

1-18-13 LETTING ITEM 052

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

FAI 72 (I 72/US 51)
D7 BRIDGE REPAIRS 2013-3

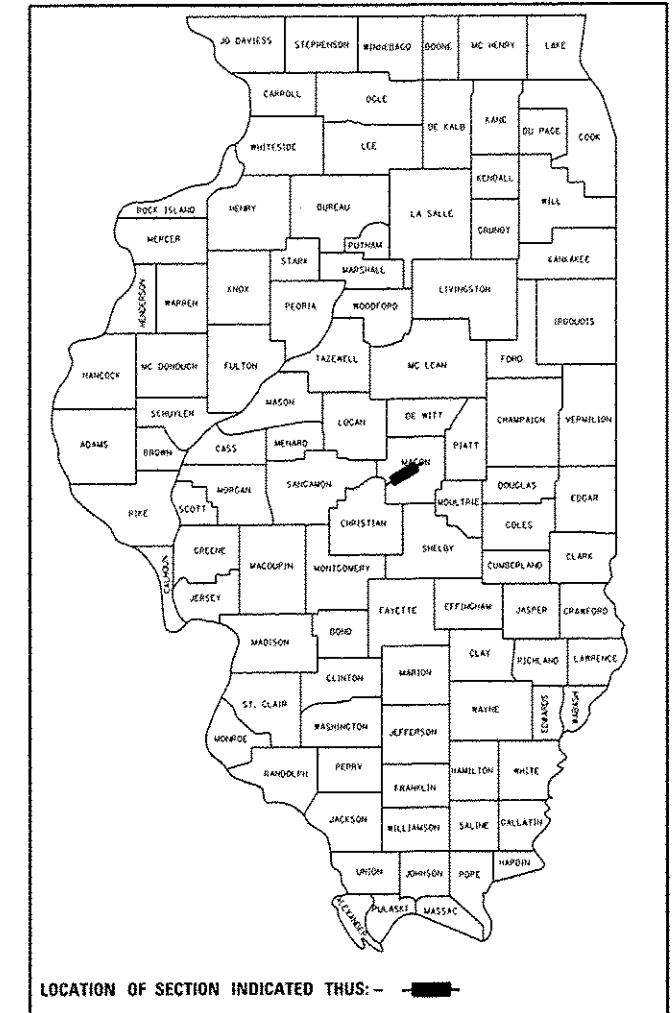
BRIDGE JOINT REPAIR
MACON COUNTY

C-97-118-12

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**		MACON	28	1
		ILLINOIS	CONTRACT NO.	74591

* D7 BRIDGE REPAIRS 2013-3
** FAI 72, FAU 7354

D-97-054-12



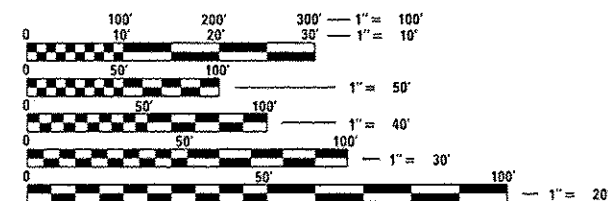
FOR INDEX OF SHEETS, SEE SHEET NO. 2

ADT = 10,900 (2011)

SN 058-0073
STA 75+04
(BEARDSDALE RD)
STA 705+13
(I-72)



SN 058-0077
&
SN 058-0078
STA 129+63



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 DAUGHERTY
PROJECT MANAGER: JOYCE HEMMEN
PHONE NUMBER: (217)342-8313
CONTRACT NO. 74591

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Oct 29 20 12
Roger L. Driskell
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Dec 7 20 12
John D. Baranzelli, PE
ENGINEER OF DESIGN AND ENVIRONMENT

Dec 7 20 12
William R. Frey
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS

GENERAL NOTES

THE PROPOSED PROJECT IS LOCATED ON FAI 72 OVER STEVENS CREEK (SN 058-0077 AND SN 058-0078) AND OVER FAI 72 ON BEARDSDALE ROAD (SN 058-0073) IN MACON COUNTY. THE WORK CONSISTS OF BRIDGE JOINT REPAIR UTILIZING STAGE CONSTRUCTION.

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NORMAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIAL. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION OR FOR A CHANGE IN THE SCOPE OF THE WORK; HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE FOR THE WORK.

THE CONTRACTOR SHALL PROVIDE INTERNET ACCESS TO THE BITUMINOUS PLANT QUALITY CONTROL LAB SO THAT BITUMINOUS PLANT REPORTS CAN BE E-MAILED TO THE DISTRICT HEADQUARTERS. THIS WORK SHALL BE INCLUDED IN THE COST OF ALL BITUMINOUS ITEMS.

THE TOTAL QUANTITY OF PAINT PAVEMENT MARKING LINE 4" AT STRUCTURE 078-0073 IS 2847 FOOT.

THE TOTAL QUANTITY OF REPLACEMENT REFLECTOR CONSISTS OF 18 ONE-WAY CRYSTAL MARKERS.

THE CONTRACTOR SHALL USE EITHER RC-70 OR AN EMULSIFIED POLYMER PRIME SS-1HP OR SS-1H FOR THE PAY ITEM BITUMINOUS MATERIALS (PRIME COAT).

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.3) OF THE STANDARD SPECIFICATIONS. THE J.U.L.I.E. NUMBER IS 800-892-0123. A MINIMUM OF 96 HOURS ADVANCE NOTICE IS REQUESTED. THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

EARTH EXCAVATION WIDENING MATERIAL SHALL BE USED TO SHAPE THE GROUND LINE WHERE BASE COURSE WIDENING IS REQUIRED. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT INCLUDED WITH THE PAY ITEM BASE COURSE WIDENING, 10".

THE REFLECTIVE LENS OF ALL RAISED REFLECTIVE PAVEMENT MARKERS IN CONFLICT WITH THE STAGE TRAFFIC CONTROL SHALL BE REMOVED PRIOR TO STAGE 1 CONSTRUCTION. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR RAISED REFLECTIVE PAVEMENT MARKERS, REFLECTOR REMOVAL.

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE TO THIS PROJECT:

MIXTURE USE:	BASE COURSE WIDENING, 10"
APPLICATION:	Hot-Mix Asphalt Binder Course, IL-19.0, N70
PG GRADE:	PG 64-22
RAP %:	
DESIGN AIR VOIDS:	4.0% @ Ndesign = 70
MIXTURE COMPOSITION:	IL-19.0
FRICTION AGGREGATE:	N/A

INDEX OF SHEETS

SHEET NO.	ITEM
1	COVER SHEET
2	INDEX OF SHEETS, LIST OF APPLICABLE HIGHWAY STANDARDS, GENERAL NOTES
3	SUMMARY OF QUANTITIES
4	SCHEDULE OF QUANTITIES
5	STAGE CONSTRUCTION TYPICAL SECTION - SN 058-0073
6	TRAFFIC CONTROL STAGE 1 - SN 058-0073
7	TRAFFIC CONTROL STAGE 2 - SN 058-0073
8-10	TRAFFIC CONTROL STAGE 1 - SN 058-0077, SN 058-0078
11-13	TRAFFIC CONTROL STAGE 2 - SN 058-0077, SN 058-0078
14-28	BRIDGE JOINT REPAIR PLANS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 28:

STD. NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
701001-02	OFF ROAD OPERATIONS, 2L 2W, MORE THAN 15' AWAY
701006-04	OFF ROAD OPERATIONS, 2L 2W, 15' -24" FROM PAVEMENT
701011-03	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS >= 45 MPH
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701321-13	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS >= 45 MPH
701400-06	APPROACH TO LANE CLOSURE FREEWAY/EXPRESSWAY
701402-09	LANE CLOSURE, FREEWAY/EXPRESSWAY, WITH BARRIER
401411-08	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP FOR SPEEDS >= 45 MPH
701901-03	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER
780001-03	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

FILE NAME >	USER NAME = ceasleyk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES & INDEX OF SHEETS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
\\pc-work\pwwork\ceasleyk\00307638\07	4591-shr-gennote.dgn	DRAWN -	REVISED -			* 07 BRIDGE REPAIRS 2013-3	MACON	28	2			
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	PLOT DATE = 10/29/2012	DATE -	REVISED -			ILLINOIS FED. AID PROJECT						
						SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.

SUMMARY OF QUANTITIES			URBAN TOTAL QUANTITIES	CONSTRUCTION TYPE CODE	
CODE NO	ITEM	UNIT		0014 100% STATE	
20200500	EARTH EXCAVATION (WIDENING)	CU YD	107	107	
35600716	HOT-MIX ASPHALT BASE COURSE WIDENING, 10"	SO YD	386	386	
50102400	CONCRETE REMOVAL	CU YD	36.6	36.6	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	36.6	36.6	
50300300	PROTECTIVE COAT	SO YD	106	106	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	4840	4840	
50800515	BAR SPLICERS	EACH	56	56	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	266	266	
60260100	INLETS TO BE ADJUSTED	EACH	6	6	
67100100	MOBILIZATION	L SUM	1	1	
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD	EACH	1	1	
	701411				
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD	L SUM	1	1	
	701201				
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD	L SUM	1	1	
	701326				

SUMMARY OF QUANTITIES			URBAN TOTAL QUANTITIES	CONSTRUCTION TYPE CODE	
CODE NO	ITEM	UNIT		0014 100% STATE	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	4	4	
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1275	1275	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1275	1275	
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	4	4	
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	4	4	
*78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	2847	2847	
*78100300	REPLACEMENT REFLECTOR	EACH	18	18	
X7010202	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)	EACH	1	1	
X7010208	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402 (SPECIAL)	EACH	2	2	
X7830050	RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REMOVAL	EACH	18	18	

*SPECIALTY ITEM

BLACK TEMPORARY PAVEMENT MARKING TAPE SCHEDULE

(STAGE 1)

SN 058-0077					
LOCATION			DESCRIPTION	LENGTH	QUANTITY
STA	TO	STA		(FOOT)	(FOOT)
855+13	TO	861+36.68	EDGE LINE	623.7	623.7
126+68	TO	132+20	EDGE LINE	552.0	552.0
135+70	TO	137+99	EDGE LINE	229.0	229.0
137+21	TO	144+13	CENTERLINE	692.0	173.0
				TOTAL	1578
RAMP					
135+70	TO	136+21.00	EDGE LINE	51.0	51
				TOTAL	51
SN 058-0078					
850+18	TO	856+74	CENTERLINE	656	164.0
852+68	TO	861+36.68	EDGE LINE	869.2	869.2
126+68	TO	135+41	EDGE LINE	873.0	873.0
				TOTAL	1742.2
				GRAND TOTAL	2022

PAINT PAVEMENT MARKING - LINE 4" SCHEDULE

SN 058-0073

LOCATION			LENGTH	YELLOW	WHITE
STA	TO	STA	(FOOT)	FOOT	FOOT
70+30	TO	73+26	296.0	370	
73+26	TO	76+83	356.5	713	
76+83	TO	79+93	310.5	388	
71+73	TO	78+61	688.0		688
71+49	TO	78+37	687.5		688
				TOTAL	1471
					1376

BLACK TEMPORARY PAVEMENT MARKING TAPE SCHEDULE

(STAGE 2)

SN 058-0077					
LOCATION			DESCRIPTION	LENGTH	QUANTITY
STA	TO	STA		(FOOT)	(FOOT)
860+13	TO	861+36.68	EDGE LINE	123.7	123.7
126+68	TO	132+21	EDGE LINE	553.0	553.0
137+21	TO	146+21	CENTERLINE	900.0	225.0
				TOTAL	902
SN 058-0078					
127+05		133+82.0	EDGE LINE	677.0	677.0
846+74	TO	856+74	CENTERLINE	1000.0	250.0
				TOTAL	927.0
				GRAND TOTAL	1829

RAISED REFLECTIVE PAVEMENT MARKER SCHEDULE

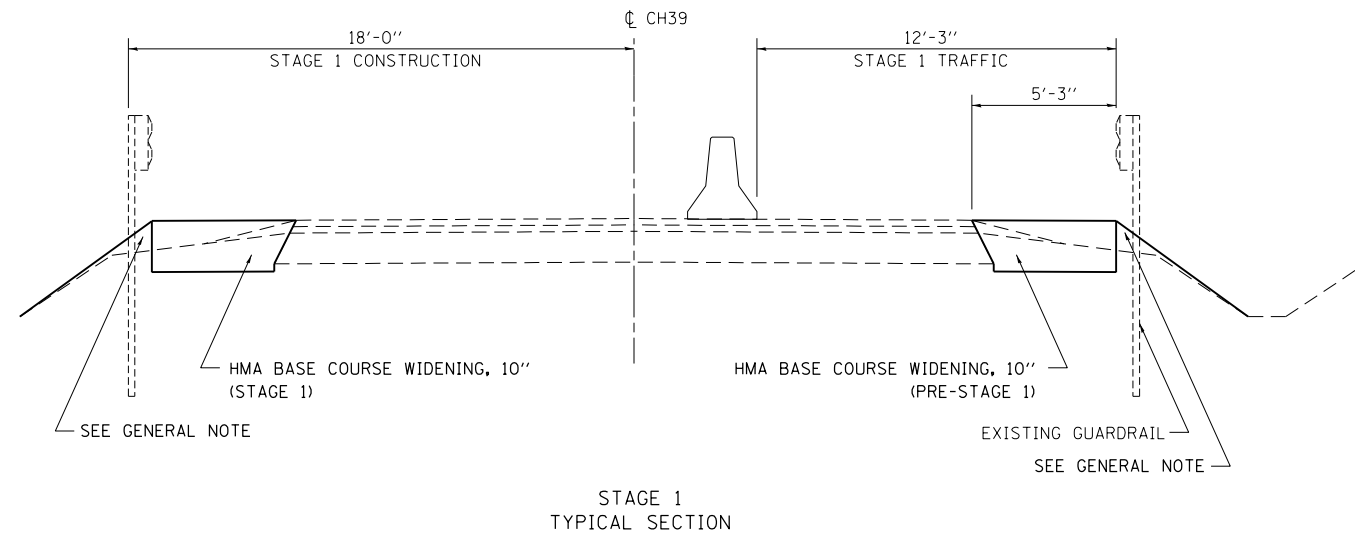
LOCATION				LENGTH	REPLACEMENT REFLECTOR	RAISED REFLECTIVE PAVEMENT MARKER REFLECTOR REMOVAL
STA	TO	STA	(FOOT)	(EACH)	(EACH)	
SN 058-0077						
137+21	TO	144+13	692.0	9	9	
SN 058-0078						
580+18	TO	586+74	656.0	9	9	
				TOTAL	18	18

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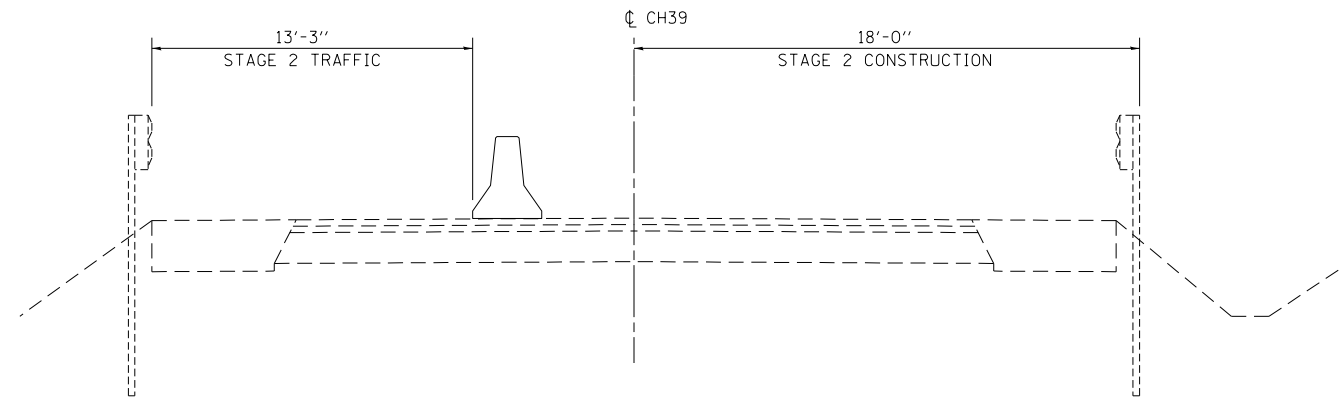
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULES			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	D7 BRIDGE REPAIRS 2013-3	MACON	28	4
*FAI 72, FAU 7354			CONTRACT NO. 74591	
ILLINOIS FED. AID PROJECT				



STAGE 1
TYPICAL SECTION



STAGE 2
TYPICAL SECTION

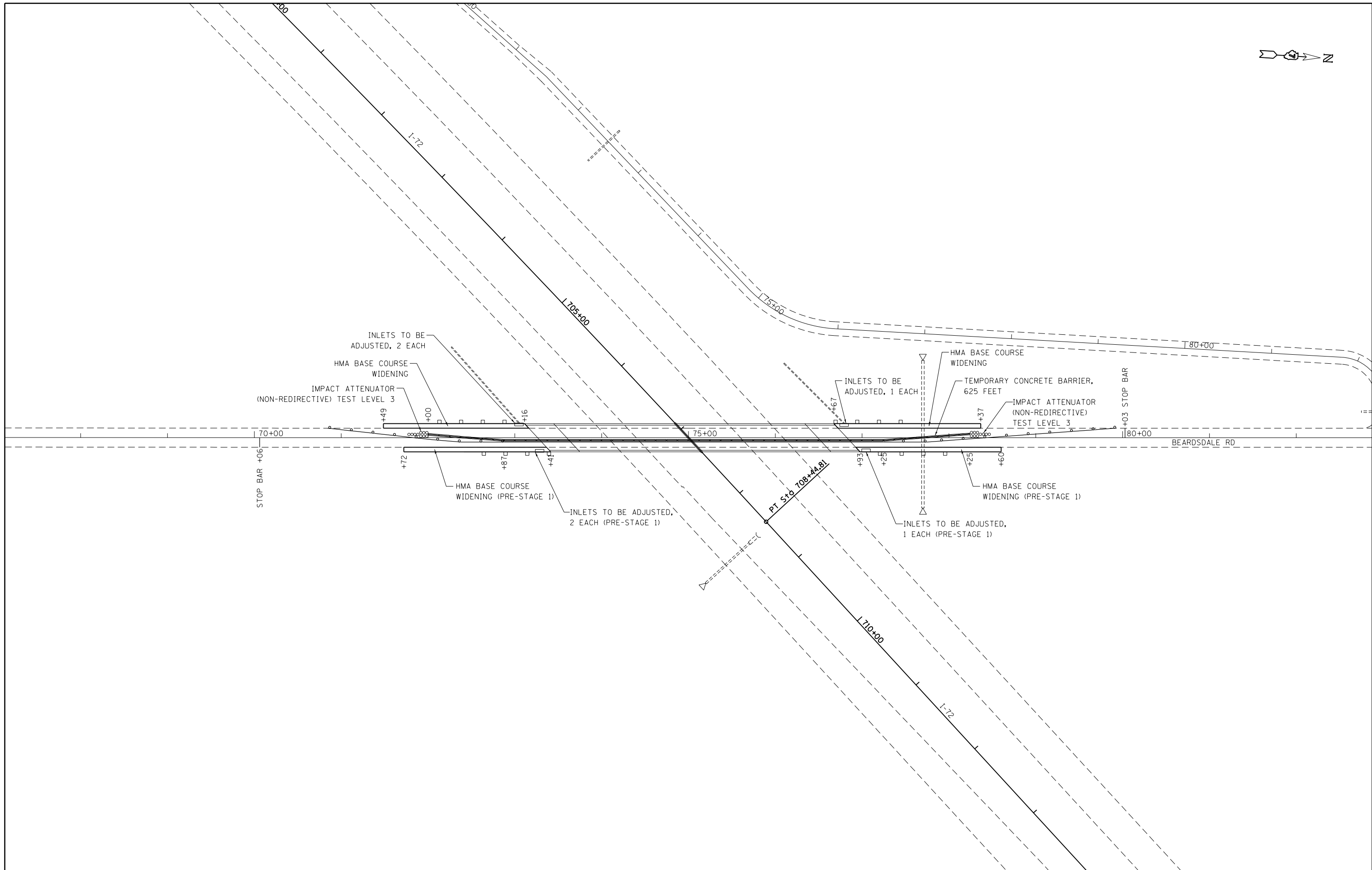
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION - SN 058-0073
TYPICAL SECTIONS

