

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
				6	ARK.	1430-2	1980	48	215
JOB NO. 6848									

① 5504 Layout 17935

GENERAL NOTES

BENCH MARK - NAIL IN SIDE POWER POLE - 173' LT. STATION 29+89 (RAMP A), ELEV. 348.01.

SPREAD FOOTINGS SHALL BE SET A MINIMUM OF 1'-6" INTO SHALE. ROCK EXCAVATIONS SHALL BE MADE TO NEAT LINES OF CONCRETE FOOTINGS. CARE SHALL BE EXERCISED TO AVOID SHATTERING OF ROCK FACES BY EXCESSIVE BLASTING. CONCRETE IN FOOTINGS SHALL BE POURED DIRECTLY AGAINST EXCAVATED SURFACES OF ROCK.

ALL CONCRETE SHALL BE POURED IN THE DRY.

ALL PILING SHALL BE HPI0X42 AND SHALL BE DRIVEN WITH AN APPROVED AIR, STEAM, OR DIESEL HAMMER WITH A MINIMUM ENERGY OF 10,000 FOOT POUNDS PER BLOW TO A MINIMUM BEARING CAPACITY OF 55 TONS PER PILE AND INTO THE MATERIAL DESIGNATED AS BLUE OR BROWN SHALE ON THE BORING LOGS. LENGTHS OF PILE SHOWN ARE FOR ESTIMATING QUANTITIES ONLY. ORDER LENGTHS SHOWN; CUT-OFF OR BUILD-UP, IF NECESSARY, TO BE PAID FOR IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

PILES IN END BENT TO BE DRIVEN AFTER EMBANKMENT TO SUBGRADE IS IN PLACE.

FOR DETAILS OF END BENTS, SEE DWG. NO. 17936 & 17937.
FOR DETAILS OF INTERMEDIATE BENTS, SEE DWG. NO. 17938, 17939 & 17940.
FOR DETAILS OF SUPERSTRUCTURE, SEE DWG. NO. 17941 THRU 17946.

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1972, AND APPLICABLE SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO 1969

LIVE LOADING: HS20 AND SPECIAL INTERSTATE LOADING OF TWO 24,000# AXLES SPACED AT 4'-0" ON CENTERS.

UNIT STRESSES: CLASS S OR S(AE) CONCRETE (N=10) 1,200 PSI
REINFORCING STEEL 20,000 PSI
STRUCTURAL STEEL (A36) 20,000 PSI
STRUCTURAL STEEL (A572 - GRADE 50) 27,000 PSI

FOUNDATION PRESSURE:

GROUP	MAXIMUM	MINIMUM
GROUP I	8.05 KSF	8.05 KSF
GROUP II	11.92 KSF	0 KSF
GROUP III	11.76 KSF	4.34 KSF

VERTICAL CURVE DATA

P.C. CURVE "G-3"
STA. 21+60.41

HOR. CURVE DATA

CURVE "G-3" (RAMP A)
P.I. 23+31.67
Δ 17°00'00" Rt.
D 5°00'
R 1145.92'
L 340.00'
T 171.26'
P.C. 21+60.41
P.T. 25+00.41

CURVE "D-1" (RAMP D)

P.I. 34+95.70
Δ 87°54'30" Rt.
I 7°00'
R 818.51'
L 1255.76'
T 787.16'
P.C. 27+06.54
P.T. 39+62.50

PLAN

NOTE: CENTERLINE OF ROADWAY IS ON A 5°00' CURVE. SEE CURVE "G-3".
LONGITUDINAL LINES SHALL BE CONSTRUCTED ON CURVES CONCENTRIC WITH CENTERLINE.

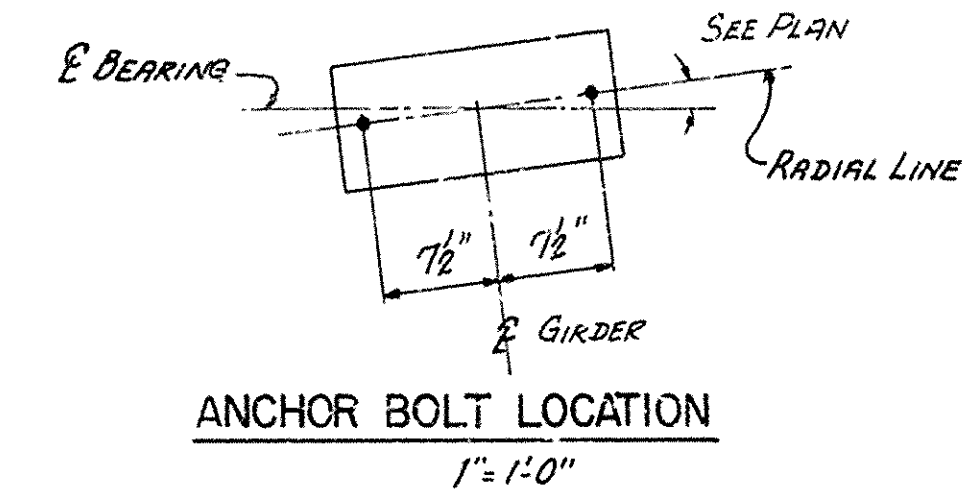
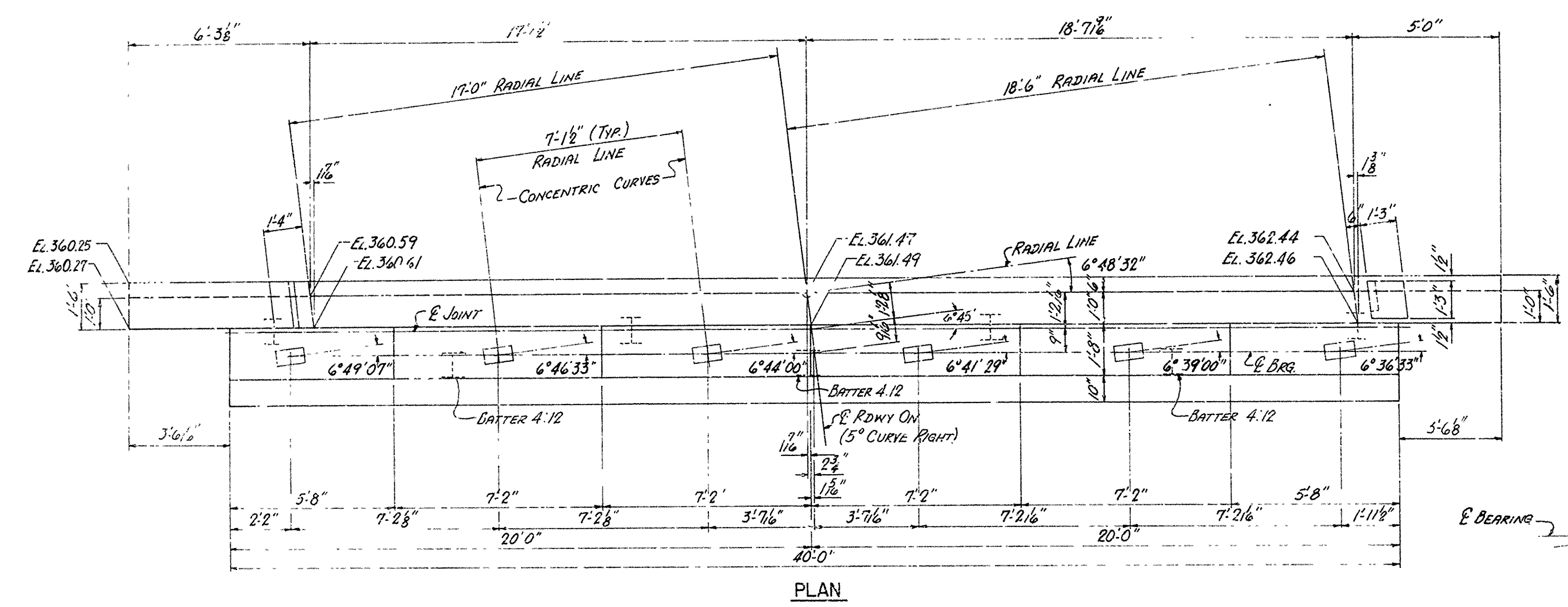
ELEVATION

NOTE: VERTICAL DIMENSIONS AT BENTS.
(1) ELEVATION AT CENTERLINE DECK AT CENTERLINE BENT (PROFILE GRADE)
(2) PROFILE GRADE TO TOP OF CAP - LOW SIDE
(3) LOW SIDE OF CAP TO BOTTOM OF FOOTING
(4) BOTTOM OF FOOTING ELEVATION.

- BORING LOG**
- (A) BROWN SANDY CLAY
 - (B) GRAY CLAY
 - (C) FIRM GRAY CLAY
 - (D) HARD BLUE SHALE & LAYERS OF SANDSTONE
 - (E) MED. FIRM BROWN SANDY CLAY
 - (F) MED. HARD BROWN SHALE
 - (G) HARD BLUE SHALE & SANDSTONE
 - (H) SOFT BROWN SANDY CLAY
 - (I) BROWN CLAY
 - (J) BROWN CLAY FEW SMALL GRAVEL
 - (K) MFD. HARD BLUE SHALE

LAYOUT OF UNDERPASS
NORTH FRONTAGE ROAD
JCT. I-30-FOURCH WYCK
PULASKI COUNTY
INT. ROUTE 430 SEC. 21
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: [Signature] DATE: 11-27-79
TRACED BY: [Signature] DATE: 11-27-79
CHECKED BY: [Signature] DATE: 11-27-79
BRIDGE NO. 5504 DRAWING NO. 17935

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
				6	ARK.	430-2 (105) 130		49	215
				JOB NO.		6848			
				① 5504 BENT 17936					



BAR LIST

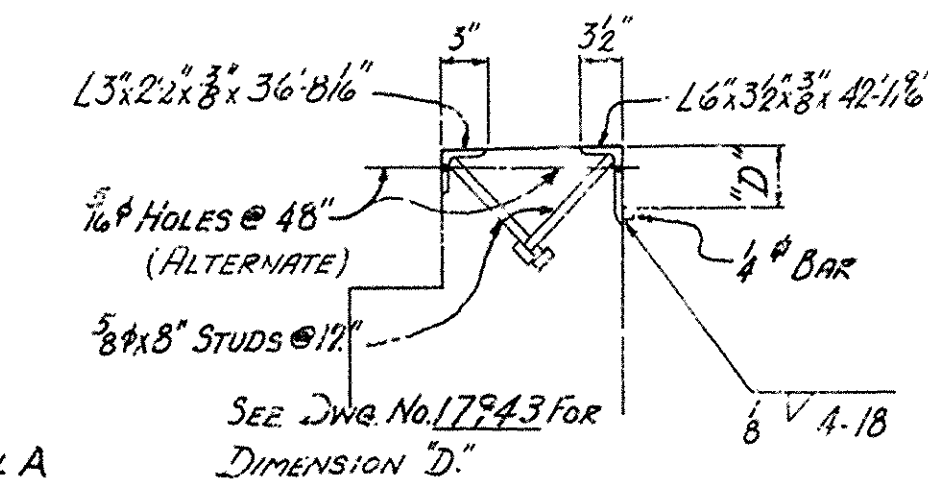
MARK	NO REQD.	LENGTH	A	B	PIN DIA	BENDING DIAGRAM
B601	13	39'-8"			STR	
B602	4	4'-6"			STR	
B603	5	4'-0"	2'-6"	1'-6"	3 1/2"	
B604	6	4'-9"			STR	
B605	6	1'-3"			STR	
B401	52	10'-5"	SEE DIAGRAM		2"	
B402	21	6'-8"	SEE DIAGRAM		2"	
B403	2	39'-8"			STR	
B404	72	6'-8"			STR	
B405	36	3'-11"	SEE DIAGRAM		2"	
B406	18	4'-6"			STR	
B407	6	7'-8"			STR	
B408	6	7'-10"	2'-4 1/2"	4'-9 1/2"	2"	
B409	16	5'-11"			STR	
B410	7	6'-8"			STR	
B411	7	6'-10"	1'-7 1/2"	4'-6 1/2"	2"	
B412	10	40'-0"			STR	
B301	4	3'-11"	1'-0"	8 1/2"	1 1/2"	

