

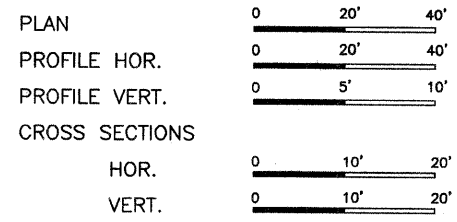
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 8	04-00112-00-BR	RICHLAND	14	1
CONTRACT NO. 95515		ILLINOIS	PROJECT BROS-159(45)	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
PLANS FOR PROPOSED  
HIGHWAY BRIDGE PROGRAM  
SECTION 04-00112-00-BR RICHLAND COUNTY  
PROJECT BROS-159(45)  
JOB NO. C-97-060-07  
C.H. 8

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

INDEX OF SHEETS

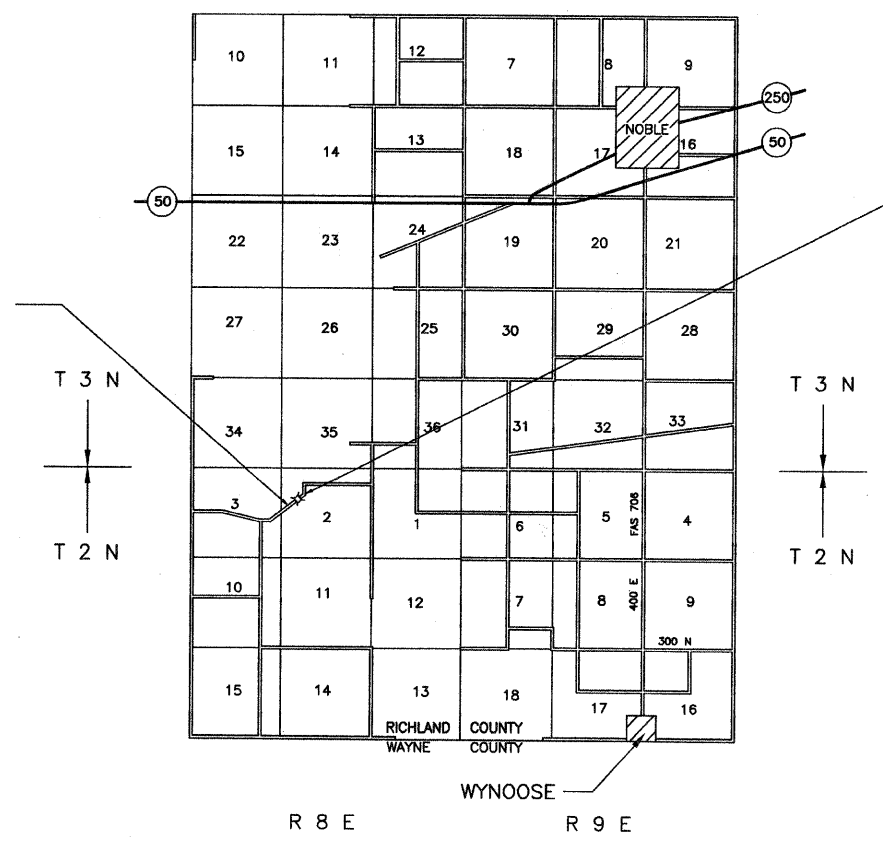
SHEET	ITEM
1	COVER SHEET
2	SUMMARY OF QUANTITIES
3	ROADWAY PLAN AND PROFILE
4	GENERAL PLAN AND ELEVATION
5	SUPERSTRUCTURE
6	RAILING DETAILS
7	WEST ABUTMENT
8	EAST ABUTMENT
9	BORINGS
10	EROSION CONTROL
11-14	CROSS SECTIONS



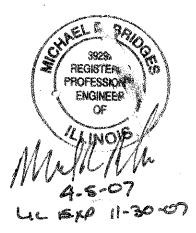
- STANDARD DRAWINGS
- STANDARD 000001-05
  - STANDARD 280001-04
  - STANDARD 515001-02
  - STANDARD 666001
  - STANDARD 701901
  - STANDARD BLR 21-7
  - STANDARD BLR 22-5

SECTION 04-00112-00-BR BEGINS STA. 1+50.00

SINGLE SPAN PRECAST PRESTRESSED CONCRETE DECK BEAM BRIDGE  
 98'-0" BK- BK. ABUTMENTS  
 STEEL PILE SPILLTHROUGH ABUTMENTS  
 24' DECK  
 EXISTING STRUCTURE NO. 080-3024  
 PROPOSED STRUCTURE NO. 080-3213



SECTION 04-00112-00-BR ENDS STA. 11+50.00



CHARLESTON ENGINEERING INC.  
 105 N. KITCHELL  
 P.O. BOX 397  
 OLNEY, ILLINOIS 62450  
 PH. 618-392-0736

CONTRACT NO. 95515

RURAL MAJOR COLLECTOR  
 ADT = 100  
 DESIGN SPEED = 30 M.P.H.

APPROVED	<u>April 5 2007</u> <i>Danny A. Colwell</i> COUNTY ENGINEER
PASSED	<u>April 10 2007</u> <i>Muhammad Karim</i> DISTRICT SEVEN ENGINEER OF LOCAL ROADS AND STREETS
Releasing For Bid Based on Limited Review	<u>April 10 2007</u> <i>Christina M. Read</i> DEPUTY DIRECTOR OF HIGHWAYS REGION FOUR ENGINEER
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	

NET LENGTH SECTION 04-00112-00-BR = 1000.00 Ft. = 0.189 Mi.

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 8	04-00112-00-BR	RICHLAND	14	2
CONTRACT NO. 95515		ILLINOIS	PROJECT BROS-159(45)	

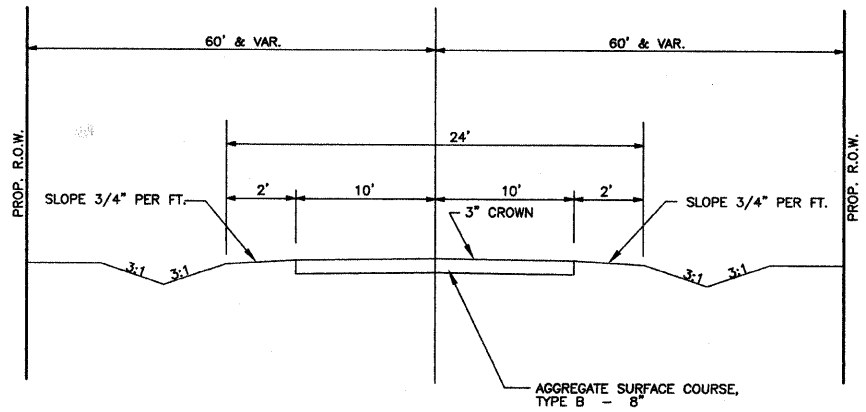
**DESIGN DATA**  
RURAL MINOR COLLECTOR  
ADT = 100

**GENERAL NOTES**

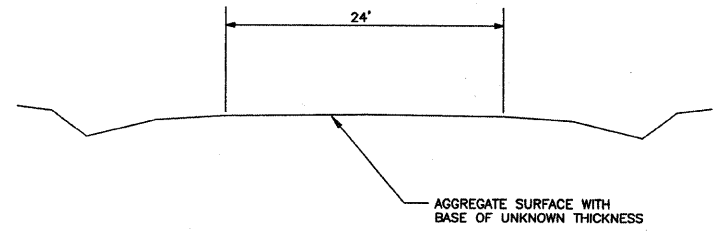
- SEEDING: THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 250 OF THE STANDARD SPECIFICATIONS AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR SEEDING CLASS 2 (SPECIAL).
  - SPRING SEEDING SHALL EXTEND FROM JANUARY 1 TO JUNE 30  
FALL SEEDING SHALL EXTEND FROM JULY 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.

**SUMMARY OF QUANTITIES**

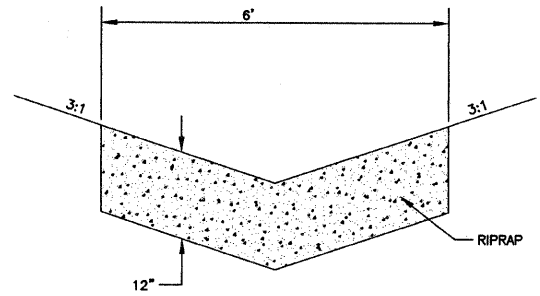
CODE NO.	ITEM	UNIT	QUANTITY
20100500	TREE REMOVAL, ACRES	ACRE	2.1
20200100	EARTH EXCAVATION	CU YD	1340
20300100	CHANNEL EXCAVATION	CU YD	130
20400800	FURNISHED EXCAVATION	CU YD	5400
20700110	POROUS GRANULAR EMBANKMENT	TON	165
25001000	SEEDING, CLASS 2 (SPECIAL)	ACRE	1.65
28000300	TEMPORARY DITCH CHECKS	EACH	22
28101700	RIPRAP, SPECIAL	TON	311
28102600	STONE RIPRAP DITCH	TON	40
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	810
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50300225	CONCRETE STRUCTURES	CU YD	21.6
50300280	CONCRETE ENCASEMENT	CU YD	2.6
XX003515	PRECAST PRESTRESSED CONCRETE DECK BEAMS (42" DEPTH)	SQ FT	2320
50800105	REINFORCEMENT BARS	POUND	2900
50900205	STEEL RAILING, TYPE S1	FOOT	188
51201400	FURNISHING STEEL PILES HP 10 X 42	FOOT	330
51202305	DRIVING PILES	FOOT	330
51203400	TEST PILE STEEL HP 10 X 42	EACH	1
51500100	NAME PLATES	EACH	1
66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH	12
67100100	MOBILIZATION	L. SUM	1



**TYPICAL SECTION**  
PROPOSED

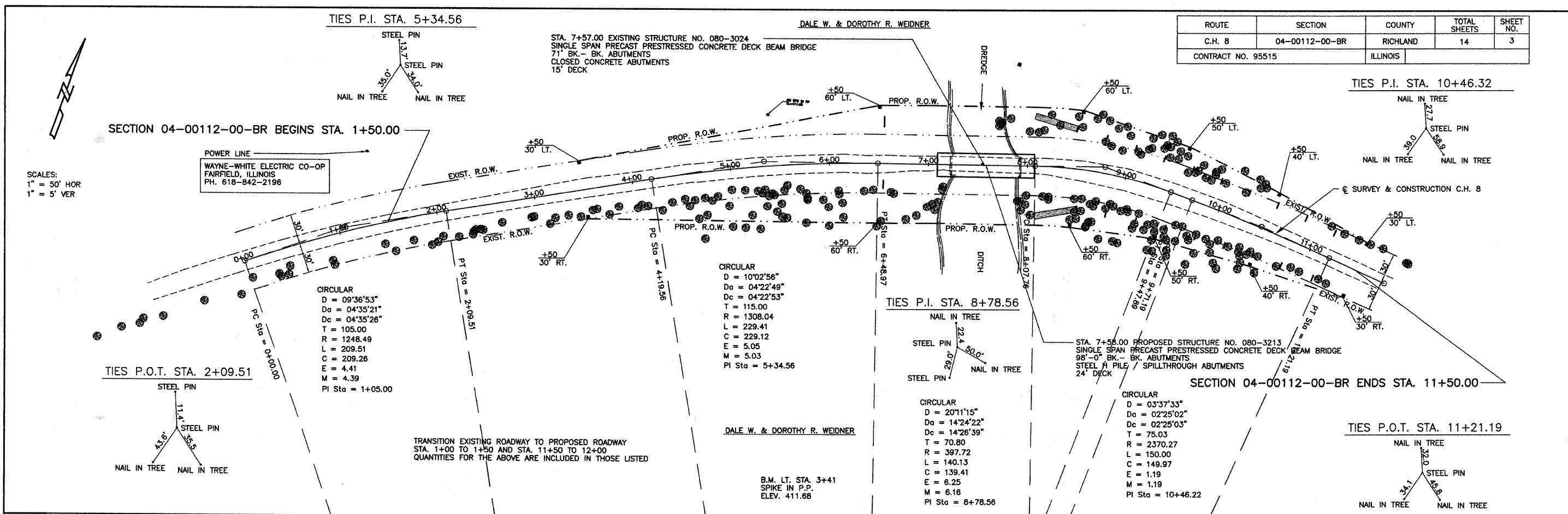


**TYPICAL SECTION**  
EXISTING



**STONE RIPRAP DITCH DETAIL**  
LT. & RT. STA. 8+08 TO 8+50

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 8	04-00112-00-BR	RICHLAND	14	3
CONTRACT NO. 95515		ILLINOIS		



