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STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

PROPOSED

HIGHWAY PLANS

FAP ROUTE 726 (IL 148) D9 BRIDGE OVERLAY 2023-6

PROJECT HBFP-IHWC(588)

BRIDGE OVERLAY

JEFFERSON COUNTY

C-99-078-22

ILLINOIS CONTRACT NO. 78963

D-99-058-22



STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** SUBMITTED Oct 3 20 22 Kulk H. Brown REGION FIVE ENGINEER December 9, 200 ENGINEER OF DESIGN AND ENVIRONMENT December 9, 2022

DIRECTOR OF HIGHWAYS

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

FOR INDEX OF SHEETS, SEE SHEET NO. 3 FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 4-6

TRAFFIC DATA

SN 041-0096 : 2021 ADT = 3.250 WITH 6.5% TRUCKS

DESIGN DESIGNATION: N/A

COORDINATE SYSTEM: STATE PLANE ZONE - ILLINOIS EAST

POSTED SPEED: 55 MPH

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123 OR B11

PROJECT ENGINEER GRANT DETERDING PROJECT DESIGNER DEREK SNIDER

CONTRACT NO. 78963

RANGE 2E L 148 OVER BIG MUDDY RIVER

> GROSS LENGTH = 746.7 FT. = 0.122 MILES NET LENGTH = 746.7 FT. = 0.122 MILES

SN 041-0096 : ELK PRAIRIE

REV. - MS

Prepared By:

Examined By:

Examined By:

DISTRICT PROGRAM DEVELOPMENT ENGINEER

Examined By:

DISTRICT OPERATIONS ENGINEER

Examined By:

Examined By:

Examined By:

	USER NAME = SUSERS	DESIGNED -	REVISED
		DRAWN -	REVISED -
	PLOT SCALE = SSCALES	CHECKED -	REVISED -
-4	PLOT DATE = SDATES	DATE -	REVISED -

STATE	E 01	F ILLINOIS
DEPARTMENT	OF.	TRANSPORTATION

INDEX OF SHEETS

1 COVER SHEET
2 SIGNATURES
3 GENERAL NOTES, INDEX OF SHEETS, AND STANDARDS
4-6 SUMMARY OF QUANTITIES

SN 041-0096 REPAIR DETAILS

7-18

STANDARDS

000001-08 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS 001001-02 AREAS OF REINFORCEMENT BARS 001006 DECIMAL OF AN INCH AND OF A FOOT 631033-09 TRAFFIC BARRIER TERMINAL. TYPE 6B OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY 701001-02 701006-05 OFF-ROAD OPERATIONS, 2L, 2W, 15' to 24" FROME PAVEMENT EDGE 701201-05 LANE CLOSURE, 2L ,2W, DAY ONLY, FOR SPEEDS 2 45 MPH 701316-13 LANE CLOSURE, 2L, 2W, BRIDGE REPAIR FOR SPEED > 45 MPH 701901-08 TRAFFIC CONTROL DEVICES 780001-05 TYPICAL PAVEMENT MARKINGS UNINTERRUPTABLE POWER SUPPLY (UPS) 862001-01

GENERAL NOTES

FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:

ALL HOT MIX ASPHALT

2.016 TONS/CU YD

COMMITMENTS: NONE

Location(s):	Hot-Mix Asphalt Surface Course (IL-148)
Mixture Use(s):	Hot-Mix Asphalt Surface Course, Mix C, N70
PG:	PG64-22
Design Air Voids:	4.0 %, 70 Gyration Design
Mixture Composition (Gradation Mixture)	IL-9.5mm
Friction Aggregate:	Mix C
Mixture Weight:	112 lbs/Sq Yd/in
Quality Management Program:	QCQA
Sublot Size:	3000
Material Transfer Device (Required?):	No

Location(s):	Hot-Mix Asphalt Binder Course (IL-148)
Mixture Use(s):	Hot-Mix Asphalt Course, N70, 9.5mm
PG:	PG64-22
Design Air Voids:	4.0 %, 70 Gyration Design
Mixture Composition:(Gradation Mixture)	IL-9.5mm
Friction Aggregate:	None
Mixture Weight:	112 lbs/Sq Yd/in
Quality Management Program:	QCQA
Sublot Size:	3000
Material Transfer Device (Required?):	No

REV. - MS

USER NAME = Derek.Snider	DESIGNED - DF	RS	REVISED								RTF	SECTION	COUNTY	SHEETS NO.	<u>. </u>
	DRAWN - DF	RS	REVISED	STATE OF ILLINOIS	l II	NDEX OF SI	HEETS, G	GENERAL	. Notes, st	ANDARDS	726	D9 BRIDGE OVERLAY 2023-6	JEFFERSON	18 3	Ti .
PLOT SCALE = 100.0000 ' / in.	CHECKED - MA	AS	REVISED	DEPARTMENT OF TRANSPORTATION									CONTRAC	T NO. 78963	
 PLOT DATE = 11/30/2022	DATE - 10	0/17/2022	REVISED		SCALE:	SHEET	OF	_ SHEETS	S STA	TO STA	-	ILLINOIS FED.	AID PROJECT		ゴ

SUMMARY OF QUANTITIES

ROUTE:	FAP 726
FUNDING:	80% FEDERAL 20% STATE
LOCATION:	BRIDGE
ΤΩΤΔΙ	STRUCTURE

COUNTY:

		LOCATION:	BRIDGE	
CODE	ITEM DESCRIPTION	UNIT	TOTAL	STRUCTURE
NUMBER			QUANTITY	041-0096
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	1,171	1,171
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	327	327
40600990	TEMPORARY RAMP	SQ YD	36	36
40602985	HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N70	TON	15	15
40604052	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N70	TON	290	290
50102400	CONCRETE REMOVAL	CU YD	20.6	20.6
50300255	CONCRETE SUPERSTRUCTURE	CU YD	22.6	22.6
50300300	PROTECTIVE COAT	SQ YD	42	42
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	5470	5470
50800515	BAR SPLICERS	EACH	26	26
50800530	MECHANICAL SPLICERS	EACH	144	144
52000110	PREFORMED JOINT STRIP SEAL	FOOT	68	68
60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	4	4
63100089	TRAFFIC BARRIER TERMINAL, TYPE 6B	EACH	1	1

* SPECIALTY ITEM

REV. - MS

USER NAME = Derek.Snider	DESIGNED	REVISED
	DRAWN	REVISED
PLOT SCALE = 100.0099 / in.	CHECKED -	REVISED
PLOT DATE = 10/5/2022	DATE	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

					RTE.	SEC
	SUMMAR	Y OF QU	JANITIES		726	D9 BRIDGE C
CHEET	O.E.	CHEETC	CTA	TO CTA		

SECTION COUNTY TOTAL SHEET NO.

