

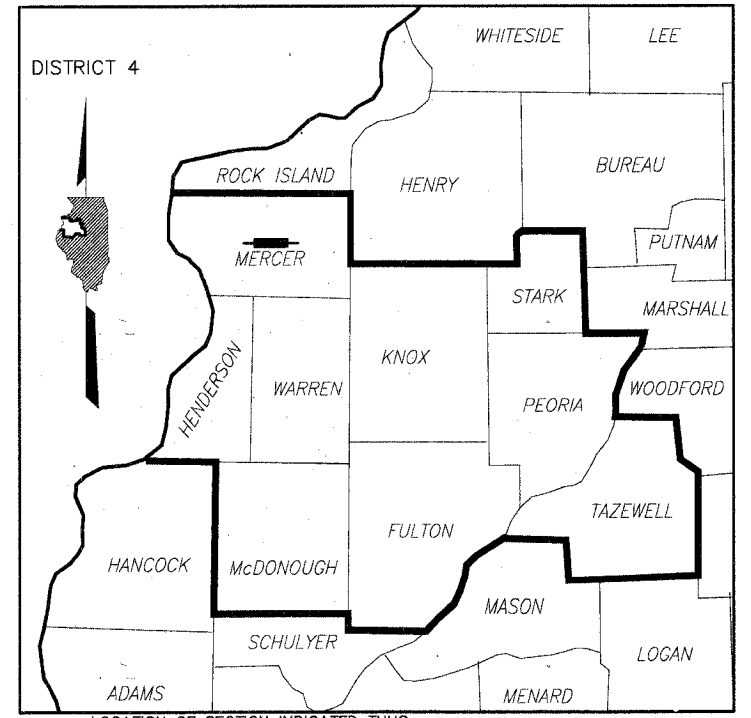
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION PLANS FOR PROPOSED LOCAL AGENCY IMPROVEMENT HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION PROGRAM

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	*	MERCER	23	1
			ILLINOIS	BR-OS-131(44)
* 97-06118-00-BR			89250	

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
1	COVER SHEET
2	TYPICAL SECTIONS AND DETAILS
3	GENERAL NOTES, SUMMARY AND SCHEDULE OF QUANTITIES
4	GENERAL SITE PLAN
5-7	PLAN AND PROFILE
8-11	ROADWAY CROSS SECTIONS
12-13	CHANNEL CROSS SECTIONS
14	GENERAL BRIDGE PLAN AND ELEVATION
15	DECK BEAM DETAILS
16	ABUTMENT DETAILS
17	SOLID WALL PIER DETAILS
18	STEEL RAILING DETAILS, TYPE S-1
19	12' x 7' R.C. BOX CULVERT
20	OVERFLOW CHANNEL CROSS SECTIONS
21	SOIL BORING LOGS
22	SOIL BORING LOGS
23	EROSION CONTROL PLAN

T.R. 132 SECTION 97-06118-00-BR MERCER COUNTY PROJECT BR-OS-131(44) MERCER ROAD DISTRICT

PLAN	1 INCH = 20 FEET	
PROFILE HORIZONTAL	1 INCH = 20 FEET	
PROFILE VERTICAL	1 INCH = 5 FEET	
CROSS SECTION HORIZ.	1 INCH = 10 FEET	
CROSS SECTION VERT.	1 INCH = 5 FEET	



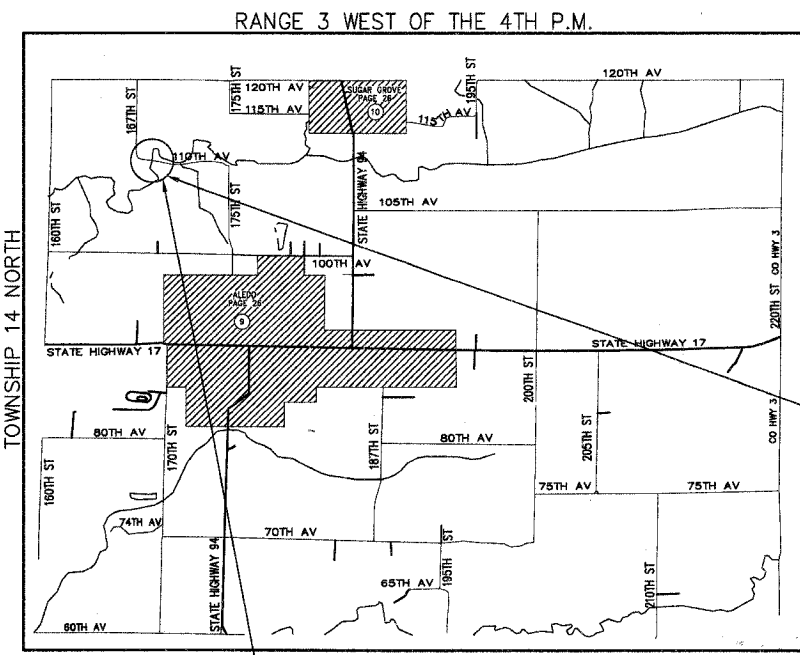
LOCATION OF SECTION INDICATED THUS:

- LIST OF STANDARDS
- STANDARD 515001-02 NAME PLATE
 - STANDARD 701006-02 OFF - ROAD OPERATIONS, 2 - LANE, 2 - WAY, 15' TO 24" AWAY FROM PAVEMENT EDGE
 - STANDARD 701301-02 LANE CLOSURE, 2 - LANE, 2 - WAY, SHORT TIME OPERATIONS,
 - STANDARD 702001-06 TRAFFIC CONTROL DEVICES
 - STANDARD 280001-02 TEMPORARY EROSION CONTROL SYSTEMS
 - STANDARD BLR 21-6 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

**JOB NO. C-94-243-99
CONTRACT NO. 89250**

DESIGN DESIGNATION

HIGHWAY CLASS: LOCAL ROAD
 DESIGN SPEED: 30 M.P.H.
 ADT = 100
 DESIGN GUIDELINES: RURAL
 COMMITMENTS: NONE
 VARIANCES GRANTED: FOR SUPERELEVATION RATE, RUNOFF LENGTH, AND TRANSITION DISTRIBUTION



LOCATION OF THE PROPOSED IMPROVEMENT
 PROPOSED IMPROVEMENT BEGINS STA. 3+25
 PROPOSED IMPROVEMENT ENDS STA. 15+75

LOCATION MAP

TOTAL LENGTH OF PROJECT = 1250.00 FT.
 NET LENGTH OF PROJECT = 1250.00 FT. (0.237 MI.)

EXISTING STRUCTURES
 6-SPAN STRUCTURE WITH A 70 FOOT MAIN SPAN PONY TRUSS ON STEEL CAISSONS. APPROACH SPANS ON CONCRETE PIERS AND ABUTMENTS. TIMBER DECK WITH WOOD RUNNERS (SN 066-4804)

A OVERFLOW STRUCTURE WITH 4-30 FOOT SPANS ON CONCRETE PIERS AND ABUTMENTS, WITH A CONCRETE DECK (SN 066-4805)

PROPOSED STRUCTURE NO. 066-4817
 A TWO SPAN PRECAST, PRESTRESSED CONCRETE DECK BEAM BRIDGE, ON PILE BENT ABUTMENTS AND PIERS, AT STA. 7+74.00. THE PROPOSED STRUCTURE IS LOCATED APPROXIMATELY 40' DOWNSTREAM FROM THE EXISTING STRUCTURE.

PROPOSED STRUCTURE (OVERFLOW CHANNEL)
 A 12'-0" x 7'-0" R.C. BOX CULVERT WITH A LENGTH OF 62'-3" AND HORIZONTAL WINGWALLS AT STA. 9+54.00.

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF ILLINOIS.

John B. Fellman 4-11-2006
 JOHN B. FELLMAN DATE
 LICENSE EXPIRES 11-30-2007



MSA JOB #: A97X007

WARNING

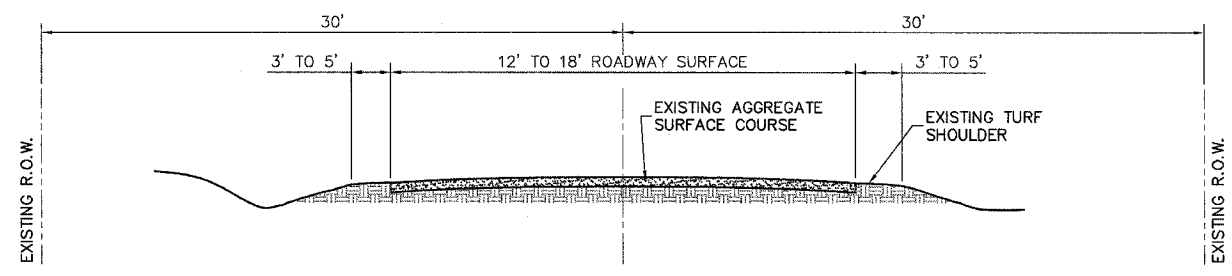


CALL BEFORE YOU DIG

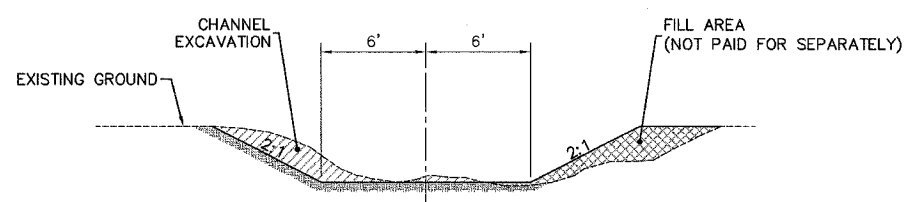
APPROVED	<i>April 7</i> , 20 <i>06</i>
	<i>Stan J. Raymond</i> COUNTY ENGINEER
APPROVED	<i>April 7</i> , 20 <i>06</i>
	<i>Donna J. Bradford</i> ROAD COMMISSIONER
PASSED	<i>April 14</i> , 20 <i>06</i>
	<i>John B. Fellman</i> DISTRICT FOUR ENGINEER OF LOCAL ROADS & STREETS
Releasing For Bid Based on Limited Review	<i>April 14</i> , 20 <i>06</i>
	<i>John E. Corman</i> DEPUTY DIRECTOR OF HIGHWAYS, REGION THREE ENGINEER
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	

G:\Structural\A97X007\MCS2\Views\Government\dep_Layout1_4/16/2006 2:00:59 PM

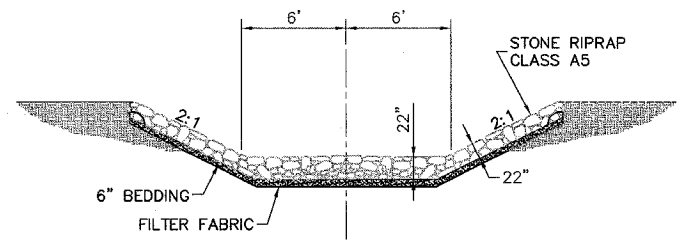
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	*	MERCER	23	2
ILLINOIS			BR-05-131(44)	
* 97-06118-00-BR			89250	



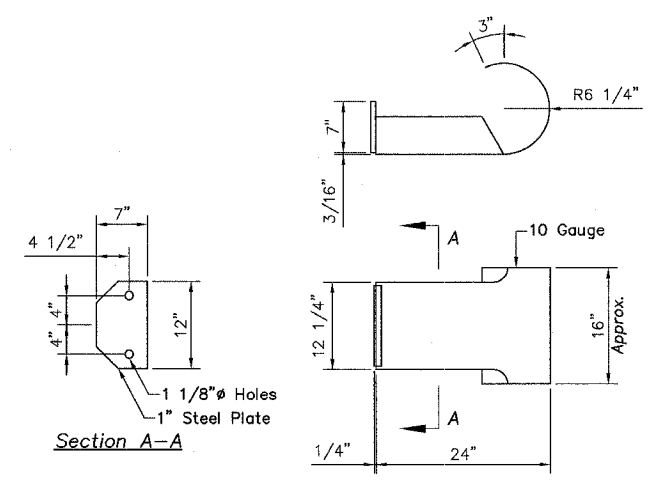
EXISTING TYPICAL ROADWAY SECTION



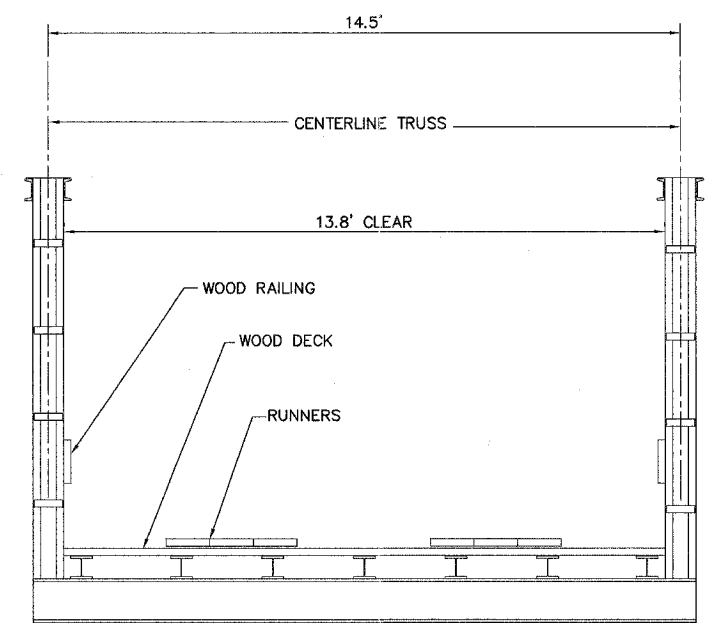
TYPICAL OVERFLOW CHANNEL SECTION (WITHOUT RIPRAP)



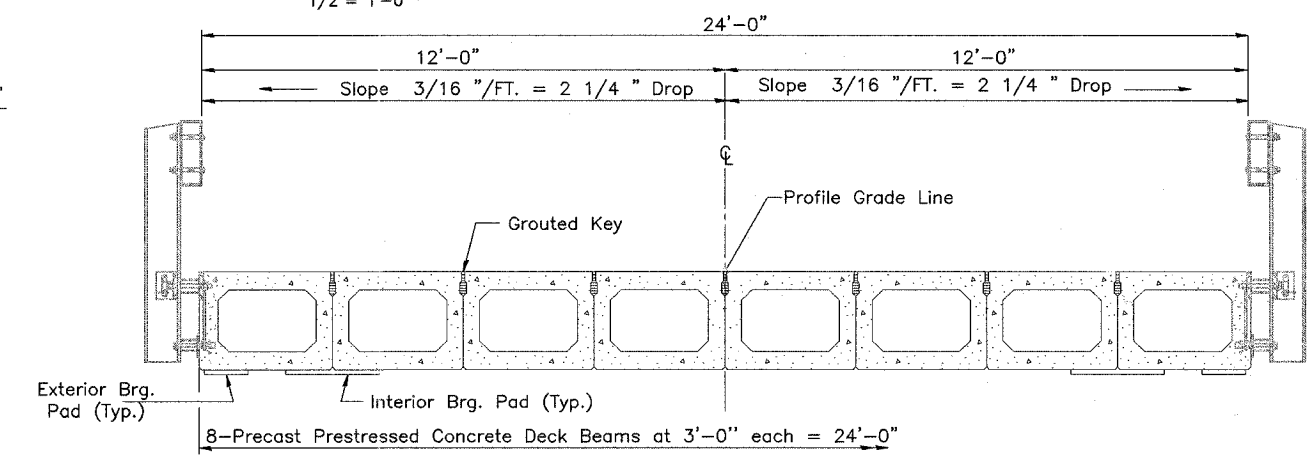
TYPICAL OVERFLOW CHANNEL SECTION



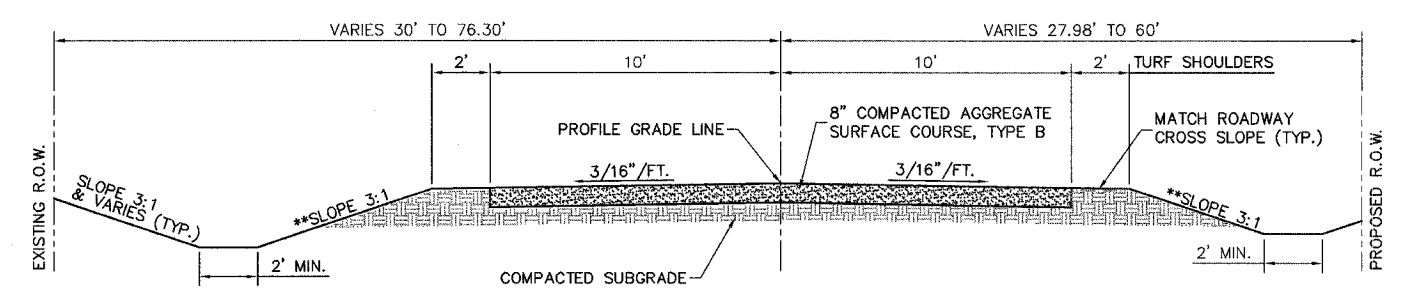
CURLLED END SECTION (INCLUDED IN STEEL BRIDGE RAILING)



EXISTING BRIDGE SECTION
1/2" = 1'-0"

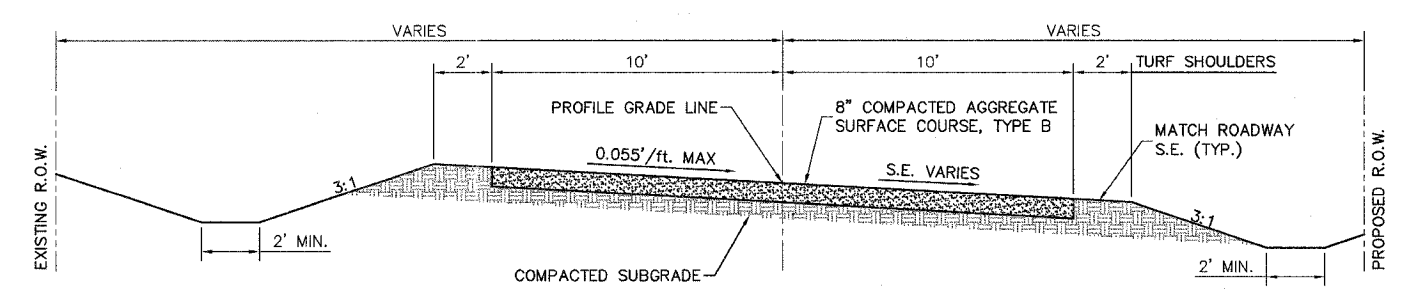


PROPOSED BRIDGE SECTION
1/2" = 1'-0"



PROPOSED TYPICAL ROADWAY SECTION

STA. 3+25 TO STA. 7+00
STA. 8+48 TO STA. 15+75



PROPOSED SUPERELEVATED ROADWAY SECTION

STA. 3+53 TO STA. 5+47
STA. 13+21 TO STA. 15+75

- **NOTE:**
- EMBANKMENT SLOPES SHALL TRANSITION FROM 3:1 TO 2:1 BETWEEN STA. 6+00 TO 7+00 AND TRANSITION FROM 2:1 TO 3:1 BETWEEN 8+48 TO 9+48 TRANSITION AS REQUIRED OVER CULVERT ENDS (7:1 SLOPES)
 - TRANSITION THE PROPOSED ROADWAY FROM, AND INTO, THE EXISTING ROADWAY:
STA. 3+25 TO 4+25
STA. 14+75 TO 15+75

TYPICAL SECTIONS AND DETAILS
SECTION 97-06118-00-BR
T.R. 132, STA. 7+74.00
MERCER COUNTY

SUMMARY OF QUANTITIES

ITEM NO.	CODE NUMBER	ITEM	CONST. TYPE CODE	
			UNIT	TOTAL
*	20100500	TREE REMOVAL, ACRES	ACRE	1.83
2	20200100	EARTH EXCAVATION	CU. YD.	2,682
3	20300100	CHANNEL EXCAVATION	CU. YD.	6,113
4	25000300	SEEDING, CLASS 3	ACRE	2.79
5	25000400	NITROGEN FERTILIZER NUTRIENT	POUND	251
6	25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	251
7	25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	251
8	25100115	MULCH, METHOD 2	ACRE	2.79
*	28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	300
10	28000300	TEMPORARY DITCH CHECKS	EACH	6
11	28000400	PERIMETER EROSION BARRIER	FOOT	3,075
12	28100109	STONE RIPRAP, CLASS A5	SQ. YD.	1,118
13	28200200	FILTER FABRIC	SQ. YD.	1,118
*	40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	1,122
* 15	50100300	REMOVAL OF EXISTING STRUCTURES NO. 1	EACH	1
* 16	50100400	REMOVAL OF EXISTING STRUCTURES NO. 2	EACH	1
17	50200100	STRUCTURE EXCAVATION	CU. YD.	64.9
18	50300225	CONCRETE STRUCTURES	CU. YD.	54.1
19	50400605	PRECAST, PRESTRESSED CONCRETE DECK BEAMS (33" DEPTH)	SQ. FT.	3,572
20	50800105	REINFORCEMENT BARS	POUND	30,560
21	50900205	STEEL RAILING, TYPE S1	FOOT	298
22	51201600	FURNISHING STEEL PILES HP 12 x 53	FOOT	435
23	51202700	DRIVING STEEL PILES	FOOT	435
24	51203600	TEST PILE STEEL HP 12 x 53	EACH	3
25	51204315	CONCRETE ENCASMENT	CU. YD.	9.6
26	51500100	NAME PLATES	EACH	2
27	54003000	CONCRETE BOX CULVERTS	CU. YD.	115.5
28	67100100	MOBILIZATION	LSUM	1
* 29	70101700	TRAFFIC CONTROL AND PROTECTION	LSUM	1
* 30	X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EACH	1

* SEE SPECIAL PROVISIONS

GENERAL NOTES

- THE EXISTING ROAD SHALL REMAIN CLOSED TO THRU TRAFFIC DURING CONSTRUCTION (SEE SPECIAL PROVISIONS).
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE WASTE AREAS AND/OR DISPOSAL SITE(S) OUTSIDE THE RIGHT-OF-WAY AND EASEMENTS, FOR EXCESS OR UNSUITABLE MATERIAL, WHICH IS NOT DESIRABLE TO BE INCORPORATED INTO THE WORK INVOLVED ON THIS PROJECT.
- EXISTING STRUCTURES (INCLUDING FOUNDATIONS, WALLS, CISTERNS, WELLS OR OTHER UNDERGROUND STRUCTURES) WITHIN THE RIGHT-OF-WAY SHALL BE REMOVED IN ACCORDANCE WITH ARTICLES 501.02 AND 501.03 OF THE STANDARD SPECIFICATIONS, WITHOUT ADDITIONAL COMPENSATION, UNLESS OTHERWISE NOTED IN THE PLANS, SPECIAL PROVISIONS, OR APPROVED BY THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE TO ITEMS NOT SPECIFIED FOR REMOVAL, RECONSTRUCTION, OR DEMOLITION. AREAS OUTSIDE THE PROJECT SCOPE OR CONSTRUCTION LIMITS DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED OR REPAIRED BY THE CONTRACTOR, PER THE APPROVAL OF THE ENGINEER. NO SEPARATE PAYMENT SHALL BE MADE FOR THIS WORK.
- EXCAVATION OF EXISTING GRAVEL OR SEAL COAT AGGREGATE SURFACES SHALL BE CONSIDERED EARTH EXCAVATION, AND WILL NOT BE PAID FOR SEPARATELY.
- THE FINAL TOP SIX INCHES OF SOIL IN ANY RIGHT-OF-WAY OR EASEMENT AREA DISTURBED BY THE CONTRACTOR MUST BE A COHESIVE SOIL CAPABLE OF SUPPORTING VEGETATION.
- NO OVERHAUL HAS BEEN COMPUTED AND NONE SHALL BE PAID FOR FROM ANY SOURCE.
- SEE THE SPECIAL PROVISIONS REGARDING THE NATIONWIDE 404 PERMIT REQUIREMENTS FOR IN-STREAM ACCESS FILL, COFFERDAMS, CAUSEWAYS, OR CROSSINGS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE PROPER PERMITS FOR THESE ACTIVITIES.

APPLICATION RATES

SEEDING, CLASS 3	170 #/ACRE
NITROGEN FERTILIZER	90 #/ACRE
PHOSPHORUS FERTILIZER	90 #/ACRE
POTASSIUM FERTILIZER	90 #/ACRE
MULCH, METHOD 2	2.0 TONS/ACRE

SAFETY NOTE:

"MISSMAN, STANLEY & ASSOCIATES (MSA) HAS ADOPTED SAFETY PROCEDURES FOR ITS EMPLOYEES WHO PROVIDE PROFESSIONAL ENGINEERING AND SURVEYING SERVICES. A COPY OF THESE PROCEDURES IS AVAILABLE FROM THE SAFETY OFFICER. MSA PERSONNEL ARE NOT TRAINED IN CONTRACTOR (CONSTRUCTION) SAFETY AND COMPLIANCE PROCEDURES. THE METHODS & MEANS TO COMPLY WITH CONSTRUCTION SITE SAFETY ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR."

