

07-31-2015 LETTING ITEM 080

PROJECT DESIGNER: CLARK JONES
PHONE NO: (309) 671-3452

PROJECT ENGINEER: MARK ECKHOFF
PHONE NO: (309) 671-4463

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

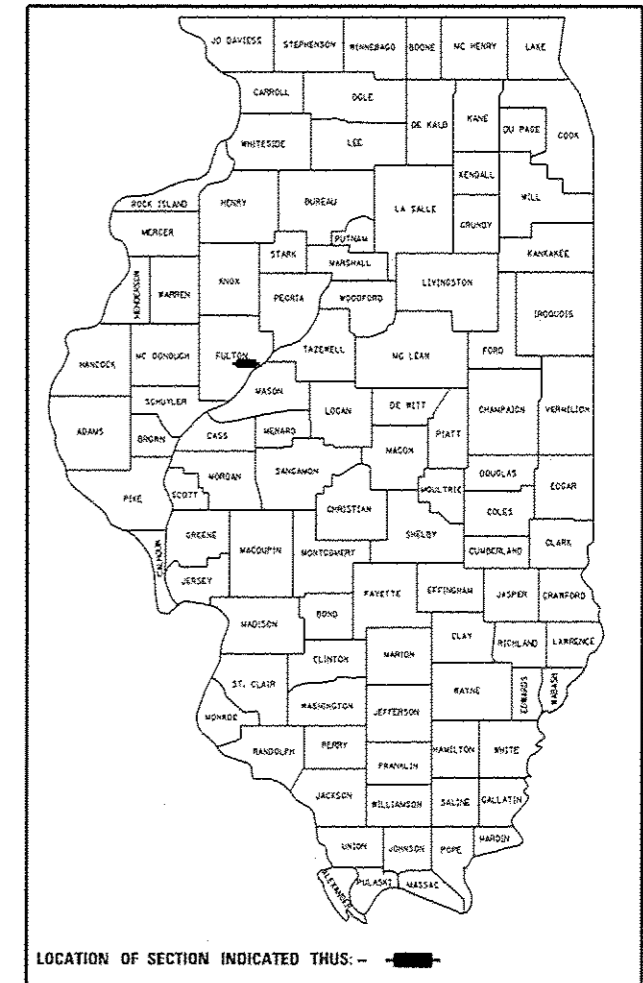
FAP 317 (US24)
SECTION [(102)B-1]DR
FULL-DEPTH DECK PATCH
FULTON COUNTY

C-94-091-15

F.A.P. R.F.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	[(102)B-1]DR	FULTON	10	10
FULL-DEPTH DECK PATCHING		ILLINOIS	CONTRACT NO. 68C69	

* 10+1 = 11 TOTAL SHEETS

D-94-051-15



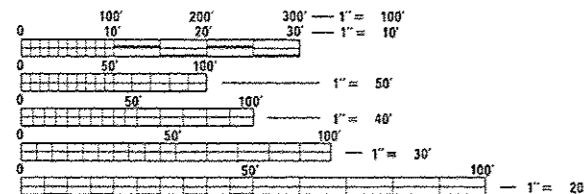
INDEX OF SHEETS:

1. COVER SHEET
2. GENERAL NOTES & COMMITMENTS
3. SUMMARY OF QUANTITIES
4. EXISTING PLANVIEW
5. SCHEDULE OF QUANTITIES
- 6-7. PROPOSED TRAFFIC CONTROL
- 8-10. DETAIL SHEETS *

* INCLUDES SHEET 10A

HIGHWAY STANDARDS:

- 701001-02
- 701006-05
- 701501-06
- 701901-04
- 780001-05
- BLR22-7

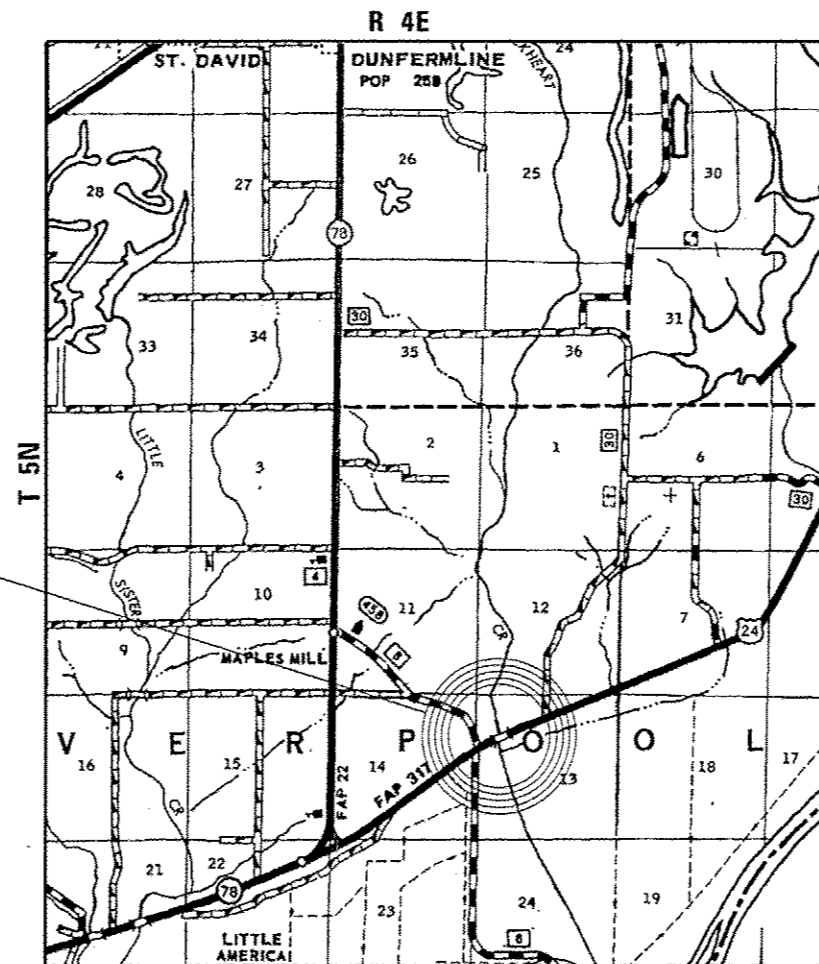


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER: MARK ECKHOFF
PROJECT MANAGER: TOM LACY

CONTRACT NO. 68C69 CAT. NO. 035305-00D



GROSS LENGTH = 102.35 FT. = 0.02 MILE
NET LENGTH = 102.35 FT. = 0.02 MILE

THIS PROJECT CONSISTS OF 10' WIDE FULL DEPTH DECK PATCH, WINGWALL REPAIR AND FLOOR DRAIN PATCHING ON STRUCTURE (SN.029-0059) CARRYING US24 OVER BUCKHEART CREEK 1.3 MILES EAST OF US24/L78 JUNCTION

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED June 16 20 15
[Signature]
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

June 26 20 15
[Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

June 26 20 15
[Signature]
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS**

COMMITMENTS

Commitments are not to be altered without the written approval of all parties to which the commitment was made.

