

11-08-13 LETTING ITEM 061

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 30	09-00268-00-BR	SHELBY	27	1
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 95722	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PLANS FOR PROPOSED
SURFACE TRANSPORTATION PROGRAM – BRIDGE**

**PROJECT BROS-0173(181)
SECTION 09-00268-00-BR
SHELBY COUNTY
C.H. 30
PROPOSED STRUCTURE NO. 087-3573
JOB NO. C-97-084-12**

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1.	COVER SHEET
2.	SUMMARY OF QUANTITIES AND GENERAL NOTES
3.	SCHEDULE OF QUANTITIES
4.	TYPICAL CROSS SECTIONS
5.-6.	PLAN & PROFILE
7.-16.	STATION CROSS SECTIONS
17.-26.	BRIDGE PLANS
27.	BORINGS

HIGHWAY STANDARDS:

000001-06	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
515001-03	NAME PLATE FOR BRIDGES
630001-10	STEEL PLATE BEAM GUARDRAIL
630301-06	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
701901-02	TRAFFIC CONTROL DEVICES
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
BLR 27-1	TRAFFIC BARRIER TERMINAL, TYPE 5A

UTILITIES

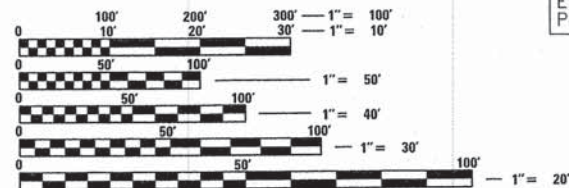
SHELBY ELECTRIC COOPERATIVE
P.O. BOX 166
SHELBYVILLE, IL 62565
ATTN: JIM MATLOCK

LINCOLN PRAIRIE WATER COMPANY
P.O. BOX 554
SHELBYVILLE, IL 62565

CONSOLIDATED COMMUNICATIONS
121 SOUTH 17TH STREET
MATTOON, IL 61938
ATTN: GERRY MEYERS



FUNCTIONAL CLASSIFICATION: LOCAL ROAD (250-400 ADT)
DESIGN SPEED: 30 MPH
DESIGN TRAFFIC: 175 ADT (2010)

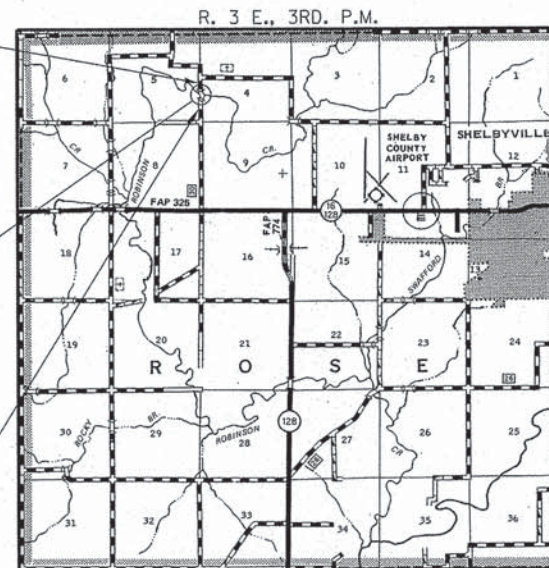


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

STA. 10+02
PRECAST PRESTRESSED CONCRETE DECK BEAM BRIDGE. THREE SPANS: 33'-0", 55'-0", 33'-0"
24'-0" RDWY.; SKEW = 0°
EXISTING STRUCTURE NO. 087-3035
PROPOSED STRUCTURE NO. 087-3573

IMPROVEMENT ENDS
STATION 12+50

IMPROVEMENT BEGINS
STATION 7+00

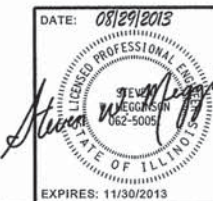


LOCATION MAP

APPROXIMATE SCALE: 0 1 MILE
NET LENGTH OF SECTION = 550 FEET = 0.104 MILES



ILLINOIS DEPARTMENT OF TRANSPORTATION	
APPROVED	9-4 2013 <i>S. De G...</i> COUNTY ENGINEER
PASSED	9-11 2013 <i>Maurice...</i> DISTRICT SEVEN ENGINEER OF LOCAL ROADS & STREETS
Releasing For Bid Based on Limited Review	9-11 2013 <i>Boyer...</i> DEPUTY DIRECTOR OF HIGHWAYS REGION FOUR ENGINEER STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION



HAMPTON, LENZINI AND RENWICK, INC.
CIVIL ENGINEERS - STRUCTURAL ENGINEERS - LAND SURVEYORS
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
217.546.3400 www.hlrengineering.com

DATE: 08/29/2013
EXPIRES: 11/30/2013
PROJECT NUMBER: 09.0149.130
DATE: 08/29/13

CONTRACT NO. 95722

SUMMARY OF QUANTITIES			
CODE NO.	ITEM	CONSTRUCTION TYPE CODE X011	
		UNIT	TOTAL
20100500	TREE REMOVAL, ACRES	ACRE	0.1
20200100	EARTH EXCAVATION	CU YD	105
20300100	CHANNEL EXCAVATION	CU YD	135
20400800	FURNISHED EXCAVATION	CU YD	170
A 25000200	SEEDING, CLASS 2	ACRE	0.5
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	45
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	45
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	45
25100115	MULCH, METHOD 2	ACRE	0.5
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	100
A 28000305	TEMPORARY DITCH CHECKS	FOOT	20
28100207	STONE RIPRAP, CLASS A4	TON	290
28200200	FILTER FABRIC	SQ YD	370
35100100	AGGREGATE BASE COURSE, TYPE A	TON	456
40300100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	340
40300300	BITUMINOUS MATERIALS (COVER AND SEALCOATS)	GALLON	1,115
40300500	COVER COAT AGGREGATE	TON	25
40300600	SEAL COAT AGGREGATE	TON	18
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
A 50201101	COFFERDAM (TYPE 1) (LOCATION-1)	EACH	1
A 50201102	COFFERDAM (TYPE 1) (LOCATION-2)	EACH	1
50300225	CONCRETE STRUCTURES	CU YD	88.0
50300280	CONCRETE ENCASEMENT	CU YD	2.8
A 50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	2,904
50800105	REINFORCEMENT BARS	POUND	6,990
* 50900205	STEEL RAILING, TYPE S1	FOOT	253
51201400	FURNISHING STEEL PILES HP10X42	FOOT	390

* SPECIALTY ITEMS

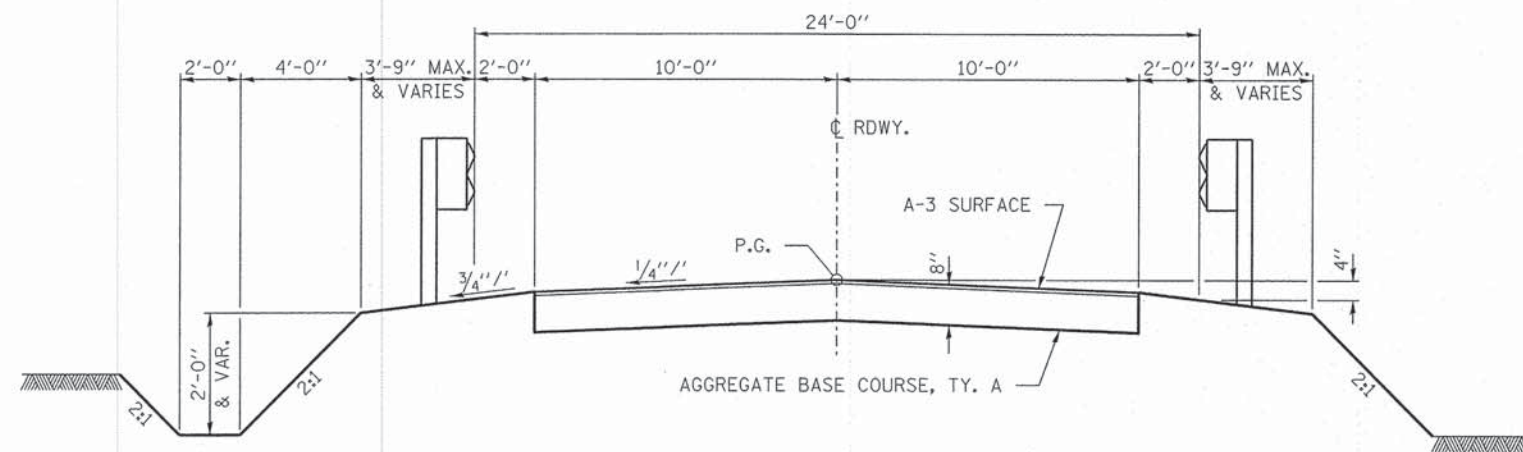
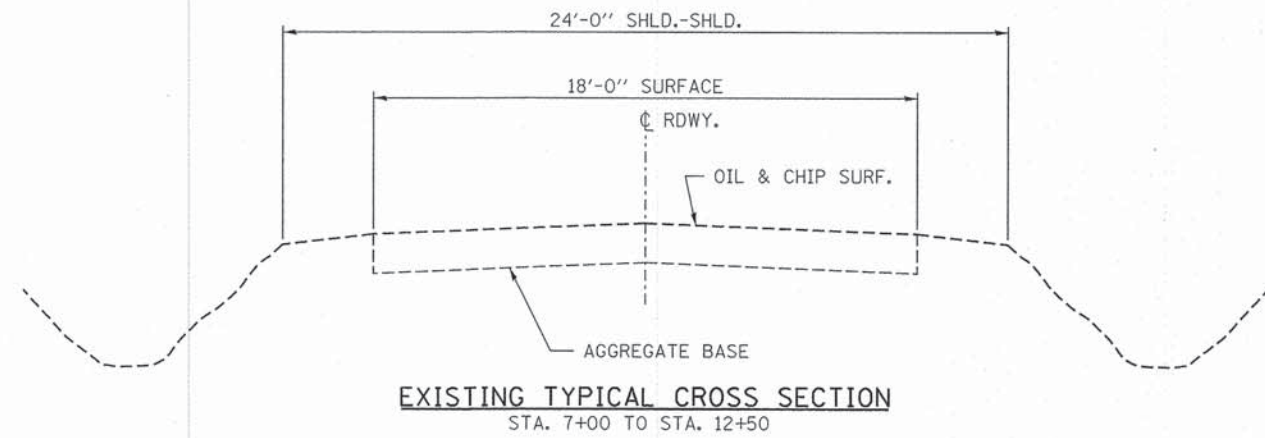
SUMMARY OF QUANTITIES			
CODE NO.	ITEM	CONSTRUCTION TYPE CODE X011	
		UNIT	TOTAL
51202305	DRIVING PILES	FOOT	140
51203400	TEST PILE STEEL HP 10X42	EACH	1
51500100	NAME PLATES	EACH	1
A 542D0223	PIPE CULVERTS, CLASS D, TYPE 1 18"	FOOT	42
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	45
63000003	STEEL PLATE BEAM GUARD RAIL, TYPE A, 9 FOOT POSTS	FOOT	100
63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	4
A 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4
67100100	MOBILIZATION	L SUM	1
A 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
A X2810208	STONE RIPRAP, CLASS A4 (SPECIAL)	TON	850
A Z0065000	SETTING PILES IN ROCK	EACH	10

A SEE SPECIAL PROVISIONS

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JANUARY 1, 2012," THESE PLANS AND THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.
- ALL CLEARING AND GRUBBING, FENCE REMOVAL AND REMOVAL OF EXISTING DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION. THE REMOVAL OF THE EXISTING BITUMINOUS SURFACE WILL BE PAID FOR AS EARTH EXCAVATION. ALL BITUMINOUS MATERIAL SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN A METHOD APPROVED BY THE ENGINEER. PROPER DISPOSAL OF BITUMINOUS MATERIAL SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- THE LOCATION OF EXISTING GAS MAINS, 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 THE LOCATIONS ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE INDIVIDUAL UTILITY COMPANIES AND BY FIELD INSPECTION.
- 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.
- THE CONTRACTOR SHALL CONSULT THE ENGINEER IN REGARD TO THE EXACT LENGTH OF PIPE CULVERTS AND PIPE DRAINS BEFORE ORDERING THESE ITEMS.
- THE REVISION NUMBER INDICATED FOR THE STANDARDS LISTED IN THE INDEX SHEETS SHALL BE USED IN THE CONSTRUCTION OF THIS SECTION.
- THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES.

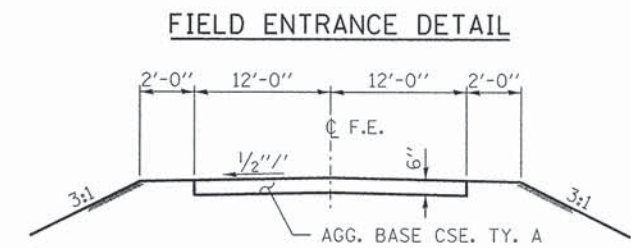
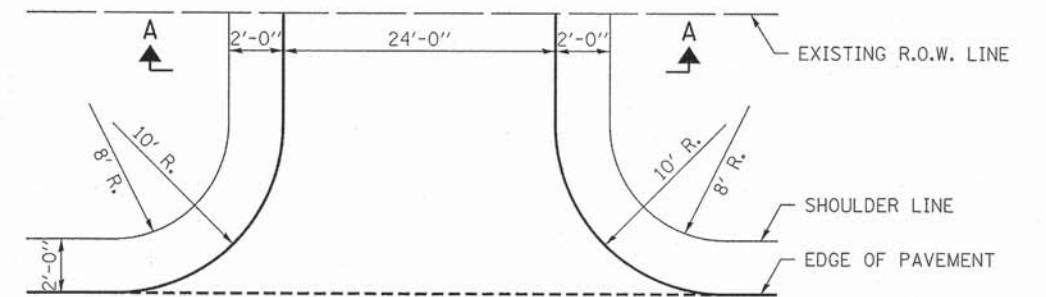
AGGREGATE BASE COURSE	2.05 TON/CU YD
STONE RIPRAP	1.75 TON/CU YD
BITUMINOUS MATERIALS (PRIME COAT)	0.35 GALLONS/SQ YD
BITUMINOUS MATERIALS (COVER AND SEAL COAT)	0.35 GALLONS/SQ YD
AGGREGATE COAT (COVER AND SEAL COAT)	25 POUNDS/SQ YD
- THE AREA TO BE SEEDED SHALL CONSIST OF ALL EARTH SURFACES DISTURBED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER.
- TREES WITHIN THE RIGHT-OF-WAY WHICH INTERFERE WITH CONSTRUCTION SHALL BE REMOVED ONLY AT THE DIRECTION OF THE ENGINEER. THE AREA DESIGNATED FOR REMOVAL SHALL BE MARKED AND MEASURED FOR PAYMENT BY THE ENGINEER BEFORE REMOVAL.



SUGGESTED CUT SECTION
CONSTRUCT AS SHOWN IN
STATION CROSS SECTIONS

SUGGESTED FILL SECTION
CONSTRUCT AS SHOWN IN
STATION CROSS SECTIONS

TRANSITION FROM THE PROPOSED ROADWAY TO THE EXISTING
ROADWAY IS TO BE CONSTRUCTED FROM STA. 7+00 TO 7+50 AND
STA. 12+00 TO 12+50. SEE SHEET 17 FOR TRANSITION AT BRIDGE.



FILE NAME = 090149-ah-typsections.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 200 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62765		DRAWN - D.T.M.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000099	PLOT SCALE =	CHECKED - S.W.M.	REVISED -
	PLOT DATE = 8/29/2013	DATE - 08/29/13	REVISED -

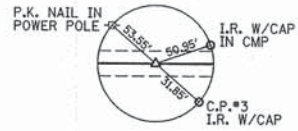
**STATE OF ILLINOIS
SHELBY COUNTY HIGHWAY DEPARTMENT**

TYPICAL CROSS SECTIONS			
SCALE:	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
30	09-00268-00-BR	SHELBY	27	4
CONTRACT NO. 95722				
ILLINOIS FED. AID PROJECT				

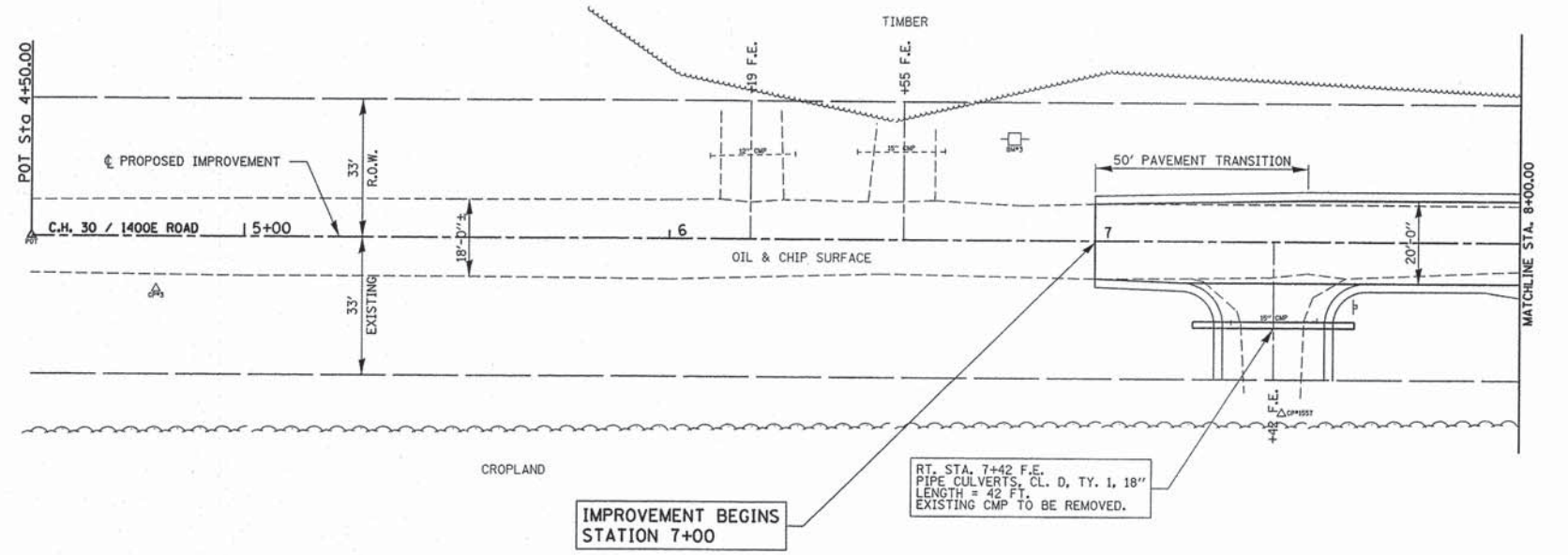
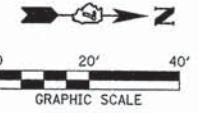
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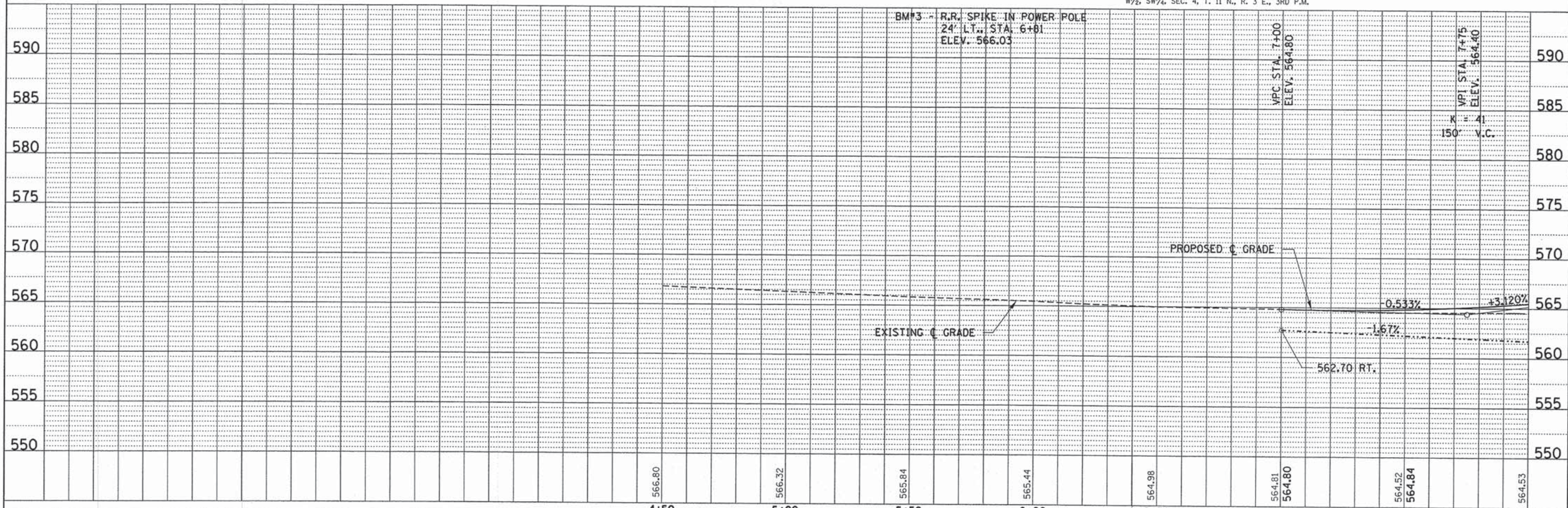


P.O.T. STA. 4+50.00
PK NAIL (SET)
N. 1,004,356.815
E. 829,611.468

RONALD PFEIFFER, SR.
NE 1/4, SE 1/4, SEC. 5, T. 11 N., R. 3 E., 3RD P.M.



