

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BRF-014-2(23)	7	89
						JOB NO.	50092	

5872 BRIDGE QUANTITIES 236

## SCHEDULE OF BRIDGE QUANTITIES - JOB 60092

CODE NO.	BRIDGE NO.	BRIDGE NAME PLATE TITLE	ITEM	DESCRIPTION	UNIT	WEST ABUT.	PIER 1	PIER 8	EAST ABUT.	SUPER- STRUCT- URE	PIERS 2 THRU 7-ALTERNATE "A"						PIERS 2 THRU 7 - ALTERNATE "B"						PIERS 2 THRU 7 - ALTERNATE "C"							SUMMARY OF QUANTITIES		
											PIER 2	PIER 3	PIER 4	PIER 5	PIER 6	PIER 7	PIER 2	PIER 3	PIER 4	PIER 5	PIER 6	PIER 7	PIER 2	PIER 3	PIER 4	PIER 5	PIER 6	PIER 7	ALT. "A"	ALT. "B"	ALT. "C"	
X071 5872 OUACHITA RIVER			SP#205	REMOVAL OF EXISTING BRIDGE STRUCTURES	L.S.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1			
			SP#801	UNCLASSIFIED EXCAVATION FOR STRUCTURES - BRIDGE	C.Y.	197	247	232	989	—	253	540	210	196	148	109	253	527	218	187	131	116	—	—	—	—	—	—	(2) 3121	(3) 3097	(4) 1665	
			SP#802	SEAL CONCRETE	C.Y.	—	—	—	—	—	—	—	—	—	—	—	656	884	863	903	885	699	—	—	—	—	—	—	—	4890	—	
			SP#802	CLASS "S" CONCRETE	C.Y.	121	303	333	347	—	468	592	743	758	598	479	405	452	554	563	457	414	215	261	289	295	287	215	4742	3949	2666	
			802	CLASS "S" (AE) CONCRETE	C.Y.	—	—	—	—	2612	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2612	2612	2612	
			SP JOB 60092	UNDERWATER STRUCTURAL CONCRETE	C.Y.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	94	150	136	138	135	100	—	—	755	
			803	BOILED LINSEED OIL	GAL.	—	—	—	—	445	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	445	445	445	
			804	REINFORCING STEEL (GRADE 60)	LBS.	14,470	37,010	39,760	42,400	596,340	65,670	78,840	121,530	124,790	79,810	67,540	43,620	58,250	74,030	75,200	58,990	44,550	26,320	34,670	38,790	39,790	38,590	27,000	1,268,160	1,084,620	935,140	
			SP#807	STRUCTURAL STEEL IN BEAM SPANS (A588)	LBS.	—	—	—	—	100,010	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	100,010	100,010	100,010	
			SP#807	STRUCTURAL STEEL IN PLATE GIRDER SPANS (A588)	LBS.	—	—	—	—	Alt. A & B 3,066,100 Alt. C 3,050,360	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,066,100	3,066,100	3,050,360
			809	PREFORMED JOINT SEALER	L.F.	66	—	—	66	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	132	132	132	
			812	BRIDGE NAME PLATES (TYPE C)	EA.	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1	
			SP JOB 60092	COFFERDAMS	EA.	—	—	—	—	—	—	1	1	1	1	1	1	1	1	1	1	1	—	—	—	—	—	—	6	6	—	
			SP JOB 60092	UNDERWATER UNCLASSIFIED EXCAVATION FOR STRUCTURES - BRIDGE	C.Y.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	42	84	44	44	32	20	—	—	(5) 266	
			SP JOB 60092	UNDERWATER ROCK SOCKET EXCAVATION (84 INCH DIAMETER)	L.F.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	42	—	—	—	—	42	—	—	84	
		SP JOB 60092	UNDERWATER ROCK SOCKET EXCAVATION (96 INCH DIAMETER)	L.F.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	48	48	48	48	—	—	—	—	192	
		SP JOB 60092	REINFORCING STEEL (GRADE 60) IN UNDERWATER STRUCTURAL CONCRETE	LBS.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	29,720	42,170	39,030	39,280	39,030	31,270	—	—	220,500		

- (2) Includes 785 C.Y. of Rock Excavation.  
 (3) Includes 633 C.Y. of Rock Excavation.  
 (4) Includes 390 C.Y. of Rock Excavation.  
 (5) Includes 87 C.Y. of Rock Excavation.  
 (6) Requires an additional 5720 Lbs. of Reinforcing Steel for Optional Dowels (PB919) in Piers 2 Thru 7 Alternate B.

These Contract Plans were prepared by Michael Baker Jr., Inc., Consulting Engineers, for the Arkansas Highway and Transportation Department. Structural Steel Shop Drawings, Reinforcing Steel Bar Lists and other such items relating to the construction phase will be reviewed by Michael Baker Jr., Inc.. Their Mailing Address is: Post Office Box 3225, Harrisburg, Pa. 17105. Attention: Piyush (Pi) Amin. Telephone 1-800-233-0552.

 SCHEDULE OF BRIDGE QUANTITIES  
 OUACHITA RIVER BRIDGE  
 AND APPROACHES  
 GARLAND COUNTY

 ROUTE 70 SEC. 8  
 ARKANSAS STATE HIGHWAY COMMISSION  
 LITTLE ROCK, ARK.

 DRAWN BY: T.M.K. DATE: 5-09-80  
 CHECKED BY: R.I.K. DATE: \_\_\_\_\_  
 DESIGNED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

BRIDGE NO. 5872 DRAWING NO. 236

BRIDGE ENGINEER





- At West Approach - Rt. Cross Slope Varies from  $+0.02\%$  at Station 177+88.4 to  $-0.02\%$  at Station 178+88.4.
- At East Approach - Rt. Cross Slope Varies from  $-0.02\%$  at Station 131+55.0 to  $+0.02\%$  at Station 192+55.0. Past this Station Roadway S.E. Varies to  $0.05\%$  at Station 193+55.0.
- See drawings 23639 - 23644 for Test boring information.

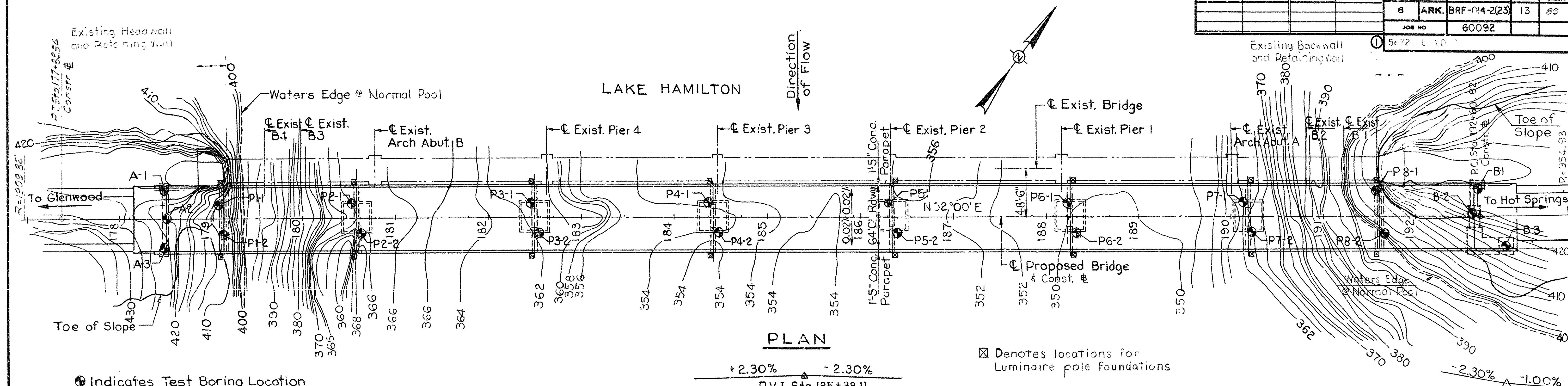


**DRAWING NO. 236 01**

BRIDGE ENGINEER



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BRF-04-2(23)	13	88
				JOB NO.	60092			



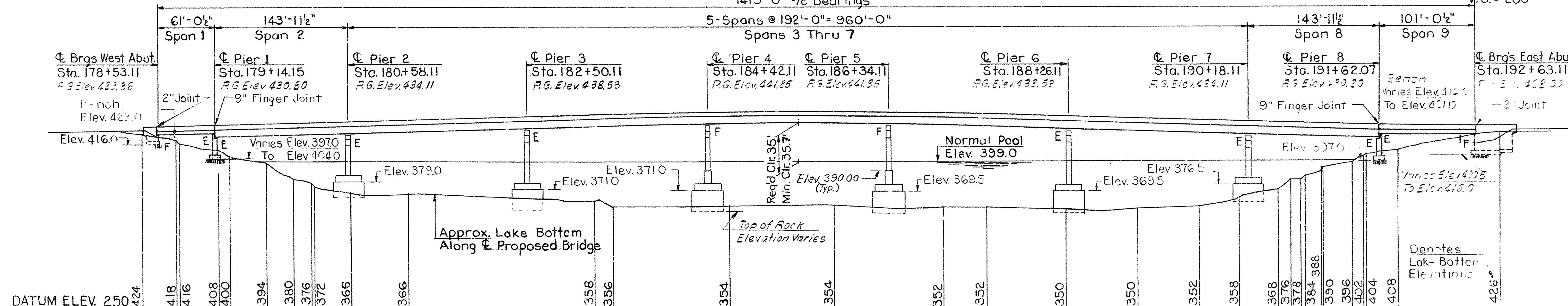
⊕ Indicates Test Boring Location

⊗ Denotes locations for  
Luminaire pole foundations

### PLAN

+2.30% -2.30%  
P.V.I. Sta. 185+38.11  
Elev. 445.15  
M.O. = 2.875'  
V.C. = 500'  
1410'-0" %/c Bearings

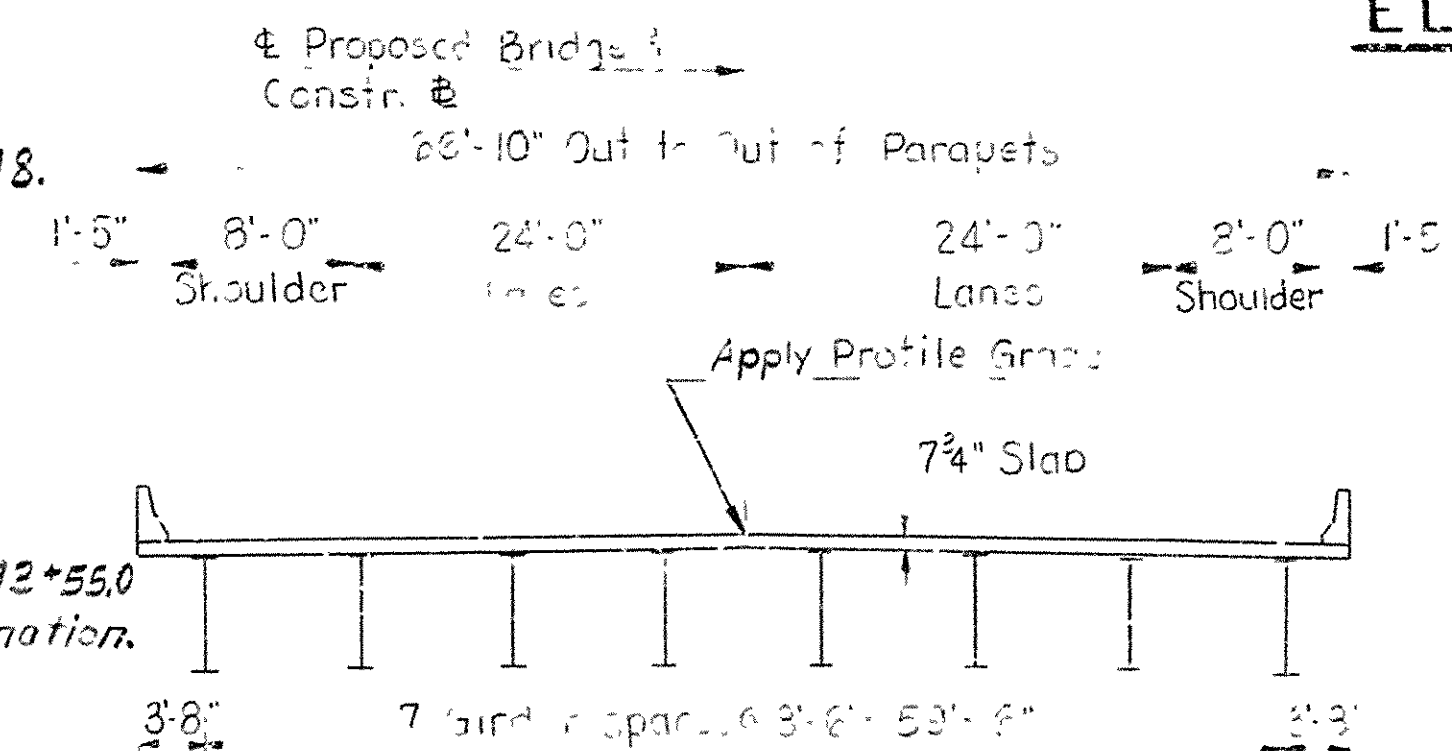
P.V.I. Sta. 193+00  
Elev. 427.63  
M.O. = 0.325'  
V.C. = 200'



### ELEVATION

#### Notes:

- River contours were developed by Arkansas State Highway Commission from soundings taken March, 1978.
- All Elevations Referenced to U.S.G.S. Datum.
- At West Approach-Rt. Cross Slope Varies from +0.02% at Station 177+88.4 to -0.02% at Station 178+88.4.
- At East Approach-Rt. Cross Slope Varies from -0.02% at Station 191+55.0 to +0.02% at Station 192+55.0. East of this Station Roadway S.E. Varies to 0.05% at Station 192+55.0.
- See drawings 23639-23644 for test boring information.



### TYPICAL SECTION

0' 10' 20'

LAKE ELEVATIONS DURING YEAR (from Arkansas Power & Light Co.)		
From	To	Elevation
June 1	Nov. 15	399 Norm. Pool
Nov. 15	March 1	395
March 1	March 15	from 395 to 398
March 15	May 1	hold at 398
May 1	June 1	398 to 399

### ALTERNATE B LAYOUT OF BRIDGE OUACHITA RIVER BRIDGE AND APPROACHES GARLAND COUNTY

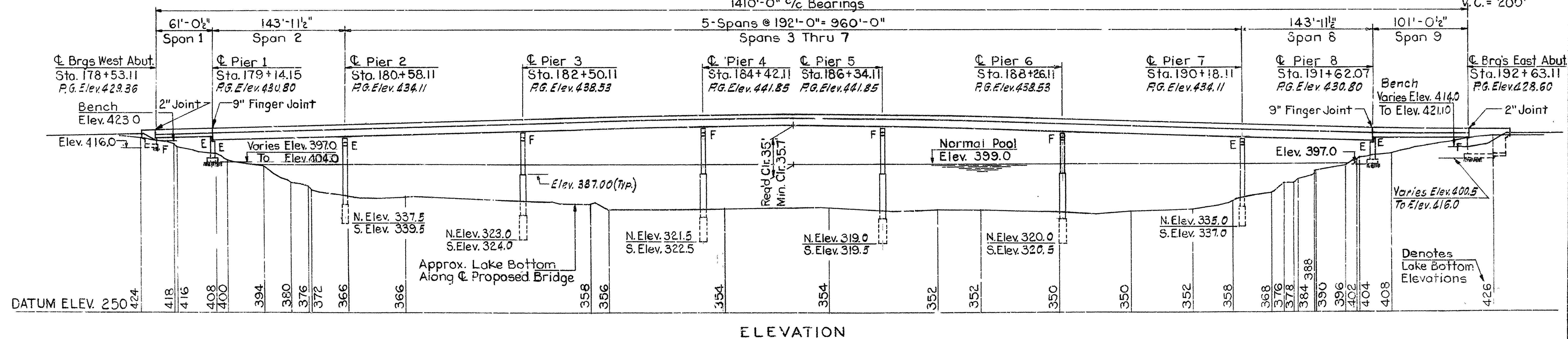
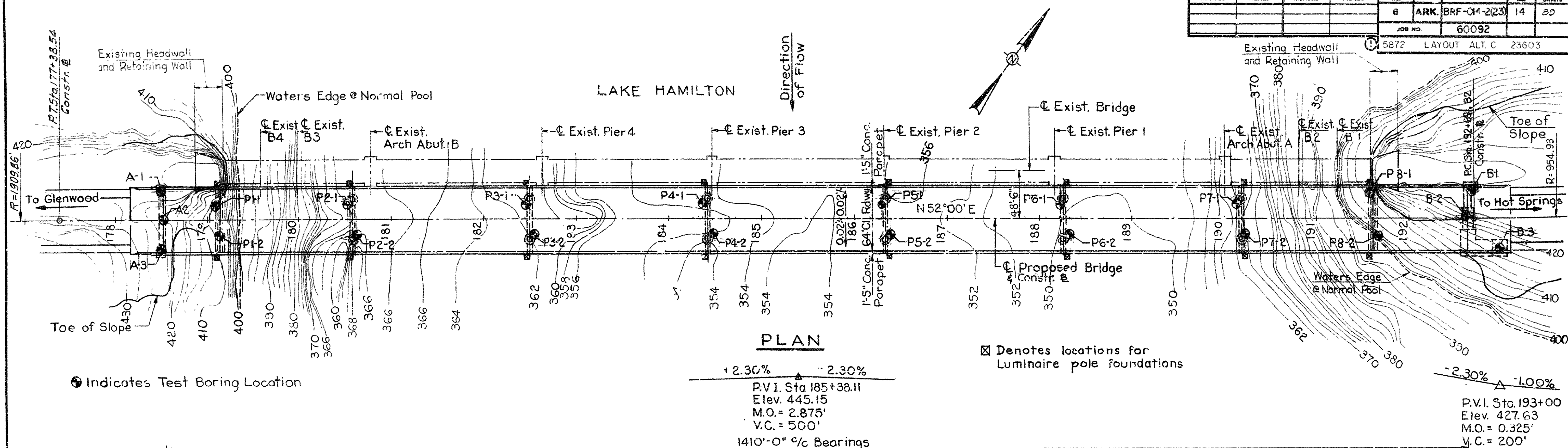
ROUTE 70 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.  
DRAWN BY: JFW DATE: 10-26-79  
CHECKED BY: GGB DATE: 5/12/80  
DESIGNED BY: DATE:  
BRIDGE NO. 5872 DRAWING NO. 23602

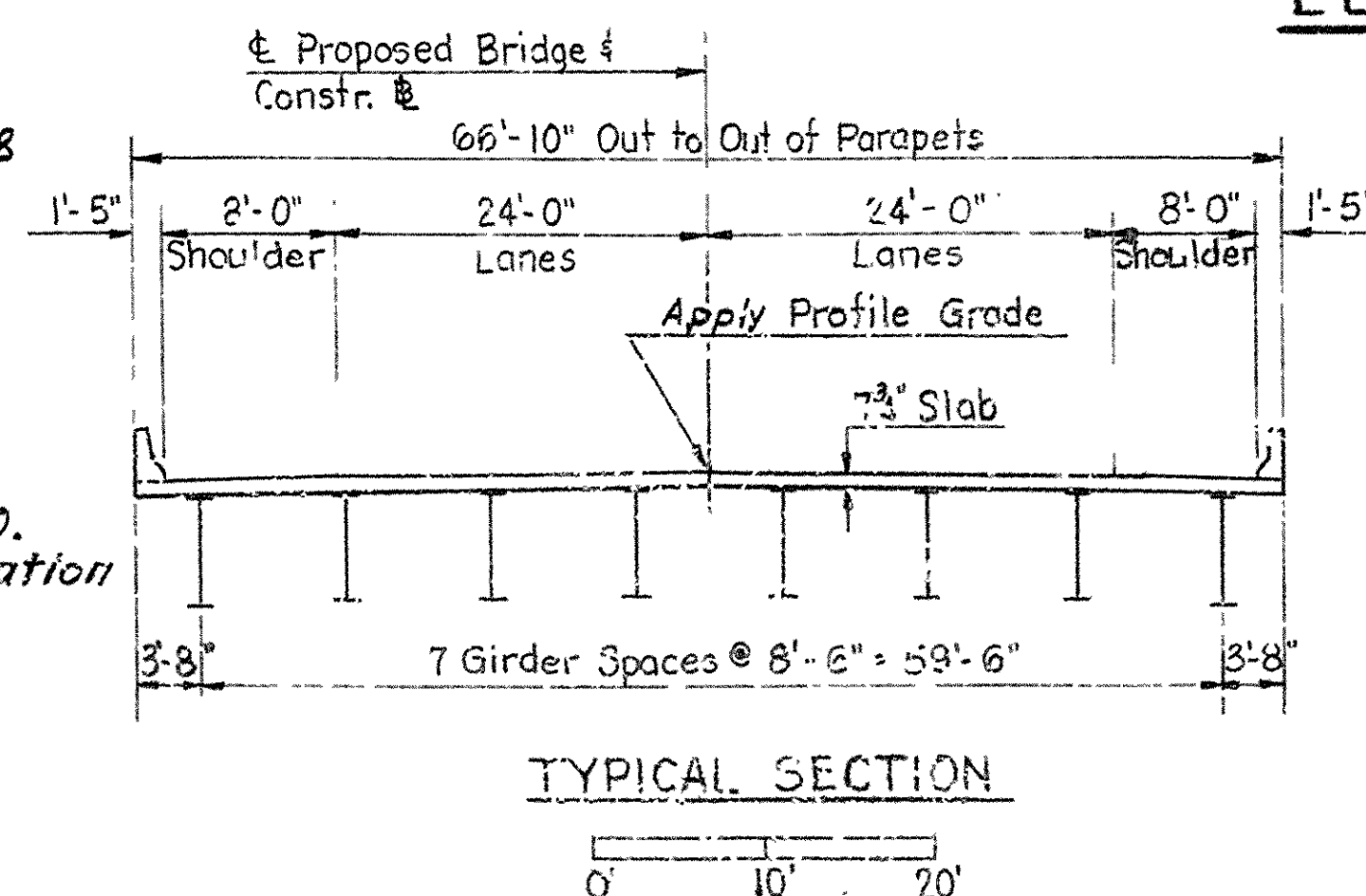


DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BRF-01-223	14	20
				JOB NO.		60092		

Exhibit Headwall 5872 LAYOUT ALT C 23603




- At West Approach - Rt. Cross Slope Varies from -0.02% at Station 177+88.4 to -0.02% at Station 178+88.4
- At East Approach - Rt. Cross Slope Varies from -0.02% at Station 191+55.0 to 0.02% at Station 192+55.0 Past this Station Roadway S.E. Varies to 0.052% at Station 193+55.0.
- See drawings 23639 - 23644 for test boring information



LAKE ELEVATIONS DURING YEAR (from Arkansas Power & Light Co.)		
From	To	Elevation
June 1	Nov. 15	399 Norm. Pool
Nov. 15	March 1	395
March 1	March 15	from 395 to 398
March 15	May 1	hold at 398
May 1	June 1	398 to 399

ALTERNATE C  
LAYOUT OF BRIDGE  
OUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY  
ROUTE 70 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION

DRAWN BY: FW DATE: 10-26-79  
CHECKED BY: GGB DATE: 5/12/80  
DESIGNED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

SCALE: 

BRIDGE NO. 5872 DRAWING NO. 23603



GOVERNING SPECIFICATIONS

THE GOVERNING SPECIFICATIONS ARE THE ARKANSAS STATE HIGHWAY COMMISSION'S "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" AS ADOPTED IN 1978 AND THE SPECIAL PROVISIONS FOR THIS CONTRACT.

ALL MATERIALS, WORKMANSHIP AND INSPECTION FOR THE WELDING OF STEEL STRUCTURES OR PARTS THEREOF SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIAL PROVISION "AWS STRUCTURAL WELDING CODE."

DESIGN SPECIFICATIONS

THE BRIDGE IS DESIGNED IN ACCORDANCE WITH THE AASHTO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" DATED 1977, INCLUDING 1978 AND 1979 "INTERIM SPECIFICATIONS," USING LOAD FACTOR DESIGN.

DEAD LOADS

THE DESIGN DEAD LOAD INCLUDES AN ALLOWANCE OF 25 POUNDS PER SQUARE FOOT FOR ANY FUTURE WEARING SURFACE. THE DEAD LOAD OF THE SLAB DOES NOT INCLUDE ADDITIONAL WEIGHT FOR CONCRETE FILLER IN THE PERMANENT STEEL FORMS IF PITCH DOES NOT MATCH SPACING OF REINFORCING. SEE DRAWING 14891.

LIVE LOADS

THE BRIDGE IS DESIGNED FOR HS20-44 LIVE LOADING AND FATIGUE STRESS CYCLES BASED ON AN AVERAGE DAILY TRUCK TRAFFIC LESS THAN 2500 FOR AN AASHTO CASE II ROADWAY.

EARTHQUAKE LOADS

THE BRIDGE IS DESIGNED FOR AASHTO ZONE I SEISMIC FORCES.

DESIGN UNIT STRESSES

CLASS S CONCRETE: f' c = 3500 PSI  
CLASS S(AE) CONCRETE: f' c = 3500 PSI  
SEAL CONCRETE: ALTERNATE B f' c = 2100 PSI  
UNDERWATER STRUCTURAL CONCRETE: ALTERNATE C f' c = 3500 PSI  
REINFORCING STEEL BARS: Fy = 60,000 PSI  
ASTM A-588 STRUCTURAL STEEL: Fy = 50,000 PSI

CONCRETE

CLASS S CONCRETE SHALL BE USED FOR PIERS, ABUTMENTS, WINGWALLS, AND FOOTINGS POURED IN THE DRY.

CLASS S(AE) CONCRETE SHALL BE USED FOR DECK SLAB AND DECK PARAPET RAILINGS.

SEAL CONCRETE SHALL BE USED FOR FOOTING CONCRETE DEPOSITED IN WATER, IN ALTERNATE B.

UNDERWATER STRUCTURAL CONCRETE SHALL BE USED FOR DRILLED SHAFT CONCRETE DEPOSITED IN WATER, IN ALTERNATE C.

ALL EXPOSED CONCRETE EDGES SHALL BE CHAMFERED 3/4" x 3/4" UNLESS OTHERWISE NOTED.

THE EXPOSED CONCRETE FACES OF ALL PIERS AND ABUTMENT WHERE SPECIFIED SHALL BE PROTECTED AS PER THE SPECIAL PROVISION "PROTECTION OF SUBSTRUCTURE CONCRETE FROM RUST STAINING." THE COST OF THIS SHALL BE INCORPORATED IN THE UNIT PRICE BID FOR THE CONCRETE TO WHICH IT IS APPLIED.

THE CONCRETE DECK SHALL BE FINISHED IN ACCORDANCE WITH SECTION 802.23 OF THE STANDARD SPECIFICATIONS. FINAL FINISH SHALL BE TRANSVERSE TINE GROOVES IN ACCORDANCE WITH PARAGRAPH (C), CLASS 6, OF 802.23.

REINFORCING STEEL

ALL REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF 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 OF "REINFORCING STEEL (GRADE 60)."

MINIMUM COVER FOR REINFORCEMENT SHALL BE PROVIDED AS FOLLOWS UNLESS OTHERWISE NOTED.

ABUTMENT AND PIER FOOTINGS ..... 3 INCHES  
REAR FACE OF ABUTMENTS AND WINGWALLS ..... 3 INCHES  
FRONT FACE OF ABUTMENTS AND WINGWALLS ..... 2 INCHES  
PRIMARY REINFORCEMENT - PIER SHAFTS ..... 3 INCHES  
TIES AND STIRRUPS - PIER SHAFTS ..... 2 1/2 INCHES  
TIES AND STIRRUPS - PIER CAPS ..... 2 INCHES  
TOP SURFACE OF DECK SLAB ..... 2 1/4 INCHES  
BOTTOM SURFACE OF DECK SLAB ..... 1 INCH  
PARAPETS ..... 1 1/2 INCHES

ALL REINFORCEMENT BAR LAPS SHALL BE FORTY BAR DIAMETERS UNLESS SHOWN OTHERWISE.

FABRICATED STRUCTURAL STEEL

UNLESS OTHERWISE NOTED ON THE CONTRACT DRAWINGS, ALL STRUCTURAL STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A588, AND SHALL PROVIDE AN ATMOSPHERIC CORROSION RESISTANCE OF AT LEAST FOUR TIMES THAT OF MILD CARBON STEEL WITHOUT COPPER.

ALL A588 STRUCTURAL STEEL SHALL BE COLOR CODED BEFORE SHIPPING FROM THE MILL, IN ACCORDANCE WITH SECTION 807.04 OF THE STANDARD SPECIFICATIONS.

ALL FASTENERS SHALL BE HIGH STRENGTH BOLTS THAT CONFORM TO ASTM A325, TYPE 3. THE HIGH STRENGTH BOLTS SHALL BE PLACED WITH THE HEADS ON THE OUTSIDE OF EXTERIOR GIRDERS AND ON BOTTOM SIDE OF ALL FLANGES.

UNLESS OTHERSIDE NOTED, THE FASTENERS SHALL BE 7/8" DIAMETER.

THE STRUCTURAL STEEL USED IN THE MAIN LOAD CARRYING MEMBERS SHALL MEET THE CHARPY V-NOTCH TESTING SPECIFIED FOR ZONE 1 TEMPERATURE REQUIREMENTS OF THE AASHTO SPECIFICATIONS AND AS INDICATED IN SECTION 807.05 OF THE STANDARD SPECIFICATIONS. THESE MEMBERS ARE:

A. FOR PLATE GIRDER SPANS

1. ALL WEB PLATES
2. ALL GIRDER FLANGE PLATES

B. FOR ROLLED WIDE FLANGE SPAN

1. ALL WIDE FLANGE BEAMS

THE CONTRACTOR, AT HIS OPTION, AND AT NO ADDITIONAL COST TO THE ARKANSAS STATE HIGHWAY COMMISSION, MAY ELIMINATE ANY BUTT WELDED SPLICE IN ANY MEMBER BY EXTENDING THE THICKER OF THE PLATES.

STEEL PLATES FOR MAIN MEMBERS, TO INCLUDE SPLICE PLATES FOR GIRDER FLANGES, SHALL BE CUT AND FABRICATED SO THAT THE PRIMARY DIRECTION OF ROLLING IS PARALLEL TO THE DIRECTION OF THE MAIN TENSILE AND/OR COMPRESSIVE STRESSES.

PRIOR TO FABRICATION, ALL A588 STEEL SHALL BE BLAST CLEANED IN ACCORDANCE WITH THE REQUIREMENTS OF THE SPECIAL PROVISION "UNPAINTED WEATHERING STRUCTURAL STEEL."

ANCHOR BOLTS, NUTS AND WASHERS FOR FUTURE BRIDGE LIGHTING SHALL BE ASTM A36 STEEL GALVANIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A153 AND SHALL BE FURNISHED AND INSTALLED AT THE LOCATIONS SHOWN AND TO THE PROJECTIONS INDICATED ON THE DRAWINGS.

SWEDGED ANCHOR BOLTS, NUTS AND WASHERS FOR BRIDGE BEARINGS SHALL BE ASTM A36 STEEL GALVANIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A153 AND SHALL BE FURNISHED AND INSTALLED TO PROVIDE FOR BEARING PLACEMENT AT THE CORRECT SPAN LENGTHS AND CENTERLINE OFFSETS AS INDICATED ON THE DRAWINGS. METAL SLEEVES, IF USED FOR ANCHOR BOLTS, SHALL BE ASTM A53 STEEL PIPE, GRADE B, AND SHALL BE GALVANIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM.

ALL ANCHOR BOLTS, NUTS, WASHERS, AND PIPE SLEEVES SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A588)" AND "STRUCTURAL STEEL IN BEAM SPANS (A588)".

OVERSIZED HOLES 3/16" GREATER THAN THE BOLT DIAMETER MAY BE USED AT ALL BOLTED CONNECTIONS OTHER THAN GIRDER FIELD SPLICES FOR BOLTS 7/8" AND LESS IN DIAMETER. WASHERS UNDER BOTH NUT AND HEAD OF THE BOLT SHALL BE USED WITH OVERSIZED BOLT HOLES.

BEARINGS SHALL BE FINALLY SEATED IN ACCORDANCE WITH SUBSECTION 807.51 OF THE STANDARD SPECIFICATIONS.

ALL WELDS TO BE MADE DURING FABRICATION, BOTH TEMPORARY AND PERMANENT, SHALL BE DETAILED ON THE SHOP DRAWINGS. ADDITIONAL WELDS, IF REQUIRED FOR ERECTION PURPOSES, BOTH PERMANENT AND TEMPORARY, SHALL BE FULLY DETAILED AND SUBMITTED TO THE BRIDGE DESIGN DIVISION OF THE ARKANSAS STATE HIGHWAY COMMISSION FOR APPROVAL.

STRUCTURAL SHAPES OF EQUAL OR GREATER STRENGTH MAY BE SUBSTITUTED FOR SHAPES SHOWN, IF PRIOR APPROVAL IS OBTAINED FROM THE BRIDGE ENGINEER, AND IF SO PROVIDED AT NO ADDITIONAL COST TO THE ARKANSAS STATE HIGHWAY COMMISSION.

IF GIRDERS CAN BE SHIPPED IN LENGTHS LONGER THAN THE SECTIONS SHOWN ON THE PLANS BY ELIMINATING FIELD SPLICES, FIELD SPLICES MAY BE OMITTED AT THE REQUEST OF THE CONTRACTOR, PROVIDED HE HAS OBTAINED A HAULING PERMIT PRIOR TO PREPARATION OF STEEL SHOP DRAWINGS. OMITTED FIELD SPLICES WILL NOT BE APPROVED AT THE SHOP DRAWING REVIEW STATE IF A COPY OF HAULING PERMIT DOES NOT ACCOMPANY THE AFFECTED SHOP DRAWINGS.

ALL FABRICATED STRUCTURAL STEEL SHALL BE DETAILED AND FABRICATED FOR A TEMPERATURE OF 60° F.

CONTINUOUS PLATE GIRDER SPANS SHALL RECEIVE A PROGRESSIVE GIRDER ASSEMBLY IN THE SHOP IN ACCORDANCE WITH SECTION 807.16 OF THE STANDARD SPECIFICATIONS.

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				6	ARK.	RF-014-2(23)	15	30
				JOB NO.		60092		
				5872 GENERAL NOTES 23604				

MACHINE-FINISHED SURFACES SHALL BE COATED AS SOON AS PRACTICAL AFTER BEING ACCEPTED WITH A COATING APPROVED BY THE ENGINEER.

7/8" DIAMETER STUDS MAY BE USED IN PLACE OF THE 3/4" DIAMETER STUDS AS SHOWN ON THE DRAWINGS, AT THE RATIO OF 0.735-7/8 STUD IN PLACE OF ONE 3/4" STUD, EXCEPT SPACING SHALL NOT EXCEED 24" AND AT NO ADDITIONAL COST TO THE ARKANSAS STATE HIGHWAY COMMISSION.

THE CONTRACT PLANS ARE DETAILED FOR THREE SUBSTRUCTURE ALTERNATES. THE CONTRACTOR MUST SUBMIT BIDS FOR ONLY ONE OF THESE ALTERNATES. IF THE CONTRACTOR SUBMITS A BID FOR ALTERNATE "A" AND DURING CONSTRUCTION CANNOT DEWATER THE COFFERDAM FOR REASONS BEYOND HIS CONTROL, THE CONTRACTOR WILL BE PERMITTED TO CHANGE FROM ALTERNATE "A" TO ALTERNATE "B" SUBJECT TO THE APPROVAL AND AT NO ADDITIONAL COST TO THE ARKANSAS STATE HIGHWAY COMMISSION.