GENERAL NOTES

AVAILABILITY OF ELECTRONIC FILES

MicroStation and GEOPAK files of this project will be made available to the Contractor after contract award. If there is a conflict between the electronic files and the printed contract plans and documents, the printed contract plans and documents shall take precedence over the electronic files. The Contractor shall accept all risk associated with using the electronic files and shall hold the Department harmless for any errors or omissions in the electronic files and the data contained therein. Errors or delays resulting from the use of electronic files by the Contractor shall not result in an extension of time for any interim or final completion date or shall not be considered cause for additional compensation. The Contractor shall not use, share, or distribute these electronic files except for the purpose of constructing this contract. Any claims by third parties due to use or errors shall be the sole responsibility of the Contractor. The Contractor shall include this disclaimer with the transfer of these electronic files to any other parties and shall include appropriate language binding them to similar responsibilities.

CRITICAL PATH WORK SCHEDULE REQUIREMENT

The Contractor will submit to the Engineer a satisfactory progress schedule and critical path schedule which shall show the proposed sequence of work at the time of the pre-construction conference.

CLEARING

At locations where clearing is indicated on the plans beyond the limits of the proposed excavation or embankment, the Contractor shall restore the disturbed earth by blading and shaping to blend with the adjacent ground. The clearing will not be paid for separately but shall be included in the cost of the excavation pay items in the plans. Payment for reseeding or resodding will be as provided in the plans.

TREE REMOVAL

The District Four Tree Committee should be contacted and prior approval obtained for any tree removal beyond the limits/locations included in the plans.

TRANSITION PAYMENT METHOD - NEW/OLD CONSTRUCTION

Ten feet (10 ft.) (3 m) transitions shall be used to match proposed items of work to existing items in the field unless otherwise shown. The transition shall be paid for at the contract unit price for the proposed item of work specified.

SIGNING

Sign locations may vary from the stations shown on the plans in accordance with directions from the Engineer at the time of construction. Sign locations may be adjusted in the field to avoid any found utilities.

All wood post locations shall be verified with the Bureau of Operations, Traffic Section, before installation.

JOB-SPECIFIC NOTES

PROTECTIVE COAT APPLICATION

Protective coat shall be applied according to Section 503 of the Standard Specifications to all exposed surfaces of the new wingwall and top surfaces of all deck patches. The 14-day concrete curing period for protective coat application required in Article 503.19 shall be waived for this project.

CLEANING & PAINTING

Floor Drain surface cleaning and finish coat painting shall conform to Section 506 of the Standard Specifications.

WINGWALL

All necessary excavation and backfilling cost for the wingwall removal and replacement shall be incidental to Concrete Structures.

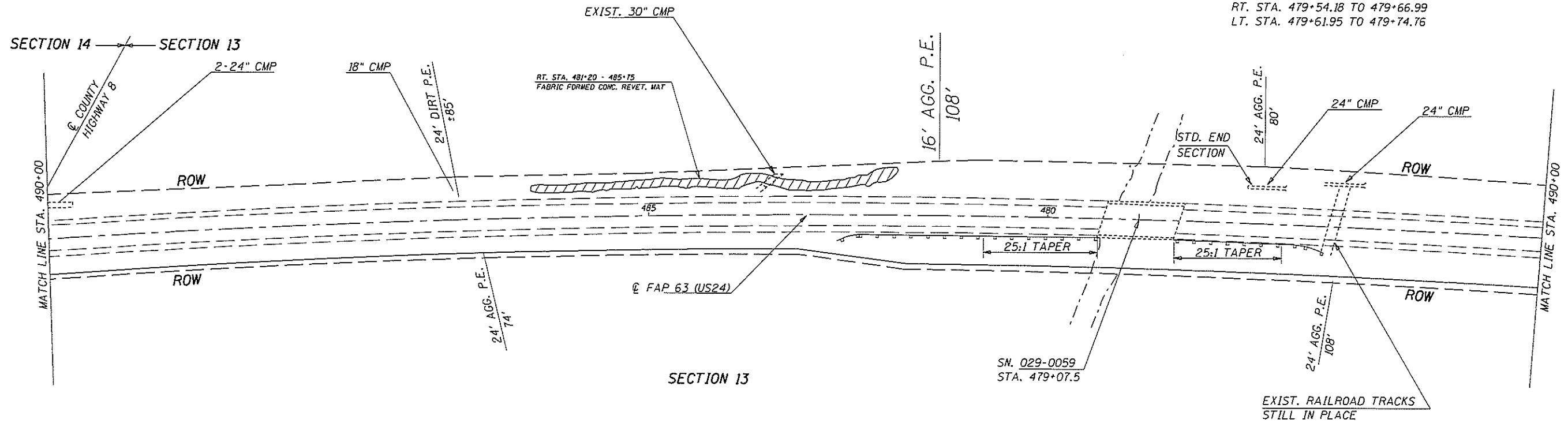
FILE NAME *	USER NAME * Jonesco	DESIGNED - CEJ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES & COMMITMENTS Structure No. 029-0059	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
S:\GEN\DRIFT\ST&PL\NS\QueabRIDGES\DR1	GE CONTRACTS\68C69 5H029-0059\68C69 US24	-DRAWN	REVISED -			317	110219-10R	FULTON	10	2	
Plot Scale * 205.11925 1/16"	CHECKED -	REVISED -	REVISED -			FULL-DEPTH DECK PATCHING CONTRACT NO. 68C69					
Plot Date * 8/15/2015	DATE - 8/12/2015	REVISED -	REVISED -			ILLINOIS FED. AID PROJECT					
SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____											



SECTION 13

BRIDGE APPROACH PAVEMENT
 STA. 478+33.05 TO STA. 478+56.33
 STA. 479+58.47 TO STA. 479+81.95

PCC CONCRETE BRIDGE APPROACH SHOULDER PAVEMENT
 LT. STA. 478+48.01 TO 478+60.82
 RT. STA. 478+40.24 TO 478+53.05
 RT. STA. 479+54.18 TO 479+66.99
 LT. STA. 479+61.95 TO 479+74.76



PLAN

FILE NAME = S:\GEN\DRFT\STDB\PLANS\Bridges\BRIDGE CONTRACTS\68C69 SN29-0059\68C69 US24	USER NAME = jonesco	DESIGNED - CEJ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING PLANVIEW Structure No. 029-0059	F.A.P. RTE. = 317	SECTION = 11021B-13DR	COUNTY = FULTON	TOTAL SHEETS = 10	SHEET NO. = 4
PLOT SCALE = 205.9925' / in.	CHECKED -	REVISOR -	REVISOR -			FULL-DEPTH DECK PATCHING	CONTRACT NO. 68C69			
PLOT DATE = 6/15/2015	DATE = 6/12/2015	REVISOR -	REVISOR -			ILLINOIS FED. AID PROJECT				
Default:						SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____				