DIMENSIONS ARE OUT TO OUT OF BARS

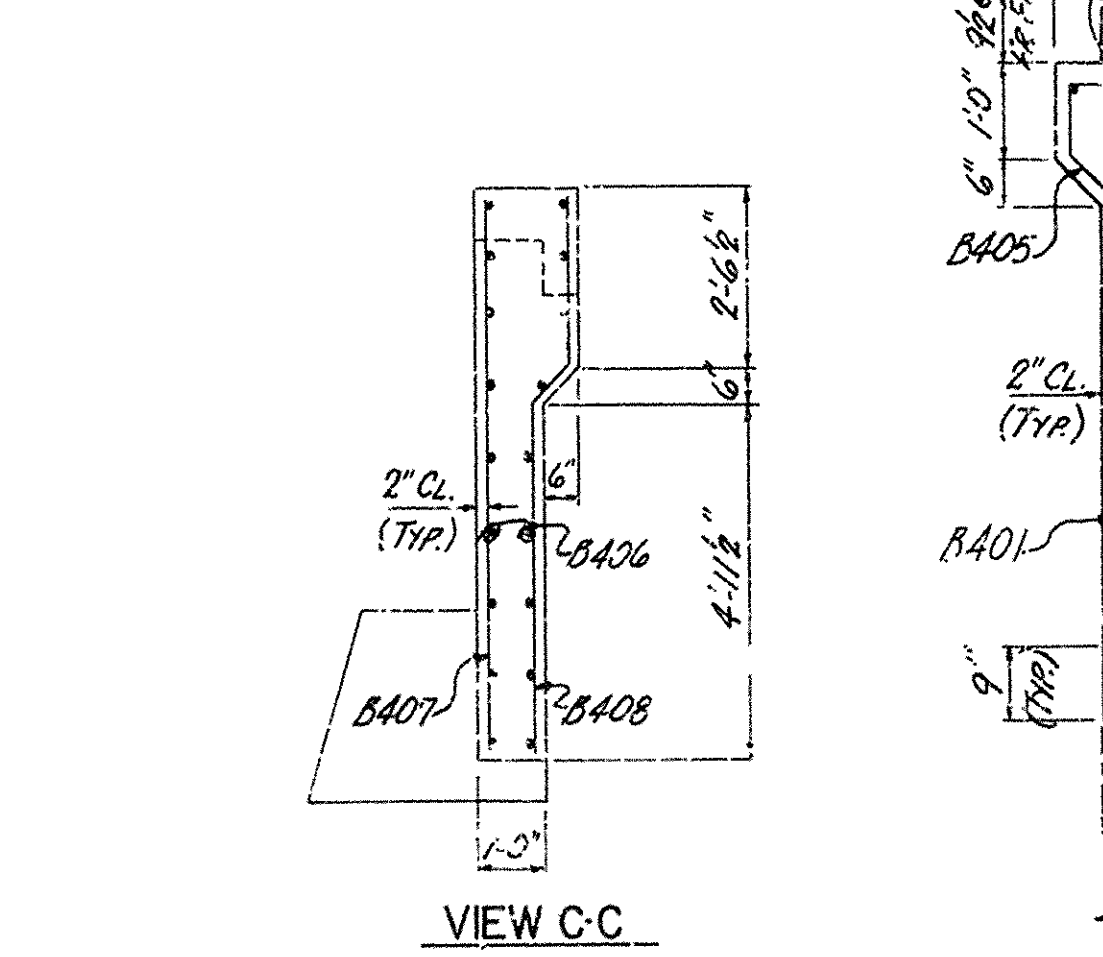
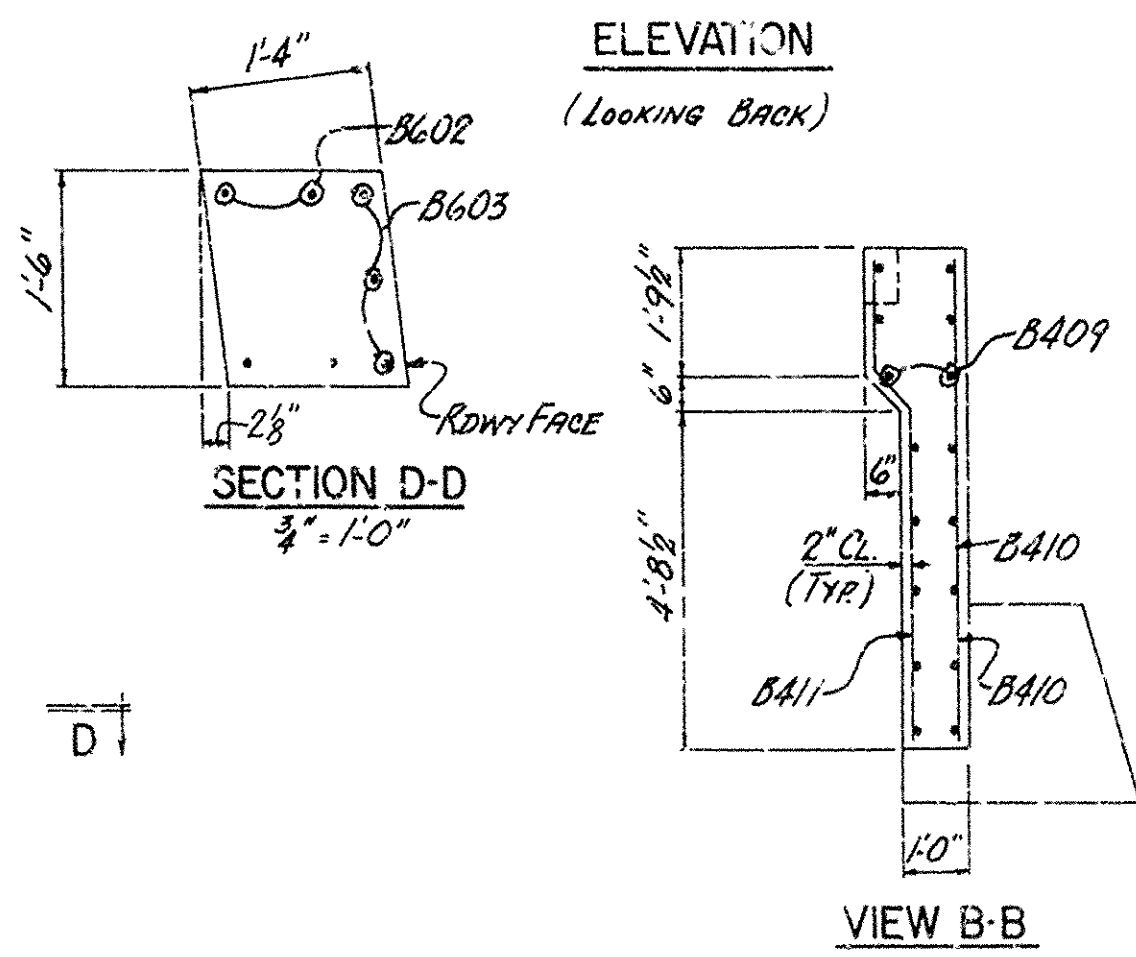
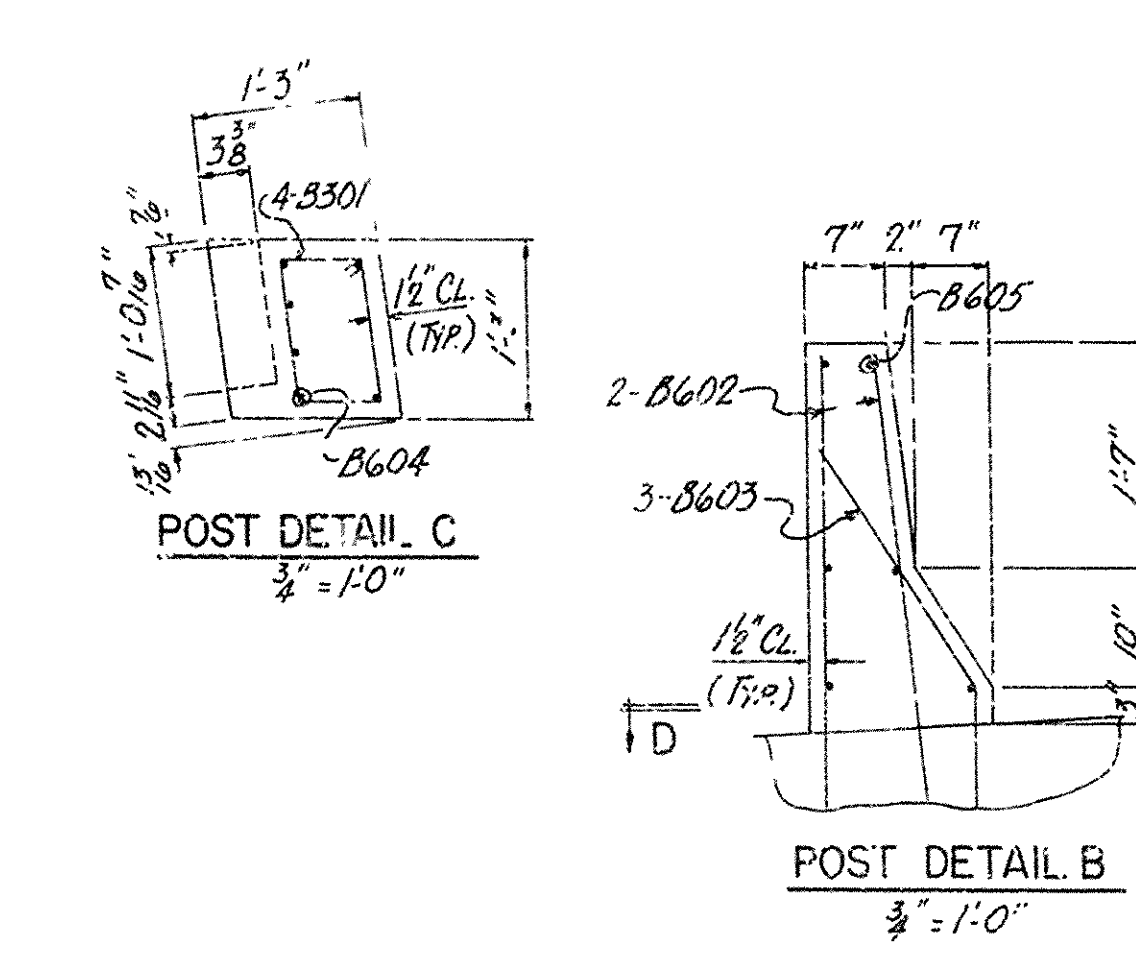
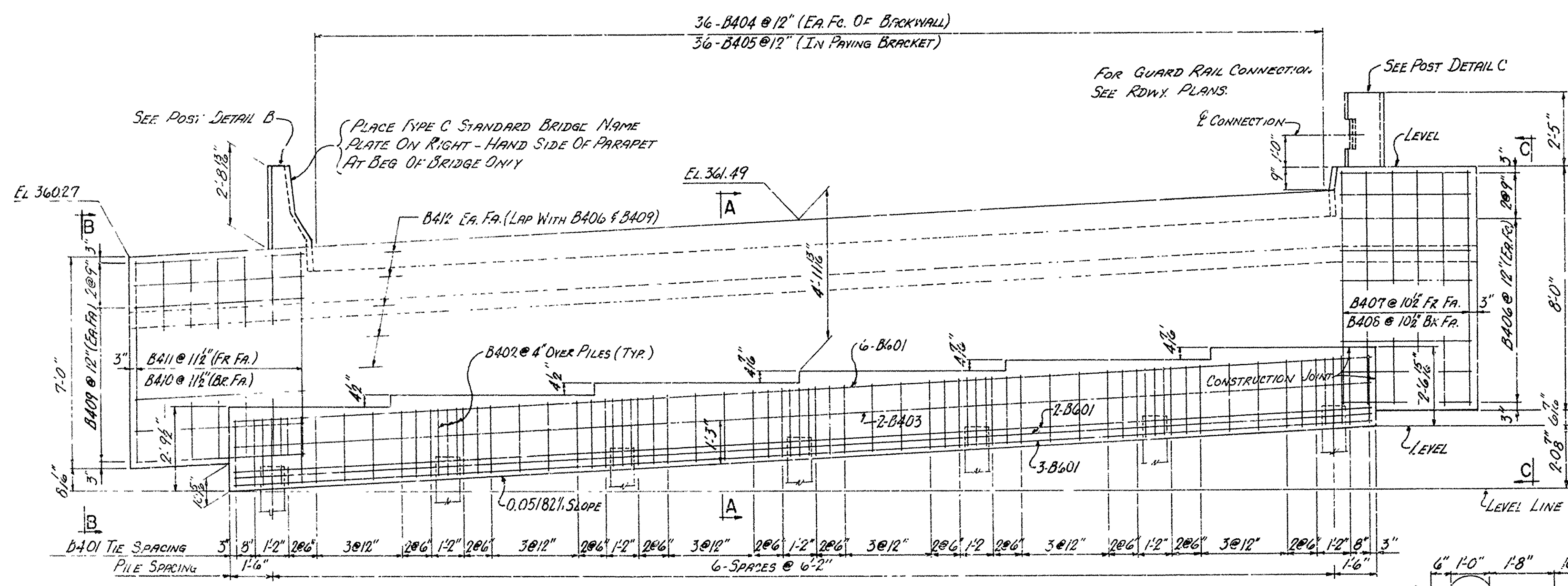
NOTES: ALL CONCRETE SHALL BE CLASS S. ALL EXPOSED CORNERS TO BE CHAMFERED 3/4". REINFORCING STEEL TO BE ASTM A615, GRADE 40. SHOP LISTS AND BENDING DIAGRAMS MUST BE SUBMITTED AND APPROVAL SECURED BEFORE FABRICATION IS BEGUN. BACKWALL SHALL NOT BE POURED UNTIL GIRDERS HAVE BEEN PLACED ON BENT.

ALL STRUCTURAL STEEL TO BE ASTM A36.

PIILING SHALL BE HP10X42 STEEL BEARING PILES. SEE DRAWING NO. 17936 FOR DETAILS OF PILE TIP REINFORCING. PILING SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 55 TONS PER PILE.

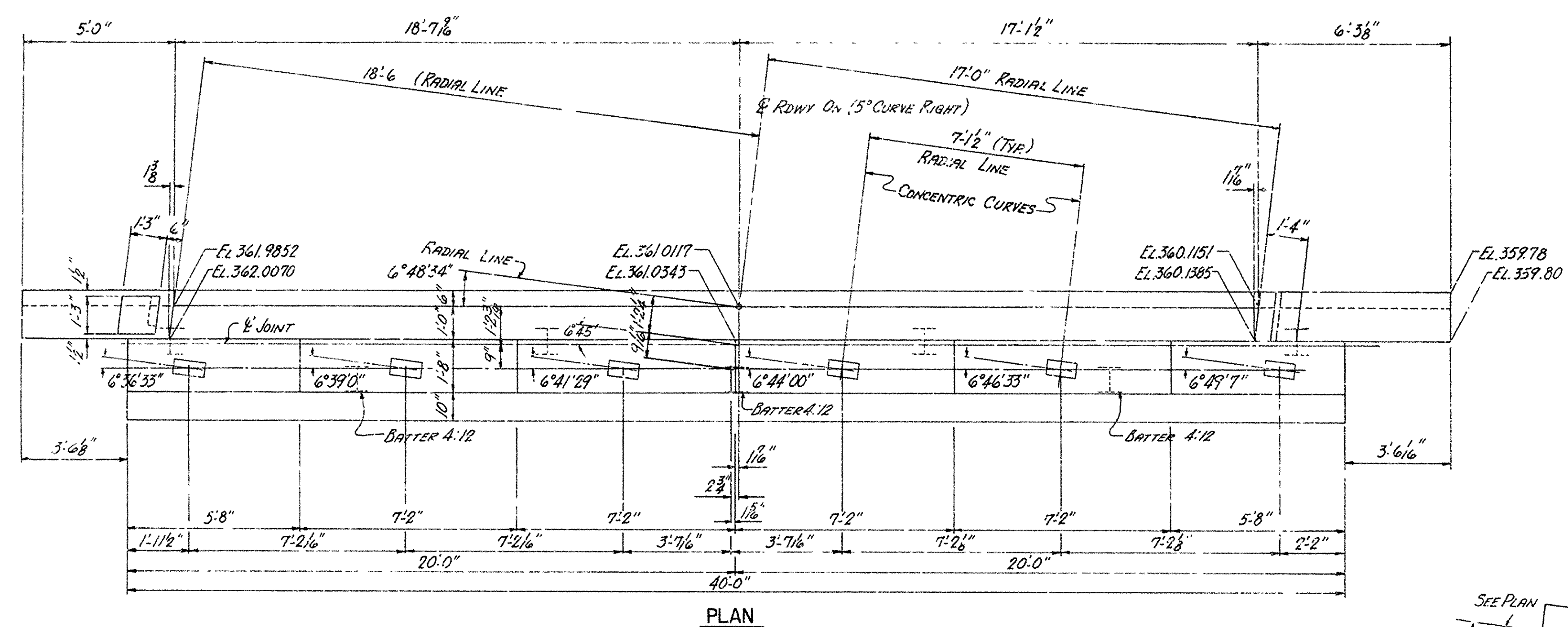


DETAIL A
1"=1'-0"

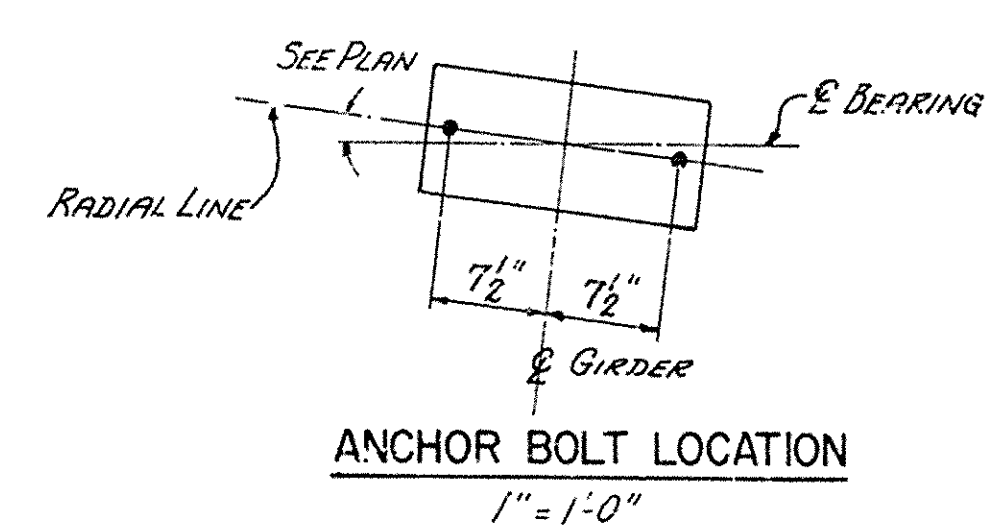


DETAILS OF END BENT I
NORTH FRONTAGE ROAD
JCT. 1-30 - FOURCHE CREEK
PULASKI COUNTY
INT. ROUTE 430 SEC. 21
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: *D.S.* DATE: 10-23-71
TRACED BY: *D.S.* DATE: 10-23-71
CHECKED BY: *D.S.* DATE: 10-23-71
BRIDGE NO. 5504 DRAWING NO. 17936

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
				6	ARK.	1430-2 (1025) 130		50	215
				JOB NO.		5504 BENT 17937			



