

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	BRIDGE REPAIR 2022-2	ALEXANDER	34	1
		ILLINOIS	CONTRACT NO. 78899	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PROPOSED
HIGHWAY PLANS**

F.A.I. ROUTE 57 (I-57)
SECTION BRIDGE REPAIR 2022-2
PROJECT NHPP-FKZI (975)
JOINT REPLACEMENTS
I-57 OVER IL 3
ALEXANDER COUNTY
C-99-099-21

FOR INDEX OF SHEETS, SEE SHEET NO. 3
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 4-5

TRAFFIC DATA

2021 ADT I-57 = 13500 (TWO WAY)
49% TRUCKS

TOWNSHIPS:

CACHE NO. 2

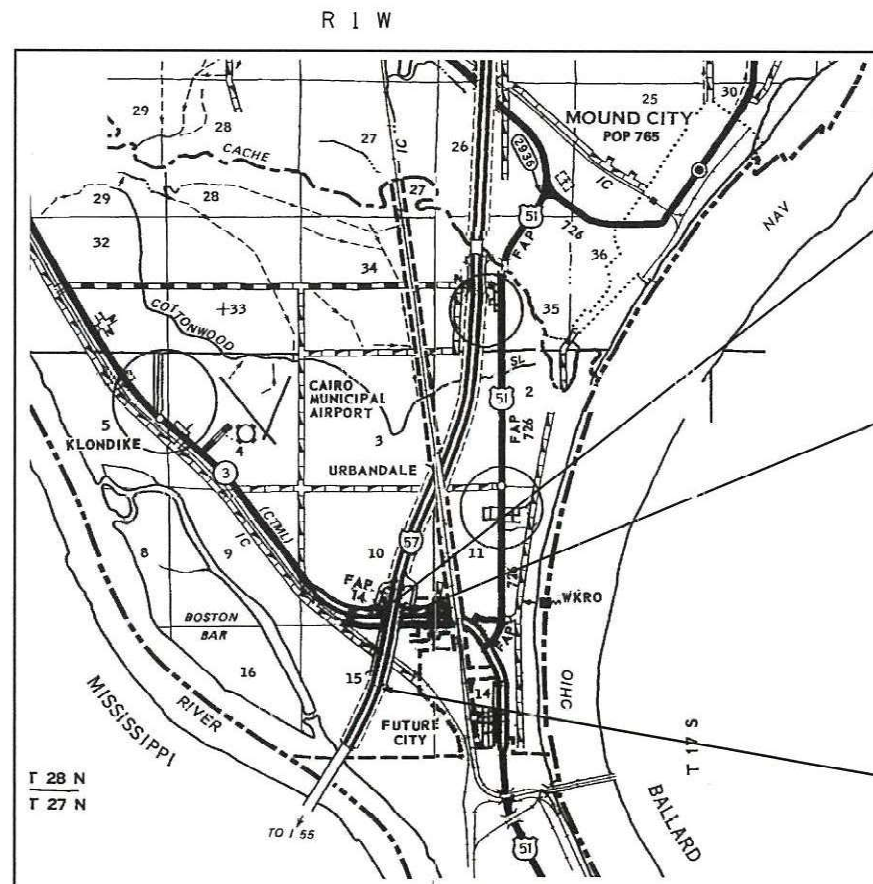
DESIGN DESIGNATION: N/A
COORDINATE SYSTEM: ILLINOIS COORDINATE SYSTEM, WEST ZONE
POSTED SPEED LIMIT: 70

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

PROJECT ENGINEER: GRANT DETERDING
PROJECT DESIGNER: BILL PORTER

CONTRACT NO. 78899

D-99-076-21



PROPOSED PROJECT BEGINS
STA 1087 + 71 (SB)
STA 1088 + 33 (NB)

PROPOSED JOINT REPLACEMENTS OVER IL RT 3
STRUCTURE NO. 002-0024 (SB)
& STRUCTURE NO. 002-0023 (NB)

PROPOSED PROJECT ENDS
STA 1121 + 21 (SB)
STA 1122 + 27 (NB)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED March 23, 2022
Stephen M. Navia
REGION FIVE ENGINEER

May 13, 2022 [Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

May 13, 2022 [Signature]
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

Prepared By: Charles Stein
DISTRICT STUDIES & PLANS ENGINEER

Examined By: Nancy [Signature]
DISTRICT LAND ACQUISITION ENGINEER

Examined By: Caru Nelson
DISTRICT PROGRAM DEVELOPMENT ENGINEER

Examined By: [Signature]
DISTRICT OPERATIONS ENGINEER

Examined By: Douglas J. [Signature]
DISTRICT PROJECT IMPLEMENTATION ENGINEER

Examined By: Douglas J. [Signature]
DISTRICT CONSTRUCTION ENGINEER

Examined By: [Signature]
DISTRICT MATERIALS ENGINEER

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SIGNATURE SHEET

USER NAME = SUSERS	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = SCALES	CHECKED - _____	REVISED - _____
PLOT DATE = SDATES	DATE - _____	REVISED - _____

SCALE: _____	SHEET _____	OF _____ SHEETS	STA. _____	TO STA. _____
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	BRIDGE REPAIR 2022-2	ALEXANDER	34	2
			CONTRACT NO. 78899	
ILLINOIS FED. AID PROJECT				

MODEL: SMOOET.NAMES
FILE NAME: STLELS

GENERAL NOTES

THE QUANTITY FOR TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE IS INCLUDED IN THE SUMMARY OF QUANTITIES FOR THE PAVEMENT MARKING APPLICATION REQUIRED TO OPEN TWO LANES OF TRAFFIC IN BOTH DIRECTIONS FROM NOVEMBER 15 TO MARCH 15.

COMMITMENTS: NONE AS OF MARCH 25, 2022.

INDEX OF SHEETS

1	COVER SHEET
2	SIGNATURE SHEET
3	GENERAL NOTES, INDEX OF SHEETS, HIGHWAY STANDARDS
4-5	SUMMARY OF QUANTITIES
6-11	STAGE CONSTRUCTION DETAILS, STAGES 1-6
12	STAGED TRAFFIC WIDTHS
13	MAX WIDTH SIGNAGE
14	BASE SHEET R-27
15-34	JOINT REPLACEMENT DETAILS

ILLINOIS HIGHWAY STANDARDS

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
701101-05	OFF-ROAD, MULTILANE 15' TO PAVEMENT EDGE
701106-02	OFF-ROAD, MULTILANE MORE THAN 15' AWAY
701400-11	APPROACH TO LANE CLOSURE FREEWAY/EXPRESSWAY
701402-12	LANE CLOSURE, FREEWAY/EXPRESSWAY, WITH BARRIER
701406-13	LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY
701411-09	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS \geq 45 MPH TO 55 MPH
701901-08	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
780001-05	TYPICAL PAVEMENT MARKINGS
001006	DECIMAL OF AN INCH AND OF A FOOT
420001-10	PAVEMENT JOINTS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

REV. - MS

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DRAWN - _____	REVISOR - _____	57			BRIDGE REPAIR 2022-2	ALEXANDER	34	3	
PLOT SCALE = 100.0000' / in.	CHECKED - _____	REVISED - _____			CONTRACT NO. 78899				
PLOT DATE = 3/25/2022	DATE - _____	REVISED - _____			ILLINOIS FED. AID PROJECT				
				SCALE: _____	SHEET _____	OF _____	SHEETS	STA. _____	TO STA. _____

SUMMARY OF QUANTITIES

COUNTY:	COUNTY:	ALEXANDER
ROUTE:	ROUTE:	FAI 57
FUNDING:	FUNDING:	90% FEDERAL 10% STATE
LOCATION:	LOCATION:	RURAL

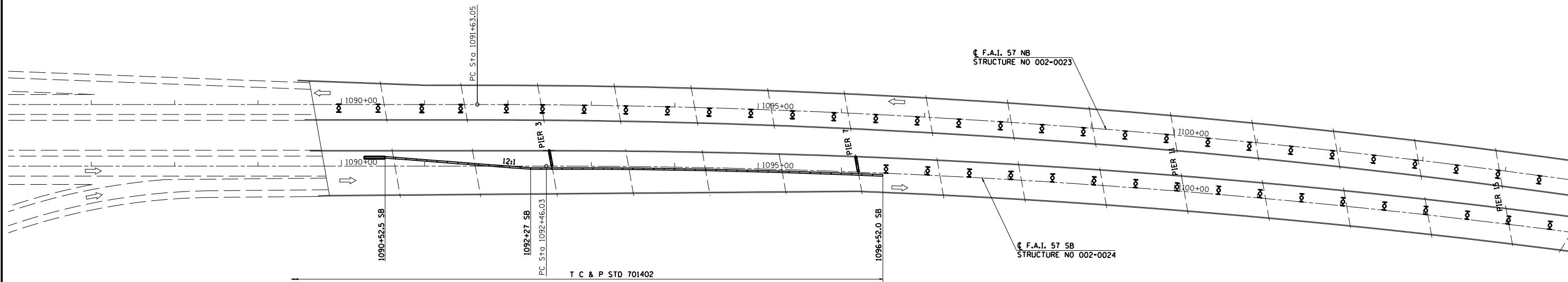
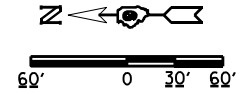
CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	
50102400	CONCRETE REMOVAL	CU YD	133.1	133.1
50300255	CONCRETE SUPERSTRUCTURE	CU YD	144.7	144.7
50300300	PROTECTIVE COAT	SQ YD	3520	3520
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	21080	21080
50800515	BAR SPLICERS	EACH	280	280
50800530	MECHANICAL SPLICERS	EACH	2586	2586
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6
67100100	MOBILIZATION	L SUM	1	1
70100207	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402	EACH	2	2
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	1	1
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	1	1
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	42	42
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	5,012	5,012
70307120	TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE	FOOT	15,035	15,035

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REV. - MS

USER NAME = klrbyea DRAWN - _____ CHECKED - _____ PLOT SCALE = 100,0000 ' / in. PLOT DATE = 3/25/2022	DESIGNED - _____ DRAWN - _____ CHECKED - _____ DATE - _____	REVISED - _____ REVISED - _____ REVISED - _____ REVISED - _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.I. RTE. 57 SECTION BRIDGE REPAIR 2022-2 COUNTY ALEXANDER TOTAL SHEETS 34 SHEET NO. 4 CONTRACT NO. 78899	SCALE: _____ SHEET ___ OF ___ SHEETS STA. _____ TO STA. _____	ILLINOIS FED. AID PROJECT
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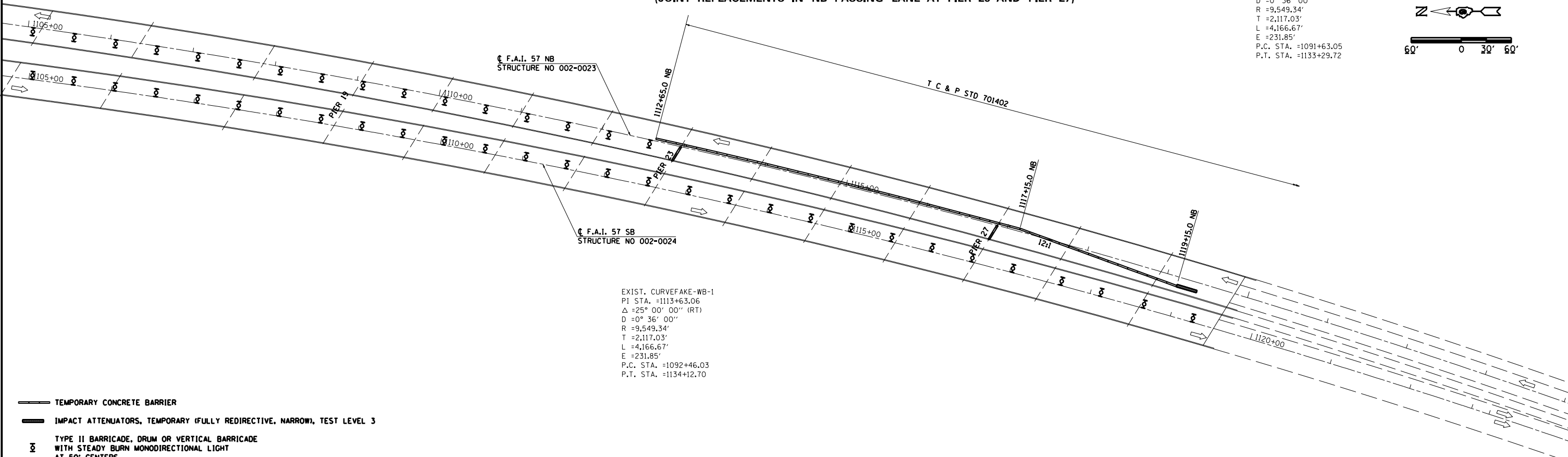
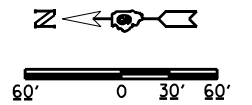
STAGE 1 – NORTH END OF BRIDGES
(JOINT REPLACEMENTS IN SB PASSING LANE AT PIER 3 AND PIER 7)



- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT AT 50' CENTERS

STAGE 1 – SOUTH END OF BRIDGES
(JOINT REPLACEMENTS IN NB PASSING LANE AT PIER 23 AND PIER 27)

EXIST. CURVEFAKE-EB-1
 PI STA. =1112+80.08
 Δ =25° 00' 00" (RT)
 D =0° 36' 00"
 R =9,549.34'
 T =2,117.03'
 L =4,166.67'
 E =231.85'
 P.C. STA. =1091+63.05
 P.T. STA. =1133+29.72

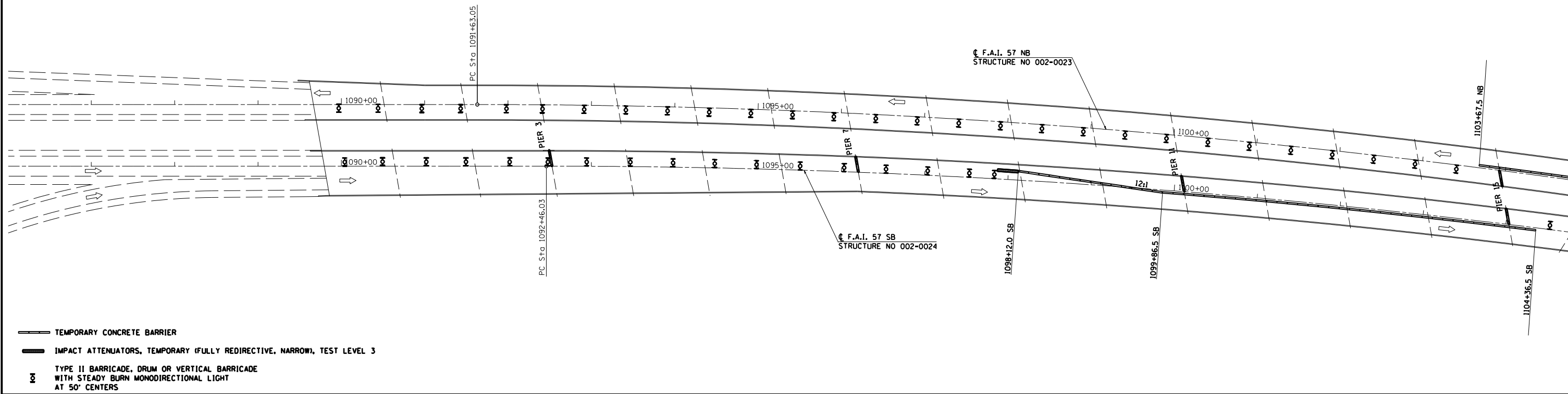
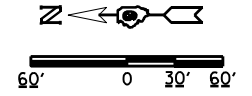


- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT AT 50' CENTERS

EXIST. CURVEFAKE-WB-1
 PI STA. =1113+63.06
 Δ =25° 00' 00" (RT)
 D =0° 36' 00"
 R =9,549.34'
 T =2,117.03'
 L =4,166.67'
 E =231.85'
 P.C. STA. =1092+46.03
 P.T. STA. =1134+12.70

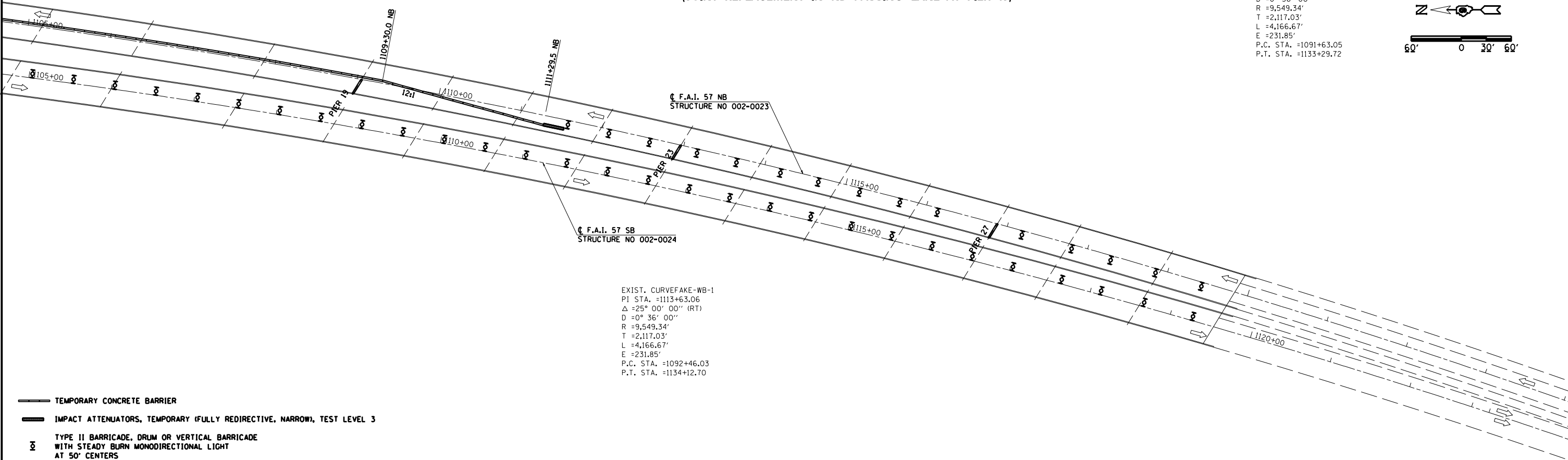
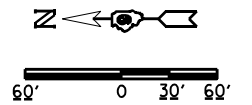
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		DRAWN -	REVISED -		SN 002-0023(N.B.) & SN 002-0024(S.B.)			57	BRIDGE REPAIR 2022-2	ALEXANDER	34	6
		CHECKED -	REVISED -		SCALE: SHEET NO. 1 OF 2 SHEETS STA. _____ TO STA. _____			CONTRACT NO. 78899				
		DATE -	REVISED -		ILLINOIS FED. AID PROJECT							

STAGE 2 - NORTH END OF BRIDGES
 (JOINT REPLACEMENTS IN SB PASSING LANE AT PIER 11 AND PIER 15)
 (JOINT REPLACEMENT IN NB PASSING LANE AT PIER 15)



STAGE 2 - SOUTH END OF BRIDGES
 (JOINT REPLACEMENT IN NB PASSING LANE AT PIER 19)

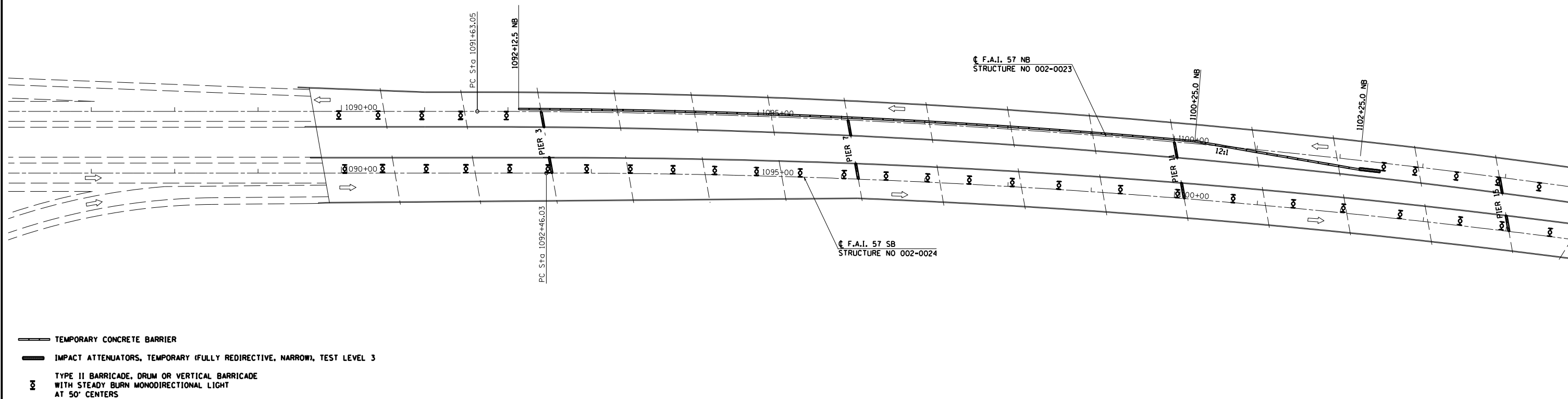
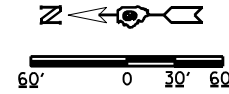
EXIST. CURVEFAKE-EB-1
 PI STA. =1112+80.08
 Δ =25° 00' 00" (RT)
 D =0° 36' 00"
 R =9,549.34'
 T =2,117.03'
 L =4,166.67'
 E =231.85'
 P.C. STA. =1091+63.05
 P.T. STA. =1133+29.72



EXIST. CURVEFAKE-WB-1
 PI STA. =1113+63.06
 Δ =25° 00' 00" (RT)
 D =0° 36' 00"
 R =9,549.34'
 T =2,117.03'
 L =4,166.67'
 E =231.85'
 P.C. STA. =1092+46.03
 P.T. STA. =1134+12.70

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	PLOT DATE = *DATE*	CHECKED -	REVISED -										
		DATE -	REVISED -										
CONTRACT NO. 78899													
ILLINOIS FED. AID PROJECT													

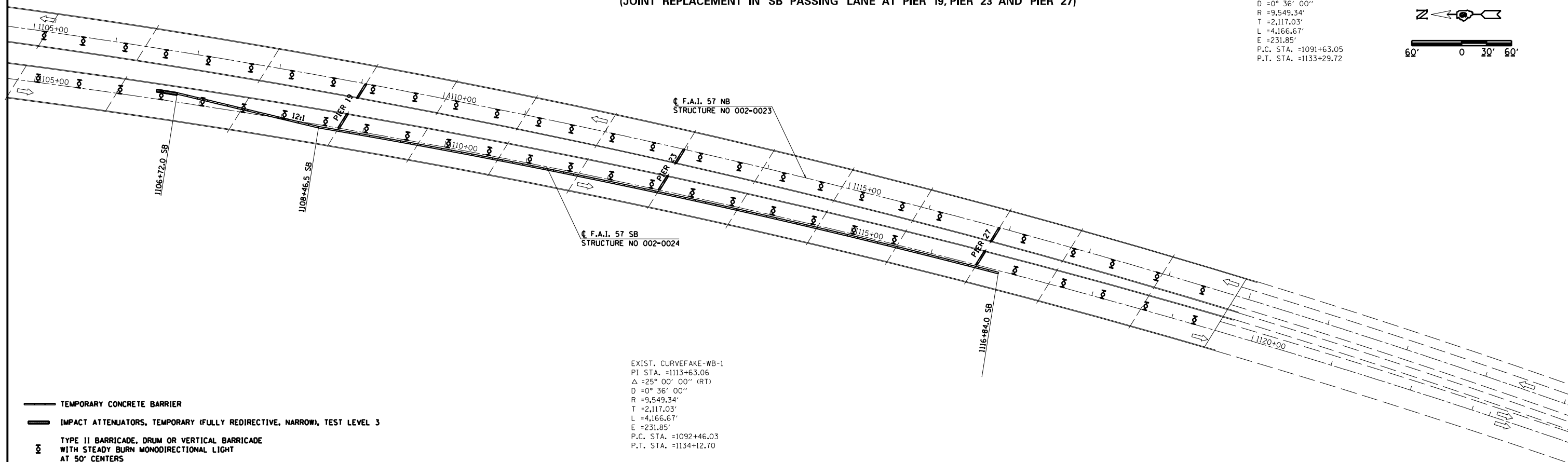
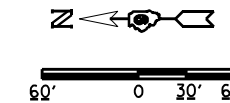
STAGE 3 – NORTH END OF BRIDGES
 (JOINT REPLACEMENTS IN NB PASSING LANE AT PIER 3, PIER 7 AND PIER 11)



- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT AT 50' CENTERS

STAGE 3 – SOUTH END OF BRIDGES
 (JOINT REPLACEMENT IN SB PASSING LANE AT PIER 19, PIER 23 AND PIER 27)

EXIST. CURVEFAKE-EB-1
 PI STA. =1112+80.08
 Δ =25° 00' 00" (RT)
 D =0° 36' 00"
 R =9,549.34'
 T =2,117.03'
 L =4,166.67'
 E =231.85'
 P.C. STA. =1091+63.05
 P.T. STA. =1133+29.72

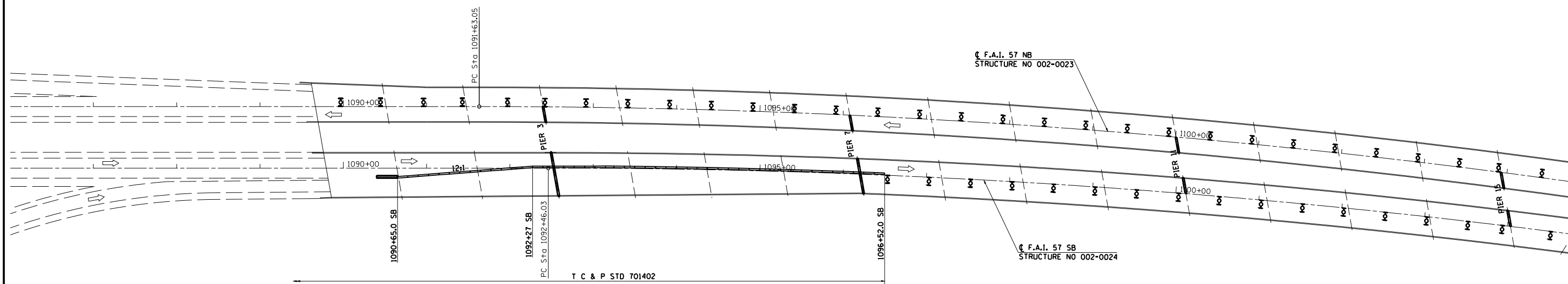
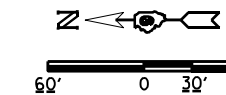


- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT AT 50' CENTERS

EXIST. CURVEFAKE-WB-1
 PI STA. =1113+63.06
 Δ =25° 00' 00" (RT)
 D =0° 36' 00"
 R =9,549.34'
 T =2,117.03'
 L =4,166.67'
 E =231.85'
 P.C. STA. =1092+46.03
 P.T. STA. =1134+12.70

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		CHECKED -	REVISED -		SCALE:	SHEET NO. 1 OF 2 SHEETS	STA. _____ TO STA. _____	CONTRACT NO. 78899				
		DATE -	REVISED -		ILLINOIS FED. AID PROJECT							

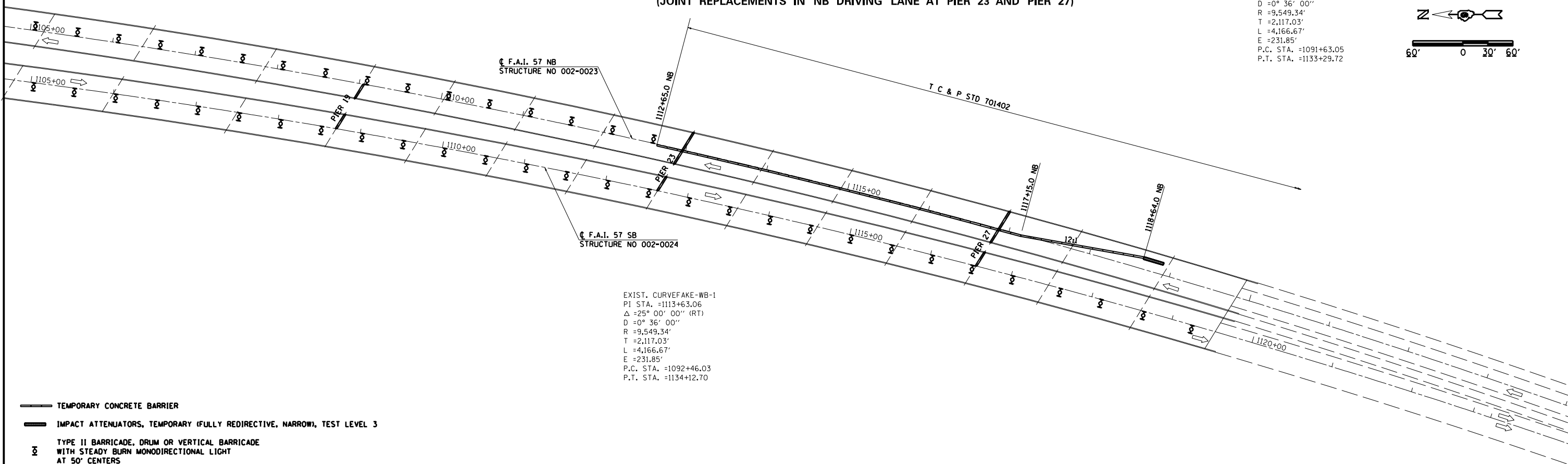
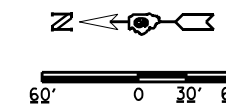
STAGE 4 - NORTH END OF BRIDGES
(JOINT REPLACEMENTS IN SB DRIVING LANE AT PIER 3 AND PIER 7)



- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT AT 50' CENTERS

STAGE 4 - SOUTH END OF BRIDGES
(JOINT REPLACEMENTS IN NB DRIVING LANE AT PIER 23 AND PIER 27)

EXIST. CURVEFAKE-EB-1
 PI STA. =1112+80.08
 Δ =25° 00' 00" (RT)
 D =0° 36' 00"
 R =9,549.34'
 T =2,117.03'
 L =4,166.67'
 E =231.85'
 P.C. STA. =1091+63.05
 P.T. STA. =1133+29.72

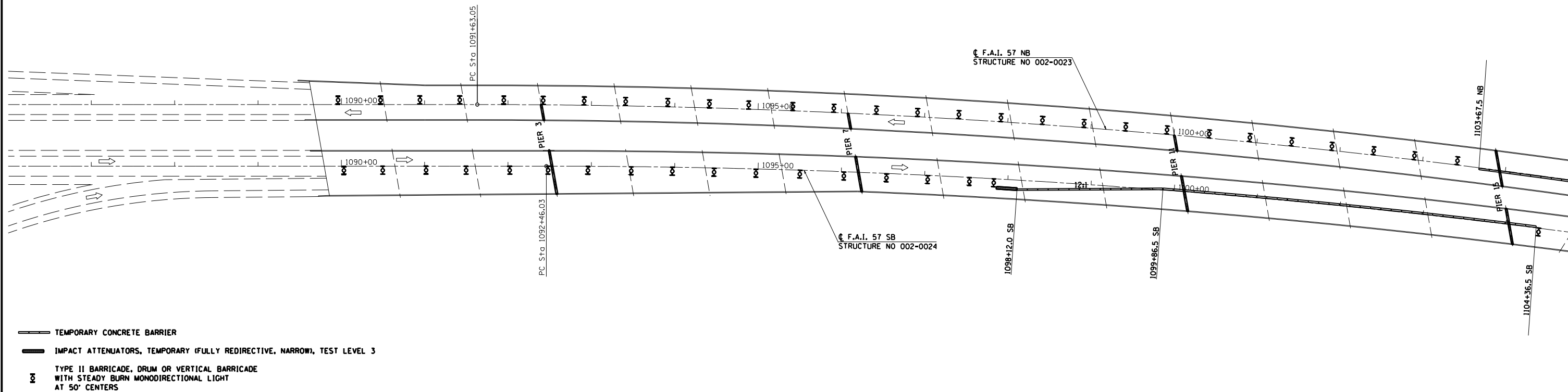
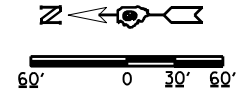


- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT AT 50' CENTERS

EXIST. CURVEFAKE-WB-1
 PI STA. =1113+63.06
 Δ =25° 00' 00" (RT)
 D =0° 36' 00"
 R =9,549.34'
 T =2,117.03'
 L =4,166.67'
 E =231.85'
 P.C. STA. =1092+46.03
 P.T. STA. =1134+12.70