6 D9 BRIDGE OVERLAY 2023-6 JEFFERSON 18 4

CONTRACT NO. 78963

ILLINOIS FED. AID PROJECT

0047

Sl	JMMARY OF QUANTITIES - CON	NT	COUNTY: ROUTE: FUNDING:	JEFFERSON CO FAP 726 80% FEDERAL 20% STA
CODE NUMBER	ITEM DESCRIPTION	UNIT	LOCATION: TOTAL QUANTITY	BRIDGE STRUCTURE 041-0096
63200310	GUARDRAIL REMOVAL	FOOT	58	5
63300575	REMOVE AND REERECT RAIL ELEMENT OF EXISTING GUARDRAIL	FOOT	45	4
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4	
67100100	MOBILIZATION	L SUM	1	
70100100	TRAFFIC CONTROL AND PROTECTION, STANDARD 701316	EACH	1	
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	6	
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	
70106700	TEMPORARY RUMBLE STRIPS	EACH	6	
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	28	- :
70300100	SHORT TERM PAVEMENT MARKING	FOOT	209	20
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	952	9!
70300221	TEMPORARY PAVEMENT MARKING - LINE 4"- PAINT	FOOT	2,650	2,65
78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	2,650	2,65

* SPECIALTY ITEM

REV. - MS

USER NAME = Derek,Snider	DESIGNED	REVISED								F.A RTF	SECTION	COUNTY	TOTAL	SHEET
	DRAWN	REVISED	STATE OF ILLINOIS		S	UMMARY OI				726	D9 BRIDGE OVERLAY 2023-6	JEFFERSON	18	5
PLOT SCALE = 100.0439 / in.	CHECKED	REVISED	DEPARTMENT OF TRANSPORTATION		_							CONTRAC	T NO. 789	963
PLOT DATE = 10/3/2022	DATE	REVISED		SCALE:	SHEET	OF SH	EETS	STA	TO STA		ILLINOIS FED. A	AID PROJECT		

JEFFERSON CO

COUNTY:

SUMMARY	OF	QUANTITIES	-	CONT

30	DIMINANT OF QUANTITIES - CONT		ROUTE:	FAP 726
			FUNDING:	80% FEDERAL 20% STATE
			LOCATION:	BRIDGE
CODE	ITEM DESCRIPTION	UNIT	TOTAL	STRUCTURE
NUMBER	TIEM DESCRIPTION	ONIT	QUANTITY	041-0096
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	10	10
78300201	PAVEMENT MARKING REMOVAL - GRINDING	SQ FT	454	454
86200300	UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	1	1
80200300	UNINTERROFTABLE FOWER SUFFET, EXTENDED	LACIT	1	1
X0325747	BRIDGE DECK CONCRETE CRACK SEALER	FOOT	400	400
VE010101	WATERDROOFING MEMBRANE (CRRAY ARRIVER)	50.1/5		0.047
X5810101	WATERPROOFING MEMBRANE (SPRAY APPLIED)	SQ YD	2,247	2,247
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	313	313
Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	19	19
Z0034390	MODULAR EXPANSION JOINT 6"	FOOT	33	33
70400100	TEMPORARY CONCRETE BARRIER	FOOT	238	238
70400125	PINNING TEMPORARY CONCRETE BARRIER	EACH	24	24
70100123	THAING TEMPORALL BANGER	EXCIT		2 1
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	238	238
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	1	1
70000230	IMPACT ATTENUATORS, TEMPORART (NON-REDIRECTIVE), TEST LEVEL S	EACH	1	1
70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY-REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	1	1
70600222	MADA CT. ATTENNATORS, RELOCATE (FULLY REPORTED TO THE ATTENDANCE OF THE ATTENDANCE O	5.00		
70600332	IMPACT ATTENUATORS, RELOCATE (FULLY-REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	1	1
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	1	1

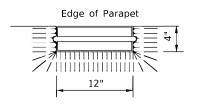
SCALE: ___

* SPECIALTY ITEM

REV. - MS

USER NAME = Derek.Snider	DESIGNED	REVISED
	DRAWN	REVISED
PLOT SCALE = 100.0439 / in.	CHECKED	REVISED
PLOT DATE = 10/3/2022	DATE	REVISED

						F.A RTE	SECTION	COUNTY	TOTAL SHEETS	SHE
SUMMARY OF QUANITIES				726	D9 BRIDGE OVERLAY 2023-6	JEFFERSON	18	6		
								CONTRACT	NO. 78	3963
	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED. AI	ID PROJECT		



FLOOR DRAIN

Slope Overlay at Drains 25 Total Drains at Bridge Deck

GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.

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

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

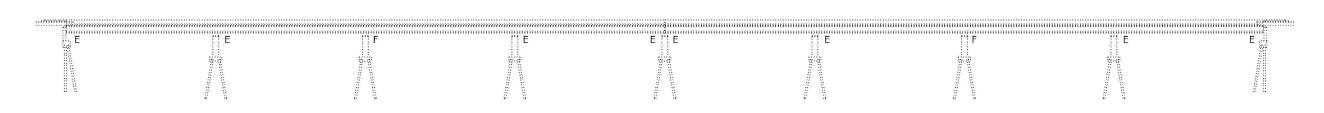
Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

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

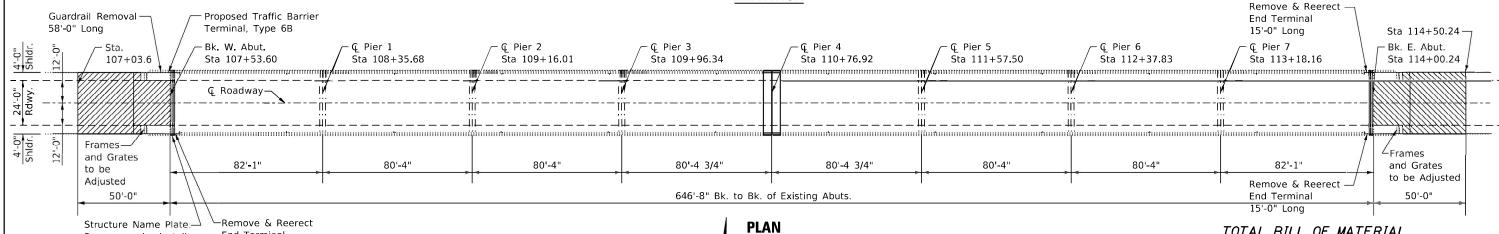
The Contractor shall use extreme care during concrete removal so as not to

Expansion joints shall be fabricated and installed according to the Manufacture's recommendations and as approved by the Engineer.

Protective Coat shall be applied to the top and inside faces of all new concrete parapets and all new concrete at joints.



