3-5-10 Letting Item 064

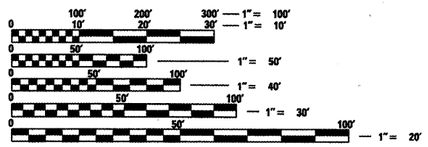
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
665	(142-BR)I	FULTON	25	1
FED. ROAD DIST. NO. 4	ILLINOIS	CONTRACT NO. 68925		

DESIGNER: CLARK JONES
PHONE: (309)671-3452

INDEX OF SHEETS:

STANDARDS:

420401–08	701321–10
483001–04	701901–01
701101–02	704001–06
701106–02	780001–02
701201–03	



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 LOCATION INFORMATION FOR EXCAVATION
1–800–892–0123
OR 811

PROJECT ENGINEER: JIM MILLER
PHONE: (309)671-3451

PROJECT ENGINEER: JIM MILLER

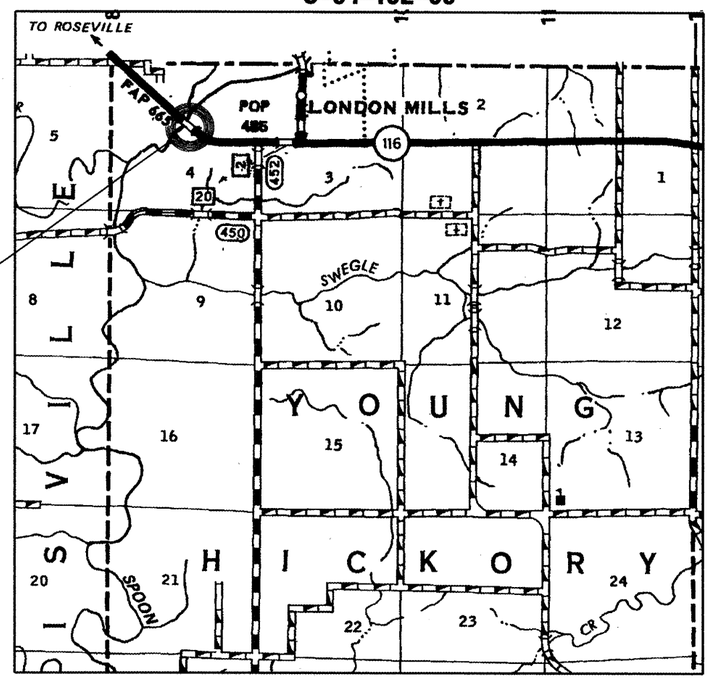
CONTRACT NO. 68925 CATALOG NO. 034307–00D

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

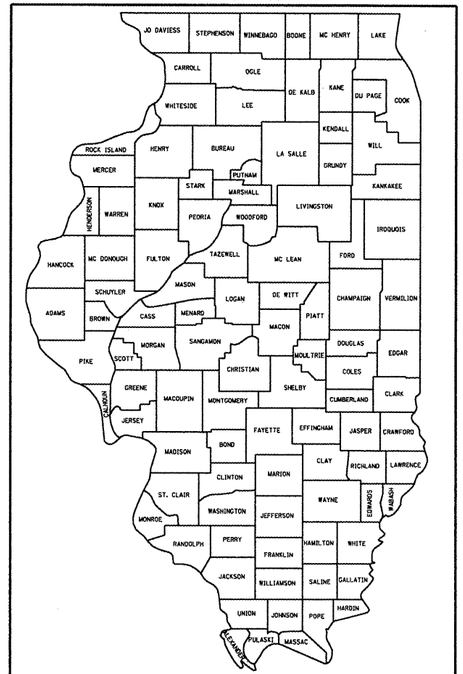
FAP ROUTE 665 (IL. 116)
SECTION (142–BR)I
MISC. BRIDGE REPAIRS
FULTON COUNTY

C–94–152–09



LOCATION MAP

D–94–091–09



LOCATION OF SECTION INDICATED THUS: –

PROJECT CONSISTS OF PIER CAP & STEEL BEAM END REPAIR, BEARING & JOINT REPLACEMENTS, AND CLEAN & SEAL PPC I–BEAMS UNDER JOINTS ON STRUCTURE CARRYING IL. 117 (SN.029–0050) OVER SPOON RIVER AT LONDON MILLS IN FULTON COUNTY.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Dec 2, 2009

DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

January 11, 2010
Scott E. Stitt, P.E.
ENGINEER OF DESIGN AND ENVIRONMENT

Acting
January 29, 2010
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

COMMITMENTS

No commitments have been made for this project.

GENERAL NOTES

Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.

ENVIRONMENTAL REVIEWS

Prior to the use of any proposed borrow areas, use areas (temporary access roads, detours, run–arounds, etc.) and/or waste areas, the Contractor shall file the required environmental resource request surveys according to Section 107.22 of the Standard Specifications. These surveys are required in order for the Department to conduct cultural and biological resource surveys for the proposed site.

Prior to any waste materials being removed from the construction site the required environmental resource surveys will need to be obtained and filed by the Contractor. Excess waste products removed from the construction site shall be disposed of as required in Section 202.03 of the Standard Specifications.

Any protruding metal bars shall be removed prior to the disposal of broken concrete at approved disposal sites.

The required environmental resource documentation shall include the following:

* BDE Form 2289 (Environmental Survey Request)
* A location map showing the size limits and location of the use area
* Signed property owner agreement form–D4 PI0100
* Color photographs depicting the use area
* Borrow Area Entry Agreement form–D4 PI0101

Please note that a minimum of two weeks shall be allowed for the District to obtain the required environmental clearances.

JOB SPECIFIC NOTES

If it is necessary to remove railing near parapet removal area the railing shall be removed, salvaged, and replaced according to Section 509.05 of the Standard Specifications. Cost to be included in Concrete Superstructure.

S:\GEN\DRAFT\STDS&PLNS\SOU404\BRIDGE CONTRACTS\JOINTS\68925 SN.029-0050\SN.029-0050 IL.116ovrSpoonRiv.dgn

SN.029-0050 IL.116
over Spoon Riv.

FILE NAME = SN.029-0050 IL.116ovrSpoonRiv.WO DrainExt.dgn	USER NAME = jonesce	DESIGNED - CEJ	REVISED -
		DRAWN - CEJ	REVISED -
	PLOT SCALE = 103.7051 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 12/1/2009	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

COMMITMENTS & GENERAL NOTES

SCALE: _____ | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
665	(142-BRI)	FULTON	25	2
	SUPERSTRUCTURE REPAIRS	CONTRACT NO. 68925		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

CODE NO.	ITEM	100% STATE SAFETY-2A FULTON COUNTY UNIT	RURAL	TOTAL
50300300	PROTECTIVE COAT	SQYD	95	95
50102400	CONCRETE REMOVAL	CUYD	42.6	42.6
50300255	CONCRETE SUPERSTRUCTURE	CUYD	43	43
50500715	JACK AND REMOVE EXISTING BEARINGS	EACH	10	10
50501130	STRUCTURAL STEEL REPAIR	POUND	150	150
50600300	CLEANING AND PAINTING STEEL BRIDGE	LSUM	1	1
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	6640	6640
50800515	BAR SPLICERS	EACH	54	54
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	10	10
52100520	ANCHOR BOLTS, 1"	EACH	20	20
67100100	MOBILIZATION	LSUM	1	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	LSUM	1	1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1
70106800	CHANGEABLE MESSAGE SIGN	CALMO	2	2
70300520	PAVEMENT MARKING TAPE, TYPE III 4"	FOOT	4591	4591
70301000	WORKZONE PAVEMENT MARKING REMOVAL	SQFT	1530	1530
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1133	1133
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1109	1109
* 78005110	EPOXY MARKING - LINE 4"	FOOT	2788	2788
78300105	PAVEMENT MARKING REMOVAL	FOOT	2788	2788
X0325216	THERMAL SPRAYING (METALIZING) PPC BEAM ENDS	SQFT	961	961

CODE NO.	ITEM	100% STATE SAFETY-2A FULTON COUNTY UNIT	RURAL	TOTAL
X0325218	BLAST CLEANING PPC BEAM ENDS	FOOT	60	60
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQFT	174	174
X5080600	MECHANICAL SPLICERS	EACH	20	20
* X7200201	WIDTH RESTRICTION SIGNING	LSUM	1	1
52000110	PREFORMED JOINT STRIP SEAL	FOOT	148.7	148.7
Z0016200	DECK SLAB REPAIR (PARTIAL)	SQYD	7	7
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2
Z0073200	TEMPORARY SHORING AND CRIBBING	EACH	3	3

*SPECIALTY ITEM

SN.029-0050 IL.116
over Spoon Riv.

FILE NAME = SN.029-0050 IL.116ovrSpoonRiv.WD DrainExs.dgn	USER NAME = jonesce	DESIGNED - CEJ	REVISED - ---
		DRAWN - CEJ	REVISED - ---
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	PLOT DATE = 12/3/2009	DATE - ---	REVISED - ---

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: _____ | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
665	(142-BR)I	FULTON	25	3
	SUPERSTRUCTURE REPAIRS	CONTRACT NO. 68925		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		

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SCHEDULE OF QUANTITIES

PROTECTIVE COAT

LOCATION	SQYD
Parapet Walls (Inside & top)	9
Joint Replacement Area	86
TOTAL	95

STRUCTURAL STEEL REPAIR

LOCATION	POUND
Span 7, Girder #1	150
TOTAL	150

ELASTOMERIC BEARING ASSEMBLY, TYPE I

LOCATION	EACH
Pier #3	5
Pier #6	5
TOTAL	10

T. C. & P STANDARD 701201

LOCATION	LSUM
Jobsite - SN.029-0050	1
TOTAL	1

CONCRETE REMOVAL

LOCATION	CUYD
Parapet and Joints	42.6
TOTAL	42.6

CLEANING & PAINTING STEEL BRIDGE

LOCATION	LSUM
Span 7, Girder #1	0.5
Joint #6 Beam Ends	0.5
TOTAL	1

ANCHOR BOLTS, 1"

LOCATION	EACH
Pier #3	10
Pier #6	10
TOTAL	20

TEMPORARY BRIDGE TRAFFIC SIGNALS

LOCATION	EACH
Jobsite - SN.029-0050	1
TOTAL	1

CONCRETE SUPERSTRUCTURE

LOCATION	CUYD
Parapets and Joints	43
TOTAL	43

REINFORCEMENT BARS, EPOXY COATED

LOCATION	POUND
Joints at both Abuts & Piers #3 and #6	6640
TOTAL	6640

MOBILIZATION

LOCATION	LSUM
Jobsite - SN.029-0050	1
TOTAL	1

TEMPORARY RUMBLE STRIP

LOCATION	EACH
Jobsite - SN.029-0050	2
TOTAL	2

JACK & REMOVE EXISTING BEARINGS

LOCATION	EACH
Joints #3 and #6	10
TOTAL	10

BAR SPLICERS

LOCATION	EACH
Approach	6
Deck	48
TOTAL	54

T. C. & P STANDARD 701321

LOCATION	EACH
Jobsite - SN.029-0050	1
TOTAL	1

CHANGEABLE MESSAGE SIGN

LOCATION	CALMO
Jobsite - SN.029-0050	2
TOTAL	2

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PLOT DATE = 12/4/2009
DESIGNED - CEJ
DRAWN - CEJ
CHECKED - ---
DATE - ---
REVISED - ---
REVISED - ---
REVISED - ---
REVISED - ---

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES
SCALE: _____ SHEET NO. __ OF ___ SHEETS STA. _____ TO STA. _____

SN.029-0050 IL.116 over Spoon Riv.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
665	(142-BR)I	FULTON	25	4
	SUPERSTRUCTURE REPAIRS	CONTRACT NO. 68925		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		

SCHEDULE OF QUANTITIES

PAVEMENT MARKING TAPE, TYPE III, 4"

LOCATION	FOOT
Work Area & TCB Tapers	4591
TOTAL	4591

EPOXY MARKING LINE, 4"

LOCATION	FOOT
Jobsite Deck Surface	2788
TOTAL	2788

STRUCTURAL REPAIR OF CONCRETE =< 5"

LOCATION	SQFT
Pier #3 & #6 PPC Beam Ends	174
TOTAL	174

DECK SLAB REPAIR (PARTIAL)

LOCATION	SQYD
Bridge Deck Surface	7
TOTAL	7

WORKZONE PAVEMENT MARKING REMOVAL

LOCATION	SQFT
Work Area & TCB Tapers	1530
TOTAL	1530

PAVEMENT MARKING REMOVAL

LOCATION	FOOT
Jobsite Deck Surface	2788
TOTAL	2788

MECHANICAL SPLICERS

LOCATION	EACH
Pier #3 (PPC I-Beam Span)	20
TOTAL	20

IMPACT ATTENUATORS, TEMPORARY NRD, TL3

LOCATION	FOOT
Jobsite-SN.029-0050	2
TOTAL	2

* TEMPORARY CONCRETE BARRIER

LOCATION	FOOT
Jobsite - SN.029-0050	1064
TOTAL	1064

THERMAL SPRAYING (METALIZING) PPC BEAM ENDS

LOCATION	SQFT
Pier #3 & #6 PPC Beam Ends	961
TOTAL	961

WIDTH RESTRICTION SIGNING

LOCATION	LSUM
Traffic Control Placement	1
TOTAL	1

IMPACT ATTENUATORS, RELOCATE NRD, TL3

LOCATION	FOOT
Jobsite-SN.029-0050	2
TOTAL	2

* RELOCATE TEMPORARY CONCRETE BARRIER

LOCATION	FOOT
Jobsite - SN.029-0050	992
TOTAL	992

BLAST CLEANING PPC BEAM ENDS

LOCATION	FOOT
Pier #3 & #6 PPC Beam Ends	60
TOTAL	60

STRIP SEAL EXPANSION JOINT ASSEMBLY

LOCATION	FOOT
Four Joint Repl.- SN. 029-0050	148.7
TOTAL	148.7

* QUANTITIES MAY BE REVERSED IF CONSTRUCTION STAGES ARE SWITCHED.

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	dgn	DRAWN - CEJ	REVISED -
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	PLOT DATE = 12/4/2009	DATE - ---	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

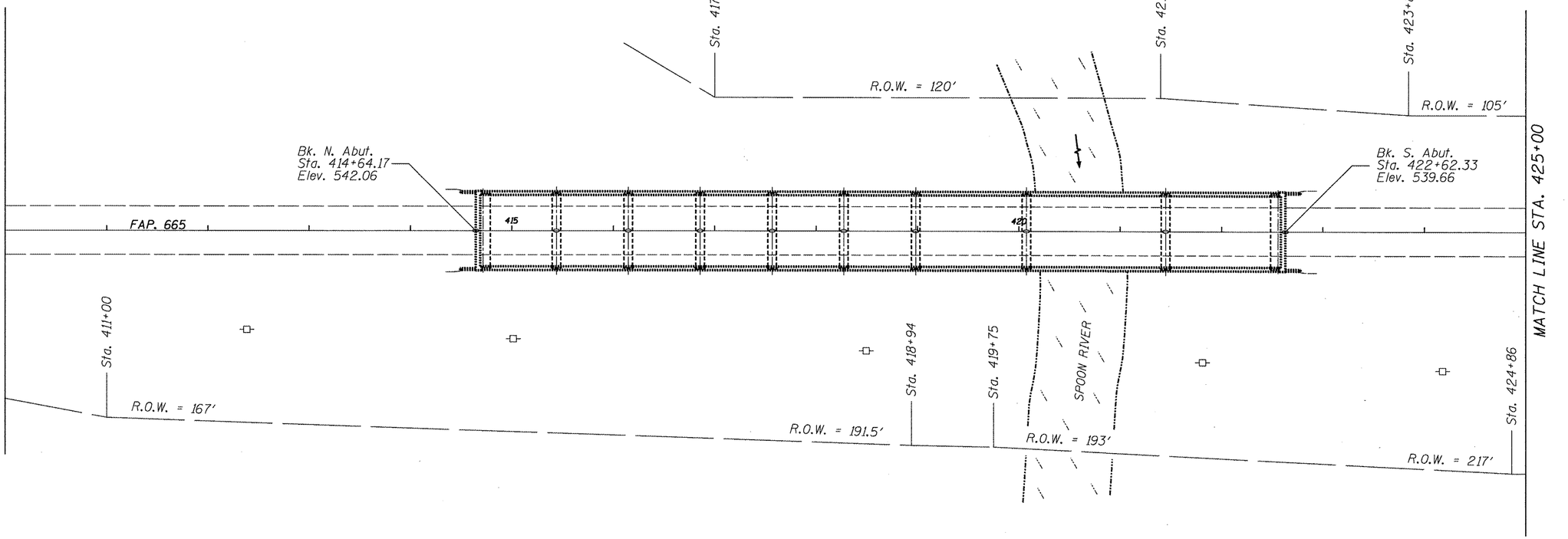
SCALE: _____ | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

SN.029-0050 IL.116 over Spoon Riv.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
665	(142-BRI)	FULTON	25	5
	SUPERSTRUCTURE REPAIRS	CONTRACT NO. 68925		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		

BENCHMARK: "□" Chiseled in SW. wingwall of NW. abut. of existing bridge station 416+02. Elevation: 537.75
BENCHMARK: "□" Chiseled on N. end pier station 419+20, Elevation: 535.02

T8N-R2E-4PM



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SN.029-0050 IL.116 over Spoon Riv.

