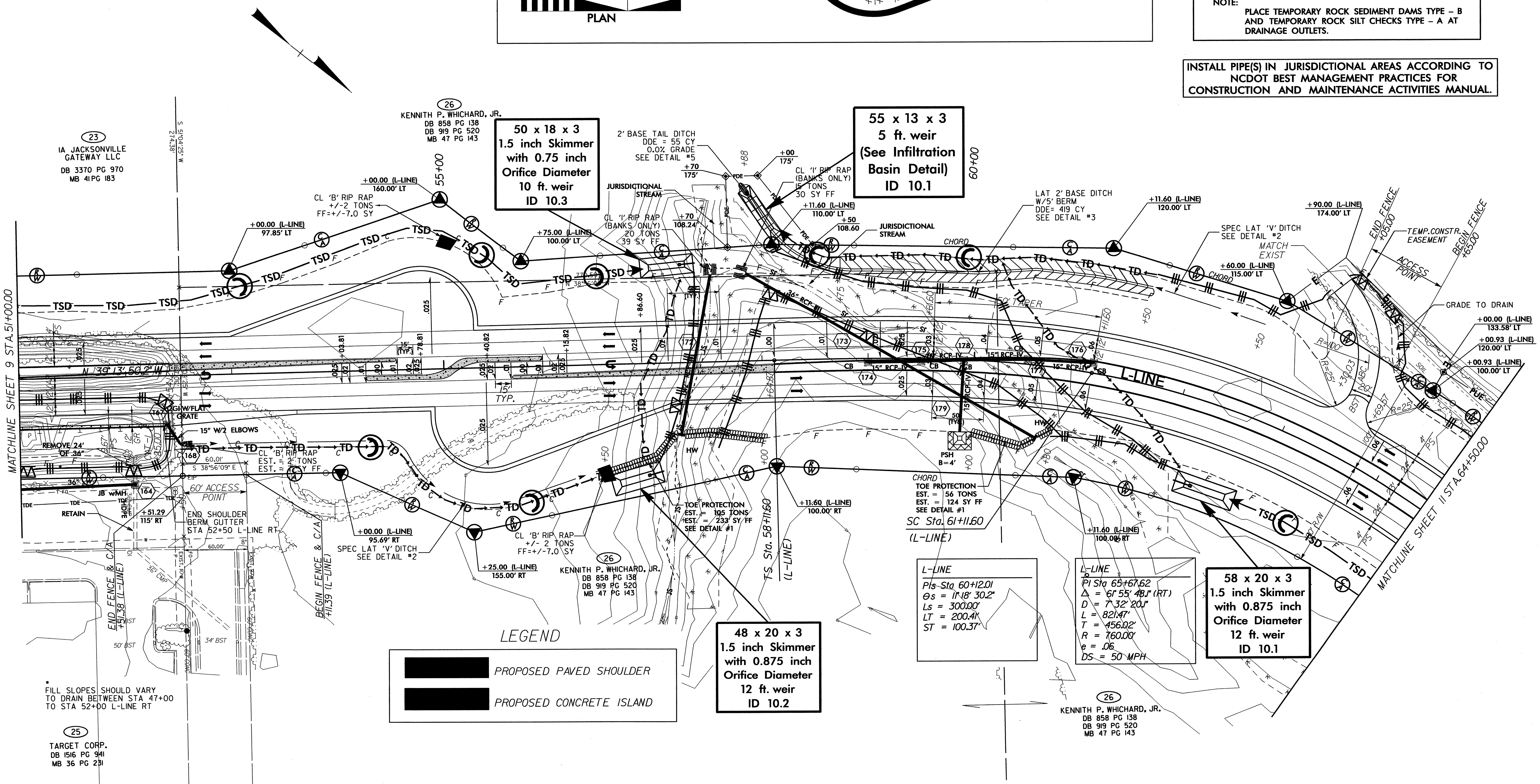
FROM STA. 57+88 TO STA. 58+75 L-LINE LT



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.

INSTALL PIPE(S) IN JURISDICTIONAL AREAS ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.



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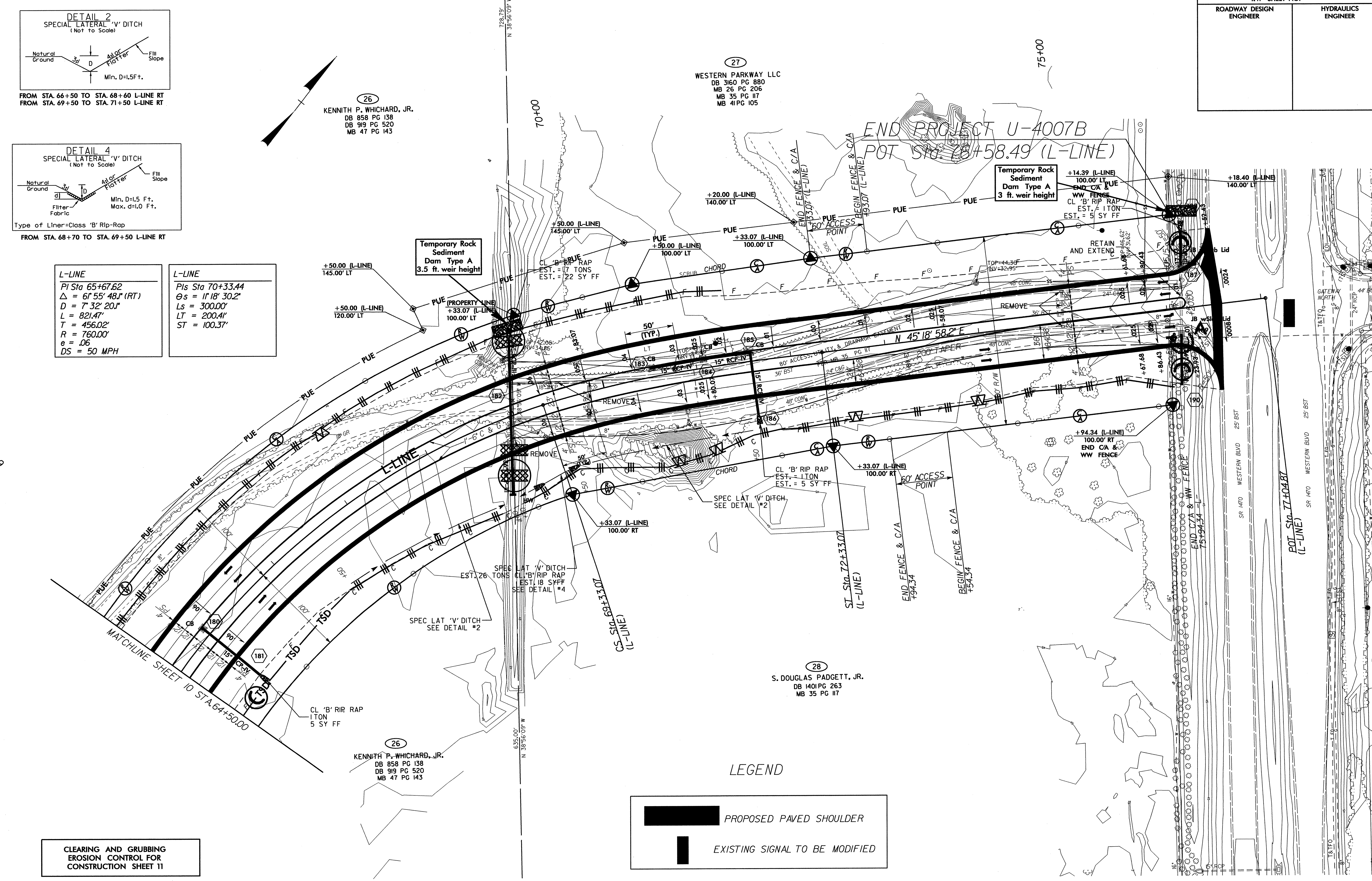
PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-13/CONSTJI
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99



DETAIL 2
SPECIAL LATERAL 'V' DITCH
(Not to Scale)
Natural Ground
Fill Slope
Min. D=1.5Ft.
FROM STA. 66+50 TO STA. 68+60 L-LINE RT
FROM STA. 69+50 TO STA. 71+50 L-LINE RT
DETAIL 4
SPECIAL LATERAL 'V' DITCH
(Not to Scale)
Min. D=1.5 Ft.
Max. d=1.0 Ft.
Filter Fabric
Type of Liner=Class 'B' Rip-Rap
FROM STA. 68+70 TO STA. 69+50 L-LINE RT
L-LINE
PI Sta 65+67.62
Δ = 61° 55' 48.1" (RT)
D = 7° 32' 20.1"
L = 821.47'
T = 456.02'
R = 760.00'
e = .06
DS = 50 MPH
L-LINE
PIs Sta 70+33.44
Θs = 11° 18' 30.2"
Ls = 300.00'
LT = 200.41'
ST = 100.37'
KENNITH P. WHICHARD, JR.
DB 858 PG 138
DB 919 PG 520
MB 47 PG 143
WESTERN PARKWAY LLC
DB 3160 PG 880
MB 26 PG 206
MB 35 PG 117
MB 41 PG 105
END PROJECT U-4007B
POT Sta. 76+58.49 (L-LINE)
Temporary Rock Sediment Dam Type A 3 ft. weir height
Temporary Rock Sediment Dam Type A 3.5 ft. weir height
RETAIN AND EXTEND
N 45° 18' 58.2" E
L-LINE
CL 'B' RIP RAP
EST. = 1 TON
EST. = 5 SY FF
SPEC LAT 'V' DITCH SEE DETAIL #2
SPEC LAT 'V' DITCH EST. 26 TONS CL 'B' RIP RAP EST. 18 SYFF SEE DETAIL #4
CS Sta 69+33.07 (L-LINE)
ST Sta 72+33.07 (L-LINE)
POT Sta 77+04.87 (L-LINE)
MATCHLINE SHEET 10 STA. 64+50.00
S. DOUGLAS PADGETT, JR.
DB 1401 PG 263
MB 35 PG 117
SR 1470 WESTERN BLVD

LEGEND

▬	PROPOSED PAVED SHOULDER
▮	EXISTING SIGNAL TO BE MODIFIED

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 11

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

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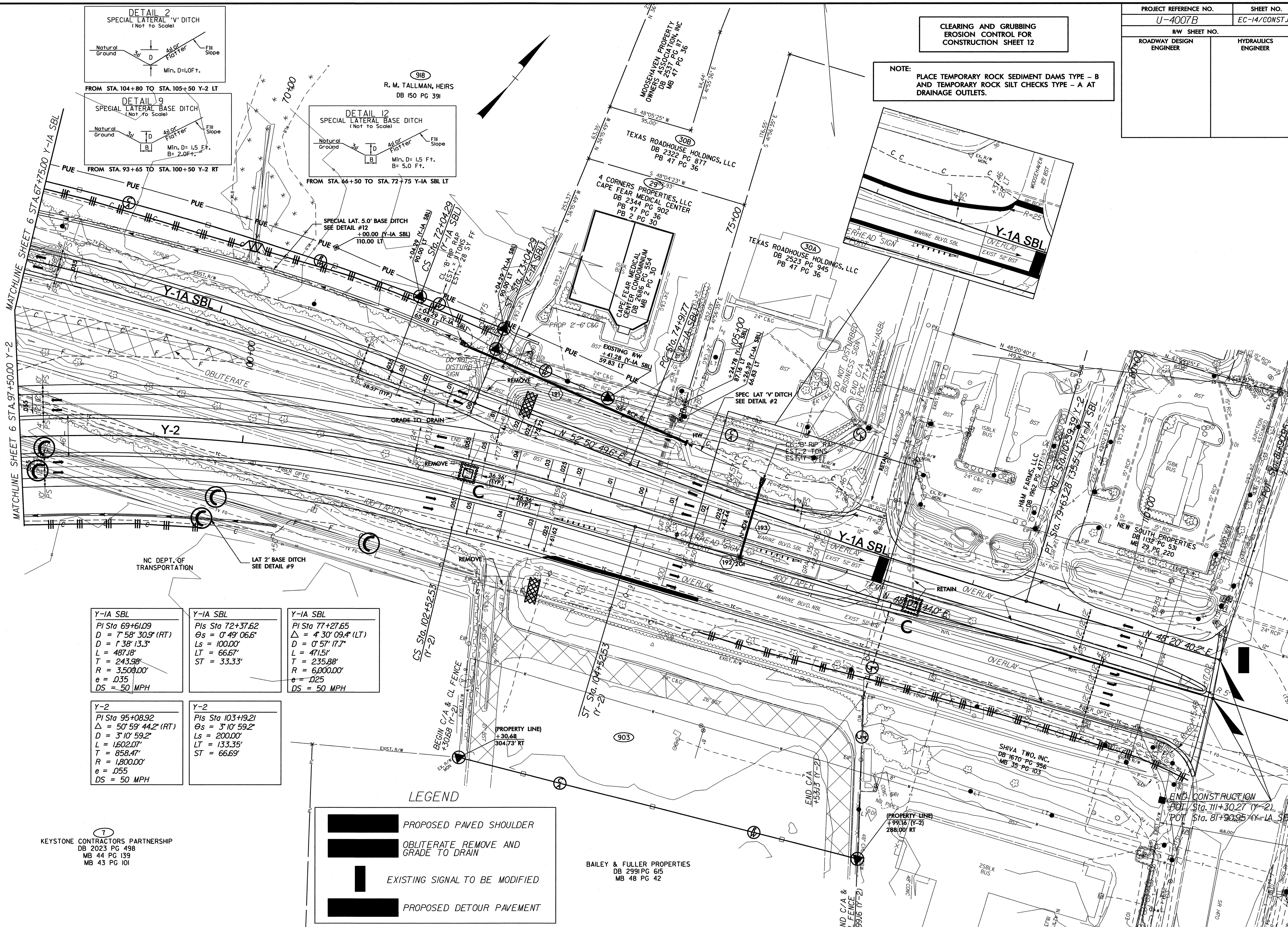
PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-14/CONSTJ2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 12