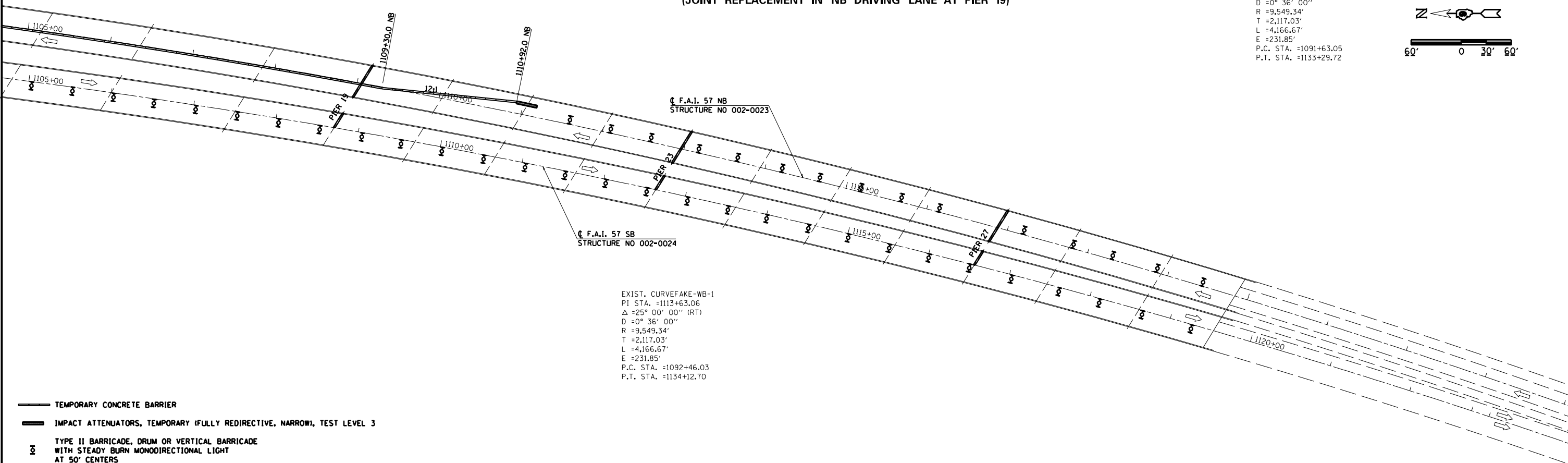
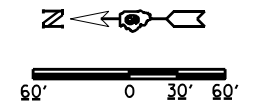
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		CHECKED -	REVISED -		SCALE: SHEET NO. 1 OF 2 SHEETS STA. _____ TO STA. _____			CONTRACT NO. 78899				
		DATE -	REVISED -		ILLINOIS FED. AID PROJECT							

STAGE 5 - NORTH END OF BRIDGES
 (JOINT REPLACEMENTS IN SB DRIVING LANE AT PIER 11 AND PIER 15)
 (JOINT REPLACEMENT IN NB DRIVING LANE AT PIER 15)



STAGE 5 - SOUTH END OF BRIDGES
 (JOINT REPLACEMENT IN NB DRIVING LANE AT PIER 19)

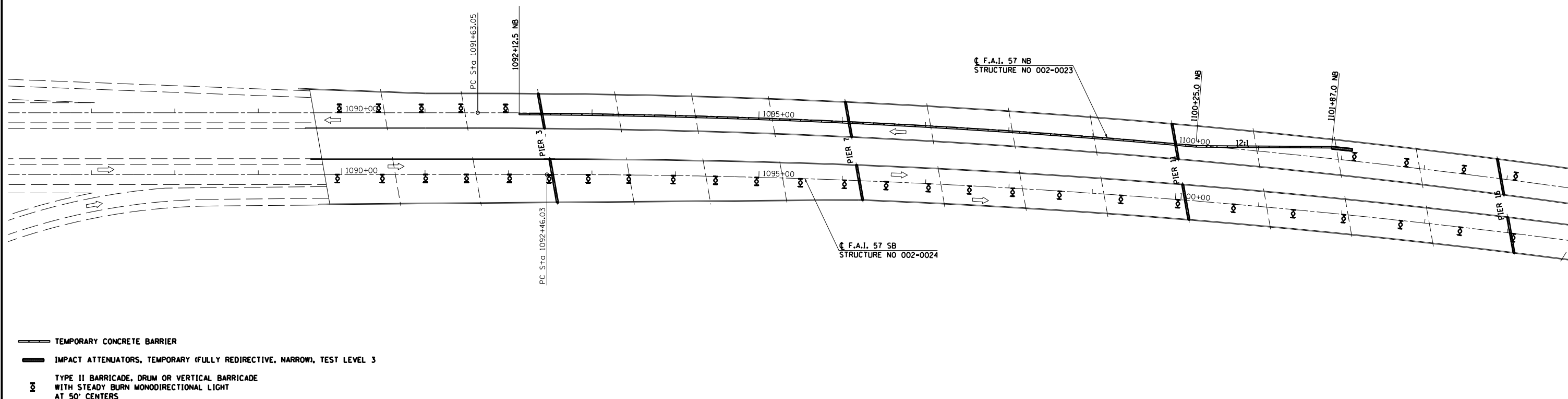
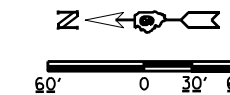
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 $D = 0^\circ 36' 00''$
 $R = 9,549.34'$
 $T = 2,117.03'$
 $L = 4,166.67'$
 $E = 231.85'$
 P.C. STA. =1091+63.05
 P.T. STA. =1133+29.72



EXIST. CURVEFAKE-WB-1
 PI STA. =1113+63.06
 $\Delta = 25^\circ 00' 00''$ (RT)
 $D = 0^\circ 36' 00''$
 $R = 9,549.34'$
 $T = 2,117.03'$
 $L = 4,166.67'$
 $E = 231.85'$
 P.C. STA. =1092+46.03
 P.T. STA. =1134+12.70

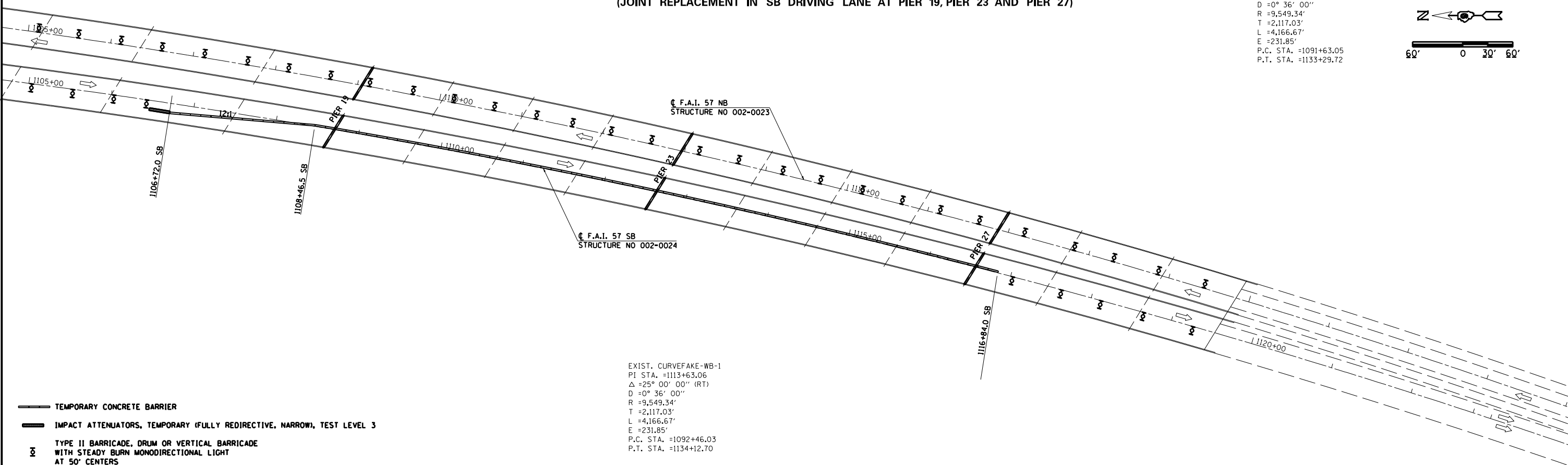
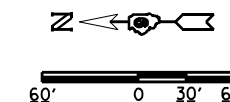
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		DATE -	REVISED -		SCALE:	SHEET NO. 1 OF 2 SHEETS	STA. _____ TO STA. _____	ILLINOIS FED. AID PROJECT				

STAGE 6 - NORTH END OF BRIDGES
(JOINT REPLACEMENTS IN NB DRIVING LANE AT PIER 3, PIER 7 AND PIER 11)



STAGE 6 - SOUTH END OF BRIDGES
(JOINT REPLACEMENT IN SB DRIVING LANE AT PIER 19, PIER 23 AND PIER 27)

EXIST. CURVEFAKE-EB-1
PI STA. =1112+80.08
 Δ =25° 00' 00" (RT)
D =0° 36' 00"
R =9,549.34'
T =2,117.03'
L =4,166.67'
E =231.85'
P.C. STA. =1091+63.05
P.T. STA. =1133+29.72



EXIST. CURVEFAKE-WB-1
PI STA. =1113+63.06
 Δ =25° 00' 00" (RT)
D =0° 36' 00"
R =9,549.34'
T =2,117.03'
L =4,166.67'
E =231.85'
P.C. STA. =1092+46.03
P.T. STA. =1134+12.70

- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT AT 50' CENTERS

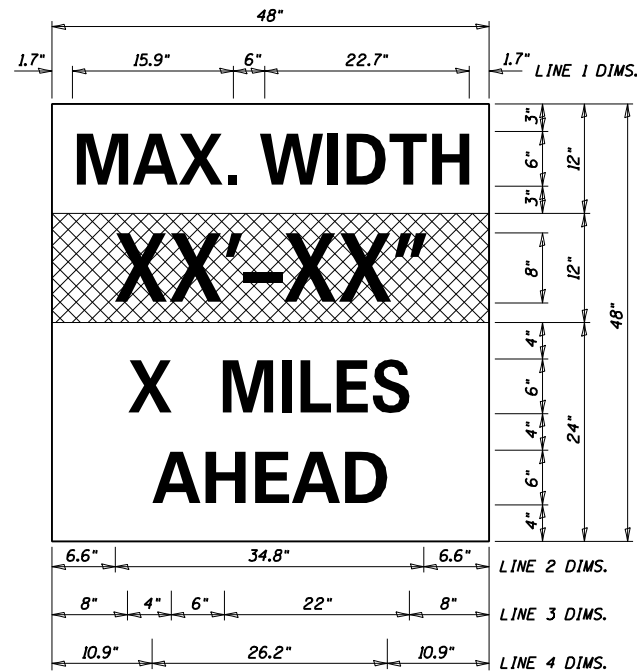
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		DRAWN -	REVISED -
	PLOT SCALE = *SCALE*	CHECKED -	REVISED -
	PLOT DATE = *DATE*	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGE 6 CONSTRUCTION
SN 002-0023(N.B.) & SN 002-0024(S.B.)

SCALE: SHEET NO. 1 OF 2 SHEETS STA. _____ TO STA. _____

F.A.I. RTE. #	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	BRIDGE REPAIR 2022-2	ALEXANDER	34	11
CONTRACT NO. 78899			ILLINOIS FED. AID PROJECT	

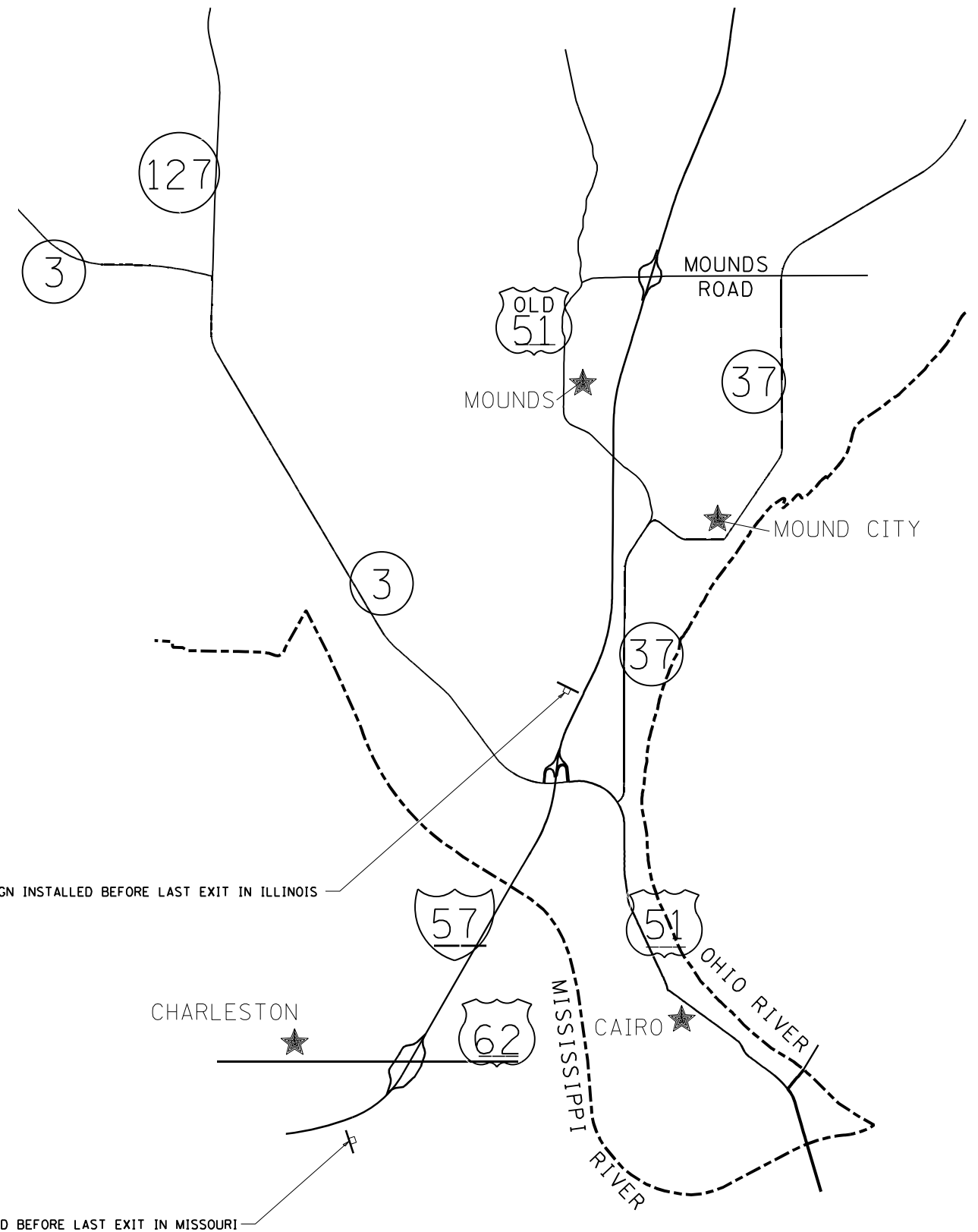


W12-1103

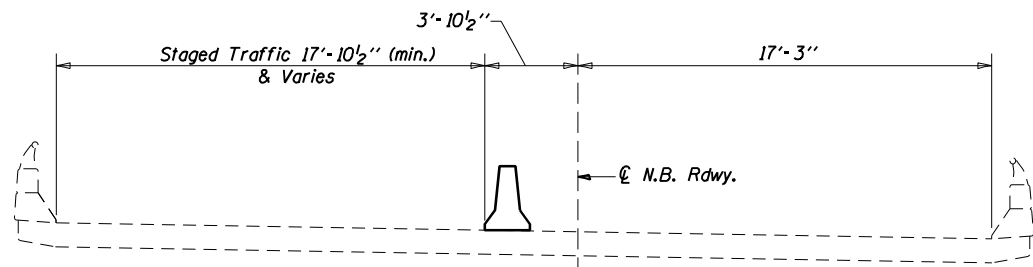
W12-1103, NO BORDER
 "MAX WIDTH" 6D, NO BORDER, BLACK ON WHITE
 "XX'-XX" 8D, NO BORDER, BLACK ON ORANGE
 "X MILES" 6D, NO BORDER, BLACK ON WHITE
 "AHEAD" 6D, NO BORDER, BLACK ON WHITE

NOTES FOR MAX WIDTH SIGN:

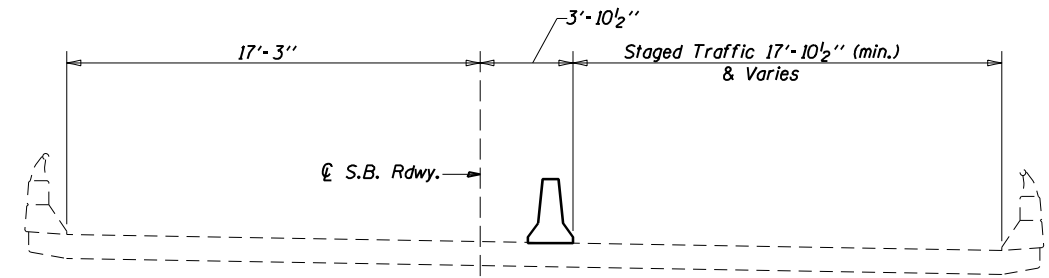
1. INSTALL MAX WIDTH SIGNS DURING STAGE 4, 5 and 6.
2. INSTALL SIGNS AT LOCATIONS TO GIVE APPROACHING TRAFFIC ENOUGH ADVANCE NOTICE TO TAKE EXITS PRIOR TO ENTERING WORK ZONE. EXACT LOCATIONS AS DIRECTED BY ENGINEER.
3. THE CONTRACTOR SHALL ERECT THE SIGNS AT THE LOCATIONS DIRECTED BY THE ENGINEER. ALL SIGNS SHALL BE POST MOUNTED.
4. THE NOTED WORK, INCLUDING SIGNS, POSTS, HARDWARE AND LABOR SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE, EACH, FOR TRAFFIC CONTROL AND PROTECTION, STD. 701402, NO OTHER COMPENSATION WILL BE ALLOWED.
5. THE WIDTH SHOWN ON THE W12-1103 SIGN SHALL BE 13'-4".
6. THE "X" MILES AHEAD WILL BE DETERMINED BY THE ENGINEER.



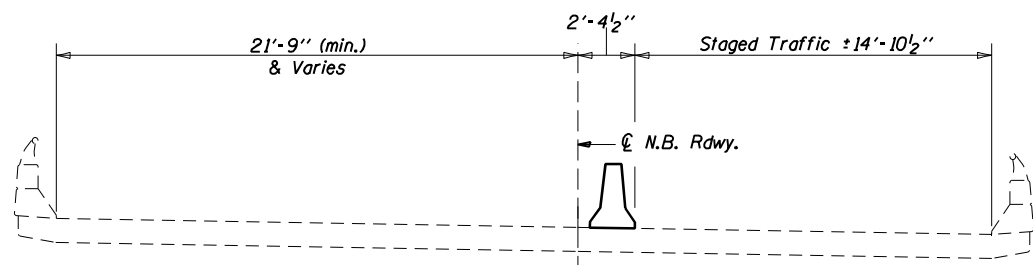
FILE NAME = *FILEL*	USER NAME = *USER*	DESIGNED - ___	REVISED - ___	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MAX WIDTH SIGNAGE		F.A.I. RTE. = 51	SECTION BRIDGE REPAIR 2022-2	COUNTY ALEXANDER	TOTAL SHEETS 34	SHEET NO. 12
	PLOT SCALE = *SCALE*	CHECKED - ___	REVISED - ___				SCALE:	SHEET NO. ___ OF ___ SHEETS	STA. _____ TO STA. _____	ILLINOIS FED. AID PROJECT CONTRACT NO. 78899	
DATE TIME = *DGN-SPEC*	PLOT DATE = *DATE*	DATE - ___	REVISED - ___								



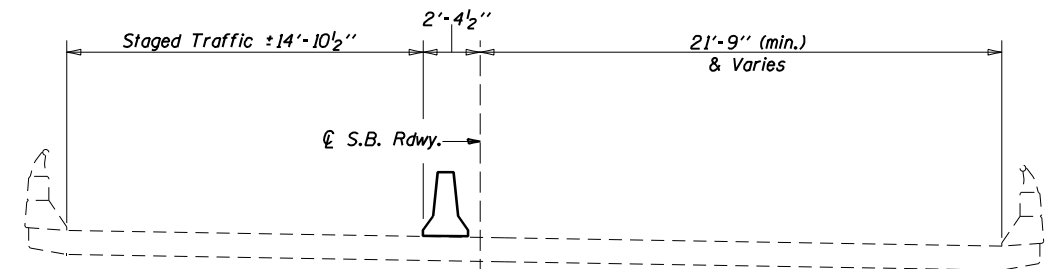
STAGE 1, 2, 3 TRAFFIC



STAGE 1, 2, 3 TRAFFIC



STAGE 4, 5, 6 TRAFFIC



STAGE 4, 5, 6 TRAFFIC

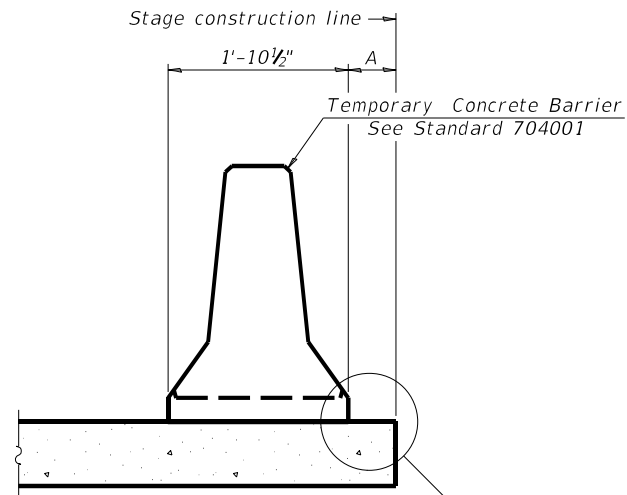
NOTES: All Sections looking South showing minimum staging widths on both bridges.
 Stage 1, 2 and 3 with the layout of TCB is the same stage as Stage I in the Structure Repair Plans.
 Stage 4, 5 and 6 with the layout of TCB is the same stage as Stage II in the Structure Repair Plans.

TEMPORARY CONCRETE BARRIER SCHEDULE

LOCATION			TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
NB/SB	PIER LOCATION	STAGE	FOOT	FOOT	EACH	EACH
SB	PIERS 3 & 7	1	600.0		1	
NB	PIERS 23 & 27	1	625.0		1	
SB	PIERS 11 & 15	2	25.0	600.0		1
NB	PIERS 15 & 19	2	137.5	625.0		1
SB	PIERS 19, 23, & 27	3	387.5	625.0		1
NB	PIERS 3, 7, & 11	3	250.0	762.5		1
SB	PIERS 3 & 7	4		587.5		1
NB	PIERS 23 & 27	4		600.0		1
SB	PIERS 11 & 15	5		625.0		1
NB	PIERS 15 & 19	5		725.0		1
SB	PIERS 19, 23, & 27	6		1012.5		1
NB	PIERS 3, 7, & 11	6		975.0		1
PROJECT TOTALS			2025	7137.5	2	10

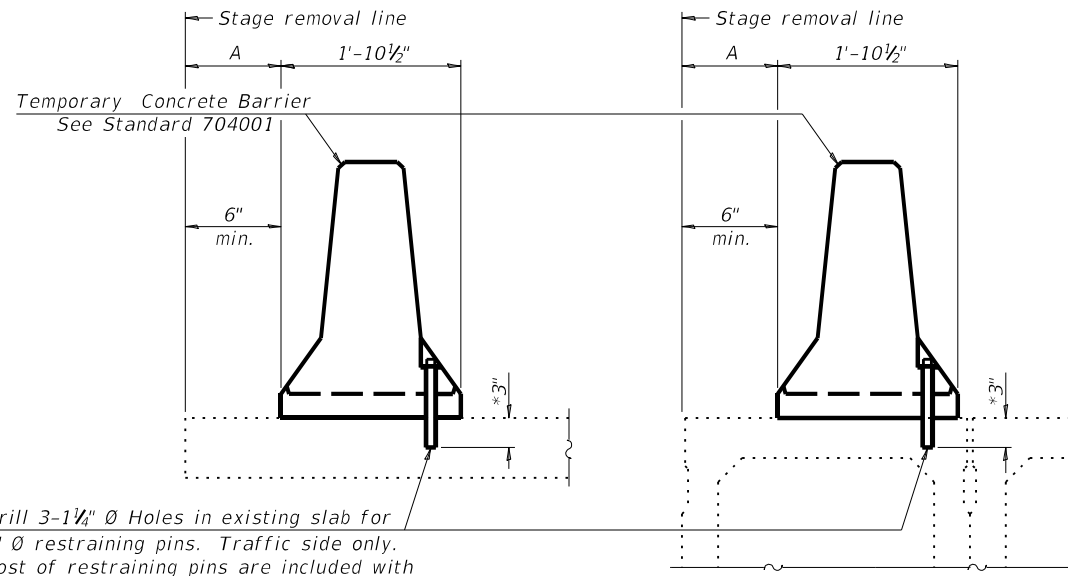
THE TEMPORARY CONCRETE BARRIER SHALL BE STORED A MINIMUM OF 30' OFF THE EDGE OF IL 3 HMA SHOULDER BETWEEN THE STAGES.
 THE TEMPORARY CONCRETE BARRIER FOR STAGES 4, 5, AND 6 SHALL BE PAID FOR AS RELOCATE TEMPORARY CONCRETE BARRIER.

STAGED TRAFFIC WIDTHS
ALEXANDER COUNTY
S.N. 002-0023 & 002-0024



When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

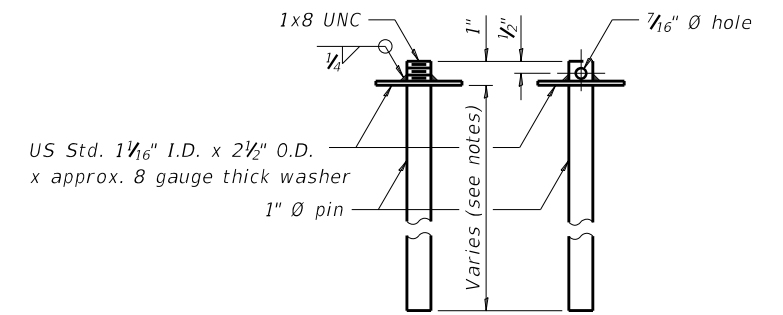
NEW SLAB OR NEW DECK BEAM



Drill 3-1 1/4" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB

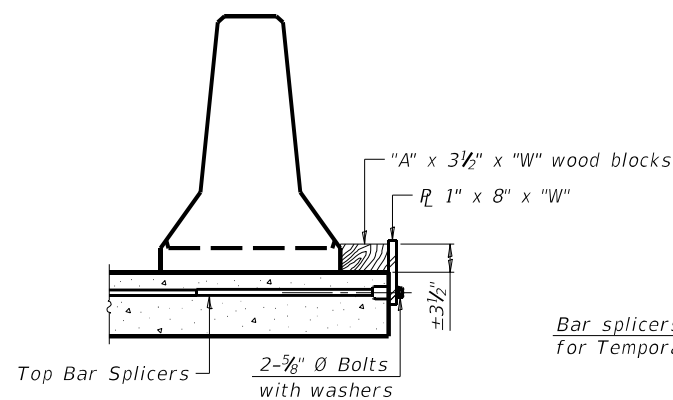
EXISTING DECK BEAM



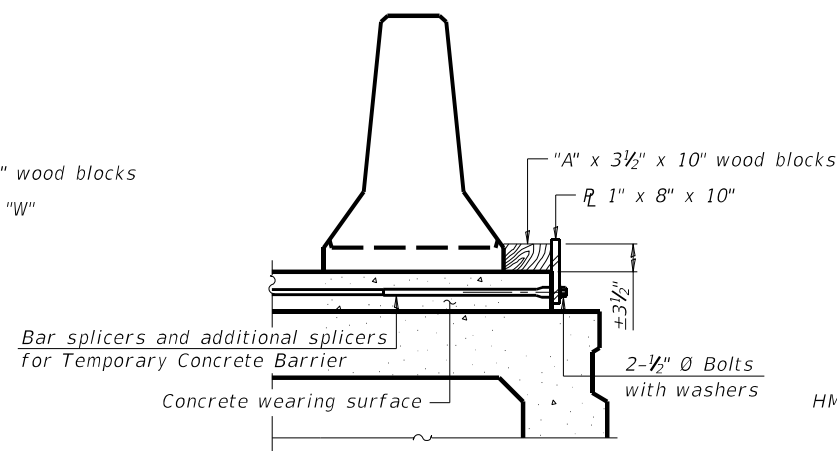
RESTRAINING PIN

* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

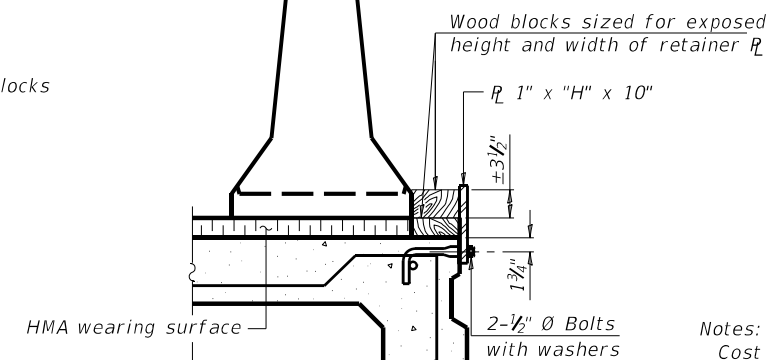
SECTIONS THRU SLAB OR DECK BEAM



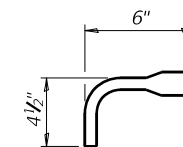
DETAIL I



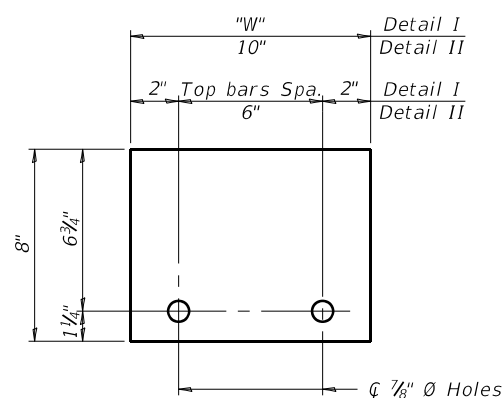
DETAIL II



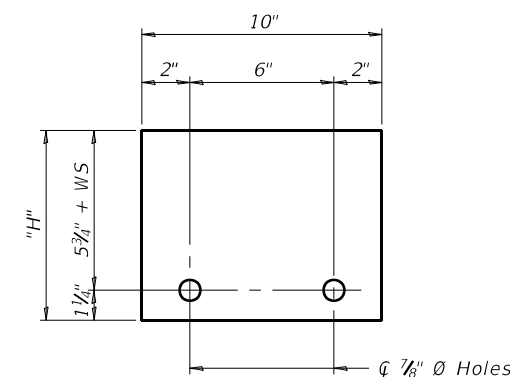
DETAIL III



BAR SPLICER FOR #4 BAR - DETAIL III



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



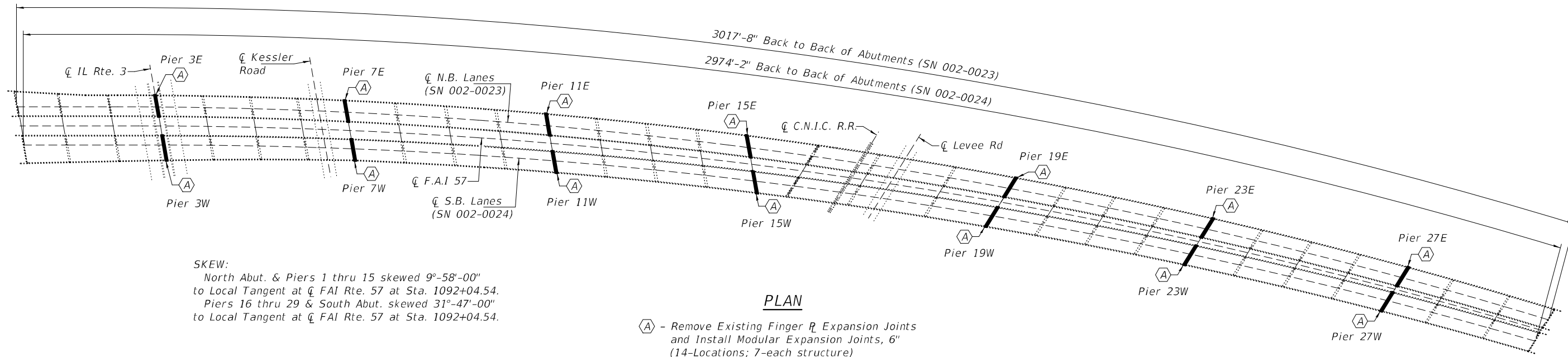
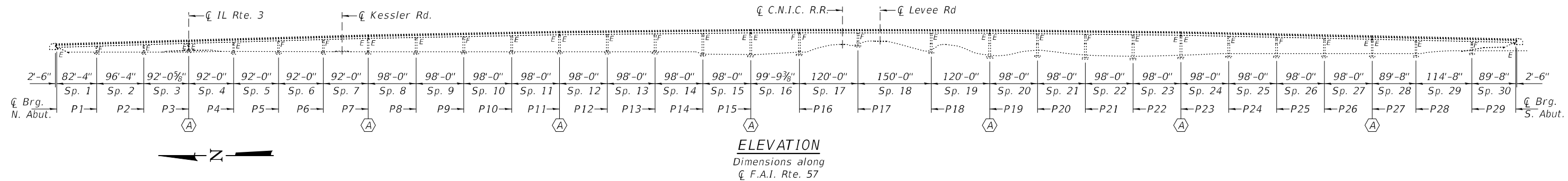
STEEL RETAINER 1" x "H" x 10"
(Detail III)

Notes:
 Cost of retainer assembly is included with Temporary Concrete Barrier.
 A retainer assembly shall be located at the approximate center 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 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.