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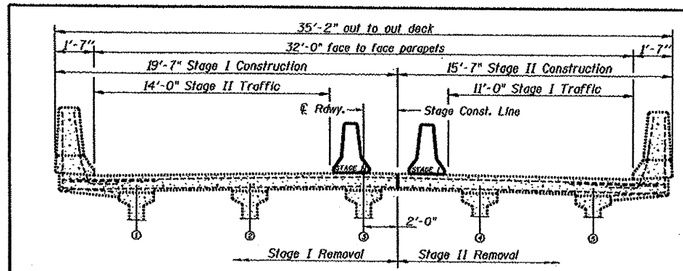
	PLOT DATE = 12/2/2009	DATE - 06-01-2009	REVISED - ---

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

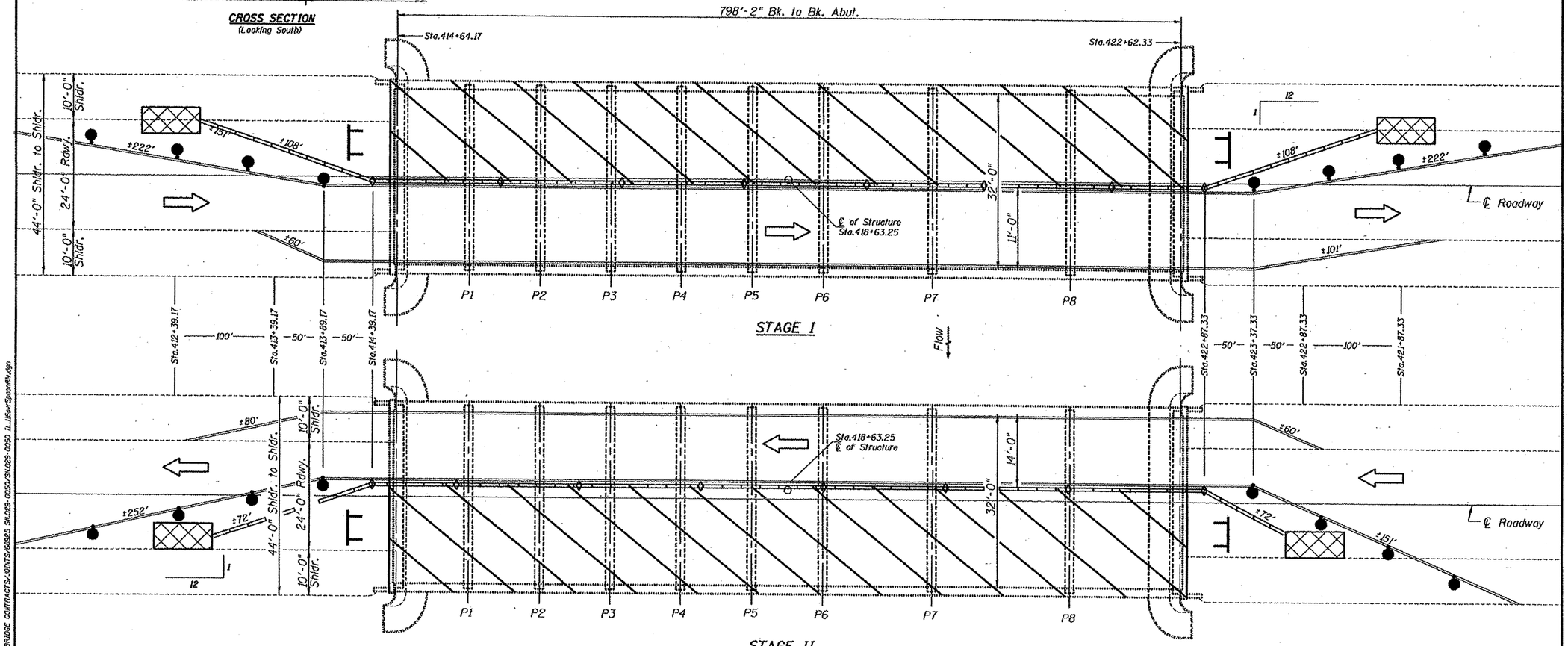
GENERAL LAYOUT

SCALE: _____ | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
665	(142-BRI)	FULTON	25	6
	SUPERSTRUCTURE REPAIRS	CONTRACT NO. 68925		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		



CROSS SECTION
(Looking South)



SYMBOLS

- Work Area
- or
- Temp. Marking Tape
- Barrier Wall Marker
- Temporary Concrete Barrier
- Type III Barricade
- Drum w/steady burning light
- Impact Attenuator

NOTES
Refer to Highway Standards 701321/701201 in conjunction with this sheet for exact placement of traffic management devices and other clarifications as construction staging symbols and dimensioning were duplicated off of these standards.
Traffic staging sequence shall be at the discretion of the Engineer for given field applications. Staging Lane widths recomended by the Bridge Office to prevent stage removal and construction lines conflicting with the underlying center PPC I-beam.

SN.029-0050 IL.116 over Spoon Riv.

FILE NAME = SN.029-0050 IL.116ovrSpoonRiv.MD DrainExt.dgn	USER NAME = jonesce	DESIGNED - CEJ	REVISED -
		DRAWN - CEJ	REVISED -
	PLOT SCALE = 100.7051 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 12/4/2009	DATE - 09/09/2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED TRAFFIC CONTROL

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
665	(142-BRI)	FULTON	25	7
SUPERSTRUCTURE REPAIRS		CONTRACT NO. 68925		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		

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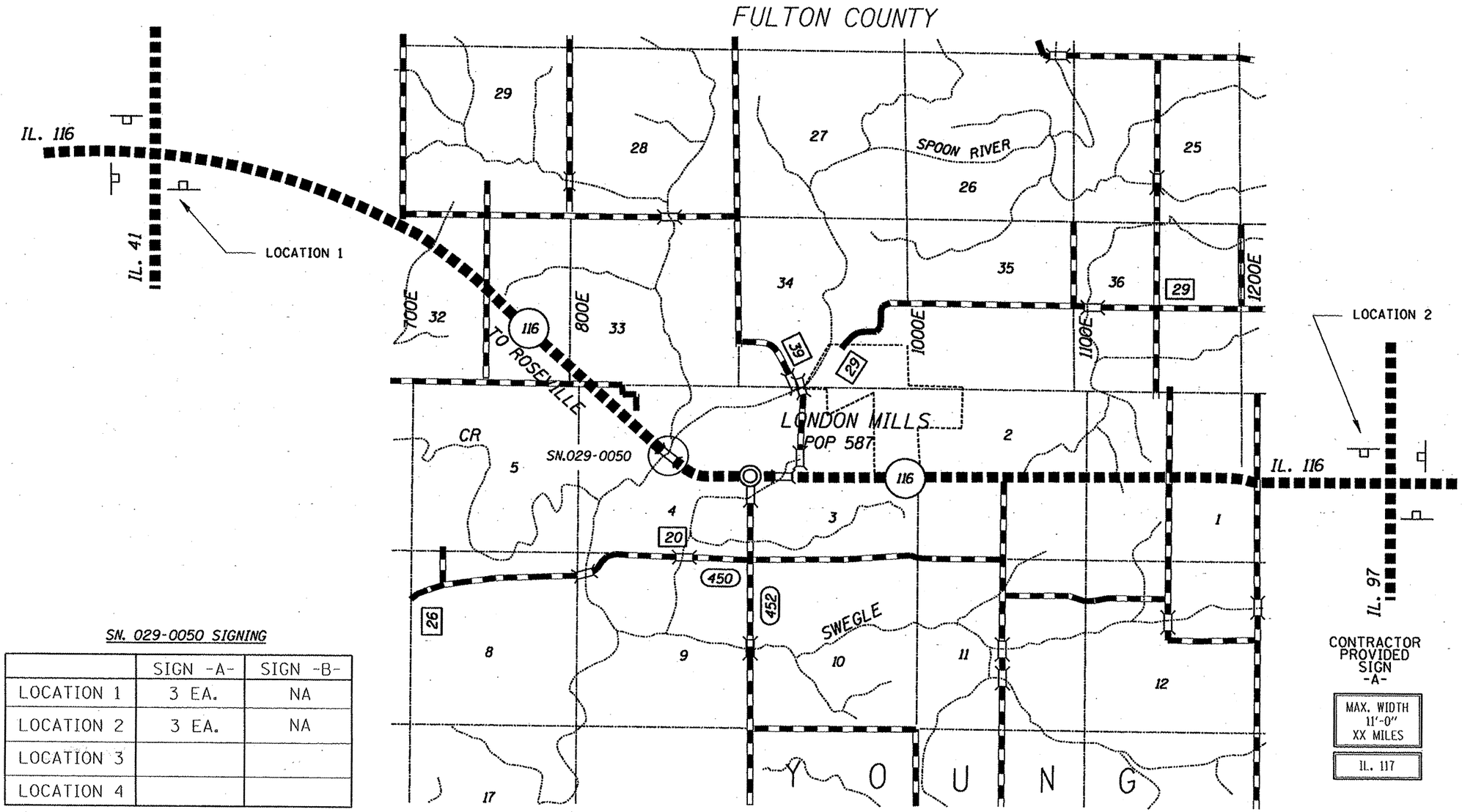
NOTES
Notification signs shall be posted where shown indicating maximum width ahead of 11'-0" for stage construction on IL. 116. Changeable Message Boards shall be placed facing traffic in each direction one week prior to work start date for public safety and awareness.



CONTRACTOR PROVIDED SIGN -A-

MAX. WIDTH 11'-0" XX MILES

IL. 117

SN. 029-0050 SIGNING

	SIGN -A-	SIGN -B-
LOCATION 1	3 EA.	NA
LOCATION 2	3 EA.	NA
LOCATION 3		
LOCATION 4		

SEE SPECIAL PROVISIONS FOR SIGNING DETAILS

S:/DESIGN/DRAFT/STDSHPLNS/SQUADW/BRIDGE CONTRACTS/JOINTS/68925 SN.029-0050/SN.029-0050 IL_116ovrSpoonRiv.dgn

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	PLOT DATE = 12/4/2009	DATE - 10-09-2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WIDTH RESTRICTION SIGNING

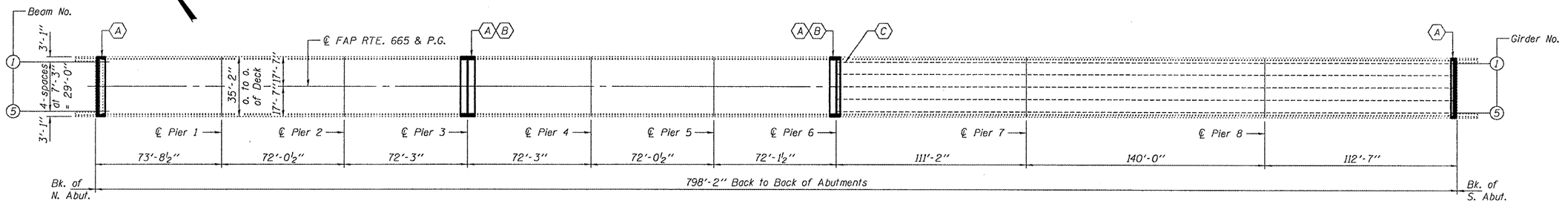
SCALE: _____ | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

SN.029-0050 IL.116 over Spoon Riv.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
665	(142-BRI)	FULTON	25	8
	SUPERSTRUCTURE REPAIRS	CONTRACT NO. 68925		
	FED. ROAD DIST. NO. 4 | ILLINOIS | FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ELEVATION



PLAN

(A) - Replace Existing Exp. Jts. with Preformed Joint Strip Seals
(B) - Replace Existing Elastomeric Bearings
(C) - Structural Steel Repair at Span 7, Girder #1

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36. unless otherwise noted.

Fasteners shall be high strength bolts. Bolts $\frac{3}{4}$"ϕ, open holes $\frac{13}{16}$"ϕ, unless otherwise noted.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

All structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with Structural Steel Repair.

The deck surface shall have its final finish tined according to Article 420.09(e)(1) of the Standard Specifications. Cost included with Concrete Superstructure.

If the analysis submitted to the Contractor for the jacking/temporary support system to be used shows temporary stiffeners are required to prevent web crippling or buckling, the stiffeners shall be steel and bolted to the web. If stiffeners are not required, hardwood timbers shall be installed tightly between the top and bottom flange to prevent flange rotation.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50° F.

TOTAL BILL OF MATERIAL

	ITEM	UNIT	QUANTITY
	Concrete Removal	Cu. Yd.	42.6
	Concrete Superstructure	Cu. Yd.	43.0
	Elastomeric Bearing Assembly, Type I	Each	10
	Anchor Bolts, 1"ϕ	Each	20
	Reinforcement Bars, Epoxy Coated	Pound	6640
	Mechanical Splicers	Each	20
	Bar Splicers	Each	54
	Structural Steel Repair	Pound	150
	Jack and Remove Existing Bearings	Each	10
	Preformed Joint Strip Seal	Foot	148.7
*	Structural Repair of Concrete (Depth ≤ 5 inches)	Sq. Ft.	174
*	Temporary Shoring And Cribbing	Each	3
**	Deck Slab Repair (Partial Depth)	Sq. Yd.	7.0
***	Blast Cleaning PPC Beam Ends	Foot	60
***	Thermal Spraying (Metalizing) PPC Beam Ends	Sq. Ft.	465

* See sheets 17-20 of 25.
** See sheet 21 of 25.
*** See sheet 22 of 25.