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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•	FAI 72, FAU 7354	CONTRACT NO.	74591	
ILLINOIS FED. AID PROJECT				

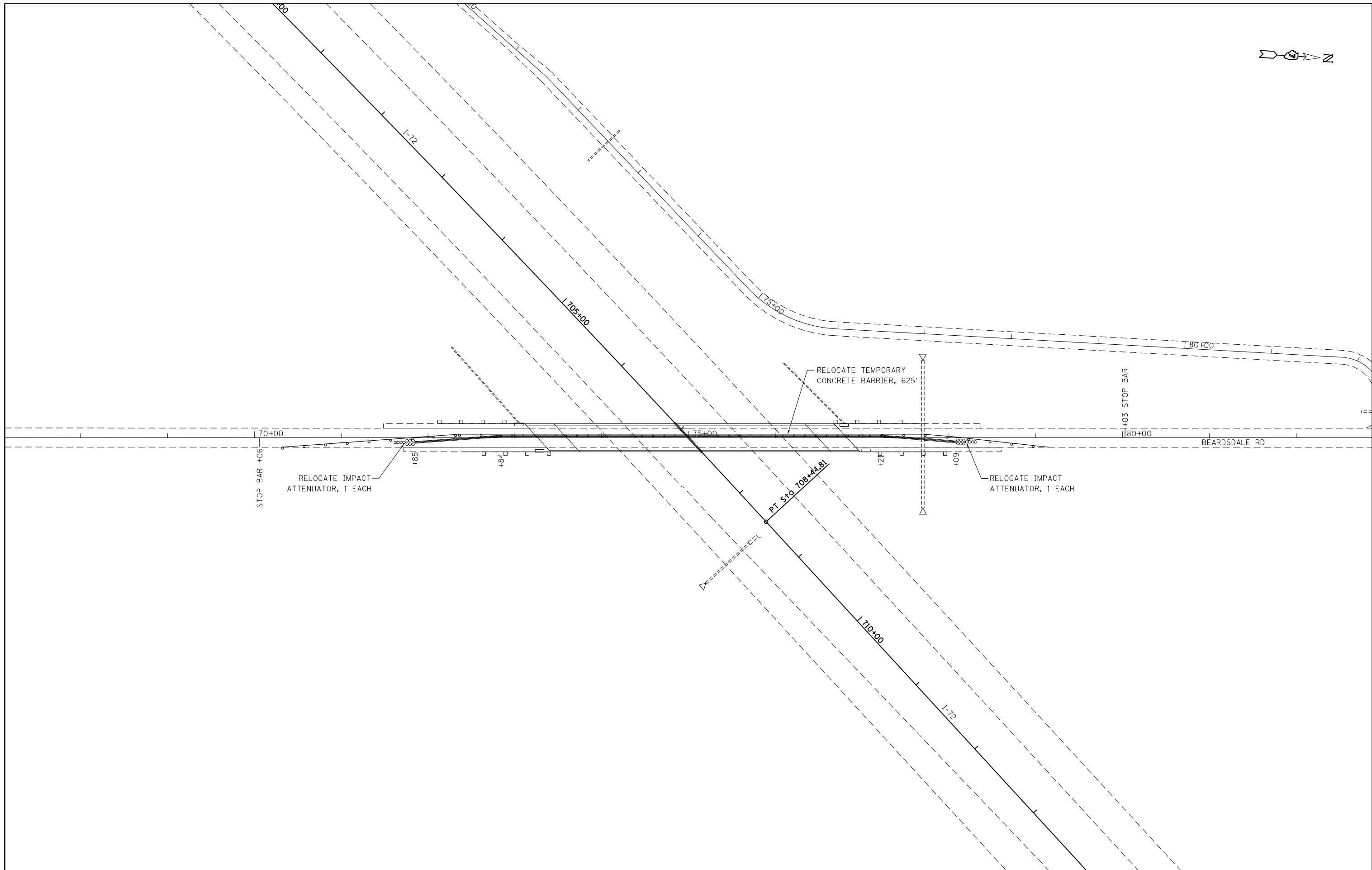


**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STAGE 1 PLAN SHEET
STRUCTURE 058-0073**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
• FAI 72, FAU 7354	D7 BRIDGE REPAIRS 2013-3	MACON	28	6
ILLINOIS FED. AID PROJECT			CONTRACT NO. 74591	



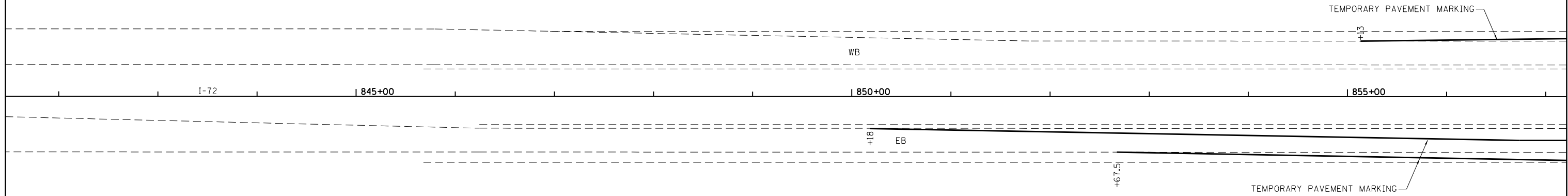
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STAGE 2 PLAN SHEET
STRUCTURE 058-0073**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
• D7 BRIDGE REPAIRS 2013-3		MACON	28	7
• FAI 72, FAU 7354				CONTRACT NO. 74591
ILLINOIS FED. AID PROJECT				



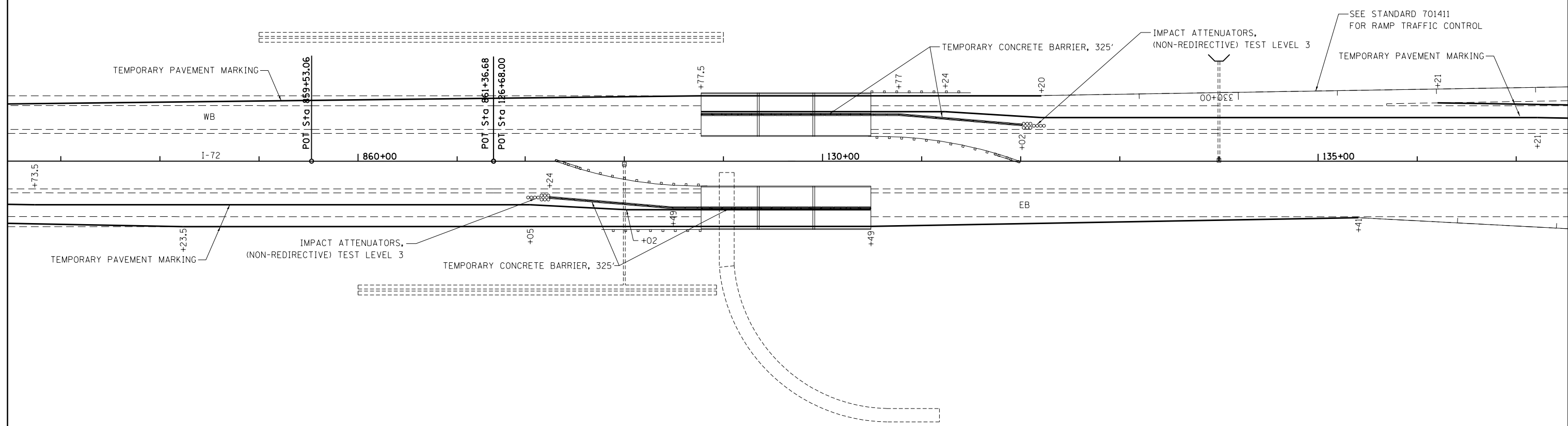
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	PLOT DATE = 10/29/2012	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STAGE 1 PLAN SHEET
STRUCTURES 058-0077 & 058-0078**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	D7 BRIDGE REPAIRS 2013-3	MACON	28	8
•	FAI 72, FAU 7354	CONTRACT NO. 74591		
ILLINOIS FED. AID PROJECT				



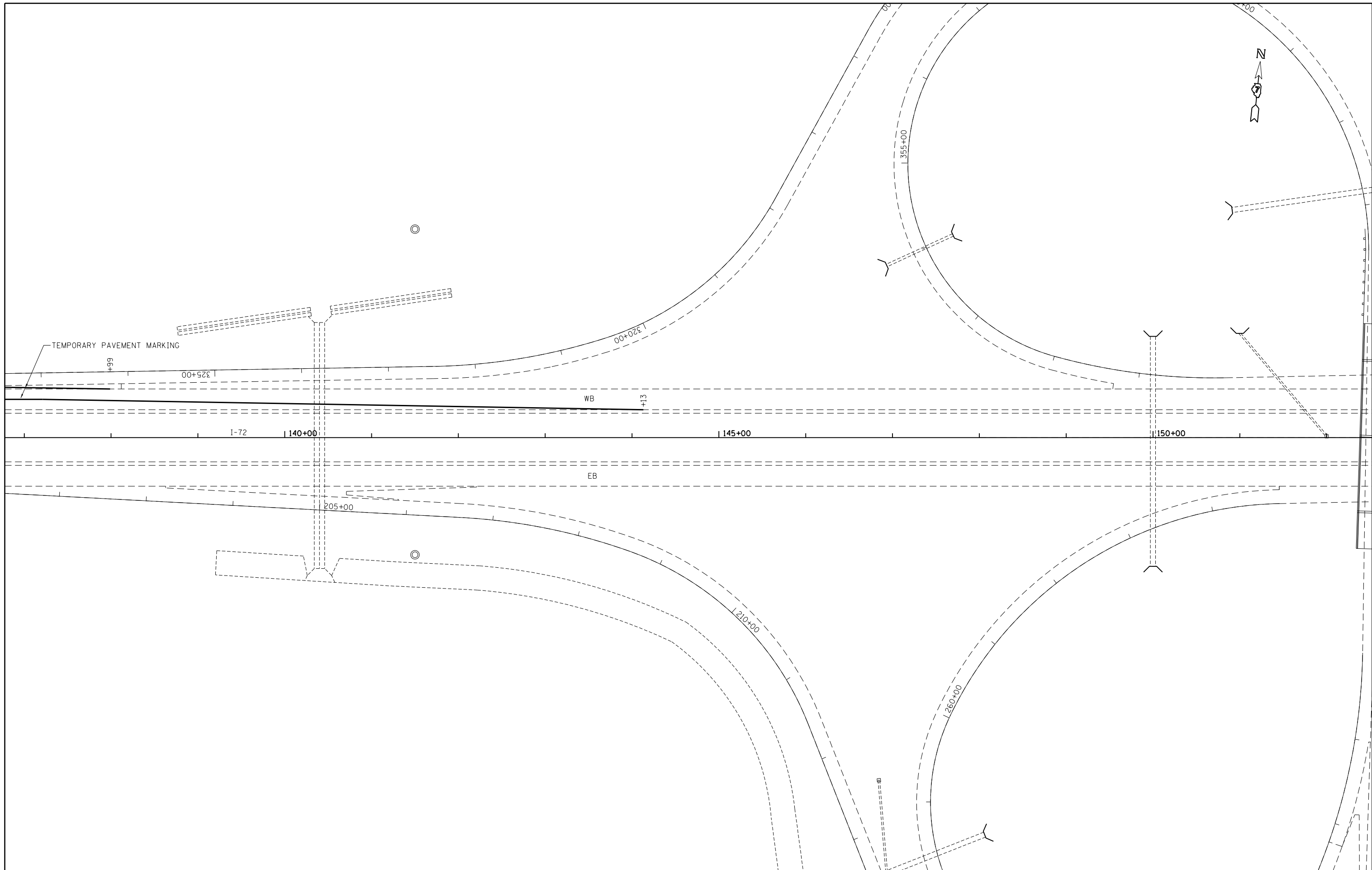
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**STAGE 1 PLAN SHEET
 STRUCTURES 058-0077 & 058-0078**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
• D7 BRIDGE REPAIRS 2013-3		MACON	28	9
• FAI 72, FAU 7354				CONTRACT NO. 74591
ILLINOIS FED. AID PROJECT				



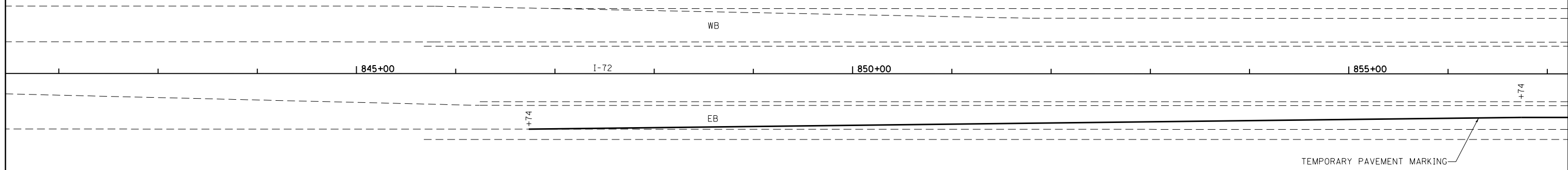
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STAGE 1 PLAN SHEET
STRUCTURES 058-0077 & 058-0078**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*FAI 72, FAU 7354	D7 BRIDGE REPAIRS 2013-3	MACON	28	10
ILLINOIS FED. AID PROJECT			CONTRACT NO. 74591	



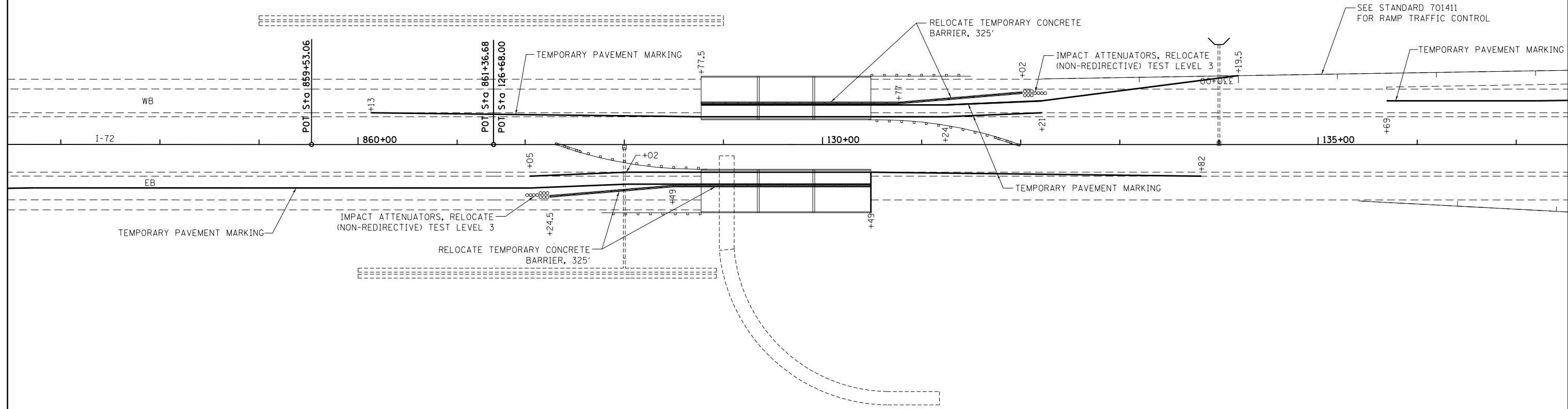
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STAGE 2 PLAN SHEET
STRUCTURES 058-0077 & 058-0078**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	D7 BRIDGE REPAIRS 2013-3	MACON	28	11
•	FAI 72, FAU 7354	CONTRACT NO. 74591		
ILLINOIS FED. AID PROJECT				



NOTE:
 ALL TEMPORARY PAVEMENT MARKING AND REMOVAL OF TEMPORARY PAVEMENT MARKING WILL NOT BE PAID FOR SEPARATELY BUT INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION STANDARD 701401 (SPECIAL)

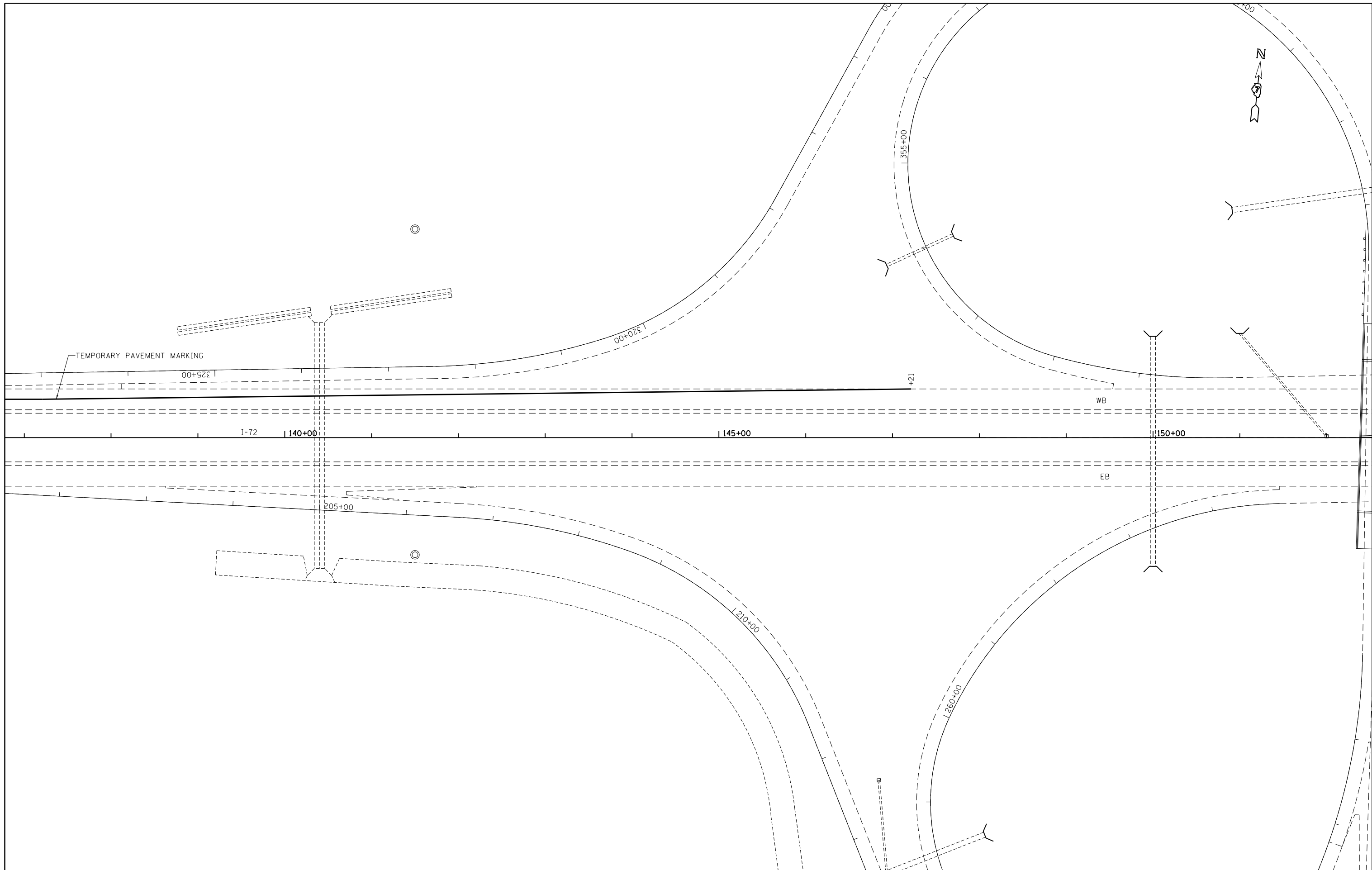
SEE STANDARD 701402 FOR THE REMAINDER OF TRAFFIC CONTROL NOT SHOWN.

