

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
666	(27) BDR, BJR, BRR	SANGAMON	37	1
		ILLINOIS	CONTRACT NO. 72J53	

INDEX OF SHEETS

- 1 COVER SHEET
- 2 GENERAL NOTES
- 3-6 SUMMARY OF QUANTITIES
- 7-8 SCHEDULE OF QUANTITIES
- 9-10 TYPICAL SECTIONS
- 11-12 ROADWAY PLAN SHEET
- 13-17 STAGING DETAIL
- 18-31 BRIDGE PLANS
- 32-37 DETAILS

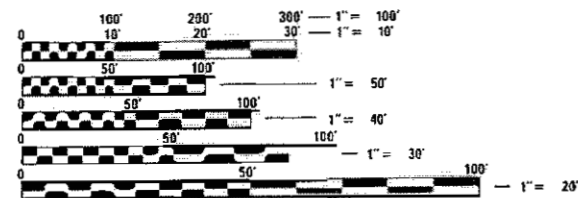
**PROPOSED  
HIGHWAY PLANS**

FAP ROUTE 666 (I-55 BL)  
SECTION (27) BDR, BJR, BRR  
PROJECT NHPP-VVVP(913)  
MICROSILICA BRIDGE OVERLAY  
SANGAMON COUNTY

C-96-012-17

HIGHWAY STANDARDS

000001-06	701421-08
001001-02	701423-10
630001-12	701426-09
630301-08	701901-07
631031-15	704001-08
642001-02	725001-01
701101-05	780001-05
701106-02	781001-04
	782006



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

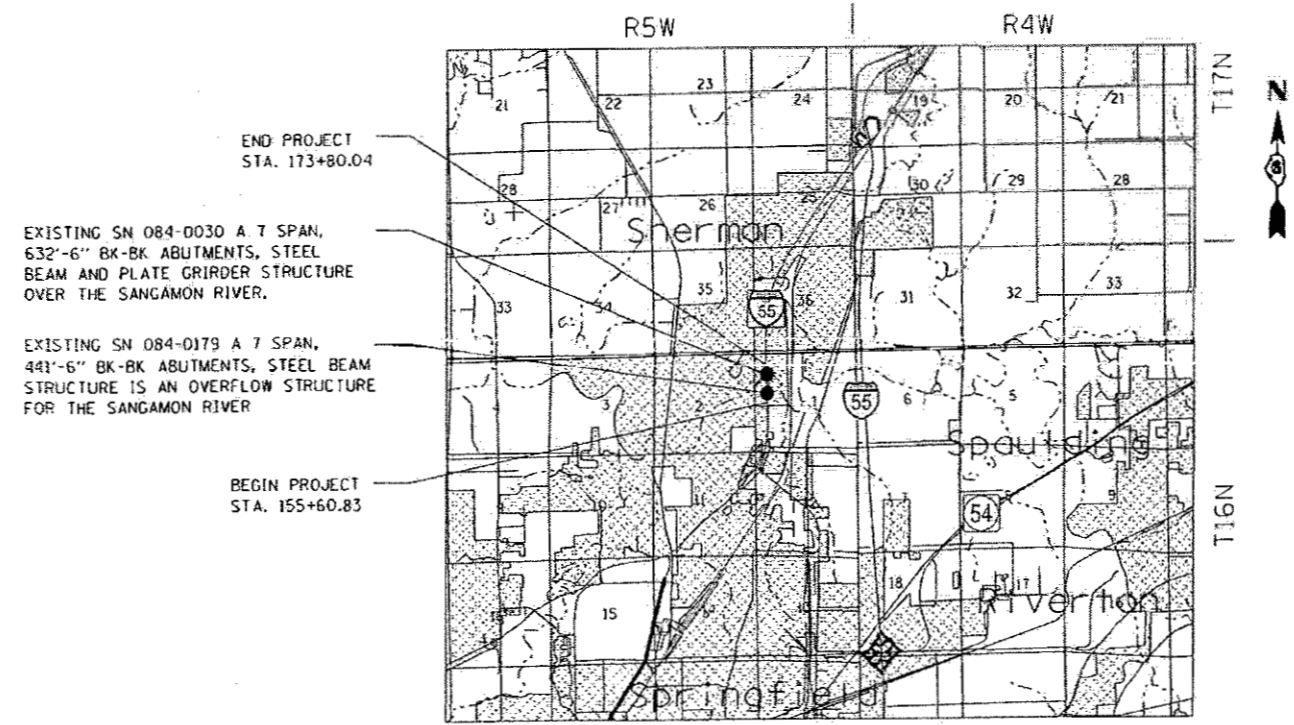
PROJECT ENGINEER: JAY EDWARDS (217) 785-0597  
PROJECT MANAGER: FRANK SHIMKUS (217) 785-9102

CONTRACT NO. 72J53



LOCATION OF SECTION INDICATED THUS: - [black rectangle] -

	BL 55
ADT (2015) =	14,300
ADT (2035) =	17,700
PV =	95.3%
SU =	3.7%
MU =	1.0%



END PROJECT  
STA. 173+80.04

EXISTING SN 084-0030 A 7 SPAN,  
632'-6" BK-BK ABUTMENTS, STEEL  
BEAM AND PLATE GIRDER STRUCTURE  
OVER THE SANGAMON RIVER.

EXISTING SN 084-0179 A 7 SPAN,  
441'-6" BK-BK ABUTMENTS, STEEL BEAM  
STRUCTURE IS AN OVERFLOW STRUCTURE  
FOR THE SANGAMON RIVER

BEGIN PROJECT  
STA. 155+60.83



GROSS LENGTH = 1819.21 FT. = 0.345 MILE  
NET LENGTH = 1819.21 FT. = 0.345 MILE

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED 12 January 2018

*[Signature]* REGIONAL ENGINEER

Feb 2 2018  
*[Signature]* ENGINEER OF DESIGN AND ENVIRONMENT

Feb 9 2018  
*[Signature]* DIRECTOR OF PROGRAM DEVELOPMENT

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OF THE STATE OF ILLINOIS



				PPS# 6-01003-0000		
				80% FED / 20% STATE		
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY	BRIDGE	BRIDGE
				0005	0059	0059
				URBAN	S.N. 084-0030	S.N. 084-0179
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	6	6		
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	4231.1	4231.1		
40600627	LEVELING BINDER (MACHINE METHOD), IL-9.5FG, N50	TON	168.6	168.6		
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	368	368		
40600990	TEMPORARY RAMP	SQ YD	192	192		
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	337.2	337.2		
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SQ YD	1045	1045		
44000173	HOT-MIX ASPHALT SURFACE REMOVAL, 6"	SQ YD	1023	1023		
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	58	58		
48203006	HOT-MIX ASPHALT SHOULDERS, 2 1/4"	SQ YD	1045	1045		
48203021	HOT-MIX ASPHALT SHOULDERS, 6"	SQ YD	1023	1023		
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	89	89		
48203100	HOT-MIX ASPHALT SHOULDERS	TON	137	137		
50102400	CONCRETE REMOVAL	CU YD	118.5		71.5	47
14						

FILE NAME =	USER NAME = ahunkusft	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES FAP 666 (BUSINESS LOOP 55)</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT DATE = 1/12/2018				ILLINOIS FED. AID PROJECT							



PPS# 6-01003-0000

80% FED / 20% STATE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY	BRIDGE	BRIDGE
				0005	0059	0059
				URBAN	S.N. 084-0030	S.N. 084-0179
70100325	TRAFFIC CONTROL AND PROTECTION, STANDARD 701423	EACH	2	2		
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DAY	7	7		
70300100	SHORT TERM PAVEMENT MARKING	FOOT	728	728		
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	242	242		
70400100	TEMPORARY CONCRETE BARRIER	FOOT	4175	4175		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	3945	3945		
70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	4	4		
70600332	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	4	4		
* 72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4		
* 78001120	PAINT PAVEMENT MARKING - LINE 5"	FOOT	12300	12300		
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	13	13		
78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	28	28		
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	13	13		
X0326898	CENTER LINE - RUMBLE STRIP - 16"	FOOT	753.4	753.4		
14						

\* SPECIALTY ITEM

FILE NAME :	USER NAME = ghmkusft	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES FAP 666 (BUSINESS LOOP 55)</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT DATE = 1/12/2018				ILLINOIS FED. AID PROJECT							

PPS# 6-01003-0000

80% FED / 20% STATE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY	BRIDGE	BRIDGE
				0005	0059	0059
				URBAN	S.N. 084-0030	S.N. 084-0179
X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	6519	6519		
X0931400	INLET BOXES TO BE ADJUSTED (SPECIAL)	EACH	8	8		
X4401198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	3646	3646		
X5030250	BRIDGE DECK GROOVING (LONGITUDINAL)	SQ YD	5702		3368	2334
X6050065	REMOVING INLETS, SPECIAL	EACH	10	10		
X7015005	CHANGEABLE MESSAGE SIGN	CAL DAY	100	100		
X7200201	WIDTH RESTRICTION SIGNING	L SUM	1	1		
Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	7500		4414	3086
Z0012164	BRIDGE DECK MICROSILICA CONCRETE OVERLAY 2 1/2"	SQ YD	7500		4414	3086
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	125		125	
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	15.6		15.6	
Z0029090	DIAMOND GRINDING (BRIDGE SECTION)	SQ YD	9786	2755	4138	2893
Z0041500	PLUG EXISTING CULVERTS	EACH	10	10		

13

FILE NAME =	USER NAME = ahankunf1	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES FAP 666 (BUSINESS LOOP 55)</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
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Default	PLOT DATE = 1/12/2018	DATE -	REVISED -								CONTRACT NO. 72J53				
											ILLINOIS FED. AID PROJECT				



SHOULDER IMPROVEMENT SCHEDULE										
LOCATION STATION TO STATION FAP 666 (BL 55)	LENGTH (FT)	PROPOSED WIDTH (FT)	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4" (SQ YD)	HOT-MIX ASPHALT SURFACE REMOVAL, 6" (SQ YD)	HOT-MIX ASPHALT SHOULDERS, 2 1/4" (SQ YD)	HOT-MIX ASPHALT SHOULDERS, 6" (SQ YD)	HOT-MIX ASPHALT SHOULDERS, 1 3/4" (TON)	HOT-MIX ASPHALT SHOULDERS, 8" (SQ YD)	BITUMINOUS MATERIALS (TACK COAT) (POUND)	
NORTHBOUND										
STA. 151+20.00 TO STA. 151+30.00	10.00	8						8.9	22.0	
STA. 152+95.00 TO STA. 153+05.00	10.00	8						8.9	22.0	
STA. 153+24.00 TO STA. 156+30.50	306.50	8		272.4		272.4			122.6	
STA. 154+95.00 TO STA. 155+05.00	10.00	8						8.9	22.0	
STA. 155+60.83 TO STA. 156+47.84	87.01	8					7.6		17.4	
STA. 153+24.00 TO STA. 156+47.84	323.84									
BRIDGE OMISSION S.N. 084-0179										
STA. 161+01.40 TO STA. 166+77.90	576.50	8		512.4		512.4			230.6	
STA. 162+95.00 TO STA. 163+05.00	10.00	8						8.9	22.0	
STA. 164+91.00 TO STA. 165+01.00	10.00	8						8.9	22.0	
STA. 160+84.88 TO STA. 166+94.45	609.57	8					53.1		121.9	
BRIDGE OMISSION S.N. 084-0030										
STA. 173+23.20 TO STA. 175+91.00	267.80	8		238.0		238.0			107.1	
STA. 173+23.20 TO STA. 173+80.04	56.84	8					5.0		22.7	
STA. 173+23.20 TO STA. 175+91.00	267.80									
SUB-TOTAL			0.0	1022.9	0.0	1022.9	65.6	44.4	732.4	
SOUTHBOUND										
STA. 148+95.00 TO STA. 149+05.00	10.00	8						8.9	22.0	
STA. 152+95.00 TO STA. 153+05.00	10.00	8						8.9	22.0	
STA. 153+43.00 TO STA. 156+30.50	287.50	8	255.6		255.6				115.0	
STA. 154+85.00 TO STA. 154+95.00	10.00	8						8.9	22.0	
STA. 155+00.00 TO STA. 156+47.11	147.11	8					12.8		58.8	
STA. 153+43.00 TO STA. 156+47.11	304.11									
BRIDGE OMISSION S.N. 084-0179										
STA. 161+01.40 TO STA. 166+77.90	576.50	8	512.4		512.4				230.6	
STA. 162+95.00 TO STA. 163+05.00	10.00	8						8.9	22.0	
STA. 164+97.00 TO STA. 165+07.00	10.00	8						8.9	22.0	
STA. 160+84.84 TO STA. 166+94.45	609.61	8					53.1		243.8	
BRIDGE OMISSION S.N. 084-0030										
STA. 173+44.35 TO STA. 176+56.00	311.65	8	277.0		277.0				124.7	
STA. 173+23.20 TO STA. 173+80.04	56.84	8					5.0		11.4	
STA. 173+23.20 TO STA. 176+55.85	332.65									
SUB-TOTAL			1045.0	0.0	1045.0	0.0	70.9	44.4	894.3	
TOTAL			1,045.02	1,022.93	1,045.02	1,022.93	136.50	88.89	1,626.69	

1 - BITUMINOUS MATERIALS (TACK COAT)/FOG COAT ADDED BETWEEN SHOULDER LIFTS

SHORT-TERM PAVEMENT MARKING					
LOCATION STATION TO STATION FAP 666 (BL 55)	LENGTH (FT)	SPACING	NUMBER OF APPLICATIONS	SHORT-TERM PAVE MARK (FT)	SHORT TERM PAVE MARK REM (SQ FT)
STA. 155+60.83 TO STA. 173+80.04	1819.2	4' / 40'	2	363.8	121
STA. 155+60.83 TO STA. 173+80.04	1819.2	4' / 40'	2	363.8	121
TOTAL				727.7	242

PAVEMENT MARKING					
LOCATION STATION TO STATION FAP 666 (BL 55)	DESCRIPTION	LENGTH (FT)	SPACING	LINE-5"	
				YELLOW (FT)	WHITE (FT)
STA. 141+60.76 TO STA. 173+80.04	SKIP-DASH (NB)	3219.28	10' @ 40'		810
STA. 155+35.00 TO STA. 182+60.00	SKIP-DASH (SB)	2725.00	10' @ 40'		690
STA. 183+52.00 TO STA. 194+24.00	SKIP-DASH (SB)	1072.00	10' @ 40'		280
STA. 149+63.24 TO STA. 175+90.53	SOLID DOUBLE YELLOW	2627.29		5255	
STA. 149+63.24 TO STA. 175+90.53	SOLID (EDGE LINE NB)	2627.29	-	-	2627
STA. 153+43.40 TO STA. 179+77.10	SOLID (EDGE LINE SB)	2633.70	-	-	2634
SUB TOTAL				5255	7041
TOTAL					12,296

RUMBLE STRIP SCHEDULE			
LOCATION STATION TO STATION FAP 666 (BL 55)	LENGTH (FT)	SHOULDER RUMBLE STRIP, 16" (FT)	CENTER LINE RUMBLE STRIP, 20" (FT)
NORTHBOUND			
STA. 153+24.00 TO STA. 156+47.84	323.84	323.8	
STA. 155+60.83 TO STA. 156+47.84	87.01		87.0
BRIDGE OMISSION S.N. 084-0179			
STA. 160+84.88 TO STA. 166+94.45	609.57	609.6	609.6
BRIDGE OMISSION S.N. 084-0030			
STA. 173+23.20 TO STA. 175+91.00	267.80	267.8	
STA. 173+23.20 TO STA. 173+80.04	56.84		56.8
		1201.2	753.4
SOUTHBOUND			
STA. 153+43.00 TO STA. 156+47.11	304.11	304.1	
		0.00	
BRIDGE OMISSION S.N. 084-0179			
STA. 160+84.84 TO STA. 166+94.45	609.61	609.6	
BRIDGE OMISSION S.N. 084-0030			
STA. 173+23.20 TO STA. 176+55.85	332.65	332.6	
TO		0.00	
		1246.4	0.0
TOTAL		2,447.58	753.42

TEMPORARY RAMPS			
LOCATION STATION	LENGTH (FT)	WIDTH (FT)	AREA (SQ YD)
FAP 666 (BL 55)			
155+60.83	6	48	32.00
156+47.11	6	48	32.00
160+84.88	6	48	32.00
166+94.45	6	48	32.00
173+23.20	6	48	32.00
173+80.04	6	48	32.00
TOTAL			192.0

AGGREGATE WEDGE SHOULDER, TYPE B			
LOCATION STATION TO STATION FAP 666 (BL 55)	LENGTH (FT)	WIDTH (FT)	(TONS)
NORTHBOUND			
STA. 155+61.77 TO STA. 156+47.97	86.20	3	3.3
BRIDGE OMISSION S.N. 084-0179			
STA. 160+86.03 TO STA. 166+99.43	613.40	3	23.3
BRIDGE OMISSION S.N. 084-0030			
STA. 173+24.57 TO STA. 173+81.29	56.72	3	2.2
SOUTHBOUND			
STA. 155+61.75 TO STA. 156+47.84	86.09	3	3.3
BRIDGE OMISSION S.N. 084-0179			
STA. 160+86.04 TO STA. 166+99.03	612.99	3	23.3
BRIDGE OMISSION S.N. 084-0030			
STA. 173+24.56 TO STA. 173+80.64	56.08	3	2.1
*AVERAGE THICKNESS 2"			TOTAL 57.5