SCHEDULE OF QUANTITIES

PROTECTIVE COAT

LOCATION	SQYD
DECK PATCH & WINGWALL	11.7
TOTAL	11.7

CONCRETE SUPERSTRUCTURE

LOCATION	CUYD
DECK PATCH	31.9
TOTAL	31.9

CHANGEABLE MESSAGE SIGN

LOCATION	CALMO
DETOUR ROUTES	2
TOTAL	2

CONCRETE REMOVAL

LOCATION	CUYD
DECK PATCH & WINGWALL	32.9
TOTAL	32.9

REINFORCEMENT BARS, EPOXY COATED

LOCATION	POUND
DECK PATCH	12700
TOTAL	12700

PAINT PAVEMENT MARKING - LINE 4"

LOCATION	FOOT
BRIDGE DECK	410
TOTAL	410

FLOOR DRAINS

LOCATION	EACH
BRIDGE DECK	12
TOTAL	12

MOBILIZATION

LOCATION	LSUM
JOBSITE	1
TOTAL	1

PAVEMENT MARKING REMOVAL

LOCATION	SQFT
BRIDGE DECK	137
TOTAL	137

CONCRETE STRUCTURES

LOCATION	CUYD
WINGWALL	1
TOTAL	1

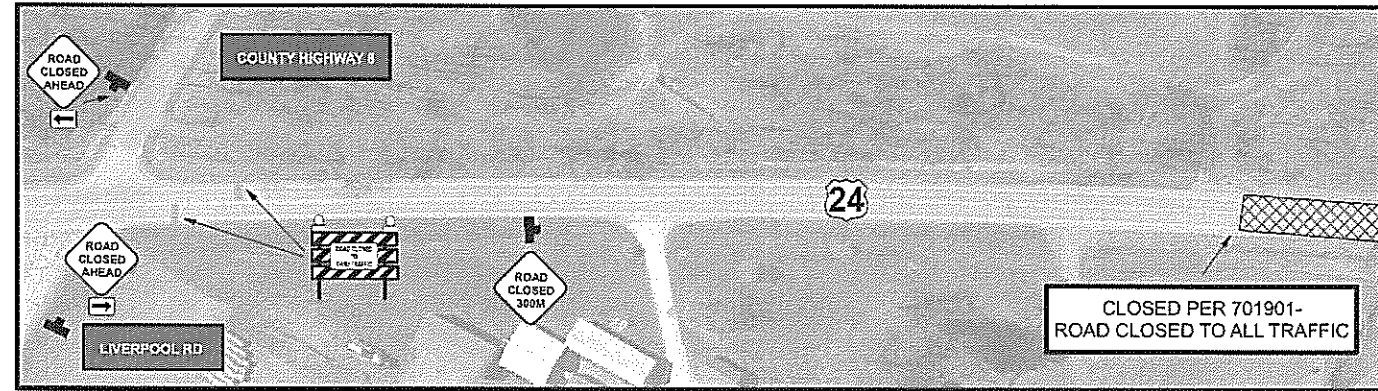
T.C.&P. STD. BLR 22

LOCATION	LSUM
JOBSITE	1
TOTAL	1

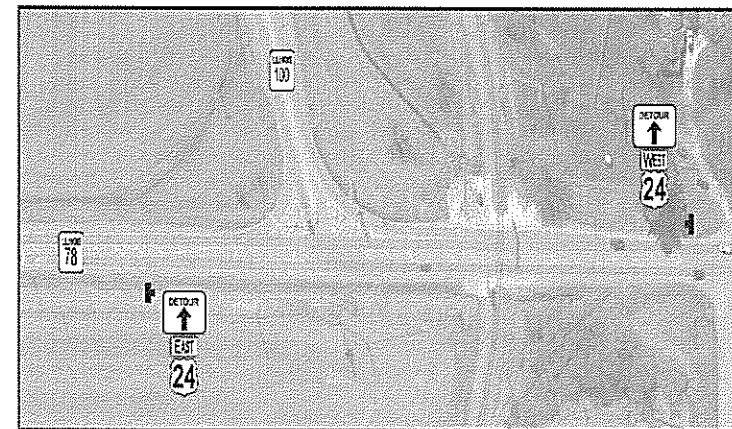
T.C.&P. STD. 701501 SPECIAL

LOCATION	LSUM
JOBSITE	1
TOTAL	1

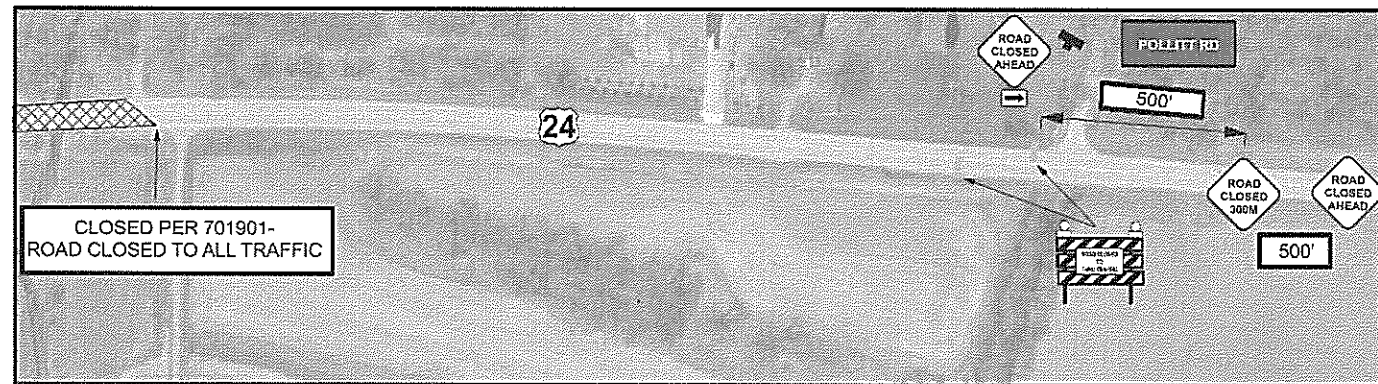
DETOUR SHEET 1



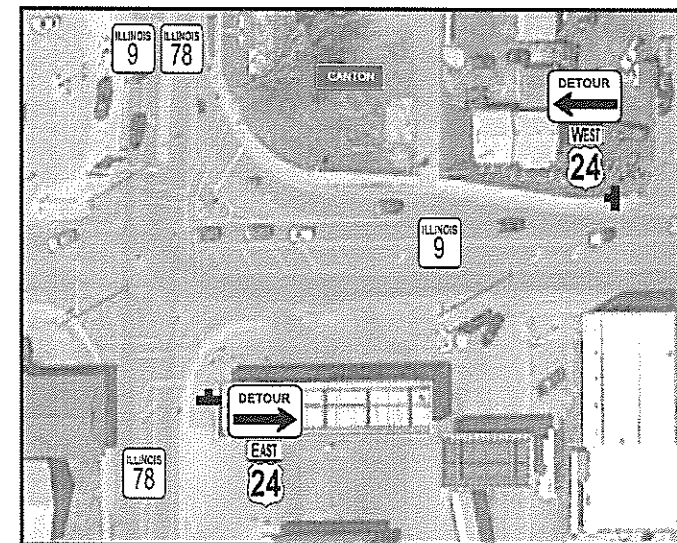
US 24 @ BUCKHEART CREEK



IL 78 @ IL 100



ALL SIGNS SHALL BE POST MOUNTED DURING THIS DETOUR.