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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

STAGE 2 PLAN SHEET			
STRUCTURES 058-0077 & 058-0078			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
• FAI 72, FAU 7354	07 BRIDGE REPAIRS 2013-3	MACON	28	12
ILLINOIS FED. AID PROJECT			CONTRACT NO. 74591	



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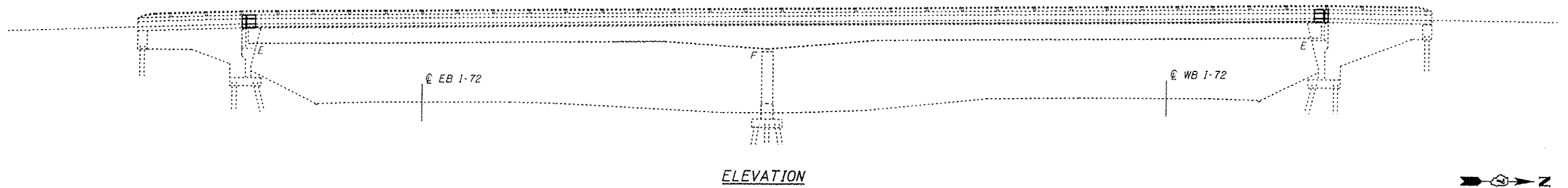
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STAGE 2 PLAN SHEET
STRUCTURES 058-0077 & 058-0078**

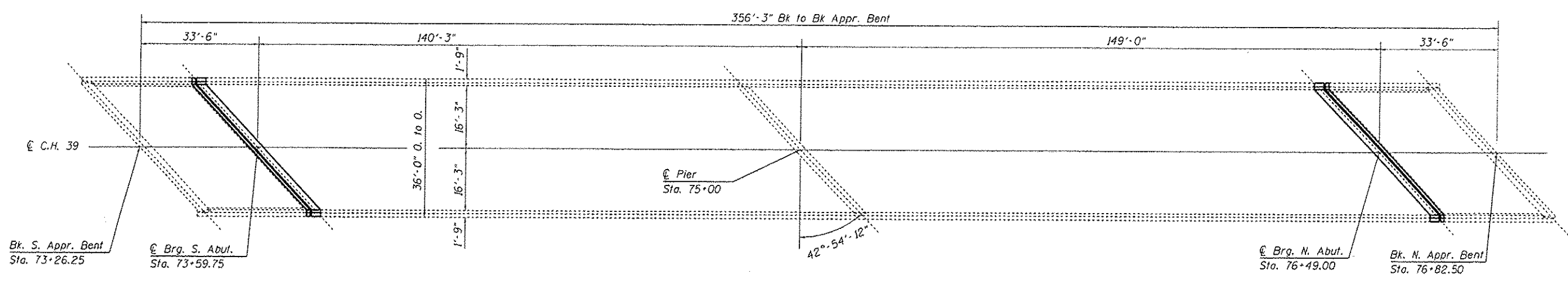
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	• D7 BRIDGE REPAIRS 2013-3	MACON	28	13
	• FAI 72, FAU 7354	CONTRACT NO.	74591	
ILLINOIS FED. AID PROJECT				

SCALE: SHEET OF SHEETS STA. TO STA.

The existing two span continuous steel multi-beam structure with two vaulted abutments was constructed in 1976 as FAI 72 section 58-62-1HB-1 at FAI 72 Sta. 707+13.05. SH. 058-0073 carries CH 39 over FAI 72. The proposed project consists of new expansion joints.



ELEVATION



PLAN

EXISTING DESIGN STRESSES

$f'_c = 1,200$ psi (Deck Slab)
 $f'_c = 1,400$ psi (Curb, Parapet, Sub)
 $f'_s = 20,000$ psi (Reinf. M183)
 $f'_s = 27,000$ psi (M222)
 $V_c = 75$ psi (Figs)
 $n = 10$



David Carl Puze 11/21/12
 Expires 11/30/14

FILE NAME : c:\pwworkspace\stealeyck\d0387638\07	USER NAME : stealeyck	DESIGNED - DFZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION SN 058-0073		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	4591-shl-br-plnprf-0580073.dgn	DRAWN - DFZ	REVISED -		07 BRIDGE REPAIRS 2013-3	MACON	28	14			
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	PLOT DATE = 10/29/2012	DATE - 7/23/12	REVISED -		SCALE:	SHEET 1	OF 15 SHEETS	STA.	TO STA.		

GENERAL NOTES

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 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 operations shall be replaced using an approved bar splicer or anchorage system. Cost included in CONCRETE REMOVAL.

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

Prior to pouring the new concrete deck, all heavy and 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.

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

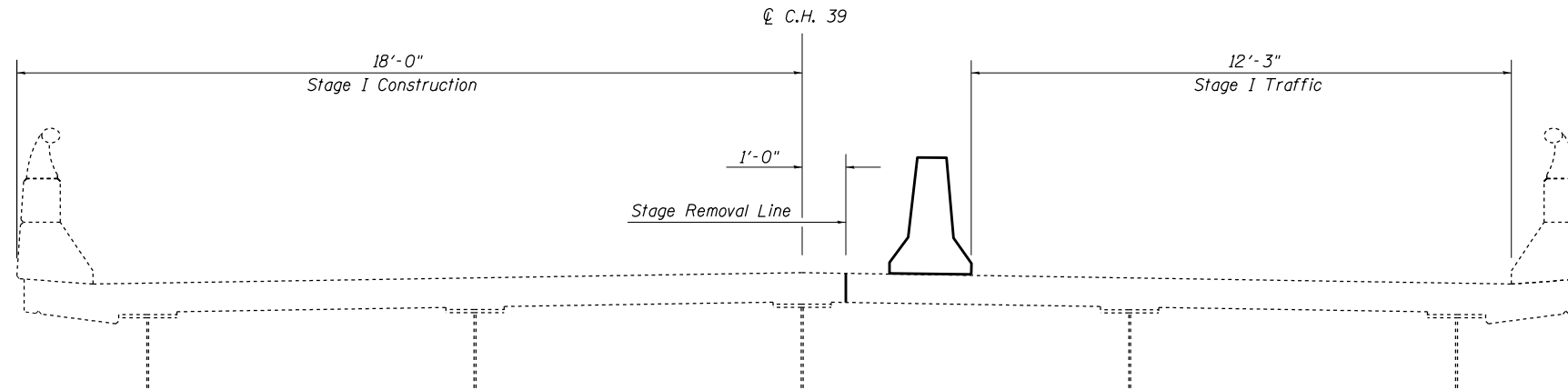
Reinforcement bars designated (E) shall be epoxy coated.

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

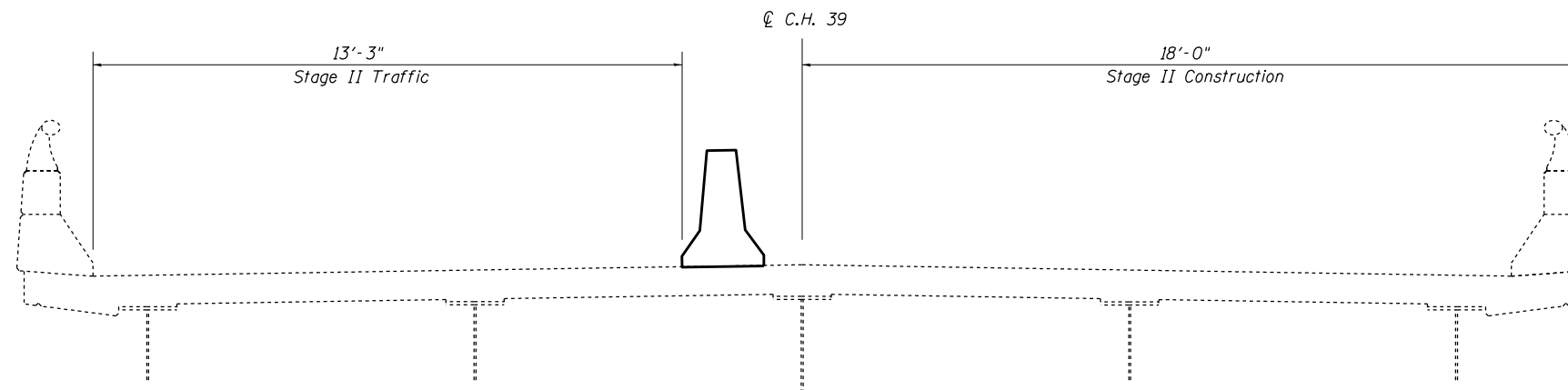
TOTAL BILL OF MATERIALS

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	16.2
Concrete Superstructure	Cu. Yd.	16.2
Reinforcement Bars, Epoxy Coated	Pound	2080
Bar Splicers	Each	24
* Protective Coat	Sq Yd	42
Preformed Joint Strip Seal	Foot	94.0

*To be applied over new concrete areas only.



STAGE I LOOKING NORTH

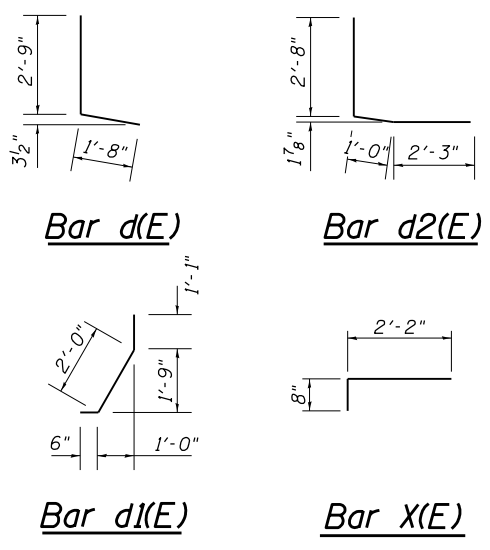
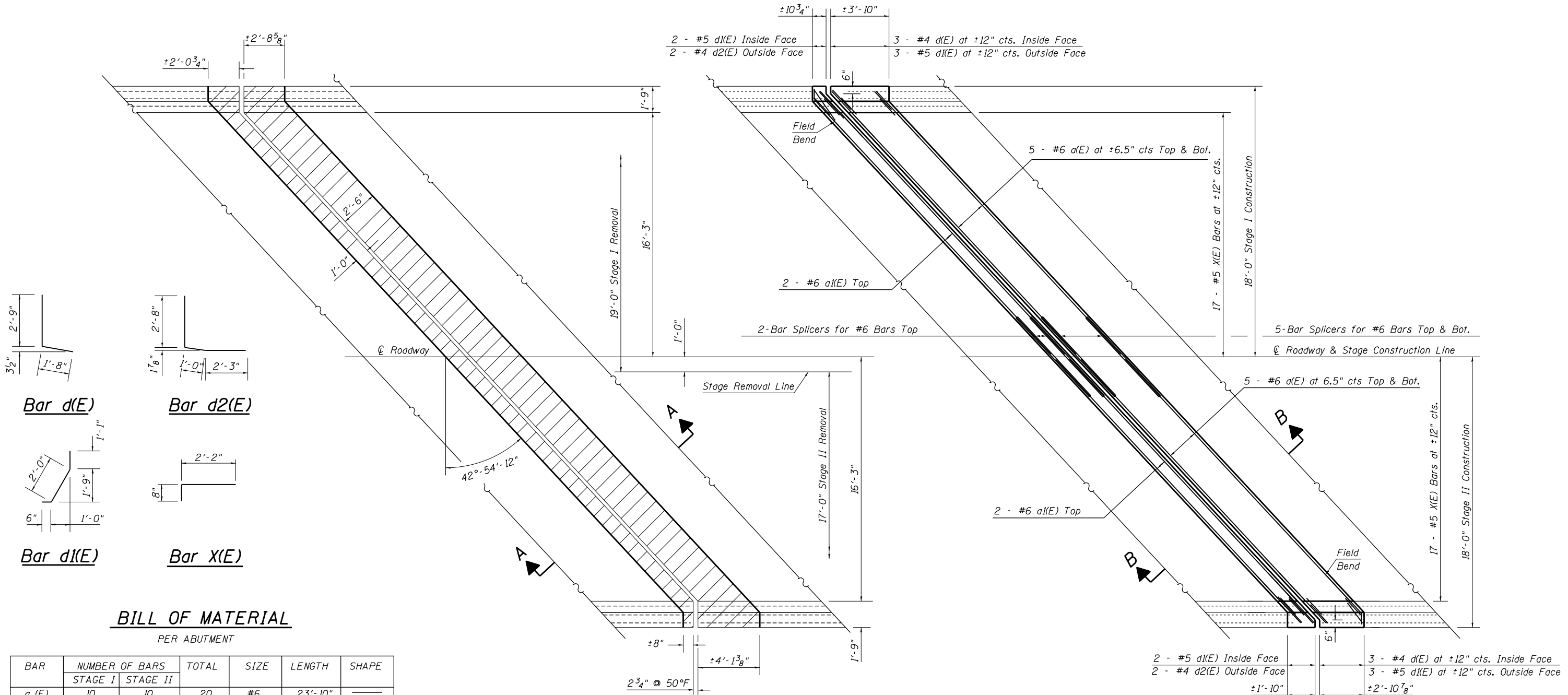


STAGE II LOOKING NORTH

Note: Trim existing reinforcement to accommodate new joint opening (Typ.)



Hatching indicates concrete removal.



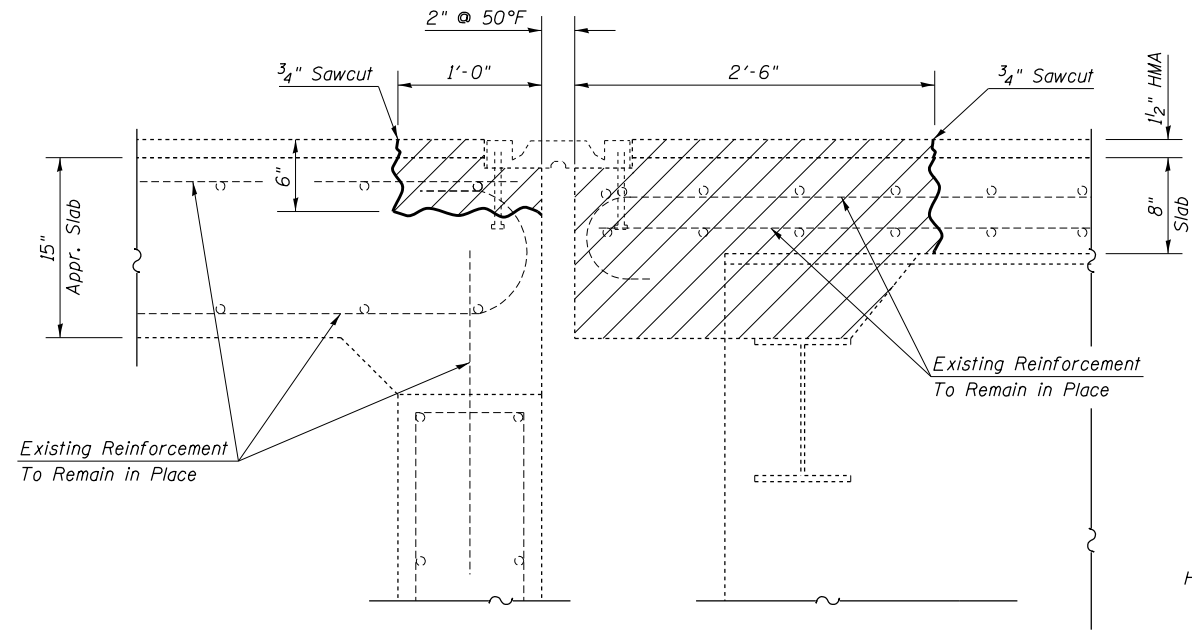
BILL OF MATERIAL
PER ABUTMENT

BAR	NUMBER OF BARS		TOTAL	SIZE	LENGTH	SHAPE
	STAGE I	STAGE II				
a (E)	10	10	20	#6	23'-10"	—
a(E)	2	2	4	#6	23'-10"	—
d (E)	3	3	6	#4	4'-5"	L
d(E)	5	5	10	#5	3'-7"	J
d2(E)	2	2	4	#4	5'-11"	L
x (E)	17	17	34	#5	2'-10"	┌
REINFORCEMENT BARS (EPOXY COATED)				POUND	1040	
CONCRETE REMOVAL				CU YD	8.1	
CONCRETE SUPERSTRUCTURE				CU YD	8.1	

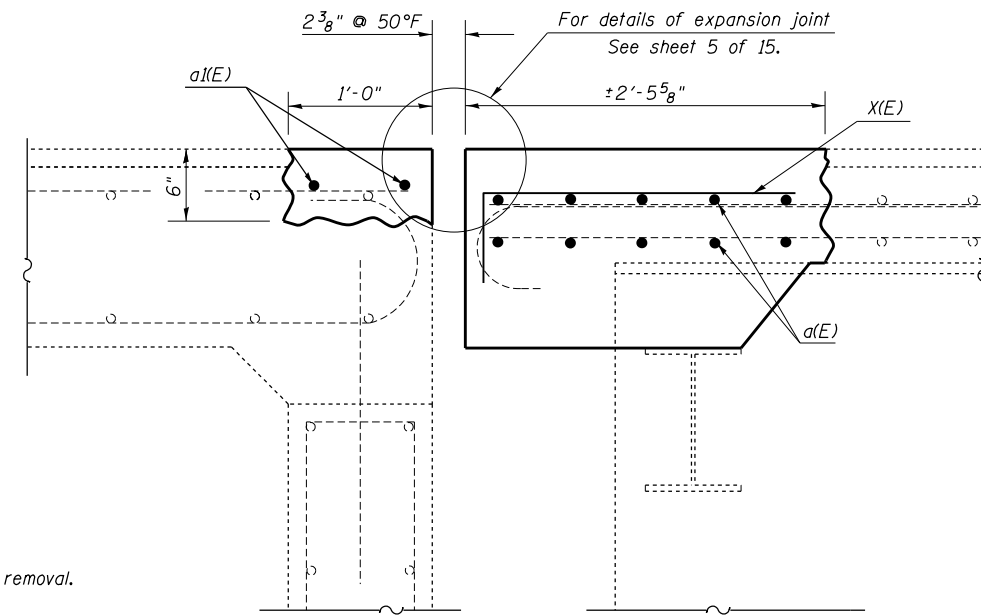
EXISTING PARTIAL PLAN
(South Abutment shown; North Abutment similar)

PROPOSED PARTIAL PLAN
(South Abutment shown; North Abutment similar)

For Section A-A and B-B, See Sheet 4 of 15



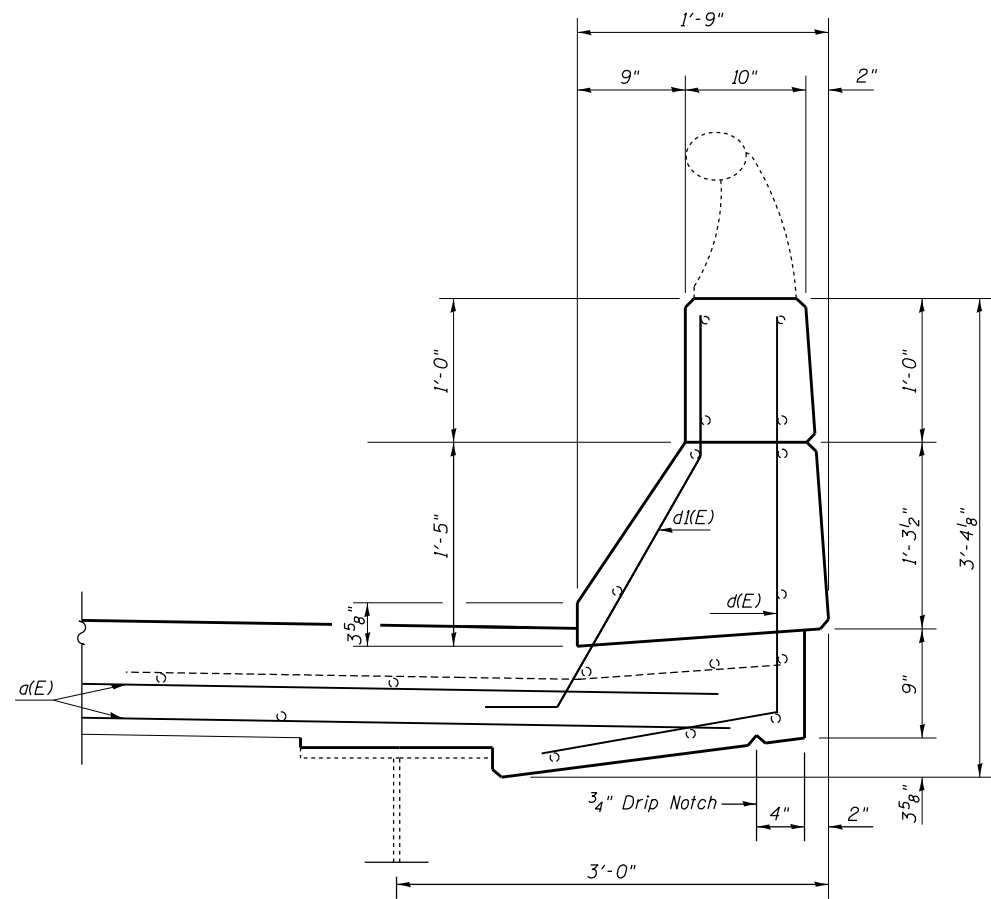
SECTION A-A
(Dimensions at RT L's to end of deck)



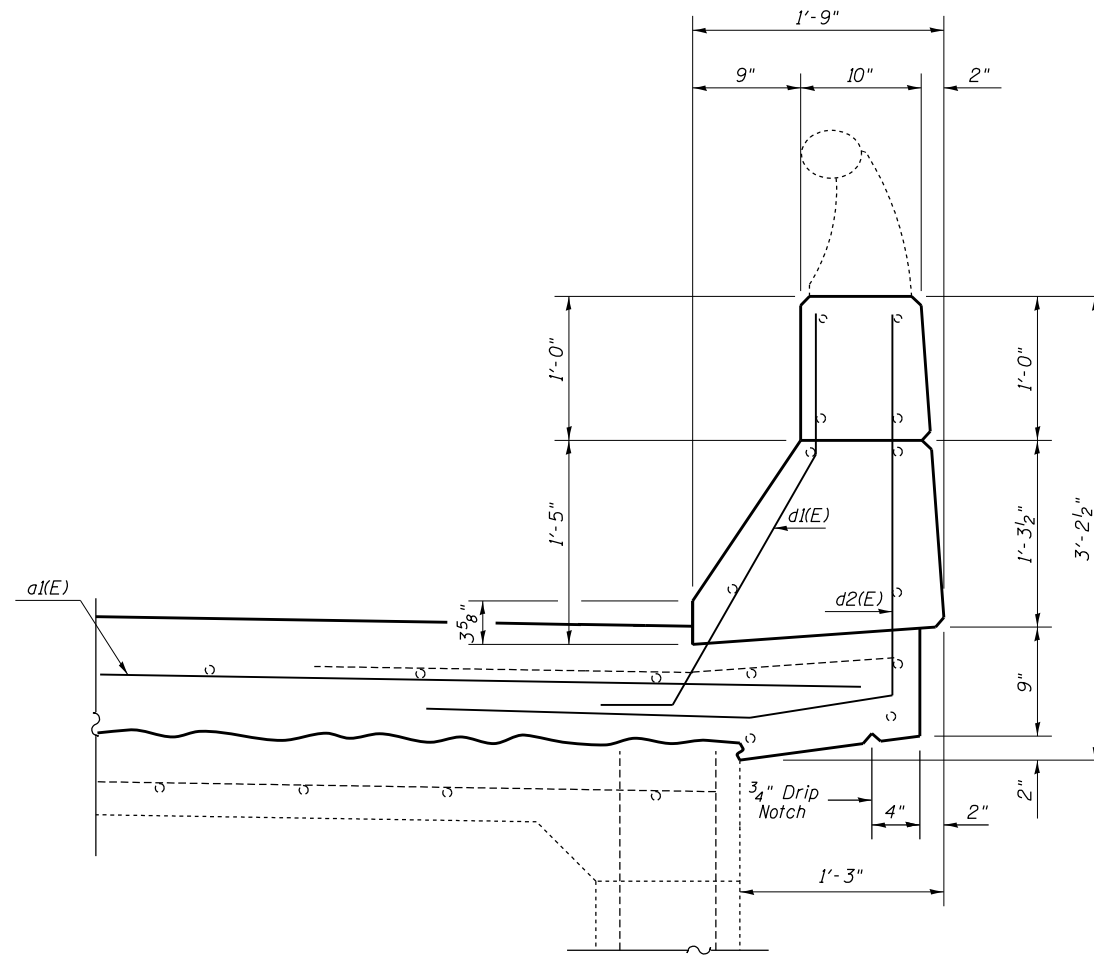
SECTION B-B
(Dimensions at RT L's to end of deck)

Hatching indicates concrete removal.

○ Existing Reinforcement
● Proposed Reinforcement



SECTION THRU DECK PARAPET



SECTION THRU APPROACH PARAPET

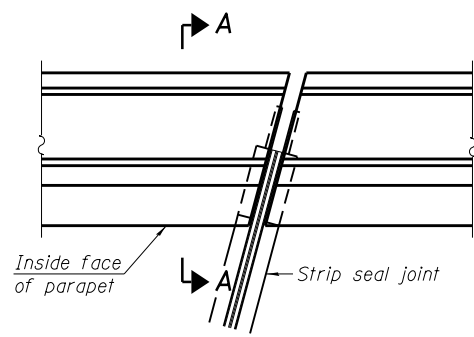
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Default	PLOT SCALE = 40.0000' / in.	CHECKED - KLB	REVISED -
	PLOT DATE = 10/29/2012	DATE - 7/23/12	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

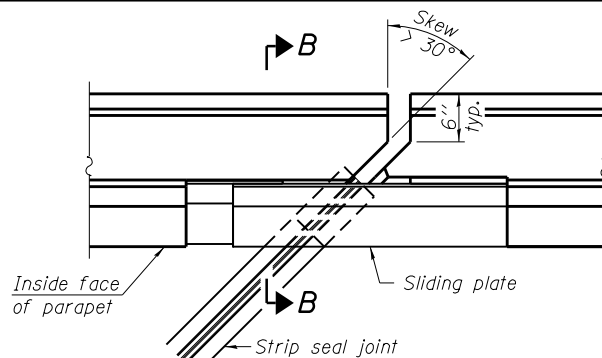
EXPANSION JOINT REPLACEMENT DETAILS
SN. 058-0073

SCALE: SHEET 4 OF 15 SHEETS STA. TO STA.

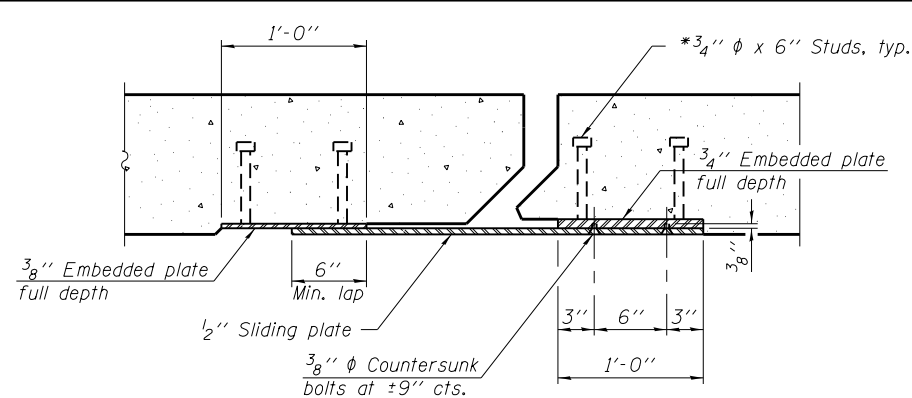
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
• 07	BRIDGE REPAIRS 2013-3	MACON	28	17
• FAI 72, FAU 7354			CONTRACT NO.	74591
ILLINOIS FED. AID PROJECT				



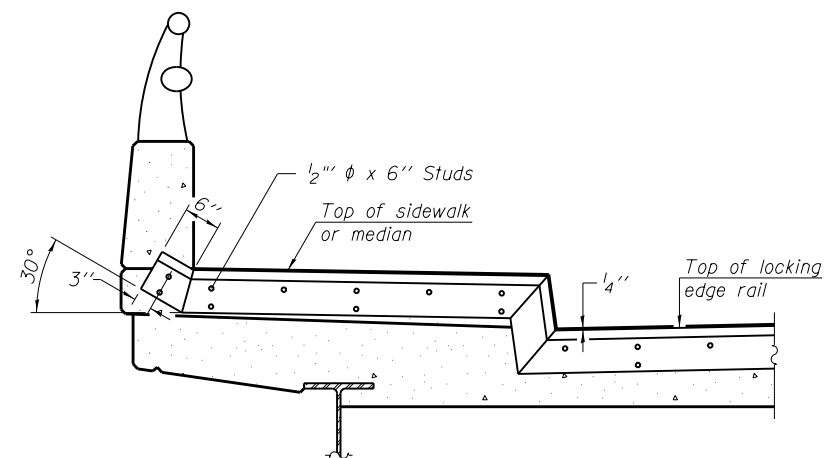
PLAN
(For skews $\leq 30^\circ$)



PLAN
(For skews $> 30^\circ$)
Showing point block

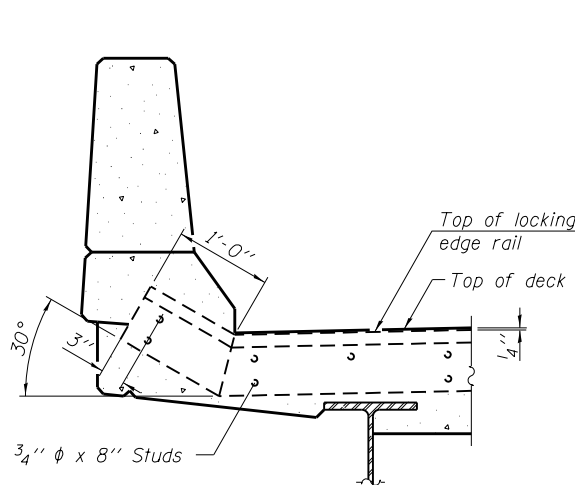


SECTION C-C

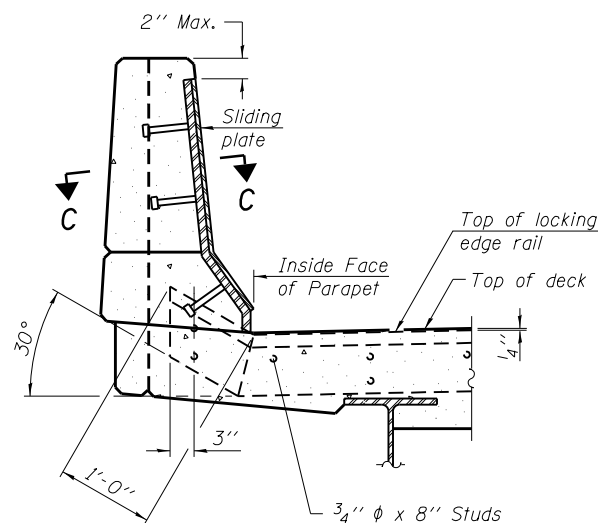


**TYPICAL END TREATMENT
AT SIDEWALK OR MEDIAN**

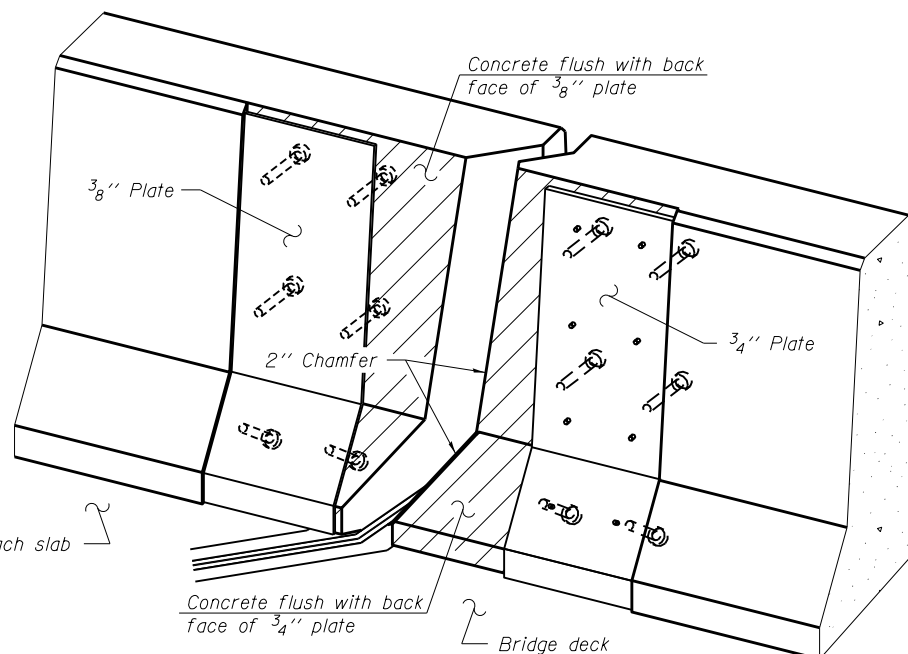
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



SECTION A-A



SECTION B-B



TRIMETRIC VIEW
(Showing back plates only)

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 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.

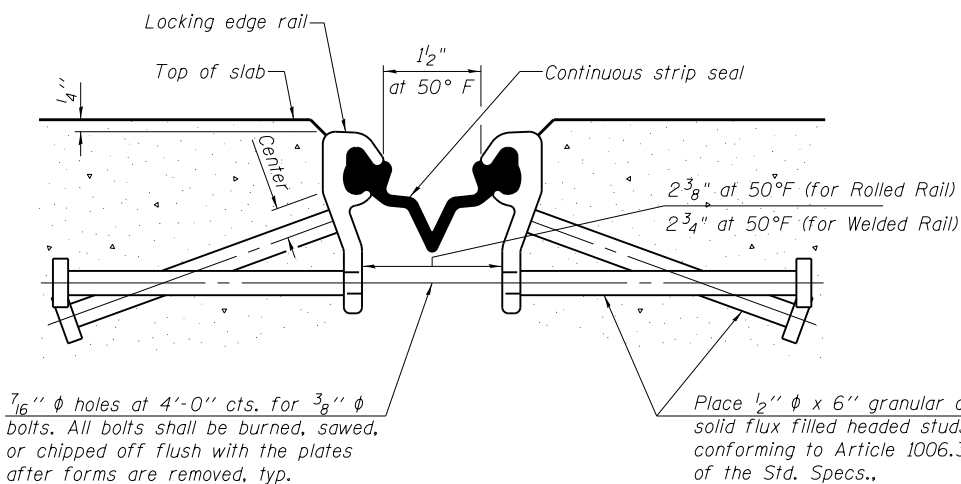
Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

The manufacturer's recommended installation methods shall be followed.

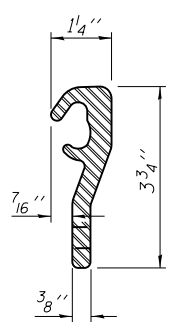
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

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

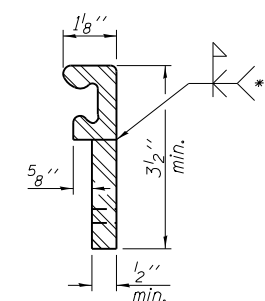
Parapet plates and anchorage studs for skews $> 30^\circ$ included in the cost of Preformed Joint Strip Seal.



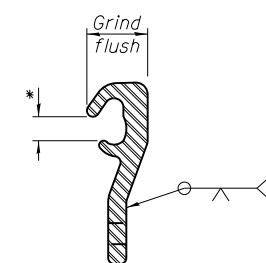
**SECTION THRU STRIP SEAL JOINT
FOR OVERLAY OVER DECK BEAMS**



**ROLLED
(EXTRUDED) RAIL**



WELDED RAIL



**LOCKING EDGE
RAIL SPLICE**

Rolled rail shown, welded rail similar.