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

POWER LINE  
WAYNE-WHITE ELECTRIC CO-OP  
FAIRFIELD, ILLINOIS  
PH. 618-842-2196

CIRCULAR  
D = 09'38'53"  
Da = 04'35'21"  
Dc = 04'35'26"  
T = 105.00  
R = 1248.49  
L = 209.51  
C = 209.26  
E = 4.41  
M = 4.39  
PI Sta = 1+05.00

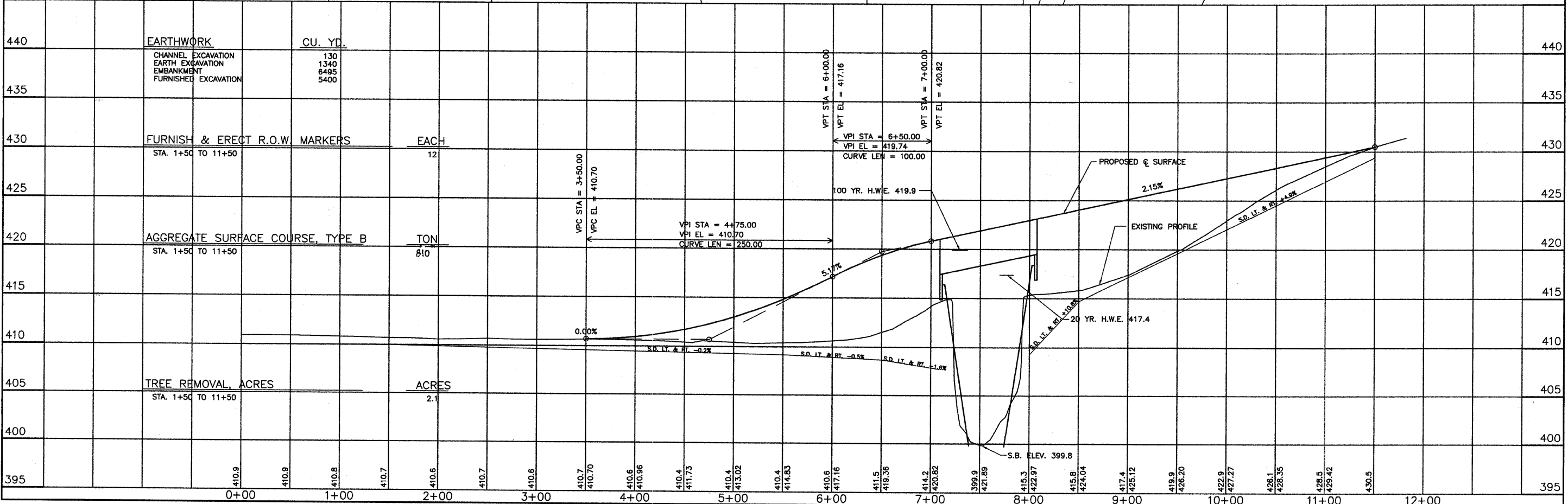
CIRCULAR  
D = 10'02'56"  
Da = 04'22'49"  
Dc = 04'22'53"  
T = 115.00  
R = 1308.04  
L = 229.41  
C = 229.12  
E = 5.05  
M = 5.03  
PI Sta = 5+34.56

CIRCULAR  
D = 20'11'15"  
Da = 14'24'22"  
Dc = 14'26'39"  
T = 70.80  
R = 397.72  
L = 140.13  
C = 139.41  
E = 6.25  
M = 6.16  
PI Sta = 8+78.56

CIRCULAR  
D = 03'37'33"  
Da = 02'25'02"  
Dc = 02'25'03"  
T = 75.03  
R = 2370.27  
L = 150.00  
C = 149.97  
E = 1.19  
M = 1.19  
PI Sta = 10+46.22

TRANSITION EXISTING ROADWAY TO PROPOSED ROADWAY  
STA. 1+00 TO 1+50 AND STA. 11+50 TO 12+00  
QUANTITIES FOR THE ABOVE ARE INCLUDED IN THOSE LISTED

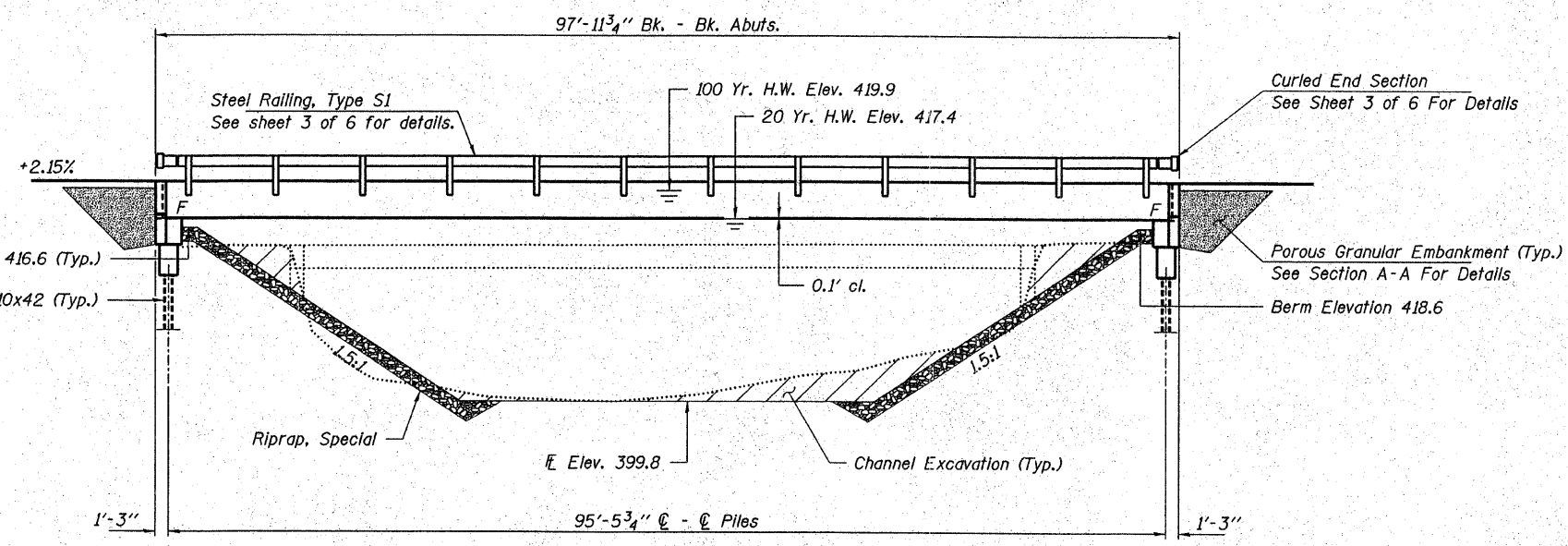
DALE W. & DOROTHY R. WEIDNER  
B.M. LT. STA. 3+41  
SPIKE IN P.P.  
ELEV. 411.68



440	EARTHWORK	CU. YD.		440
	CHANNEL EXCAVATION		130	
	EARTH EXCAVATION		1340	
	EMBANKMENT		6495	
	FURNISHED EXCAVATION		5400	
435				435
430	FURNISH & ERECT R.O.W. MARKERS	EACH	12	430
	STA. 1+50 TO 11+50			
425				425
420	AGGREGATE SURFACE COURSE, TYPE B	TON	810	420
	STA. 1+50 TO 11+50			
415				415
410				410
405	TREE REMOVAL	ACRES	2.1	405
	STA. 1+50 TO 11+50			
400				400
395				395

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 8	04-00112-00-BR	RICHLAND	14	4
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 95515	

Sheet 1 of 6



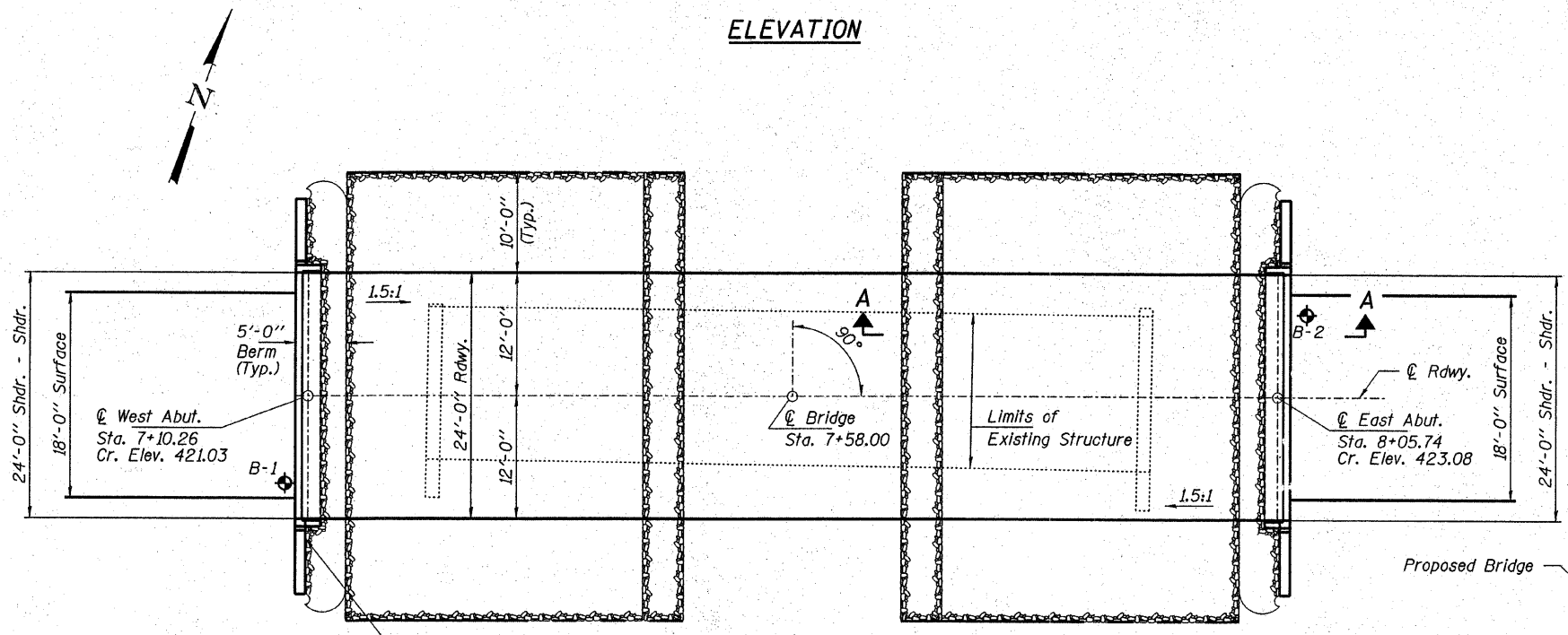
BUILT 200\_ BY  
RICHLAND COUNTY  
SEC. 04-00112-00-BR  
STR. NO. 080-3213  
LOADING HS 20

