

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. 100133		15	80	

3162, 3163, 3166 ARK. QUANTITIES 27765

SCHEDULE OF BRIDGE QUANTITIES

BRIDGE NO.	CODE NO.	NAME/PLATE TITLE	ITEM NO.	ITEM	UNIT OF STRUCTURE	801	SP 802	SP 802	803	804	SP 805	SP 805	SP 807	SP 807	SP 807	SP 809	812	816
						COMMON EXCAVATION FOR STRUCTURES-BRIDGE	CLASS 5 CONCRETE	CLASS 5(AE) CONCRETE	BOILED LINSFED OIL	REINFORCING STEEL (GRADE 60)	PRECAST CONCRETE PILING (16" OCT. OR 14" SQ.)	TEST PILES (16" OCT. OR 14" SQ.)	STRUCTURAL STEEL IN PLATE GIRDER SPANS (A 572-50)	STRUCTURAL STEEL IN PLATE GIRDER SPANS (A 36)	STRUCTURAL STEEL IN BEAM SPANS (A 572-50)	PREFORMED JOINT SEALER	BRIDGE NAME PLATES (TYPE C)	CONCRETE RIPRAP
						CUBIC YARD	CUBIC YARD	CUBIC YARD	GALLON	POUND	LINEAR FT.	LINEAR FT.	POUNDS	POUNDS	POUNDS	LINEAR FT.	EACH	CUBIC YD.
3162 AR	X271	H.W. 61 OVERPASS	END BENT NOS. 1 & 4			10	38.05		0.4	320.1	200				1536		1	190
			INT. BENT NOS. 2 & 3			43	33.45			4157	315	40						
			2-71'-8 1/2" PLATE GIRDER CANTILEVER SPANS					174.65	15.7	19542				33058		108.0		
			1-79'-11 1/2" PLATE GIRDER SUSPENDED SPAN					97.25	8.4	10730			3570	15446				
			TOTAL BRIDGE NO. 3162 AR			53	71.50	271.90	23.8	37630	515	40	3570	50040		108.0	1	190
3162 BR	X271	H.W. 61 OVERPASS	END BENT NOS. 1 & 4			70	38.05		0.4	3201	150	55			1536		1	190
			INT. BENT NOS. 2 & 3			43	33.45			4157	350							
			2-71'-8 1/2" PLATE GIRDER CANTILEVER SPANS					174.65	15.0	19542				33058		108.0		
			1-79'-11 1/2" PLATE GIRDER SUSPENDED SPAN					97.25	8.4	10730			3570	15446				
			TOTAL BRIDGE NO. 3162 BR			53	71.50	271.90	23.8	37630	500	55	3570	50040		108.0	1	190
3163 AR	X171	BURLINGTON NORTHERN RR OVERPASS	END BENT NOS. 1 & 15			6	22.90		0.3	2074	65	70			1204		1	
			INT. BENT NOS. 2-7 AND 10-14			149	152.50			21751	1890	100						
			INT. BENT NOS. 8 & 9			43	75.10			4963	675	50						
			2-67'-8 1/2" COMPOSITE W-BEAM SPANS					160.24	14.2	15244				29180	128.6			
			9-67'-6" COMPOSITE W-BEAM SPANS					718.77	63.9	68597				131067	385.6			
			1-51'-7 3/8" COMPOSITE W-BEAM SPAN					61.77	5.4	6670				9610	48.6			
			1-53'-3 3/8" COMPOSITE W-BEAM SPAN					63.83	5.6	6864				14233	48.6			
			1-35'-6 1/2" R.C. SLAB SPAN					101.09	3.7	15447				1546	54.6			
			TOTAL BRIDGE NO. 3163 AR			198	250.50	1105.70	93.1	141610	2630	220			186840	666.0	1	
			END BENT NOS. 1 & 15			6	22.90		0.3	2074	130				1204		1	
3163 BR	X171	BURLINGTON NORTHERN RR OVERPASS	INT. BENT NOS. 2-6 AND 9-14			149	153.20			21886	1980							
			INT. BENT NOS. 7 & 8			43	75.10			4963	720							
			2-67'-8 1/2" COMPOSITE W-BEAM SPANS					160.24	14.2	15244				29180	128.6			
			9-67'-6" COMPOSITE W-BEAM SPANS					718.77	63.9	68597				131067	385.6			
			1-53'-3 3/8" COMPOSITE W-BEAM SPAN					63.83	5.6	6864				14233	48.6			
			1-51'-7 3/8" COMPOSITE W-BEAM SPAN					61.77	5.4	6675				9610	48.6			
			1-35'-6 1/2" R.C. SLAB SPAN					101.09	3.7	15447				1546	54.6			
			TOTAL BRIDGE NO. 3163 BR			198	251.20	1105.70	93.1	141750	2830				186840	666.0	1	
			END BENT NOS. 1 & 16			6	22.90		0.3	2074	60	65			1204		1	
			INT. BENT NOS. 2-7 & 10-15			162	159.06			22466	1840	90						
3166 AR	X171	BURLINGTON NORTHERN RR OVERPASS	INT. BENT NOS. 8 & 9			42	53.94			4638	360	45						
			2-67'-8 1/2" COMPOSITE W-BEAM SPANS					160.24	14.2	15244				29180	128.6			
			10-67'-6" COMPOSITE W-BEAM SPANS					798.83	70.8	76219				145629	428.7			
			2-67'-6 1/2" COMPOSITE W-BEAM SPANS					159.85	14.2	15244				29125	85.8			
			1-36'-5 3/8" R.C. SLAB SPAN					103.28	3.8	15275				1202	42.9			
			TOTAL BRIDGE NO. 3166 AR			210	235.90	1222.20	103.3	151160	2260	200			206340	686.0	1	
			END BENT NOS. 1 & 16			6	22.90		0.3	2074	120				1204		1	
			INT. BENT NOS. 2-7 & 10-15			162	159.06			22466	1920							
			INT. BENT NOS. 8 & 9			42	53.94			4638	400							
			2-67'-8 1/2" COMPOSITE W-BEAM SPANS					160.24	14.2	15244				29180	128.6			
3166 BR	X171	BURLINGTON NORTHERN RR OVERPASS	10-67'-6" COMPOSITE W-BEAM SPANS					798.83	70.8	76219				145629	428.7			
			2-67'-6 1/2" COMPOSITE W-BEAM SPANS					159.85	14.2	15244				29125	85.8			
			1-36'-5 3/8" R.C. SLAB SPAN					103.28	3.8	15275				1202	42.9			
			TOTAL BRIDGE NO. 3166 BR			210	235.90	1222.20	103.3	151160	2440				206340	686.0	1	
			END BENT NOS. 1 & 16			6	22.90		0.3	2074	120				1204		1	
			INT. BENT NOS. 2-7 & 10-15			162	159.06			22466	1920							
			INT. BENT NOS. 8 & 9			42	53.94			4638	400							
			2-67'-8 1/2" COMPOSITE W-BEAM SPANS					160.24	14.2	15244				29180	128.6			
			10-67'-6" COMPOSITE W-BEAM SPANS					798.83	70.8	76219				145629	428.7			
			2-67'-6 1/2" COMPOSITE W-BEAM SPANS					159.85	14.2	15244				29125	85.8			
TOTALS FOR JOB NO 100133						922	1116.50	5199.60	440.40	660,940	11175	515	7140	100080	786,360	2920.1	6	380

\* Includes SP 802-5

GARY ASHLEY  
DESIGN SECTION SUPERVISOR

SHEET 1 OF 2  
SCHEDULE OF  
BRIDGE QUANTITIES  
I-55 STRUCTURES RENOVATION  
- (BLYTHEVILLE)  
MISSISSIPPI COUNTY  
ROUTE I-55 SEC. 12  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: *EAK* DATE: 8-16-85  
CHECKED BY: *GVA* DATE: 10-22-85  
DESIGNED BY: DATE: SCALE: NONE

*David J. ...*  
BRIDGE ENGINEER

BRIDGE NO. 3162, 3163, 8  
3166 AR 8 BR  
DRAWING NO. 27765

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. 3162, 3163, 3166 AR & BR		100133	16	80

SCHEDULE OF BRIDGE QUANTITIES

BRIDGE NO.	CODE NO.	NAME	DATE TITLE	ITEM NO.		SP 4 804 EPOXY COATED REINFORCING STEEL (GRADE 60)	SP JOB 100133 PAINTING EXISTING STRUCTURAL STEEL (TYPE II)	SP JOB 100133 REPLACING EXISTING ANCHOR BOLTS	SP JOB 100133 REPLACING EXISTING MASONRY PLATES	SP JOB 100133 REMODELING EXISTING BRIDGE STRUCTURES	SP JOB 100133 CLOSED CELL FOAMED JOINT FILLER	SP JOB 100133 CONCRETE DECK SALVAGE FOR RIPRAP										
				UNIT OF STRUCTURE	UNIT																	
						POUND	TON	EACH	EACH	LUMP SUM	LINEAR FT.	SQ. YD.										
3162 AR	X271	Hwy 61 OVERPASS		END BENT NOS. 1 & 4				7	10													
				INT BENT NOS. 2 & 3																		
				2-71'-8 1/2" PLATE GIRDER CANTILEVER SPANS	20660					54.0												
				1-79'-11 1/2" PLATE GIRDER SUSPENDED SPAN	9480					54.0												
				TOTAL BRIDGE NO. 3162 AR	30140	90	7	10	0.05	108.0												
3162 BR	X271	Hwy 61 OVERPASS		END BENT NOS. 1 & 4				14	10													
				INT BENT NOS. 2 & 3																		
				2-71'-8 1/2" PLATE GIRDER CANTILEVER SPANS	20656					54.0												
				1-79'-11 1/2" PLATE GIRDER SUSPENDED SPAN	9480					54.0												
				TOTAL BRIDGE NO. 3162 BR	30140	90	14	10	0.05	108.0												
3163 AR	X171	BURLINGTON NORTHERN RR OVERPASS		END BENT NOS. 1 & 15				9	10			1100										
				INT BENT NOS. 2-7 AND 10-14				5														
				INT BENT NOS. 8 & 9																		
				2-67'-8 1/2" COMPOSITE W-BEAM SPANS	15113																	
				9-67'-6" COMPOSITE W-BEAM SPANS	68013																	
				1-51'-7 3/8" COMPOSITE W-BEAM SPANS	6116																	
				1-53'-3 3/8" COMPOSITE W-BEAM SPANS	6282																	
				1-35'-6 1/2" R.C. SLAB SPAN	1836																	
				TOTAL BRIDGE NO. 3163 AR	97360	390	14	10	0.21		1100											
				3163 BR	X171	BURLINGTON NORTHERN RR OVERPASS		END BENT NOS. 1 & 15				4	10			1100						
INT BENT NOS. 2-6 AND 9-14								3														
INT BENT NOS. 7 & 8								1														
2-67'-8 1/2" COMPOSITE W-BEAM SPANS	15113																					
9-67'-6" COMPOSITE W-BEAM SPANS	68013																					
1-53'-3 3/8" COMPOSITE W-BEAM SPAN	6282																					
1-51'-7 3/8" COMPOSITE W-BEAM SPAN	6116																					
1-35'-6 1/2" R.C. SLAB SPANS	1836																					
TOTAL BRIDGE NO. 3163 BR	97360	390	8					10	0.21		1100											
3166 AR	X171	BURLINGTON NORTHERN RR OVERPASS						END BENT NOS. 1 & 16				1	10			1100						
				INT BENT NOS. 2-7 & 10-15				7														
				INT BENT NOS. 8 & 9																		
				2-67'-8 1/2" COMPOSITE W-BEAM SPANS	15113																	
				10-67'-6" COMPOSITE W-BEAM SPANS	75568																	
				2-67'-6 7/8" COMPOSITE W-BEAM SPANS	15113																	
				1-36'-5 3/8" R.C. SLAB SPAN	1646																	
				TOTAL BRIDGE NO. 3166 AR	107440	440	8	10	0.24		1100											
				3166 BR	X171	BURLINGTON NORTHERN RR OVERPASS		END BENT NOS. 1 & 16				2	10			1100						
								INT BENT NOS. 2-7 & 10-15				7										
INT BENT NOS. 8 & 9								1														
2-67'-8 1/2" COMPOSITE W-BEAM SPANS	15113																					
10-67'-6" COMPOSITE W-BEAM SPANS	75568																					
2-67'-6 7/8" COMPOSITE W-BEAM SPANS	15113																					
1-36'-5 3/8" R.C. SLAB SPAN	1646																					
TOTAL BRIDGE NO. 3166 BR	107440	440	10					10	0.24		1100											
TOTALS FOR JOB NO. 100133								469,880	1840	61	60	1.0	216.0	4400								

GARY ASHLEY  
DESIGN SECTION SUPERVISOR

SHEET 2 OF 2  
SCHEDULE OF  
BRIDGE QUANTITIES  
I-55 STRUCTURES RENOVATION  
(BLYTHEVILLE)  
MISSISSIPPI COUNTY  
ROUTE I-55 SEC. 12  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: EJK DATE: 8-19-85  
CHECKED BY: GVA DATE: 12-22-85 SCALE: NONE  
DESIGNED BY: DATE:  
BRIDGE NO. 3162, 3163, 8 DRAWING NO. 27766  
3166 AR & BR

David Pinkerton  
BRIDGE ENGINEER









DATE REWELD	DATE PLUMED	DATE REWELD	DATE PLUMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		100133	37	80

Note: Use Type III Bridge Approach Slab & Gutters at beg. & end of both bridges - see dwg. no. 27782.

GENERAL NOTES

BENCH MARK: ELEV. ARE BASED ON EXISTING PLAN ELEVATIONS.

THE PROPOSED WORK CONSISTS OF REMODELING AND WIDENING EXISTING BRIDGE 3163A AND 3163B IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING CHECK MEASUREMENTS OF EXISTING BRIDGE AND MAKING NECESSARY ADJUSTMENTS TO THE NEW WORK. ALL CONCRETE IN NEW WORK TO BE CLASS S OR S(AE) AND SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF  $f'c = 3500$  PSI. ALL EXPOSED CORNERS TO BE CHAMFERED  $3/4"$  UNLESS OTHERWISE NOTED.

ALL NEW REINFORCING STEEL SHALL CONFORM TO ASTM A615 OR A617, GRADE 60.

LIVE LOAD: (NEW CONSTRUCTION) HS20 AND MILITARY LOADING OF TWO 24,000# AXLES AT FOUR FEET CENTERS.

METHOD OF DESIGN: (NEW CONSTRUCTION) LOAD FACTOR

DESIGN SPECIFICATIONS: FOR NEW WORK, AASHTO STD. SPECIFICATIONS FOR HIGHWAY BRIDGES, 1983 WITH CURRENT INTERIM SPECIFICATIONS.

CONSTRUCTION SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1978 AND APPLICABLE SPECIAL PROVISIONS.

HALF-SIZE DETAIL SHEETS OF THE EXISTING BRIDGE MAY BE OBTAINED FROM THE ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT UPON REQUEST.

THE ~~BRIDGE~~ DECK SHALL BE GIVEN A TINE FINISH AS SPECIFIED FOR TINE FINISHING OF CLASS 6, ROADWAY SURFACES FINISH IN SUBSECTION 802.23 OF THE STANDARD SPECIFICATIONS.

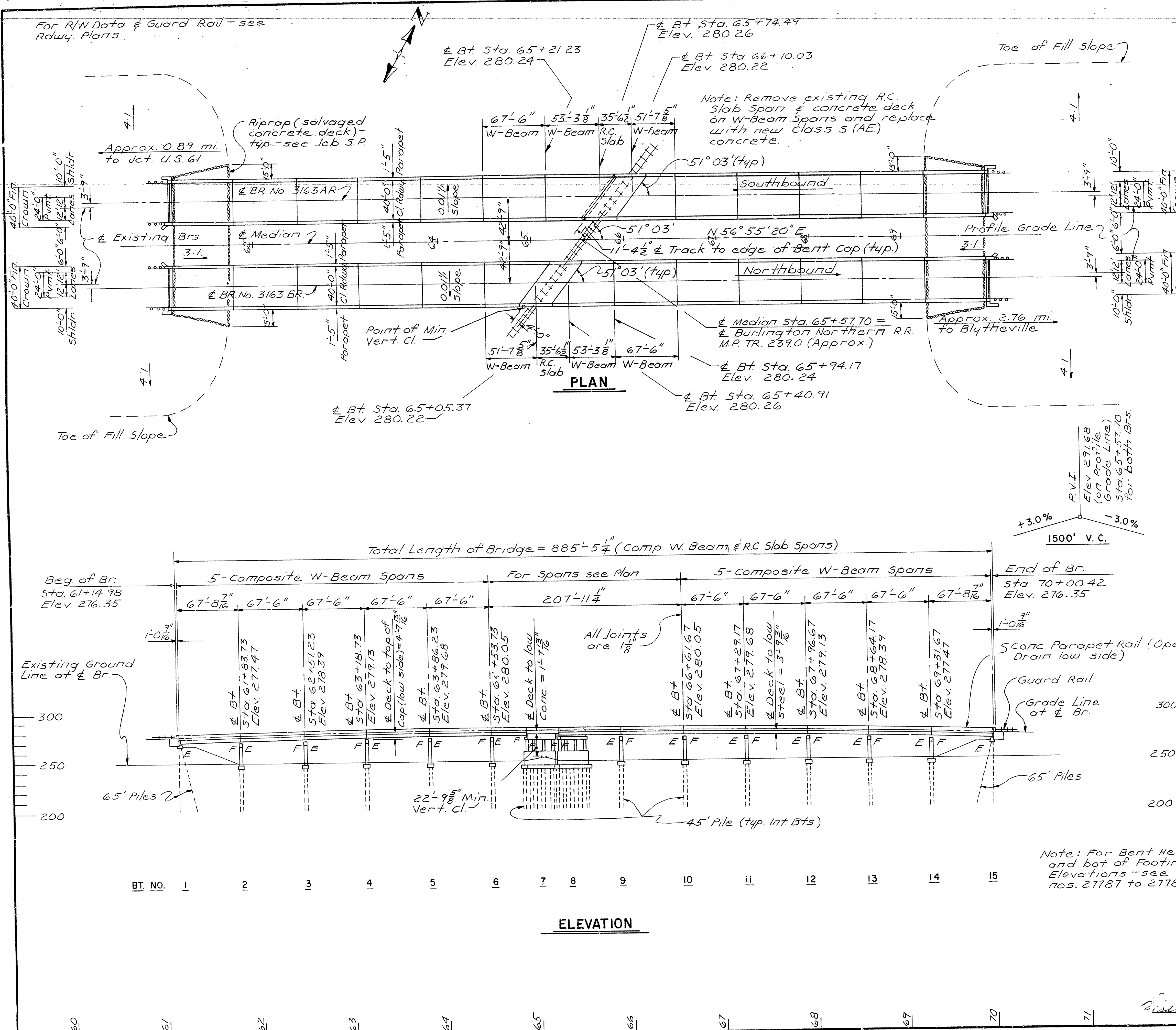
ALL PILING SHALL BE 16" OCT. OR 14" SQ. PRECAST CONCRETE, DRIVEN TO A MINIMUM BEARING CAPACITY OF 44 TONS PER PILE. ALL PILES SHALL BE DRIVEN WITH AN APPROVED AIR, STEAM, OR DIESEL HAMMER. PILES IN END BENTS ARE TO BE DRIVEN AFTER EMBANKMENT TO BOTTOM OF CAP IS IN PLACE. LENGTHS OF PILING SHOWN ARE BASED ON EXISTING DRIVING RECORDS. ACTUAL LENGTHS TO BE DETERMINED IN THE FIELD. PILING SHALL HAVE A MINIMUM PENETRATION OF 20 FT. BELOW THE GROUND LINE.

STRUCTURAL STEEL: STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 OR ASTM A572, GRADE 50 AS NOTED ON THE DETAIL DRAWINGS.

FOR DETAILS OF END BENTS, SEE DWG. NOS. 27785 & 27786  
FOR DETAILS OF INT. BENTS, SEE DWG. NOS. 27787 TO 27789  
FOR DETAILS OF SUPERSTRUCTURE, SEE DWG. NOS. 27790 TO 27799  
FOR DETAILS OF APPROACH SLAB AND GUTTERS, SEE DWG. NO. 27782

STAGE CONSTRUCTION: SEE ROADWAY PLANS AND DRAWING NO. 27768

DRIVE ONE 70' TEST PILE IN BENT NO. 1 AND ONE 50' TEST PILE IN BENT NOS. 4, 8 & 12 OF BRIDGE NO. 3163AR.

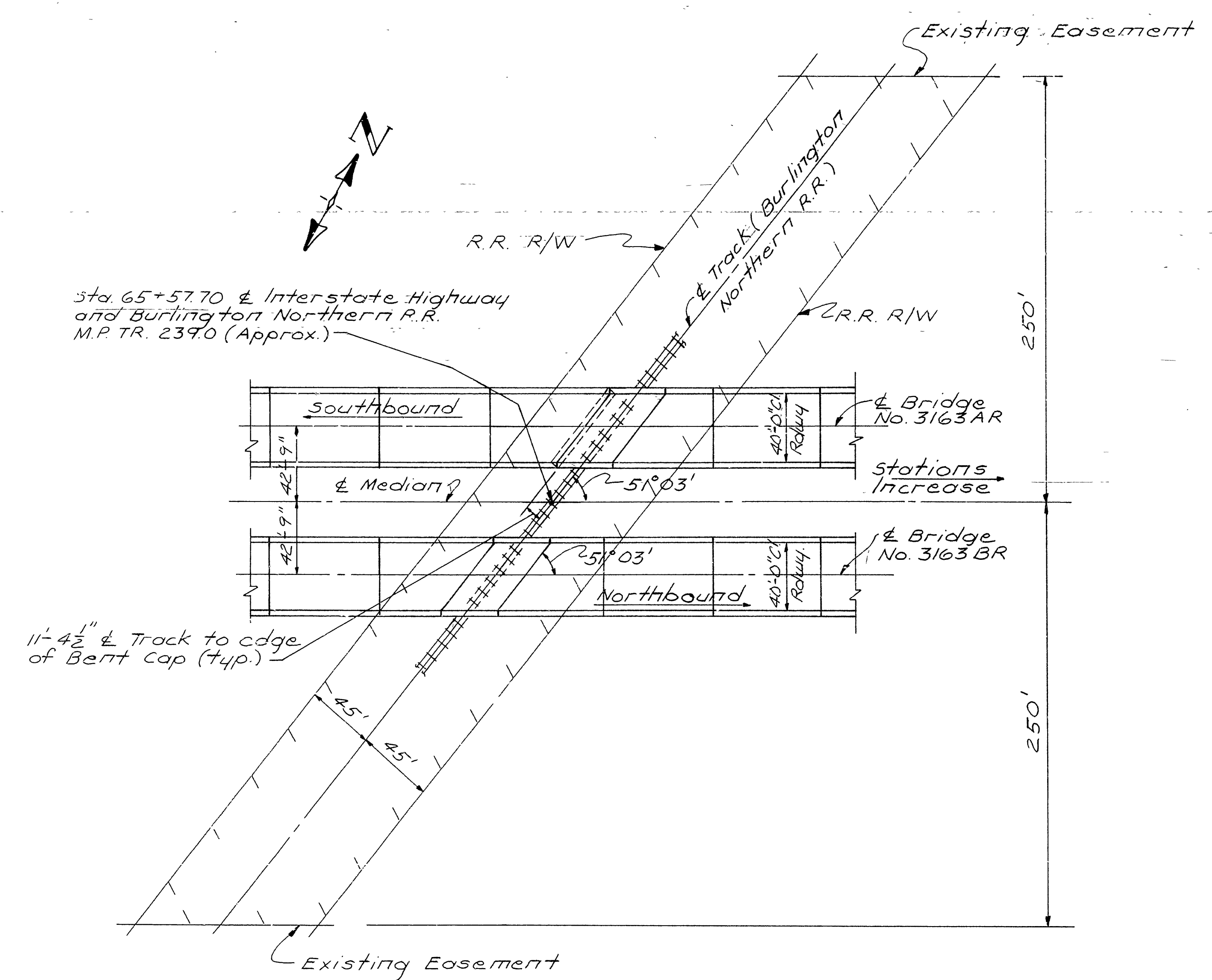


(EXHIBIT A)  
LAYOUT OF  
SOUTH BLYTHEVILLE  
BURLINGTON NORTHERN R.R. OVERPASS  
I-55 STRUCTURES RENOVATION  
( BLYTHEVILLE )  
MISSISSIPPI COUNTY  
ROUTE I-55 SEC. 12  
ARKANSAS STATE HIGHWAY COMMISSION

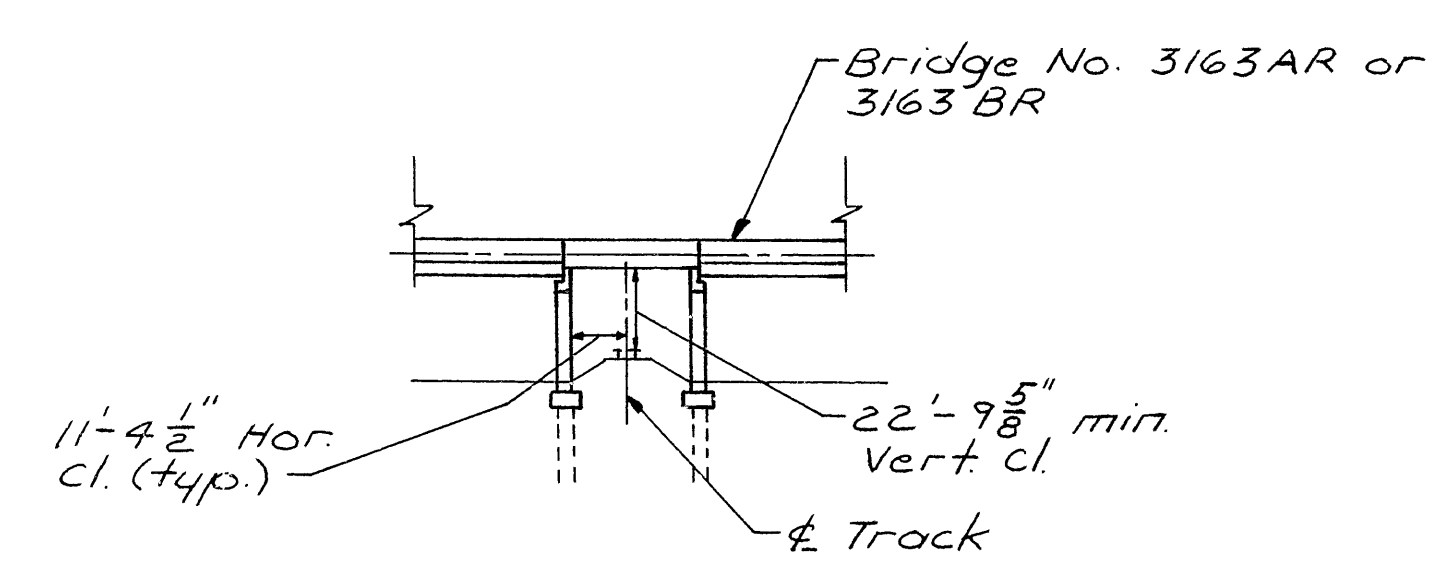
LITTLE ROCK, ARK.  
DRAWN BY: J.P.S. DATE: 2-26-85  
CHECKED BY: GEC DATE: 8-30-85 SCALE: 1"=50'-0"  
DESIGNED BY: APW DATE: Feb-85  
BRIDGE NO. 3163AR & DRAWING NO. 27783  
3163R

RAILED	PLANNED	RAILED	PLANNED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
							38	80

3163AR & BR, 3166AR & BR, LAY. 27784



RIGHT OF WAY SKETCH

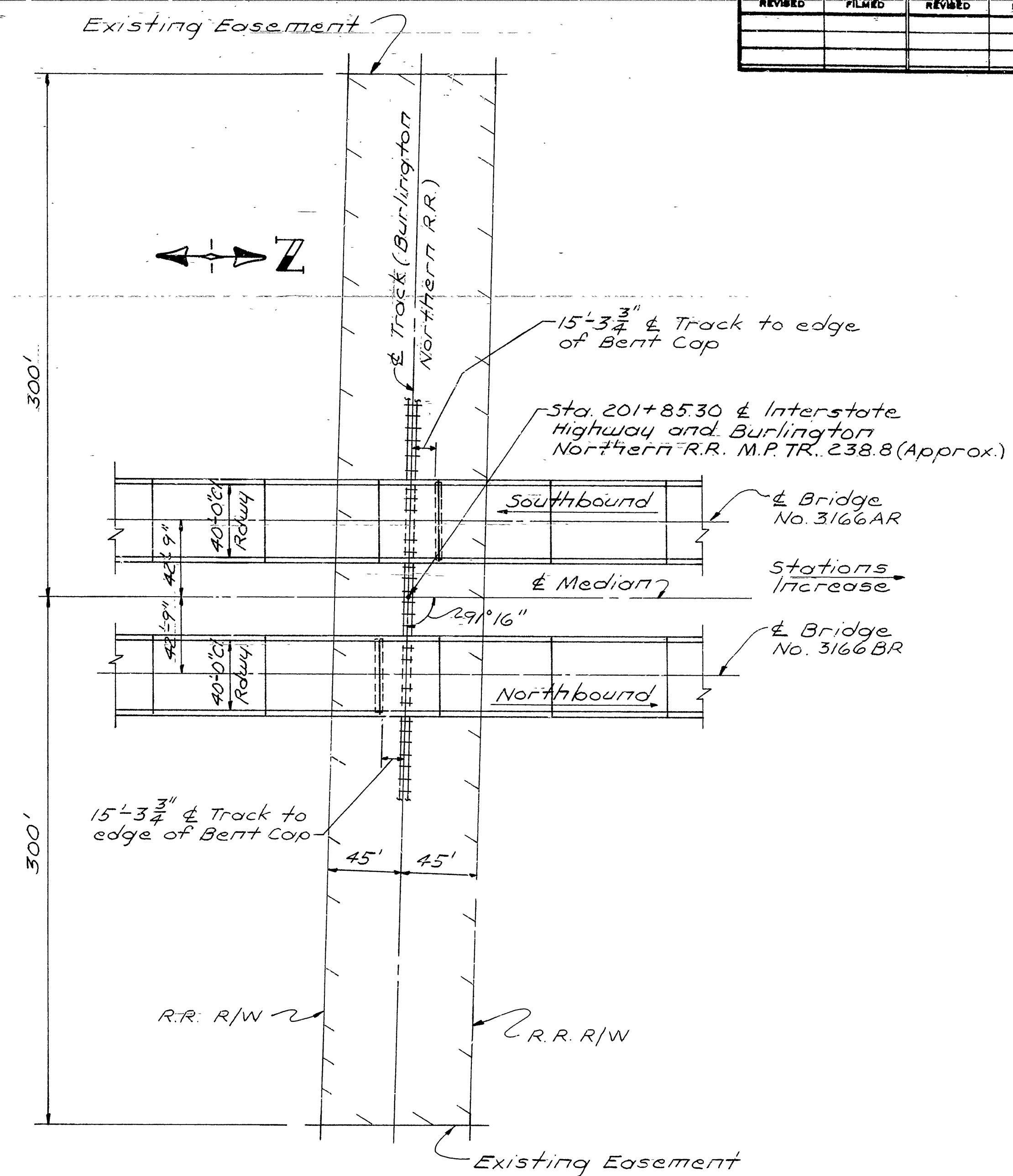


ELEVATION NORMAL TO BURLINGTON NORTHERN R.R.

