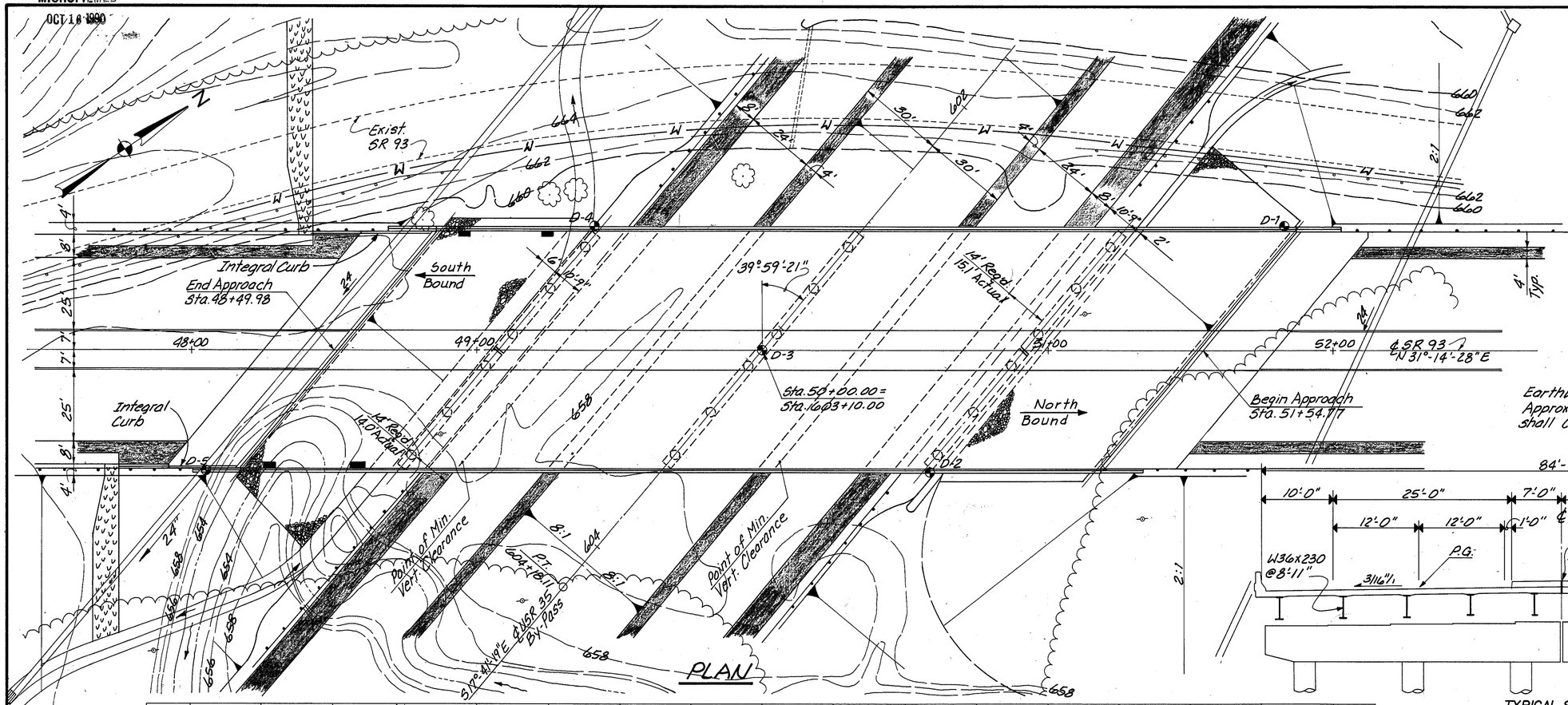
JAC-35-8.49 | OHIO | FHWA REGION 5 | 528 / 575

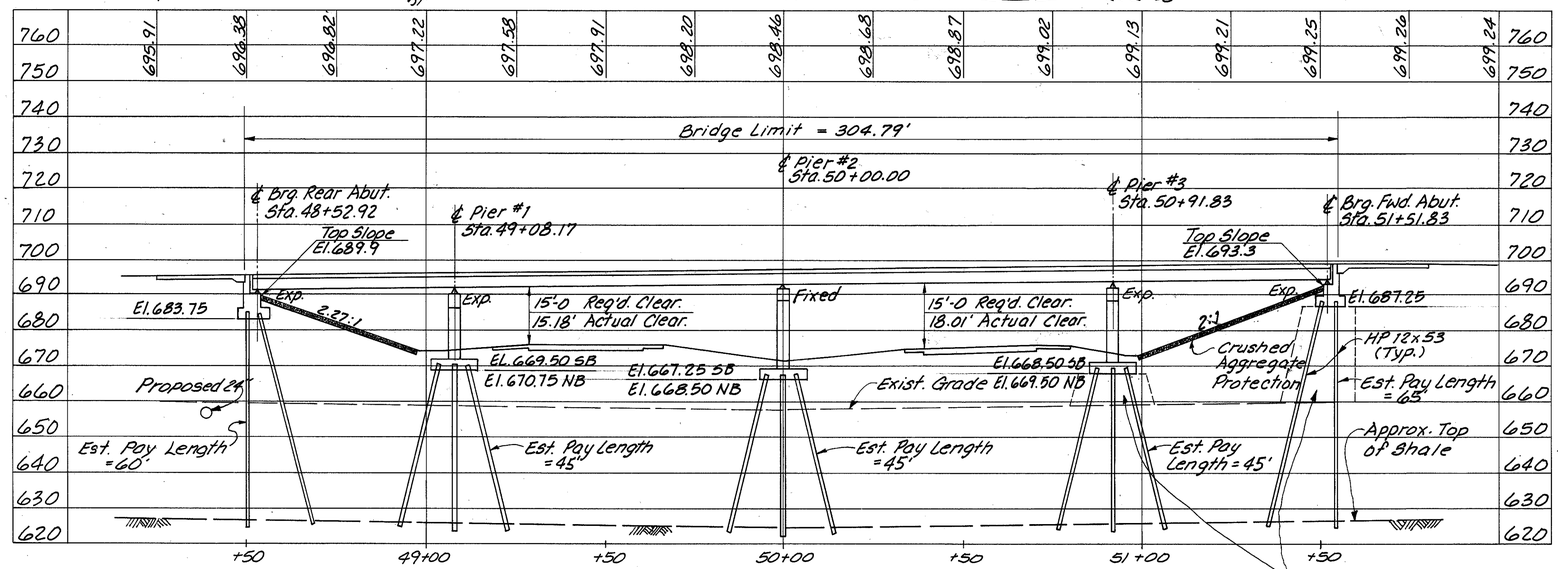


CURVE DATA
U.S. 35

PI	=	590+06.69
Δ	=	28°-51'-15"
D	=	1°-00'-00"
R	=	5729.58'
L	=	2885.42'
T	=	1473.99'
E	=	186.56'
PC	=	575+32.69
PT	=	604+18.11
S/E	=	0.024%

Earthwork Limits shown are Approximate. Actual Slopes shall Conform to Plan Cross-sections.

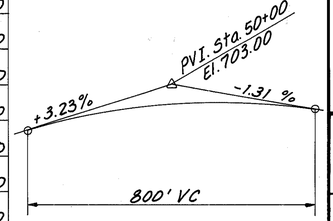
TYPICAL SECTION



SECTION ALONG ℄

TRAFFIC DATA

Average Daily Traffic
Year 2006 = 4,900
6% Trucks = 310



PROFILE GRADE

PROPOSED STRUCTURE

TYPE: Continuous Steel Beam with Composite Concrete Deck.

SPANS: 55'-3", 91'-10", 91'-10" & 60'-0"

ROADWAY: 84'-0" F/F of Concrete Parapets with 14'-0" Median

LOADING: HS20-44 (Case II) and Alternate Military Loading.

SKEW: 39°-59'-21" Left Forward.

ALIGNMENT: Tangent

WEARING SURFACE: Monolithic Concrete

APPROACH SLAB: AS-1-81 (25' Long)

1/18

KZF INCORPORATED
ARCHITECTS • ENGINEERS • INTERIOR DESIGNERS
111 Merchant Street, Cincinnati, Ohio 45246 513/772-1117

SITE PLAN

BRIDGE NO. JAC-35-1143
~~UNDER~~ S.R. 93 (RELOC.)

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
WBS	JEB	—	JET	WBS	4/4/81	

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	ABUT'S	PIERS	SUPER	GENERAL		
503	1096	Cu. Yd.	Unclassified Excavation	589	507				
505	L.S.	Lump Sum	Pile Driving Equipment Mobilization				L.S.		
507	8800	Lin. Ft.	Steel Piles, HP 12x53 (As per plan)	3,940	4,860				
507	171	Each	Steel Points	63	108				
509	84,346	Lbs.	Reinforcing Steel, Grade 60	16,934	67,412				
511	829	Cu. Yds.	Class S Concrete, Superstructure, See Proposal Note.			829			
511	274	Cu. Yds.	Class C Concrete, Pier above Footings		274				
511	233	Cu. Yds.	Class C Concrete, Abutment above Footings	233					
511	433	Cu. Yds.	Class C Concrete, Footings	191	242				
513	509,022	Lbs.	Structural Steel, (A588 AISC Category I)			509,022			
513	6,390	Each	Welded Stud Shear Connectors			6,390			
516	222	Lin. Ft.	Structural Expansion Joint, including 3" Strip Seal	222					
516	301	Lin. Ft.	4" Elastomeric Compression Seal (As per plan)			301			
516	57	Lin. Ft.	PVC Waterstop, as per plan	57					
518	110	Cu. Yd.	Porous Backfill	110					
518	208	Lin. Ft.	6" Perforated, helical corrugated Steel Pipe, 707.01	208					
518	196	Lin. Ft.	6" Non-Perforated, helical corrugated Steel Pipe, including Specials 707.01	196					
518	4	Each	Scuppers, including Supports			4			
601	1,525	Sq. Yds.	Crushed Aggregate Slope Protection				1,525		
625			See Sheet 461 for Lighting Summary						
824	208,996	Lbs.	Epoxy Coated Reinforcing Steel, Grade 60	12,948		196,048			
Special	2,409	Sq. Yds.	Sealing of Concrete Surfaces, Epoxy (See Proposal Note)	248	866	1,295			

PILE DESIGN LOADS: THE DESIGN LOAD FOR THE ABUTMENT PILES IS 70 TONS PER PILE WHICH INCLUDES AN ALLOWANCE OF 40 TONS PER PILE FOR DOWNDRAG AND THE DESIGN LOAD FOR THE PIER PILES IS 49 TONS PER PILE.

MAINTENANCE OF TRAFFIC: FOR MAINTENANCE OF TRAFFIC AND SEQUENCE OF CONSTRUCTION, SEE ROADWAY GENERAL NOTES.

UTILITY LINES: ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES SHALL BE BORNE BY THE OWNER(S). THE CONTRACTOR AND OWNER(S) ARE REQUESTED TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

PILE POINTS: STEEL PILE POINTS SHALL BE USED TO PROTECT THE TIPS OF THE PROPOSED PILING. THE STEEL POINTS SHALL BE FURNISHED BY THE ASSOCIATED PILE AND FITTING CORPORATION, 262 RUTHERFORD BOULEVARD, CLIFTON, NEW JERSEY 070124; INTERNATIONAL CONSTRUCTION EQUIPMENT, INC. 301 WAREHOUSE DRIVE MATTHEWS, NORTH CAROLINA 28015; DOUGHERTY FOUNDATION PRODUCTS INC., P.O. BOX 688, FRANKLIN LAKE, NEW JERSEY 07417; VERSA STEEL INC., 3601 N.W. YEON AVENUE, P.O. BOX 10559, PORTLAND, OREGON 97210 OR BY A MANUFACTURER THAT CAN FURNISH A STEEL POINT THAT IS ACCEPTABLE TO THE DIRECTOR.

PILES: SHALL BE DRIVEN TO REFUSAL ON BEDROCK. REFUSAL SHALL BE CONSIDERED AS ATTAINED BY PENETRATING SOFT BEDROCK WITH A MINIMUM RESISTANCE OF 20 BLOWS PER INCH, OR REFUSAL SHALL BE CONSIDERED AS ATTAINED AFTER THE PILE HAS CONTACTED HARD BEDROCK AND PILE HAS THEN RECEIVED AT LEAST 20 BLOWS.

GENERAL NOTES

REFERENCE: SHALL BE MADE TO STANDARD DRAWINGS:
AS-1-81 DATED 11/27/81 SHEETS 1, 2, & 3
BR-1 DATED 5/29/79
FB-1-82 DATED 5/10/82
RB-1-55 REVISED 2/2/59
SD-1-69 DATED 6/12/69 SHEETS 1, 3 & 4
EXJ-2-81 REVISED 4/2/82 SHEETS 1 & 2
ICD-1-82 DATED 8/1/84 SHEET 2
GR-1 DATED 1/11/85
GR-3 DATED 1/21/85
MC-7 DATED 10/15/76
HL-3 DATED 12/28/84
HL-4 DATED 1/21/76
HL-5 DATED 9/6/73
AND TO SUPPLEMENTAL SPECIFICATION:
836 DATED 11/12/85
824 DATED 10/8/82

DESIGN SPECIFICATIONS: THIS STRUCTURE COMFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1983, INCLUDING THE 1984 INTERIM SPECIFICATIONS AND THE OHIO SUPPLEMENT TO THESE SPECIFICATIONS.

DESIGN LOADING: HS20-44 CASE II AND THE ALTERNATE MILITARY LOADING.

CONCRETE: CLASS S - COMPRESSIVE STRENGTH 4500 PSI
CLASS C - COMPRESSIVE STRENGTH 4000 PSI

REINFORCING STEEL: ASTM A615, A616 or A617--GRADE 60 MINIMUM YIELD STRENGTH 60,000 P.S.I.
SPIRAL REINFORCEMENT MAY BE PLAIN BARS, ASTM A82 OR A615.

STRUCTURAL STEEL: ASTM A588 - YIELD STRENGTH 50,000 P.S.I.

DECK PROTECTION METHOD: EPOXY COATED REINFORCING STEEL, TOP AND BOTTOM MAT.

MONOLITHIC WEARING SURFACE: IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1" THICK.

PILE DRIVING CONSTRAINTS: PRIOR TO DRIVING PILES AT THIS STRUCTURE, THE SPILL-THRU SLOPE APPROACH EMBANKMENTS FOR S.R. 93 SHALL BE CONSTRUCTED UP TO THE LEVEL OF THE SUBGRADE FOR A MINIMUM DISTANCE OF 200 FEET BACK OF EACH ABUTMENT, AND THE ENTIRE WIDTH OF ROADWAY EMBANKMENT FOR U.S.R. 35 (BYPASS) SHALL BE CONSTRUCTED BENEATH THIS BRIDGE AND FOR A DISTANCE OF 100 FEET EACH SIDE OF THE BRIDGE. THE EMBANKMENT AT THIS SITE SHALL BE BUILT AT A RATE NOT TO EXCEED 5 FEET PER WEEK. THE EXCAVATION FOR THE FOOTINGS AND THE INSTALLLATION OF THE PILES SHALL NOT BEGIN UNTIL AFTER THE EMBANKMENT, WITHIN THE LIMITS SPECIFIED BY THIS NOTE, HAS BEEN COMPLETED AND THE EMBANKMENT HAS EXPERIENCED A WAITING PERIOD OF 60 DAYS. THE DIRECTOR MAY SHORTEN THE WAITING PERIOD IF THE CONTRACTOR'S FIELD MEASUREMENTS INDICATE THAT 90 PERCENT CONSOLIDATION HAS BEEN ATTAINED.

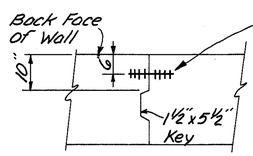
KZF INCORPORATED
ARCHITECTS • ENGINEERS • INTERIOR DESIGNERS
111 Merchant Street, Cincinnati, Ohio 45246 513/772-1117

2/18

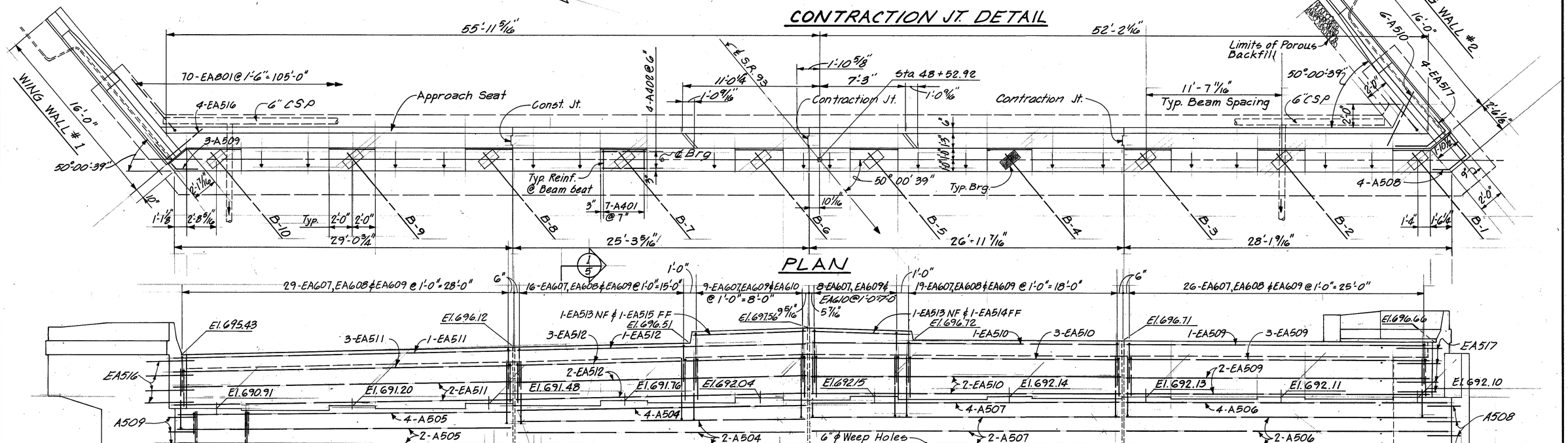
ESTIMATED QUANTITIES & GENERAL NOTES
BRIDGE NO. JAC-35-1145
UNDER S.R. 93 (RELOC.)