**NAME PLATE**  
See Std. 515001

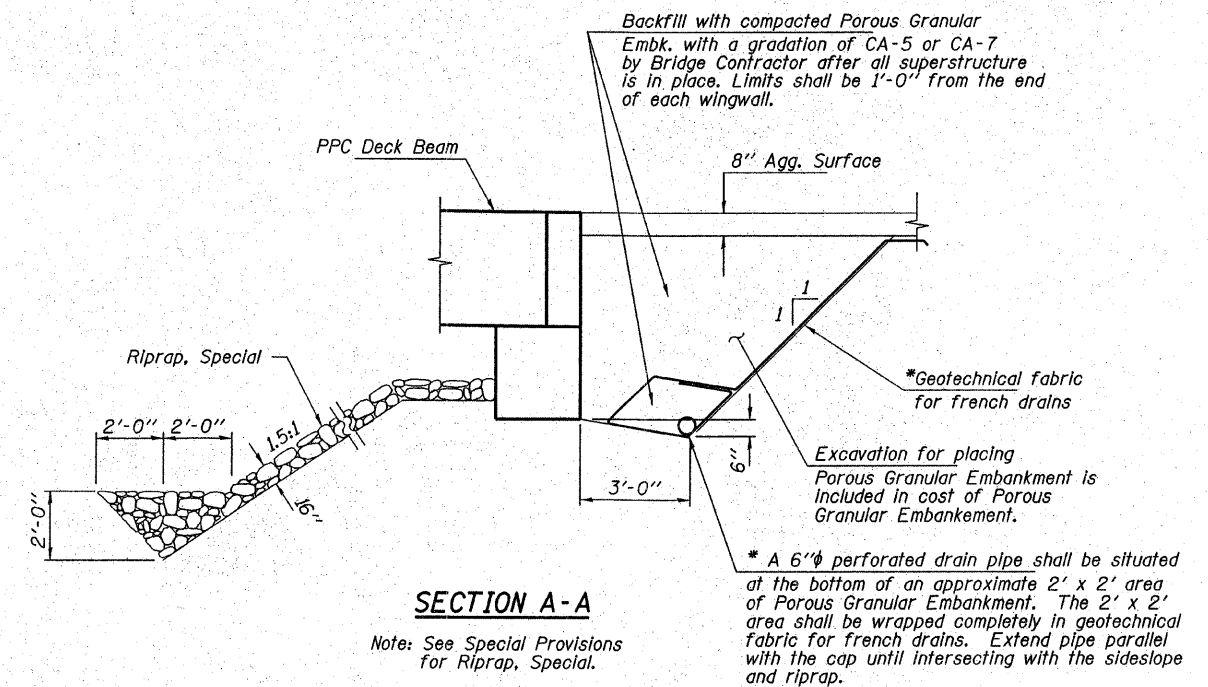
**GENERAL NOTES**

Layout of riprap may be varied in the field to suit ground conditions as directed by the Engineer.  
The Contractor shall drive test pile to 110% of the nominal required bearing specified in production locations at the West Abutment, as approved by the Engineer before ordering the remainder of piles. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Standard Specifications.  
Excavation required to construct the Abutments shall be included in the cost of Concrete Structures. No additional compensation will be allowed for Structure Excavation.  
All proposed construction activities shall be in accordance with Nationwide Permit number 14 of the Department of the Army authorized under Section 404 of the Clean Water Act. The IEPA has issued Section 401 Water Quality Certification for this activity. See Special Provisions for conditions. See Sheet 6 for Borings.

**ELEVATION**



**PLAN**



**SECTION A-A**

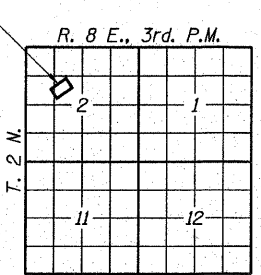
Note: See Special Provisions for Riprap, Special.

\* Cost included with unit price for Porous Granular Embankment.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Precast Prestressed Concrete Deck Beams (42" Depth)	Sq. Ft.	2,320		2,320
Concrete Structures	Cu. Yd.		21.6	21.6
Reinforcement Bars	Pound		2,900	2,900
Steel Railing, Type S1	Foot	188		188
Furnishing Steel Piles HP10x42	Foot		330	330
Test Pile Steel HP10x42	Each		1	1
Driving Piles	Foot		330	330
Concrete Encasement	Cu. Yd.		2.6	2.6
Name Plates	Each		1	1
Riprap, Special	Ton			311
Porous Granular Embankment	Ton			165
Channel Excavation	Cu. Yd.			130
Removal of Existing Structure	L Sum			1

**LOCATION SKETCH**



**DESIGN STRESSES**

**FIELD UNITS**

f'c = 3,500 psi  
fy = 60,000 psi (Reinf.)

**PRECAST PRESTRESSED UNITS**

f'c = 6,000 psi  
f'cl = 5,000 psi  
f's = 270,000 psi (1/2" low lax. strands)  
fsl = 201,960 psi (1/2" low lax. strands)  
fy = 60,000 psi (Reinf.)

Loading HS 20-44  
Design Specifications: 2002 AASHTO & all applicable Interims.  
25#/Sq. Ft. included in dead load for future wearing surface.

**SEISMIC DATA**

Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 0.09g  
Site Coefficient (S) = 1.0

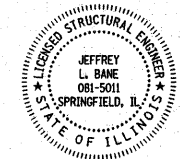
**WATERWAY DATA**

Drainage Area..... .028 Sq. Mi.  
Existing Opening (20 yr)..... 890 Sq. Ft.  
Req'd Opening (20 yr)..... 1094 Sq. Ft.  
Proposed Opening (20 yr)..... 1094 Sq. Ft.

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".

APR 0 2 2007

ILLINOIS STRUCTURAL NO. 081-5011



Expires 11-30-08

**HAMPTON, LENZINI & RENWICK, INC.**  
CIVIL & STRUCTURAL ENGINEERS  
LAND SURVEYORS

3085 STEVENSON DRIVE, SUITE 201  
SPRINGFIELD, ILLINOIS 62703  
(217) 546-3400

**ELGIN • SPRINGFIELD**

PROJECT NUMBER: 12-81-0002-1 DATE: 04/02/07  
DESIGNED: T.P.L. CHECKED: J.L.B. DRAWN: P.J.L.

**GENERAL PLAN AND ELEVATION**

SECTION 04-00112-00BR

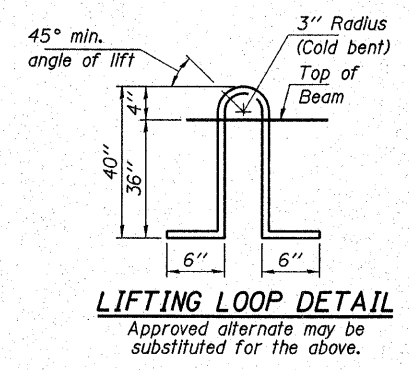
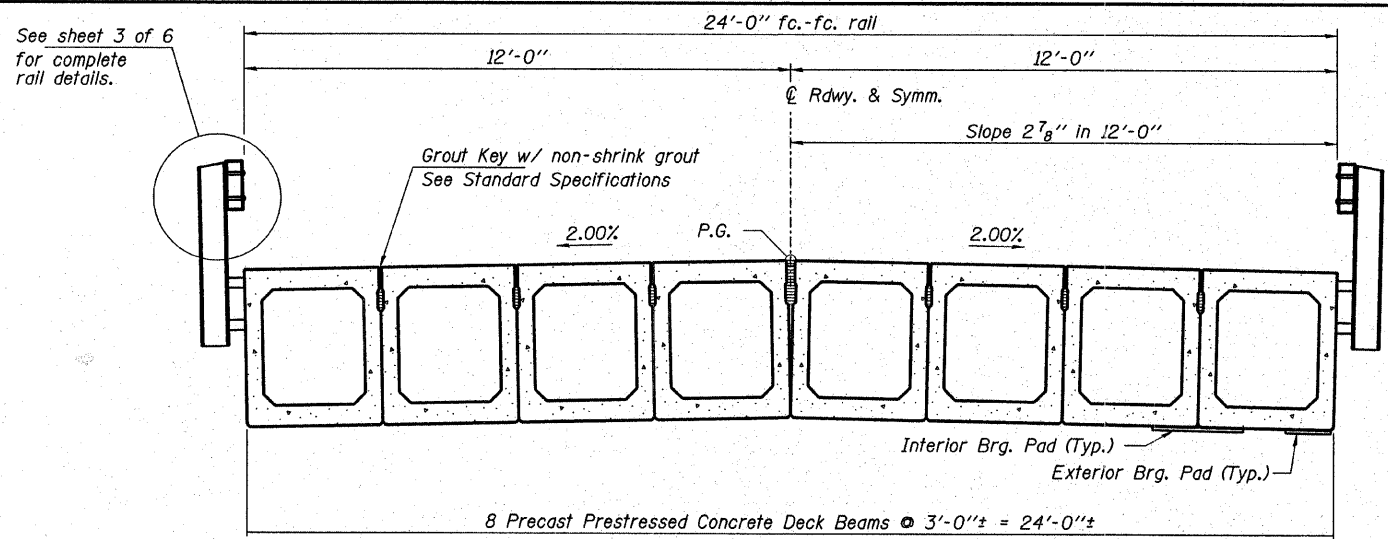
COUNTY HIGHWAY 8

RICHLAND COUNTY

STRUCTURE NO. 080-3213 / STATION 7+58

ROUTE NO. C.H. 8	SECTION 04-00112 -00-BR	COUNTY RICHLAND	TOTAL SHEETS 14	SHEET NO. 5
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 05515	

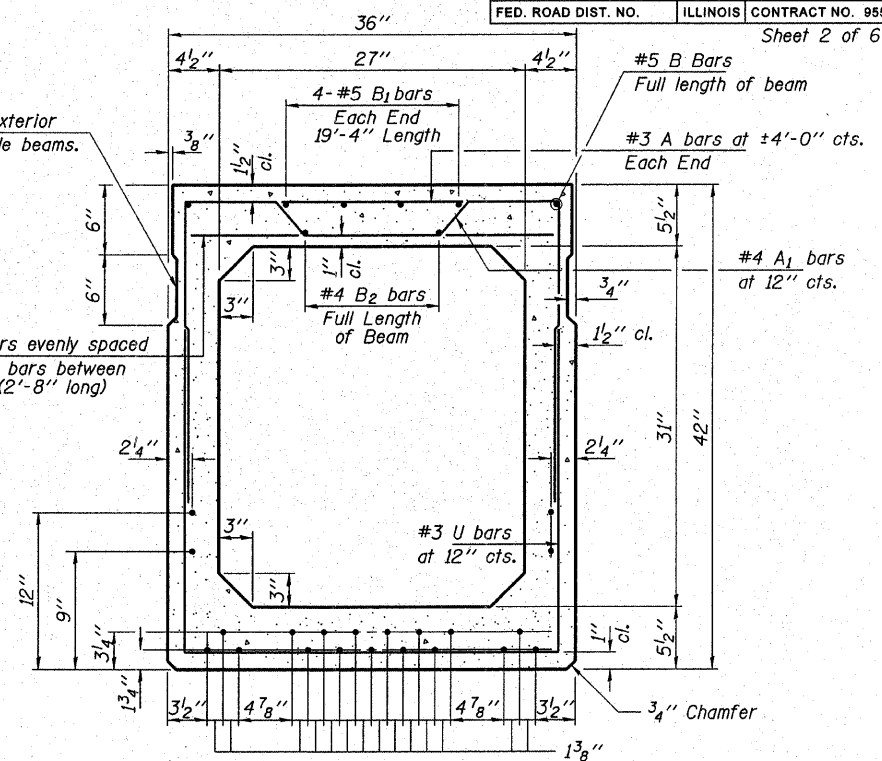
Sheet 2 of 6



Note:  
The loop shall be formed in a manner such that all strands are engaged during lifting. Loops shall be cut off after beams have been erected.

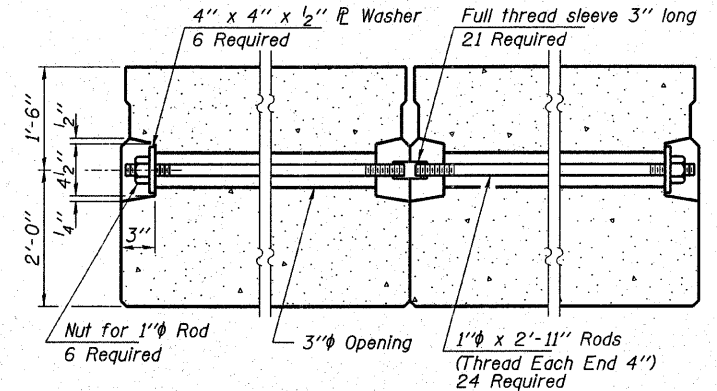
Omit key on exterior face of outside beams.