USER NAME = shimkusft	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 1/11/2018	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES  
FAP 666 (BUSINESS LOOP 55)

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
666	(27) BDR, BJR, BRR	SANGAMON	37	8
CONTRACT NO. 72J53				
ILLINOIS		FED. AID PROJECT		

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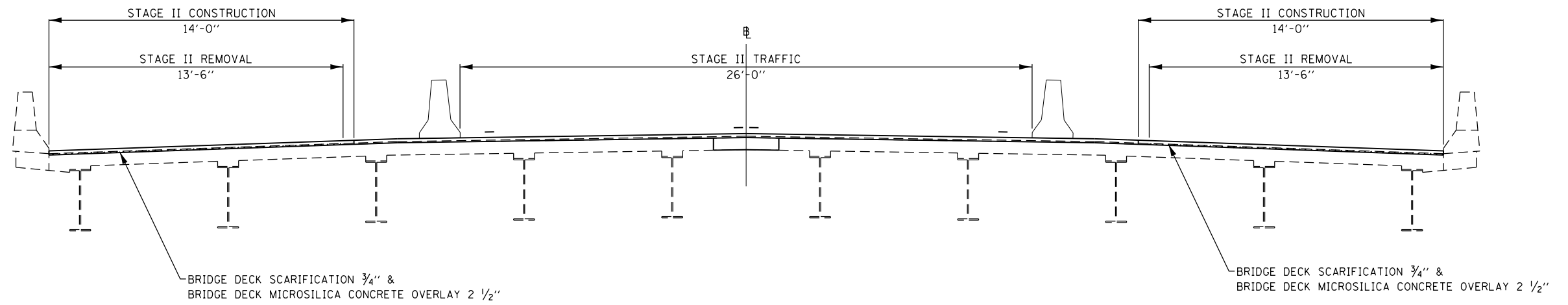




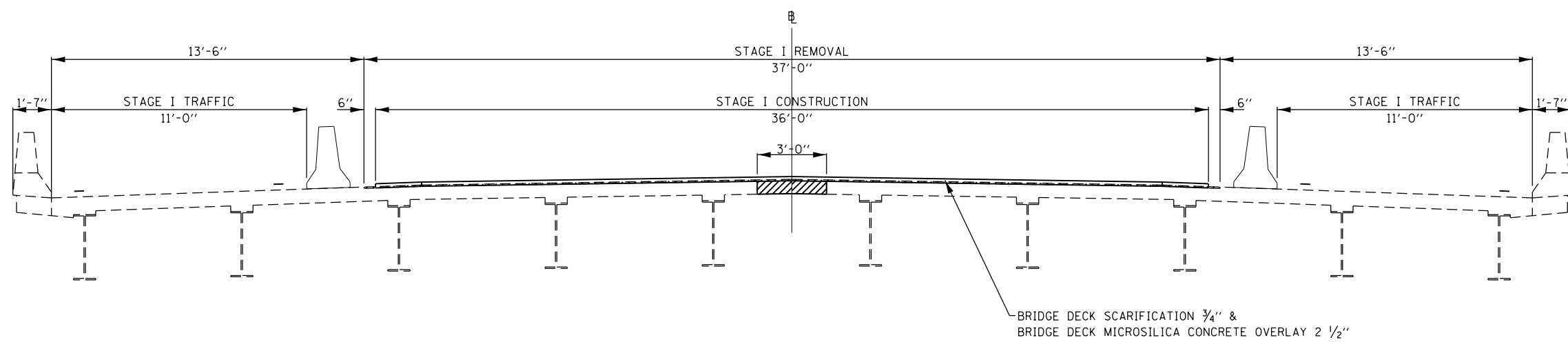








STAGE II  
(LOOKING NORTH)



STAGE I  
(LOOKING NORTH)

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PLOT DATE = 1/11/2018	DATE -	REVISED -

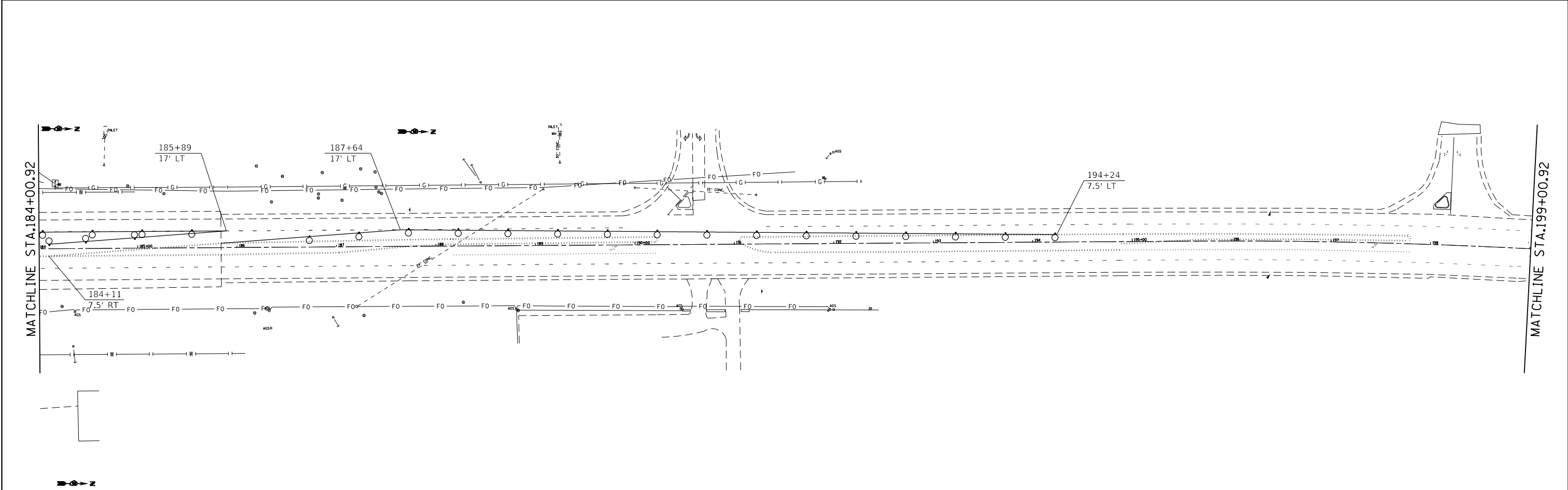
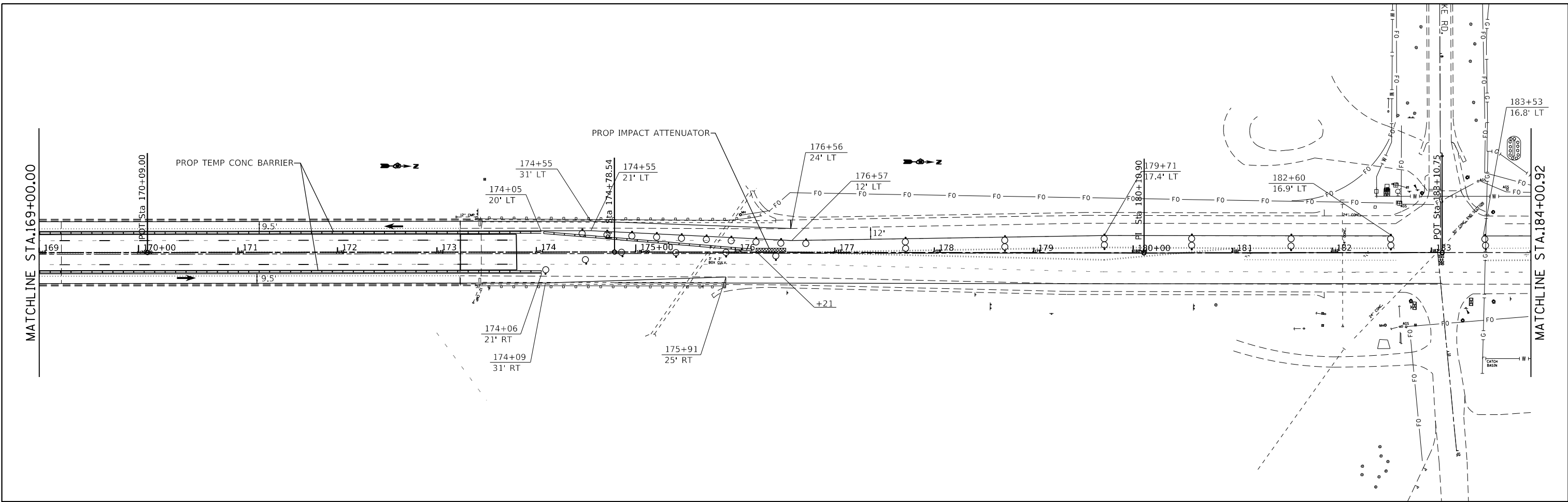
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

STAGING LAYOUT  
FAP 666 (BUSINESS LOOP 55)

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
666	(27) BDR, BJR, BRR	SANGAMON	37	13
CONTRACT NO. 72J53				
ILLINOIS FED. AID PROJECT				

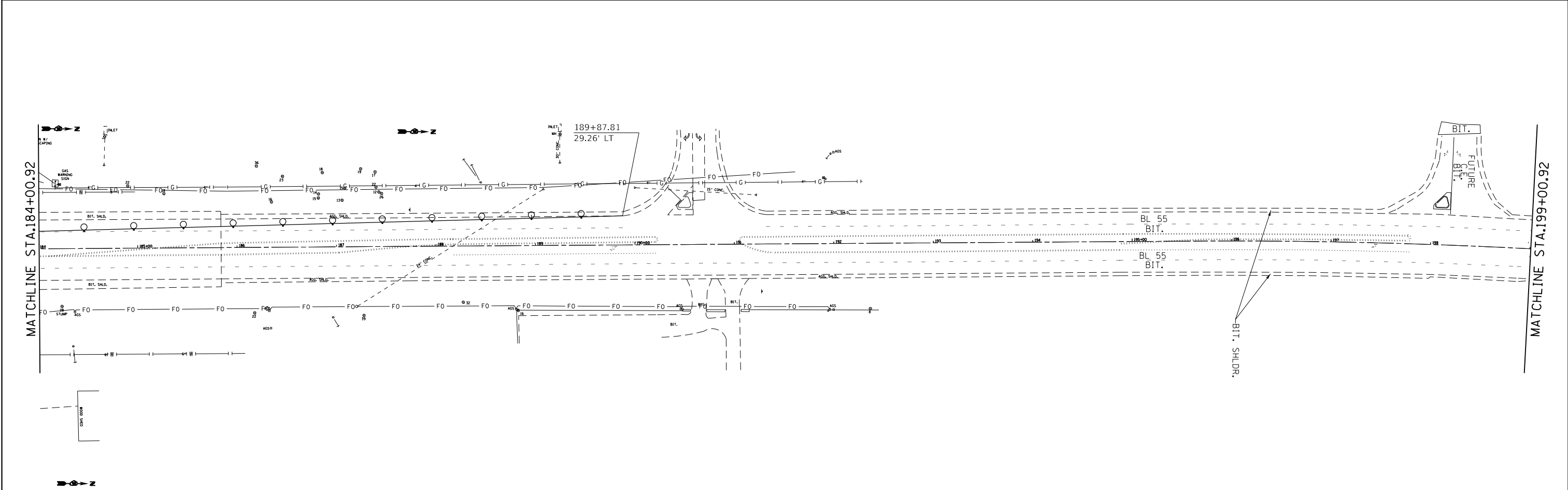
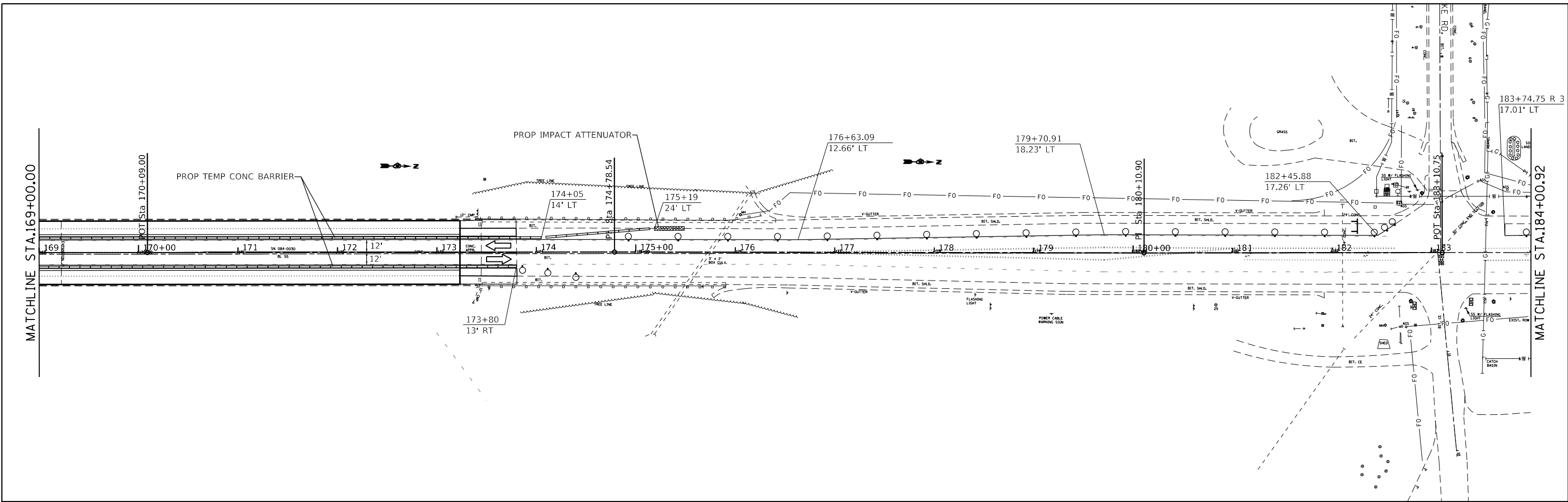




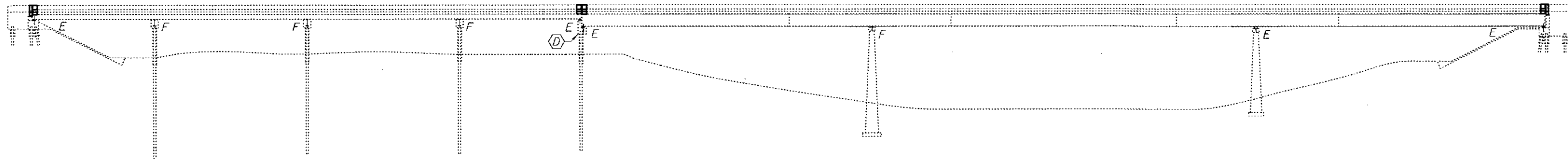
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Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISIONS -						CONTRACT NO. 72J53				
	PLOT DATE = 1/11/2018	DATE -	REVISIONS -		SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.	ILLINOIS FED. AID PROJECT	



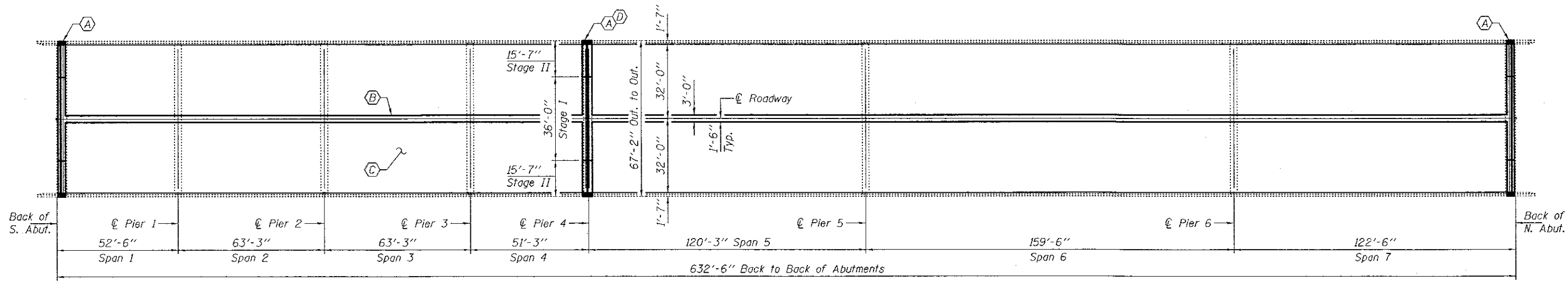




FILE NAME =	USER NAME = shimkusft	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>STAGE II TRAFFIC CONTROL PLAN FAP 666 (BUSINESS LOOP 55)</b>				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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Default	PLOT SCALE = 100.0000' / 1in.	CHECKED -	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.				CONTRACT NO. 72J53				
	PLOT DATE = 1/11/2018	DATE -	REVISED -		ILLINOIS FED. AID PROJECT								



ELEVATION



PLAN

- (A) - Replace existing expansion joint with Preformed Joint Strip Seal.
- (B) - Full Depth patching along entire  $\text{\O}$  of structure. For Details see sheet 6 of 8.
- (C) - Bridge Deck Scarification, New Microsilica Concrete Overlay & Diamond Grinding.
- (D) - Structural Repair of Concrete at Pier 4. For details & locations see sheet 7 of 8.

