STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

17BR-1 LINOIS CONTRACT NO. 76P78

D-98-022-22



STATE OF ILLINOIS

May 13, 2022

DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

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- 1. COVER SHEET
- 2. GENERAL NOTES, HIGHWAY STANDARDS,
- COMMITMENTS
- 3. SUMMARY OF QUANTITY
- 4-12. BRIDGE JOINT REPAIR PLANS

ADT

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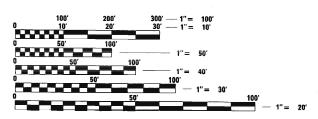
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2021 ADT = 2850 (ACTUAL) 2022 ADT = 2900 (ESTIMATED) 2042 ADT = 3250 (ESTIMATED)SU = 6.8% MU = 2.5%

DIT DIST = 50/50

3 SPAN WIDE FLANGE STEEL BEAM STRUCTURE SUPPORTED ON PILE BENT ABUTMENT AND PIERS SN 061-0078 LAT: 38.57361 LONG: -88.9999



ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES, IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

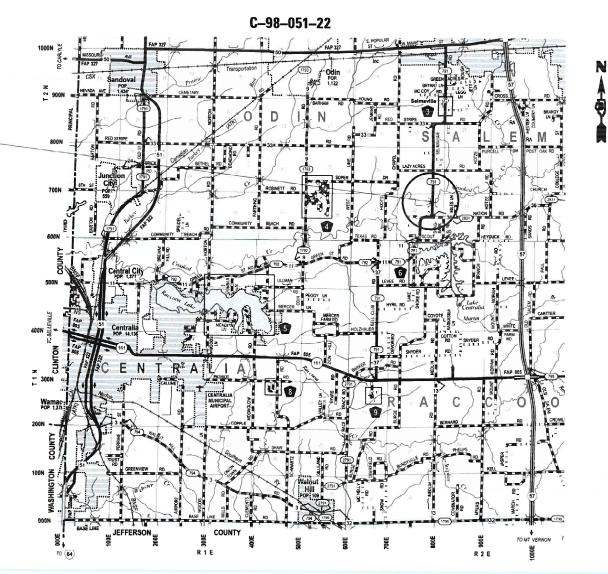
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS 1-800-892-0123 OR 811

PROJECT ENGINEER - CHERYL KEPLAR PROJECT MANAGER - TONI MANN

CONTRACT NO. 76P78

PROPOSED HIGHWAY PLANS

FAS ROUTE 791 (SELMAVILLE RD) SECTION 17BR-1 **BRIDGE JOINT REPLACEMENT & REPAIR MARION COUNTY**



GROSS LENGTH = 169.198 FT. = 0.032 MILE NET LENGTH = 169.198 FT. = 0.032 MILE

HIGHWAY STANDARDS

000001-08 STANDARDS SYMBOLS ABBREVIATIONS & PATTERNS

001001-02 AREAS OF REINFORCEMENT BARS 001006 DECIMAL OF AN INCH AND OF A FOOT

BLR 21-9 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

701901-08 TRAFFIC CONTROL DEVICES 780001-05 TYPICAL PAVEMENT MARKINGS

GENERAL NOTES

UTILITIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA:

CITATION OIL AND GAS CORPORATION AT&T ILLINOIS BP PIPELINES (NORTH AMERICA) INC. AMERENUE

CHARTER COMMUNICATIONS, INC COUNTRY MARK COOPERATIVE, LLP

TRI-COUNTY ELECTRIC COOPERATIVE, INC VILLAGE OF ODIN

NO SURVEY WAS PERFORMED FOR THIS PROJECT AND PLANS WERE CREATED USING MICROFILM AND FIELD MEASUREMENTS.

THE PROPOSED PAVEMENT MARKING SHALL MATCH THE LOCATIONS OF THE EXISTING PAVEMENT MARKING, AS DIRECTED BY THE ENGINEER.

IF THE CONTRACTOR, FOR HIS CONSTRUCTION ACTIVITY, REMOVES TREES WITHIN THE RIGHT-OF-WAY LIMITS WHICH ARE NOT DESIGNATED ON THE PLANS FOR REMOVAL, I.E. IN ORDER TO GAIN ACCESS TO THE PROJECT SITE; IT WILL BE HIS RESPONSIBILITY TO REPLACE THE TREES AT A 1:1 RATIO. THE TREES WILL BE REPLACED WITH A 1 GALLON NATIVE ILLINOIS TREE SPECIES AND SHALL BE APPROVED BY THE ENGINEER. THE TREE REMOVAL AND TREE REPLACEMENT WILL BE AT THE CONTRACTOR'S EXPENSE, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

THE CONTRACTOR SHALL VERIFY THE EXISTENCE OF HIGHWAY LIGHTING, INTELLIGENT TRANSPORTATION SYSTEMS (I.T.S.) UTILITIES, AND/OR ELECTRICAL CABLES ASSOCIATED WITH TRAFFIC SIGNALS WITHIN THE PROJECT LIMITS. IF ANY OF THESE EXIST WITHIN THE PROJECT LIMITS, AND IF THESE ITEMS REQUIRE LOCATING, THE CONTRACTOR SHALL DO SO ACCORDING TO SECTION 803 OF THE STANDARD SPECIFICATIONS. THIS WORK SHALL BE PAID FOR ACCORDING TO ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

TWO CHANGEABLE MESSAGE SIGNS SHALL BE REQUIRED FOR THIS PROJECT. THEY SHALL BE PLACED 2 WEEKS PRIOR TO THE BRIDGE CLOSURE AND SHALL REMAIN UP FOR THE DURATION OF THE PROJECT. THE CHANGEABLE MESSAGE SIGNS SHALL BE PLACED AT THE DIRECTION OF THE ENGINEER.