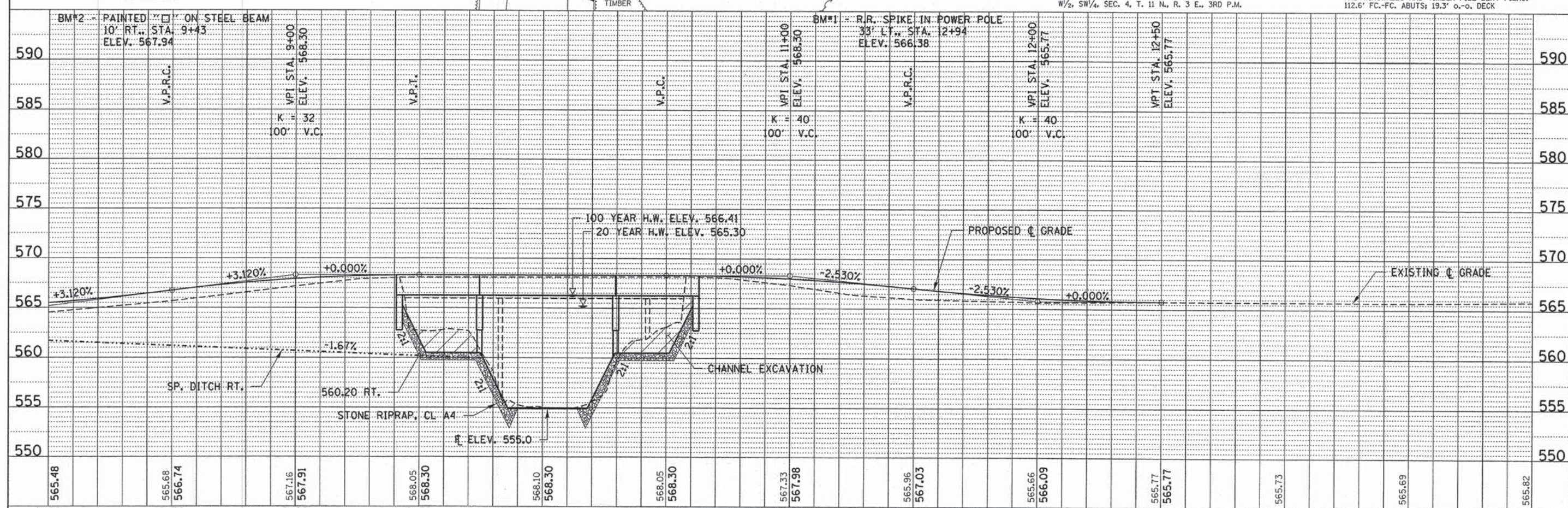
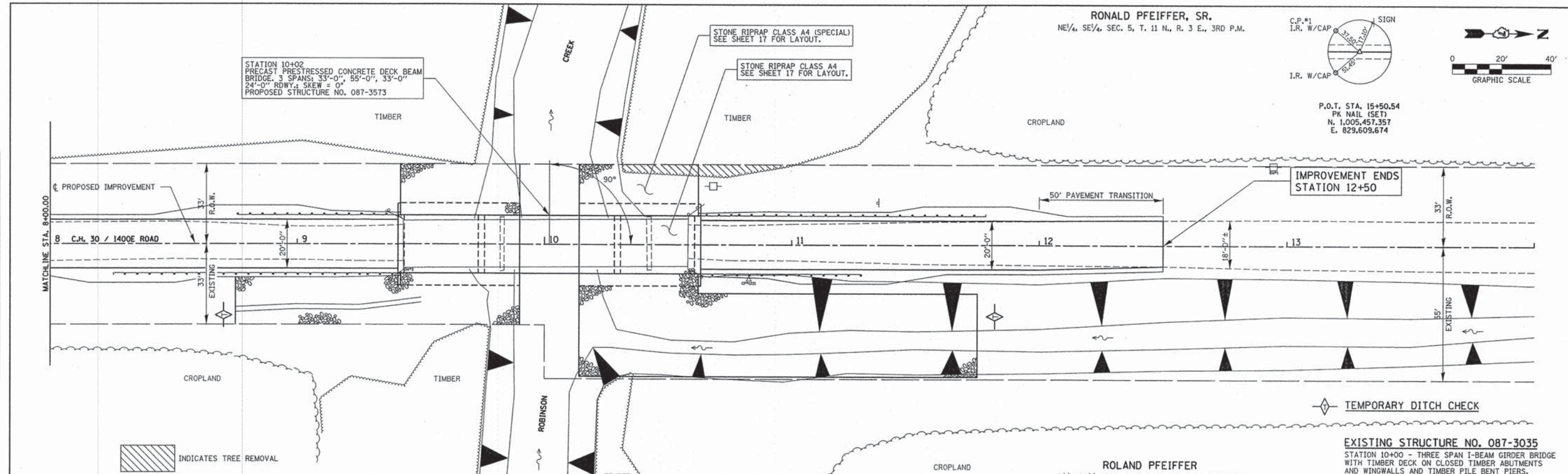
ROLAND PFEIFFER
W 1/2, SW 1/4, SEC. 4, T. 11 N., R. 3 E., 3RD P.M.



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HAMPTON, LENZINI AND RENWICK, INC. 2045 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62761 ILLINOIS PROFESSIONAL DESIGN FIRM L&R/PE/SE CORP. 184-000989	PLOT SCALE =	DRAWN - D.T.M.	REVISED -	566.80	566.32	565.84	565.44	564.98	564.81 564.80	564.52 564.84	564.53	
PLOT DATE = 8/29/2013		CHECKED - S.W.M.	REVISED -	STATE OF ILLINOIS SHELBY COUNTY HIGHWAY DEPARTMENT								
		DATE - 08/29/13	REVISED -	PLAN & PROFILE				C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
				SCALE: H20xV5 SHEET NO. 1 OF 2 SHEETS STA. 4+50.00 TO STA. 7+00.00				30	09-00268-00-BR	SHELBY	27	5
				CONTRACT NO. 95722								
				ILLINOIS FED. AID PROJECT								

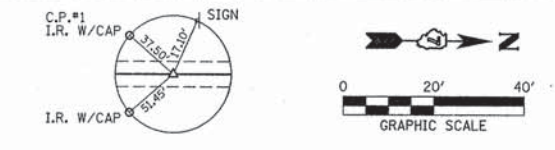
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HAMPTON, LENZINI AND RENWICK, INC. 3030 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62778 ILLINOIS PROFESSIONAL DESIGN FIRM L3 / PE / SE CORP. 184.000000	PLOT SCALE =	DRAWN - D.T.M.	REVISED -			30	09-00268-00-BR	SHELBY	27	6	
PLOT DATE = 8/29/2013	DATE - 08/29/13	CHECKED - S.W.M.	REVISED -			CONTRACT NO. 95722					
						(ILLINOIS) FED. AID PROJECT					

RONALD PFEIFFER, SR.
 NE 1/4, SE 1/4, SEC. 5, T. 11 N., R. 3 E., 3RD P.M.



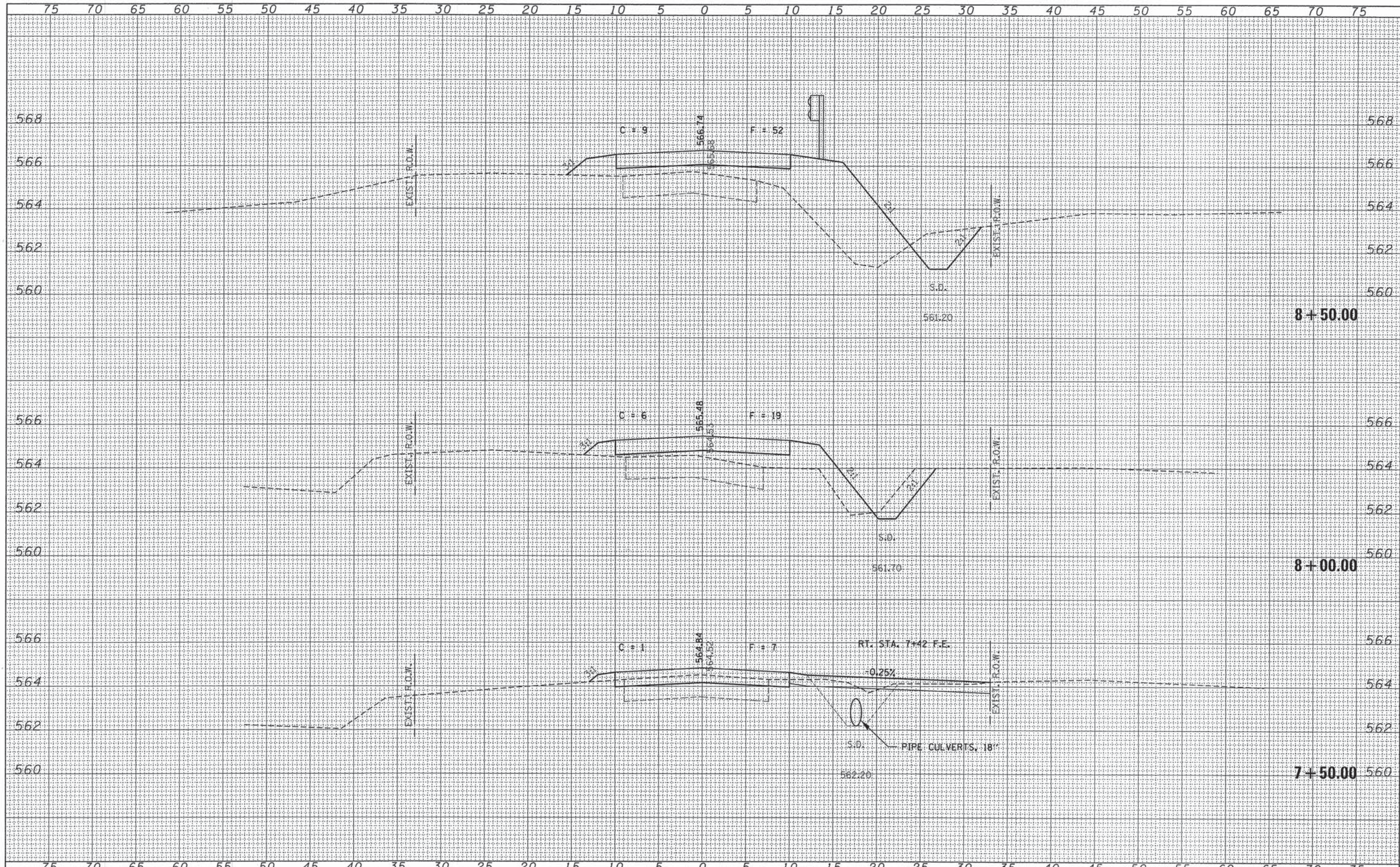
P.O.T. STA. 15+50.54
 PK NAIL (SET)
 N. 1,005,457.357
 E. 829,609.674

EXISTING STRUCTURE NO. 087-3035
 STATION 10+00 - THREE SPAN I-BEAM GIRDER BRIDGE
 WITH TIMBER DECK ON CLOSED TIMBER ABUTMENTS
 AND WINGWALLS AND TIMBER PILE BENT PIERS.
 112.6' FC-FC. ABUTS; 19.3' o.-o. DECK

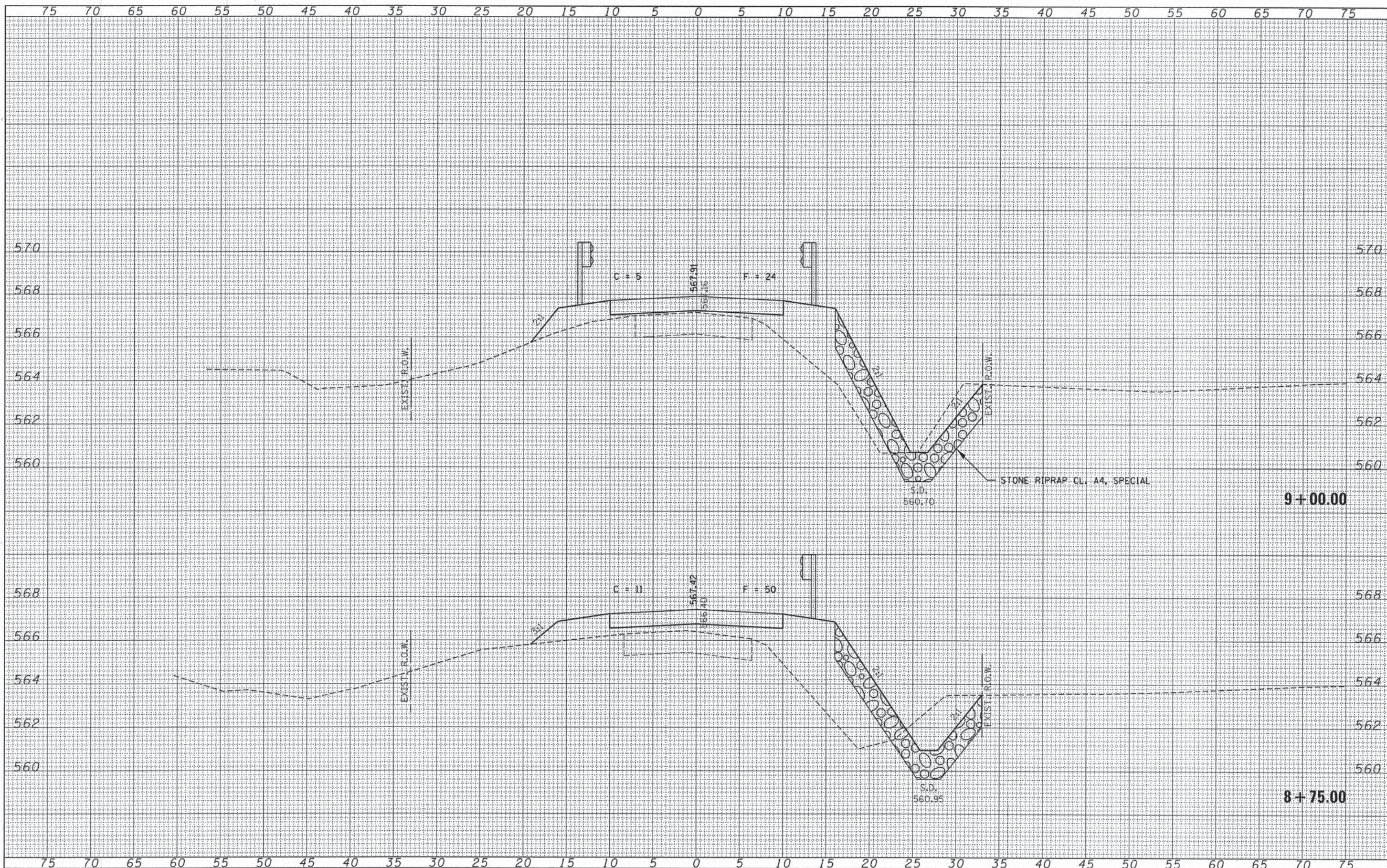
ROLAND PFEIFFER
 W/2, SW/4, SEC. 4, T. 11 N., R. 3 E., 3RD P.M.

