

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET & SUMMARY OF QUANTITIES
2	PLAN & PROFILE, TYPICAL SECTIONS, GENERAL NOTES & STONE RIPRAP DITCH DESIGN
3-4	ROADWAY CROSS SECTIONS
5-12	BRIDGE DESIGN

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED IN THE PROPOSAL:

000001-06	STANDARD SYMBOLS, ABBREVIATIONS & PATTERNS
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
515001-03	NAME PLATE FOR BRIDGES
701901-02	TRAFFIC CONTROL DEVICES
B.L.R. 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
B.L.R. 22-7	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS (TWO-LANE TWO-WAY RURAL TRAFFIC) (ROAD CLOSED TO THRU TRAFFIC)

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	QUANTITY
20100500	TREE REMOVAL, ACRES	ACRE	0.05
20200100	EARTH EXCAVATION	CU YD	311.00
20300100	CHANNEL EXCAVATION	CU YD	424.00
20400800	FURNISHED EXCAVATION	CU YD	350.00
28000400	PERIMETER EROSION BARRIER	FOOT	75.00
28100807	STONE DUMPED RIPRAP, CLASS A1	TON	750.00
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	340.00
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1.00
50300225	CONCRETE STRUCTURES	CU YD	73.40
50300280	CONCRETE ENCASEMENT	CU YD	2.80
50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	1680.00
50800105	REINFORCEMENT BARS	POUND	2510.00
50900205	STEEL RAILING, TYPE S1	FOOT	138.00
51201600	FURNISHING STEEL PILES 12X53	FOOT	200.00
51202305	DRIVING PILES	FOOT	200.00
51500100	NAME PLATES	EACH	1.00
67100100	MOBILIZATION	L SUP	1.00
*X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.50

▲ SPECIALTY ITEMS

DESIGN DESIGNATION:
DESIGN SPEED: 30 MPH
HIGHWAY CLASS - LOCAL ROAD
EXISTING STRUCTURE NO.: 097-3284
PROPOSED STRUCTURE NO.: 097-3280
CURRENT A.D.T. = 25
CONTRACT NO. 99483

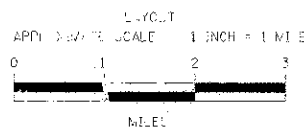
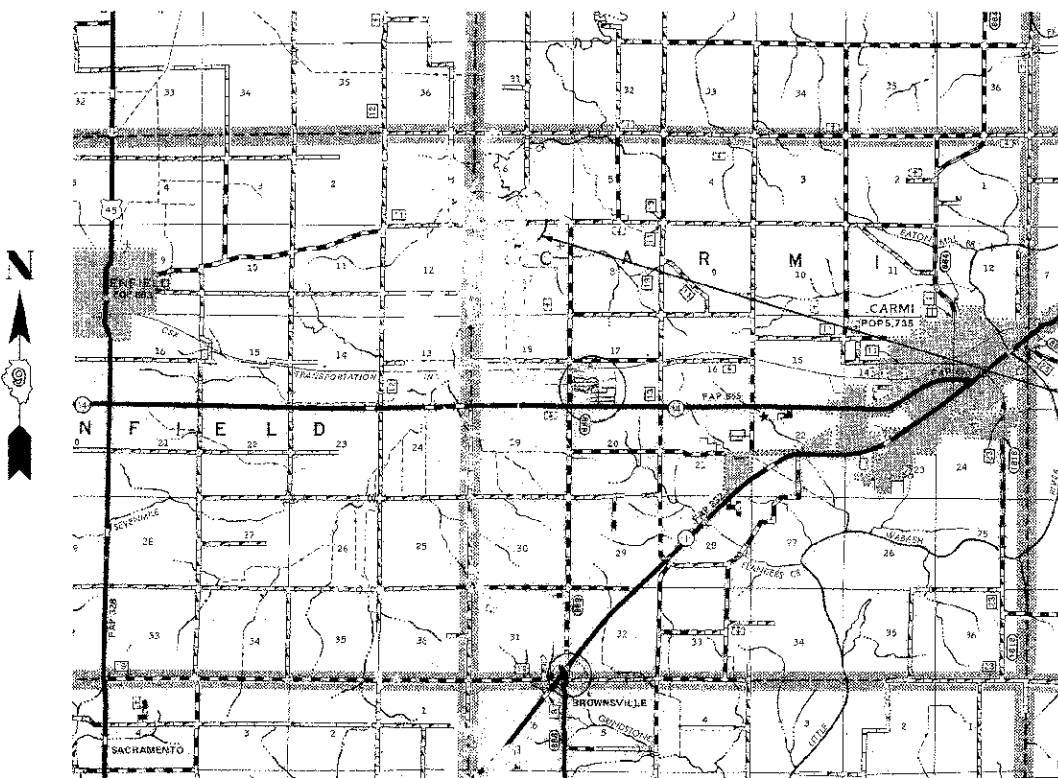


**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED
FEDERAL AID - H.B.P. PROJECT**

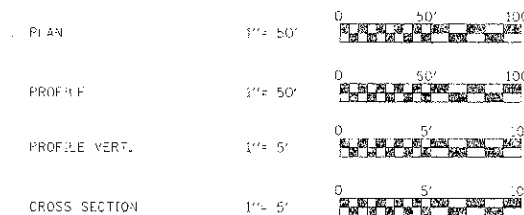
C.H. 11 WHITE COUNTY SECTION 10-00118-00-BR

PROJECT NO. BROS-193(059) JOB NO. C-99-519-11

CONTRACT # 99483 SEVEN MILE CREEK



CROSS LENGTH	550.00 FT	0.104 MILES
OMI. ONS	0.00 FT	0.000 MILES
NET LENGTH	550.00 FT	0.104 MILES



SECTION 10-00118-00-BR
BEGINS STATION 2+50

STATION 5+00, STRUCTURE NO. 097-3280
A 70' LONG SINGLE SPAN PRECAST PRESTRESSED
CONCRETE DECK BEAM BRIDGE (27" DEPTH,
24' ROADWAY, 0.00% GRADE, 0° SKEW.

SECTION 10-00118-00-BR
ENDS STATION 5+00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

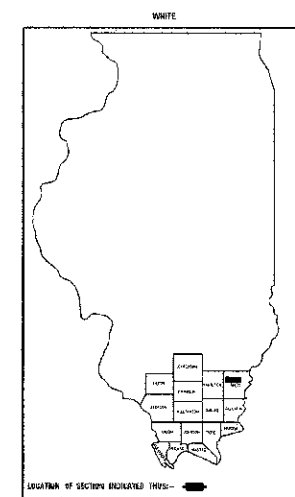
APPROVED October 29, 2012
Brian O. Ryan
COUNTY ENGINEER

PASSED Nov. 7, 2012
Dennis W. Hillman
ENGINEER OF LOCAL ROADS AND STREETS

RELEASING FOR BID
BASED ON LIMITED
REVIEW: November 7, 2012
Omer Osman
OMER OSMAN, P.E.
DEPUTY DIRECTOR OF HIGHWAYS
REGION FIVE ENGINEER

CH	SECTION	COUNTY	TOTAL SHEET SHEETS: NO.
11	10-00118-00-BR	WHITE	12

FED. ROAD DIST. NO. 9 ILLINOIS FED. AID PROJECT
PROJECT# BROS-193(059) CONTRACT# 99483
JOB # C-99-519-11 SEVEN MILE CREEK
LET. JOB # 11H100000P



PROFESSIONAL DESIGN FIRM
LAND SURVEY & PROFESSIONAL ENGINEERING CORPORATION
184-00087
(82-032435)(35-002769)



AARON M. MEFFORD
NAME
Aaron M. Mefford
SIGNATURE
10-29-12
DATE
11-30-13
EXPIRES

C.H. 11
OVER SEVEN MILE CREEK
WHITE COUNTY, ILLINOIS

SHEET TITLE:
TITLE SHEET

SCALE	W/S
BY: AMM	
DATE: 12/22	
REV:	

1 OF 12
SHEET NO.
1

GENERAL NOTES:

THIS SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS, SPECIAL PROVISIONS AND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ADOPTED JANUARY 1, 2012.

THE WORK INVOLVED ON THIS SECTION CONSISTS OF THE REMOVAL OF THE EXISTING STRUCTURE, THE CONSTRUCTION OF A 70 FOOT LONG SINGLE SPAN PRECAST, PRESTRESSED CONCRETE DECK BLAN BRIDGE, EARTH APPROACHES, AGGREGATE SURFACE COURSE AND OTHER MISCELLANEOUS ITEMS NECESSARY TO COMPLETE THIS SECTION.

ALL ELEVATIONS ARE BASED ON U.S.G.S. MEAN SEA LEVEL DATUM.

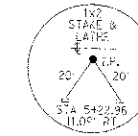
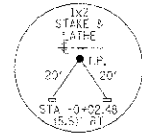
IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ALL THE UTILITIES, AFFECTING THE PROJECT, PRIOR TO CONSTRUCTION.

THE I-BEAMS SHALL REMAIN THE PROPERTY OF THE COUNTY.

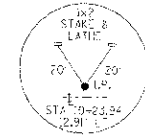
AGGREGATE SURFACE COURSE, TYPE B INCLUDES 24 TON FOR FILL NEXT TO THE BRIDGE, 14 TON FOR THE FIELD ENTRANCE, AND 302 TON FOR THE ROADWAY.

NOTE: CONSTRUCTION TRANSITION
STA. 2+50 TO STA 3+00
STA 7+50 TO STA 8+00

ALL QUANTITIES ARE INCLUDED IN THE PROPOSAL



CURVE #1
P.I. STA: 7+04.18
L: 1107.29'
D: 102.30'
R: 5500'
T: 53.98'
L: 107.50'
E: 0.26'
S.C. NONE
S.E. NONE
P.C. STA: 6+50.21
P.T. STA: 7+58.17

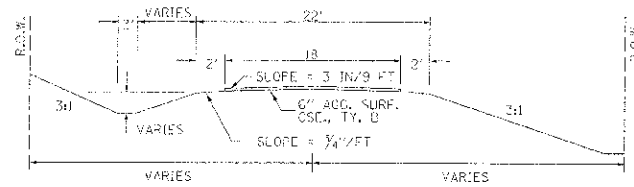


CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	10-00118-00-BR	WHITE	12	2
FED. ROAD DIST. NO. 9 ILLINOIS				
PROJECT: BRIDGE 103059				
CONTRACT: 99007				
LEC JOB # 15110049H				

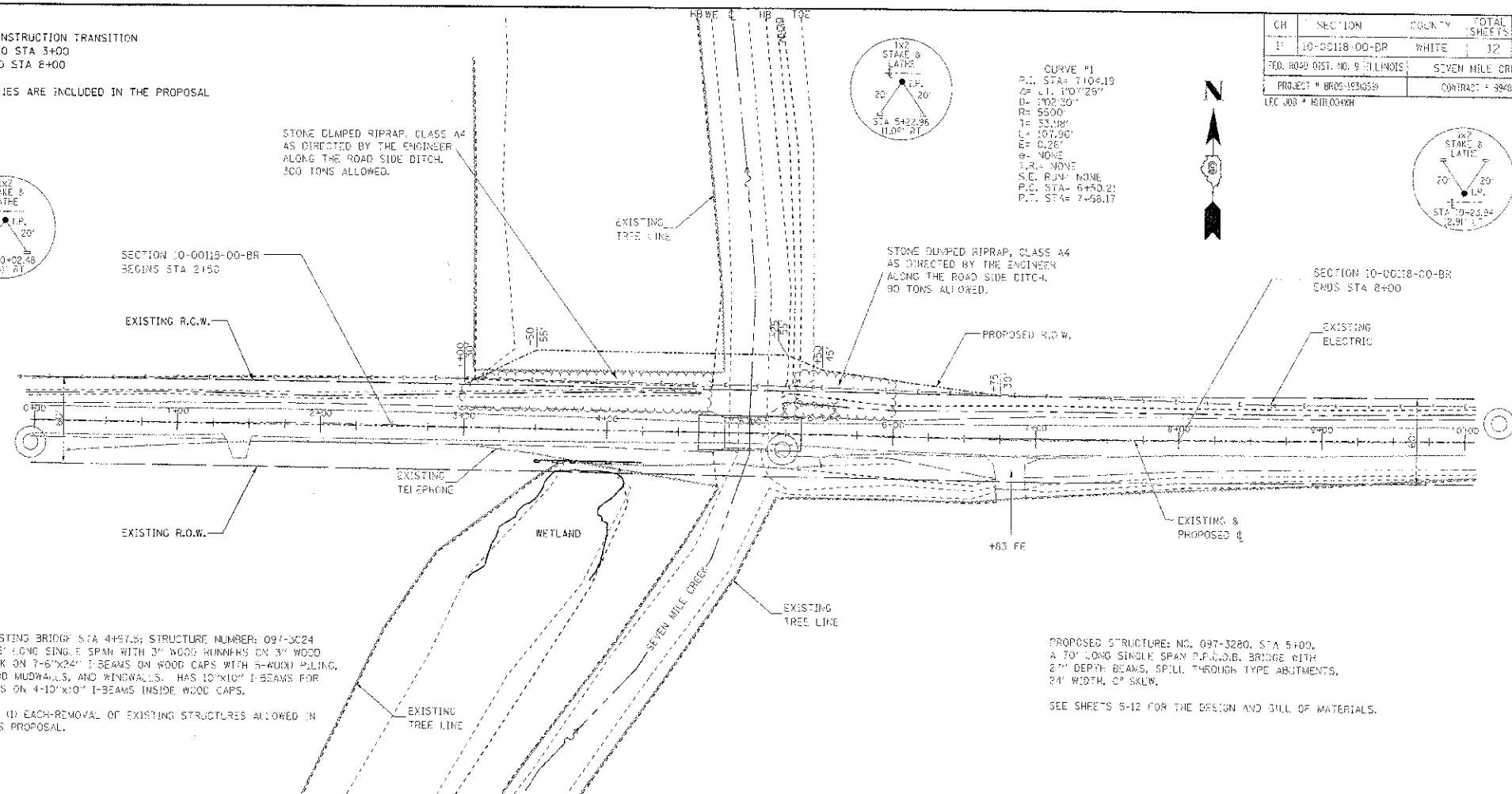
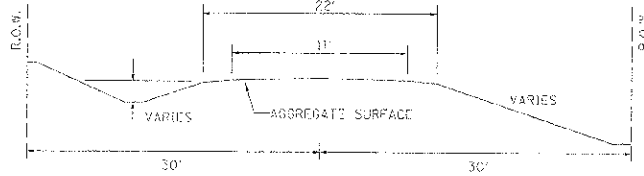
323 W. 3RD ST
P.O. BOX 150
MT. CARMEL, IL 62863
PHONE: (618)-262-0551
FAX: (618)-263-3327

405 W. STATE ST
SUITE 1
PRINCETON, IN 47670
PHONE: (812)-366-7611
FAX: (812)-365-2812

TYPICAL CROSS SECTION PROPOSED



TYPICAL CROSS SECTION EXISTING



EXISTING BRIDGE STA 4+87.5; STRUCTURE NUMBER: 097-3024
24.5' LONG SINGLE SPAN WITH 3\"/>

ONE (1) EACH-REMOVAL OF EXISTING STRUCTURES ALLOWED IN THIS PROPOSAL.

