

**INDEX OF SHEETS**

SHEET NO.	DESCRIPTION
1	TITLE SHEET & SUMMARY OF QUANTITIES
2	PLAN & PROFILE, TYPICAL SECTIONS & GENERAL NOTES
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**STANDARDS**

090001-06	STANDARD SYMBOLS, ABBREVIATIONS & PATTERNS (6 SHEETS)
280001-07	TEMPORARY EROSION CONTROL SYSTEMS (2 SHEETS)
515001-03	NAME PLATE FOR BRIDGES
701901-04	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**

QUANTITY	UNIT	ITEM	CODE NO.
783.00	CU YD	EARTH EXCAVATION	20200100
200.00	CU YD	CHANNEL EXCAVATION	20300100
373.00	CU YD	FURNISHED EXCAVATION	20400800
14.00	FOOT	TEMPORARY DITCH CHECKS	28000305
1100.00	TON	STONE DUMPED RIPRAP, CLASS A4	28100807
873.00	SO YD	PROCESSING SOIL-CEMENT BASE COURSE 10"	35200410
431.00	100 WT	CEMENT	35200500
30.00	TON	AGGREGATE SURFACE COURSE, TYPE B	40200800
218.00	GALLON	BITUMINOUS MATERIALS (PRIME COAT)	40300100
1310.00	GALLON	BITUMINOUS MATERIALS (COVER AND SEAL COATS)	40300300
22.00	TON	COVER COAT AGGREGATE	40300500
11.00	TON	SEAL COAT AGGREGATE	40300600
1.00	EACH	REMOVAL OF EXISTING STRUCTURES	50100100
22.00	CU YD	CONCRETE STRUCTURES	50300225
2.80	CU YD	CONCRETE ENCASEMENT	50300280
1320.00	SO FT	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	50400405
2470.00	POUND	REINFORCEMENT BARS	50800105
109.00	FOOT	STEEL RAILING, TYPE S1	50900205 Δ
560.00	FOOT	FURNISHING STEEL PILES HP10X42	51201400
560.00	FOOT	DRIVING PILES	51202305
1.00	EACH	NAME PLATES	51500100
60.00	FOOT	PIPE CULVERTS, CLASS D, TYPE 1 30"	54200235
92.00	SO FT	CONCRETE SEALER	58700300
1.00	L SUM	MOBILIZATION	67100100
4.00	EACH	TERMINAL MARKER - DIRECT APPLIED	78201000 Δ
0.60	ACRE	SEEDING, CLASS 2 (SPECIAL)	X2501000

Δ SPECIALTY ITEMS

DESIGN DESIGNATION:  
DESIGN SPEED: 30 MPH  
HIGHWAY CLASS - LOCAL ROAD  
EXISTING STRUCTURE NO.: 093-3063  
PROPOSED STRUCTURE NO.: 093-3136  
CURRENT A.D.T. = 175  
CONTRACT NO. 95721



STATE OF ILLINOIS

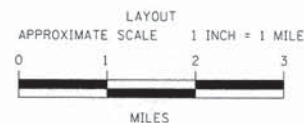
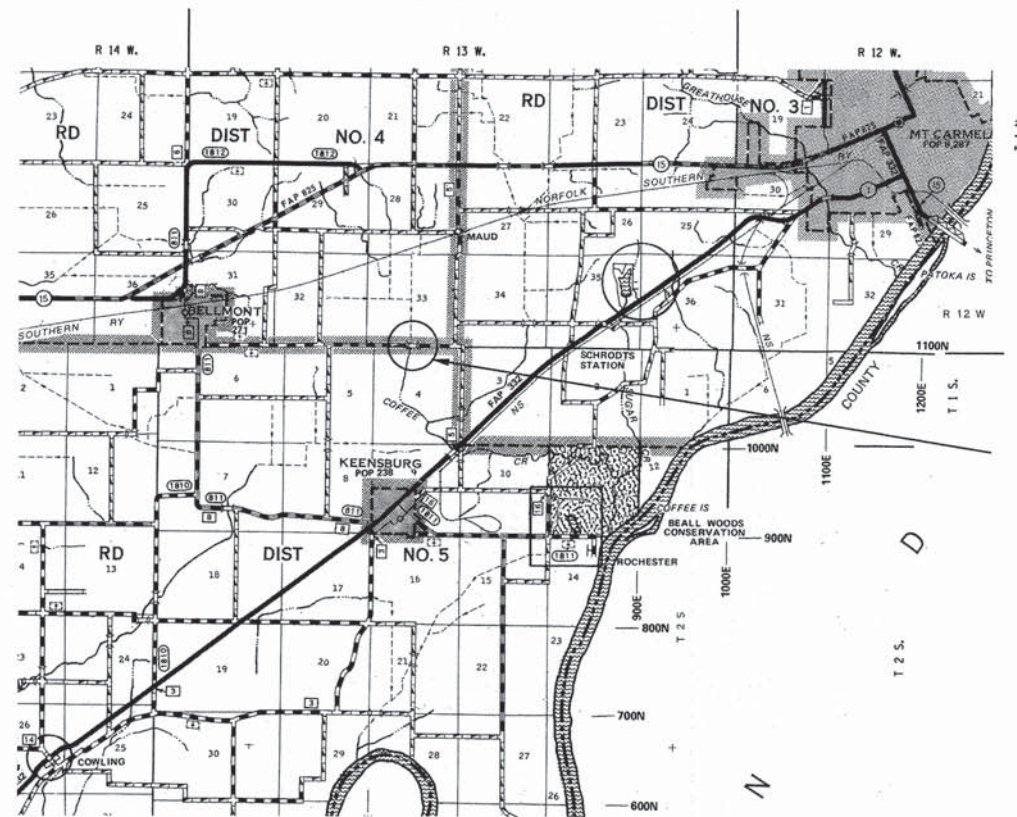
DEPARTMENT OF TRANSPORTATION

**PLANS FOR PROPOSED  
FEDERAL AID - S.T.P. BRIDGE PROJECT**

T.R. 149 WABASH COUNTY SECTION 10-05122-00-BR

PROJECT NO. BROS-0185(035) JOB NO. C-97-091-13

CONTRACT #95721 COFFEE CREEK



GROSS LENGTH	470.00 FT	0.089 MILES
OMISSIONS	0.00 FT	0.000 MILES
NET LENGTH	470.00 FT	0.089 MILES

PLAN	1" = 50'	
PROFILE	1" = 50'	
PROFILE VERT.	1" = 5'	
CROSS SECTION	1" = 5'	

SECTION 10-05122-00-BR  
BEGINS STATION 2+65

STATION 5+00, STRUCTURE NO. 093-3136  
A 55' LONG SINGLE SPAN PRECAST PRESTRESSED  
CONCRETE DECK BEAM BRIDGE (21" DEPTH),  
24' ROADWAY, 0.00% GRADE, 0° SKEW.

SECTION 10-05122-00-BR  
ENDS STATION 7+35

APPROVED December 22 20 14  
*[Signature]*  
COUNTY ENGINEER

PASSED 1-12 20 15  
*[Signature]*  
DISTRICT SEVEN ENGINEER OF  
LOCAL ROADS & STREETS

Releasing For  
Bid Based on  
Limited Review 1-12 20 15  
*[Signature]*  
DEPUTY DIRECTOR OF HIGHWAYS,  
REGION FOUR ENGINEER

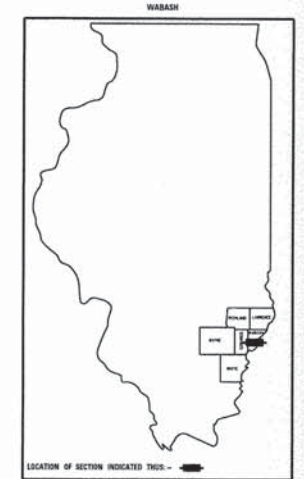
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
149	10-05122-00-BR	WABASH	13	1

FED. ROAD DIST. NO. 7 ILLINOIS  
PROJECT # BROS-185(035)  
LEC JOB # HD1019WB

FED. AID PROJECT  
CONTRACT # 95721  
COFFEE CREEK

323 W. 3RD ST.  
P.O. BOX 160  
MT. CARMEL, IL  
62863  
PHONE:  
(618)-262-8651  
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(618)-263-3327



405 W. STATE ST.  
SUITE 1  
PRINCETON, IN  
47670  
PHONE:  
(812)-386-7611  
FAX:  
(812)-385-2812



PROFESSIONAL  
DESIGN FIRM  
LAND SURVEY &  
PROFESSIONAL  
ENGINEERING  
CORPORATION  
184-00087  
(62-032435)(35-002769)



AARON M. MEFFORD  
NAME  
*[Signature]*  
SIGNATURE  
12-22-14  
DATE  
11-30-15  
EXPIRES

COFFEE CREEK  
TOWNSHIP ROUTE 149  
WABASH COUNTY, ILLINOIS

SHEET TITLE:

TITLE SHEET

SCALE:	VARIES
BY:	AMM
DATE:	12/22/14
REV:	

1 OF 13  
SHEETS

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 55 FOOT LONG SINGLE SPAN PRECAST PRESSED CONCRETE DECK BEAM BRIDGE, EARTH APPROACHES, AGGREGATE SURFACE COURSE AND OTHER MISCELLANEOUS ITEMS NECESSARY TO COMPLETE THIS SECTION.

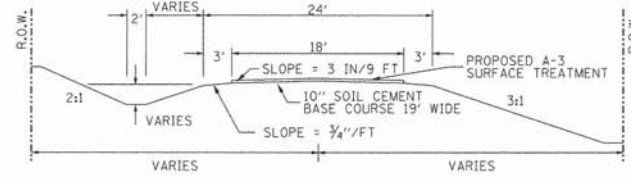
ALL ELEVATIONS ARE BASED ON U.S.G.S. MEAN SEA LEVEL DATUM.

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

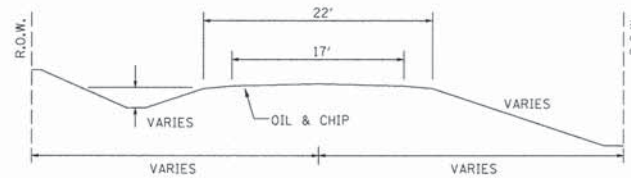
THE FOLLOWING RATES HAVE BEEN USED TO CALCULATE PLAN QUANTITIES:

BITUMINOUS MATERIALS (PRIME COAT)	0.25 GAL/SQ YD
BITUMINOUS MATERIALS (COVER COAT)	0.50 GAL/SQ YD
BITUMINOUS MATERIALS (SEAL COAT)	0.50 GAL/SQ YD
COVER COAT AGGREGATE	25 LBS/SQ YD
SEAL COAT AGGREGATE	25 LBS/SQ YD

**TYPICAL CROSS SECTION PROPOSED**



**TYPICAL CROSS SECTION EXISTING**



**UTILITIES:**

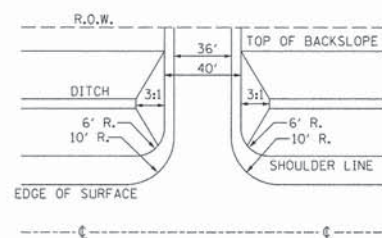
J.U.L.T.E.  
1-800-892-0123

NEW WAVE COMMUNICATIONS  
618-283-9630

FRONTIER COMMUNICATIONS  
618-395-6195

COUNTRYMARK  
812-838-8501

**FIELD ENTRANCE DETAIL**



NOTE: CONSTRUCT SPECIAL DITCH

STA 3+00 TO STA 4+81 LT  
STA 3+00 TO STA 4+80 RT  
STA 5+18 TO STA 7+35 LT  
STA 5+16 TO STA 7+00 RT

NOTE: CONSTRUCT STONE LINED DITCH

STA 4+00 TO STA 4+81 LT (110 TON)  
STA 4+00 TO STA 4+80 RT (110 TON)  
STA 4+74 TO STA 5+26 RT (400 TON)  
STA 5+18 TO STA 5+82 LT (170 TON)  
STA 6+42 TO STA 6+50 LT (20 TON)  
STA 5+16 TO STA 6+00 RT (290 TON)  
1100 TON OF STONE DUMPED RIPRAP ALLOWED IN PROPOSAL.

