

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
50	04-12112-00-BR 04-10100-00-BR	*	20	1
STA. TO STA.				
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
* CHRISTIAN - SHELBY				

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION PLANS FOR PROPOSED HIGHWAY BRIDGE PROGRAM

**TOWNSHIP ROAD 50 (SHELBY)
SECTION 04-12112-00-BR CHRISTIAN COUNTY
SECTION 04-10100-00-BR SHELBY COUNTY
PRAIRIETON & MOWEAQUA TOWNSHIPS
STRUCTURE NO.s 011-3407 & 011-3403
PROJECT NO. BROS-0021 (159)
JOB NUMBER C-96-237-08**

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
1	COVER SHEET
2	SUMMARY OF QUANTITIES, SCHEDULE OF QUANTITIES AND GENERAL NOTES
3	TYPICAL SECTIONS, ENTRANCE DETAILS RIPRAP LAYOUT DETAILS & LAYOUT TIES
4	PLAN AND PROFILE
5-10	CROSS SECTIONS
11-15	BRIDGE PLANS-SN 011-3407
16-20	BRIDGE PLANS-SN 011-3403

IDOT HIGHWAY STANDARDS	
000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
280001-04	TEMPORARY EROSION CONTROL SYSTEMS
515001-02	NAME PLATE FOR BRIDGES
542401	METAL END SECTIONS FOR PIPE CULVERTS
BLR 26	STEEL PLATE BEAM GUARDRAIL (27 1/2" HGT.)
630301-04	SHOULDER WIDENING FOR TYPE 1 (SPECIAL)
635006-02	TERMINAL MARKER PLACEMENT
701301-02	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701901	TRAFFIC CONTROL DEVICES
BLR 21-7	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
BLR 24-1	MAIL BOX TURNOUT FOR LOCAL ROADS
BLR 27	TRAFFIC BARRIER TERMINAL, TYPE 5A

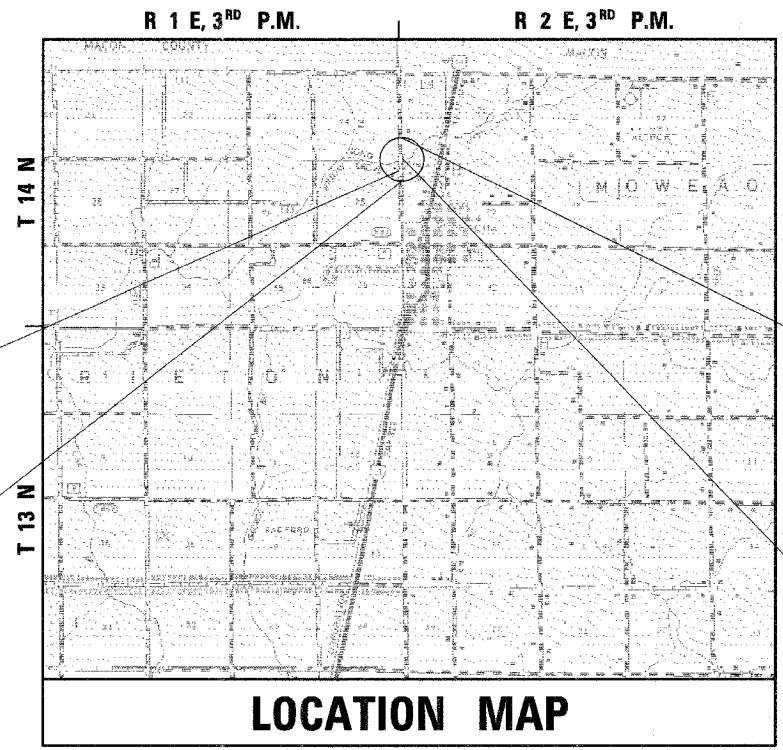
UTILITY CONTACTS		
CONSOLIDATED COMMUNICATIONS. MR. GERRY MEYERS 121 SOUTH 17th STREET MATTOON, IL 61938 (217) 235-3311	SHELBY ELECTRIC COOPERATIVE MR. JIM MATLOCK P.O. BOX 560 SHELBYVILLE, IL 62565 (217) 774-3986	VILLAGE OF MOWEAQUA WATER DEPT. 122 N. MAIN ST. MOWEAQUA, IL 62550 217-768-3436

SCALES	
PLAN	0 50 100
PROFILE HORIZ.	0 50 100
PROFILE VERT.	0 5 10
CROSS SECTIONS HORIZ.	0 10 20
CROSS SECTIONS VERT.	0 5 10

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. WHEN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

STA. 15 + 74.50 - SPECIAL BRIDGE DESIGN
1 - SPAN 33" P.P.C. DECK BEAMS ON PILE BENT ABUTMENTS.
75'-0" BK TO BK OF ABUTMENTS,
73'-0" CLEAR WIDTH, 35° SKEW.
STRUCTURE NO. 011-3407
REPLACES 087-3285

BEGIN IMPROVEMENT
STA. 11 + 00



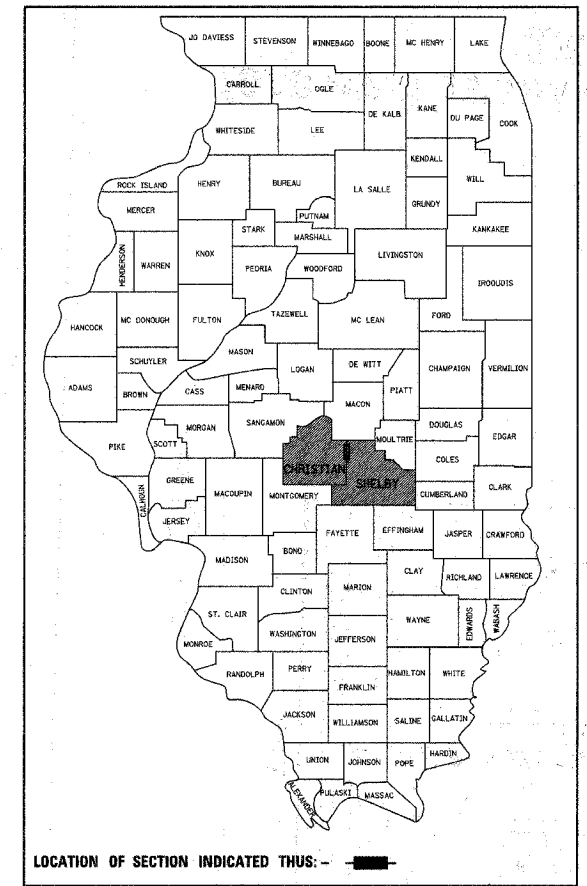
END IMPROVEMENT
STA. 24 + 15

STA. 19 + 55.00 - SPECIAL BRIDGE DESIGN
1 - SPAN 33" P.P.C. DECK BEAMS ON PILE BENT ABUTMENTS.
67'-0" BK TO BK OF ABUTMENTS,
24'-0" CLEAR WIDTH, 0° SKEW.
STRUCTURE NO. 011-3403
REPLACES 087-3070

LOCATION MAP

0 1 2 MILES
APPROXIMATE SCALE: 1" = 1 MILE
NET LENGTH OF PROJECT = 1,315.00 FEET 0.249 MILES
HIGHWAY CLASSIFICATION = LOCAL ROAD
CURRENT ADT < 150

DAVID BOOHER, ILLINOIS P.E. 062-043769
EXPIRES 11/30/2009



APPROVED 4/3 20 08
Craig D. Fure
COUNTY ENGINEER, CHRISTIAN COUNTY

APPROVED 4-3 20 08
Ed Cratz
ROAD COMMISSIONER, PRAIRIETON TOWNSHIP

APPROVED 08 April 20 08
S. L. ...
COUNTY ENGINEER, SHELBY COUNTY

APPROVED 08 April 20 08
Robert ...
ROAD COMMISSIONER, MOWEAQUA TOWNSHIP

PASSED APRIL 11 20 08
Jim ...
DISTRICT SIX ENGINEER OF LOCAL ROADS & STREETS

PASSED April 11, 20 08
W.P. ...
DISTRICT SIX CONSTRUCTION ENGINEER

Releasing For Bid Based on Limited Review
APRIL 11 20 08
Christine M. Reed
DEPUTY DIRECTOR OF HIGHWAYS,
REGION FOUR ENGINEER
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

THE STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

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PLANS PREPARED BY: **ie consultants**
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6420 South Sixth Street Road
Springfield, Illinois 62712
Tel: (217) 529-8027
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e-mail: iespringfield@ie-consultants.com

481 W. Boughton Road - Suite 301
Bolingbrook, Illinois 60440
Tel: (630) 769-3853
Fax: (630) 759-4275
e-mail: iebolingbrook@ie-consultants.com

CALL **J.U.L.I.E.** (JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS)
48 Hours (2 working days) Before You Dig.
TOLL FREE: 1 (800) 892-0123

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
50	04-1212-00-BR 04-10100-00-BR	•	22	2
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
• SHELBY & CHRISTIAN				

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	QUANTITY
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	261
20200100	EARTH EXCAVATION	CU YD	759
• 20300100	CHANNEL EXCAVATION	CU YD	360
20400800	FURNISHED EXCAVATION	CU YD	3,497
• 25000200	SEEDING, CLASS 2	ACRE	1.2
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	108
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	108
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	108
25100115	MULCH, METHOD 2	ACRE	1.2
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	400
28000300	TEMPORARY DITCH CHECKS	EACH	11
28000400	PERIMETER EROSION BARRIER	FOOT	2,346
28000500	INLET AND PIPE PROTECTION	EACH	2
28100807	STONE DUMPED RIPRAP, CLASS A4	TON	929
28200200	FILTER FABRIC	SQ YD	993
35101400	AGGREGATE BASE COURSE, TYPE B	TON	1,340
40300100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	880
40300300	BITUMINOUS MATERIALS (COVER AND SEAL COATS)	GALLON	2,460
40300500	COVER COAT AGGREGATE	TON	60
40300600	SEAL COAT AGGREGATE	TON	30
• 50100300	REMOVAL OF EXISTING STRUCTURES NO. 1	EACH	1
• 50100400	REMOVAL OF EXISTING STRUCTURES NO. 2	EACH	1
50200100	STRUCTURE EXCAVATION	CU YD	57
50300225	CONCRETE STRUCTURES	CU YD	49.4
50300280	CONCRETE ENCASEMENT	CU YD	5.6
• 50400605	PRECAST PRESTRESSED CONCRETE DECK BEAMS (33" DEPTH)	SQ FT	3,302
50800105	REINFORCEMENT BARS	POUND	6,000
50900205	STEEL RAILING, TYPE S1	FOOT	280
51201400	FURNISHING STEEL PILES HP10X42	FOOT	390
51202305	DRIVING PILES	FOOT	390
51203400	TEST PILE STEEL HP10X42	EACH	4
51500100	NAME PLATES	EACH	2
• 54200643	PIPE CULVERTS, TYPE 1, CORRUGATED STEEL OR ALUMINUM CULVERT PIPE 18"	FOOT	33
• 54200646	PIPE CULVERTS, TYPE 1, CORRUGATED STEEL OR ALUMINUM CULVERT PIPE 21"	FOOT	44
• 54215553	METAL END SECTIONS 18"	EACH	2
• 54215556	METAL END SECTIONS 21"	EACH	2
• 60109582	PIPE UNDERDRAINS FOR STRUCTURES 6"	FOOT	224
Δ 63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	276
Δ 63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	4
67100100	MOBILIZATION	L SUM	1
• 70101700	TRAFFIC CONTROL AND PROTECTION	L SUM	1
Δ • 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	6
Δ 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)	EACH	2

Δ SPECIALTY ITEMS
 *SEE SPECIAL PROVISIONS
 CONSTRUCTION TYPE CODE: X081-2A

ESTIMATED QUANTITIES

ITEM	RATE OF APPLICATION	QUANTITIES
SEEDING CLASS 2	= ART. 250.07	= 1.2 ACRES
NITROGEN FERTILIZER NUTRIENTS	= 90 LBS./ACRE	= 108 POUNDS
PHOSPHORUS FERTILIZER NUTRIENTS	= 90 LBS./ACRE	= 108 POUNDS
POTASSIUM FERTILIZER NUTRIENTS	= 90 LBS./ACRE	= 108 POUNDS
MULCH METHOD 2	=	= 1.2 ACRES
BITUMINOUS MATERIAL (PRIME COAT)	= 0.375 GAL/SY	= 880
BITUMINOUS MATERIALS (COVER & SEAL COATS)	= 0.35 GAL/SY	= 1,643
COVER & SEAL COAT AGGREGATE	= 25 LBS/SY	

EARTHWORK SUMMARY

EARTH EXCAVATION	759 CU. YD. (IN PLACE)
CHANNEL EXCAVATION	360 CU. YD. (IN PLACE)
TOTAL FILL REQ'D.	4,336 CU. YD. (IN PLACE)
ESTIMATE OF FILL FROM EARTH EX.	= 569 CU. YD.
ESTIMATE OF FILL FROM CHANNEL EX.	= 270 CU. YD.
FURNISHED EXCAVATION REQUIRED	= 3,497 CU. YD.

GENERAL NOTES

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER IN REGARD TO THE EXACT LENGTHS OF PIPE CULVERTS PRIOR TO ORDERING THESE ITEMS.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING MATERIALS.

ALL DISTURBED EARTH SURFACES WITHIN THE LIMITS OF THE RIGHT-OF-WAY AND EASEMENTS SHALL BE SEEDED AS DIRECTED BY THE ENGINEER.

TREE REMOVAL SCHEDULE

STA.	LT/RT	OFFSET (FOOT)	TREE REMOVAL (6 TO 15 UNITS DIA.)
12+45	LT	29.00'	12
14+52	RT	11.00'	12
14+59	RT	21.00'	8
15+09	RT	21.00'	8
15+16	RT	29.00'	6
15+25	RT	33.00'	12"
15+35	RT	28.00'	6
15+56	RT	6.00'	12
16+15	RT	26.00'	6
16+40	RT	26.00'	8
16+58	RT	25.00'	8
16+66	RT	25.00'	6
16+71	RT	26.00'	8
16+95	RT	26.00'	8
17+14	RT	25.00'	6
17+21	RT	26.00'	6
17+50	RT	27.00'	8
17+81	RT	26.00'	8
17+87	RT	28.00'	6
17+93	RT	28.00'	6
17+99	RT	27.00'	6
18+83	RT	29.00'	8
19+34	RT	32.00'	3x8
19+67	RT	27.00'	15
19+71	RT	27.00'	12
19+74	RT	25.00'	8
19+83	RT	21.00'	12
20+00	RT	16.00'	8
20+00	RT	16.00'	10
TOTAL			261

GUARDRAIL SCHEDULE

STA.	TO	STA.	OFF SET	SPB GUARDRAIL (FOOT)	TRAF BAR TERM TY 1 SPECIAL (TANGENT) (EACH)	TRAF BAR TERMINAL TY 5A (EACH)	TERMINAL MARKER DA (EACH)
14+65.35		15+15.35	RT		1		1
15+15.35		15+28.60	RT			1	
16+20.40		16+33.65	LT			1	
16.33.65		19+08.25	LT	276			
19+08.25		19+21.50	LT			1	
19+88.50		20+01.75	LT			1	
20+01.75		20+51.75	LT		1		1