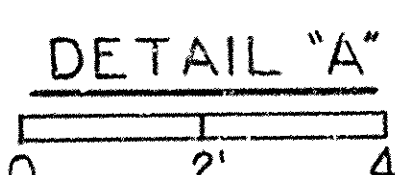
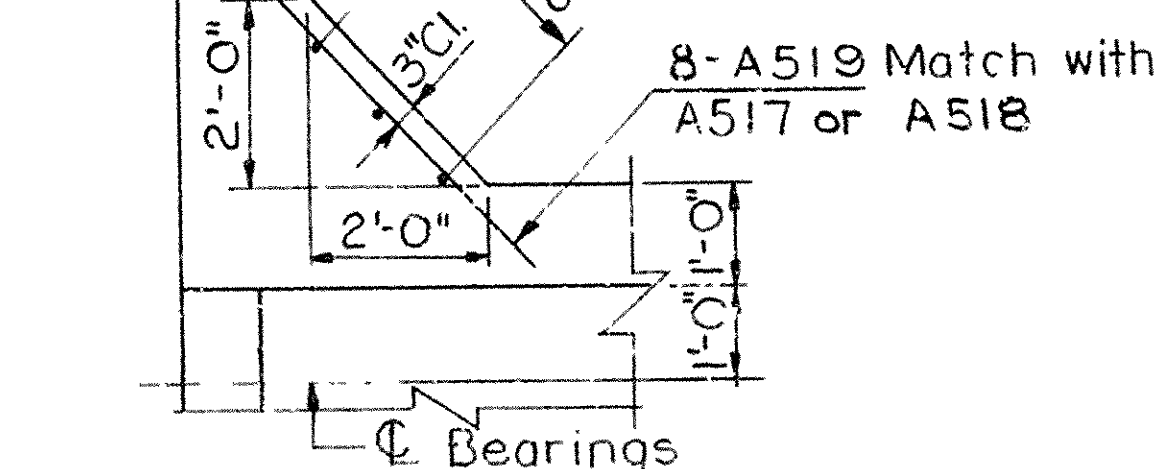
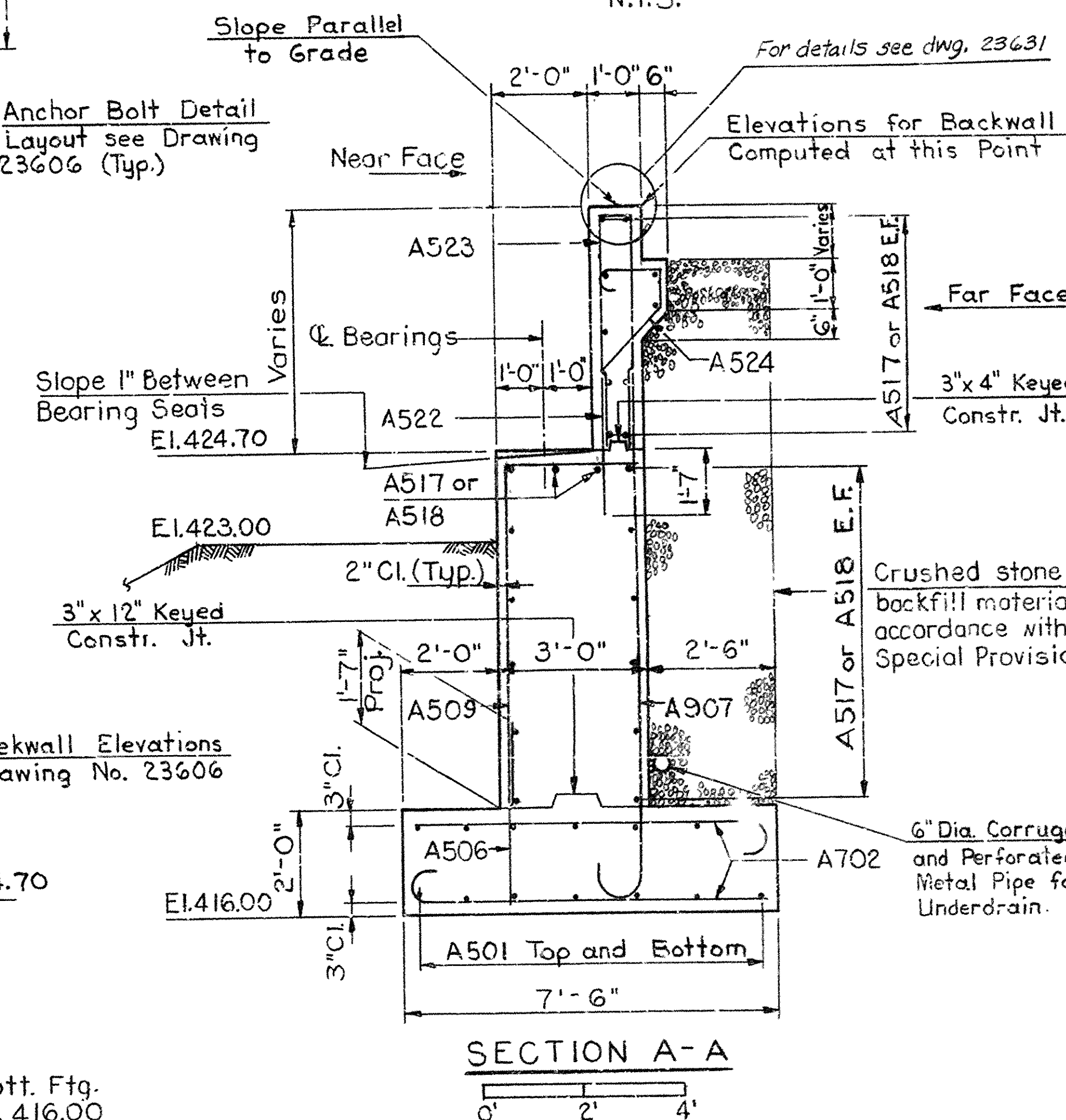
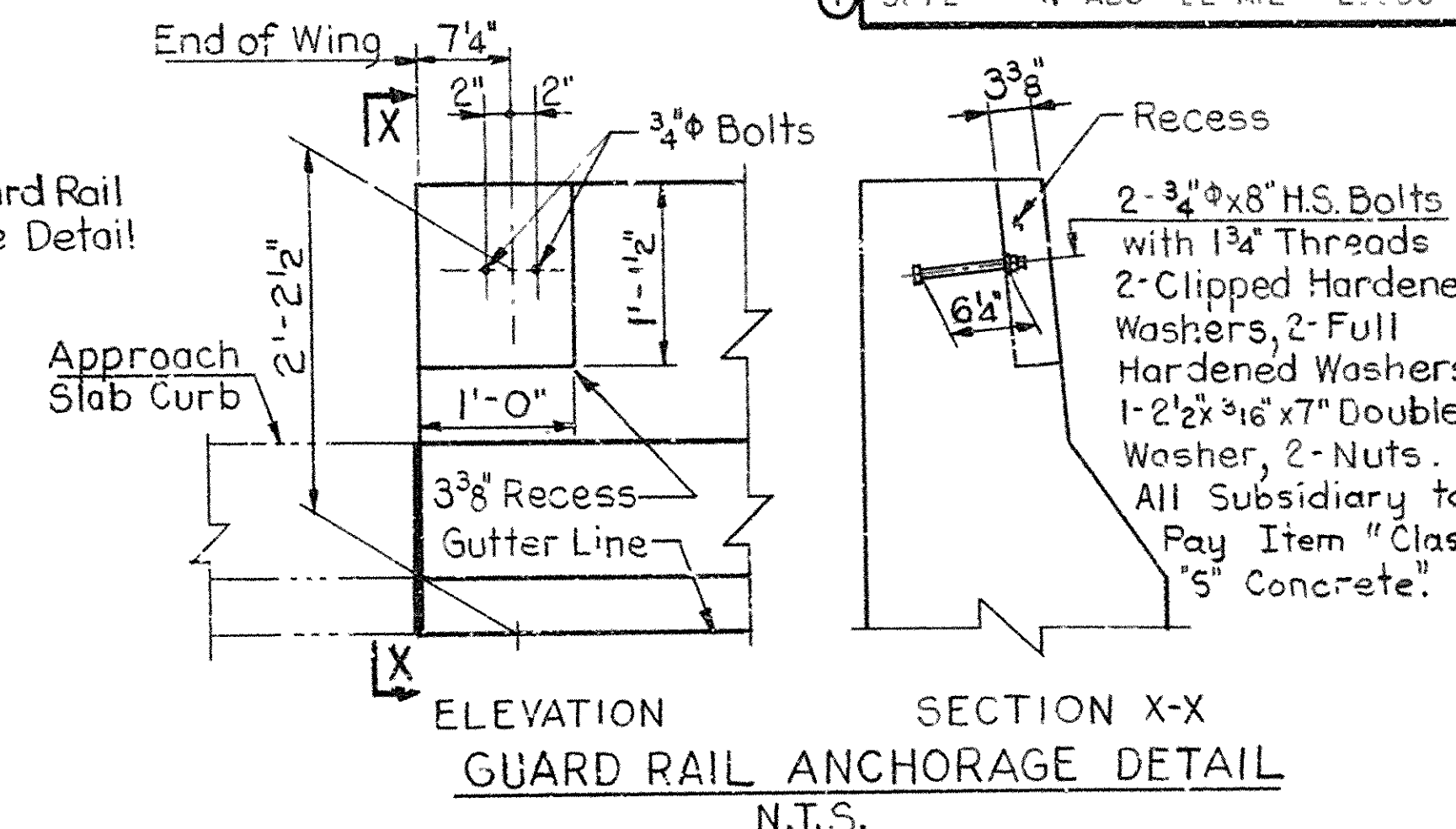
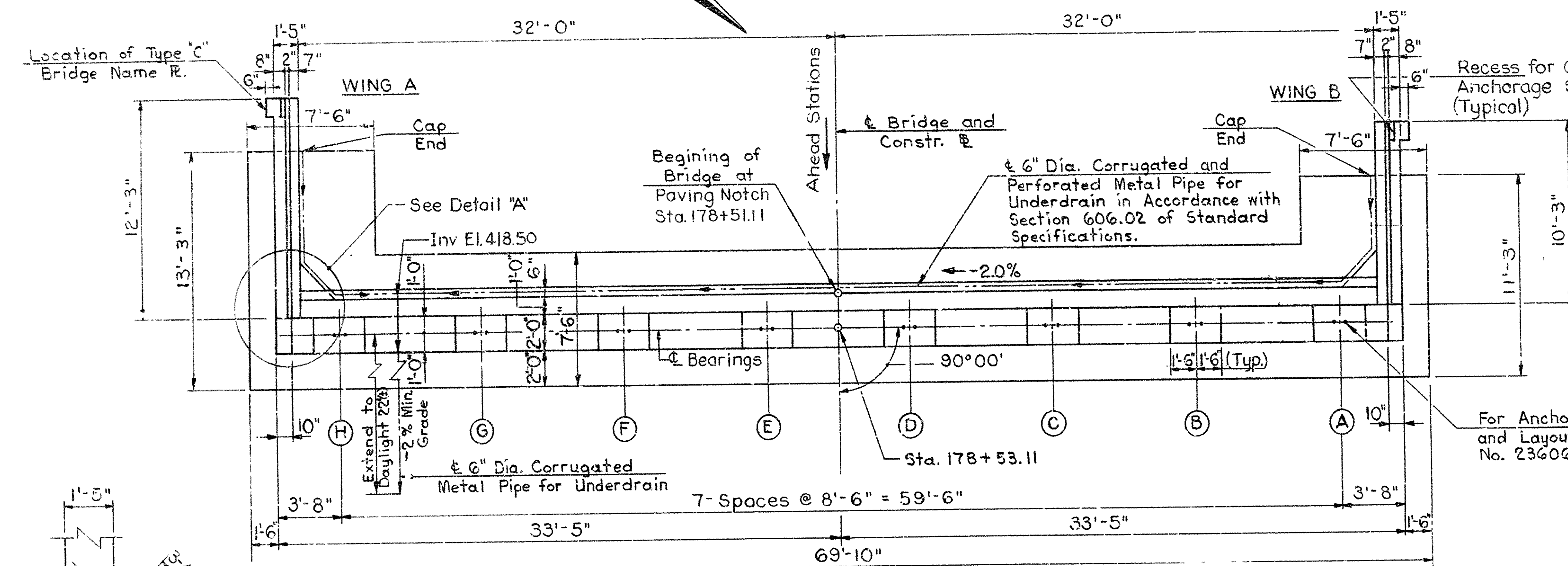
GENERAL NOTES FOR BRIDGE  
OUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY  
ROUTE 70 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_ SCALE: *No Scale*  
DESIGNED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

BRIDGE NO. 5872 DRAWING NO. 23604

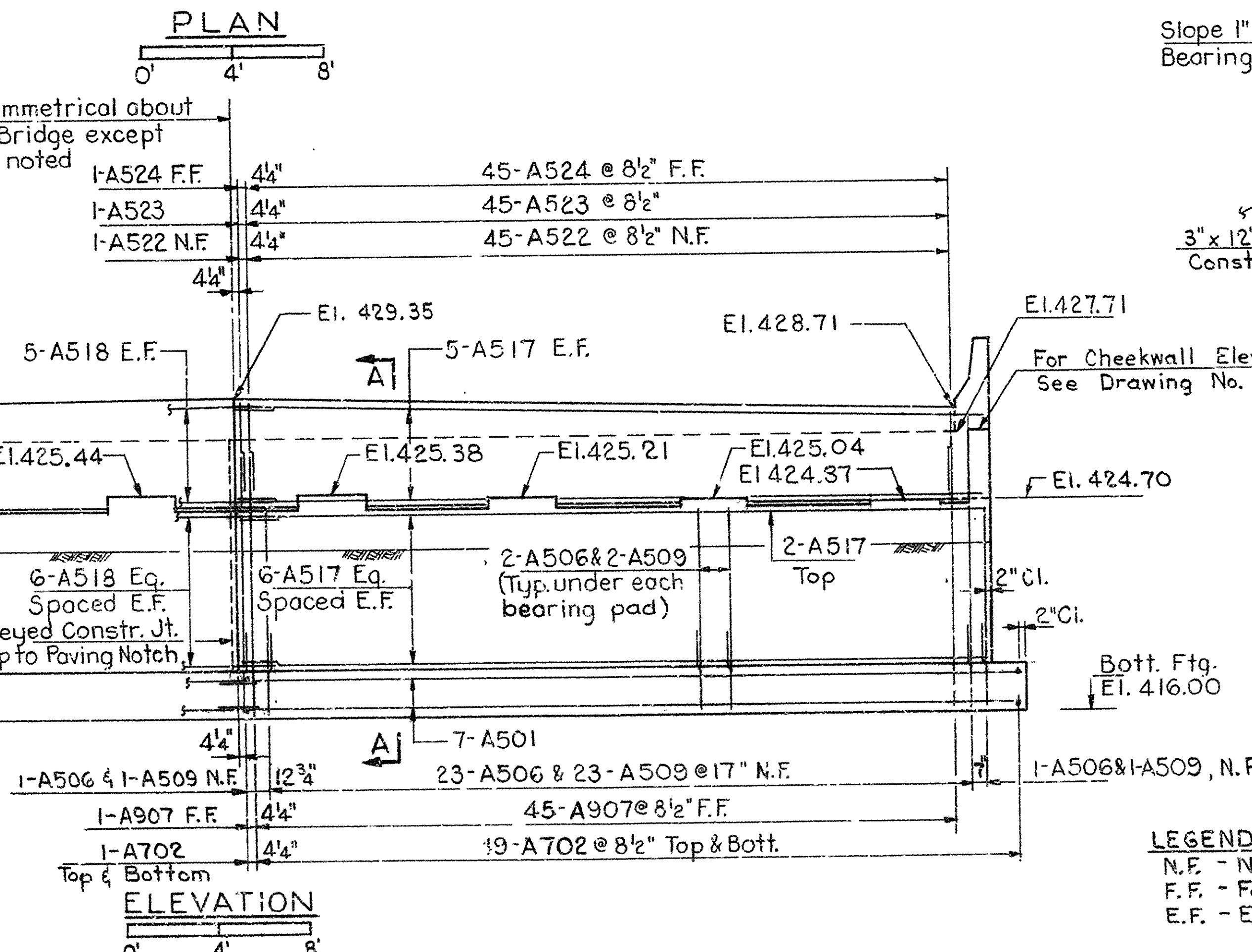


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				6	ARK.	BRF-014 2(23)	16	80
				JOB NO.		6307		
						5872 W ABUT DETAIL	23605	



Limits of Protection of Substructure Concrete from Rust Staining

- Notes:
- For Wingwall Elevations and Reinforcing Bar Schedule see Drawing No. 23606.
  - Sheet Piling shall be Provided as Per the Special Provision "Sheet Piling for East and West Abutments."
  - Crushed Stone Backfill Material in Accordance with Special Provisions. 65 C.Y. Total West Abutment.
  - Maximum Design Foundation Pressure is 2.7 Tons Per Square Foot for West Abutment, 2.1 Tons Per Square Foot for Wingwalls A & B; Allowable Foundation Pressure is 10 Tons Per Square Foot.
  - All Bearing Areas as indicated in the Anchor Bolt Layout shall be finished to a Truly Level Plane at the exact Elevation shown.
  - All Footings shall be Keyed in a Minimum of 6" into Rock.



- Notes (Continued):
- 6" Dia. Pipe (Approximate 100 Ft.) shall be Subsidiary to Pay Item "Class 'S' Concrete."
  - Concrete in Abutment Backwall shall not be placed until the Dams have been Erected and Deck Slab has been Poured.

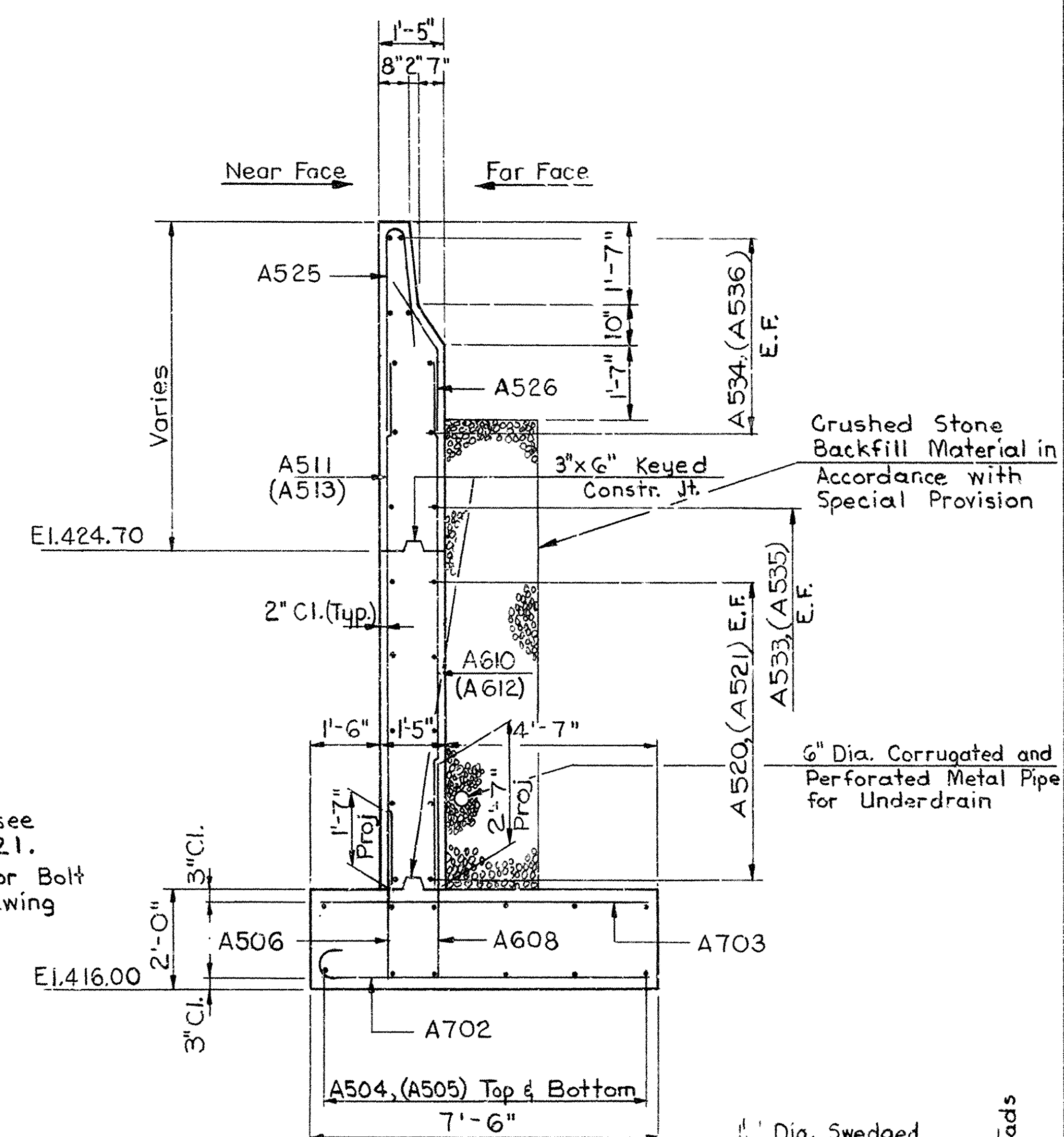
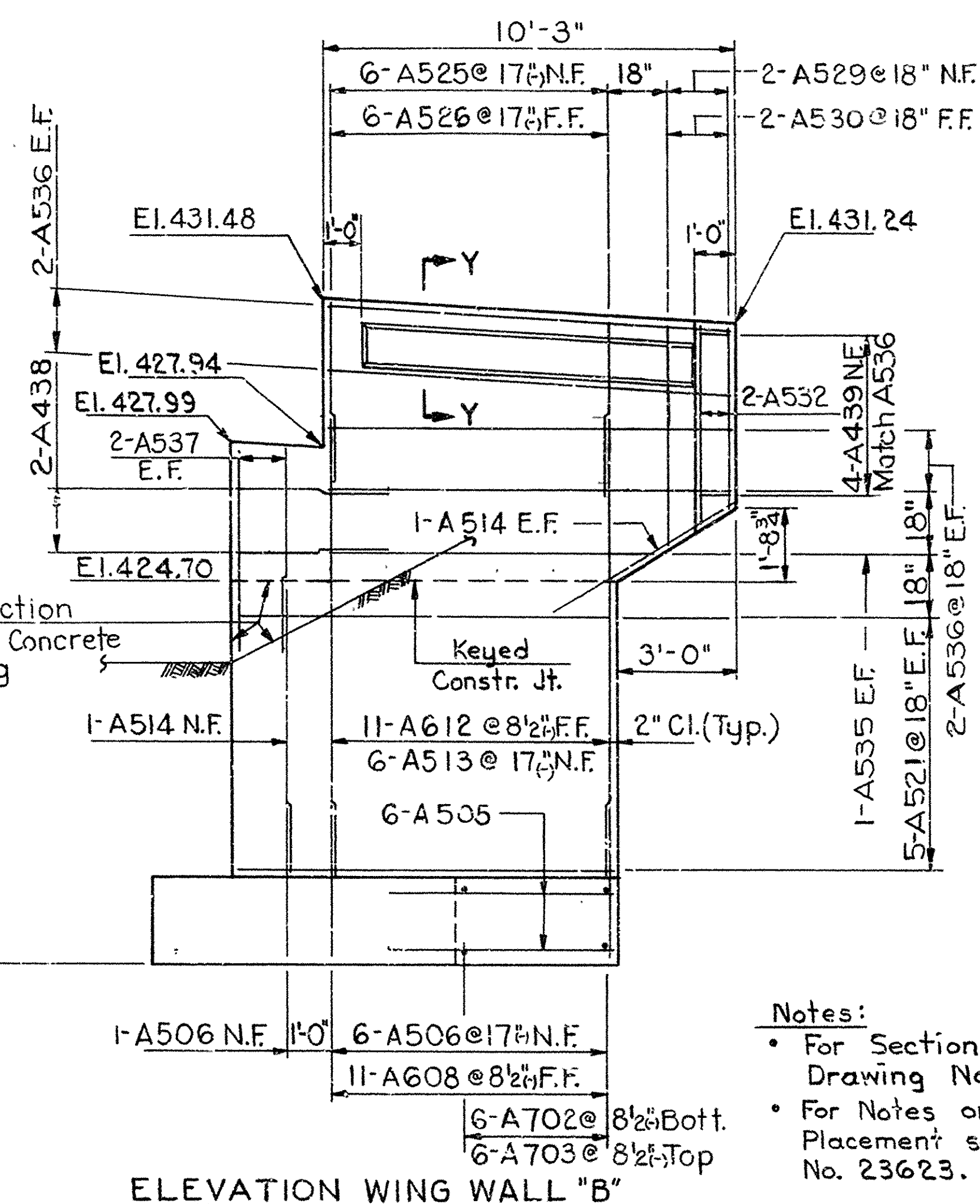
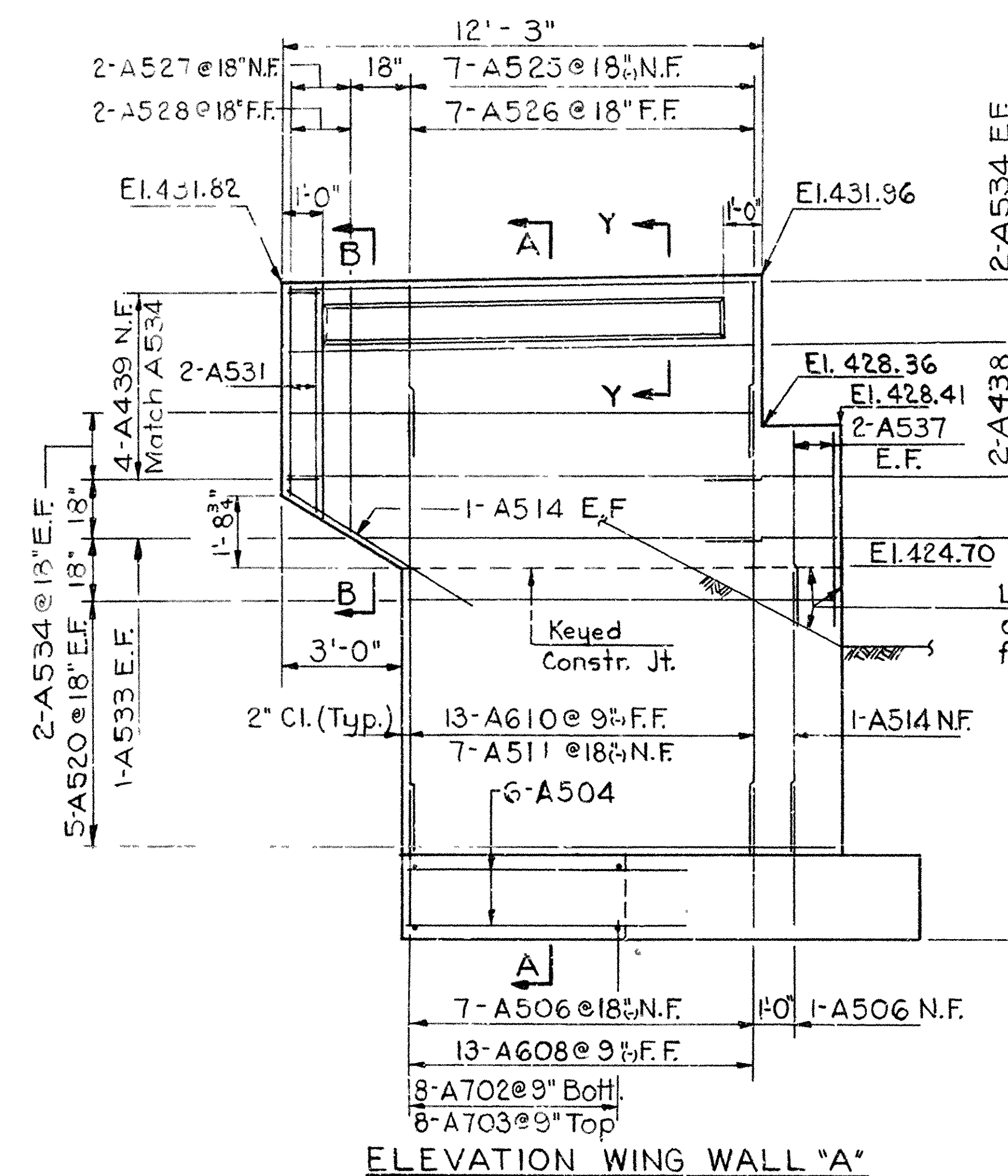
LEGEND:  
N.F. - Near Face  
F.F. - Far Face  
E.F. - Each Face

LAYOUT OF  
WEST ABUTMENT  
OUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY  
ROUTE 70 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: JFW DATE: 5-03-80  
CHECKED BY: J.E.K. DATE: 5-09-80  
DESIGNED BY: J.F.S. DATE: 5-01-80  
SCALE: As Shown  
BRIDGE NO. 5872 DRAWING NO. 23605



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BRF- 14- 231	17	89
				JOB NO		60032		
				5872	W. ABUT. DETAIL			23606

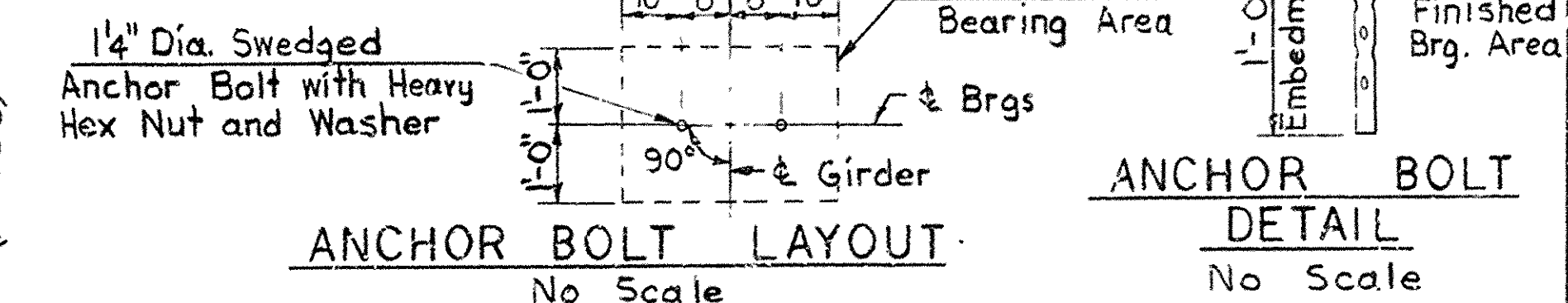


Notes:

- For Section Y-Y see Drawing No. 23621.
- For Notes on Anchor Bolt Placement see Drawing No. 23623.

## SECTION A-A

( ) Wing Wall "B"



DETAILS AND BAR LIST OF  
WEST ABUTMENT  
OUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY

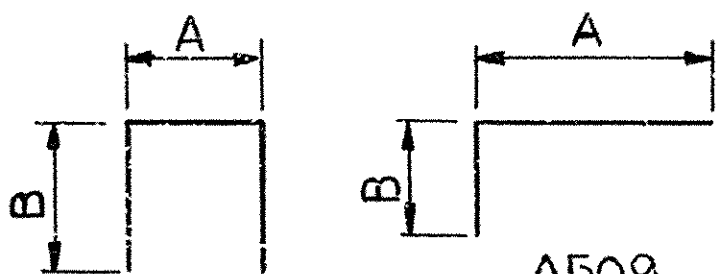
ROUTE 70 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: FW DATE: 5-29-80  
CHECKED BY: R.F.K DATE: 5-29-80 SCALE: As Shown  
DESIGNED BY: P.E.S. DATE: 5-09-80

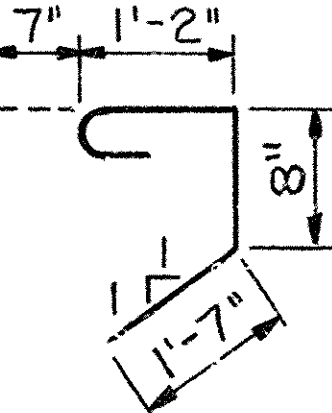
BRIDGE NO. 5872 DRAWING NO. 100

BAR LIST											
MARK	NO. REQ'D	LENGTH	A	B	PIN DIA.	MARK	NO. REQ'D	LENGTH	A	B	PIN DIA.
A501	28	35'-7"			Str.	A524	92	4'-0"	See	Diag.	3 3/4"
A702	214	8'-0"	7'-2"	10"	5/4"	A525	13	6'-7"	See	Diag.	-
A703	14	7'-2"			Str.	A526	13	4'-2"	See	Diag.	3 3/4"
A504	12	7'-2"			Str.	A527	2	7'-3" to 8'-1"	See	Diag.	-
A505	12	5'-2"			Str.			1-ea. vary by 10"			
A506	81	3'-2"			Str.	A528	2	4'-5" to 5'-3"	See	Diag.	3 3/4"
A907	92	12'-3"	11'-0"	1'-3"	9"			1-ea. vary by 10"			
A608	24	4'-4"			Str.	A529	2	6'-8" to 7'-6"	See	Diag.	-
A509	66	9'-2"	6'-6"	2'-8"	3 3/4"			1-ea. vary by 10"			
A610	13	11'-1"			Str.	A530	2	3'-10" to 4'-8"	See	Diag.	3 3/4"
A511	7	11'-1"			Str.			1-ea. vary by 10"			
A612	11	10'-7"			Str.	A531	2	5'-0"			Str.
A513	6	10'-7"			Str.	A532	2	4'-5"			Str.
A514	6	7'-0"			Str.	A533	2	10'-0"			Str.
A415	30	4'-10"	1'-8"	1'-7"	3"	A534	8	11'-11"			Str.
A916	6	11'-0"	9'-3"	1'-3"	9"	A535	2	8'-0"			Str.
A517	24	33'-2"			Str.	A536	8	9'-11"			Str.
A518	24	35'-0"			Str.	A537	8	4'-10"			Str.
A519	16	5'-0"			Str.	A438	4	6'-10"	6"	3'-2"	2"
A520	10	10'-11"			Str.	A439	8	1'-11"	7"	8"	2"
A521	10	8'-11"			Str.						
A522	92	4'-0"			Str.						
A523	92	8'-2"	8"	3'-9"	3 3/4"						

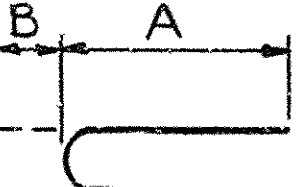
Dimension are out to out of bars



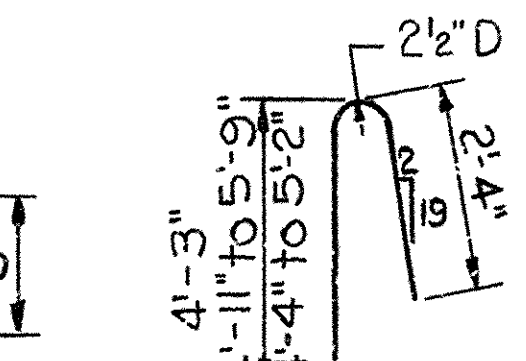
A509



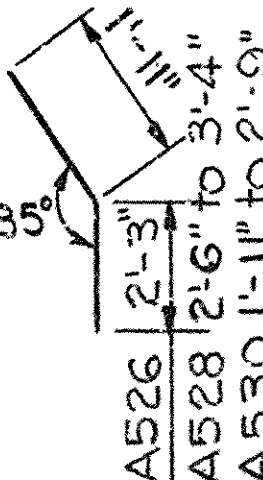
A524



A702  
A907  
A916



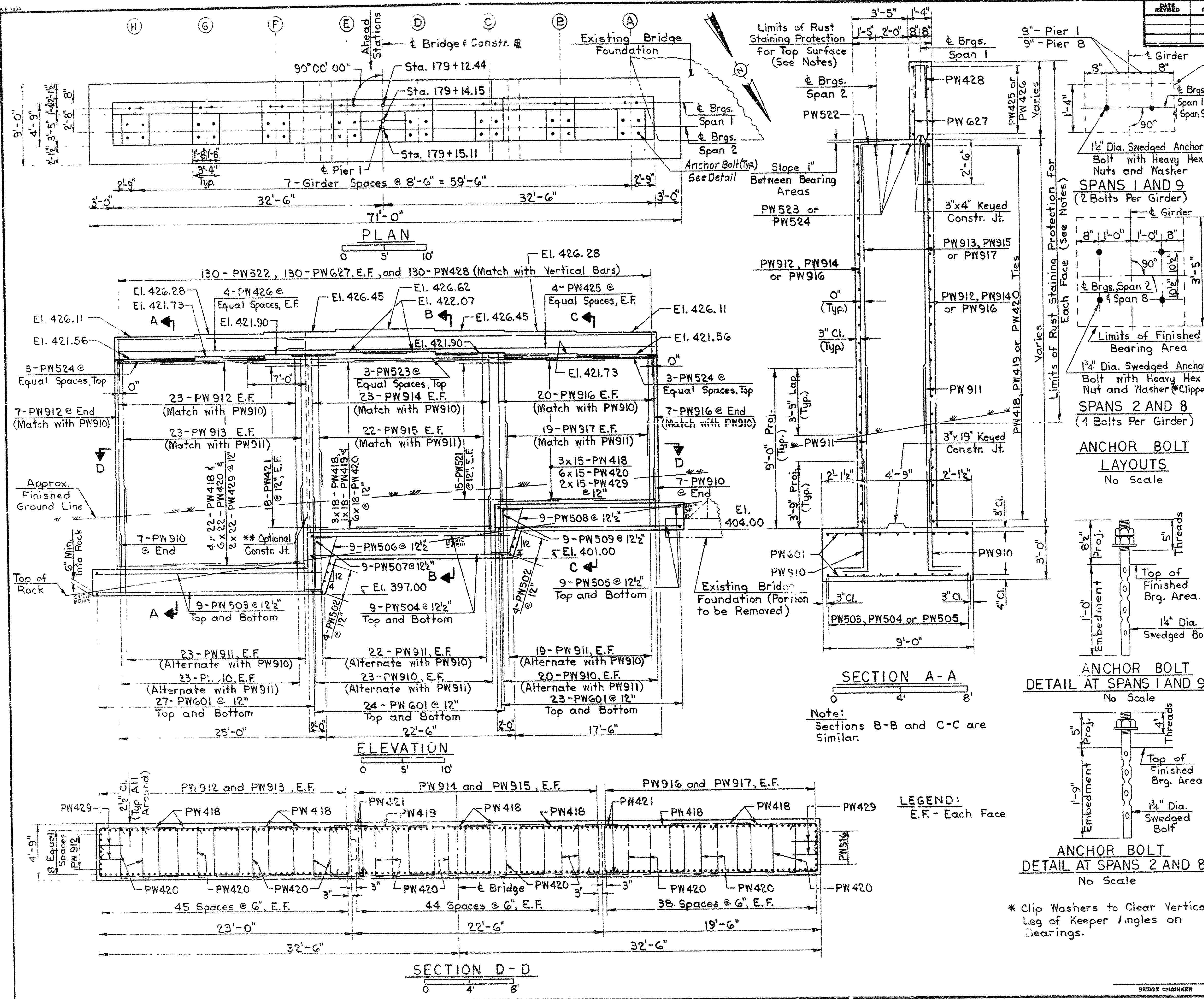
A525  
A527  
A529



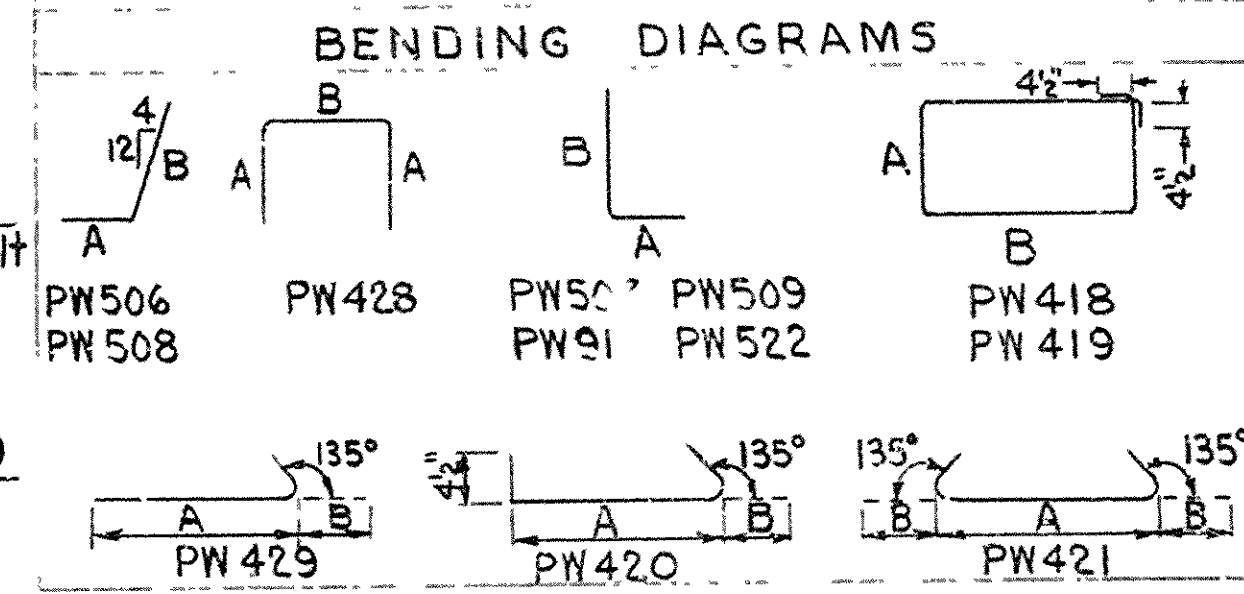
A526  
A528  
A530



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	587-04-2(23)	18	30
				JOB NO.	5872			



BAR LIST					
MARK	NO.	REQ'D	SIZE	LENGTH	PIN DIA.
PW601	148	6	8'-6"		Str.
PW502	8	5	8'-6"		Str.
PW503	18	5	27'-0"		Str.
PW504	18	5	24'-0"		Str.
PW505	18	5	22'-0"		Str.
PW506	9	5	8'-3"	2'-0"	6'-3"
PW507	9	5	8'-3"	2'-0"	6'-3"
PW508	9	5	7'-3"	2'-0"	5'-3"
PW509	9	5	7'-3"	2'-0"	5'-3"
PW910	146	9	7'-10"	1'-7"	6'-3"
PW911	128	9	13'-1"	1'-7"	11'-6"
PW912	53	9	21'-3"		Str.
PW913	46	9	16'-3"		Str.
PW914	46	9	17'-6"		Str.
PW915	44	9	12'-9"		Str.
PW916	47	9	14'-3"		Str.
PW917	38	9	9'-6"		Str.
PW418	187	4	23'-10"	4'-4"	7'-2 1/2"
PW419	18	4	22'-10"	4'-4"	6'-8 1/2"
PW420	330	4	5'-3"	4'-4"	6'-2"
PW421	66	4	3'-9"	2'-8"	6'-2"
PW522	130	5	6'-9"	2'-6"	4'-3"
PW523	3	5	33'-0"		Str.
PW524	6	5	18'-0"		Str.
PW425	8	4	43'-9"		Str.
PW426	8	4	22'-6"		Str.
PW627	260	6	6'-6"		Str.
PW428	130	4	4'-5"	1'-9"	11"
PW429	74	4	3'-6"	2'-11 1/2"	6 1/2"



NOTES:  
• For General Notes of Piers 1 and 8 see Dwg. No. 23619.  
• Anchor Bolt Layouts and Details shown on this Drawing are for both Piers 1 and 8.