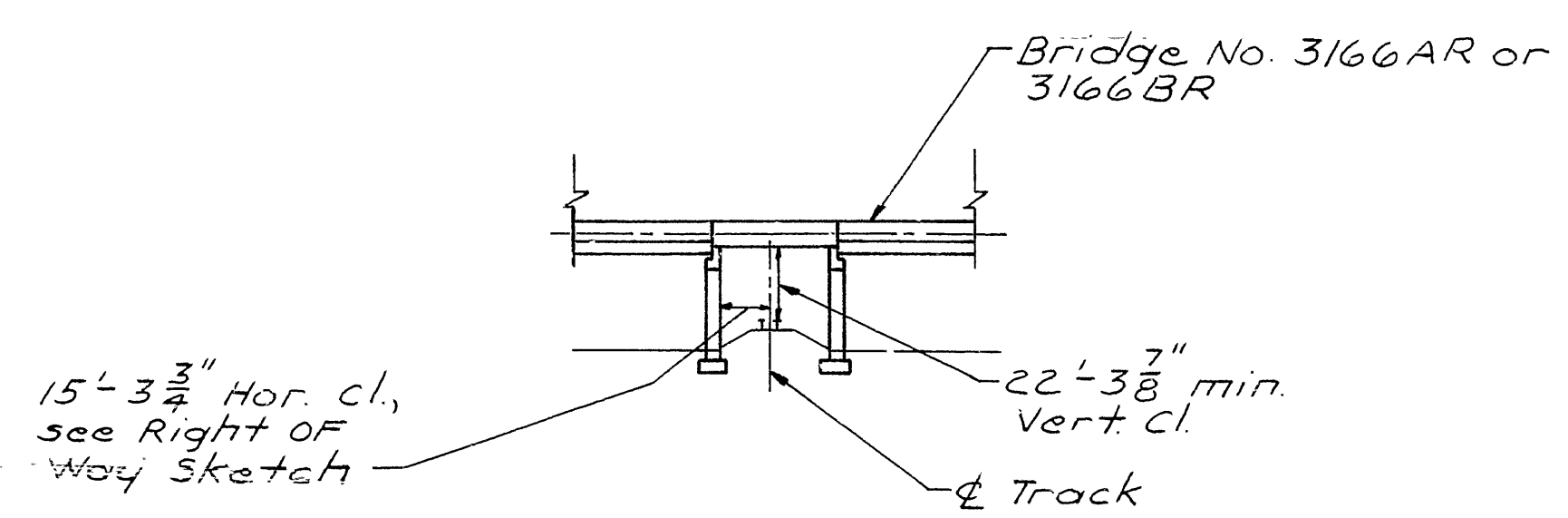
EXHIBIT A

SOUTH BLYTHEVILLE  
BURLINGTON NORTHERN R.R. OVERPASS

Note: Vert. & Hor. clearance for Exhibit A and B are equal to existing conditions.



RIGHT OF WAY SKETCH



ELEVATION NORMAL TO BURLINGTON NORTHERN R.R.

EXHIBIT B

EAST BLYTHEVILLE  
BURLINGTON NORTHERN R.R. OVERPASS

EXHIBIT A & B  
I-55 STRUCTURES RENOVATION  
(BLYTHEVILLE)  
MISSISSIPPI COUNTY  
ROUTE I-55 SEC. 12  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: J.P.S. DATE: 5-17-85  
CHECKED BY: GEC DATE: 5-17-85  
DESIGNED BY: ARW DATE: Feb-85  
BRIDGE NO. 3163AR & BR 3166AR & BR  
DRAWING NO. 27784

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.	100133		39	80
				① 3163 AR&BR END BENT DTLS 27785				

# BAR LIST-PER BENT

Mark	No. Reqd.	Length	Pin Dia.	Bending Diagrams
B401	10	12'-0"	2"	
B402	3	8'-0"	2"	
B403	2	7'-8"	Str.	
B404	9	4'-4"	2"	
B405	36	6'-2"	Str.	
B406	3	5'-4"	Str.	
B407	3	6'-5"	2"	
B408	4	22'-5"	Str.	
B409	8	10'-8"	Str.	
B410	14	4'-6"	2"	
B411	14	10'-3"	2"	
B412	1	5'-2"	Str.	
B413	2	10'-4"	Str.	
B414	2	11'-3"	Str.	
B601	5	8'-4"	4 1/2"	
B602	6	7'-8"	Str.	
B603	6	7'-8"	3 3/4"	
P401	6	1'-6"	Str.	
P402	1	4'-3"	Str.	
P403	9	5'-4"	Str.	
P404	4	5'-4"	2"	
P405	4	7'-5"	2"	
P406	3	1'-2"	Str.	
P601	4	4'-4"	Str.	
P602	3	4'-5"	3 3/4"	
P603	4	8'-7"	3 3/4"	
P604	4	6'-7"	3 3/4"	
D601	8	2'-6"	Str.	

## GENERAL NOTES

CONCRETE SHALL BE CLASS "S" WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH, f'c = 4500 PSI. ALL CONCRETE SHALL BE POURED IN THE DRY. ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4 INCH UNLESS OTHERWISE NOTED.

REINFORCING STEEL SHALL CONFORM TO ASTM A615 OR A617, GRADE 60 (YIELD STRENGTH = 60,000 PSI).

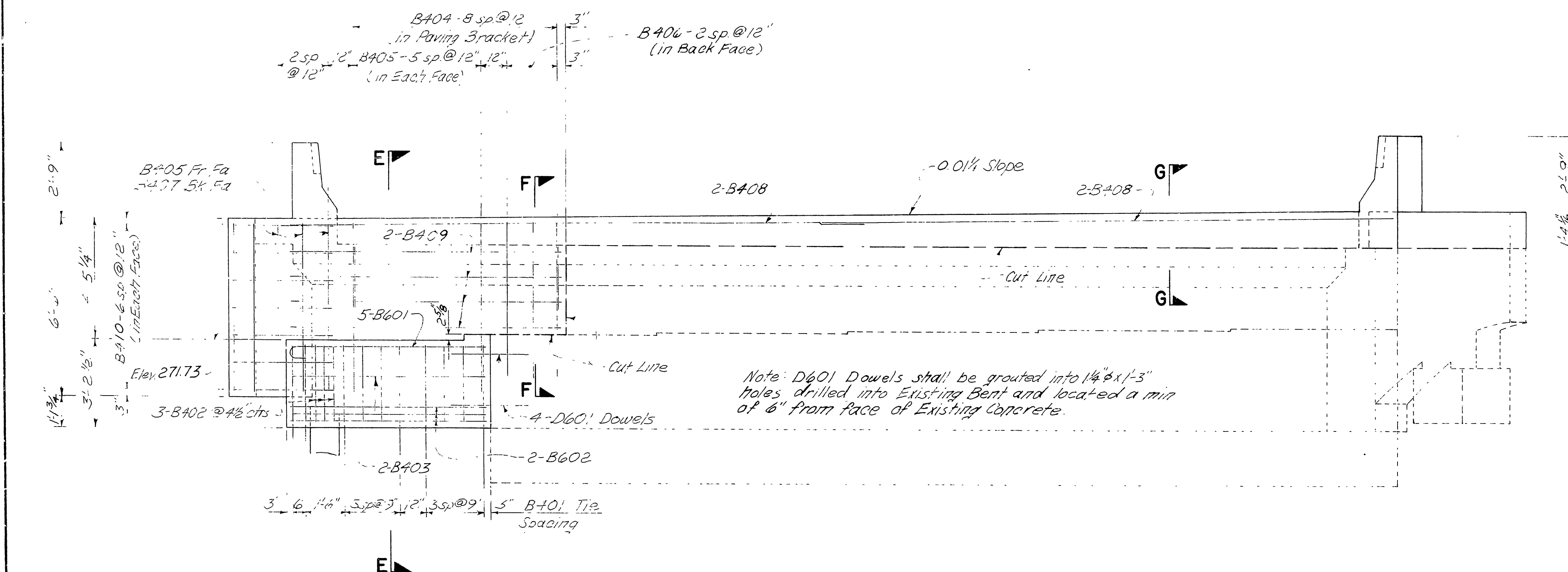
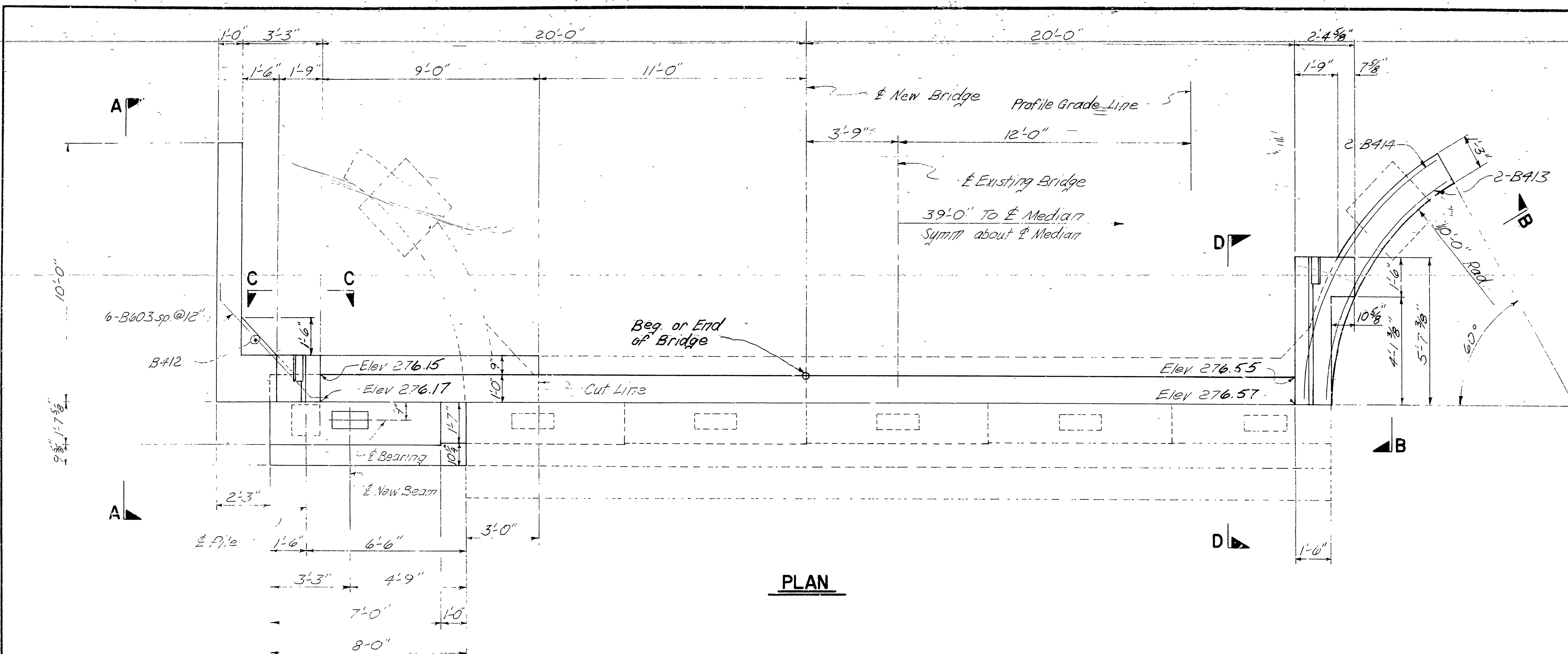
STRUCTURAL STEEL IN END BENTS SHALL BE A36 AND SHALL BE MEASURED AND PAID FOR AS "STRUCTURAL STEEL IN BEAM SPANS A572-50."

ALL PILING SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 44 TONS PER PILE PILING SHALL BE 16" OCT. OR 14" SQ. PRECAST CONCRETE.

IF ANCHOR BOLTS ARE DRILLED INTO CAP, TOP MAIN REINFORCING BARS SHALL BE PROPERLY PLACED TO AVOID DAMAGE.

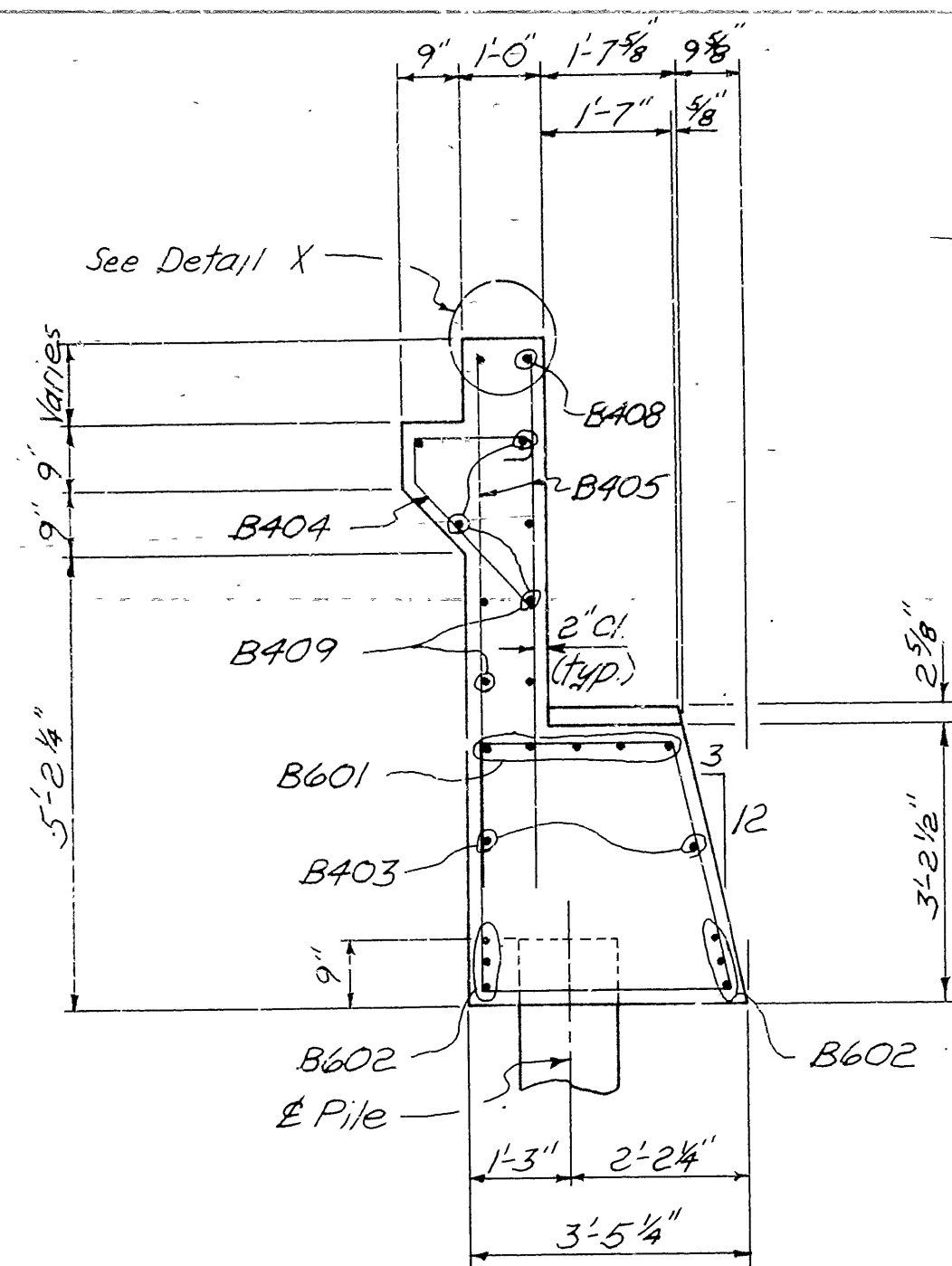
THE BACKWALL SHALL NOT BE POURED UNTIL THE BEAMS HAVE BEEN PLACED ON THE BENT CAP.

SHEET 1 OF 2  
 DETAIL OF END BENTS  
 SOUTH BLYTHEVILLE  
 BURLINGTON NORTHERN R.R. OVERPASS  
 MISSISSIPPI COUNTY  
 ROUTE 1-55 SEC. 12  
 ARKANSAS STATE HIGHWAY COMMISSION  
 LITTLE ROCK, ARK.  
 DRAWN BY: ARW DATE: 8-5-85  
 CHECKED BY: JH DATE: 10-3-85  
 DESIGNED BY: ARW DATE: 10-2-85  
 SCALE: 1/4" = 1'-0"  
 BRIDGE NO. 3163 AR&BR DRAWING NO. 27785

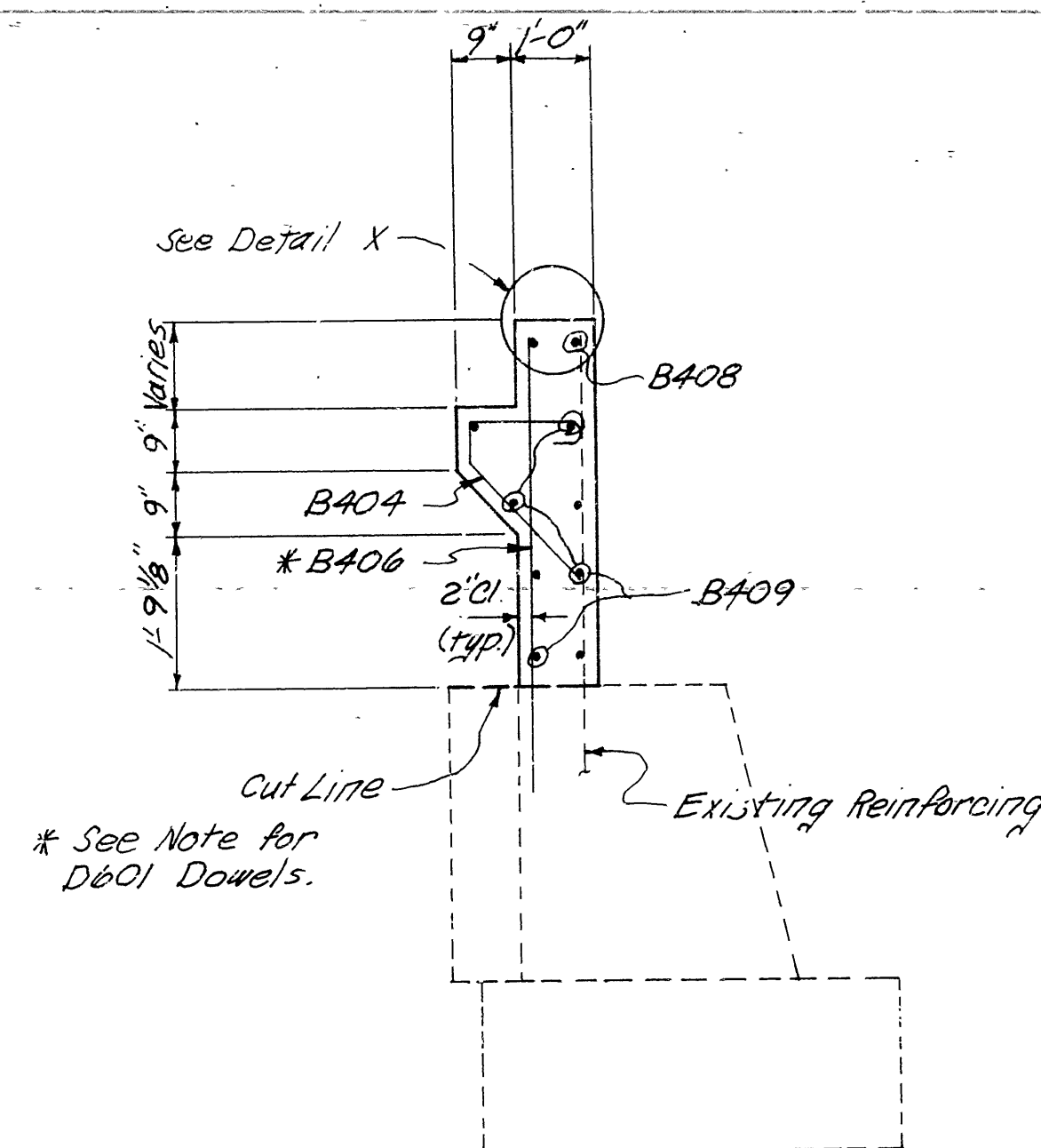


DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100/33		40	80

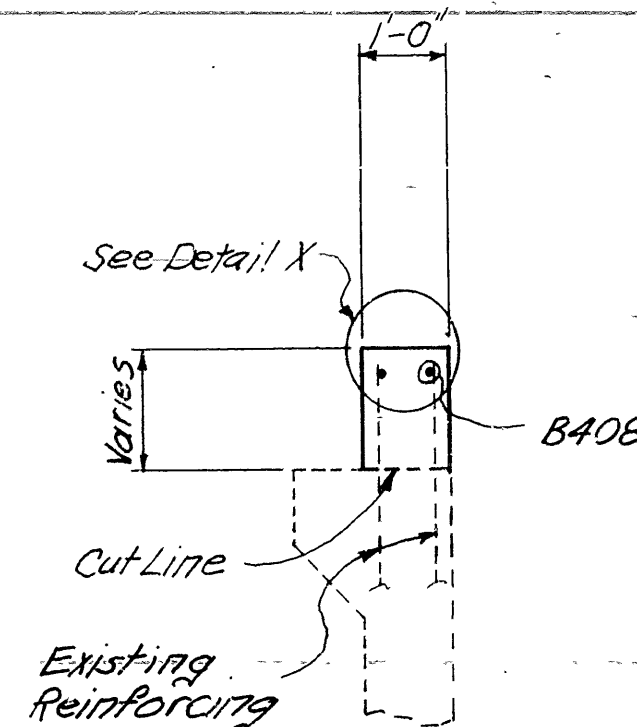
(1) 3163 AR & BR END BENT DTL'S. 27786



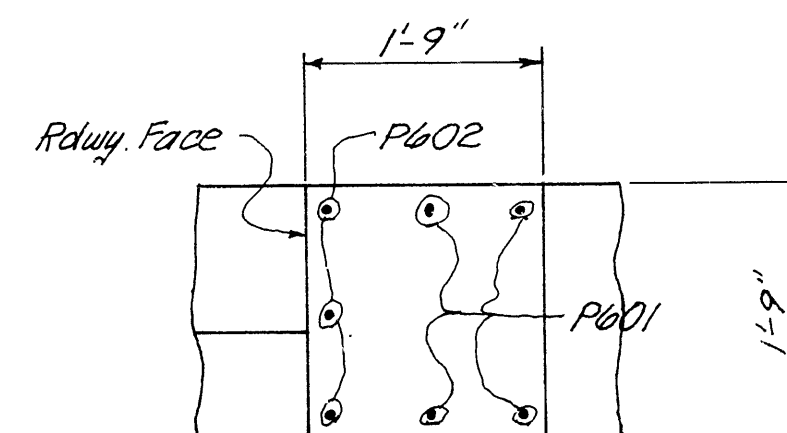
SECTION E-E  
Scale: 1/2" = 1'-0"



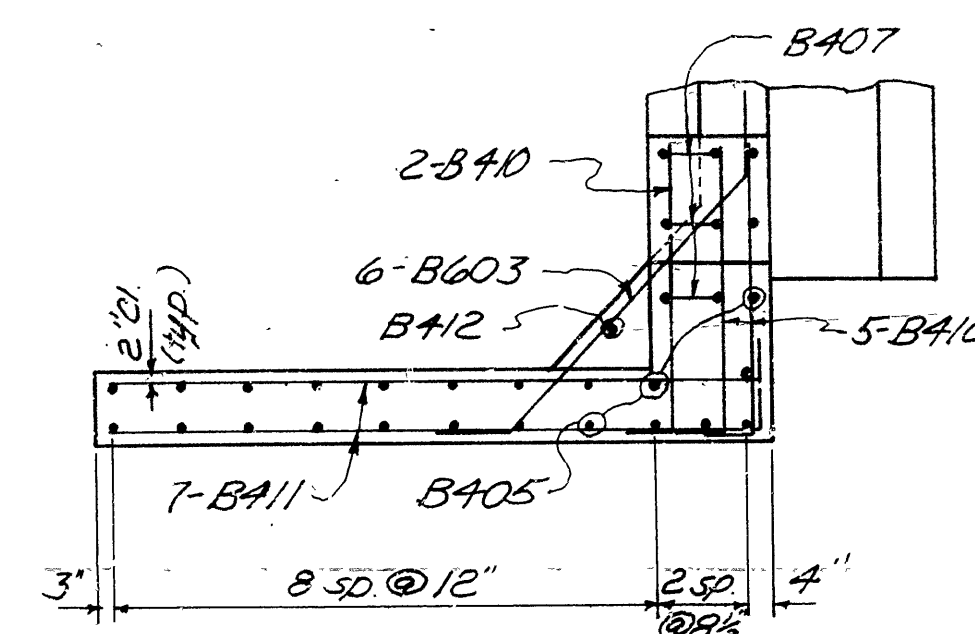
**SECTION F-F**  
Scale: 1/2" = 1'-0"



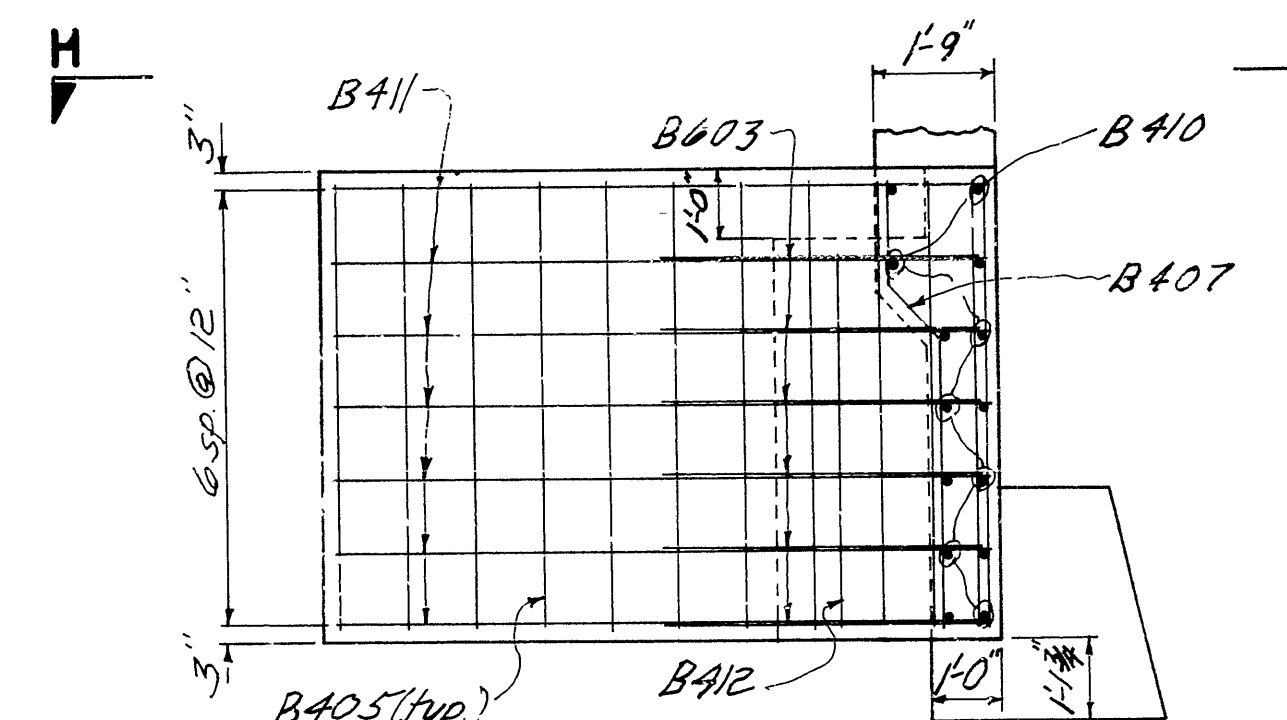
**SECTION G-G**  
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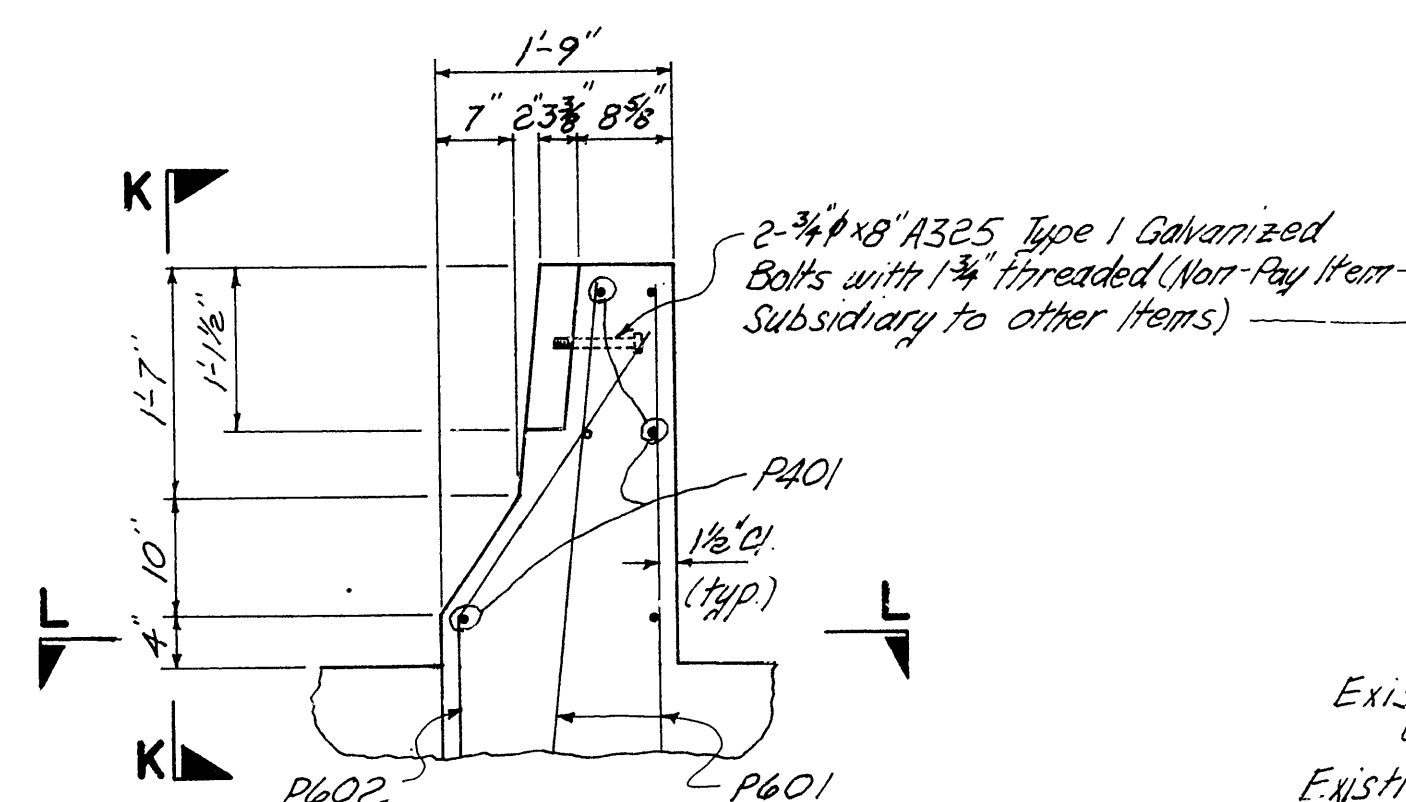
**SECTION L-L**  
Scale:  $\frac{3}{4}'' = 1'-0''$



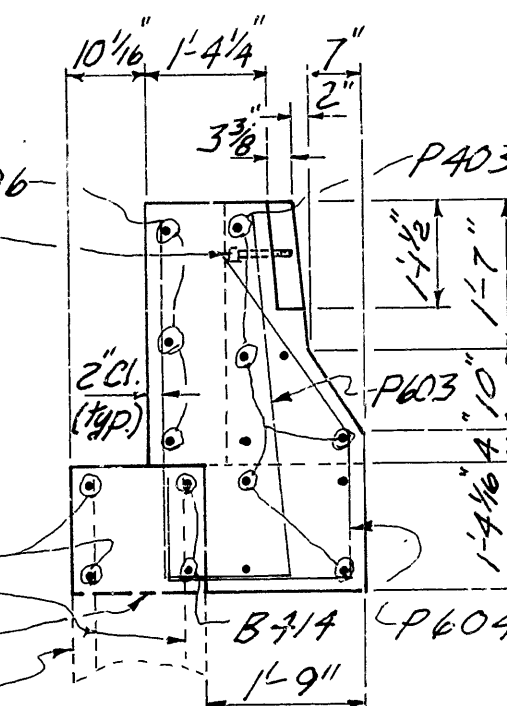
VIEW H-H  
Scale:  $\frac{3}{8}'' = 1'-0''$