**GENERAL NOTES**

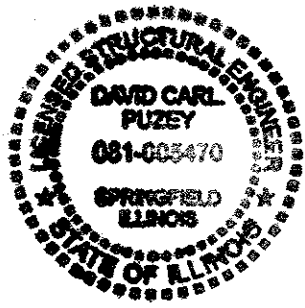
All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

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.

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

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.



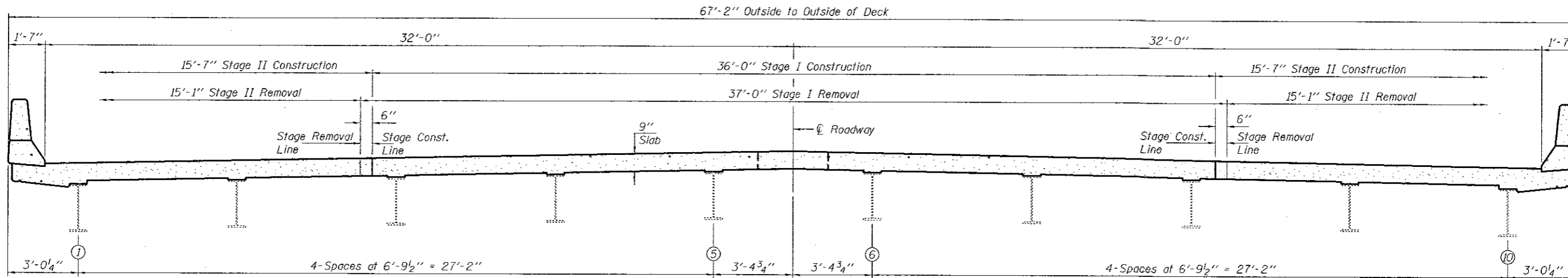
Expires: November 30, 2018

**TOTAL BILL OF MATERIAL**

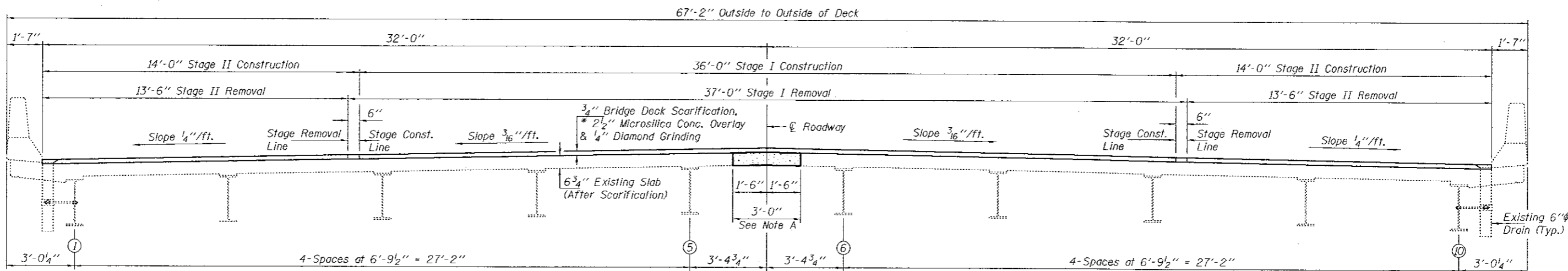
ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	71.5
Concrete Superstructure	Cu. Yd.	74.7
Bridge Deck Microsilica Concrete Overlay, 2 1/2"	Sq. Yd.	4414
Reinforcement Bars, Epoxy Coated	Pound	16,000
Bar Splicers	Each	80
Bridge Deck Scarification, 3/4"	Sq. Yd.	4414
Diamond Grinding (Bridge Section)	Sq. Yd.	4138
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	15.6
Preformed Joint Strip Seal	Foot	198
Structural Repair of Concrete $\leq$ 5 inches	Sq. Ft.	125
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	3368
Protective Coat	Sq. Yd.	4280

\* On new deck surface and top & inside face of new parapet concrete only.

DESIGNED - <i>Stephen M. Ryan</i>	EXAMINED - <i>Timothy A. Puzey</i>	DATE - JANUARY 17, 2018	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>GENERAL PLAN &amp; ELEVATION</b> <b>I-55 BUSINESS / PEORIA ROAD OVER THE SANGAMON RIVER</b> <b>SN 084-0030</b>	F.A.P. RTE. 666	SECTION (27) BDR, BJR, BRR	COUNTY SANGAMON	TOTAL SHEETS 37	SHEET NO. 18	
CHECKED - <i>Walt Puzey</i>	PASSED - <i>David Carl Puzey</i>	REVISOR			CONTRACT NO. 72J53					
DRAWN - Kyle M. Steffen	ENGINEER OF BRIDGES AND STRUCTURES	REVISOR			SHEET NO. 1 OF 8 SHEETS					
CHECKED - <i>SMR</i>					ILLINOIS FED. AID PROJECT					



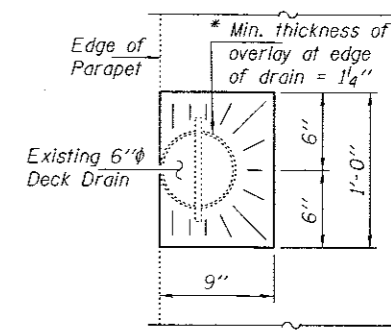
**CROSS SECTION AT  
JOINT REPLACEMENT LOCATIONS**  
(Looking North)



**CROSS SECTION AT MID SPANS**  
(Looking North)

\* Prior to 1/4" Diamond Grinding.

Note A:  
3'-0" wide full depth patch  
along  $\phi$  of entire structure.  
For details see sheet 6 of 8.



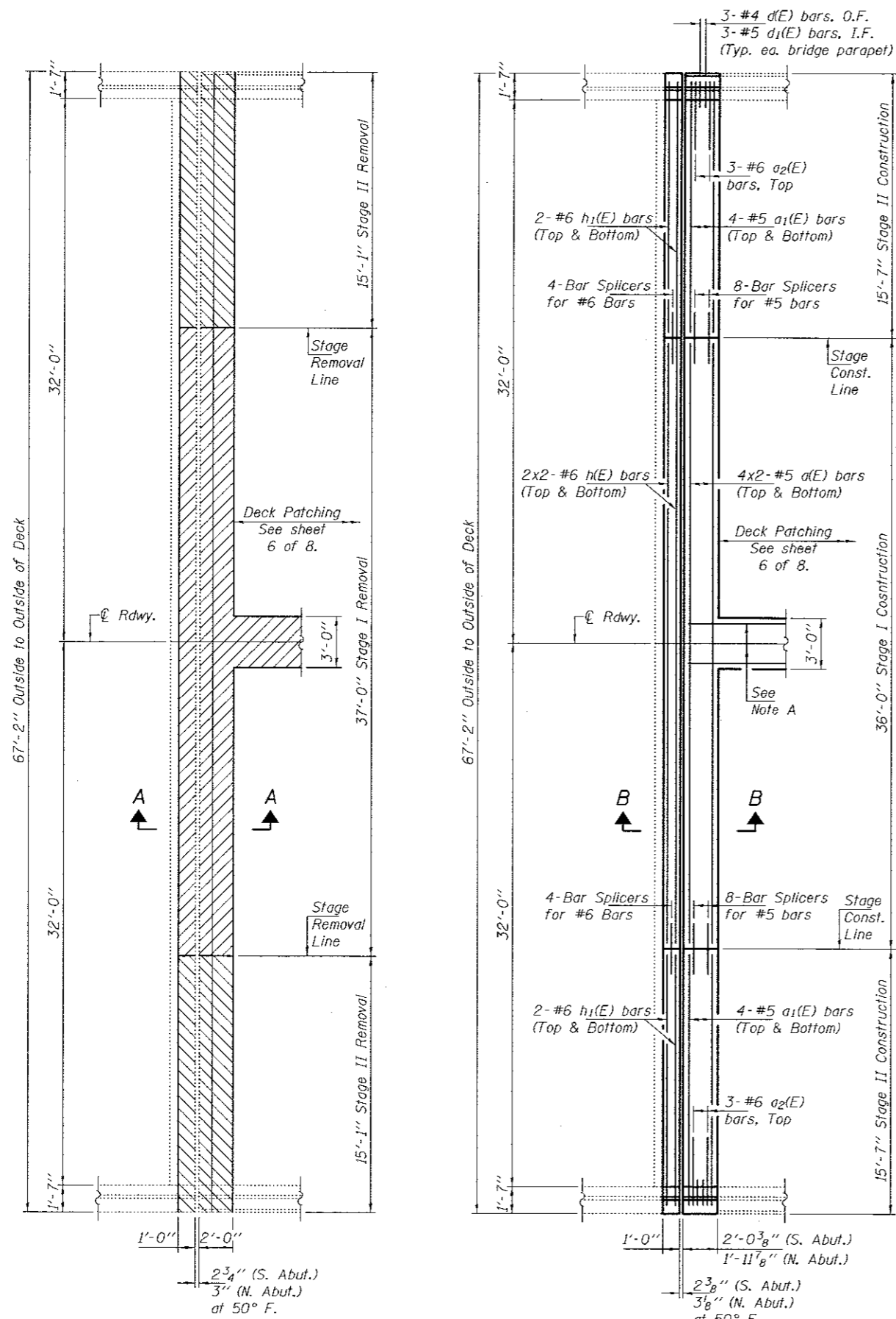
**OVERLAY TREATMENT AT DRAINS**  
Slope Microsilica 2:1 at drains.

DESIGNED - SMR	EXAMINED - <i>Timothy A. Bault</i>	DATE - JANUARY 17, 2018
CHECKED - <i>MLD</i>	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Kyle M. Steffen	PASSED - <i>Carl Perry</i>	REVISED
CHECKED - SMR <i>MLD</i>	ENGINEER OF BRIDGES AND STRUCTURES	REVISED

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

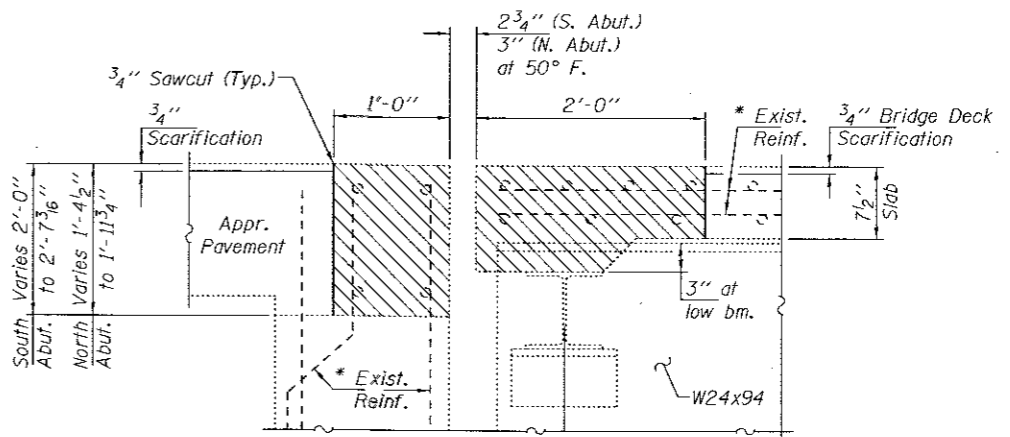
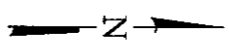
**STAGING DETAILS & CROSS SECTION  
SN 084-0030**

F.A.P. RTE. 666	SECTION (27) BDR, BJR, BRR	COUNTY SANGAMON	TOTAL SHEETS 37	SHEET NO. 19
CONTRACT NO. T2J53			ILLINOIS FED. AID PROJECT	



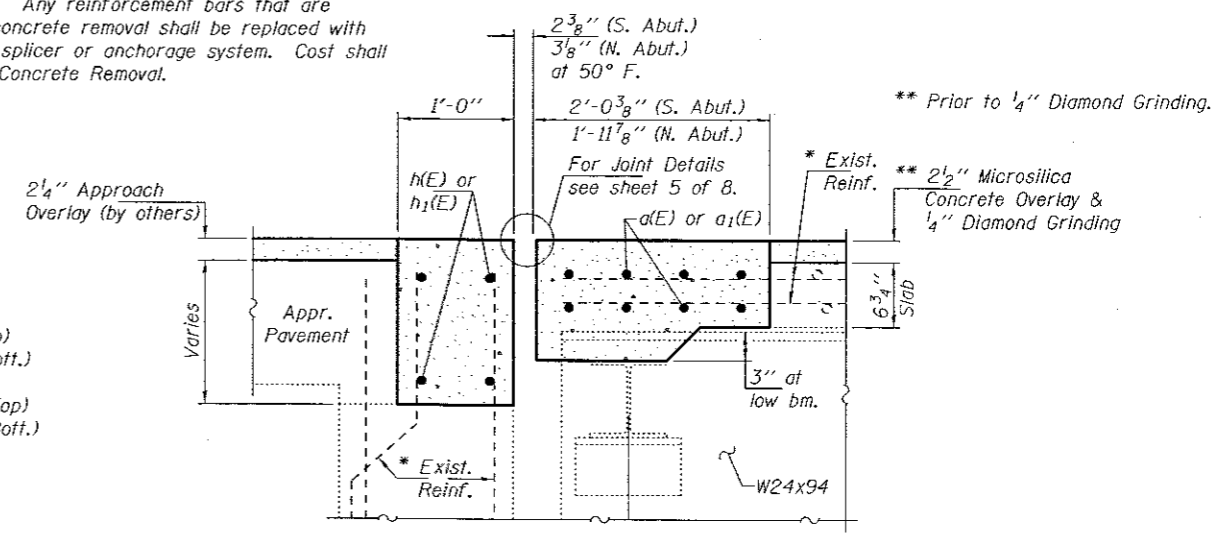
**CONCRETE REMOVAL AT ABUTMENTS**  
 (South Abutment shown, North Abutment similar except as noted.)

**CONCRETE REPLACEMENT AT ABUTMENTS**  
 (South Abutment shown, North Abutment similar except as noted.)



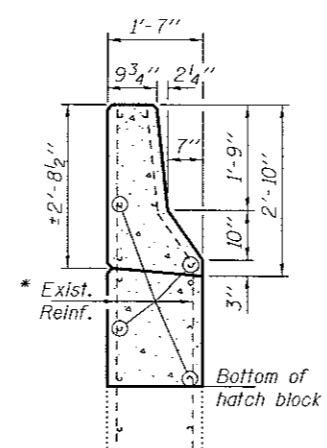
**SECTION A-A**

\* Existing reinforcement 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 shall be included with Concrete Removal.



**SECTION B-B**

Note A:  
 4x9-#5 b(E) bars (Top)  
 4x8-#4 b1(E) bars (Bott.)  
 at South Abutment  
 4x15-#5 b2(E) bars (Top)  
 4x14-#4 b3(E) bars (Bott.)  
 at North Abutment  
 (See Sheet 6 of 8.)



**TYPICAL SECTION AT APPROACH PARAPET**

Notes:  
 Hatched areas indicate Concrete Removal. Cost of replacement of concrete included with Concrete Superstructure.  
 For Parapet Details & Bar Bending Diagrams see sheet 4 of 8.

**MIN. LAP LENGTHS**

- #4 bars = 2'-5"
- #5 bars = 3'-0"
- #6 bars = 4'-0"

**BILL OF MATERIAL BOTH ABUTMENTS**

Bar	No.	Size	Length	Shape
a(E)	32	#5	19'-6"	—
a1(E)	32	#5	15'-2"	—
a2(E)	12	#6	4'-0"	—
d(E)	12	#4	5'-4"	L
d1(E)	12	#5	3'-11"	L
h(E)	16	#6	20'-0"	—
h1(E)	16	#6	15'-2"	—
Concrete Removal			Cu. Yd.	21.4
Concrete Superstructure			Cu. Yd.	23.5
Bar Splicers			Each	48
Reinforcement Bars, Epoxy Coated			Pound	2160

Bars indicated thus 1 x 2-#5 etc. indicates 1 line of bars with 2 lengths per line.