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED / DATE	REVISED
JET	KJO	—	WBS	MP 4/4/86	

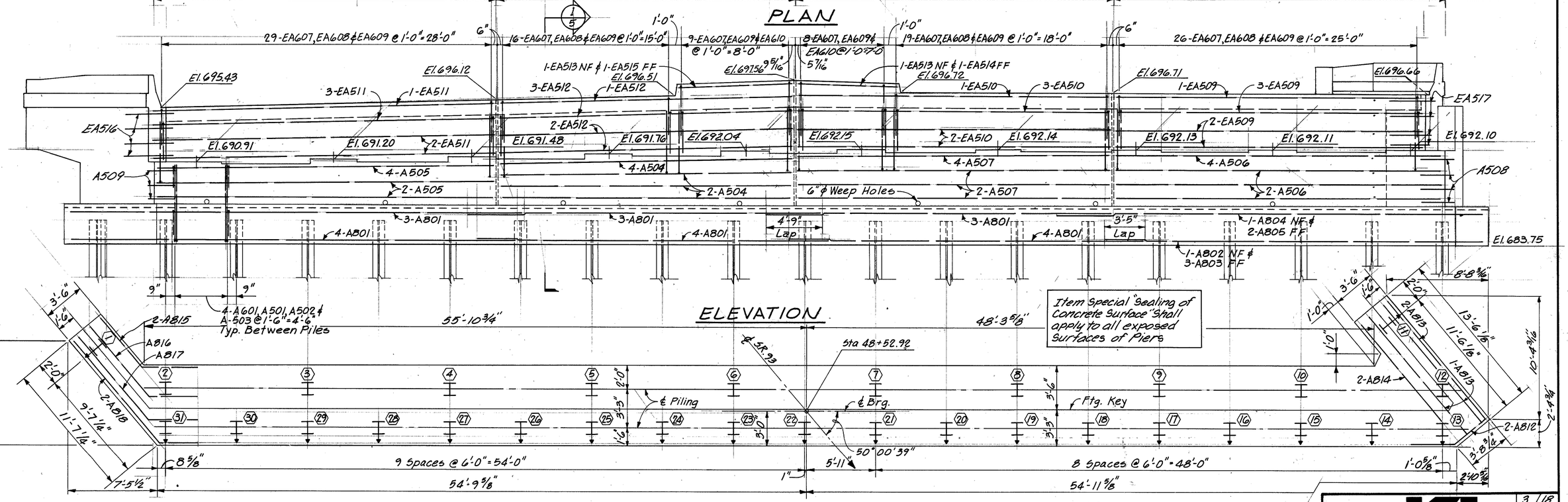
JAC-35-8.49 | OHIO | FHWA REGION 5 | 530 / 575



CONTRACTION JT. DETAIL



PLAN



ELEVATION

Item Special "Sealing of Concrete Surface" Shall apply to all exposed Surfaces of Piers

FOOTING PLAN

NOTES:

1. See Sheet 2 / 18 for Estimated Quantities & General Notes.
2. See Sheets 16 / 18 & 17 / 18 for Reinforcing Steel Details.
3. Porous Backfill, 1.5 ft. thick, Shall Extend up to the Plane of the Subgrade & Laterally to the Ends of the Wing Walls

KZF INCORPORATED
ARCHITECTS • ENGINEERS • INTERIOR DESIGNERS
111 Merchant Street, Cincinnati, Ohio 45246 513/772-1117

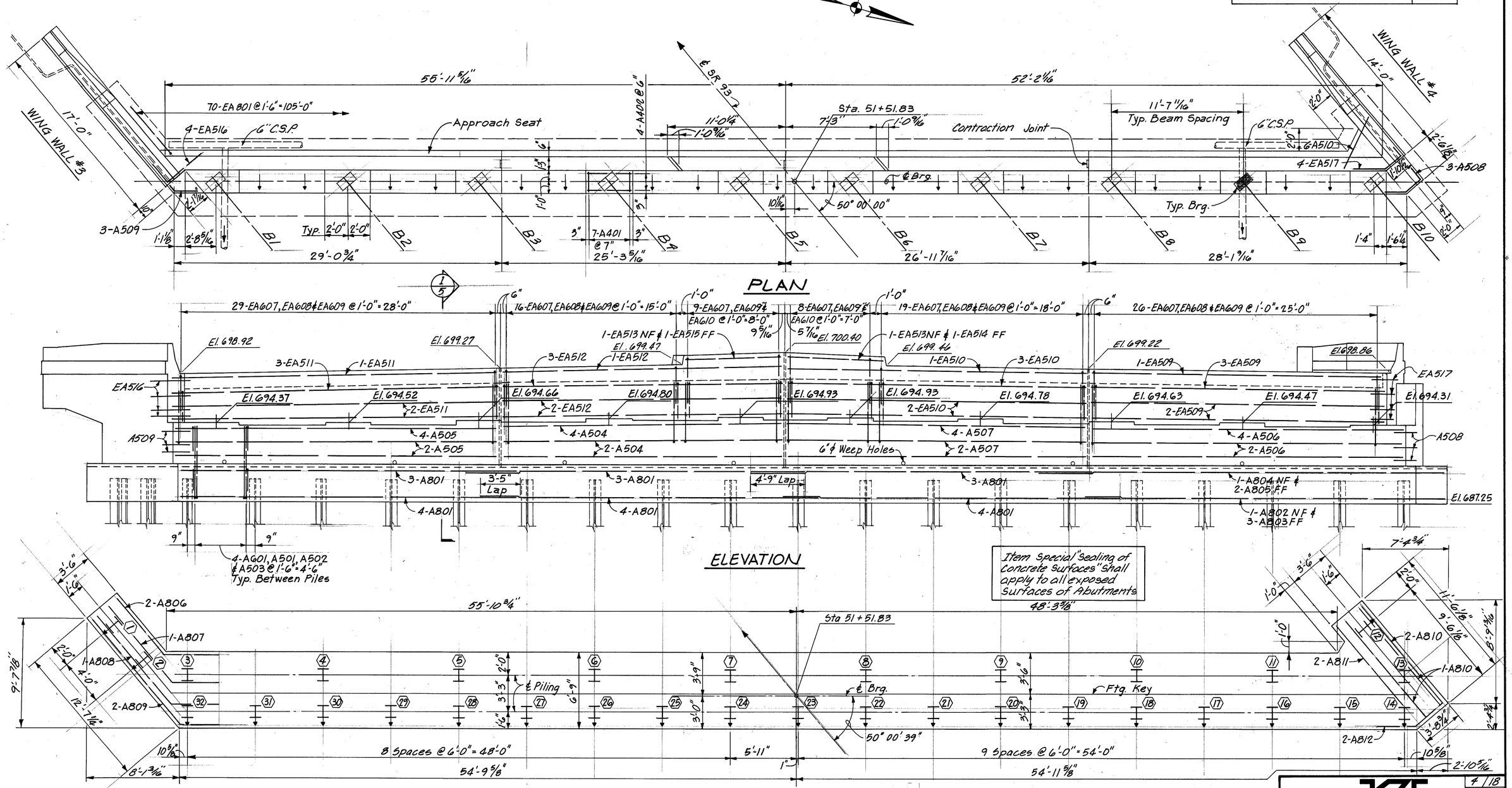
3 / 18

REAR ABUTMENT

BRIDGE NO. JAC-35-1143
UNDER S.R. 93 (RELOC.)

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
WBS	MHW	—	JET	WBS	4/1986	

JAC-35-8.49 | OHIO | FHWA REGION 5 | 531 / 575



Legend:
NF = Near Face
FF = For Face
⑨ = Pile Number
↓ = Battered Pile

KZF INCORPORATED
ARCHITECTS • ENGINEERS • INTERIOR DESIGNERS
111 Merchant Street, Cincinnati, Ohio 45246 513/772-1117

FORWARD ABUTMENT

BRIDGE NO. JAC-35-1143
UNDER S.R. 93 (RELOC.)

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
WBS	MHW	—	JET	WBS	4/4/88	

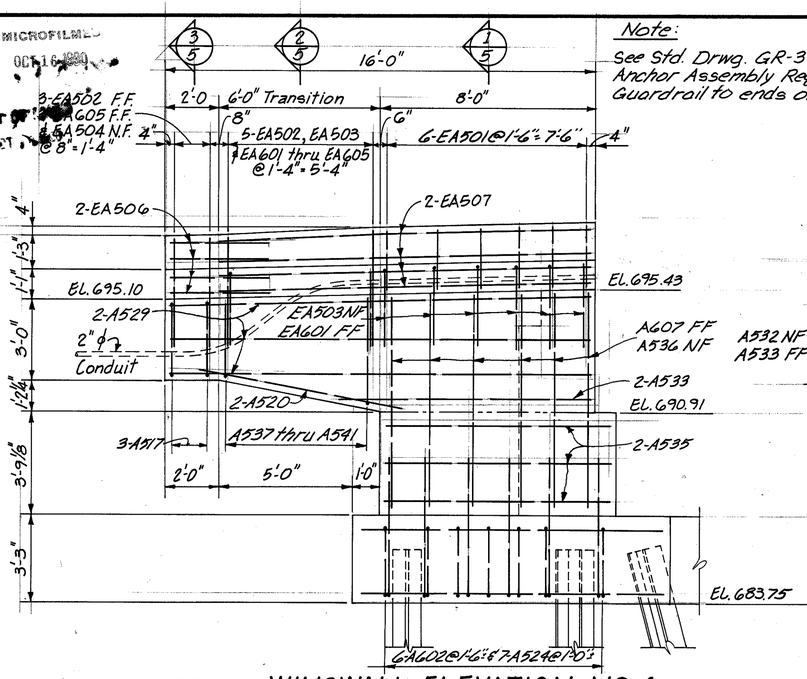
4 / 18

JAC-35-8.49

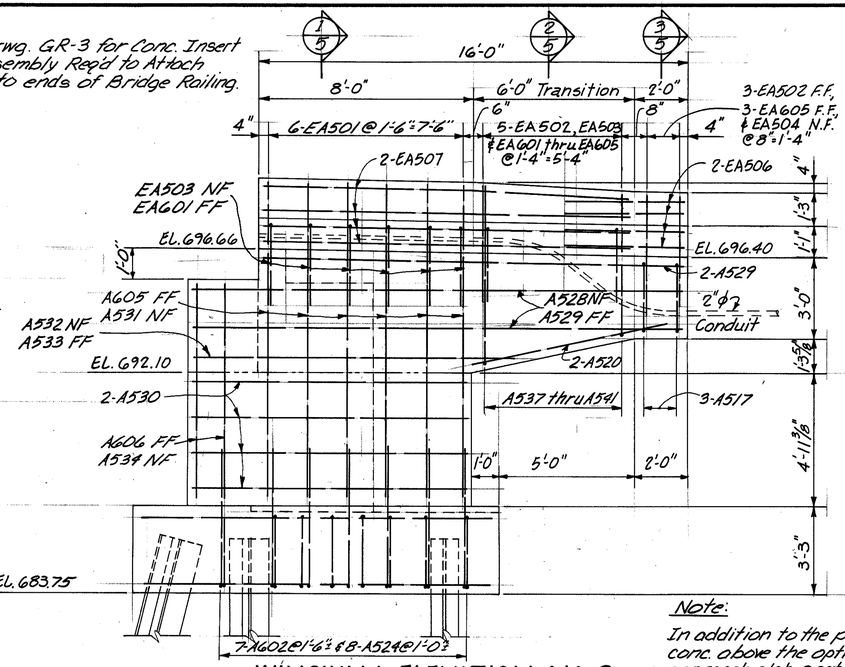
OHIO FHWA REGION 5

532 / 575

Note:
See Std. Drwg. GR-3 for Conc. Insert Anchor Assembly Req'd to Attach Guardrail to ends of Bridge Railing.

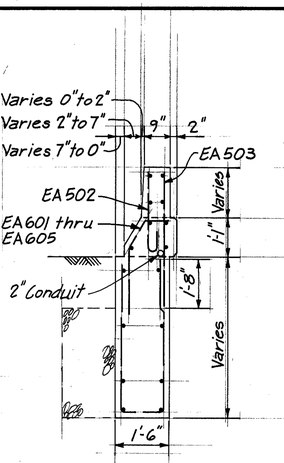


WINGWALL ELEVATION NO. 1

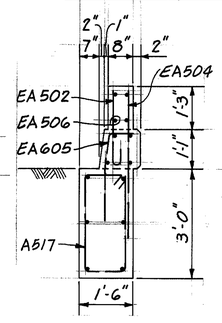


WINGWALL ELEVATION NO. 2

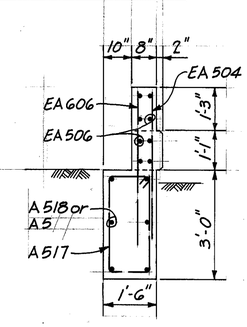
Note:
In addition to the provisions of 511.08, backwall conc. above the optional construction joint of the approach slab seat shall not be placed until after the deck conc. in the span adjacent to the abutment has been placed.



SECTION 2/5



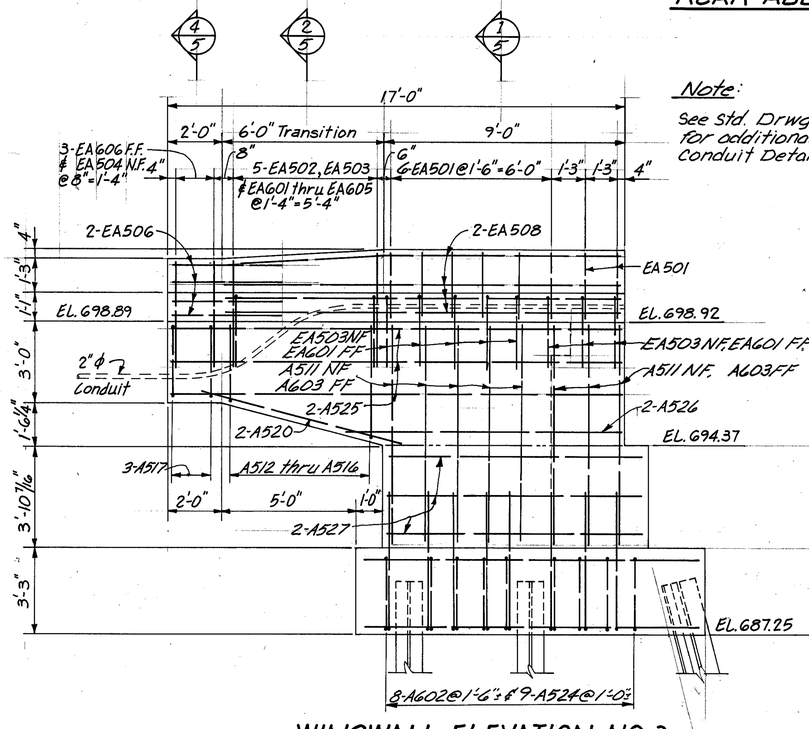
SECTION 3/5



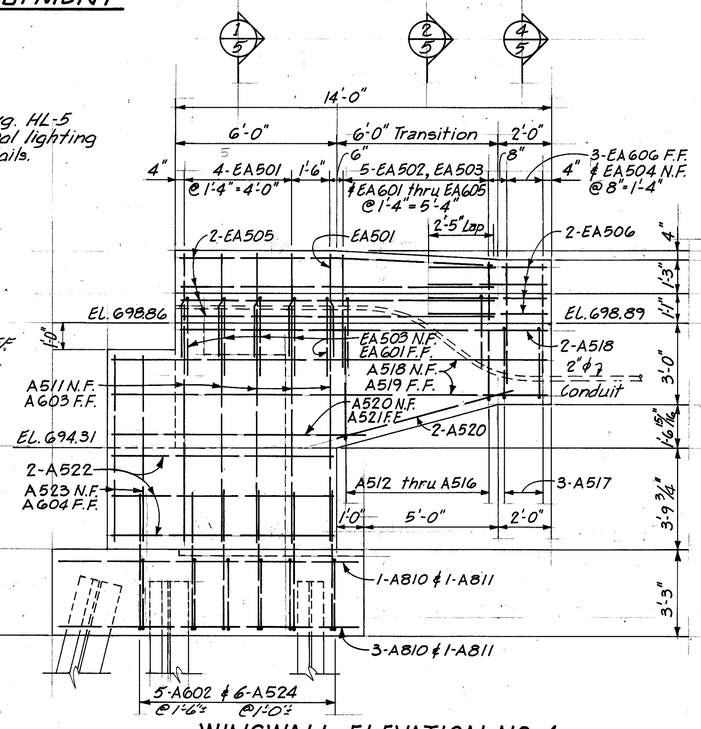
SECTION 4/5

REAR ABUTMENT

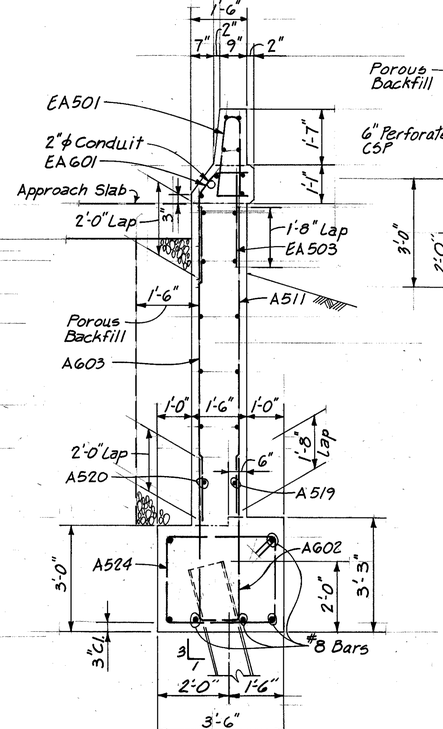
Note:
See Std. Drwg. HL-5 for additional lighting conduit Details.