ELEVATION



LEGEND:

HMA Surface Removal - Butt Joint

End Terminal

15'-0" Long

SCOPE OF WORK

Remove and reinstall.

Cost to be included in concrete removal.

Set up TC&P Standard 701316 RPM Removal Deck Slab Repair (Partial) Concrete Removal & Replacement Preformed Joint Strip Seal at Abutments Modular Expansion Joint 6" at Pier 4 Crack Seal Apply Spray on Waterproofing HMA Surface Removal - Butt Joint Apply Tack Coat HMA Surface Course

DESIGN STRESSES

f'c=3,500 psi fy=60,000psi



EXPIRES 11-30-2024

SCALE:

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANITY
HMA Surface Course, IL-9.5, Mix "C", N7O	Ton	290
Waterproofing Membrane (Spray Applied)	Sq. Yd.	2247
Reinforcement Bars, Epoxy Coated	Pound	5470
Preformed Joint Strip Seal	Foot	68
Bar Splicers	Each	26
Deck Slab Repair (Partial Depth)	Sq. Yd.	19
Raised Reflective Pavement Marker Removal	Each	10
Concrete Removal	Cu. Yd.	20.6
Concrete Superstructure	Cu. Yd.	22.6
Bridge Deck Concrete Crack Sealer	Foot	400
HMA Surface Removal - Butt Joint	Sq. Yd.	327
Bituminous Material (Tack Coat)	Pound	1171
Protective Coat	Sq. Yd.	42
Structural Repair of Concrete (Depth <= 5 Inches)	Sq. Ft.	313
Modular Expansion Joint 6"	Foot	33
Mechanical Splicers	Each	144
Frames and Grates to be Adjusted	Each	4

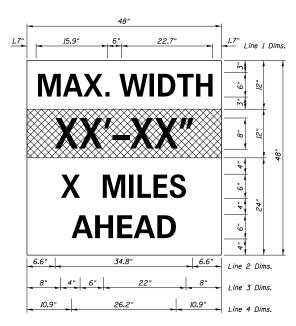
BRIDGE REPAIRS IL 148 OVER BIG MUDDY RIVER FAP 726 - D9 BRIDGE OVERLAY 2023-6 JEFFERSON COUNTY STRUCTURE NO. 041-0096

USER NAME = Derek.Snider	DESIGNED	-	DRS	REVISED	Ę	
	DRAWN	~	DRS	REVISED	-	
PLOT SCALE = 100.0000 ' / in.	CHECKED		MAS	REVISED	-	
PLOT DATE = 11/30/2022	DATE	-	10/17/2022	REVISED	-	

	GENERAL PLAN AND ELEVATION SN 041-0096 SHEET OF SHEETS STA. TO STA		F.A.P SECTION		COUNTY	TOTAL SHEETS	SHEET NO.		
SN 041-0096			726	D9 BRIDGE OVERLAY 2	2023-6	JEFFERSON	18	7	
							CONTRACT	NO. 78	3963
	SHEET OF SHEETS STA.	l	TO STA		ILLINOIS	FED. AII	D PROJECT		

Notes for Max Width Sign:

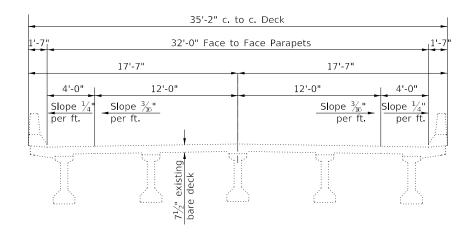
- I. Install a Max Width Sign each direction on IL 148 to give traffic approaching work zone enough advance notice to change routes if needed. Exact locations as directed by engineer.
- 2. The contractor shall furnish the posts and erect the signs at the locations directed by the engineer. All signs shall be post mounted.
- 3. The noted work, including signs, posts, hardware and labor shall be included in the contract unit price, each, for Traffic Control and Protection, Std. 701316, no other compensation will be allowed.
- 4. The width shown on the W12-1103 sign shall be 18" less than what is shown in the staged lane widths table or as directed by the Engineer.
- 5. The "X" MILES AHEAD will be determined by the engineer.



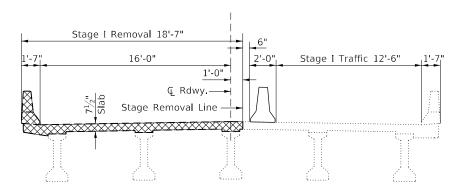
W12-I103

WI2-1103, No Border
"MAX WIDTH" 6D, No Border, Black on White
"XX'-XX"" 8D, No Border, Black on Orange
"X MILES" 6D, No Border, Black on White
"AHEAD" 6D, No Border, Black on White

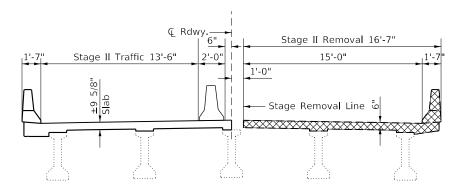
The Contractor shall use extreme care during concrete removal so as not to damage the PPC I-beam.



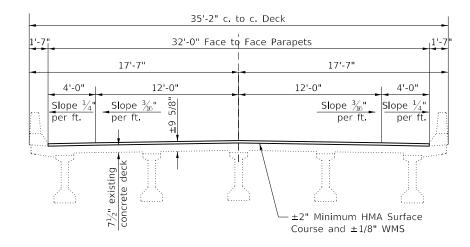
TYPICAL BRIDGE SECTION - EXISTING



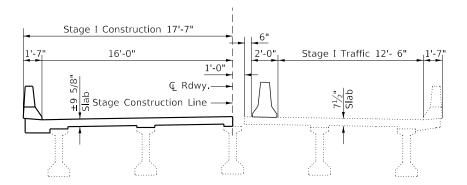
STAGE | REMOVAL (AT PEIR 4 ONLY)



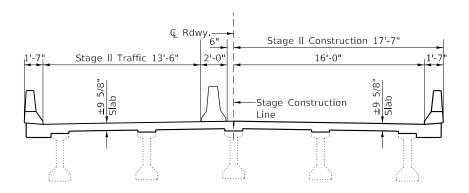
STAGE II REMOVAL (AT PEIR 4 ONLY)



TYPICAL BRIDGE SECTION - PROPOSED



STAGE | CONSTRUCTION (AT PEIR 4 ONLY)