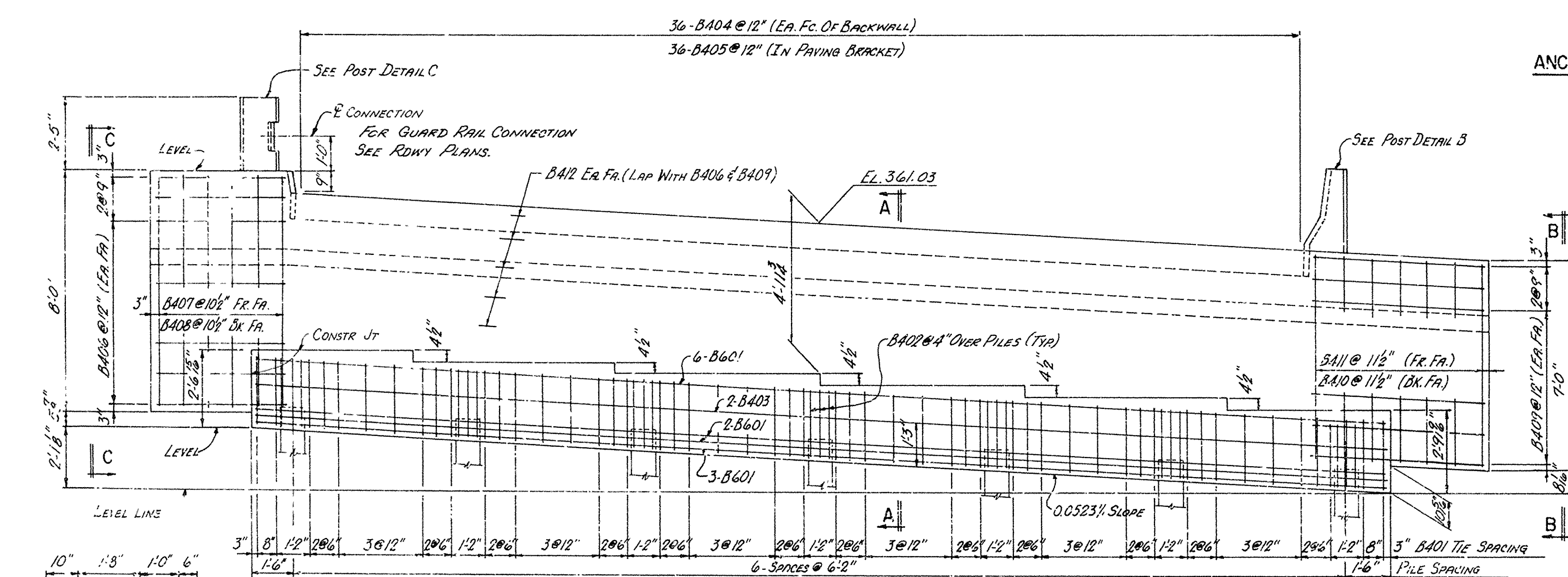
PLAN



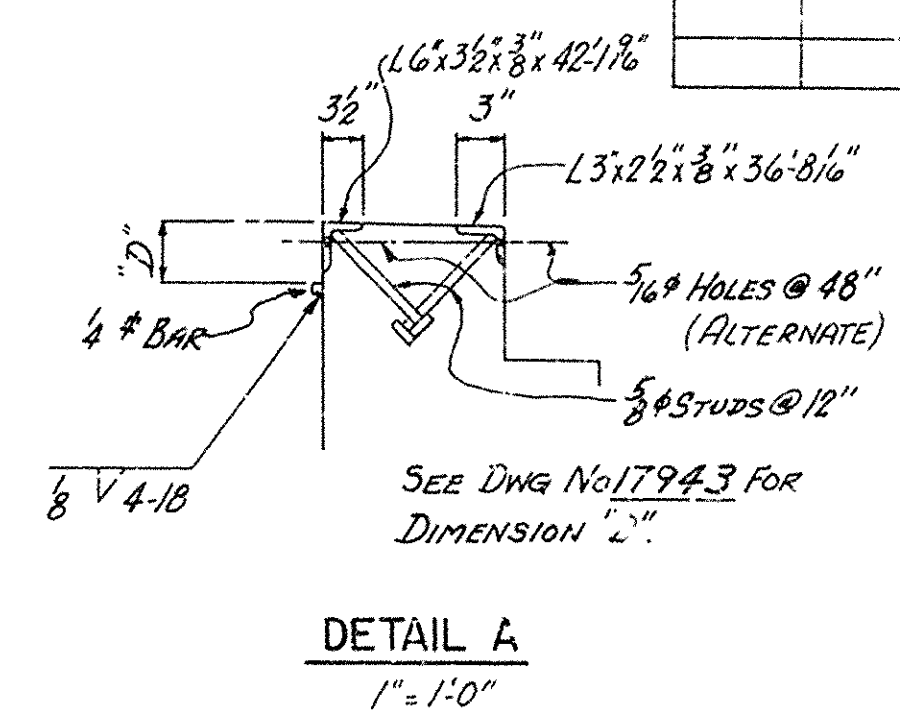
BAR LIST

MARK	NO. REQ.	LENGTH	A	B	PIN DIA.	BENDING DIAGRAM
B601	13	39.8"			STR	
B602	4	4'-6"			STR	
B603	3	4'-0"	2'-6"	1'-6"	3 1/2"	
B604	6	4'-9"			STR	
B605	6	1'-3"			STR	
B401	52	10'-5"	SEE DIAGRAM		2"	
B402	21	6'-8"	SEE DIAGRAM		2"	
B403	2	39'-8"			STR	
B404	72	6'-8"			STR	
B405	36	3'-11"	SEE DIAGRAM		2"	
B406	18	4'-6"			STR	
B407	6	7'-8"			STR	
B408	6	7'-10"	2'-4 1/2"	4'-9 1/2"	2"	
B409	16	5'-11"			STR	
B410	7	6'-8"			STR	
B411	7	6'-10"	1'-7 1/2"	4'-6 1/2"	2"	
B412	10	40'-0"			STR	
B301	4	3'-11"	1'-0"	8 1/2"	1 1/2"	

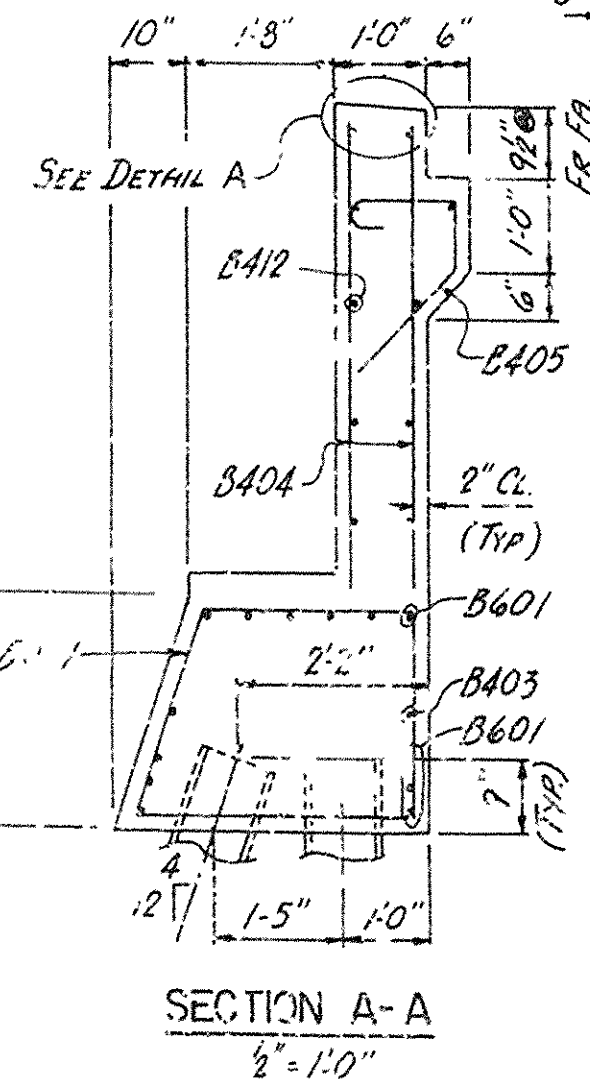
DIMENS. ARE OUT TO OUT OF BARS



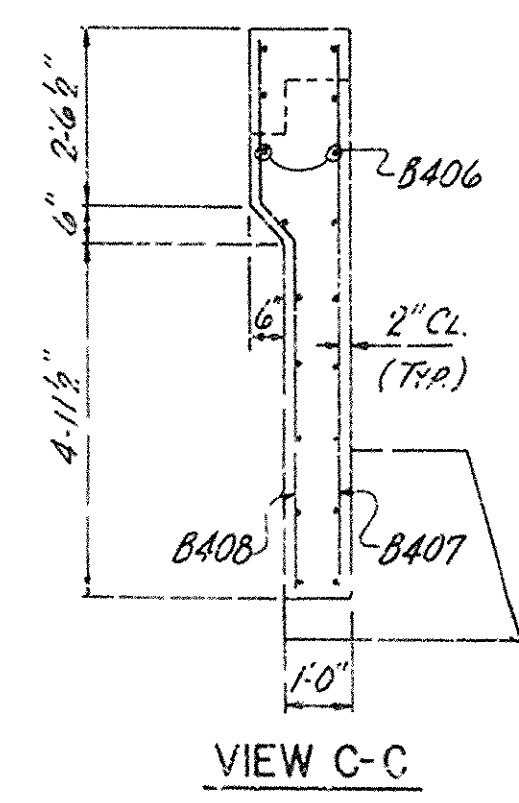
ELEVATION
(LOOKING FORWARD)



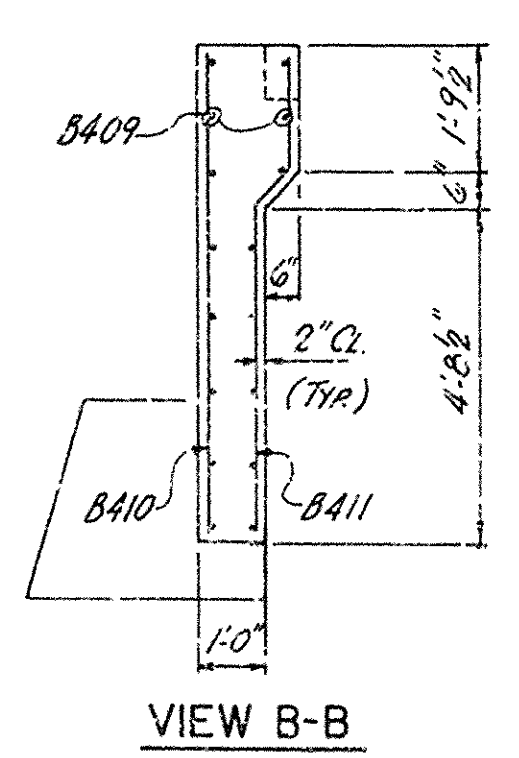
DETAIL A
1" = 1'-0"



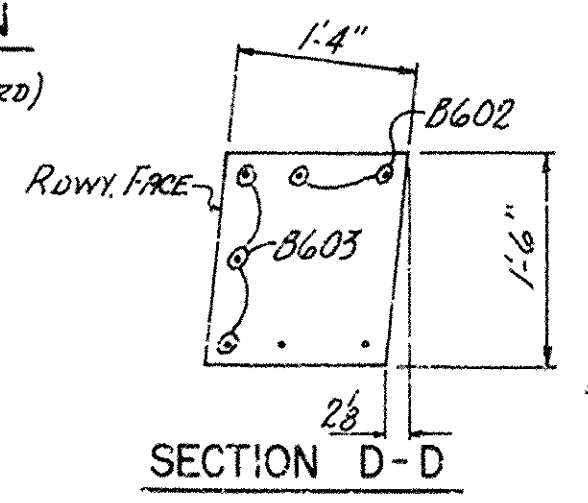
SECTION A-A
1/2" = 1'-0"



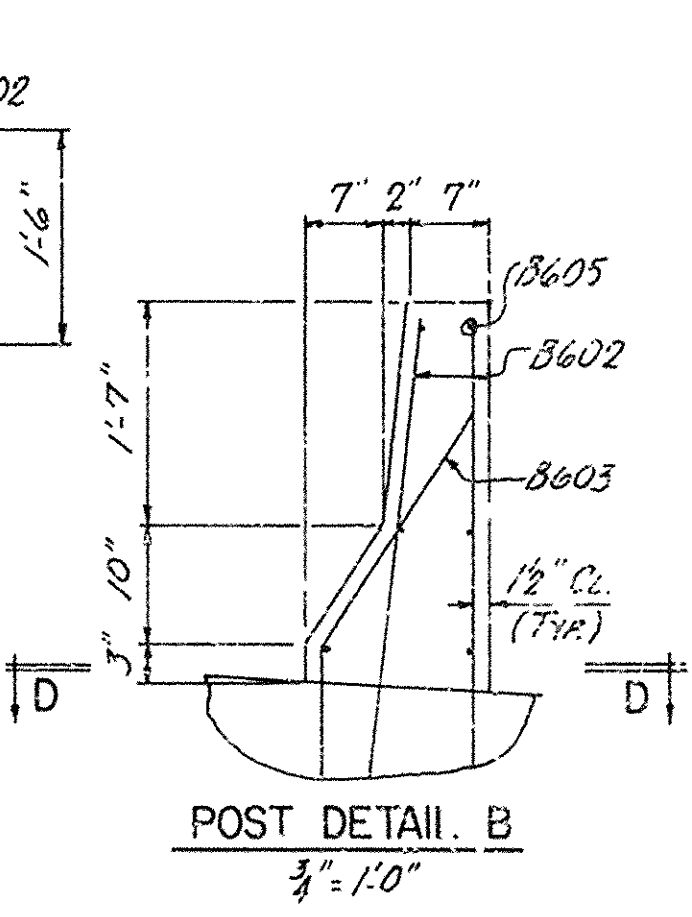
VIEW C-C



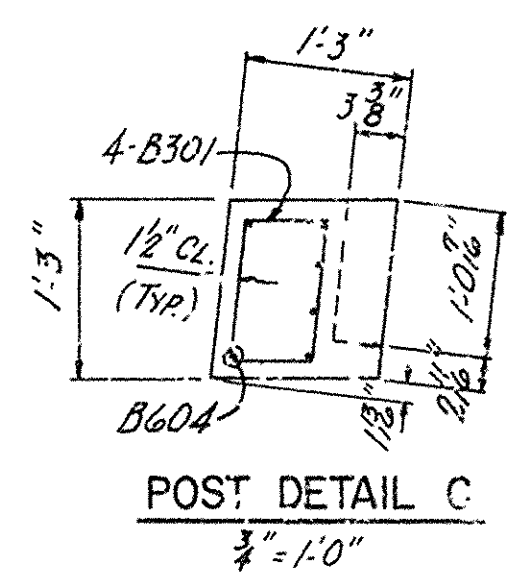
VIEW B-B



SECTION D-D



POST DETAIL B
3/4" = 1'-0"



POST DETAIL C
3/4" = 1'-0"

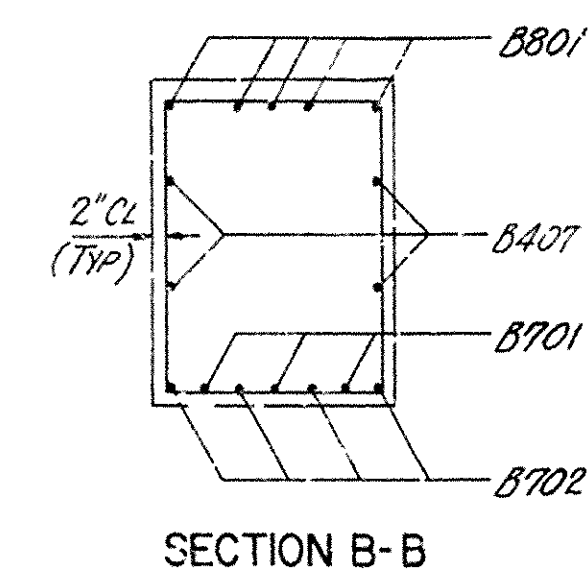
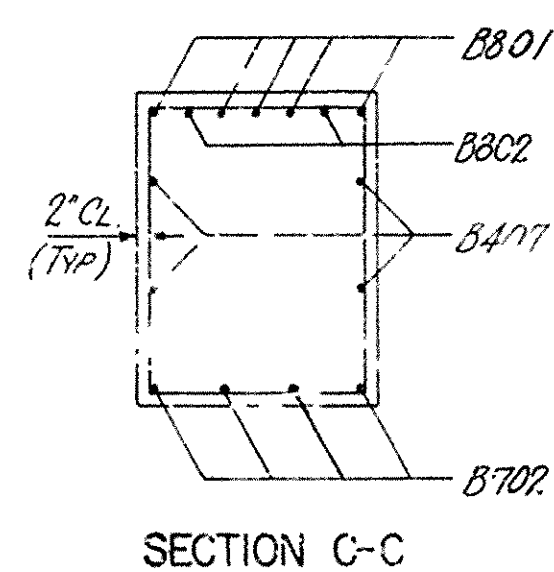
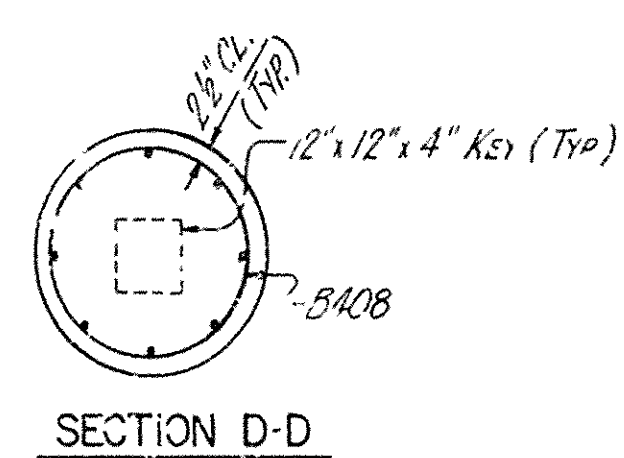
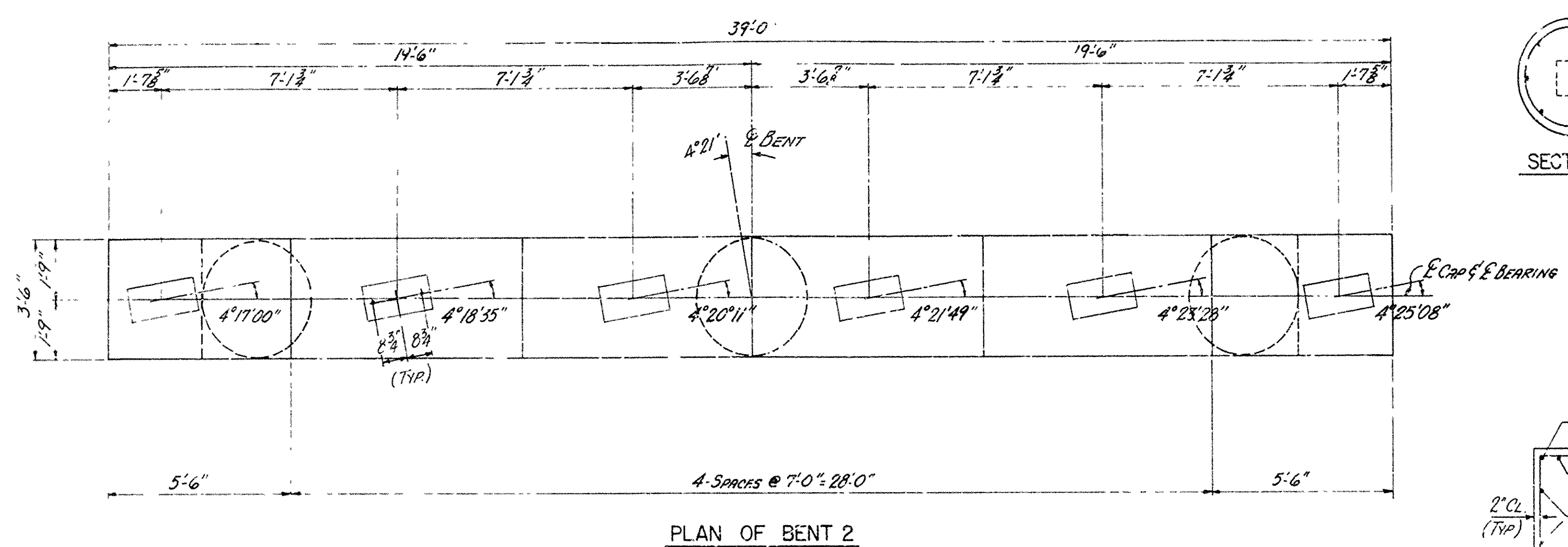
NOTES: ALL CONCRETE SHALL BE CLASS S. ALL EXPOSED CORNERS TO BE CHAMFERED 3/4". REINFORCING STEEL TO BE ASTM A615, GRADE 40. SHOP LISTS AND BENDING DIAGRAMS MUST BE SUBMITTED AND APPROVAL SECURED BEFORE FABRICATION IS BEGUN. BACKWALL SHALL NOT BE POURED UNTIL GIRDERS HAVE BEEN PLACED ON BENT.

