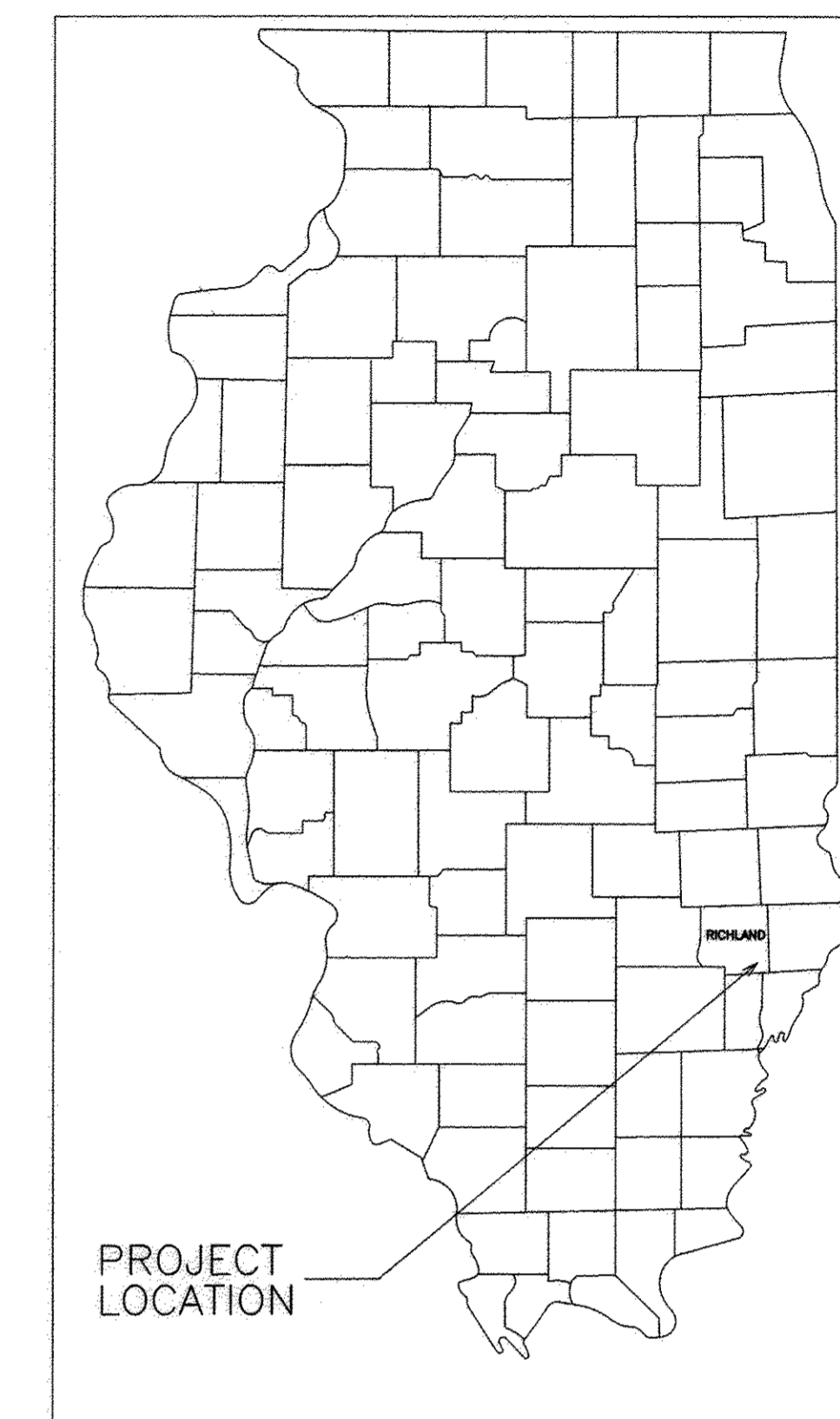


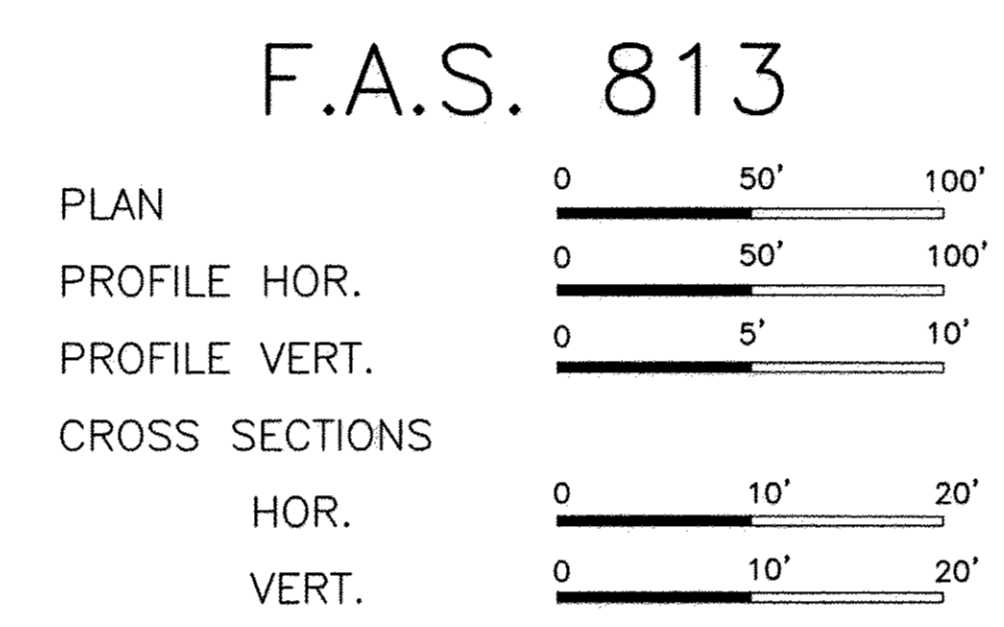
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 813	12-01130-00-BR	RICHLAND	15	1
CONTRACT NO. 95805		ILLINOIS		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
HIGHWAY BRIDGE PROGRAM
SECTION 12-01130-00-BR RICHLAND COUNTY
PROJECT BRS-0813(113)
JOB NO. C-97-032-16



INDEX OF SHEETS

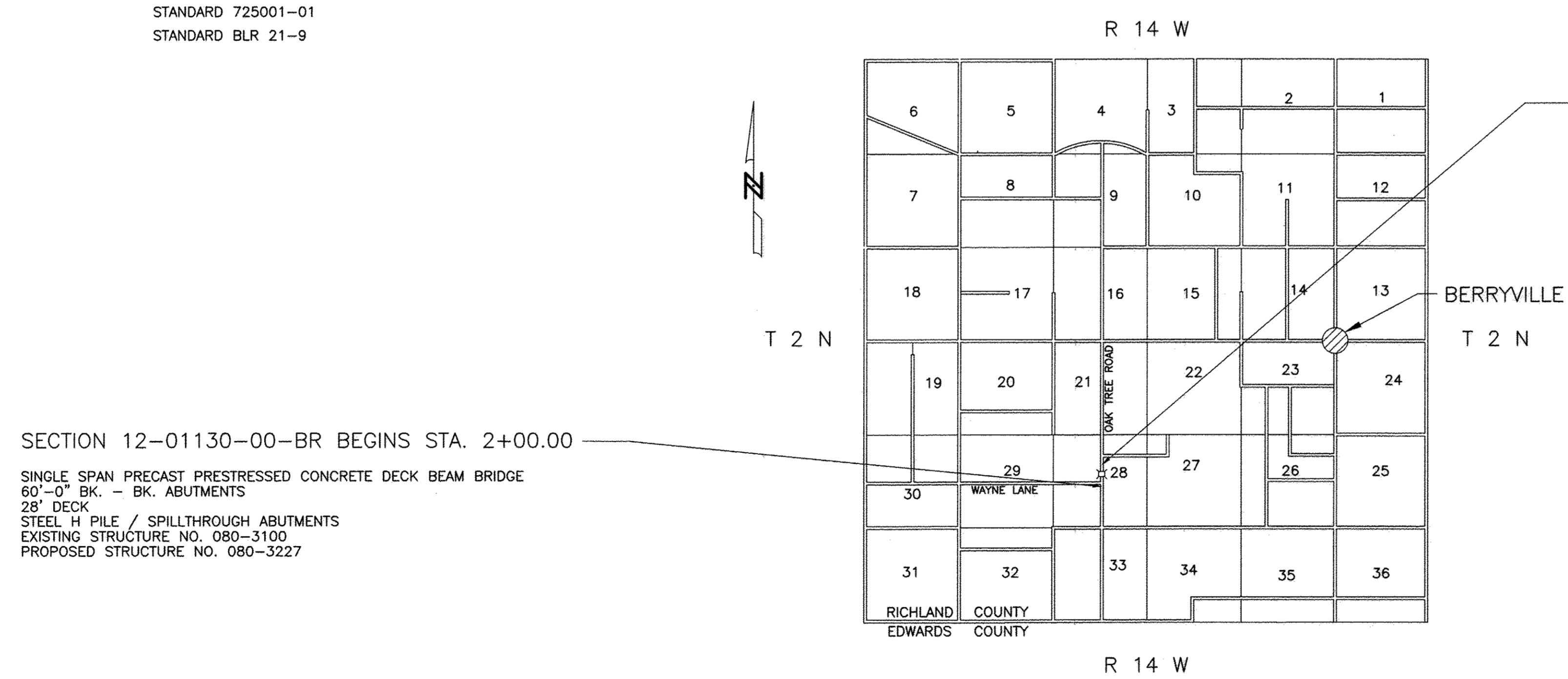
SHEET	ITEM
1	COVER SHEET
2	SUMMARY OF QUANTITIES
3-4	ROADWAY PLAN AND PROFILE
5	GENERAL PLAN AND ELEVATION
6	27" x 48" PPC DECK BEAMS
7	27" x 48" PPC DECK BEAM DETAILS
8	ABUTMENTS
9	HP PILE DETAILS
10	STEEL RAILING, TYPE S-1
11	NAME PLATE FOR BRIDGES
12	BORING LOGS
13-15	CROSS SECTIONS



CONTRACT NO. 95805

- STANDARD DRAWINGS
- STANDARD 000001-06
 - STANDARD 280001-07
 - STANDARD 515001-03
 - STANDARD 542301-03
 - STANDARD 701901-06
 - STANDARD 725001-01
 - STANDARD BLR 21-9

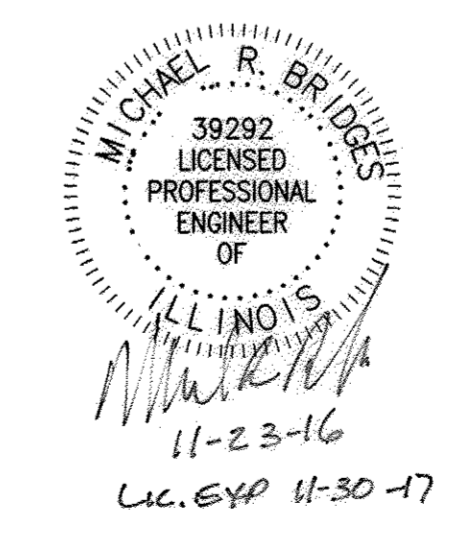
Joint Utility Locating Information for Excavators
JULIE 1-800-892-0123



SECTION 12-01130-00-BR BEGINS STA. 2+00.00

SINGLE SPAN PRECAST PRESTRESSED CONCRETE DECK BEAM BRIDGE
60'-0" BK. - BK. ABUTMENTS
28' DECK
STEEL H PILE / SPILLTHROUGH ABUTMENTS
EXISTING STRUCTURE NO. 080-3100
PROPOSED STRUCTURE NO. 080-3227

SECTION 12-01130-00-BR ENDS STA. 7+50.00



CHARLESTON ENGINEERING, INC.
CONSULTING ENGINEERS
105 NORTH KITCHELL
P.O. BOX 397
OLNEY, ILLINOIS 62450
(618) 392-0736
ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513

APPROVED November 23rd, 2016
Dennis J. Caldwell, P.E.
COUNTY ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PASSED 12-12-16
Maurice East
DISTRICT SEVEN ENGINEER OF
LOCAL ROADS AND STREETS

Releasing For
Bid Based on
Limited Review 12-12-16
Jeffrey M. Sordahl
REGION FOUR ENGINEER

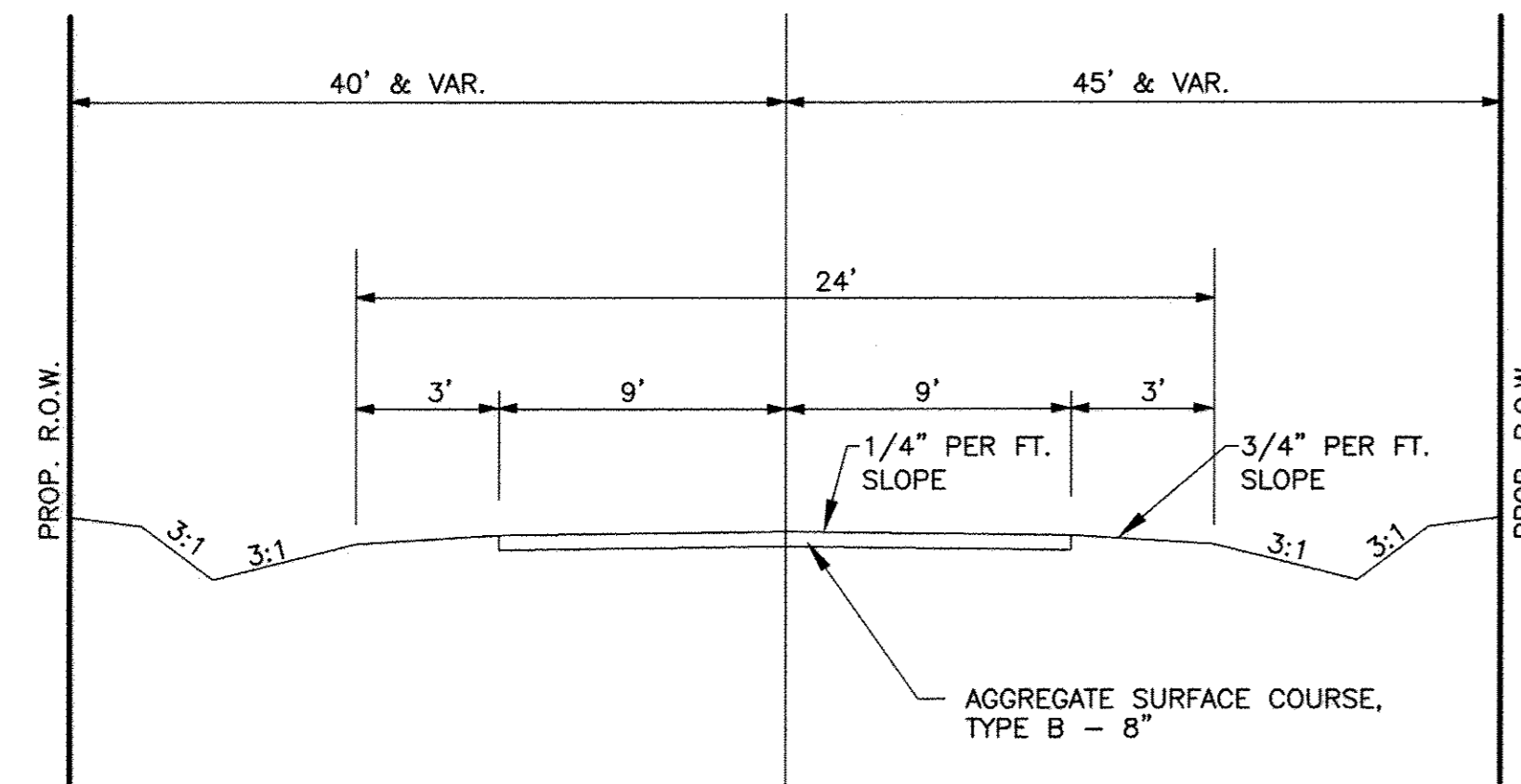
FUNCTIONAL CLASSIFICATION - RURAL LOCAL ROAD
ADT = 150
DESIGN SPEED = 30 MPH

NET LENGTH SECTION 12-01130-00-BR = 550.00 Ft. = 0.104 Mi.

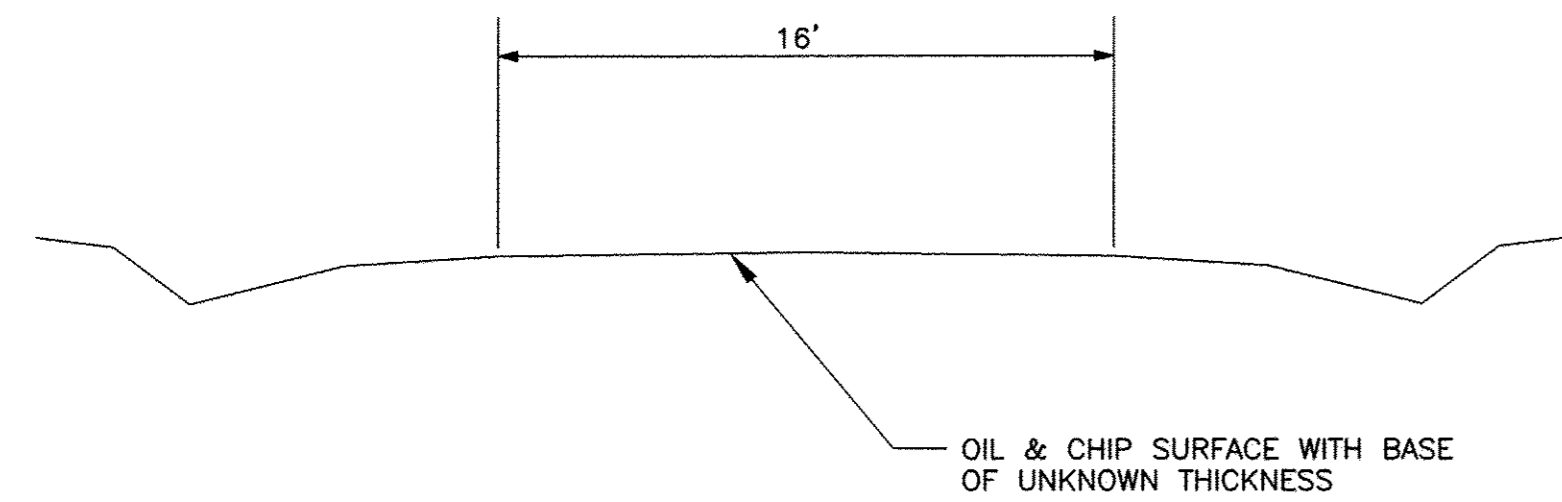
DESIGN DATA

LOCAL ROAD
ADT = 150

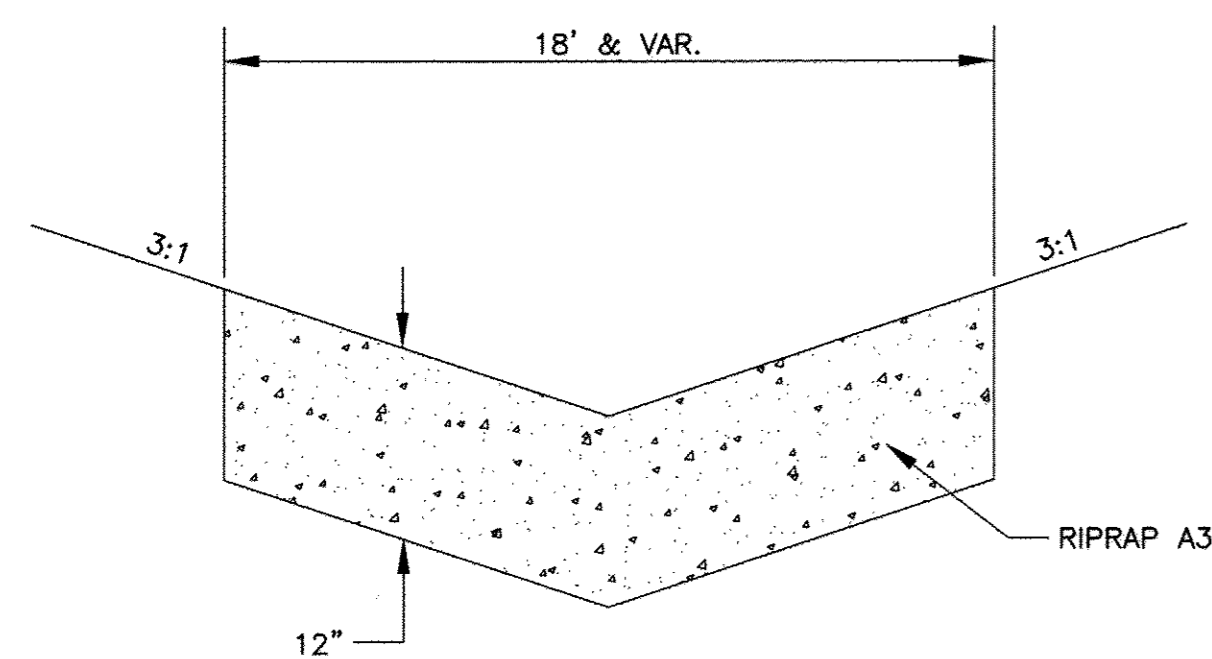
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 813	12-01130-00-BR	RICHLAND	15	2
CONTRACT NO. 95805		ILLINOIS		



TYPICAL SECTION
PROPOSED



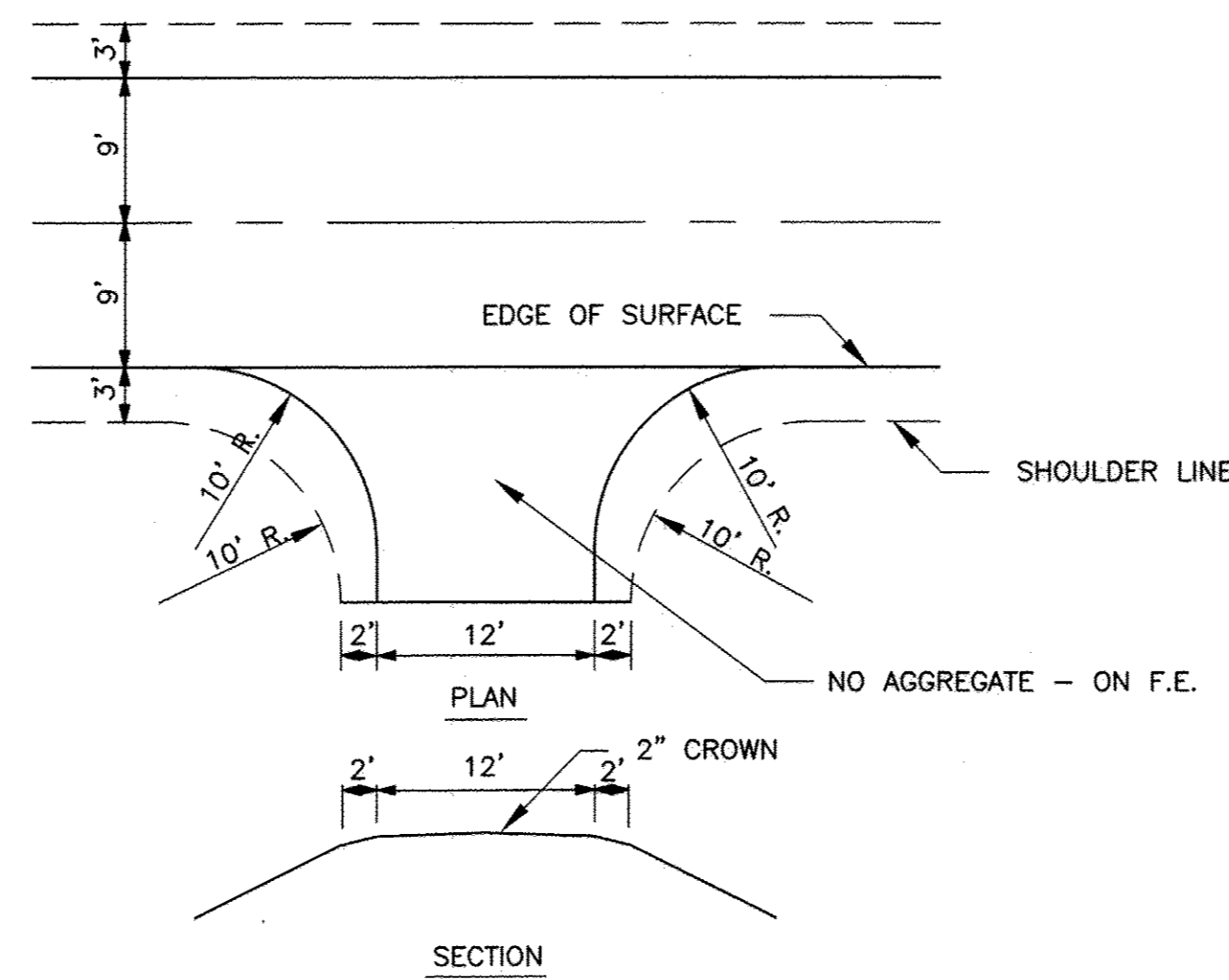
TYPICAL SECTION
EXISTING



AGGREGATE DITCH (SPECIAL) DETAIL

GENERAL NOTES

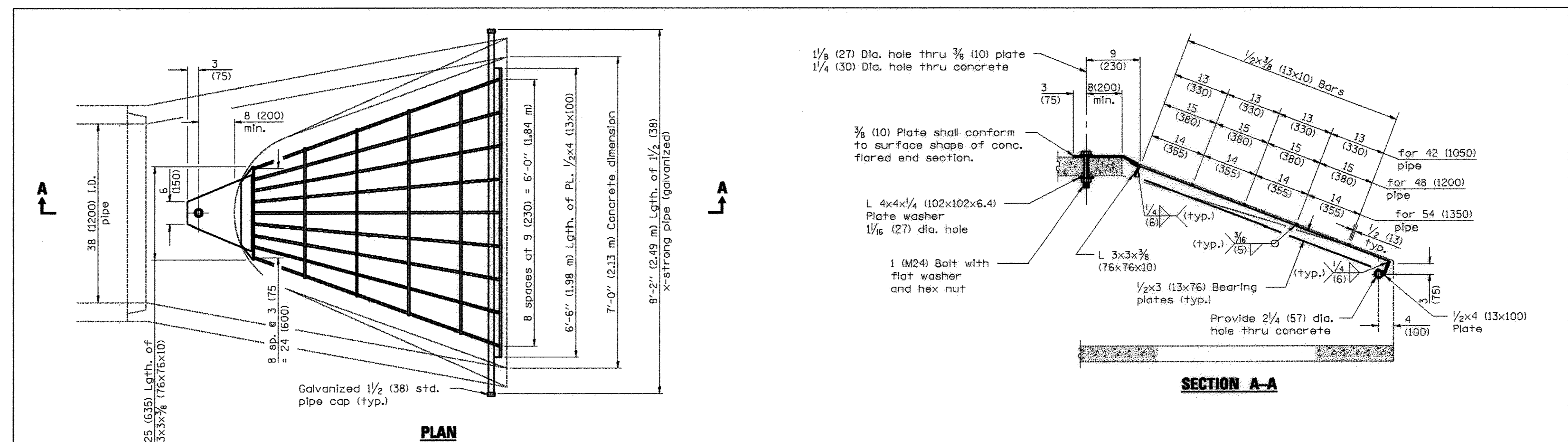
- SEEDING: THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 250 OF THE STANDARD SPECIFICATIONS AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR SEEDING CLASS 2 (SPECIAL).
 - SPRING SEEDING SHALL EXTEND FROM JANUARY 1 TO JUNE 30
FALL SEEDING SHALL EXTEND FROM JULY 1 TO DECEMBER 31
 - FERTILIZER NUTRIENTS SHALL BE APPLIED AT THE RATE OF 100 LB/ACRE
 - MULCHING SHALL BE DONE IN ACCORDANCE WITH ARTICLE 251 OF THE STANDARD SPECIFICATIONS AND SHALL BE DONE BY METHOD 2, PROCEDURE 2 AT THE RATE OF 2 TONS PER ACRE.
- NO PAYMENT FOR OVERHAUL WILL BE MADE ON THIS SECTION.