CANTON

FILE NAME *	USER NAME = jonesce	DESIGNED - CEJ	REVISED - _____
S:\GEN\DRFT\STD&PLNS\sqcab\BIDGES\BRIDGE CONTRACTS\68C69 S\029-0259\68C69 US24	DRAWN BY = torkl.d@EJ	CHECKED - _____	REVISED - _____
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	PLOT DATE = 6/16/2015		

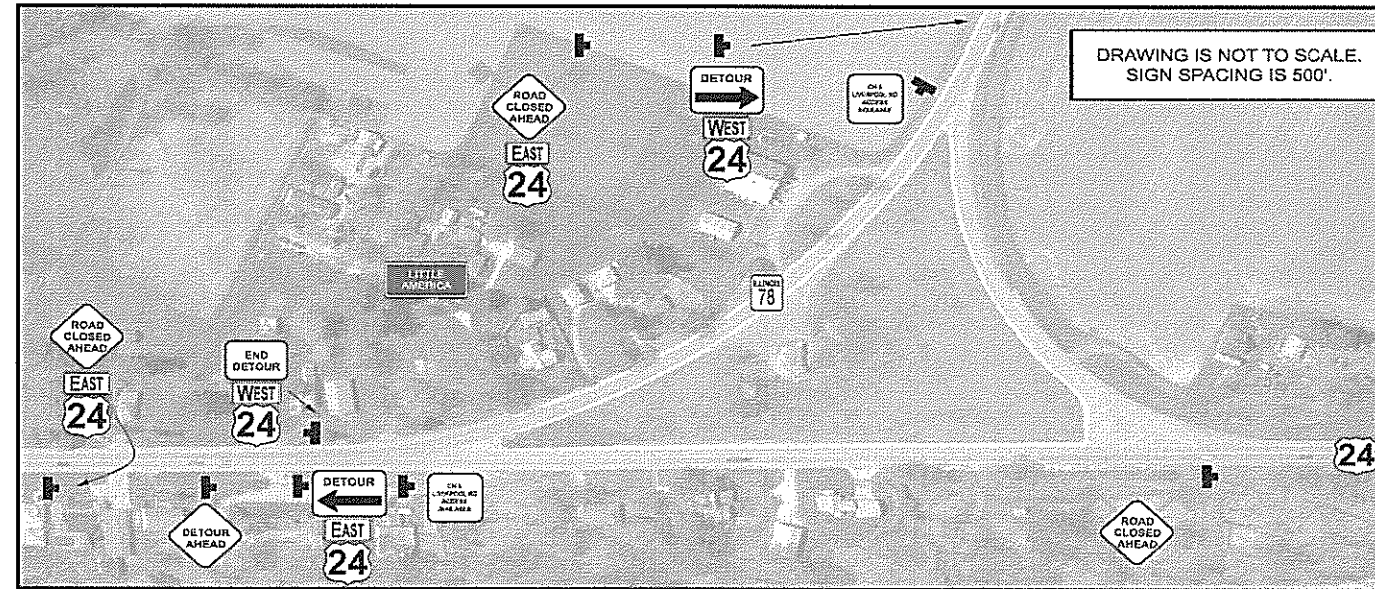
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED TRAFFIC CONTROL
Structure No. 029-0059

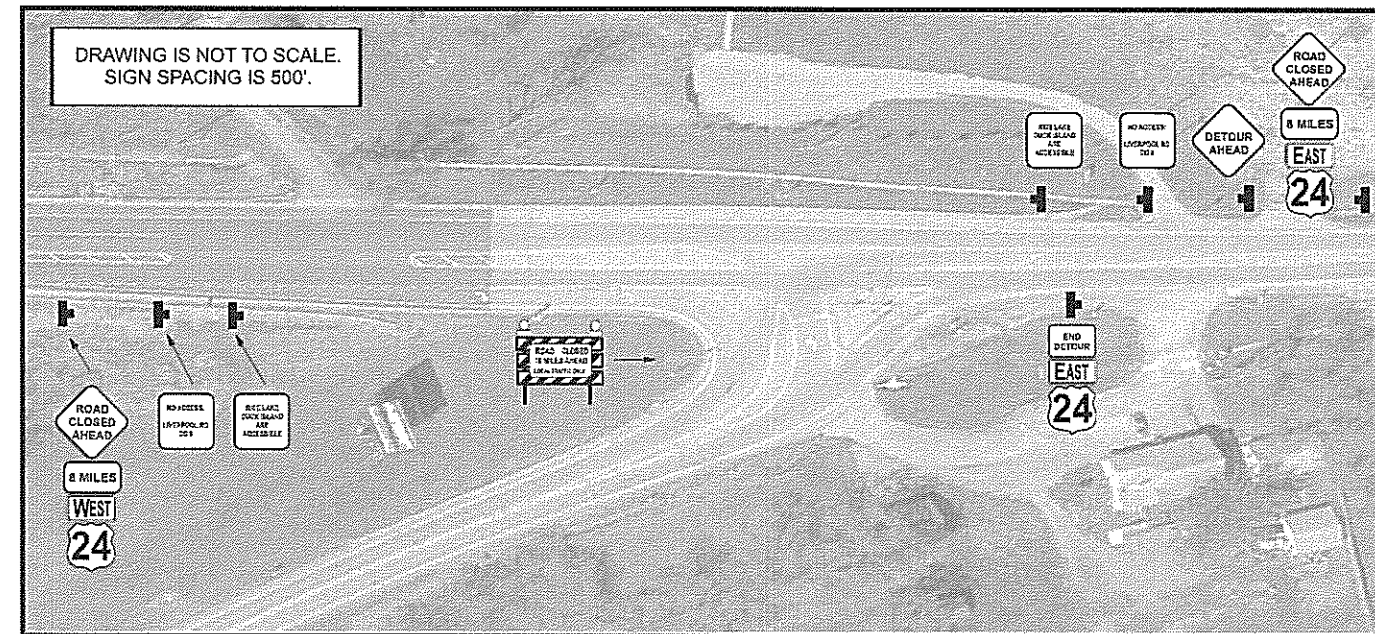
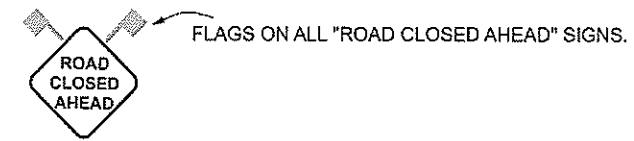
SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(1102)B-1)DR	FULTON	10	6
FULL-DEPTH DECK PATCHING				CONTRACT NO. 68C69
ILLINOIS FED. AID PROJECT				