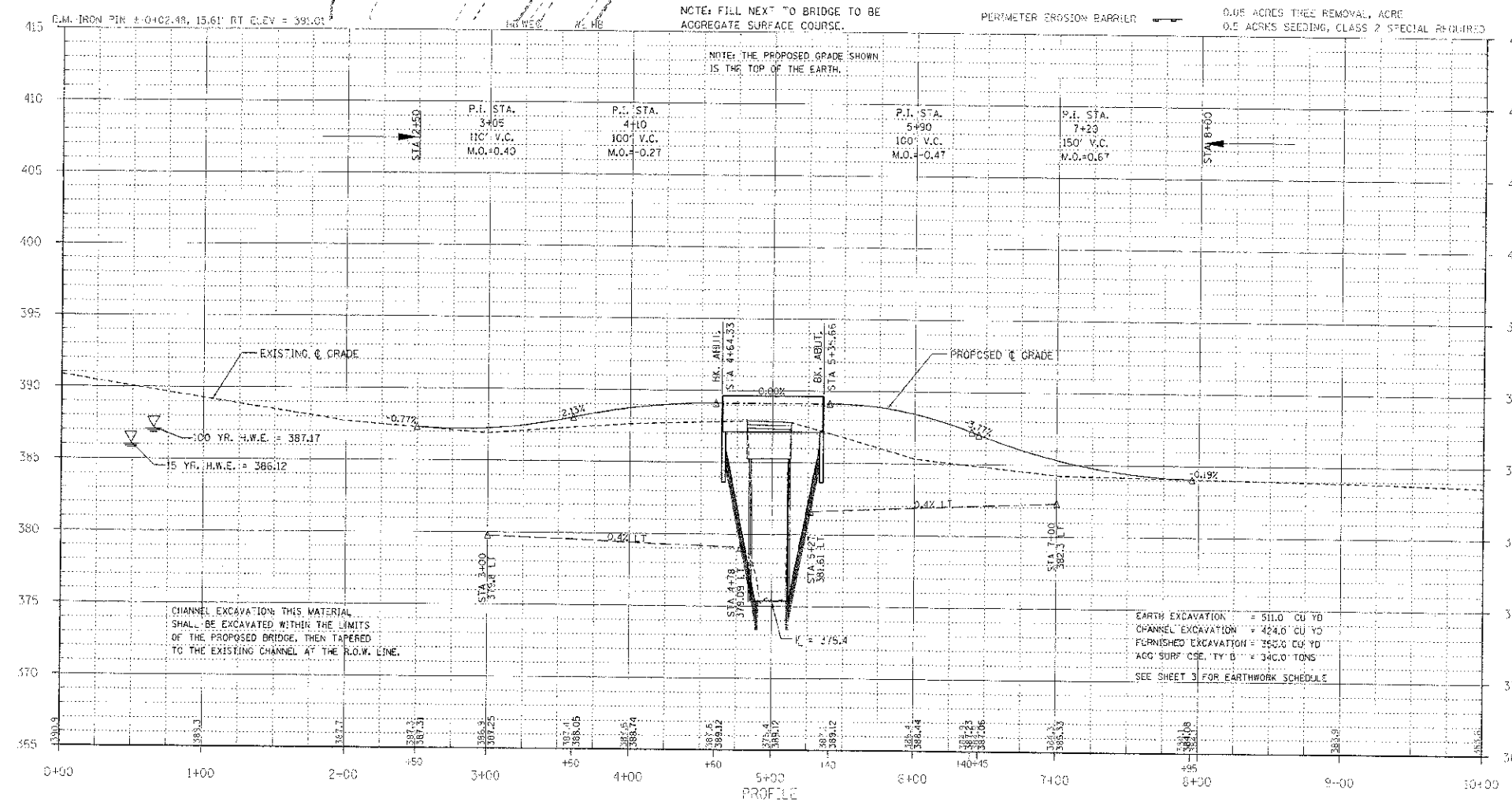
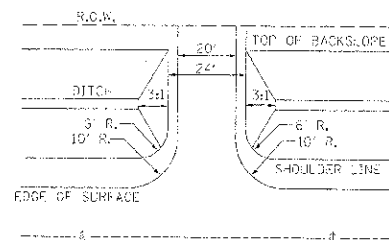
PROPOSED STRUCTURE: NO. 097-3280, STA 5+00,
A 70' LONG SINGLE SPAN P.P.C.D.B. BRIDGE WITH
2\"/>

SEE SHEETS 5-12 FOR THE DESIGN AND BILL OF MATERIALS.

UTILITIES:
M.U.L.L.E. 1-800-892-0123
WAYNE-WHILL ELECTRIC CO-OP
1-618-842-2196
FRONTIER COMMUNICATIONS
1-618-997-0707

NOTE: CONSTRUCT SPECIAL DITCH
STA 3+00 TO STA 4+78 LT
STA 5+27 TO STA 7+00 LT
NOTE: PERIMETER EROSION BARRIER
STA 3+50 TO STA 4+25 22' RT
75 FOOT PERIMETER EROSION BARRIER

FIELD ENTRANCE DETAIL



CHANNEL EXCAVATION THIS MATERIAL SHALL BE EXCAVATED WITHIN THE LIMITS OF THE PROPOSED BRIDGE, THEN TAPERED TO THE EXISTING CHANNEL AT THE R.O.W. LINE.

EARTH EXCAVATION = 511.0 CU YD
CHANNEL EXCAVATION = 424.0 CU YD
FURNISHED EXCAVATION = 355.0 CU YD
AGG SURF CSE. TY B = 340.0 TONS
SEE SHEET 3 FOR EARTHWORK SCHEDULE



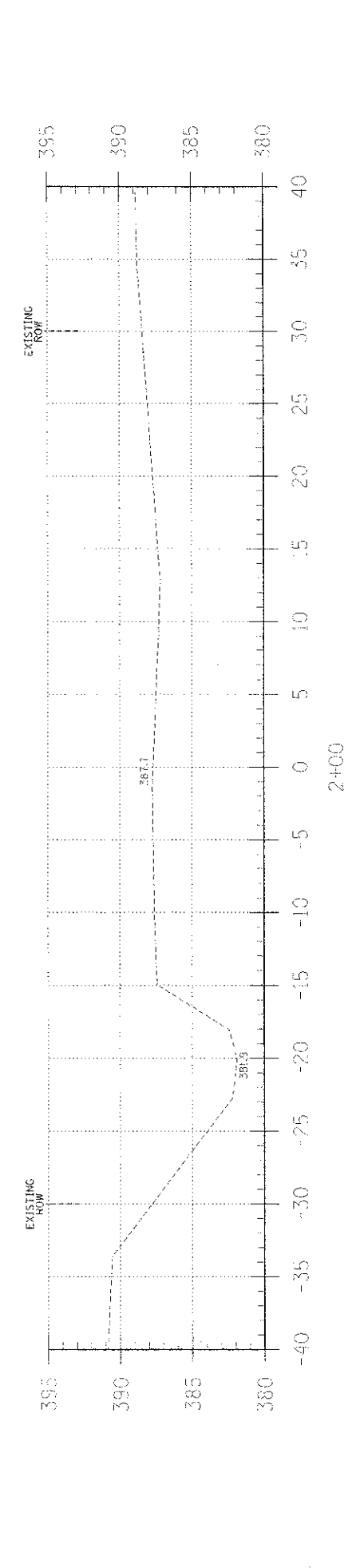
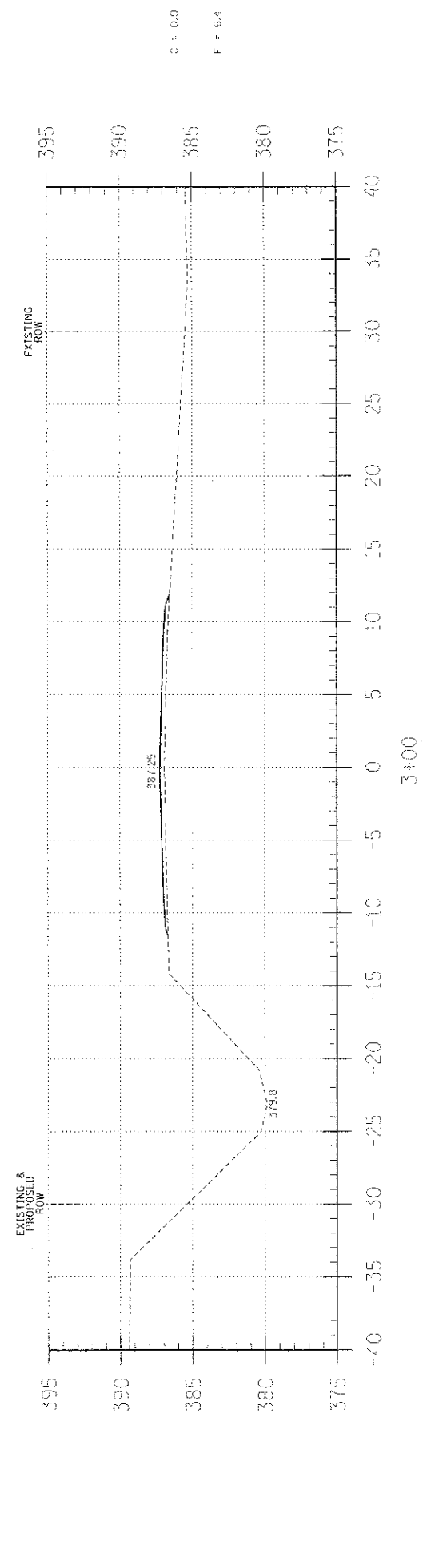
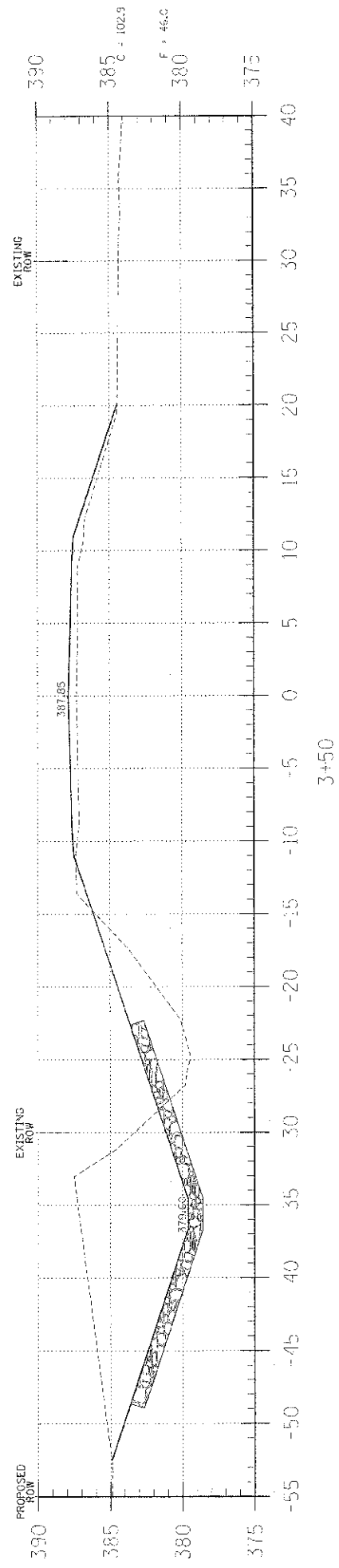
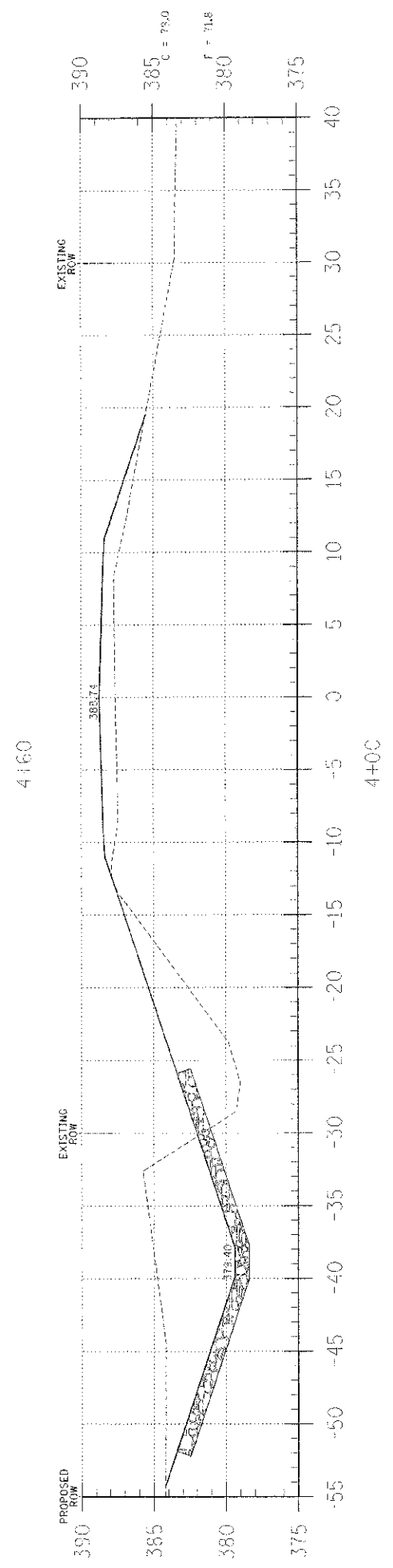
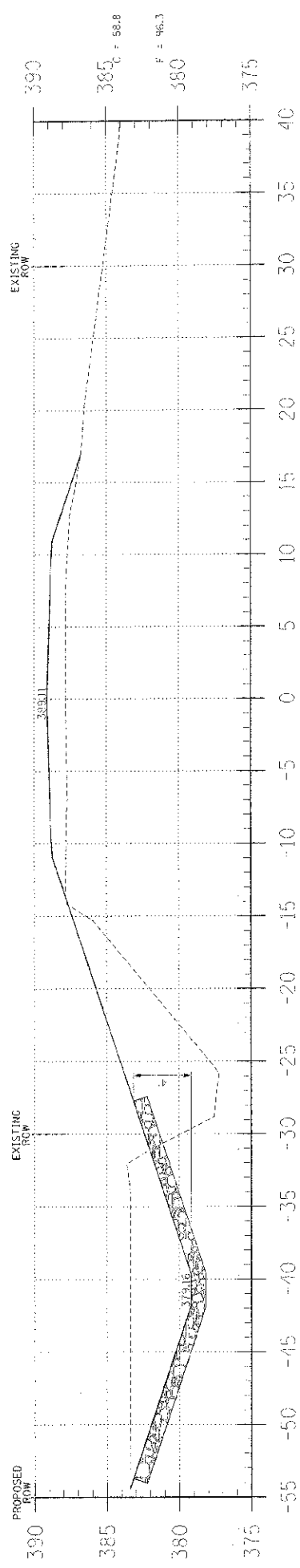
PROFESSIONAL DESIGN FIRM
LAND SURVEY & PROFESSIONAL ENGINEERING CORPORATION
184-00087
(62-332435)(62-022769)

MARION M. MEFFORD
REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

MARION M. MEFFORD
NAME
Signature
SIGNATURE
10-29-12
DATE
11-30-10
EXPIRES

C.H. 11
OVER SEVEN MILE CREEK
WHITE COUNTY, ILLINOIS

SHEET TITLE:	
PLAN & PROFILE	
SCALE	1/8"=1'
BY:	AMV
DATE:	05/12
REV:	
2	of 12
SHEET NO.	



EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION	CHANNEL EXCAVATION	ESTIMATED UNSUITABLE MATERIAL	SUITABLE MATERIAL ADJUSTED FOR SHRINKAGE	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CUBIC YARD	CUBIC YARD	CUBIC YARD	CUBIC YARD	CUBIC YARD	CUBIC YARD
STA 0+00 TO 4+64.3	416.1	0.0	0.0	312.1	354.0	-41.9
STA 4+64.3 TO 5+35.7	0.0	424.5	212.2	159.2	0.0	159.2
STA 5+35.7 TO 10+00	94.4	0.0	0.0	76.8	530.8	-460.0
1 FIELD ENTRANCE	0.0	0.0	0.0	0.0	7.4	-7.4
TOTAL	510.5	424.5	212.2	542.1	892.2	-350.1

CH	SECTION	COUNTY	TOTAL SHEETS
11	10-00118-03-B4	WHITE	12 3
FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT	
PROJECT# BR05-193058		CONTRACT# 89467	
JOB NO. C-99-5 9-11		SEVEN MILE CREEK	

323 W. 3RD. ST.
P.O. BOX 160
MT. CARMEL, IL
62863
PHONE:
(618)-262-6651
(618)-263-3327

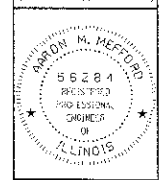
405 W. STATE ST.
SUITE
PRINCETON, IN
47670
PHONE:
(812)-388-7611
FAX:
(812)-385-2512

PROFESSIONAL DESIGN - ILM
LAND SURVEY &
PROFESSIONAL
ENGINEERING
CORPORATION
181-000887
(63 032435)(35-002769)

AARON M. McFERRON
NAME
Signature
10-29-12
DATE
10-29-12
EXPIRES

C.H. 11
OVER SEVEN MILE CREEK
WHITE COUNTY, ILLINOIS

SHEET TITLE
CROSS-SECTIONS
SCALE: 1" = 5'
BY: AMM
DATE: 10/29/12
REV:
3 OF 12
SHEETS
SHEET NO.
3



CH	SECTION	COUNTY	TOTAL SHEETS
11	110-00-18-00-RP	WHITE	4
FED. ROAD DIST. NO. 9 II. IND. S.		FED. AID PROJECT	
PROJECT # BR05-1834059A		CONTRACT # 99462	
JOB NO. C-99-515-11		SEVEN MILE CREEK	
REC. NO. # 110-00-18			

393 W. 3RD ST
P.O. BOX 163
MT. CARMEL, IL
62869
PHONE:
(618) 262-8661
FAX:
(618) 263-0327

405 W. STATE ST
SUITE 1
PRINCETON, IN
47670
PHONE:
(812) 388-7611
FAX:
(812) 388-2812

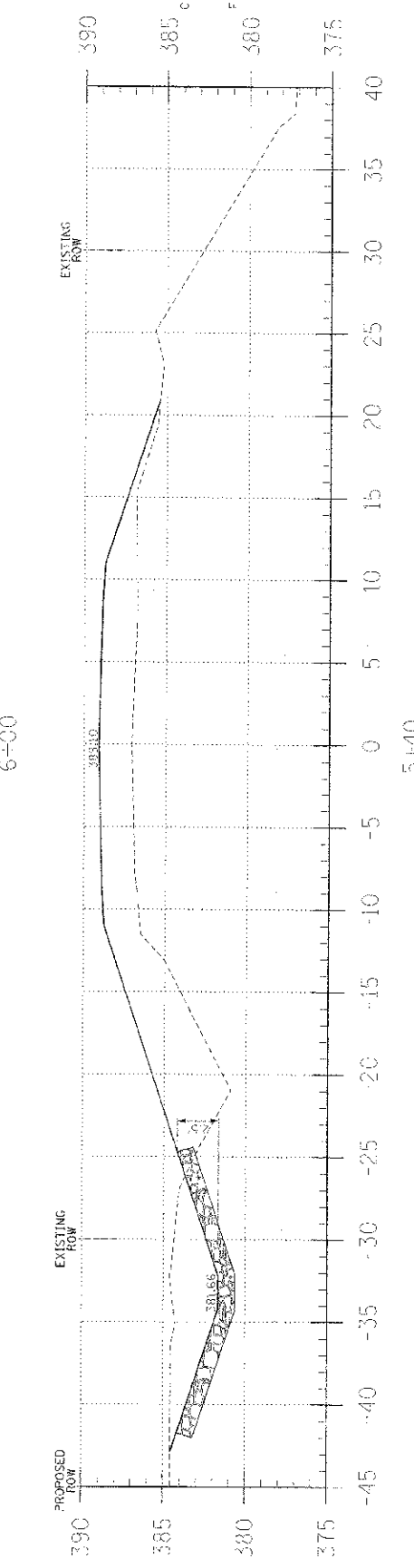
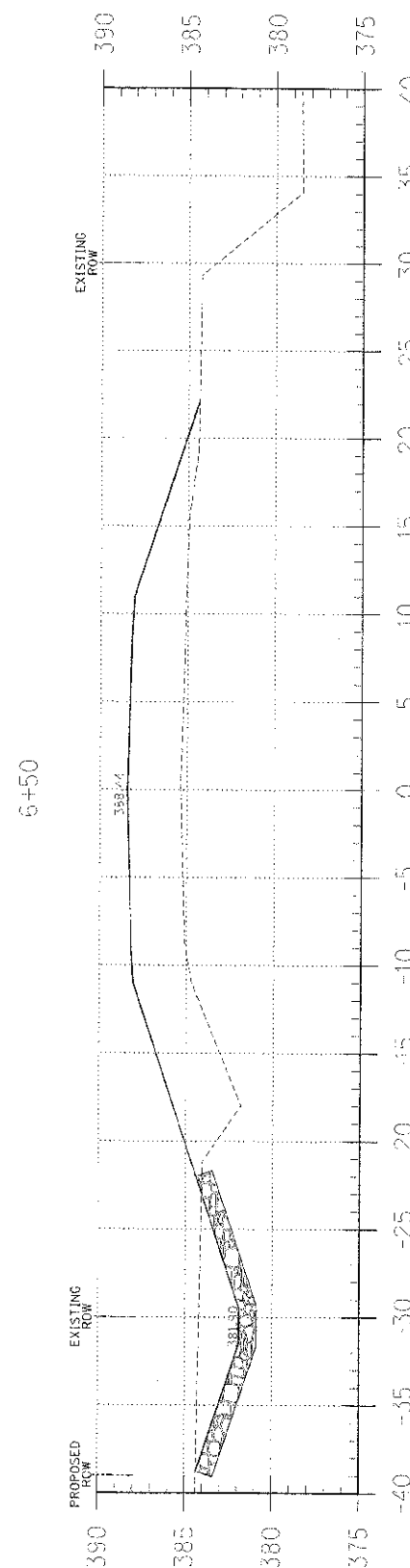
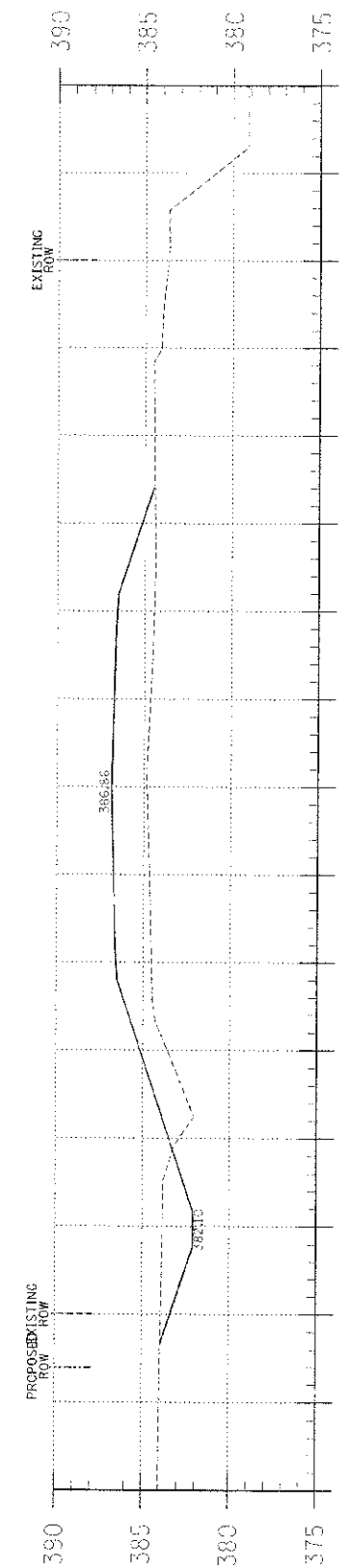
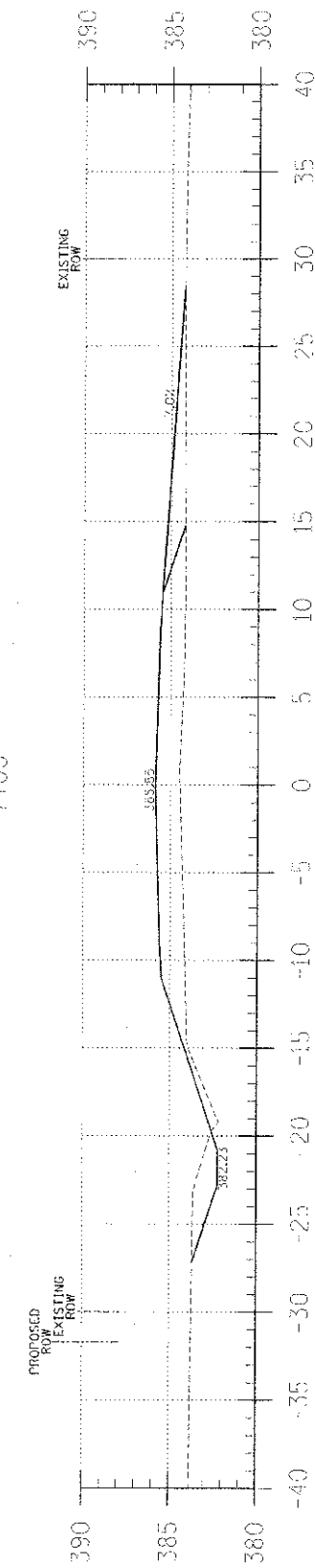
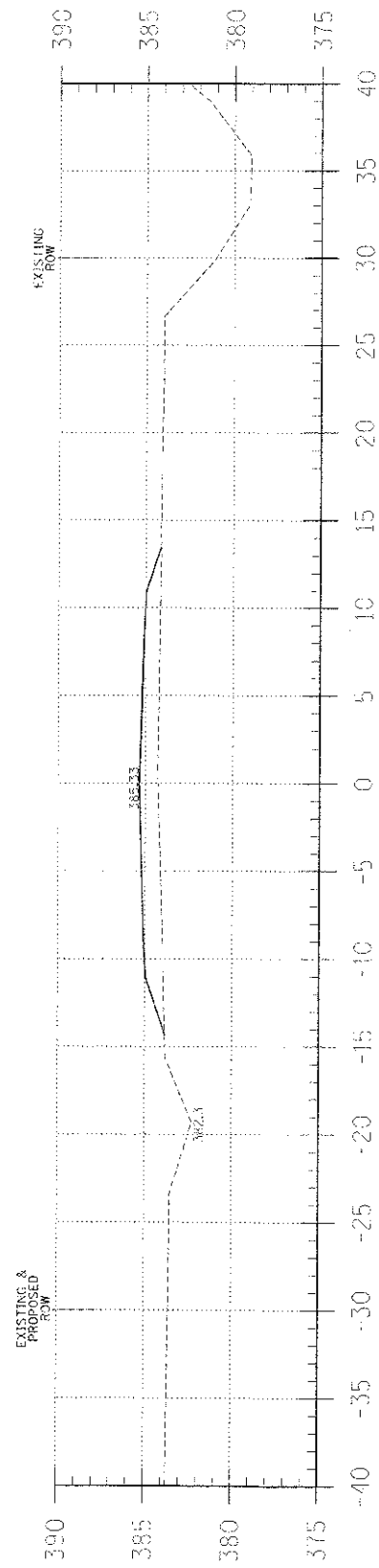
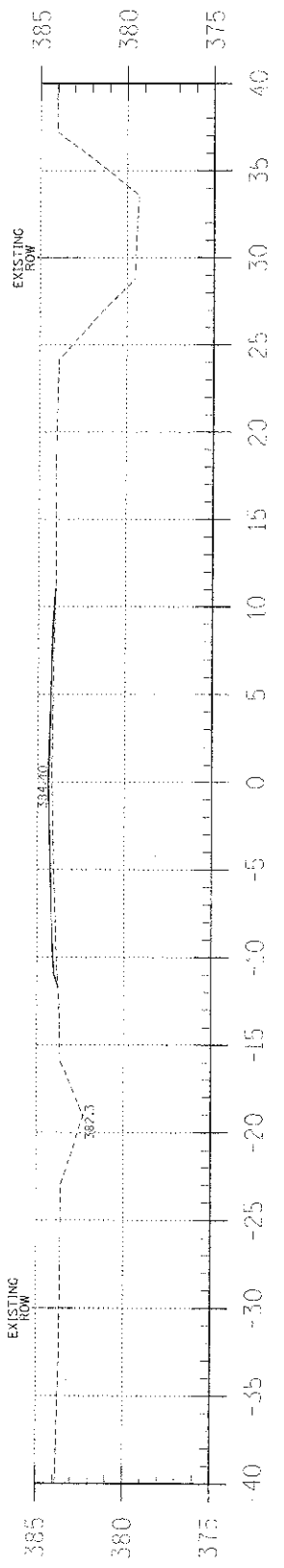
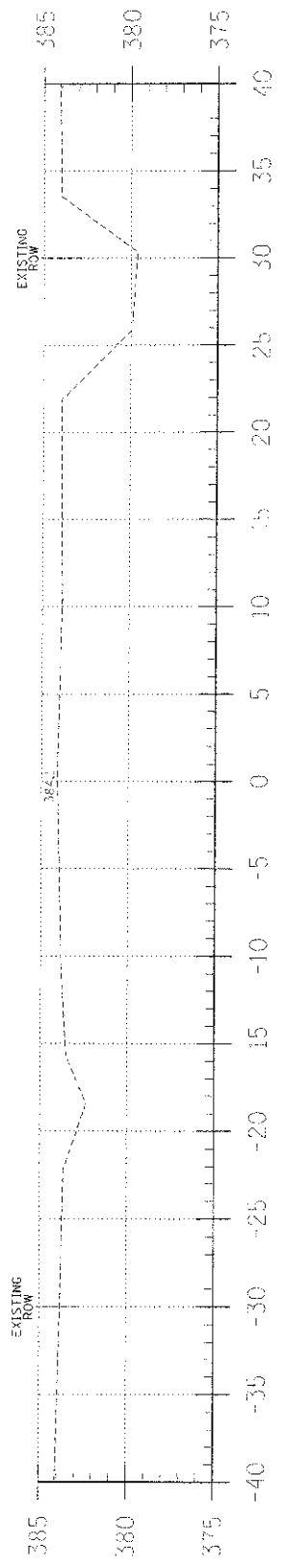
PROFESSIONAL
DESIGN FIRM
LAND SURVEY &
PROFESSIONAL
ENGINEERING
CORPORATION
184-00087
(62-02435)(36-002765)