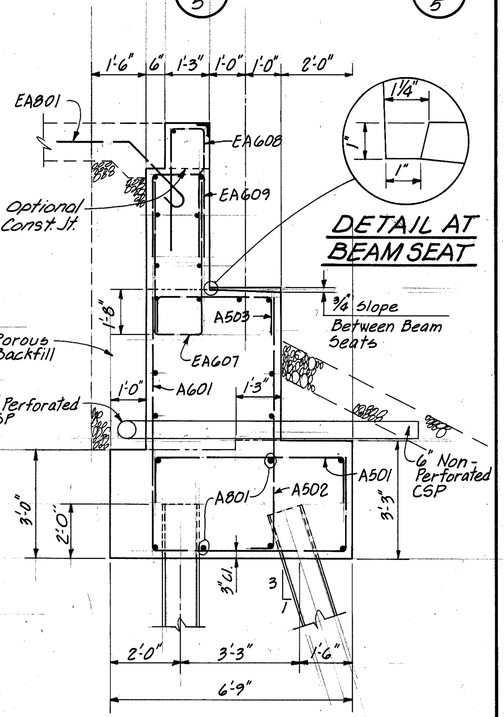
WINGWALL ELEVATION NO. 3



WINGWALL ELEVATION NO. 4



SECTION 1/5



SECTION 1/3 1/4

FORWARD ABUTMENT

KZF INCORPORATED
ARCHITECTS • ENGINEERS • INTERIOR DESIGNERS
111 Merchant Street, Cincinnati, Ohio 45246 513/772-1117

5/18

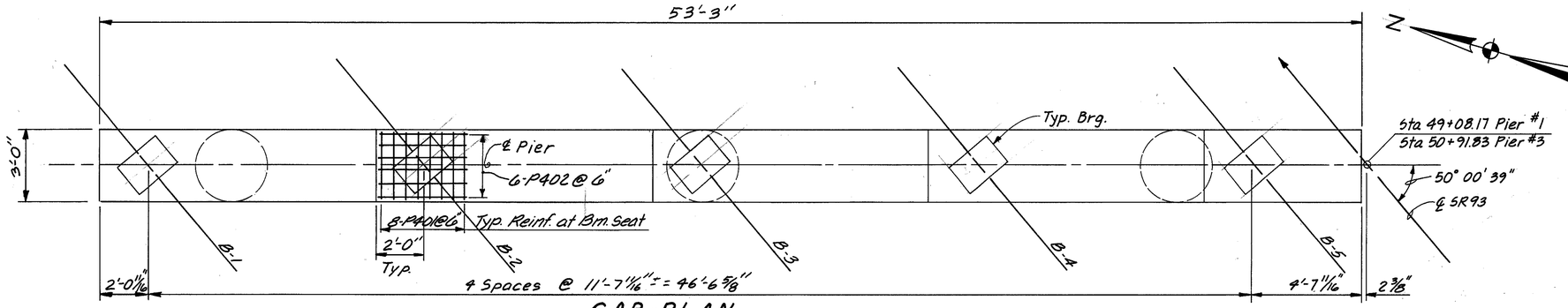
ABUTMENT WING WALLS AND SECTIONS

BRIDGE NO. JAC-35-1143
UNDER S.R. 93 (RELOC.)

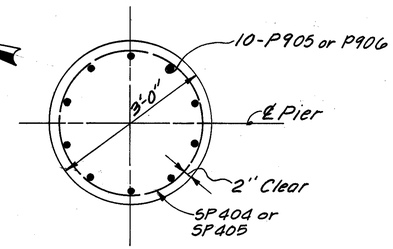
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
WBS	MHW	-	JET	WBS	4/4/86	

OCT 28 1986

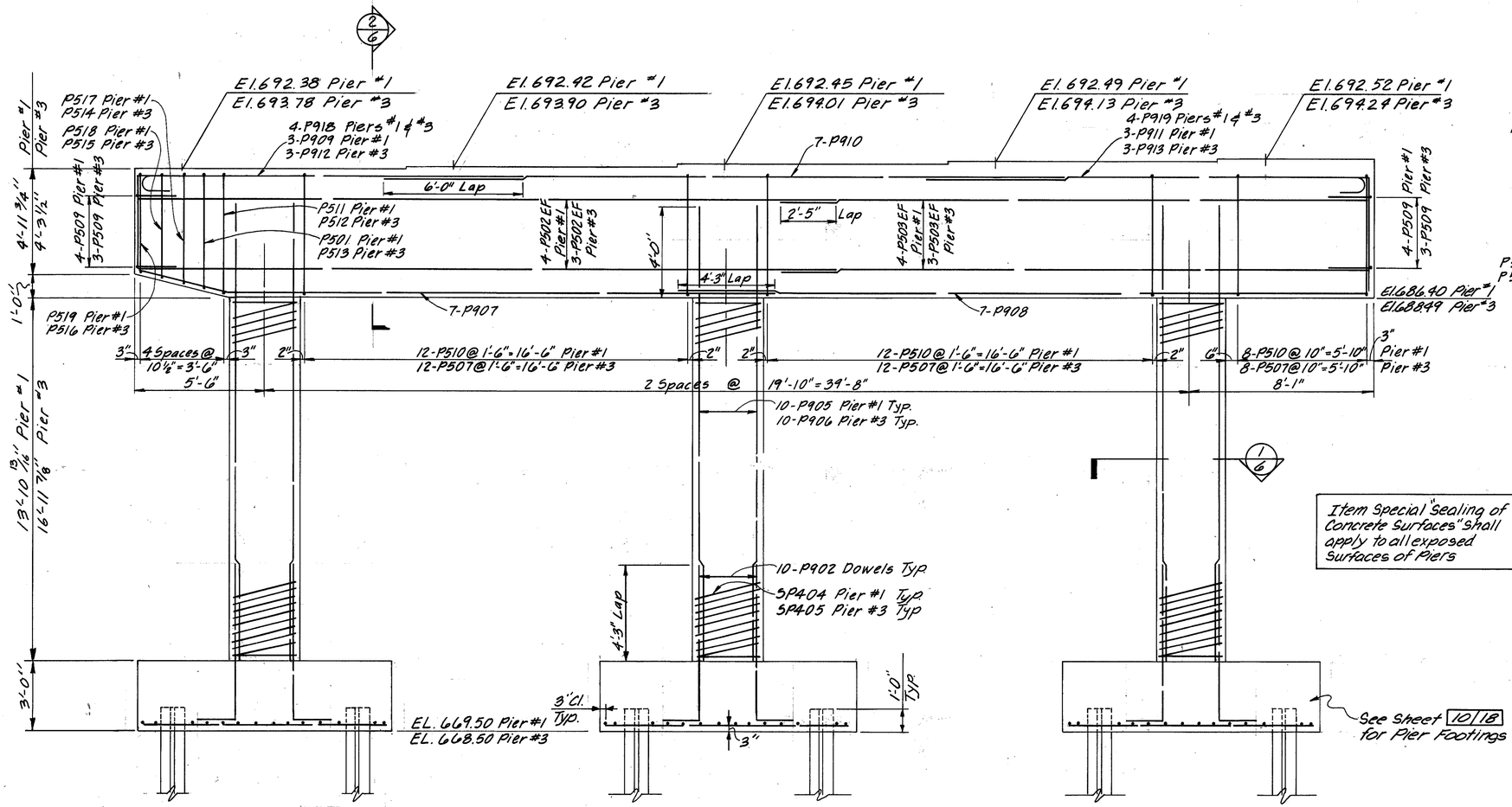
JAC-35-8.49 | OHIO | FHWA REGION 5 | 533/575



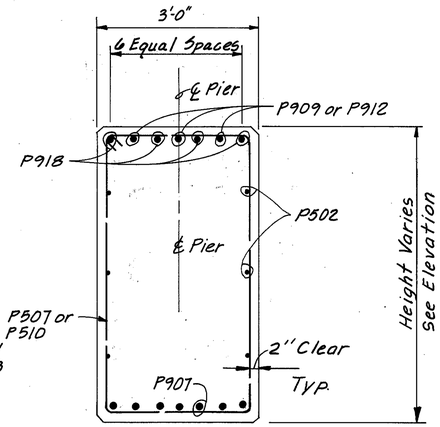
CAP PLAN



SECTION 1/6



ELEVATION



SECTION 2/6

See next Sheet for Pier Notes.

6/18

KZF INCORPORATED
ARCHITECTS • ENGINEERS • INTERIOR DESIGNERS
111 Merchant Street, Cincinnati, Ohio 45246 513/772-1117

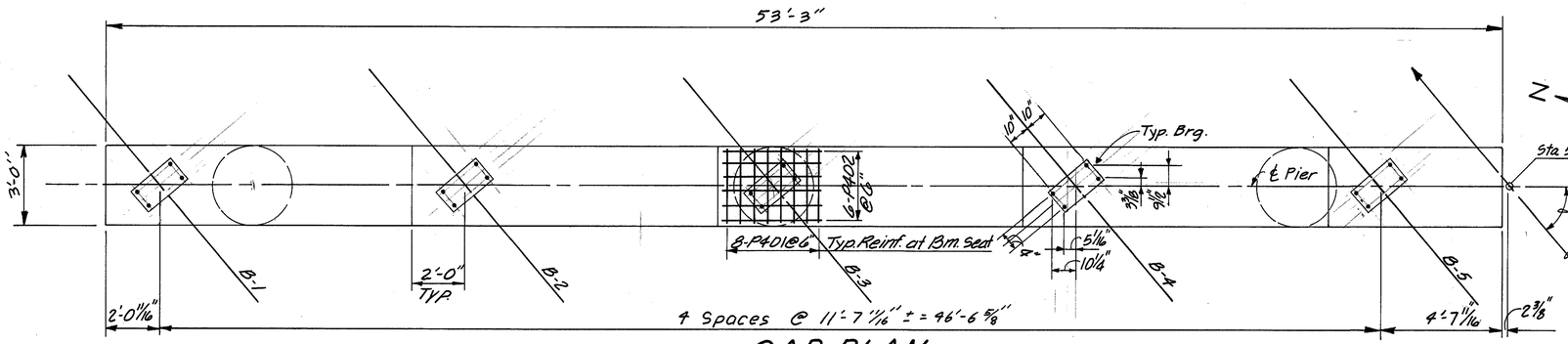
PIERS NO. 1 & 3 SOUTH BOUND

BRIDGE NO. JAC-35-1143
UNDER S.R. 93 (RELOC.)

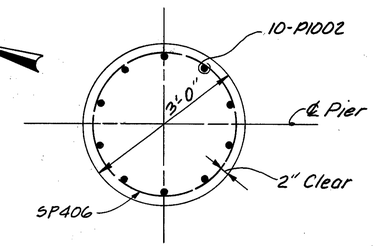
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
MP	KJO	—	WBS	MP	4/4/86	

OCT 18 80

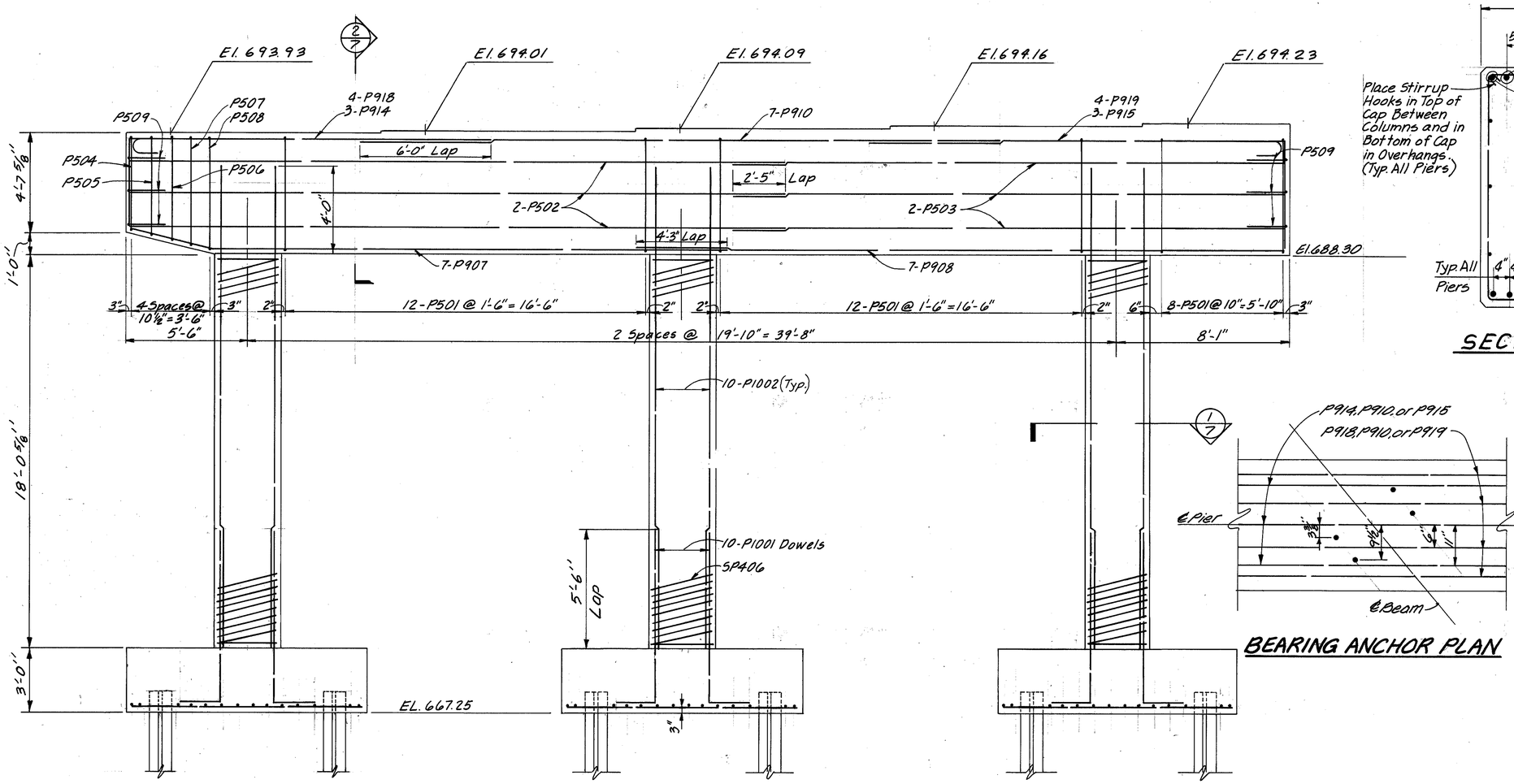
JAC-35-8.49 | OHIO | FHWA REGION 5 | 534 / 575



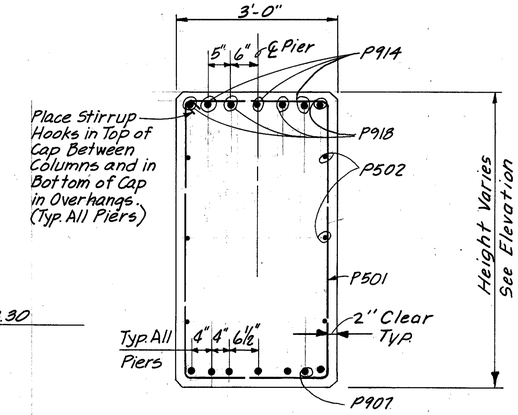
CAP PLAN



SECTION 1/7



ELEVATION



SECTION 2/7

BEARING ANCHOR PLAN

NOTES:

1. See Sheet 2/18 for General Notes & Quantities.
2. See Sheets 16/18 & 18/18 for Reinforcing Steel Details.
3. See Std. Drwg. FB-1-82 for fixed bearing details.
4. Reinforcing Steel in the Vicinity of the Bridge Seat Shall be Accurately placed to Avoid Interference with the Drilling of Dowel Holes, or the Pre-Setting of Beam Dowels.
5. At the option of the Contractor, Beam Dowels (or Formed Holes), Located & Supported by Templates, May be Cast in Place.