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HAMPTON, LENZINI AND RENWICK, INC. 2005 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62793 ILLINOIS PROFESSIONAL DESIGN FIRM LB / PE / SE CORP. 184-000099	PLOT SCALE =	DRAWN - D.T.M.	REVISED -		SCALE: H5:V2	SHEET NO. 2 OF 10 SHEETS	STA. 7+50.00 TO STA. 8+50.00	30	09-00268-00-BR	SHELBY	27	8
PLOT DATE = 8/29/2013	DATE = 08/29/13	CHECKED - S.W.M.	REVISED -		CONTRACT NO. 95722							
		DATE = 08/29/13	REVISED -		ILLINOIS FED. AID PROJECT							



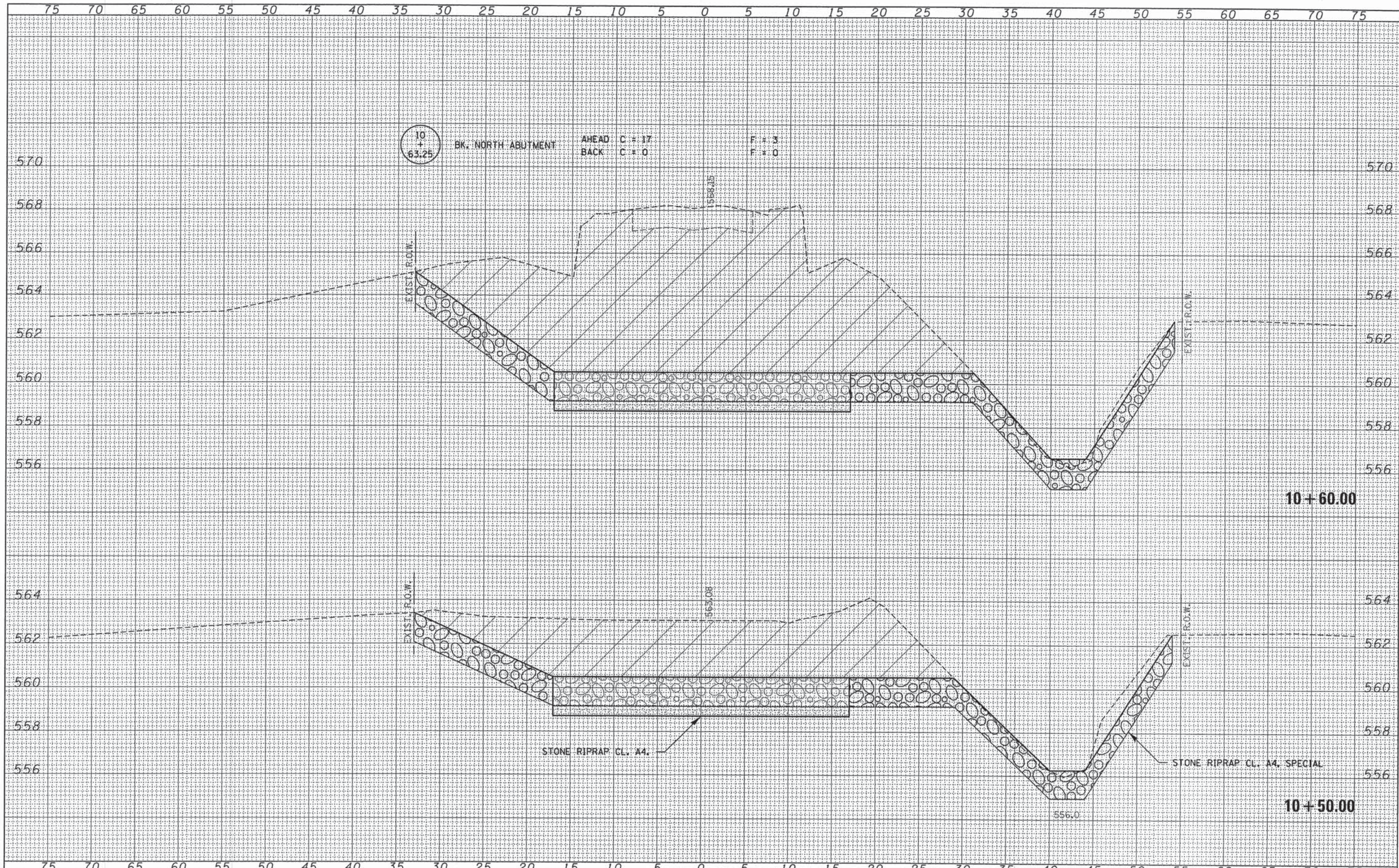
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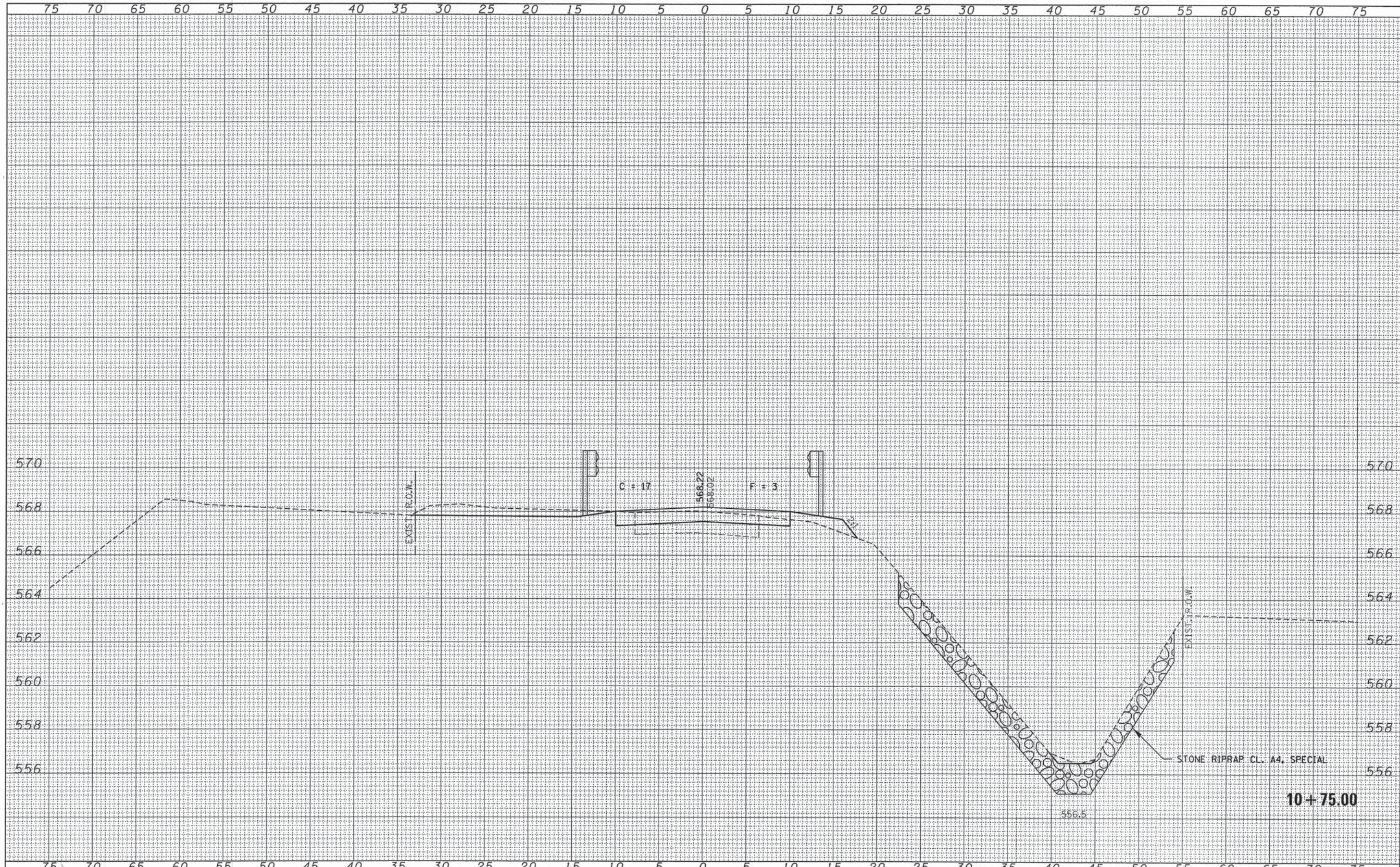
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HAMPTON, LENZINI AND RENWICK, INC. 2003 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM L5 / PE / SE CORP. 104-00099	PLOT SCALE =	DRAWN - D.T.M.	REVISED -		30	09-00268-00-BR	SHELBY	27	9	CONTRACT NO. 95722		
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		DATE - 08/29/13	REVISED -									

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ORIGINAL SURVEY	
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NOTE BOOK	
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AREAS CHECKED	



FILE NAME = 090149-sht-axs.dgn	USER NAME =	DESIGNED - J.W.F.	REVISED -	STATE OF ILLINOIS SHELBY COUNTY HIGHWAY DEPARTMENT	STATION CROSS SECTIONS				C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 3983 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62779 ILLINOIS PROFESSIONAL DESIGN FIRM L3 / PE / SE CORP. 184.000993	PLOT SCALE =	DRAWN - D.T.M.	REVISED -		30	09-00268-00-BR	SHELBY	27	12				
PLOT DATE = 8/29/2013	CHECKED - S.W.M.	REVISED -	SCALE: H5vV2		SHEET NO. 6 OF 10 SHEETS	STA. 10+50.00	TO STA. 10+60.00	CONTRACT NO. 95722					
DATE - 08/29/13	REVISIED -	REVISIED -			ILLINOIS FED. AID PROJECT								



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NOTE BOOK	
TEMPLATE	
AREAS CHECKED	
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PLOT DATE = 8/29/2013	

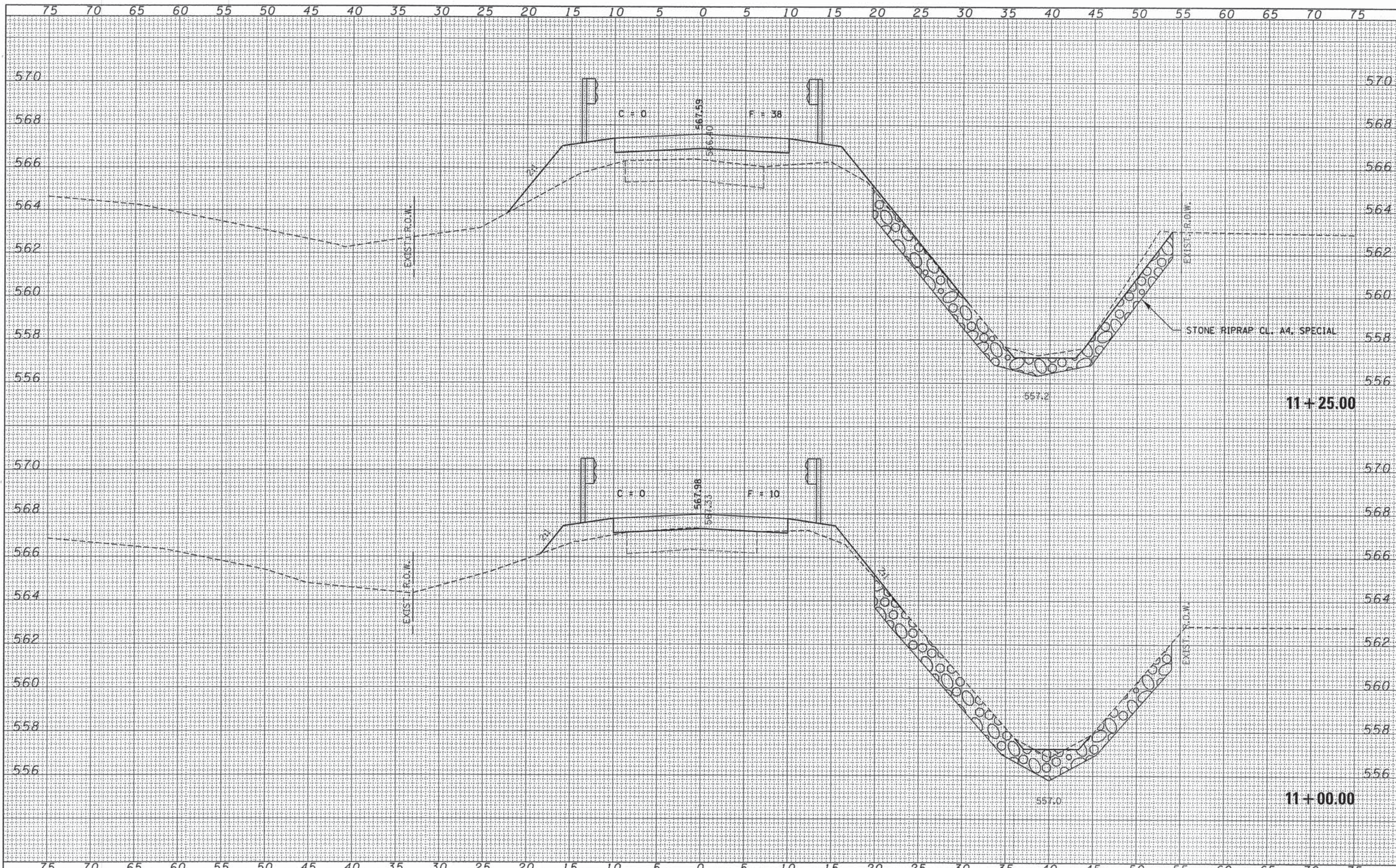
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DATE - 08/29/13	REVISED -

STATE OF ILLINOIS
SHELBY COUNTY HIGHWAY DEPARTMENT

STATION CROSS SECTIONS			
C.H.	SECTION	COUNTY	TOTAL SHEETS
30	09-00268-00-BR	SHELBY	27
SCALE: H5:V2			SHEET NO. 7 OF 10 SHEETS
STA. 10+75.00			TO STA. 10+75.00

CONTRACT NO. 95722	
ILLINOIS FED. AID PROJECT	

HAMPTON, LENZINI AND RENWICK, INC.
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
ILLINOIS PROFESSIONAL DESIGN FIRM
LS / PE / SE CORP. 184.000589



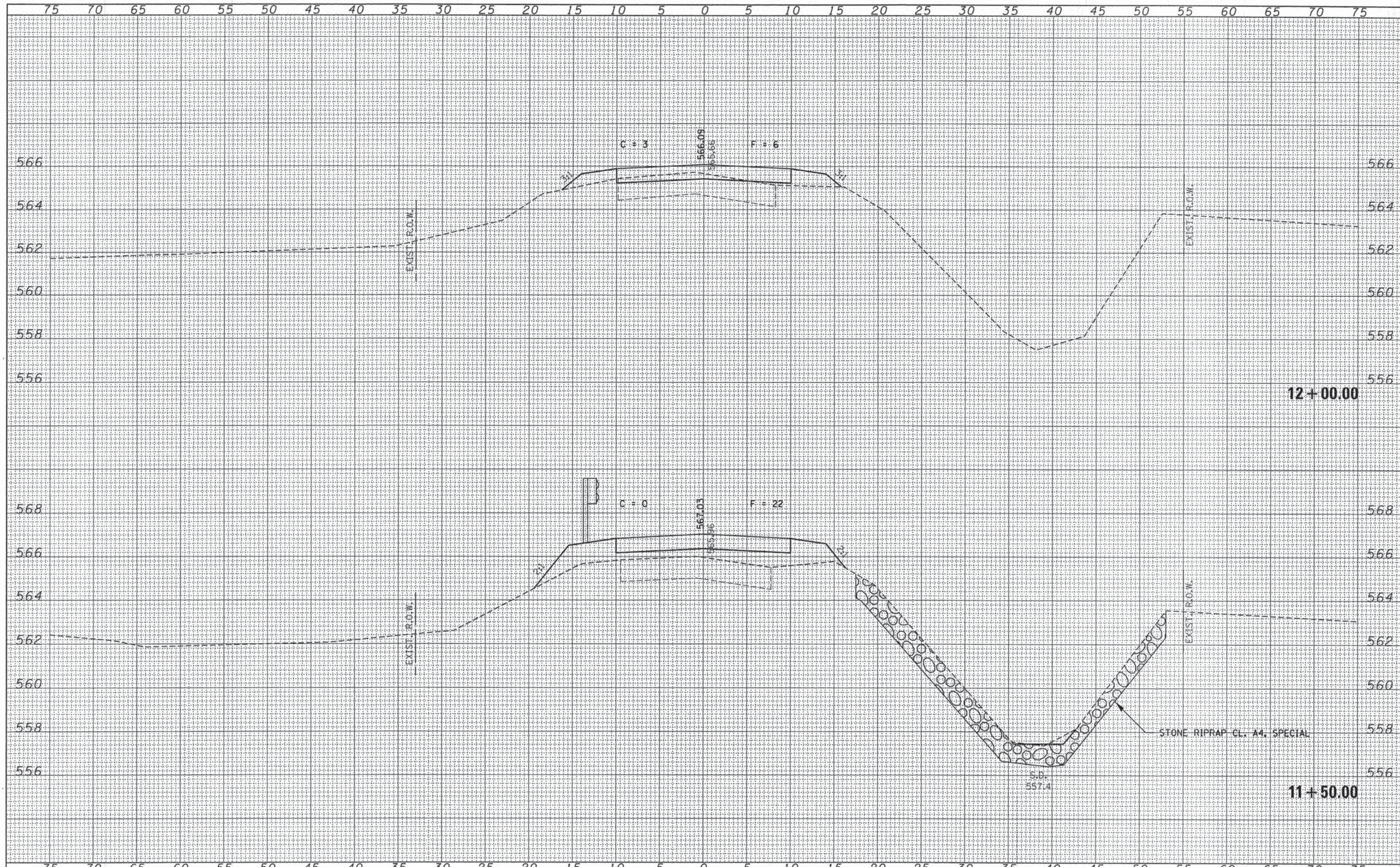
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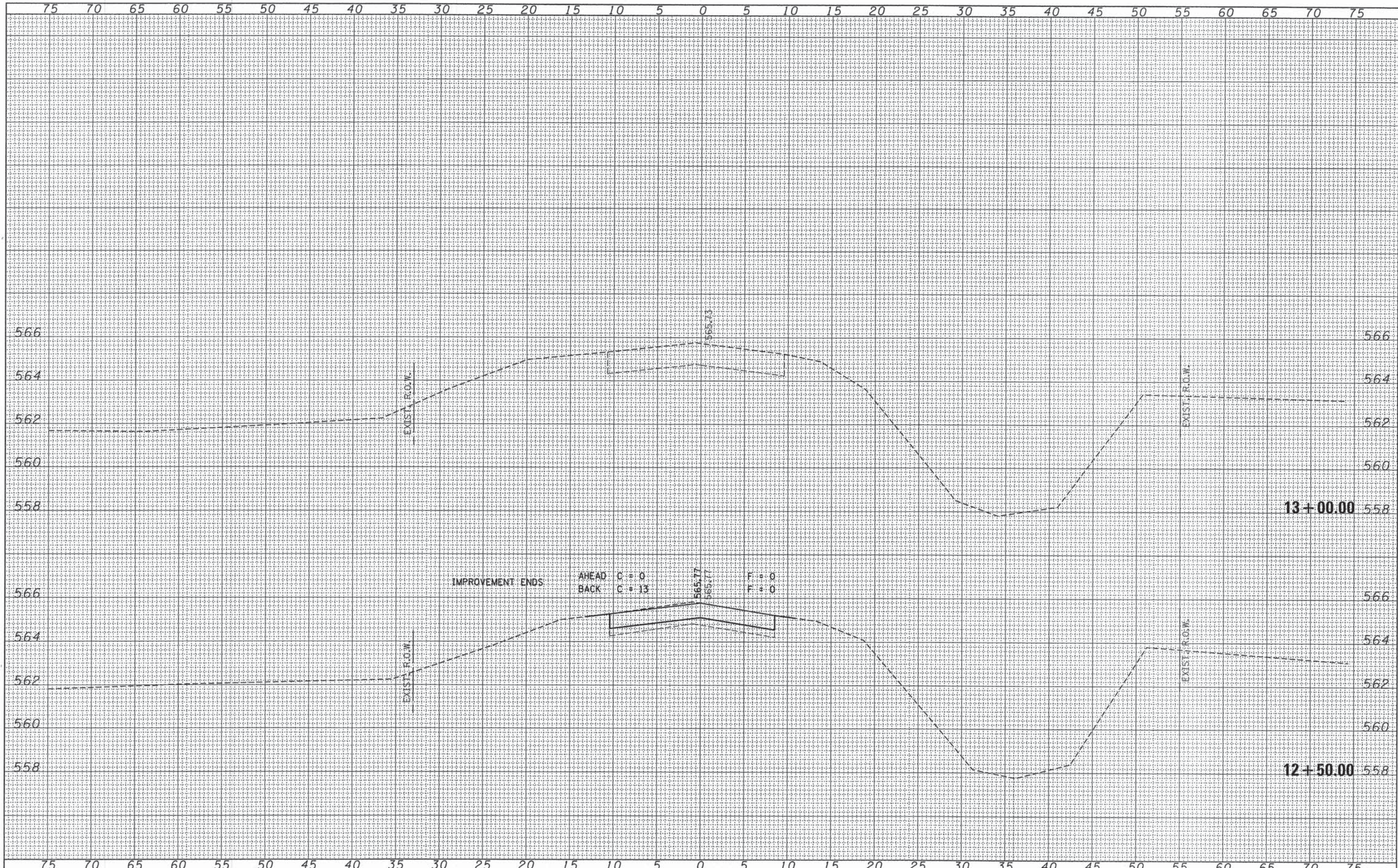
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HAMPTON, LENZINI AND RENWICK, INC. 3008 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62793 ILLINOIS PROFESSIONAL DESIGN FIRM L8 / PE / SE CORP. 184-000993	PLOT SCALE =	DRAWN - D.T.M.	REVISED -	30	09-00268-00-BR	SHELBY	27	14
	PLOT DATE = 8/29/2013	CHECKED - S.W.M.	REVISED -	STATE OF ILLINOIS SHELBY COUNTY HIGHWAY DEPARTMENT			STATION CROSS SECTIONS	
		DATE - 08/29/13	REVISED -	SCALE: H5+V2	SHEET NO. 8 OF 10 SHEETS	STA. 11+00.00 TO STA. 11+25.00	CONTRACT NO. 95722	
ILLINOIS FED. AID PROJECT								