ALL TURF AREAS DISTURBED BY THE CONTRACTOR SHALL BE SEEDED WITH THE APPROPRIATE EROSION CONTROL, AS DIRECTED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

NO COMMITMENTS

NO COMMITMENTS

USER NAME = challandeske	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 3/22/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENER/	AL NOTE	S, LIST O	F STA	NDARDS,	F.A.S. RTE.	SEC	TION		COUNTY	TOTAL SHEETS	
	AND (COMMITN	IENTS	·	791	17B	R-1		MARION	12	2
	AITD V	COMMINITION	ILITIO						CONTRACT	NO. 70	5P78
SHEET	OF	SHEETS	STA.	TO STA.			ILLINOIS	FED. AI	D PROJECT		

REV. - MS

100% STATE

				-	10070 31A1L
					CONSTR. CODE
					RURAL
					BRIDGE
	CODE			TOTAL	0047
- 1	NO.	ITEM	UNIT	QUANTITY	SN 061-0078
i	50102400	CONCRETE REMOVAL	CU YD	38.3	38.3
	30102400	CONCRETE REMOVAL	CO ID	30.3	30.3
1	F03003FF	CONCRETE SUPERSTRUCTURE	CH VD	02.4	02.4
	50300255	CONCRETE SUPERSTRUCTURE	CU YD	83.4	83.4
- 1			ĺ		
i					
				1	
1					
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	10060	10060
- 1				-	
	67100100	MOBILIZATION	L SUM	1	1
- 1				147	
	70107025	CHANGEABLE MESSAGE SIGN	CAL DA	158	158
ĺ	Ĭ			1	
*	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	875	875
1				ľ	
-				/o	
	X5870015	BRIDGE DECK CONCRETE SEALER	SQ FT	2130	2130
-		<u> </u>			
	X7011800	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1	1
- 1					
1					
	Z0001903	STRUCTURAL STEEL REMOVAL	POUND	8070	8070
				ĺ	
.					
*	Z0007101	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1	1
Ì				1	
.					
*	Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1	1
				2	
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* SPECIALTY ITEM

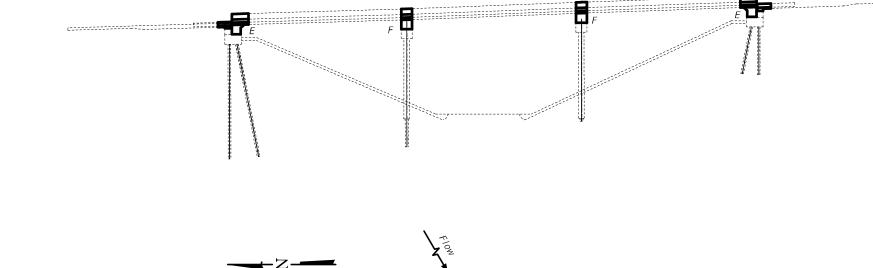
REV. - MS

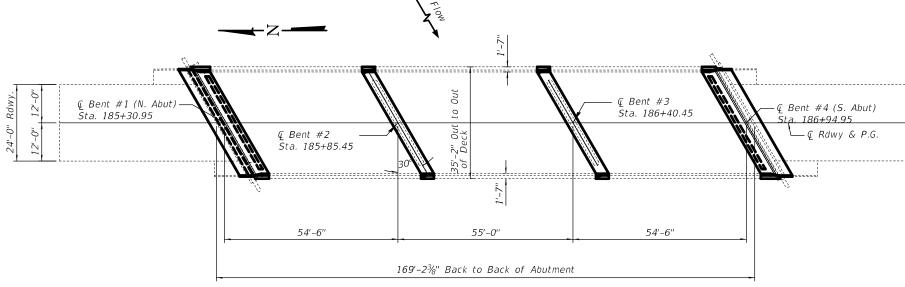
į	USER NAME = challandeske	DESIGNED ===	REVISED -				SUMMAR	V OF O	UANTITIES		F.A.S	SECTION	COUNTY	TOTAL	SHEET
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	PLOT SCALE = 100.0000 / in.	CHECKED	REVISED =	DEPARTMENT OF TRANSPORTATION									CONTRAC	T NO. 76	6P78
	PLOT DATE = 3/22/2022	DATE	REVISED 4		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FEE	. AID PROJECT		

Existing Structure: 061-0078 was built in 1984 under contract 36107, 0.R.6103 Sec 17 BR. This bridge consists of 3 spans supported on pile bent abutments and 2 pile bent piers. The wide flange beams were simple between the supports, whereas the deck was poured continuous

The deck ends, mudwalls and approach ends shall be removed and replaced solid. In addition, the pier joints shall be eliminated and replaced with concrete diaphragms. Before replacing solid, the beam ends shall be cleaned and painted.

Construction shall be completed under full traffic closure.





PLAN

3.84% 181+50.00 -1.04% 184+00. Sta. Sta. P.I.

SHEET INDEX

- 1) General Plan and Elevation
- 2) Deck Section
- 3) Joint Removal & Replacement (Abut.)
- 4) X-Sec (Appr.Removal & Replacement) 5) Joint Removal & Replacement (Piers)
- 6) Existing Joint Details
- 7) Proposed Joint Details
- 8) Diaphragms at Abutments
- 9) Diaphragms at Piers

EX. PROFILE GRADE

DESIGN STRESSES FIELD UNITS

f'c = 4,000 psi fy = 60,000 psi (Reinforcement)

LOCATION SKETCH

Google

Selmaville

(161

Sandoval Odin

Central City Co. Rd. 650 N -

Centralia

Wamac

Salem

-SN 061-0078

GENERAL NOTES

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.