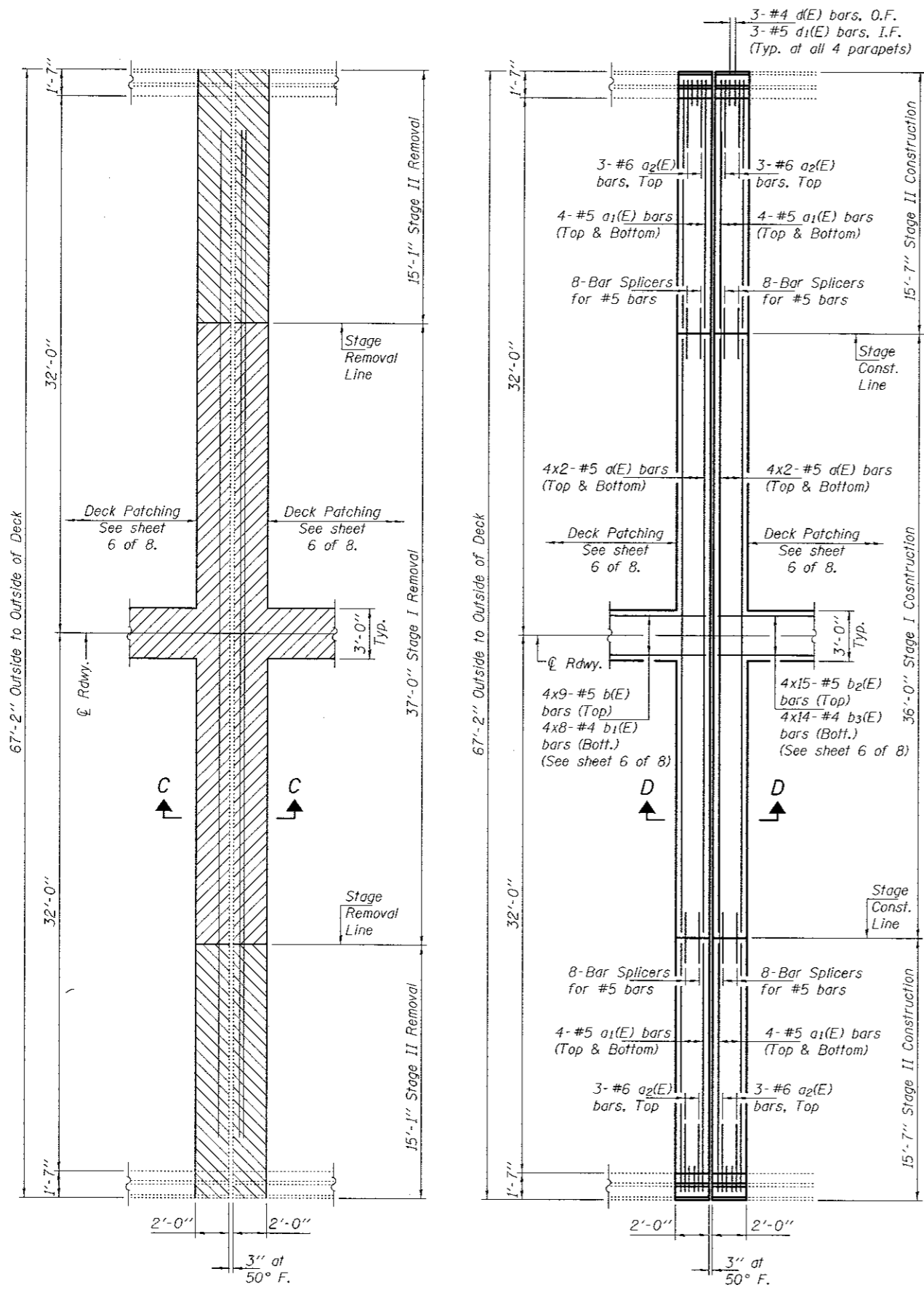
DESIGNED - SMR	EXAMINED - <i>Imoty A. Angh</i>	DATE - JANUARY 17, 2018
CHECKED - <i>MLD</i>	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Kyle M. Steffen	PASSED - <i>Carl Perry</i>	REVISOR
CHECKED - SMR	ENGINEER OF BRIDGES AND STRUCTURES	REVISOR

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

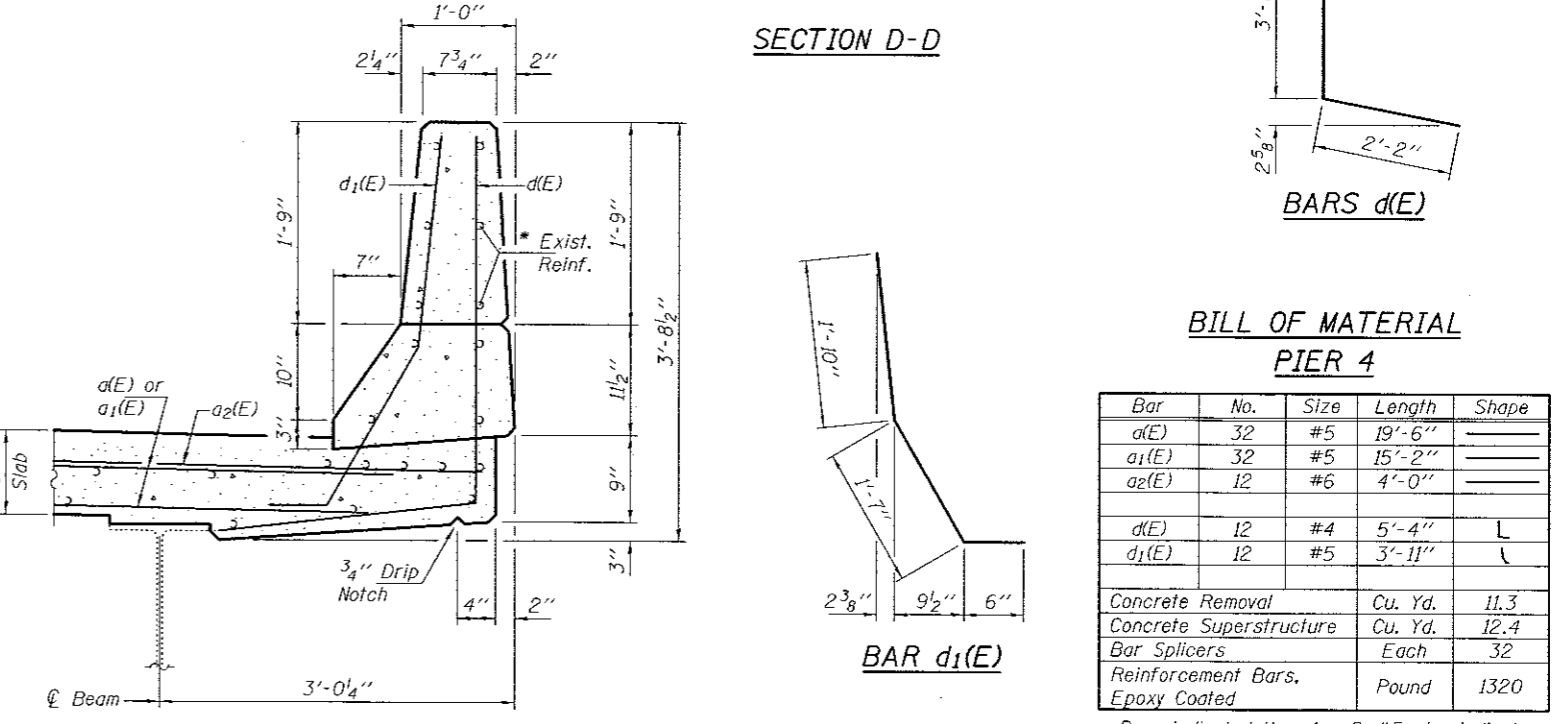
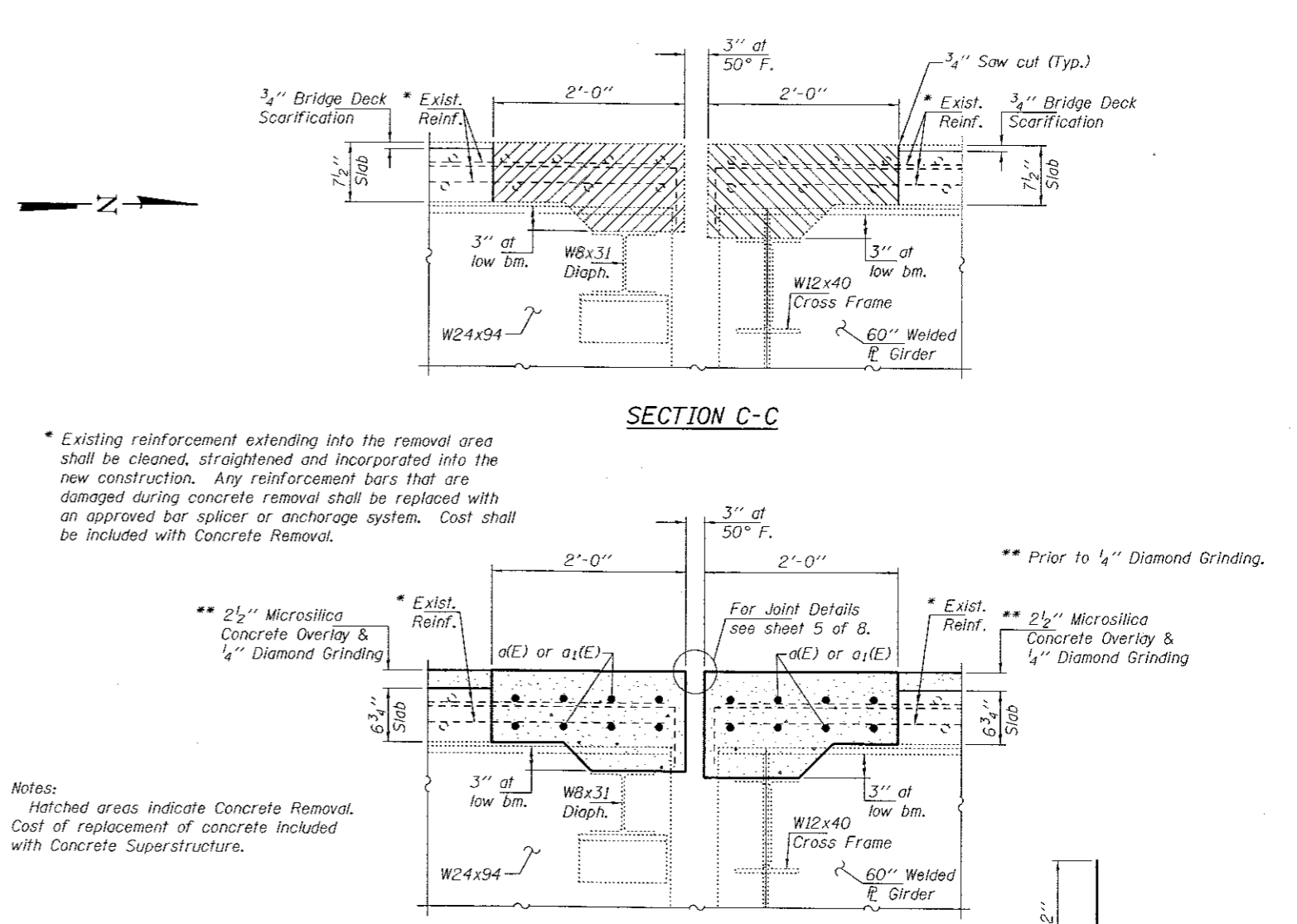
JOINT REMOVAL & REPLACEMENT DETAILS AT ABUTMENTS  
 SN 084-0030

SHEET NO. 3 OF 8 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
666	(27) BDR, BJR, BRR	SANGAMON	37	20
CONTRACT NO. 72J53			ILLINOIS FED. AID PROJECT	



CONCRETE REMOVAL AT PIER 4



TYPICAL SECTION THRU BRIDGE PARAPET MIN. LAP LENGTHS #5 bars = 3'-0"

BILL OF MATERIAL PIER 4

Bar	No.	Size	Length	Shape
a(E)	32	#5	19'-6"	—
a1(E)	32	#5	15'-2"	—
a2(E)	12	#6	4'-0"	—
d(E)	12	#4	5'-4"	L
d1(E)	12	#5	3'-11"	L
Concrete Removal			Cu. Yd.	11.3
Concrete Superstructure			Cu. Yd.	12.4
Bar Splicers			Each	32
Reinforcement Bars, Epoxy Coated			Pound	1320

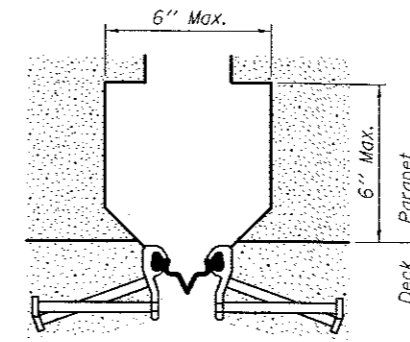
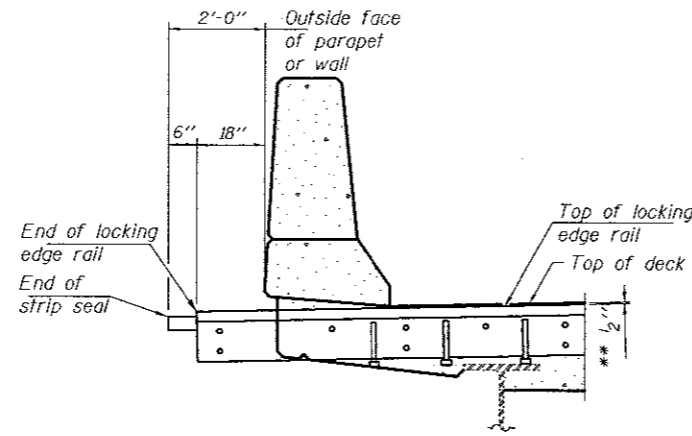
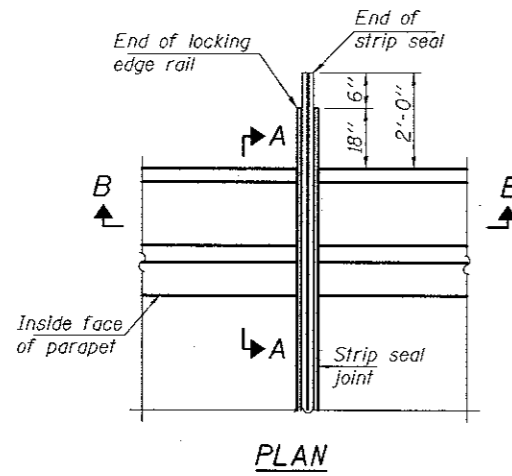
Bars indicated thus 1 x 2-#5 etc. indicates 1 line of bars with 2 lengths per line.

DESIGNED - SMR	EXAMINED - <i>Timothy A. [Signature]</i>	DATE - JANUARY 17, 2018
CHECKED - MLD	PASSED - <i>A. Carl [Signature]</i>	REVISIONS
DRAWN - Kyle M. Steffen	ENGINEER OF BRIDGES AND STRUCTURES	REVISIONS
CHECKED - SMR	ENGINEER OF BRIDGES AND STRUCTURES	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

JOINT REMOVAL & REPLACEMENT DETAILS AT PIER 4  
SN 084-0030

F.A.P. RTE. 666	SECTION (27) BDR, BJR, BRR	COUNTY SANGAMON	TOTAL SHEETS 37	SHEET NO. 21
SHEET NO. 4 OF 8 SHEETS			CONTRACT NO. 72J53	

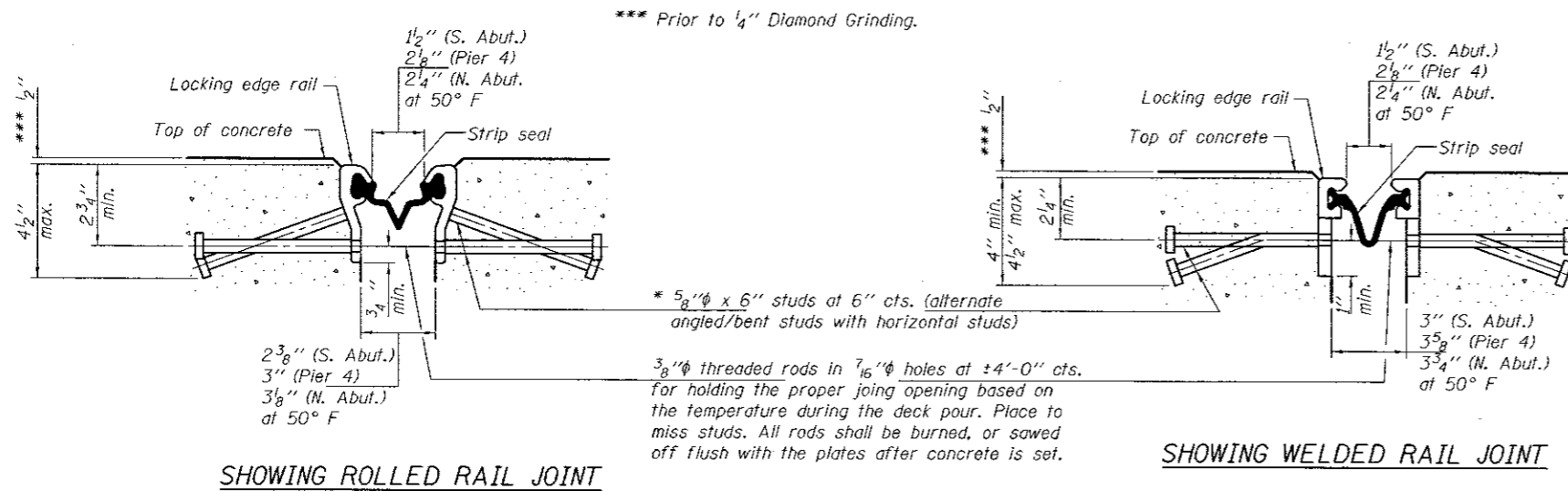


SECTION B-B  
JOINT BLOCKOUT DETAIL

Note:  
A 6" x 6" blockout will be permitted in the base of the parapet at the expansion joint in order to facilitate joint seal installation.

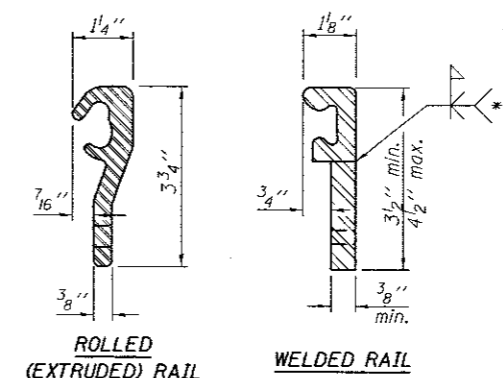
Notes:  
The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.  
The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4 1/2" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

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.  
The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.  
Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal.  
34" F-shape barrier shown, 42" F-shape similar as noted.  
The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.



