

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.S. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
944	(138D-BR)I-9	ALEXANDER	9	1
		ILLINOIS	CONTRACT NO. 78877	

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

PROPOSED HIGHWAY PLANS

FAS ROUTE 944 (US 60 & 62) OVER MISSISSIPPI RIVER
SECTION (138D-BR)I-9
PROJECT HBFY-YICT(525)
JOINT REPLACEMENTS
ALEXANDER COUNTY IL /MISSISSIPPI COUNTY MO
C-99-074-21

TRAFFIC DATA

FAS 944 (US 60 & 62)
2020 ADT = 2780
26.1% TRUCKS

TOWNSHIPS

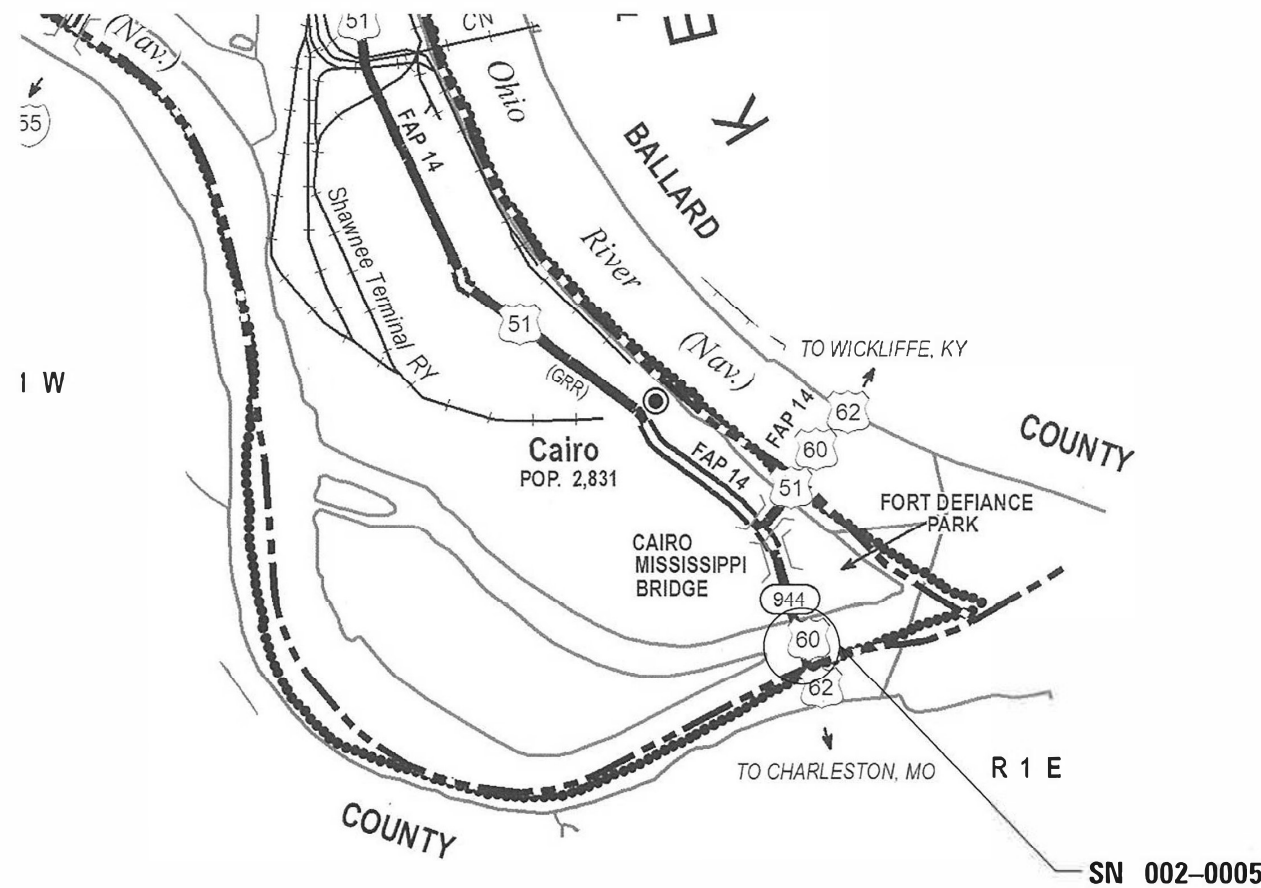
CAIRO

POSTED SPEED : 55 MPH

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

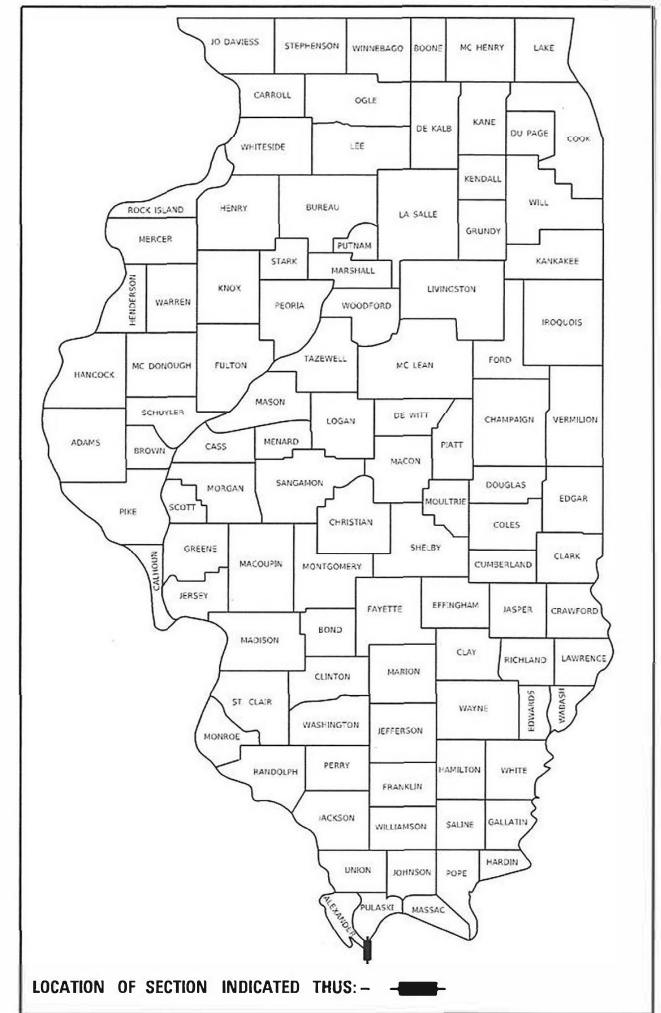
PROJECT ENGINEER: MIKE STEPHENSON
PROJECT DESIGNER: DAVID WILSON

CONTRACT NO. 78877



GROSS LENGTH = 5181.4 FT.