NOTE: CONSTRUCTION TRANSITIONS  
STA. 2+65 TO STA. 3+00  
STA. 7+00 TO STA. 7+35  
ALL QUANTITIES ARE INCLUDED IN THE PROPOSAL



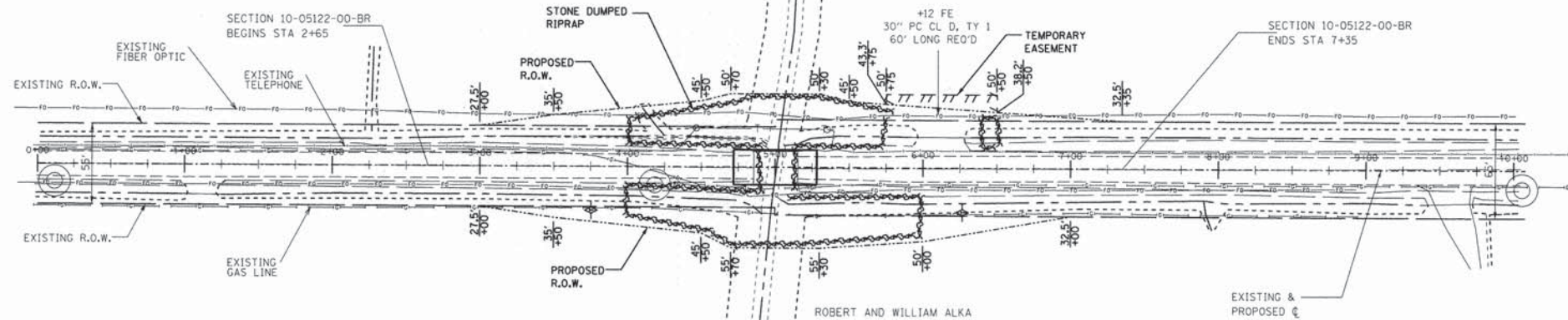
BRET & DIANNE KENNARD

PAUL EWALD TRUST

ROBERT AND WILLIAM ALKA

ROBERT AND WILLIAM ALKA

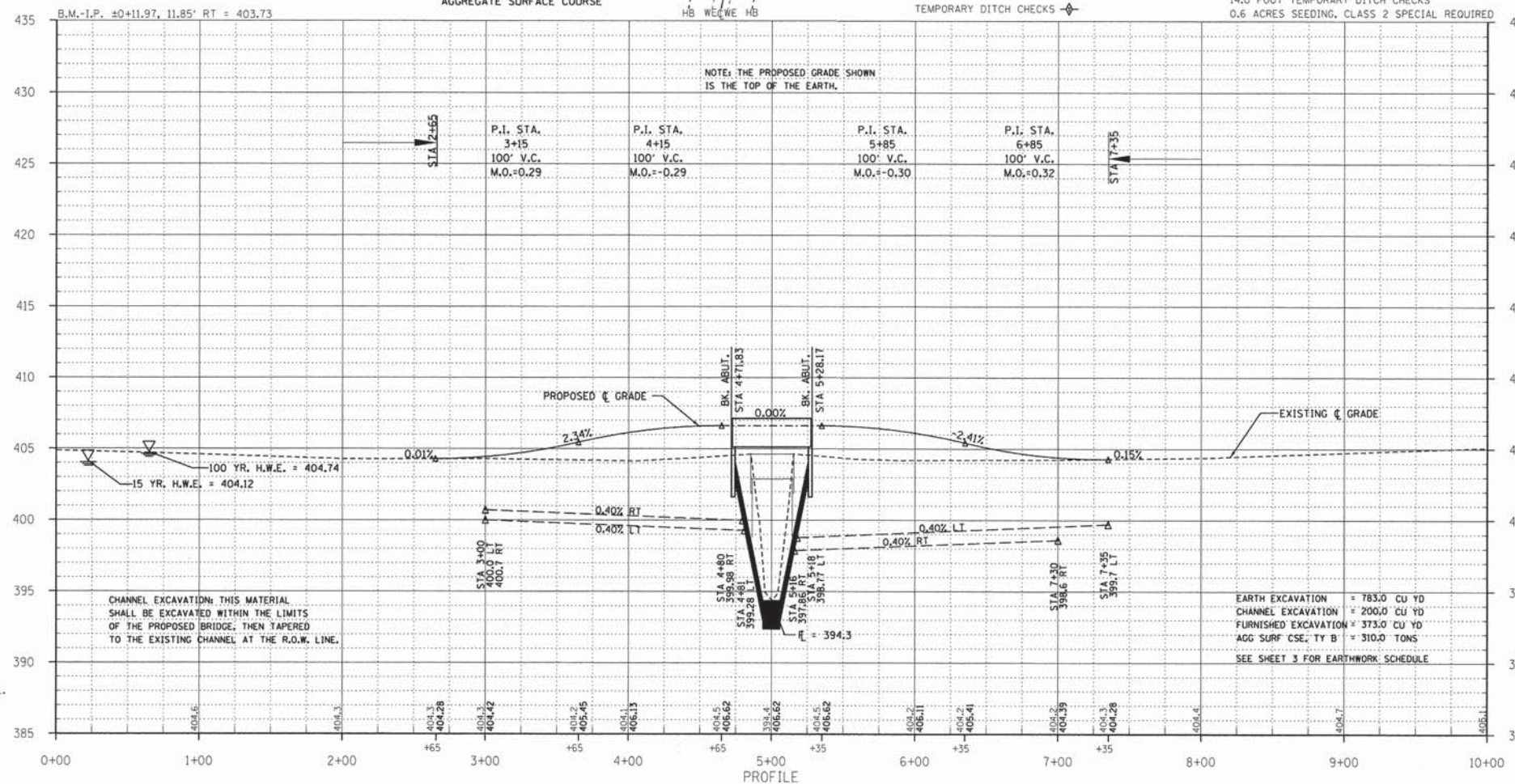
EXISTING & PROPOSED



EXISTING BRIDGE STA 5+00.3; STRUCTURE NUMBER: 093-3063  
A 29' LONG SINGLE SPAN BRIDGE WITH 21" CONCRETE DECK BEAMS WITH 11" CONCRETE CURB ON 12" WOOD CAPS WITH 5-12" WOOD PILE AND MUD WALLS AND WOOD WINGWALLS.

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

NOTE: FILL NEXT TO BRIDGE TO BE AGGREGATE SURFACE COURSE



EARTH EXCAVATION = 783.0 CU YD  
CHANNEL EXCAVATION = 200.0 CU YD  
FURNISHED EXCAVATION = 373.0 CU YD  
AGG SURF CSE, TY B = 310.0 TONS  
SEE SHEET 3 FOR EARTHWORK SCHEDULE

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
149	10-05122-00-BR	WABASH	13	2
FED. ROAD DIST. NO. 7 ILLINOIS		COFFEE CREEK		
PROJECT * BROS-018510351		CONTRACT * 95721		
LEC JOB * H01L019WB				

323 W. 3RD ST.  
P.O. BOX 160  
MT. CARMEL, IL  
62863  
PHONE:  
(618)-262-8651  
FAX:  
(618)-263-3327

405 W. STATE ST  
SUITE 1  
PRINCETON, IN  
47470  
PHONE:  
(812)-366-7611  
FAX:  
(812)-385-2812

**LAMAC**  
ENGINEERING CO.

PROFESSIONAL DESIGN FIRM  
LAND SURVEY & PROFESSIONAL ENGINEERING CORPORATION  
184-000887  
(62-032435)(35-002769)

**AARON M. MEFFORD**  
REGISTERED PROFESSIONAL ENGINEER  
OF ILLINOIS

NAME: Aaron M. Mefford  
SIGNATURE: [Signature]  
DATE: 12-22-14  
11-30-15 EXPIRES

COFFEE CREEK  
TOWNSHIP ROUTE 149  
WABASH COUNTY, ILLINOIS

SHEET TITLE:  
PLAN & PROFILE

SCALE: VARS  
BY: AMM  
DATE: 10/21/14  
REV:

2 OF 13 SHEETS  
SHEET NO. 2

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
149	10-05122-00-BR	WABASH	13	3
FED. ROAD DIST. NO. 7 ILLINOIS		COFFEE CREEK		
PROJECT * BR05-1850351		CONTRACT * 95721		
LEC JOB * H01019WB				

323 W. 3RD ST.  
P.O. BOX 160  
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PHONE:  
(618)-262-8651  
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LAND SURVEY &  
ENGINEERING  
CORPORATION  
184-00087  
(62-032435)(35-002769)



AARON M. MEFFORD  
NAME  
*[Signature]*  
SIGNATURE  
12-22-14  
DATE  
11-30-15  
EXPIRES

COFFEE CREEK  
TOWNSHIP ROUTE 149  
WABASH COUNTY, ILLINOIS

SHEET TITLE:

CROSS-SECTIONS

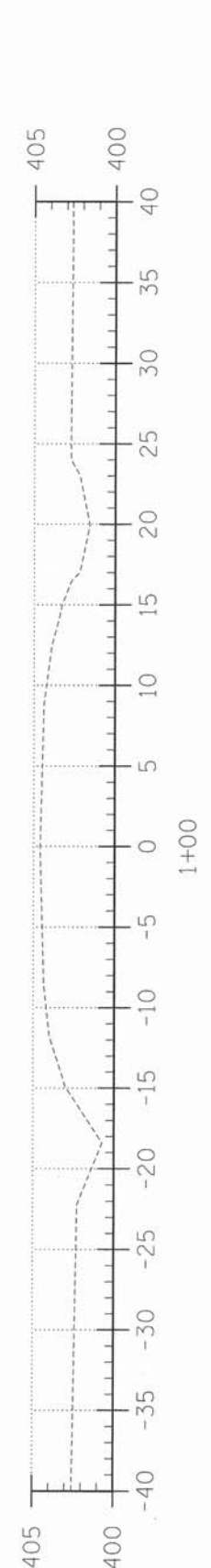
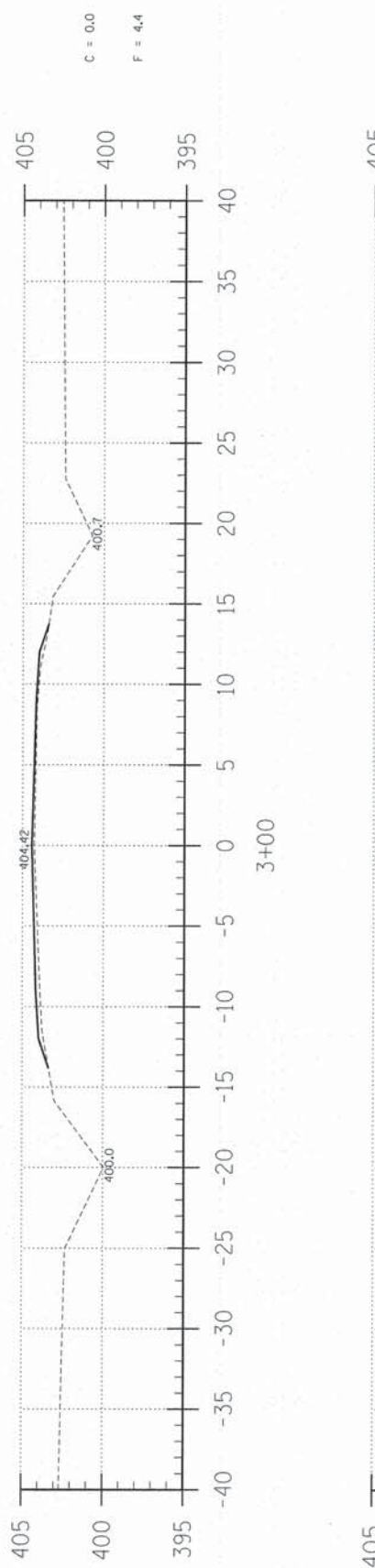
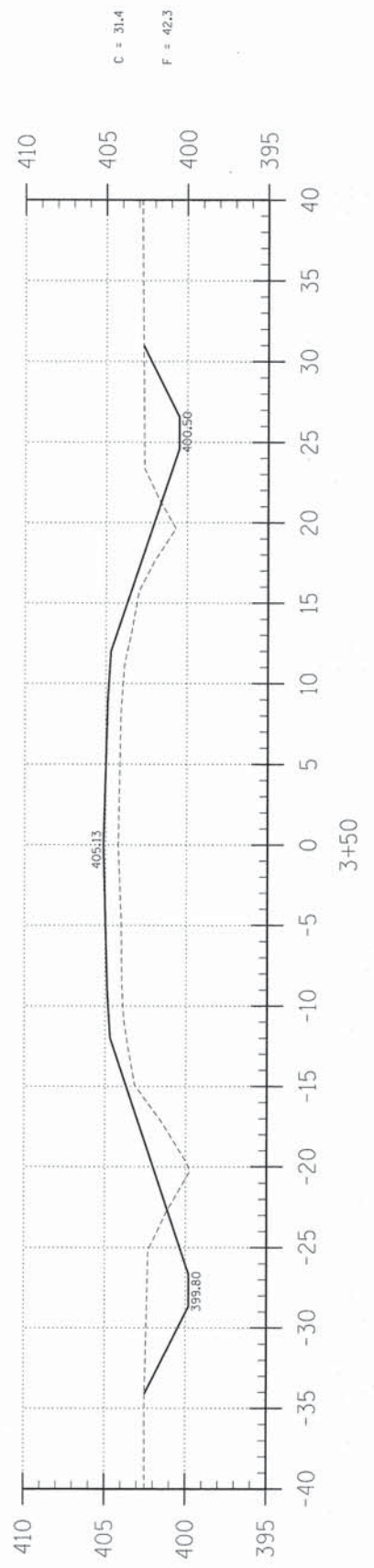
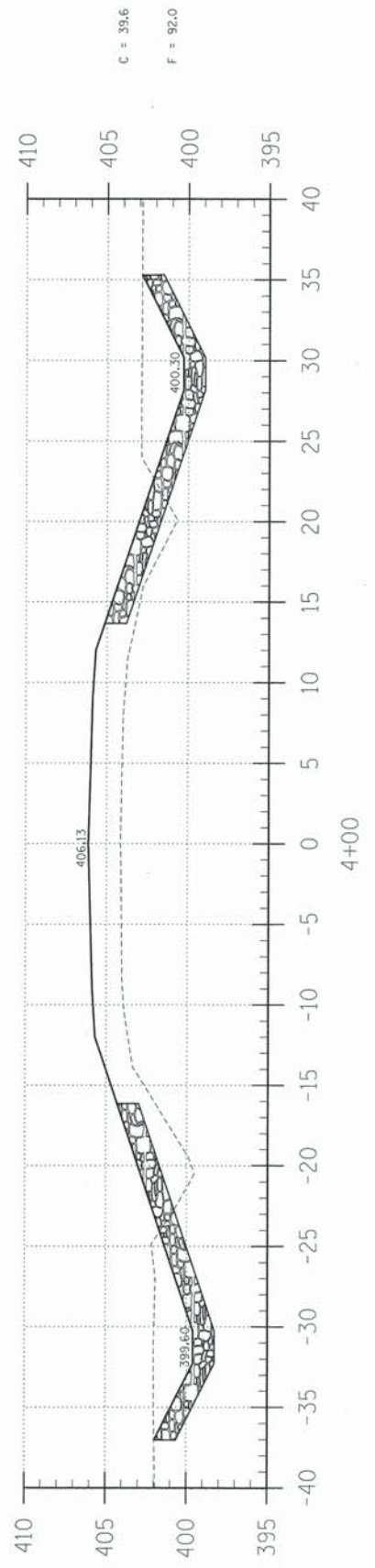
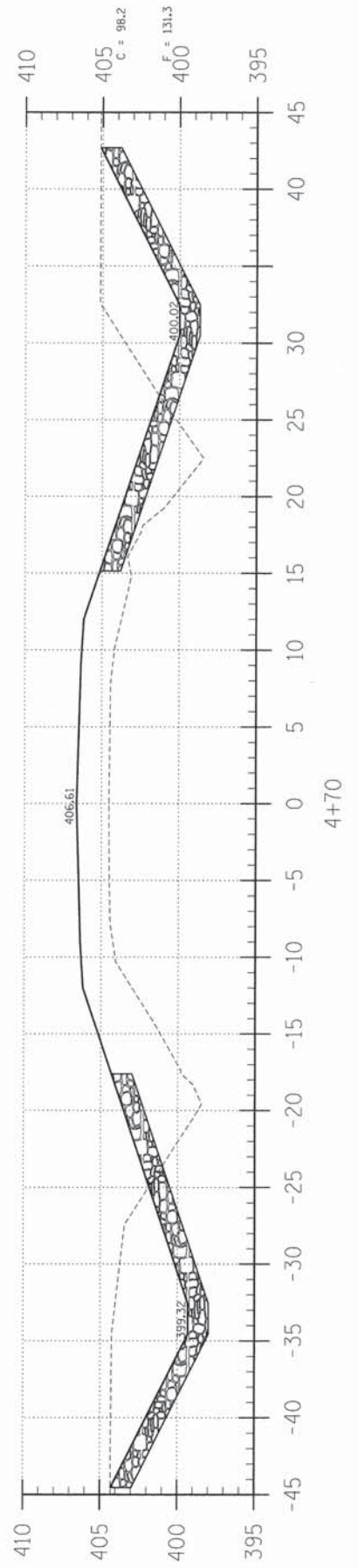
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BY: AMM  
DATE: 12/2/14  
REV:

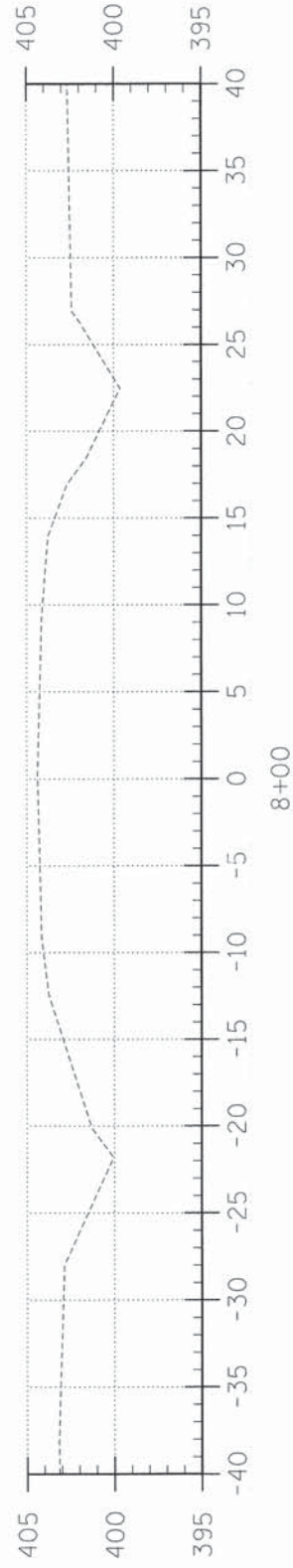
3 OF 13  
SHEETS

SHEET NO.  
3

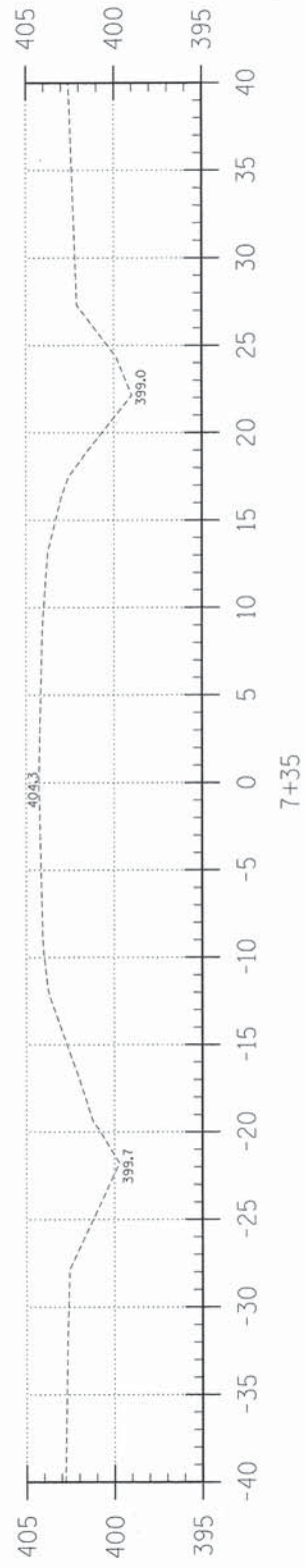
EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION CUBIC YARD	CHANNEL EXCAVATION CUBIC YARD	ESTIMATED UNSUITABLE MATERIAL CUBIC YARD	SUITABLE MATERIAL ADJUSTED FOR SHRINKAGE CUBIC YARD	EMBANKMENT CUBIC YARD	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) CUBIC YARD
STA 0+00 TO 4+71.8	277.2	0.0	0.0	207.9	460.9	-253.0
STA 4+71.8 TO 5+28.2	0.0	200.4	100.2	75.2	0.0	+75.2
STA 5+28.2 TO 10+00	505.8	0.0	0.0	379.4	501.8	-122.4
1 FIELD ENTRANCE	0.0	0.0	0.0	0.0	73.2	-73.2
TOTAL	783.0	200.4	100.2	662.5	1035.9	-373.4

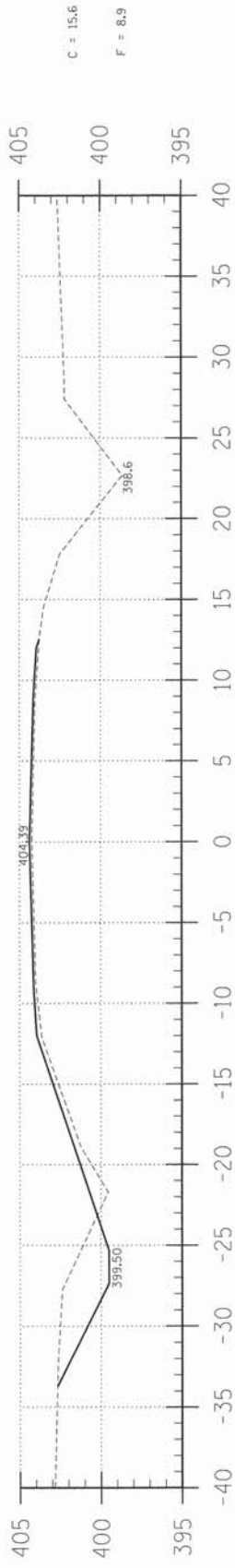




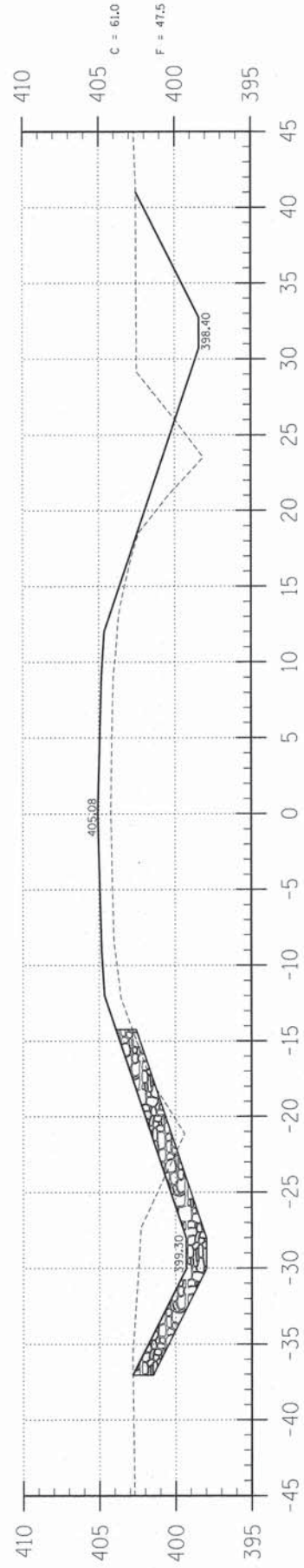
8+00



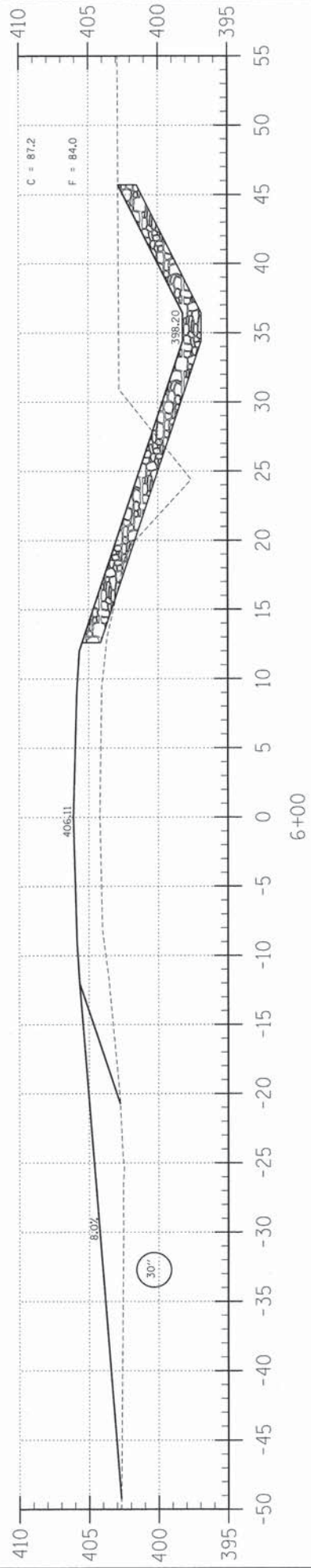
7+35



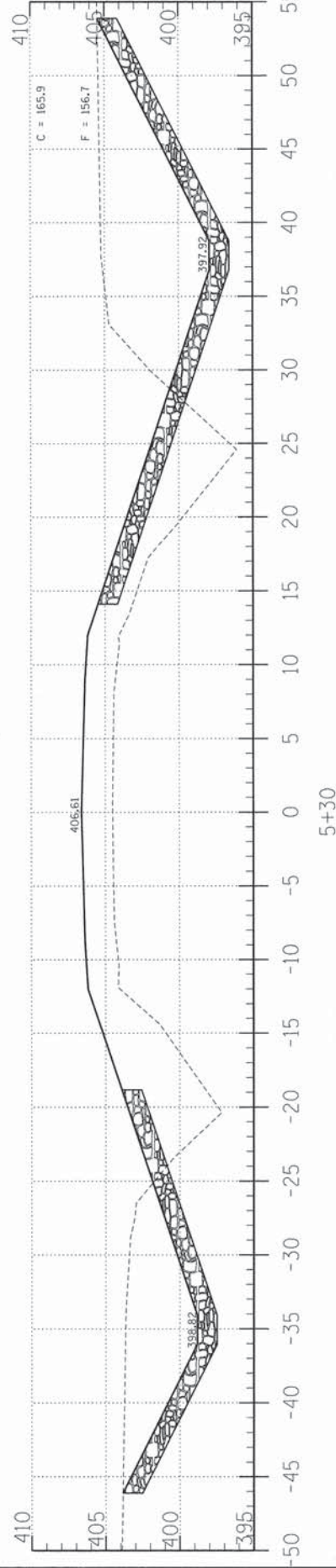
7+00



6+50



6+00



5+30

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
149	10-05122-00-BR	WABASH	13	4
FED. ROAD DIST. NO. 7 ILLINOIS		COFFEE CREEK		
PROJECT * BR05-185(035)		CONTRACT * 95721		
LEC JOB * HD10198B				