ALL STRUCTURAL STEEL TO BE ASTM A36.

PILING SHALL BE HPI0X42 STEEL BEARING PILES. SEE DRAWING NO. 1430-2 FOR DETAILS OF PILE TIP REINFORCING. PILING SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 55 TONS PER PILE.

DETAILS OF END BENT 5
NORTH FRONTAGE ROAD
JCT. 1-30 - FOURCHE CREEK
PULASKI COUNTY
INT. ROUTE 430 SEC. 21
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: *[Signature]* DATE: 10-25-72
CHECKED BY: *[Signature]* DATE: *[Signature]*
BRIDGE NO. 5504 DRAWING NO. 17937

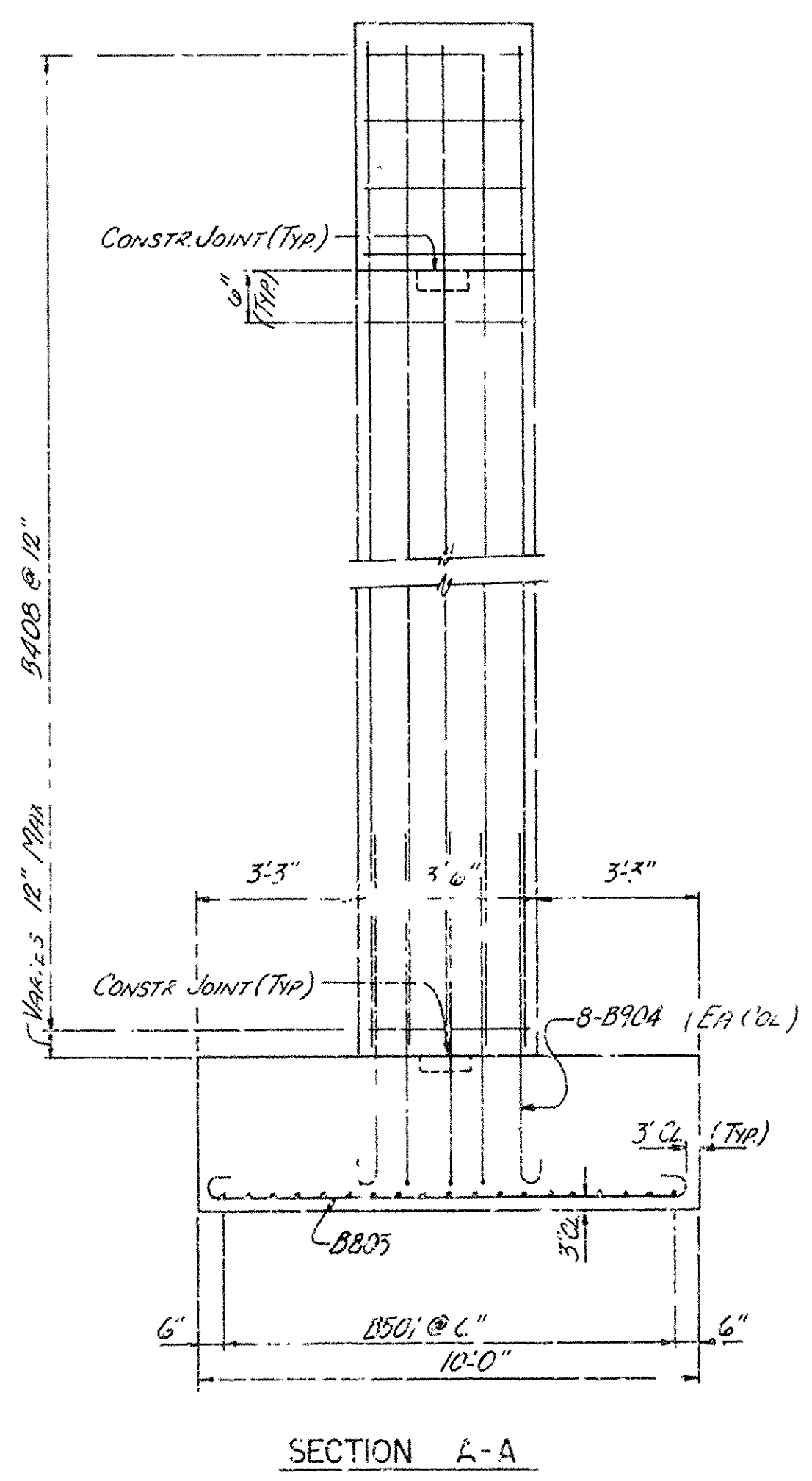
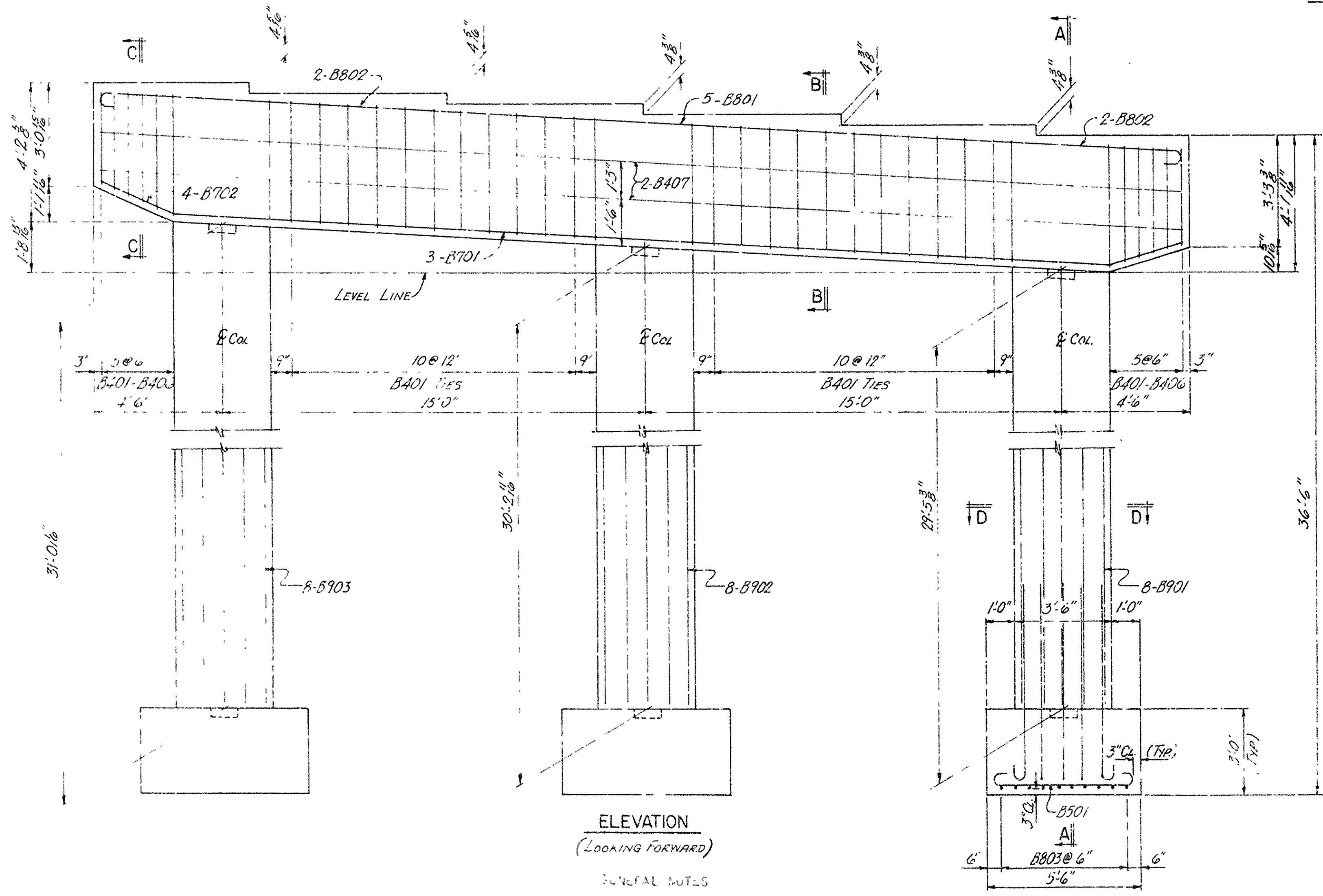
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ.	FED. AID YEARS	SHEET NO.	TOTAL SHEETS
				6	ARK.	2-430-2 (105) 130		51	215
				JOB NO.		6848			
				① 5504 BENT 1793R					



BAR LIST FOR BENT 2

MARK	NO. REQD.	LENGTH	A	B	PIN DIA.	BENDING DIAGRAM
B901	8	33'-0"			STR.	
B902	8	33'-9"			STR.	
B903	8	34'-6"			STR.	
B904	8	1'-9"	6'-6"	10"	9"	
B801	1	40'-6"	38'-8"	8"	6"	
B802	1	8'-11"	8'-0"	8"	6"	
B803	30	11'-4"	9'-6"	8"	6"	
B701	3	33'-6"			STR.	
B702	4	39'-0"	33'-6"	2'-9"	4"	
B501	57	6'-2"	5'-0"	5"	3 3/4"	
B401	28	14'-2"	3'-2"	3'-3"	2"	
B402	2	15'-10"	3'-2"	3'-6"	2"	
B403	2	12'-4"	3'-2"	2'-9"	2"	
B404	4	38'-8"			STR.	
B405	103	11'-4"	3'-1"		2"	

DIMENSIONS ARE OUT TO OUT OF BARS



GENERAL NOTES

ALL CONCRETE TO BE CLASS 5000 MPa (7250 PSI) TO BE POURED IN THE DRY. ALL EXPOSED CORNERS TO BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.

REINFORCING STEEL TO BE USA #60, GRADE 40.

SHEET LISTS AND BENDING DIAGRAMS ARE TO BE SUBMITTED AND APPROVAL SECURED BEFORE FABRICATION IS BEGUN.

DETAILS OF INT BENT 2
NORTH FRONTAGE ROAD
JCT. 1-30 - FOURCHE CREEK
PULASKI COUNTY
INT. ROUTE 430 SEC. 21
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: [Signature] DATE: 11-10-72
TRACED BY: [Signature] DATE: 12-3-72
CHECKED BY: VAS DATE: 12-3-72

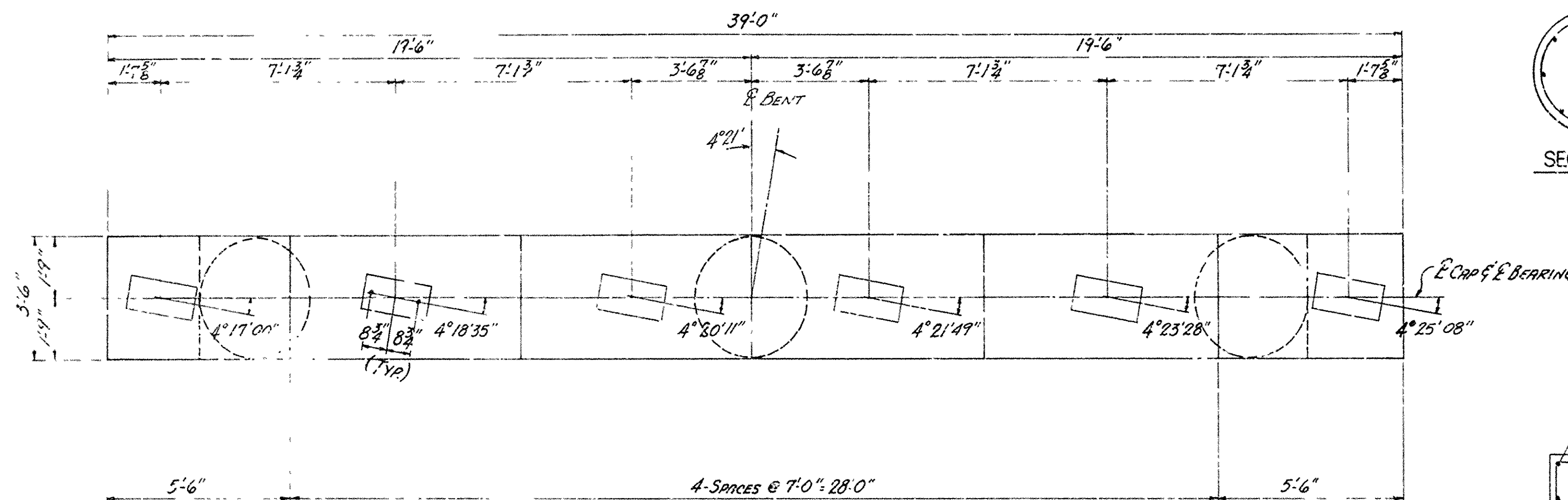
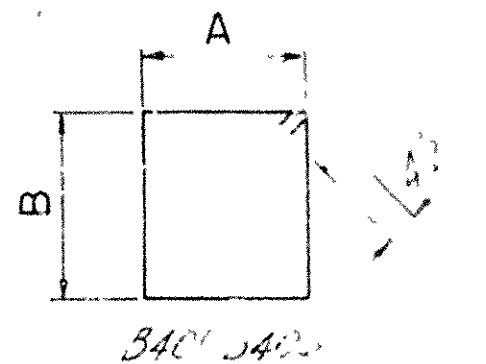
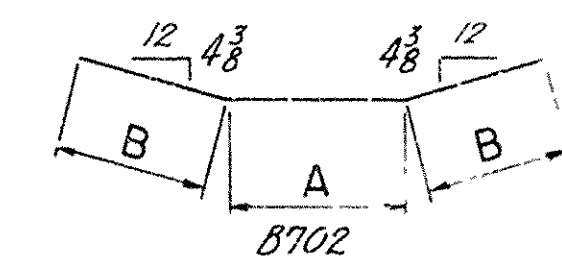
BRIDGE NO. 5504 DRAWING NO. 1793R

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ.	F.S.A.- YEAR	SHEET NO.	TOTAL SHEETS
				6	ARK.	I-430-2 (105)130		53	215
				JOB NO.		6848			
				① 5504 BENT 17940					

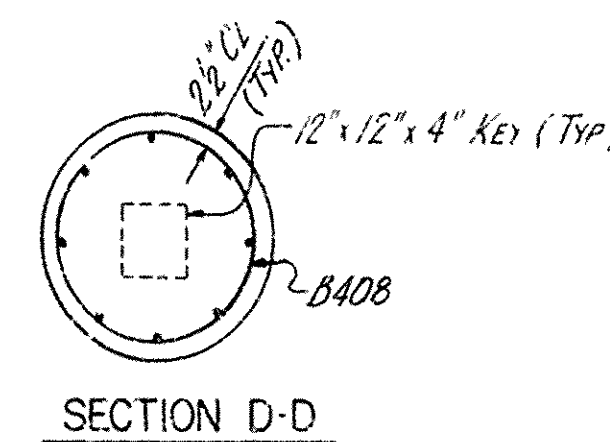
BAR LIST FOR BENT 4

MARK.	NO REQD	LENGTH	A	B	PIN DIA.	BENDING DIAGRAM
B901	8	31'-0"			57K	
B902	8	31'-9"			57K	
B903	8	32'-6"			57K	
B904	24	7'-9"	6'-6"	10'	9"	
B801	5	40'-6"	38'-8"	8"	6"	
B802	4	8'-11"	8'-0"	8"	6"	
B803	30	11'-4"	9'-6"	8"	6"	
B701	3	33'-6"			57K	
B702	4	39'-0"	33'-6"	2'-9"	4"	
B501	57	6'-2"	5'-0"	5"	3 3/4"	
B401	28	14'-2"	3'-2"	3'-8"	2"	
B402	2 EA.	13'-10"	3'-2"	3'-6"	2"	
B406	2 EA.	12'-4"	3'-2"	2'-9"	2"	
B407	4	38'-8"			57K	
B408	97	11'-4"	3'-1"		2"	