R-27 8-11-2017

FILE NAME = *FILEL*	USER NAME = *USER*	DESIGNED - ___	REVISED - ___	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION STRUCTURE NO.		F.A.I. RTE. #	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = *SCALE*	CHECKED - ___	REVISED - ___	REVISED - ___				51	BRIDGE REPAIR 2022-2	ALEXANDER	34	14
PLOT DATE = *DATE*	DATE - ___	REVISED - ___	REVISED - ___		SCALE: _____ SHEET NO. ___ OF ___ SHEETS STA. _____ TO STA. _____		ILLINOIS FED. AID PROJECT				
							CONTRACT NO. 78899				



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.

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

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	133.1
Concrete Superstructure	Cu. Yd.	144.7
Reinforcement Bars, Epoxy Coated	Pound	21080
Modular Expansion Joint, 6"	Foot	612
Mechanical Splicers	Each	2586
Bar Splicers	Each	280
* Protective Coat	Sq. Ft.	3520

* Apply to new concrete only.



Expires: November 30, 2022

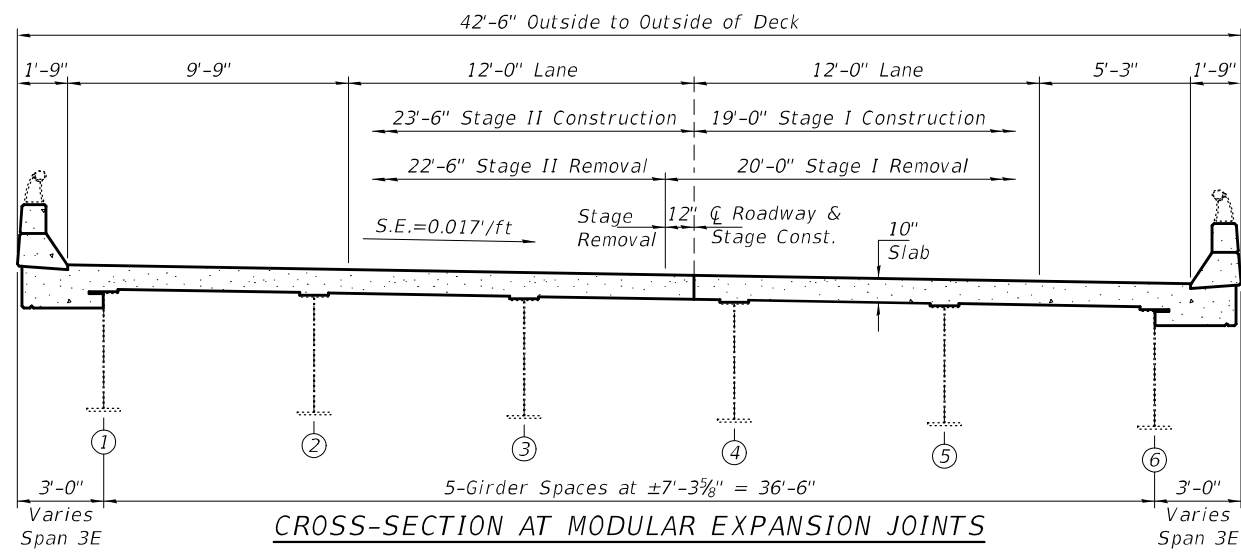
DESIGNED - Jeffrey S. Burke	EXAMINED - <i>Tony A. Beck</i>	DATE - MAY 13, 2022
CHECKED - Adrian T. Halloway	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - STEFFEN	PASSED - <i>Jayme Schiff</i>	REVISED -
CHECKED - JSB ATH	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

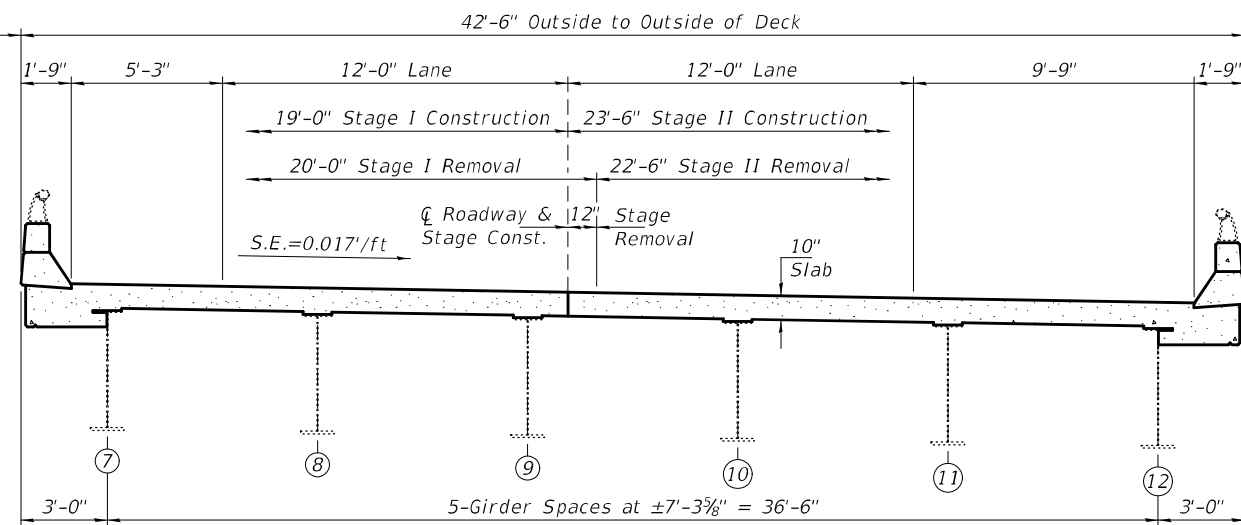
GENERAL PLAN AND ELEVATION
FAI 57 OVER IL 3, OUTER RD, C.N.I.C. R.R., & LEVEE RD
SN 002-0023 (N.B.) & -0024 (S.B.)

SHEET NO. 1 OF 20 SHEETS

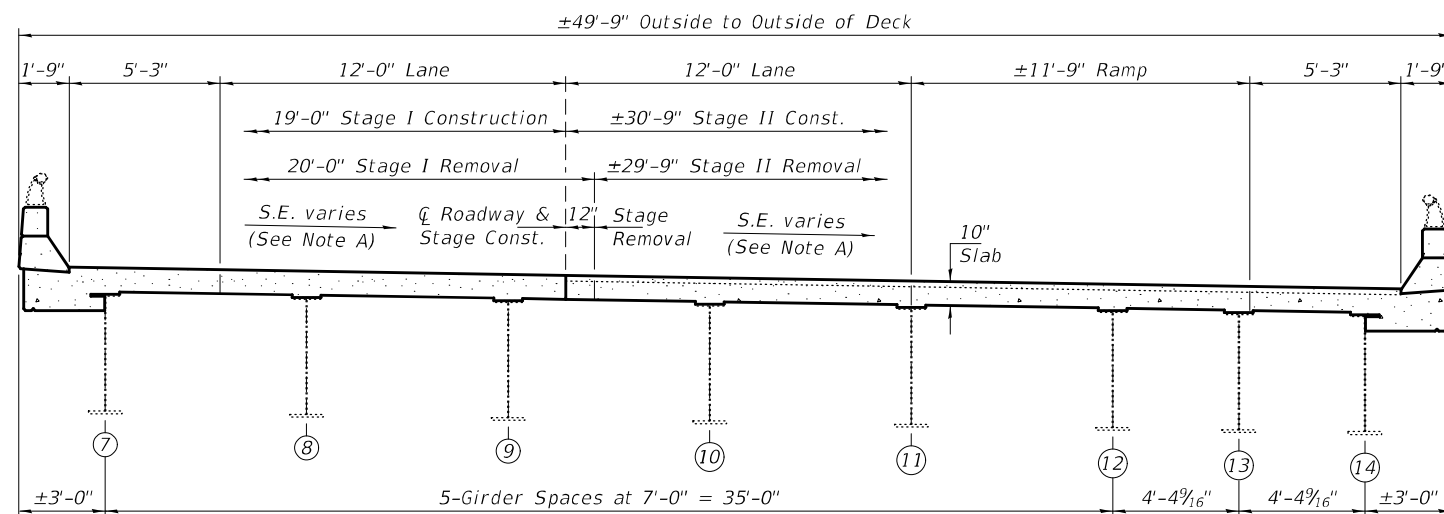
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D9 Bridge Repair 2022-2	ALEXANDER	34	15
CONTRACT NO. 78899				
ILLINOIS		FED. AID PROJECT		



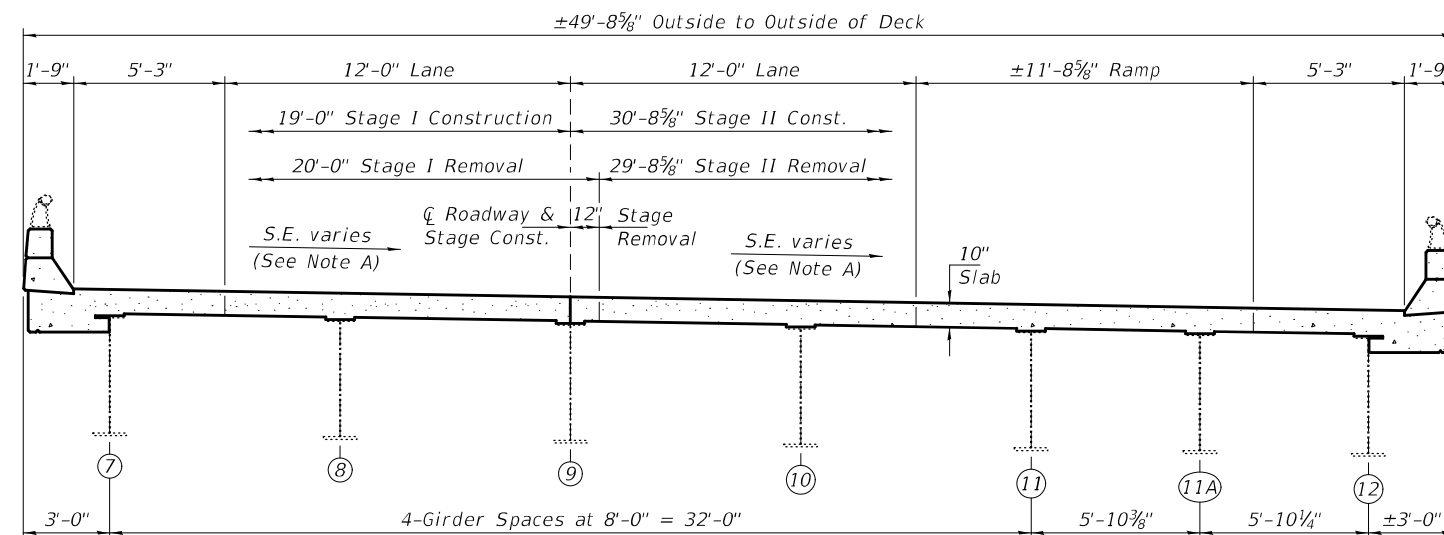
CROSS-SECTION AT MODULAR EXPANSION JOINTS
AT PIERS 3E, 7E, 11E, 15E, 19E, 23E, 27E
SPANS 3E-4E, 7E-8E, 11E-12E, 15E-16E, 19E-20E, 23E-24E & 27E-28E
 (Looking South)



CROSS-SECTION AT MODULAR EXPANSION JOINTS
AT PIERS 7W, 11W, 15W, 19W, 23W & 27W
SPANS 8W, 11W-12W, 15W-16W, 19W-20W, 23W-24W & 27W-28W
 (Looking South)

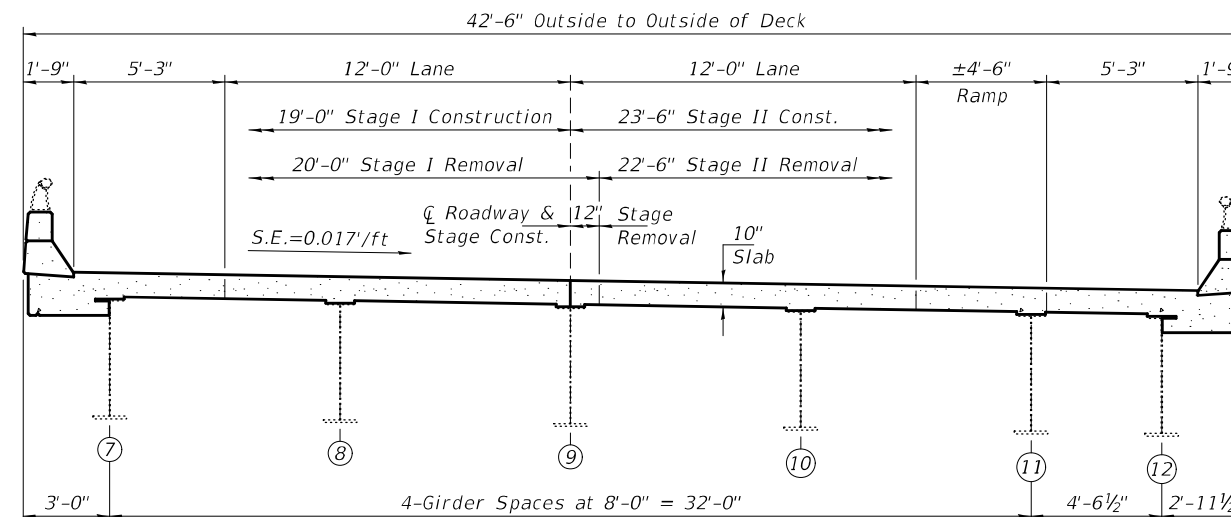


CROSS-SECTION AT MOD. EXP. JOINT - SPAN 3W AT PIER 3W - SN 002-0024 (S.B.)
 (Looking South)



CROSS-SECTION AT MOD. EXP. JOINT - SPAN 4W AT PIER 3W - SN 002-0024 (S.B.)
 (Looking South)

Note A:
 Superelevation varies from 0.0156'/ft to 0.017'/ft between Sta. 1091+21.70 to Sta. 1093+12.70. Match existing superelevation slope at Sta. 1092+52.71.



CROSS-SECTION AT MOD. EXP. JOINT - SPAN 7W AT PIER 7W - SN 002-0024 (S.B.)
 (Looking South)

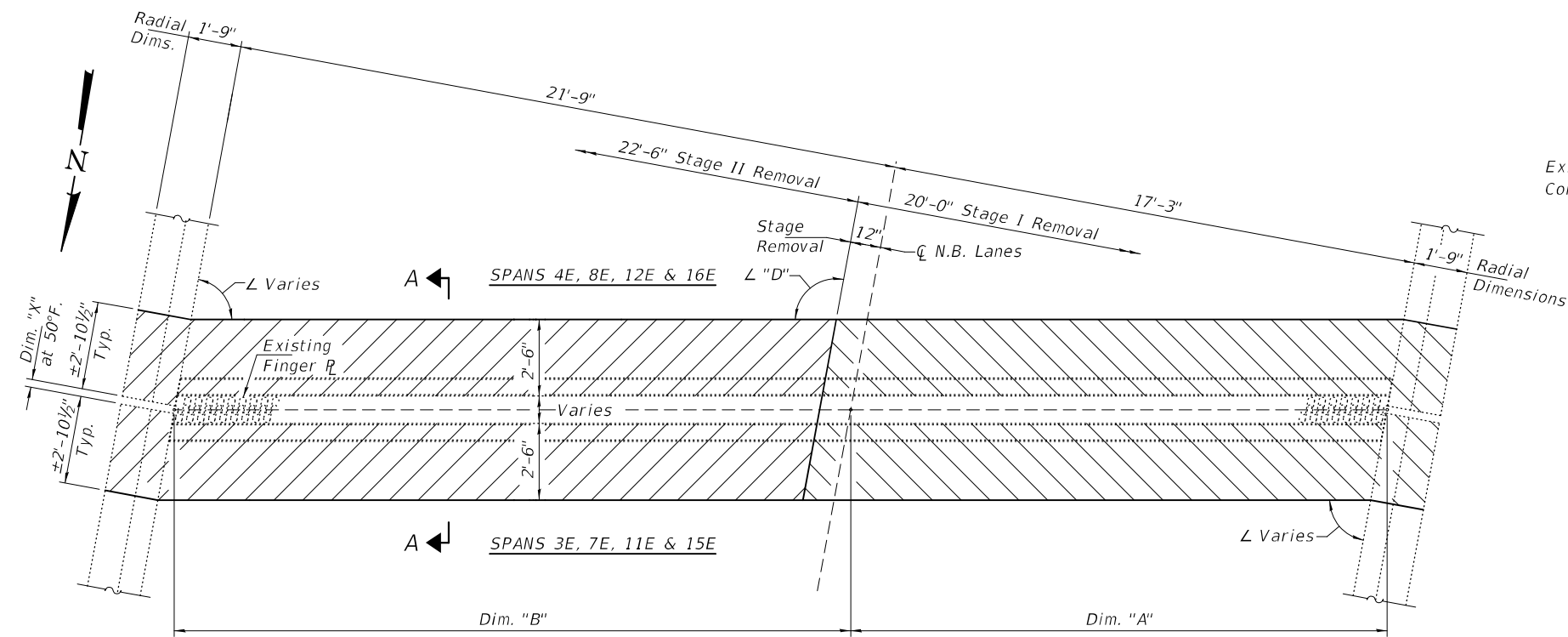
DESIGNED - JSB	EXAMINED - <i>Timothy A. [Signature]</i>	DATE - MAY 13, 2022
CHECKED - ATH	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - STEFFEN	PASSED - <i>James F. [Signature]</i>	REVISED -
CHECKED - JSB ATH	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGING DETAILS
SN 002-0023 (N.B.) & -0024 (S.B.)

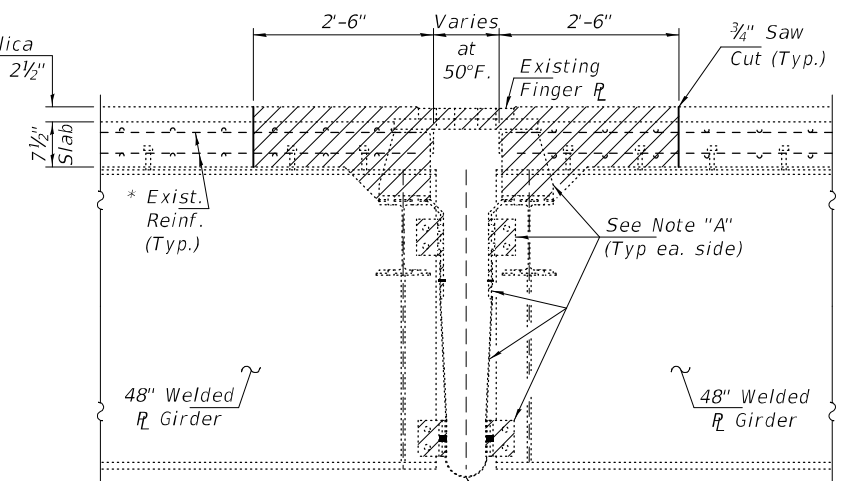
SHEET NO. 2 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D9 Bridge Repair 2022-2	ALEXANDER	34	16
CONTRACT NO. 78899			ILLINOIS FED. AID PROJECT	



CONCRETE REMOVAL PLAN AT PIERS 3E, 7E, 11E & 15E
 Pier 3E shown; Piers 7E, 11E & 15E similar except as noted.

Exist. Microsilica
 Conc. Overlay, 2 1/2"



SECTION A-A
 Dims. at Rt. L's

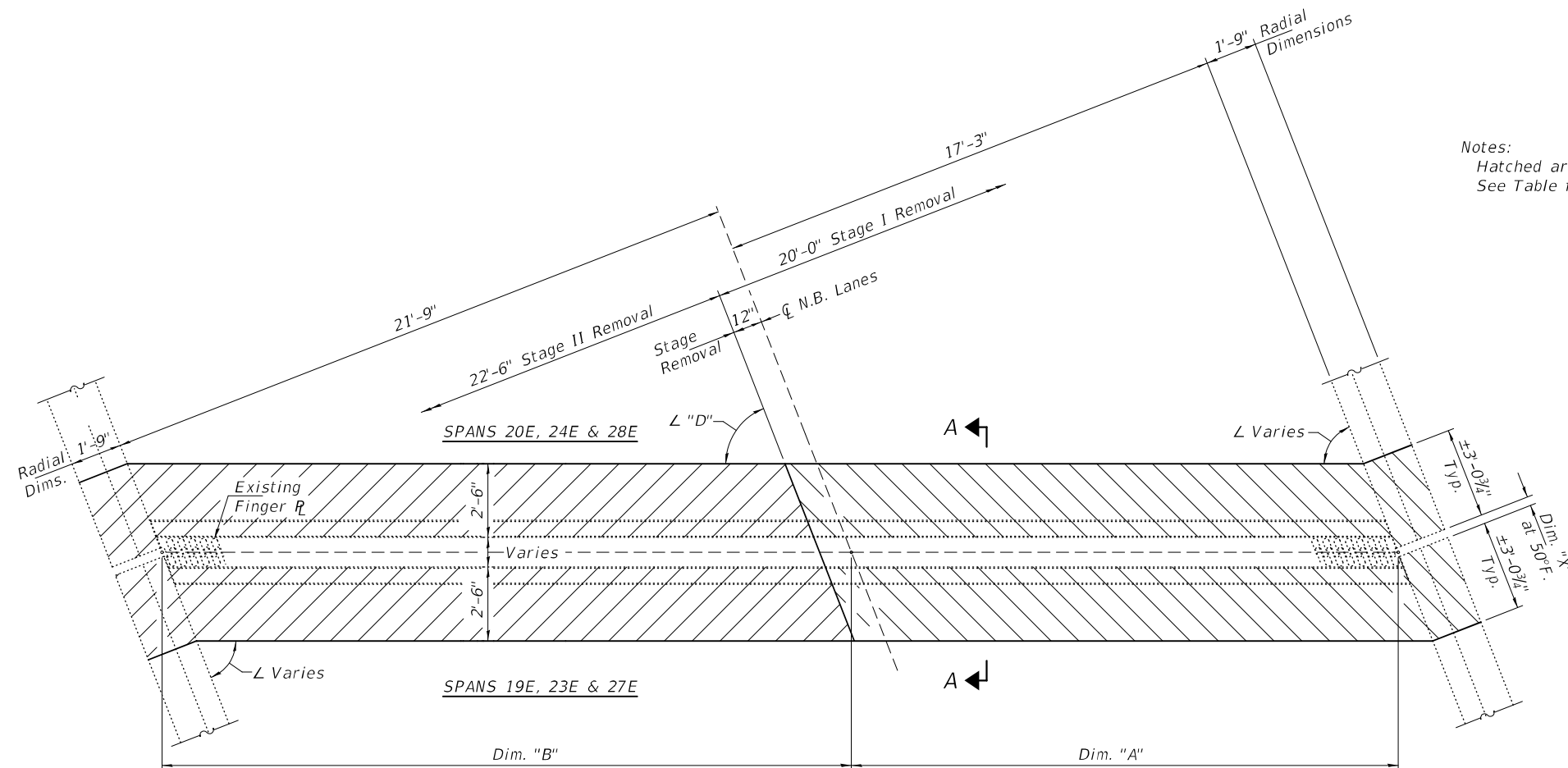
* Cut existing reinforcement 6" minimum from Concrete Removal line to facilitate installation of Mechanical Splicers.

Note "A":
 Existing Finger R, Stools, Shim R's, Bent R's, and Neoprene Trough to be removed. Cost included with Concrete Removal.

Notes:
 Hatched areas indicate Concrete Removal.
 See Table for dimensions and angles.

TABLE OF DIMENSIONS & ANGLES

PIER	Dim. "A"	Dim. "B"	Dim. "X"	∠ "D"
3E	17'-6 1/2"	22'-1 3/8"	3 1/16"	100°-25'-37"
7E	17'-8 1/8"	22'-3 7/16"	3 1/8"	102°-38'-12"
11E	17'-10 3/16"	22'-6 3/16"	3 3/16"	104°-59'-26"
15E	18'-0 7/8"	22'-9 7/8"	2 3/4"	107°-20'-43"
19E	18'-6 1/4"	23'-4 1/8"	3 1/16"	68°-40'-14"
23E	18'-2 1/4"	23'-0"	3 3/16"	71°-01'-02"
27E	18'-0 1/16"	22'-8 3/8"	3 1/4"	73°-21'-52"



CONCRETE REMOVAL PLAN AT PIERS 19E, 23E & 27E
 Pier 19E shown; Piers 23E & 27E similar except as noted.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	65.8

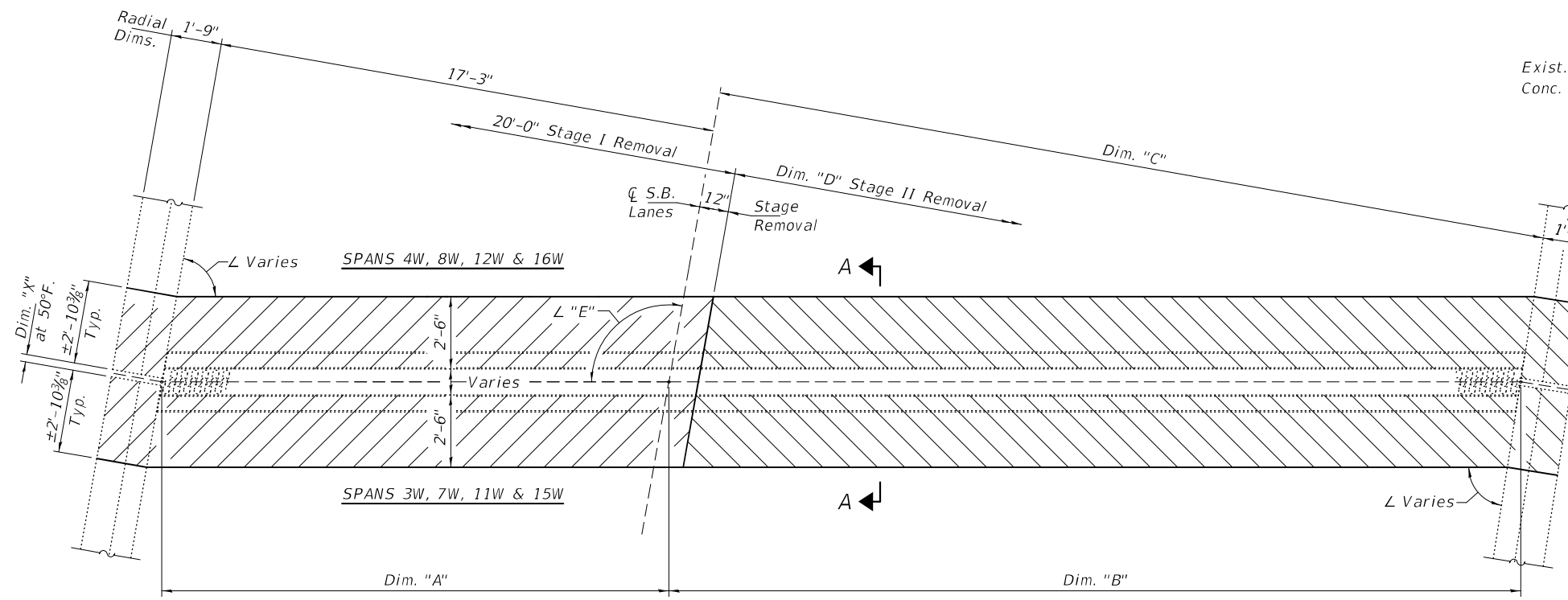
DESIGNED - JSB	EXAMINED - <i>Timothy A. [Signature]</i>	DATE - MAY 13, 2022
CHECKED - ATH	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - STEFFEN	PASSED - <i>James F. [Signature]</i>	REVISED -
CHECKED - JSB ATH	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

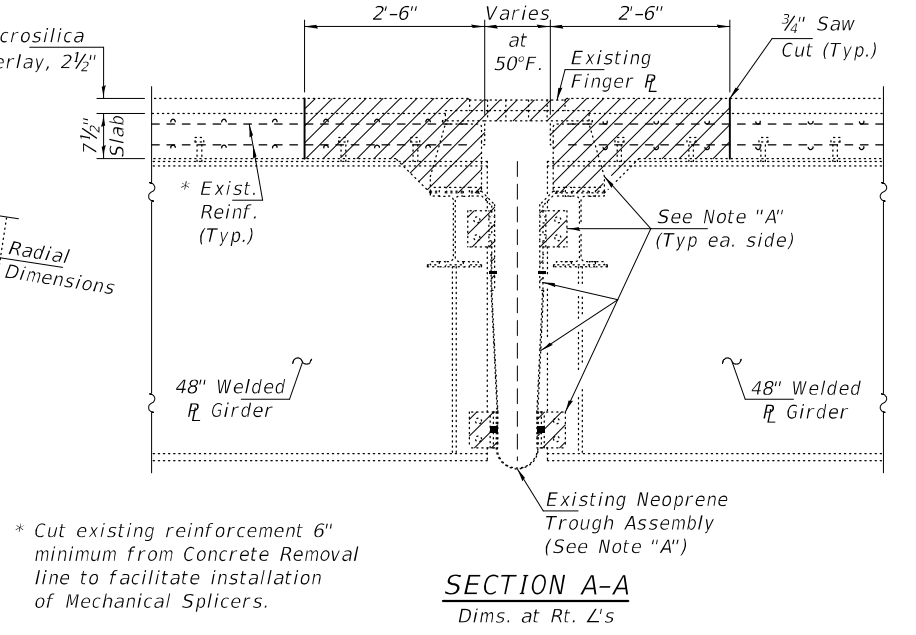
FINGER PLATE JOINT REMOVAL DETAILS
 SN 002-0023 (N.B.)