D-99-055-21



LOCATION OF SECTION INDICATED THUS: -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED Dec 14 20 22

Kirk H. Brown
REGION FIVE ENGINEER

May 12, 2023 [Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

May 12, 2023 [Signature]
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

MODEL: Default
FILE NAME: D:\Ildoc-pw-bentley.com\PROJECTS\DOT_Offices\District_9\Projects\78877\CADD\AutoDesign\ID978877.dgn

USER NAME = William.Porter	DESIGNED - _____	REVISED - _____
PLOT SCALE = 100.0000' / in.	DRAWN - _____	REVISED - _____
PLOT DATE = 11/29/2022	CHECKED - _____	REVISED - _____
	DATE - _____	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

Prepared By: Charles Steci
DISTRICT STUDIES & PLANS ENGINEER

Examined By: Nancy Thee
DISTRICT LAND ACQUISITION ENGINEER

Examined By: Con Nula
DISTRICT PROGRAM DEVELOPMENT ENGINEER

Examined By: [Signature]
DISTRICT OPERATIONS ENGINEER

Examined By: Daryl J. Murrin
DISTRICT PROJECT IMPLEMENTATION ENGINEER

Examined By: Daryl J. Murrin
DISTRICT CONSTRUCTION ENGINEER

Examined By: Aan Hays
DISTRICT MATERIALS ENGINEER

SIGNATURE SHEET

SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
944	(138D-BR)I-9	ALEXANDER	9	2
CONTRACT NO. 78877				
ILLINOIS FED. AID PROJECT				

INDEX OF SHEETS

	DESCRIPTION
1	COVER SHEET
2	SIGNATURE SHEET
3	INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES
4	SUMMARY OF QUANTITIES
5	TRAFFIC CONTROL PLAN-MESSAGE BOARD PLACEMENT
6-9	BRIDGE REPAIR PLANS

GENERAL NOTES

COMMITMENTS: MODOT AND KYTC CONTACT REQUIREMENTS;
SEE SPECIAL PROVISIONS

STANDARDS

- 701001-02 OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600mm) FROM PAVEMENT EDGE
- 701006-05 OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 m) AWAY
- 701901-08 TRAFFIC CONTROL DEVICES
- BLR 21-9 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
- 000001-08 STANDARDS, SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001-02 AREAS OF REINFORCEMENT BARS
- 001006 DECIMAL OF AN INCH AND OF A FOOT

REV. - MS

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USER NAME = porterc	DESIGNED - _____	REVISED - _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES, HIGHWAY STANDARDS, INDEX OF SHEETS SN 002-0005	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 100.0000' / in.	DRAWN - _____	REVISED - _____			944	(138D-BR)-9	ALEXANDER	9	3
PLOT DATE = 3/16/2021	CHECKED - _____	REVISED - _____			CONTRACT NO. 78877				
	DATE - _____	REVISED - _____			ILLINOIS FED. AID PROJECT				
				SCALE: _____	SHEET _____ OF _____ SHEETS		STA. _____ TO STA. _____		

SUMMARY OF QUANTITIES

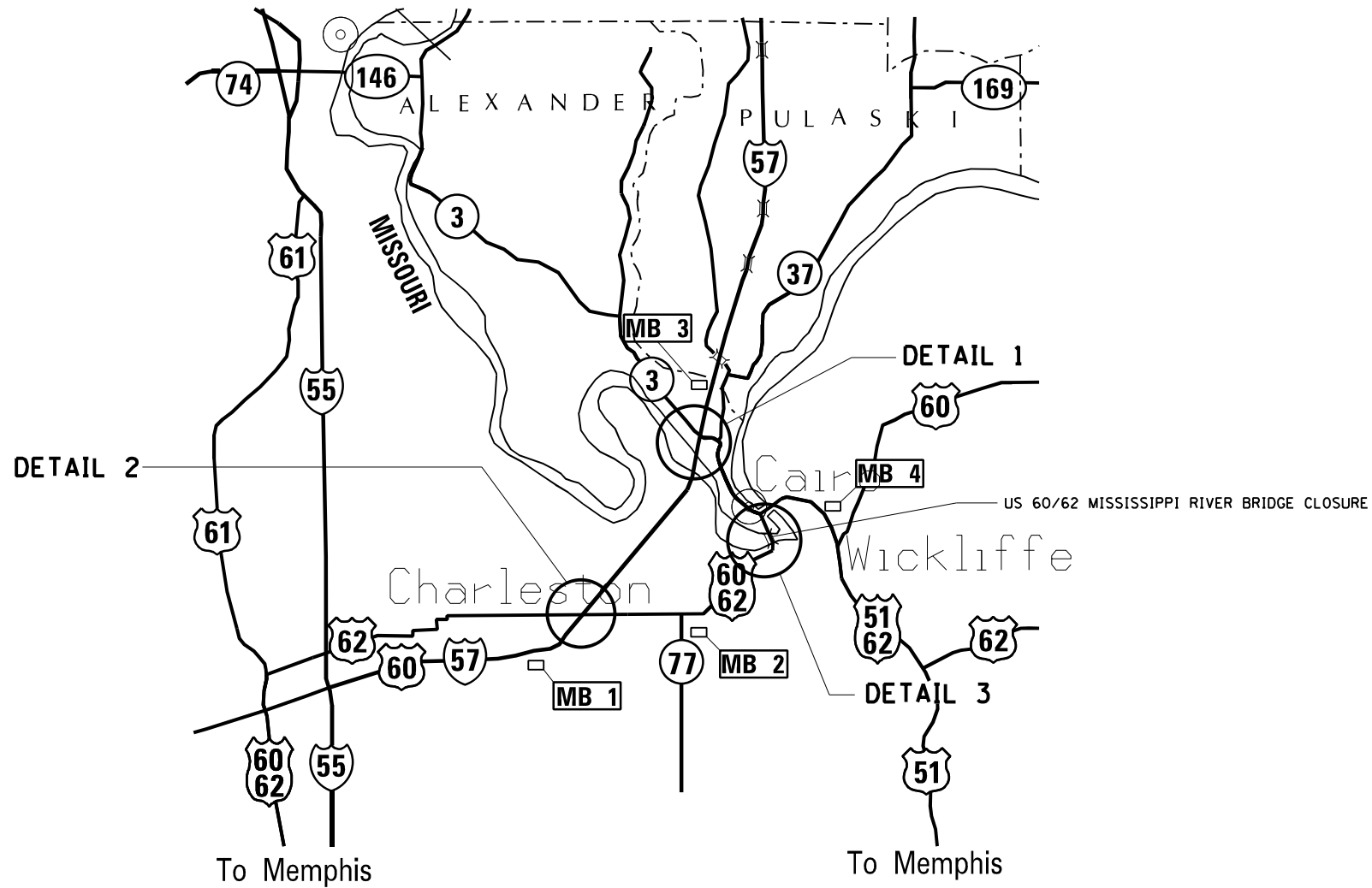
COUNTY:	ALEXANDER	MISSISSIPPI
ROUTE:	US 60/62	US 60/62
FUNDING:	80% FEDERAL 20% STATE	100% MISSOURI
LOCATION:	RURAL	RURAL
	SN 002-0005	SN 002-0005
	0013	0013

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	ALEXANDER	MISSISSIPPI
50102400	CONCRETE REMOVAL	CU YD	344.5	172.3	172.3
50300255	CONCRETE SUPERSTRUCTURE	CU YD	344.5	172.3	172.3
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	168,580	84,290	84,290
50500505	STUD SHEAR CONNECTORS	EACH	3,800	1,900	1,900
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	51,570	25,785	25,785
52000365	NEOPRENE EXPANSION JOINT 6 1/2"	FOOT	176	88	88
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	15	7.5	7.5
67100100	MOBILIZATION	L SUM	1	1	1
X7010238	CHANGEABLE MESSAGE SIGN (SPECIAL)	CAL MO	128	64	64
X7011800	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1	0.5	0.5
Z0021907	SILICONE JOINT SEALER, 1.75"	FOOT	748	374	374
Z0041895	POLYMER CONCRETE	CU FT	49.6	24.8	24.8