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



Y-1A SBL	
PI Sta 69+61.09	
D = 7° 58' 30.9" (RT)	
D = 1° 38' 13.3"	
L = 487.18'	
T = 243.98'	
R = 3,500.00'	
e = .035	
DS = 50 MPH	

Y-1A SBL	
PIs Sta 72+37.62	
Θs = 0° 49' 06.6"	
Ls = 100.00'	
LT = 66.67'	
ST = 33.33'	

Y-1A SBL	
PI Sta 77+27.65	
Δ = 4° 30' 09.4" (LT)	
D = 0° 57' 17.7"	
L = 471.51'	
T = 235.88'	
R = 6,000.00'	
e = .025	
DS = 50 MPH	

Y-2	
PI Sta 95+08.92	
Δ = 50° 59' 44.2" (RT)	
D = 3° 10' 59.2"	
L = 1,602.07'	
T = 858.47'	
R = 1,800.00'	
e = .055	
DS = 50 MPH	

Y-2	
PIs Sta 103+19.21	
Θs = 3° 10' 59.2"	
Ls = 200.00'	
LT = 133.35'	
ST = 66.69'	

LEGEND

- PROPOSED PAVED SHOULDER
- OBLITERATE REMOVE AND GRADE TO DRAIN
- EXISTING SIGNAL TO BE MODIFIED
- PROPOSED DETOUR PAVEMENT

8/17/99

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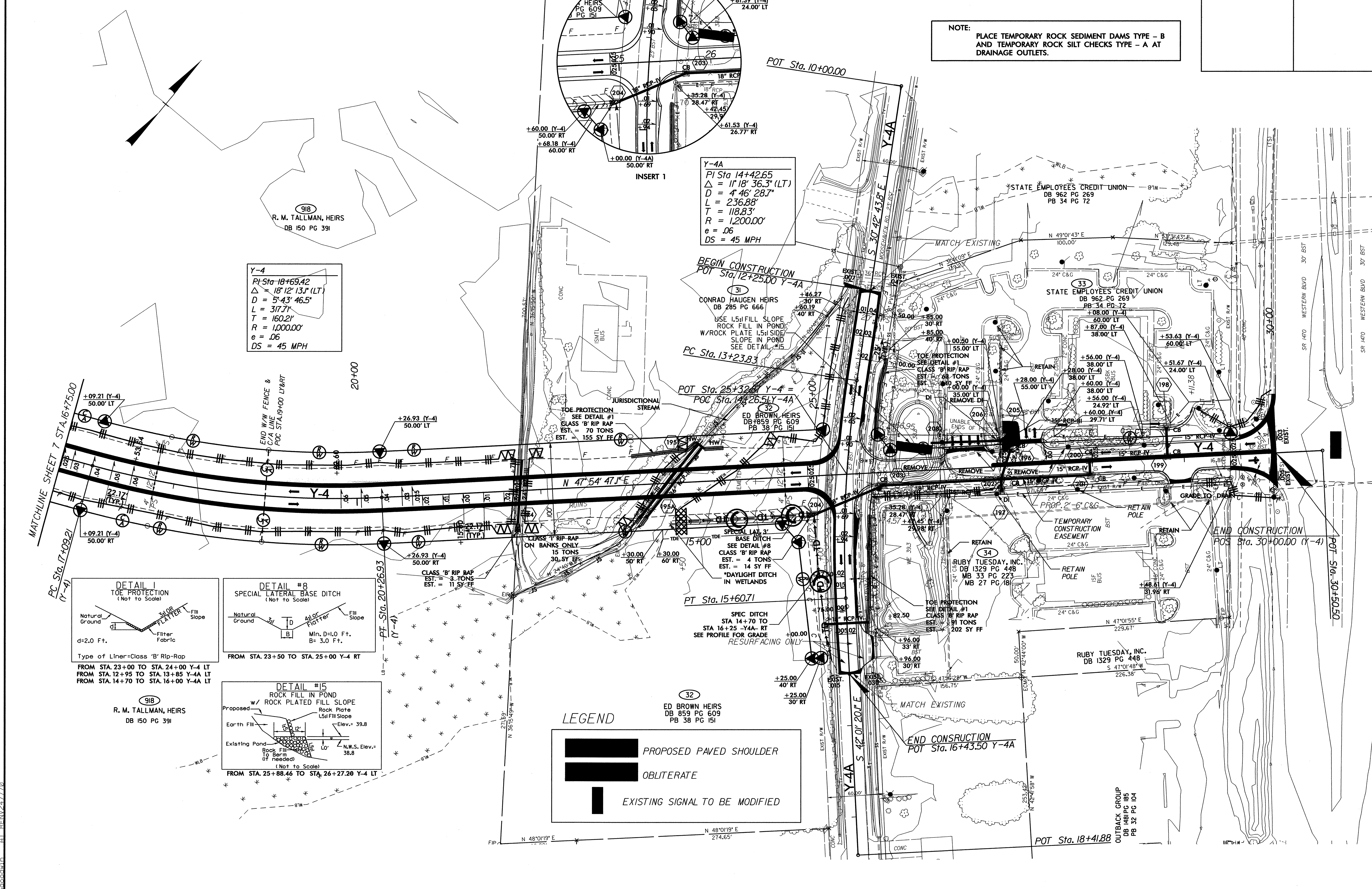
PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-15/CONST J3
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INSTALL PIPE(S) IN JURISDICTIONAL AREAS ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

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.



INSERT 1
Y-4A
PI Sta 14+42.65
Δ = 11° 18' 36.3" (LT)
D = 4° 46' 28.7"
L = 236.88'
T = 118.83'
R = 1,200.00'
e = .06
DS = 45 MPH
Y-4
PI Sta 18+69.42
Δ = 18° 12' 13.1" (LT)
D = 5° 43' 46.5"
L = 317.71'
T = 160.21'
R = 1,000.00'
e = .06
DS = 45 MPH
918
R. M. TALLMAN, HEIRS
DB 150 PG 391
31
CONRAD HAUGEN HEIRS
DB 285 PG 666
32
ED BROWN HEIRS
DB 859 PG 609
PB 38 PG 151
33
STATE EMPLOYEES CREDIT UNION
DB 962 PG 269
PB 34 PG 72
34
RUBY TUESDAY, INC.
DB 1329 PG 448
MB 33 PG 223
MB 27 PG 18
OUTBACK GROUP
DB 1481 PG 185
PB 32 PG 104
BEGIN CONSTRUCTION
POT Sta. 12+25.00 Y-4A
END CONSTRUCTION
POS Sta. 30+00.00 (Y-4)
END CONSRUCTION
POT Sta. 16+43.50 Y-4A
POT Sta. 10+00.00
POT Sta. 18+41.88
PC Sta. 13+23.83
PT Sta. 15+60.71
POT Sta. 25+32.61 Y-4 = POC Sta. 14+26.51 Y-4A
MATCHLINE SHEET 7 STA.16+75.00
PC Sta. 17+09.21 (Y-4)
PT Sta. 20+26.93 (Y-4)
N 47° 54' 47.1" E
S 30° 42' 43.8" E
S 42° 01' 20.1" E
USE 1.5:1 FILL SLOPE ROCK FILL IN POND W/ROCK PLATE 1.5:1 SIDE SLOPE IN POND SEE DETAIL #15
TOE PROTECTION SEE DETAIL #1 CLASS 'B' RIP RAP EST. = 70 TONS EST. = 155 SY FF
JURISDICTIONAL STREAM
CLASS 'I' RIP RAP ON BANKS ONLY 15 TONS 30 SY FF
CLASS 'B' RIP RAP EST. = 3 TONS EST. = 11 SY FF
SPECIAL LAT. 3' BASE DITCH SEE DETAIL #8 CLASS 'B' RIP RAP EST. = 4 TONS EST. = 14 SY FF
*DAYLIGHT DITCH IN WETLANDS
SPEC DITCH STA 14+70 TO STA 16+25 -Y4A- RT SEE PROFILE FOR GRADE
RESURFACING ONLY
TOE PROTECTION SEE DETAIL #1 CLASS 'B' RIP RAP EST. = 91 TONS EST. = 202 SY FF
MATCH EXISTING
TEMPORARY CONSTRUCTION EASEMENT
RETAIN POLE
GRADE TO DRAIN
DETAIL I
TOE PROTECTION
(Not to Scale)
d=2.0 Ft.
Type of Liner=Class 'B' Rip-Rap
FROM STA. 23+00 TO STA. 24+00 Y-4 LT
FROM STA. 12+95 TO STA. 13+85 Y-4A LT
FROM STA. 14+70 TO STA. 16+00 Y-4A LT
DETAIL #8
SPECIAL LATERAL BASE DITCH
(Not to Scale)
Min. D=1.0 Ft.
B= 3.0 Ft.
FROM STA. 23+50 TO STA. 25+00 Y-4 RT
DETAIL #15
ROCK FILL IN POND
w/ ROCK PLATED FILL SLOPE
(Not to Scale)
FROM STA. 25+88.46 TO STA. 26+27.20 Y-4 LT
LEGEND
PROPOSED PAVED SHOULDER
OBLITERATE
EXISTING SIGNAL TO BE MODIFIED