DESIGNED	Ralph E. Anderson
CHECKED	Timothy J. Long
DRAWN	Kyle M. Steffen
CHECKED	JJL IJL

JANUARY 12, 2010
EXAMINED — ENGINEER OF STRUCTURAL SERVICES
PASSED — ENGINEER OF BRIDGES AND STRUCTURES

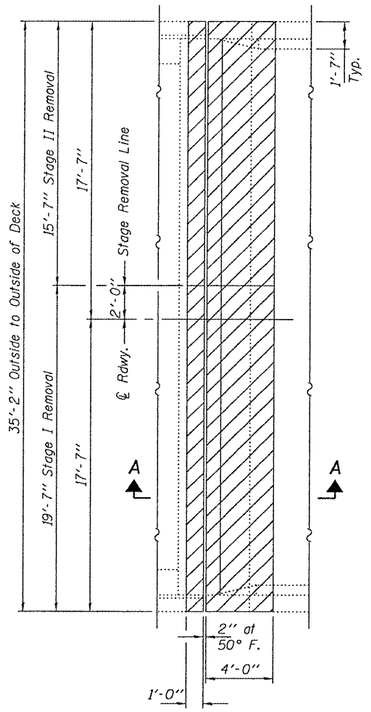
STATE OF ILLINOIS
RALPH E. ANDERSON
081-004625
LICENSED STRUCTURAL ENGINEER
SPRINGFIELD

Expires: November 30, 2010

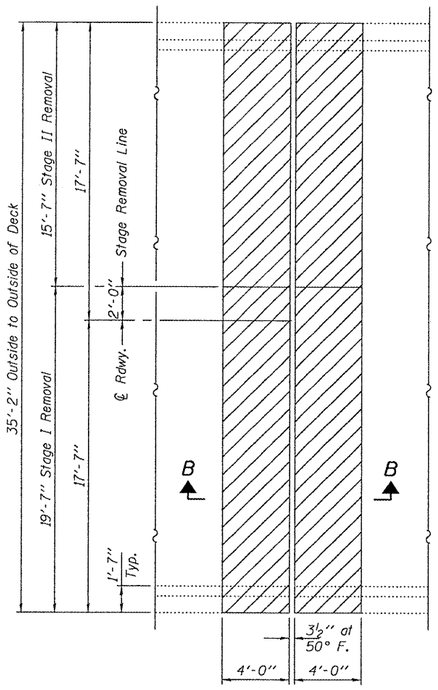
PLAN & ELEVATION
IL ROUTE 116 OVER SPOON RIVER
SN 029-0050

SHEET NO. 1	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8 SHEETS	665	(142-BR)I	FULTON	25	9
			CONTRACT NO. 68925		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

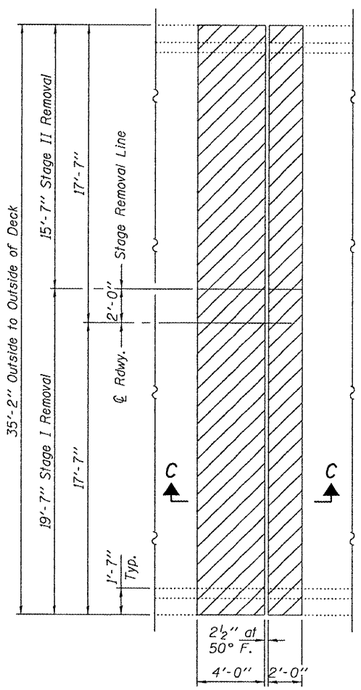
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



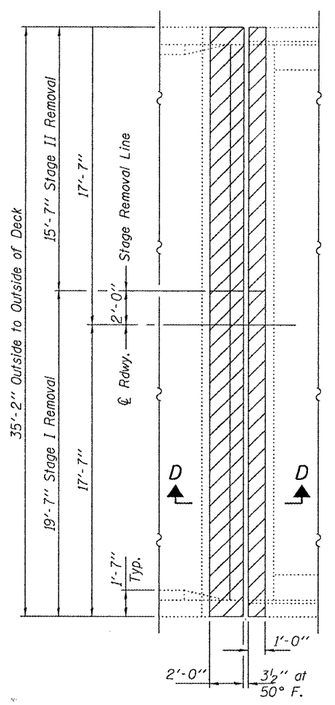
CONCRETE REMOVAL
AT NORTH ABUTMENT



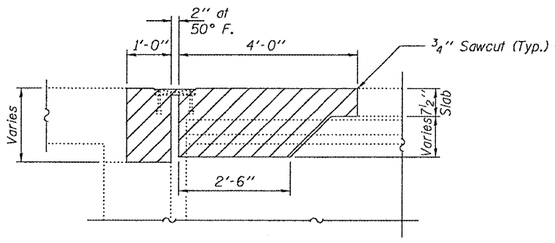
CONCRETE REMOVAL
AT PIER 3



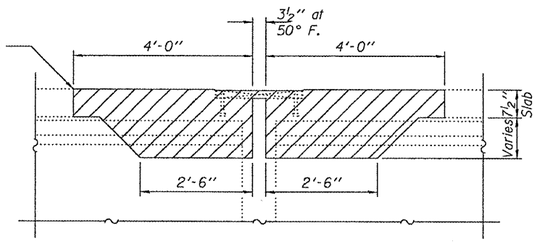
CONCRETE REMOVAL
AT PIER 6



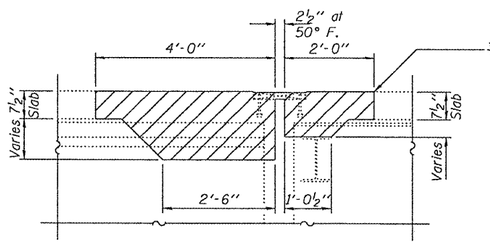
CONCRETE REMOVAL
AT SOUTH ABUTMENT



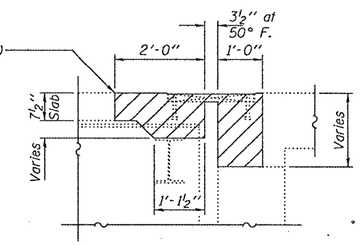
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

DESIGNED	GGE
CHECKED	IJL
DRAWN	Kyle M. Steffen
CHECKED	GGE IJL

JANUARY 12, 2010
EXAMINED — ENGINEER OF STRUCTURAL SERVICES
PASSED — ENGINEER OF BRIDGES AND STRUCTURES

Notes:
Hatched area indicates Concrete Removal.
Removal of existing joints is included with Concrete Removal.

CONCRETE REMOVAL DETAILS
IL ROUTE 116 OVER SPOON RIVER
SN 029-0050

SHEET NO. 2	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8 SHEETS	665	(142-BRI)	FULTON	25	10
			CONTRACT NO. 68925		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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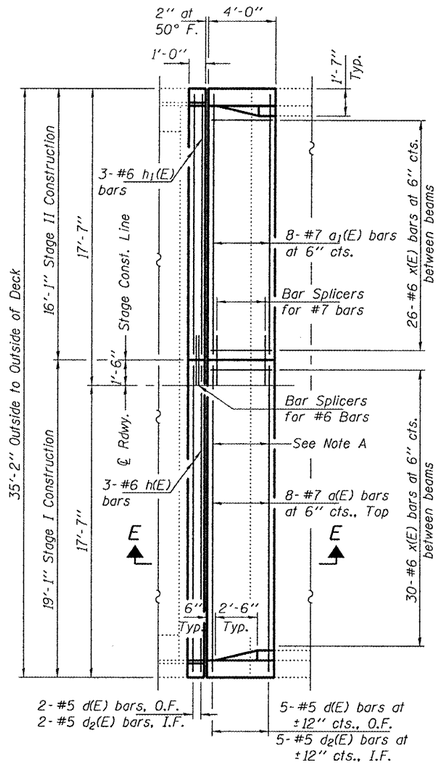
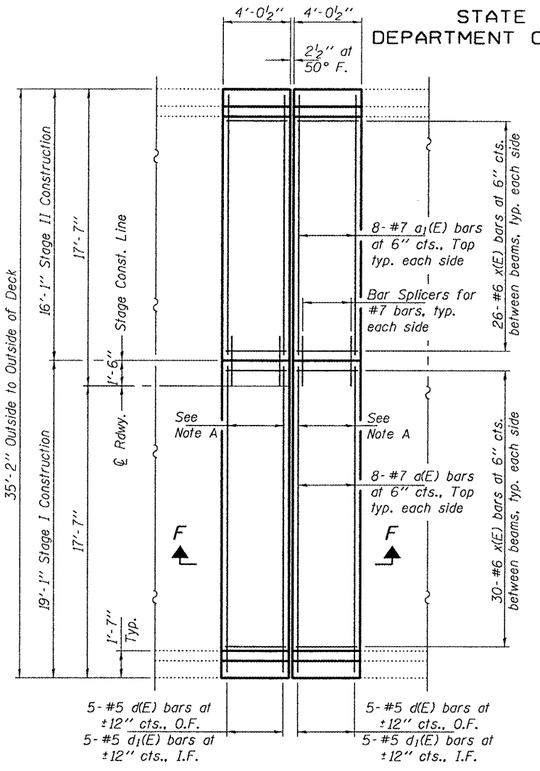
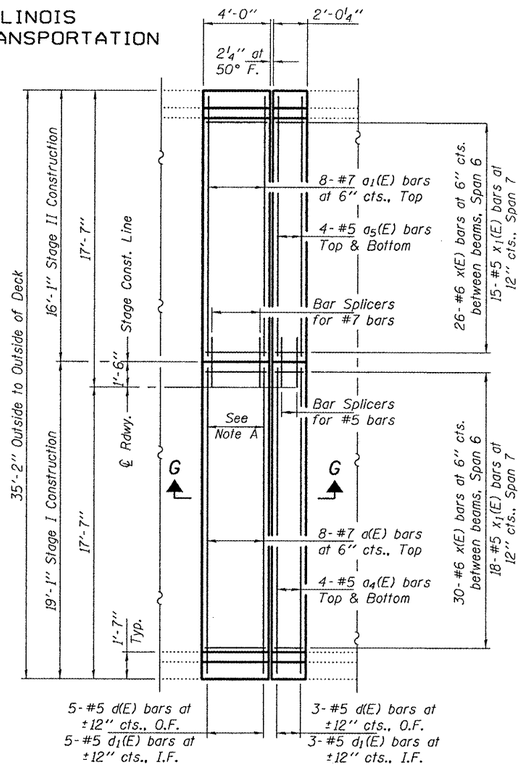
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



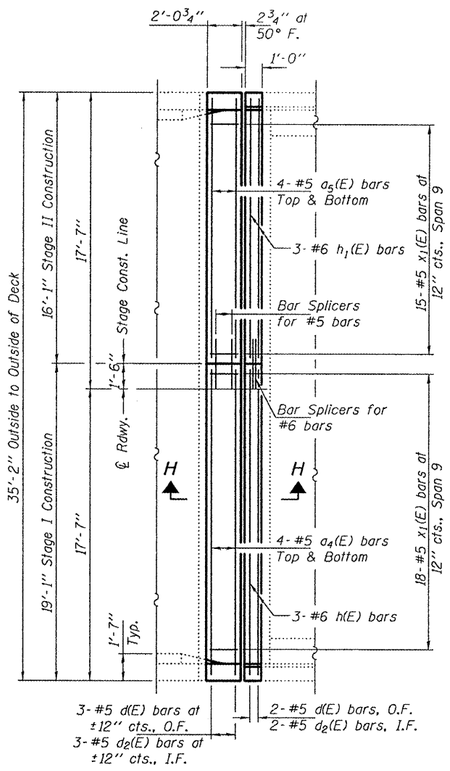
CONCRETE PLAN AT NORTH ABUTMENT



CONCRETE PLAN AT PIER 3

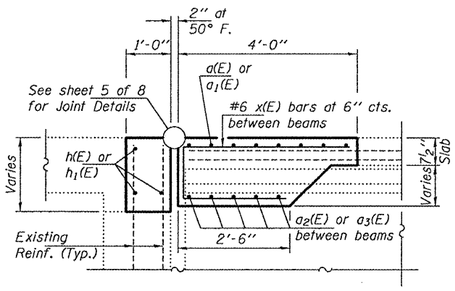


CONCRETE PLAN AT PIER 6

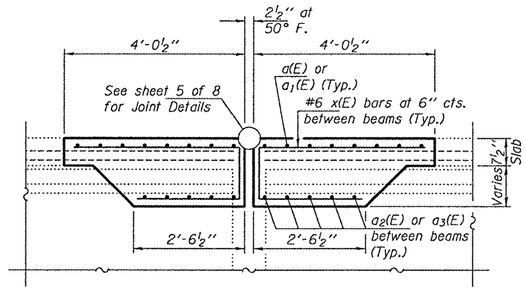


CONCRETE PLAN AT SOUTH ABUTMENT

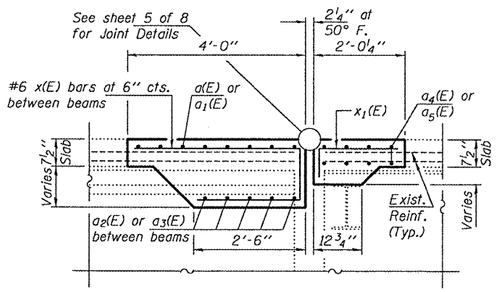
Note A:
5- #6 $a_2(E)$ or $a_3(E)$ bars between beams. Use Mechanical Splicers for #6 bars at Stage Const. Line. See "Typical Cross Section Thru PPC I-Beam Spans" on sheet 4 of 8.



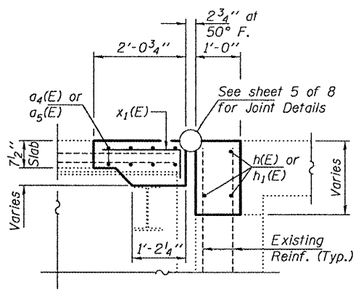
SECTION E-E



SECTION F-F



SECTION G-G



SECTION H-H

SUPERSTRUCTURE DETAILS
IL ROUTE 116 OVER SPOON RIVER
SN 029-0050

DESIGNED	GGE
CHECKED	IJL
DRAWN	Kyle M. Steffen
CHECKED	GGE IJL

JANUARY 12, 2010
EXAMINED — ENGINEER OF STRUCTURAL SERVICES
PASSED — ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. 3	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8 SHEETS	665	(142-BR)I	FULTON	25	11
			CONTRACT NO. 68925		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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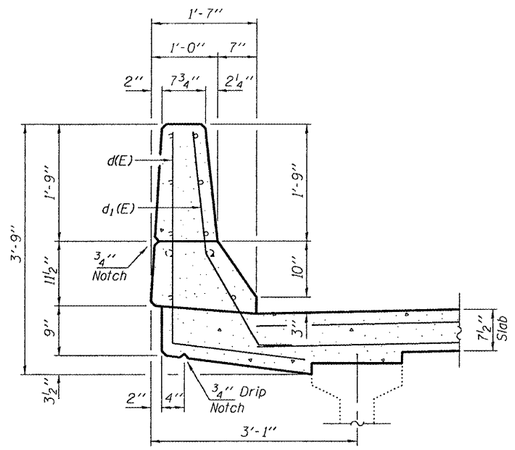
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

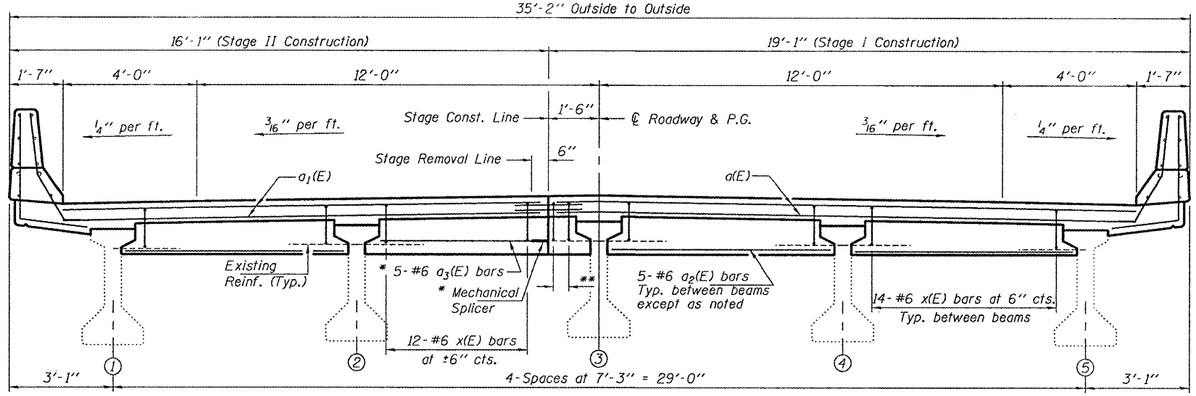


SECTION THRU PARAPET

PPC I-Beam Span shown
Steel Girder Span similar

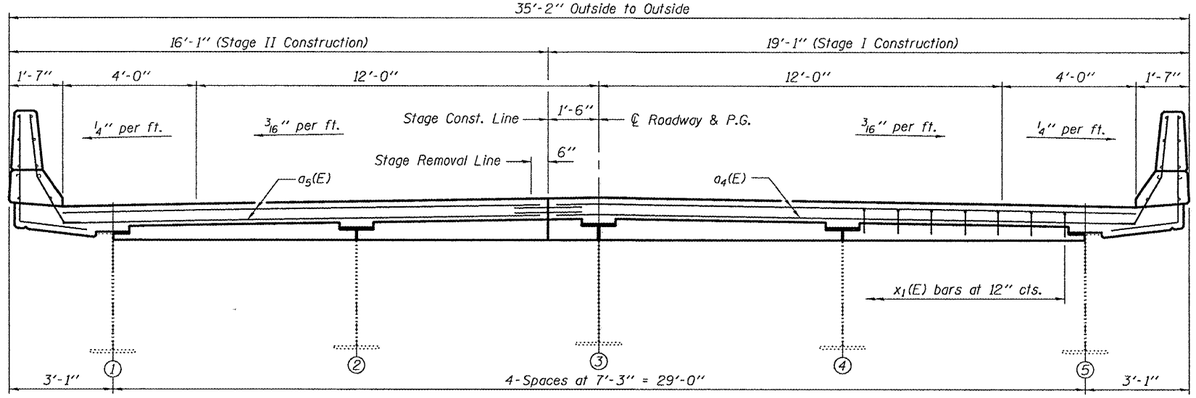
* Attach to existing reinforcement with mechanical splicers. Existing reinforcement to extend 6" into the removal area to allow attachment of the mechanical splicers.