As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer.

Any cracks that cannot be removed by grinding $\frac{1}{4}$ inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

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.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

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

Cleaning and Painting of the existing structural steel shall be as specified in the special provisions for "Cleaning and Painting Existing Steel Structures". After removal of deck ends and end diaphragms, but prior to encasement of the steel beams, all beams, bearings, and other structural steel within 7 ft. (measured along the beam) of either side of deck joints shall be cleaned per Near White Blast Cleaning (SSPC-SP10).

The designated areas cleaned per Near White Blast Cleaning shall be painted according to the requirements of paint system 1- 0Z/E/U. The color of the final finish coat for all steel surfaces shall be Reddish Brown (Munsell No. 2.5 YR 3/4).

SSPC QP1 and SSPC QP2 Certification is required for this Contract.

Bridge deck concrete sealer shall be placed on top/inside faces of (parapets & curbs) (full length) and on top of new concrete at joints.

The concrete at joints shall have its final finish tined according to Article 420.09(e)(1) of the Standard Specifications. Cost included with "Concrete Superstructure".

A minimum of 4 air monitors will be required to monitor abrasive blasting operations at this site. See special provisions for "Containment and Disposal of Lead Paint Cleaning Residues.

TOTAL BILL OF MATERIAL

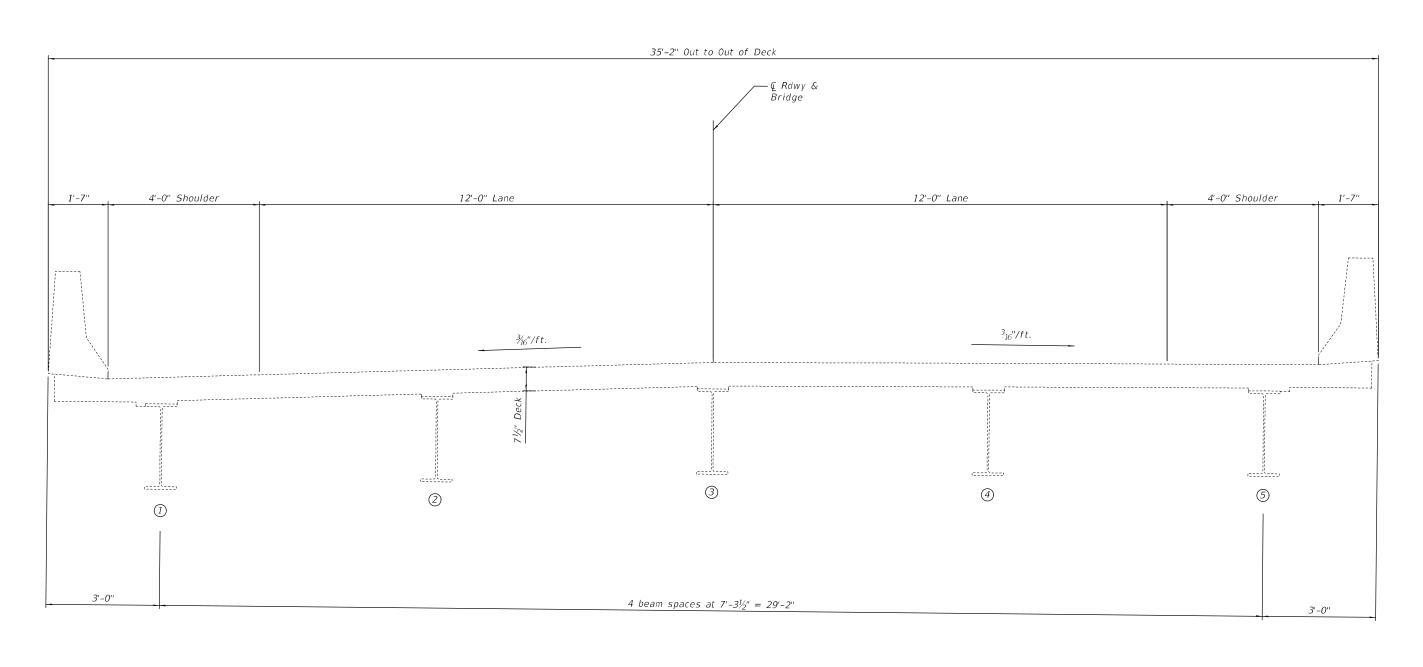
ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	38.3
Concrete Superstructure	Cu. Yd.	83.4
Reinforcement Bars, Epoxy Coated	Pound	10060
Cleaning and Painting Steel Bridge, No. 1	L. Sum	1
Containment & Disposal of Lead Paint	L. Sum	1
Cleaning Residues No. 1		1
Bridge Deck Concrete Sealer	Sq. Ft.	2130
Structural Steel Removal	Pound	8070

EXPIRES 11-30-2022

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PLOT DATE = 4/25/2022	DATE -	REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

GENERAL P	LAN & EI	EVATION	l (Selma	aville Ro	d. over Crooked Creek)	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		SN	061-00	79	,	791	17BR-1	MARION	12	4
		JIV	001-00	70				CONTRACT	NO. 76	5P78
SCALE:	SHEET 1	OF 9	SHEETS	STA.	TO STA.		ILLINOIS FED. A	ID PROJECT		