8/17/99

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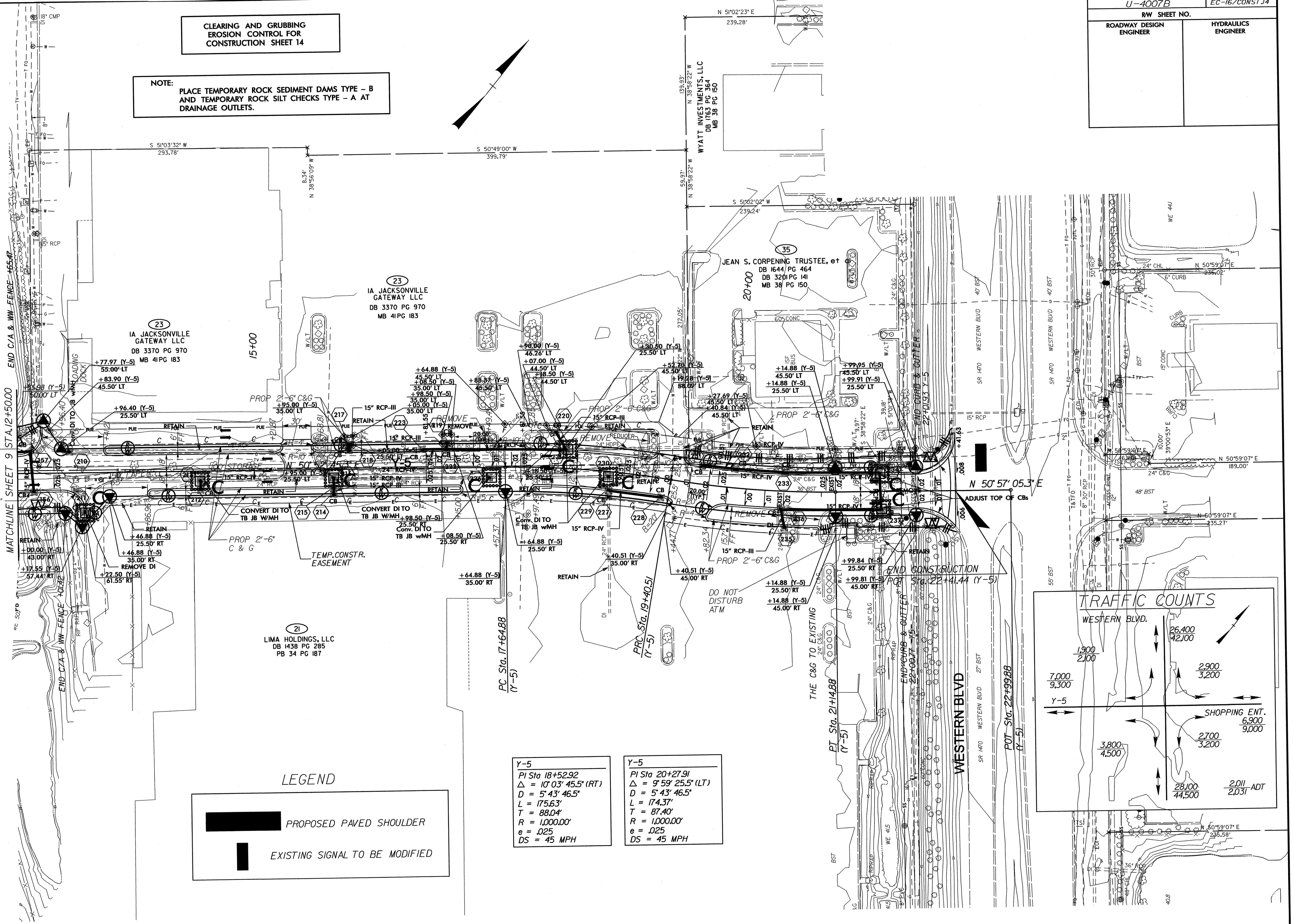
PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-16/CONST.14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 14

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



Y-5	
PI Sta 18+52.92	
Δ = 10° 03' 45.5" (RT)	
D = 5° 43' 46.5"	
L = 175.63'	
T = 88.04'	
R = 1,000.00'	
e = .025	
DS = 45 MPH	

Y-5	
PI Sta 20+27.91	
Δ = 9° 59' 25.5" (LT)	
D = 5° 43' 46.5"	
L = 174.37'	
T = 87.40'	
R = 1,000.00'	
e = .025	
DS = 45 MPH	

LEGEND

PROPOSED PAVED SHOULDER

EXISTING SIGNAL TO BE MODIFIED

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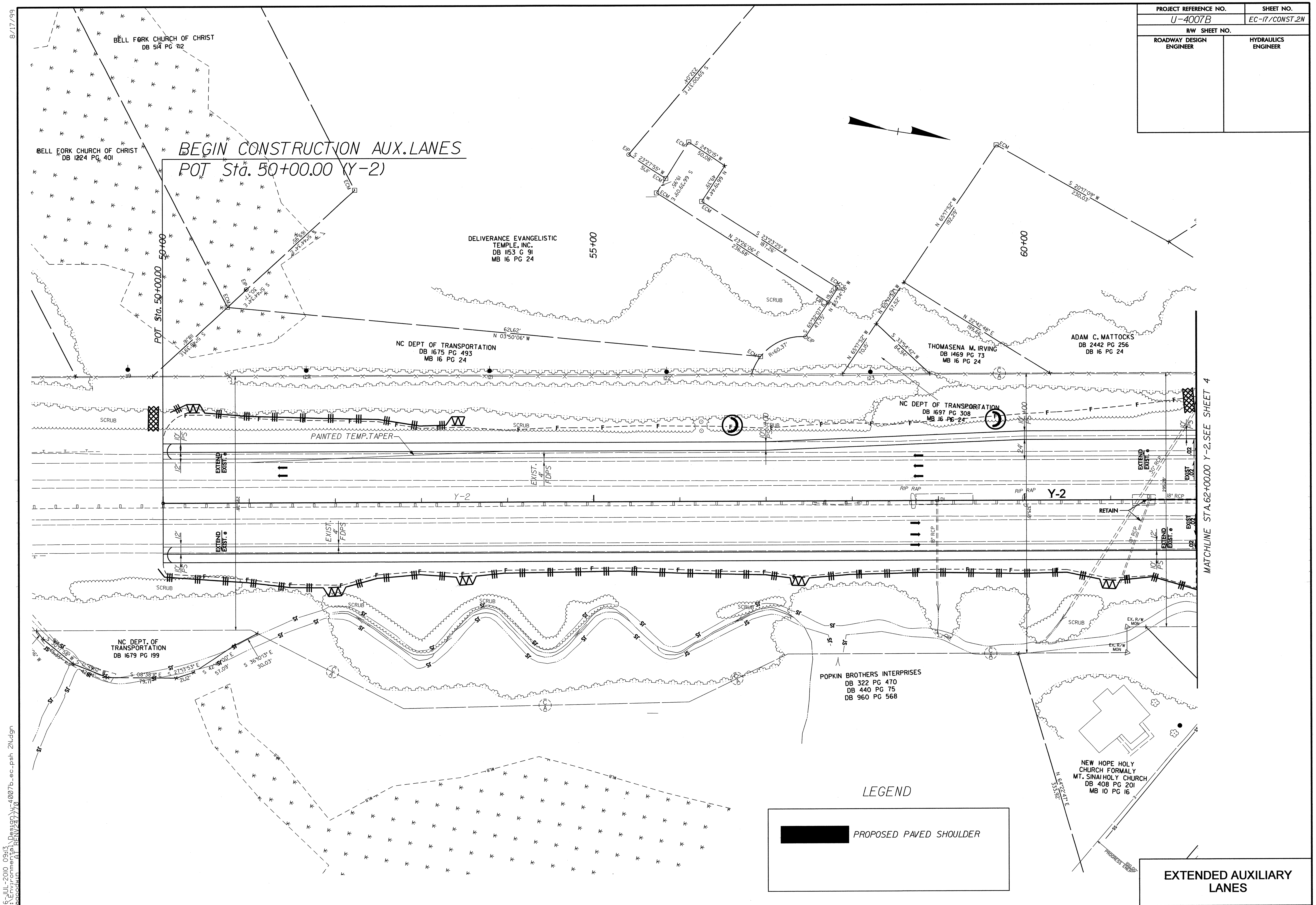

PROJECT REFERENCE NO.
U-4007B
SHEET NO.
EC-17/CONST.2N
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
BEGIN CONSTRUCTION AUX.LANES
POT Sta. 50+00.00 (Y-2)
BELL FORK CHURCH OF CHRIST
DB 514 PG 712
BELL FORK CHURCH OF CHRIST
DB 1224 PG 401
DELIVERANCE EVANGELISTIC
TEMPLE, INC.
DB 1153 G 91
MB 16 PG 24
NC DEPT OF TRANSPORTATION
DB 1675 PG 493
MB 16 PG 24
THOMASENA M. IRVING
DB 1469 PG 73
MB 16 PG 24
ADAM C. MATTOCKS
DB 2442 PG 256
DB 16 PG 24
NC DEPT OF TRANSPORTATION
DB 1697 PG 308
MB 16 PG 24
NC DEPT. OF
TRANSPORTATION
DB 1679 PG 199
POPKIN BROTHERS INTERPRISES
DB 322 PG 470
DB 440 PG 75
DB 960 PG 568
NEW HOPE HOLY
CHURCH FORMALY
MT. SINAI HOLY CHURCH
DB 408 PG 201
MB 10 PG 16
POT Sta. 50+00.00
50+00
55+00
60+00
PAINTED TEMP.TAPER
EXIST. 4' FDPS
Y-2
RIP RAP
RETAIN
18" RCP
SCRUB
MATCHLINE STA.62+00.00 Y-2,SEE SHEET 4
LEGEND
PROPOSED PAVED SHOULDER
EXTENDED AUXILIARY
LANES
2N

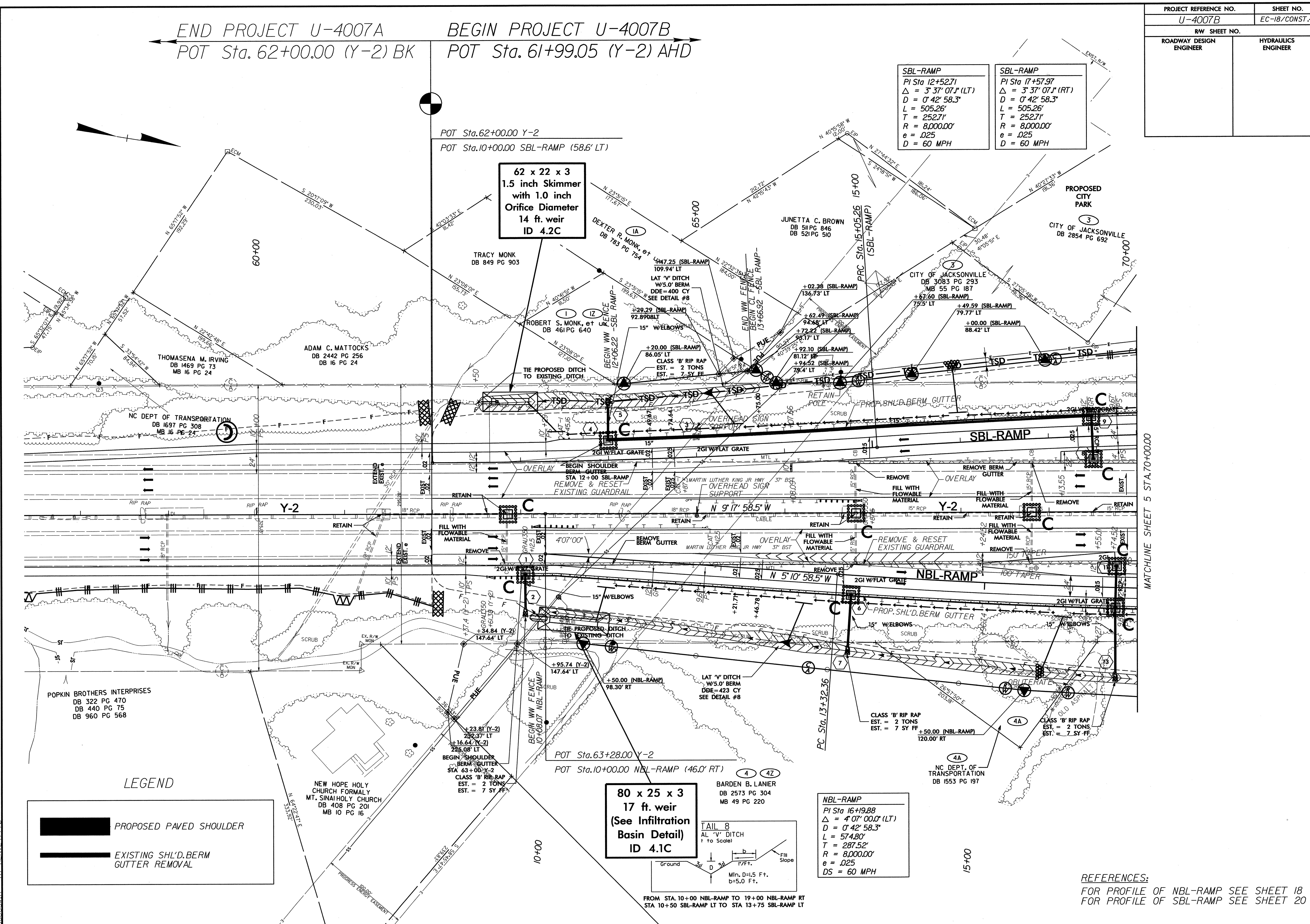
PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-18/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