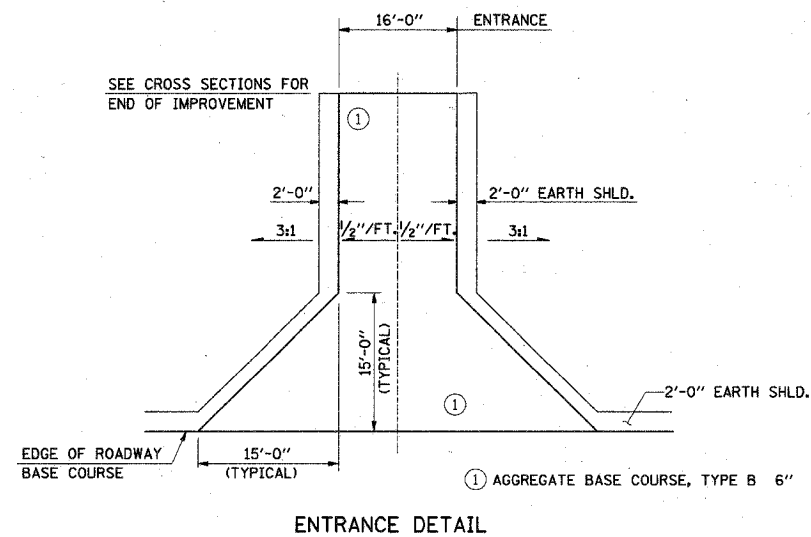
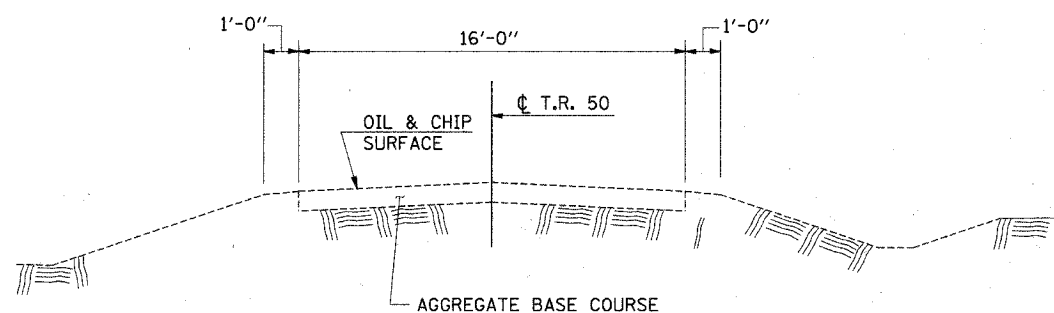
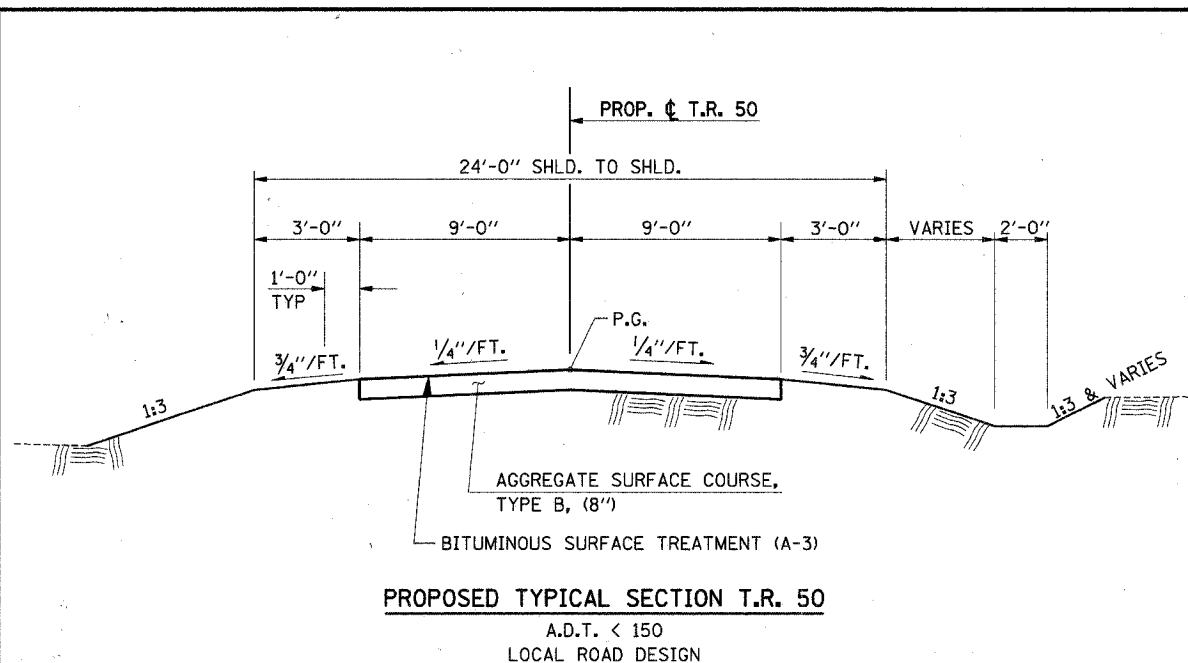
TEMPORARY EROSION CONTROL SCHEDULE

STA.	LT/RT	OFFSET (FOOT)	TEMP DITCH CHECK (EACH)	INLET & PIPE PROTECTION (EACH)
12+76	LT	21		1
13+72	LT	25.5	1	
14+33	LT	25.5	1	
14+98	LT	26		1
12+65	RT	16	1	
13+31	RT	16	1	
13+95	RT	17.5	1	
16+85	RT	22	1	
20+00	LT	35.5	1	
20+75	LT	30.5	1	
20+00	RT	34.5	1	
20+94	RT	29.5	1	
22+54	RT	25	1	
TOTAL			11	2

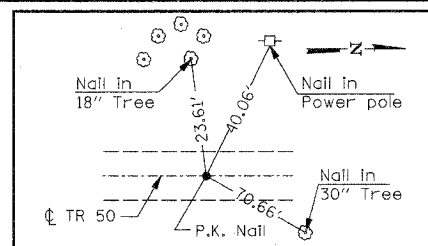
PERIMETER EROSION CONTROL BARRIER

STA.	LT/RT	OFFSET (FOOT)	PERIMETER EROSION BARRIER (FOOT)
11+00	15+41	LT	441
11+00	15+41	RT	441
16+16	19+22	LT	306
16+16	19+22	RT	306
19+89	21+15	LT	426
19+89	24+15	RT	426
TOTAL			2,346'

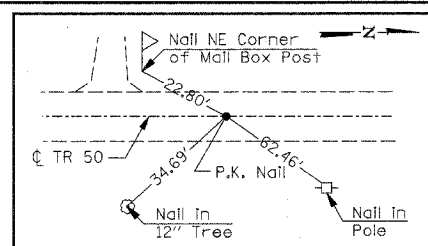
T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
50	04-12112-00-BR 04-10100-00-BR		20	3
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
SHELBY & CHRISTIAN				



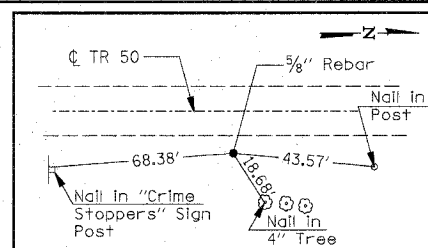
P.O.T. - P.K. NAIL STA. 10+00.00



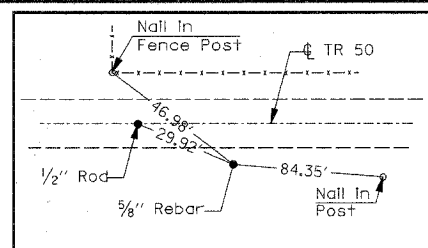
P.I. CURVE 1 - P.K. NAIL STA. 12+00.09



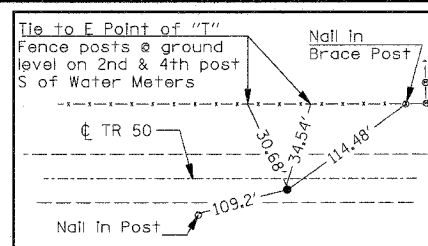
P.I. CURVE 2 - REBAR STA. 14+00.11



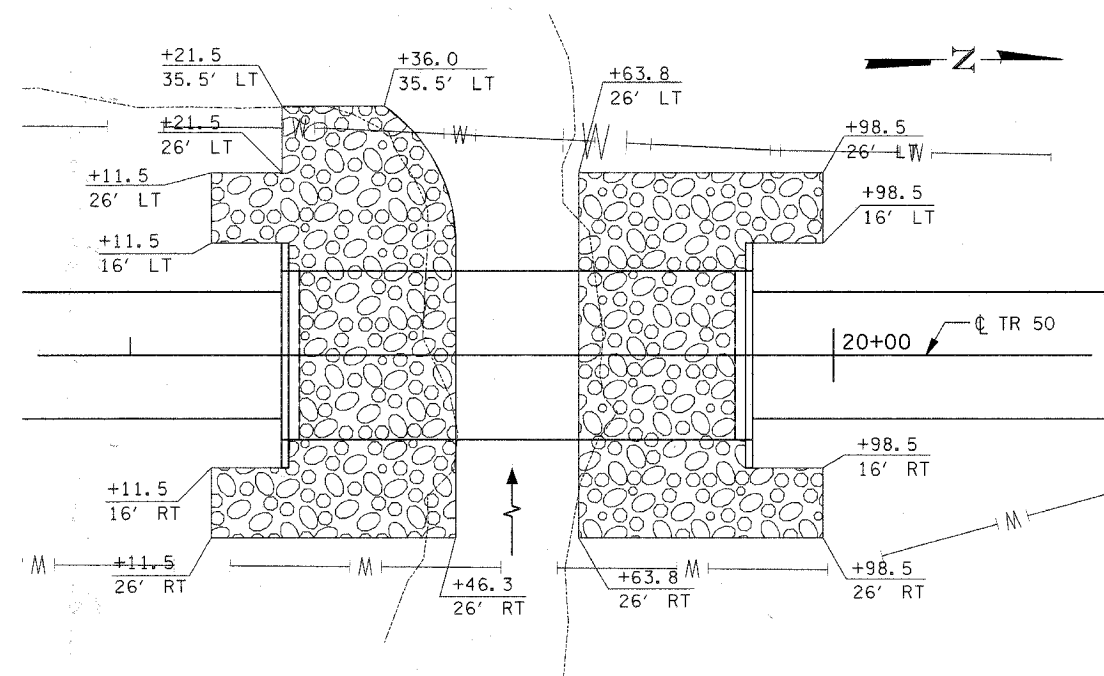
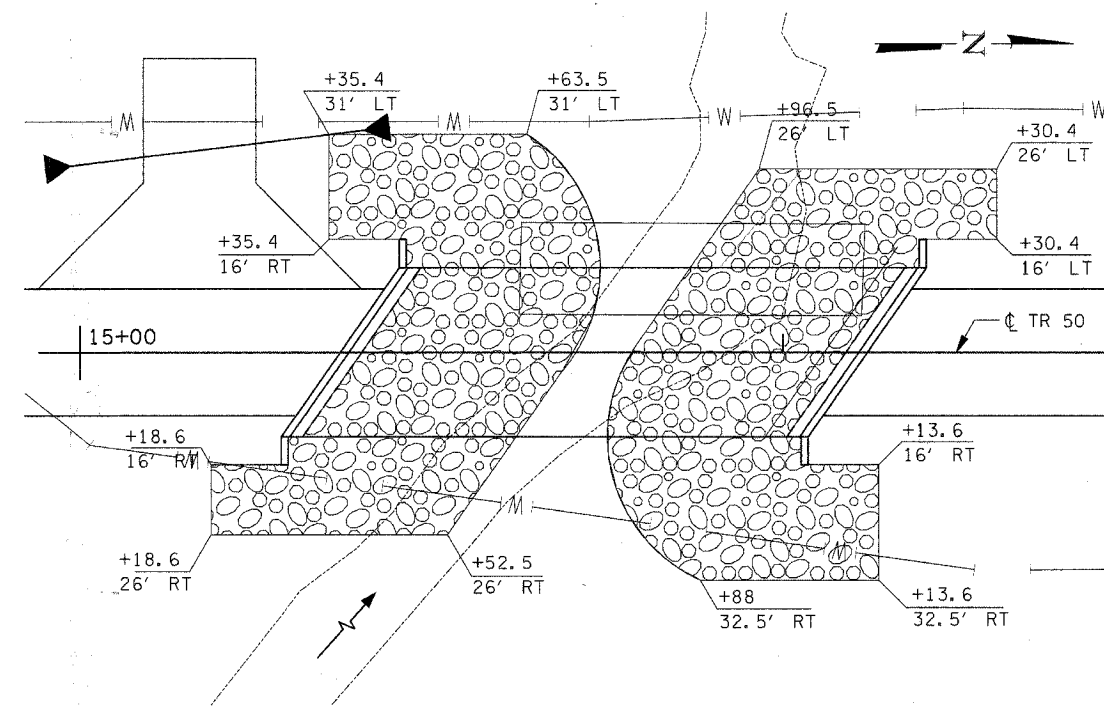
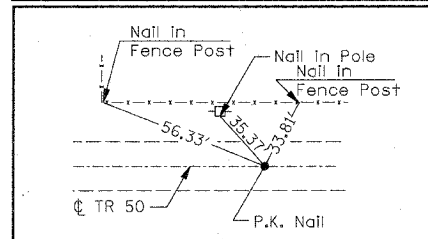
P.I. CURVE 3 - REBAR STA. 21+21.03



P.I. CURVE 4 - P.K. NAIL STA. 23+12.31



P.O.T. - P.K. NAIL STA. 28+00.28



NOTE:
Location of watermain is approximate. Contractor shall dig test pits to locate prior to driving piles. See Special Provisions

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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 50	**	**	20	4

STA. TO STA.

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

** 04-12112-00-BR Christian County
04-10100-00-BR Shelby County

N.E. 1/4, N.E. 1/4, SEC. 25, T. 14 N., R. 1 E., 3rd P.M.

SAMUEL M. RICHARDSON &
KATHY J. RICHARDSON

S.E. 1/4, S.E. 1/4, SEC. 24,
T. 14 N., R. 1 E., 3rd P.M.

BRENT SHEWMAKER &
TAMMIE SHEWMAKER

CURVE 1 DATA

P.I. STA. 12+00.09
 $\Delta = 2^\circ 51' 54''$ (RT)
 $D = 1^\circ 25' 57''$
 $R = 4,000.00'$
 $T = 100.03'$
 $L = 200.02'$
 $E = 1.25'$
 $\theta = \text{N.C.}$
 P.C. STA. 11+00.06
 P.R.C. STA. 13+00.08

CURVE 2 DATA

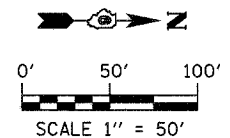
P.I. STA. 14+00.11
 $\Delta = 2^\circ 51' 54''$ (LT)
 $D = 1^\circ 25' 57''$
 $R = 4,000.00'$
 $T = 100.03'$
 $L = 200.02'$
 $E = 1.25'$
 $\theta = \text{N.C.}$
 P.R.C. STA. 13+00.08
 P.T. STA. 15+00.10

CURVE 3 DATA

P.I. STA. 21+21.03
 $\Delta = 2^\circ 32' 31''$ (LT)
 $D = 1^\circ 25' 57''$
 $R = 4,000.00'$
 $T = 88.74'$
 $L = 177.45'$
 $E = 0.98'$
 $\theta = \text{N.C.}$
 P.C. STA. 20+32.29
 P.R.C. STA. 22+09.74

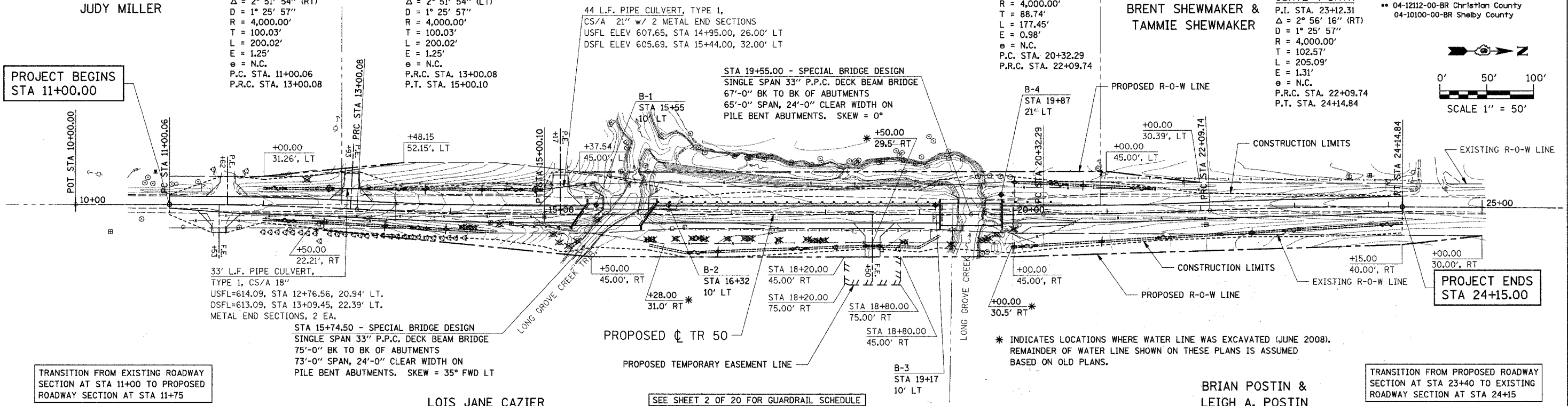
CURVE 4 DATA

P.I. STA. 23+12.31
 $\Delta = 2^\circ 56' 16''$ (RT)
 $D = 1^\circ 25' 57''$
 $R = 4,000.00'$
 $T = 102.57'$
 $L = 205.09'$
 $E = 1.31'$
 $\theta = \text{N.C.}$
 P.R.C. STA. 22+09.74
 P.T. STA. 24+14.84



PROJECT BEGINS
STA 11+00.00

PROJECT ENDS
STA 24+15.00



TRANSITION FROM EXISTING ROADWAY SECTION AT STA 11+00 TO PROPOSED ROADWAY SECTION AT STA 11+75

TRANSITION FROM PROPOSED ROADWAY SECTION AT STA 23+40 TO EXISTING ROADWAY SECTION AT STA 24+15

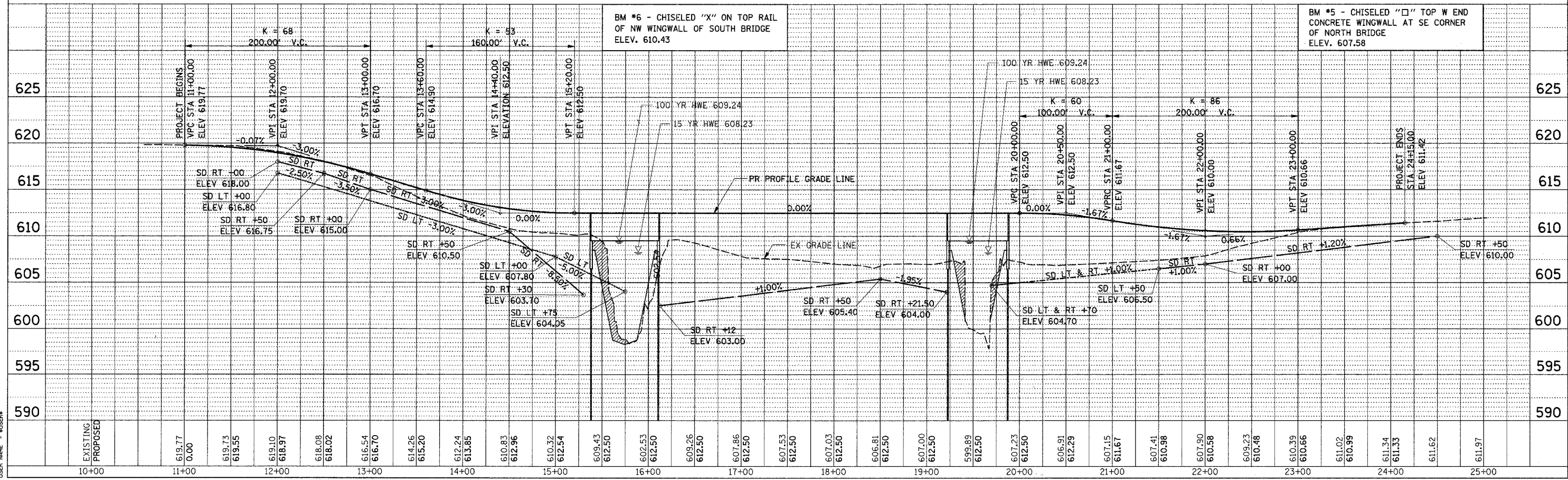
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S.W. 1/4, S.W. 1/4, SEC. 19, T. 14 N., R. 2 E., 3rd P.M.