2-#3 A bars evenly spaced between A<sub>1</sub> bars between end blocks (2'-8" long)



TYPICAL SECTION

21-1/2" Strands Each Strand Stressed to 30,900 Lbs.  
9-Strands 1 3/4" up, 8-Strands 3/4" up, 2-Strands 9" up, 2-Strands 12" up

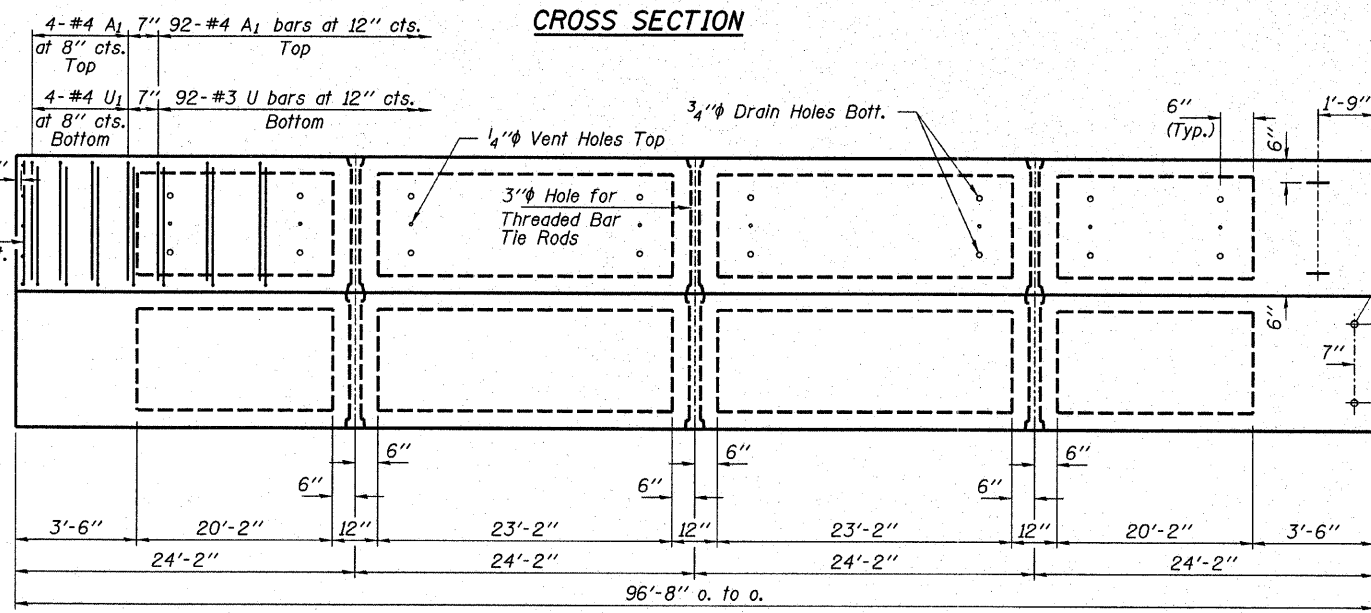


TYPICAL TRANSVERSE TIE ASSEMBLY

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 4-1/2" φ-270 ksi strands, as shown. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place. Reinforcement bars shall conform to the requirements of ASTM A706 Grade 60 (IL Modified). See Standard Specifications. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key. A Calcium Nitrate Corrosion Inhibitor shall be used in the concrete for Precast Prestressed Concrete Deck Beams. Required Release Strength, f'cl, shall be 5,000 p.s.i. **BILL OF MATERIAL**

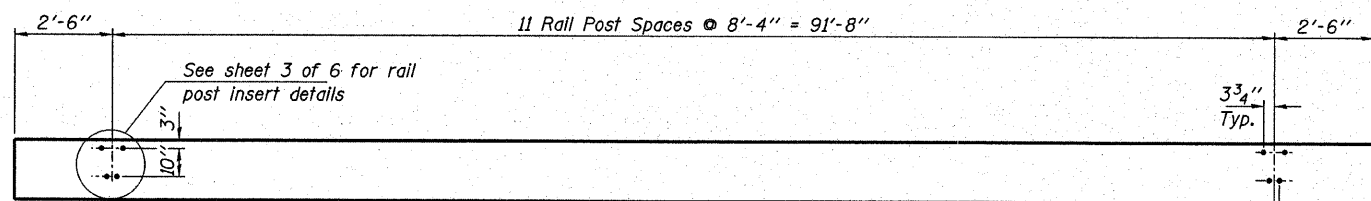
ITEM	UNIT	QUANTITY
Precast Prestressed Concrete Deck Beams (42" Depth)	Sq. Ft.	2,320



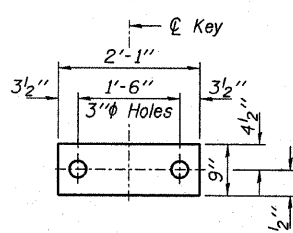
CROSS SECTION



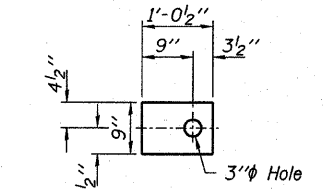
PLAN



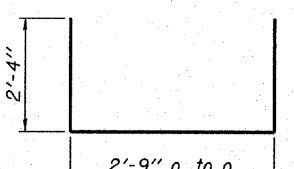
ELEVATION OF OUTSIDE BEAMS  
Showing Rail Post Spacing



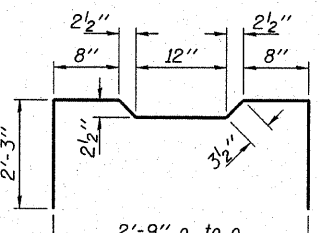
FABRIC BEARING PAD  
(Interior - 14 Req'd)



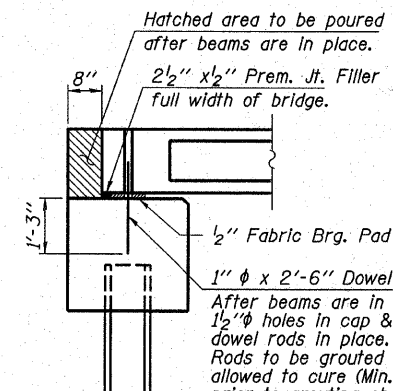
FABRIC BEARING PAD  
(Exterior - 4 Req'd)



BAR U & U1



BAR A1



SECTION AT ABUTMENTS

**HAMPTON, LENZINI & RENWICK, INC.**  
CIVIL & STRUCTURAL ENGINEERS  
LAND SURVEYORS

3085 STEVENSON DRIVE, SUITE 201  
SPRINGFIELD, ILLINOIS 62703  
(217) 546-3400

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-81-0002-1 DATE: 04/02/07  
DESIGNED: T.P.L. CHECKED: J.L.B. DRAWN: P.J.L.

**SUPERSTRUCTURE**

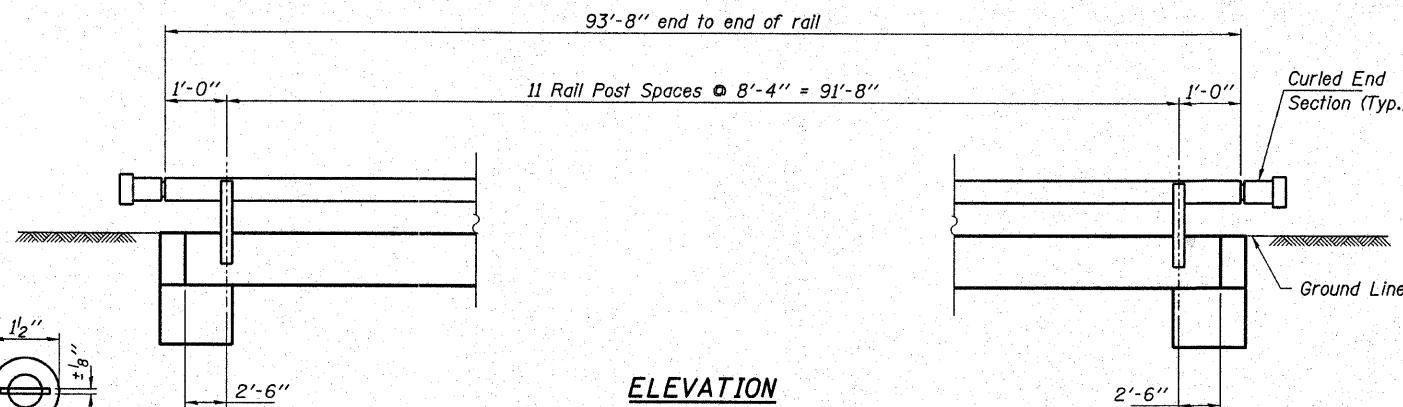
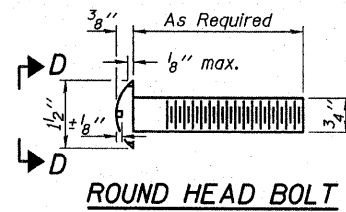
SECTION 04-00112-00-BR

COUNTY HIGHWAY 8

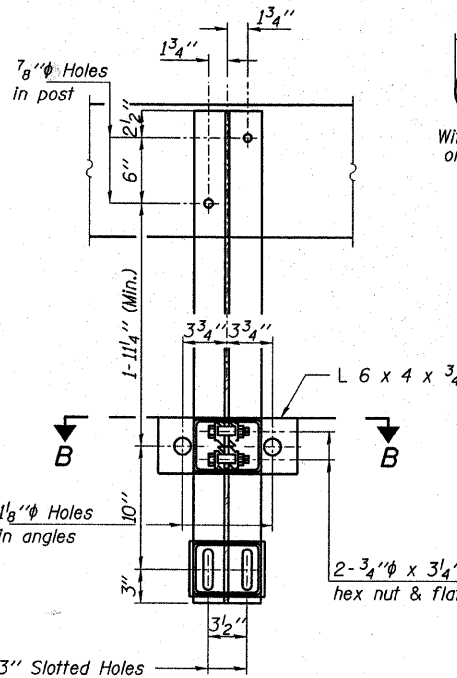
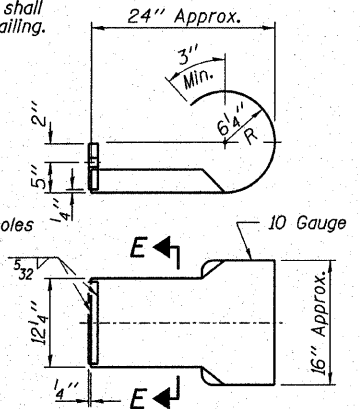
RICHLAND COUNTY

STRUCTURE NO. 080-3213 / STATION 7+58

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 8	04-00112-00-BR	RICHLAND	14	6
FED. ROAD DIST. NO.	ILLINOIS CONTRACT NO. 95515		Sheet 3 of 6	

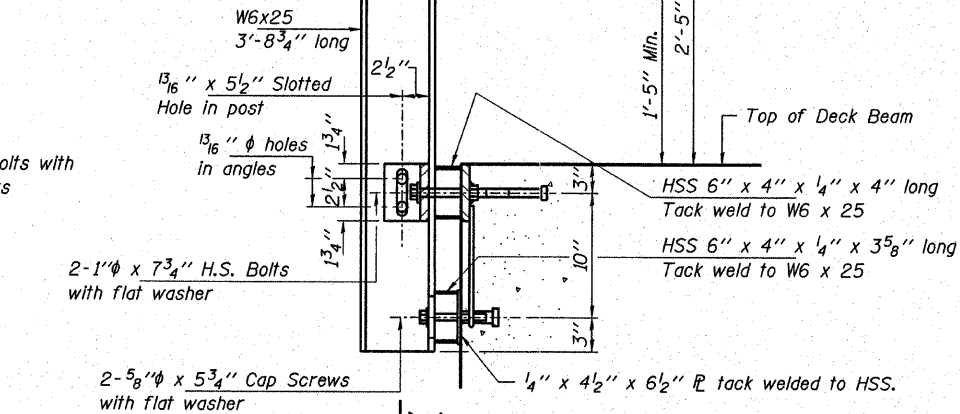


Note: Cost of curled end sections shall be included with the Steel Railing. (4 Required)

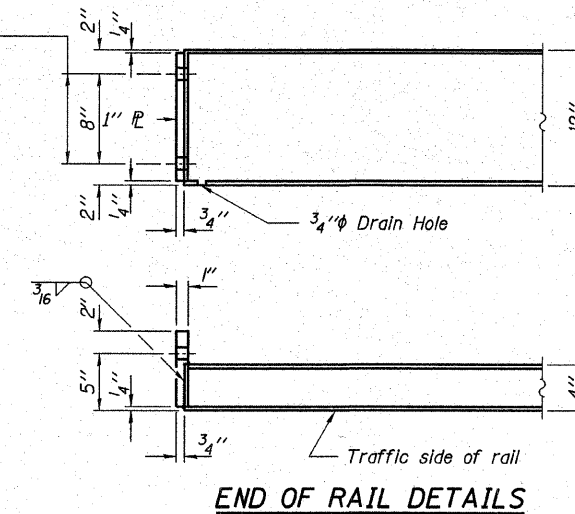


**VIEW D-D**

2-3/4" x 6" Round Head Bolts (With slot or approved recess in head) with locknut & flat washer. 7/8" Holes in hollow structural section may be drilled in the field.