7/18

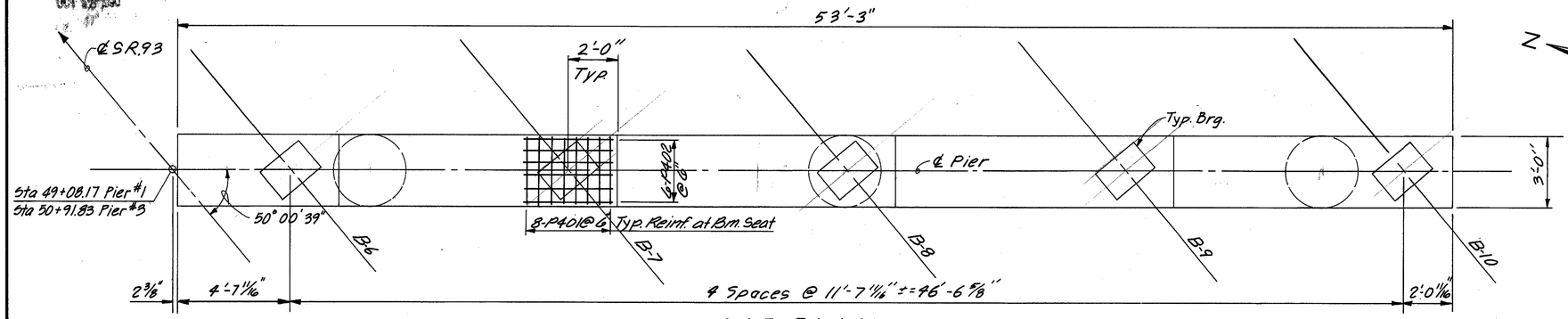
KZF INCORPORATED
ARCHITECTS • ENGINEERS • INTERIOR DESIGNERS
111 Merchant Street, Cincinnati, Ohio 45246 513/772-1117

PIER NO. 2 SOUTH BOUND

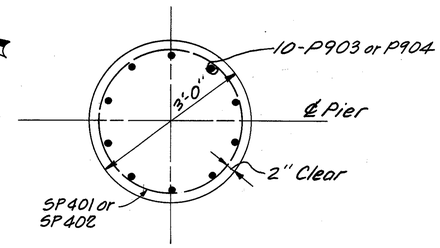
BRIDGE NO. JAC-35-1143
UNDER S.R. 93 (RELOC.)

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
MP	RJO	—	WBS	MP	4/4/86	

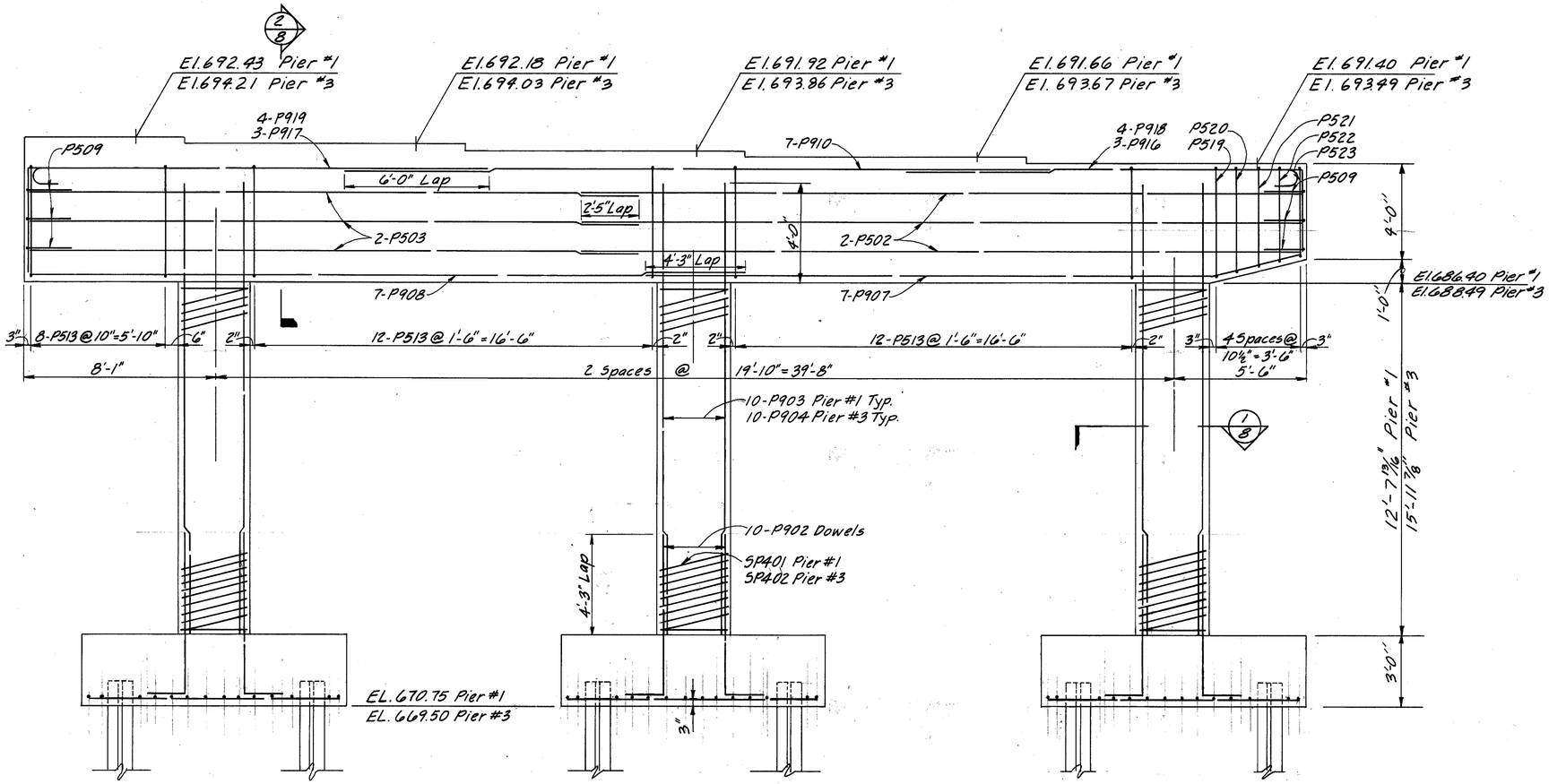
JAC-35-8.49 | OHIO | FHWA REGION 5 | 535 / 575



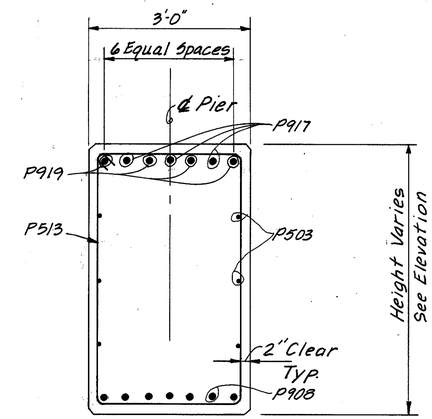
CAP PLAN



SECTION 1/8



ELEVATION



SECTION 2/8

KZF INCORPORATED
ARCHITECTS • ENGINEERS • INTERIOR DESIGNERS
111 Merchant Street, Cincinnati, Ohio 45246 513/772-1117

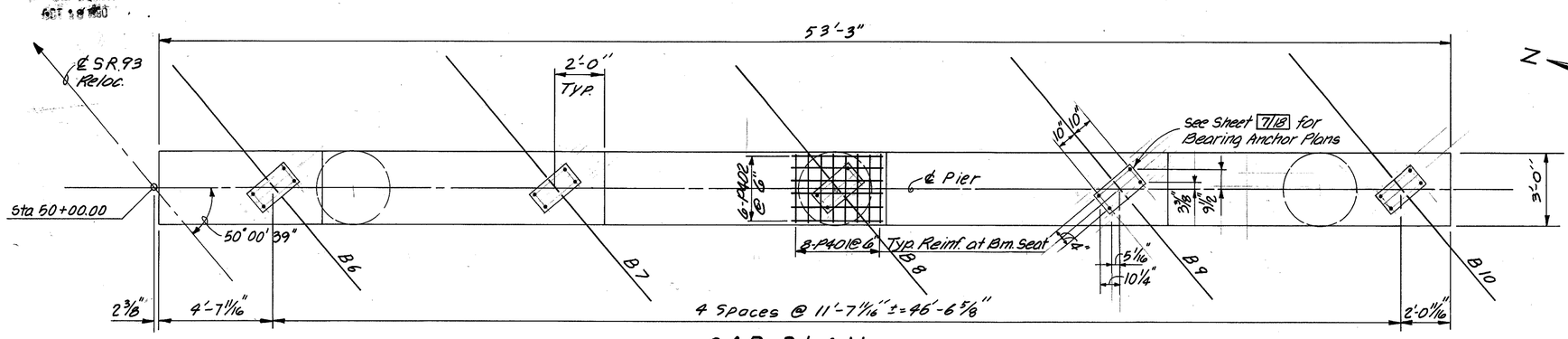
8/18

PIERS NO. 1 & 3 NORTH BOUND

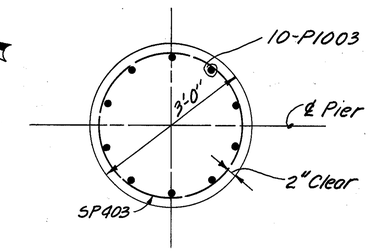
BRIDGE NO. JAC-35-1143
UNDER S.R. 93 (RELOC.)

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
MP	KJO	—	WBS	MP	4/4/86	

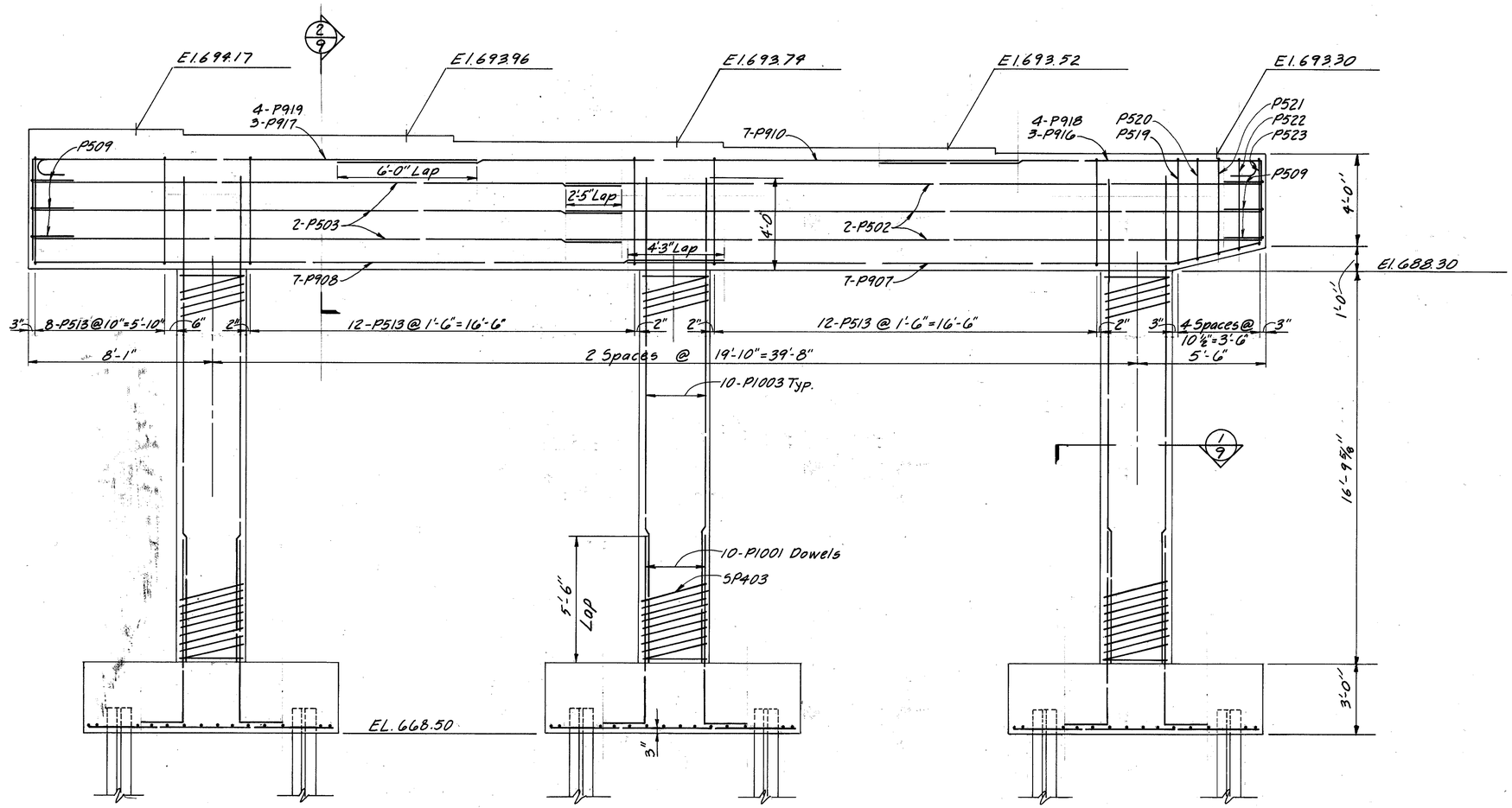
JAC-35-8.49 | OHIO | FHWA REGION 5 | 536 / 575



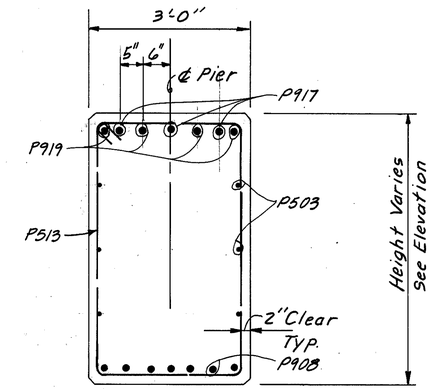
CAP PLAN



SECTION 1/9



ELEVATION



SECTION 2/9

9/18

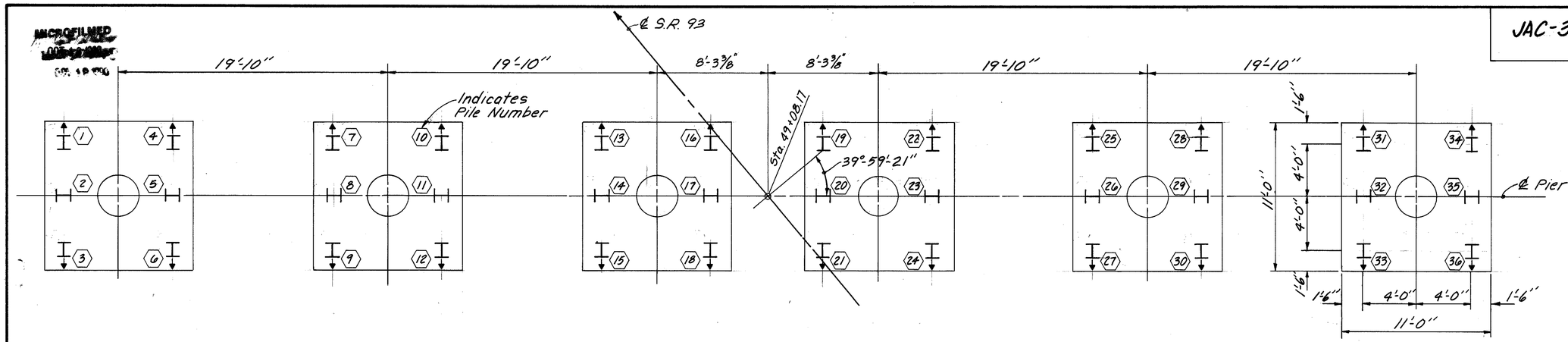
KZF INCORPORATED
ARCHITECTS • ENGINEERS • INTERIOR DESIGNERS
111 Merchant Street, Cincinnati, Ohio 45246 513/772-1117

PIER NO. 2 NORTH BOUND

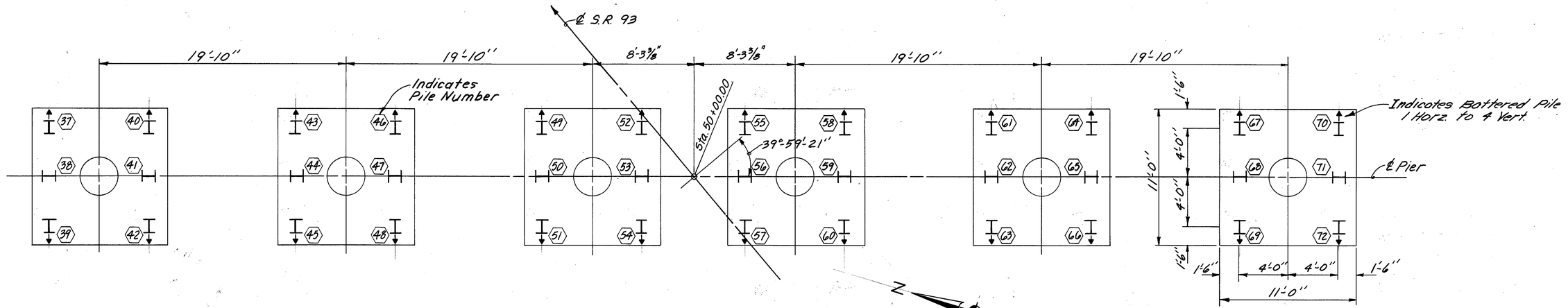
BRIDGE NO. JAC-35-1143
UNDER S.R. 93 (RELOC.)