** 2-#6 x(E) bars at ±6" cts.



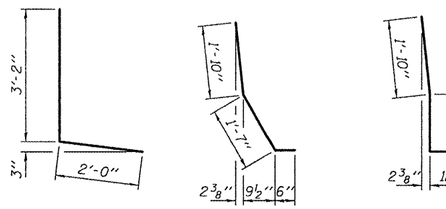
TYPICAL CROSS SECTION THRU PPC I-BEAM SPANS

Looking South



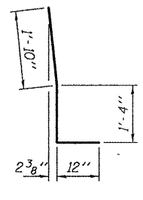
TYPICAL CROSS SECTION THRU STEEL GIRDER SPANS

Looking South

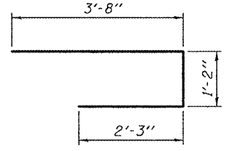


BAR d(E)

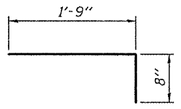
BAR d1(E)



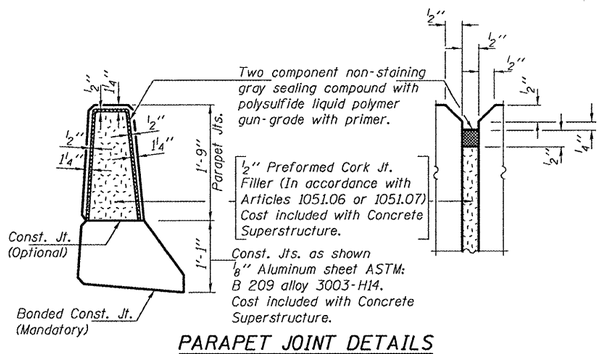
BAR d2(E)



BAR x(E)



BAR x1(E)



PARAPET JOINT DETAILS

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	32	#7	18'-6"	
a1(E)	32	#7	15'-6"	
a2(E)	60	#6	6'-6"	
a3(E)	20	#6	5'-4"	
a4(E)	8	#5	18'-9"	
a5(E)	8	#5	15'-9"	
d(E)	30	#5	5'-2"	
d1(E)	18	#5	3'-11"	
d2(E)	12	#5	4'-2"	
h(E)	6	#6	18'-9"	
h1(E)	6	#6	15'-9"	
x(E)	224	#6	7'-1"	
x1(E)	46	#5	2'-5"	
Concrete Removal			Cu. Yd.	42.6
Concrete Superstructure			Cu. Yd.	43.0
Reinforcement Bars, Epoxy Coated			Pound	6640

DESIGNED	GGE
CHECKED	IJL
DRAWN	Kyle M. Steffen
CHECKED	GGE IJL

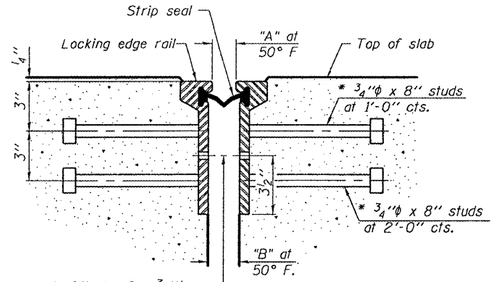
JANUARY 12, 2010
EXAMINED A. Carl Provy
ENGINEER OF STRUCTURAL SERVICES
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

SUPERSTRUCTURE DETAILS
IL ROUTE 116 OVER SPOON RIVER
SN 029-0050

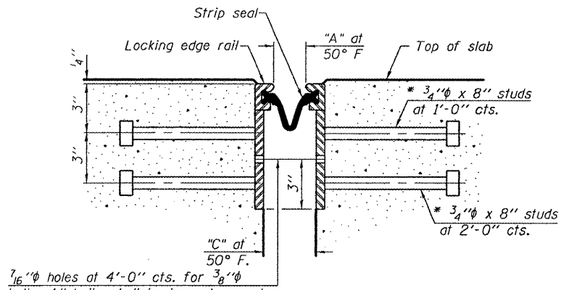
SHEET NO. 4	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8 SHEETS	665	(142-BR)1	FULTON	25	12
			CONTRACT NO. 68925		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



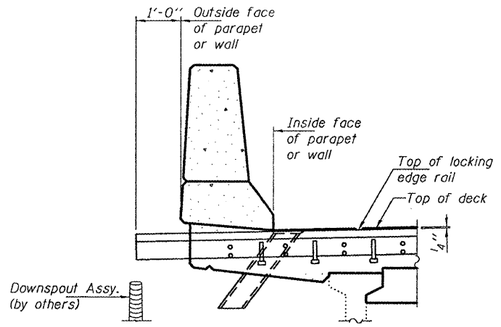
7/16"ϕ holes at 4'-0" cts. for 3/8"ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.



7/16"ϕ holes at 4'-0" cts. for 3/8"ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

TABLE OF JOINT OPENINGS

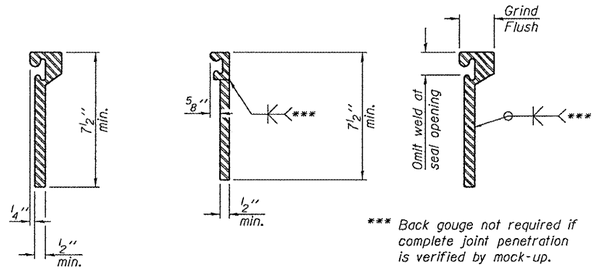
LOCATION	"A"	"B"	"C"
N. Abut.	1 1/2"	2"	2 3/4"
Pier 3	2"	2 1/2"	3 1/4"
Pier 6	1 3/4"	2 1/4"	3"
S. Abut.	2 1/4"	2 3/4"	3 1/2"



END TREATMENT AT CURB, PARAPET OR WALL

See Section A-A for end treatment of skews > 30°.

SECTION THRU ROLLED RAIL JOINT



*** Back gouge not required if complete joint penetration is verified by mock-up.

ROLLED EXTRUDED RAIL

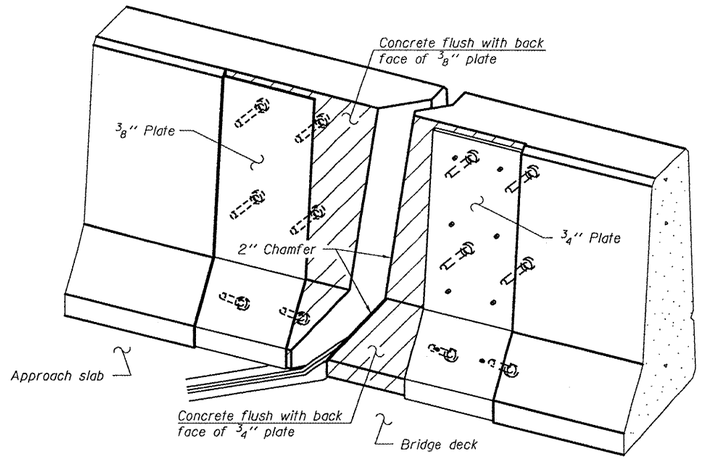
WELDED RAIL

LOCKING EDGE RAIL SPLICE

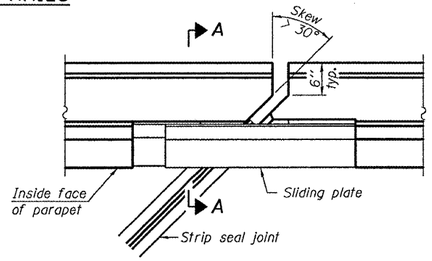
The inside of the locking edge rail groove shall be free of weld residue.

Rolled rail shown, welded rail similar.

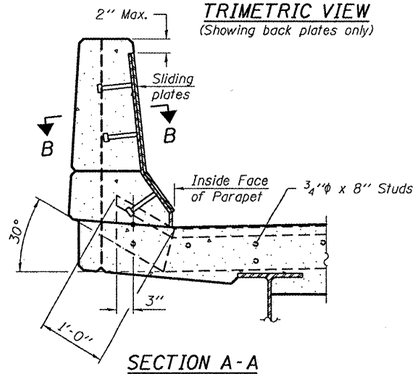
SECTION THRU WELDED RAIL JOINT



LOCKING EDGE RAILS

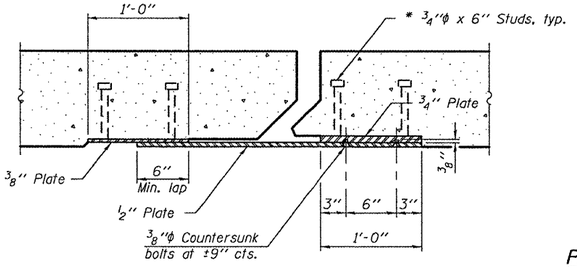


PLAN



TRIMETRIC VIEW
(Showing back plates only)

SECTION A-A



SECTION B-B

POINT BLOCK DETAILS

(for skews > 30°)

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Maximum space between rail segments at stage lines shall be 3/16", sealed with a suitable sealant.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	148.7

DESIGNED	GGE
CHECKED	IJL
DRAWN	Kyle M. Steffen
CHECKED	GGE IJL

JANUARY 12, 2010

EXAMINED A Carl Purvis
ENGINEER OF STRUCTURAL SERVICES

PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

11-1-09

PREFORMED JOINT STRIP SEAL DETAILS
IL ROUTE 116 OVER SPOON RIVER
SN 029-0050

SHEET NO. 5	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8 SHEETS	665	(142-BR)I	FULTON	25	13
			CONTRACT NO. 68925		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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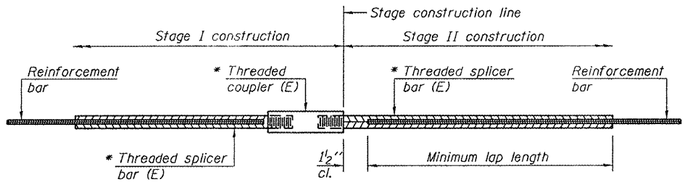
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



STANDARD BAR SPLICER ASSEMBLY

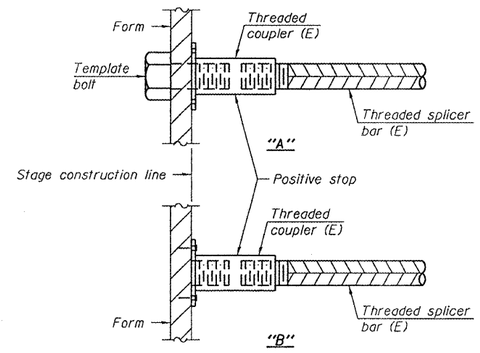
Minimum Lap Lengths				
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4
3, 4	1'-5"	1'-11"	2'-1"	2'-4"
5	1'-9"	2'-5"	2'-7"	2'-11"
6	2'-1"	2'-11"	3'-1"	3'-6"
7	2'-9"	3'-10"	4'-2"	4'-8"
8	3'-8"	5'-1"	5'-5"	6'-2"
9	4'-7"	6'-5"	6'-10"	7'-9"

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C

Threaded splicer bar length = min. lap length + 1½" + thread length

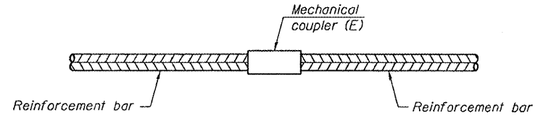
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Deck	#5	16	3
Approach	#6	6	3
Deck	#7	32	3



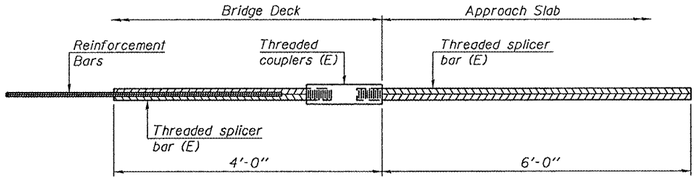
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



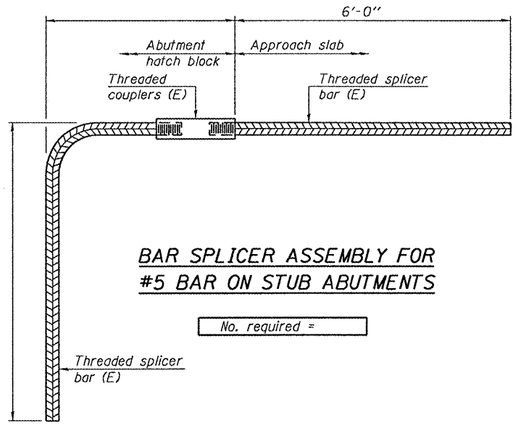
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
All reinforcement shall be lapped and tied to the splicer bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
See special provision for Mechanical Splicers.
See approved list of bar splicer assemblies and mechanical splicers for alternatives.

DESIGNED	GGE
CHECKED	IJL
DRAWN	Kyle M. Steffen
CHECKED	GGE IJL

JANUARY 12, 2010
EXAMINED — ENGINEER OF STRUCTURAL SERVICES
PASSED — ENGINEER OF BRIDGES AND STRUCTURES

BSD-1 11-1-09

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS IL ROUTE 116 OVER SPOON RIVER SN 029-0050

SHEET NO. 6	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8 SHEETS	665	(142-BR)I	FULTON	25	14
			CONTRACT NO. 68925		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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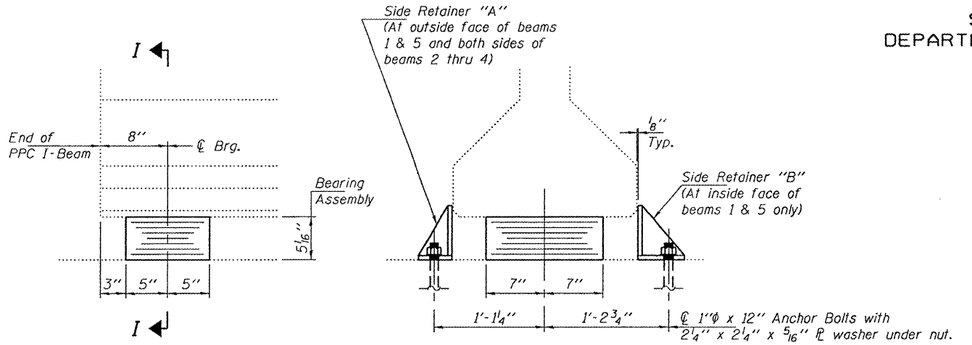
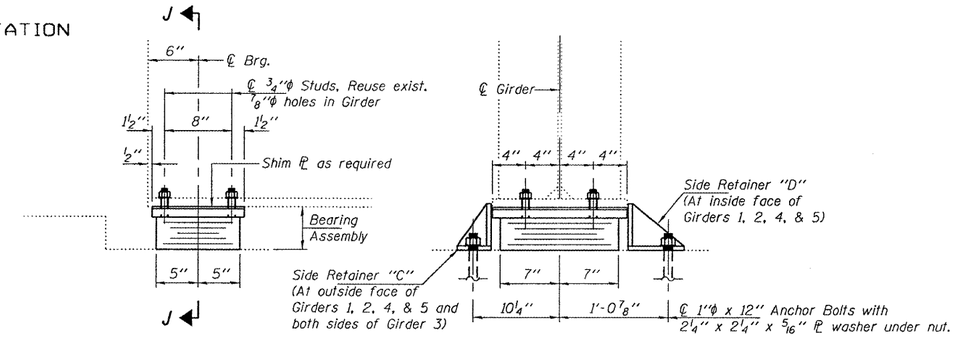
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION AT PIER 3 SECTION I-I

TYPE I ELASTOMERIC EXP. BRG.