AARON M. VEFFORD
NAME
Aaron M. Vefford
DATE
10-29-12
EXPIRES

C.H. 11
OVER SEVEN MILE CREEK
WHITE COUNTY, ILLINOIS

SHEET TITLE:
CROSS-SECTIONS
SCALE: 1" = 5'
BY: AMM
DATE: 09/08
REV:
4 OF 12
SHEETS
SHEET NO.
4



C = 0.0
F = 4.0

C = 0.0
F = 25.0

C = 5.3
F = 38.2

C = 11.7
F = 66.7

C = 20.4
F = 111.7

C = 27.5
F = 99.1

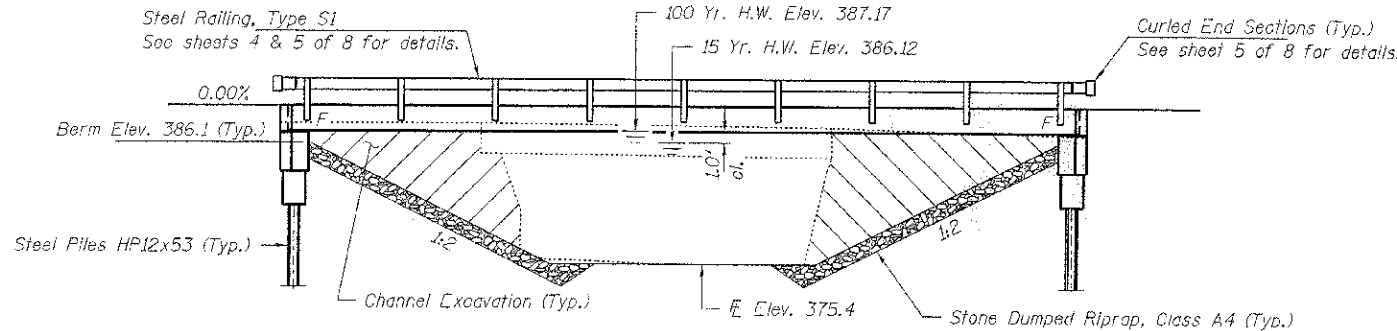
BENCHMARK:

EXISTING STRUCTURE: Single span steel beam with timber deck bridge on timber abutments, 29.5' fc.-fc. abuts.; 21.7' o.-o. deck; Str. No. 097-3024 Structure closed to traffic during construction.

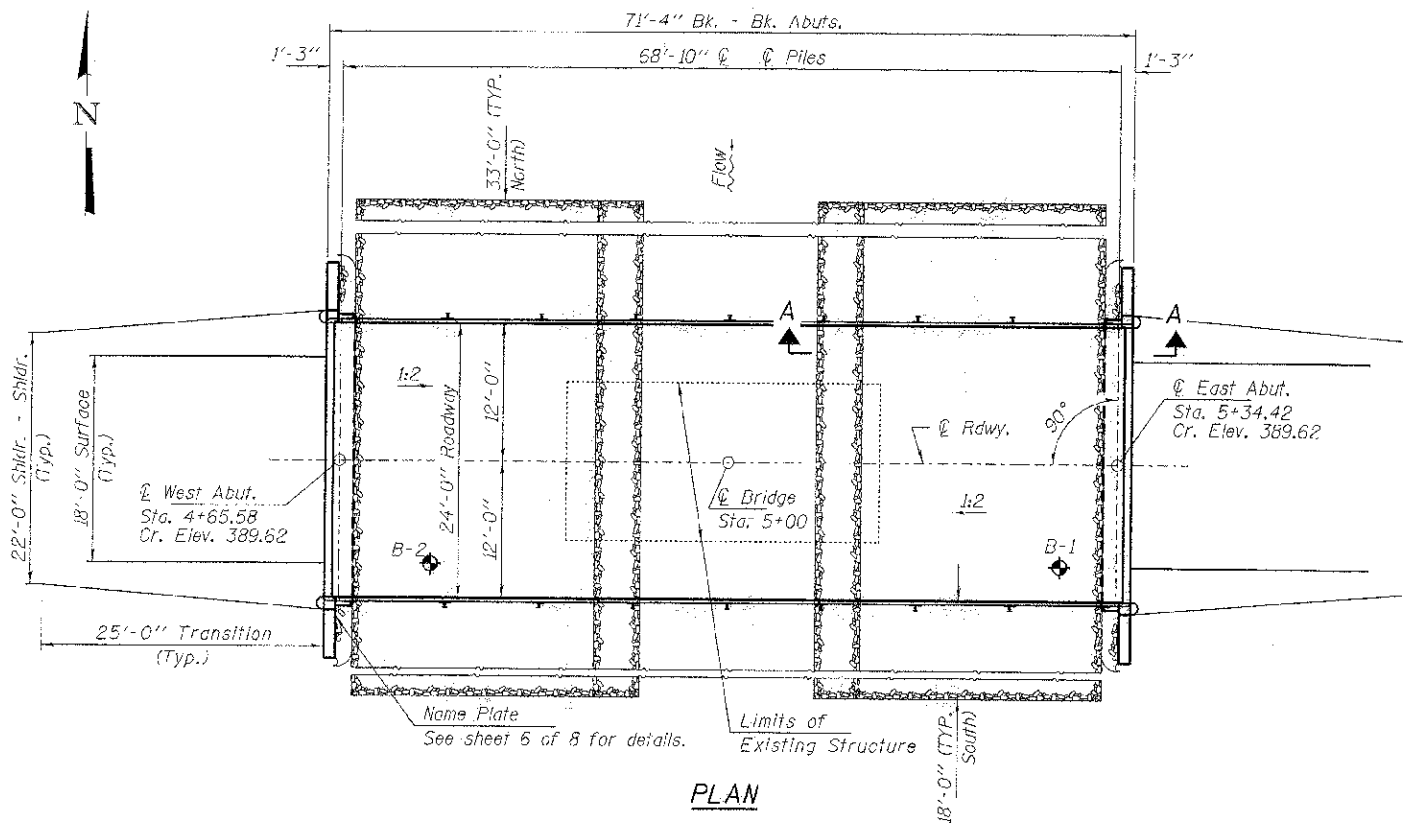
No Salvage

GENERAL NOTES

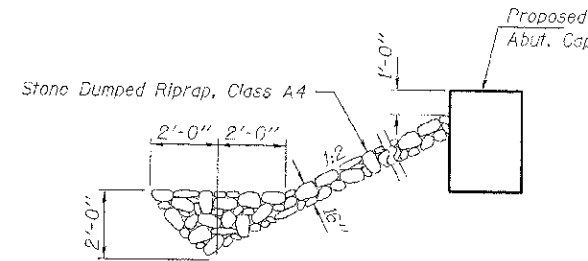
Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions. Excavation required to construct the Abutments shall be included in the cost of Concrete 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.



ELEVATION

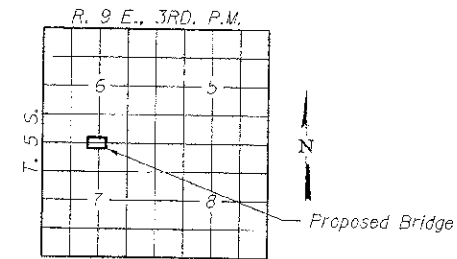


PLAN



SECTION A-A

Note: See Special Provisions for Stone Dumped Riprap, Class A4.



LOCATION SKETCH

INDEX OF STRUCTURE SHEETS

1. General Plan & Elevation
2. 27"x45" PPC Deck Beam
3. 27"x48" PPC Deck Beam Details
4. Superstructure Details
5. Steel Railing, Type S-1
6. Abutments
7. HP Pile Details
8. Borings

SEVEN MILE CREEK
BUILT 2011 BY
WHITE COUNTY
SEC. 10-00118-00-BR
C.H. 11
STR. NO. 097-3280
LOADING HL-93

NAME PLATE
See Std. 515001

DESIGN STRESSES

FIELD UNITS

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

PRECAST PRESTRESSED UNITS

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

LOADING HL-93

Design Specifications: 2012 AASHTO LRFD with all applicable Interims.
50#/Sq. Ft. included in dead load for future wearing surface.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (S₁) = 0.299g
Design Spectral Acceleration at 0.2 sec. (S_{0.2}) = 0.714g
Soil Site Class = D

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.	E. Abut.
	383.5	383.5

WATERWAY INFORMATION

Drainage Area = 27.3 Sq. Mi.		Existing Low Grade Elev.		Proposed Low Grade Elev.		Sta.	
Flood	Freq. Yr.	Opening Sq. Ft. Exist.	Prop.	Natural H.W.E. Exist.	Prop.	Headwater El. Exist.	Prop.
Design	15	4170	244	482	386.12		
Base	100	6930	244	548	387.17	0.23	0.18
Max. Calc.	500					387.4	387.4

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 LRFD Specifications."

Steven W. Megginson 10/02/2012
ILLINOIS STRUCTURAL ENGINEER NO. 081-6064



Expires 11-30-2012

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			424
Stone Dumped Riprap, Class A4	Ton			360
Removal of Existing Structures	Each			1
Concrete Structures	Cu. Yd.		23.4	23.4
Concrete Encasement	Cu. Yd.		2.8	2.8
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	1,680		1,680
Reinforcement Bars	Pound		2,510	2,510
Steel Railing, Type S1	Foot	138		138
Furnishing Steel Piles HP12x53	Foot		200	200
Driving Piles	Foot		200	200
Name Plates	Each		1	1

FILE NAME = 1:2973-shr-ns1doe.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -
HAMPTON LENZINI AND REHWICK, INC. 2025 SPRINGFIELD DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62764 ILLINOIS PROFESSIONAL ENGINEER NO. 197-061007	PLOT SCALE =	CHECKED - S.W.M.	REVISED -
	PLOT DATE = 10/2/2012	DRAWN - D.A.B.	REVISED -
		CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS
WHITE COUNTY HIGHWAY DEPARTMENT

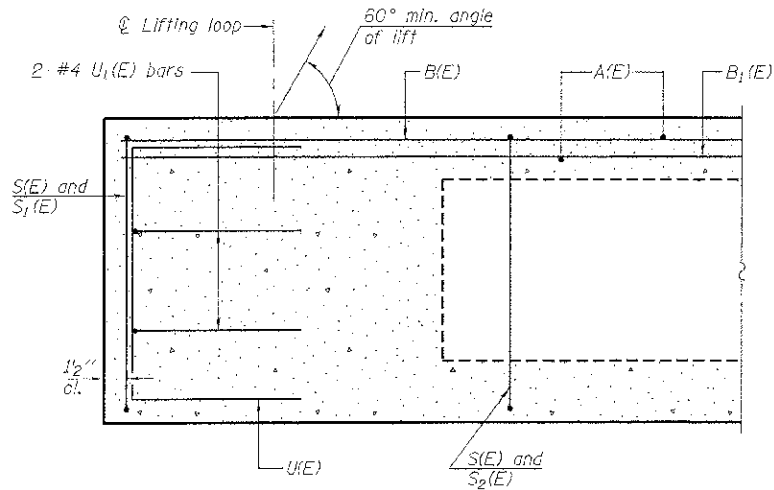
GENERAL PLAN & ELEVATION
STRUCTURE NO. 097-3280