SHEET NO. 3 OF 20 SHEETS

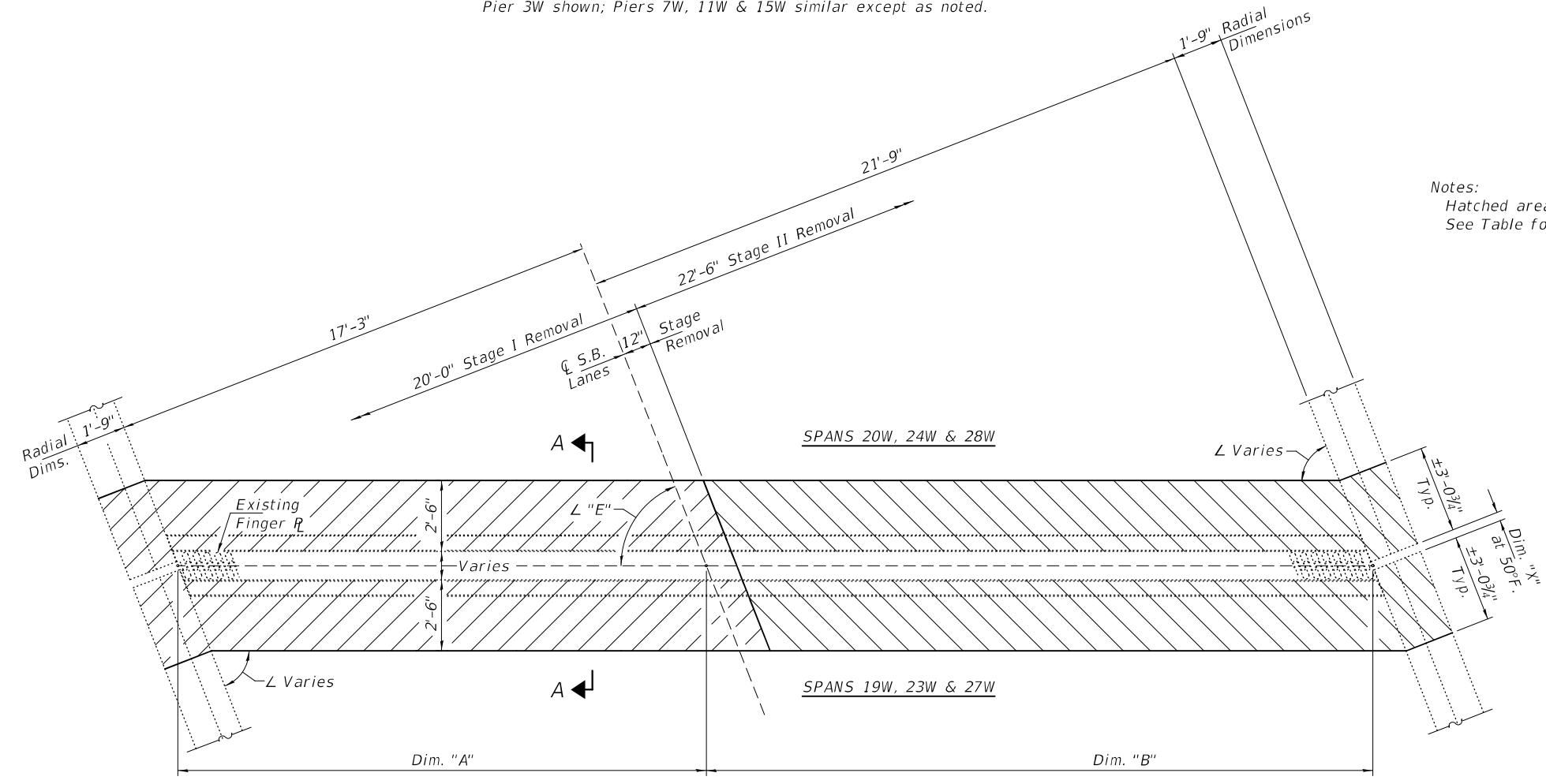
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D9 Bridge Repair 2022-2	ALEXANDER	34	17
CONTRACT NO. 78899			ILLINOIS FED. AID PROJECT	



CONCRETE REMOVAL PLAN AT PIERS 3W, 7W, 11W & 15W
 Pier 3W shown; Piers 7W, 11W & 15W similar except as noted.



Note "A":
 Existing Finger R , Stools, Shim R 's, Bent R 's, and Neoprene Trough Assembly (See Note "A"). Cost included with Concrete Removal.



CONCRETE REMOVAL PLAN AT PIERS 19W, 23W & 27W
 Pier 19W shown; Piers 23W & 27W similar except as noted.

Notes:
 Hatched areas indicate Concrete Removal.
 See Table for dimensions and angles.

TABLE OF DIMENSIONS & ANGLES

PIER	Dim. "A"	Dim. "B"	Dim. "C"	Dim. "D"	Dim. "X"	\angle "E"
3W	17'-6 $\frac{3}{16}$ "	29'-5 $\frac{1}{16}$ "	\pm 29'-0"	\pm 29'-9"	3 $\frac{1}{16}$ "	100°-00'-24"
7W	17'-7 $\frac{1}{16}$ "	22'-3 $\frac{1}{16}$ "	\pm 21'-9"	\pm 22'-6"	3 $\frac{1}{8}$ "	102°-12'-47"
11W	17'-9 $\frac{7}{16}$ "	22'-5 $\frac{1}{16}$ "	\pm 21'-9"	\pm 22'-6"	3 $\frac{3}{16}$ "	104°-33'-47"
15W	18'-0 $\frac{5}{16}$ "	22'-8 $\frac{1}{16}$ "	\pm 21'-9"	\pm 22'-6"	2 $\frac{7}{16}$ "	106°-54'-45"
19W	18'-7 $\frac{1}{4}$ "	23'-5 $\frac{5}{16}$ "			3 $\frac{1}{16}$ "	67°-57'-48"
23W	18'-3 $\frac{1}{16}$ "	23'-1 $\frac{1}{4}$ "			3 $\frac{3}{16}$ "	70°-19'-15"
27W	18'-0 $\frac{1}{16}$ "	22'-9 $\frac{1}{16}$ "			3 $\frac{1}{4}$ "	72°-40'-39"

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	67.3

DESIGNED - JSB
 CHECKED - ATH
 DRAWN - STEFFEN
 CHECKED - JSB ATH

EXAMINED - *Timothy A. Smith*
 ENGINEER OF STRUCTURAL SERVICES

PASSED - *James F. Smith*
 ENGINEER OF BRIDGES AND STRUCTURES

DATE - MAY 13, 2022

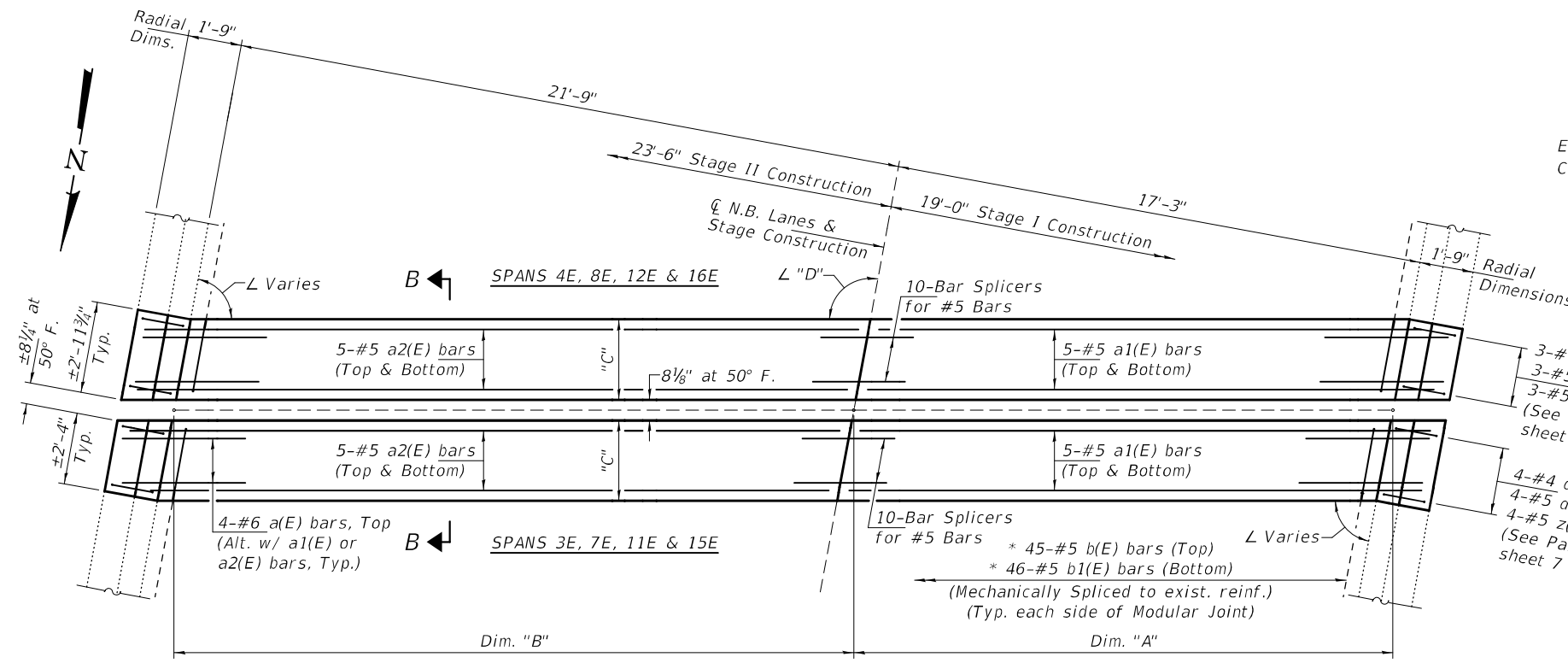
REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

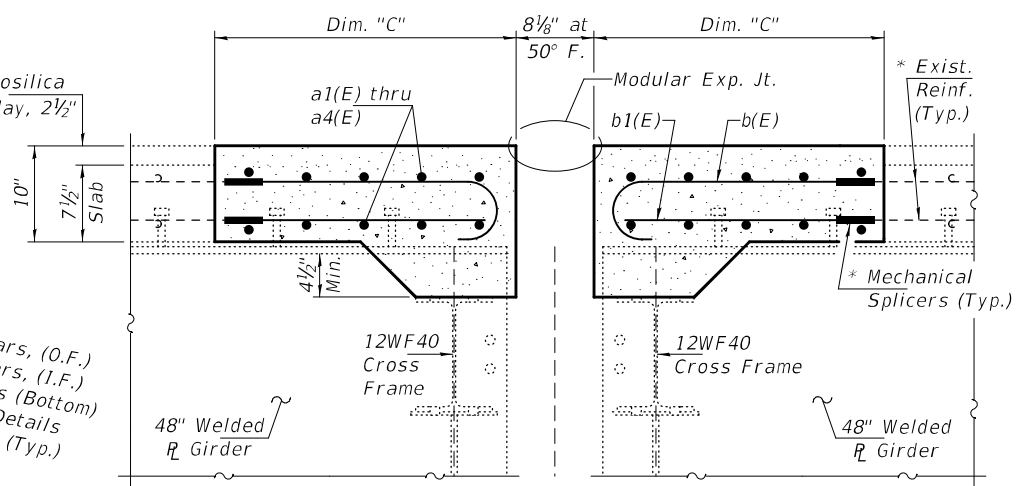
FINGER PLATE JOINT REMOVAL DETAILS
 SN 002-0024 (S.B.)

SHEET NO. 4 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D9 Bridge Repair 2022-2	ALEXANDER	34	18
CONTRACT NO. 78899				
ILLINOIS FED. AID PROJECT				



CONCRETE REPLACEMENT PLAN AT PIERS 3E, 7E, 11E & 15E
 Pier 3E shown; Piers 7E, 11E & 15E similar except as noted.



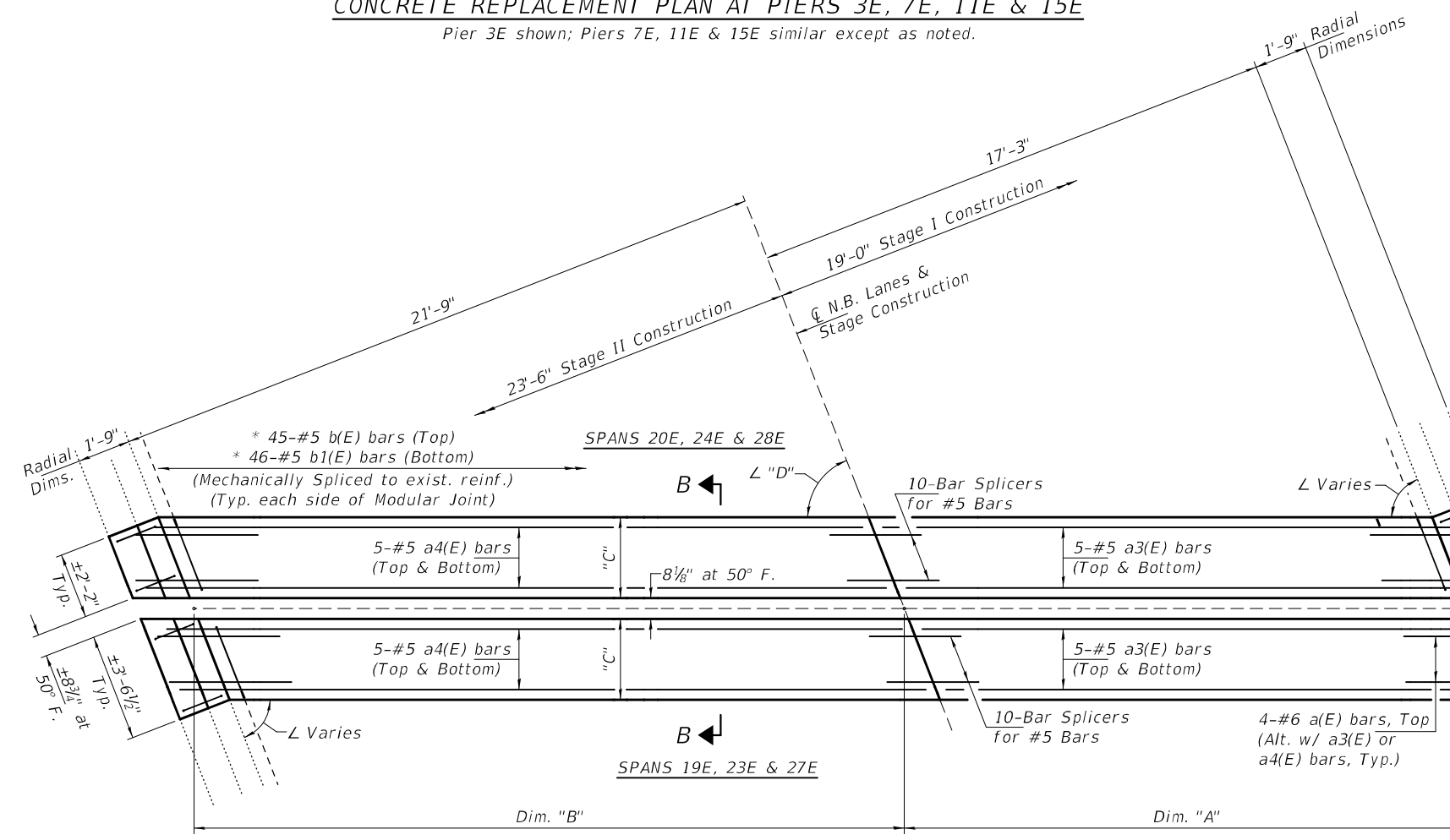
SECTION B-B
 Dims. at Rt. L's
 (Modular Joint not shown for clarity. See sheet 7 of x.)

* Cut existing reinforcement 6" minimum from Concrete Removal line to facilitate installation of Mechanical Splicers.

Notes:
 For Modular Expansion Joint, Sliding Plates, Parapet, Rail Post, and Reinforcement Bending Details, see sheet 7 of 20.

TABLE OF DIMENSIONS & ANGLES

PIER	Dim. "A"	Dim. "B"	Dim. "C"	∠ "D"
3E	17'-6 1/2"	22'-1 3/8"	±2'-7 1/16"	100°-25'-37"
7E	17'-8 1/8"	22'-3 1/16"	±2'-7 1/2"	102°-38'-12"
11E	17'-10 3/16"	22'-6 3/16"	±2'-7 5/8"	104°-59'-26"
15E	18'-0 7/8"	22'-9 3/8"	±2'-6 1 3/16"	107°-20'-43"
19E	18'-6 1/4"	23'-4 1/8"	±2'-8 3/8"	68°-40'-14"
23E	18'-2 1 5/16"	23'-0"	±2'-7 5/8"	71°-01'-02"
27E	18'-0 1/16"	22'-8 3/8"	±2'-7 1 1/16"	73°-21'-52"



CONCRETE REPLACEMENT PLAN AT PIERS 19E, 23E & 27E
 Pier 19E shown; Piers 23E & 27E similar except as noted.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	112	#6	4'-0"	—
a1(E)	80	#5	19'-0"	—
a2(E)	80	#5	23'-8"	—
a3(E)	60	#5	19'-6"	—
a4(E)	60	#5	24'-3"	—
b(E)	315	#5	3'-0"	—
b1(E)	322	#5	2'-4"	—
d(E)	56	#4	2'-3"	┘
d1(E)	92	#5	3'-9"	┘
d2(E)	92	#4	4'-7"	┘
x(E)	112	#5	2'-8"	—
z(E)	92	#5	6'-8"	┘
Concrete Superstructure	Cu. Yd.	71.7		
Bar Splicers	Each	140		
Mechanical Splicers	Each	1274		
Reinforcement Bars, Epoxy Coated	Pound	10420		

DESIGNED - JSB
 CHECKED - ATH
 DRAWN - STEFFEN
 CHECKED - JSB ATH

EXAMINED
 PASSED

DATE - MAY 13, 2022

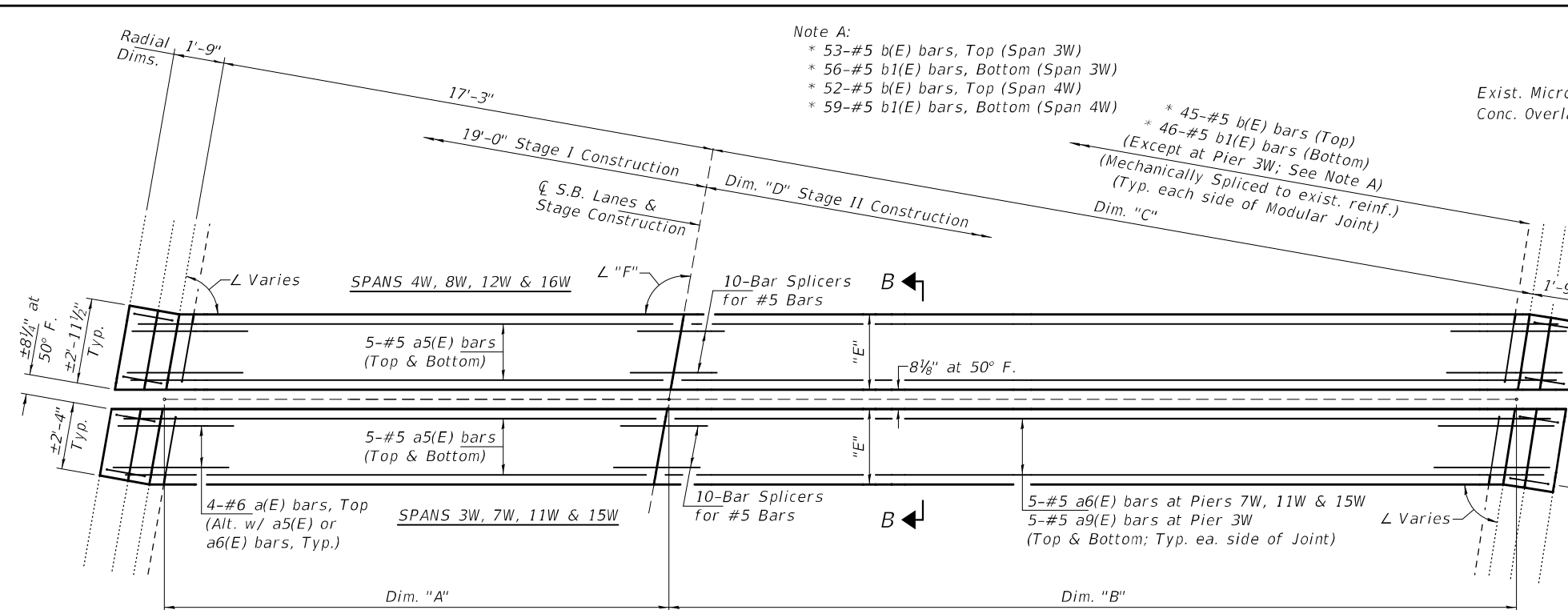
REVISOR -
 REVISION -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

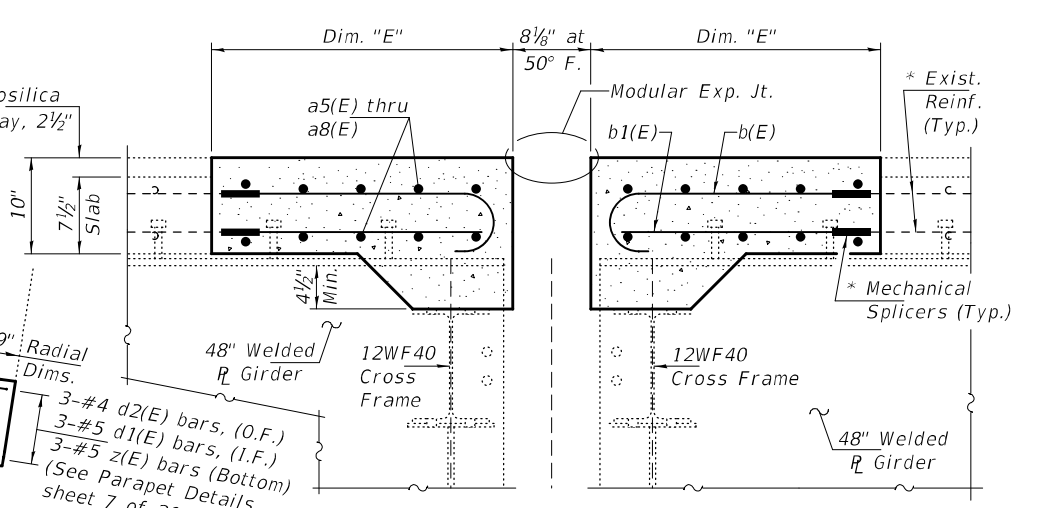
MODULAR JOINT REPLACEMENT DETAILS
SN 002-0023 (N.B.)

SHEET NO. 5 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D9 Bridge Repair 2022-2	ALEXANDER	34	19
CONTRACT NO. 78899				
ILLINOIS FED. AID PROJECT				



CONCRETE REPLACEMENT PLAN AT PIERS 3W, 7W, 11W & 15W
 Pier 3W shown; Piers 7W, 11W & 15W similar except as noted.



SECTION B-B
 Dims. at Rt. L's
 (Modular Joint not shown for clarity. See sheet 7 of 20.)

Notes:
 For Modular Expansion Joint, Sliding Plates, Parapet, Rail Post, and Reinforcement Bending Details, see sheet 7 of 20.

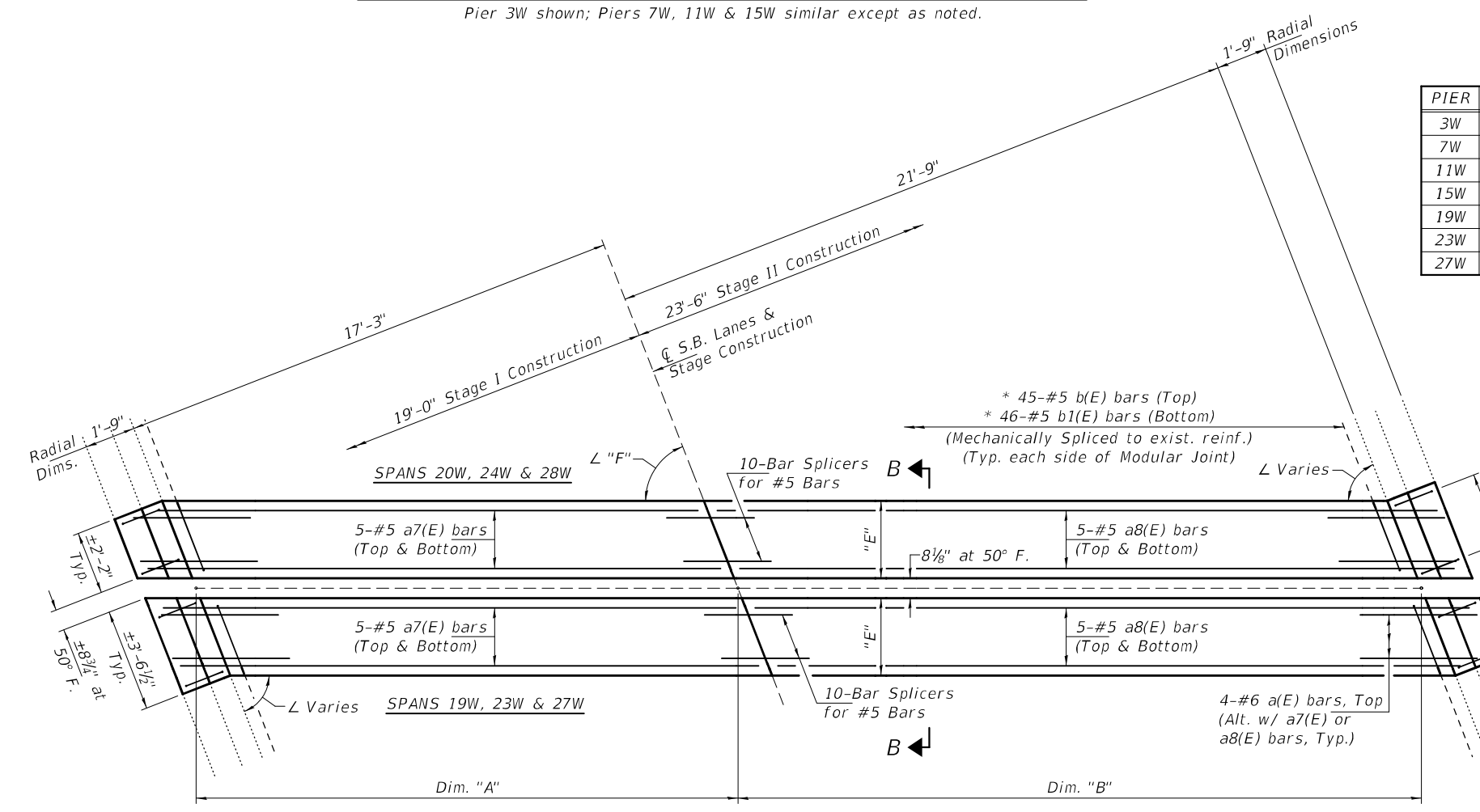
* Cut existing reinforcement 6" minimum from Concrete Removal line to facilitate installation of Mechanical Splicers.

TABLE OF DIMENSIONS & ANGLES

PIER	Dim. "A"	Dim. "B"	Dim. "C"	Dim. "D"	Dim. "E"	∠ "F"
3W	17'-6 ³ / ₁₆ "	29'-5 ¹ / ₁₆ "	±29'-0"	±30'-6"	±2'-7 ¹ / ₁₆ "	100°-00'-24"
7W	17'-7 ¹³ / ₁₆ "	22'-3 ¹ / ₁₆ "	±21'-9"	±23'-6"	±2'-7 ¹ / ₂ "	102°-12'-47"
11W	17'-9 ⁹ / ₁₆ "	22'-5 ¹ / ₁₆ "	±21'-9"	±23'-6"	±2'-7 ⁵ / ₈ "	104°-33'-47"
15W	18'-0 ⁹ / ₁₆ "	22'-8 ¹³ / ₁₆ "	±21'-9"	±23'-6"	±2'-6 ¹ / ₂ "	106°-54'-45"
19W	18'-7 ¹ / ₄ "	23'-5 ⁵ / ₈ "			±2'-8 ³ / ₈ "	67°-57'-48"
23W	18'-3 ¹³ / ₁₆ "	23'-1 ¹ / ₄ "			±2'-7 ⁵ / ₈ "	70°-19'-15"
27W	18'-0 ¹³ / ₁₆ "	22'-9 ¹ / ₁₆ "			±2'-7 ¹ / ₁₆ "	72°-40'-39"

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	112	#6	4'-0"	—
a5(E)	80	#5	18'-11"	—
a6(E)	60	#5	23'-8"	—
a7(E)	60	#5	19'-7"	—
a8(E)	60	#5	24'-2"	—
a9(E)	20	#5	30'-10"	—
b(E)	330	#5	3'-0"	—
b1(E)	345	#5	2'-4"	—
d(E)	56	#4	2'-3"	□
d1(E)	92	#5	3'-9"	┌
d2(E)	92	#4	4'-7"	┌
x(E)	112	#5	2'-8"	—
z(E)	92	#5	6'-8"	└
Concrete Superstructure	Cu. Yd.		73.0	
Bar Splicers	Each		140	
Mechanical Splicers	Each		1312	
Reinforcement Bars, Epoxy Coated	Pound		10660	



CONCRETE REPLACEMENT PLAN AT PIERS 19W, 23W & 27W

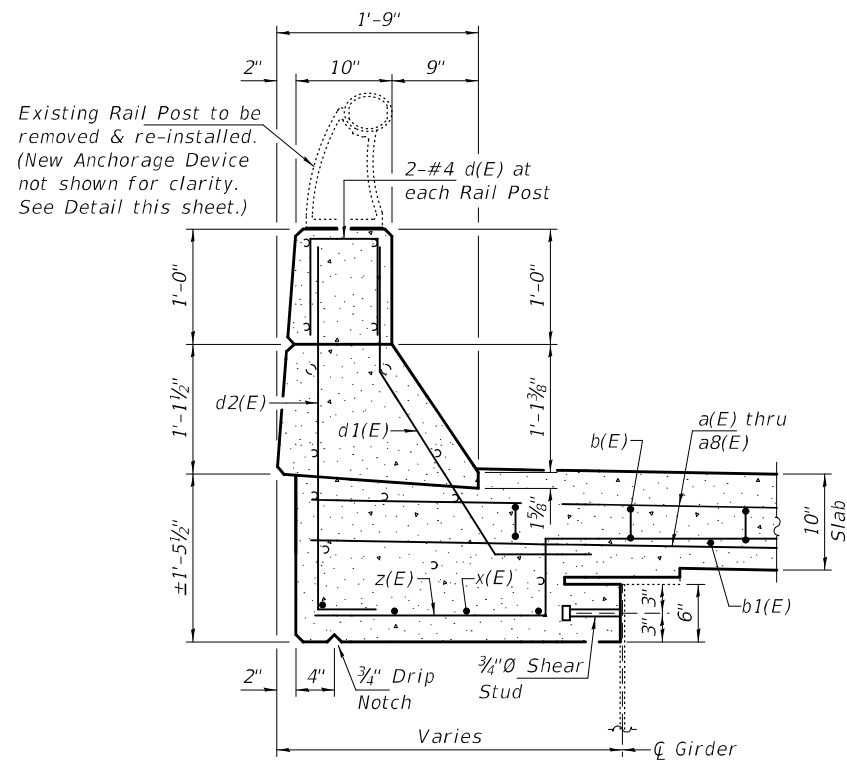
DESIGNED - JSB	EXAMINED - <i>Timothy A. [Signature]</i>	DATE - MAY 13, 2022
CHECKED - ATH	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - STEFFEN	PASSED - <i>Jaime F. [Signature]</i>	REVISER -
CHECKED - JSB ATH	ENGINEER OF BRIDGES AND STRUCTURES	REVISER -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

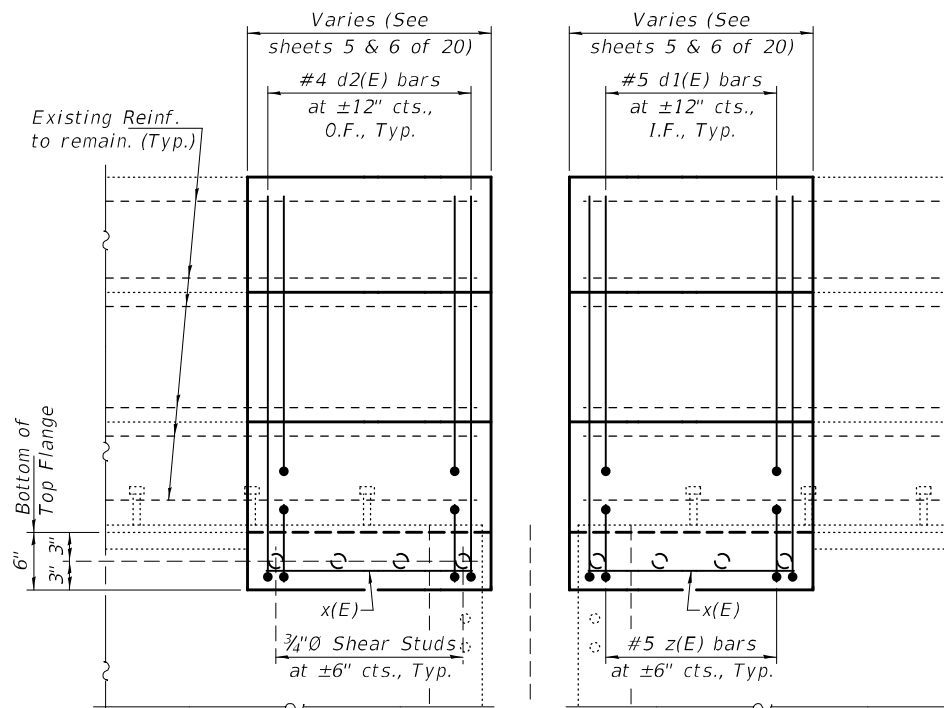
MODULAR JOINT REPLACEMENT DETAILS
 SN 002-0024 (S.B.)