323 W. 3RD ST.  
P.O. BOX 180  
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LAND SURVEY &  
PROFESSIONAL  
ENGINEERING  
CORPORATION  
184-00087  
(62-032435)(35-002769)



AARON M. MEFFORD  
NAME  
*Aaron M. Mefford*  
SIGNATURE  
12-22-14  
DATE  
11-30-15  
EXPIRES

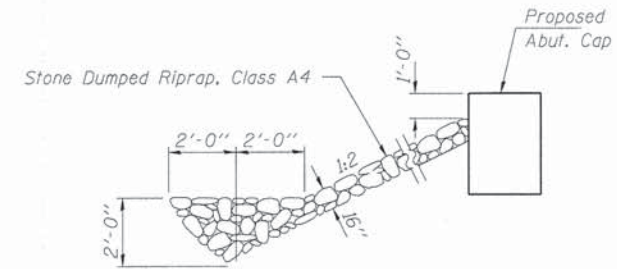
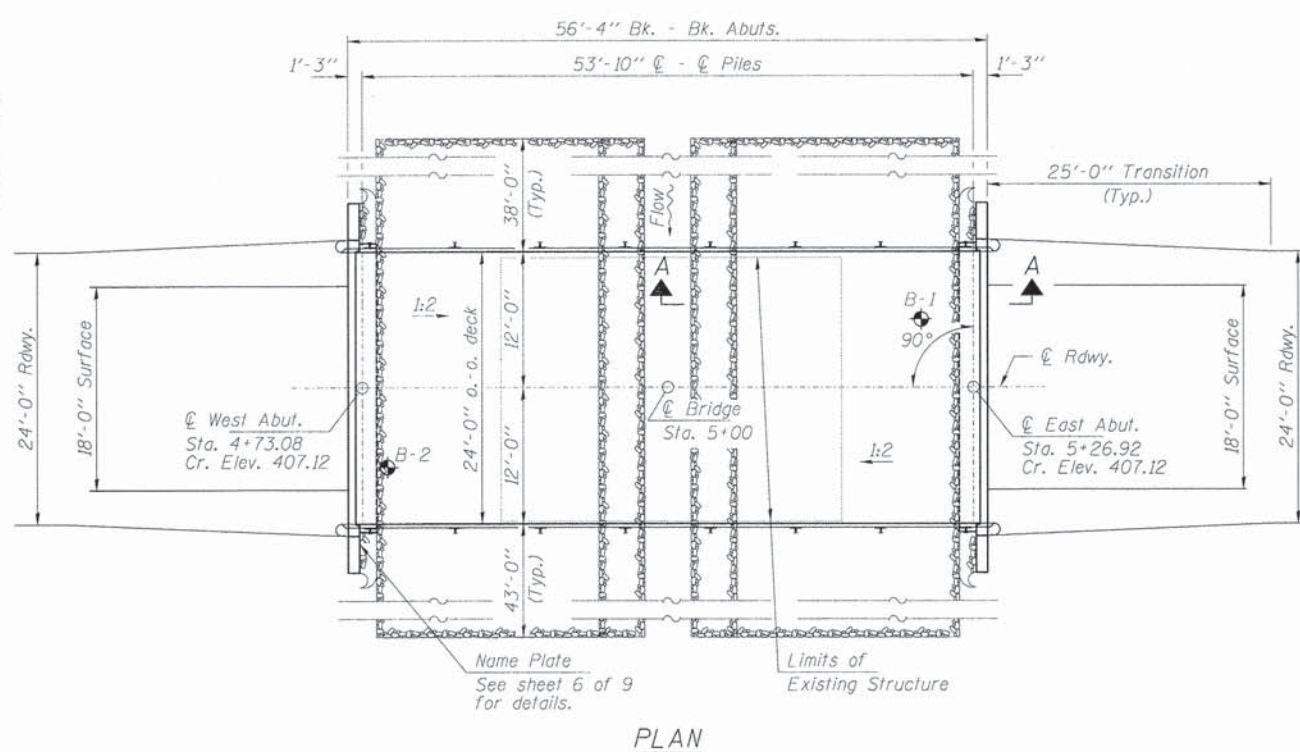
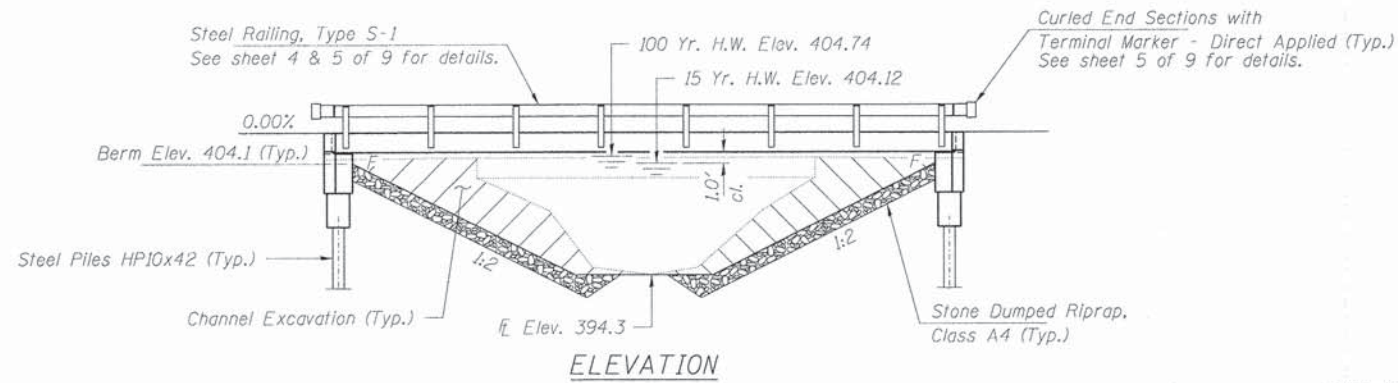
DRAINAGE DITCH  
TOWNSHIP ROUTE 52  
WABASH COUNTY, ILLINOIS

SHEET TITLE:	
CROSS-SECTIONS	
SCALE:	1" = 5'
BY:	AMM
DATE:	12/24
REV:	
4	OF 13
SHEETS	
SHEET NO.	
4	

EXISTING STRUCTURE NO. 093-3063: A single span PPCD beam bridge with concrete curb and timber caps, wingwalls and piles. 30.0' bk.-bk. abuts., 22.5' o.-o. deck.

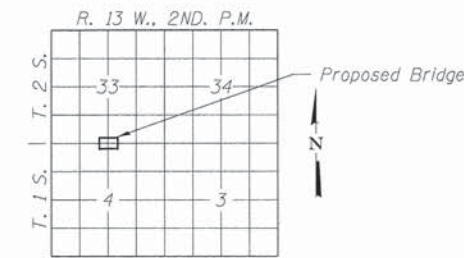
Structure closed to traffic during construction.

No Salvage



SECTION A-A

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



LOCATION SKETCH

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.  
All bars to be epoxy coated.  
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.  
Concrete sealer shall be applied to the designated areas of the abutments.

INDEX OF STRUCTURE SHEETS

1. General Plan & Elevation
2. 21"x48" PPC Deck Beam
3. 21"x48" PPC Deck Beam Details
4. Superstructure Details
5. Steel Railing, Type S-1
6. Abutments
7. HP Pile Details
- 8-9. Borings

BUILT 2011 BY  
WABASH COUNTY  
SEC. 10-05122-00-BR  
ROAD DISTRICT #5  
STR. NO. 093-3136  
LOADING HL-93

NAME PLATE  
See Std. 515001

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications, 6th Edition with 2013 Interims.

LOADING HL-93

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

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinf.)

PRECAST PRESTRESSED UNITS

$f'_c = 6,000$  psi  
 $f'_{ci} = 5,000$  psi  
 $f_{pu} = 270,000$  psi ( $\frac{1}{2}$ " low lax. strands)  
 $f_{pbt} = 201,960$  psi ( $\frac{1}{2}$ " low lax. strands)  
 $f_y = 60,000$  psi (Reinf.)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2  
Design Spectral Acceleration at 1.0 sec. ( $S_{D1}$ ) = 0.260g  
Design Spectral Acceleration at 0.2 sec. ( $S_{D5}$ ) = 0.615g  
Soil Site Class = D

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.	E. Abut.
	401.5	401.5

WATERWAY INFORMATION

Flood	Freq. Yr.	0 C.F.S.	Opening Sq. Ft.		Natural Head - Ft.		Headwater El.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	15	1673	184	311	404.12			
Base	100	2940	184	342	404.74	0.78	0.85	405.5 405.6

Drainage Area = 4.37 Sq. Mi. Existing Low Grade Elev. 404.1 @ Sta. 4+00  
Proposed Low Grade Elev. 404.3 @ Sta. 2+65

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 12/17/2014  
ILLINOIS STRUCTURAL ENGINEER NO. 081-6064



Expires 11-30-2016

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			200
Stone Dumped Riprap, Class A4	Ton			400
Removal of Existing Structures	Each			1
Concrete Structures	Cu. Yd.		22.0	22.0
Concrete Encasement	Cu. Yd.		2.8	2.8
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	1,320		1,320
Reinforcement Bars, Epoxy Coated	Pound		2,470	2,470
Steel Railing, Type S-1	Foot	109		109
Furnishing Steel Piles HP10x42	Foot		560	560
Driving Piles	Foot		560	560
Name Plates	Each		1	1
Concrete Sealer	Sq. Ft.		92	92
Terminal Marker - Direct Applied	Each		4	4

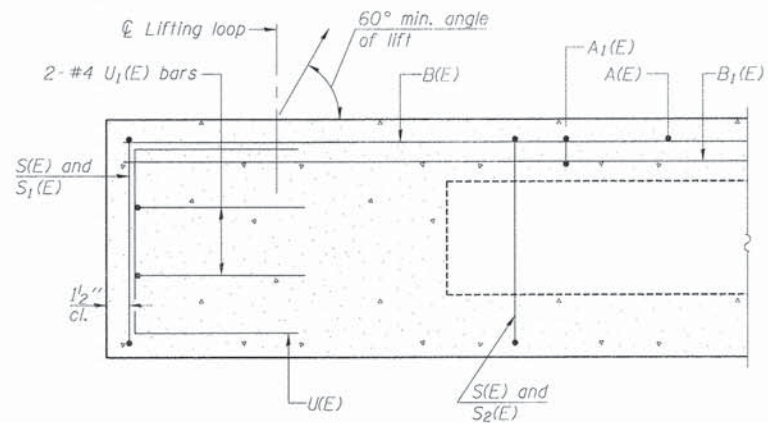
FILE NAME = 112078-sh1-bridge.dgn	USER NAME = #USER#	DESIGNED - A.S.L.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3088 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62761	PLDT SCALE = #SCALE#	CHECKED - S.W.M.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM L3 / PE / SE CORP. 184.000099	PLDT DATE = 12/17/2014	DRAWN - D.A.B.	REVISED -
		CHECKED - D.A.B.	REVISED -

STATE OF ILLINOIS  
WABASH COUNTY HIGHWAY DEPARTMENT

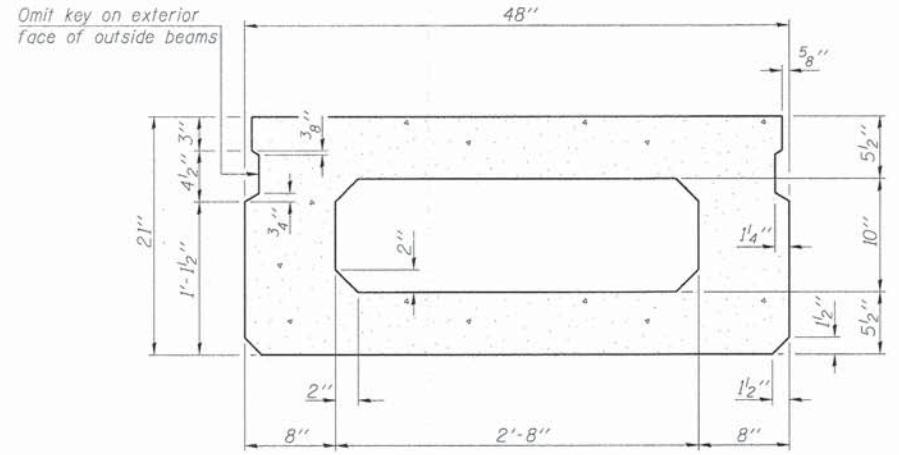
GENERAL PLAN & ELEVATION  
STRUCTURE NO. 093-3136

SHEET NO. 1 OF 9 SHEETS

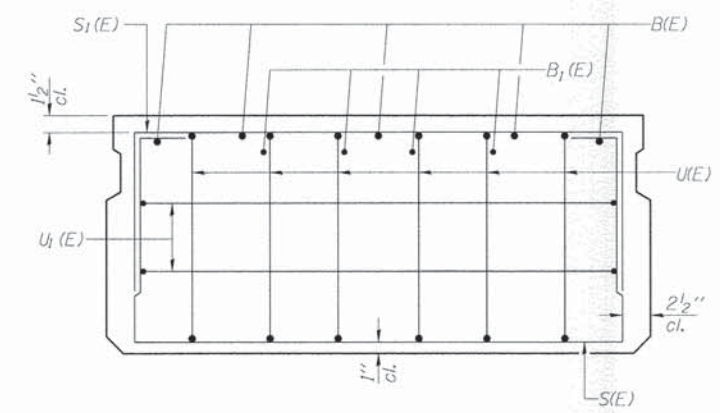
T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
149	10-05122-00-BR	WABASH	13	5
ROAD DISTRICT #5			CONTRACT NO. 95721	
ILLINOIS FED. AID PROJECT				