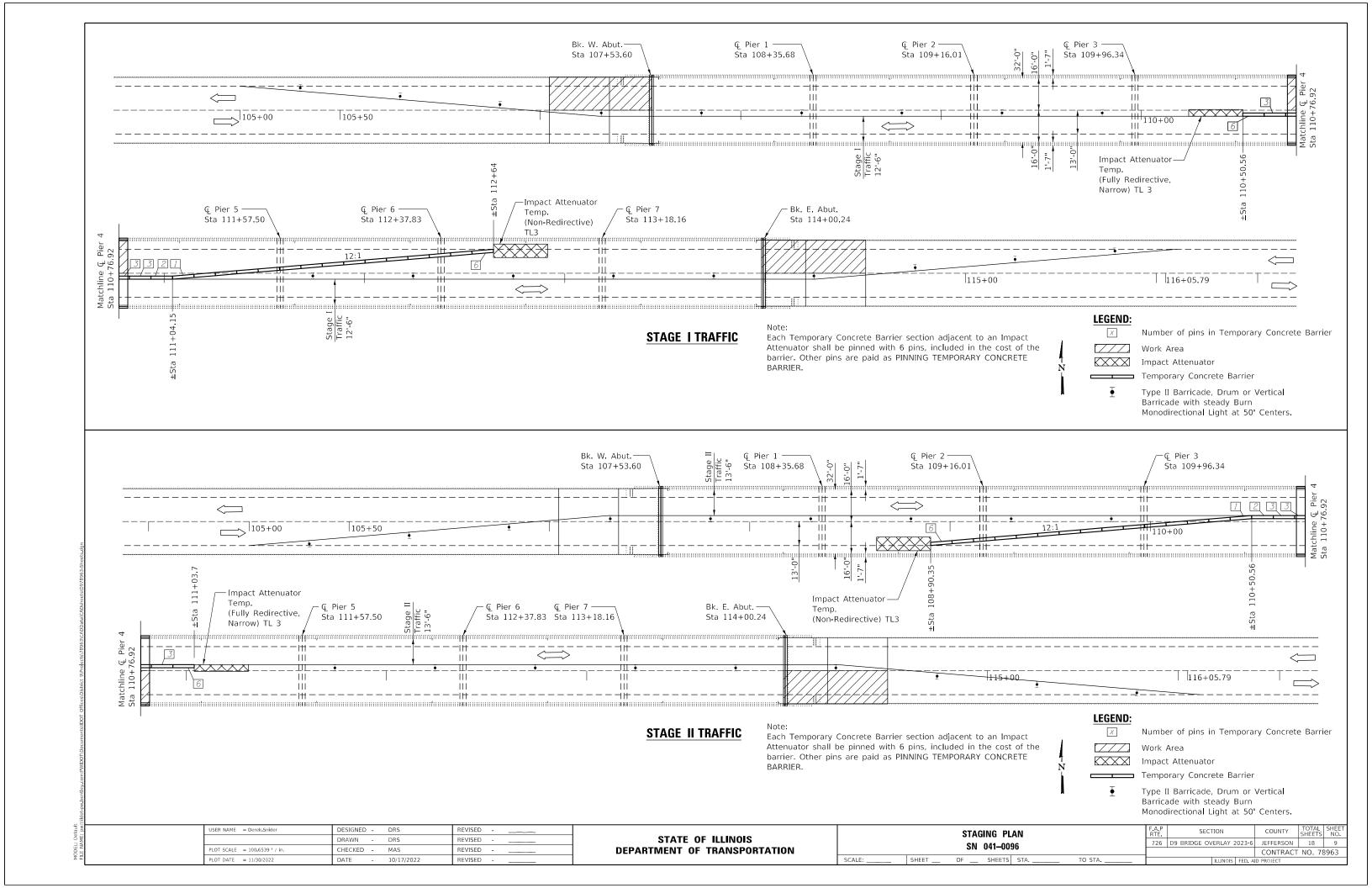
STAGE II CONSTRUCTION (AT PEIR 4 ONLY)

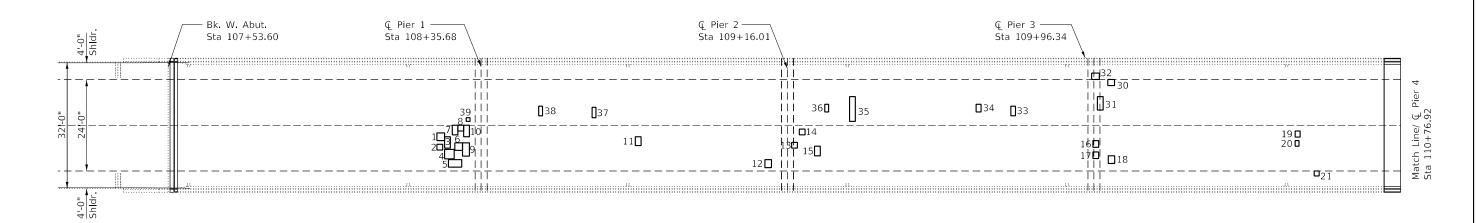
All sections looking East

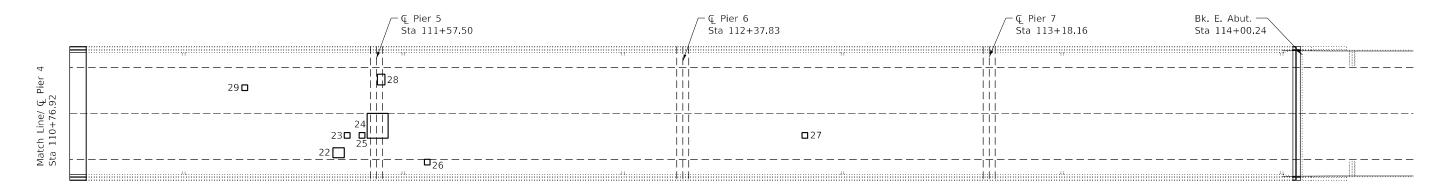
SCALE:

USER NAME = Derek Snider	DESIGNED	-	DRS	REVISED	-	
	DRAWN	-	DRS	REVISED	-	
PLOT SCALE = 100.6539 / in	CHECKED	-	MAS	REVISED	-	
PLOT DATE = 11/30/2022	DATE	_	10/17/2022	REVISED	-	

TYPICAL SECTIONS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
SN 041-0096	726	D9 BRIDGE OVERLAY 2023-	5 JEFFERSON	18	8	
311 041-0030			CONTRACT	NO. 78	3963	
SHEET OF SHEETS STA	TO STA		ILLINOIS FED.	AID PROJECT		







Number	Length (ft)	Width (ft)	Area (Sq. Yd.)	
1	2.0	2.0	0.4	
2	1.5	1.5	0.3	
3	1.5	3.0	0.5	
4	2.5	2.5	0.7	
5	3.5	2.0	0.8	
6	2.0	2.0	0.4	
7	1.5	2.5	0.4	
8	1.5	1.5	0.3	
9	1.8	3.5	0.7	
10	1.5	3.0	0.5	
11	1.5	2.3	0.4	
12	1.7	2.1	0.4	
13	1.5	1.5	0.3 0.3	
14	1.5	1.5		
15	1.5	2.5	0.4	
16	1.5	1.8	0.3	
17	1.5	1.7		
18	1.7	2.0	0.4	
19	1.3	1.6	0.2	
20	1.0	1.5	0.2	
21	1.3	1.3	0.2	
22	3.0	2.6	0.9	
23	1.5	1.5	0.3	
24	5.5	6.5	4.0	
25	1.5	1.5	0.3	
26	1.5	1.5	0.3	
27	1.5	1.5	0.3	
	East Bound Total	<u></u>	14.1	

	West Bound										
Number	Length (ft)	Width (ft)	Area (Sq. Yd.)								
28	2.0	2.8	0.6								
29	1.5	1.5	0.3								
30	1.8	1.6	0.3								
31	1.5	3.5	0.6								
32	2.0	1.7	0.4								
33	1.2	2.5	0.3								
34	1.3	2.0	0.3								
35	1.5	6.5	1.1								
36	1.0	2.0	0.2								
37	1.0	2.7	0.3								
38	1.0	2.5	0.3								
39	1.0	1.0	0.1								
,	West Bound Total 4.8										

Notes: The Engineer will determine final patch locations and quantities in the feild before bridge deck patching operations begin.

BILL OF MATERIAL

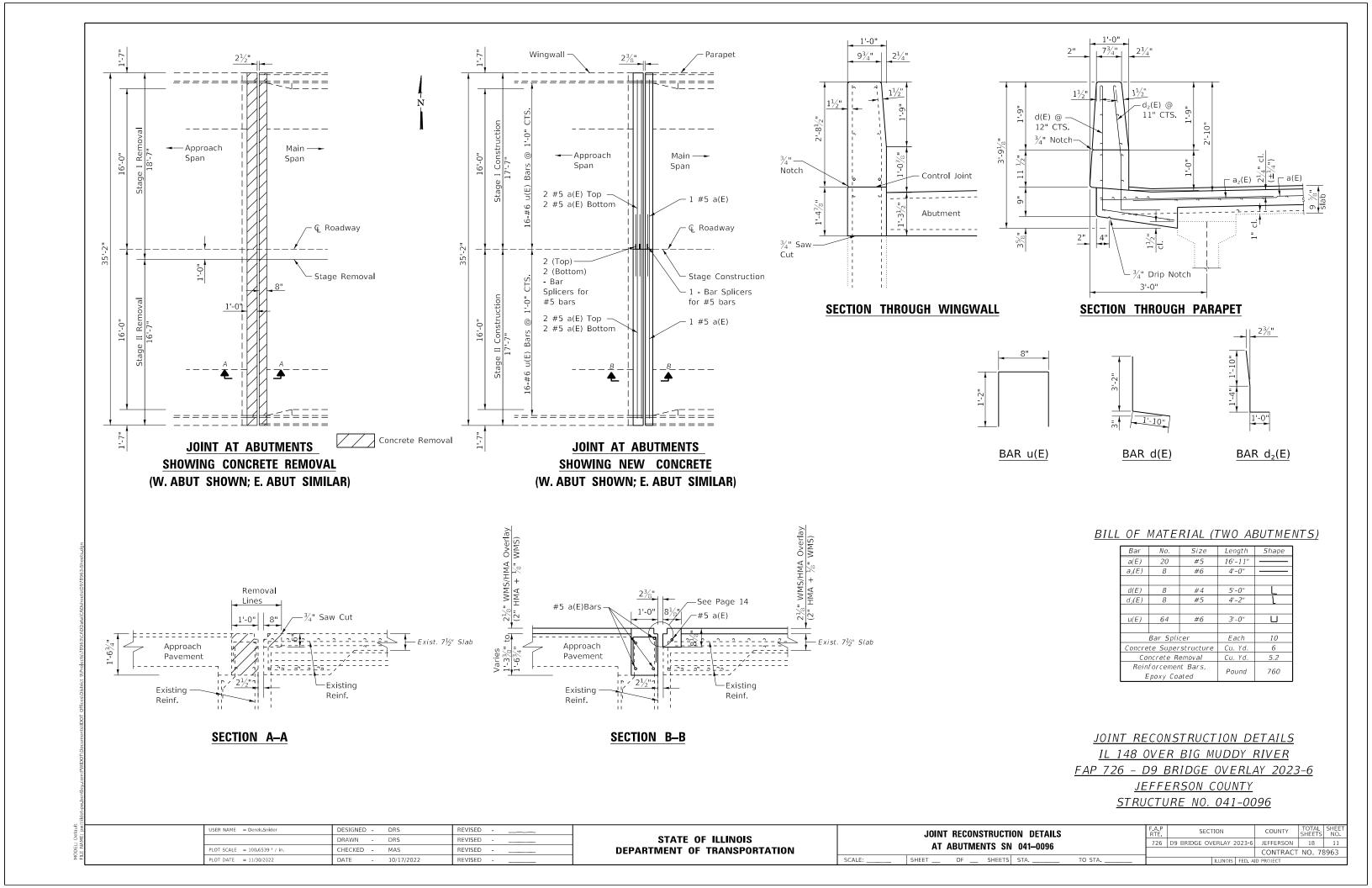
ITEM	UNIT	TOTAL
Deck Slab Repair (Partial Depth)	Sq. Yd.	19
Bridge Deck Concrete Crack Sealer	Foot	400

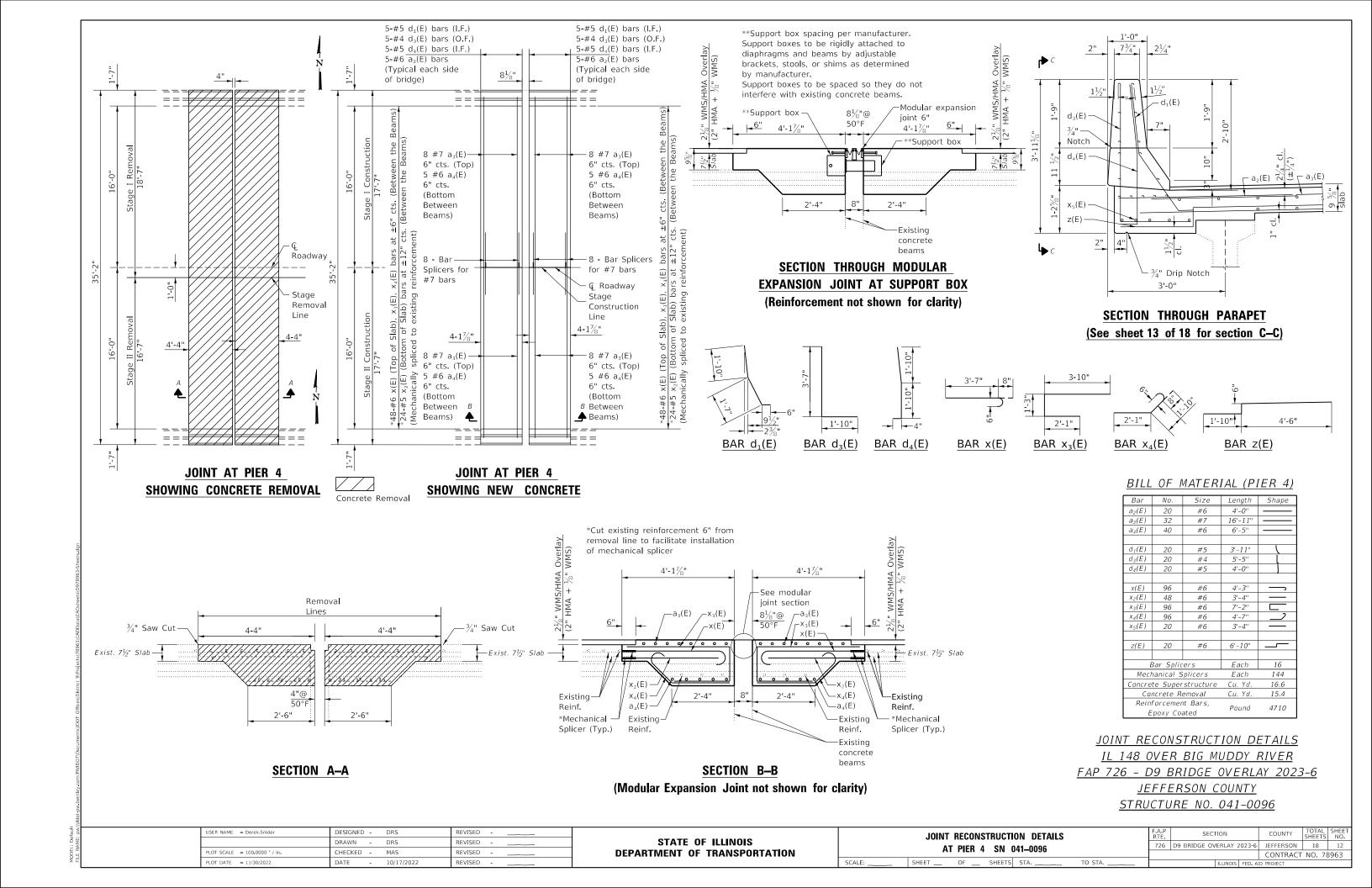
- 1	USER NAME = Derek-Snider	DESIGNED	-	DRS	REVISED	-	
		DRAWN	-	DRS	REVISED	-	
	PLOT SCALE = 100.6539 / in.	CHECKED	-	MAS	REVISED	-	
	PLOT DATE = 11/30/2022	DATE	-	10/17/2022	REVISED	-	

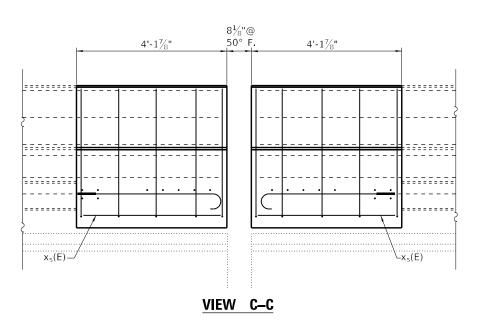
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

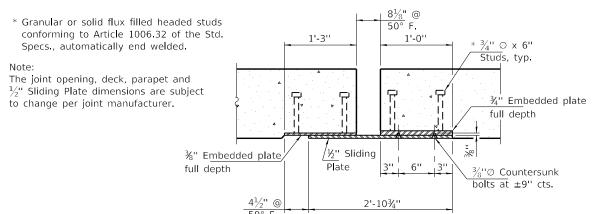
SCALE:

						F.A.P RTE. SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
						726	D9 BRIDGE OVERLAY 2023-6	JEFFERSON	18	10
314 041-0030							CONTRACT	NO. 78	3963	
	SHEET	OF	SHEETS	STA	TO STA		ILLINOIS FED. A	D PROJECT		



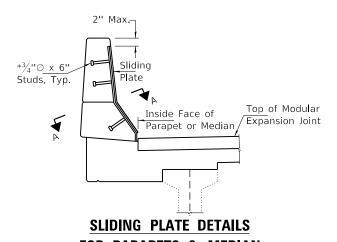






SECTION A-A

SCALE:



FOR PARAPETS & MEDIAN

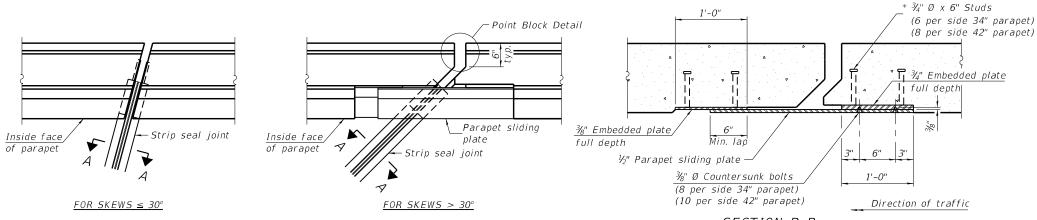
Cost included with modular expansion joint

JOINT RECONSTRUCTION DETAILS IL 148 OVER BIG MUDDY RIVER FAP 726 - D9 BRIDGE OVERLAY 2023-6 <u>JEFFERSON COUNTY</u> STRUCTURE NO. 041-0096

USER NAME = Derek.Snider	DESIGNED	-	DRS	REVISED	-	
	DRAWN	-	DRS	REVISED	-	
PLOT SCALE = 100.0000 / in	CHECKED	-	MAS	REVISED	-	
PLOT DATE = 11/30/2022	DATE	-	10/17/2022	REVISED	-	

STATE OF ILLINOIS	
DEPARTMENT OF TRANSPORTATION	

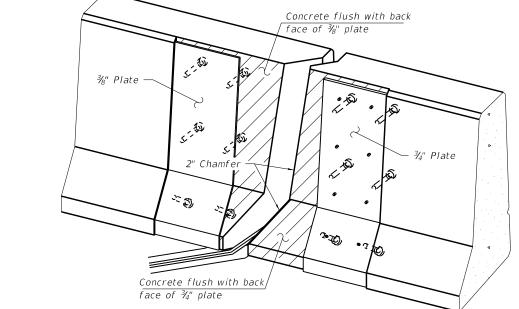
	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
AT PIER 4 SN 041-0096	726	D9 BRIDGE OVERLAY 2023	3-6 JEFFERSON	18	13
AT TIER 4 314 041-0030			NO. 78	3963	
SHEET OF SHEETS STA TO STA		ILLINOIS FEE	D. AID PROJECT		