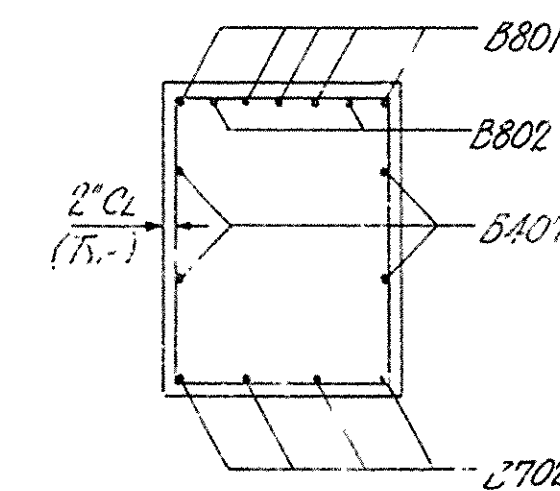
DIMENSIONS ARE OUT TO OUT OF BARS



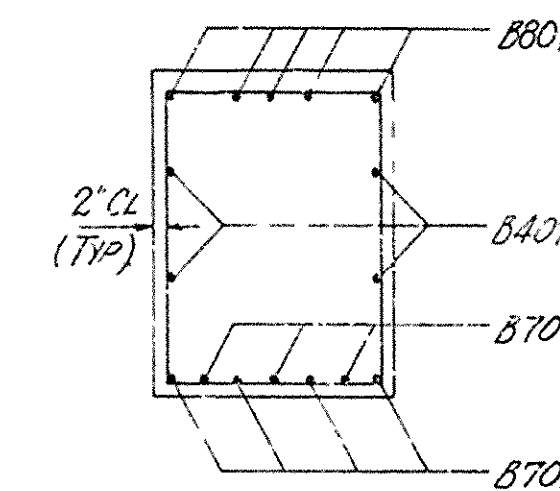
PLAN OF BENT 4



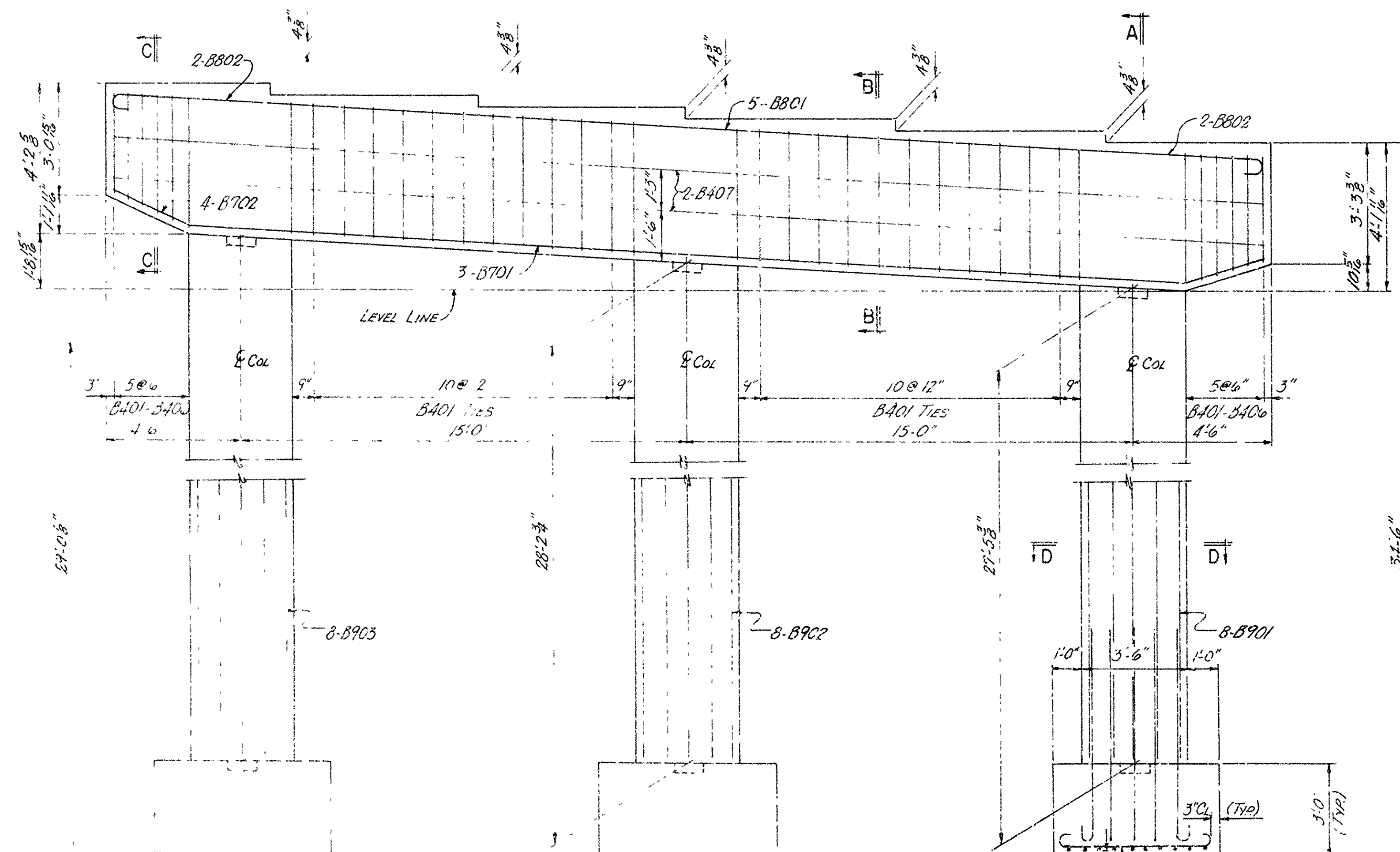
SECTION D-D



SECTION C-C



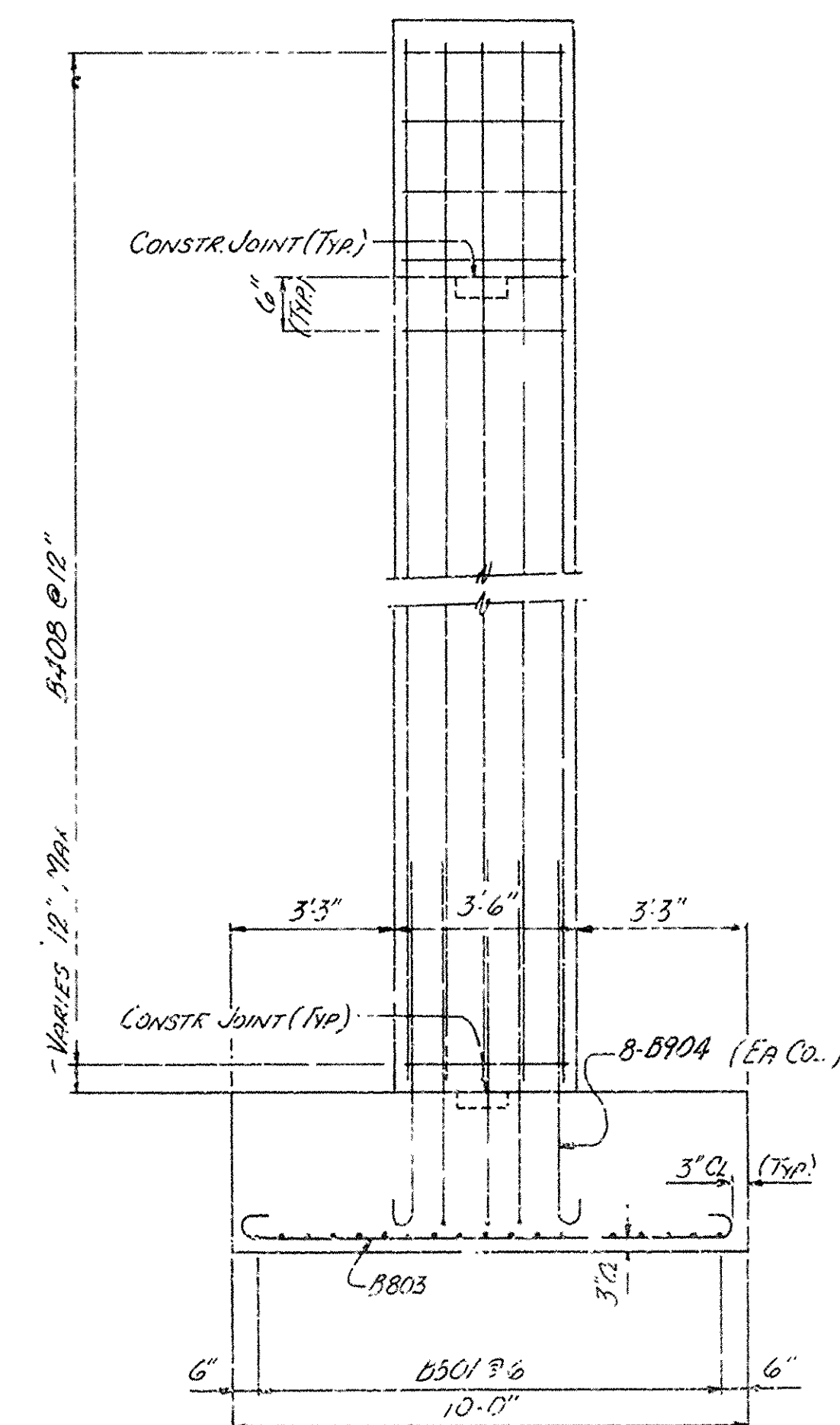
SECTION B-B

ELEVATION
(LOOKING FORWARD)

ALL CONCRETE TO BE CAST IN PLACE AND SHALL BE FORMED IN THE DRY. ALL
 REINFORCING STEEL SHALL BE CAST IN PLACE AND SHALL BE OTHERWISE NOTED.

ALL DIMENSIONS TO FACE UNLESS OTHERWISE NOTED.

ALL DIMENSIONS TO FACE UNLESS OTHERWISE NOTED.



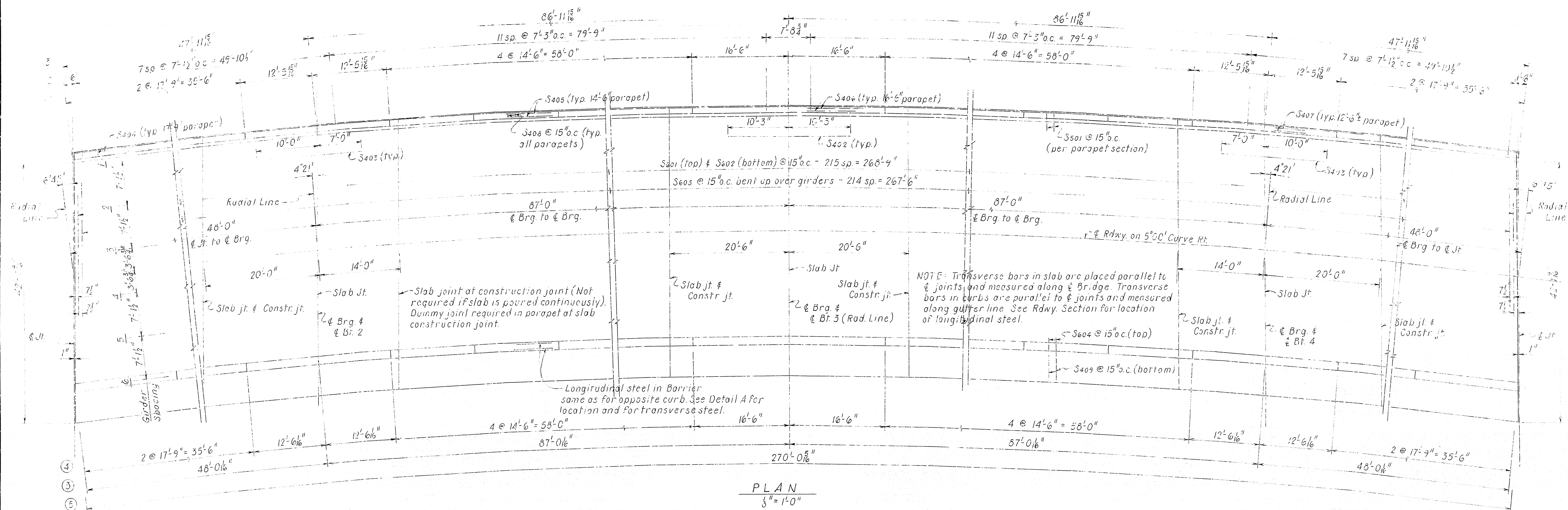
SECTION A-A

DETAILS OF INT BENT 4
 NORTH FRONTAGE ROAD
 JCT. I-30 - FOURCHE CREEK
 PULASKI COUNTY
 INT. ROUTE 430 SEC. 21
 ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.
 DRAWN BY: [Signature] DATE: 11-10-72
 TRACED BY: [Signature] DATE: 12-9-72
 CHECKED BY: [Signature] DATE: 12-9-72
 BRIDGE NO. 5504 DRAWING NO. 17940

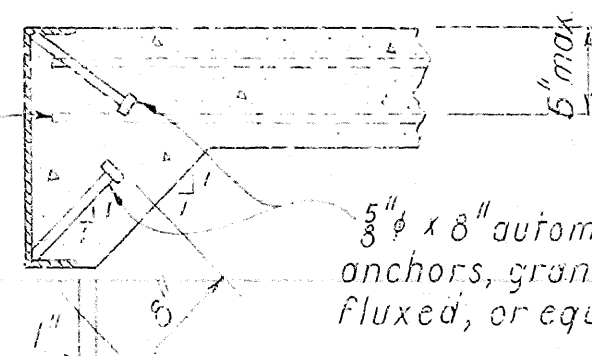
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PRG.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
				6	ARK.	1430-2 (105) 130		54	215
				JOB NO.		6848			
				① 5504 SPAN		17941			

Dummy Jrs. to be furnished in the proper between
Railing Posts. Dummy Jr. not required where Open
Jr. is between posts.



- ① $\frac{3}{8}$ " Open Jts. in parapet - Measure'd along front face of parapet.
- ② Pesi spacing measured along front face of parapet.
- ③ Measured along gutter line.
- ④ $\frac{3}{8}$ " Open Jts. in Conc. Parapet Rail - Measured along gutter line. (Depth of Open Jt - $2\frac{1}{2}$ " below top of rail)
- ⑤ Pedestrian Rail measured along & Rail.

Hold end of longitudinal reinforcing steel as close to channel as possible — 2 —



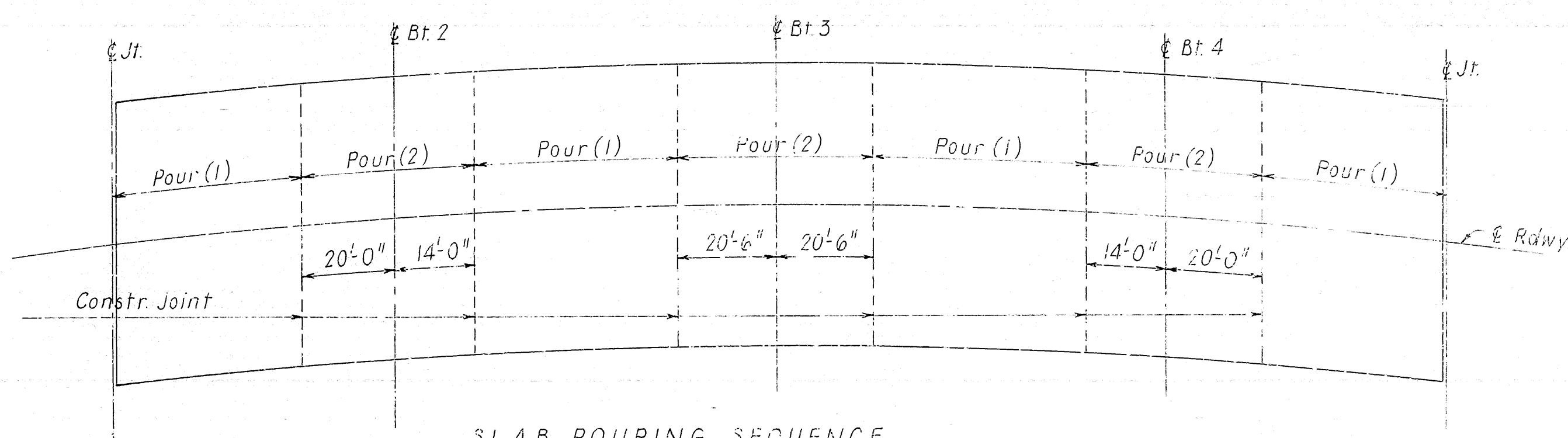
ANCHOR DETAILS
No Scale

at Joint - $\frac{1}{4} \times 1$ " poured asphalt joint in slab, curbs & sidewalk. To be paid for as "Class S (AE) Concrete."

NOTE: See Plan for location of joints

SLAB JOINTS

No Scale



SLAB POURING SEQUENCE
No Scale

All pours (1) adjacent to pours (2) must be placed before pours (2) can be placed. 48 hours shall elapse between pours (1) and 72 hours shall elapse between adjacent pours (1) and (2).