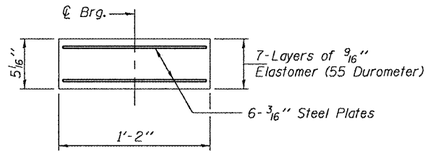


ELEVATION AT PIER 6 SECTION J-J

TYPE I ELASTOMERIC EXP. BRG.

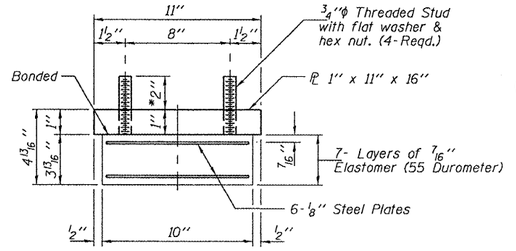
BEAM REACTIONS

		PIER 3	PIER 6
RPL	(K)	52.4	47.7
RL	(K)	39.8	42.6
Imp.	(K)	10.1	9.1
R (Total)	(K)	102.3	99.4



BEARING ASSEMBLY

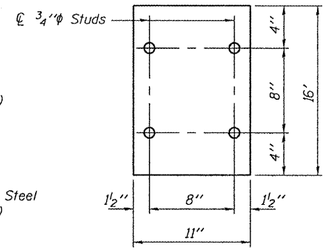
Notes:
Cross Frame removal and reinstallation may be required to facilitate drilling holes. Cost included with Structural Steel Repair.
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.
Min. jack capacity = 60 Tons.
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers & Shim plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.



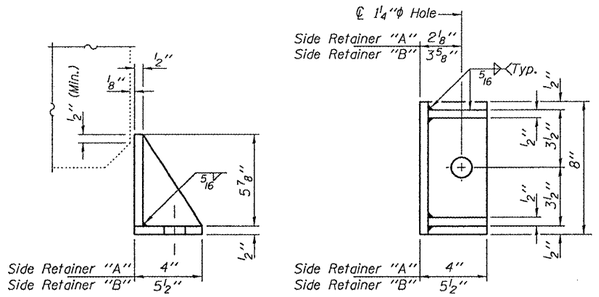
BEARING ASSEMBLY

Note:
Shim plates shall not be placed under Bearing Assembly.

* 3" at Girder 1 Structural Steel Repair (See sheet 8 of 8)

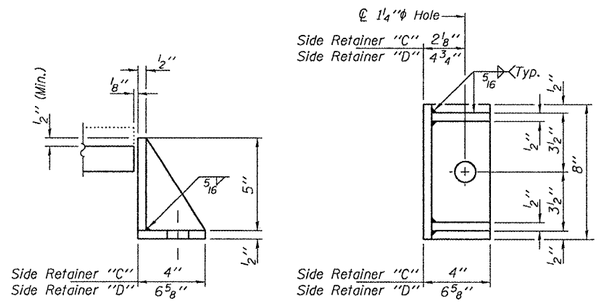


BEARING ASSEMBLY PLAN



SIDE RETAINERS "A" & "B" AT PIER 3

Side Retainer "A" (8 Required)
Side Retainer "B" (2 Required)
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



SIDE RETAINERS "C" & "D" AT PIER 6

Side Retainer "C" (6 Required)
Side Retainer "D" (4 Required)
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	10
Jack and Remove Existing Bearings	Each	10
Anchor Bolts 1"ϕ	Each	20

DESIGNED	GGE
CHECKED	IJL
DRAWN	Kyle M. Steffen
CHECKED	GGE IJL

JANUARY 12, 2010
EXAMINED A. Carl Preuss
ENGINEER OF STRUCTURAL SERVICES
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

ELASTOMERIC BEARING ASSEMBLY DETAILS
IL ROUTE 116 OVER SPOON RIVER
SN 029-0050

SHEET NO. 7	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8 SHEETS	665	(142-BR)I	FULTON	25	15
			CONTRACT NO. 68925		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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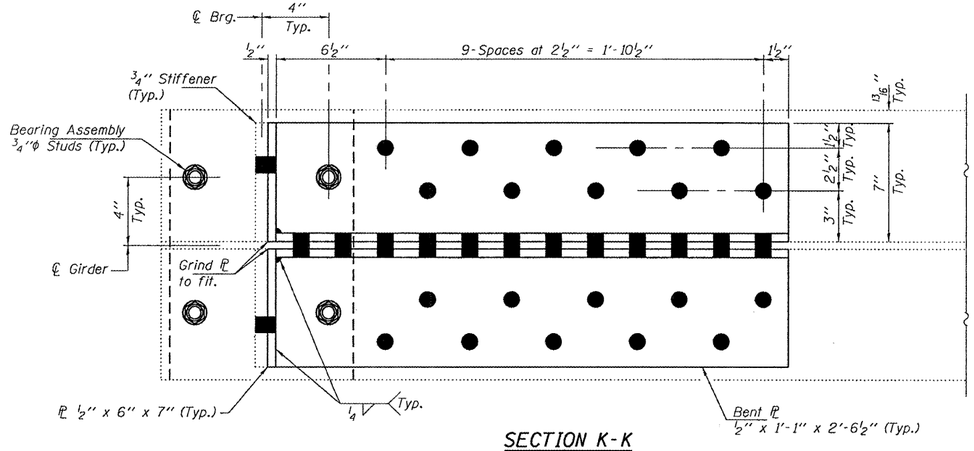
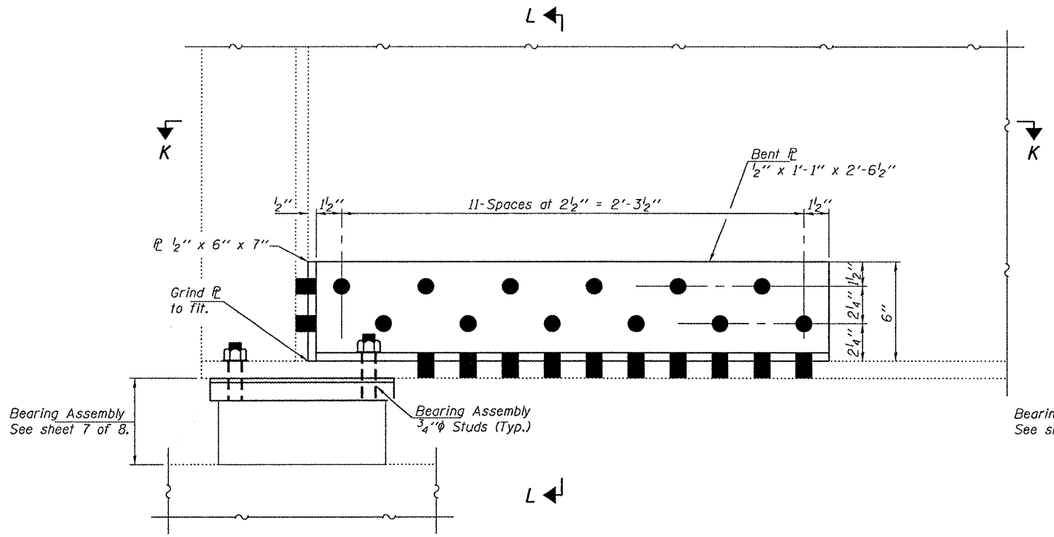
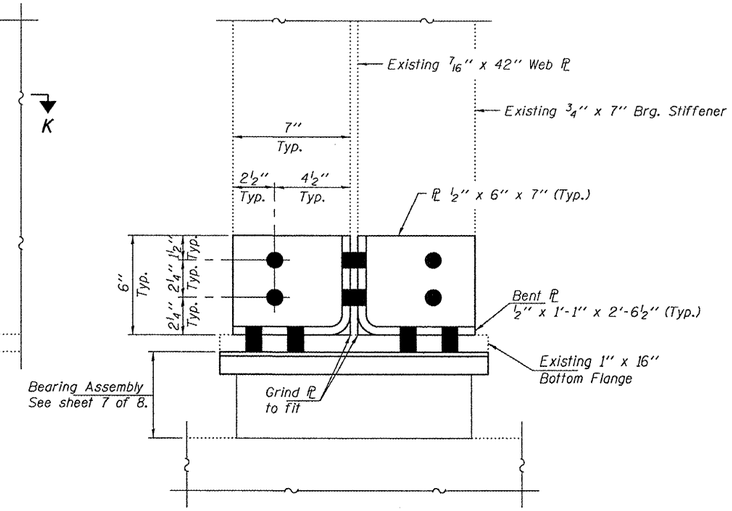
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION K-K



STEEL BEAM END REPAIRS



SECTION L-L

Bearing Assembly ¾"ϕ Studs not shown for clarity.

DESIGNED	GGE
CHECKED	IJL
DRAWN	Kyle M. Steffen
CHECKED	GGE IJL

JANUARY 12, 2010
EXAMINED A Carl Puzey
ENGINEER OF STRUCTURAL SERVICES
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STEEL BEAM END REPAIRS
IL ROUTE 116 OVER SPOON RIVER
SN 029-0050

SHEET NO. 8	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8 SHEETS	665	(142-BR)I	FULTON	25	16
			CONTRACT NO. 68925		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

16

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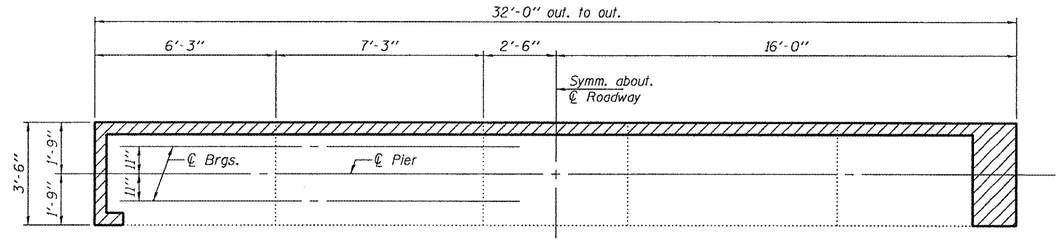
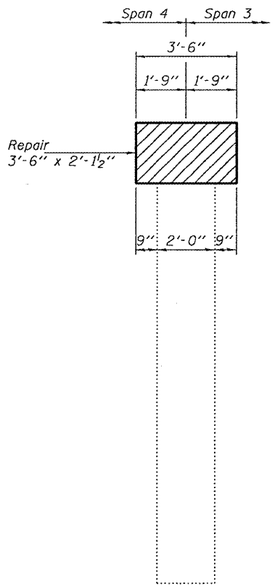
Note:
All edges shall have standard $\frac{3}{4}$" chamfers except as noted.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

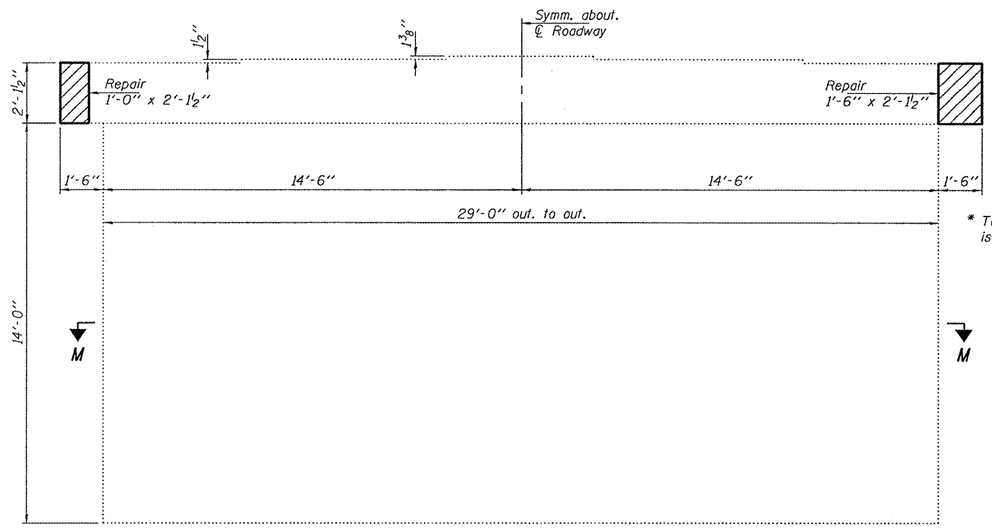


Structural Repair of Concrete ≤ 5 inches

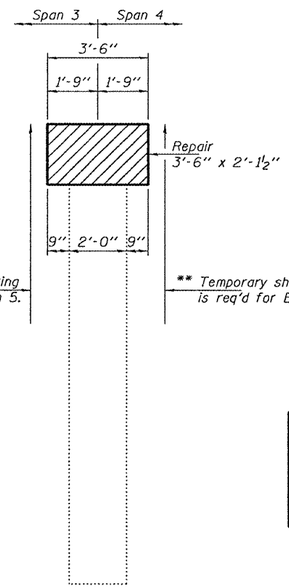
TOP PLAN



EAST END VIEW



ELEVATION
(Looking South)

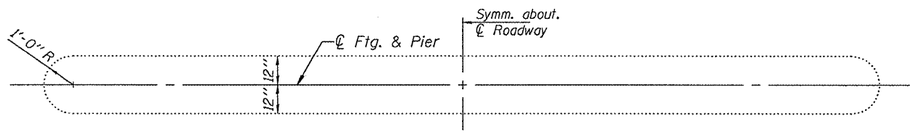


WEST END VIEW

* Temporary shoring is req'd for Bm 5.

** Temporary shoring is req'd for Bm 5.

REACTION TABLE AT TEMPORARY SHORING		
D	(k)	52.4
L	(k)	39.8
Imp.	(k)	10.1
Total	(k)	102.3



SECTION M-M

* Paid for as Temporary Shoring & Cribbing.

** Cost included with Jack & Remove Existing Bearings.

DESIGNED	VHV
CHECKED	DAB
DRAWN	Kyle M. Steffen
CHECKED	VHV DAB

PIER 3 REPAIR DETAILS
IL ROUTE 116 OVER SPOON RIVER
SN 029-0050

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
665	(142-BR)I	FULTON	25	17
		CONTRACT NO. 68925		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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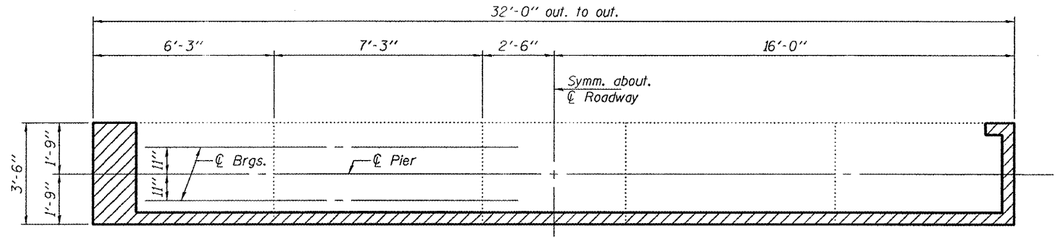
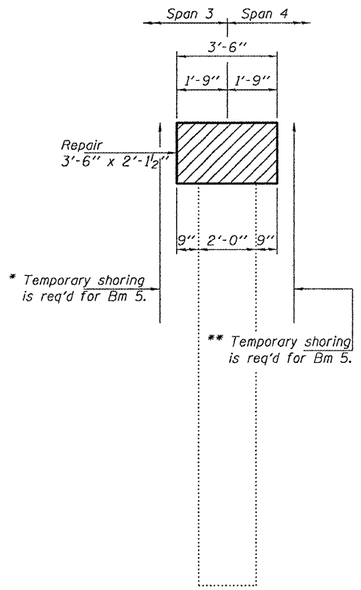
Note:
All edges shall have standard $\frac{3}{4}$" chamfers except as noted.

