

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 206	08-07115-00-BR	CHRISTIAN	12	1
ROAD DIST.	ILLINOIS			

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

SECTION 08-07115-00-BR
 PROJECT BROS-0021(176)
 CHRISTIAN COUNTY
 LOCUST ROAD DISTRICT
 TOWNSHIP ROAD 206
 JOB NUMBER C-96-226-12

SHEET NO.	TITLE
1.	COVER SHEET
2.	SUMMARY OF QUANTITIES, TYPICAL SECTIONS AND GENERAL NOTES
3.	PLAN AND PROFILE SHEET
4.-9.	BRIDGE PLANS
10.-12.	STATION CROSS SECTIONS

STANDARDS

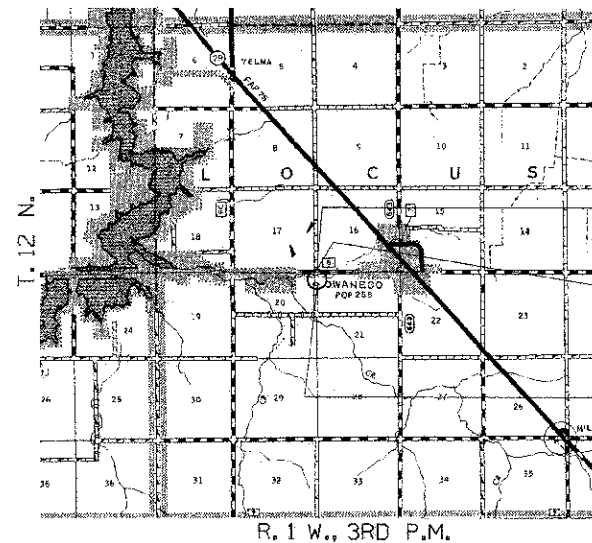
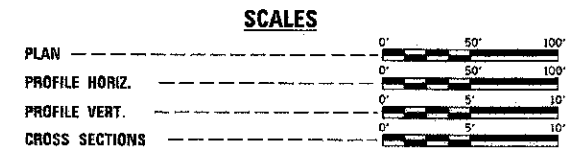
- 280001-07
- 515001-03
- 630301-06
- 701901-02
- BLR 21-9
- BLR 24-2
- BLR 26-3
- BLR 27-1

TOLL FREE JOINT UTILITY LOCATING
 INFORMATION FOR EXCAVATORS (J.U.L.I.E.)
 TELEPHONE NUMBER 1-800-892-0123

Electric
 Shelby Electric CO-OP
 (217) 774-3986
 Attn: Jim Motlock

Telephone
 Consolidated Communications
 (217) 235-335
 Attn: Wes Chambers

CONTRACT No. 93596



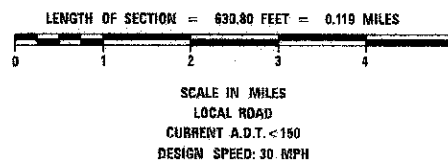
IMPROVEMENT ENDS
 STA. 12+30.80

STA. 10+00- SPECIAL BRIDGE DESIGN
 PRECAST PRESTRESSED CONCRETE DECK
 BEAM BRIDGE; ONE SPAN AT 70'-4";
 24'-0" ROADWAY, SKEW=0°

PROPOSED S.N. 011-3414
 REPLACES
 EXISTING S.N. 011-3162

IMPROVEMENT BEGINS
 STA. 6+00

LOCATION PLAN



DATE SIGNED: 12/12/12
 LICENSE EXP. DATE: 12-31-15

APPROVED	<i>[Signature]</i>	2012
	CHRISTIAN COUNTY ENGINEER	
APPROVED	<i>[Signature]</i>	2012
	LOCUST ROAD DISTRICT COMMISSIONER	
PASSED	March 13 2013	
	DISTRICT SIX ENGINEER OF LOCAL ROADS & STREETS	
PASSED	March 13 2013	
	DISTRICT SIX ENGINEER OF CONSTRUCTION	
Releasing For Bid Based on Limited Review	March 13 2013	
	DEPUTY DIRECTOR OF HIGHWAYS, REGION FOUR ENGINEER	
	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL
20200100	EARTH EXCAVATION	CU YD	471
20300100	CHANNEL EXCAVATION	CU YD	540
20400800	FURNISHED EXCAVATION	CU YD	932
* X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.4
28000305	TEMPORARY DITCH CHECKS	FOOT	48
28100207	STONE RIPRAP, CLASS A4	TON	175
28200200	FILTER FABRIC	SO YD	265
35101400	AGGREGATE BASE COURSE, TYPE B	TON	500
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	17
40300100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	543
40300300	BITUMINOUS MATERIALS (COVER AND SEAL COATS)	GALLON	1150
40300500	COVER COAT AGGREGATE	TON	35
40300600	SEAL COAT AGGREGATE	TON	20
* 50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50300225	CONCRETE STRUCTURES	CU YD	18.0
50300280	CONCRETE ENCASEMENT	CU YD	3.4
* 50400605	PRECAST PRESTRESSED CONCRETE DECK BEAMS (33" DEPTH)	SO FT	1,656
50800105	REINFORCEMENT BARS	POUND	2,350
Δ 50900205	STEEL RAILING, TYPE S1	FOOT	138
51201400	FURNISHING STEEL PILES HP10X42	FOOT	405
51202305	DRIVING PILES	FOOT	405
51203400	TEST PILE STEEL HP10X42	EACH	1
51500100	NAME PLATES	EACH	1
Δ 63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	1
Δ 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	1
67100100	MOBILIZATION	L SUM	1
* 70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1
Δ * 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
* SEE SPECIAL PROVISIONS			
Δ SPECIALTY ITEMS			
CONSTRUCTION TYPE CODE: 0011			

GENERAL NOTES

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

REMOVAL OF THE EXISTING PAVEMENT (BITUMINOUS SURFACE AND AGGREGATE BASE), WHERE NECESSARY TO CONSTRUCT THE PROPOSED PAVEMENT, SHALL BE CONSIDERED EARTH EXCAVATION. SAWCUTTING THE EXISTING PAVEMENT SHALL BE INCLUDED IN THE COST FOR EARTH EXCAVATION.

THE LOCATIONS OF THE EXISTING ELECTRIC POWER LINES, TELEPHONE LINES AND OTHER UTILITIES AS SHOWN ON THE PLANS ARE BASED ON CAREFUL FIELD INVESTIGATION AND THE BEST INFORMATION AVAILABLE, BUT ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE UTILITY COMPANIES AND FIELD INSPECTION. SEE STANDARD SPECIFICATIONS.

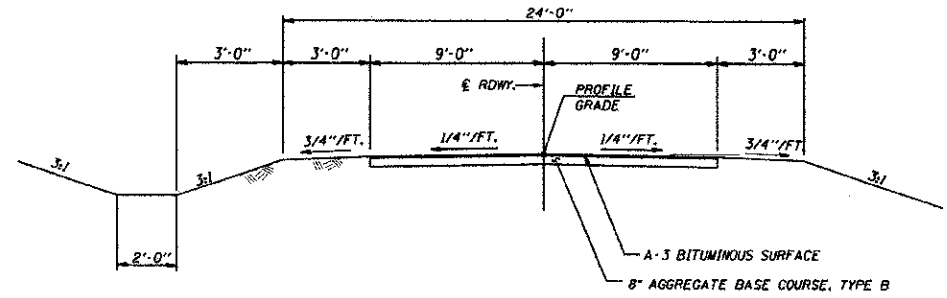
THE AREA TO BE SEEDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT-OF-WAY AS DIRECTED BY THE ENGINEER.

SEEDING, CLASS 2 (SPECIAL) - 0.4 ACRES

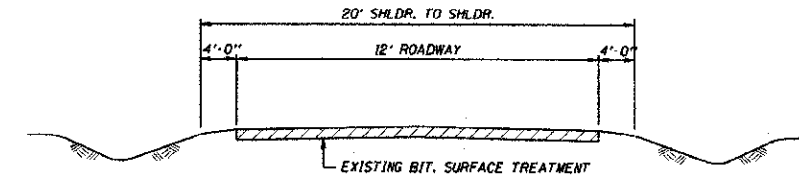
THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER IN REGARD TO THE EXACT LENGTH OF PIPE CULVERTS AND PIPE DRAINS BEFORE ORDERING THESE ITEMS.

APPLICATION RATES USED IN QUANTITY CALCULATIONS

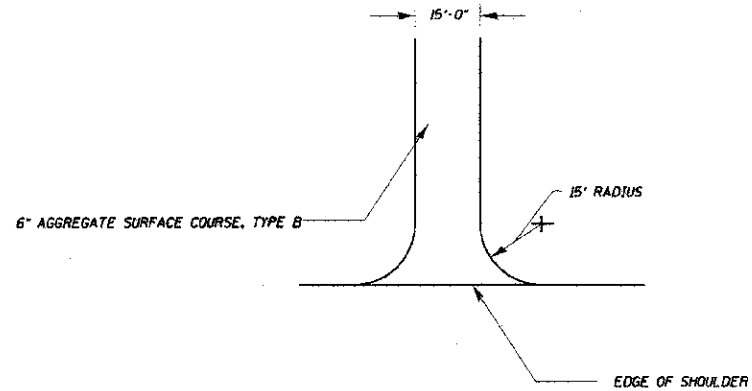
GRANULAR MATERIALS	2.05 TONS/CU. YD.
COVER AND SEAL COAT AGGREGATE	30#/SQ. YD.
BITUMINOUS COVER AND SEAL COAT	.35 GAL./SQ. YD.
BITUMINOUS PRIME COAT	.50 GAL./SQ. YD.
RIP RAP SPECIAL	1.5 TONS/CU. YD.
TEMP. EROSION CONTROL SEEDING	100 LB./ACRE



PROPOSED TYPICAL CROSS SECTION
STA. 6+00 TO STA. 12+30.8



TYPICAL EXISTING CROSS SECTION
NOTE: THE EXISTING PAVEMENT TO BE REMOVED WILL NOT TO BE MEASURED FOR PAYMENT BUT SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICE FOR "EARTH EXCAVATION."