ENTRANCE DETAIL

SUMMARY OF QUANTITIES			
CODE NO.	ITEM	UNIT	QUANTITY
X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.95
X2830495	AGGREGATE DITCH (SPECIAL)	TON	470
X5429311	TRAVERSABLE PIPE GRATE, SPECIAL	FOOT	13
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1
Z0051500	REMOVING AND RESETTING STREET SIGNS	EACH	2
Z0100110	TREE REMOVAL (6 TO 15 UNIT DIAMETER)	UNIT	44
Z0200100	EARTH EXCAVATION	CU YD	590
Z0300100	CHANNEL EXCAVATION	CU YD	240
Z0400800	FURNISHED EXCAVATION	CU YD	1250
Z8000305	TEMPORARY DITCH CHECKS	FOOT	35
Z8100707	STONE DUMPED RIPRAP, CLASS A4	SQ YD	525
Z8200200	FILTER FABRIC	SQ YD	605
Z5101400	AGGREGATE BASE COURSE, TYPE B	TON	60
Z0200800	AGGREGATE SURFACE COURSE, TYPE B	TON	555
Z0100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
Z0105220	PIPE CULVERT REMOVAL	FOOT	87
Z0200100	STRUCTURE EXCAVATION	CU YD	10
Z0300225	CONCRETE STRUCTURES	CU YD	20.4
Z0300280	CONCRETE ENCASEMENT	CU YD	2.8
Z0400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	1748
Z0800105	REINFORCEMENT BARS	POUND	2740
Δ 50900205	STEEL RAILING, TYPE S1	FOOT	128
Z1201400	FURNISHING STEEL PILES HP 10X42	FOOT	245
Z1202305	DRIVING PILES	FOOT	245
Z1203400	TEST PILE STEEL HP 10X42	EACH	1
Z1500100	NAME PLATES	EACH	1
Z42A0253	PIPE CULVERTS, CLASS A, TYPE 1 48"	FOOT	35
Z42D0220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	30
Z42D0226	PIPE CULVERTS, CLASS D, TYPE 1 21"	FOOT	30
Z4213693	PRECAST REINFORCED CONCRETE FLARED END SECTION 48"	EACH	2
Z67100100	MOBILIZATION	L SUM	1
Δ Z75 01000	TERMINAL MARKER - DIRECT APPLIED	EACH	4

Δ SPECIALTY ITEMS

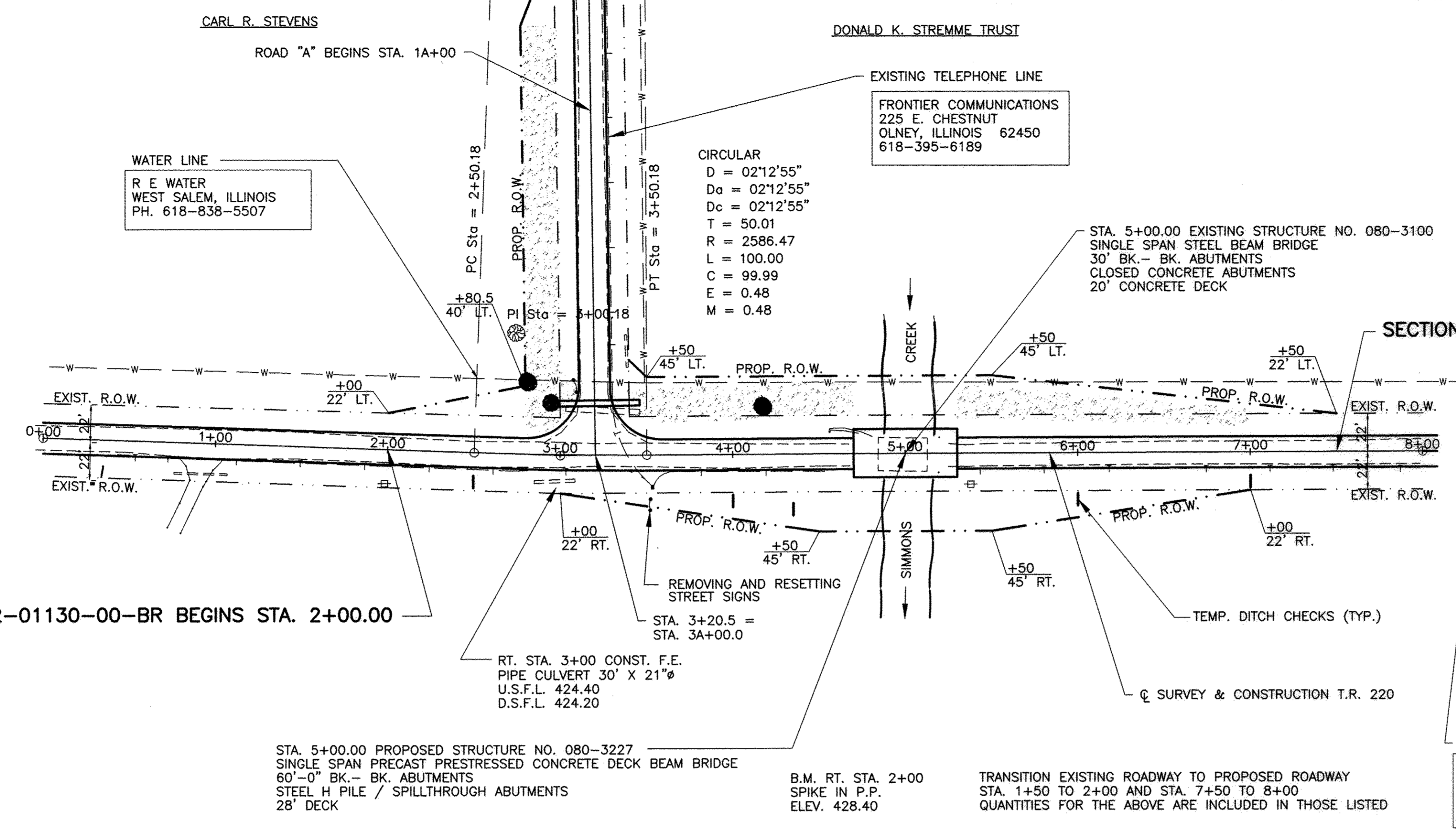


TRAVERSABLE PIPE GRATE, SPECIAL DETAIL

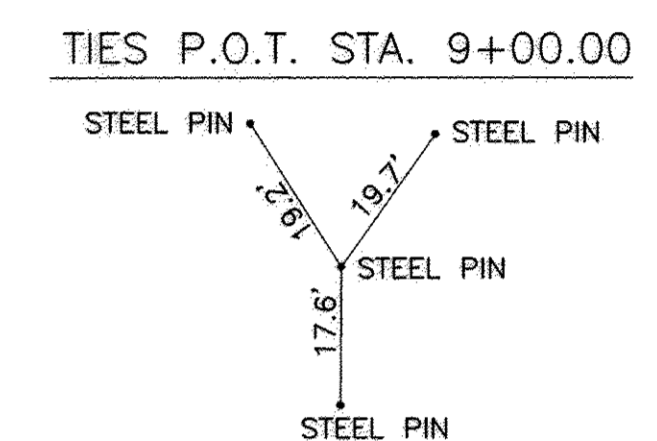
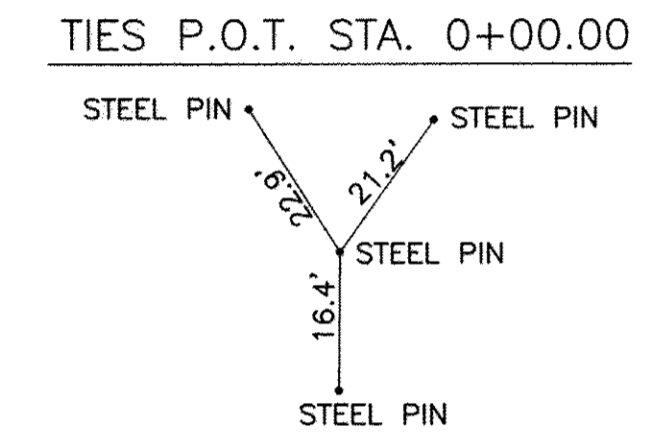
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 813	12-01130-00-BR	RICHLAND	15	3
CONTRACT 95805		ILLINOIS		



SCALES:
1" = 50' HOR
1" = 5' VER



HATCH LEGEND
AGGREGATE DITCH (SPECIAL)



SECTION 12-01130-00-BR BEGINS STA. 2+00.00

SECTION 12-01130-00-BR ENDS STA. 7+50.00

STA. 5+00.00 PROPOSED STRUCTURE NO. 080-3227
SINGLE SPAN PRECAST PRESTRESSED CONCRETE DECK BEAM BRIDGE
60'-0" BK - BK ABUTMENTS
STEEL H PILE / SPILLTHROUGH ABUTMENTS
28' DECK

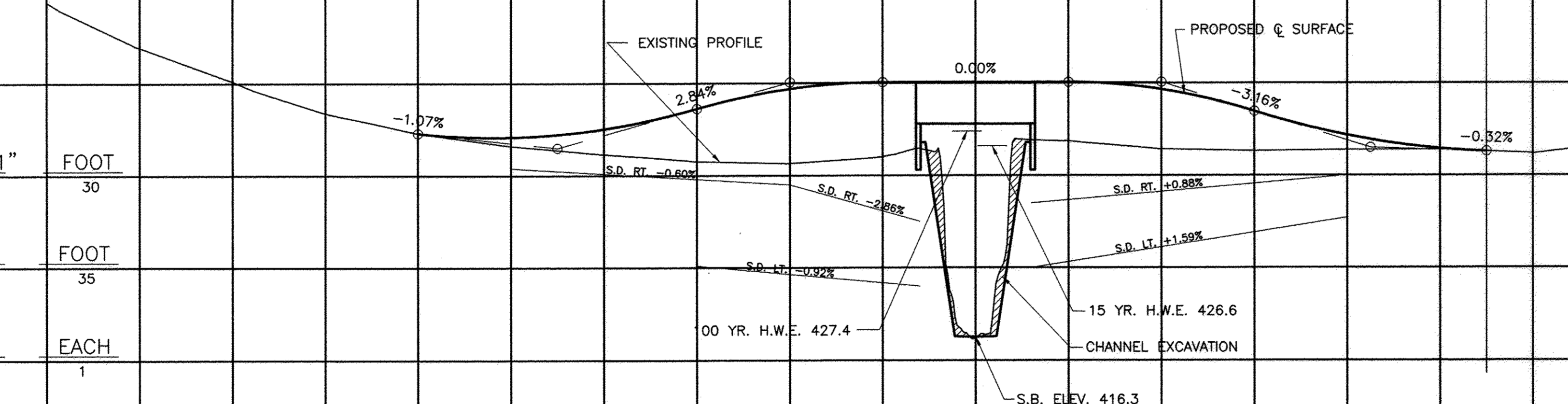
B.M. RT. STA. 2+00
SPIKE IN P.P.
ELEV. 428.40

TRANSITION EXISTING ROADWAY TO PROPOSED ROADWAY
STA. 1+50 TO 2+00 AND STA. 7+50 TO 8+00
QUANTITIES FOR THE ABOVE ARE INCLUDED IN THOSE LISTED

EXISTING POWER LINE
WAYNE-WHITE ELECTRIC CO-OP
1501 WEST MAIN
FAIRFIELD, ILLINOIS 62837
PH. 618-642-2196

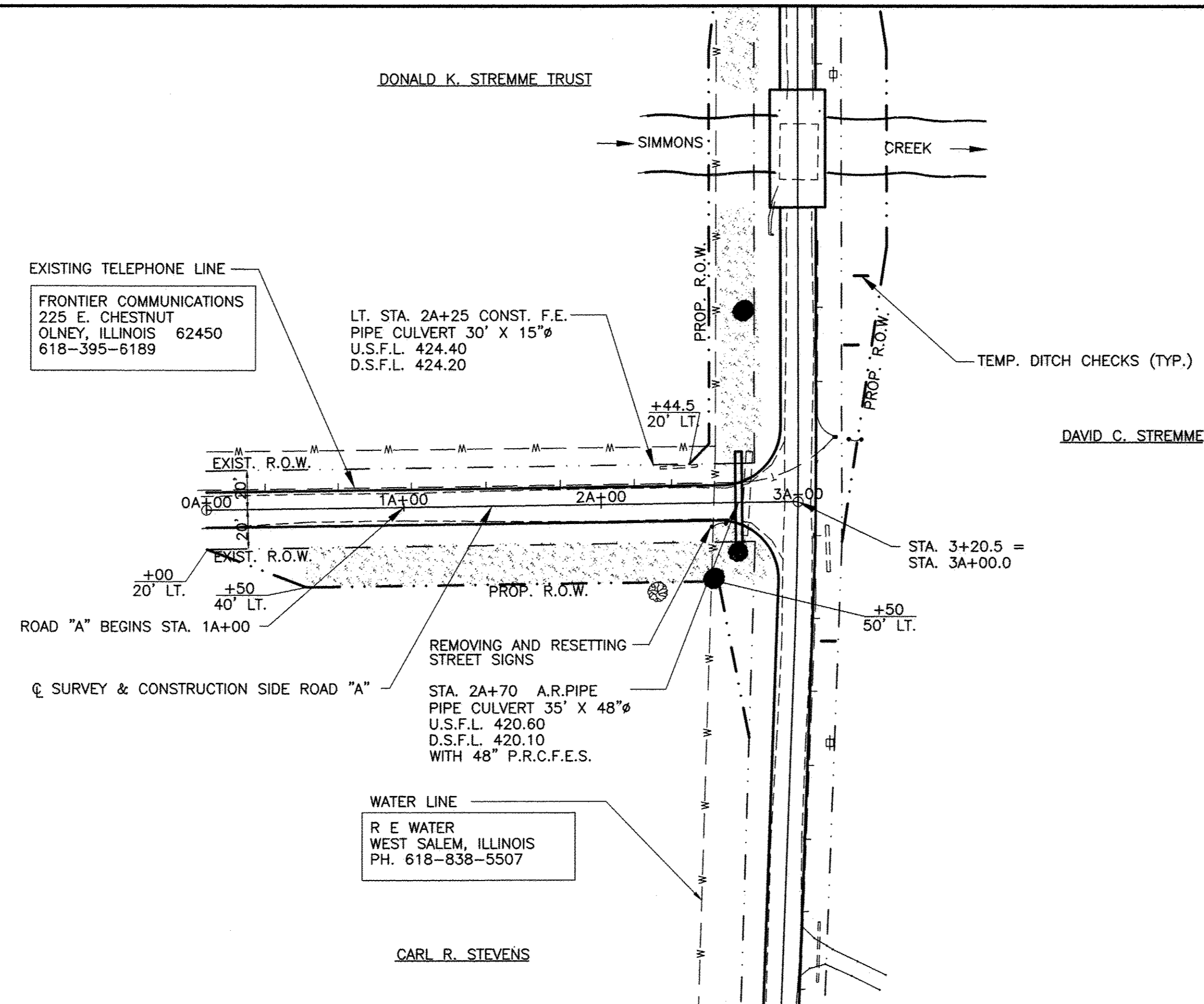
DAVID C. STREMMER

LINE NO.	DESCRIPTION	UNIT	QUANTITY	REMARKS
445	AGGREGATE DITCH	TON		
	LT. STA. 5+50 TO 4+70		120	
	LT. STA. 5+30 TO 7+00		120	
	TOTAL	TON	240	
440	PIPE CULVERT REMOVAL	FOOT	24	
435	AGGREGATE SURFACE COURSE, TYPE B	TON	400	STA. 2+00 TO 7+50
430	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.70	STA. 2+00 TO 7+50
425	TREE REMOVAL (6 TO 15 UNITS DIA.)	UNIT	44	STA. 2+00 TO 7+50
420	TEMPORARY DITCH CHECKS	FOOT	35	RT. STA. 2+00 TO 7+50
415	REM. & RESETTNG STREET SIGNS	EACH	1	RT. STA. 3+50
410				
405				
400				

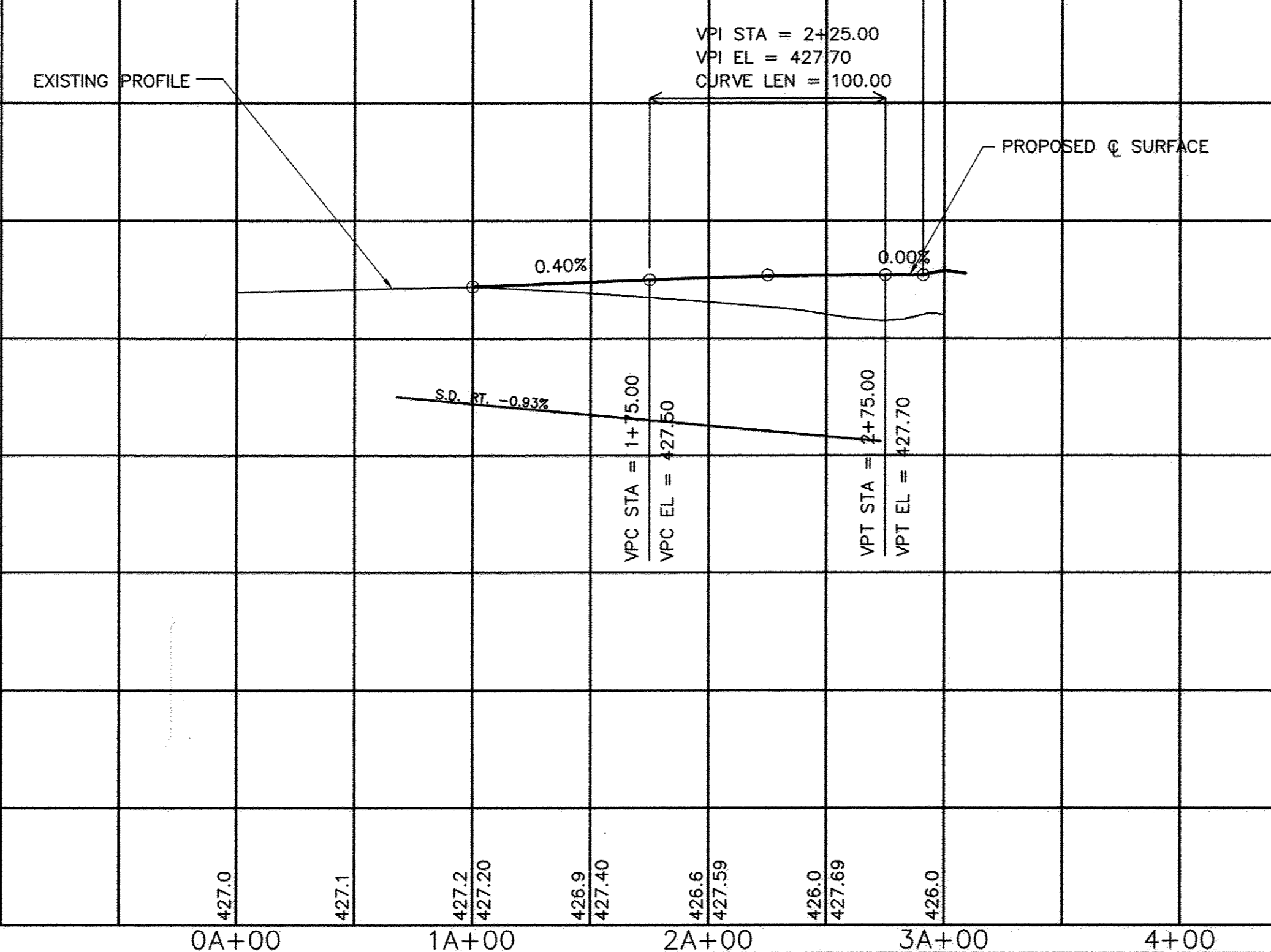


ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 813	12-01130-00-BR	RICHLAND	15	4
CONTRACT 95805		ILLINOIS		

SCALES:
 1" = 50' HOR
 1" = 5' VER

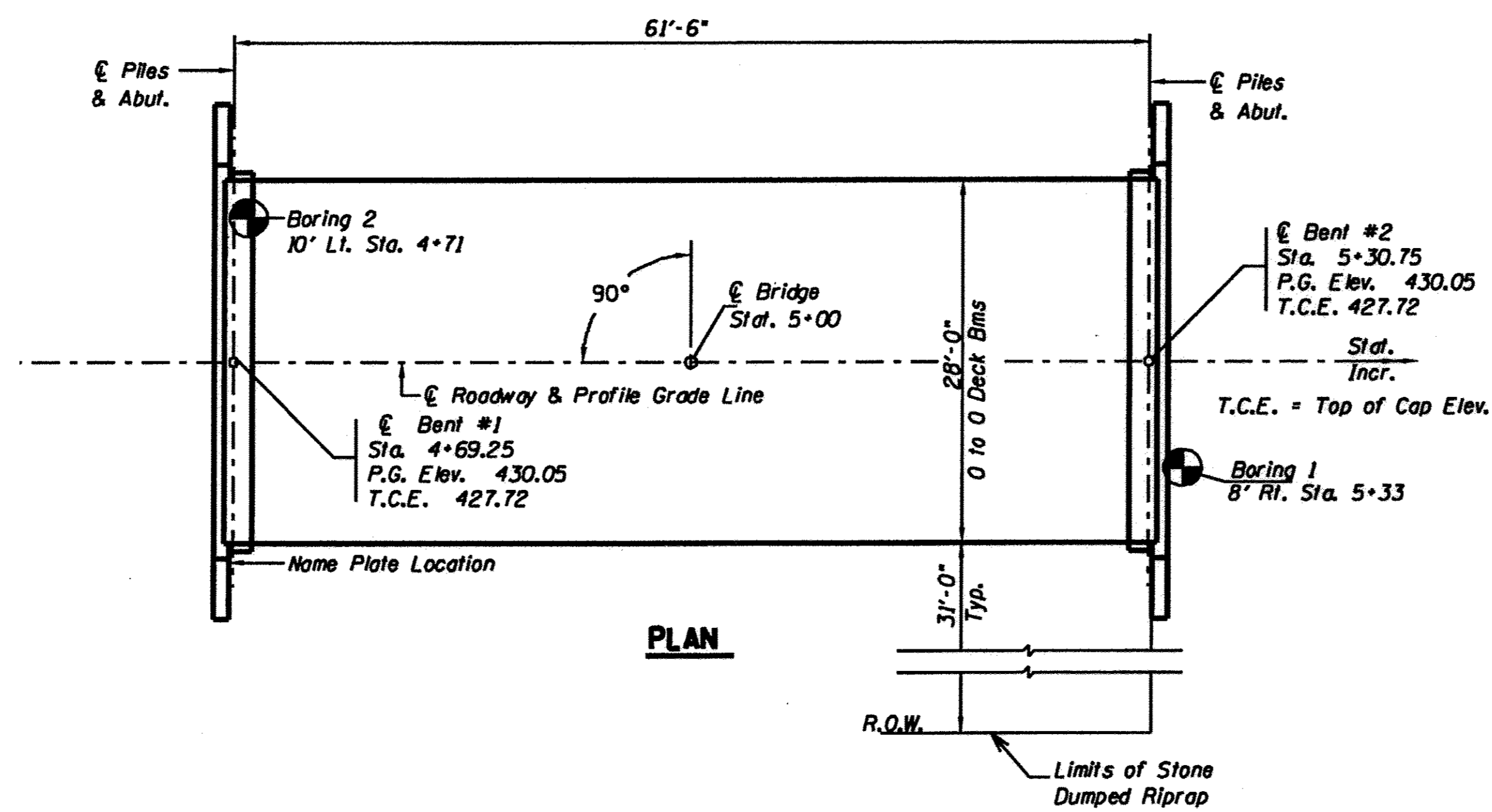
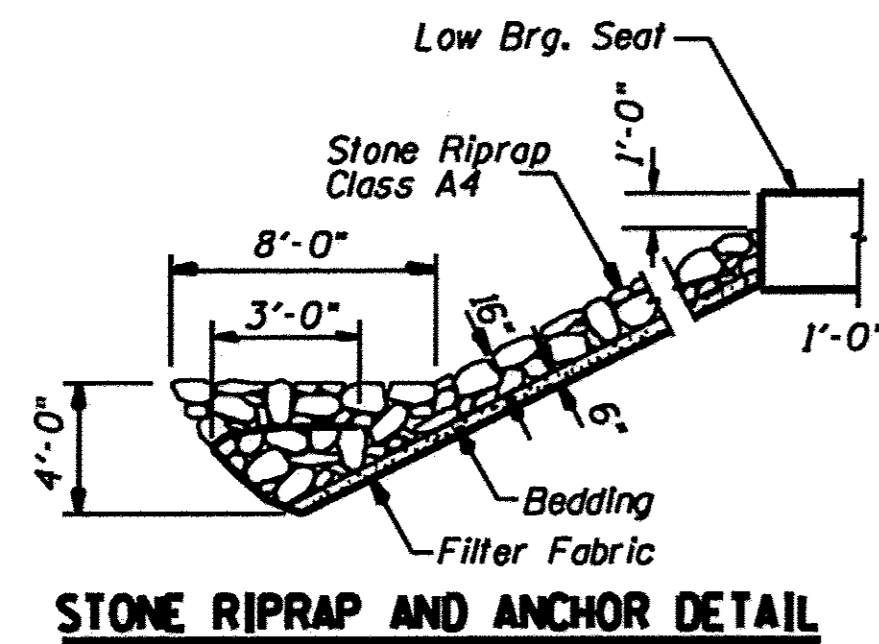
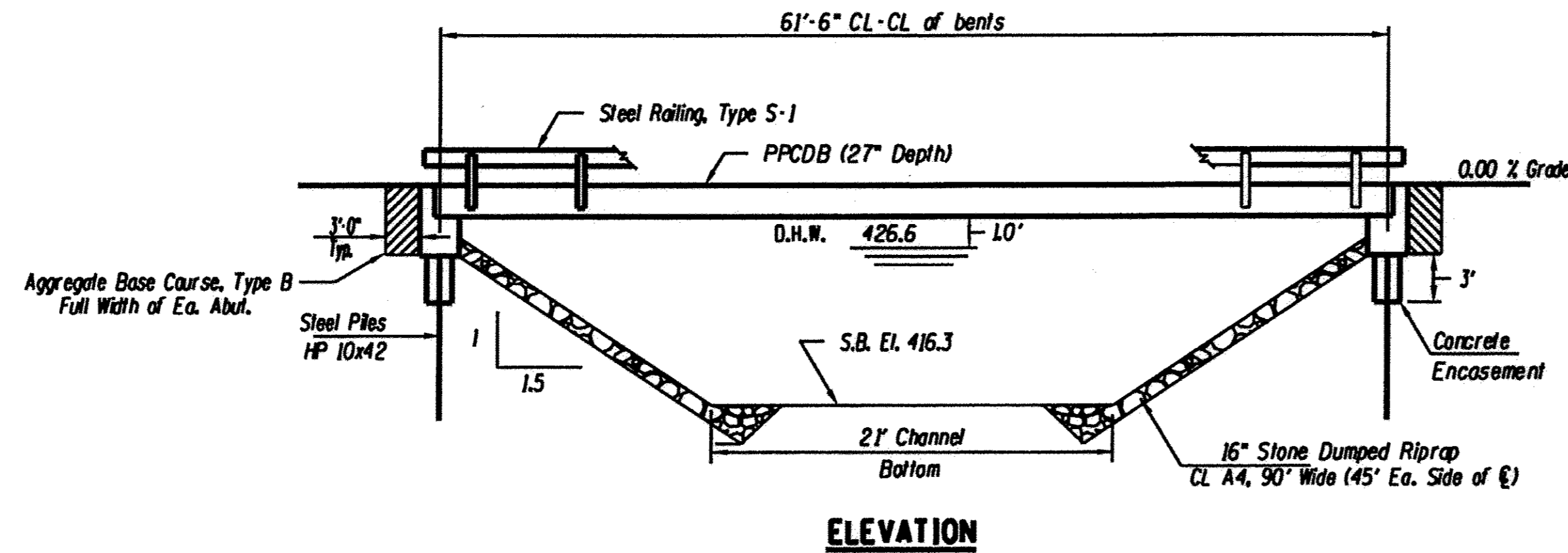


445	PREC. REINF. CONC. FLAR. END SECT. 48" EACH	2		AGGREGATE SURFACE COURSE, TYPE B	TON	155	445
440	TRAVERSABLE PIPE GRATE, SPL. FOOT	13		SEEDING, CLASS 2 (SPECIAL)	ACRE	0.25	440
435	EXISTING PROFILE			PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	30	435
430				PIPE CULVERT REMOVAL	FOOT	20	430
425						43	425
420	PIPE CULVERTS, CLASS A, TYPE 1 48" FOOT	35		REM. & RESETTING STREET SIGNS	EACH	1	420
415	AGGREGATE DITCH						415
410							410
405							405
400							400



Existing Structure - Single span bridge with Steel Beams supported on closed concrete abutments. 20' 0" to 0 Deck and 30' Bk to Bk Abutments. (To Be Removed, No Salvage) Existing S.N. 080-3100

B.M. Spike in P.P.
Rt. Sta. 2+00
Elev. 428.40

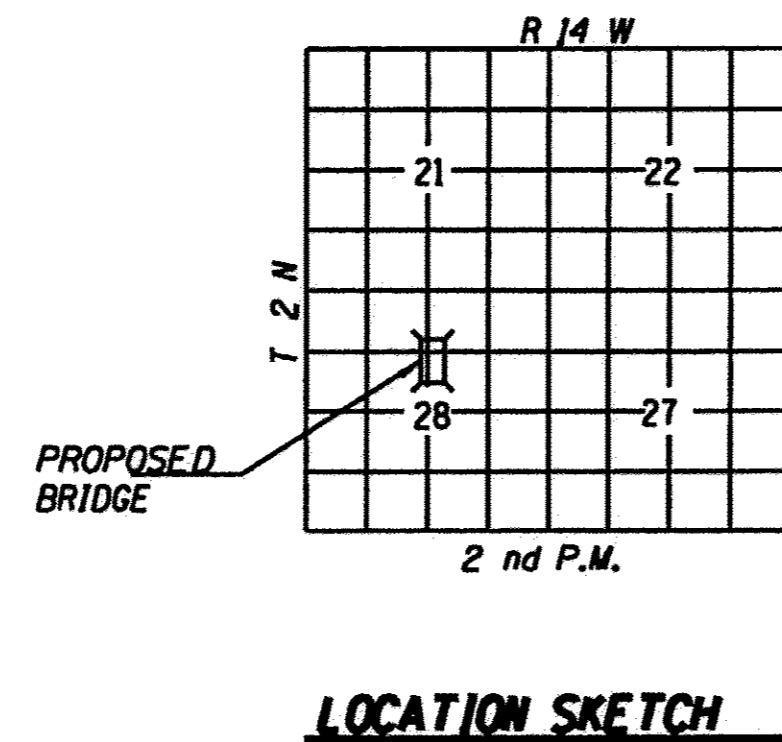


SIMMONS CREEK
SEC. 12-01130-00-BR BUILT 201-
BONPAS ROAD DISTRICT
RICHLAND COUNTY
LOADING HL-93
STR. NO. 080-3227

LETTERING FOR NAME PLATE

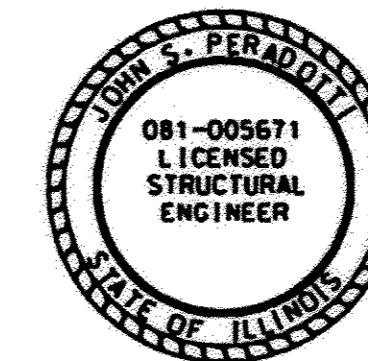
Locate Name Plate at southwest
Corner of Bridge (See Sheet 7)

Round Table Design, Inc.
1020 Main St.
Mt. Vernon, Illinois 62864
(618) 224-7819
round-table-design.com



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 type of structure and comply with the requirements of the current AASHTO LRFD Specifications.