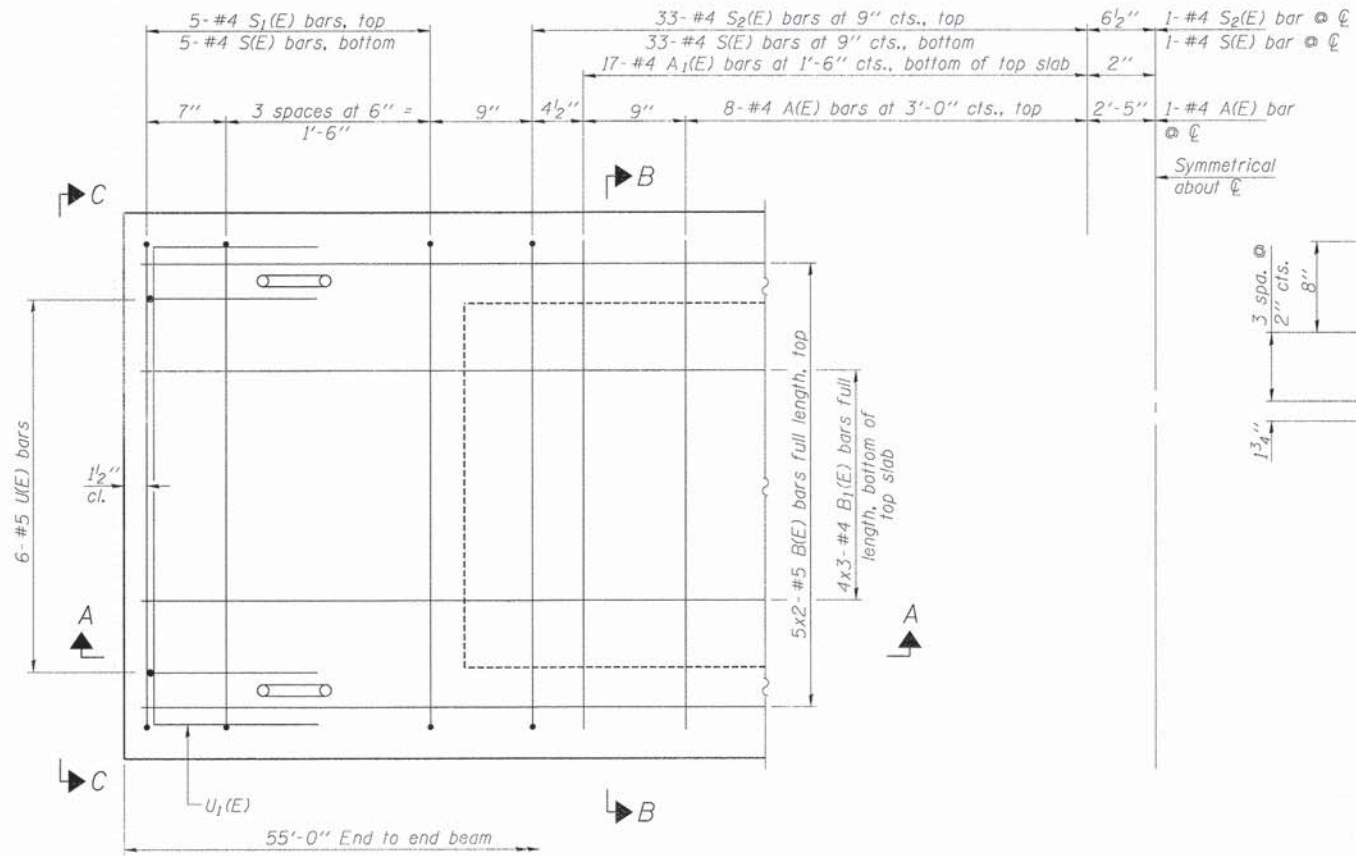
SECTION A-A



SECTION B-B  
(Showing dimensions)

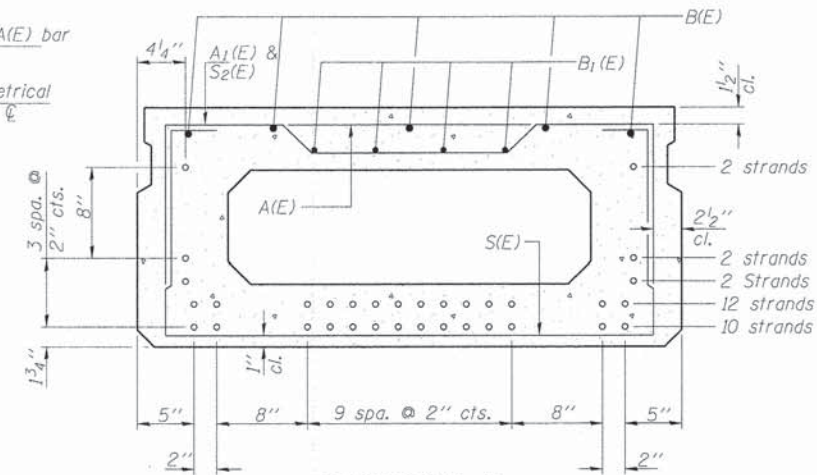


VIEW C-C



PLAN VIEW

Note:  
Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.  
Bars indicated thus 5x2-#5 etc. indicates 5 lines of bars with 2 lengths per line.



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

BAR LIST  
ONE BEAM ONLY  
(For Information Only)

Bar	No.	Size	Length	Shape
A(E)	17	#4	3'-7"	—
A1(E)	34	#4	3'-10"	~
B(E)	10	#5	28'-8"	—
B1(E)	12	#4	19'-7"	—
S(E)	77	#4	7'-5"	⌊
S1(E)	10	#4	5'-11"	⌊
S2(E)	67	#4	6'-2"	⌊
U(E)	12	#5	4'-0"	⌊
U1(E)	4	#4	6'-0"	⌊

Note: See sheets 3 and 4 of 9 for additional details and Bill of Material.

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

PD-2148-0

7-1-10

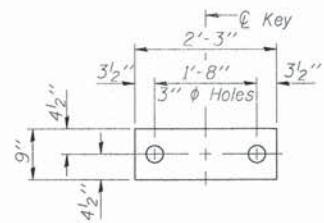
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ILLINOIS PROFESSIONAL DESIGN FIRM LE / PE / SE CORP. 184-202989	PLDT DATE = 12/17/2014	DRAWN - D.A.B.	REVISED -
		CHECKED - D.A.B.	REVISED -

STATE OF ILLINOIS  
WABASH COUNTY HIGHWAY DEPARTMENT

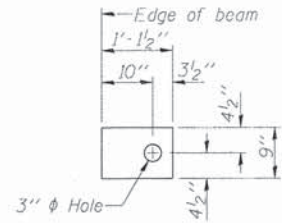
21" x 48" PPC DECK BEAM  
STRUCTURE NO. 093-3136

SHEET NO. 2 OF 9 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
149	10-05122-00-BR	WABASH	13	6
ROAD DISTRICT #5		CONTRACT NO. 95721		
ILLINOIS FED. AID PROJECT				



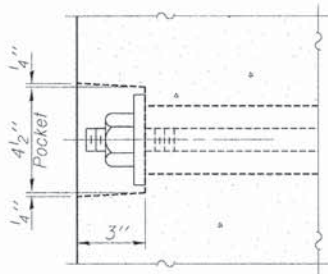
**FABRIC BEARING PAD**  
(Interior - 10 Req'd.)



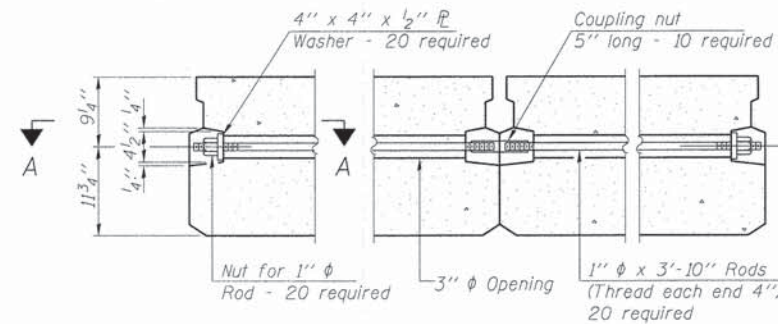
**FABRIC BEARING PAD**  
(Exterior - 4 Req'd.)

**FIXED**

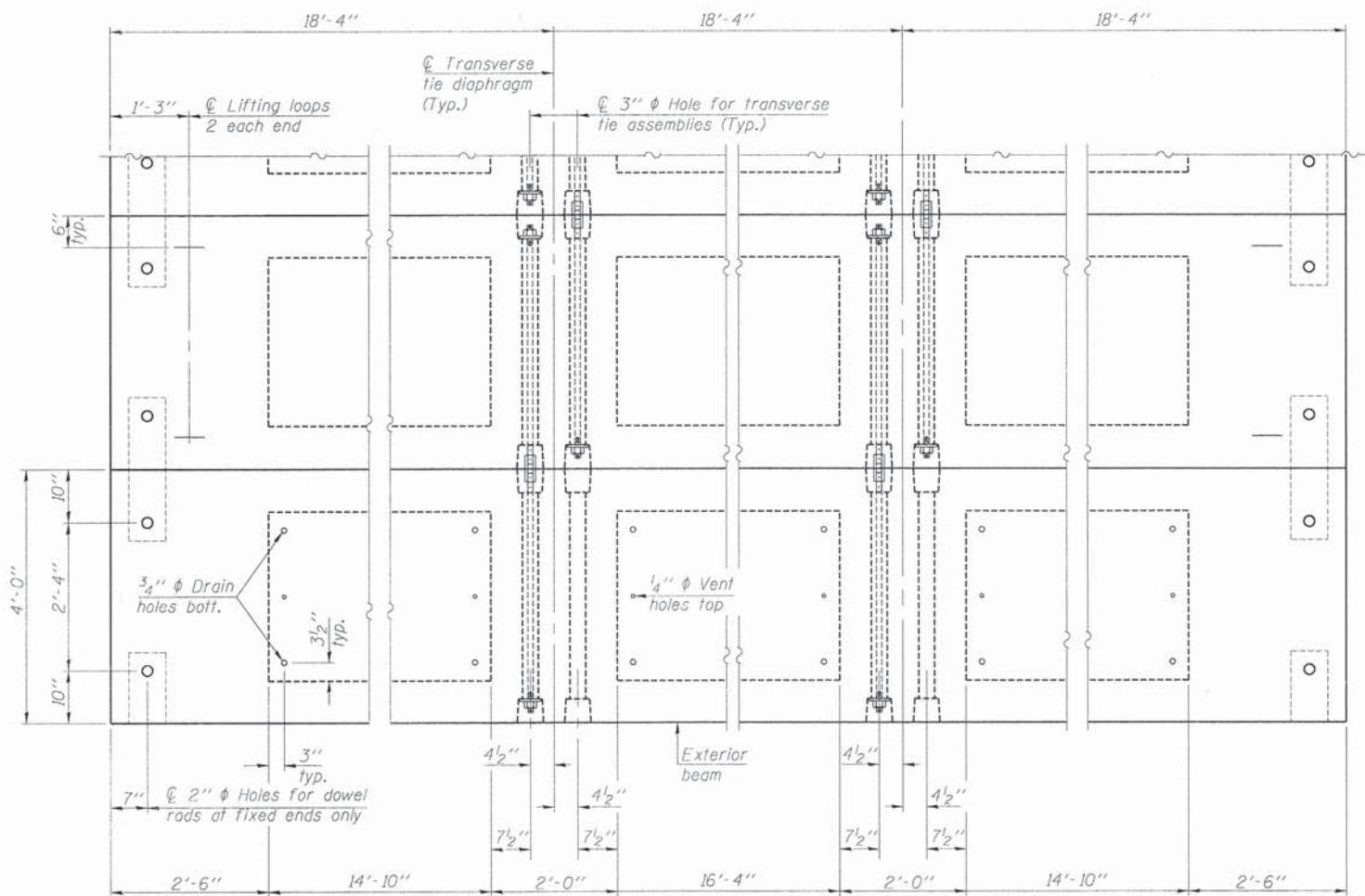
Notes:  
All bearing pads shall be 1" thick.  
Omit holes when using expansion bearings.  
Expansion bearing pad shall be bonded to the substructure.