DETAILS AND BAR LIST OF  
PIER 1  
OUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY

ROUTE 70 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: J.M.K. DATE: 5-9-80  
CHECKED BY: J.M.K. DATE: 5-9-80  
DESIGNED BY: J.M.K. DATE: 5-9-80

BRIDGE NO. 5872 DRAWING NO. 23607



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
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				JOB NO.		60332		
						5872		
						PIERS 2,3,6&7 ALT A 2360A		

19

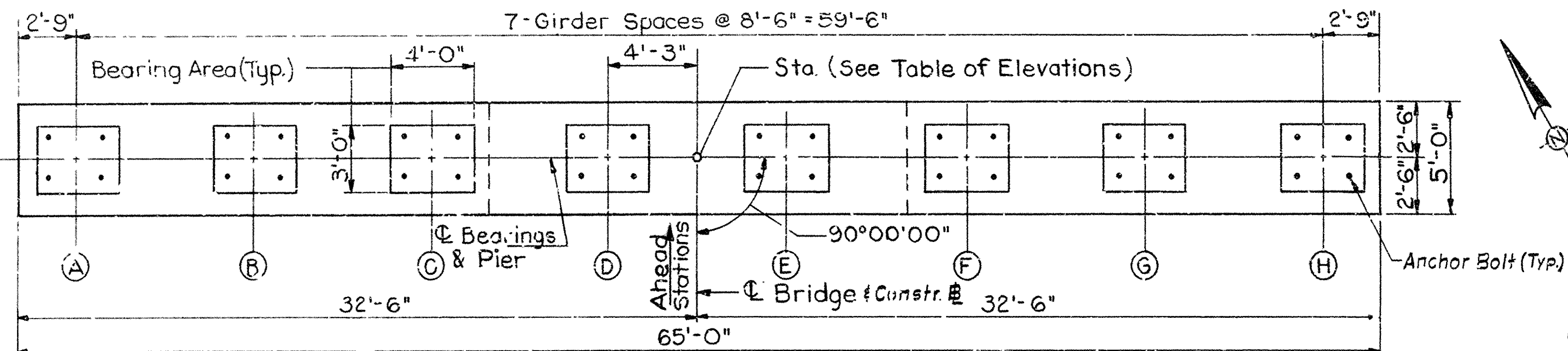
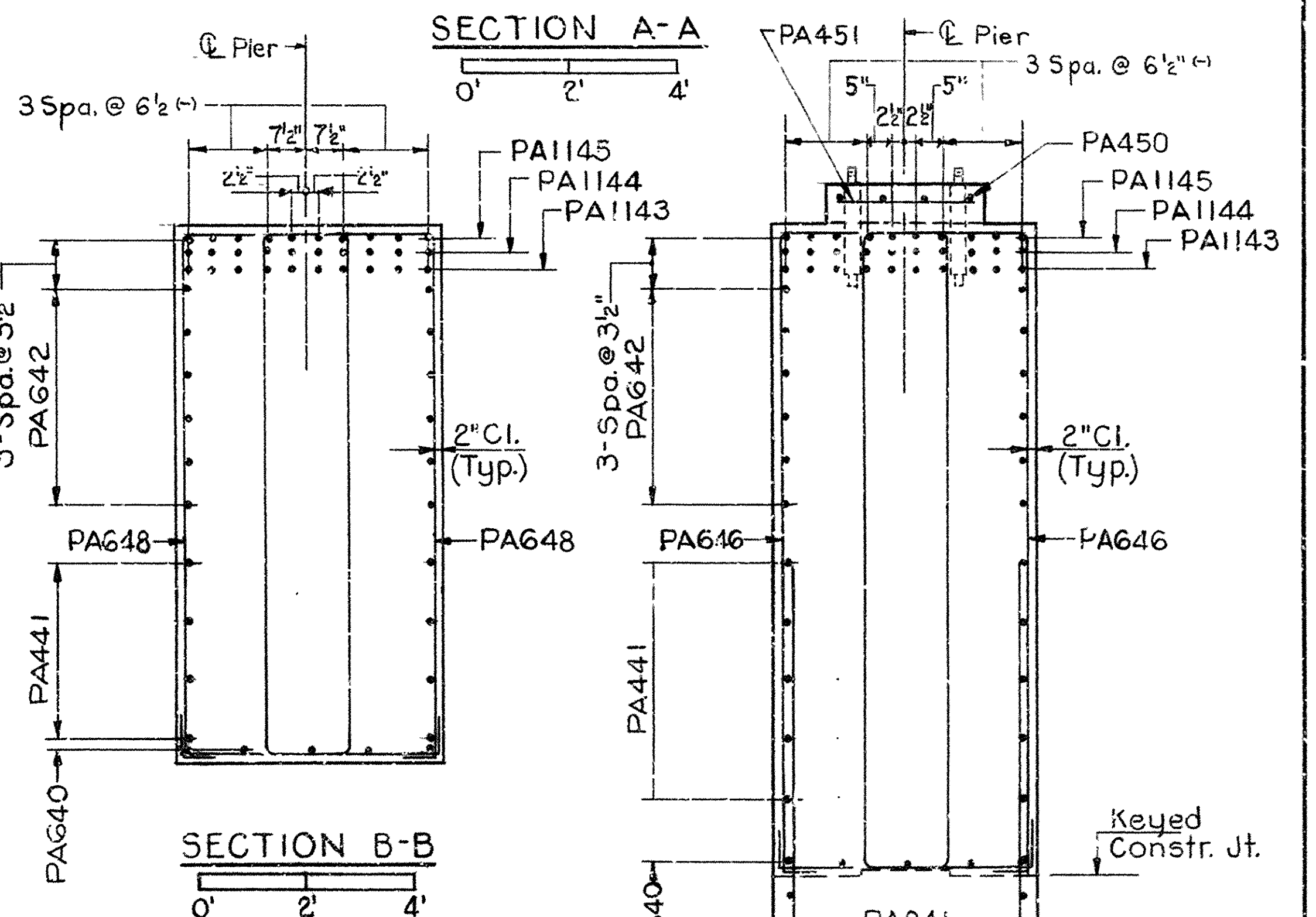
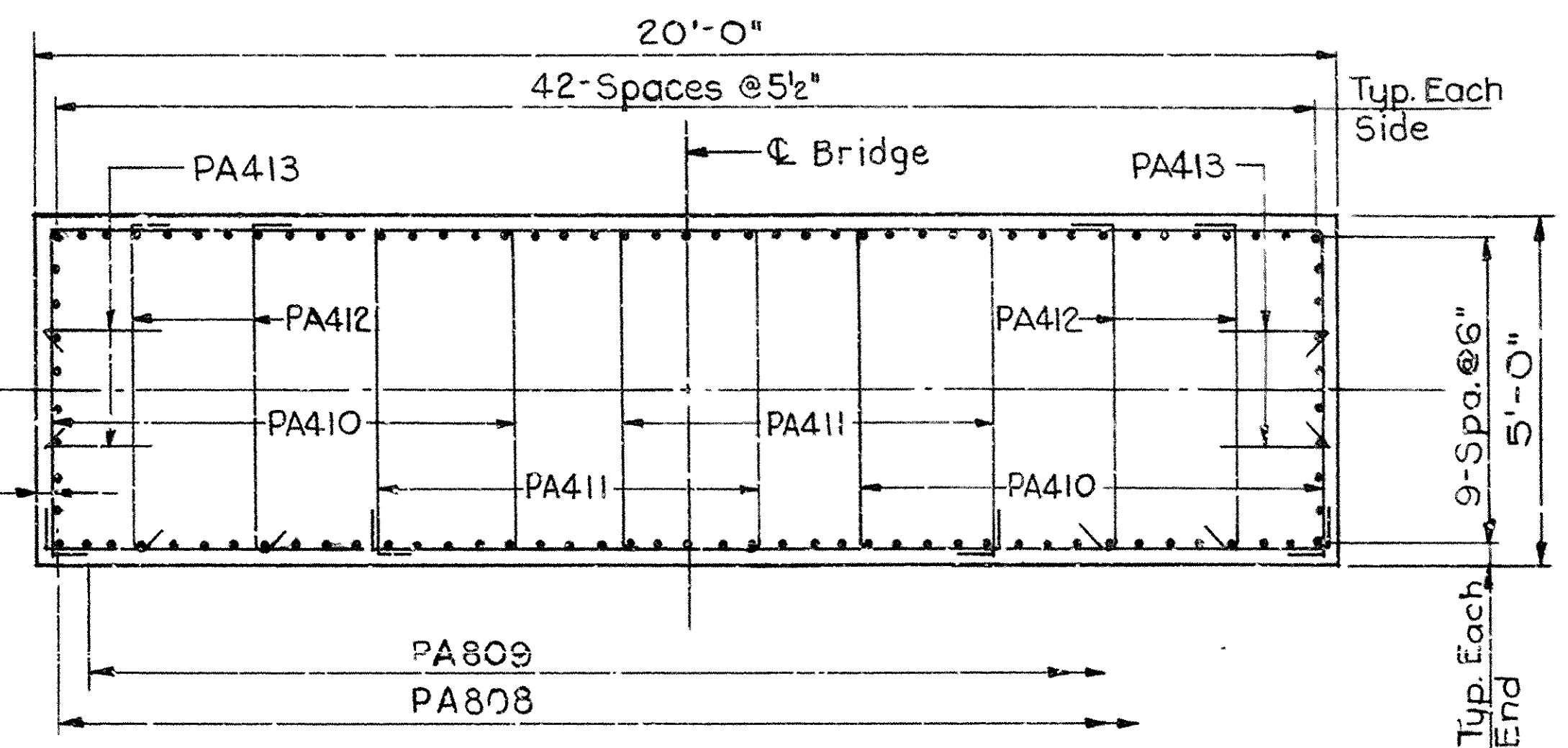
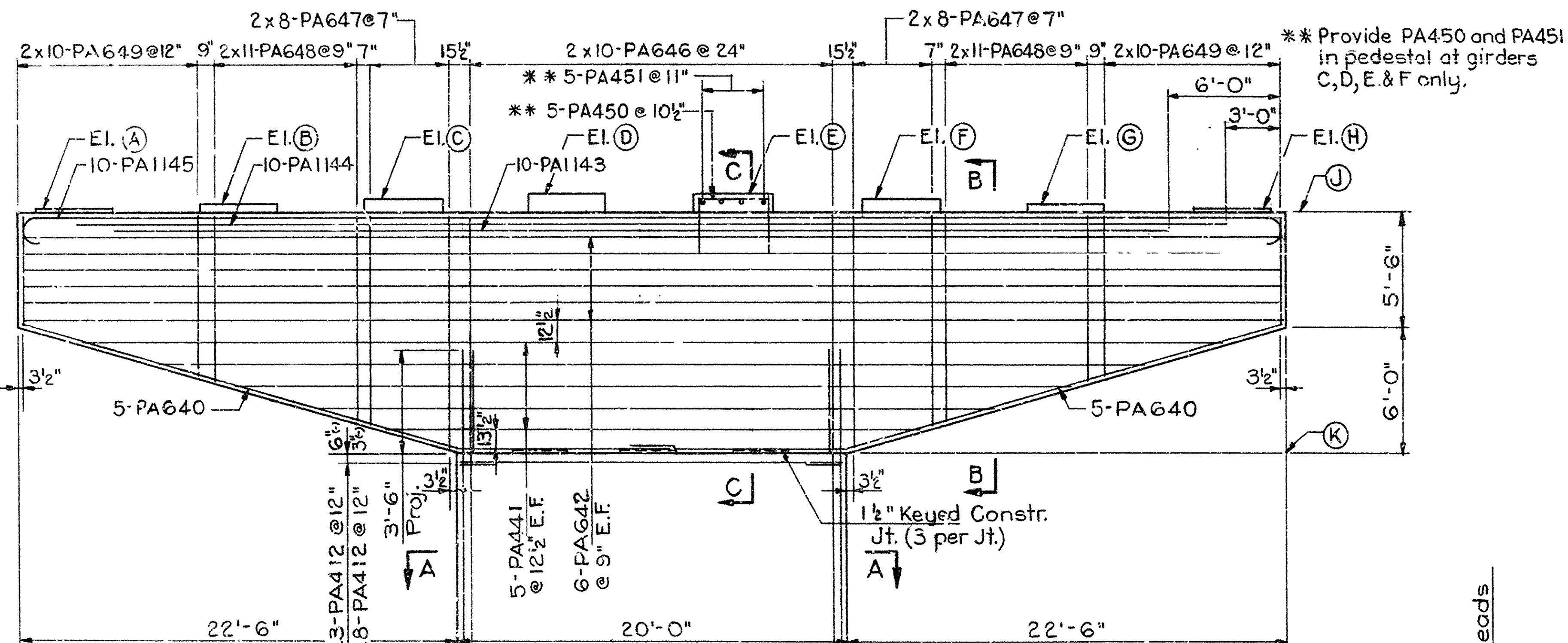
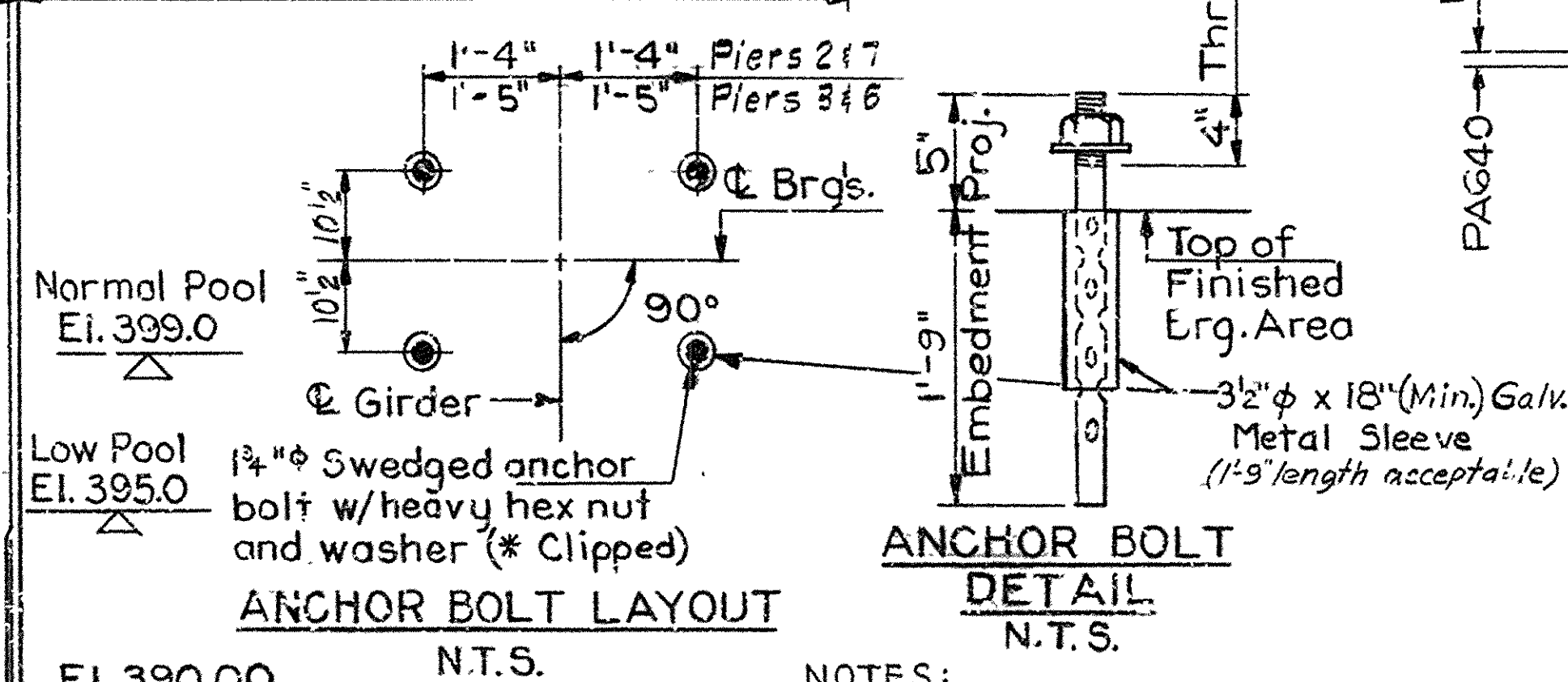
CAP PLAN  
0' 4' 8'

TABLE OF ELEVATIONS

POINT	2	3	6	7
Sta.	180+58.11	182+50.11	188+26.11	190+18.11
A, H	424.67	429.25	429.25	424.67
B, G	424.84	429.42	429.42	424.84
C, F	425.01	429.59	429.59	425.01
D, E	425.18	429.76	429.76	425.18
J	424.60	429.18	429.18	424.60
K	413.10	417.68	417.68	413.10

UPPER SHAFT & CAP ELEVATION  
0' 4' 8'

NOTES:  
\* For notes, see Dwg. No. 23609

\* Clip Washers to Clear Vertical Leg of Keeper Angles on Bearings.

ALTERNATE A  
DETAILS OF PIERS 2,3,6 & 7  
OUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY

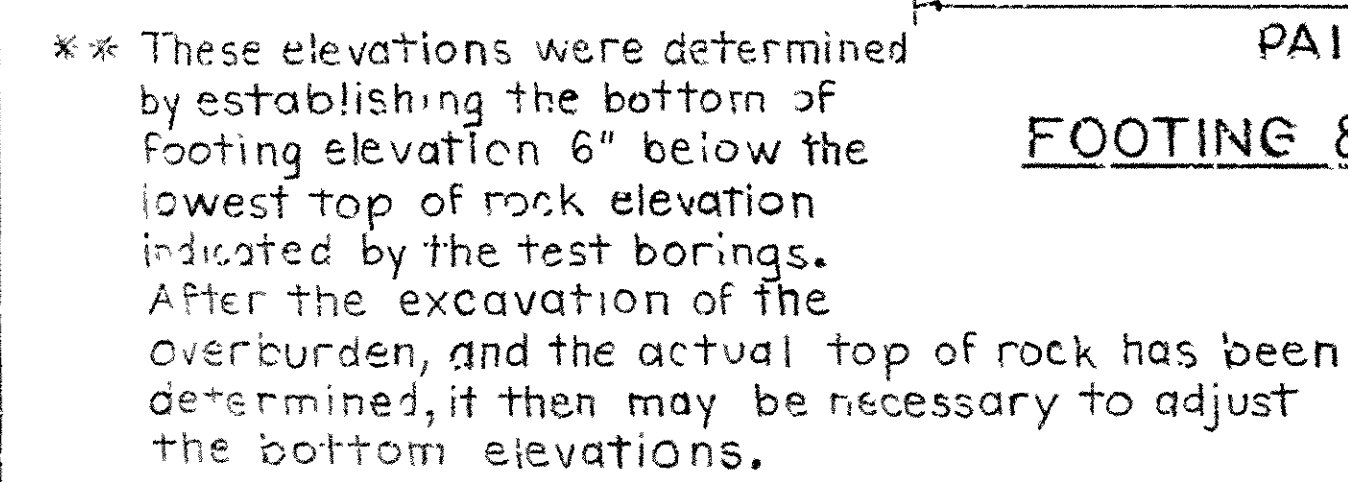
ROUTE 70 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: JFW DATE: 5-9-80  
CHECKED BY: B.F.H. DATE: 5-9-80  
DESIGNED BY: JFW DATE: 5-9-80

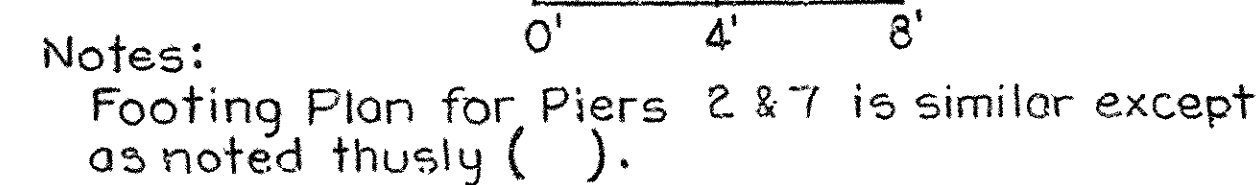
BRIDGE NO. 5872 DRAWING NO. 2360A



20



A horizontal number line with arrows at both ends. It has three major tick marks labeled 0, 4, and 8. The tick mark at 4 is in the middle of the segment between 0 and 8.



- Notes:
- Maximum design foundation pressure is 5.0 tons per square foot. Allowable foundation pressures are:  
Pier 2 = 17.5 Tons per square foot.  
Pier 3 & 6 = 25 Tons per square foot.  
Pier 7 = 20 Tons per square foot.
  - Footings must be keyed six (6) inches minimum into rock.
  - For upper shaft and cap details, see Dwg. No. 23608
  - For bar list, see Dwg. No. 23615
  - For keyed construction joint, see Dwg. No. 23612
  - Pedestals may be poured monolithically with pier cap. Bearing areas shall be finished to the elevations as shown.
  - Anchor bolts may be cast in place or drilled and grouted into place. If anchor bolts are to be drilled into place, the 3/2" x 18 1/2" (min) galv. metal sleeves shall be cast in place as shown. It shall be dry packed with styrofoam or urethane foam or approved equal prior to pouring concrete. After pouring the cap and prior to erection of structural steel, the dry pack shall be removed and holes for the anchor bolts shall be accurately drilled into the masonry. The bolts shall then be set and fixed with portland cement grout or an approved non-shrink grout, completely filling the holes. If anchor bolts are to be cast in place, the 3/2"  $\phi$  x 18" sleeves will not be required. Galvanized metal sleeves to be considered subsidiary to the item "Structural Steel in Plate Girder Spans, A588."
  - Provide rust staining protection on all exposed cement concrete surfaces of the pedestals; cap; and shaft between bottom of pier cap and low pool El. 395.0

ROUTE 70 SEC. 8

LITTLE ROCK, ARK

DRAWING NO.

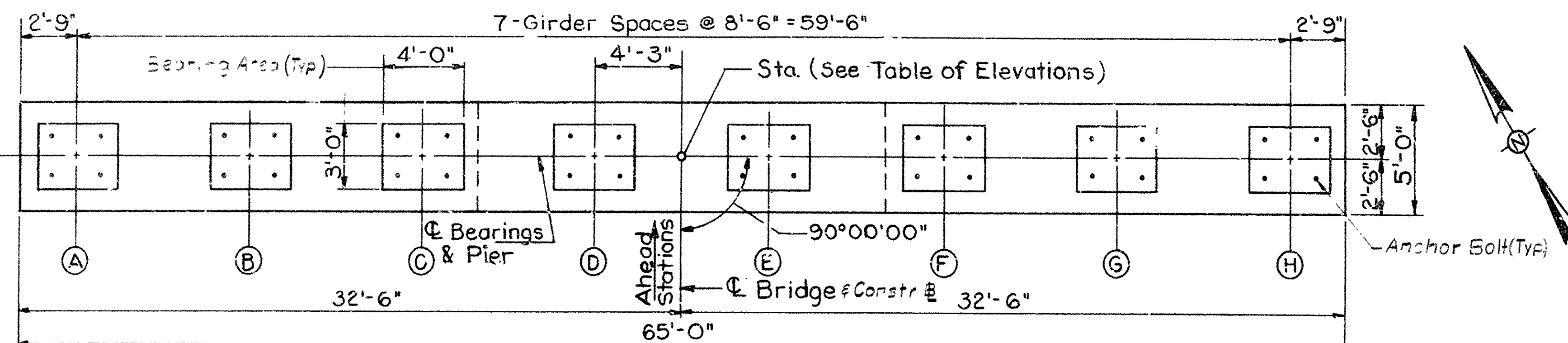
BRIDGE NO. 5872



DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	EFF 014 217	21	80
				JOB NO.		C 23615		
				PIERS 1, 2, 3, 6 & 7 ALTERNATE				

#### Notes:

- Pedestals may be poured monolithically with pier cap. Bearing areas shall be finished to the elevations as shown.
- Anchor bolts may be cast in place or drilled and grouted into place. If anchor bolts are to be drilled into place, the 3/2"  $\phi$  x 18" (Min.) galv. metal sleeves shall be cast in place as shown. It shall be dry packed with styrofoam or urethane foam or approved equal prior to pouring concrete. After pouring the cap and prior to erection of structural steel, the dry pack shall be removed and holes for the anchor bolts shall be accurately drilled into the masonry. The bolts shall then be set and fixed with portland cement grout or an approved non-shrink grout completely filling the holes. If anchor bolts are to be cast in place, the 3/2"  $\phi$  x 18" sleeves will not be required. Galvanized metal sleeves to be considered subsidiary to the item "Structural Steel in Plate Girder Spans, A 58 B."
- Provide rust staining protection on all exposed cement concrete surfaces of the pedestals, cap, and shaft between bottom of pier cap and low pool El. 395.0
- For bar list, see Dwg. No. 23615
- For keyed construction joint, see Dwg. No. 23612



**CAP PLAN**

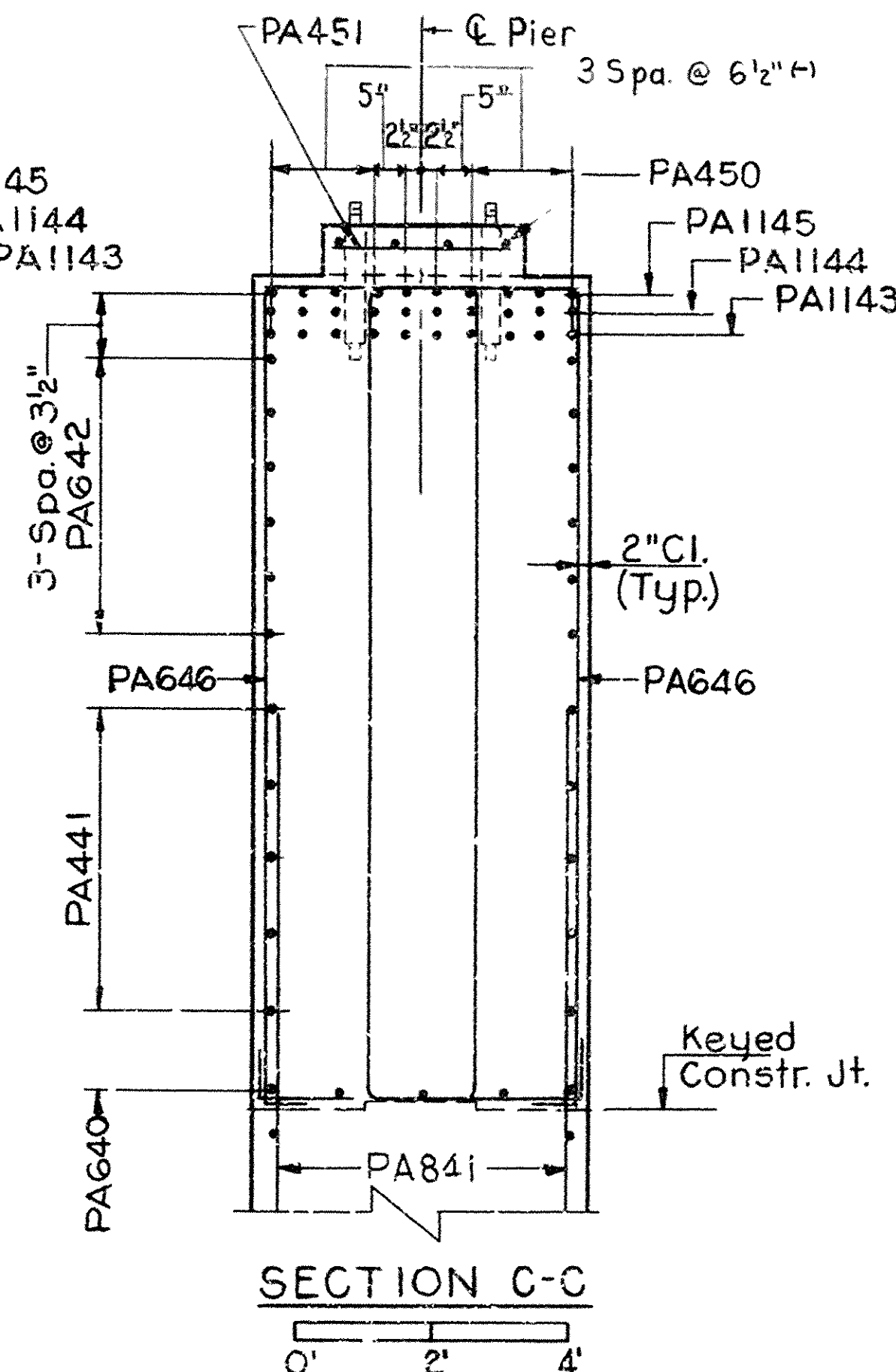
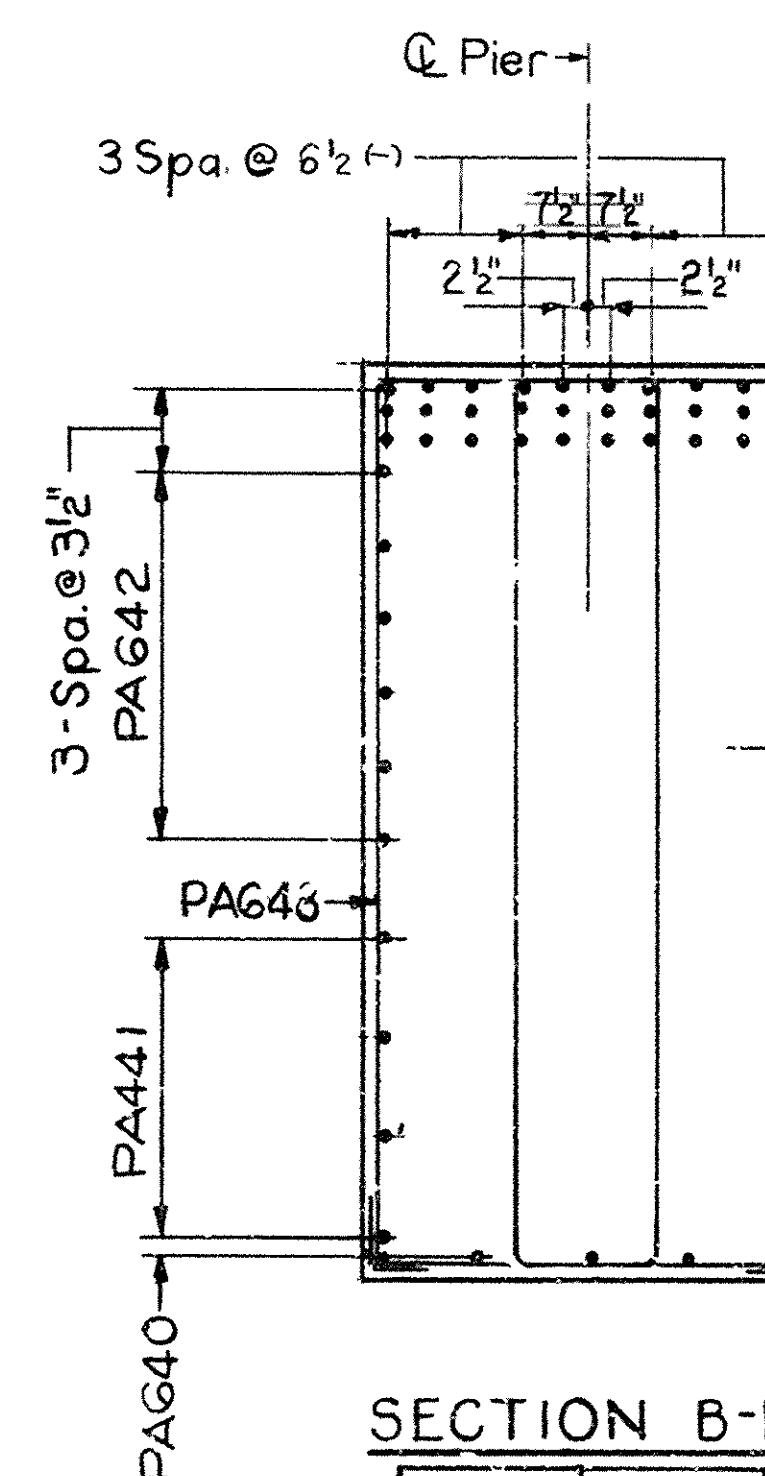
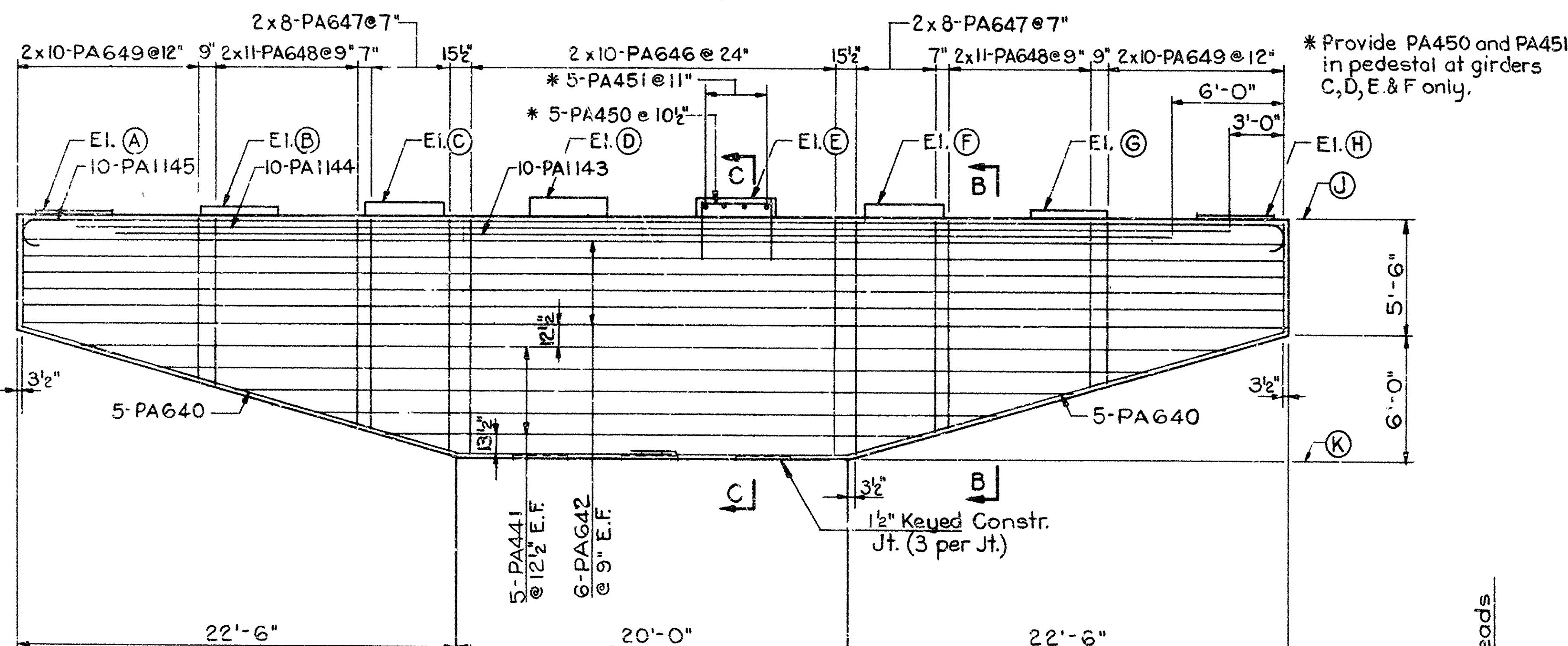
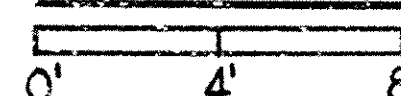
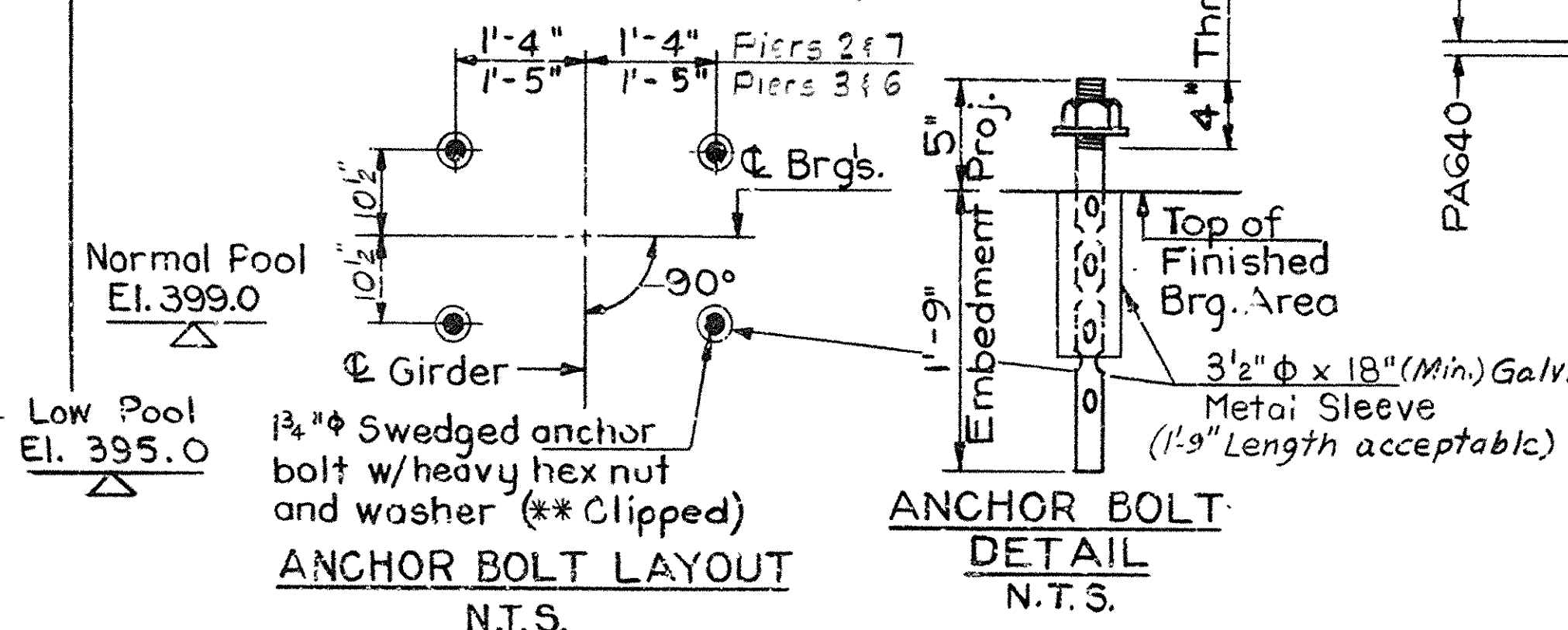
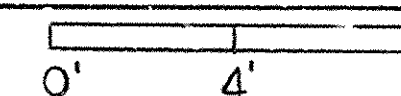