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	10-00118-00-BR	WHITE	12	5

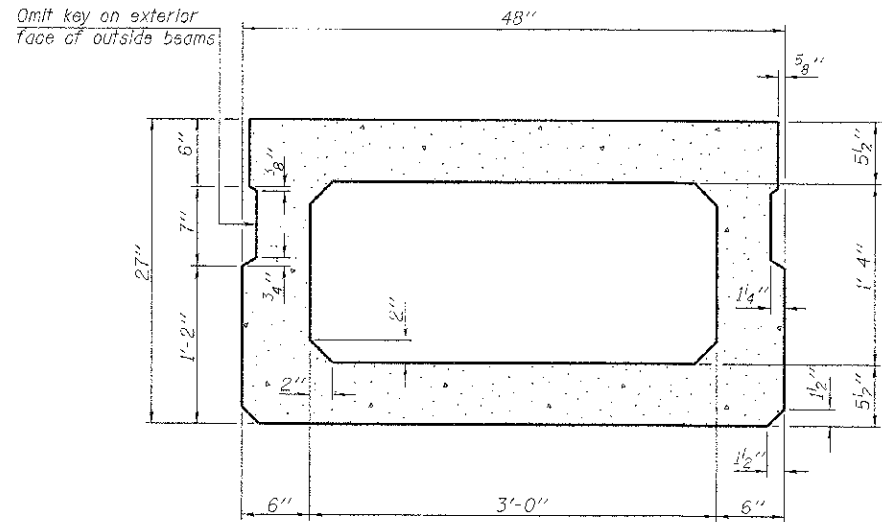
SHEET NO. 1 OF 6 SHEETS

CONTRACT NO. 99483

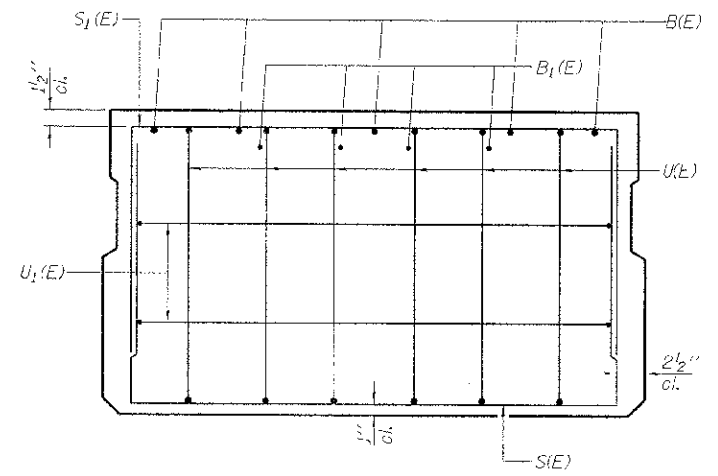
ILLINOIS FED. AID PROJECT 8405-931059



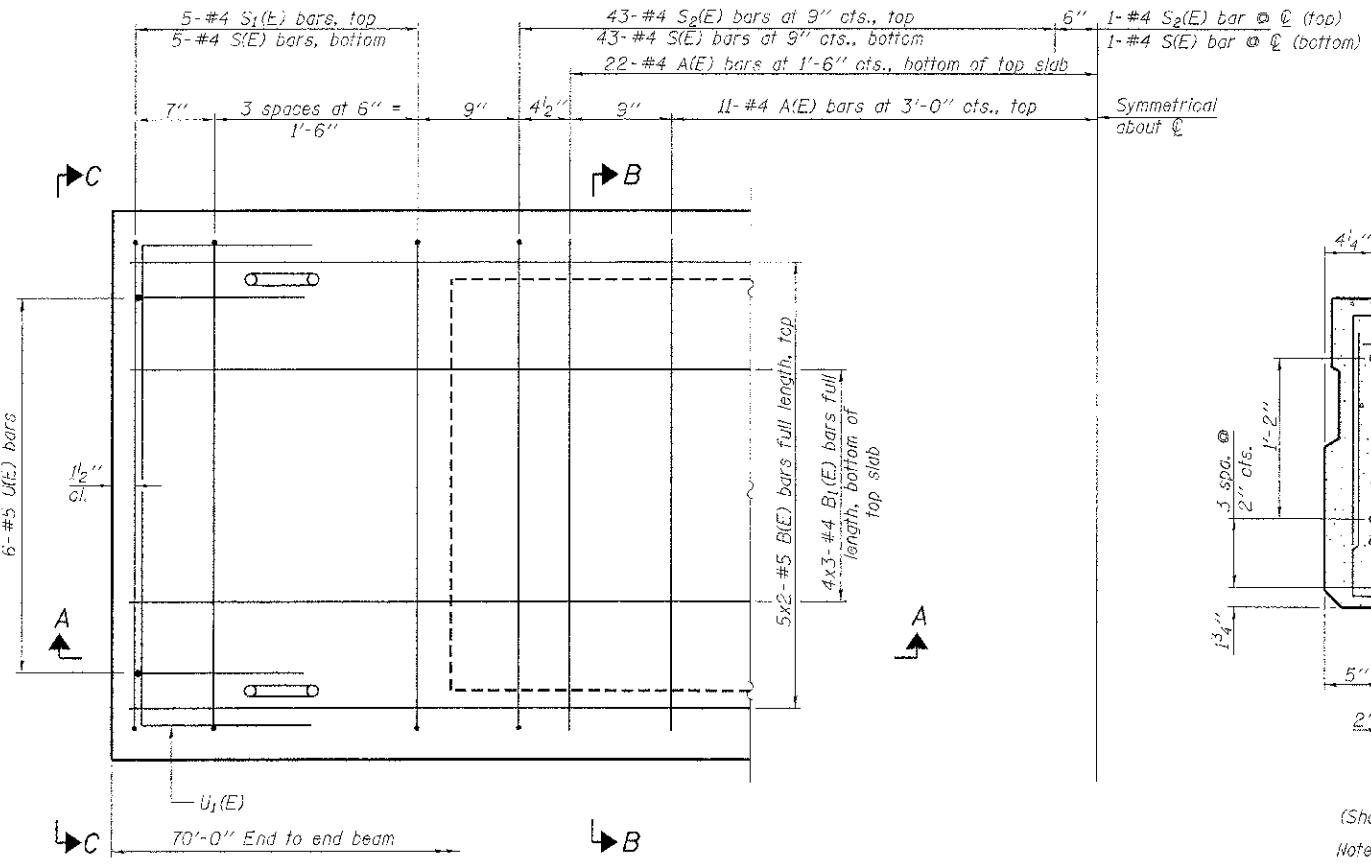
SECTION A-A



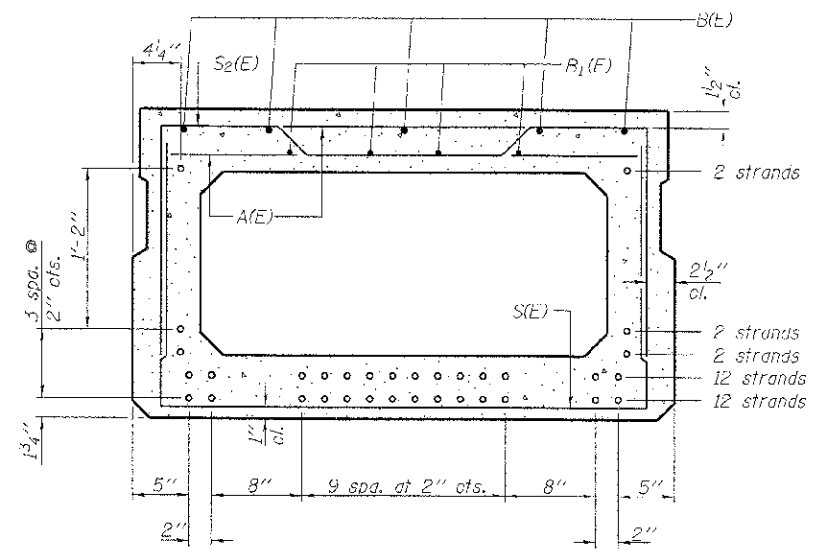
SECTION B-B
(Showing dimensions)



VIEW C-C



PLAN VIEW



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)	66	#4	3'-7"	—
B(E)	10	#5	36'-2"	—
B1(E)	12	#4	24'-7"	—
S1(E)	97	#4	7'-5"	⌌
S2(E)	10	#4	6'-11"	⌌
S2(E)	87	#4	7'-2"	⌌
U1(E)	12	#5	4'-6"	⌌
U2(E)	4	#4	6'-0"	⌌

Note: See sheet 3 & 4 of 8 for additional details and Bill of Material.

Notes:
 Spacing of S1(F) and S2(F) 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.
 Bars indicated thus 5x2-#5 etc. indicates 5 lines of bars with 2 lengths per line.

MINIMUM BAR LAP
 #4 bar = 2'-0"
 #5 bar = 2'-6"

PD-2748-0

7-1-10

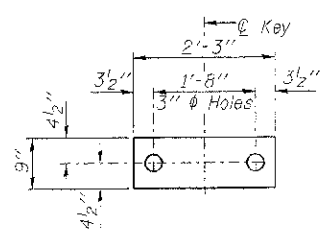
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HAMPTON, LENZINI AND RENWICK, INC. 1000 S. WOODSTOCK DRIVE, SUITE 111 SPRINGFIELD, ILLINOIS 62703	PLT. SCALE =	CHECKED - S.W.M.	REVISED -
LAND SURVEYORS AND DESIGN FIRM SINCE 1916	PLT. DATE = 10/27/2012	DRAWN - D.A.B.	REVISED -
		CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS
WHITE COUNTY HIGHWAY DEPARTMENT

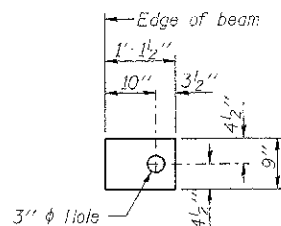
27" x 48" PPC DECK BEAM
STRUCTURE NO. 097-3280

SHEET NO. 2 OF 8 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	10-00118-00-BR	WHITE	12	6
			CONTRACT NO. 99483	
ILLINOIS FED. AID PROJECT BR05-193(089)				



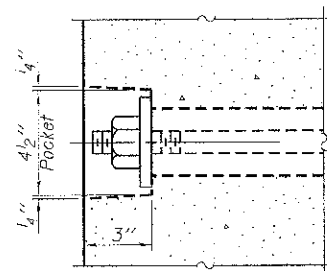
FABRIC BEARING PAD
(Interior - 10 Req'd.)



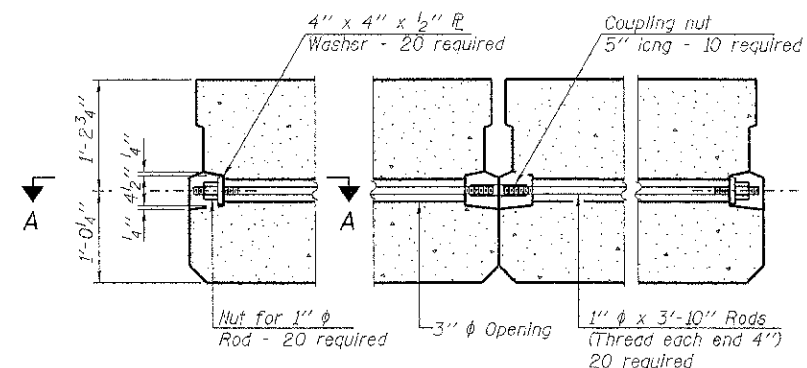
FABRIC BEARING PAD
(Exterior - 4 Req'd.)

FIXED

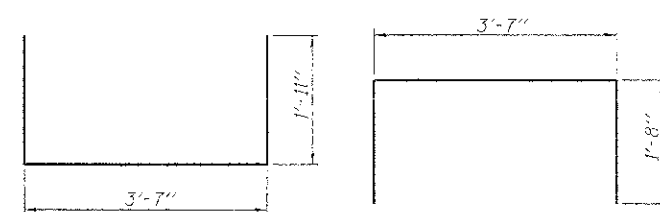
Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.