END PROJECT U-4007A
POT Sta. 62+00.00 (Y-2) BK

BEGIN PROJECT U-4007B
POT Sta. 61+99.05 (Y-2) AHD

SBL-RAMP
PI Sta 12+52.71
Δ = 3° 37' 07.1" (LT)
D = 0° 42' 58.3"
L = 505.26'
T = 252.71'
R = 8,000.00'
e = .025
D = 60 MPH

SBL-RAMP
PI Sta 17+57.97
Δ = 3° 37' 07.1" (RT)
D = 0° 42' 58.3"
L = 505.26'
T = 252.71'
R = 8,000.00'
e = .025
D = 60 MPH



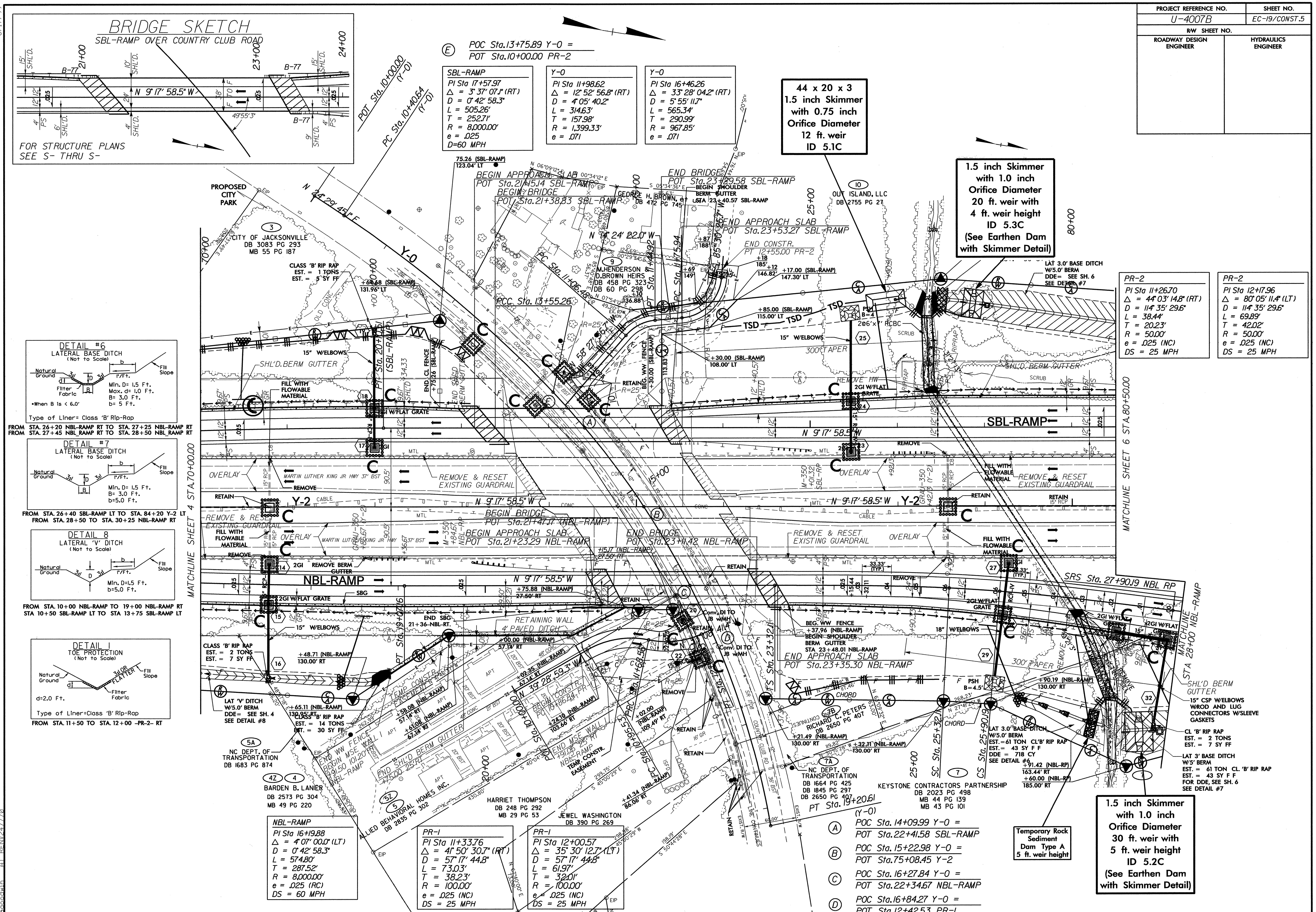
NBL-RAMP
PI Sta 16+19.88
Δ = 4° 07' 00.0" (LT)
D = 0° 42' 58.3"
L = 574.80'
T = 287.52'
R = 8,000.00'
e = .025
DS = 60 MPH

LEGEND

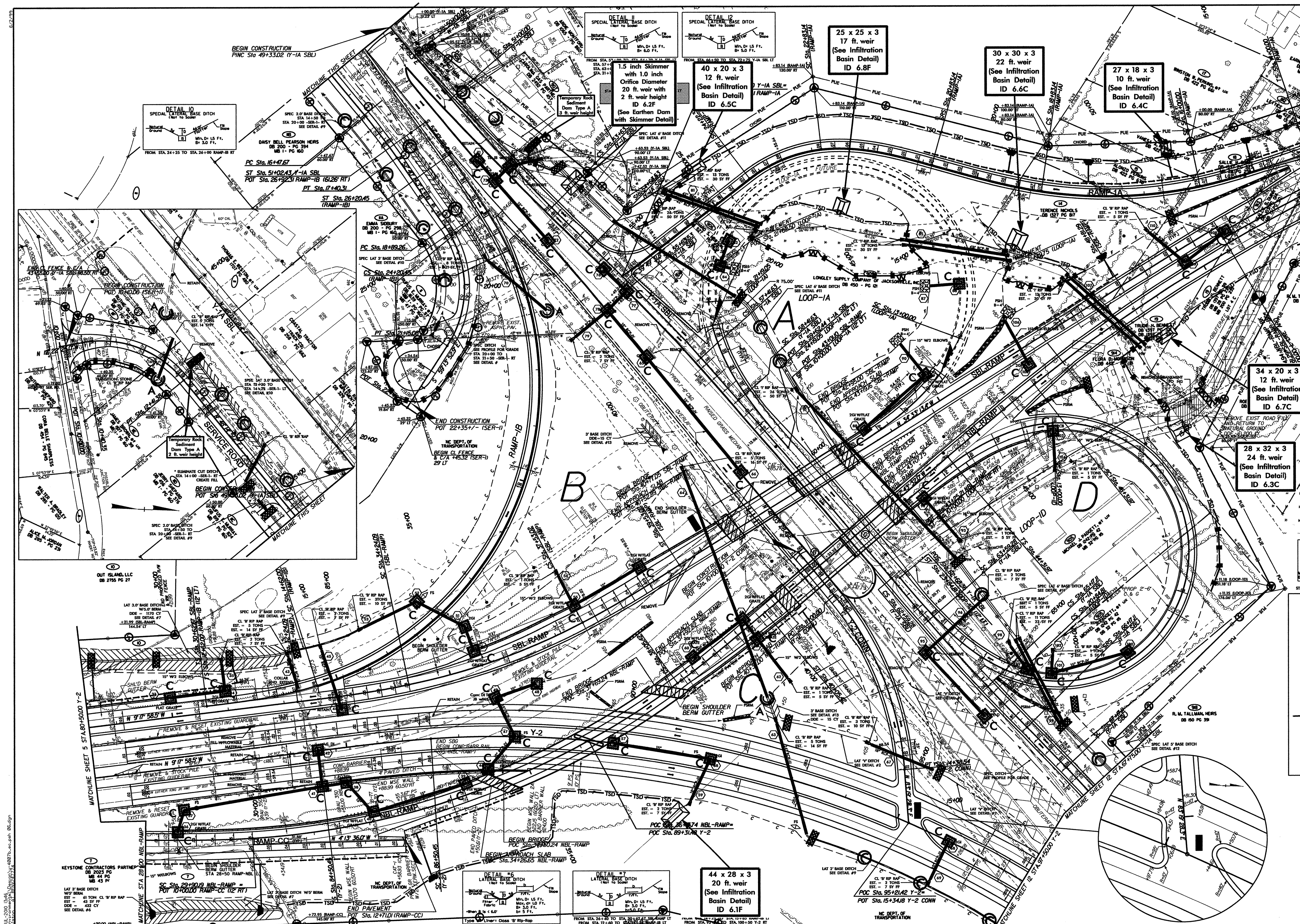
(solid black fill)	PROPOSED PAVED SHOULDER
(heavy line)	EXISTING SHL'D. BERM GUTTER REMOVAL

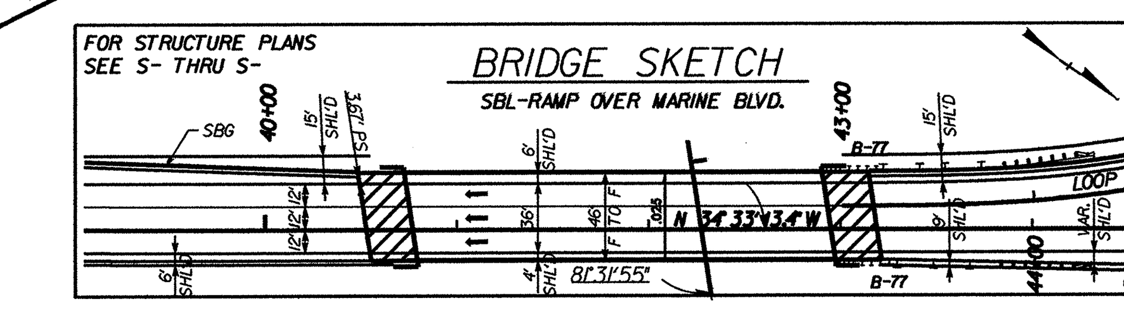
REFERENCES:
FOR PROFILE OF NBL-RAMP SEE SHEET 18
FOR PROFILE OF SBL-RAMP SEE SHEET 20

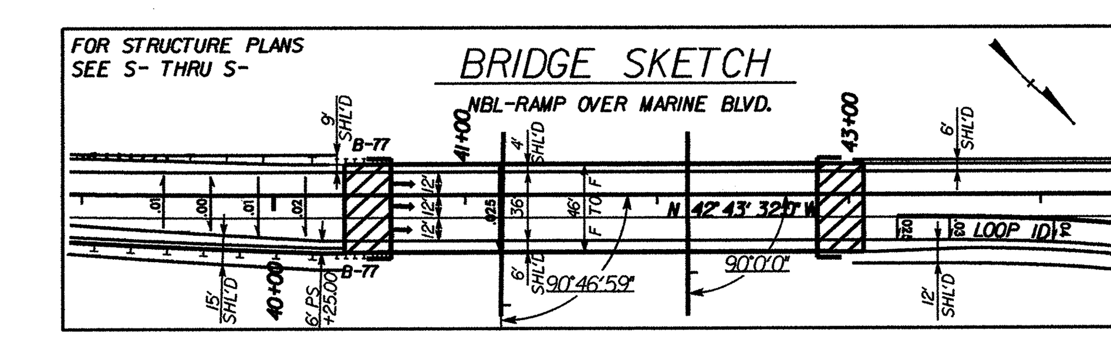
PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-19/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

