

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
**PLANS FOR PROPOSED
STP-BRIDGE**

**TR 40 (N. 450th STREET)
OVER COON CREEK
SECTION 13-09114-00-BR
PROJECT NO. BROS-0049(164)
MOUND ROAD DISTRICT
EFFINGHAM COUNTY
JOB NO. C-97-043-14**

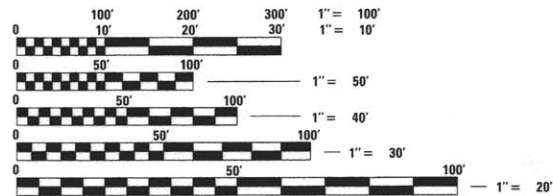
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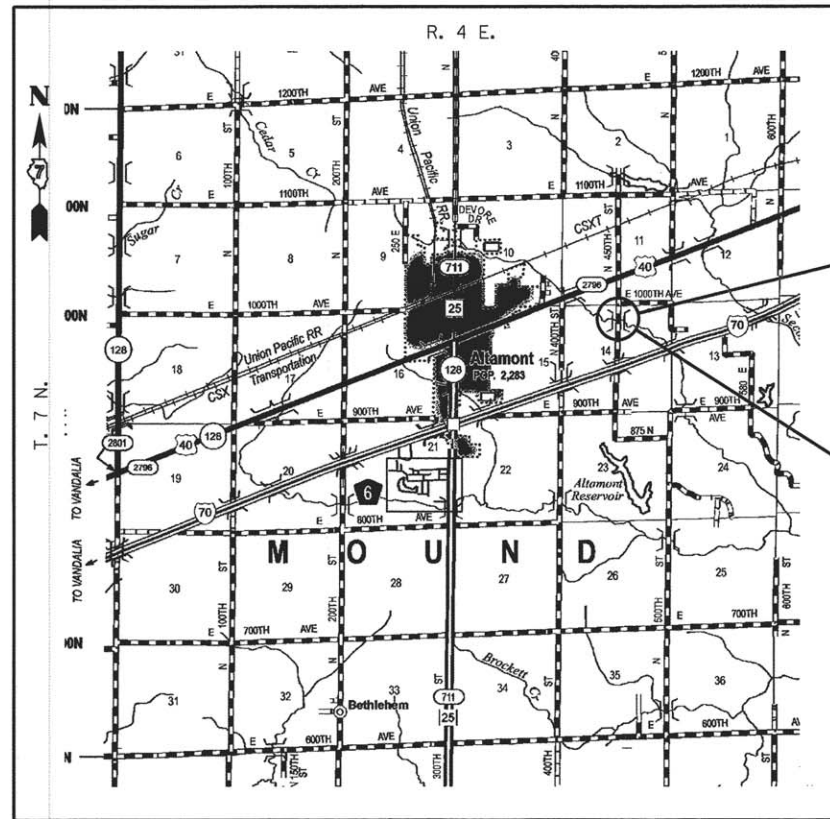
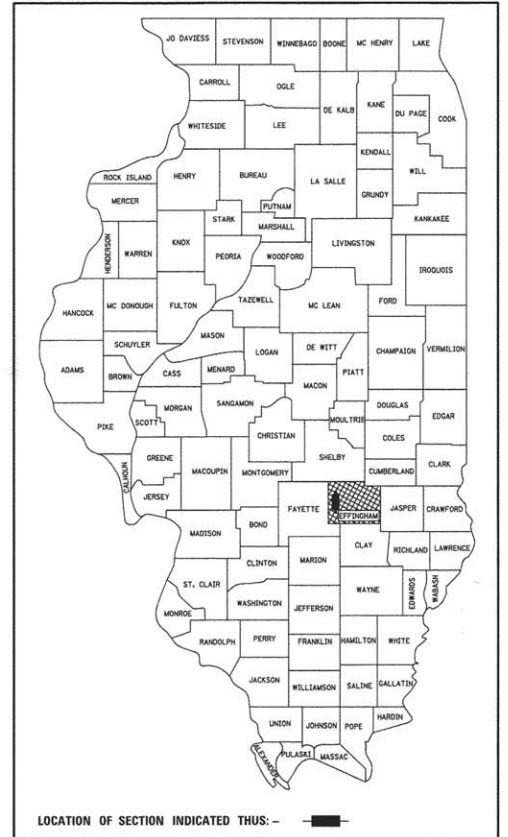
SOIL BORINGS (SEE SPECIFICATIONS)

DESIGN CLASSIFICATION: RURAL LOCAL ROAD
ADT₂₀₃₅ : 750
DESIGN SPEED: 50 MPH



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.

J.U.L.I.E.
JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS
1-800-892-0123 or 811 Website: <http://www.illinois1call.com>



SECTION ENDS
STA. 49+08.04

SECTION 13-09114-00-BR INCLUDES THE CONSTRUCTION OF A SINGLE SPAN PRECAST PRESTRESSED CONCRETE DECK BEAM BRIDGE CARRYING TR 40 (N. 450th STREET) OVER COON CREEK, 57'-4" BK. TO BK. ABUTMENTS X 28' WIDE. NO SKEW. EXISTING STRUCTURE NO. 025-3063 PROPOSED STRUCTURE NO. 025-3327

SECTION BEGINS
STA. 52+29.72

LOCATION: NEAR THE NE CORNER OF THE NE 1/4 OF THE NW 1/4, SECTION 14, T7N, R4E, 3RD P.M.
NET LENGTH OF PROJECT: 321.68 FT. = 0.061 MI.

EFFINGHAM COUNTY
HIGHWAY DEPARTMENT

APPROVED May 20, 2016
[Signature]
EFFINGHAM COUNTY, COUNTY ENGINEER

PASSED 5/26, 16
[Signature]
DISTRICT SEVEN ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID
BASED ON LIMITED
REVIEW 5/26, 16
[Signature]
REGION FOUR ENGINEER

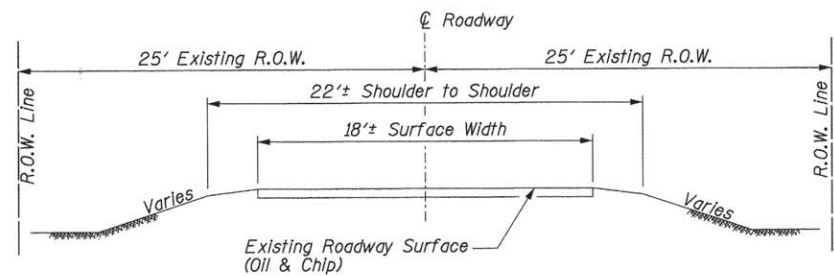
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OF THE STATE OF ILLINOIS**



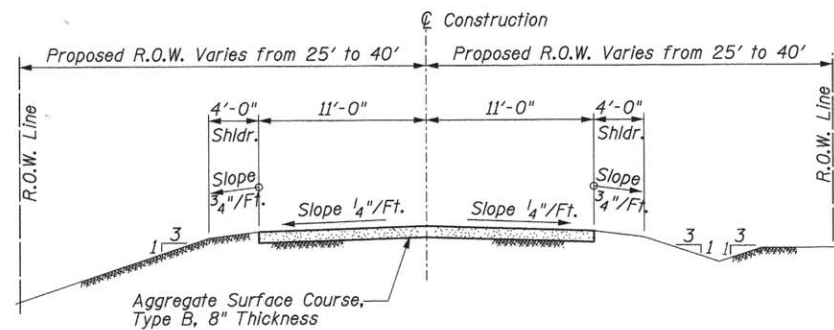
[Signature] 05/12/2016
BRENT L. TAYLOR
CENTRALIA, ILLINOIS
ILLINOIS LICENSED PROFESSIONAL
ENGINEER NO. 062-066114
EXPIRES NOV. 30, 2017

CONTRACT NO. 95795

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 40	13-09114-00-BR	EFFINGHAM	11	1
CONTRACT NO. 95795				
RAAI JOB NO. 53313 ILLINOIS FED. AID PROJECT				



TYPICAL SECTION
EXISTING APPROACH ROADWAY



TYPICAL SECTION
PROPOSED APPROACH ROADWAY

UTILITIES

J.U.L.I.E. Design Stage
Dig No.: X0120265

Electric, Sewer, Water
City of Altamont
Sarah Stephen
202 North 2nd Street
Altamont, IL 62411
Phone: 618-483-5212
Reported as clear

Telephone
Frontier Communications
Rod Fuller
801 West Jackson
Altamont, IL 62411
Phone: 618-483-6205

Water
EJ Water Cooperative, Inc.
Milano & Grunloh Engineers, LLC
Lee Beckman
114 West Washington Avenue
P.O. Box 897
Effingham, IL 62401
Phone: 217-347-7262

Water
Fayette Water Company
Denny Buchanan
2371 North 1350 Street
Brownstown, IL 62418
Phone: 618-347-2430
Reported as clear

Natural Gas
Liberty Utilities
Mike Beatty
2751 North High Street
Jackson, MO 63755
Phone: 573-979-0220
Reported as clear

SUMMARY OF QUANTITIES

Code No.	Item	Unit	Quantity
20100500	Tree Removal, Acres	Acres	0.3
20200100	Earth Excavation	Cu Yd	56
20300100	Channel Excavation	Cu Yd	306
20400800	Furnished Excavation	Cu Yd	419
20700110	Porous Granular Embankment	Ton	108
28100807	Stone Dumped Riprap, Class A4	Ton	240
28200200	Filter Fabric	Sq Yd	298
40200800	Aggregate Surface Course, Type B	Ton	290
50100100	Removal of Existing Structures	Each	1
50300225	Concrete Structures	Cu Yd	26.6
50300280	Concrete Encasement	Cu Yd	2.8
50400505	Precast Prestressed Concrete Deck Beams (27" Depth)	Sq Ft	1568
50800105	Reinforcement Bars	Pound	4020
* 50900205	Steel Railing, Type S1	Foot	116
51201600	Furnishing Steel Piles HP12x53	Foot	347
51202305	Driving Piles	Foot	347
51203600	Test Pile Steel HP12x53	Each	1
51204650	Pile Shoes	Each	8
51500100	Name Plates	Each	1
* 63100075	Traffic Barrier Terminal, Type 5A	Each	2
* 63100167	Traffic Barrier Terminal, Type 1 (Special) Tangent	Each	2
67100100	Mobilization	L Sum	1
* 72501000	Terminal Marker - Direct Applied	Each	4
X2501000	Seeding, Class 2 (Special)	Acres	0.3

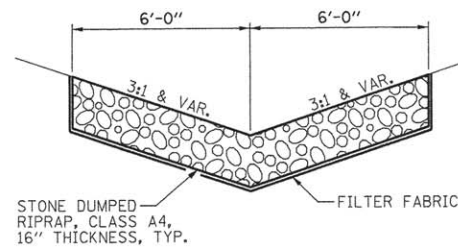
* Specialty Item

GENERAL NOTES

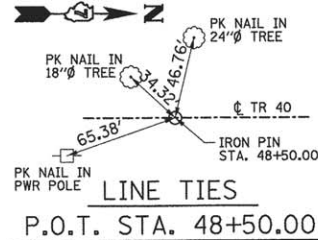
- This section shall be constructed according to the plans, the Special Provisions, and the "Standard Specifications for Road and Bridge Construction", adopted April 1, 2016.
- Roadway Centerline profiles refer to the finished surface.
- Existing utilities shown are located from surface observations or information provided by the respective utilities and must be considered approximate and are only included for the convenience of the bidder. There may be others, the exact location of which are unknown and not shown. The Contractor will be responsible for notifying the respective utilities before work is begun. Field marking of underground utilities may be obtained by providing a minimum of 48 hours advance notice through the J.U.L.I.E. system by calling 1-800-892-0123, 811, or by direct contact with non-members of J.U.L.I.E.
- The Aggregate Surface Course, Type B gradation shall be CA 6. Only crushed stone will be approved for use on this project.
- Factors used for quantity calculations are as follows:

Porous Granular Embankment	2.1 tons/cu. yd.
Stone Dumped Riprap	130 pounds/cu. ft.
Aggregate Surface Course	2.1 tons/cu. yd.
- Commitments:
Per the June 27, 2014 response received from the US Army Corps of Engineers, any required tree clearing shall not occur between April 1st and September 30th to avoid impacting the Indiana bat and proposed as endangered Northern long-eared bat. If it is necessary to clear trees during this specified time frame, then an Indiana bat habitat and Northern long-eared bat assessment shall be conducted to assess the value of the habitat to the Indiana bat.