LOIS JANE CAZIER

SEE SHEET 2 OF 20 FOR GUARDRAIL SCHEDULE

BRIAN POSTIN &
LEIGH A. POSTIN

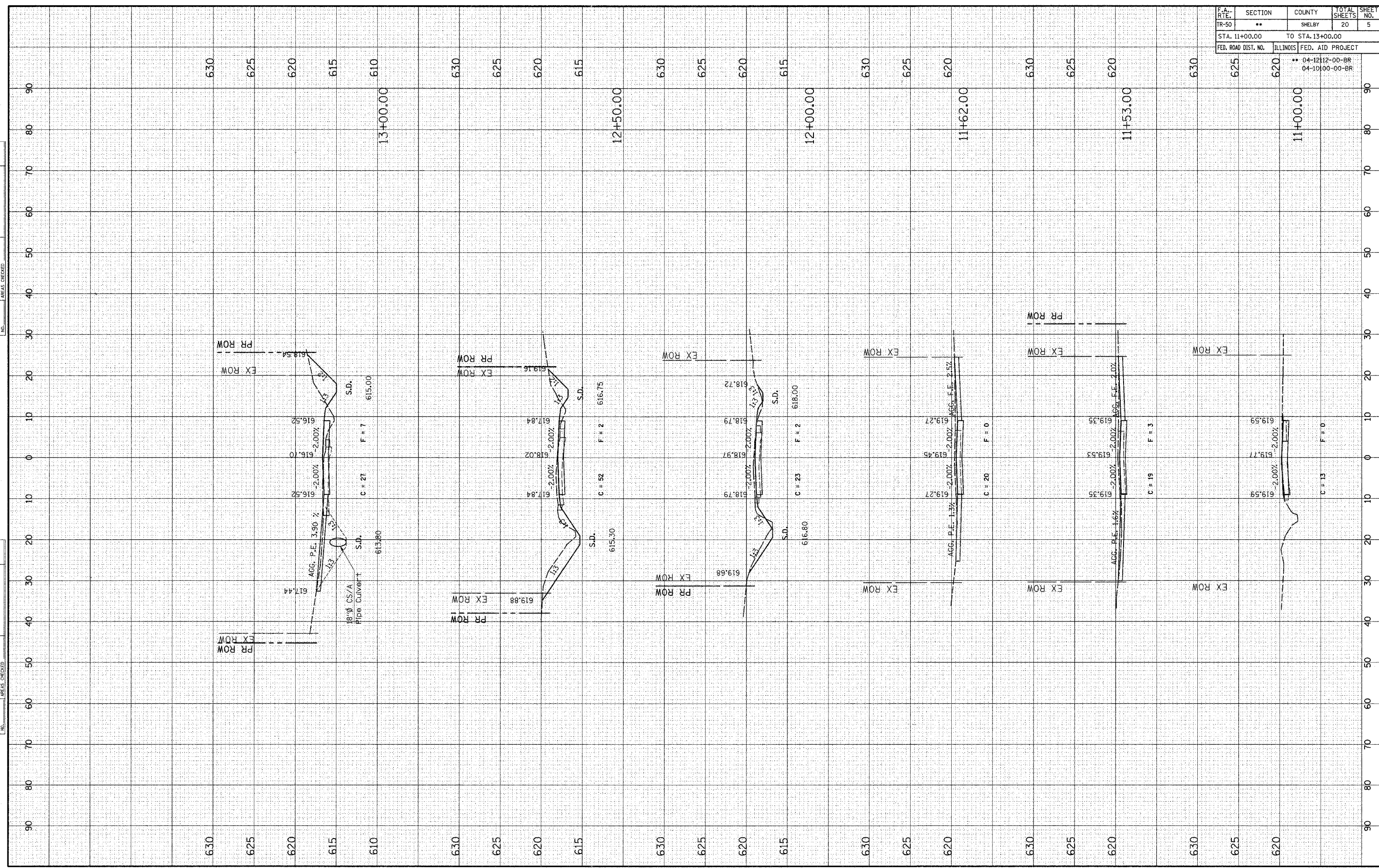


PLAN & PROFILE - TR 50 - STA 11+00 TO 24+15

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR-50	**	SHELBY	20	5
STA. 11+00.00 TO STA. 13+00.00				
ILLINOIS FED. AID PROJECT				
** 04-12112-00-BR 04-10100-00-BR				

ORIGINAL SURVEY NO.	DATE
SURVEYED	BY
PLOTTED	DATE
TEMPLATE	
AREAS CHECKED	
NO.	

FINAL SURVEY NO.	DATE
SURVEYED	BY
PLOTTED	DATE
TEMPLATE	
AREAS CHECKED	
NO.	



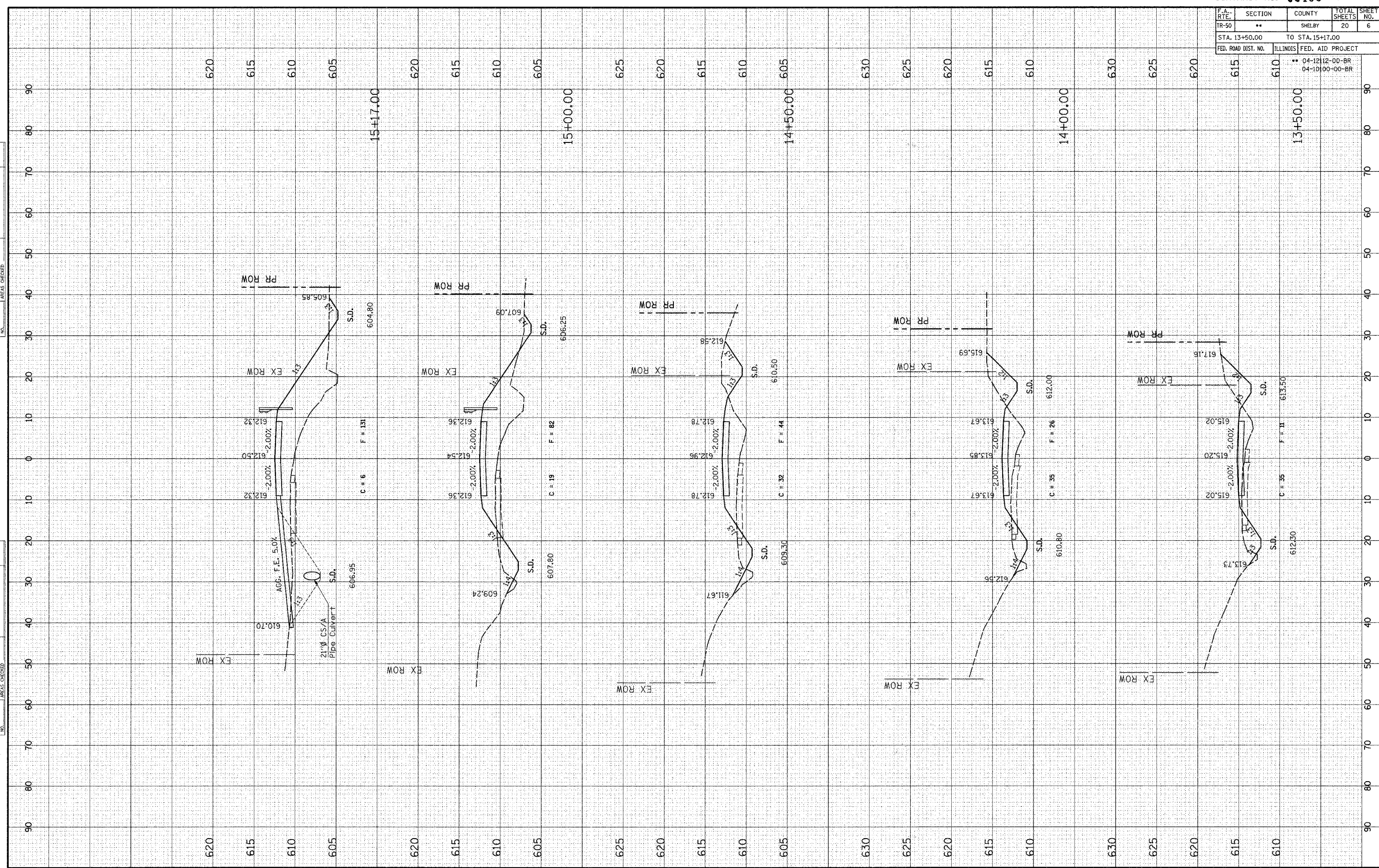
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR-50	**	SHELBY	20	6

STA.	TO STA.
13+50.00	15+17.00

FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT
615	** 04-12112-00-BR 04-10100-00-BR