REV. - MS

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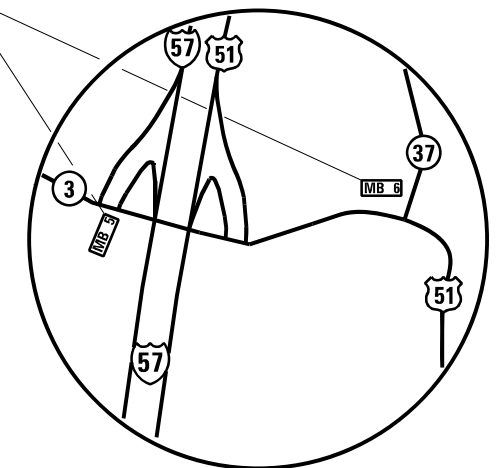
USER NAME = William.Porter PLOT SCALE = 100.0000' / in. PLOT DATE = 12/15/2022	DESIGNED - _____ DRAWN - _____ CHECKED - _____ DATE - _____	REVISED - _____ REVISED - _____ REVISED - _____ REVISED - _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES SN 002-0005	SCALE: _____ SHEET ____ OF ____ SHEETS STA. _____ TO STA. _____	F.A.S. RTE. 944 SECTION (138D-BR)-9 COUNTY ALEXANDER TOTAL SHEETS 9 SHEET NO. 4 CONTRACT NO. 78877 ILLINOIS FED. AID PROJECT
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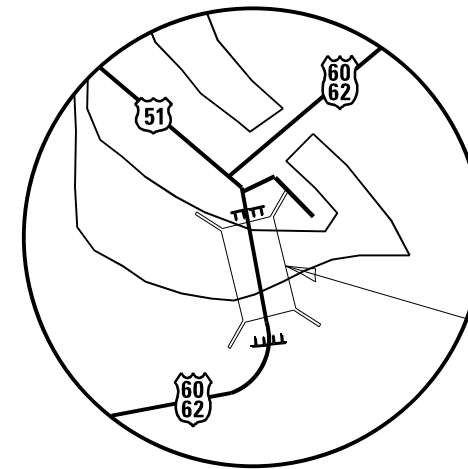
60/62 BRIDGE
TO MISSOURI
CLOSED AHEAD

USE
OTHER
ROUTES

Message Typical all signs (Illinois)
Actual message subject
to approval of the Engineer.



DETAIL 1
(SHARED COST)



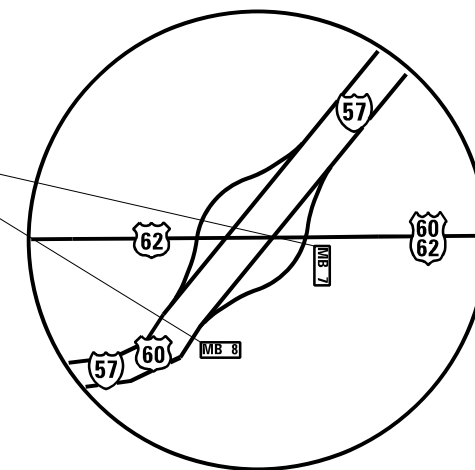
DETAIL 3
(SHARED COST)

SEE HIGHWAY STANDARD B.L.R. 21-9 FOR DETAILS
AND SIGNS, COST INCLUDED WITH TRAFFIC CONTROL AND
PROTECTION, BLR 21.

60/62 BRIDGE
TO ILLINOIS
CLOSED AHEAD

USE
OTHER
ROUTES

Message Typical all signs (Missouri/Kentucky)
Actual message subject
to approval of the Engineer.



DETAIL 2
(SHARED COST)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

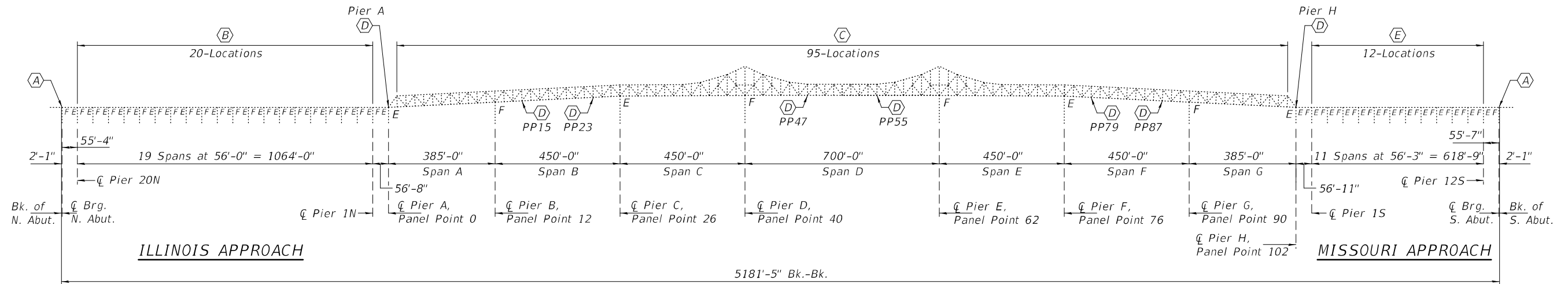
TRAFFIC CONTROL PLAN & MESSAGE BOARD PLACEMENT
SN 002-0005

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
944	(138D-BR)-9	ALEXANDER	9	5
				CONTRACT NO. 78877
ILLINOIS FED. AID PROJECT				

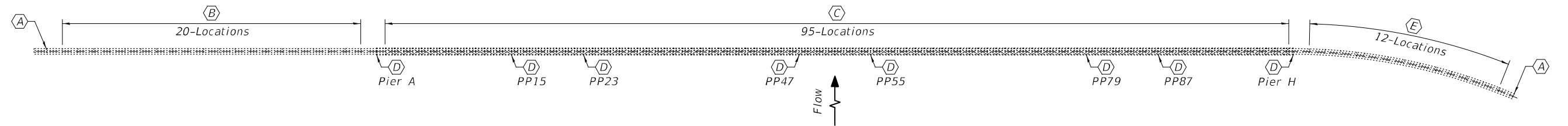
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	DRAWN - _____	REVISED - _____
PLOT SCALE = 100,0000' / in.	CHECKED - _____	REVISED - _____
PLOT DATE = 3/16/2021	DATE - _____	REVISED - _____

SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____

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 USER: porterc



ELEVATION



PLAN

SCOPE OF WORK

- (A) - Remove existing joints and replace with Polymer Concrete and Silicone Joint Sealer at North and South Abutments. (2-Locations). See sheet 2 of 4 for Details.
- (B) - Remove existing joints and replace with Polymer Concrete and Silicone Joint Sealer at Pier 20N thru Pier 1N, Illinois Approach. (20-Locations). See sheet 2 of 4 for Details.
- (C) - Remove & Replace existing Plate Joint at PP 1 thru PP 101 except at PP 15, 23, 47, 55, 79, and 87. (95-Locations). See sheet 3 & 4 of 4 for Details.
- (D) - Retrofit existing 6 1/2" Neoprene Joint at PP 15, 23, 47, 55, 79, 87 & Piers A & H. (8-Locations). See sheet 3 of 4 for Details.
- (E) - Remove existing joints and replace with Polymer Concrete and Silicone Joint Sealer at Pier 15 thru Pier 12S, Missouri Approach. (12-Locations). See sheet 2 of 4 for Details.