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
MP	KJO	—	WBS	MP	4/4/86	

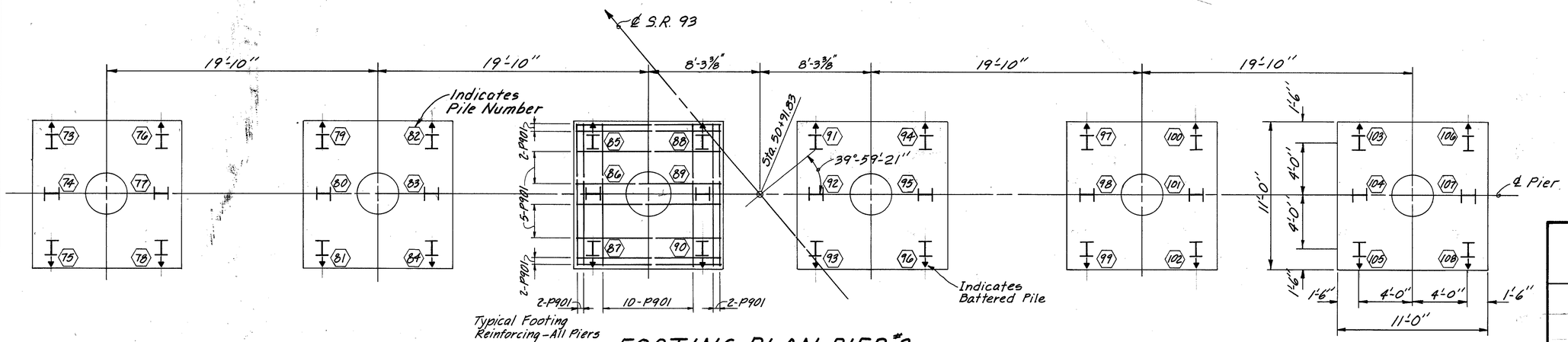
JAC-35-8.49 | OHIO | FHWA REGION 5 | 537/575



FOOTING PLAN-PIER #1



FOOTING PLAN-PIER #2



FOOTING PLAN-PIER #3

KZF INCORPORATED — 10/18

ARCHITECTS ENGINEERS PLANNERS
111 Merchant Street, Cincinnati, Ohio 45246 513/772-1117

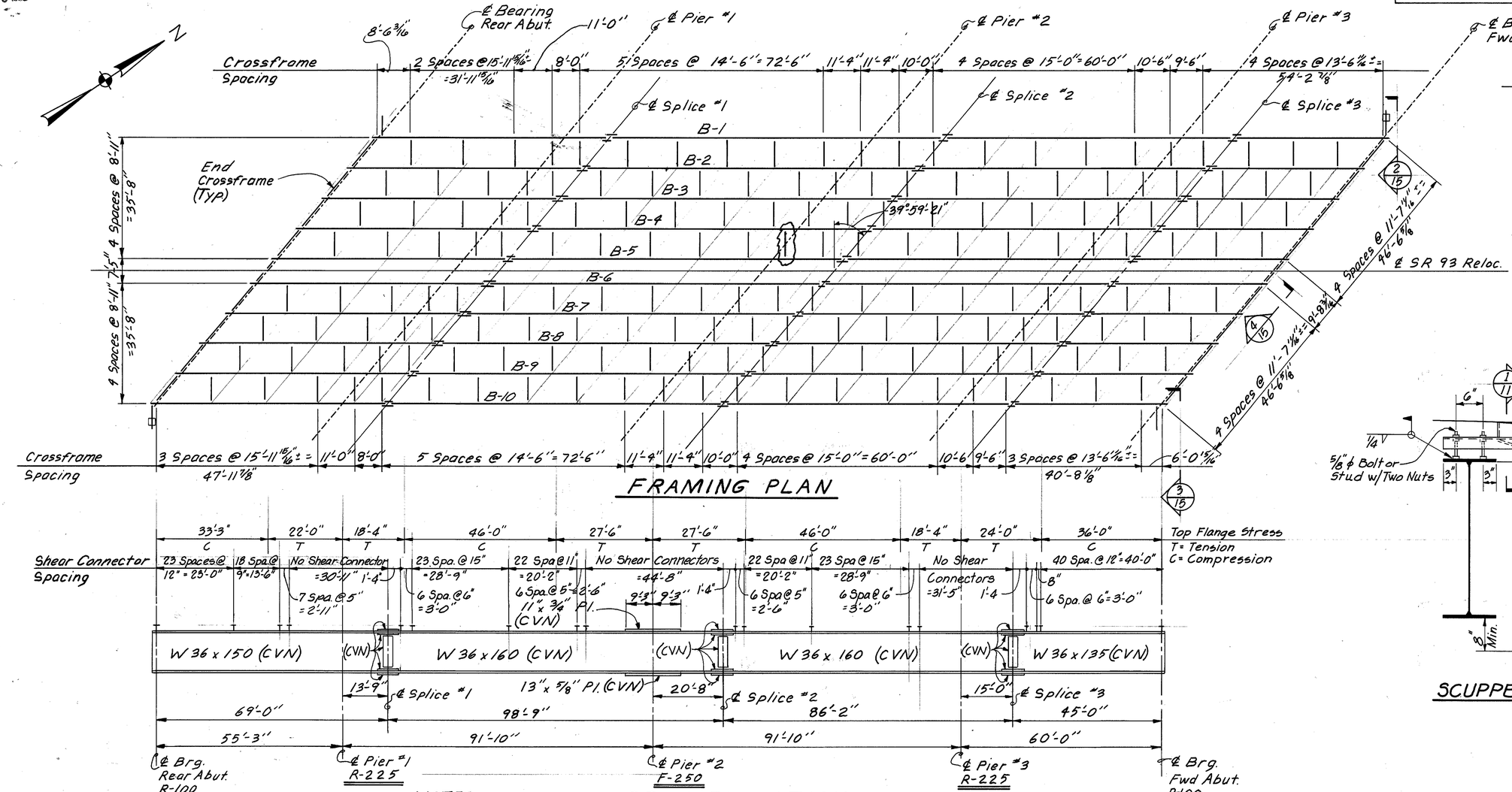
PIER FOOTINGS

BRIDGE NO. JAC-35-1143
UNDER S.R. 93 (RELOC.)

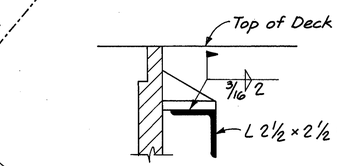
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
MP	KJO	—	WBS	MP	4/4/86	

75591

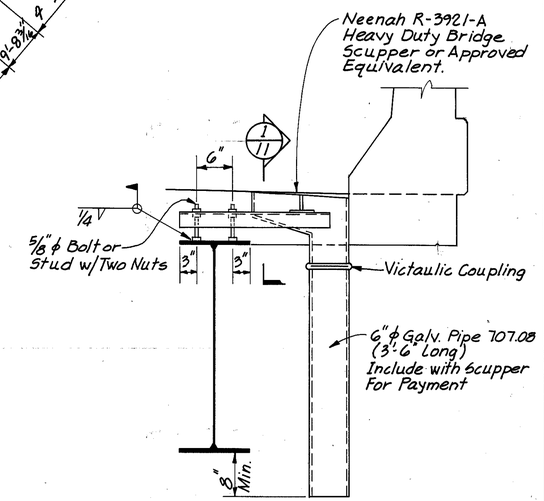
JAC-35-8.49 | OHIO | FHWA REGION 5 | 538 / 575



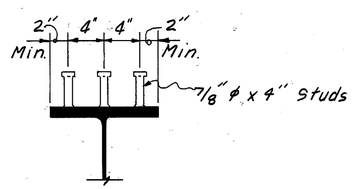
BEAM ELEVATION



SECTION 1 / 11



SCUPPER DETAIL

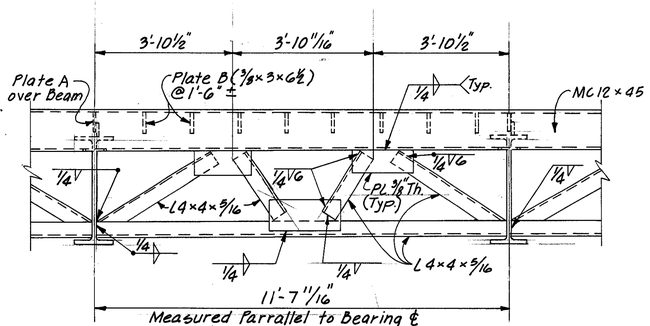


SHEAR CONNECTOR DETAIL

NOTES:

1. See Sheet 2 / 18 for General Notes & Quantities.
2. See Next Sheet for Additional Details.
3. See Sheet 13 / 18 for Intermediate Crossframes.
4. See Std. Dwg. SD-1-69 for Additional Splice, Scupper & Moment Plate Details.
5. See Std. Dwg. EXJ-2-81 for Additional End Crossframe Detail.
6. See Sheet 15 / 18 for Expansion Joint Details.
7. See Std. Dwgs. FB-1-82 and RB-1-55 for Bearing Details.
8. When a Shape or Plate is Designated (CVN) the Material Shall Meet Specified Minimun Notch Toughness Requirement as Specified in 711.01 of CMS.

See Next Sheet for Additional Notes.



END CROSSFRAME

KZF INCORPORATED — 11 / 18

ARCHITECTS • ENGINEERS • INTERIOR DESIGNERS
111 Merchant Street, Cincinnati, Ohio 45246 513/772-1117

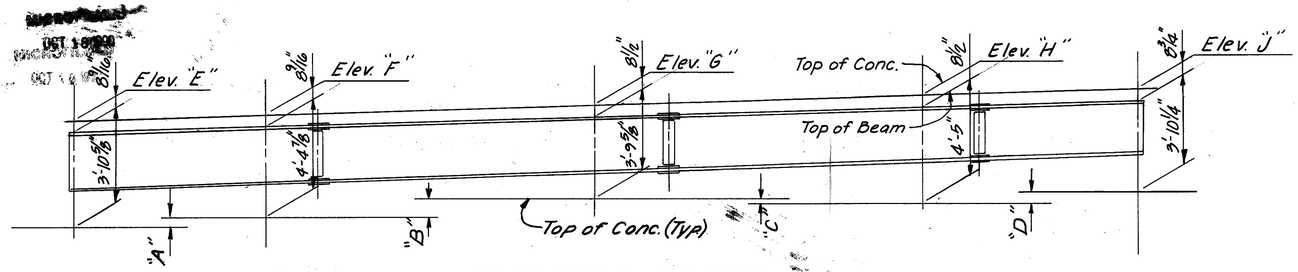
FRAMING PLAN

BRIDGE NO. JAC-35-1143
UNDER S.R. 93 (RELOC.)

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
WBS	KJO	—	JET	MP	9/7/86	

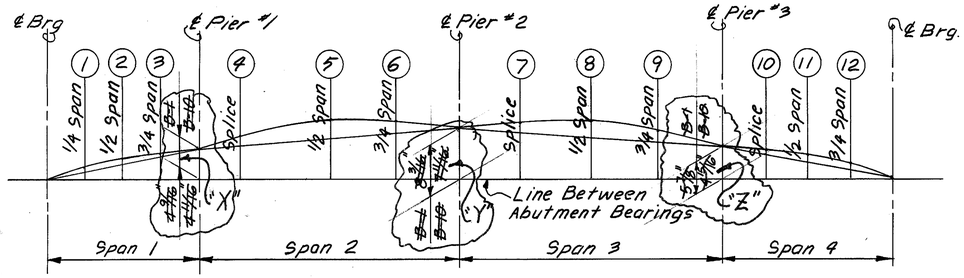
REVISED 12/10/86

JAC-35-8.49 | OHIO | FHWA REGION 5 | 539 / 575



ELEVATION LAYOUT

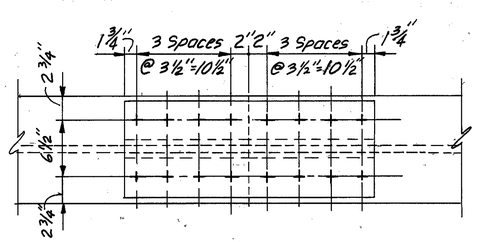
	BEAM	DIM. "A"	DIM. "B"	DIM. "C"	DIM. "D"	El. "E"	El. "F"	El. "G"	El. "H"	El. "J"	"X"	"Y"	"Z"
NORTHBOUND	B-1	0'-3 3/16"	1'-6 5/8"	0'-1 3/4"	0'-7 1/16"	696.70	697.50	698.49	698.91	698.95	4 5/8"	7 9/16	4 15/16"
	B-2	0'-3 3/4"	1'-7 1/16"	0'-1 5/16"	0'-7 9/16"	696.71	697.54	698.52	699.03	699.10	4 11/16"	7 11/16	4 15/16"
	B-3	0'-3 13/16"	1'-7 11/16"	0'-0 15/16"	0'-7 13/16"	696.73	697.57	698.60	699.14	699.24	4 9/16"	7 9/16	4 13/16"
	B-4	0'-4 3/16"	1'-8 1/16"	0'-0 3/16"	0'-8 1/16"	696.74	697.61	698.67	699.26	699.38	4 9/16"	7 9/16	4 15/16"
	B-5	0'-4 9/16"	1'-8 1/2"	0'-0 1/8"	0'-8 1/4"	696.75	697.64	698.74	699.37	699.51	4 9/16"	7 9/16	4 13/16"
SOUTHBOUND	B-6	0'-4 11/16"	1'-8 7/8"	0'-0 1/2"	0'-8 5/8"	696.69	697.55	698.68	699.34	699.51	4 9/16"	7 9/16	4 15/16"
	B-7	0'-5 1/16"	1'-9 3/16"	0'-0 3/16"	0'-9"	696.36	697.30	698.47	699.16	699.36	4 11/16"	7 9/16	4 13/16"
	B-8	0'-5 1/4"	1'-9 13/16"	0'-1 7/16"	0'-9 1/4"	696.08	697.04	698.25	698.99	699.21	4 9/16"	7 9/16	4 15/16"
	B-9	0'-5 1/2"	1'-10 5/16"	0'-1 3/16"	0'-9 3/8"	695.80	696.78	698.03	698.80	699.05	4 9/16"	7 9/16	4 13/16"
	B-10	0'-5 7/8"	1'-10 13/16"	0'-2 1/4"	0'-9 13/16"	695.51	696.52	697.81	698.62	698.89	4 11/16"	7 11/16	4 15/16"



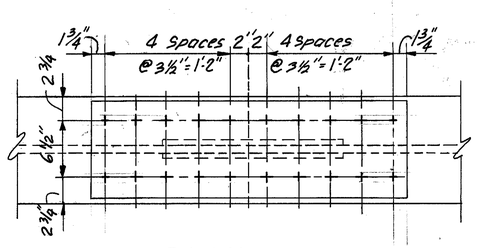
LAYOUT DIAGRAM

DEFLECTION & CAMBER TABLE

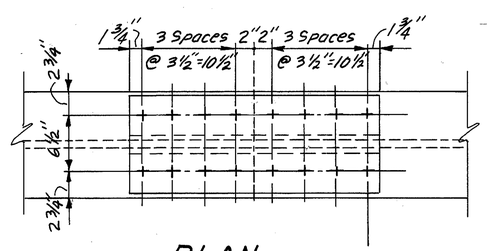
DESCRIPTION	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
D.L. Steel Beam	1/32	1/32	0	1/16	3/16	3/32	1/16	3/16	1/8	0	1/32	1/32
Remaining D.L.	3/16	3/16	-1/32	21/32	1 1/16	7/8	21/32	1 3/16	1	1/8	13/32	3/8
Vertical curve Correction	3/16	1/4	3/16	5/16	23/32	19/32	11/16	23/32	17/32	1/4	5/16	1/4
Total Camber	7/16	1/2	3/16	1 1/16	2 3/8	1 1/2	1 3/16	2 1/2	1 11/16	3/8	3/4	1 1/16