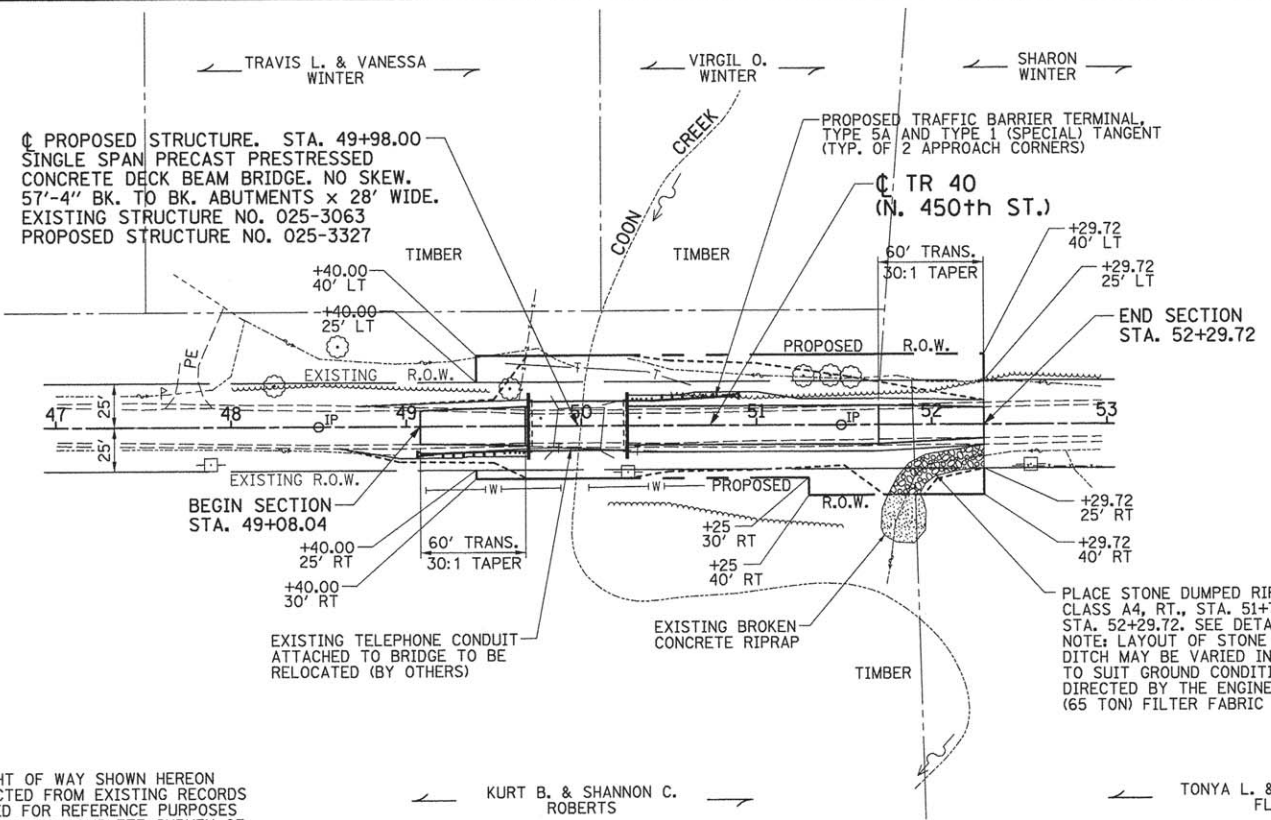
As of March 15, 2016, no other commitments have been made.



**TYPICAL SECTION
 PROPOSED RIPRAP DITCH**
 RT., STA. 51+75.00 TO STA. 52+29.72



THE EXISTING RIGHT OF WAY SHOWN HEREON HAS BEEN PROTRACTED FROM EXISTING RECORDS AND IS TO BE USED FOR REFERENCE PURPOSES ONLY. FURTHERMORE, NO COMPLETE SURVEY OF SAID R.O.W. IS IMPLIED BY THIS DRAWING.



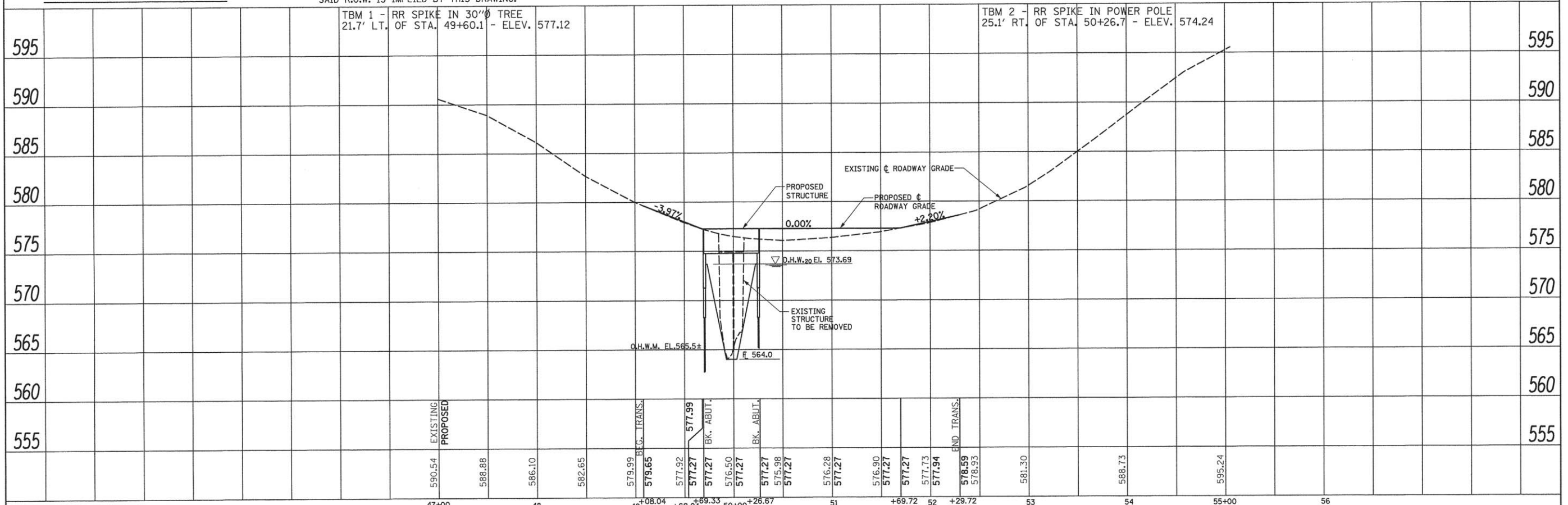
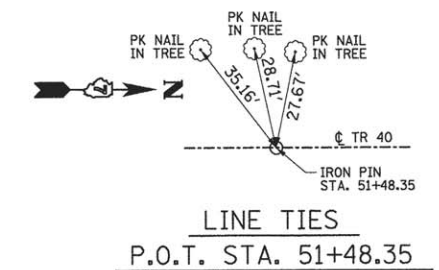
EXISTING STRUCTURE: TWO SPAN BRIDGE WITH CONCRETE DECK ON STEEL STRINGERS SUPPORTED ON CLOSED CONCRETE ABUTMENTS AND CONCRETE AND TIMBER COLUMN PIER, 28'L. x 23'W. TO BE REMOVED. SEE SPECIAL PROVISIONS FOR SALVAGE.

EARTHWORK SCHEDULE				
LOCATION	EARTH EXCAVATION CU. YD.	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE* CU. YD.	EMBANKMENT CU. YD.	EARTHWORK BALANCE** WASTE (+) OR SHORTAGE (-) CU. YD.
STA. 48+62.54 TO STA. 49+69.33	29	22	14	8
STA. 50+26.67 TO STA. 52+29.72	27	20	447	-427
TOTAL	56	42	461	-419

*25% SHRINKAGE
 **FURNISHED EXCAVATION

TREE REMOVAL, ACRES	
LOCATION	ACRE
LT., STA. 49+50 TO LT., STA. 52+00	0.3
TOTAL	0.3

SEE SPECIAL PROVISIONS



DATE: _____ BY: _____
 SURVEYED: _____
 PLAN: _____
 NOTE BOOK NO. _____
 CHECKED: _____
 DATE: _____

DATE: _____ BY: _____
 SURVEYED: _____
 PROFILE: _____
 NOTE BOOK NO. _____
 CHECKED: _____
 DATE: _____

RHUTASEL and ASSOCIATES, INC.
 CONSULTING ENGINEERS • LAND SURVEYORS
 CENTRALIA, ILLINOIS FREESBURG, ILLINOIS
 ILLINOIS DESIGN FIRM LICENSE NO. 184-000287

DESIGNED - BLT	REVISED -
DRAWN - JN	REVISED -
CHECKED - GLH	REVISED -
DATE - 05/12/2016	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

