

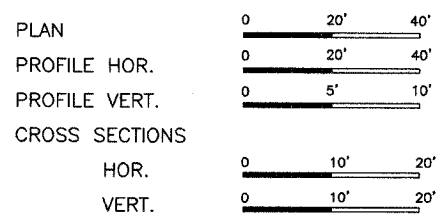
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 801	03-00110-00-BR	RICHLAND	13	1
CONTRACT NO. 95456		ILLINOIS	PROJECT BRS-801(228)	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
BRIDGE REPLACEMENT & REHABILITATION PROGRAM
SECTION 03-00110-00-BR RICHLAND COUNTY
PROJECT BRS-801(228)
JOB NO. C-97-045-06
F.A.S. 801

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

INDEX OF SHEETS

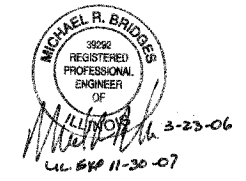
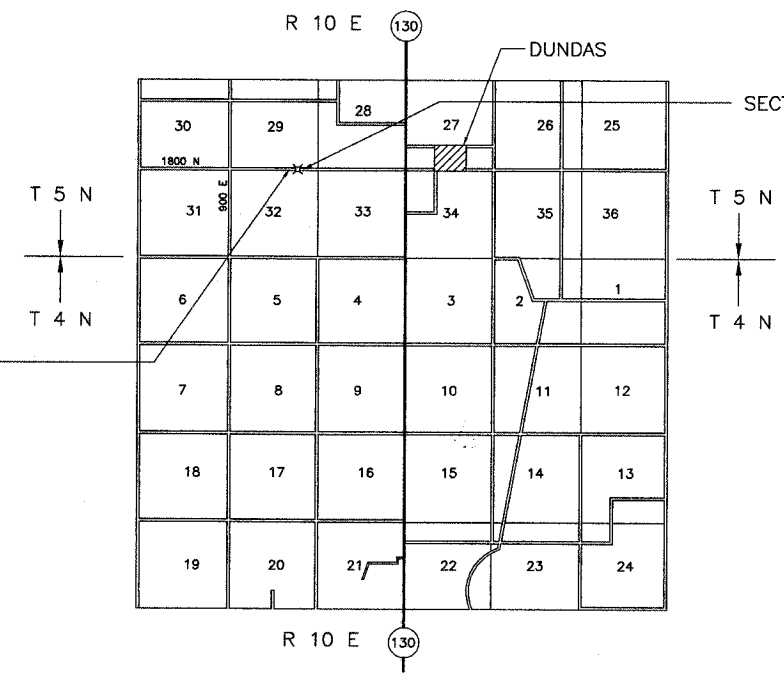
SHEET	ITEM
1	COVER SHEET
2	SUMMARY OF QUANTITIES
3	ROADWAY PLAN AND PROFILE
4	GENERAL PLAN AND ELEVATION
5	STANDARD CS-2827-60
6	STANDARD CB-2827-48
7	STANDARD CA-2827-10
8	STANDARD CP-2827-10
9	STANDARD CR-TS1
10	STANDARD CN
11	STANDARD CX-1
12-13	CROSS SECTIONS



- STANDARD DRAWINGS
- STANDARD 000001-04
 - STANDARD 280001-02
 - STANDARD 630001-06
 - STANDARD 631026-02
 - STANDARD 702001-06
 - STANDARD BLR 21-6
 - STANDARD BLR 22-4
 - STANDARD BLR 23-1

SECTION 03-00110-00-BR BEGINS STA. 1+35.00

THREE SPAN PRECAST PRESTRESSED CONCRETE DECK BEAM BRIDGE
18'1"-6" BK - BK ABUTMENTS
STEEL PILE SPILLTHROUGH ABUTMENTS
STEEL PILE PIERS
28' DECK
EXISTING STRUCTURE NO. 080-3007
PROPOSED STRUCTURE NO. 080-3210



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

APPROVED March 23 2006
Danny J. Colwell
COUNTY ENGINEER

PASSED 3/29 2006
Marwan El-Cest
DISTRICT SEVEN ENGINEER OF
LOCAL ROADS AND STREETS

Releasing For
Bid Based on
Limited Review
3/29 2006
Charles M. Peard
DEPUTY DIRECTOR OF HIGHWAYS
REGION FOUR ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RURAL MAJOR COLLECTOR
ADT = 750
DESIGN SPEED = 50 M.P.H.

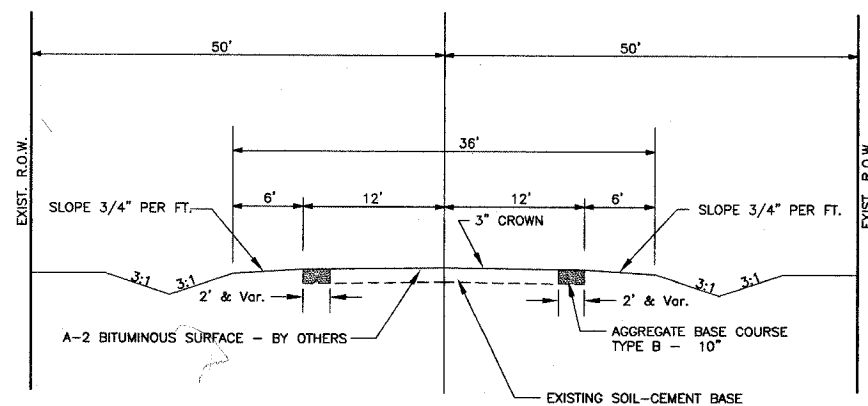
CONTRACT NO. 95456

NET LENGTH SECTION 03-00110-00-BR = 330.00 Ft. = 0.062 Mi.

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 801	03-00110-00-BR	RICHLAND	13	2
CONTRACT NO. 95456		ILLINOIS	PROJECT BRS-801(228)	

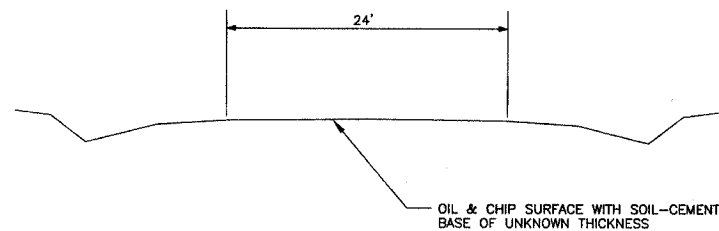
DESIGN DATA

RURAL MAJOR COLLECTOR
ADT = 750



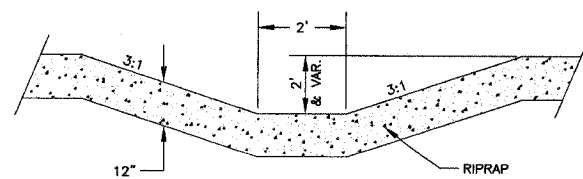
TYPICAL SECTION

PROPOSED



TYPICAL SECTION

EXISTING



TYPICAL DRAINAGE DITCH SECTION

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.
2. NO PAYMENT FOR OVERHAUL WILL BE MADE ON THIS SECTION.

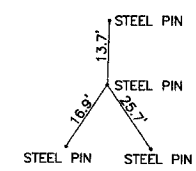
SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	QUANTITY
20200100	EARTH EXCAVATION	CU YD	15
20300100	CHANNEL EXCAVATION	CU YD	490
20400800	FURNISHED EXCAVATION	CU YD	365
20900330	GRANULAR BACKFILL	TON	160
25001000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.35
28000900	FENCE (EROSION CONTROL)	FOOT	420
28100807	STONE DUMPED RIPRAP, CLASS A4	TON	650
35101400	AGGREGATE BASE COURSE, TYPE B	TON	30
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50300225	CONCRETE STRUCTURES	CU YD	38.0
50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	5040
50800105	REINFORCEMENT BARS	POUND	4340
50900205	STEEL RAILING, TYPE S1	FOOT	360
51201600	FURNISHING STEEL PILES HP 12 X 53	FOOT	990
51202700	DRIVING STEEL PILES	FOOT	990
51203600	TEST PILE STEEL HP 12 X 53	EACH	2
51204315	CONCRETE ENCASEMENT	CU YD	29.7
51500100	NAME PLATES	EACH	1
63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	4
67100100	MOBILIZATION	L. SUM	1
LR631020	TRAFFIC BARRIER TERMINAL, TYPE 1	EACH	4
XX005815	PREBORING STEEL PILING	FOOT	90
Z0013825	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	40

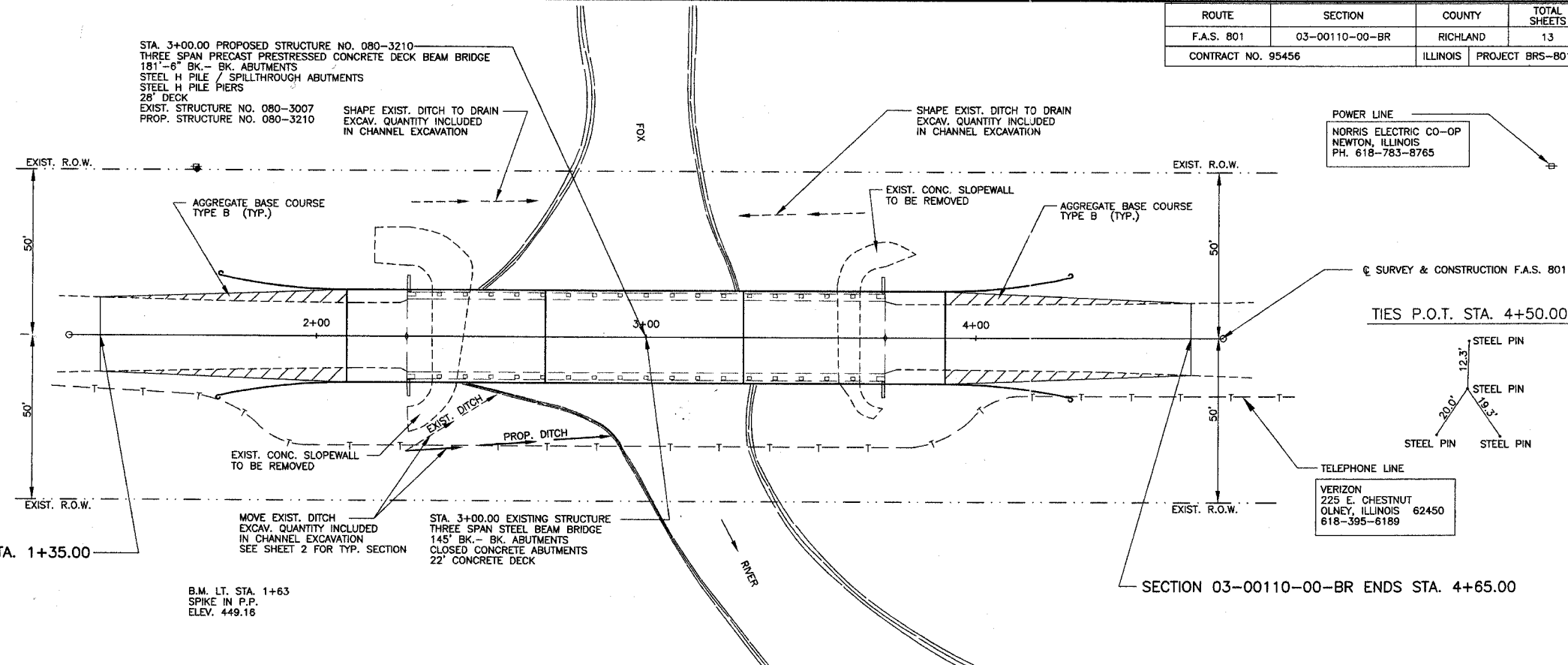
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 801	03-00110-00-BR	RICHLAND	13	3
CONTRACT NO. 95456		ILLINOIS	PROJECT BRS-801(228)	

SCALES:
 1" = 20' HOR
 1" = 5' VER

TIES P.O.T. STA. 1+50.00



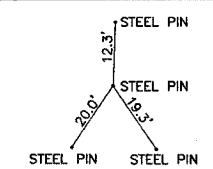
SECTION 03-00110-00-BR BEGINS STA. 1+35.00