**SECTION A-A**

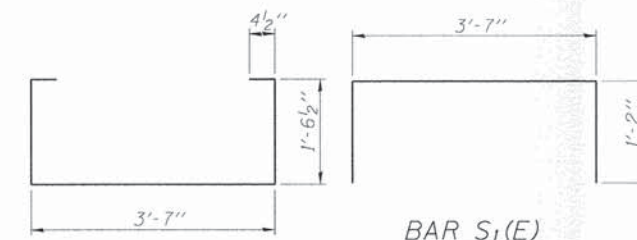


**TYPICAL TRANSVERSE TIE ASSEMBLY**

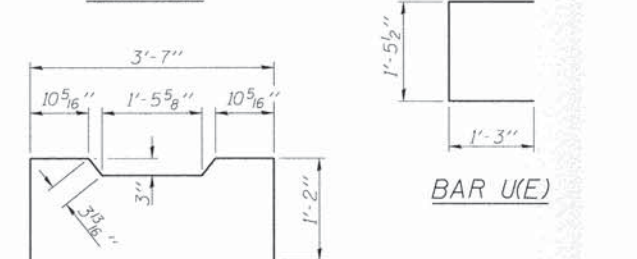


**PLAN VIEW**

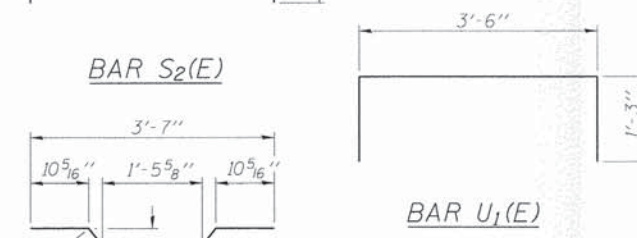
Note: Connect beams in pairs with the transverse tie configuration shown.



**BAR S(E)**



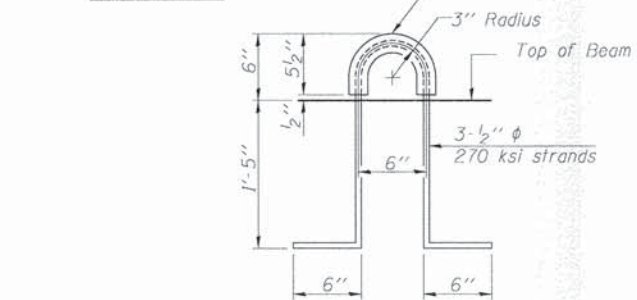
**BAR U(E)**



**BAR S2(E)**



**BAR U1(E)**



**BAR A1(E)**

**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" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.  
Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions). Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.  
A minimum 2 1/2" lifting pin shall be used to engage the lifting loops during handling.  
Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.07 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 reinforcement shall be epoxy coated.

**BILL OF MATERIAL**

Precast Prestressed Conc. Deck Bms. (21" depth)	Sq. Ft.	1,320
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PD-2148-OD 7-1-10

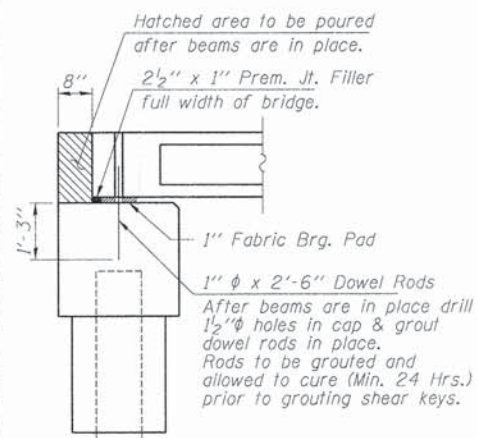
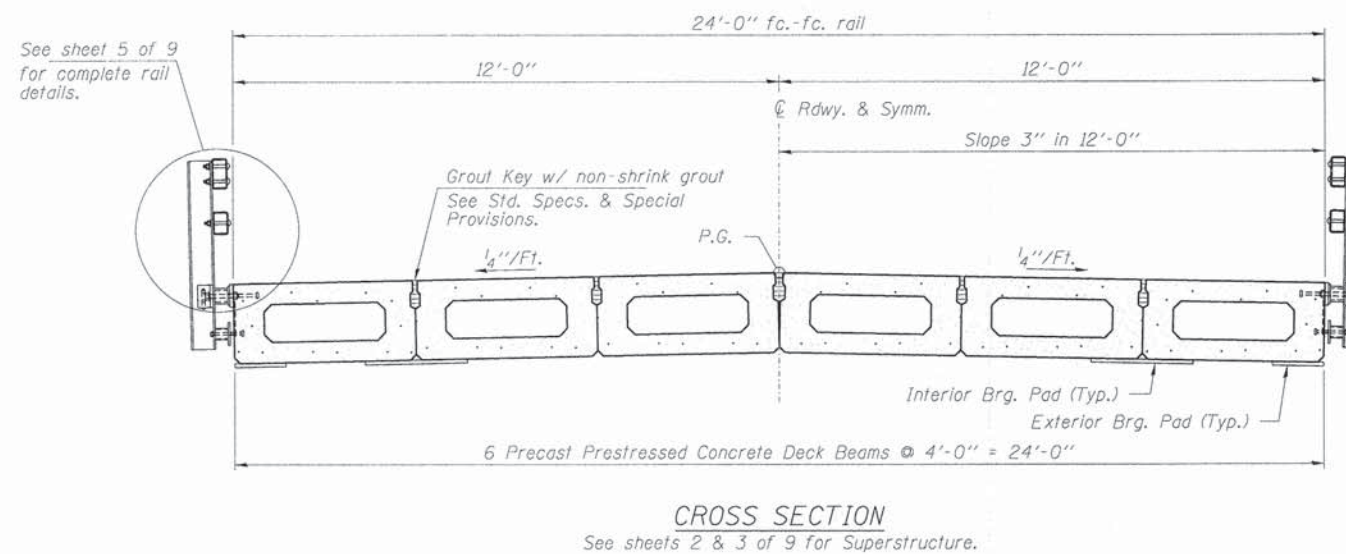
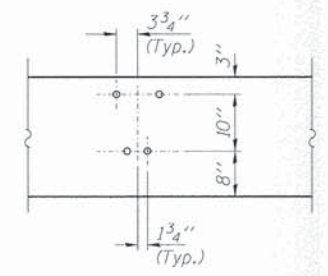
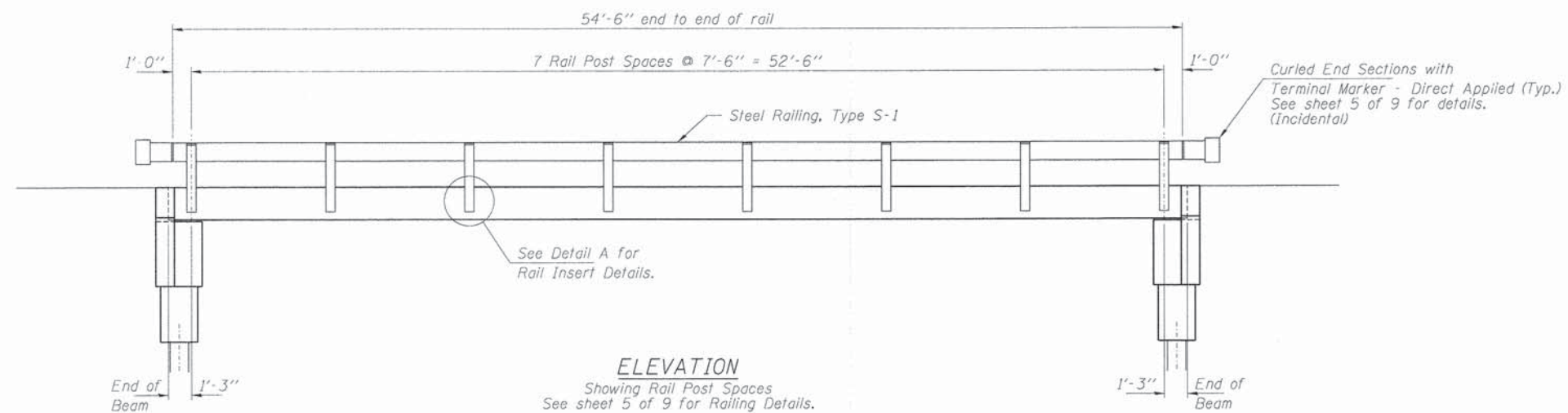
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HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62762	PLDT SCALE = #SCALE#	CHECKED - S.W.M.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM L8 / PE / SE CORP. 184.00069	PLDT DATE = 12/17/2014	DRAWN - D.A.B.	REVISED -
		CHECKED - D.A.B.	REVISED -

**STATE OF ILLINOIS**  
**WABASH COUNTY HIGHWAY DEPARTMENT**

**21" x 48" PPC DECK BEAM DETAILS**  
**STRUCTURE NO. 093-3136**

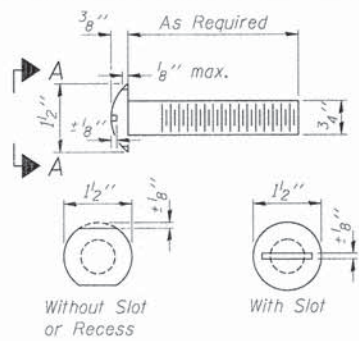
SHEET NO. 3 OF 9 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
149	10-05122-00-BR	WABASH	13	7
ROAD DISTRICT #5		CONTRACT NO. 95721		
ILLINOIS FED. AID PROJECT				

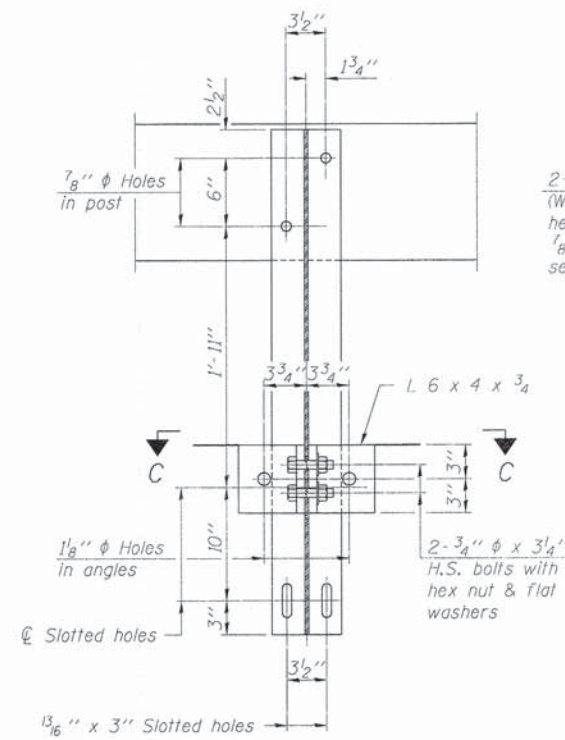
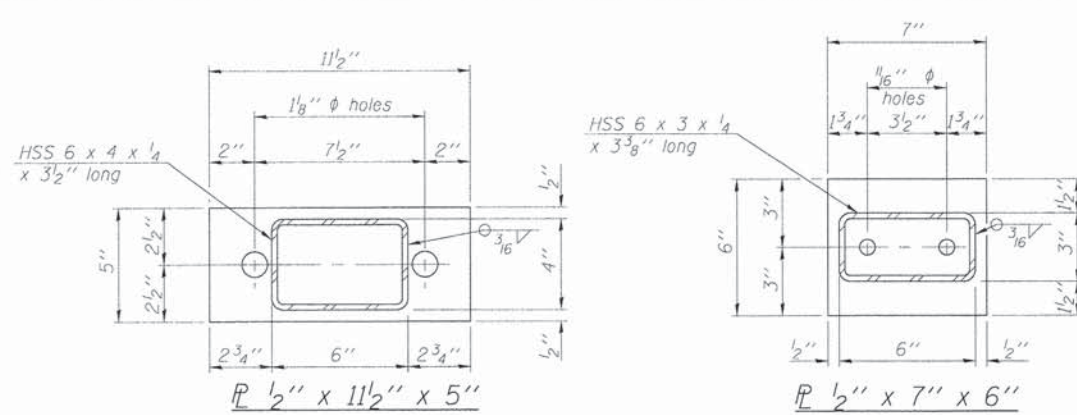


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<b>HAMPTON, LENZINI AND RENWICK, INC.</b> 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184-000650	PLOT SCALE = #SCALE#	CHECKED - S.W.M.	REVISED -			149	10-05122-00-BR	WABASH	13	8
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		CHECKED - D.A.B.	REVISED -			SHEET NO. 4 OF 9 SHEETS				
ILLINOIS FED. AID PROJECT										