PRIVATE ENTRANCE DETAIL
RT. STA. 7+09

FILE NAME *	USER NAME * LJH	DESIGNED - LJH	REVISED -
FILE #		DRAWN - LJH	REVISED -
	PLOT SCALE = N/A	CHECKED - LJH	REVISED -
	PLOT DATE = MARCH 31, 2010	DATE - MARCH 31, 2010	REVISED -

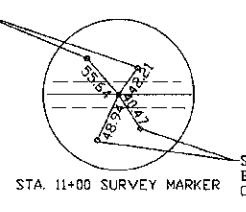
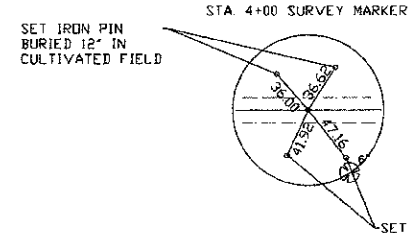
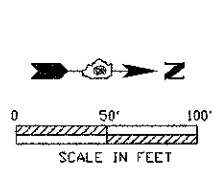
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES, TYPICAL SECTIONS, DETAILS			
TR 206 OVER TRIBUTARY TO LOCUST CREEK STA. 10+00			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

MEC MARTIN ENGINEERING COMPANY CONSULTING ENGINEERS AND SURVEYORS (ILLINOIS PROFESSIONAL DESIGN / REG. NO. 184402843) 3222 S. MEADOWBROOK RD., SPRINGFIELD, ILLINOIS 62711 Phone: (217) 693-8900, Fax: (217) 698-8922, E-Mail: mecmart@martinengineering.com		PROJECT NO.	
		DRAWING FILE	
		DATE	MAR 31, 2010
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS
TR 206	08-07115-00-BR	CHRISTIAN	12
			SHEET NO.
			93596
ILLINOIS FED. AID PROJECT			

DATE: _____
 BY: _____
 CHECKED: _____
 DATE: _____

DATE: _____
 BY: _____
 CHECKED: _____
 DATE: _____



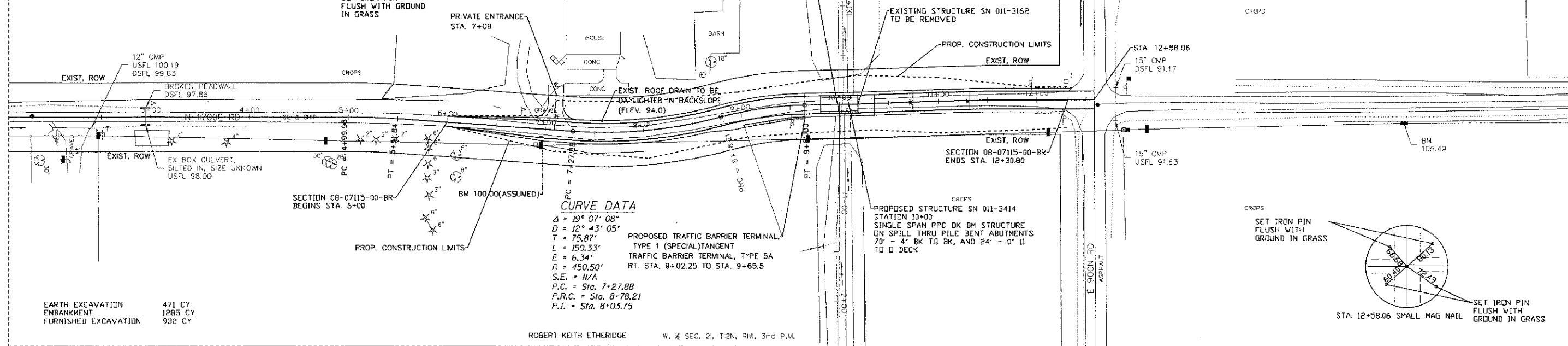
BM #10 COTTON GIN SPINDLE IN P. POLE
 RT. STA. 6+95
 ELEV. = 100.00 ASSUMED

BM #11 COTTON GIN SPINDLE IN P. POLE
 RT. STA. 15+75
 ELEV. = 105.49

CURVE DATA
 $\Delta = 3^\circ 54' 12''$
 $D = 7^\circ 38' 22''$
 $T = 25.56'$
 $L = 51.10'$
 $E = 0.44'$
 $R = 750.00'$
 $S.E. = N/A$
 $P.C. = Sta. 4+99.96$
 $P.T. = Sta. 5+51.84$
 $P.I. = Sta. 5+25.52$

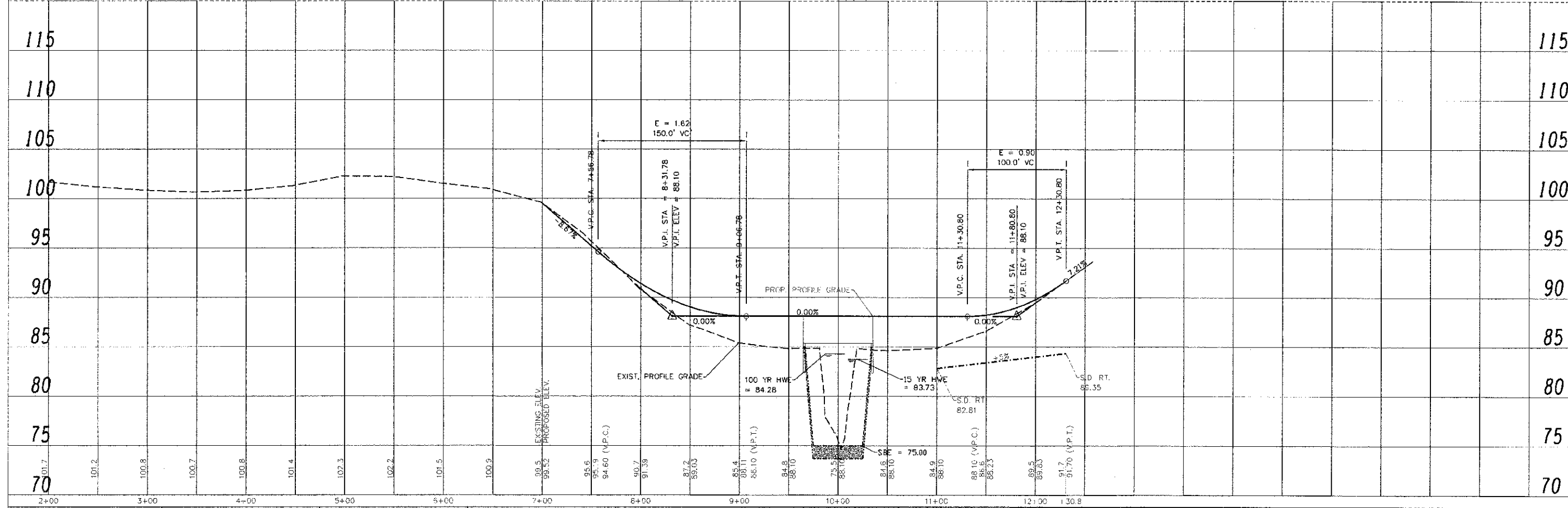
CURVE DATA
 $\Delta = 13^\circ 33' 12''$
 $D = 16^\circ 22' 13''$
 $T = 41.59'$
 $L = 82.79'$
 $E = 2.46'$
 $R = 350'$
 $S.E. = N/A$
 $P.C. = Sta. 9+61.00$
 $P.T. = Sta. 8+78.21$
 $P.I. = Sta. 9+19.80$

CURVE DATA
 $\Delta = 19^\circ 07' 08''$
 $D = 12^\circ 43' 05''$
 $T = 75.87'$
 $L = 150.33'$
 $E = 6.34'$
 $R = 450.50'$
 $S.E. = N/A$
 $P.C. = Sta. 7+27.88$
 $P.T. = Sta. 8+78.21$
 $P.I. = Sta. 8+03.75$