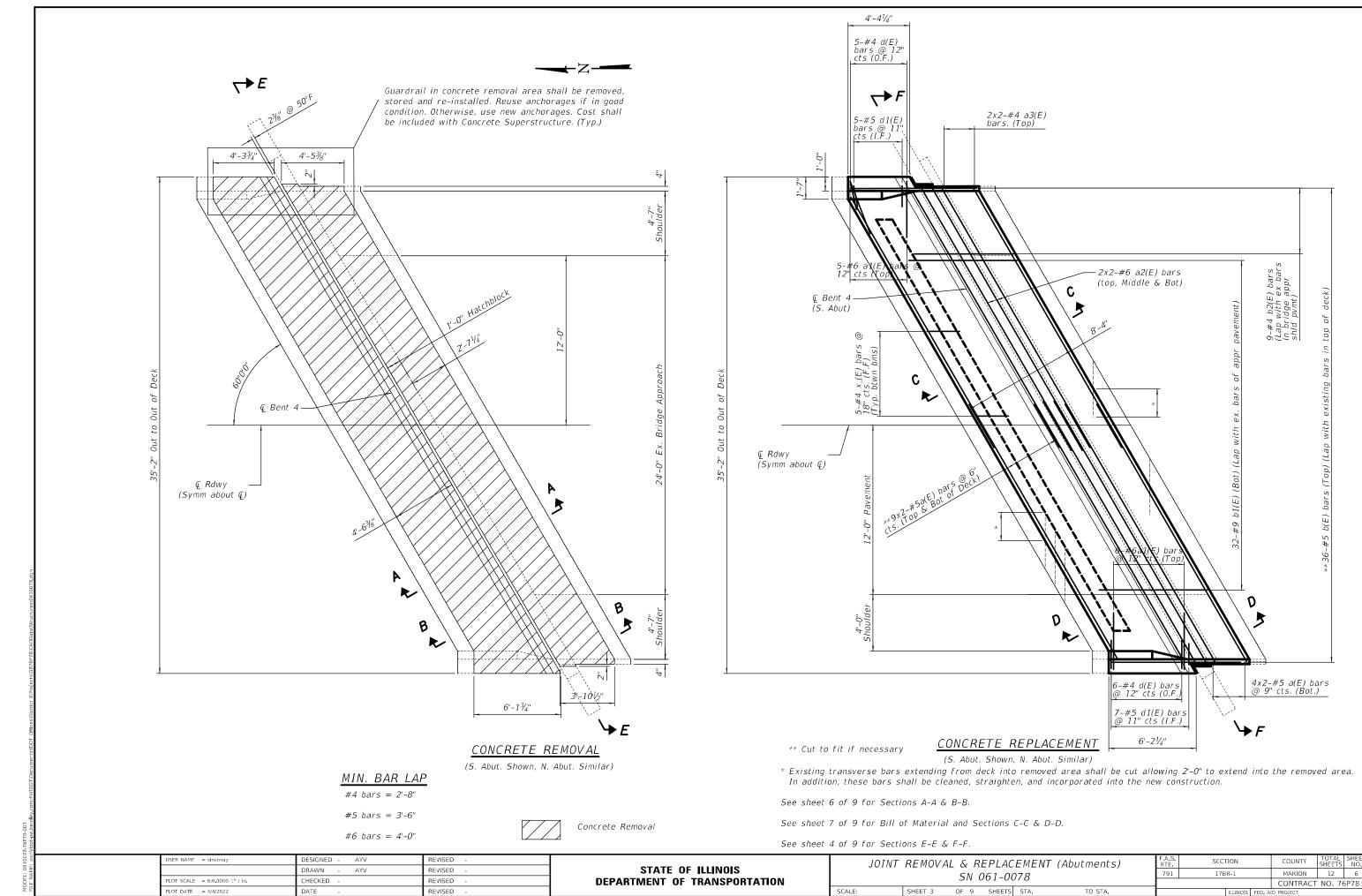


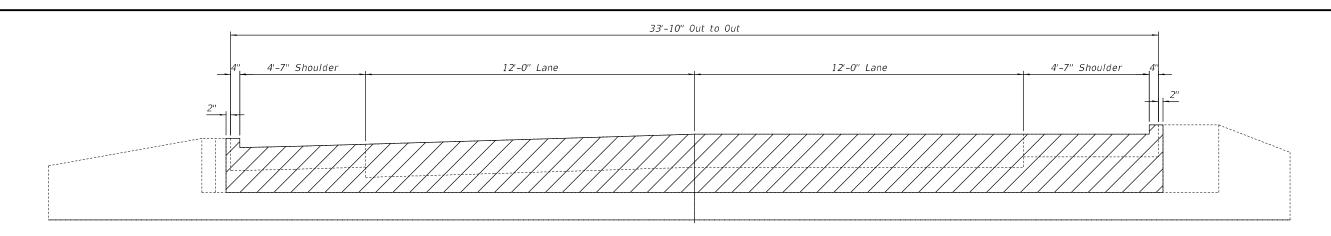
DECK SECTION (AWAY FROM ABUTMENT/PIER)

Looking South)