SECTION A-A

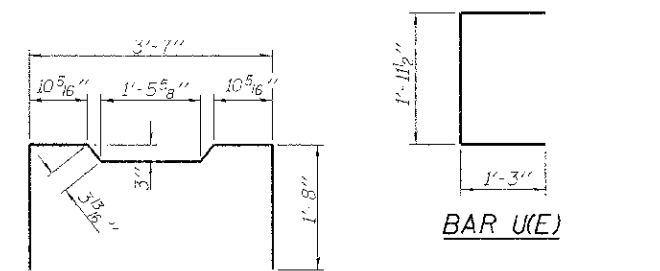


TYPICAL TRANSVERSE TIE ASSEMBLY



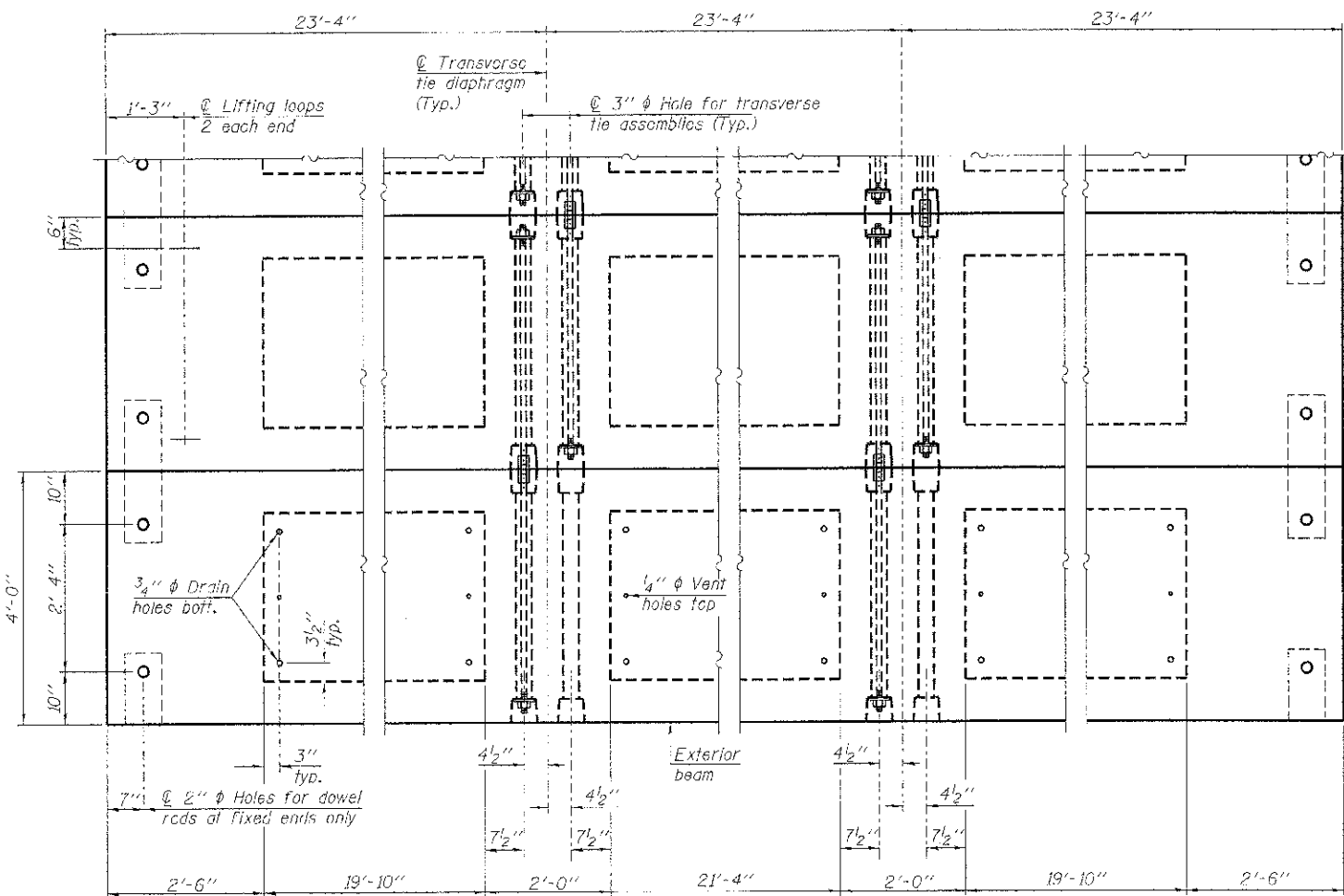
BAR S(E)

BAR S1(E)



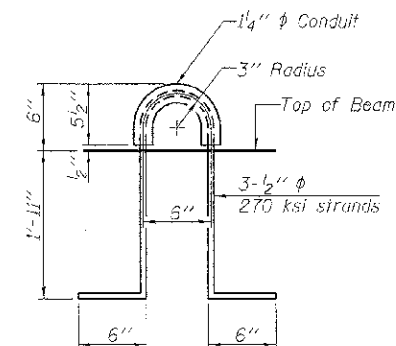
BAR S2(E)

BAR U1(E)



PLAN VIEW

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



LIFTING LOOP DETAIL

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
The 1" ϕ rods in the transverse tie assembly shall be lightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).
Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
A minimum 2 1/2" ϕ lifting pin shall be used to engage the lifting loops during handling.
Corrosion Inhibitor, per Article 1020.05(b)(12) 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, $f'ci$, shall be 5000 psi.
All bars shall be epoxy coated.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (27" depth)	Sq. Ft.	1,600
---	---------	-------

PD-2748-0D

7-1-10

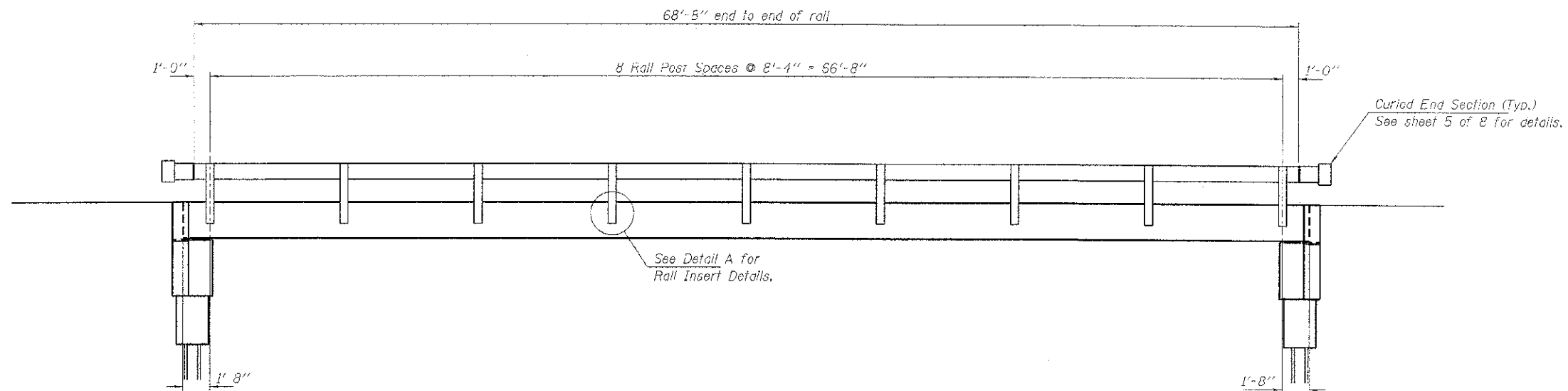
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HAMPTON, LENZINI AND RENWICK, INC.	DESIGNED - A.S.L.
3330 STEVENSON DRIVE SUITE 201	CHECKED - S.W.M.
SPRINGFIELD, ILLINOIS 62705	DRAWN - D.A.B.
ILLINOIS PROFESSIONAL ENGINEERING	CHECKED - S.W.M.
1317 PC 62 0000 184-000005	REVISED -
PLCT SCALE =	REVISED -
PLCT DATE = 10/2/2012	REVISED -

STATE OF ILLINOIS
WHITE COUNTY HIGHWAY DEPARTMENT

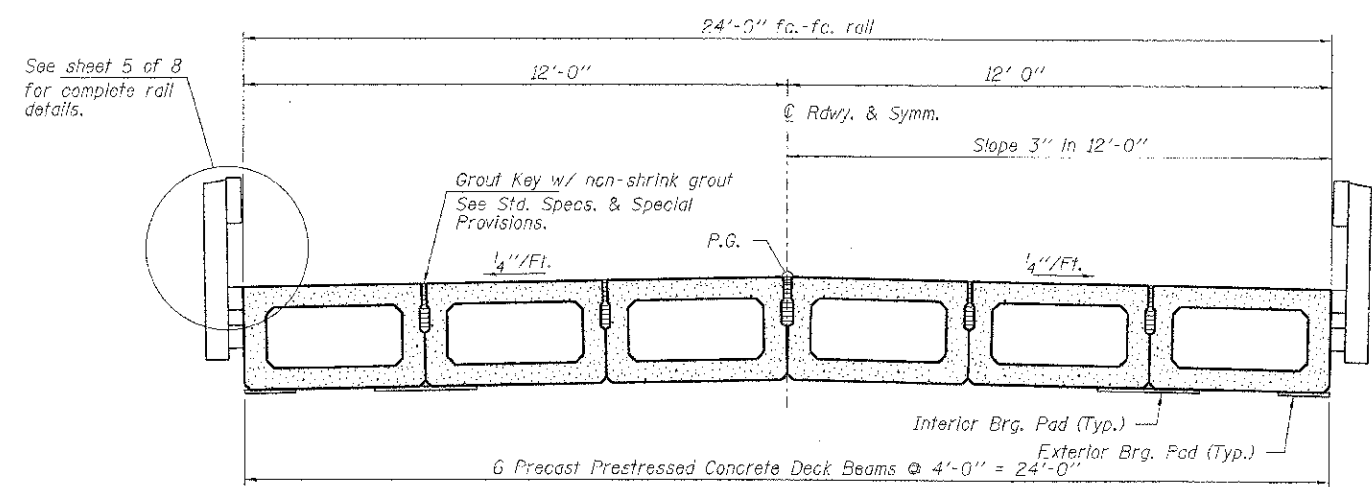
27" x 48" PPC DECK BEAM DETAILS
STRUCTURE NO. 097-3280

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1:	10-00118-00-BR	WHITE	12	7
			CONTRACT NO. 99483	
			ILLINOIS FED. AID PROJECT BR05-337059	

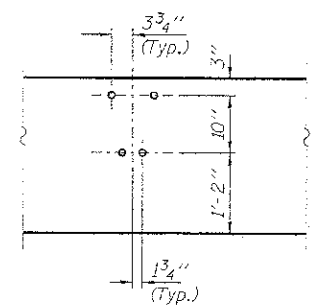
SHEET NO. 3 OF 8 SHEETS



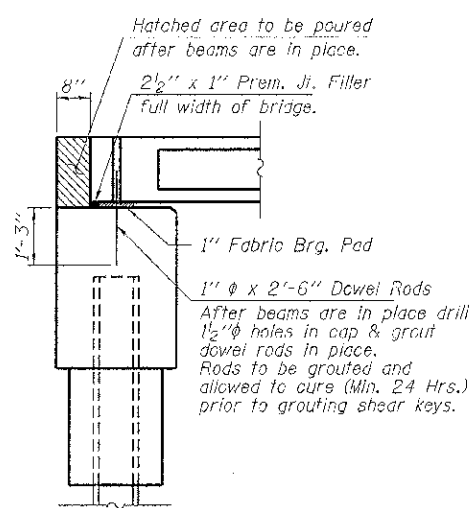
ELEVATION
Showing Rail Post Spaces
See sheet 5 of 8 for Railing Details.



CROSS SECTION
See sheets 2 & 3 of 8 for Superstructure.

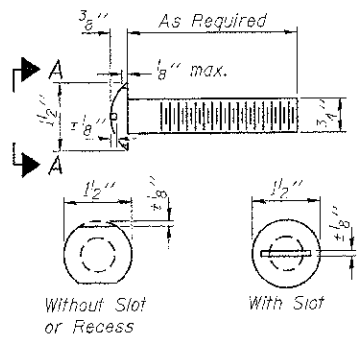


DETAIL A

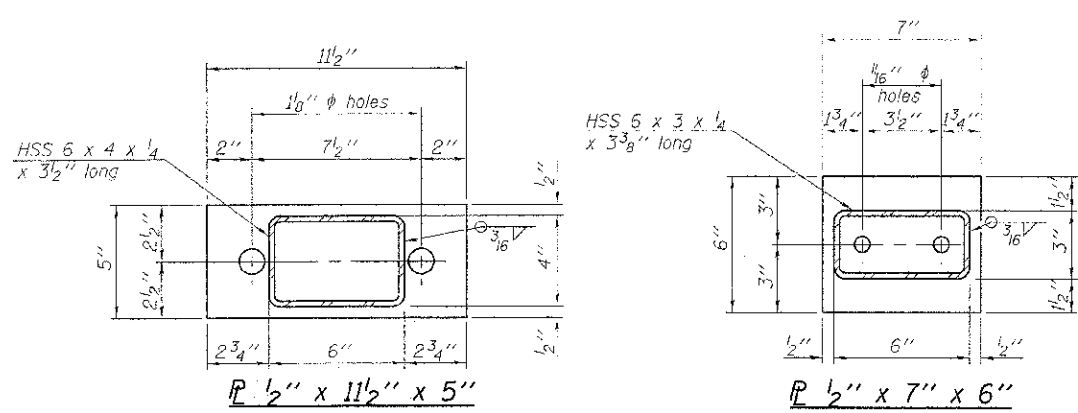


SECTION AT ABUTMENTS
@ Rt. L's

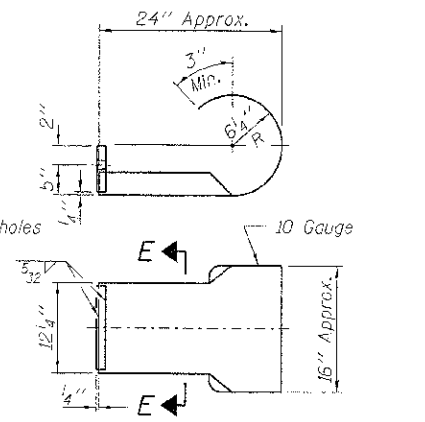
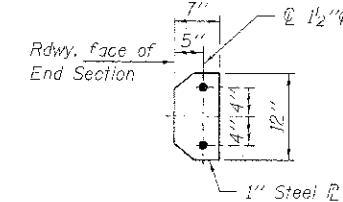
FILE NAME = 110073-ans-bridge.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -	STATE OF ILLINOIS WHITE COUNTY HIGHWAY DEPARTMENT	SUPERSTRUCTURE DETAILS STRUCTURE NO. 097-3280	C.H.	SECTION	COUNTY	TOTAL SHEETS	
HAMPTON LENZINI AND RENWICK, INC. 5501 STEVENSON DRIVE SUITE 501 SPRINGFIELD, ILL. 62705	PLOT SCALE =	CHECKED - S.J.W.M.	REVISED -			11	10-00118-00-BR	WHITE	12	8
IL PROFESSIONAL DESIGN FIRM 1-31-1987 / SE 2000 / 180-00000	PLOT DATE = 10/2/2012	DRAWN - D.A.B.	REVISED -			CONTRACT NO. 99483				
		CHECKED - S.J.W.M.	REVISED -			ILLINOIS FED. AID PROJECT BR05-18310591				
SHEET NO. 4 OF 8 SHEETS										