EARTH EXCAVATION 471 CY
 EMBANKMENT 1265 CY
 FURNISHED EXCAVATION 932 CY

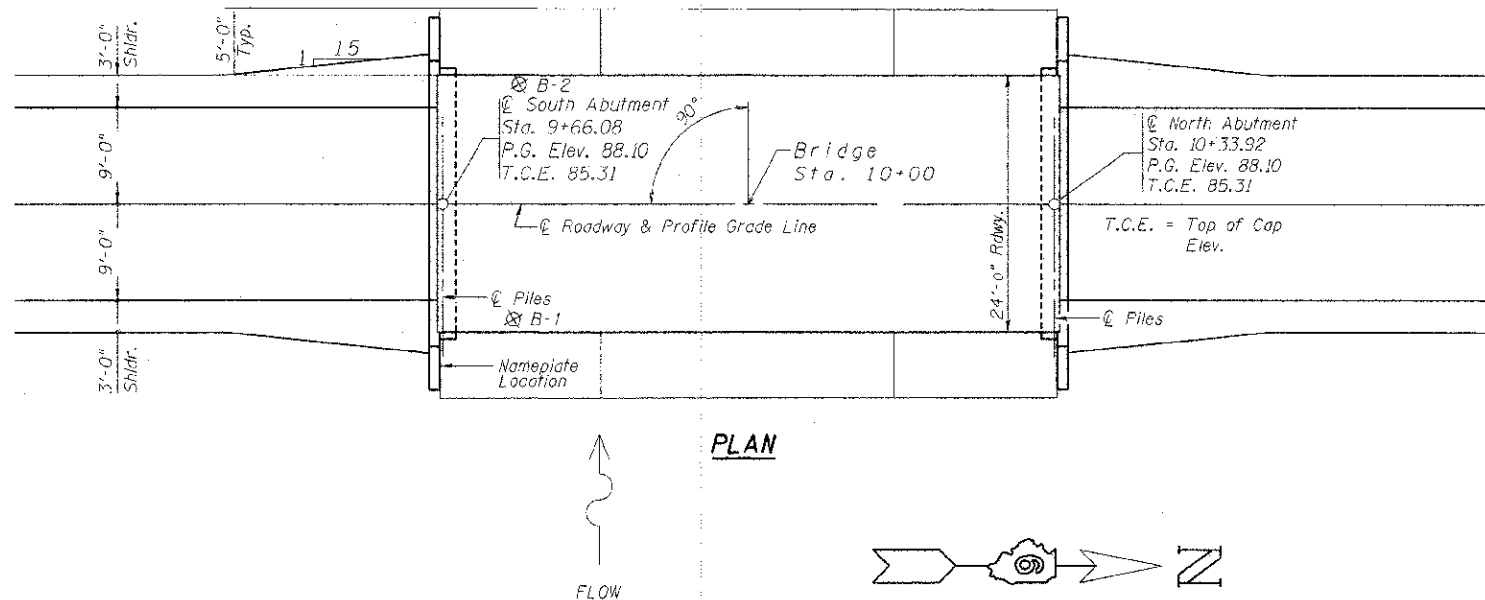
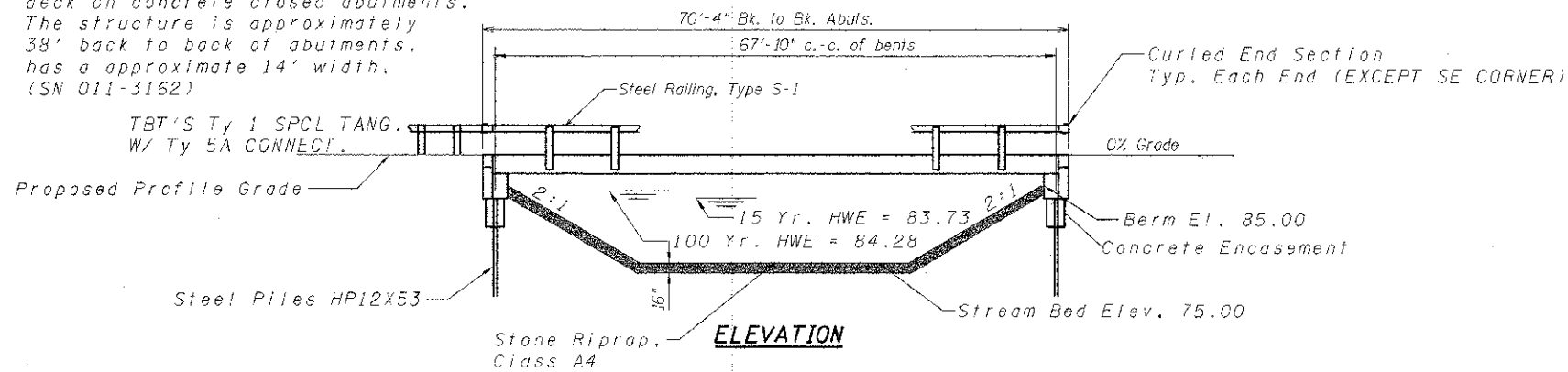
ROBERT KEITH ETHERIDGE W. 1/2 SEC. 20, T.2N, R.1W, 3rd P.M.



FILE NAME = #FILEL#	USER NAME = #USER#	DESIGNED -	REVISIONS -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN AND PROFILE TR 206 OVER A TRIBUTARY OF LOCUST CREEK	F.A. RTE. TR 206	SECTION 08-07115-00-BR	COUNTY CHRISTIAN	TOTAL SHEETS 12	SHEET NO. 3	9.3.5.9.6		
PLOT SCALE = #SCALE#	CHECKED -	REVISIONS -	SCALE: _____			SHEET NO. ____ OF ____ SHEETS	STA. _____ TO STA. _____	[ILLINOIS] FED. AID PROJECT					
PLOT DATE = #DATE#	DATE -	REVISIONS -											

B.M. #10 ELEV. 100.00 RT. STA. 6+95

Existing Structure- Two Span I-Beam with a wood deck on concrete closed abutments. The structure is approximately 38' back to back of abutments, has a approximate 14' width, (SN 011-3162)



GENERAL NOTES

- The Contractor shall drive one steel test pile to 110% of the Nominal Required Bearings, as specified, in a permanent location as directed by the Engineer before ordering the remaining piles.
- See Special Provisions for boring logs.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub.		Total
			Abutms.		
Removal of Existing Structures	Each				1
Channel Excavation	Cu. Yd.		540		540
Concrete Structures	Cu. Yd.		18.0		18.0
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	1656			1656
Steel Railing, Type S1	Foot	138			138
Reinforcement Bars	Pound		2350		2350
Furnishing Steel Piles HP10X42	Foot		405		405
Driving Piles	Foot		405		405
Test Pile Steel HP10X42	Each		1		1
Name Plates	Each		1		1
Concrete Encasement	Cu. Yd.		3.4		3.4
Stone Riprap, Class A4	Ton		175		175
Filter Fabric	Sq. Yd.		265		265

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	N. Abut.	S. Abut.
	82.61	82.61

DESIGN SPECIFICATIONS

2012 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS - 6TH EDITION

LOADING HL93

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

SEISMIC DATA

Peak Ground Acceleration (PGA) = 0.09
Design Spectral Acceleration at 1.0 sec. (S1) = 0.07g
Design Spectral Acceleration at 0.2 sec. (Ss) = 0.20 g
Site Coefficient (S) = C

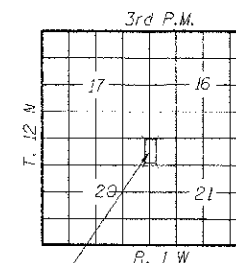
PILE DATA (2-ABUTS.)

Type STEEL HP10X42
Nominal Required Bearing: 333 kips
Factored Resistance Available: 166 kips
Estimated Length: 45 feet
Number of Piles: 10 (includes 1 test pile at North Abutment)

STATION 10+00
TRIBUTARY TO LOCUST CREEK
SEC. 08-07115-00-BR BUILT 201*
LOCUST ROAD DIST.
CHRISTIAN COUNTY
LOADING HL93
STR. NO. 011-3414

LETTERING FOR NAME PLATE

Proposed BRIDGE
Locate Name Plate at SE Corner of Bridge



WATERWAY INFORMATION

Drainage Area = 3.49 sq. mi. Low Grade Elev. = 88.10 @ Sta. 10+00

Flood	Freq. Yr.	C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exst.	Prop.		Exst.	Prop.	Exst.	Prop.
Design	15	976	279	371	83.73	0.53	0.38	84.26	84.11
Base	100	1374	279	404	84.28	1.08	0.55	85.36	84.83
Overtopping									
Max. Calc.	500								

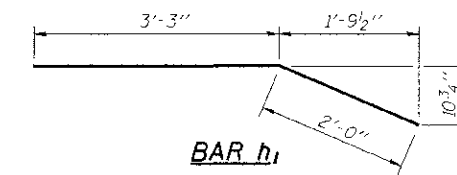
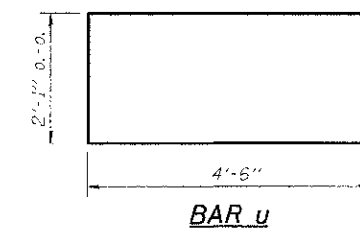
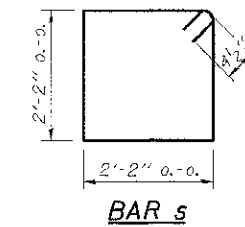
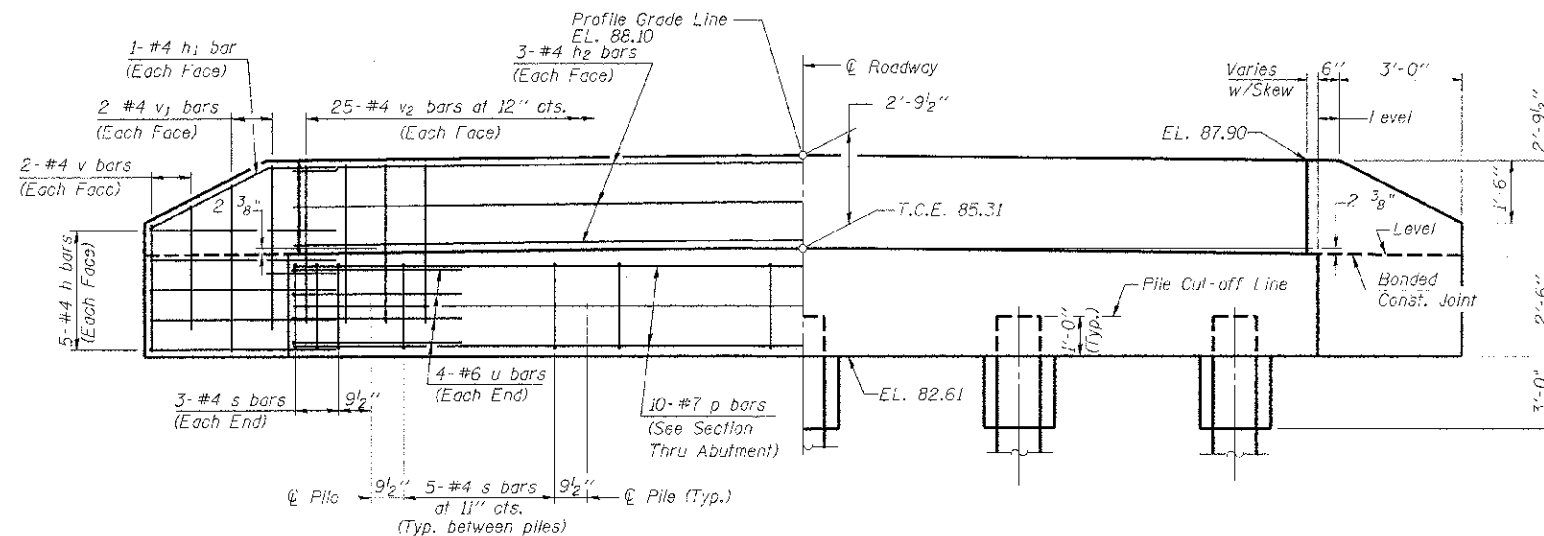
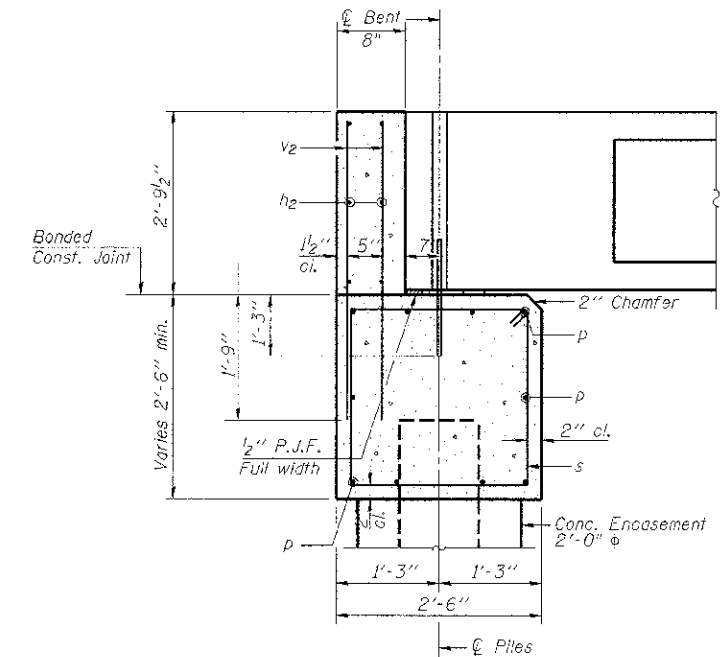
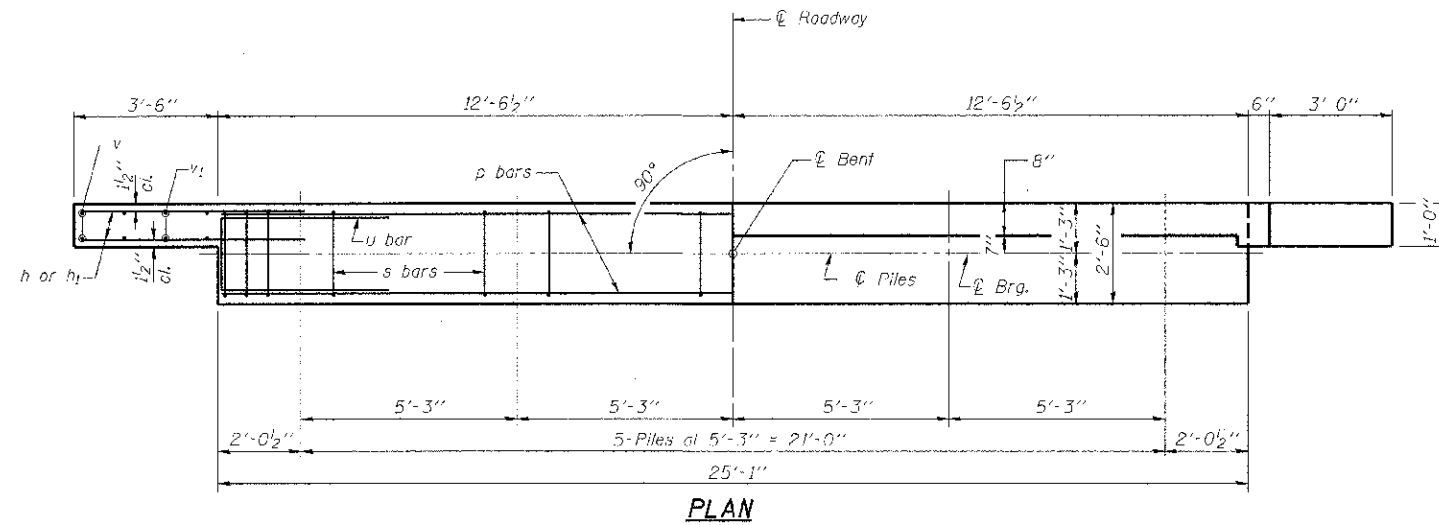
"I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current 'AASHTO Standard Specifications for Highway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

