

REV.	REV.	REV.	REV.	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R90043	28	108
				4531	QUANT.		27461	

SCHEDULE OF BRIDGE QUANTITIES--JOB R90043

BRIDGE NO.	CODE NO.	NAME PLATE TITLE	UNIT OF STRUCTURE	ITEM NO.	205	801	SP 802	**SP 802	803	804	805	812	SP 816	SP 816
				ITEM	REMOVAL OF EXISTING BRIDGE STRUCTURES	UNCLASSIFIED EXCAVATION FOR STRUCTURES - BRIDGE	CLASS S CONCRETE	CLASS S(AE) CONCRETE	BOILED LINSEED OIL	REINFORCING STEEL (GRADE 60)	STEEL BEARING PILING (HP 10x42)	BRIDGE NAME PLATE (TYPE C)	FILTER BLANKET	DUMPED RIPRAP
				UNIT	LUMP SUM	CU. YD.	CU. YD.	CU. YD.	GAL.	LB.	LIN. FT.	EACH	SQ. YD.	CU. YD.
4531	X020	OSAGE CREEK		BENTS 1-6	1	4	19.12			2629	130		390	195
				BENTS 2-5		165	71.08			13859				
				END SPANS 1-5				152.34	5.7	23802		1		
				INT. SPAN 2-4				227.26	8.6	35400				
				TOTALS FOR JOB NO. 9806	1	* 169	90.20	379.60	14.3	75690	130	1	390	195

* Includes 32 cu. Rock Excavation
** Refers to SP 807-10

SCHEDULE OF BRIDGE QUANTITIES

HWY. 264 - ROGERS

BENTON COUNTY

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: D.H.P. DATE: 5-1-85

CHECKED BY: M.R.V. DATE: 5-2-85

DESIGNED BY: DATE:

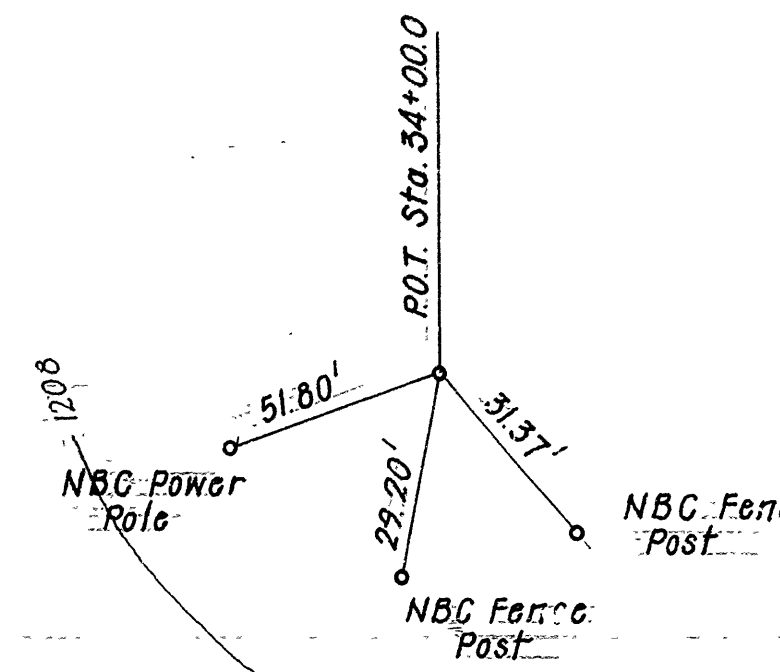
SCALE: None

David F. Loe
BRIDGE ENGINEER

BRIDGE NO. 4531

DRAWING NO. 27461

DALE F. LOE
DESIGN SQUAD SUPERVISOR



BENCH-MARK: N.I.S. GATE POST 30' RT. STA. 27+80, ELEV. 1208.68.

DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1983 WITH CURRENT INTERIM SPECIFICATIONS.

METHOD OF DESIGN: LOAD FACTOR

DRA WING NO.

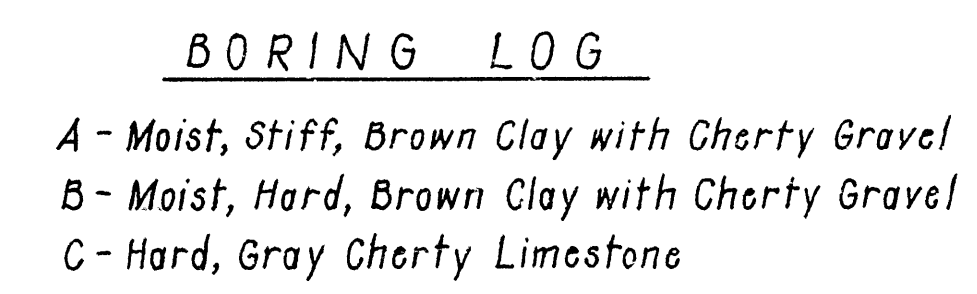
STEEL PILING: PILING FOR BENTS 1 & 6 SHALL BE HPIOX42 AND SHALL BE DRIVEN WITH AN APPROVED AIR, STEAM, OR DIESEL HAMMER TO A MINIMUM BEARING CAPACITY OF 55 TONS PER PILE AND INTO THE MATERIAL DESIGNATED AS C ON THE BORING LOG. LENGTHS C SHOWN ARE FOR ESTIMATING QUANTITIES AND FOR USE IN DETERMINING OFF OR PAYMENT, FOR CUT-OFF AND BUILDUP IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. PILES IN END BENTS TO BE DRIVEN AFTER EMBANKMENT TO BOTTOM OF CAP IS IN PLACE.

EXISTING BRIDGE: REMOVE THE EXISTING 23' WIDE BY 42' LONG LOW WATER BRIDGE CONSISTING OF A CONCRETE SLAB AND 2-18" X 24" C.M. PIPES.

SEE SECTION 205 OF THE STANDARD SPECIFICATIONS.

BOILED LINSEED OIL: BOILED LINSEED OIL TREATMENT SHALL BE APPLIED TO THE ROADWAY SURFACE AND FACE AND TOP OF THE CONCRETE PARAPET RAIL.

BRIDGE DECK: THE CONCRETE BRIDGE DECK SHALL BE GIVEN A TINE FINISH AS SPECIFIED FOR FINAL FINISHING IN SUBSECTION 802.23 FOR CLASS 6 ROADWAY SURFACE FINISH.



A - Moist, Stiff, Brown Clay with Cherty Gravel
B - Moist, Hard, Brown Clay with Cherty Gravel
C - Hard, Gray Cherty Limestone

D. A. = 12.1 sq. mi.

BASIC FLOOD
 $Q_{100} = 8390$ cfs
 Normal W.S. Elev. 1208.2
 W.S. with Backwater Elev. 1209.7