SHEET NO. 6 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D9 Bridge Repair 2022-2	ALEXANDER	34	20
CONTRACT NO. 78899				
ILLINOIS FED. AID PROJECT				

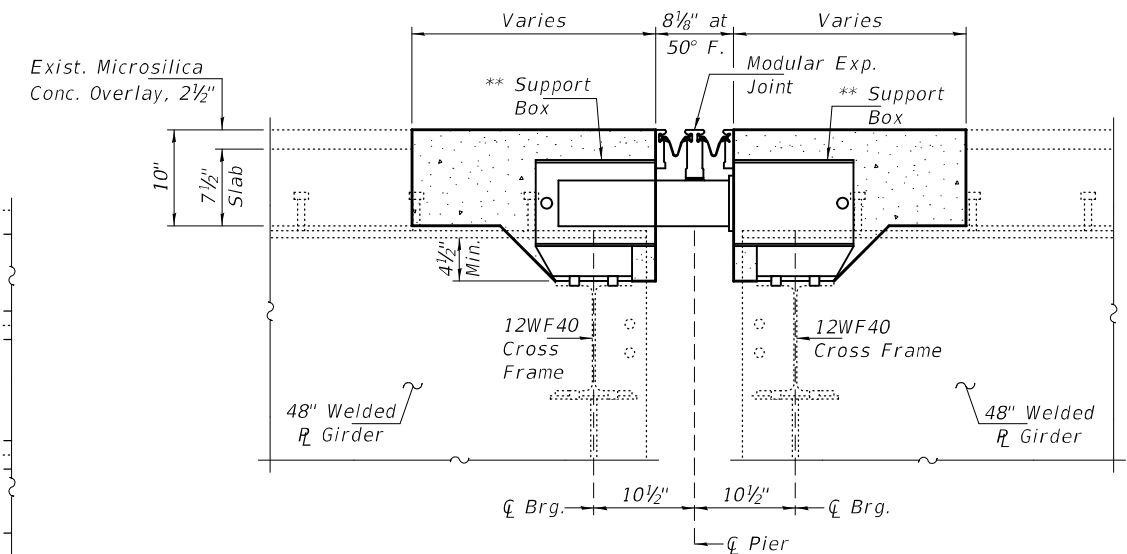


TYPICAL SECTION THRU PARAPET



TYPICAL PARAPET ELEVATION

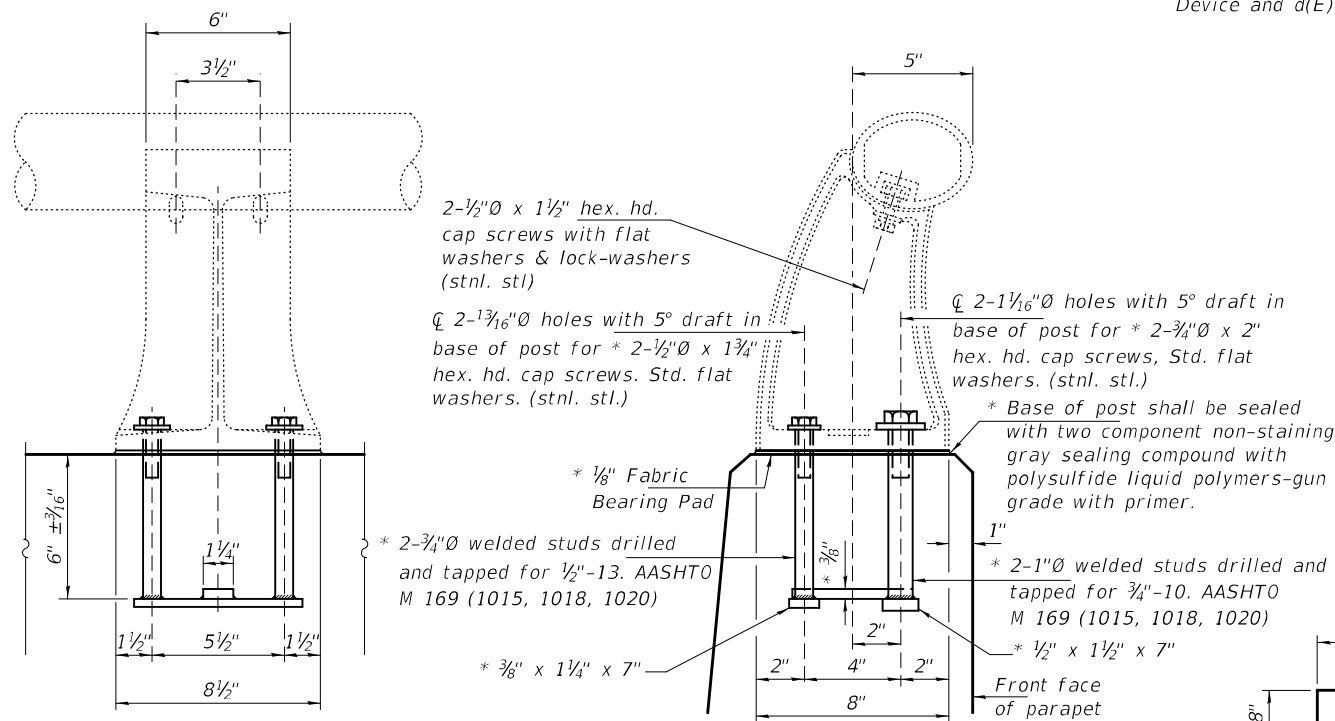
Existing Railing, Rail Posts, New Anchorage Device and d(E) bars not shown for clarity.



SECTION THRU MODULAR EXPANSION JOINT

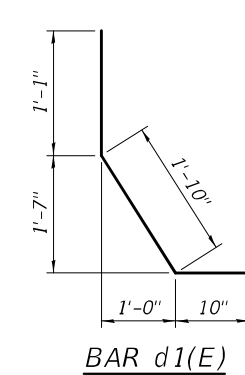
Dimensions at Right L's.
(Reinforcement not shown for clarity.
See sheets 5 & 6 of 20.)

** Support Box spacing per manufacturer. Support Boxes to be rigidly attached to diaphragms or beams by adjustable brackets, stools, or shims as determined by manufacturer. Support Boxes to be spaced so they do not interfere with the existing top flange of the girders.

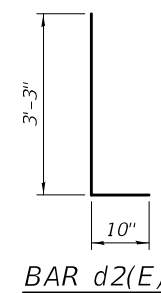


RAIL POST DETAILS

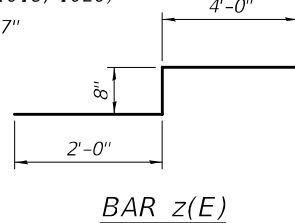
* New Rail Post anchorage devices will be required at each location where posts are connected to new construction. Cost included with Concrete Superstructure.



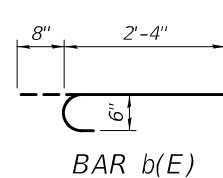
BAR d1(E)



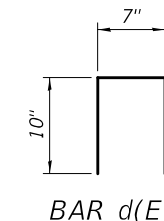
BAR d2(E)



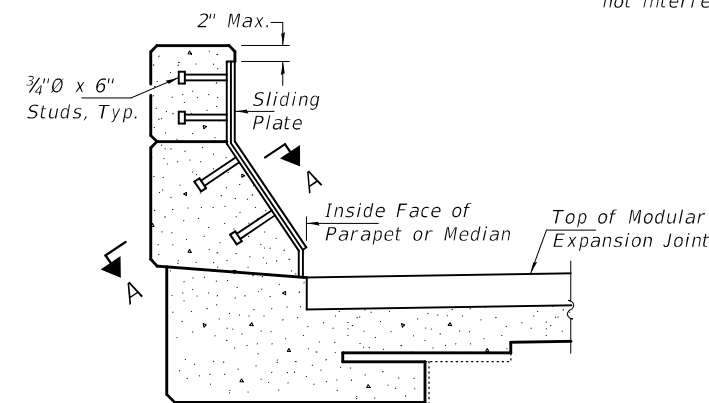
BAR z(E)



BAR b(E)

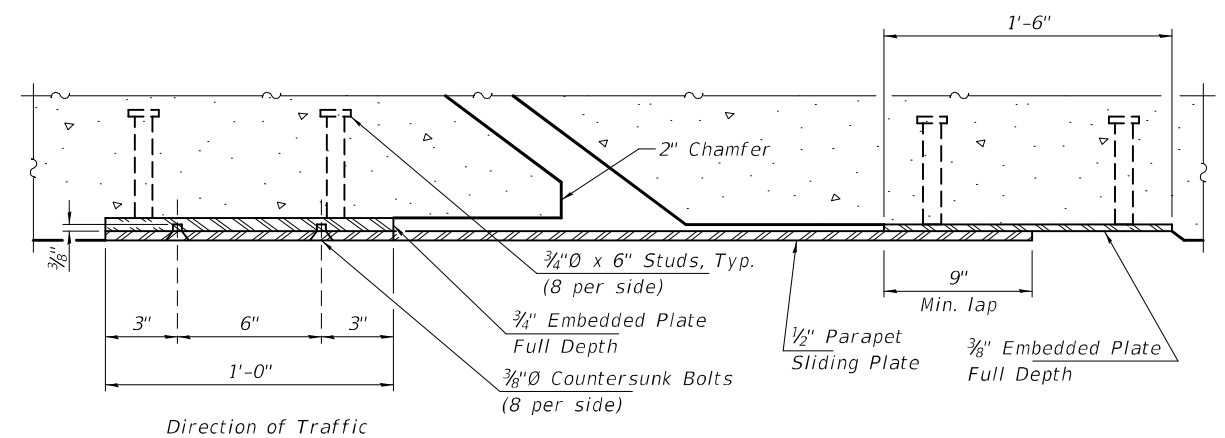


BAR d(E)



SLIDING PLATE DETAILS

Cost included with Modular Expansion Joint.



SECTION A-A

DESIGNED - JSB	EXAMINED
CHECKED - ATH	PASSED
DRAWN - STEFFEN	
CHECKED - JSB ATH	

 ENGINEER OF STRUCTURAL SERVICES ENGINEER OF BRIDGES AND STRUCTURES	DATE - MAY 13, 2022 REVISED - REVISED -
---	---

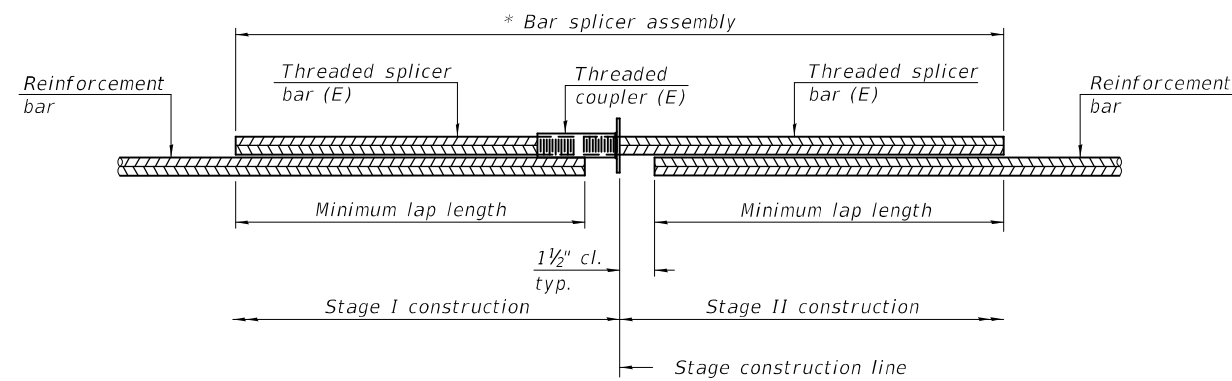
DATE - MAY 13, 2022
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**REPAIR DETAILS
SN 002-0023 (N.B.) & -0024 (S.B.)**

SHEET NO. 7 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D9 Bridge Repair 2022-2	ALEXANDER	34	21
CONTRACT NO. 78899				
ILLINOIS FED. AID PROJECT				

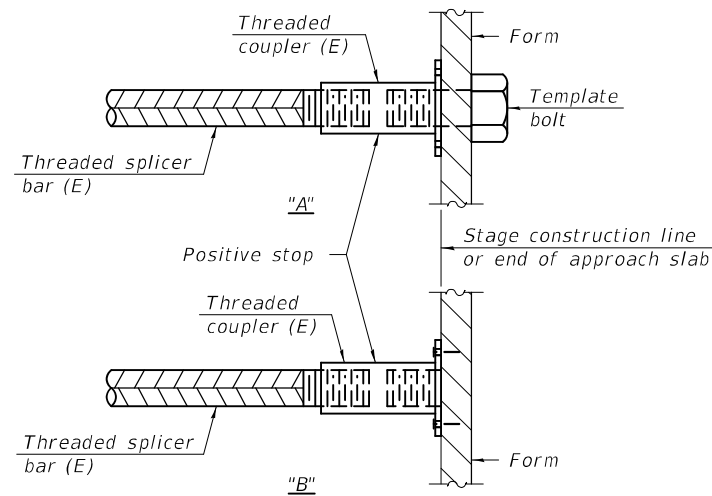


STANDARD BAR SPLICER ASSEMBLY PLAN
 (All components shall be provided from one supplier)

Threaded splicer bar length = min. lap length + 1 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
SN 002-0023	#5	140	3'-6"
SN 002-0024	#5	140	3'-6"

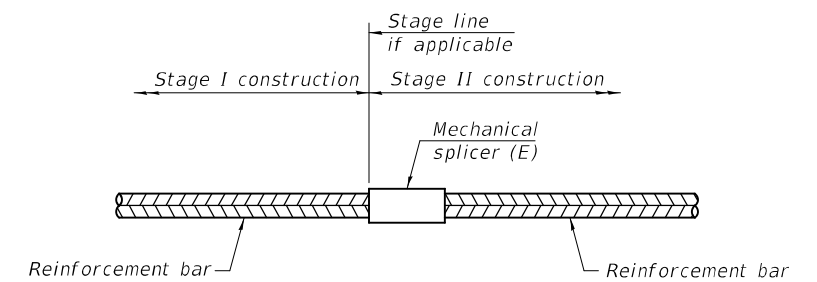


INSTALLATION AND SETTING METHODS

"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
SN 002-0023	#5	1274
SN 002-0024	#5	1312

Notes:

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

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

BSD-1

1-1-2020

DESIGNED - JSB	EXAMINED	DATE - MAY 13, 2022
CHECKED - ATH	<i>Timothy A. [Signature]</i> ENGINEER OF STRUCTURAL SERVICES	REVISED -
DRAWN - STEFFEN	PASSED	REVISED -
CHECKED - JSB ATH	<i>Jaime F. [Signature]</i> ENGINEER OF BRIDGES AND STRUCTURES	

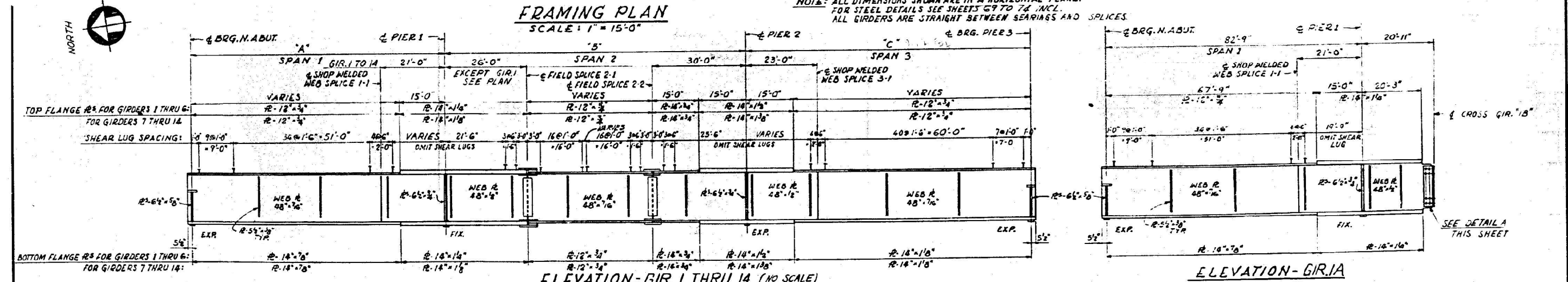
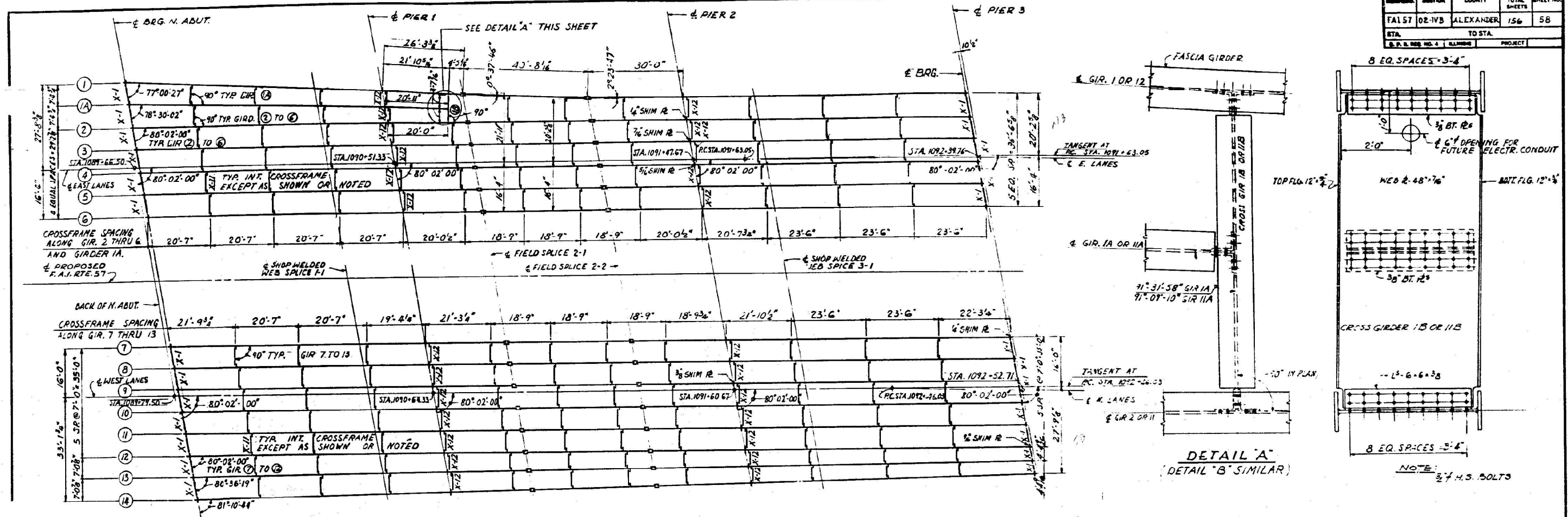
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
 SN 002-0023 (N.B.) & -0024 (S.B.)

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D9 Bridge Repair 2022-2	ALEXANDER	34	22
ILLINOIS			CONTRACT NO. 78899	
FED. AID PROJECT				

SHEET NO. 8 OF 20 SHEETS

DISTRICT	DIVISION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 57	02-IVB	ALEXANDER	156	58
STA. TO STA.				
S.P. & R. NO. 4			BLANKING	PROJECT



GIRDERS DIMENSIONS (SEE ELEVATION)

GIRDER	A	B	C
G1	83'-25"	96'-11 1/2"	91'-12 1/4"
G1A	82'-8"	96'-8"	91'-12 1/4"
G2	82'-4"	96'-4"	91'-12 1/4"
G3	82'-4"	96'-4"	91'-12 1/4"
G4	82'-4"	96'-4"	91'-12 1/4"
G5	82'-4"	96'-4"	91'-12 1/4"
G6	82'-4"	96'-4"	91'-12 1/4"
G7	82'-4"	96'-4"	91'-12 1/4"
G8	82'-4"	96'-4"	91'-12 1/4"
G9	82'-4"	96'-4"	91'-12 1/4"
G10	82'-4"	96'-4"	91'-12 1/4"
G11	82'-4"	96'-4"	91'-12 1/4"
G12	82'-4"	96'-4"	91'-12 1/4"
G13	82'-2 1/2"	96'-2 1/2"	91'-11 3/4"
G14	82'-0 1/2"	96'-0 1/2"	91'-10 3/4"

TOP OF WEB ELEVATIONS. (FOR FABRICATION ONLY-UNDEFLECTED GIRDERS)

GIRDER	LOCATION	BRG. N. ABUT.	SPLICE 1-1	PIER 1	SPLICE 2-1	SPLICE 2-2	PIER 2	SPLICE 3-1	BRG. PIER 3
G1		328.137	329.916	330.632	331.525	332.885	333.879	334.640	336.262
G1A		328.289	330.036	330.728	331.418	332.879	333.879	334.640	336.262
G2		328.441	330.188	330.822	331.652	332.940	333.897	334.631	336.377
G3		328.591	330.308	330.953	331.752	332.991	333.913	334.620	336.793
G4		328.688	330.405	331.033	331.808	333.010	333.904	334.589	337.209
G5		328.671	330.281	330.956	331.729	332.929	333.822	334.506	336.625
G6		328.533	330.255	330.879	331.651	332.849	333.740	334.424	336.540
G7		328.748	330.489	331.112	331.886	332.896	333.807	334.706	336.848
G8		328.878	330.625	331.259	332.022	332.923	333.810	334.773	337.239
G9		328.839	330.780	331.405	332.178	333.049	333.941	334.838	337.626
G10		328.922	330.720	331.395	332.168	333.029	333.914	334.799	337.623
G11		328.953	330.698	331.322	332.095	332.953	333.884	334.721	337.681
G12		328.805	330.576	331.215	332.008	332.877	333.806	334.642	337.599
G13		328.656	330.444	331.121	331.925	332.816	333.748	334.585	337.548
G14		328.508	330.353	331.029	331.863	332.759	333.689	334.528	337.497

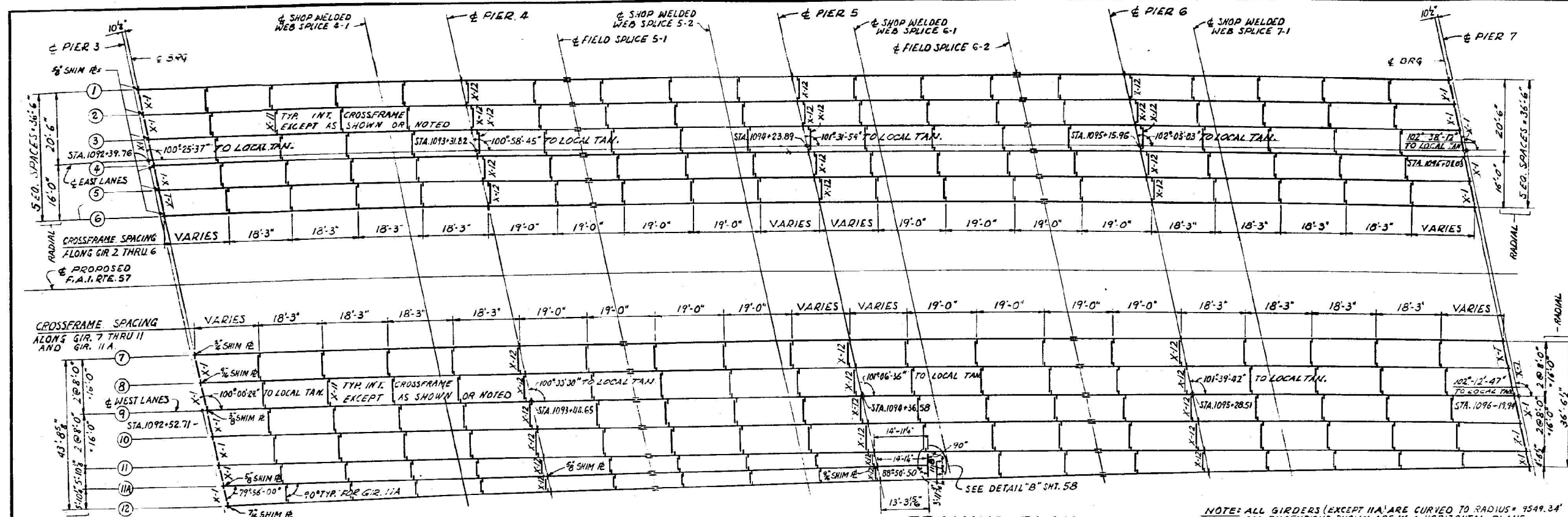
FILLET WELD TABLE

FLANGE R THICKNESS	WELD SIZE
3/8"	1/4"
7/8", 1 1/8", 1 1/4", 1 1/2"	5/8"

FOR INFORMATION ONLY

FRAMING PLAN-SPANS 1, 2 & 3
 FAI RTE. 57 OVER S.B. RTE. 150,
 EXIST. RTE. 3, G.M. G.O.R.R., LEVEE EM.P.R.R.
 PROJECT IG-57-1 (91) 1
 FAI RTE 57 SECTION 02-IVB
 ALEXANDER COUNTY
 STA. 1089+73.00 TO STA. 1119+69.00

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA157	02-IVB	ALEXANDER	156	59
STA.		TO STA.		
B. P. R. REC. NO. 4		ILLINOIS	PROJECT	



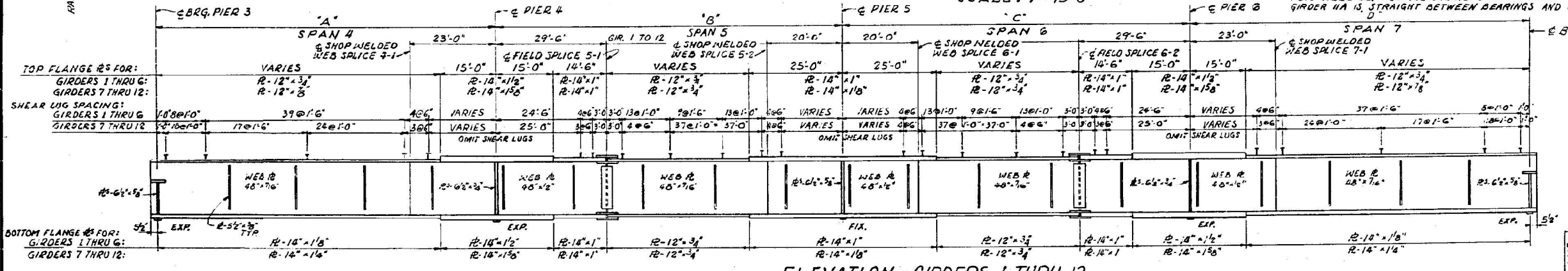
FRAMING PLAN.
SCALE: 1"=15'-0"

NOTE: ALL GIRDERS (EXCEPT IIA) ARE CURVED TO RADIUS = 9549.34'. ALL DIMENSIONS SHOWN ARE IN A HORIZONTAL PLANE. ALL INTERIOR CROSS FRAMES ARE RADIAL EXCEPT AS SHOWN OR NOTED. FOR STEEL DETAILS SEE SHEETS 69 TO 74 INCL. GIRDER IIA IS STRAIGHT BETWEEN BEARINGS AND SPLICES.

FILLET WELD TABLE

FLANGE R THICKNESS	WELD SIZE
3/4"	1/4"
1 1/8", 1 1/2"	5/16"
1 5/8"	3/8"

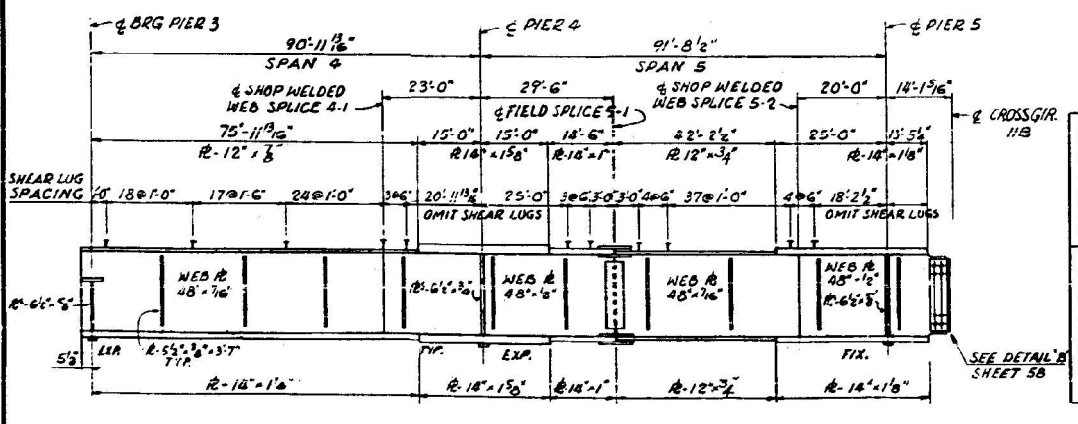
FOR INFORMATION ONLY



ELEVATION - GIRDERS 1 THRU 12
NO SCALE
TOP OF WEB ELEVATIONS. (FOR FABRICATION ONLY - UNDEFLECTED GIRDERS)

GIRDERS DIMENSIONS (SEE ELEVATION)

GIRDER	A	B	C	D
G1	91'-2"	92'-0 1/2"	92'-0 3/4"	91'-2"
G2	91'-2"	92'-0 3/8"	92'-0 3/4"	91'-2 1/8"
G3	91'-2 1/4"	92'-0 3/8"	92'-0 3/8"	91'-2 1/8"
G4	91'-2 1/8"	92'-0 3/8"	92'-0 3/8"	91'-2 1/8"
G5	91'-2 1/8"	92'-0 3/8"	92'-0 3/8"	91'-2 3/8"
G6	91'-2 1/8"	92'-0 3/8"	92'-0 3/8"	91'-2 3/8"
G7	91'-0 1/2"	91'-11 1/8"	91'-11 1/8"	91'-0 1/2"
G8	91'-0 1/2"	91'-11 1/8"	91'-11 1/8"	91'-0 1/2"
G9	91'-0 5/8"	91'-11 1/8"	91'-11 1/8"	91'-0 5/8"
G10	91'-0 5/8"	91'-11 1/8"	91'-11 1/8"	91'-0 5/8"
G11	91'-0 5/8"	91'-11 1/8"	91'-11 1/8"	91'-0 5/8"
G11A	90'-11 3/8"	91'-8 1/2"	18'-1 1/2"	
G12	90'-9"	91'-7 3/8"	91'-7 3/8"	90'-8 3/8"



ELEVATION - GIRDER IIA
NO SCALE

GIRDER	LOCATION											
	BRG. PIER 3	SPUCE 4-1	PIER 4	SPLICE 5-1	SPLICE 5-2	PIER 5	SPLICE 6-1	SPLICE 6-2	PIER 6	SPLICE 7-1	BRG. PIER 7	
G1	337.014	338.953	339.635	340.510	341.772	342.353	342.935	344.129	344.920	345.540	347.357	
G2	336.930	338.870	339.553	340.429	341.692	342.272	342.853	344.047	344.838	345.458	347.273	
G3	336.846	338.787	339.471	340.347	341.611	342.192	342.772	343.965	344.756	345.375	347.189	
G4	336.762	338.705	339.389	340.266	341.530	342.111	342.691	343.883	344.673	345.292	347.105	
G5	336.678	338.622	339.307	340.185	341.450	342.030	342.610	343.801	344.591	345.210	347.021	
G6	336.594	338.540	339.225	340.103	341.369	341.949	342.529	343.720	344.509	345.127	346.937	
G7	336.510	338.459	339.144	340.027	341.294	341.874	342.454	343.645	344.434	345.052	346.862	
G8	336.426	338.376	339.061	340.000	341.267	341.847	342.427	343.618	344.407	345.025	346.837	
G9	336.342	338.292	338.977	340.000	341.267	341.847	342.427	343.618	344.407	345.025	346.837	
G10	336.258	338.208	338.893	340.000	341.267	341.847	342.427	343.618	344.407	345.025	346.837	
G11	336.174	338.124	338.809	340.000	341.267	341.847	342.427	343.618	344.407	345.025	346.837	
G11A	336.090	338.040	338.725	340.000	341.267	341.847	342.427	343.618	344.407	345.025	346.837	
G12	336.006	337.956	338.641	339.519	340.786	341.366	341.946	343.137	343.926	344.545	346.360	

ALFRED BENESCH & COMPANY
CONSULTING ENGINEERS
101 WABASH AVE. CHICAGO, ILLINOIS

FRAMING PLAN - SPANS 4, 5, 6 & 7
F.A.I.R.T.E. 57 OVER S.B.I.R.T.E. 150,
EXIST. RTE. 3, G.M.E.O.R.R. LEVEE E.M.P.R.R.
PROJECT 14-57-1 (91) 1
F.A.I.R.T.E. 57 SECTION 02-IVB
ALEXANDER COUNTY
STA. 1989+73.00 TO STA. 1119+69.00

DESIGNED - JSB
CHECKED - ATH
DRAWN - STEFFEN
CHECKED - JSB ATH

EXAMINED
PASSED
TIMOTHY A. DOLY
ENGINEER OF STRUCTURAL SERVICES
JAMES F. DOLY
ENGINEER OF BRIDGES AND STRUCTURES

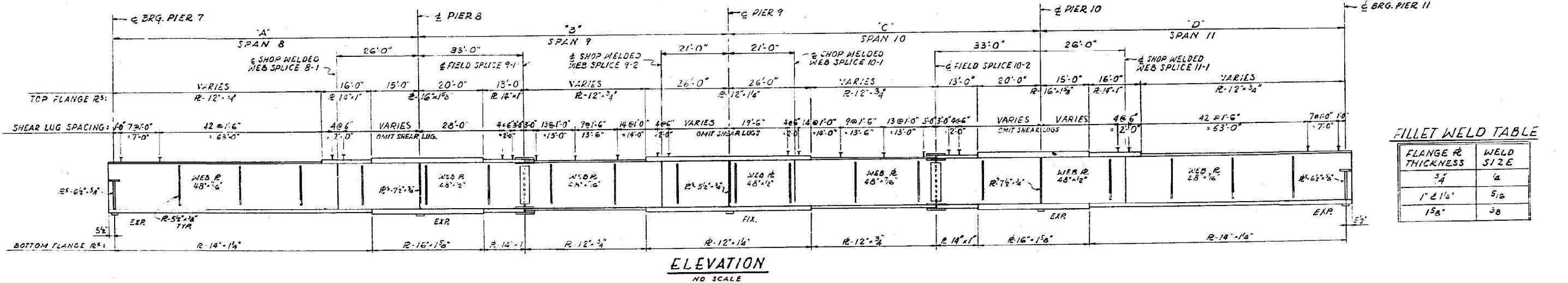
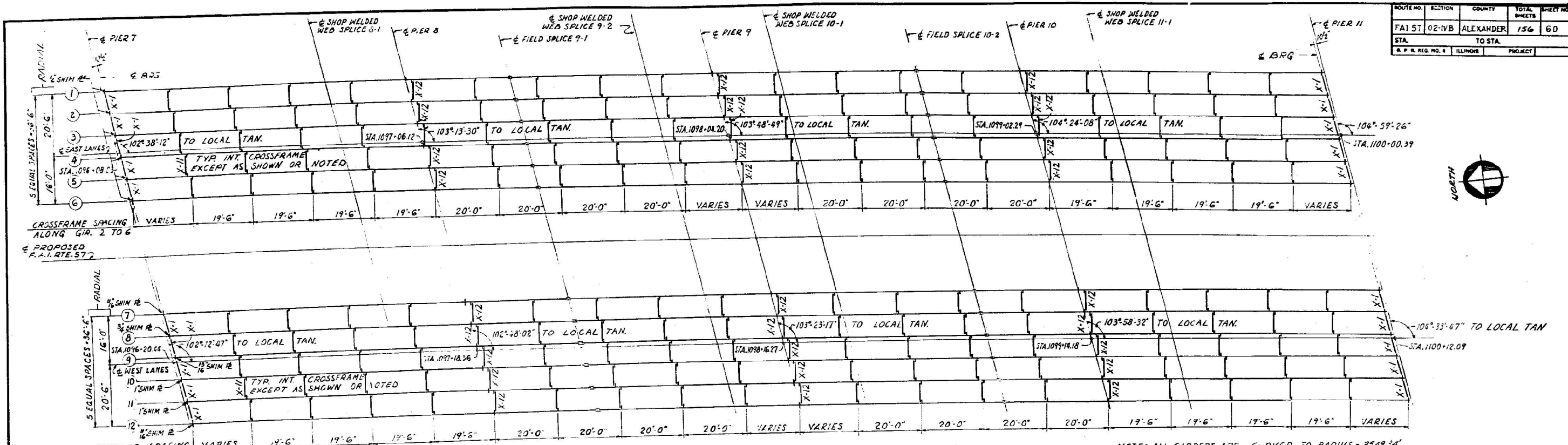
DATE - MAY 13, 2022
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY - FRAMING PLAN SPANS 4, 5, 6, 7
SN 002-0023 (N.B.) & -0024 (S.B.)