ILLINOIS STRUCTURAL NO. 4745 Expires 11/30/2014



MEC
MARTIN ENGINEERING COMPANY
CONSULTING ENGINEERS AND SURVEYORS
ILLINOIS PROFESSIONAL DESIGN FIRM NO. 184-002819
522 S. MEADOWBROOK RD., SPRINGFIELD, ILLINOIS 62711
Phone: (217) 898-8900, Fax: (217) 898-8922, E-Mail: meca@martineng.com

FILE NAME = 08FILE6	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION TR 205 OVER TRIBUTARY TO LOCUST CREEK STA. 10+00		TOTAL SHEET NO. 4 93596	
		DRAWN -	REVISED -		SCALE: _____	SHEET NO. 1 OF 6 SHEETS		STA. _____ TO STA. _____
		CHECKED -	REVISED -		ILLINOIS FED. AID PROJECT			
		DATE -	REVISED -					



BILL OF MATERIAL FOR ONE ABUTMENT

Bar	No.	Size	Length	Shape
h ₁	20	#4	5'-0"	—
h ₂	4	#4	5'-3"	—
h ₂	6	#4	24'-9"	—
p	10	#7	24'-9"	—
s	26	#4	9'-5"	□
u	8	#6	11'-1"	□
v	8	#4	3'-8"	—
v ₁	8	#4	4'-8"	—
v ₂	50	#4	4'-5"	—
Concrete Structures			9.0 Cu. Yds.	
Reinforcement Bars			1175 Lb.	
Concrete Encasement			1.7 Cu. Yds.	
Furnish STL Piles			225 Foot South	
HP 10x42			180 Foot North	

NOTES

1. The Backwall and the portion of the Wingwalls above the bonded construction joint shall be cast against the in-place beam.
2. Reinforcement bars shall conform to the requirements of ASTM A706, Grade 60.
3. Space reinforcement in cap to miss dowels.

DESIGN STRESSES

$f'_c = 3,500 \text{ psi}$
 $f_y = 60,000 \text{ psi}$

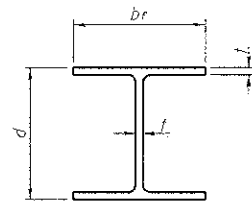
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**P.P.C. DECK BEAMS PILE BENT ABUTMENT
 TR 206 OVER TRIBUTARY TO LOCUST CREEK STA 10+00**

SCALE: SHEET NO. OF SHEETS STA. TO STA.

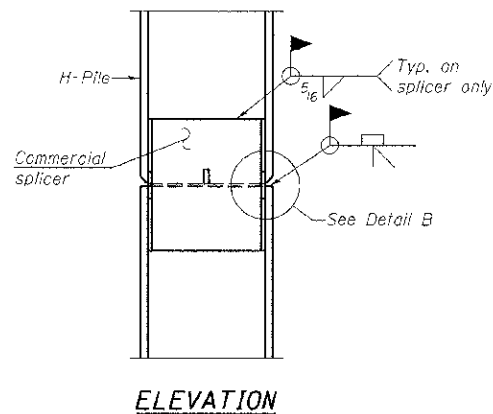
MEC MARTIN ENGINEERING COMPANY CONSULTING ENGINEERS AND SURVEYORS (ILLINOIS PROFESSIONAL DESIGN FIRM NO. 184-022843) 2223 S. MEADOWCROFT RD., SPRINGFIELD, ILLINOIS 62711 Phone: (217) 268-8901, Fax: (217) 268-8382, E-mail: mec@meccorp.com		PROJECT NO.	TOTAL SHEETS	SHEET NO.
F.A. RTE.	SECTION	COUNTY	12	5
TR 206	08-07115-00-BR	CHRISTIAN	93596	
ILLINOIS FED. AID PROJECT				

FILE NAME *	USER NAME * WUSFR8	DESIGNED -	REVISED -
#FILE#		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

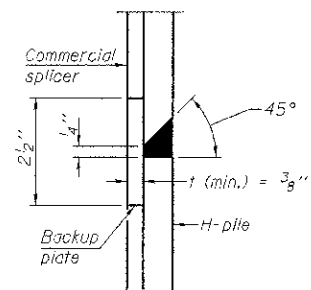


STEEL PILE TABLE

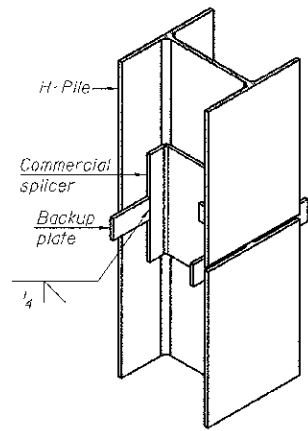
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 5/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 5/8"	1/2"	24"
x53	11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



ELEVATION

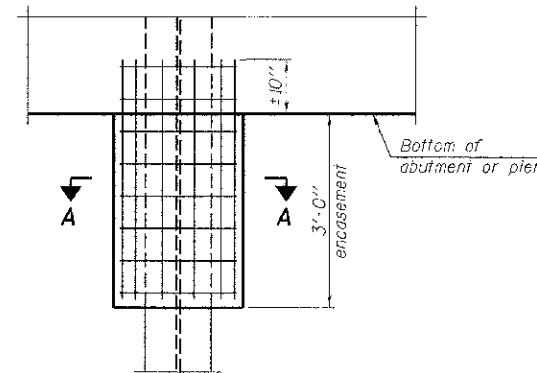


DETAIL "B"