John S. Peradotti 11/21/16
John S. Peradotti
S.E. #81-5671
Expires Nov. 30, 2016



GENERAL NOTES

- Steel H piles shall meet AASHTO M270 Grade 50 specifications.
- Test Piles shall be driven to 110% the Nominal Required Bearing indicated in the pile data.
- The Contractor shall drive one test pile, as specified, in a permanent location as directed by the Engineer before ordering the remaining piles.
- See special provisions for boring logs.
- A Corrosion inhibitor, as covered in the Standard Specifications, shall be used in the precast prestressed concrete deck beams.

TOTAL BILL OF MATERIAL

Item	Unit	Super-Structure	Sub-Structure	Total
Channel Excavation	Cu. Yds.			240
Stone Dumped Riprap, Class A4	Sq. Yd.		525	525
Filter Fabric	Sq. Yd.		605	605
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yds.		10	10
Concrete Structures	Cu. Yds.		20.4	20.4
Concrete Encasement	Cu. Yds.		2.8	2.8
P.P. Conc. Dk. Bm. 27" Dp.	Sq. Ft.	1,748		1,748
Reinforcement Bars	Pound		2,740	2,740
Steel Railing, Type S1	Foot	128		128
Furnishing Steel Piles HP10x42	Foot		245	245
Driving Piles	Foot		245	245
Test Pile Steel HP10x42	Each		1	1
Name Plates	Each		1	1
Aggregate Base Course, Type B	Ton		60	60

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications and all applicable interims.

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface

SEISMIC DATA

Soft Site Class = E
Design Spectral Acceleration at 0.2 sec. $G_{0.2}$ = 0.813
Design Spectral Acceleration at 1.0 sec. $G_{1.0}$ = 0.370
Seismic Design Category = C

WATERWAY INFORMATION

Flood	Freq. Yr.	0		Natural H.W.E.		Head-Ft.		Headwater EL	
		C.F.S.	Opening Sq. Ft.	Exisl.	Prop.	Exisl.	Prop.	Exisl.	Prop.
Design	15	1095	261	411	426.6	0.0	0.0	426.60	426.60
Base	100	1790	261	485	427.4	0.50	0.0	427.40	427.40
Overlapping									
Max. Calc.	500								

GENERAL PLAN & ELEVATION
F.A.S. ROUTE 813 (OAKTREE RD.)
OVER SIMMONS CREEK
SECTION 12-01130-00-BR
RICHLAND COUNTY
STRUCTURE NO. 080-3227

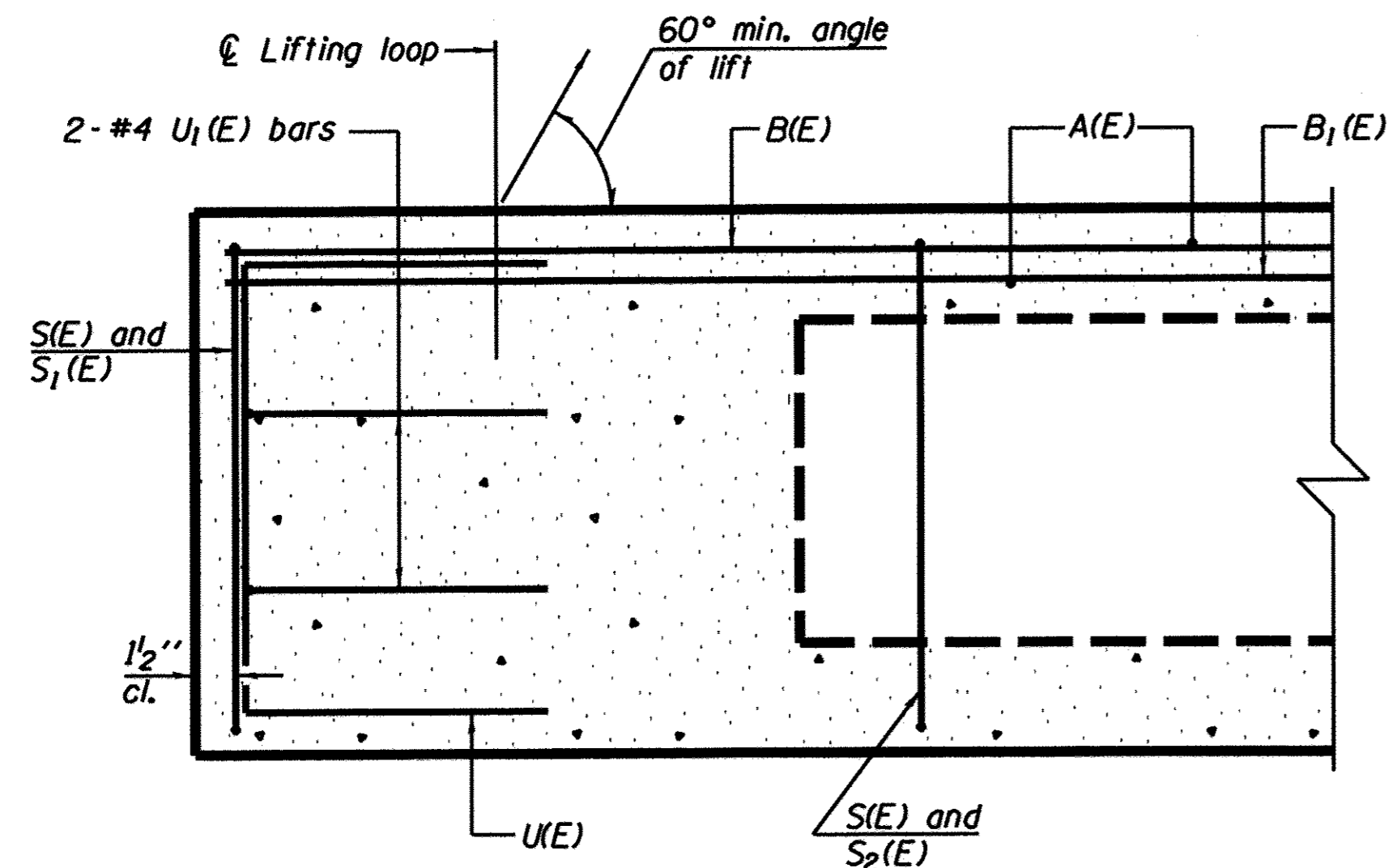
USER NAME :	DESIGNED -	REVISED -
	CHECKED -	REVISED -
PLOT SCALE :	DRAWN -	REVISED -
PLOT DATE :	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 080-3227

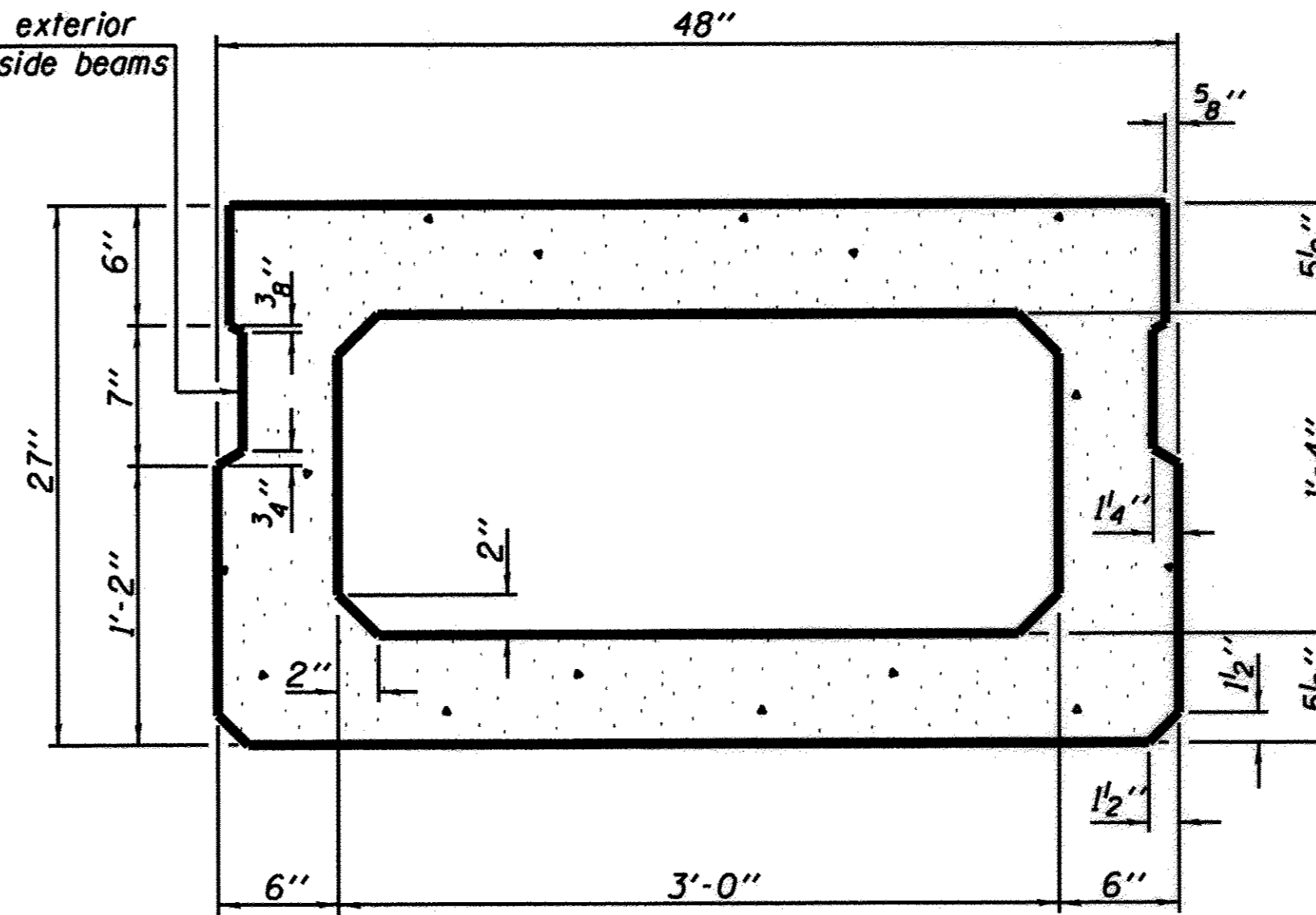
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
813	12-01130-00-BR	RICHLAND	15	5
CONTRACT NO. 95805				

ILLINOIS FED. AID PROJECT

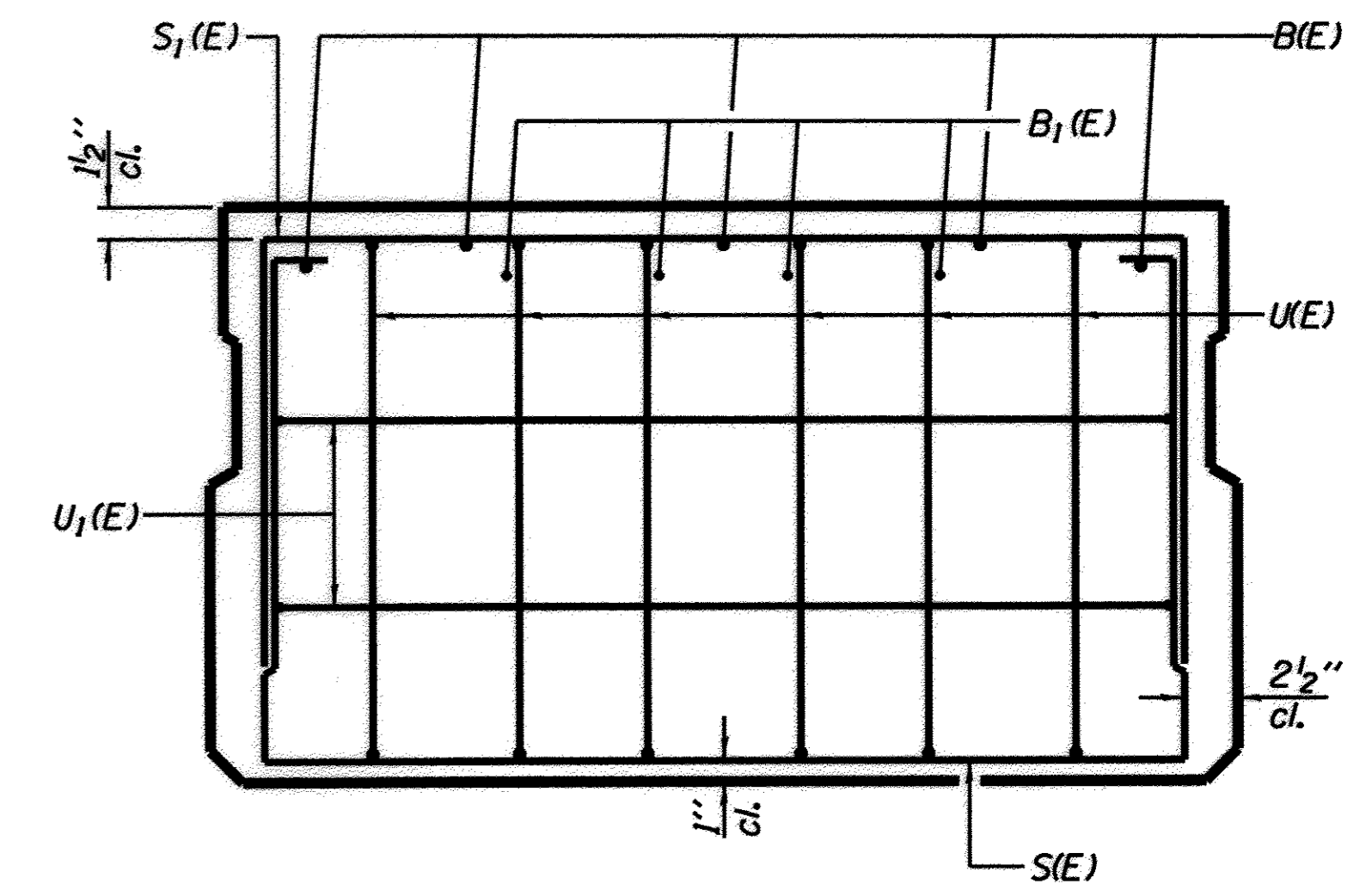


SECTION A-A

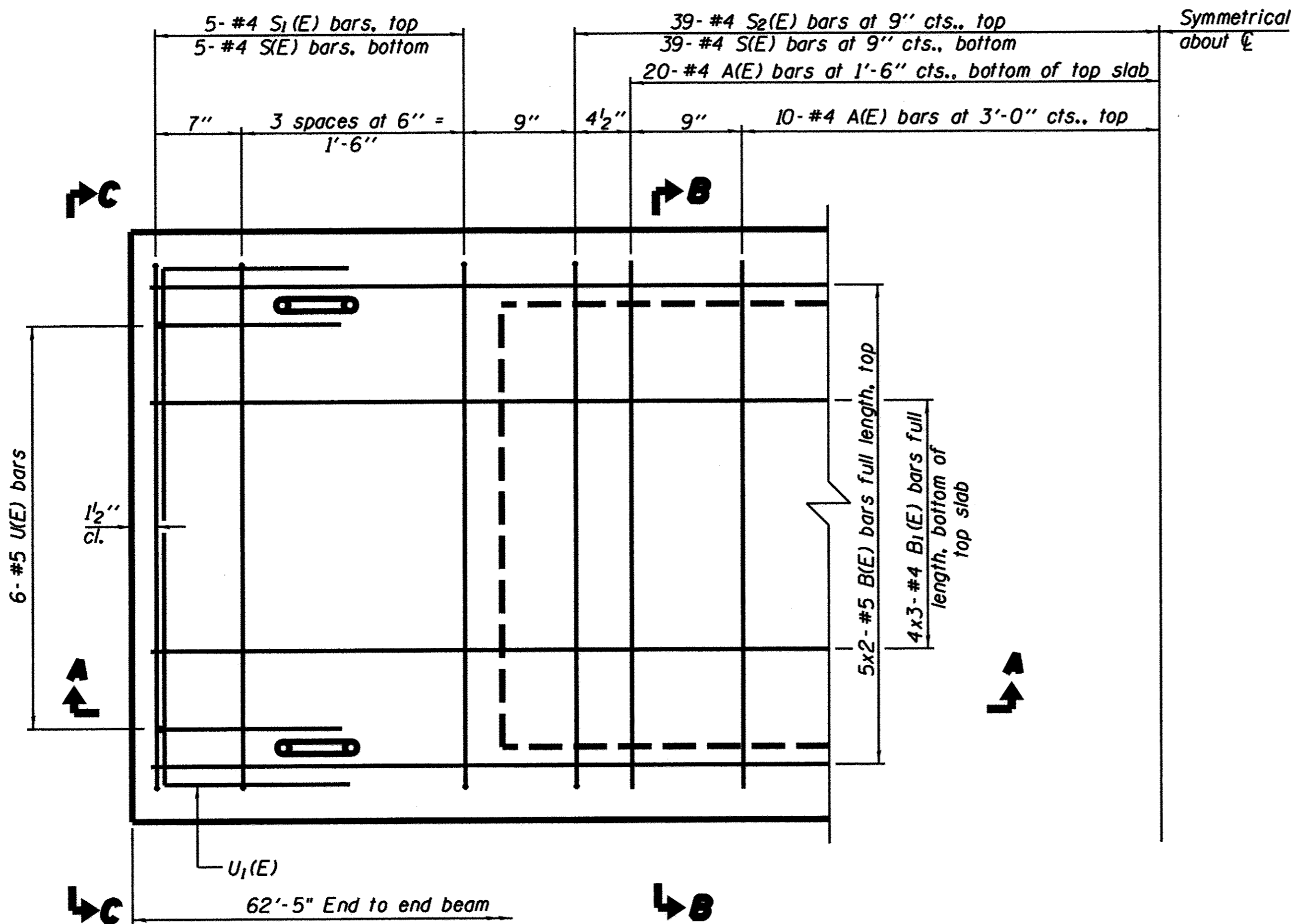
Omit key on exterior face of outside beams



SECTION B-B
(Showing dimensions)

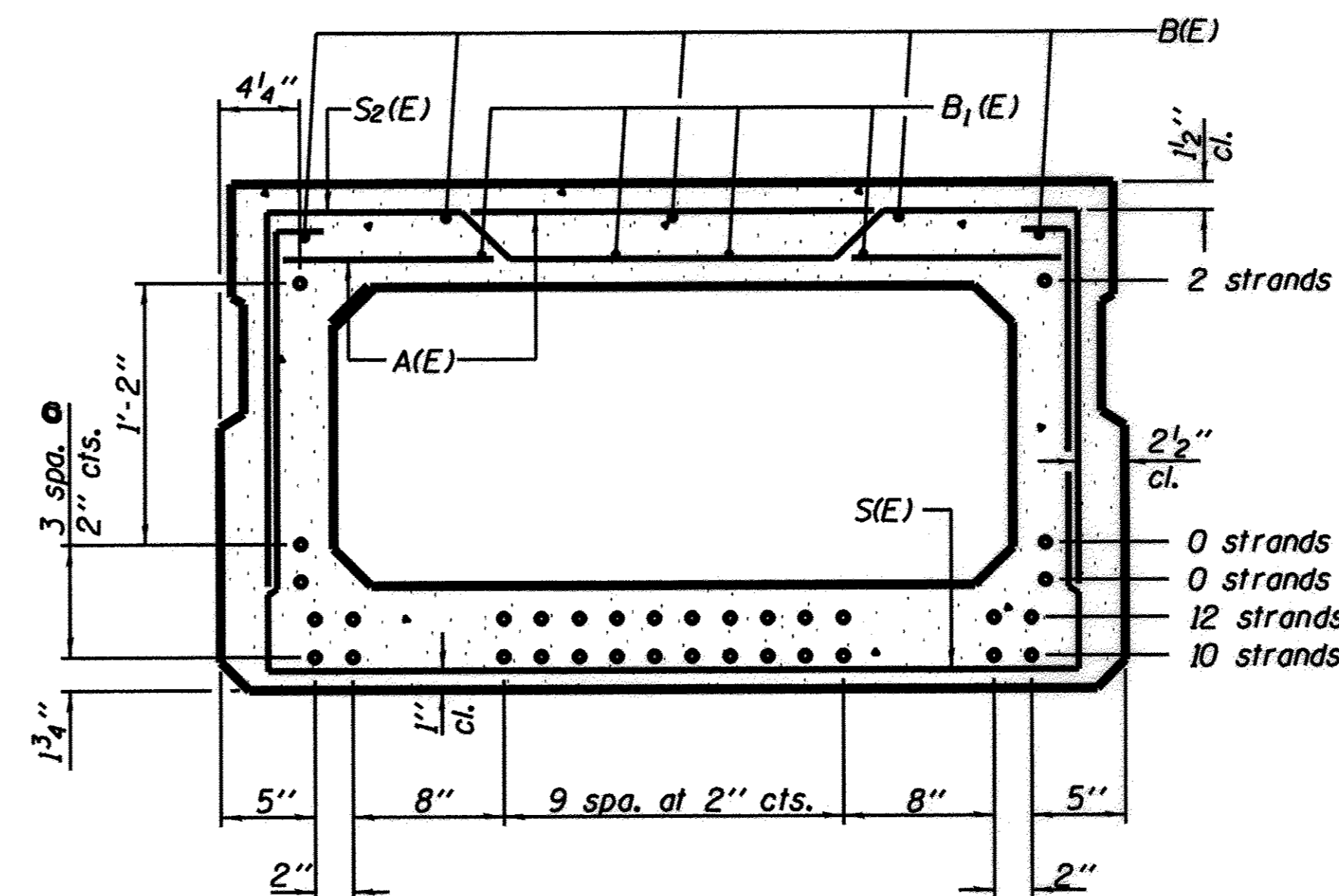


VIEW C-C



PLAN VIEW

Symmetrical about $\bar{\bar{c}}$



SECTION B-B

(Showing reinforcement and permissible strand locations)
Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	60	#4	3'-7"	—
B(E)	10	#5	32'-4"	—
B1(E)	12	#4	22'-0"	—
S(E)	88	#4	8'-5"	—
S1(E)	10	#4	6'-11"	—
S2(E)	78	#4	7'-2"	—
UK(E)	12	#5	4'-6"	—
U1(E)	4	#4	6'-0"	—

Note: See sheet 3 of 7 for additional details and Bill of Material.