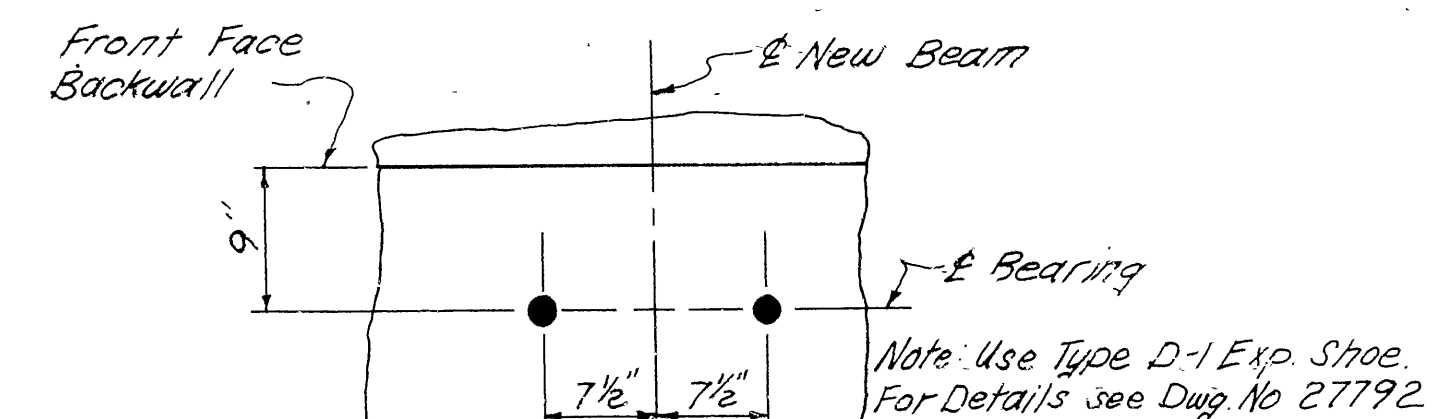
**VIEW A-A**  
*Scale:  $\frac{3}{8}'' = 1'-0''$*



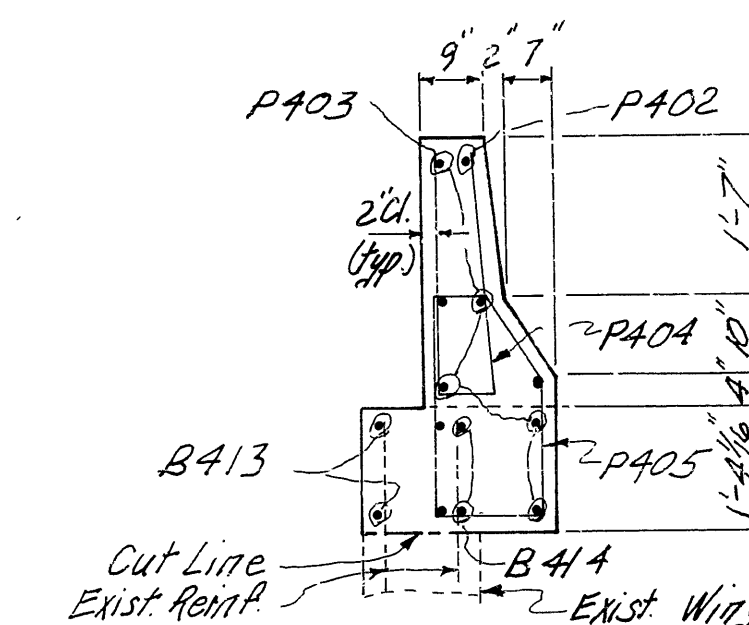
**VIEW C-C**  
Scale:  $\frac{3}{4}'' = 1'-0''$



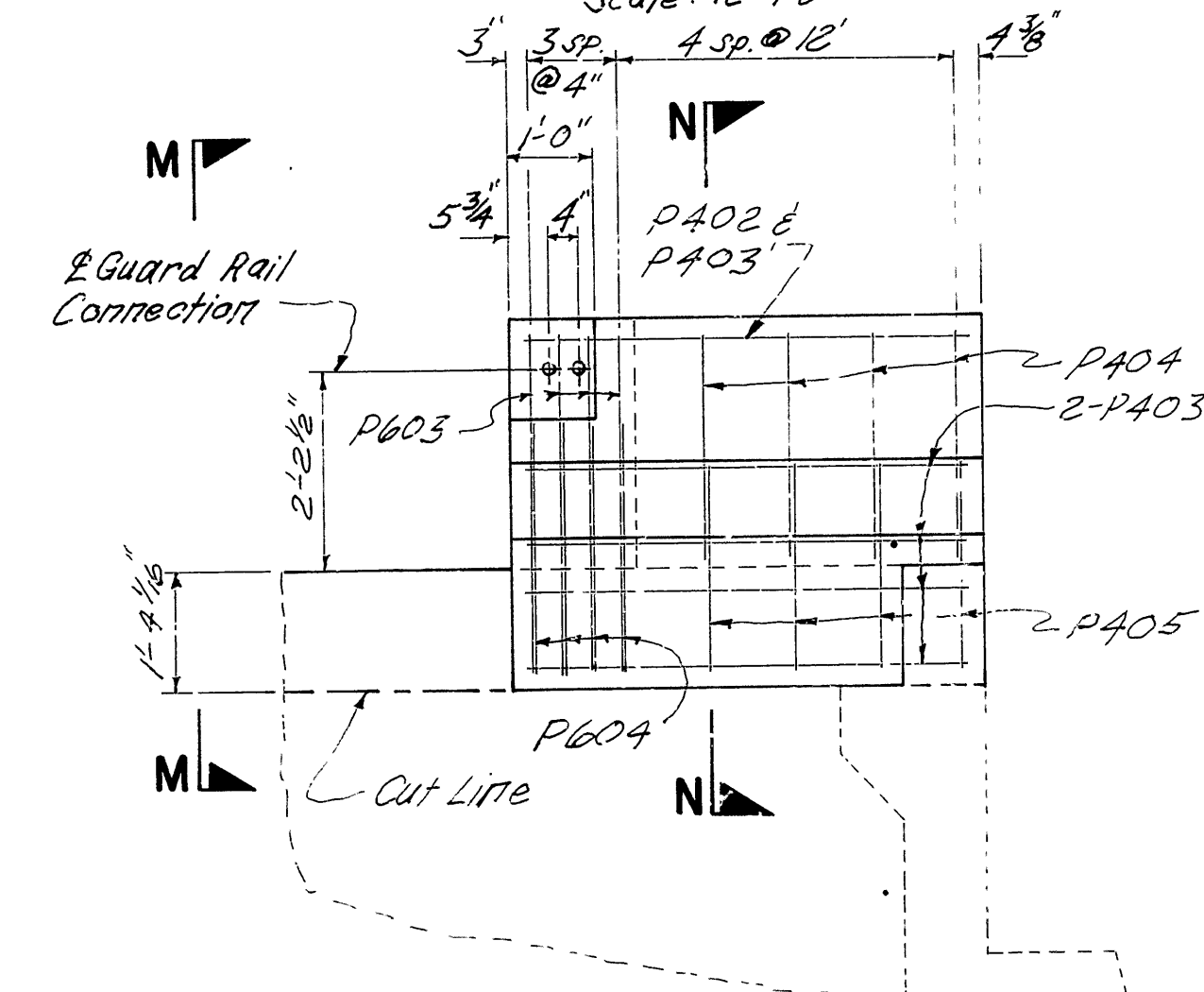
VIEW M-M  
Scale:  $\frac{1}{2}'' = 1'-0''$



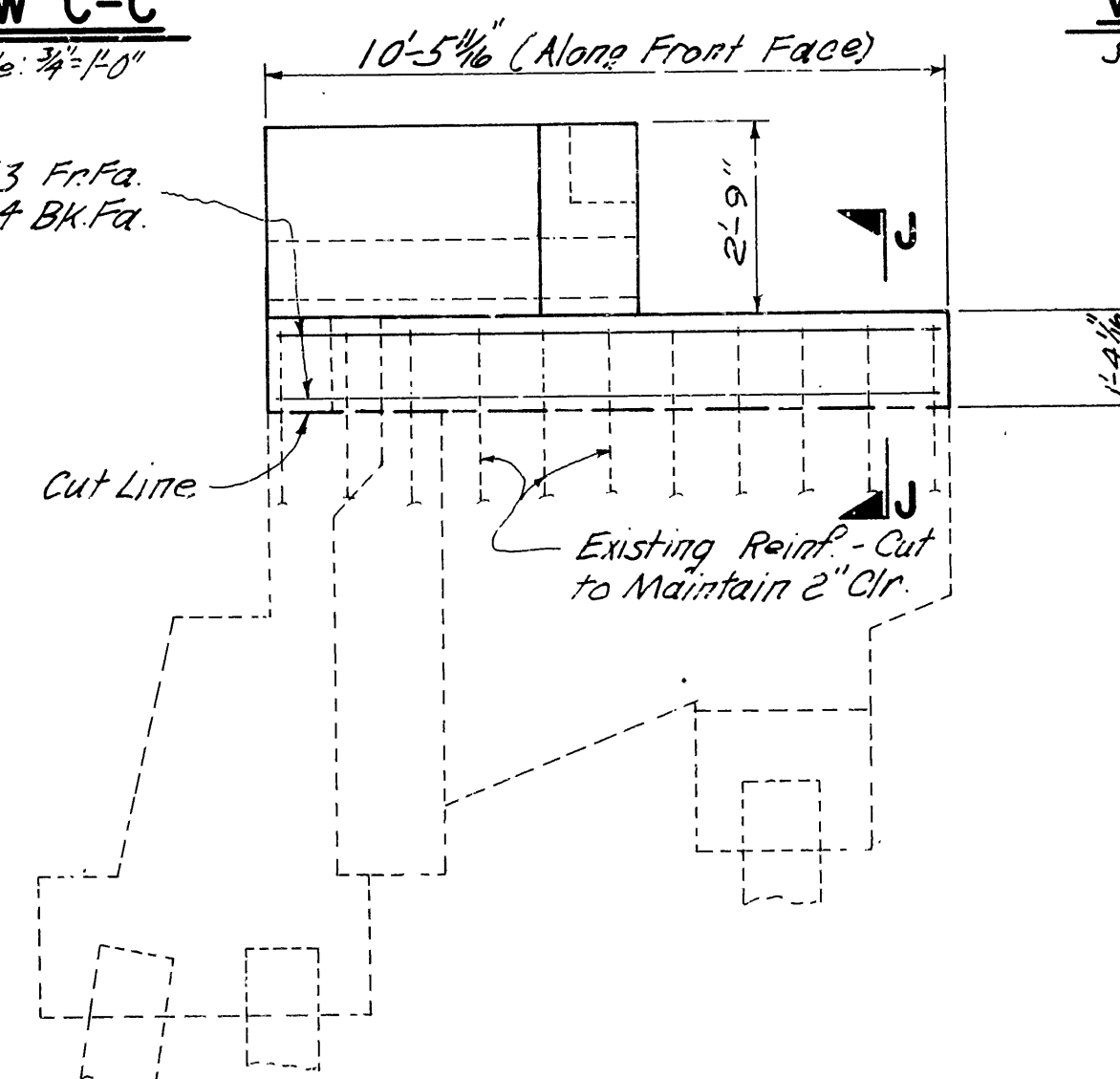
**ANCHOR BOLT LAYOUT**  
Scale: 1"=1'-0"



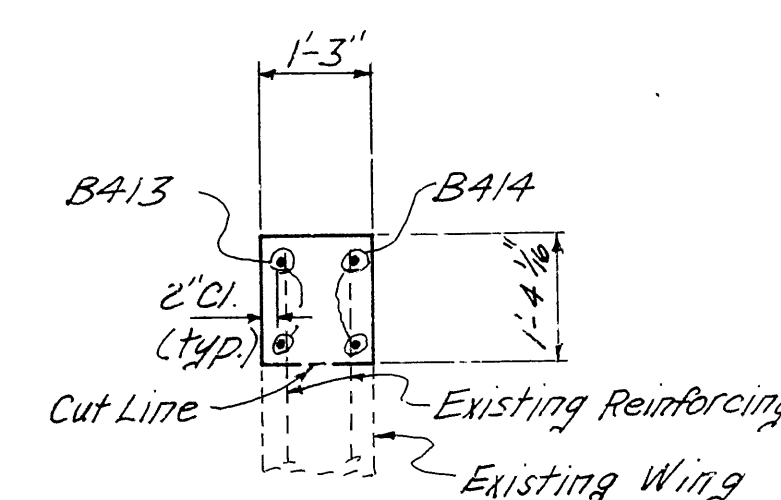
**SECTION N-N**  
Scale:  $\frac{1}{2}" = 1'-0"$



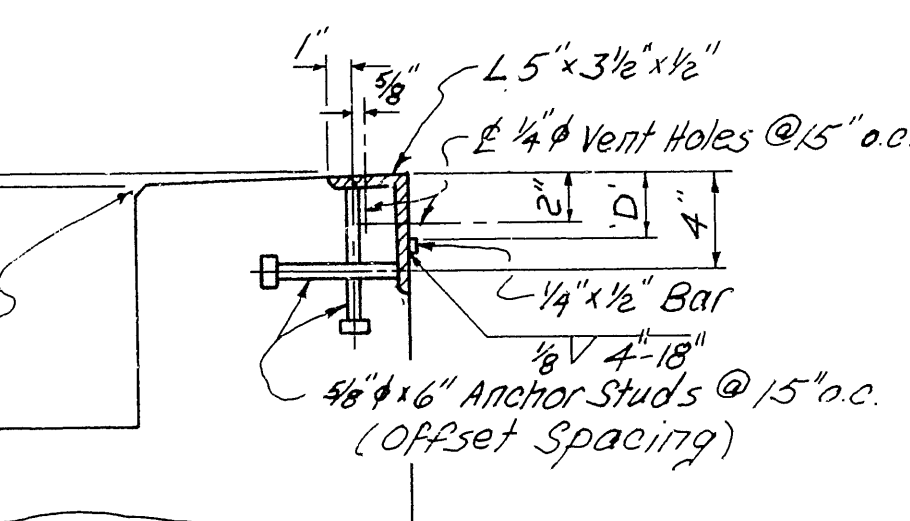
**VIEW D-D**  
Scale:  $\frac{1}{2}'' = 1'-0''$



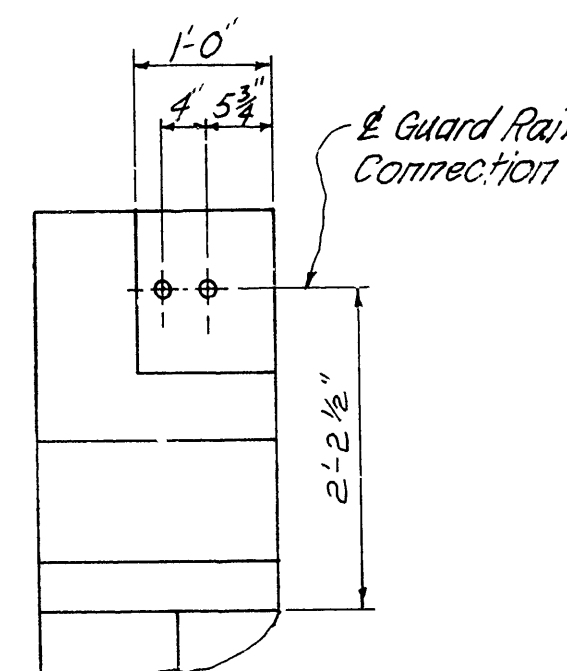
**VIEW B-B**  
Scale:  $\frac{3}{8}'' = 1'-0''$



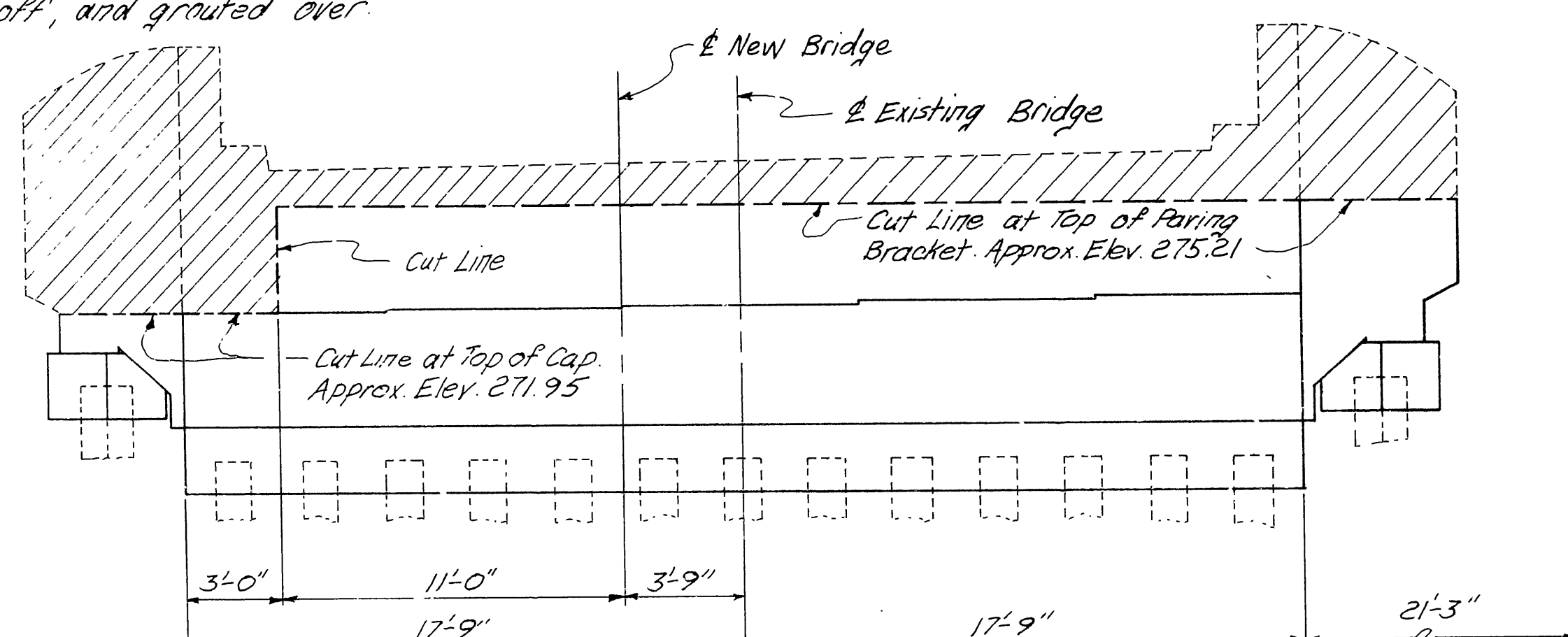
SECTION J-J  
Scale:  $\frac{1}{2}'' = 1'-0''$



**DETAIL X**  
Scale: 1/2" = 1'-0"



**VIEW K-K**  
Scale:  $\frac{3}{4}'' = 1'-0''$



**REMOVAL DETAIL**  
Scale: 1/4" = 1'-0"

Symm. about  $\Phi$  Median.

SHEET 2 OF 2  
DETAILS OF END BENTS  
SOUTH BLYTHEVILLE  
BURLINGTON NORTHERN R. R. OVERPASS  
MISSISSIPPI COUNTY  
ROUTE 1-55 SEC. 12  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: ARW DATE: 8-5-85  
 CHECKED BY: JAL DATE: 10-3-85 SCALE: As Noted  
 DESIGNED BY: ARW DATE: June-85

**BRIDGE NO. 3163 AR 8 BR DRAWING NO. 27786**

DRAWN BY: ARW DATE: 8-5-85  
CHECKED BY: SAH DATE: 10-3-85 SCALE: As Noted  
DESIGNED BY: ARW DATE: JUNE-85



3163 AR 8 BENTLS. OF INT. B.TS. 27787

### BAR LIST PER BENT

Mk.	No. Req'd	Length	Pin Dia	Bending Diagrams
B401	4	8'-7"	str.	
B402	7	13'-0"	2"	
B403	3	9'-1"	2"	
B601	4	9'-3"	4 1/2"	
B602	4	8'-7"	str.	
C401	6	9'-9"	str.	
C901	12	8'-0"	9"	
C902	12	8'-0"	9"	
B603	10	2'-6"	str.	
F601	22	6'-10"	4 1/2"	

### GENERAL NOTES

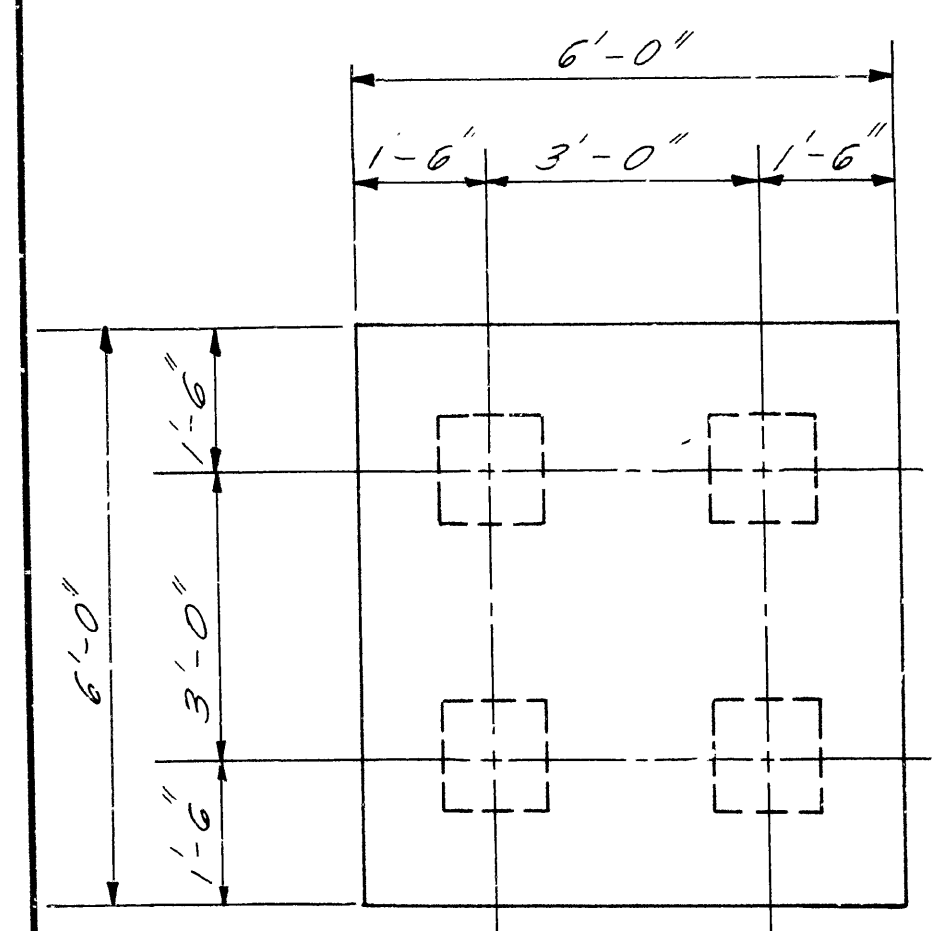
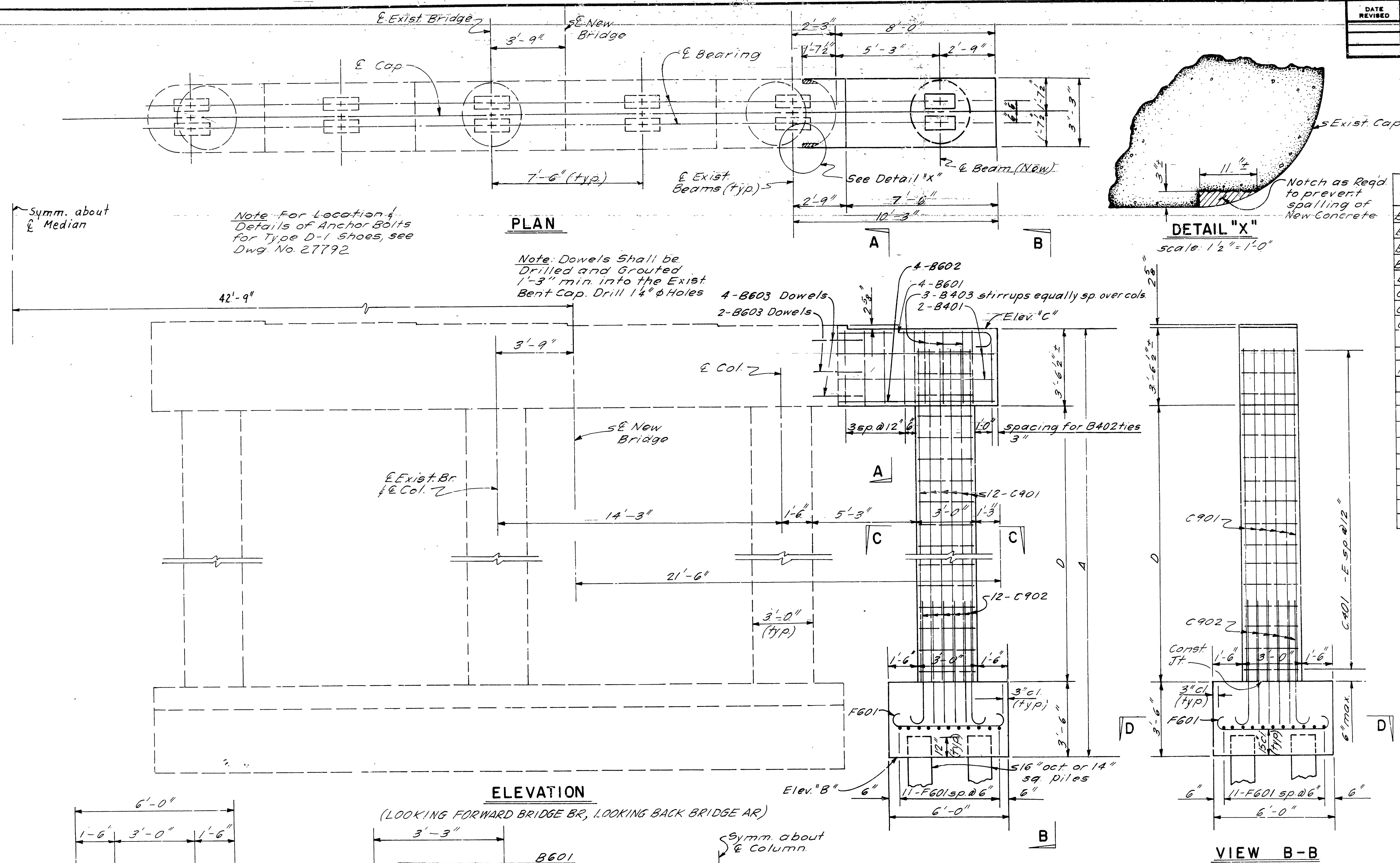
CONCRETE SHALL BE CLASS "S" WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH, f'c = 3500 PSI. ALL CONCRETE SHALL BE POURED IN THE DRY. ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.

REINFORCING STEEL SHALL CONFORM TO ASTM A615 OR A617, GRADE 60 (YIELD STRENGTH = 60,000 PSI).

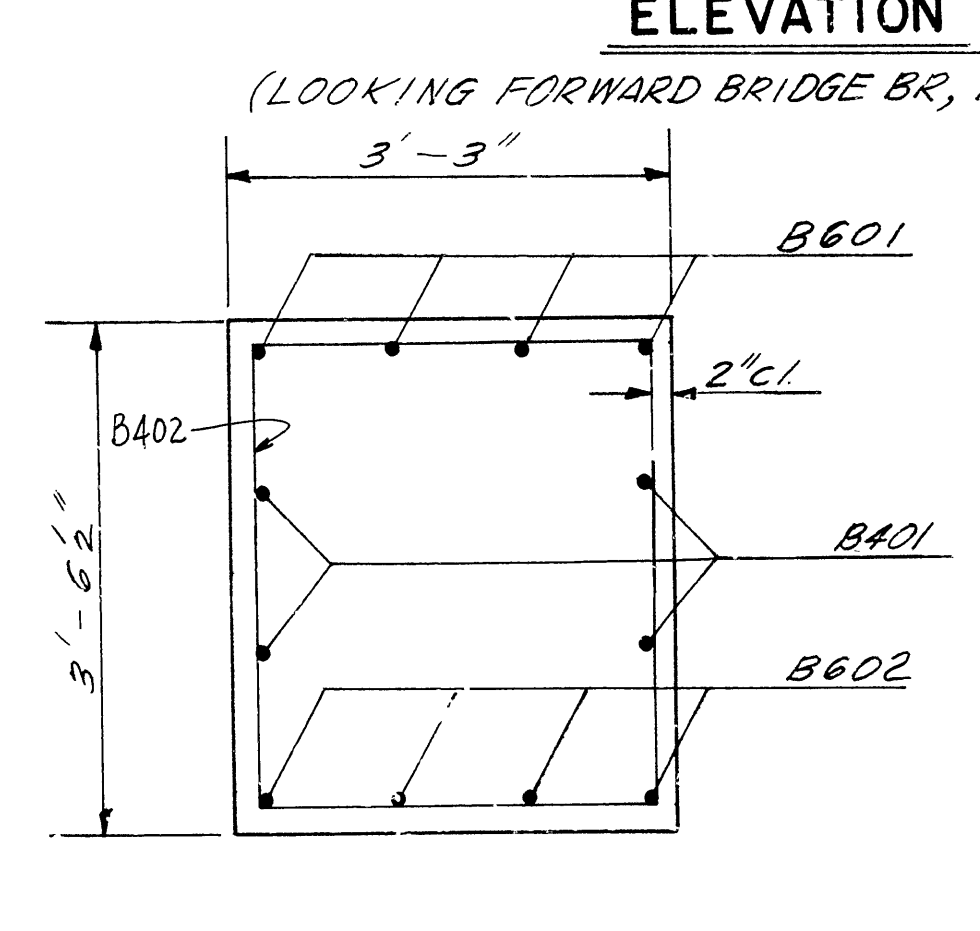
PILING SHALL BE 14" SQUARE OR 16" PRECAST CONCRETE AND SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 44 TONS PER PILE.

IF ANCHOR BOLTS ARE DRILLED INTO CAP, TOP MAIN REINFORCING BARS SHALL BE PROPERLY PLACED TO AVOID DAMAGE.

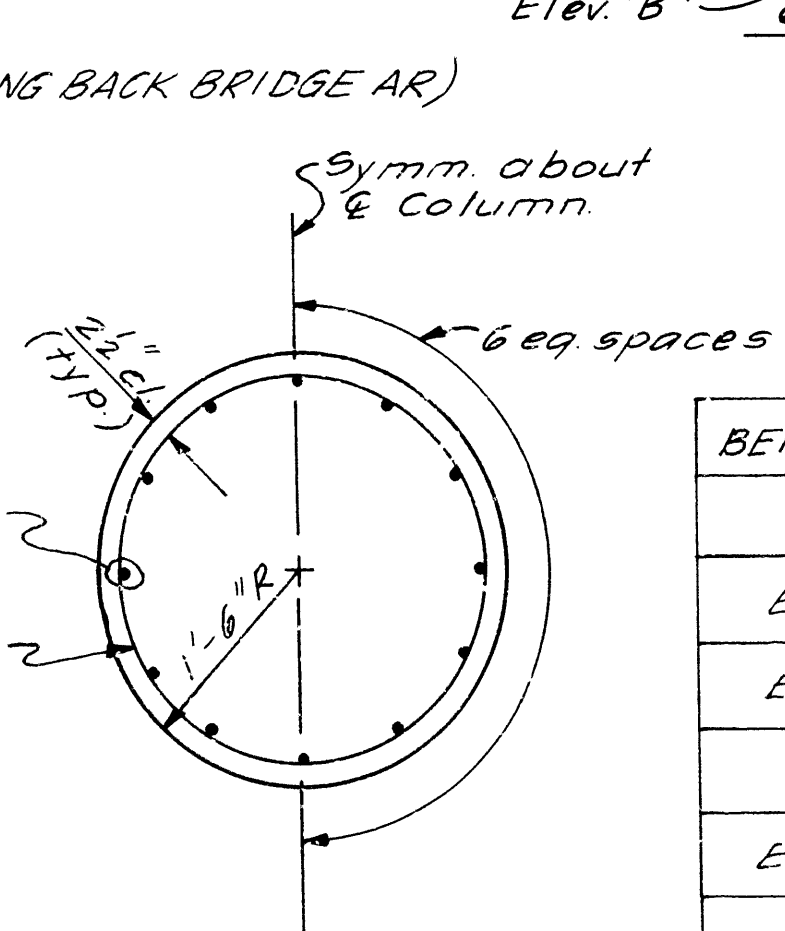
FOR ADDITIONAL NOTES, SEE LAYOUT.