TABLE OF ELEVATIONS				
POINT	PIERS			
	2	3	6	7
Sta.	180+58.11	182+50.11	188+26.11	190+18.11
A, H	424.67	429.25	429.25	424.67
B, G	424.84	429.42	429.42	424.84
C, F	425.01	429.59	429.59	425.01
D, E	425.18	429.76	429.76	425.18
J	424.60	429.18	429.18	424.60
K	413.10	417.68	417.68	413.10

**CAP ELEVATION**



\*\* Clip Washers to clear vertical leg of keeper angles on bearings.

#### ALTERNATE B DETAILS OF PIERS 2, 3, 6 & 7 OUACHITA RIVER BRIDGE AND APPROACHES GARLAND COUNTY

ROUTE 70 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: JFW DATE: 5-9-80  
CHECKED BY: RJA DATE: 5-9-80  
DESIGNED BY: JFW DATE: 5-9-80

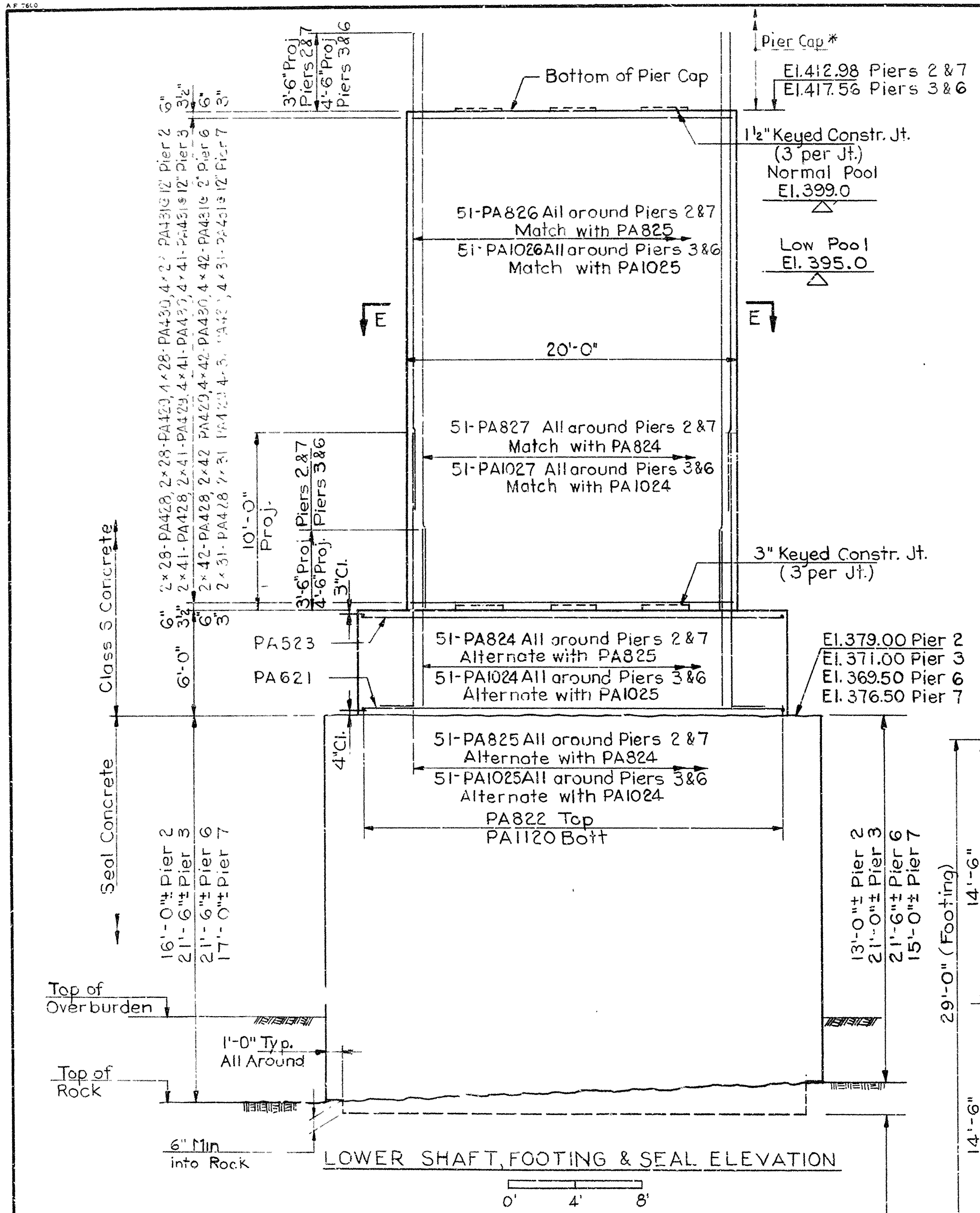
BRIDGE NO. 5872

DRAWING NO. 23615



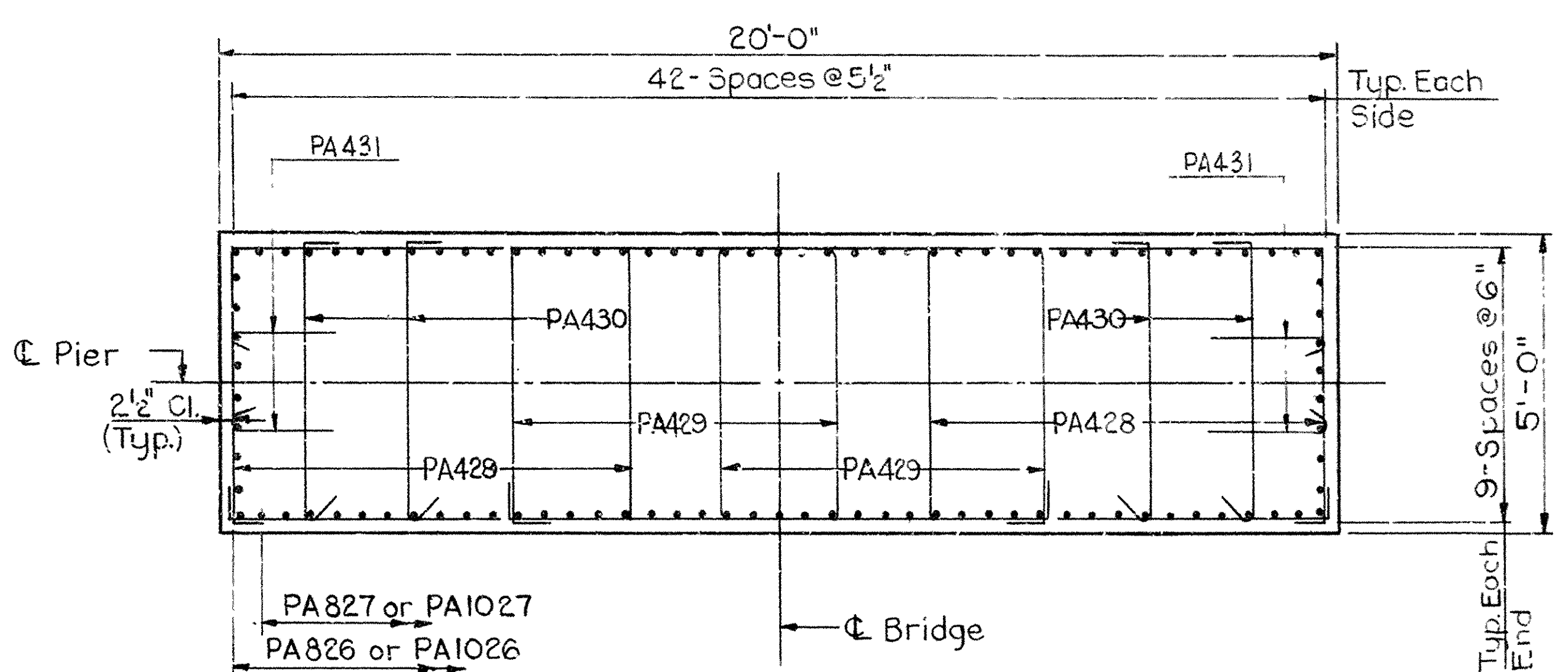
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BFF-014 2'23)	22	39
				JOB NO.	60032			
				1	5872 PIERS 2, 3, 6 & 7, ALT. B - 1-1			

\* For Pier Cap and Details refer to Dwg. No. 23610.

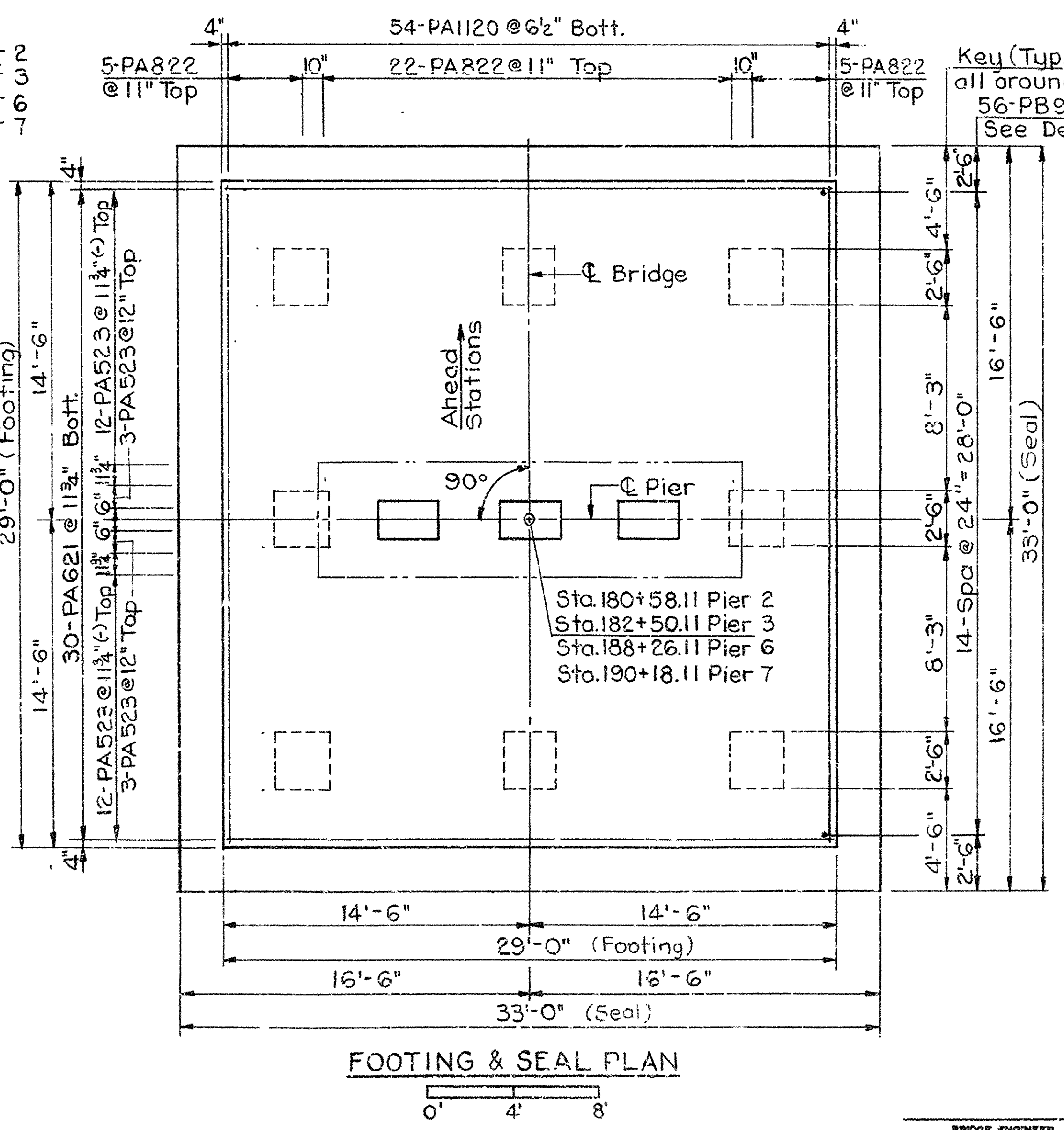


\*\* These elevations were determined by establishing the bottom of seal elevation 6" below the lowest top of rock elevation indicated by the test borings. After the excavation of the overburden, and the actual top of rock for the entire area of the seal has been determined, it then may be necessary to adjust the bottom of seal elevations.

\*\* El. 362.00 Pier 2  
El. 349.00 Pier 3  
El. 347.50 Pier 6  
El. 359.00 Pier 7



SECTION E-E



FOOTING & SEAL PLAN

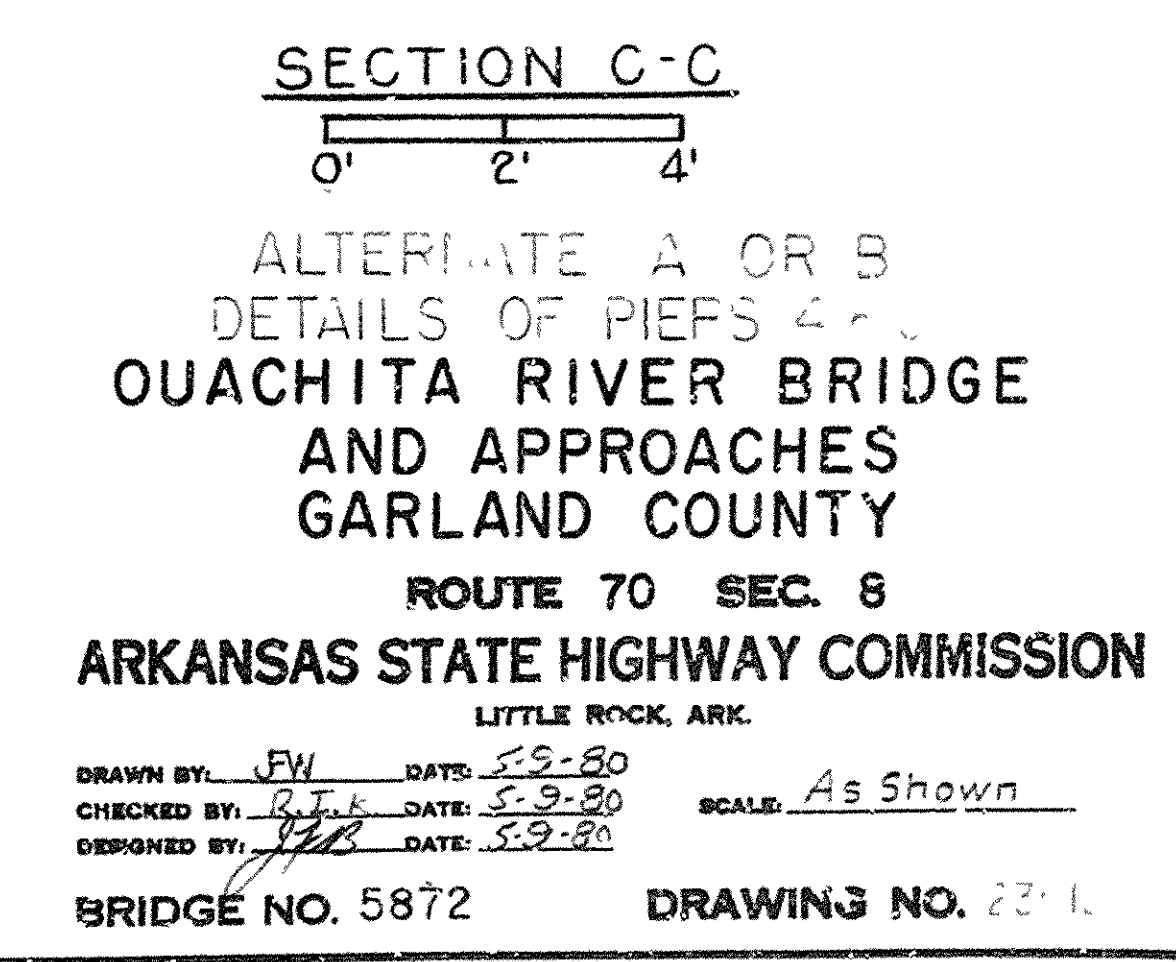
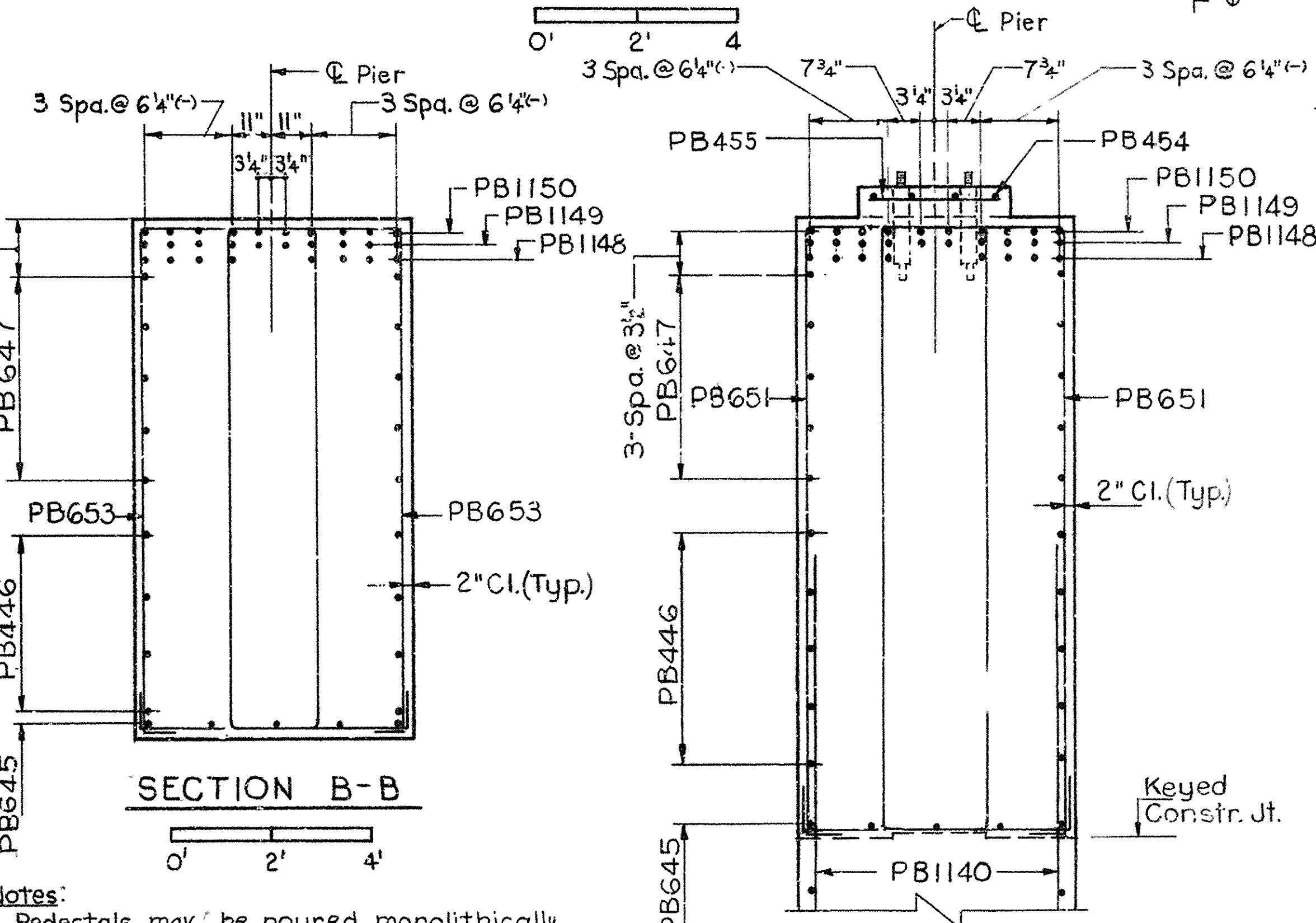
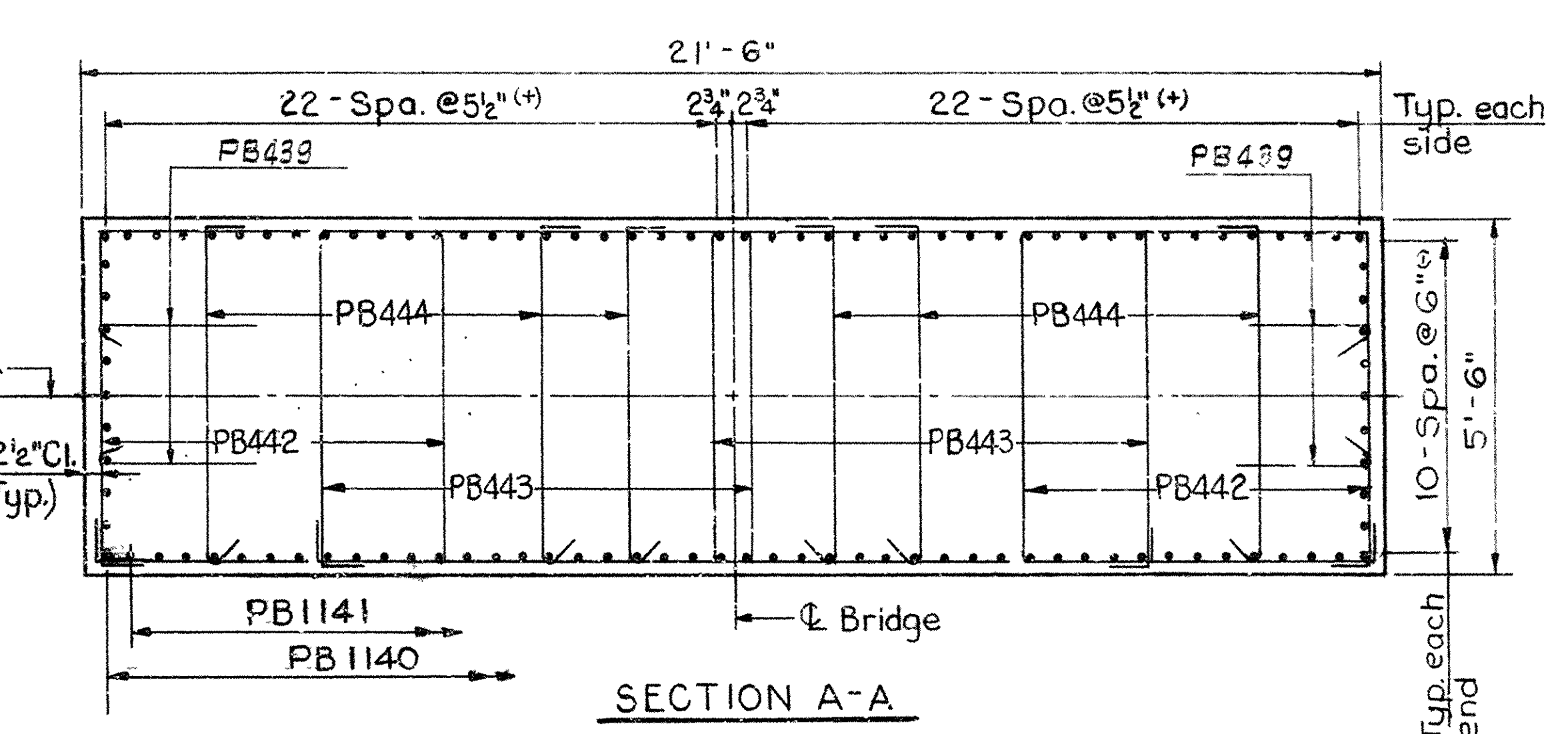
- Notes:
- Maximum design foundation pressure is 4.5 tons per square foot - Piers 2 & 7, and 4.5 tons per square foot - Piers 3 & 6. Allowable foundation pressures are: Pier 2 = 17.5 tons per square foot, Pier 3 & 6 = 25 tons per square foot, Pier 7 = 20 tons per square foot.
  - Seal thicknesses are based on the Normal Pool Elevation of 399.0 and the top of seal as shown.
  - For Keyed Construction Joint see Dwg. No. 23612.
  - For Bar List, see Dwg. No. 23615.
  - All laitance or other unsatisfactory materials shall be removed from the surface of the seal by scraping, chipping or other means until solid concrete is exposed without injury to the surface of the concrete seal, all to the satisfaction of the Engineer.

ALTERNATE B  
DETAILS OF PIERS 2, 3, 6 & 7  
OUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY

ROUTE 70 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

BRIDGE NO. 5872 DRAWING NO. 23611  
DESIGNED BY: FW DATE: 5-9-80  
CHECKED BY: RJK DATE: 5-9-80  
SCALE: As Shown

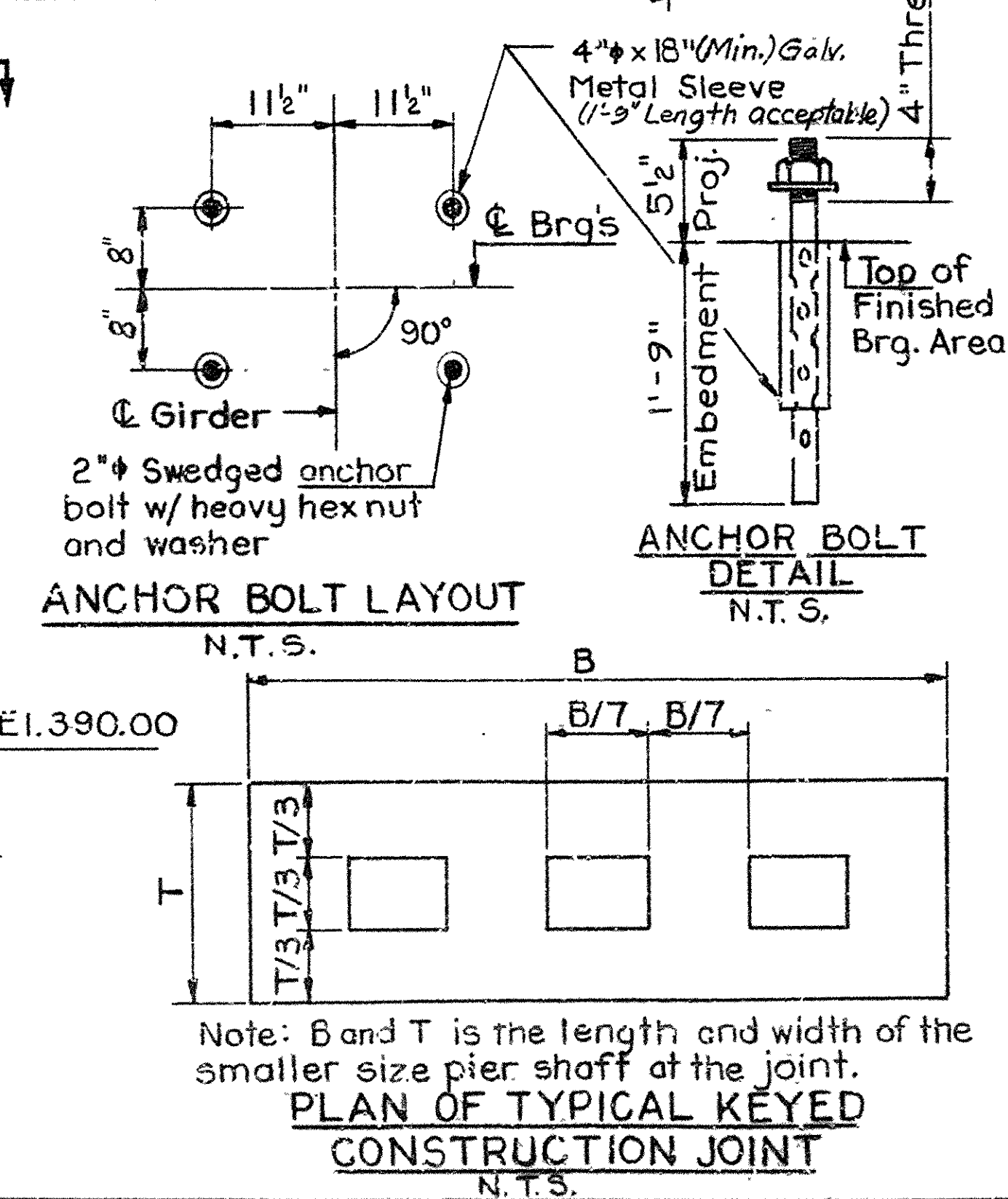




Notes (cont.):

Galvanized metal sleeves to be considered subsidiary to the item "Structural Steel in Plate Girder Spans, A588."