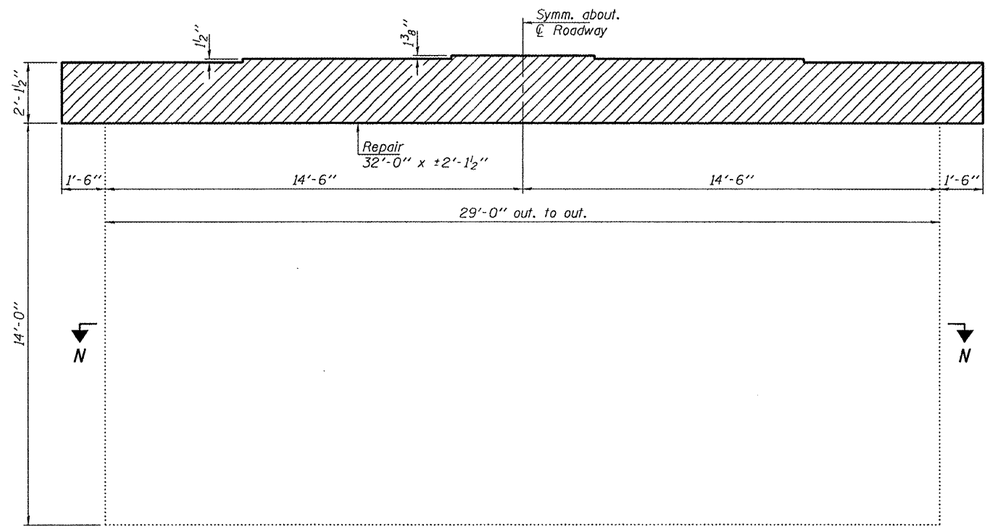
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

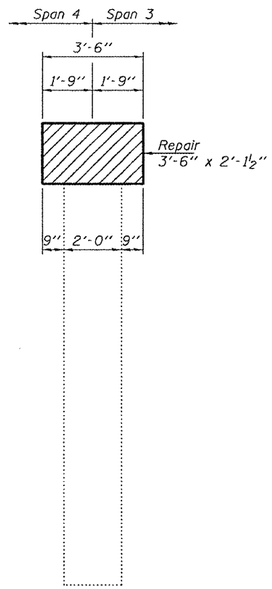


Structural Repair of Concrete ≤ 5 inches

TOP PLAN





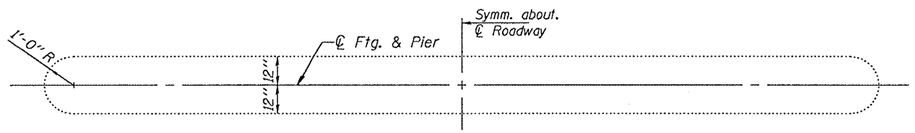


REACTION TABLE AT TEMPORARY SHORING		
Q	(k)	52.4
L	(k)	39.8
Imp.	(k)	10.1
Total	(k)	102.3

WEST END VIEW

ELEVATION
(Looking North)

EAST END VIEW



SECTION N-N

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth ≤ 5 inches)	Sq. Ft.	89
Temporary Shoring & Cribbing	Each	1

* Paid for as Temporary Shoring & Cribbing.

** Cost included with Jack & Remove Existing Bearings.

DESIGNED	VHV
CHECKED	DAB
DRAWN	Kyle M. Steffen
CHECKED	VHV DAB

PIER 3 REPAIR DETAILS
IL ROUTE 116 OVER SPOON RIVER
SN 029-0050

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
665	(142-BR)I	FULTON	25	18
		CONTRACT NO. 68925		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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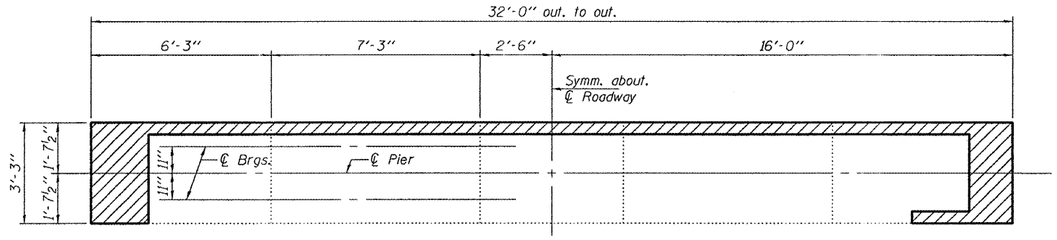
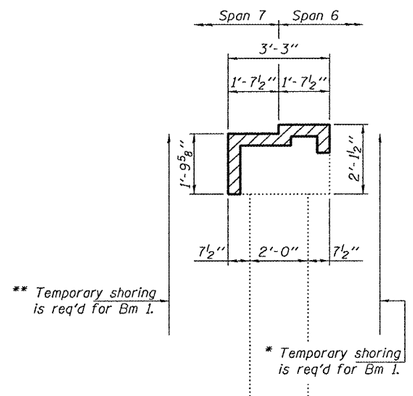
Note:
All edges shall have standard $\frac{3}{4}$" chamfers except as noted.

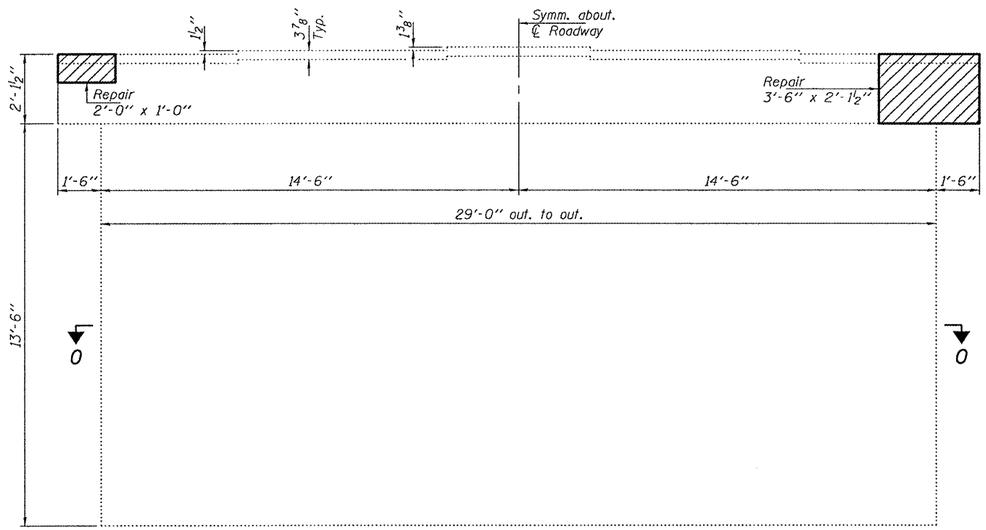
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

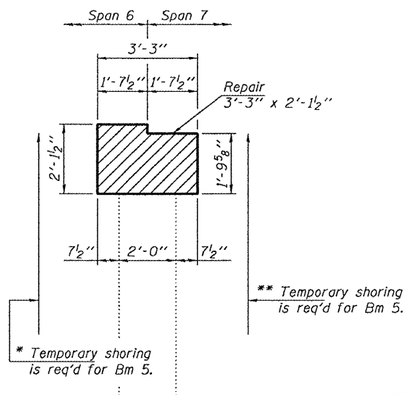


Structural Repair of Concrete ≤ 5 inches

TOP PLAN







EAST END VIEW

ELEVATION
(Looking South)

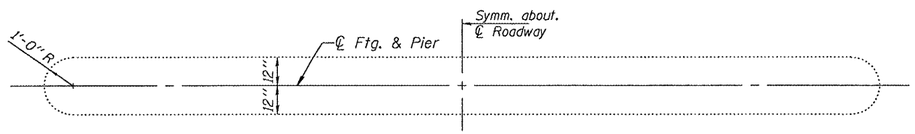
WEST END VIEW

SPAN 6

REACTION TABLE AT TEMPORARY SHORING		
D	(k)	52.4
L	(k)	39.8
Imp.	(k)	10.1
Total	(k)	102.3

SPAN 7

REACTION TABLE AT TEMPORARY SHORING		
D	(k)	47.7
L	(k)	42.6
Imp.	(k)	9.1
Total	(k)	99.4



SECTION 0-0

DESIGNED	VHV
CHECKED	DAB
DRAWN	Kyle M. Steffen
CHECKED	VHV DAB

* Paid for as Temporary Shoring & Cribbing.

** Cost included with Jack & Remove Existing Bearings.

PIER 6 REPAIR DETAILS
IL ROUTE 116 OVER SPOON RIVER
SN 029-0050

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
665	(142-BR)I	FULTON	25	19
		CONTRACT NO. 68925		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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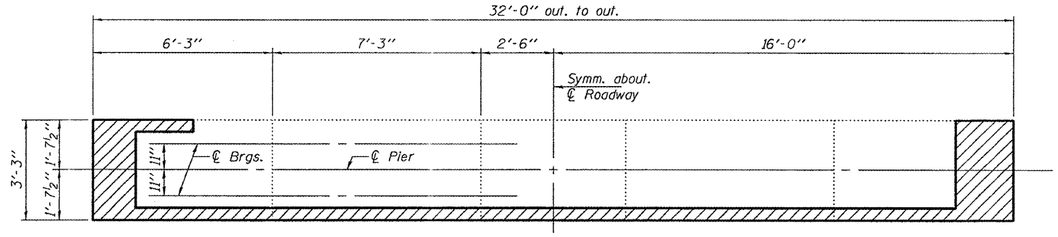
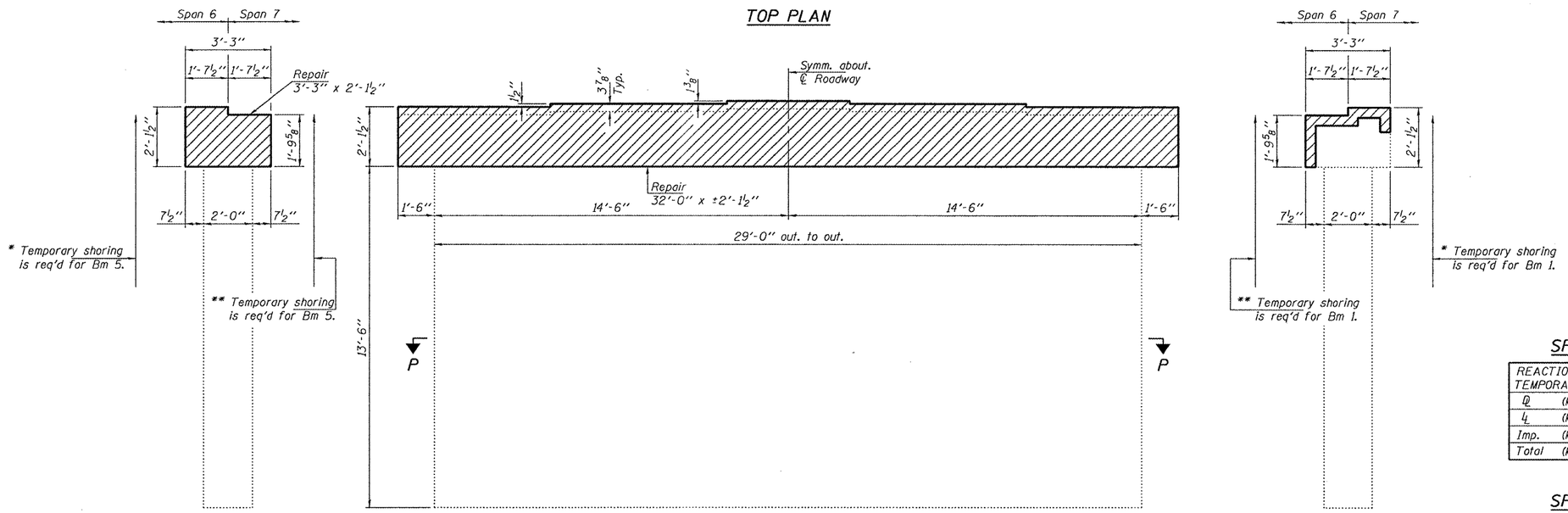
Note:
All edges shall have standard $\frac{3}{4}$'' chamfers except as noted.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



Structural Repair of Concrete ≤ 5 inches

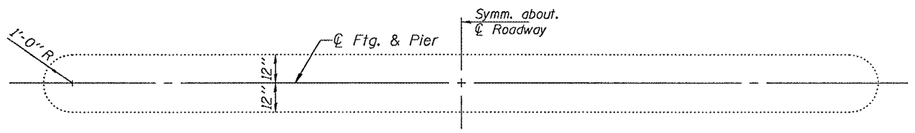
TOP PLAN



WEST END VIEW

ELEVATION
(Looking North)

EAST END VIEW



SECTION P-P

SPAN 6

REACTION TABLE AT TEMPORARY SHORING		
D	(k)	52.4
L	(k)	39.8
Imp.	(k)	10.1
Total	(k)	102.3

SPAN 7

REACTION TABLE AT TEMPORARY SHORING		
D	(k)	47.7
L	(k)	42.6
Imp.	(k)	9.1
Total	(k)	99.4

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth ≤ 5 inches)	Sq. Ft.	85
Temporary Shoring & Cribbing	Each	2

* Paid for as Temporary Shoring & Cribbing.