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

MINIMUM BAR LAP

#4 bar = 1'-11"
#5 bar = 2'-6"

FD-2748-0

6-8-15

FILE NAME *	USER NAME *	DESIGNED -	REVISED -
		CHECKED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -
PLOT SCALE *			
PLOT DATE *			

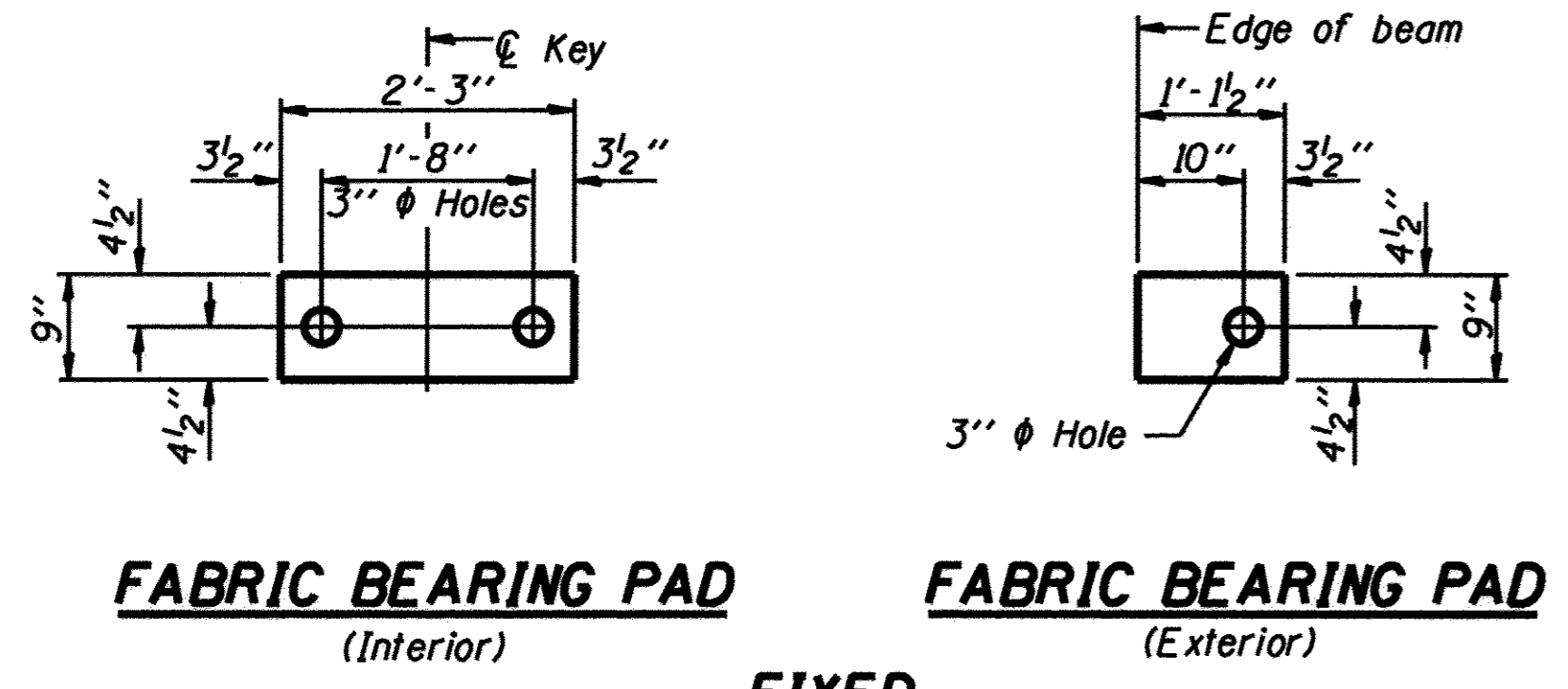
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

27" x 48" PPC DECK BEAM
STRUCTURE NO. 080-3227

Sheet 2 of 7

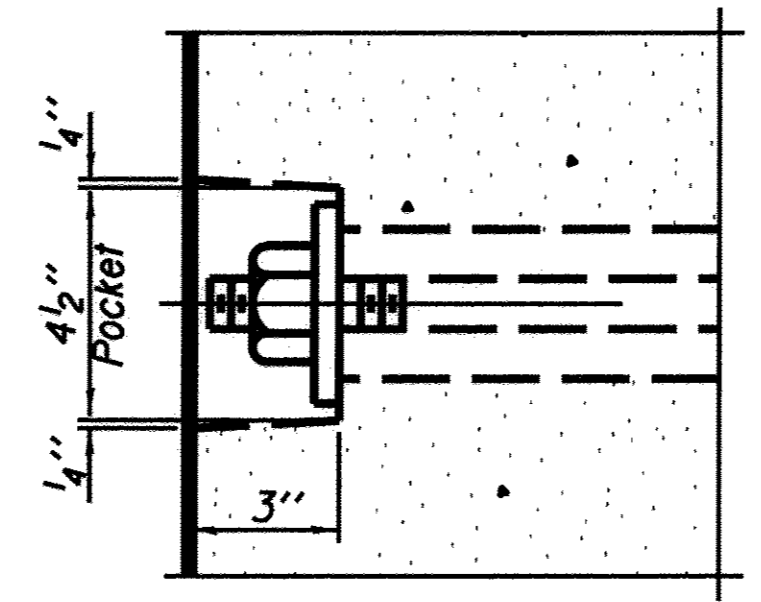
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
813	12-01130-00-BR	Richland	15	6
			CONTRACT NO. 95805	
ILLINOIS FED. AID PROJECT				

27" x 48" PPC DECK BEAMS
F.A.S. ROUTE 813 (OAKTREE RD.)
OVER SIMMONS CREEK
SECTION 12-01130-00-BR
RICHLAND COUNTY
STRUCTURE NO. 080-3227

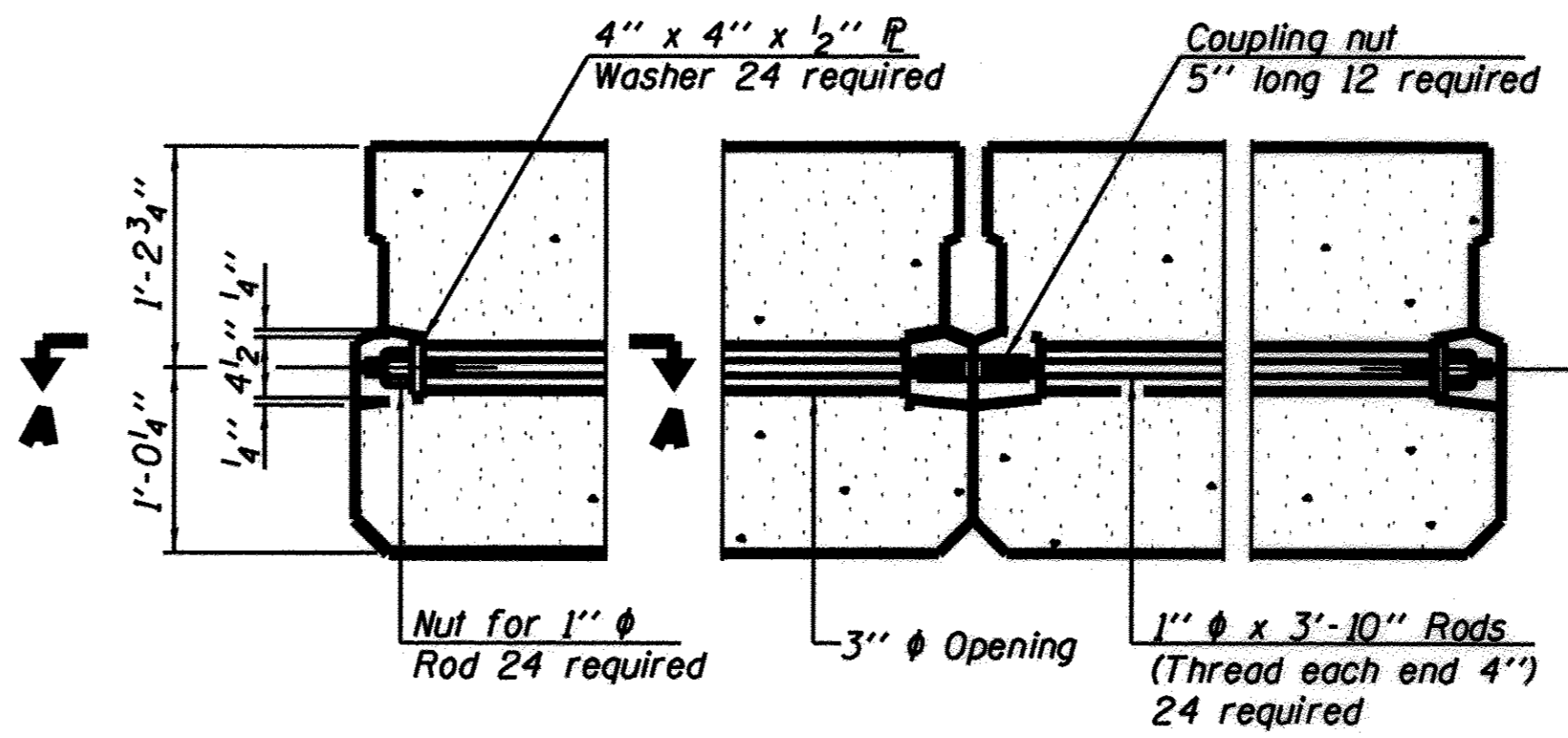


FABRIC BEARING PAD
(Interior) **FIXED**
FABRIC BEARING PAD
(Exterior)

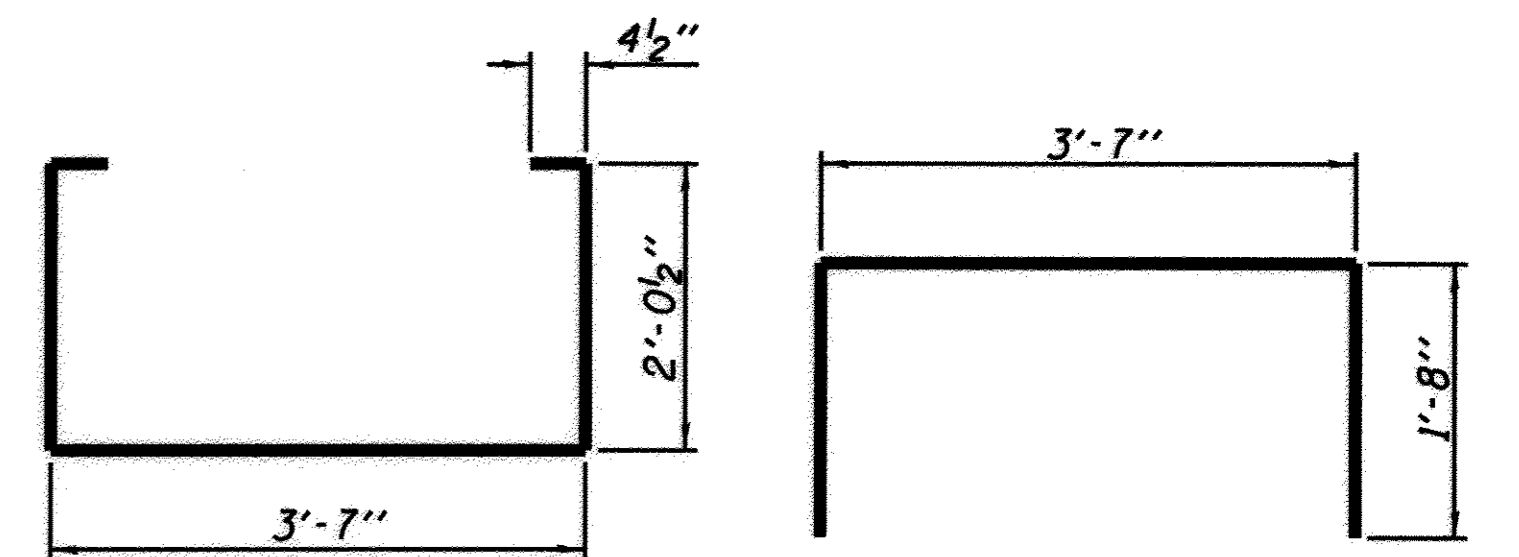
Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.



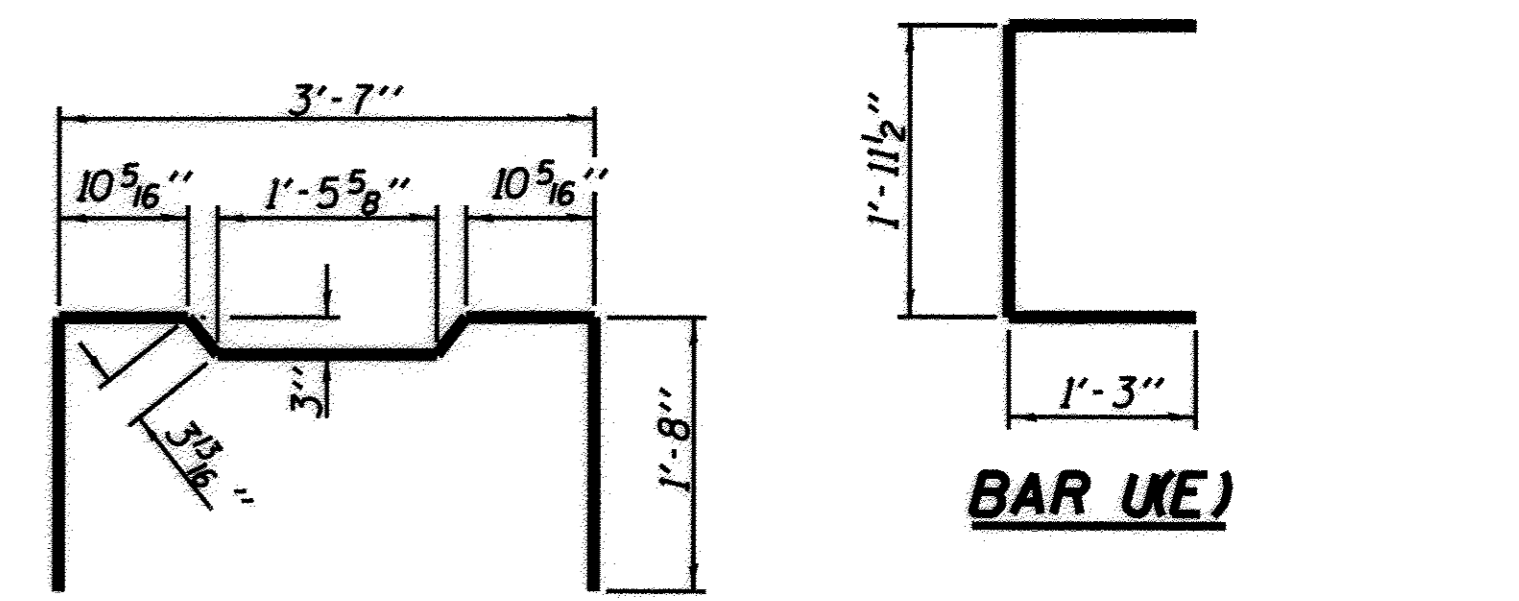
SECTION A-A



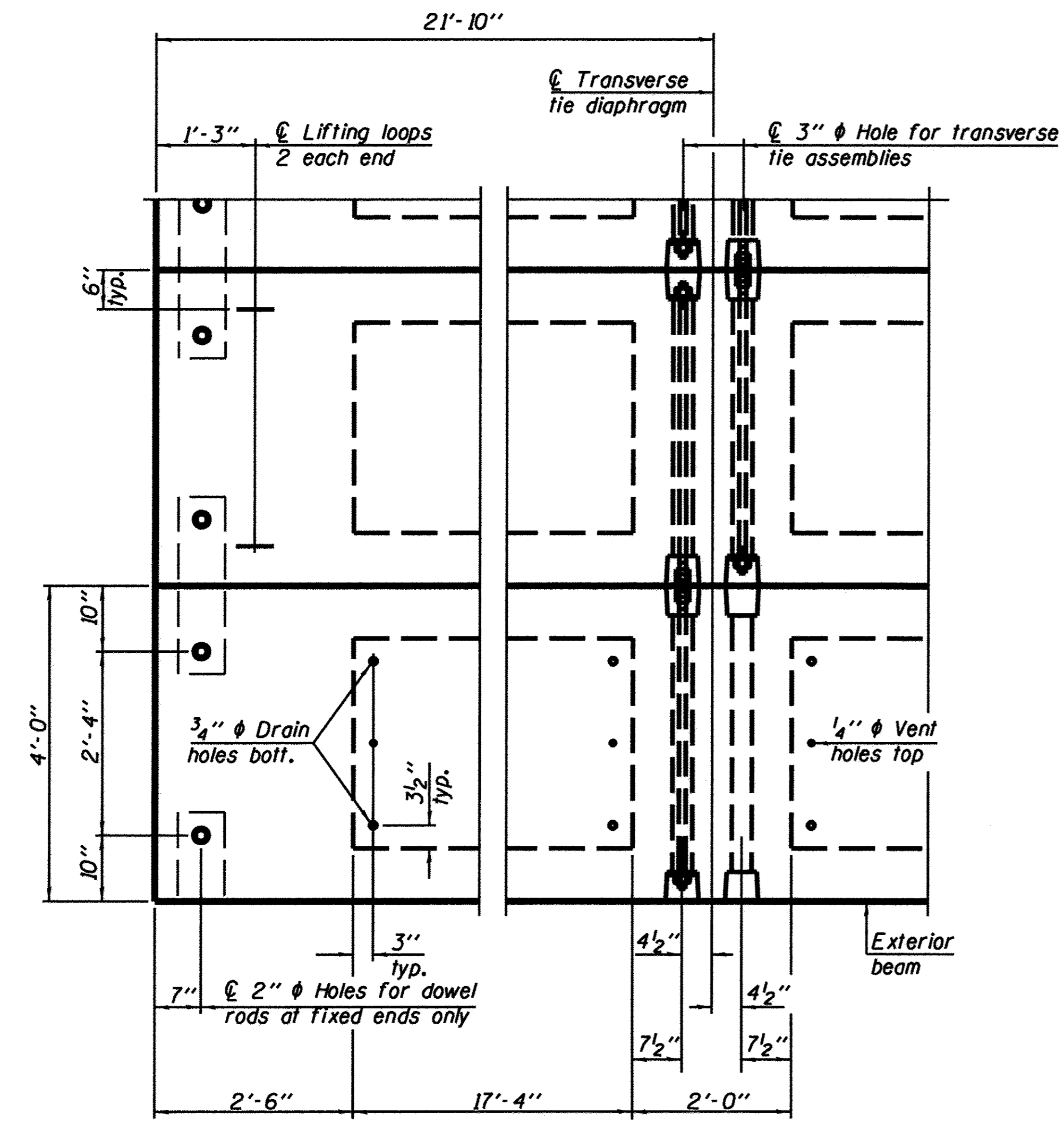
TYPICAL TRANSVERSE TIE ASSEMBLY



BAR S1(E)
BAR S2(E)

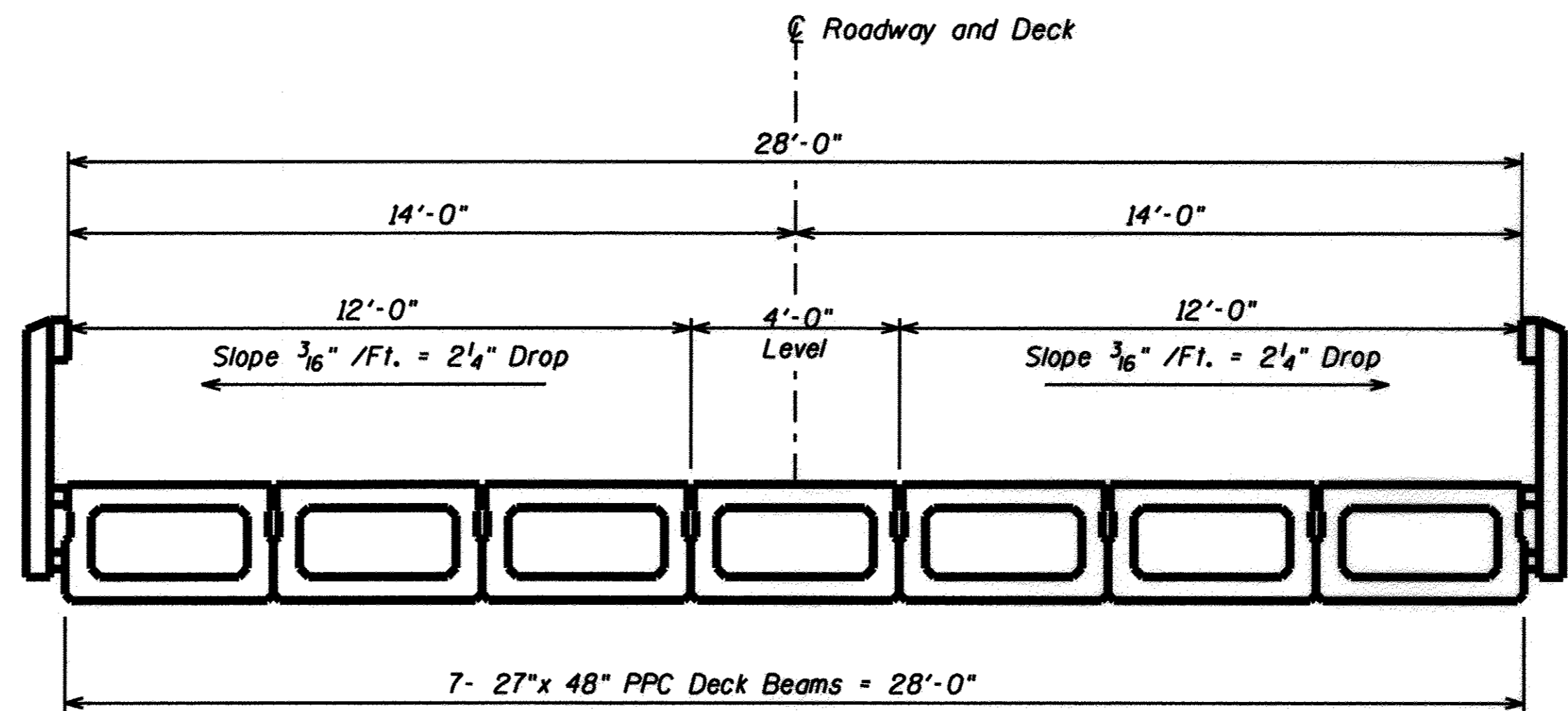


BAR U1(E)
BAR UE)



PLAN VIEW

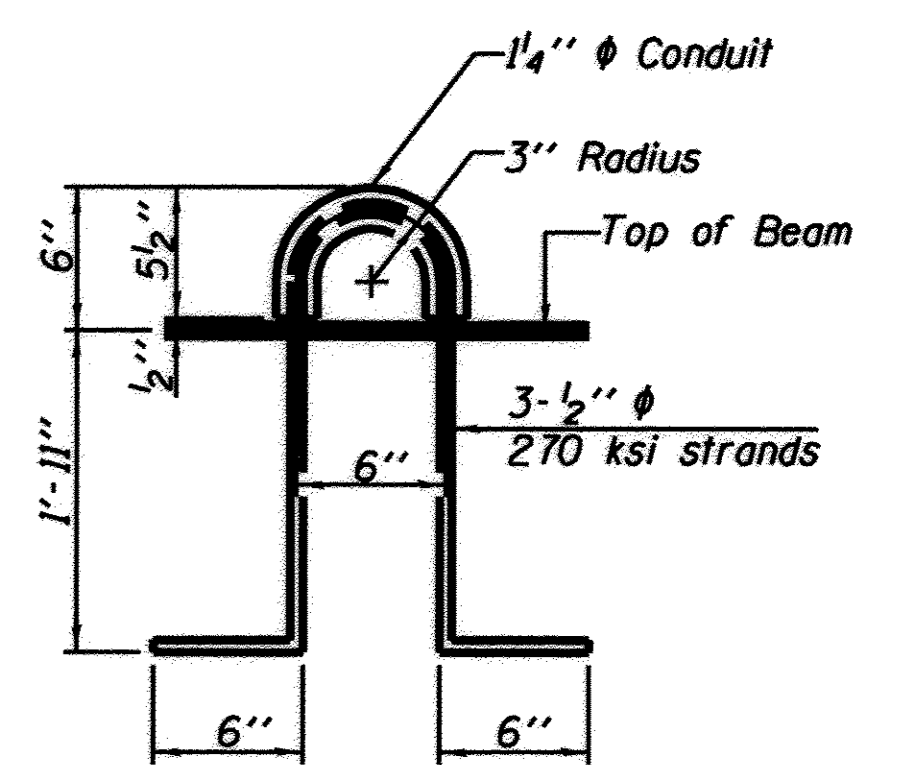
Note: Connect beams in pairs with the transverse tie configuration shown.



CROSS SECTION

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.
The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).
Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
A minimum 2 1/2" lifting pin shall be used to engage the lifting loops during handling.
Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.



LIFTING LOOP DETAIL

BILL OF MATERIAL

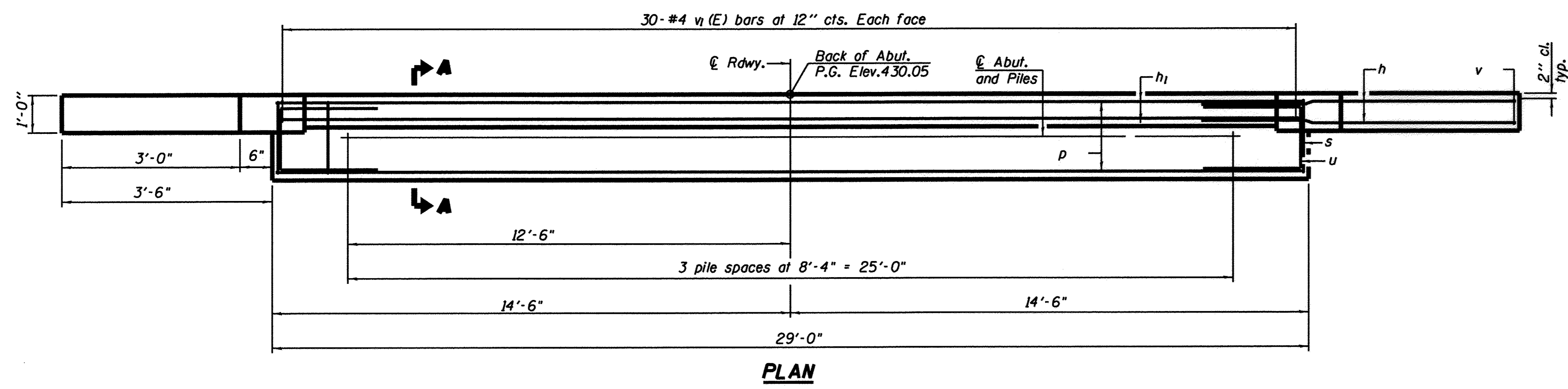
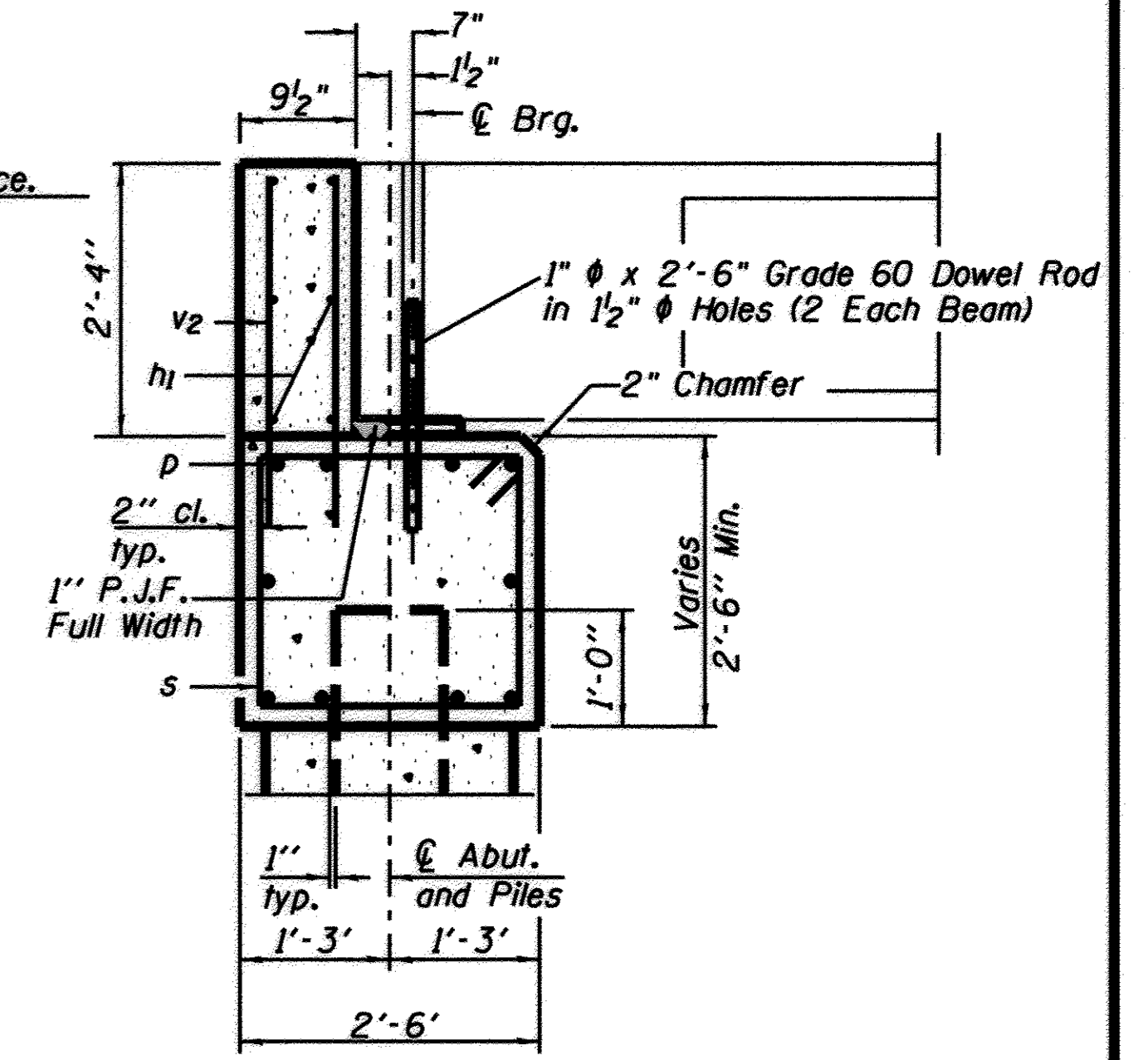
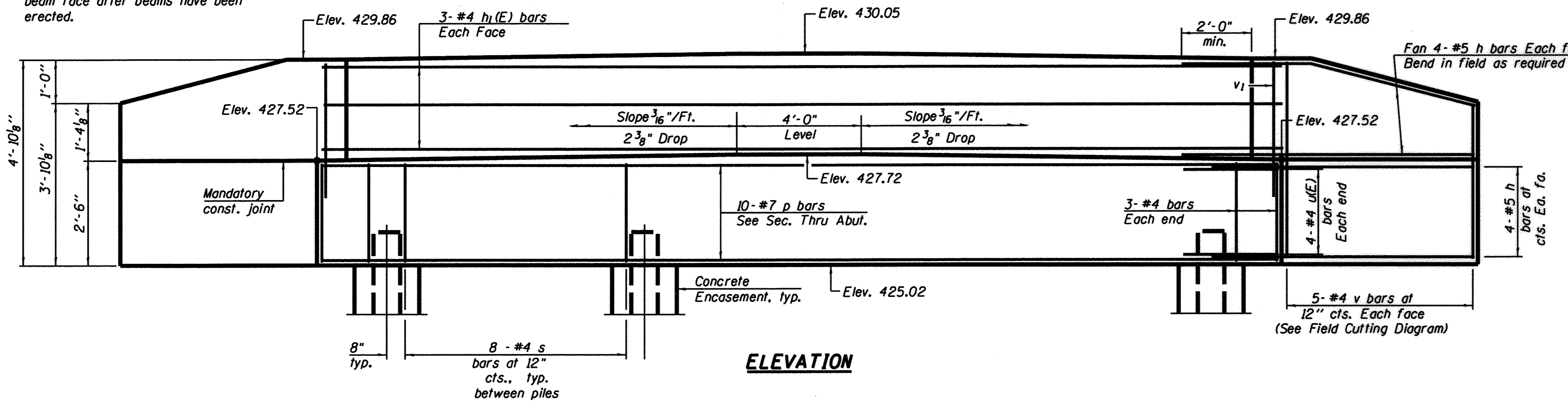
Precast Prestressed Conc. Deck Bms. (27" depth)	Sq. Ft.	1748
---	---------	------

27" x 48" PPC DECK BEAMS DETAILS
F.A.S. ROUTE 813 (OAKTREE RD.)
OVER SIMMONS CREEK
SECTION 12-01130-00-BR
RICHLAND COUNTY
STRUCTURE NO. 080-3227

PD-2748-0D 6-8-15

FILE NAME =	USER NAME =	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	27" x 48" PPC DECK BEAM DETAILS STRUCTURE NO. 080-3227	F.A.S. RTE. 813	SECTION 12-01130-00-BR	COUNTY Richland	TOTAL SHEETS 15	SHEET NO. 7
PLOT SCALE =	DRAWN -	REVISED -	REVISED -			CONTRACT NO. 95805				
PLOT DATE =	CHECKED -	REVISED -	REVISED -			ILLINOIS FED. AID PROJECT				

Cast top of wingwall flush with exterior beam face after beams have been erected.