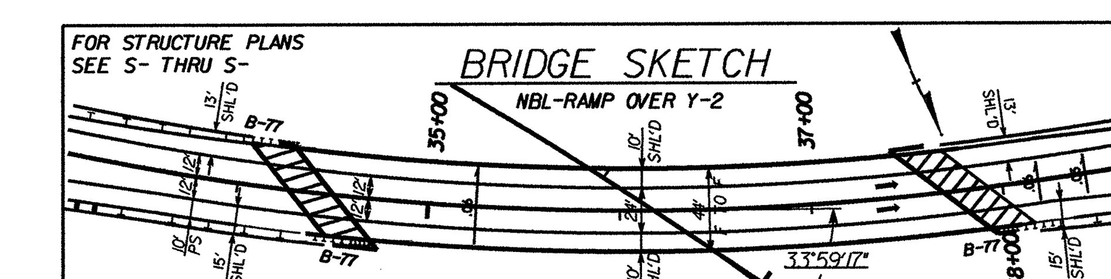


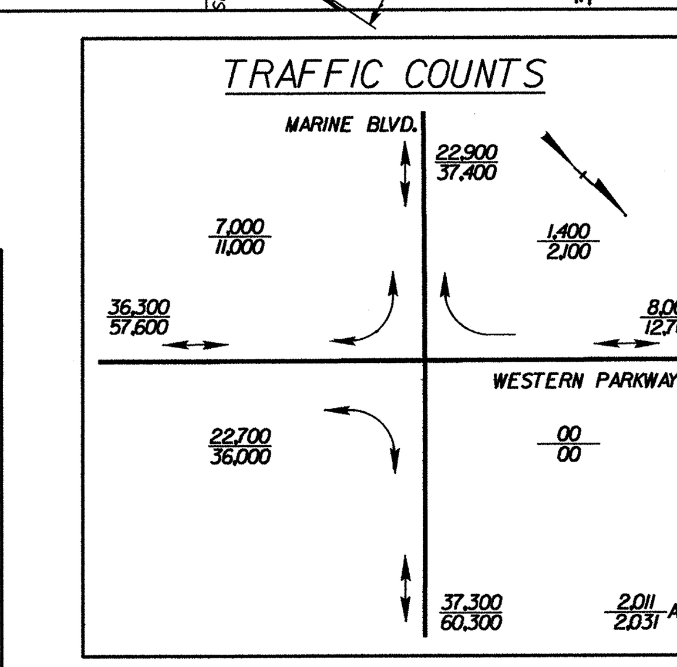
GRAPHIC SCALE	PROJECT REFERENCE NO.	SHEET NO.
50' 25' 0 50' 100' PLANS	U-4007B	EC-20/CONST.6
	R/W SHEET NO.	
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

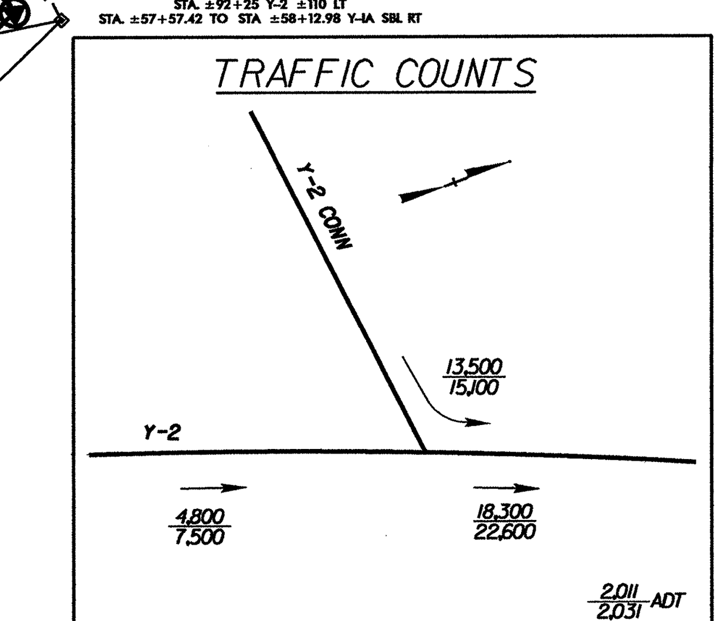












(A) POT Sta. 42+27.41 SBL-RAMP= POC Sta. 60+35.83 Y-1A SBL

(B) POT Sta. 41+19.38 NBL-RAMP= POT Sta. 10+42.83 Y-2 CONN

(C) POT Sta. 42+15.92 NBL-RAMP= POC Sta. 61+59.28 Y-1A SBL

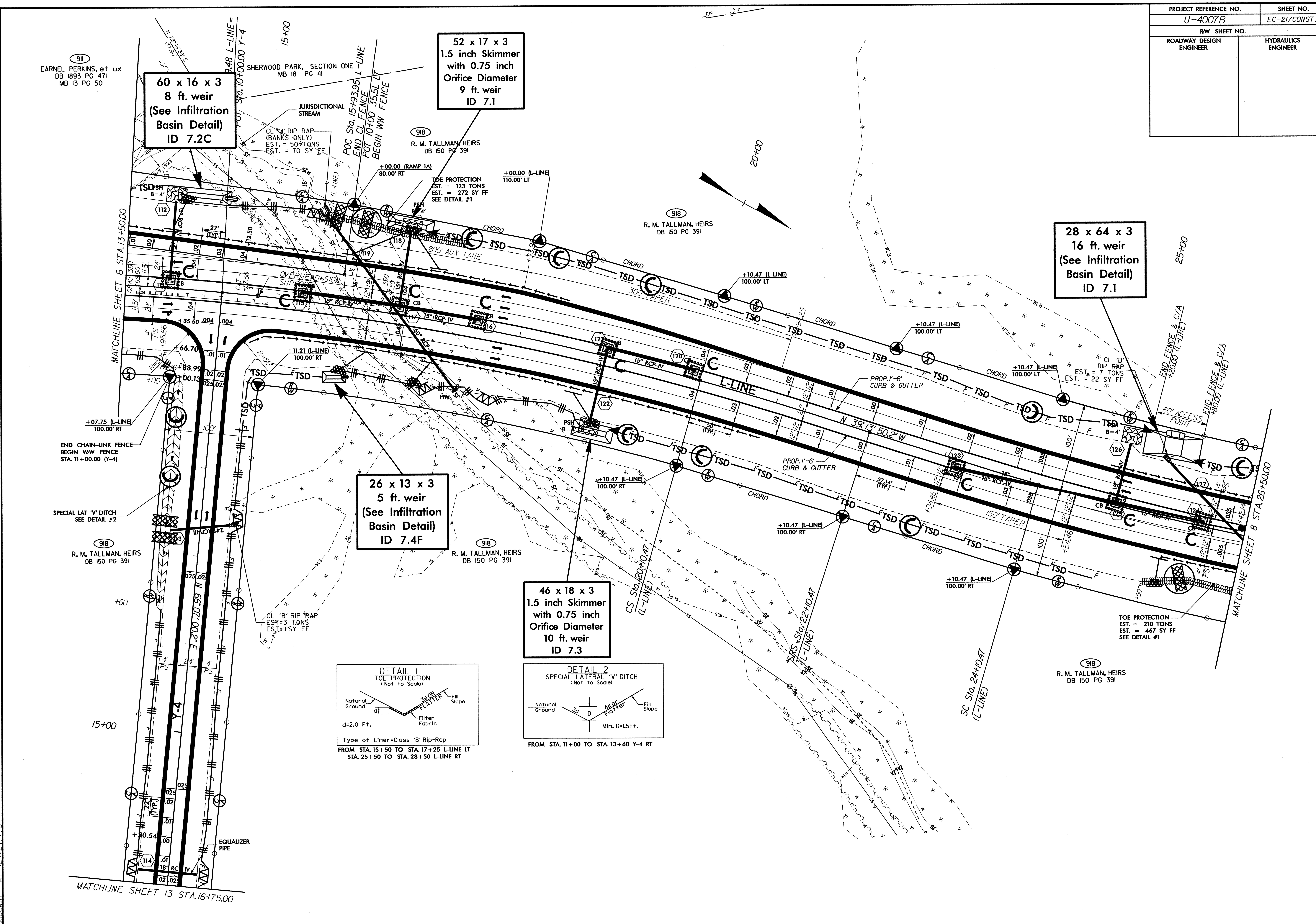
REFERENCES:

FOR CURVE DATA,SEE SHEET 6A
FOR PROFILE OF L-LINE,SEE SHEETS 15
FOR PROFILE OF NBL-RAMP,SEE SHEETS 19
FOR PROFILE OF SBL-RAMP,SEE SHEETS 21
FOR PROFILE OF RAMP-1A,SEE SHEET 22
FOR PROFILE OF RAMP-1B,SEE SHEET 23
FOR PROFILE OF RAMP CC,SEE SHEET 23
FOR PROFILE OF LOOP-1A,SEE SHEET 24
FOR PROFILE OF LOOP-1D,SEE SHEET 24
FOR PROFILE OF Y-1A SBL,SEE SHEET 25
FOR PROFILE OF Y-2 CONN,SEE SHEET 26
FOR PROFILE OF Y-2 SEE,SHEET 27
FOR PROFILE OF SERV.RD,SEE SHEET 31
FOR SHEAR POINT LAYOUT,SEE SHEET 2G
FOR RET.WALL ENVELOPE,SEE SHEET 2H

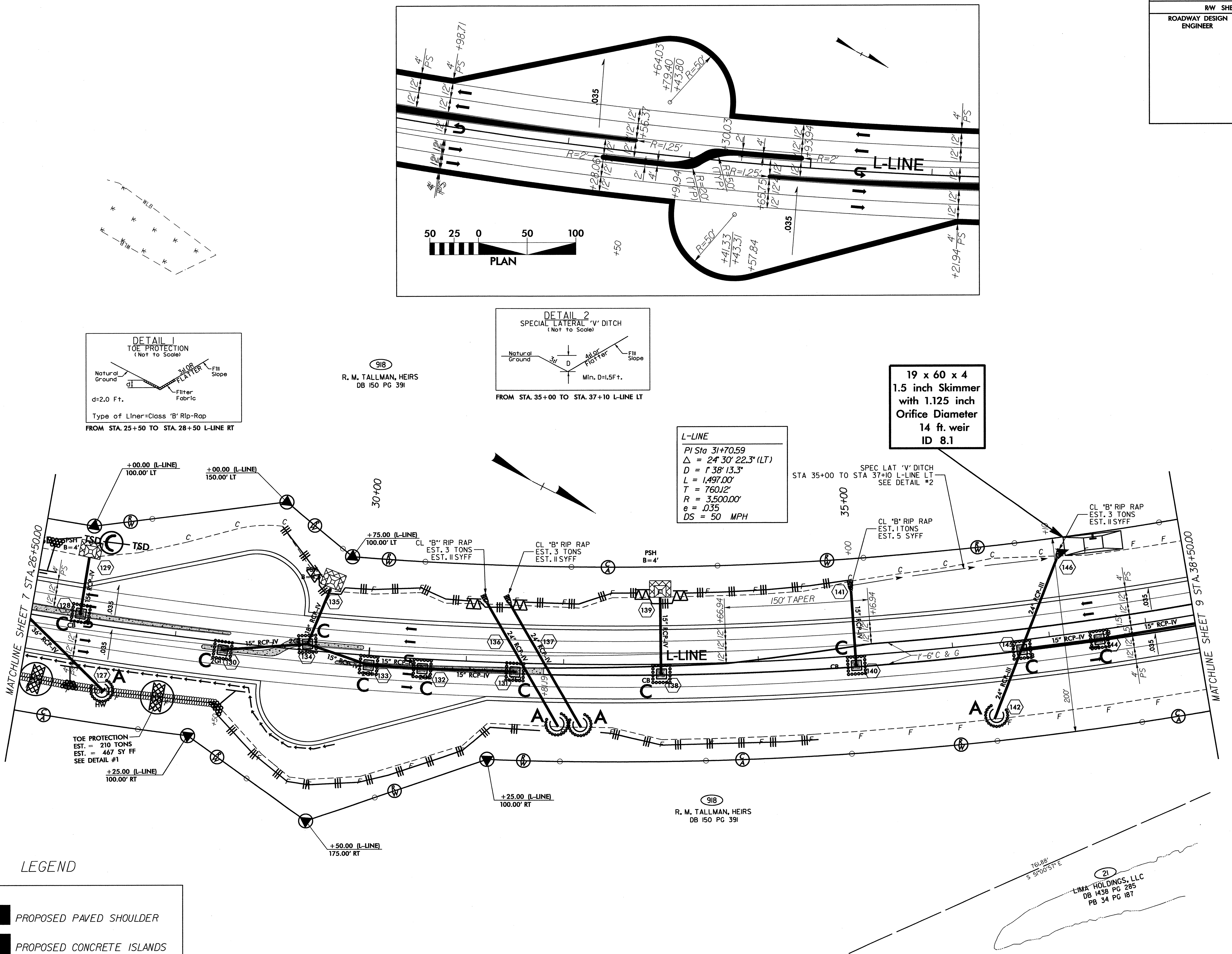
LOCATION: WESTERN PARKWAY MARTIN LUTHER KING FREEEWAY @ MARINE BOULEVARD, IN THE CITY OF JACKSONVILLE, NC	
TIP NO.: U-4007B	COUNTY: ONSLOW
DESIGNED BY: ROBERT WILLIAMS	
CHECKED BY: KEITH F. HUDSON	DATE: NOVEMBER 24, 2008