ORIGINAL SURVEY PLOTTED TEMPLATE	DATE
NO. _____	BY _____
NO. _____	DATE _____

FINAL SURVEY PLOTTED TEMPLATE	DATE
NO. _____	BY _____
NO. _____	DATE _____

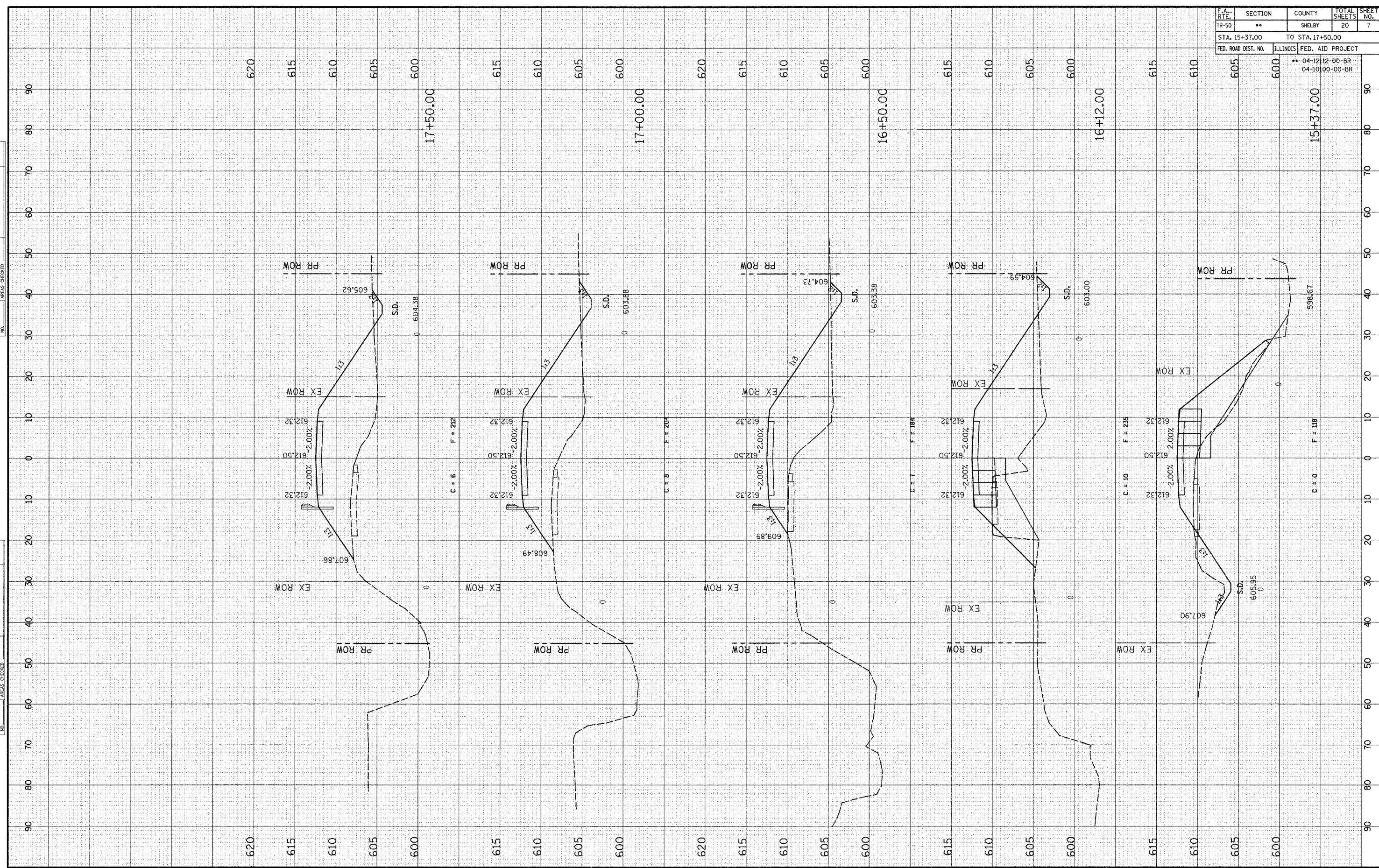


F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR-50	**	SHELBY	20	7

STA. 15+37.00 TO STA. 17+50.00
 ILLINOIS FED. AID PROJECT
 ** 04-1212-00-BR
 04-10100-00-BR

FINAL SURVEY NO.	SURVEY PLOTTED	DATE
NOTE BOOK NO.	TEMPLATE	BY
AREAS CHECKED		

ORIGINAL SURVEY NO.	SURVEY PLOTTED	DATE
NOTE BOOK NO.	TEMPLATE	BY
AREAS CHECKED		

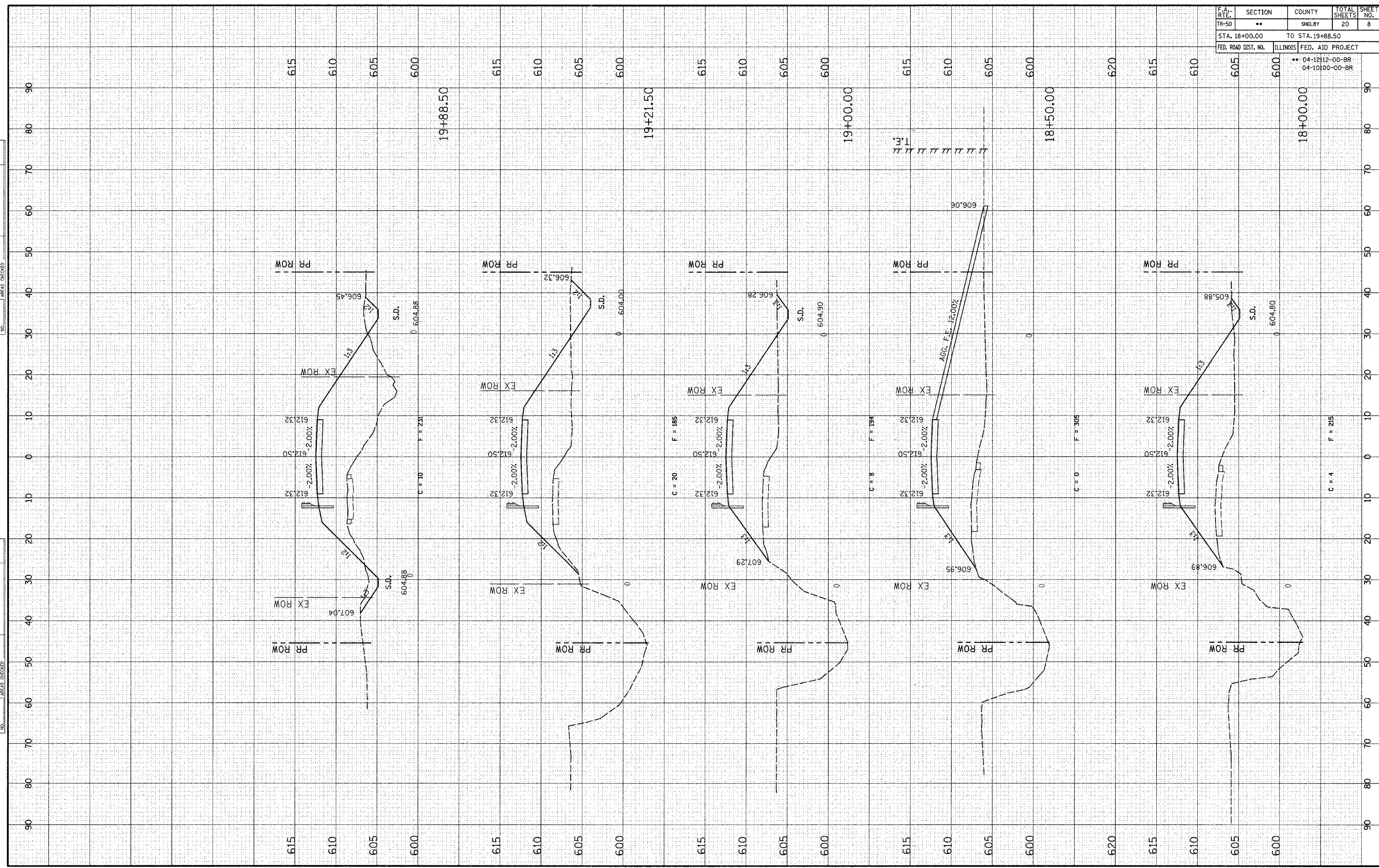


F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR-50	**	SHELBY	20	8

STA. 18+00.00 TO STA. 19+88.50
 ILLINOIS FED. AID PROJECT
 ** 04-12112-00-BR
 04-10100-00-BR

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS CHECKED		

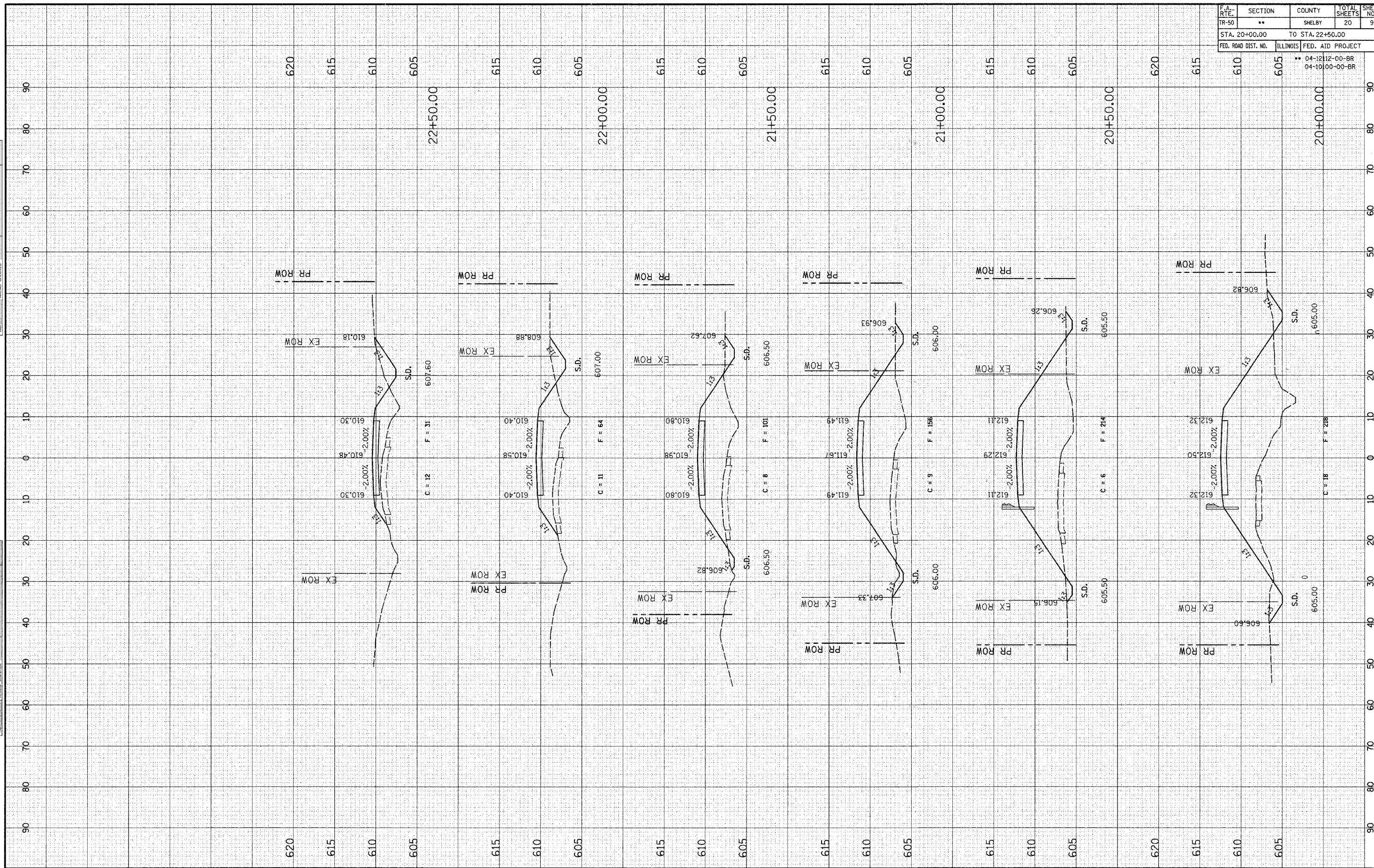
ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS CHECKED		



F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR-50	**	SHELBY	20	9
STA. 20+00.00		TO STA. 22+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		** 04-12112-00-BR 04-10100-00-BR		

ORIGINAL SURVEY NO.	BY	DATE
SURVEY PLOTTED		
NOTE BOOK		
AREAS CHECKED		

FINAL SURVEY NO.	BY	DATE
SURVEY PLOTTED		
NOTE BOOK		
AREAS CHECKED		



F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR-50	**	SHELBY	20	10
STA. 23+00.00		TO STA. 24+50.00		
ILLINOIS		FED. AID PROJECT		
FED. ROAD DIST. NO.		04-1212-00-BR 04-10100-00-BR		

FINAL SURVEY PLOTTED TEMPLATE AREAS CHECKED

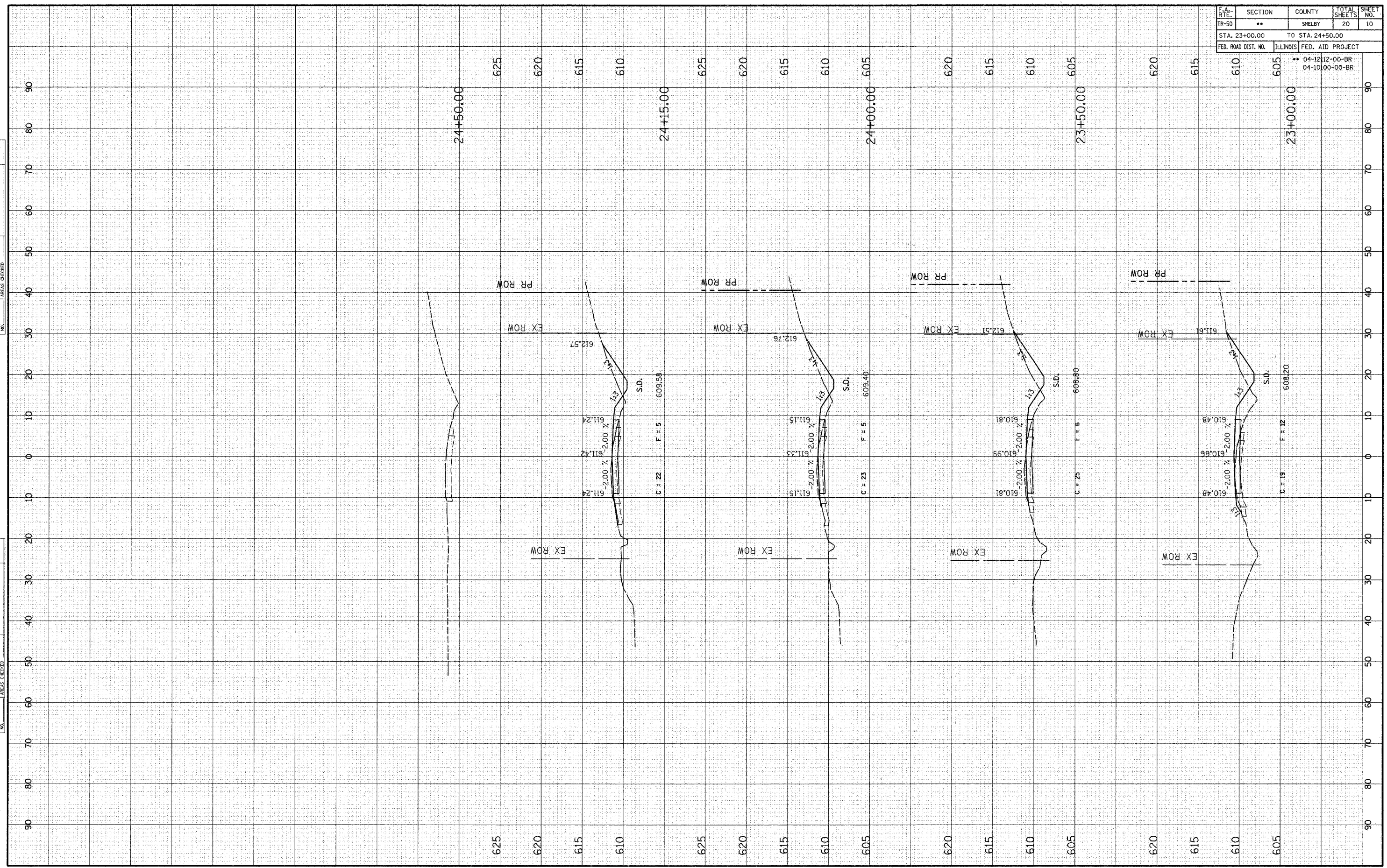
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BY _____ DATE _____

ORIGINAL SURVEY PLOTTED TEMPLATE AREAS CHECKED

NO. _____

BY _____ DATE _____

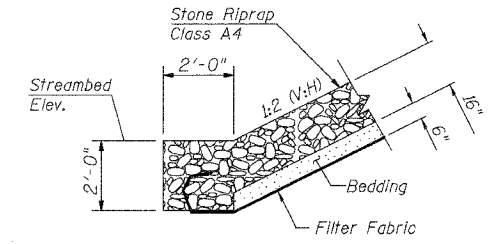
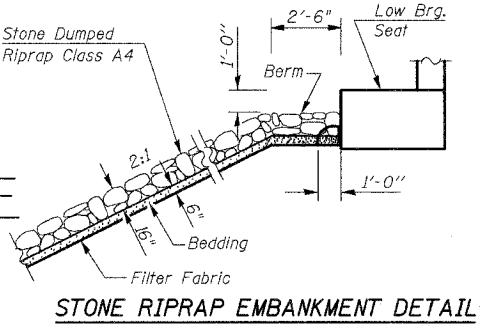
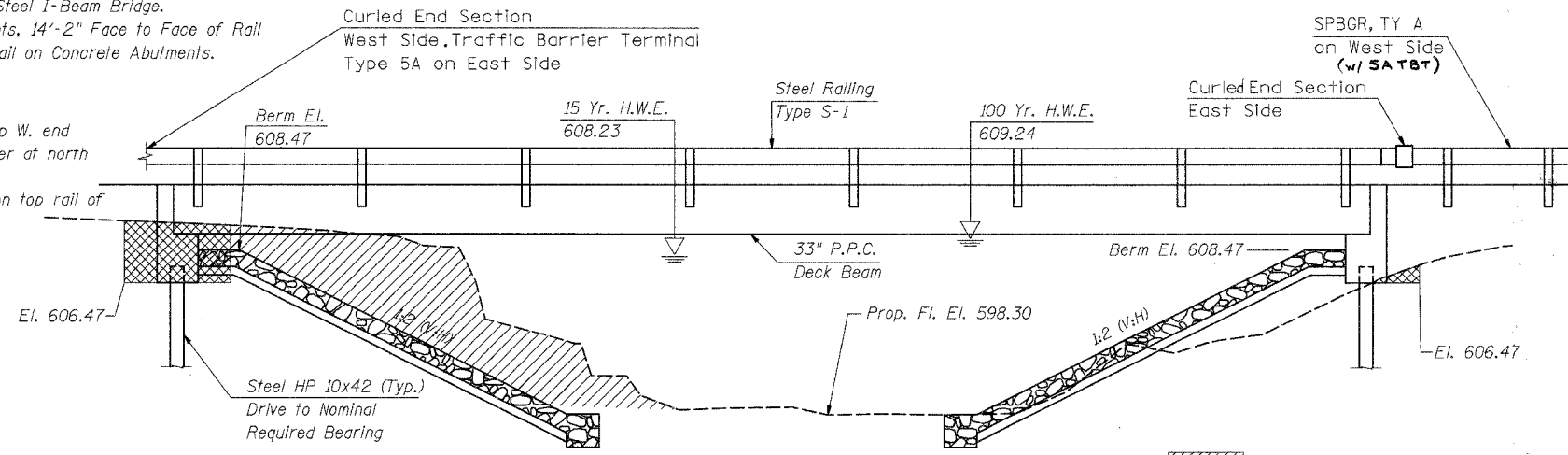


CROSS SECTIONS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 50		CHRISTIAN SHELBY	20	11
FED. ROAD DIST. NO.			ILLINOIS PROJECT	
04-12112-00-BR			SHEET 1 OF 5	

EXISTING STRUCTURE:

S.N. 087-3285, Single Span Steel I-Beam Bridge.
 49'-6" Bk. to Bk. of Abutments, 14'-2" Face to Face of Rail
 Timber Deck with Steel Handrail on Concrete Abutments.
 B.M. No. 5 - Chiseled "□" top W. end concrete wingwall at SE corner at north bridge. Elev. 607.58
 B.M. No. 6 - Chiseled "X" on top rail of NW Wingwall of south bridge. Elev. 610.43



ELEVATION

NOTE: Location of watermain is approximate. Contractor shall dig test pits to locate prior to driving piles. See Special Provisions

- Channel Excavation
- Structure Excavation
- Stone Dumped Riprap Class A4

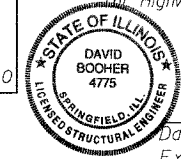
GENERAL NOTES

See Proposal for Boring Data.
 The Steel H-Piles shall be according to AASHTO M270 Grade 50.
 The Contractor shall drive one Test Pile at a permanent location at each Abutment. The Test Pile shall be driven to 110% of the Nominal Required Bearing specified in production locations at the substructures specified or approved by the Engineer before ordering the remainder of the piles.
 Reinforcement bars shall conform to the requirements of ASTM A706 Grade 60 See special provisions.

BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.		230	230
Stone Dumped Riprap, Class A4	Ton		541	541
Filter Fabric	Sq. Yd.		579	579
Removal Of Existing Structures No. 1	Each		1	1
Structure Excavation	Cu. Yd.		41	41
Concrete Structures	Cu. Yd.		26.8	26.8
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	1,742		1,742
Reinforcement Bars	Pound		3,210	3,210
Steel Railing, Type S1	Foot		148	148
Furnishing Steel Piles HP10x42	Foot		204	204
Driving Piles	Foot		204	204
Test Pile Steel HP10x42	Each		2	2
Name Plates	Each	1		1
Pipe Underdrain for Structures 6"	Foot		122	122
Concrete Encasement	Cu. Yd.		2.8	2.8

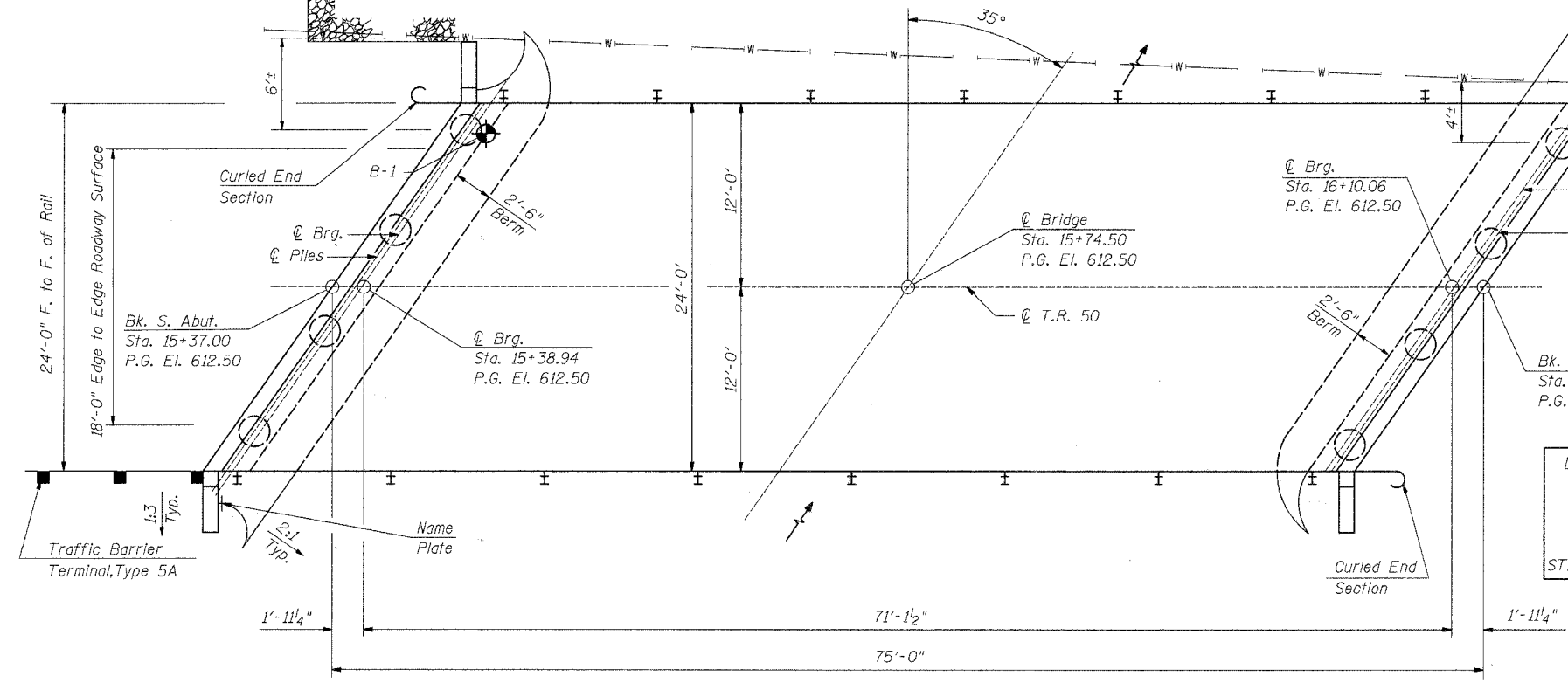
I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO Standard Specifications for Highway Bridges.