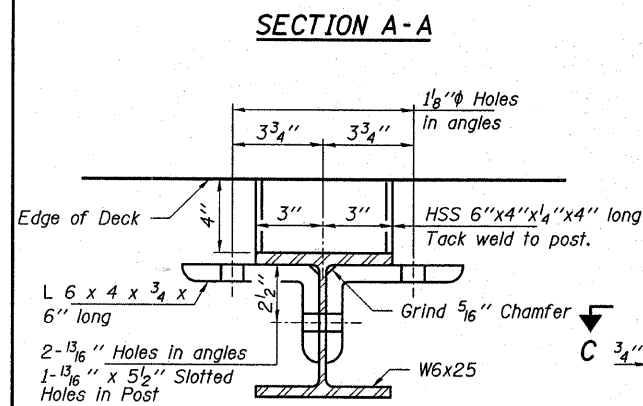
\*\* Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".



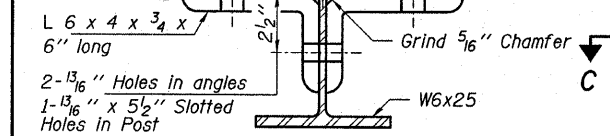
**SECTION E-E CURLED END SECTION DETAILS**

**NOTES**

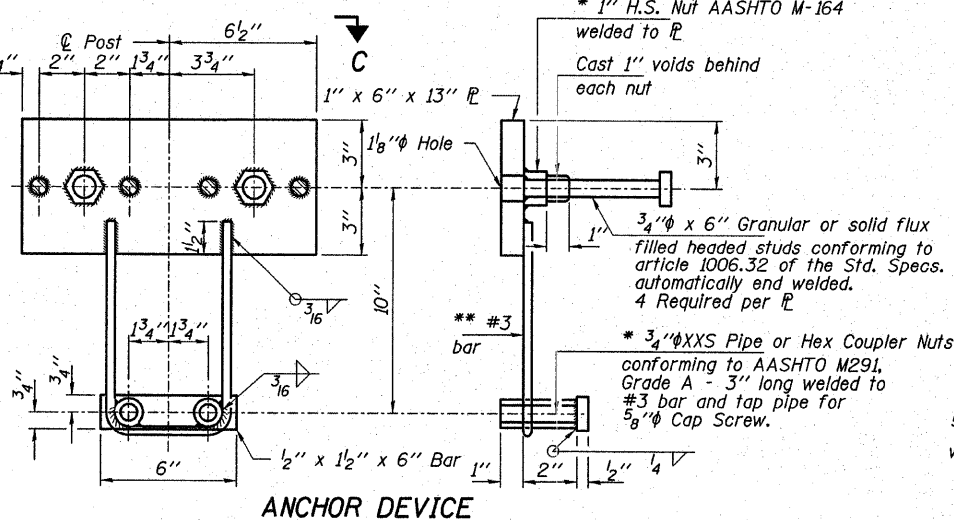
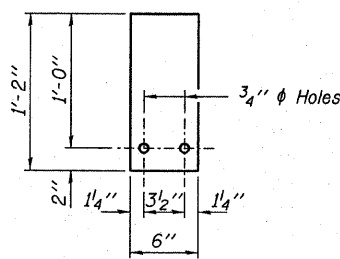
Hollow structural sections shall conform to the requirements of A.S.T.M. designation A-500 Grade B Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft-lbs at 0° F. All other steel shapes and plates shall conform to the requirements of A.A.S.H.T.O. designation M-270 Grade 36 except posts and angles shall conform to A.A.S.H.T.O. M-270 Grade 50. Bolts, cap screws, and nuts shall conform to the requirements of A.S.T.M. designation A-307 except for high strength bolts, nuts and washers noted which shall conform to A.A.S.H.T.O. designation M-164. All bolts, nuts, cap screws, washers and lockwashers shall be galvanized in accordance with A.A.S.H.T.O. designation M-232. All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication in accordance with A.S.T.M. A-385 and A.A.S.H.T.O. M-111. Galvanized rail shall not be painted. Railing shall be in accordance with Section 509 of the Standard Specifications, except as noted, and shall be paid for at the contract unit price per foot for STEEL RAILING, TYPE S1. All field drilled holes shall be coated with an approved zinc rich paint before erection. The lower portion of the post flange in contact with concrete shall receive two coats of asphalt paint conforming to Section 1060.07 Type II or place 1/2" fabric bearing pad between the post and concrete. The 3/4" high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened in accordance with Art. 505.04(f)(2) of the Standard Specifications. The 1" high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/8 turn. The 5/8" cap screws in bottom of posts shall be tightened to a snug fit only.



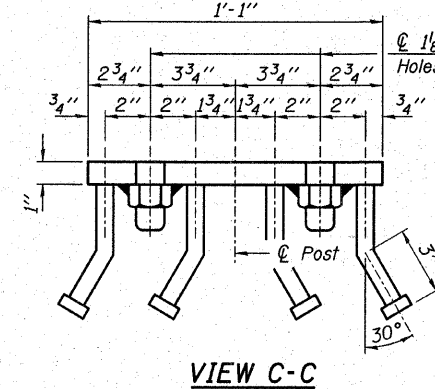
**SECTION A-A**



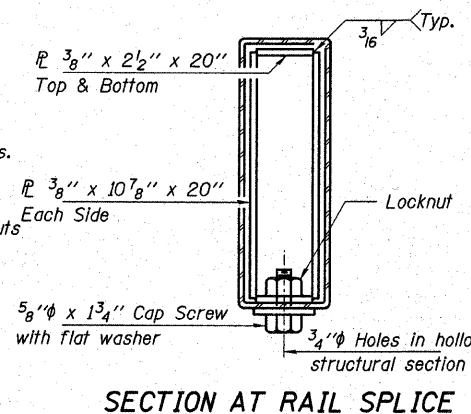
**SECTION B-B**



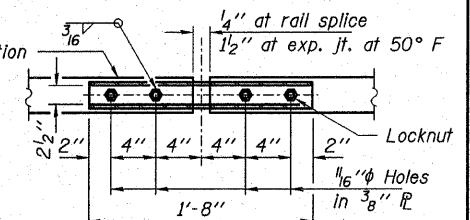
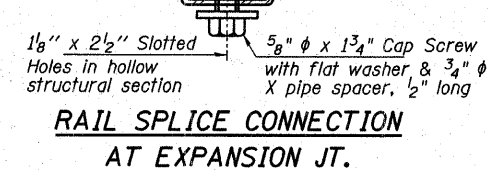
\* Threaded areas shall be plugged or blocked off during casting of beam.



**VIEW C-C**



**SECTION AT RAIL SPLICE**



**BILL OF MATERIAL**

Item	Unit	Quantity
Steel Railing, Type S1	Foot	188

**RAILING DETAILS**

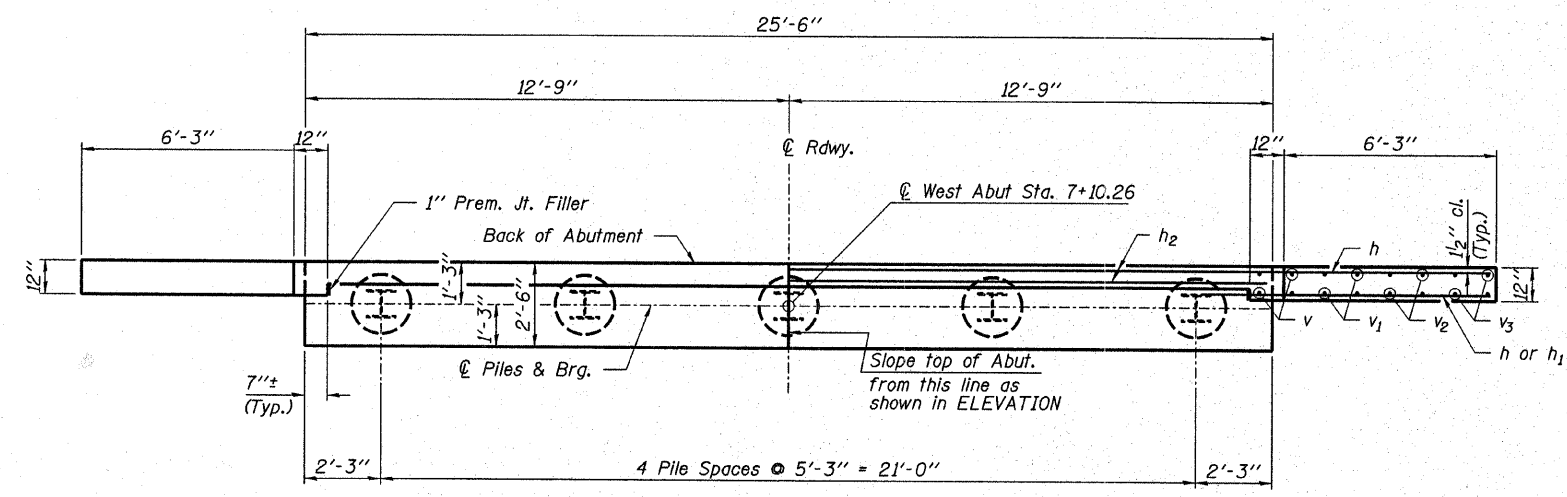
SECTION 04-00112-00BR  
COUNTY HIGHWAY 8  
RICHLAND COUNTY

STRUCTURE NO. 080-3213 / STATION 7+58

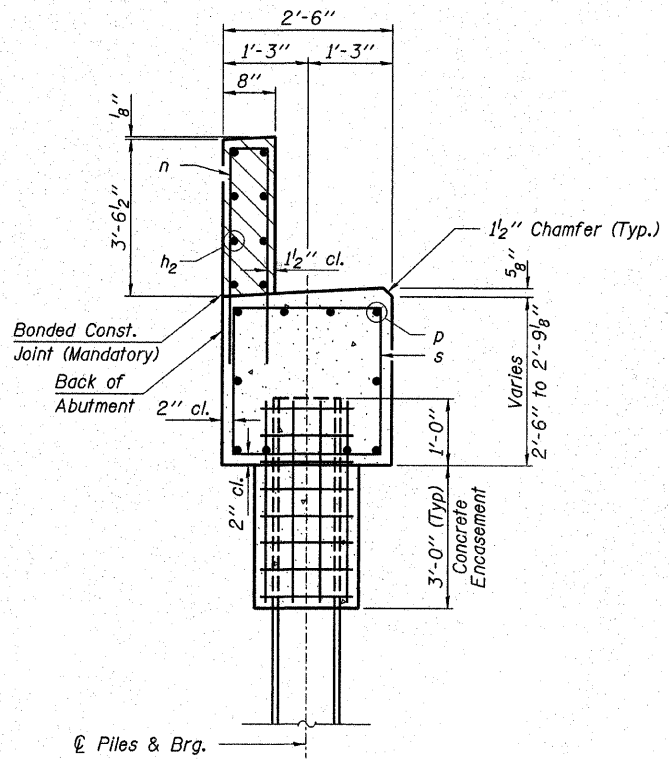
**HAMPTON, LENZINI & RENWICK, INC.**  
CIVIL & STRUCTURAL ENGINEERS  
LAND SURVEYORS  
3085 STEVENSON DRIVE, SUITE 201  
SPRINGFIELD, ILLINOIS 62703  
(217) 546-3400

**ELGIN • SPRINGFIELD**

PROJECT NUMBER: 12-81-0002-1 DATE: 04/02/07  
DESIGNED: T.P.L. CHECKED: J.L.B. DRAWN: P.J.L.