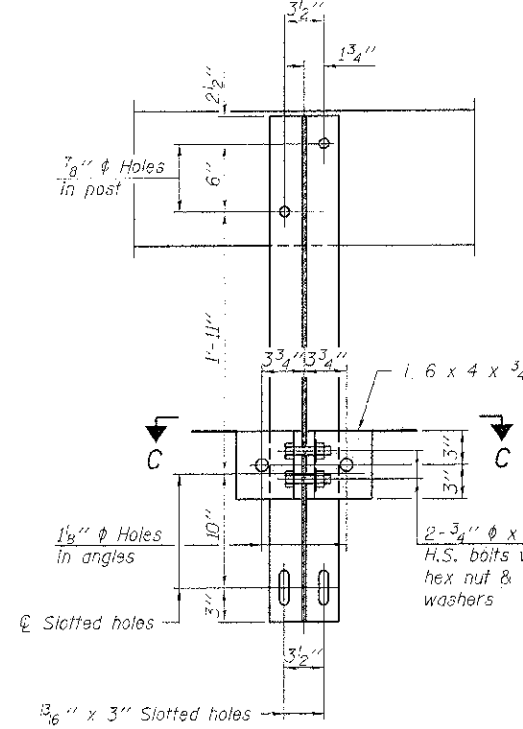
VIEW A-A
ROUND HEAD BOLT



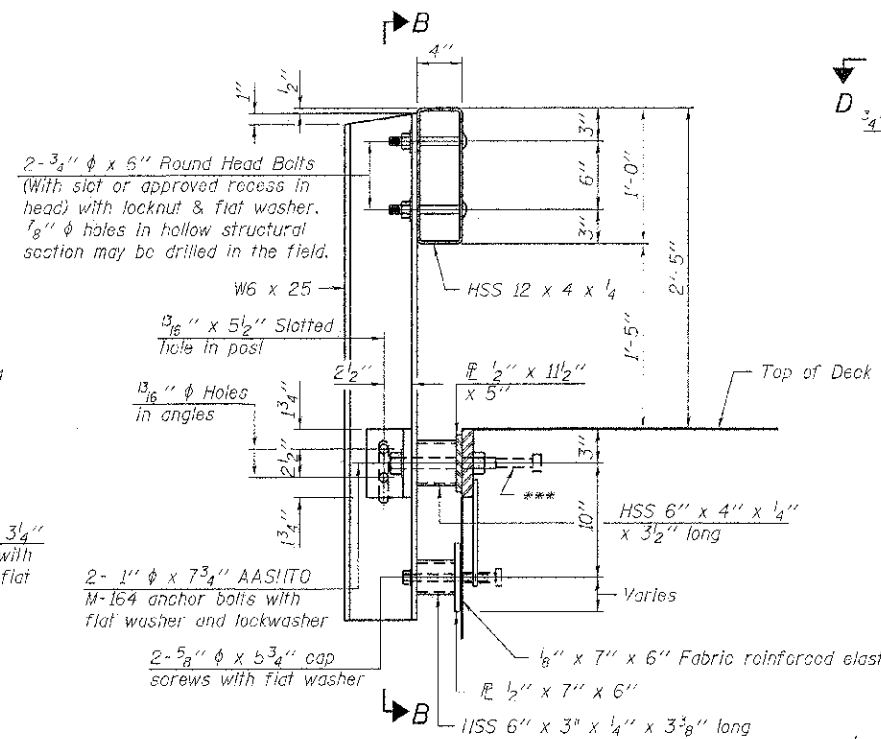
Note: Cost of curled end sections shall be included with the Steel Railing. (4 Required)



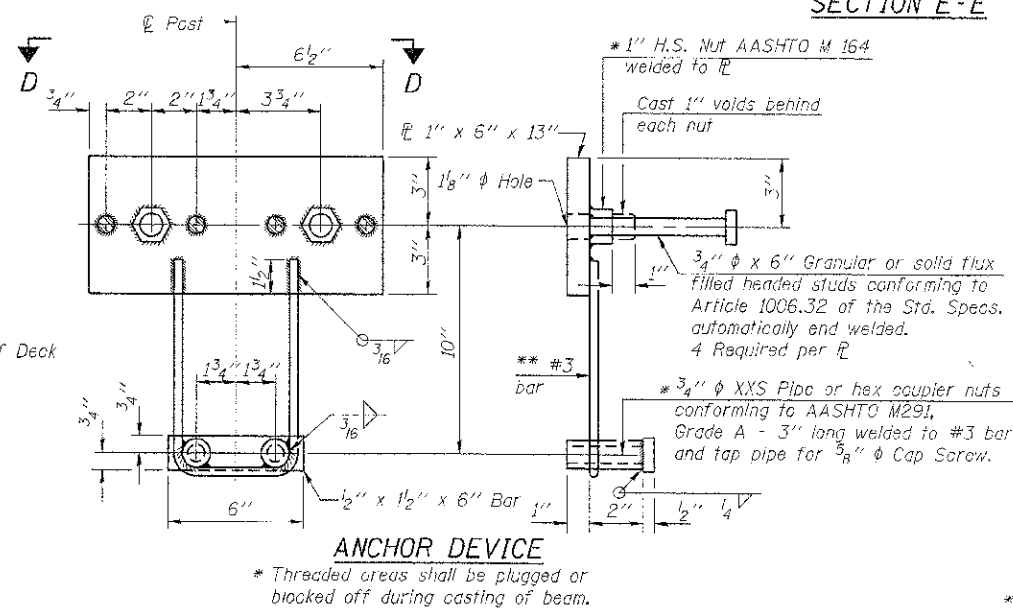
SECTION E-E
CURLED END SECTION DETAILS



SECTION B-B

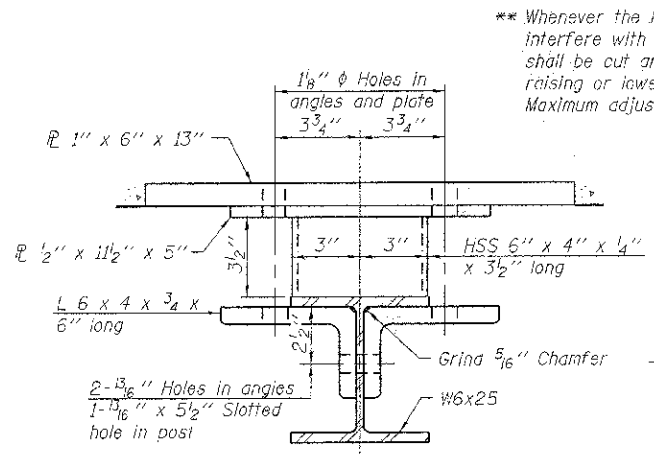


SECTION AT RAILING POST

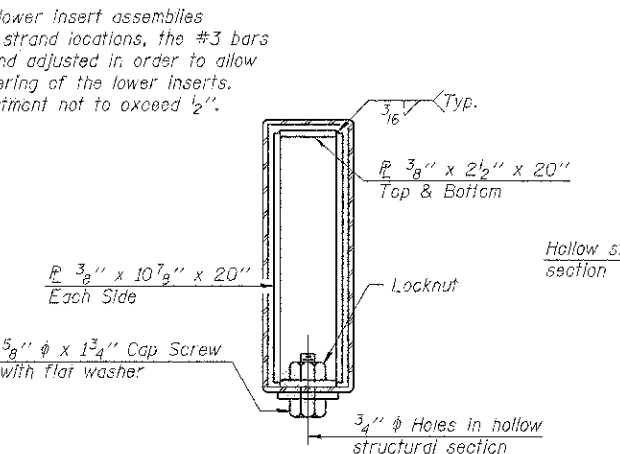


ANCHOR DEVICE

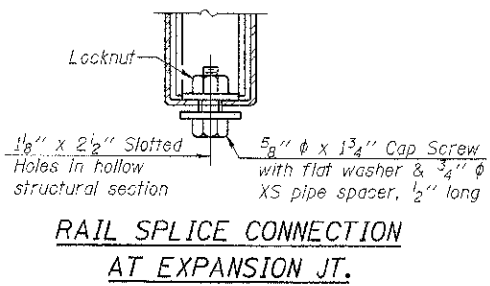
Notes:
All field drilled holes shall be coated with an approved zinc rich paint before erection.
For multi-span bridges, sufficient 1/4\"/>



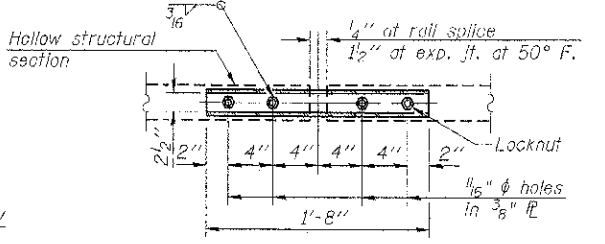
SECTION C-C



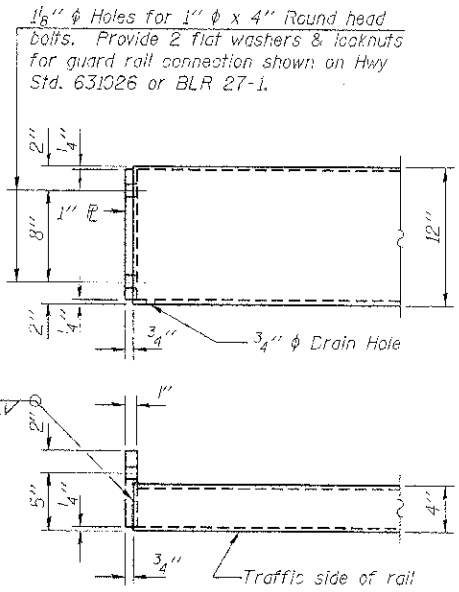
SECTIONS AT RAIL SPLICE



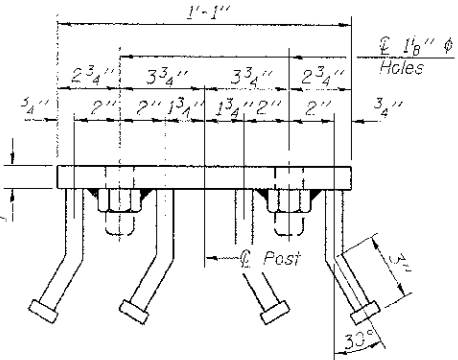
RAIL SPLICE CONNECTION
AT EXPANSION JT.



PLAN-BOTT. SPLICE
TYPICAL



END OF RAIL DETAILS



VIEW D-D

BILL OF MATERIAL

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

R-23A 7-1-10 (10'-9\"/>

FILE NAME = 118973-shr-brldge.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -
HAMPTON LENZING AND RENWICK, INC.		CHECKED - S.W.M.	REVISED -
2025 STEVENSON DRIVE, SUITE 201		DRAWN - D.A.B.	REVISED -
SPRINGFIELD, ILLINOIS 62769		CHECKED - S.W.M.	REVISED -
ILLINOIS PROFESSIONAL ENGINEERING BOARD NO. 021-001-0001			
PLT SCALE =			
PLT DATE = 10/2/2012			

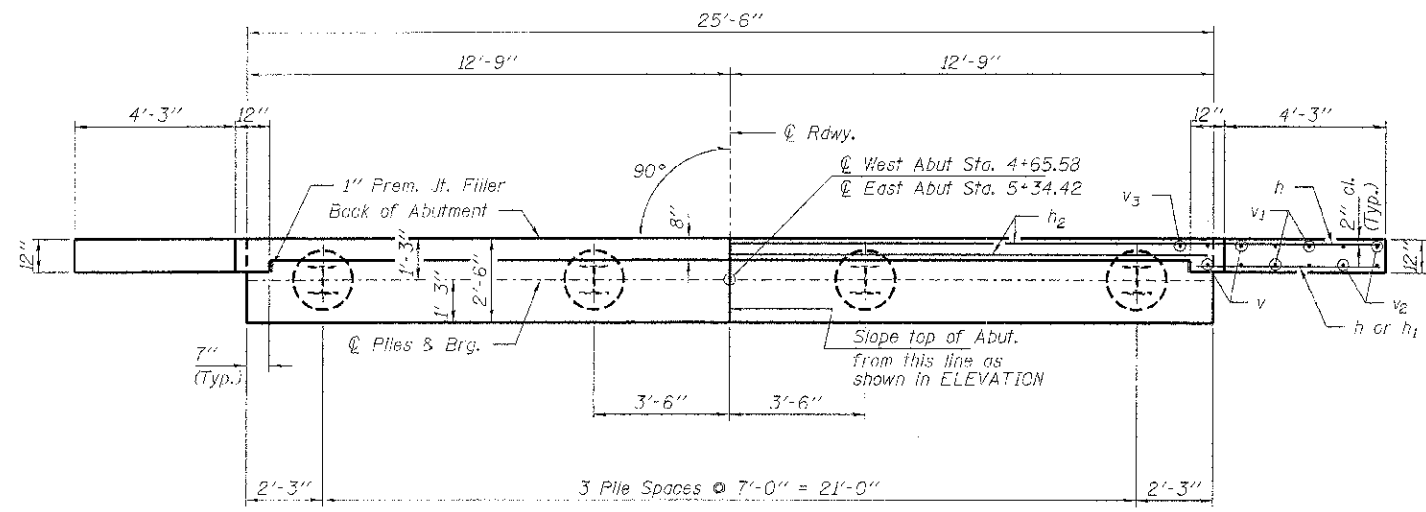
STATE OF ILLINOIS
WHITE COUNTY HIGHWAY DEPARTMENT

STEEL RAILING, TYPE S-1
STRUCTURE NO. 097-3280

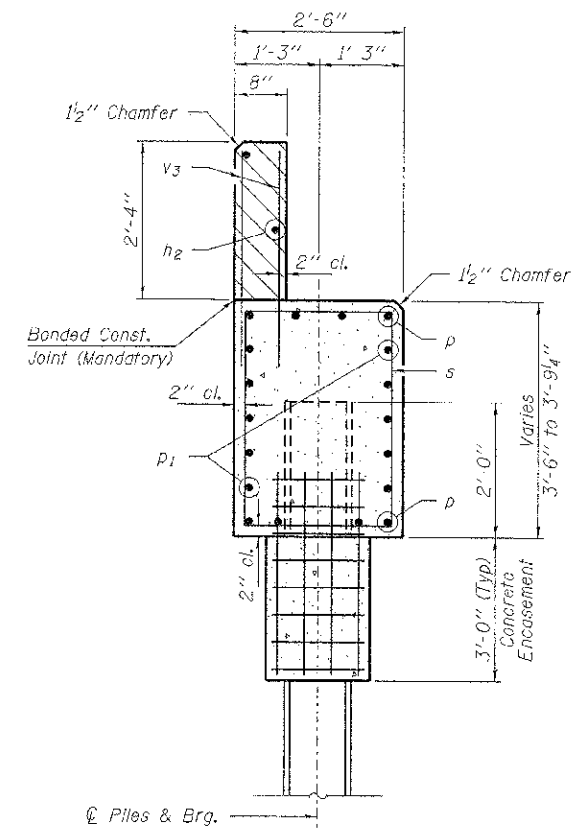
C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	10-00116-CO-BA	WHITE	12	9
				CONTRACT NO. 99483