EARTHWORK SUMMARY

	CUT	FILL
TOTAL ROADWAY EXCAVATION	2682	
TOTAL CHANNEL EXCAVATION	6113	
TOTAL CUT	8795	
TOTAL ROADWAY EMBANKMENT		3973
TOTAL OVERFLOW CHANNEL FILL		141
TOTAL FILL		4114
DEDUCT SUITABLE EXCAVATION (25% SHRINKAGE)	6596	
TOTAL FURNISHED EXCAVATION REQUIRED		0

SCHEDULE OF QUANTITIES

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	*	MERCER	23	3
		ILLINOIS	BR-OS-131(44)	

* 97-06118-00-BR 89250

ROADWAY EXCAVATION & EMBANKMENT
(SEE ROADWAY CROSS SECTIONS)

STATION	AREAS		VOLUMES		CUMULATIVE VOLUMES	
	CUT	FILL	CUT	FILL	CUT	FILL
3+25	10.19	0.23	11.33	0.49	11.33	0.49
3+50	14.28	0.82	22.56	4.18	33.88	4.66
4+00	10.08	3.69	18.31	14.05	52.20	18.71
4+50	9.70	11.48	14.07	43.47	66.27	62.18
5+00	5.50	35.47	17.92	115.06	84.19	177.24
5+50	13.85	88.79	38.61	222.85	122.80	400.09
6+00	27.85	151.89	73.13	315.39	195.93	715.48
6+50	51.13	188.73	140.77	318.62	336.70	1034.10
7+00	100.90	155.38	4.72	4.19	341.42	1038.28
7+01.25	103.20	25.42	0.00	0.00	341.42	1038.28
7+50	0.00	0.00	0.00	0.00	341.42	1038.28
7+74	0.00	0.00	0.00	0.00	341.42	1038.28
8+00	0.00	0.00	0.00	0.00	341.42	1038.28
8+46.75	108.09	193.45	4.93	11.79	346.35	1050.07
8+48	104.77	315.74	7.73	22.90	354.08	1072.97
8+50	104.04	302.69	185.54	574.44	539.62	1647.41
9+00	96.34	317.70	107.89	359.61	647.52	2007.02
9+31.21	90.34	304.50	47.50	193.84	695.02	2200.86
9+50	46.18	252.58	47.40	202.34	742.42	2403.20
9+76.22	51.44	164.14	60.70	270.88	803.12	2674.08
10+10	45.60	268.88	100.08	260.59	903.21	2934.66
10+50	89.51	82.91	240.48	133.67	1143.69	3068.33
11+00	170.21	61.45	259.65	154.12	1685.71	3352.16
11+50	134.75	78.64	242.72	154.02	1928.43	3506.18
12+00	145.67	87.81	208.26	139.58	2136.69	3645.77
12+50	116.47	78.53	206.12	128.56	2342.81	3774.32
13+00	108.45	72.22	172.80	102.98	2515.60	3877.30
13+50	114.16	66.62	97.45	53.89	2613.06	3931.19
14+00	72.46	44.60	40.54	20.26	2653.59	3951.45
14+50	32.79	13.60	21.21	16.71	2674.81	3968.16
15+00	10.99	8.28	6.74	5.03	2681.55	3973.20
15+50	11.92	9.77	0.00	0.00	2681.55	3973.20
15+75	2.64	1.10				

TREE REMOVAL:
(SEE GENERAL SITE PLAN)

AREA 1 =	0.10
AREA 2 =	0.14
AREA 3 =	0.06
AREA 4 =	0.03
AREA 5 =	0.39
AREA 6 =	0.30
AREA 7 =	0.51
AREA 8 =	0.26
AREA 9 =	0.04
TOTAL	1.83

SEEDING, CLASS 3
(SEE EROSION CONTROL PLAN)

AREA 1 =	0.33
AREA 2 =	0.21
AREA 3 =	0.25
AREA 4 =	0.61
AREA 5 =	0.62
AREA 6 =	0.08
AREA 7 =	0.53
AREA 8 =	0.16
TOTAL	2.79

TEMPORARY DITCH CHECK
SEE EROSION CONTROL PLAN

TOTAL	6
-------	---

STONE DUMPED RIPRAP/FILTER FABRIC

MAIN CHANNEL & BRIDGE	988
BOX CULVERT - INLET & OUTLET	130
TOTAL	1,118

CHANNEL EXCAVATION (EDWARDS RIVER)
(SEE CHANNEL CROSS SECTIONS)

STATION	AREAS		VOLUMES		CUMULATIVE VOLUMES	
	CUT	FILL	CUT	FILL	CUT	FILL
1+00	0	0	69	0	69	0
1+50	74	0	272	0	341	0
2+00	220	0	515	0	856	0
2+50	336	0	191	0	1047	0
2+63	456	0	616	0	1663	0
CENTERLINE	443	0	614	0	2277	0
3+37	453	0	215	0	2492	0
3+50	441	0	829	0	3321	0
4+08	358	0	635	0	3956	0
4+50	421	0	669	0	4625	0
5+00	302	0	456	0	5081	0
5+50	191	0	269	0	5350	0
6+00	100	0	118	0	5468	0
6+50	27	0	25	0	5493	0
7+00	0	0	0	0	5493	0

AGGREGATE SURFACE COURSE, TYPE B

STA. 3+25 TO 4+25	102
STA. 4+25 TO 7+00	280
STA. 8+48 TO 14+75	638
STA. 14+75 TO 15+75	102
TOTAL	1,122

REINFORCEMENT BARS

ABUTMENTS	2,480
WALL PIER	2,350
BOX CULVERT	25,730
TOTAL	30,560

CONCRETE STRUCTURES

WEST ABUTMENT	9.3
WALL PIER	35.5
EAST ABUTMENT	9.3
TOTAL	54.1

CHANNEL EXCAVATION (OVERFLOW CHANNEL)
(SEE OVERFLOW CHANNEL CROSS SECTIONS)

STATION	AREAS		VOLUMES		CUMULATIVE VOLUMES	
	CUT	FILL	CUT	FILL	CUT	FILL
1+00	23	0	27	8	27	8
1+25	35	18	35	20	62	28
1+50	41	25	38	26	100	54
1+75	41	31	37	26	137	80
2+00	38	26	26	12	163	92
2+25	19	0	15	3	178	95
2+50	14	6	9	4	187	99
2+66.18	15	8	0	0	187	99
CULVERT	0	0	0	0	187	99
3+25	35	0	36	0	223	99
3+50	43	0	75	0	298	99
3+75	118	0	118	0	416	99
4+00	137	0	115	21	531	120
4+25	112	45	89	21	620	141
4+50	81	0	0	0	620	141

GENERAL NOTES, SUMMARY AND SCHEDULE OF QUANTITIES

SECTION 97-06118-00-BR
T.R. 132, STA. 7+74.00
MERCER COUNTY

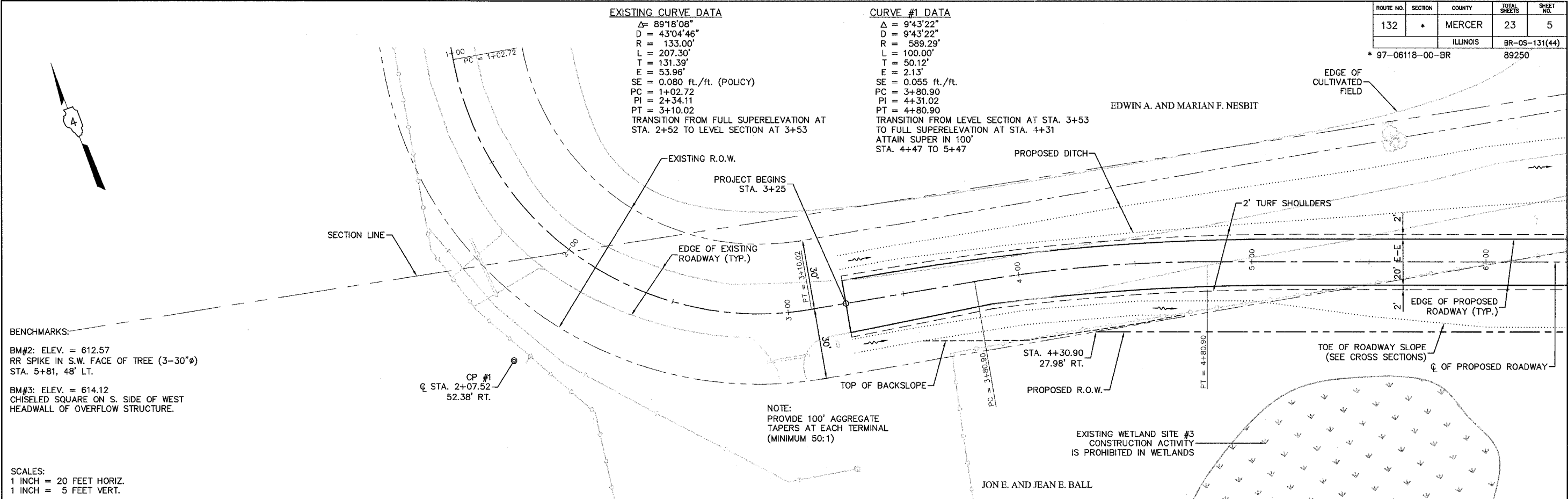
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	*	MERCER	23	5
ILLINOIS			BR-05-131(44)	
* 97-06118-00-BR			89250	

EXISTING CURVE DATA

$\Delta = 89^{\circ}18'08''$
 $D = 43^{\circ}04'46''$
 $R = 133.00'$
 $L = 207.30'$
 $T = 131.39'$
 $E = 53.96'$
 $SE = 0.080$ ft./ft. (POLICY)
 $PC = 1+02.72$
 $PI = 2+34.11$
 $PT = 3+10.02$
 TRANSITION FROM FULL SUPERELEVATION AT STA. 2+52 TO LEVEL SECTION AT 3+53

CURVE #1 DATA

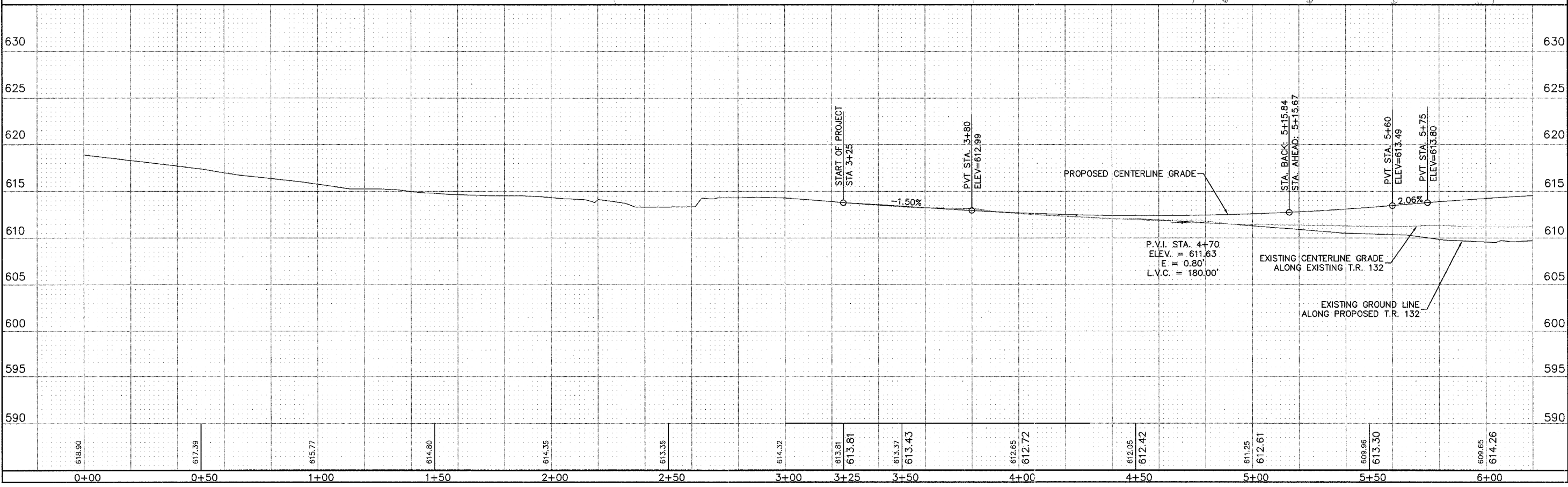
$\Delta = 9^{\circ}43'22''$
 $D = 9^{\circ}43'22''$
 $R = 589.29'$
 $L = 100.00'$
 $T = 50.12'$
 $E = 2.13'$
 $SE = 0.055$ ft./ft.
 $PC = 3+80.90$
 $PI = 4+31.02$
 $PT = 4+80.90$
 TRANSITION FROM LEVEL SECTION AT STA. 3+53 TO FULL SUPERELEVATION AT STA. 4+31 ATTAIN SUPER IN 100' STA. 4+47 TO 5+47



BENCHMARKS:
BM#2: ELEV. = 612.57
 RR SPIKE IN S.W. FACE OF TREE (3-30"Ø)
 STA. 5+81, 48' LT.
BM#3: ELEV. = 614.12
 CHISELED SQUARE ON S. SIDE OF WEST
 HEADWALL OF OVERFLOW STRUCTURE.

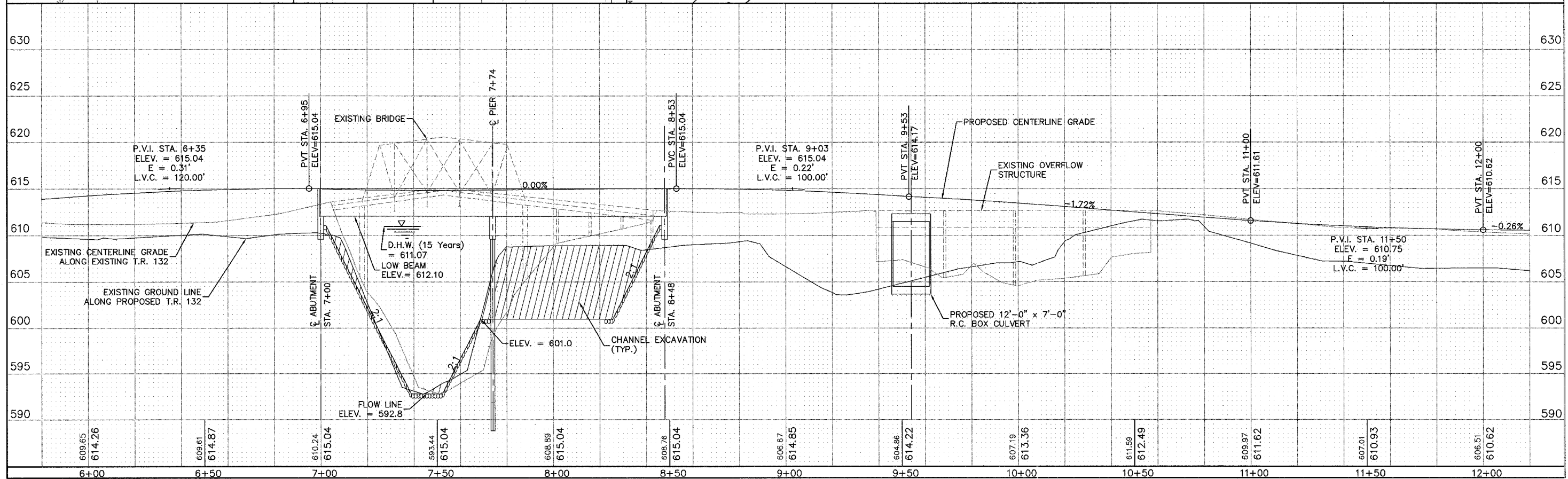
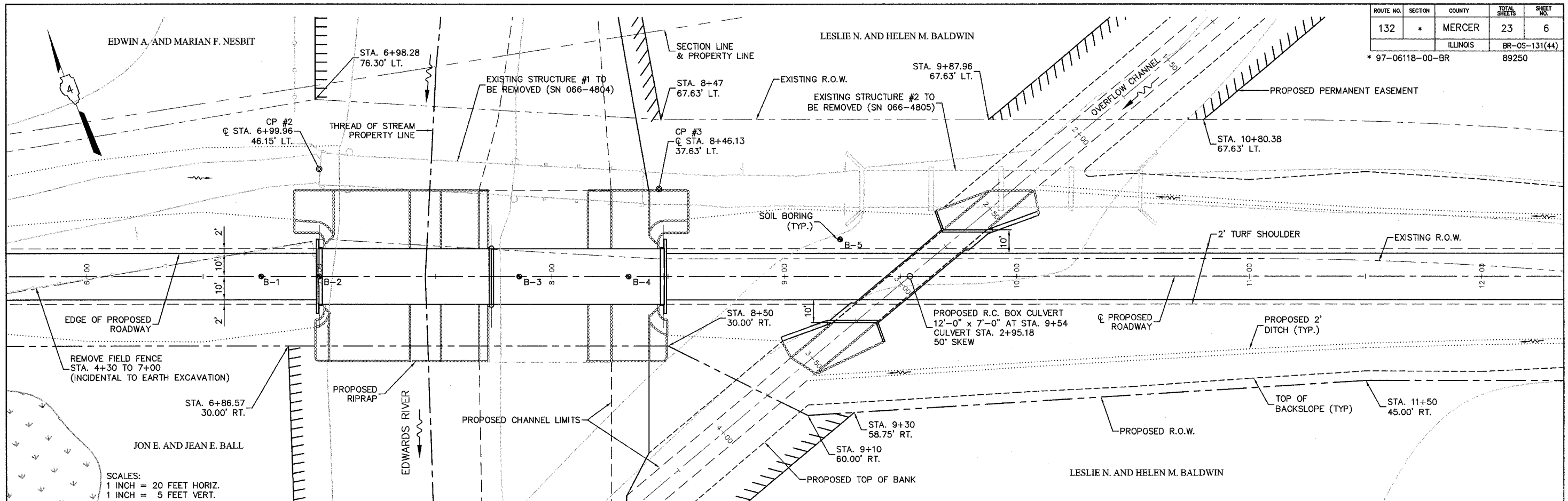
SCALES:
 1 INCH = 20 FEET HORIZ.
 1 INCH = 5 FEET VERT.

NOTE:
 PROVIDE 100' AGGREGATE
 TAPERS AT EACH TERMINAL
 (MINIMUM 50:1)



PLAN & PROFILE STA. 1+00 TO 6+00

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	*	MERCER	23	6
ILLINOIS			BR-05-131(44)	
* 97-06118-00-BR			89250	

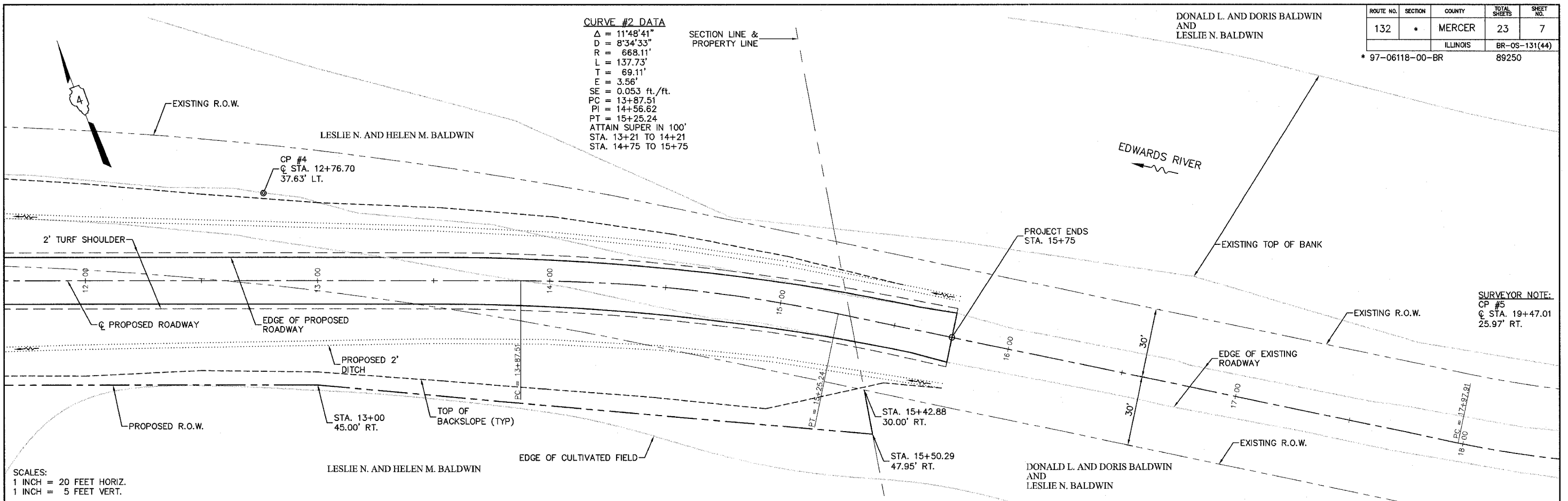


PLAN & PROFILE STA. 6+00 TO 12+00

C:\Structural\97000\MC 32\dwg\PlanProfile.dwg, s:\road1, 1/11/2008 2:25:43 PM

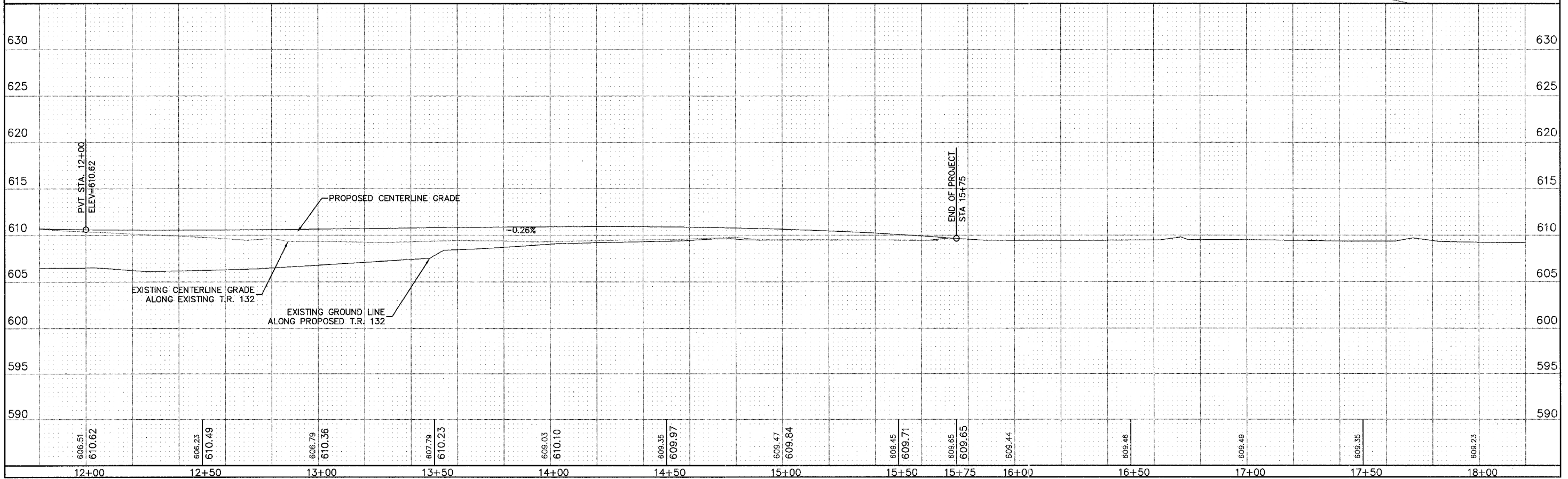
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	*	MERCER	23	7
ILLINOIS			BR-05-131(44)	
* 97-06118-00-BR			89250	

CURVE #2 DATA
 $\Delta = 11^{\circ}48'41''$
 $D = 8^{\circ}34'33''$
 $R = 668.11'$
 $L = 137.73'$
 $T = 69.11'$
 $E = 3.56'$
 $SE = 0.053 \text{ ft./ft.}$
 $PC = 13+87.51$
 $PI = 14+56.62$
 $PT = 15+25.24$
 ATTAIN SUPER IN 100'
 STA. 13+21 TO 14+21
 STA. 14+75 TO 15+75



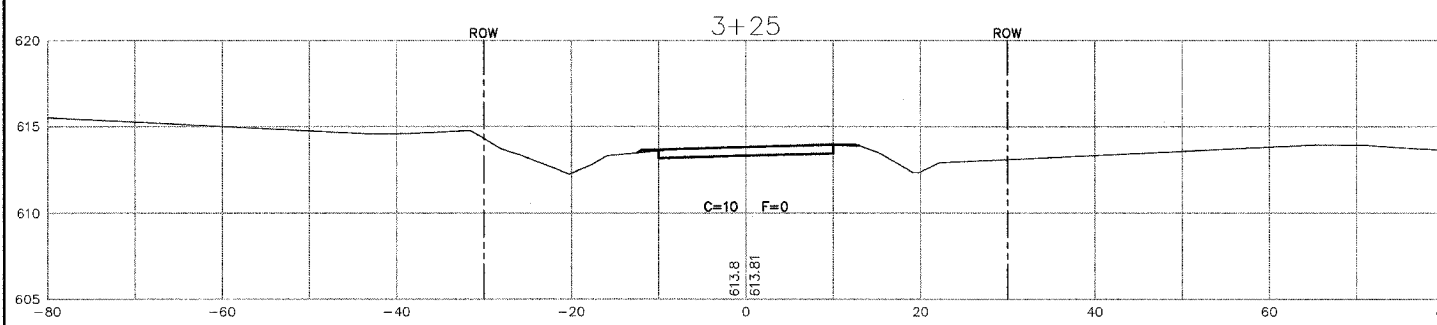
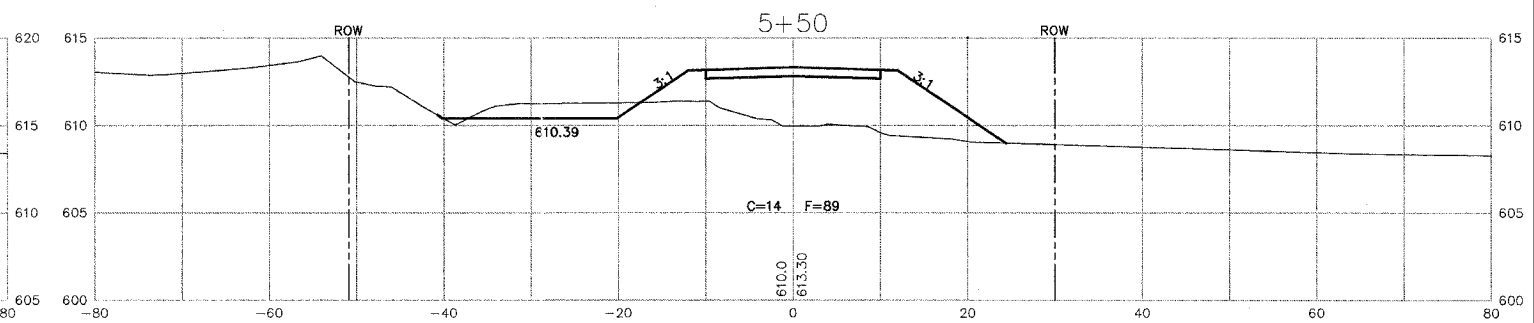
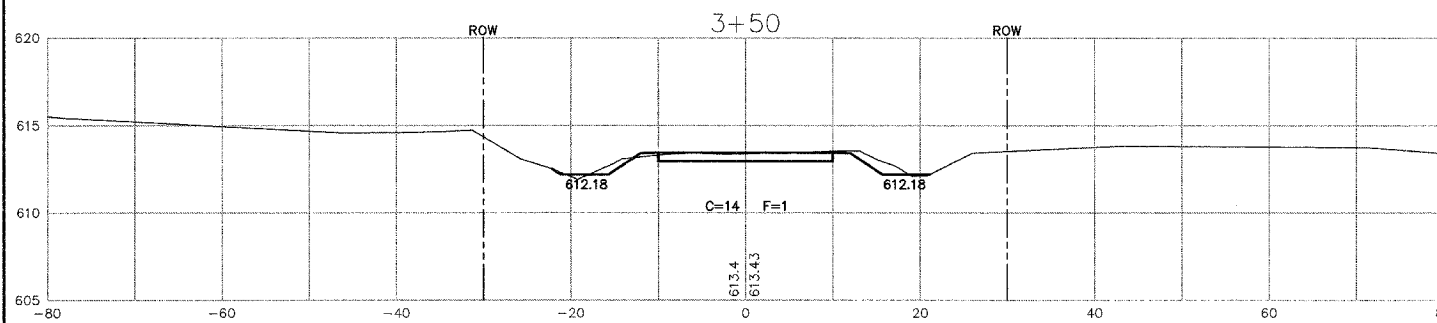
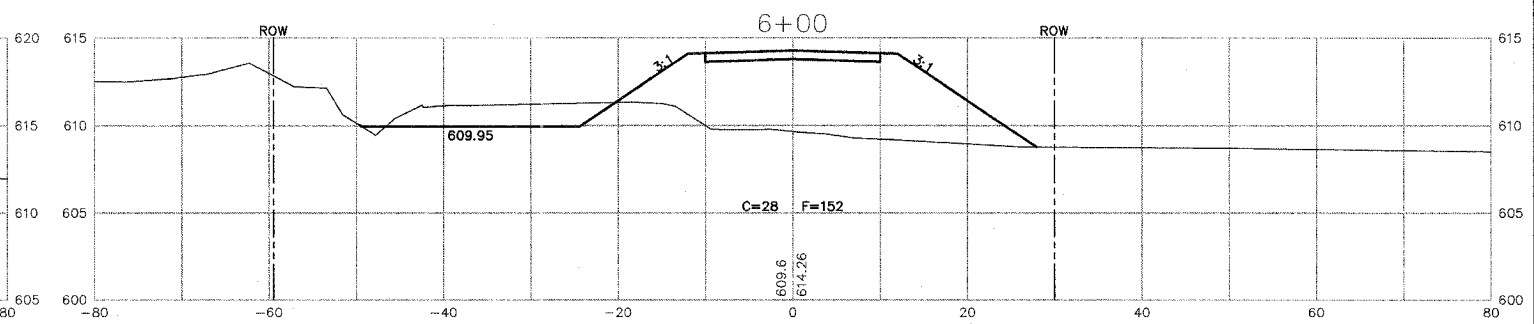
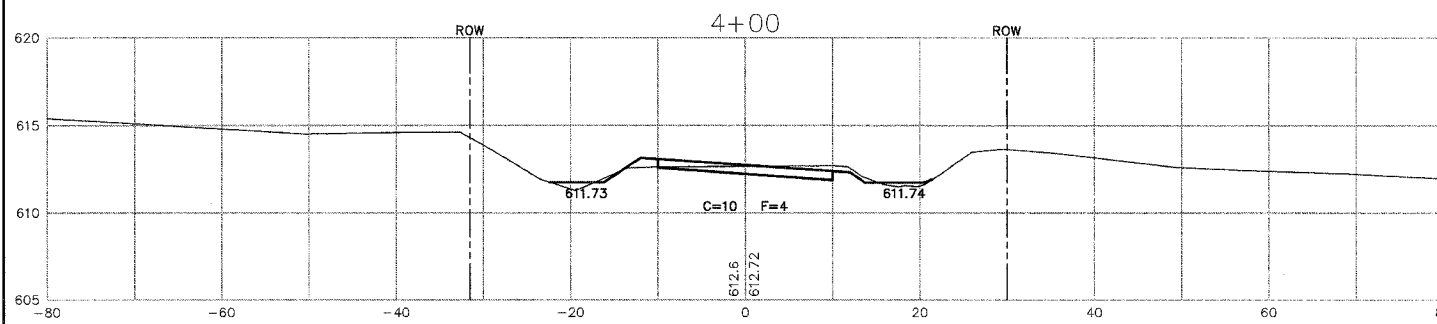
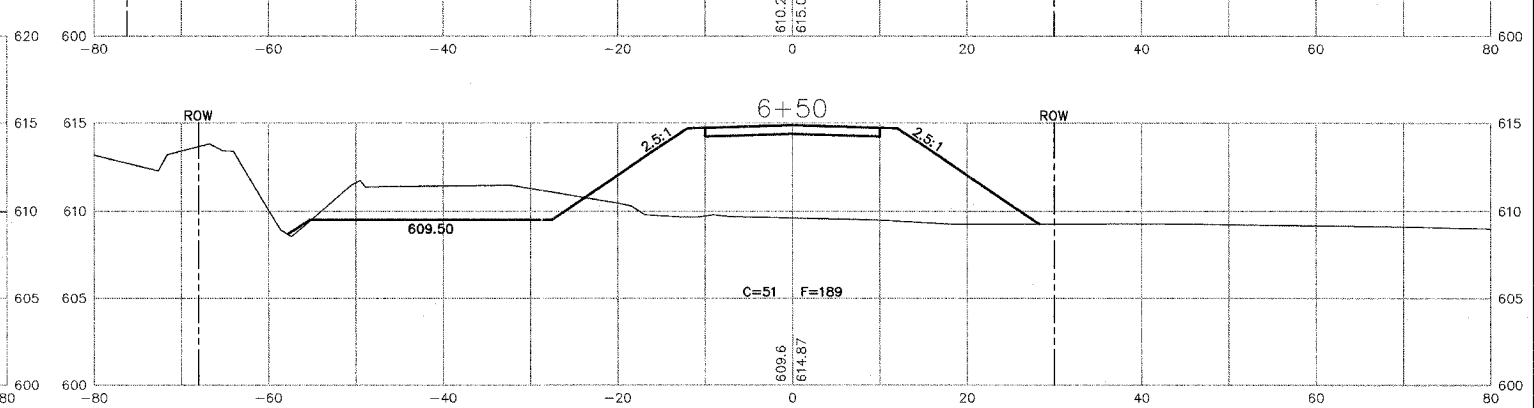
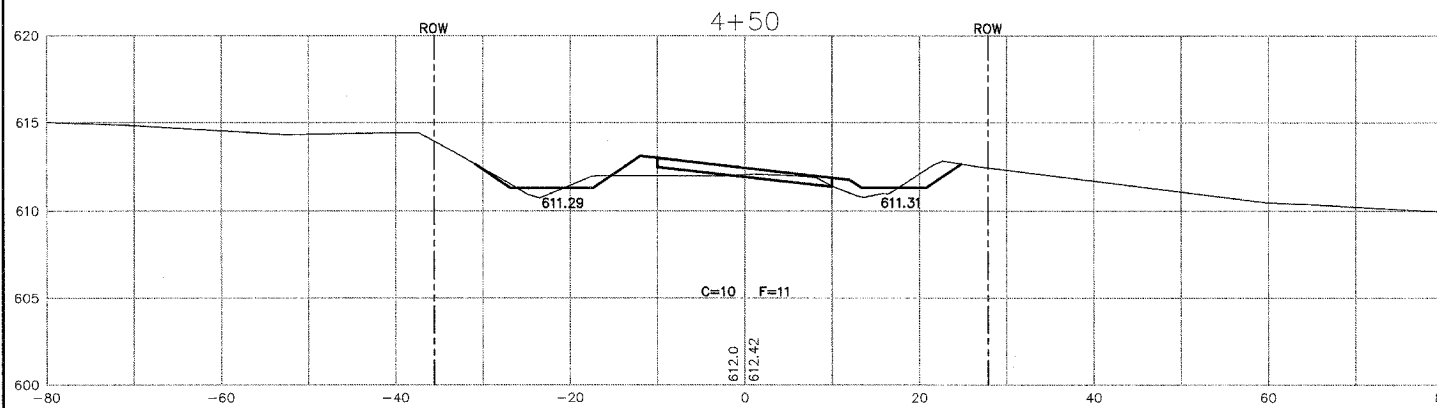
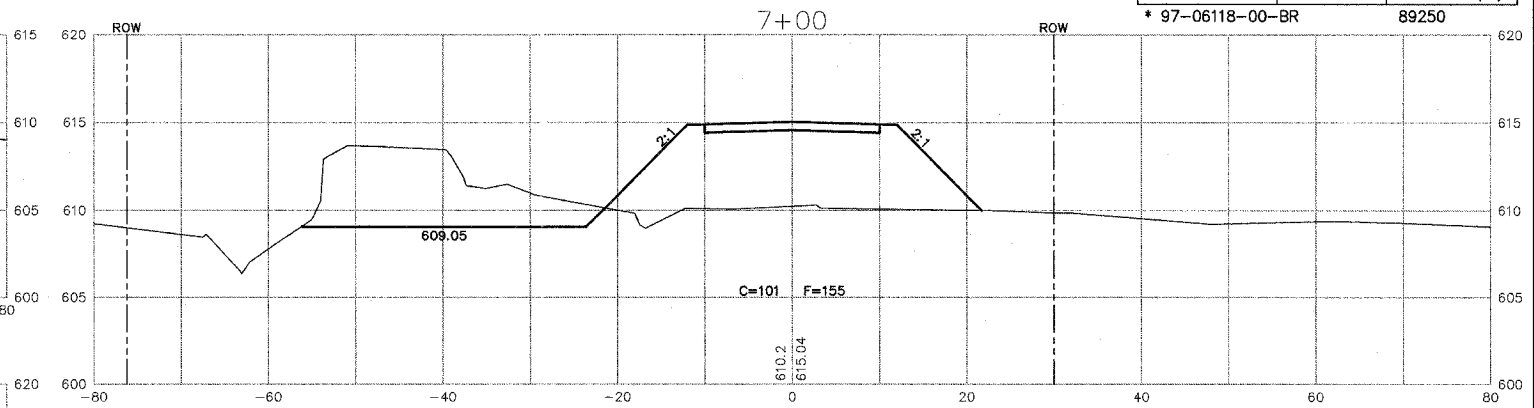
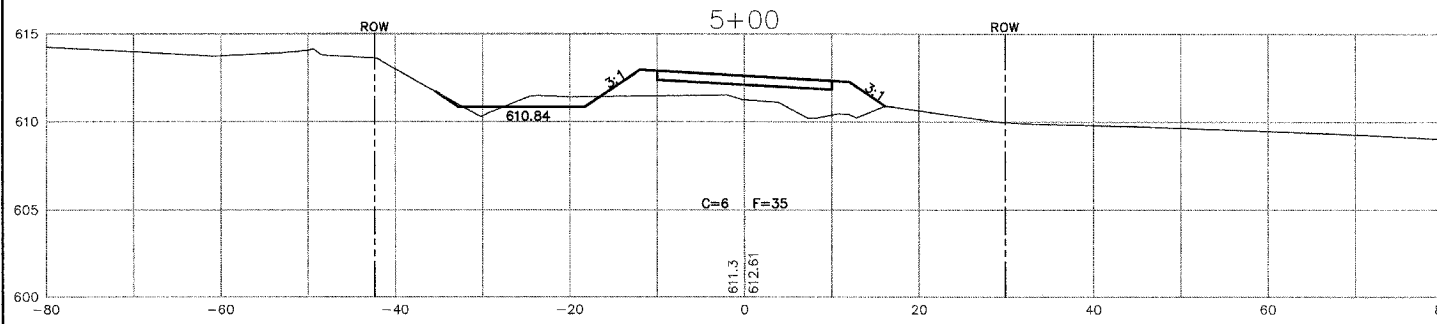
SCALES:
 1 INCH = 20 FEET HORIZ.
 1 INCH = 5 FEET VERT.