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.

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.

All new structural steel shall be hot-dip galvanized. See Special Provisions for "Hot Dip Galvanizing for Structural Steel".

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	344.5
Concrete Superstructure	Cu. Yd.	344.5
Furnishing & Erecting Structural Steel	Pound	168580
Silicone Joint Sealer, 1 3/4"	Foot	748
Polymer Concrete	Cu. Ft.	49.6
Reinforcement Bars, Epoxy Coated	Pound	51570
Shear Stud Connectors	Each	3800
Neoprene Expansion Joint, 6 1/2"	Foot	176



Expires: November 30, 2024

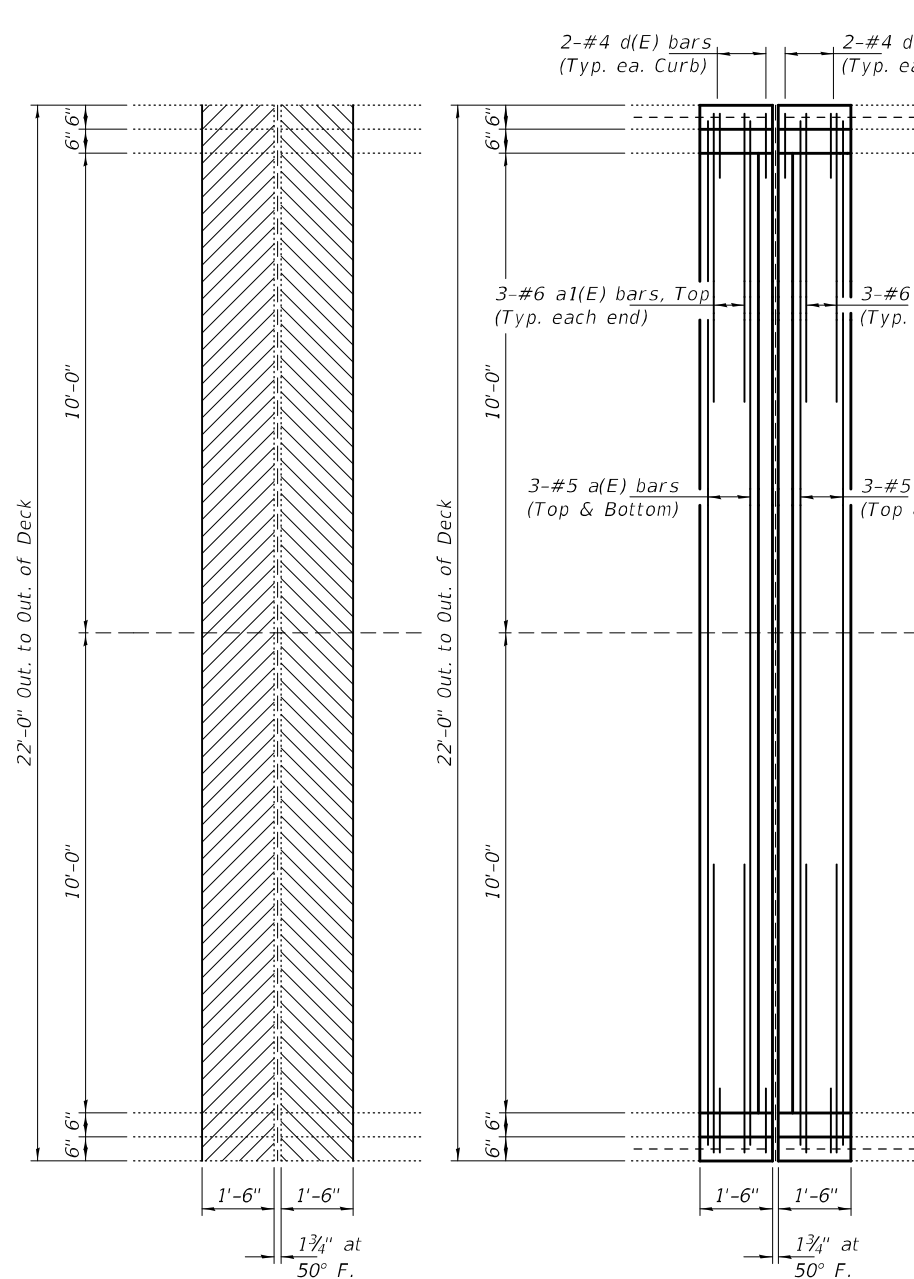
DESIGNED - VICTOR H. VELIZ	PASSED	<i>Jayme F. Schiff</i> ENGINEER OF BRIDGES AND STRUCTURES	DATE - APRIL 17, 2023
CHECKED - ADRIAN T. HALLOWAY			REVISED -
DRAWN - STEFFEN			REVISED -
CHECKED - VHV ATH			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
U.S. 60 & 62 (OLD CAIRO BRIDGE) OVER MISSISSIPPI RIVER
SN 002-0005

SHEET NO. 1 OF 4 SHEETS

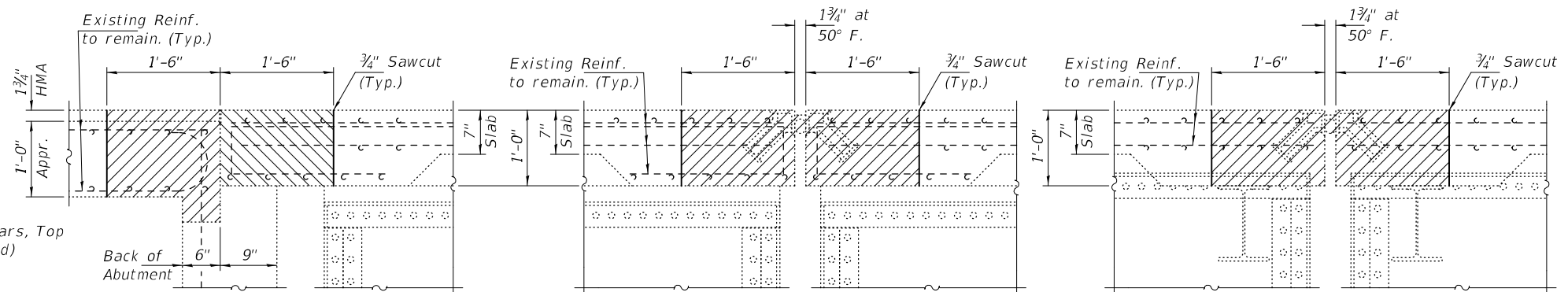
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
944	(138D-BR)-9	ALEXANDER	9	6
ILLINOIS FED. AID PROJECT			CONTRACT NO. 78877	



JOINT REMOVAL PLAN
(34-Locations)