David Booher, Illinois S.E. 081-004775
 Date 4-2-08
 Expires 11-30-2008

LONG GROVE CREEK TRIBUTARY
 BUILT 200 BY
 CHRISTIAN COUNTY
 SEC. 04-12112-00-BR
 TR 50 STA. 15+74.50
 STR. NO. 011-3407 LOADING HS 20

NAME PLATE
 (See Std. 515001)



PLAN

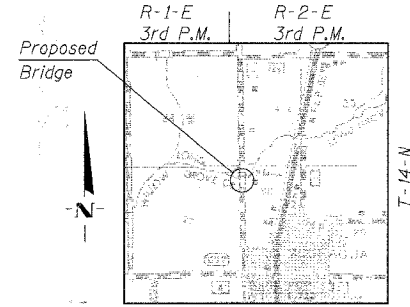
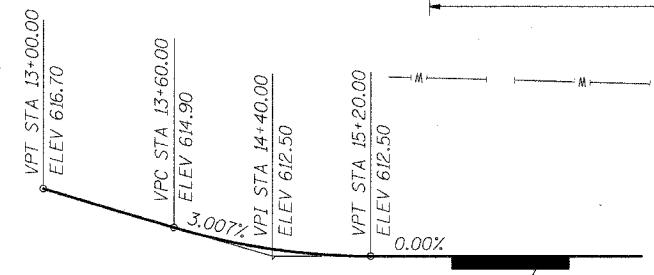
DESIGN STRESSES

Precast Unit
 f'c = 5,000 psi
 f'cl = 4,000 psi
 f's = 270,000 psi
 f'si = 189,000 psi
 Cast-in-Place Unit
 f'c = 3,500 psi
 f's = 60,000 psi
 n = 9
 LOADING HS 20
 DESIGN SPECIFICATION:
 AASHTO 2002 Standard Specifications for Highway Bridges.
 FUTURE WEARING SURFACE: 50 psf

WATERWAY INFORMATION

Drainage Area	1.81	Sq. Mi.
Required Opening (15yr.)	391	Sq. Ft.
Provided Opening	391	Sq. Ft.
Present Opening	332	Sq. Ft.
15yr. Discharge	450	cfs
100yr. Discharge	749	cfs
Created Head at Bridge (100yr.)	<1.0	Ft.
Created Head 1000' Upstream (100yr.)	<0.5	Ft.

PROFILE GRADE

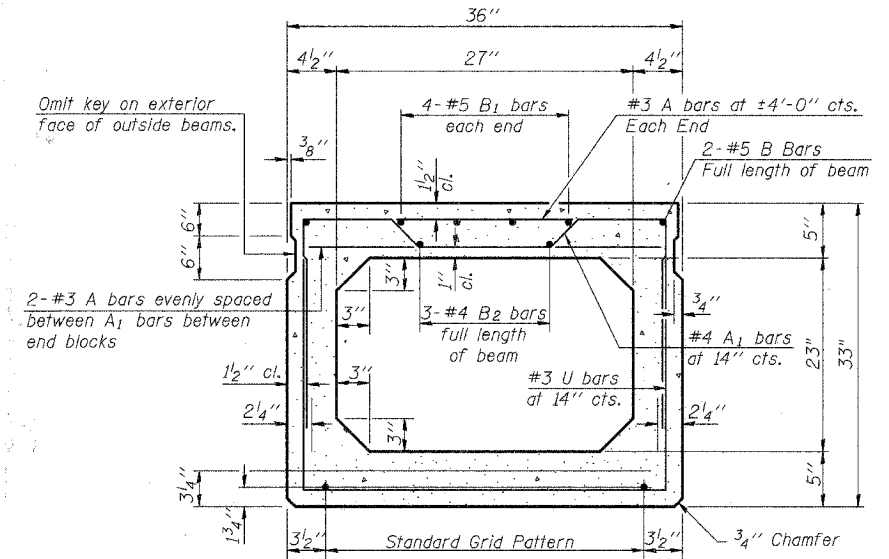
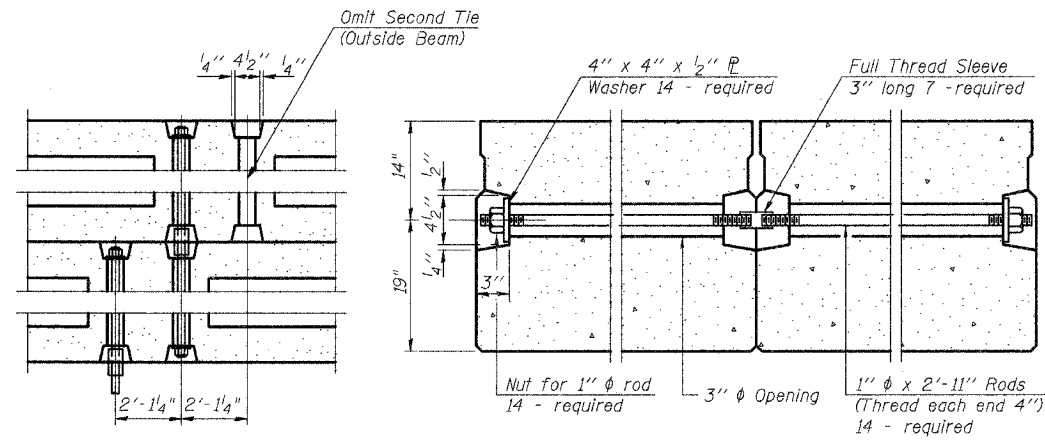
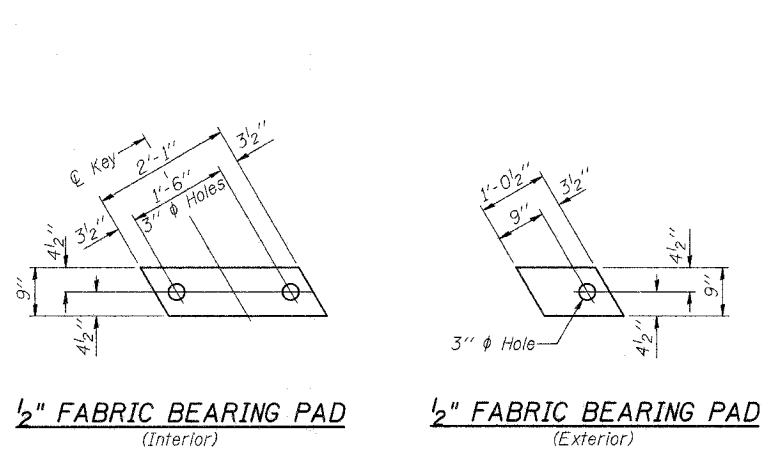


LOCATION MAP

GENERAL PLAN & ELEVATION
T.R. 50 OVER LONG GROVE CREEK TRIB.
SECTION 04-12112-00-BR
CHRISTIAN COUNTY
S.N. 011-3407
STA. 15+74.50

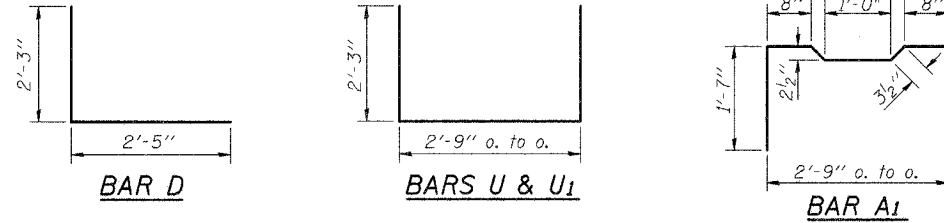
ie consultants
 DESIGNED: SCD CHECKED: DRB
 DRAWN: TRF DATE: FEB. 2008

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 50	*	CHRISTIAN SHELBY	20	12
FED. ROAD DIST. NO. 7		ILLINOIS PROJECT		
*04-12112-00-BR		SHEET 2 OF 5		

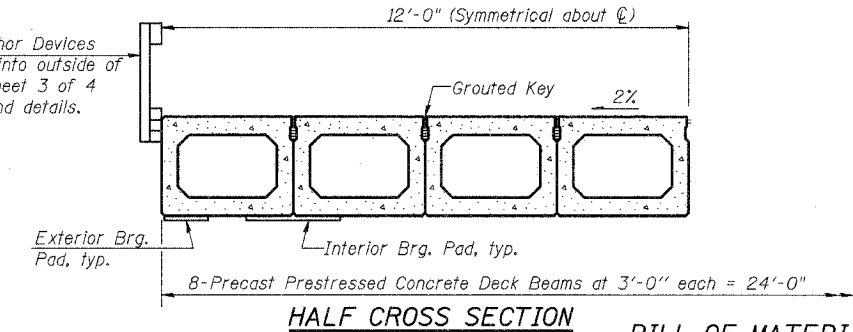


Note: Place strands symmetrically about centerline of beam.

18-1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
 10-Strands 1 3/4" up, 6-Strands 3/4" up,
 2-Strands 15" up, 2-Strands 9" up



Rail Post Anchor Devices shall be cast into outside of beams. See sheet 3 of 4 for spacing and details.



BILL OF MATERIAL
(one beam)

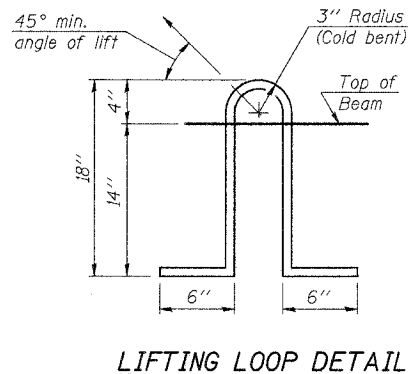
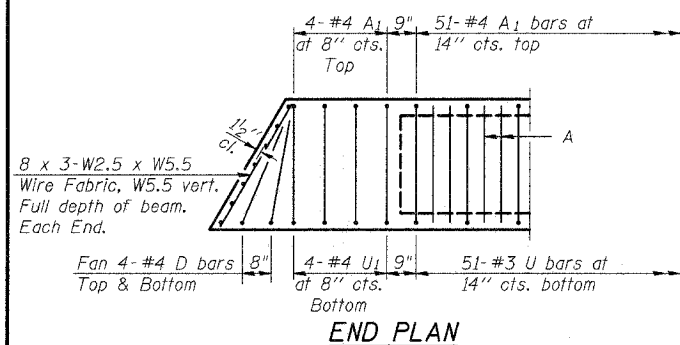
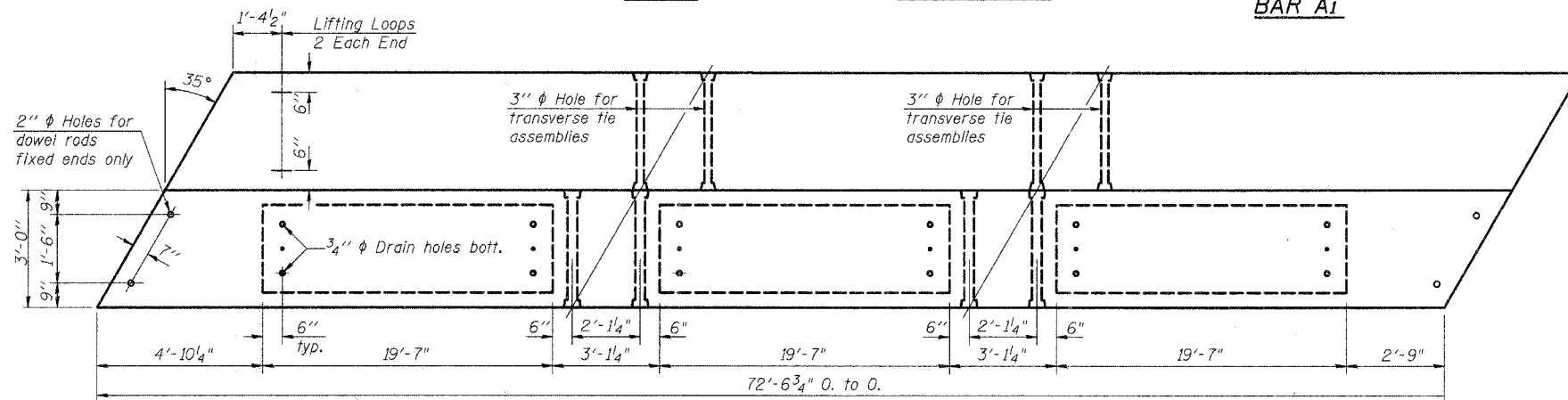
Bar	No.	Size	Length	Shape
A	108	#3	2'-8"	—
A1	59	#4	6'-1"	┌
B	6	#5	25'-6"	—
B1	8	#5	14'-6"	—
B2	9	#4	25'-2"	—
D	8	#4	4'-8"	L
U	59	#3	7'-3"	┌
U1	8	#4	7'-3"	┌
Precast Prestressed Conc. Deck Bms. (33")			Sq. Ft.	1,742

P.P.C. BEAM DETAIL

T.R. 50 OVER LONG GROVE CREEK TRIB.
SECTION 04-12112-00-BR
CHRISTIAN COUNTY
S.N. 011-3407
STA. 15+74.50

ie consultants

DESIGNED: SCD CHECKED: DRB
 DRAWN: TRF DATE: FEB. 2008



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" ϕ 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.

Non prestressing steel shall conform to ASTM A 706, Grade 60.

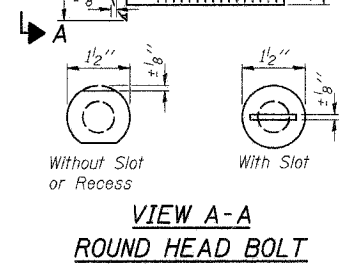
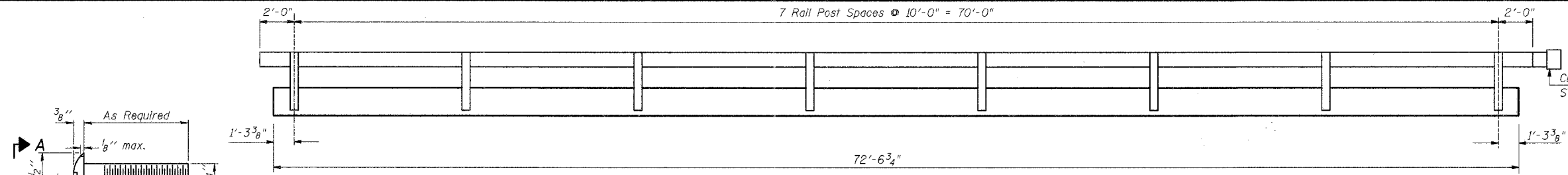
The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/2" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

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.

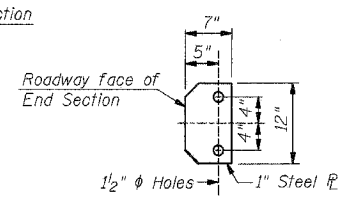
Corrosion inhibitor, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

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

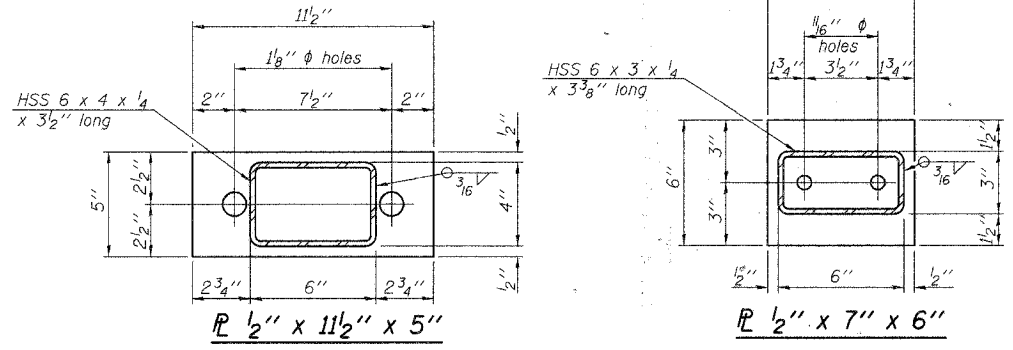
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 50	*	CHRISTIAN SHELBY	20	13
FED. ROAD DIST. NO. 7			ILLINOIS PROJECT	
*04-12112-00-BR			SHEET 3 OF 5	