SECTION D-D  
scale: 1/2" = 1'-0"



SECTION A-A  
scale: 3/4" = 1'-0"



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

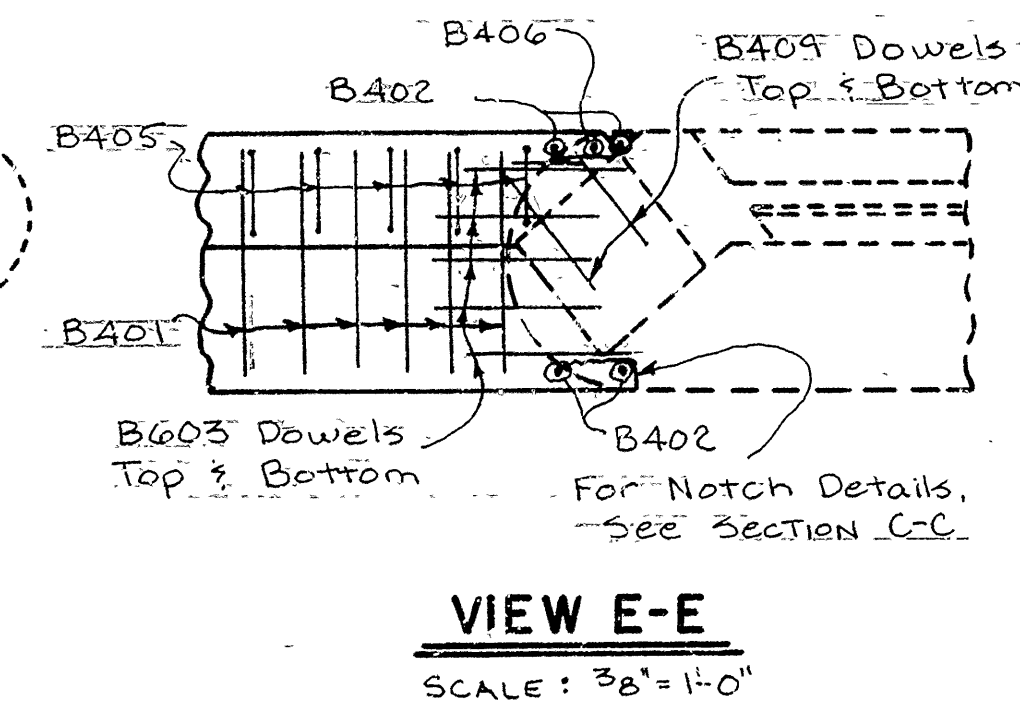
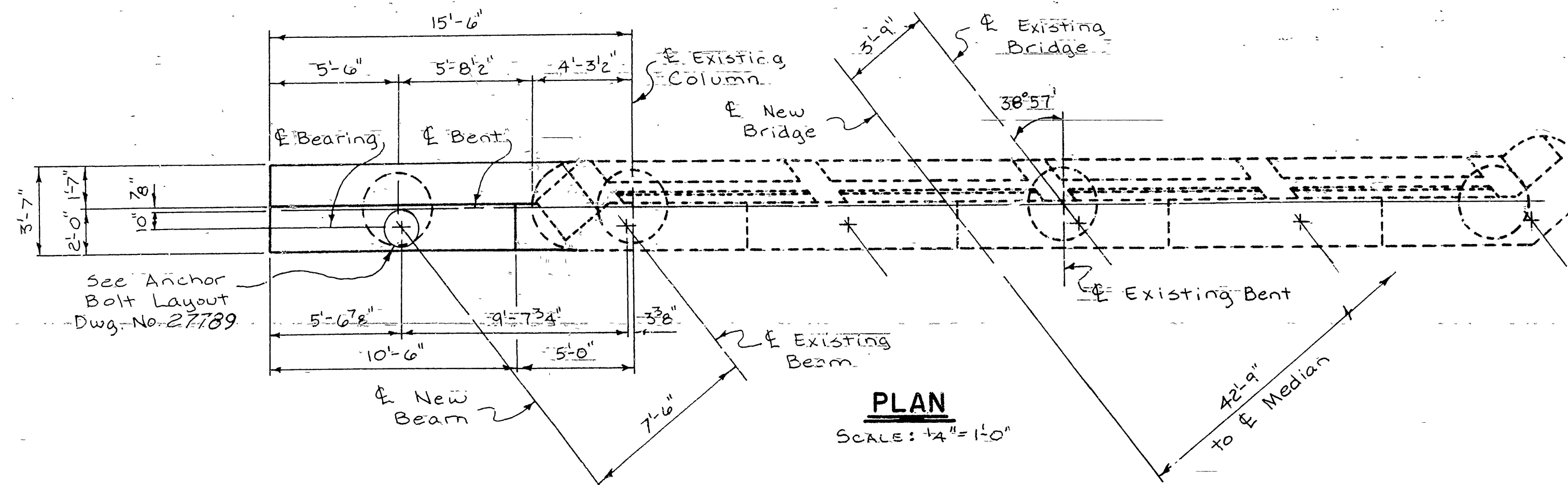
### TABLE OF VARIABLES

BENT NOS.	2AR, BR 14AR	3AR, BR	4 1/2 AR, BR	5 1/4 AR, BR	6 1/4 AR, BR	7AR, 9BR	13AR, BR	14BR
A	27'-3 1/2"	28'-3 1/2"	29'-0 1/2"	29'-6 1/2"	30'-0 1/2"	30'-0 1/2"	30'-9 1/2"	29'-9 1/2"
Elev. "B"	245.52	245.44	245.42	245.49	245.36	245.55	242.94	243.02
Elev. "C"	272.81	273.73	274.47	275.03	275.40	275.59	273.73	272.81
D	20'-3"	21'-3"	22'-0"	22'-6"	23'-0"	23'-0"	23'-9"	22'-9"
E Spaces	22	23	24	25	25	25	26	25
F	22'-9"	23'-9"	24'-9"	25'-6"	25'-9"	25'-9"	26'-6"	25'-6"
G	23	24	25	26	26	26	27	26

DETAILS OF INT. BENT NOS.  
2-6 AR & BR, 7AR, 9BR, & 10-14 AR & BR  
SOUTH BLYTHEVILLE  
BURLINGTON NORTHERN R.R. OVERPASS  
MISSISSIPPI COUNTY  
ROUTE 1-55 SEC. 12  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: EJK DATE: 7-9-85  
CHECKED BY: ASH DATE: 8-9-85  
DESIGNED BY: ARW DATE: March 85  
BRIDGE NO. 3163 AR 8  
DRAWING NO. 27787

DATE REVIEWED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		100135	42	80
				(1)	3163 AR & BR BT. DTLS. 27788			



BAR LIST PER BENT

MARK	NO. REQ'D.	LENGTH	A	B	PIN DIA.
B401	12	12'-2"	3'-3"	2'-5"	2"
B402	4	2'-5"			Str.
B403	2	12'-8"			Str.
B404	3	7'-11"	3'-3"	2'-5"	2"
B405	12	9'-11"	1'-3"	4'-5"	2"
B406	1	4'-5"			Str.
B407	4	12'-8"			Str.
B408	12	2'-6"			Str.
B409	4	2'-6"			Str.
B601	5	13'-4"	12'-8"	6"	4 1/2"
B602	5	12'-8"			Str.
B603	10	2'-6"			Str.
C401	13	9'-9"	1'-3 1/2"	1'-8"	Cir.
C402	28	13'-5"	11'-3"	2'-3"	2"
C501	26	13'-10"			Str.
C502	20	4'-6"	3'-9"	10"	2 1/2"
C601	7	2'-6"			Str.
C901	12	13'-0"			Str.
C902	12	9'-3"			Str.
F501	9	9'-6"			Str.
F601	10	8'-6"			Str.

### BENDING DIAGRAMS

Hand-drawn bending diagrams for reinforcement bars, showing dimensions A and B, and typical lap (7/8" typ.).

Diagrams include:

- B401: Rectangular bar with dimensions A and B, and a 7/8" typical lap.
- B404: Rectangular bar with dimensions A and B.
- B405: Rectangular bar with dimensions A and B.
- B601: Bar with a 90-degree hook, dimensions A and B.
- C402 & C502: Bar with a 180-degree hook, dimension A.
- C401: Circular bar with radius A and dimension B.
- C601: Bar with a 180-degree hook, dimension A.
- F501: Straight bar with dimension A.
- F601: Straight bar with dimension A.

DIMENSIONS ARE OUT TO OUT OF BARS.

GENERAL NOTES

CONCRETE SHALL BE CLASS "S" WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH,  $f'_c = 3500$  PSI. ALL CONCRETE SHALL BE POURED IN THE DRY. ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4 INCH UNLESS OTHERWISE NOTED.

REINFORCING STEEL SHALL CONFORM TO ASTM A615 OR A617, GRADE 60 (YIELD STRENGTH = 60,000 PSI).

PILING SHALL BE 14" SQUARE OR 16" PRECAST CONCRETE AND SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 44 TONS PER PILE.

IF ANCHOR BOLTS ARE DRILLED INTO CAP, TOP MAIN REINFORCING BARS SHALL BE PROPERLY PLACED TO AVOID DAMAGE.

FOR ADDITIONAL NOTES, SEE LAYOUT.

DETAILS OF INT. BENT NOS.

8BR & 8AR

SOUTH BLYTHEVILLE

BURLINGTON NORTHERN R.R. OVERPASS

MISSISSIPPI COUNTY

ROUTE 1-55 SEC. 12

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

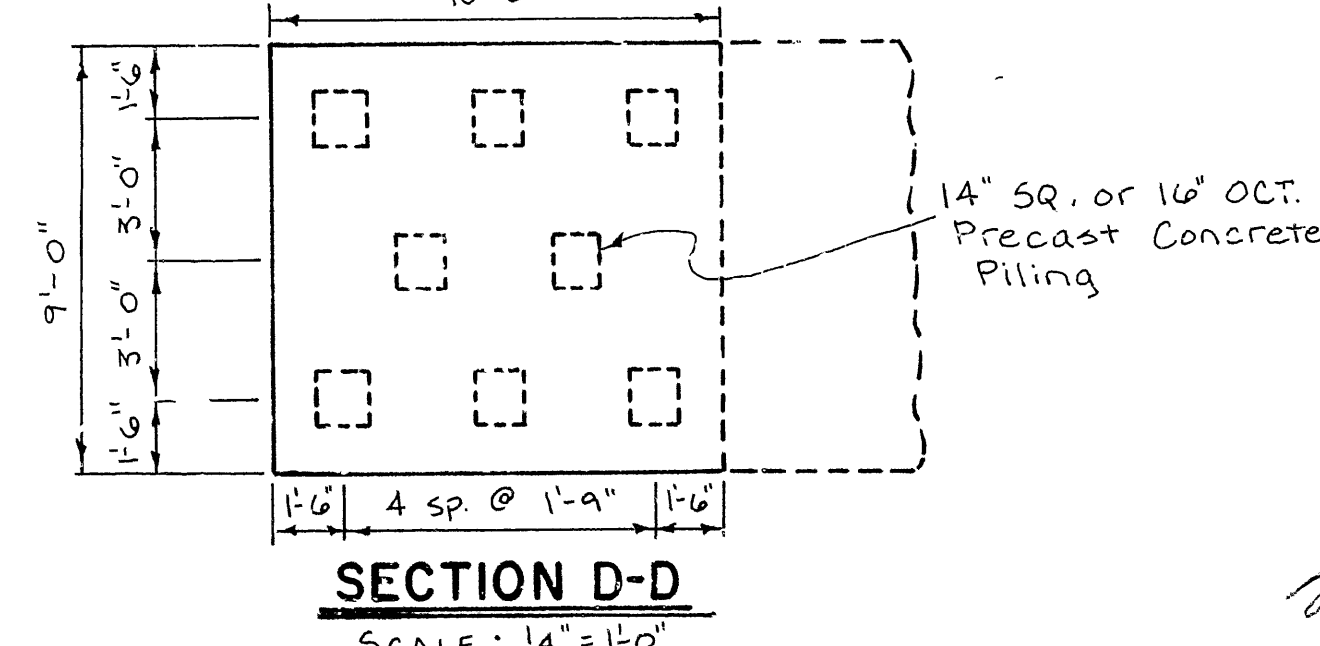
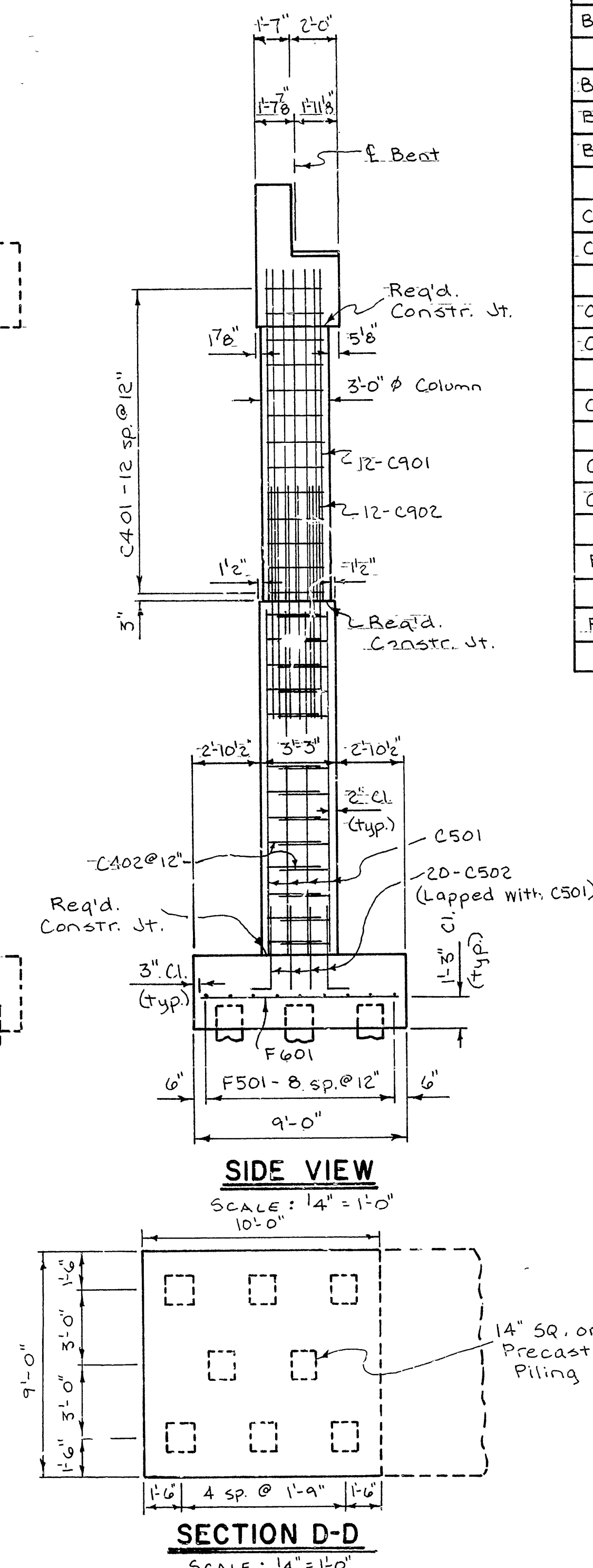
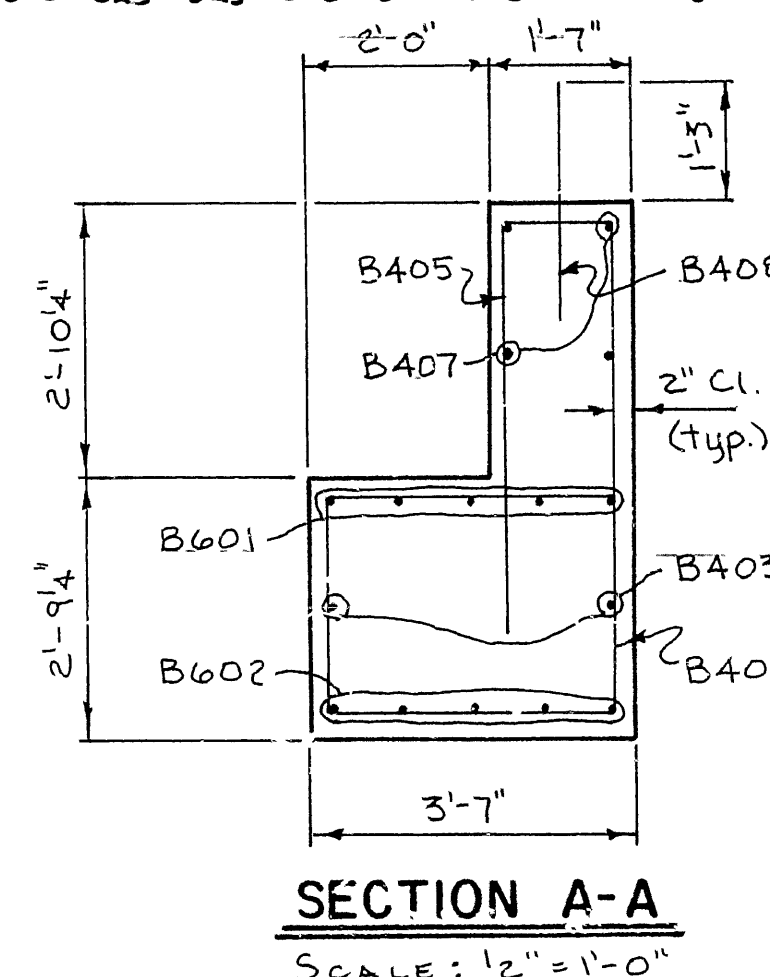
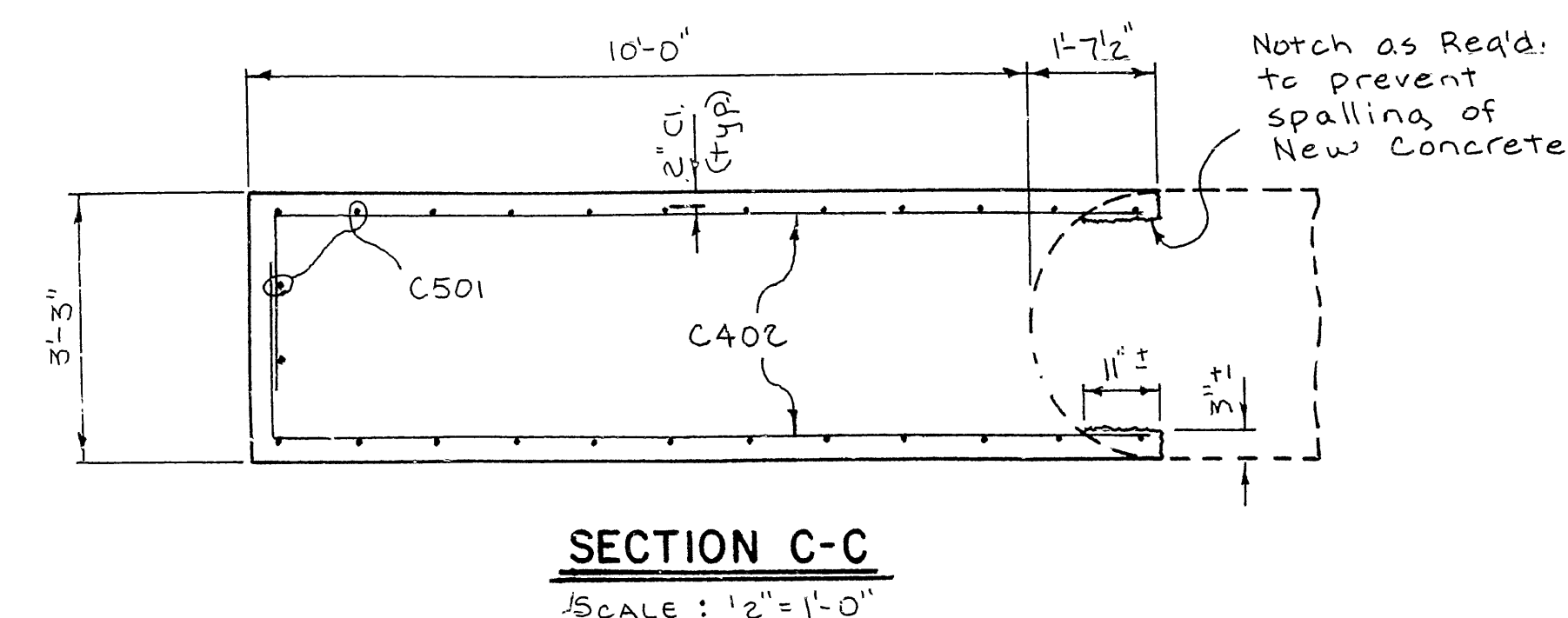
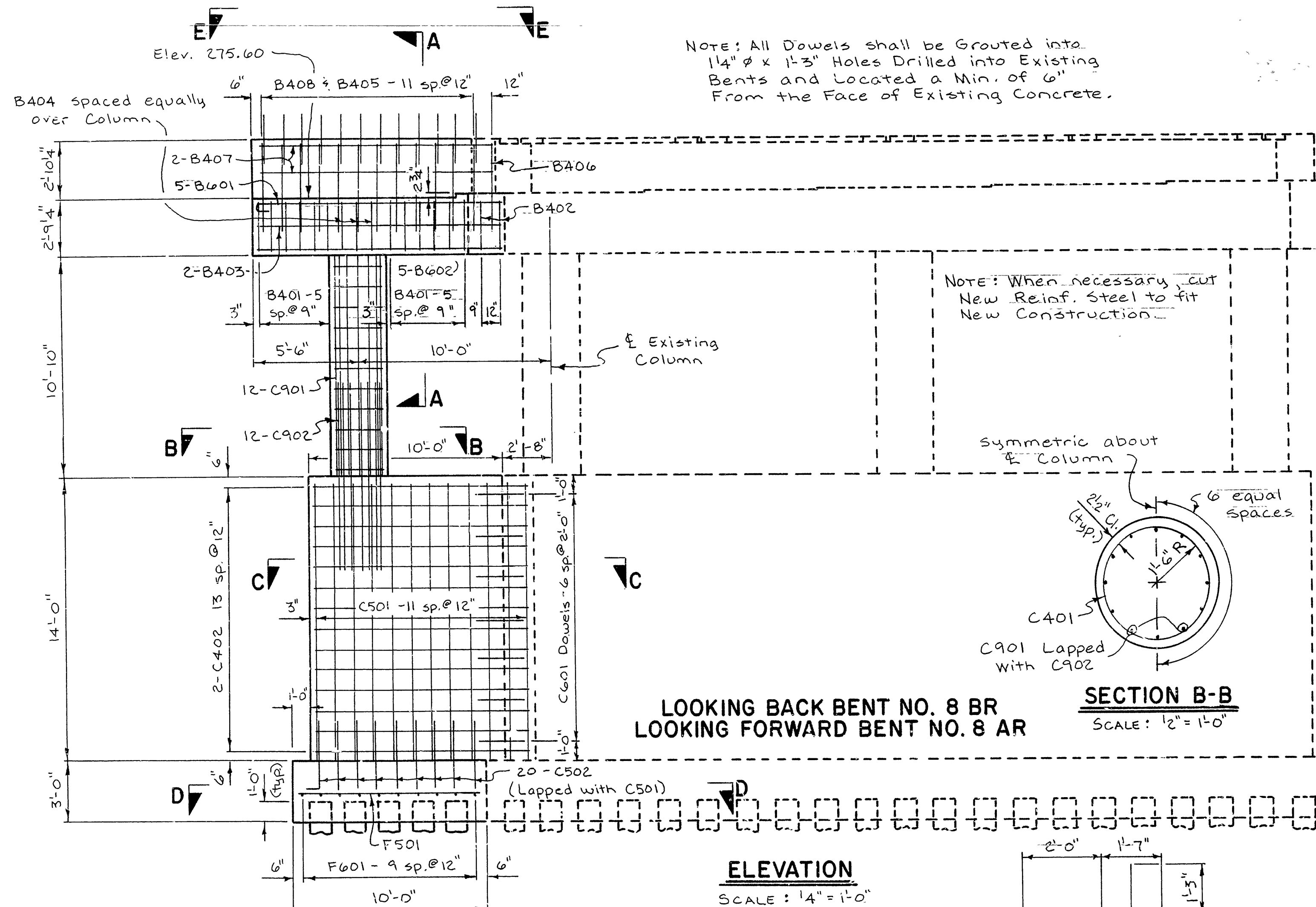
DRAWN BY: GEC DATE: 8-14-85  
CHECKED BY: AKH DATE: 8-18-85 SCALE: AS NOTED