Rural Pinkerton
BRIDGE ENGINEER

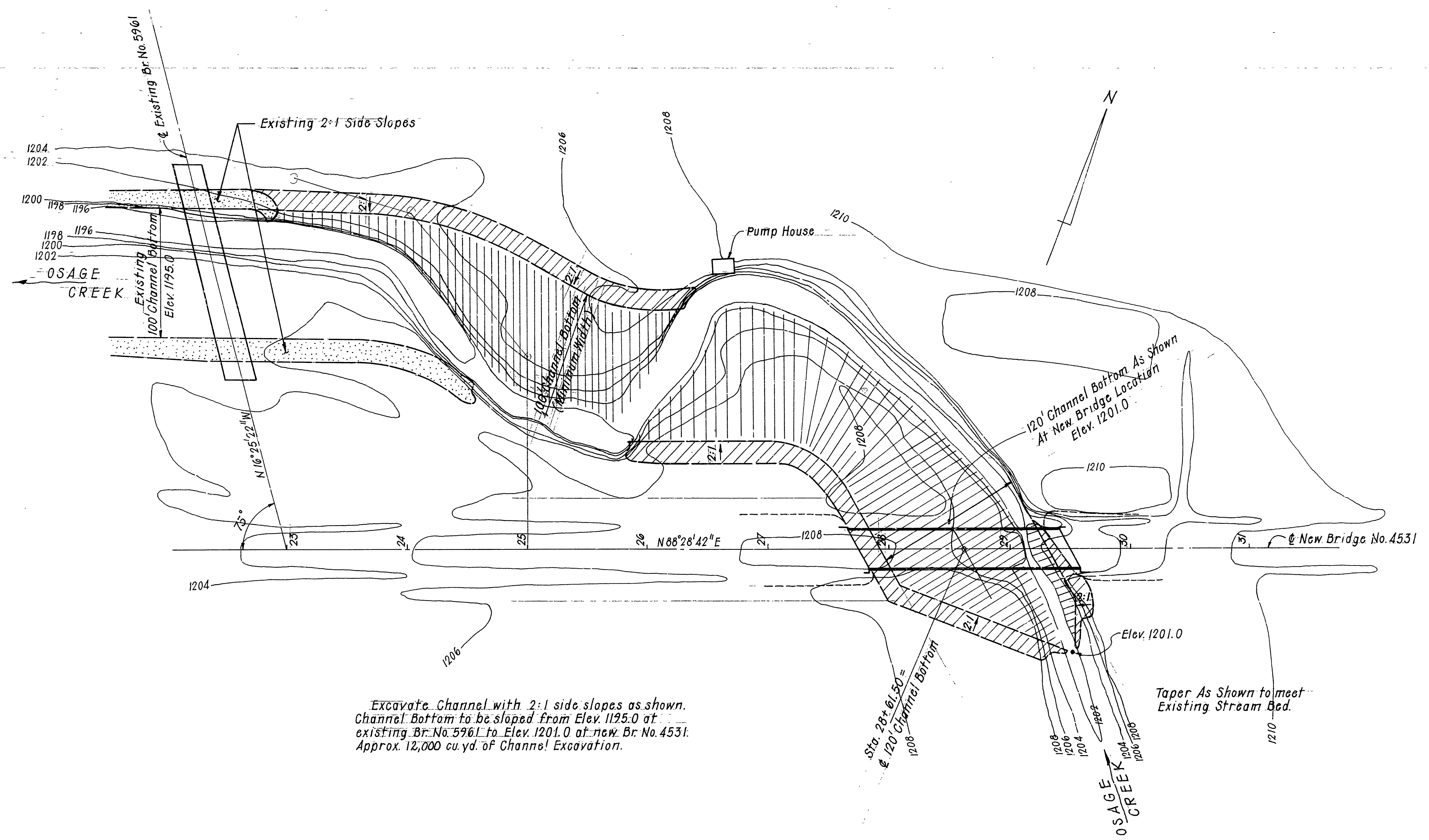
ARKANSAS STATE HIGHWAY COMMISSION

DRAWN BY: H. Maj. DATE: 3-5-85

DESIGNED BY: DPL DATE: 3-3-68
BRIDGE NO. 4531 DRAWING NO. 27462

BRIDGE NO. 4531 DRAWING NO. 27462

DATE	DATE	DATE	DATE	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	R90043		64	108
				4531	SKETCH		27463	