DATE	
BY	
FINAL SURVEY	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	



FILE NAME = 090149-sht-axs.dgn	USER NAME =	DESIGNED - J.W.F.	REVISED -	STATE OF ILLINOIS SHELBY COUNTY HIGHWAY DEPARTMENT	STATION CROSS SECTIONS			
HAMPTON, LENZINI AND RENWICK, INC. 555 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62793	DESIGNED - D.T.M.	REVISED -	C.H.		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLLOT SCALE =	CHECKED - S.W.M.	REVISED -	30		09-00268-00-BR	SHELBY	27	15
DATE - 08/29/13	DATE - 08/29/13	REVISED -	SCALE: H5:V2 SHEET NO. 9 OF 10 SHEETS STA. 11+50.00 TO STA. 12+00.00				CONTRACT NO. 95722	
ILLINOIS PROFESSIONAL DESIGN FIRM L3 / PE / SE CORP. 18-00009			ILLINOIS FED. AID PROJECT					



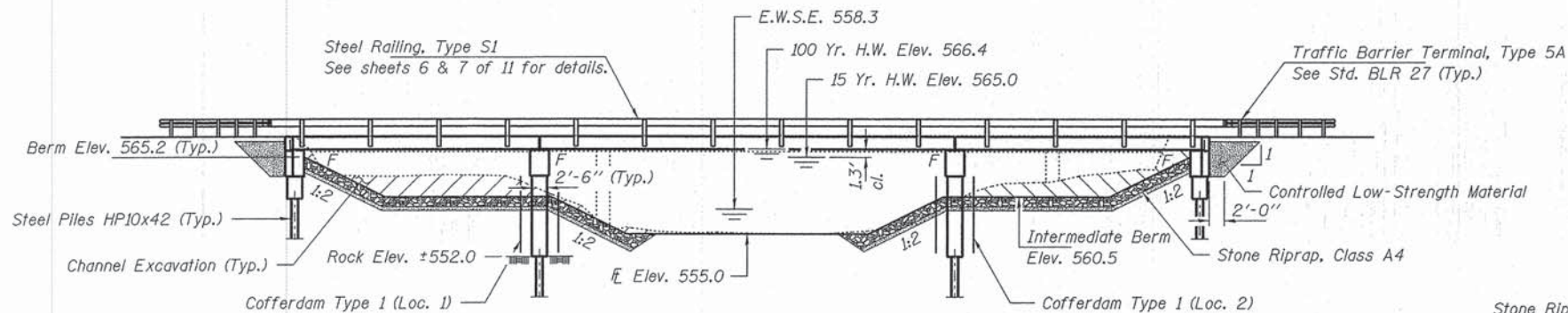
DATE	
BY	
FINISHED SURVEY	
NOTE BOOK	
TEMPLATE	
AREAS	
CHECKED	

DATE	
BY	
ORIGINAL SURVEY	
NOTE BOOK	
TEMPLATE	
AREAS	
CHECKED	

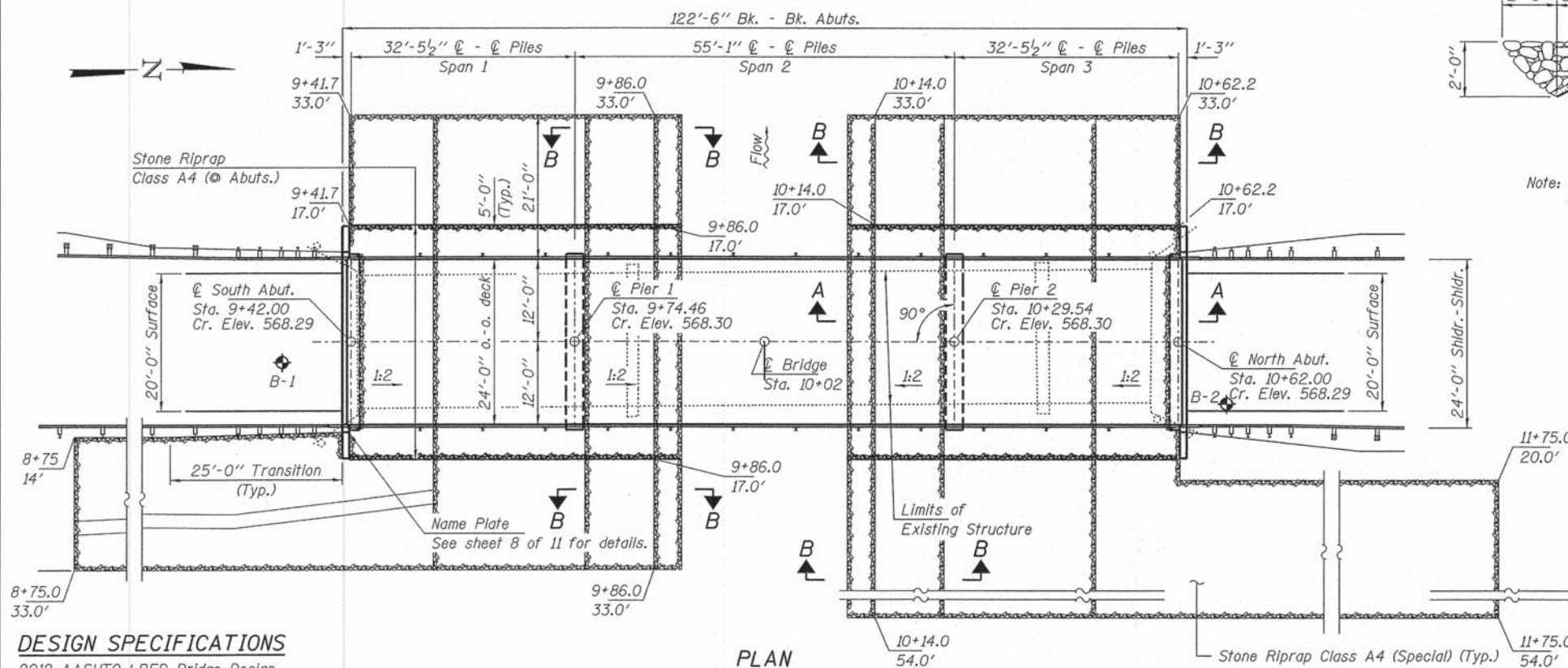
BENCHMARK: Painted "□" on steel beam, 10' Rt., Sta. 9+43, Elev. 567.94.

EXISTING STRUCTURE: SN 087-3035 - Three span I-beam girder bridge with timber deck on closed timber abutments and wingwalls with timber bent piers. 112.6' fc.-fc. abuts.; 19.3' o.-o. deck

Salvage: None



ELEVATION



PLAN

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications, 6th Edition with all applicable 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 (1/2" low lax. strands)
f'pbt = 201,960 psi (1/2" low lax. strands)
f'y = 60,000 psi (Reinf.)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.130g
Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.284g
Soil Site Class = C

WATERWAY INFORMATION

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Natural Head - Ft.		Headwater El.		
			Exist.	Prop.	H.W.E. Exist.	H.W.E. Prop.	Exist.	Prop.	
Design	15	4690	630	660	565.03	0.68	0.78	565.71	565.81
Base	100	7490	730	800	566.41	0.52	0.57	566.93	566.98
Max. Calc.	500	9980	730	800	567.31	0.34	0.42	567.65	567.73
Overtop	10	4130	600	630	564.76	0.47	0.59	565.23	565.35

Design Scour Elevations (ft.)				
S. Abut.	Pier 1	Pier 2	N. Abut.	
Q100	565.2	547.4	547.4	565.2

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."

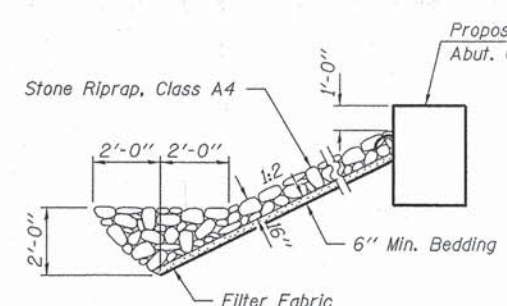
Steven W. Megginson 08/29/2013
ILLINOIS STRUCTURAL ENGINEER NO. 081-6064



Expires 11-30-2014

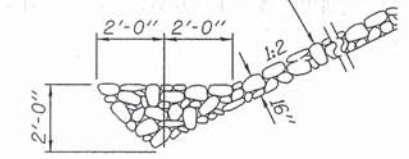
GENERAL NOTES

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at the South abutment or approved by the Engineer before ordering the remainder of piles.
Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
Excavation required to construct the Abutments & Piers 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.



SECTION A-A

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

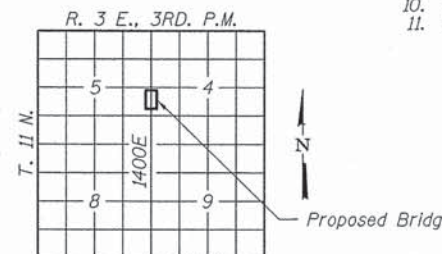


SECTION B-B

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

INDEX OF STRUCTURE SHEETS

1. General Plan & Elevation
2. 21" x 48" PPC Deck Beam - Spans 1 & 3
3. 21" x 48" PPC Deck Beam Details - Spans 1 & 3
4. 21" x 48" PPC Deck Beam - Span 2
5. 21" x 48" PPC Deck Beam Details - Span 2
6. Superstructure Details
7. Steel Ralling, Type S1
8. Abutments
9. Piers
10. HP Pile Details
11. Borings



LOCATION SKETCH

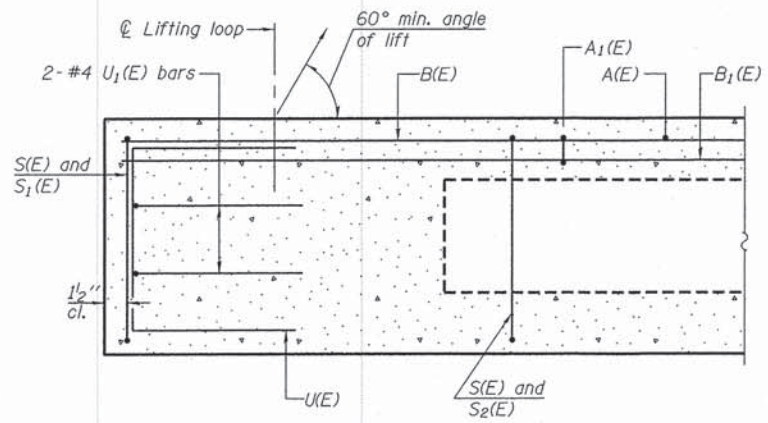
ROBINSON CREEK
BUILT 201 BY
SHELBY COUNTY
SEC. 09-00268-00-BR
C.H. 30
STR. NO. 087-3573
LOADING HL-93

NAME PLATE

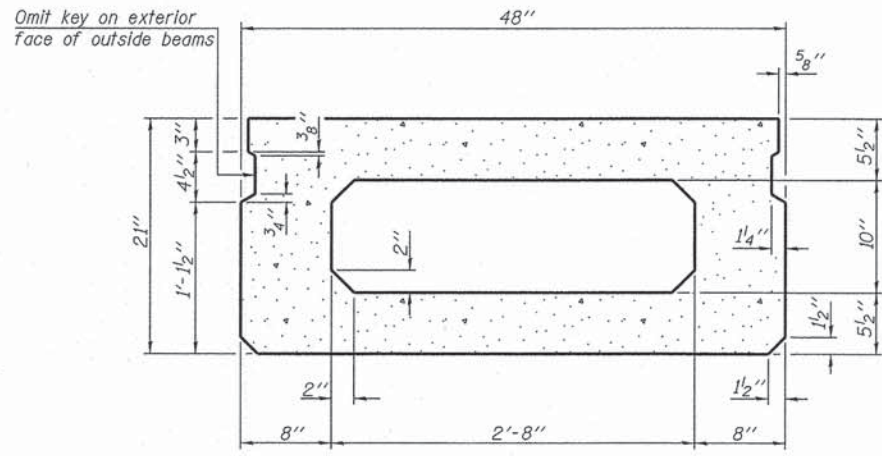
See Std. 515001

TOTAL BILL OF MATERIAL

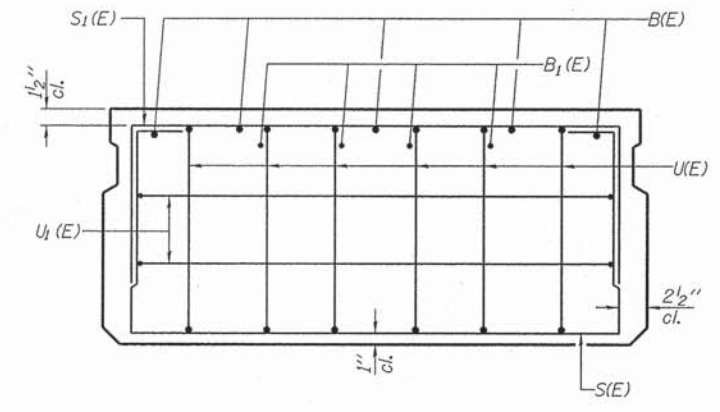
ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			135
Stone Riprap, Class A4	Ton			290
Filter Fabric	Sq. Yd.			370
Removal of Existing Structures	Each			1
Concrete Structures	Cu. Yd.		88.0	88.0
Concrete Encasement	Cu. Yd.		2.8	2.8
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	2,904		2,904
Reinforcement Bars	Pound		6,990	6,990
Steel Ralling, Type S1	Foot	253		253
Furnishing Steel Piles HP10x42	Foot		390	390
Driving Piles	Foot		140	140
Test Pile Steel HP10x42	Each		1	1
Name Plates	Each		1	1
Controlled Low-Strength Material	Cu. Yd.			45
Cofferdam (Type 1) (Location-1)	Each		1	1
Cofferdam (Type 1) (Location-2)	Each		1	1
Stone Riprap, Class A4 (Special)	Ton			850
Setting Piles in Rock	Each		10	10



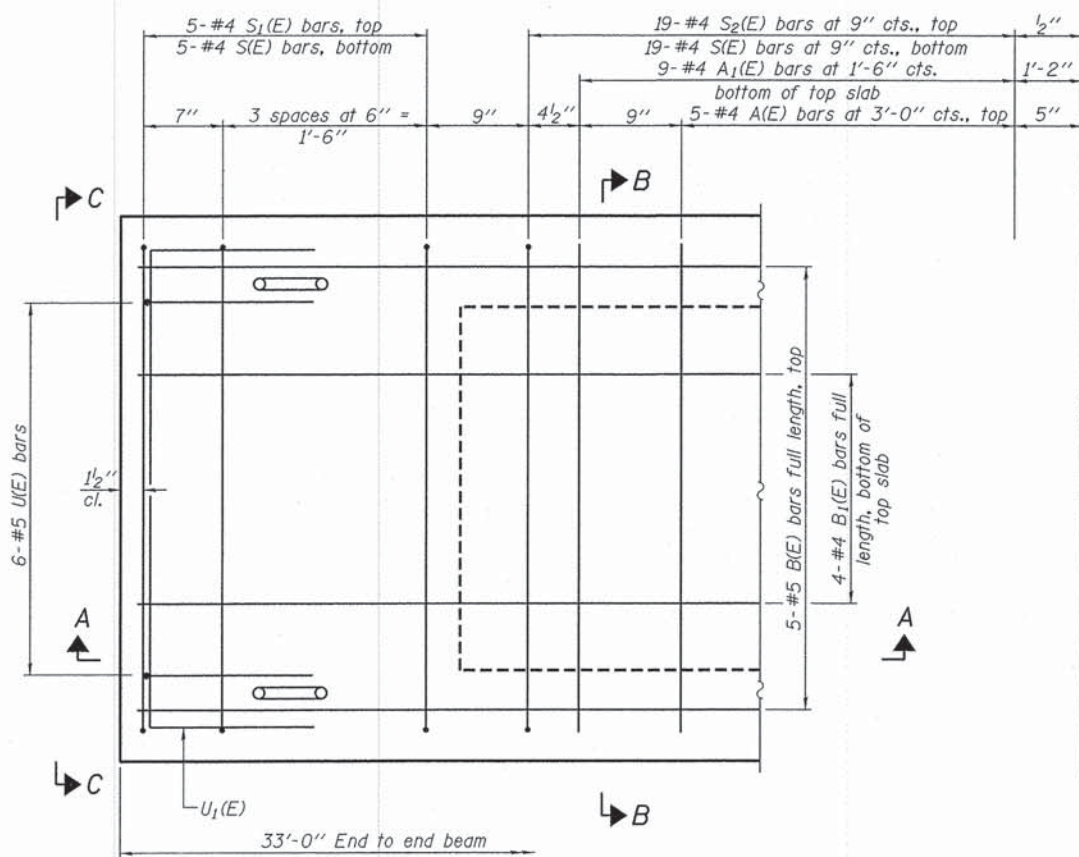
SECTION A-A



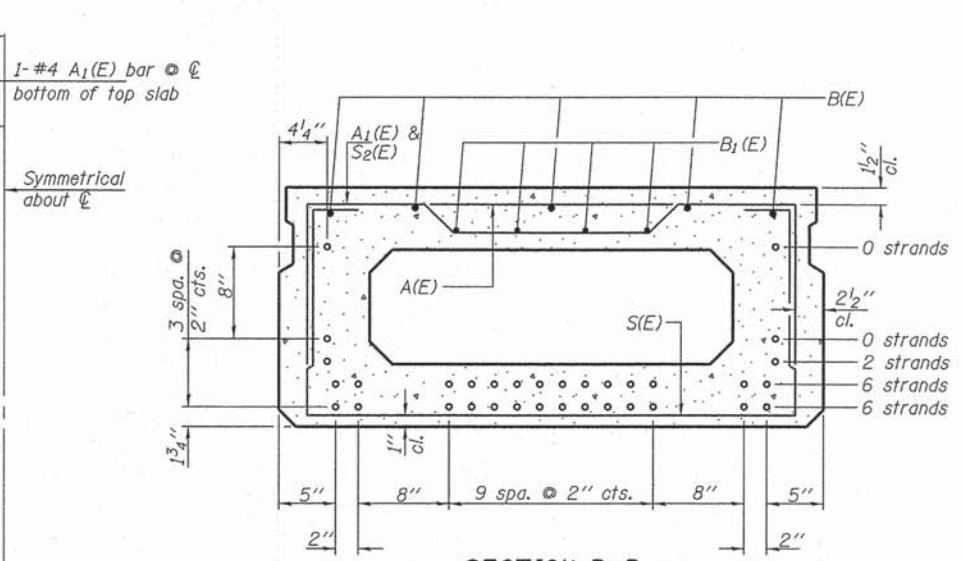
SECTION B-B
(Showing dimensions)



VIEW C-C



PLAN VIEW



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)	10	#4	3'-7"	—
A1(E)	19	#4	3'-10"	—
B(E)	5	#5	32'-8"	—
B1(E)	4	#4	32'-8"	—
S(E)	48	#4	7'-5"	□
S1(E)	10	#4	5'-11"	□
S2(E)	38	#4	6'-2"	□
U(E)	12	#5	4'-0"	□
U1(E)	4	#4	6'-0"	□

Note: See sheet 3 thru 6 of 11 for additional details and Bill of Material.

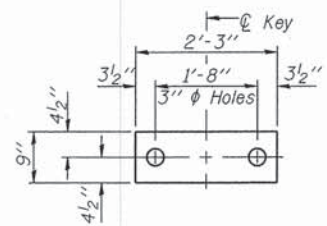
MINIMUM BAR LAP
#4 bar = 2'-0"
#5 bar = 2'-6"

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.