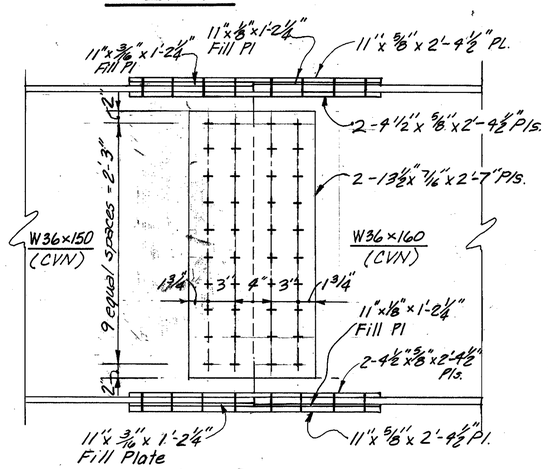
PLAN



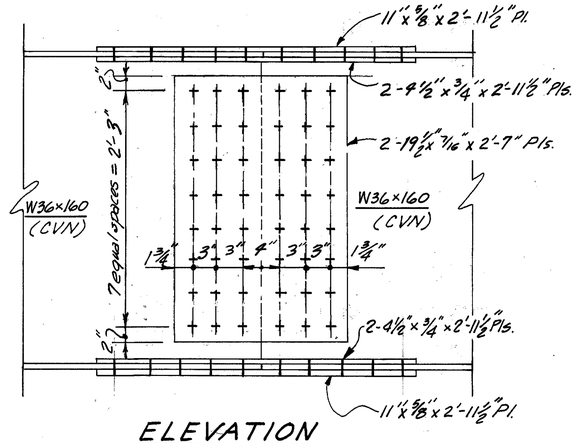
PLAN



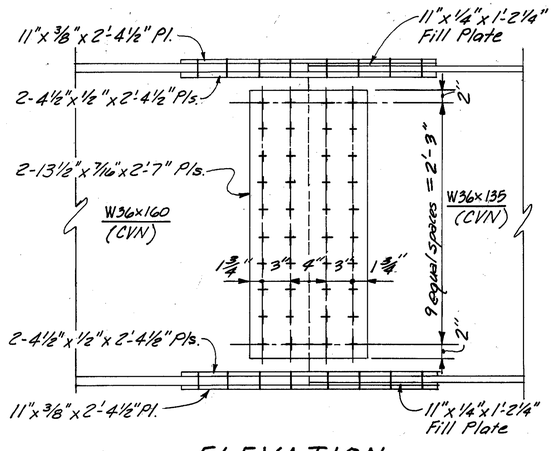
PLAN



ELEVATION
SPLICE DETAIL Nº 1



ELEVATION
SPLICE DETAIL Nº 2



ELEVATION
SPLICE DETAIL Nº 3

NOTES:

9. In Lieu of A588 Steel, A36 Steel, Galvanized, May be Furnished for Bearings, Except for Upper Plate Element of Bearings. This A36 Steel shall be Included with the A588 Steel Quantity for Payment.
10. High Strength Bolts shall be 1" Dia. A325 Type 3
11. A588 Steel is to be left Unpainted. See CMS 513.221 for Cleaning Requirements.
12. All Splice Plate Material to be A588 Steel. All Splice plates shall be CVN. See note on 11/18

KZF INCORPORATED — 12/18

ARCHITECTS • ENGINEERS • INTERIOR DESIGNERS
111 Merchant Street, Cincinnati, Ohio 45246 513/772-1117

FRAMING DETAILS

BRIDGE NO. JAC-35-1143
UNDER S.R. 93 (RELOC.)

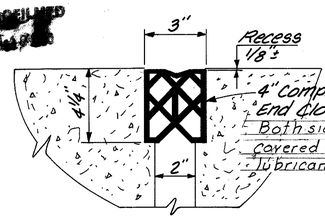
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
WBS	KJO	—	JET	MP	9/17/86	

REVISED 12/10/86

JAC-35-8.49

OHIO FHWA REGION 5

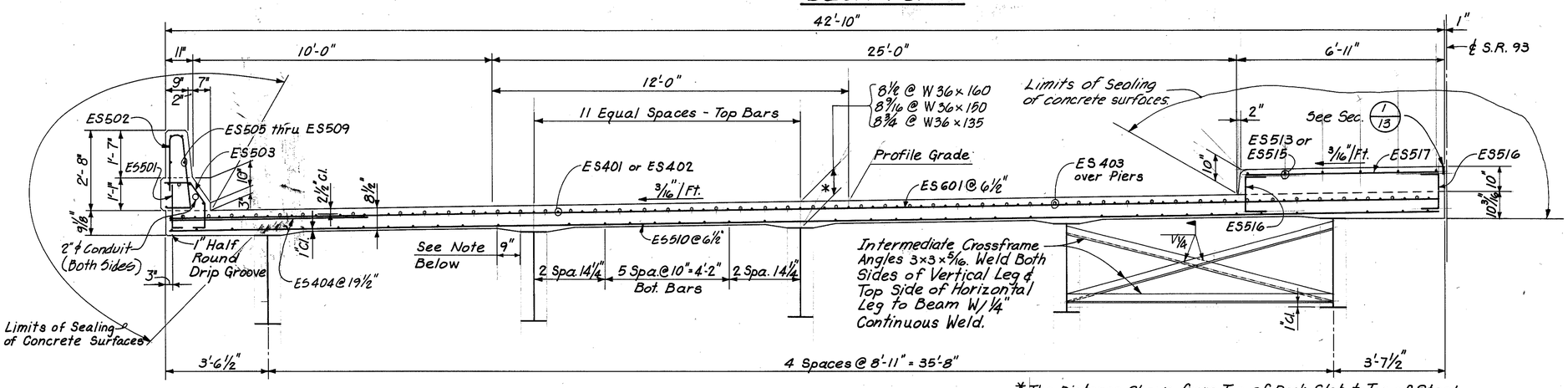
540 / 575



SECTION 1/13 1/15

DECK PLAN

STAGGER of ES403 BARS over PIERS



A Haunch Width of 9" Shall be used for Computing Quantity of Conc. However, the Haunch Width May Vary Between 6" & 12".

HALF TRANSVERSE DECK SECTION

(South Bound Bridge Shown)

* The Distance Shown from Top of Deck Slab to Top of Steel Beam is the Design Dim. The Quantity of Deck Conc. to be Paid for Shall be Based on this Dim., Even Though Deviation from it May be Necessary Because the Top Flange of the Beam May Not Have the Exact Camber or Conformation Req'd. to Place it Parallel to the Finish Grade.

NOTES:

1. See Sheet 2/18 for General Notes & Quantities.
2. See Sheets 16/18 & 18/18 for Reinf. Steel Details.
3. See Std. Dwg. BR-1 for Additional Bridge Railing Details.
4. See Sheet 14/18 for Additional Deck Details.
5. See Sheet 15/18 for Expansion Joint Details.
6. Welded Attachment of Supports for Conc. Deck Finishing Machine May be Made to Areas of the Fascia Stringer Flanges Designated "Compression". Attachments Shall Not be Made to Areas Designated "Tension". Fillet Welds to Compression Flanges Shall be Not Closer than 1" From Edge of Flange, be Not More than 2" long, & be Not Smaller than the Min. Size Req'd. by AASHTO.

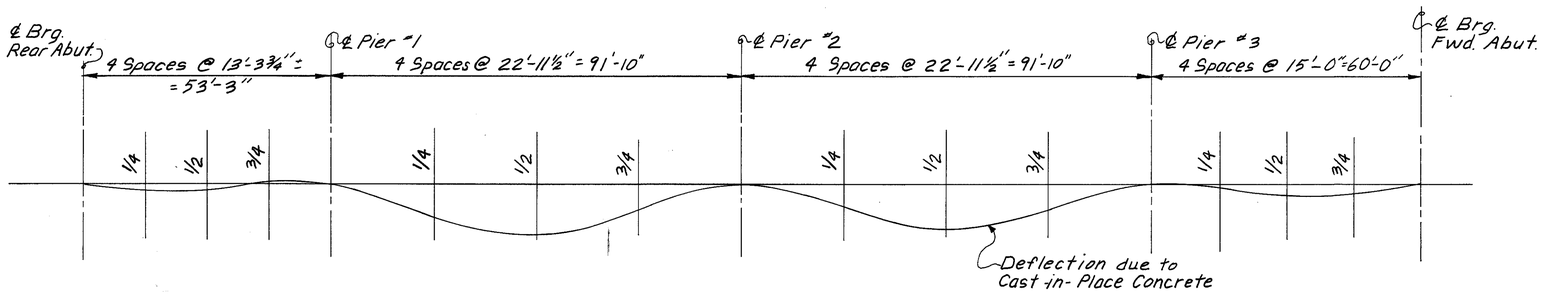
13 / 18

KZF INCORPORATED
ARCHITECTS • ENGINEERS • INTERIOR DESIGNERS
111 Merchant Street, Cincinnati, Ohio 45246 513/772-1117

DECK PLAN

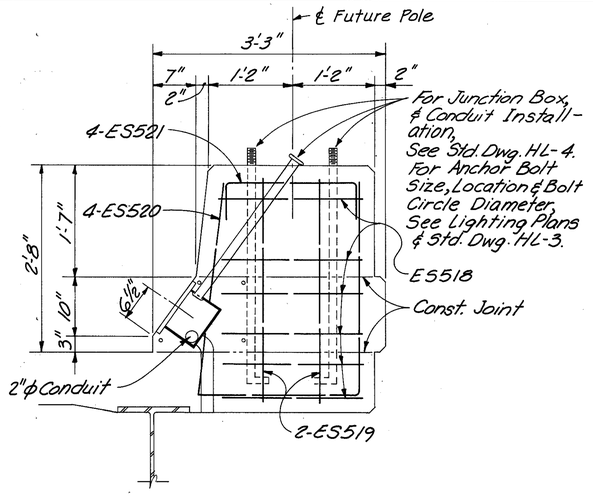
BRIDGE NO JAC-35-1143
UNDER S.R. 93 (RELOC.)

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
GTW	MHW	—	JET	WBS	4/1/86	

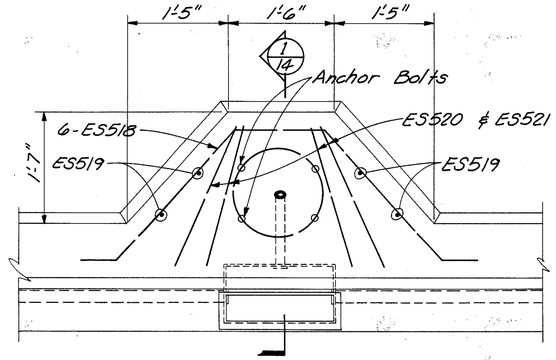


SCREED DIAGRAM AND TABLE

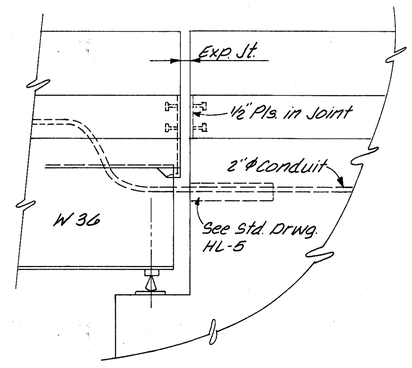
	LOCATION	℄ Brg.	1/4	1/2	3/4	℄ Pier	1/4	1/2	3/4	℄ Pier	1/4	1/2	3/4	℄ Pier	1/4	1/2	3/4	℄ Brg.
SOUTHBOUND	Lt. Fascia: Station	48+88.92	49+02.73	49+16.54	49+30.35	49+49.17	49+67.12	49+90.08	50+13.09	50+36.00	50+58.96	50+81.92	51+04.87	51+27.83	51+42.83	51+57.83	51+72.83	51+87.83
	Profile Grade	697.095	697.259	697.462	697.654	697.836	698.113	698.361	698.578	698.766	698.924	699.052	699.150	699.218	699.246	699.261	699.269	699.259
	Fascia Elevation (92'-11" Lt)	696.711	696.925	697.128	697.320	697.501	697.779	698.026	698.249	698.431	698.589	698.717	698.815	698.883	698.911	698.927	698.929	698.919
	Cast-in-Place Conc Deflection	0	.016	.014	-.001	0	.094	.140	.071	0	.063	.128	.083	0	.009	.034	.032	0
	Screed Elevation	696.71	696.94	697.14	697.32	697.50	697.87	698.17	698.32	698.93	698.65	698.85	698.90	698.88	698.92	698.96	698.96	698.92
	Rt. Fascia: Station	48+52.99	48+66.80	48+80.61	48+94.43	49+08.24	49+31.20	49+54.15	49+77.11	50+00.07	50+23.03	50+45.99	50+68.95	50+91.90	51+06.90	51+21.90	51+36.90	51+51.90
	Profile Grade	696.439	696.681	696.912	697.132	697.342	697.666	697.960	698.225	698.459	698.664	698.838	698.983	699.098	699.157	699.203	699.236	699.257
	Fascia Elevation (0'-1" Lt)	696.750	696.992	697.223	697.443	697.653	697.977	698.271	698.536	698.770	698.975	699.150	699.294	699.409	699.468	699.514	699.547	699.568
	Cast-in-Place Conc. Deflection	0	.016	.014	-.001	0	.094	.140	.071	0	.063	.128	.083	0	.009	.034	.032	0
	Screed Elevation	696.75	697.01	697.24	697.44	697.65	698.07	698.41	698.61	698.77	699.04	699.28	699.38	699.41	699.48	699.55	699.58	699.57
NORTHBOUND	Lt. Fascia: Station	48+52.85	48+66.66	48+80.47	48+94.29	49+08.10	49+31.06	49+54.01	49+76.97	49+99.93	50+22.89	50+45.85	50+68.81	50+91.76	51+06.76	51+21.76	51+36.76	51+51.76
	Profile Grade	696.436	696.678	696.909	697.130	697.339	697.669	697.958	698.223	698.458	698.663	698.837	698.982	699.097	699.156	699.203	699.236	699.257
	Fascia Elevation (0'-1" Rt)	696.747	696.989	697.221	697.441	697.651	697.975	698.270	698.534	698.769	698.974	699.149	699.294	699.409	699.468	699.514	699.547	699.568
	Cast-in-Place Conc. Deflection	0	.016	.014	-.001	0	.094	.140	.071	0	.063	.128	.083	0	.009	.034	.032	0
	Screed Elevation	696.75	697.01	697.24	697.44	697.65	698.07	698.41	698.61	698.77	699.04	699.28	699.38	699.41	699.48	699.55	699.58	699.57
	Rt. Fascia: Station	48+16.92	48+30.73	48+49.55	48+58.36	48+72.17	48+95.13	49+18.09	49+41.05	49+64.00	49+86.96	50+09.92	50+32.88	50+55.84	50+70.84	50+85.84	51+00.84	51+15.84
	Profile Grade	695.756	696.026	696.285	696.534	696.772	697.143	697.484	697.796	698.077	698.329	698.551	698.742	698.909	698.994	699.071	699.135	699.186
	Fascia Elevation (92'-11" Rt)	695.421	695.691	695.951	696.199	696.437	696.808	697.150	697.461	697.743	697.994	698.216	698.406	698.570	698.659	698.736	698.800	698.851
	Cast-in-Place Conc. Deflection	0	.016	.014	-.001	0	.094	.140	.071	0	.063	.128	.083	0	.009	.034	.032	0
	Screed Elevation	695.42	695.71	695.97	696.20	696.44	696.90	697.29	697.53	697.74	698.06	698.34	698.49	698.57	698.67	698.77	698.83	698.85



SECTION 1/14



PLAN
(Light Pole Pilaster)



SECTION (Typ. 4 Corners) 1/13

NOTES FOR STRIP SEAL EXPANSION JOINT:

1. ELASTOMERIC STRIP SEAL NOT SHOWN. SEAL TO BE AS - 300 BY WATSON-BOWMAN-ACME INC., OR SS - 300 BY D.S. BROWN OR APPROVED EQUIVALENT.
2. SEE STANDARD DRAWINGS EXJ-2-81 FOR ADDITIONAL DETAILS INCLUDING WELDING REQUIREMENTS AND TEMPORARY SUPPORT BARS.
3. MEASUREMENT FOR PAY PURPOSES OF ITEM 516 "STRUCTURAL EXPANSION JOINT INCLUDING STRIP SEAL" SHALL BE BASED ON THE SEALED LENGTH OF JOINTS MEASURED HORIZONTALLY ALONG THE JOINT CENTERLINES. PAYMENT PER LINEAR FOOT INCLUDES ALL LABOR, MATERIALS, & EQUIPMENT NECESSARY TO COMPLETE THE JOINT IN PLACE, INCLUDING THE JOINT ARMOR, 1/2" STEEL PLATES, ANCHORING DEVICES, END CROSSFRAME GUSSET PLATES, JOINT EXTRUSIONS AND MEDIAN SLIDER PLATES.
4. ALL METAL SURFACES NOT EMBEDDED IN CONCRETE OR NOT IN DIRECT CONTACT WITH THE STRIP SEAL SHALL BE PAINTED PER ITEM 514 SYSTEM B CONSISTING OF TWO FIELD PRIME COATS AND ONE FINISH COAT.
5. BONDING ELASTOMERIC STRIP SEALS TO STEEL ANCHOR GROOVES

   MATERIALS: ADHESIVE SHALL BE SIKASTIX 360, FEL-PROXY FP-101 OR AN APPROVED ALTERNATE.