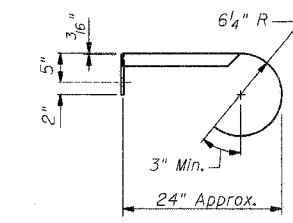
OUTSIDE ELEVATION



SECTION E-E

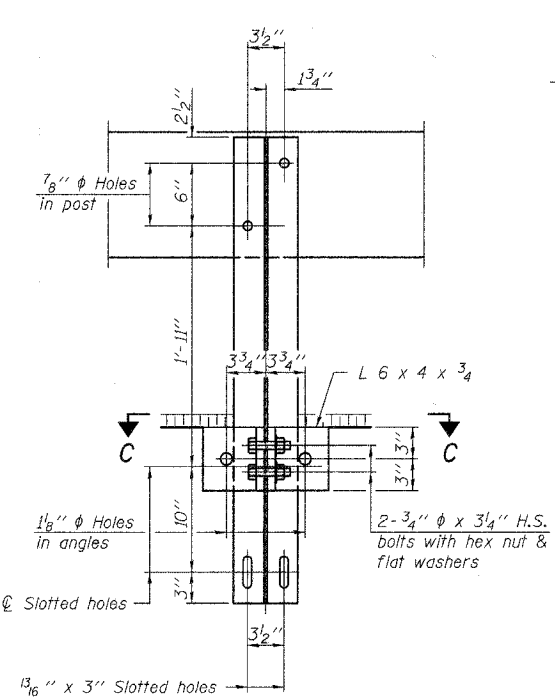


ANCHOR DEVICE

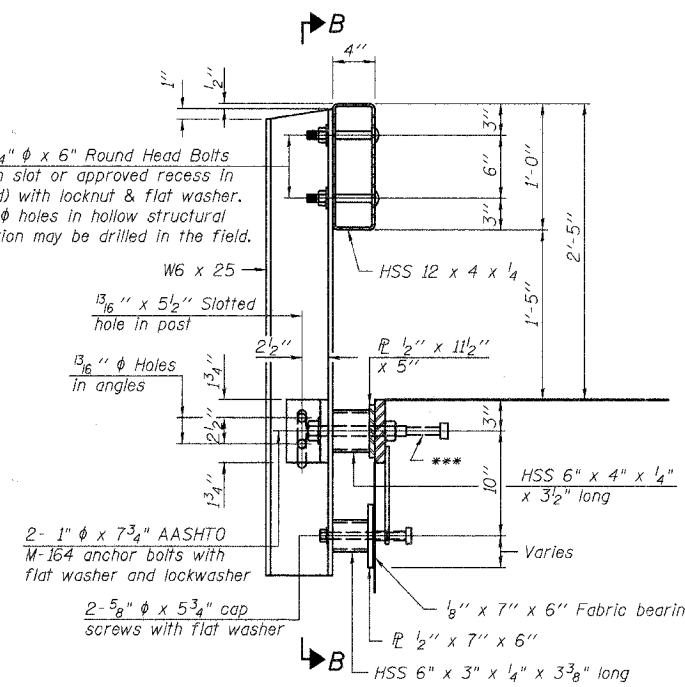


CURLLED END SECTION DETAILS

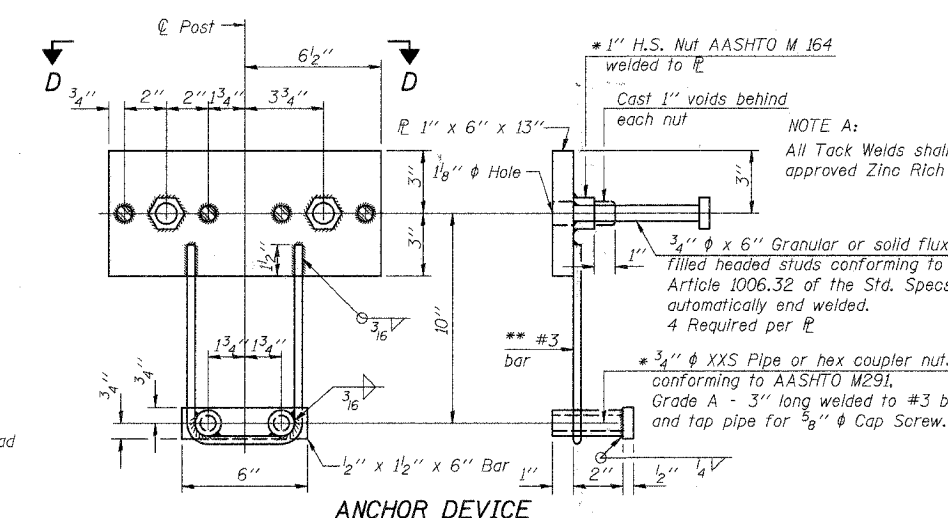
Notes:
 All field drilled holes shall be coated with an approved zinc rich paint before erection.
 For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type S-1.
 All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
 *** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.



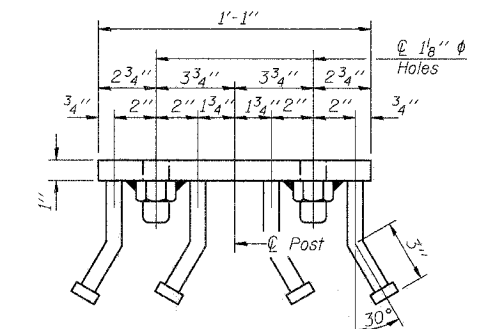
SECTION B-B



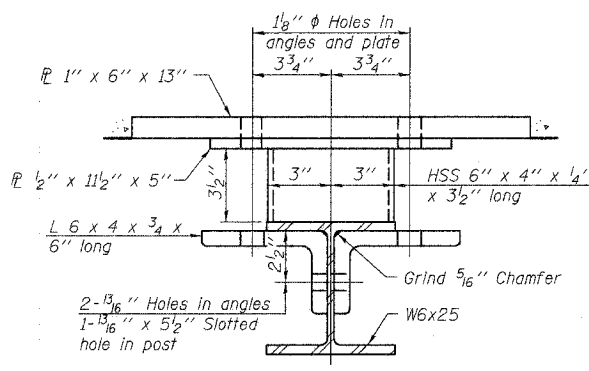
SECTION AT RAILING POST



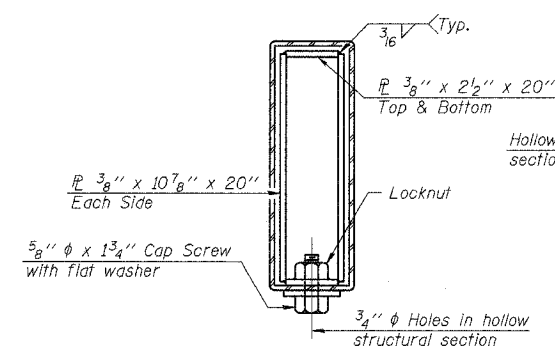
ANCHOR DEVICE



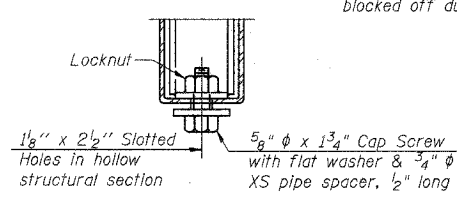
VIEW D-D



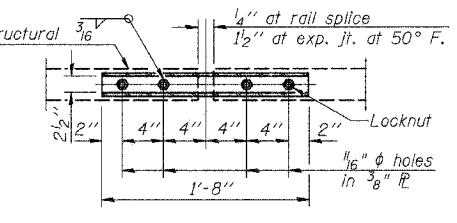
SECTION C-C



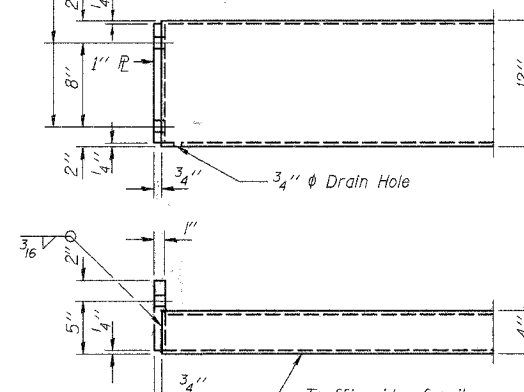
SECTIONS AT RAIL SPLICE



RAIL SPLICE CONNECTION AT EXPANSION JT.



PLAN-BOTT. SPLICE R TYPICAL



END OF RAIL DETAILS

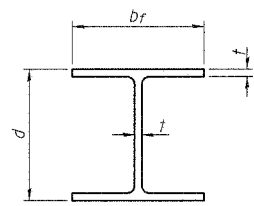
BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing Type S-1	Foot	148

STEEL RAILING TYPE S1 DETAILS
 T.R. 50 OVER LONG GROVE CREEK TRIB.
 SECTION 04-12112-00-BR
 CHRISTIAN COUNTY
 S.N. 011-3407
 STA. 15+74.50

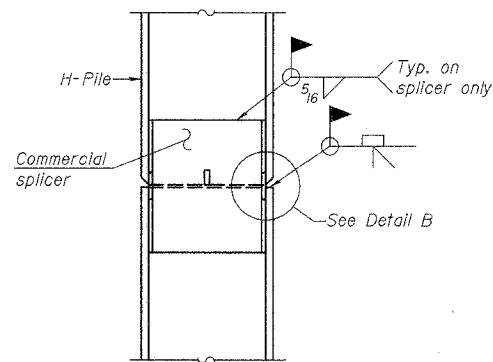
ie consultants
 DESIGNED: SCD CHECKED: DRB
 DRAWN: TRF DATE: FEB. 2008

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 50	*	CHRISTIAN SHELBY	20	15
FED. ROAD DIST. NO. 7		ILLINOIS PROJECT		
* 04-12112-00-BR			SHEET 5 OF 5	

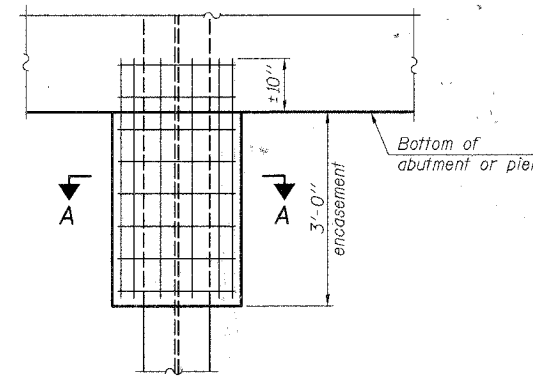


STEEL PILE TABLE

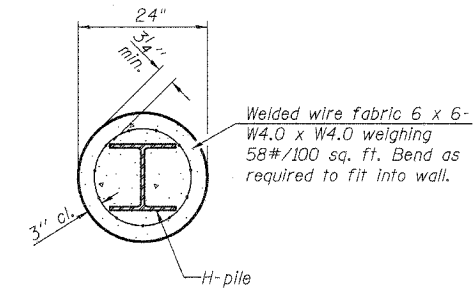
Designation	Depth d	Flange width b _f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1 1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1 1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION



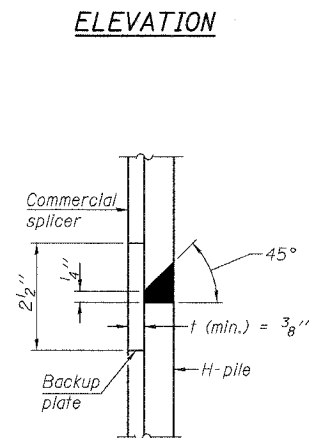
ELEVATION



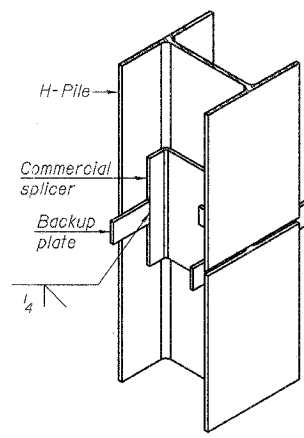
SECTION A-A

Note:
Forms for encasement may be omitted when soil conditions permit.

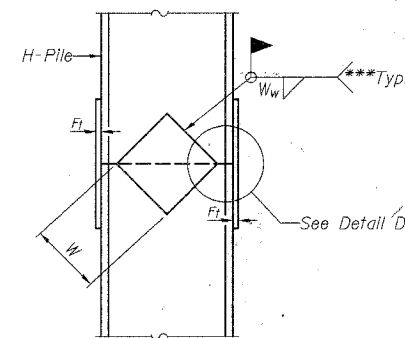
PILE ENCASUREMENT



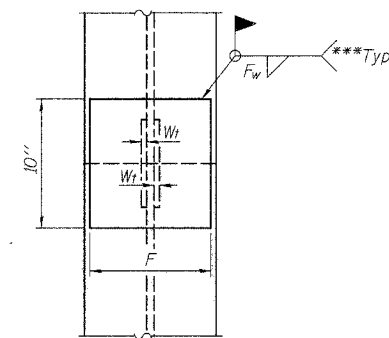
DETAIL "B"



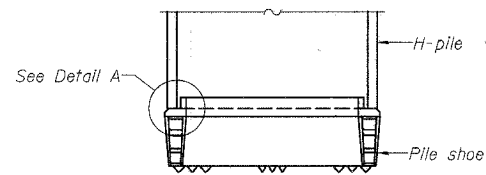
ISOMETRIC VIEW



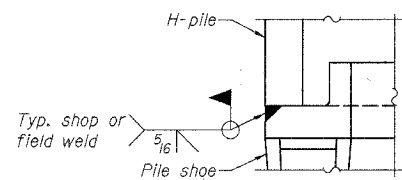
ELEVATION



END VIEW

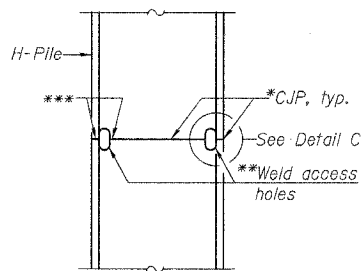


ELEVATION

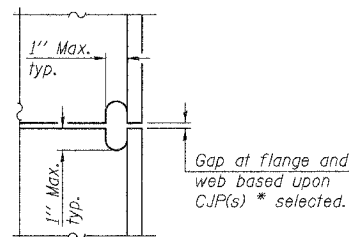


DETAIL A

H-PILE SHOE ATTACHMENT

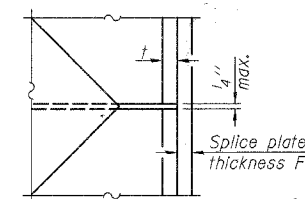


ELEVATION



DETAIL C

COMPLETE PENETRATION WELD SPLICE



DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	F _t	F _w	W	W _t	W _w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1/6"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1/6"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1/6"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

H-PILE DETAILS
TR 50 OVER LONG GROVE CREEK
SECTION 04-12112-00-BR
CHRISTIAN COUNTY
S.N. 011-3407
STA. 15+74.50

*Use Joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.

**Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.

***Interrupt welds 1/4" from end of each pile.

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

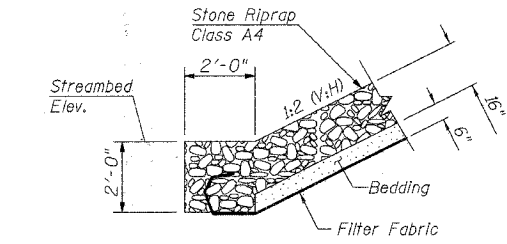
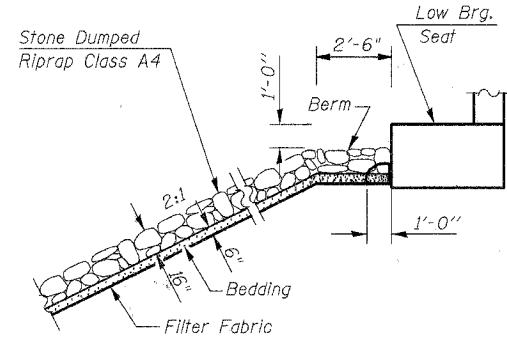
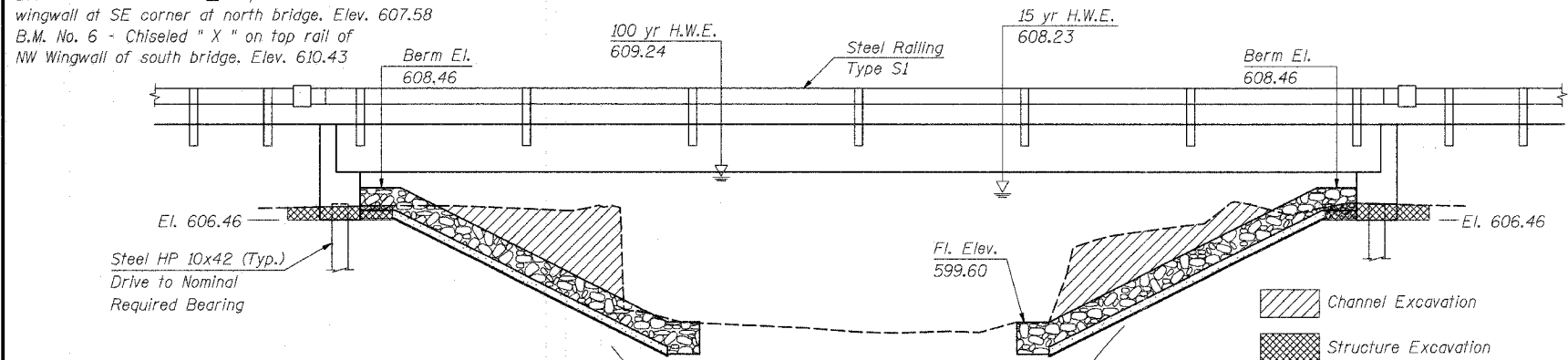
ie consultants