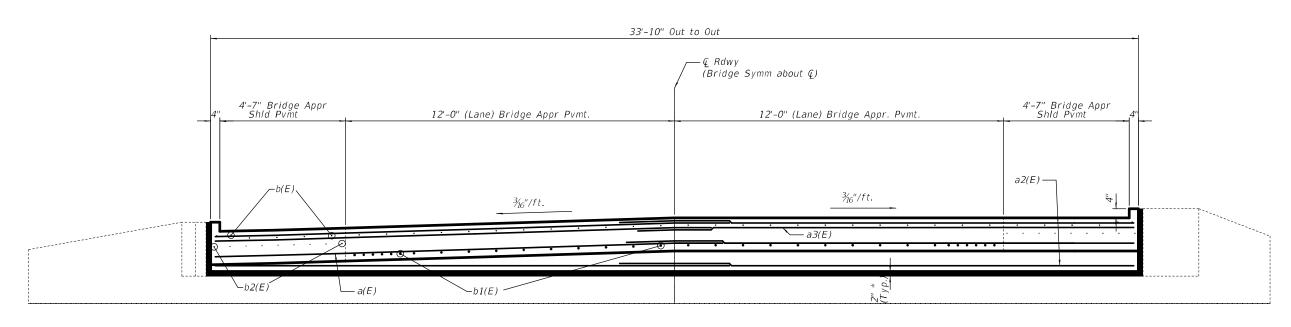
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PLOT DATE = 4/4/2022 DATE - REVISED - CONTRACT NO. 76P78	PLOT SCALE = 2:6.4561 ':" / in.	CHECKED -	REVISED -		SN 061-0078	791 17BR-1 MARION 12 5
	PLOT DATE = 4/4/2022	DATE -	REVISED _	DEFAITMENT OF THANSFORTATION	SCALE: SHEET 2 OF 9 SHEETS STA TO STA	CONTRACT NO. 76P78

MODEL: U5100/8-/6F/8-002
FILE NAME: pw:\\ildustrow.bentley.com:PWIDQT\Documents\IDOT\Of





SECTION E-E



SECTION F-F

* Preformed Flexible Foam Expansion Joint Filler (Cost included with Concrete Superucture.)

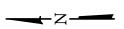
MIN. BAR LAP

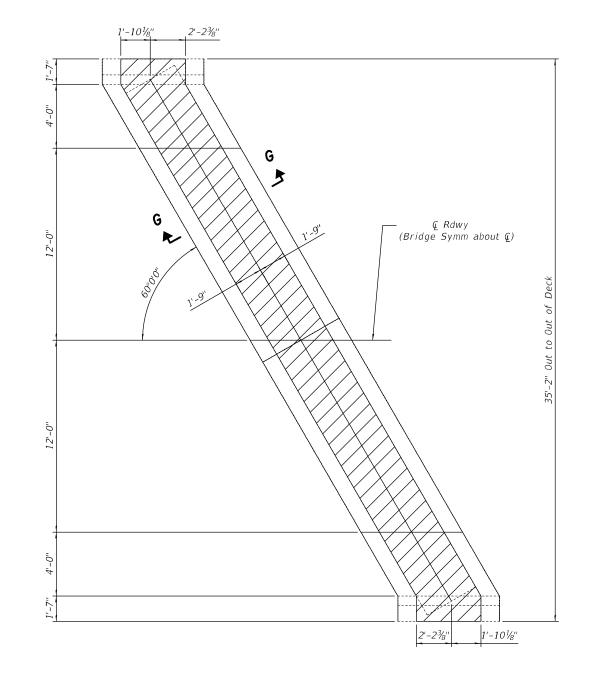
#4 bars = 2'-8"

#5 bars = 3'-6"

#6 bars = 4'-0""

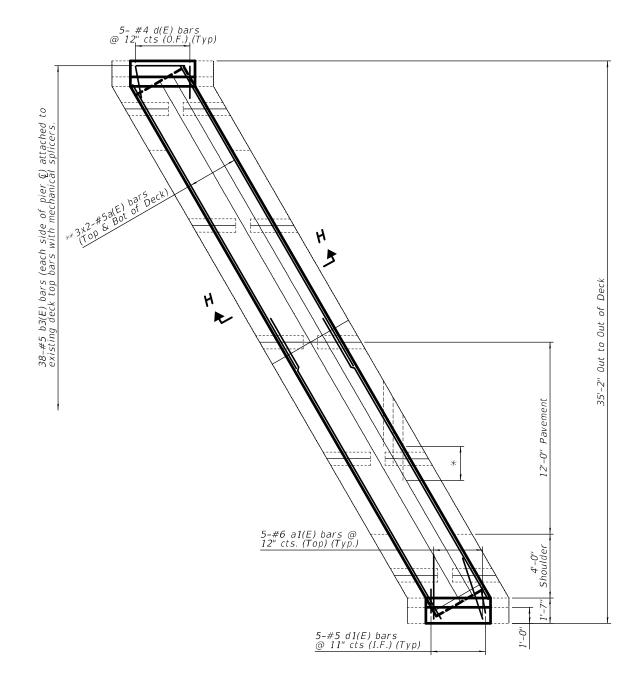
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CONCRETE REMOVAL