   PREPARATIONS FOR INSTALLATION: TO AVOID THE SUBSCUENT CONTAMINATION OF PREPARED SURFACES, ALL SURFACES OF ELASTOMERIC STRIP SEALS SHALL BE CLEANED WITH METHYL ETHYL KETONE (MEK), TOLUENE (T) OR OTHER APPROVED SOLVENT USING CLEAN DISPOSBLE CLOTHS. THEN NOT MORE THAN 7 DAYS PRIOR TO THE SEAL INSTALLATION, A THIN COATING OF CYCLING PASTE* SHALL BE APPLIED TO THE BONDING SURFACES (BULBED EDGES). AFTER 25 TO 40 MINUTES, THE PASTE SHALL BE WASHED FROM THE SURFACES WITH CLEAN WATER.

   THE BONDING SURFACES OF THE STEEL EXTRUSION (THE INTERIOR OF THE ANCHOR GROOVES) SHALL BE PREPARED TO GRADE SA 3, ASTM D2200. PREPARATION SHALL BE ACCOMPLISHED NOT MORE THAN 24 HOURS PRIOR TO ADHESIVE BONDING.

   INSTALLATION: IMMEDIATELY PRIOR TO ADHESIVE APPLICATION, BONDING SURFACES SHALL BE CLEAN, DRY AND WARMER THAN 45°F AND THEY SHALL BE MAINTAINED AT OR ABOVE THIS TEMPERATURE UNTIL THE ADHESIVE HAS CURED. ADHESIVE SHALL BE APPLIED LIBERALLY TO BOTH THE STEEL AND ELASTOMERIC BONDING SURFACES USING A STIFF BRUSH IF NECESSARY TO ACHIEVE A COMPLETE AND RELATIVELY UNIFORM COATING. THEN THE BULBED EDGES OF THE ELASTOMERIC SEAL SHALL BE INSERTED INTO THE ANCHOR GROOVES. AFTER INSTALLTION, EXCESS ADHESIVE SHALL BE REMOVED FROM THE EXPOSED SEAL SURFACES.

   *CYCLING PASTE IS A MIXTURE OF ONE POUND OF PITTSBURGH PLATE GLASS INDUSTRIES' HISIL 233 OR AN APPROVED ALTERNATE AND SIX POUNDS OF CONCENTRATED SULFURIC ACID (18 MOLAR). TO MIX THE PASTE, ADD HISIL TO ACID SLOWLY WHILE STIRRING MIXTURE TO ACHIEVE A SMOOTH VISCOUS PASTE. NOTE: SINCE CONCENTRATED SULFURIC ACID IS VERY CORROSIVE AND HISIL IS AN EXTREMELY FINE NON-TOXIC POWDER, RUBBER GLOVES AND GLASSES SHOULD BE USED BY THOSE MIXING THE PASTE.

KZF INCORPORATED
ARCHITECTS • ENGINEERS • INTERIOR DESIGNERS
111 Merchant Street, Cincinnati, Ohio 45246 513.721.1117

14/18

DECK DETAILS

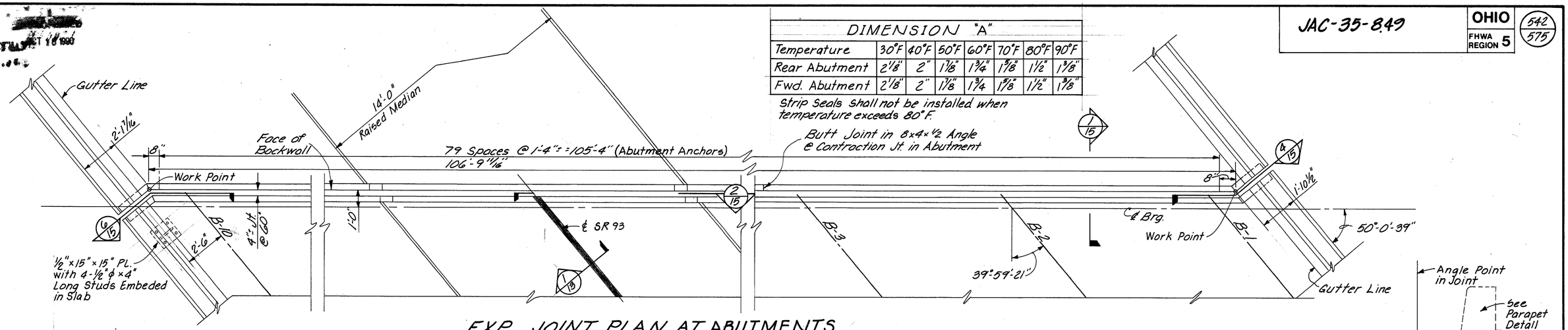
BRIDGE NO. JAC-35-1143
UNDER S.R. 93 (RELOC.)

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
GTW	KJO	—	JET	WBS	4/1/86	

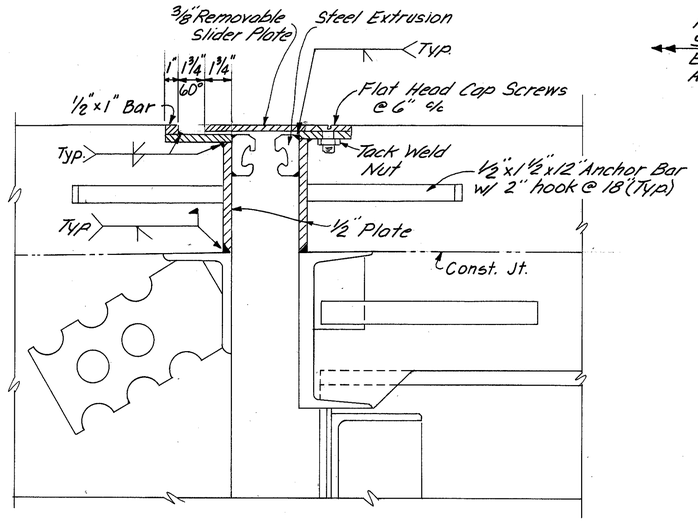
JAC-35-8.49 | OHIO | FHWA REGION 5 | 542/575

DIMENSION "A"							
Temperature	30°F	40°F	50°F	60°F	70°F	80°F	90°F
Rear Abutment	2'1/8"	2"	1 1/8"	1 3/4"	1 3/8"	1 1/2"	1 3/8"
Fwd. Abutment	2'1/8"	2"	1 1/8"	1 3/4	1 3/8"	1 1/2"	1 3/8"

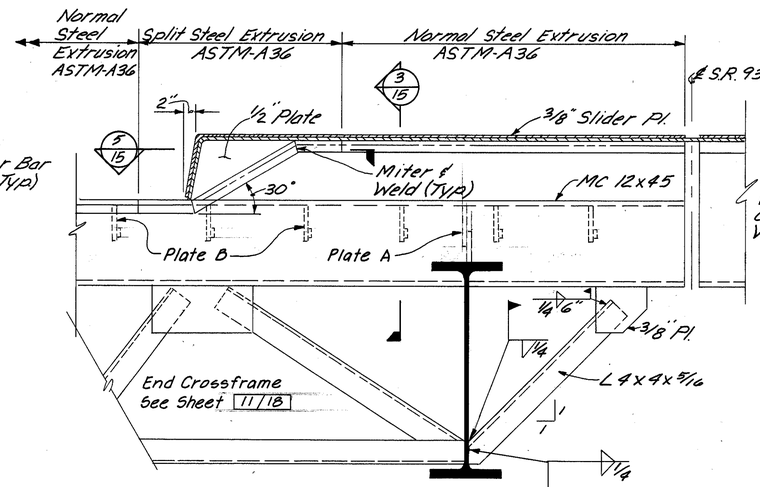
Strip Seals shall not be installed when temperature exceeds 80°F.



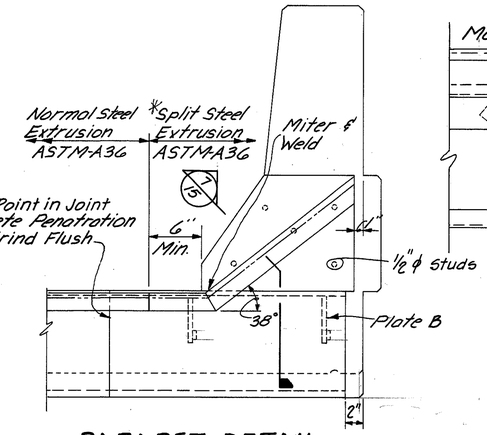
EXP. JOINT PLAN AT ABUTMENTS



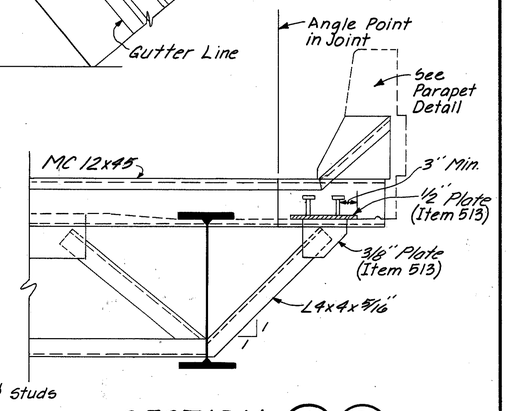
SECTION 3/15



SECTION 2/15 4/11



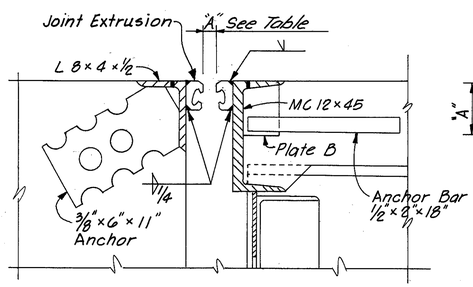
PARAPET DETAIL



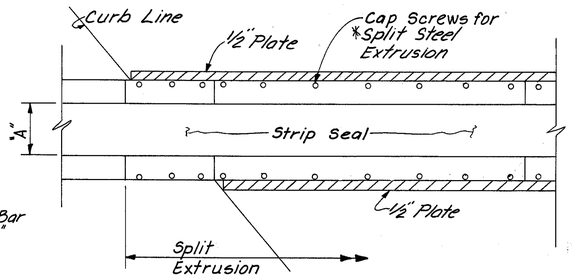
SECTION 6/15 2/11

NOTE:

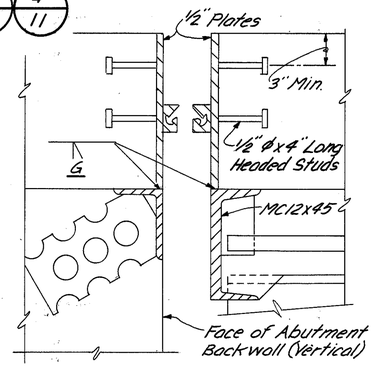
1. See Sheet 14/18 for Joint Notes.
2. *Split extrusion is optional.



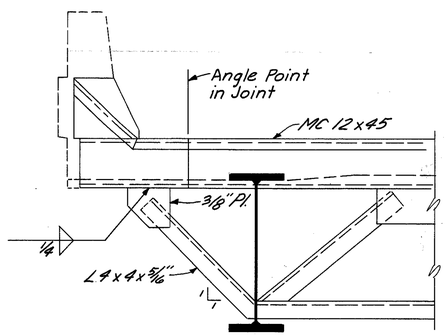
SECTION 1/15



SECTION 5/15



SECTION 7/15



SECTION 4/15 3/11

KZF INCORPORATED
ARCHITECTS ENGINEERS PLANNERS
111 Merchant Street, Cincinnati, Ohio 45246 513/772-1117

15/18

EXPANSION JOINT DETAILS

BRIDGE NO. JAC-35-1143
UNDER S.R. 93 (RELOC.)

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JET	KJO	—	WBB	MP	4/7/86	

JAC-35-8.49 | OHIO | FHWA REGION 5 | 543/575

Mark	Number	Length	Weight	Shape	Rear	Forward
Abutments						
EA801	140	5'-1"	1900	Bt.	70	70
EA601	29	3'-9"	163	Bt.	14	15
EA602	4	3'-8"	22	Bt.	2	2
EA603	4	3'-8"	22	Bt.	2	2
EA604	4	3'-7"	22	Bt.	2	2
EA605	10	3'-7"	54	Bt.	8	2
EA606	6	4'-0"	36	Str.		6
EA607	214	13'-1"	4205	Bt.	107	107
EA608	180	6'-7"	1780	Bt.	90	90
EA609	214	4'-1"	1311	Bt.	107	107
EA610	34	8'-3"	421	Bt.	17	17
EA501	25	5'-3"	137	Bt.	12	13
EA502	26	2'-8"	72	Bt.	16	10
EA503	45	4'-4"	203	Str.	22	23
EA504	12	4'-0"	50	Str.	6	6
EA505	8	12'-0"	100	Str.		8
EA506	32	4'-5"	148	Str.	16	16
EA507	16	14'-0"	234	Str.	16	
EA508	8	14'-10"	124	Str.		8
EA509	16	26'-5"	441	Str.	8	8
EA510	16	26'-8"	445	Str.	8	8
EA511	16	29'-0"	484	Str.	8	8
EA512	16	25'-0"	417	Str.	8	8
EA513	4	8'-6"	35	Str.	2	2
EA514	2	10'-0"	21	Str.	1	1
EA515	2	7'-6"	16	Str.	1	1
EA516	8	5'-0"	42	Bt.	4	4
EA517	8	5'-2"	43	Bt.	4	4
AB01	42	30'-0"	3364	Str.	21	21
AB02	2	29'-9"	159	Str.	1	1
AB03	6	29'-0"	465	Str.	3	3
AB04	2	33'-9"	180	Str.	1	1
AB05	4	33'-0"	352	Str.	2	2
AB06	2	9'-8"	52	Bt.		2
AB07	1	12'-3"	33	Bt.		1
AB08	1	13'-9"	37	Bt.		1
AB09	2	15'-7"	83	Bt.		2
AB10	4	11'-2"	119	Str.		4
AB11	2	9'-0"	48	Str.		2
AB12	4	6'-9"	72	Bt.	2	2
AB13	4	13'-2"	141	Str.	4	
AB14	2	11'-0"	59	Str.	2	
AB15	2	8'-6"	45	Bt.	2	
AB16	1	11'-0"	29	Bt.	1	
AB17	1	12'-3"	33	Bt.	1	
AB18	2	14'-6"	77	Bt.	2	
A601	144	15'-9"	3406	Bt.	72	72
A602	26	10'-6"	410	Bt.	13	13
A603	13	8'-3"	161	Str.		13
A604	2	3'-6"	11	Str.		2
A605	6	9'-4"	84	Str.	6	
A606	2	4'-7"	14	Str.	2	
A607	6	8'-1"	73	Str.	6	

Mark	Number	Length	Weight	Shape	Rear	Forward
Abutments						
A501	144	8'-6"	1277	Bt.	72	72
A502	144	7'-10"	1176	Bt.	72	72
A503	144	5'-8"	852	Bt.	72	72
A504	18	25'-0"	469	Str.	10	8
A505	16	28'-8"	478	Str.	8	8
A506	18	27'-9"	521	Str.	10	8
A507	18	26'-8"	501	Str.	10	8
A508	7	5'-2"	38	Bt.	4	3
A509	8	1'-6"	13	Bt.	4	4
A510	12	5'-0"	63	Str.	6	6
A511	13	8'-0"	108	Str.		13
A512	2	9'-5"	20	Bt.		2
A513	2	8'-9"	18	Bt.		2
A514	2	7'-11"	17	Bt.		2
A515	2	7'-1"	15	Bt.		2
A516	2	6'-5"	13	Bt.		2
A517	12	8'-8"	109	Bt.	6	6
A518	4	16'-2"	67	Str.		4
A519	2	13'-8"	29	Str.		2
A520	9	8'-9"	82	Str.	4	5
A521	1	6'-2"	6	Str.		1
A522	6	8'-2"	51	Str.		6
A523	2	7'-3"	15	Str.		2
A524	30	12'-8"	396	Bt.	15	15
A525	6	16'-8"	104	Str.		6
A526	2	10'-0"	21	Str.		2
A527	6	9'-6"	59	Str.		6
A528	2	18'-2"	38	Str.	2	
A529	10	15'-8"	163	Str.	10	
A530	8	10'-2"	85	Str.	8	
A531	6	9'-1"	57	Str.	6	
A532	1	10'-8"	11	Str.	1	
A533	3	8'-2"	26	Str.	3	
A534	2	8'-8"	18	Str.	2	
A535	6	8'-5"	53	Str.	6	
A536	6	7'-10"	49	Str.	6	
A537	2	8'-11"	19	Bt.	2	
A538	2	8'-5"	18	Bt.	2	
A539	2	7'-9"	16	Bt.	2	
A540	2	7'-3"	15	Bt.	2	
A541	2	6'-7"	14	Bt.	2	
A401	140	1'-6"	140	Str.	70	70
A402	80	3'-6"	187	Str.	40	40