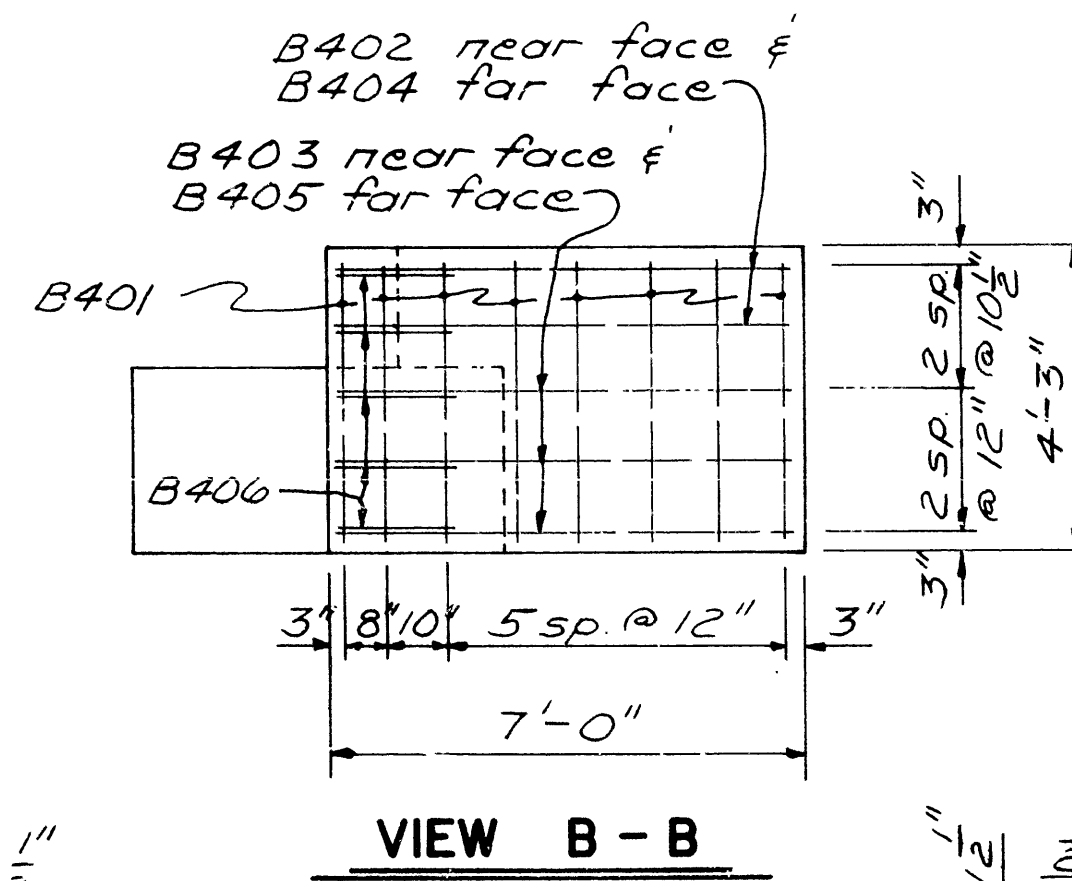
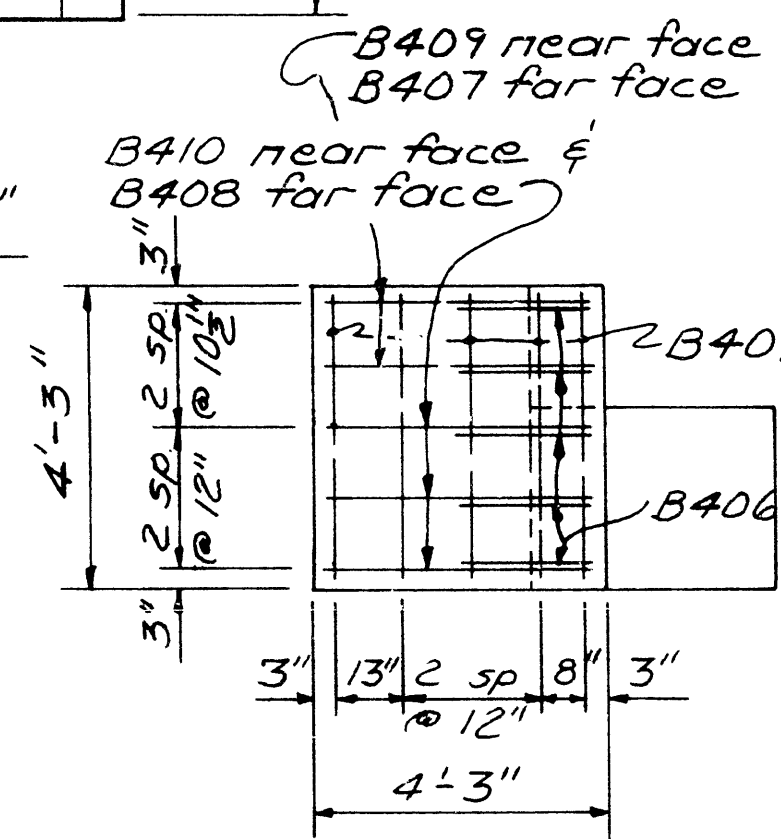
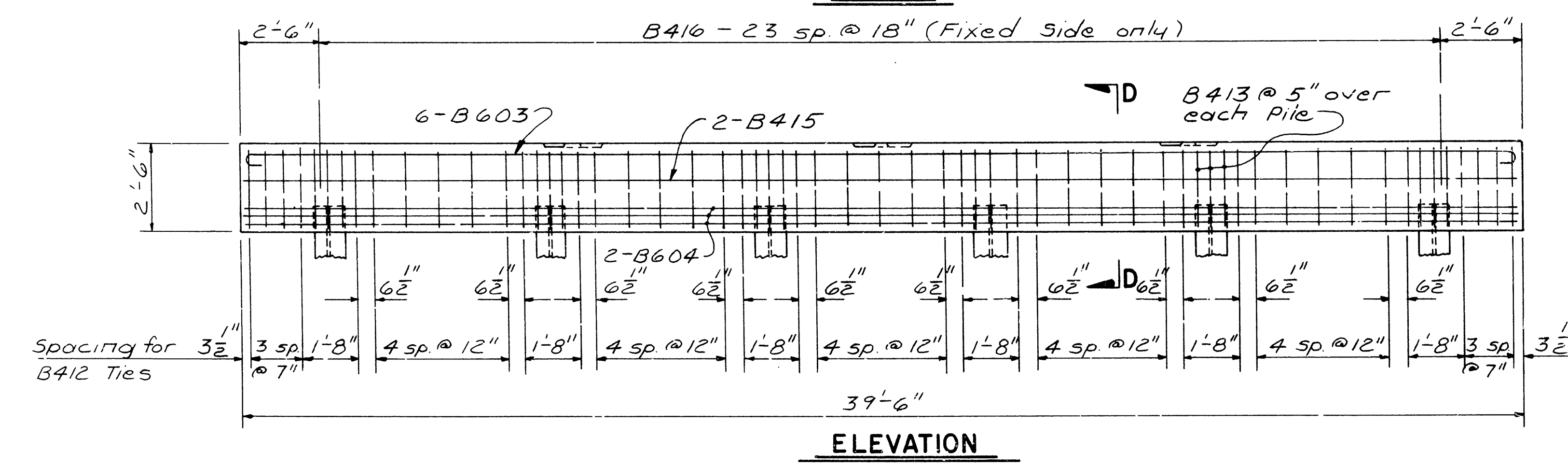
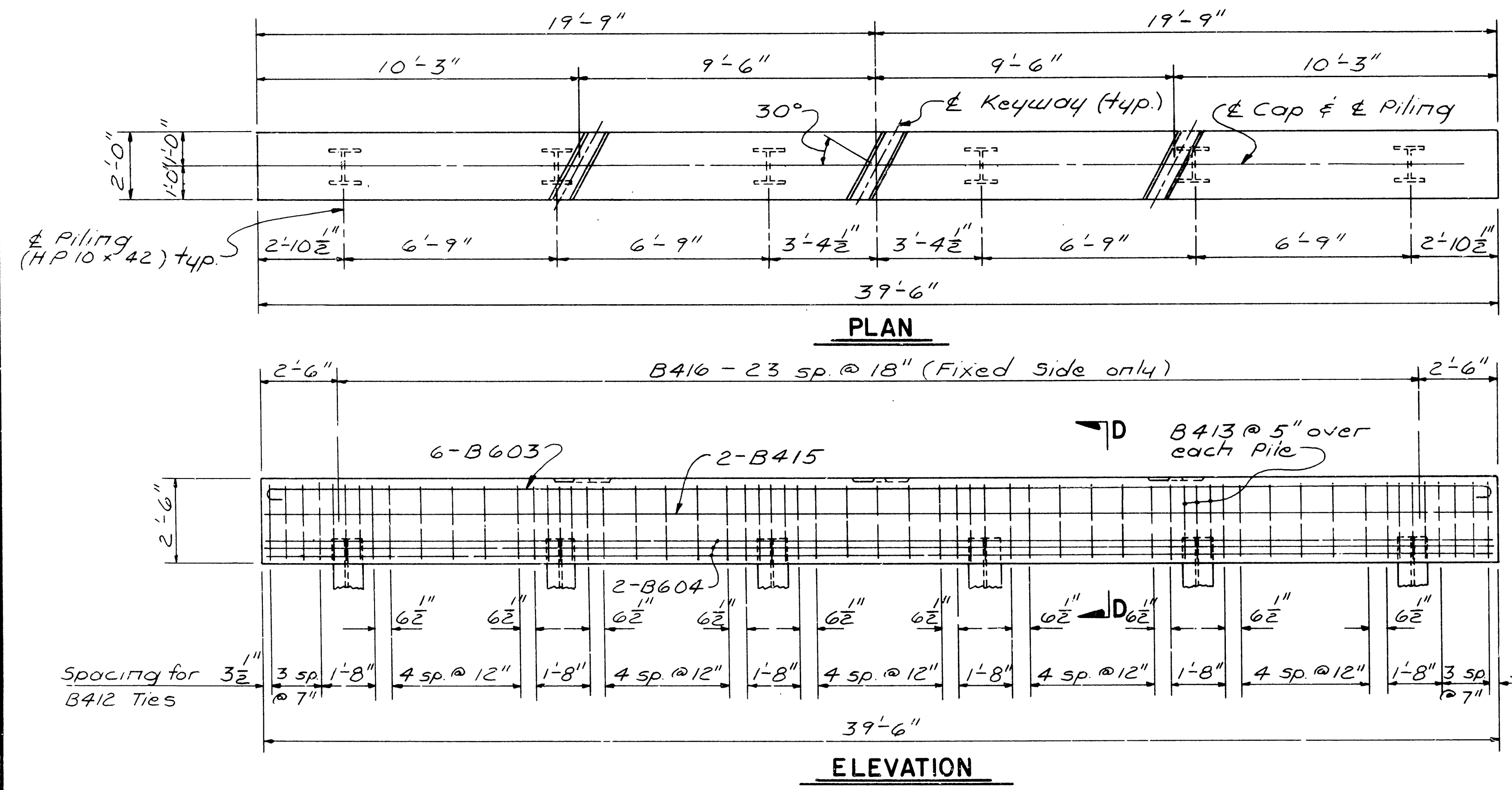
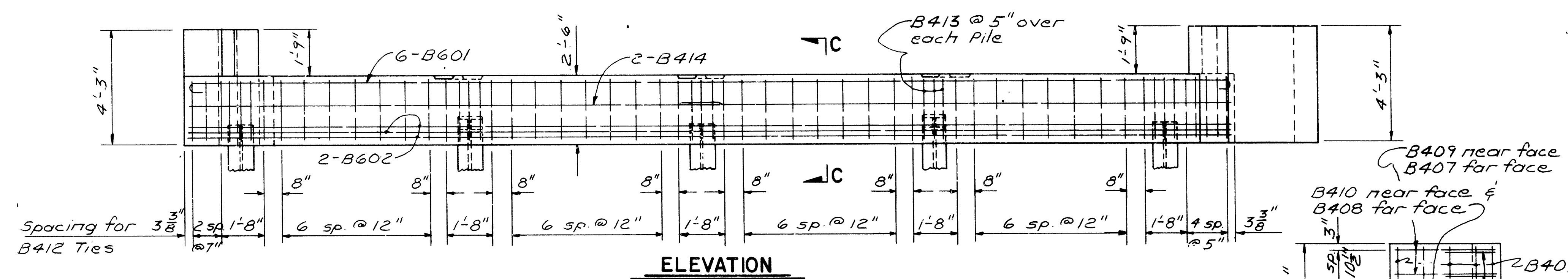
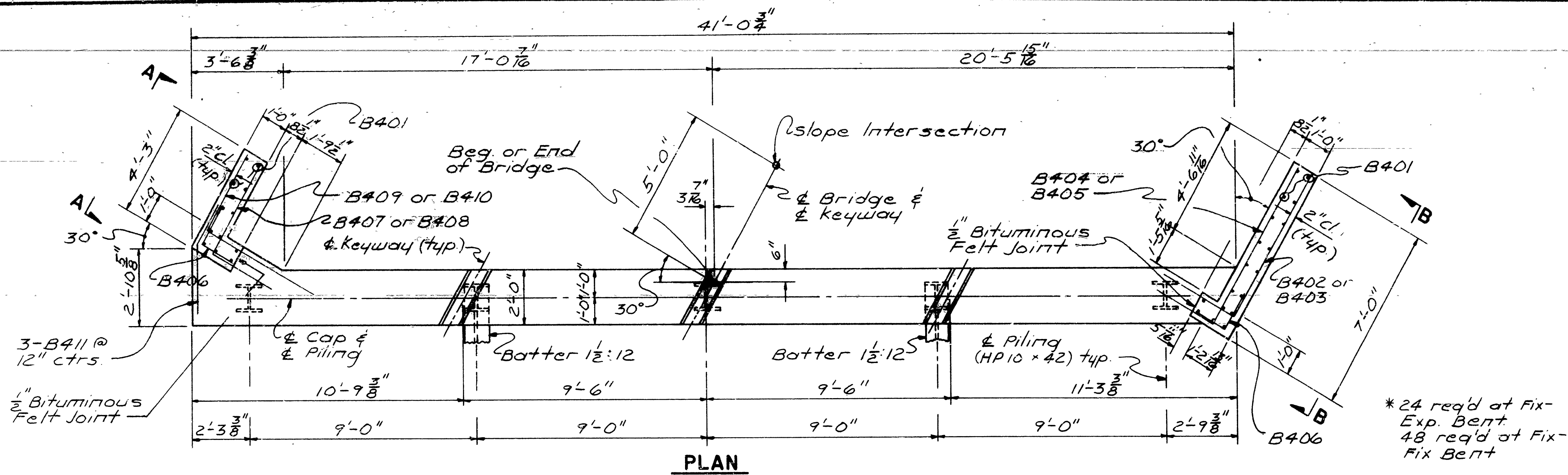