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D9 Bridge Repair 2022-2	ALEXANDER	34	24
CONTRACT NO. 78899				
ILLINOIS FED. AID PROJECT				

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 57	02-IVB	ALEXANDER	156	60
STA. 1089+73.00		TO STA. 1119+69.00		
R.P.R. REG. NO. 4		ILLINOIS	PROJECT	



GIRDERS DIMENSIONS (SEE ELEVATION)

GIRDER	TOP OF WEB ELEVATIONS (FOR FABRICATION ONLY - UNDEFLECTED GIRDERS)			
	A	B	C	D
G1	97'-2 1/8"	98'-0 7/8"	98'-0 5/8"	97'-2 1/8"
G2	97'-2 1/8"	98'-0 7/8"	98'-1"	97'-2 1/8"
G3	97'-2 1/8"	98'-1"	98'-1 1/8"	97'-2 1/8"
G4	97'-2 1/8"	98'-1 1/8"	98'-1 1/8"	97'-2 1/8"
G5	97'-2 1/8"	98'-1 1/8"	98'-1 1/8"	97'-2 1/8"
G6	97'-2 1/8"	98'-1 1/8"	98'-1 1/8"	97'-2 1/8"
G7	97'-0 3/8"	97'-10 3/8"	97'-10 3/8"	97'-0"
G8	97'-0 3/8"	97'-10 3/8"	97'-10 3/8"	97'-0"
G9	97'-0 3/8"	97'-11"	97'-10 3/8"	97'-0"
G10	97'-0 3/8"	97'-11"	97'-11"	97'-0"
G11	97'-0 3/8"	97'-11 1/8"	97'-11"	97'-0 3/8"
G12	97'-0 3/8"	97'-11 1/8"	97'-11 1/8"	97'-0 3/8"

TOP OF WEB ELEVATIONS (FOR FABRICATION ONLY - UNDEFLECTED GIRDERS)

GIRDER	LOCATION	BRG. PIER 7	SPLICE 8-1	PIER 8	SPLICE 9-1	SPLICE 9-2	PIER 9	SPLICE 10-1	SPLICE 10-2	PIER 10	SPLICE 11-1	BRG. PIER 11
G1	EAST LANE	347.401	349.002	349.576	350.304	351.222	351.638	352.052	352.877	353.454	353.907	355.121
G2	EAST LANE	347.317	348.916	349.490	350.217	351.134	351.549	351.963	352.787	353.362	353.815	355.026
G3	EAST LANE	347.233	348.831	349.404	350.130	351.046	351.460	351.874	352.694	353.271	353.722	354.931
G4	EAST LANE	347.149	348.745	349.318	350.045	350.958	351.371	351.784	352.605	353.179	353.630	354.836
G5	EAST LANE	347.065	348.659	349.231	349.956	350.869	351.283	351.695	352.515	353.087	353.537	354.741
G6	EAST LANE	346.981	348.574	349.145	349.869	350.781	351.194	351.606	352.424	352.995	353.445	354.646
G7	EAST LANE	347.269	348.848	349.415	350.134	351.036	351.445	351.854	352.662	353.229	353.674	354.861
G8	EAST LANE	347.183	348.760	349.327	350.046	350.946	351.355	351.763	352.570	353.135	353.580	354.764
G9	EAST LANE	347.097	348.673	349.239	349.957	350.856	351.265	351.672	352.478	353.042	353.486	354.688
G10	EAST LANE	347.012	348.586	349.152	349.868	350.766	351.174	351.581	352.386	352.949	353.392	354.571
G11	EAST LANE	346.926	348.498	349.064	349.780	350.677	351.084	351.490	352.293	352.856	353.297	354.475
G12	EAST LANE	346.840	348.411	348.976	349.691	350.587	350.993	351.399	352.201	352.762	353.203	354.378

FOR INFORMATION ONLY

FRAMING PLAN - SPANS 8, 9, 10 & 11
F.A.I. RTE. 57 OVER S.B.I. RTE. 150,
EXIST. RTE. 3, G.M.E.O.R.R., LEVEE & M.P.R.R.
PROJECT IG-57-1 (91) I
F.A.I. RTE. 57 SECTION 02-IVB
ALEXANDER COUNTY
STA. 1089+73.00 TO STA. 1119+69.00

ALFRED BENESCH & COMPANY
CONSULTING ENGINEERS
10 S. WABASH AVE. CHICAGO, ILLINOIS

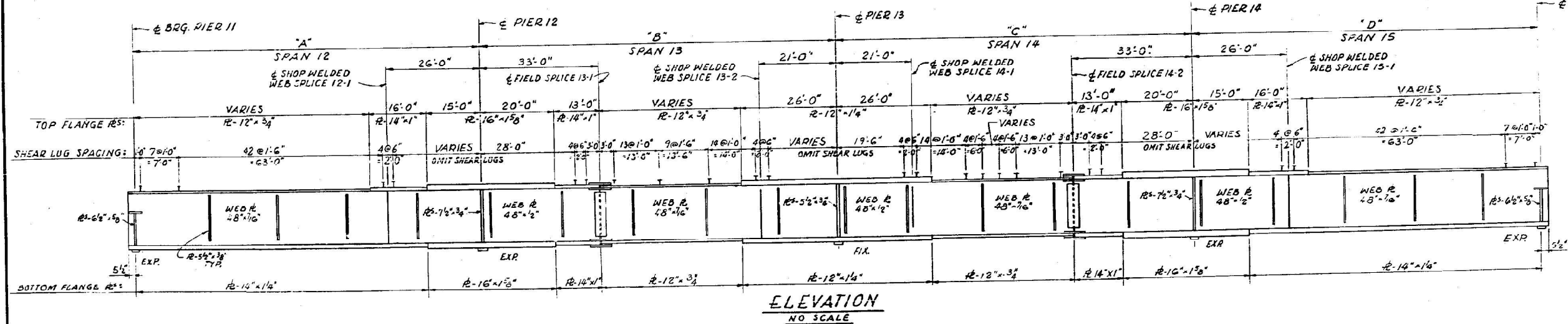
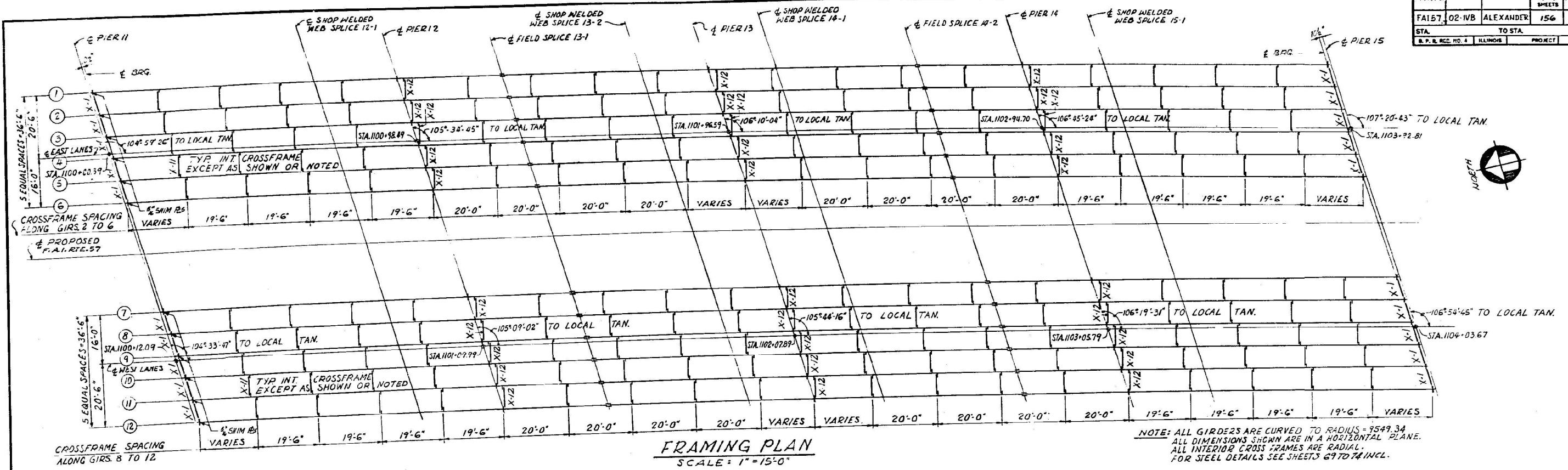
DESIGNED - JSB	EXAMINED - <i>Timothy A. Smith</i>	DATE - MAY 13, 2022
CHECKED - ATH	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - STEFFEN	PASSED - <i>James F. Smith</i>	REVISOR -
CHECKED - JSB ATH	ENGINEER OF BRIDGES AND STRUCTURES	REVISOR -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY - FRAMING PLAN SPANS 8, 9, 10, 11
SN 002-0023 (N.B.) & -0024 (S.B.)

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D9 Bridge Repair 2022-2	ALEXANDER	34	25
CONTRACT NO. 78899			ILLINOIS FED. AID PROJECT	

ROUTE NO. 1	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA157	02-IVB	ALEXANDER	156	61
STA.	TO STA.			
B.P. & R.C. NO. 4	ILLINOIS	PROJECT		



FILLET WELD TABLE

FLANGE PL THICKNESS	WELD SIZE
3/4"	1/2"
1" & 1 1/4"	5/16"
1 1/2"	3/8"

GIRDERS DIMENSIONS (SEE ELEVATION)

GIRDER	A	B	C	D
G1	97'-2 1/8"	98'-1 1/8"	98'-1 1/8"	97'-2 1/8"
G2	97'-2 1/8"	98'-1 1/8"	98'-1 1/8"	97'-2 1/8"
G3	97'-2 1/8"	98'-1 1/8"	98'-1 1/8"	97'-2 1/8"
G4	97'-2 1/8"	98'-1 1/8"	98'-1 1/8"	97'-2 1/8"
G5	97'-2 1/8"	98'-1 1/8"	98'-1 1/8"	97'-2 1/8"
G6	97'-2 1/8"	98'-1 1/8"	98'-1 1/8"	97'-2 1/8"
G7	96'-11 3/8"	97'-10 3/8"	97'-10 3/8"	96'-11 3/8"
G8	96'-11 3/8"	97'-10 3/8"	97'-10 3/8"	96'-11 3/8"
G9	96'-11 3/8"	97'-10 3/8"	97'-10 3/8"	96'-11 3/8"
G10	97'-0"	97'-10 3/8"	97'-10 3/8"	96'-11 3/8"
G11	97'-0"	97'-10 3/8"	97'-10 3/8"	96'-11 3/8"
G12	97'-0"	97'-10 3/8"	97'-10 3/8"	96'-11 3/8"

TOP OF WEB ELEVATIONS. (FOR FABRICATION ONLY-UNDEFLECTED GIRDERS)

GIRDER	LOCATION	BRG. PIER 11	SPLICE 12-1	PIER 12	SPLICE 13-1	SPLICE 13-2	PIER 13	SPLICE 14-1	SPLICE 14-2	PIER 14	SPLICE 15-1	BRG. PIER 15
G1		355.148	356.066	356.392	356.804	357.299	357.513	357.727	358.129	358.387	358.594	359.125
G2		355.053	355.969	356.293	356.704	357.197	357.411	357.623	358.024	358.282	358.485	359.013
G3		354.958	355.871	356.195	356.604	357.095	357.308	357.519	357.918	358.175	358.377	358.901
G4		354.863	355.774	356.096	356.504	356.993	357.205	357.416	357.812	358.068	358.268	358.789
G5		354.768	355.676	355.997	356.404	356.892	357.102	357.312	357.707	357.961	358.160	358.677
G6		354.673	355.578	355.898	356.303	356.790	356.999	357.208	357.601	357.853	358.051	358.564
G7		354.578	355.479	355.795	356.200	356.687	357.000	357.210	357.601	357.853	358.051	358.564
G8		354.483	355.380	355.695	356.100	356.587	357.000	357.210	357.601	357.853	358.051	358.564
G9		354.388	355.280	355.595	356.000	356.487	357.000	357.210	357.601	357.853	358.051	358.564
G10		354.293	355.180	355.495	355.900	356.387	357.000	357.210	357.601	357.853	358.051	358.564
G11		354.198	355.080	355.395	355.800	356.287	357.000	357.210	357.601	357.853	358.051	358.564
G12		354.103	354.980	355.295	355.700	356.187	357.000	357.210	357.601	357.853	358.051	358.564

FOR INFORMATION ONLY

FRAMING PLAN SPANS 12, 13, 14 & 15
F.A.I. RTE. 57 OVER S.B.I. RTE. 150,
EXIST. RTE. 3, G.M.E.O.R.R., LEVEE E.M.P.R.R.
PROJECT IG-57-1 (91) 1
F.A.I. RTE. 57 SECTION 02-IVB
ALEXANDER COUNTY
STA. 1089+73.00 TO STA. 1119+69.00

ALFRED BENESCH & COMPANY
CONSULTING ENGINEERS
105 W. WABASH AVE. CHICAGO, ILLINOIS

DESIGNED - JSB
CHECKED - ATH
DRAWN - STEFFEN
CHECKED - JSB ATH

EXAMINED
PASSED
TIMOTHY A. ANDRETTI
ENGINEER OF STRUCTURAL SERVICES
JAYME F. [Signature]
ENGINEER OF BRIDGES AND STRUCTURES

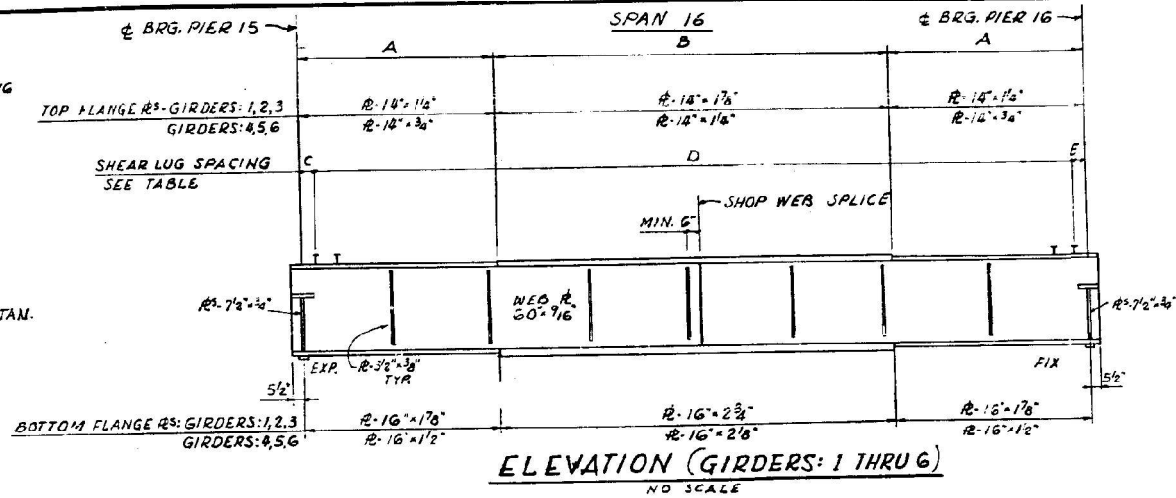
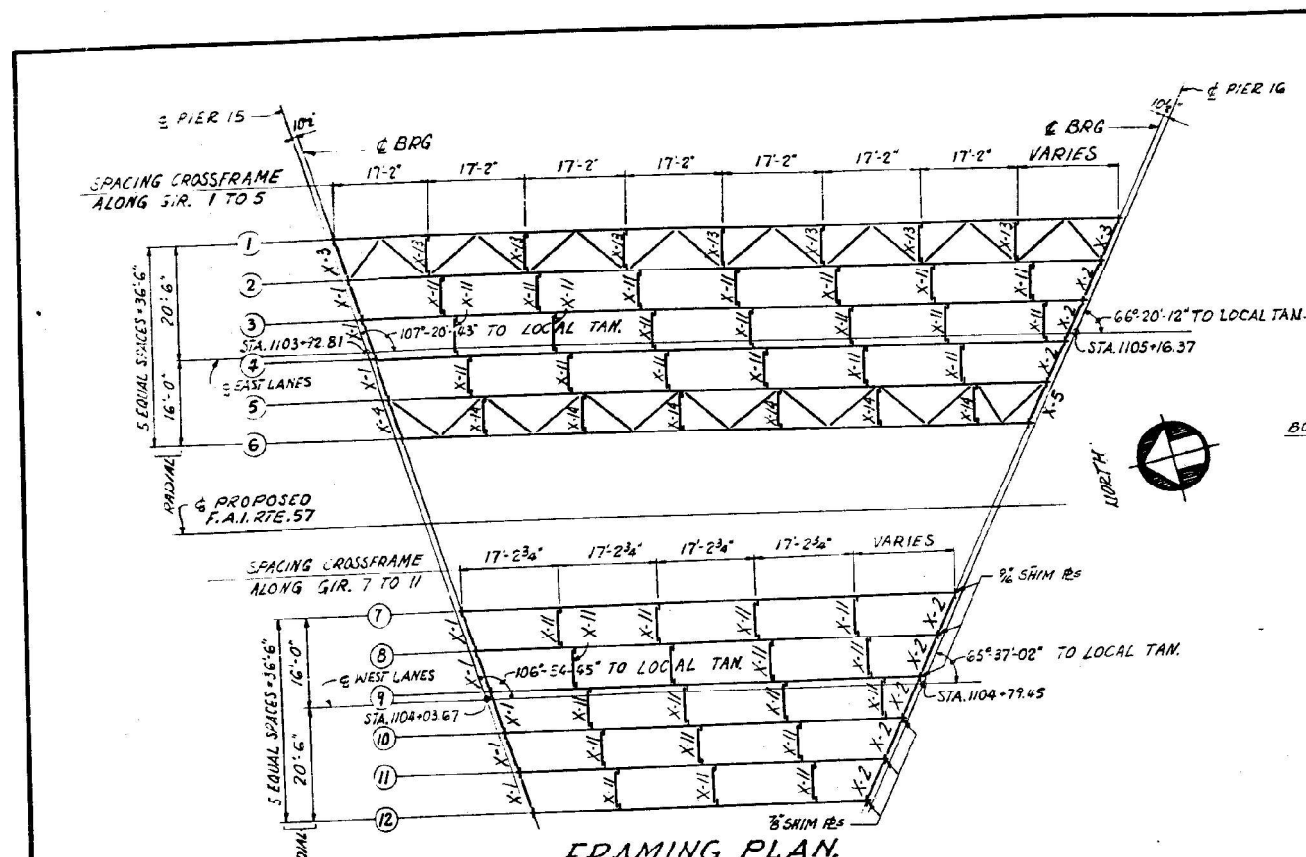
DATE - MAY 13, 2022
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FOR INFO ONLY - FRAMING PLAN SPANS 12, 13, 14, 15
SN 002-0023 (N.B.) & -0024 (S.B.)

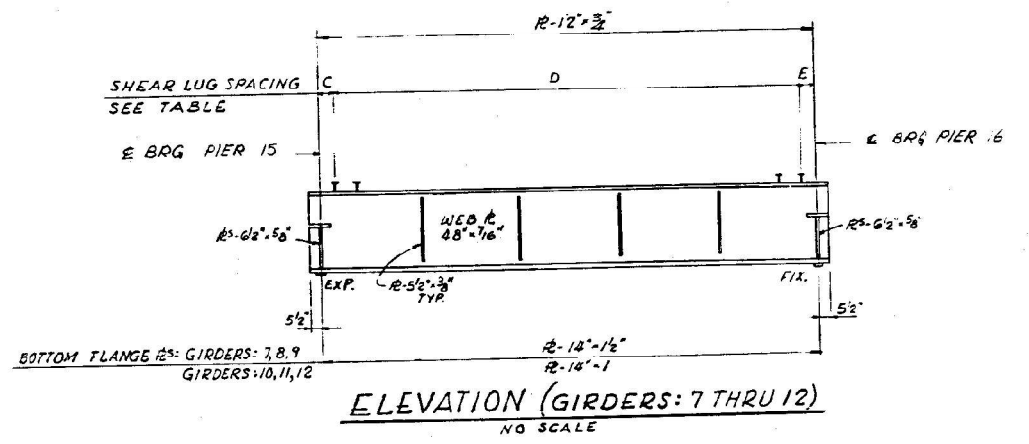
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D9 Bridge Repair 2022-2	ALEXANDER	34	26
CONTRACT NO. 78899				
ILLINOIS FED. AID PROJECT				

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA157	02-IVB	ALEXANDER	156	62
STA.		TO STA.		
R. P. R. RES. NO. 4		ILLINOIS PROJECT		



FILLET WELD TABLE

FLANGE R THICKNESS	WELD SIZE
3/4"	1/4"
1 1/4" & 1 1/2"	5/16"
1 3/4" & 2"	3/8"
2 1/2"	1/2"



NOTE: ALL GIRDERS ARE CURVED TO RADIUS = 9549.34
 ALL DIMENSIONS SHOWN ARE IN A HORIZONTAL PLANE.
 ALL INTERIOR CROSS FRAMES ARE RADIAL FOR STEEL DETAILS SEE SHEETS 69 TO 74 INCL.

GIRDERS DIMENSIONS (SEE ELEVATION)

GIRDER	GIRDER DIMENSIONS		@ BRG. TO @ BRG. LENGTH
	A	B	
G1	34'-4"	68'-8"	137'-4"
G2	32'-11 1/2"	65'-10 1/2"	131'-9 1/2"
G3	31'-6 1/2"	63'-1 1/4"	126'-2 1/4"
G4	30'-1 1/8"	60'-3 3/8"	120'-7 1/8"
G5	28'-9 1/8"	57'-6 1/8"	115'-0 1/2"
G6	27'-8 1/6"	54'-8 3/8"	109'-5 1/8"
G7	-	-	86'-1 1/2"
G8	-	-	80'-6 1/4"
G9	-	-	76'-9 3/8"
G10	-	-	69'-4 1/2"
G11	-	-	63'-9 1/2"
G12	-	-	58'-2 1/2"

TOP OF WEB ELEVATIONS (FOR FABRICATION ONLY-UNDEFLECTED GIRDERS)

GIRDER	LOCATION	@ BRG. PIER	
		PIER 15	PIER 16
G1		359.072	359.578
G2		358.960	359.448
G3		358.848	359.317
G4		358.736	359.186
G5		358.623	359.054
G6		358.511	358.923
G7		358.706	359.040
G8		358.593	358.907
G9		358.479	358.773
G10		358.346	358.619
G11		358.233	358.484
G12		358.119	358.350

SHEAR LUG SPACING

GIRDER	SHEAR LUG SPACING		
	C	D	E
G1	8"	68 @ 2'-0" = 136'-0"	8"
G2	10 1/2"	65 @ 2'-0" = 130'-0"	10 1/2"
G3	1'-1"	62 @ 2'-0" = 124'-0"	1'-1 1/4"
G4	1'-4"	59 @ 2'-0" = 118'-0"	1'-3 3/8"
G5	6 1/4"	57 @ 2'-0" = 114'-0"	6 1/4"
G6	8 3/4"	54 @ 2'-0" = 108'-0"	8 3/4"
G7	1'-1"	56 @ 1'-6" = 84'-0"	1'-0 3/4"
G8	1'-3 1/4"	52 @ 1'-6" = 78'-0"	1'-3 1/2"
G9	10 3/4"	50 @ 1'-6" = 75'-0"	10 3/8"
G10	11 1/4"	45 @ 1'-6" = 67'-6"	11 3/8"
G11	1'-1 1/2"	41 @ 1'-6" = 61'-6"	1'-1 1/8"
G12	7 1/4"	38 @ 1'-6" = 57'-0"	7 1/8"

FOR INFORMATION ONLY

FRAMING PLAN-SPAN 16
 F.A.I. RTE. 57 OVER S.B.I. RTE. 150,
 EXIST. RTE. 3, G.M.E.O.R.R., LEVEE E.M.P.R.R.
 PROJECT IG-57-1 (91) I
 F.A.I. RTE. 57 SECTION 02-IVB
 ALEXANDER COUNTY
 STA. 1089+73.00 TO STA. 1119+69.00

ALFRED BENESCH & COMPANY
 CONSULTING ENGINEERS
 105 WABASH AVE. CHICAGO, ILLINOIS

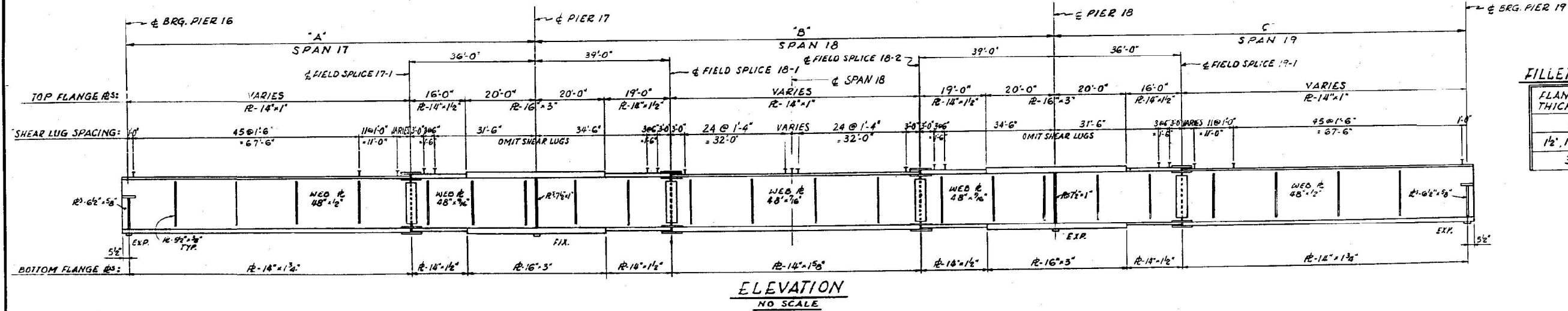
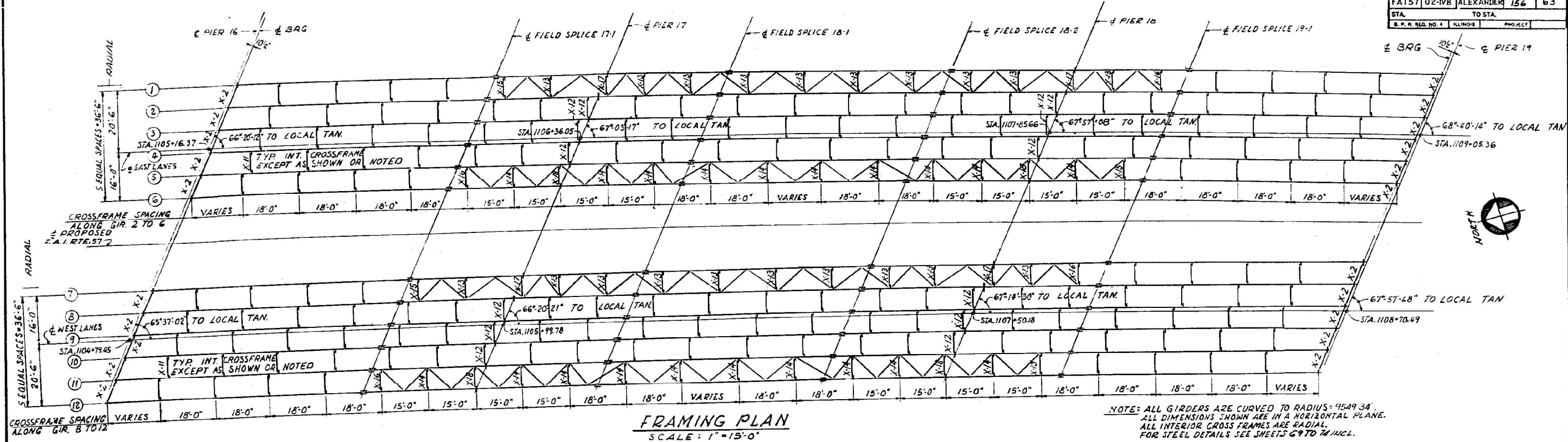
DESIGNED - JSB	EXAMINED - <i>Timothy A. Smith</i>	DATE - MAY 13, 2022
CHECKED - ATH	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - STEFFEN	PASSED - <i>James F. Smith</i>	REVISED -
CHECKED - JSB ATH	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY - FRAMING PLAN SPAN 16
 SN 002-0023 (N.B.) & -0024 (S.B.)