- For bar list, see Dwg. no. 23615
- Provide rust staining protection on all exposed cement concrete surfaces of the pedestals; cap; and shaft between bottom of pier cap and low pool El. 395.0



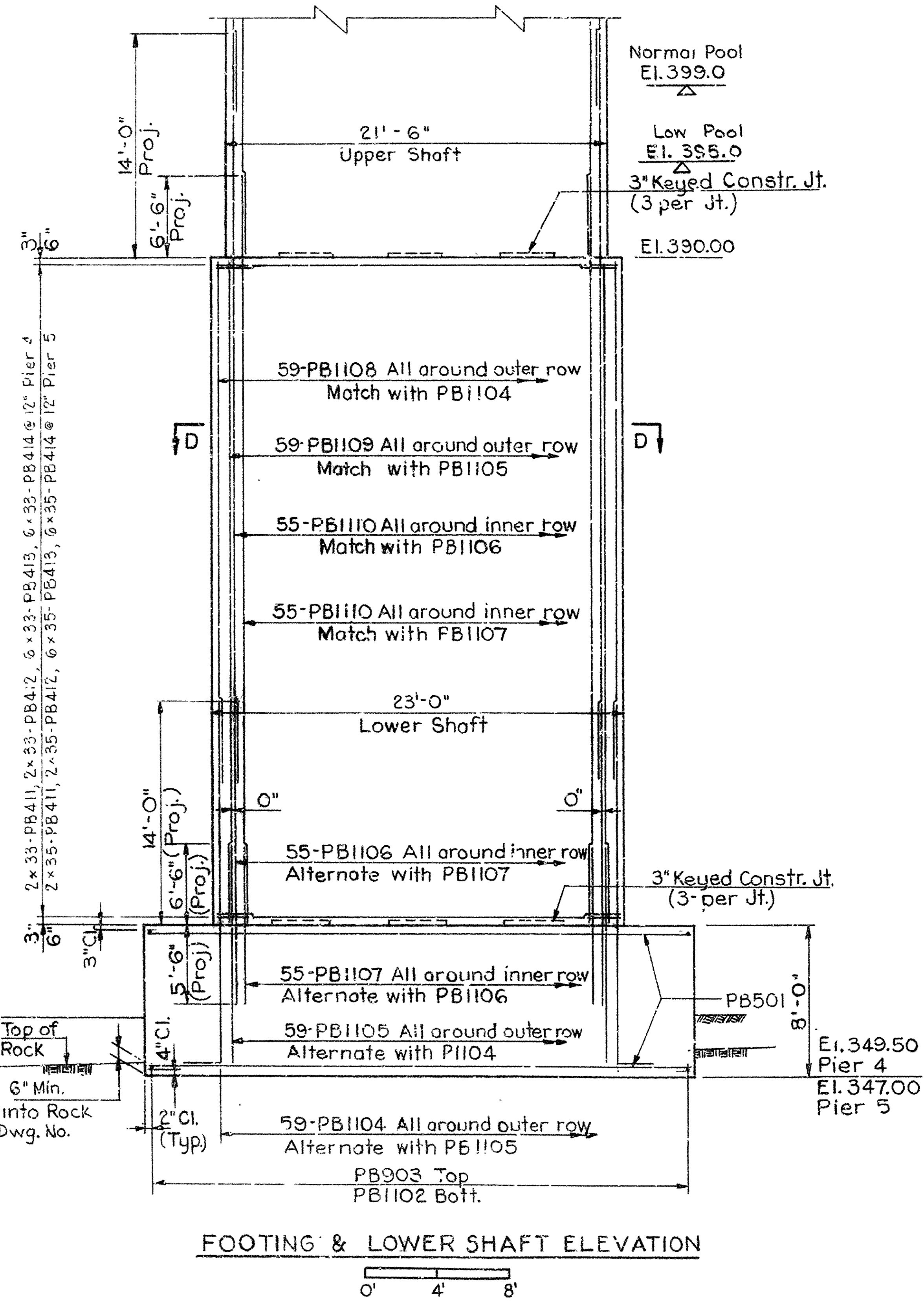
- Pedestals may be poured monolithically with pier cap. Bearing areas shall be finished to the elevations as shown.
- Anchor Bolts may be cast in place or drilled and grouted into place. If anchor bolts are to be drilled into place, the 4"  $\phi$  x 18" (Min.) galvanized metal sleeves shall be cast in place as shown. It shall be dry packed with styrofoam or urethane foam or approved equal prior to pouring concrete. After pouring the cap and prior to erection of structural steel, the dry pack shall be removed and holes for the anchor bolts shall be accurately drilled into the masonry. The bolts shall then be set and fixed with portland cement grout or an approved non-shrink grout, completely filling the holes. If anchor bolts are to be cast in place, the 4"  $\phi$  x 18" sleeves will not be required.
- See Notes(cont.) -

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**BRIDGE ENGINEER**

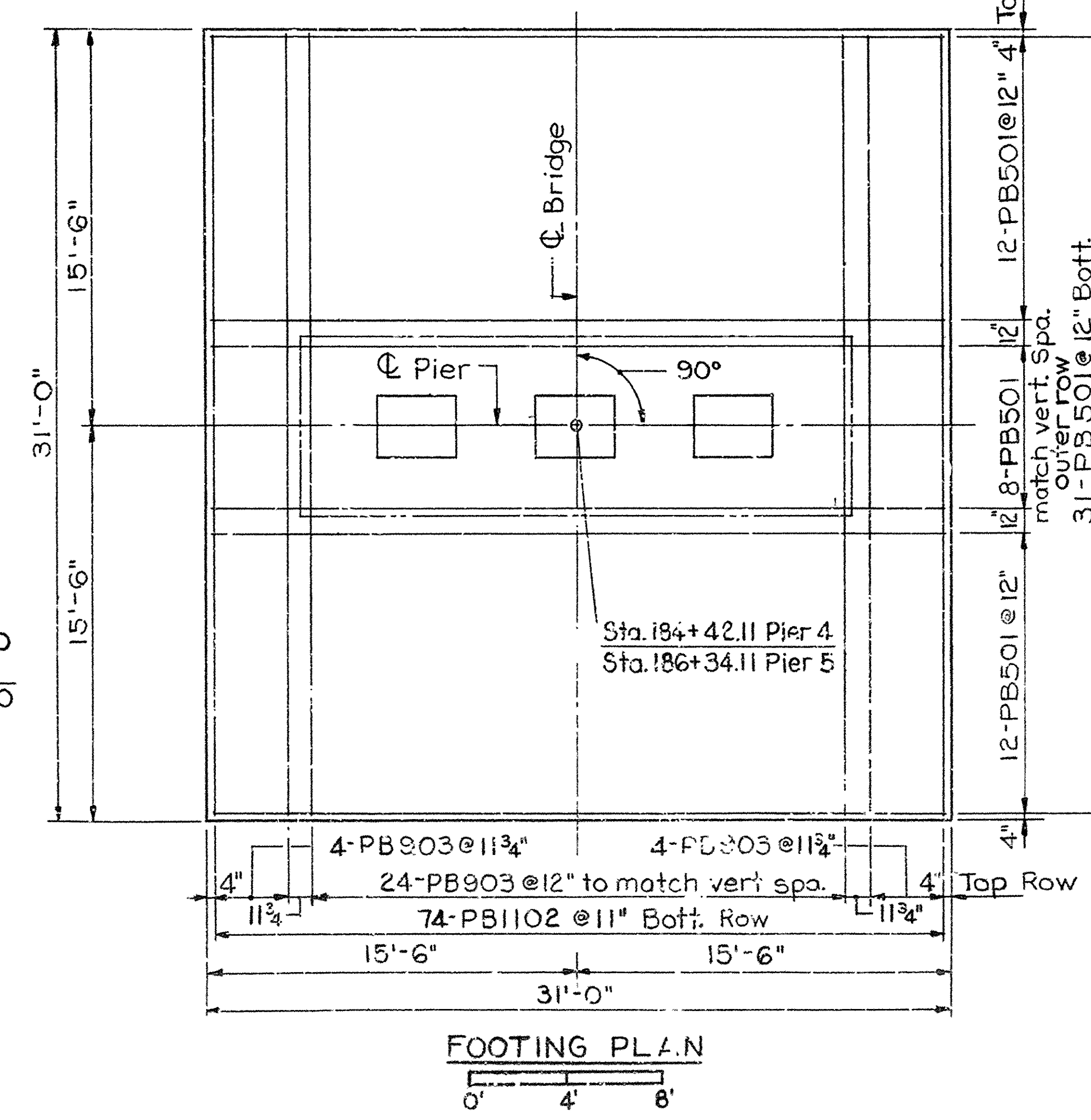
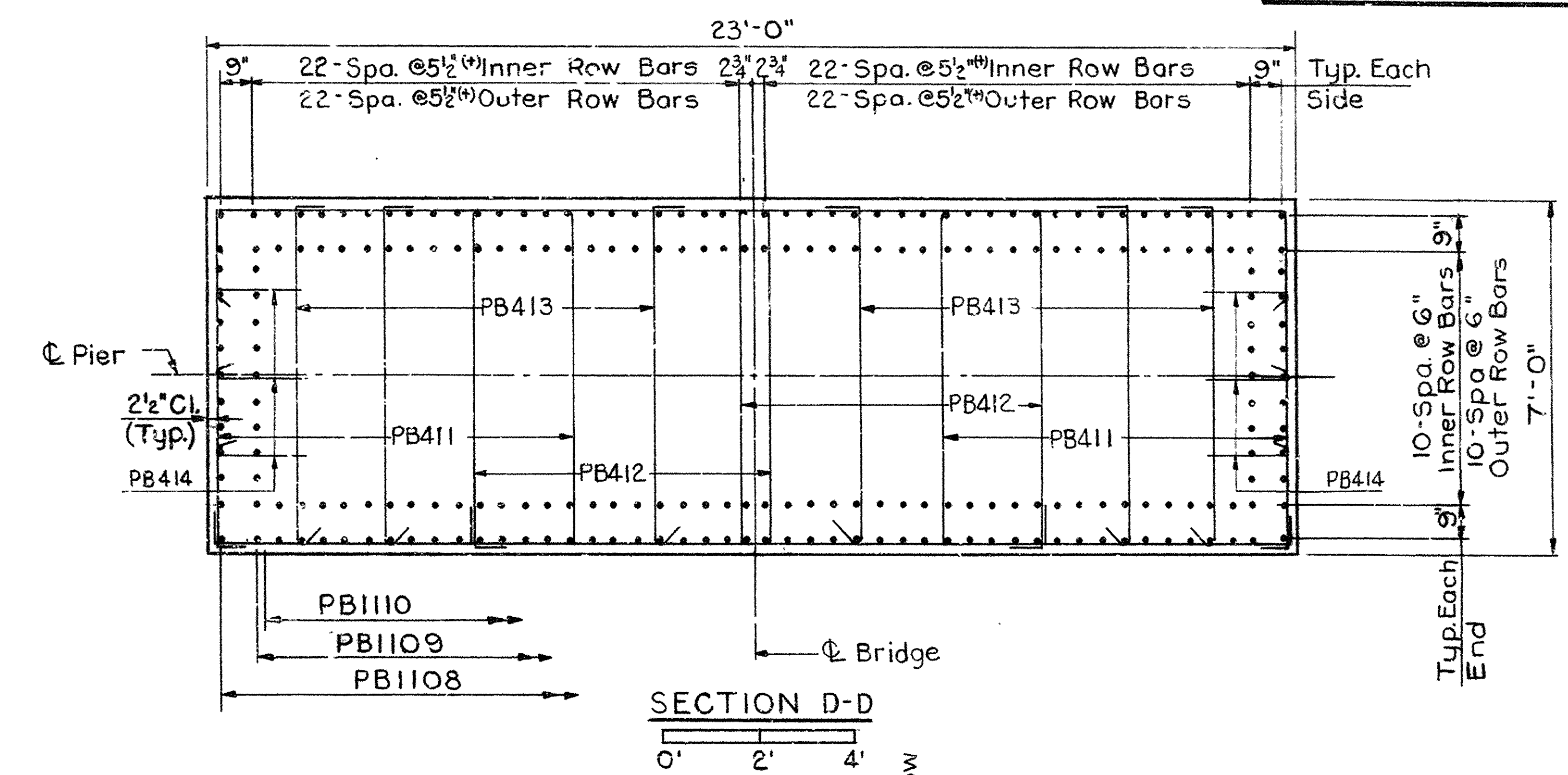


DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	SPF-04-2 (3)	24	89
				JOB NO.		60092		
① 5872 PIER 5 45" DETAILS ALT. A 2-913								



Top of Overburden  
Top of Rock  
6" Min.  
into Rock

Note: See \*\* Dwg. No. 23609



- Notes:
- Maximum design foundation pressure is 7.1 tons per square foot. Allowable foundation pressures for Piers 4 and 5 is 20 and 25 tons per square foot respectively.
  - Footings shall be keyed six (6) inches minimum into rock.
  - For Upper Shaft and Cap details and Key Details, see Dwg. No. 23612.
  - For Bar List, see Dwg. No. 23615.

ALTERNATE A  
DETAILS OF PIERS 4 & 5  
OUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY  
ROUTE 70 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

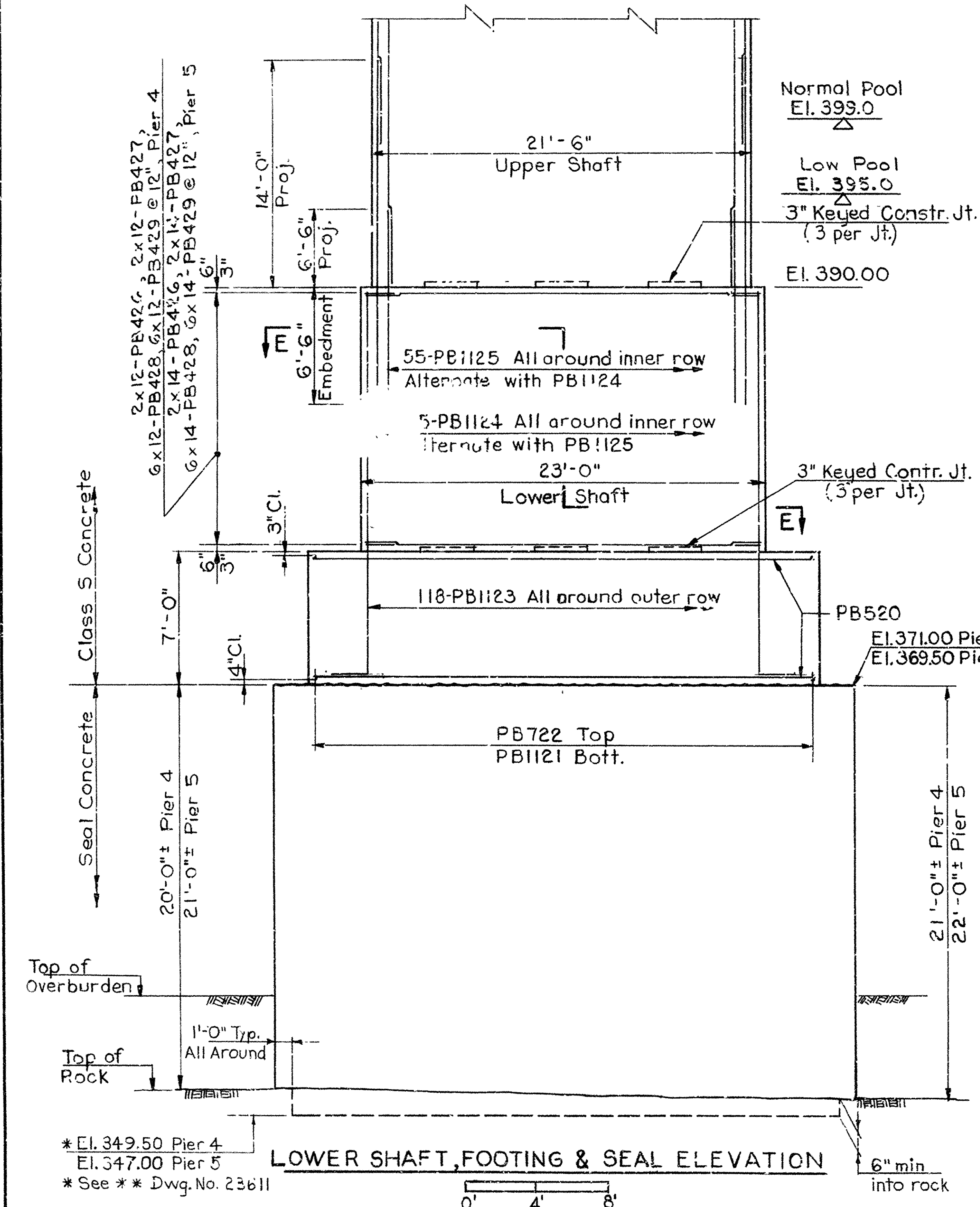
DRAWN BY: FW DATE: 5-9-80  
CHECKED BY: R.L.K. DATE: 5-9-80  
DESIGNED BY: J.B. DATE: 5-9-80

BRIDGE NO. 5872 DRAWING NO. 23612

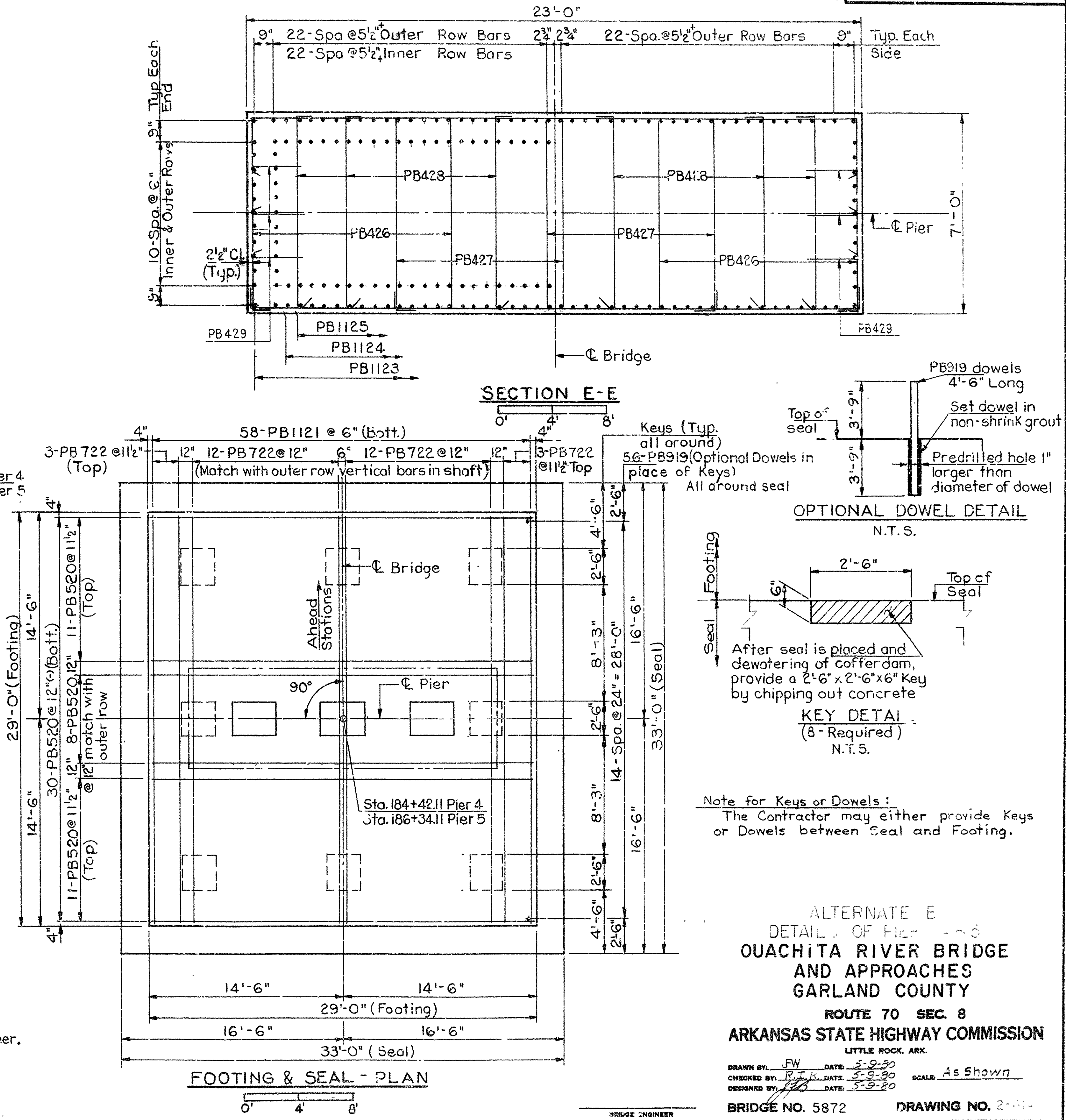
SCALE: As Shown



DATE REVISED	DATE FILLED	DATE REVISED	DATE FILLED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BR-014 2(L)	25	30
				JOB NO. 60002				
				5872 PIER 4 DETAIL ALT E 2-014				



- Notes:**
- Maximum design foundation pressures is 5.9 tons per square foot. Allowable foundation pressures for piers 4 and 5 is 20 and 2.5 tons per square foot respectively.
  - Seal thicknesses are based on the Normal Pool Elevation of 399.0 and the top of seal as shown.
  - For Upper Shaft and Cap Details see Dwg. No. 23612.
  - For Bar List, see Dwg. No. 23615.
  - All laitance or other unsatisfactory materials shall be removed from the surface of the seal by scraping, chipping or other means until solid concrete is exposed without injury to the surface of the concrete seal, all to the satisfaction of the Engineer.
  - For Keyed Construction Joint see Dwg. No. 23612.



**Note for Keys or Dowels:**  
The Contractor may either provide Keys or Dowels between Seal and Footing.

ALTERNATE E  
DETAIL OF Pier 4 and 5  
**OUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY**  
ROUTE 70 SEC. 8  
**ARKANSAS STATE HIGHWAY COMMISSION**  
LITTLE ROCK, ARK.  
DRAWN BY: FW DATE: 5-9-80  
CHECKED BY: P.T.K. DATE: 5-9-80  
DESIGNED BY: J.B.B. DATE: 5-9-80  
SCALE: As Shown  
BRIDGE NO. 5872 DRAWING NO. 2-014

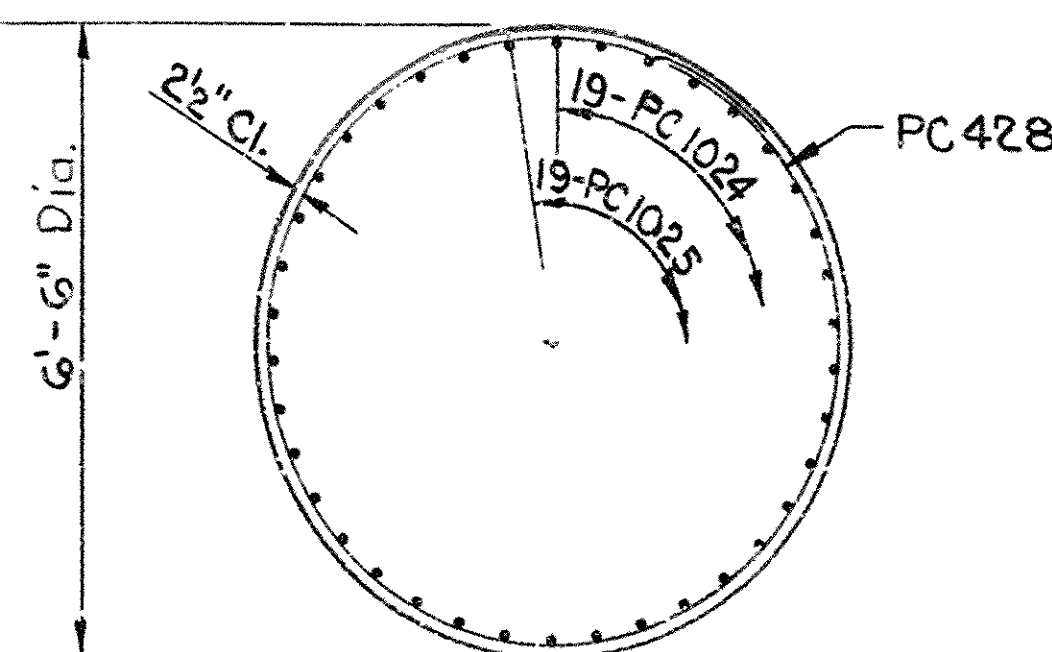
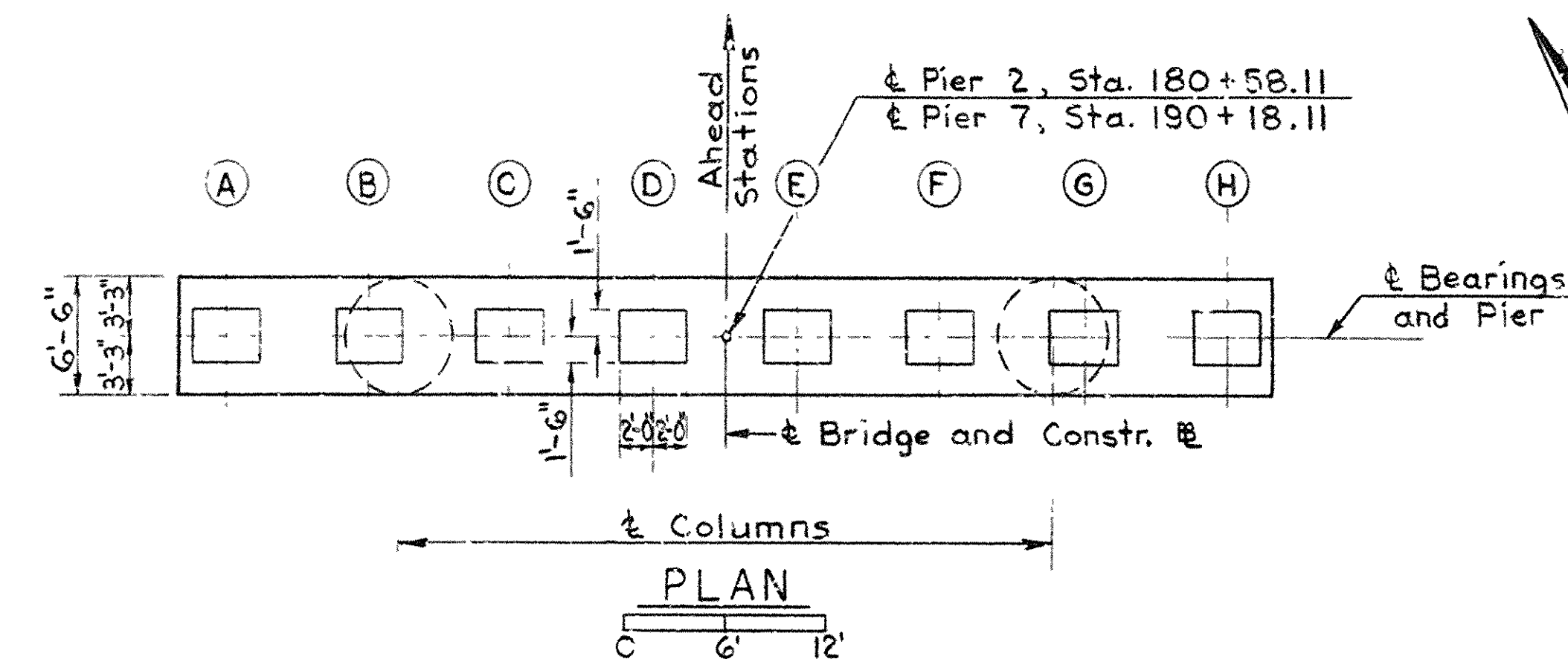


DRAWN BY: J.M.K. DATE: 5-9-80  
CHECKED BY: R.T.K. DATE: 5-9-80 SCALE: As Shown  
DESIGNED BY: J.M.K. DATE: 5-9-80  
BRIDGE NO. 5872 DRAWING NO. 1

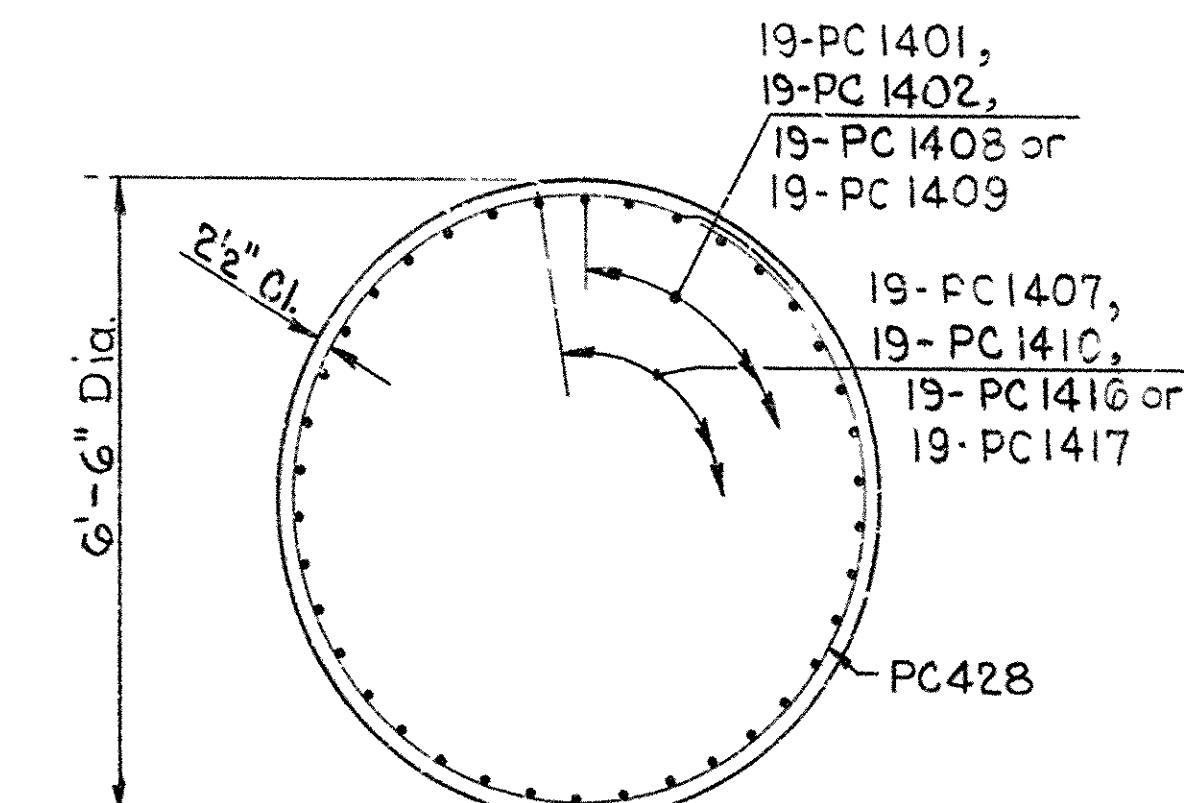


DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BRF-014-2(23)	27	32
				JOB NO.		60092		
5872 DETAILS OF PIERS 2&7 ALT. C 23616								

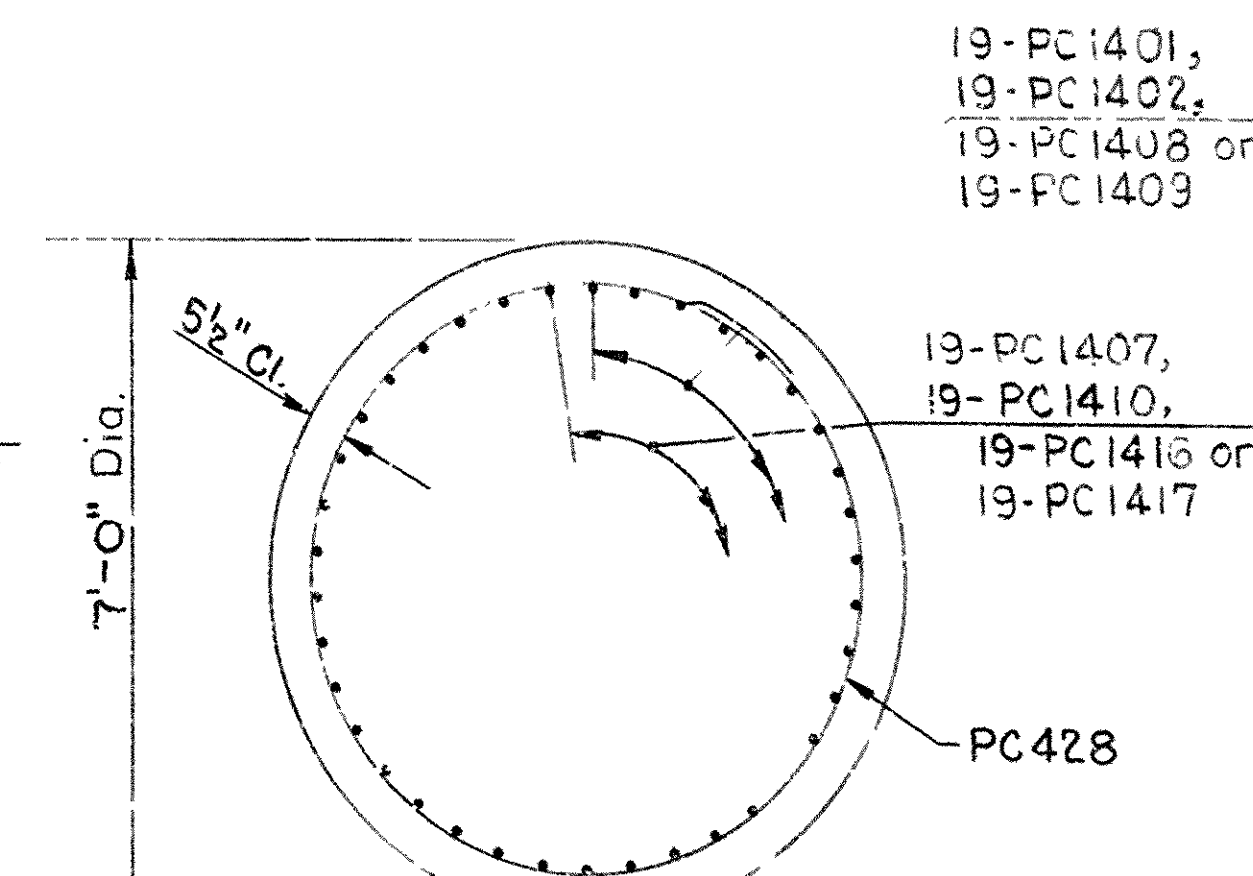
PIERS	ELEVATIONS					
	A	B	C	D	E	F
2	361.8	363.7	358.5	360.5	337.5	339.5
7	359.3	361.1	356.0	358.0	335.0	337.0



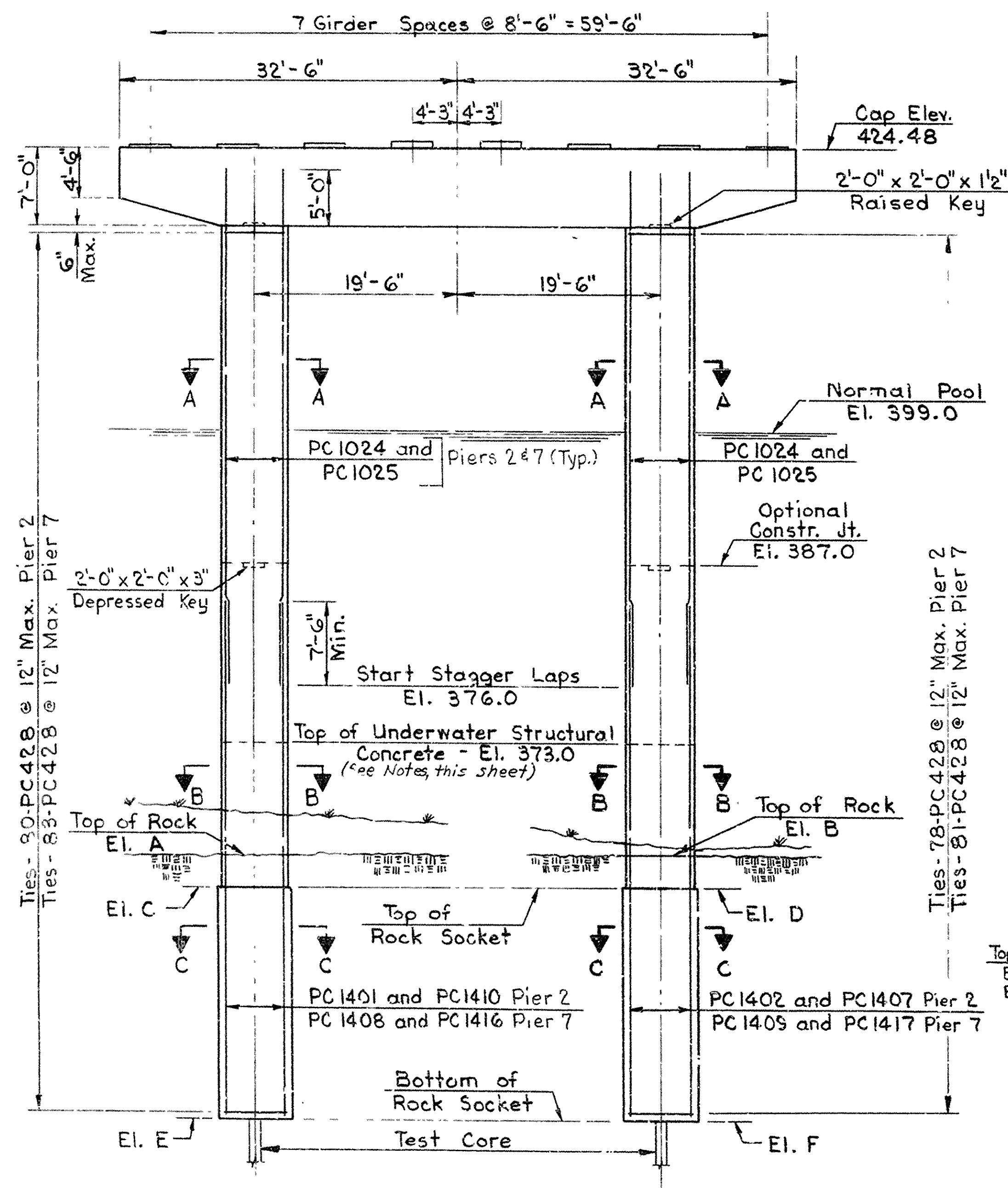
SECTION A-A



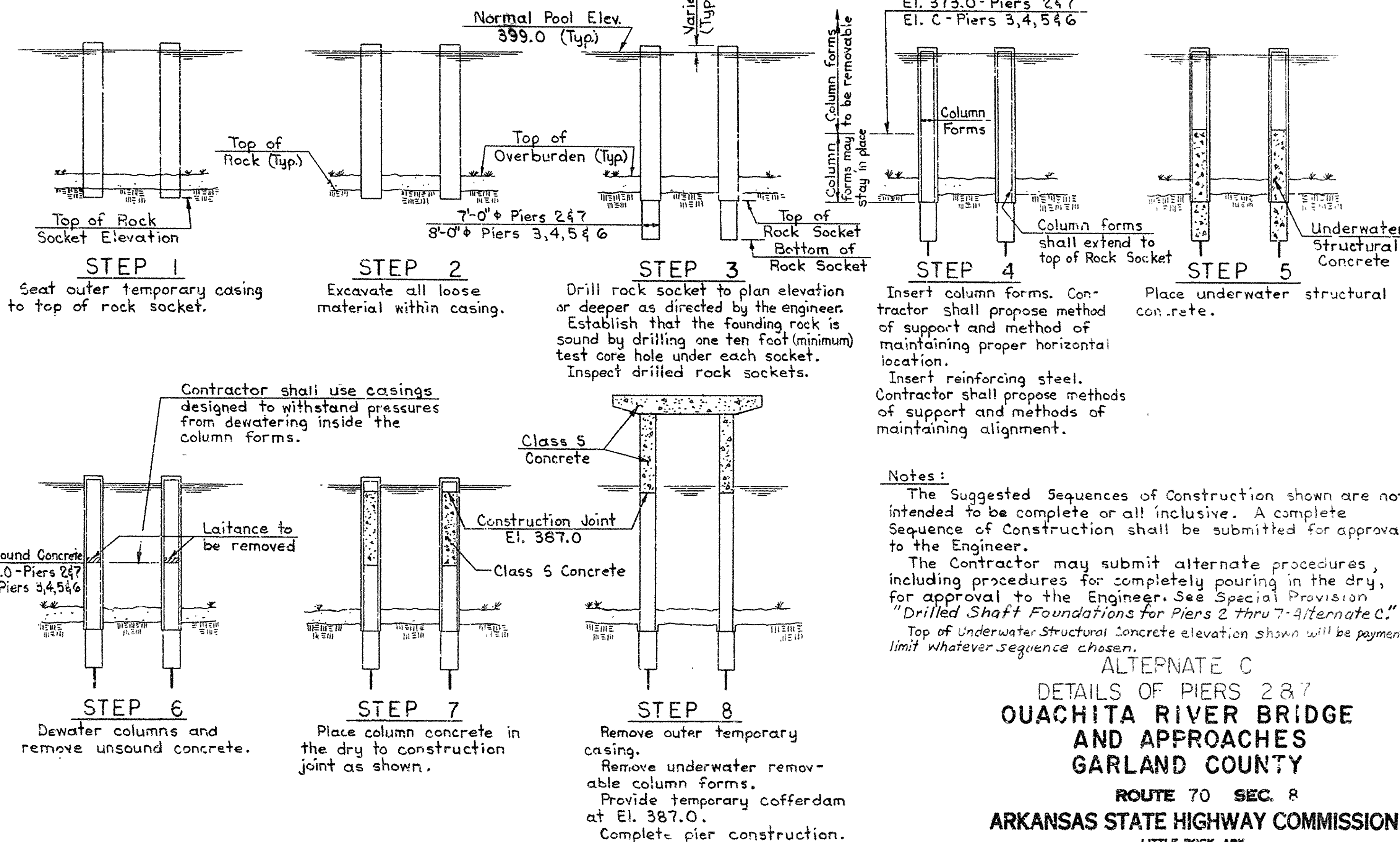
SECTION B-B



SECTION C-C



ELEVATION



SUGGESTED CONSTRUCTION SEQUENCE

- Notes:
- For Additional Notes see Drawing No. 23617.
  - For Anchor Bolt Layout and Detail see Drawing No. 23617.