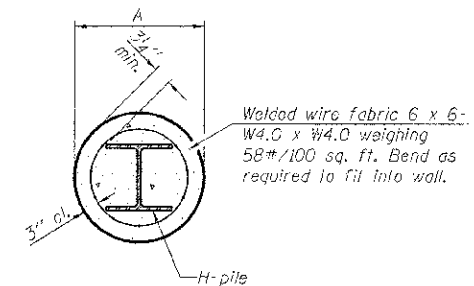


ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



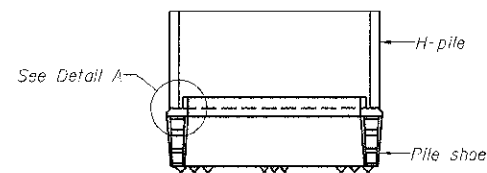
ELEVATION



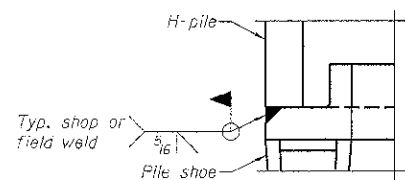
SECTION A-A

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

PILE ENCASEMENT

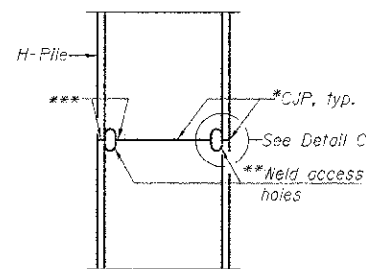


ELEVATION

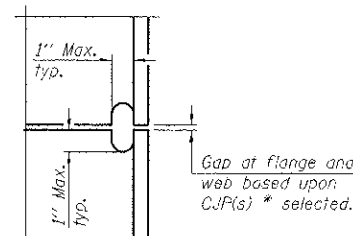


DETAIL A

H-PILE SHOE ATTACHMENT

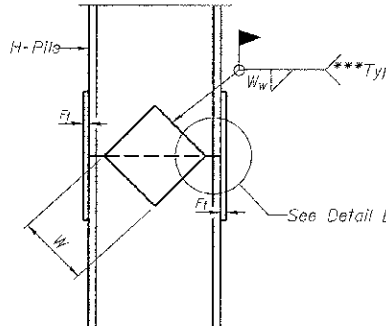


ELEVATION

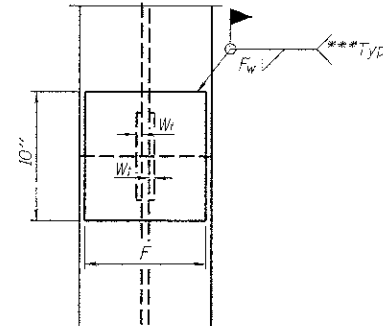


DETAIL C

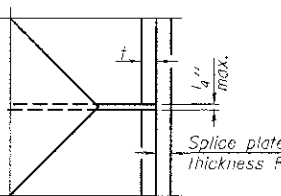
COMPLETE PENETRATION WELD SPLICE



ELEVATION



END VIEW



DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	F ₁	F _w	W	W ₁	W _w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	11/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

- * Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.
- ** Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.
- *** Interrupt welds 1/4" from end of each pile.

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

F-HP

10-1-08

MEC
MARTIN ENGINEERING COMPANY
CONSULTING ENGINEERS AND SURVEYORS
ILLINOIS PROFESSIONAL ENGINEERING FIRM NO. 134 022843
522 S. MEADOWS ROAD, SPRINGFIELD, ILLINOIS 62711
Phone: (217) 698-8900, Fax: (217) 698-8902, E-Mail: mecec@martineng.com

PROJECT NO.	
DRAWING FILE	
DATE	XXX

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS
TR 206	08-07115-00-BR	CHRISTIAN	12
			6
			93596

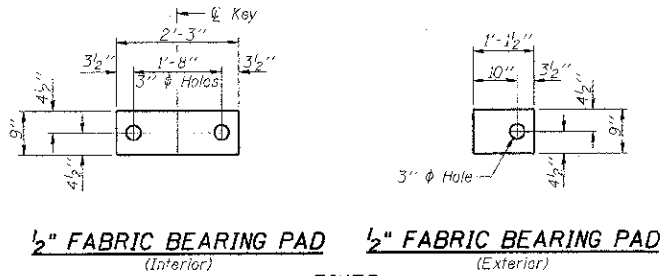
ILLINOIS FED. AID PROJECT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

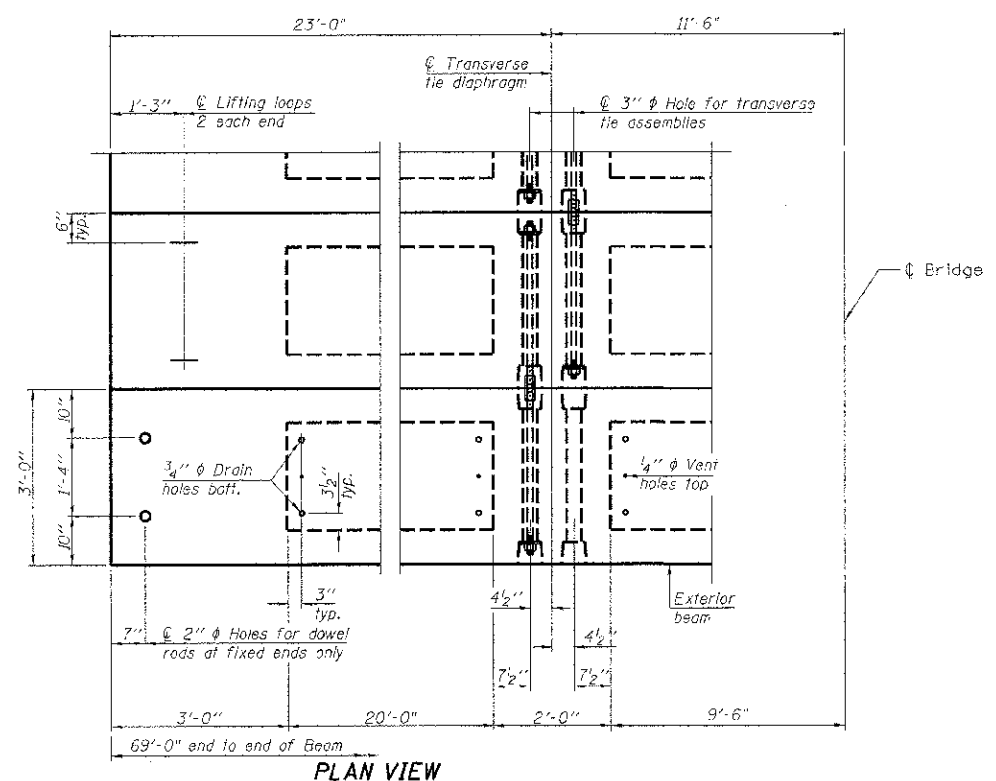
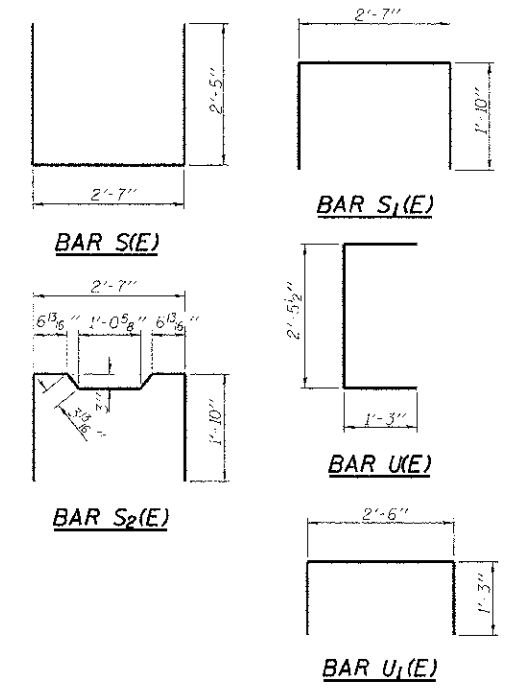
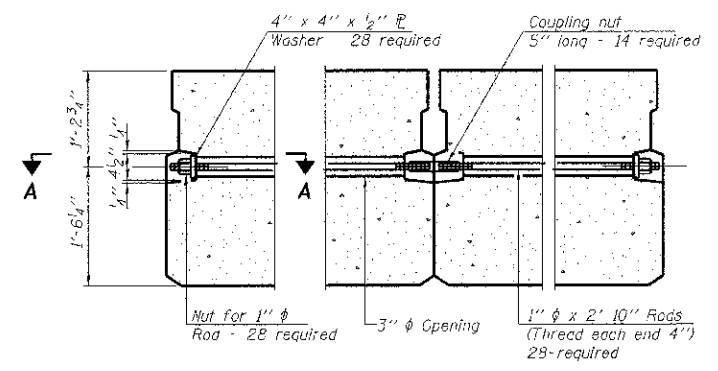
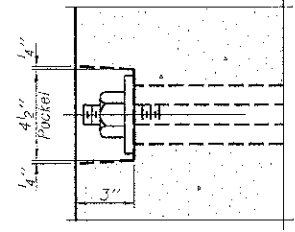
HP PILE DETAILS STRUCTURE NO. 011-3414
TR 206 OVER TRIBUTARY TO LOCUST CREEK STA.10+00

SCALE: SHEET NO. OF SHEETS STA. TO STA.

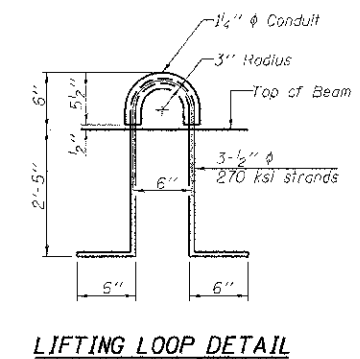
FILE NAME -	USER NAME - #JGSR#	DESIGNED -	REVISED -
\$\$\$FILE#		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -



FIXED
 Note: Omit holes when using expansion bearings.



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



BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (33" depth)	Sq. Ft. 1656
---	--------------

NOTES

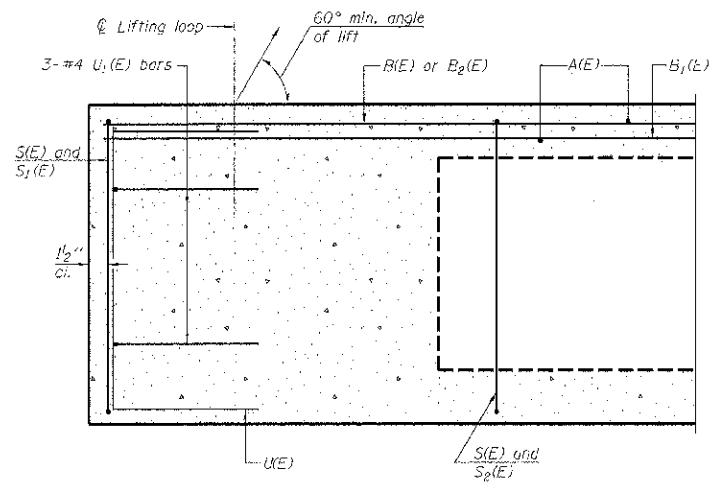
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
- The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior 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.
- Two 1/2" 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)(10) and 1021.07 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'cr, shall be 5000 psi.