SHEET NO. 5 OF 8 SHEETS

ILLINOIS FED. AID PROJECT BR05-19(05)9

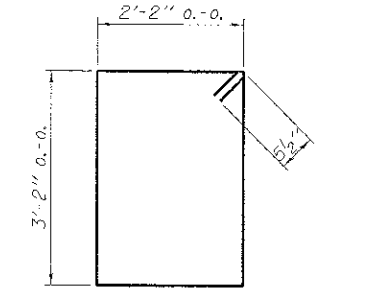


PLAN

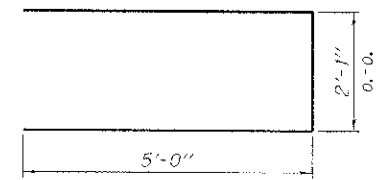


SECTION A-A

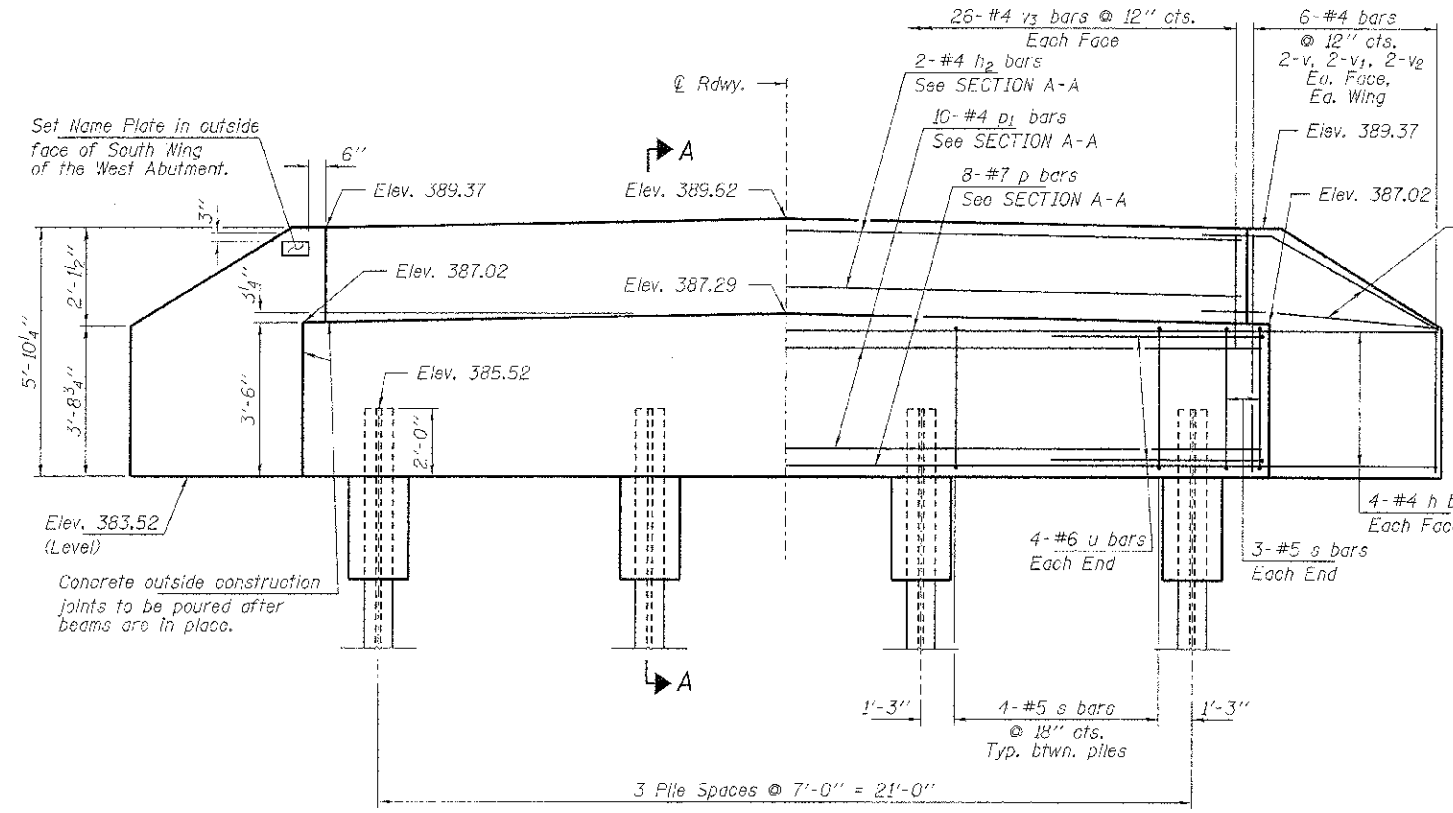
Hatched area to be poured after beams are in place.



BAR s



BAR u



ELEVATION

Note: Extend h bars into abutment cap.

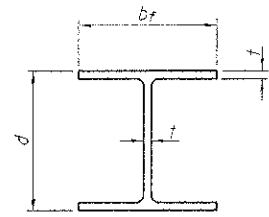
Fan 2-#4 h bars (B.F.)
Fan 2-#4 h₁ bars (F.F.)
Each Wing
Bend in field.

PILE DATA

Type.....Steel HP12x53
No. Req'd. (2 Abuts.).....8
Factored Resistance Available (RF).....230 Kips/Pile
Nominal Required Bearing (Rn).....419 Kips/Pile
Est. Length.....25 F1/Pile

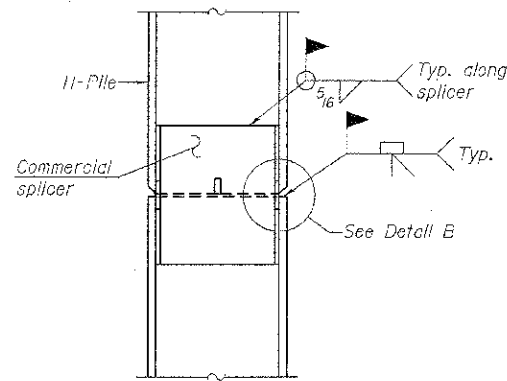
BILL OF MATERIAL - 2 ABUTS.

BAR	NO.	SIZE	LENGTH	SHAPE
h	40	#4	6'-6"	—
h ₁	8	#4	5'-0"	—
h ₂	4	#4	25'-2"	—
p	15	#7	25'-2"	—
p ₁	20	#4	25'-2"	—
s	36	#5	11'-7"	□
u	16	#6	12'-1"	—
v	16	#4	5'-5"	—
v ₁	16	#4	4'-5"	—
v ₂	16	#4	3'-5"	—
v ₃	104	#4	3'-2"	—
Concrete Structures			Cu. Yd.	23.4
Concrete Encasement			Cu. Yd.	2.8
Reinforcement Bars			Pound	2,510
Steel Piles HP12x53			Foot	200
Name Plates			Each	1

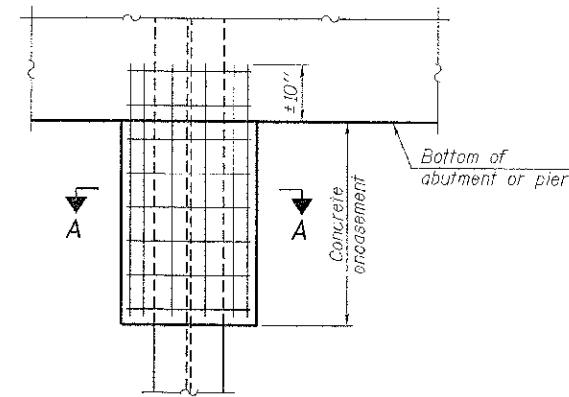


STEEL PILE TABLE

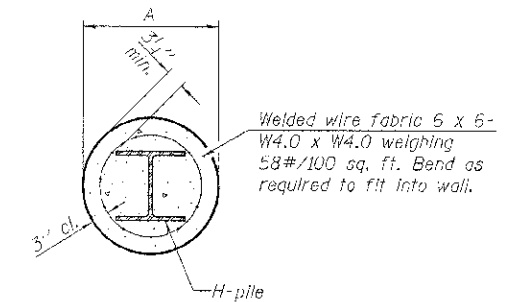
Designation	Depth d	Flange width b _f	Web and Flange thickness t	Encasement diameter A
HP 14x17	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/2"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION



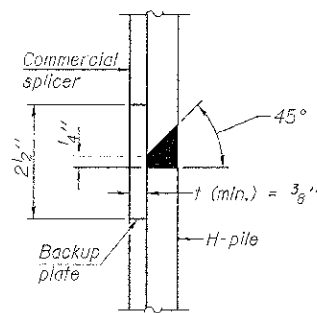
ELEVATION



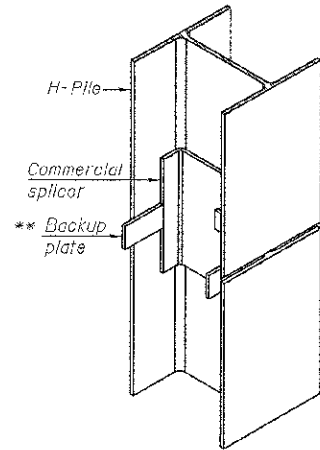
SECTION A-A

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

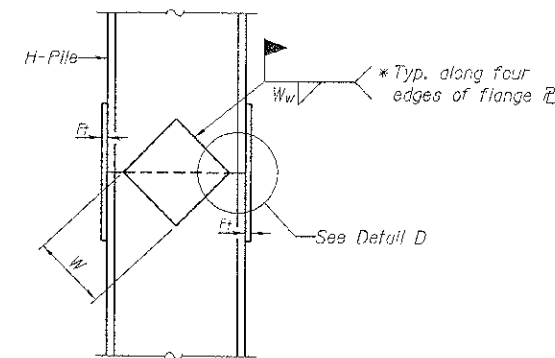
PILE ENCASEMENT



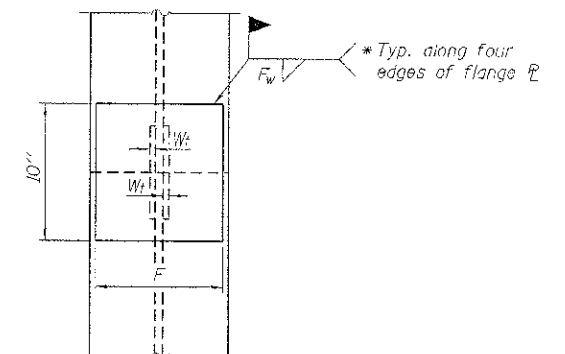
DETAIL "B"



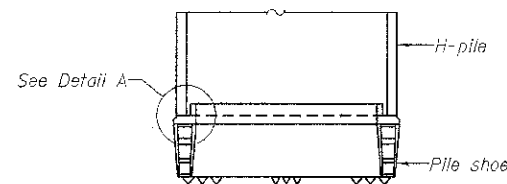
ISOMETRIC VIEW



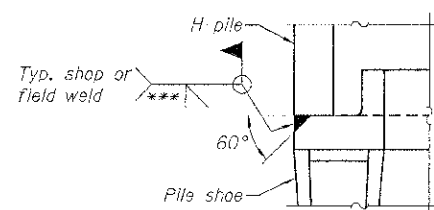
ELEVATION



END VIEW

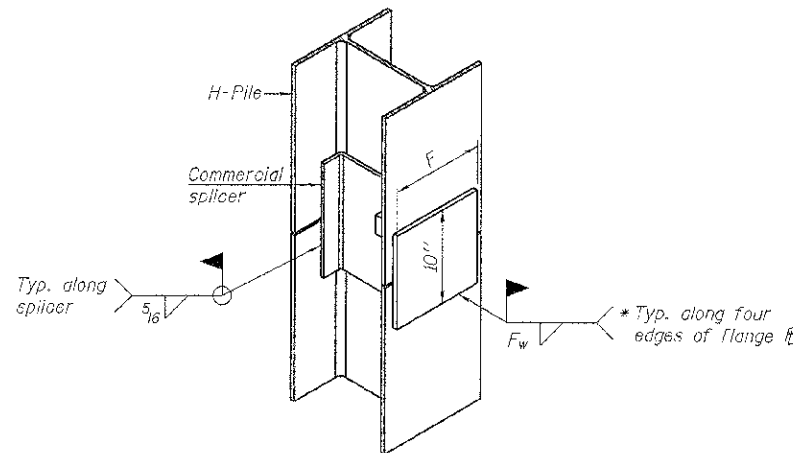


ELEVATION

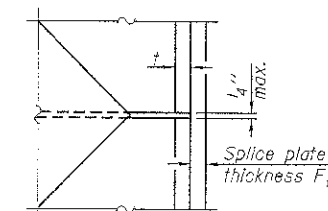


DETAIL A

H-PILE SHOE ATTACHMENT



ISOMETRIC VIEW



DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	F _t	F _w	W	W _t	W _w
HP 14x17	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1/16"	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"	1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1/16"	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"

WELDED COMMERCIAL SPLICE ALTERNATE

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

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

F-HP

7-1-10

FILE NAME = 110273-shr-bridge.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -	STATE OF ILLINOIS WHITE COUNTY HIGHWAY DEPARTMENT	HP PILE DETAILS STRUCTURE NO. 097-3280	C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
HAMPTON LENZINI AND RENWICK, INC. 3094 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62730 ILLINOIS PROFESSIONAL ENGINEER 0099 L51-051/08 CORP. 10-00589	PLOT SCALE =	CHECKED - S.W.M.	REVISED -			11	10-00118 00-BR	WHITE	12	11	
	PLOT DATE = 10/2/2012	DRAWN - D.A.B.	REVISED -			CONTRACT NO. 99483					
		CHECKED - S.W.M.	REVISED -			SHEET NO. 7 OF 8 SHEETS					

ILLINOIS FED. AID PROJECT BR05-193(059)

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-11085 Bridge: Over Seven Mile Creek Date: 6/8/11					Section: 10-00118-00-BR Station: Bored By: B. Schwartz																																																																																																																																																																																																															
Structure: Checked By: J. Holcomb					County: White																																																																																																																																																																																																															
Boring No.: 1 Station: Offset: Surface Water Elev. Ground Water Elev. During Drilling: 366.1 Upon Completion: 374.1																																																																																																																																																																																																																				
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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-11085 Bridge: Over Seven Mile Creek Date: 6/8/11					Section: 10-00118-00-BR Station: Bored By: B. Schwartz																																																																																																																																																																																	
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