6

PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-21/CONST.7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-22/CONST.8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



LEGEND

[redacted]	PROPOSED PAVED SHOULDER
[redacted]	PROPOSED CONCRETE ISLANDS

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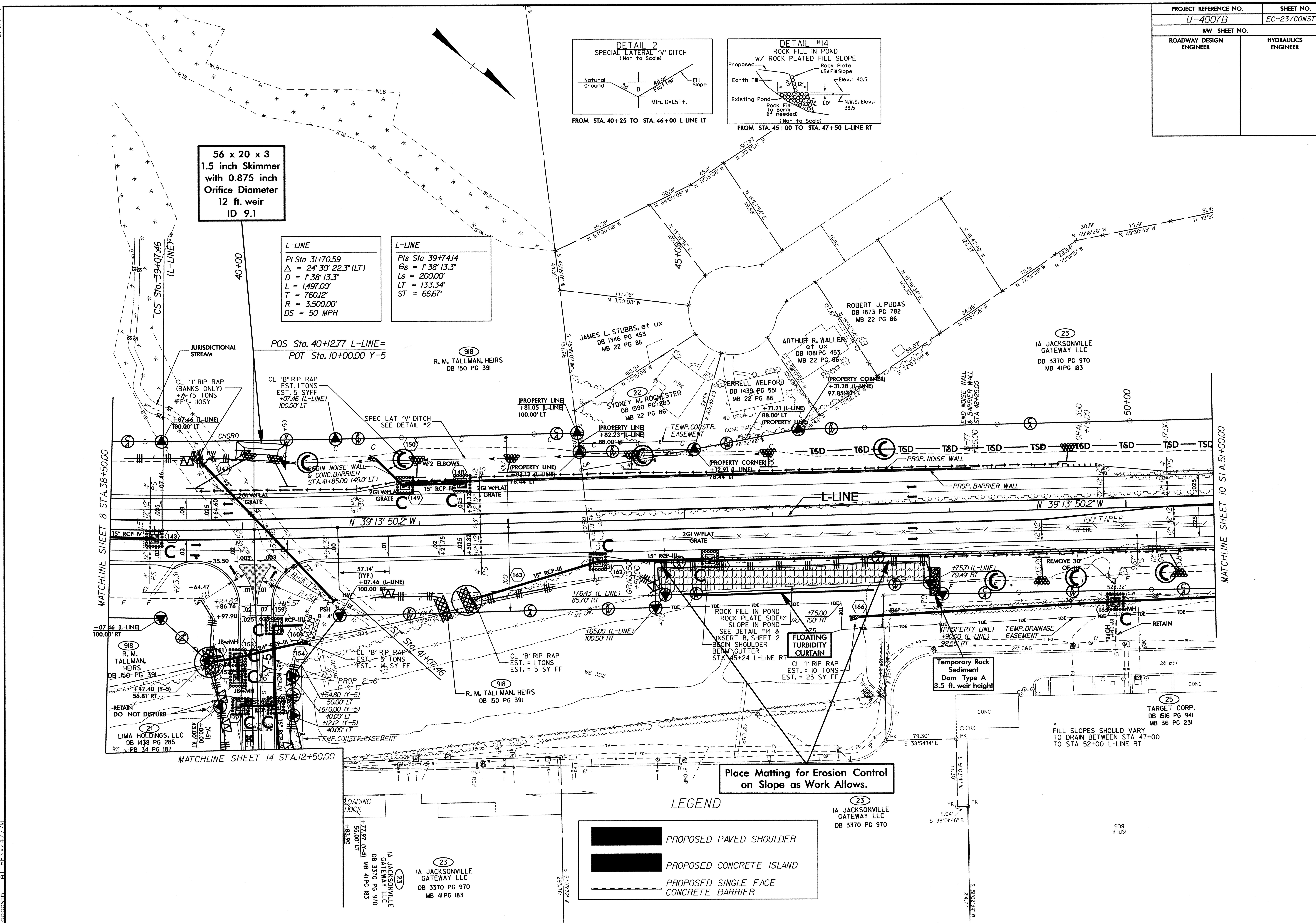

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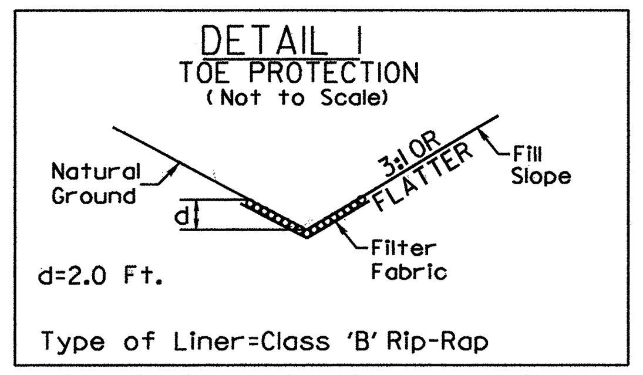
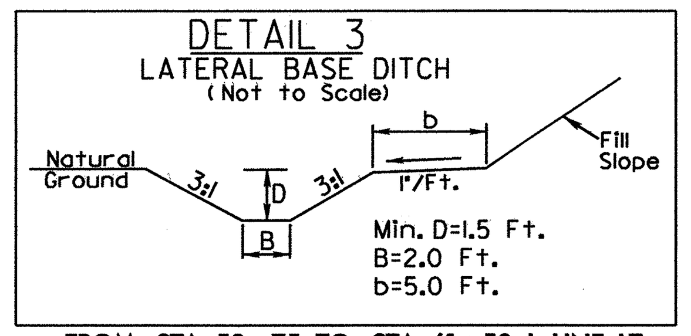
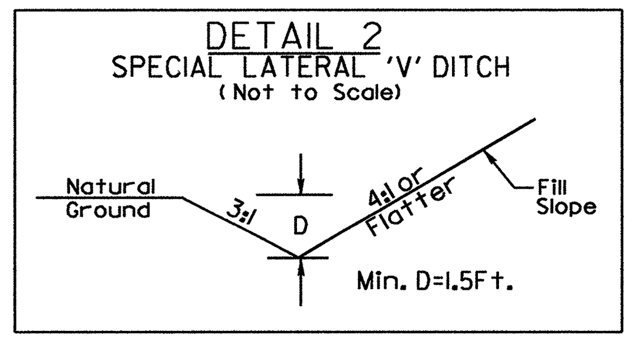
PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-24/CONSTJO
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



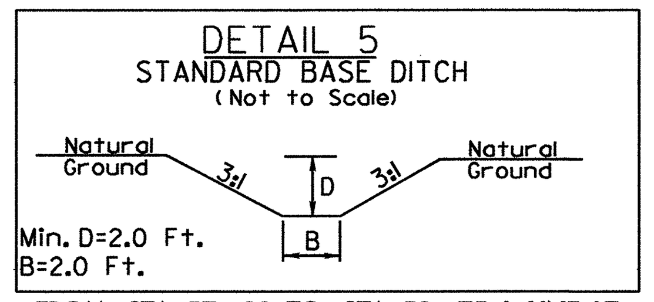
FROM STA. 56+50 TO STA. 58+00 L-LINE RT
FROM STA. 60+00 TO STA. 60+80 L-LINE RT