- * Omit weld at seal opening.
- ** Back gouge not required if complete joint penetration is verified by mock-up.

LOCKING EDGE RAIL

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	94.0

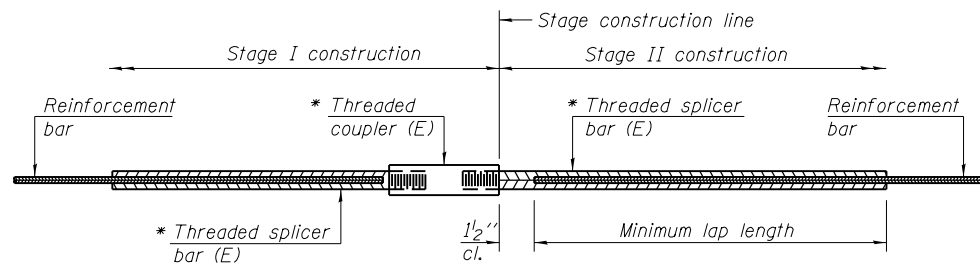
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	PLOT DATE = 10/29/2012	DATE - 7/23/12	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PREFORMED JOINT STRIP SEAL
SN. 058-0073**

SCALE: SHEET 5 OF 15 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
* 07	BRIDGE REPAIRS 2013-3	MACON	28	18
*FAI 72, FAU 7354			CONTRACT NO. 74591	
ILLINOIS FED. AID PROJECT				



STANDARD BAR SPLICER ASSEMBLY

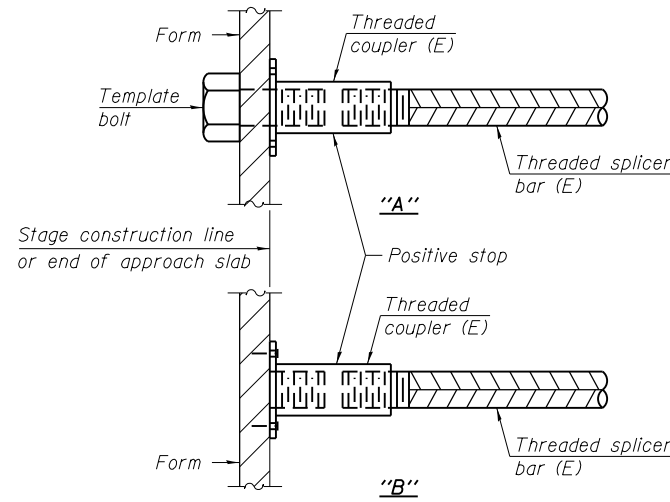
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

- 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
- Table 5: Epoxy bar, Class C
- Table 6: Epoxy bar, Top bar top, Class C

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

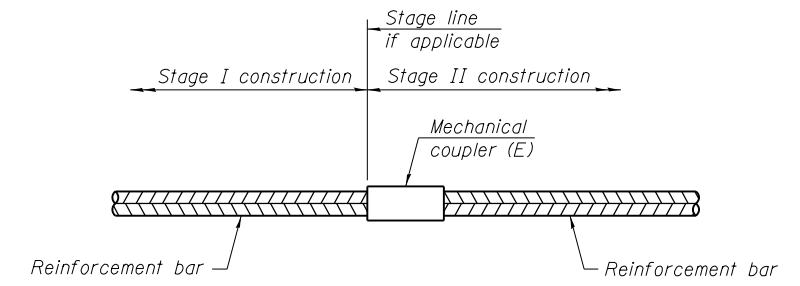
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
058-0073	#6	24	Table 3



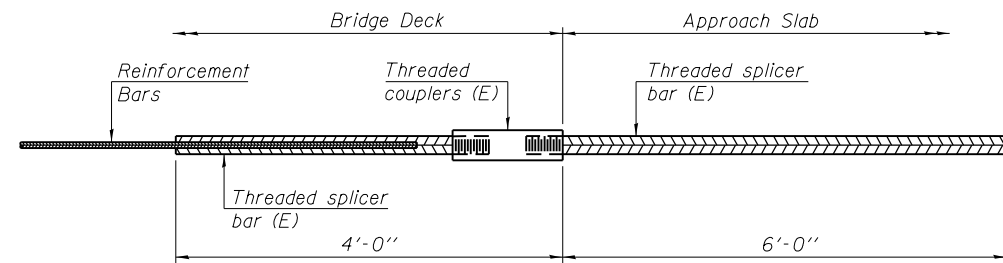
INSTALLATION AND SETTING METHODS

"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.



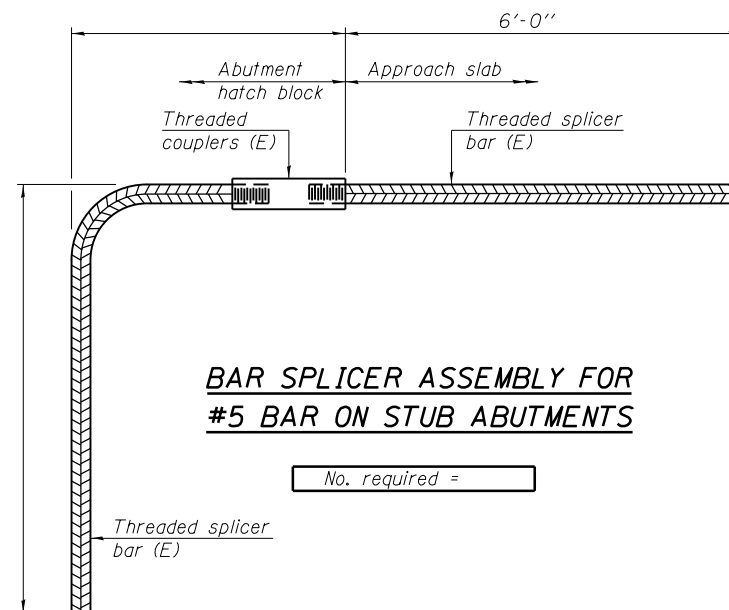
STANDARD MECHANICAL SPLICER

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

BSD-1

1-27-12

FILE NAME =	USER NAME = teasleyck	DESIGNED - DFZ	REVISED -
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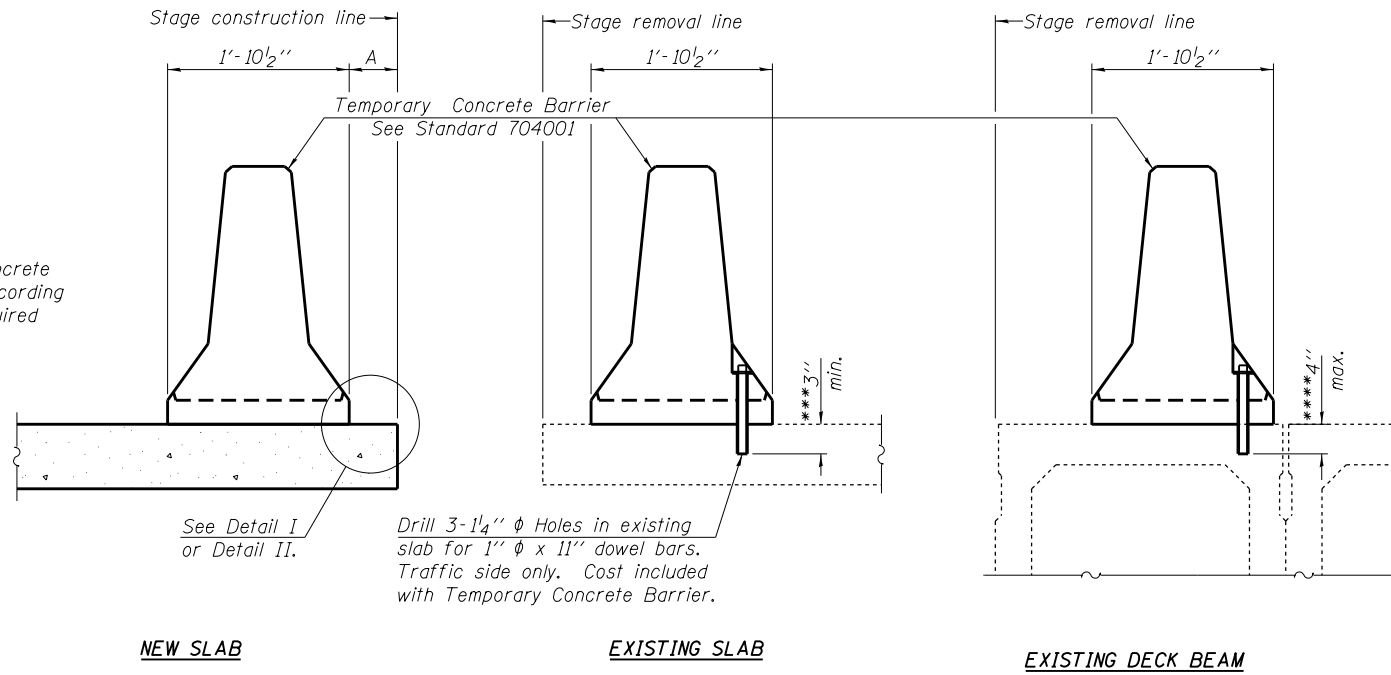
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
SN. 058-0073

SCALE: SHEET 6 OF 15 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
• 07	BRIDGE REPAIRS 2013-3	MACON	28	19
• FAI 72, FAU 7354	CONTRACT NO.		74591	
ILLINOIS FED. AID PROJECT				

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



SECTIONS THRU SLAB OR DECK BEAM

NOTES

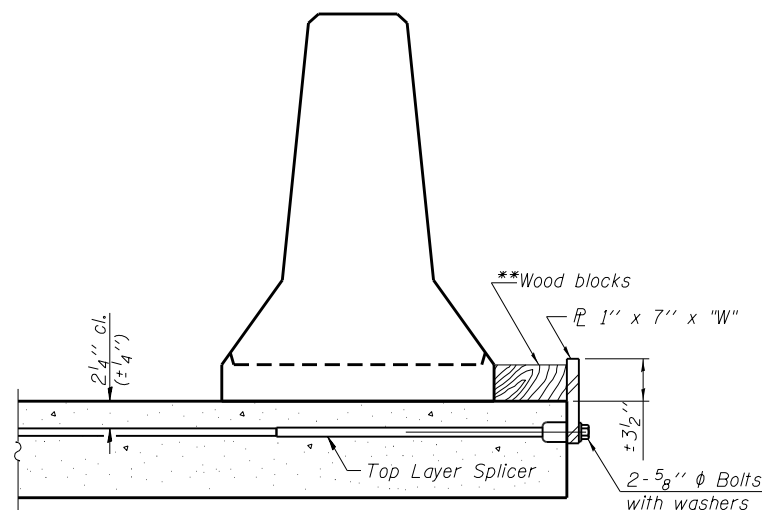
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel PL to the concrete slab or concrete wearing surface with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.

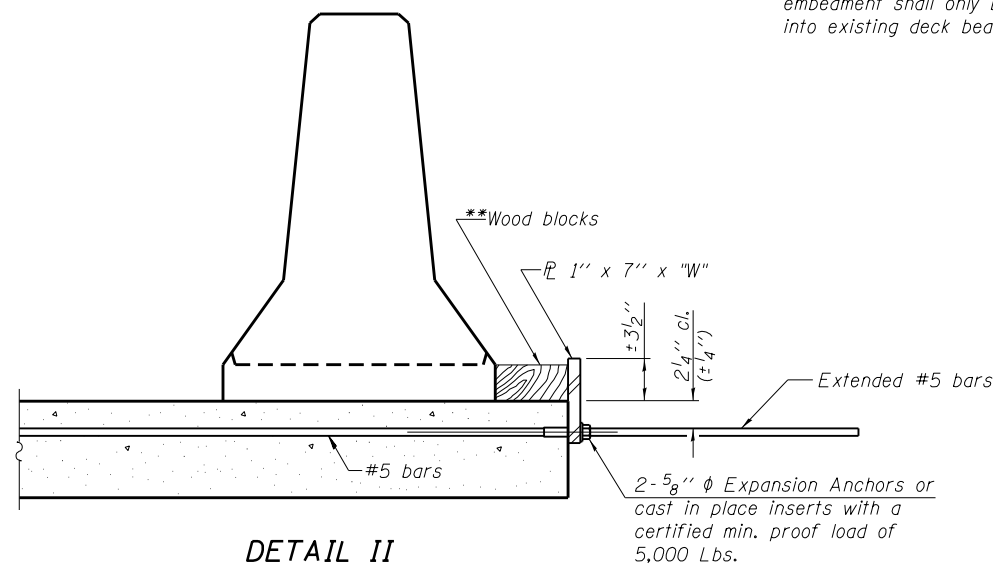
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

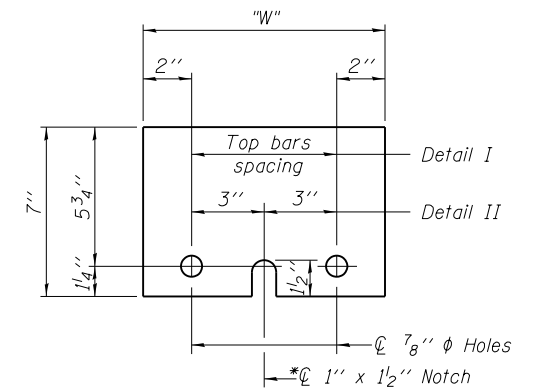
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1" x 7" x "W"

* Required only with Detail II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

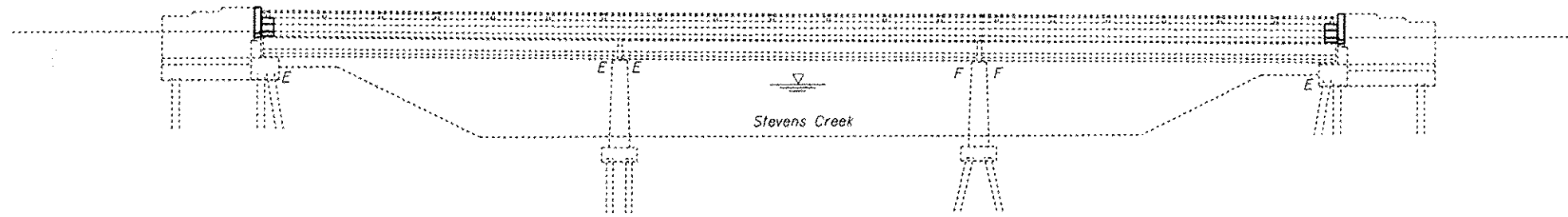
"W" = Top bars spacing + 4"

R-27

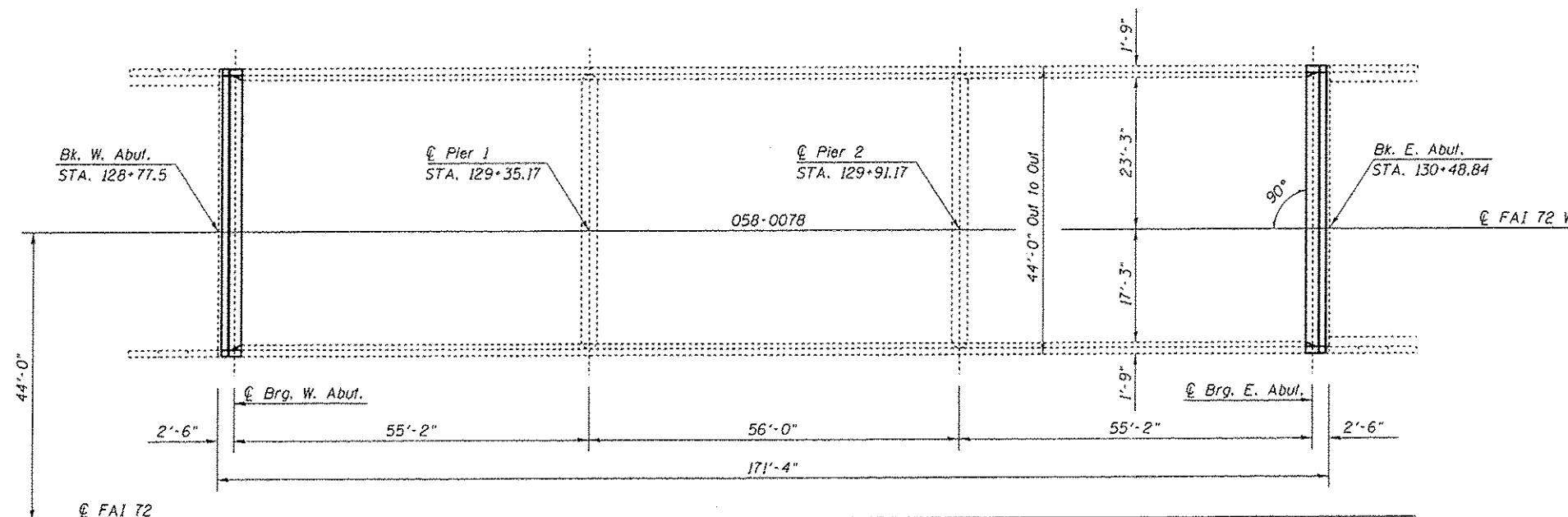
7-1-10

FILE NAME =	USER NAME = teasleyck	DESIGNED - DFZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION SN. 058-0073	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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Default	PLOT SCALE = 40.0000' / in.	CHECKED - KLB	REVISED -			• FAI 72, FAU 7354	CONTRACT NO. 74591			
	PLOT DATE = 10/29/2012	DATE - 7/23/12	REVISED -			ILLINOIS FED. AID PROJECT				

The existing three span PPC-I Beam structures were constructed in 1974 as FAI-72 section 58-64-B at Sta. 129+65.00. SN. 058-0077 carries FAI-72 (Interstate 72 Eastbound), SN. 058-0078 carries FAI-72 (Interstate 72 Westbound). The proposed project consists of new expansion joints.