SURVEYOR NOTE:
 CP #5
 STA. 19+47.01
 25.97' RT.



PLAN & PROFILE STA. 12+00 TO 18+00

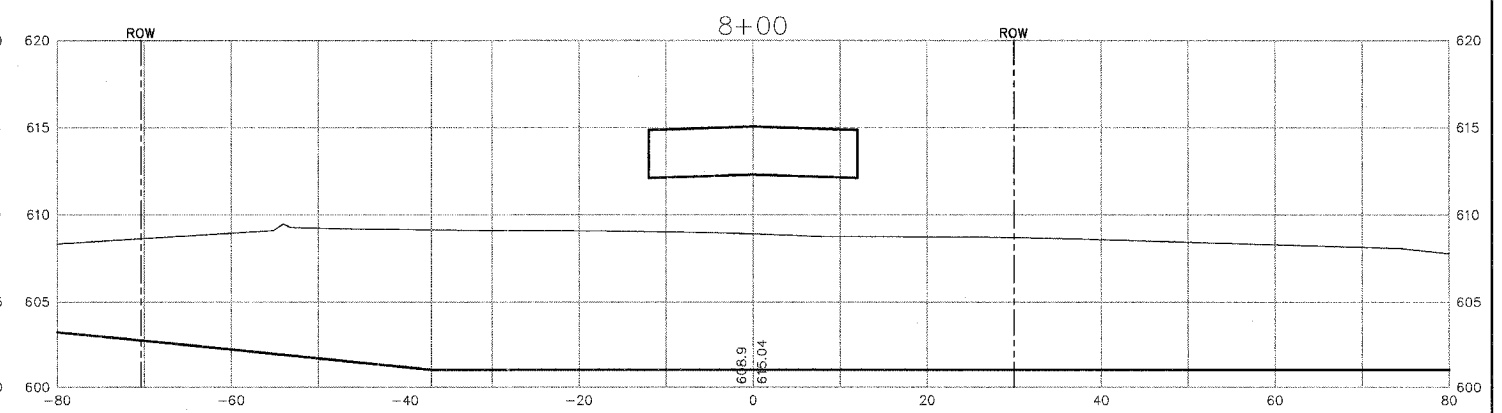
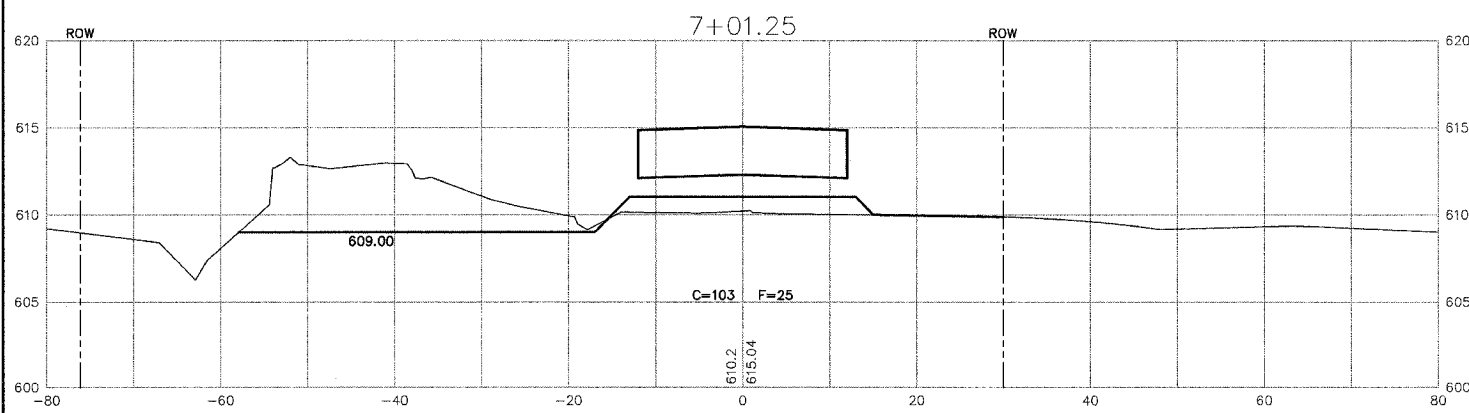
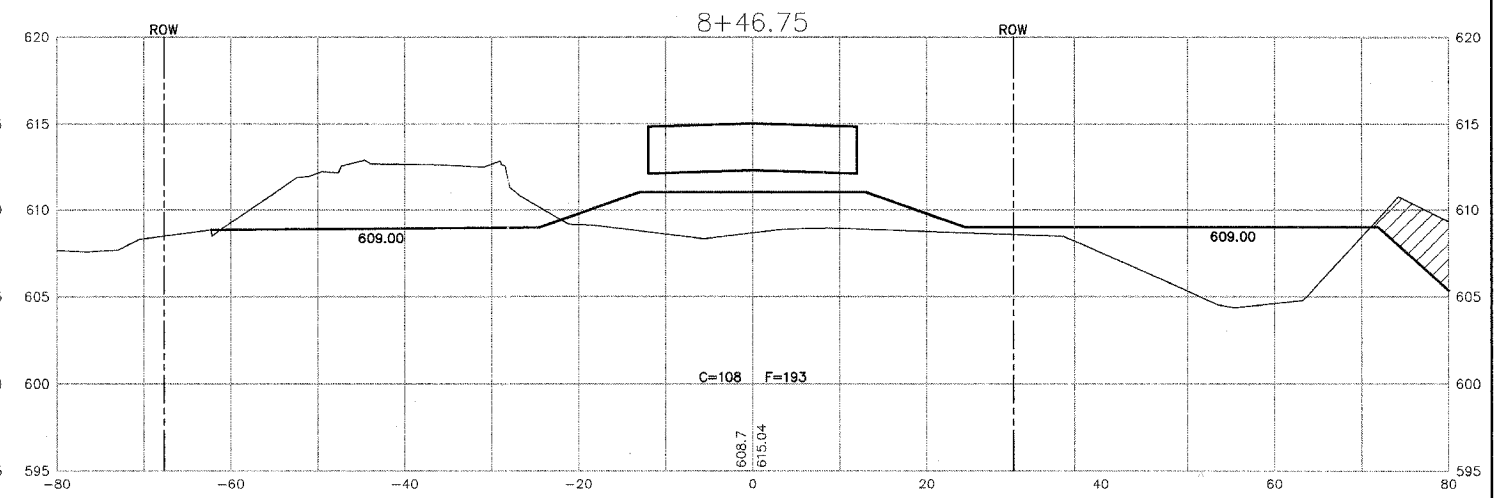
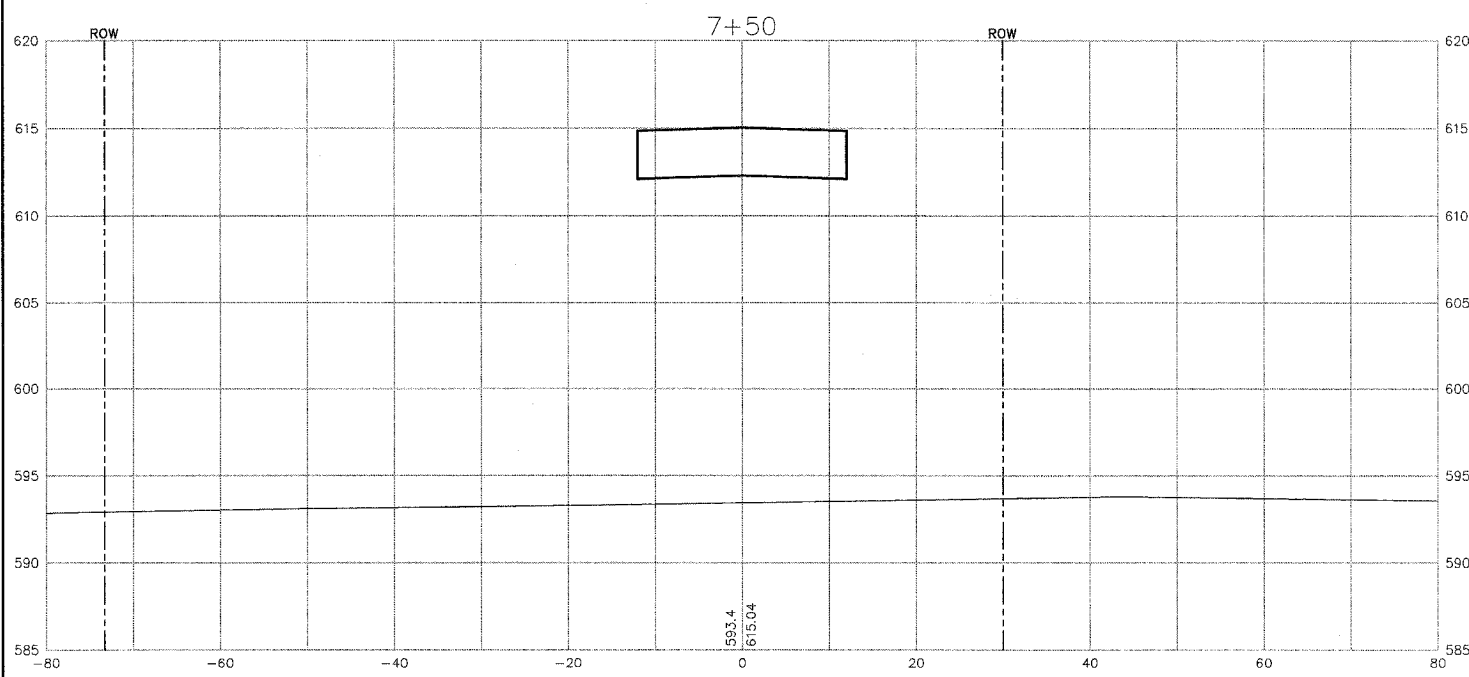
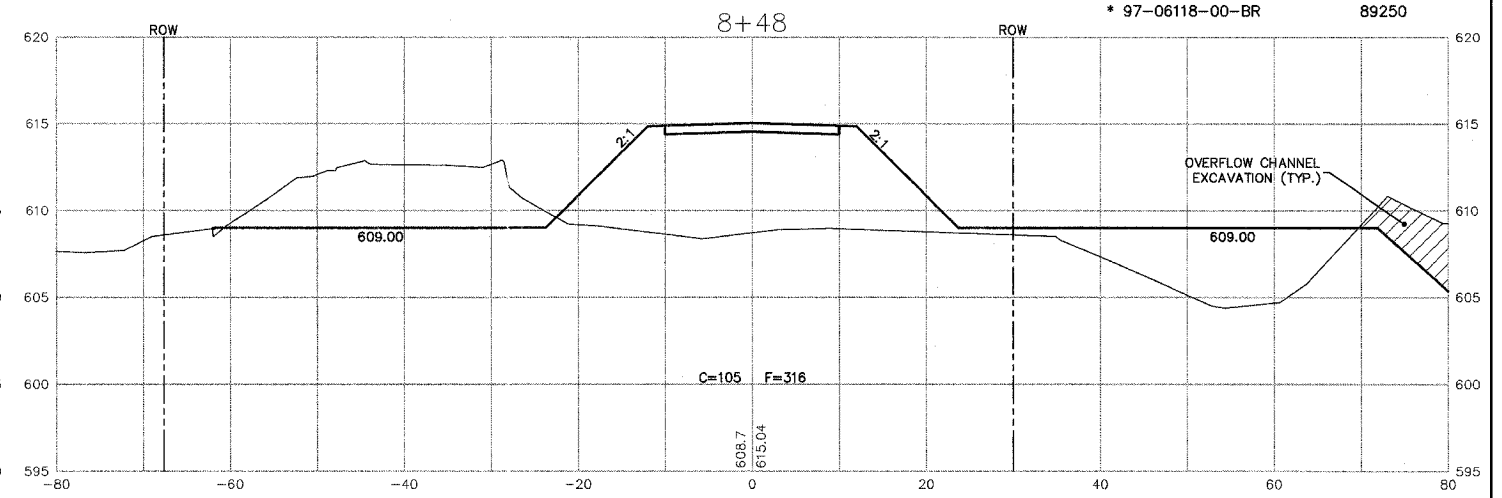
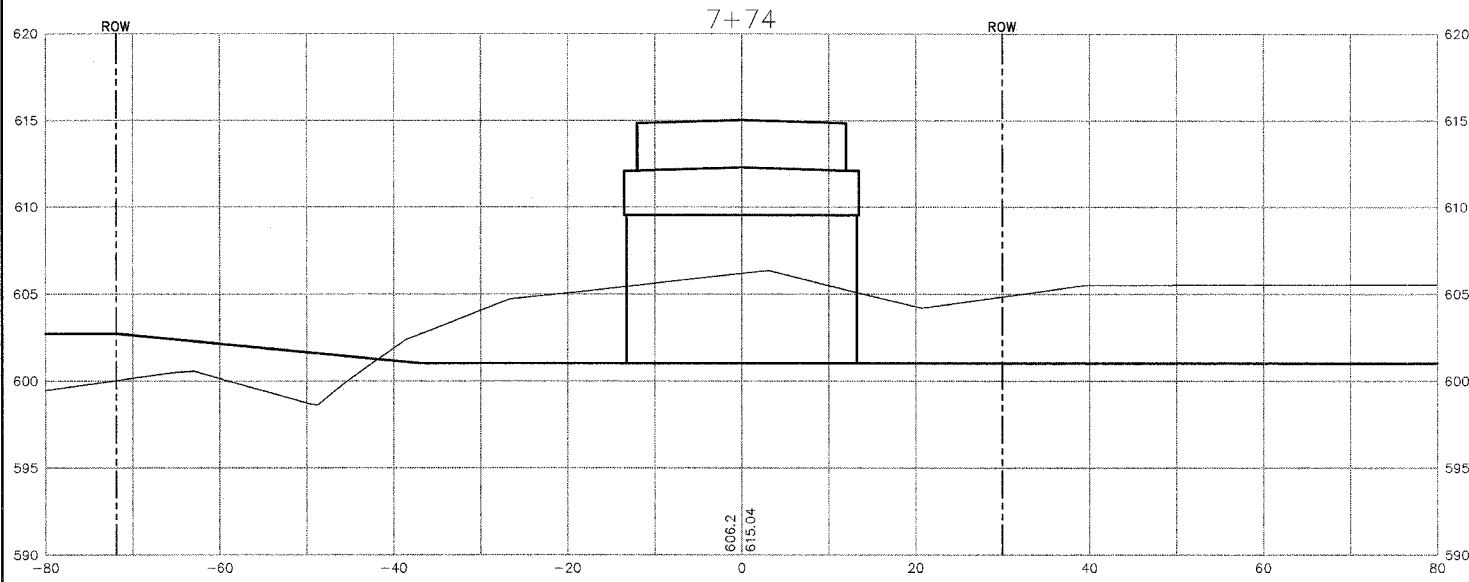
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	*	MERCER	23	8
ILLINOIS			BR-OS-131(44)	
* 97-06118-00-BR			89250	