CONCRETE REPLACEMENT

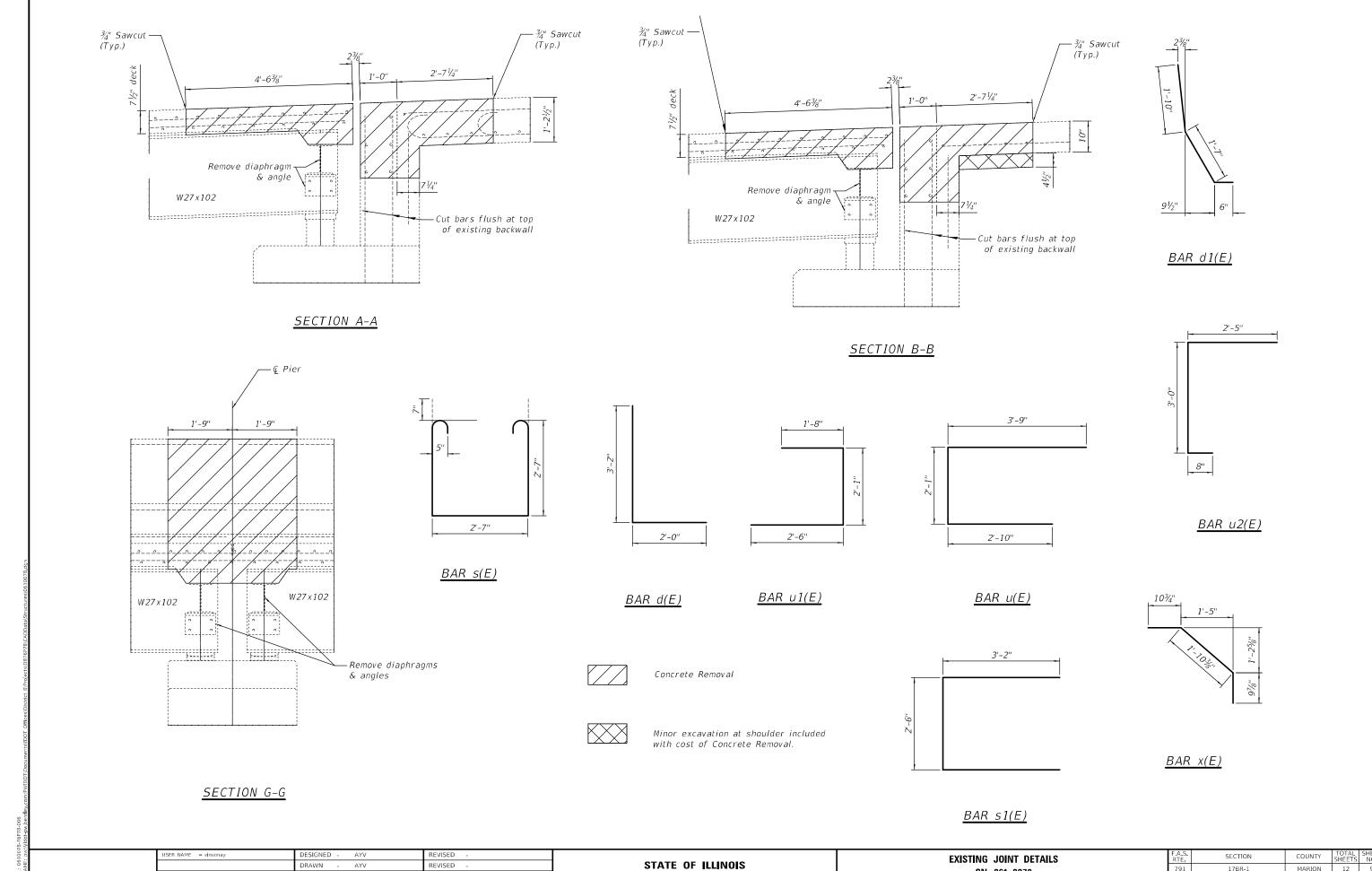
Note:

See sheet 6 of 9 for Section G-G & sheet 7 of 9 for Bill of Material & Section H-H

* Existing transverse bars extending from deck into removed area shall be cut allowing 2'-0" to extend into the removed area. In addition, these bars shall be cleaned, straighten, and incorporated into the new construction.

** Cut to fit if necessary

USER NAME = vinsonay	DESIGNED - AYV	REVISED -			JOINT REMOVAL & REPLACEMENT (PIERS)	F.A.S.	SECTION	COUNTY TOTAL SHEET
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PLOT DATE = 4/4/2022	DATE -	REVISED -		SCALE:	SHEET 5 OF 9 SHEETS STA. TO STA.		ILLINOIS	FED. AID PROJECT



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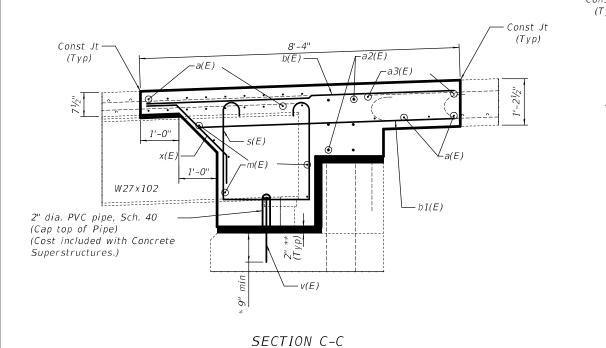
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DEPARTMENT OF TRANSPORTATION

SN 061-0078 SHEET 6 OF 9 SHEETS STA. TO STA.

17BR-1 MARION 12 9 CONTRACT NO. 76P78



3'-6"

 $\frac{1}{8}$ " Aluminum — sheet in par.

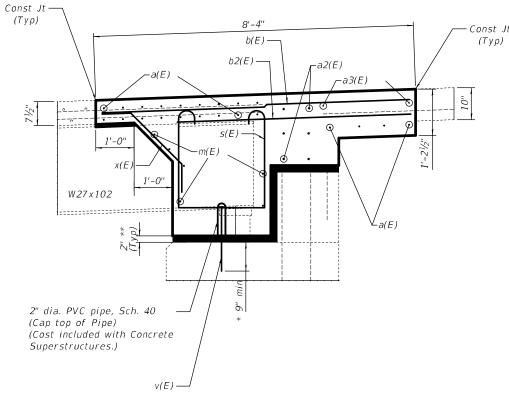
5-#4 d(E) bars (OF) & 5-#5 d1(E) bars (IF)

1" sawcut (Typ) (Over driving surface)