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D9 Bridge Repair 2022-2	ALEXANDER	34	27
CONTRACT NO. 78899			ILLINOIS FED. AID PROJECT	

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA157	02-IVB	ALEXANDER	156	63
STA.	TO STA.			
E.P.R. REG. NO. 1	ILLINOIS	PROJECT		



FILLET WELD TABLE

FLANGE R THICKNESS	WELD SIZE
1"	5/16
1 1/2", 1 5/8" & 1 3/4"	3/8
3"	1/2

GIRDERS DIMENSIONS (SEE ELEVATION)

GIRDER	TOP OF WEB ELEVATIONS. (FOR FABRICATION ONLY-UNDEFLECTED GIRDERS)		
	A	B	C
G1	118'-8 1/2"	149'-6 1/2"	118'-8 1/2"
G2	118'-8 1/2"	149'-6 7/8"	118'-8 1/2"
G3	118'-8 1/2"	149'-7 1/8"	118'-9"
G4	118'-8 1/2"	149'-7 3/8"	118'-9 1/2"
G5	118'-8 1/2"	149'-7 5/8"	118'-9 3/4"
G6	118'-9 1/2"	149'-7 7/8"	118'-9 1/2"
G7	119'-4"	150'-4 1/2"	119'-3 3/4"
G8	119'-4 3/4"	150'-4 7/8"	119'-4 1/8"
G9	119'-4 7/8"	150'-4 1/2"	119'-4 5/8"
G10	119'-4 3/4"	150'-5"	119'-4 1/2"
G11	119'-4 7/8"	150'-5 1/2"	119'-4 1/4"
G12	119'-5 1/4"	150'-5 1/2"	119'-4 1/4"

TOP OF WEB ELEVATIONS. (FOR FABRICATION ONLY-UNDEFLECTED GIRDERS)

GIRDER	TOP OF WEB ELEVATIONS. (FOR FABRICATION ONLY-UNDEFLECTED GIRDERS)								
	LOCATION	BRG. PIER 16	SPLICE 17-1	PIER 17	SPLICE 18-1	SPLICE 18-2	PIER 18	SPLICE 19-1	BRG. PIER 19
G1		359.624	359.682	359.497	359.609	359.412	359.084	359.070	358.556
G2		359.494	359.558	359.376	359.491	359.298	358.974	358.962	358.453
G3		359.363	359.434	359.265	359.372	359.185	358.863	358.854	358.350
G4		359.232	359.309	359.133	359.253	359.071	358.752	358.745	358.246
G5		359.101	359.185	359.011	359.134	358.957	358.641	358.636	358.143
G6		358.969	359.060	358.888	359.015	358.843	358.529	358.527	358.039
G7		359.036	359.160	359.002	359.144	358.997	358.697	358.708	358.244
G8		358.902	359.033	358.879	359.023	358.881	358.584	358.598	358.140
G9		358.769	358.896	358.755	358.902	358.766	358.472	358.488	358.036
G10		358.635	358.779	358.631	358.781	358.650	358.359	358.378	357.932
G11		358.500	358.652	358.506	358.660	358.535	358.246	358.267	357.827
G12		358.364	358.525	358.382	358.538	358.419	358.133	358.157	357.723

FOR INFORMATION ONLY

FRAMING PLAN SPANS 17, 18 & 19
 F.A.I.R.T.E. 57 OVER S.B.I.R.T.E. 150,
 EXIST. RTE. 3, G.M.E.O.R.R., LEVEE E.M.P.R.R.
 PROJECT 1G-57-1 (91)1
 F.A.I. RTE. 57 SECTION 02-IVB
 ALEXANDER COUNTY
 STA. 1089+73.00 TO STA. 1119+69.00

ALFRED BENESCH & COMPANY
 CONSULTING ENGINEERS
 100 S. VALERIE AVE. CHICAGO, ILLINOIS

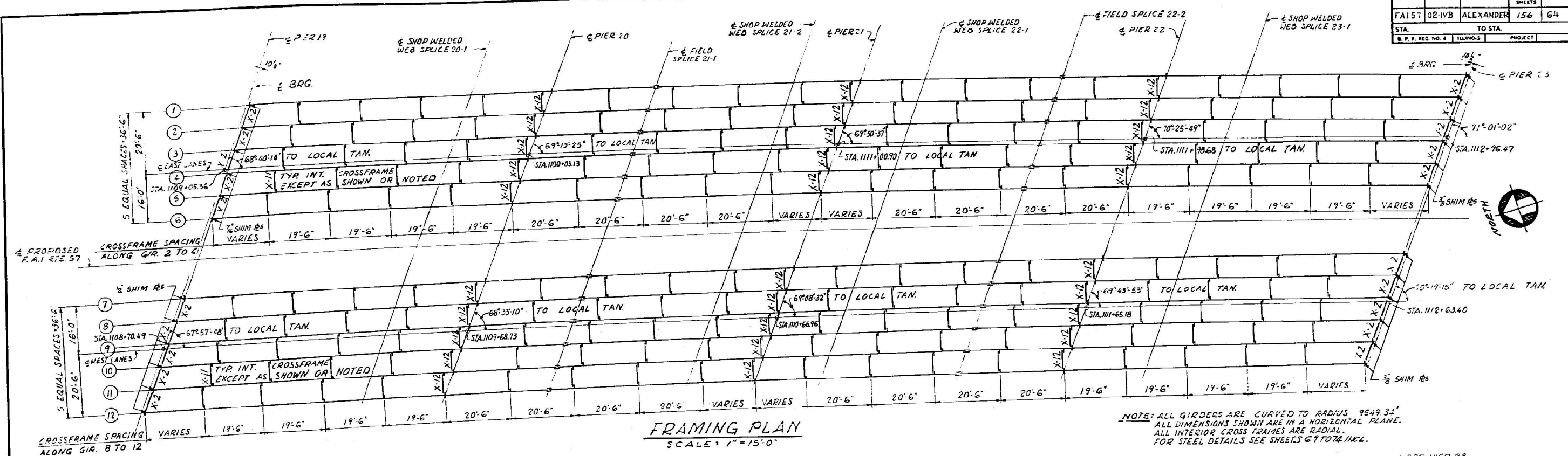
DESIGNED - JSB	EXAMINED - <i>Timothy A. Smith</i>	DATE - MAY 13, 2022
CHECKED - ATH	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - STEFFEN	PASSED - <i>James F. Smith</i>	REVISER -
CHECKED - JSB ATH	ENGINEER OF BRIDGES AND STRUCTURES	REVISER -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY - FRAMING PLAN SPANS 17, 18, 19
 SN 002-0023 (N.B.) & -0024 (S.B.)

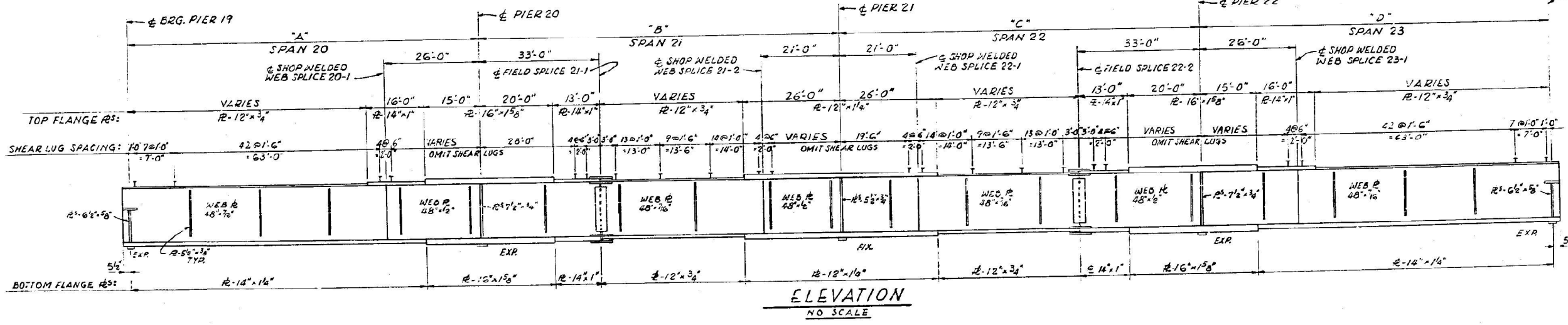
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D9 Bridge Repair 2022-2	ALEXANDER	34	28
CONTRACT NO. 78899			ILLINOIS FED. AID PROJECT	

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA157	02-IVB	ALEXANDER	156	G4
STA.	TO STA.			
1089+05.36	1119+69.00			
B.P. REC. NO.	ILLINOIS	PROJECT		



FILLET WELD TABLE

FLANGE # THICKNESS	WELD SIZE
3/4"	1/2"
1" & 1 1/4"	5/16"
1 1/2"	3/8"



GIRDERS DIMENSIONS (SEE ELEVATION)

GIRDER	TOP OF WEB ELEVATIONS (FOR FABRICATION ONLY - UNDEFLECTED GIRDERS)			
	A	B	C	D
G1	96'-9 1/2"	97'-8 5/8"	97'-9 1/2"	96'-10 1/2"
G2	96'-9 1/2"	97'-9 1/8"	97'-9 3/8"	96'-10 3/8"
G3	96'-9 1/2"	97'-9 3/8"	97'-9 3/8"	96'-10 3/8"
G4	96'-9 1/2"	97'-9 3/8"	97'-9 3/8"	96'-10 3/8"
G5	96'-10 1/2"	97'-9 3/8"	97'-9 3/8"	96'-10 3/8"
G6	96'-10 3/8"	97'-9 3/8"	97'-9 3/8"	96'-10 3/8"
G7	97'-3 1/2"	98'-2 1/2"	98'-2 1/2"	97'-3 1/2"
G8	97'-3 1/2"	98'-2 3/8"	98'-2 3/8"	97'-3 1/2"
G9	97'-3 1/2"	98'-2 3/8"	98'-2 3/8"	97'-3 1/2"
G10	97'-3 1/2"	98'-2 3/8"	98'-2 3/8"	97'-3 1/2"
G11	97'-3 1/2"	98'-3"	98'-2 3/8"	97'-3 1/2"
G12	97'-3 1/2"	98'-3 1/8"	98'-3 1/8"	97'-3 1/2"

TOP OF WEB ELEVATIONS (FOR FABRICATION ONLY - UNDEFLECTED GIRDERS)

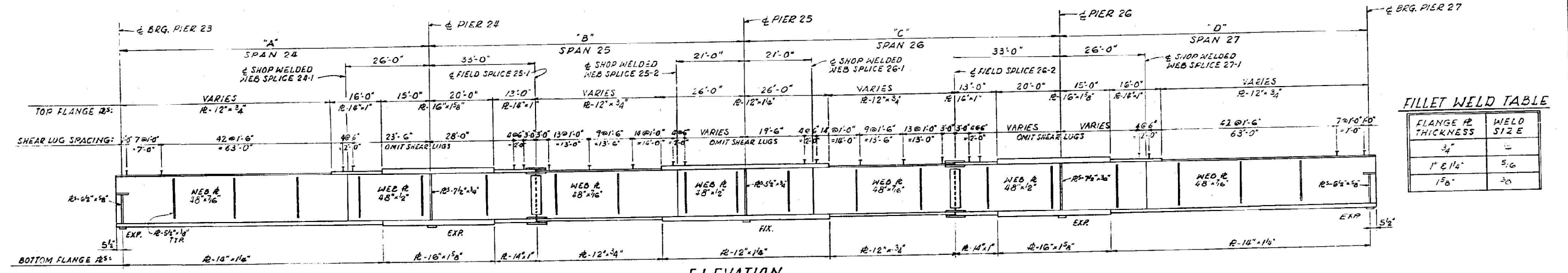
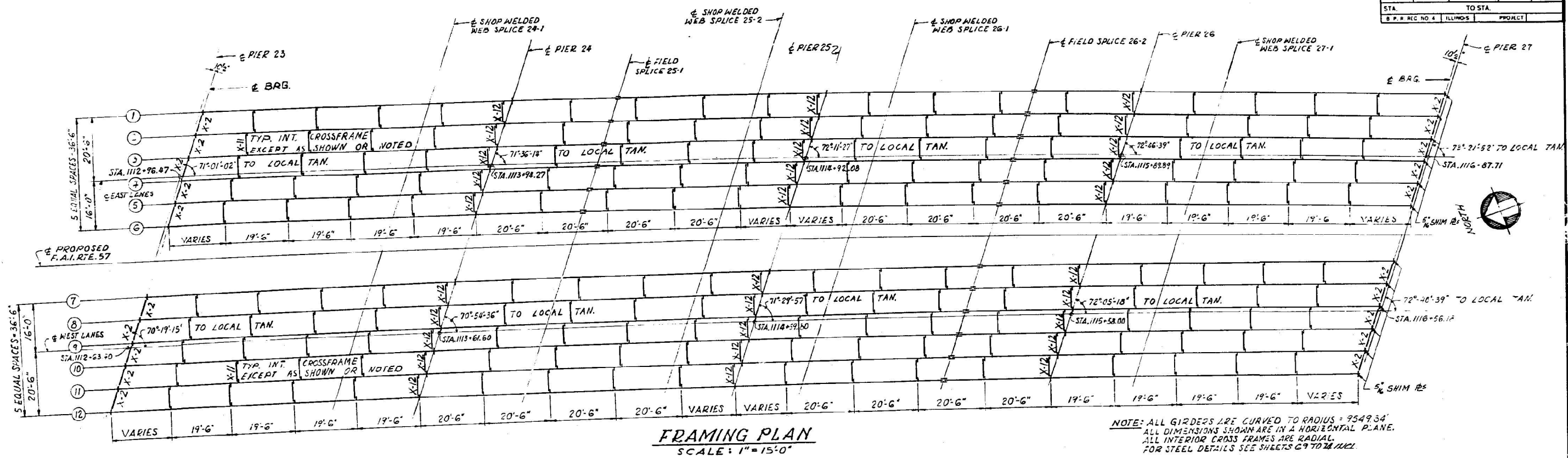
GIRDER	TOP OF WEB ELEVATIONS (FOR FABRICATION ONLY - UNDEFLECTED GIRDERS)											
	LOCATION	BRG. PIER 19	SPICE 20-1	PIER 20	SPICE 21-1	SPICE 21-2	PIER 21	SPICE 22-1	SPICE 22-2	PIER 22	SPICE 23-1	BRG. PIER 23
G1		358.562	357.884	357.625	357.295	356.803	356.545	356.287	355.703	355.222	354.842	353.780
G2		358.460	357.785	357.528	357.200	356.710	356.454	356.197	355.615	355.136	354.758	353.699
G3		358.357	357.687	357.431	357.105	356.618	356.362	356.106	355.527	355.050	354.673	353.617
G4		358.254	357.588	357.334	357.009	356.525	356.271	356.016	355.439	354.963	354.588	353.536
G5		358.150	357.489	357.236	356.914	356.432	356.179	355.925	355.351	354.877	354.502	353.454
G6		358.047	357.390	357.139	356.818	356.339	356.087	355.825	355.263	354.790	354.417	353.372
G7		358.233	357.615	357.372	357.062	356.591	356.346	356.099	355.535	355.071	354.706	353.673
G8		358.149	357.516	357.274	356.966	356.498	356.254	356.009	355.447	354.985	354.621	353.592
G9		358.045	357.416	357.177	356.871	356.405	356.162	355.918	355.359	354.899	354.536	353.511
G10		357.940	357.317	357.079	356.775	356.312	356.070	355.828	355.270	354.813	354.451	353.430
G11		357.836	357.217	356.981	356.679	356.219	355.978	355.737	355.182	354.726	354.366	353.349
G12		357.731	357.117	356.882	356.583	356.125	355.886	355.646	355.094	354.640	354.281	353.267

FOR INFORMATION ONLY

FRAMING PLAN SPANS 20, 21, 22 & 23
F.A.I. RTE. 57 OVER S.B.I. RTE. 150,
EXIST. RTE. 3, G.M. 60 R. LEVEE EM.P.R.R.
PROJECT IG-57-1 (91) I
F.A.I. RTE. 57 SECTION 02-IVB
ALEXANDER COUNTY
STA. 1089+73.00 TO STA. 1119+69.00

ALFRED BENESCH & COMPANY
CONSULTING ENGINEERS
10 S. WABASH AVE. CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA157	02-IVB	ALEXANDER	156	65
STA.	TO STA.			
B.P.R. REC. NO. 4	ILLINOIS	PROJECT		



FILLET WELD TABLE

FLANGE PL THICKNESS	WELD SIZE
3/4"	1/4"
1" & 1 1/4"	5/16"
1 1/2"	3/8"

GIRDERS DIMENSIONS (SEE ELEVATION)

GIRDER	TOP OF WEB ELEVATIONS. (FOR FABRICATION ONLY-UNDEFLECTED GIRDERS)			
	A	B	C	D
G1	96'-10 3/4"	97'-9 3/8"	97'-9 7/8"	96'-10 1/2"
G2	96'-10 1/4"	97'-9 1/2"	97'-9 5/8"	96'-10 5/8"
G3	96'-10 3/8"	97'-9 1/4"	97'-9 1/4"	96'-10 3/8"
G4	96'-10 1/2"	97'-9 1/4"	97'-9 1/4"	96'-10 1/2"
G5	96'-10 3/8"	97'-9 1/2"	97'-9 1/2"	96'-11"
G6	96'-10 1/2"	97'-9 1/8"	97'-9 1/8"	96'-11 1/2"
G7	97'-3 1/4"	98'-2 1/4"	98'-2 1/4"	97'-3"
G8	97'-3 1/4"	98'-2 3/8"	98'-2 3/8"	97'-3 1/8"
G9	97'-3 3/8"	98'-2 3/8"	98'-2 3/8"	97'-3 3/8"
G10	97'-3 3/8"	98'-2 1/2"	98'-2 1/2"	97'-3 3/8"
G11	97'-3 3/8"	98'-2 1/2"	98'-2 1/2"	97'-3 3/8"
G12	97'-3 3/8"	98'-2 1/2"	98'-2 1/2"	97'-3 3/8"

TOP OF WEB ELEVATIONS. (FOR FABRICATION ONLY-UNDEFLECTED GIRDERS)

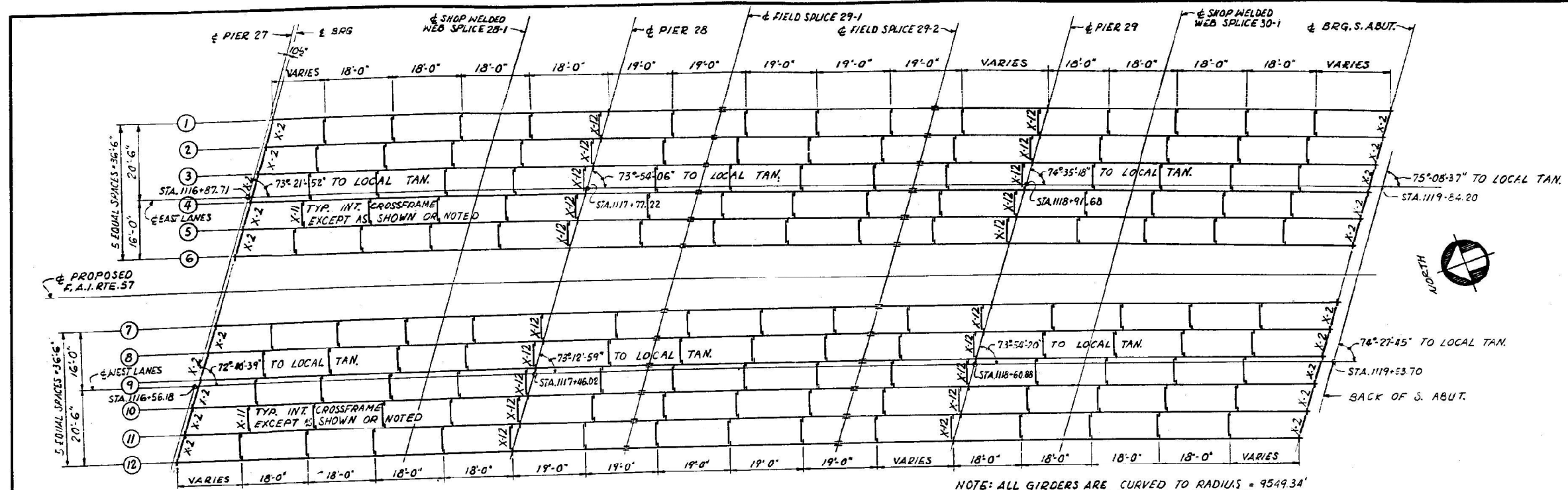
GIRDER	TOP OF WEB ELEVATIONS. (FOR FABRICATION ONLY-UNDEFLECTED GIRDERS)											
	LOCATION	BRG. PIER 23	SP. 24-1	PIER 24	SP. 25-1	SP. 25-2	PIER 25	SP. 26-1	SP. 26-2	PIER 26	SP. 27-1	BRG. PIER 27
G1		353.749	352.393	351.885	351.240	350.330	349.871	349.412	348.410	347.613	346.985	345.245
G2		353.667	352.311	351.808	351.164	350.256	349.798	349.340	348.339	347.544	346.916	345.179
G3		353.586	352.237	351.731	351.089	350.182	349.725	349.268	348.268	347.474	346.848	345.112
G4		353.505	352.158	351.654	351.013	350.108	349.652	349.195	348.198	347.405	346.779	345.046
G5		353.423	352.080	351.577	350.937	350.034	349.579	349.123	348.127	347.335	346.711	344.980
G6		353.341	352.001	351.500	350.861	349.960	349.506	349.051	348.056	347.266	346.642	344.914
G7		353.643	352.314	351.819	351.189	350.290	349.840	349.390	348.397	347.614	346.996	345.273
G8		353.562	352.237	351.742	351.114	350.217	349.768	349.319	348.328	347.546	346.929	345.208
G9		353.481	352.159	351.666	351.039	350.144	349.696	349.248	348.259	347.478	346.862	345.144
G10		353.400	352.081	351.590	350.964	350.071	349.624	349.177	348.189	347.410	346.795	345.079
G11		353.318	352.004	351.513	350.889	349.998	349.552	349.106	348.120	347.342	346.727	345.015
G12		353.237	351.926	351.437	350.814	349.925	349.480	349.034	348.050	347.274	346.660	344.950

FOR INFORMATION ONLY

FRAMING PLAN-SPANS 24, 25, 26 & 27
FAI RTE. 57 OVER S.B.I RTE. 150,
EXIST. RTE. 3, G.M. 60 R.R., LEVEE & M.P.R.R.
PROJECT IG 57-1 (9:1)
F.A.I. RTE. 57 SECTION 02-IVB
ALEXANDER COUNTY
STA. 1089+73.00 TO STA. 1119+69.00

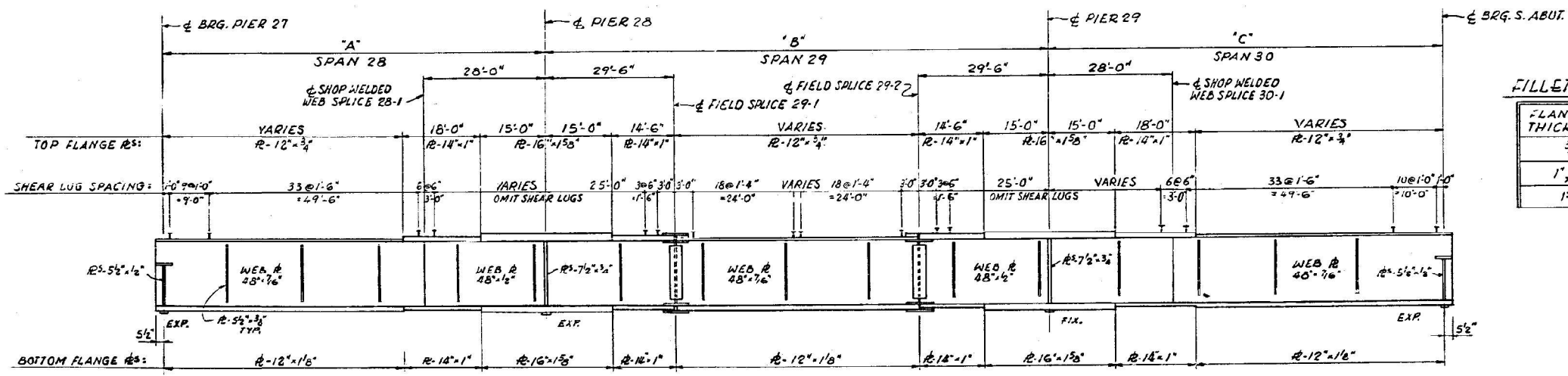
ALFRED BENESCH & COMPANY
CONSULTING ENGINEERS
18 E. WABASH AVE. CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 57	02-IVB	ALEXANDER	156	66
STA. TO STA.				
P. R. REC. NO. 4		ILLINOIS	PROJECT	



FRAMING PLAN
SCALE: 1"=15'-0"

NOTE: ALL GIRDERS ARE CURVED TO RADIUS = 9549.34'
ALL DIMENSIONS SHOWN ARE IN A HORIZONTAL PLANE.
ALL INTERIOR CROSS FRAMES ARE RADIAL.
FOR STEEL DETAILS SEE SHEETS G 9 TO 74 INCL.



ELEVATION
NO SCALE

FILLET WELD TABLE

FLANGE R THICKNESS	WELD SIZE
3/4"	1/4"
1", 1 1/8"	5/16"
1 5/8"	3/8"

GIRDERS DIMENSIONS (SEE ELEVATION)

GIRDER	A	B	C
G1	88'-7 1/2"	114'-5 1/2"	89'-6 1/2"
G2	88'-7 1/2"	114'-5 1/2"	89'-6 1/2"
G3	88'-7 1/2"	114'-5 1/2"	89'-6 1/2"
G4	88'-7 1/2"	114'-5 1/2"	89'-6 1/2"
G5	88'-7 1/2"	114'-5 1/2"	89'-6 1/2"
G6	88'-7 1/2"	114'-5 1/2"	89'-6 1/2"
G7	88'-10 1/2"	114'-10 1/2"	89'-9 1/2"
G8	88'-10 1/2"	114'-10 1/2"	89'-9 1/2"
G9	88'-11"	114'-10 1/2"	89'-9 1/2"
G10	88'-11 1/2"	114'-10 1/2"	89'-9 1/2"
G11	88'-11 1/2"	114'-10 1/2"	89'-9 1/2"
G12	88'-11 1/2"	114'-10 1/2"	89'-10"

TOP OF WEB ELEVATIONS. (FOR FABRICATION ONLY-UNDEFLECTED GIRDERS)

GIRDER	LOCATION	BRG. PIER 27	SPICE 28-1	PIER 28	SPICE 29-1	SPICE 29-2	PIER 29	SPICE 30-1	BRG. S. ABUT.
G1		345.196	343.510	342.865	342.188	341.078	340.574	340.098	339.358
G2		345.130	343.438	342.790	342.108	340.991	340.484	340.005	339.258
G3		345.064	343.367	342.715	342.029	340.906	340.395	339.912	339.158
G4		344.998	343.295	342.640	341.951	340.820	340.306	339.819	339.058
G5		344.931	343.225	342.565	341.872	340.734	340.217	339.727	338.958
G6		344.865	343.154	342.491	341.794	340.649	340.128	339.635	338.859
G7		345.225	343.484	342.799	342.081	340.892	340.354	339.846	339.039
G8		345.160	343.417	342.729	342.007	340.810	340.268	339.757	338.942
G9		345.096	343.352	342.659	341.933	340.729	340.183	339.668	338.845
G10		345.031	343.286	342.589	341.859	340.647	340.098	339.579	338.749
G11		344.967	343.221	342.520	341.786	340.566	340.013	339.491	338.652
G12		344.902	343.156	342.451	341.713	340.486	339.928	339.402	338.556

FOR INFORMATION ONLY

FRAMING PLAN-SPANS 28, 29 & 30
F.A.I. RTE. 57 OVER S.B.I. RTE. 150,
EXIST. RTE. 3, G.M. & O.R.R. LEVEE & M.P.R.R.
PROJECT IG-57-1 (91) I
F.A.I. RTE. 57 SECTION 02-IVB
ALEXANDER COUNTY
STA. 1089+73.00 TO STA. 1119+69.00

ALFRED BENESCH & COMPANY
CONSULTING ENGINEERS
16 S. WABASH AVE. CHICAGO, ILLINOIS

DESIGNED - JSB
CHECKED - ATH
DRAWN - STEFFEN
CHECKED - JSB ATH

EXAMINED
PASSED
TIMOTHY A. ANDRETTI
ENGINEER OF STRUCTURAL SERVICES
JAYME F. [Signature]
ENGINEER OF BRIDGES AND STRUCTURES

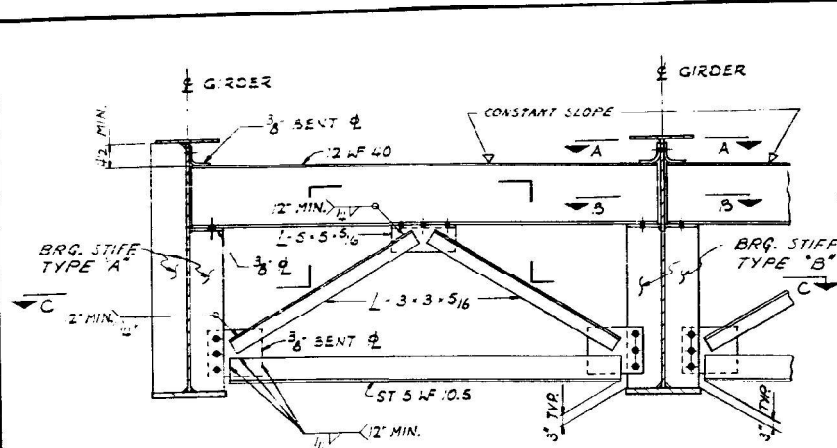
DATE - MAY 13, 2022
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

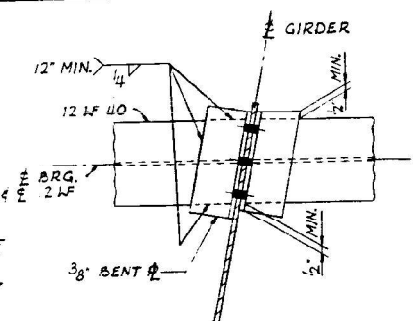
FOR INFORMATION ONLY - FRAMING PLAN SPANS 28, 29, 30
SN 002-0023 (N.B.) & -0024 (S.B.)