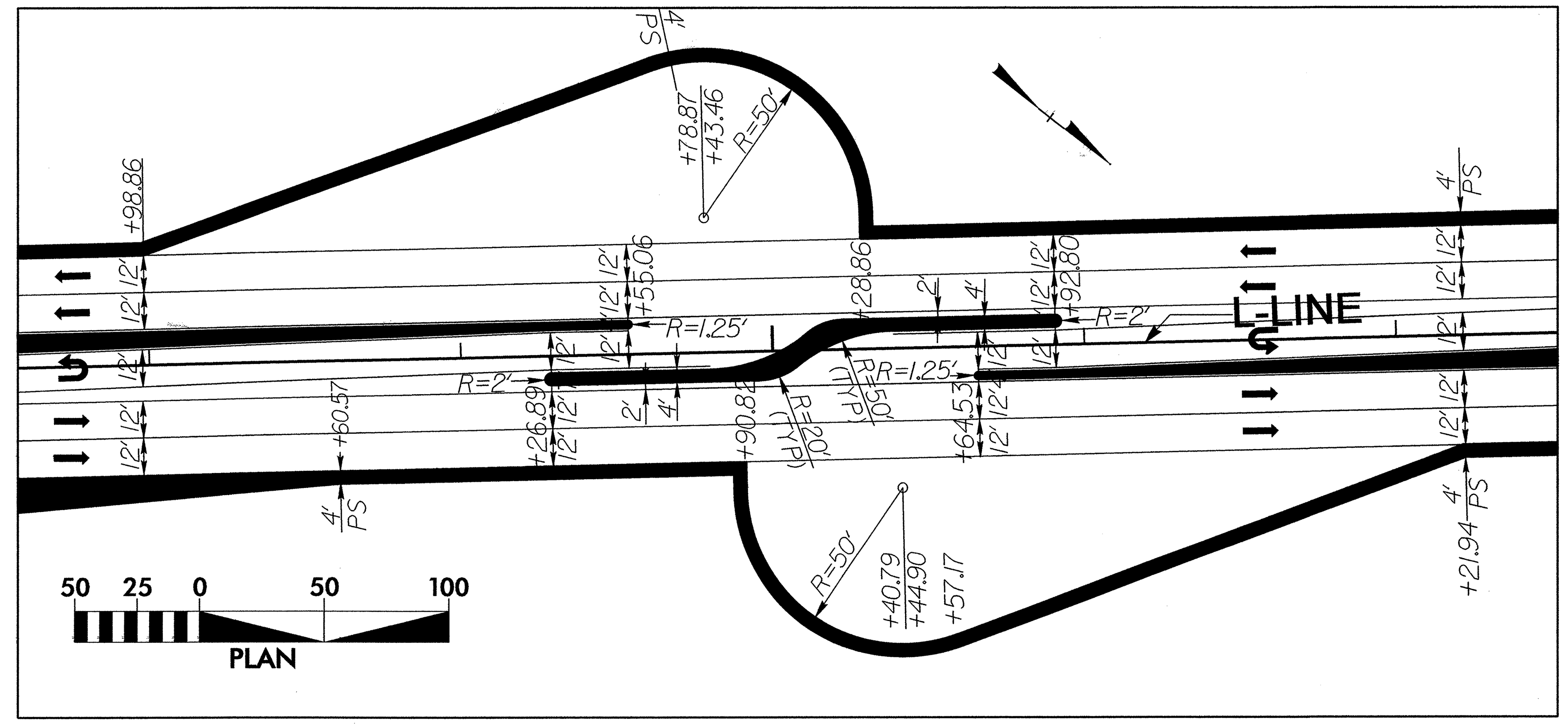
FROM STA. 58+75 TO STA. 61+50 L-LINE LT

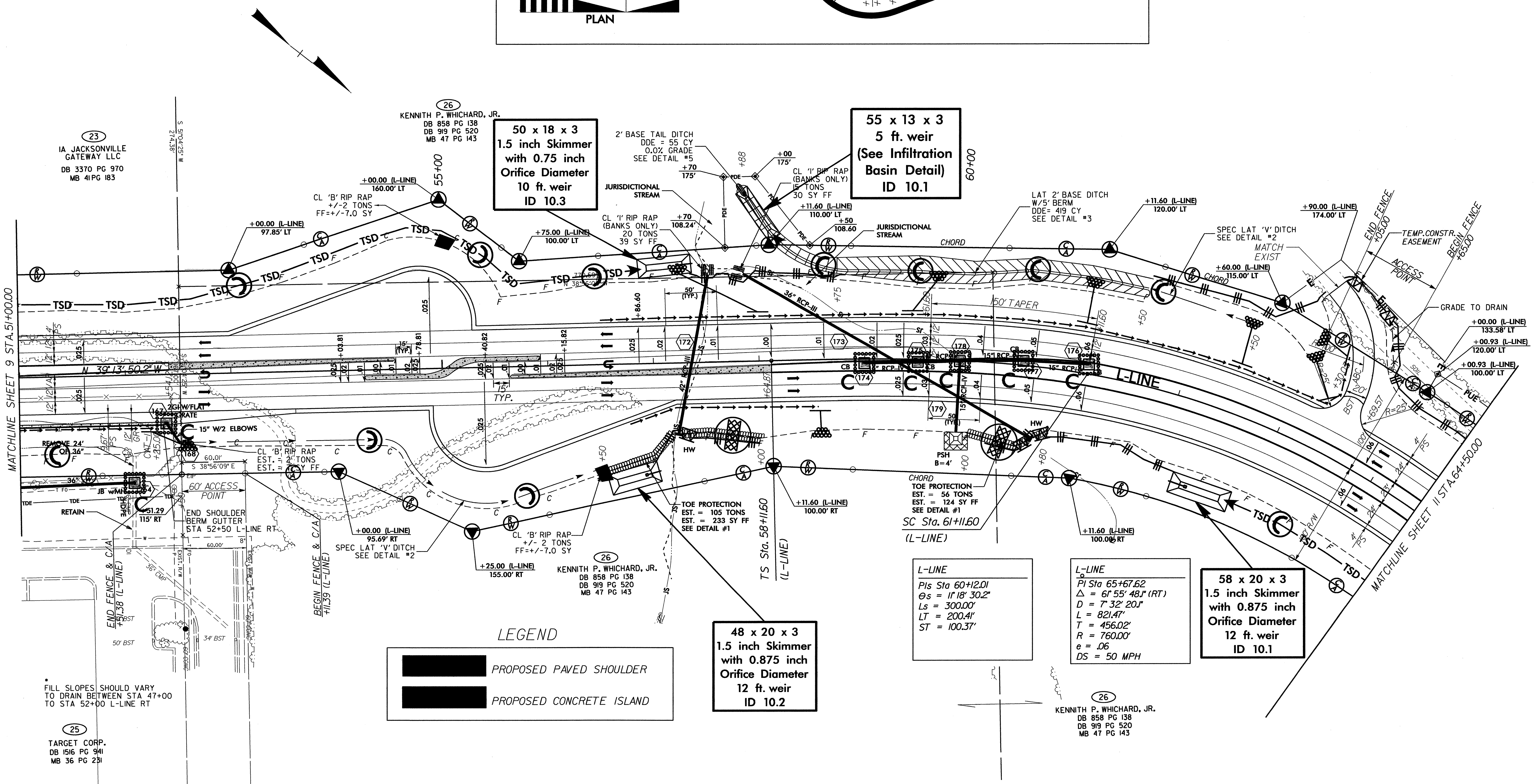


FROM STA. 52+50 TO STA. 56+50 L-LINE RT
FROM STA. 61+50 TO STA. 62+50 L-LINE LT



FROM STA. 57+88 TO STA. 58+75 L-LINE LT





48 x 20 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
12 ft. weir
ID 10.2

58 x 20 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
12 ft. weir
ID 10.1

L-LINE
PIs Sta 60+12.01
Θs = 11° 18' 30.2"
Ls = 300.00'
LT = 200.41'
ST = 100.37'

L-LINE
PI Sta 65+67.62
Δ = 61° 55' 48.1" (RT)
D = 7° 32' 20.1"
L = 821.47'
T = 456.02'
R = 760.00'
e = .06
DS = 50 MPH

KENNITH P. WHICHARD, JR.
DB 858 PG 138
DB 919 PG 520
MB 47 PG 143

LEGEND

(black fill)	PROPOSED PAVED SHOULDER
(black fill)	PROPOSED CONCRETE ISLAND

- FILL SLOPES SHOULD VARY TO DRAIN BETWEEN STA 47+00 TO STA 52+00 L-LINE RT

TARGET CORP.
DB 1516 PG 941
MB 36 PG 231

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PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-25/CONSTJ1
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

DETAIL 2
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Natural Ground — 3:1 — D — 4:1 or Flatter — Fill Slope

Min. D=1.5Ft.

FROM STA. 66+50 TO STA. 68+60 L-LINE RT
FROM STA. 69+50 TO STA. 71+50 L-LINE RT

DETAIL 4
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Natural Ground — 3:1 — D — d — 4:1 or Flatter — Fill Slope — Filter Fabric

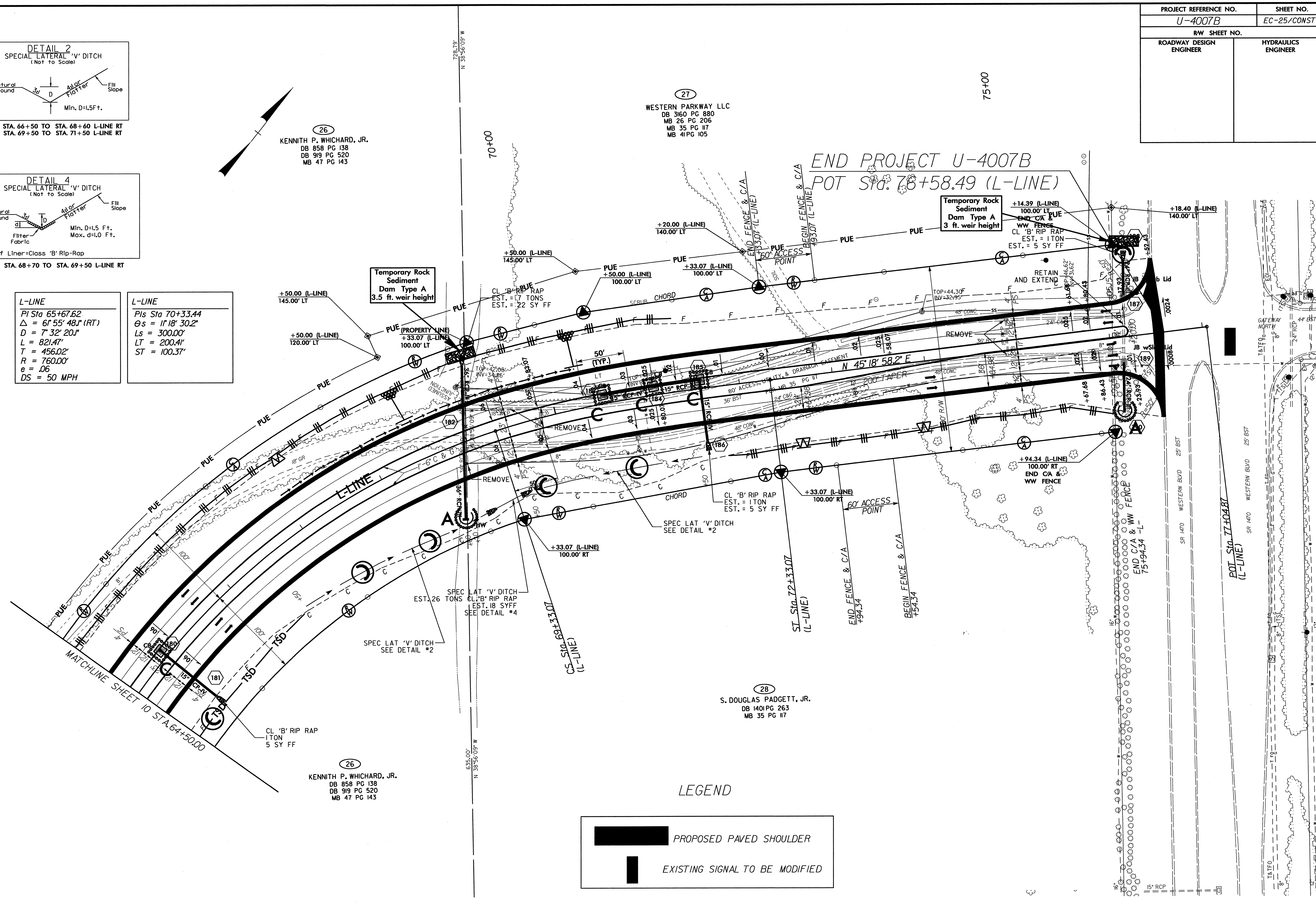
Min. D=1.5 Ft.
Max. d=1.0 Ft.

Type of Liner=Class 'B' Rip-Rap

FROM STA. 68+70 TO STA. 69+50 L-LINE RT

L-LINE
PI Sta 65+67.62
Δ = 61° 55' 48.1" (RT)
D = 7° 32' 20.1"
L = 821.47'
T = 456.02'
R = 760.00'
e = .06
DS = 50 MPH

L-LINE
PIs Sta 70+33.44
Θs = 11° 18' 30.2"
Ls = 300.00'
LT = 200.41'
ST = 100.37'



LEGEND

[redacted]	PROPOSED PAVED SHOULDER
▮	EXISTING SIGNAL TO BE MODIFIED

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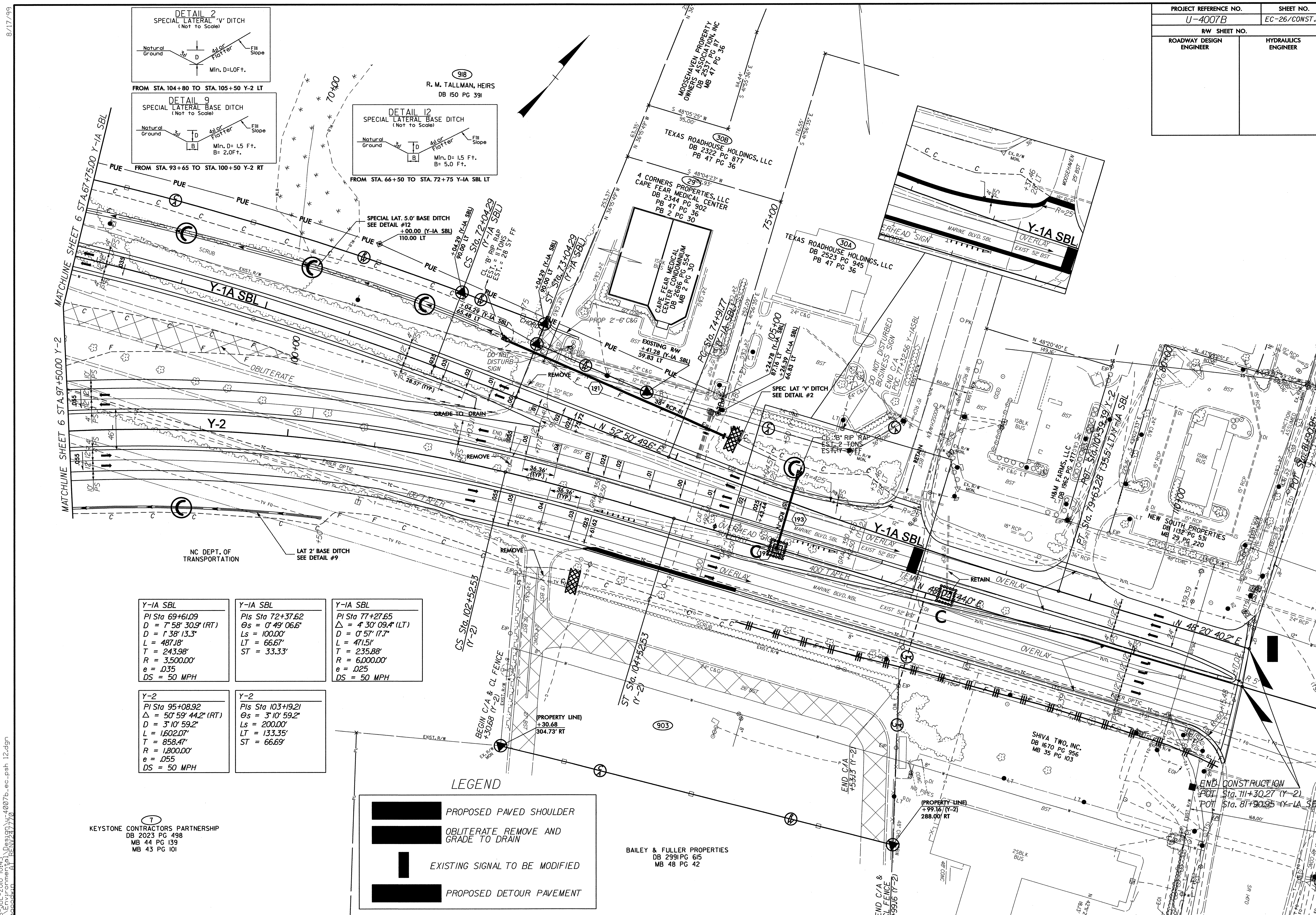
PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-26/CONSTJ2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