DETOUR SHEET 2



US 24 @ IL 78



US 24 @ IL 9- BANNER

FILE NAME =	USER NAME = jonesce	DESIGNED - CEJ	REVISED -
S:\GEN\ADRAF\T\STD&PLNS\SquareBRIDGES\BRI	GE CONTRACTS\68C69 S\029-0059\68C69 US24	BRAWN	REVISED -
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	PLOT DATE = 6/16/2015	DATE - 6/12/2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED TRAFFIC CONTROL
Structure No. 029-0059

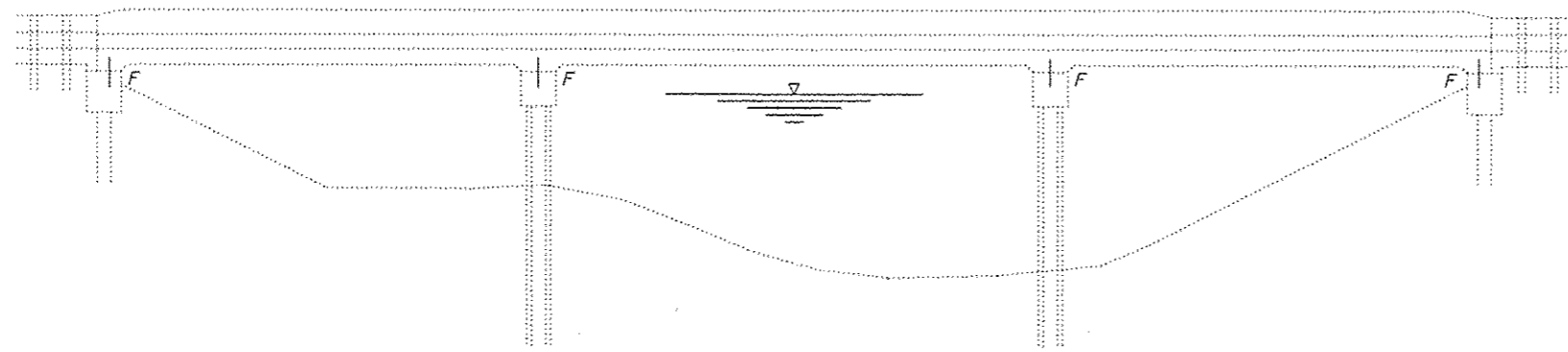
SCALE: _____ SHEET _____ OF _____ SHEETS | STA. _____ TO STA. _____

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(1102)B-13DR	FULTON	10	7
FULL-DEPTH DECK PATCHING				CONTRACT NO. 68C69
ILLINOIS FED. AID PROJECT				

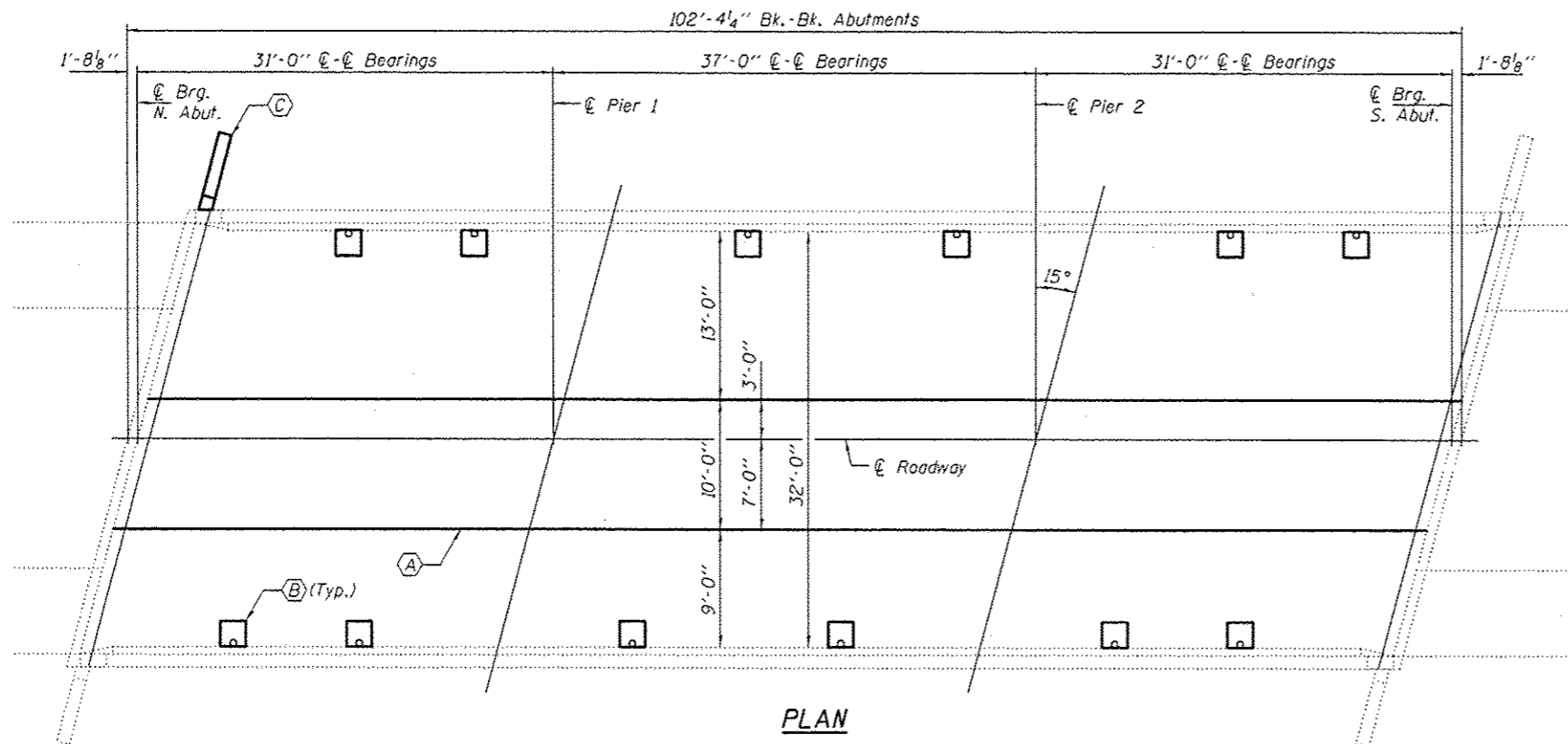
GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.
 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.
 Traffic to be detoured during construction operations.