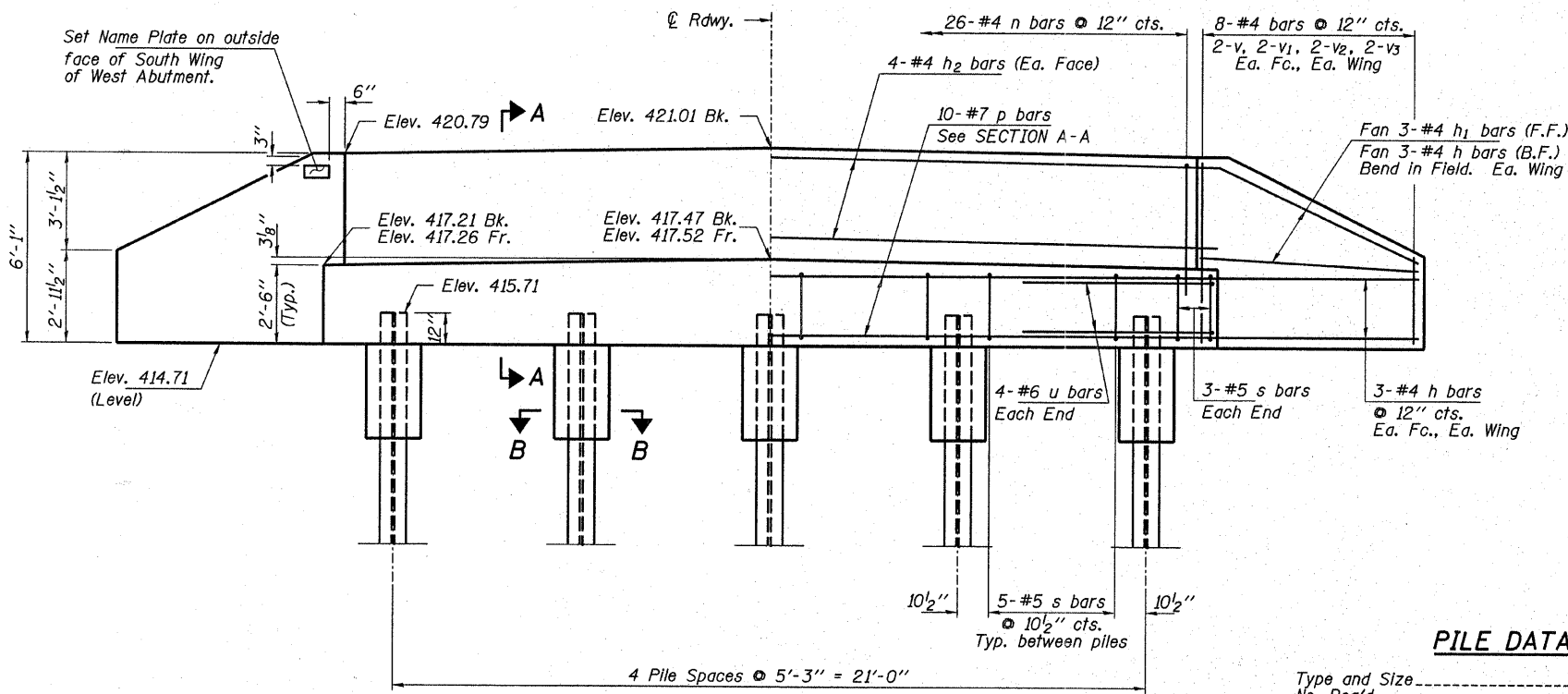
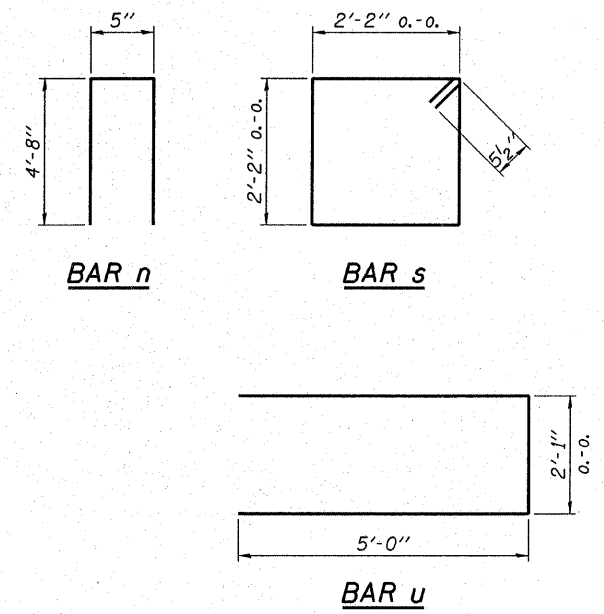


**PLAN**

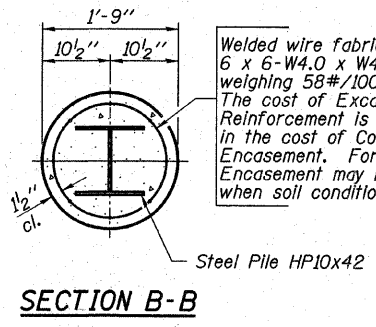


**SECTION A-A**

Hatched area to be poured after beams are in place.



**ELEVATION**



**SECTION B-B**

**PILE DATA**

Type and Size ..... Steel HP10x42  
 No. Req'd ..... 5  
 Nominal Req'd Bearing ..... 335 Kips/Pile  
 Allowable Resistance Available ..... 112 Kips/Pile  
 Est. Length ..... 45 Ft./Pile (W. Abut.)

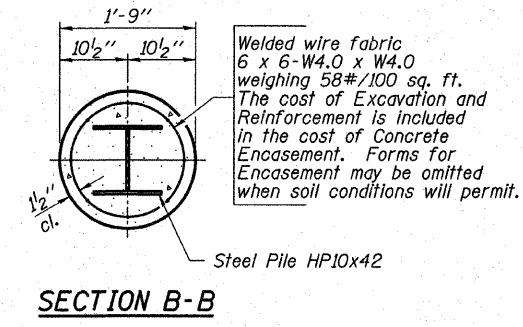
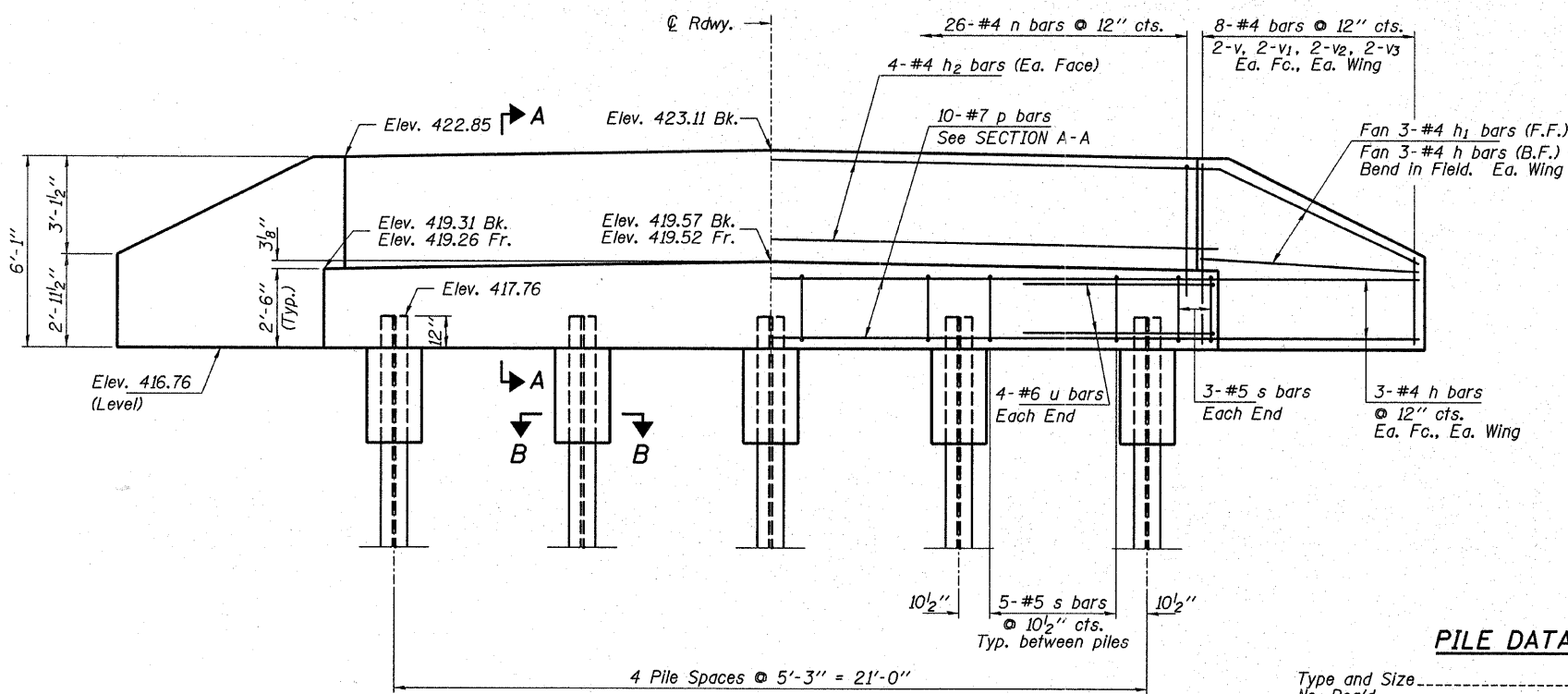
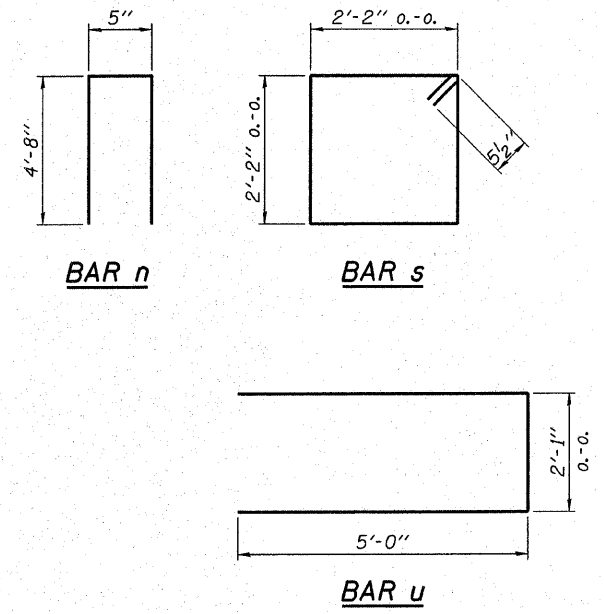
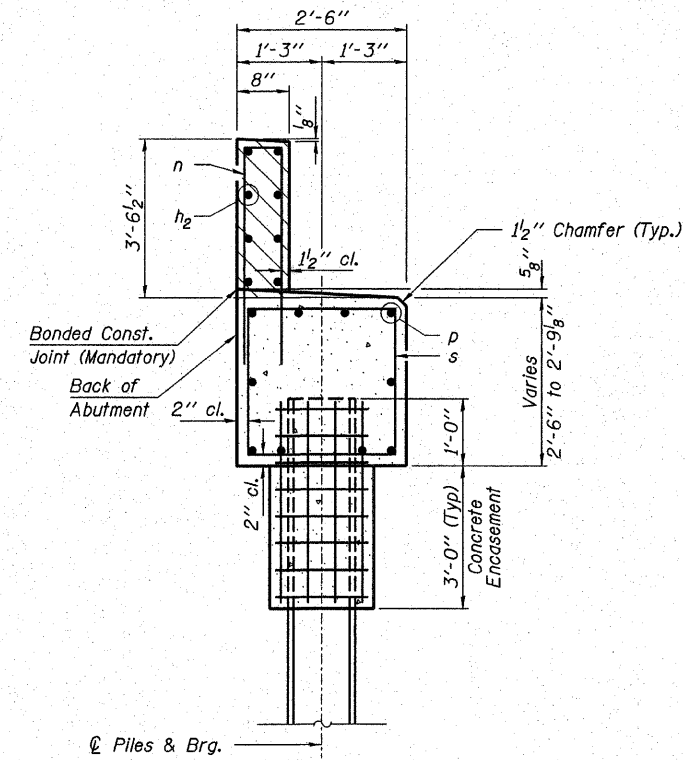
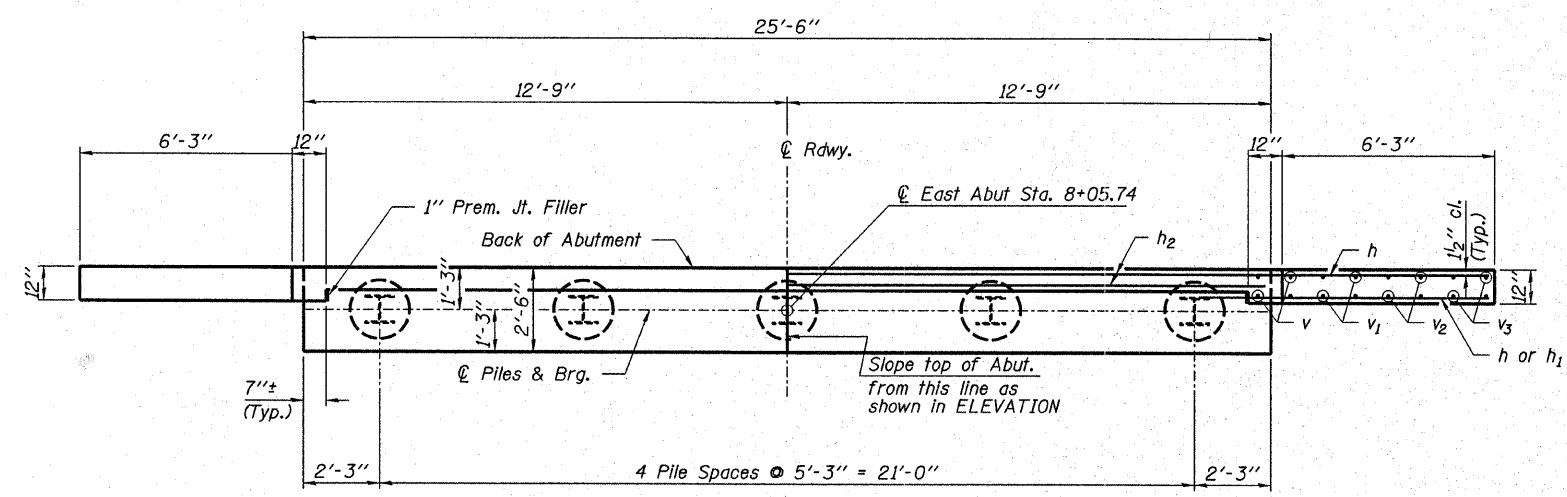
Notes: The Steel H-Piles shall be according to AASHTO M270 Grade 50.  
 The test pile shall be driven to 110 percent of the Nominal Required Bearing indicated in the pile data information.  
 \* Includes one test pile to be driven in a permanent location at the West Abutment.