CHECKED BY: WAB DATE: 6-18-85 SCALE: 1" = 100'  
DESIGNED BY: ARW DATE: March-85

DESIGNED BY: AKW DATE: 11/19/82 85  
3163 AB 8 27788

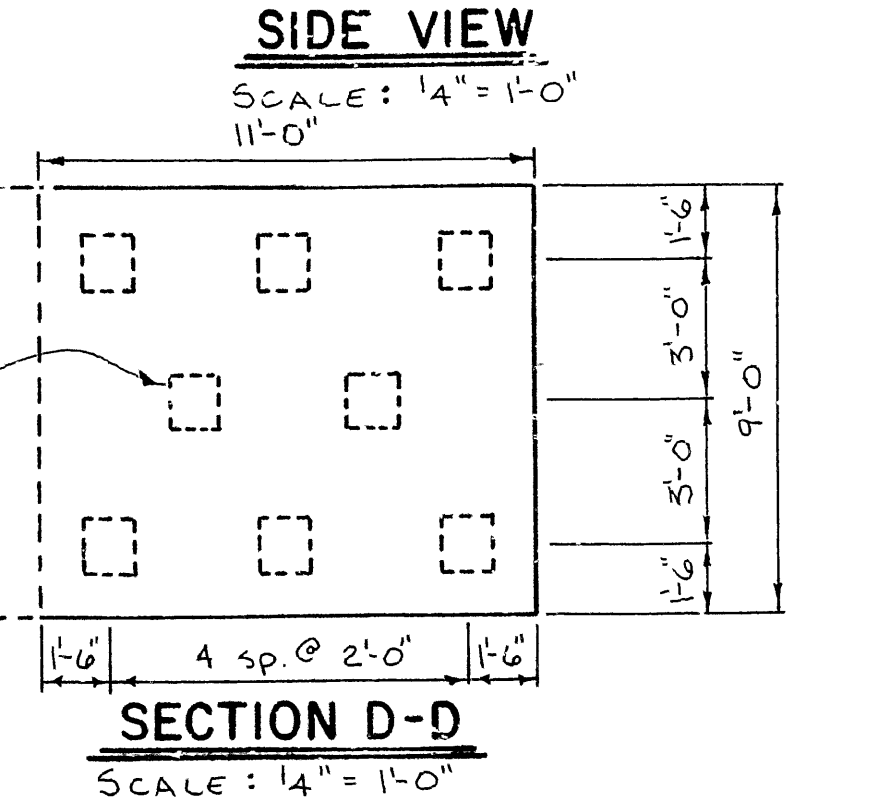
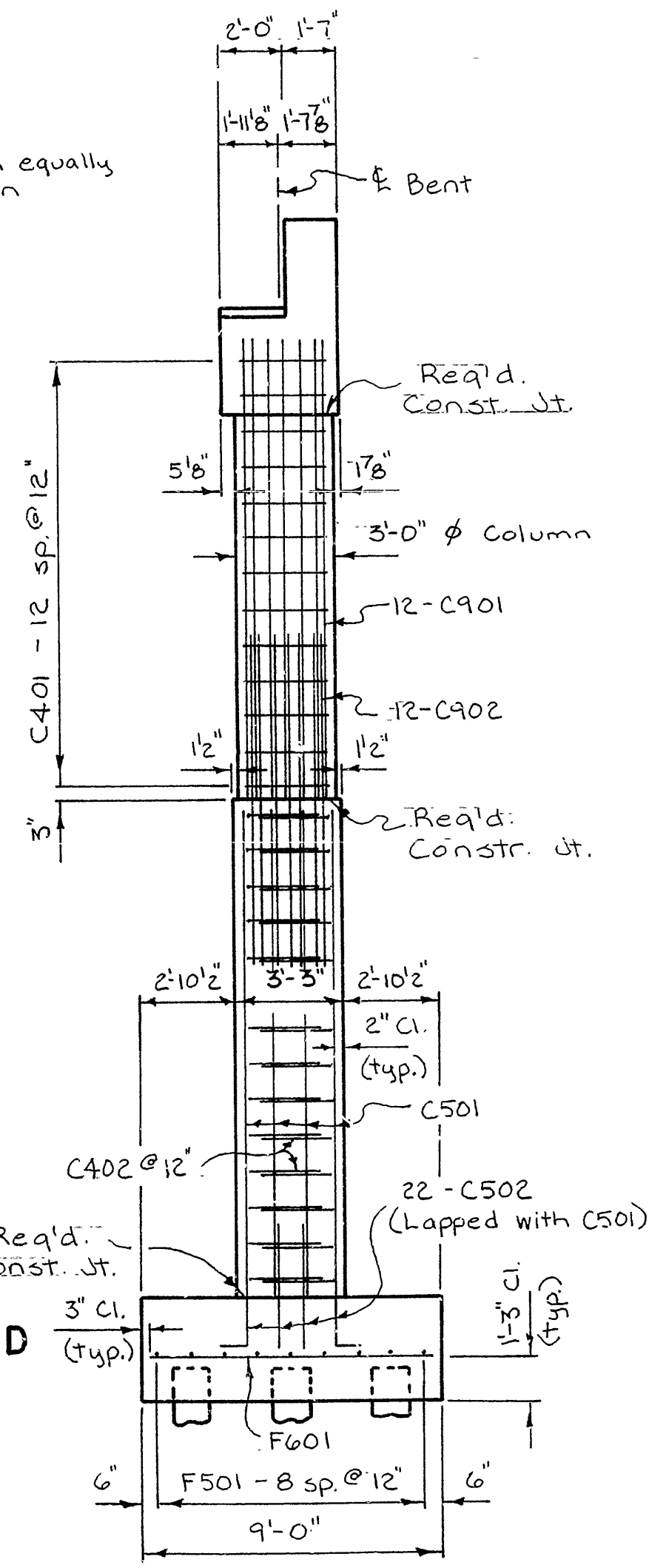
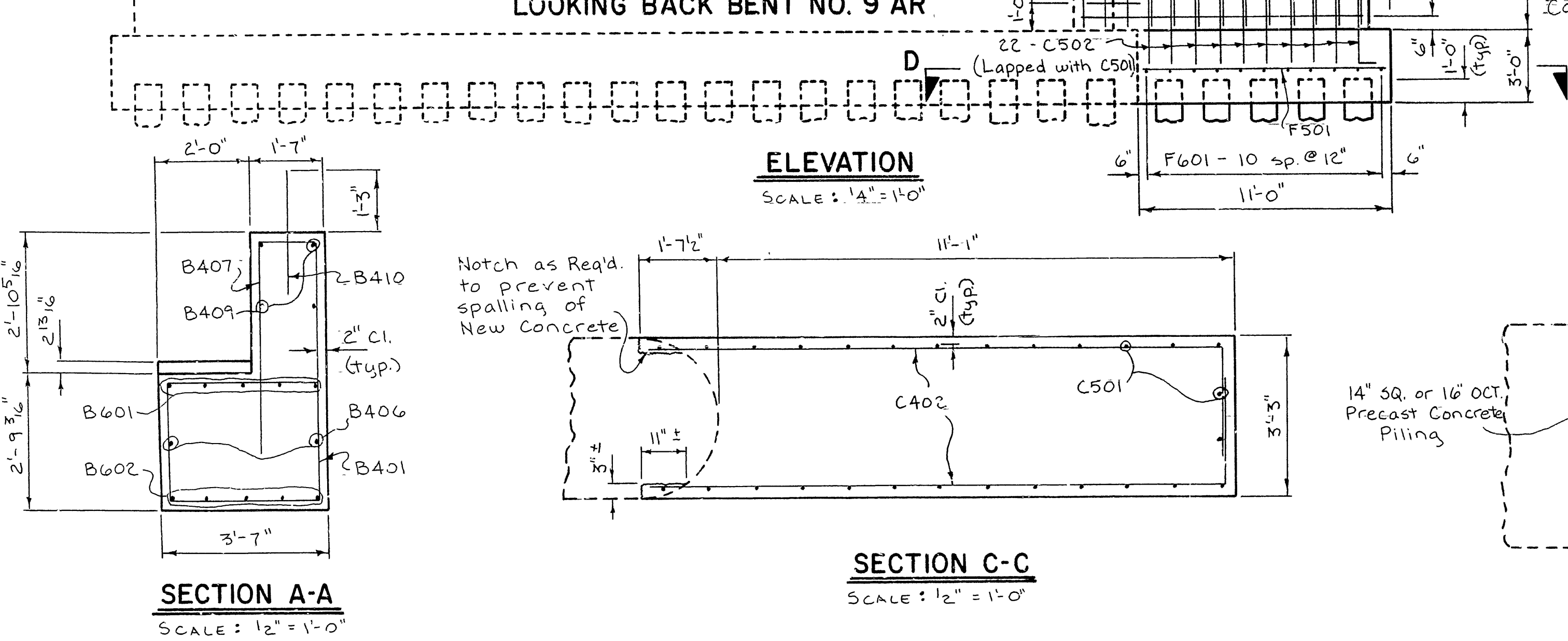
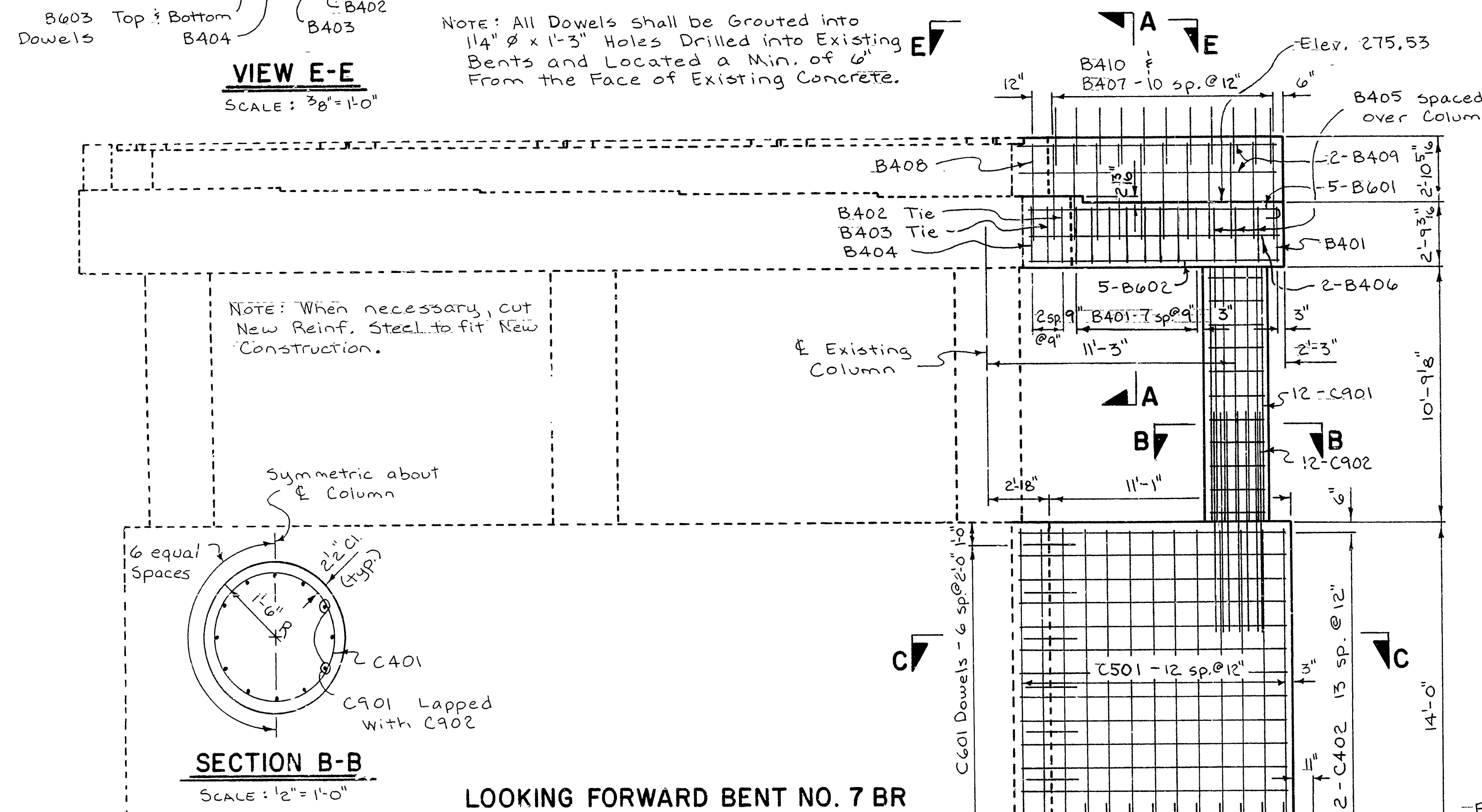
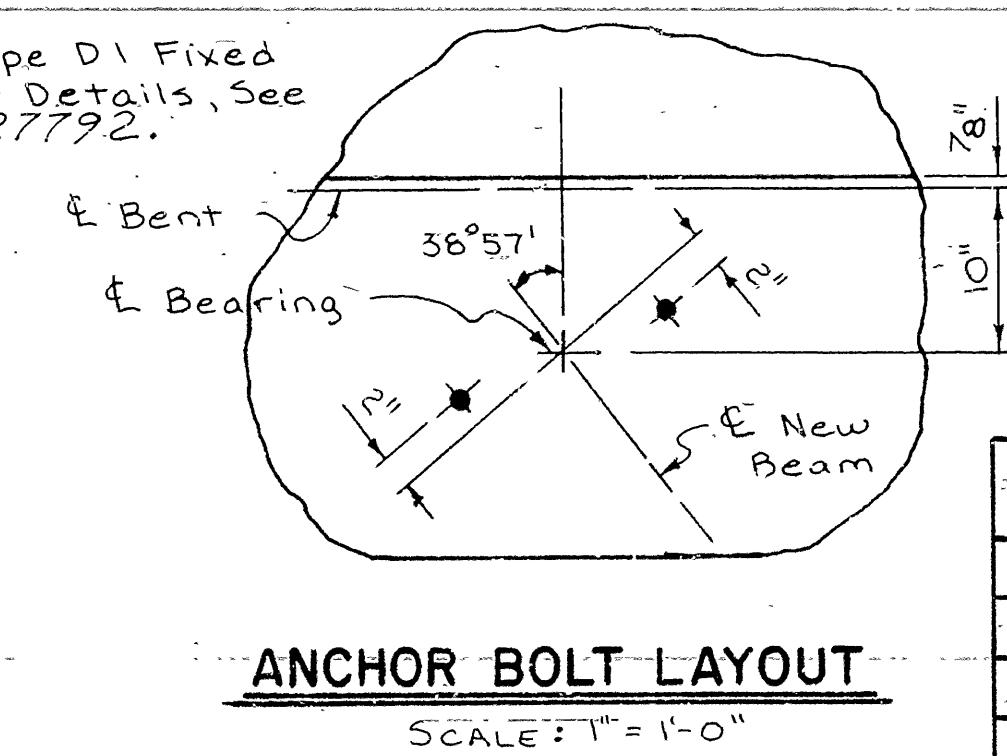
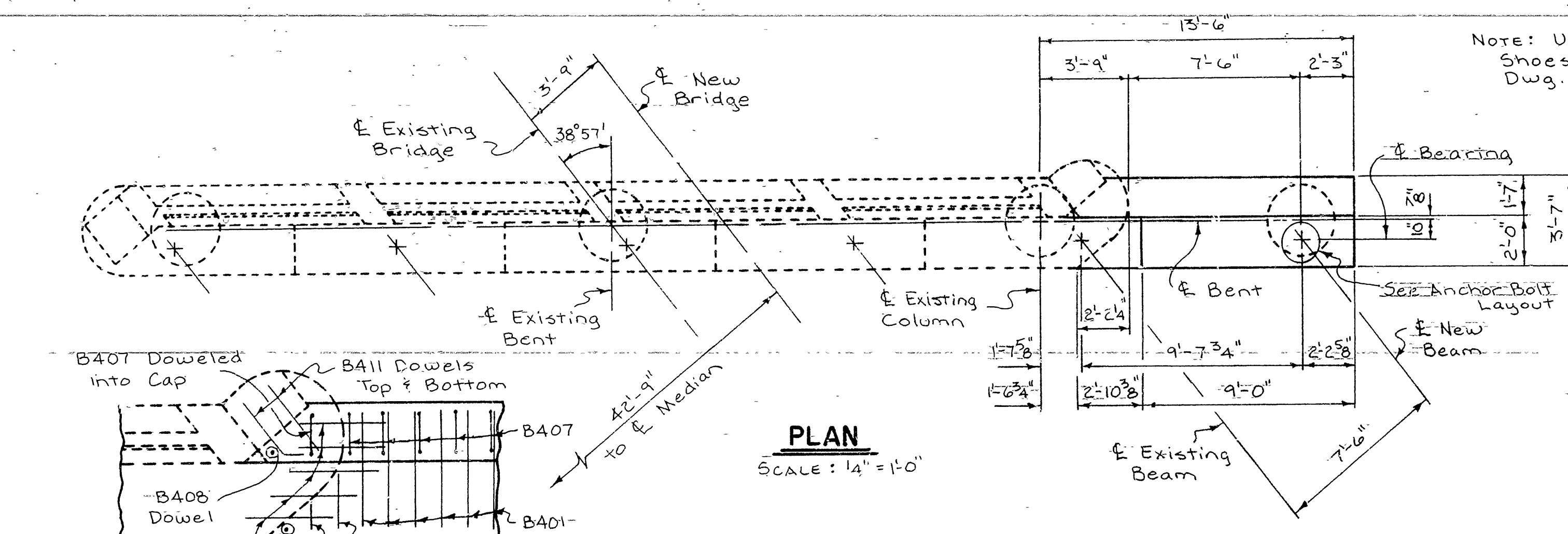
BRIDGE NO. 3163 AR & 3163 BR DRAWING NO. 27788

3105 BR





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.	100135	43 80
							3163 AR & BR ST. DTL'S. 27789	



BAR LIST PER BENT

MARK	NO.	REQ'D.	LENGTH	A	B	PIN DIA.	BENDING DIAGRAMS
B401	9		12'-2"	3'-3"	2'-5"	2"	B401, B402, & B403
B402	1		9'-0"	1'-8"	2'-5"	2"	
B403	1		7'-6"	11"	2'-5"	2"	B405 & B407
B404	1		2'-5"			Str.	
B405	3		7'-11"	3'-3"	2'-5"	2"	B601
B406	2		11'-2"			Str.	
B407	11		9'-11"	1'-3"	4'-5"	2"	C402 & C502
B408	1		4'-5"			Str.	
B409	4		11'-9"			Str.	C401
B410	11		2'-6"			Str.	
B411	4		2'-6"			Str.	C401
B601	5		11'-10"	11'-2"	6"	4 1/2"	
B602	5		11'-2"			Str.	C401
B603	10		2'-6"			Str.	
C401	13		9'-9"	1'-3 1/2"	1'-8"	Cir.	C401
C402	28		14'-6"	12'-4"	2'-3"	2"	
C501	28		13'-10"			Str.	C401
C502	22		4'-6"	3'-9"	10"	2 1/2"	
C601	7		2'-6"			Str.	C401
C901	12		13'-0"			Str.	
C902	12		9'-3"			Str.	C401
F501	9		10'-6"			Str.	
F601	11		8'-6"			Str.	C401

DIMENSIONS ARE OUT TO OUT OF BARS.

GENERAL NOTES

CONCRETE SHALL BE CLASS "S" WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH  $f'_c = 3500$  PSI. ALL CONCRETE SHALL BE POURED IN THE DRY. ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4 INCH UNLESS OTHERWISE NOTED.

REINFORCING STEEL SHALL CONFORM TO ASTM A615 OR A617, GRADE 60 (YIELD STRENGTH = 60,000 PSI).

PILING SHALL BE 14" SQUARE OR 16" PRECAST CONCRETE AND SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 44 TONS PER PILE.

IF ANCHOR BOLTS ARE DRILLED INTO CAP, TOP MAIN REINFORCING BARS SHALL BE PROPERLY PLACED TO AVOID DAMAGE.

FOR ADDITIONAL NOTES, SEE LAYOUT.

DETAILS OF INT. BENT NOS.  
7BR & 9AR  
SOUTH BLYTHEVILLE  
BURLINGTON NORTHERN R.R. OVERPASS  
MISSISSIPPI COUNTY  
ROUTE 1-55 SEC. 12  
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, AP  
DRAWN BY: GEC DATE: 8-12-85  
CHECKED BY: D&H DATE: 8-20-85  
DESIGNED BY: ARW DATE: March 85  
BRIDGE NO. 3163 AR & 3163 BR  
DRAWING NO. 27789  
SCALE: AS NOTED

BRIDGE ENGINEER

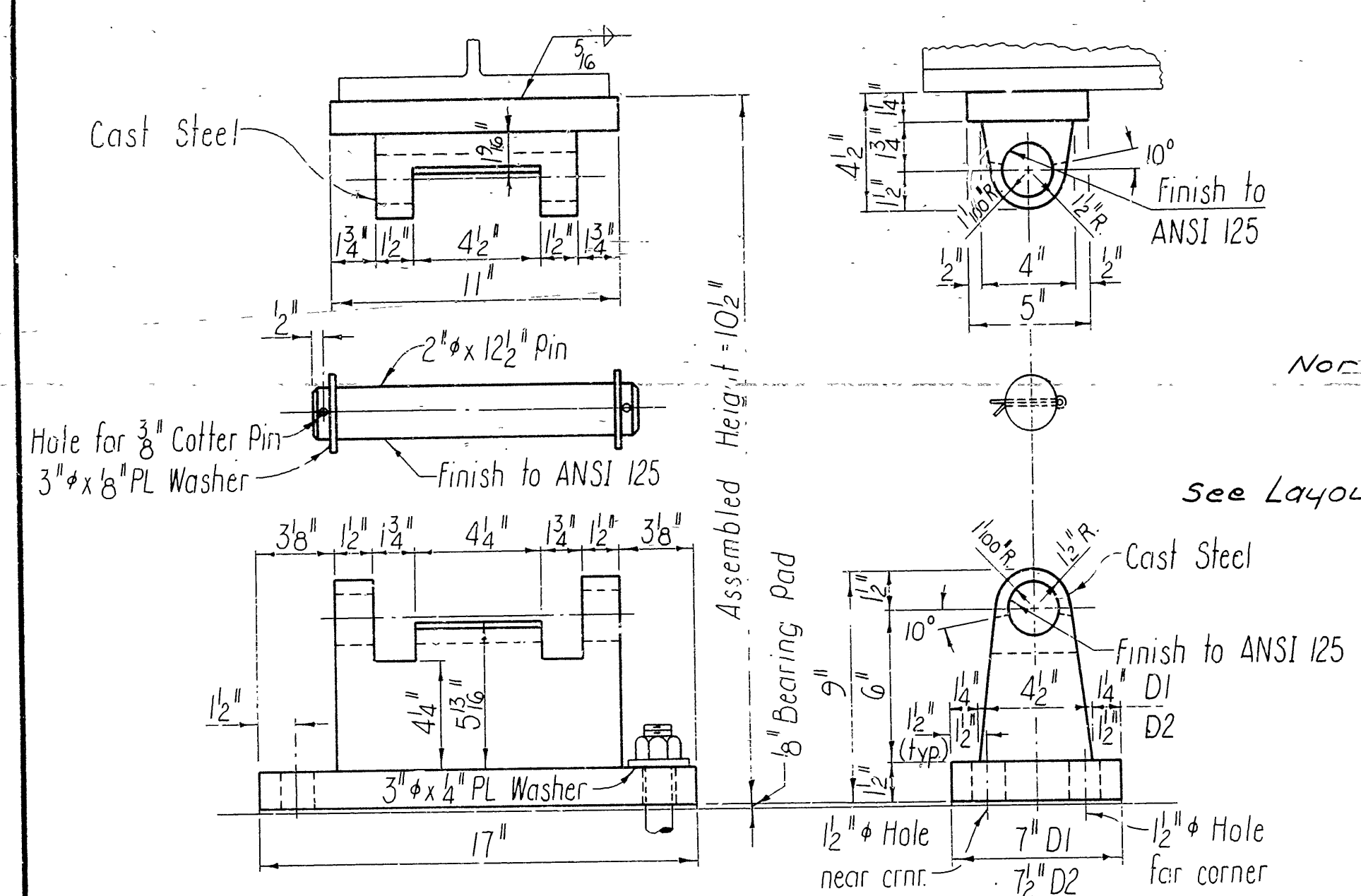






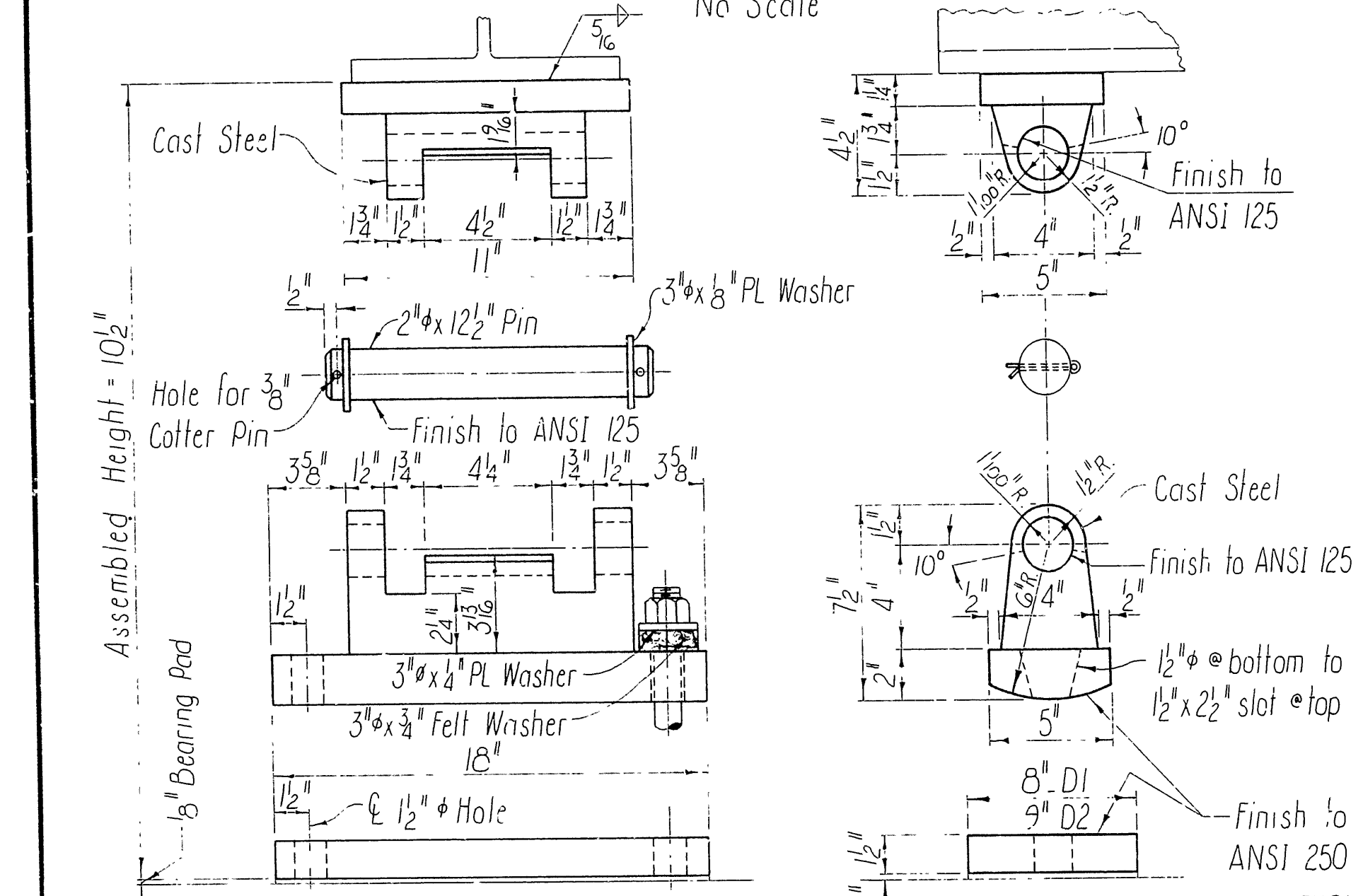
DATE	REVISED	DATE	REVISED	DATE	REVISED	DATE	REVISED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
								6	ARK.			
								JOB NO.	100/33		46	80

A.F. 7600



TYPE "D" FIXED SHOE

No Scale



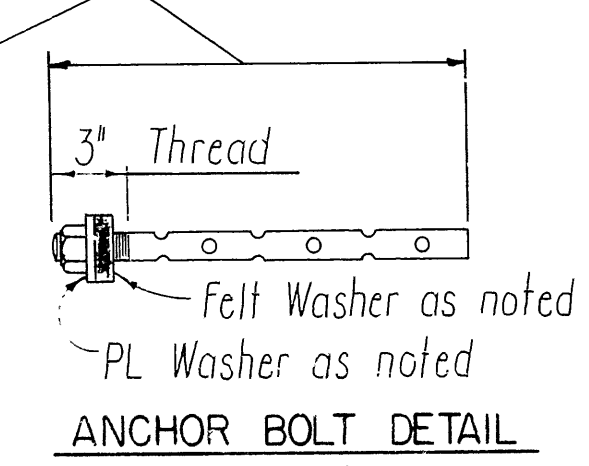
TYPE D1 FIXED OR EXPANSION SHOES: MAXIMUM LOAD 100K

TYPE "D" EXPANSION SHOE

TYPE D2 FIXED OR EXPANSION SHOES: MAXIMUM LOAD 120K

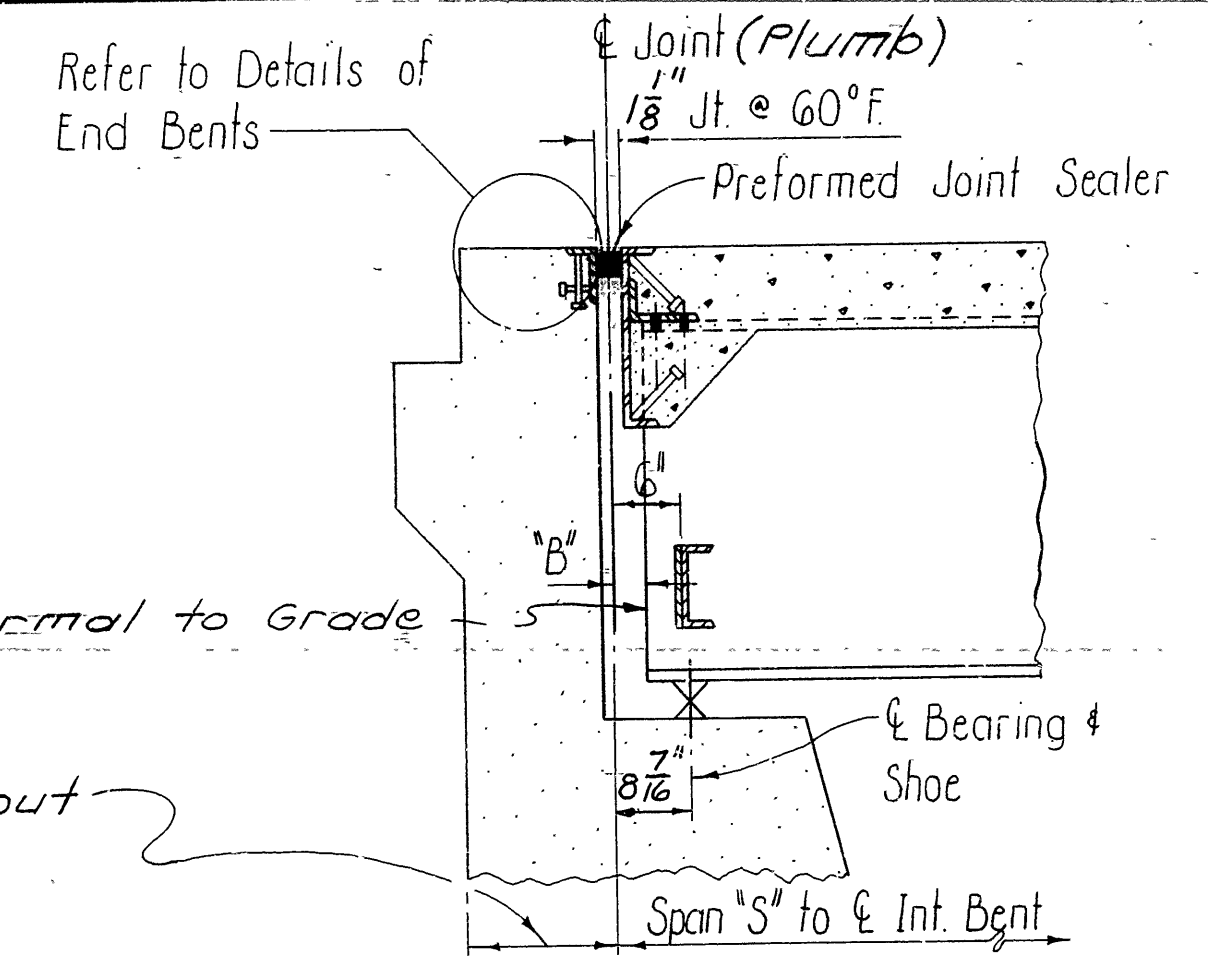
No Scale

1 1/2 inch x 16 inch for Existing Exp. Shoes; 1 1/2 inch x 16 inch for Existing Fixed and all New Fixed & Exp. Shoes



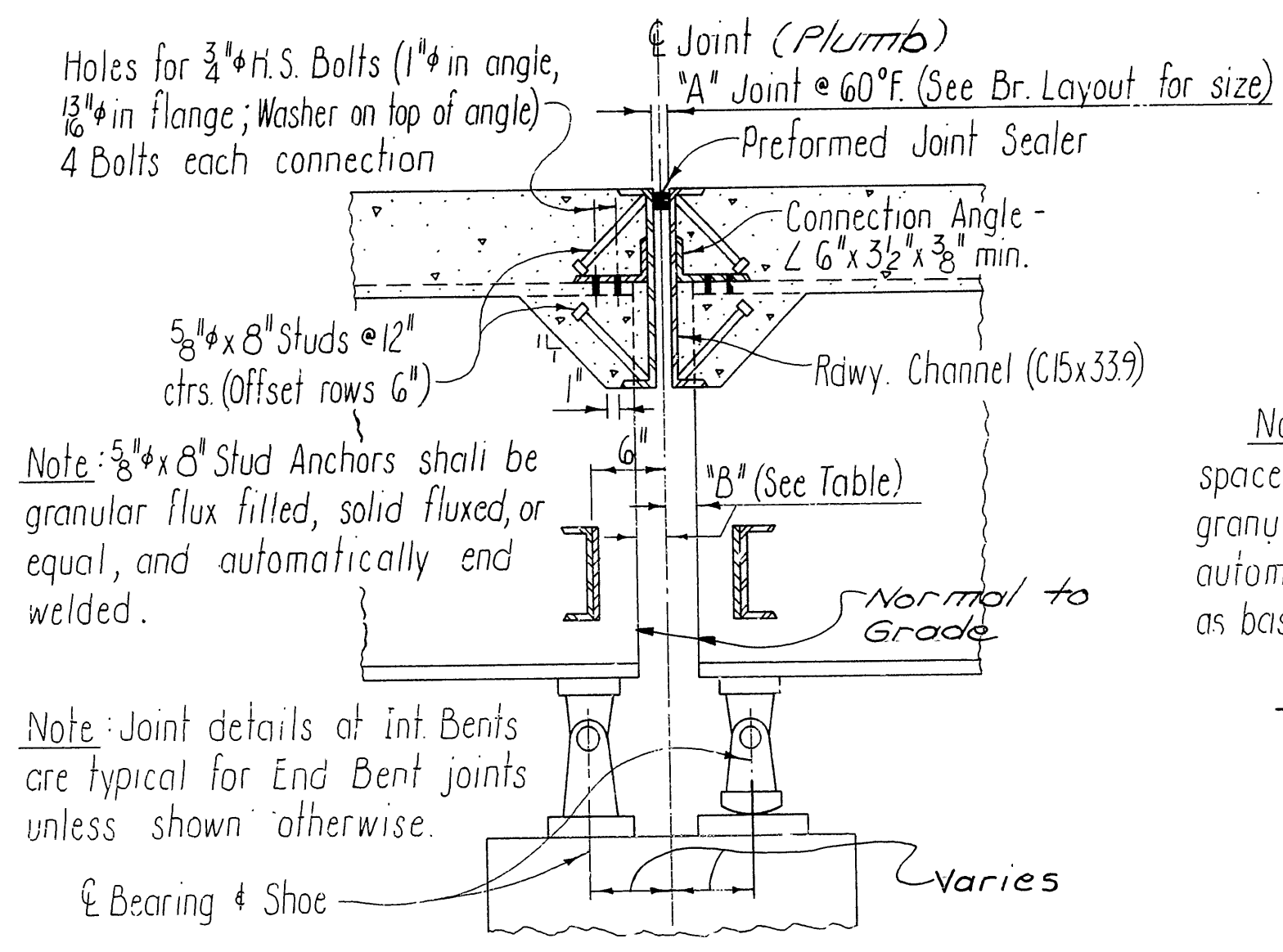
ANCHOR BOLT DETAIL

No Scale



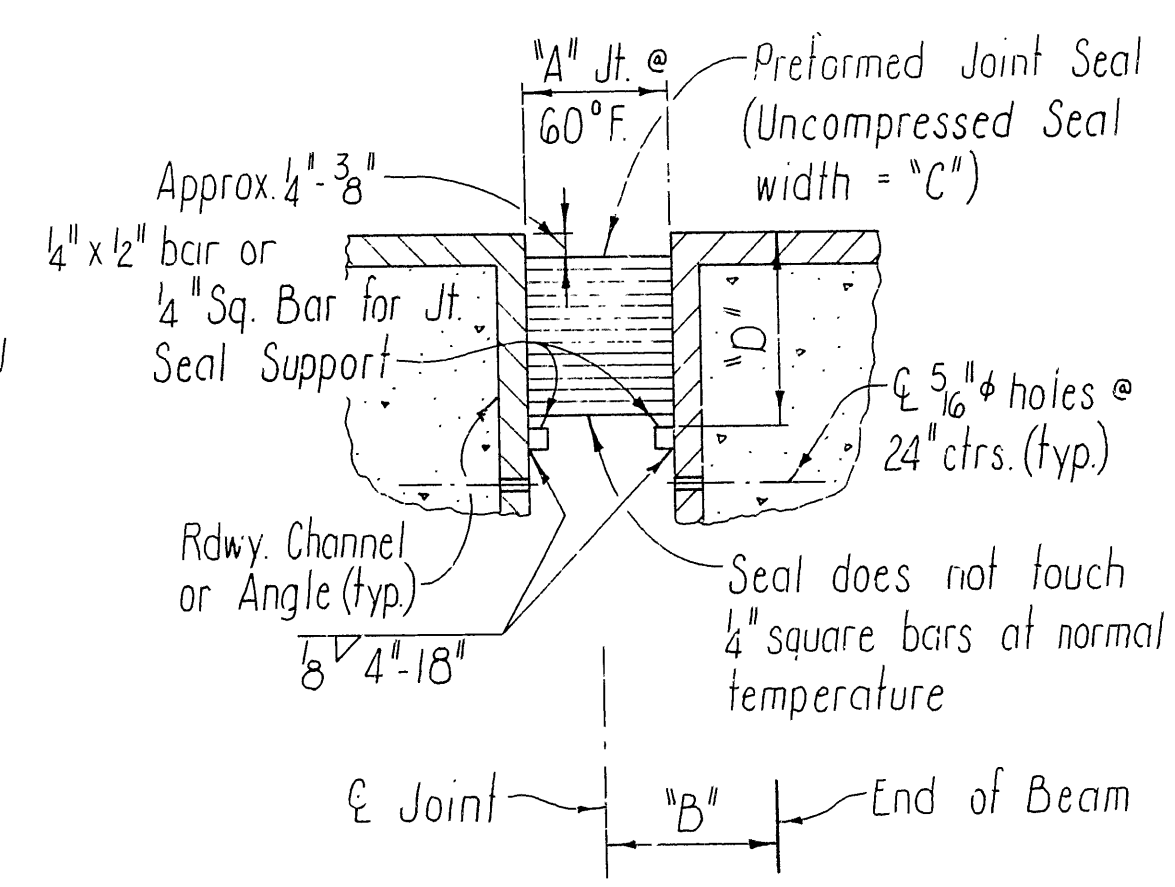
JOINT AT END BENTS

Scale: 3/4" = 1'-0"



JOINT AT INTERMEDIATE BENTS

Scale: 1" = 1'-0"

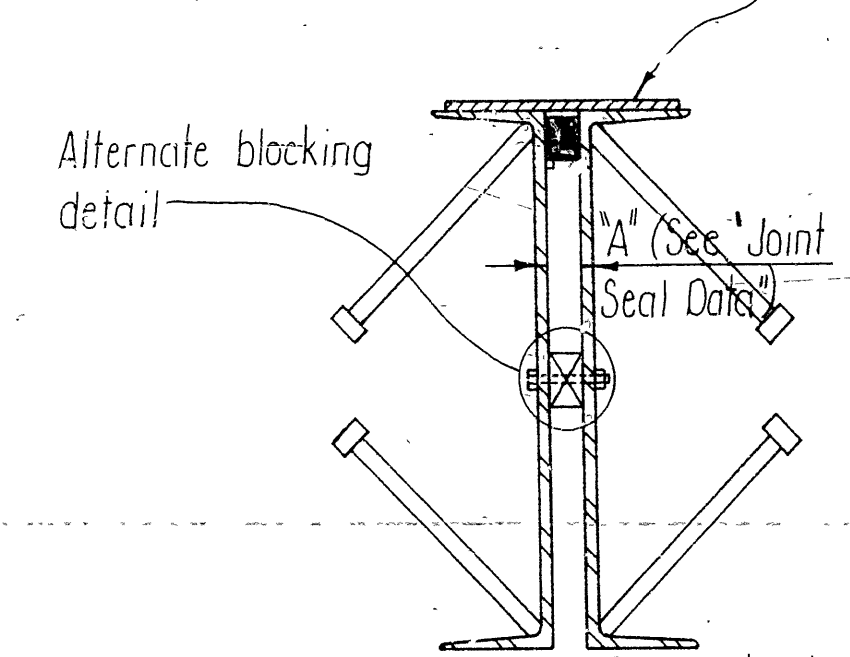


DETAIL OF JOINT SEAL & SUPPORT

No Scale

Note: The Seal shall be in one piece (without splices) for the full width of the joint, except that lengths 55 feet and longer may have a factory made splice. Splices, when required, shall be shown on the Shop Drawings and shall be placed near the high ends of the Roadway. Separation of the splice during installation shall be cause for rejection of the Seal.