DESIGNED: SCD CHECKED: DRB
DRAWN: THW DATE: FEB 2008

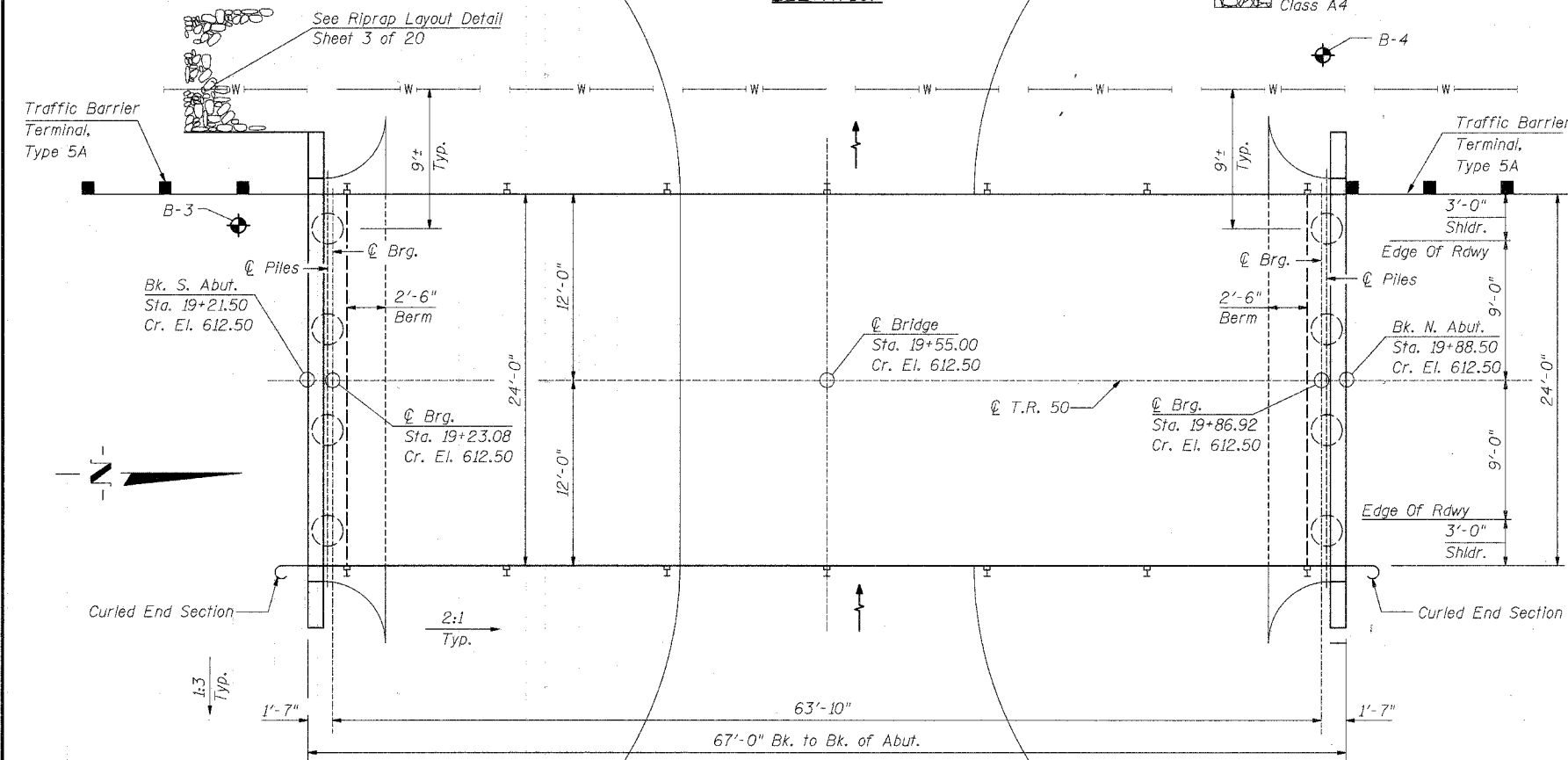
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 50		CHRISTIAN SHELBY	20	16
FED. ROAD DIST. NO.	ILLINOIS PROJECT			
* 04-12112-00-BR			SHEET 1 OF 5	

EXISTING STRUCTURE:
 S.N. 087-3070, Single Span Steel I-beam Bridge
 with Timber Deck on Concrete Abutments.
 Length = 30'-0", Width = 14'-3"

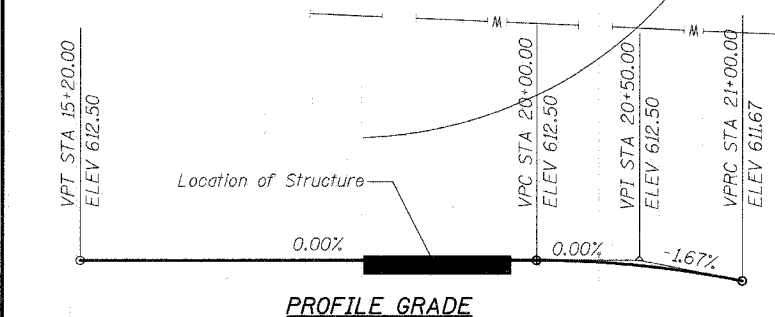
B.M. No. 5 - Chiseled "□" top W. end concrete wingwall at SE corner at north bridge. Elev. 607.58
 B.M. No. 6 - Chiseled "X" on top rail of NW Wingwall of south bridge. Elev. 610.43



ELEVATION



PLAN



PROFILE GRADE

WATERWAY INFORMATION

Drainage Area	16.76	Sq.Mi.
Required Opening (15yr.)	322	Sq.Ft.
Provided Opening	322	Sq.Ft.
Present Opening	188	Sq.Ft.
15yr. Discharge	1921	cfs
100yr. Discharge	3150	cfs
Created Head at Bridge (100yr.)	<1.0	Ft.
Created Head 1000' Upstream (100yr.)	<0.5	Ft.

DESIGN STRESSES

Precast Unit
 f'c = 5,000 psi
 f'ci = 4000 psi
 f's = 270,000 psi
 f'si = 189,000 psi

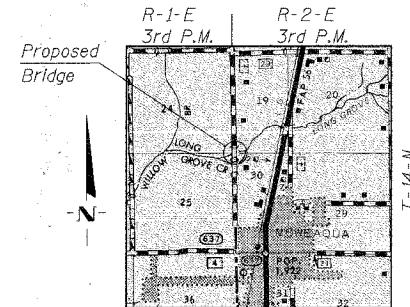
Cast-in-Place Unit
 f'c = 3500 psi
 f's = 60,000 psi
 n = 9

LOADING HS 20
 DESIGN SPECIFICATION:
 AASHTO 2002 Standard Specifications for Highway Bridges.
 FUTURE WEARING SURFACE: 50 lb/Sq. Ft.

NOTE:
 Location of watermain is approximate. Contractor shall dig test pits to locate prior to driving piles. See Special Provisions

LONG GROVE CREEK
 BUILT 200 BY
 CHRISTIAN COUNTY
 SEC. 04-12112-00-BR
 TR 50 STA. 19+55.00
 STR. NO. 011-3403 LOADING HS 20

NAME PLATE
 (See Std. 515001)



LOCATION MAP

GENERAL NOTES

See Proposal for Boring Data.

The Steel H-Piles shall be according to AASHTO M270 Grade 50.

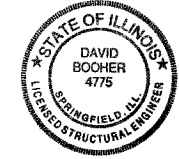
The Contractor shall drive one Test Pile at a permanent location at each Abutment. The Test Pile shall be driven to 110% of the Nominal Required Bearing specified in production locations of the substructures specified or approved by the Engineer before ordering the remainder of the piles.

Reinforcement bars shall conform to the requirements of ASTM A706 Grade 60. See special provisions.

BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.		130	130
Stone Dumped Riprap, Class A4	Ton		388	388
Filter Fabric	Sq. Yd.		414	414
Removal Of Existing Structures No. 2	Each		1	1
Structure Excavation	Cu. Yd.		16	16
Concrete Structures	Cu. Yd.		22.6	22.6
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	1,560		1,560
Reinforcement Bars	Pound		2,790	2,790
Steel Railing, Type S1	Foot	132		132
Furnishing Steel Piles HP10x42	Foot		186	186
Driving Piles	Foot		186	186
Test Pile Steel HP10x42	Each		2	2
Name Plates	Each	1		1
Pipe Underdrain for Structures 6"	Foot		102	102
Concrete Encasement	Cu. Yd.		2.8	2.8

I certify that to the best of my 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 requirements of the current AASHTO Standard Specifications for Highway Bridges.

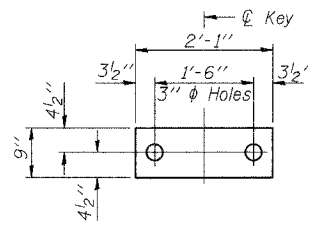


David Bocher, Illinois S.E. 081-004775
 Expires 11-30-2008

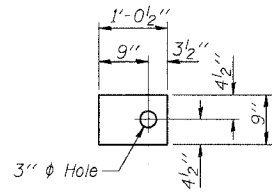
GENERAL PLAN & ELEVATION
T.R.50 OVER LONG GROVE CREEK TRIB.
SECTION 04-12112-00-BR
CHRISTIAN COUNTY
S.N. 087-3404
STA. 19+55.00

ie consultants	
DESIGNED: SCB	CHECKED: DRB
DRAWN: TRF	DATE: FEB. 2008

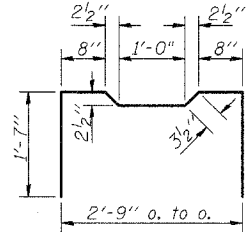
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 50	*	CHRISTIAN SHELBY	20	17
FED. ROAD DIST. NO. 7		ILLINOIS PROJECT		
*04-12112-00-BR		SHEET 2 OF 5		



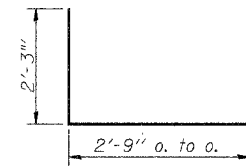
1/2" FABRIC BEARING PAD (Interior)



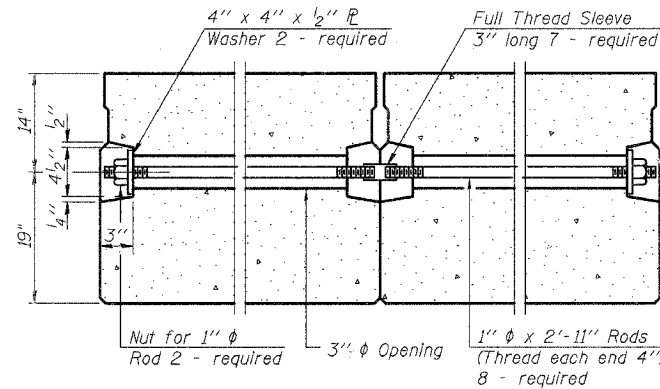
1/2" FABRIC BEARING PAD (Exterior)



BAR A1



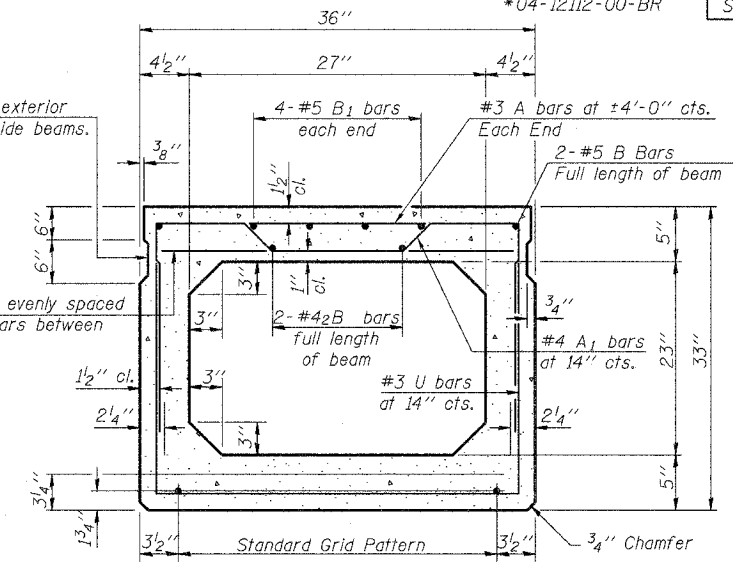
BARS U & U1



TYPICAL TRANSVERSE TIE ASSEMBLY

Omit key on exterior face of outside beams.

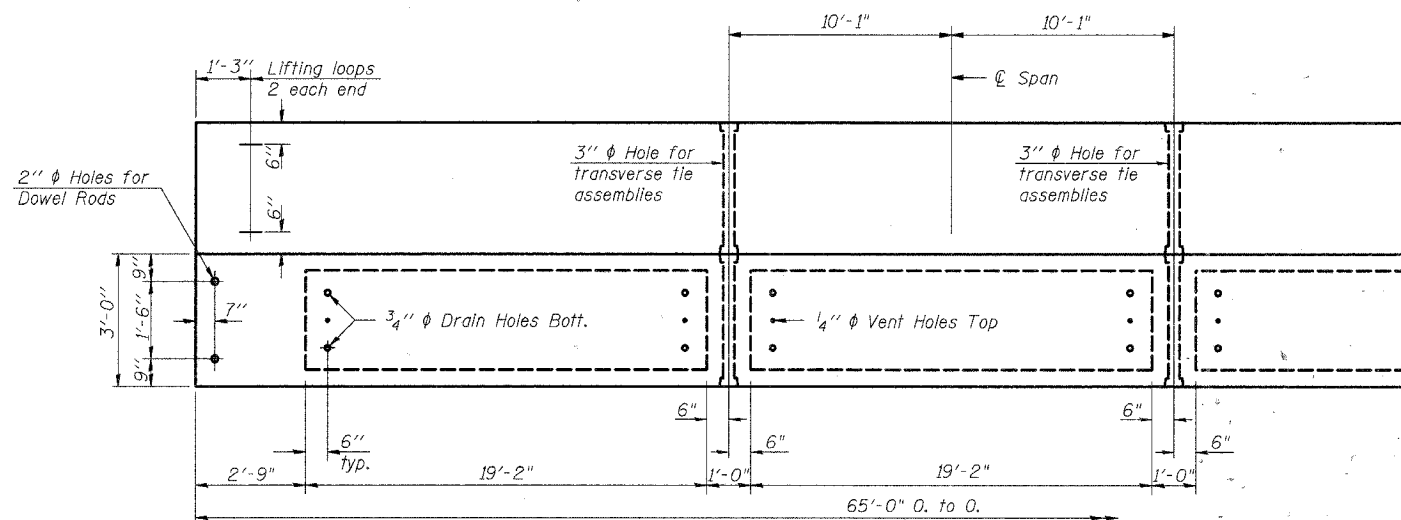
2-#3 A bars evenly spaced between A1 bars between end blocks.



TYPICAL SECTION

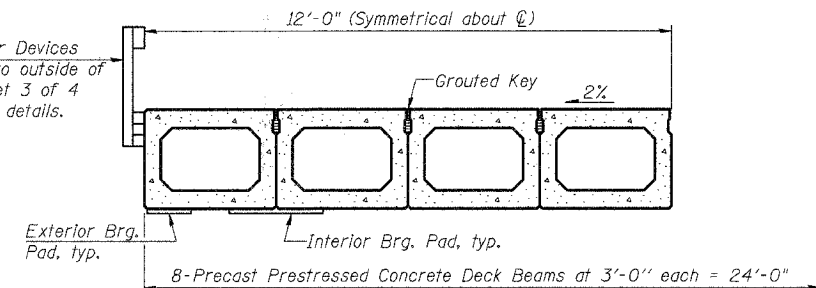
13-1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
9-Strands 13/4" up, 4-Strands 3/4" up

Note:
Place strands symmetrically about ϕ of beam.



PLAN

Rail Post Anchor Devices shall be cast into outside of beams: See sheet 3 of 4 for spacing and details.

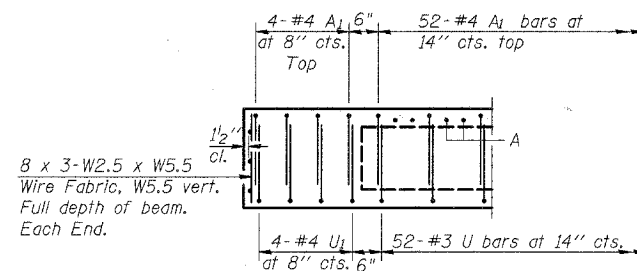


HALF CROSS SECTION

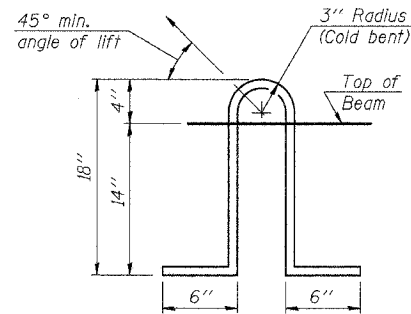
BILL OF MATERIAL

(one beam)

Bar	No.	Size	Length	Shape
A	102	#3	2'-8"	—
A1	60	#4	12'-6"	⌋
B	4	#5	33'-6"	—
B1	8	#5	13'-0"	—
B2	4	#4	33'-3"	—
U	52	#3	7'-3"	⌋
U1	8	#4	7'-3"	⌋
Pre-cast Prestressed Conc. Deck Bms. (33")			Sq. Ft.	1,560



END ELEVATION



LIFTING LOOP DETAIL

NOTES

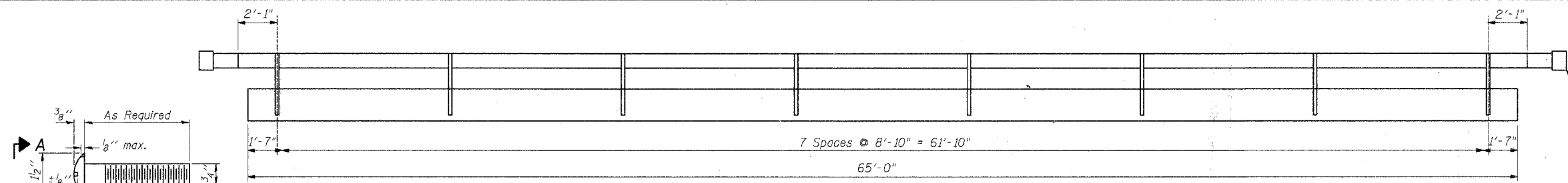
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 3-1/2" ϕ -270 ksi strands, as shown. The 1" rods in the transverse tie assembly shall be tightened 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. Non prestressing steel shall conform to ASTM A 706, 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. Corrosion inhibitor, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams. Required Release Strength, f'ci, shall be 4,000 p.s.i.