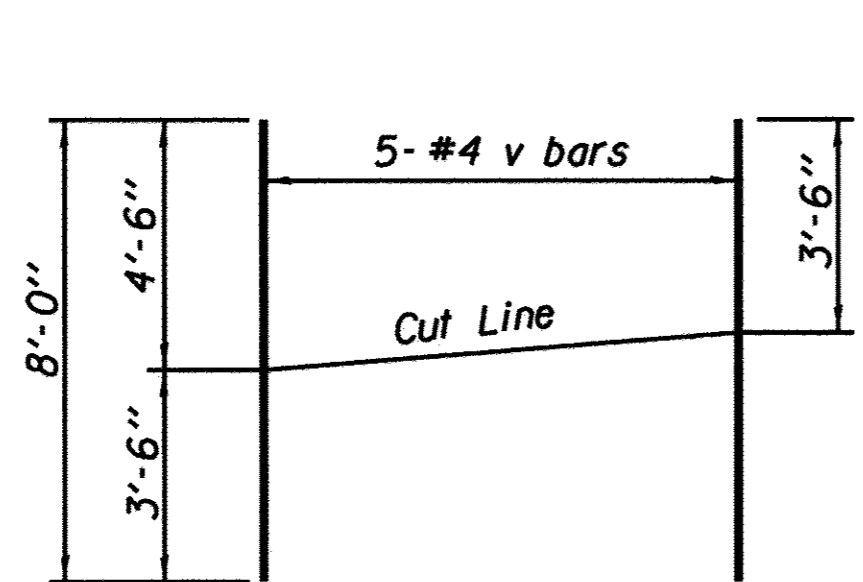


BILL OF MATERIAL FOR TWO ABUTMENTS

Bar	No.	Size	Length	Shape
h	64	#5	5'-10"	—
h ₁	12	#4	29'-0"	—
p	20	#7	28'-8"	—
s	60	#4	9'-5"	□
u	16	#4	10'-1"	┌
v	20	#4	8'-0"	—
v ₁	120	#4	4'-4"	—
Structure Excavation		Cu. Yd.	10	
Concrete Structures		Cu. Yd.	20.4	
Reinforcement Bars, Epoxy Coated		Pound	2740	
Furnishing Steel Piles, HP10x42		Foot	245	
Driving Piles		Foot	245	
Test Pile		Each	1	
Concrete Encasement		Cu. Yd.	2.8	

PILE DATA

Type: HP10x42
 Nominal Required Bearing: 310
 Factored Resistance Available: 170
 Est. Length: 35
 No. Production Piles: 7
 No. Test Piles: 1, Bent #1



Notes:
 For details of piles and Concrete Encasement, see sheet 8 of 14.
 Cast backwall after beams and concrete wearing surface, if applicable, have been erected.

ABUTMENTS
 F.A.S. ROUTE 813 (OAKTREE RD.)
 OVER SIMMONS CREEK
 SECTION 12-01130-00-BR
 RICHLAND COUNTY
 STRUCTURE NO. 080-3227

AD-2742-0

7-1-10

FILE NAME *	USER NAME *	DESIGNED -	REVISD -
		CHECKED -	REVISD -
		DRAWN -	REVISD -
		CHECKED -	REVISD -

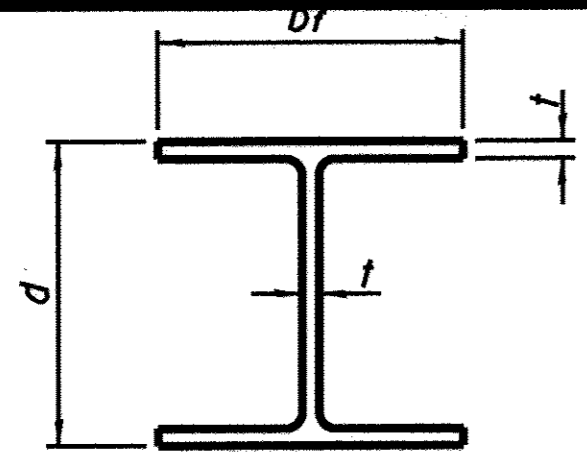
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

ABUTMENTS
 STRUCTURE NO. 080-3227

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
813	12-01130-00-BR	Richland	15	8
CONTRACT NO. 95805				

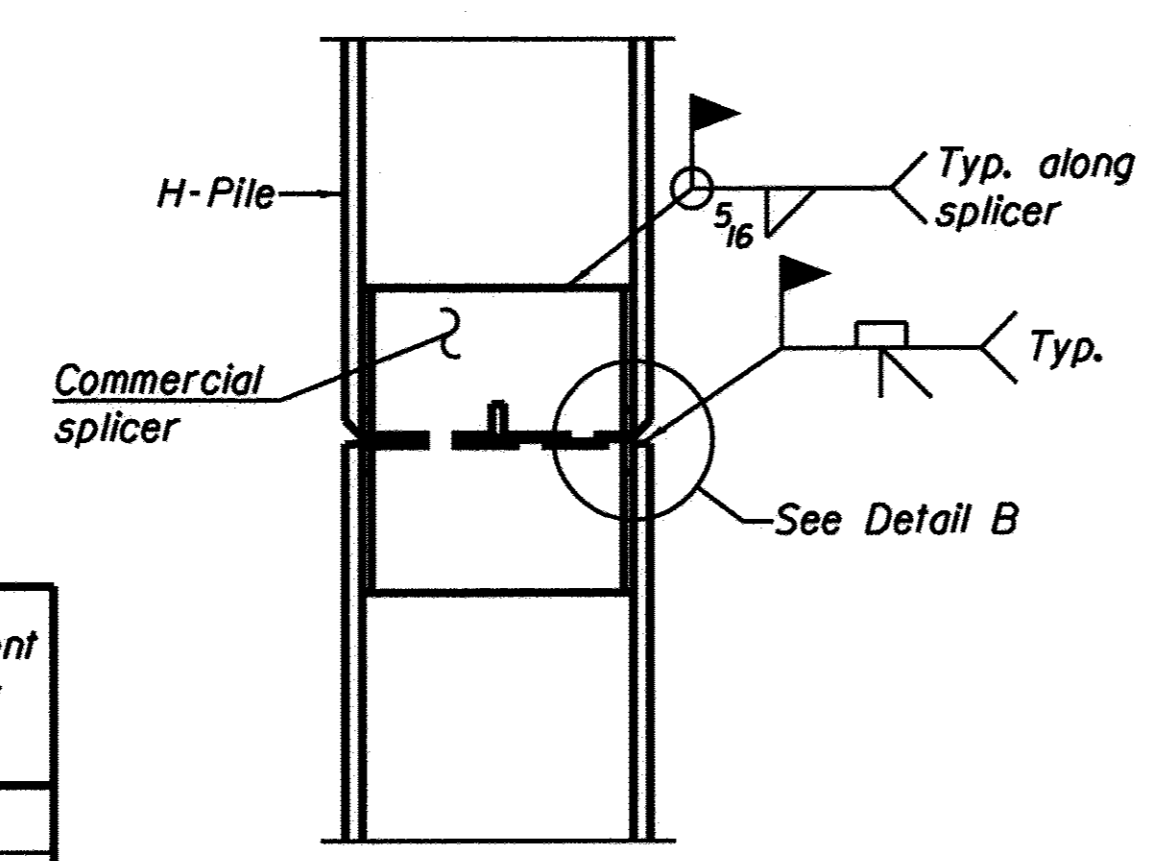
ILLINOIS FED. AID PROJECT

Sheet 4 of 7

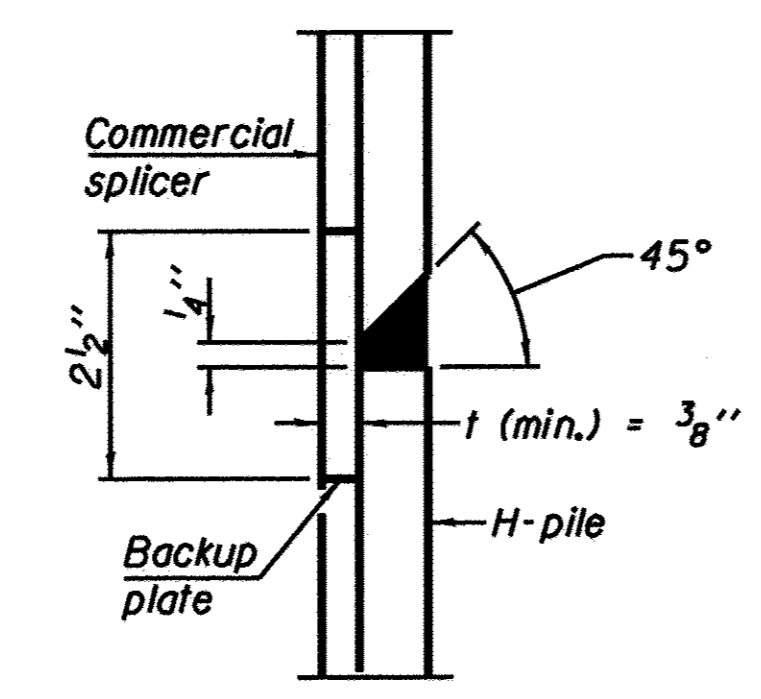


STEEL PILE TABLE

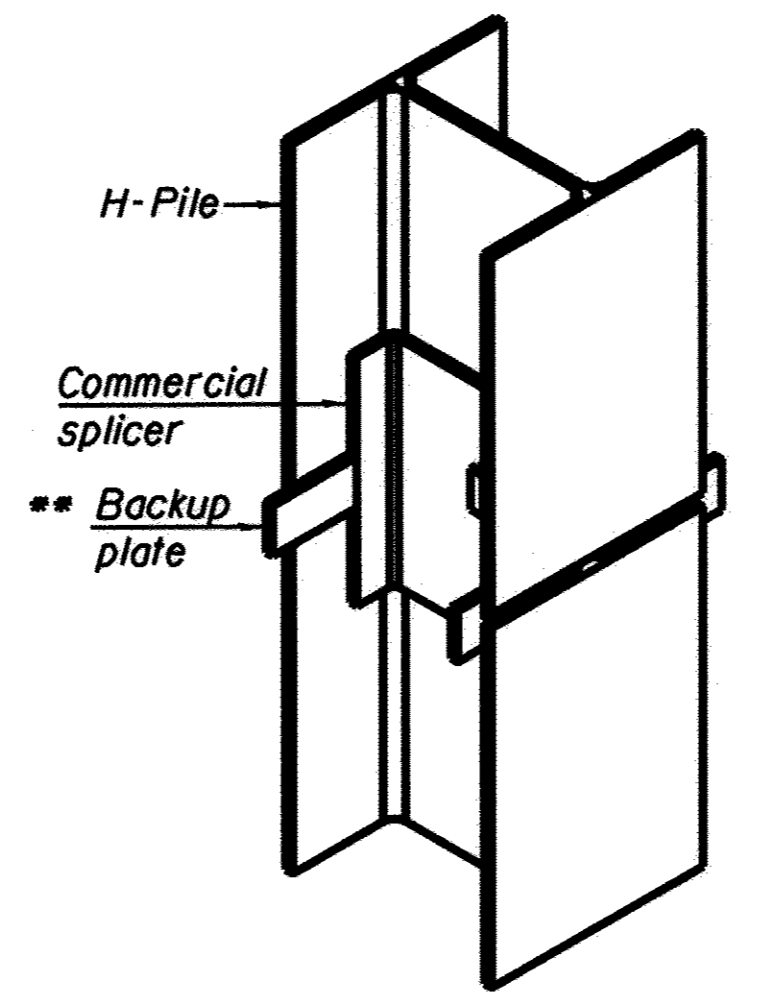
Designation	Depth d	Flange width b _f	Web and Flange thickness t	Encasement diameter A	Encasement Quantity C.Y./ft.
HP 14x117	14 1/4"	14 7/8"	1 5/16"	30"	0.173
x102	14"	14 3/4"	1 1/16"	30"	0.174
x89	13 7/8"	14 3/4"	5/8"	30"	0.175
x73	13 5/8"	14 5/8"	1/2"	30"	0.176
HP 12x84	12 1/4"	12 1/4"	1 1/16"	24"	0.110
x74	12 1/8"	12 1/4"	5/8"	24"	0.111
x63	12"	12 1/8"	1/2"	24"	0.112
x53	11 3/4"	12"	7/16"	24"	0.112
HP 10x57	10"	10 1/4"	9/16"	24"	0.112
x42	9 3/4"	10 1/8"	7/16"	24"	0.113
HP 8x36	8"	8 1/8"	7/16"	18"	0.063



ELEVATION

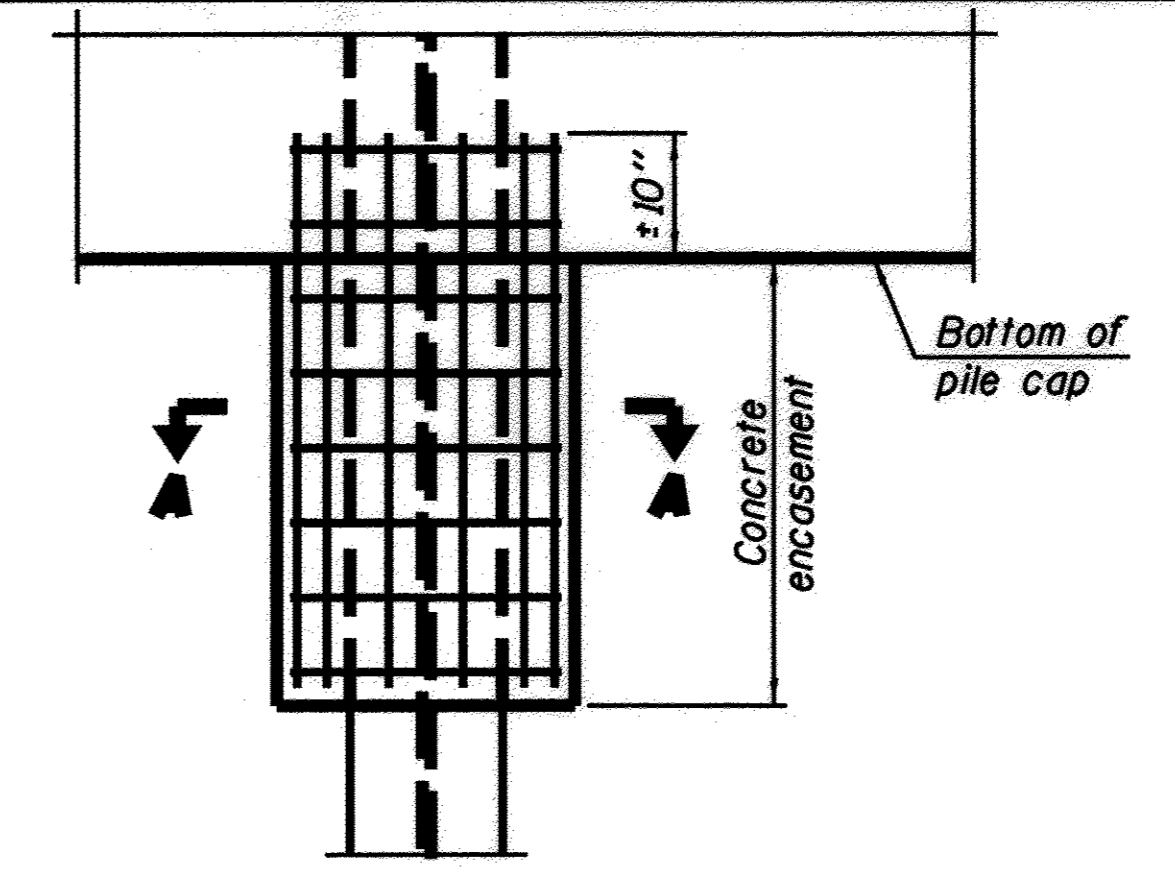


DETAIL "B"



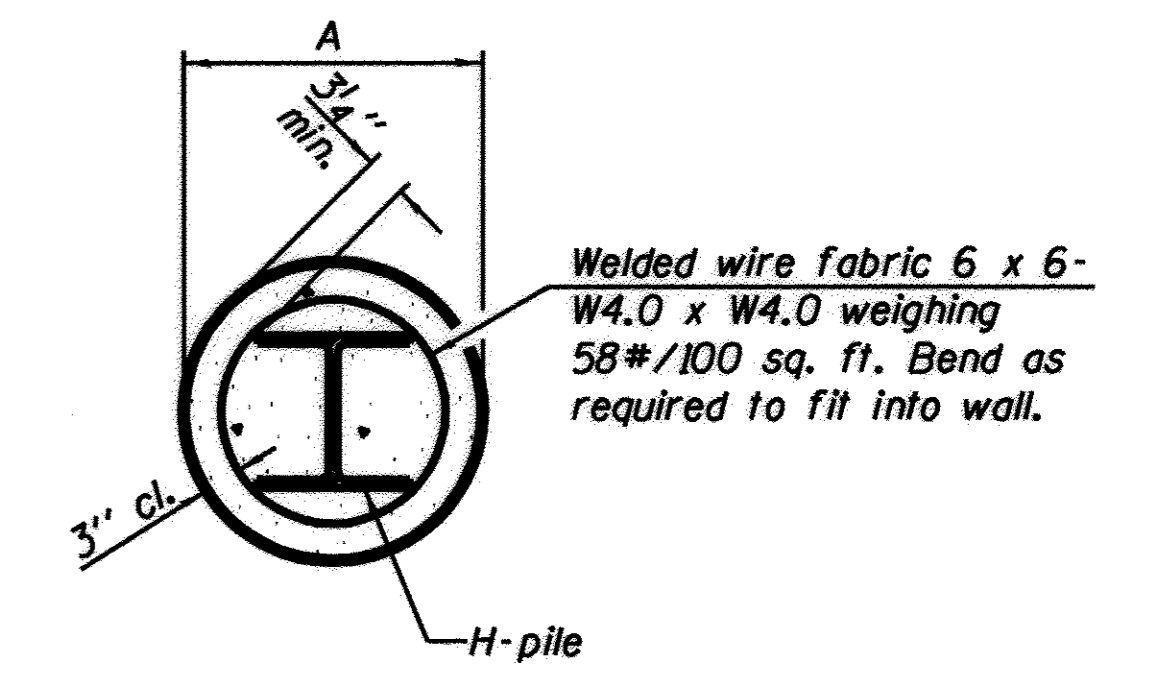
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



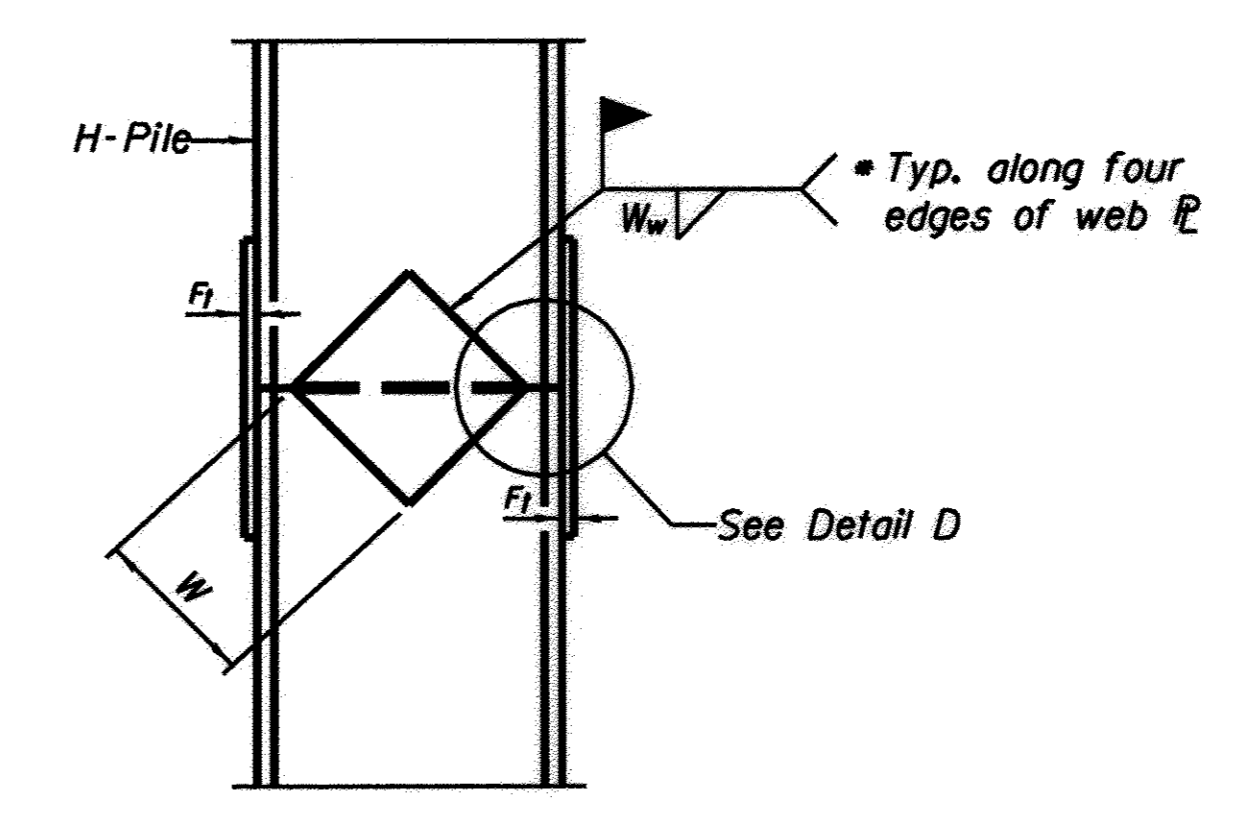
ELEVATION

PILE ENCASEMENT

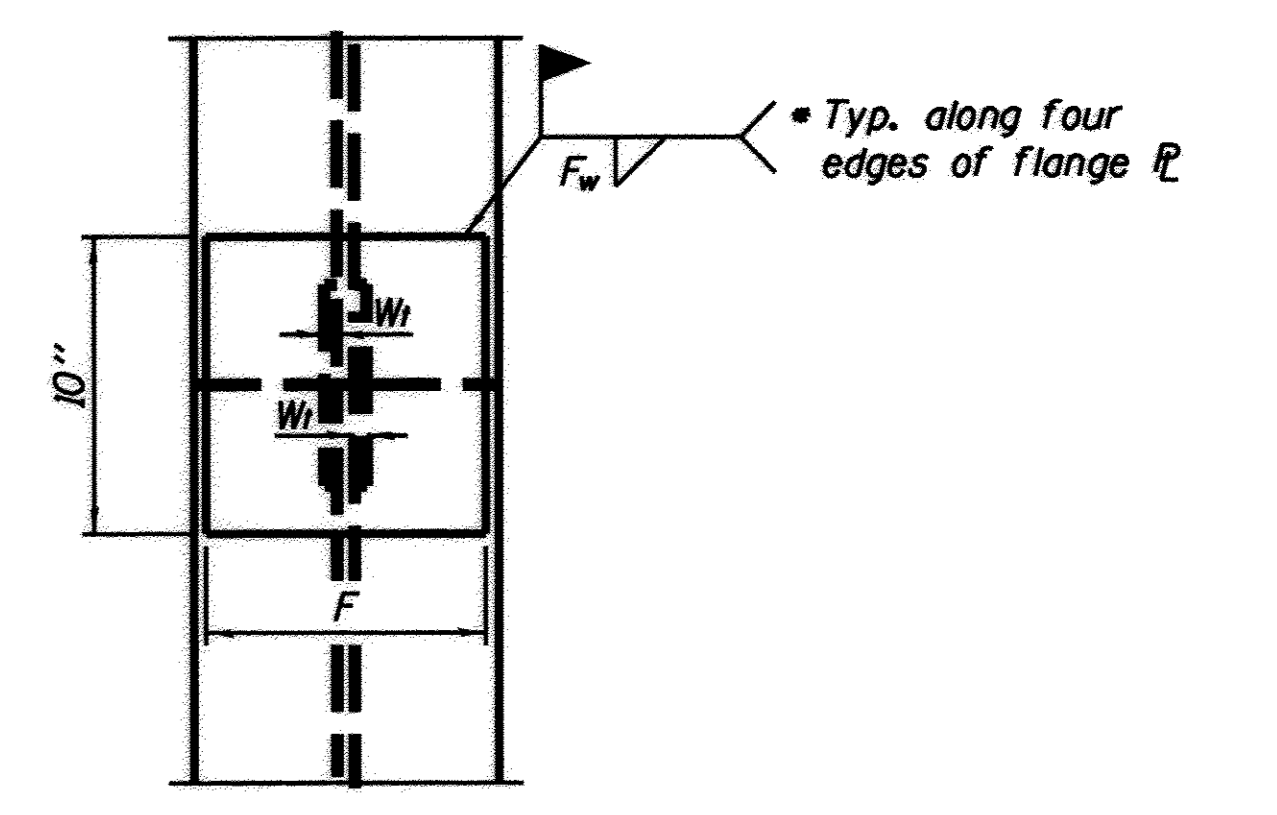


SECTION A-A

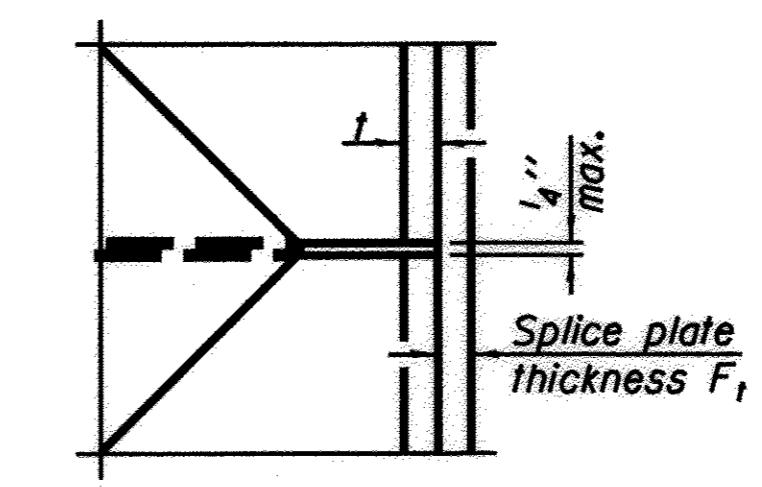
Note:
Forms for encasement may be omitted when soil conditions permit.