** Cost included with Jack & Remove Existing Bearings.

DESIGNED	VHV
CHECKED	DAB
DRAWN	Kyle M. Steffen
CHECKED	VHV DAB

PIER 6 REPAIR DETAILS
IL ROUTE 116 OVER SPOON RIVER
SN 029-0050

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
665	(142-BR)I	FULTON	25	20
		CONTRACT NO. 68925		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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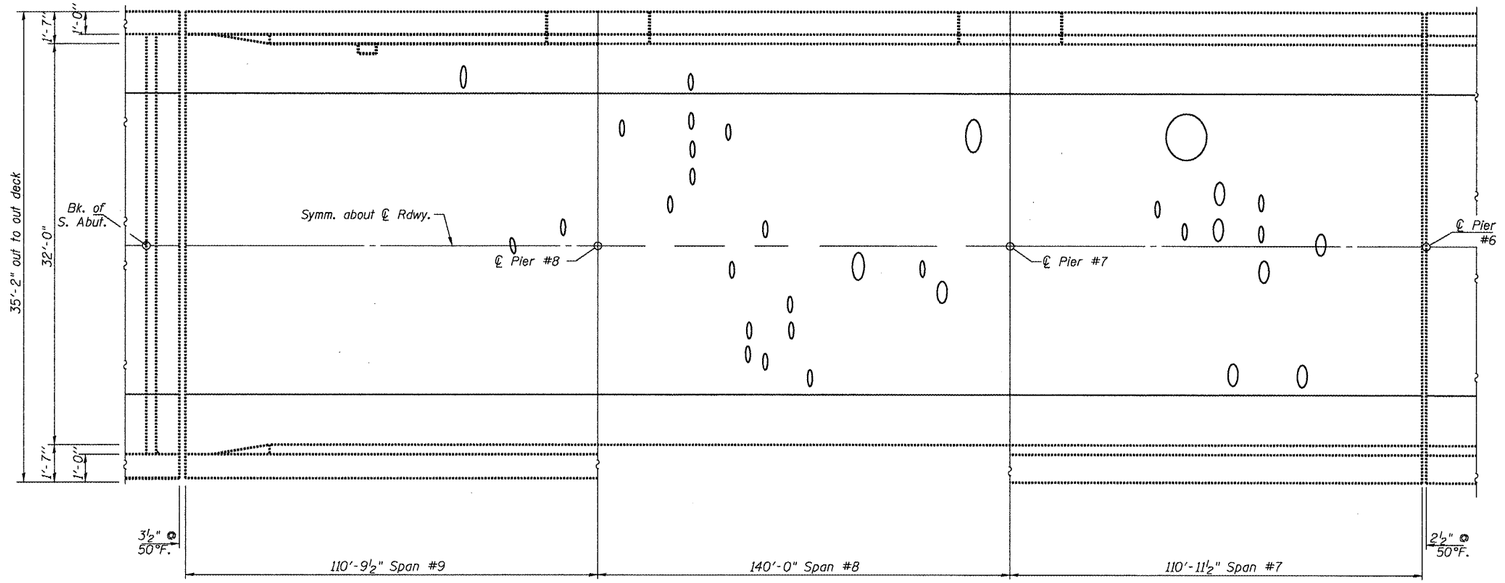
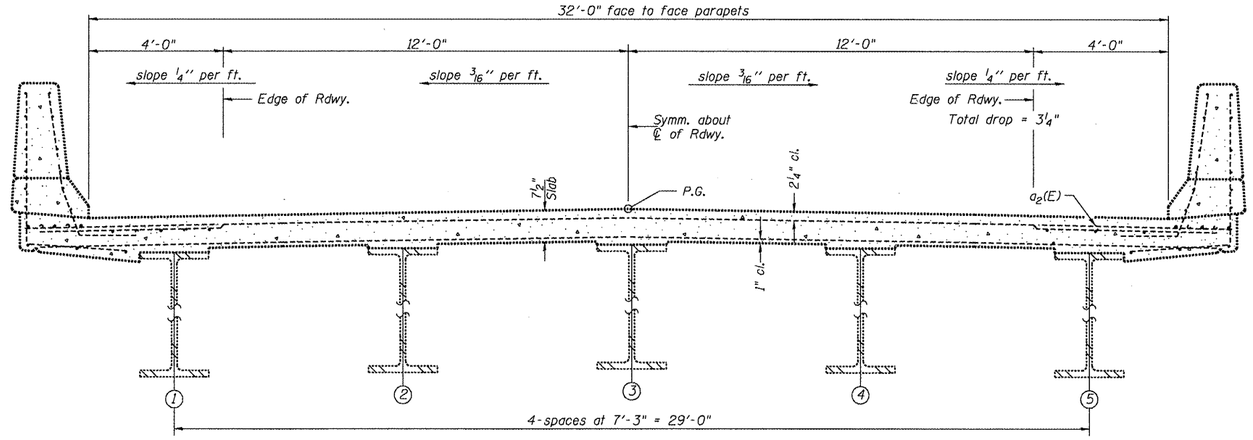


PLAN



CROSS SECTION

(Spans #7-#9 Looking South)

BILL OF MATERIAL

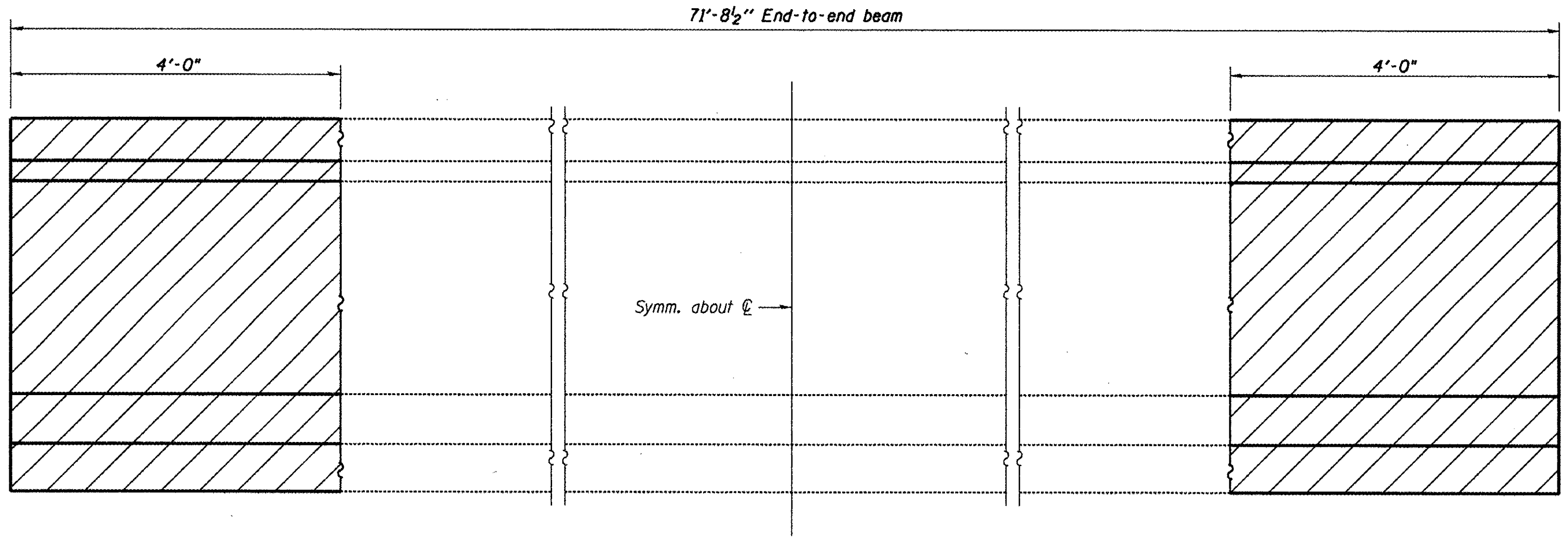
ITEM	UNIT	TOTAL
Partial Depth Patching	Sq. Yd.	7.0

SN.029-0050 IL.116
over Spoon Riv.

S:/GEN/DRAFT/STDS&PLNS/SQUAD14/BRIDGE CONTRACTS/JOINTS/68925 SN.029-0050/SN.029-0050 IL.116ovrSpoonRiv.dgn

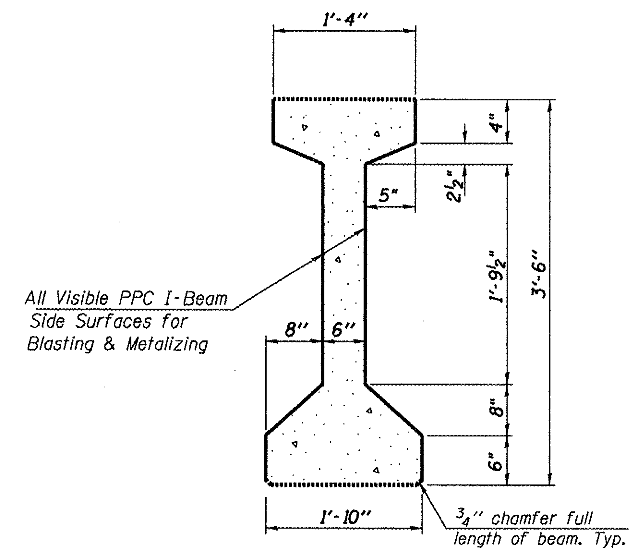
FILE NAME = SN.029-0050 IL.116ovrSpoonRiv.WD DrainEx.dgn	USER NAME = jonesce	DESIGNED - CEJ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PARTIAL DEPTH PATCHING
	PLOT SCALE = 103.7051 ' / IN.	DRAWN - CEJ	REVISED -		SCALE: _____ SHEET NO. __ OF ___ SHEETS STA. _____ TO STA. _____
	PLOT DATE = 12/2/2009	CHECKED - ___	REVISED -		
		DATE - 10/30/2009	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
665	(142-BRI)	FULTON	25	21
SUPERSTRUCTURE REPAIRS		CONTRACT NO. 68925		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		



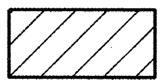
ELEVATION OF BEAM

(Showing blasting/metalizing surface area)

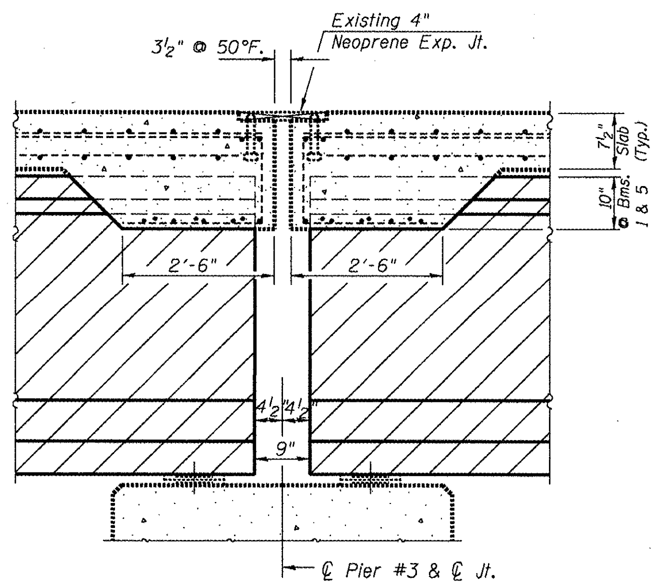


PPC I-BEAM CROSS-SECTION

(10 PPC I-Beams - 15 Beam Ends)

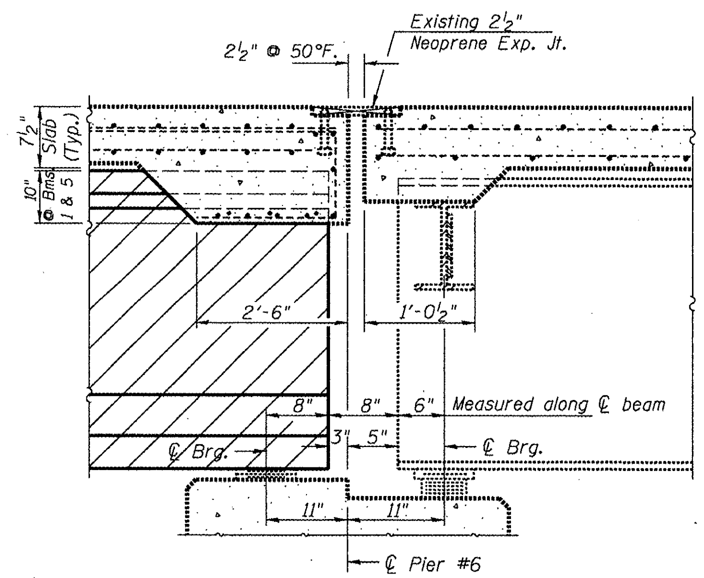


Blast Cleaning & Metalizing Area



PPC BEAM END-SECTION

(PIER #3)



PPC BEAM END-SECTION

(PIER #6)

NOTE

All Horizontal dimensions are at right angles to beam ends. Beam length for metalizing shall be measured four feet from each end and covers all visible side surfaces. Surface area of beam for blasting/spraying is 7.8 sq.ft. per lineal beam foot.

All bearing plates shall have pack rust sand blasted clean prior to being metalized as beam ends are processed. Cost to be included in "Thermal Spraying (Metalizing) PPC Beam Ends."

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Blast Cleaning PPC Beams	Foot	60
Thermal Spraying (Metalizing) PPC Beam Ends	Sq. Ft.	465

SN.029-0050 IL.116 over Spoon Riv.

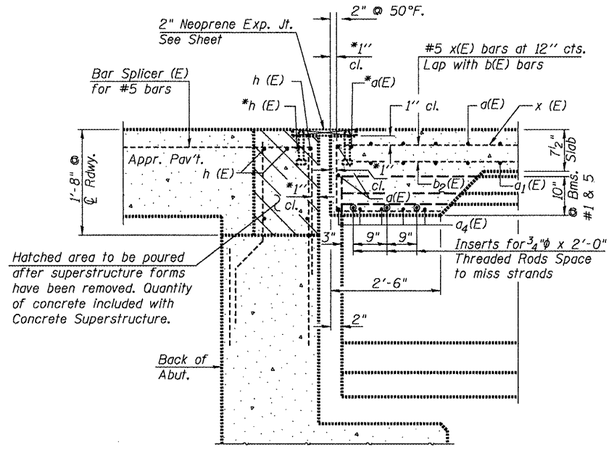
FILE NAME = SN.029-0050 IL.116ovrSpoonRiv.WO DrainExt.dgn	USER NAME = jonesce	DESIGNED - CEJ	REVISED - ___
		DRAWN - CEJ	REVISED - ___
	PLOT SCALE = 103.7851 ' / IN.	CHECKED - ___	REVISED - ___
	PLOT DATE = 12/1/2009	DATE - 10/27/2009	REVISED - ___

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PPC BEAM REPAIR DETAIL

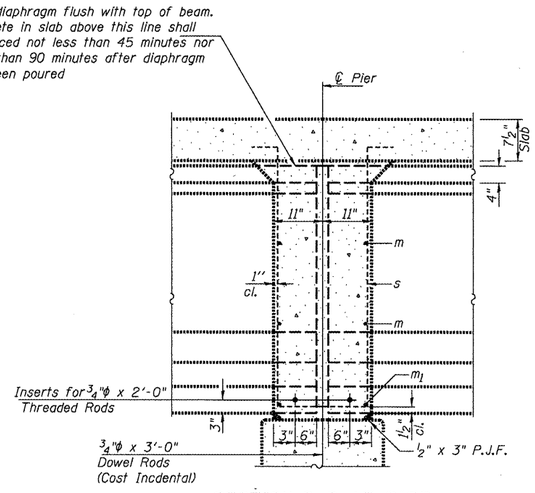
SCALE: ________ | SHEET NO. __ OF __ SHEETS | STA. ________ TO STA. ________

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
665	(142-BR)I	FULTON	25	22
PIER CAP REPAIRS		CONTRACT NO. 68925		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		



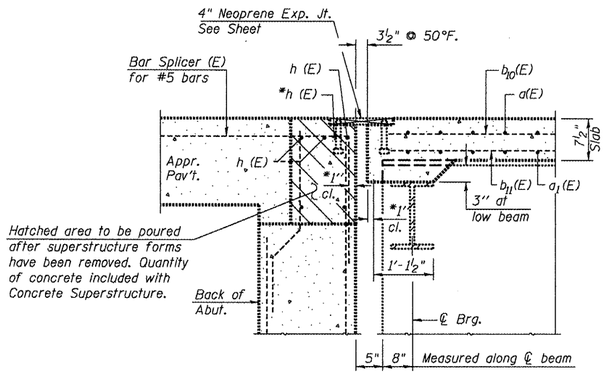
SECTION A-A THRU NORTH ABUT.

* Place d(E) and h (E) bars in back of anchor bolt as shown if required to maintain 1" cl. (+0-⅛"). Anchor bolts should be tied to d(E) and h (E) bars.



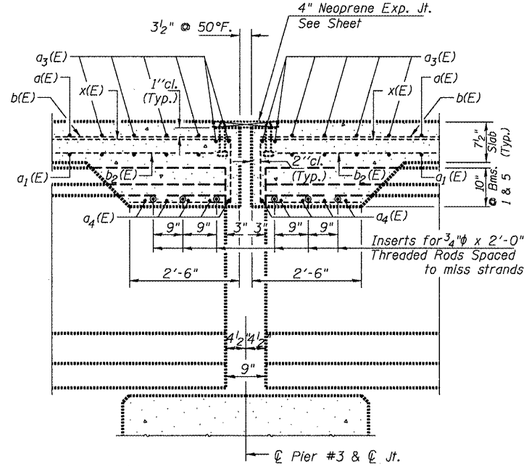
SECTION D-D AT PIER

('FIXED' PIERS #1, #2, #4, & #5)



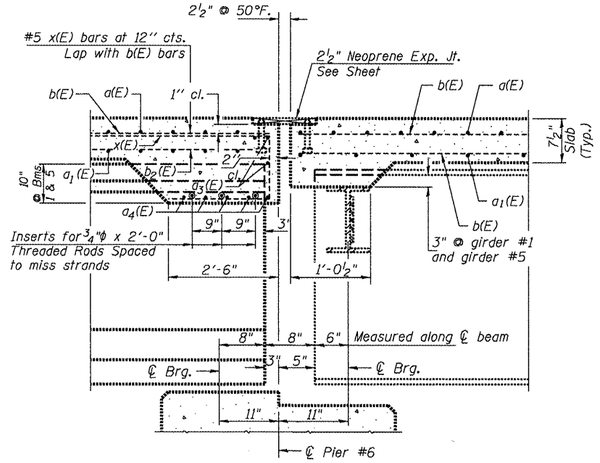
SECTION D-D THRU SOUTH ABUT.