SHEET 1 OF 6

DETAILS OF CONTINUOUS PLATE GIRDER UNIT

NORTH FRONTAGE ROAD
JCT. I-30 - FOURCHE CREEK
PULASKI COUNTY
INT. ROUTE 430 SEC. 21

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: W. L. 24 DATE: 11-30-72

TRACED BY: _____ DATE: _____

SCALE: *As Shown*

CHECKED BY: LAS

DATE: 12-6-72

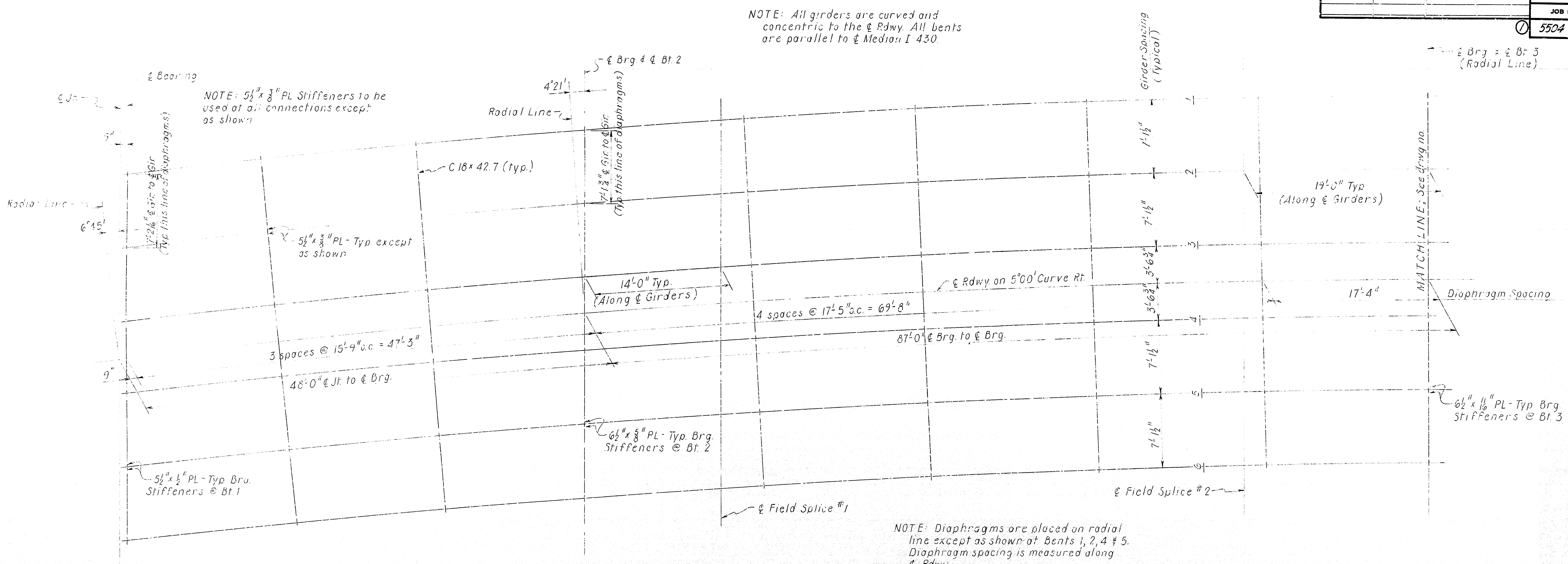
SCALE: _____

BRIDGE NO. 5504

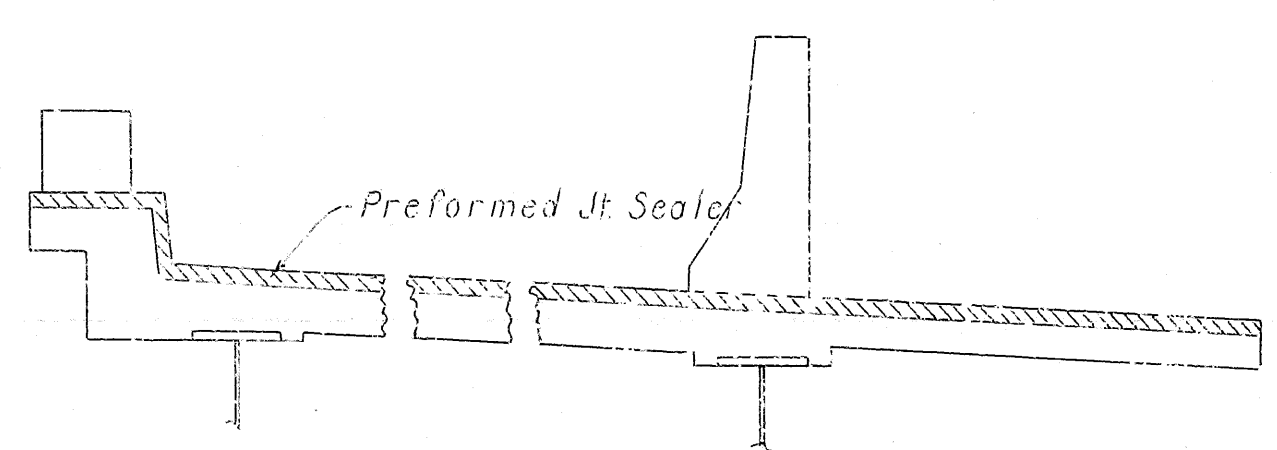
DRAWING NO. 1794!

Neal Pinkerton
BRIDGE ENGINEER

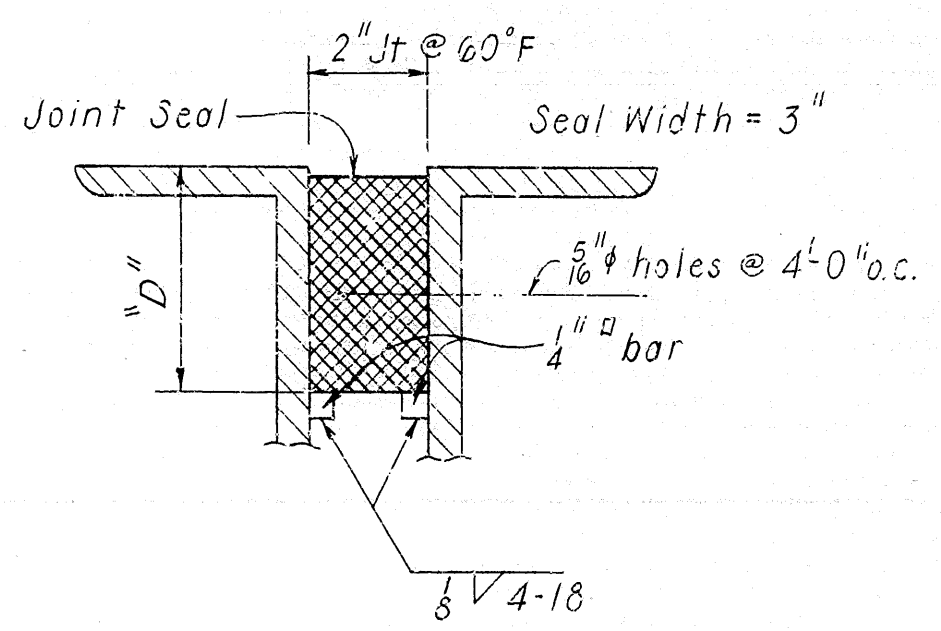
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
				6	ARK.	I-430-2 (103)130		56	215
				JOB NO.	5504 SPAN 17943				



FRAMING PLAN
 $\frac{3}{8}'' = 1'-0''$



JOINT SEALER PLACEMENT



JOINT SEAL SUPPORT
No Scale

The Dimension "D" shall conform to the recommendations of the seal manufacturer as approved by the Bridge Engineer. The depth of the seal shall be approximately equal to the uncompressed width of the seal.

NOTES:
ALL GIRDERS SHALL BE BLOCKED IN THEIR TRUE POSITION, WITH WEB PLATES HORIZONTAL, IN THE SHOP TO FORM EACH COMPLETE UNIT. THE CAMBER, LENGTH OF SECTIONS, DISTANCE BETWEEN BEARINGS AND OPENING OF JOINTS SHALL BE MEASURED WITH THE BEAMS IN THIS POSITION AND THIS INFORMATION SHALL BECOME A PART OF THE PERMANENT RECORD OF THIS JOB. THE COMPONENT PARTS SHALL BE MATCH MARKED IN THIS ASSEMBLY AND THESE MARKS SHALL BE SHOWN ON THE ERECTION DIAGRAM. ALL GIRDER DIMENSIONS ARE BASED ON A TEMPERATURE OF 60°F. A TOLERANCE OF $\pm 1/4''$ IS ALLOWED FOR CAMBER.

DIAPHRAGMS AT BEARING STIFFENERS SHALL BE INSTALLED AS GIRDERS ARE ERECTED. ALL DIAPHRAGMS SHALL BE INSTALLED AND COMPLETELY BOLTED PRIOR TO POURING OF FLOOR SLABS.

UNIT STRESSES:

CLASS (SAE) CONCRETE (N=10)	1,200 PSI
REINFORCING STEEL	20,000 PSI
STRUCTURAL STEEL (A36)	20,000 PSI
STRUCTURAL STEEL (A572, GRADE 50)	27,000 PSI

DESIGN SPECIFICATIONS: AASHTO 1969 AND INTERIM SPECIFICATIONS

DESIGN LIVE LOAD - HS20

LOAD DISTRIBUTION	DEAD LOAD TO GIRDER (INCLUDES 148 PLF FOR WEIGHT OF GIRDER)	DEAD LOAD TO COMP. GIRDER (INCLUDES 148 PLF FOR WEIGHT OF FUTURE SURFACE)	LIVE LOAD TO COMP. GIRDER
EXT. GIRDER 1	677 PLF	306 PLF	1,2324 WHEELS + IMPACT
INT. GIRDER 2-5	837 PLF	234 PLF	1,2955 WHEELS + IMPACT
EXT. GIRDER 6	962 PLF	333 PLF	1,2324 WHEELS + IMPACT

SHEET 3 OF 6

DETAILS OF CONTINUOUS PLATE GIRDER UNIT

NORTH FRONTAGE ROAD
JCT. I-30 - FOURCHE CREEK
PULASKI COUNTY
INT. ROUTE 430 SEC. 21
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: *th. May* DATE: 11-30-72
TRACED BY: DATE: SCALE: As shown
CHECKED BY: *WES* DATE: 12-7-72
BRIDGE NO. 5504 DRAWING NO. 17943

Neal Pemberton
BRIDGE ENGINEER

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
				6	ARK.	1430-2 (105) 130		58	215
				JOB NO.		6848			
				5504 SPAN		17945			