JOINT REPLACEMENT PLAN
(34-Locations)

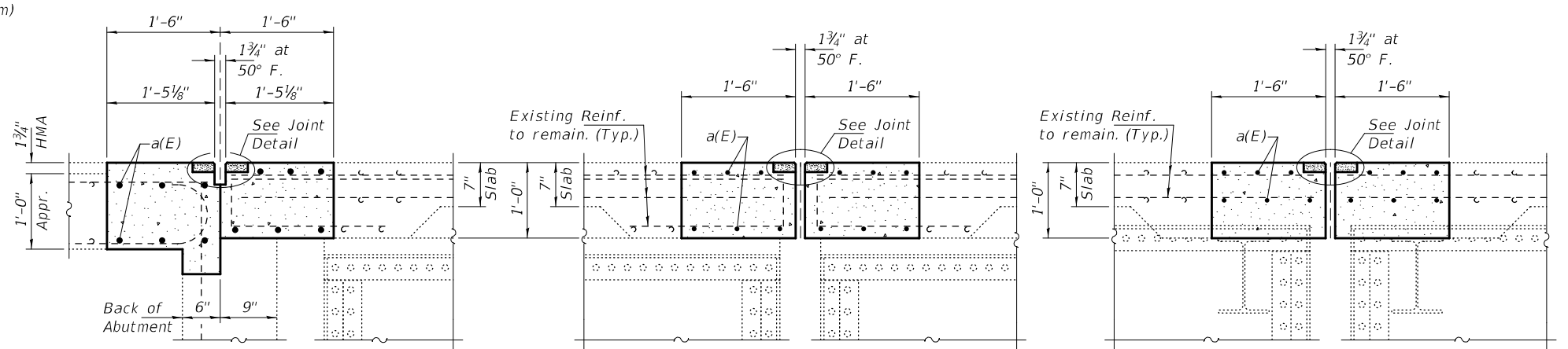
Note:
Hatched areas indicate
Concrete Removal.



REMOVAL SECTION AT ABUTMENTS

REMOVAL SECTION AT PIERS 1S THRU 12S, 19N & 20N

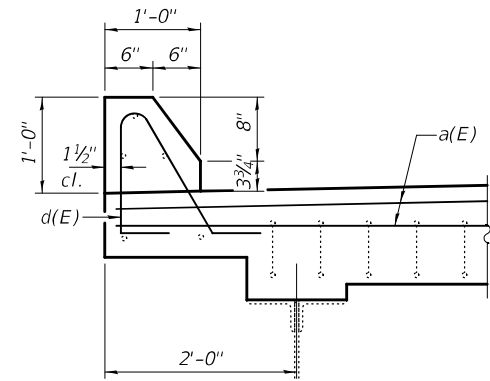
REMOVAL SECTION AT PIERS 1N THRU 18N



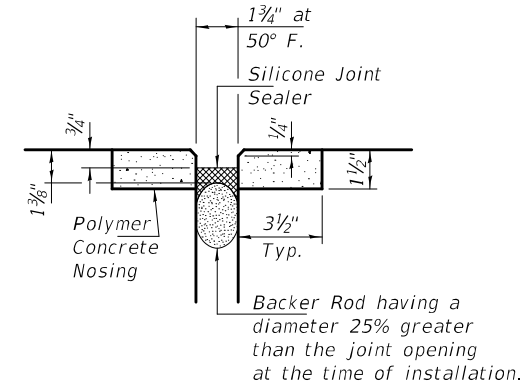
REPLACEMENT SECTION AT ABUTMENTS

REPLACEMENT SECTION AT PIERS 1S THRU 12S, 19N & 20N

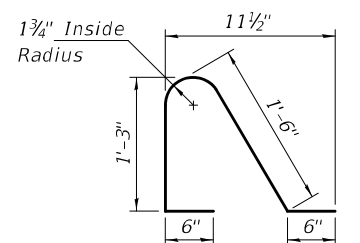
REPLACEMENT SECTION AT PIERS 1N THRU 18N



CURB DETAIL



SILICONE JOINT SEALER DETAIL



BAR d(E)

BILL OF MATERIAL
(34-Locations)

Bar	No.	Size	Length	Shape
a(E)	408	#5	21'-8"	—
a1(E)	408	#6	6'-0"	—
d(E)	272	#4	3'-10"	⌒
Concrete Removal			Cu. Yd.	89.2
Concrete Superstructure			Cu. Yd.	89.2
Polymer Concrete			Cu. Ft.	49.6
Silicone Joint Sealer, 1 3/4"			Foot	748
Reinforcement Bars, Epoxy Coated			Pound	13590

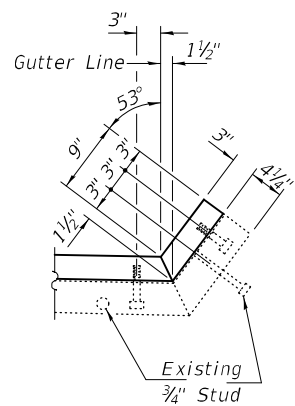
DESIGNED - VHV	DATE - APRIL 17, 2023
CHECKED - ATH	REVISOR -
DRAWN - STEFFEN	REVISOR -
CHECKED - VHV ATH	REVISOR -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

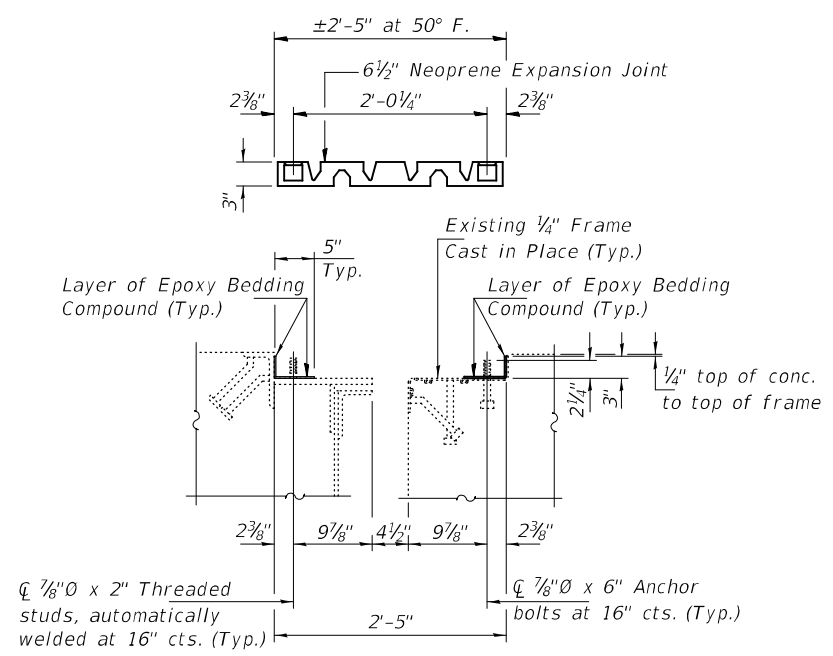
JOINT REPLACEMENT - ABUTS. & PIERS 1N-20N & 1S-12S
SN 002-0005