**WEST ABUTMENT  
BILL OF MATERIAL**

BAR	NO.	SIZE	LENGTH	SHAPE
h	18	#4	8'-6"	—
h <sub>1</sub>	6	#4	7'-0"	—
h <sub>2</sub>	8	#4	26'-0"	—
n	26	#4	9'-9"	U
p	10	#7	25'-2"	—
s	26	#5	9'-7"	□
u	8	#6	12'-1"	—
v	8	#4	5'-8"	—
v <sub>1</sub>	8	#4	4'-8"	—
v <sub>2</sub>	8	#4	3'-8"	—
v <sub>3</sub>	8	#4	2'-8"	—
Concrete Structures			Cu. Yd.	10.8
Concrete Encasement			Cu. Yd.	1.3
Reinforcement Bars			Pound	1,450
Steel Piles HP10x42			Foot	180
Test Pile Steel HP10x42			Each	1
Driving Piles			Foot	180
Name Plates			Each	1

**HAMPTON, LENZINI & RENWICK, INC.**  
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 LAND SURVEYORS  
 3085 STEVENSON DRIVE, SUITE 201  
 SPRINGFIELD, ILLINOIS 62703  
 (217) 546-3400  
 ELGIN • SPRINGFIELD  
 PROJECT NUMBER: 12-81-0002-1 DATE: 04/02/07  
 DESIGNED: T.P.L. CHECKED: J.L.B. DRAWN: P.J.L.

**WEST ABUTMENT**  
**SECTION 04-00112-00-BR**  
 COUNTY HIGHWAY 8  
 RICHLAND COUNTY  
 STRUCTURE NO. 080-3213 / STATION 7+58



**EAST ABUTMENT  
BILL OF MATERIAL**

BAR	NO.	SIZE	LENGTH	SHAPE
h	18	#4	8'-6"	—
h <sub>1</sub>	6	#4	7'-0"	—
h <sub>2</sub>	8	#4	26'-0"	—
n	26	#4	9'-9"	⏏
p	10	#7	25'-2"	—
s	26	#5	9'-7"	□
u	8	#6	12'-1"	⏏
v	8	#4	5'-8"	—
v <sub>1</sub>	8	#4	4'-8"	—
v <sub>2</sub>	8	#4	3'-8"	—
v <sub>3</sub>	8	#4	2'-8"	—
Concrete Structures			Cu. Yd.	10.8
Concrete Encasement			Cu. Yd.	1.3
Reinforcement Bars			Pound	1,450
Steel Piles HP10x42			Foot	150
Driving Piles			Foot	150

**PILE DATA**

Type and Size ..... Steel HP10x42  
 No. Req'd. .... 5  
 Nominal Req'd Bearing ..... 335 Kips/Pile  
 Allowable Resistance Available ..... 112 Kips/Pile  
 Est. Lengths ..... 30 Ft/Pile (E. Abut.)

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

**HAMPTON, LENZINI & RENWICK, INC.**  
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ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-81-0002-1      DATE: 04/02/07  
 DESIGNED: T.P.L.      CHECKED: J.L.B.      DRAWN: P.J.L.

**EAST ABUTMENT**  
**SECTION 04-00112-00-BR**  
 COUNTY HIGHWAY 8  
 RICHLAND COUNTY  
 STRUCTURE NO. 080-3213 / STATION 7+58



HOLCOMB FOUNDATION ENGINEERING INC.  
P.O. Box 88 618-529-5262  
Carbondale, Il. 62903 618-457-8991 fax

Page 1 of 1

**Bridge Foundation Boring Log**

Project: H-06318 Bridge \_\_\_\_\_ Date: 12/13/06  
Section: 04-00112-00-BR Station \_\_\_\_\_  
Route: CHB Bored by: D. Russell  
County: Richland Checked By: J. Holcomb

Boring No: 1 W. ABUT  
Station: ~7+08  
Offset: ~8.5' RT  
BOR CAP ELEV 414.7

Elevation	N	Qu tsf	w	Surface Water Elev.		Elevation	N	Qu tsf	w
				During Drilling	Upon Completion				
413.8	0					391.3			
412.8						387.8			
	5	1.18	23			387.8	4	1.18	28
	3	0.58	25				1		26
	8	1.55	22				wh		25
	4	1.08	24						
402.8						380.3			
	8	2.78	20				9		26
	12	1.78	23						
397.3						375.3	100		11
	6	1.05	23						
394.8						ESTIMATED RESIDUAL 372.3	100		18
	6		28						
392.3						369.8	100		13
	2	0.78	45						

End of Boring @ -44.0'

N = Standard Penetration Test Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with a 140 lbs. hammer falling 30"  
Qu - Unconfined Compressive Strength in tons/sq.ft.  
w - Water Content - percentage of oven dry weight-%  
B = Bulge Failure  
S = Shear Failure  
E = Estimated Value  
P = Penetrometer

**BORING B-1**

HOLCOMB FOUNDATION ENGINEERING INC.  
P.O. Box 88 618-529-5262  
Carbondale, Il. 62903 618-457-8991 fax

Page 1 of 1

**Bridge Foundation Boring Log**

Project: H-06318 Bridge \_\_\_\_\_ Date: 12/13/06  
Section: 04-00112-00-BR Station \_\_\_\_\_  
Route: CHB Bored by: D. Russell  
County: Richland Checked By: J. Holcomb

Boring No: 2 E. ABUT  
Station: ~8+08  
Offset: ~8.0' LT  
BOR CAP ELEV 414.7

Elevation	N	Qu tsf	w	Surface Water Elev.		Elevation	N	Qu tsf	w
				During Drilling	Upon Completion				
419.1	0								
418.2									
	4	1.15	23			394.6	100	4.55	10
	3	0.38	19			392.6	100		12
	3	0.48	20				100		7
	4	0.48	21						
	9	0.95	18						
	8	1.28	21						
	6	1.05	23						
	18	4.35	13						
	21	3.75	12						

End of Boring @ -30.0'

N = Standard Penetration Test Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with a 140 lbs. hammer falling 30"  
Qu - Unconfined Compressive Strength in tons/sq.ft.  
w - Water Content - percentage of oven dry weight-%  
B = Bulge Failure  
S = Shear Failure  
E = Estimated Value  
P = Penetrometer

**BORING B-2**

**HAMPTON, LENZINI & RENWICK, INC.**  
CIVIL & STRUCTURAL ENGINEERS  
LAND SURVEYORS

**HLR**

3085 STEVENSON DRIVE, SUITE 201  
SPRINGFIELD, ILLINOIS 62703  
(217) 546-3400

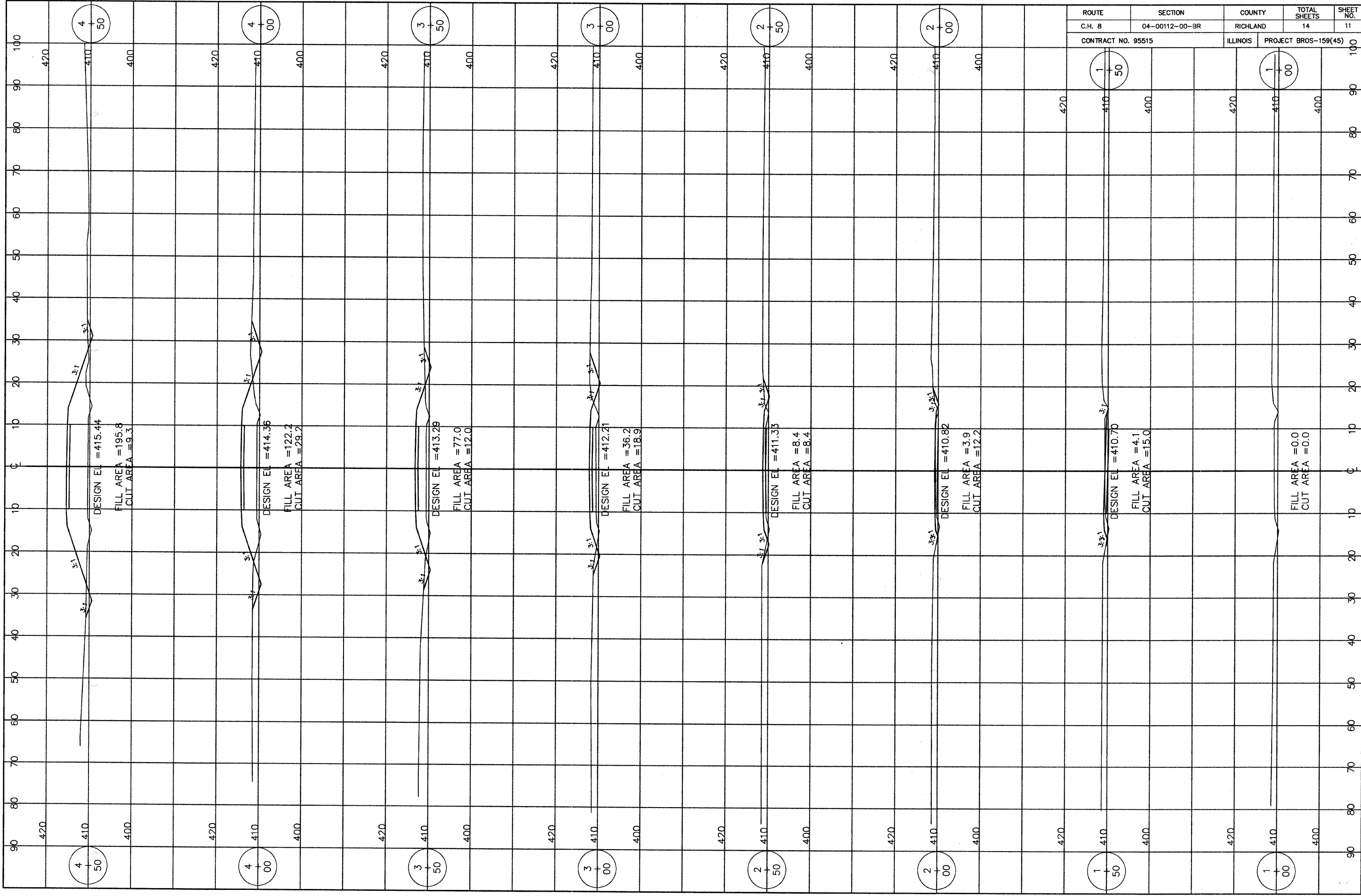
ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-81-0002-1 DATE: 04/02/07  
DESIGNED: T.P.L. CHECKED: J.L.B. DRAWN: P.J.L.