POWER LINE
 NORRIS ELECTRIC CO-OP
 NEWTON, ILLINOIS
 PH. 618-783-8765

☉ SURVEY & CONSTRUCTION F.A.S. 801

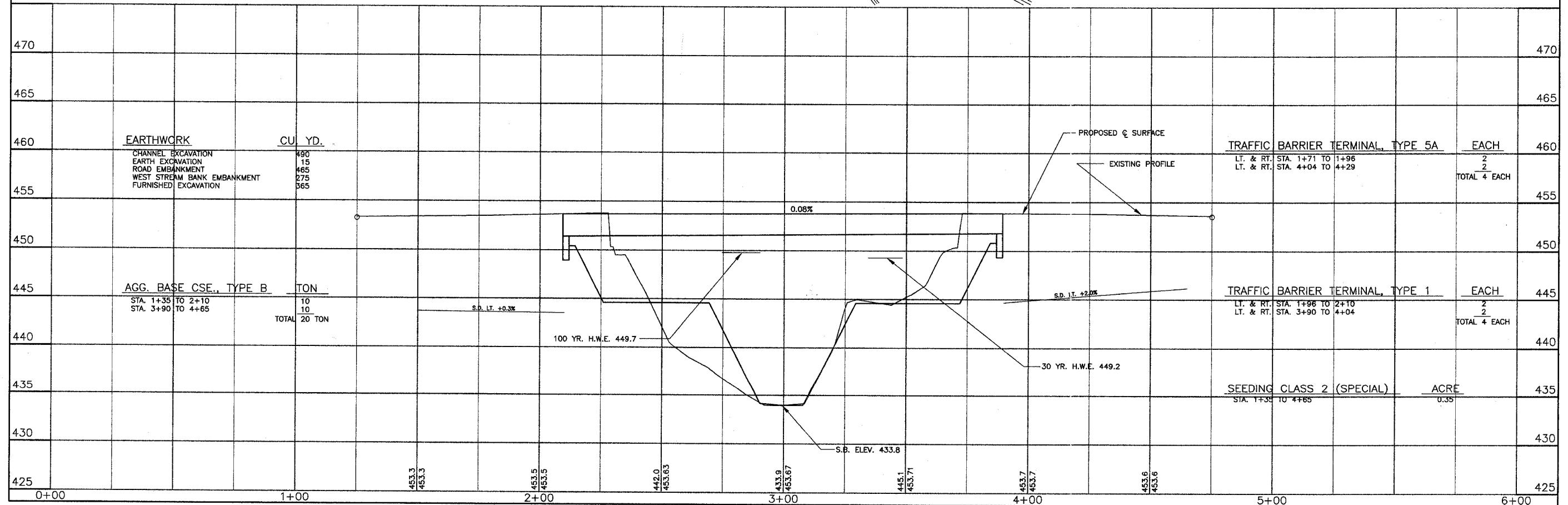
TIES P.O.T. STA. 4+50.00



TELEPHONE LINE
 VERIZON
 225 E. CHESTNUT
 OLNEY, ILLINOIS 62450
 618-395-6189

SECTION 03-00110-00-BR ENDS STA. 4+65.00

B.M. LT. STA. 1+63
 SPIKE IN P.P.
 ELEV. 449.16



ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 801	03-00110-00-BR	RICHLAND	13	4
CONTRACT NO. 95456		ILLINOIS	PROJECT NO. BRS-801(228)	

GENERAL NOTES

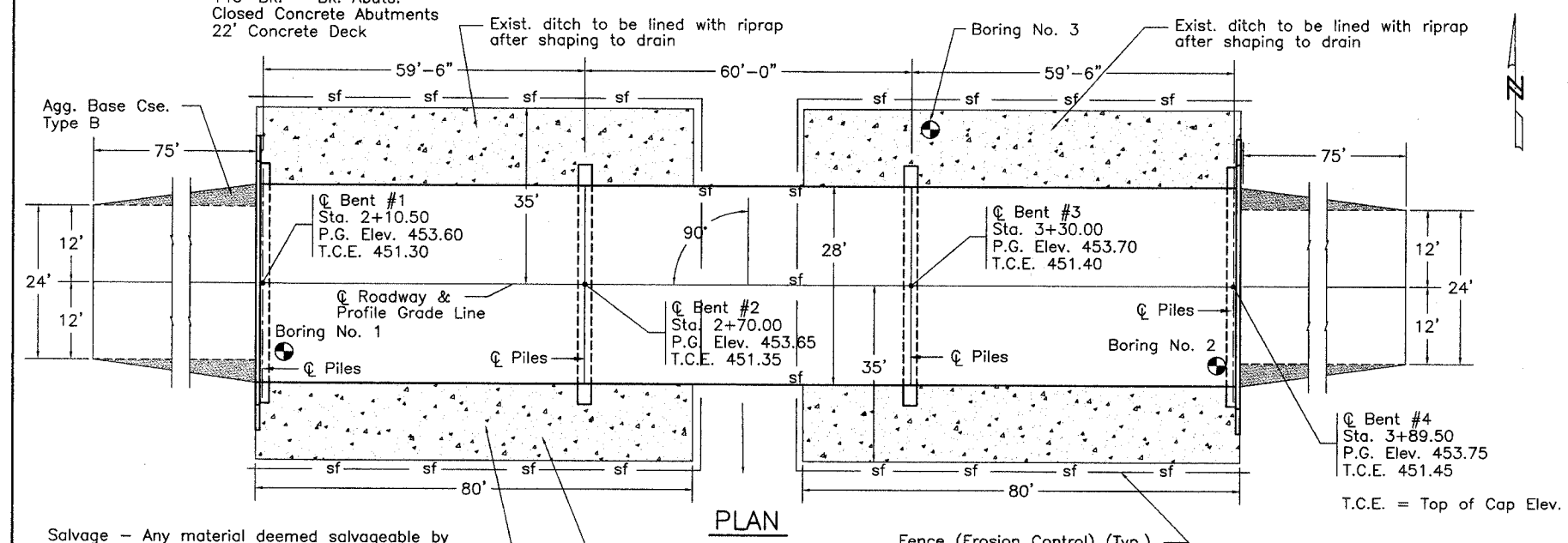
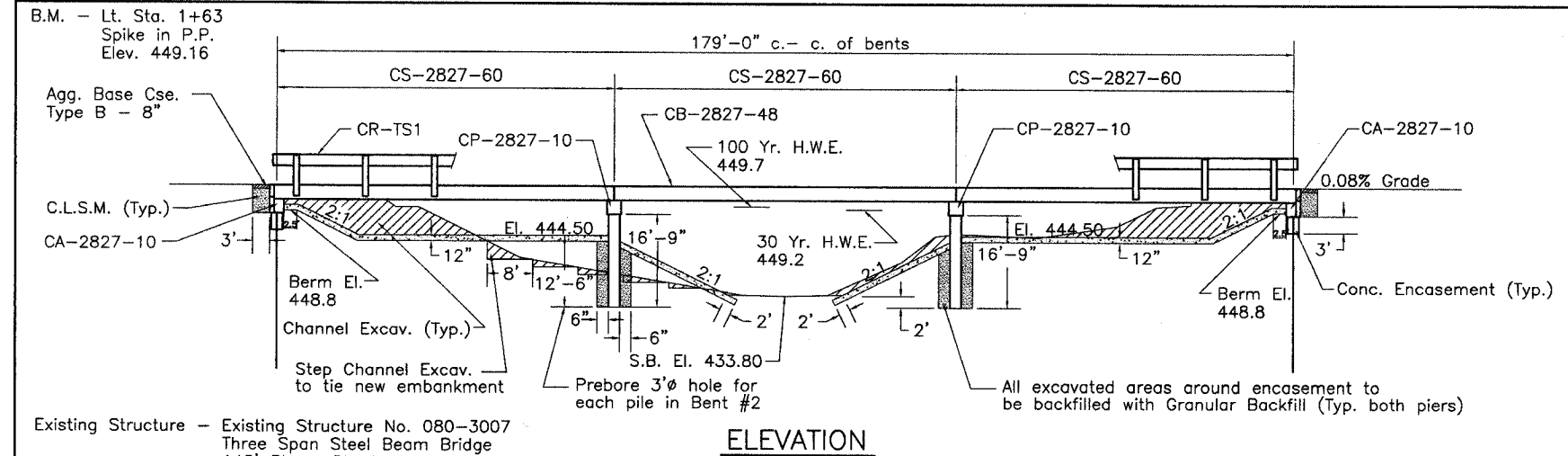
- The Contractor shall drive 2 test piles as specified in a permanent location as directed by the Engineer before ordering the remaining piles.
- See Special Provisions for boring logs.
- Channel Excavation: This material shall be excavated as shown within the limits of the proposed bridge then tapered to the existing channel at the Roadway R.O.W. It is estimated that 50% of the Channel Excavation will be suitable for use in the embankment. Unsuitable material shall be disposed of by the Contractor. The quantity of excavation required to shape / move existing ditches is included in the quantity for Channel Excavation.
- A Corrosion Inhibitor as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.
- Reinforcement bars shall conform to the requirements of AASHTO M-31 or M322, Grade 60.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub.		Total
			Piers	Abuts.	
Removal of Existing Structures	Each				1
Concrete Structures	Cu.Yds.		17.2	20.8	38.0
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq.Ft.	5040			5040
Steel Railing, Type S-1	Foot	360			360
Reinforcement Bars	Pound		1760	2580	4340
Furnishing Steel Piles HP 12 X 53	Foot		585	405	990
Driving Steel Piles	Foot		585	405	990
Test Pile Steel HP 12 X 53	Each		1	1	2
Name Plates	Each			1	1
Concrete Encasement	Cu.Yds.		26.3	3.4	29.7
Stone Dumped Riprap, Class A-4	Tons			650	650
Channel Excavation	Cu.Yds.			490	490
Controlled Low-Strength Material	Cu.Yds.			40	40
Fence (Erosion Control)	Foot			420	420
Preboring Steel Piling	Foot		90		90
Granular Backfill	Ton		160		160
Aggregate Base Course, Type B	Ton			10	10

INDEX OF SHEETS

- GENERAL PLAN & ELEVATION
- STANDARD CS-2827-60
- STANDARD CB-2827-48
- STANDARD CA-2827-10
- STANDARD CP-2827-10
- STANDARD CR-TS1
- STANDARD CN
- STANDARD CX-1



DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications - 17th ed.

LOADING HS20-44

Allow 25#/sq. ft. for future wearing surface

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 8.5% g
Site Coefficient (S) =

PILE DATA (2-ABUTS.)

Type	HP 12 X 53
Capacity	Refusal
Estimated Length	45'
Number Required	10 (Includes 1 Test Pile located in Bent #1)

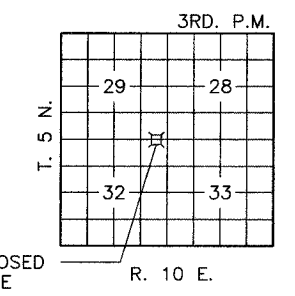
PILE DATA (2-PIERS)

Type	HP 12 X 53
Capacity	Refusal
Estimated Length	45'
Number Required	14 (Includes 1 Test Pile located in Bent #2)

STATION 3+00.00
FOX RIVER
SEC. 03-01110-00-BR BUILT 200
RICHLAND COUNTY
PROJECT BRS-801(228)
LOADING HS-20
STR. NO. 080-3210

LETTERING FOR NAME PLATE

Locate Name Plate at S.W. corner of Bridge (See Std. CN)



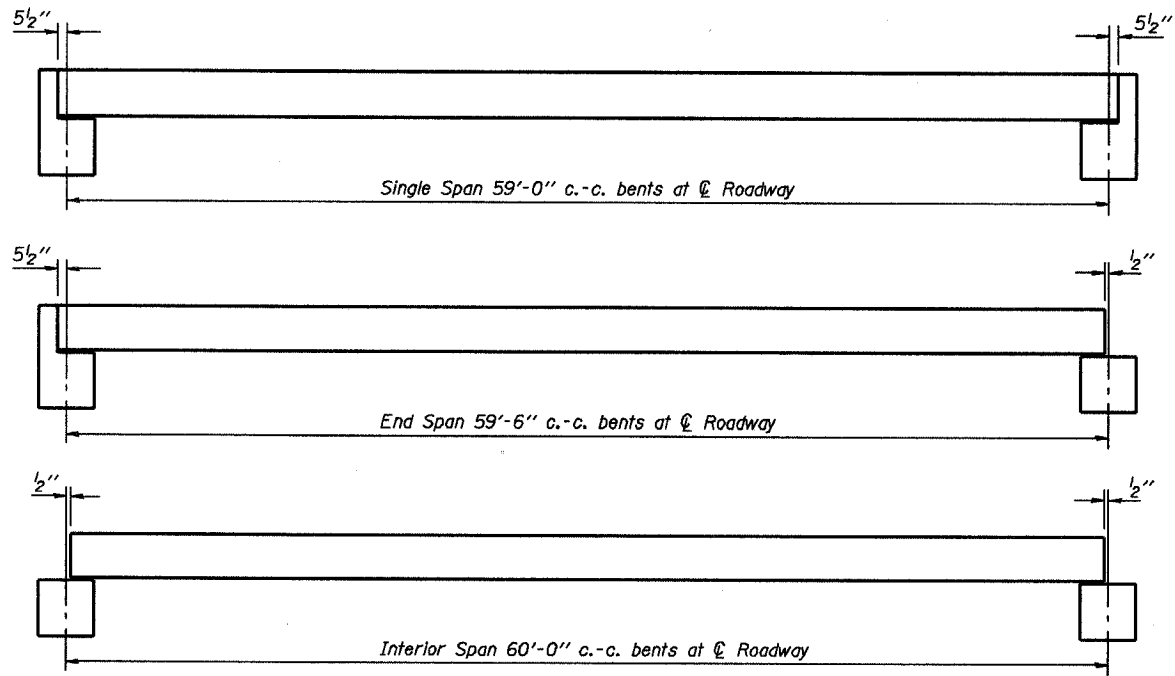
WATERWAY INFORMATION

Drainage Area = 28.7 Sq. Mi.		Low Grade Elev. = 453.3 @ Sta. 1+25			
Flood Yr.	Q ft ³ /s	Opening ft ²	Nat. H.W.E.	Head - ft	Headwater
Design	30 2950	1125 1145	449.2	0.00 0.00	449.2 449.2
Base	100 3795	1191 1230	449.7	0.02 0.00	449.72 449.7
Overtopping					
Max. Calc.	500				