ROADWAY CROSS SECTIONS
SECTION 97-06118-00-BR
T.R. 132, STA. 7+74.00
MERCER COUNTY

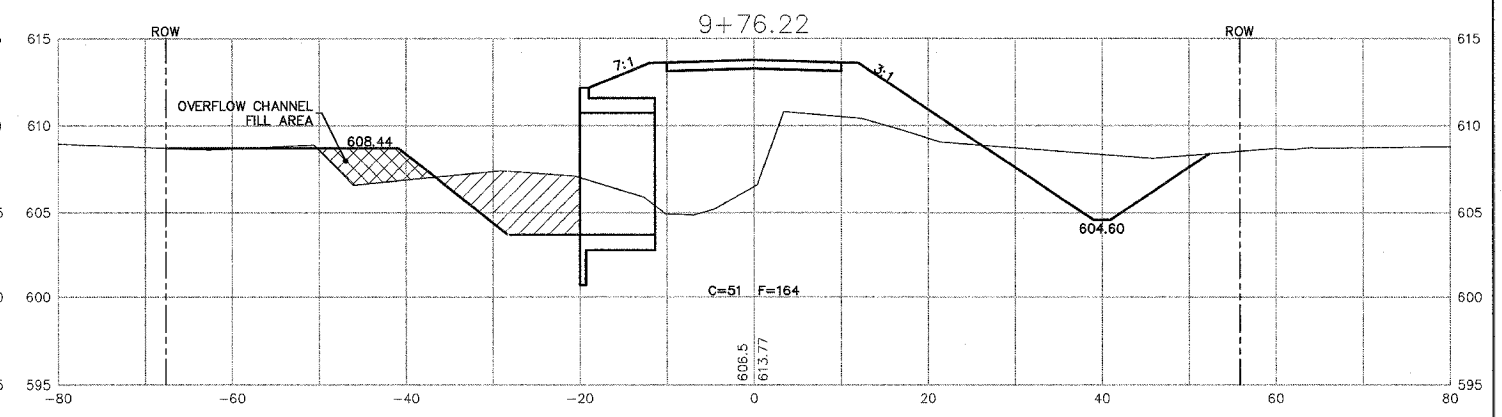
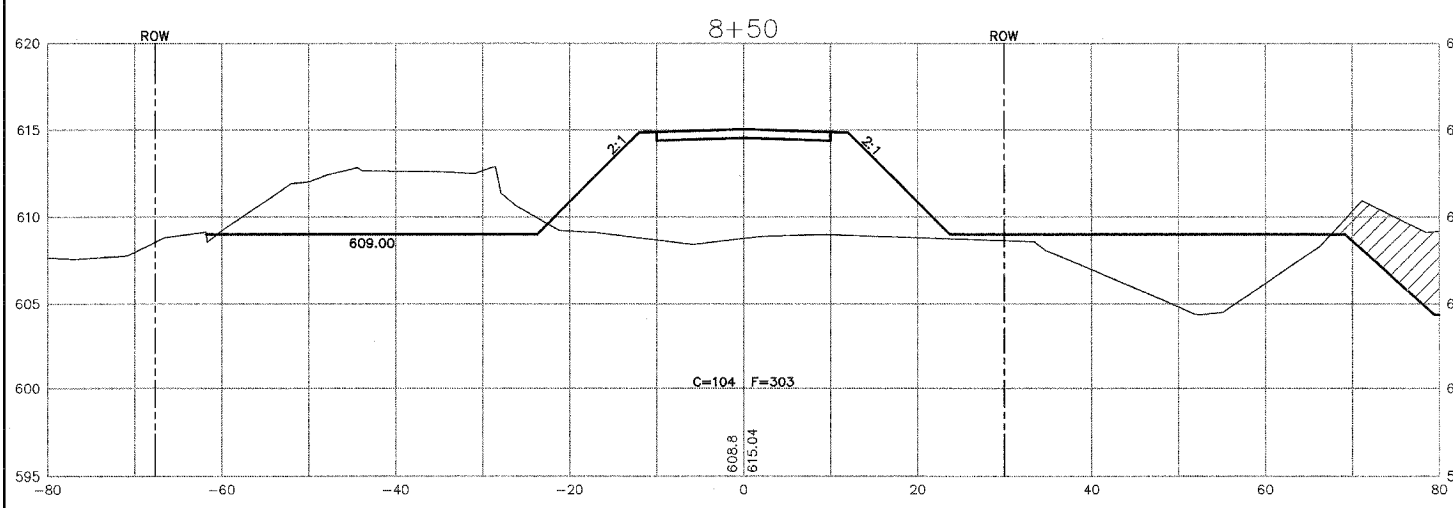
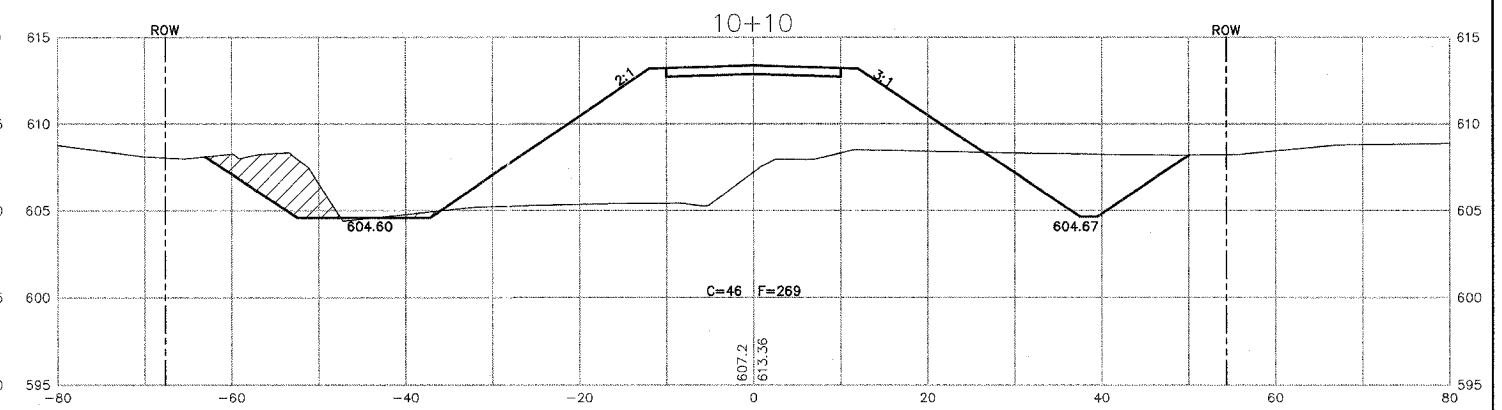
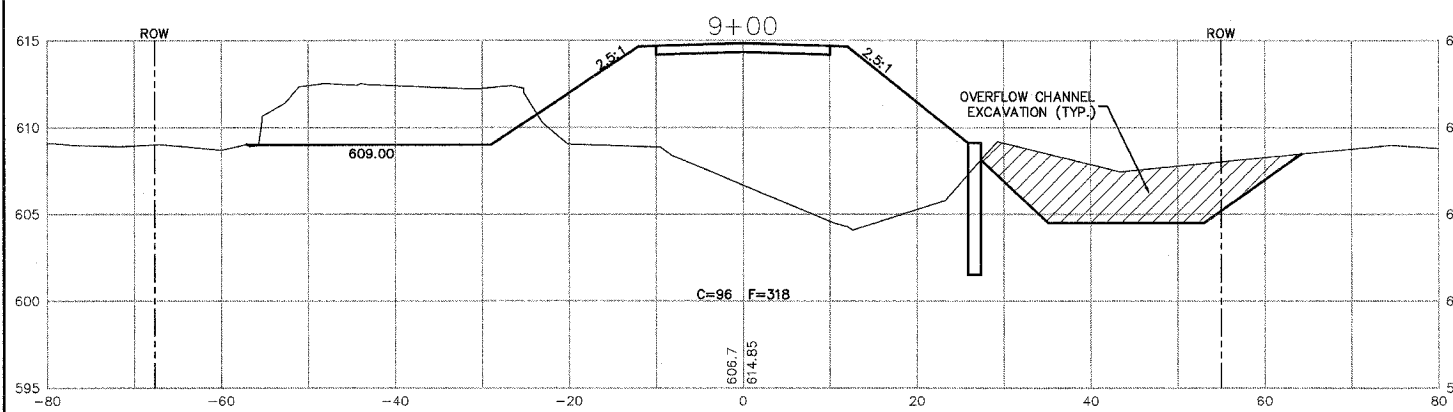
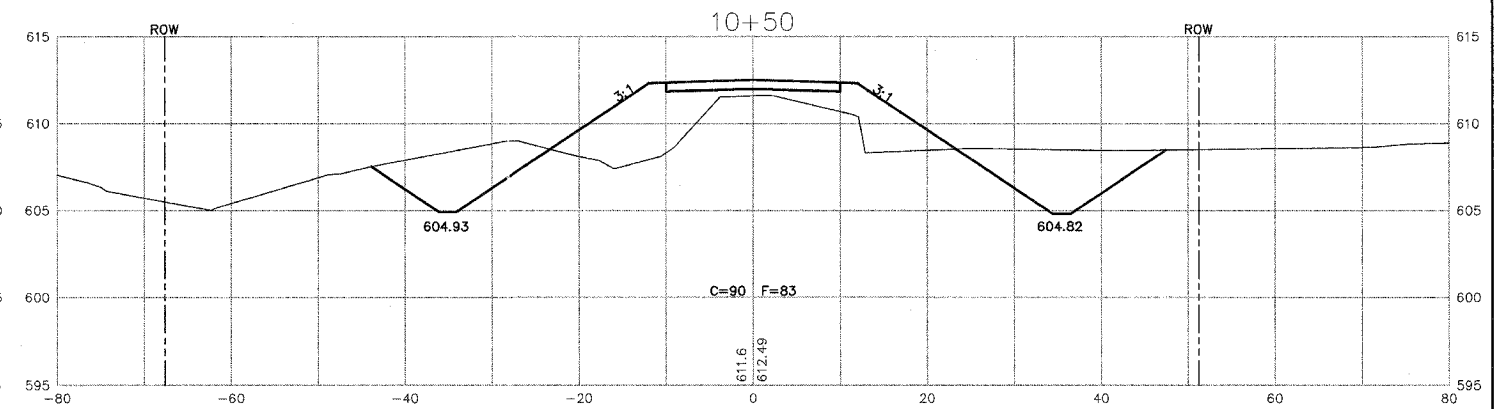
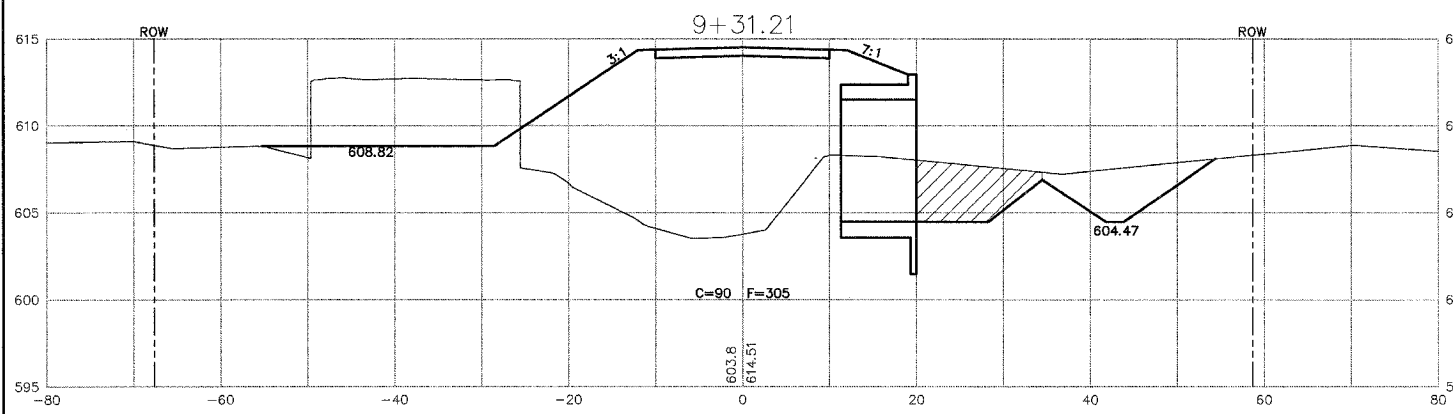
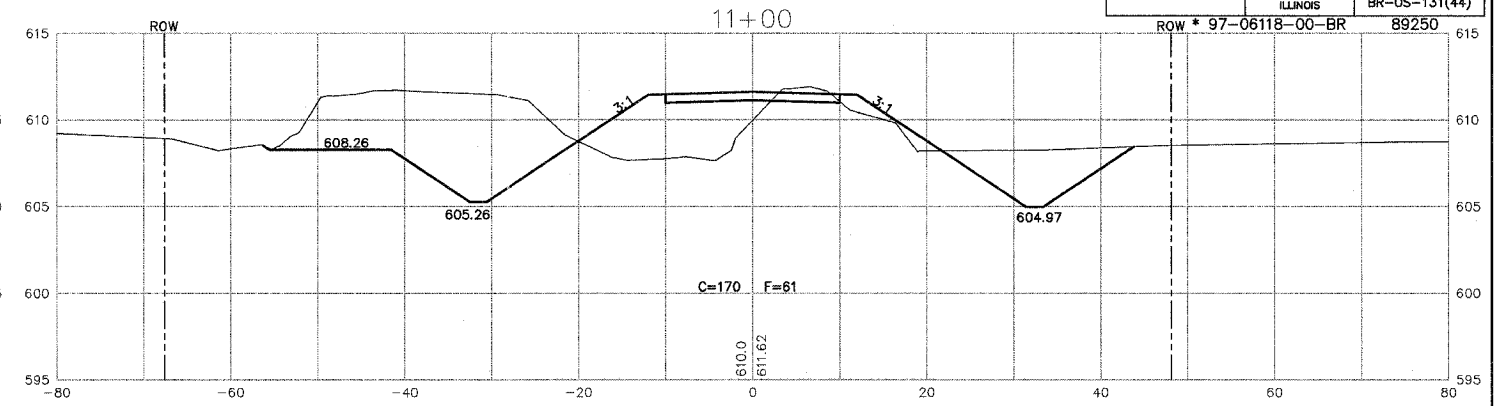
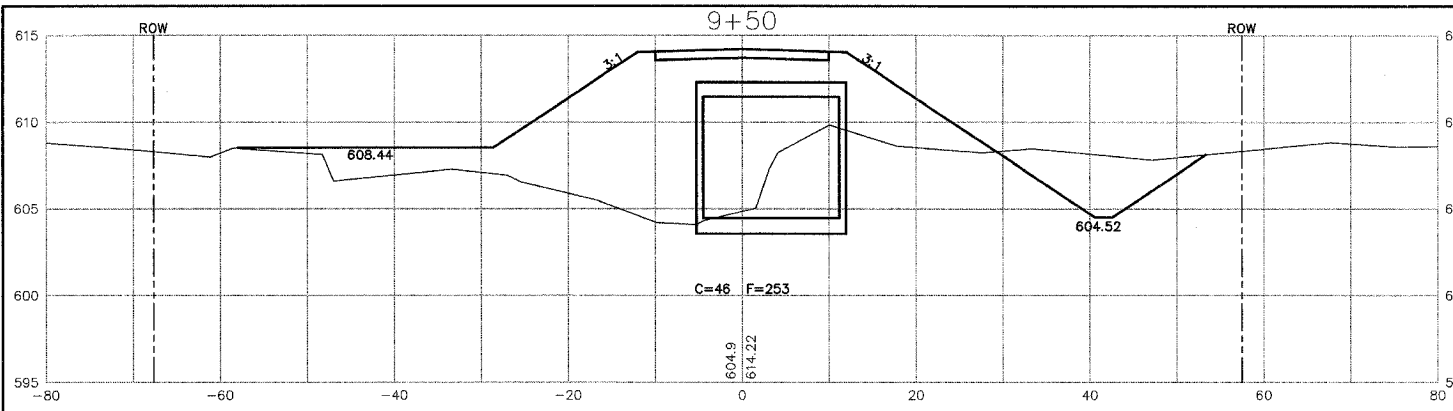
G:\Structure\A57000\MCB2.dwg\Templates.dwg, Sheet6, 4/11/2008 2:30:07 PM

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	*	MERCER	23	9
ILLINOIS			BR-05-131(44)	
* 97-06118-00-BR			89250	



ROADWAY CROSS SECTIONS
SECTION 97-06118-00-BR
T.R. 132, STA. 7+74.00
MERCER COUNTY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	*	MERCER	23	10
ILLINOIS			BR-OS-131(44)	
ROW * 97-06118-00-BR				89250

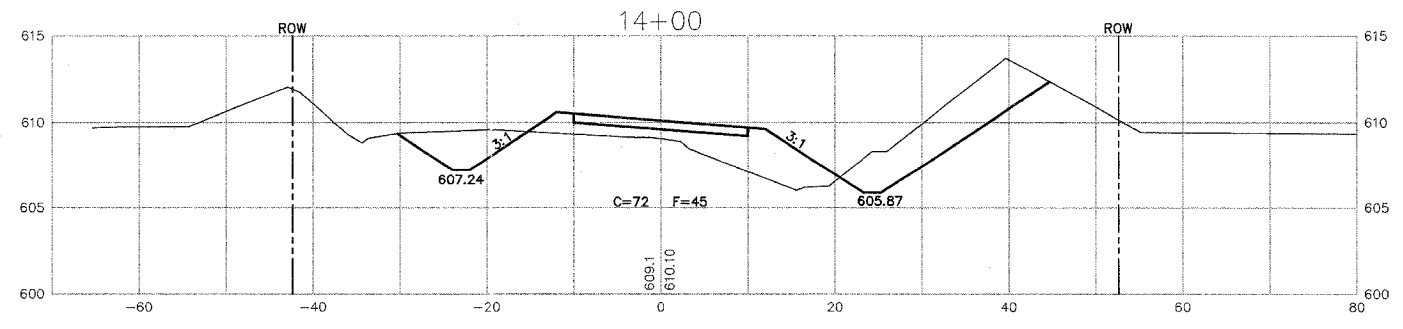
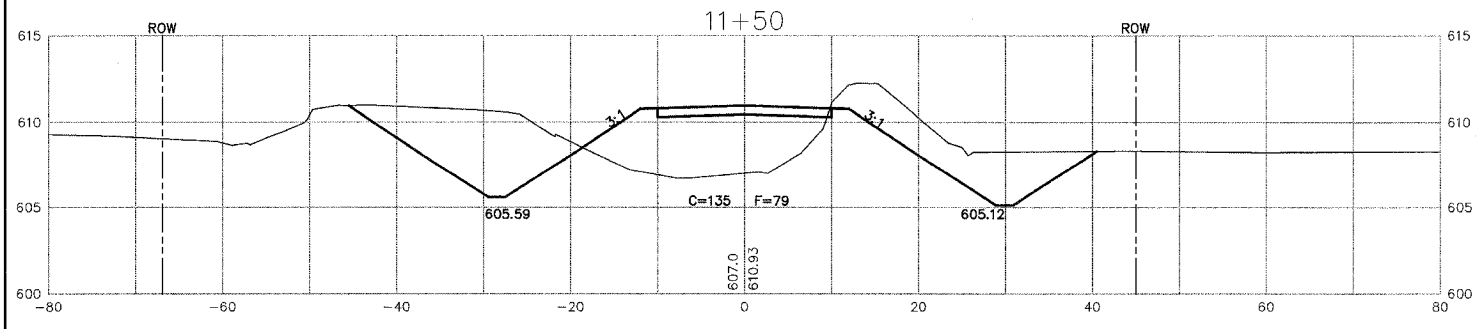
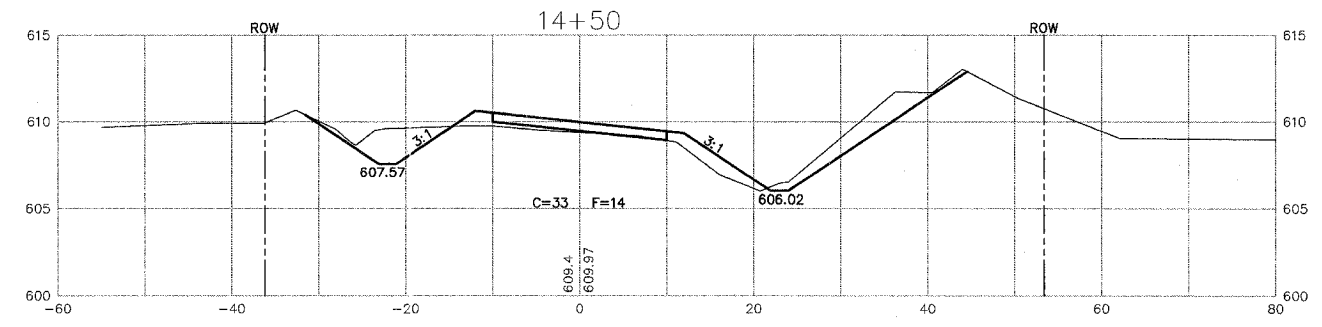
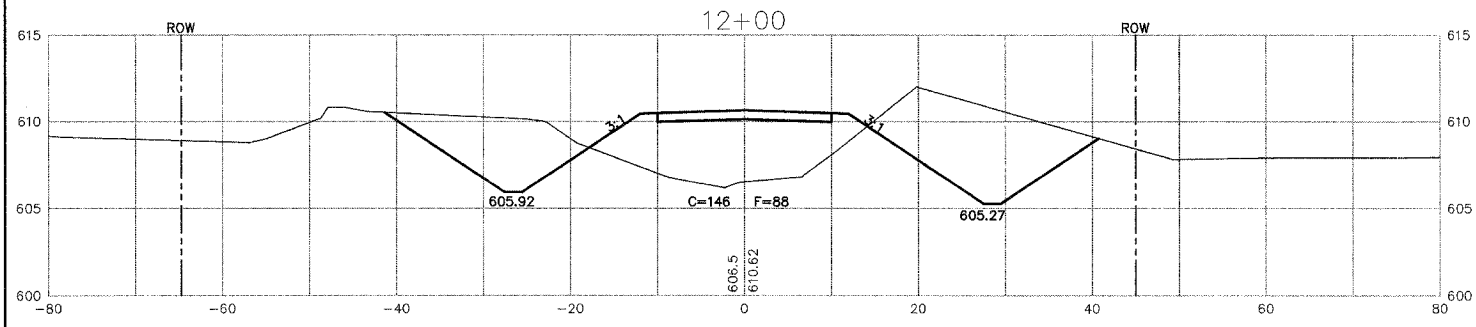
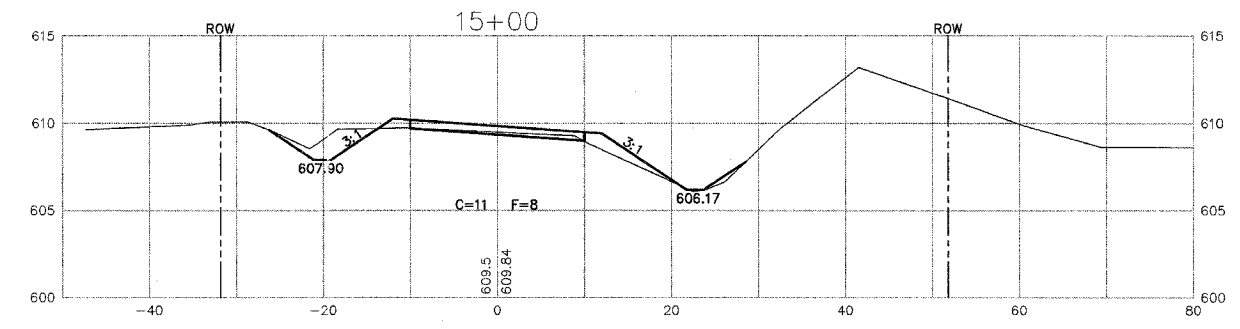
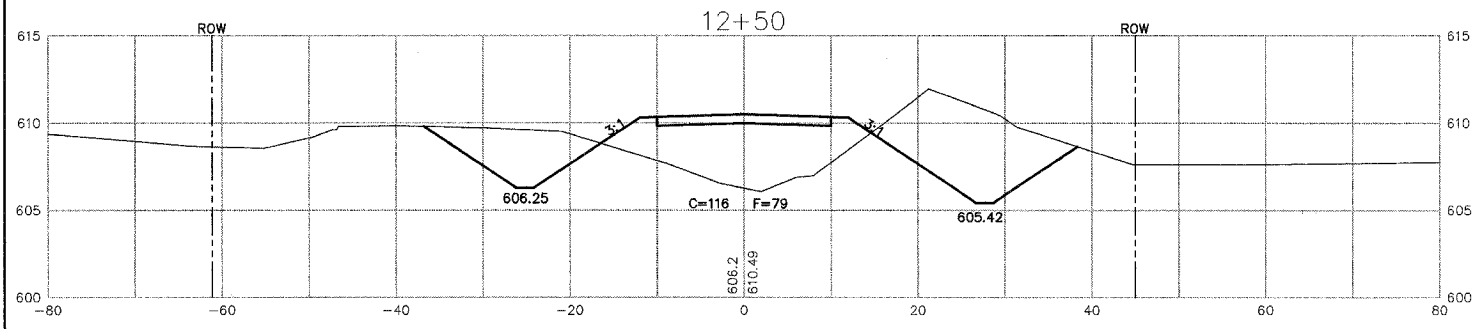
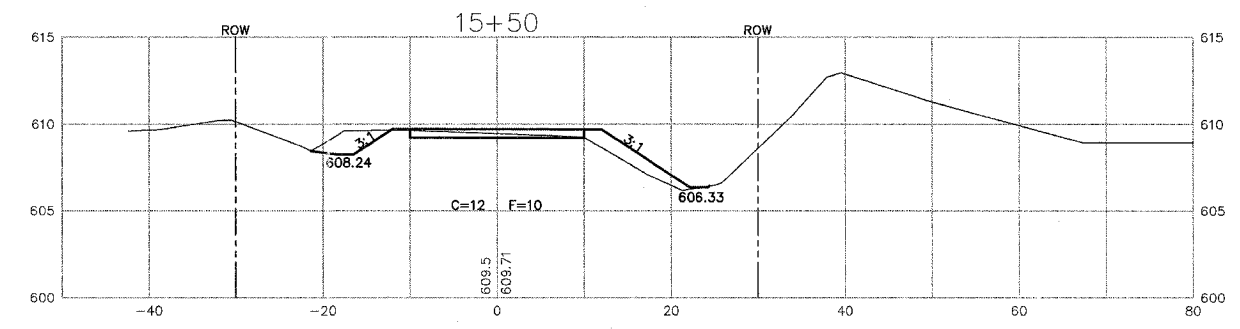
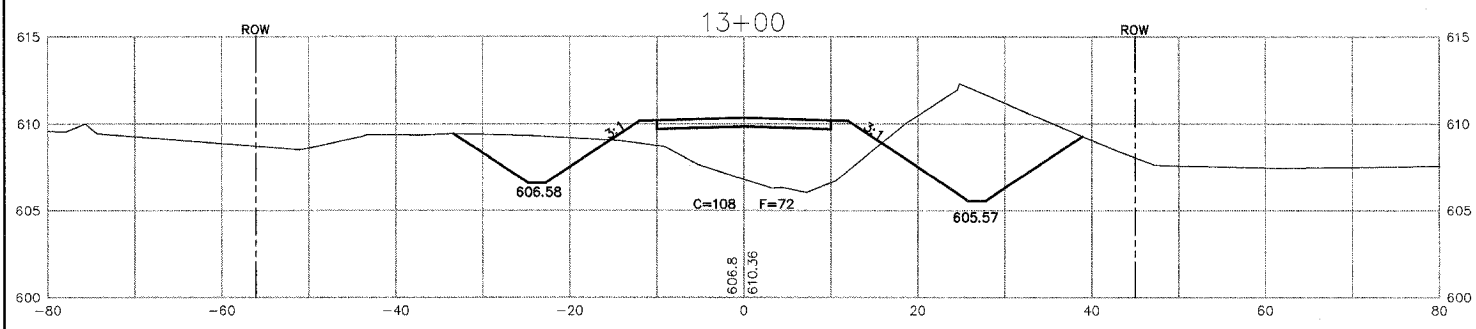
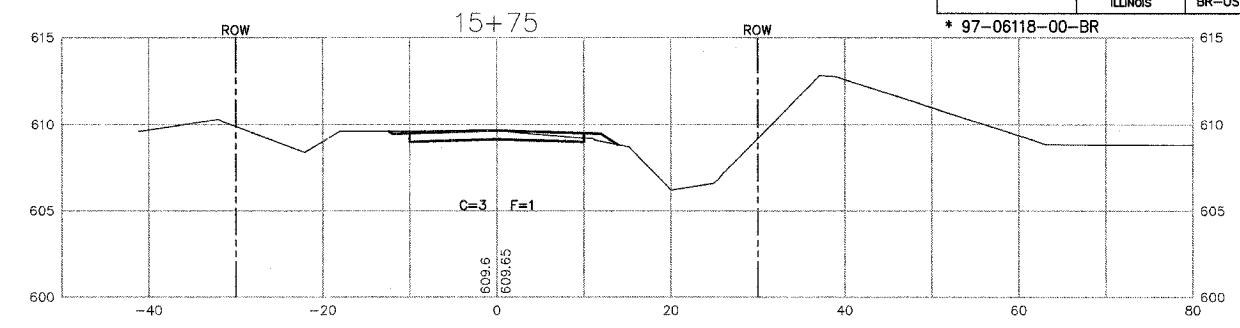
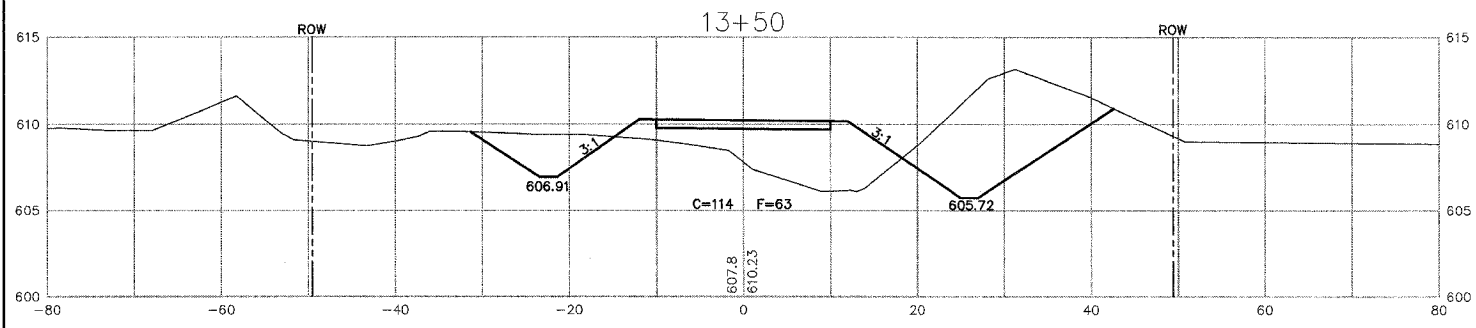


ROADWAY CROSS SECTIONS
SECTION 97-06118-00-BR
T.R. 132, STA. 7+74.00
MERCER COUNTY

G:\Structure\132\132\132.dwg 4/11/2006 2:32:52 PM

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	*	MERCER	23	11
ILLINOIS				BR-OS-131(44)