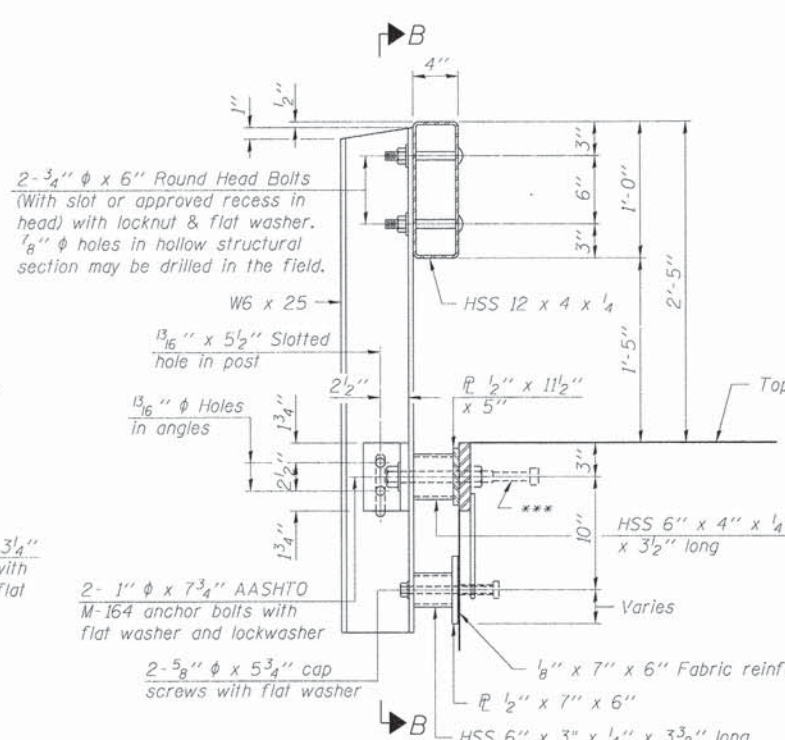




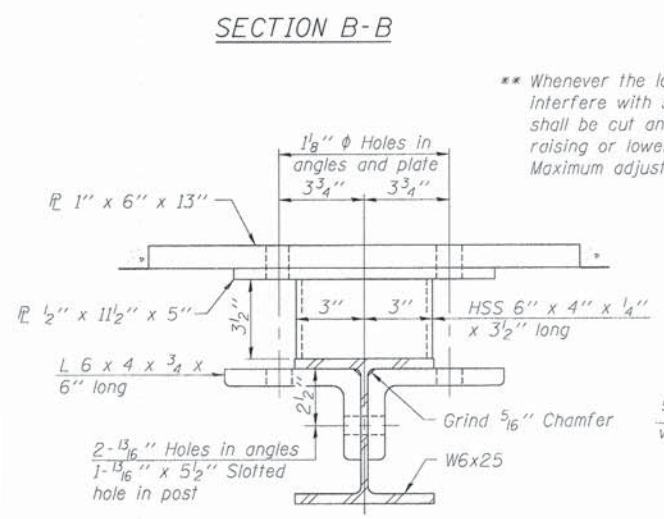
VIEW A-A  
ROUND HEAD BOLT



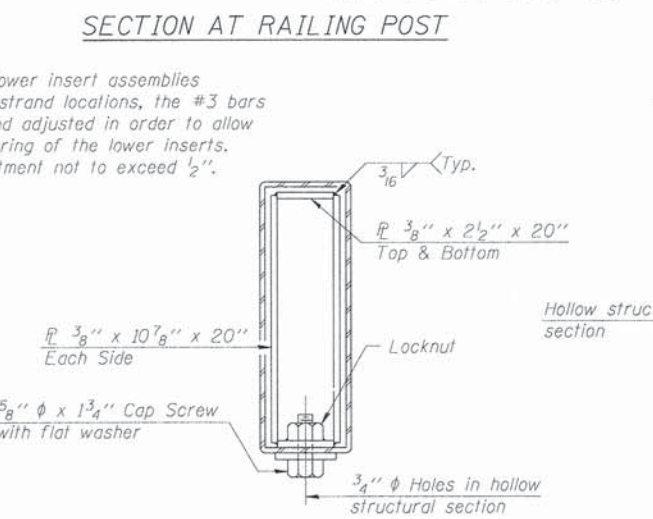
SECTION C-C



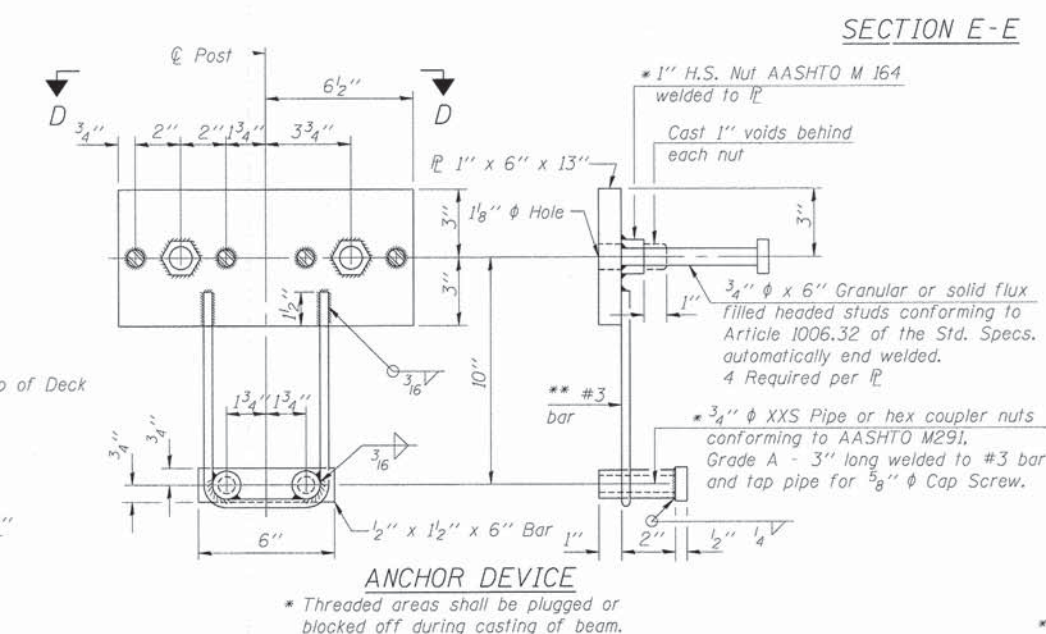
SECTION AT RAILING POST



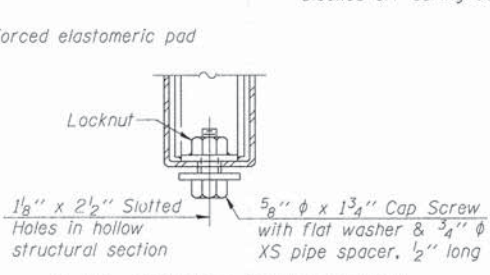
SECTION C-C



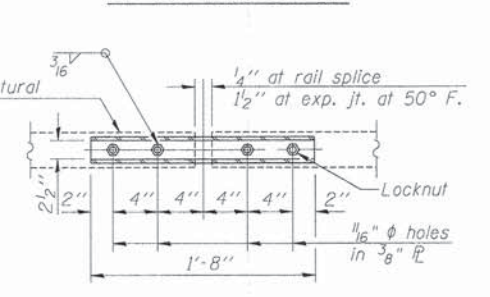
SECTIONS AT RAIL SPLICE



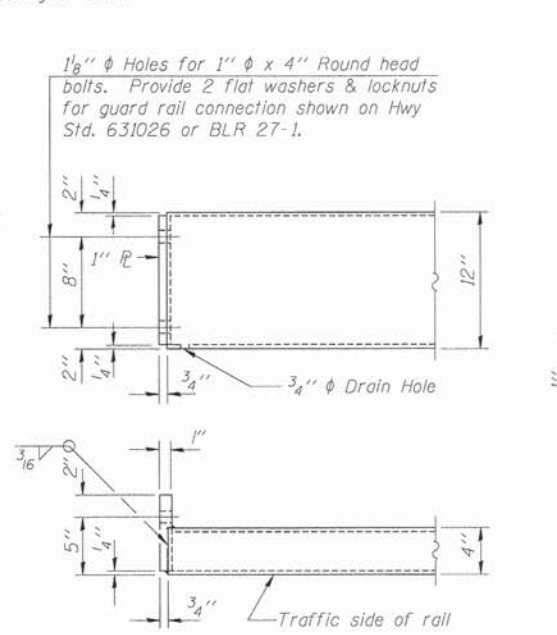
ANCHOR DEVICE



RAIL SPLICE CONNECTION AT EXPANSION JT.

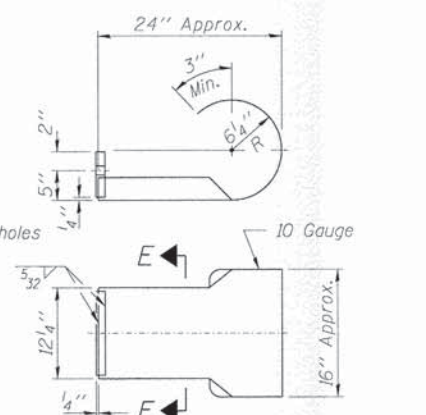


PLAN-BOTT. SPLICE TYPICAL



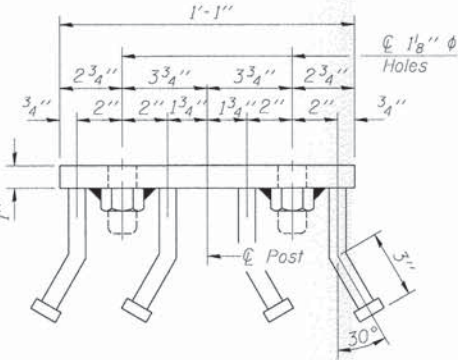
END OF RAIL DETAILS

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



SECTION E-E CURLED END SECTION DETAILS

Notes:  
All field drilled holes shall be coated with an approved zinc rich paint before erection.  
For multi-span bridges, sufficient 1/4 inch x 6 inch x 1-2 inch galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, 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

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S-1	Foot	109

R-23A 7-1-10 (10'-9" Maximum Post Spacing)

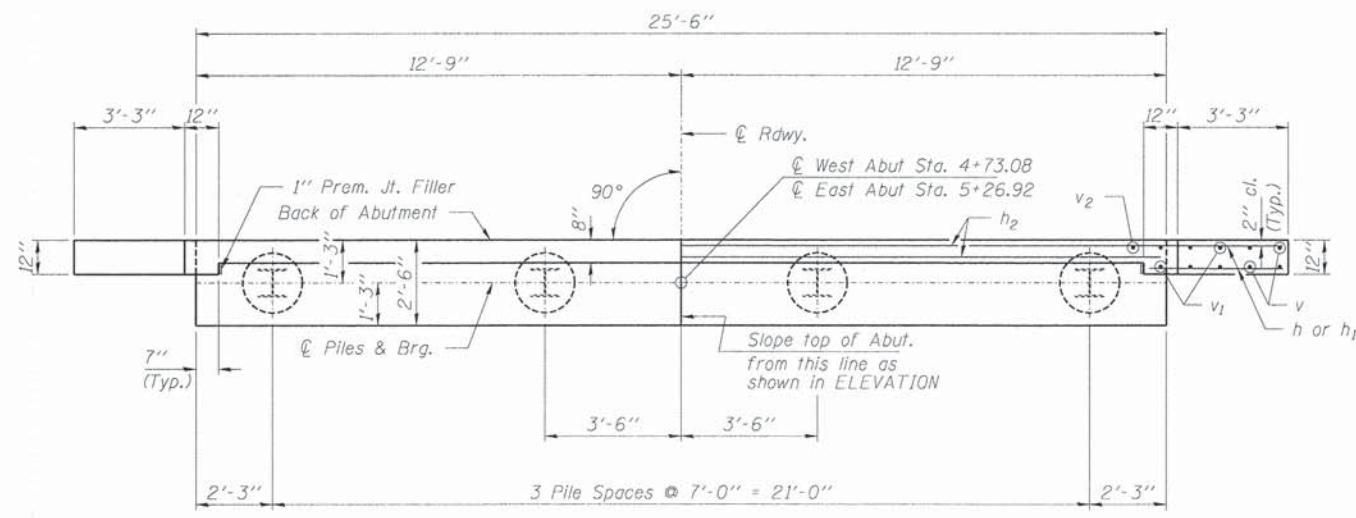
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HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62761	PLOT SCALE = #SCALE#	CHECKED - S.W.M.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM 15 / P.E. / E.C.O.P. / 184.020661	PLOT DATE = 12/17/2014	DRAWN - D.A.B.	REVISED -
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STATE OF ILLINOIS  
WABASH COUNTY HIGHWAY DEPARTMENT

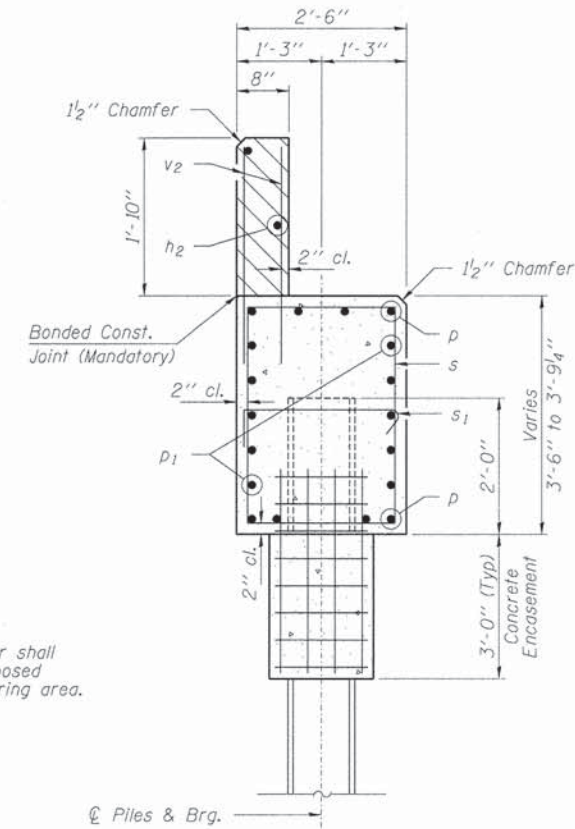
STEEL RAILING, TYPE S-1  
STRUCTURE NO. 093-3136

SHEET NO. 5 OF 9 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
149	10-05122-00-BR	WABASH	13	9
ROAD DISTRICT #5			CONTRACT NO. 95721	
ILLINOIS FED. AID PROJECT				

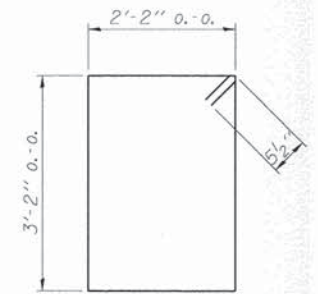


PLAN



SECTION A-A

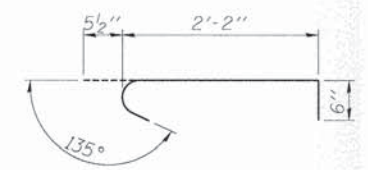
Hatched area to be poured after beams are in place.