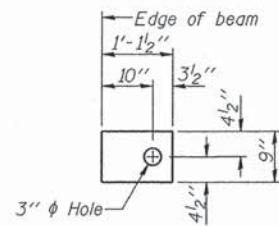
PD-2148-0 7-1-10

FILE NAME = 090149-ah-bridge.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -	STATE OF ILLINOIS SHELBY COUNTY HIGHWAY DEPARTMENT	21" x 48" PPC DECK BEAM - SPANS 1 & 3 STRUCTURE NO. 087-3573	C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
HAMPTON, LENZINI AND RENWICK, INC. 3348 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE =	CHECKED - S.W.M.	REVISED -			30	09-00268-00-BR	SHELBY	27	18	
HLR ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT DATE = 8/29/2013	DRAWN - D.A.B.	REVISED -			CONTRACT NO. 95722					
		CHECKED - S.W.M.	REVISED -			SHEET NO. 2 OF 11 SHEETS					

ILLINOIS FED. AID PROJECT



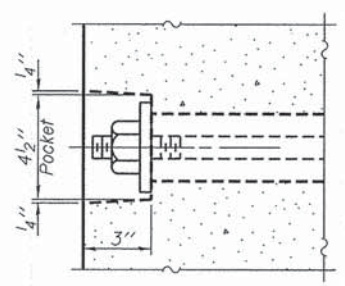
FABRIC BEARING PAD
(Interior - 20 Req'd.)



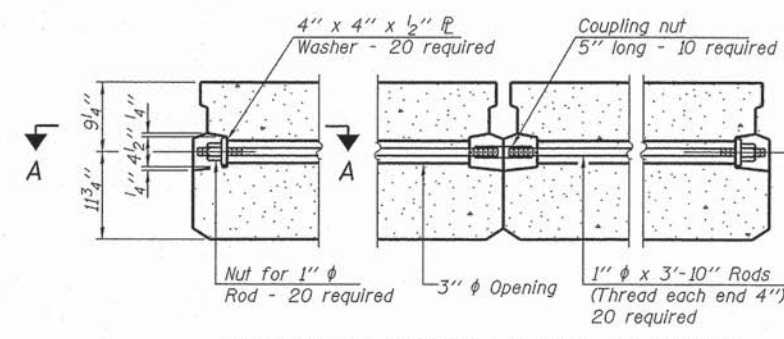
FABRIC BEARING PAD
(Exterior - 8 Req'd.)

FIXED

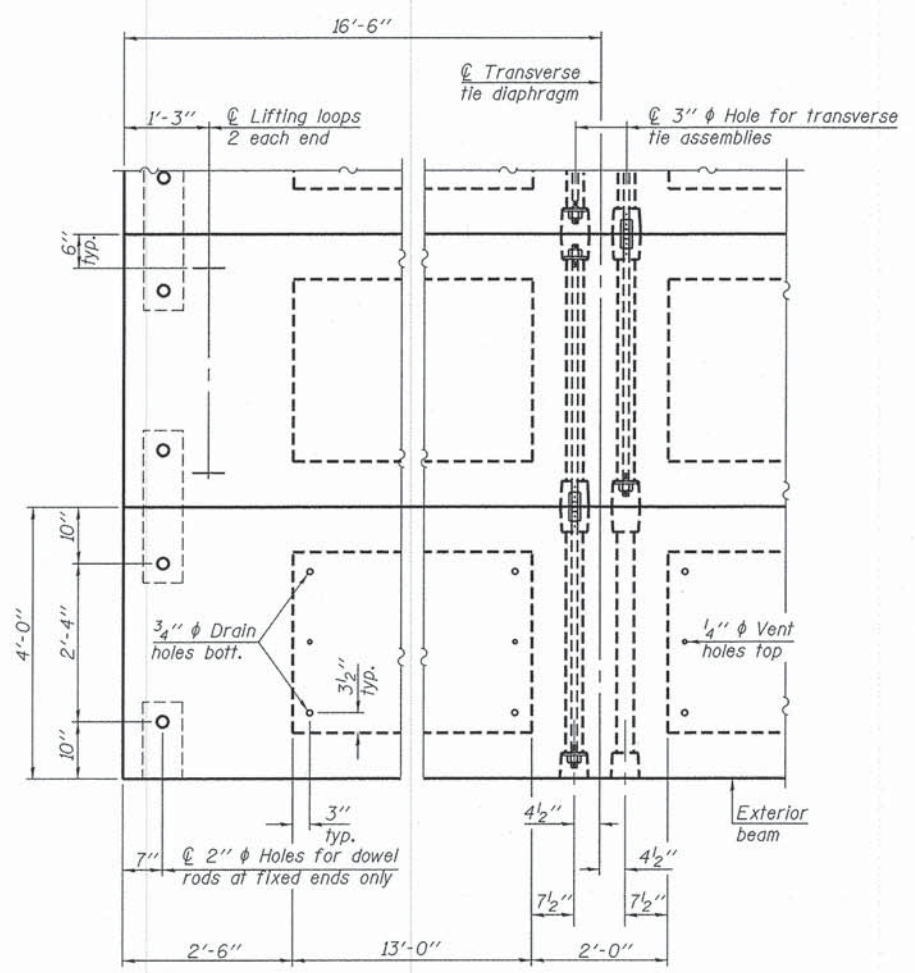
Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.



SECTION A-A

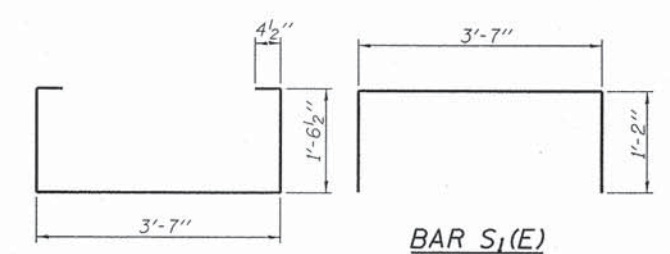


TYPICAL TRANSVERSE TIE ASSEMBLY

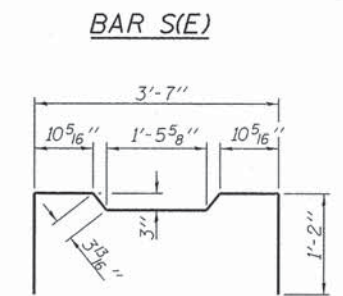


PLAN VIEW

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



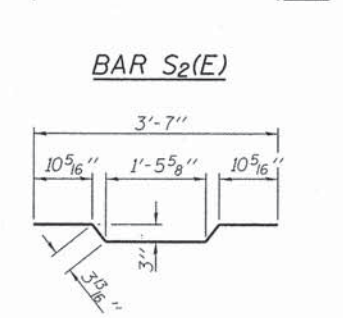
BAR S₁(E)



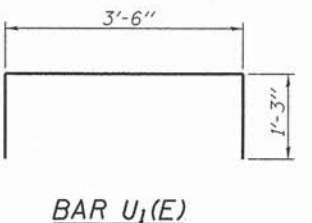
BAR S(E)



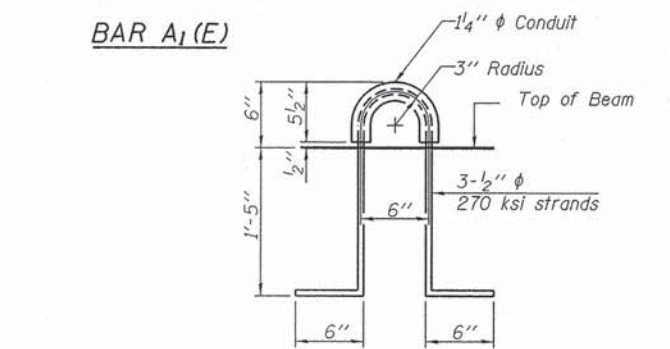
BAR U(E)



BAR S₂(E)



BAR U₁(E)



LIFTING LOOP DETAIL

NOTES

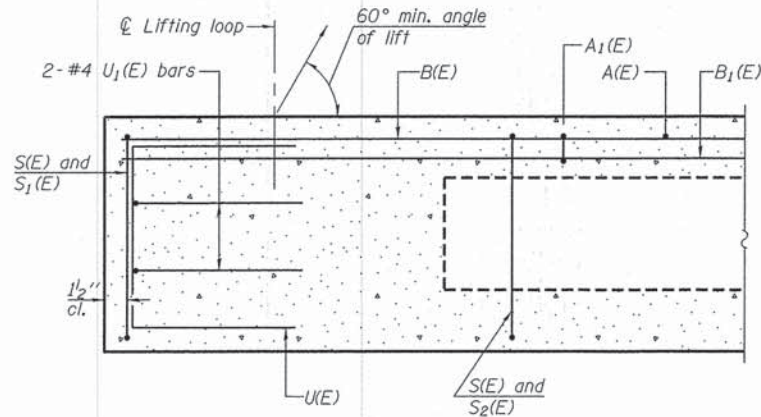
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior 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" diameter 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.
Reinforcement bars designated (E) shall be epoxy coated.

BILL OF MATERIAL

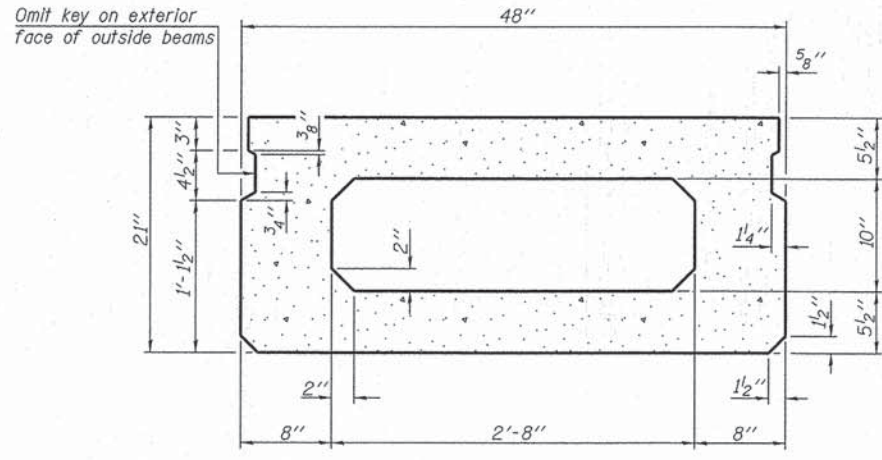
Precast Prestressed Conc. Deck Bms. (21" depth)	Sq. Ft.	1,584
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PD-2148-0D 7-1-10

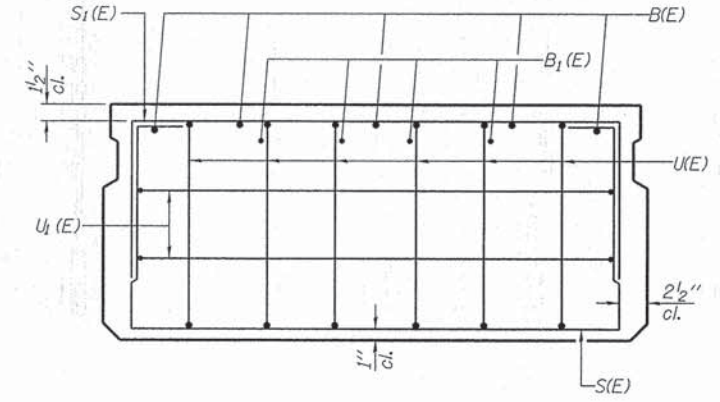
FILE NAME = 090149-ah-t-bridge.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -	STATE OF ILLINOIS SHELBY COUNTY HIGHWAY DEPARTMENT	21" x 48" PPC DECK BEAM DETAILS - SPANS 1 & 3 STRUCTURE NO. 087-3573	C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
HAMPTON, LENZINI AND RENWICK, INC. 3201 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE =	CHECKED - S.W.M.	REVISED -			30	09-00268-00-BR	SHELBY	27	19	
ILLINOIS PROFESSIONAL DESIGN FIRM L.S. / P.E. / S.E. COMP. 184.000059	PLOT DATE = 8/29/2013	DRAWN - D.A.B.	REVISED -			CONTRACT NO. 95722					
		CHECKED - S.W.M.	REVISED -			ILLINOIS FED. AID PROJECT					
						SHEET NO. 3 OF 11 SHEETS					



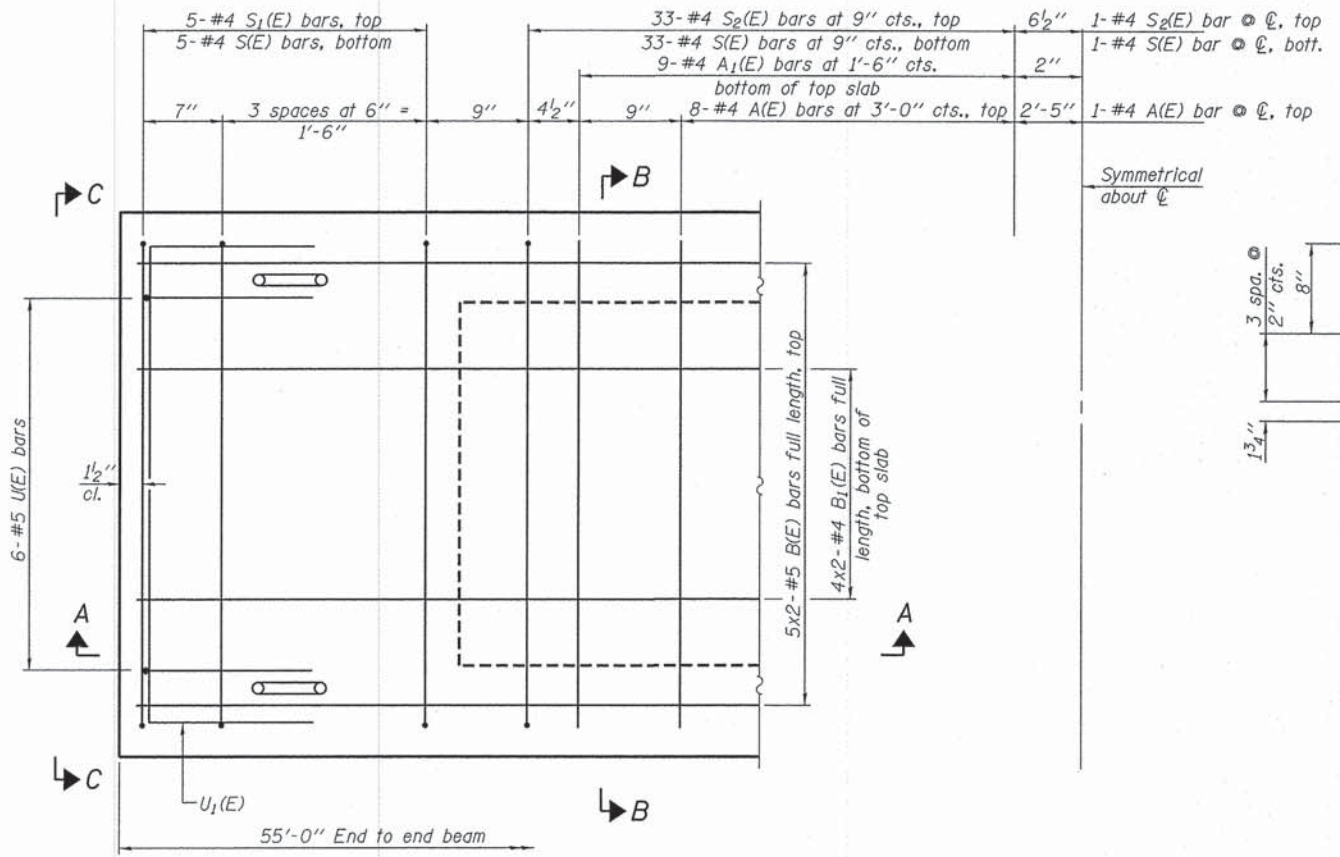
SECTION A-A



SECTION B-B
(Showing dimensions)

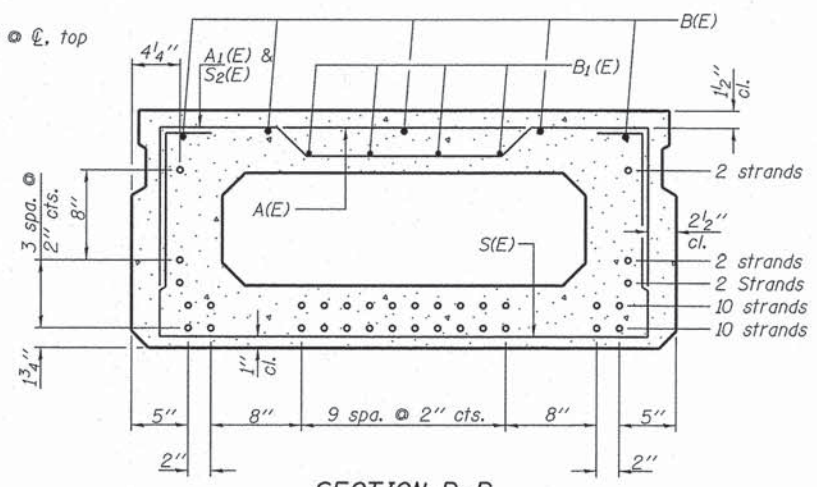


VIEW C-C



PLAN VIEW

Symmetrical about centerline



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)	8	#4	28'-5"	—
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 2, 3, 5 & 6 of 11 for additional details and Bill of Material.

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

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.

PD-2148-0 7-1-10

FILE NAME = 090149-sht-brIDGE.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3003 STEVENSON DRIVE, SUITE 207 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE =	CHECKED - S.W.M.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM L3 / P3 / SE CORP. 184.000559	PLOT DATE = 8/29/2013	DRAWN - D.A.B.	REVISED -
		CHECKED - S.W.M.	REVISED -

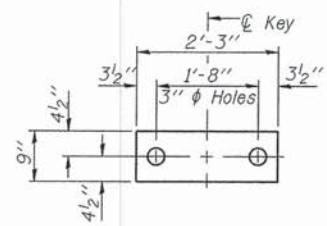
STATE OF ILLINOIS
SHELBY COUNTY HIGHWAY DEPARTMENT

21" x 48" PPC DECK BEAM - SPAN 2
STRUCTURE NO. 087-3573

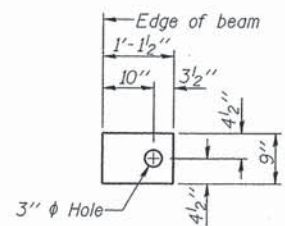
C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
30	09-00268-00-BR	SHELBY	27	20
			CONTRACT NO. 95722	

SHEET NO. 4 OF 11 SHEETS

ILLINOIS FED. AID PROJECT



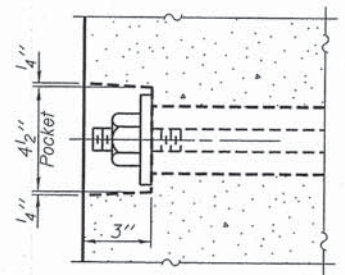
FABRIC BEARING PAD
(Interior - 10 Req'd.)



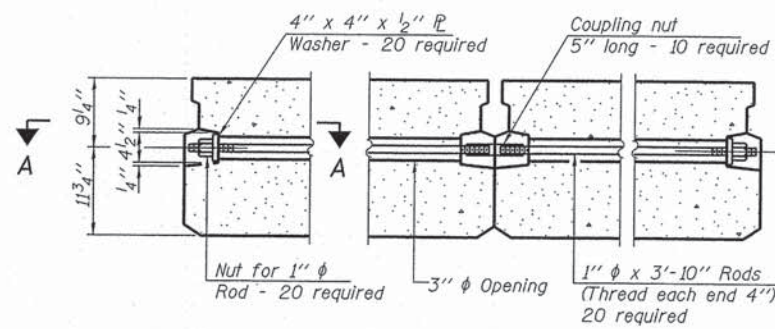
FABRIC BEARING PAD
(Exterior - 4 Req'd.)