Excavate Channel with 2:1 side slopes as shown. Channel Bottom to be sloped from Elev. 1195.0 at existing Br. No. 5961 to Elev. 1201.0 at new Br. No. 4531. Approx. 12,000 cu. yd. of Channel Excavation.

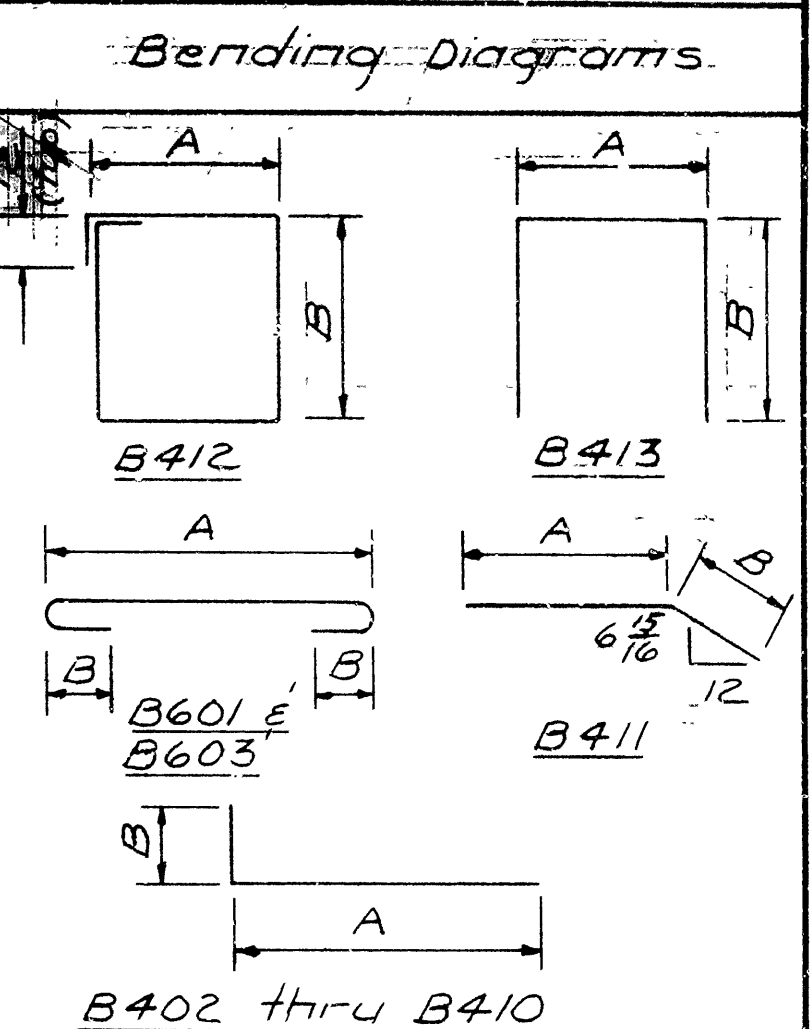
LOCATION SKETCH OF BRIDGE
OVER OSAGE CREEK
HWY. 264 - ROGERS
BENTON COUNTY
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: *H. Chap.* DATE: 3-5-85
CHECKED BY: D.H.P. DATE: 5-1-85
DESIGNED BY: DATE: SCALE: 1" = 50'
BRIDGE NO. 4531 DRAWING NO. 27463

Verne Pinkerton
BRIDGE ENGINEER

DATE	JOB	DATE	DATE	FED. GRAD. NO.	STATE	FED. AID PROJ. NO.	COUNTY NO.	TOTAL EMBEYS
				6	ARK.			
				JOB NO.		R90043	65	108
				4531		BT-BTL'S		27464



MK	No. Req'd		Length	A	B	Pin Dia.
	End	Int.				
B401	30		3'-11"			str.
B402	2		7'-4"	6'-0 $\frac{1}{2}$ "	1'-4 $\frac{1}{2}$ "	2"
B403	3		9'-2"	6'-0 $\frac{1}{2}$ "	3'-2 $\frac{1}{2}$ "	2"
B404	2		7'-4"	6'-8"	9"	2"
B405	3		9'-2"	6'-8"	2'-7"	2"
B406	10		3'-0"	1'-8"	1'-4 $\frac{1}{2}$ "	2"
B407	2		4'-7"	3'-11"	9"	2"
B408	3		6'-5"	3'-11"	2'-7"	2"
B409	2		4'-7"	3'-3 $\frac{1}{2}$ "	1'-4 $\frac{1}{2}$ "	2"
B410	3		8'-3"	3'-3 $\frac{1}{2}$ "	5'-0"	2"
B411	3		4'-2"	2'-6 $\frac{1}{2}$ "	1'-8"	2"
B412	44	43	8'-6"	1'-8"	2'-2"	2"
B413	15	18	5'-10"	1'-8"	2'-2"	2"
B414	4		2'-2"			str.
B415		2	39'-2"			str.
B416		*	2'-6"			str.
B601	6		42'-0"	40'-8"	6"	4 $\frac{1}{2}$ "
B602	6		40'-8"			str.
B603		6	40'-6"	39'-2"	6"	4 $\frac{1}{2}$ "
B604		6	39'-2"			str.



Dimensions are out to
out of Bars.