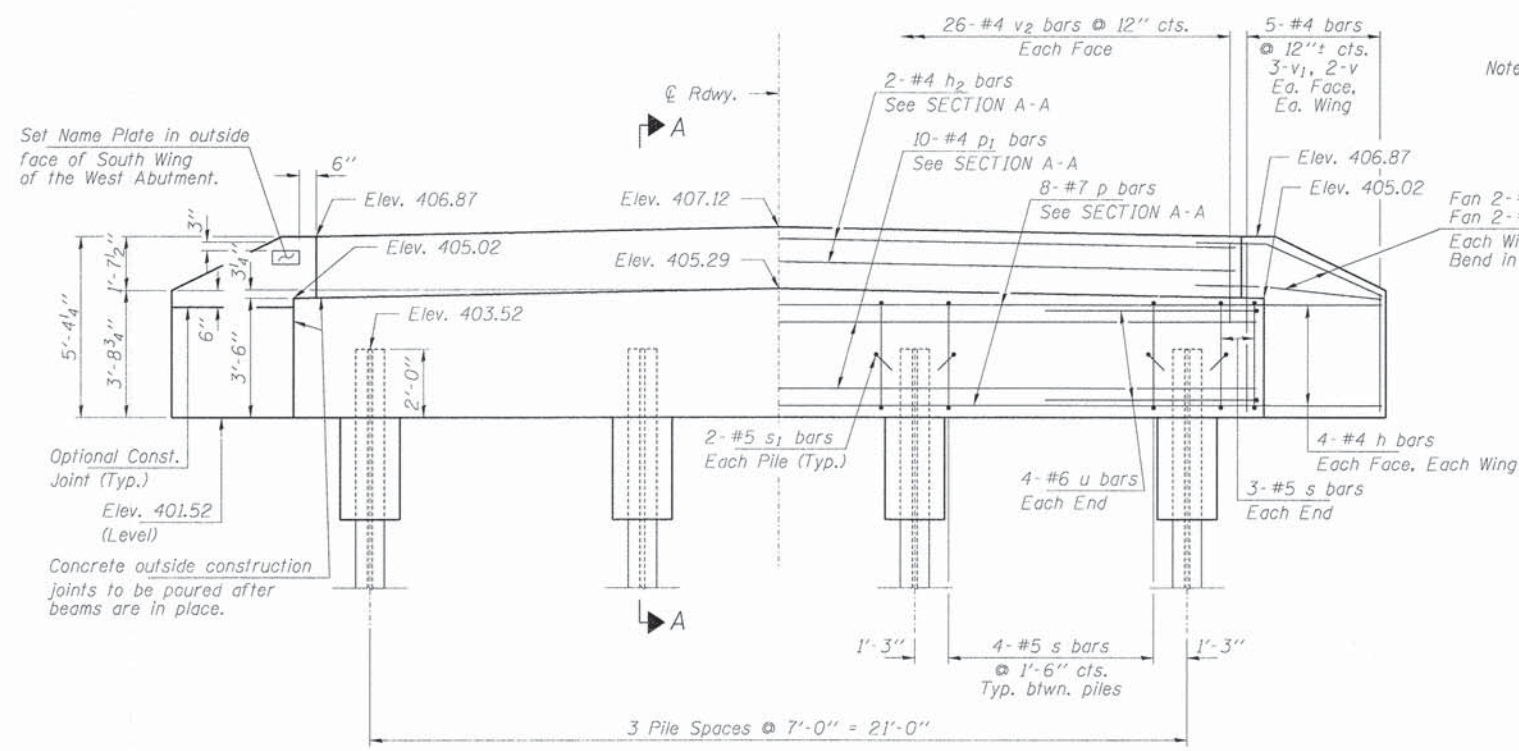
BAR s



BAR u



BAR s1



ELEVATION

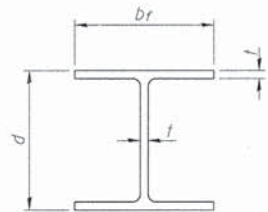
PILE DATA

Type..... Steel HP10x42  
 No. Req'd. (2 Abutments)..... 8  
 Factored Resistance Available (RF)..... 184 Kips/Pile  
 Nominal Required Bearing (Rn)..... 335 Kips/Pile  
 Est. Length..... 70 Ft/Pile

BILL OF MATERIAL - 2 ABUTS.

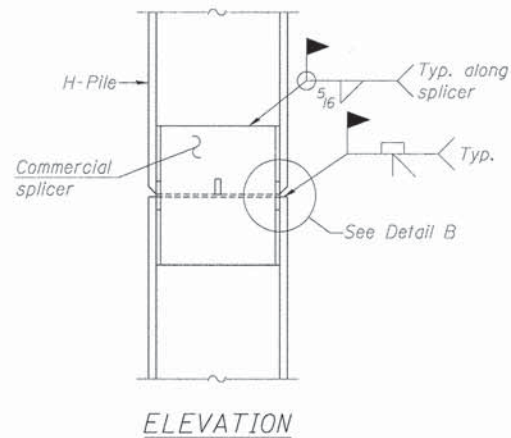
BAR	NO.	SIZE	LENGTH	SHAPE
h	40	#4	5'-6"	—
h1	8	#4	4'-0"	—
h2	4	#4	25'-2"	—
p	16	#7	25'-2"	—
p1	20	#4	25'-2"	—
s	36	#5	11'-7"	□
s1	16	#5	3'-2"	U
u	16	#6	12'-1"	U
v	16	#4	3'-5"	—
v1	24	#4	4'-5"	—
v2	104	#4	2'-8"	—
Concrete Structures			Cu. Yd.	22.0
Concrete Encasement			Cu. Yd.	2.8
Reinforcement Bars, Epoxy Coated			Pound	2,470
Steel Piles HP10x42			Foot	560
Name Plates			Each	1
Concrete Sealer			Sq. Ft.	92

All reinforcement bars shall be epoxy coated

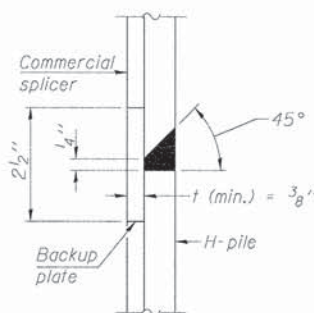


STEEL PILE TABLE

Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1 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 1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	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 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"

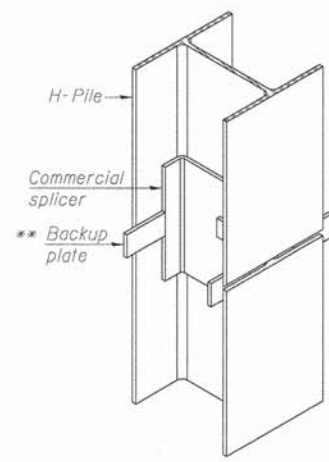


ELEVATION

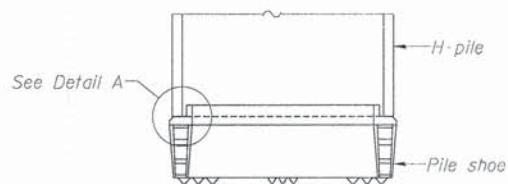


DETAIL "B"

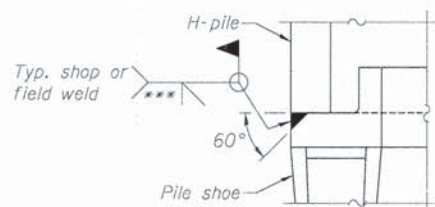
WELDED COMMERCIAL SPLICE



ISOMETRIC VIEW

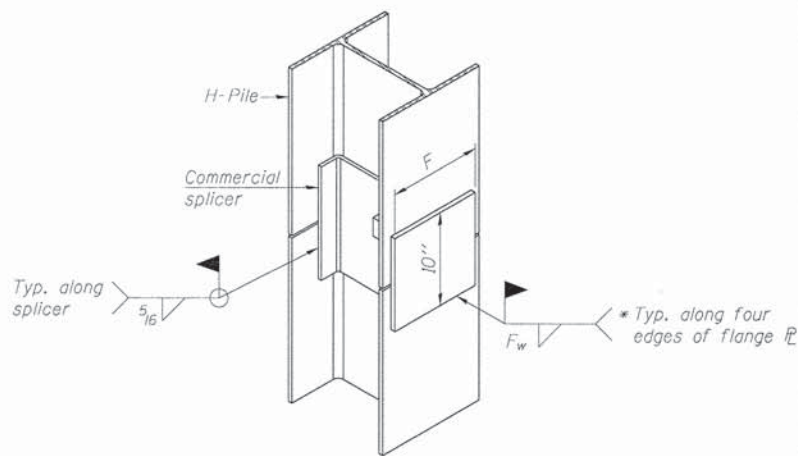


ELEVATION



DETAIL A

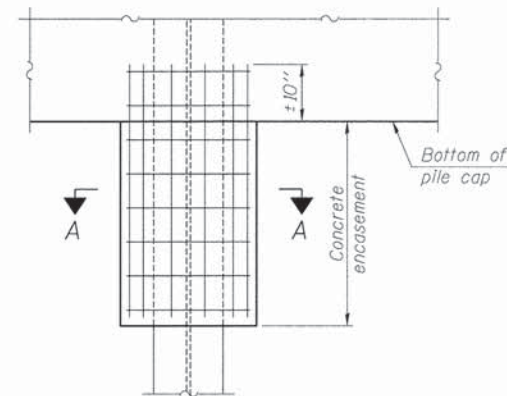
H-PILE SHOE ATTACHMENT



ISOMETRIC VIEW

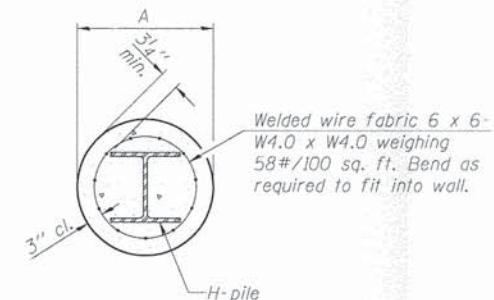
WELDED COMMERCIAL SPLICE ALTERNATE

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



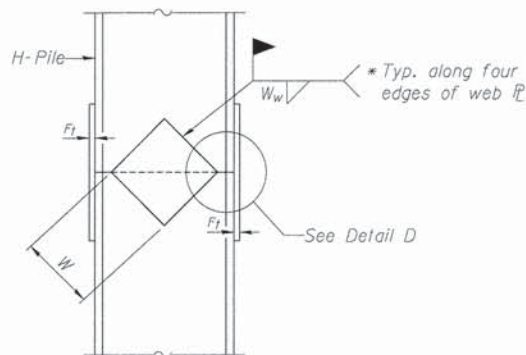
ELEVATION

PILE ENCASEMENT

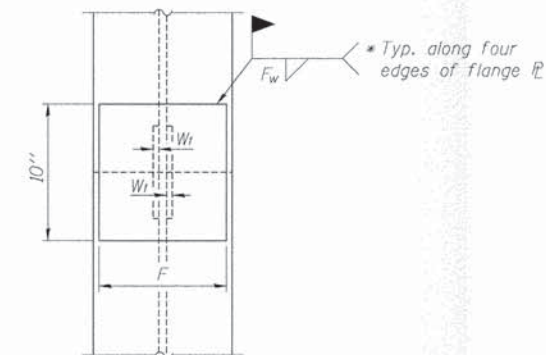


SECTION A-A

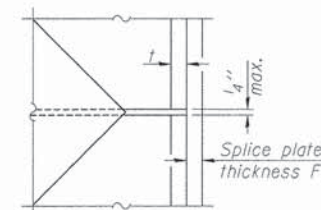
Note:  
Forms for encasement may be omitted when soil conditions permit.



ELEVATION



END VIEW



DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	Ft	Fw	W	Wt	Ww
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"

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

F-HP

1-27-12

FILE NAME = 118078-sht-bridge.dgn	USER NAME = #USER#	DESIGNED - A.S.L.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3080 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62793	PLOT SCALE = #SCALE#	CHECKED - S.W.M.	REVISED -
ILR ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.00959	PLOT DATE = 12/17/2014	DRAWN - D.A.B.	REVISED -
		CHECKED - D.A.B.	REVISED -

STATE OF ILLINOIS  
WABASH COUNTY HIGHWAY DEPARTMENT

HP PILE DETAILS  
STRUCTURE NO. 093-3136

SHEET NO. 7 OF 9 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
149	10-05122-00-BR	WABASH	13	11
ROAD DISTRICT #5		CONTRACT NO. 95721		
ILLINOIS FED. AID PROJECT				