ELEVATION



PLAN

- (A) - Partially remove and replace existing slab.
- (B) - Remove & replace existing drains with 6"φ Drains. (12 Locations)
- (C) - Remove & Replace existing NE wingwall



TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	47.7
Concrete Superstructure	Cu. Yd.	46.8
Concrete Structures	Cu. Yd.	0.9
Reinforcement Bars, Epoxy Coated	Pound	12270
Floor Drains	Each	12
Mechanical Splicers	Each	344
* Protective Coat	Sq. Yd.	112
Bridge Deck Grooving	Sq. Yd.	112

* On new concrete superstructure only

EXPIRES 11-30-2016

DESIGNED *[Signature]*
 CHECKED *[Signature]*
 DRAWN *[Signature]*
 CHECKED *[Signature]*

PASSED *[Signature]*
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE JUNE 26, 2015
 REVISED
 REVISED

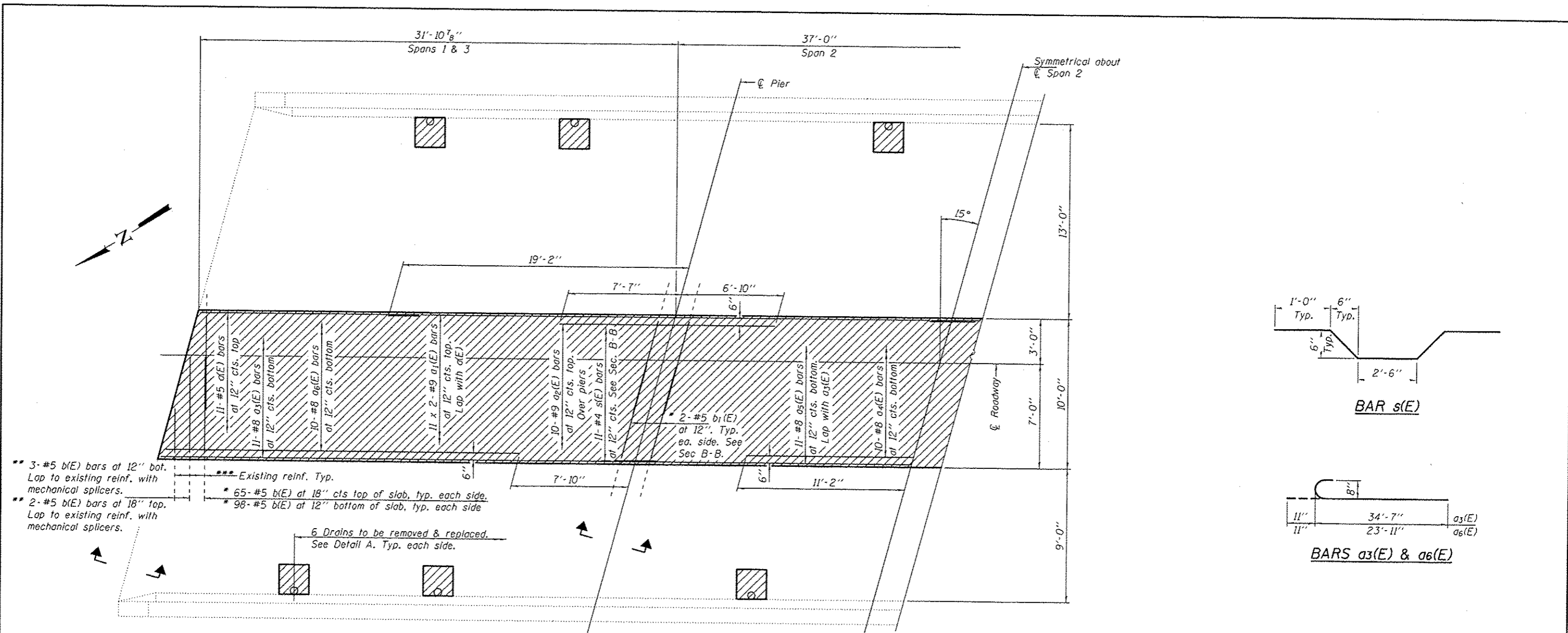
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PLAN AND ELEVATION
 FA63 (US 24) OVER BUCKHEART CREEK
 SN 029-0059

SHEET NO. 1 OF 4 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
63	(10218-10R)	FULTON	10	8

CONTRACT NO. 68C69
 ILLINOIS FED. AID PROJECT

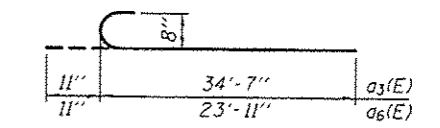
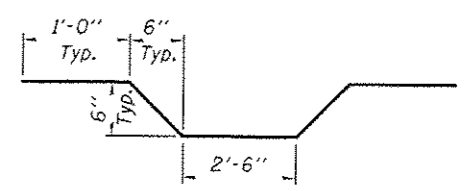


- ** 3-#5 b(E) bars at 12" bot. Lap to existing reinf. with mechanical splicers.
- ** 2-#5 b(E) bars at 18" top. Lap to existing reinf. with mechanical splicers.
- *** Existing reinf. Typ.
- * 65-#5 b(E) at 18" cts top of slab, typ. each side.
- * 98-#5 b(E) at 12" bottom of slab, typ. each side
- 6 Drains to be removed & replaced. See Detail A. Typ. each side.

- * Lap to existing reinf. with mechanical splicers.
- ** Order b(E) bars full length, field cut to fit skew and use remainder of bar in opposite end of span.
- *** Cut existing reinforcement 6" from removal line to facilitate installation of Mechanical Splicers.

HALF PLAN
See sheet 3 of 4 for Detail A & Sections A-A & B-B.

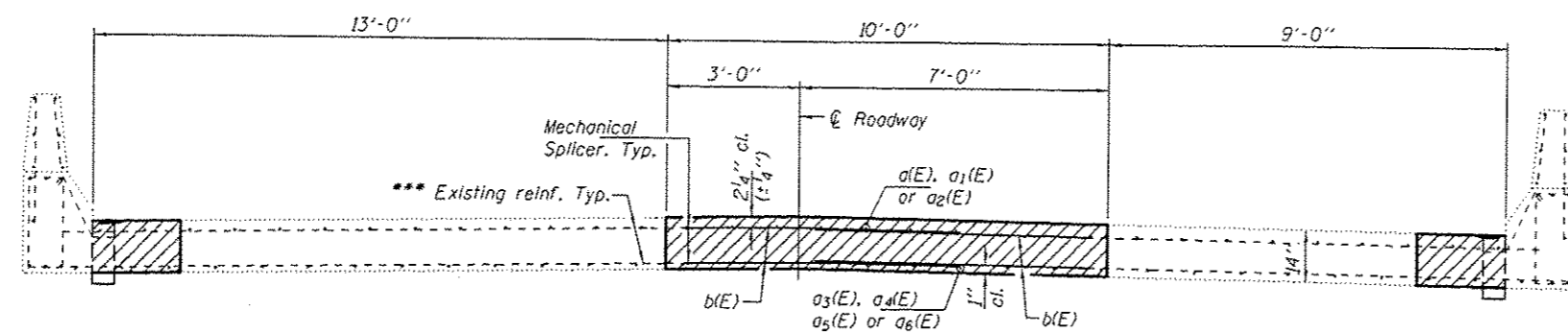
Hatched areas indicate concrete removal and replacement