* Place h (E) bars in back ofanchor bolt as shown if required to maintain 1" cl. (+0-⅛"). Anchor bolts should be tied to h (E) bars.



SECTION B-B AT PIER

(PIER #3)



SECTION C-C AT PIER

(PIER #6)

FOR INFORMATION ONLY

S:/GEN/DRAFT/STDS&PLNS/SQUAD14/BRIDGE CONTRACTS/JOINTS/68925 SN.029-0050/SN.029-0050 IL.116ovrSpoonRiv.dgn

SN.029-0050 IL.116
over Spoon Riv.

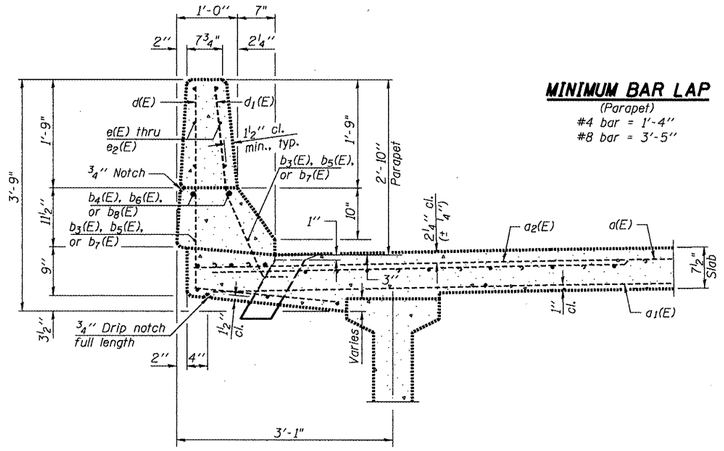
FILE NAME = SN.029-0050 IL.116ovrSpoonRiv.WD DrainEx.dgn	USER NAME = jonesce	DESIGNED - CEJ	REVISED -	
		DRAWN - CEJ	REVISED -	
	PLOT SCALE = 103.7051 ' / IN.	CHECKED -	REVISED -	
	PLOT DATE = 12/1/2009	DATE - 06/05/2009	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING CROSS SECTION DETAILS

SCALE: _____ | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
665	(142-BRI)	FULTON	25	23
SUPERSTRUCTURE REPAIRS		CONTRACT NO. 68925		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		

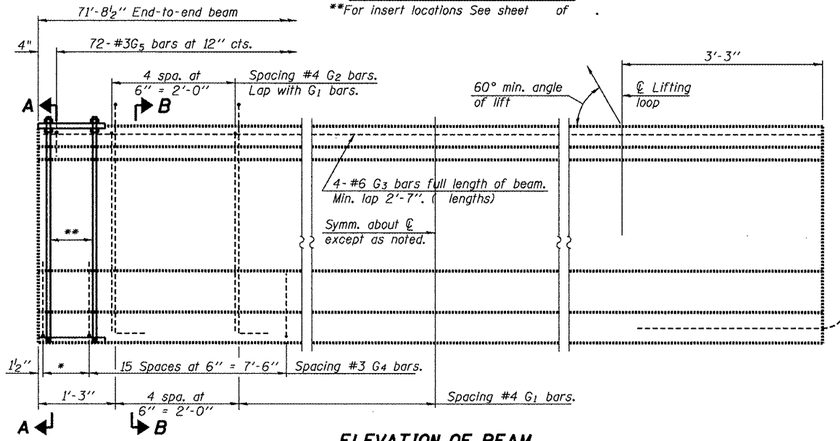


MINIMUM BAR LAP

(Parapet)
#4 bar = 1'-4"
#8 bar = 3'-5"

SECTION THRU PARAPET

**For insert locations See sheet of .



* 3 spaces at 3" = 9".
** 4-3/4" ϕ threaded dowel rods at 3" cts., each face.

ELEVATION OF BEAM

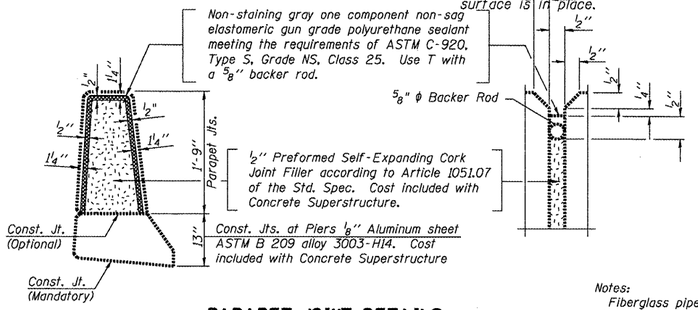
(Showing reinforcement & dimensions)

ELEVATION OF BEAM

(Showing prestressing steel)

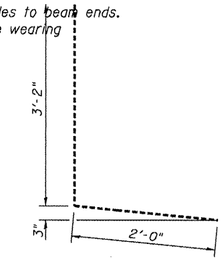
Note A:
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.

Notes :
All horizontal dimensions are at right angles to beam ends.
Hatched area to be poured after concrete wearing surface is in place.

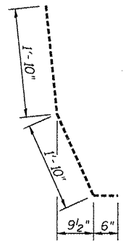


PARAPET JOINT DETAILS

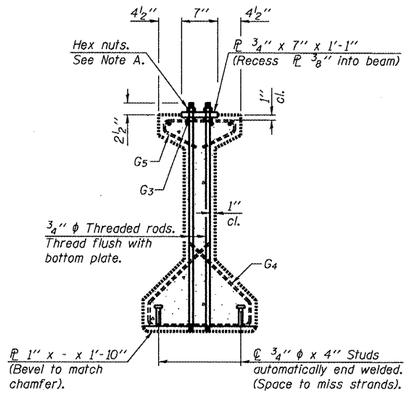
Notes:
Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
The exterior surfaces of the floor drains shall be coated or pigmented by the manufacturer with a color that matches the concrete.
The clamping device and inserts shall be galvanized according to AASHTO M 232.



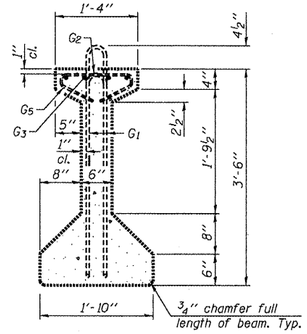
BAR d(E)



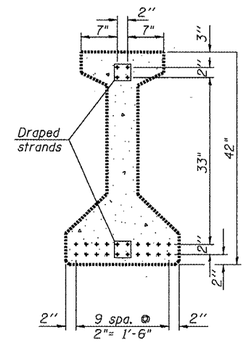
BAR d1(E)



SECTION A-A



SECTION B-B



SECTION C-C

BAR LIST
ONE BEAM ONLY

Bar	No.	Size	Length	Shape
G_1		#4	8'-5"	
G_2		#4	6'-8"	
G_3		#6		
G_4		#3	4'-11"	
G_5		#3	2'-6"	
G_6		#8	3'-9"	

*** For information only

Notes:
See sheet of for additional details and Bill of Material.
Required release strength, f'ci, shall be psi.

42" PPC I-BEAM

FOR INFORMATION ONLY

SN.029-0050 IL.116 over Spoon Riv.

S:/OEM/DRAFT/STDSBPLNS/SQUAD14/BRIDGE CONTRACTS/JOINTS/68925 SN.029-0050/SN.029-0050 IL.116ovrSpoonRiv.dgn

FILE NAME = SN.029-0050 IL.116ovrSpoonRiv.WD DrainExs.dgn	USER NAME = jonesce	DESIGNED - CEJ	REVISED -	
		DRAWN - CEJ	REVISED -	
	PLOT SCALE = 103.7051 ' / IN.	CHECKED -	REVISED -	
	PLOT DATE = 12/1/2009	DATE - 06/03/2009	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING CROSS SECTION DETAILS

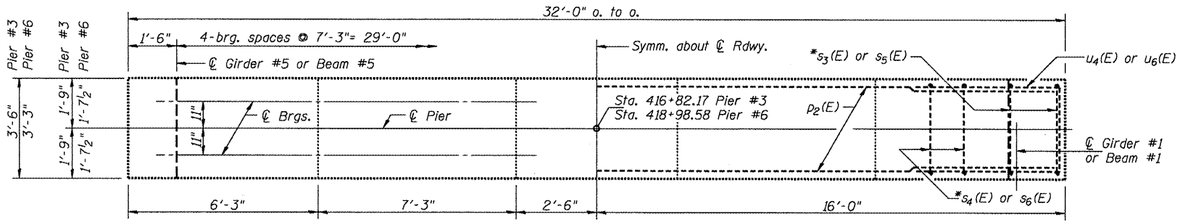
SCALE: _____ | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
665	(142-BRI)	FULTON	25	24
SUPERSTRUCTURE REPAIRS		CONTRACT NO. 68925		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		

Notes:
Space reinforcement in cap to miss anchor bolts.
All edges shall have standard ¾" chamfers except as noted.
Pour steps monolithically with cap.

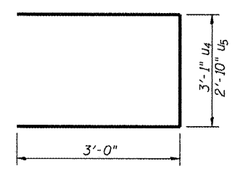
PILE DATA

Type: Steel (HP10x42)
Capacity: drive to refusal
Est. Length: 34 Ft.
No. Required: 8+1 Test Pile Pier#6
9 Pier#3

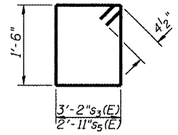


TOP PLAN

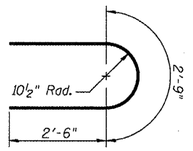
*s3(E) or s4(E) bars Pier #3
s5(E) or s6(E) bars Pier #6



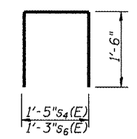
BARS U4(E) & U5(E)



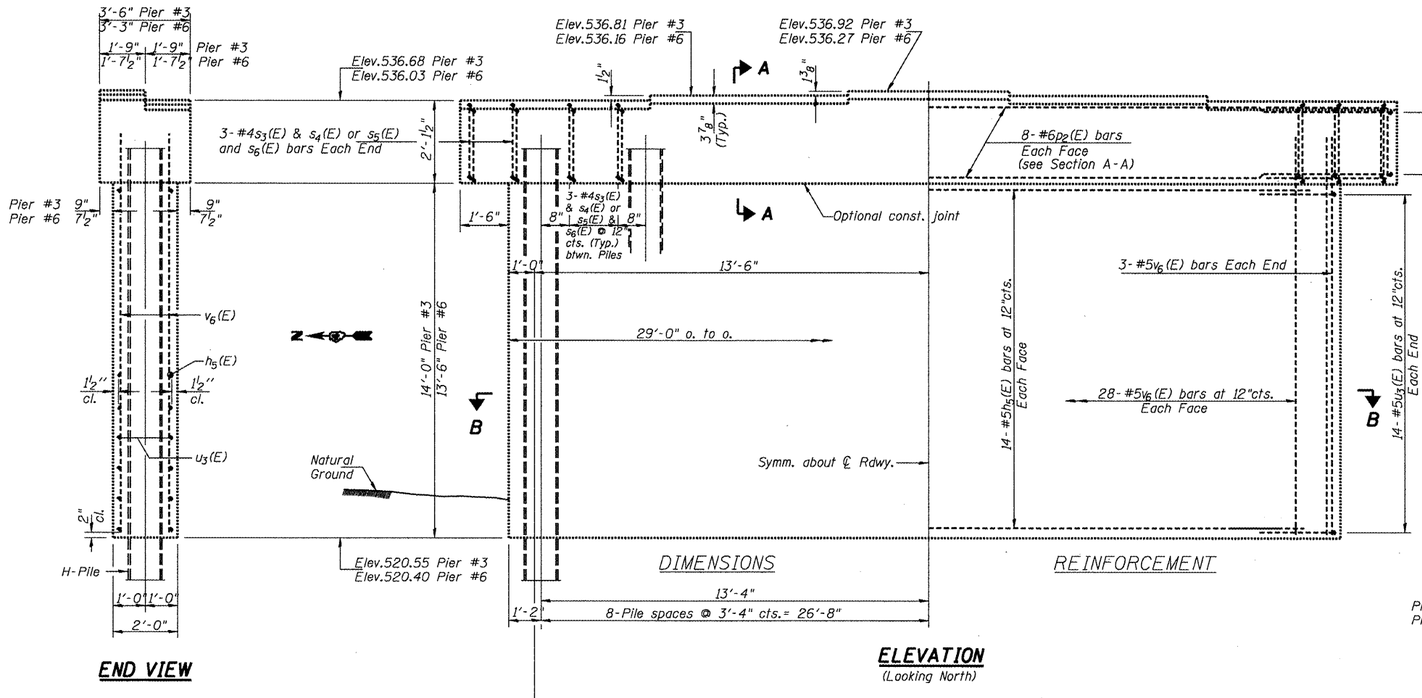
BAR s3(E) & s5(E)



BAR u3(E)

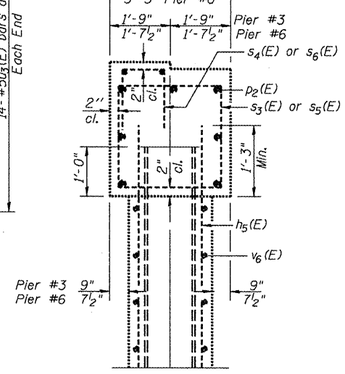


BARS s4(E) & s6(E)

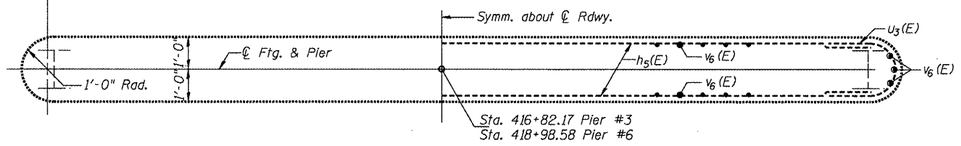


END VIEW

ELEVATION
(Looking North)



SECTION A-A



SECTION B-B

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h_5(E)$	56	#5	27'-0"	——
$p_2(E)$	16	#6	31'-9"	——
$s_3(E)$	30	#4	10'-1"	⊓
$s_4(E)$	30	#4	4'-5"	⊓
$s_5(E)$	30	#4	9'-7"	⊓
$s_6(E)$	30	#4	4'-3"	⊓
$u_3(E)$	56	#5	7'-9"	⊔
$u_4(E)$	6	#6	9'-1"	⊔
$u_5(E)$	6	#6	8'-10"	⊔
$v_6(E)$	124	#5	15'-0"	——
Structure Excavation		Cu. Yd.		
Concrete Structures		Cu. Yd.	74.7	
Reinforcement Bars, Epoxy Coated		Pound	5470	
Furnishing - Piles.		Foot	578	
Driving Piles		Foot		
Test Pile.		Each	1	

FOR INFORMATION ONLY

S:/GEN/DRAFT/STDS&PLNS/SQUAD14/BR106E CONTRACTS/JOINTS/68925 SN.029-0050/SN.029-0050 IL.116overSpoonRiv.dgn

PC-1

SN.029-0050 IL.116
over Spoon Riv.

FILE NAME = SN.029-0050 IL.116overSpoonRiv.WD DrainEx.dgn	USER NAME = jonesce	DESIGNED - CEJ	REVISED - ---
		DRAWN - CEJ	REVISED - ---
	PLOT SCALE = 103.7051 ' / IN.	CHECKED - ---	REVISED - ---
	PLOT DATE = 12/1/2009	DATE - 06/15/2009	REVISED - ---

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PIERS #3 & #6

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
665	(142-BRI)	FULTON	25	25
	SUPERSTRUCTURE REPAIRS	CONTRACT NO. 68925		
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		