GENERAL NOTES

ALL CONCRETE TO BE CLASS S AND SHALL BE POURED IN THE DRY. ALL EXPOSED CORNERS TO BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.

ALL PILING SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 55 TONS PER PILE. PILING SHALL BE HP10x42 STEEL BEARING PILING AS NOTED ON THE LAYOUT.

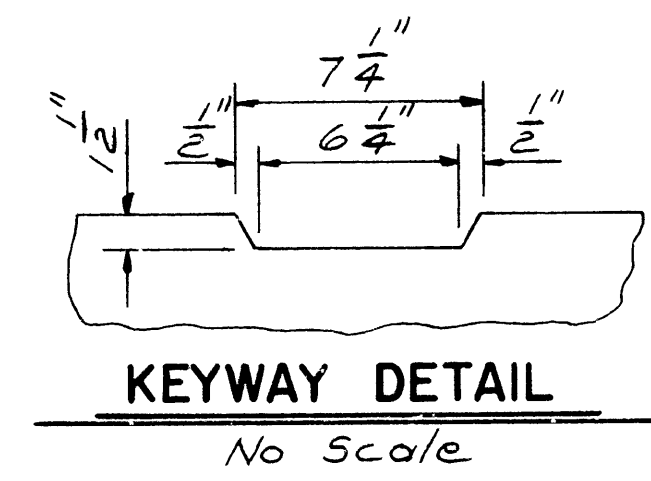
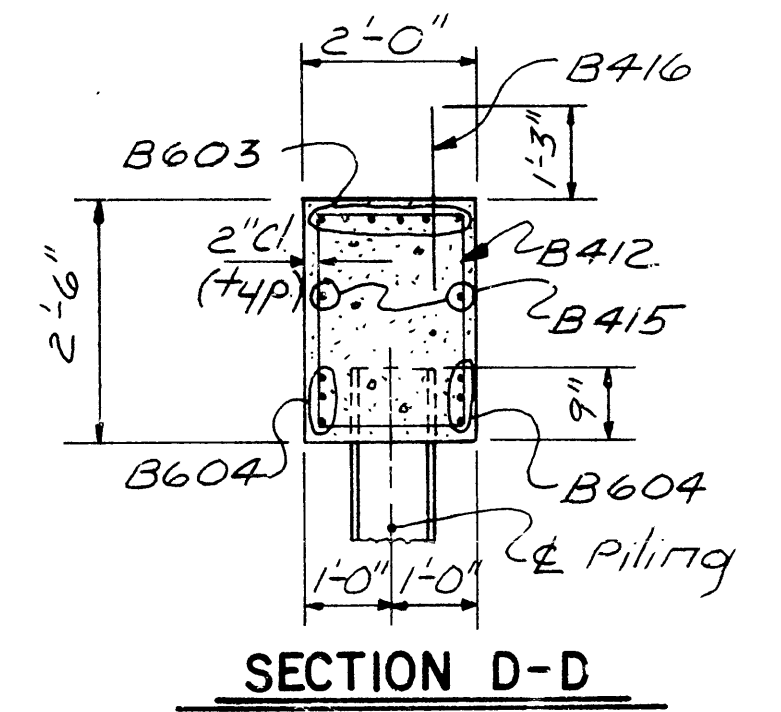
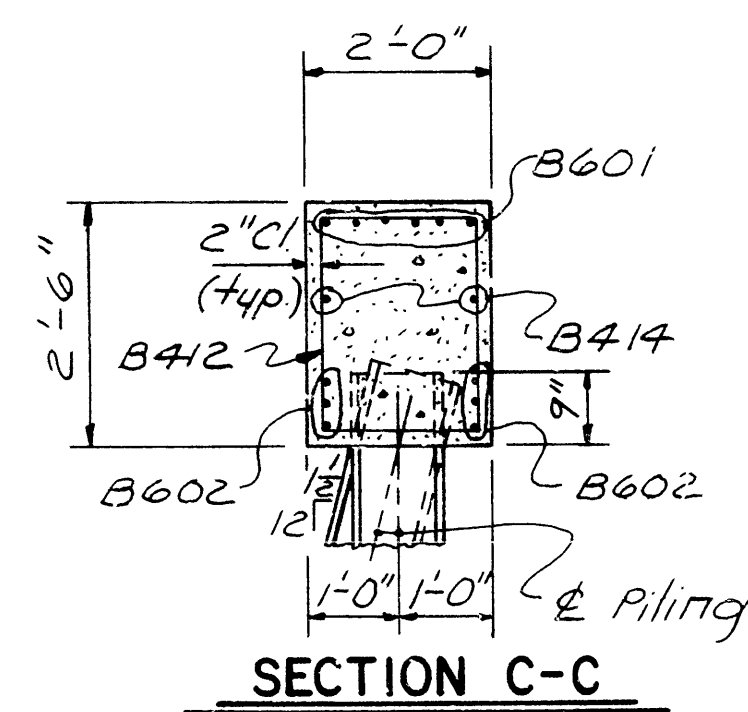
SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1978 AND APPLICABLE SPECIAL PROVISIONS.

LIVE LOAD: HS20 METHOD OF DESIGN LOAD FACTOR

DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1983 EDITION.

CONCRETE: ALL CONCRETE SHALL BE CLASS S WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH $f'_c = 3500$ PSI.

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



DETAILS OF STANDARD PILE BENTS FOR
35' R.C. SLAB SPANS
30° RT. FWD. SKEW-30' RDWY.
CONCRETE PARAPET RAIL

ROUTE	SEC.
-------	------

ARKANSAS STATE HIGHWAY COMMISSION

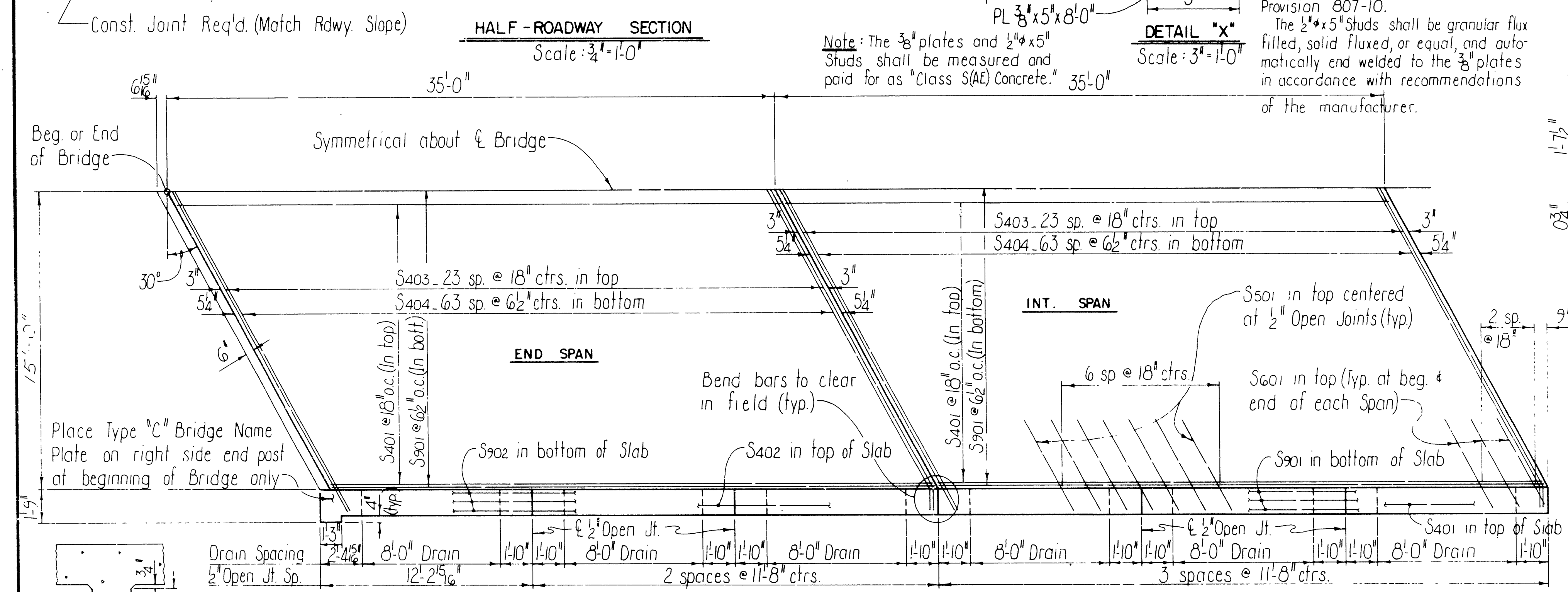
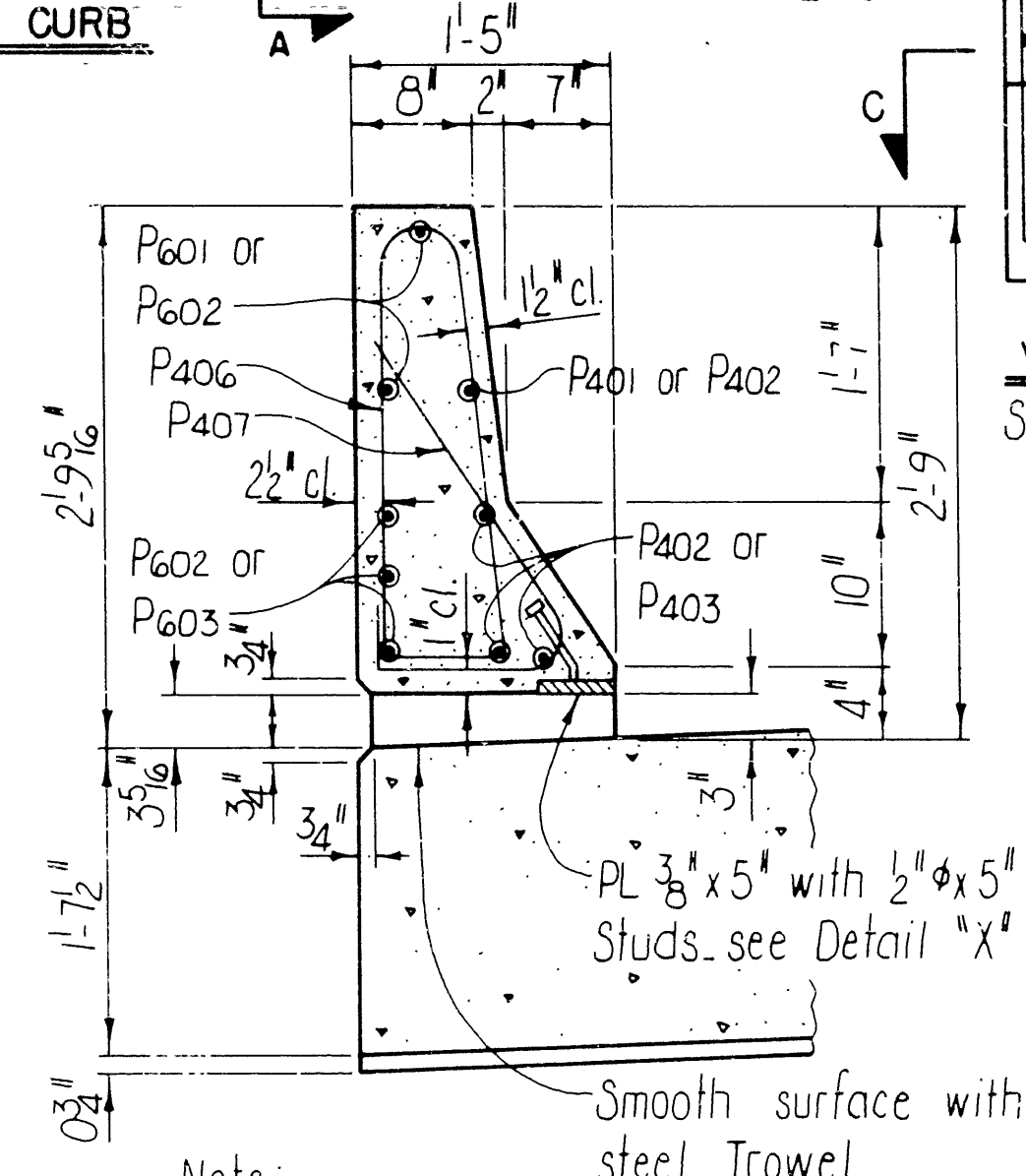
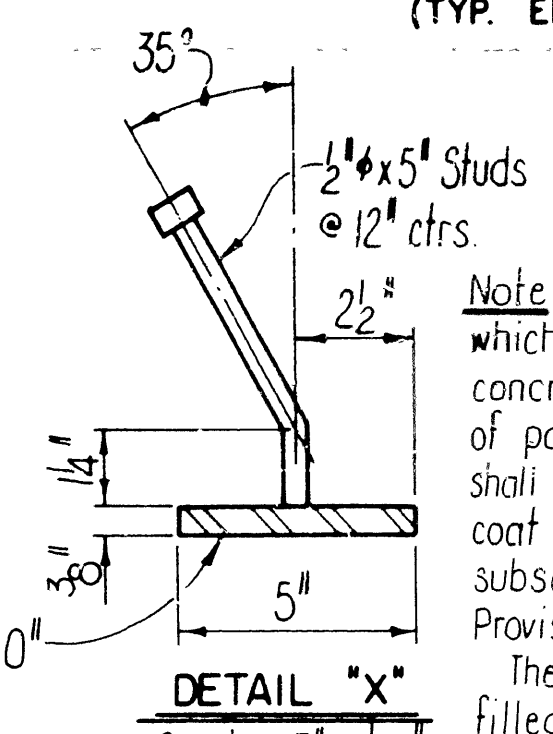
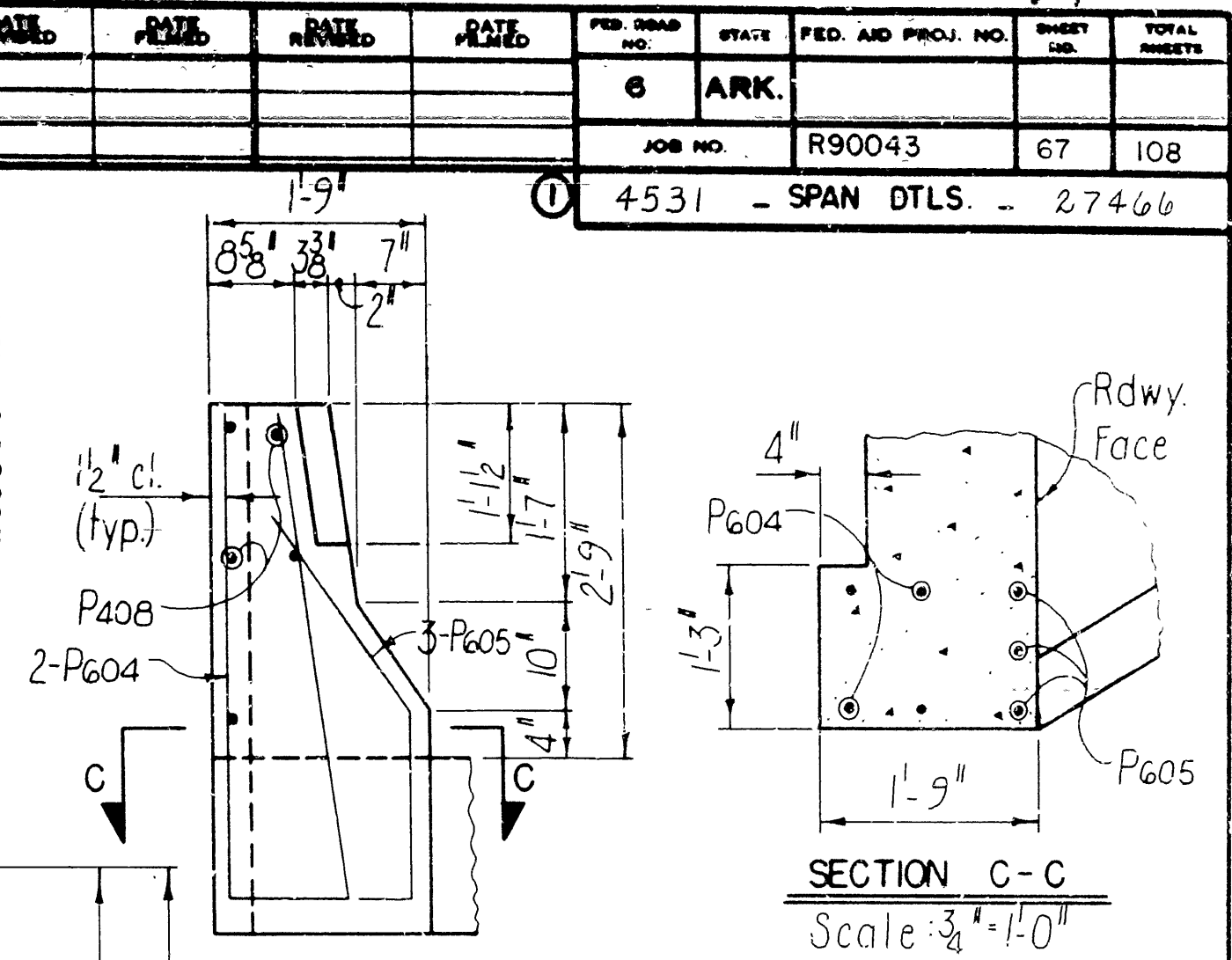
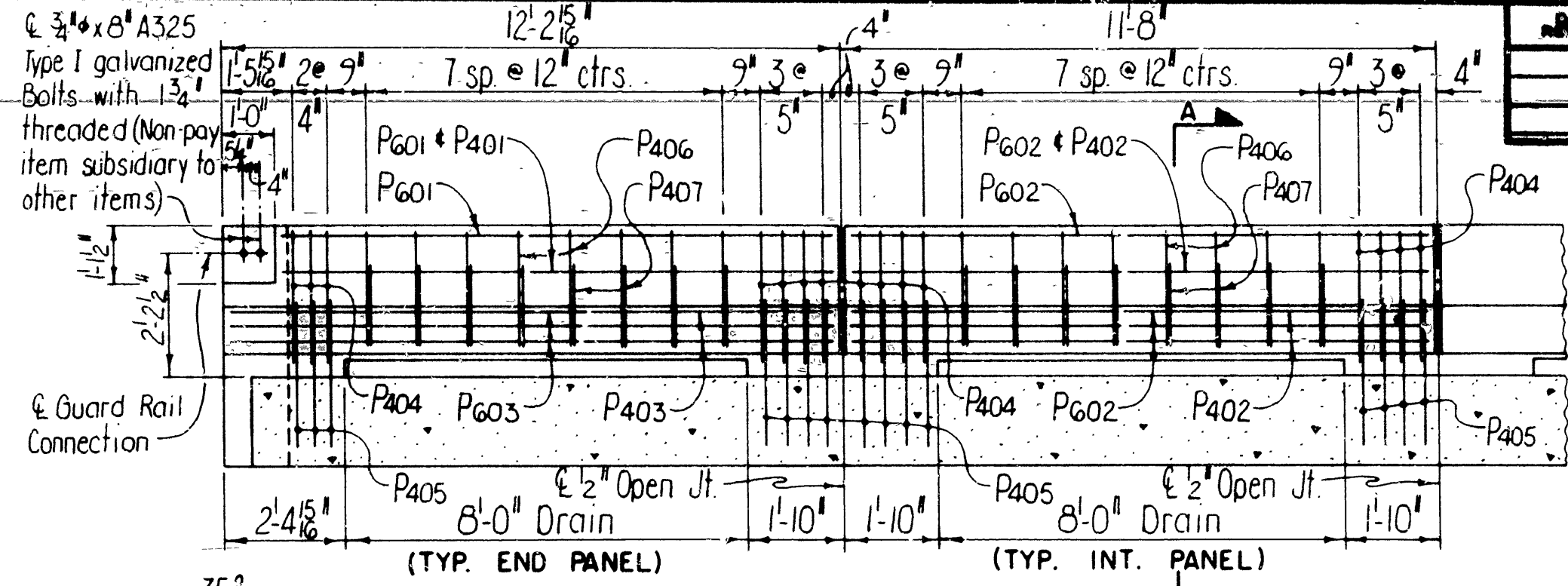
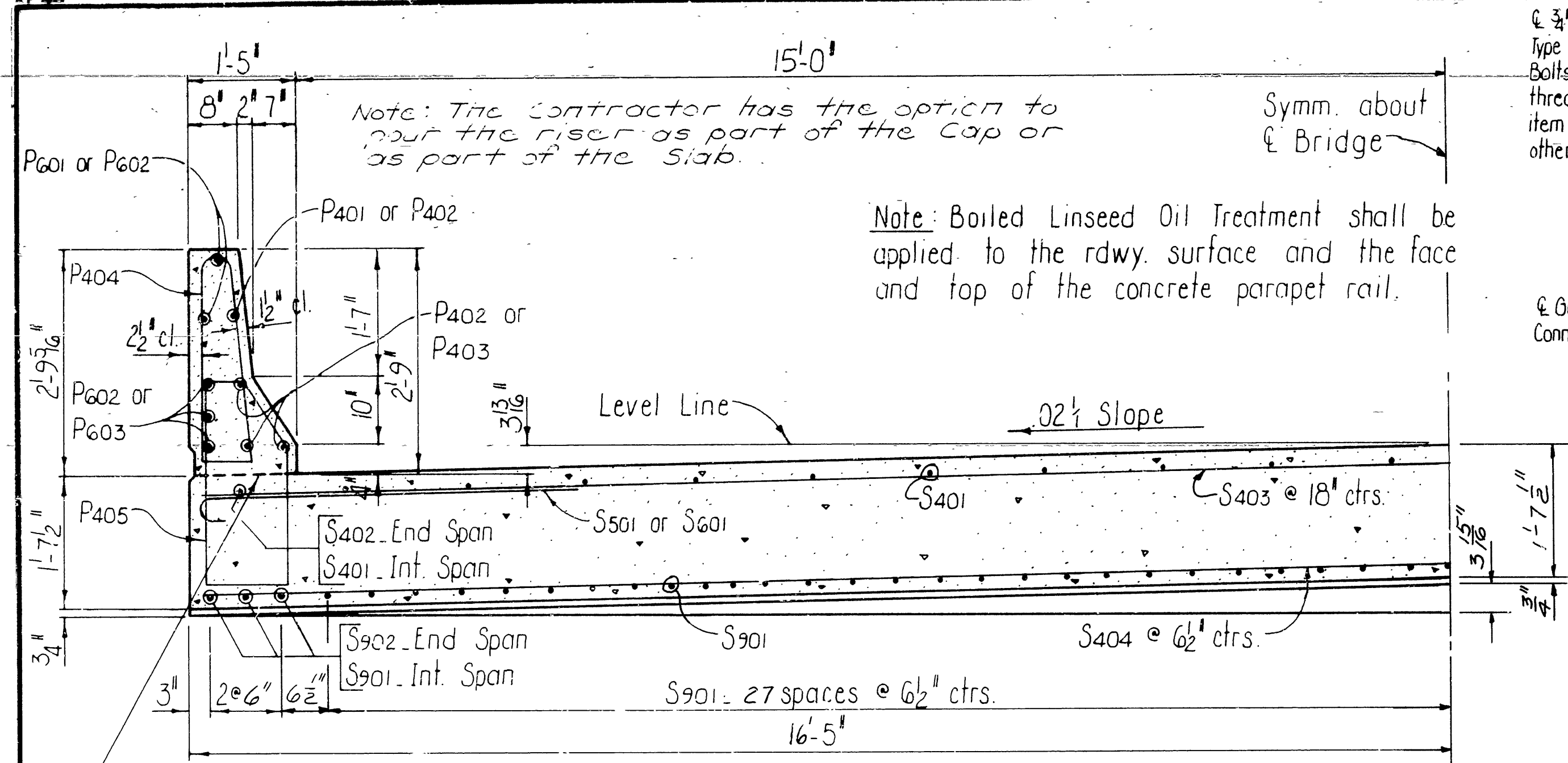
DRAWN BY: J.P.S. DATE: 10-2-84 3" = 1'-0"