PLAN AND PROFILE OF ROADWAY
 SCALE: 1"=50'
 STA. 47+00 TO STA. 55+00

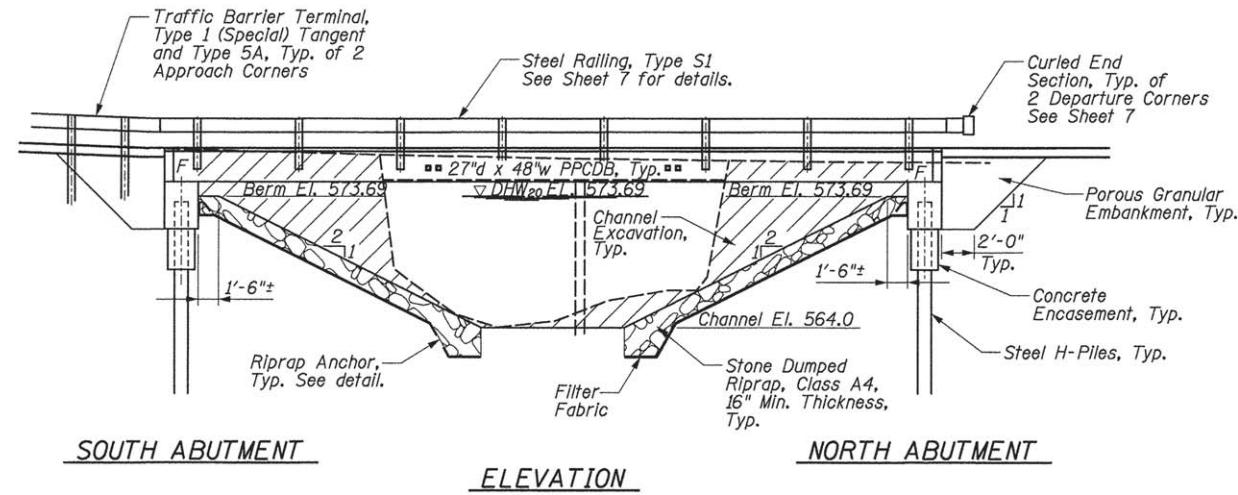
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 40	13-09114-00-BR	EFFINGHAM	11	3

CONTRACT NO. 95795
 RRA1 JOB NO. 53313 ILLINOIS FED. AID PROJECT

TBM #1: RR Spike in 30" tree
21.7'± Lt. of Sta. 49+60.1 - Elev. 577.12

TBM #2: RR Spike in power pole
25.1'± Rt. of Sta. 50+26.7 - Elev. 574.24

Existing Structure: Structure No.: 025-3063. Two span bridge with concrete deck beams on steel stringers supported on closed concrete abutments and concrete and timber column pier. 28' L. x 23' W. To be removed. See Special Provisions for salvage.



LOADING HL-93
50#/sq. ft. included in dead load for future wearing surface.

DESIGN SPECIFICATIONS
2012 (6th Ed.) AASHTO LRFD Bridge Design Specifications

DESIGN STRESSES

FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (reinforcement)

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

SEISMIC DATA
Seismic Performance Zone (SPZ) = 2
Soil Site Classification = C
SD1 = 0.155 SD5 = 0.381

BILL OF MATERIALS (BRIDGE ONLY)

ITEM	UNIT	TOTAL
Channel Excavation	Cu Yd	306
Porous Granular Embankment	Ton	108
Stone Dumped Riprap, Class A4	Ton	175
Filter Fabric	Sq Yd	205
Removal of Existing Structures	Each	1
Concrete Structures	Cu Yd	26.6
Concrete Encasement	Cu Yd	2.8
PPCDB (27" Depth)	Sq Ft	1568
Reinforcement Bars	Pound	4020
Steel Railing, Type S1	Foot	116
Furnishing Steel Piles HPI2x53	Foot	347
Driving Piles	Foot	347
Test Pile Steel HPI2x53	Each	1
Pile Shoes	Each	8
Name Plates	Each	1

GENERAL NOTES

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

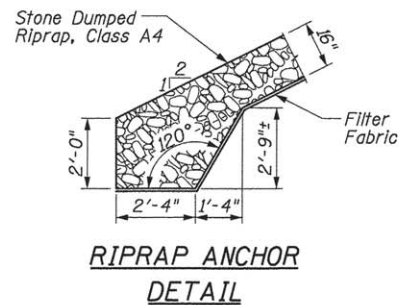
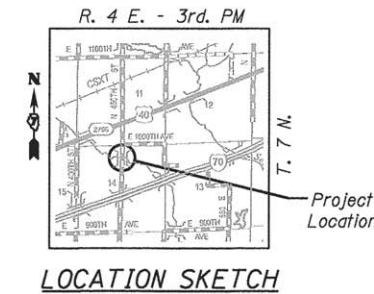
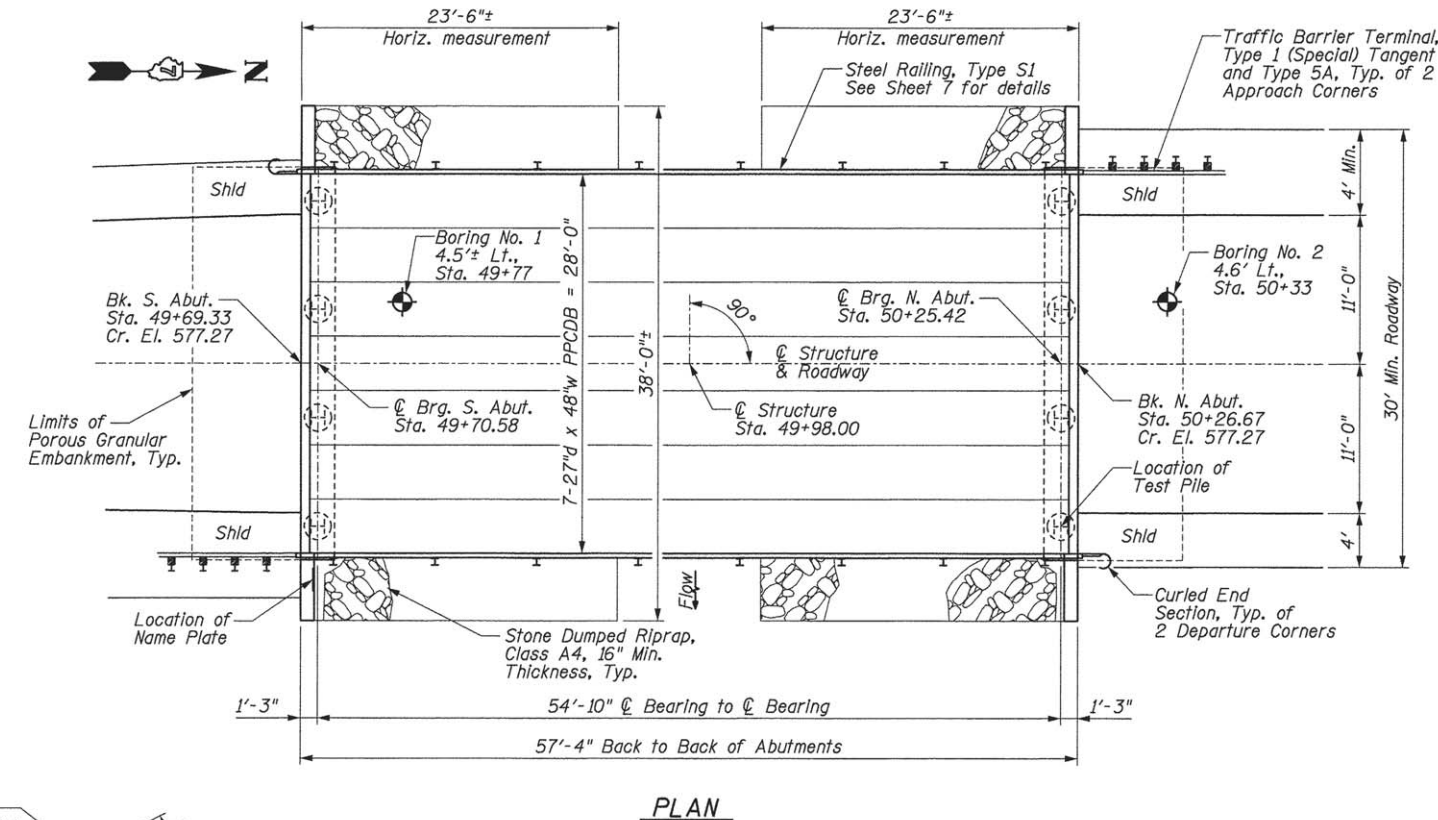
Channel excavation shall be excavated as shown within the limits of the proposed bridge, then tapered to the Right-of-Way line. If the Engineer deems the material satisfactory, it may be used to construct the roadway embankment.

See Section 502 of the Standard Specifications for Structural Excavation.

See Special Provisions for Soil Borings.

Do not scale these drawings.

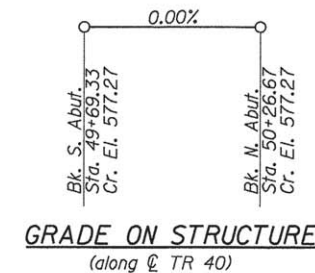
The abutment bearing seat surfaces for the precast prestressed concrete deck beams shall be adjusted by shimming to assure firm and even bearing. As required, 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.



WATERWAY INFORMATION

Drainage Area = 3.03 sq. mi. Existing Low Grade Elev. 575.98 @ Sta. 50+50.00
Proposed Low Grade Elev. 577.27 @ Sta. 50+00.00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	20	1320	185	290	573.69	0.67	0.06	574.36	573.75
Base	100	2020	208	340	574.65	1.65	0.11	576.30	574.76
Base	500	2770	214	347	575.41	3.53	0.70	578.94	576.11



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



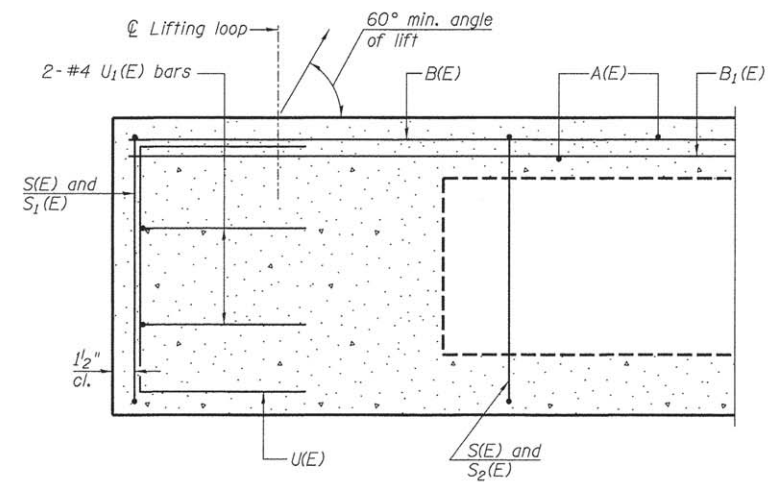
William D. Lueking 5-12-2016
William D. Lueking
Centralia, Illinois
Illinois Licensed Structural Engineer No. 081-004341
Expires Nov. 30, 2016