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D9 Bridge Repair 2022-2	ALEXANDER	34	31
CONTRACT NO. 78899			ILLINOIS FED. AID PROJECT	

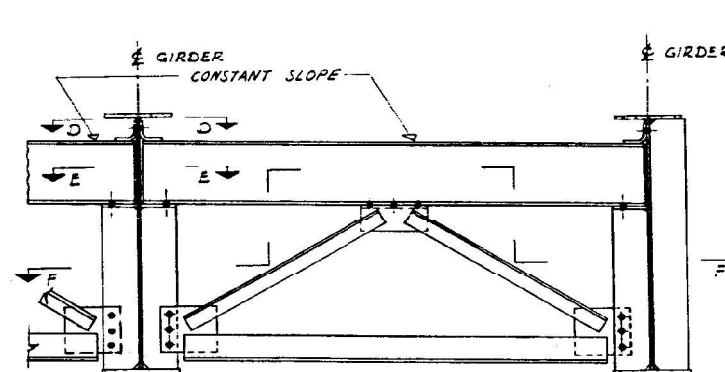
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 57	02-IVB	ALEXANDER	156	69
STA.	TO STA.			
I.P.R. REG. NO. 4	ILLINOIS		PROJECT	



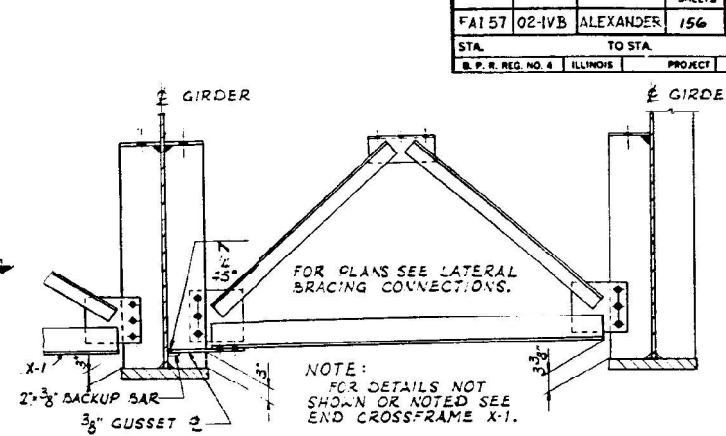
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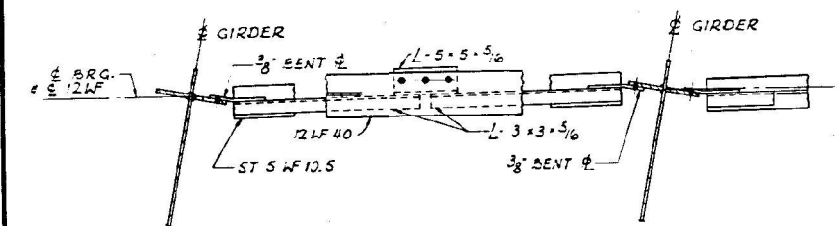
SECTION A-A
SECTION D-D SIMILAR
SCALE: 1/2"=1'-0"



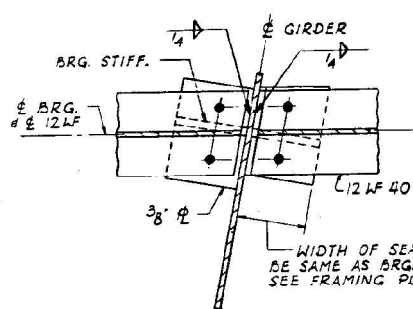
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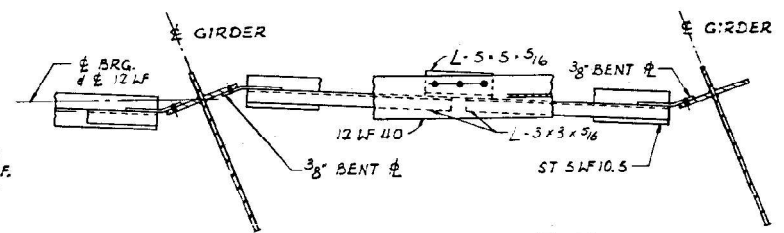
END CROSSFRAME X-3
END CROSSFRAME X-4 SIMILAR
SCALE: 3/4"=1'-0"



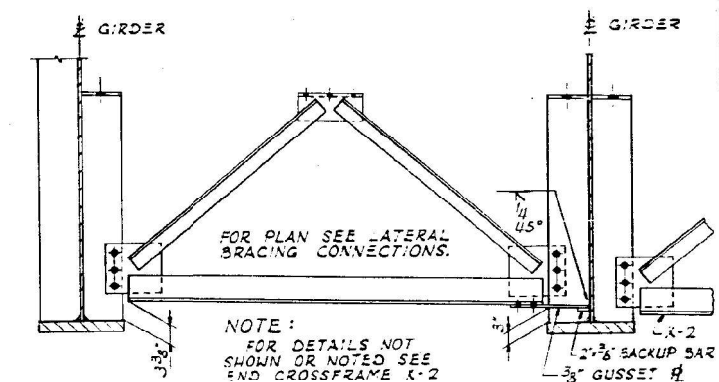
SECTION C-C
SCALE: 3/4"=1'-0"



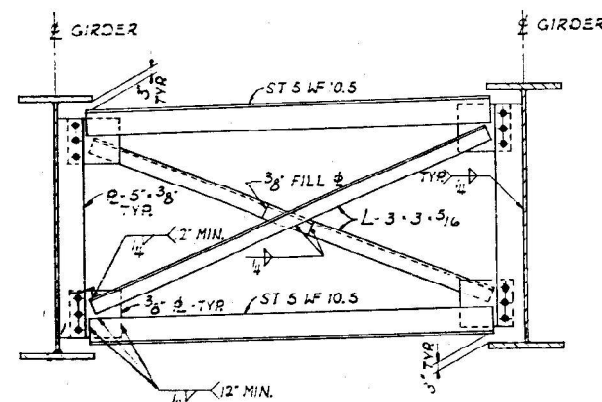
SECTION B-B
SECTION E-E SIMILAR
SCALE: 1/2"=1'-0"



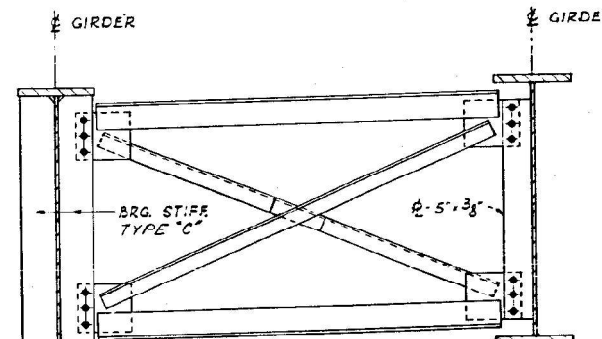
SECTION F-F
SCALE: 3/4"=1'-0"



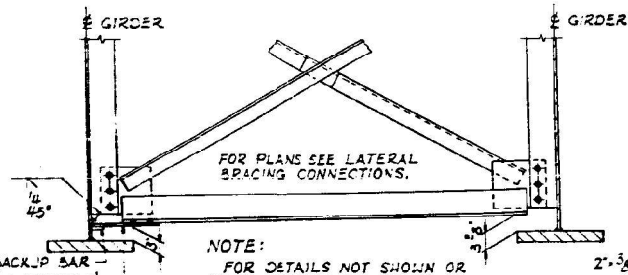
END CROSSFRAME X-5
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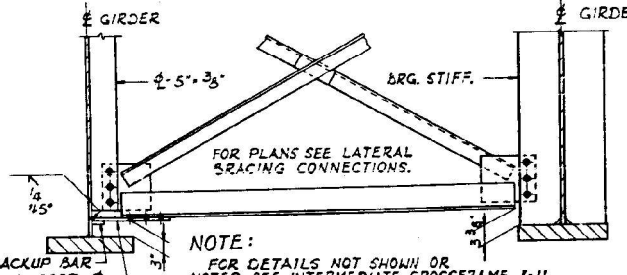
INTERMEDIATE CROSSFRAME X-11
SCALE: 3/4"=1'-0"



INTERMEDIATE CROSSFRAME X-12
SCALE: 3/4"=1'-0"



INTERMEDIATE CROSSFRAME X-13
INTERMEDIATE CROSSFRAMES X-14, X-15 & X-16 SIM.
SCALE: 3/4"=1'-0"



INTERMEDIATE CROSSFRAME X-17
INTERMEDIATE CROSSFRAME X-18 SIMILAR
SCALE: 3/4"=1'-0"

FOR INFORMATION ONLY

CROSS FRAME DETAILS
F.A.I.R.T.E. 57 OVER S.B.I.R.T.E. 150,
EXIST. RTE. 3, G.M.E.O.R.R., LEVEE & M.P.R.R.
PROJECT 1G-57-1 (91) I
F.A.I.R.T.E. 57 SECTION 02-IVB
ALEXANDER COUNTY
STA. 1089+73.00 TO STA. 1119+69.00

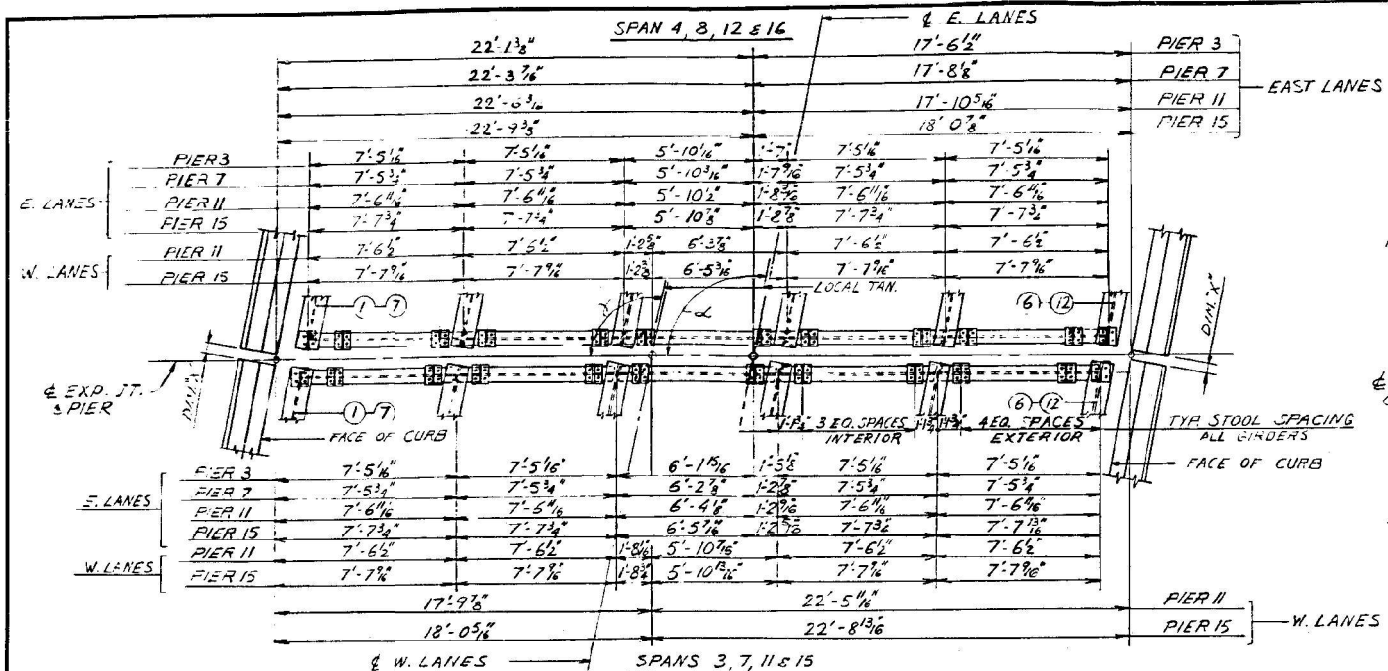
ALFRED BENESCH & COMPANY
CONSULTING ENGINEERS
18 S. WABASH AVE. CHICAGO, ILLINOIS

DESIGNED - JSB	EXAMINED - <i>Timothy A. Smith</i>	DATE - MAY 13, 2022
CHECKED - ATH	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - STEFFEN	PASSED - <i>James F. Smith</i>	REVISED -
CHECKED - JSB ATH	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

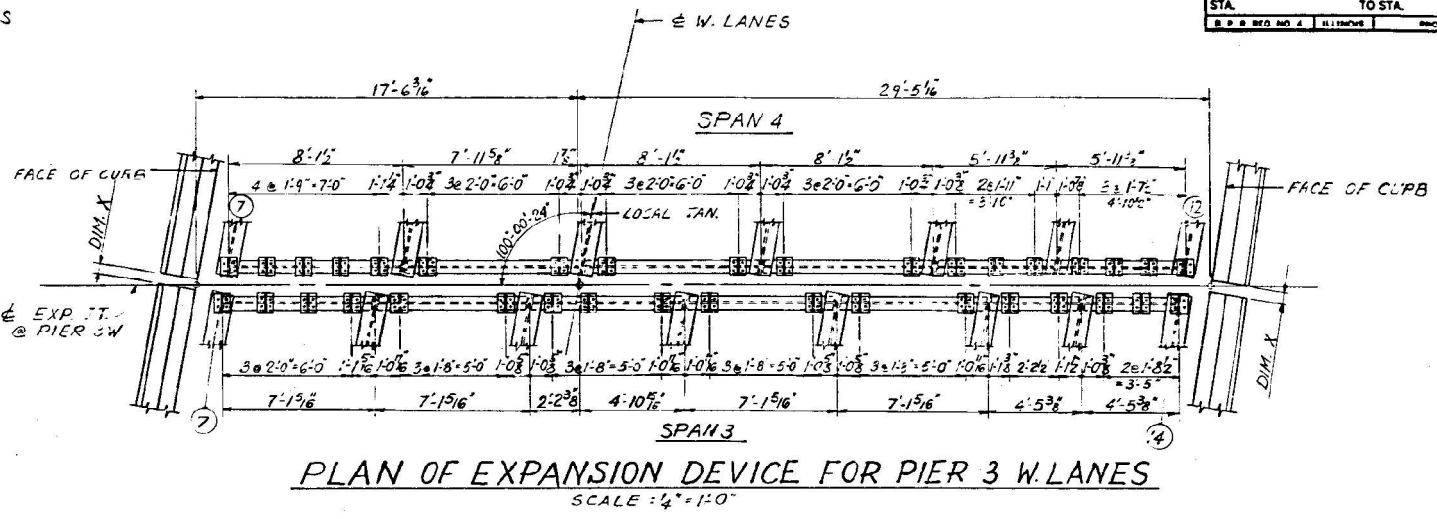
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY - CROSS FRAME DETAILS
SN 002-0023 (N.B.) & -0024 (S.B.)

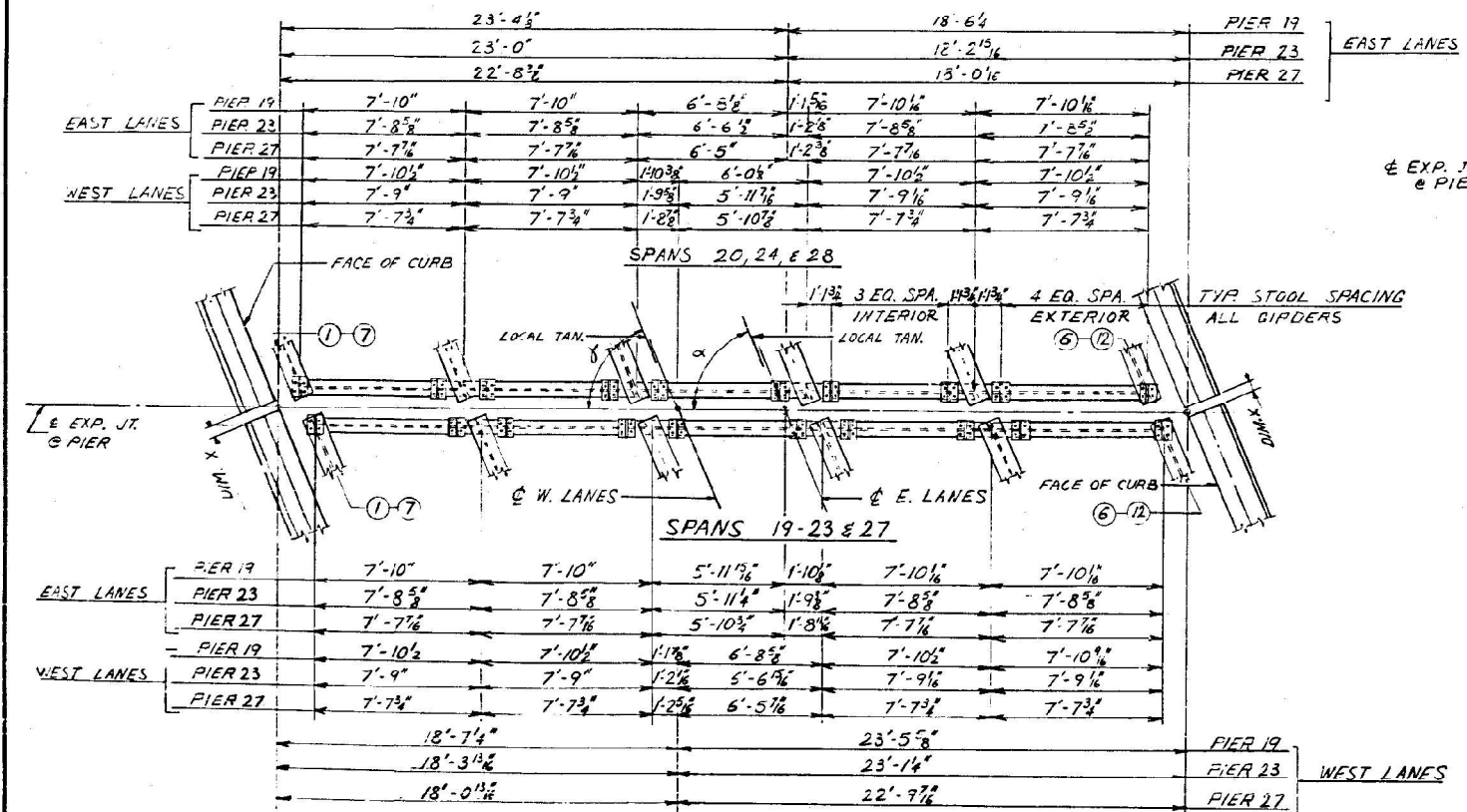
F.A.I.R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D9 Bridge Repair 2022-2	ALEXANDER	34	32
			CONTRACT NO. 78899	
			ILLINOIS FED. AID PROJECT	



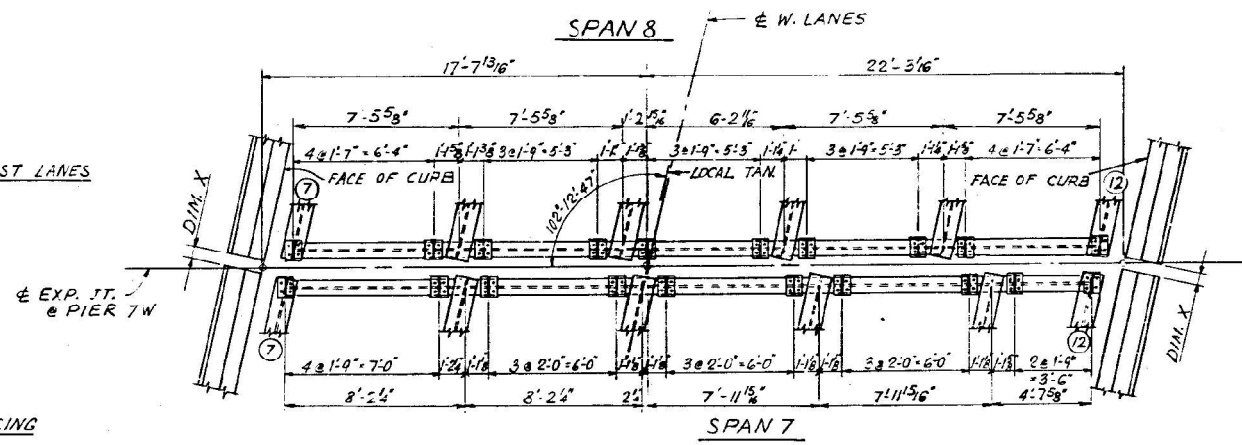
PLAN OF EXPANSION DEVICE FOR PIERS 3, 7, 11 & 15 E. LANES
& FOR PIERS 11 & 15 W. LANES.
SCALE: 1/4" = 1'-0"



PLAN OF EXPANSION DEVICE FOR PIER 3 W. LANES
SCALE: 1/4" = 1'-0"



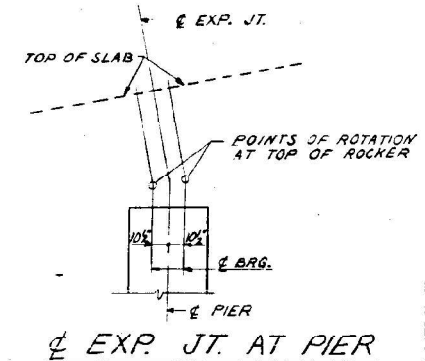
PLAN OF EXPANSION DEVICE FOR PIERS 19, 23 & 27 E. LANES
& FOR PIERS 19, 23 & 27 W. LANES
SCALE: 1/4" = 1'-0"



PLAN OF EXPANSION DEVICE FOR PIER 7 W. LANES
SCALE: 1/4" = 1'-0"

TABLE OF ANGLES FOR EXPANSION DEVICE

PIER	E. LANES α	W. LANES β
3	100°-25'-37"	100°-00'-24"
7	102°-35'-12"	102°-12'-47"
11	104°-59'-26"	104°-33'-47"
15	107°-20'-43"	106°-54'-45"
19	68°-40'-14"	67°-57'-48"
23	71°-04'-02"	70°-19'-15"
27	73°-21'-57"	72°-40'-39"



FOR INFORMATION ONLY

EXPANSION DEVICES
F.A.I. RTE. 57 OVER S.B.I. RTE. 150,
EXIST. RTE. 3, G.M.E.O.R.R., LEVEE EM.P.R.R.
PROJECT IG-57-1 (91) I
F.A.I. RTE 57 SECTION 02-IVB
ALEXANDER COUNTY
STA. 1089+73.00 TO STA. 1119+69.00

ALFRED BENESCH & COMPANY
CONSULTING ENGINEERS
10 S. WABASH AVE. CHICAGO, ILLINOIS

DESIGNED - JSB
CHECKED - ATH
DRAWN - STEFFEN
CHECKED - JSB ATH

EXAMINED
PASSED
Timothy A. Smith
ENGINEER OF STRUCTURAL SERVICES
James F. Smith
ENGINEER OF BRIDGES AND STRUCTURES

DATE - MAY 13, 2022
REVISED -
REVISED -

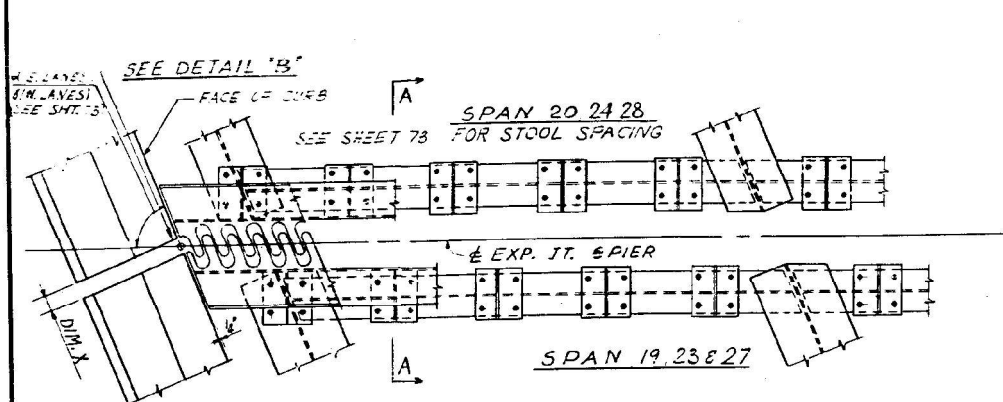
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY - EXISTING EXPANSION DEVICE
SN 002-0023 (N.B.) & -0024 (S.B.)

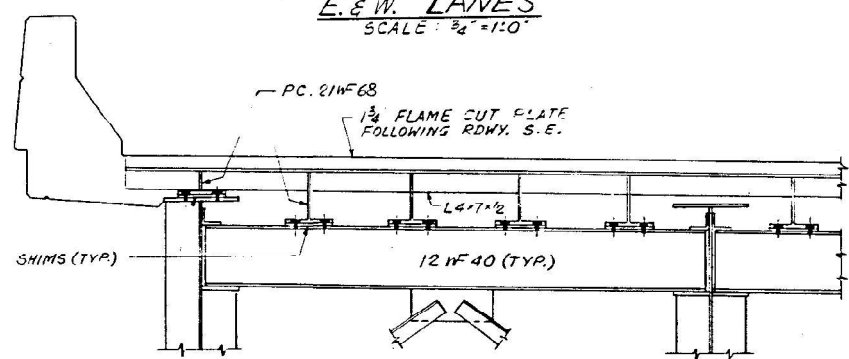
SHEET NO. 19 OF 20 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D9 Bridge Repair 2022-2	ALEXANDER	34	33
CONTRACT NO. 78899			ILLINOIS FED. AID PROJECT	

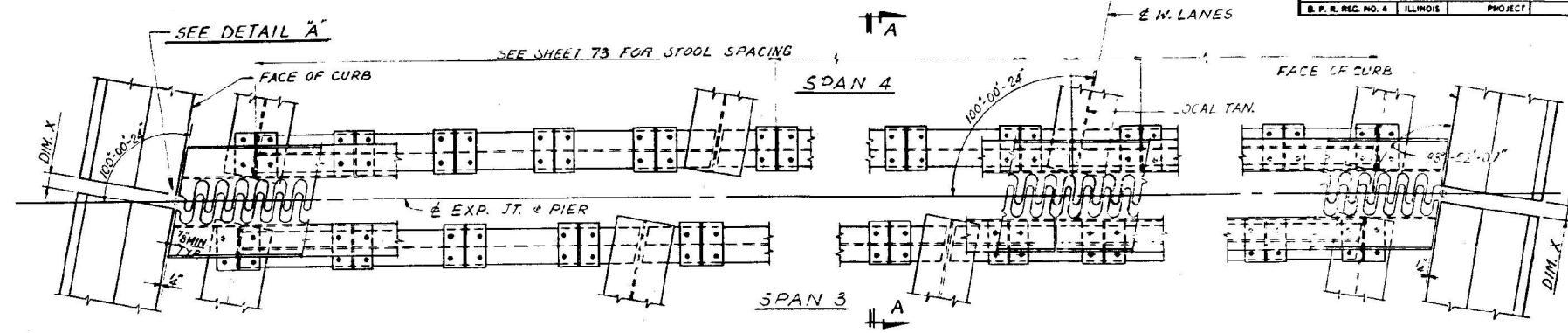
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA157	02-IVB	ALEXANDER	156	74
STA.		TO STA.		
E.P.R. REG. NO. 4		ILLINOIS		PROJECT



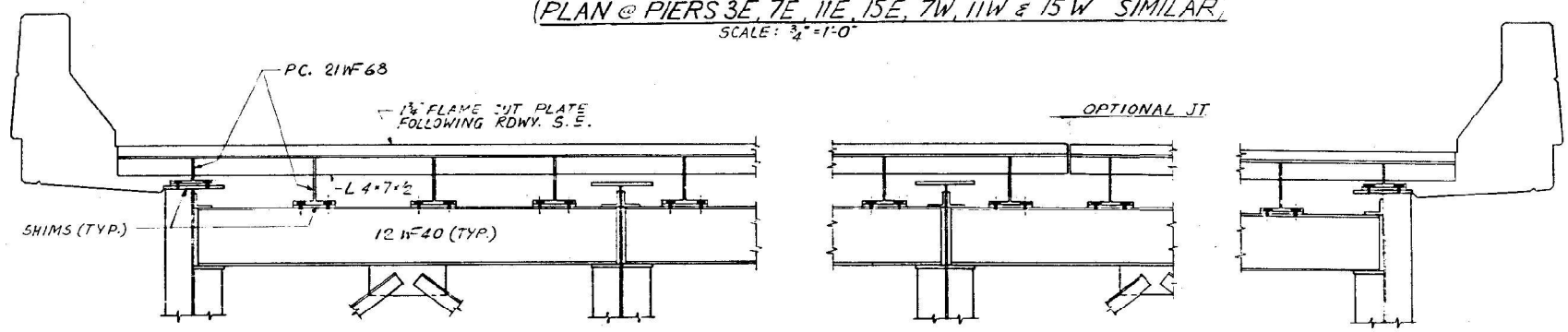
**PART PLAN OF EXP. DEVICE @ PIER 19, 23 & 27
E. & W. LANES**
SCALE: 3/4"=1'-0"



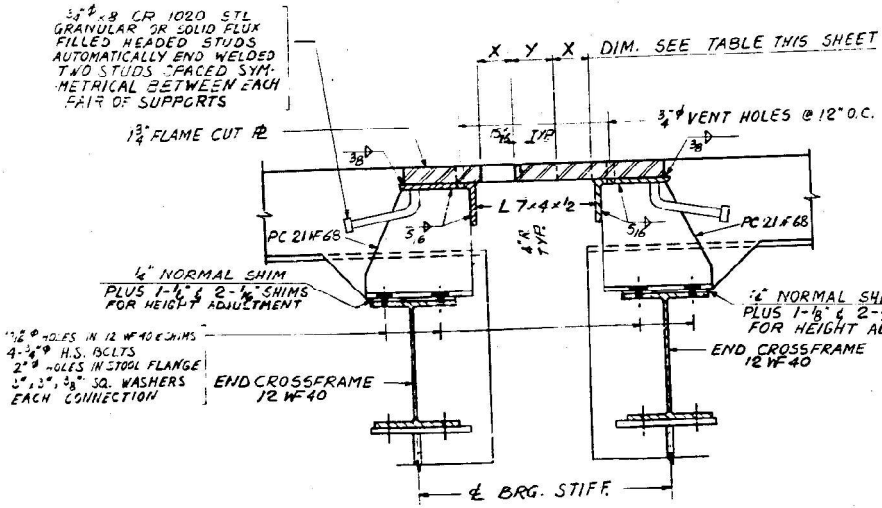
ELEVATION



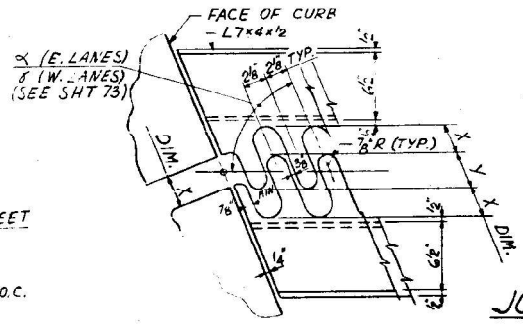
PART PLAN OF EXPANSION DEVICE @ PIER 3 W. LANES (SHOWN)
(PLAN @ PIERS 3E, 7E, 11E, 15E, 19W, 23W, 27W SIMILAR.)
SCALE: 3/4"=1'-0"



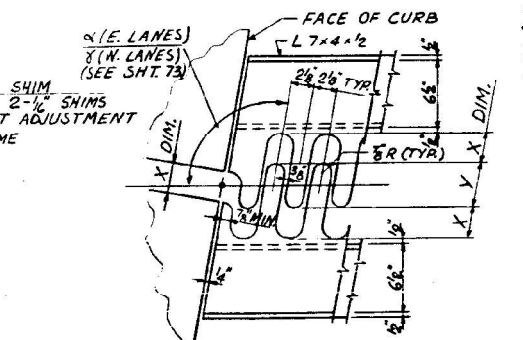
ELEVATION



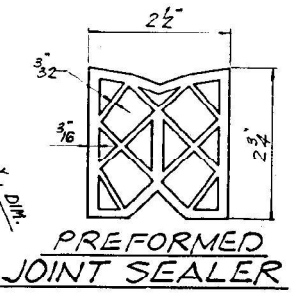
SECTION A-A
SCALE: 1/2"=1'-0"



DETAIL B
SCALE: 1 1/2"=1'-0"

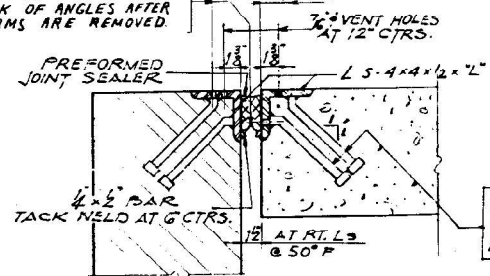


DETAIL A
SCALE: 1 1/2"=1'-0"



PREFORMED JOINT SEALER

1/4" HOLES @ 12" CTRS. FOR 3/8" BOLTS SET ON 2 1/2" GAGE LINE. ALL BOLTS SHALL BE BURNED, SAWED OR CHIPPED OFF FLUSH WITH THE BACK OF ANGLES AFTER FORMS ARE REMOVED.



SECTION AT ABUTMENT

SECT. @ PIER 16 SIMILAR (Except for Preformed Joint Sealer)
SCALE: 1 1/2"=1'-0"

TABLE OF X & Y DIMENSIONS

TEMPERATURE	PIER 3E PIER 3W		PIER 7E PIER 7W		PIER 11E PIER 11W		PIER 15E PIER 15W		PIER 19E PIER 19W		PIER 23E PIER 23W		PIER 27E PIER 27W	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
130°F	34'	60'	34'	66'	34'	63'	34'	52'	34'	48'	34'	78'	34'	62'
110°F	1 1/2"	5 1/2"	1 1/2"	5 1/2"	1 1/2"	5 1/2"	1 1/2"	5"	1 1/2"	4 1/2"	1 1/2"	5 1/2"	1 1/2"	5 1/2"
90°F	1 1/2"	5"	1 1/2"	5 1/2"	1 1/2"	5 1/2"	1 1/2"	4 1/2"	1 1/2"	4"	1 1/2"	5 1/2"	1 1/2"	5 1/2"
70°F	2 1/2"	4 1/2"	2 1/2"	4 1/2"	2 1/2"	4 1/2"	2 1/2"	3 1/2"	2 1/2"	3 1/2"	2 1/2"	4 1/2"	2 1/2"	4 1/2"
50°F	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	2 1/2"	2 1/2"	3 1/2"	2 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"
30°F	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	2 1/2"	2 1/2"	3 1/2"	2 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"
10°F	4 1/2"	2 1/2"	4 1/2"	2 1/2"	4 1/2"	2 1/2"	3 1/2"	2 1/2"	3 1/2"	2 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"
-10°F	4 1/2"	2 1/2"	4 1/2"	2 1/2"	4 1/2"	2 1/2"	3 1/2"	2 1/2"	3 1/2"	2 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"
-30°F	5 1/2"	1 1/2"	5 1/2"	1 1/2"	5 1/2"	1 1/2"	4 1/2"	1 1/2"	4 1/2"	1 1/2"	4 1/2"	1 1/2"	4 1/2"	1 1/2"

USE THESE VALUES OF X & Y DIMENSIONS FOR TEMPERATURES EXISTING AT THE TIME OF ADJUSTMENT OF EXPANSION DEVICE.

L-DIMENSION

LOCATION	L-DIMENSION
N. ABUT. E LANES	48'-5 1/2"
N. ABUT. W LANES	53'-11 1/8"
PIER 16 E LANES	42'-6 3/8"
PIER 16 W LANES	42'-9 3/8"
S. ABUT. E LANES	41'-10 1/2"
S. ABUT. W LANES	42'-0"

FOR INFORMATION ONLY

EXPANSION DEVICES
FAIRTE 57 OVER S.B. RTE. 150,
EXIST. RTE. 3, G.M.E.O.R.R., LEVEE E.M.P.R.R.
PROJECT IG-57-1 (91)
F.A.I. RTE. 57 SECTION 02-IVB,
ALEXANDER COUNTY,
STA. 1089+73.00 TO STA. 1119+69.00

ALFRED BENESCH & COMPANY
CONSULTING ENGINEERS
18 S. MAIDLAND, CHICAGO, ILLINOIS

DESIGNED - JSB	EXAMINED - <i>Timothy A. Smith</i>	DATE - MAY 13, 2022
CHECKED - ATH	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - STEFFEN	PASSED - <i>James F. Smith</i>	REVISED -
CHECKED - JSB ATH	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FOR INFORMATION ONLY - EXISTING EXPANSION DEVICE
SN 002-0023 (N.B.) & -0024 (S.B.)

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D9 Bridge Repair 2022-2	ALEXANDER	34	34
CONTRACT NO. 78899				
ILLINOIS FED. AID PROJECT				