* 97-06118-00-BR 89250

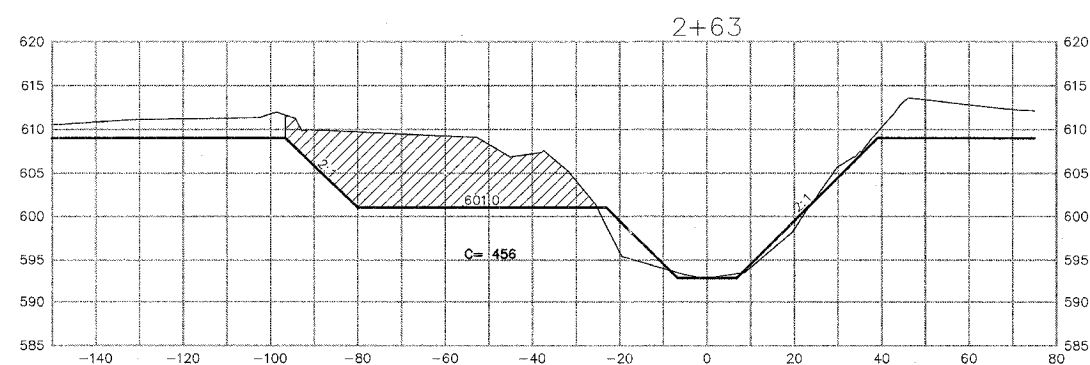
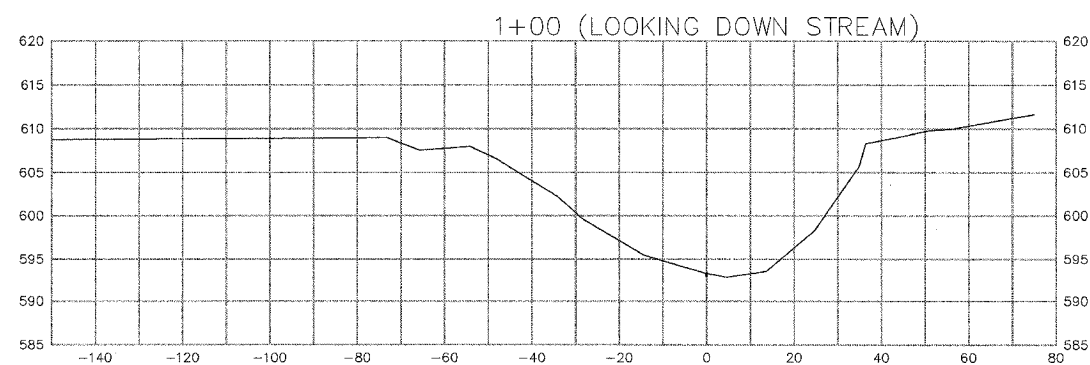
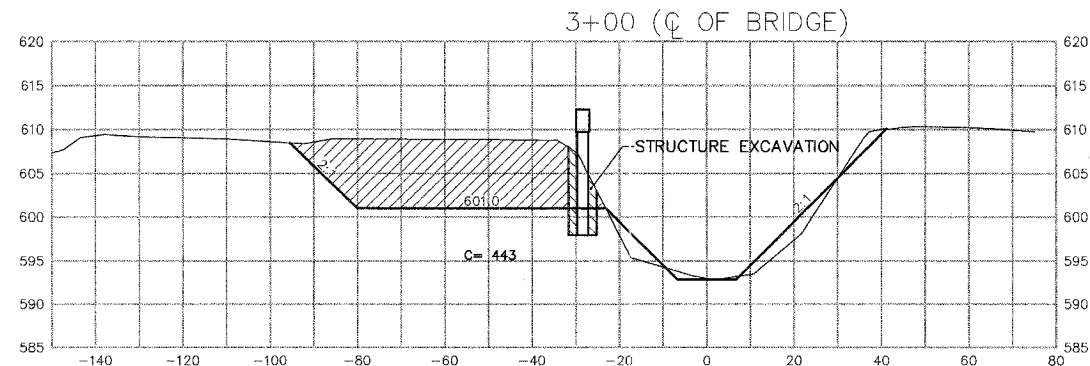
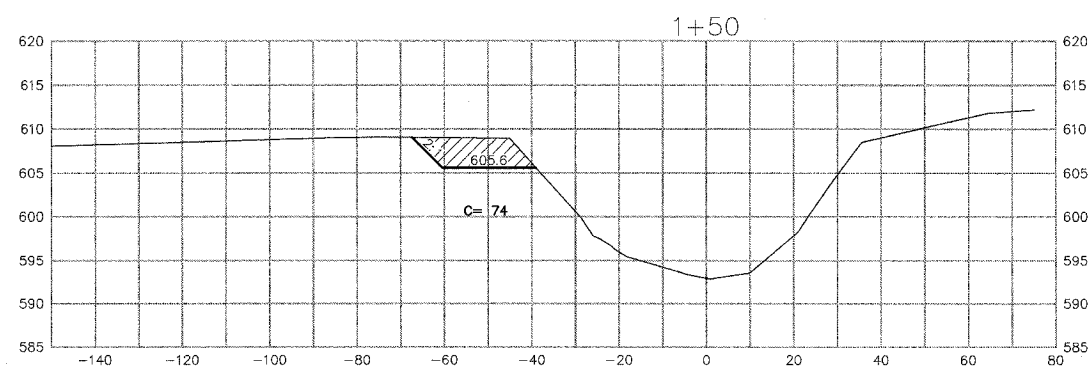
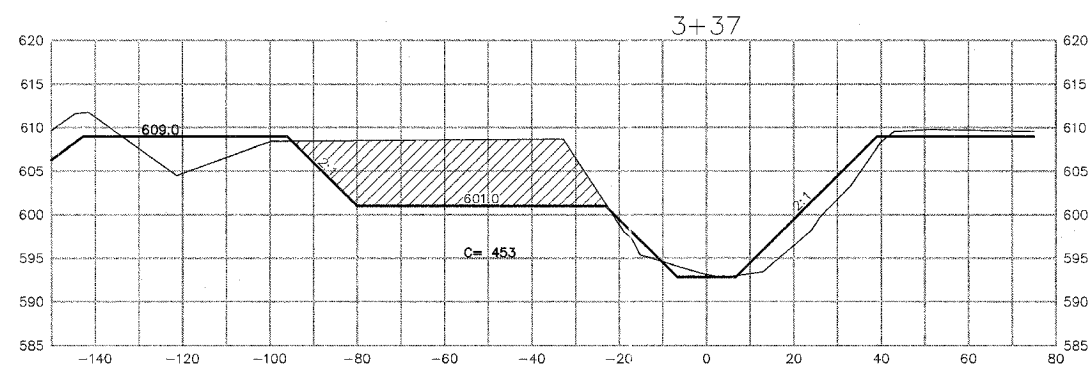
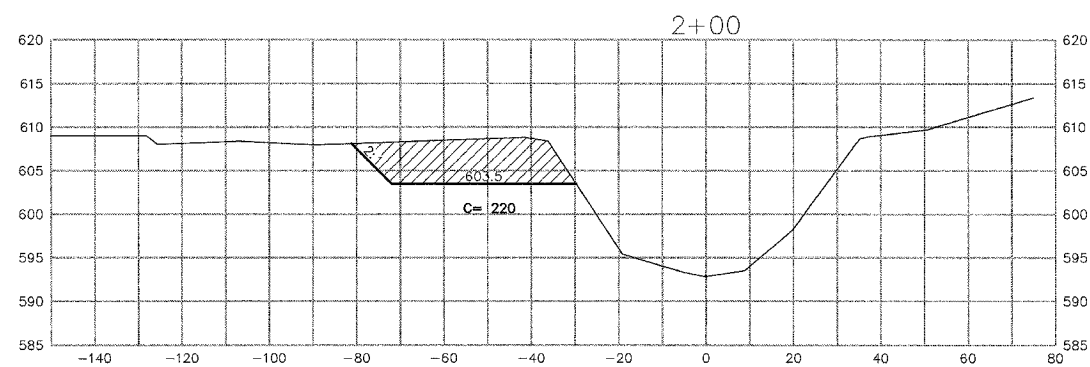
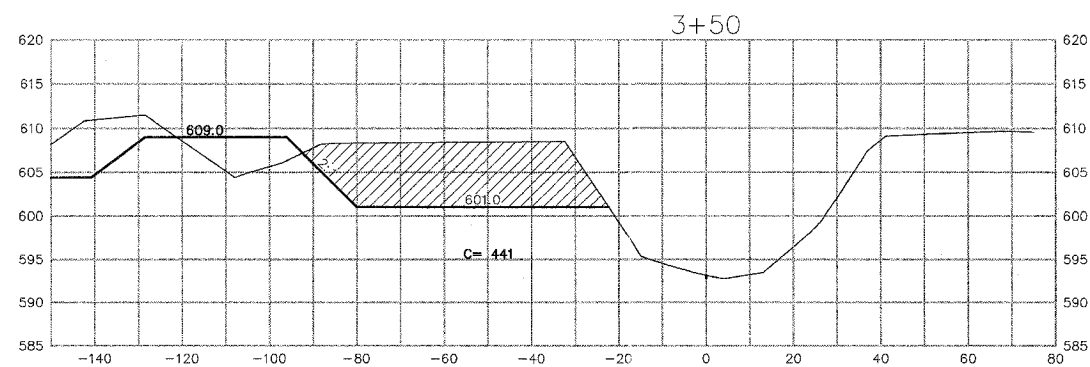
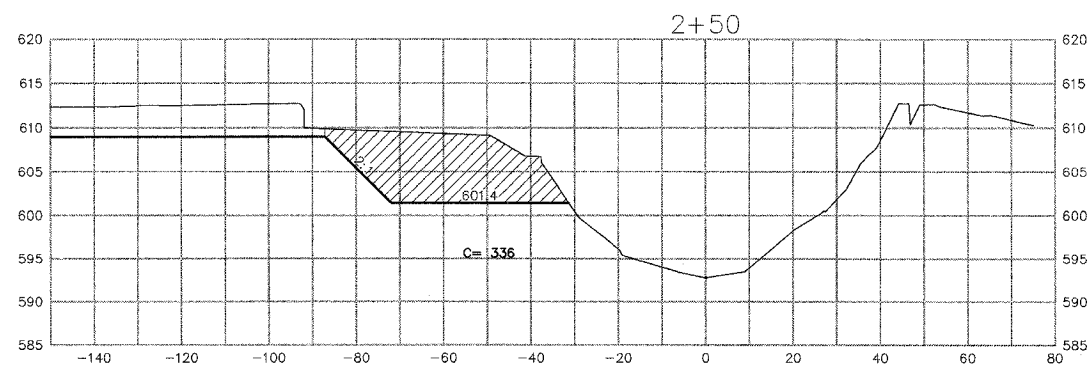


ROADWAY CROSS SECTIONS
SECTION 97-06118-00-BR
T.R. 132, STA. 7+74.00
MERCER COUNTY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	*	MERCER	23	12
ILLINOIS			BR-OS-131(44)	

* 97-06118-00-BR

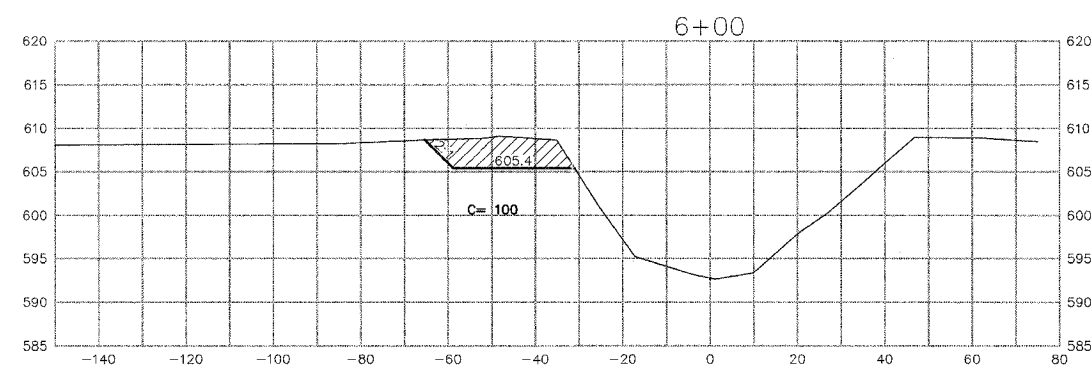
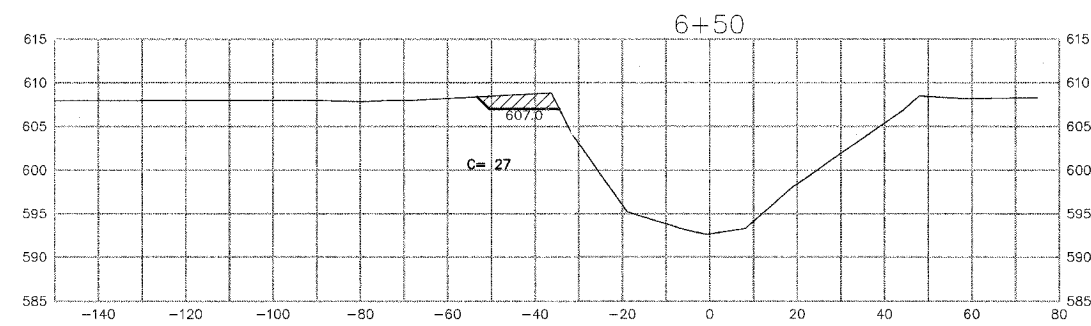
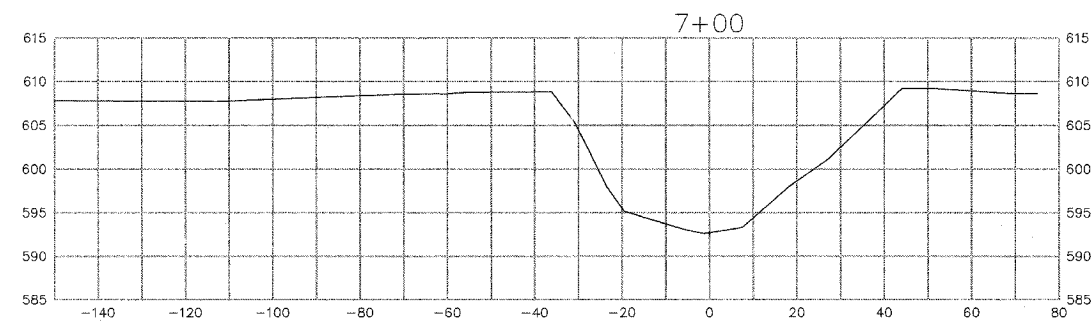
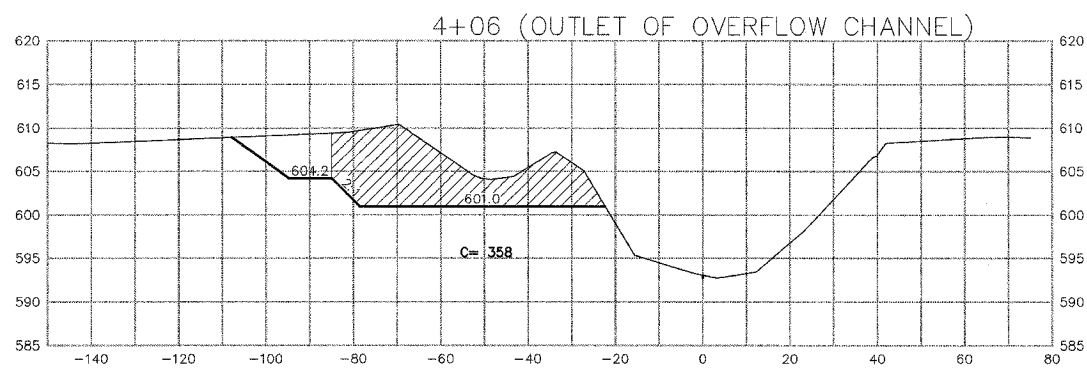
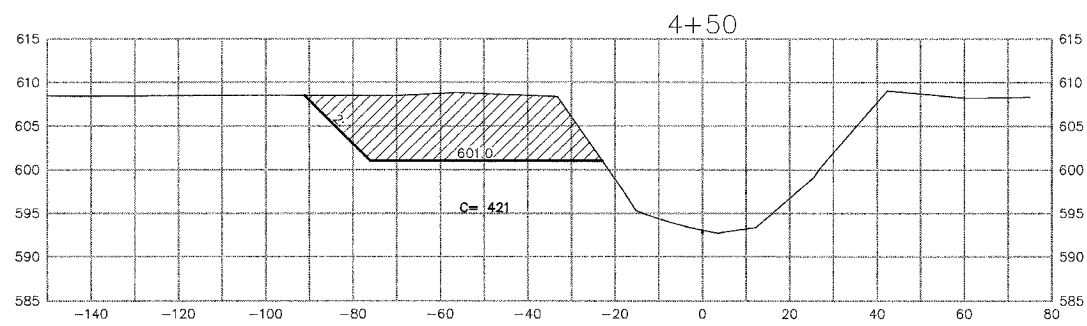
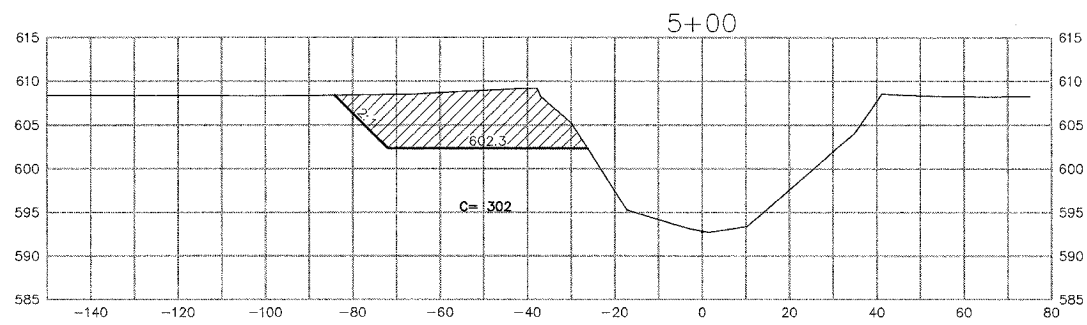
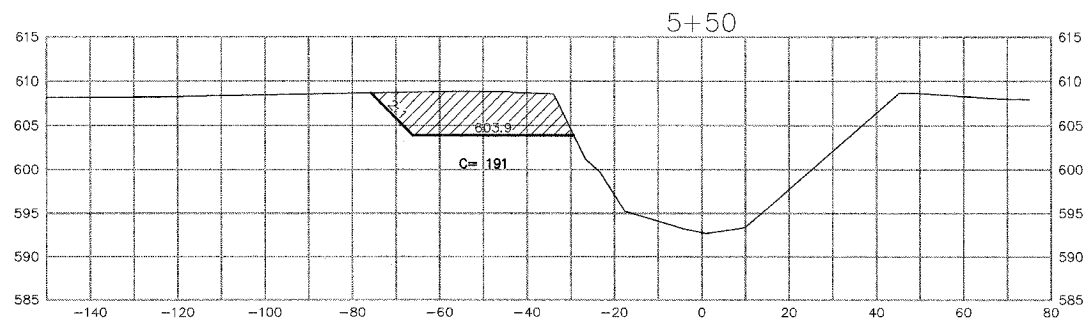
89250



CHANNEL CROSS SECTIONS
SECTION 97-06118-00-BR
T.R. 132, STA. 7+74.00
MERCER COUNTY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	*	MERCER	23	13
		ILLINOIS	BR-OS-131(44)	

* 97-06118-00-BR 89250



CHANNEL CROSS SECTIONS
SECTION 97-06118-00-BR
T.R. 132, STA. 7+74.00
MERCER COUNTY

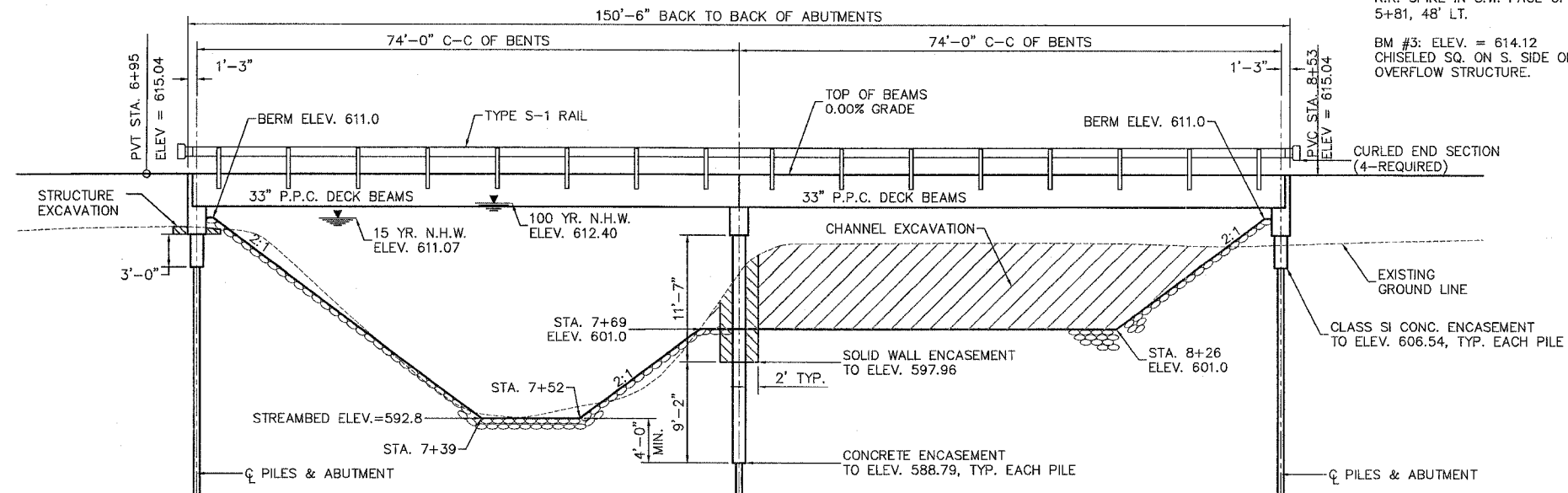
•EXISTING STRUCTURE: 6-SPAN STRUCTURE WITH A 70 FOOT MAIN SPAN PONY TRUSS ON STEEL CAISSONS. APPROACH SPANS ARE ON CONCRETE PIERS AND ABUTMENTS. TIMBER DECK AND RUNNERS (S.N. 066-4804)

•SALVAGE: NO SALVAGE.

BENCHMARKS:

BM #2: ELEV. = 612.57
R.R. SPIKE IN S.W. FACE OF TREE (3-30"Ø) STA. 5+81, 48' LT.
BM #3: ELEV. = 614.12
CHISELED SQ. ON S. SIDE OF WEST HEADWALL OF OVERFLOW STRUCTURE.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	*	MERCER	23	14
			ILLINOIS	BR-OS-131(44)
* 97-06118-00-BR				89250

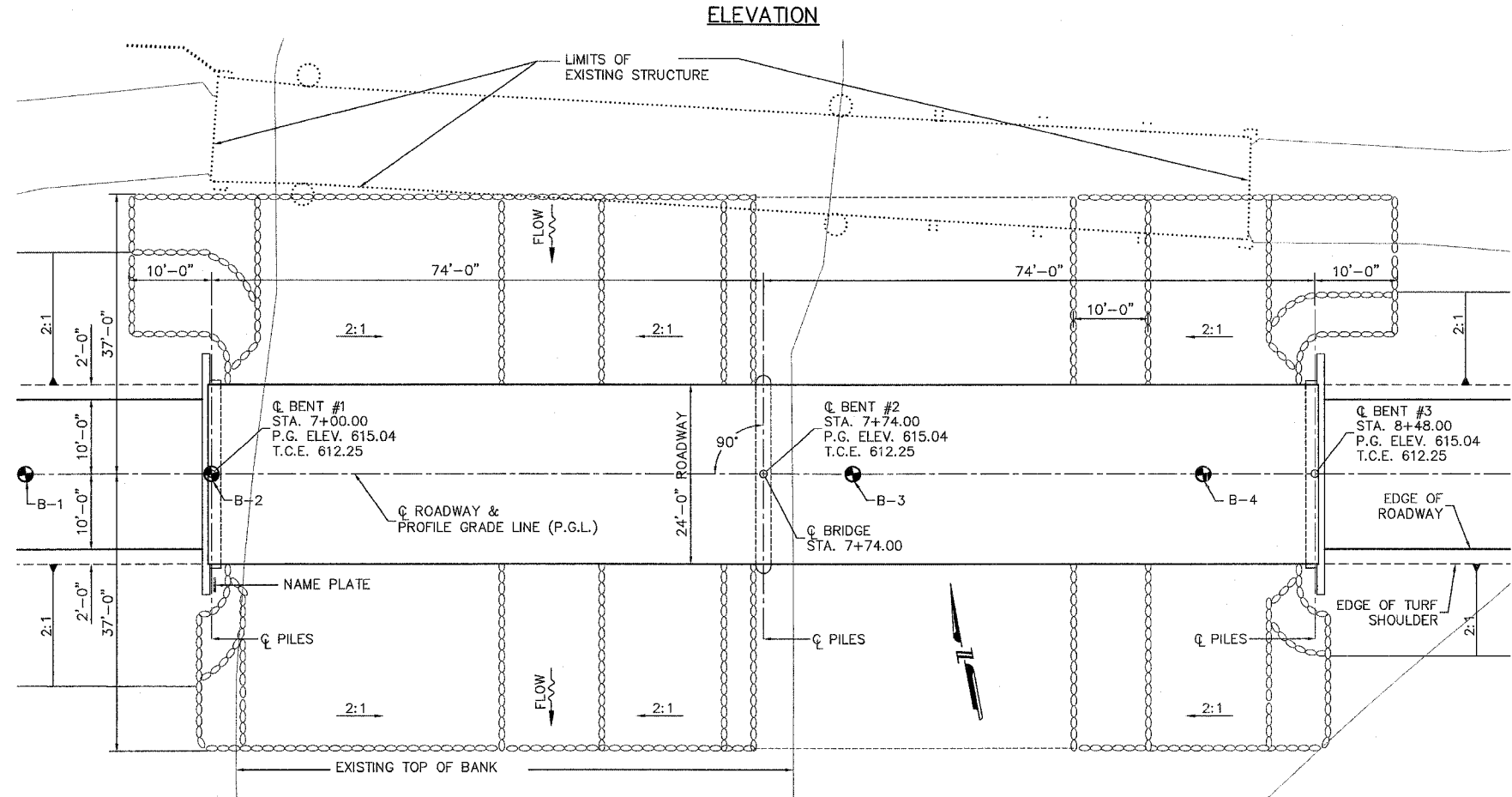


GENERAL NOTES

CLASS SI CONCRETE SHALL BE USED IN ALL CONCRETE STRUCTURES, EXCEPT FOR THE PRECAST PRESTRESSED CONCRETE (P.P.C.) DECK BEAMS.
THE CONTRACTOR SHALL DRIVE 3 TEST PILES AS SPECIFIED, IN A PERMANENT LOCATION AS DIRECTED BY THE ENGINEER, BEFORE ORDERING THE REMAINING PILES.
SEE SHEETS 21 & 22 FOR BORING LOGS.
A CALCIUM NITRATE CORROSION INHIBITOR, AS COVERED IN THE SPECIAL PROVISIONS, SHALL BE USED IN THE CONCRETE FOR THE PRECAST PRESTRESSED CONCRETE DECK BEAMS.
THE WATERPROOFING MEMBRANE SYSTEM AND THE BITUMINOUS CONCRETE SURFACE COURSE SHOWN ON THE STANDARDS SHALL NOT BE PROVIDED.
LAYOUT OF SLOPE PROTECTION SYSTEM MAY BE VARIED IN THE FIELD TO SUIT GROUND CONDITIONS AS DIRECTED BY THE ENGINEER.
T.C.E. = TOP OF CAP ELEVATION

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUBSTRUCTURE		TOTAL
			PIERS	ABUTS.	
REMOVAL OF EXISTING STRUCTURES (#1)	EA	---	---	---	1
CHANNEL EXCAVATION	CY	---	---	---	5,493
STRUCTURE EXCAVATION	CY	---	58.7	6.2	64.9
CONCRETE STRUCTURES	CY	---	35.5	18.6	54.1
P.P.C. DECK BEAMS (33" DEPTH)	SF	3,572	---	---	3,572
STEEL RAILING, TYPE S1	FOOT	298	---	---	298
REINFORCEMENT BARS	LBS	---	2,350	2,480	4,830
FURNISHING STEEL PILES HP 12x53	FOOT	---	175	260	435
DRIVING STEEL PILES HP 12x53	FOOT	---	175	260	435
TEST PILES STEEL HP 12x53	EA	---	1	2	3
NAME PLATES	EA	1	---	---	1
STONE RIPRAP, CLASS A5	SY	---	---	---	988
FILTER FABRIC	SY	---	---	---	988
UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EA	---	1	---	1
CONCRETE ENCASEMENT	CY	---	6.2	3.4	9.6



DRAINAGE AREA = 338 SQ.MI. LOW GRADE ELEV. = 609.43 @ STA. 13+25

FLOOD	FREQ. YR.	Q C.F.S.	OPENING SQ.FT.*		NAT. H.W.E.	HEAD-FT.		HEADWATER EL.	
			EXIST.	PROP.		EXIST.	PROP.	EXIST.	PROP.
DESIGN	15	9,100	---	1494	611.07	---	0.10	---	611.17
BASE	100	14,148	---	1622	612.40	---	0.04	---	612.44
OVERTOPPING	---	4,590	---	1253	609.37	---	---	---	---
MAX. CALC.	500	18,262	---	1622	613.23	---	0.04	---	613.27

* DOES NOT INCLUDE OVER THE ROAD FLOW

EDWARDS RIVER
BUILT 20__ BY
MERCER ROAD DISTRICT
MERCER COUNTY
SEC. 97-06118-00-BR
STA. 7+74
STR. NO. 066-4817 LOADING HS20

LETTERING FOR NAME PLATE
LOCATE NAME PLATE AT NORTHWEST CORNER OF BRIDGE (SEE STD. 515001)

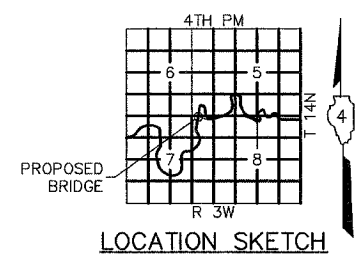
DESIGN SPECIFICATIONS
2002 AASHTO
HS20-44 LOADING. LOAD FACTOR DESIGN.
DESIGN 25#/SF FOR FUTURE WEARING SURFACE.