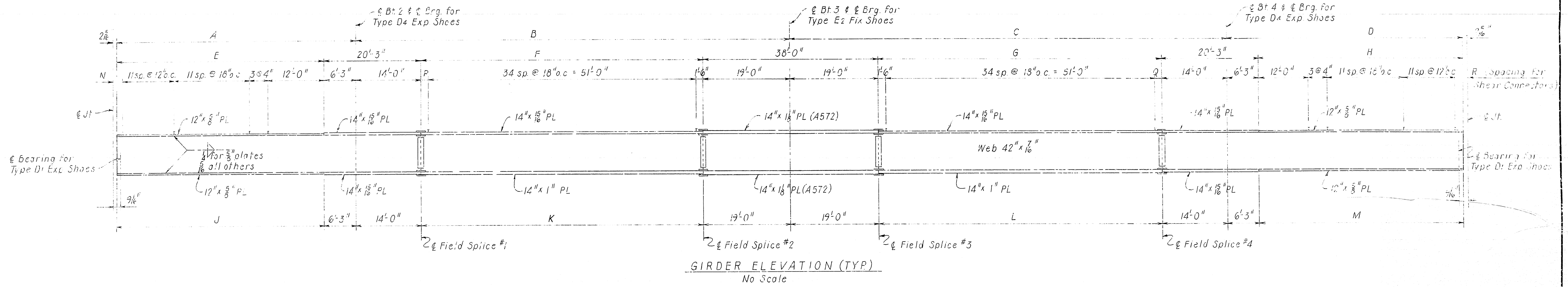
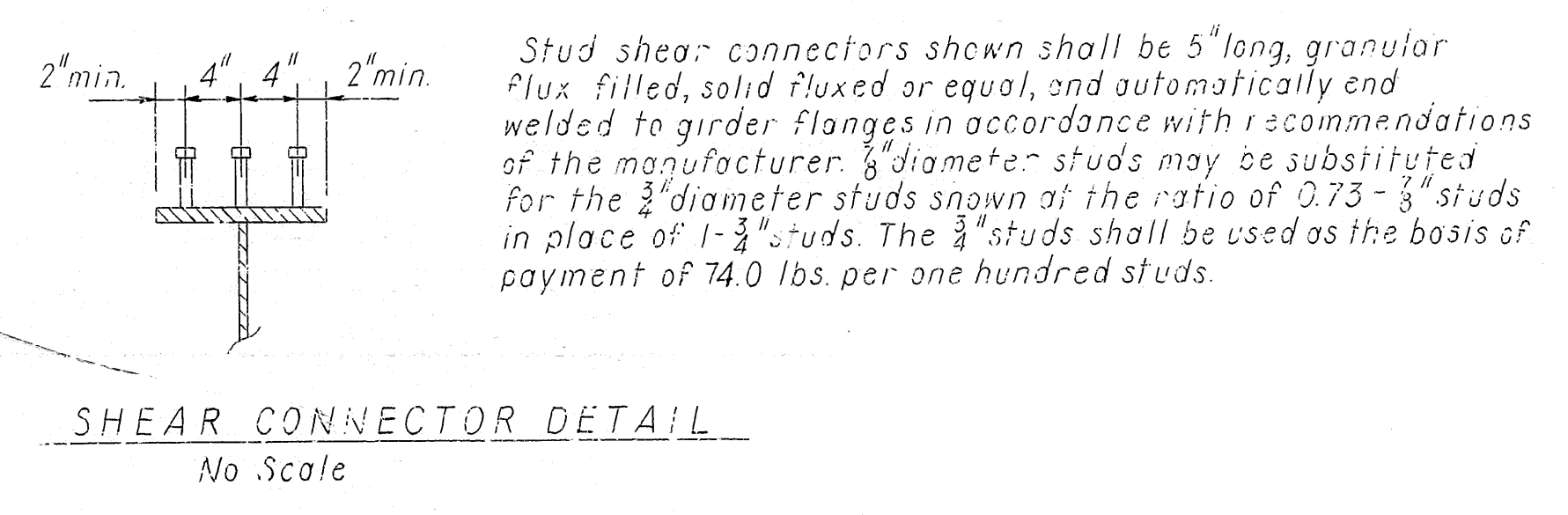
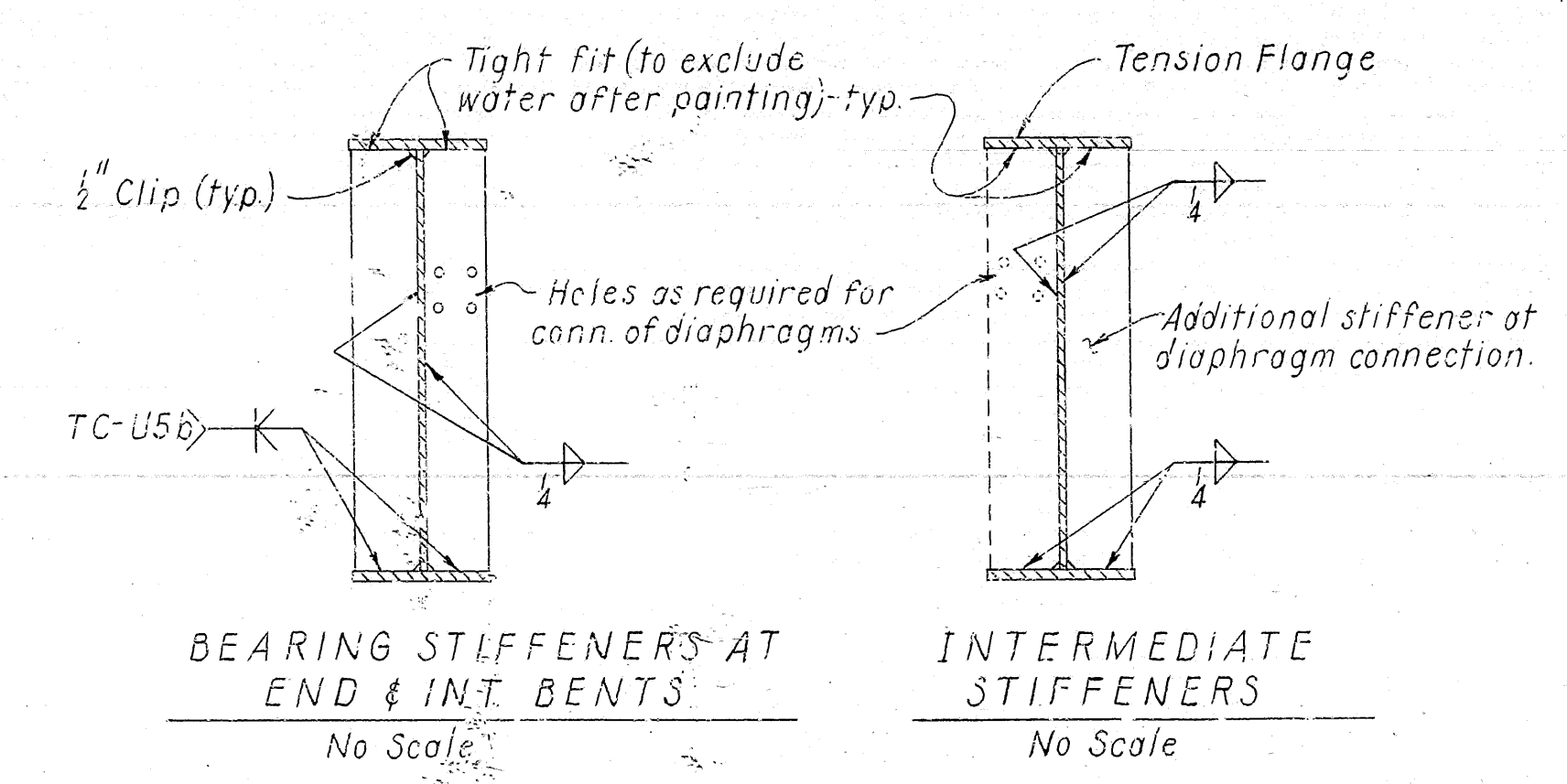
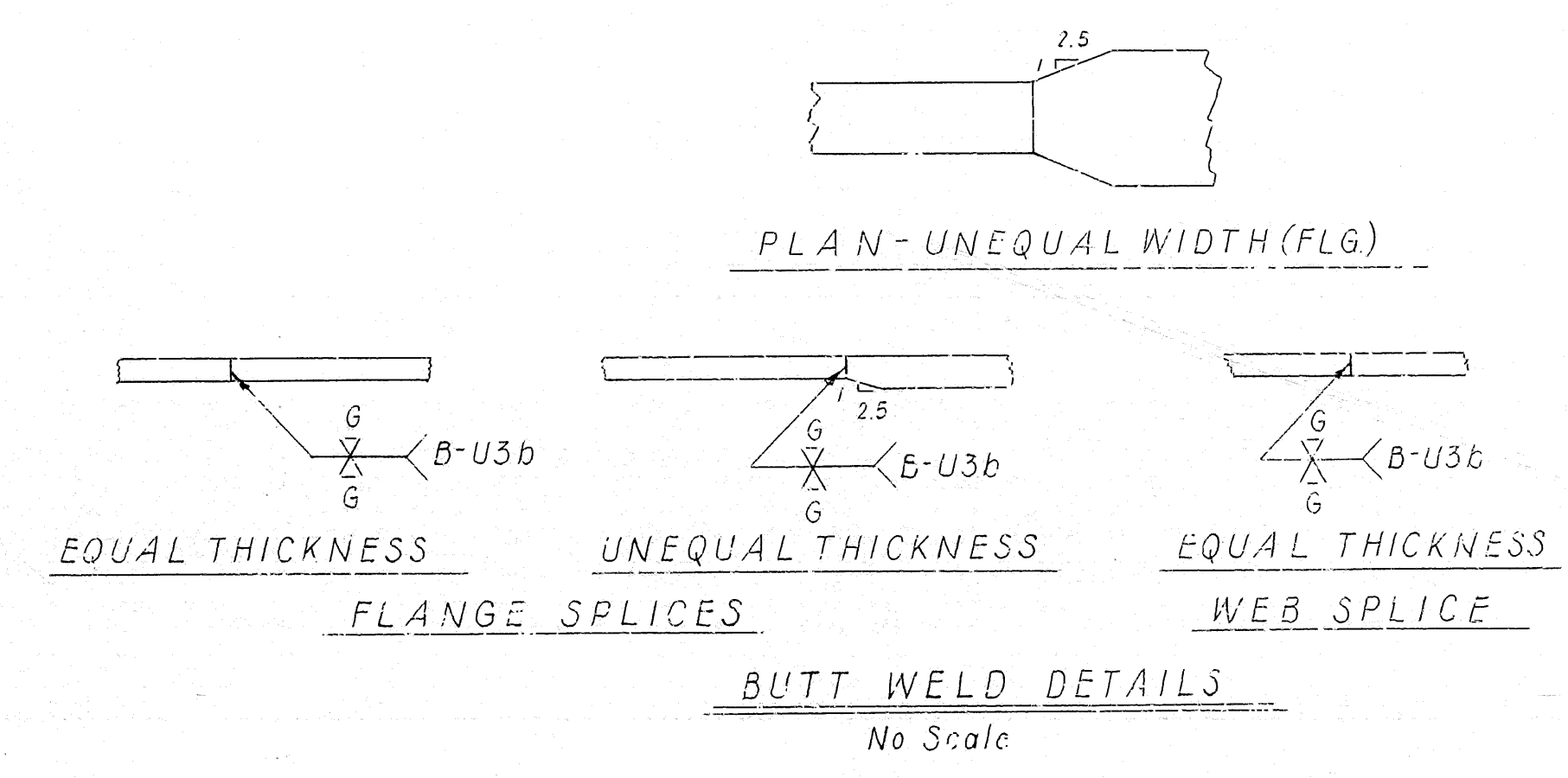
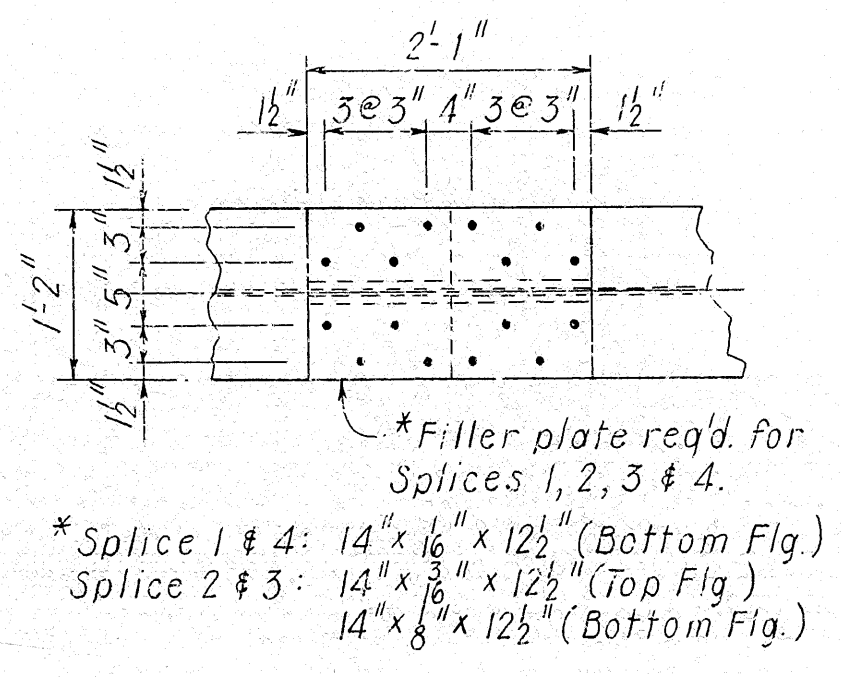
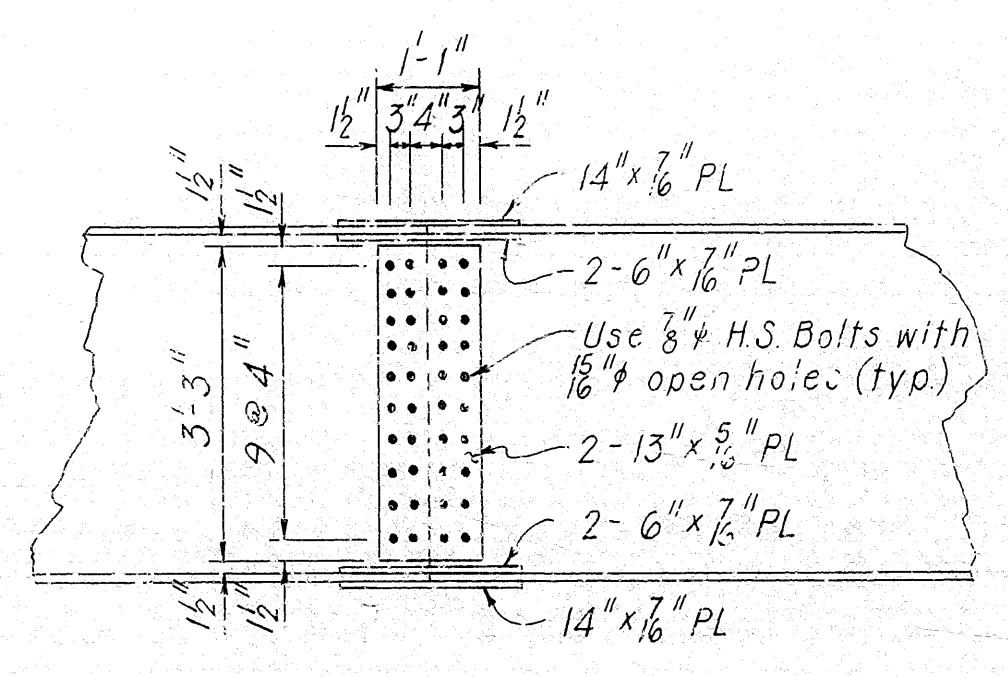


TABLE OF VARIABLES

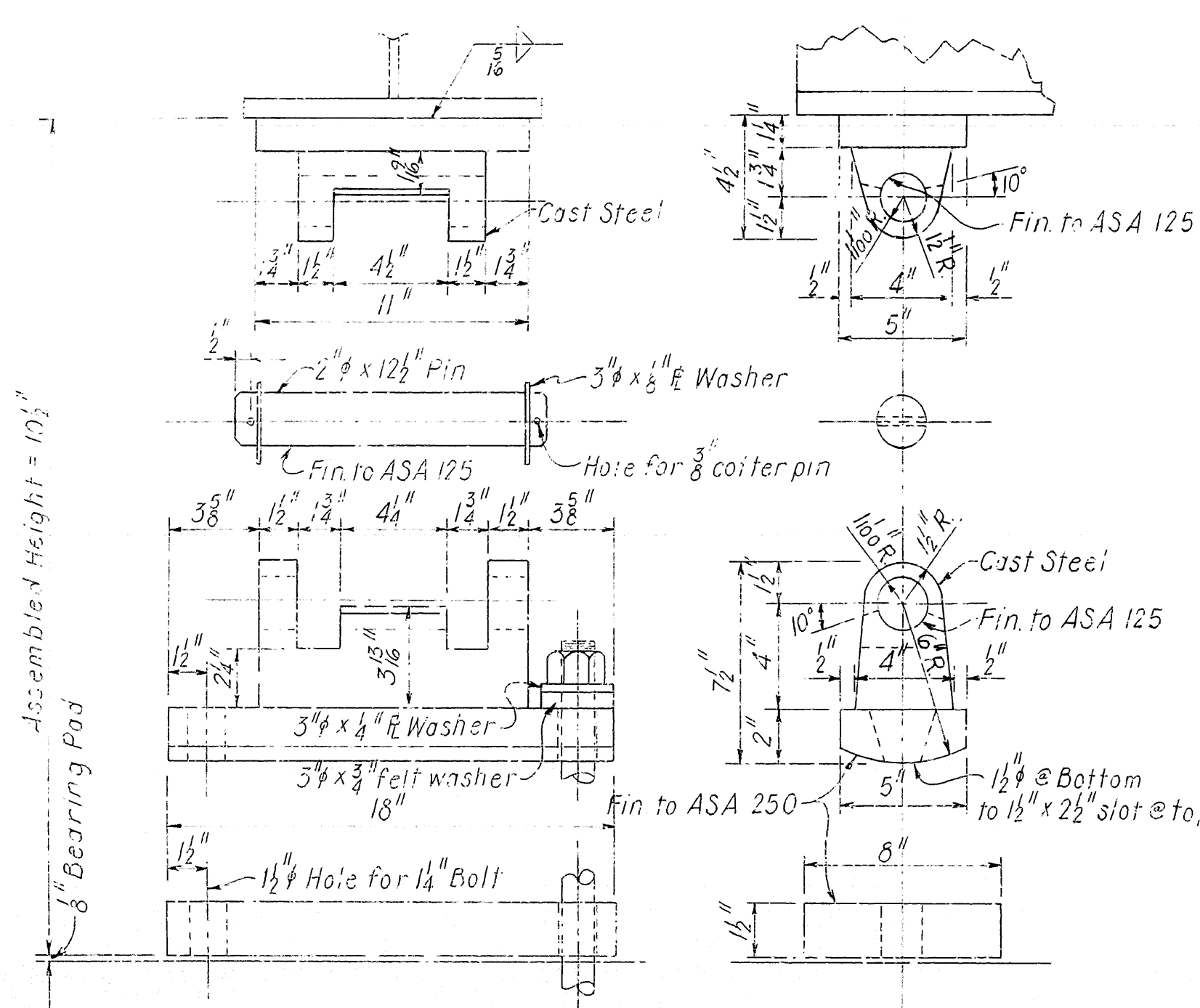
Variable	Girder No					
	1	2	3	4	5	6
A	47'-9 3/8"	47'-9 3/8"	47'-9 3/8"	47'-9 3/8"	47'-9 3/8"	47'-9 3/8"
B	86'-11 1/8"	87'-0"	87'-0"	87'-0"	87'-0"	87'-0 1/8"
C	86'-11 1/8"	87'-0"	87'-0"	87'-0"	87'-0"	87'-0 1/8"
D	47'-9 3/8"	47'-9 3/8"	47'-9 3/8"	47'-9 3/8"	47'-9 3/8"	47'-9 3/8"
E	41'-6 3/8"	41'-6 3/8"	41'-6 3/8"	41'-6 3/8"	41'-6 3/8"	41'-6 3/8"
F	53'-11 1/8"	54'-0"	54'-0"	54'-0"	54'-0"	54'-0 1/8"
G	53'-11 1/8"	54'-0"	54'-0"	54'-0"	54'-0"	54'-0 1/8"
H	41'-6 3/8"	41'-6 3/8"	41'-6 3/8"	41'-6 3/8"	41'-6 3/8"	41'-6 3/8"
J	41'-6 3/8"	41'-6 3/8"	41'-6 3/8"	41'-6 3/8"	41'-6 3/8"	41'-6 3/8"
K	53'-11 1/8"	54'-0"	54'-0"	54'-0"	54'-0"	54'-0 1/8"
L	53'-11 1/8"	54'-0"	54'-0"	54'-0"	54'-0"	54'-0 1/8"
M	41'-6 3/8"	41'-6 3/8"	41'-6 3/8"	41'-6 3/8"	41'-6 3/8"	41'-6 3/8"
N	1'-2 1/8"	1'-2 1/8"	1'-3"	1'-3"	1'-3 1/8"	1'-3 1/8"
P	1'-5 3/8"	1'-6"	1'-6"	1'-6"	1'-6"	1'-6 1/8"
Q	1'-5 3/8"	1'-6"	1'-6"	1'-6"	1'-6"	1'-6 1/8"
R	1'-2 1/8"	1'-2 1/8"	1'-3"	1'-3"	1'-3 1/8"	1'-3 1/8"
Girder Radius	1163.73	1156.61	1147.48	1142.36	1135.23	1128.11



NOTE: See Framing Plan for Plate sizes.

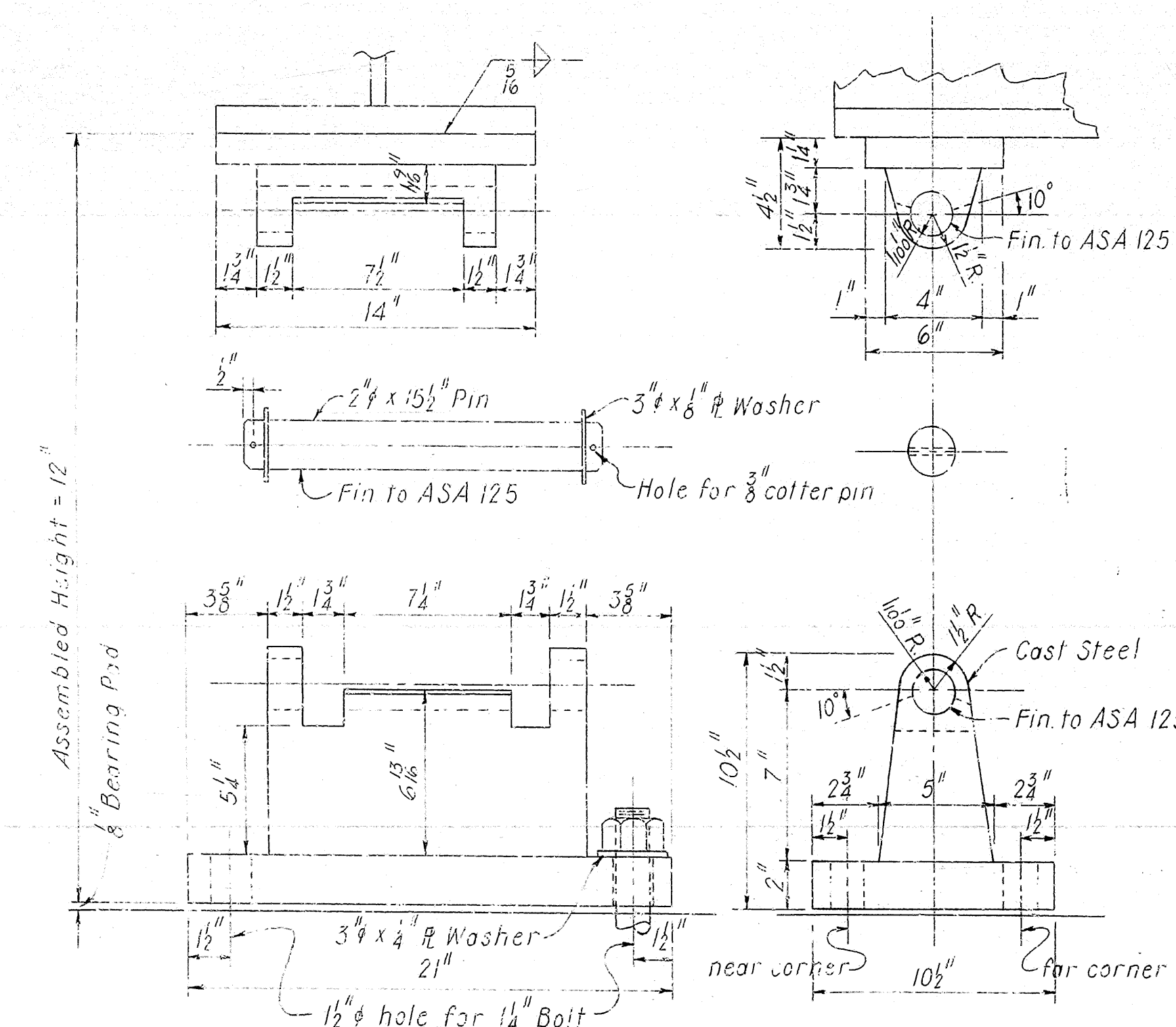
SHEET 5 OF 6
DETAILS OF CONTINUOUS PLATE GIRDER UNIT
NORTH FRONTAGE ROAD
JCT. I-30 - FOURCHE CREEK
PULASKI COUNTY
INT. ROUTE 430 SEC. 21
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: H. H. H. DATE: 11-30-72
TRACED BY: DATE: SCALE: As Shown
CHECKED BY: JAS DATE: 12-5-72
BRIDGE NO. 5504 DRAWING NO. 17945