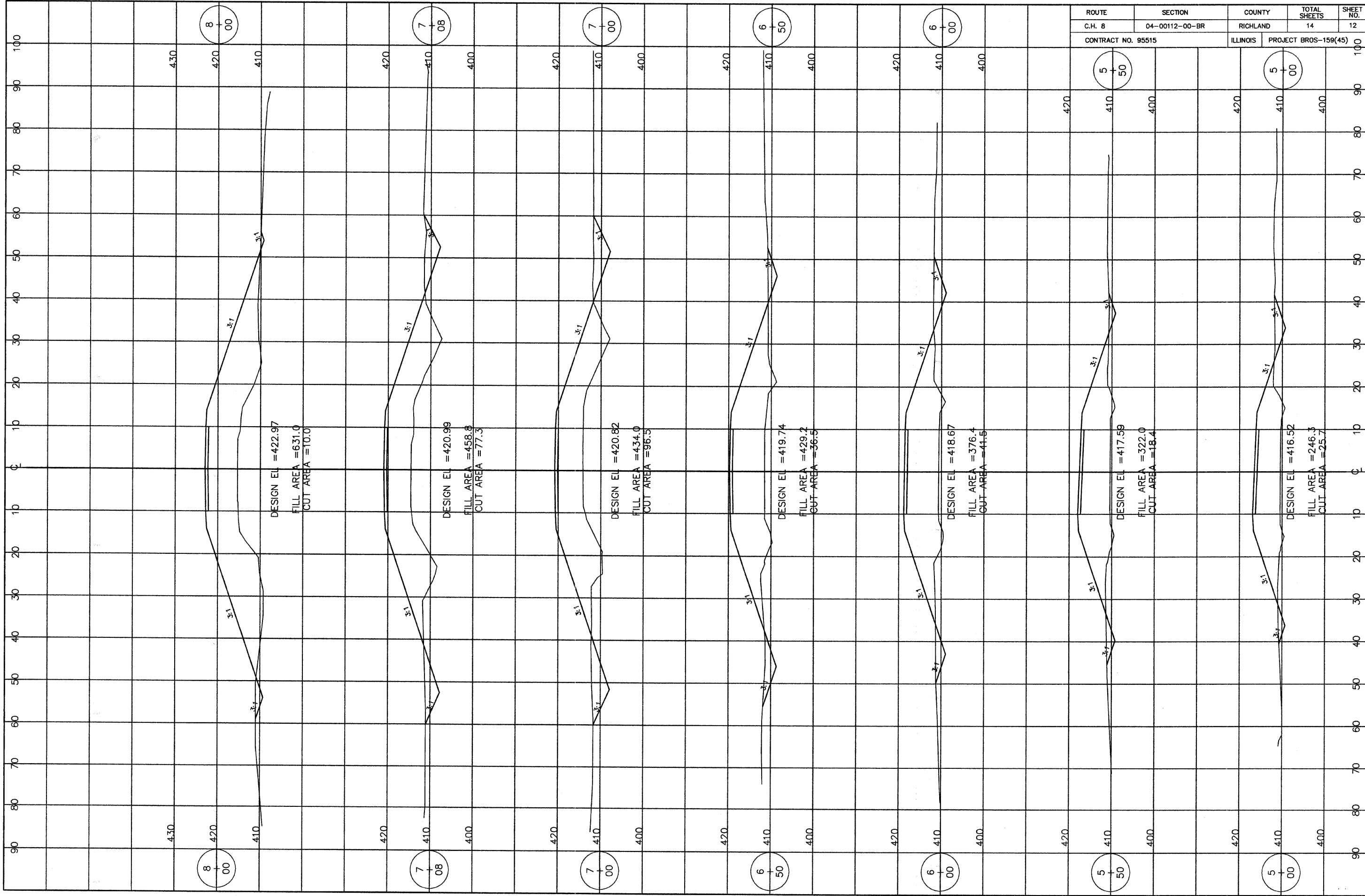
**BORINGS**

SECTION 04-00112-00-BR  
COUNTY HIGHWAY 8  
RICHLAND COUNTY  
STRUCTURE NO. 080-3213 / STATION 7+58

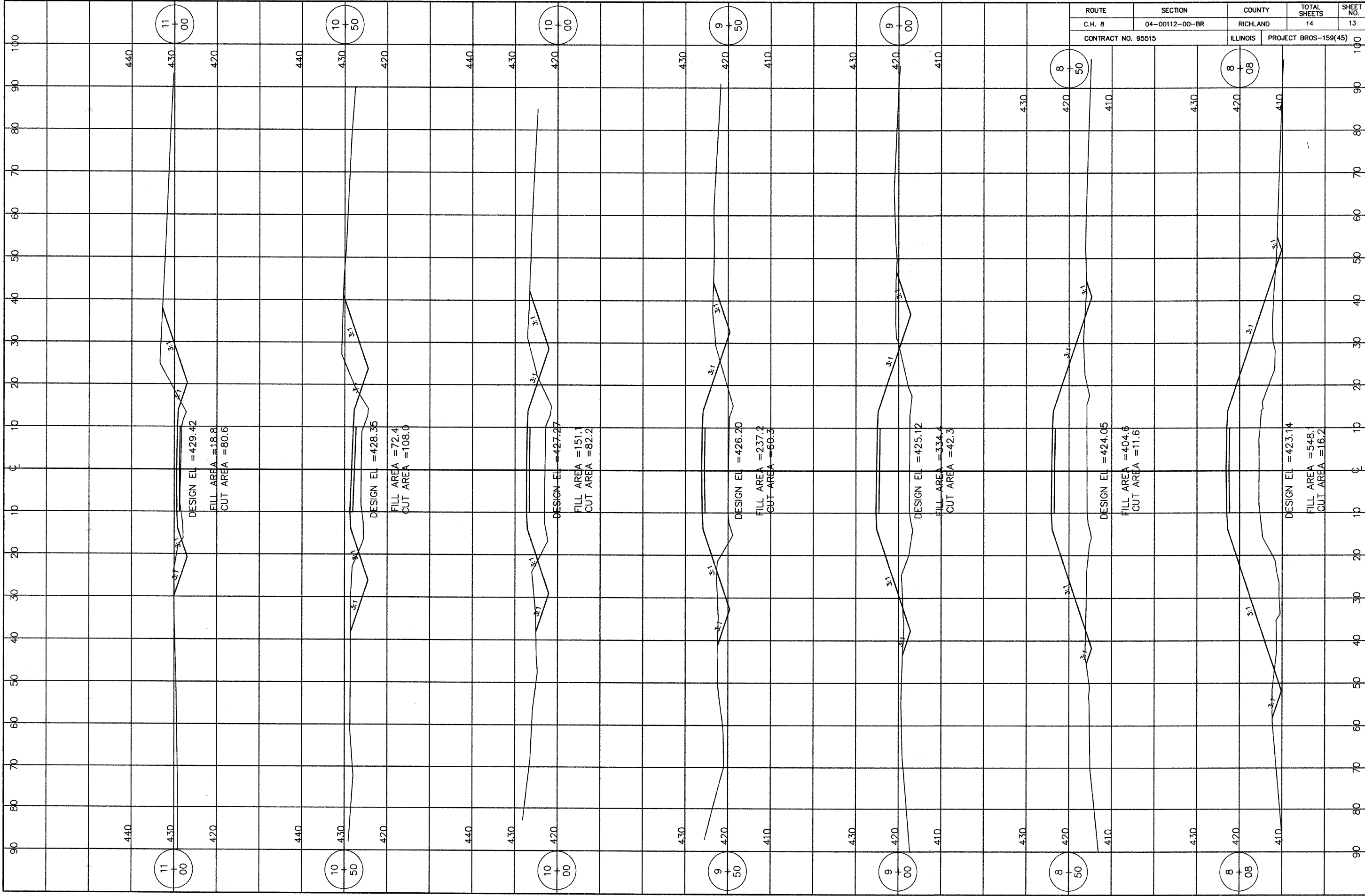




ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 8	04-00112-00-BR	RICHLAND	14	11
CONTRACT NO. 95515		ILLINOIS	PROJECT BROS-159(45)	

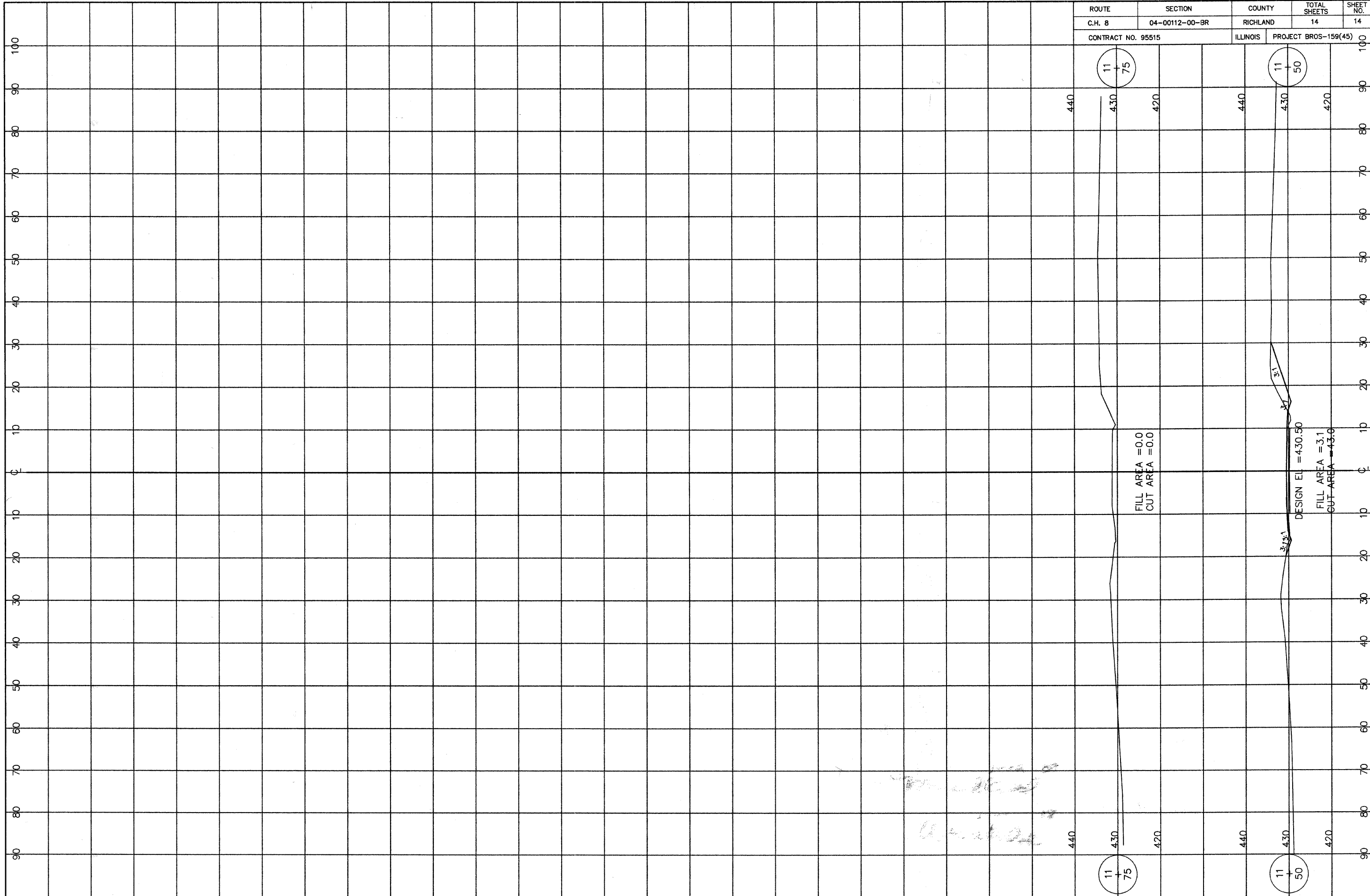


ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 8	04-00112-00-BR	RICHLAND	14	12
CONTRACT NO. 95515		ILLINOIS	PROJECT BROS-159(45)	



ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 8	04-00112-00-BR	RICHLAND	14	13
CONTRACT NO. 95515		ILLINOIS	PROJECT BROS-159(45)	

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 8	04-00112-00-BR	RICHLAND	14	14
CONTRACT NO. 95515		ILLINOIS	PROJECT BROS-159(45)	



FILL AREA = 0.0  
CUT AREA = 0.0

DESIGN EIL = 430.50  
FILL AREA = 3.1  
CUT AREA = 43.6

*Handwritten notes:*  
 11-11-24  
 11-11-24