Plate, angle, or other shapes, attached to channels (or angles) for blocking

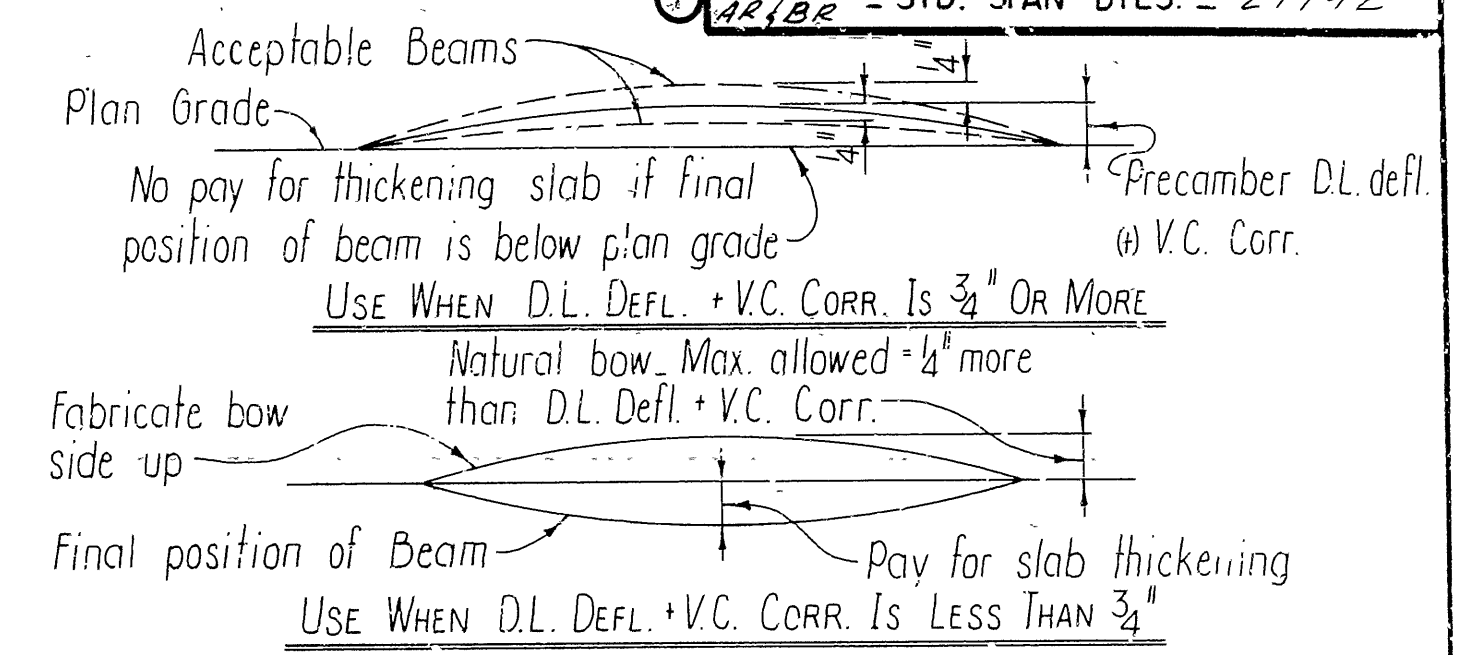


Note: Blocking detail shown for joint at Int. Bent. Joint at End Bent is similar.

DETAILS FOR BLOCKING EXPANSION JOINT DEVICE

Scale: 3/16" = 1"

Note: Each expansion joint device shall be blocked in the shop by the fabricator to the dimension "A", and the blocking details shall be shown on the Shop Drawings. The blocking shall not be removed until pouring of the Slab on one side is complete. Removal shall be just before or after pouring the second side of the joint, as directed by the Engineer.



CAMBER DIAGRAMS

No Scale

GENERAL NOTES

CONCRETE: ALL CONCRETE TO BE CLASS S OR SAE) AS SHOWN ON THE LAYOUT. ALL EXPOSED CORNERS TO BE CHAMFERED 3/4" UNLESS NOTED OTHERWISE.

CONCRETE SLABS FOR SPANS THRU 50 FEET IN LENGTH SHALL BE POURED IN ONE CONTINUOUS OPERATION WITH A STRIKE OFF EXTENDING OVER THE WHOLE SPAN LENGTH. SPANS OVER 50 FEET IN LENGTH MAY BE POURED IN INCREMENTS WITH THE CENTER ONE-THIRD TO ONE-HALF SPAN LENGTH 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 OR CURB.

REINFORCING STEEL: ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615 OR A617, GRADE 60. THE REINFORCING STEEL IS TO BE ACCURATELY LOCATED IN THE FORMS AND FIRMLY HELD IN PLACE BY STEEL WIRE 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 "REINFORCING STEEL." SHOP LISTS AND BENDING DIAGRAMS OF REINFORCING STEEL, INCLUDING WIRE SUPPORTS, MAY BE SUBMITTED FOR APPROVAL BEFORE FABRICATION IS BEGUN.

STRUCTURAL STEEL: ALL STRUCTURAL STEEL SHALL BE ASTM A36 UNLESS OTHERWISE NOTED.

ALL FIELD CONNECTIONS TO BE BOLTED WITH HIGH STRENGTH BOLTS.

ALL BOLTS TO BE 3/4" Ø, WITH 13/16" Ø OPEN HOLES, UNLESS OTHERWISE NOTED.

HOLES FOR 3/4" Ø BOLTS FOR CONNECTION OF EXPANSION DEVICES, DIAPHRAGMS, AND END STRUTS MAY BE 15/16" Ø IF A WASHER IS SUPPLIED FOR USE UNDER BOTH THE NUT AND THE HEAD OF THE BOLT.

STRUCTURAL SHAPES OF EQUAL OR GREATER STRENGTH MAY BE SUBSTITUTED FOR SHAPES SHOWN, BUT PAYMENT WILL BE MADE ON THE BASIS OF SHAPES SHOWN.

UNLESS OTHERWISE NOTED ON SPAN DETAIL DRAWINGS, ALL NEW STR. STEEL, EXCEPT SURFACES IN CONTACT WITH CONCRETE, SHALL BE GIVEN ONE SHOP COAT AND TWO FIELD COATS IN ACCORDANCE WITH SECTION 807.59 OF THE SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

ALL METAL BEARING AND ROADWAY EXPANSION DEVICES TO BE PAID FOR AS "STRUCTURAL STEEL IN BEAM SPANS." BEARINGS SHALL BE FINALLY SEATED IN ACCORDANCE WITH SECTION 807.51 OF THE SPECIFICATIONS. THIS WORK AND MATERIAL ARE TO BE CONSIDERED AS SUBSIDIARY TO THE ITEM "STRUCTURAL STEEL IN BEAM SPANS" AND WILL NOT BE PAID FOR DIRECTLY.

ALL WELDED CONNECTIONS TO BE 5/16" FILLET SHOP WELDS UNLESS NOTED OTHERWISE. ALL WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY STANDARD SPECIFICATIONS FOR WELDED HIGHWAY AND RAILWAY BRIDGES, CURRENT EDITION.

ANCHOR BOLTS SHALL BE GALVANIZED TO CONFORM TO ASTM SPECIFICATIONS, DESIGNATION A153.

ALL CASTINGS FOR SHOES SHALL BE ASTM A27, GRADE 70-40 OR 70-36.

WELDED SHOES MAY BE USED IN PLACE OF THE TYPE "D" SHOES SHOWN. APPROVED DETAILS WILL BE FURNISHED ON REQUEST.

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1978 WITH APPLICABLE SPECIAL PROVISIONS.

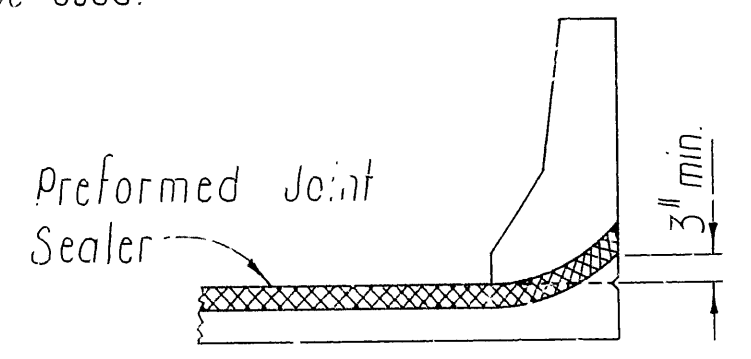
THIS DRAWING SHOWS GENERAL FEATURES OF DESIGN ONLY. SHOP DRAWINGS SHALL BE MADE IN ACCORDANCE WITH THE SPECIFICATIONS, SUBMITTED AND APPROVAL SECURED BEFORE FABRICATION IS BEGUN.

FOR PAINTING EXISTING STRUCTURAL STEEL SEE JOB SP "PAINTING EXISTING STRUCTURAL STEEL".

JOINT SEAL DATA

"A" (Joint Width Perpendicular to Joint @ 60° F)*	"B"	"C" (Uncompressed Seal Width)
1"	1 1/4" ±	1 5/8" **
1 1/8"	1 7/8" ±	1 3/4"
1 5/8"	2 1/8" ±	2 1/2"
1 7/8"	2 1/4" ±	3"
2 1/4"	2 3/8" ±	3 1/2"
2 5/8"	2 5/8" ±	4"

\* Installation is limited to 40° F. min. and 80° F. max.  
\*\* 1 1/4" Seal may be used.



JOINT SEAL PLACEMENT AT CURB

Scale: 1/2" = 1'-0"

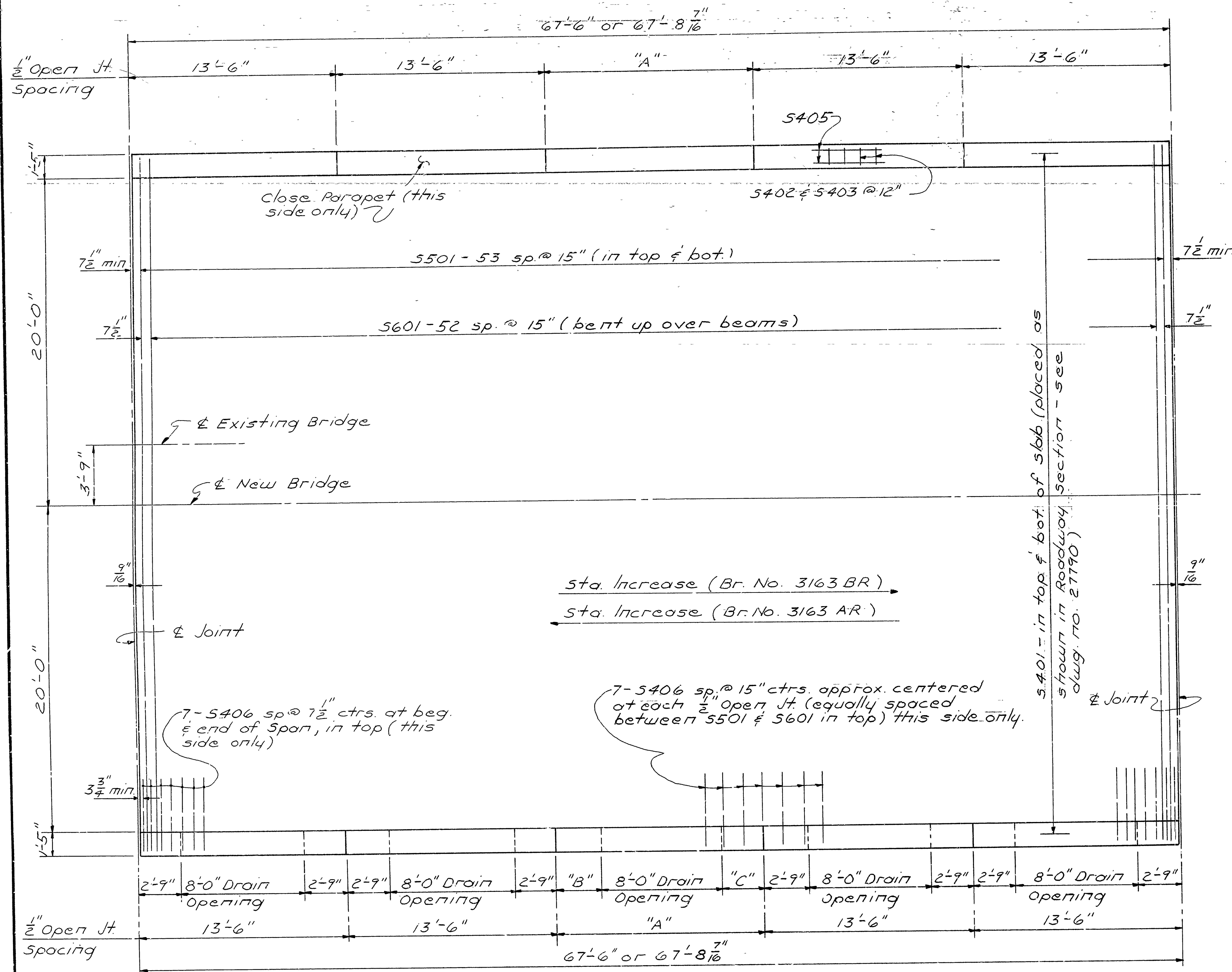
SHEET 3 OF 3  
DETAILS COMMON TO  
COMPOSITE W-BEAM SPANS  
SOUTH BLYTHEVILLE  
BURLINGTON NORTHERN R.R. OVERPASS  
MISSISSIPPI COUNTY  
ROUTE 1-55 SEC. 12  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

ALTERED BY: J.P.S. DATE: 6-6-85  
CHECKED BY: B.A.H. DATE: 9-25-85  
DESIGNED BY: J.R.W. DATE: Feb-85  
BRIDGE NO. 3163 AR & BR  
DRAWING NO. 27792



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100133		47	80

Note:  $\frac{1}{2}$ " open joints shall stop 4" above top of slab.



\*\* Number Required includes epoxy-coated Bars.

BAR LIST PER SPAN

[illegible]

\* Bars in top mat shall be Epoxy Coated - see SP Job 100133 Epoxy Coated Reinforcing Steel.

## EPOXY COATED REINF. STEEL

MK.	No. Reg'd	
	67-6 <sup>11</sup> / <sub>16</sub> Span	67-8 <sup>7</sup> / <sub>16</sub> Span
5401	68	68
5406	42	42
5501	54	54
5601	53	53

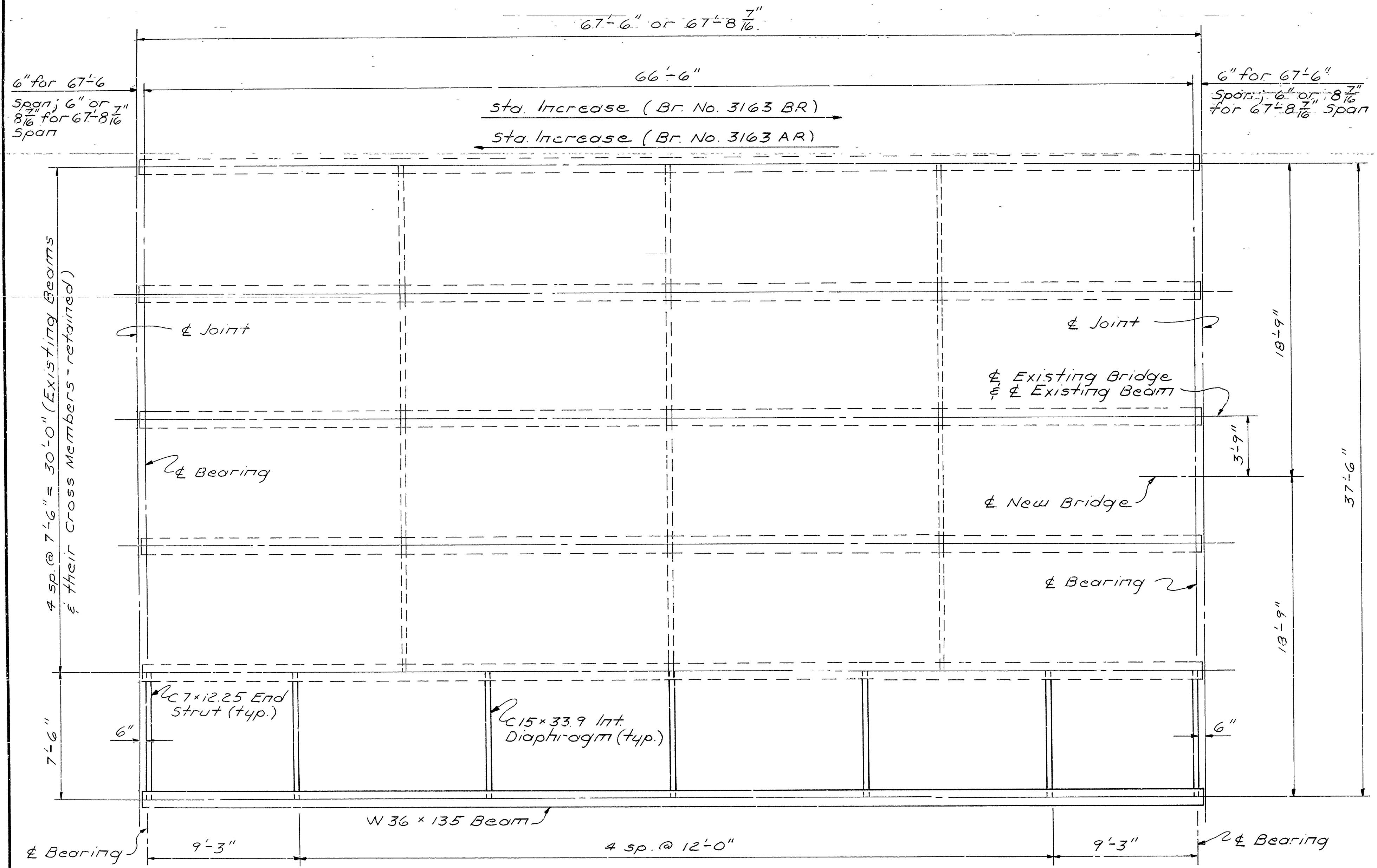
## TABLE OF VARIABLES

Spout	"A"	"B"	"C"
$67^{\circ} 6''$	$13^{\circ} 6''$	$2^{\circ} 9''$	$2^{\circ} 9''$
$67^{\circ} 8\frac{7}{16}''$	$13^{\circ} 8\frac{7}{16}''$	$2^{\circ} 10\frac{1}{4}''$	$2^{\circ} 10\frac{3}{16}''$

*Note: The Contractor may, at his option and at his own expense, substitute two straight #6 bars for each S601 trussed bar. Payment for reinforcing steel will be based on S601 bars. Bars in top mat shall be epoxy coated.*

SHEET 1 OF 2  
 DETAILS OF  
 67'-6" & 67'-8<sup>7/16</sup>"  
 COMPOSITE W-BEAM SPANS  
 SOUTH BLYTHEVILLE  
 BURLINGTON NORTHERN R.R. OVERPASS  
 MISSISSIPPI COUNTY  
 ROUTE 1-55 SEC. 12  
 ARKANSAS STATE HIGHWAY COMMISSION  
 LITTLE ROCK, ARK.  
 DRAWN BY: J.P.S. DATE: 6-5-85  
 CHECKED BY: R.B.B. DATE: 9-25-85 SCALE: as noted  
 DESIGNED BY: FRV DATE: Feb-85  
 BRIDGE NO. 3163AR & 3163BR DRAWING NO. 27793

DATE	DATE	DATE	DATE	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100133		48	80
					3163AR#BR	SPAN DTL'S 27794		



Note: 8 7/16" from  $\pm$  Jt to  $\pm$  Bearing is typ. only at End Bernts.

### NEW BEAM DEAD LOAD DEFLECTIONS

Point of Deflec.	Wt. of Beam	Wt. of Beam & Slab	Wt. of Beam, Slab & Parapet
1/4	3/16"	1/16"	1/8"
1/2	1/4"	1/2"	1 5/8"

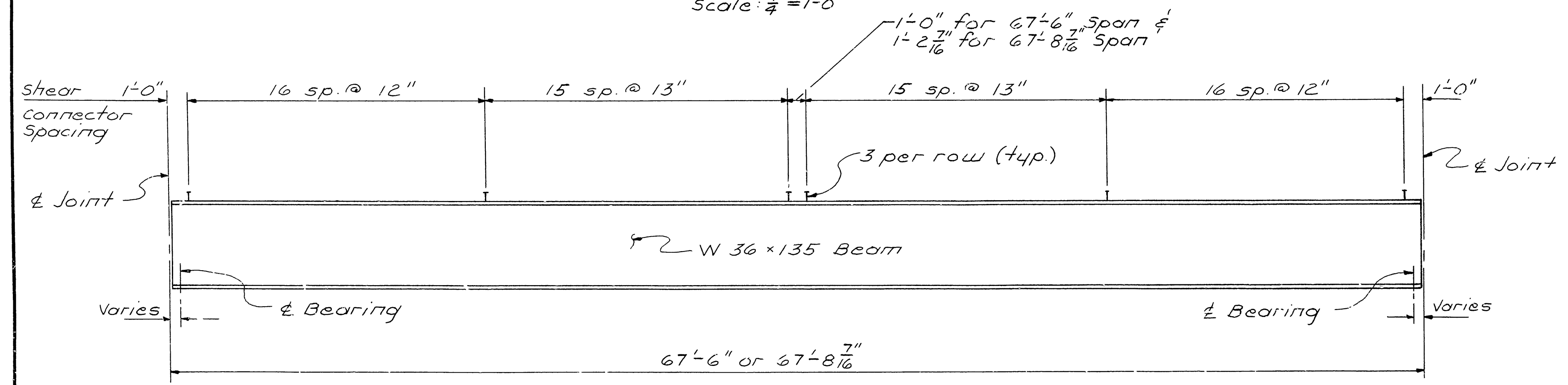
Note: Camber Diagrams for New Beam - see dwg. no. 27792.

### EXISTING BEAM DEAD LOAD DEFLECTIONS

Point of Deflec.	Wt. of Beam	Wt. of Beam & Slab	Wt. of Beam, Slab & Parapet
1/4	3/16"	7/8"	15/16"
1/2	1/4"	1 1/4"	1 3/8"

Note: Existing Beams fabricated level, adjust haunch for Dead Load Deflections and Vertical Curve Correction.

### FRAMING PLAN Scale: 1/4"=1'-0"



Note: All new shoes are Type D 1. For location of Fix & Exp. Shoes see Layout. For Shoe details see dwg. no. 27792.

SHEET 2 OF 2  
DETAILS OF  
67'-6" & 67'-8 7/16"  
COMPOSITE W-BEAM SPANS  
SOUTH BLYTHEVILLE  
BURLINGTON NORTHERN R.R. OVERPASS  
MISSISSIPPI COUNTY  
ROUTE 1-55 SEC. 12  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.  
DRAWN BY: J.P.S. DATE: 6-5-85  
CHECKED BY: P.A.B. DATE: 9-15-85  
DESIGNED BY: ARW DATE: Feb-86  
BRIDGE NO. 3163 AR & 3163 BR  
DRAWING NO. 27794  
SCALE: as noted



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100133	49	80	
3163 AR & BR SPAN DTL'S 27795								

\*\* Number Required includes epoxy coated Bars.

BAR LIST PER SPAN

MK.	No. Req'd	Length	Pin Dia.	Bending Diagrams
* 5401	46	21'-8"	str.	
5402	104	5'-6"	2"	
5403	104	6'-0"	2"	
5405	24	16'-7"	str.	
* 5409	36	24'-8"	str.	
* 5410	36	27'-9"	str.	
* 5411	36	30'-9"	str.	
* 5412	46	34'-7"	str.	
5413	78	11'-5"	str.	
* 5501	58	42'-6"	str.	
* 5601	28	43'-7"	3 3/4"	
* 5603 to 5647	2 ea.	40'-6" to 6'-6"	str.	
* 5648	14	5'-9"	str.	
* 5649	2	53'-10"	str.	

\* Bars in top mat shall be Epoxy Coated - see SP Job 100133 Epoxy Coated Reinforcing steel.

EPOXY COATED REINF. STEEL

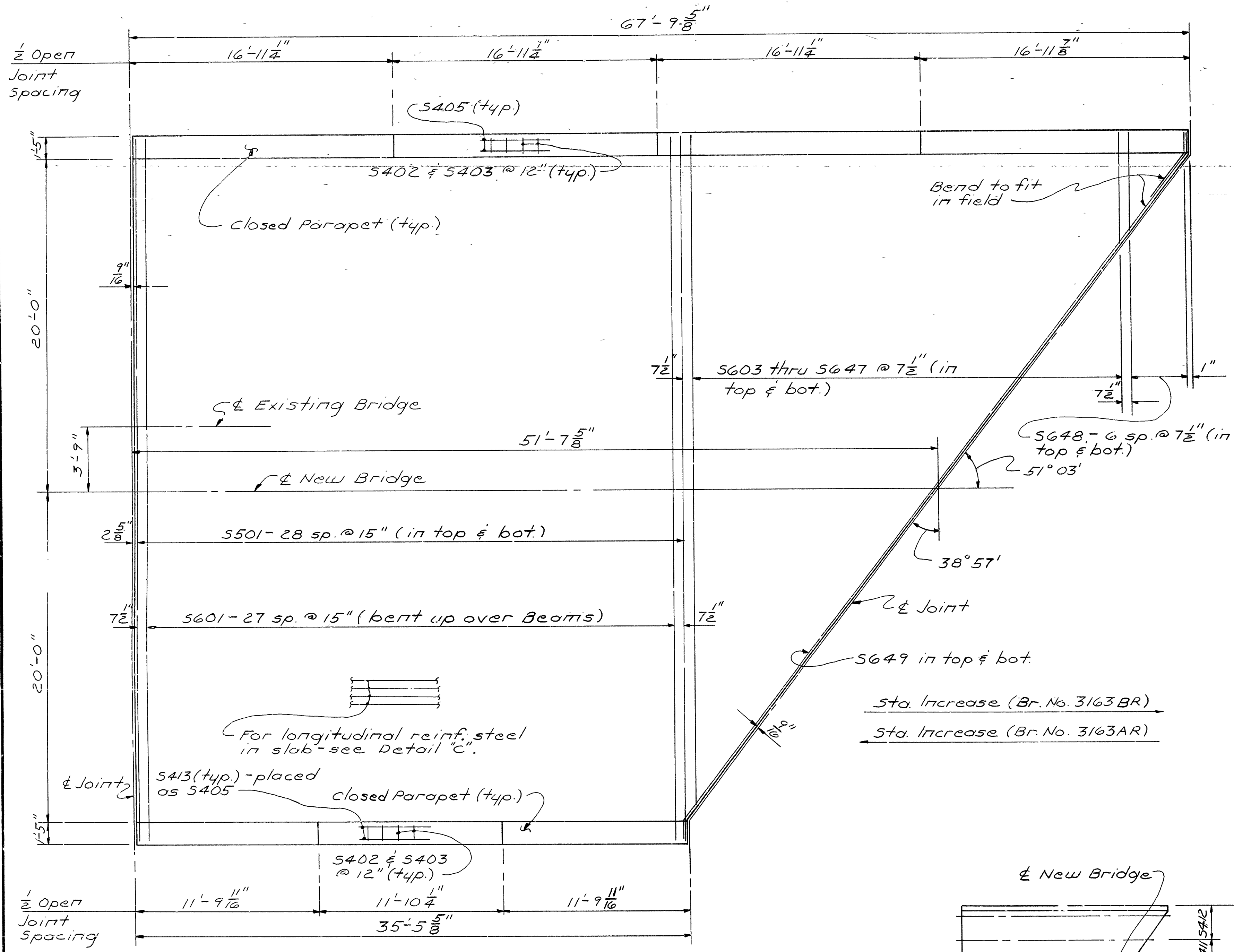
MK.	No. Req'd	MK.	No. Req'd
5401	16	5501	29
5409	12	5601	28
5410	12	5603 to 5647	45
5411	12		
5412	16	5648	7
		5649	1

SHEET 1 OF 2  
DETAILS OF  
51'-7 5/8"  
COMPOSITE W-BEAM SPANS  
SOUTH BLYTHEVILLE  
BURLINGTON NORTHERN R.R. OVERPASS  
MISSISSIPPI COUNTY  
ROUTE 1-55 SEC. 12  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: J.P.S. DATE: 5-20-85  
CHECKED BY: R.A.B. DATE: 9-25-85  
DESIGNED BY: ARV DATE: Feb-85  
BRIDGE NO. 3163AR 8  
DRAWING NO. 27795

BRIDGE ENGINEER

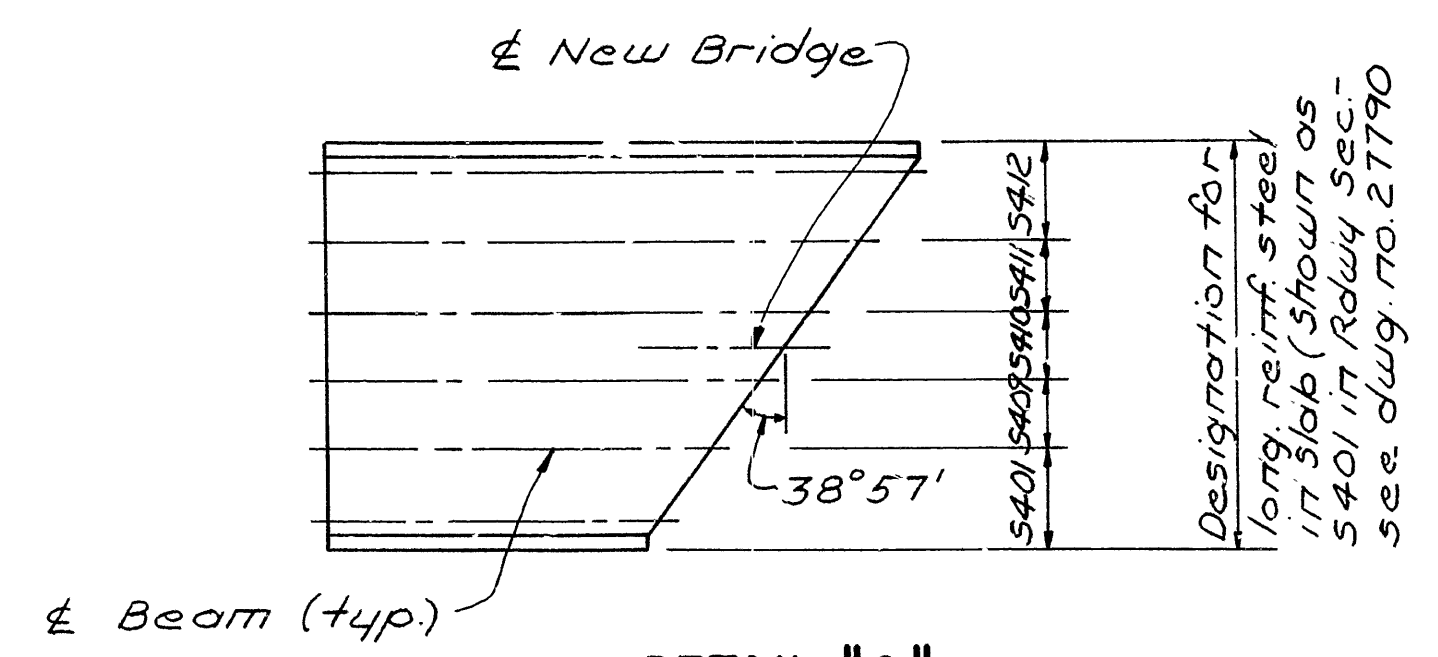
Note: 1/2" Open Joint shall stop 4" above top of slab.



REINFORCING PLAN

Scale: 1/4" = 1'-0"

Sta. Increase (Br. No. 3163 BR)  
Sta. Increase (Br. No. 3163 AR)

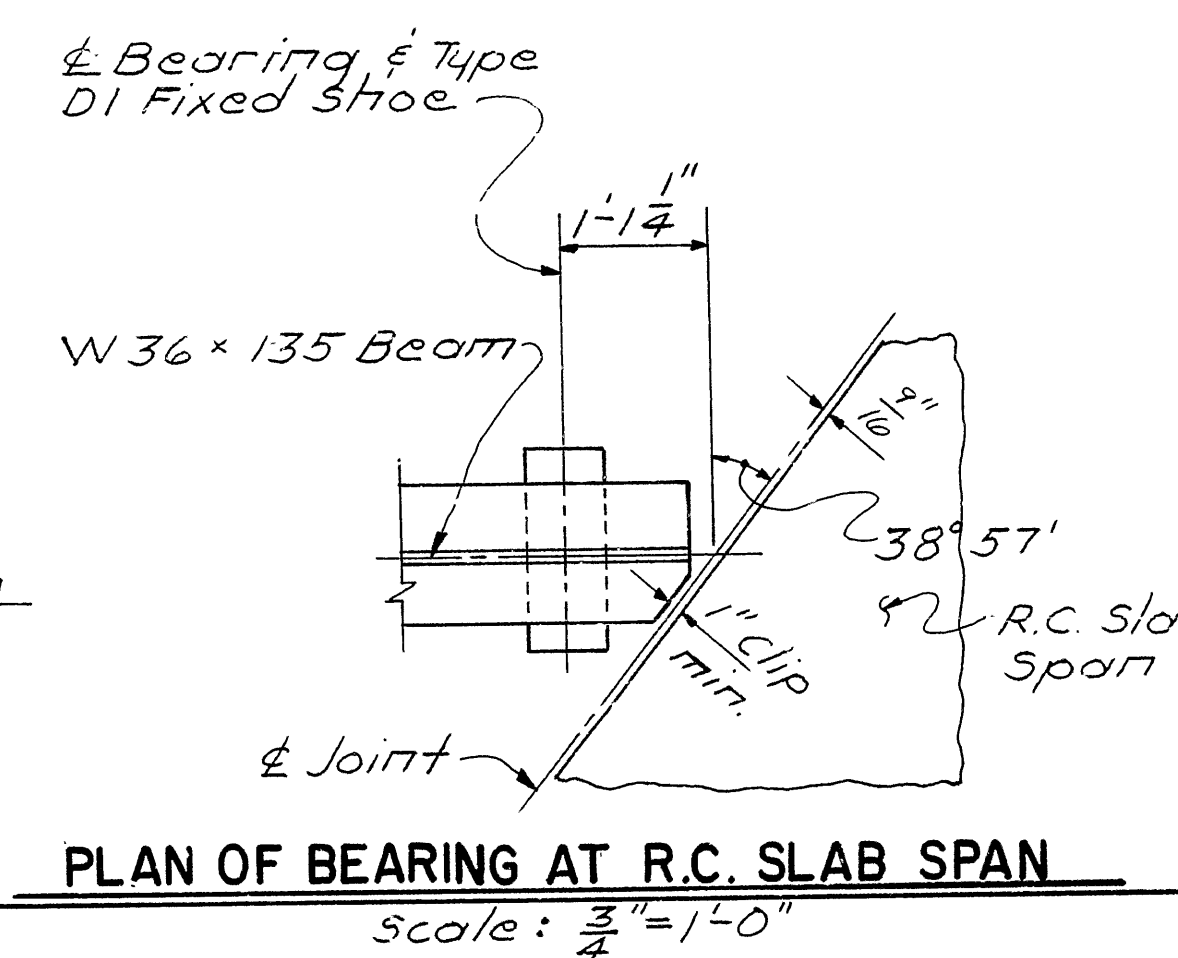
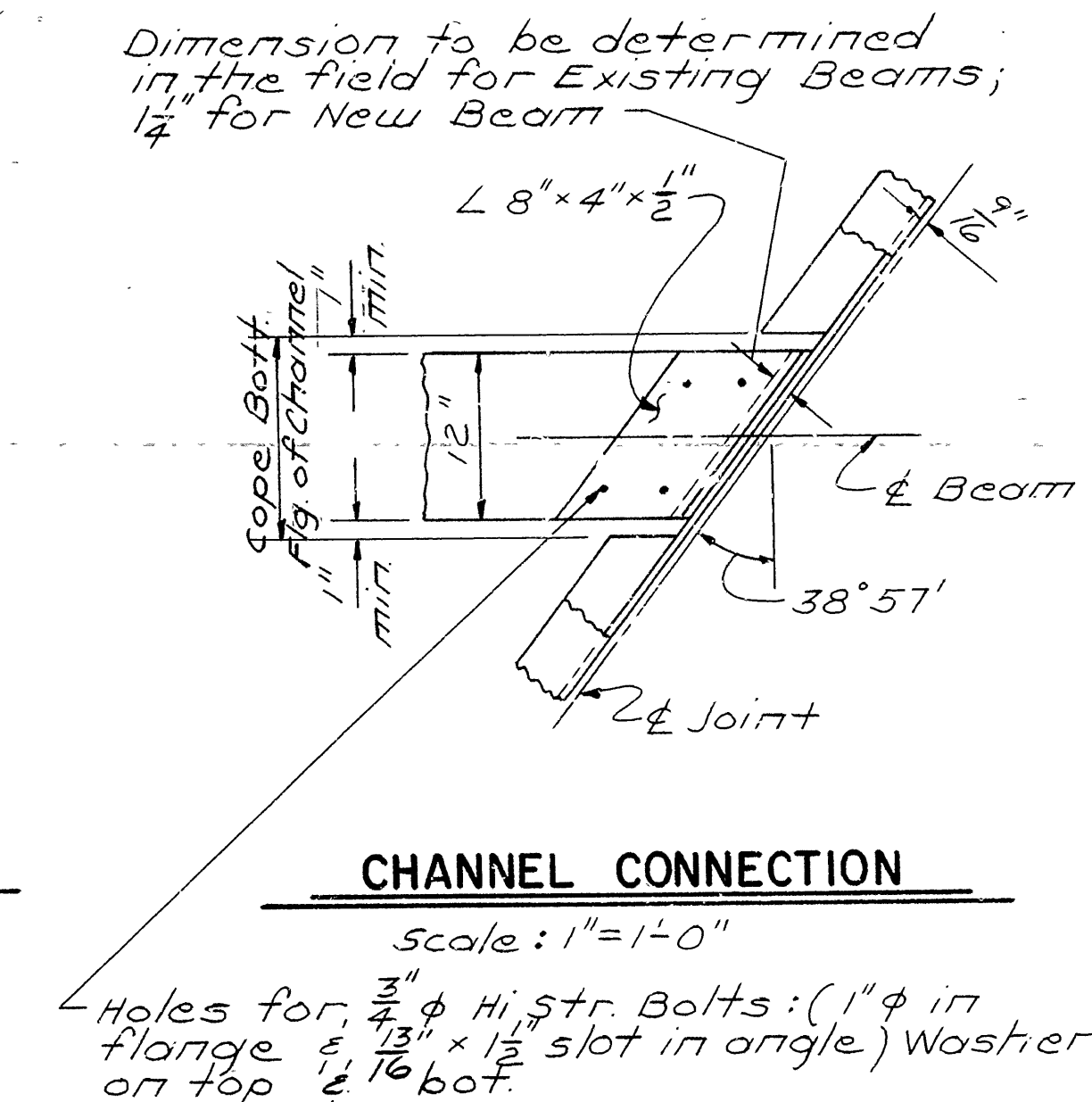
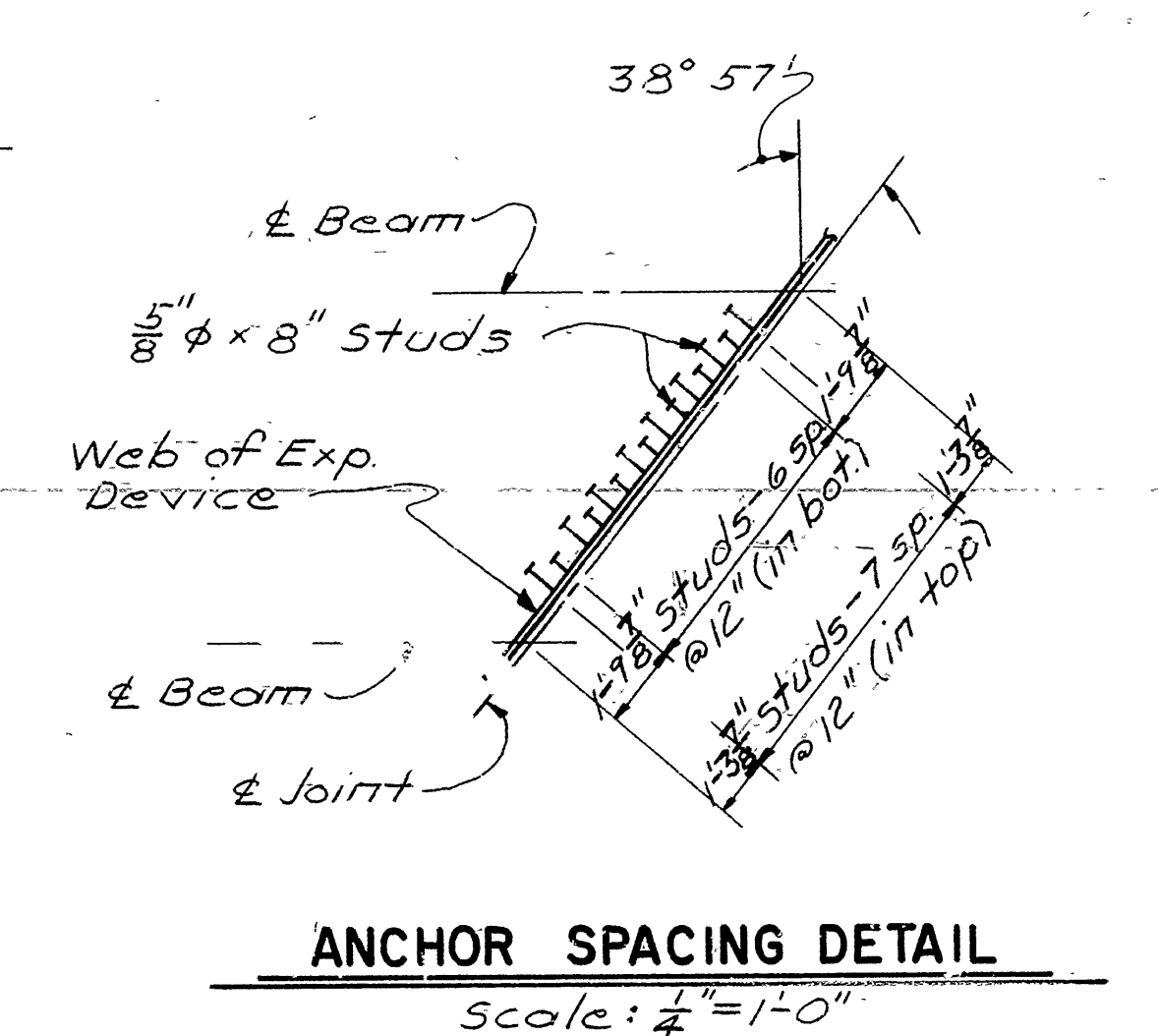
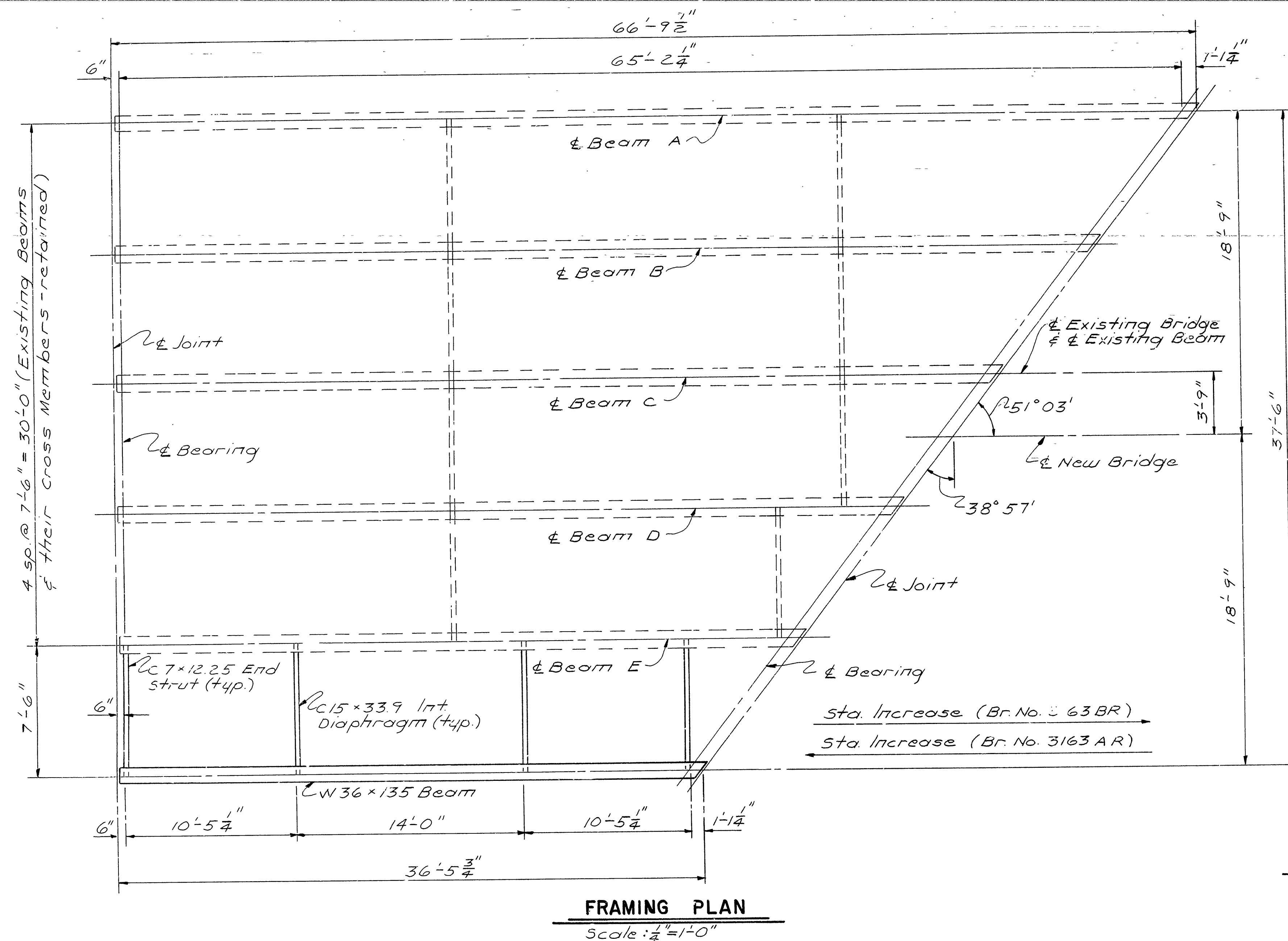


DETAIL "C"

Scale: 1" = 20"

Note: The Contractor may, at his option and at his own expense, substitute two straight #6 bars for each S601 trussed bar. Payment for reinforcing steel will be based on S601 bars. Bars in top mat shall be epoxy coated.

DATE RECEIVED	DATE FILED	DATE RECEIVED	DATE FILED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEET
				6	ARK			
				JOB NO.		100133	50	80



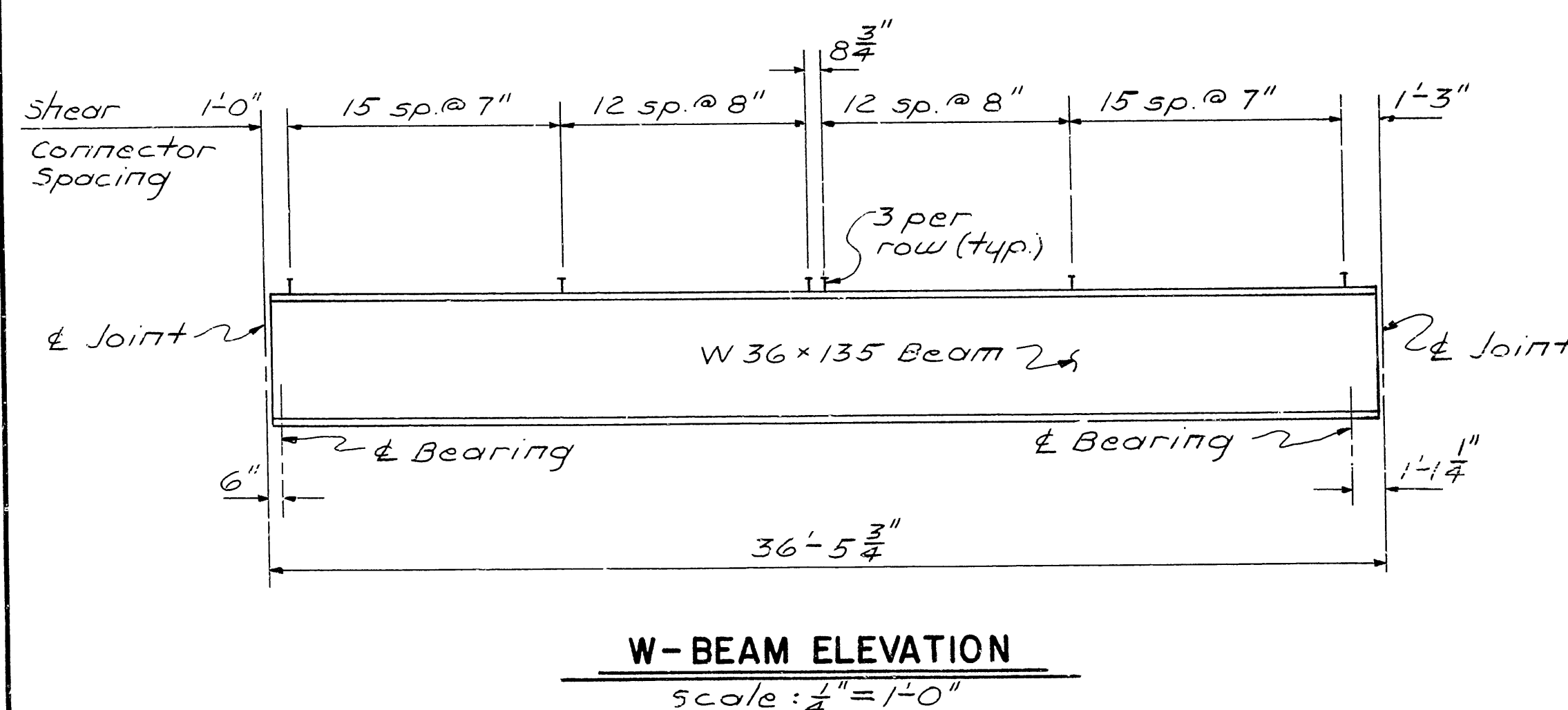
<div>NEW BEAM</div> <div>DEAD LOAD DEFLECTIONS</div>			
Point of Deflec.	Wt. of Beam	Wt. of Beam & Slab	Wt. of Beam, Slab & Parapet
$\frac{1}{4}$	0"	$\frac{1}{16}$	$\frac{1}{16}$
$\frac{1}{2}$	0"	$\frac{1}{8}$	$\frac{1}{8}$

Note: Camber Diagrams for New Beam - see dwg. no. 27792.

<div style="text-align: center;"> <u>EXISTING BEAM</u>  <u>DEAD LOAD DEFLECTIONS</u> </div>						
Beam	Wt of Beam		Wt. of Beam & Slab		Wt. of Beam Slab & Parapet	
	$\frac{1}{4}$ Point	$\frac{1}{2}$ Point	$\frac{1}{4}$ Point	$\frac{1}{2}$ Point	$\frac{1}{4}$ Point	$\frac{1}{2}$ Point
A	$\frac{3}{16}$ "	$\frac{1}{4}$ "	$\frac{3}{4}$ "	$\frac{11}{16}$ "	$\frac{13}{16}$ "	$\frac{3}{16}$ "
B	$\frac{1}{8}$ "	$\frac{3}{16}$ "	$\frac{9}{16}$ "	$\frac{13}{16}$ "	$\frac{5}{8}$ "	$\frac{7}{8}$ "
C	$\frac{1}{16}$ "	$\frac{1}{8}$ "	$\frac{7}{16}$ "	$\frac{9}{16}$ "	$\frac{7}{16}$ "	$\frac{5}{8}$ "
D	$\frac{1}{16}$ "	$\frac{1}{16}$ "	$\frac{1}{4}$ "	$\frac{3}{8}$ "	$\frac{1}{4}$ "	$\frac{3}{8}$ "
E	0"	$\frac{1}{16}$ "	$\frac{1}{8}$ "	$\frac{3}{16}$ "	$\frac{3}{16}$ "	$\frac{1}{4}$ "

Note: Existing Beams fabricated level,  
adjust haunch for Dead Load Deflections  
and Vertical Curve Correction.

Note: All new shoes are Type D1.  
For location of Fix & Exp. Shoes  
see layout.  
For shoe details see dwg. no. 27792

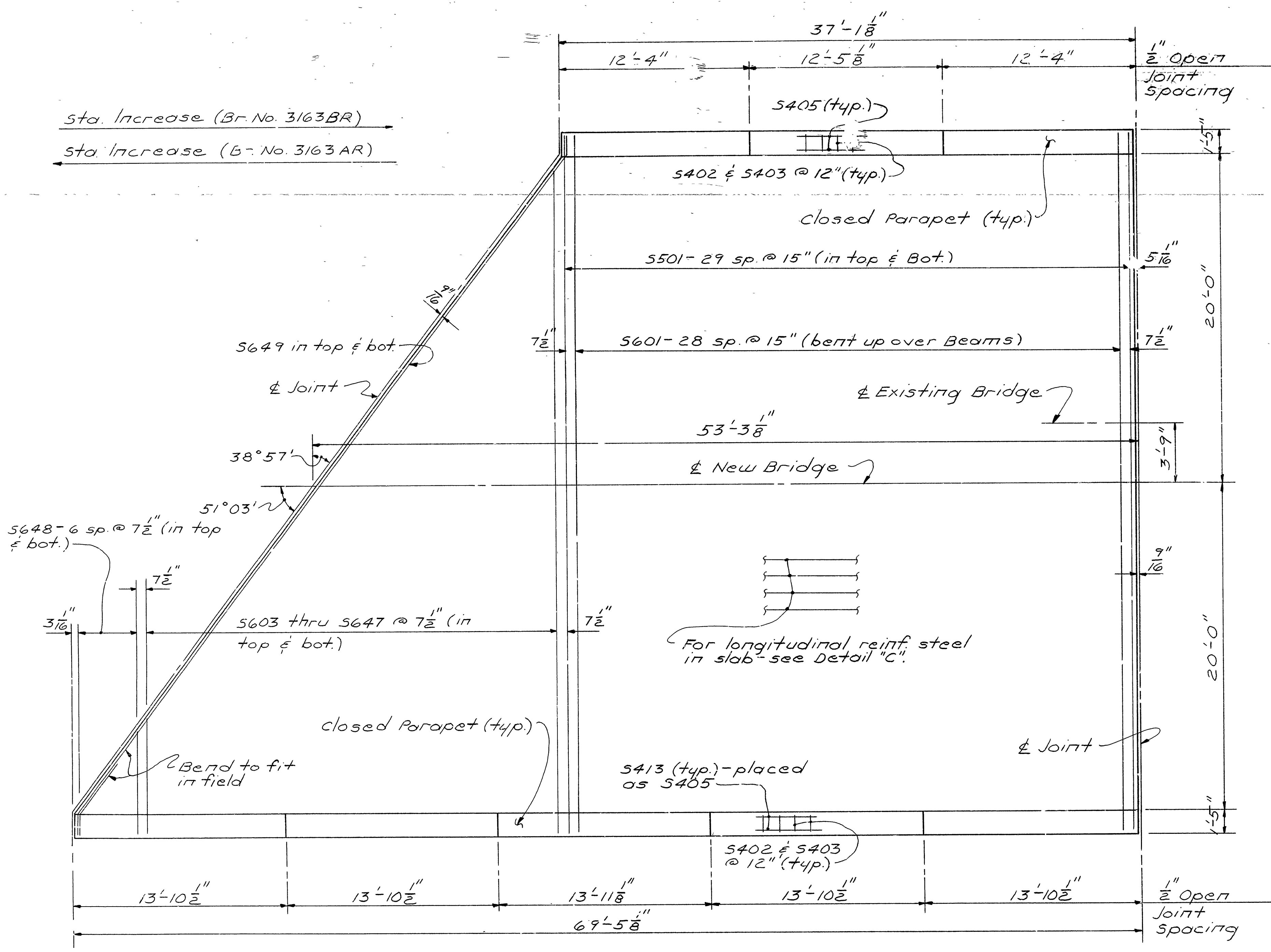


SHEET 2 OF 2  
DETAILS OF  
51'-7  $\frac{5}{8}$ "  
COMPOSITE W-BEAM SPANS  
SOUTH BLYTHEVILLE  
BURLINGTON NORTHERN R.R. OVERPASS  
MISSISSIPPI COUNTY  
ROUTE 1-55 SEC. 12  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.  
DRAWN BY: J.P.S. DATE: 5-24-85  
CHECKED BY: RJA DATE: 9-25-85  
DESIGNED BY: ARW DATE: Feb-85  
SCALE: as noted  
BRIDGE NO. 3163AR & 3163BR  
DRAWING NO. 27796



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100133	51	80	
				① 3163 AR & BR SPAN DTL'S. 27797				

Note: 1/2" open joint shall stop 4" above top of slab.



\*\* Number Required includes epoxy coated Bars.

BAR LIST PER SPAN

MK.	No. Req'd	Length	Pit Dia.	Bending Diagrams
* 5401	46	22'-6"	str.	
* 5402	109	5'-6"	2"	
* 5403	109	6'-0"	2"	
* 5405	18	12'-0"	str.	
* 5409	36	25'-6"	str.	
* 5410	36	28'-6"	str.	
* 5411	36	31'-7"	str.	
* 5412	46	35'-5"	str.	
* 5413	30	13'-6"	str.	
* 5501	60	42'-6"	str.	
* 5601	29	43'-7"	3 3/4"	
* 5603 to 5647	2 ea.	6'-9" to 40'-9"	str.	
* 5648	14	6'-0"	str.	
* 5649	2	53'-10"	str.	

EPOXY COATED REINF. STEEL

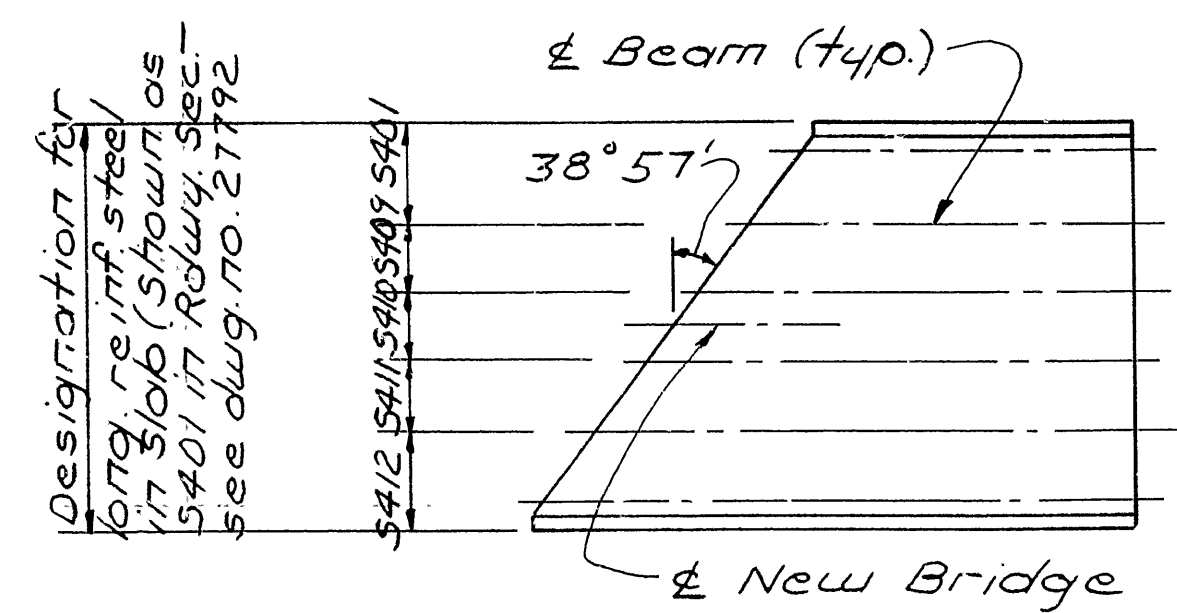
MK.	No. Req'd	MK.	No. Req'd
5401	16	5501	30
5409	12	5601	29
5410	12	5603 to 5647	45
5411	12		
5412	16	5648	7
		5649	1

\* Bars in top mat shall be Epoxy coated-see SP Job 100133 Epoxy Coated Reinforcing Steel.