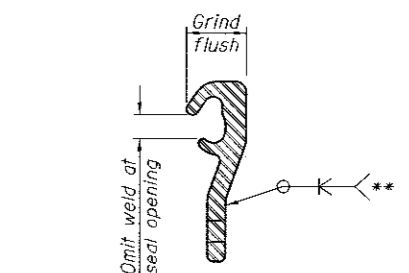
SECTION A-A

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



LOCKING EDGE RAILS

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



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	198

DESIGNED - SMR	EXAMINED - <i>Timothy A. ...</i>	DATE - JANUARY 17, 2018
CHECKED - <i>MLD</i>	PASSED - <i>...</i>	REVISED
DRAWN - Kyle M. Steffen	ENGINEER OF BRIDGES AND STRUCTURES	REVISED
CHECKED - SMR <i>MLD</i>		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL DETAILS  
SN 084-0030

SHEET NO. 5 OF 8 SHEETS

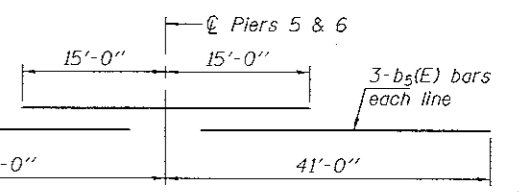
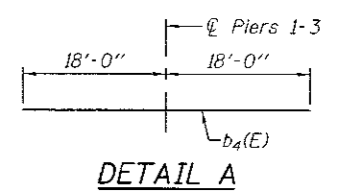
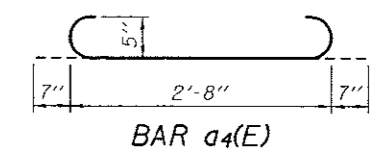
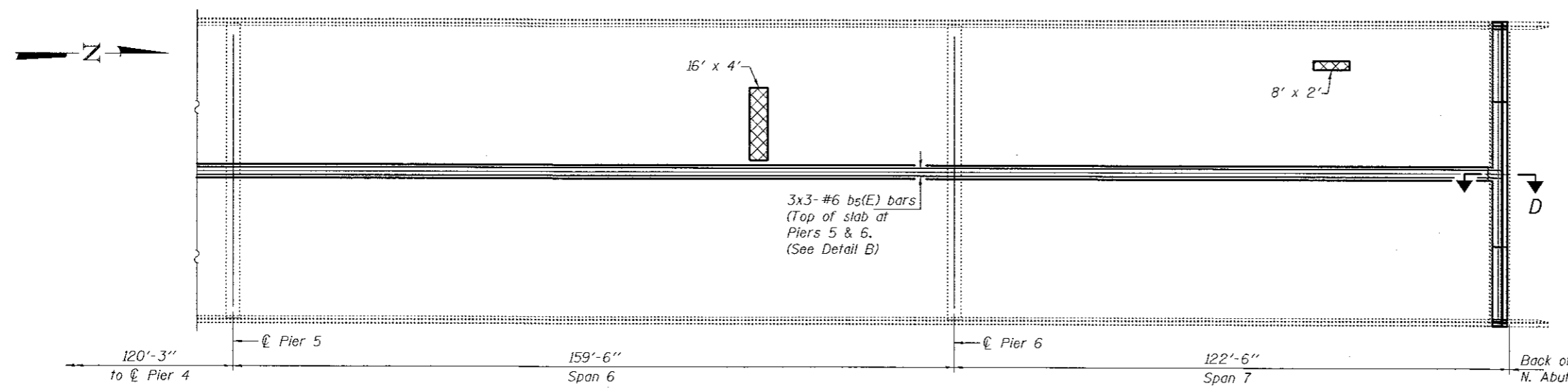
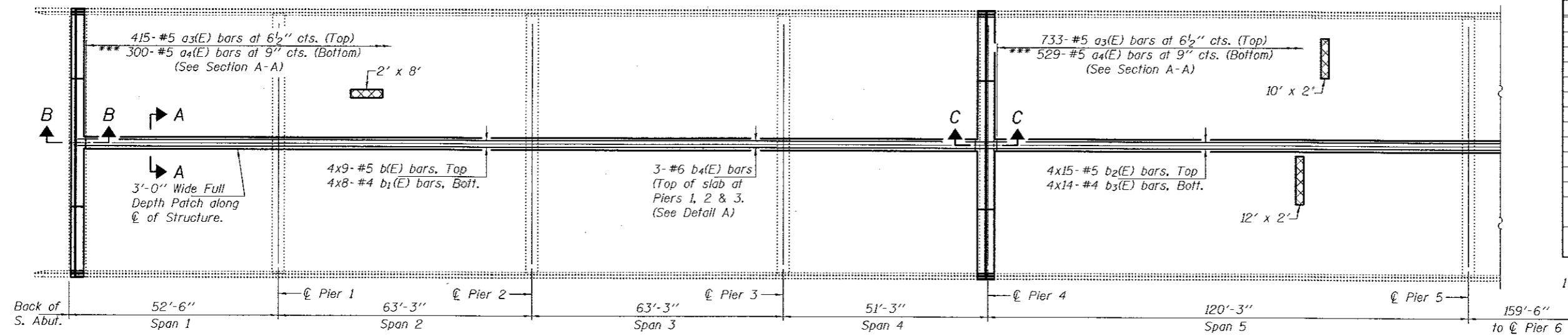
F.A.P. RTE. 666	SECTION (27) BDR, BJR, BRR	COUNTY SANGAMON	TOTAL SHEETS 37	SHEET NO. 22
				CONTRACT NO. 72J53
ILLINOIS FED. AID PROJECT				

**BILL OF MATERIAL  
LONGITUDINAL PATCHING**

Bar	No.	Size	Length	Shape
a3(E)	1148	#5	2'-8"	—
a4(E)	829	#5	3'-10"	⌋
b(E)	36	#5	28'-0"	—
b1(E)	32	#4	30'-7"	—
b2(E)	60	#5	29'-7"	—
b3(E)	56	#4	30'-11"	—
b4(E)	9	#6	36'-0"	—
b5(E)	18	#6	30'-0"	—
Concrete Removal		Cu. Yd.	38.8	
Concrete Superstructure		Cu. Yd.	38.8	
Reinforcement Bars, Epoxy Coated		Pound	12,520	
Deck Slab Repair (Full Depth, Type II)		Sq. Yd.	15.6	

Bars indicated thus 1 x 2-#5 etc. indicates 1 line of bars with 2 lengths per line.

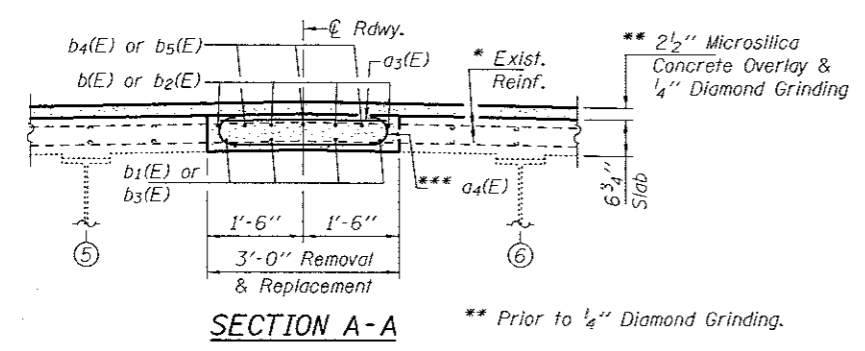
Note:  
For minimum lap lengths  
see sheet 3 of 8.



\* Existing reinforcement 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 shall be included with Concrete Removal.

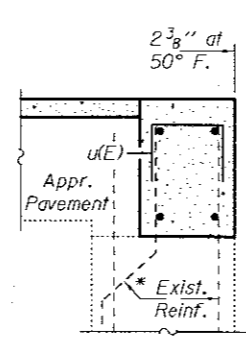
**LONGITUDINAL DECK PATCHING REPAIR DETAILS**

⊠ - Deck Slab Repair (Full Depth, Type II)

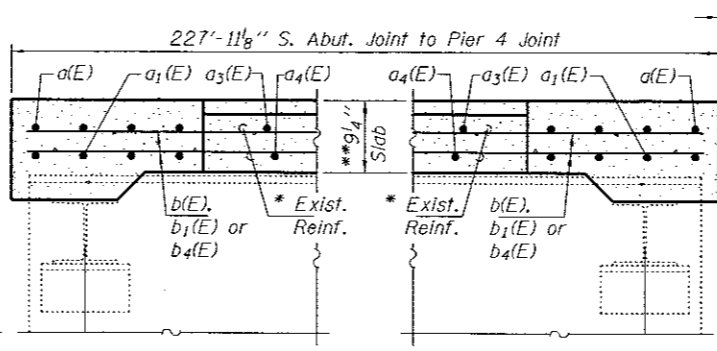


\*\* Prior to 1/4" Diamond Grinding.

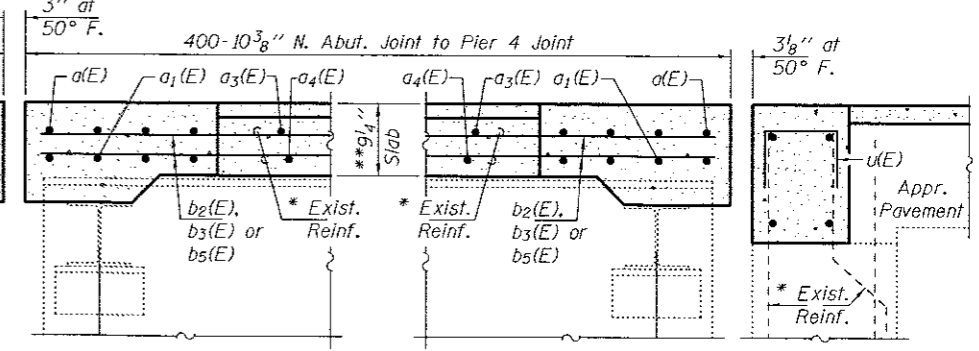
\*\*\* Tilt a4(E) bars as req'd to maintain clearance.



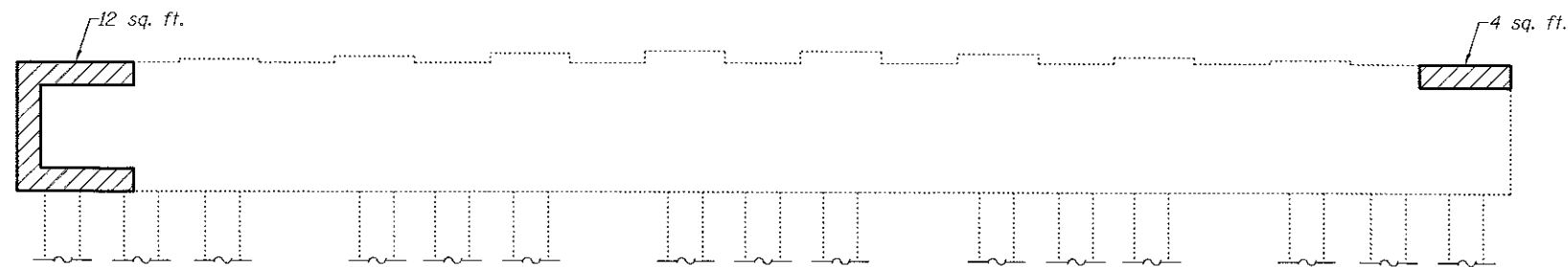
SECTION B-B



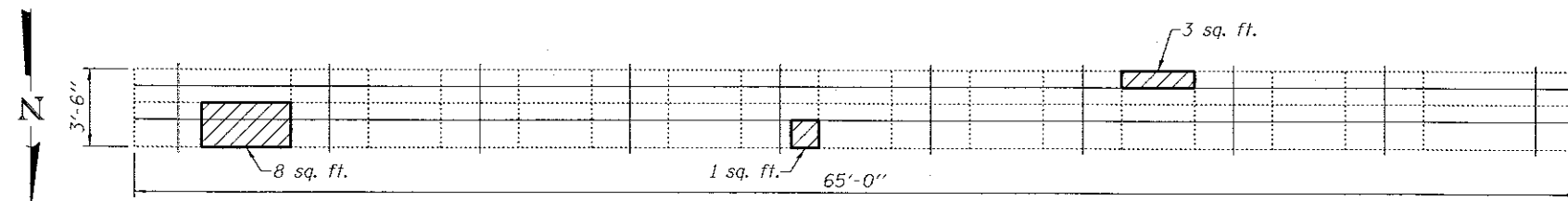
SECTION C-C



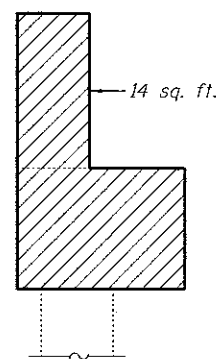
SECTION D-D



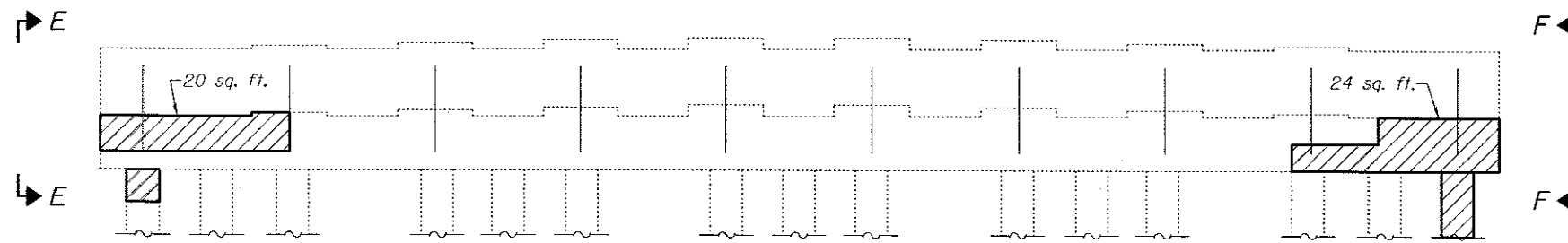
**PIER 4 ELEVATION**  
(Looking North)



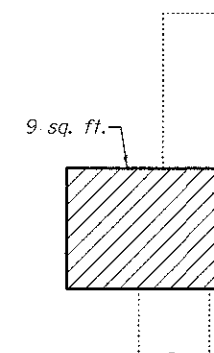
**PIER 4 PLAN**



**VIEW E-E**



**PIER 4 ELEVATION**  
(Looking South)



**VIEW F-F**

- Structural Repair of Concrete  $\leq$  5 inches

**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Structural Repair of Concrete $\leq$ 5 inches	Sq. Ft.	125

DESIGNED - SMR	EXAMINED - <i>Timothy A. Annett</i>	DATE - JANUARY 17, 2018
CHECKED - <i>HLB</i>	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Kyle M. Steffen	PASSED - <i>Carl Proyer</i>	REVISOR
CHECKED - SMR <i>HLB</i>	ENGINEER OF BRIDGES AND STRUCTURES	REVISION

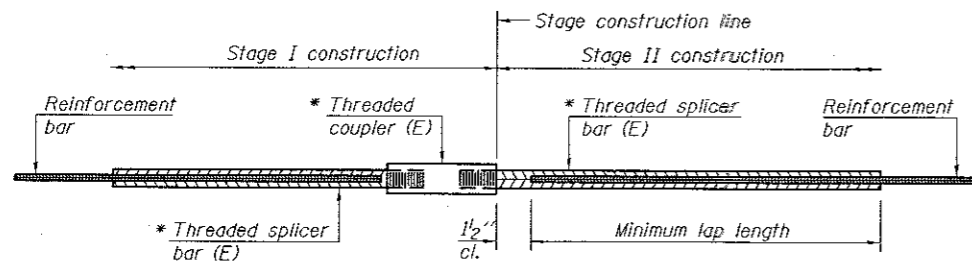
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**PIER 4 SUBSTRUCTURE REPAIR DETAILS**  
**SN 084-0030**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
666	(27) BDR, BJR, BRR	SANGAMON	37	24
CONTRACT NO. 72J53			ILLINOIS FED. AID PROJECT	

SHEET NO. 7 OF 8 SHEETS



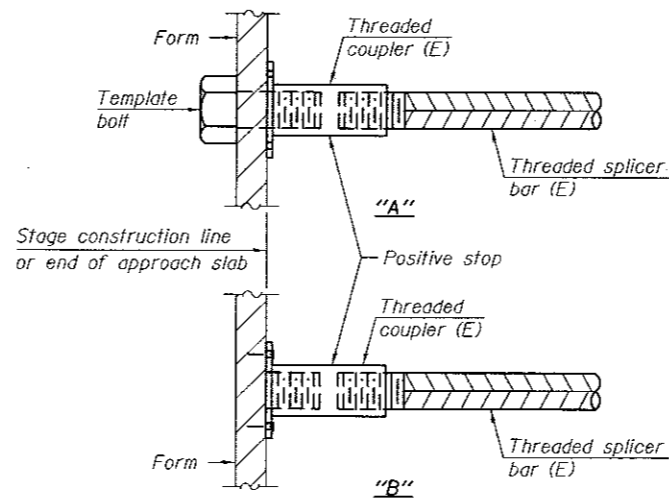


**STANDARD BAR SPLICER ASSEMBLY**

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

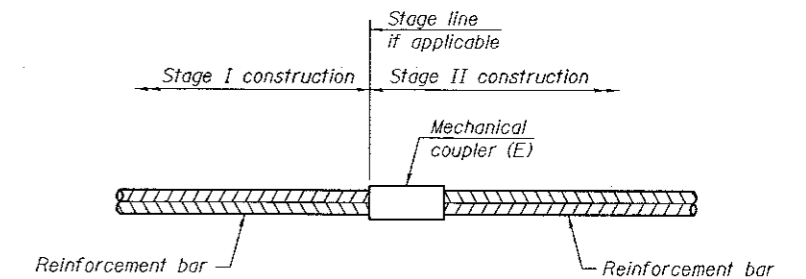
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Bridge Deck	#5	64	3'-6"
Abutment	#6	16	4'-0"