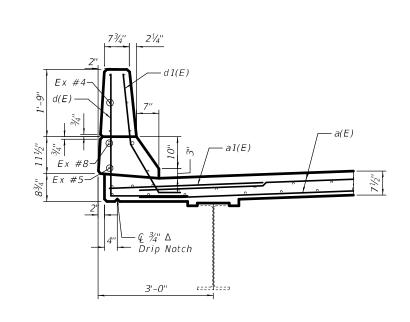
#5 s1(E)—

m1(E)

W27 x102



SECTION D-D



PARAPET SECTION

BILL OF MATERIAL

_					
	Bar	No.	Size	Length	Shape
	a(E)	100	#5	21'-1"	
â	1(E)	42	#6	4'-0"	—
	a2(E)	24	#6	21'-4"	
ã	3(E)	8	#4	20'-8"	
l	b(E)	72	#5	9'-2"	
l.	b1(E)	64	#9	7'-8"	
	2(E)	36	#4	7'-0"	
Ł	3(E)	152	#5	3'-0"	
(J(E)	42	#4	5'-2"	L
d	1(E)	44	#5	3'-11"	
1	n(E)	48	#6	7'-11"	
	1 <i>1(E)</i>	32	#5	7'-11"	
n	12(E)	8	#5	20'-5"	
	s(E)	72	#5	8'-11"	
5	51(E)	88	#5	8'-10"	
ι	ı(Ε)	6	#6	8'-8"	
	1(E)	6	#6	6'-3"	J
ι	12(E)	12	#6	6'-1"	Γ
١	ν(Ε)	88	#8	1'-8"	
ν	1(E)	52	#5	3'-5"	—
,	x(E)	40	#4	3'-7"	1
		e Remo	oval	Cu. Yd.	38.3
	oncre			Cu. Yd.	83.4
S	upers	tructur	e		
R	einfoi	rcement	Bars,	Pound	10060
Ε	роху	Coated			

- * Epoxy grout v(E) or v1(E) bars in 9" min. holes according to Article 584 of the Standard Specifications. (Cost included with Concrete Superstructures.)
- ** Preformed Flexible Foam Expansion Joint Filler. (Cost included with Concrete Superstructure.)

SECTION H-H

USER NAME = vinsonay	DESIGNED - AYV	REVISED -
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PLOT SCALE = 2:6.0000 ':" / in.	CHECKED -	REVISED -
PLOT DATE = 4/25/2022	DATE -	REVISED -

W27

x102

Ex 6-#4 bars in upper parapet,
 2-#8 bars in middle parapet &
 2-#5 bars in bot of parapet.
 See parapet section. Clean ,

– 38 existing #5 bars (32 at 12" in top of deck

& 3 under each parapet)