COON CREEK
BUILT 201 BY
EFFINGHAM COUNTY
SEC. 13-09114-00-BR
TR 40 STA. 49+98
LOADING HL-93
STRUCTURE NO. 025-3327

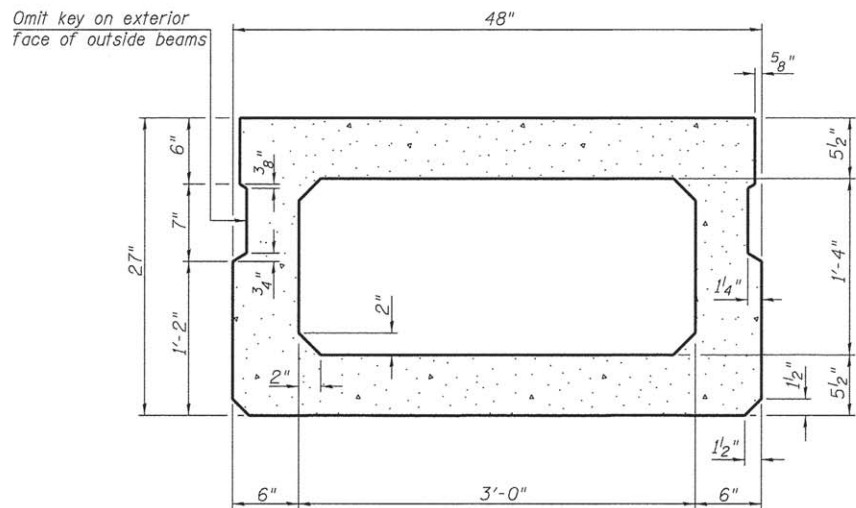
NAME PLATE
See Std. 515001

DESIGNED - BLT	REVISED -
DRAWN - JN	REVISED -
CHECKED - WDL	REVISED -
DATE - 05/12/2016	REVISED -

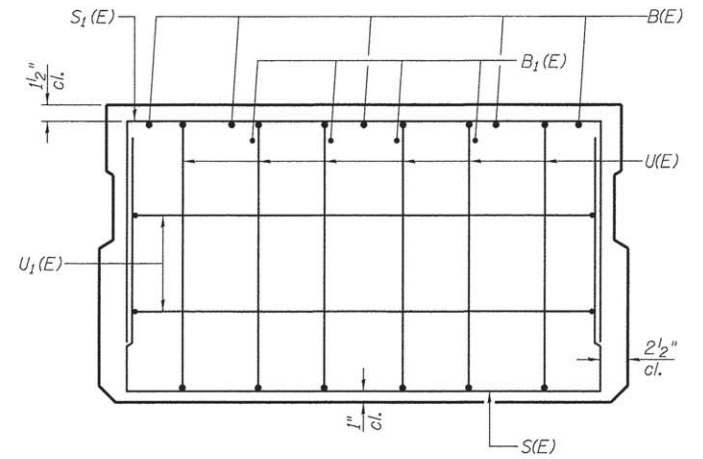
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 40	13-09114-00-BR	EFFINGHAM	11	4
RAAI JOB NO. 53313			CONTRACT NO. 95795	



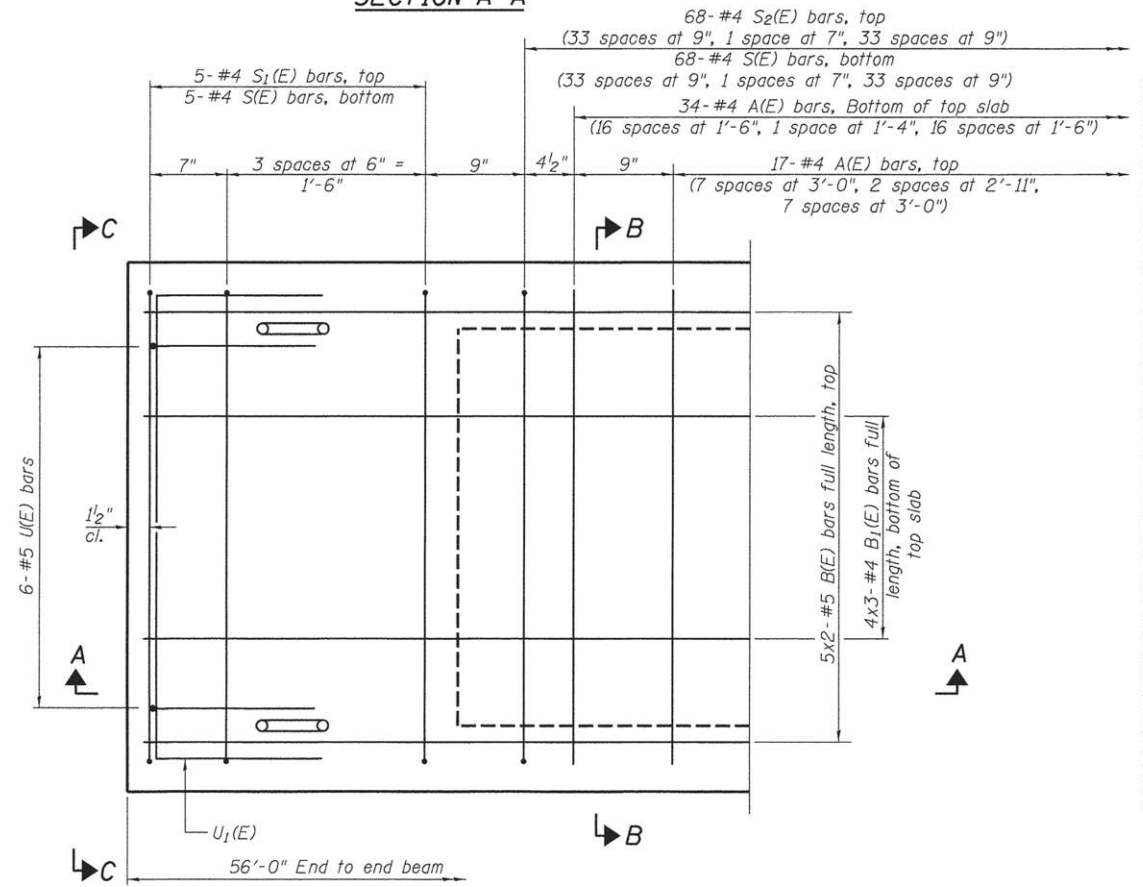
SECTION A-A



SECTION B-B
(Showing dimensions)



VIEW C-C

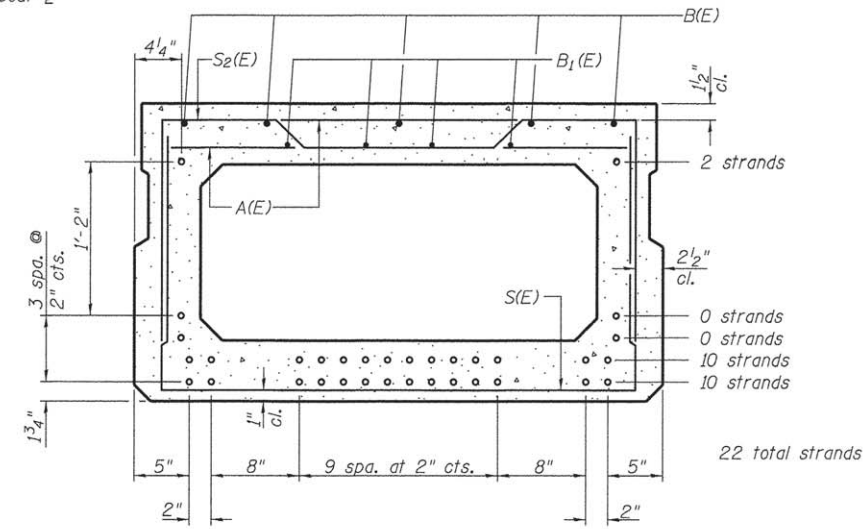


PLAN VIEW

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: 4x3-#5 etc. indicates 4 lines of bars with 3 lengths per line.

Symmetrical about \bar{C}



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.

MINIMUM BAR LAP

#4 bar = 2'-0"
#5 bar = 2'-6"

BAR LIST
ONE BEAM ONLY

(For information only)

Bar	No.	Size	Length	Shape
A(E)	51	#4	3'-7"	—
B(E)	10	#5	29'-2"	—
B1(E)	12	#4	19'-11"	—
S(E)	78	#4	7'-5"	⌌
S1(E)	10	#4	6'-11"	⌌
S2(E)	68	#4	7'-2"	⌌
U(E)	12	#5	4'-6"	⌌
U1(E)	4	#4	6'-0"	⌌

Note: See Sheet 6 for additional details and Bill of Material.

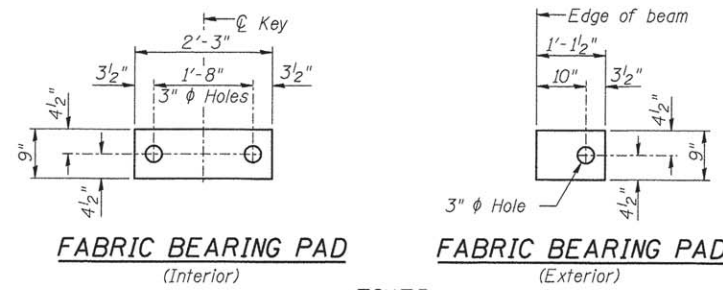
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ILLINOIS DESIGN FIRM LICENSE NO. 184-000287

DESIGNED -	BLT	REVISED -	
DRAWN -	JN	REVISED -	
CHECKED -	WDL	REVISED -	
DATE -	05/12/2016	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST PRESTRESSED CONCRETE DECK BEAM DETAILS

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 40	13-09114-00-BR	EFFINGHAM	11	5
CONTRACT NO. 95795				
RAAT JOB NO. 53313 ILLINOIS FED. AID PROJECT				

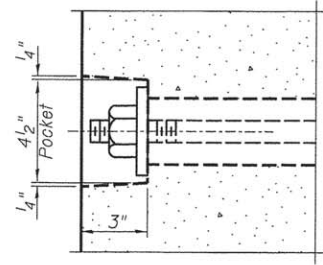


FABRIC BEARING PAD
(Interior)

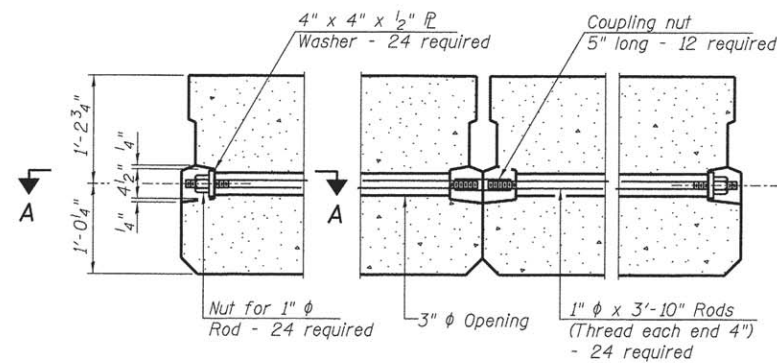
FABRIC BEARING PAD
(Exterior)

FIXED

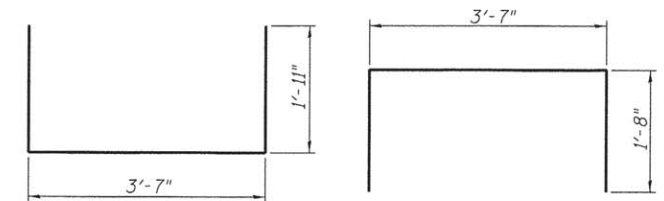
Notes: All bearing pads shall be 1" thick.