DRAWN BY: J.T.S. DATE: 10-2-84
CHECKED BY: GVA DATE: 10-18-84 SCALE: $\frac{3}{8} = 1'-0"$ or
DESIGNED BY: Std. DATE: as noted

Kunal Kulkarni
BRIDGE ENGINEER

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. GRAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R90043	67	108

4531 - SPAN DTLS. - 27466



BAR LIST - EA. SPAN					
MARK	NO.	REQ'D.	LENGTH	PIN DIA.	BENDING DIAGRAMS
	END	INT.			
S401	20	22	34'-7"	Str.	
S402	2	-	35'-2"	Str.	
S403	24	24	37'-6"	Str.	
S404	64	64	37'-6"	Str.	
S501	28	28	9'-3"	Str.	
S601	12	12	10'-2"	4"	
S901	55	61	34'-7"	Str.	
S902	6	-	35'-2"	Str.	
P401	2	-	10'-11"	Str.	
P402	16	24	11'-4"	Str.	
P403	6	-	11'-11"	Str.	
P404	46	48	6'-10"	2"	
P405	46	48	7'-8"	2"	
P406	48	48	6'-4"	2"	
P407	48	48	3'-2"	2"	
P408	10	-	1'-0"	Str.	
P601	4	-	10'-11"	Str.	
P602	20	30	11'-4"	Str.	
P603	6	-	11'-11"	Str.	
P604	4	-	8'-9"	3"	
P605	6	-	4'-10"	3"	

P404

P405

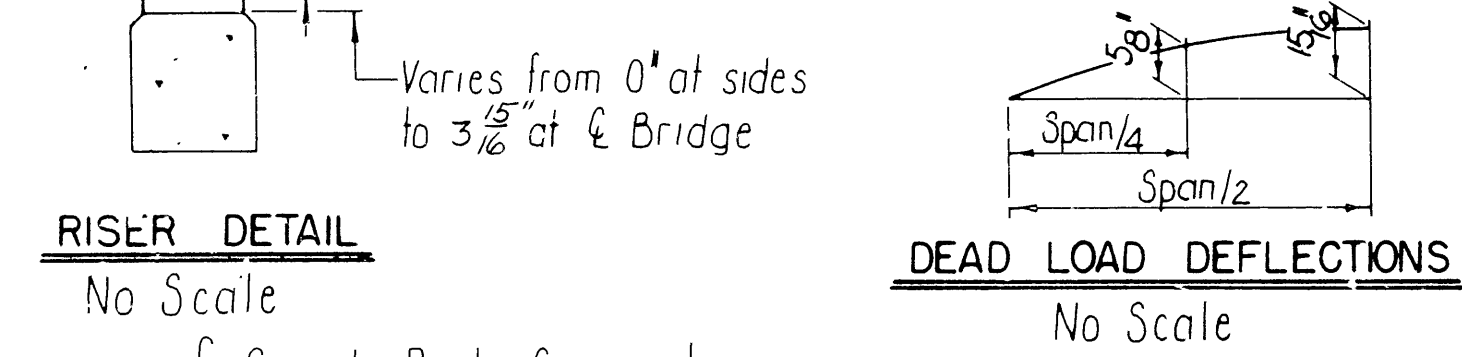
P406

P407

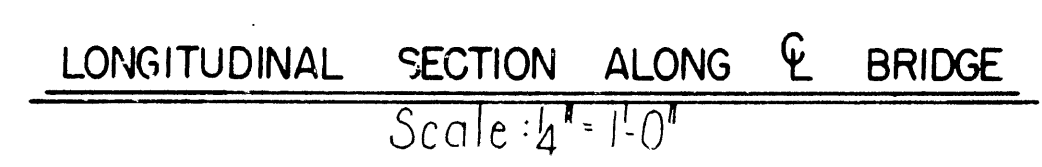
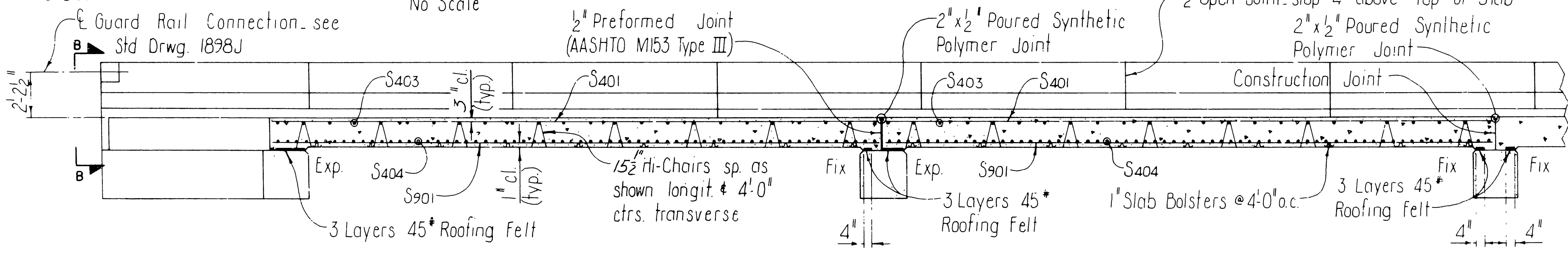
P605

S601

Dimensions are out to
out of Bars.



QUANTITIES (PER SPAN)		
	CONCRETE	REINFORCING STEEL
END SPAN	76.17 Yd. ³	11,901 Lb.
INT. SPAN	75.74 Yd. ³	11,801 Lb.



GENERAL NOTES:

ALL CONCRETE TO BE CLASS SÆD. 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."

ROOFING FELT, BITUMINOUS FELT, PREFORMED JOINT, STRUCTURAL STEEL, AND POURED SYNTHETIC POLYMER JOINTS SHALL BE MEASURED AND PAID FOR AS CLASS SÆD CONCRETE.

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

DESIGN SPECIFICATIONS: AASHTO 1983

DESIGN LIVE LOADING: HS20

LOAD DISTRIBUTION TO SLAB: DEAD LOAD 247 PSF; LIVE LOAD - 0.180 WHEELS/FT. OF WIDTH PLUS 30% IMPACT.

UNIT STRESSES: COMPRESSIVE STRENGTH OF CLASS SÆD CONCRETE = 3500 PSI
YIELD STRENGTH OF REINFORCEMENT = 60,000 PSI

LOAD FACTOR USED FOR DESIGN OF SLAB.

*For information only; structural steel to be measured and paid for as "Class S or S(AE) Concrete."

DETAILS OF STANDARD
 35'-0" R.C. SLAB SPANS
 30' CL. RDWY. - 30° RT. FRWD. SKEW - CONC. PARA. RAIL
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 ALTERED BY: J.P.S. DATE: 10-5-84
 CHECKED BY: GVA DATE: 10-2-84 SCALE: AS SHOWN
 DESIGNED BY: STB DATE: _____
BRIDGE NO. 4531 **DRAWING NO. 27466**