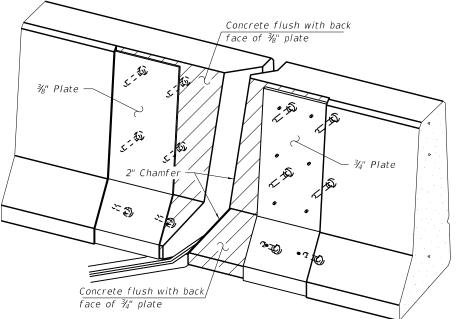
PLAN AT PARAPET

ELEVATION AT PARAPET

(Skew ≤ 30°)



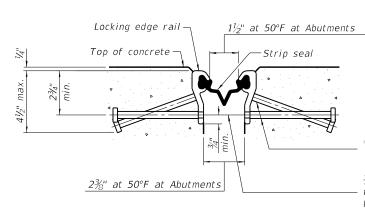
SECTION B-B



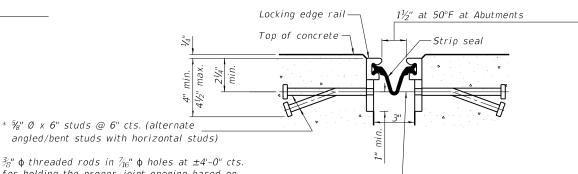
TRIMETRIC VIEW (Showing embedded plates only)

SCALE:

SHEET ___



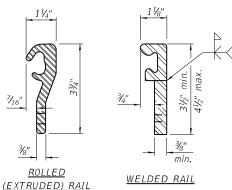
SHOWING ROLLED RAIL JOINT



 $\frac{3}{8}$ " ϕ threaded rods in $\frac{7}{16}$ " ϕ 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



LOCKING EDGE RAILS

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

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of $\frac{1}{4}$ ". 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.

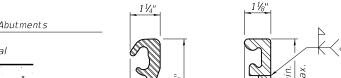
The manufacturer's recommended installation methods shall be followed.

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. Such adjustments shall be at no additional cost to the State.



LOCKING EDGE RAIL SPLICE

Omit weld at seal opening

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	68

USER NAME = Derek.Snider	DESIGNED	-	DRS	REVISED	-	
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PLOT SCALE = 100.0000 / in	CHECKED	-	MAS	REVISED	-	
PLOT DATE = 11/30/2022	DATE	-	10/17/2022	REVISED	-	

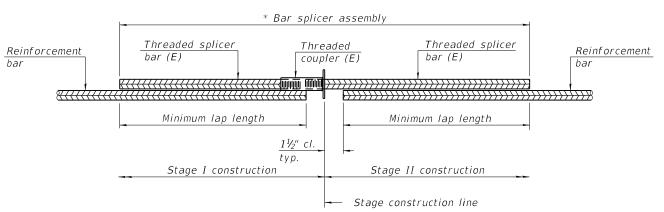
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

PREFORMED	JOINT STRIP SEAL DETAILS
	SN 041-0096

TO STA.

OF SHEETS STA.

F.A.P RTE	SECT	TION		COUNTY	TOTAL SHEETS	SHEET NO.
726	D9 BRIDGE OV	ERLAY 2	2023-6	JEFFERSON	18	14
				CONTRACT	NO. 78	3963
		ILLINOIS	FED. A	D PROJECT		



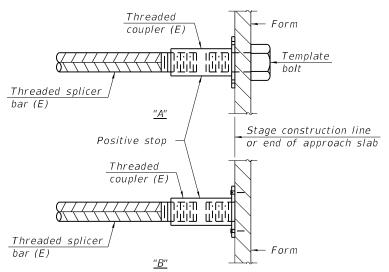
STANDARD BAR SPLICER ASSEMBLY PLAN

(All components shall be provided from one supplier)

Threaded splicer bar length = min. lap length + $1\frac{1}{2}$ " + thread length

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

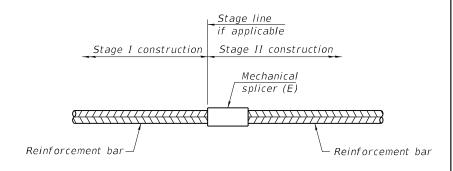
Location	Bar size	No. assemblies required	Minimum lap length
Deck	#5	10	3'-2"
Deck	#7	16	5'-0''



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			
Deck	#5	48			
Deck	#6	96			

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.

BAR SPLICER ASSEMBLY DETAILS

IL 148 OVER BIG MUDDY RIVER

FAP 726 - D9 BRIDGE OVERLAY 2023-6

JEFFERSON COUNTY

STRUCTURE NO. 041-0096

BSD-1

1-1-2020

USER NAME = Derek.Snider	DESIGNED	-	DRS	REVISED	-	
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PLOT DATE = 11/30/2022	DATE	-	10/17/2022	REVISED	-	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS

SN 041-0096

SHEET OF SHEET STA. TO STA. SHEET SHEETS NO. 78963

FILE NAME: pw:\\ildot-pw.



Temporary Ramp



* Additional milling included in the quanity of hot mix asphalt surface removal - butt joint.

USER NAME = Derek.Snider DESIGNED - DRS REVISED -DRAWN - DRS REVISED -MAS REVISED -PLOT DATE = 11/30/2022 DATE - 10/17/2022

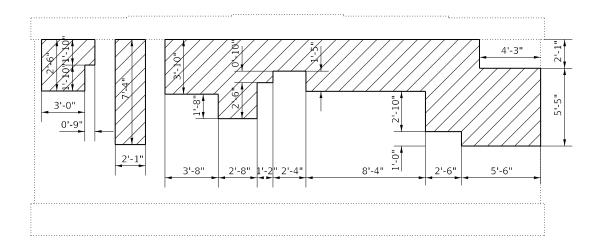
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

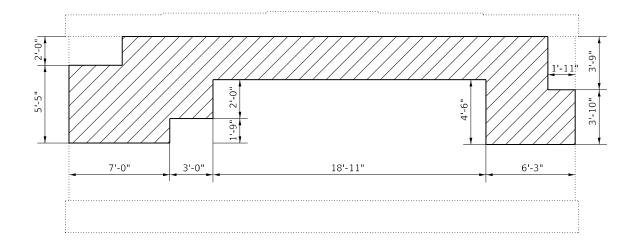
SECTION A-A

BUTT JOINT DETAIL SN 041-0096 SHEET ___ OF ___ SHEETS STA. TO STA.

 F.A.P. RTE.
 SECTION
 COUNTY
 TOTAL SHEETS NO.