DESIGN STRESSES

FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi

PRECAST UNITS

f'c = 5,000 psi
f'ci = 4,000 psi
f's = 270,000 psi (1/2" dia. strands)
f'si = 201,960 psi (1/2" dia. strands)



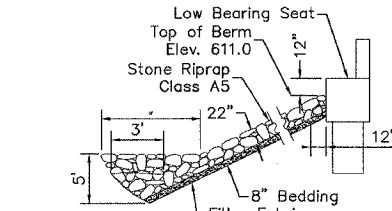
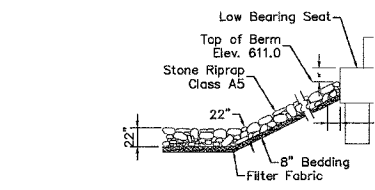
GENERAL BRIDGE PLAN & ELEVATION

SECTION 97-06118-00-BR
T.R. 132, STA. 7+74.00
MERCER COUNTY
S.N. 066-4817



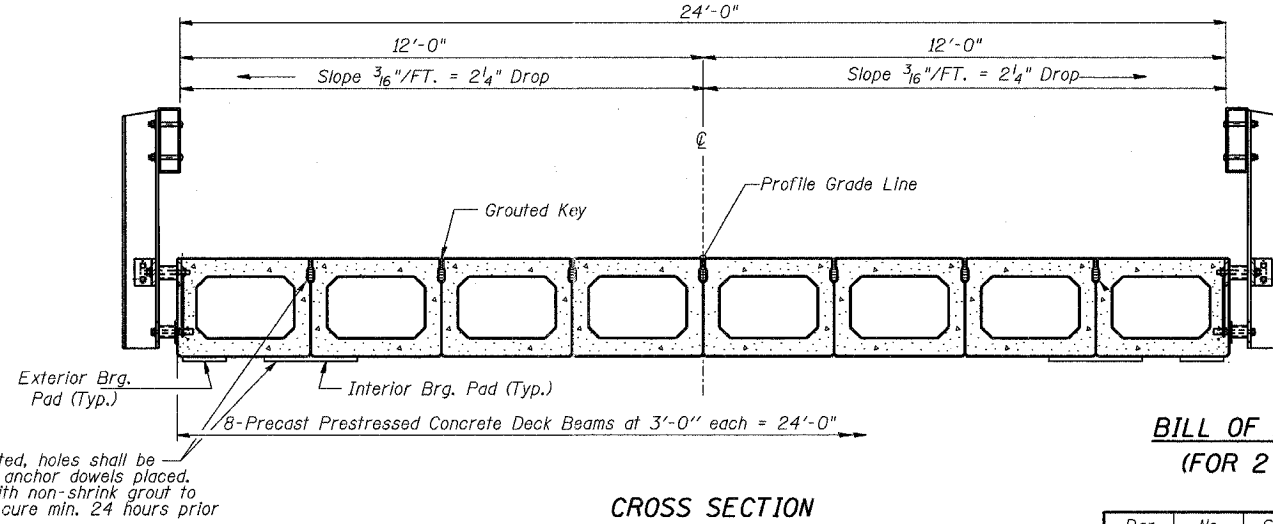
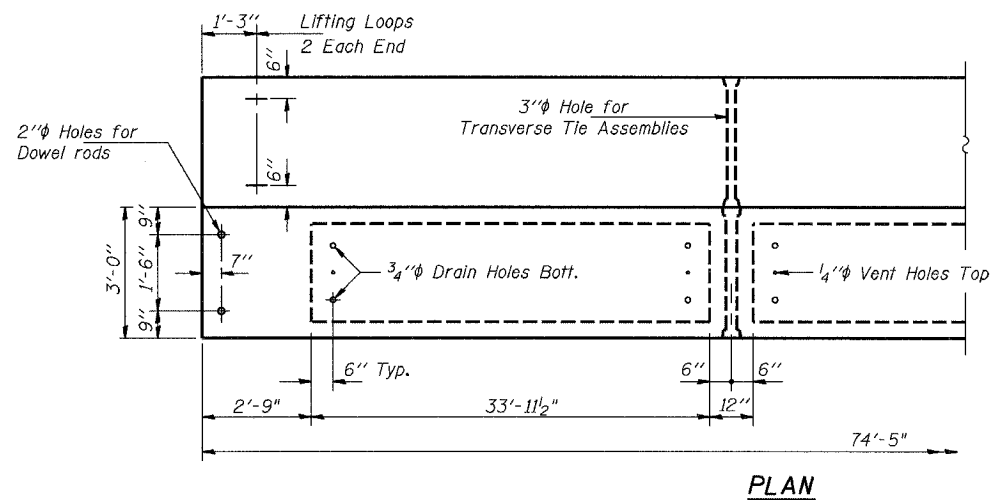
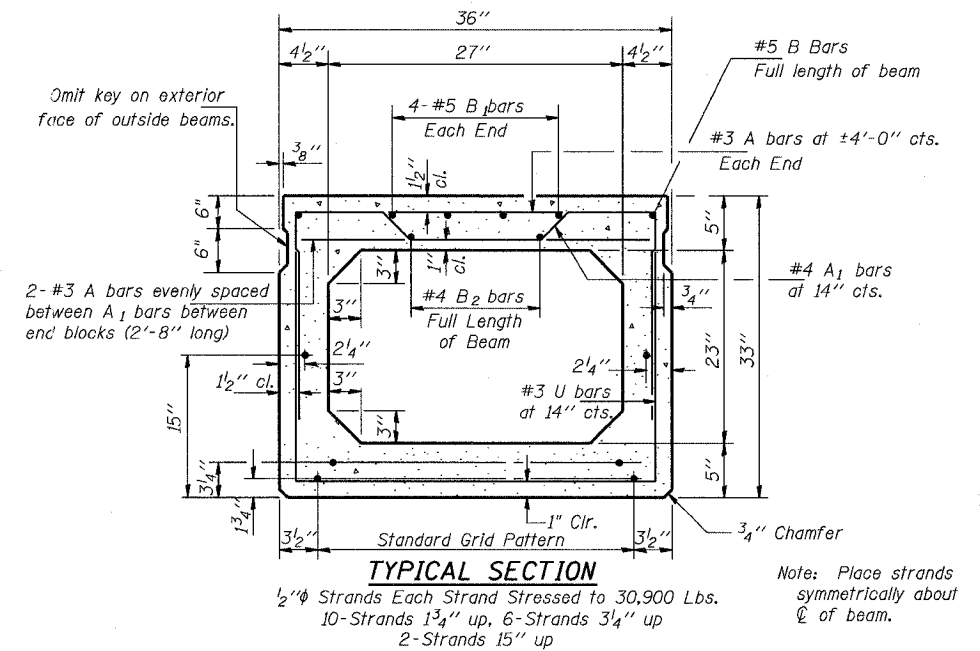
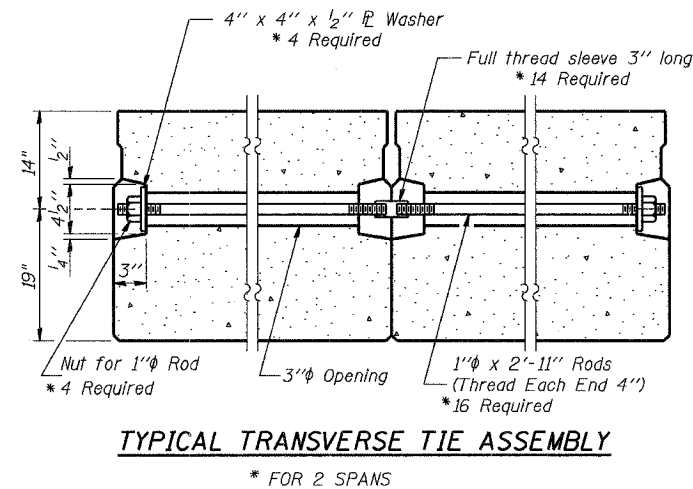
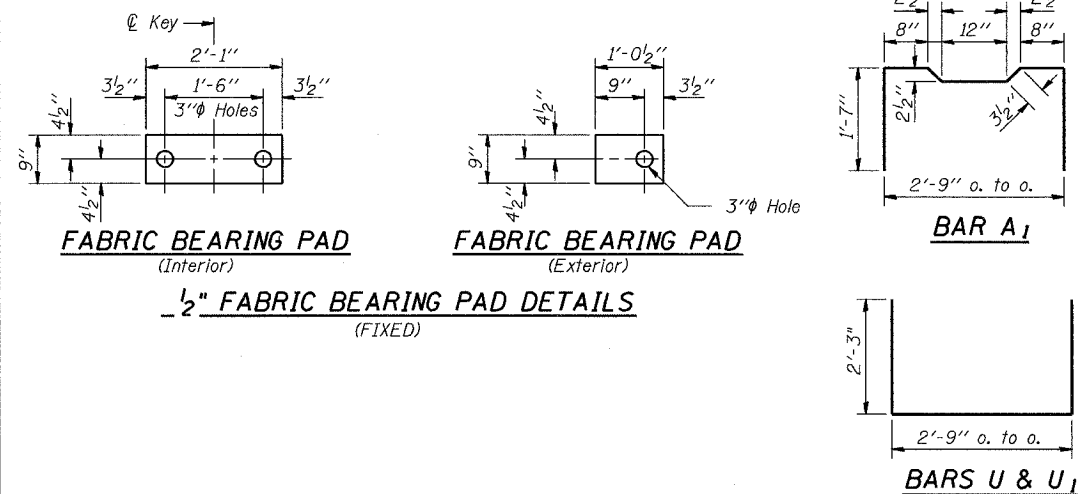
I CERTIFY THAT TO THE BEST OF KNOWLEDGE, INFORMATION, AND BELIEF THIS BRIDGE DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING SHOWN ON THE PLANS. THE DESIGN IS AN ECONOMICAL ONE FOR THE STYLE OF STRUCTURE AND COMPLIES WITH THE REQUIREMENTS OF THE CURRENT "AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES".

John B. Fellman
JOHN B. FELLMAN, S.E.
LICENSE EXPIRES 11-30-2006
4-11-2006
DATE



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

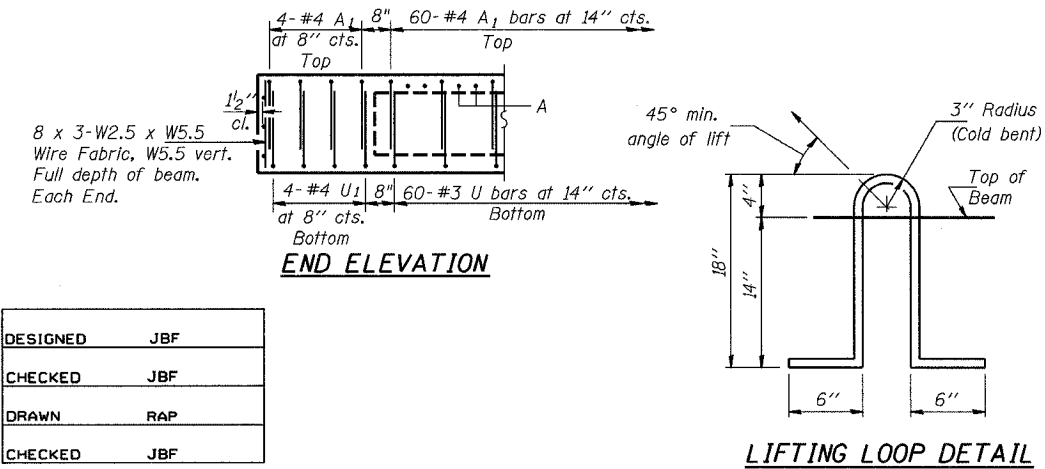
ROUTE NO.	SECTION	COUNTY	SHEET	SHEET
T.R. 132	*	MERCER	23	15
FED. ROAD DIST. NO. 7	ILLINOIS	BR-OS-131(44)		
* 97-06118-00-BR		89250		



BILL OF MATERIAL (FOR 2 SPANS)

Bar	No.	Size	Length	Shape
A	2048	#3	2'-8"	—
A1	1088	#4	6'-1"	—
B	32	#5	74'-2"	—
B1	128	#5	15'-0"	—
B2	32	#4	74'-2"	—
U	960	#3	7'-3"	—
U1	128	#4	7'-3"	—
Precast Prestressed Conc. Deck Bms.		Sq. Ft.	3,572	

DECK BEAM DETAILS
SECTION 97-06118-00-BR
T.R. 132, STA. 7+74.00
MERCER COUNTY
S.N. 066-4817



After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hours prior to grouting the shear keys.

NOTES

Prestressing steel shall be uncoated high strength, low-relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 3-1/2" φ-270 ksi strands, as shown.

The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.

Reinforcement bars shall conform to the requirements of A706, Grade 60.

The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/2" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.

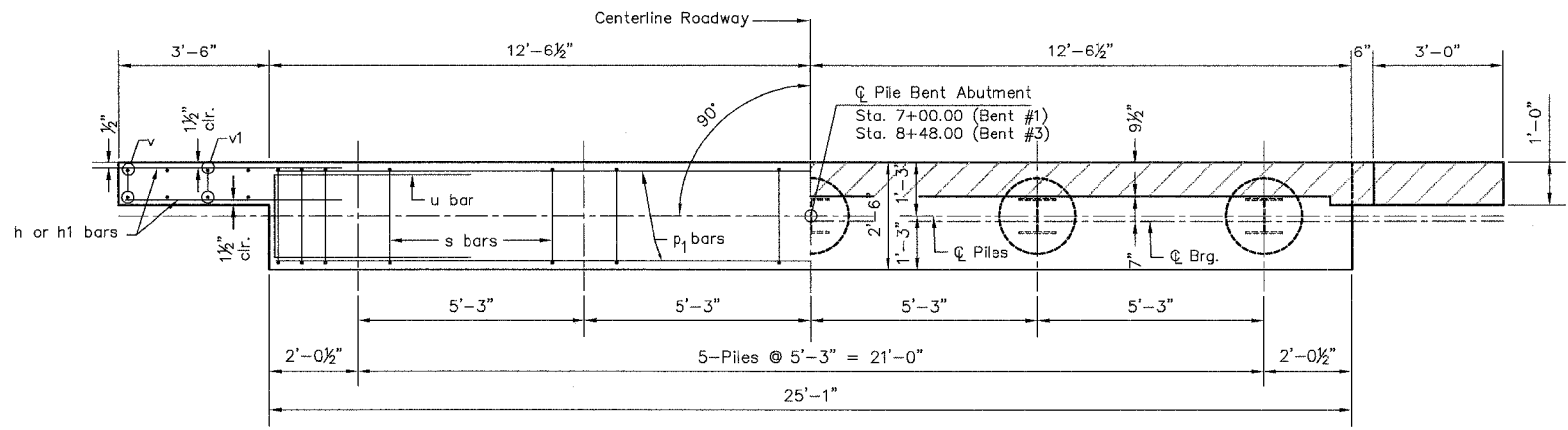
A Calcium Nitrite Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

Required Release Strength, f'cl, shall be 4,000 p.s.i.

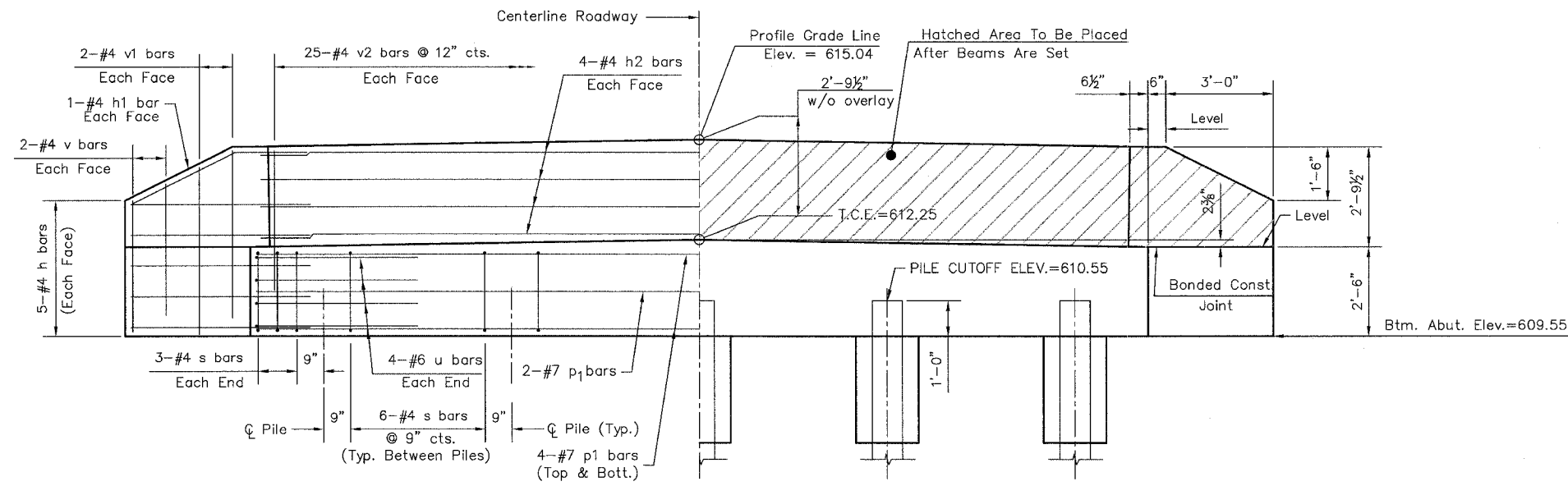
DESIGNED	JBF
CHECKED	JBF
DRAWN	RAP
CHECKED	JBF

PD-5-S

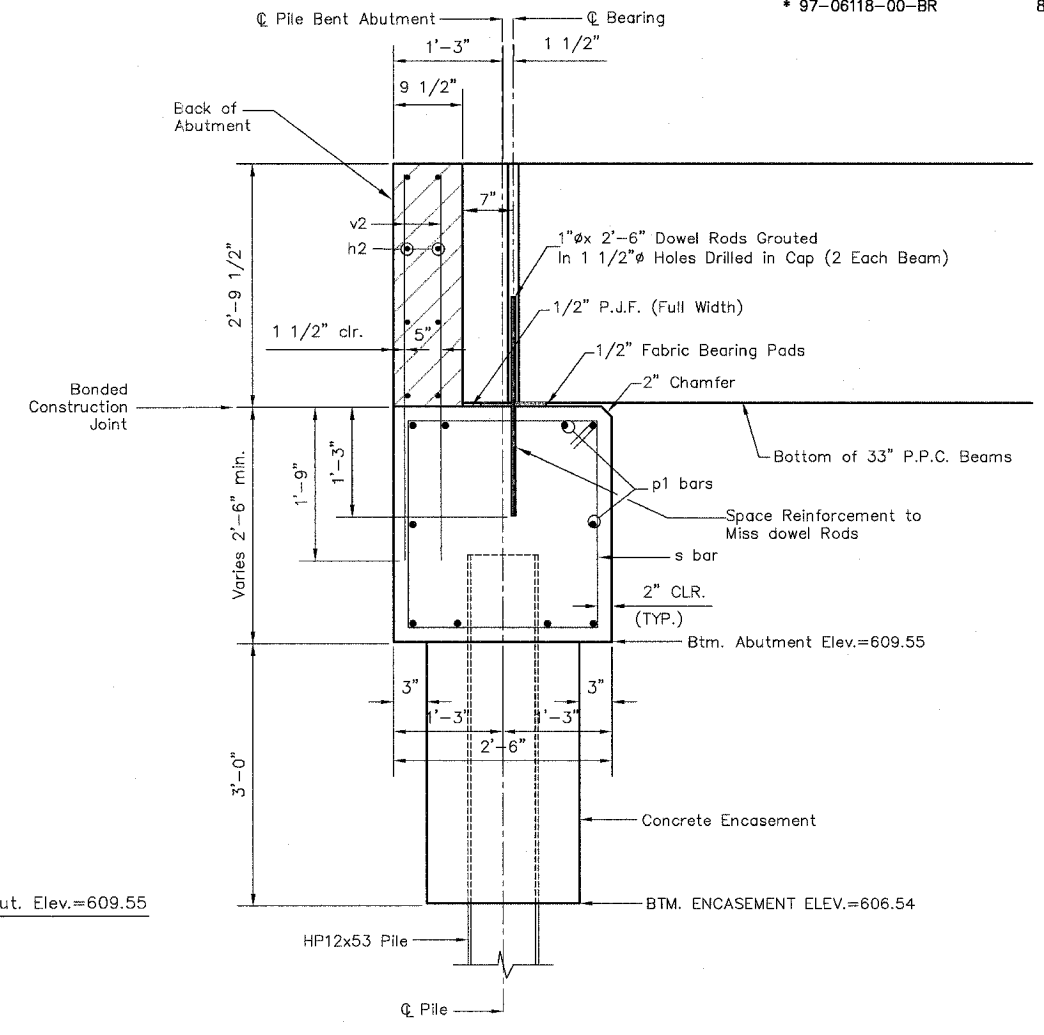
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	*	MERCER	23	16
			ILLINOIS	BR-OS-131(44)
			* 97-06118-00-BR	89250



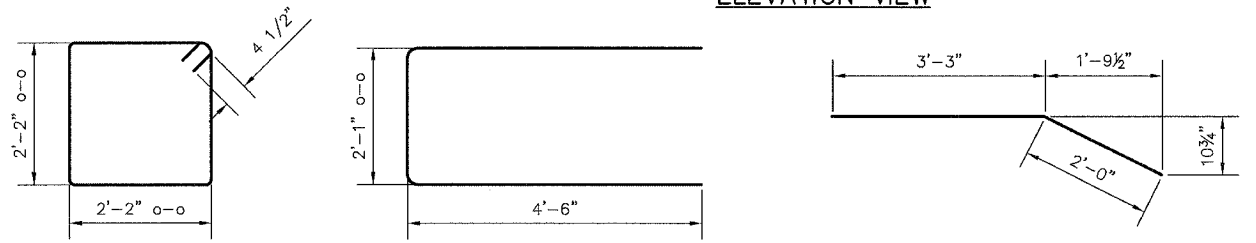
PLAN VIEW



ELEVATION VIEW



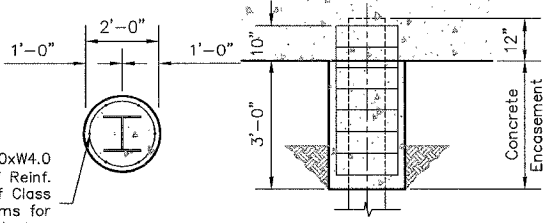
SECTION THRU ABUTMENT



BAR s

BAR u

BAR h1



PILE ENCASEMENT DETAIL

Welded Wire Fabric 6x6-W4.0xW4.0 Weighing 58#/100 sf. The cost of Reinf. is incidental to the cost of Class S1 Concrete Encasement. Forms for Encasement may be omitted when soil conditions will permit.

PILE DATA

Type	Steel HP 12x53
Capacity	Refusal
Estimated Length	35 Feet (Bent #1) 30 Feet (Bent #3)
Quantity	4+1 Test Pile (Bent #1) 4+1 Test Pile (Bent #3)

BILL OF MATERIAL FOR TWO ABUTMENTS

BAR	NO.	SIZE	LENGTH	SHAPE
h	40	#4	5'-0"	—
h1	8	#4	5'-3"	—
h2	16	#4	24'-9"	—
p1	20	#7	24'-9"	—
s	60	#4	9'-5"	□
u	16	#6	11'-1"	□
v	16	#4	3'-8"	—
v1	16	#4	4'-8"	—
v2	100	#4	4'-7"	—
Structure Excavation			Cu. Yds.	6.2
Concrete Structures			Cu. Yds.	18.6
Reinforcement Bars			Lbs.	2,480
Furnish Steel Piles - HP12x53			Feet	260
Driving Steel Piles			Feet	260
Steel Test Pile - HP12x53			Each	2
Concrete Encasement			Cu. Yds.	3.4

GENERAL NOTES:

- The Backwall and the portion of the Wingwalls above the bonded construction joint shall be cast against the in-place beams.
- Reinforcement bars shall conform to A706, Grade 60
- All edges shall have standard 3/4" chamfers unless noted otherwise.
- Space reinforcement in cap to miss anchor bolts.

DESIGN STRESSES

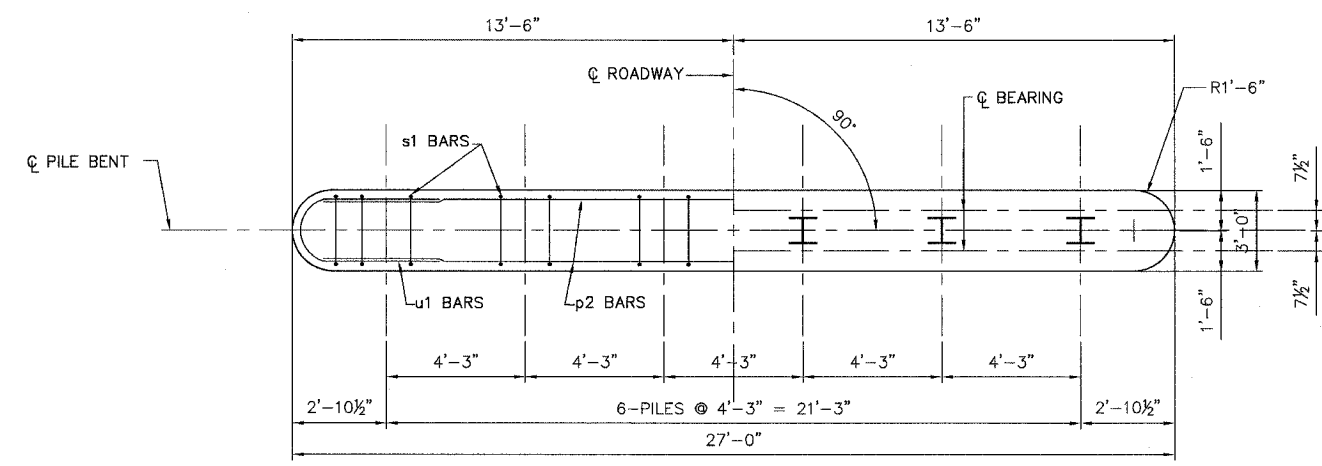
f'c = 3,500 psi
fy = 60,000 psi

ABUTMENT DETAILS

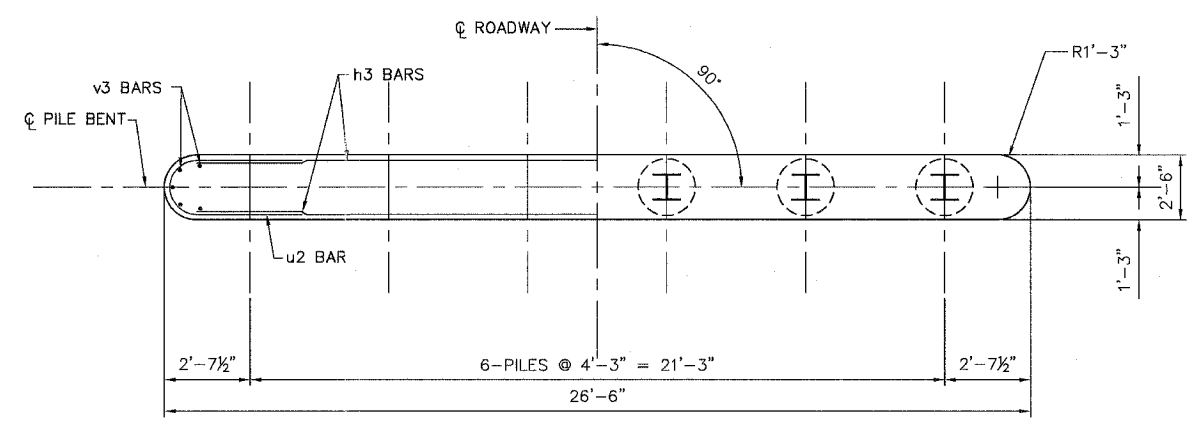
SECTION 97-06118-00-BR
T.R. 132, STA. 7+74.00
MERCER COUNTY
S.N. 066-4817

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	*	MERCER	23	17
ILLINOIS			BR-OS-131(44)	