SHEET NO. 2 OF 4 SHEETS

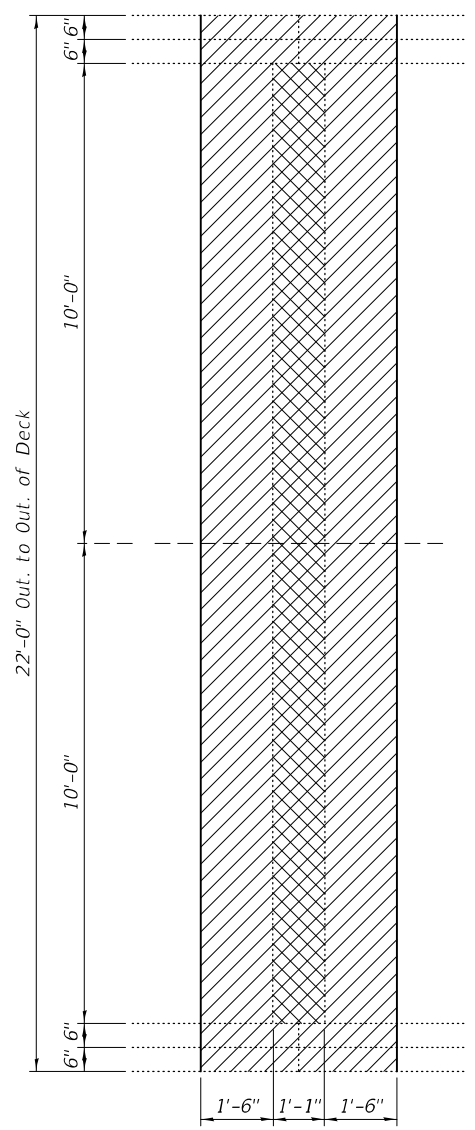
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
944	(138D-BR)-9	ALEXANDER	9	7
CONTRACT NO. 78877				
ILLINOIS FED. AID PROJECT				



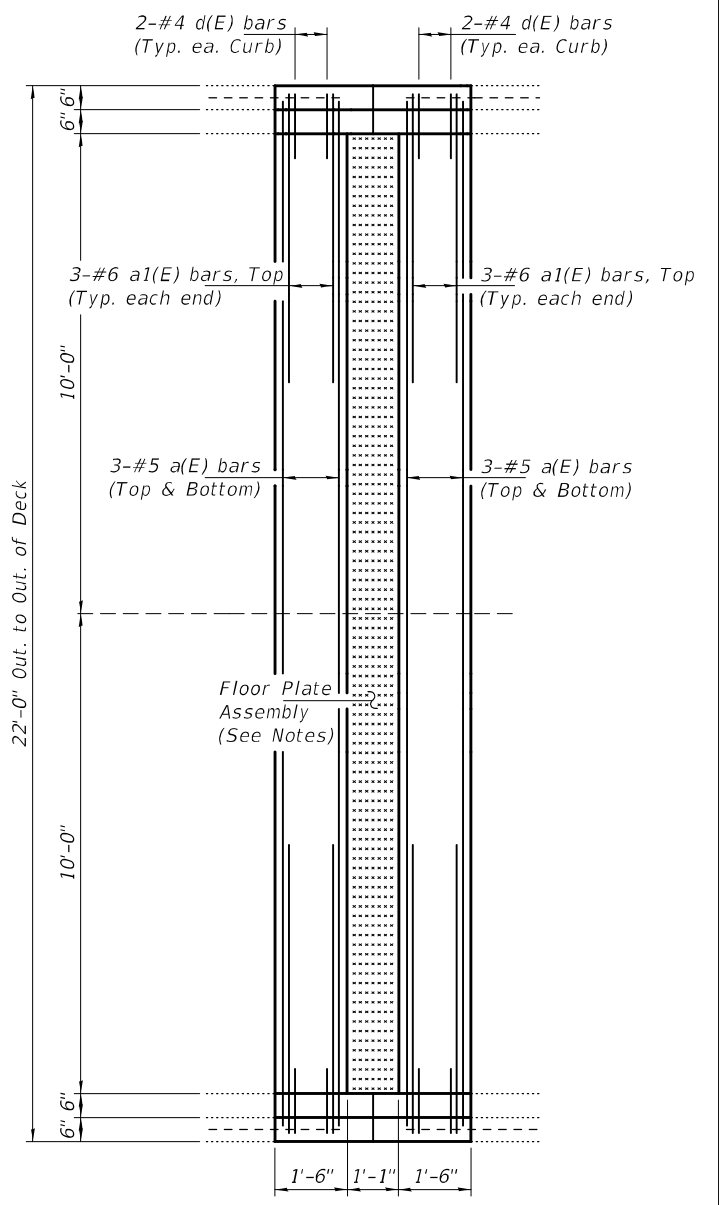
END FRAME TREATMENT



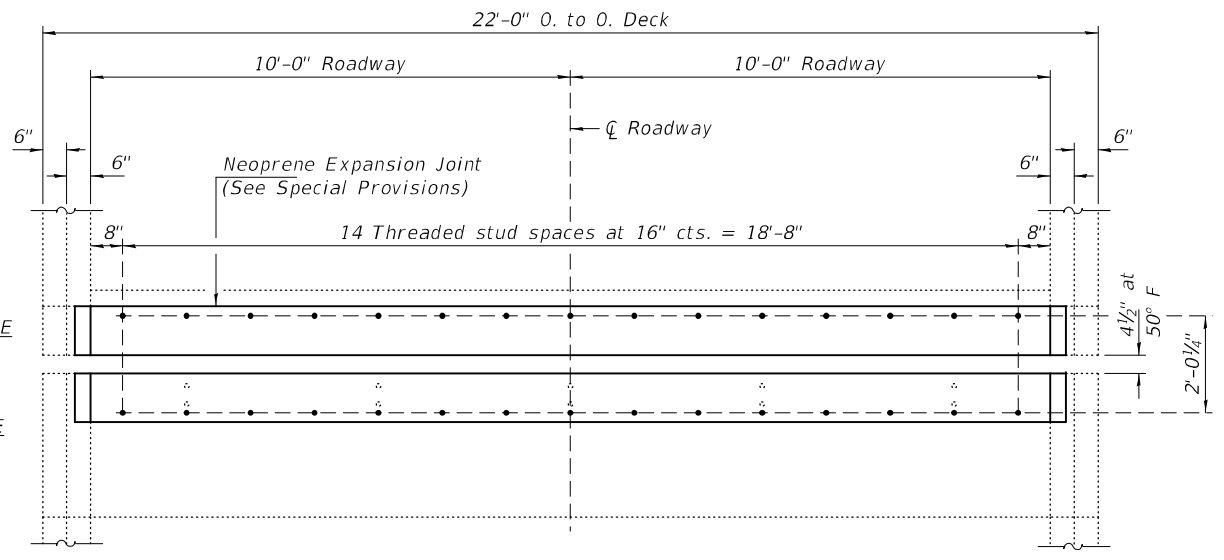
SECTION THRU NEOPRENE EXPANSION JOINT, 6 1/2" (TRANSFLEX MODEL 650)



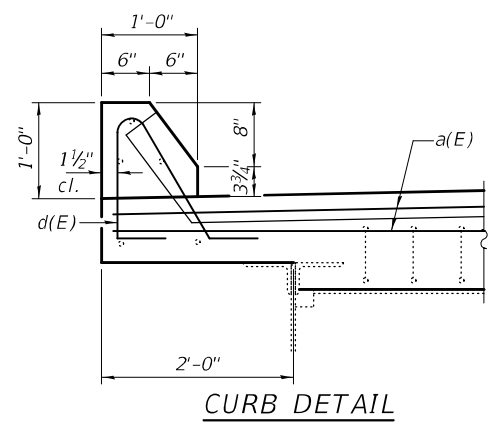
FLOOR PLATE REMOVAL PLAN (95-Locations)



FLOOR PLATE REPLACEMENT PLAN (95-Locations)



PLAN NEOPRENE EXPANSION JOINT (8-Locations)
Existing threaded studs and anchor bolts to be cut flush. New welded stud anchors to be placed offset from existing ones. New anchors should be epoxy grouted offset from existing ones.