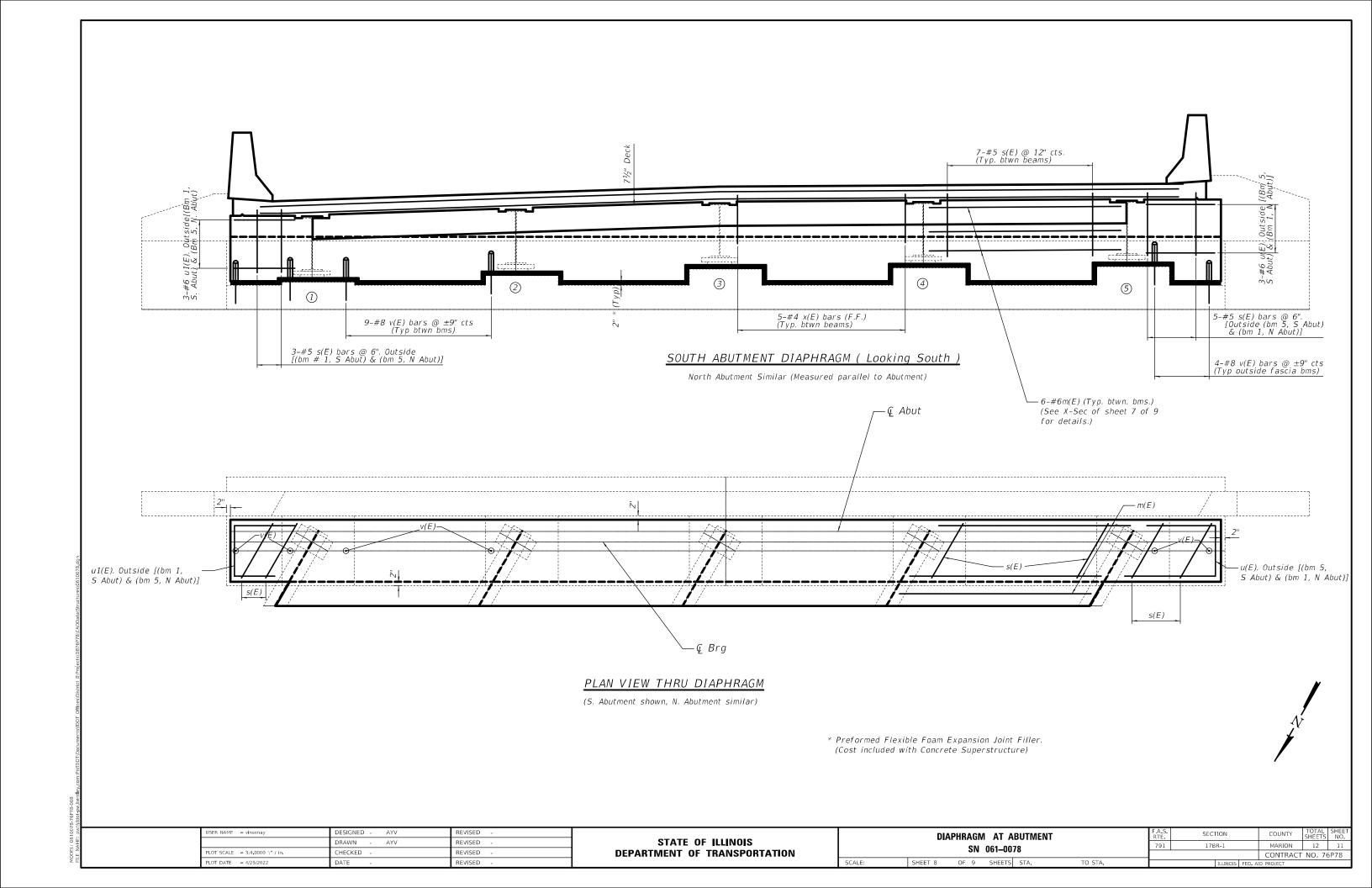
-b3(E) bars lapped with ex using

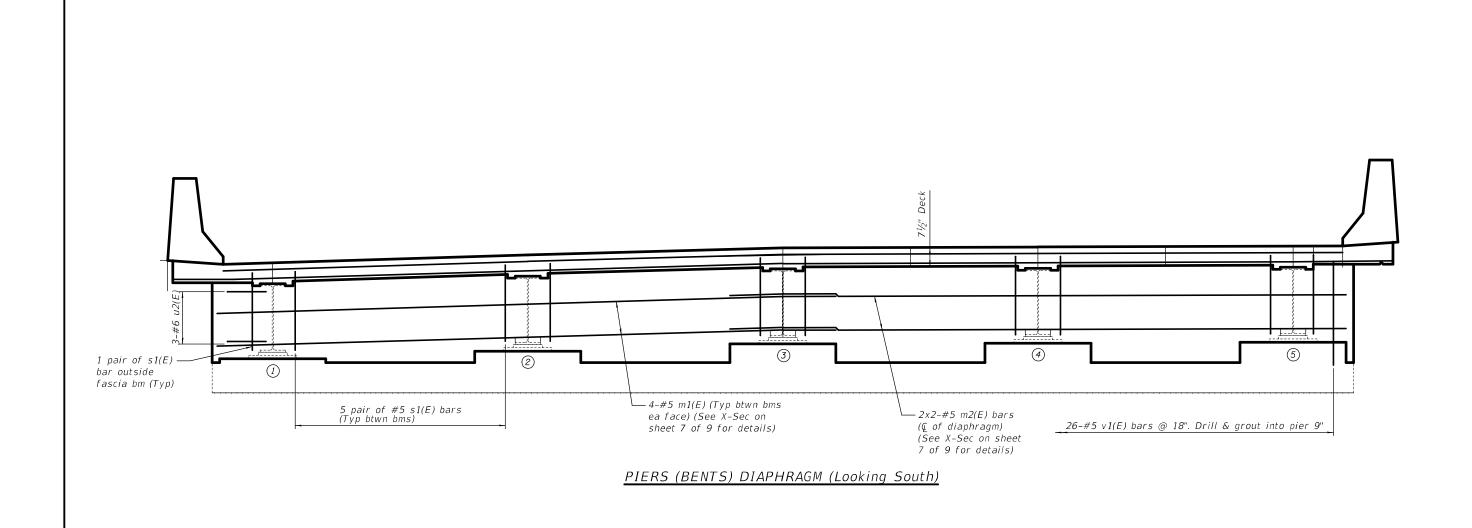
mechanical splicers

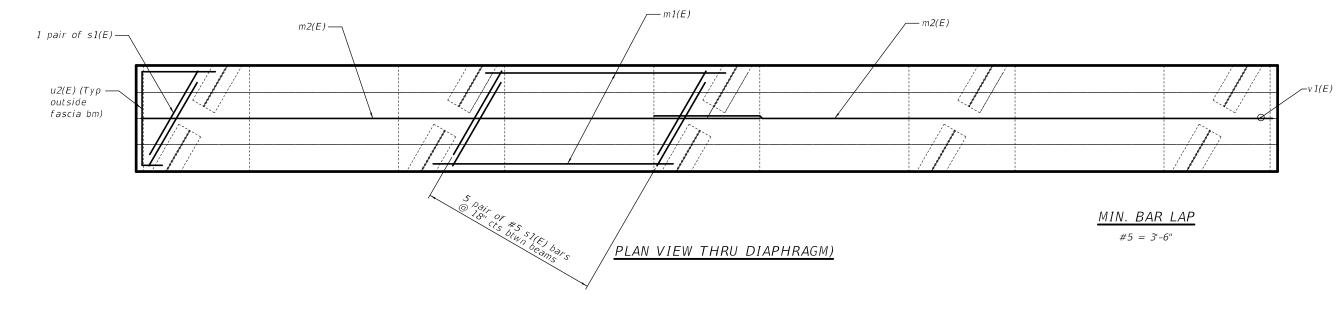
straighten & re-use bars.

STATE OF ILLINOIS								
DEPARTMENT OF TRANSPORTATION								

PROPOSED JOINT DETAILS				F.A.S. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.		
SN 061-0078					791	17BR-1		MARION	12	10	
314 001-0070				CONTRACT NO. 76P7					5P78		
	SHEET 7	OF 9	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT					







DESIGNED - AYV

AYV

DRAWN -

CHECKED -

DATE

PLOT SCALE = 3:2.0000 ':" / in.

REVISED

REVISED

REVISED

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION