

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		60381	14	45
① 3424 AR&BR GEN & STRU NOTE 28163								

## GENERAL NOTES - JOB 60381

- ALL BEARINGS REFER TO TRUE NORTH.
- LEVEL DATUM IS MEAN SEA LEVEL REFERENCED TO U.S.C. AND G.S.
- ALL CONCRETE EXCEPT SEAL CONCRETE SHALL BE POURED IN THE DRY. ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.
- ALL CONCRETE IN THE SUPERSTRUCTURE SLABS AND PARAPET SHALL BE CLASS S(AE). ALL OTHER CONCRETE SHALL BE CLASS S.
- GRADE LINE DENOTES FINISHED GRADE.
- ALL STRUCTURAL STEEL SHALL BE A36 OR A572 GRADE 50. STRUCTURAL STEEL NOT IDENTIFIED AS TO GRADE SHALL BE A36.
- ANCHOR BOLTS SHALL BE ASTM DESIGNATION A36 AND SHALL BE GALVANIZED TO CONFORM TO ASTM A153. ANCHOR BOLTS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID FOR "STRUCTURAL STEEL IN ... SPANS (A36)."
- DRAWINGS SHOW GENERAL FEATURES OF DESIGN ONLY. SHOP DRAWINGS SHOWING DETAILS OF STRUCTURAL STEEL AND PERMANENT STEEL FORMS SHALL BE PREPARED, SUBMITTED AND APPROVED BEFORE FABRICATION IS BEGUN.
- THE TOPS OF ALL NEW FOOTINGS SHALL NOT BE ABOVE THE TOPS OF THE EXISTING ADJACENT FOOTINGS.
- REINFORCING STEEL SHALL BE ASTM A615 OR A617 GRADE 60 DEFORMED BARS. LAP SPLICES SHALL BE A MINIMUM OF 32 BAR DIAMETERS IN LENGTH UNLESS OTHERWISE NOTED. BAR SIZES ARE DESIGNATED BY NUMBER, THE FIRST DIGIT OR DIGITS INDICATING THE SIZE OF THE BAR. BARS SHALL BE ACCURATELY LOCATED IN THE FORMS AND FIRMLY HELD IN PLACE BY STEEL SUPPORTS SUFFICIENT IN NUMBER AND SIZE TO PREVENT DISPLACEMENT DURING THE COURSE OF CONSTRUCTION. THE WIRE SUPPORTS WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED SUBSIDIARY TO THE ITEM OF "REINFORCING STEEL."
- DIMENSIONS SHOWN IN REINFORCING BAR BENDING DIAGRAMS ARE TO OUTER EDGE OF BARS, UNLESS OTHERWISE NOTED.
- REINFORCING STEEL IN TOP MAT OF SLAB SHALL BE EPOXY COATED. ALL REINFORCING STEEL TO BE EPOXY COATED HAS BEEN MARKED IN THE PLANS WITH AN "E" IMMEDIATELY AT THE END OF THE BAR MARK.
- THE TRANSVERSE TRUSS BARS IN THE SUPERSTRUCTURE SLAB MAY BE REPLACED WITH FULL LENGTH STRAIGHT BARS OF THE SAME SIZE IN THE TOP AND BOTTOM MAT OF THE SLAB. THE BARS IN THE TOP MAT SHALL BE EPOXY COATED. THE BASIS OF PAYMENT SHALL BE THE TRUSS BARS.
- CONCRETE SLABS FOR SPANS UP TO 50 FEET IN LENGTH SHALL BE POURED IN ONE CONTINUOUS OPERATION. SPANS OVER 50 FEET IN LENGTH MAY BE POURED IN INCREMENTS WITH THE CENTER ONE-THIRD TO ONE-HALF SPAN POURED FIRST. AFTER THE CENTER SECTION IS POURED, NOT LESS THAN 72 HOURS SHALL ELAPSE BEFORE POURING THE END SECTIONS. END SECTIONS MAY BE POURED SIMULTANEOUSLY. IF NOT POURED SIMULTANEOUSLY, 48 HOURS SHALL ELAPSE BETWEEN END SECTION POURS. A MINIMUM OF 72 HOURS SHALL ELAPSE BETWEEN COMPLETION OF THE SLAB AND THE POURING OF THE PARAPET RAILING.
- ALL CONCRETE SHALL BE POURED AND SCREEDED OFF PRIOR TO INITIAL SET. THE CONCRETE DECK SHALL BE GIVEN A GROOVED FINISH AS SPECIFIED IN SP. "FINISHING AND GROOVING CONCRETE BRIDGE DECKS AND APPROACHES." MOVEMENT OF THE FINISHING MACHINE ACROSS NEW CONCRETE SHALL BE ON PLANKS PLACED ON THE SURFACE AND SHALL BE PROHIBITED FOR 72 HOURS AFTER FINISHING THE POUR.
- ANY EQUIPMENT OR APPURTENANCE THAT INTERFERS WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE RESPECTIVE OWNERS, UNLESS OTHERWISE PROVIDED.
- STEEL PILING: PILING SHALL BE DRIVEN WITH AN APPROVED AIR, STEAM OR DIESEL HAMMER TO 70 TONS MINIMUM. LENGTHS OF PILING SHOWN ARE BASED ON EXISTING DRIVING RECORDS. ORDER LENGTHS SHOWN; CUT-OFF OR SPLICING ON, IF NECESSARY, SHALL BE PAID FOR IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
- ALL MATERIAL REMOVED FROM THE BRIDGES AND NOT SCHEDULED TO BE REUSED, SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
- BOILED LINSEED OIL SHALL BE APPLIED TO THE ROADWAY SURFACE OF ALL BRIDGE DECKS AND THE ROADWAY FACE AND TOP OF THE CONCRETE PARAPET RAIL.
- ALL NEW STRUCTURAL STEEL, EXCEPT GALVANIZED MEMBERS, CONTACT SURFACES OF BOLTED CONNECTIONS, SURFACES WITHIN 3" OF HOLES AND FIELD WELDS, AND SURFACES IN CONTACT WITH CONCRETE, SHALL BE GIVEN ONE SHOP PRIME COAT AND TWO FIELD COATS OF PAINT AFTER ERECTION AS SPECIFIED IN SUBSECTION 807.59 OF THE STANDARD SPECIFICATIONS AND SP 807-10. THE SECOND FIELD COAT SHALL BE THE COLOR "ALUMINUM."
- ALL EXISTING STRUCTURAL STEEL SHALL BE PREPARED AND PAINTED IN ACCORDANCE WITH THE PROJECT SPECIAL PROVISION "PAINTING EXISTING STRUCTURAL STEEL." THE FINISH COAT SHALL BE THE COLOR "ALUMINUM."
- THE CONTRACTOR SHALL SUBMIT A PLAN TO REMOVE DEMOLITION DEBRIS FROM THE WATER AREAS, FOR APPROVAL BY THE ENGINEER, PRIOR TO BEGINNING DEMOLITION OPERATIONS. THE CONTRACTOR MAY SUSPEND A PLATFORM OR NETTING FROM THE BRIDGE CAPABLE OF SUPPORTING PIECES OF CONCRETE FALLING FROM THE DECK, AS APPROVED BY THE ENGINEER.
- ADDITIONAL GENERAL NOTES ARE LISTED ON THE BRIDGE STAGE CONSTRUCTION PLAN.

## STRUCTURAL STEEL NOTES

- ALL EXISTING BEARINGS TO REMAIN AND NEW BEARINGS SHALL BE FIRMLY SEATED OR RESEATED IN ACCORDANCE WITH SUBSECTION 807.51 OF THE STANDARD SPECIFICATIONS. THIS ITEM OF WORK AND MATERIAL IS TO BE CONSIDERED AS SUBSIDIARY TO THE ITEM OF "STRUCTURAL STEEL IN ... SPANS (A36)" AND WILL NOT BE PAID FOR DIRECTLY.
- PLATE GIRDER WEBS MAY BE MADE BY SHOP SPLICING WITH MINIMUM LENGTH OF 25'-0" FOR SECTIONS. NO ADDITIONAL PAYMENT FOR WELDS FOR THESE SPLICES WILL BE MADE.
- ALL WEB AND FLANGE PLATES MUST BE PLACED SO THAT THE DIRECTION IN WHICH THE PLATES ARE ROLLED IS ALONG THE LONGITUDINAL AXIS OF THE PLATE GIRDER.
- ALL WELDS TO BE MADE DURING FABRICATION, BOTH TEMPORARY AND PERMANENT, SHALL BE FULLY DETAILED ON THE SHOP DRAWINGS. ADDITIONAL WELDS FOR ERECTION PURPOSES, BOTH PERMANENT AND TEMPORARY, SHALL BE FULLY DETAILED AND SUBMITTED TO THE BRIDGE DESIGN DIVISION OF THE ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT FOR APPROVAL.
- ALL WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE AWS D1.1-75, AASHTO STANDARD SPECIFICATIONS FOR WELDING OF STRUCTURAL STEEL HIGHWAY BRIDGES, 1981 EDITION, SUBSECTION 807.24 OF THE STANDARD SPECIFICATIONS AND SP 807-5.
- ALL GIRDERS SHALL BE BLOCKED IN THEIR TRUE POSITION, WITH WEB PLATES HORIZONTAL, IN THE SHOP IN GROUPS OF 3 SECTIONS MINIMUM. THE CAMBER, LENGTH OF SECTIONS, DISTANCE BETWEEN BEARINGS AND OPENING OF JOINTS SHALL BE MEASURED WITH THE GIRDERS IN THIS POSITION AND THIS INFORMATION SHALL BECOME A PART OF THE PERMANENT RECORDS OF THIS JOB.
- TRANSVERSE INTERMEDIATE STIFFENERS SHALL BE SET NORMAL TO THE TOP FLANGE AND ON THE SIDE OF THE GIRDER WEB AS INDICATED ON THE FRAMING PLAN. NO TRANSVERSE INTERMEDIATE STIFFENERS ARE TO BE PLACED ON THE OUTSIDE OF THE EXTERIOR GIRDERS.
- CROSSFRAMES SHALL BE INSTALLED AS GIRDERS ARE ERECTED. ALL CROSSFRAMES SHALL BE INSTALLED AND COMPLETELY BOLTED PRIOR TO POURING OF FLOOR SLABS.
- ALL WIDE FLANGE BEAMS, AND GIRDER FLANGE AND WEB PLATES, ARE CONSIDERED MAIN LOAD CARRYING MEMBERS AND SHALL MEET THE REQUIREMENT OF THE CHARPY V-NOTCH TEST AS SPECIFIED IN SUBSECTION 807.05 OF THE STANDARD SPECIFICATIONS.
- PINS SHALL BE ASTM A668 CLASS C OR ASTM A108 GRADE 1016-1030 INCLUSIVE AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE BID FOR "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A36)."
- ALL METAL BEARINGS AND ROADWAY EXPANSION DEVICES SHALL BE PAID FOR AS "STRUCTURAL STEEL IN ... SPANS (A36)."
- THE BEARING ASSEMBLIES SHALL BE SET IN A VERTICAL POSITION AT 60 DEGREES F.
- UNLAMINATED ELASTOMERIC BEARINGS SHALL BE SUPPLIED IN NOMINAL 70 DUROMETER HARDNESS. LAMINATED ELASTOMERIC BEARINGS SHALL BE SUPPLIED IN NOMINAL 60 DUROMETER HARDNESS. ALL ELASTOMERIC BEARINGS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 808 OF THE STANDARD SPECIFICATIONS.
- THE LUMP SUM BID PRICE FOR ALL ELASTOMERIC BEARINGS SHALL INCLUDE PAYMENT FOR ALL PADS INCLUDING INTERNAL SHIM PLATES, EPOXY ADHESIVE, AND SOLE PLATES.
- ALL CONTACT SURFACES BETWEEN PLATES AT FIELD SPLICES SHALL BE FREE OF PAINT, OIL, RUST, OR SCALE BEFORE ASSEMBLY.
- STRUCTURAL SHAPES OF EQUAL OR GREATER STRENGTH MAY BE SUBSTITUTED FOR SHAPES SHOWN IF APPROVAL IS OBTAINED FROM THE BRIDGE ENGINEER. PAYMENT WILL BE MADE ON THE BASIS OF SHAPES SHOWN.
- FIELD CONNECTIONS SHALL BE MADE WITH 7/8" DIAMETER BOLTS UNLESS OTHERWISE NOTED. THE MINIMUM DISTANCE BETWEEN THE CENTERS OF 7/8" DIAMETER BOLTS SHALL NOT BE LESS THAN 3 TIMES THE DIAMETER OF THE BOLT AND PREFERABLY NOT LESS THAN 3". THE MINIMUM DISTANCE FROM THE CENTER OF A 7/8" DIAMETER BOLT TO A SHEARED OR FLAME CUT EDGE SHALL BE 1-1/2" AND TO A ROLLED OR PLANED EDGE SHALL BE 1-1/4". BOLT HOLES IN FIELD SPLICES SHALL NOT EXCEED 15/16" IN DIAMETER. BOLT HEADS AT FIELD SPLICES SHALL BE PLACED ON THE EXTERIOR SIDE OF BEAMS, AND BOTTOM OF BEAM FLANGES.
- OVERSIZED HOLES 3/16" GREATER THAN THE BOLT DIAMETER MAY BE USED AT ALL BOLTED CONNECTIONS OTHER THAN FIELD SPLICES FOR BOLTS 7/8" AND LESS IN DIAMETER. WASHERS UNDER BOTH NUT AND HEAD OF THE BOLT SHALL BE USED WITH OVERSIZED BOLT HOLES.

## SPECIAL NOTE - ELEVATIONS

ELEVATIONS SHOWN ON THE BRIDGE DRAWINGS HAVE BEEN TAKEN OR COMPUTED FROM THE ORIGINAL BRIDGE CONSTRUCTION PLANS AND ARE PROVIDED FOR INFORMATION ONLY. THESE ELEVATIONS HAVE NOT BEEN SURVEYED OR REFERENCED TO A CURRENT T.B.M. WHEN A DISCREPANCY EXISTS BETWEEN THE ELEVATIONS PROVIDED IN THESE PLANS, THE ACTUAL FIELD ELEVATIONS AND THE DIMENSIONS SHOWN, THE ACTUAL FIELD ELEVATIONS AND/OR DIMENSIONS SHALL GOVERN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING CHECK MEASUREMENTS OF THE EXISTING BRIDGES AND NECESSARY ADJUSTMENTS TO THE NEW WORK.

SHEET 1 OF 1

GENERAL AND STRUCTURAL NOTES  
OUACHITA RIVER BRIDGE AND APPROACHES

HOT SPRING COUNTY  
ROUTE I-30 SEC.2  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: L.O.T. DATE: DEC 1985  
CHECKED BY: H.J.P. DATE: DEC 1985  
DESIGNED BY: J.P. DATE: DEC 1985

SCALE: None

BRIDGE NO. 3424 AR &amp; BR DRAWING NO. 28163

BRIDGE ENGINEER

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6-5-86	5-6-86	8-7-87	4-0-87	6	ARK.			
7-14-86	5-17-86							
9-30-86	8-27-86							
				JOB NO.	60381		11	45

① 3424 AR&BR SCH. OF QUANT. 28164

BRIDGE NO.	CODE NO.	BRIDGE NAME PLATE TITLE	UNIT OF BRIDGE	ITEM NO.	801	SP & 802	SP & 802	803	804	SP & 804	805	SP & 807	SP & 807	SP & 807	SP & 307
				ITEM	UNCLASSIFIED EXCAVATION FOR STRUCTURES-BRIDGE*	CLASS S CONCRETE	CLASS S(AE) CONCRETE	BOILED LINSEED OIL	REINFORCING STEEL (GRADE 60)	EPOXY COATED REINFORCING STEEL (GRADE 60)	STEEL BEARING PILING (HP 12 X 53)	STRUCTURAL STEEL IN BEAM SPANS (A36)	STRUCTURAL STEEL IN BEAM SPANS (A572 GR50)	STRUCTURAL STEEL IN PLATE GIRDER SPANS (A36)	STRUCTURAL STEEL IN PLATE GIRDER SPANS (A572 GR50)
				UNIT	CU. YD.	CU. YD.	CU. YD.	GAL.	LB.	LB.	LIN. FT.	LB.	LB.	LB.	LB.
3424 AR	X071	OUACHITA RIVER	END BENT 1		20	<del>11.2</del> 11.2			<del>1123</del> 1123		<del>80</del> 80	<del>609</del> 592			
			BENT 2		8	2.6			<del>296</del> 354		78	487			
			PIER 1		<del>208</del> 244	<del>58.9</del> 60	58.65		<del>4032</del> 3,983						
			PIER 2		<del>35</del> 19	<del>66.1</del> 64			<del>4446</del> 4,118	4319				1,176	792
			PIER 3		<del>37</del> 28	<del>67.1</del> 65			<del>4409</del> 4,133	4415				1,248	966
			PIER 4		<del>36</del> 28	<del>67.1</del> 65			<del>4409</del> 4,133	4415				1,176	792
			PIER 5		<del>36</del> 28	<del>67.1</del> 65			<del>4409</del> 4,133	4415				1,176	792
			PIER 6		<del>214</del> 246	<del>60.2</del> 63	59.55		<del>4107</del> 4,001						
			BENT 3		8	2.6			<del>296</del> 354		78	501			
			END BENT 4		20	<del>11.2</del> 11.2			<del>1123</del> 1,129		<del>80</del> 80	<del>609</del> 592			
			FOUR - 40' SPANS				192.0	17	<del>24,007</del> 25,007	<del>25,204</del>		<del>18,055</del> 17,598	25,360		
			FIVE - 110' SPANS				653.0	58	<del>8,905</del> 9,044	<del>9,804</del> 98,150				152,636	175,449
			TOTAL FOR BR. NO.3424 AR		<del>622</del> 648	<del>1,415</del> 1,415	845.0	75	<del>33,012</del> 32,419	<del>32,134</del>	<del>316</del> 476	<del>21,173</del> 19,770	25,360	<del>157,406</del> 178,791	82,452
3424 BR	X071	OUACHITA RIVER	END BENT 1		20	<del>11.2</del> 11.2			<del>1123</del> 1,129		<del>80</del> 80	<del>609</del> 592			
			BENT 2		8	2.6			<del>296</del> 354		78	487			
			PIER 1		<del>206</del> 238	<del>58.9</del> 60	58.65		<del>4032</del> 3,983						
			PIER 2		<del>34</del> 23	<del>66.1</del> 64			<del>4312</del> 4,118					1,176	792
			PIER 3		<del>36</del> 28	<del>67.1</del> 65			<del>4409</del> 4,133					1,248	966
			PIER 4		<del>40</del> 35	<del>67.1</del> 65			<del>4409</del> 4,133					1,176	792
			PIER 5		<del>34</del> 30	<del>67.1</del> 65			<del>4409</del> 4,133					1,176	792
			PIER 6		<del>216</del> 254	<del>60.2</del> 63	59.55		<del>4107</del> 4,001						
			BENT 3		8	2.6			<del>296</del> 354		78	501			
			END BENT 4		20	<del>11.2</del> 11.2			<del>1123</del> 1,129		<del>80</del> 80	<del>609</del> 592			
			FOUR - 40' SPANS				192.0	17	<del>24,007</del> 25,007	<del>25,204</del>		<del>18,055</del> 17,598	25,360		
			FIVE - 110' SPANS				653.0	58	<del>8,905</del> 9,044	<del>9,804</del> 98,150				152,636	175,449
			TOTAL FOR BR. NO.3424 BR		<del>664</del> 622	<del>1,415</del> 1,415	845.0	75	<del>33,012</del> 32,419	<del>32,134</del>	<del>316</del> 476	<del>21,173</del> 19,770	25,360	<del>167,406</del> 178,791	82,452
			TOTAL FOR JOB 60381		<del>1,312</del> 1,244	<del>3,230</del> 3,230	1,690.0	150	<del>66,024</del> 64,538	<del>64,248</del>	<del>632</del> 882	<del>42,348</del> 40,360	50,720	<del>314,812</del> 329,808	164,904

\*ESTIMATED ROCK EXCAVATION = 85 C.Y. ② 180 ② 211.2 ③ 267,866 ③ 244,386 ④ 33,540 ④ 357,582 ④ 164,904

- ① Revised Quantity of Str. Steel (A572-50). LDF 6-5-86
- ② Revised Quantities. EJK 7-14-86
- ③ Revised Quantities 9-30-86. EJK
- ④ Revised Quantities. 8-7-87 F.H.

BRIDGE NO.	CODE NO.	BRIDGE NAME PLATE TITLE	UNIT OF BRIDGE	ITEM NO.	SP & 808	SP & 809	812	SP	SP	SP	SP	SP	SP	SP	SP	SP
				ITEM	ELASTOMERIC BEARINGS	PREFORMED JOINT SEALER	BRIDGE NAME PLATES (TYPE C)	REPLUMBING EXISTING BEARINGS	PAINTING EXISTING STRUCTURAL STEEL (TYPE II)	REMODELING EXISTING BRIDGE STRUCTURES	REPLACING EXISTING ANCHOR BOLTS	REPAIR OF EXISTING CONCRETE STRUCTURES	REPLACEMENT OF SHOE PINS	REPLACEMENT OF MASONRY PLATES		
				UNIT	L.S.	LIN. FT.	EA.	EA.	TON	L.S.	EA.	CU. FT.	EA.	EA.	LIN. FT.	SQ. YD.
3424 AR	X071	OUACHITA RIVER	END BENT 1			42.9	1									
			BENT 2			42.9			2.88		2				35	
			PIER 1			42.9					2					
			PIER 2			42.9		4			1					
			PIER 3			42.9		8			2					
			PIER 4			42.9		4			1					
			PIER 5			42.9		4			1					
			PIER 6			42.9					2					
			BENT 3			42.9					2					
			END BENT 4			42.9			2.88						35	
			FOUR - 40' SPANS		0.4				36.00							
			FIVE - 110' SPANS		0.1				228.70				5	5		
			TOTAL FOR BR. NO.3424 AR		0.5	386.1	1	20	270.46	0.5	13		5	5	70	2927
3424 BR	X071	OUACHITA RIVER	END BENT 1			42.9										
			BENT 2			42.9			2.88		2	1			35	
			PIER 1			42.9					2					
			PIER 2			42.9		4			1					
			PIER 3			42.9		8			2					
			PIER 4			42.9		4			1					
			PIER 5			42.9		4			1					
			PIER 6			42.9					2					
			BENT 3			42.9					2	1			35	
			END BENT 4			42.9	1		2.88							
			FOUR - 40' SPANS		0.4				36.00							
			FIVE - 110' SPANS		0.1				228.70				5	5		
			TOTAL FOR BR. NO.3424 BR		0.5	386.1	1	20	270.46	0.5	13	2	5	5	70	2927
			TOTAL FOR JOB 60381		1.0	772.2	2	40	540.92	1.0	26	2	10	10	140	5854

SHEET 1 OF 1

SCHEDULE OF BRIDGE QUANTITIES  
OUACHITA RIVER BRIDGE AND APPROACHES

HOT SPRING COUNTY  
ROUTE I-30 SEC. 2  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: L.D.T. DATE: DEC. 1985  
CHECKED BY: H.J.P. DATE: DEC. 1985  
DESIGNED BY: J.R. DATE: DEC. 1985

SCALE: None

BRIDGE NO. 3424 AR & BR DRAWING NO. 28164





DATE	DATE	DATE	DATE	NO. ROAD	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		60381	16	45
						3424 AR & BR - STAGE CONST.		28166

NOTES - BRIDGE 3424 AR & BR

- CONSTRUCTION SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION. EDITION OF 1978 AND APPLICABLE SPECIAL PROVISIONS.
- DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1983 EDITION WITH CURRENT INTERIM SPECIFICATIONS.
- LIVE LOADING: HS20
- METHOD OF DESIGN: SERVICE LOAD FOR EXISTING STRUCTURE  
LOAD FACTOR FOR NEW DESIGN
- UNIT STRESSES - NEW DESIGN  

CLASS S CONCRETE	F <sub>c</sub> 3,500 PSI
CLASS S(AE) CONCRETE	F <sub>c</sub> 3,500 PSI
REINFORCING STEEL (GR. 60)	F <sub>y</sub> 60,000 PSI
STRUCTURAL STEEL	
ASTM (A36)	F <sub>y</sub> 36,000 PSI
ASTM (A572 GRADE 50)	F <sub>y</sub> 50,000 PSI
- PROPOSED WORK CONSISTS OF: REMOVING THE EXISTING CONCRETE DECK, PARAPET AND RAIL, RETAINING AND REHABILITATING THE EXISTING STEEL BEAMS, STRUTS, BRACING AND FRAMEWORK, AND EXISTING SHOES, REBUILDING BACKWALLS AT END BENTS, WIDENING PIERS, ADDING GIRDERS AND BRACING AND WIDENING THE DECK TO A 40 FOOT CLEAR ROADWAY BRIDGE, CONSTRUCTING NEW CONCRETE PARAPET RAILS AND NEW APPROACH SLABS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING CHECK MEASUREMENTS OF EXISTING BRIDGE AND MAKING NECESSARY ADJUSTMENTS TO THE NEW WORK.
- HALF-SIZE DETAIL SHEETS OF THE EXISTING BRIDGE MAY BE OBTAINED FROM THE ARKANSAS HIGHWAY AND TRANSPORTATION DEPARTMENT UPON REQUEST TO THE PROGRAMS AND CONTRACTS DIVISION. DRAWINGS 11205 THRU 11215.
- FOR REQUIREMENTS IN CONDUCTING THE WORK, SEE SPECIAL PROVISION, JOB NO 60381 "REMODELING EXISTING BRIDGE STRUCTURES."

NOTE: The Contractor may Construct any Part of the Substructure or Superstructure as Soon as Possible Under Any Stage when Approved by the Engineer. Longitudinal Slab Joints will not be allowed, Permanent Slab Spans must be cast monolithically across the entire width of the Bridge.

LEGEND

Existing or Temporary  
 Work During Phase  
 New Work Previous Phase

SHEET 1 OF 1

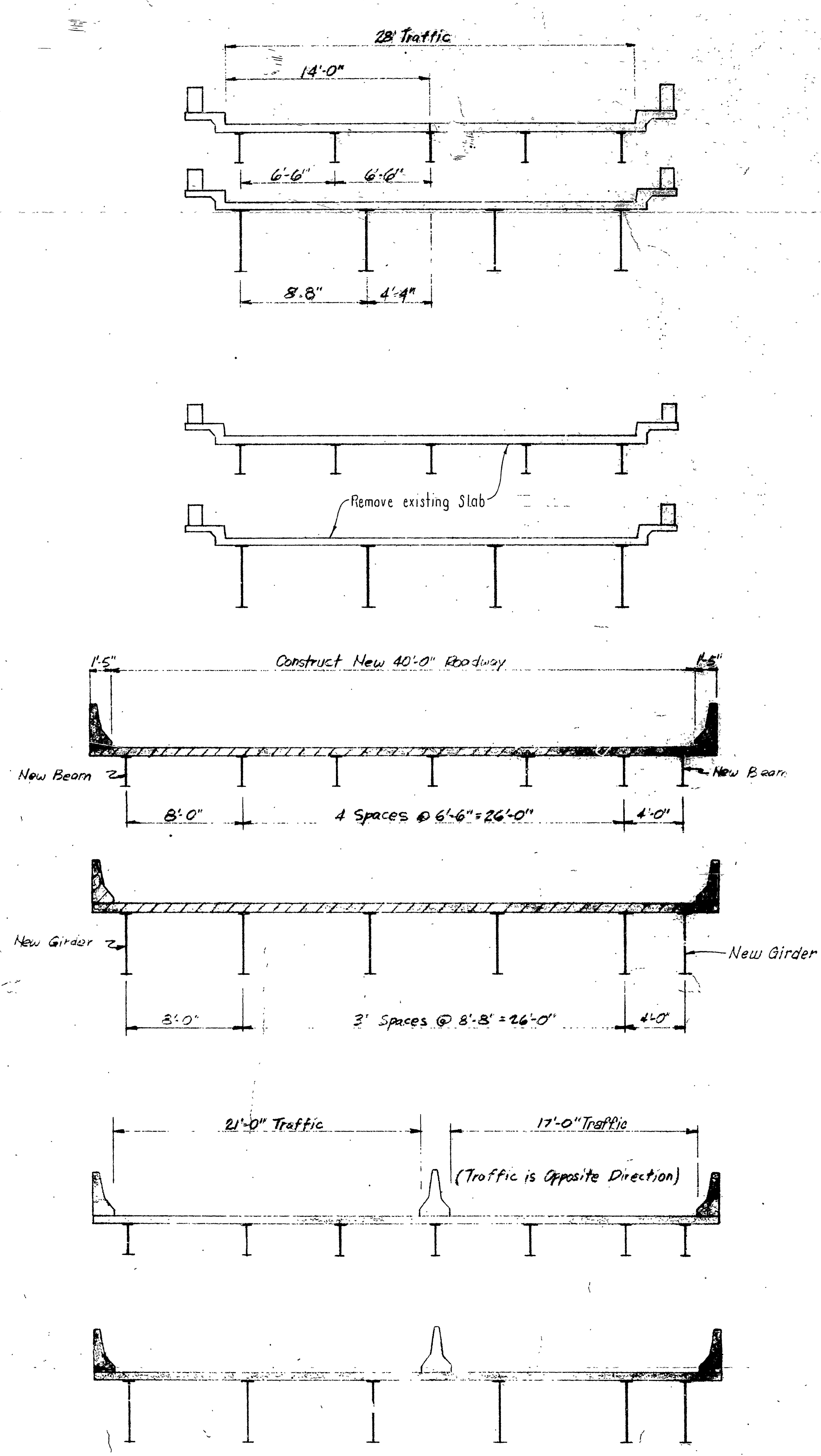
STAGE CONSTRUCTION  
 OUACHITA RIVER BRIDGE AND APPROACHES

HOT SPRING COUNTY

ROUTE I-30 SEC. 2  
 ARKANSAS STATE HIGHWAY COMMISSION  
 LITTLE ROCK, ARK.

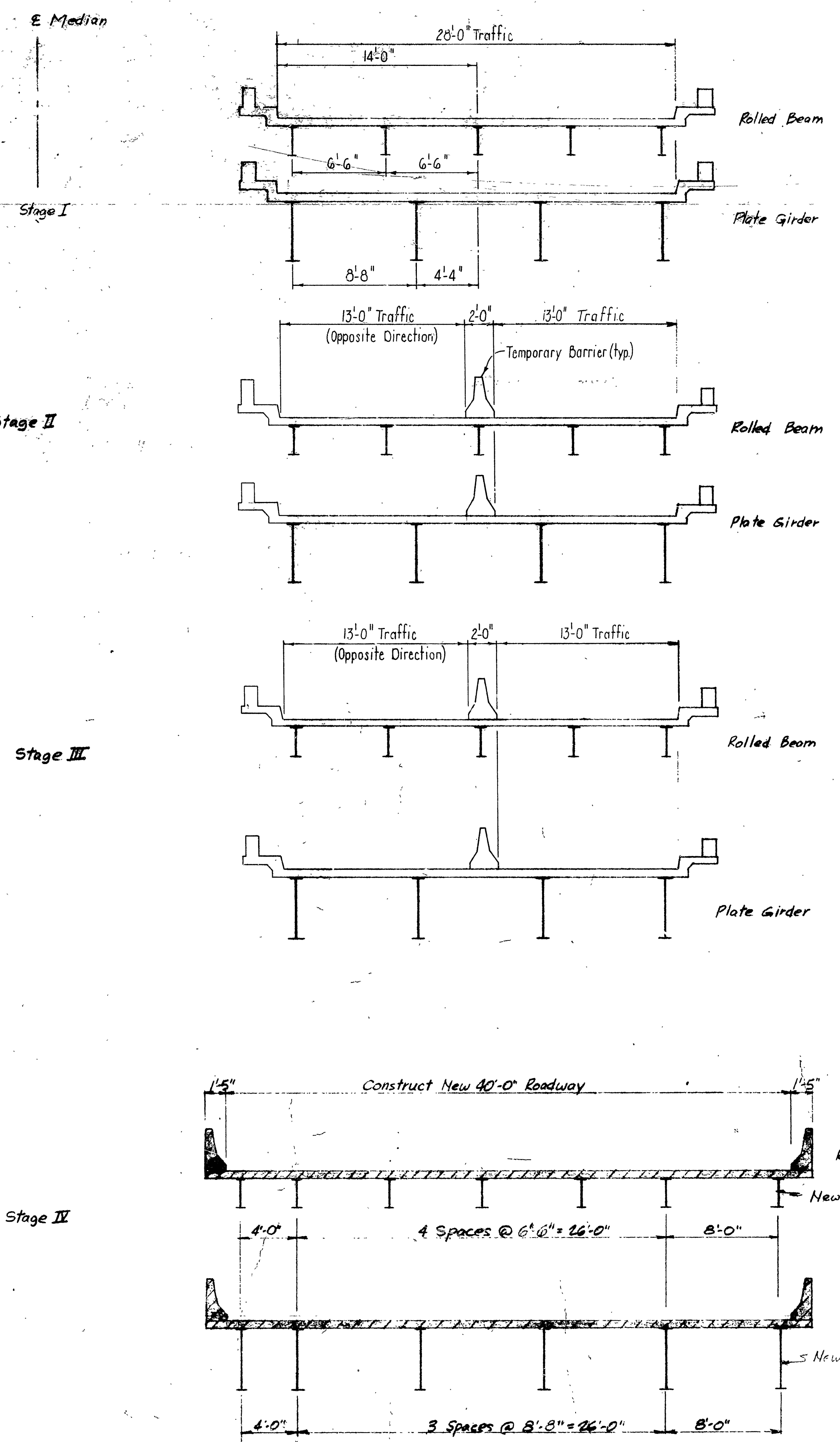
DRAWN BY: J.R.D. DATE: DEC 1985  
 CHECKED BY: H.J.P. DATE: DEC 1985  
 DESIGNED BY: T.B.H. DATE: DEC 1985

BRIDGE NO. 3424 AR & BR DRAWING NO. 28165



BRIDGE B

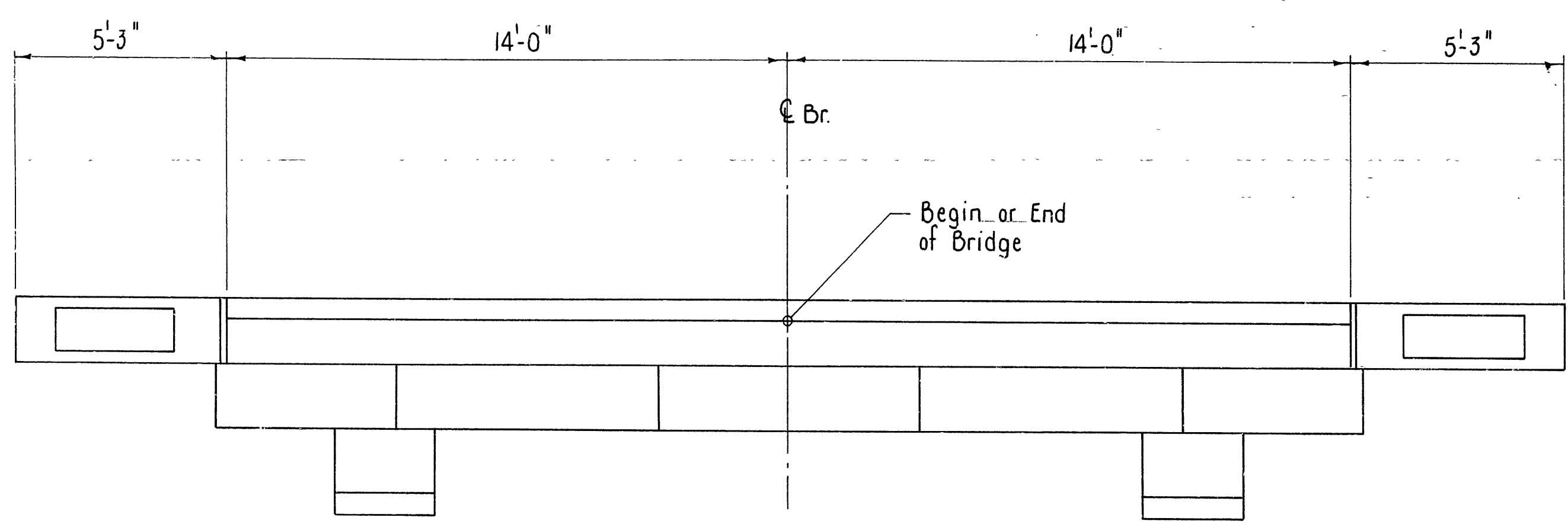
NOTE:  
 RDWY. SECTIONS ARE LOOKING BACK  
 TOWARD BEGIN OF BRIDGES.



BRIDGE A

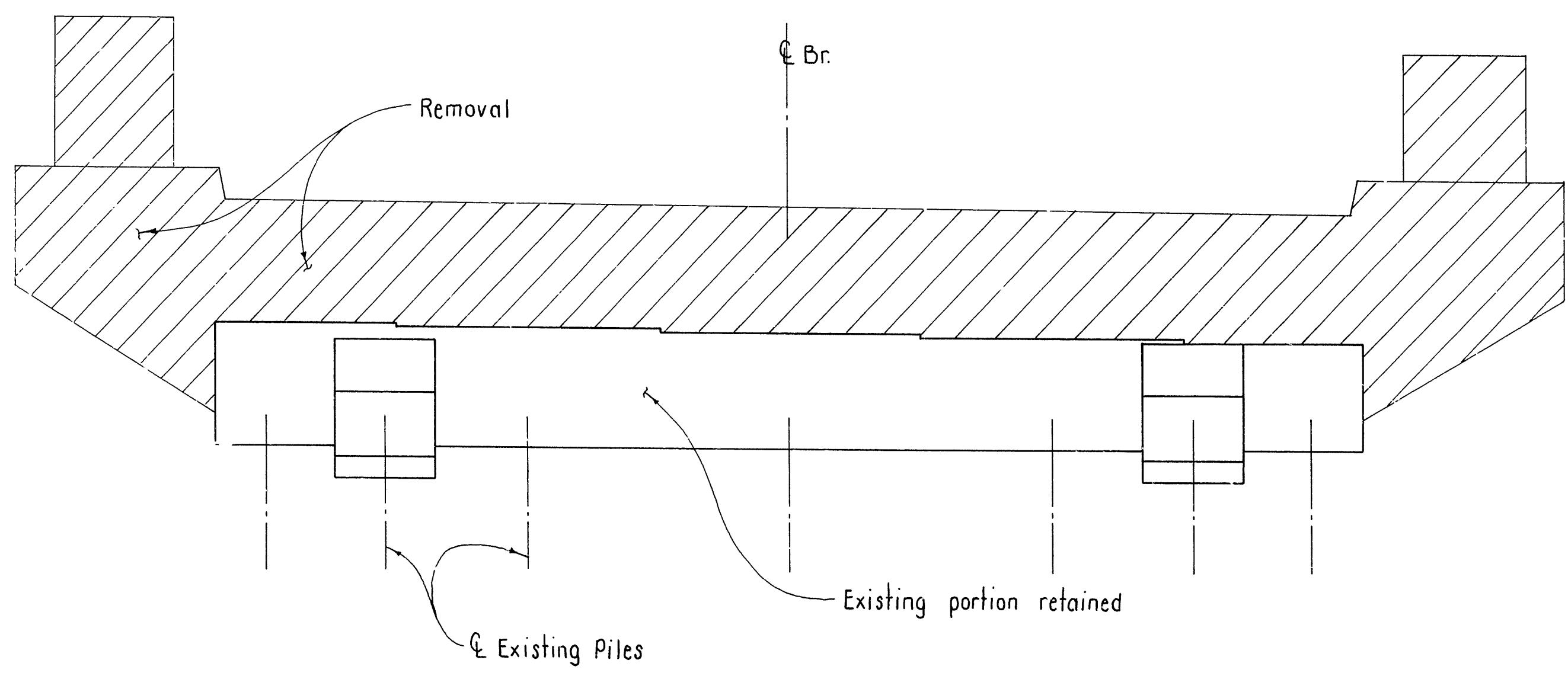
BRIDGE ENGINEER

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		60381	17	46
① 3424 AR 8 BR - REMOVAL DTLS. - 28167								



EXISTING PLAN  
Scale:  $\frac{3}{8}" = 1'-0"$

Note:  
For Stage Construction, see Drwg. No. 28166.



EXISTING FRONT ELEVATION  
Scale:  $\frac{3}{8}" = 1'-0"$

REMOVAL DETAILS FOR  
EXISTING END BENTS 1 AND 4  
OUACHITA RIVER BRIDGE AND APPROACHES  
HOT SPRING COUNTY

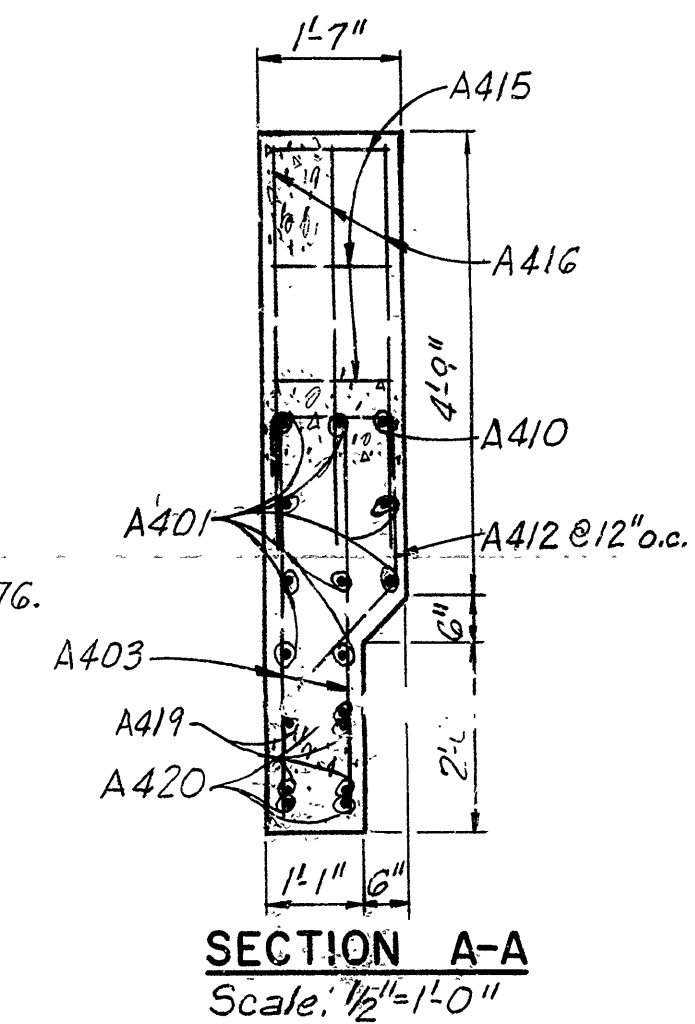
ROUTE 1-30 SEC. 2  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: KMG DATE: 12 MAY 86  
CHECKED BY: DATE: SCALE: AS SHOWN  
DESIGNED BY: DATE:

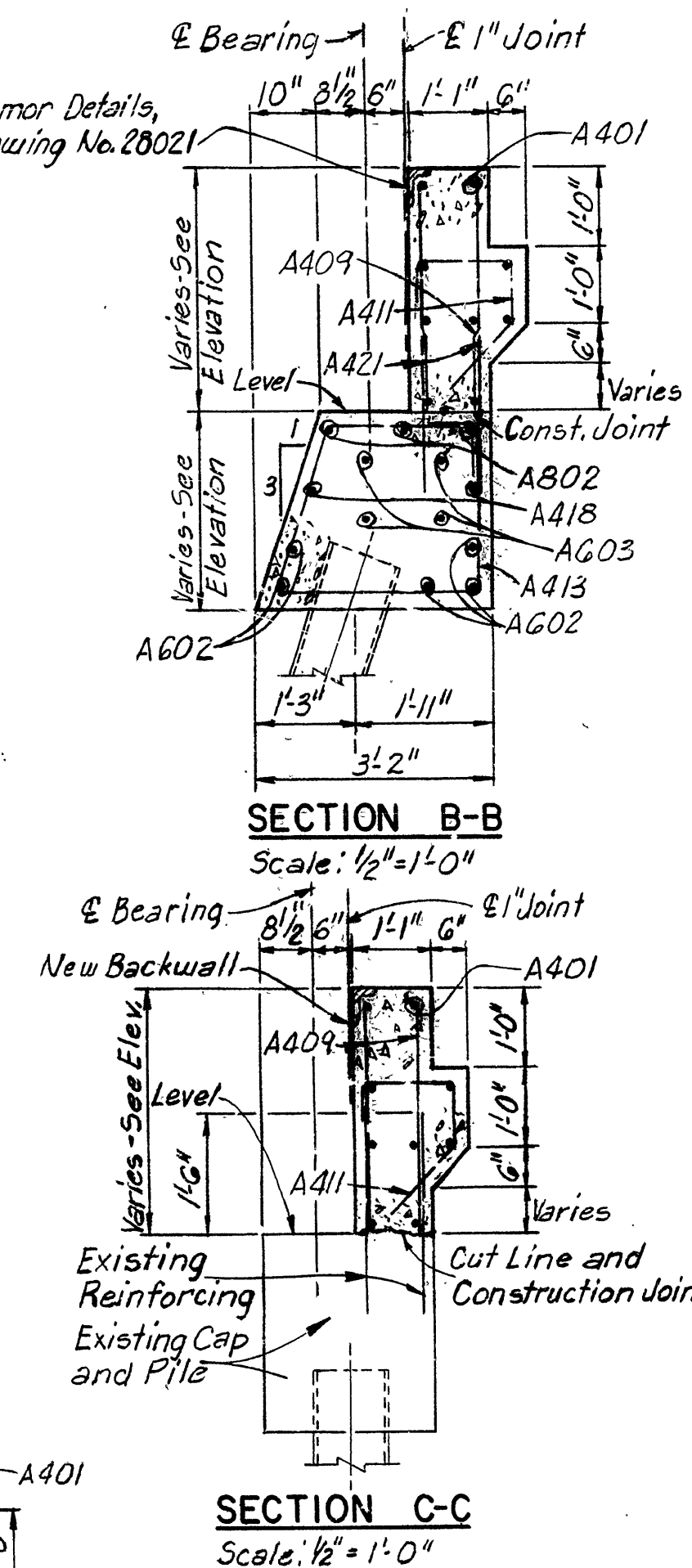
BRIDGE NO. 3424 AR 8 BR DRAWING NO. 28167



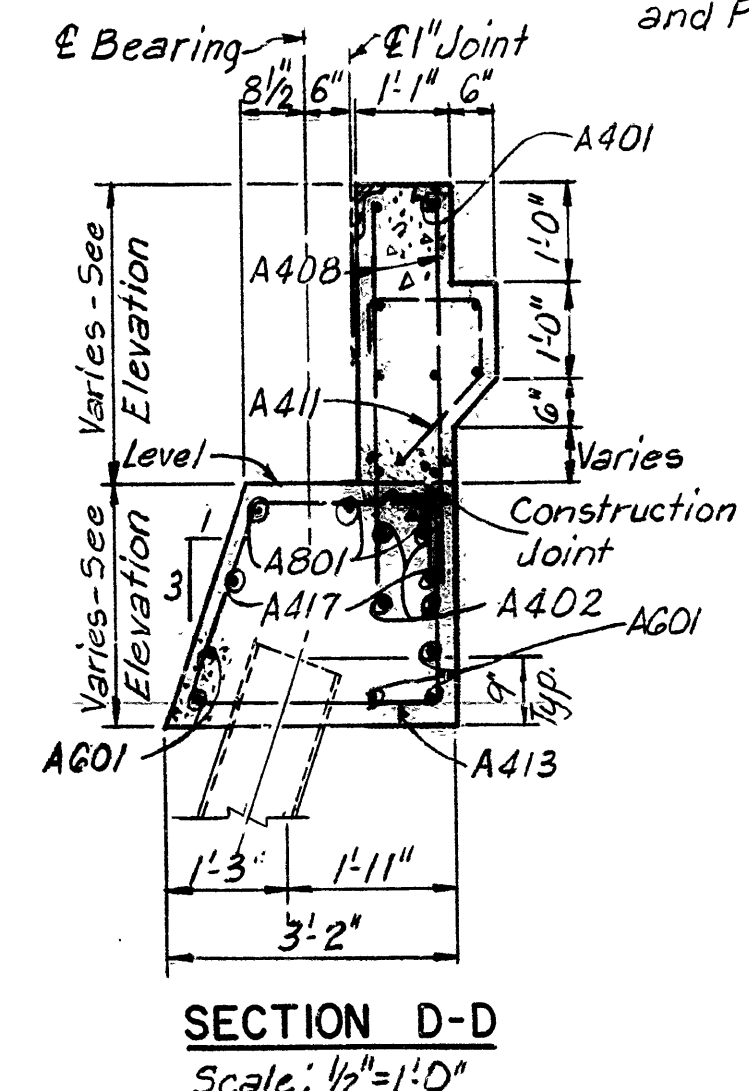
① 3424 AR&BR DTLS. END BENTS 28168



A cross-sectional diagram of armor details. It shows a vertical centerline with dimensions on both sides. On the left side, from the centerline outwards, the dimensions are 10", 3 1/2", and 6". On the right side, from the centerline outwards, the dimensions are 1'-1" and 6". Labels include "E Bearing" with an arrow pointing to the top left, "E Joint" with an arrow pointing to the top right, "For Armor Details, see Drawing No. 28021" on the left, and "A 40." on the right.

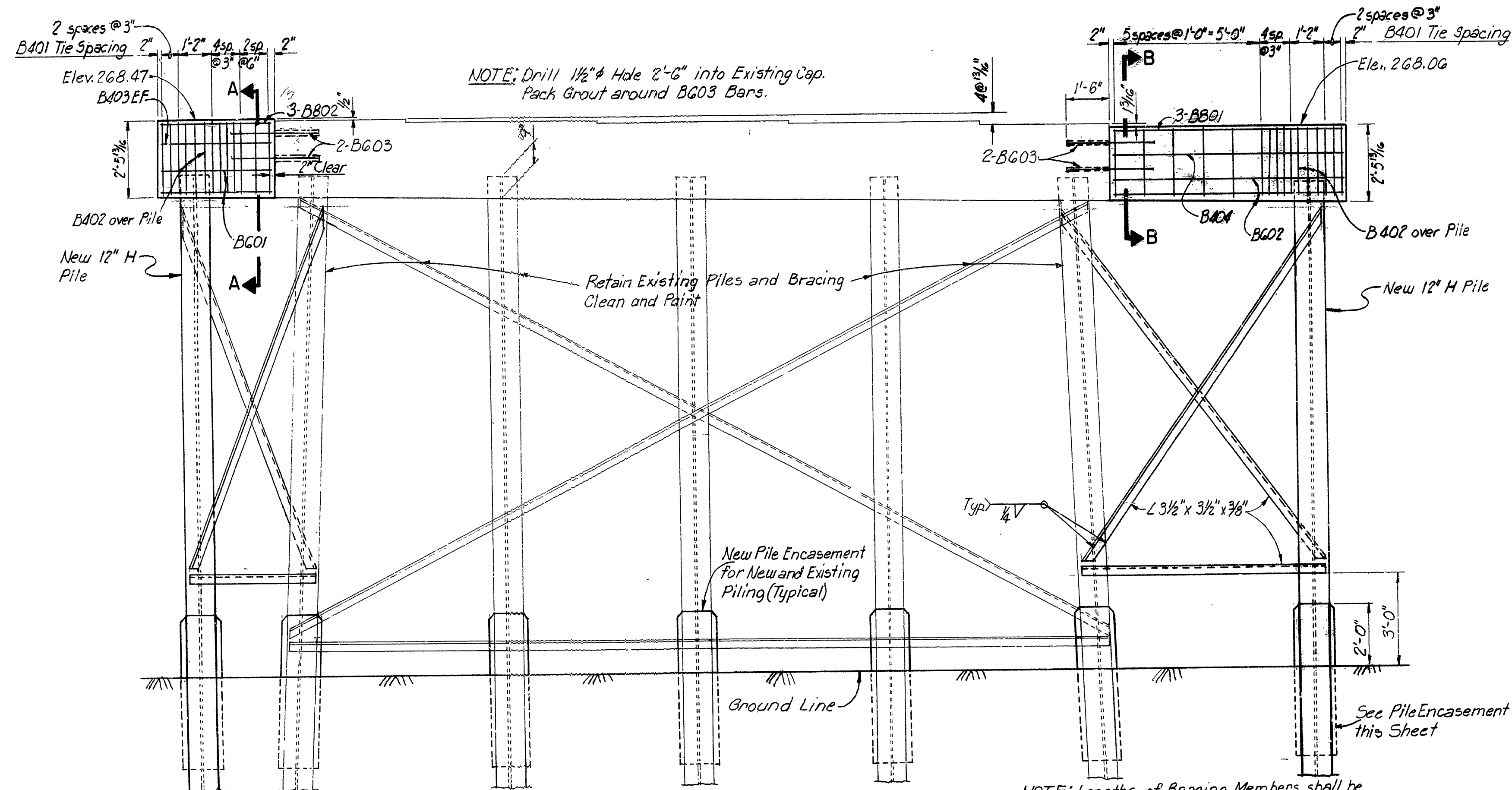
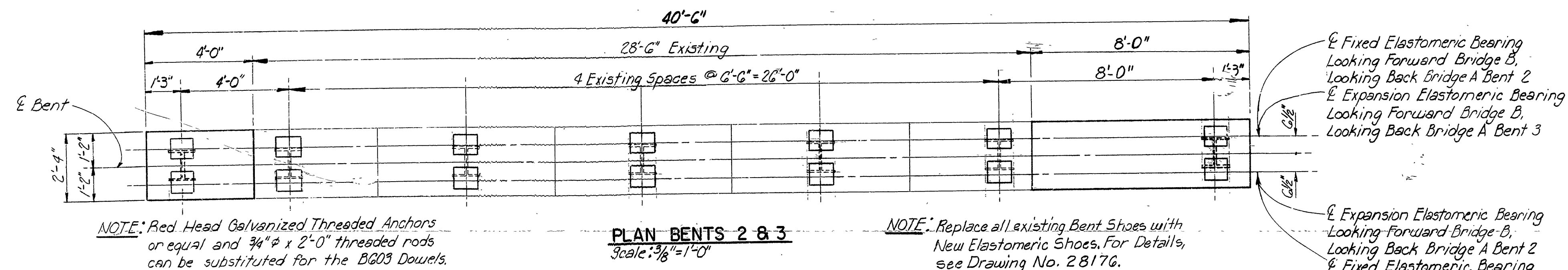


**NOTE:**  
Red Head Galvanized Threaded Anchors  
or equal and  $3/4"$   $\phi$  x 2'-0" Threaded Rods  
can be substituted for the AG03 Dowels.

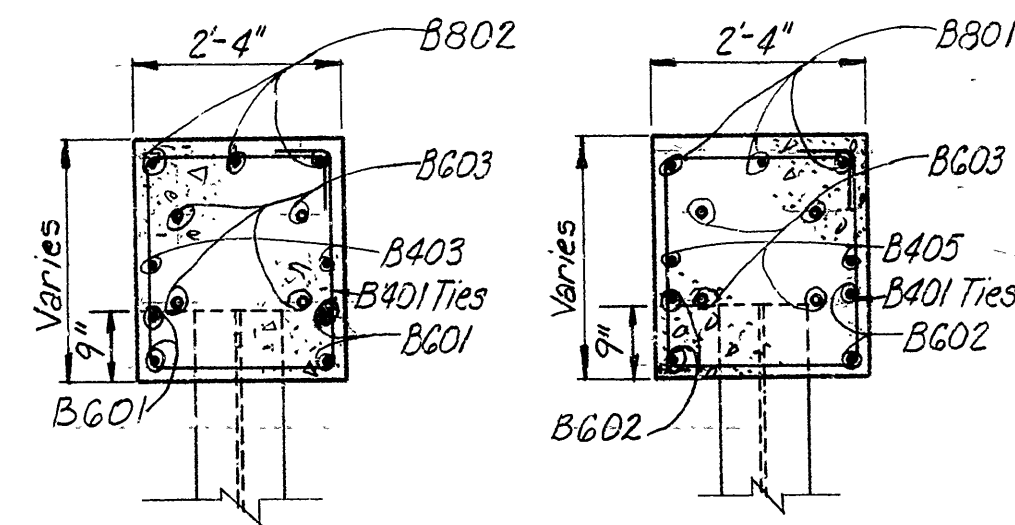


DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		G0381	19	45

3424 AR &amp; BR DTL. PILE BENTS 28169



**ELEVATION BENTS 2 & 3**  
LOOKING FORWARD-BRIDGE B  
LOOKING BACK-BRIDGE A  
Scale: 3/8"=1'-0"

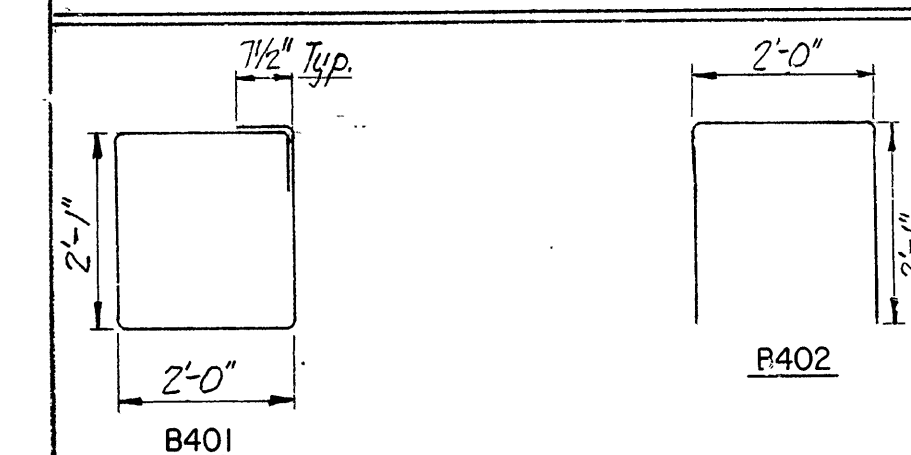


**SECTION A-A**  
Scale: 1/2"=1'-0"

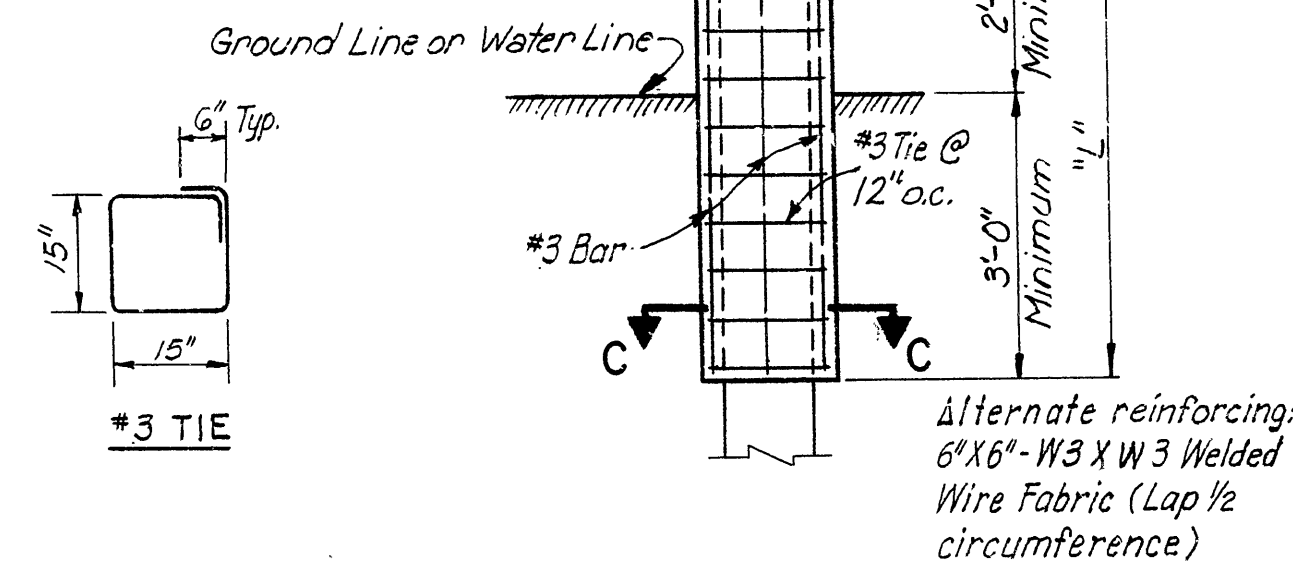
**SECTION B-B**  
Scale: 1/2"=1'-0"

REINFORCEMENT SCHEDULE			
MARK	NO.	LENGTH	PIN DIA.
B401	23	9'-0"	2"
B402	6	6'-0"	2"
B403	2	3'-8"	Str.
B404	2	7'-8"	Str.
B401	4	3'-8"	Str.
B402	4	7'-8"	Str.
B403	8	3'-0"	Str.
B401	3	7'-8"	Str.
B402	3	3'-8"	Str.

**BENDING DIAGRAM**

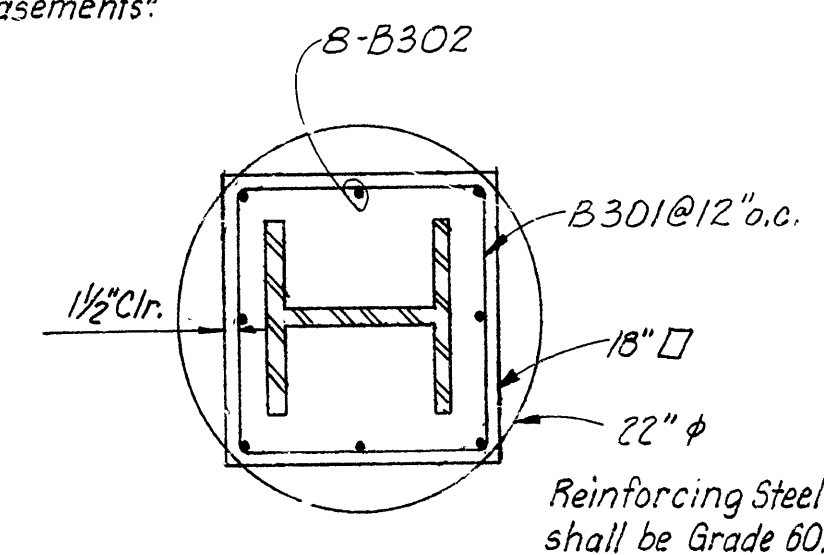


NOTE: 1. Dimensions of Bars are out-to-out.  
2. Reinforcement Schedule is for One Bent, One Bridge Only.



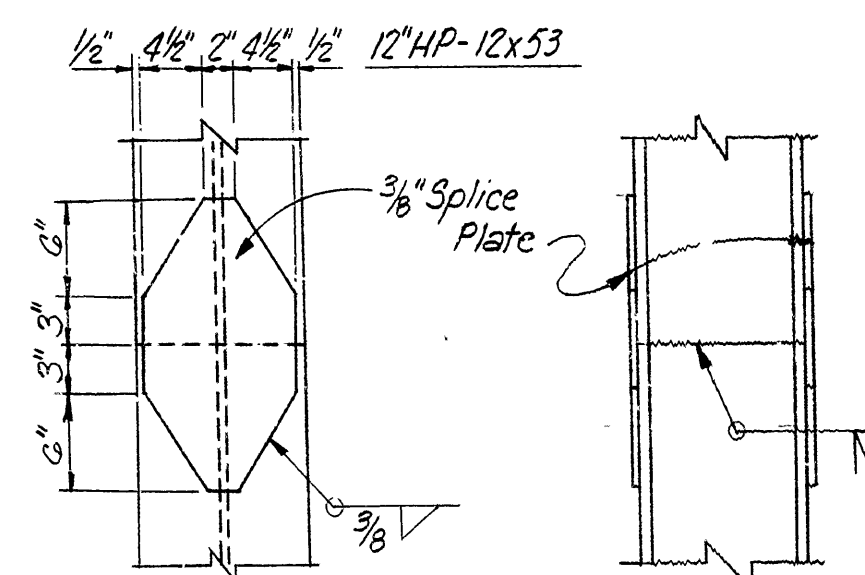
**PILE ENCASEMENT DETAIL**  
Scale: None

Concrete and Reinforcing in Encasement shall be paid for at the contract unit price per linear foot bid for "Pile Encasements."

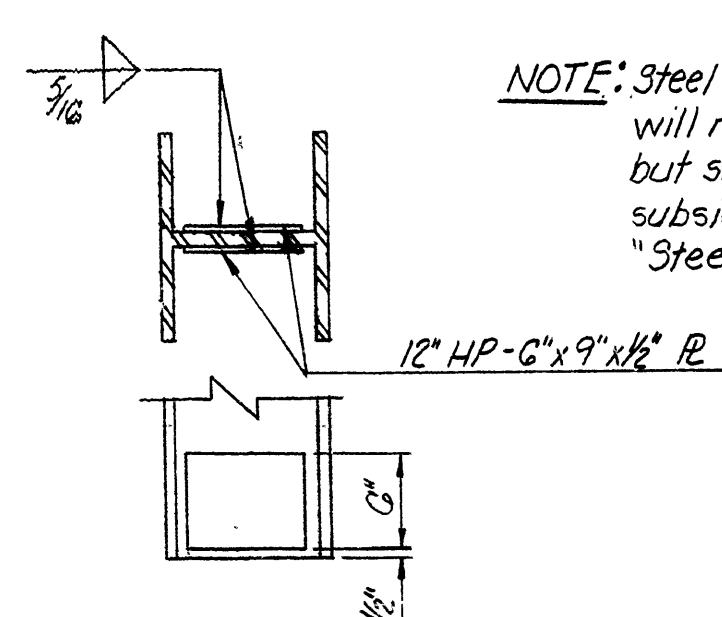


**SECTION C-C**

NOTE: The Contractor may for his convenience and at his own expense provide as many as Three splices per Pile for Steel Bearing Piling. Minimum Spacing between Splices shall be 5 ft.



**PILE SPLICE DETAIL**  
Scale: 1"=1'-0"



**REINFORCING DETAIL FOR STEEL PILE TIP**  
Scale: 1"=1'-0"

NOTE: Steel Pile Tip Reinforcing will not be paid for directly, but shall be considered subsidiary to the item of "Steel Bearing Piling."

SHEET 1 OF 1

DETAILS OF PILE BENTS  
OUACHITA RIVER BRIDGE AND APPROACHES

HOT SPRING COUNTY  
ROUTE I-30 SEC. 2  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: T.V.A. DATE: DEC. 1985  
CHECKED BY: H.J.P. DATE: DEC. 1985  
DESIGNED BY: J.P. DATE: DEC. 1985

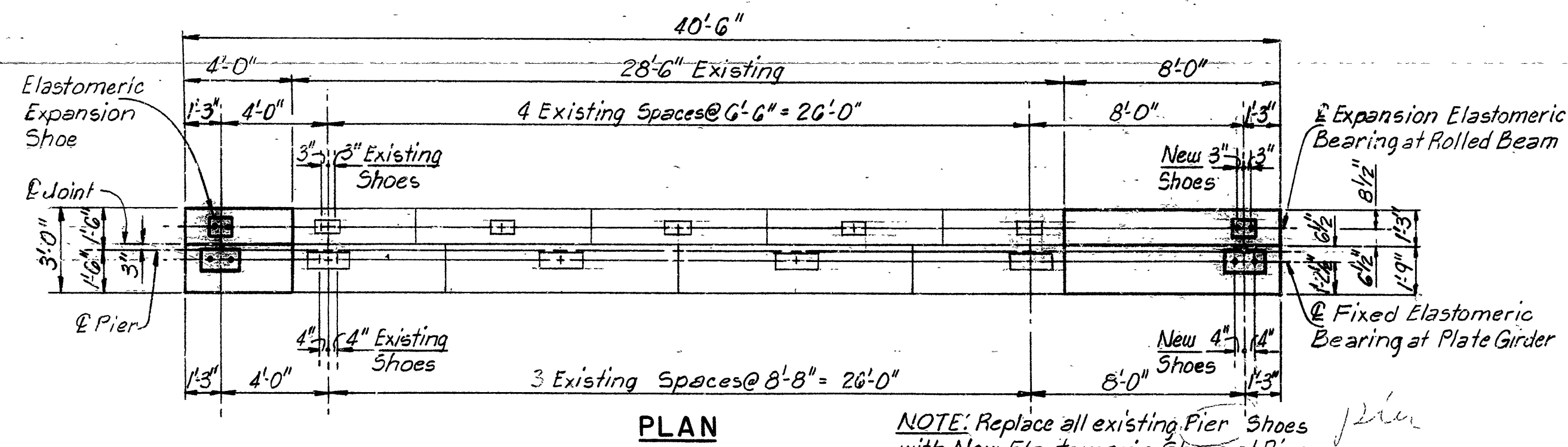
BRIDGE NO. 3424 AR & BR DRAWING NO. 28169

BRIDGE ENGINEER

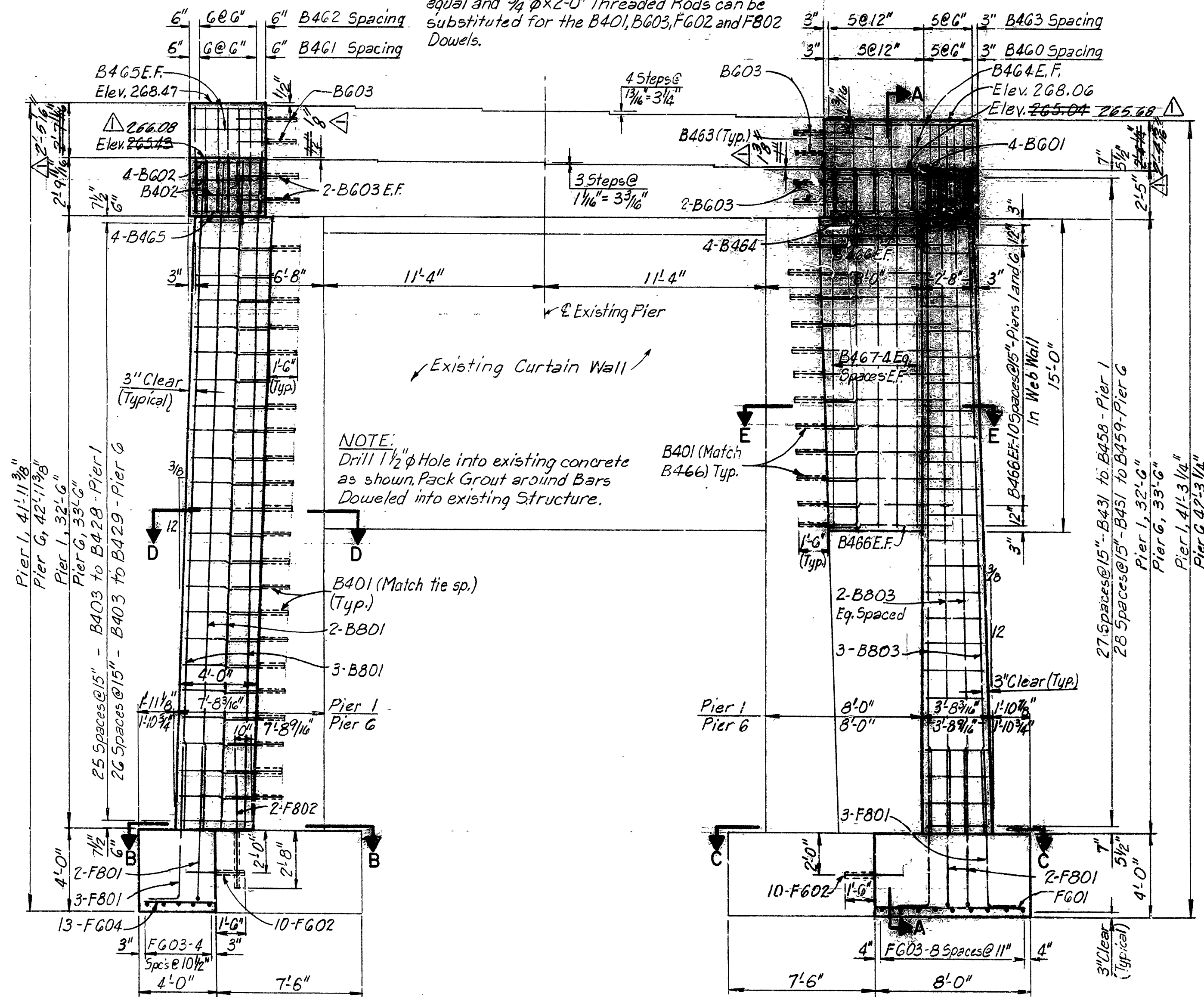


DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
9-30-86	8-9-10-1-86			6	ARK.			
						JOB NO.	60381	20
								45

3424 AR & BR DTL PIERS 1 & 6 28170

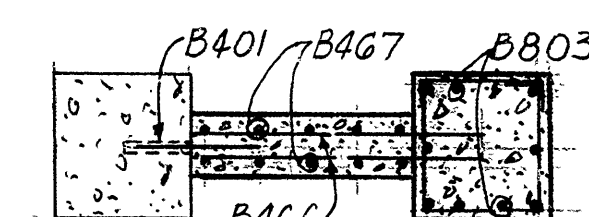
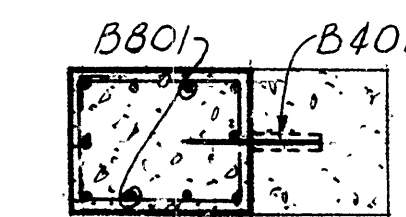
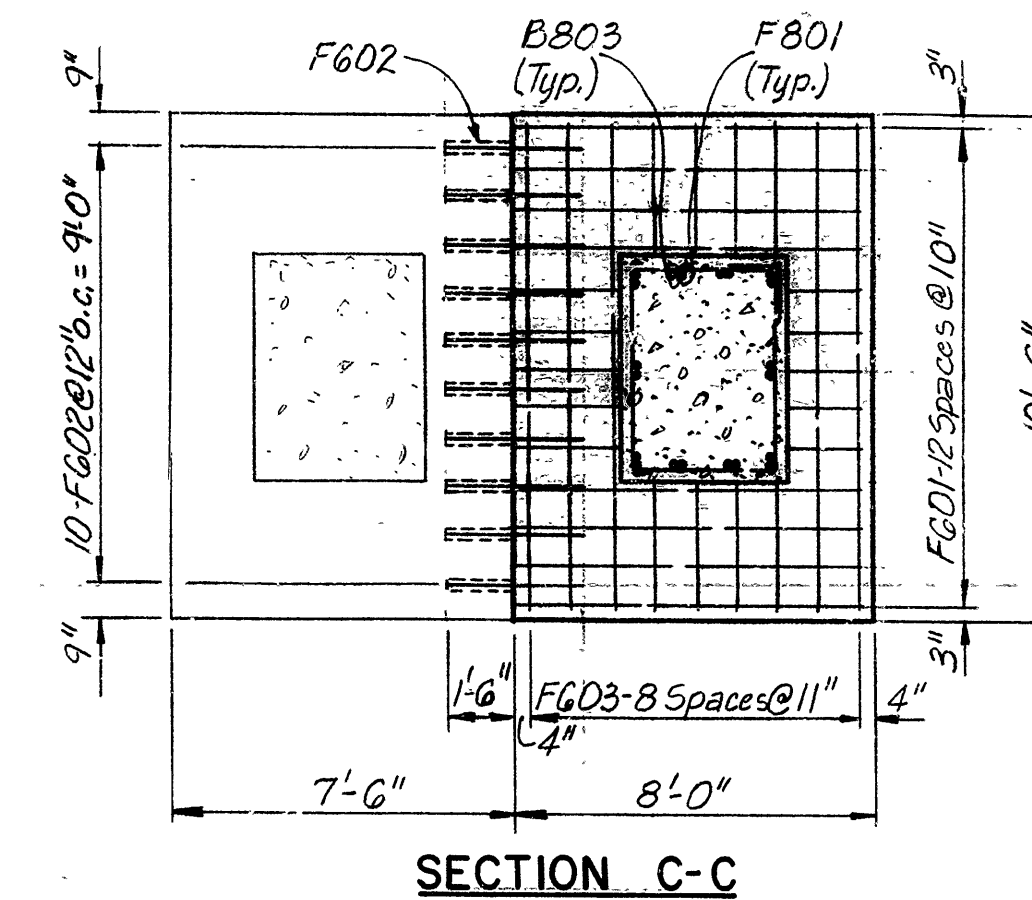
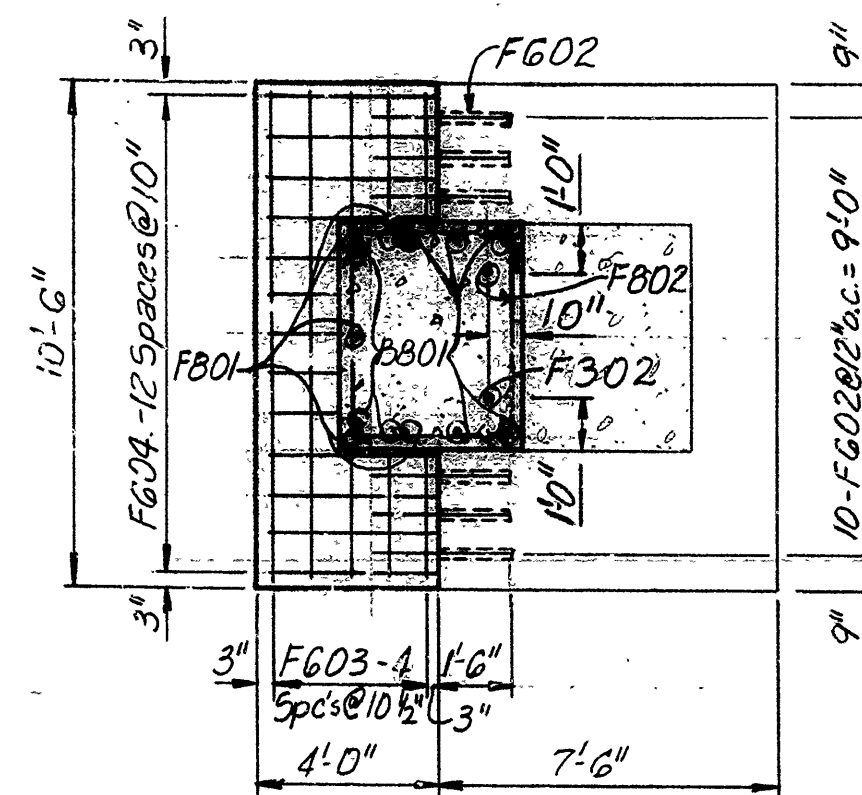


NOTE: Red Head Galvanized Threaded Anchors or equal and  $\frac{3}{4}$ "  $\phi$   $\times$  2'-0" Threaded Rods can be substituted for the B401, B603, F602 and F802 Dowels.



NOTE: Bridge B, Pier 1 and Bridge A, Pier 6 are opposite hand.

Revised - Bar Elevations and Dimensions - E9K - 9-30-86

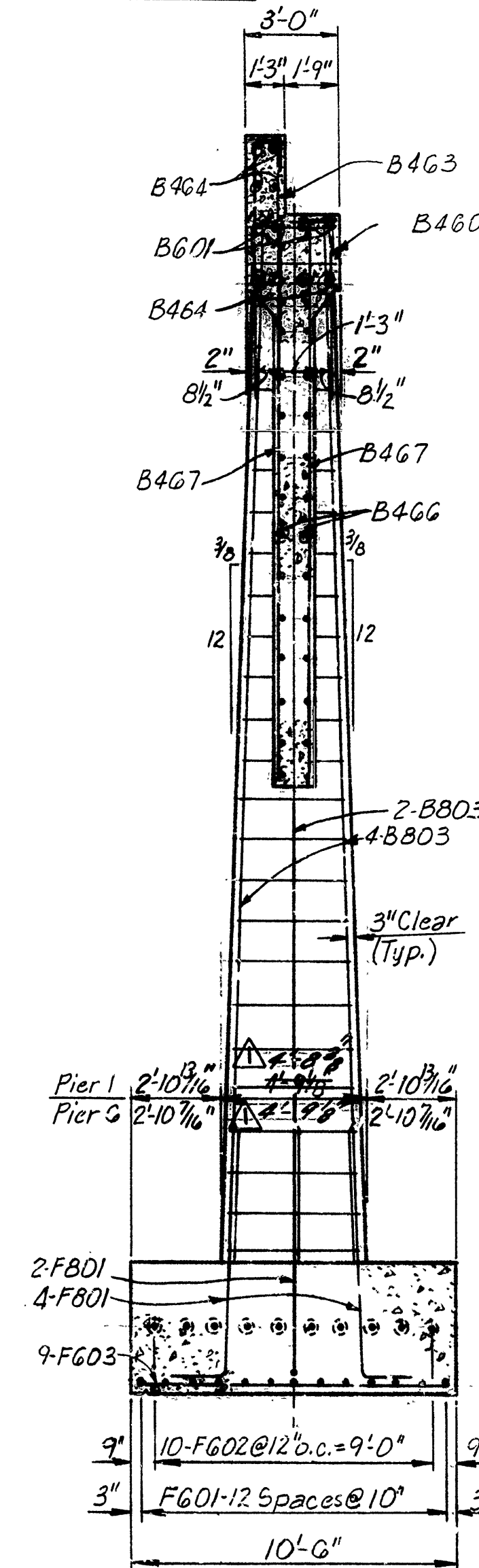


**SECTION B-B**

**SECTION C-C**

**SECTION D-D**

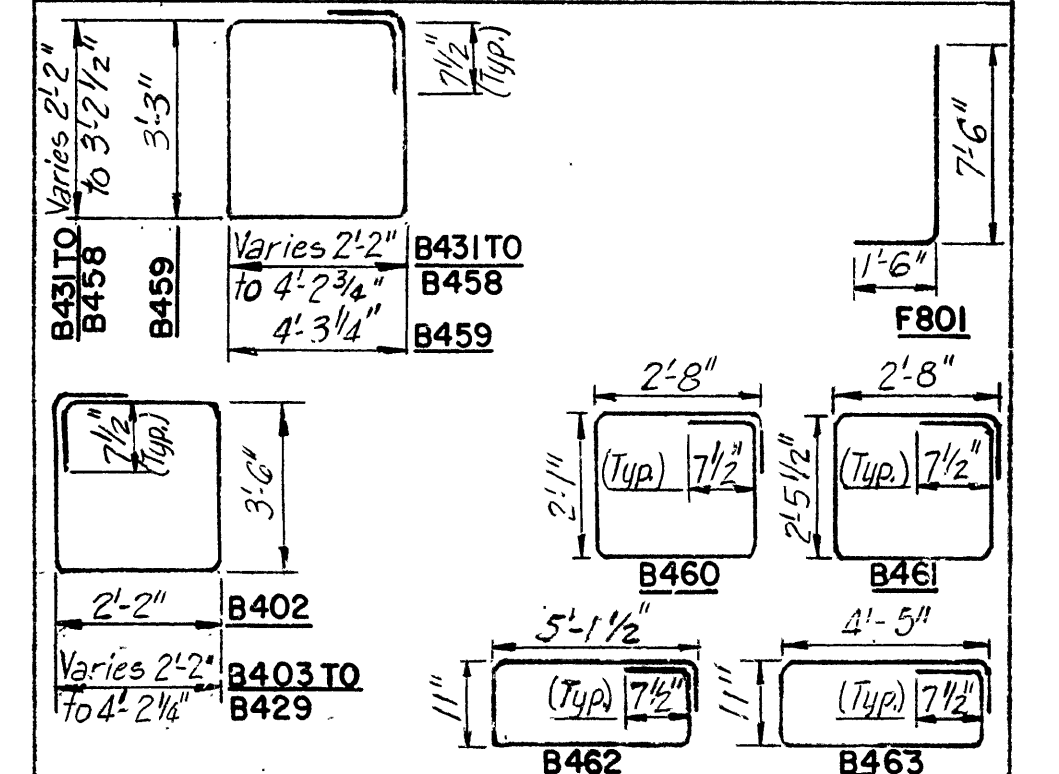
**SECTION E-E**



**SECTION A-A**

REINFORCEMENT SCHEDULE				
MARK	NO.	LENGTH	PIN DIA.	
B401	36	3'-0"	Str.	COMMON TO PIERS 1 AND 6
B402	2	12'-2"	2"	
B460	11	10'-4"	2"	
B461	7	11'-1"	2"	
B462	7	12'-11"	2"	
B463	11	11'-6"	2"	
B464	8	7'-9"	Str.	
B465	8	3'-9"	Str.	
B466	26	6'-10"	Str.	
B467	10	17'-0"	Str.	
B601	4	7'-9"	Str.	
B602	4	3'-9"	Str.	
B603	12	3'-0"	Str.	
F601	13	7'-9"	Str.	
F602	20	3'-0"	Str.	
F603	14	10'-0"	Str.	PIER 1
F604	13	3'-9"	Str.	
F801	15	8'-9 1/2"	6"	
F802	2	5'-4"	Str.	
B403 to B428	1 Each	Varies 12'-2" to 16'-1"	2"	
B431 to B458	1 Each	Varies 9'-6" to 15'-8 1/2"	2"	
B801	10	35'-2 1/2"	Str.	
B803	10	34'-9"	Str.	
B403 to B429	1 Each	Varies 12'-2" to 16'-2 1/2"	2"	PIER 6
B431 to B459	1 Each	Varies 9'-6" to 15'-10 1/2"	2"	
B801	10	36'-2 1/2"	Str.	
B803	10	35'-9"	Str.	

**BENDING DIAGRAM**



NOTE: 1. Dimensions of Bars are out-to-out.  
2. Reinforcement Schedule shown is for One Pier, One Bridge only.

**SHEET 1 OF 1**

**DETAILS OF PIERS 1 AND 6**  
**OUACHITA RIVER BRIDGE AND APPROACHES**

**HOT SPRING COUNTY**  
**ROUTE I-30 SEC. 2**  
**ARKANSAS STATE HIGHWAY COMMISSION**  
LITTLE ROCK, ARK.

DRAWN BY: D.M.F. DATE: DEC. 1985  
CHECKED BY: H.J.P. DATE: DEC. 1985  
DESIGNED BY: J.P. DATE: DEC. 1985  
SCALE: 1/4" = 1'-0"

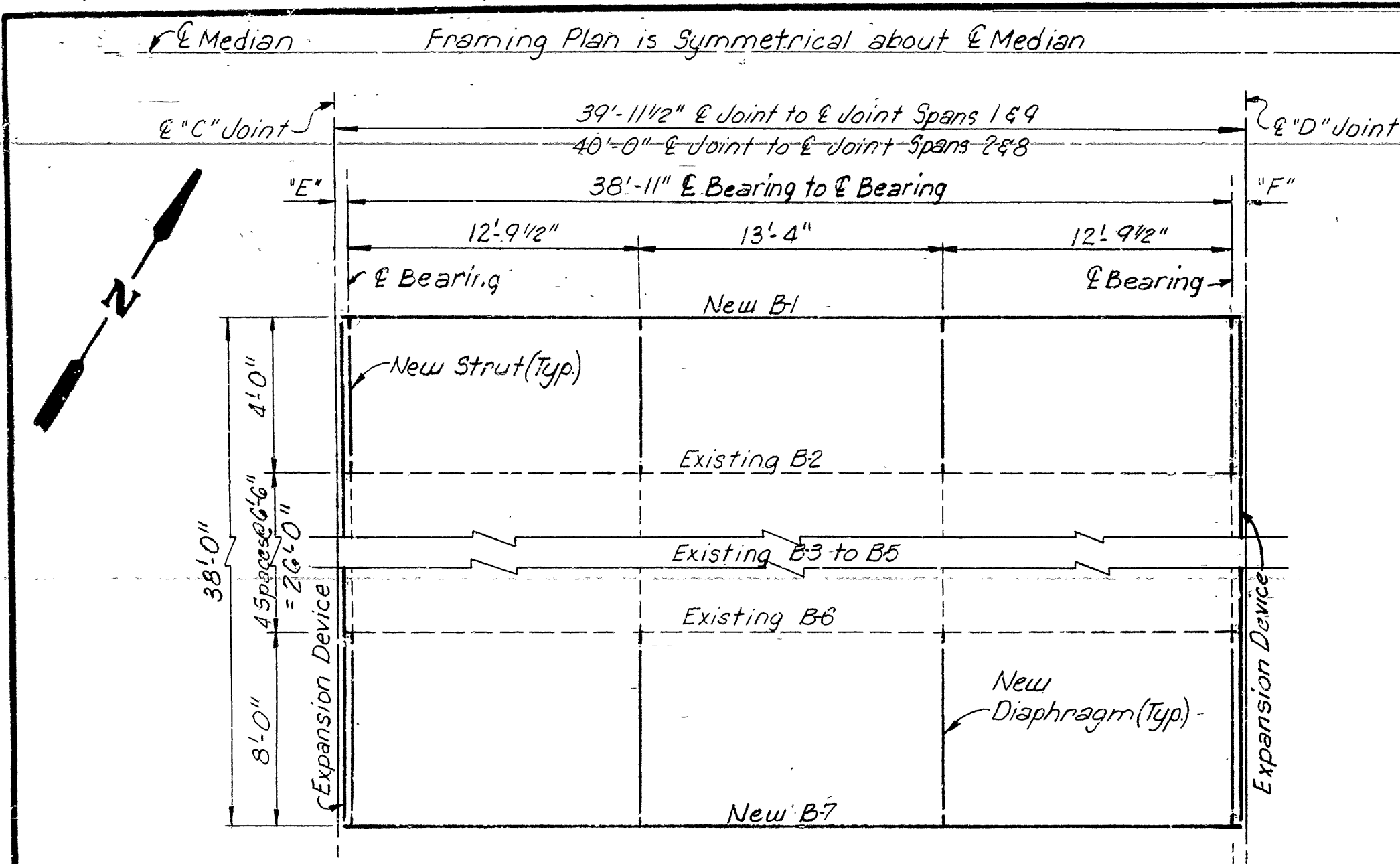
**BRIDGE NO. 3424 AR & BR DRAWING NO. 28170**

BRIDGE ENGINEER

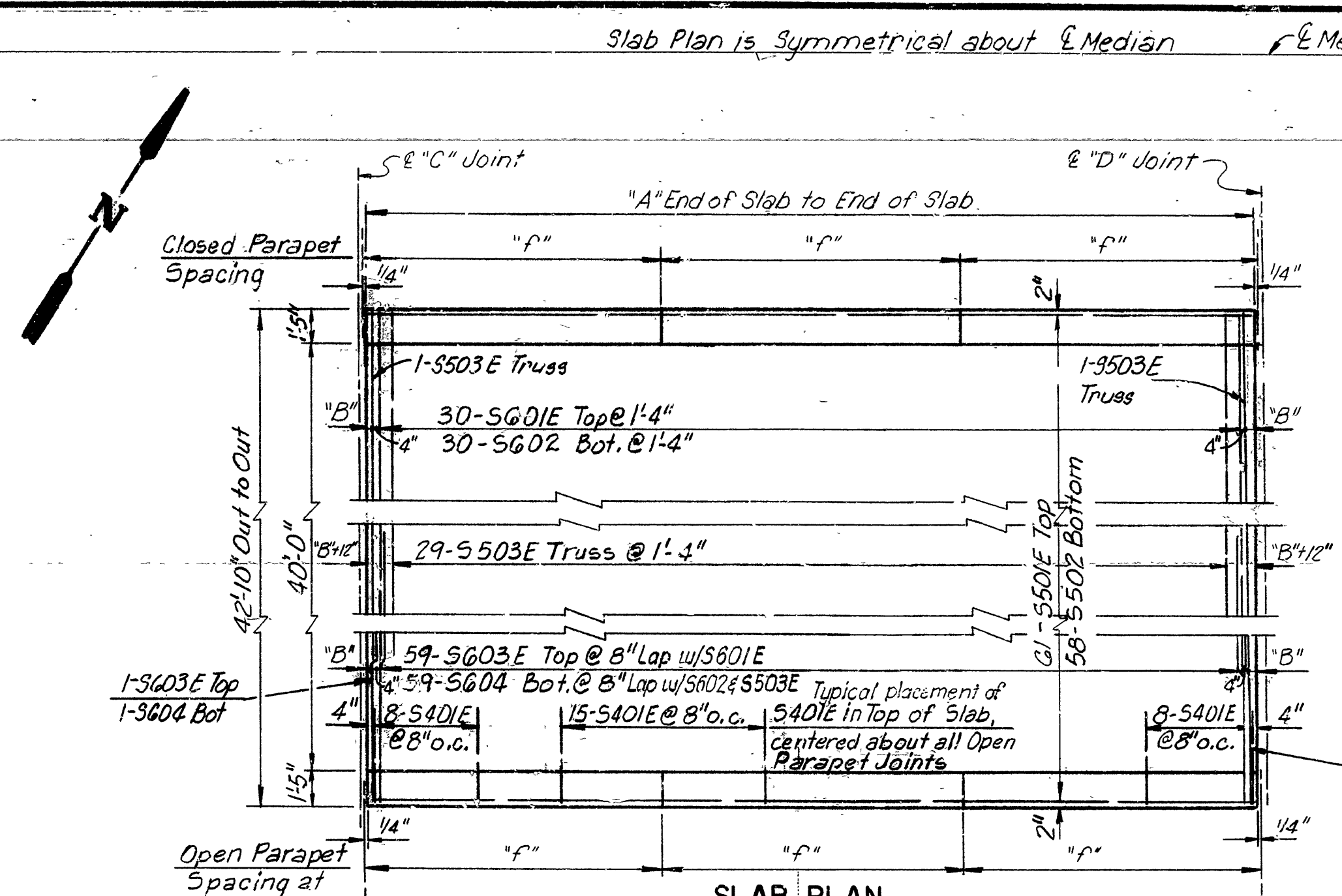




DATE RAISED	DATE FILMED	DATE REMOVED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
7-30-86	8-31-10-1-86			6	ARK.			
11-7-86	6-47-11-7-86							
				JOB NO.	G0381		22	45
① 3424 AR&BR DTL5: RLD. BM SPANS 28172								



**FRAMING PLAN**  
**SPANS 1,2 AND 8,9**  
Scale: None

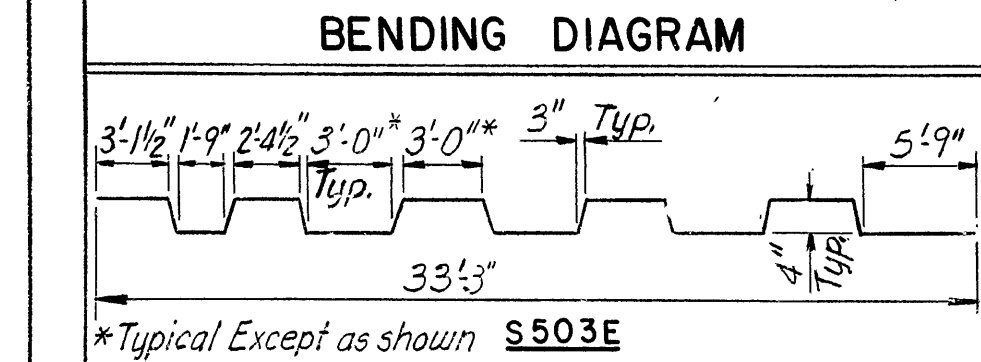


**SLAB PLAN**  
**SPANS 1,2 AND 8,9**  
Scale: None

VARIABLES FOR PARAPET RAILING						
"f"	OPEN PARAPET					
	a	b	c	k	m	
13'-3 3/8"	2'-7 1/16"	8'-0"	5"	1 5/16"	7"	
"f"	CLOSED PARAPET					
	k	n				
13'-3 3/8"	7 1/8"	12"				

NOTE: For Parapet Reinforcing and Bending Diagrams, See Drawing No. 28178.

SPANS 1,2 AND 8,9 REINFORCEMENT SCHEDULE			
MARK	NO. Δ	LENGTH	PIN DIA.
S401E	2E **	4'-0"	Str.
S501E	60	39'-5"	Str.
S502E	58	39'-5"	Str.
S503E	31	34'-2"	2 1/2"
S601E	30	30'-3"	Str.
S602E	30	33'-6"	Str.
S603E	61	14'-9"	Str.
S604E	61	11'-6"	Str.
P601	15	13'-0"	Str.
P401	15	6'-3"	2"
P402	36	7'-0"	2"
P403	39	5'-8"	2"
P404	24	3'-6"	2"
P405	24	6'-11"	2"
P406	39	13'-0"	2"
P401	78	6'-3"	2"
P403	78	5'-8"	2"
P406	42	13'-0"	2"

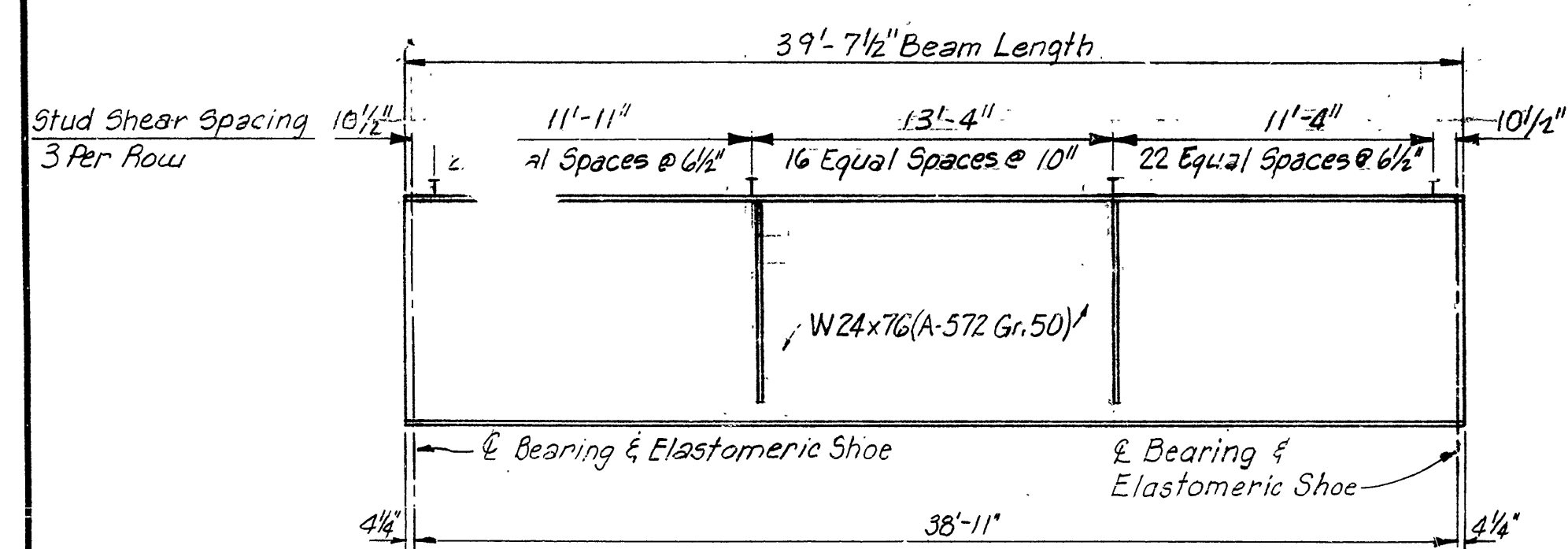


\*Typical Except as shown S503E

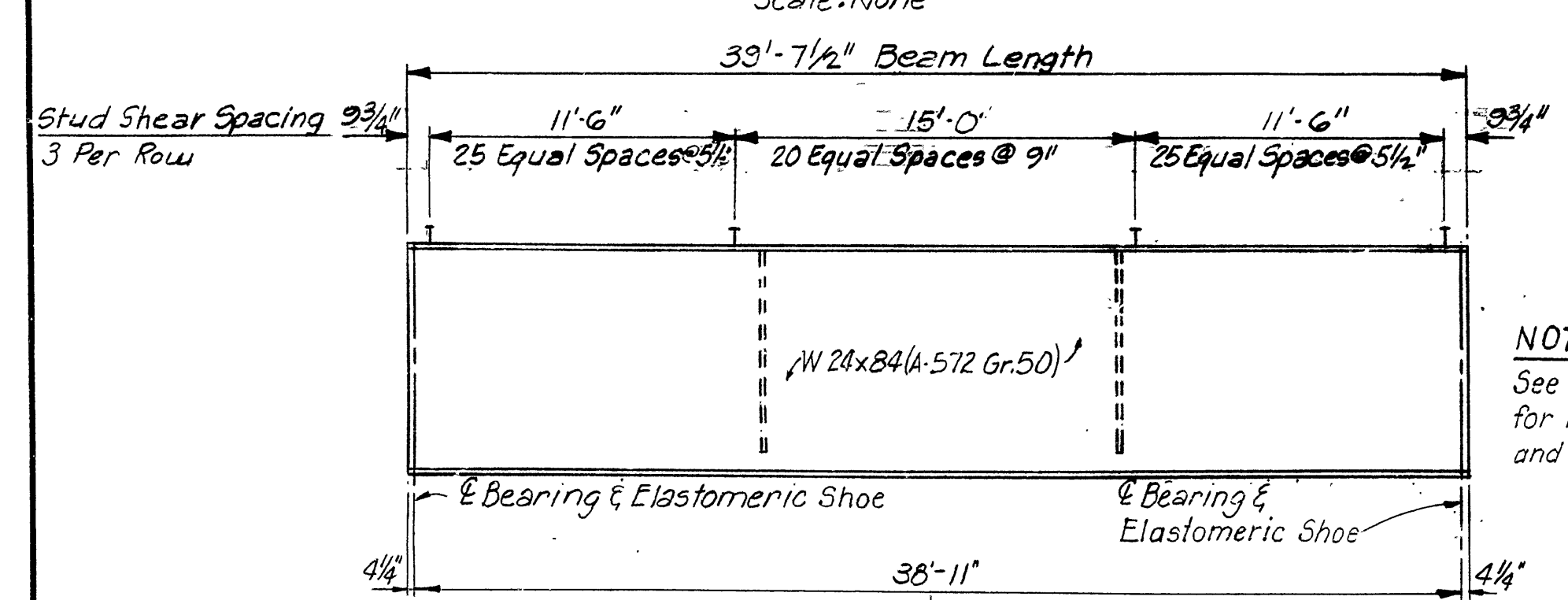
TABLE OF DEAD LOAD DEFLECTIONS					
BEAM	SPAN POINT	STEEL ONLY	CONCRETE ONLY	TOTAL	TOTAL OLD DEFLECTIONS
B-1	1/4	1/16"	3/8"	3/8"	
	1/2	1/16"	3/8"	1/2"	
B-2	1/4	1/16"	5/16"	3/8"	
	1/2	1/16"	3/8"	1/2"	9/16"
B-3 to B-5	1/4	1/16"	5/16"	3/8"	
	1/2	1/16"	7/16"	9/16"	7/16"
B-6	1/4	1/16"	3/8"	1/2"	
	1/2	1/16"	9/16"	5/8"	9/16"
B-7	1/4	1/16"	3/8"	7/16"	
	1/2	1/16"	1/2"	5/8"	

SPAN	TABLE OF VARIABLES DIMENSIONS						
	A	B	C	D	E	F	"f"
-1	39'-10 1/4"	3 1/4"	1"	1"	6"	6 1/2"	13'-3 1/16"
-9	39'-10 1/4"	3 1/4"	1"	1"	6 1/2"	6"	13'-3 11/16"
-2	39'-11"	3 1/2"	1"	1"	6 1/2"	6 1/4"	13'-3 13/16"
-8	39'-11"	3 1/2"	1"	1"	6 1/2"	6 1/2"	13'-3 13/16"

Δ Revised Bar List - EGK-9-30-86  
⊗ Revised Dead Load Defl. 11-7-86 FMH



**BEAM ELEVATION B1**  
**SPANS 1,2 AND 8,9**  
Scale: None



**BEAM ELEVATION B7**  
**SPANS 1,2 AND 8,9**  
Scale: None

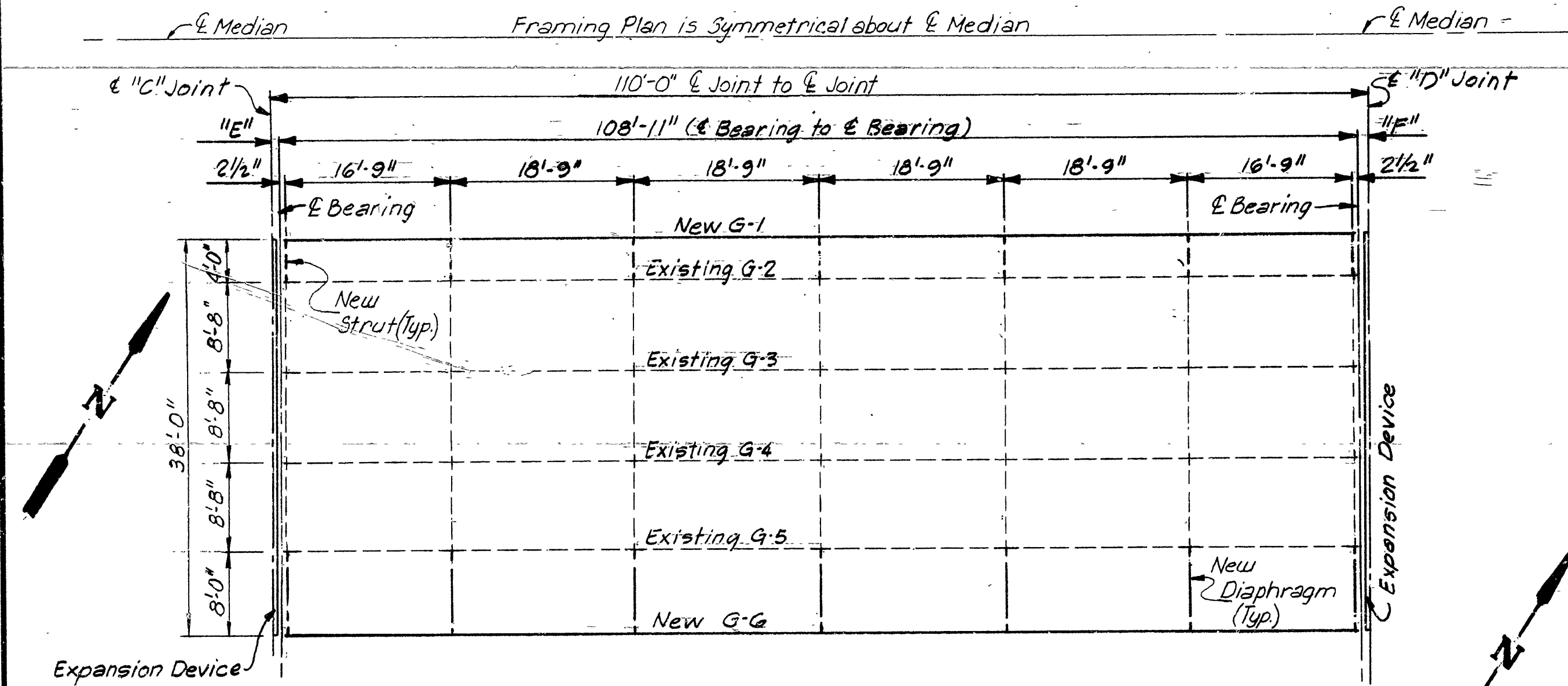
NOTE:  
See Bridge Layout for location of Fixed and Expansion Shoes.

- NOTES:
- Dimensions of Bars are out-to-out.
  - "E" indicates that bars are to be Epoxy Coated Reinforcing Steel.
  - Reinforcement Schedule is for One Span, One Bridge Only.
  - For Joint Details of Expansion Devices, see Drawing No. 28176.
  - For Slab Joint Details, see Drawing No. 28176.
  - For Elastomeric Fixed and Expansion Shoe Details, see Drawing No. 28176.

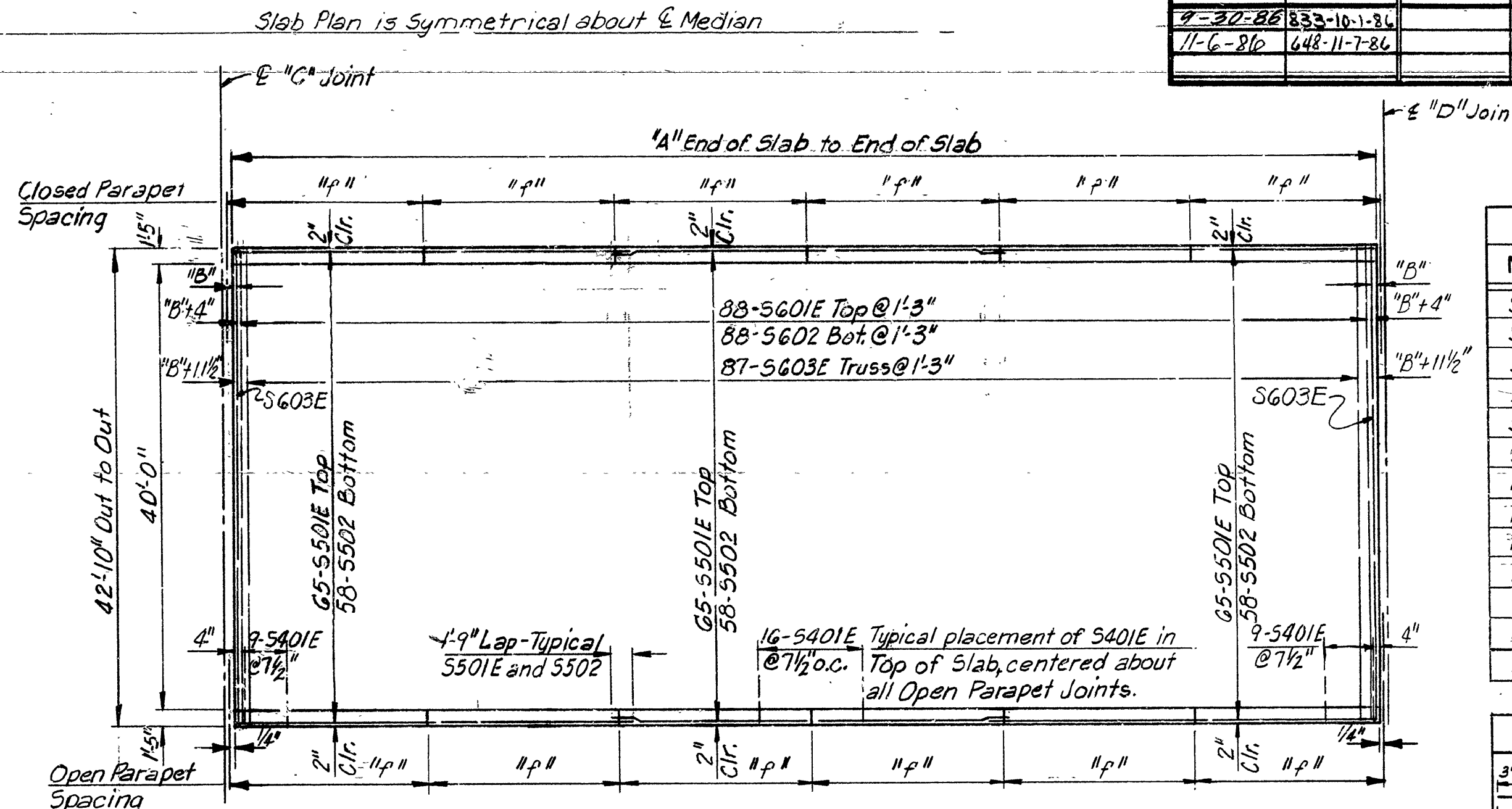




DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
9-30-86	833-10-1-86			6	ARK.			
11-6-86	648-11-7-86							
				JOB NO.	60381		24	45
				3424 AR&BR PL. GIRD SPANS 28174				

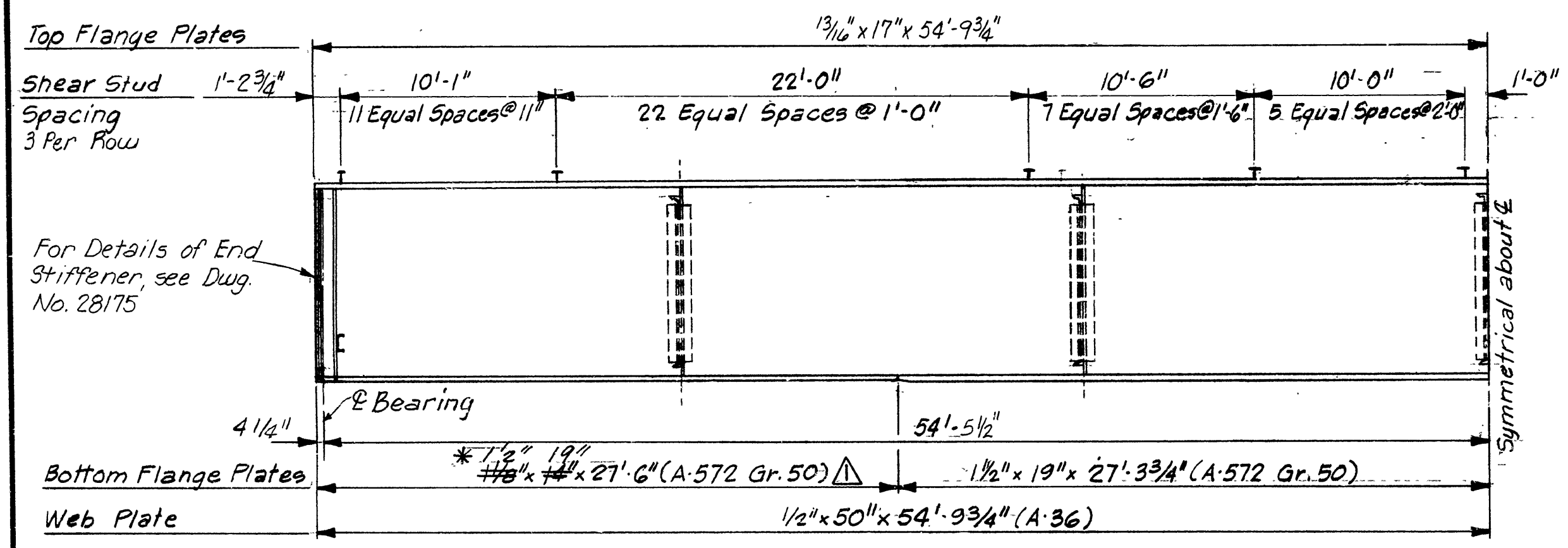
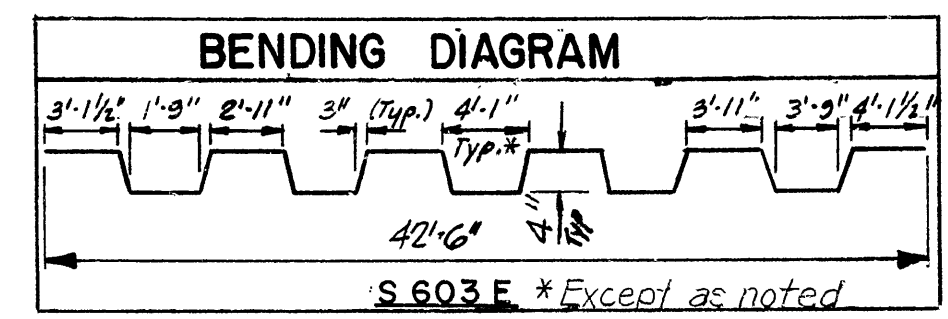


**FRAMING PLAN**  
SPANS 3 THRU 7  
Scale: 3/32"=1'-0"

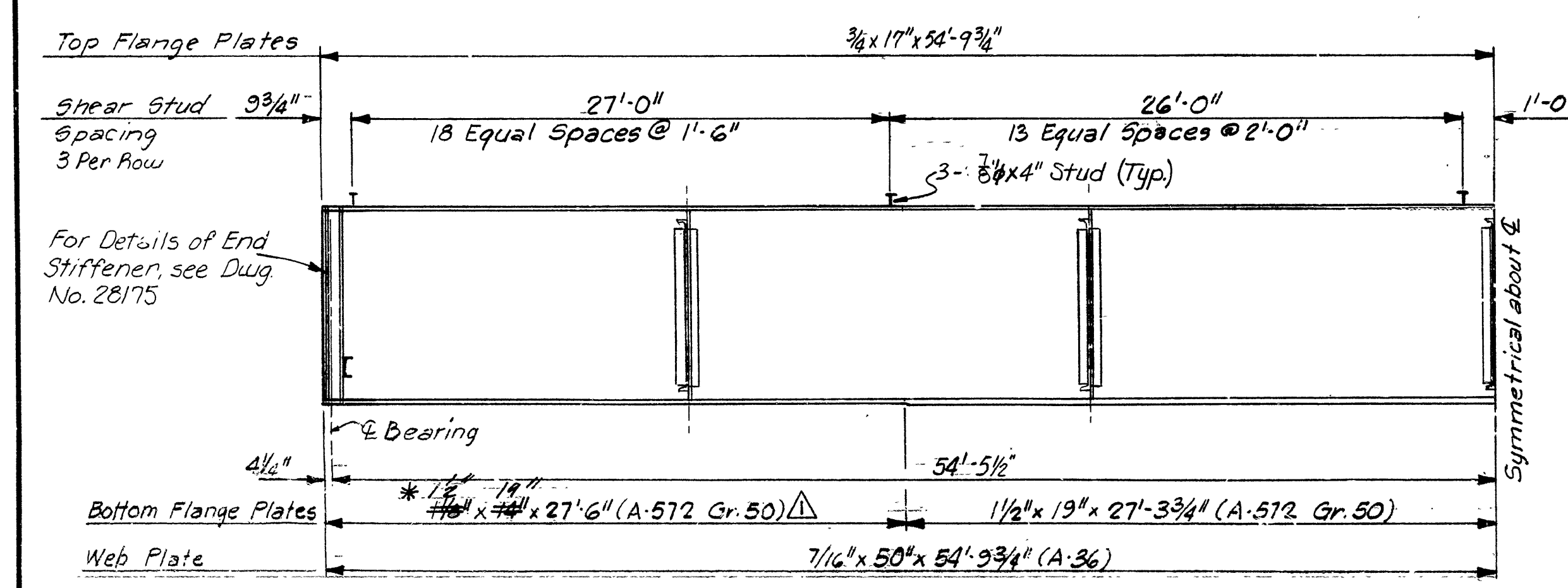


**SLAB PLAN**  
SPANS 3 THRU 7  
Scale: 3/32"=1'-0"

REINFORCEMENT SCHEDULE			
MARK	NO.	LENGTH	PIN DIA.
S401E	38	4'-0"	Str.
S501E	195	37'-8"	Str.
S502E	174	37'-8"	Str.
S601E	88	42'-6"	Str.
S602E	88	42'-6"	Str.
S603E	89	43'-6 1/2"	3 3/4"
P401	216	6'-3"	2"
P402	108	7'-0"	2"
P403	108	5'-8"	2"
P404	48	3'-6"	2"
P405	48	6'-1"	2"
P406	66	18'-0"	Str.
P601	30	18'-0"	Str.



**GIRDER ELEVATION G6**  
SPANS 3 THRU 7  
Scale: 3/16"=1'-0"



**GIRDER ELEVATION G7**  
SPANS 3 THRU 7  
Scale: 3/16"=1'-0"

VARIABLES FOR PARAPET RAILING					
"f"	OPEN PARAPET				
	a	b	c	k	m
18'-3 13/16"	5'-1 13/16"	8'-0"	7"	3 7/16"	7
18'-3 3/4"	5'-1 7/8"	8'-0"	7"	3 3/8"	7
"f"	CLOSED PARAPET				
	k	n			
18'-3 13/16"	7 15/16"	17			
18'-3 3/4"	7 7/8"	17			

NOTE: For Parapet Reinforcing and Bending Diagram, see Dwg. No. 28023

TABLE OF DEAD LOAD DEFLECTIONS					
GIRDER	SPAN POINT	STEEL ONLY	CONCRETE ONLY	TOTAL	TOTAL OLD DEFLECTIONS
G-1	1/4	3 1/4"	3 1/4"	2 1/4"	
	1/2	1 1/4"	1 1/4"	3 1/4"	
G-2	1/4	4 1/8"	1 1/8"	2 5/8"	
	1/2	7/8"	2 1/2"	3 5/8"	4 1/8"
G-3	1/4	5 1/8"	2 1/2"	3 5/16"	
	1/2	7/8"	3 3/16"	4 9/16"	3 3/4"
G-4	1/4	5 1/8"	2 1/2"	3 3/16"	
	1/2	7/8"	3 3/16"	4 9/16"	4 1/8"
G-5	1/4	3 1/4"	3 1/4"	2 1/4"	
	1/2	1 1/4"	1 1/4"	3 1/4"	
G-6	1/4	3 1/4"	3 1/4"	2 1/4"	
	1/2	1 1/4"	1 1/4"	3 1/4"	

TABLE OF VARIABLES							
SPAN	DIMENSIONS						
	A	B	C	D	E	F	"f"
3	109'-10 1/2"	2 3/4"	1"	1 7/8"	6 1/2"	6 1/2"	18'-3 13/16"
4	109'-9 13/16"	2 3/8"	1 7/8"	2 1/2"	6 1/2"	6 1/2"	18'-3 3/4"
5	109'-9 13/16"	2 3/8"	2 1/2"	1 7/8"	6 1/2"	6 1/2"	18'-3 3/4"
6	109'-10 1/2"	2 3/4"	1 7/8"	1 7/8"	6 1/2"	6 1/2"	18'-3 3/4"
7	109'-10 1/2"	2 3/8"	1 7/8"	1"	6 1/2"	6 1/2"	18'-3 13/16"

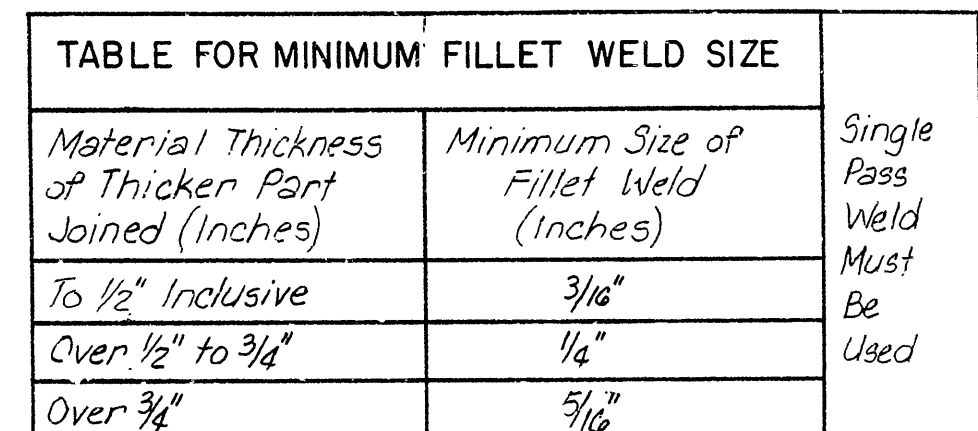
- NOTE: 1. Dimensions of Bars are out-to-out.  
2. "E" indicates that the Bars are to be Epoxy Coated Reinforcing Steel.  
3. Reinforcement Schedule is for One Span, One Bridge Only.  
4. For Joint Details of Expansion Device, see Dwg. No. 28176.  
5. For Slab Joint Details, see Dwg. No. 28176.  
6. For Shoe Details, see Dwg. No. 28177.  
7. Concrete, Re-bars and Expansion Channel Extension will be paid for as quantities. Removal will be paid for under "Remodeling S.P." Entire New Expansion Device to be Installed.  
8. For Elastomeric Fixed Shoe Details, see Drawing No. 28176.

SHEET 1 OF 2  
DETAILS OF PLATE GIRDER SPANS  
OUACHITA RIVER BRIDGE AND APPROACHES  
HOT SPRING COUNTY  
ROUTE I-30 SEC. 2  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.  
DRAWN BY: D.M.F. DATE: DEC. 1985  
CHECKED BY: H.J.P. DATE: DEC. 1985  
DESIGNED BY: J.P. DATE: DEC. 1985  
SCALE: As Noted  
BRIDGE NO. 3424 AR & BR DRAWING NO. 28174

\* Dimensions submitted by Fabricator.  
(No increase in pay quantity)

Revised Dead Load Deflections, Girder Nos. 4 & Girder Dimensions.  
Egk- 9-30-86  
Revised Dead Load Defl. 11-7-86. FMH





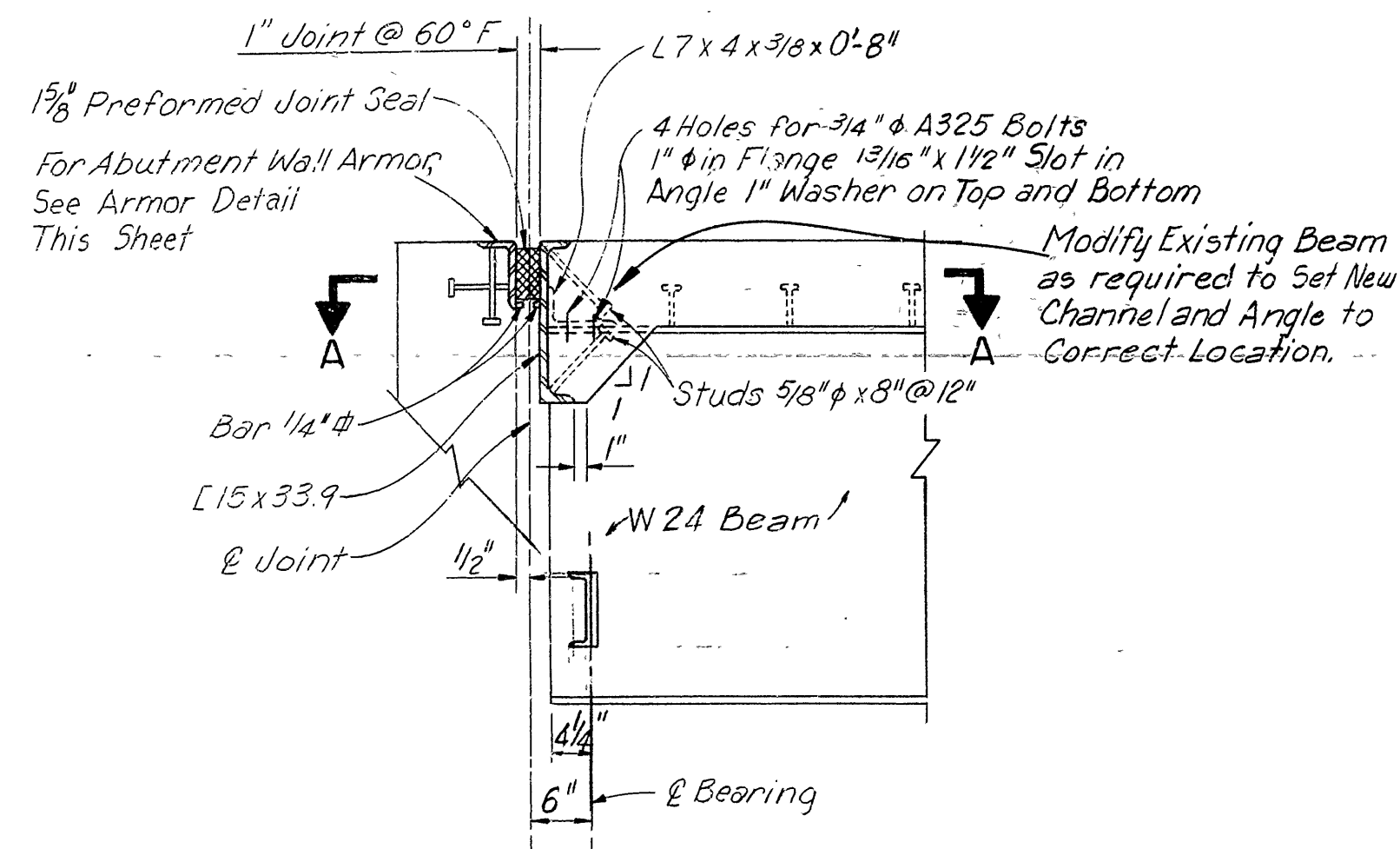
NOTE: For Stud Shear Connection, see Detail, Dwg. No. 28173



**BRIDGE ENGINEER**

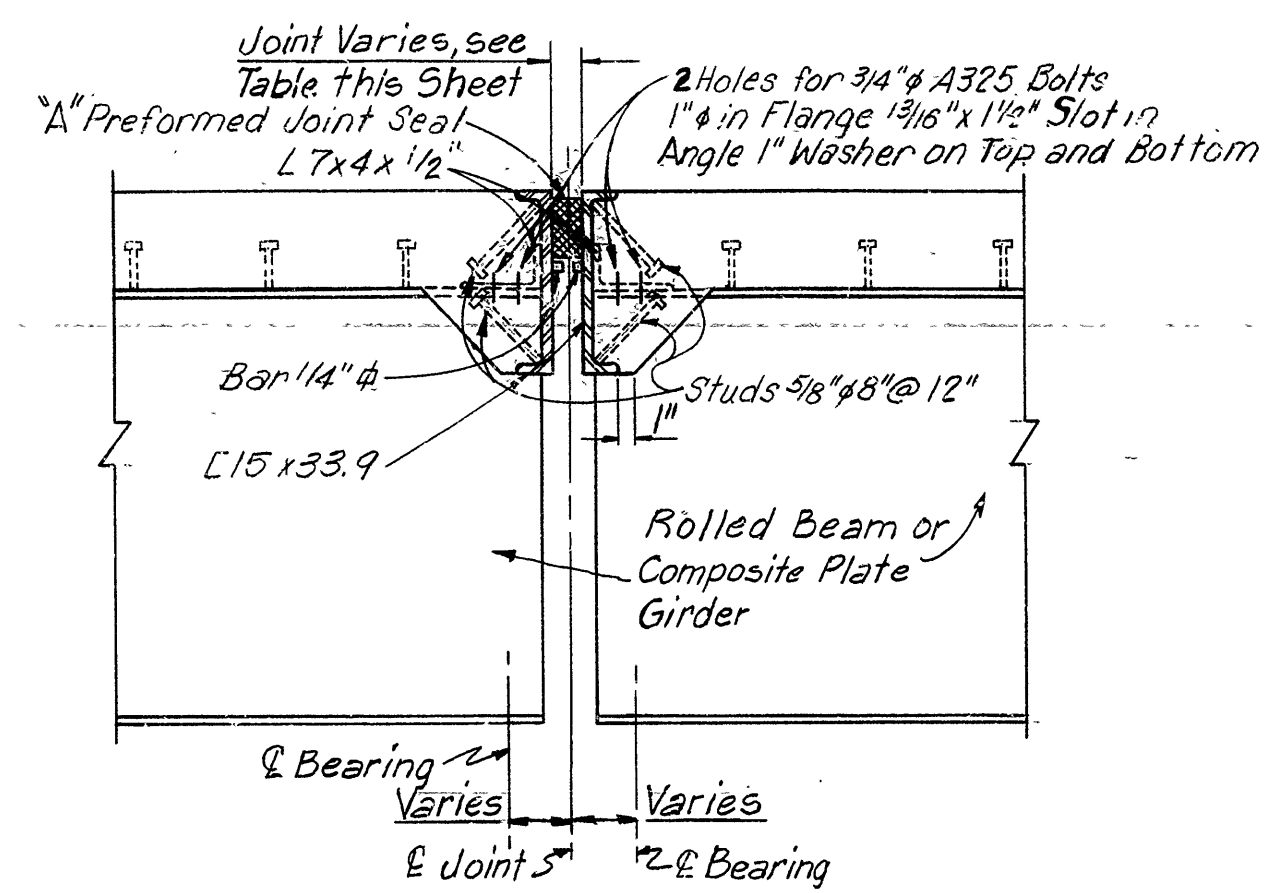
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		60381	26	45

3424 AR&BR JTS & ELAS SHOES 28176



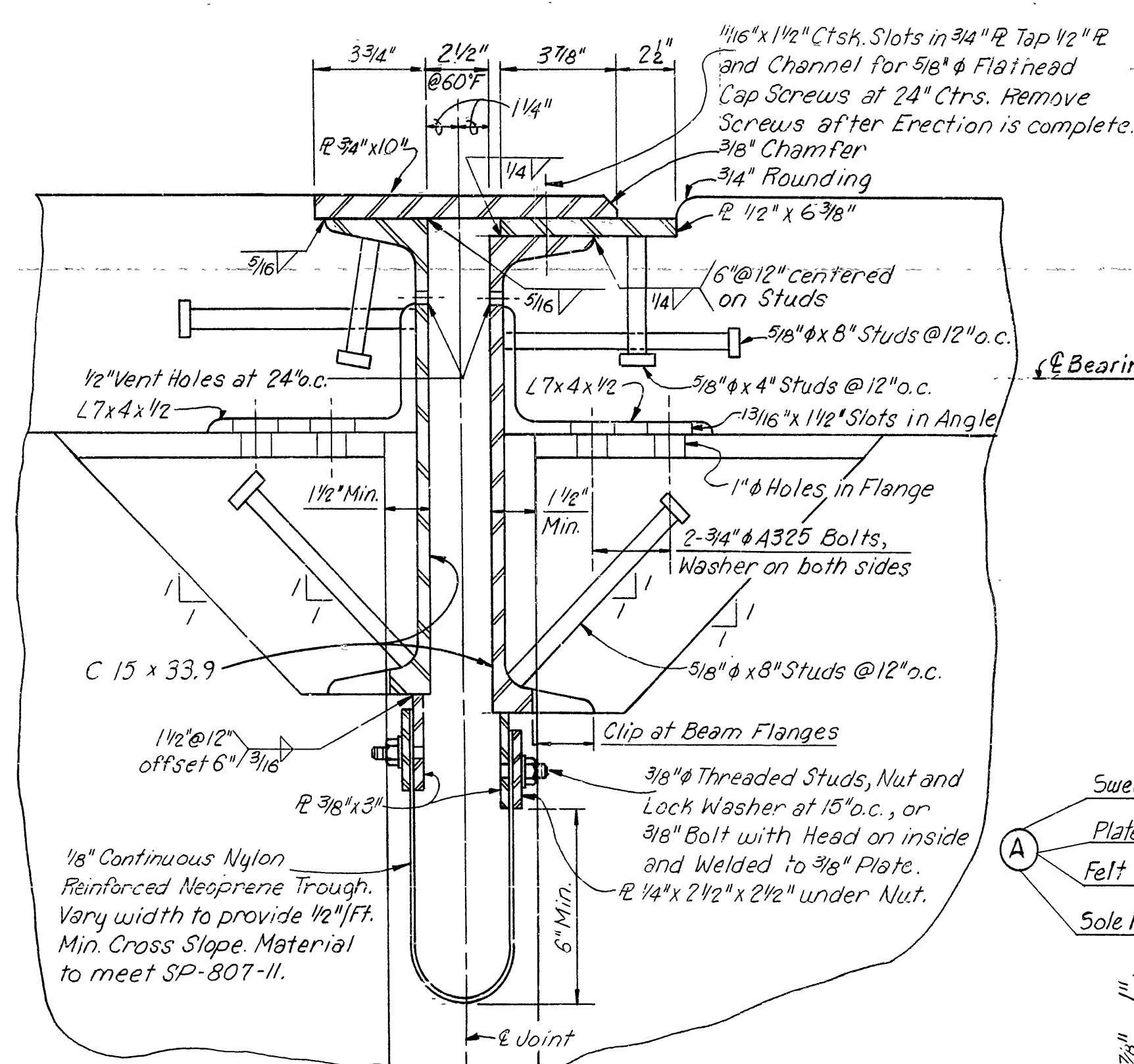
SECTION OF EXPANSION DEVICE AT ABUTMENTS

Scale: None



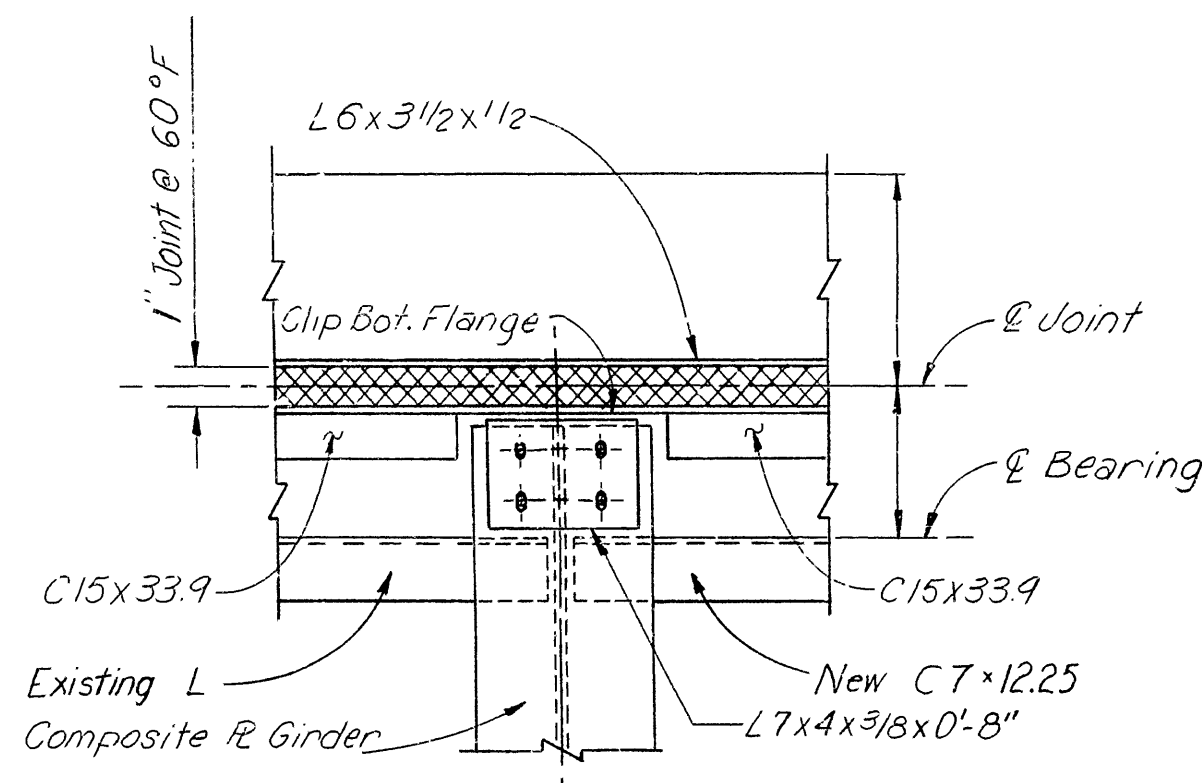
SECTION OF PREFORMED EXPANSION DEVICE

Scale: None



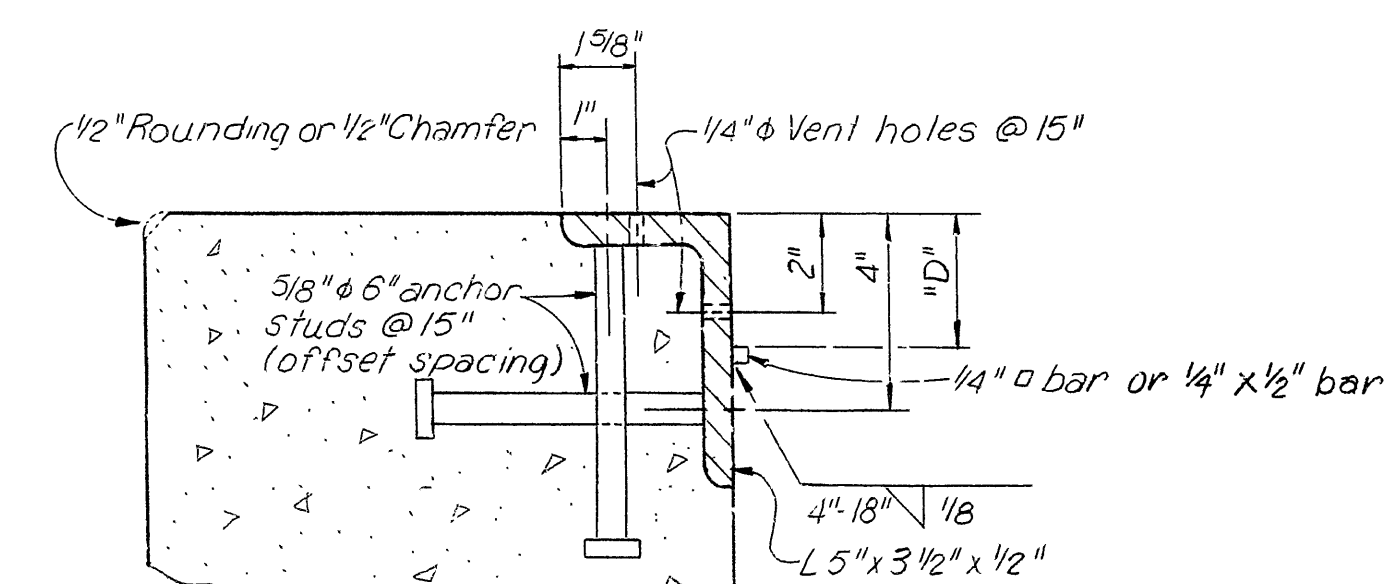
SECTION OF SLIDING PLATE EXPANSION DEVICE AT PIER NO.3

Scale: 3"=1'-0"



SECTION A-A

Scale: None

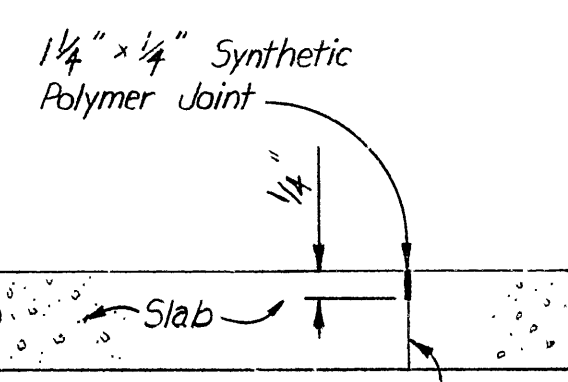


NOTE: "D" shall conform to recommendations of Seal Manufacturer

ARMOR DETAIL

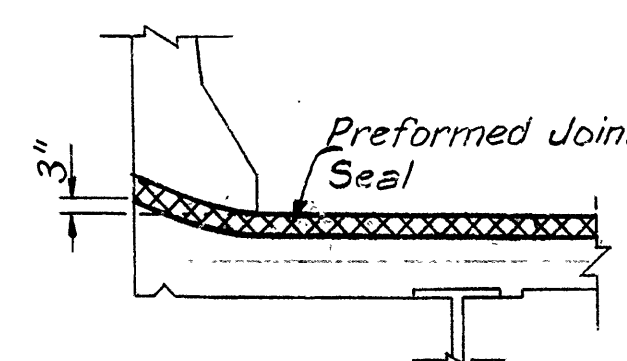
Scale: None

PREFORMED JOINT SEAL SIZE "A"		
LOCATION	JOINT SIZE	"A"
Bents 2 and 3	1"	1 5/8"
Piers 1 and 6	1"	1 3/8"
Piers 2, 4 and 5	1 1/8"	3"



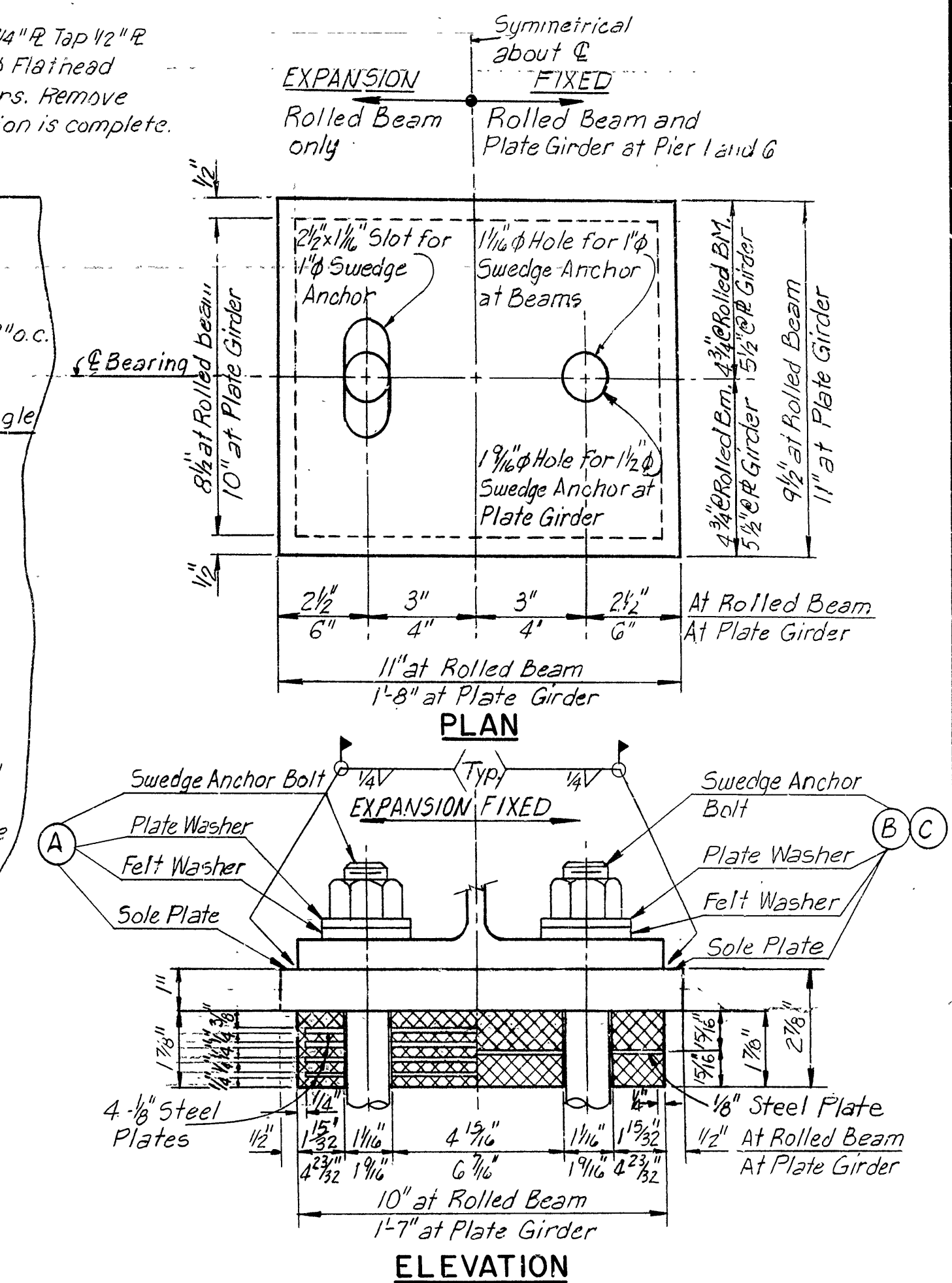
SLAB JOINT DETAIL

Scale: None



SEAL PLACEMENT

Scale: None



ELEVATION

Scale: None

TABLE OF VARIABLES

MARK	TABLE OF VARIABLES		
	ROLLED BEAM (A)	PLATE GIRDER (B)	PLATE GIRDER (C)
Swedge Anchor Bolt	1" x 2'-0"	1" x 1'-9"	1 1/2" x 1'-9"
Plate Washer	2 1/2" x 1/4"	2 1/2" x 1/4"	3" x 1/4"
Felt Washer	2 1/2" x 1/4"	2 1/2" x 1/4"	3" x 1/4"
Sole Plate	1" x 9 1/2" x 0'-11"	1" x 9 1/2" x 0'-11"	1" x 11" x 1'-8"
No. of Shoes Required	56	56	24

NOTES: 1. Provide 2-2 1/2" x 1 1/8" Slots in Bottom Flange of Beam for Expansion Shoes.  
2. Provide 2-1 1/8" x 1 1/8" Holes in Bottom Flange of Beam and 2-1 1/8" x 1 1/8" Holes in Bottom Flange of Plate Girder for Fixed Shoes.  
3. For attachment of Elastomeric Pad to Sole Plate or Bearing Seat, see SP-808-1.

SHEET 1 OF 1

DETAILS OF JOINTS AND ELASTOMERIC SHOES  
OUACHITA RIVER BRIDGE AND APPROACHES

HOT SPRING COUNTY  
ROUTE 1-30 SEC. 2  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: B.B. DATE: DEC. 1985  
CHECKED BY: H.V.P. DATE: DEC. 1985  
DESIGNED BY: J.P. DATE: DEC. 1985

BRIDGE NO. 3424 AR & BR DRAWING NO. 28176

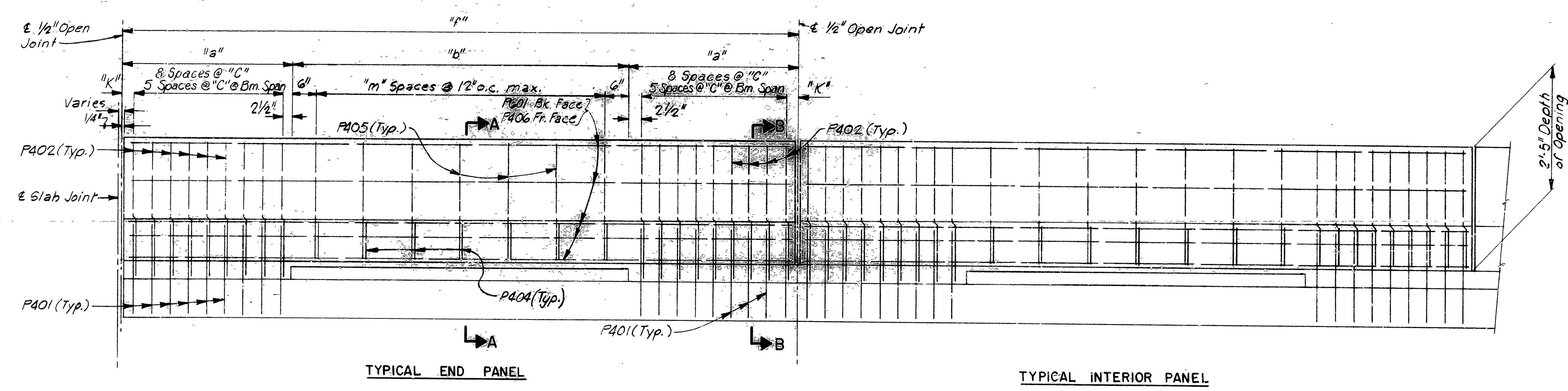
BRIDGE ENGINEER



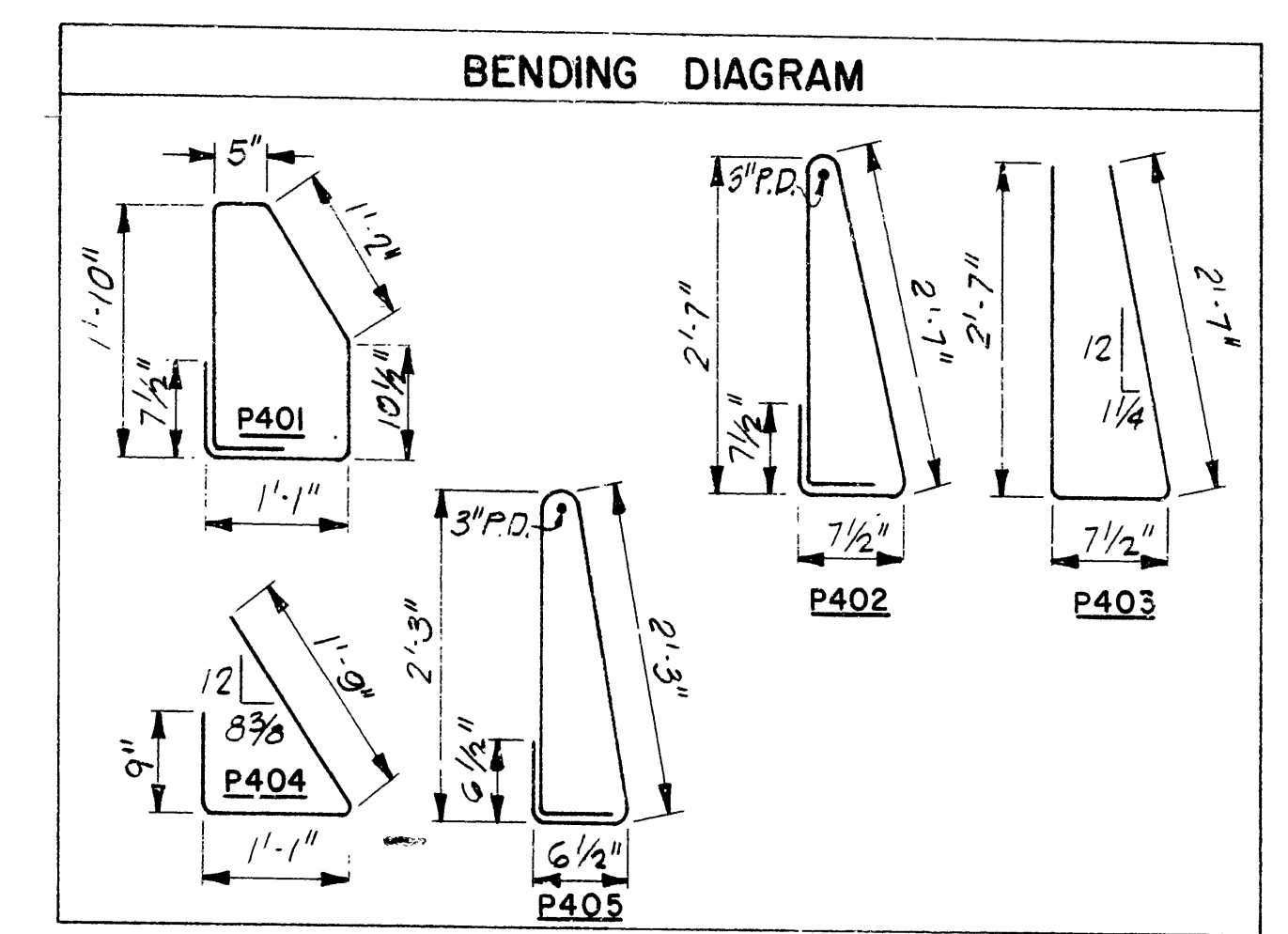




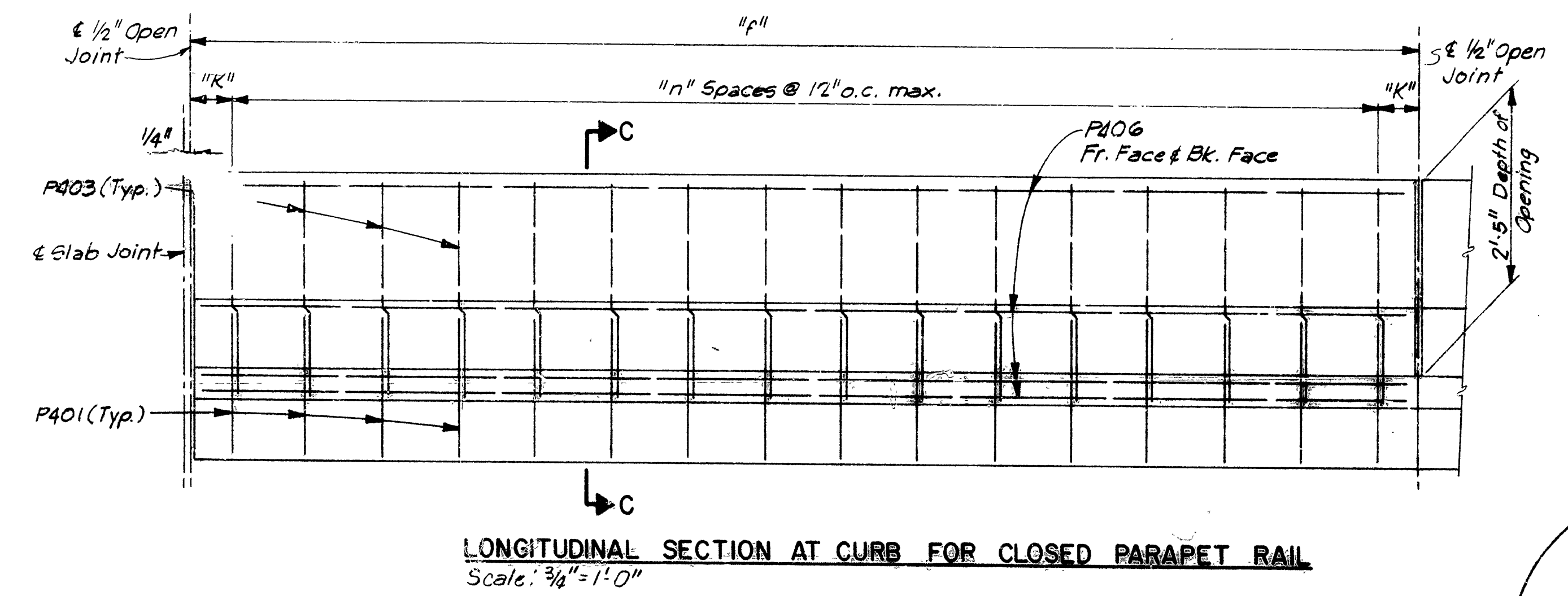
DATE	REVISION	DATE	REVISION	PER. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO.					60381	28	45	
1 3424 AR&BR DETAILS RAILING 28178								



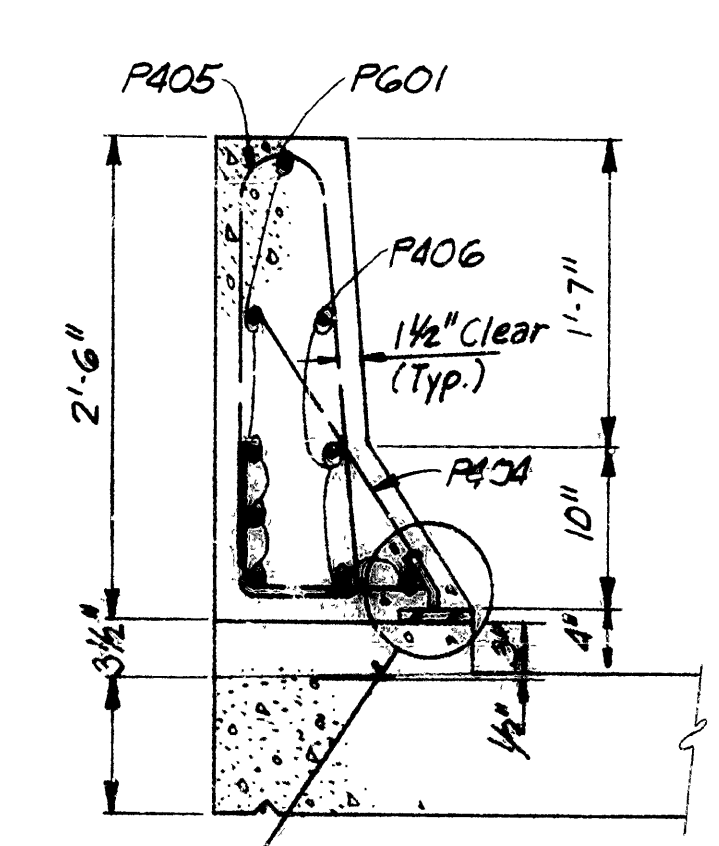
LONGITUDINAL SECTION AT CURB FOR OPEN PARAPET RAIL  
Scale: 3/4" = 1'-0"



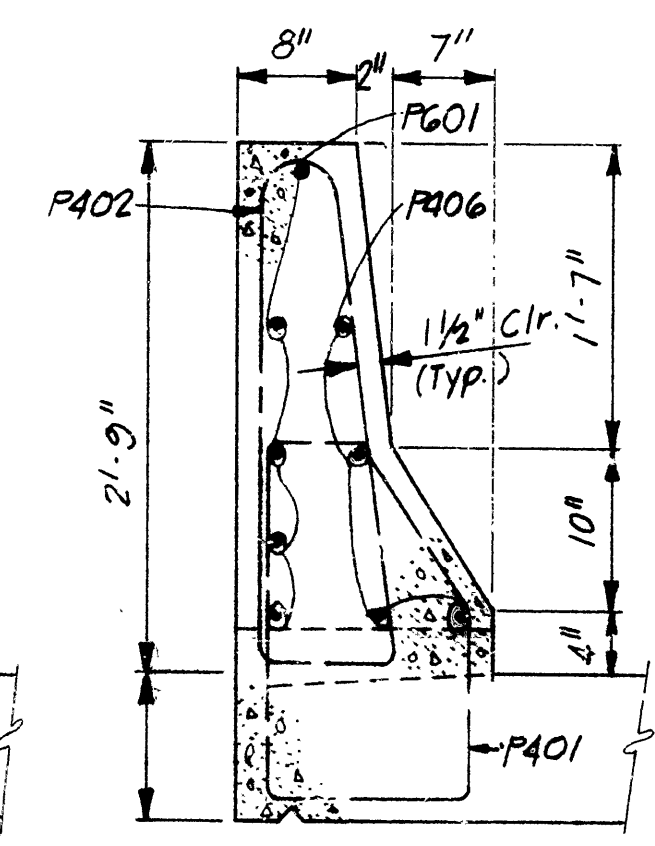
NOTE: Dimensions of Bars are out-to-out.



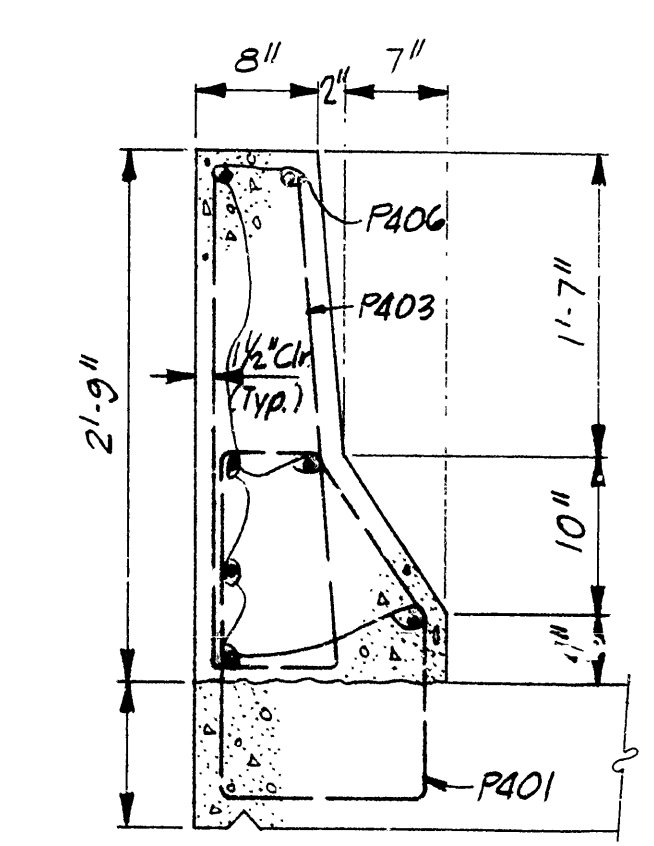
LONGITUDINAL SECTION AT CURB FOR CLOSED PARAPET RAIL  
Scale: 3/4" = 1'-0"



SECTION A-A  
Scale: 1" = 1'-0"

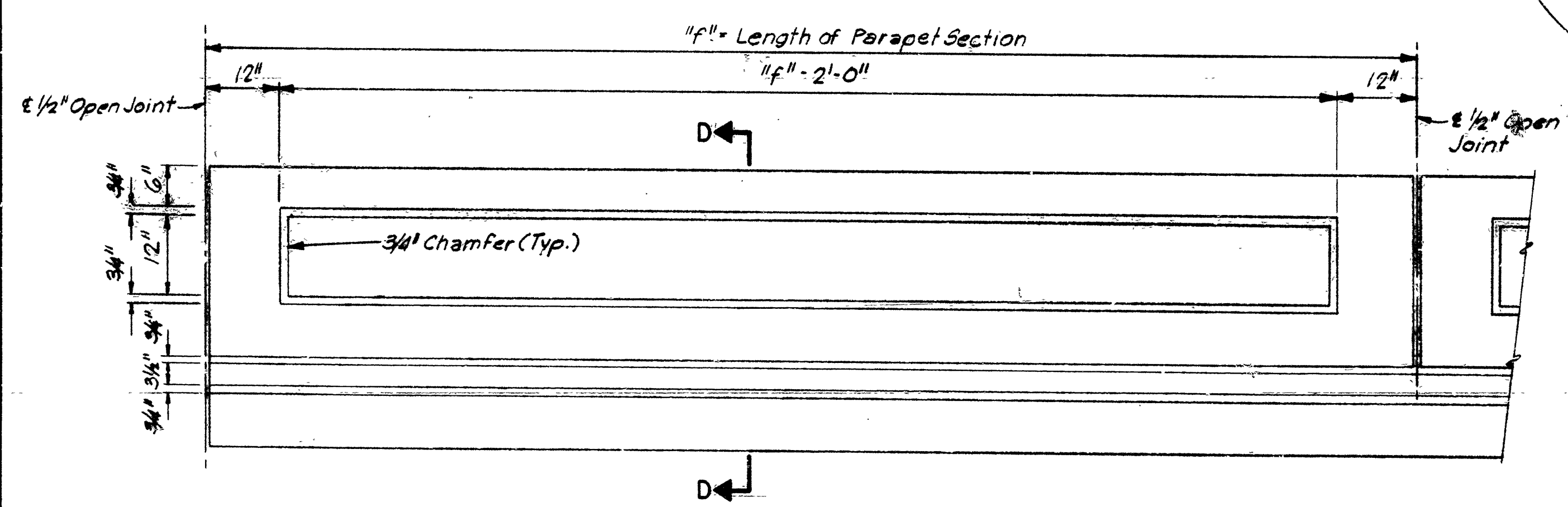


SECTION B-B  
Scale: 1" = 1'-0"

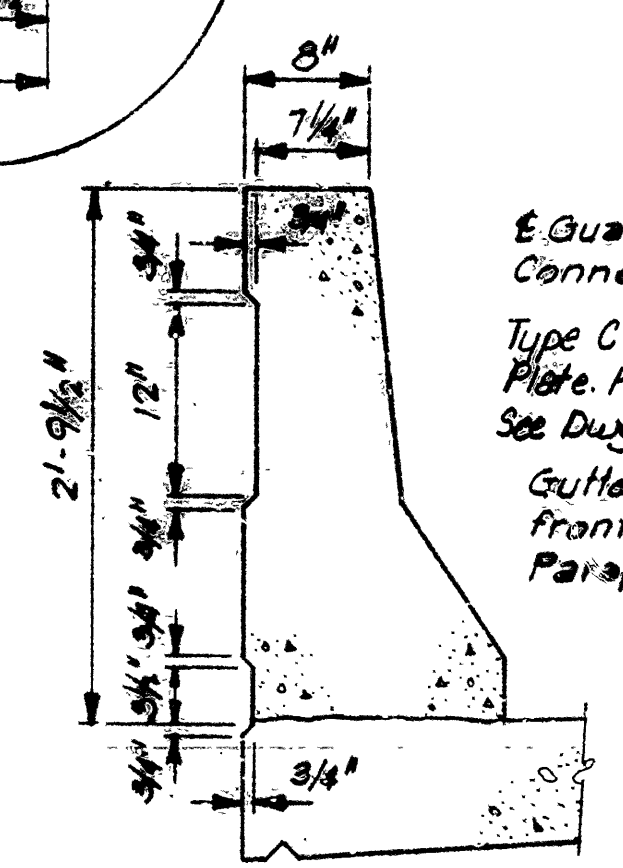


SECTION C-C  
Scale: 1" = 1'-0"

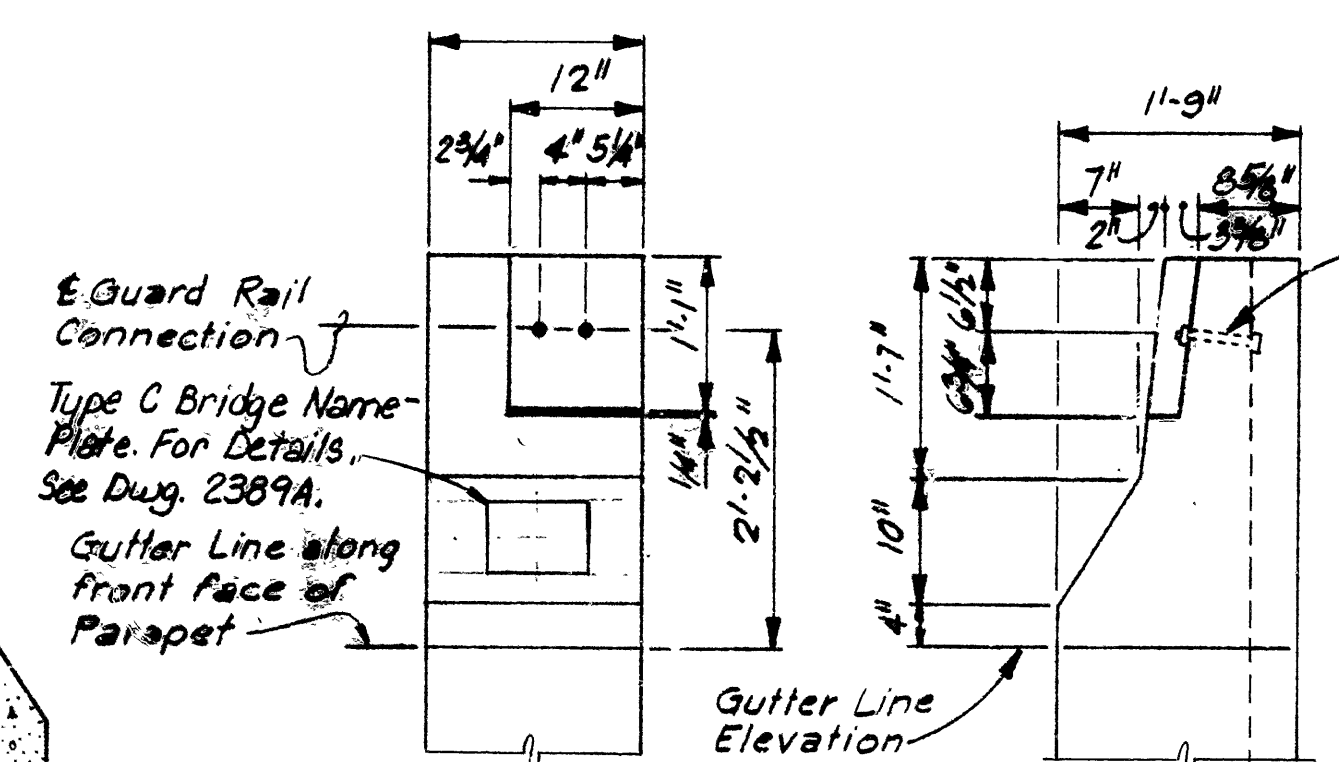
- NOTES:
1. Boiled Linseed Oil Treatment shall be applied to the roadway surface and the face and top of the concrete parapet rail.
  2. Studs shall be 5" long, granular flux filled, solid fluxed or equal and automatically welded to plate. Studs and plate to be measured and paid for as "Structural Steel In".
  3. The surfaces of the 3/8" Plate which will not be in contact with concrete shall receive two coats of paint in the shop. These coats shall be those specified as First Shop Coat and Second Field Coat in Subsection 807.59(a) and 807.59(c).



ELEVATION SHOWING TREATMENT FOR OUTSIDE PARAPET RAILING  
Scale: 3/4" = 1'-0"



SECTION D-D  
Scale: 1" = 1'-0"



GUARD FENCE BOLT DETAIL  
Scale: 3/4" = 1'-0"

2-3/4" A325 Bolts 7" long w/ 2" thread, 1 full flat washer, 1 clipped flat washer and 2 nuts, galv. ASTM A153.

NOTE: A325 Bolts, washers and nuts for Guard Rail will be paid for as "Guard Rail" pay item.

SHEET 1 OF 1  
DETAILS OF RAILING  
OUACHITA RIVER BRIDGE AND APPROACHES  
HOT SPRING COUNTY  
ROUTE 1-30 SEC. 2  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.  
DRAWN BY: D.M.P. DATE: DEC. 1985  
CHECKED BY: H.J.P. DATE: DEC. 1985  
DESIGNED BY: J.P. DATE: DEC. 1985  
SCALE: As Noted  
BRIDGE NO. 3424 AR & BR DRAWING NO. 28178