ELEVATION



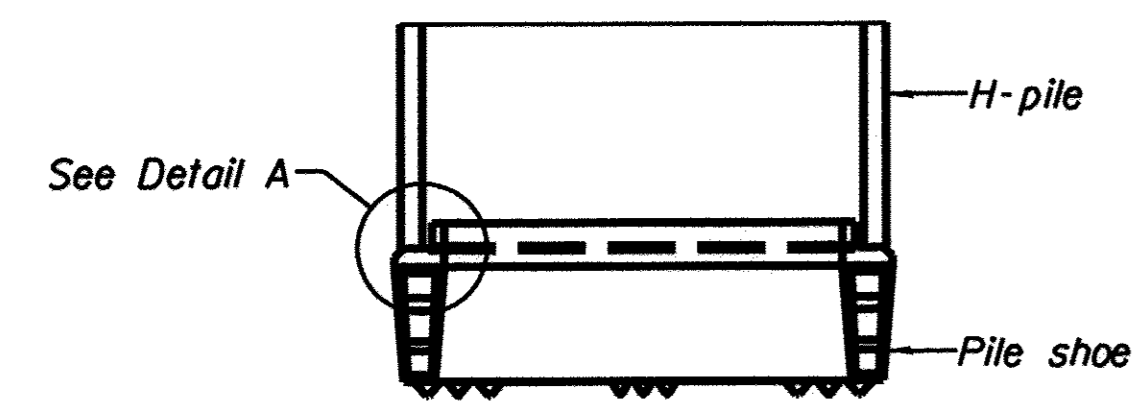
END VIEW



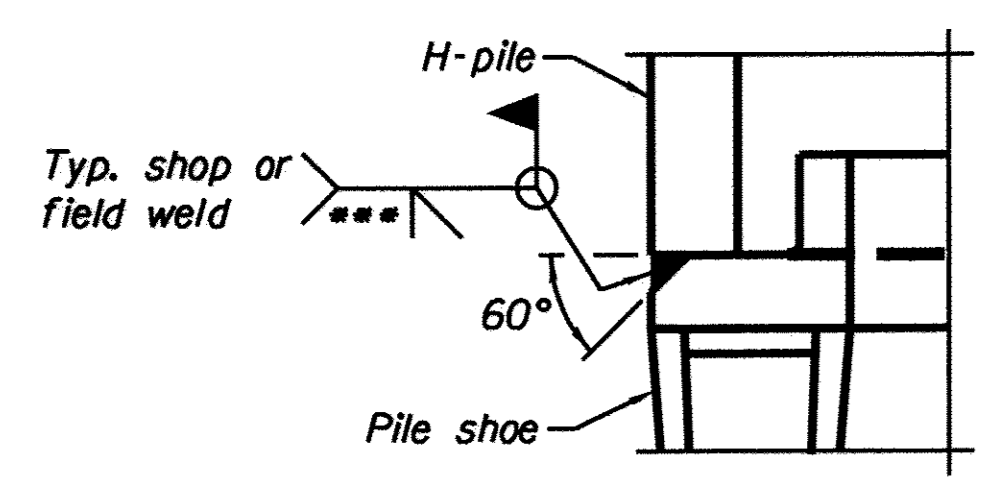
DETAIL D

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

WELDED PLATE FIELD SPLICE

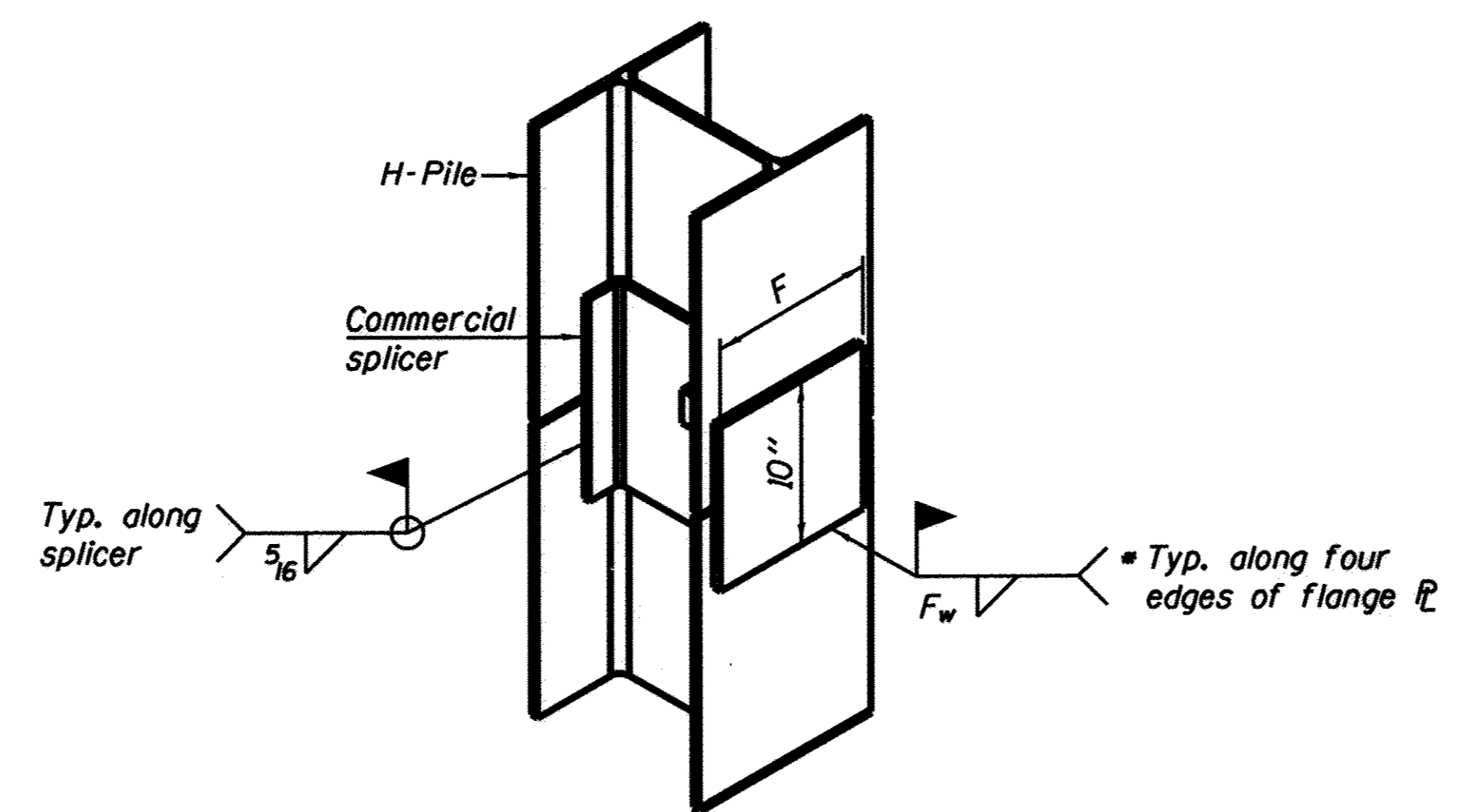


ELEVATION



DETAIL A

H-PILE SHOE ATTACHMENT



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

- Interrupt welds 1/4" from end of web and/or each flange.
- Remove portions of backup plates that extend outside the flanges.
- Weld size per pile shoe manufacturer (5/16" min.).

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

F-NP

1-27-12

FILE NAME *	USER NAME *	DESIGNED -	REVISD -
		CHECKED -	REVISD -
		DRAWN -	REVISD -
		CHECKED -	REVISD -

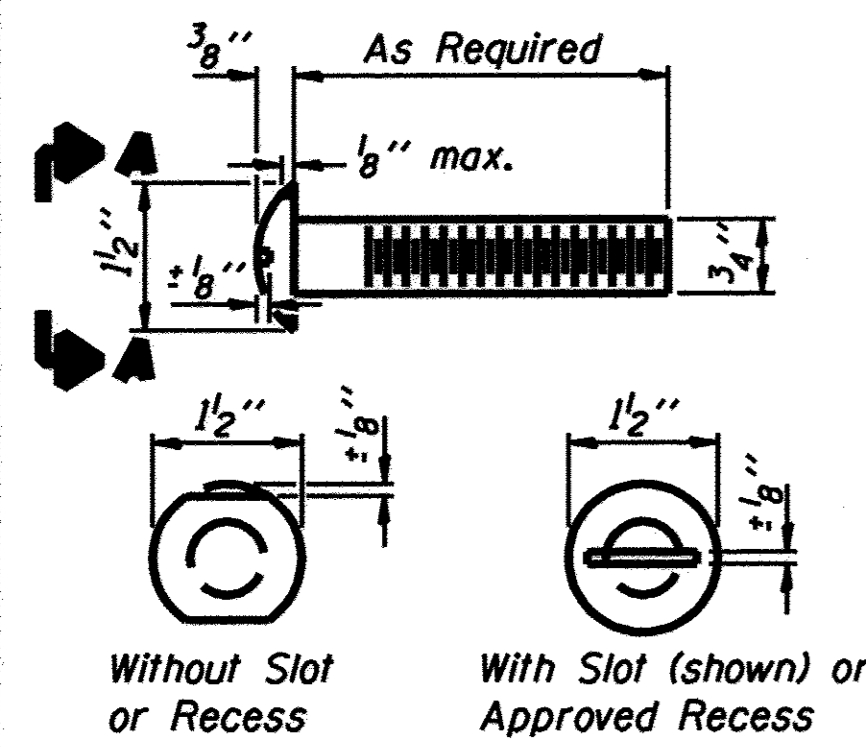
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HP PILE DETAILS
STRUCTURE NO. 080-3227

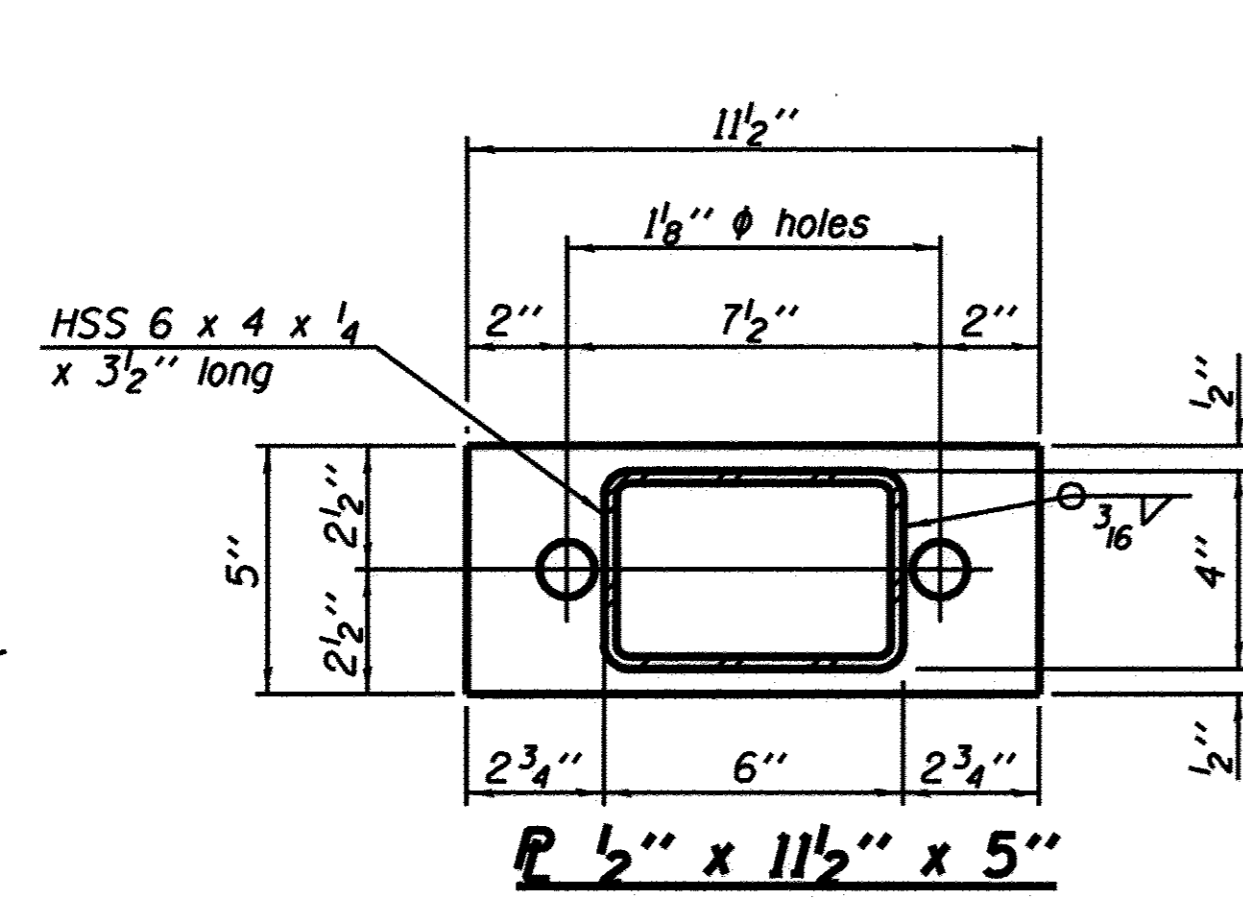
F.A.S. RTE. 813	SECTION 12-01130-00-BR	COUNTY Richland	TOTAL SHEETS 15	SHEET NO. 9
CONTRACT NO. 95805			ILLINOIS FED. AID PROJECT	

Sheet 5 of 7

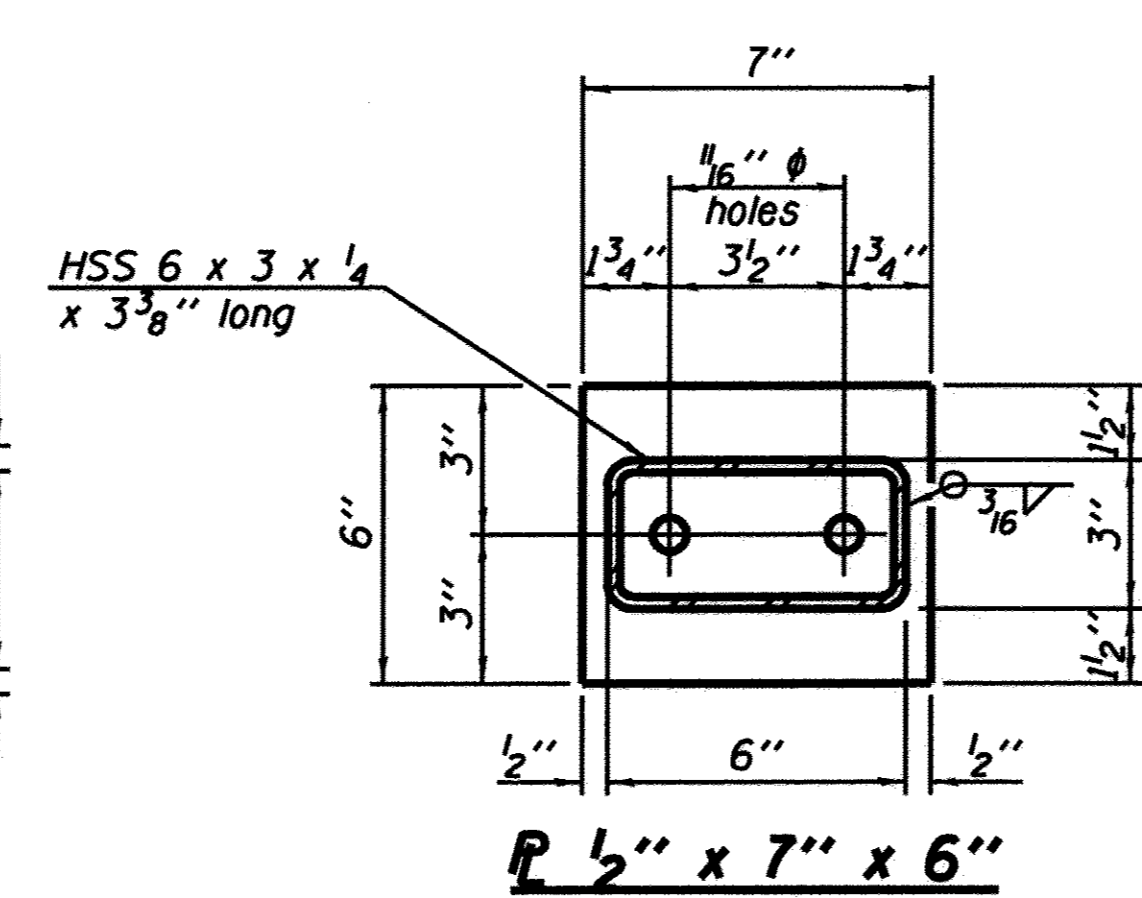
HP PILES DETAILS
F.A.S. ROUTE 813 (OAKTREE RD.)
OVER SIMMONS CREEK
SECTION 12-01130-00-BR
RICHLAND COUNTY
STRUCTURE NO. 080-3227



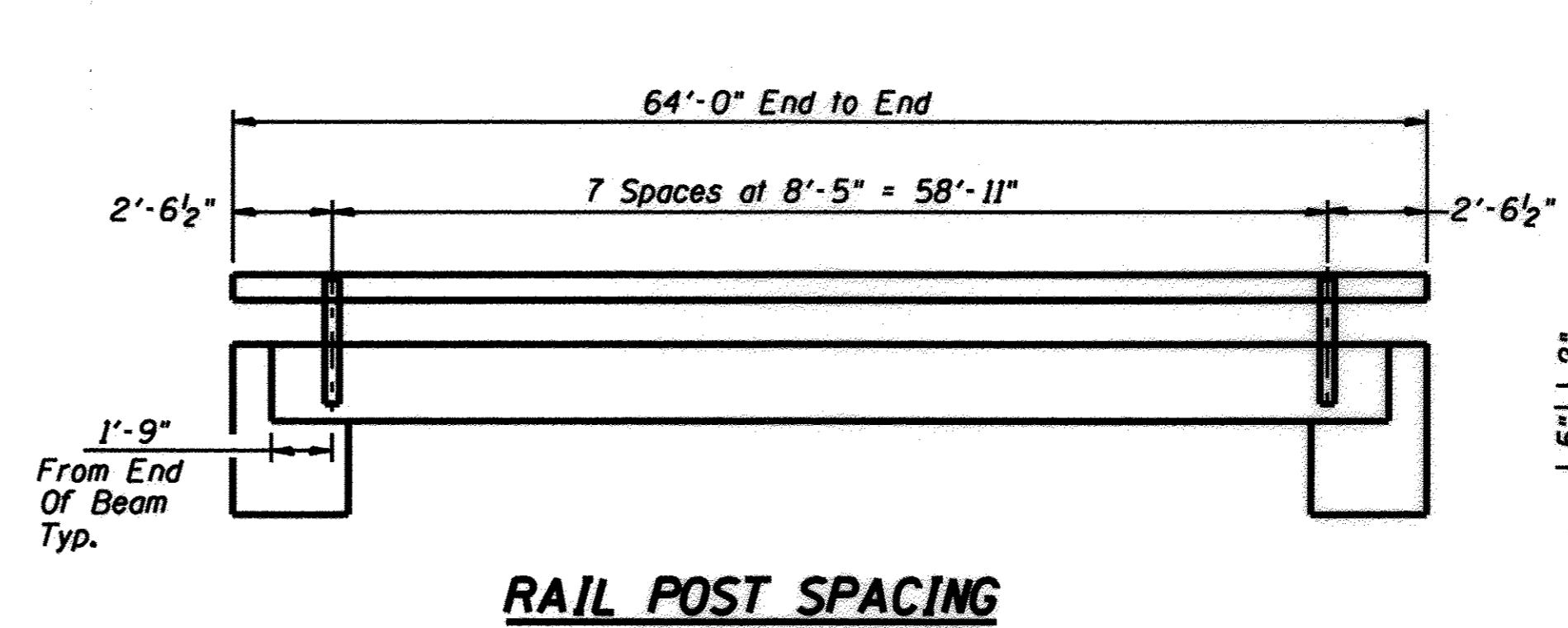
**VIEW A-A
ROUND HEAD BOLT**



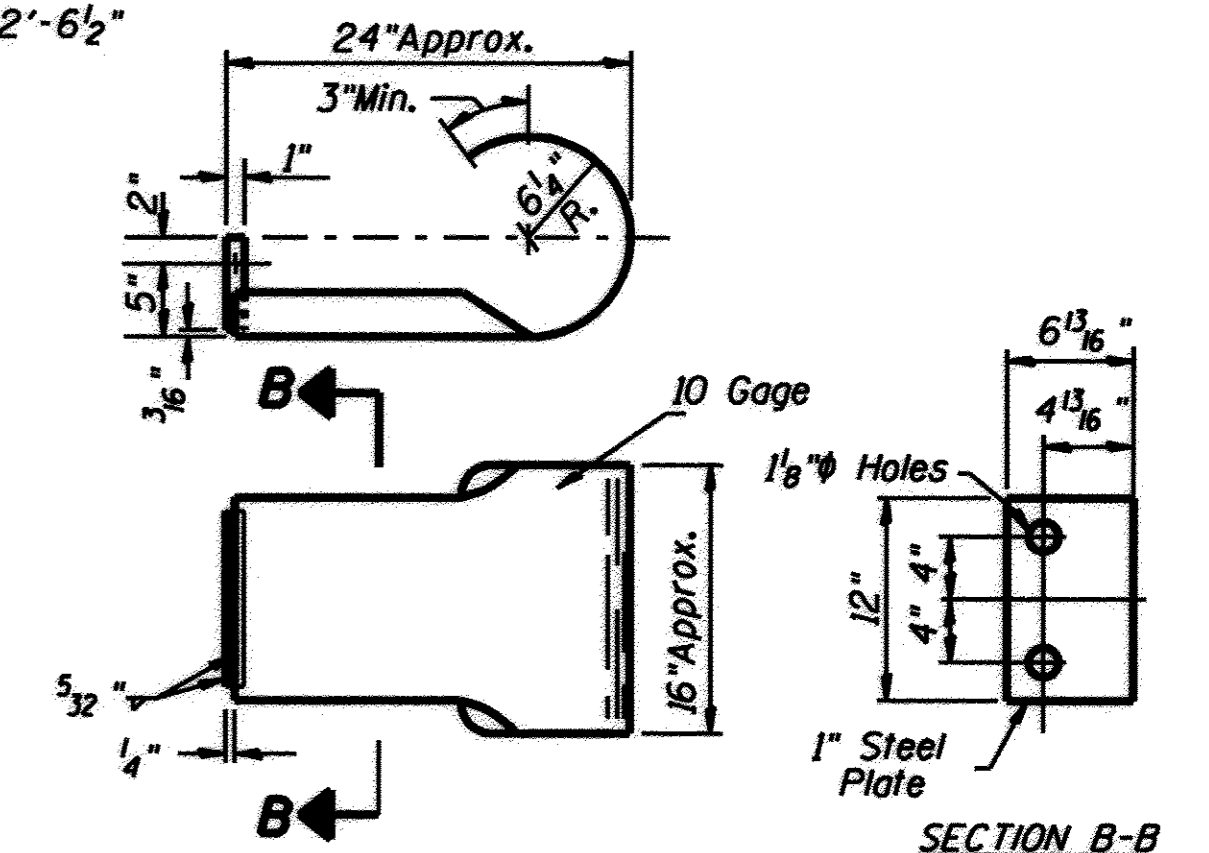
R 1/2" x 11 1/2" x 5"



R 1/2" x 7" x 6"