FIXED

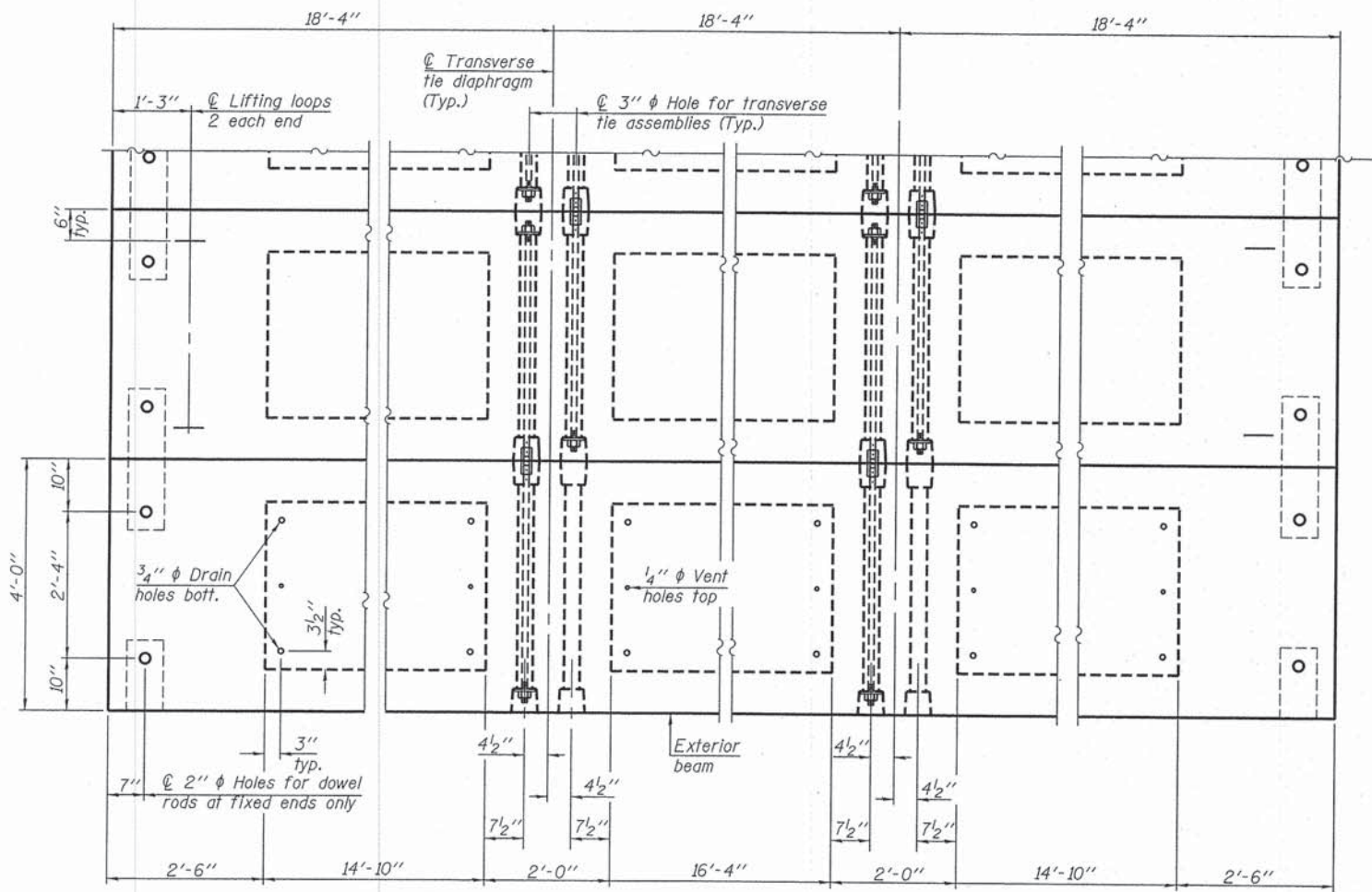
Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.



SECTION A-A

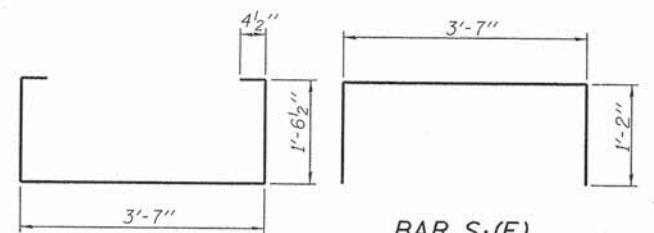


TYPICAL TRANSVERSE TIE ASSEMBLY

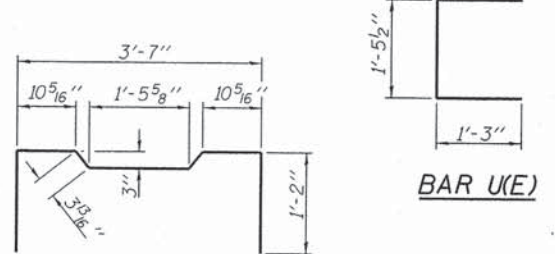


PLAN VIEW

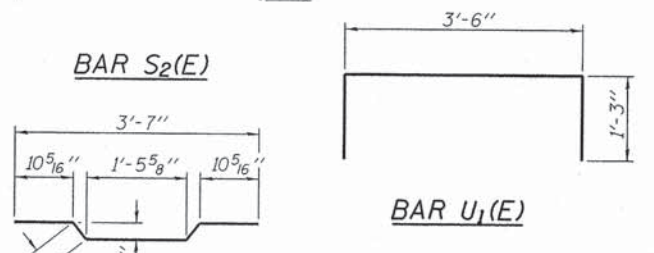
Note: Connect beams in pairs with the transverse tie configuration shown.



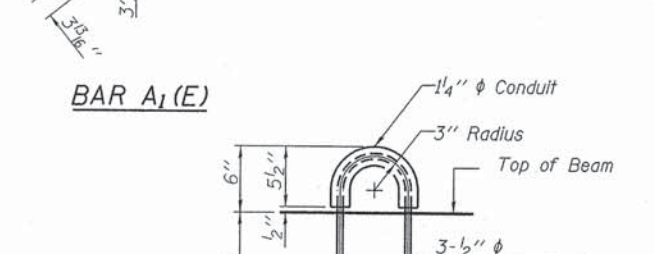
BAR S(E)



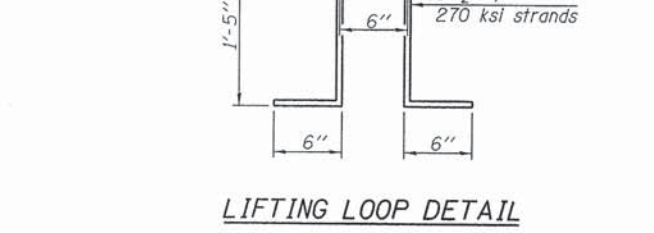
BAR U(E)



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" diameter 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.
Reinforcement bars designated (E) 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

FILE NAME = 090149-shft-bridge.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -
HAMPTON, LENZINI AND REWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / P / SE CORP. 184-000009	PLOT SCALE =	CHECKED - S.W.M.	REVISED -
	PLOT DATE = 8/29/2013	DRAWN - D.A.B.	REVISED -
		CHECKED - S.W.M.	REVISED -

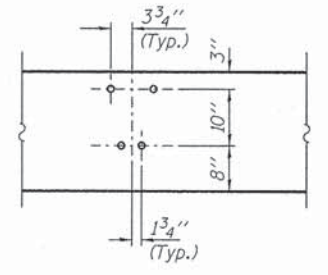
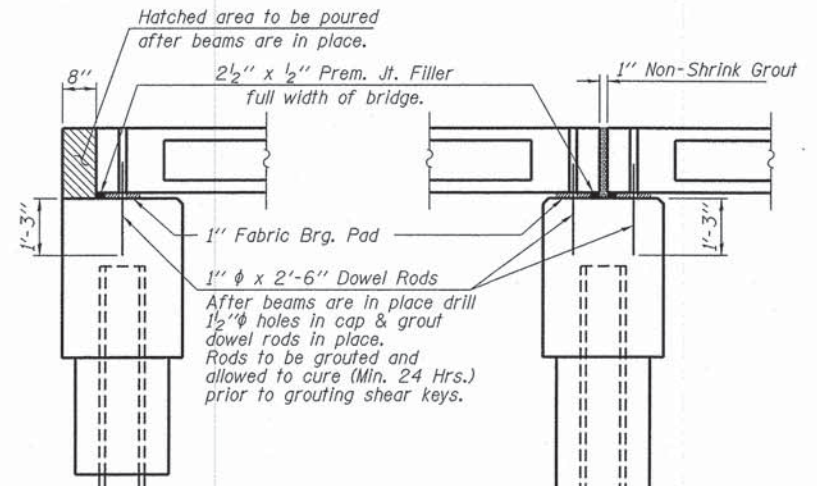
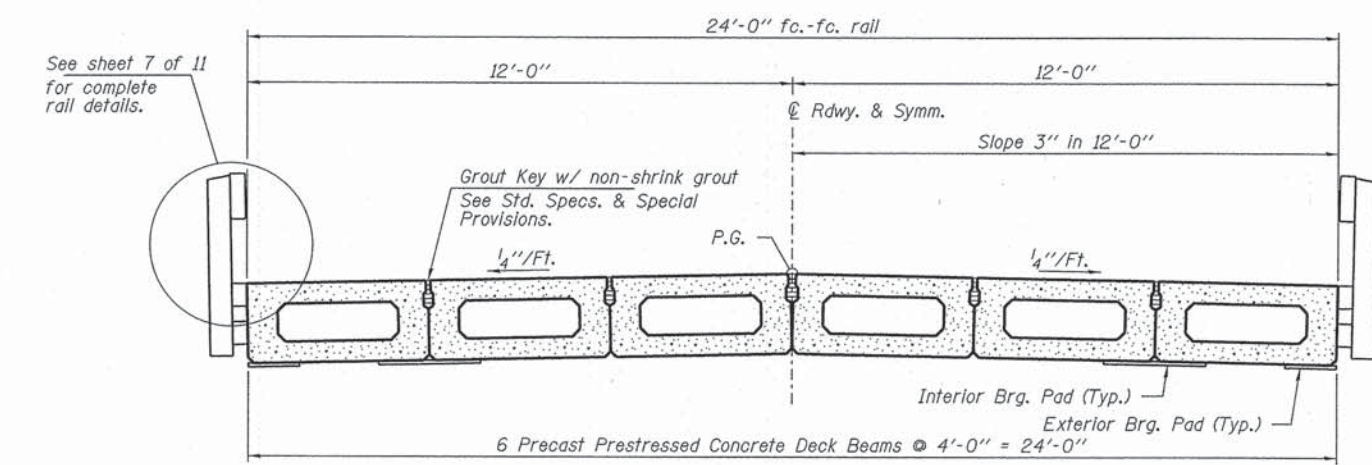
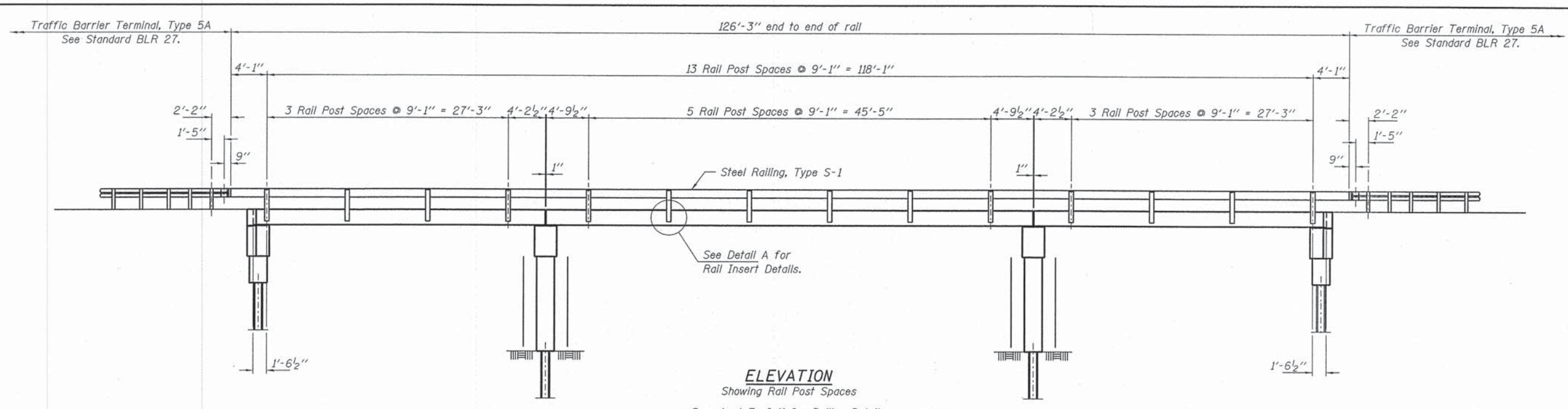
STATE OF ILLINOIS
SHELBY COUNTY HIGHWAY DEPARTMENT

21" x 48" PPC DECK BEAM DETAILS - SPAN 2
STRUCTURE NO. 087-3573

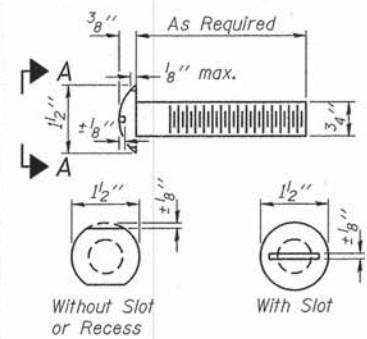
C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
30	09-00268-00-BR	SHELBY	27	21
			CONTRACT NO. 95722	

SHEET NO. 5 OF 11 SHEETS

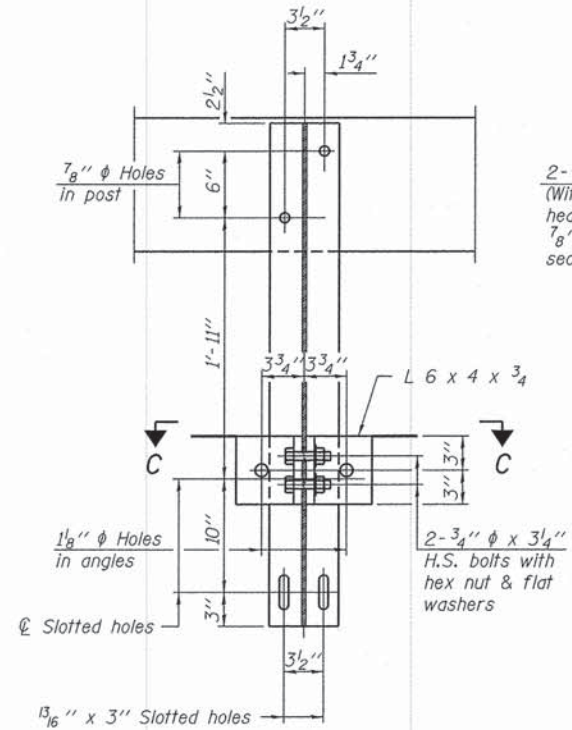
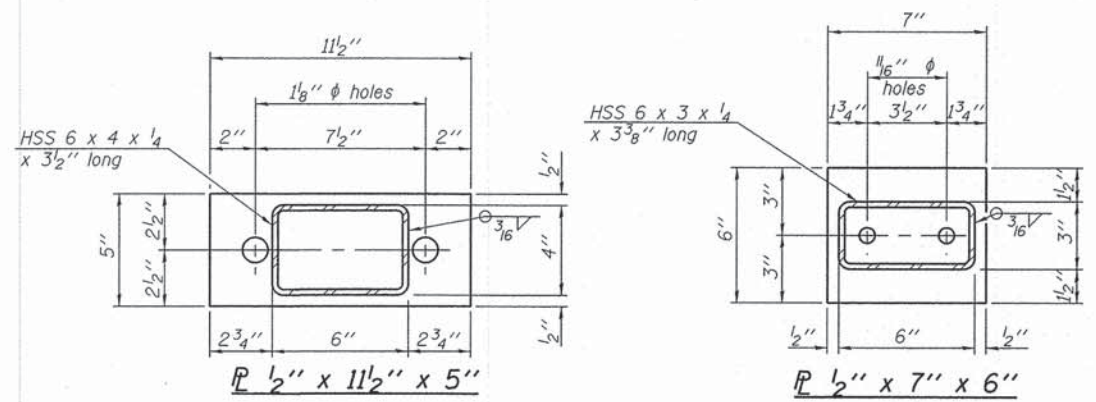
(ILLINOIS) FED. AID PROJECT



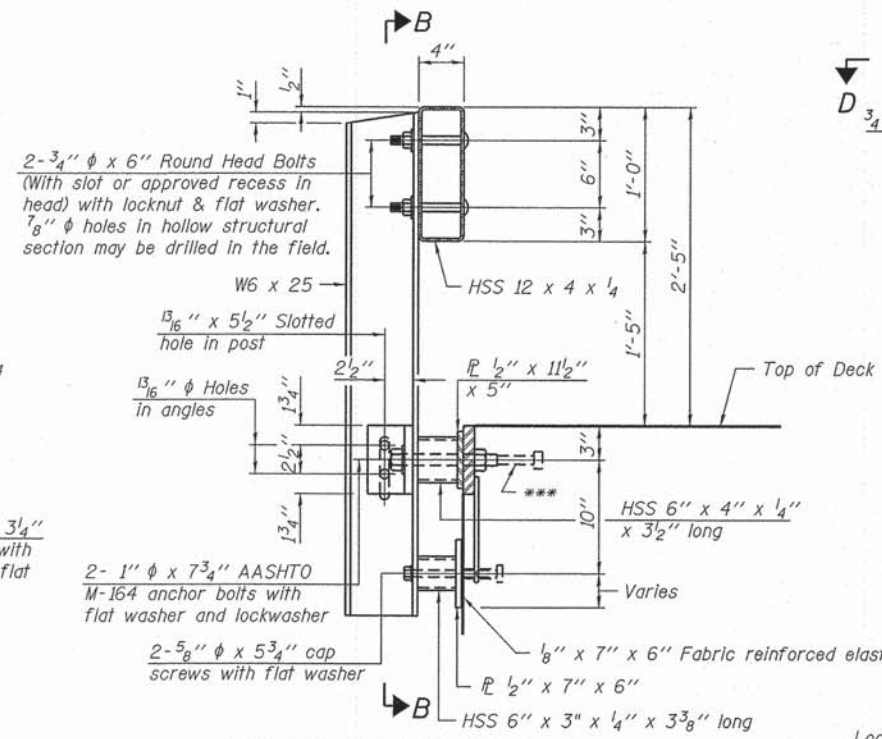
FILE NAME = 090149-ah-bridge.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -	STATE OF ILLINOIS SHELBY COUNTY HIGHWAY DEPARTMENT	SUPERSTRUCTURE DETAILS STRUCTURE NO. 087-3573	C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 301 SPRINGFIELD, ILLINOIS 62763 ILLINOIS PROFESSIONAL DESIGN FIRM 1/3 / P/E / S.E. / C.O.P.E. / 164.009956	PLOT SCALE =	CHECKED - S.W.M.	REVISED -			30	09-00268-00-BR	SHELBY	27	22	
PLOT DATE = 8/29/2013		DRAWN - D.A.B.	REVISED -			CONTRACT NO. 95722					
		CHECKED - S.W.M.	REVISED -			ILLINOIS FED. AID PROJECT					