**33" X 36" PPC DECK BEAM DETAILS
 STRUCTURE NO. 011-3414**

PD-3336-0D 10-1-08

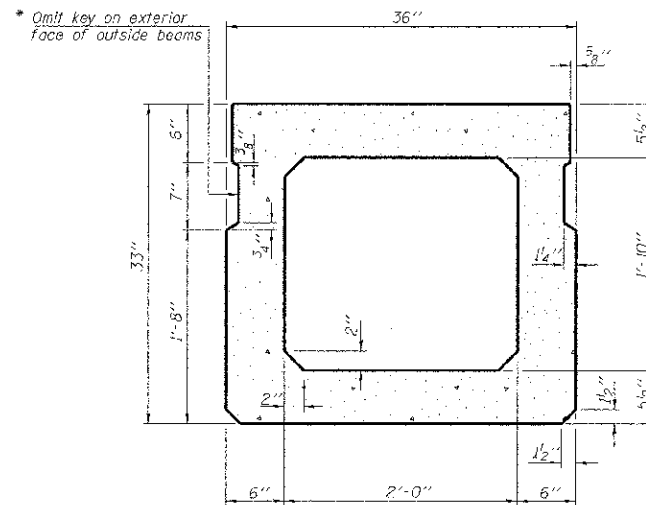
FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	33" X 36" PPC DECK BEAM DETAILS NO. 011-3414 TR 206 OVER TRIBUTARY TO LOCUST CREEK STA. 10+00		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
\$FILEL#		DRAWN -	REVISD -		SCALE: _____	SHEET NO. _____ OF _____ SHEETS	TR206	08-07115-00-BR	CHRISTIAN	12	7	
		CHECKED -	REVISD -									93596
		DATE	REVISD -									ILLINOIS FED. AID PROJECT

MEC
 HILTON ENGINEERING COMPANY
 CONSULTING ENGINEERS AND SURVEYORS
 ILLINOIS PROFESSIONAL DESIGN FIRM NO. 184-020810
 225 N. WASHINGTON ST., SUITE 200, CHICAGO, IL 60610
 Phone: (312) 698-8900, Fax: (312) 698-8902, E-Mail: mec@hiltoneng.com

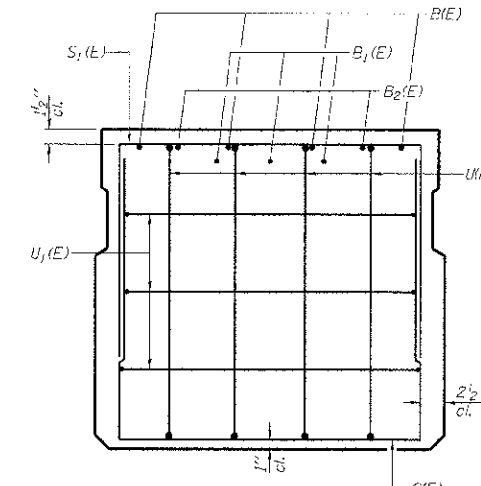


SECTION C-C

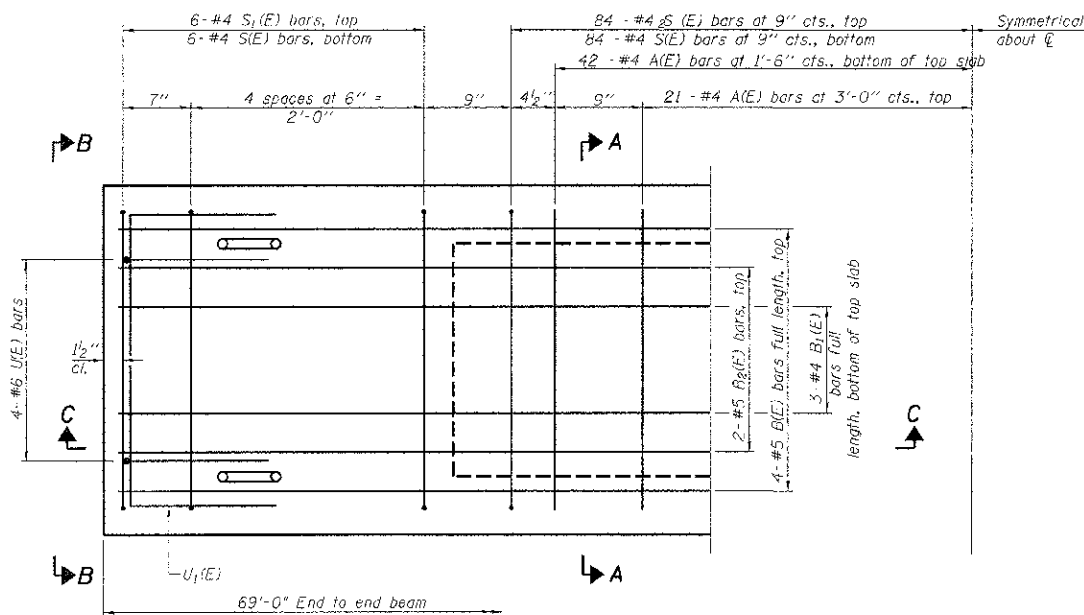
* Rail post anchor devices to be cast into exterior face of outside beams.



SECTION A-A
(Showing dimensions)

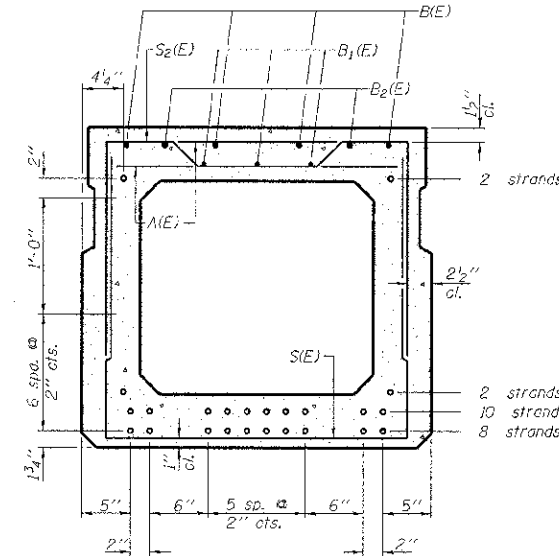


VIEW B-B



PLAN VIEW

Note: Spacing of S1(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.



SECTION A-A
(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)	42	#4	2'-7"	—
B1(E)	12	#5	24'-8"	—
B2(E)	9	#4	24'-8"	—
B3(E)	6	#5	24'-8"	—
S1(E)	96	#4	7'-5"	—
S2(E)	12	#4	6'-3"	—
S3(E)	84	#4	6'-5"	—
U1(E)	8	#6	5'-0"	—
U2(E)	6	#4	5'-0"	—

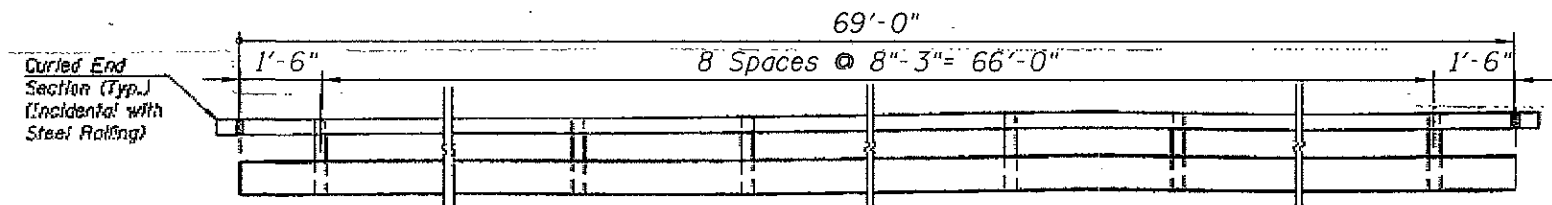
Note: See sheet X of X for additional details and Bill of Material.

33" x 36" PPC DECK BEAM
STRUCTURE NO. 011-3414

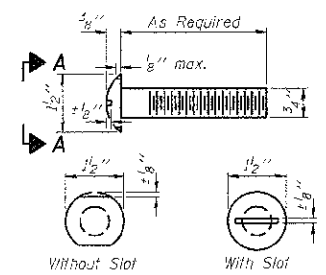
PD-3336-0

10-1-08

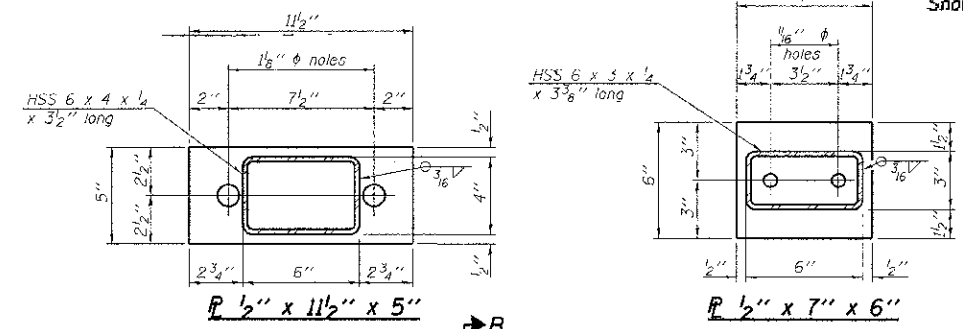
FILE NAME =	USER NAME = #URFP#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	33" X 36" PPC DECK BEAM STRUCTURE NO. 011-3414 TR 206 OVER TRIBUTARY TO LOCUST CREEK STA. 10+00	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
#FILE#		DRAWN -	REVISED -			TR 206	08-07115-00-BR	CHRISTIAN	12	8	
PLOT SCALE = #SCALE#		CHECKED -	REVISED -			SCALE: _____	SHEET NO. _____ OF _____ SHEETS	STA. _____ TO STA. _____	93596		
PLOT DATE = #DATE#		DATE -	REVISED -			ILLINOIS FED. AID PROJECT					