SECTION A-A

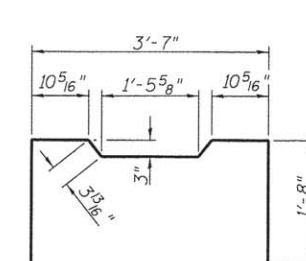


TYPICAL TRANSVERSE TIE ASSEMBLY



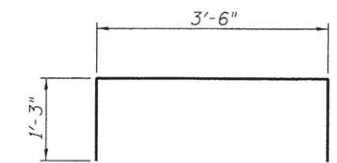
BAR S1(E)

BAR S2(E)

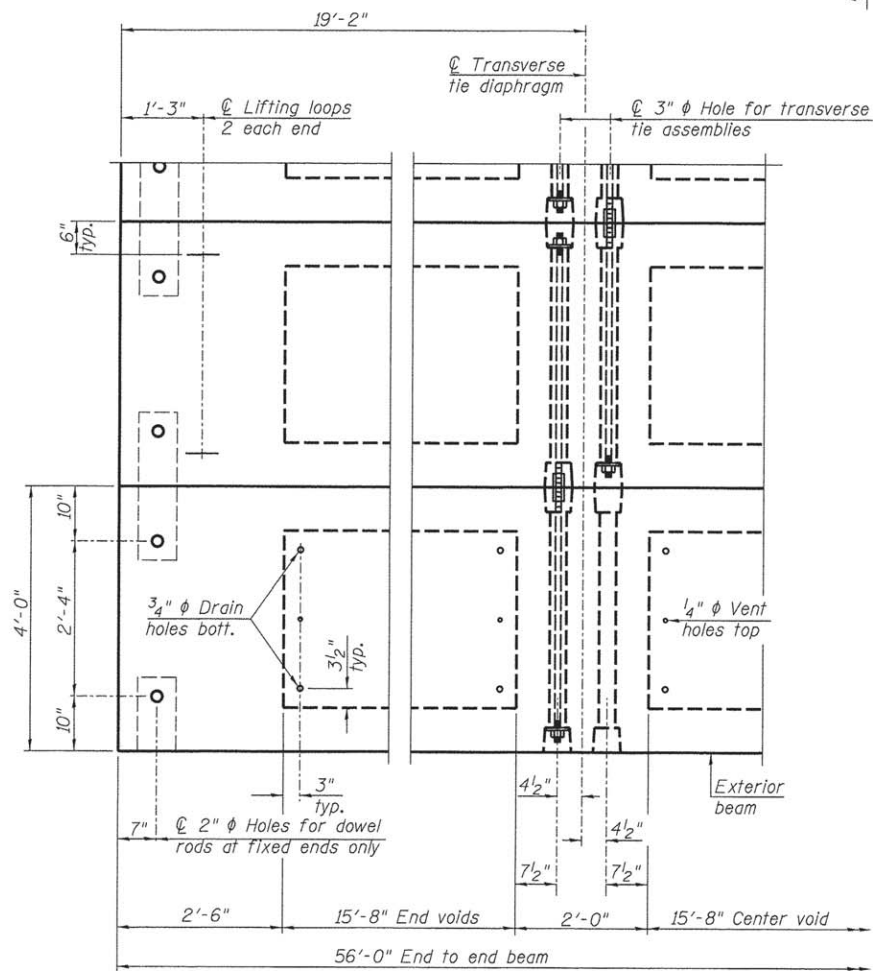


BAR U1(E)

BAR S2(E)

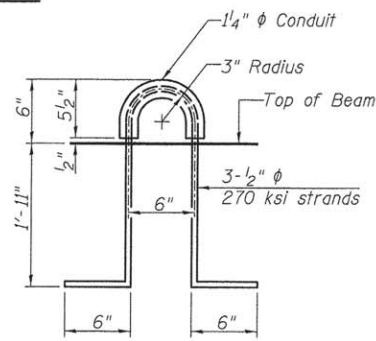


BAR U2(E)

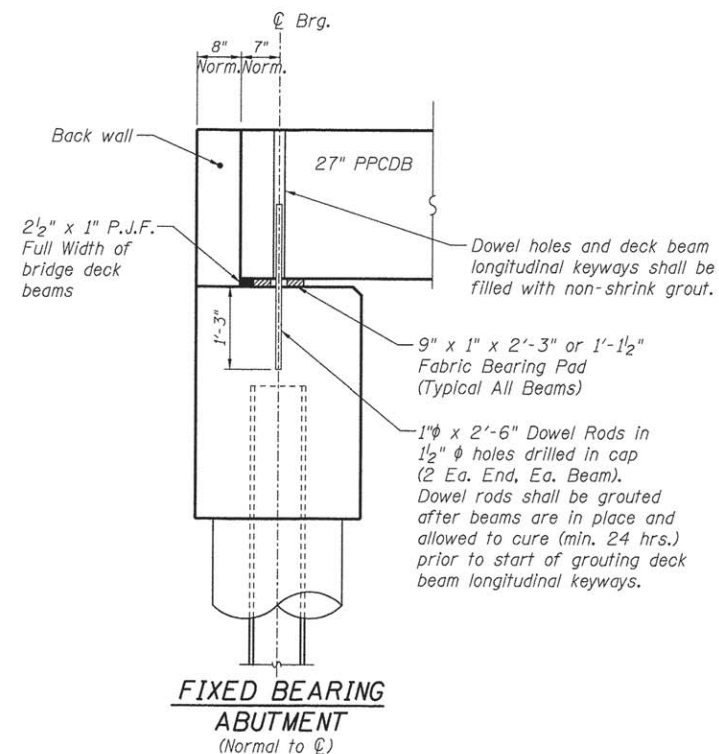


PLAN VIEW

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



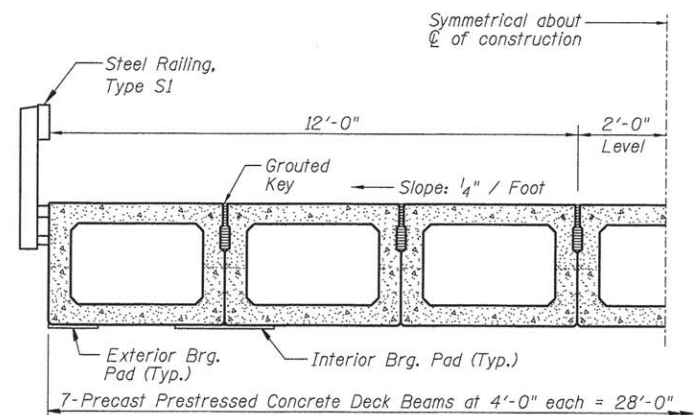
LIFTING LOOP DETAIL



FIXED BEARING ABUTMENT
(Normal to C)

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, IL Modified. 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 1021.06 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.



HALF CROSS SECTION

See Sheet 7 for the details showing the spacing and mounting of posts and rails to the PPCDB.

BILL OF MATERIAL

Precast Prestressed Concrete Deck Beams, (27" depth)	Sq. Ft.	1568
------------------------------------------------------	---------	------

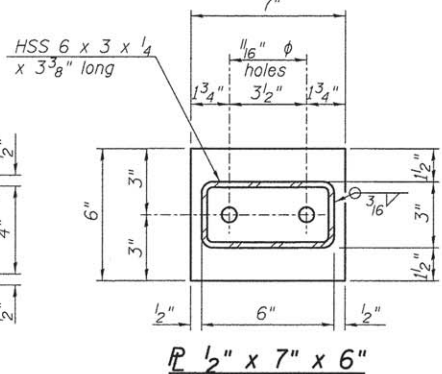
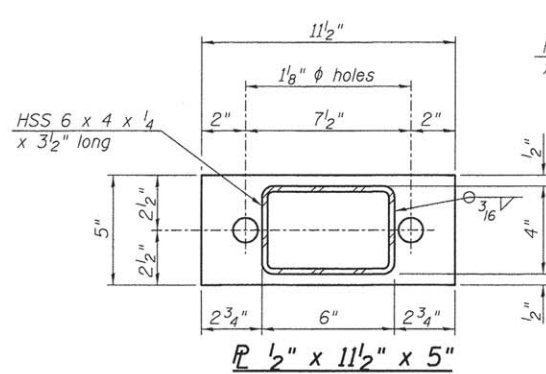
RHUTASEL and ASSOCIATES, INC.
CONSULTING ENGINEERS • LAND SURVEYORS
CENTRALIA, ILLINOIS
ILLINOIS DESIGN FIRM LICENSE NO. 184-000287

DESIGNED - BLT	REVISED -
DRAWN - JN	REVISED -
CHECKED - WDL	REVISED -
DATE - 05/12/2016	REVISED -

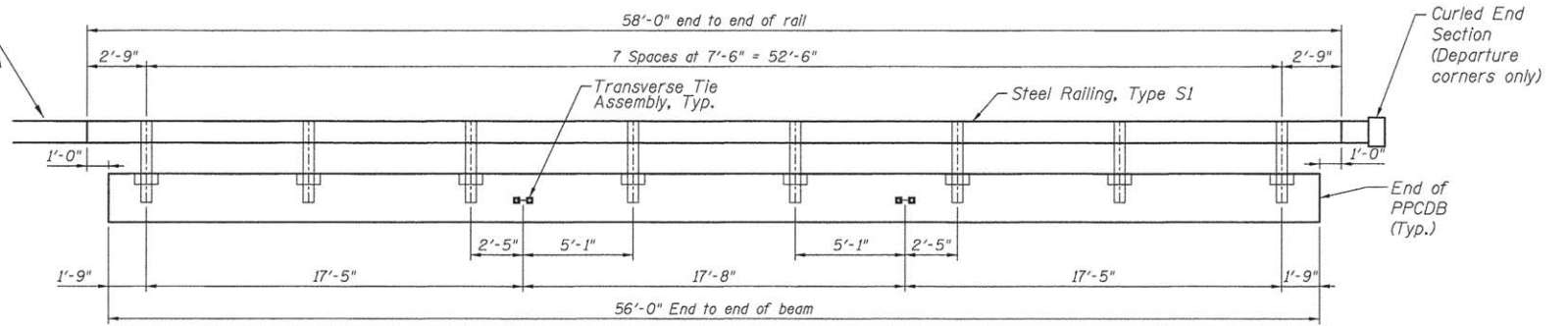
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST PRESTRESSED CONCRETE DECK BEAM DETAILS

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 40	13-09114-00-BR	EFFINGHAM	11	6
RAAI JOB NO. 53313			ILLINOIS FED. AID PROJECT	

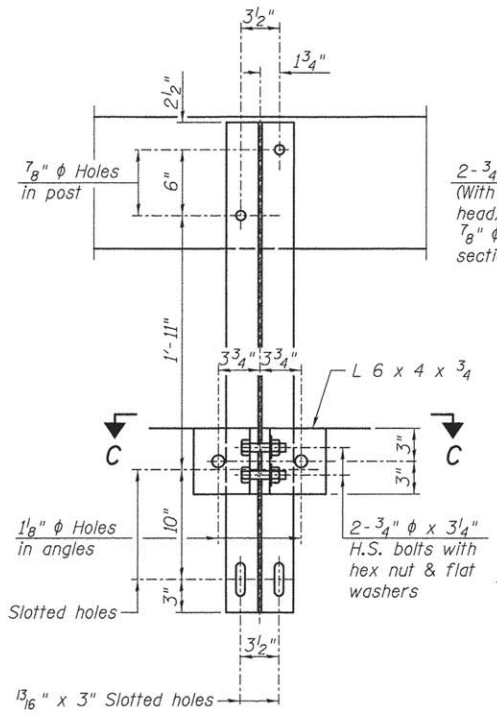


Traffic Barrier
Terminal, Type 5A
(Approach
corners only)