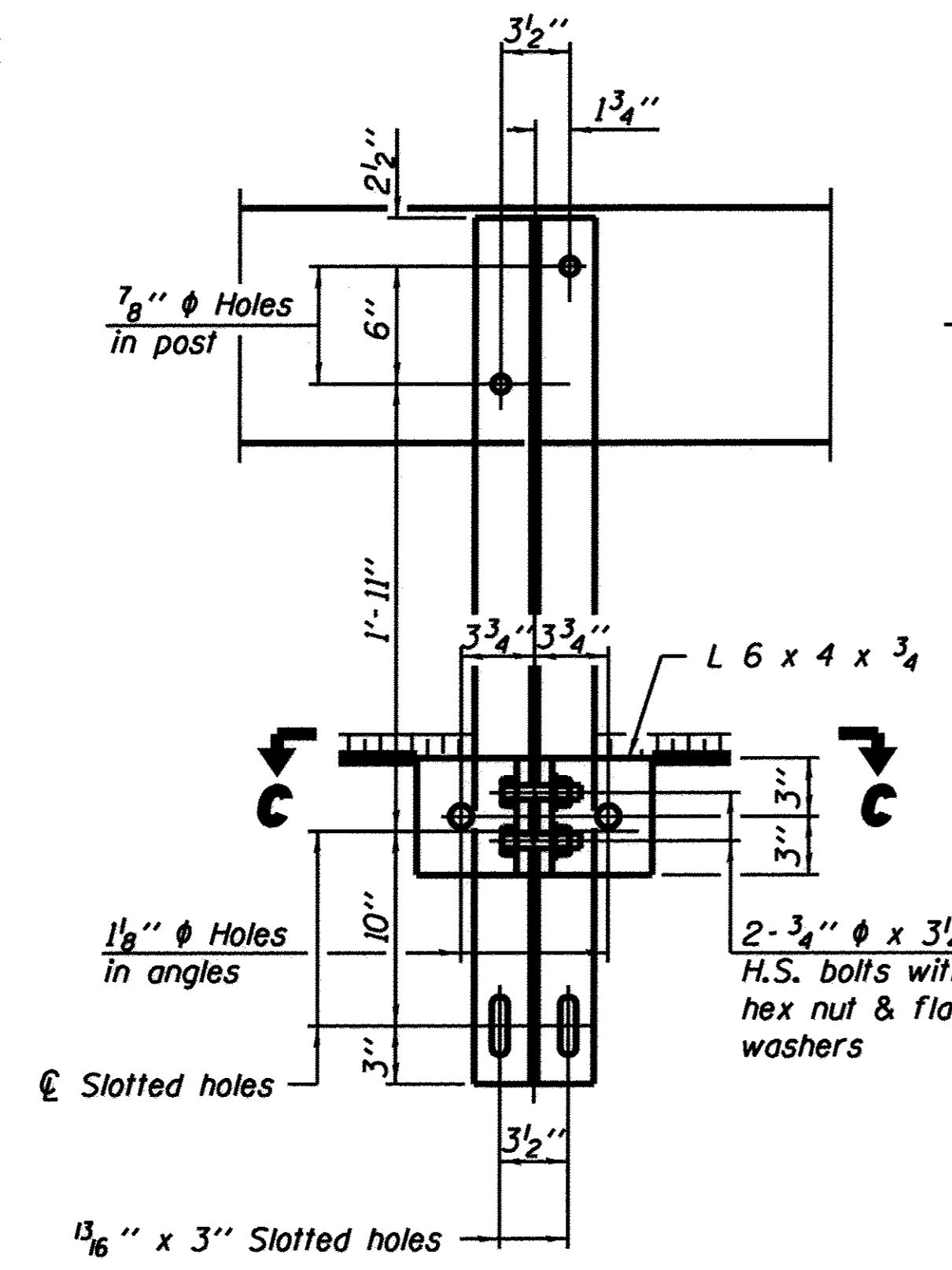


RAIL POST SPACING

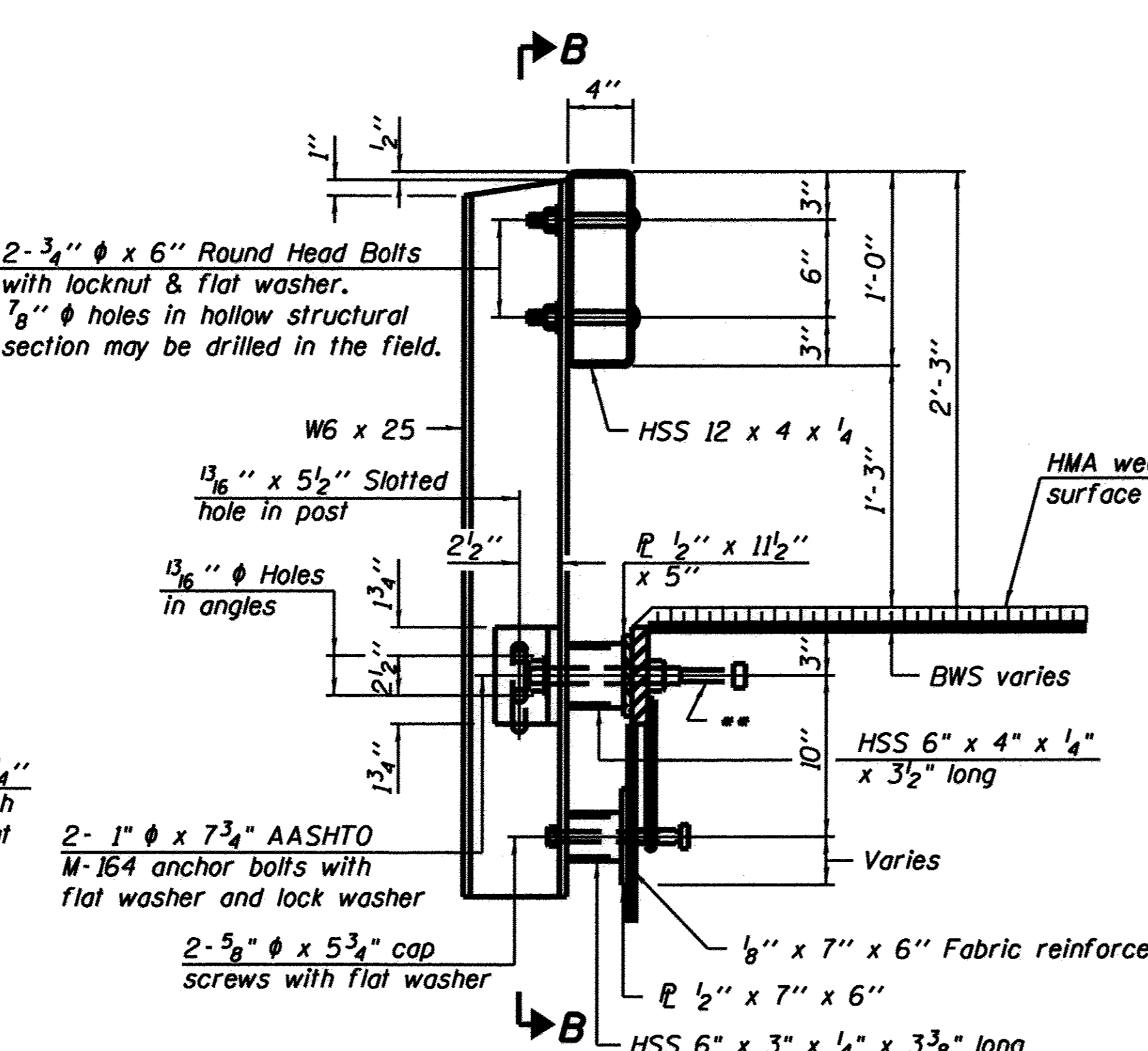


CURLED END SECTION

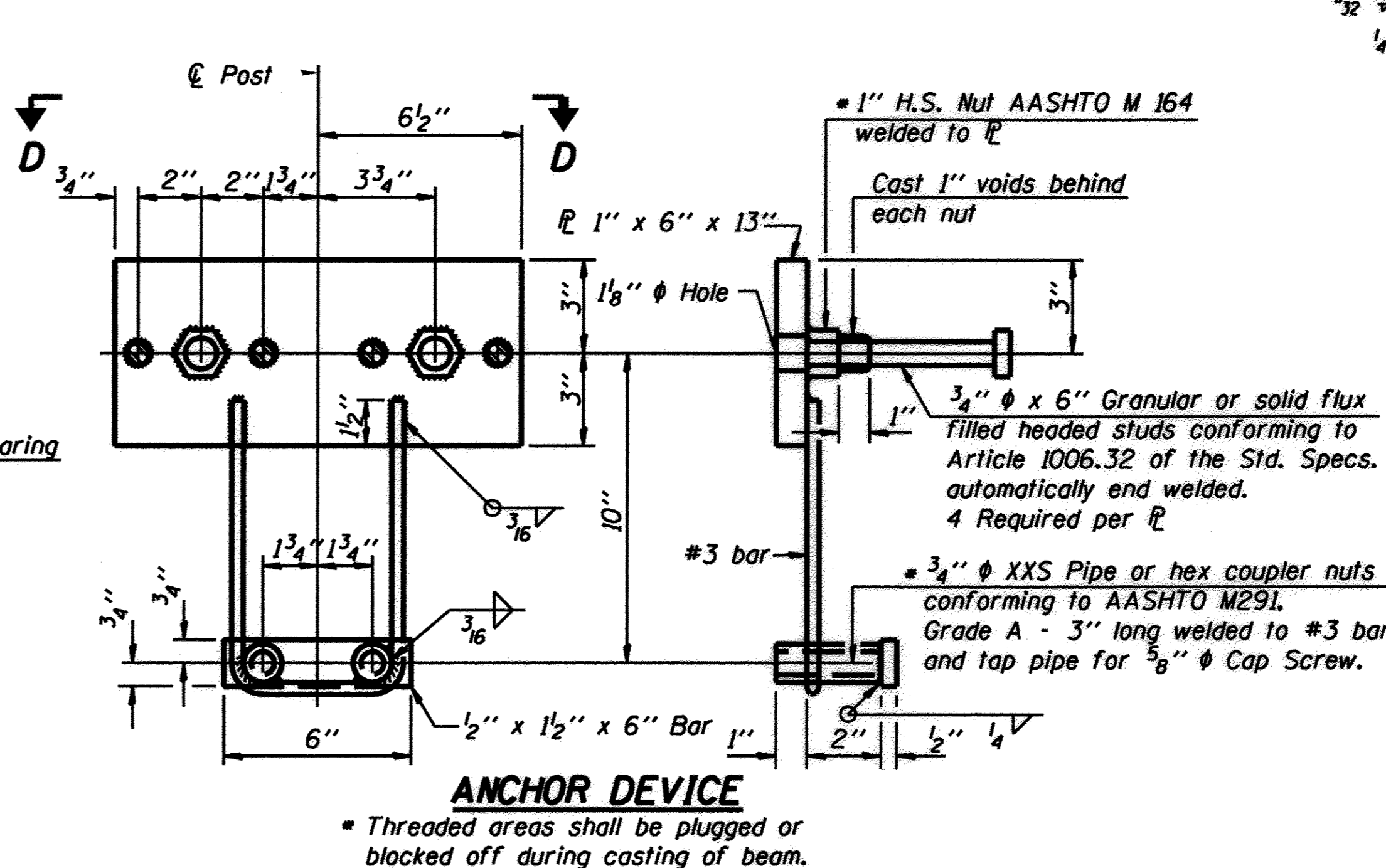
(4 Req'd.) Cost Included with Steel Railing, Type S-1



SECTION B-B

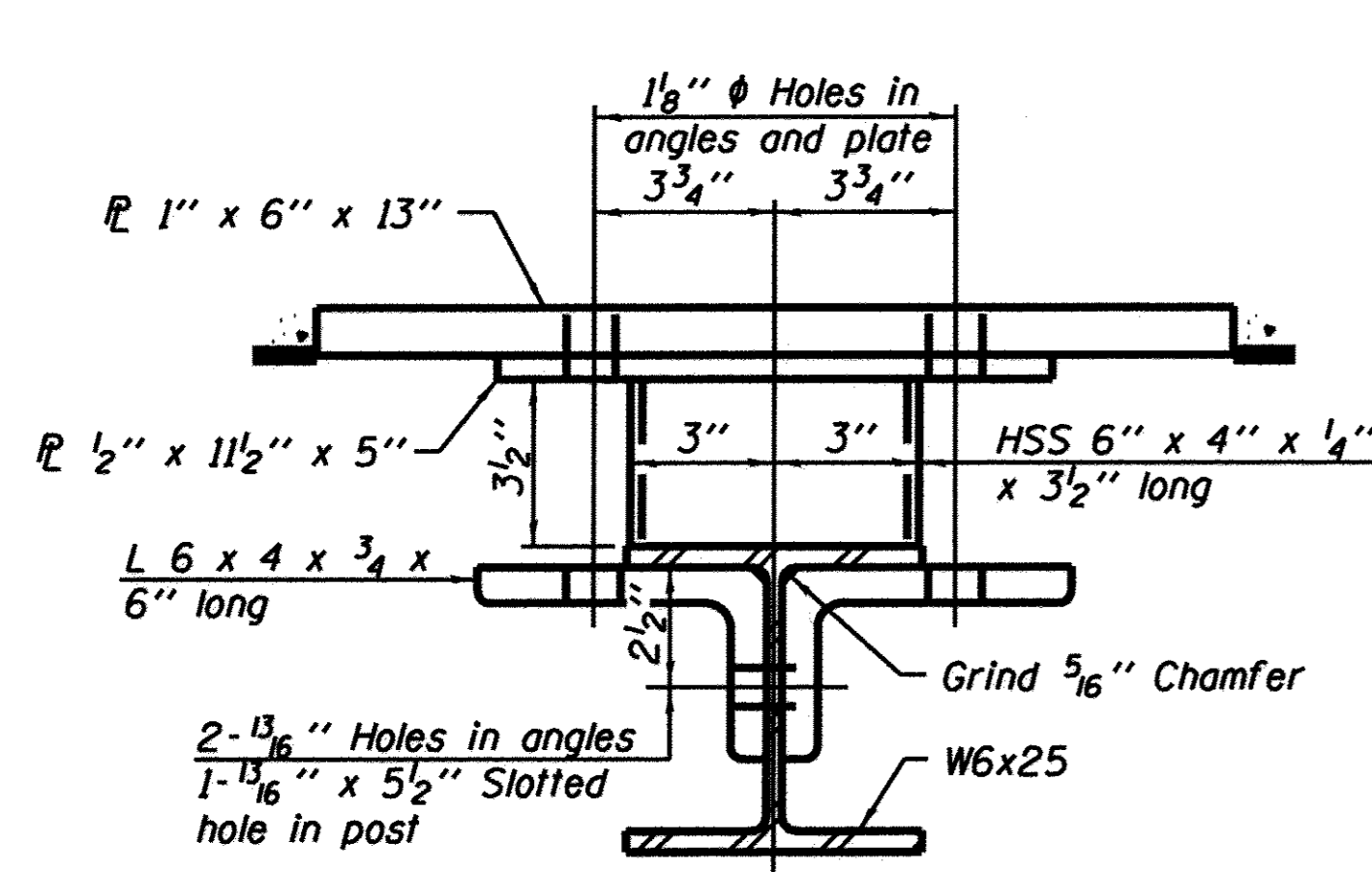


SECTION AT RAILING POST

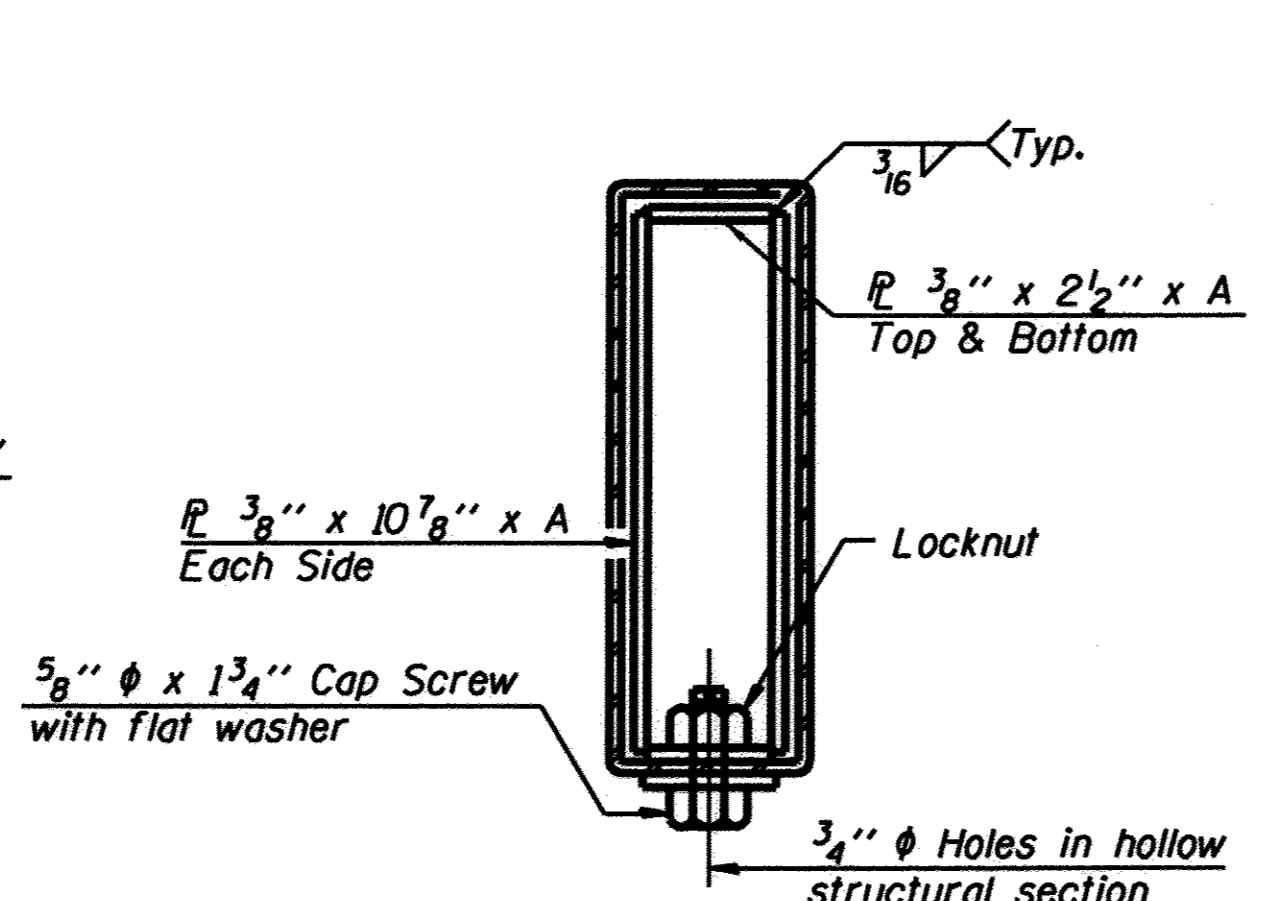


ANCHOR DEVICE

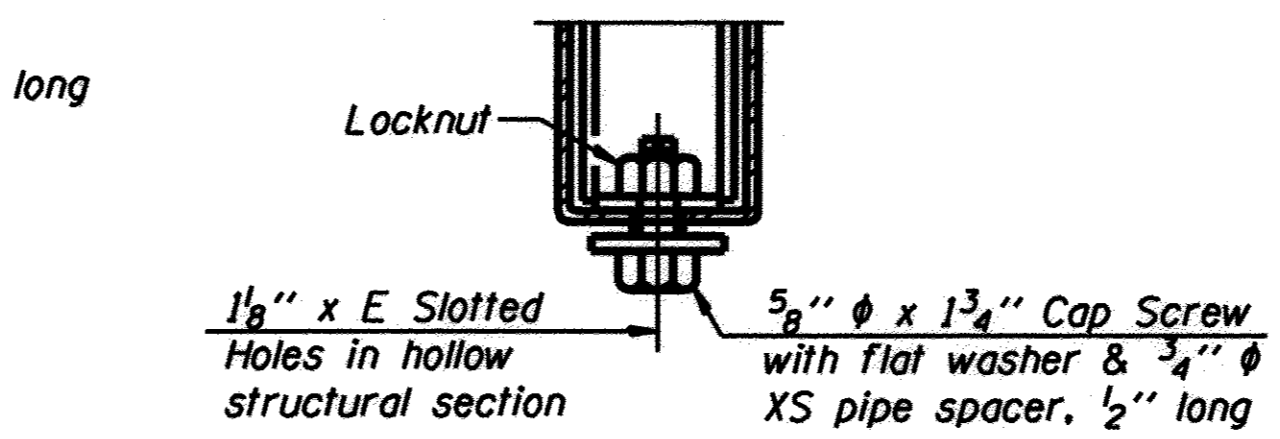
* Threaded areas shall be plugged or blocked off during casting of beam.



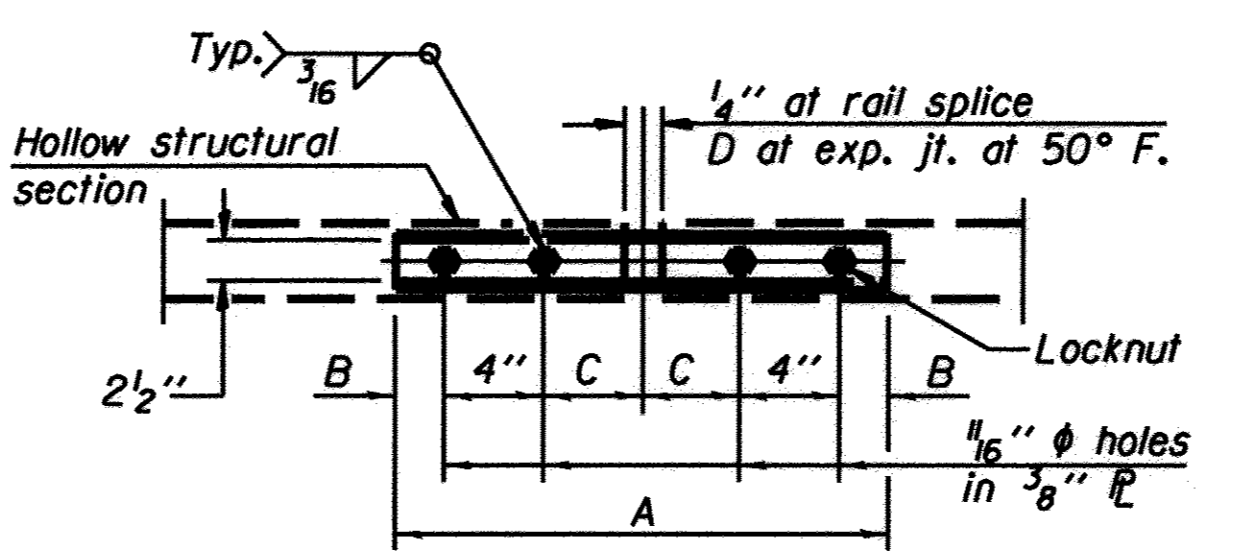
SECTION C-C



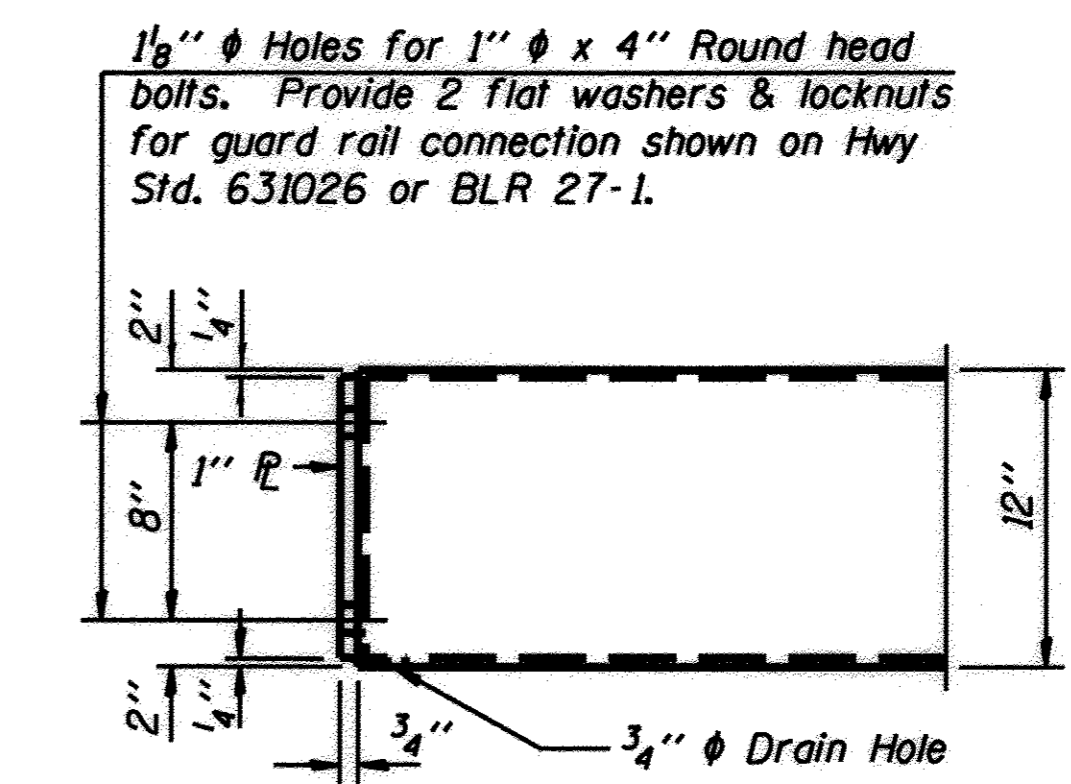
SECTIONS AT RAIL SPLICE



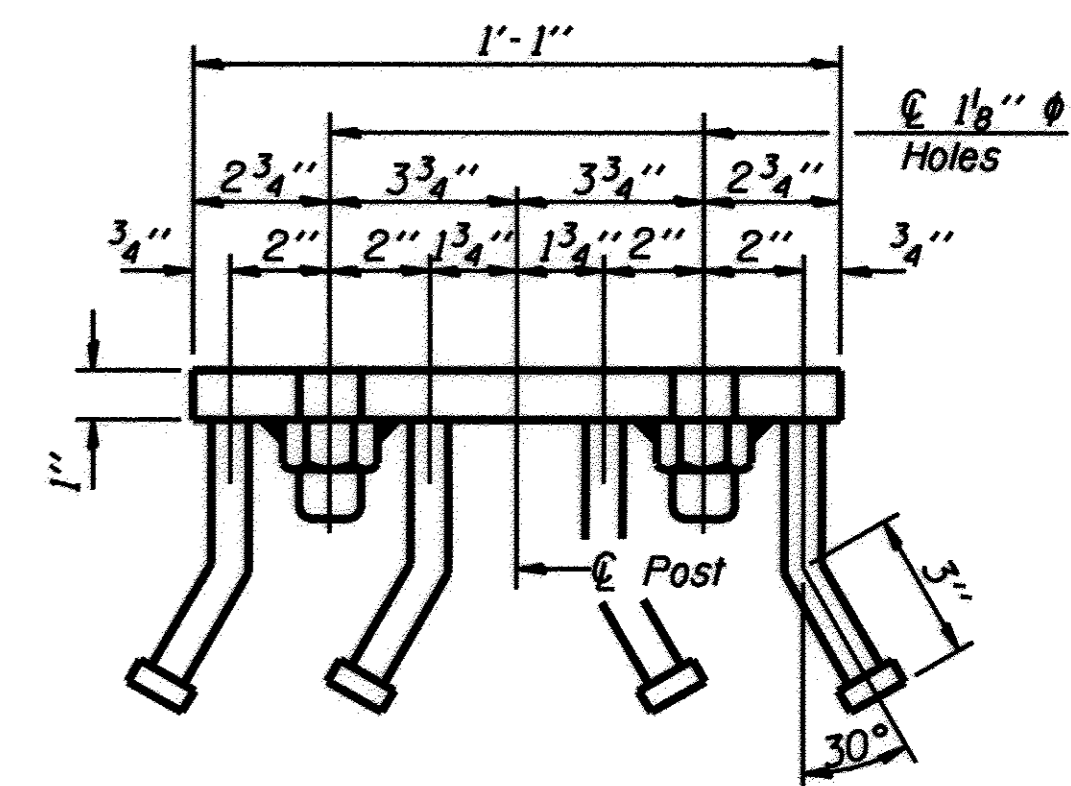
**RAIL SPLICE CONNECTION
AT EXPANSION JT.**



**PLAN-BOTT. SPLICE R
TYPICAL**



END OF RAIL DETAILS



VIEW D-D

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S-1	Foot	128

**STEEL RAILING, TYPE S-1
F.A.S. ROUTE 813 (OAKTREE RD.)
OVER SIMMONS CREEK
SECTION 12-01130-00-BR
RICHLAND COUNTY
STRUCTURE NO. 080-3227**

R-23A 1-12-15 (10'-9" Maximum Post Spacing)

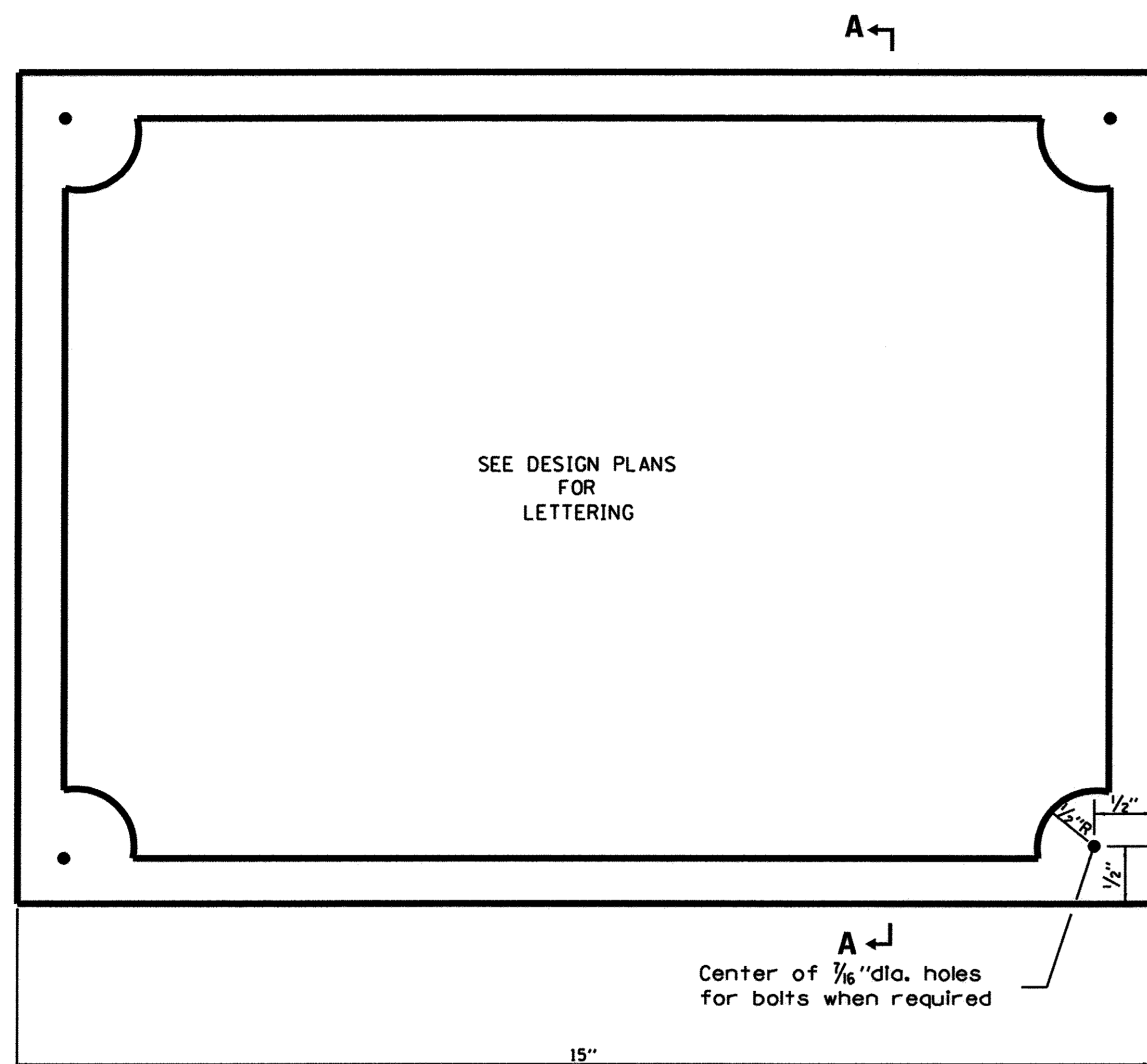
FILE NAME :	USER NAME :	DESIGNED -	REVISD -
		CHECKED -	REVISD -
		DRAWN -	REVISD -
		CHECKED -	REVISD -
PLOT SCALE :			
PLOT DATE :			