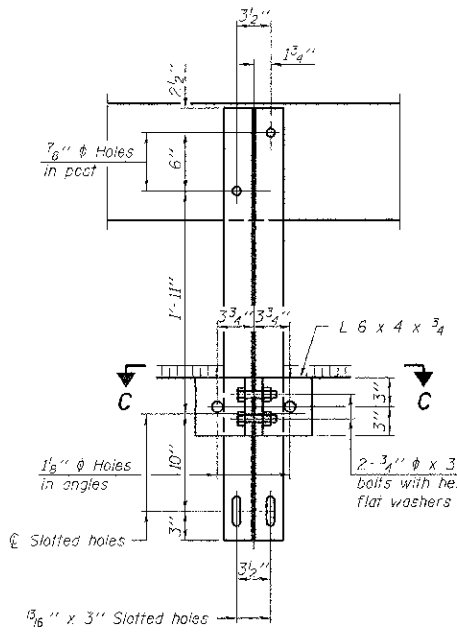
ELEVATION
Showing Inside Face of Rail



VIEW A-A
ROUND HEAD BOLT

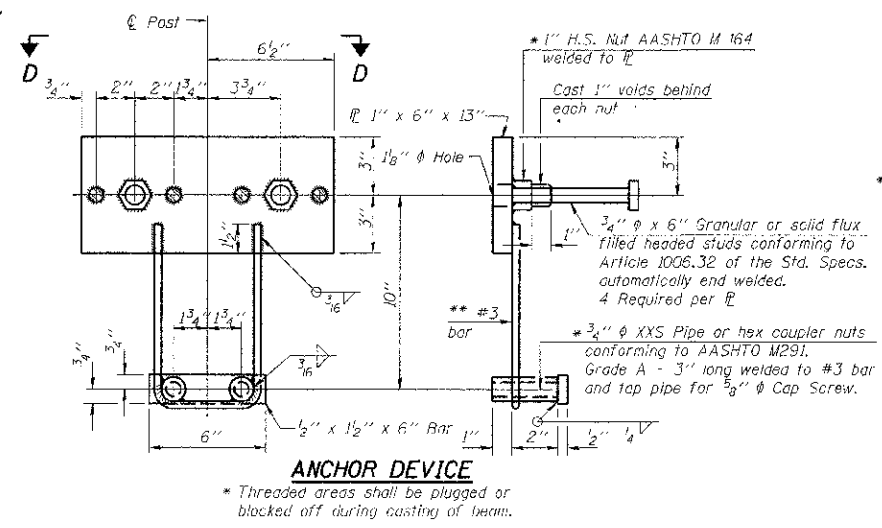


2-3/4" ϕ x 6" Round Head Bolts
(With slot or approved recess in head) with locknut & flat washer.
7/8" ϕ holes in hollow structural section may be drilled in the field.



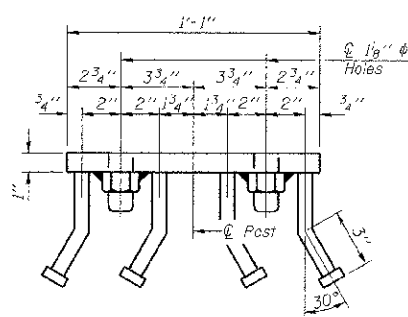
SECTION B-B

SECTION AT RAILING POST

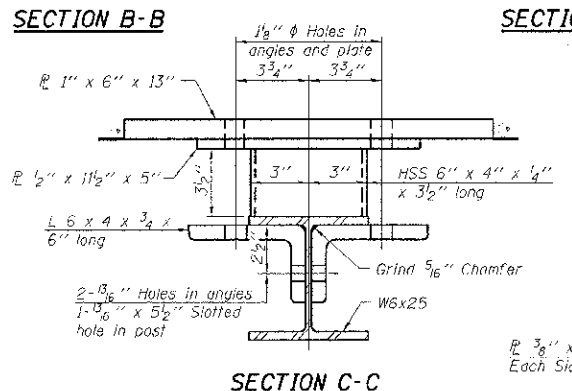


ANCHOR DEVICE

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

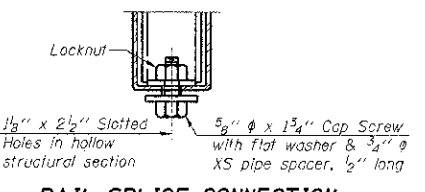


VIEW D-D

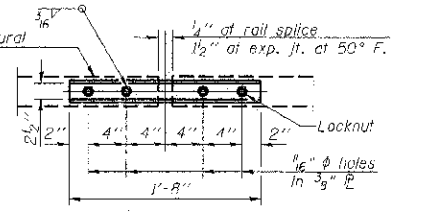


SECTION C-C

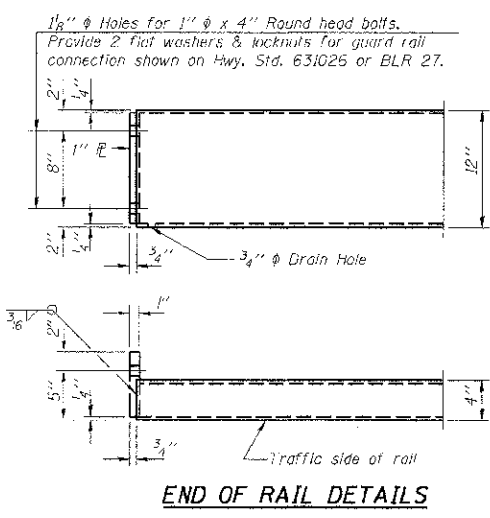
** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".



RAIL SPLICE CONNECTION AT EXPANSION JT.



PLAN-BOTT. SPLICE AT TYPICAL



END OF RAIL DETAILS

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S-1	Foot	138

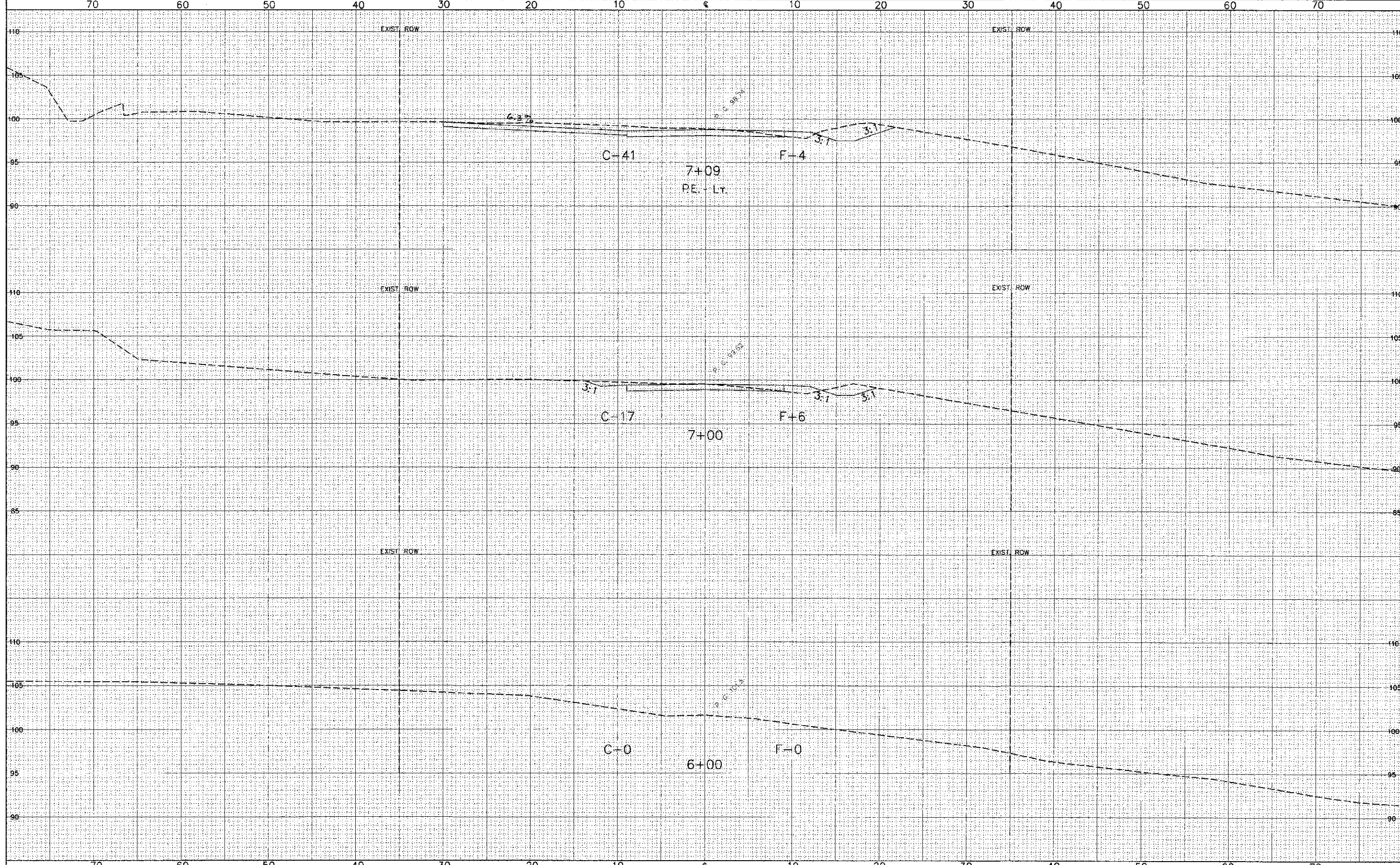
R-23A 11-1-09 (10'-9" Maximum Post Spacing)

FILE NAME: #FILE#	USER NAME: #USER#	DESIGNED: _____	REVISED: _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STEEL RAILING, TYPE S-1 STRUCTURE NO. 011-3414 TR 206 OVER TRIBUTARY TO LOCUST CREEK STA. 10+00	F.A. RTE.:	SECTION:	COUNTY:	TOTAL SHEETS:	SHEET NO.:	
	PLOT SCALE: #SCALE#	CHECKED: _____	REVISED: _____			TR 206	08-07115-00-BR	CHRISTIAN	12	9	
	PLOT DATE: #DATE#	DATE: _____	REVISED: _____			SCALE:	SHEET NO. _____ OF _____ SHEETS	STA. _____ TO STA. _____	98596		
	[ILLINOIS] FED. AID PROJECT										

MEC
MARTIN ENGINEERING COMPANY
CONSULTING ENGINEERS AND SURVEYORS
ILLINOIS PROFESSIONAL REGISTRATION NO. 0420449
522 S. MEADOWS DR., SPRINGFIELD, ILLINOIS 62711
PHONE: (314) 688-2636 FAX: (314) 688-2626 E-MAIL: mec@martineng.com

DATE	
BY	
FINAL SURVEY	REVISIONS
NOTED	PLOTS
TEMPLATE	AREAS
AREAS	CHECKED
NO.	