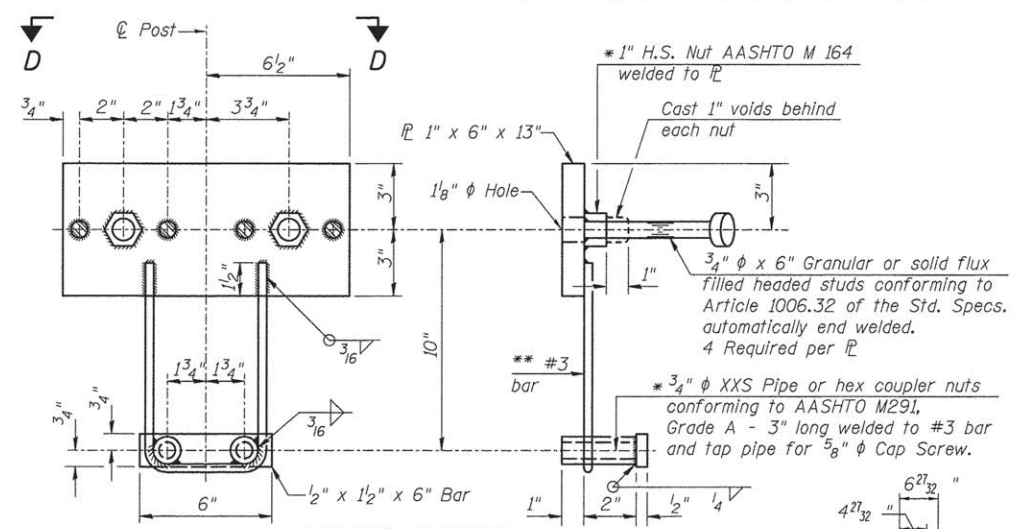
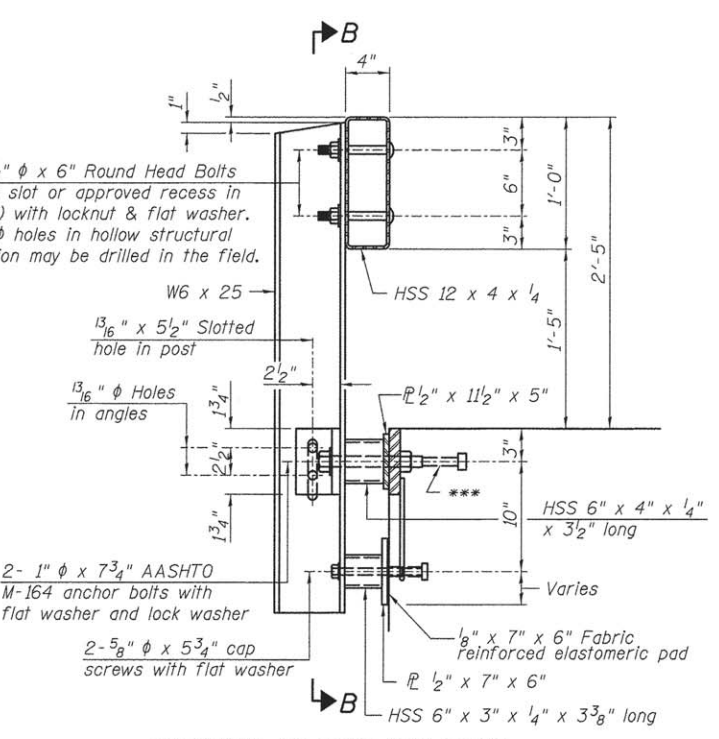


ELEVATION

Note: The cost of the Curled End Sections shall be included in the contract unit price per foot for "STEEL RAILING, TYPE S1", and no additional compensation will be allowed.

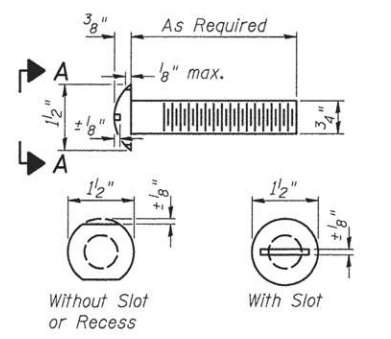


2-3/4" ϕ x 6" Round Head Bolts
(With slot or approved recess in head) with locknut & flat washer.
7/8" ϕ holes in hollow structural section may be drilled in the field.

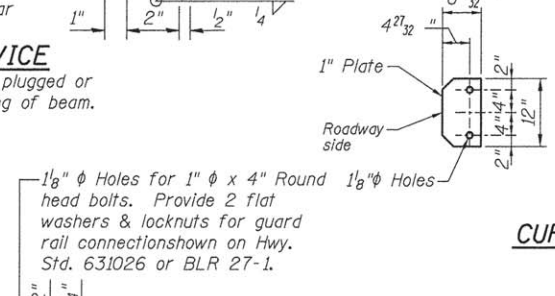
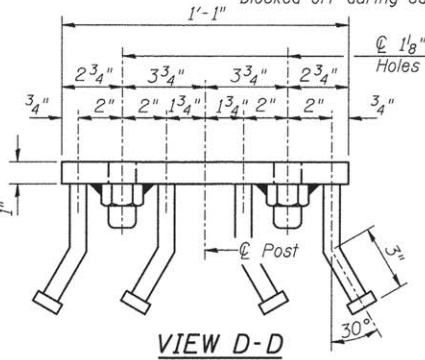


ANCHOR DEVICE

* Threaded areas shall be plugged or blocked off during casting of beam.



**VIEW A-A
ROUND HEAD BOLT**

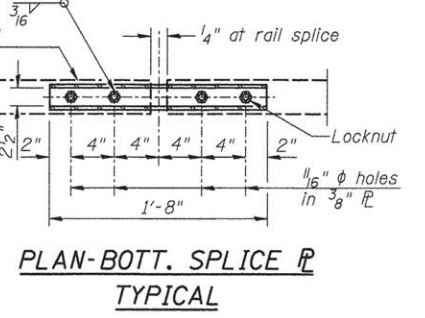
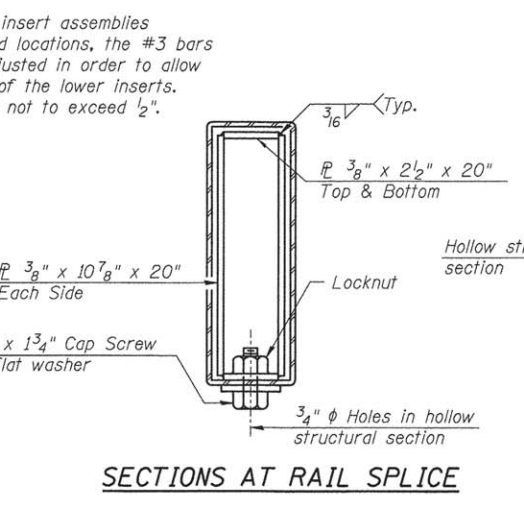
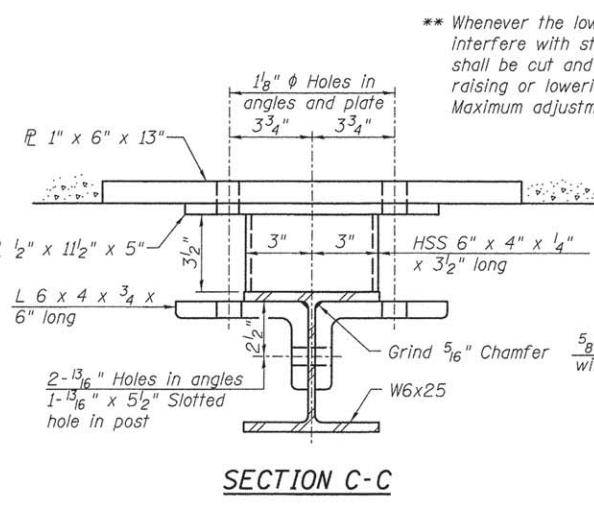


CURLED END SECTION DETAILS

Notes:
All field drilled holes shall be coated with an approved zinc rich paint before erection.
For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type S1.
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 S1	Foot	116



END OF RAIL DETAILS

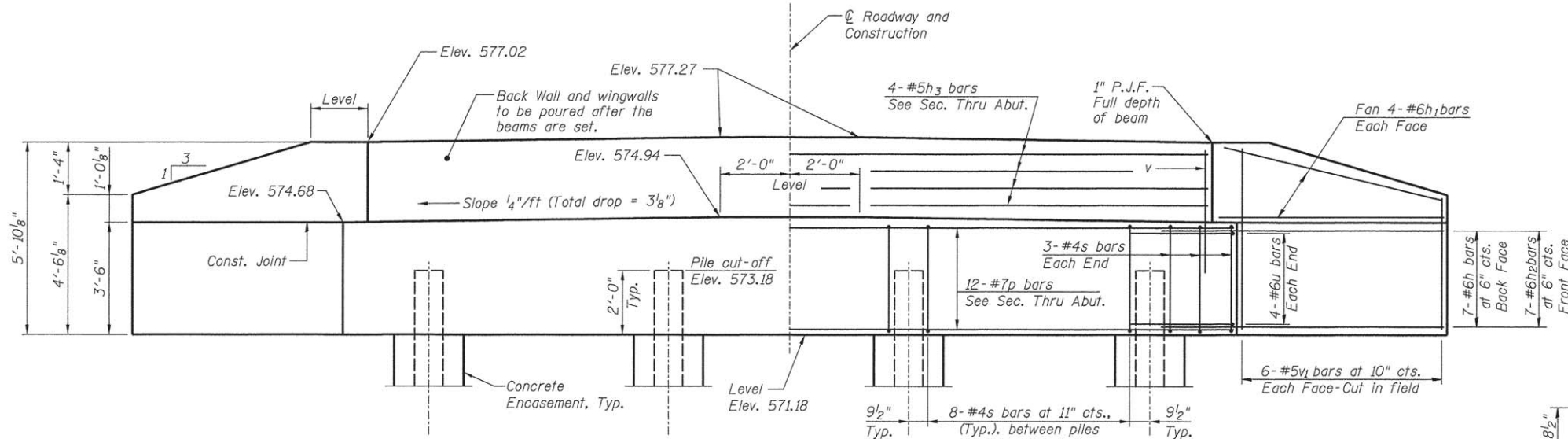
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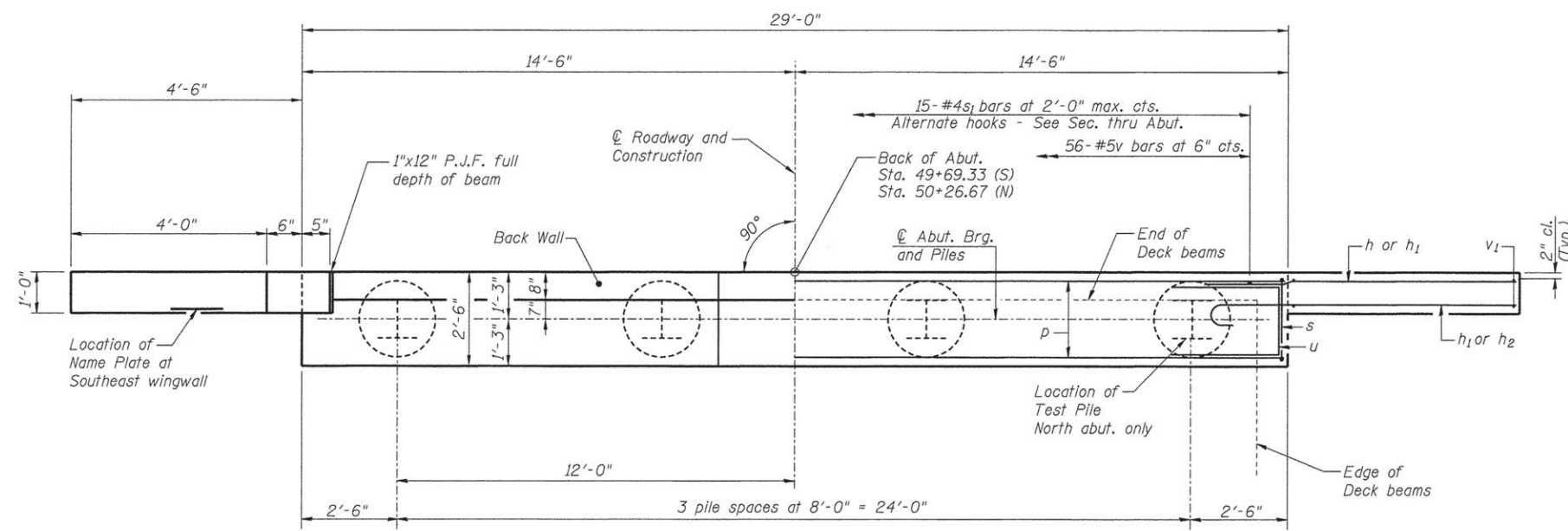
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STEEL RAILING, TYPE S1 DETAILS