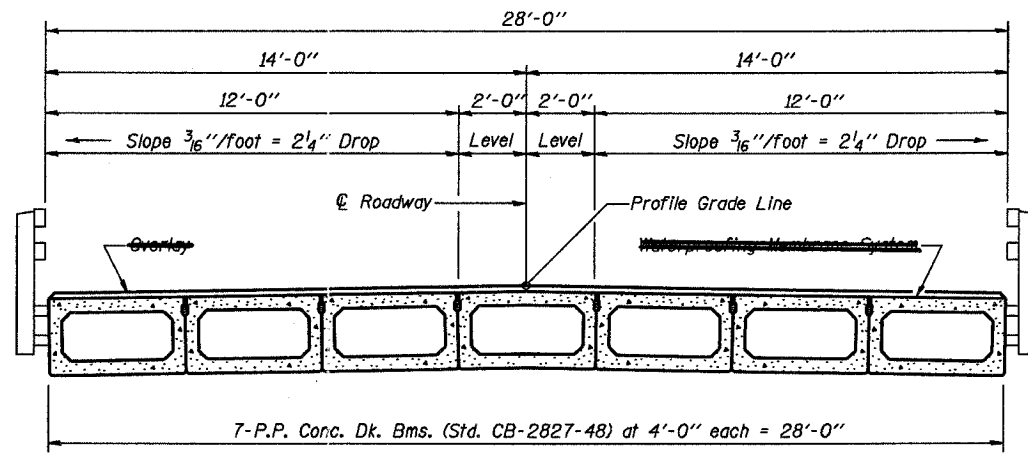
GENERAL PLAN & ELEVATION

F.A.S. ROUTE 801
OVER FOX RIVER

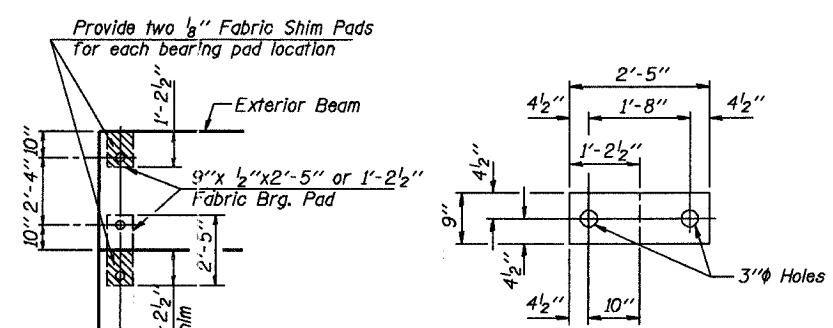
SECTION 03-00110-00-BR
RICHLAND COUNTY
STATION 3+00.00



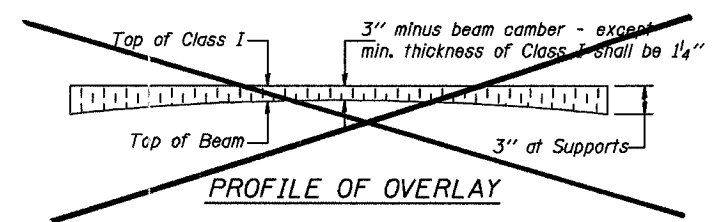
TYPICAL ELEVATIONS



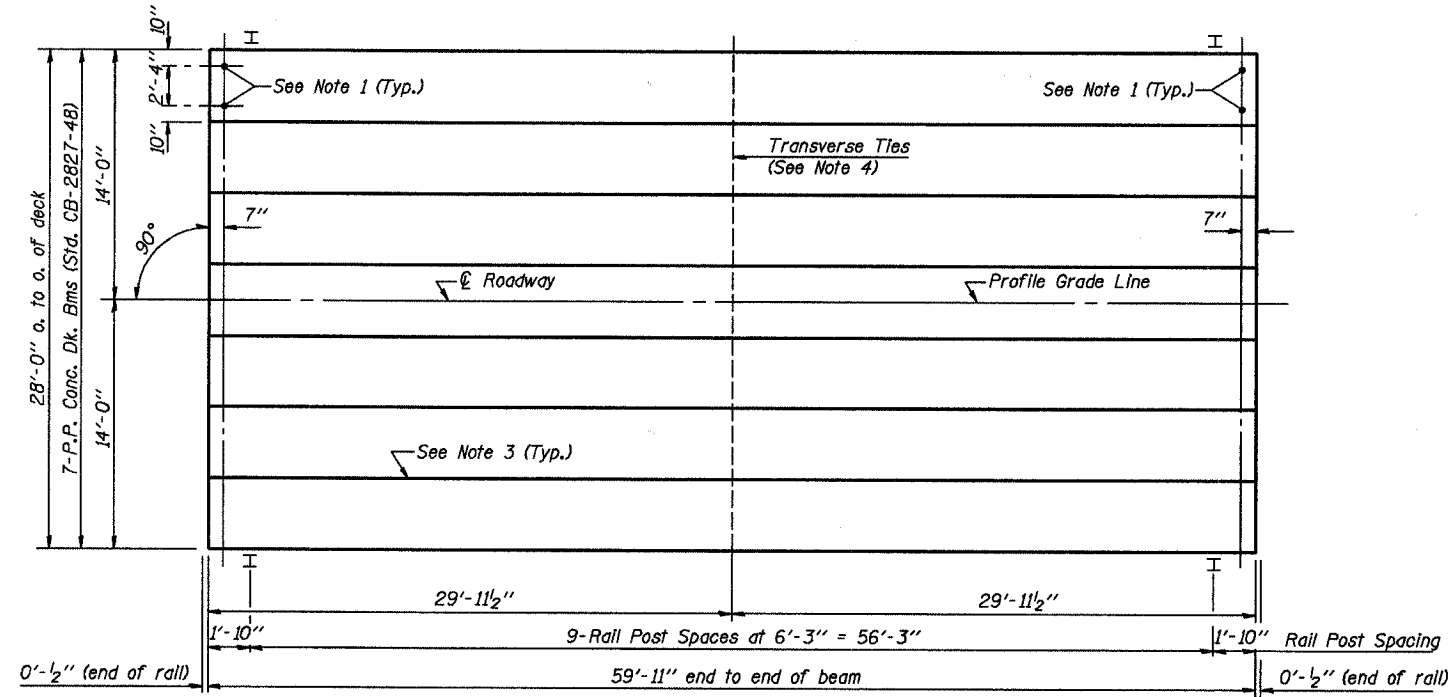
CROSS SECTION



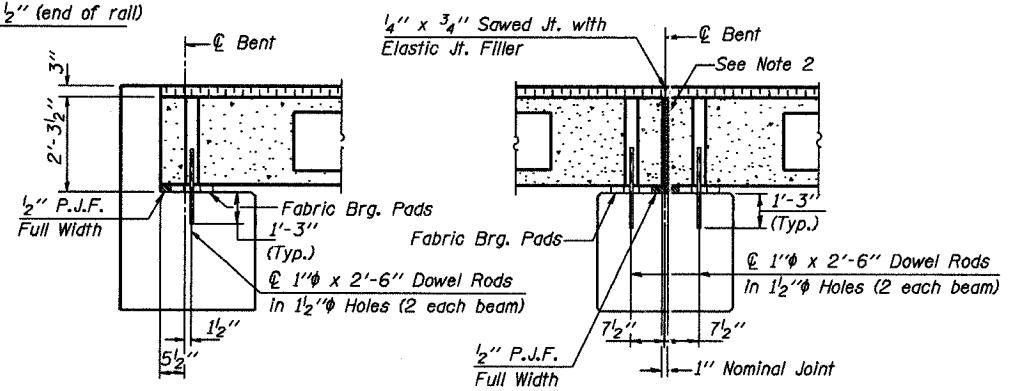
1/2" FABRIC BRG. PAD DETAILS



PROFILE OF OVERLAY



PLAN



SECTION AT ABUTS. (Along centerline Beams)

SECTION AT PIERS (Along centerline Beams)

NOTES

1. After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys.
2. Nominal 1" joint at centerline Pier shall be filled with non-shrink grout.
3. Longitudinal keys shall be grouted.
4. The 1" diameter rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar outside shall be filled with grout after transverse tie assembly is in place.

QUANTITIES FOR ONE SPAN

P.P. Conc. Dk. Bm. 17" Dp.	1680 Sq. Ft.
Steel Railing	120 Ft.
Waterproofing Membrane System	186.7 Sq. Yds.
Portland Cement Mortar	360 Ft.
Fairing Course	

Note: Quantity of overlay for one span = 21.9 Tons

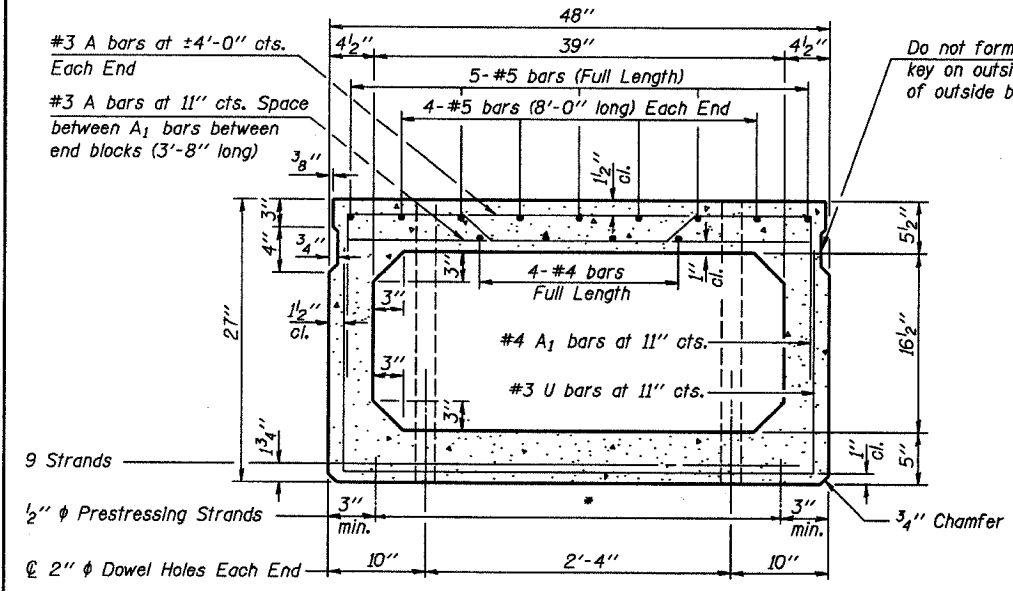
P.P.C. DECK BEAM SUPERSTRUCTURE			
28' RDWY.	27" BMS.	60' SPAN	0° SKEW
STANDARD CS-2827-60			

Illinois Department of Transportation

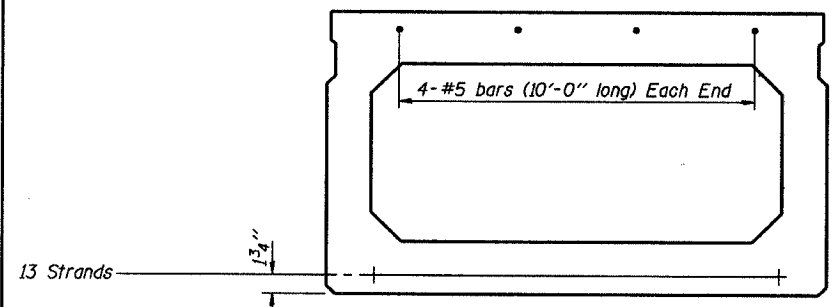
PASSED APRIL 4, 2005
 Thomas J. ...
 Engineer of Bridge Design

APPROVED APRIL 4, 2005
 Ralph E. ...
 Engineer of Bridges and Structures

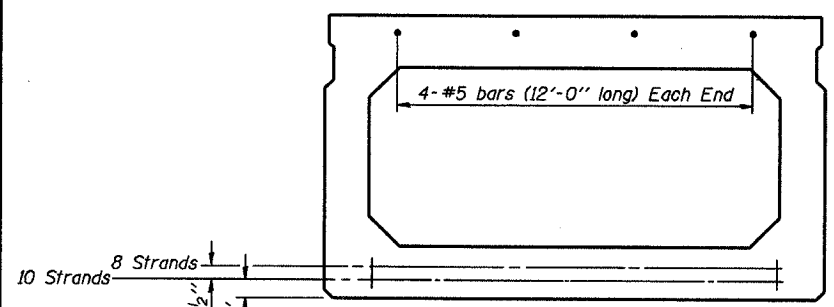
ISSUED 1-1-04



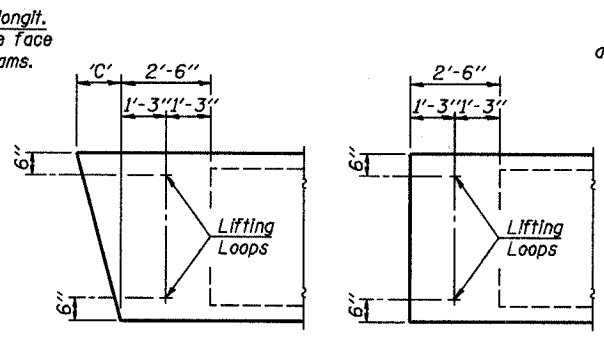
CROSS SECTION
(40' SPAN)



CROSS SECTION
(50' SPAN)

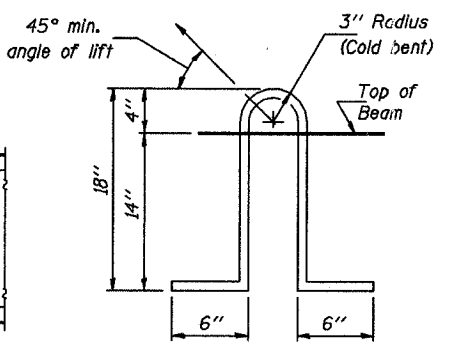


CROSS SECTION
(60' SPAN)



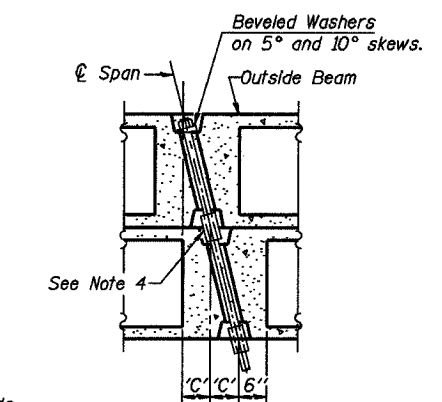
END BLOCK DETAILS

Each beam shall have four Lifting Loops, two at each end of beam cast in locations shown above. Loops shall be burned off after beams have been erected.