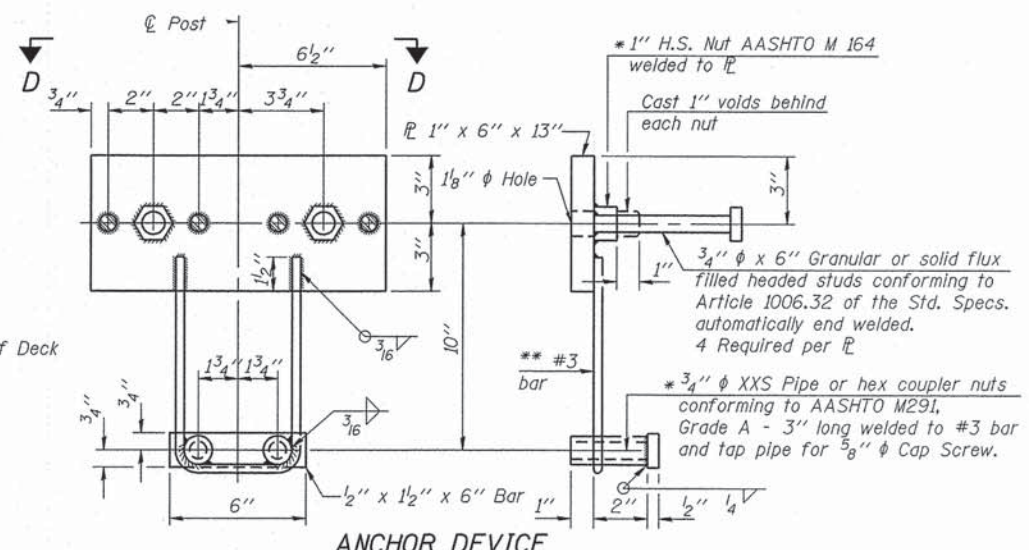
**VIEW A-A
ROUND HEAD BOLT**



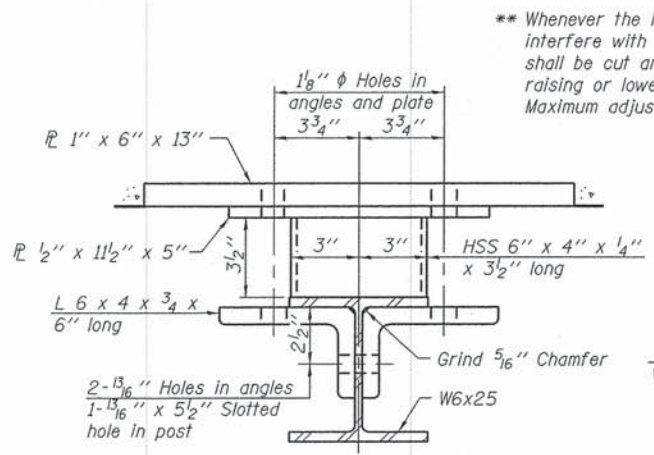
SECTION B-B



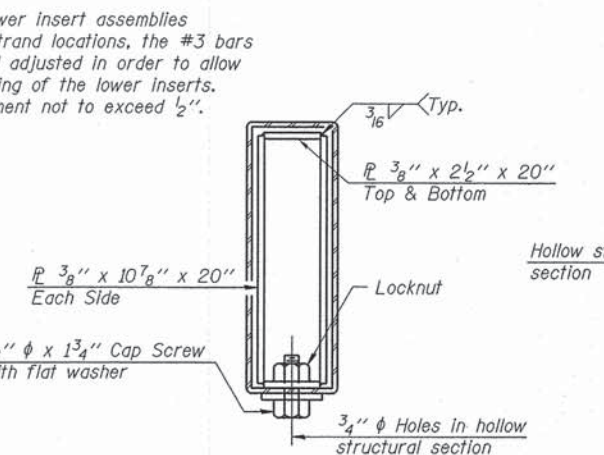
SECTION AT RAILING POST



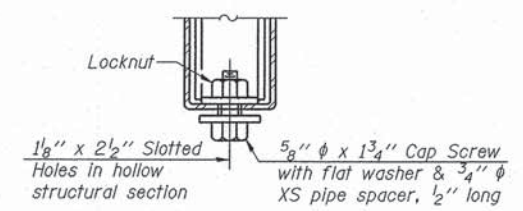
ANCHOR DEVICE



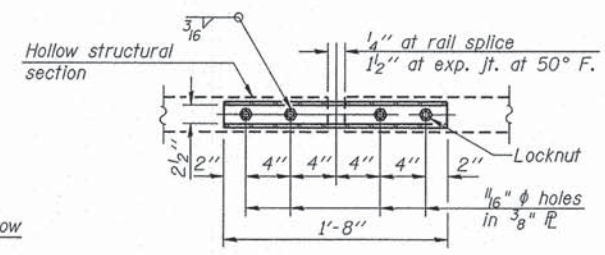
SECTION C-C



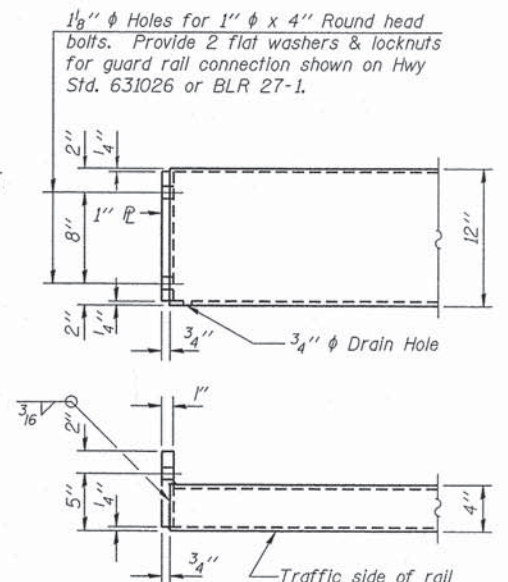
SECTIONS AT RAIL SPLICE



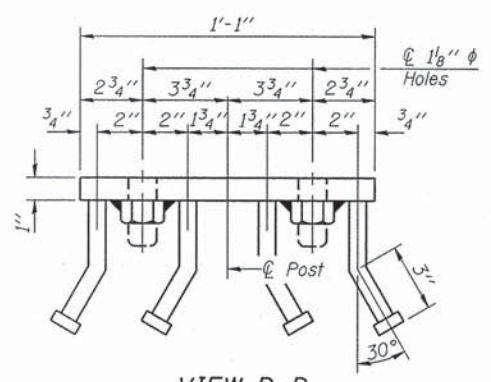
**RAIL SPLICE CONNECTION
AT EXPANSION JT.**



**PLAN-BOTT. SPLICE
TYPICAL**



END OF RAIL DETAILS



VIEW D-D

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.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S-1	Foot	253

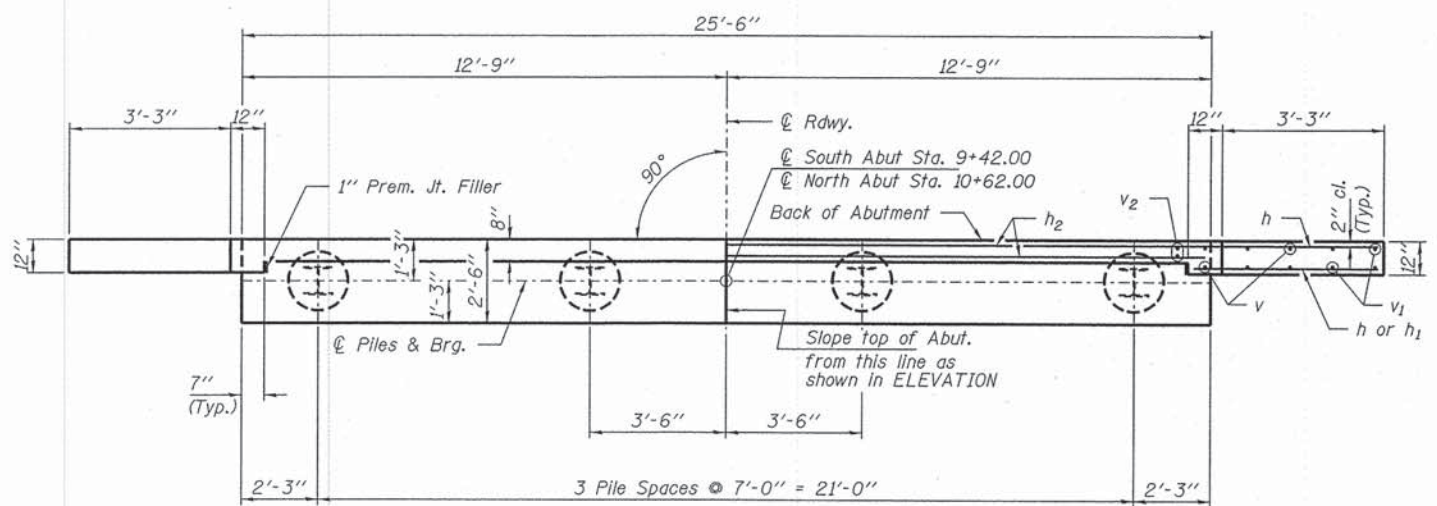
R-23A 7-1-10 (10'-9" Maximum Post Spacing)

FILE NAME = 090149-ah-bridge.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 300 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE =	CHECKED - S.W.M.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE COMP. 184-000989	PLOT DATE = 8/29/2013	DRAWN - D.A.B.	REVISED -
		CHECKED - S.W.M.	REVISED -

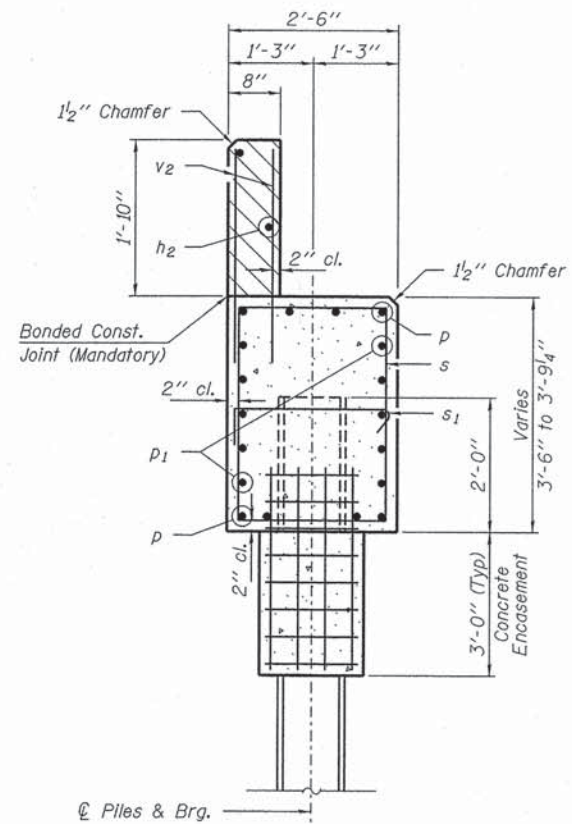
**STATE OF ILLINOIS
SHELBY COUNTY HIGHWAY DEPARTMENT**

**STEEL RAILING, TYPE S-1
STRUCTURE NO. 087-3573**
SHEET NO. 7 OF 11 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
30	09-00268-00-BR	SHELBY	27	23
CONTRACT NO. 95722				
[ILLINOIS] FED. AID PROJECT				

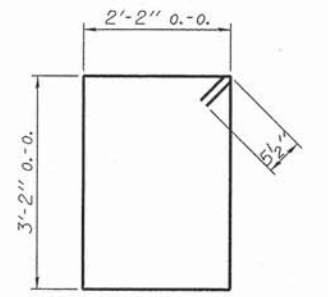


PLAN

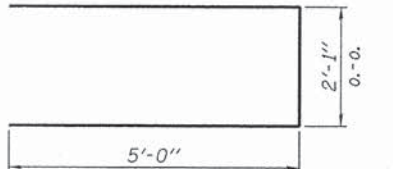


SECTION A-A

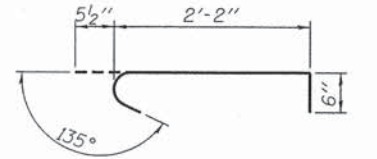
Hatched area to be poured after beams are in place.



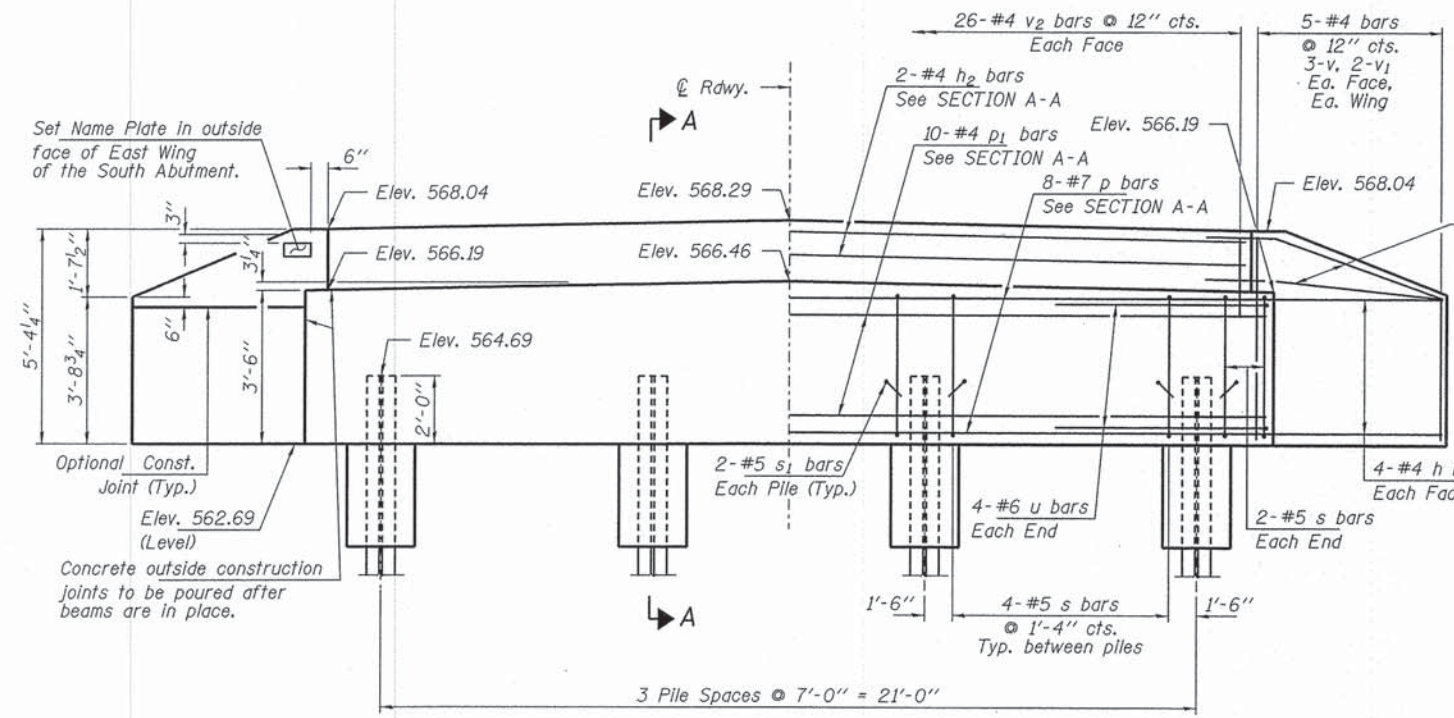
BAR s



BAR u



BAR s1



ELEVATION

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 HP10x42
No. Req'd. (2 Abuts.) ----- 8*
Factored Resistance Available ----- 184 Kips/Pile
Nominal Req'd Bearing ----- 335 Kips/Pile
Est. Length ----- 20 Ft/Pile

Notes: * Includes one test pile to be driven in permanent location at the South Abutment.

The test piles shall be driven to 110 percent of the Nominal Required Bearing indicated in the pile data information.

BILL OF MATERIAL - 2 ABUTS.

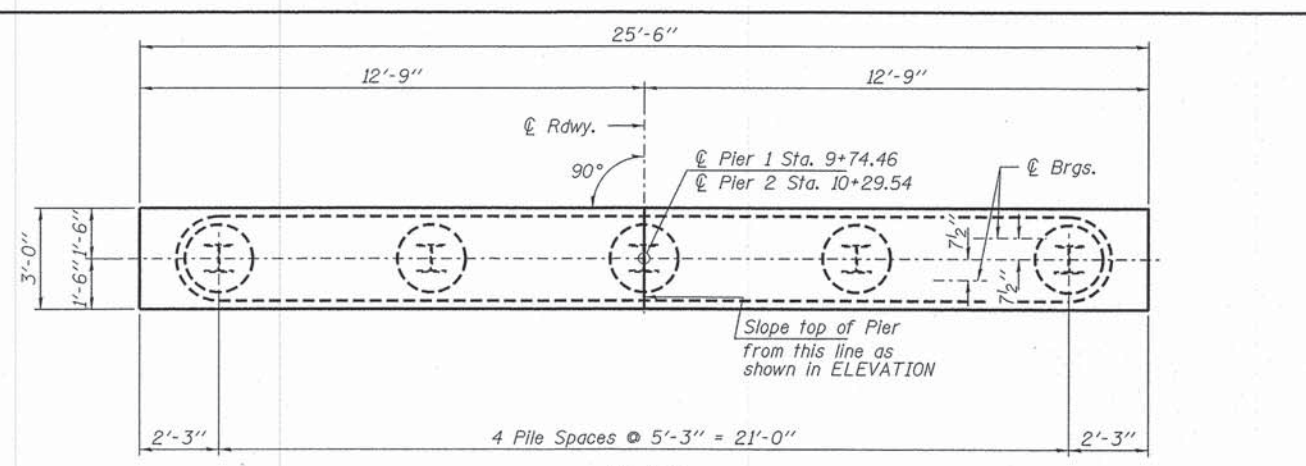
BAR	NO.	SIZE	LENGTH	SHAPE
h	40	#4	5'-6"	—
h1	8	#4	4'-0"	—
h2	4	#4	25'-2"	—
p	16	#7	25'-2"	—
p1	20	#4	25'-2"	—
s	32	#5	11'-7"	□
s1	16	#5	3'-2"	U
u	16	#6	12'-1"	—
v	24	#4	4'-6"	—
v1	16	#4	3'-6"	—
v2	104	#4	2'-8"	—
Concrete Structures			Cu. Yd.	22.0
Concrete Encasement			Cu. Yd.	2.8
Reinforcement Bars			Pound	2,420
Steel Piles HP10x42			Foot	140
Driving Piles			Foot	140
Test Pile Steel HP10x42			Each	1
Name Plates			Each	1

FILE NAME = 090149-ah-bridge.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC.		CHECKED - S.W.M.	REVISED -
308 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE =	DRAWN - D.A.B.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM L.S. / P.E. / S.E. CORP. 184.000959	PLOT DATE = 8/29/2013	CHECKED - S.W.M.	REVISED -