Mark	Number	Length	Weight	Shape	South Bound No. 1	South Bound No. 2	South Bound No. 3	North Bound No. 1	North Bound No. 2	North Bound No. 3
Piers										
P501	33	16'-7"	571	Bt.	1	32				
P502	38	30'-0"	1189	Str.	8	6	6	6	6	6
P503	38	25'-4"	1,004	Str.	8	6	6	6	6	6
P504	1	14'-5"	15	Bt.		1				
P505	1	14'-11"	16	Bt.		1				
P506	1	15'-5"	16	Bt.		1				
P507	33	15'-11"	548	Bt.		1	32			
P508	1	16'-5"	17	Bt.		1				
P509	38	5'-9"	228	Bt.	8	6	6	6	6	6
P510	32	17'-3"	576	Bt.	32					
P511	1	17'-1"	18	Bt.	1					
P512	1	15'-9"	16	Bt.			1			
P513	97	15'-3"	1543	Bt.			1	32	32	32
P514	1	14'-9"	15	Bt.			1			
P515	1	14'-3"	15	Bt.			1			
P516	1	13'-9"	14	Bt.			1			
P517	1	16'-1"	16	Bt.	1					
P518	1	15'-7"	16	Bt.	1					
P519	4	15'-1"	63	Bt.	1			1	1	1
P520	3	14'-7"	46	Bt.				1	1	1
P521	3	14'-1"	44	Bt.				1	1	1
P522	3	13'-7"	43	Bt.				1	1	1
P523	3	13'-1"	41	Bt.				1	1	1
P901	504	10'-6"	17,993	Str.	84	84	84	84	84	84
P902	120	8'-1"	3297	Bt.	30		30	30		30
P903	30	16'-8"	1700	Str.				30		
P904	30	20'-0"	2040	Str.						30
P905	30	17'-11"	1828	Str.	30					
P906	30	21'-0"	2142	Str.			30			
P907	42	27'-4"	3903	Bt.	7	7	7	7	7	7
P908	42	29'-11"	4273	Str.	7	7	7	7	7	7
P909	3	20'-11"	213	Bt.	3					
P910	42	29'-4"	4188	Str.	7	7	7	7	7	7
P911	3	24'-8"	252	Bt.	3					
P912	3	20'-2"	206	Bt.			3			
P913	3	24'-0"	245	Bt.			3			
P914	3	20'-7"	210	Bt.		3				
P915	3	24'-4"	248	Bt.		3				
P916	9	19'-11"	609	Bt.				3	3	3
P917	9	23'-8"	724	Bt.				3	3	3
P918	24	17'-10"	1455	Bt.	4	4	4	4	4	4
P919	24	20'-7"	1679	Bt.	4	4	4	4	4	4
P1001	60	9'-7"	2473	Bt.		30			30	
P1002	30	22'-0"	2840	Str.		30				
P1003	30	20'-10"	2689	Str.					30	
SP401	3	12'-4"	712	Bt.				3		
SP402	3	15'-8"	891	Bt.						3
SP403	3	16'-6"	936	Bt.					3	
SP404	3	13'-7"	779	Bt.	3					
SP405	3	16'-8"	945	Bt.			3			
SP406	3	17'-9"	1003	Bt.		3				
P401	240	2'-8"	428	Str.	40	40	40	40	40	40
P402	180	3'-8"	441	Str.	30	30	30	30	30	30

Mark	Number	Length	Weight	Shape	S.B.	N.B.
Superstructure						
ES601	984	42'-6"	62814	Str.	492	492
ES602	4	Varies			2	2
	Series of 54	40'-0" to 5'-2 3/16"	7335	Str.	Series of 54	Series of 54
ES603	32	4'-7"	220	Str.	16	16
ES604	16	10'-0"	240	Str.	8	8
ES501	452	2'-3"	1061	Bt.	226	226
ES502	452	5'-3"	2475	Bt.	226	226
ES503	452	3'-0"	1414	Bt.	226	226
ES504	12	13'-8"	171	Str.	12	—
ES505	64	15'-0"	1001	Str.	32	32
ES506	96	7'-0"	701	Str.	48	48
ES507	12	14'-2"	177	Str.	12	—
ES508	12	12'-7"	157	Str.	—	12
ES509	12	15'-4"	192	Str.	—	12
ES510	984	42'-6"	43618	Str.	492	492
ES511	4	Varies			2	2
	Series of 54	40'-0" to 5'-2 3/16"	5095	Str.	Series of 54	Series of 54
ES512	32	4'-7"	153	Str.	16	16
ES513	960	30'-0"	30038	Str.	480	480
ES514	76	17'-1"	1354	Str.	38	38
ES515	20	24'-7"	513	Str.	10	10
ES516	824	2'-7"	2220	Bt.	412	412
ES517	418	6'-3"	2725	Str.	209	209
ES518	12	7'-3"	91	Bt.	6	6
ES519	8	3'-2"	26	Str.	4	4
ES520	8	8'-5	70	Bt.	4	4
ES521	8	2'-10"	24	Bt.	4	4
ES522	16	10'-0"	166	Str.	8	8
ES401	1060	30'-0"	21,242	Str.	530	530
ES402	106	13'-9"	974	Str.	53	53
ES403	318	36'-10"	7,677	Str.	159	159
ES404	360	8'-9"	2104	Str.	180	180

NOTES:

1. For Bar Bending Details-See Sheets 17/18 & 18/18
2. Refer to CMS Sections 106.03, 700, 709.01 through 709.05 & 709.08. Sufficient Additional Reinforcing Steel Shall be Provided for Sampling. Random Samples Shall be Replaced in the Structures by the Additional Steel, Spliced in Accordance with 509.08.
3. EA and ES Bars are Epoxy Coated Bars.
4. SP Bars are Spiral Bars. The Weight of these Bars include 4-1/x1/x1/8 Spacer Angles.

16/18

KZF INCORPORATED
ARCHITECTS ENGINEERS PLANNERS
111 Merchant Street, Cincinnati, Ohio 45246 513/772-1117

REINFORCING STEEL LIST

BRIDGE NO. JAC-35-1143
UNDER S.R. 93 (RELOC.)

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
GTW	MHW	—	JET	WBS	9/1/86	

76581

JAC-35-8.49 | OHIO | FHWA REGION 5 | 544 / 575

Dimensions For Bending

Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
EA601	3	1'-1"	2'-0"	2'-0"	0	0	0	0	1'-5"	0'-8"			3'-5"
EA602	14		0'-9"	0'-10½"	2'-5"	0	0		0'-6"		0'-8½"		3'-1½"
EA603	14		0'-8"	0'-10"	2'-5"	0	0		0'-5"		0'-8½"		3'-1½"
EA604	14		0'-8"	0'-9½"	2'-5"	0	0		0'-4"		0'-8½"		3'-1½"
EA605	14		0'-7"	0'-9"	2'-5"	0	0		0'-3"		0'-8½"		3'-1½"
EA607	2	6'-0"	1'-5"					6'-0"	0'-2"		0'-8½"		3'-1½"
EA608	2	3'-0"	0'-11"					3'-0"					
EA609	2	2'-0"	1'-5"					2'-0"					
EA610	2	3'-10"	0'-11"					3'-10"					
EA516	2	1'-8"	3'-6"					0					
EA517	12	0	1'-8"	1'-8"	2'-0"				1'-3"	0	1'-9"		
EA501	22												
EA502	18	0'-7"	2'-1"	0						0'-5"			
A606	19		6'-5"	3'-5"					4'-11"		4'-1½"		7'-6½"
A607	19		9'-0"	3'-5"					6'-10½"		5'-9½"		9'-2½"
A608	19		10'-6"	3'-5"					8'-0½"		6'-9"		10'-2"
A609	19		12'-4"	3'-5"					9'-5"		7'-11"		11'-4"
A612	19		3'-6"	3'-5"					2'-8"		2'-3"		5'-8"
A615	19		5'-3"	3'-5"					4'-0½"		3'-4½"		6'-9½"
A616	19		7'-9"	3'-5"					5'-11"		5'-0"		8'-5"
A618	19		11'-3"	3'-5"					8'-7½"		7'-3"		10'-8"
A601	2	7'-0"	5'-5"					2'-8"					
A602	2	4'-10"	1'-2"					4'-10"					
A501	2	1'-8"	5'-5"					1'-8"					
A502	2	7'-0"	1'-0"					0					
A503	2	1'-6"	2'-11"					1'-6"					
A508	12	0	2'-2"	1'-10"	1'-4"				1'-3"	0	1'-9"		
A509	19		0'-10"	1'-8"					0'-7½"		0'-6½"		2'-2½"
A512	2	4'-3"	1'-2"					4'-3"					
A513	2	3'-11"	1'-2"					3'-11"					
A514	2	3'-6"	1'-2"					3'-6"					
A515	2	3'-1"	1'-2"					3'-1"					
A516	2	2'-9"	1'-2"					2'-9"					
A517	T1	0'-8"	1'-2"	2'-8"	1'-2"	2'-8"		0'-8"					
A524	T1	0'-8"	3'-2"	2'-8"	3'-2"	2'-8"		0'-8"					
A537	2	4'-0"	1'-2"					4'-0"					
A538	2	3'-9"	1'-2"					3'-9"					
A539	2	3'-5"	1'-2"					3'-5"					
A540	2	3'-2"	1'-2"					3'-2"					
A541	2	2'-10"	1'-2"					2'-10					

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12)

(13) (14) (16) (17) (18) (19) (20) (21)

(15) NOT USED

(S1) (S2) (S3) (S4) (S5) (S6) (S7) (S8) (S9) (S10) (S11) (T1) (T2) (T3) (T4) (T5)

(22) (23)

(SP1) (SP2)

WHERE SLOPE IS 45° SHOW "H" ONLY
OTHERWISE SHOW "H" AND "K"

NOTES:

1. FIGURES IN CIRCLES SHOW BAR TYPES.
2. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT A & G ON STD. 180° & 135° HOOKS.
3. "J" DIMENSION ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4. WHERE "J" IS NOT SHOW "J" WILL BE KEPT EQUAL TO OR LESS THAN "H". WHERE "J" CAN EXCEED "H" IT SHOULD BE SHOWN.
5. "H" DIMENSION ON STIRRUPS TO BE SHOWN WHERE NECESSARY TO RESTRICT HOOKS.
6. ALL BENDS SHOWN ARE BENT AROUND A STANDARD MANDREL, EXCEPT STIRRUP S11, TIES T3, SPIRALS SP1 AND WHERE RADIUS "R" IS INDICATED.
7. RADIUS DIMENSION "R" IS TO OUTSIDE OF BAR.
8. THE LENGTH OF BENT BARS IS MEASURED ALONG THE CENTERLINE.
9. HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE LATEST ACI SPECIFICATIONS.
10. FOR BAR TYPE SP1, THE NO. OF TURNS "D" IS THE LENGTH "C" DIVIDED BY THE PITCH "B", PLUS 3 TURNS (TOTAL NUMBER OF CLOSED COILS), EXPRESSED AS THE NEAREST WHOLE NUMBER. 1½ CLOSED COILS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT.

ENLARGED VIEW SHOWING BAR BENDING DETAILS

17/18

KZF INCORPORATED
ARCHITECTS • ENGINEERS • INTERIOR DESIGNERS
111 Merchant Street, Cincinnati, Ohio 45246 513.772.1117

BAR BENDING DETAILS.

BRIDGE NO. JAC-35-1143
UNDER S.R. 93 (RELOC.)

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
GTW	KJO	—	JET	WBS	4/7/86	

JAC-35-8.49 | OHIO | FHWA REGION 5 | 545 / 575

Dimensions For Bending

Mark	Type	A	B	C	D	E	F	G	H	J	K	R	O
P1001	2	1'-10"	8'-1"					0"					
P902	2	1'-7"	6'-10"					0"					
P907	19		4'-0"	23'-6"	0"	0"	0"		1'-0"		3'-7"		27'-4"
P909	2	4'-8"	16'-7"					0"					
P911	2	5'-8"	19'-4"					0"					
P912	2	4'-0"	16'-7"					0"					
P913	2	5'-0"	19'-4"					0"					
P914	2	4'-4"	16'-7"					0"					
P915	2	5'-4"	19'-4"					0"					
P916	2	3'-8"	16'-7"					0"					
P917	2	4'-8"	19'-4"					0"					
P918	1	1'-3"	16'-7"					0"		0'-11½"			
P919	1	1'-3"	19'-4"					0"		0'-11½"			
P501	T1	5½"	2'-8"	5'-4"	2'-8"	5'-4"		5½"					
P504	T1	5½"	2'-8"	4'-3"	2'-8"	4'-3"		5½"					
P505	T1	5½"	2'-8"	4'-6"	2'-8"	4'-6"		5½"					
P506	T1	5½"	2'-8"	4'-9"	2'-8"	4'-9"		5½"					
P507	T1	5½"	2'-8"	5'-0"	2-8"	5'-0"		5½"					
P508	T1	5½"	2'-8"	5'-3"	2'-8"	5'-3"		5½"					
P509	S10		1'-8"	2'-8"	1'-8"								
P510	T1	5½"	2'-8"	5'-8"	2'-8"	5'-8"		5½"					
P511	T1	5½"	2'-8"	5'-7"	2'-8"	5'-7"		5½"					
P512	T1	5½"	2'-8"	4'-11"	2'-8"	4'-11"		5½"					
P513	T1	5½"	2'-8"	4'-8"	2'-8"	4'-8"		5½"					
P514	T1	5½"	2'-8"	4'-5"	2'-8"	4'-5"		5½"					
P515	T1	5½"	2'-8"	4'-2"	2'-8"	4'-2"		5½"					
P516	T1	5½"	2'-8"	3'-11"	2'-8"	3'-11"		5½"					
P517	T1	5½"	2'-8"	5'-1"	2'-8"	5'-1"		5½"					
P518	T1	5½"	2'-8"	4'-10"	2'-8"	4'-10"		5½"					
P519	T1	5½"	2'-8"	4'-7"	2'-8"	4'-7"		5½"					
P520	T1	5½"	2'-8"	4'-4"	2'-8"	4'-4"		5½"					
P521	T1	5½"	2'-8"	4'-1"	2'-8"	4'-1"		5½"					
P522	T1	5½"	2'-8"	3'-10"	2'-8"	3'-10		5½"					
P523	T1	5½"	2'-8"	3'-7"	2'-8"	3'-7"		5½"					
SP401	SP1		4½"	12'-4"	2'-8"						36		
SP402	SP1		4½"	15'-8"	2'-8"						45		
SP403	SP1		4½"	16'-6"	2'-8"						47		
SP404	SP1		4½"	13'-7"	2'-8"						39		
SP405	SP1		4½"	16'-8"	2'-8"						47		
SP406	SP1		4½"	17'-9"	2'-8"						50		
ES501	2	0'-10"	1'-6"					0"					
ES502	22												
ES503	23	0'-9"											
ES516	2	0'-10"	1'-2"					0'-10"					
ES518	4	0"	0'-6"	2'-7"	1'-4"	2'-7"	0'-6"	0"	1'-10"				
ES520	24	2'-4"	3'-2"	3'-2"	0'-6½"								
ES521	2	0'-7"	1'-10"					0'-7"					

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (16) (17) (18) (19) (20) (21) (24)

(15) NOT USED

(S1) (S2) (S3) (S4) (S5) (S6) (S7) (S8) (S9) (S10) (S11) (T1) (T2) (T3) (T4) (T5) (SP1) (SP2) (22) (23)

NOTES:

1. FIGURES IN CIRCLES SHOW BAR TYPES.
2. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT A & G ON STD. 180° & 135° HOOKS.
3. "J" DIMENSION ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4. WHERE "J" IS NOT SHOW "J" WILL BE KEPT EQUAL TO OR LESS THAN "H". WHERE "J" CAN EXCEED "H" IT SHOULD BE SHOWN.
5. "H" DIMENSION ON STIRRUPS TO BE SHOWN WHERE NECESSARY TO RESTRICT HOOKS.
6. ALL BENDS SHOWN ARE BENT AROUND A STANDARD MANDREL, EXCEPT STIRRUP S11, TIES T3, SPIRALS SP1 AND WHERE RADIUS "R" IS INDICATED.
7. RADIUS DIMENSION "R" IS TO OUTSIDE OF BAR.
8. THE LENGTH OF BENT BARS IS MEASURED ALONG THE CENTERLINE.
9. HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE LATEST ACI SPECIFICATIONS.
10. FOR BAR TYPE SP1, THE NO. OF TURNS "D" IS THE LENGTH "C" DIVIDED BY THE PITCH "B", PLUS 3 TURNS (TOTAL NUMBER OF CLOSED COILS), EXPRESSED AS THE NEAREST WHOLE NUMBER. 1½ CLOSED COILS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT.

WHERE SLOPE IS 45° SHOW "H" ONLY OTHERWISE SHOW "H" AND "K"

ENLARGED VIEW SHOWING BAR BENDING DETAILS

KZF INCORPORATED
ARCHITECTS • ENGINEERS • INTERIOR DESIGNERS
111 Merchant Street, Cincinnati, Ohio 45246 513/772-1117

18 / 18

BAR BENDING DETAILS

BRIDGE NO. JAC-35-1143
UNDER S.R. 93 (RELOC.)

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
GTW	ER	—	JET	WBS	4/7/86	