CURB DETAIL

Notes:
Hatched areas indicate Concrete Removal.
Cross Hatched areas indicated Floor R Removal.
Cost included with Concrete Removal.
Floor Plate shall have skid resistant surface with diamond or checker pattern.
For Floor Plate Assembly Details see sheet 4 of 4.

REPAIR "C" BILL OF MATERIAL (95-Locations)

Bar	No.	Size	Length	Shape
a(E)	1140	#5	21'-8"	—
a1(E)	1140	#6	6'-0"	—
d(E)	760	#4	3'-10"	∩
Concrete Removal		Cu. Yd.	255.3	
Concrete Superstructure		Cu. Yd.	255.3	
Shear Stud Connectors		Each	3800	
F & E Structural Steel		Pound	168580	
Reinforcement Bars, Epoxy Coated		Pound	37980	

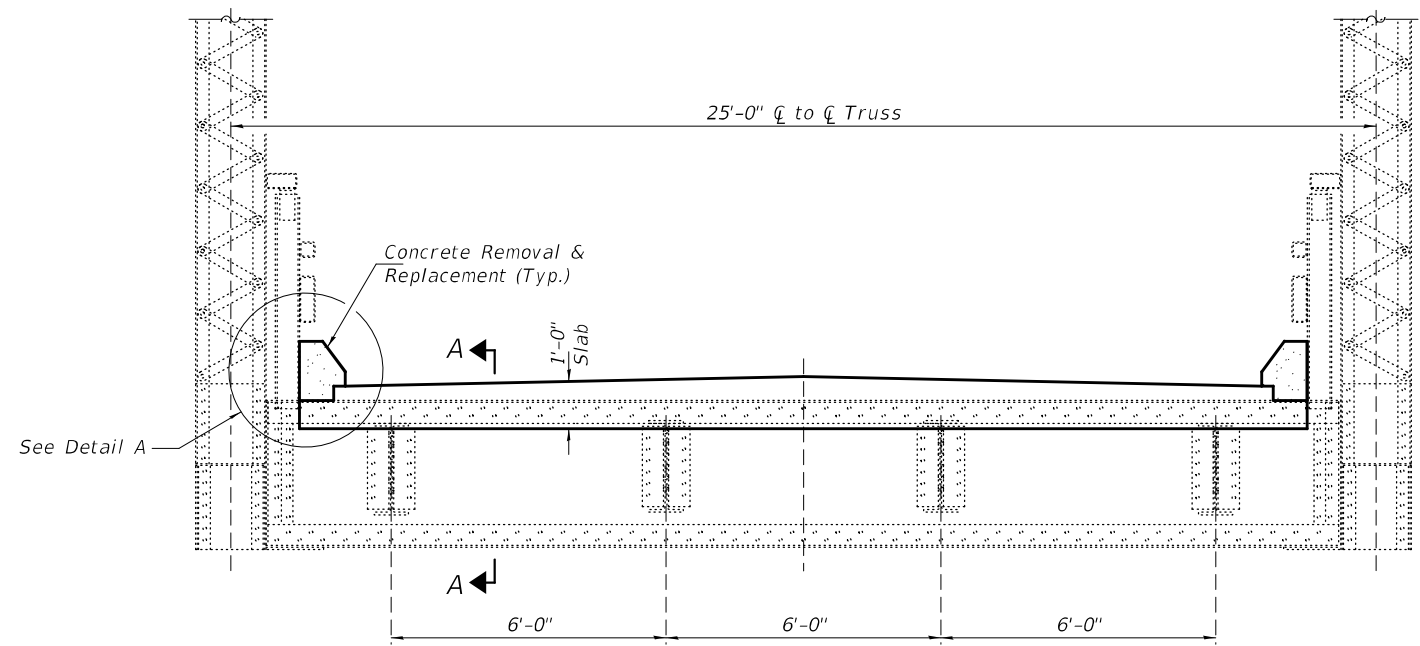
DESIGNED - VHV	DATE - APRIL 17, 2023
CHECKED - ATH	REVISOR -
DRAWN - STEFFEN	REVISOR -
CHECKED - VHV ATH	REVISOR -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

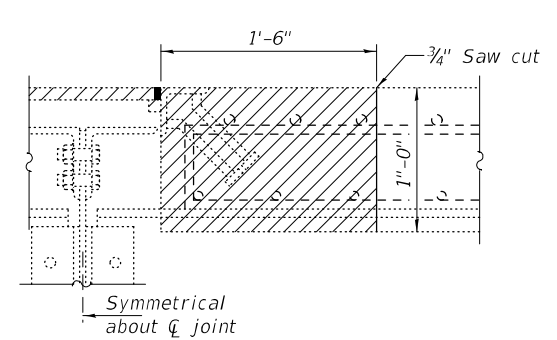
REPAIR DETAILS SN 002-0005

SHEET NO. 3 OF 4 SHEETS

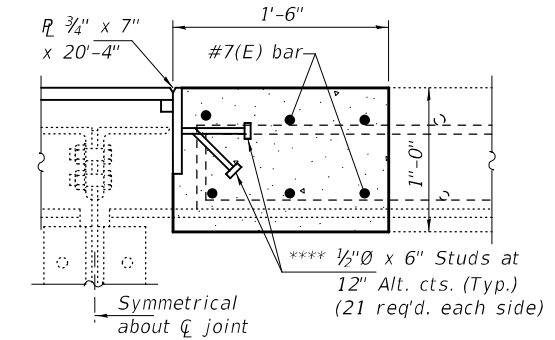
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
944	(138D-BR)-9	ALEXANDER	9	8
CONTRACT NO. 78877			ILLINOIS FED. AID PROJECT	



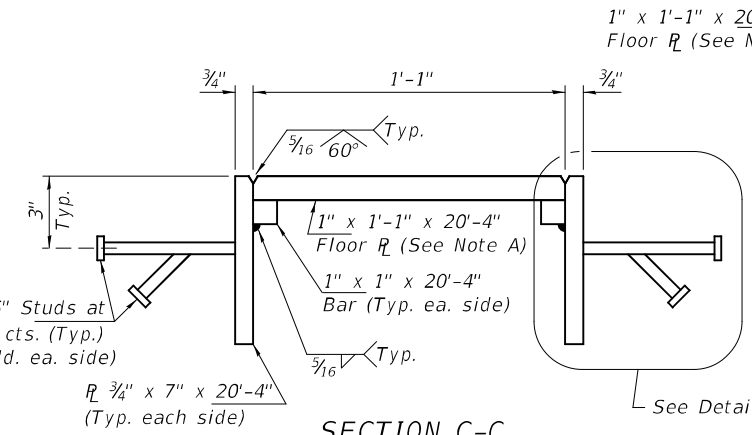
TYPICAL CROSS SECTION AT REPAIR "C"