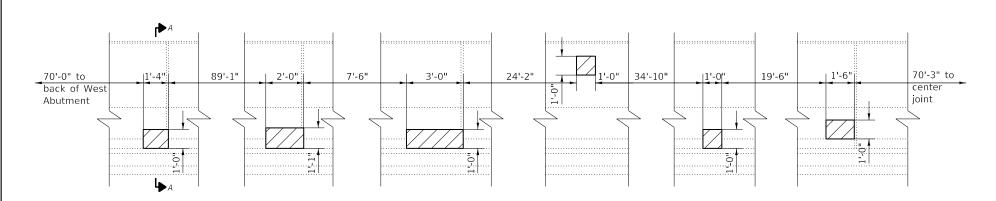
 726
 D9 BRIDGE OVERLAY 2023-6
 JEFFERSON
 18
 16
 CONTRACT NO. 78963

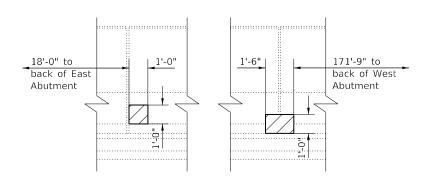




WEST ELEVATION AT PIER 4

EAST ELEVATION AT PIER 4



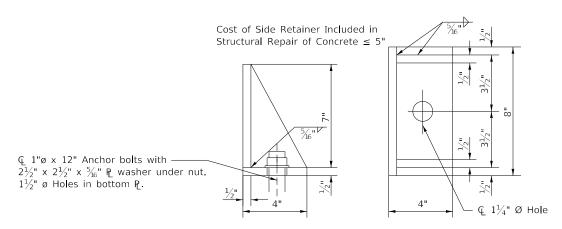


CONCRETE REPAIR AT NORTH PARAPET WALL



SCALE:

CONCRETE REPAIR AT SOUTH PARAPET WALL



BILL OF MATERIAL

BILL OF WATERIAL		
ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth ≤ 5 Inches)	Sq. Ft.	313

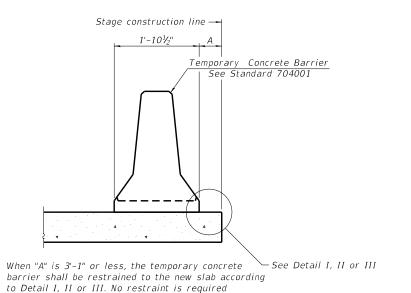
Side Retainer

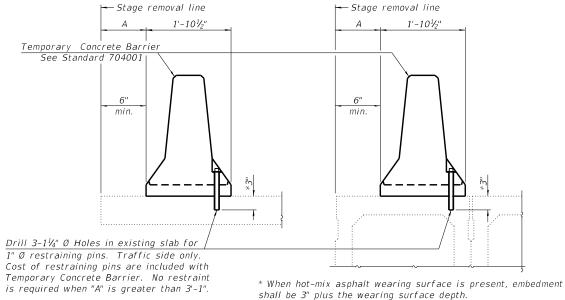
Replace 3 Clips at West Abutment and 1 Broken Bolt Replace 2 Clips at East Abutment

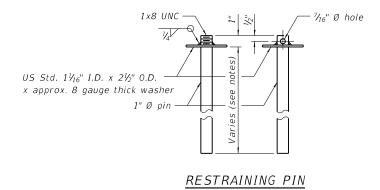
USER NAME = Derek.Snider	DESIGNED	-	DRS	REVISED	-	
	DRAWN	-	DRS	REVISED	-	
PLOT SCALE = 100.0000 / in	CHECKED	-	MAS	REVISED	-	
PLOT DATE = 11/30/2022	DATE	-	10/17/2022	REVISED	-	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTUAL REPAIR OF CONCRETE					F.A.P RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.	
SN 041-0096						726	D9 BRIDGE OVERLAY 2023-6		JEFFERSON	18	17
		JIV	UT1-UU.	JU				CONTRACT	NO. 78	3963	
_	SHEET	OF	SHEETS	STA	TO STA		ILLINOIS	FED. AI	D PROJECT		







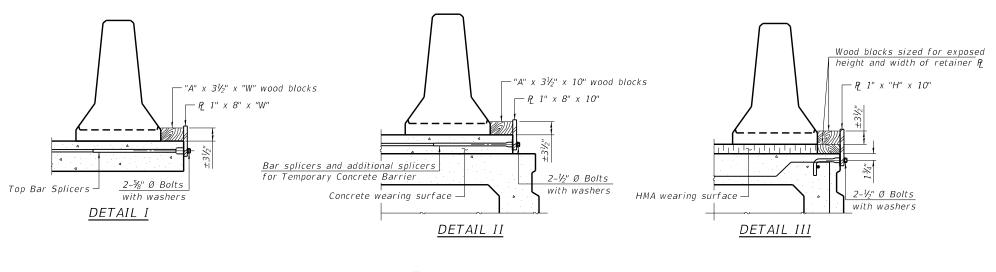
NEW SLAB OR NEW DECK BEAM

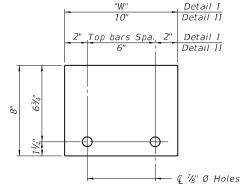
when "A" is greater than 3'-1".

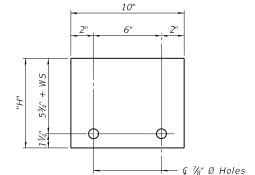
EXISTING SLAB

EXISTING DECK BEAM

SECTIONS THRU SLAB OR DECK BEAM





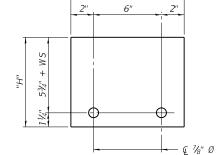


SCALE:

STEEL RETAINER P 1" x 8" x "W" (Detail I and II)

RAILING CRITERIA NCHRP 350 Test Level Railing Weight (plf)

R-27 10-12-2021



STEEL RETAINER P 1" x "H" x 10" (Detail III)

BAR SPLICER FOR #4 BAR - DETAIL III

Cost of retainer assembly is included with Temporary Concrete Barrier. A retainer assembly shall be located at the approximate © of each temporary concrete barrier.

The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

When the 'A' dimension is less than $1\frac{1}{2}$ ", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

- Detail I Installation for a new bridge deck or bridge slab.
- Detail II Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.
- Detail III Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

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TEMPORARY CONCRETE BARRIER					F.A.P RTE.	SECTION			COUNTY	TOTAL SHEETS		
STRUCTURE 041-0096						726	D9 BRIDGE OVERLAY 2023-6		2023-6	JEFFERSON	18	18
	31NOCIONE 041-0030									CONTRACT	NO. 78	3963
	SHEET	OF	SHEETS	STA	TO STA			ILLINOIS	FED. AI	D PROJECT		