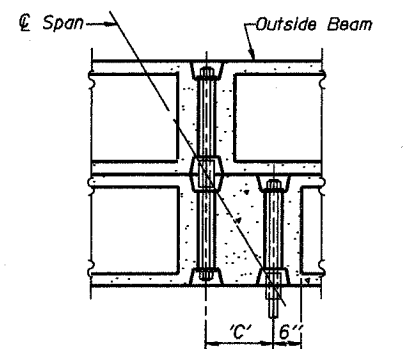


LIFTING LOOP DETAIL

Lifting loops shall be 3, 1/2 inch diameter 270 ksi strands, as shown. Alternate approved lifting devices are also acceptable.



PARTIAL PLAN TRANSVERSE TIE ASSEMBLY
(D=0°, 5° and 10°)



PARTIAL PLAN TRANSVERSE TIE ASSEMBLY
(D=15°, 20°, 25° and 30°)

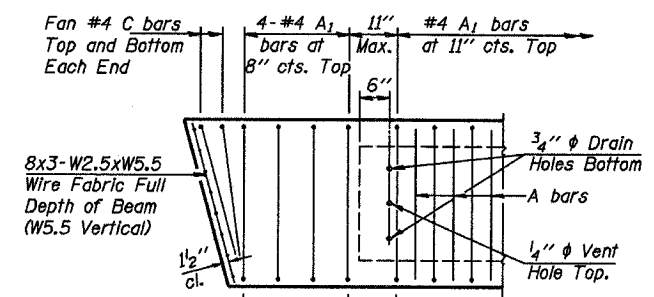
DIMENSION 'C'

Skew Angle 'D'	0°	5°	10°	15°	20°	25°	30°
Dimension 'C' (Inches)	0	4 1/4	8 1/2	12 7/8	17 1/2	22 3/8	27 3/4

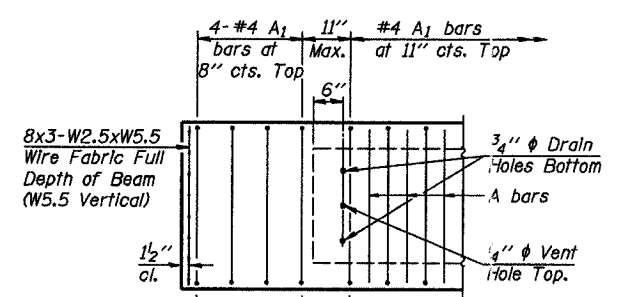
*** TRANSVERSE STRAND PLACEMENT GUIDELINES**

1. Place strands symmetrically about centerline of beam.
2. The minimum distance from center to center of strands in all directions shall be 2".
3. The minimum clearance from strand to dowel hole shall be 1/2".
4. The minimum clearance from strand to void shall be 1 1/2".

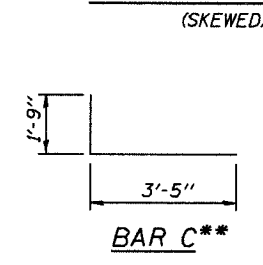
Vertical placement of strands shall not be adjusted to satisfy the above guidelines.



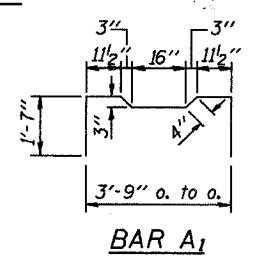
END REINFORCEMENT
(SKEWED)



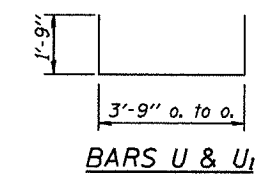
END REINFORCEMENT
(RIGHT ANGLE)



BAR C**



BAR A1



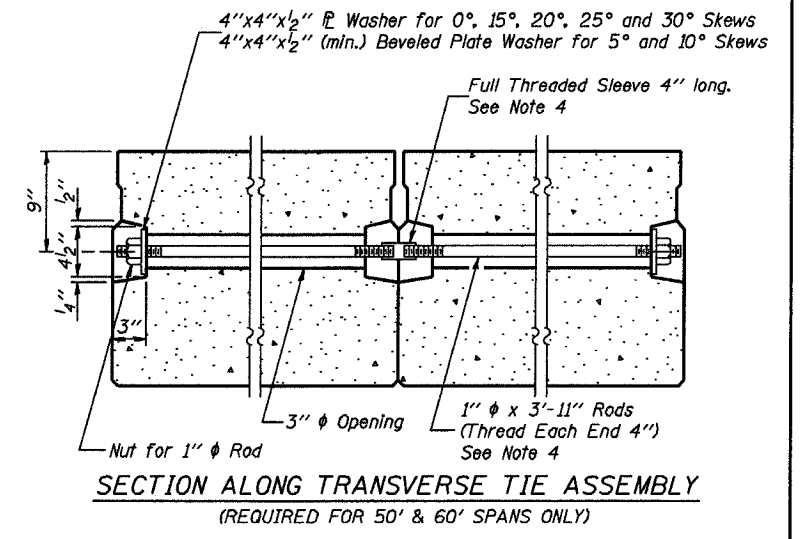
BARS U & U1

DESIGN STRESSES

- $f'_c = 5,000$ p.s.i.
- $f'_a = 4,000$ p.s.i.
- $f'_s = 270,000$ p.s.i. (1/2 inch diameter Strand)
- $f_{st} = 201,960$ p.s.i. (1/2 inch diameter Strand)
- $f_y = 60,000$ p.s.i.

MIN. BAR LAP

- #4 bars = 1'-4"
- #5 bars = 1'-8"



SECTION ALONG TRANSVERSE TIE ASSEMBLY
(REQUIRED FOR 50' & 60' SPANS ONLY)

NOTES

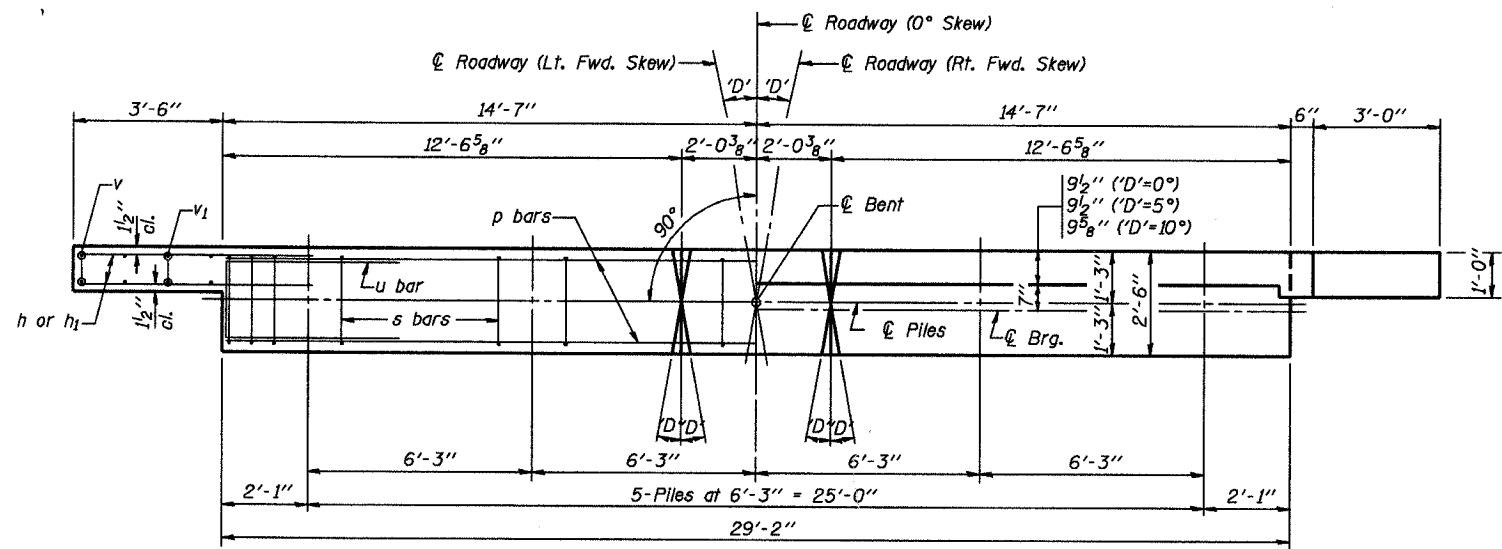
1. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
2. The nominal diameter shall be 1/2 inch and the nominal cross-sectional area shall be 0.153 square inches.
3. Reinforcement bars shall conform to the requirements of AASHTO M-31 or M-322, Grade 60.
4. On 0°, 5° and 10° skews, alternate approved transverse tie rods of increased segmental length are acceptable.
5. Roll Post anchor devices shall be cast into outside beam as elsewhere specified.
6. When a Waterproofing Membrane System is specified, the top surface of the beams shall be screeded with a straightedge and finished with a hand float. The finished surface shall be free of depressions or high spots with sharp corners and the top edge of keys shall be rounded or chamfered a minimum of 1/4 inch.
7. 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 the top of the beam and the bottom edge of the key.

Illinois Department of Transportation
 PASSED APRIL 4, 2005
 Thomas J. Slama (Signature)
 Engineer of Bridge Design
 APPROVED APRIL 4, 2005
 Ralph E. Anderson (Signature)
 Engineer of Bridges and Structures

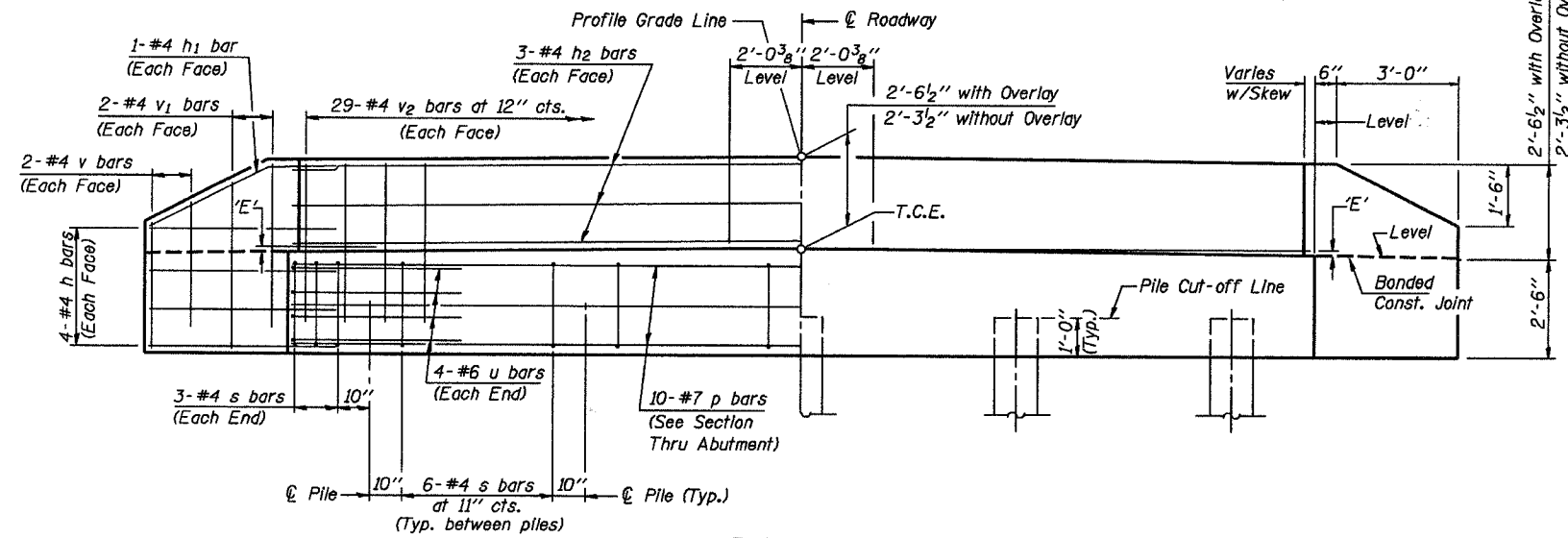
NOTE
 The std. reinf. and dimensions shown on the 40' span cross section is typical for all spans, except as shown.