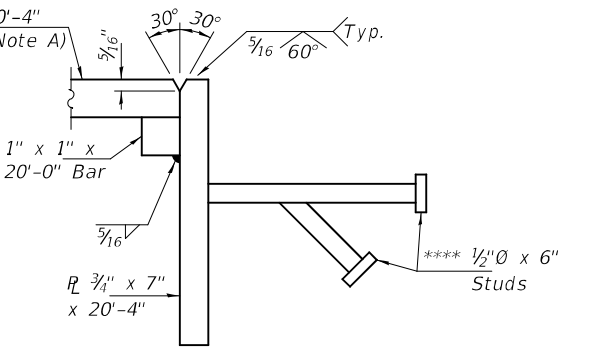
DETAIL B (Showing removal)



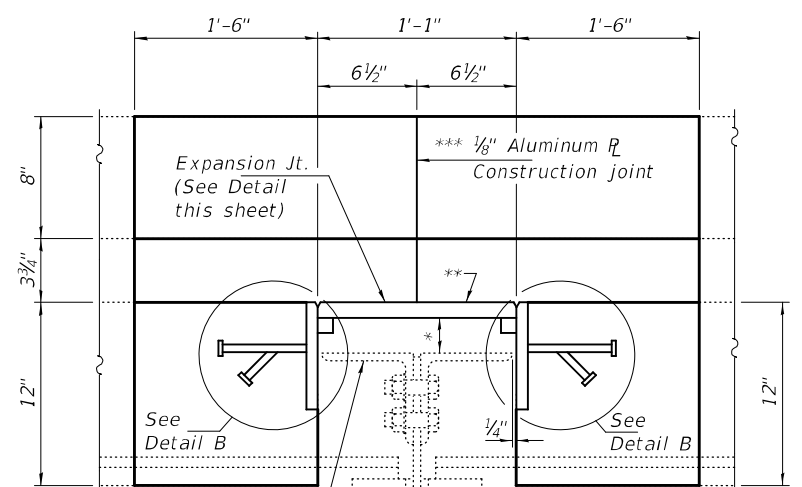
DETAIL B (Showing replacement)



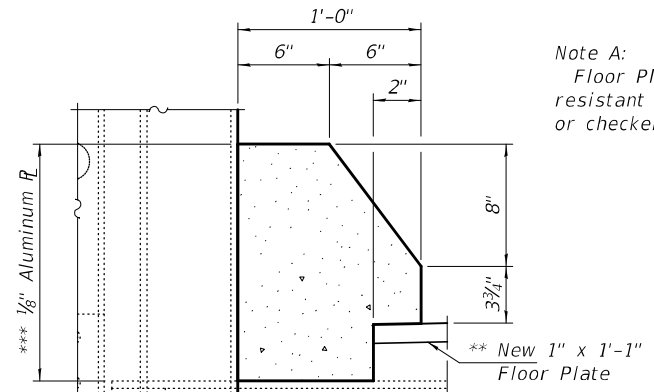
SECTION C-C



DETAIL C

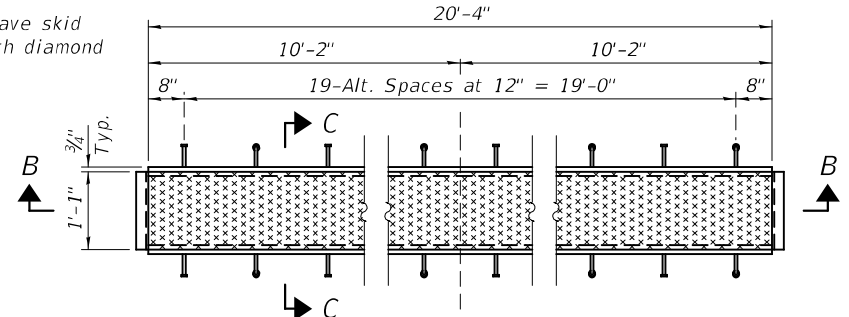


SECTION A-A

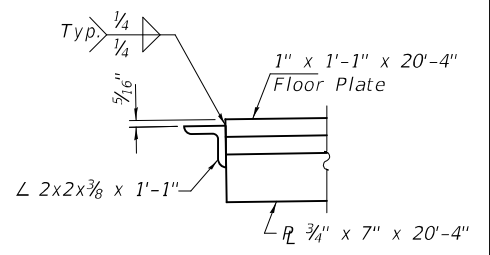


DETAIL A

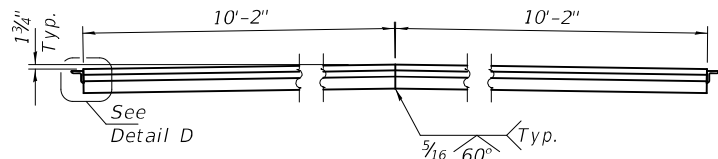
Note A:
Floor Plate shall have skid resistant surface with diamond or checker pattern.



FLOOR PLATE PLAN



DETAIL D



SECTION B-B

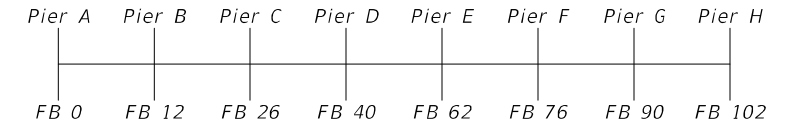
* Varies from $\pm 1\frac{1}{2}$ " to ± 5 "

** To be removed and replaced. Removal cost included with Concrete Removal. Replacement cost included with Furnishing & Erecting Structural Steel.

*** Cost of Aluminum \bar{P} is included with Concrete Superstructure.

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

- SUGGESTED METHOD OF FLOOR PLATE REPLACEMENT
1. Remove concrete curb at ends of 1" x 1'-1" floor \bar{P} . To be paid for as Concrete Removal.
 2. Remove 1" x 1'-1" floor \bar{P} welded to embedded L's. Cost included with Concrete Removal.
 3. Remove and replace portion of concrete deck. To be paid for as Concrete Superstructures.
 4. Install new Floor \bar{P} full length. Cost included with Furnishing & Erecting Structural Steel.
 5. Pour new concrete curbs. Cost included with Concrete Superstructures.



PIER & FLOORBEAM LAYOUT SKETCH

DESIGNED - VHV	DATE - APRIL 17, 2023	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FLOOR PLATE REPLACEMENT DETAILS SN 002-0005	F.A.S. RTE. 944	SECTION (138D-BR)-9	COUNTY ALEXANDER	TOTAL SHEETS 9	SHEET NO. 9
CHECKED - ATH	REVISOR -			CONTRACT NO. 78877			ILLINOIS FED. AID PROJECT	
DRAWN - STEFFEN	REVISOR -	SHEET NO. 4 OF 4 SHEETS						
CHECKED - VHV ATH	REVISOR -							