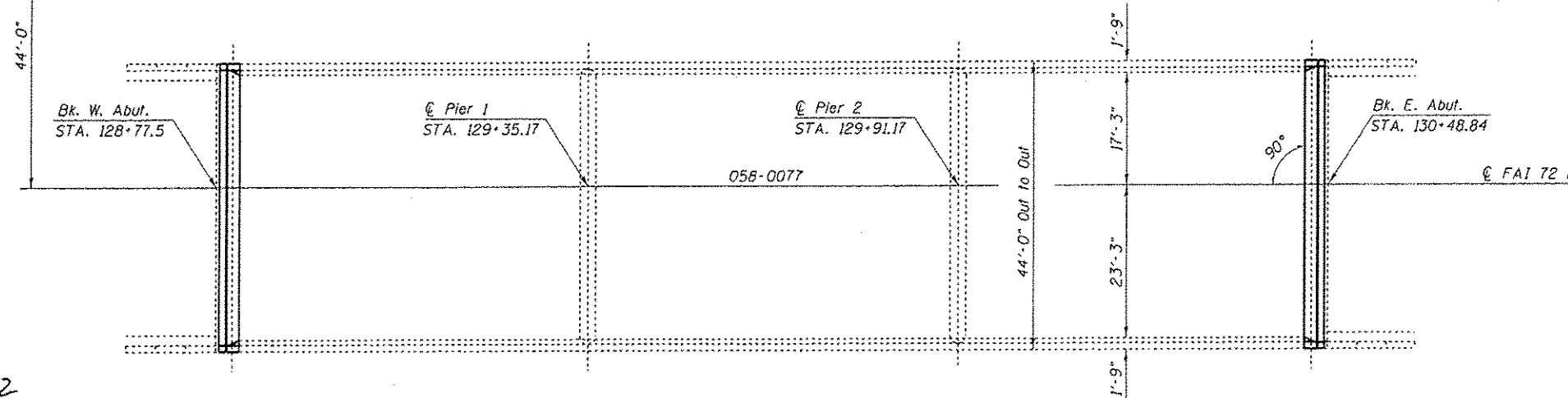


ELEVATION



EXISTING DESIGN STRESSES

- $f'_c = 1,200$ psi (Deck)
- $f'_c = 1,400$ psi (Curb, Parapet, Sub)
- $f'_s = 20,000$ psi (Reinf.)
- $f'_s = 20,000$ psi (STRUCT.)
- $V_c = 75$ psi (Figs)
- $n = 10$



PLAN



David Carl Puzey 11/21/12
Expires 11/30/14

FILE NAME: c:\pwork\work\101dot\teasley\02807638\074591-shr-brpln-1-05800770078.dgn	USER NAME: teasleyck	DESIGNED - DFZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION SN. 058-0077 (EB) & 058-0078 (WB)			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
Default	PLOT SCALE: 48:8000 / in.	CHECKED - KLB	REVISED -		SCALE:	SHEET 8 OF 15 SHEETS	STA. TO STA.	07 BRIDGE REPAIRS 2013-3	MACON	28	21		
	PLOT DATE: 12/29/2012	DATE: 7/23/12	REVISED -					FAI 72, FAU 7354					
								ILLINOIS FED. AID PROJECT					
CONTRACT NO. 74591													

GENERAL NOTES

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 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 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 operations shall be replaced using an approved bar splicer or anchorage system. Cost included in CONCRETE REMOVAL.

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

Removal and reinstallation of handrail post will be necessary for construction of the expansion joints. The existing handrail sections shall be reused. New bolts, bearing pads and post support anchor assemblies as detailed in the plans are to provided and installed for the replacement of the handrail post. This work and all materials shall be included in the contract unit price for CONCRETE SUPERSTRUCTURE.

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

Reinforcement bars designated (E) shall be epoxy coated.

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

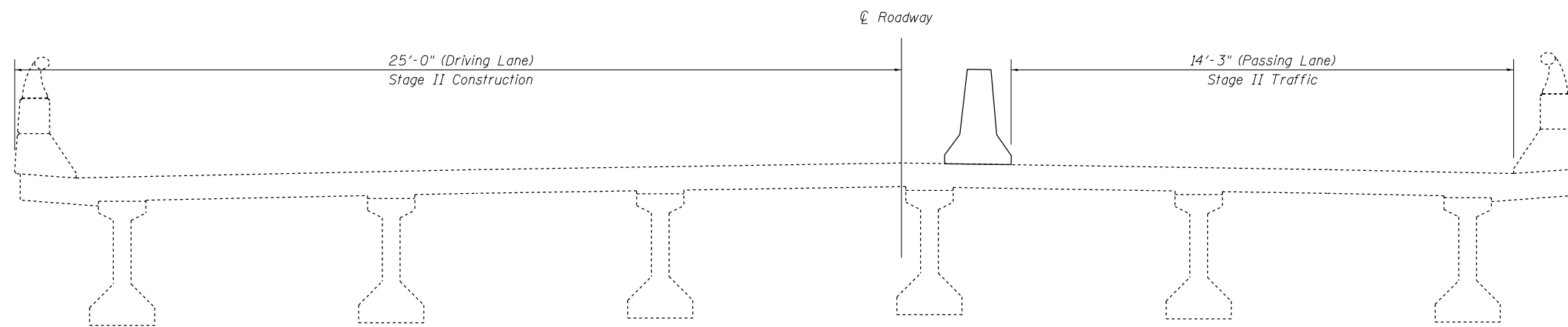
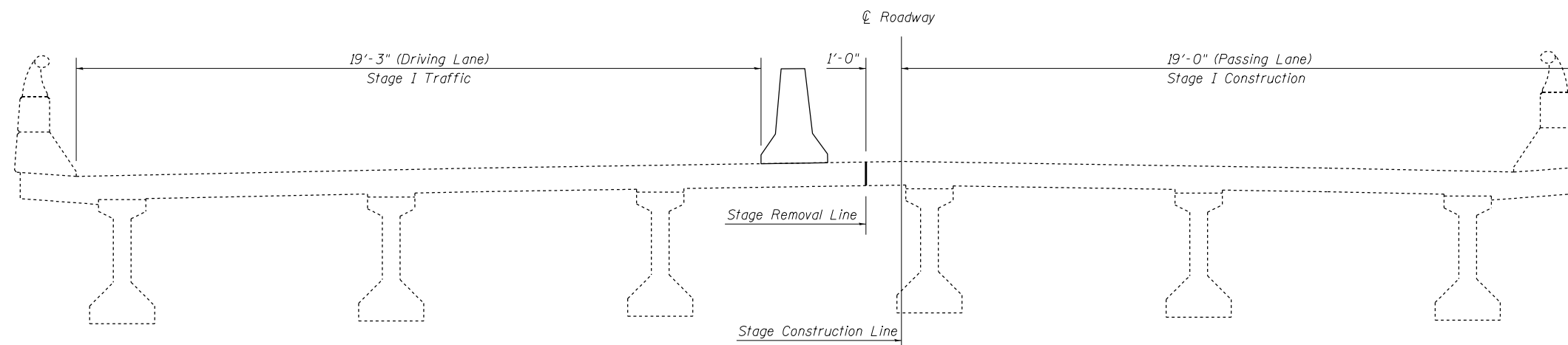
TOTAL BILL OF MATERIALS SN 058-0077

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	10.2
Concrete Superstructure	Cu. Yd.	10.2
Reinforcement Bars, Epoxy Coated	Pound	1380
Bar Splicers	Each	16
* Protective Coat	Sq Yd	32
Preformed Joint Strip Seal	Foot	86

TOTAL BILL OF MATERIALS SN 058-0078

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	10.2
Concrete Superstructure	Cu. Yd.	10.2
Reinforcement Bars, Epoxy Coated	Pound	1380
Bar Splicers	Each	16
* Protective Coat	Sq Yd	32
Preformed Joint Strip Seal	Foot	86

*To be applied over new concrete areas only.

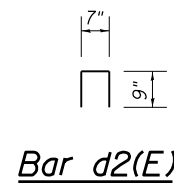
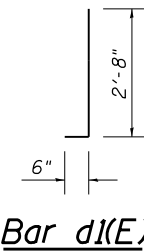
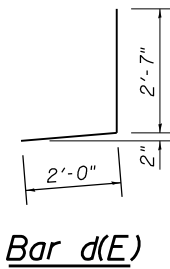
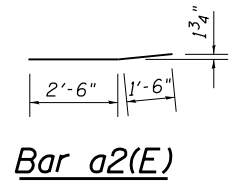


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	PLOT DATE = 10/29/2012	DATE - 7/23/12	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

GENERAL NOTES & BILL OF MATERIAL			
SN. 058-0077 (EB) & 058-0078 (WB)			
SCALE:	SHEET 9	OF 15 SHEETS	STA. TO STA.

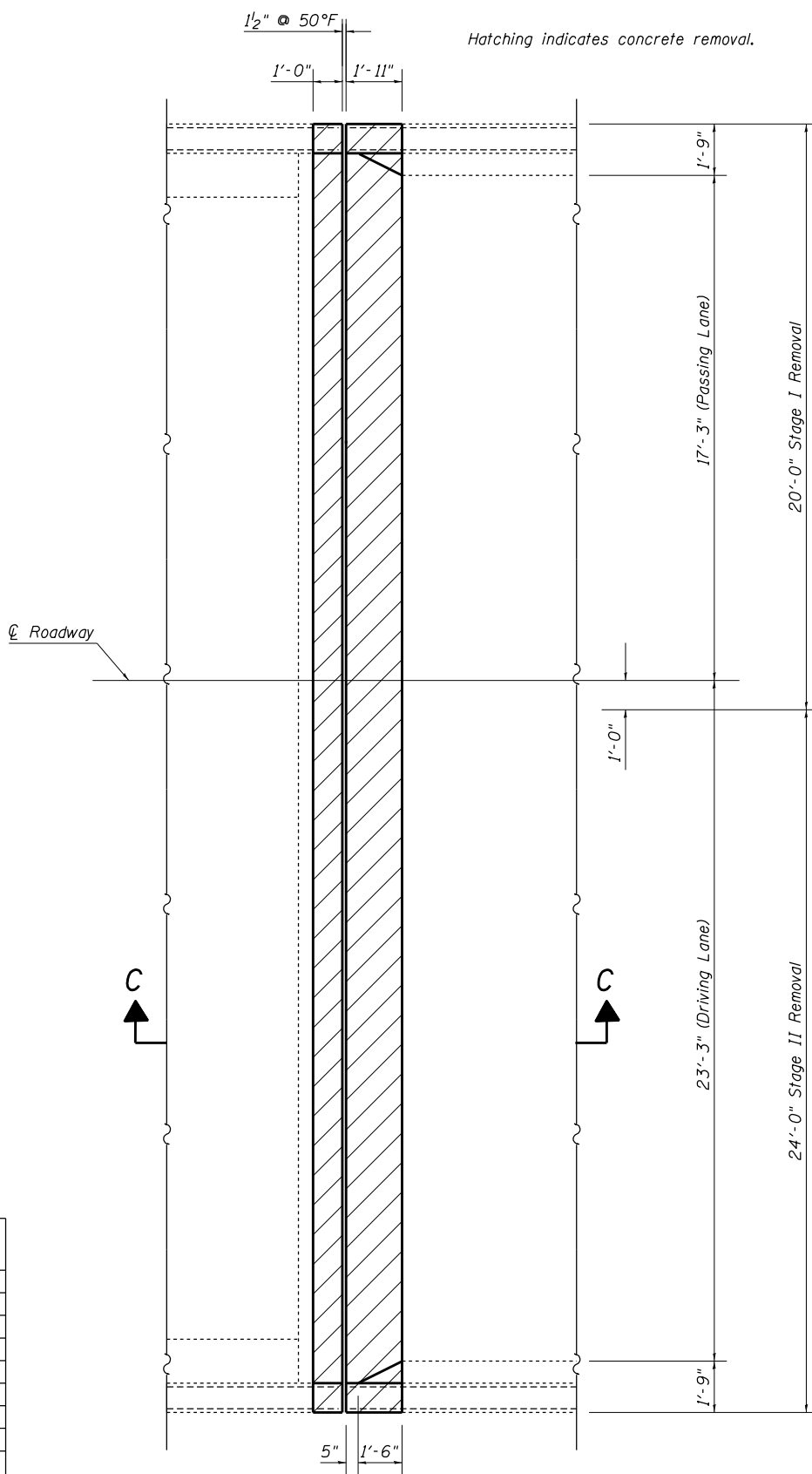
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• 07	BRIDGE REPAIRS 2013-3	MACON	28	22
• FAI 72, FAU 7354	CONTRACT NO.		74591	
ILLINOIS FED. AID PROJECT				



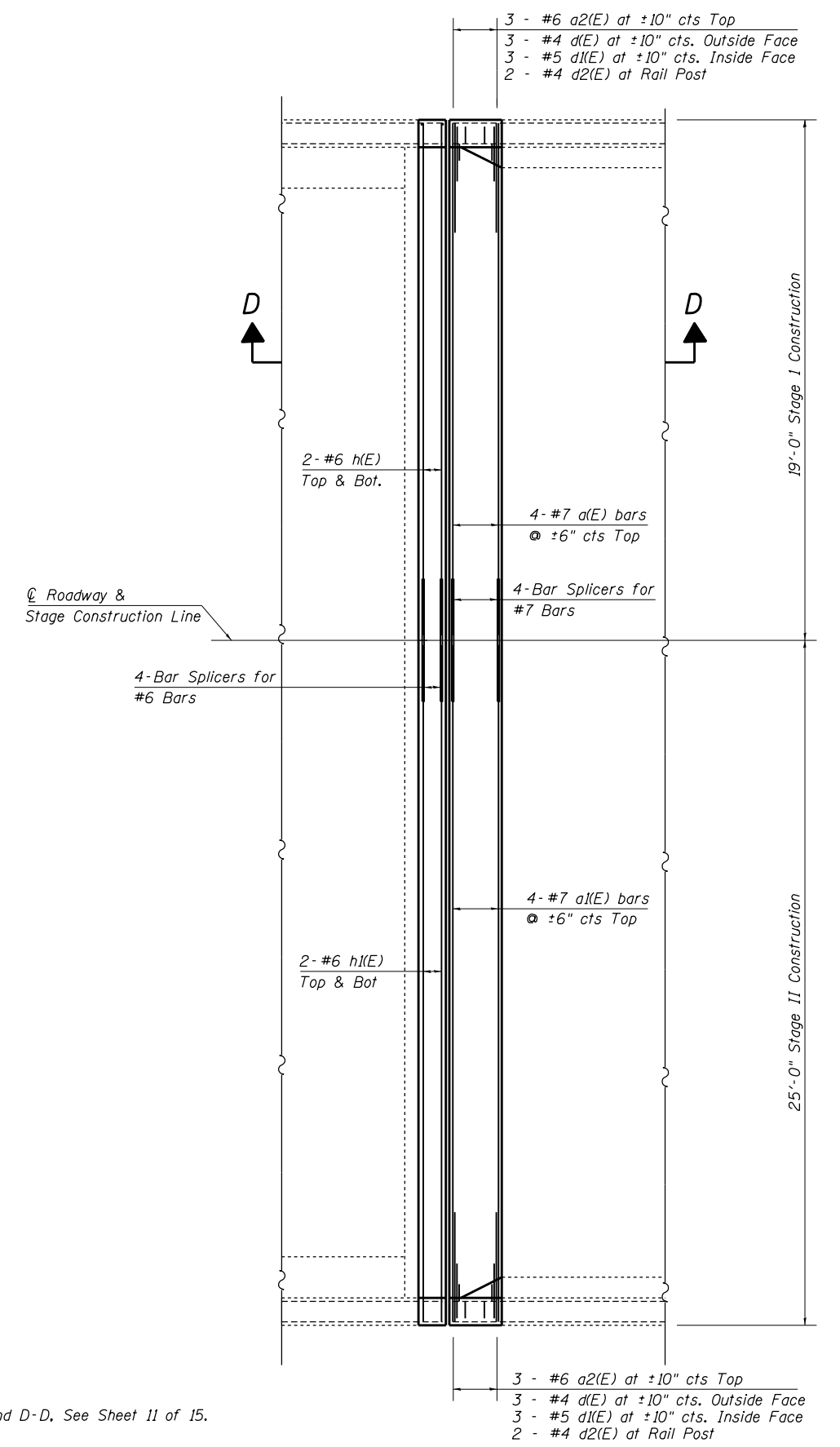
BILL OF MATERIAL

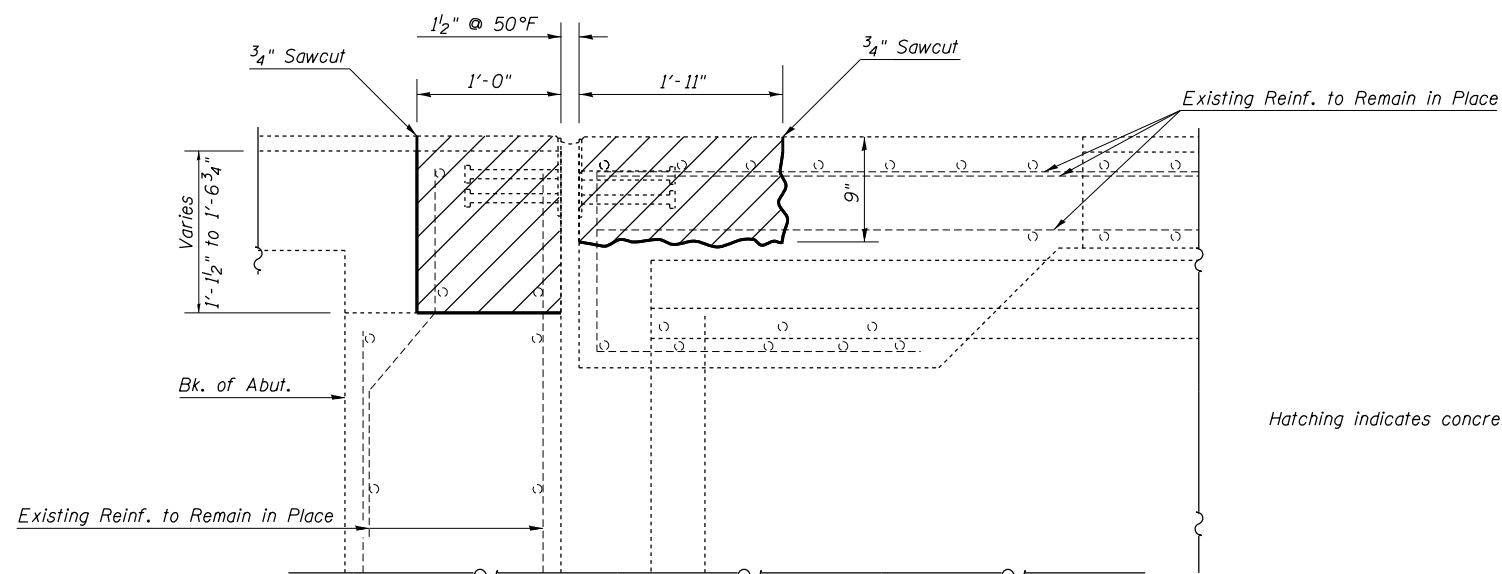
PER ABUTMENT

BAR	NUMBER OF BARS		TOTAL	SIZE	LENGTH	SHAPE
	STAGE I	STAGE II				
a (E)	4		4	#7	18'-6"	—
a1(E)		4	4	#7	24'-6"	—
a2(E)	3	3	6	#6	4'-0"	—
d (E)	3	3	6	#4	4'-7"	L
d1(E)	3	3	6	#5	3'-2"	J
d2(E)	2	2	4	#4	2'-1"	□
h (E)	4		4	#6	18'-6"	—
h1(E)		4	4	#6	24'-6"	—
REINFORCEMENT BARS (EPOXY COATED)					POUND	690
CONCRETE REMOVAL					CU YD	5.1
CONCRETE SUPERSTRUCTURE					CU YD	5.1

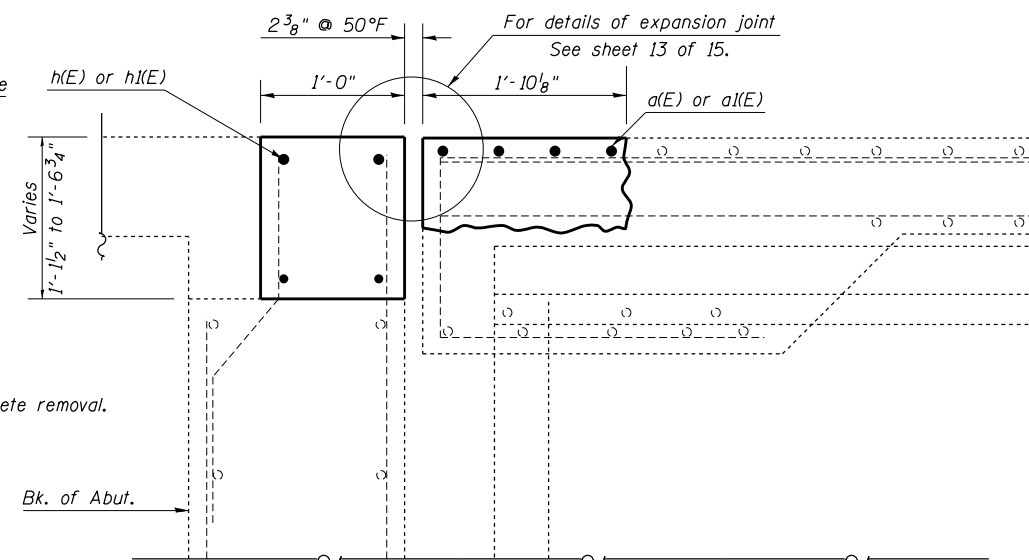


For Section C-C and D-D, See Sheet 11 of 15.





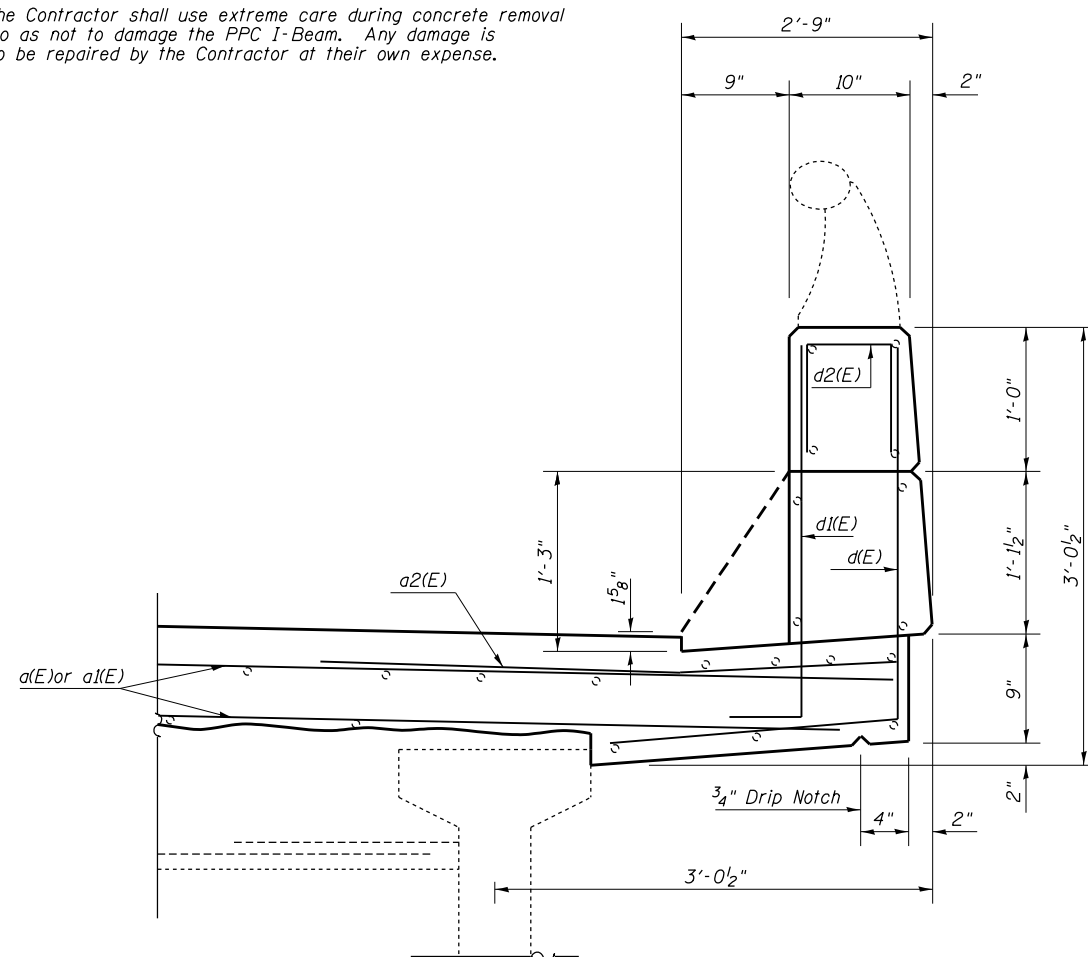
SECTION C-C



SECTION D-D

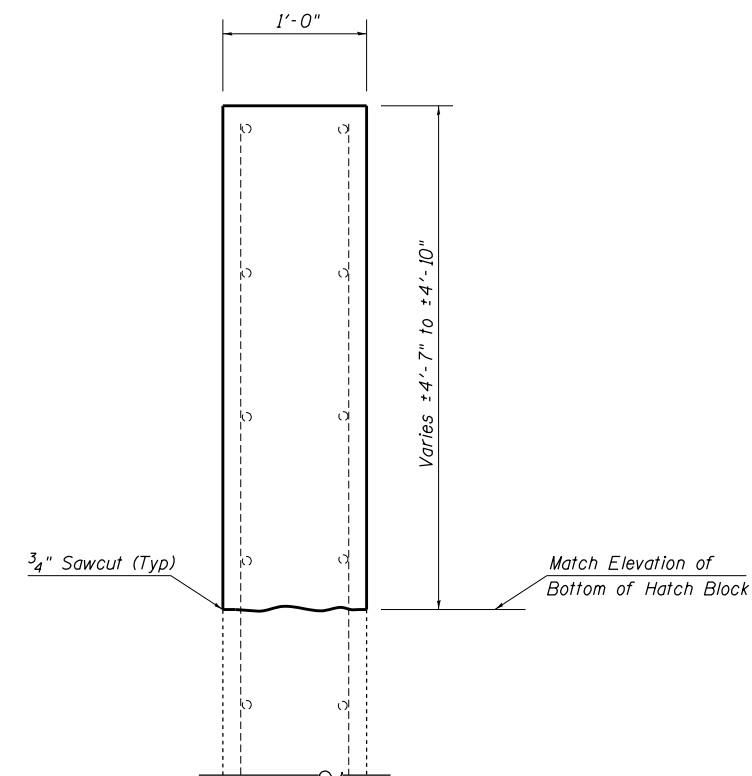
Hatching indicates concrete removal.

Note: The Contractor shall use extreme care during concrete removal so as not to damage the PPC I-Beam. Any damage is to be repaired by the Contractor at their own expense.



SECTION THRU PARAPET

○ Existing Reinforcement
● Proposed Reinforcement



**TYPICAL WINGWALL
REMOVAL AND REPLACEMENT**

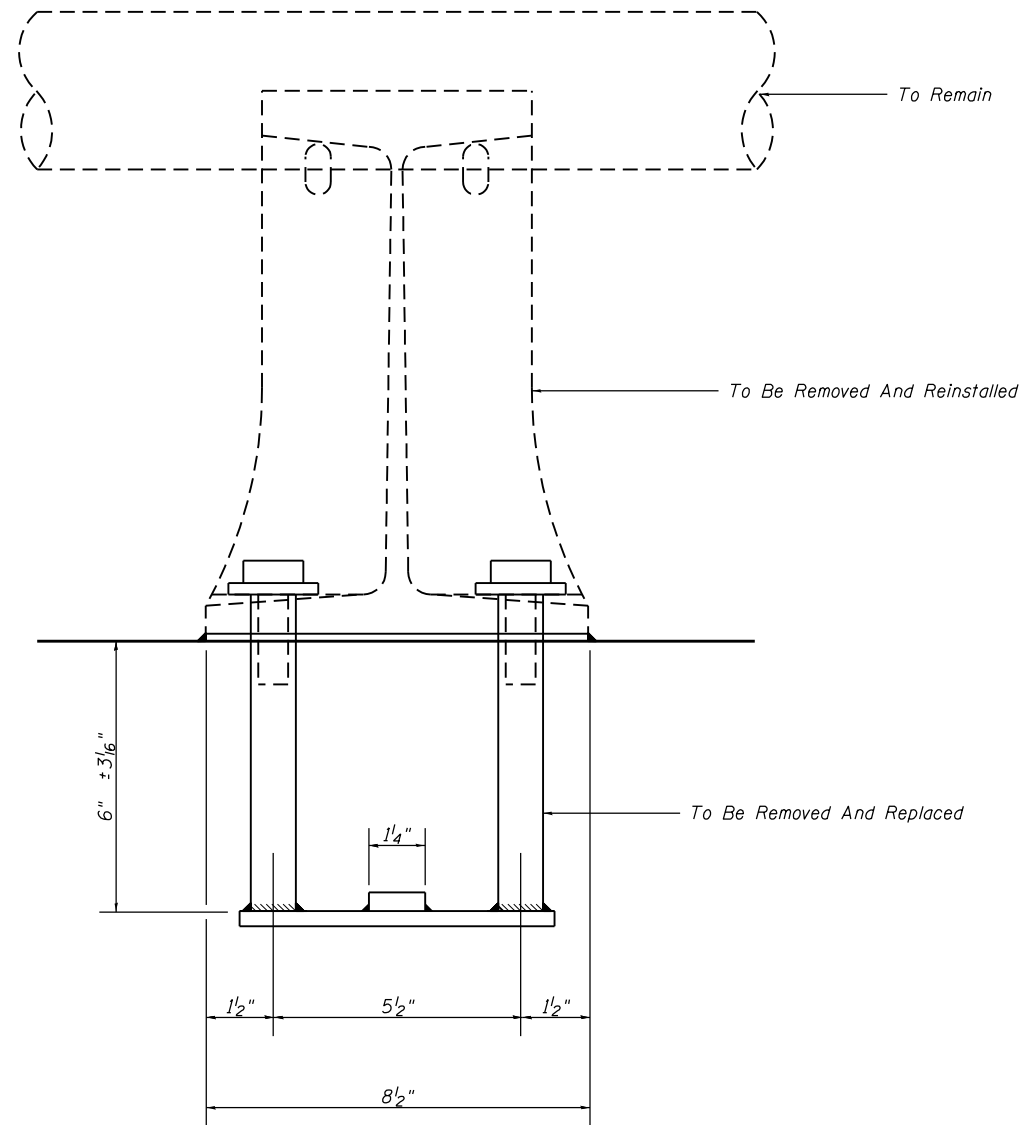
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Default	PLOT SCALE = 40.0000 ' / in.	CHECKED - KLB	REVISED -
	PLOT DATE = 10/29/2012	DATE - 7/23/12	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EXPANSION JOINT REPLACEMENT DETAIL
SN. 058-0077 (EB) & 058-0078 (WB)**

SCALE: SHEET 11 OF 15 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
• 07	BRIDGE REPAIRS 2013-3	MACON	28	24
• FAI 72, FAU 7354			CONTRACT NO. 74591	
ILLINOIS FED. AID PROJECT				



2 - 1/2" ϕ x 1 3/4" hex. hd. cap screws
Std. flat washers. (stnl. stl.)

2 - 3/4" ϕ x 2" hex. hd. cap screws
Std. flat washers. (stnl. stl.)

Base of post shall be sealed with two component non-staining gray sealing compound with polysulfide liquid polymers-gun grade with primer.

1/8" Fabric Bearing Pad

2 - 3/4" ϕ welded studs drilled and tapped for 1/2"-13. AASHTO M 169 (1015, 1018, 1020)

Front face of parapet

2 - 1" ϕ welded studs drilled and tapped for 3/4"-10. AASHTO M 169 (1015, 1018, 1020)

3/8" x 1 1/4" x 7"

1/2" x 1 1/2" x 7"

Note: In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting stainless steel anchor rods of the same diameter and grade as the specified cap screws according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.

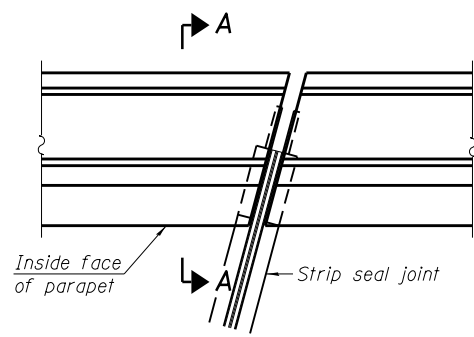
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Default	PLOT SCALE = 40.0000' / in.	CHECKED - KLB	REVISED -
	PLOT DATE = 10/29/2012	DATE - 7/23/12	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

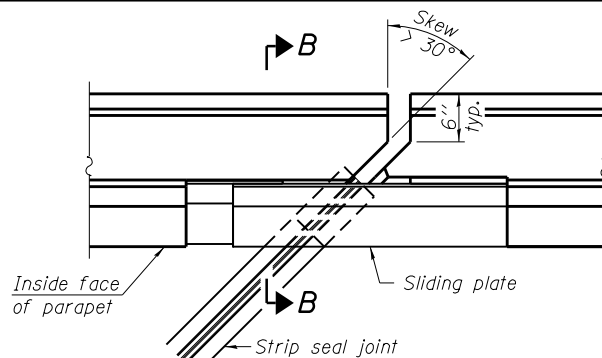
**HANDRAIL DETAILS
SN. 058-0077 (EB) & 058-0078 (WB)**

SCALE: SHEET 12 OF 15 SHEETS STA. TO STA.

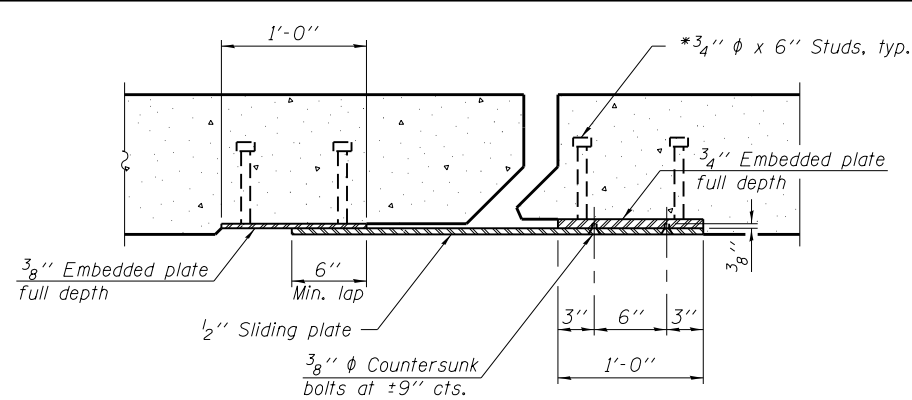
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
• 07 BRIDGE REPAIRS 2013-3		MACON	28	25
• FAI 72, FAU 7354				CONTRACT NO. 74591
ILLINOIS FED. AID PROJECT				



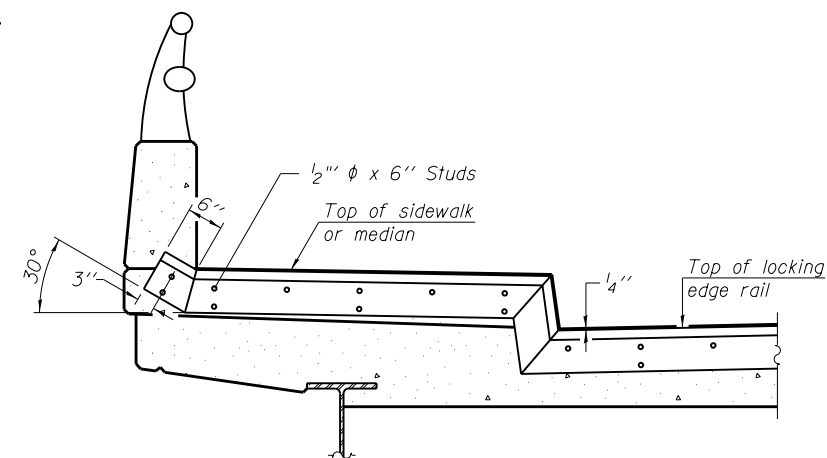
PLAN
(For skews $\leq 30^\circ$)



PLAN
(For skews $> 30^\circ$)
Showing point block

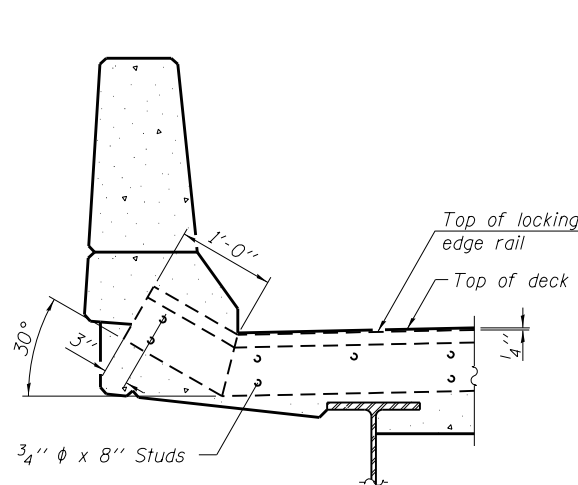


SECTION C-C

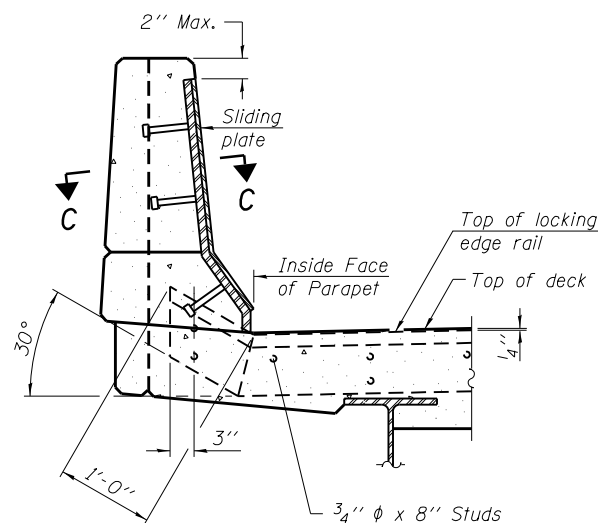


**TYPICAL END TREATMENT
AT SIDEWALK OR MEDIAN**

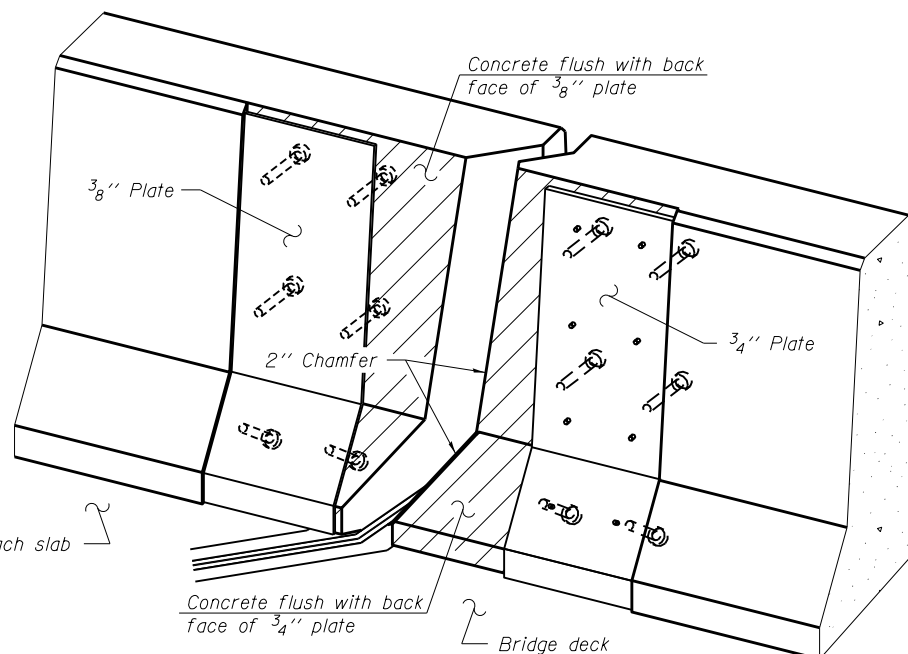
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



SECTION A-A



SECTION B-B



TRIMETRIC VIEW
(Showing back plates only)

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 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.