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 40	13-09114-00-BR	EFFINGHAM	11	7
				CONTRACT NO. 95795
RAAI JOB NO. 53313 ILLINOIS FED. AID PROJECT				



ELEVATION



PLAN

PILE DATA SOUTH ABUTMENT

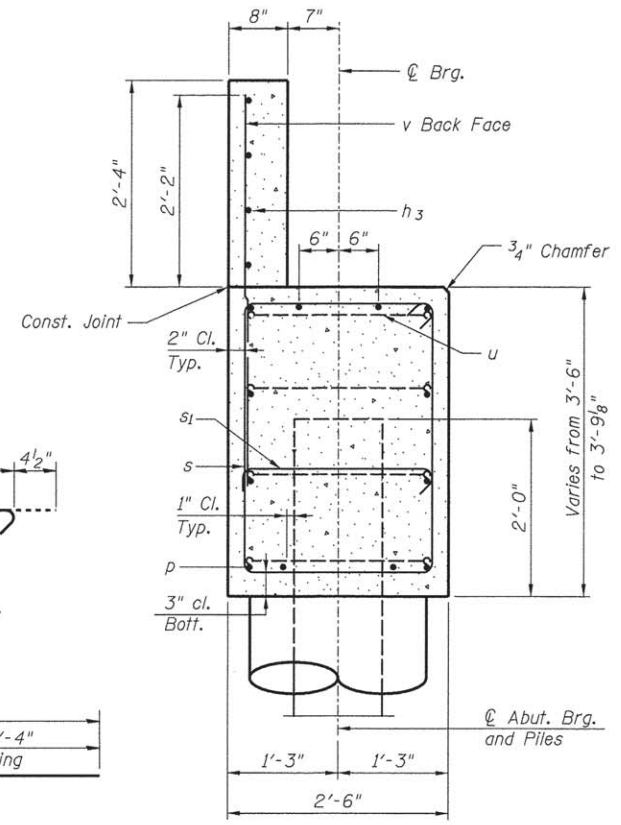
Type: Steel HP12x53
 Nominal Required Bearing: 419 kips
 Factored Resistance Available: 230 kips
 Estimated Length: 50'/pile
 No. Production Piles w/Pile Shoes: 4
 No. Test Piles w/Pile Shoes: 0

PILE DATA NORTH ABUTMENT

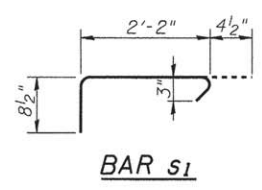
Type: Steel HP12x53
 Nominal Required Bearing: 419 kips
 Factored Resistance Available: 230 kips
 Estimated Length: 49'/pile
 No. Production Piles w/Pile Shoes: 3
 No. Test Piles w/Pile Shoes: 1

GENERAL NOTES

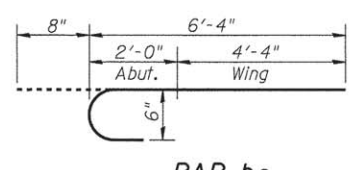
Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60 (IL Modified).
 The Contractor shall drive Test Pile(s) of the size and location as indicated on the plans and as directed by the Engineer before ordering the remainder of the piles.
 All exposed edges shall have standard 3/4" chamfer, unless otherwise noted or as directed by the Engineer.
 The Test Pile shall be driven to 110 percent of the Nominal Required Bearing indicated in the pile data information.
 All clearances between rebar and form surface shall be 2", unless otherwise noted.
 The Contractor is hereby advised that very stiff soils may be encountered prior to the location of anticipated nominal required bearing. See the soil borings for further information.
 Space reinforcement in cap to miss PPCDB dowel rods.
 The Steel H-piles shall be according to AASHTO M270, Grade 50.



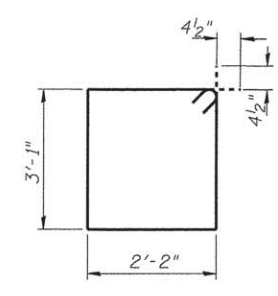
SEC. THRU ABUT. (Normal to C)



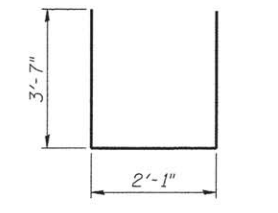
BAR s1



BAR h2



BAR s



BAR u

BILL OF MATERIAL FOR ONE ABUTMENT

Bar	No.	Size	Length	Shape
h	14	#6	8'-0"	—
h1	16	#6	4'-8"	—
h2	14	#6	7'-0"	—
h3	4	#5	27'-8"	—
p	12	#7	28'-8"	—
s	30	#4	11'-3"	—
s1	15	#4	3'-3"	—
u	8	#6	9'-3"	—
v	56	#5	4'-4"	—
v1	24	#5	5'-6"	CUT IN FIELD
Concrete Structures			Cu Yd	13.3
Concrete Encasement			Cu Yd	1.4
Reinforcement Bars			Pound	2010
Furnishing Steel			S. Abut.	200
Piles, HP12x53			N. Abut.	147
Driving Piles			S. Abut.	200
			N. Abut.	147
Test Pile, Steel HP12x53			S. Abut.	0
			N. Abut.	1
Pile Shoes			S. Abut.	4
			N. Abut.	4

For details of piles and Concrete Encasement, see HP Pile Details sheet.

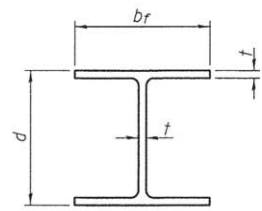
RHUTASEL and ASSOCIATES, INC.
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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

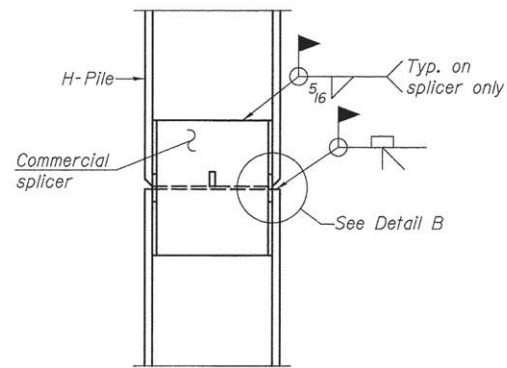
ABUTMENT DETAILS

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 40	13-09114-00-BR	EFFINGHAM	11	8
RAAI JOB NO. 53313			ILLINOIS FED. AID PROJECT	

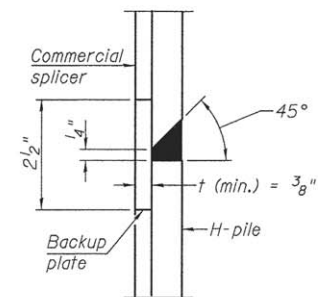


STEEL PILE TABLE

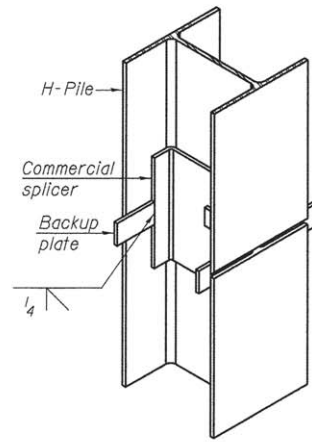
Designation	Depth d	Flange width b _f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	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

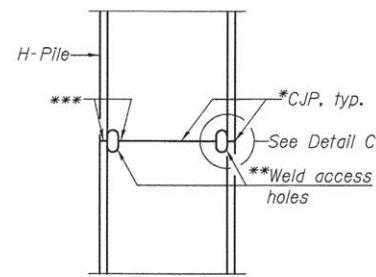


DETAIL "B"