DETAIL 2
SPECIAL LATERAL 'V' DITCH
(Not to Scale)
Natural Ground — 3:1 — D — 4:1 or Flatter — Fill Slope
Min. D=1.0Ft.
FROM STA. 104+80 TO STA. 105+50 Y-2 LT

DETAIL 9
SPECIAL LATERAL BASE DITCH
(Not to Scale)
Natural Ground — 3:1 — D — B — 4:1 or Flatter — Fill Slope
Min. D= 1.5 Ft.
B= 2.0Ft.
FROM STA. 93+65 TO STA. 100+50 Y-2 RT

DETAIL 12
SPECIAL LATERAL BASE DITCH
(Not to Scale)
Natural Ground — 3:1 — D — B — 4:1 or Flatter — Fill Slope
Min. D= 1.5 Ft.
B= 5.0 Ft.
FROM STA. 66+50 TO STA. 72+75 Y-1A SBL LT

Y-1A SBL
PI Sta 69+61.09
D = 7° 58' 30.9" (RT)
D = 1° 38' 13.3"
L = 487.18'
T = 243.98'
R = 3,500.00'
e = .035
DS = 50 MPH

Y-1A SBL
PIs Sta 72+37.62
Θs = 0° 49' 06.6"
Ls = 100.00'
LT = 66.67'
ST = 33.33'

Y-1A SBL
PI Sta 77+27.65
Δ = 4° 30' 09.4" (LT)
D = 0° 57' 17.7"
L = 471.51'
T = 235.88'
R = 6,000.00'
e = .025
DS = 50 MPH

Y-2
PI Sta 95+08.92
Δ = 50° 59' 44.2" (RT)
D = 3° 10' 59.2"
L = 1,602.07'
T = 858.47'
R = 1,800.00'
e = .055
DS = 50 MPH

Y-2
PIs Sta 103+19.21
Θs = 3° 10' 59.2"
Ls = 200.00'
LT = 133.35'
ST = 66.69'

LEGEND

- PROPOSED PAVED SHOULDER
- OBLITERATE REMOVE AND GRADE TO DRAIN
- EXISTING SIGNAL TO BE MODIFIED
- PROPOSED DETOUR PAVEMENT

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06-JUL-2010 10:43
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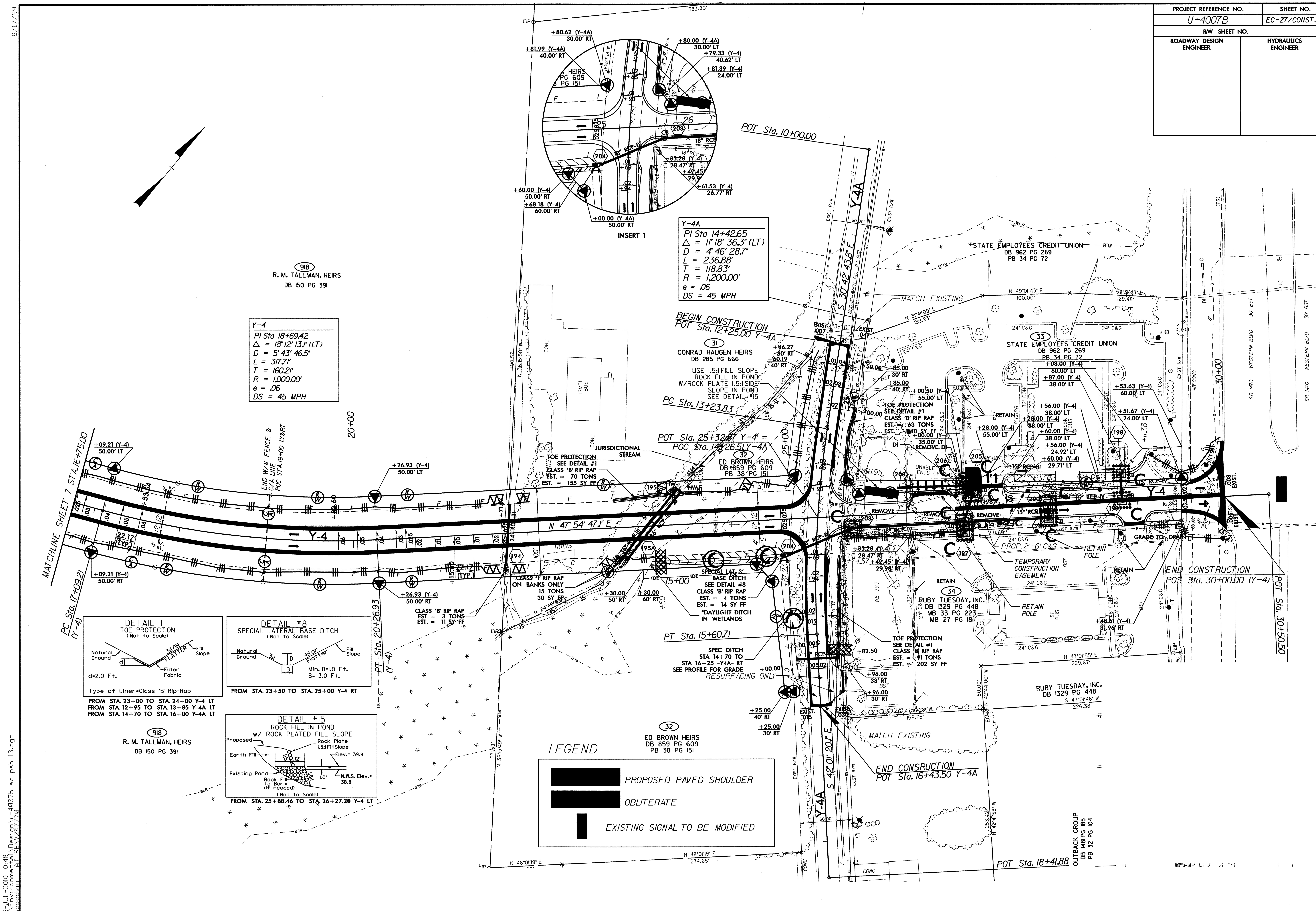
PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-27/CONSTJ3
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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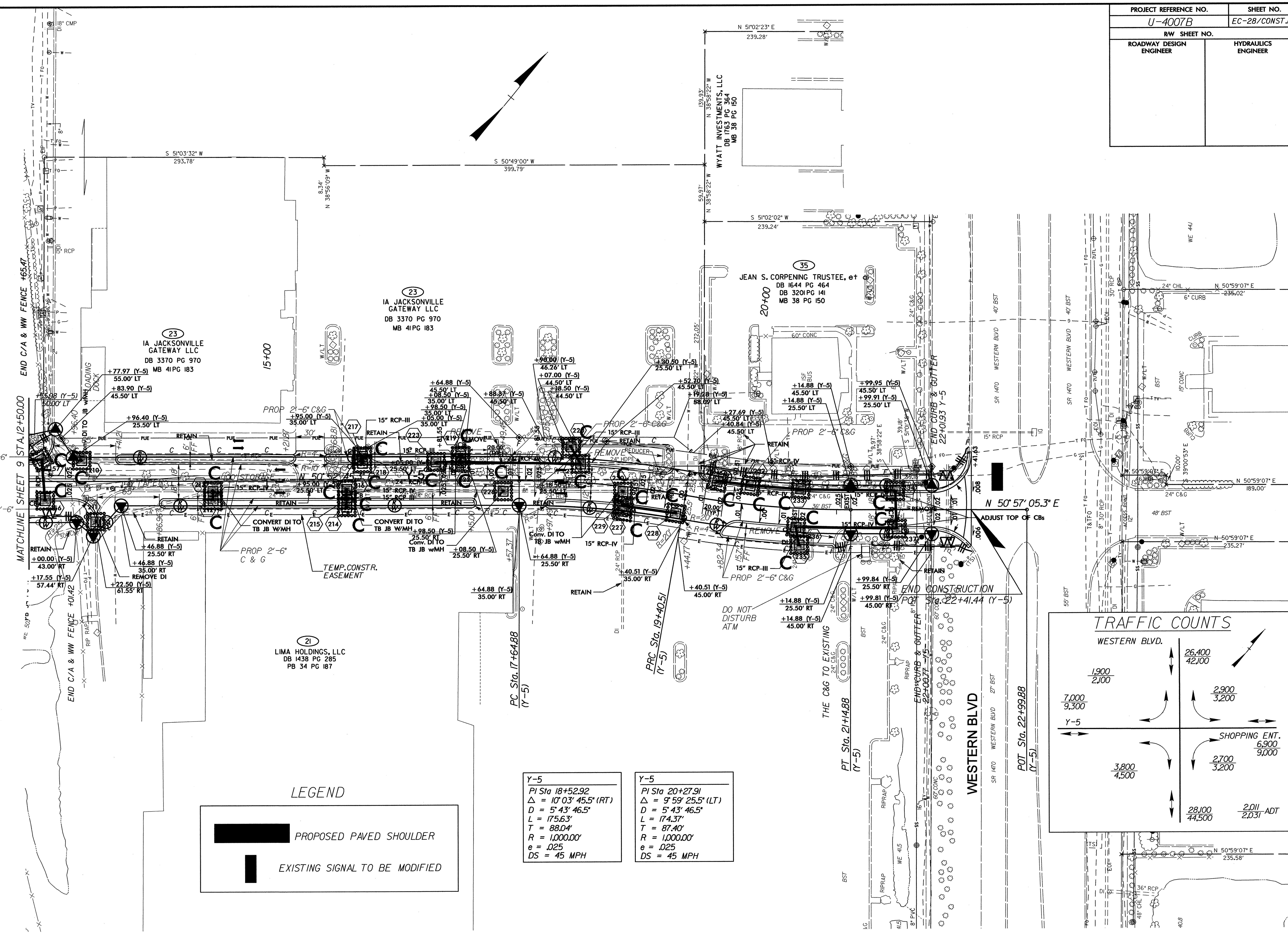
PROJECT REFERENCE NO.	SHEET NO.
U-4007B	EC-28/CONST J4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99



Y-5
PI Sta 18+52.92
Δ = 10° 03' 45.5" (RT)
D = 5° 43' 46.5"
L = 175.63'
T = 88.04'
R = 1,000.00'
e = .025
DS = 45 MPH

Y-5
PI Sta 20+27.91
Δ = 9° 59' 25.5" (LT)
D = 5° 43' 46.5"
L = 174.37'
T = 87.40'
R = 1,000.00'
e = .025
DS = 45 MPH

LEGEND

- PROPOSED PAVED SHOULDER
- EXISTING SIGNAL TO BE MODIFIED

TRAFFIC COUNTS

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