****NOTE:**
 The following number of C bars shall be used:
 Skew No.
 5° and 10° — 1
 15° and 20° — 2
 25° and 30° — 3

P.P.C. DECK BEAM DETAILS	
28' ROADWAY	27" x 48" BEAMS
STANDARD CB-2827-48	



PLAN
(D'-Designated Skew Angle)



ELEVATION

DIMENSION 'E'

GRADE	'D'=0°		'D'=5°		'D'=10°	
	UPGRADE END	DOWNGRADE END	UPGRADE END	DOWNGRADE END	UPGRADE END	DOWNGRADE END
0%	2 3/8"	2 3/8"	2 3/8"	2 3/8"	2 3/8"	2 3/8"
Over 0% to 1%	2 3/8"	2 3/8"	2 1/4"	2 3/8"	2 1/8"	2 1/2"
Over 1% to 2%	2 3/8"	2 3/8"	2 1/8"	2 1/2"	1 7/8"	2 3/4"
Over 2% to 3%	2 3/8"	2 3/8"	2"	2 5/8"	1 5/8"	3"
Over 3% to 4%	2 3/8"	2 3/8"	1 7/8"	2 3/4"	1 3/8"	3 1/4"

NOTES

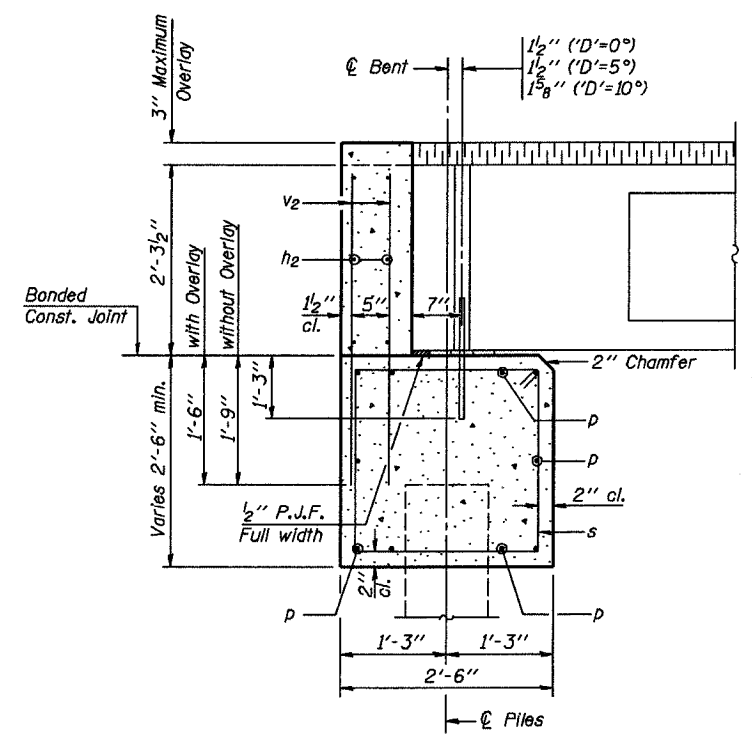
- The Backwall and the portion of the Wingwalls above the bonded construction joint shall be cast against the in-place beam.
- Reinforcement bars shall conform to the requirements of A.A.S.H.T.O. M-31 or M-322, Grade 60.
- Space reinforcement in cap to miss anchor bolts.

MAXIMUM PILE LOADS

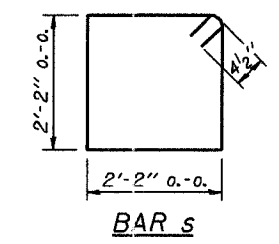
SPAN	TONS
40'	29
50'	33
60'	37

DESIGN STRESSES

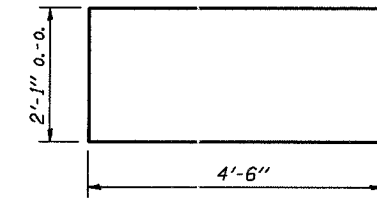
f'c = 3,500 psi
fy = 60,000 psi



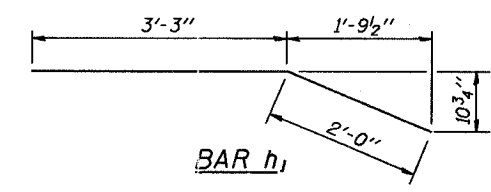
SECTION THRU ABUTMENT
(At Right Angles)



BAR s



BAR u



BAR h1

BILL OF MATERIAL FOR ONE ABUTMENT

Bar No.	Size	Length	Shape
h	#4	5'-0"	—
h1	#4	5'-3"	—
h2	#4	28'-10"	—
p	#7	28'-10"	—
s	#4	9'-5"	□
u	#6	11'-1"	—
v	#4	3'-2"	—
v1	#4	4'-2"	—
v2	#4	3'-11"	—
Concrete Structures			10.4 Cu. Yds.
Reinforcement Bars			1290 Lb.

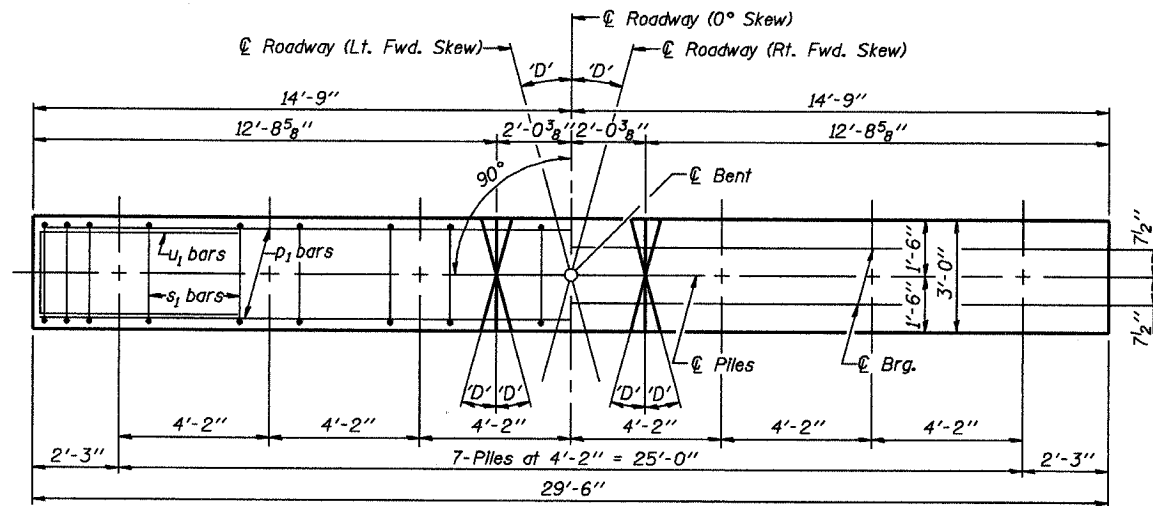
P.P.C. DECK BEAMS PILE BENT ABUTMENT		
28' RDWY.	27" BMS.	'D'=0°, 5° OR 10°
STANDARD CA-2827-10		

Illinois Department of Transportation

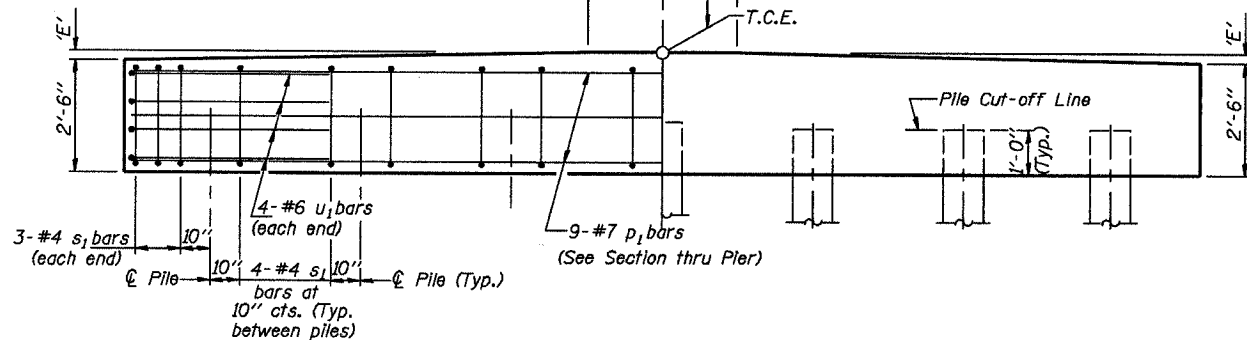
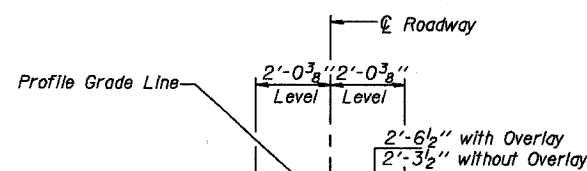
PASSED APRIL 4, 2005
Thames S. Nemaqalobi
Engineer of Bridge Design

APPROVED APRIL 4, 2005
Ralph E. Anderson
Engineer of Bridges and Structures

ISSUED 1-1-1981



PLAN
(D' = Designated Skew Angle)



ELEVATION

DIMENSION 'E'

GRADE	'D'=0°		'D'=5°		'D'=10°	
	UPGRADE END	DOWNGRADE END	UPGRADE END	DOWNGRADE END	UPGRADE END	DOWNGRADE END
0%	2 3/8"	2 3/8"	2 3/8"	2 3/8"	2 3/8"	2 3/8"
Over 0% to 1%	2 3/8"	2 3/8"	2 1/4"	2 3/8"	2 1/8"	2 1/2"
Over 1% to 2%	2 3/8"	2 3/8"	2 1/8"	2 1/2"	1 7/8"	2 3/4"
Over 2% to 3%	2 3/8"	2 3/8"	2"	2 5/8"	1 5/8"	3"
Over 3% to 4%	2 3/8"	2 3/8"	1 7/8"	2 3/4"	1 3/8"	3 1/4"

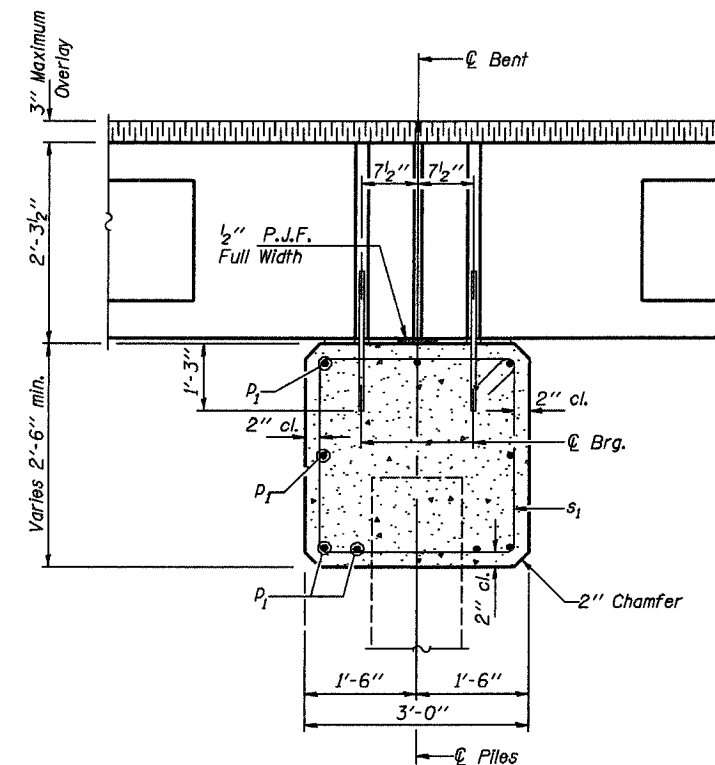
MAXIMUM PILE LOADS

SPAN	TONS
40'	33
50'	38
60'	43

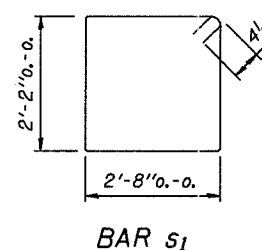
Longer of Either Span Supported by Pier.

DESIGN STRESSES

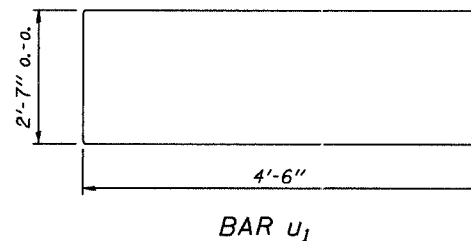
f'c = 3,500 psi
fy = 60,000 psi



SECTION THRU PIER
(At Right Angles)



BAR s1



BAR u1

BILL OF MATERIAL FOR ONE PIER

Bar	No.	Size	Length	Shape
p1	9	#7	29'-2"	—
s1	30	#4	10'-5"	□
u1	8	#6	11'-7"	□
Concrete Structures			8.6	Cu. Yds.
Reinforcement Bars			880	Lb.

NOTE

Reinforcement bars shall conform to the requirements of A.A.S.H.T.O. M-31 or M-322, Grade 60.