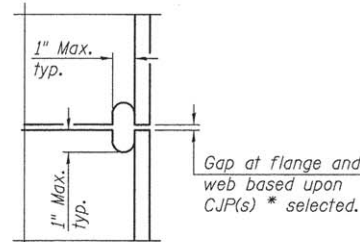


ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



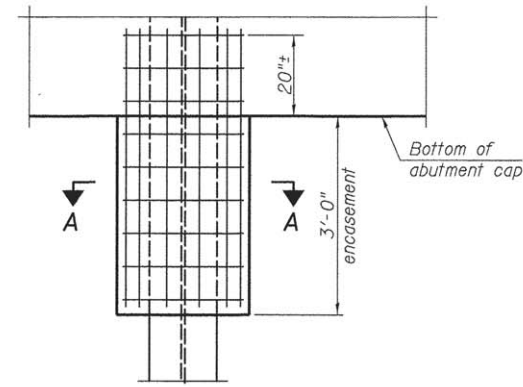
ELEVATION



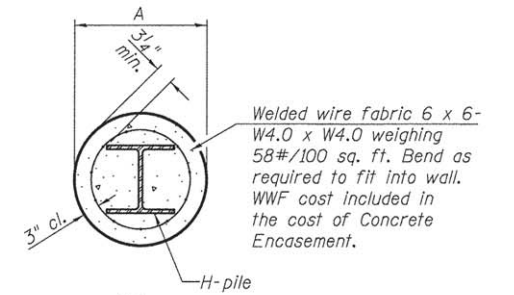
DETAIL C

COMPLETE PENETRATION WELD SPLICE

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

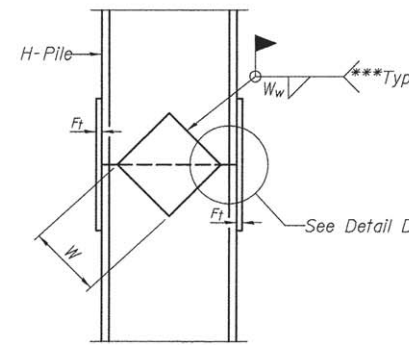


ELEVATION

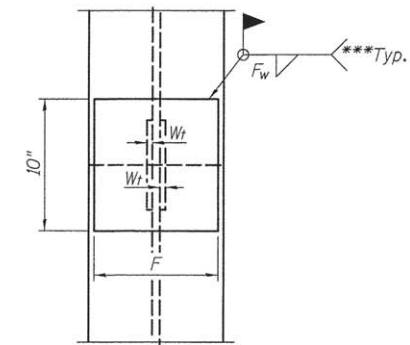


SECTION A-A

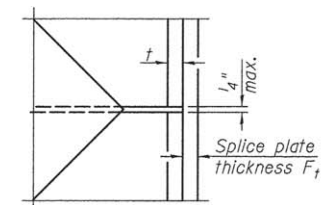
PILE ENCASEMENT



ELEVATION



END VIEW

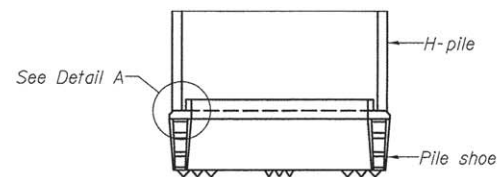


DETAIL D

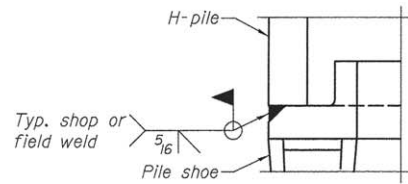
WELDED PLATE FIELD SPLICE

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

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



ELEVATION



DETAIL A

H-PILE SHOE ATTACHMENT

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

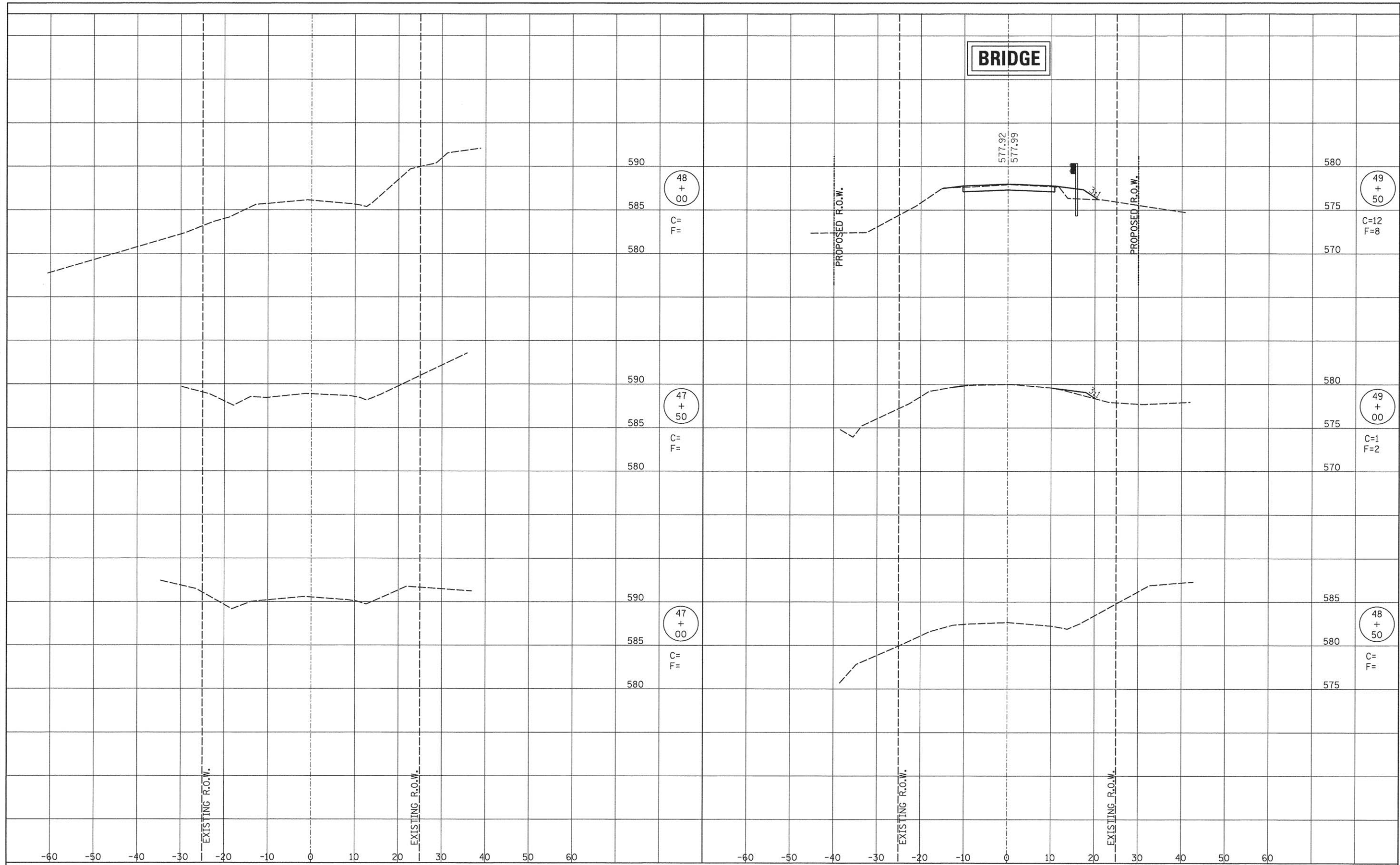
HP PILE DETAILS

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 40	13-09114-00-BR	EFFINGHAM	11	9
RAAI JOB NO. 53313			ILLINOIS FED. AID PROJECT	

CONTRACT NO. 95795

DATE	
BY	
FINAL SURVEY	
NOTE BOOK	
NO.	
CHECKED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	

DATE	
BY	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	
CHECKED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	



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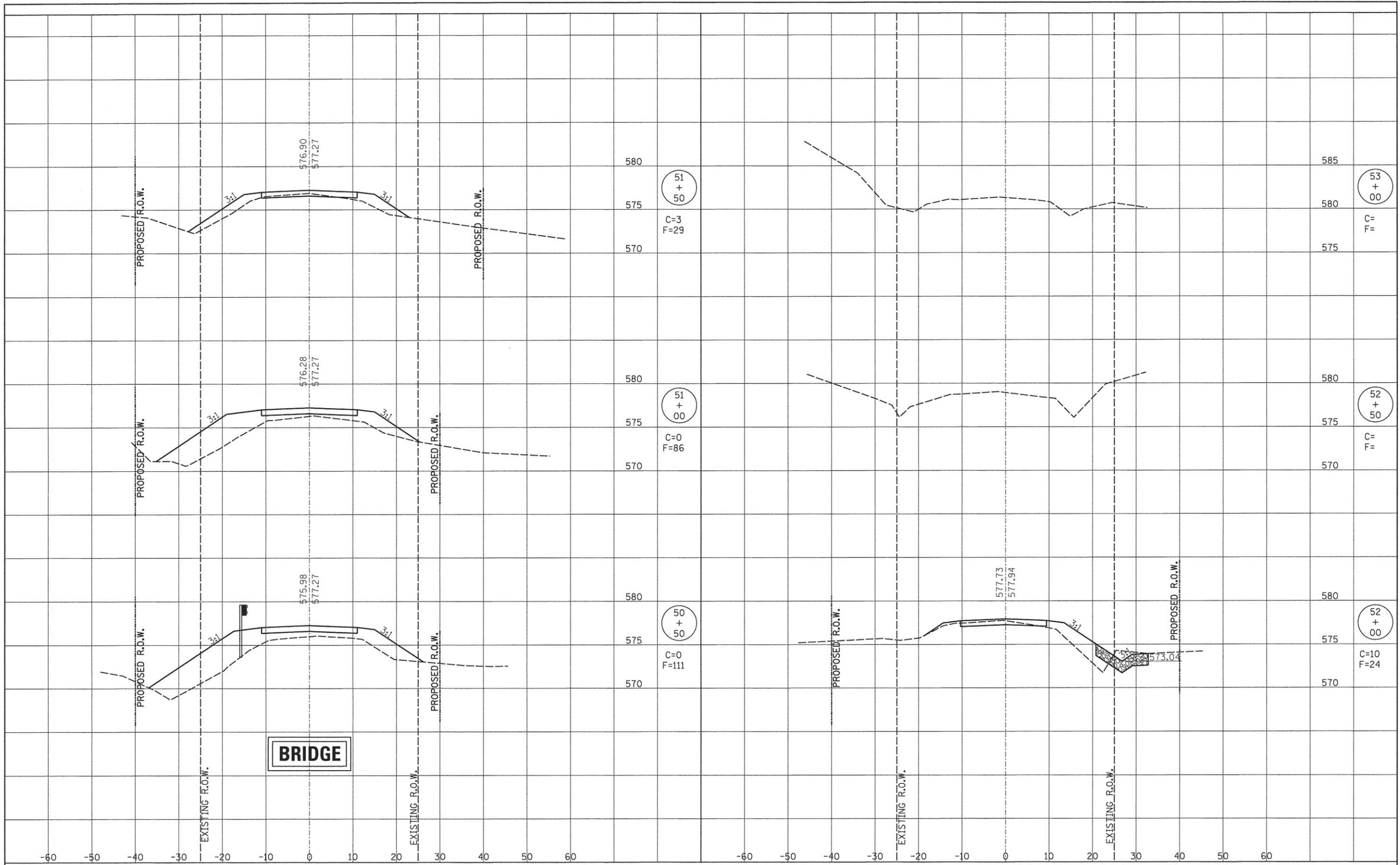
CROSS SECTIONS OF ROADWAY

STA. 47+00 TO STA. 49+50

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 40	13-09114-00-BR	EFFINGHAM	11	10
RAAI JOB NO. 53313			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 95795	

FINAL SURVEY	DATE
SURVEYED	BY
NOTE BOOK	
TEMPLATE	
AREAS CHECKED	
NO.	

ORIGINAL SURVEY	DATE
SURVEYED	BY
NOTE BOOK	
TEMPLATE	
AREAS CHECKED	
NO.	



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS OF ROADWAY

STA. 50+50 TO STA. 53+00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 40	13-09114-00-BR	EFFINGHAM	11	11
CONTRACT NO. 95795				
RAAI JOB NO. 53313		ILLINOIS FED. AID PROJECT		