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	22	#5	15'-9"	—
a1(E)	22	#9	41'-3"	—
a2(E)	20	#9	14'-5"	—
a3(E)	22	#8	35'-6"	—
a4(E)	10	#8	22'-4"	—
a5(E)	11	#8	42'-6"	—
a6(E)	20	#8	24'-10"	—
b(E)	331	#5	6'-6"	—
b1(E)	8	#5	7'-0"	—
h(E)	10	#5	5'-9"	—
s(E)	22	#4	5'-11"	—
v(E)	7	#5	7'-2"	—
Mechanical Splicers				Each 344
Reinforcement Bars, Epoxy Coated				Pound 12270
Concrete Superstructure				Cu. Yds. 46.8

Bars indicated thus 11 x 3-#9 etc. indicates 11 lines of bars with 3 lengths per line.



CROSS SECTION
(Looking South)

MINIMUM BAR LAP

- #5 bar = 2'-11"
- #8 bar = 5'-5"
- #9 bar = 6'-10"

DESIGNED CCC
CHECKED SMR
DRAWN baliva
CHECKED CCC SMR

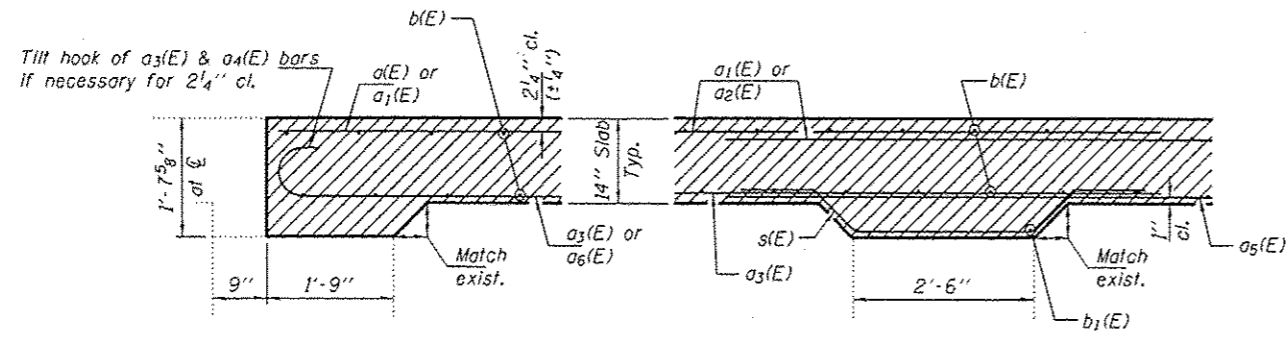
PASSED
DATE JUNE 26, 2015
ACTING ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REPAIR DETAILS
SN 029-0059
SHEET NO. 2 OF 4 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
63	(1102)B-10R	FULTON	10	9

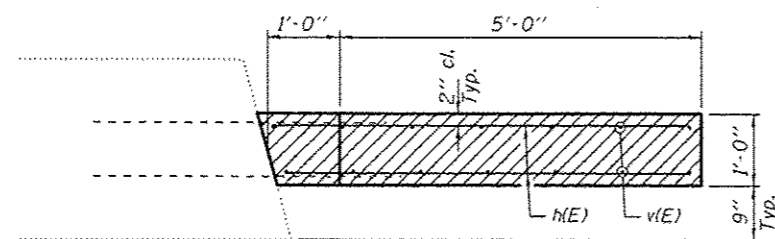
CONTRACT NO. 68C69
ILLINOIS FED. AID PROJECT



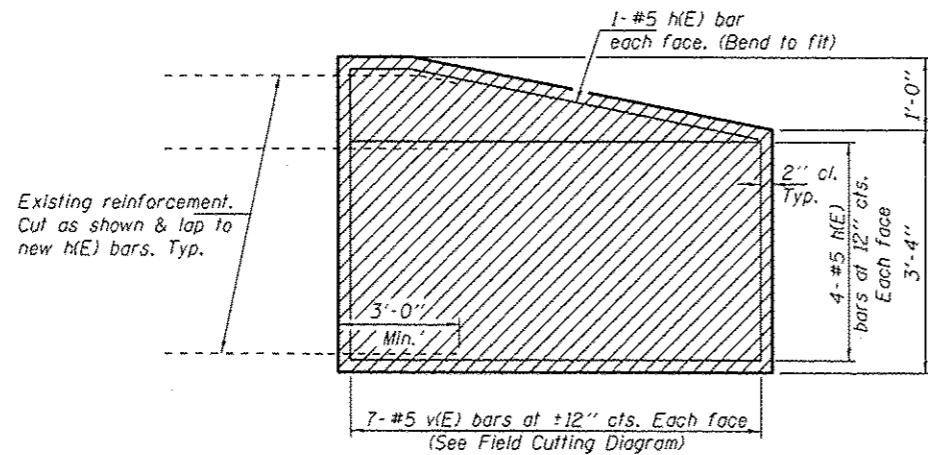
SECTION A-A

SECTION B-B

(Dimensions are at Rt. L's)

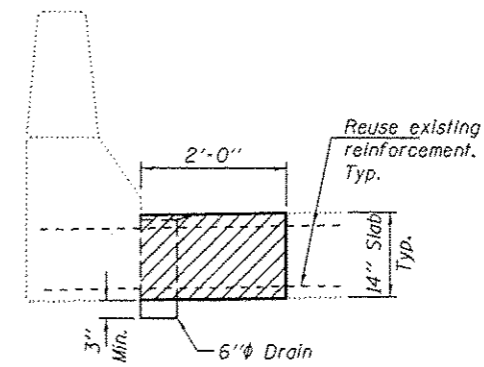


PLAN



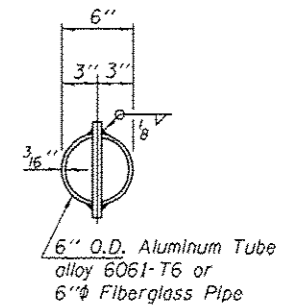
ELEVATION
NE WINGWALL REPAIR

Hatched areas indicate concrete removal and replacement



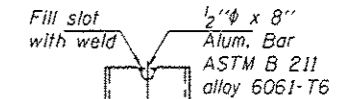
DETAIL A

Removal included with Concrete Removal.