DATE	
BY	
ORIGINAL SURVEY	REVISIONS
NOTED	PLOTS
TEMPLATE	AREAS
AREAS	CHECKED
NO.	



FILE NAME -
#FILE.#

USER NAME - #USER#
DESIGNED -
DRAWN -
CHECKED -
DATE

REVISIONS
REVISED -
REVISED -
REVISED -
REVISED -

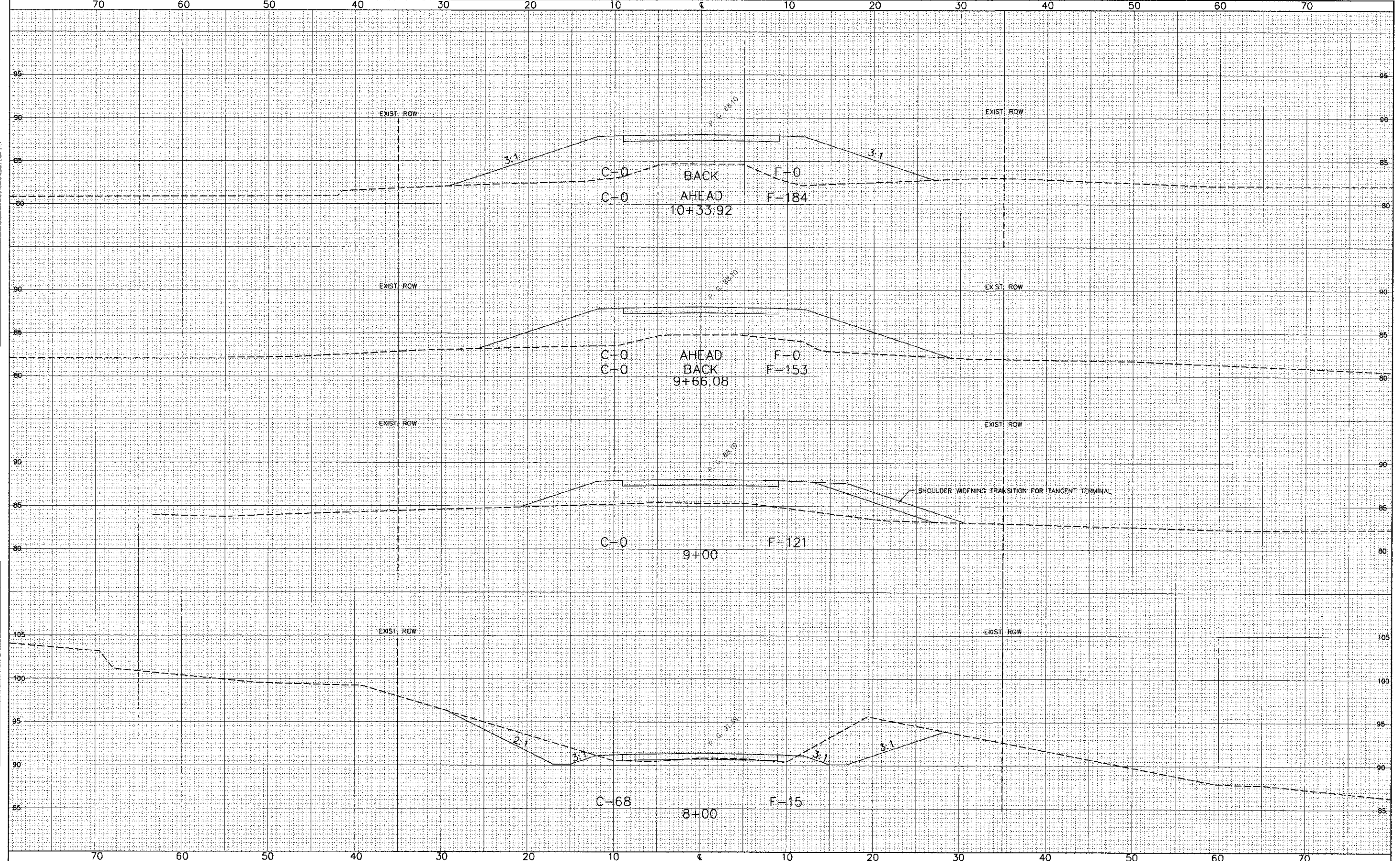
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ROAD CROSS SECTIONS
TR 206 OVER TRIBUTARY TO LOCUST CREEK**
SCALE: _____ SHEET NO. 14 OF 16 SHEETS STA. 6+00 TO STA. 7+09

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS
TR 206	08-07115-00-BR	CHRISTIAN	12 10
			CONTRACT NO. 93596
ILLINOIS FED. AID PROJECT			

DATE	
BY	
APPROVED	
NOTED	
AREAS CHECKED	

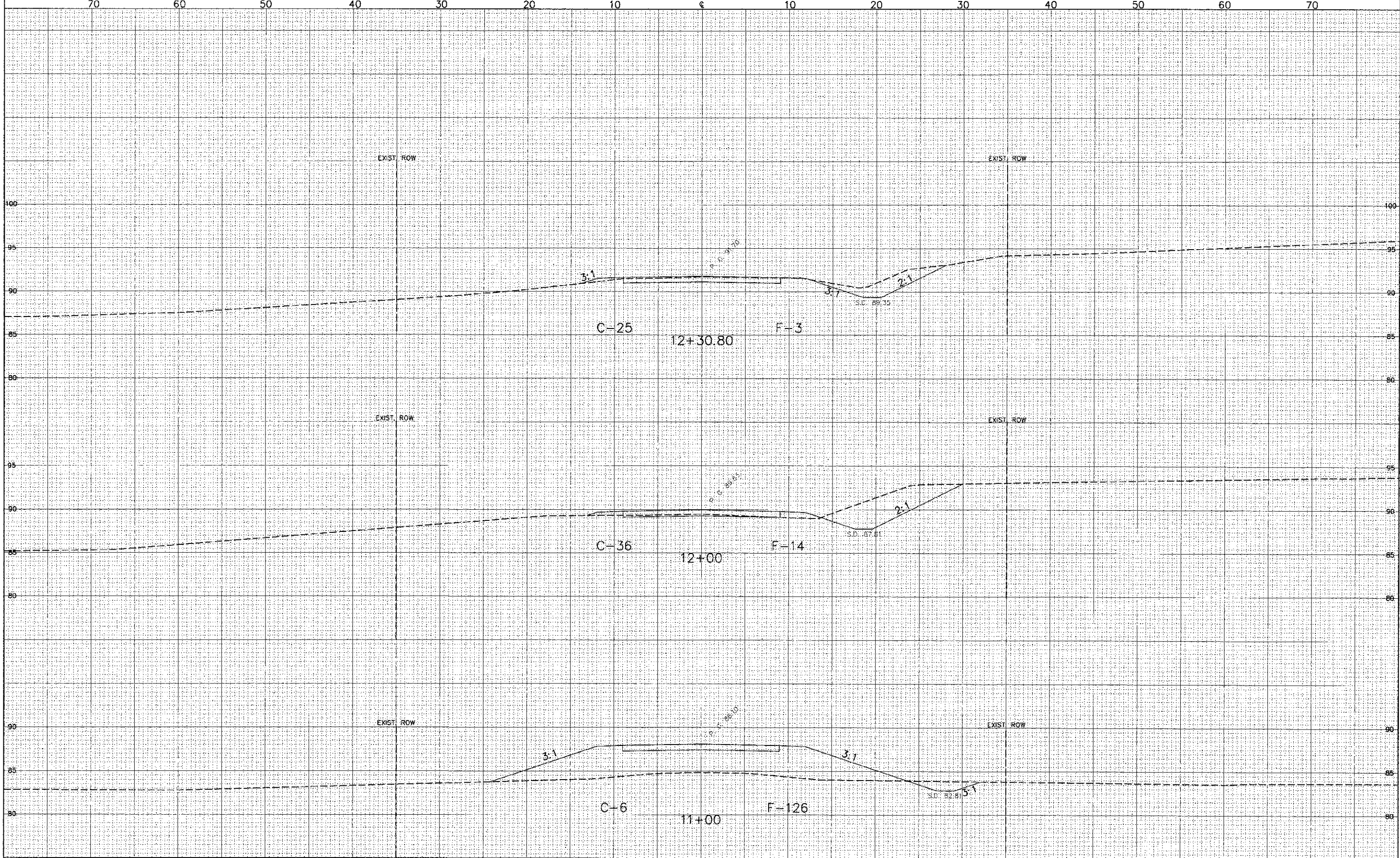
DATE	
BY	
APPROVED	
NOTED	
AREAS CHECKED	



FILE NAME #	USER NAME #	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ROAD CROSS SECTIONS TR 206 OVER TRIBUTARY TO LOCUST CREEK		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
#FILE#		DRAWN -	REVISED -		SCALE: _____	SHEET NO. 15 OF 16 SHEETS	STA. 8+00 TO STA. 10+33.92	TR 206	08-07115-00-BR	CHRISTIAN	12	11
		CHECKED -	REVISED -									
		DATE -	REVISED -									
											CONTRACT NO. 93596	
											ILLINOIS FED. AID PROJECT	

DATE	
BY	
REVISIONS	
NO. DATE	
1	
2	
3	
4	
5	

DATE	
BY	
REVISIONS	
NO. DATE	
1	
2	
3	
4	
5	



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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROAD CROSS SECTIONS	
TR 206 OVER TRIBUTARY TO LOCUST CREEK	
SCALE: _____	SHEET NO. 16 OF 16 SHEETS
STA. 11+00 TO STA. 12+30.8	

F.A. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
TR 206	08-07115-00-BR	CHRISTIAN	12 12
			CONTRACT NO. 93596
ILLINOIS FED. AID PROJECT			