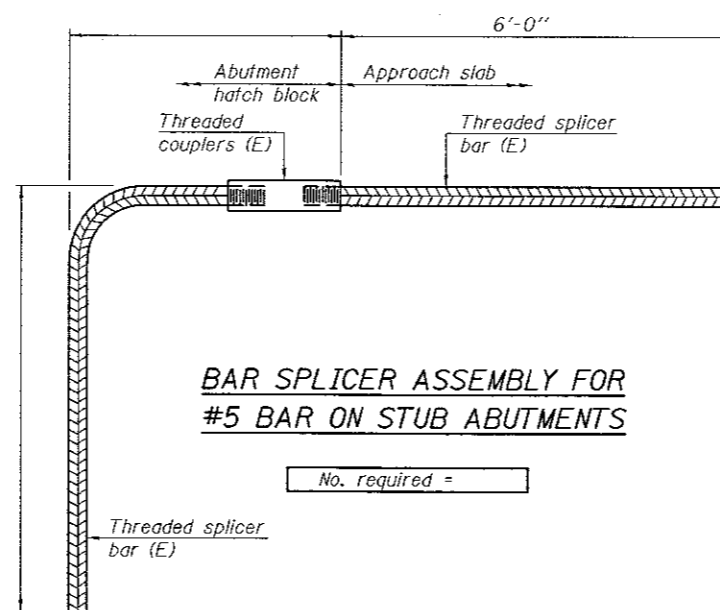
**INSTALLATION AND SETTING METHODS**

"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	EXAMINED - <i>Timothy A. ...</i>	DATE - JANUARY 17, 2016
CHECKED - <i>MLD</i>	ENGINEER OF STRUCTURAL SERVICES	REVISOR
DRAWN - Kyle M. Steffen	PASSED - <i>Carl ...</i>	REVISOR
CHECKED - SMR <i>MLD</i>	ENGINEER OF BRIDGES AND STRUCTURES	REVISOR

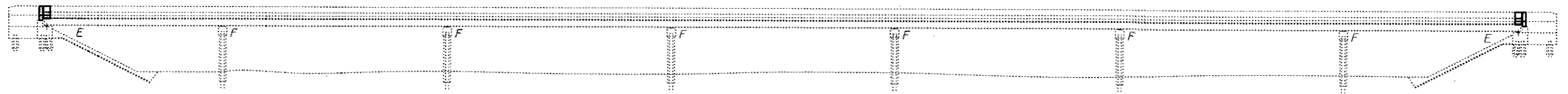
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS  
SN 084-0030

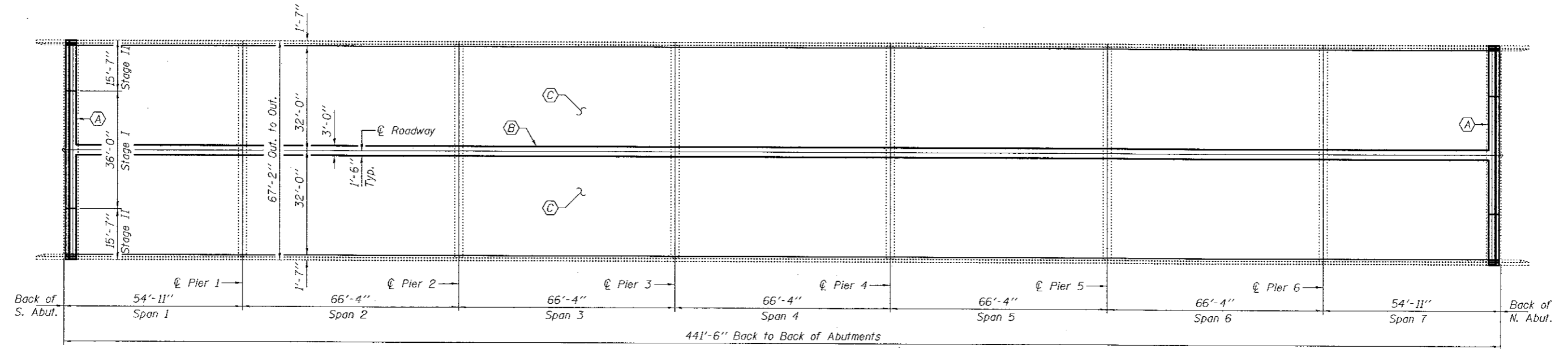
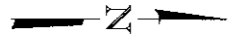
SHEET NO. 8 OF 8 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
666	(27) BDR, BJR, BRR	SANGAMON	37	25
CONTRACT NO. 72J53				

ILLINOIS FED. AID PROJECT



ELEVATION



PLAN

- (A) - Replace existing abutment expansion joints with Preformed Joint Strip Seals.
- (B) - Longitudinal Repair at  $\phi$  of structure. For Details see sheet 4 of 6.
- (C) - Bridge Deck Scarification, New Microsilica Concrete Overlay & Diamond Grinding.

GENERAL NOTES

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

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.

Reinforcement bars designated (E) shall be epoxy coated.

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

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.



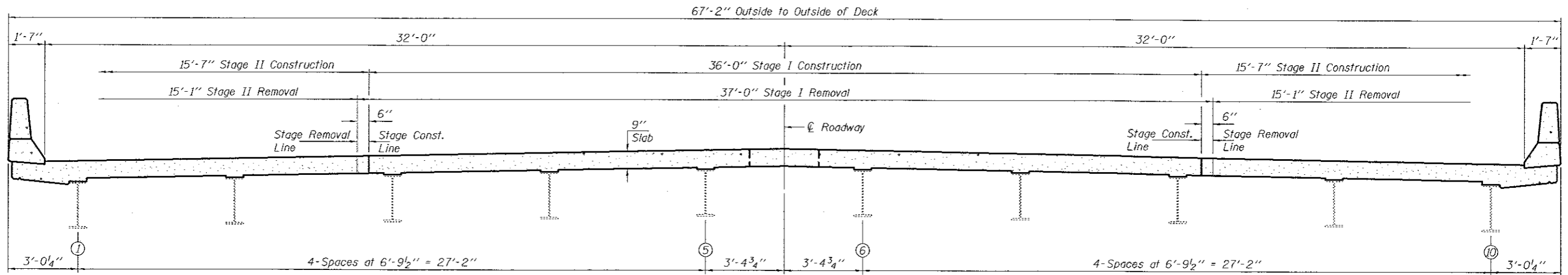
Expires: November 30, 2018

TOTAL BILL OF MATERIAL

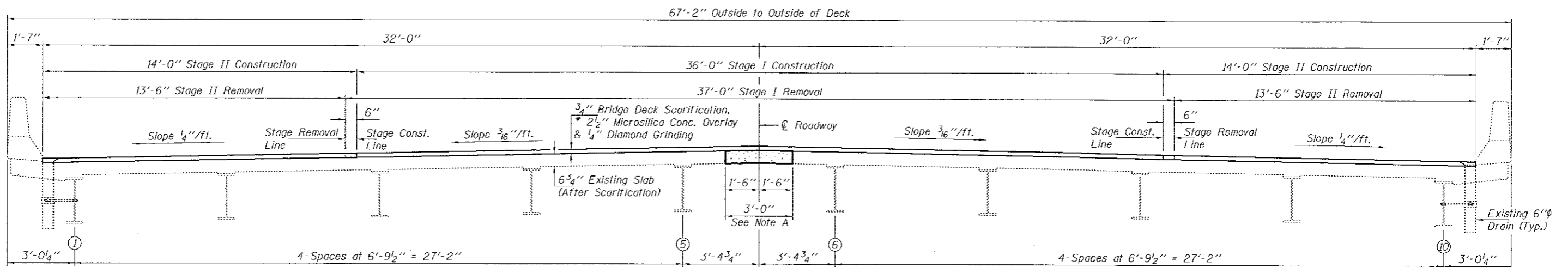
ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	47.0
Concrete Superstructure	Cu. Yd.	49.0
Bridge Deck Microsilica Concrete Overlay, 2 1/2"	Sq. Yd.	3086
Reinforcement Bars, Epoxy Coated	Pound	11,200
Bar Splicers	Each	48
Bridge Deck Scarification, 3/4"	Sq. Yd.	3086
Diamond Grinding (Bridge Section)	Sq. Yd.	2893
Preformed Joint Strip Seal	Foot	132
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	2334
* Protective Coat	Sq. Yd.	3133
--	--	--

\* On new deck surface and top & inside face of new parapet concrete only.

DESIGNED <i>David Carl Pluzey</i>	EXAMINED <i>Tina A. Duda</i>	DATE - JANUARY 17, 2018	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GENERAL PLAN &amp; ELEVATION I-55 BUSINESS / PEORIA ROAD OVER SANGAMON RIVER OVERFLOW</b>		F.A.P. RTE. 666	SECTION (27) BDR, BJR, BRR	COUNTY SANGAMON	TOTAL SHEETS 37	SHEET NO. 26	
CHECKED <i>Kyle M. Steffen</i>	PASSED <i>David Carl Pluzey</i>	REVISIONS		SHEET NO. 1 OF 6 SHEETS		CONTRACT NO. 72J53		ILLINOIS FED. AID PROJECT			
DRAWN <i>Kyle M. Steffen</i>	ENGINEER OF BRIDGES AND STRUCTURES	REVISIONS									



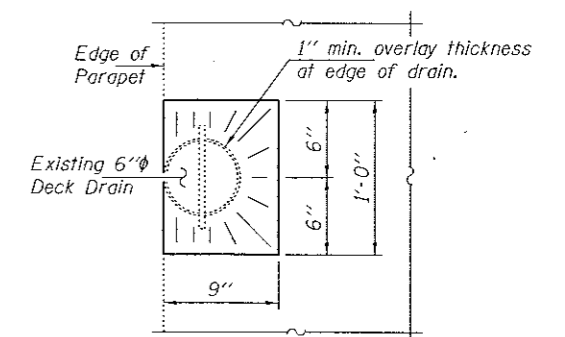
CROSS SECTION AT ABUTMENTS



CROSS SECTION AT MID SPANS

\* Prior to 1/4" Diamond Grinding.

Note A:  
3'-0" wide full depth patch  
along  $\phi$  of entire structure.  
For details see sheet 4 of 6.



OVERLAY TREATMENT AT DRAINS

DESIGNED - NRM  
CHECKED - CCC  
DRAWN - Kyle M. Steffen  
CHECKED - NRM CCC

EXAMINED *Ty A. Dalt*  
PASSED *Carl King*  
ENGINEER OF STRUCTURAL SERVICES  
ENGINEER OF BRIDGES AND STRUCTURES

DATE - JANUARY 17, 2018  
REVISED  
REVISED

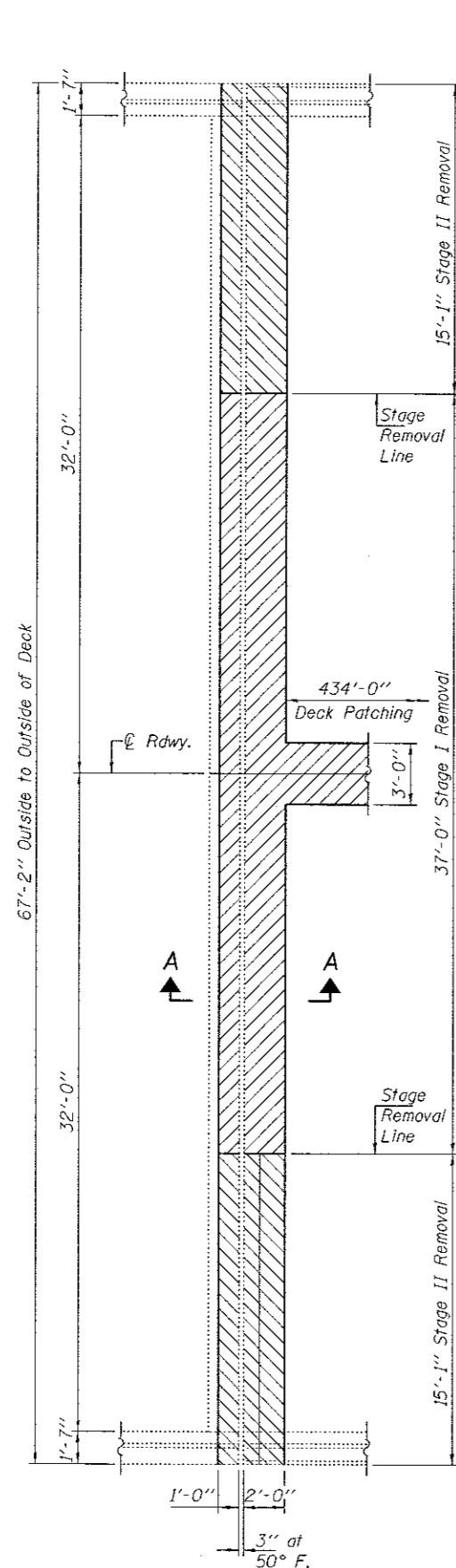
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

STAGING DETAILS & CROSS SECTION  
SN 084-0179

SHEET NO. 2 OF 6 SHEETS

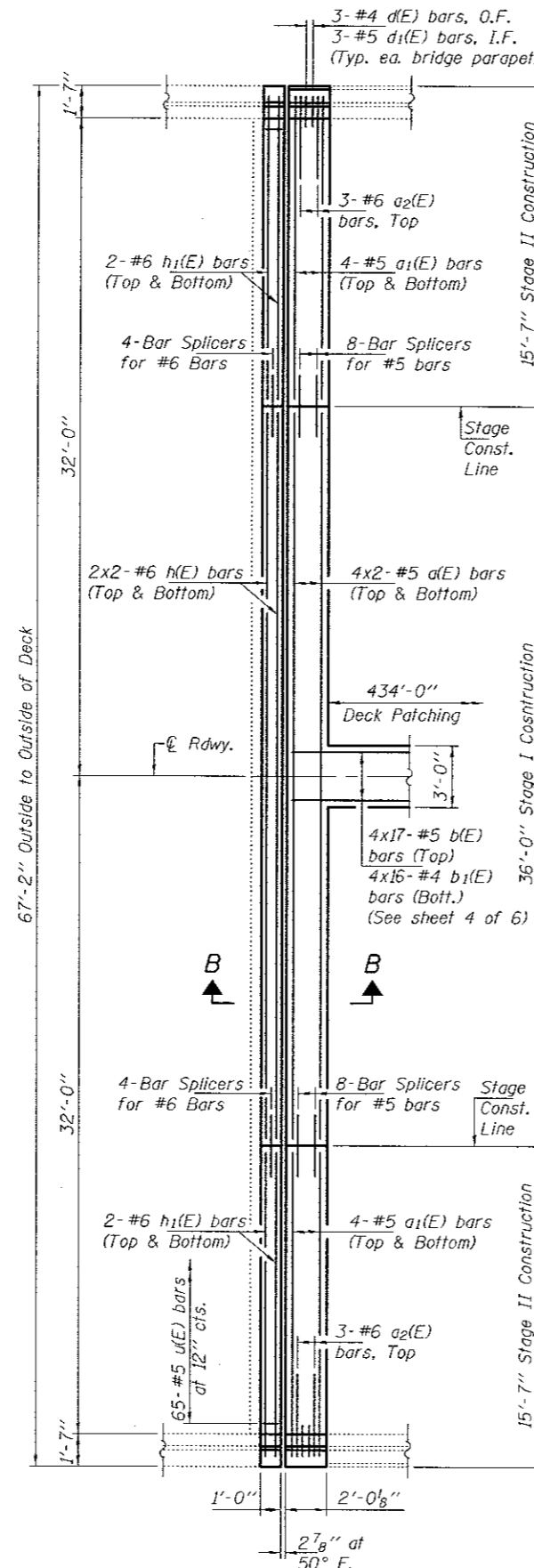
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
666	(27) BDR, BJR, BRR	SANGAMON	37	27
				CONTRACT NO. 72J53

ILLINOIS FED. AID PROJECT



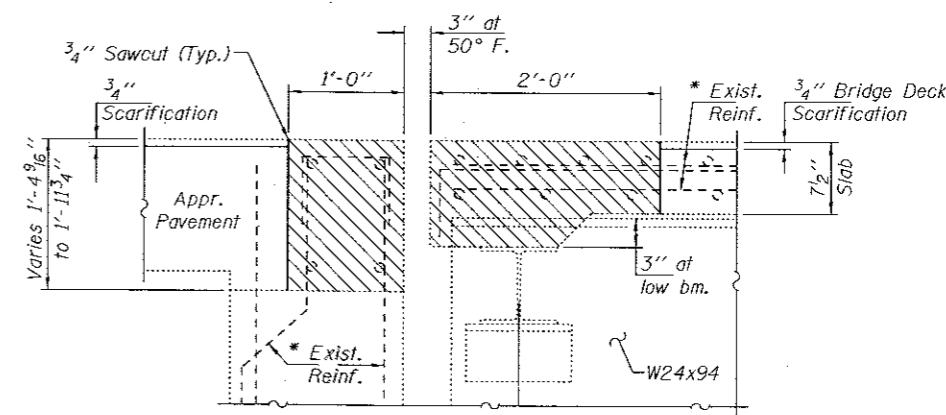
**CONCRETE REMOVAL AT ABUTMENTS**

(South Abutment shown, North Abutment similar.)



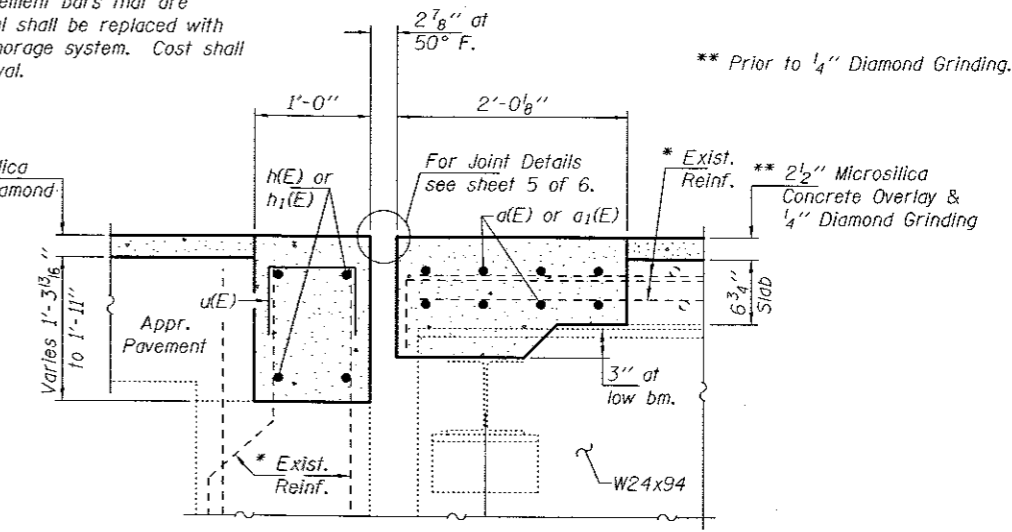
**CONCRETE REPLACEMENT AT ABUTMENTS**

(South Abutment shown, North Abutment similar.)

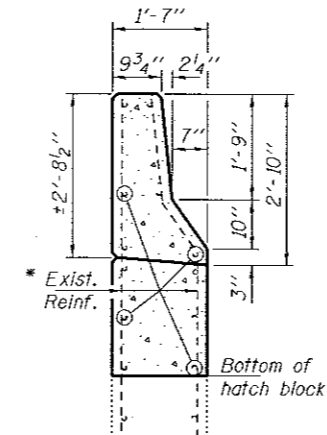


**SECTION A-A**

\* Existing reinforcement 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 shall be included with Concrete Removal.



**SECTION B-B**



**TYPICAL SECTION AT APPROACH PARAPET**

Notes:  
Hatched areas indicate Concrete Removal.  
For Parapet Details & Bar Bending Diagrams see sheet 4 of 6.

**MIN. LAP LENGTHS**

- #4 bars = 2'-5"
- #5 bars = 3'-0"
- #6 bars = 4'-0"

**BILL OF MATERIAL BOTH ABUTMENTS**

Bar	No.	Size	Length	Shape
d(E)	16	#5	19'-6"	—
a1(E)	32	#5	15'-3"	—
a2(E)	12	#6	4'-0"	—
d(E)	12	#4	5'-4"	L
d1(E)	12	#5	3'-11"	L
h(E)	8	#6	20'-0"	—
h1(E)	16	#6	15'-3"	—
u(E)	130	#5	1'-11"	□
Concrete Removal			Cu. Yd.	19.9
Concrete Superstructure			Cu. Yd.	21.9
Bar Splicers			Each	48
Reinforcement Bars, Epoxy Coated			Pound	2320

Bars indicated thus 1 x 2-#5 etc. indicates 1 line of bars with 2 lengths per line.

DESIGNED - NRM  
 CHECKED - CCC  
 DRAWN - Kyle M. Steffen  
 CHECKED - NRM CCC

EXAMINED  
 PASSED

DATE - JANUARY 17, 2018

REVISOR

REVISOR

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

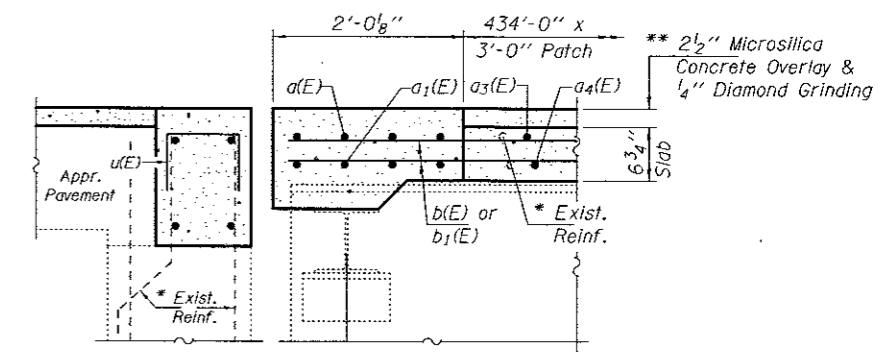
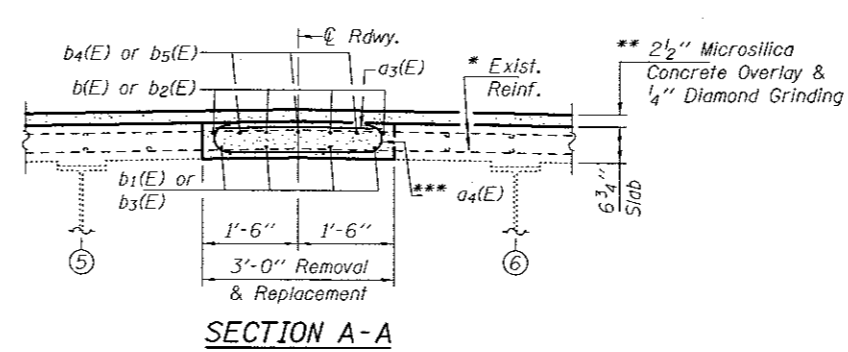
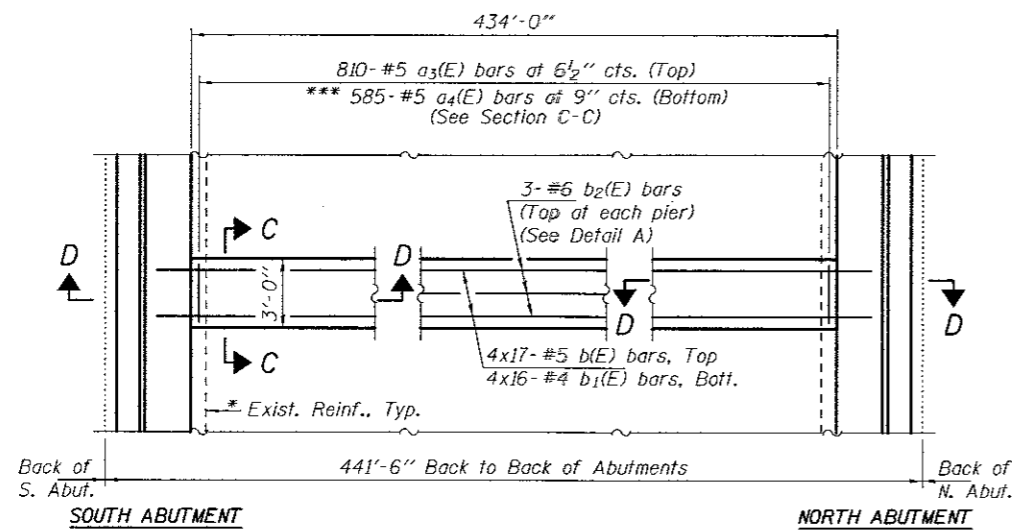
JOINT REMOVAL & REPLACEMENT DETAILS  
 SN 084-0179

SHEET NO. 3 OF 6 SHEETS

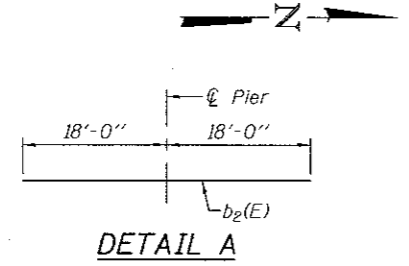
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
666	(27) BDR, BJR, BRR	SANGAMON	37	28

CONTRACT NO. 72J53

ILLINOIS FED. AID PROJECT

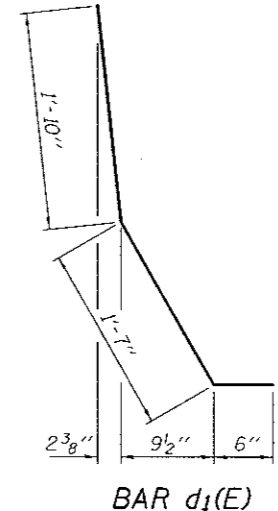
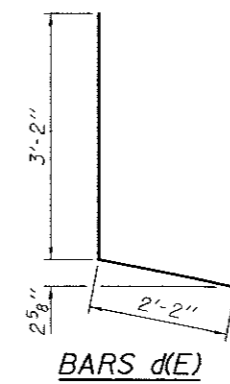
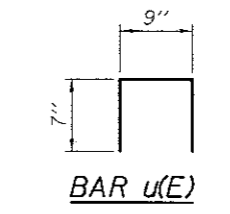
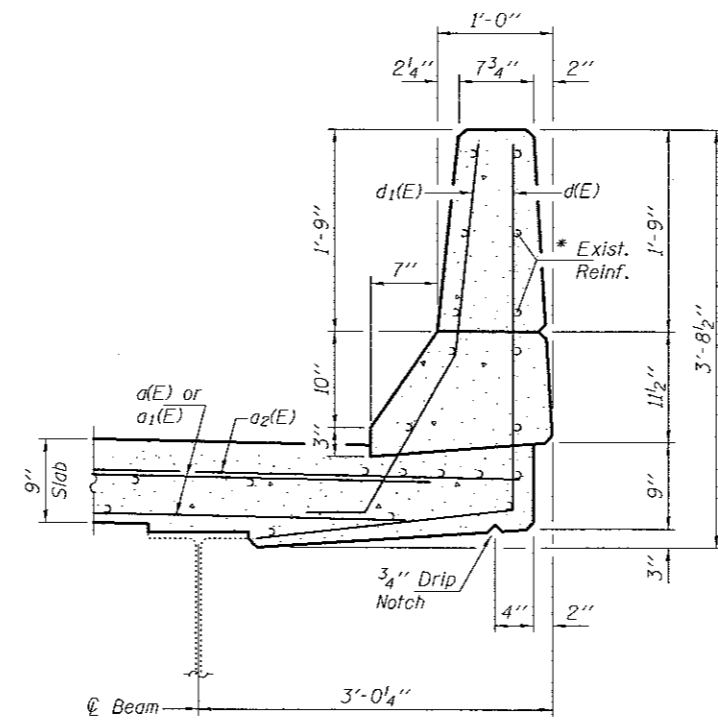
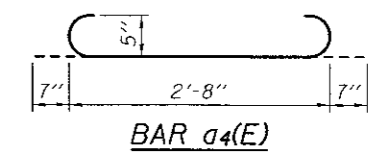


**PARTIAL PLAN SHOWING LONGITUDINAL REPAIR**  
(Joint Replacement reinforcement not shown for clarity.)



\* Existing reinforcement 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 shall be included with Concrete Removal.

\*\* Prior to 1/4" Diamond Grinding.  
\*\*\* Tilt a4(E) bars as req'd to maintain clearance.



**MIN. LAP LENGTHS**  
#4 Bars = 2'-5"  
#5 Bars = 3'-0"

**BILL OF MATERIAL  
LONGITUDINAL PATCH**

Bar	No.	Size	Length	Shape
a3(E)	810	#5	2'-8"	—
a4(E)	585	#5	3'-10"	U
b(E)	68	#5	28'-9"	—
b1(E)	64	#4	29'-10"	—
b2(E)	18	#6	36'-0"	—
Concrete Removal			Cu. Yd.	27.1
Concrete Superstructure			Cu. Yd.	27.1
Reinforcement Bars, Epoxy Coated			Pound	8880

Bars indicated thus 1 x 2-#5 etc. indicates 1 line of bars with 2 lengths per line.

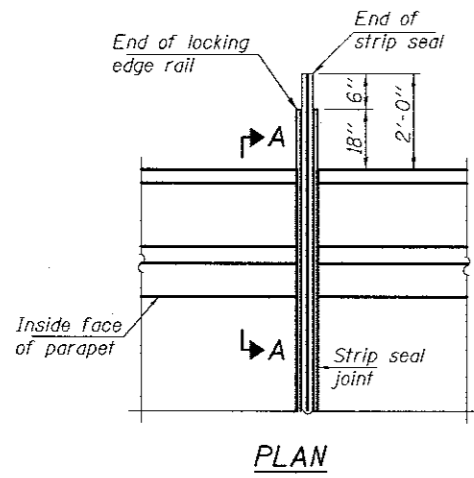
DESIGNED - NRM	EXAMINED - <i>Ty A. Delt</i>	DATE - JANUARY 17, 2018
CHECKED - CCC	ENGINEER OF STRUCTURAL SERVICES	REVISOR
DRAWN - Kyle M. Steffen	ENGINEER OF BRIDGES AND STRUCTURES	REVISOR
CHECKED - NRM CCC		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

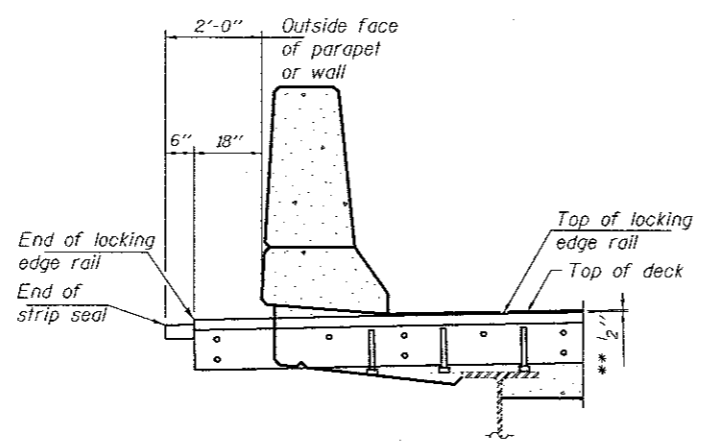
REPAIR DETAILS  
SN 084-0179

SHEET NO. 4 OF 6 SHEETS

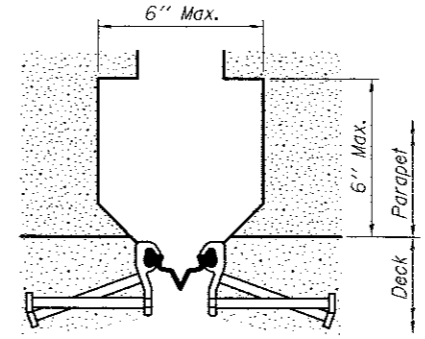
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
666	(27) BDR, BJR, BRR	SANGAMON	37	29
			CONTRACT NO. 72J53	
ILLINOIS FED. AID PROJECT				



PLAN



SECTION A-A



SECTION B-B  
JOINT BLOCKOUT DETAIL

Note:  
A 6" x 6" blockout will be permitted in the base of the parapet at the expansion joint in order to facilitate joint seal installation.

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

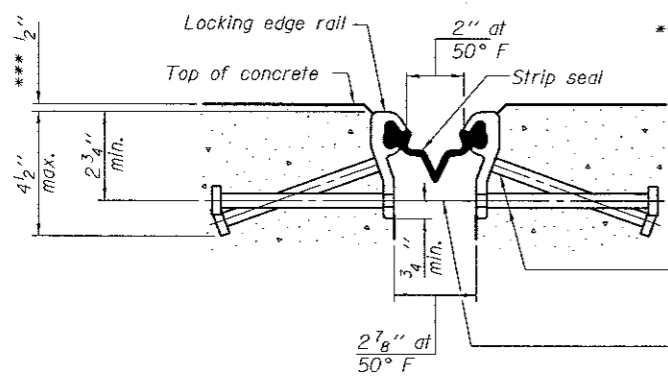
The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4 1/2" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

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.

The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal. 34" F-shape barrier shown, 42" F-shape similar as noted.

The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.



SHOWING ROLLED RAIL JOINT

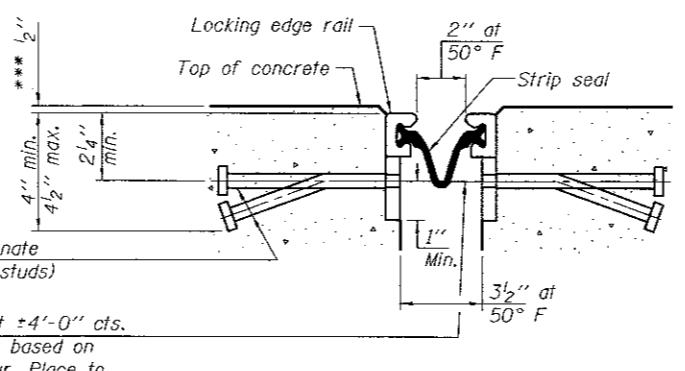
\*\*\* Prior to 1/4" Diamond Grinding.

\* 5/8" x 6" studs at 6" cts. (alternate angled/bent studs with horizontal studs)

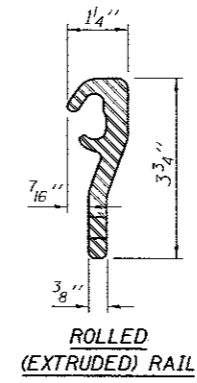
3/8" threaded rods in 7/16" holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SECTION A-A

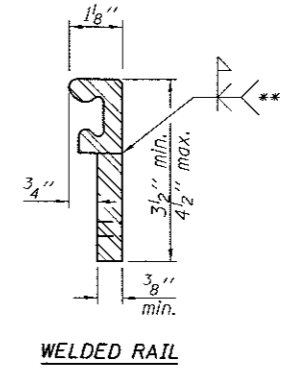
\* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



SHOWING WELDED RAIL JOINT



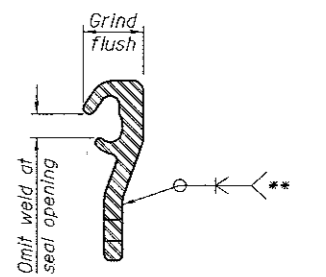
ROLLED (EXTRUDED) RAIL



WELDED RAIL

LOCKING EDGE RAILS

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



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	132

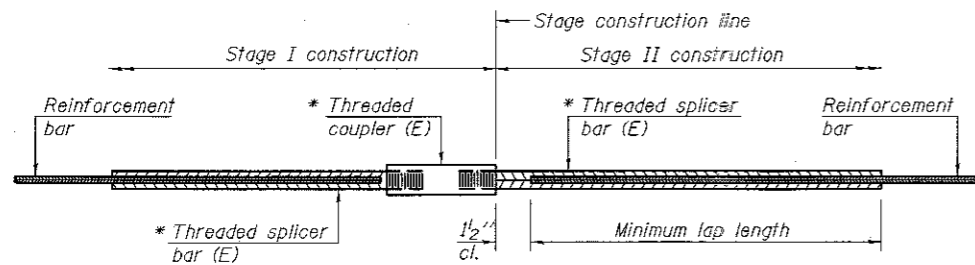
DESIGNED - NRM	EXAMINED - <i>Tim A. Dahl</i>	DATE - JANUARY 17, 2016
CHECKED - CCC	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Kyle M. Steffen	PASSED - <i>Carl Perry</i>	REVISOR
CHECKED - NRM CCC	ENGINEER OF BRIDGES AND STRUCTURES	REVISOR

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL DETAILS  
SN 084-0179

SHEET NO. 5 OF 6 SHEETS

F.A.P. RTE. 666	SECTION (27) BDR, BJR, BRR	COUNTY SANGAMON	TOTAL SHEETS 37	SHEET NO. 30
				CONTRACT NO. 72J53
ILLINOIS FED. AID PROJECT				

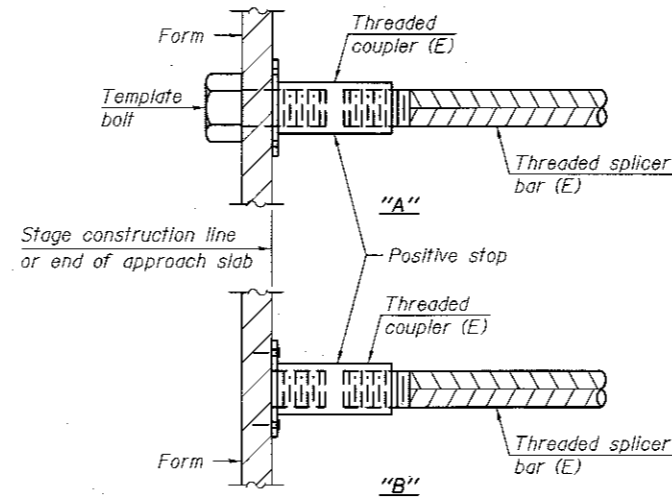


**STANDARD BAR SPLICER ASSEMBLY**

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
Bridge Deck	#5	32	3'-6"
Abutment	#6	16	4'-0"

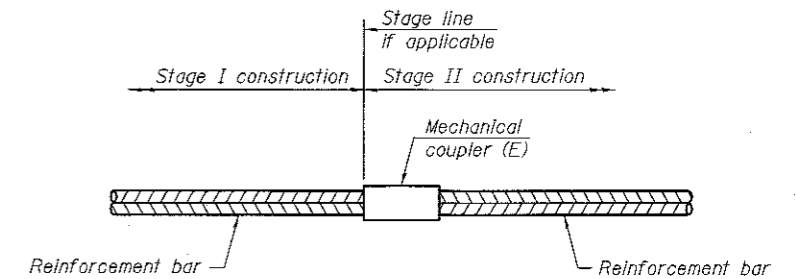


**INSTALLATION AND SETTING METHODS**

"A" : Set bar splicer assembly by means of a template bolt.

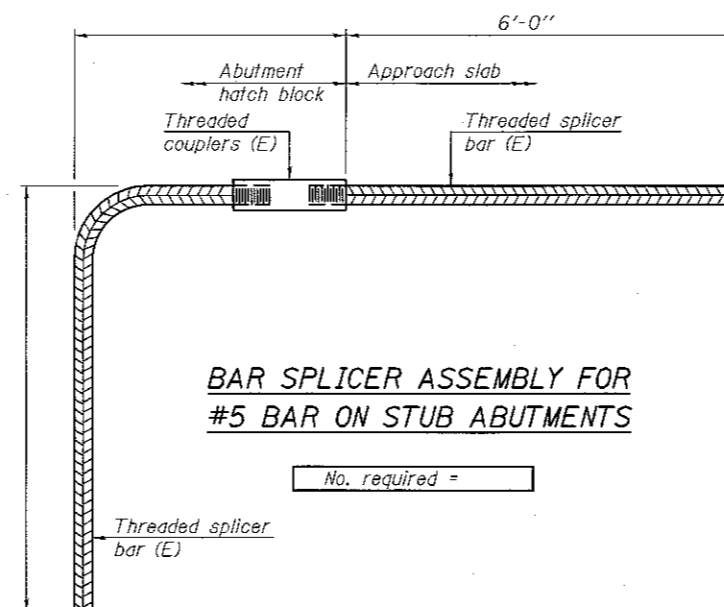
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(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

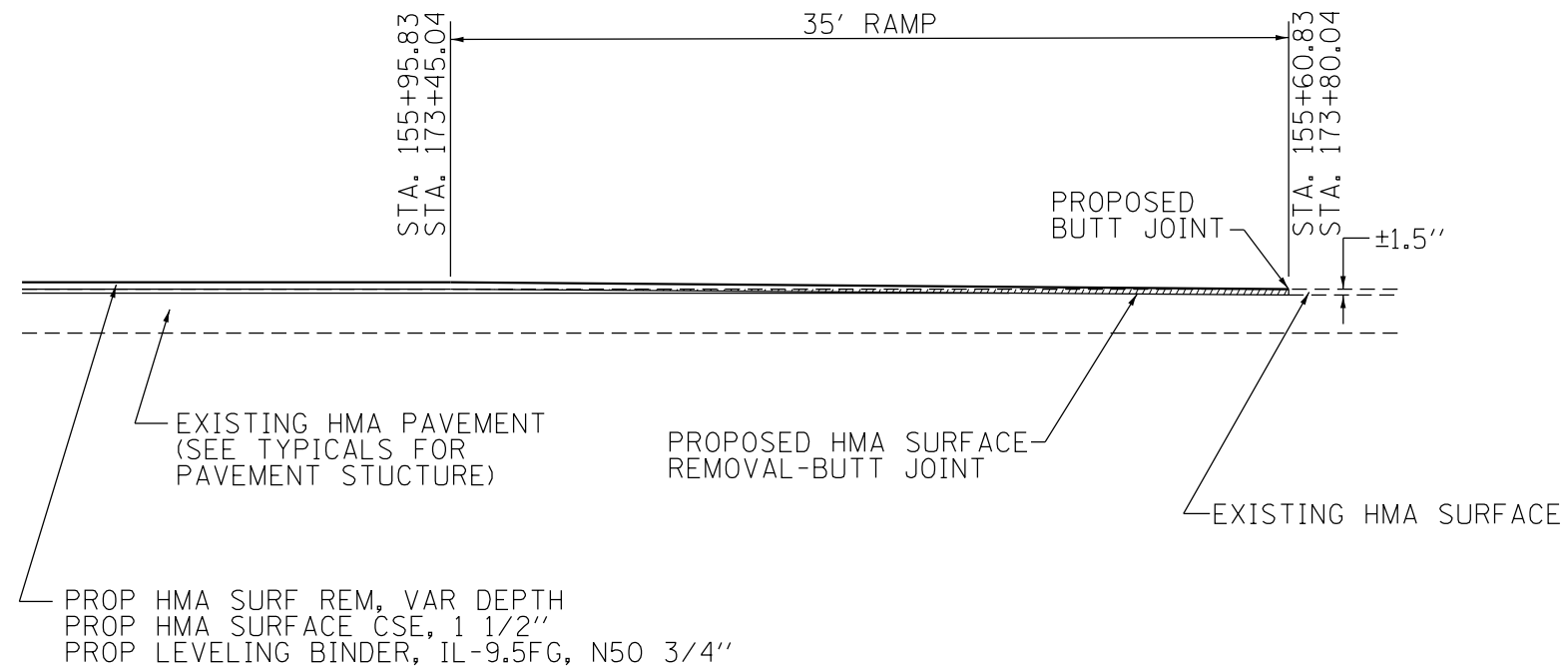
DESIGNED - NRM	EXAMINED	DATE - JANUARY 17, 2018
CHECKED - CCC	<i>Tom A. Burt</i> ENGINEER OF STRUCTURAL SERVICES	REVIS
DRAWN - Kyle M. Steffen	PASSED	REVIS
CHECKED - NRM CCC	<i>Carl K...</i> ENGINEER OF BRIDGES AND STRUCTURES	REVIS

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS  
SN 084-0179

SHEET NO. 6 OF 6 SHEETS

F.A.P. RTE. 666	SECTION (27) BDR, BJR, BRR	COUNTY SANGAMON	TOTAL SHEETS 37	SHEET NO. 31
CONTRACT NO. 72J53				ILLINOIS FED. AID PROJECT



**BUTT JOINT DETAIL**  
**155+60.83-155+95.83**  
**173+45.04-173+80.04**

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USER NAME = shimkusft	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 60.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 1/11/2018	DATE -	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

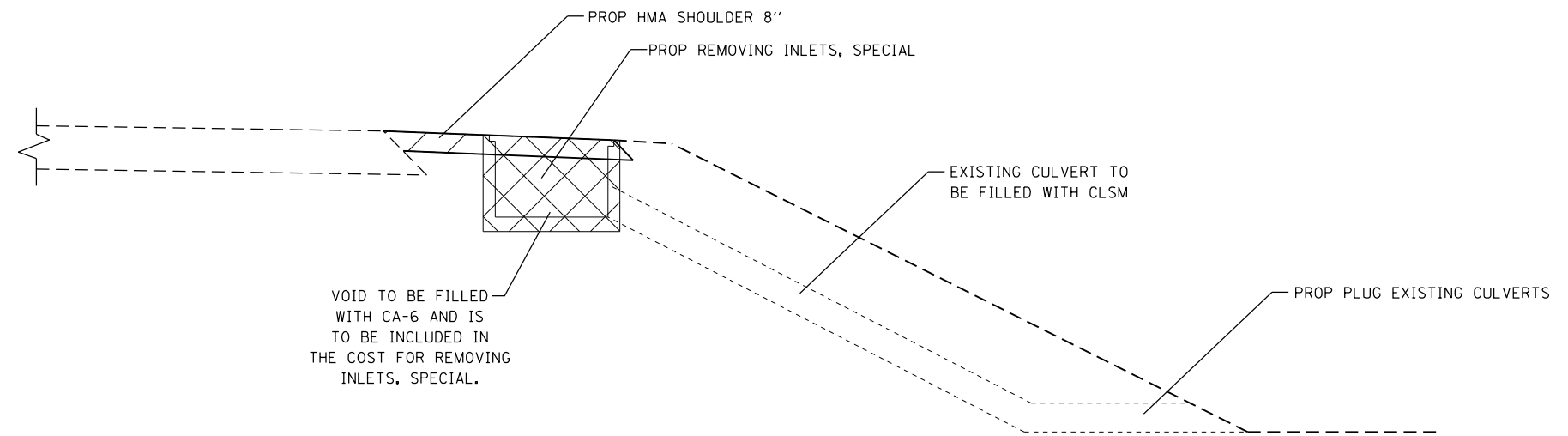
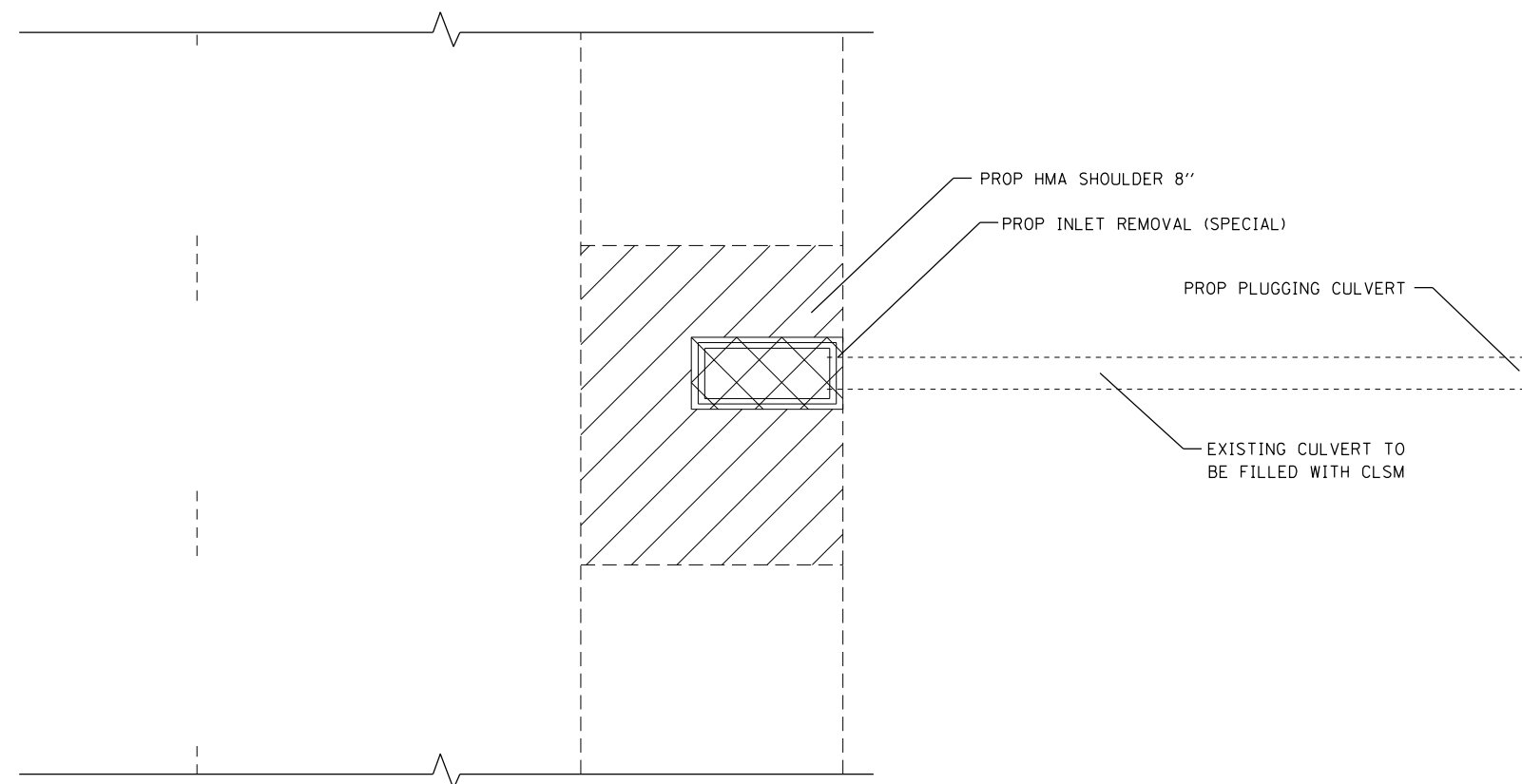
**BUTT-JOINT DETAIL**  
**FAP 666 (BUSINESS LOOP 55)**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
666	(27) BDR, BJR, BRR	SANGAMON	37	32
CONTRACT NO. 72J53				
ILLINOIS FED. AID PROJECT				







VOID TO BE FILLED WITH CA-6 AND IS TO BE INCLUDED IN THE COST FOR REMOVING INLETS, SPECIAL.

MODEL: Default  
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USER NAME = shimkusft	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/11/2018	DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**REMOVING INLETS, SPECIAL DETAIL  
 FAP 666 (BUSINESS LOOP 55)**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
666	(27) BDR, BJR, BRR	SANGAMON	37	34
CONTRACT NO. 72J53				
ILLINOIS FED. AID PROJECT				