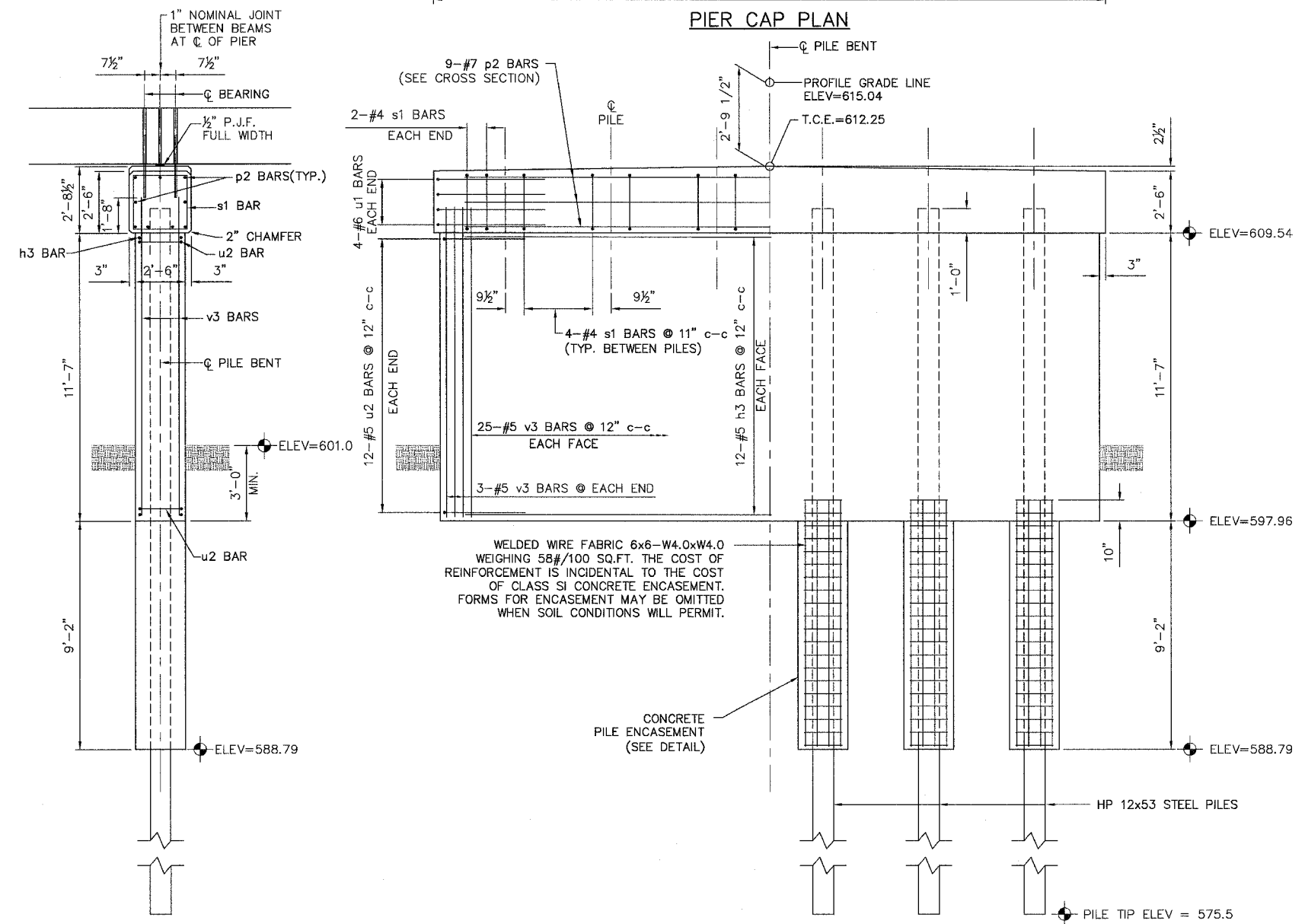
* 97-06118-00-BR 89250



PIER CAP PLAN

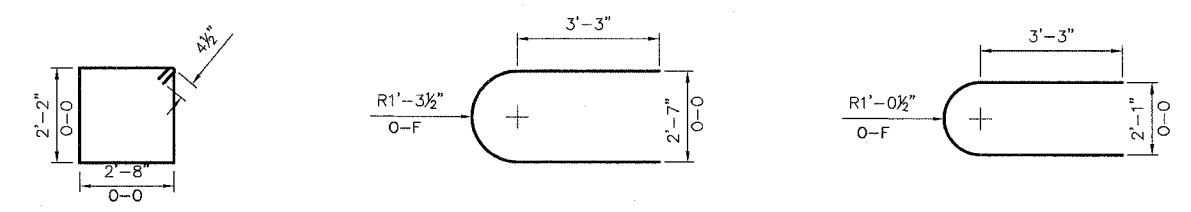


PIER WALL PLAN



PIER CROSS SECTION

PIER ELEVATION



BAR s

BAR u1

BAR u2

FILE DATA

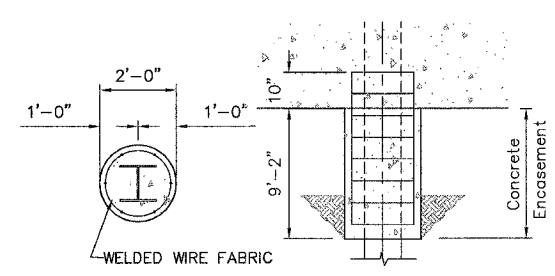
Type	Steel HP 12x53
Capacity	Refusal
Estimated Length	35 Feet (Bent #2)
Quantity	5+1 Test Pile (Bent #2)

BAR LIST FOR ONE PIER

BAR	NO.	SIZE	LENGTH	SHAPE
h3	24	#5	24'-0"	—
p2	9	#7	24'-0"	—
s1	24	#4	10'-5"	□
u1	8	#6	10'-7"	□
u2	24	#5	9'-9"	□
v3	56	#5	13'-1"	—

QUANTITY FOR ONE PIER

STRUCTURE EXCAVATION	CU.YD.	58.7
CONCRETE STRUCTURES	CU.YD.	35.5
REINFORCEMENT BARS	LBS	2,350
STEEL PILES - HP12x53	FOOT	175
DRIVING STEEL PILES	FOOT	175
STEEL TEST PILE - HP12x53	EACH	1
CONCRETE ENCASUREMENT	CU.YD.	6.2
UNDERWATER STRUCTURE EXCAVATION PROTECTION- LOCATION 1	EACH	1



PILE ENCASEMENT DETAIL

GENERAL NOTES

REINFORCEMENT BARS SHALL CONFORM TO A706, GRADE 60.
 ALL STEEL SHALL HAVE A MINIMUM CLEARANCE OF 2" UNLESS NOTED OTHERWISE.
 PIER CAP TOP SHALL BE CONSTRUCTED TO THE SAME GRADE AS THE PROPOSED ROADWAY.

DESIGN STRESSES

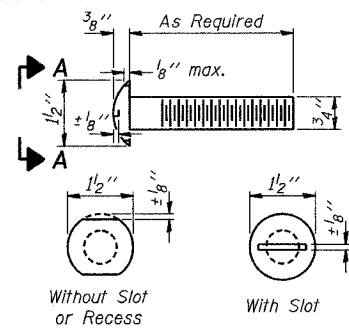
Fy = 60,000 PSI
 f'c = 3,500 PSI

SOLID WALL PIER DETAILS

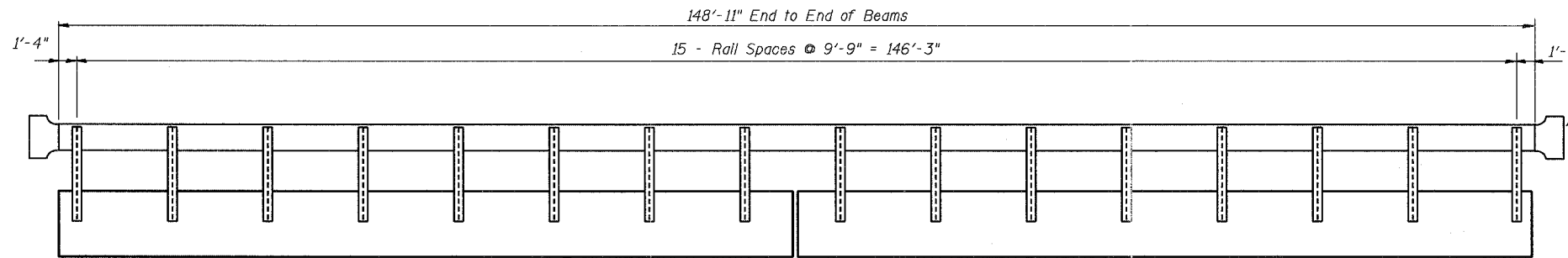
SECTION 97-06118-00-BR
 T.R. 132, STA. 7+74.00
 MERCER COUNTY
 S.N. 066-4817

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	DATE
T.R. 132	*	MERCER	23	18
FED. ROAD DIST. NO. 7	ILLINOIS	BR-05-131(44)		
97-06118-00-BR			89250	



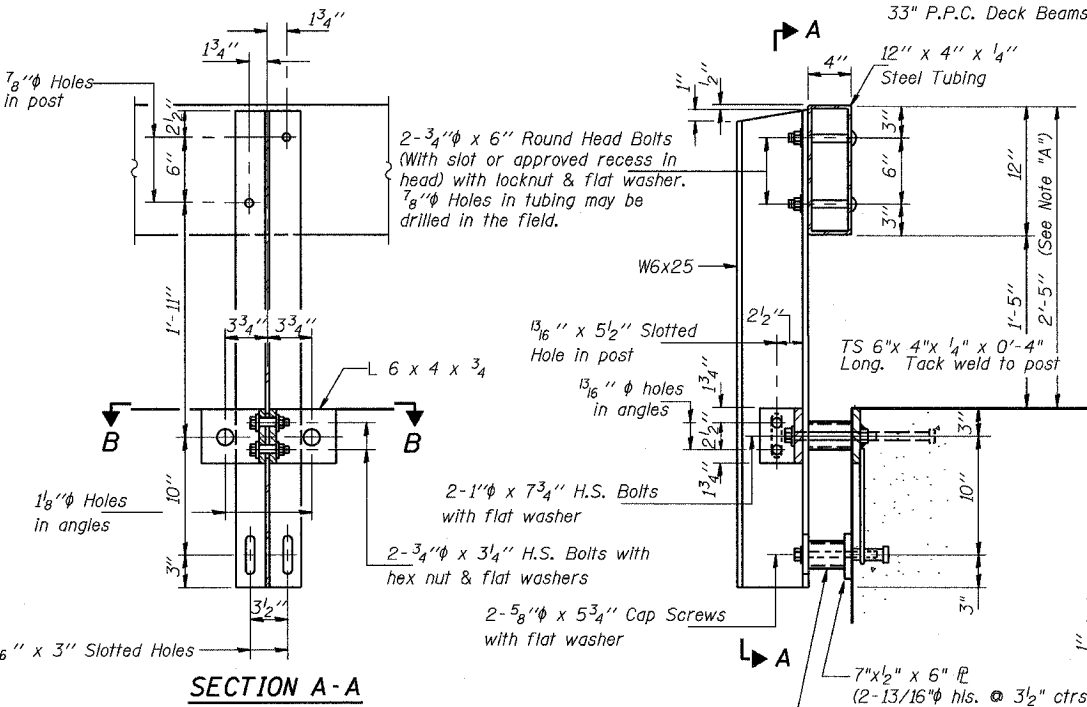
VIEW A-A
ROUND HEAD BOLT



ELEVATION

NOTES

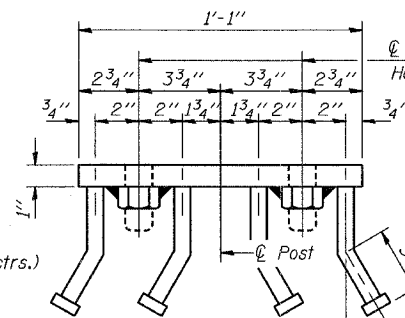
Hollow structural steel tubing shall conform to the requirements of ASTM designation A 500 Grade B Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft-lbs at 0° F.
All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36 except posts and angles shall conform to AASHTO M 270, Grade 50.
Bolts, cap screws, and nuts shall conform to the requirements of ASTM designation A 307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M 164.
All bolts, nuts, cap screws, washers and lock washers shall be galvanized according to AASHTO M 232.
All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. Galvanized rail shall not be painted.
Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot for STEEL RAILING, TYPE S-1.
All field drilled holes shall be coated with an approved zinc rich paint before erection.
The lower portion of the post flange in contact with concrete shall receive two coats of asphalt paint conforming to Section 1060.07 Type II or place 1/8 inch fabric bearing pad between the post and concrete.
The 3/4 inch high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened according to Article 505.04(f)(3) of the Standard Specifications. The 1 inch high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/2 turn. The 5/8 inch cap screws in bottom of posts shall be tightened to a snug fit only.
For multi-span bridges, sufficient 1/4 inch x 6 inch x 1'-2 inch galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with STEEL RAILING, TYPE S-1.



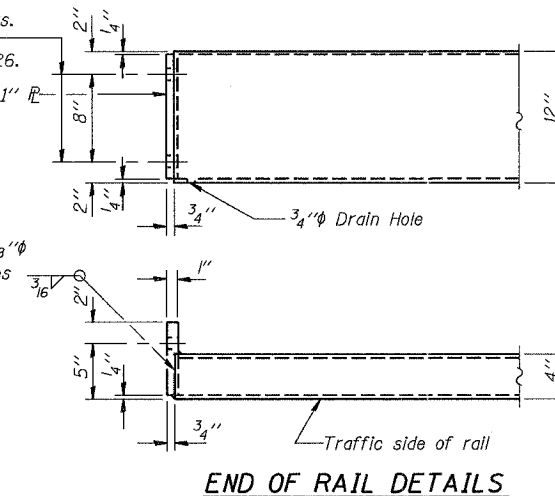
SECTION A-A

Note "A":
Where no overlay is to be provided adjust top of rail to lay parallel to grade 2'-5" max. above top of beam.

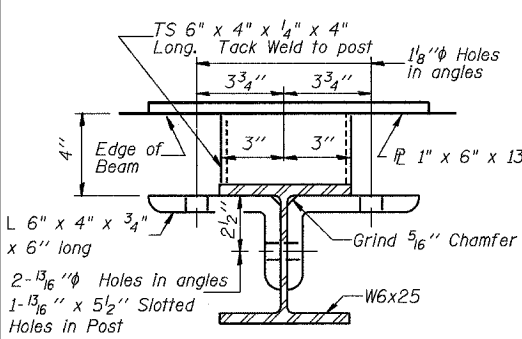
1/8 inch diameter Holes for 1 inch diameter Round Head Bolts. Provide 2 flat washers & locknuts for guard rail connection shown on Std. 631026.



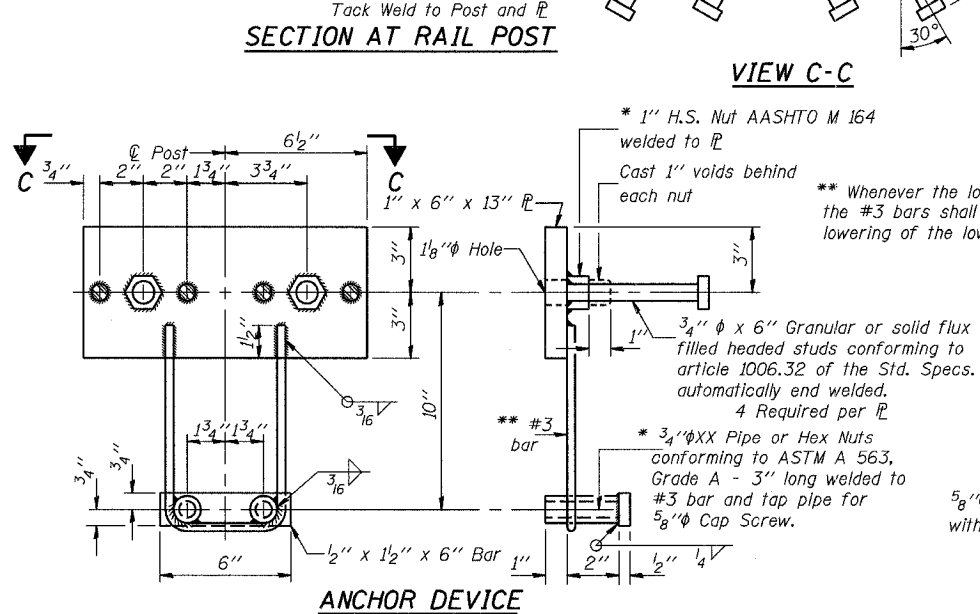
VIEW C-C



END OF RAIL DETAILS

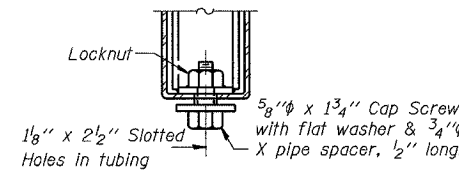


SECTION B-B

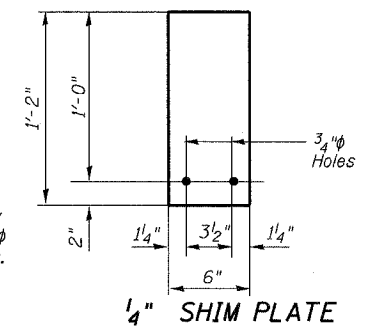


ANCHOR DEVICE

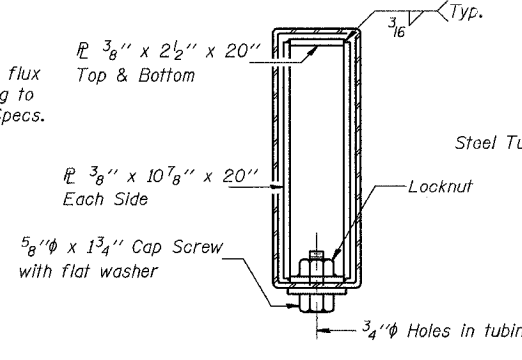
* Threaded areas shall be plugged or blocked off during casting of beam.



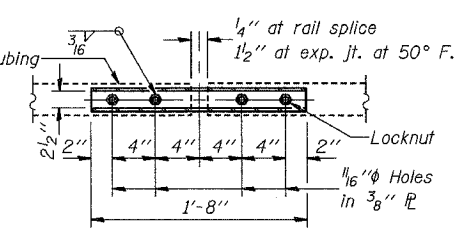
RAIL SPLICE CONNECTION AT EXPANSION JT.



1/4 SHIM PLATE



SECTIONS AT RAIL SPLICE



PLAN-BOTT. SPLICE AT TYPICAL

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing Type S-1	Foot	298

TYPE S-1
STEEL RAILING DETAILS

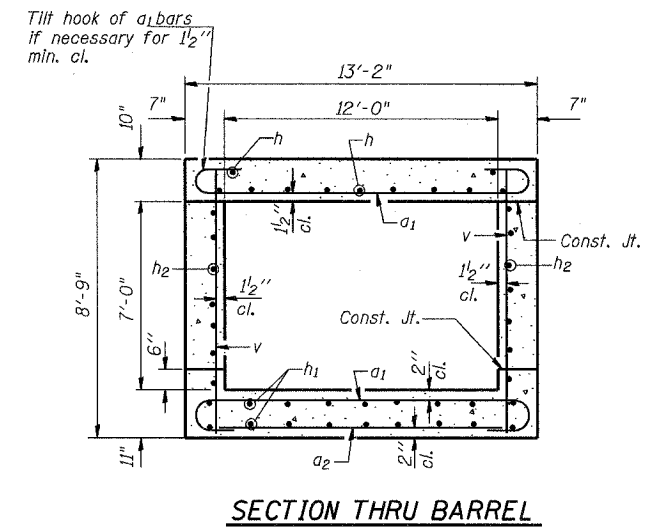
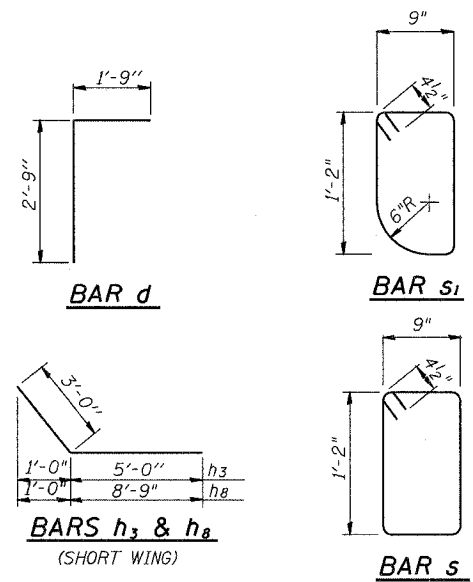
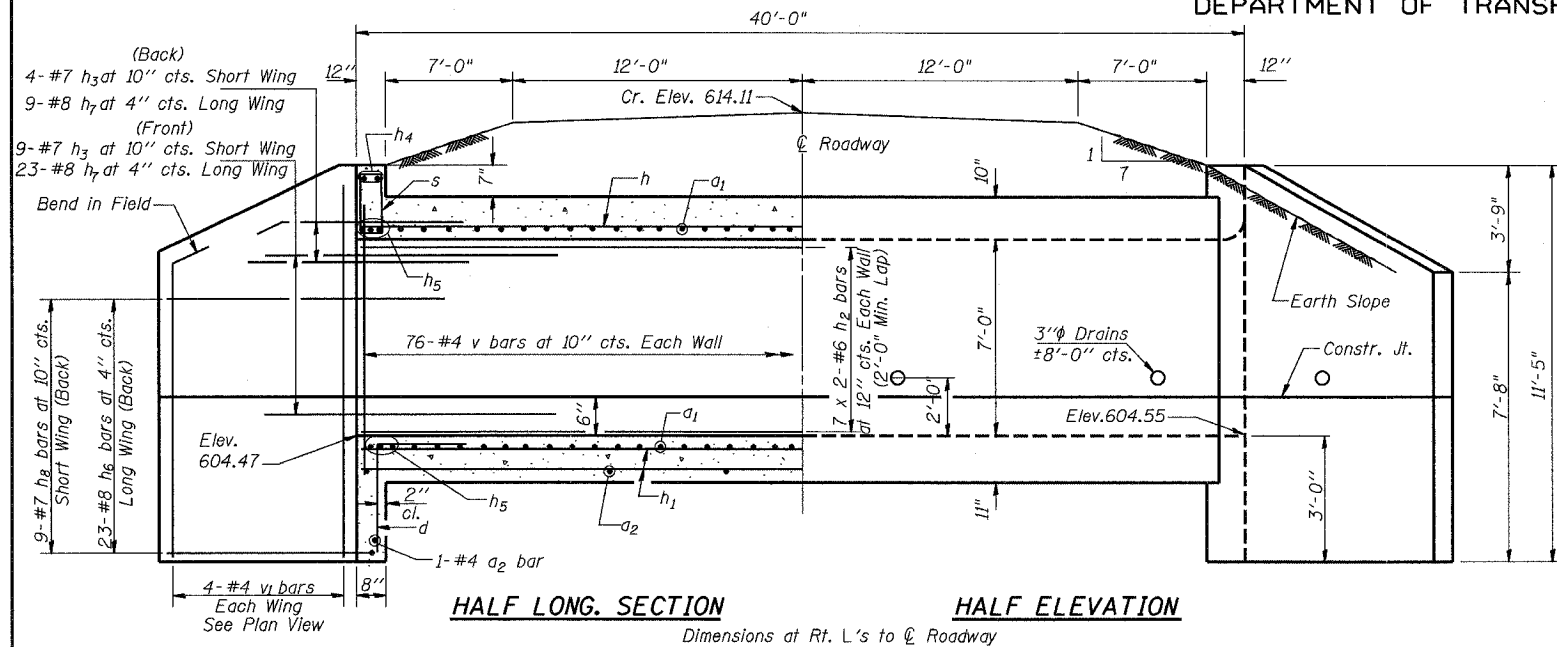
SECTION 97-06118-00-BR
T.R. 132, STA. 7+74.00
MERCER COUNTY
S.N. 066-4817

DESIGNED	JBF
CHECKED	JBF
DRAWN	RAP
CHECKED	JBF

(10'-9" Maximum Post Spacing)

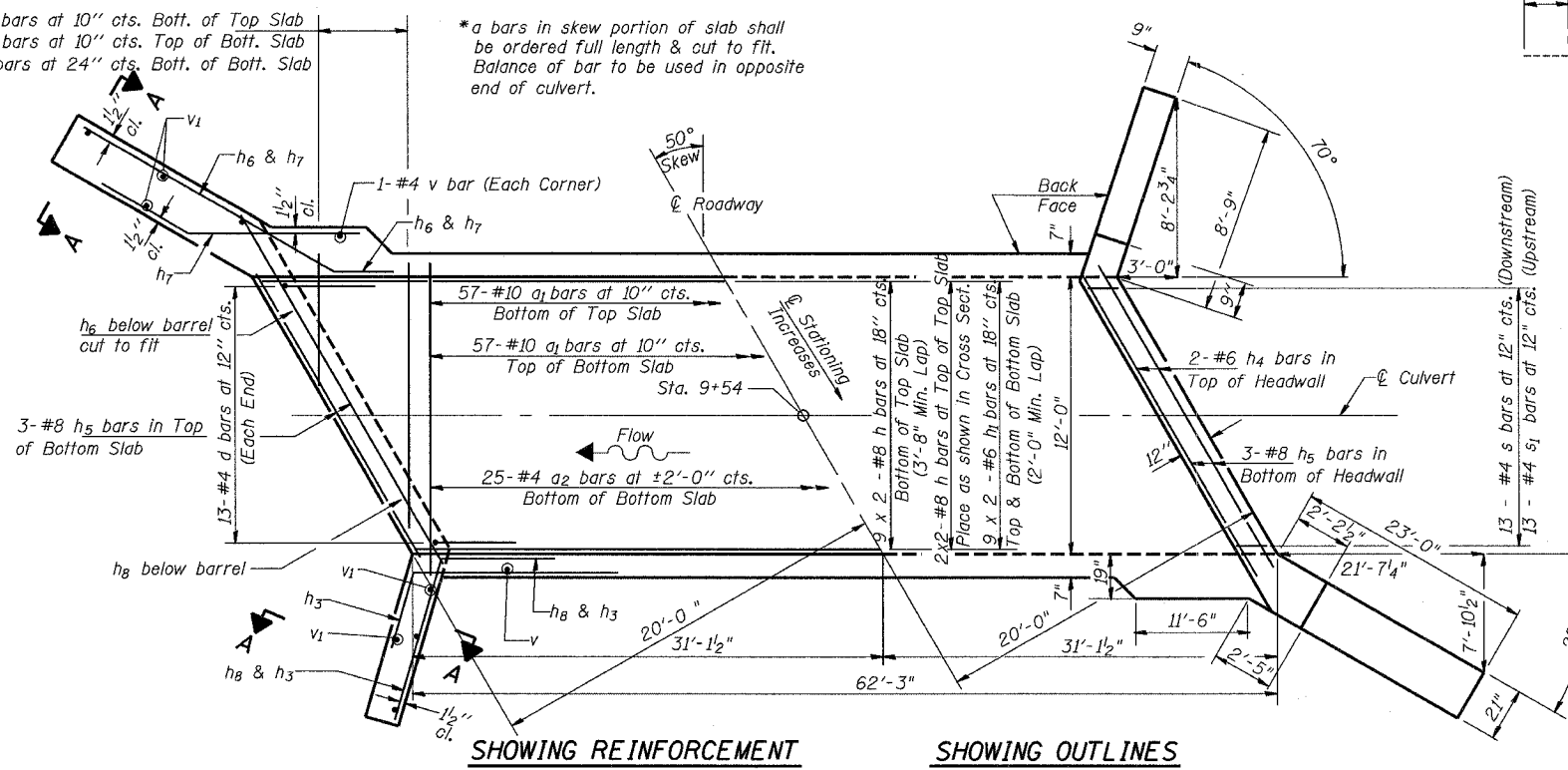
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	DATE	SHEET NO.
TR 132	*	MERCER	23	19
FED. ROAD DIST. NO. 7	ILLINOIS	BR-05-131(44)		
*97-06118-00-BR		89250		



SECTION THRU BARREL

- *15-#10 a1 bars at 10" cts. Bott. of Top Slab
 - *15-#10 a1 bars at 10" cts. Top of Bott. Slab
 - *6-#4 a2 bars at 24" cts. Bott. of Bott. Slab
- *a bars in skew portion of slab shall be ordered full length & cut to fit. Balance of bar to be used in opposite end of culvert.



SHOWING REINFORCEMENT
SHOWING OUTLINES
PLAN

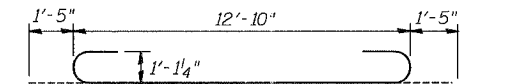
NOTES

A distance of half the length of the wingwall but not less than six feet of the Barrel shall be poured monolithically with the wingwalls. Exposed edges shall be beveled 3/4". Reinforcement Bars shall conform to the requirements of A706, Grade 60. Bars indicated thus 12 x 4-#5 etc. indicates 12 lines of bars with 4 lengths per line.