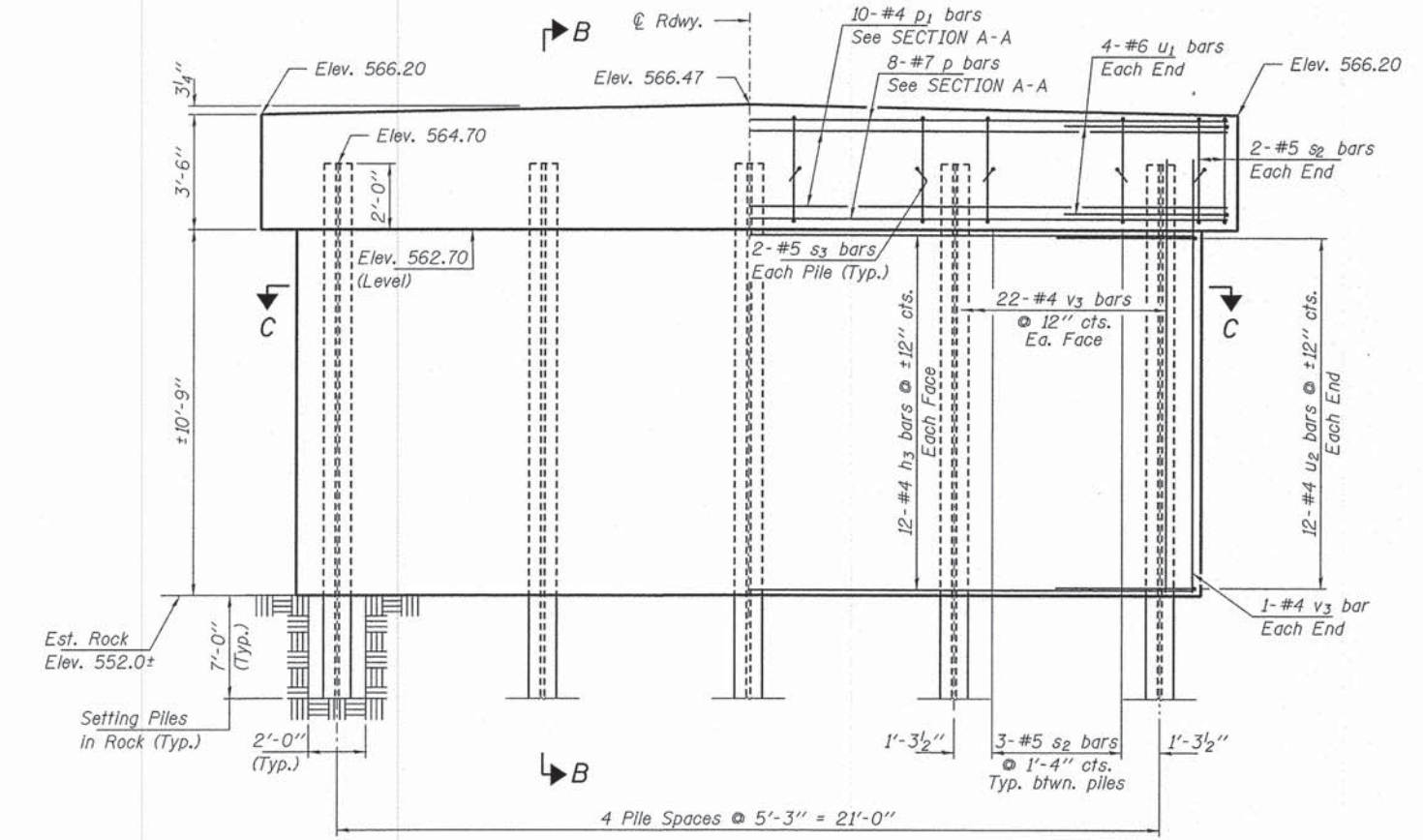
STATE OF ILLINOIS
SHELBY COUNTY HIGHWAY DEPARTMENT

ABUTMENTS
STRUCTURE NO. 087-3573
SHEET NO. 8 OF 11 SHEETS

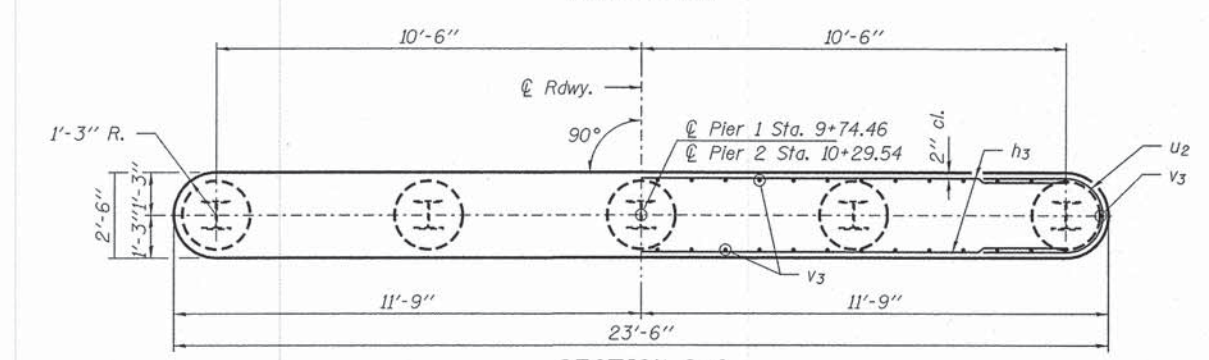
C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
30	09-00268-00-BR	SHELBY	27	24
				CONTRACT NO. 95722
ILLINOIS FED. AID PROJECT				



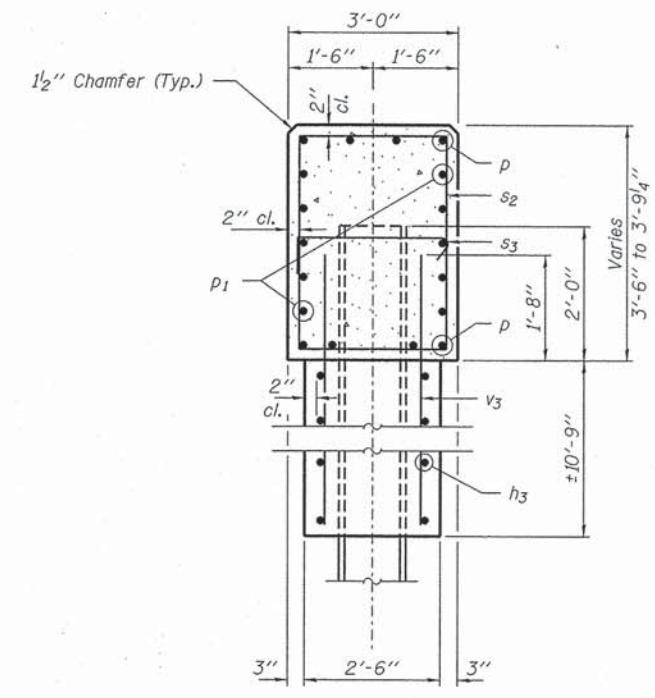
PLAN



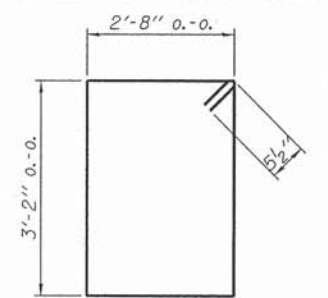
ELEVATION



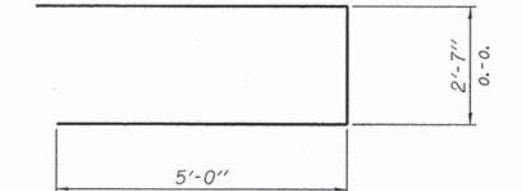
SECTION C-C



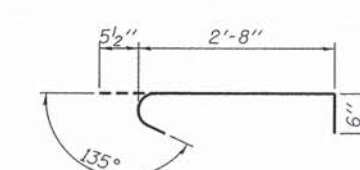
SECTION B-B



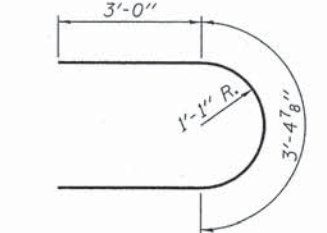
BAR s2



BAR u1



BAR s3



BAR u2

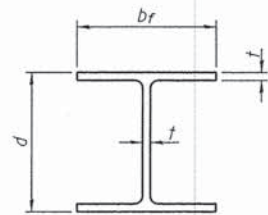
PILE DATA

Type.....Steel HP10x42
 No. Req'd. (2 Piers).....10
 Factored Resistance Available (Rf).....184 Kips/Pile
 Nominal Required Bearing (Rn).....335 Kips/Pile
 Est. Length.....25 Ft/Pile

BILL OF MATERIAL - 2 PIERS

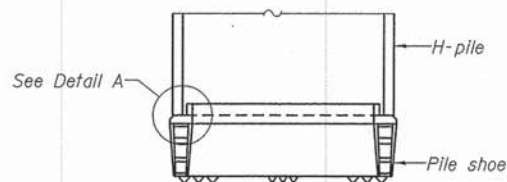
BAR	NO.	SIZE	LENGTH	SHAPE
h3	48	#4	21'-0"	—
p	16	#7	25'-2"	—
p1	20	#4	25'-2"	—
s2	32	#5	12'-7"	□
s3	20	#5	3'-8"	J
u1	16	#6	12'-7"	U
u2	48	#4	9'-5"	U
v3	92	#4	12'-3"	—
Concrete Structures			Cu. Yd.	66.0
Reinforcement Bars			Pound	4,570
Steel Piles HP10x42			Foot	250
Setting Piles in Rock			Each	10
Cofferdam (Type 1) (Location-1)			Each	1
Cofferdam (Type 1) (Location-2)			Each	1

Note:
 Cofferdam (Type 1) (Location-1) shall be used at Pier 1.
 Cofferdam (Type 1) (Location-2) shall be used at Pier 2.

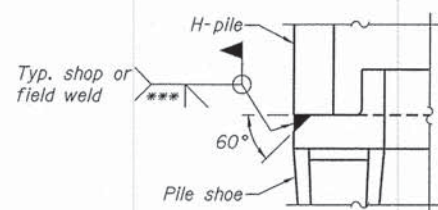


STEEL PILE TABLE

Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	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 1/8"	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"

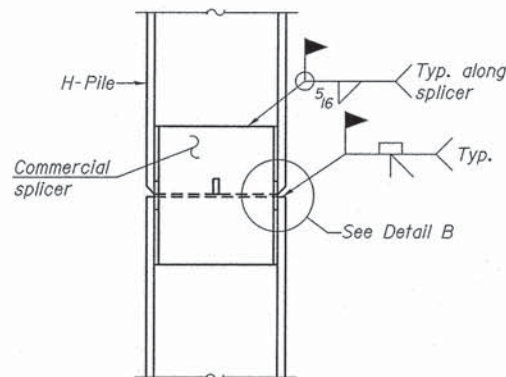


ELEVATION

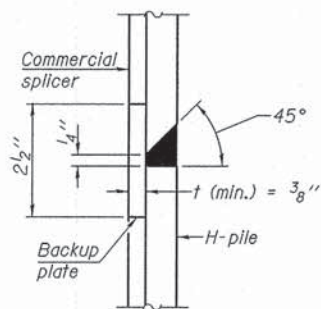


DETAIL A

H-PILE SHOE ATTACHMENT

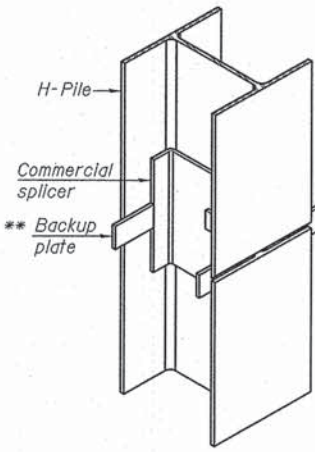


ELEVATION

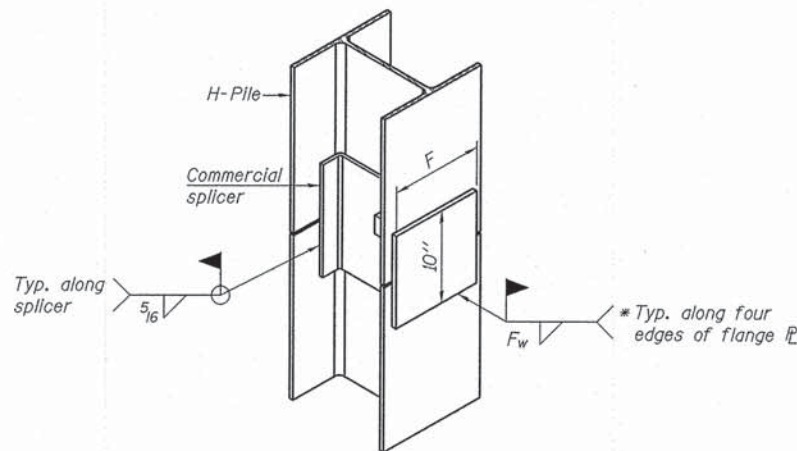


DETAIL "B"

WELDED COMMERCIAL SPLICE



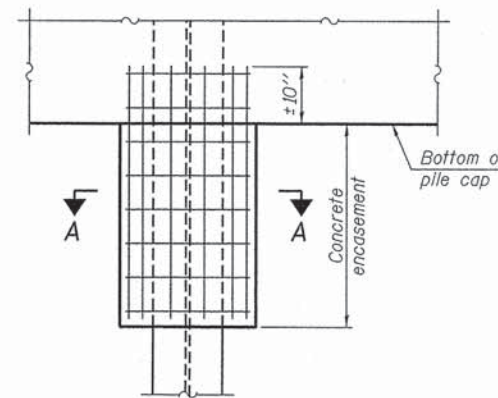
ISOMETRIC VIEW



ISOMETRIC VIEW

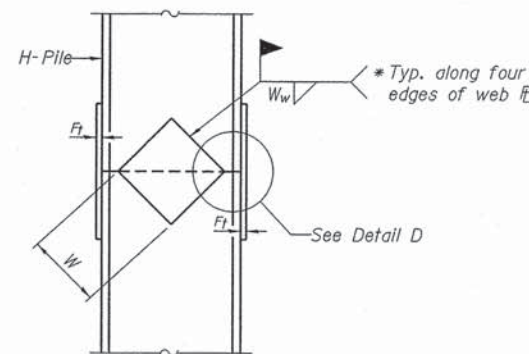
WELDED COMMERCIAL SPLICE ALTERNATE

- * 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.).



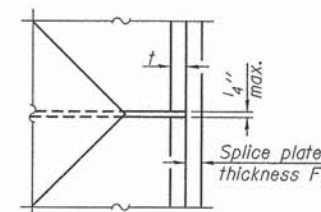
ELEVATION

PILE ENCASEMENT

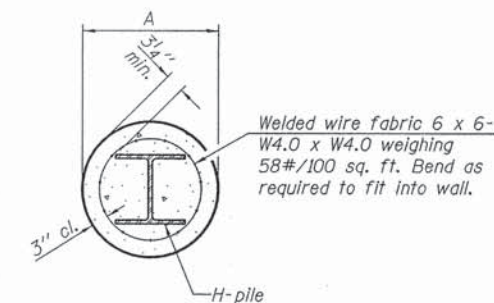


ELEVATION

DETAIL D

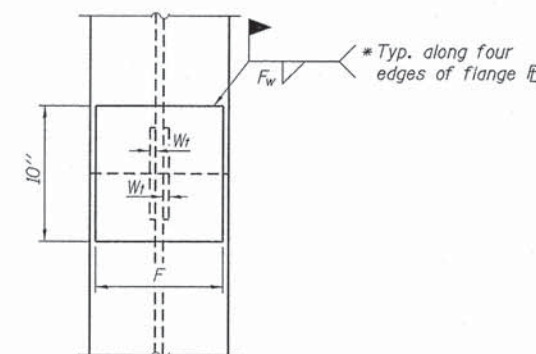


WELDED PLATE FIELD SPLICE



SECTION A-A

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



END VIEW

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5 1/2"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5 1/2"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5 1/2"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5 1/2"	1/2"
HP 12x84	10"	7/8"	1/16"	6 1/2"	5 1/2"	1/2"
x74	10"	7/8"	1/16"	6 1/2"	5 1/2"	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 = 090149-sh-bridge.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -	STATE OF ILLINOIS SHELBY COUNTY HIGHWAY DEPARTMENT	HP PILE DETAILS STRUCTURE NO. 087-3573	C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
HAMPTON, LENZINI AND RENWICK, INC. 3885 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE =	CHECKED - S.W.M.	REVISED -			30	09-00268-00-BR	SHELBY	27	26	
ILLINOIS PROFESSIONAL DESIGN FIRM L.S. / P.E. / S.E. CORP. 184.000959	PLOT DATE = 8/29/2013	DRAWN - D.A.B.	REVISED -			CONTRACT NO. 95722					
		CHECKED - S.W.M.	REVISED -			SHEET NO. 10 OF 11 SHEETS					

ILLINOIS FED. AID PROJECT



Illinois Department of Transportation
Division of Highways
Reynolds Drilling Corp.

SOIL BORING LOG

Page 1 of 1

Date 4/16/09

ROUTE CH 30 DESCRIPTION Bridge Replacement Boring LOGGED BY MER

SECTION 09-00268-00-BR LOCATION SE 1/4, SEC. 3, TWP. 11N, RNG. 3E, 3rd PM

COUNTY Shelby DRILLING METHOD Hollow Stem Auger HAMMER TYPE Hydraulic

STRUCT. NO. 087-3035
Station _____
BORING NO. B-1
Station 9+32
Offset 3.00ft Rt.
Ground Surface Elev. 99.40 ft

DEPTH (ft)	SOIL DESCRIPTION	BLOWS (6")	UCS (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (6")	UCS (tsf)	MOIST (%)
0-3	SILTY CLAY LOAM, brown, moist, little sand, A-7-6				0-3	100	4.0	13.1
3-4		2.0	15.7					
4-10		P						
10-11	(563.5) 95.40 SILTY CLAY LOAM, brown, moist, little sand, A-6				10-11	100		13.5
11-13		0.3	19.4					
13-15		B						
15-17								
17-19		0.3	22.3					
19-21		B						
21-23	(558.5) 90.40 LOAM, brown, moist, sandy, A-4				21-23			
23-25		0.5	20.1					
25-27		P						
27-29	(556.0) 87.90 SANDY LOAM, brown, very moist, fine to medium sand, A-4				27-29			
29-31			16.5					
31-33								
33-35	(553.5) 85.40 LOAM, gray, moist, trace to little clay, A-4				33-35			
35-37			22.3					
37-39								
39-41	(551.5) 83.40 SHALE, gray, weathered.				39-41			
41-43		2.0	7.3					
43-45		P						
45-47								
47-49		4.0	7.6					
49-51		P						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

BORING 1



Illinois Department of Transportation
Division of Highways
Reynolds Drilling Corp.

SOIL BORING LOG

Page 1 of 1

Date 4/16/09

ROUTE CH 30 DESCRIPTION Bridge Replacement Boring LOGGED BY MER

SECTION 09-00268-00-BR LOCATION SE 1/4, SEC. 3, TWP. 11N, RNG. 3E, 3rd PM

COUNTY Shelby DRILLING METHOD Hollow Stem Auger HAMMER TYPE Hydraulic

STRUCT. NO. 087-3035
Station _____
BORING NO. B-2
Station 10+69
Offset 9.00ft Rt.
Ground Surface Elev. 99.41 ft

DEPTH (ft)	SOIL DESCRIPTION	BLOWS (6")	UCS (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (6")	UCS (tsf)	MOIST (%)
0-2	SILTY CLAY LOAM, brown, moist, little sand, A-6				0-2	100		12.2
2-3		0.5	19.1					
3-5		P						
5-7								
7-9		0.8	16.6					
9-11		P						
11-13								
13-15	(560.5) 92.41 LOAM, gray, moist, little sand, A-4				13-15			
15-17		0.1	20.4					
17-19		B						
19-21								
21-23		0.5	21.1					
23-25		P						
25-27	(556.0) 87.91 SANDY LOAM, gray, moist, A-4				25-27			
27-29		0.5	15.9					
29-31		P						
31-33								
33-35	(552.5) 84.41 SHALE, gray, weathered				33-35			
35-37		4.5	15.8					
37-39		P						
39-41								
41-43		3.0	10.7					
43-45		P						
45-47								
47-49		4.0	8.9					
49-51		P						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

BORING 2

FILE NAME = 090149-ah-bridge.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC.		CHECKED - S.W.M.	REVISED -
3545 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62763	PLOT SCALE =	DRAWN - D.A.B.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000059	PLOT DATE = 8/29/2013	CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS
SHELBY COUNTY HIGHWAY DEPARTMENT

BORINGS
STRUCTURE NO. 087-3573
SHEET NO. 11 OF 11 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
30	09-00268-00-BR	SHELBY	27	27
			CONTRACT NO. 95722	
ILLINOIS FED. AID PROJECT				