P.P.C. DECK BEAMS PILE BENT PIER

28' RDWY.	27" BMS.	'D'=0°, 5° OR 10°
STANDARD CP-2827-10		

Illinois Department of Transportation
 PASSED APRIL 4, 2005
 Thomas S. Romagosa
 Engineer of Bridge Design
 APPROVED APRIL 4, 2005
 Ralph E. Anderson
 Engineer of Bridges and Structures

NOTES

Hollow structural steel tubing shall conform to the requirements of ASTM designation A500 Grade B Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft.-lbs. at 0° F.

All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36 except posts and angles shall conform to AASHTO M 270 Grade 50.

Bolts, cap screws, and nuts shall conform to the requirement of ASTM designation A307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M 164.

All bolts, nuts, cap screws, washers and lock washers shall be galvanized according to AASHTO M 232.

All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication according to AASHTO M-111 and ASTM A 385. Galvanized rail shall not be painted.

Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot for STEEL RAILING, TYPE S-1.

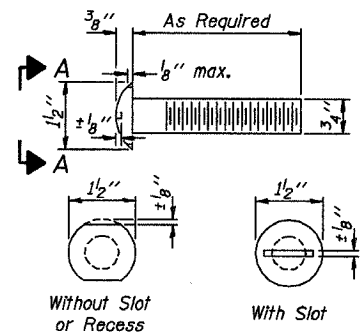
For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with STEEL RAILING, TYPE S-1.

All field drilled holes shall be coated with an approved zinc rich paint before erection.

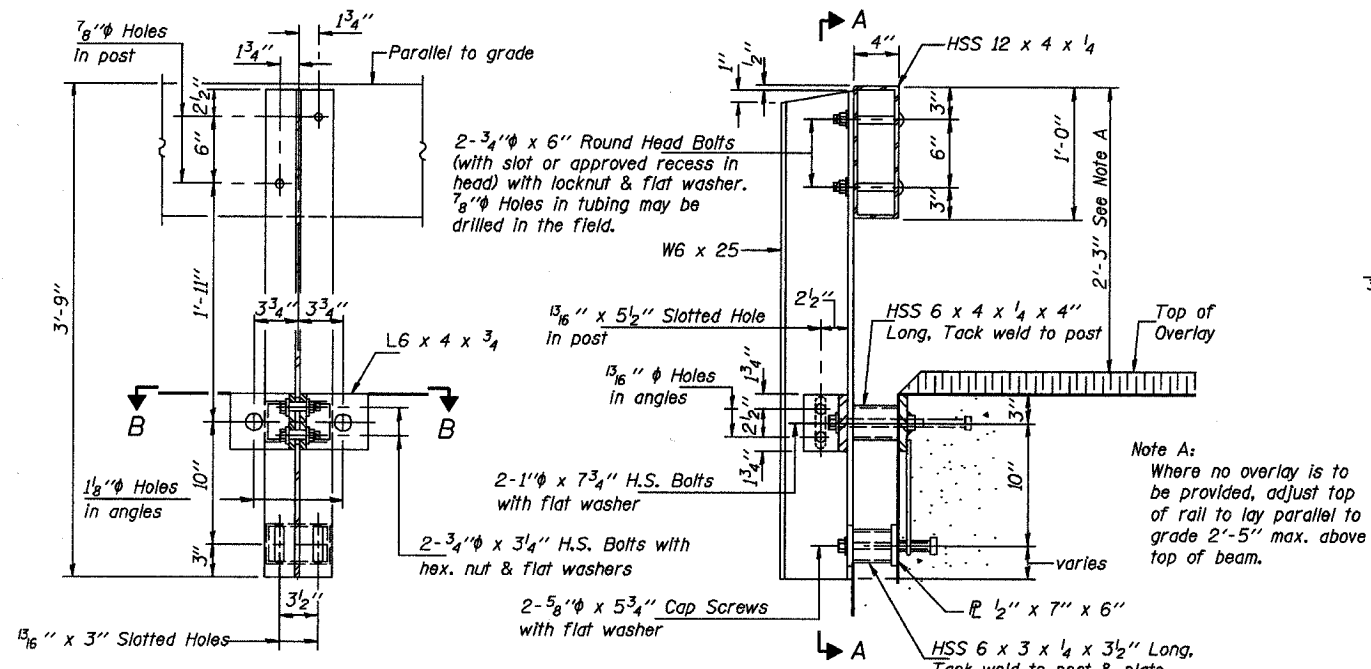
The 1/2" x 7" x 6" plates that come in contact with concrete shall either receive two coats of asphalt paint conforming to Section 1060.07 Type II, or 1/8" fabric bearing pads shall be placed between the plates and concrete.

The 3/4" high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened according to Article 505.04 (FX2) 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.

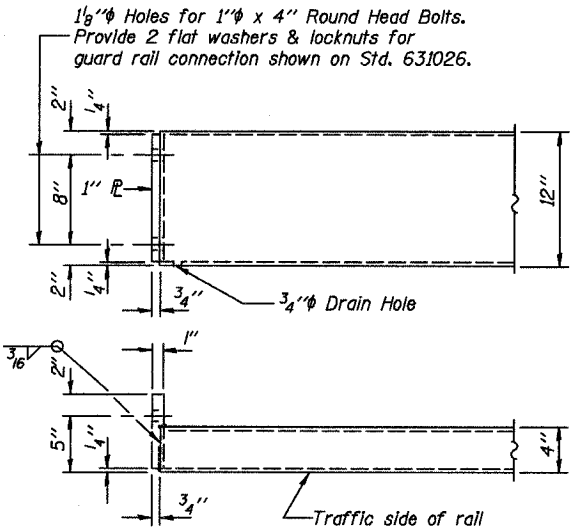
The maximum allowable rail post spacing shall be 10'-6". The rail post spacing shown elsewhere in the plans is based on the allowable spacing for another type of rail. When this type of rail is used, the number of posts may be decreased and the post spacing increased to provide equal post spaces of 10'-6" or less.



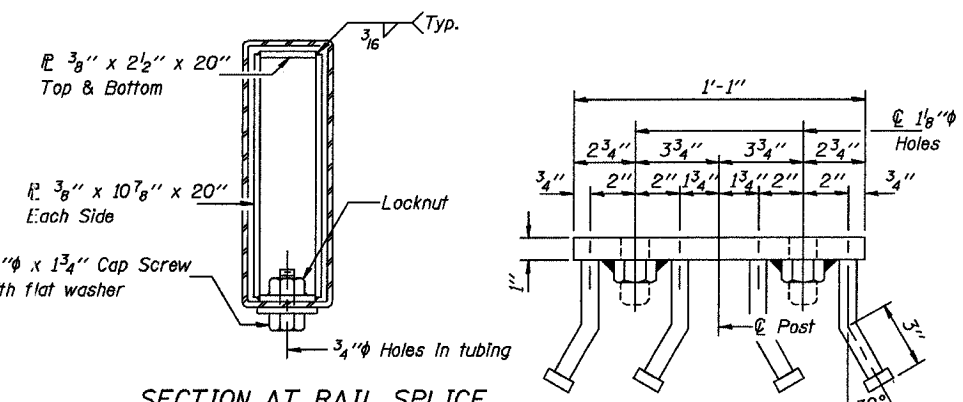
**VIEW A-A
ROUND HEAD BOLT**



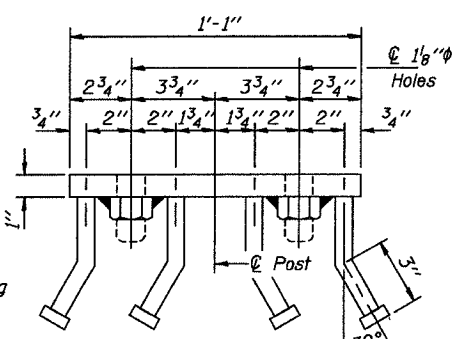
SECTION A-A



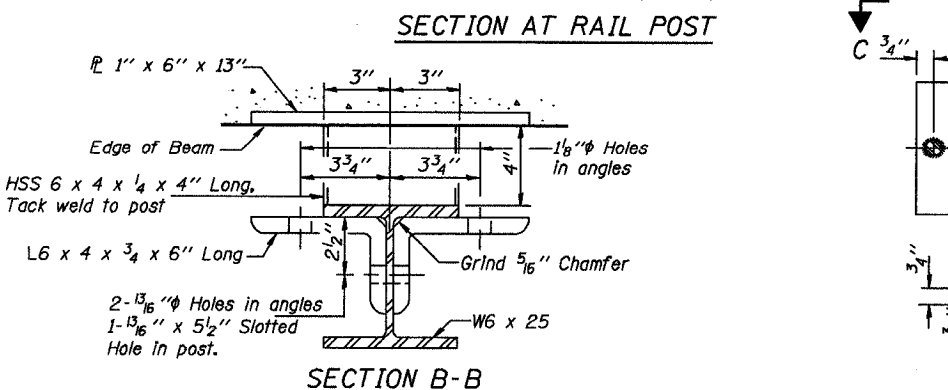
END OF RAIL DETAILS



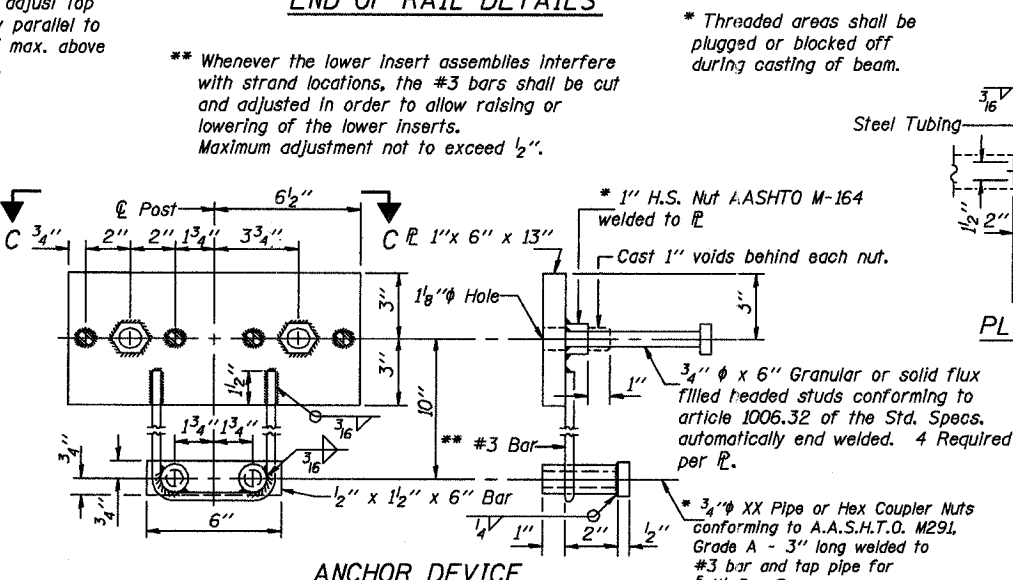
SECTION AT RAIL SPLICE



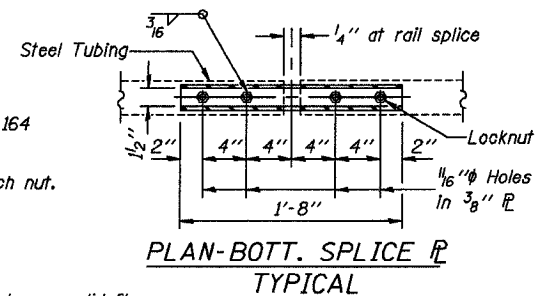
VIEW C-C



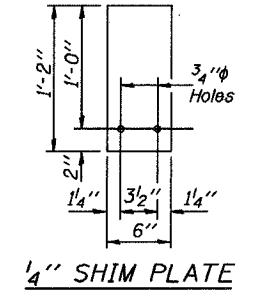
SECTION B-B



ANCHOR DEVICE



PLAN-BOTT. SPLICE TYPICAL



1/4 SHIM PLATE

Illinois Department of Transportation

PASSED APRIL 4, 2005

Theresa J. Roman (Signature)