Notes:

The Suggested Sequences of Construction shown are not intended to be complete or all inclusive. A complete Sequence of Construction shall be submitted for approval to the Engineer.

The Contractor may submit alternate procedures, including procedures for completely pouring in the dry, for approval to the Engineer. See Special Provision "Drilled Shaft Foundations for Piers 2 thru 7-Alternate C."

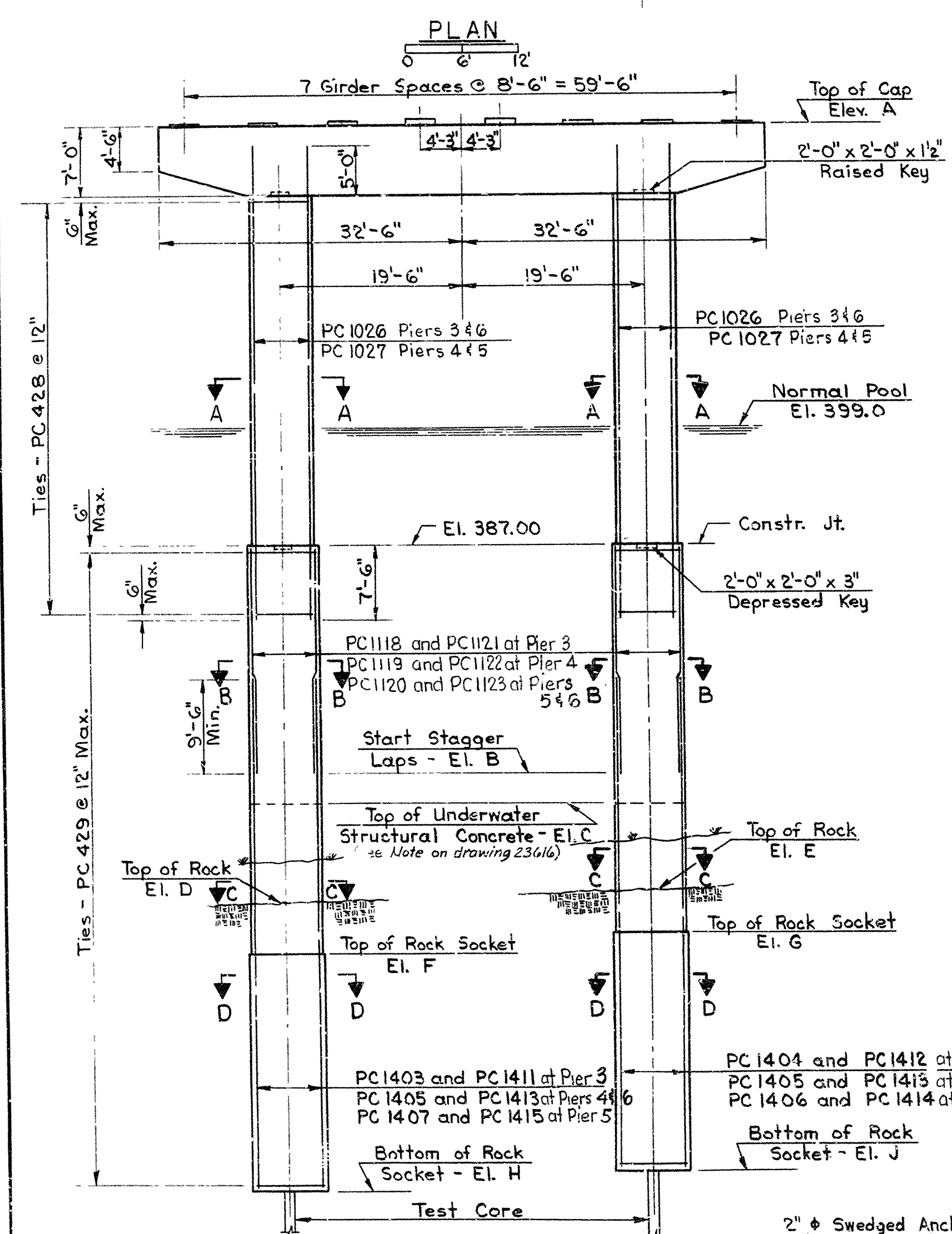
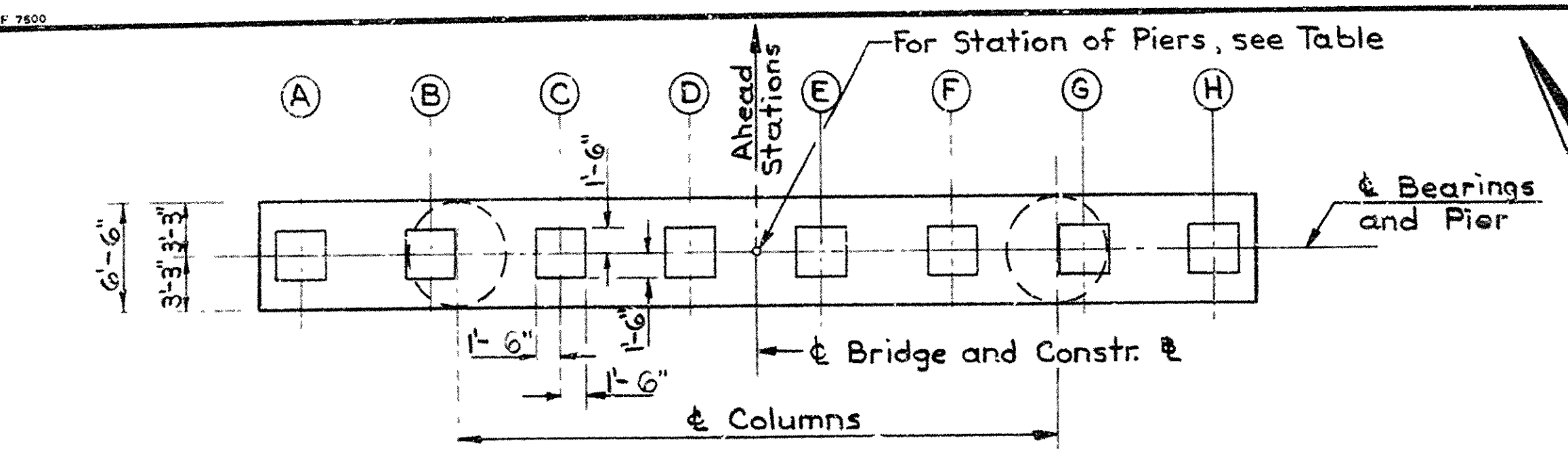
Top of Underwater Structural Concrete elevation shown will be payment limit whatever sequence chosen.

ALTERNATE C  
DETAILS OF PIERS 2 & 7  
OUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY  
ROUTE 70 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

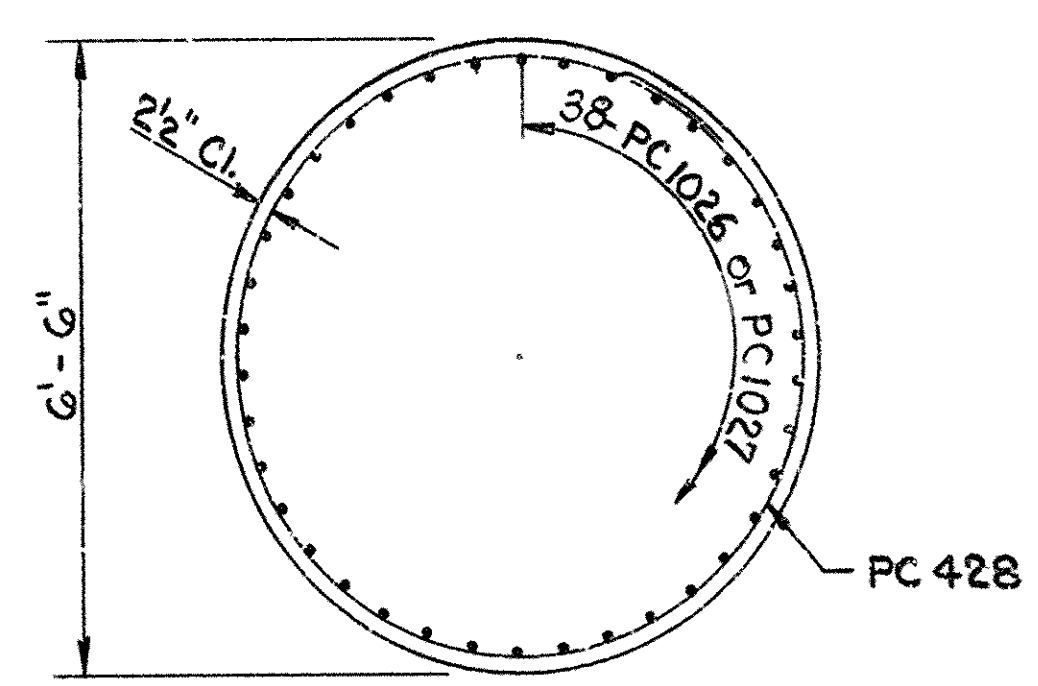
BRIDGE NO. 5872 DRAWING NO. 23616



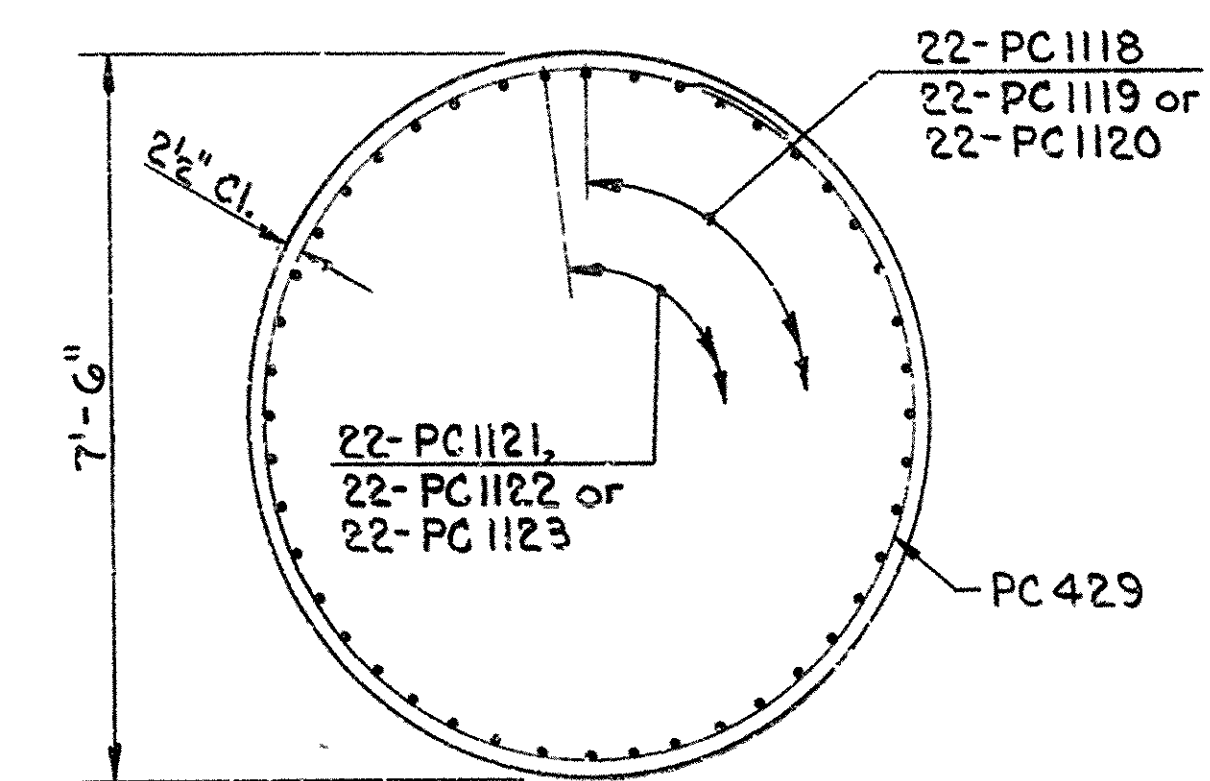
DATE REVISION	DATE REVISION	DATE REVISION	DATE REVISION	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
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						JOB NO.	60092	
							PIERS 3 THRU 5 ALTC	23617



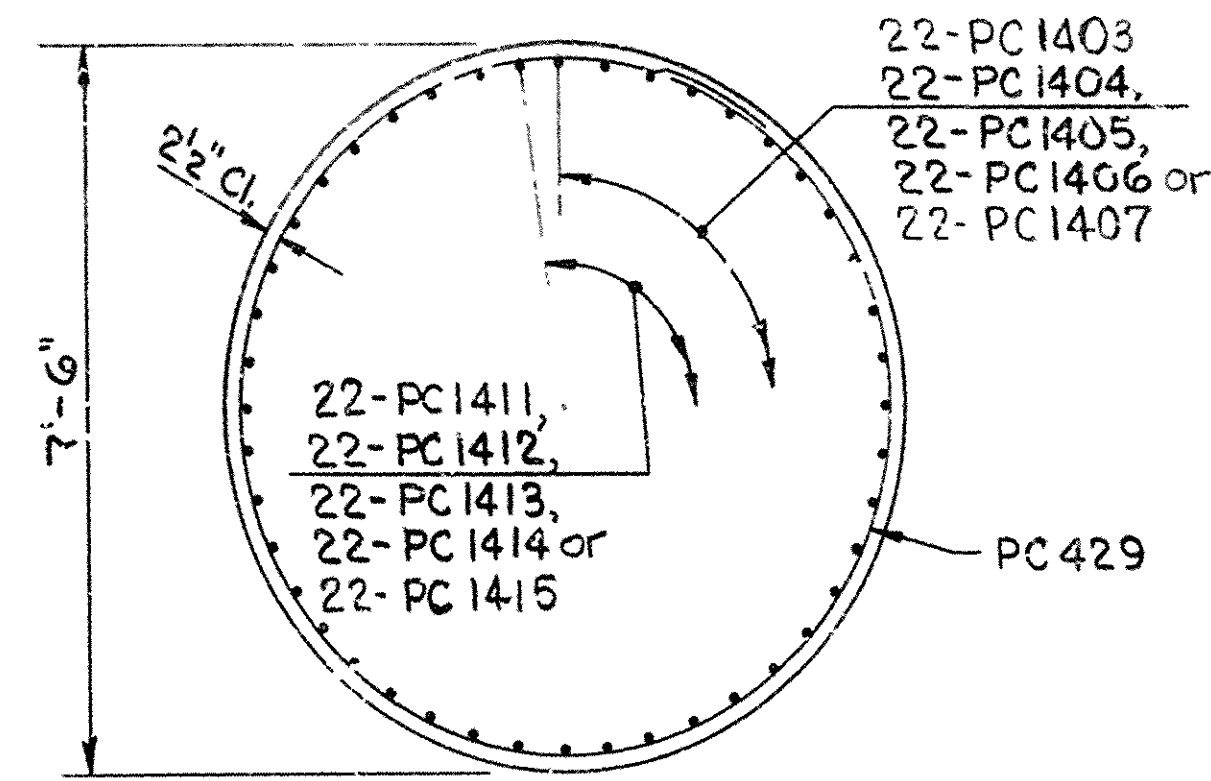
ELEVATION  
0 6' 12'



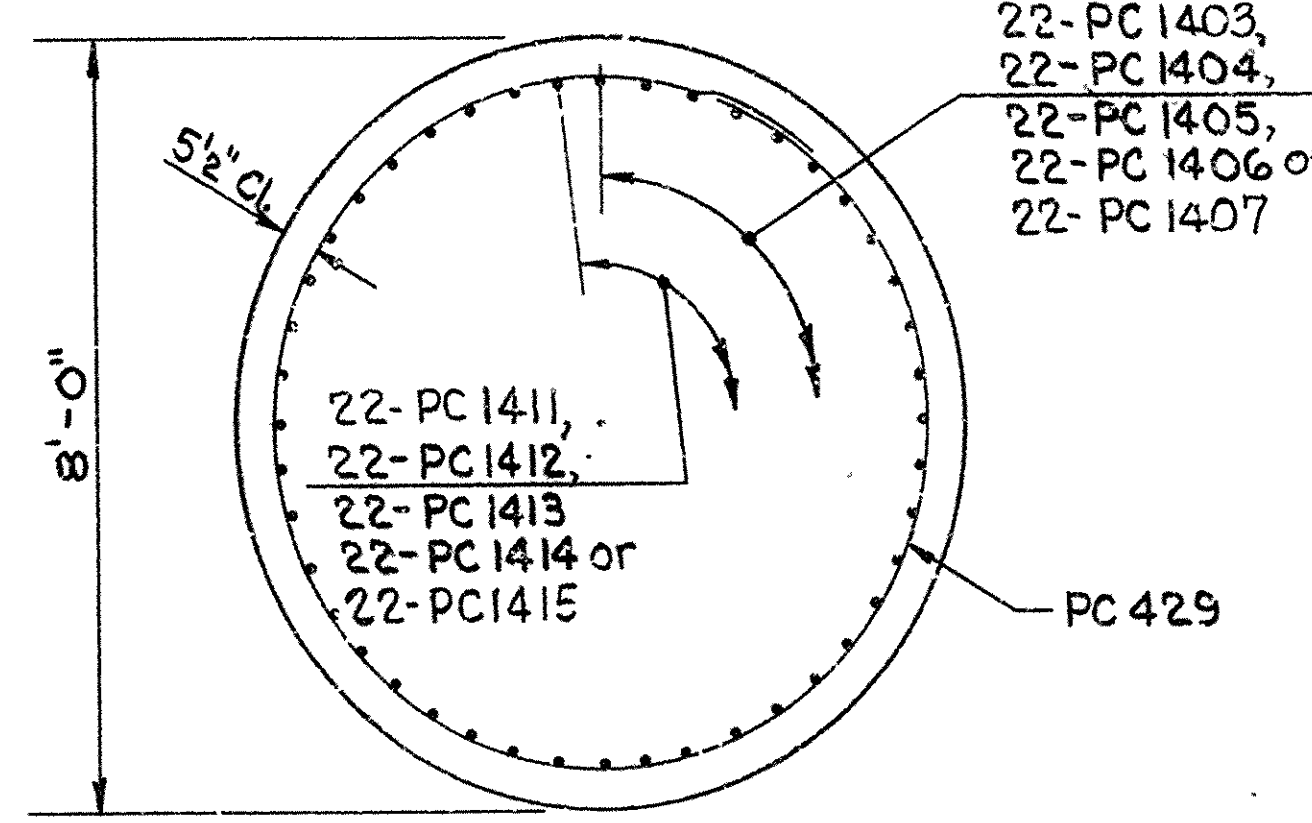
SECTION A-A  
0 2' 4'



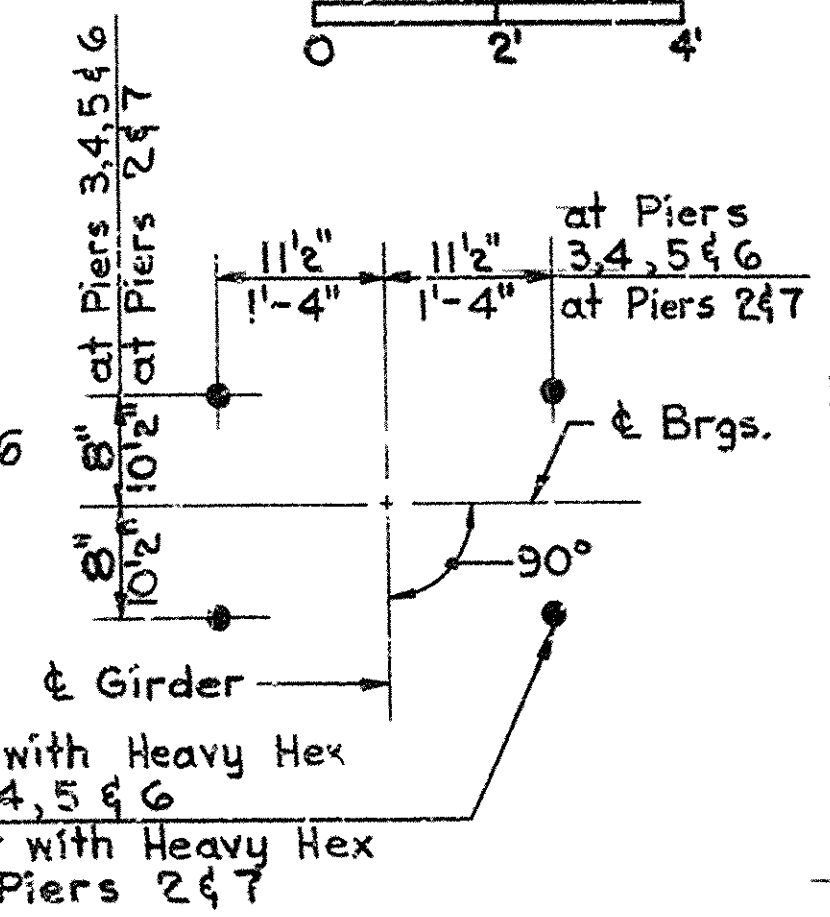
SECTION B-B  
0 2' 4'



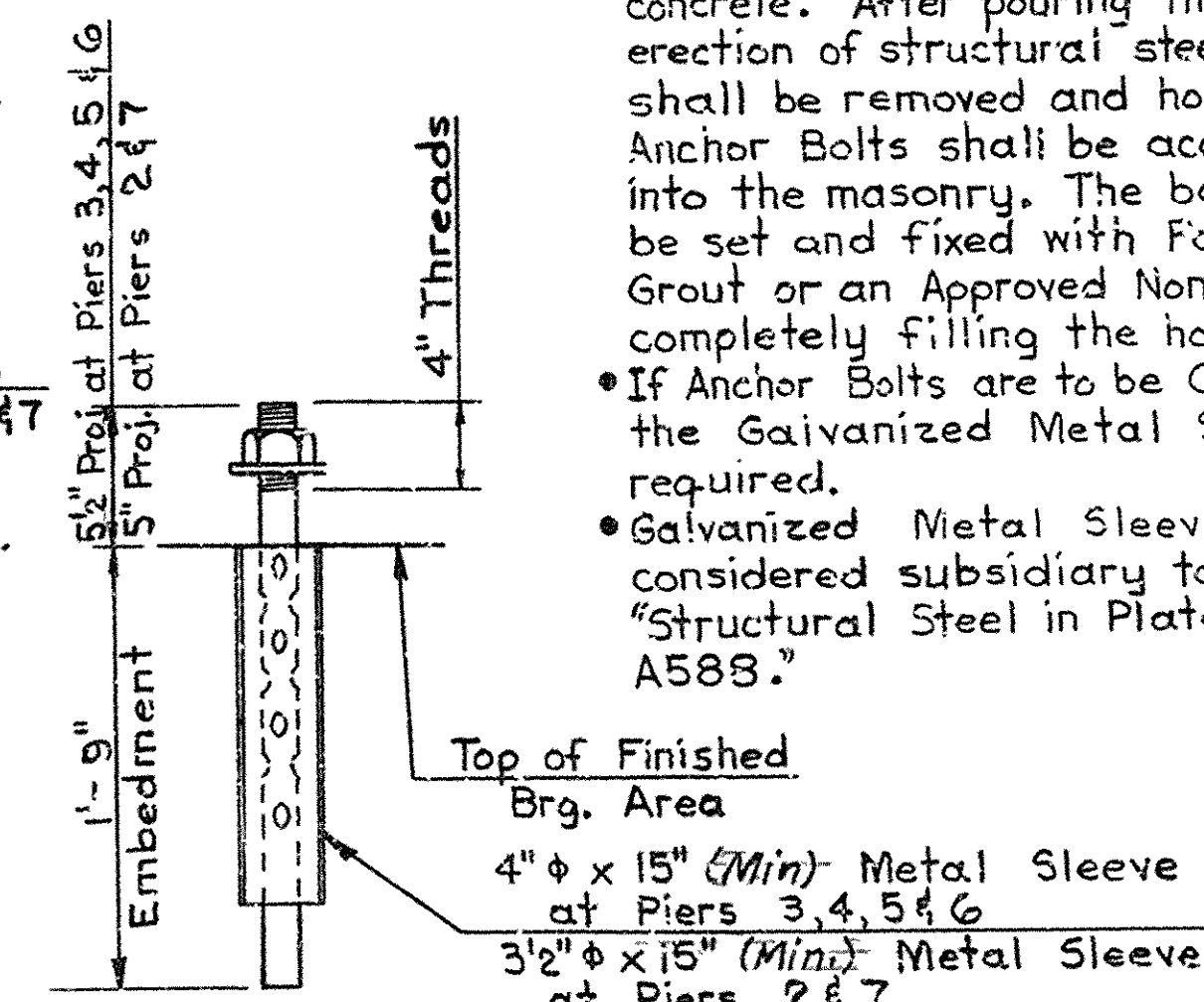
SECTION C-C  
0 2' 4'



SECTION D-D  
0 2' 4'



ANCHOR BOLT LAYOUT  
No Scale



ANCHOR BOLT DETAIL  
No Scale

PIERS	STATIONS	ELEVATIONS									
		A	B	C	D	E	F	G	H	J	
3	182+50.11	429.52	369.0	366.0	351.0	352.2	347.0	348.0	323.0	324.0	
4	184+42.11	432.84	363.0	360.0	349.8	350.6	345.5	346.5	321.5	322.5	
5	186+34.11	432.84	361.0	358.0	347.1	347.8	343.0	343.5	319.0	319.5	
6	188+26.11	429.52	361.0	358.0	348.2	348.8	344.0	344.5	320.0	320.5	

Notes:

- Anchor Bolts may be Cast in Place or Drilled and Grouted into place. If Anchor Bolts are to be Drilled and Grouted into place, the Galvanized Metal Sleeve shall be Cast in Place as shown. It shall be dry packed with Styrofoam or Urethane foam or approved equal prior to pouring concrete. After pouring the cap and prior to erection of structural steel, the dry pack shall be removed and holes for the Anchor Bolts shall be accurately drilled into the masonry. The bolts shall then be set and fixed with Portland Cement Grout or an Approved Non-Shrink Grout, completely filling the holes.
- If Anchor Bolts are to be Cast in Place, the Galvanized Metal Sleeve will not be required.
- Galvanized Metal Sleeves to be considered subsidiary to the item "Structural Steel in Plate Girder Spans, A588."

- All laitance or other unsatisfactory material shall be removed from the top surface of the Underwater Structural Concrete by scraping, chipping or other means until sound concrete is exposed without injury to the remaining concrete, all to the satisfaction of the Engineer.
- Rust stain protection shall be provided on all exposed cement concrete surfaces of the pedestals, cap and columns between bottom of pier cap and Low Pool El. 395.0.
- For cap details and bar list, see Drawing No. 23618.
- For suggested Construction Sequence see Drawing No. 23616.
- The Ultimate Value of the modulus of subgrade reaction used was 5100 pounds per square inch per inch.

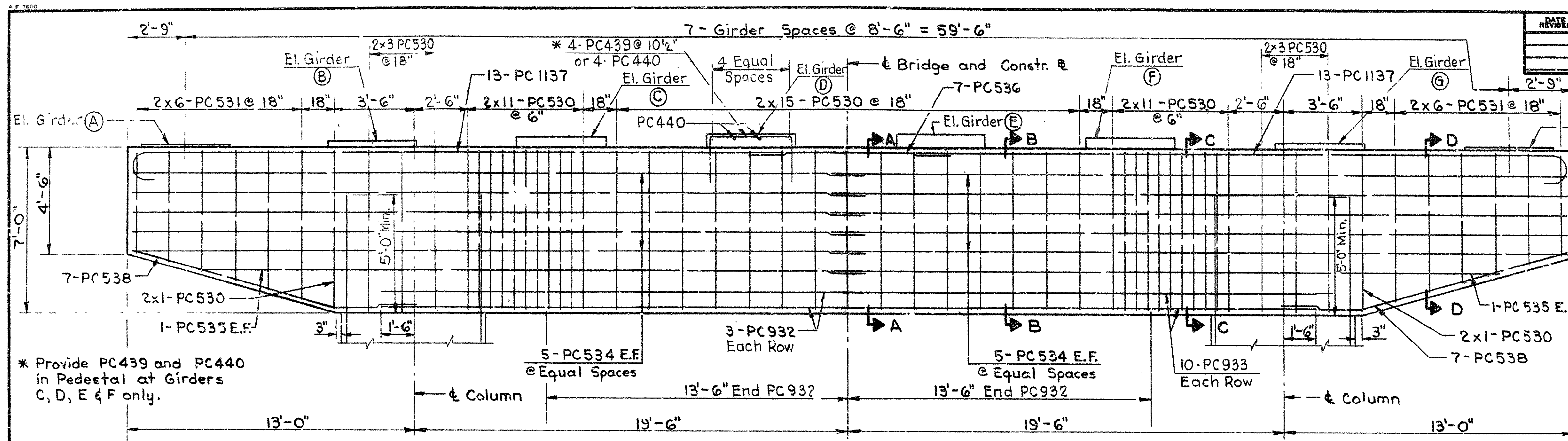
ALTERNATE C  
DETAILS OF PIERS 3, 4, 5 & 6  
OUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY

ROUTE 70 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: T.M.K. DATE: 5-9-80  
CHECKED BY: G.S. DATE: 5/7/80  
DESIGNED BY: P.F.S. DATE: 5-09-80  
SCALE: As Shown