REINFORCING PLAN

Scale: 1/4" = 1'-0"

Note: The Contractor may, at his option and at his own expense, substitute two straight #6 bars for each 5601 trussed bar. Payment for reinforcing steel will be based on 5601 bars. Bars in top mat shall be epoxy coated.



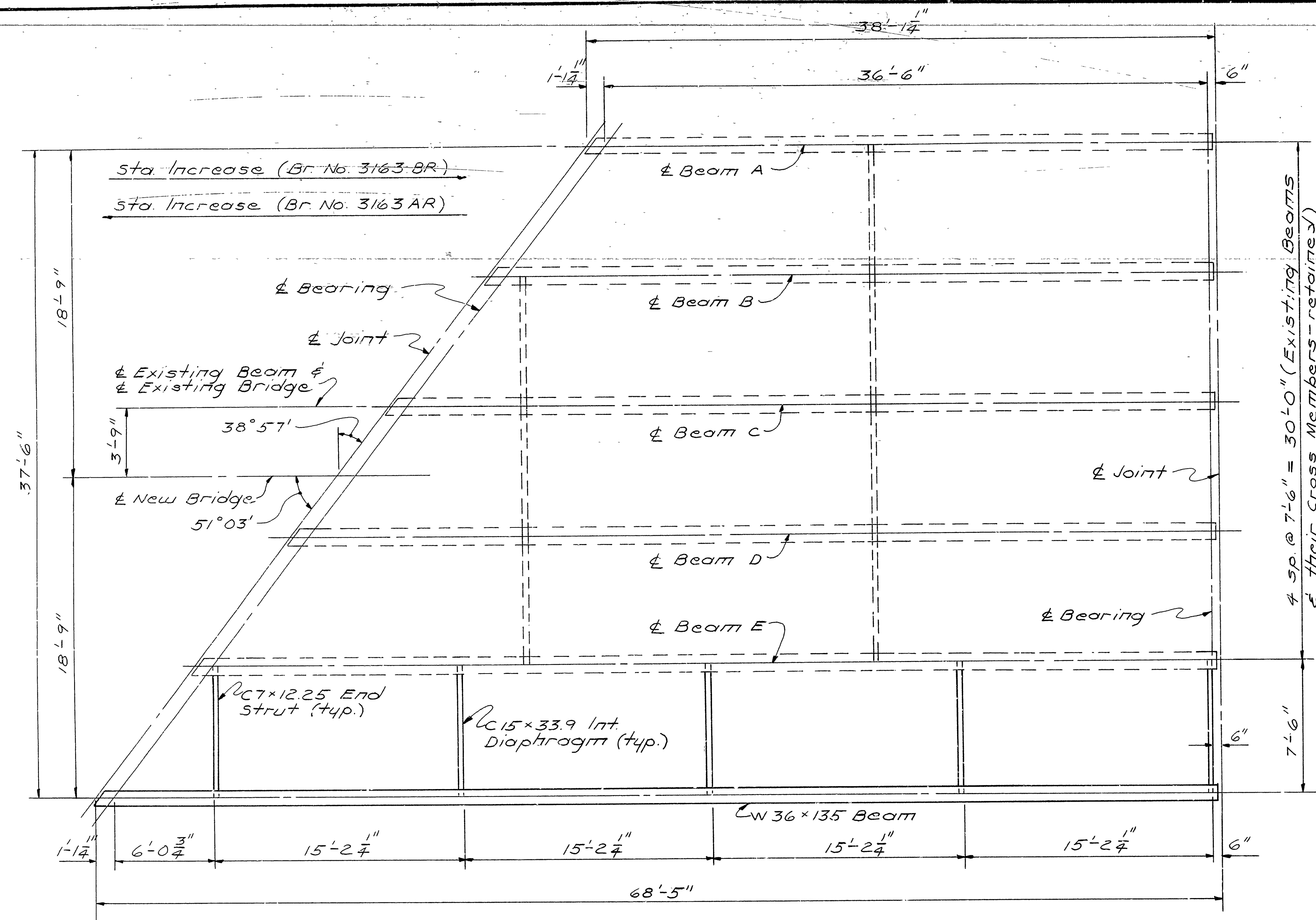
DETAIL "C"

Scale: 1" = 20'-0"

SHEET 1 OF 2  
DETAILS OF  
53'-3 1/8"  
COMPOSITE W-BEAM SPANS  
SOUTH BLYTHEVILLE  
BURLINGTON NORTHERN R.R. OVERPASS  
MISSISSIPPI COUNTY  
ROUTE 1-55 SEC. 12  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.  
DRAWN BY: J.P.S. DATE: 5-30-85  
CHECKED BY: B.A.B. DATE: 9-25-85 SCALE: as noted  
DESIGNED BY: ARW DATE: Feb-85  
BRIDGE NO. 3163AR & 3163BR DRAWING NO. 27797

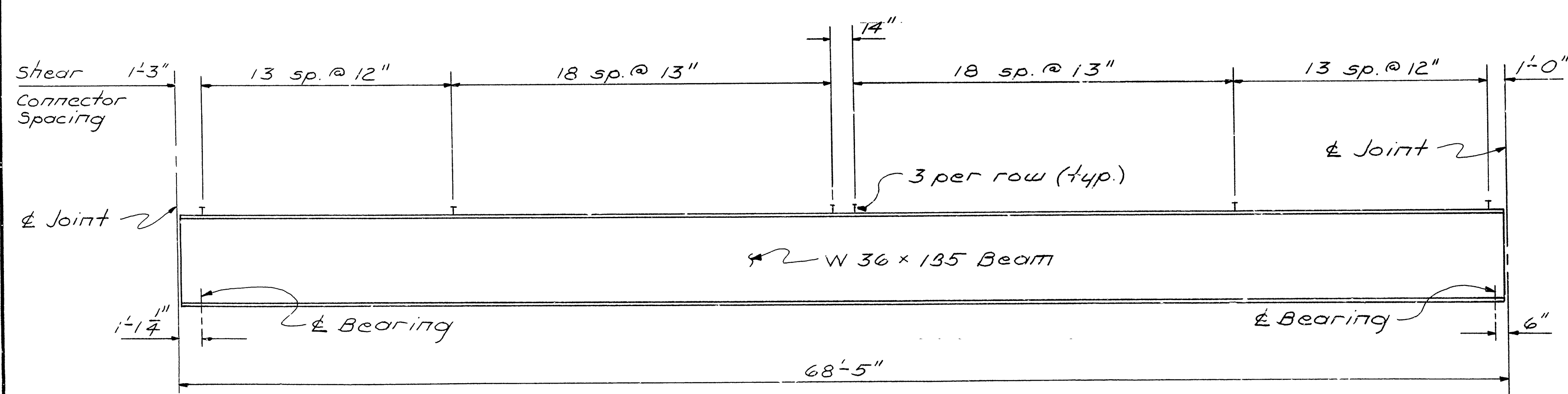
<b>PAGE REMOVED</b>	<b>PAGE FILMED</b>	<b>PAGE REMOVED</b>	<b>PAGE FILMED</b>	<b>FED. ROAD NO.</b>	<b>STATE</b>	<b>FED. AID PROJ. NO.</b>	<b>SHEET NO.</b>	<b>TOTAL SHEETS</b>
				<b>6</b>	<b>ARK.</b>			
				<b>JOB NO.</b>		<b>100133</b>	<b>52</b>	<b>80</b>

① 3163 AR- BR SPAN DTL'S 27198

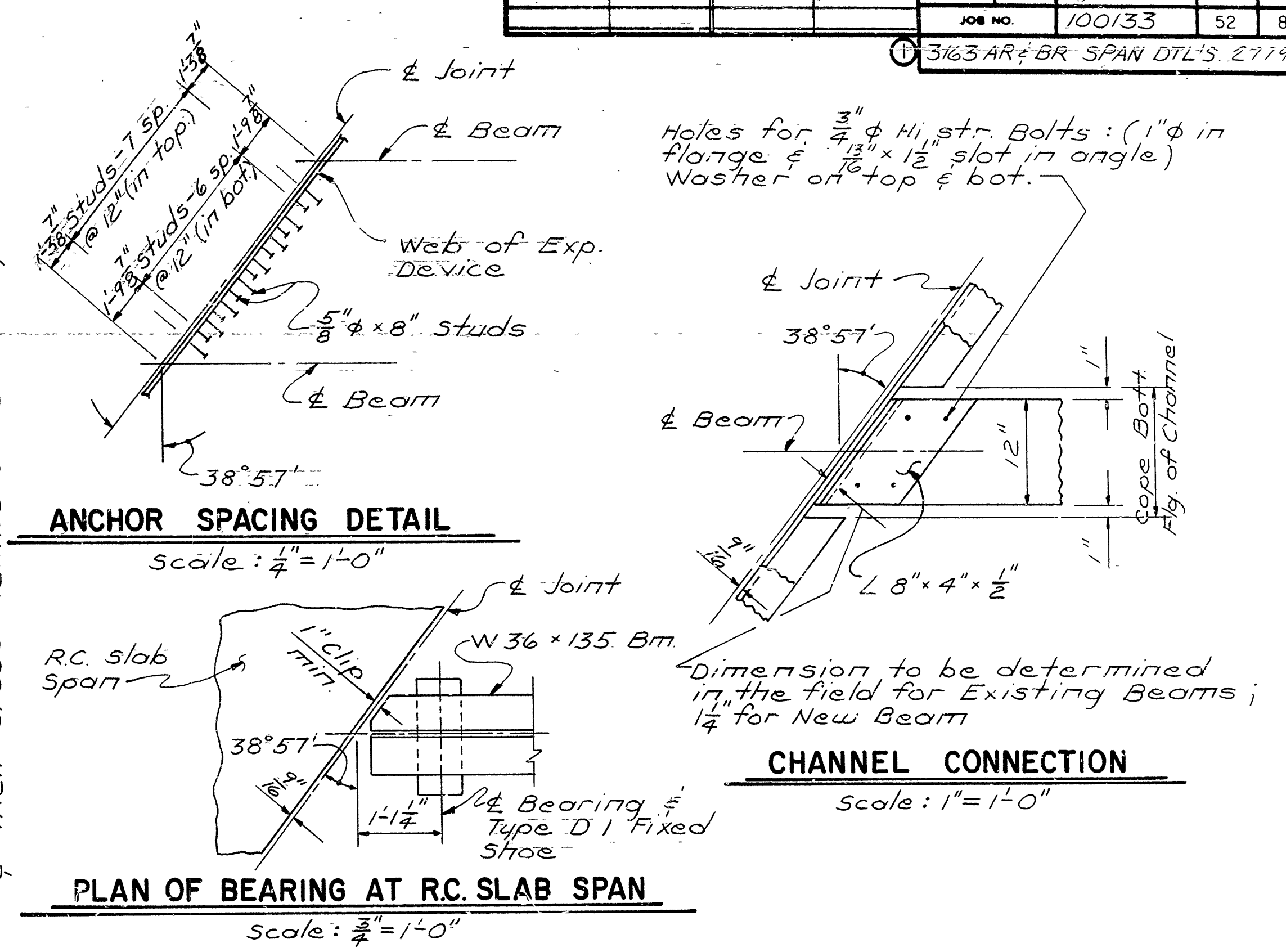


**FRAMING PLAN**  
Scale:  $\frac{1}{4}" = 1'-0"$

Note: All new shoes are Type D1.  
For location of Fix & Exp. Shoes  
see layout.  
For shoe details see dwg. no. 27792.



**W-BEAM ELEVATION**  
Scale:  $\frac{1}{4}" = 1'-0"$



**ANCHOR SPACING DETAIL**  
Scale:  $\frac{1}{4}" = 1'-0"$

**CHANNEL CONNECTION**  
Scale: 1" = 1'-0"

PLAN OF BEARING AT R.C. SLAB SPAN  
Scale:  $\frac{3}{4}'' = 1'-0''$

EXISTING BEAM  
DEAD LOAD DEFLECTIONS

Beam	Wt. of Beam		Wt. of Beam & Slab		Wt. of Beam, Slab & Parapet	
	$\frac{1}{4}$ Point	$\frac{1}{2}$ Point	$\frac{1}{4}$ Point	$\frac{1}{2}$ Point	$\frac{1}{4}$ Point	$\frac{1}{2}$ Point
A	0"	0"	$\frac{1}{16}$ "	$\frac{1}{8}$ "	$\frac{1}{16}$ "	$\frac{1}{8}$ "
B	$\frac{1}{16}$ "	$\frac{1}{16}$ "	$\frac{3}{16}$ "	$\frac{1}{4}$ "	$\frac{3}{16}$ "	$\frac{1}{4}$ "
C	$\frac{1}{16}$ "	$\frac{1}{16}$ "	$\frac{5}{16}$ "	$\frac{7}{16}$ "	$\frac{5}{16}$ "	$\frac{7}{16}$ "
D	$\frac{1}{16}$ "	$\frac{1}{8}$ "	$\frac{1}{2}$ "	$\frac{11}{16}$ "	$\frac{1}{2}$ "	$\frac{3}{4}$ "
E	$\frac{1}{8}$ "	$\frac{3}{16}$ "	$\frac{3}{4}$ "	1"	$\frac{13}{16}$ "	$1\frac{1}{8}$ "

Note: Existing Beams fabricated level,  
adjust haunch for Dead Load Deflections  
and Vertical curve Correction.

### NEW BEAM DEAD LOAD DEFLECTIONS

Point of Deflec.	Wt. of Beam	Wt. of Beam + Slab	Wt. of Beam, Slab & Parapet
$\frac{1}{4}$	$\frac{3}{16}$ "	$1\frac{1}{16}$ "	$1\frac{3}{16}$ "
$\frac{1}{2}$	$1\frac{5}{16}$ "	$1\frac{1}{2}$ "	$1\frac{5}{8}$ "

Note: Camber Diagrams for New Beam - see dwg. no. 27792

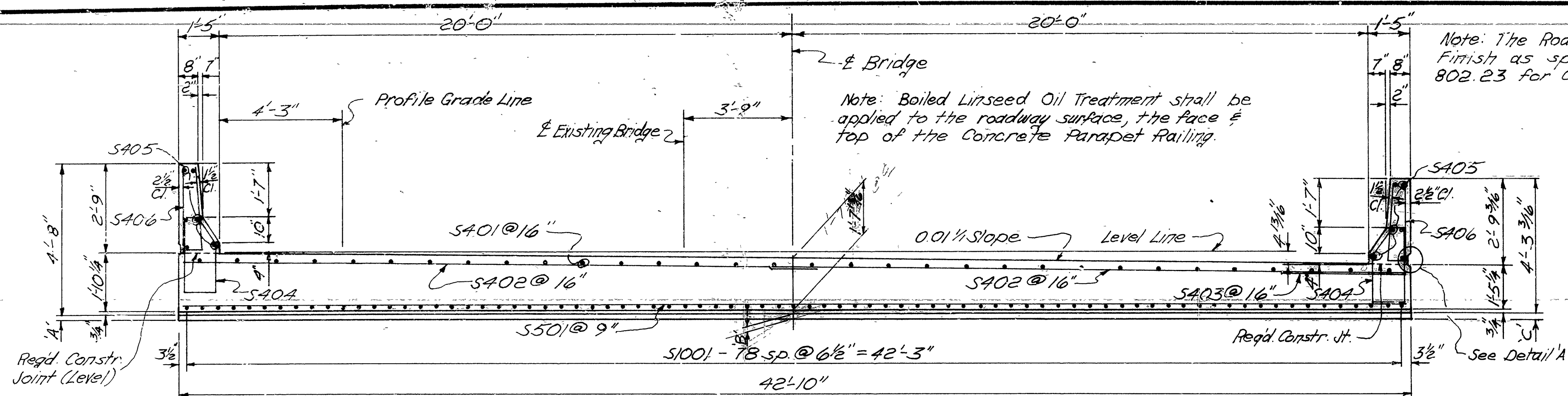
SHEET 2 OF 2  
DETAILS OF  
53'-3  $\frac{1}{8}$ "  
COMPOSITE W-BEAM SPANS  
SOUTH BLYTHEVILLE  
BURLINGTON NORTHERN R.R.OVERPASS  
MISSISSIPPI COUNTY  
ROUTE 1-55 SEC. 12  
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.  
DRAWN BY: J.P.S. DATE: 6-3-85  
CHECKED BY: B.H. DATE: 9-25-85 SCALE: as noted  
DESIGNED BY: ARW DATE: Feb-85  
BRIDGE NO. 3163 AR & 3163 BR DRAWING NO. 27798

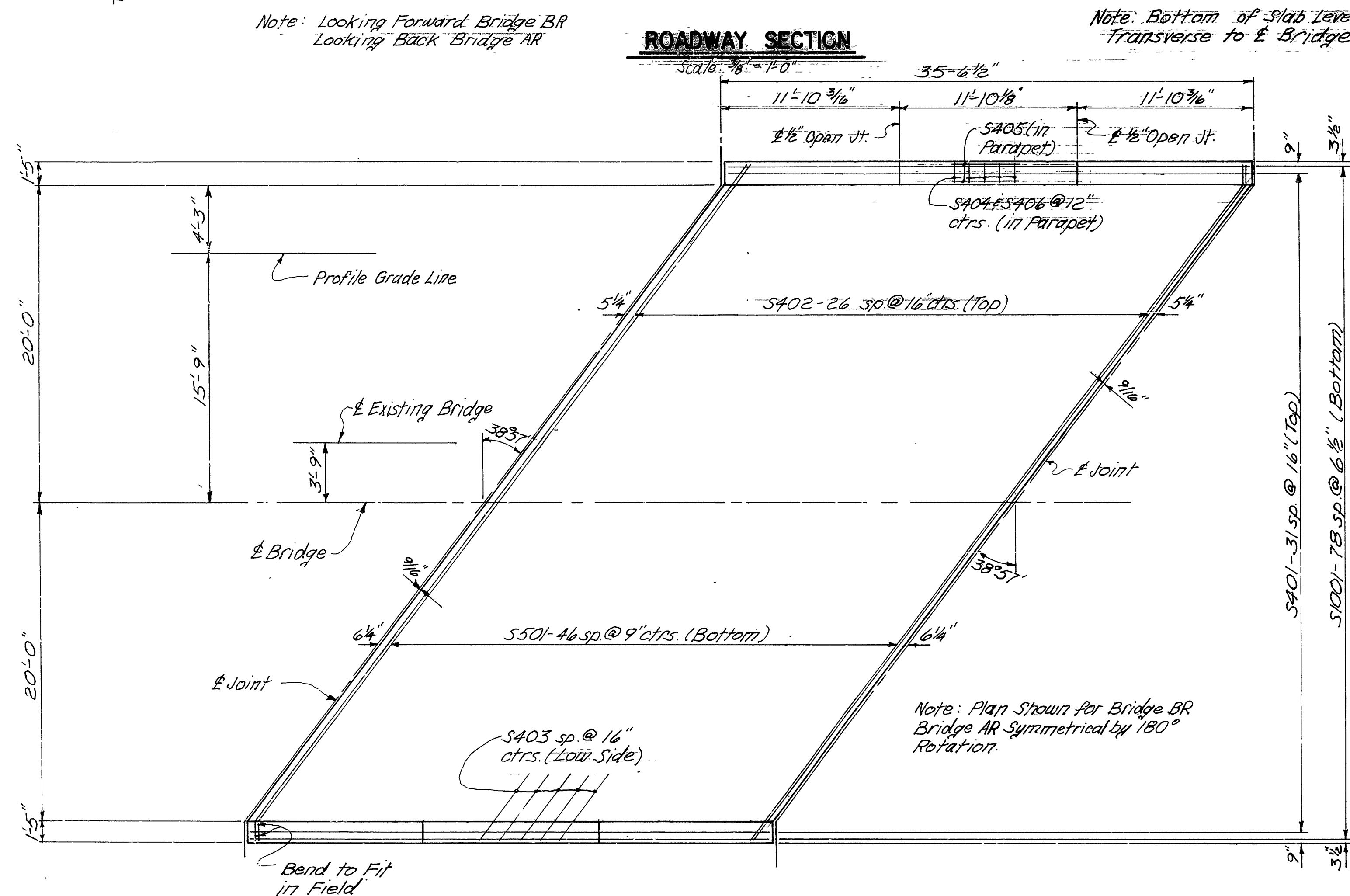


DATE MAILED	DATE FILED	DATE REMAILED	DATE F. FILED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
9-10-86	5-9-46-86			6	ARK.			
				JOB NO.	100133	53	80	

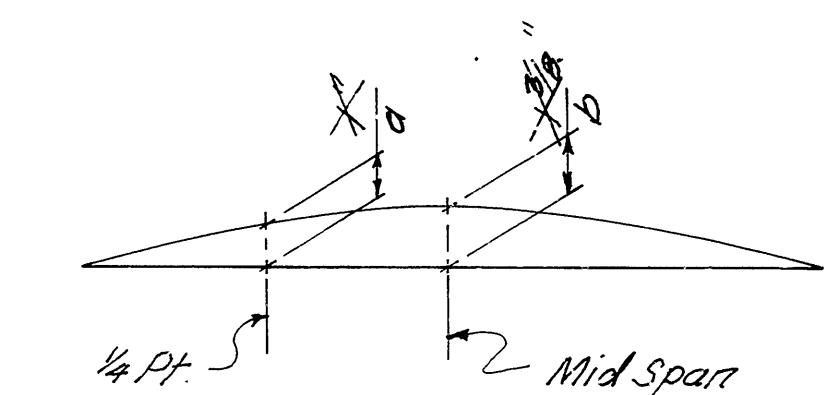
① 3163 AR 1 BR R.C. SLAB DTL'S 27799



## ROADWAY SECTION

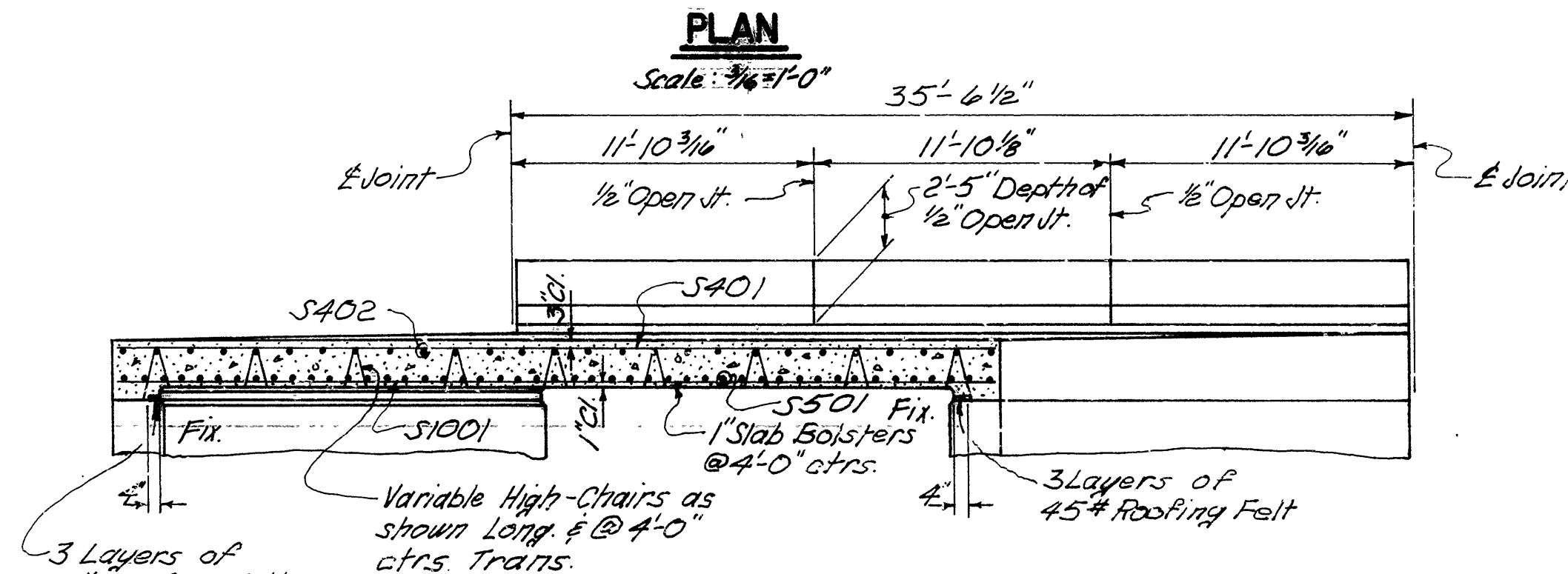


## PLAN

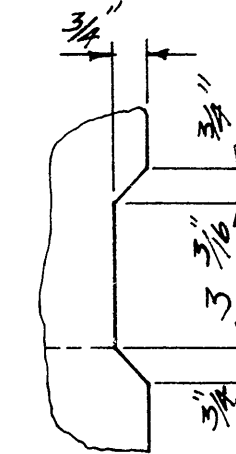


Variable	a	b
Immediate	1/8"	1/8"
Long Term	3/16"	5/16"
Total Deflection	5/16"	7/16"

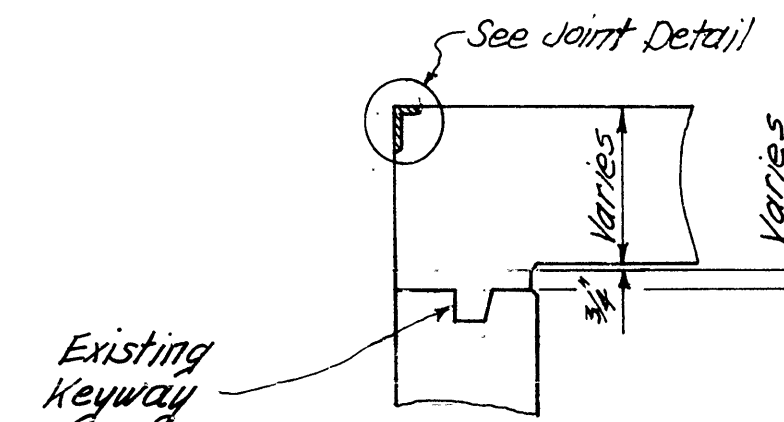
⚠ Revised Dead Load Deflections EJK-4-10-86



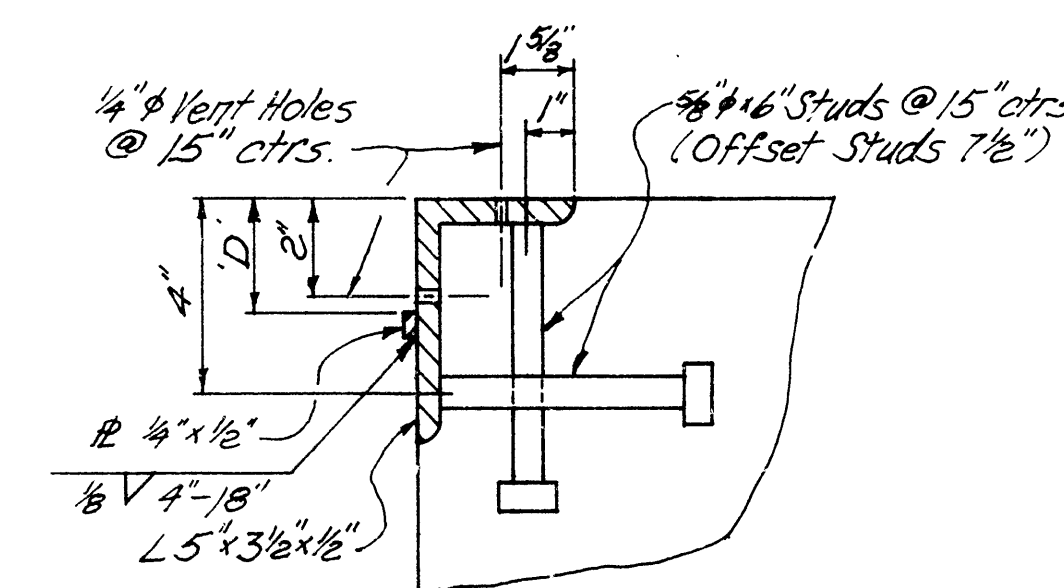
**LONGITUDINAL SECTION AT C BRIDGE**



DETAIL A



## RISER DETAIL



## JOINT DETAIL

## BAR LIST

Mark	No. Read	Length	Pin Dia.	Bending Diagrams
S401	32	34'-11"	Str.	
S402	54	28'-2"	Str.	
S403	26	4'-3"	Str.	
S404	72	7'-6"	2"	
S405	36	11'-6"	Str.	
S406	72	5'-6"	2"	
S501	47	54'-7"	Str.	
S1001	79	34'-11"	Str.	

Dimensions are out to out of bars.

\* These Bars to be Epoxy Coated - see SP Job 100133  
'Epoxy Coated Reinforcing Steel'

### TABLE OF VARIABLES

Bridge No.	Bent No.	A	B	C
3163 AR	8	1 1/4"	1 3/8"	1"
	9	1 1/4"	1 1/8"	1"
3163 BR	7	1 3/4"	1 1/8"	
	8	1 1/4"	1 1/8"	1"

## GENERAL NOTES

ALL CONCRETE TO BE CLASS S(AE). EXPOSED CORNERS TO BE CHAMFERED  
3/4" UNLESS OTHERWISE NOTED.

REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 OR A617, GRADE 60. BAR SUPPORTS FOR REINFORCING BARS WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED SUBSIDIARY TO THE ITEM "REINFORCING STEEL."

STRUCTURAL STEEL SHALL BE A36 AND SHALL BE MEASURED AND PAID FOR AS  
"STRUCTURAL STEEL IN BEAM SPANS A572-50."

ROOFING FELT SHALL BE MEASURED AND PAID FOR AS CLASS S(AE) CONCRETE.

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1978 AND APPLICABLE SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO 1983 WITH CURRENT INTERIMS.

DESIGN LIVE LOADING: HS 20-44 AND MILITARY LOADING

LOAD DISTRIBUTION TO SLAB: DEAD LOAD 254 PSF\*; LIVE LOAD -0.164  
WHEELS/FT. OF WIDTH PLUS 30% IMPACT.

UNIT STRESSES: COMPRESSIVE STRENGTH OF CLASS S(AE) CONCRETE =  
3500 PSI, YIELD STRENGTH OF REINFORCEMENT = 60,000 PSI.

LOAD FACTOR USED FOR DESIGN OF SLAB.

\*INCLUDES 20 PSF FUTURE WEARING SURFACE.

DETAILS OF  
R.C. SLAB SPAN  
SOUTH BLYTHEVILLE  
BURLINGTON NORTHERN R.R. OVERPASS  
MISSISSIPPI COUNTY  
ROUTE 1-55 SEC. 12  
ARKANSAS STATE HIGHWAY COMMISSION

**LITTLE ROCK, ARK.**

DRAWN BY: ARW DATE: 9-20-85  
CHECKED BY: GEC DATE: 9-30-85  
DESIGNED BY: ARW DATE: April-85

SCALE: As Noted

**BRIDGE NO. 3163 AR**  
**3163 BR**

**DRAWING NO. 27799**