

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

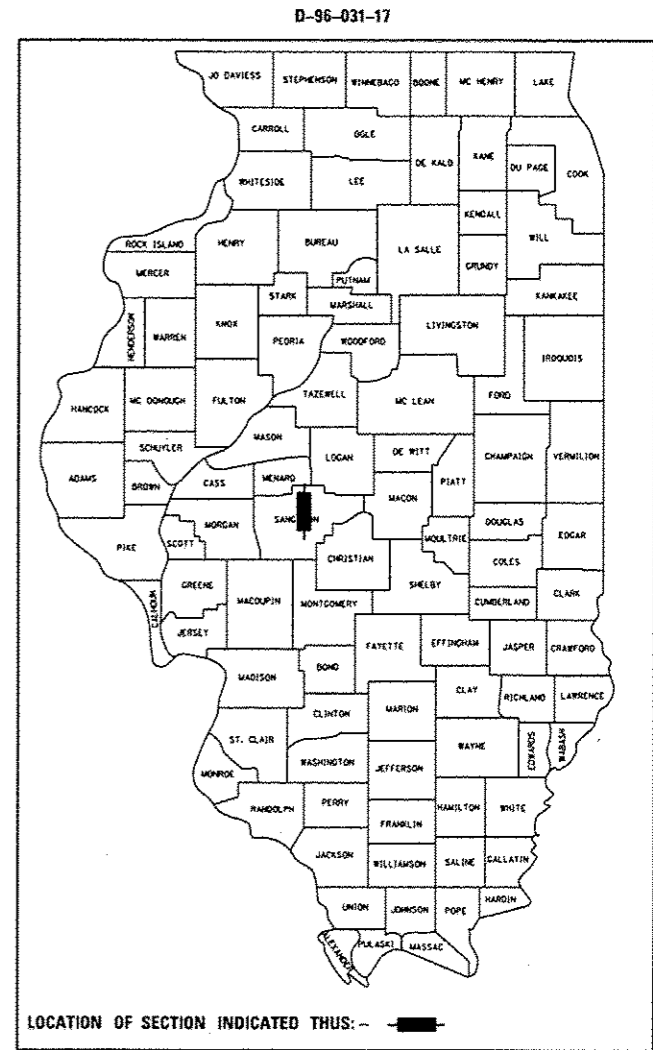
**PROPOSED  
HIGHWAY PLANS**

F.A.P. ROUTE 658 (J DAVID JONES PKWY)  
SECTION (102) BJR  
PROJECT NHPP-0658(028)  
BRIDGE JOINT REPAIRS  
SANGAMON COUNTY

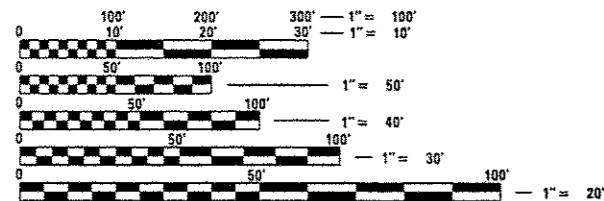
C-96-031-17

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
658	(102) BJR	SANGAMON	11	1
		ILLINOIS	CONTRACT NO. 72J67	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

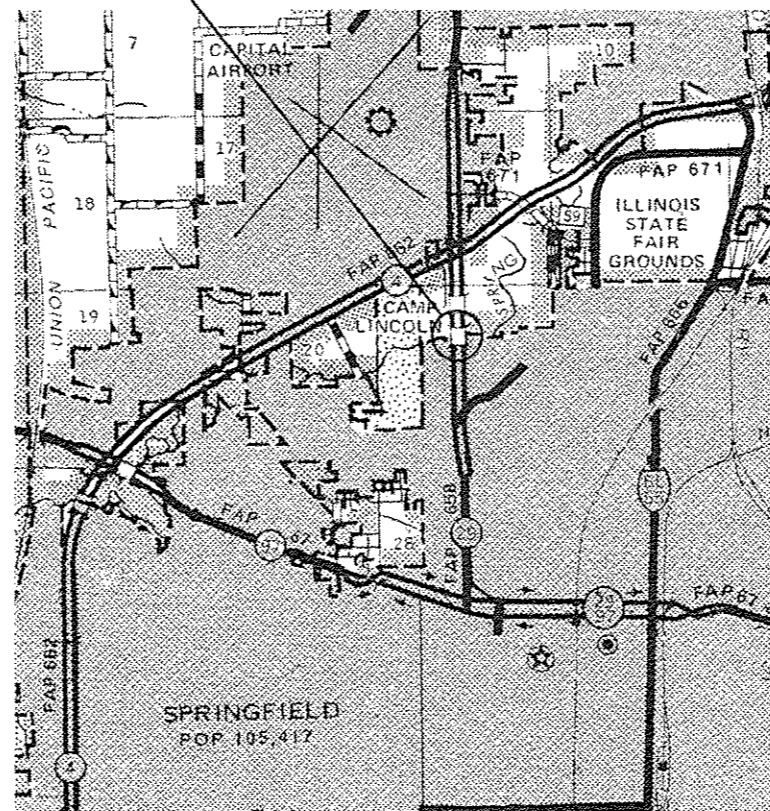


PROJECT LOCATION  
SN 084-0169  
IL 29 (J DAVID JONES PKWY)  
OVER SPRING CREEK  
0.5 MI SOUTH OF IL 4



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



GROSS LENGTH = 211 FT. = 0.04 MILE  
NET LENGTH = 211 FT. = 0.04 MILE

BRIDGE MAINTENANCE ENGINEER: BRANDON DUDLEY (217) 785-9290  
BRIDGE INSPECTION ENGINEER: DAVE COPENBARGER (217) 785-5306

CONTRACT NO. 72J67

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED 27 January 2017

[Signature] REGION FOUR ENGINEER

Mar 24 2017

Muhammad M. Adoo PE, EIT  
ENGINEER OF DESIGN AND ENVIRONMENT

Mar 24 2017

[Signature] 2  
DIRECTOR OF PROGRAM DEVELOPMENT

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OF THE STATE OF ILLINOIS**

INDEX OF SHEETS

- 1 COVER SHEET
- 2 INDEX, STANDARDS, SIGNATURES, GENERAL NOTES, & SCHEDULES
- 3 SUMMARY OF QUANTITIES
- 4-7 TRAFFIC CONTROL PLAN
- 8-11 SN 084-0169 BRIDGE PLANS

STANDARDS

- 000001-06
- 001001-02
- 001006
- 701101-05
- 701106-02
- 701421-08
- 701423-10
- 701901-06
- 704001-08
- 780001-05

PAVEMENT MARKING SCHEDULE						
STA	TO	STA	LOC.	LINE TYPE	PAVT MARK REM (SQ FT)	PAINT PAVT MARK - LINE 5" (FT)
577+22	-	584+12	35' LT	SOLID	288	690
577+37	-	584+27	35' RT	SOLID	288	690
TOTAL					576	1380

GENERAL NOTES:

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
DISTRICT 6

EXAMINED January 25<sup>th</sup> 20 17  
*John C. Wigan*  
ENGINEER OF OPERATIONS

EXAMINED January 19 20 17  
*Ron Chamberlain*  
ENGINEER OF PROJECT IMPLEMENTATION

EXAMINED January 24 20 17  
*Jeffrey P. Meyer*  
ENGINEER OF PROGRAM DEVELOPMENT

FILE NAME *	USER NAME * dudleybm	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>INDEX, STANDARDS, SIGNATURES, GENERAL NOTES, &amp; QUANTITY SCHEDULES</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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Default	DATE -	REVISED -	SCALE:			SHEET -	OF -	SHEETS	STA.	TO STA.

6-01017-0000  
80% FEDERAL  
20% STATE  
BRIDGE  
0014  
URBAN

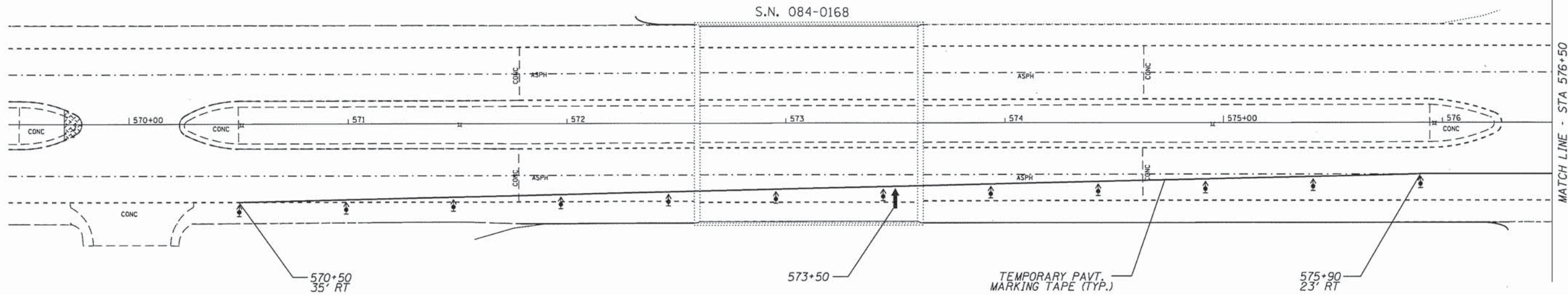
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	BRIDGE 0014 URBAN
50102400	CONCRETE REMOVAL	CU YD	3.3	3.3
50300255	CONCRETE SUPERSTRUCTURE	CU YD	3.2	3.2
50300300	PROTECTIVE COAT	SQ YD	20	20
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	510	510
50800515	BAR SPLICERS	EACH	8	8
52000110	PREFORMED JOINT STRIP SEAL	FOOT	97	97
67100100	MOBILIZATION	L SUM	1	1
70100310	TRAFFIC CONTROL AND PROTECTION, STANDARD 701421	L SUM	1	1
70100325	TRAFFIC CONTROL AND PROTECTION, STANDARD 701423	EACH	2	2
70400100	TEMPORARY CONCRETE BARRIER	FOOT	780	780
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	710	710
70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2
70600332	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2
* 78001120	PAINT PAVEMENT MARKING - LINE 5"	FOOT	1380	1380

\* SPECIALTY ITEM

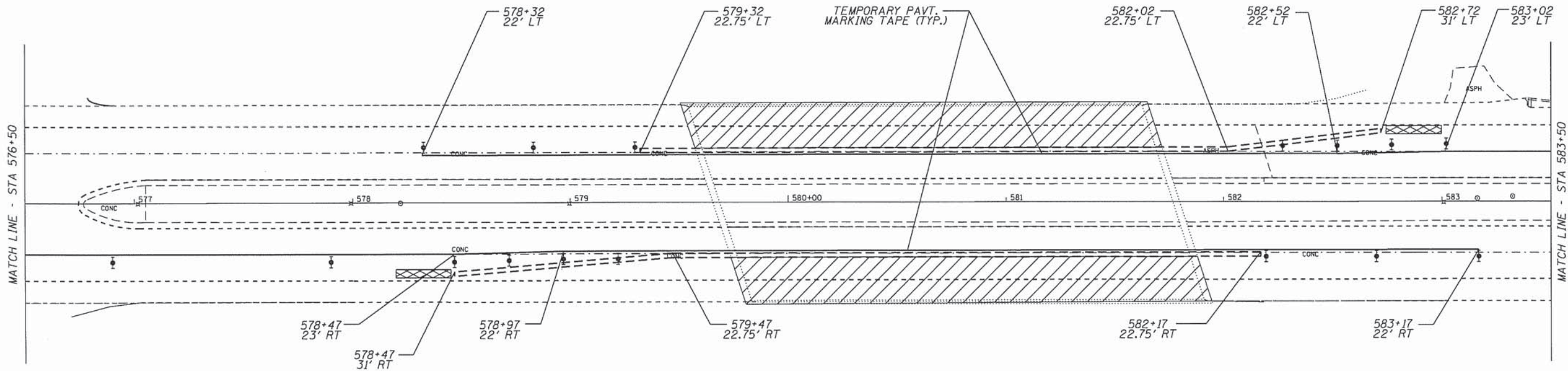
6-01017-0000  
80% FEDERAL  
20% STATE  
BRIDGE  
0014  
URBAN ✓

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	BRIDGE 0014 URBAN ✓
X0327979	PAVEMENT MARKING REMOVAL - GRINDING	SQ FT	576	576
X7200201	WIDTH RESTRICTION SIGNING	L SUM	1	1
Z0001800	APPROACH SLAB REPAIR (PARTIAL DEPTH)	SQ YD	3.3	3.3
Z0021904	SILICONE JOINT SEALER, 1"	FOOT	61	61
Z0021906	SILICONE JOINT SEALER, 1.5"	FOOT	97	97

4



MATCH LINE - STA 576+50



MATCH LINE - STA 576+50

MATCH LINE - STA 583+50

SEE SHEET 5 FOR SYMBOL LEGEND AND TRAFFIC CONTROL NOTES.

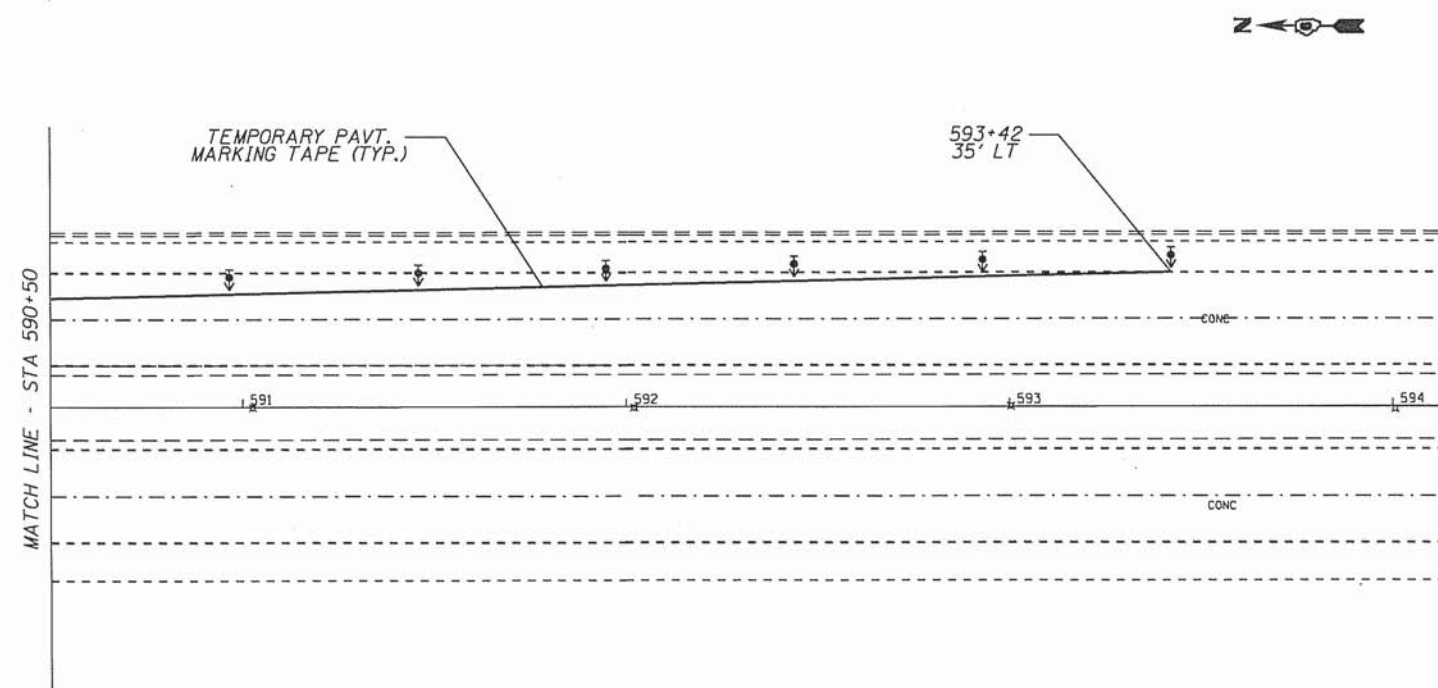
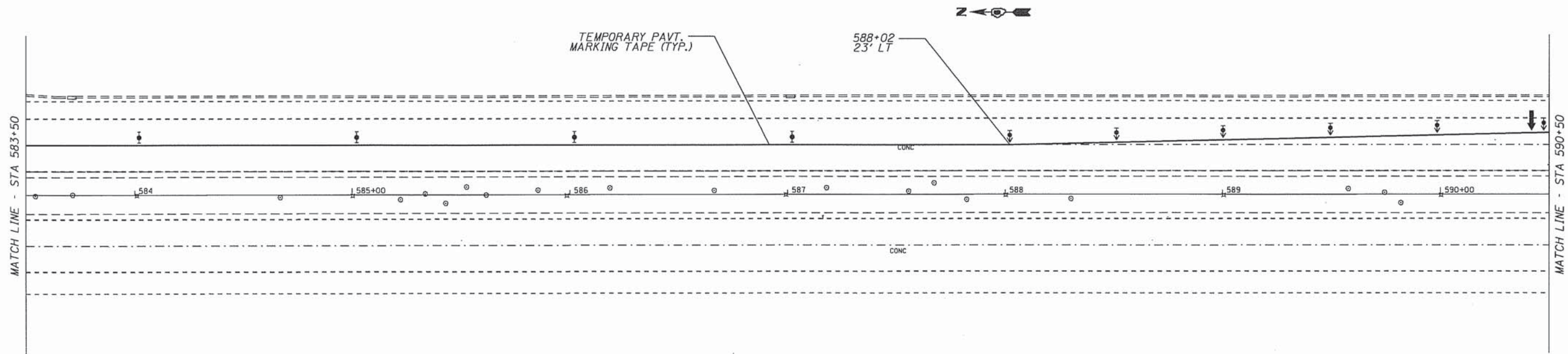
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



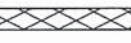




STAGE I TRAFFIC CONTROL

SCALE: SHEET \_ OF \_ SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
658	(102) BUR	SANGAMON	11	4
CONTRACT NO. 72J67				
ILLINOIS FED. AID PROJECT				



**SYMBOLS**

-  WORK AREA
-  TEMPORARY CONCRETE BARRIER
-  IMPACT ATTENUATOR
-  TYPE III BARRICADE WITH FLASHING LIGHTS
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  ARROW BOARD

**TRAFFIC CONTROL NOTES:**

1. TRAFFIC CONTROL DEVICES NOT SHOWN IN THIS DETAIL SHALL BE PER STANDARD 701423. DEVICES AND TEMPORARY PAVEMENT MARKINGS SHOWN IN THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION, STANDARD 701423. IMPACT ATTENUATORS AND TEMPORARY CONCRETE BARRIER SHALL BE PAID SEPARATELY.
2. TEMPORARY CONCRETE BARRIER OFFSETS GIVEN IN THIS DETAIL REFER TO THE EDGE OF THE BARRIER NEAREST TO LIVE TRAFFIC.

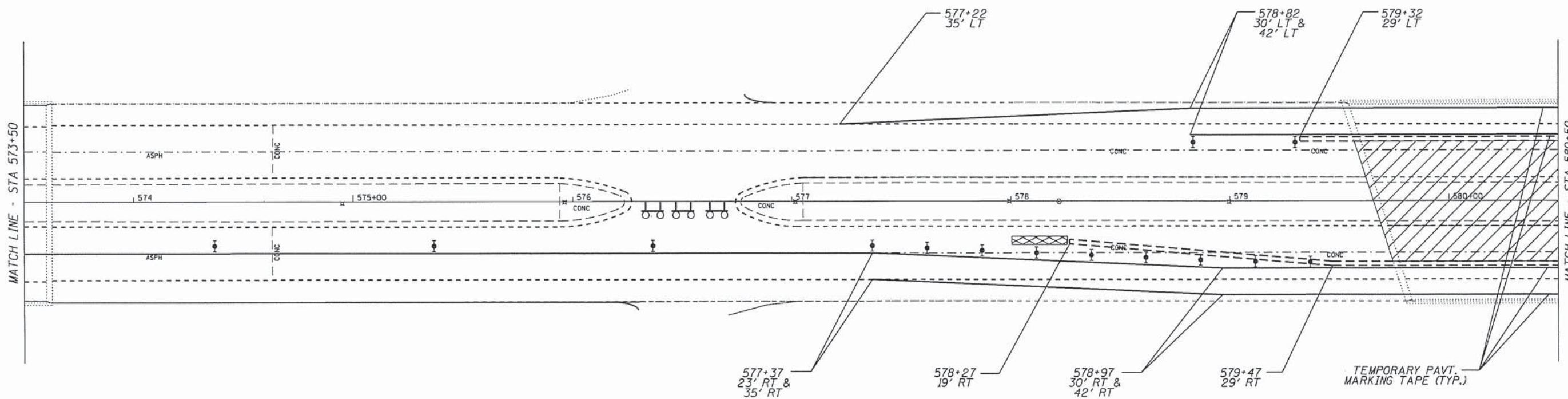
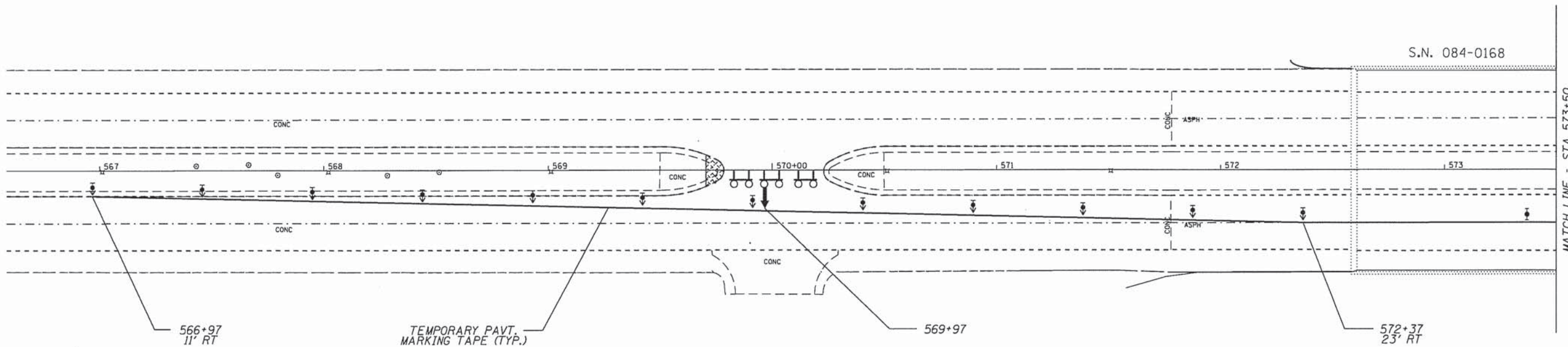
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**STAGE I TRAFFIC CONTROL**

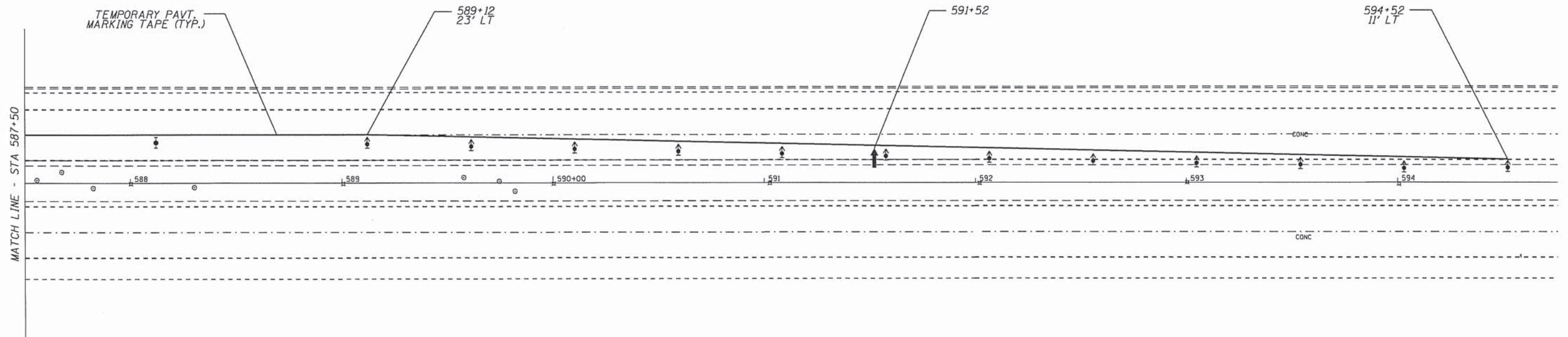
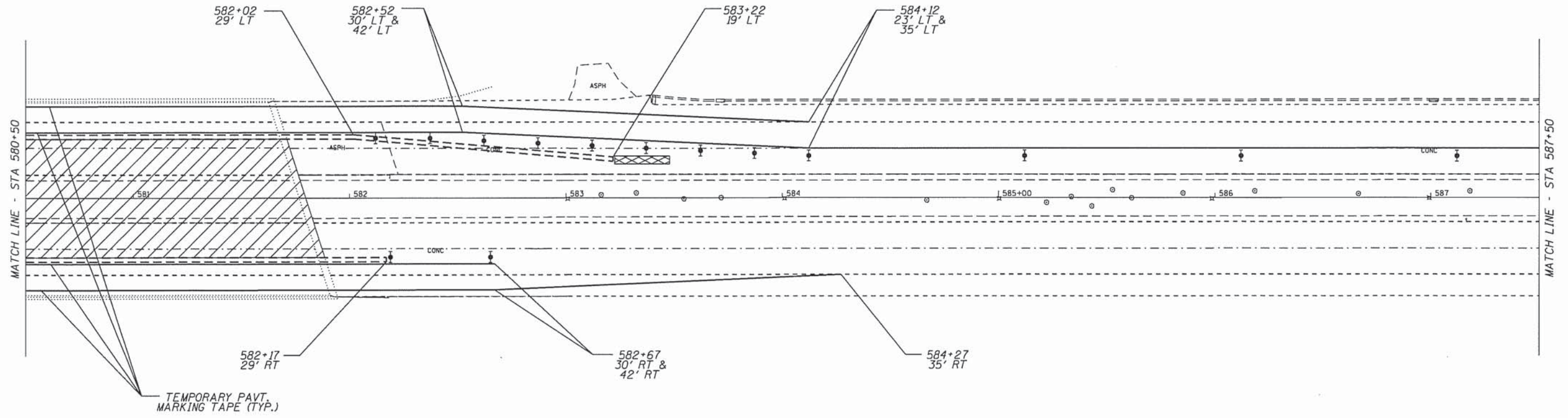
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
658	(102) BJR	SANGAMON	11	5
CONTRACT NO. 72J67				
ILLINOIS FED. AID PROJECT				



SEE SHEET 5 FOR SYMBOL LEGEND AND TRAFFIC CONTROL NOTES.

FILE NAME *	USER NAME * dudleybm	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>STAGE II TRAFFIC CONTROL</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
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		PLOT DATE = 1/26/2017	DATE -		REVISED -	ILLINOIS FED. AID PROJECT									



SEE SHEET 5 FOR SYMBOL LEGEND AND TRAFFIC CONTROL NOTES.

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	PLOT DATE = 1/26/2017	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

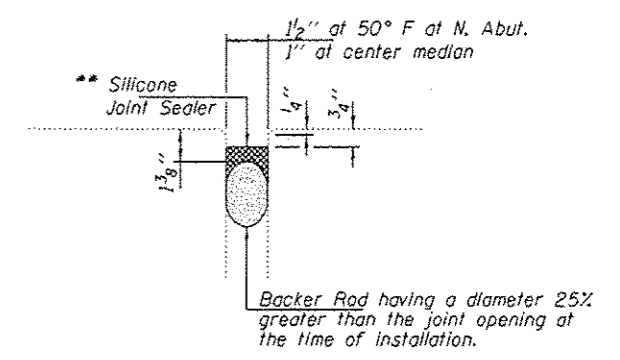
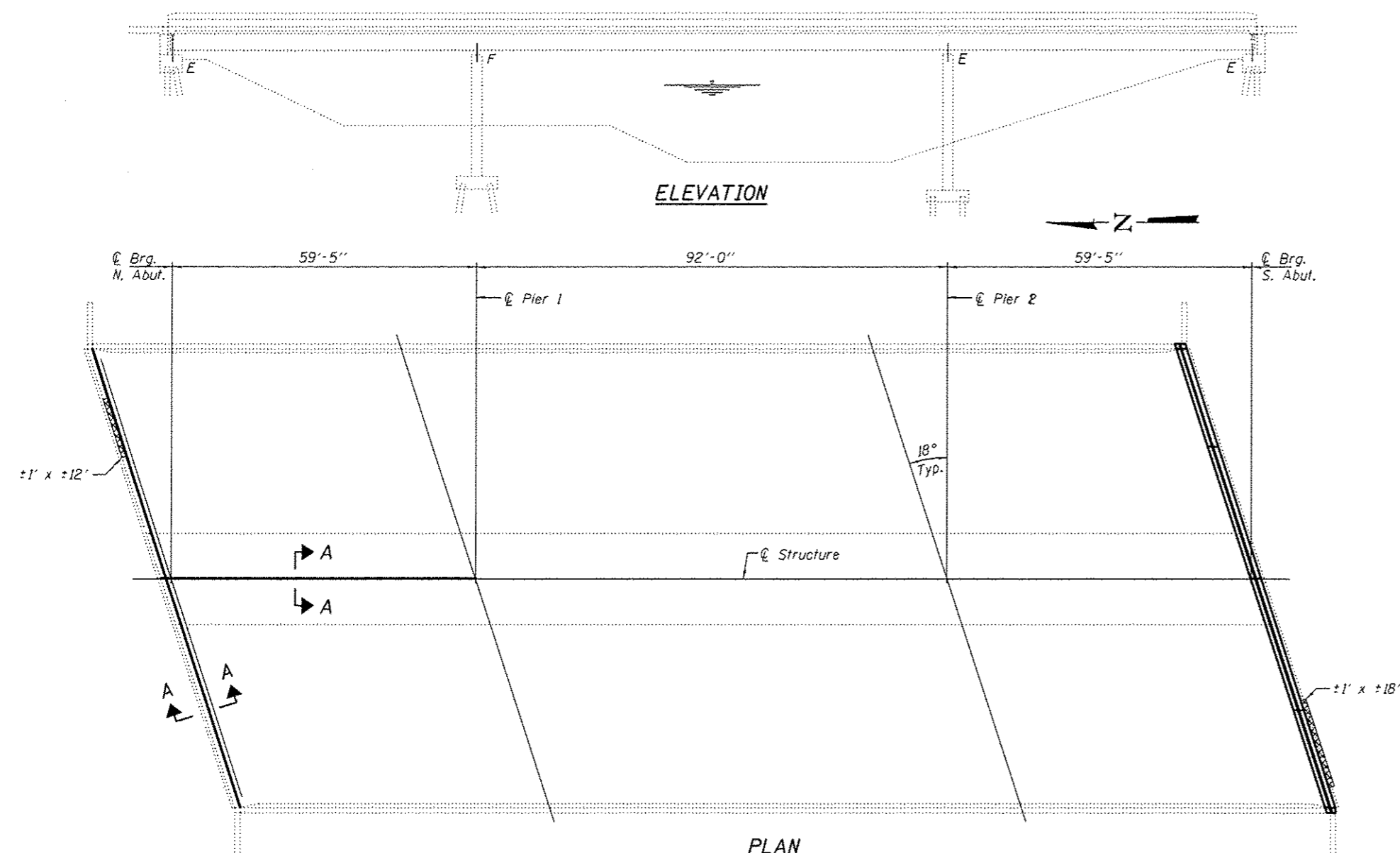
**STAGE II TRAFFIC CONTROL**

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
658	(102) BJR	SANGAMON	11	7
CONTRACT NO. 72J67				
ILLINOIS FED. AID PROJECT				

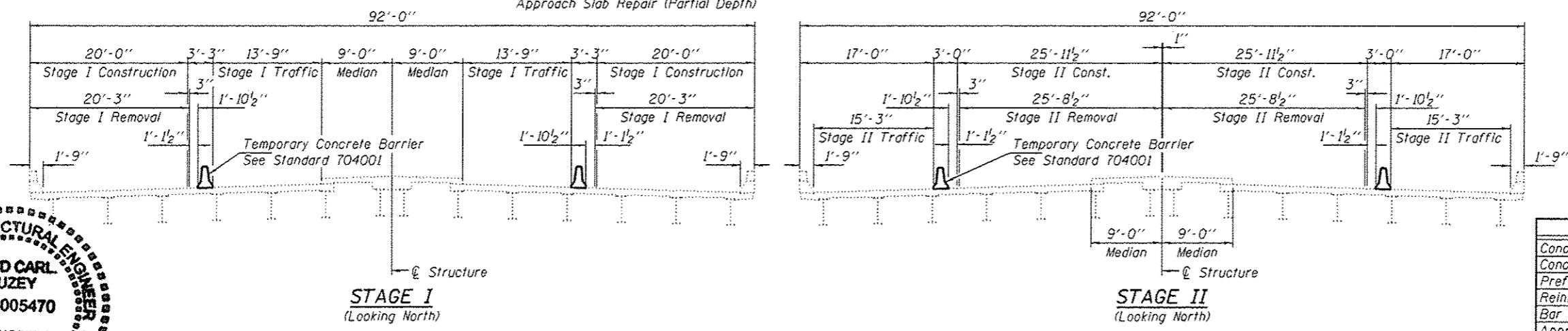
**GENERAL NOTES**

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.  
 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.  
 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.  
 Areas of approach slab repairs are estimated. The engineer shall show actual locations on As-Built plans.



**SECTION A-A**  
 \*\* Remove existing Silicone Joint Sealer at N. abutment & Span 1 median & replace with new Silicone Joint Sealer.

**PLAN**  
 Crosshatched areas Indicate Approach Slab Repair (Partial Depth)



**TOTAL BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	3.3
Concrete Superstructure	Cu. Yd.	3.2
Preformed Joint Strip Seal	Foot	97
Reinforcement Bars, Epoxy Coated	Pound	510
Bar Splicers	Each	8
Approach Slab Repair (Partial Depth)	Sq. Yd.	3.3
Protective Coat	Sq. Yd.	20
Silicone Joint Sealer, 1 1/2"	Foot	97
Silicone Joint Sealer, 1"	Foot	61

\* On new concrete only



DESIGNED: *Stephan M. Ryan*  
 CHECKED: *David Carl Puzey*  
 DRAWN: *Galva*  
 CHECKED: *SMR*

DATE: MARCH 7, 2017

REVISOR: \_\_\_\_\_  
 REVISION: \_\_\_\_\_

PASSED: *David Carl Puzey*  
 ENGINEER OF BRIDGES AND STRUCTURES

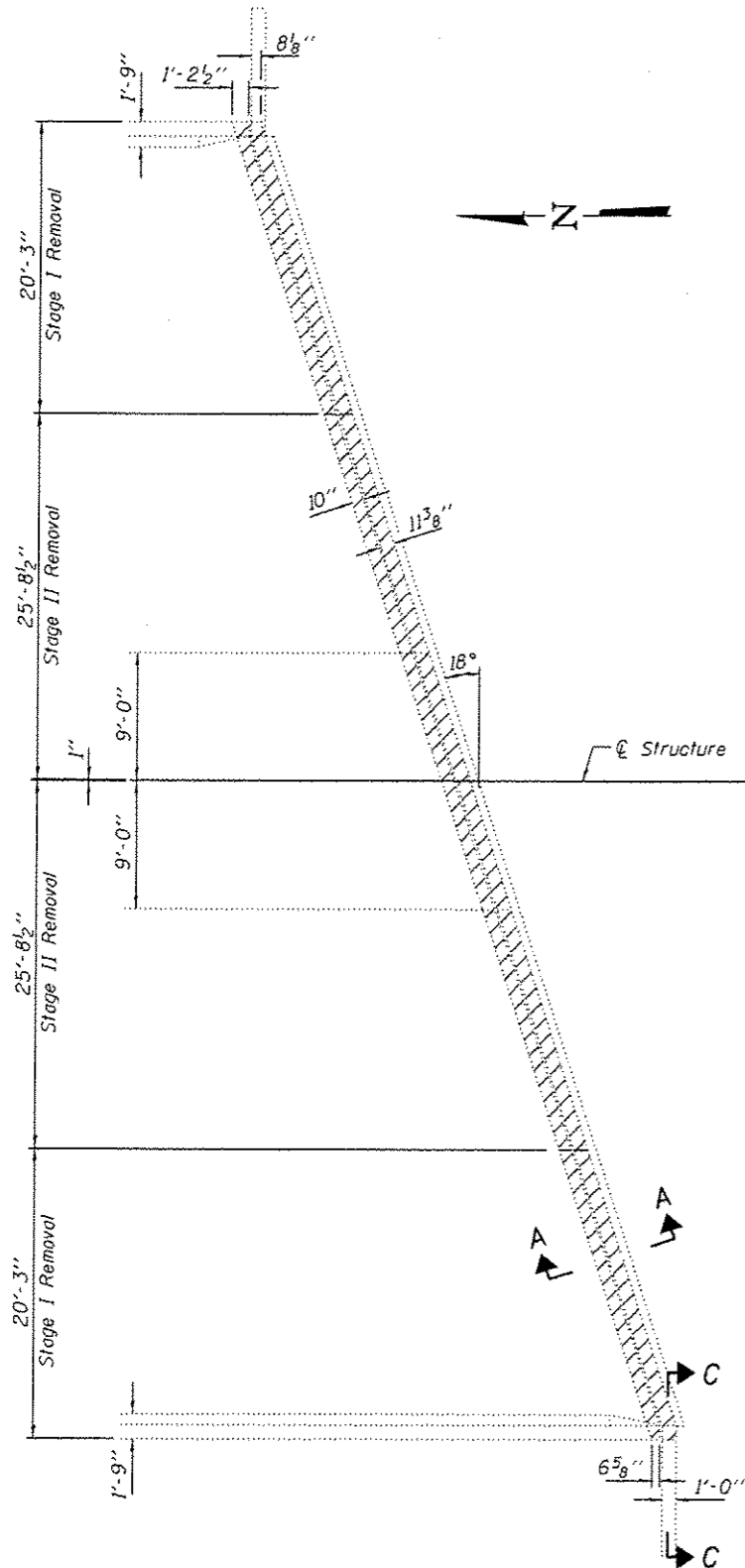
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PLAN AND ELEVATION  
 IL 29 (J. DAVID JONES PARKWAY) OVER SPRING CREEK  
 SN 084-0169

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
658	110218JR	SANGAMON	11	8

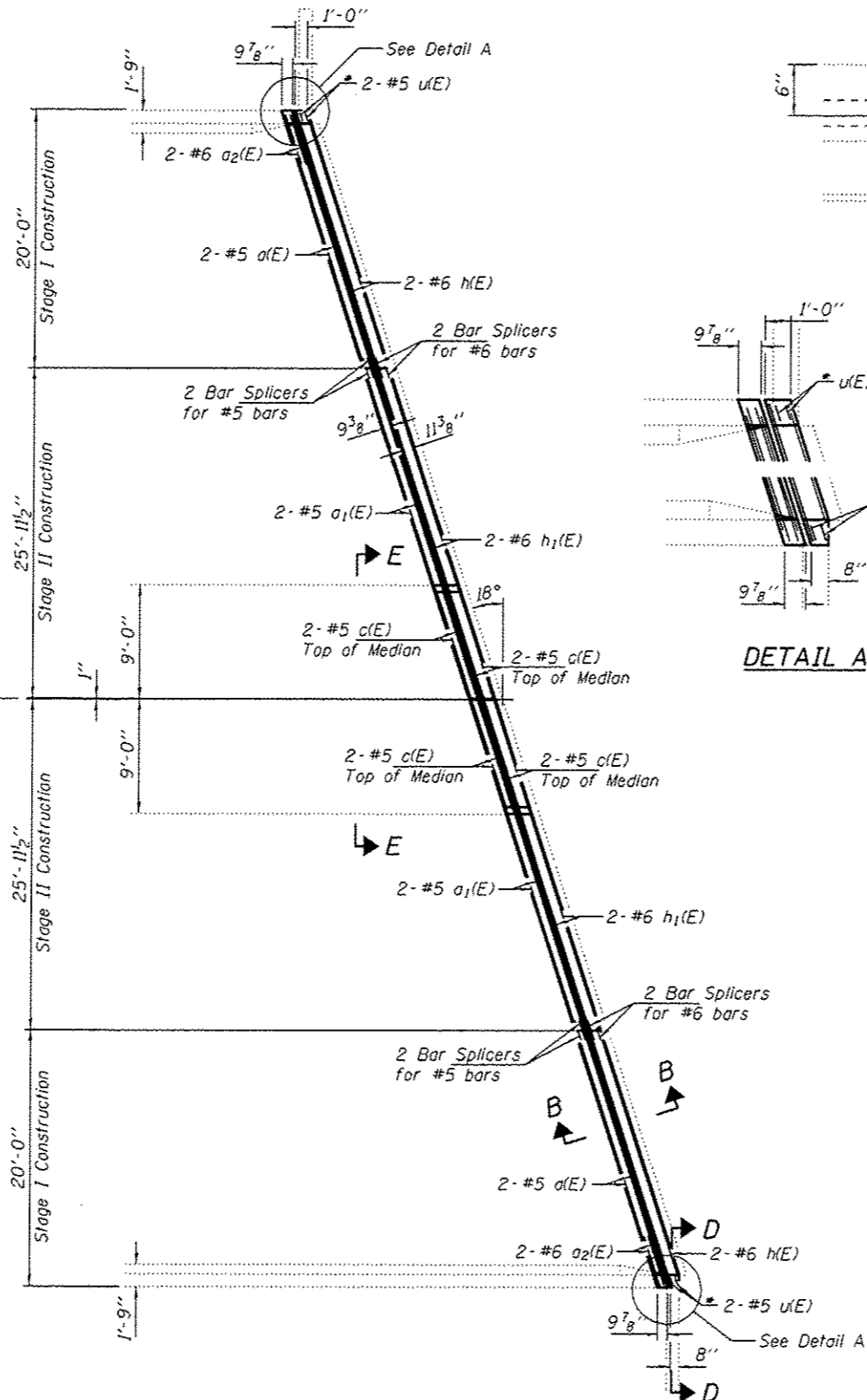
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 ILLINOIS FED. AID PROJECT





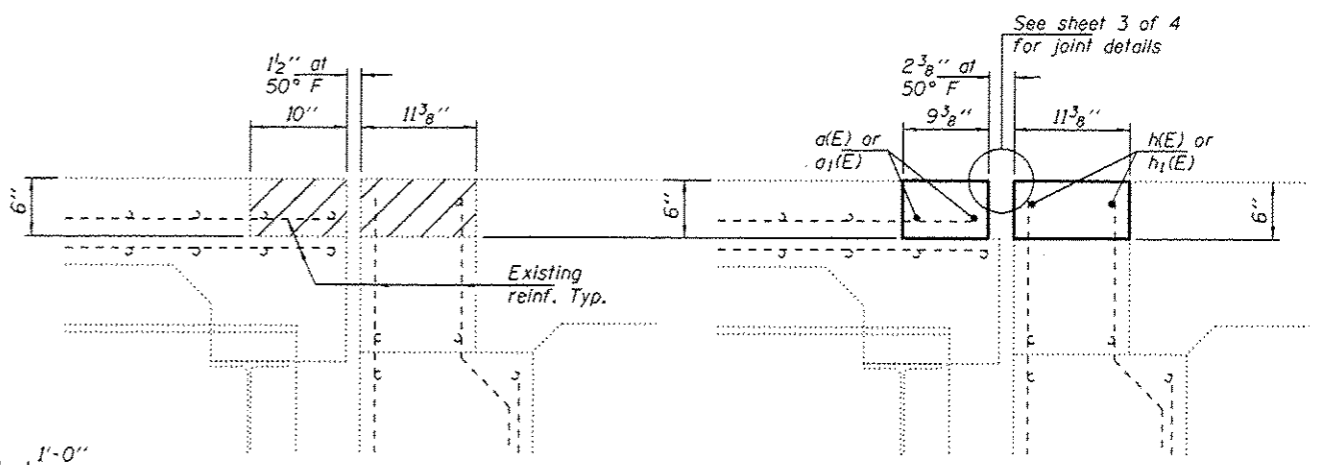
**REMOVAL PLAN**

Hatched areas indicate Concrete Removal



**REPLACEMENT PLAN**

\* Epoxy grout u(E) bars in 9" min. holes according to Article 584 of the Standard Specifications.

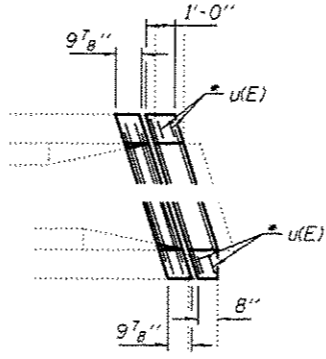


**SECTION A-A**

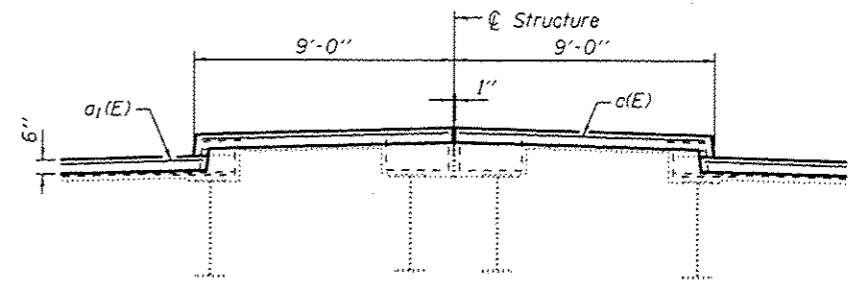
Dimensions are at Rt. Ls to end of deck

**SECTION B-B**

See sheet 3 of 4 for joint details

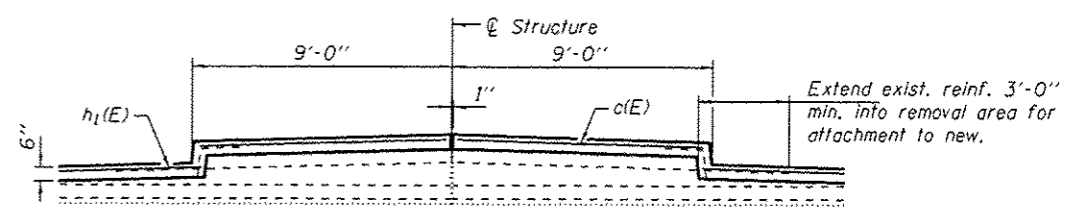


**DETAIL A**



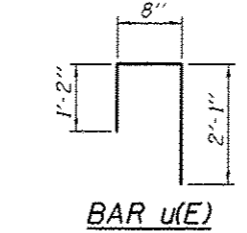
**SECTION E-E**

(Bridge side)

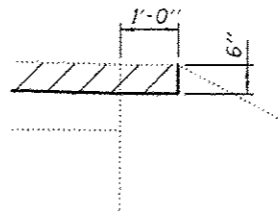


**SECTION E-E**

(Approach side)  
Dimensions are at Rt. Ls to  $\bar{C}$

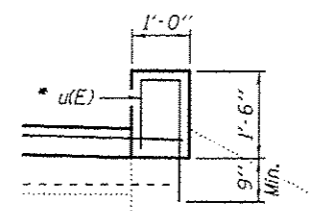


**BAR u(E)**



**SECTION C-C**

Dimensions are along wingwall



**SECTION D-D**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	4	#5	20'-3"	—
a1(E)	4	#5	18'-0"	—
a2(E)	4	#6	4'-0"	—
c(E)	8	#5	9'-0"	—
h(E)	4	#6	20'-8"	—
h1(E)	4	#6	18'-0"	—
u(E)	4	#5	3'-11"	□
Bar Splicers	Each			8
Concrete Removal	Cu. Yd.			3.3
Concrete Superstructure	Cu. Yd.			3.2
Reinforcement Bars, Epoxy Coated	Lbs.			510

DESIGNED SMR  
CHECKED NRM  
DRAWN baliva  
CHECKED SMR

EXAMINED  
PASSED  
ENGINEER OF BRIDGES AND STRUCTURES

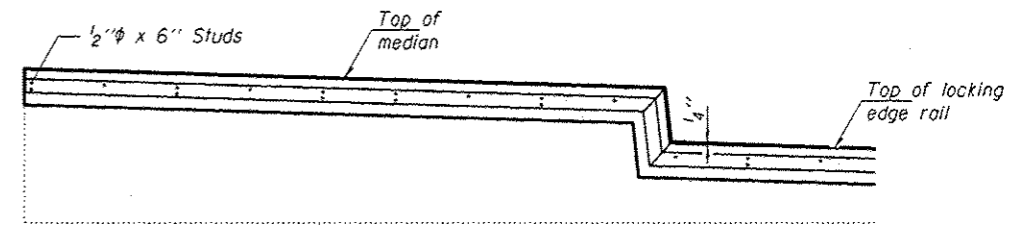
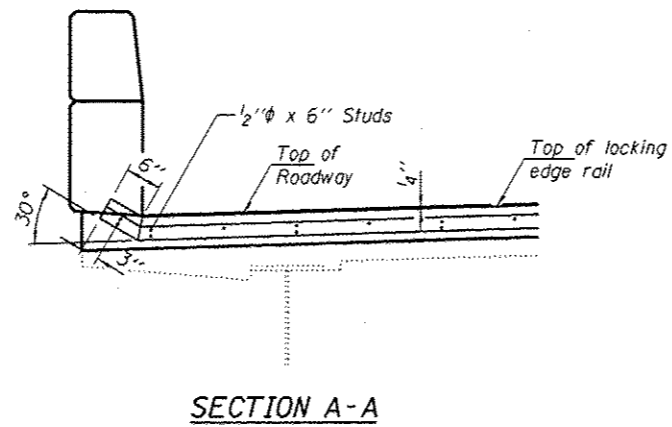
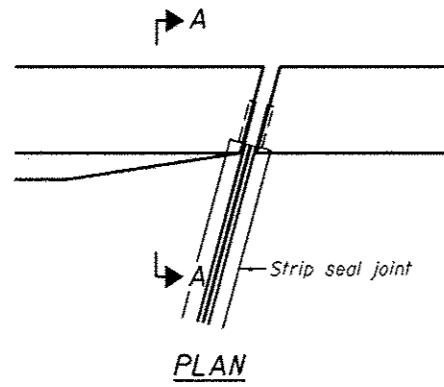
DATE MARCH 7, 2017  
REVISED  
REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT JOINT REPLACEMENT DETAILS  
SN 084-0169

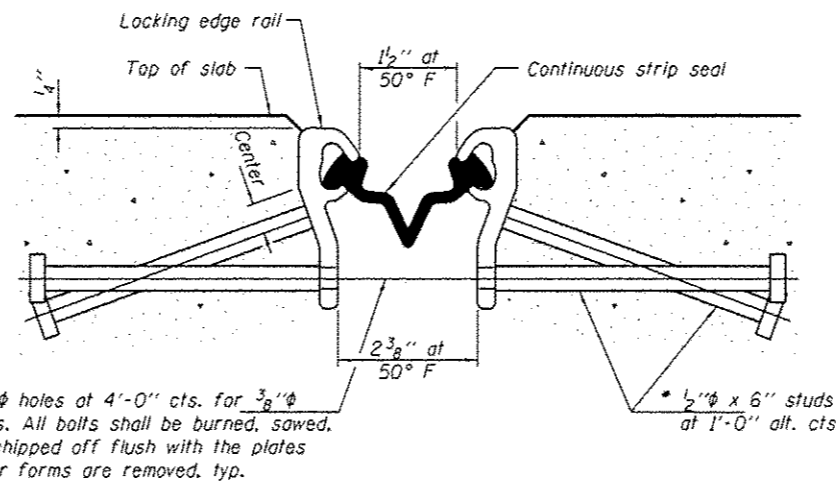
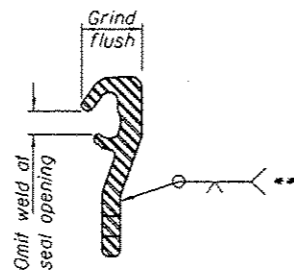
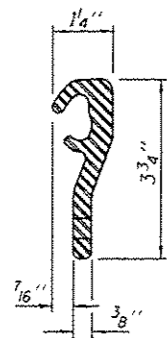
SHEET NO. 2 OF 4 SHEETS

F.A.P. SECTION COUNTY TOTAL SHEETS SHEET NO.  
658 110219JR SANGAMON 11 9  
CONTRACT NO. 72J67  
ILLINOIS FED. AID PROJECT



**TYPICAL END TREATMENT AT MEDIAN**

Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



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.

\* 1/2" φ x 6" studs at 1'-0" alt. cts.

**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.

The height and thickness of the Locking Edge Rails shown are minimum dimensions. 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.

The inside of the Locking Edge Rail groove shall be free of weld residue.

Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

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.

Parapet plates and anchorage studs for skews > 30° included in the cost of Preformed Joint Strip Seal.

The manufacturer's recommended installation methods shall be followed.

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

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

**BILL OF MATERIAL**

Item	Unit	Total
Preformed Joint Strip Seal	Foot	97

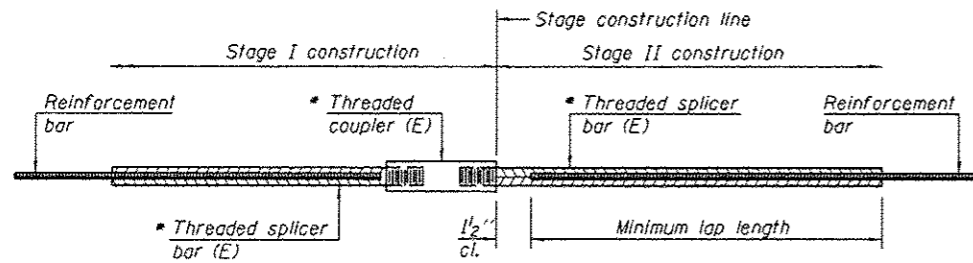
DESIGNED SMR	EXAMINED	DATE MARCH 7, 2017
CHECKED NRM	PASSED	REVISOR
DRAWN baliva	ENGINEER OF BRIDGES AND STRUCTURES	REVISOR
CHECKED SMR		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL  
SN 084-0169

SHEET NO. 3 OF 4 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
658	110218JR	SANGAMON	11	10
ILLINOIS FED. AID PROJECT			CONTRACT NO. 72J67	

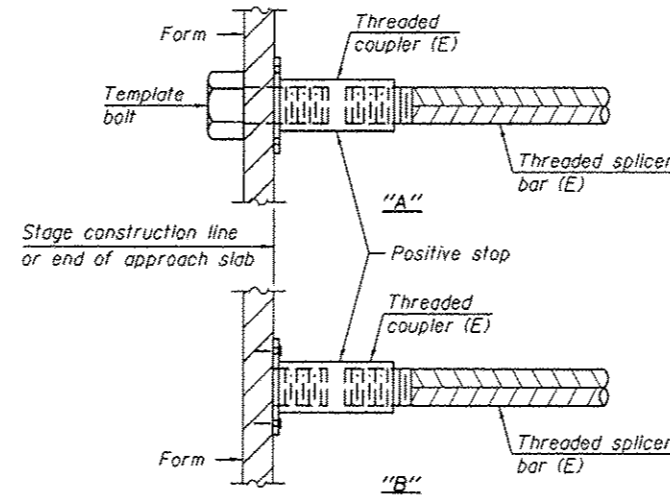


**STANDARD BAR SPLICER ASSEMBLY**

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

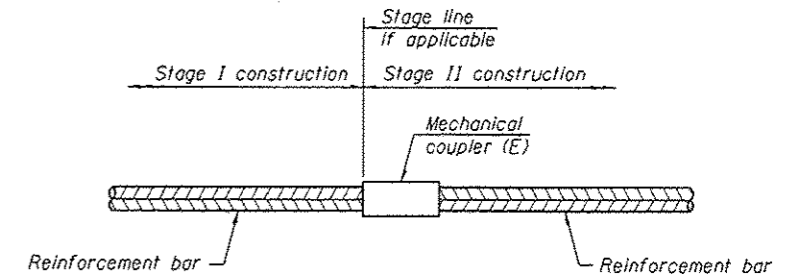
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
South End of Deck	#5	4	3'-1"
South Abutment Hatch Block	#6	4	4'-0"



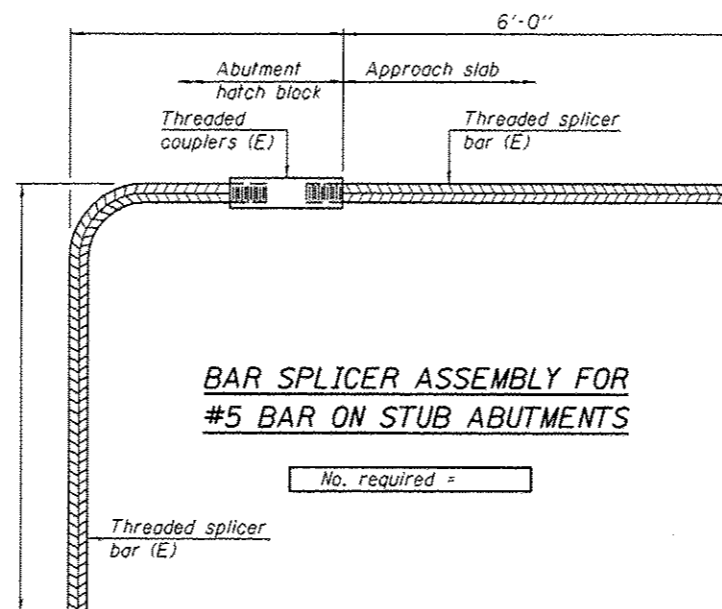
**INSTALLATION AND SETTING METHODS**

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

BSD-1 11-22-2016

DESIGNED SMR  
 CHECKED NRM  
 DRAWN balva  
 CHECKED SMR

EXAMINED  
 PASSED  
 ENGINEER OF BRIDGES AND STRUCTURES

DATE MARCH 7, 2017  
 REVISED  
 REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS  
 SN 084-0169

SHEET NO. 4 OF 4 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
65B	11021B/R	SANGAMON	11	11

CONTRACT NO. 72J67  
 ILLINOIS FED. AID PROJECT