P.P.C. BEAM DETAIL
T.R. 50 OVER LONG GROVE CREEK
SECTION 04-12112-00-BR
CHRISTIAN COUNTY
S.N. 011-3403
STA. 19+55.00

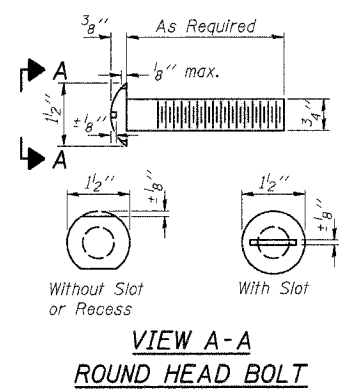
ie consultants

DESIGNED: SCD CHECKED: DRB
DRAWN: TRF DATE: FEB. 2008

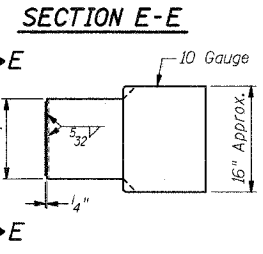
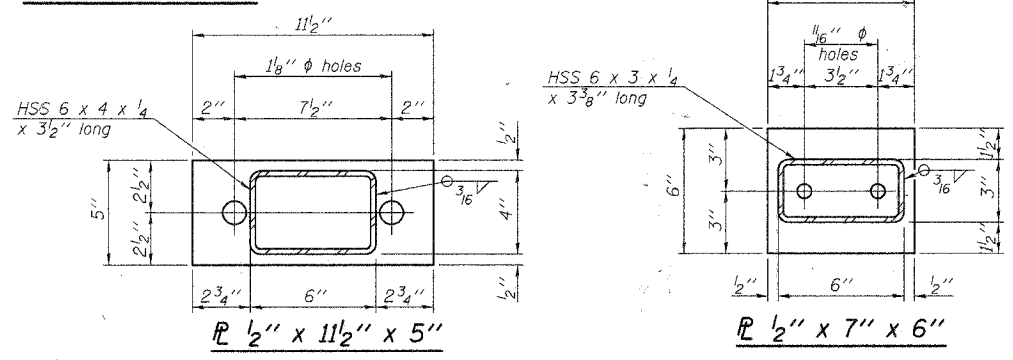
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 50	*	SANGAMON SHELBY	20	18
FED. ROAD DIST. NO. 7		ILLINOIS PROJECT		
*04-12112-00-BR		SHEET 3 OF 5		



OUTSIDE ELEVATION



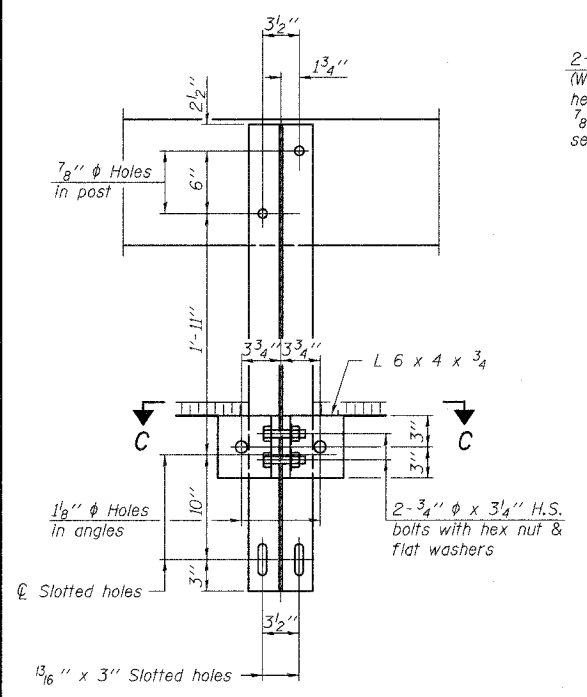
**VIEW A-A
ROUND HEAD BOLT**



CURLED END SECTION DETAILS

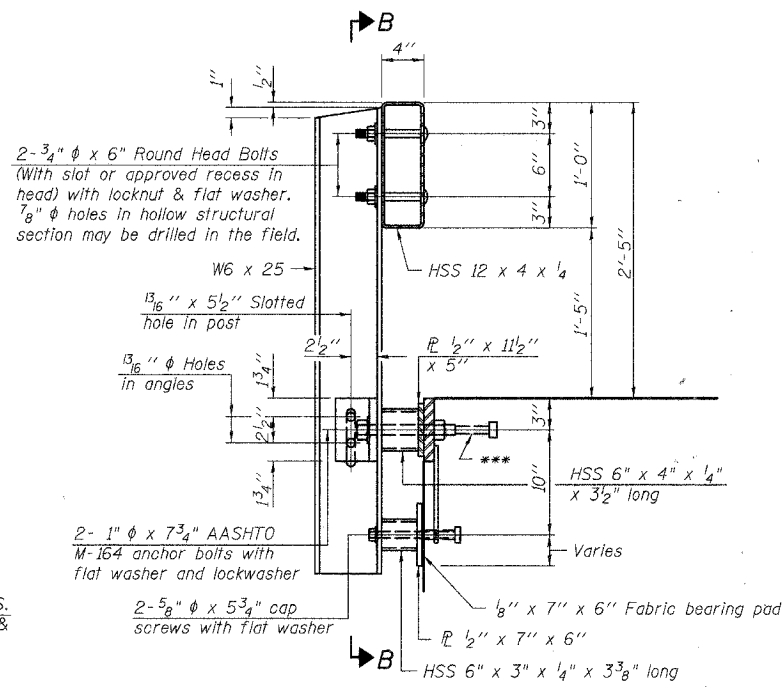
(Cost included with Type S-1 Rail)

Notes:
 All field drilled holes shall be coated with an approved zinc rich paint before erection.
 For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type S-1.
 All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
 *** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.



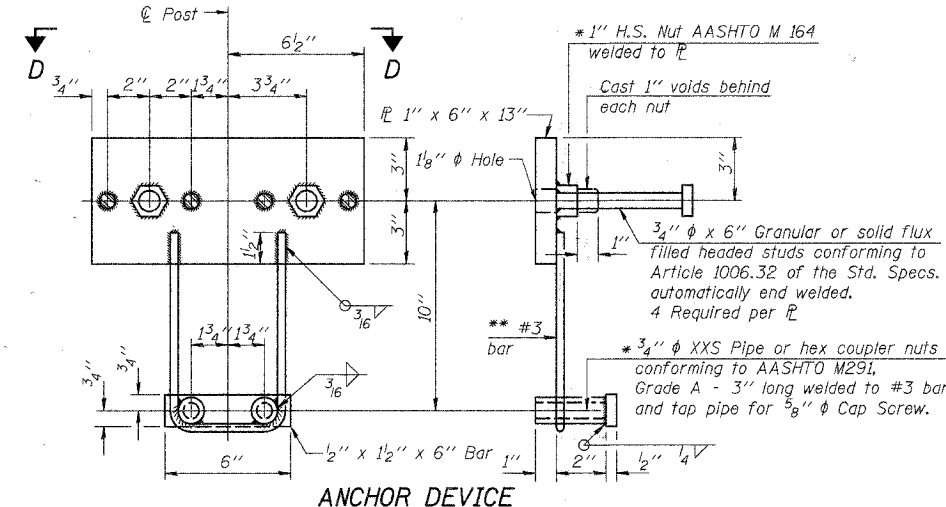
SECTION B-B

SECTION C-C



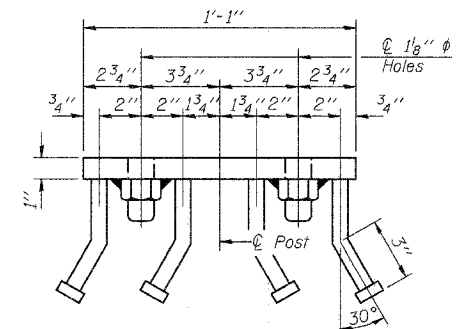
SECTION AT RAILING POST

** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".

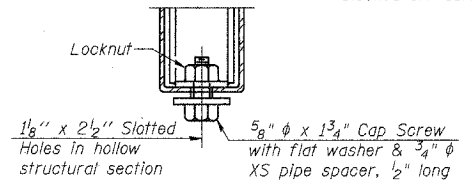


ANCHOR DEVICE

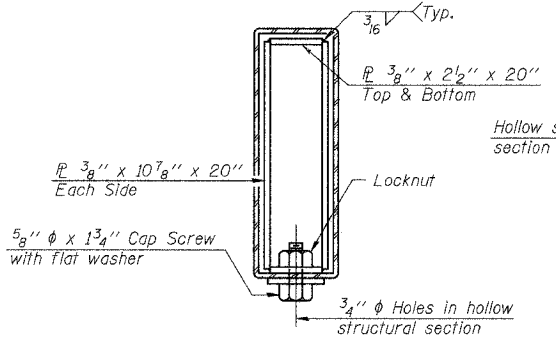
* Threaded areas shall be plugged or blocked off during casting of beam.
 * 1" H.S. Nut AASHTO M 164 welded to PL
 Cast 1" voids behind each nut
 * 3/4" XXS Pipe or hex coupler nuts conforming to AASHTO M291, Grade A - 3" long welded to #3 bar and top pipe for 3/8" Cap Screw.
 ** #3 bar



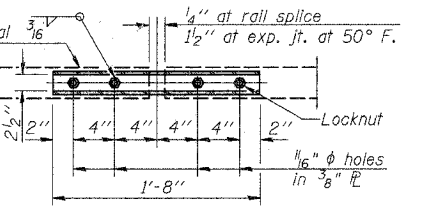
VIEW D-D



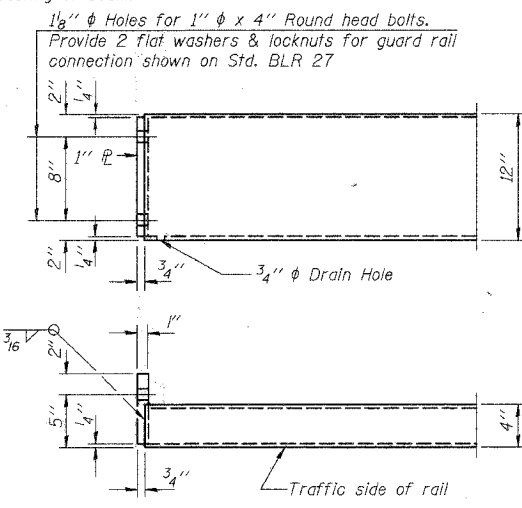
**RAIL SPLICE CONNECTION
AT EXPANSION JT.**



SECTIONS AT RAIL SPLICE



**PLAN-BOTT. SPLICE PL
TYPICAL**



END OF RAIL DETAILS

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing Type S-1	Foot	132

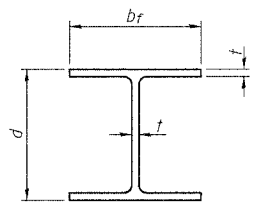
STEEL RAILING TYPE S-1 DETAILS
 T.R. 50 OVER LONG GROVE CREEK
 SECTION 04-12112-00-BR
 CHRISTIAN COUNTY
 S.N. 011-3403
 STA. 19+55.00

ie consultants

DESIGNED: SCD CHECKED: DRB
 DRAWN: TRF DATE: FEB. 2008

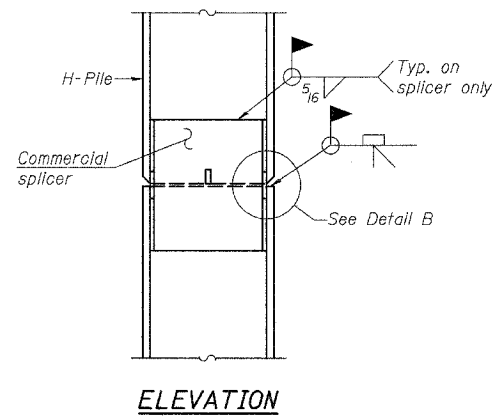
FILE\$

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 50	*	CHRISTIAN SHELBY	20	20
FED. ROAD DIST. NO. 7	ILLINOIS PROJECT			
* 04-12112-00-BR			SHEET 5 OF 5	

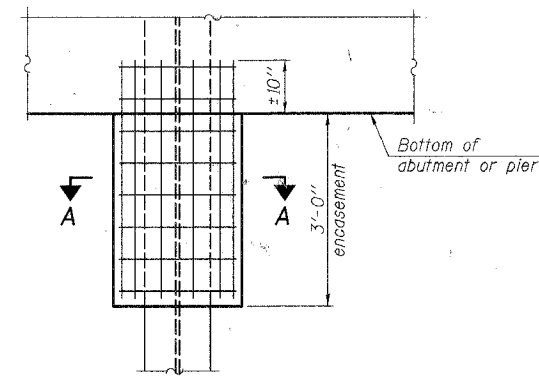


STEEL PILE TABLE

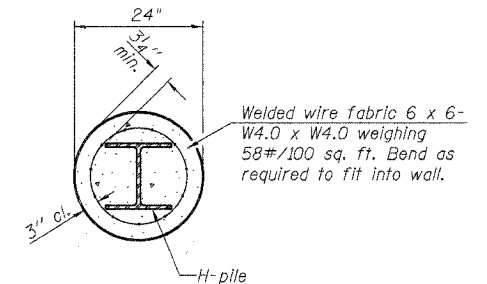
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/8"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/8"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION



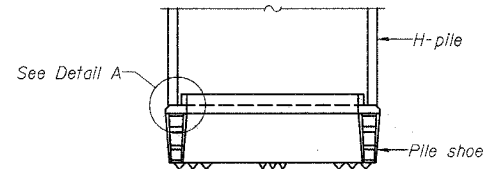
ELEVATION



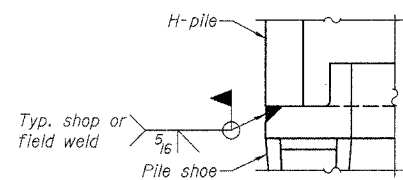
SECTION A-A

Note:
Forms for encasement may be omitted when soil conditions permit.

PILE ENCASUREMENT

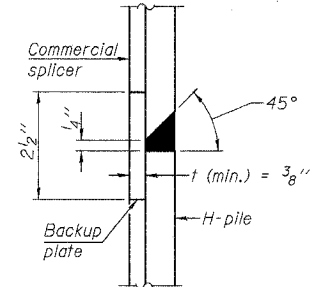


ELEVATION

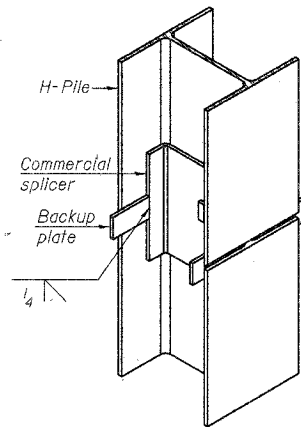


DETAIL A

H-PILE SHOE ATTACHMENT

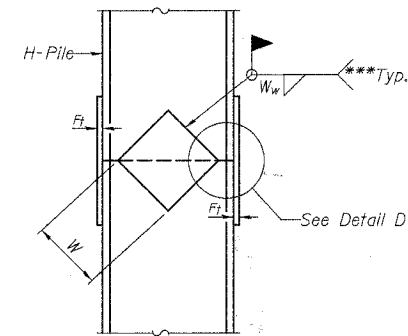


DETAIL "B"

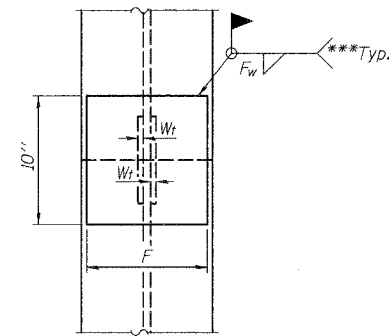


ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE

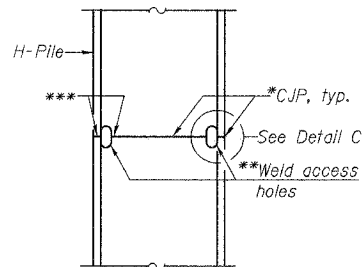


ELEVATION

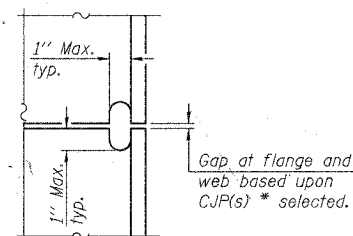


END VIEW

WELDED PLATE FIELD SPLICE

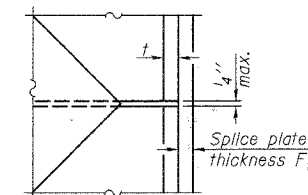


ELEVATION



DETAIL C

COMPLETE PENETRATION WELD SPLICE



DETAIL D

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5 1/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5 1/8"	1/2"
x89	12 1/2"	3/4"	1/8"	7 3/4"	5 1/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5 1/8"	1/2"
HP 12x84	10"	7/8"	1/8"	6 1/2"	5 1/8"	1/2"
x74	10"	7/8"	1/8"	6 1/2"	5 1/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

H-PILE DETAILS

TR 50 OVER LONG GROVE CREEK

SECTION 04-12112-00-BR

CHRISTIAN COUNTY

S.N. 011-3403

STA. 19+55.00

ie consultants

DESIGNED: SCB CHECKED: DRB
DRAWN: THW DATE: FEB 2008

*Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.

**Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.

***Interrupt welds 1/4" from end of each pile.

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.