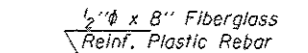


TOP PLAN

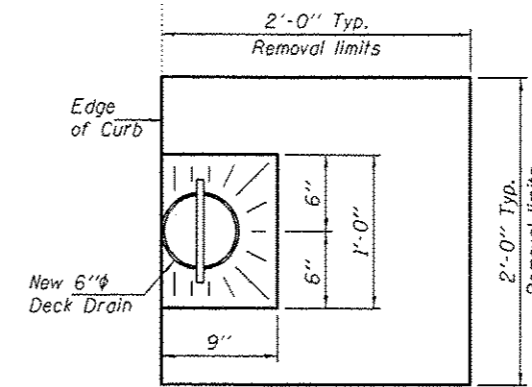
(Showing Aluminum Tube)



ALUMINUM TUBE



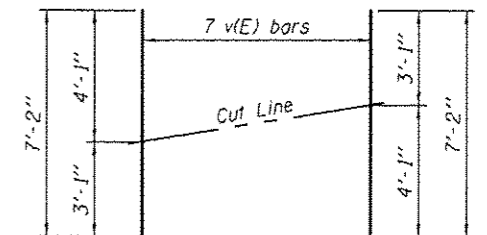
FIBERGLASS PIPE



CONCRETE TREATMENT AT DRAINS

Notes:

The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The exterior surfaces of the drains shall be cleaned according to the Society of Protective Coatings Spec. SSPC-SPI prior to painting. Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.



FIELD CUTTING DIAGRAM

Order v(E) bars full length. Cut as shown and use remainder of bars in opposite face.

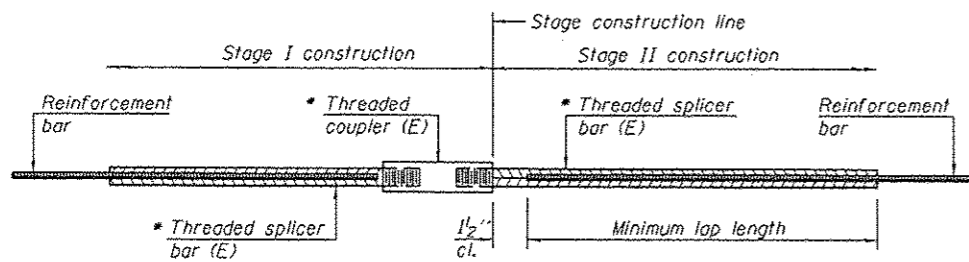
DESIGNED	CCC
CHECKED	SMR
DRAWN	baliva
CHECKED	CCC SMR

PASSED	<i>Carl Perry</i>	DATE	JUNE 26, 2015
	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED	
		REVISED	

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	
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REPAIR DETAILS SN 029-0059	
SHEET NO. 3 OF 4 SHEETS	

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
63	(102)B-10R	FULTON	10	10
CONTRACT NO. 68C69			ILLINOIS FED. AID PROJECT	

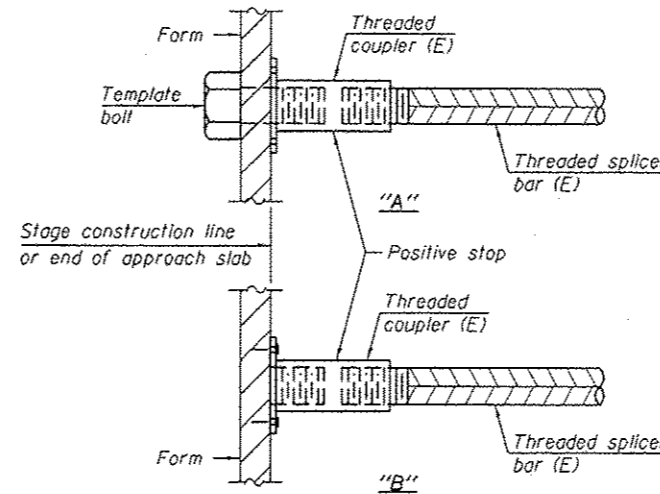


STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min. lap length + 1/2" + thread length

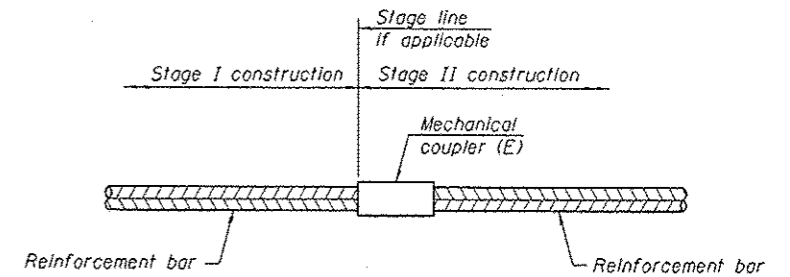
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length



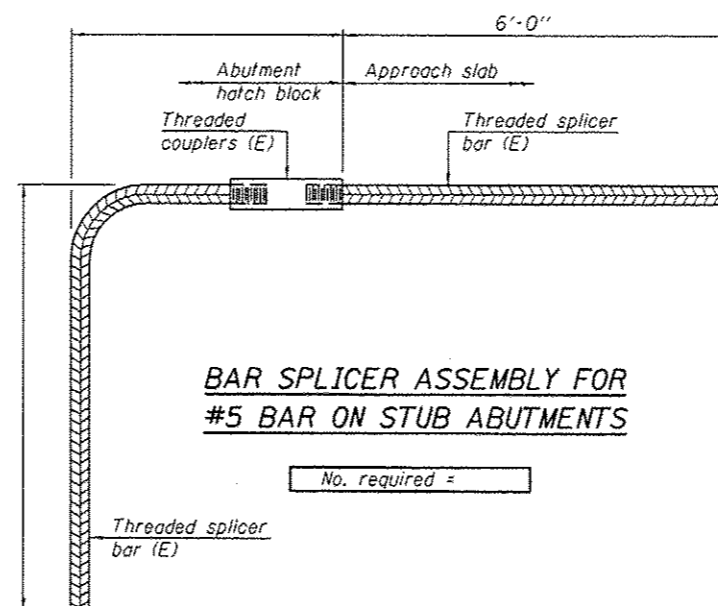
INSTALLATION AND SETTING METHODS

"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
Deck	#6	344



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

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 approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

6-8-15

DESIGNED CCC	DATE JUNE 26, 2015	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS SN 029-0059	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED SMR	REVISOR			63	010218-10R	FULTON	10	10A
DRAWN baliva	REVISOR	SHEET NO. 4 OF 4 SHEETS		CONTRACT NO. 68C69				
CHECKED CCC SMR	ACTING ENGINEER OF BRIDGES AND STRUCTURES	ILLINOIS FED. AID PROJECT						