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STEEL RAILING, TYPE S-1
STRUCTURE NO. 080-3227**

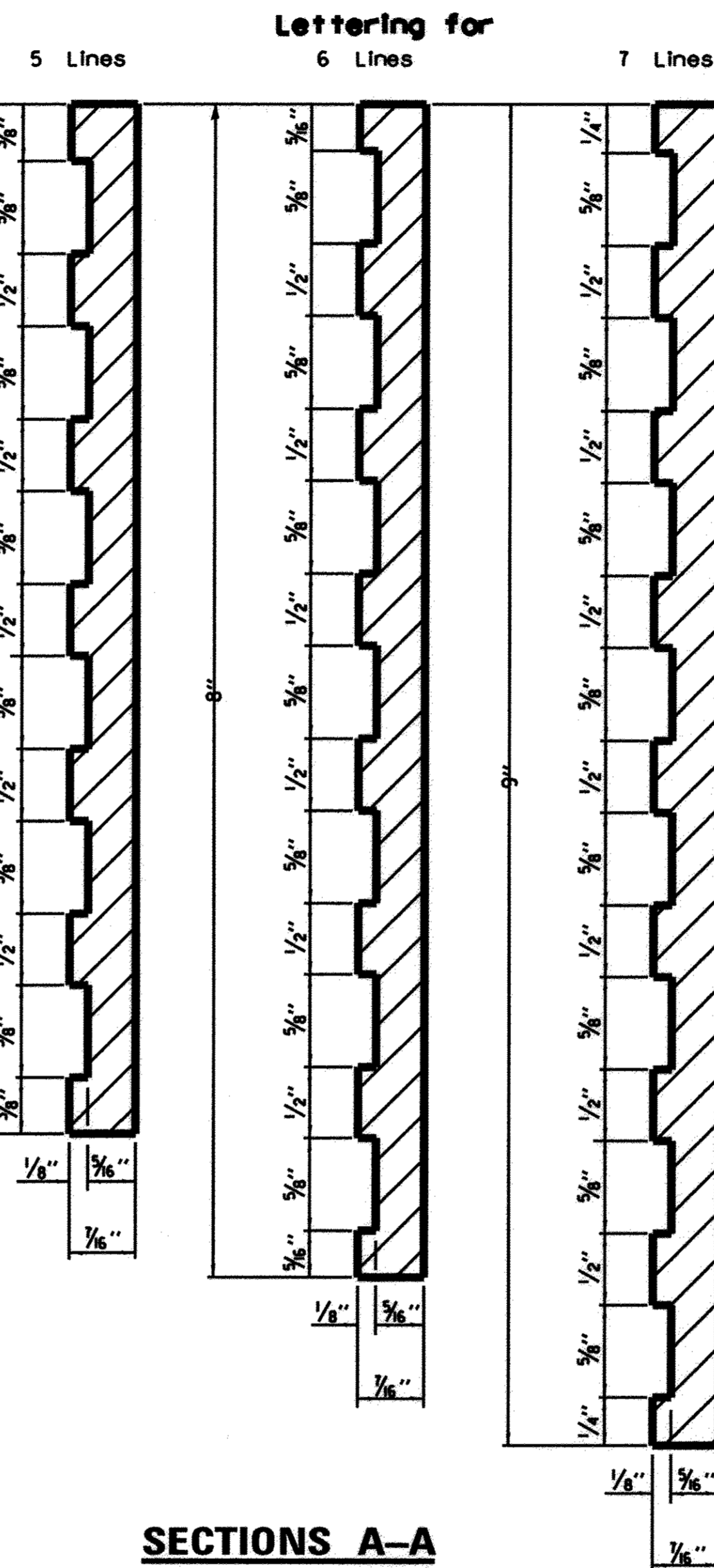
F.A.S. RTE. 813	SECTION 12-01130-00-BR	COUNTY Richland	TOTAL SHEETS 15	SHEET NO. 10
				CONTRACT NO. 95805
ILLINOIS FED. AID PROJECT				

Sheet 6 of 7

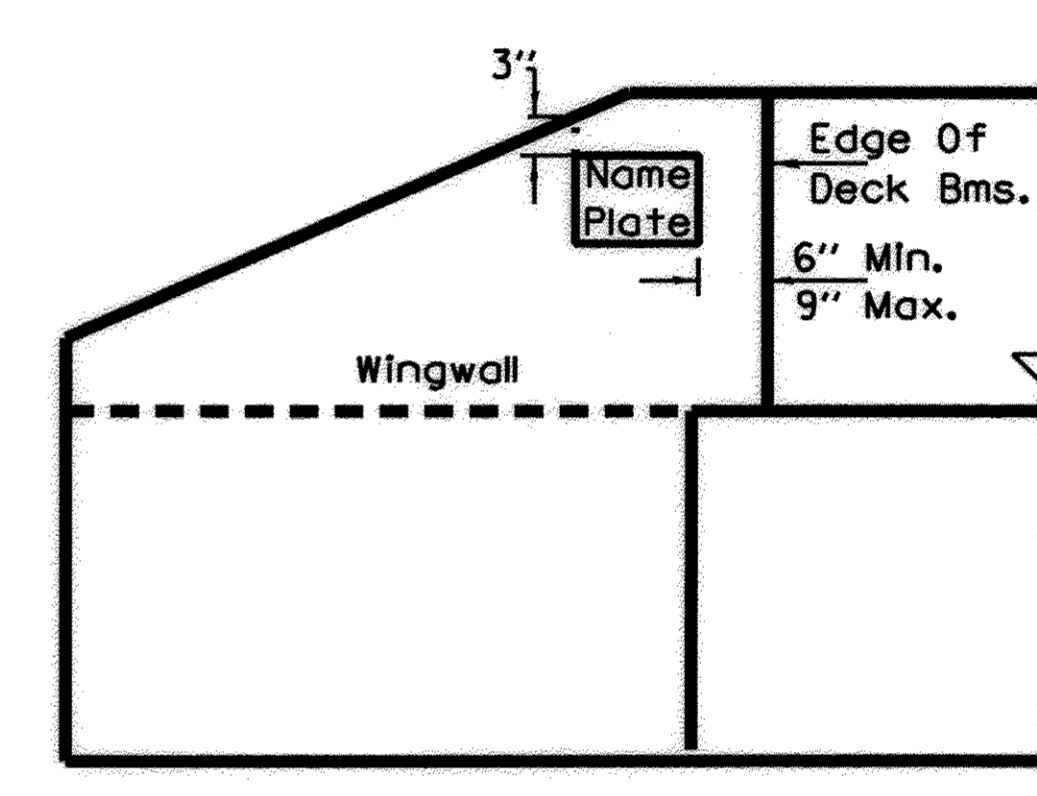


NAME PLATE ELEVATION

NOTE
 Border and lettering:
 Raised 1/8", square cut and not tapered.



SECTIONS A-A



NAME PLATE PLACEMENT

**NAME PLATE FOR BRIDGES
 F.A.S. ROUTE 813 (OAKTREE RD.)
 OVER SIMMONS CREEK
 SECTION 12-01130-00-BR
 RICHLAND COUNTY
 STRUCTURE NO. 080-3227**

FILE NAME *	USER NAME * ---	DESIGNED - ---	REVISED - ---	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	NAME PLATE FOR BRIDGES STRUCTURE NO. 080-3227	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - ---	REVISED - ---			813	12-01130-00-BR	Richland	15	11
	PLOT SCALE = ---	DRAWN - ---	REVISED - ---			CONTRACT NO. 95805				
	PLOT DATE * ---	CHECKED - ---	REVISED - ---			ILLINOIS FED. AID PROJECT				

Sheet 7 of 7

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 813	12-01130-00-BR	RICHLAND	15	12
CONTRACT 95805		ILLINOIS		

NOBLE		BORING No. B-1		water level reading							
ENGINEERING CONSULTANTS		County: Richland, IL	Sheet No. 1 of 2	1st encounter: 14'							
Client: Richland County Highway Dept.		Weather: Sunny	Temperature: 50's	water level reading							
Driller: Noble Engineering Consultants		Date Start: 4-25-13	Surface Elevation: Bridge Deck (0)	@completion 14'							
Location: Structure 080-3100		Date Finished: 4-25-13	Driller: Tony Schocker	Backfill: Soil Cuttings							
Depth	Sample No.	Sample Depth	N-Value	Blow Count	Recovery (%)	Sp (ft)*	Soil Description	W %	LSC Class.	Elev.**	
1							0.0'-0.5' sandy gravel (fill)			426	
2	55-1	1.0'-2.5'	11	5-6-5	50	-			13.0	FILL	425
3											424
4	55-2	3.5'-5.0'	3	2-2-1	100	-	0.5'-10.0' silt, clay, organics, etc, FILL, brown		14.8	FILL	423
5											422
6	55-3	6.0'-7.5'	50+	50/5*	100	-			16.3	FILL	421
7											420
8											419
9	55-4	8.5'-10.0'	6	1-3-3	100	-			17.2	FI	418
10											417
11											416
12											415
13											414
14	55-5	13.5'-15.0'	6	2-3-3	80	-	10.0'-16.0' SILTY FINE SAND, trace gravel, loose, wet to saturated below 14', brown		21.1	SH	413
15											412
16											411
17											410
18											409
19	55-6	18.5'-20.0'	6	1-3-3	100	0.7	18.0'-30.0' SILTY CLAY, trace to some sand, soft to medium, coarse sand seam at 29', brown mottled gray to gray below 29'		21.3	CL	408
20											407
21											406
22											405
23											404
24	55-7	23.5'-25.0'	3	1-2-1	100	0.3			26.8	CL	403
25											402
26											401
27											400
28											399
29											398
30	55-8	28.5'-30.0'	12	3-4-6	100	0.9			18.0	CL	397
Drilling Method: HSA (D-3/4" ID)		comments		* Qp test is an estimate of the unconfined compressive strength performed by a compact calibrated spring loaded cylinder							
Depth: 0' to 36'				** ground surface elevation at boring location is estimated and is not surveyed							
Drill Rig: Mobile B-47				** ground surface elevation at boring location is estimated and is not surveyed							
Sampling: split spoon (SS)											

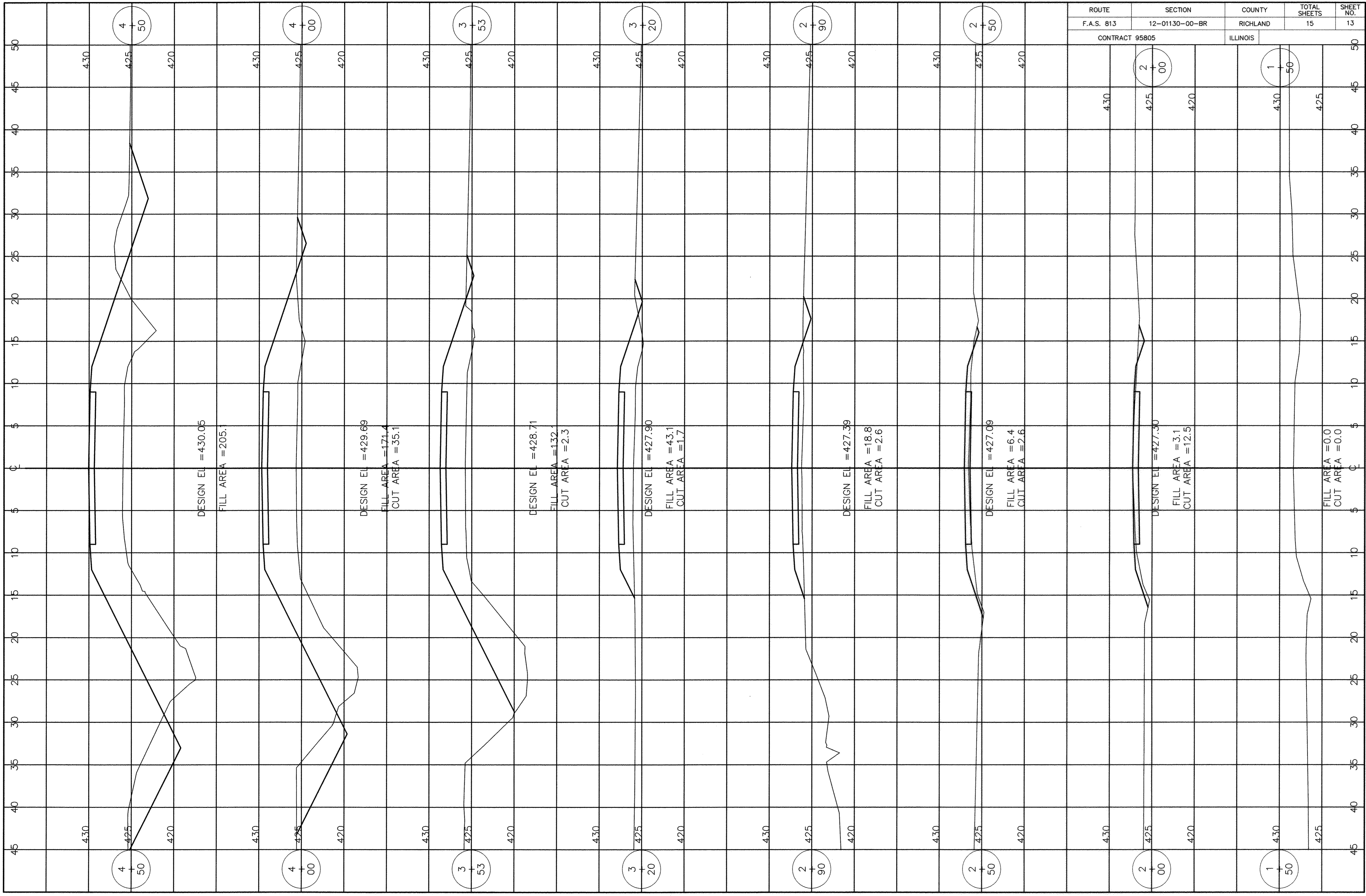
NOBLE		BORING No. B-1		water level reading							
ENGINEERING CONSULTANTS		County: Richland, IL	Sheet No. 2 of 2	1st encounter: 14'							
Client: Richland County Highway Dept.		Weather: Sunny	Temperature: 50's	water level reading							
Driller: Noble Engineering Consultants		Date Start: 4-25-13	Surface Elevation: Bridge Deck	@completion 14'							
Location: Structure #080-3100		Date Finished: 4-25-13	Driller: Tony Schocker	Backfill: Soil Cuttings							
Depth	Sample No.	Sample Depth	N-Value	Blow Count	Recovery (%)	Sp (ft)*	Soil Description	W %	LSC Class.	Elev.**	
31											396
32											395
33											394
34	55-9	33.5'-35.0'	100+	100/3*	100	-	30'-36" HIGHLY WEATHERED SHALE, gray		6.0		393
35											392
36							AR 36.0'				391
Drilling Method: HSA (D-3/4" ID)		comments		* Qp test is an estimate of the unconfined compressive strength performed by a compact calibrated spring loaded cylinder							
Depth: 0' to 36'				** ground surface elevation at boring location is estimated and is not surveyed							
Drill Rig: Mobile B-47				** ground surface elevation at boring location is estimated and is not surveyed							
Sampling: split spoon (SS)											

NOBLE		BORING No. B-2		water level reading							
ENGINEERING CONSULTANTS		County: Richland, IL	Sheet No. 1 of 2	1st encounter: 14'							
Client: Richland County Highway Dept.		Weather: Sunny	Temperature: 70's	water level reading							
Driller: Noble Engineering Consultants		Date Start: 4-29-13	Surface Elevation: Bridge Deck (0)	@completion 14'							
Location: Structure 080-3100		Date Finished: 4-29-13	Driller: Tony Schocker	Backfill: Soil Cuttings							
Depth	Sample No.	Sample Depth	N-Value	Blow Count	Recovery (%)	Sp (ft)*	Soil Description	W %	LSC Class.	Elev.**	
1							0.0'-0.5' sandy gravel (fill)			426	
2	55-1	1.0'-2.5'	6	1-3-3	70	-			16.1	FILL	425
3											424
4	55-2	3.5'-5.0'	6	2-3-3	70	-	0.5'-10.0' silt, clay, organics, etc, FILL, brown		16.3	FILL	423
5											422
6	55-3	6.0'-7.5'	5	1-3-2	70	-			15.4	FILL	421
7											420
8											419
9	55-4	8.5'-10.0'	5	1-2-3	100	-			15.2	FILL	418
10											417
11											416
12											415
13											414
14	55-5	13.5'-15.0'	4	4-2-2	100	-	10.0'-16.0' SILTY FINE SAND, trace gravel, loose, wet to saturated below 14', brown		16.3	SH	413
15											412
16											411
17											410
18											409
19	55-6	18.5'-20.0'	4	1-2-2	100	0.5	18.0'-32.0' SILTY CLAY, trace to some sand, soft to medium, brown mottled gray to gray below 25'		21.8	CL	408
20											407
21											406
22											405
23											404
24	55-7	23.5'-25.0'	6	1-3-3	100	0.3			27.1	CL	403
25											402
26											401
27											400
28											399
29											398
30	55-8	28.5'-30.0'	6	2-3-3	100	0.6			21.7	CL	397
Drilling Method: HSA (D-3/4" ID)		comments		* Qp test is an estimate of the unconfined compressive strength performed by a compact calibrated spring loaded cylinder							
Depth: 0' to 35.5'				** ground surface elevation at boring location is estimated and is not surveyed							
Drill Rig: Mobile B-47				** ground surface elevation at boring location is estimated and is not surveyed							
Sampling: split spoon (SS)											

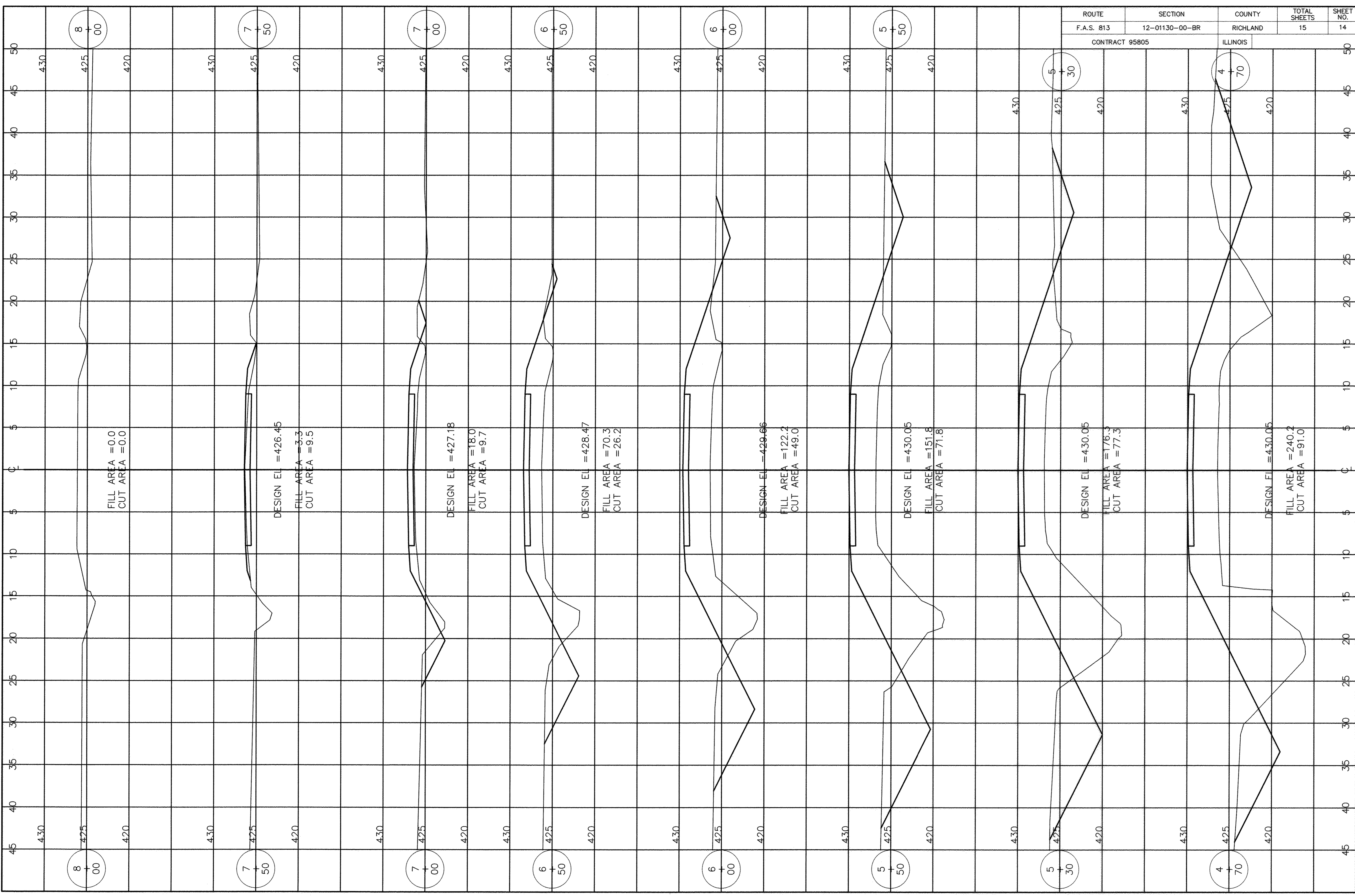
NOBLE		BORING No. B-2		water level reading							
ENGINEERING CONSULTANTS		County: Richland, IL	Sheet No. 2 of 2	1st encounter: 14'							
Client: Richland County Highway Dept.		Weather: Sunny	Temperature: 70's	water level reading							
Driller: Noble Engineering Consultants		Date Start: 4-29-13	Surface Elevation: Bridge Deck	@completion 14'							
Location: Structure #080-3100		Date Finished: 4-29-13	Driller: Tony Schocker	Backfill: Soil Cuttings							
Depth	Sample No.	Sample Depth	N-Value	Blow Count	Recovery (%)	Sp (ft)*	Soil Description	W %	LSC Class.	Elev.**	
31											396
32											395
33											394
34	55-9	33.5'-35.0'	100+	61-100/4*	100	-	32'-35.5' HIGHLY WEATHERED SHALE, gray		10.9		393
35											392
36							AR 36.5'				391
Drilling Method: HSA (D-3/4" ID)		comments		* Qp test is an estimate of the unconfined compressive strength performed by a compact calibrated spring loaded cylinder							
Depth: 0' to 35.5'				** ground surface elevation at boring location is estimated and is not surveyed							
Drill Rig: Mobile B-47				** ground surface elevation at boring location is estimated and is not surveyed							
Sampling: split spoon (SS)											

CHARLESTON ENGINEERING, INC.
CONSULTING ENGINEERS
105 NORTH KITCHELL
P.O. BOX 397
OLNEY, ILLINOIS 62450
(618) 392-0735
ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.002513

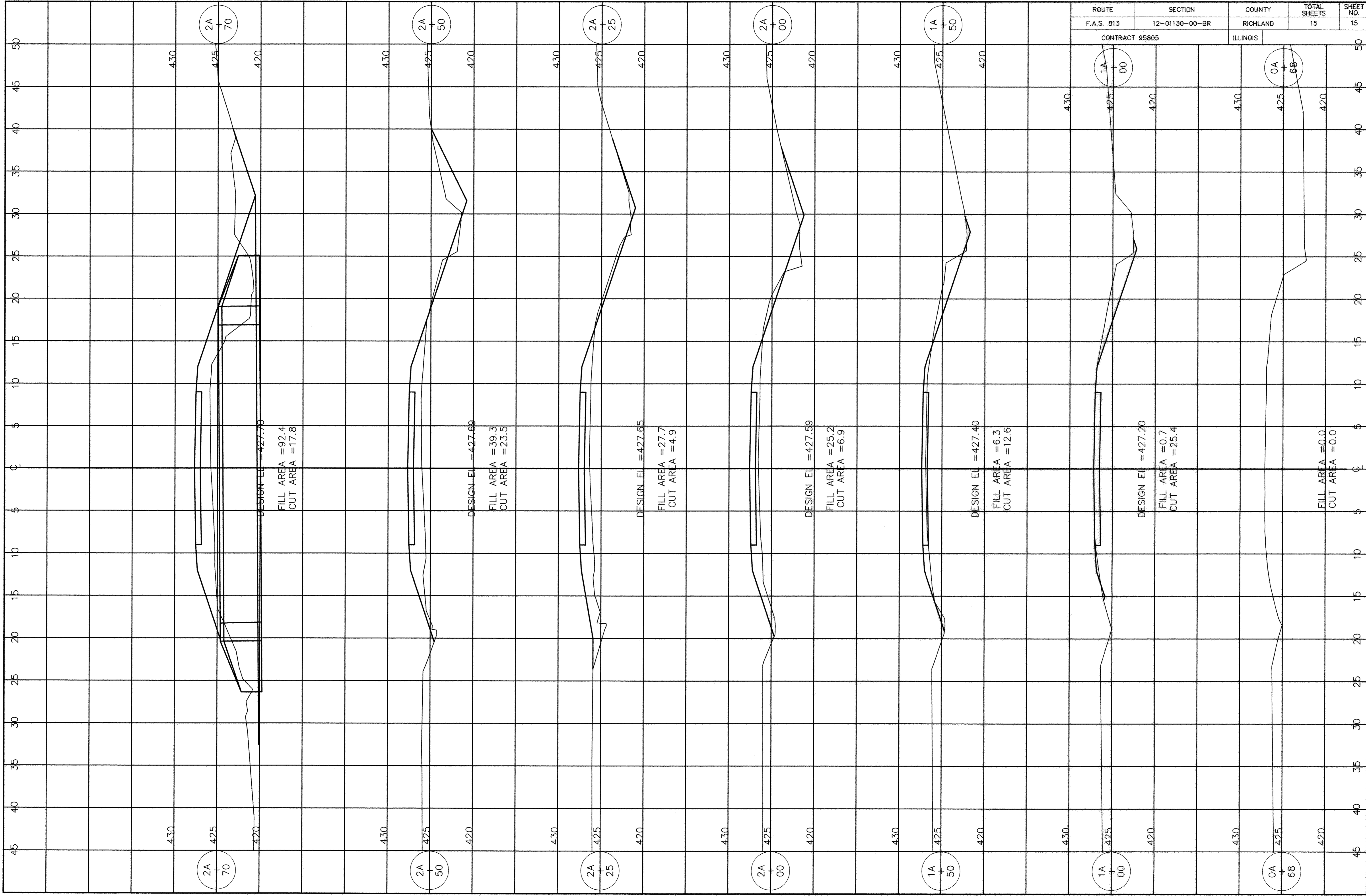
BORING LOGS
STRUCTURE NO. 080-3227
F.A.S. 813
SIMMONS CREEK
SECTION 12-01130-00-BR
RICHLAND COUNTY
STATION 5+00.00



ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 813	12-01130-00-BR	RICHLAND	15	13
CONTRACT 95805		ILLINOIS		



ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 813	12-01130-00-BR	RICHLAND	15	14
CONTRACT 95805		ILLINOIS		



ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 813	12-01130-00-BR	RICHLAND	15	15
CONTRACT 95805		ILLINOIS		