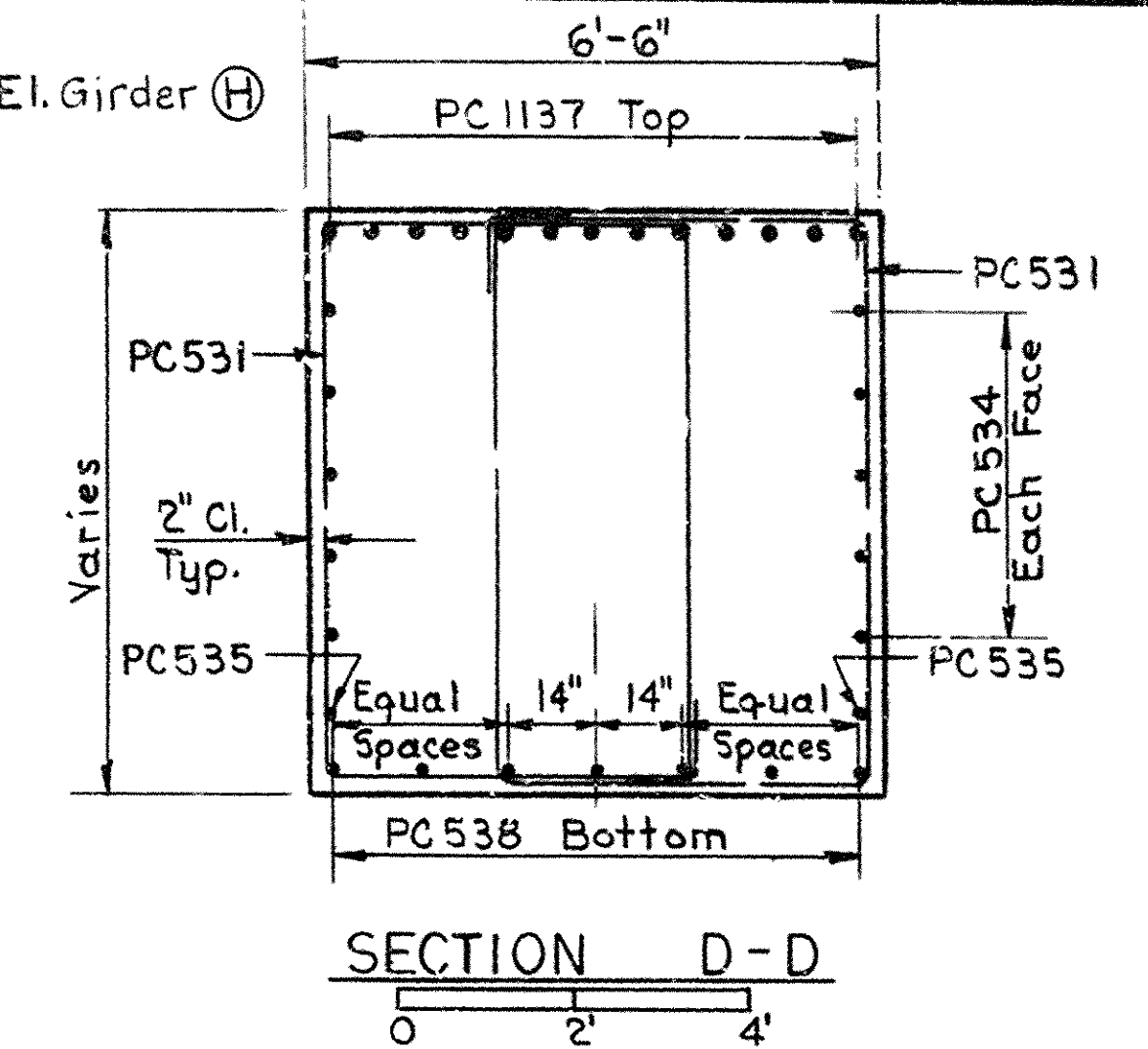
BRIDGE NO. 5872 DRAWING NO. 23617



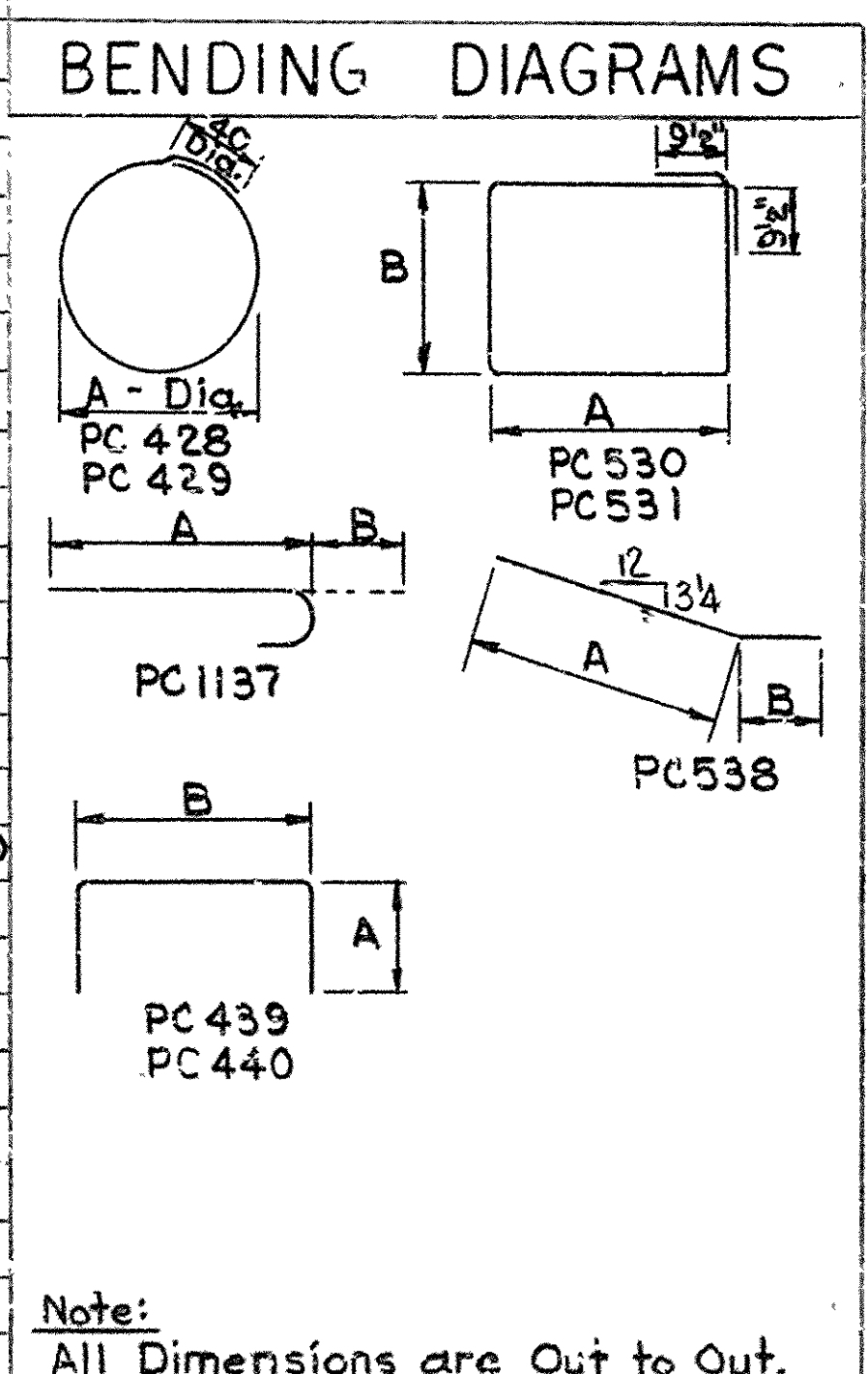
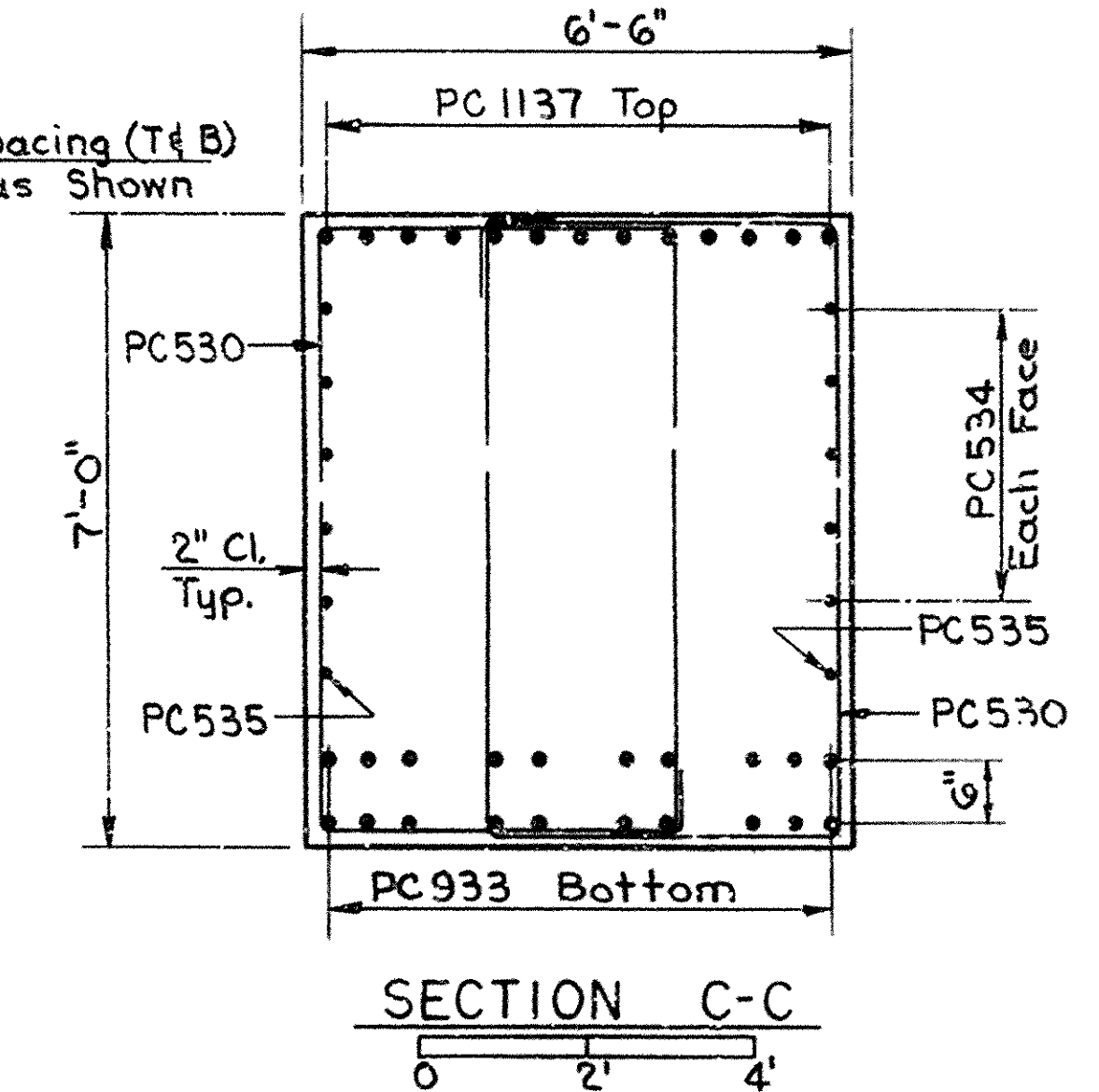
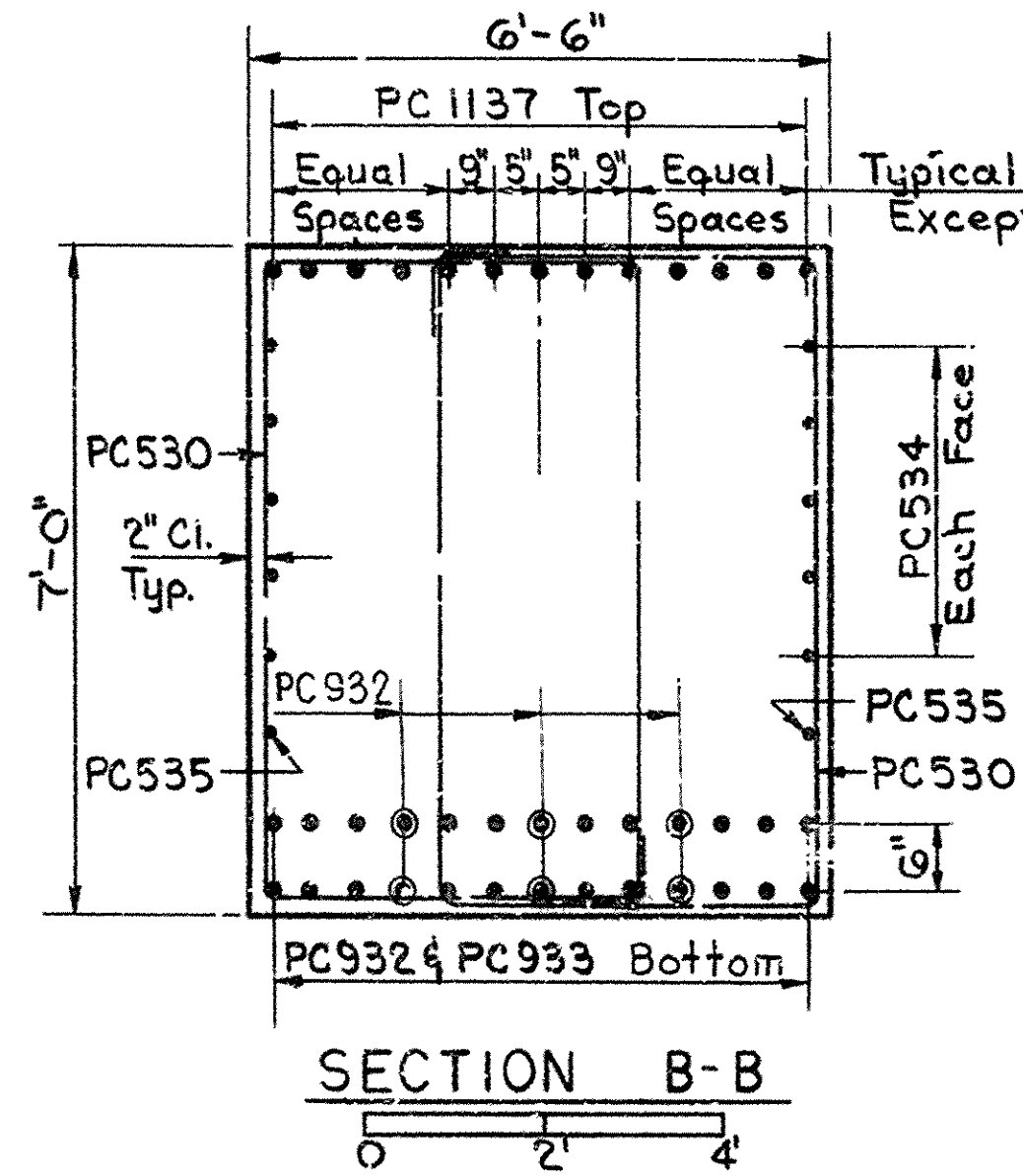
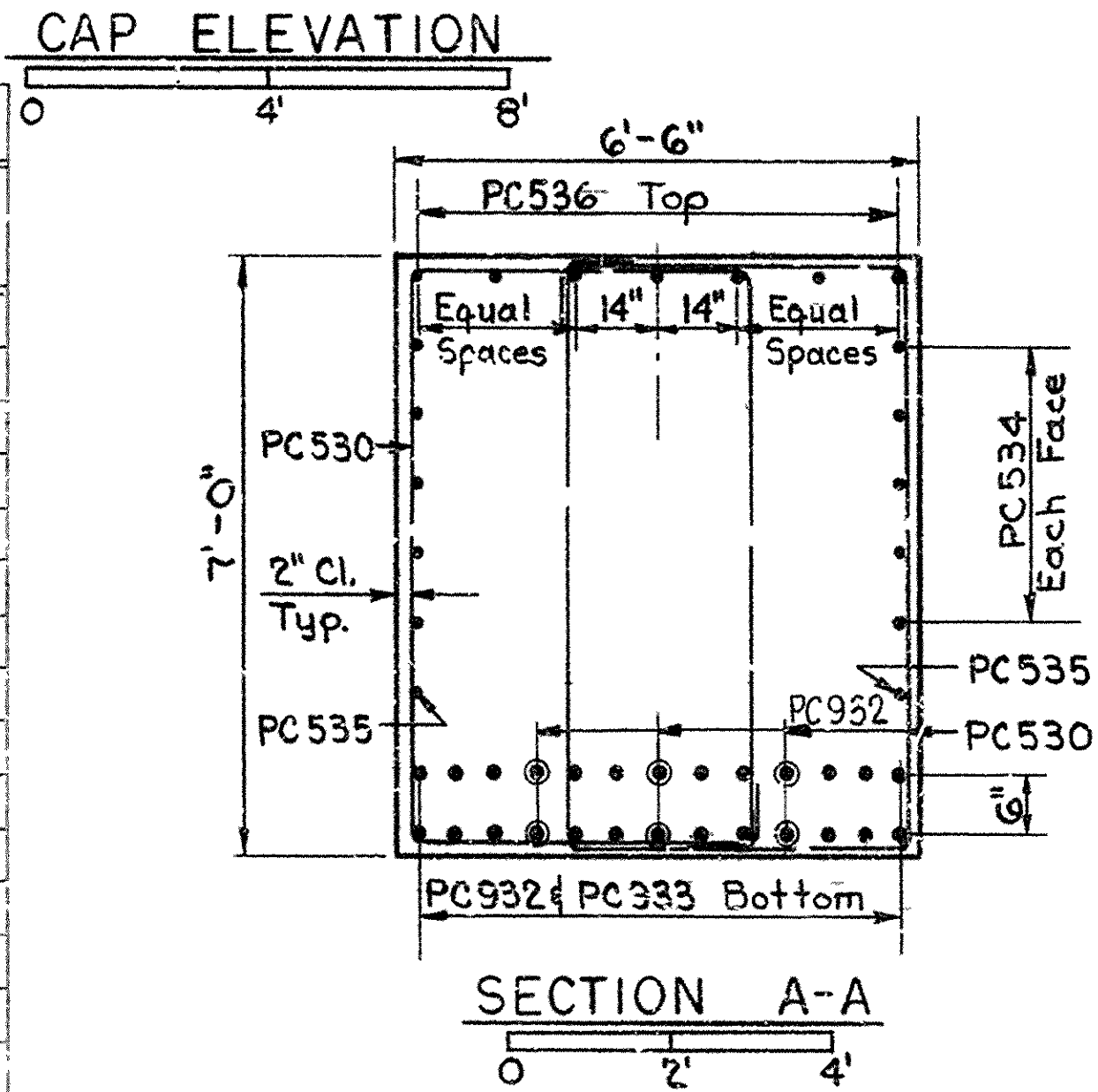


DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	SRF-014-2(23)	29	80
				JOB NO. 60092				
				5872 DET. & BAR LIST-PIERS 2 7 ALT. 23618				

2'-9"



BAR LIST									
MARK	NUMBER REQUIRED						SIZE	LENGTH	REMARKS
	PIER 2	PIER 3	PIER 4	PIER 5	PIER 6	PIER 7			
PC1401	19						14	45'-10"	Str.
PC1402	19						14	43'-10"	Str.
PC1403		22					14	55'-4"	Str.
PC1404		22					14	54'-4"	Str.
PC1405			22	22	22		14	50'-10"	Str.
PC1406			22	22	22		14	49'-10"	Str.
PC1407	19			22			14	51'-4"	Str.
PC1408						19	14	48'-4"	Str.
PC1409						19	14	46'-4"	Str.
PC1410	19						14	53'-4"	Str.
PC1411		22					14	64'-10"	Str.
PC1412		22					14	63'-10"	Str.
PC1413			22	22	22		14	60'-4"	Str.
PC1414			22	22	22		14	59'-4"	Str.
PC1415				22			14	60'-10"	Str.
PC1416						19	14	55'-10"	Str.
PC1417						19	14	53'-10"	Str.
PC1118		44					11	17'-10"	Str.
PC1119			44				11	23'-10"	Str.
PC1120				44	44		11	25'-10"	Str.
PC1121		44					11	8'-4"	Str.
PC1122			44				11	14'-4"	Str.
PC1123				44	44		11	16'-4"	Str.
PC1024	38					38	10	46'-6"	Str.
PC1025	38					38	10	39'-0"	Str.
PC1026		76			76		10	48'-0"	Str.
PC1027			76	76			10	51'-4"	Str.
PC428	158	88	94	94	88	164	4	20'-9"	6'-1"
PC429		128	132	136	134		4	24'-0"	7'-1"
PC530	90	90	90	90	90	90	5	23'-9"	4'-5"
PC531	24	24	24	24	24	24	5	18'-9" to 22'-9"	4'-5"
PC932	6	6	6	6	6	6	9	27'-0"	2'-2"
PC933	20	20	20	20	20	20	9	42'-0"	2'-2"
PC534	20	20	20	20	20	20	5	33'-4"	2'-2"
PC535	4	4	4	4	4	4	5	30'-0"	2'-2"
PC536	7	7	7	7	7	7	5	9'-2"	2'-2"
PC1137	26	26	26	26	26	26	11	31'-1"	29'-6"
PC538	14	14	14	14	14	14	5	13'-6"	9'-6"
PC439	16					16	4	7'-7"	2'-0"
PC440	8	24	24	24	24	8	4	6'-7"	2'-0"



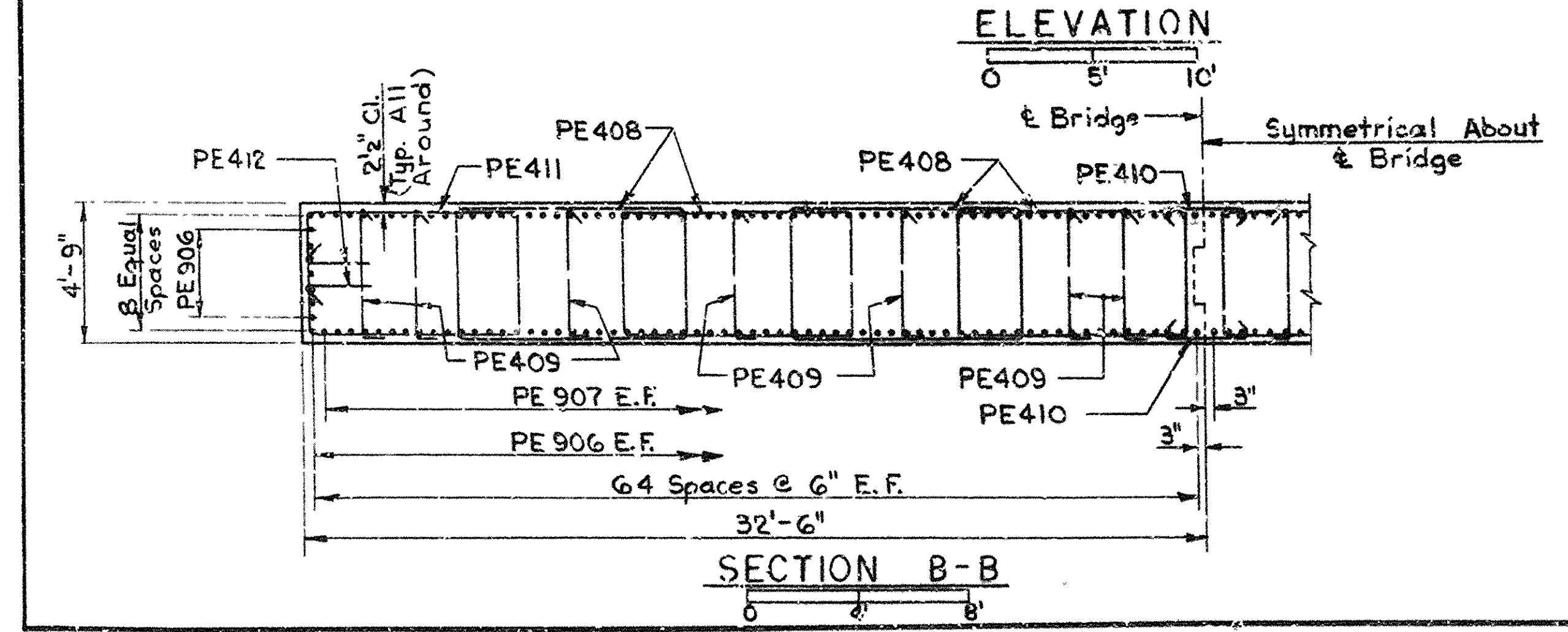
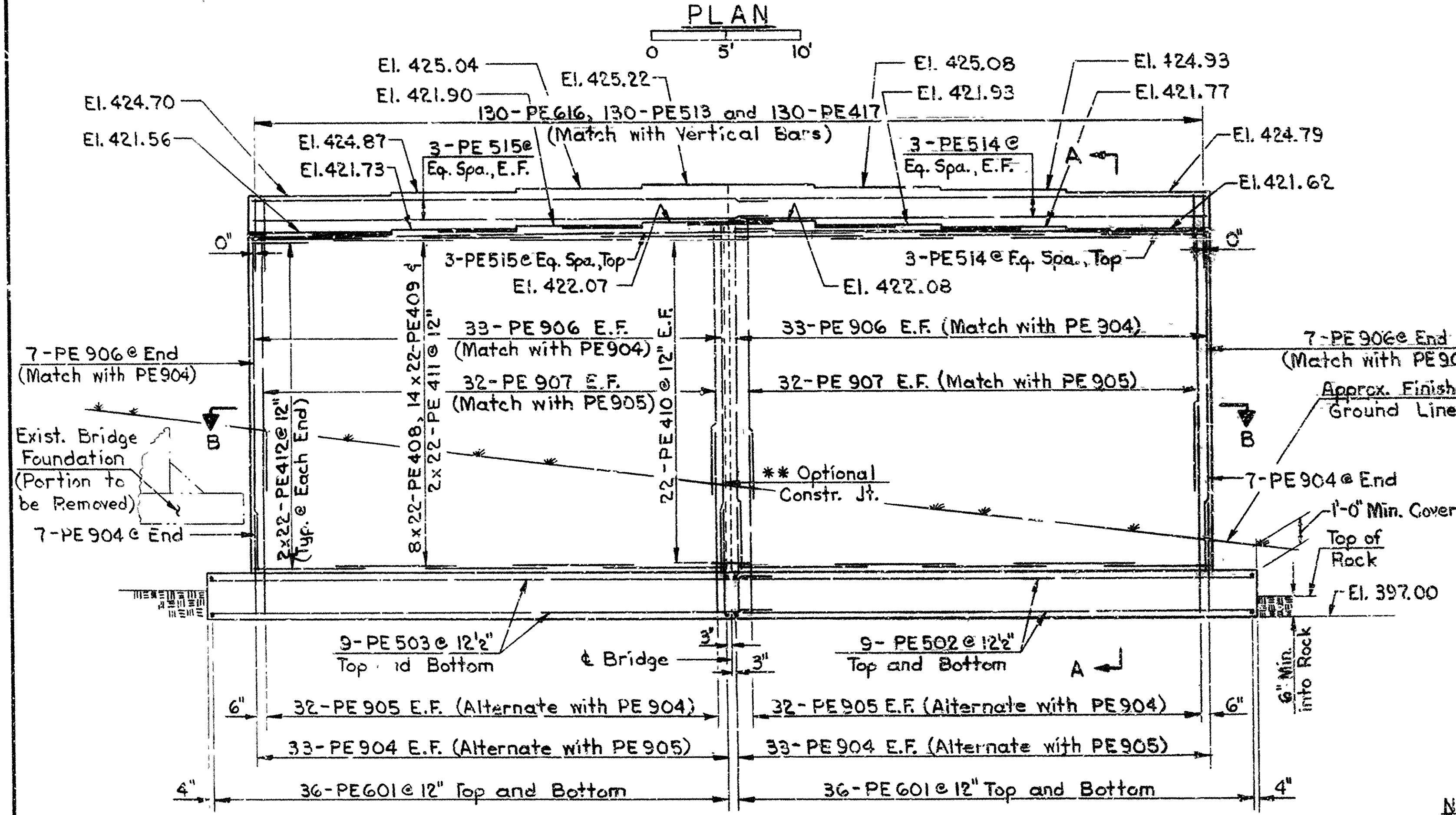
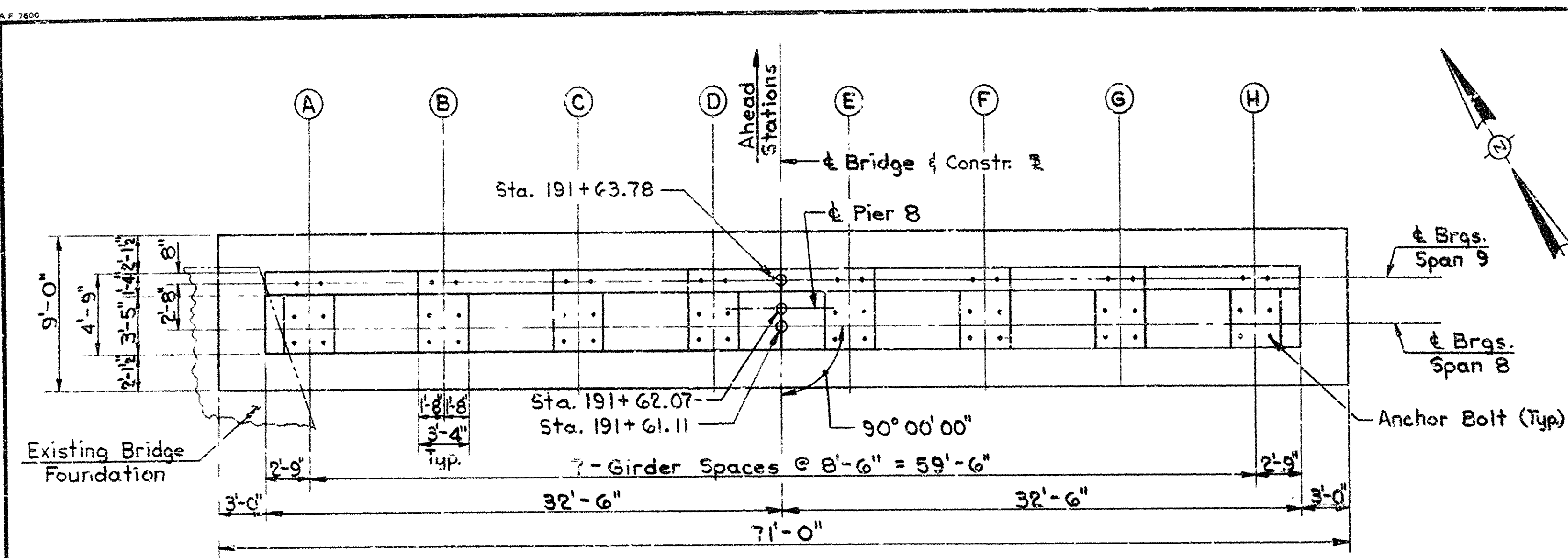
BEAM SEAT ELEVATIONS						
GIRDERS	PIERS					
	2	3	4	5	6	7
A, H	424.87	429.59	432.91	432.91	429.59	424.87
B, G	424.84	429.76	433.08	433.08	429.76	424.84
C, F	425.01	429.93	433.25	433.25	429.93	425.01
D, E	425.18	430.10	433.42	433.42	430.10	425.18

- Notes:**
- Pedestals may be poured monolithically with pier cap. Bearing areas shall be finished to the elevations as shown on the drawings.
  - For column reinforcement and anchor bolt layout and details, see Drawing Nos. 23616 and 23617.

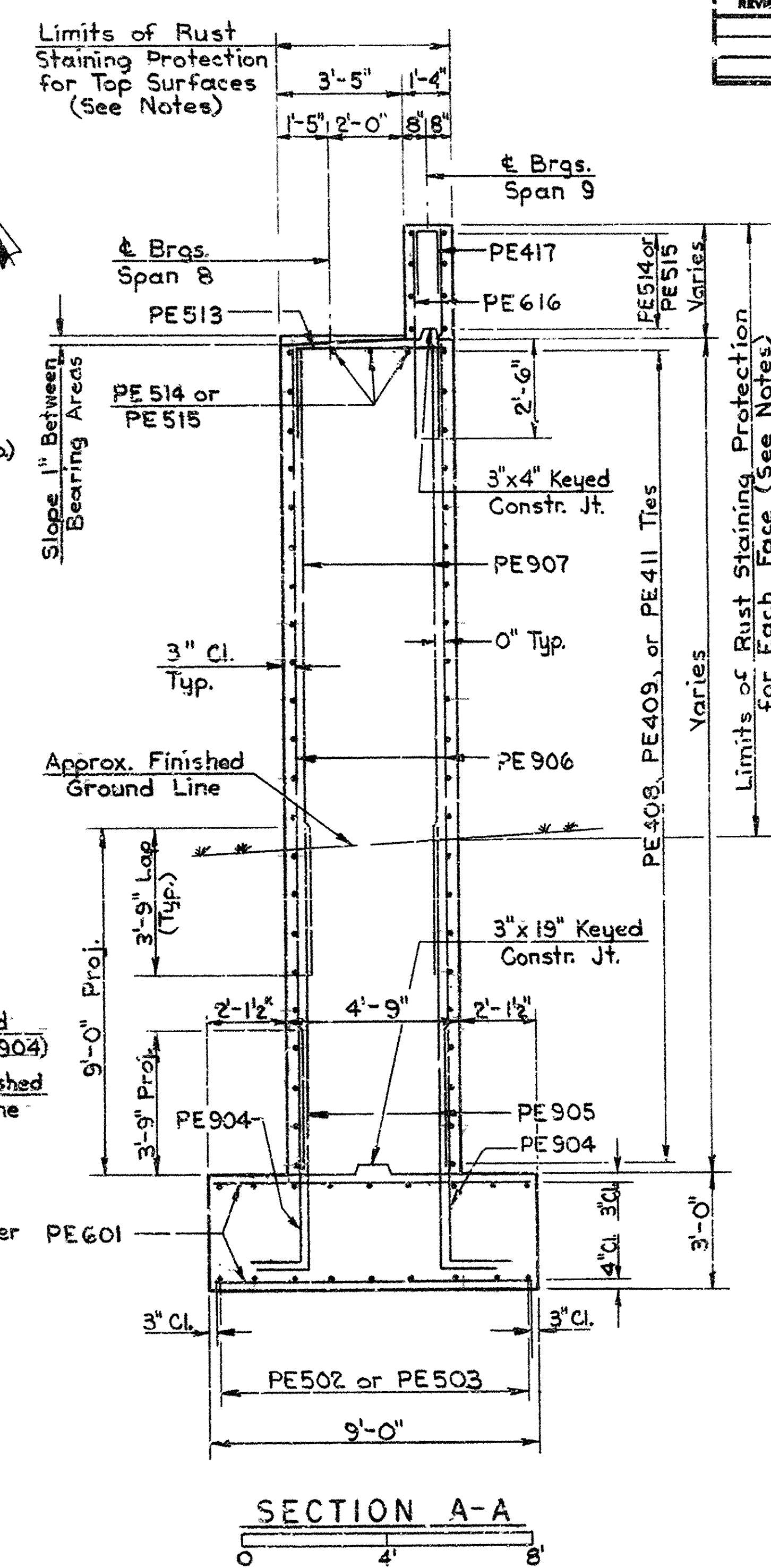
ALTERNATE C  
DETAILS AND BAR LIST  
FOR PIERS 2 THRU 7  
**OUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY**  
ROUTE 70 SEC. 8  
**ARKANSAS STATE HIGHWAY COMMISSION**  
LITTLE ROCK, ARK.  
DRAWN BY: T.M.K. DATE: 5-9-80  
CHECKED BY: S.G.B. DATE: 5/9/80  
DESIGNED BY: D.F.S. DATE: 5-9-80  
SCALE: As Shown  
BRIDGE NO. 5872 DRAWING NO. 23618



DATE REVISED	DATE FILLED	DATE REVISED	DATE FILLED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BRF-014-2(23)	30	30
				JOB NO.		60092		
				① 5872	DET AND BAR LIST PIER # 23619			



**LEGEND**  
E.F.-Each Face

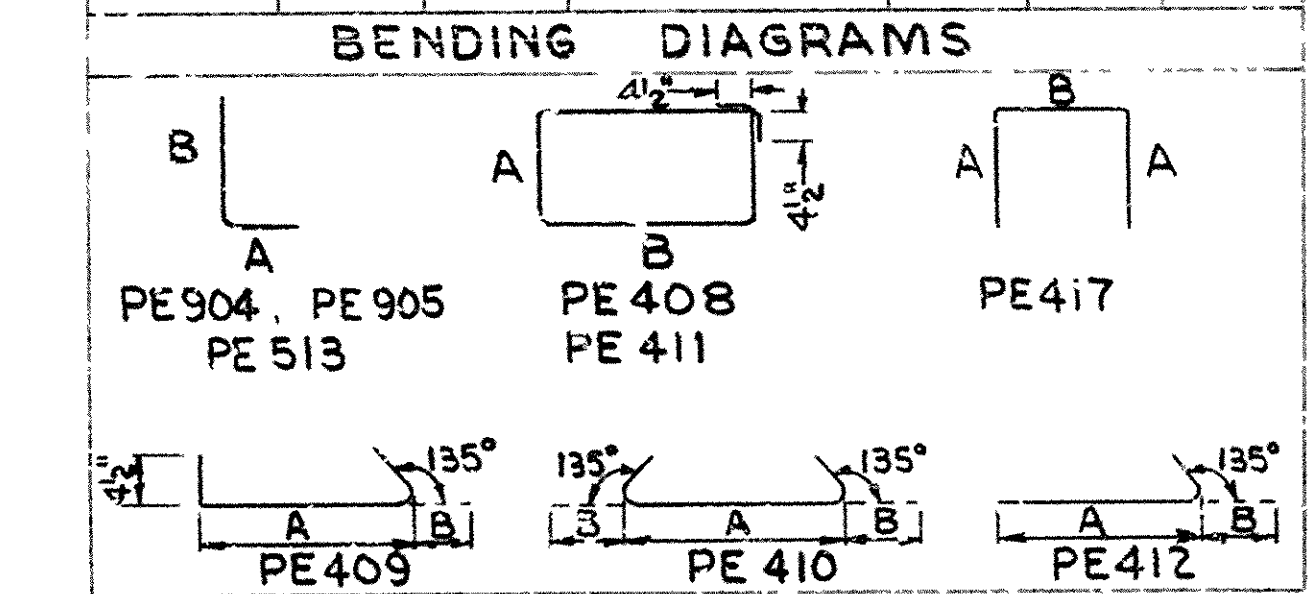


**Notes (continued)**

- Anchor Bolts in Piers 1 and 8 may be Cast in Place or Drilled and Grouted into Place. If Anchor Bolts are to be Drilled and Grouted into Place, They shall be set and fixed with Portland Cement Grout or an approved Non-Shrink Grout, Completely Filling the holes.
- Provide Rust Staining Protection on all Exposed Cement Concrete Surfaces.
- Footing shall be keyed six(6) inches Minimum into Rock.

**BAR LIST**

MARK	NO.	REQ'D.	SIZE	LENGTH	A	B	PIN DIA.
PE601	144	6	8'-6"				Str.
PE502	18	5	35'-0"				Str.
PE503	18	5	37'-3"				Str.
PE904	146	9	7'-10"	1'-7"	6'-3"		9 1/2"
PE905	128	9	13'-1"	1'-7"	11'-6"		9 1/2"
PE906	146	9	21'-3"				Str.
PE907	128	9	16'-3"				Str.
PE408	176	4	25'-7"	4'-4"	8'-1"		2"
PE409	308	4	5'-3"	4'-4"	6 1/2"		2"
PE410	44	4	3'-9"	2'-8"	6 1/2"		2"
PE411	44	4	24'-7"	4'-4"	7'-7"		2"
PE412	88	4	3'-6"	2'-11 1/2"	6 1/2"		2"
PE513	130	5	6'-9"	2'-6"	4'-3"		3 3/4"
PE514	9	5	32'-3"				Str.
PE515	9	5	34'-6"				Str.
PE616	260	6	5'-3"				Str.
PE417	130	4	5'-11"	2'-6"	11"		3"

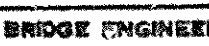


**Notes:**

- For Details and Removal of Existing Bridge Foundation plus Relationship to New Footings for Piers 1 and 8, see Drawing No. 23647.
- Maximum Design Foundation Pressure is 3.0 Tons Per Square Foot for Pier 1 and 3.0 Tons Per Square Foot for Pier 8; Allowable Foundation Pressure is 17.5 Tons Per Square Foot for Piers 1 and 8.
- \*\* Optional Construction Joint in Shaft shall be Keyed to within 1'-0" of Top of Pier - Spans 2 and 8; continued with a Flush Construction Joint in 4'-9" and 1'-4" Shafts.
- All Bearing Areas as indicated in Anchor Bolt Layouts shall be Finished to the Elevations as Shown.
- For Excavation Below Normal Pool, Contractor will provide Bracing and Dewatering as necessary. Payment for which will be subsidiary to Unclassified Excavation.
- For Anchor Bolt Layouts and Anchor Bolt Details see Dwg. No. 23607.