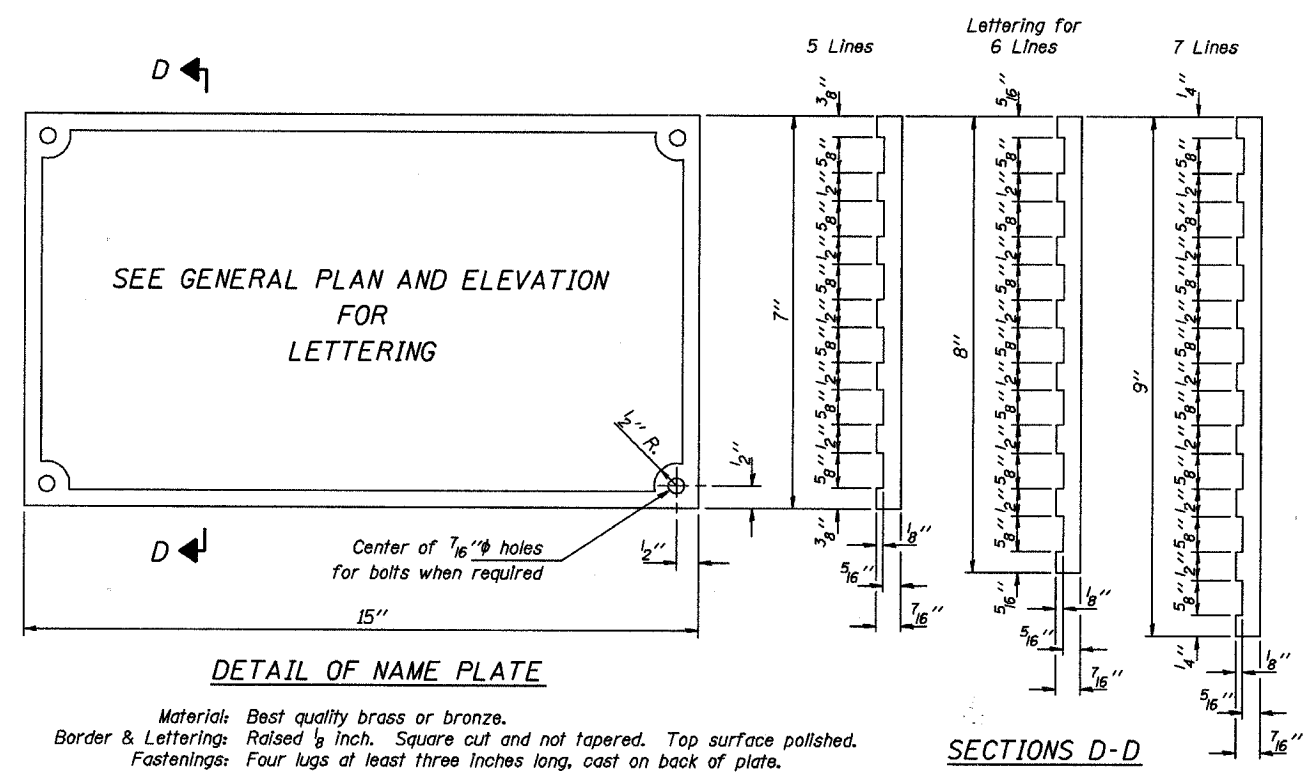
Engineer of Bridge Design

APPROVED APRIL 4, 2005

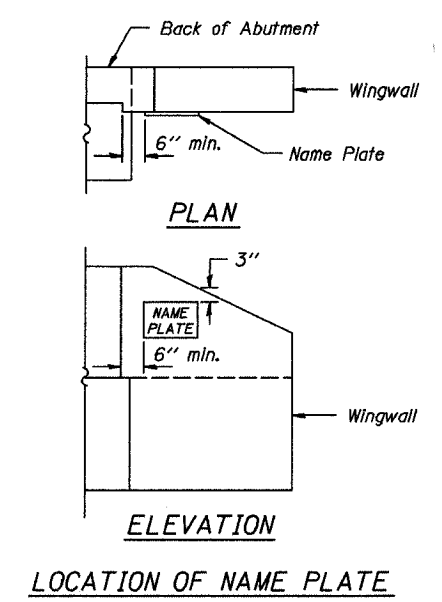
Ralph E. Anderson (Signature)

Engineer of Bridges and Structures

**STEEL RAILING, TYPE S-1
STANDARD CR-TS1**



Material: Best quality brass or bronze.
 Border & Lettering: Raised $\frac{1}{8}$ inch. Square cut and not tapered. Top surface polished.
 Fastenings: Four lugs at least three inches long, cast on back of plate.



Illinois Department of Transportation

PASSED APRIL 4, 2005

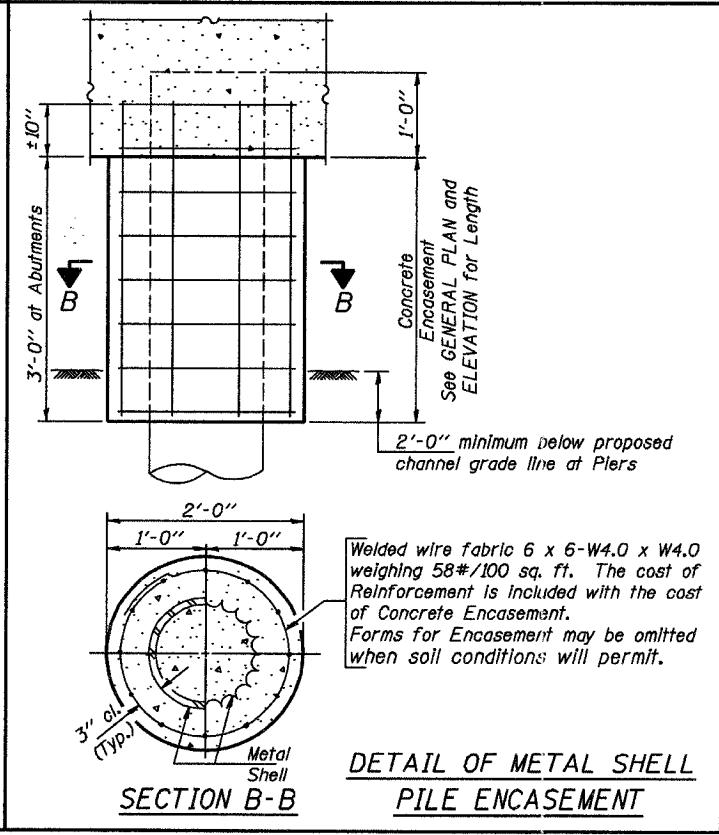
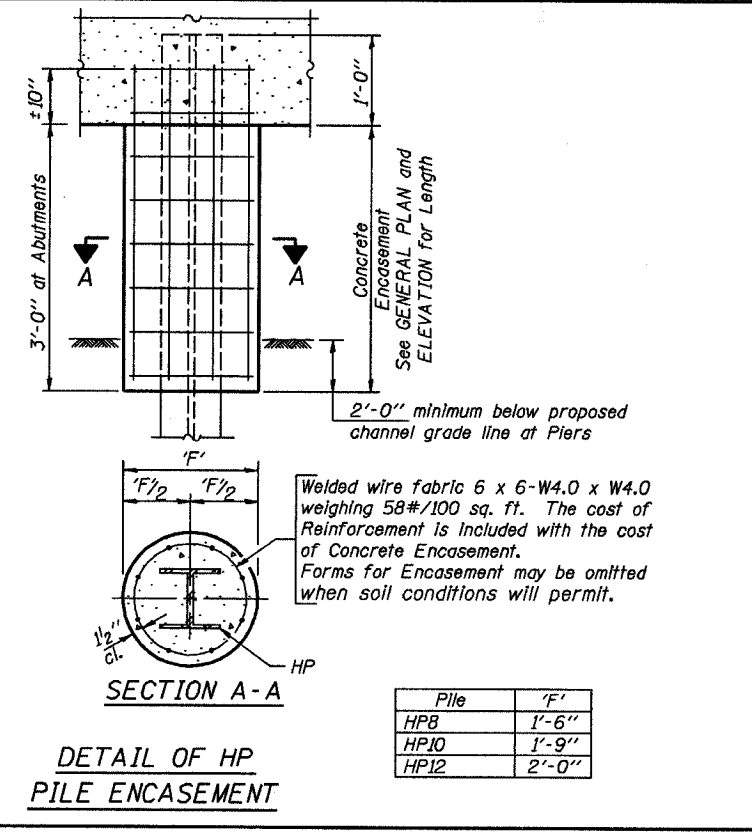
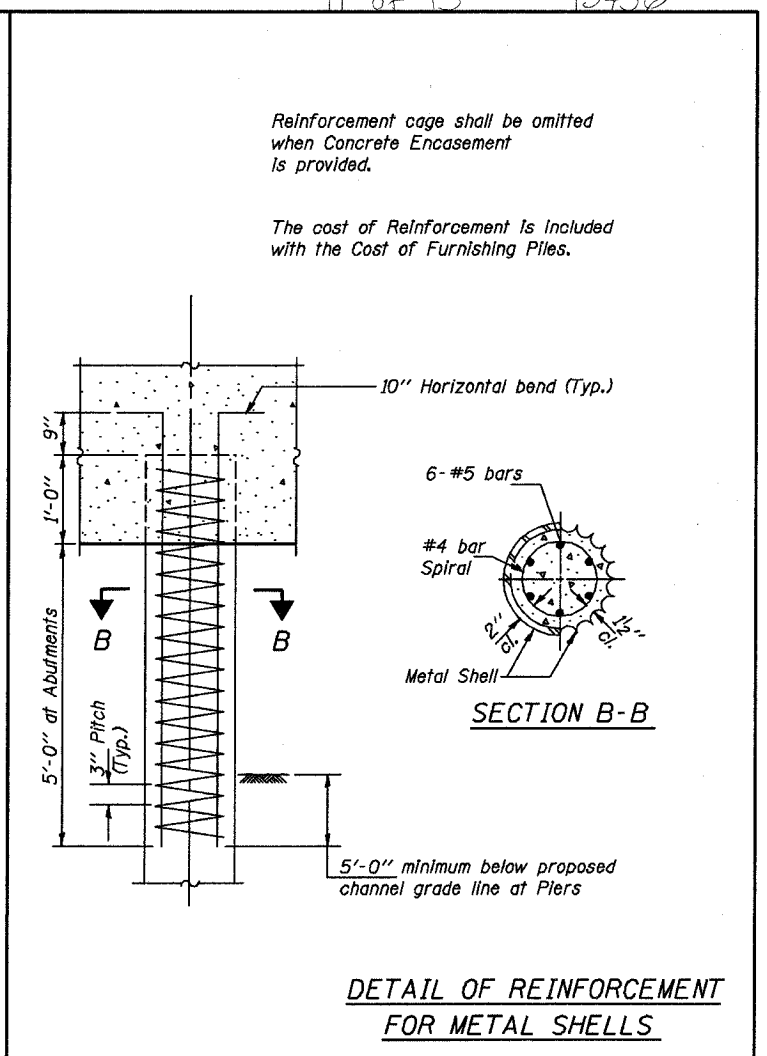
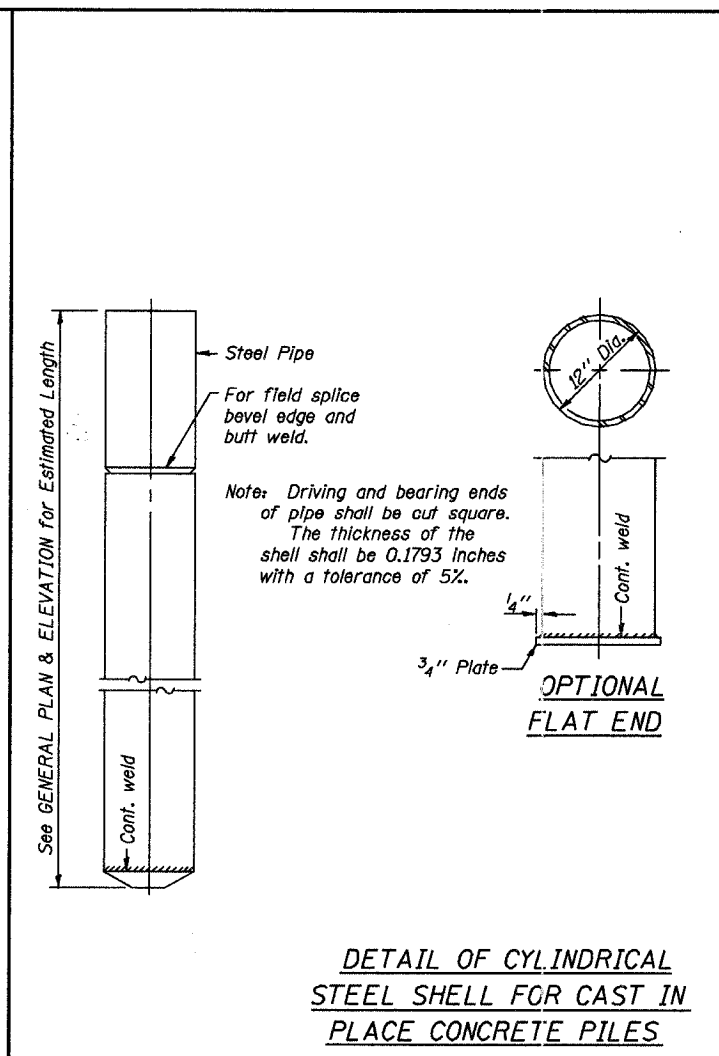
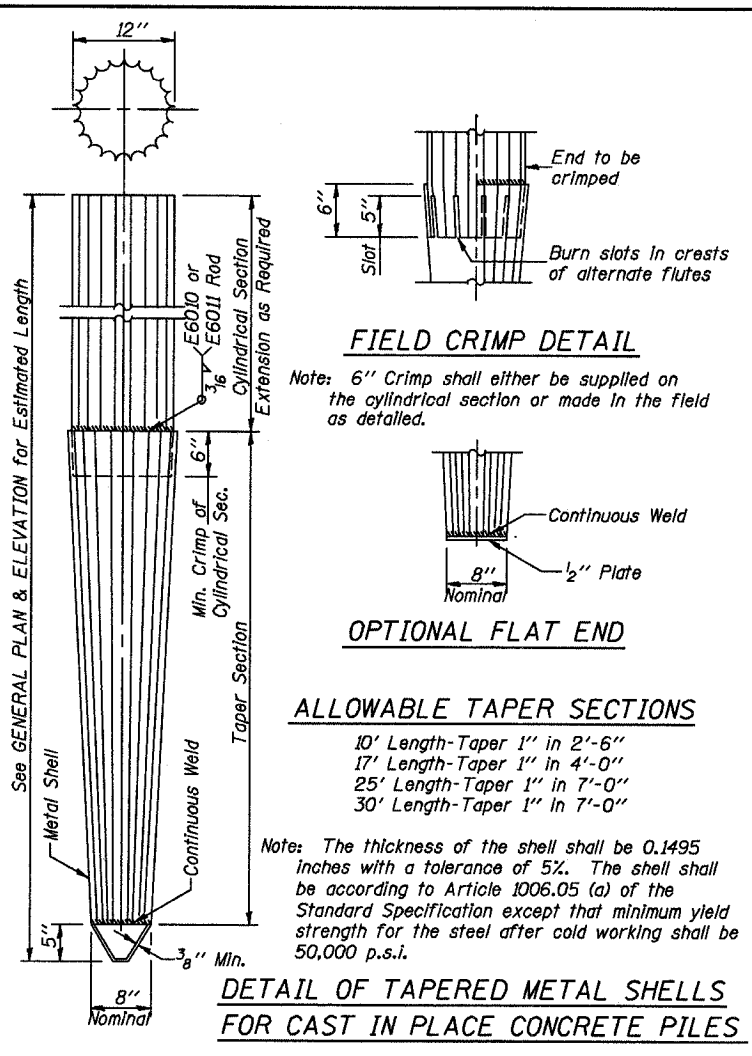
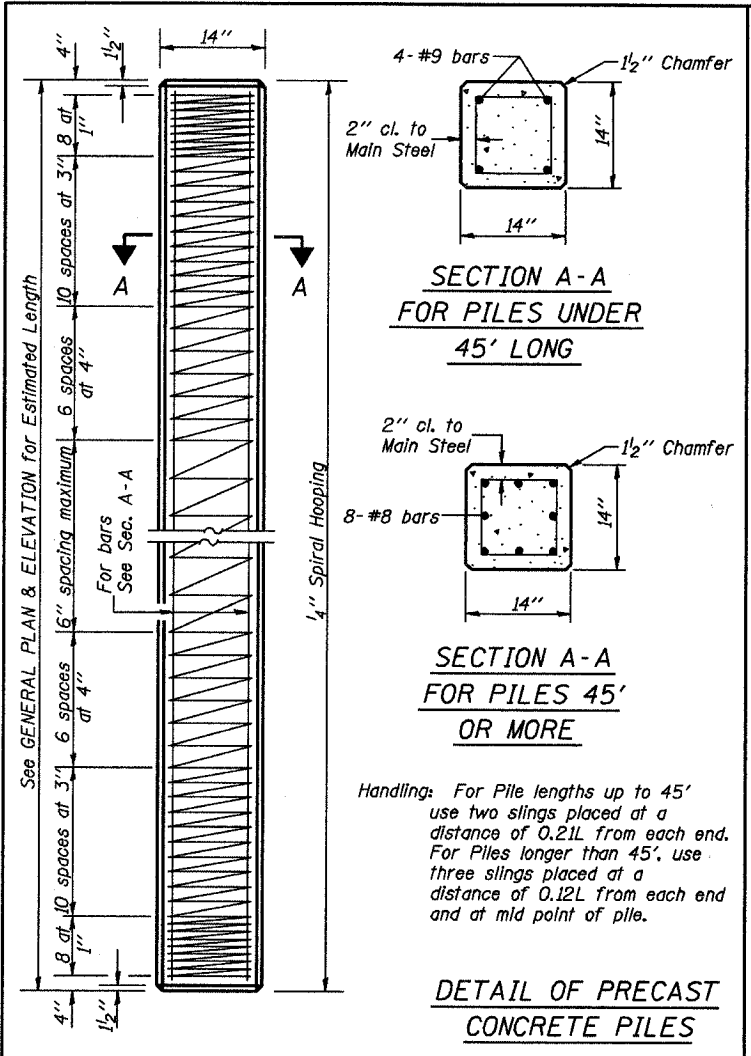
Thomas J. Romanowski
 Engineer of Bridge Design