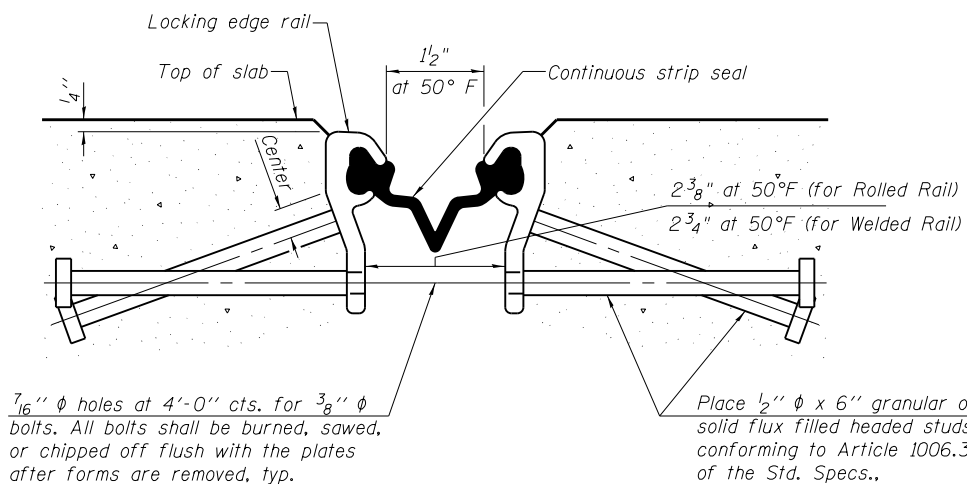
Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

The manufacturer's recommended installation methods shall be followed.

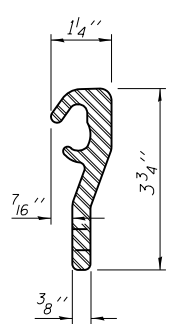
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

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

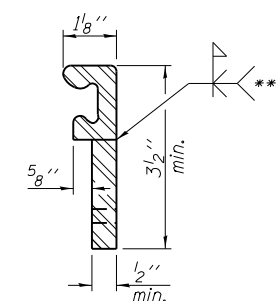
Parapet plates and anchorage studs for skews $> 30^\circ$ included in the cost of Preformed Joint Strip Seal.



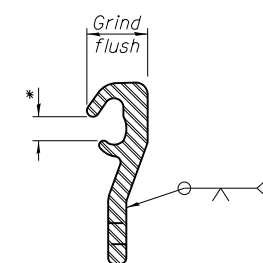
**SECTION THRU STRIP SEAL JOINT
FOR OVERLAY OVER DECK BEAMS**



**ROLLED
(EXTRUDED) RAIL**



WELDED RAIL



**LOCKING EDGE
RAIL SPLICE**

Rolled rail shown, welded rail similar.

- * Omit weld at seal opening.
- ** Back gouge not required if complete joint penetration is verified by mock-up.

LOCKING EDGE RAIL

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	172.0

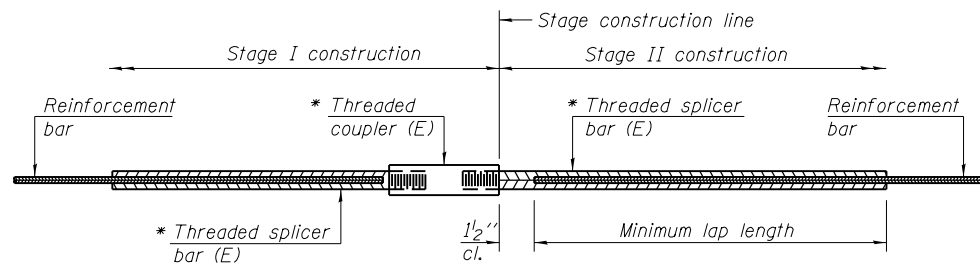
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Default	PLOT SCALE = 40.0000 ' / in.	CHECKED - KLB	REVISED -
	PLOT DATE = 10/29/2012	DATE - 7/23/12	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PREFORMED JOINT STRIP SEAL
SN. 058-0077 (EB) & 058-0078 (WB)**

SCALE: SHEET 13 OF 15 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07 BRIDGE REPAIRS 2013-3	MACON	28	26
	FAI 72, FAU 7354		CONTRACT NO.	74591
ILLINOIS FED. AID PROJECT				



STANDARD BAR SPLICER ASSEMBLY

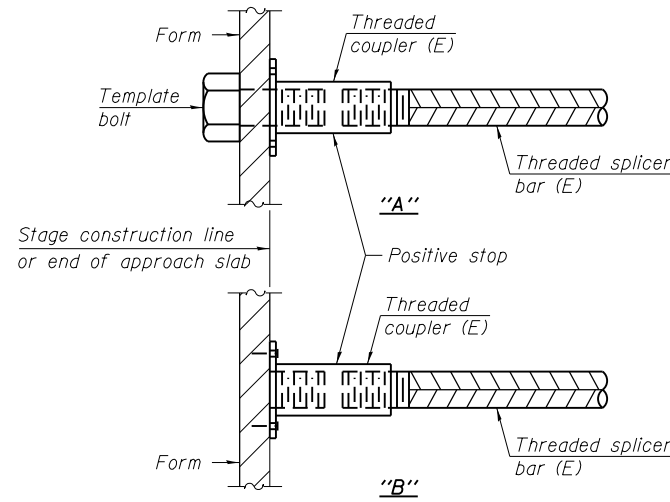
Bar size to be spliced	Minimum Lap Lengths					
	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

- 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
- Table 5: Epoxy bar, Class C
- Table 6: Epoxy bar, Top bar top, Class C

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

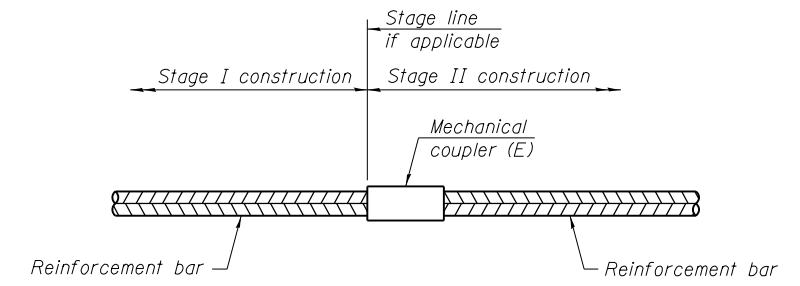
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
058-0077	#7	8	Table 3
058-0077	#6	8	Table 3
058-0078	#7	8	Table 3
058-0078	#6	8	Table 3



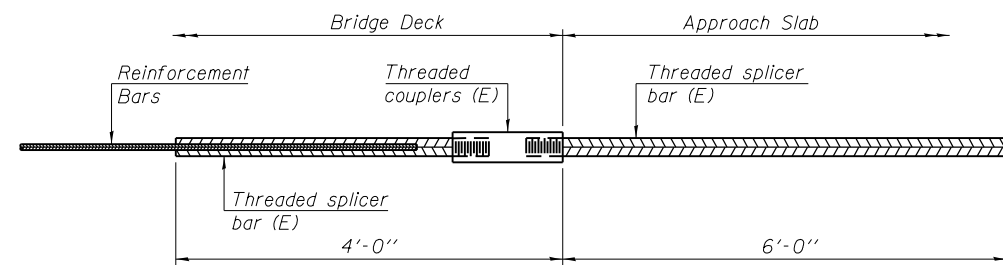
INSTALLATION AND SETTING METHODS

- "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.



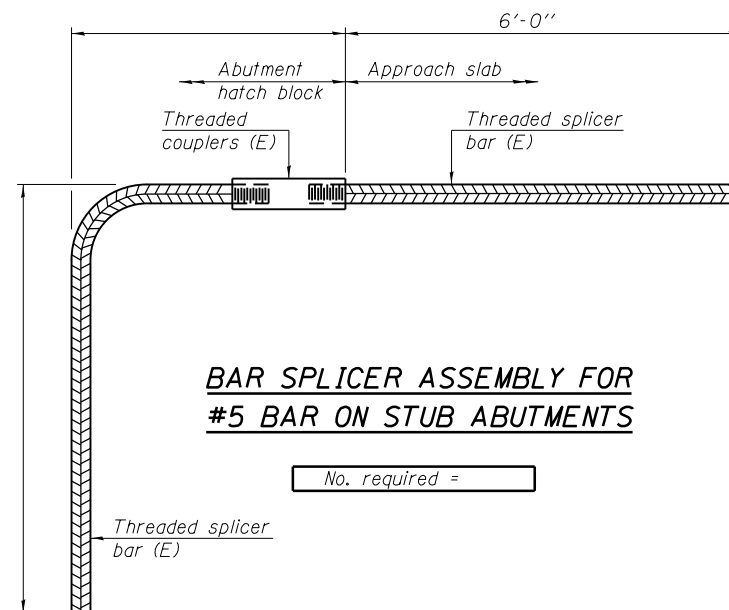
STANDARD MECHANICAL SPLICER

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

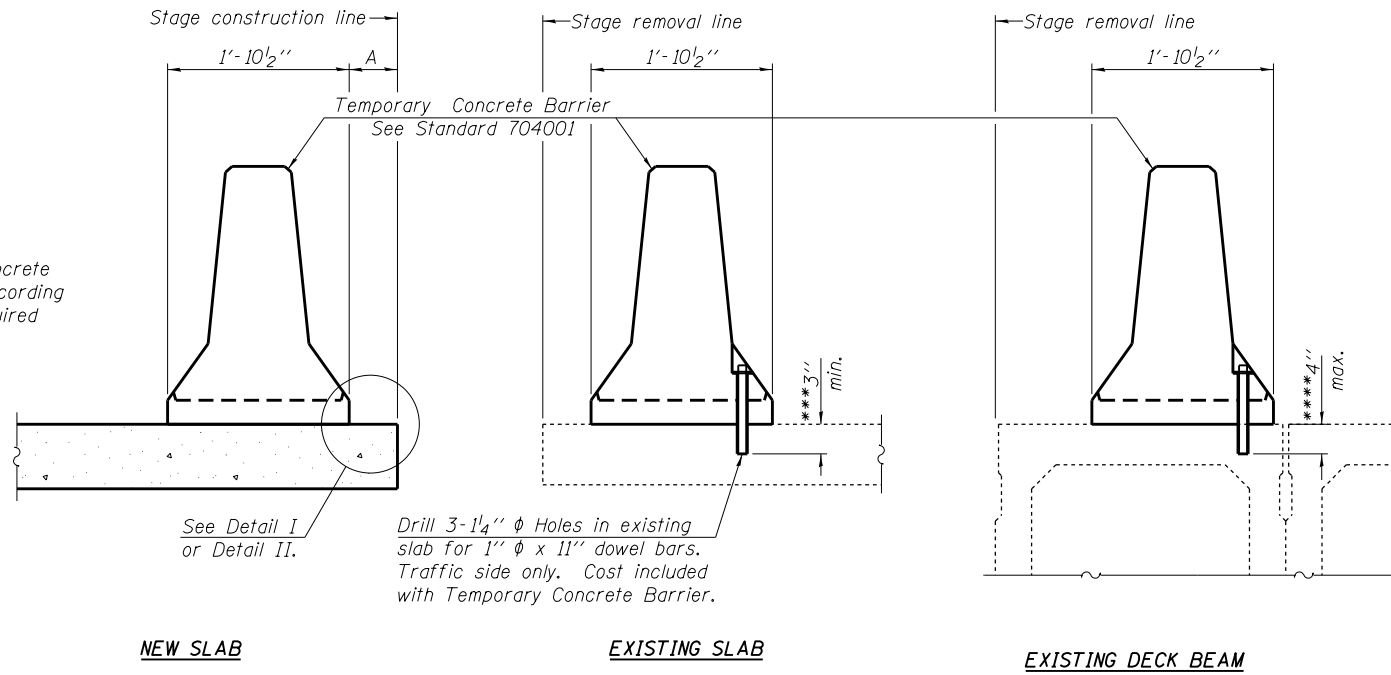
- Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
- All reinforcement shall be lapped and tied to the splicer bars.
- Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.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

BSD-1

1-27-12

FILE NAME =	USER NAME = teasleyck	DESIGNED - DFZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS SN. 058-0077 (EB) & 058-0078 (WB)	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Default	4591-sh-t-brdeta1s-05800770078.dgn	DRAWN - DFZ	REVISED -			• 07 BRIDGE REPAIRS 2013-3	MACON	28	27	
	PLOT SCALE = 40.0000' / in.	CHECKED - KLB	REVISED -			• FAI 72, FAU 7354	CONTRACT NO. 74591		ILLINOIS FED. AID PROJECT	
	PLOT DATE = 10/29/2012	DATE - 7/23/12	REVISED -			SCALE:	SHEET 14 OF 15 SHEETS	STA.	TO STA.	

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



SECTIONS THRU SLAB OR DECK BEAM

NOTES

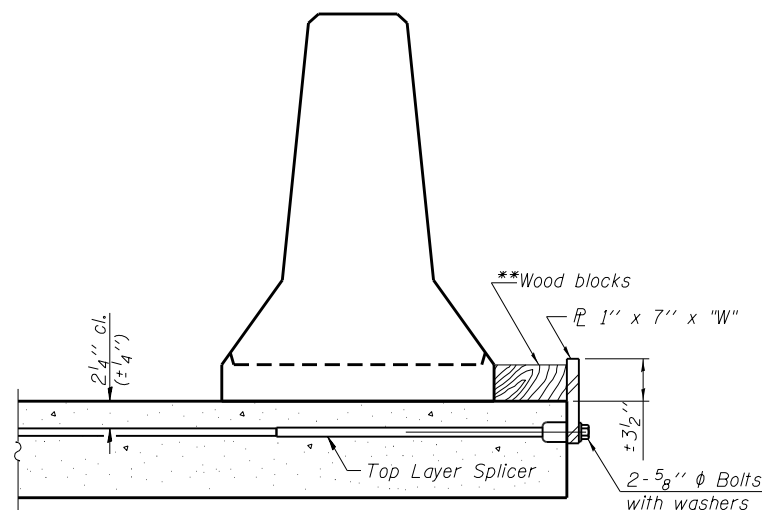
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel PL to the concrete slab or concrete wearing surface with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.

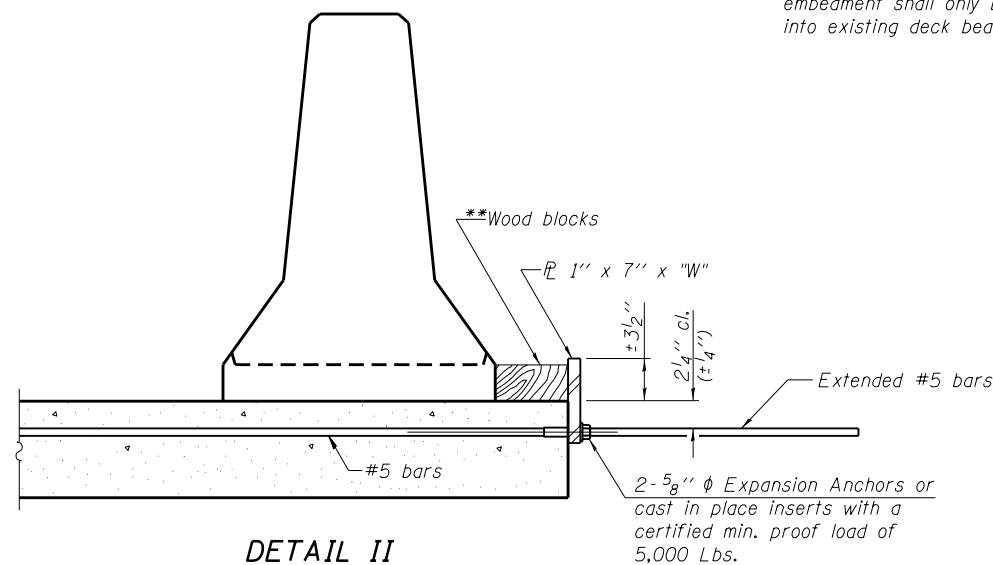
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

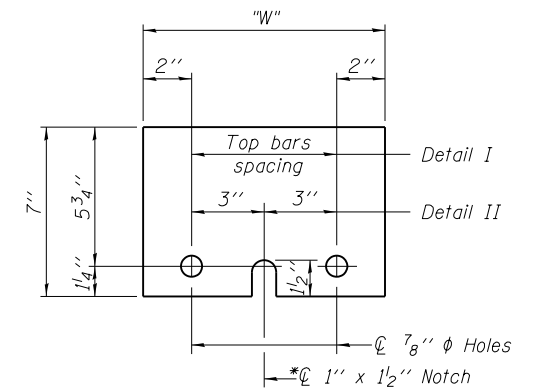
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1" x 7" x "W"

* Required only with Detail II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"

R-27

7-1-10

FILE NAME =	USER NAME = teasleyck	DESIGNED - DFZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION SN. 058-0077 (EB) & 058-0078 (WB)	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwwork\pwwork\teasleyck\d0307638\074591-sh-t-brdetail1s-05800770078.dgn	DRAWN - DFZ	REVISED -	• 07 BRIDGE REPAIRS 2013-3			Macon	28	28		
Default	PLOT SCALE = 40.0000' / in.	CHECKED - KLB	REVISED -			• FAI 72, FAU 7354	CONTRACT NO. 74591			
	PLOT DATE = 10/29/2012	DATE - 7/23/12	REVISED -			ILLINOIS FED. AID PROJECT				
					SCALE:	SHEET 15	OF 15 SHEETS	STA.	TO STA.	