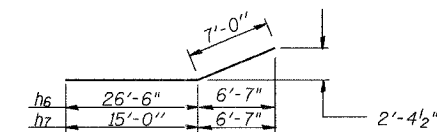
DESIGNED	JBF
CHECKED	JBF
DRAWN	RAP
CHECKED	JBF

NAME PLATE

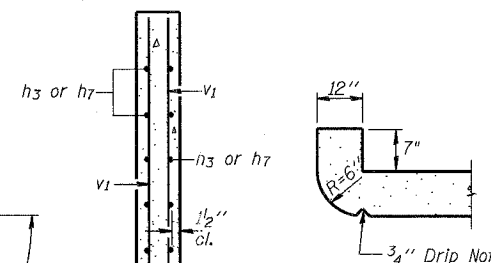
OVERFLOW CHANNEL
BUILT 20__ BY
MERCER ROAD DISTRICT
MERCER COUNTY
SEC. 97-06118-00-BR
STATION 9+54
LOADING HS20



BAR a1



BARS h6 & h7
(LONG WING)

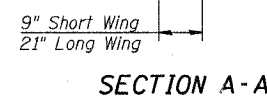


SECTION THRU HEADWALL
(Up Stream End Only)

DESIGN STRESSES

fy = 60,000 psi
f'c = 3,500 psi

LOADING HS 20-44



SECTION A-A

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1	144	#10	15'-8"	U
a2	33	#4	12'-3"	—
d	26	#4	4'-6"	L
h	22	#8	33'-0"	—
h1	36	#6	32'-0"	—
h2	28	#6	32'-0"	—
h3	26	#7	8'-0"	—
h4	4	#6	21'-3"	—
h5	12	#8	22'-6"	—
h6	46	#8	33'-6"	—
h7	64	#8	22'-0"	—
h8	18	#7	11'-9"	—
v	156	#4	8'-5"	—
v1	16	#4	11'-1"	—
s	13	#4	4'-7"	U
s1	13	#4	4'-7"	U
Concrete Box Culverts	Cu. Yd.	115.5		
Reinforcement Bars	Pound	25,730		
Stone Dumped Riprap Class A5	Sq. Yd.	130		
Filter Fabric	Sq. Yd.	130		
Removal of Existing Structures No. 2	Each	1		
Name Plates	Each	1		

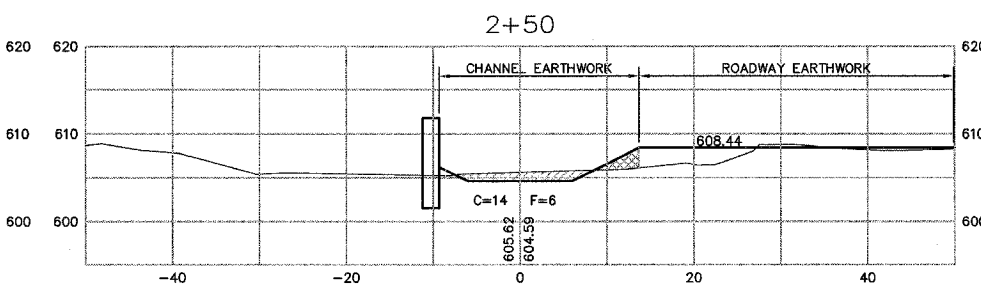
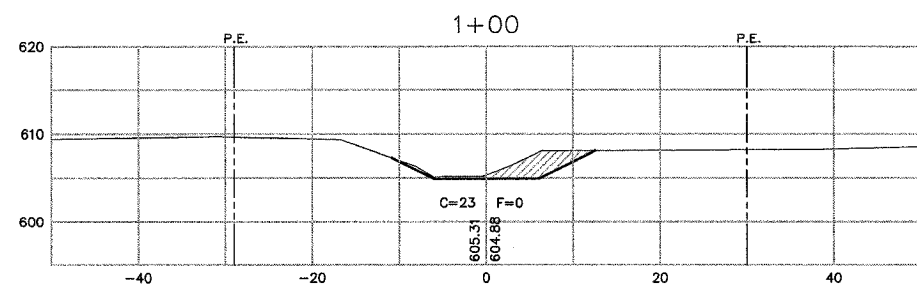
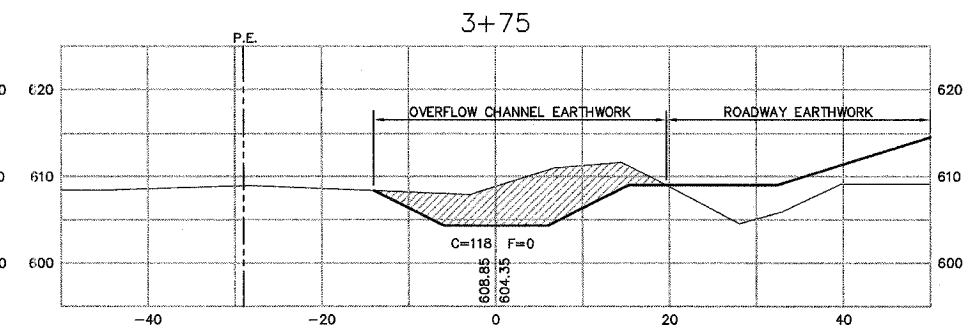
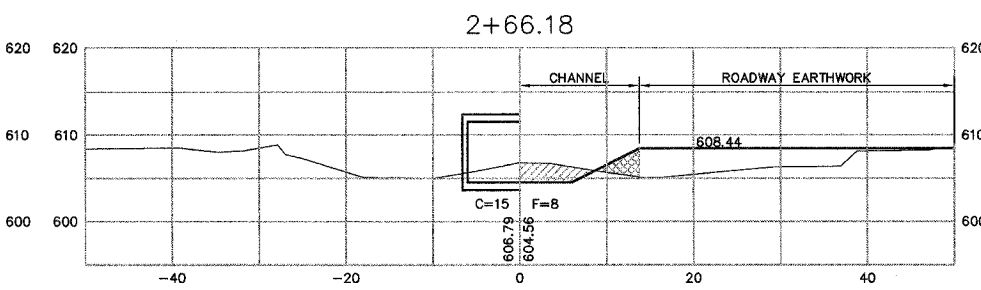
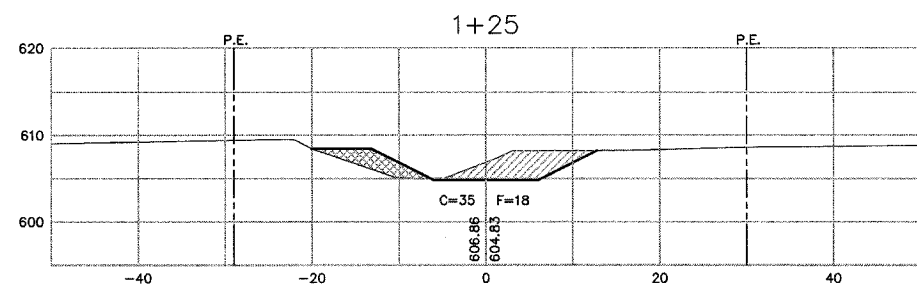
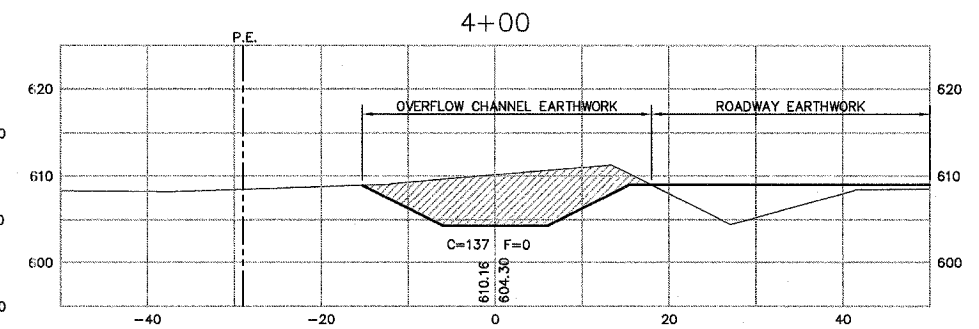
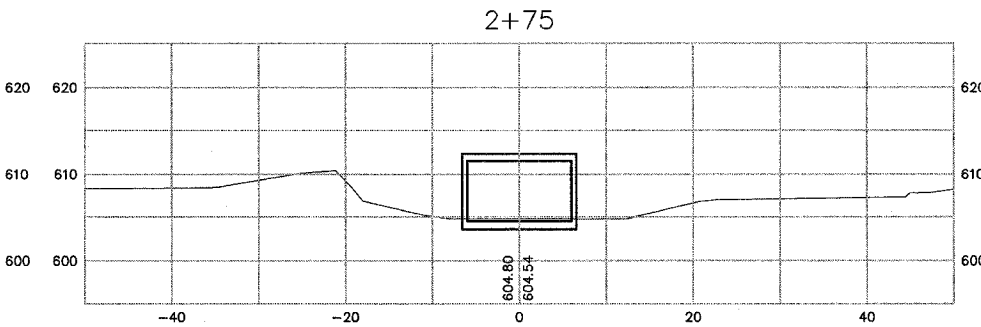
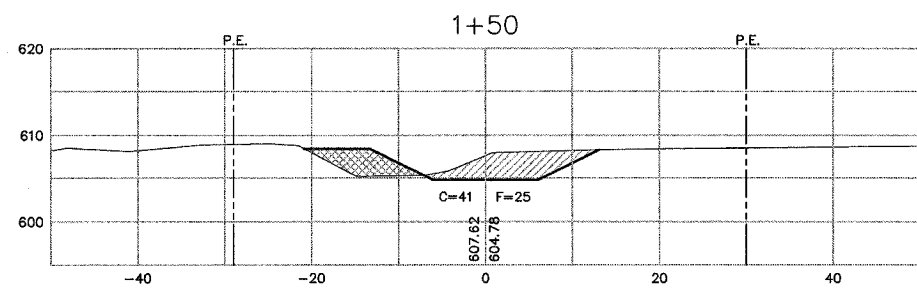
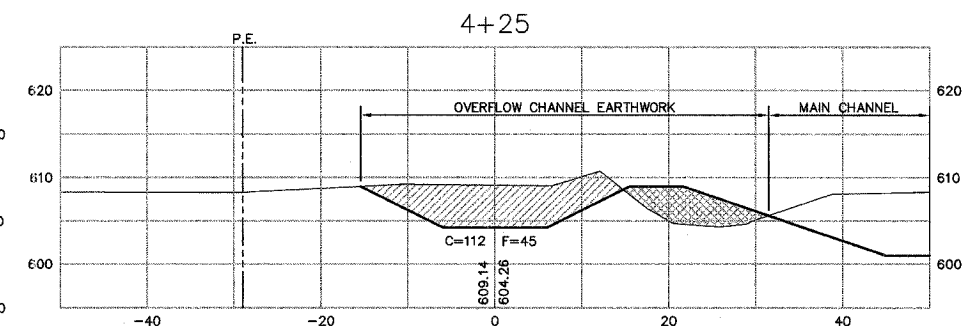
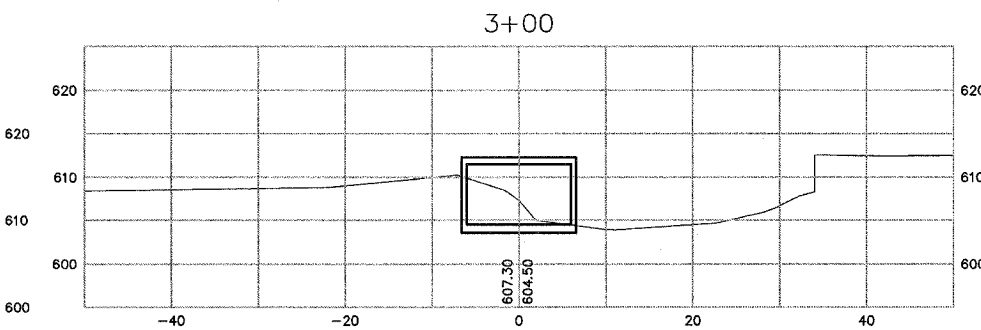
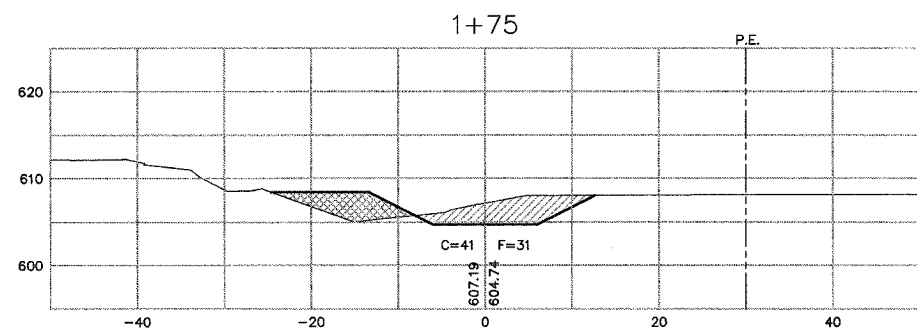
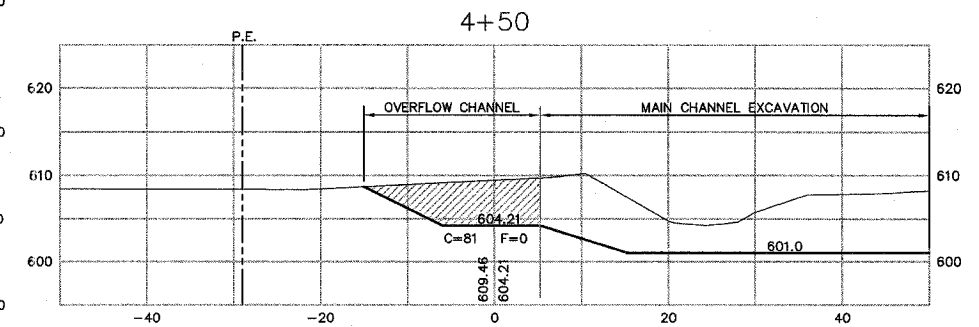
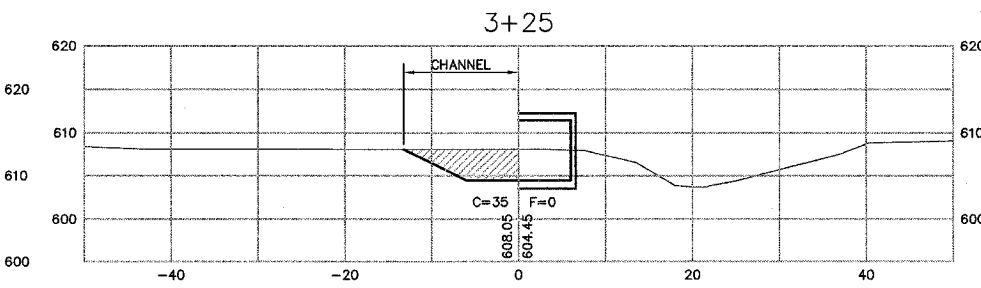
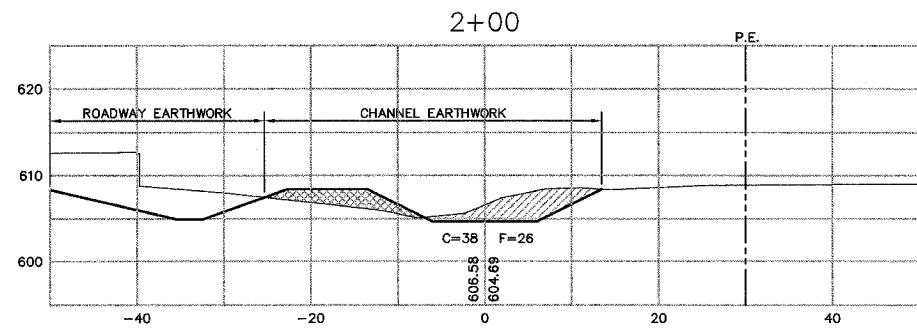
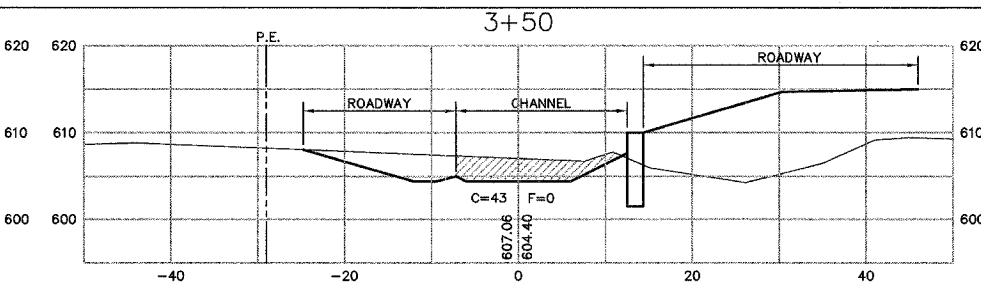
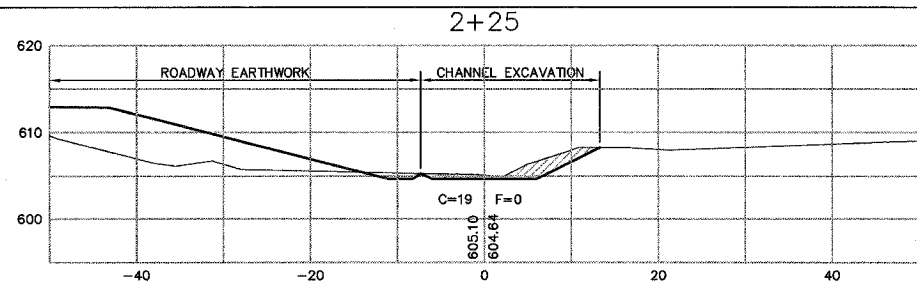
12'-0" x 7'-0" R.C. BOX CULVERT

T.R. 132
ON NO NAME OVERFLOW CHANNEL

SECTION 97-06118-00-BR
MERCER COUNTY
STATION 9+54

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 132	*	MERCER	23	20
ILLINOIS			BR-OS-131(44)	

* 97-06118-00-BR 89250



OVERFLOW CHANNEL CROSS SECTIONS
SECTION 97-06118-00-BR
T.R. 132, STA. 7+74.00
MERCER COUNTY

LOG OF BORING NO. B-1										
CLIENT					ENGINEER					
MERCER COUNTY ENGINEER					MERCER COUNTY ENGINEER					
SITE					PROJECT					
EDWARDS RIVER ALEDO, IL					MERCER COUNTY BRIDGE, SEC 97-06118-00-BR					
Boring Location: Station 6+75, Centerline										
DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT-N* BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, pcf	TESTS	DESCRIPTION
0-3										12" Topsoil SANDY LEAN TO FAT CLAY Gray, Brown Medium to Stiff
5	CL	1	SS	15	8	20.6				
10	CL	2	SS	18	4	22.7				
13	CH		HS							FINE TO MEDIUM SAND, TRACE GRAVEL Brown Medium Dense
15	SP	3	SS	10	16	17.6				
20	SP	4	SS	10	19	12.7				
22			HS							SANDY LEAN TO FAT CLAY (RESIDUAL SOIL) Gray Hard
25	CL	5	SS	12	25	21.1				
29.5	CH		HS							WEATHERED SHALE*** Gray
30			HS							
35			HS							
40			HS							
40			SS	4	50/4"	13.8				BOTTOM OF BORING

***Classification of rock materials has been estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

*Calibrated Hand Penetrometer
**CME 140 lb. SPT automatic hammer

WATER LEVEL OBSERVATIONS, ft		BORING STARTED 7-7-99	
WL 13	W.S. <input checked="" type="checkbox"/>	BORING COMPLETED 7-7-99	
WL <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	RIG #850 FOREMAN SZ	
WL <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	APPROVED WKB JOB # 07995060	

LOG OF BORING NO. B-2										
CLIENT					ENGINEER					
MERCER COUNTY ENGINEER					MERCER COUNTY ENGINEER					
SITE					PROJECT					
EDWARDS RIVER ALEDO, IL					MERCER COUNTY BRIDGE, SEC 97-06118-00-BR					
Boring Location: Station 7+00, Centerline										
DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT-N* BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, pcf	TESTS	DESCRIPTION
0-3										12" Topsoil CLAYEY SAND Brown Loose
5	SC	1	SS	10	5	20.1				
9.5	CL		HS							LEAN TO FAT CLAY Brown and Gray Medium
10	CL	2	SS	15	5	25.4				
15	CL	3	SS	10	12	23.6				FINE TO COARSE SAND WITH GRAVEL Brown Medium Dense
20	SP	4	SS	10	16	9.3				
22.5			HS							SANDY LEAN TO FAT CLAY (RESIDUAL SOIL) Gray Very Stiff to Hard
25	CL	5	SS	5	14	20.1				
30	CH		HS							WEATHERED SHALE*** Gray
31			HS							
35			HS							
40			SS	4	50/4"	13.8				BOTTOM OF BORING

***Classification of rock materials has been estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

*Calibrated Hand Penetrometer
**CME 140 lb. SPT automatic hammer

WATER LEVEL OBSERVATIONS, ft		BORING STARTED 7-7-99	
WL 12.5	W.S. <input checked="" type="checkbox"/>	BORING COMPLETED 7-7-99	
WL <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	RIG #850 FOREMAN SZ	
WL <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	APPROVED WKB JOB # 07995060	

LOG OF BORING NO. B-3										
CLIENT					ENGINEER					
MERCER COUNTY ENGINEER					MERCER COUNTY ENGINEER					
SITE					PROJECT					
EDWARDS RIVER ALEDO, IL					MERCER COUNTY BRIDGE, SEC 97-06118-00-BR					
Boring Location: Station 7+86, Centerline										
DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT-N* BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, pcf	TESTS	DESCRIPTION
0-3										18" Topsoil LEAN CLAY Gray Soft to Medium
5	CL	1	SS	4	3	28.7				
9.5			HS							CLAYEY SAND Brown Very Loose
10	SC	2	SS	10	2	27.9				
15	CL	3	SS	10	19	19.6				Gray and medium dense below about 14 feet
18			HS							SANDY LEAN TO FAT CLAY (RESIDUAL SOIL) Gray Very Stiff to Hard
20	CL	4	SS	10	18	23.2				
25	CL	5	SS	10	43	14.7				
29.5	CH		HS							WEATHERED SHALE*** Gray
30			HS							
35			HS							
40			SS	6	50/6"	13.3				BOTTOM OF BORING

***Classification of rock materials has been estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.

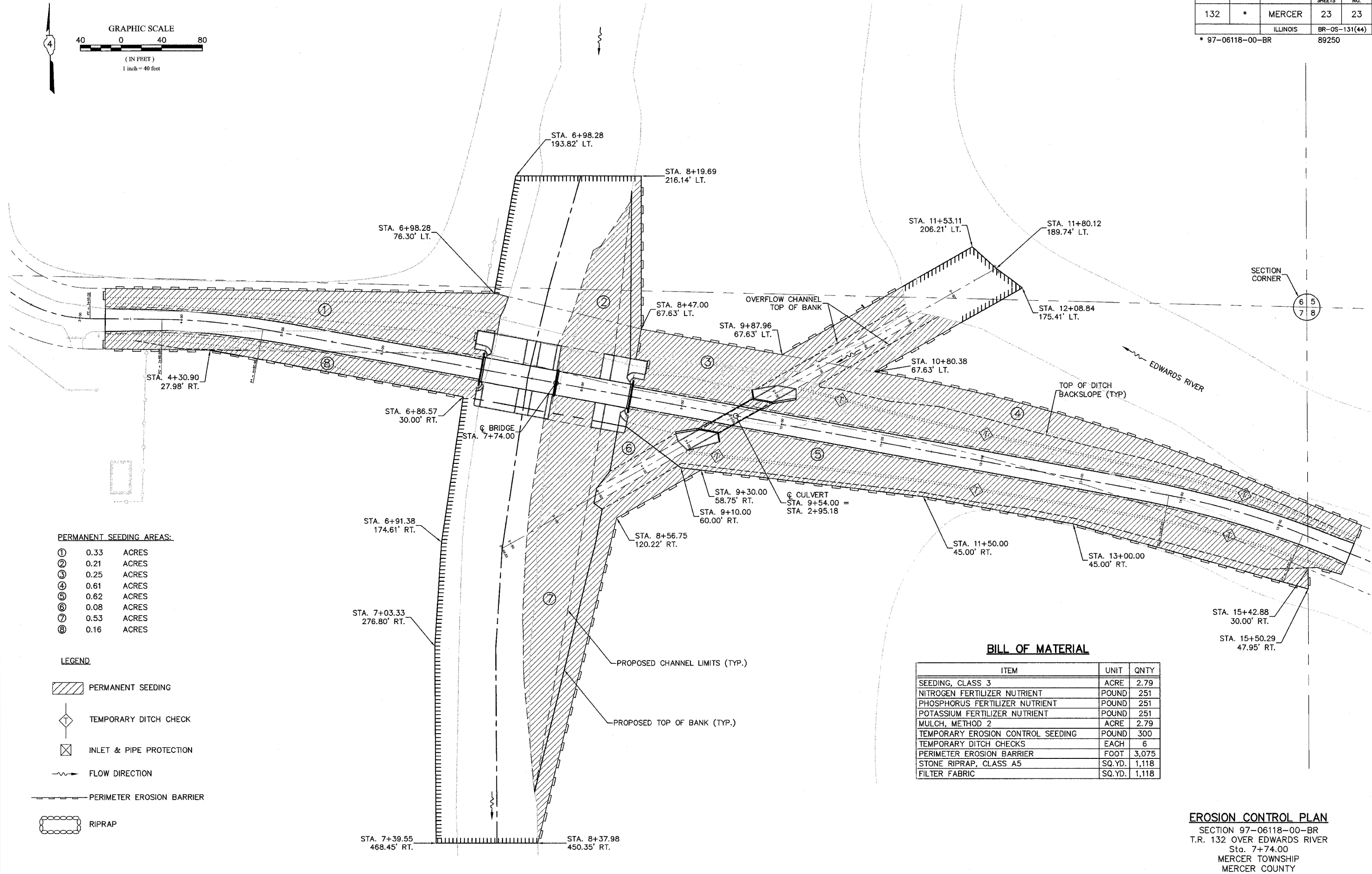
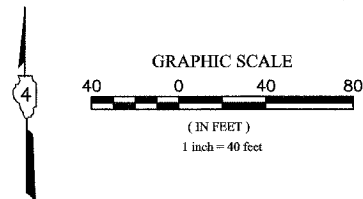
The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

*Calibrated Hand Penetrometer
**CME 140 lb. SPT automatic hammer

WATER LEVEL OBSERVATIONS, ft		BORING STARTED 7-7-99	
WL 8	W.S. <input checked="" type="checkbox"/>	BORING COMPLETED 7-7-99	
WL <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	RIG #850 FOREMAN SZ	
WL <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	APPROVED WKB JOB # 07995060	

E:\Struct\A97\A97\A97\MCB21.dwg, BORING LOGS.dwg, L99.dwg, 4/11/2009, 2:54:54 PM

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	*	MERCER	23	23
ILLINOIS			BR-OS-131(44)	
* 97-06118-00-BR			89250	



PERMANENT SEEDING AREAS:

①	0.33	ACRES
②	0.21	ACRES
③	0.25	ACRES
④	0.61	ACRES
⑤	0.62	ACRES
⑥	0.08	ACRES
⑦	0.53	ACRES
⑧	0.16	ACRES

LEGEND

- PERMANENT SEEDING
- TEMPORARY DITCH CHECK
- INLET & PIPE PROTECTION
- FLOW DIRECTION
- PERIMETER EROSION BARRIER
- RIPRAP

BILL OF MATERIAL

ITEM	UNIT	QNTY
SEEDING, CLASS 3	ACRE	2.79
NITROGEN FERTILIZER NUTRIENT	POUND	251
PHOSPHORUS FERTILIZER NUTRIENT	POUND	251
POTASSIUM FERTILIZER NUTRIENT	POUND	251
MULCH, METHOD 2	ACRE	2.79
TEMPORARY EROSION CONTROL SEEDING	POUND	300
TEMPORARY DITCH CHECKS	EACH	6
PERIMETER EROSION BARRIER	FOOT	3,075
STONE RIPRAP, CLASS A5	SQ.YD.	1,118
FILTER FABRIC	SQ.YD.	1,118

EROSION CONTROL PLAN

SECTION 97-06118-00-BR
 T.R. 132 OVER EDWARDS RIVER
 Sta. 7+74.00
 MERCER TOWNSHIP
 MERCER COUNTY