APPROVED APRIL 4, 2005

Ralph E. Anderson
 Engineer of Bridges and Structures

ISSUED 7-1-2005

NAME PLATE
STANDARD CN



QUANTITIES/FT. OF ENCASEMENT (STEEL PILES)

Pile Size	Item	Quantity
HP8	Concrete Encasement	0.063 C.Y.
HP10	Concrete Encasement	0.086 C.Y.
HP12	Concrete Encasement	0.112 C.Y.

(METAL SHELL PILES)

Pile Size	Item	Quantity
12" Dia.	Concrete Encasement	0.087 C.Y.

PILE DETAILS

STANDARD CX-1

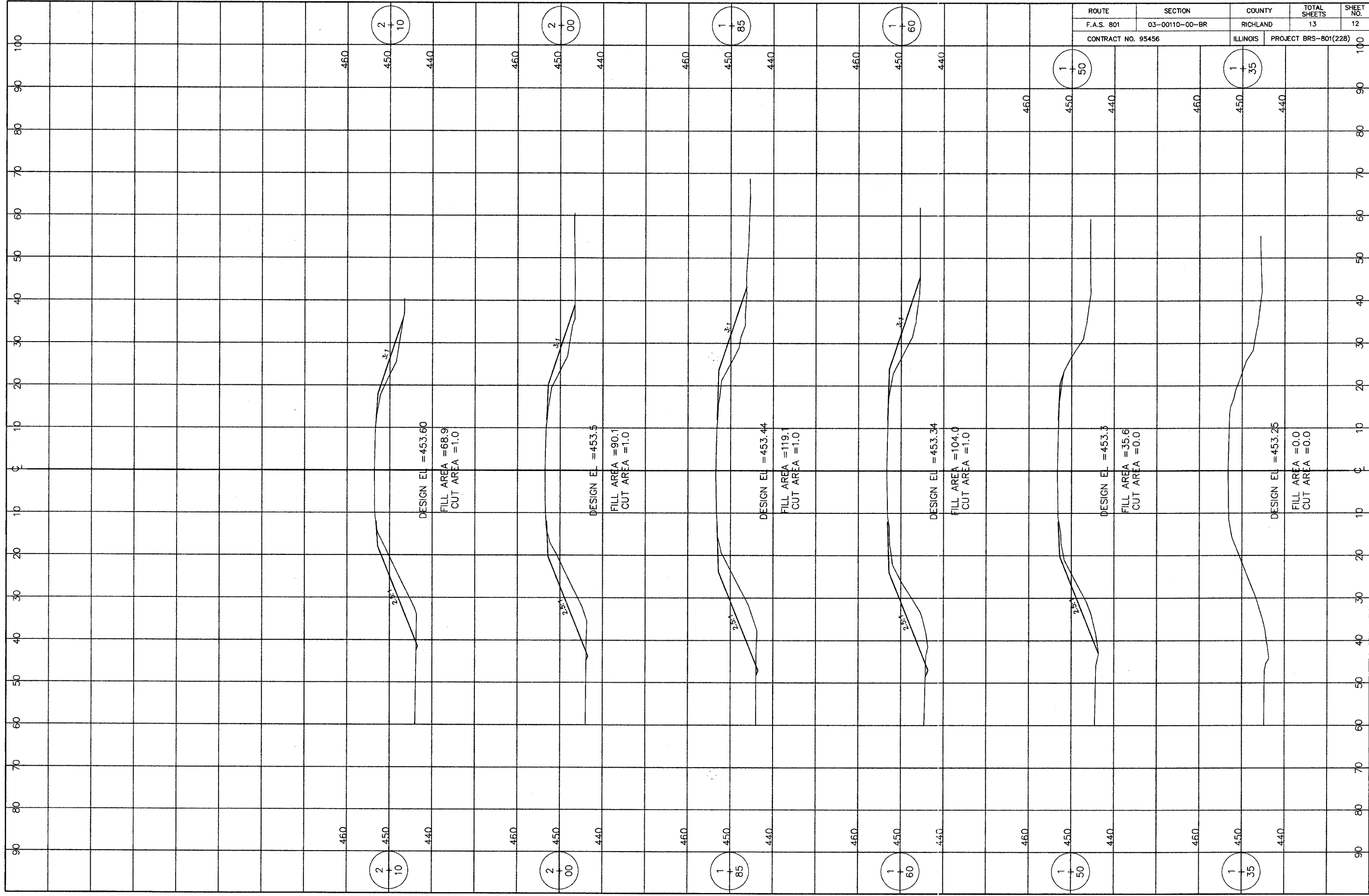
Illinois Department of Transportation

PASSED FEBRUARY 1, 2000

Thomas J. Demagala
Engineer of Bridge Design

APPROVED FEBRUARY 1, 2000

Ralph E. Anderson
Engineer of Bridges and Structures



ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 801	03-00110-00-BR	RICHLAND	13	12
CONTRACT NO. 95456		ILLINOIS	PROJECT BRS-801(228)	

2
10
450

DESIGN EL. = 453.60
FILL AREA = 68.9
CUT AREA = 1.0

2
00
450

DESIGN EL. = 453.5
FILL AREA = 90.1
CUT AREA = 1.0

1
85
450

DESIGN EL. = 453.44
FILL AREA = 119.1
CUT AREA = 1.0

1
60
450

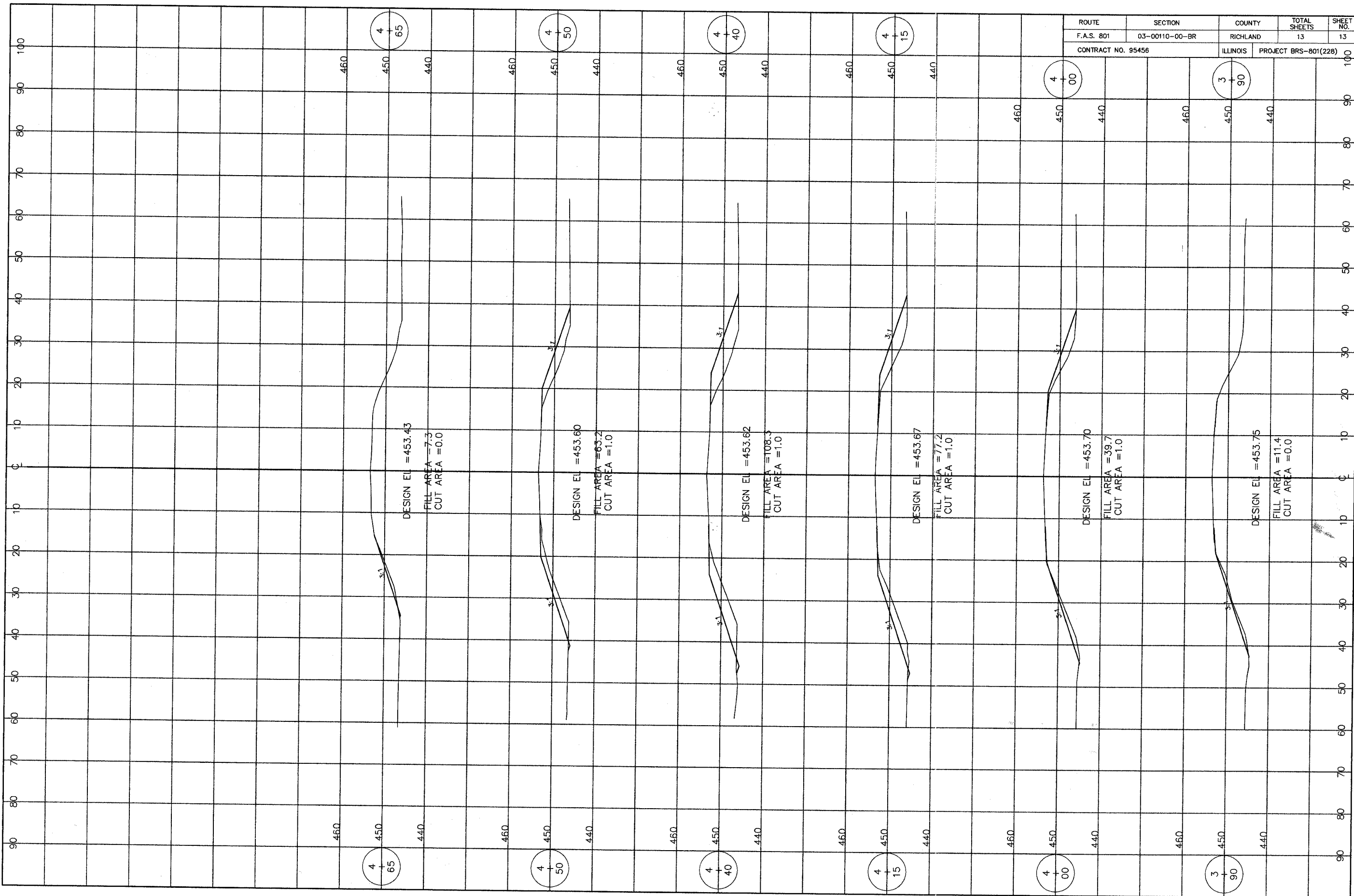
DESIGN EL. = 453.34
FILL AREA = 104.0
CUT AREA = 1.0

1
50
450

DESIGN EL. = 453.3
FILL AREA = 35.6
CUT AREA = 0.0

1
35
450

DESIGN EL. = 453.25
FILL AREA = 0.0
CUT AREA = 0.0



ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 801	03-00110-00-BR	RICHLAND	13	13
CONTRACT NO. 95456		ILLINOIS	PROJECT BRS-801(228)	