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
				6	ARK.	1450-2 (105) 130		59	215
				JOB NO.		6848			
				① 550A SPAN		17946			

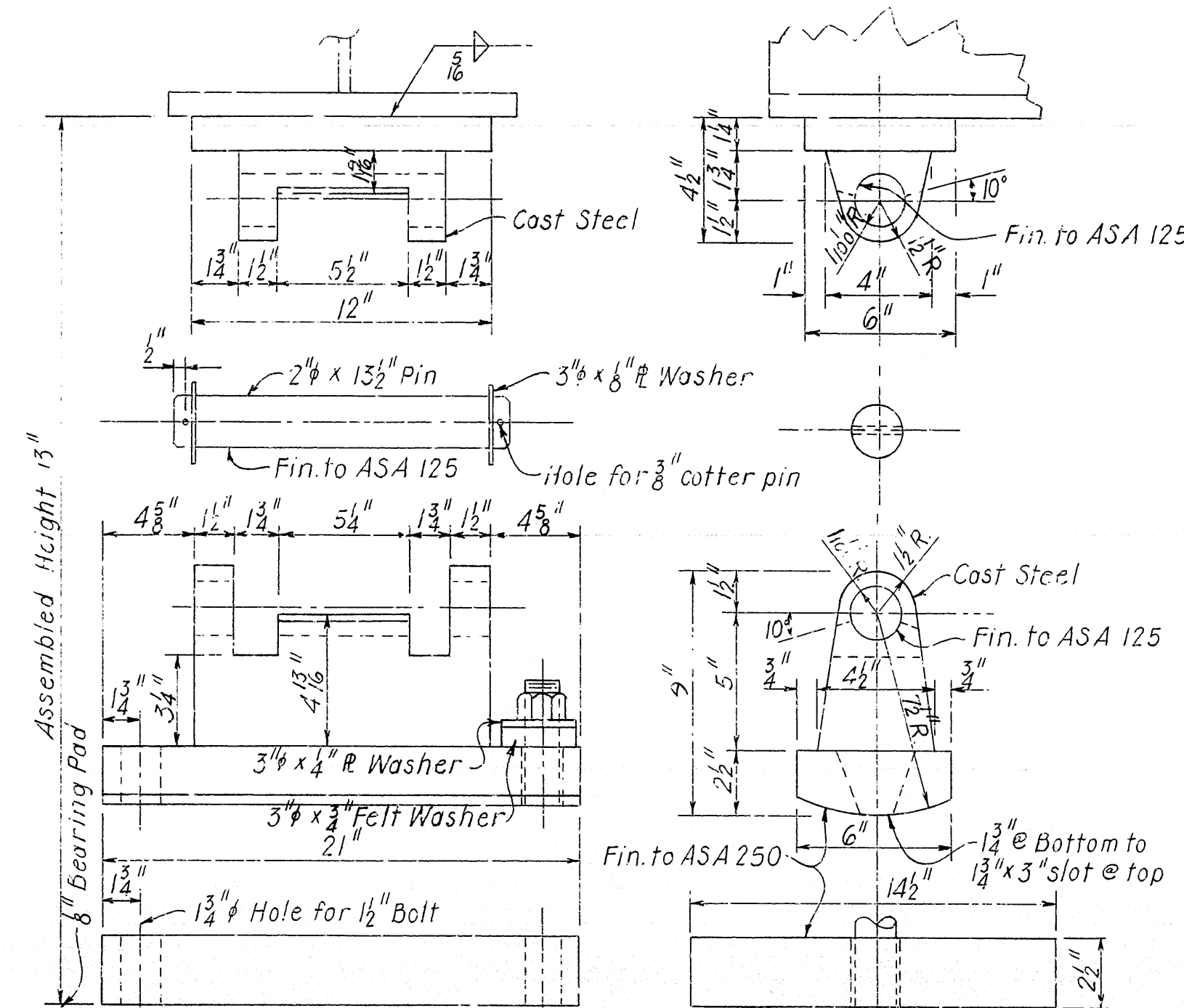


TYPE D1 EXPANSION SHOE
(Bents 1 & 5)

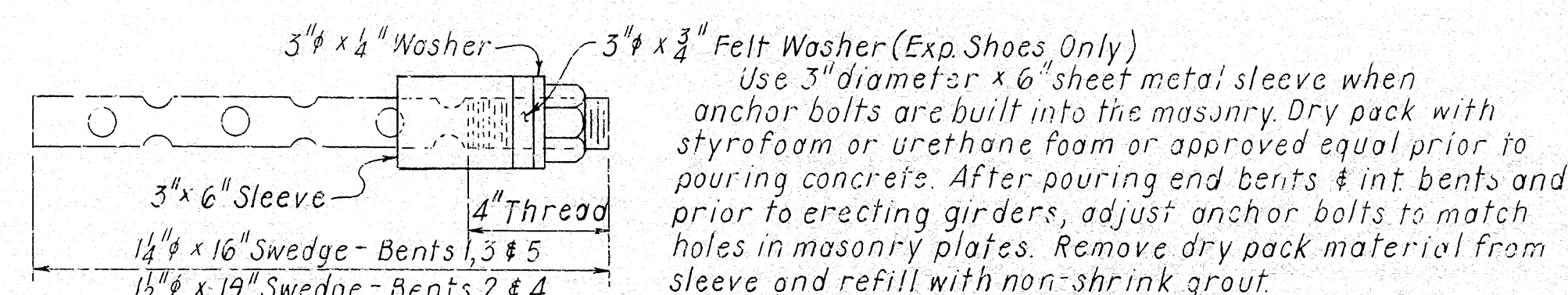
MATERIALS FOR SHOES: Steel Castings
ASTM A27 Grade 70-40, & ASTM A36.



TYPE E2 FIXED SHOE
(Bent 3)



TYPE D4 EXPANSION SHOE
(Bents 2 & 4)



ANCHOR BOLT DETAIL

TABLE OF DEFLECTIONS (IN.)

Point of Deflection	Wt. of Girder			Wt. of Girder & Slab			Wt. of Girder, Slab, Sidewalk, Parapet & Rails		
	Ext. 1	Int. 2-5	Ext. 6	Ext. 1	Int. 2-5	Ext. 6	Ext. 1	Int. 2-5	Ext. 6
0	0	0	0	0	0	0	0	0	0
0.1	-0.001	0.000	0.002	0.010	0.015	0.019	0.012	0.015	0.022
0.2	-0.003	-0.001	0.002	0.016	0.024	0.031	0.018	0.024	0.037
0.3	-0.005	-0.003	0.002	0.015	0.023	0.033	0.016	0.024	0.039
0.4	-0.009	-0.006	0.000	0.006	0.013	0.023	0.005	0.012	0.028
0.5	-0.012	-0.010	-0.003	-0.009	-0.006	0.003	-0.014	-0.009	0.006
0.6	-0.017	-0.015	-0.007	-0.027	-0.028	-0.023	-0.036	-0.033	-0.023
0.7	-0.019	-0.017	-0.009	-0.042	-0.048	-0.046	-0.055	-0.055	-0.051
0.8	-0.017	-0.016	-0.010	-0.048	-0.056	-0.057	-0.062	-0.064	-0.064
0.9	-0.012	-0.011	-0.007	-0.035	-0.041	-0.043	-0.044	-0.047	-0.049
0	0	0	0	0	0	0	0	0	0
0.1	0.036	0.035	0.025	0.124	0.151	0.162	0.158	0.169	0.189
0.2	0.077	0.077	0.056	0.280	0.342	0.370	0.356	0.383	0.429
0.3	0.114	0.113	0.083	0.413	0.511	0.553	0.529	0.570	0.641
0.4	0.136	0.135	0.099	0.52	0.614	0.667	0.634	0.685	0.771
0.5	0.138	0.137	0.101	0.614	0.629	0.684	0.650	0.703	0.792
0.6	0.120	0.120	0.089	0.452	0.555	0.603	0.573	0.620	0.700
0.7	0.088	0.088	0.065	0.332	0.408	0.444	0.423	0.457	0.518
0.8	0.049	0.049	0.037	0.185	0.228	0.248	0.237	0.256	0.292
0.9	0.015	0.015	0.012	0.057	0.070	0.076	0.073	0.079	0.090
0	0	0	0	0	0	0	0	0	0

Camber for Dead Load Deflection plus vertical curve ± 4 " tolerance.
Deflections shown are from a chord from centerline bearing to centerline bearing. Vertical curve corrections not included.
Negative sign (-) indicates point above chord

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

FIELD CONNECTIONS TO BE BOLTED WITH HIGH STRENGTH BOLTS. BOLTS: 3/4" ϕ , OPEN HOLES 13/16" ϕ EXCEPT WHERE NOTED OTHERWISE. BOLT SPACING SHALL BE 2-1/2" UNLESS OTHERWISE NOTED. MINIMUM EDGE DISTANCE SHALL BE 1-1/4" UNLESS NOTED OTHERWISE. BOLTS SHALL BE PLACED WITH HEADS ON THE OUTSIDE FACE OF EXTERIOR GIRDERS AND ON BOTTOM OF GIRDER FLANGES.

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

ALL WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY STANDARD SPECIFICATIONS FOR WELDED HIGHWAY AND RAILWAY BRIDGES, CURRENT EDITION.

SHOP PAINT: ALL STRUCTURAL STEEL EXCEPT GALVANIZED MEMBERS, CONTACT SURFACES OF BOLTED CONNECTIONS, AND SURFACES WITHIN 3" OF HOLES AND FIELD WELDS, AND SURFACES IN CONTACT WITH CONCRETE SHALL BE GIVEN ONE PRIME COAT.

FIELD PAINT: AFTER ERECTION ALL EXPOSED STEEL SURFACES WHICH DID NOT RECEIVE A COAT OF SHOP PAINT EXCEPT SURFACES IN CONTACT WITH CONCRETE SHALL BE GIVEN ONE PRIME COAT. TWO ADDITIONAL COATS OF FIELD PAINT SHALL BE APPLIED TO ALL EXPOSED SURFACES. FIRST COAT-RED LEAD TINTED WITH LAMP BLACK; SECOND COAT, SEE SP JOB 6848 "PAINTING OF STEEL STRUCTURES".

BEARINGS SHALL BE FINALLY SEATED IN ACCORDANCE WITH SEC. 807.51 INCLUDING ALTERNATE, OF THE STANDARD SPECIFICATIONS. THIS WORK AND MATERIAL IS TO BE CONSIDERED AS SUBSIDIARY TO THE ITEM OF "STRUCTURAL STEEL" AND WILL NOT BE PAID FOR DIRECTLY. THESE DRAWINGS SHOW GENERAL FEATURES OF DESIGN ONLY. SHOP DRAWINGS SHALL BE MADE IN ACCORDANCE WITH THE SPECIFICATIONS, SUBMITTED AND APPROVAL SECURED BEFORE FABRICATION IS BEGUN. ANCHOR BOLTS SHALL BE GALVANIZED TO CONFORM TO ASTM SPECIFICATIONS, DESIGNATION A153.

REINFORCING STEEL TO BE ASTM A615, GRADE 40. 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 OF "REINFORCING STEEL". SHOP LISTS AND BENDING DIAGRAMS OF REINFORCING STEEL, INCLUDING WIRE SUPPORTS, SHALL BE SUBMITTED AND APPROVAL SECURED BEFORE FABRICATION IS BEGUN.

THE CONTRACTOR, AT HIS OPTION, MAY POUR BRIDGE SLAB CONTINUOUS OVER THE ENTIRE UNIT USING A RETARDING AGENT TO RETARD SET. NOT LESS THAN 72 HOURS SHALL ELAPSE BETWEEN POURING OF SLAB AND THE CURB SECTIONS. IF THE PARAPET IS NOT POURED WITH THE CURB, 72 HOURS SHALL ELAPSE BETWEEN POURING OF CURB AND PARAPET.

ALL CONCRETE SHALL BE POURED AND SCREENED OFF PRIOR TO INITIAL SET. THE CONCRETE DECK SHALL BE FINISHED IN ACCORDANCE WITH SECTION 802.23 OF THE STANDARD SPECIFICATIONS. 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.

GIRDER WEBS MAY BE MADE BY SHOP SPlicing WITH MINIMUM LENGTH OF 25'-0" FOR SECTIONS. FLANGE PLATES LONGER THAN 50' 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.

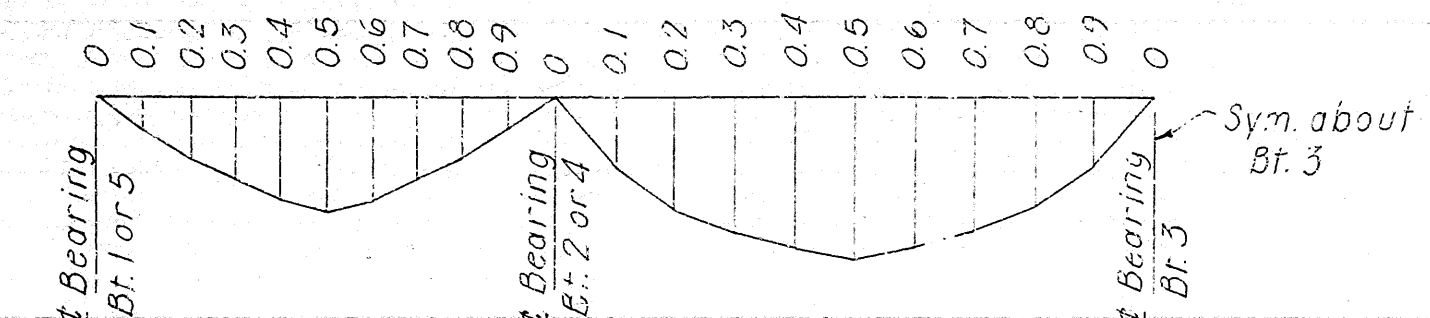
FLANGES NOTED ON GIRDER ELEVATION (SHEET 3) AS HIGH STRENGTH LOW ALLOY COLUMBIUM VANADIUM STEEL, ASTM DESIGNATION A572, GRADE 50 SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER POUND BID FOR "STRUCTURAL STEEL IN PLATE GIRDER SPANS A572". ALL OTHER STRUCTURAL STEEL SHALL BE ASTM DESIGNATION A36 AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER POUND BID FOR "STRUCTURAL STEEL IN PLATE GIRDER SPANS A36".

FOR DETAILS OF BRIDGE RAILINGS, SEE DRAWING NO. 13036.

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1972, AND APPLICABLE SPECIAL PROVISIONS.

ALL WELDING THAT IS TO BE DONE DURING FABRICATION OF STRUCTURAL STEEL, INCLUDING TEMPORARY WELDS, SHALL BE DETAILED ON THE SHOP DRAWINGS AND SUBMITTED FOR APPROVAL. IF THE CONTRACTOR OR ERECTOR SHOULD WANT TO MAKE ADDITIONAL WELDS, WHETHER TEMPORARY OR PERMANENT, HE SHALL SUBMIT DETAILED DRAWINGS WITH A FORMAL REQUEST TO THE BRIDGE DESIGN DIVISION OF THE ARKANSAS STATE HIGHWAY DEPARTMENT FOR APPROVAL.

ASTM A27, GRADE 70-40 STEEL SHOE CASTINGS SHALL BE PAID FOR AT THE UNIT PRICE PER POUND BID FOR "STRUCTURAL STEEL IN PLATE GIRDER SPANS A36".



DEAD LOAD DEFLECTION

SHEET 6 OF 6

DETAILS OF CONTINUOUS PLATE

GIRDER UNIT

NORTH FRONTAGE ROAD

JCT. I-30 - FOURCHE CREEK

PULASKI COUNTY

INT. ROUTE 430 SEC. 21

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: H. H. H. DATE: 11-30-72

TRACED BY: DATE: 12-7-72

CHECKED BY: JAS DATE: 12-7-72

BRIDGE NO. 5504

DRAWING NO. 17946

Vernon Emberton
BRIDGE ENGINEER