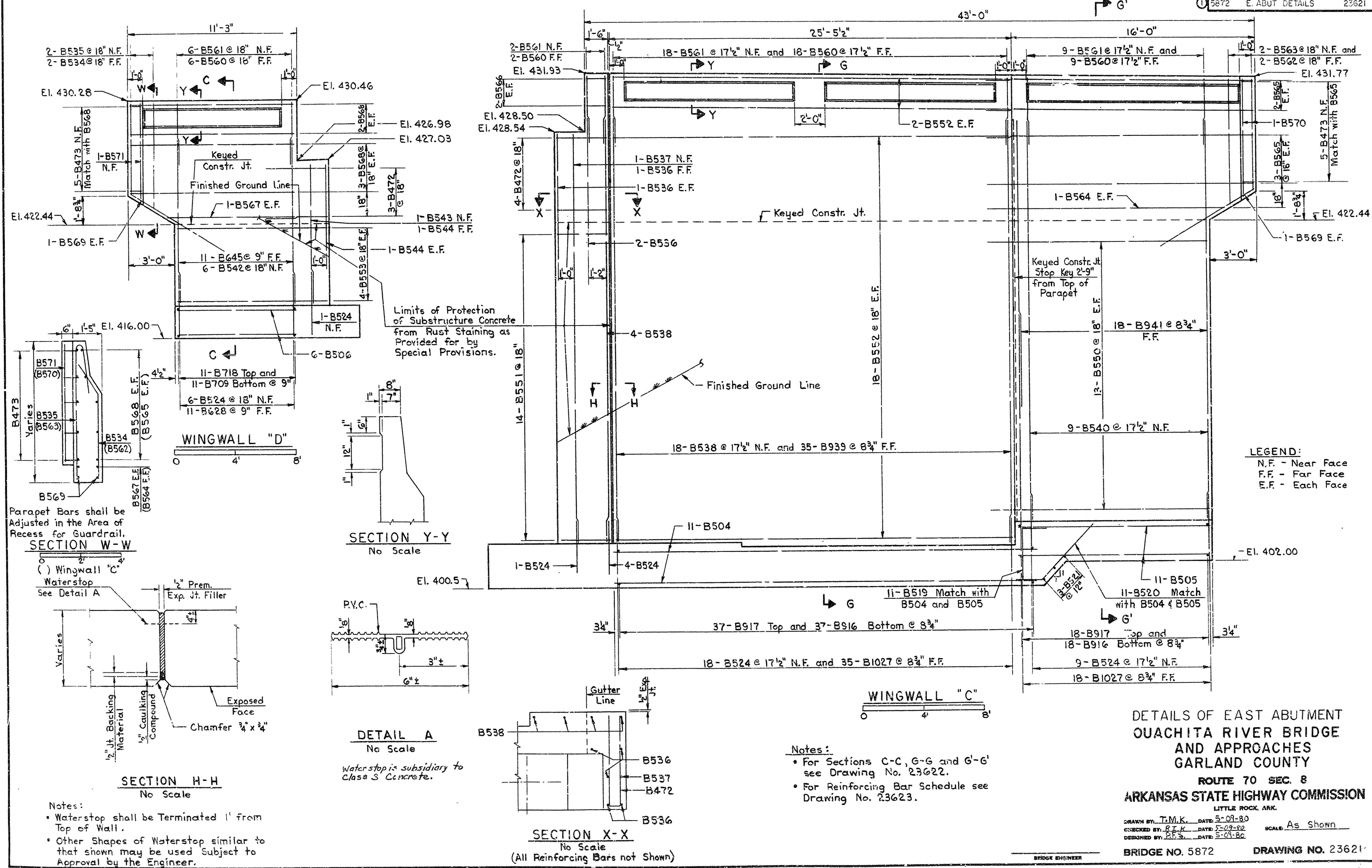
**DETAILS AND BAR LIST OF**  
**PIER 8**  
**OUACHITA RIVER BRIDGE**  
**AND APPROACHES**  
**GARLAND COUNTY**  
**ROUTE 70 SEC. 8**  
**ARKANSAS STATE HIGHWAY COMMISSION**  
 LITTLE ROCK, ARK.  
 DRAWN BY: T.M.K. DATE: 5-9-80  
 CHECKED BY: J.E.B. DATE: 5-9-80  
 DESIGNED BY: R.E.B. DATE: 5-9-80  
 SCALE: As Shown  
 BRIDGE NO. 5872 DRAWING NO. 23619







DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BRF-014-2(22)	32	39
				JOB NO.		60092		
				5872	E. ABUT. DETAILS		23621	





DATE	DATE	DATE	DATE	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BRF-014 2(23)	33	80
				JOB NO.		80092		
						5672 E. ABUT. DETAILS		23622

# LEGEND

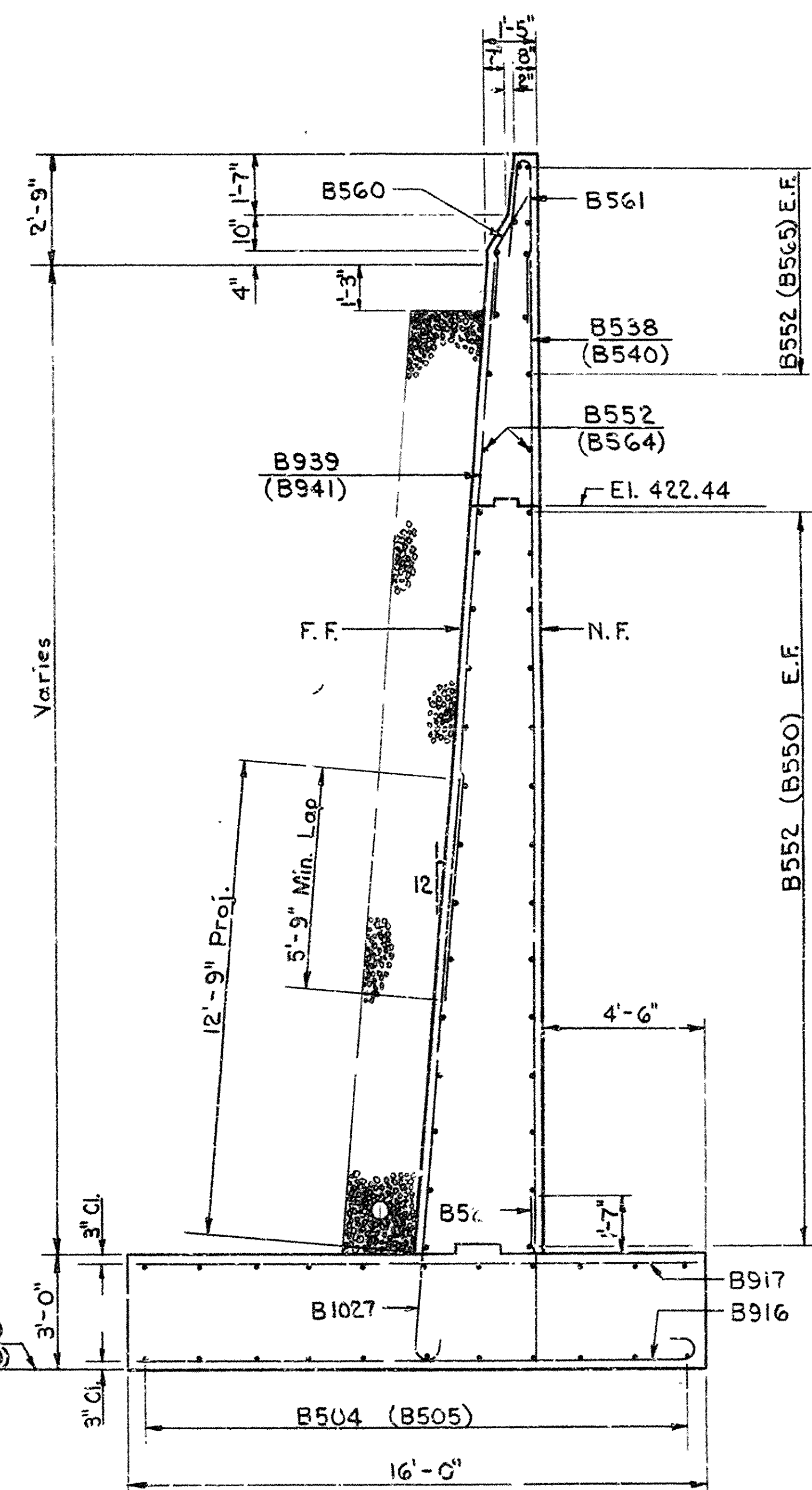
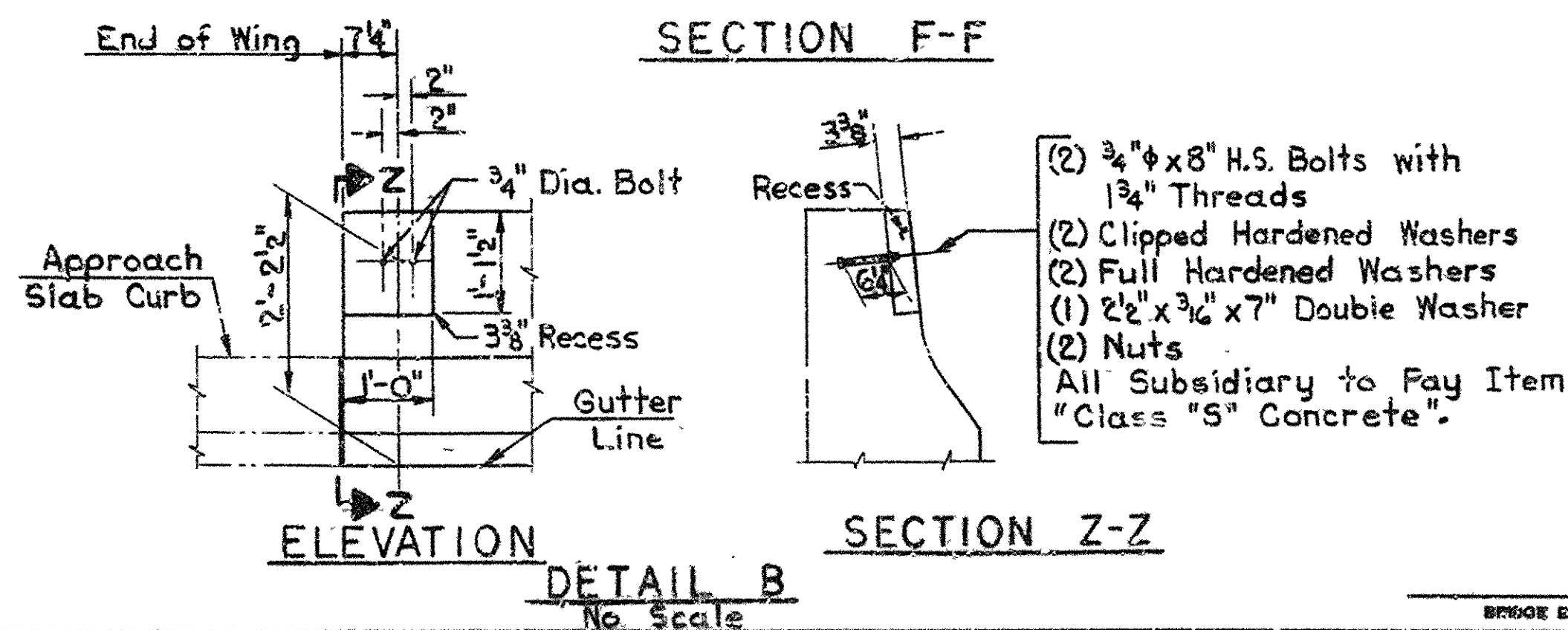
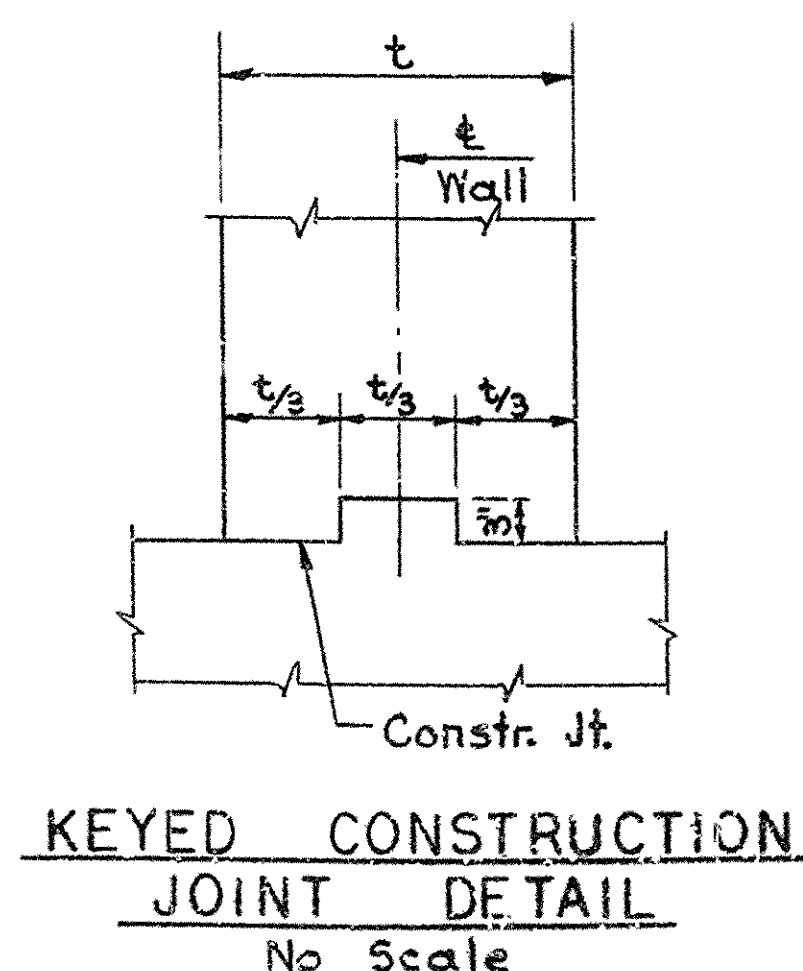
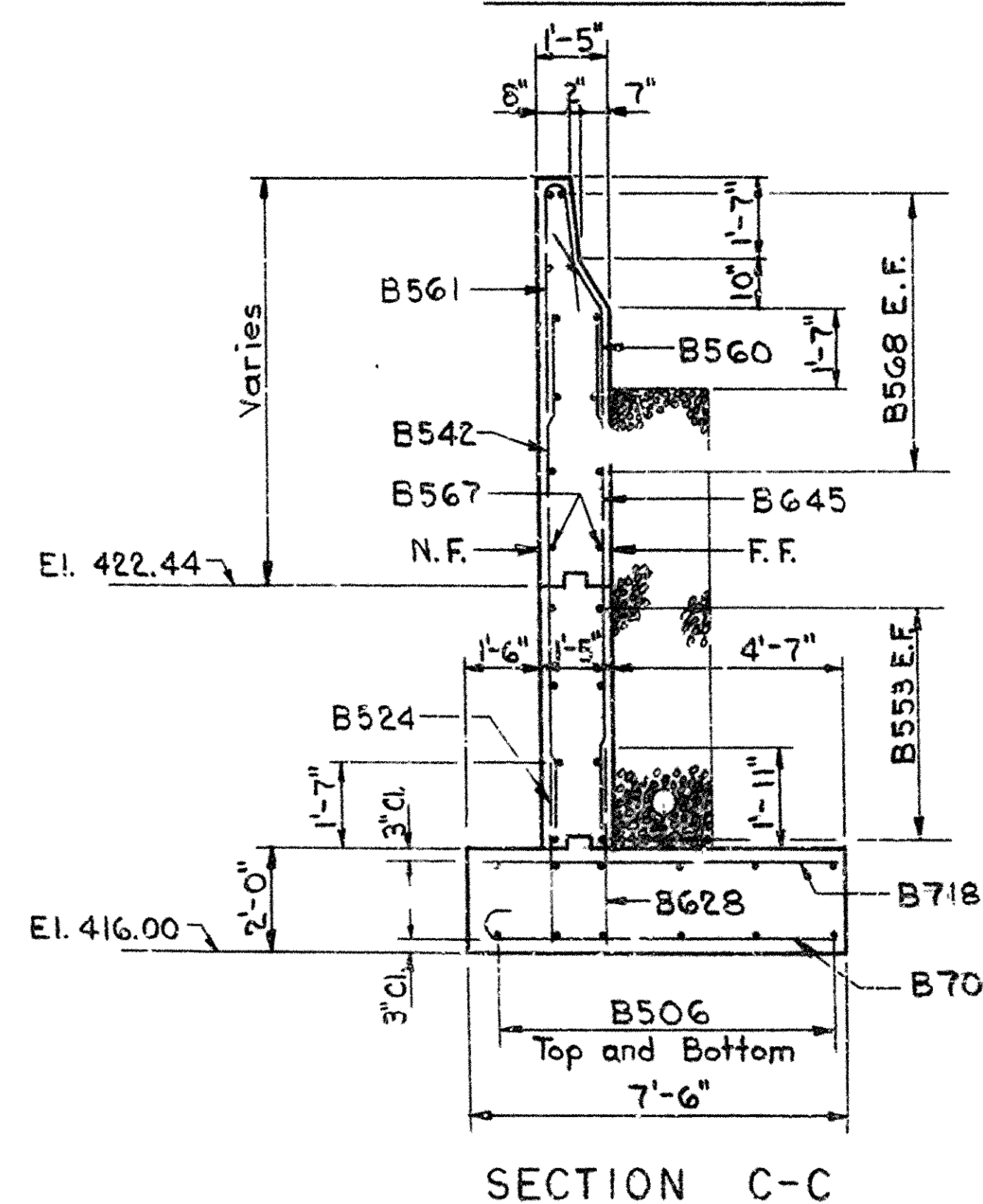
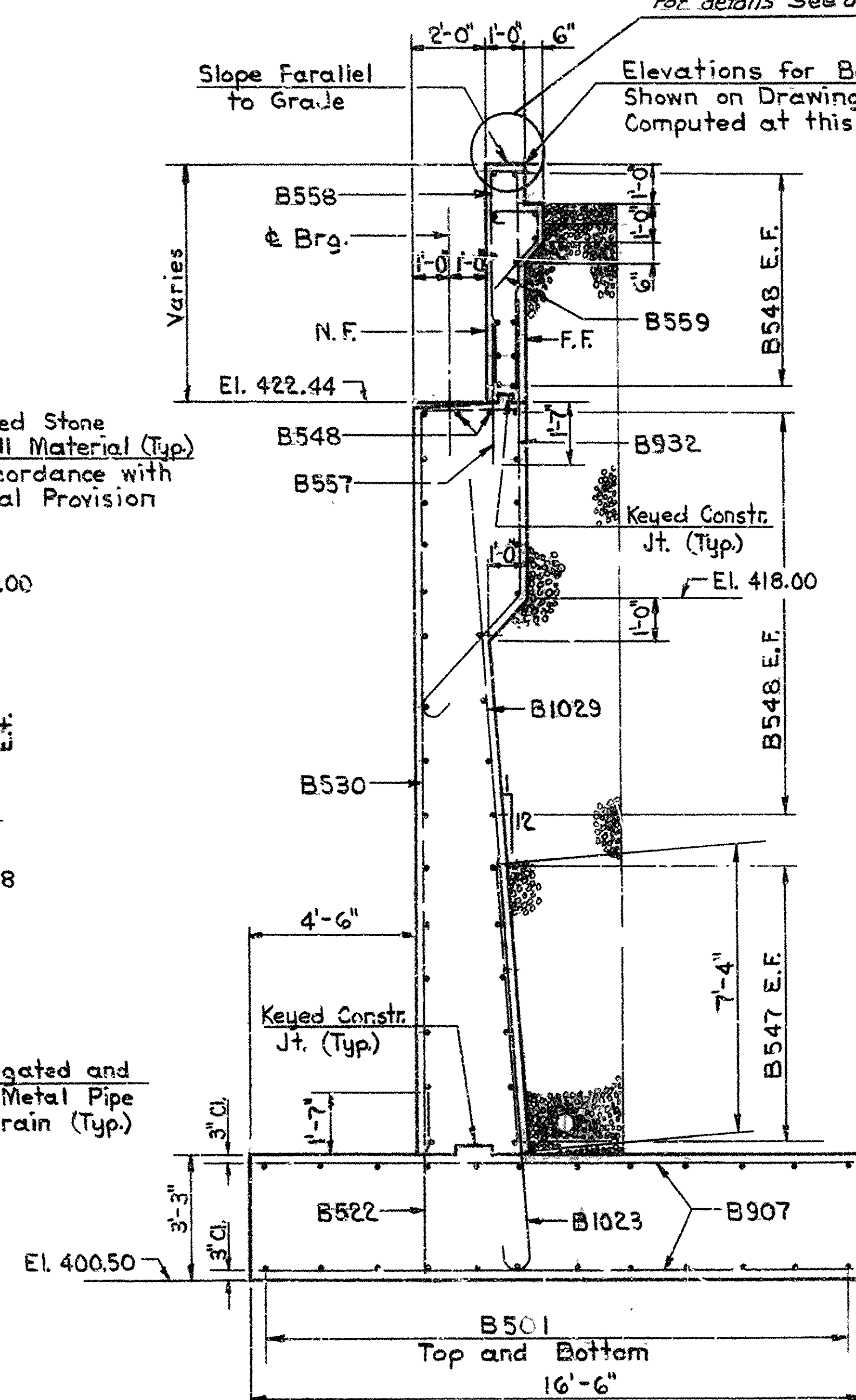
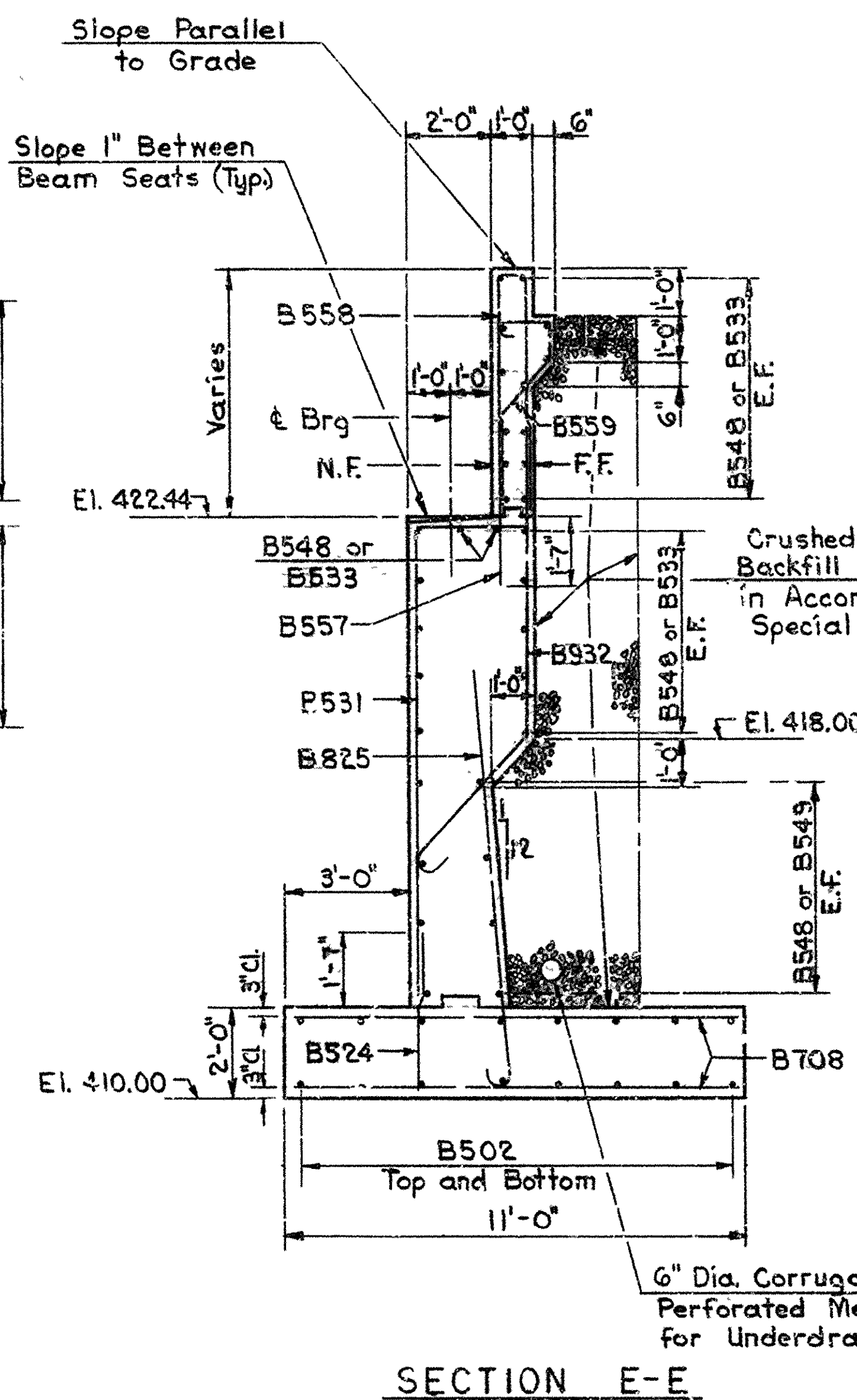
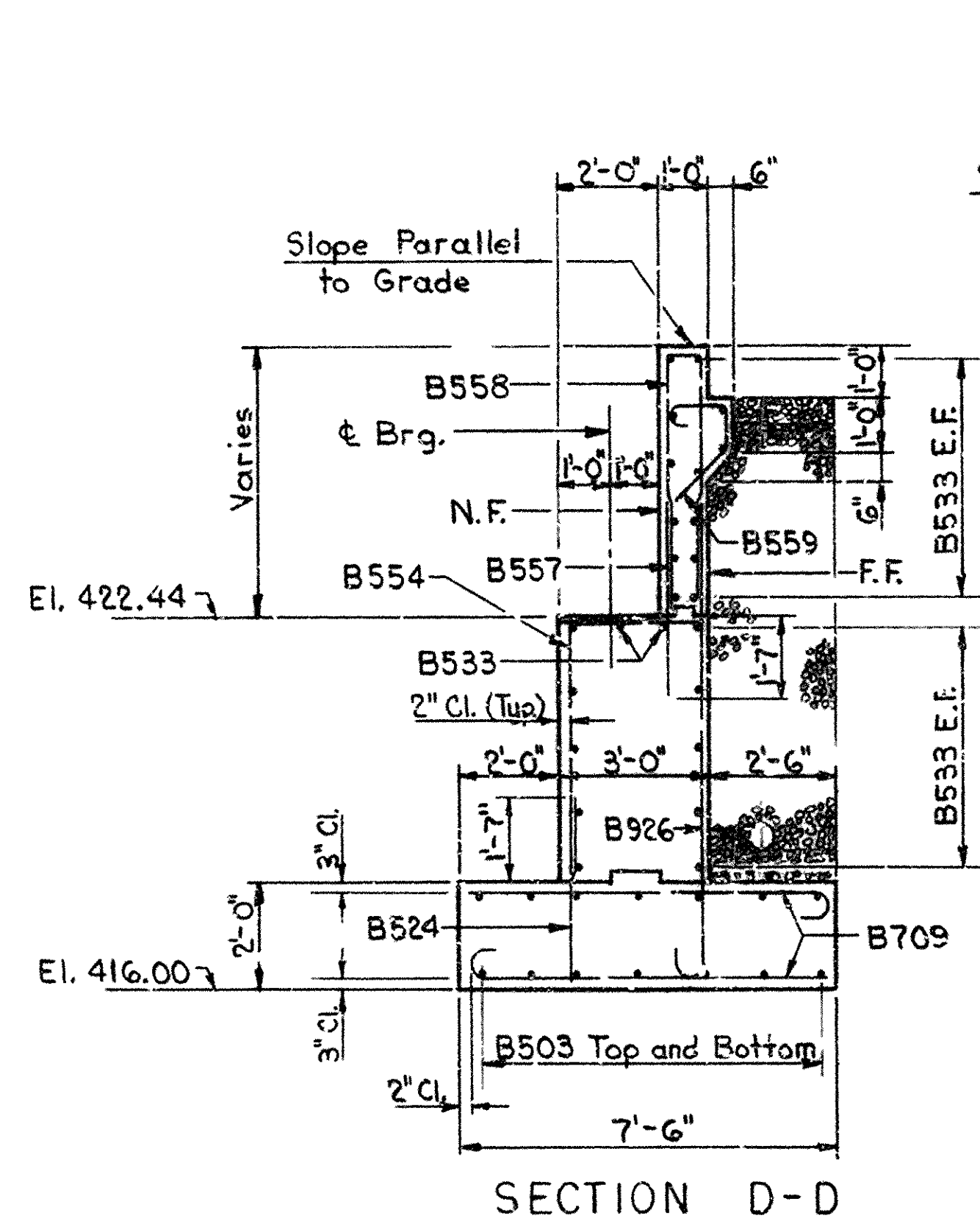
N.F. - Near Face  
F.F. - Far Face  
E.F. - Each Face

# NOTE:

- All footings shall be keyed in a minimum of 6" into sound rock.
- Concrete in Abutment Backwall shall not be placed until the Dams have been Erected and Deck Slab has been Poured.

For details see dwg. 23632

Elevations for Backwalls  
Shown on Drawing No. 23620  
Computed at this Point (Typ.)



G-G Similar Except as Noted  
Thus ( ).

SECTIONS OF EAST ABUTMENT  
OUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY

ROUTE 70 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: J.M.K. DATE: 5-09-80  
CHECKED BY: R.T.K. DATE: 5-09-80  
DESIGNED BY: B.F.S. DATE: 5-09-80

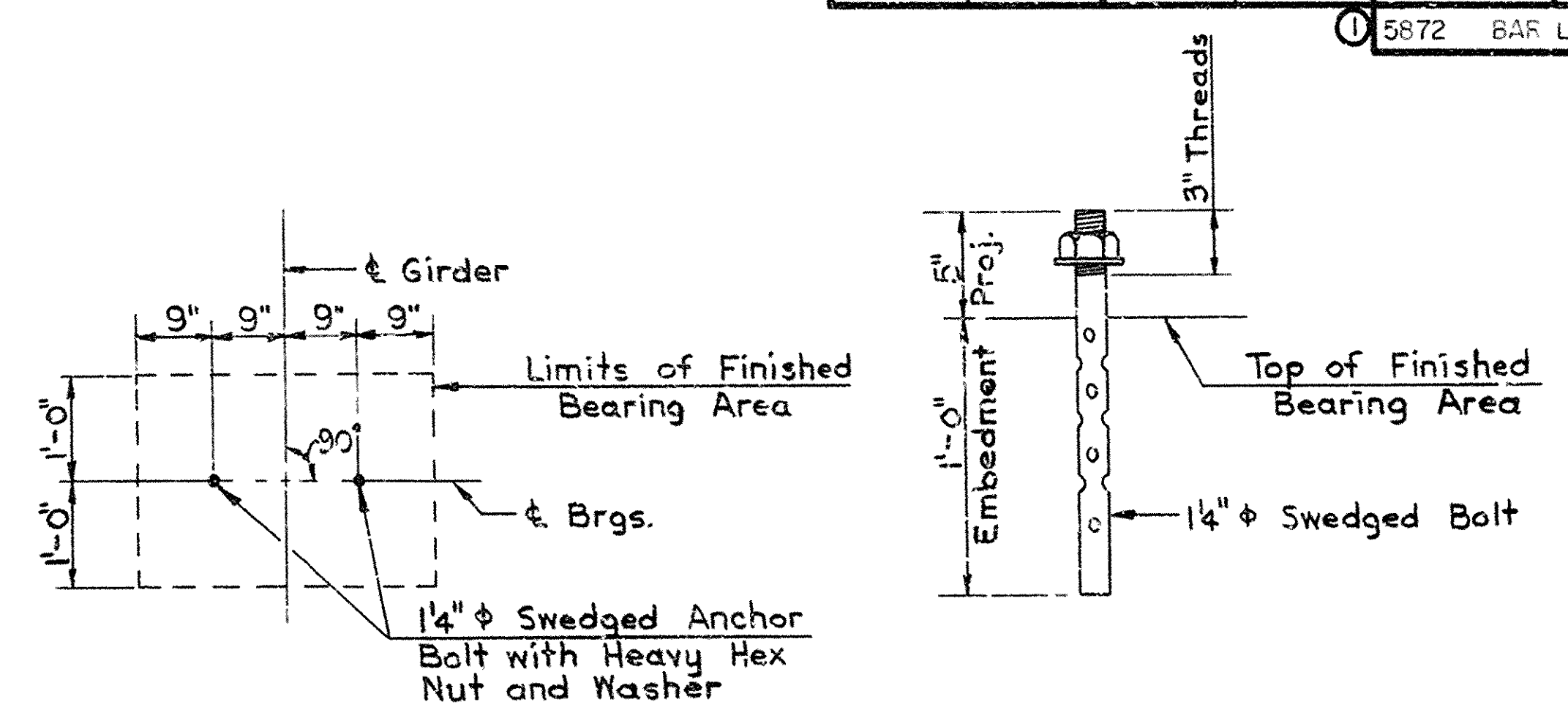
BRIDGE NO. 5872 DRAWING NO. 23622



DATE REVISED	DATE REVISED	DATE REVISED	DATE REVISED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BRF-014-2 (23)	34	80
JOB NO.				60092				
① 5872				BAR LIST E. ABUT				23623

BAR LIST

MARK	NO. REQ'D	LENGTH	A	B	PIN DIA.	REMARKS	MARK	NO. REQ'D	LENGTH	A	B	PIN DIA.	REMARKS
B 501	24	28'-6"			Str.		B 538	22	25'-10"			Str.	
B 502	16	23'-8"			Str.		B 539	35	18'-10"			Str.	
B 503	14	23'-7"			Str.		B 540	9	24'-4"			Str.	
B 504	22	27'-0"			Str.		B 541	18	17'-4"			Str.	
B 505	22	12'-8"			Str.		B 542	6	11'-4"			Str.	
B 506	12	7'-9"			Str.		B 543	1	8'-10"			Str.	
B 507	82	16'-2"			Str.		B 544	3	6'-0"			Str.	
B 708	68	10'-8"			Str.		B 545	11	11'-4"			Str.	
B 709	79	8'-0"	7'-2"	10"	5 1/4"		B 446	35	6'-8"	2'-6"	1'-8"	2"	
B 510	8	12'-8"	11'-0"	1'-8"	3 3/4"		B 547	12	22'-1"			Str.	
B 511	8	12'-8"	11'-0"	1'-8"	3 3/4"		B 548	33	33'-1"			Str.	
B 512	7	9'-2"	7'-6"	1'-8"	3 3/4"		B 549	8	12'-6"			Str.	
B 513	7	9'-2"	7'-6"	1'-8"	3 3/4"		B 550	26	14'-7"			Str.	
B 514	10	10'-8"			Str.		B 551	14	3'-2"			Str.	
B 515	6	7'-2"			Str.		B 552	40	25'-3"			Str.	
B 516	55	16'-11"	15'-8"	1'-3"	9"		B 553	8	9'-11"			Str.	
B 517	55	15'-8"			Str.		B 554	23	6'-10"	4'-2"	2'-8"	3 3/4"	
B 518	11	7'-2"			Str.		B 555	3	10'-3"	9'-0"	1'-3"	9"	
B 519	11	5'-7"	4'-0"	1'-7"	3 3/4"		B 556	8	5'-0"			Str.	
B 520	11	7'-8"	2'-0"	5'-8"	3 3/4"		B 557	91	4'-10"			Str.	
B 521	3	15'-8"			Str.		B 558	91	10'-8"	5'-0"	8"	3 3/4"	
B 522	23	4'-7"			Str.		B 559	91	3'-10"	See Diag.		3 3/4"	
B 1023	32	11'-9"	10'-4"	1'-5"	10"		B 560	35	3'-11"	2'-0"	1'-11"	3 3/4"	
B 524	81	3'-4"			Str.		B 561	35	6'-7"	4'-3"	2'-4"	2 1/2"	
B 825	31	10'-5"	9'-6"	11"	6"		B 562	2	6'-9" to 7'-7"	4'-10" to 5'-8"	1'-11"	3 3/4"	Each Vary A by 10"
B 926	31	9'-9"	8'-6"	1'-3"	9"		B 563	2	9'-7" to 10'-5"	7'-3" to 8'-1"	2'-4"	2 1/2"	Each Vary A by 10"
B 1027	53	16'-11"	15'-6"	1'-5"	10"		B 564	2	15'-7"			Str.	
B 628	11	3'-8"			Str.		B 565	10	17'-7"			Str.	
B 1029	32	16'-6"			Str.		B 566	4	1'-2"			Str.	
B 530	23	21'-1"	18'-5"	2'-8"	3 3/4"		B 567	2	8'-4"			Str.	
B 531	19	12'-10"	10'-2"	2'-8"	3 3/4"		B 568	10	10'-11"			Str.	
B 932	63	12'-9"	See Diag.	9"			B 569	4	7'-0"			Str.	
B 533	23	34'-10"			Str.		B 570	2	7'-3"			Str.	
B 534	2	5'-2" to 6'-0"	3'-3" to 4'-1"	1'-11"	3 3/4"	Each Vary A by 10"	B 571	2	5'-8"			Str.	
B 535	2	8'-0" to 8'-10"	5'-8" to 5'-10"	2'-4"	2 1/2"	Each Vary A by 10"	B 472	7	6'-10"	3'-2"	6"	2"	
B 536	5	11'-1"			Str.		B 473	10	1'-10"	7"	8"	2"	
B 537	1	24'-9"			Str.								

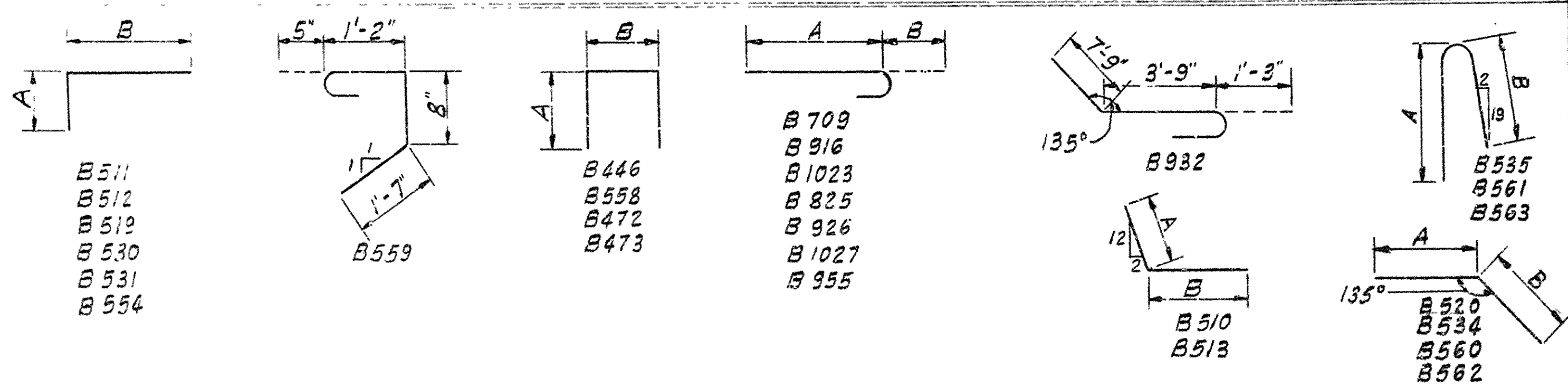


ANCHOR BOLT LAYOUT

ANCHOR BOLT DETAIL

Note: Anchor Bolts may be Cast-in-Place or Drilled and Grouted into Place. If Anchor Bolts are to be Drilled and Grouted into Place, They shall be Set and Fixed with Portland Cement Grout or an Approved Non-Shrink Grout, Completely Filling the Holes.

BENDING DIAGRAMS

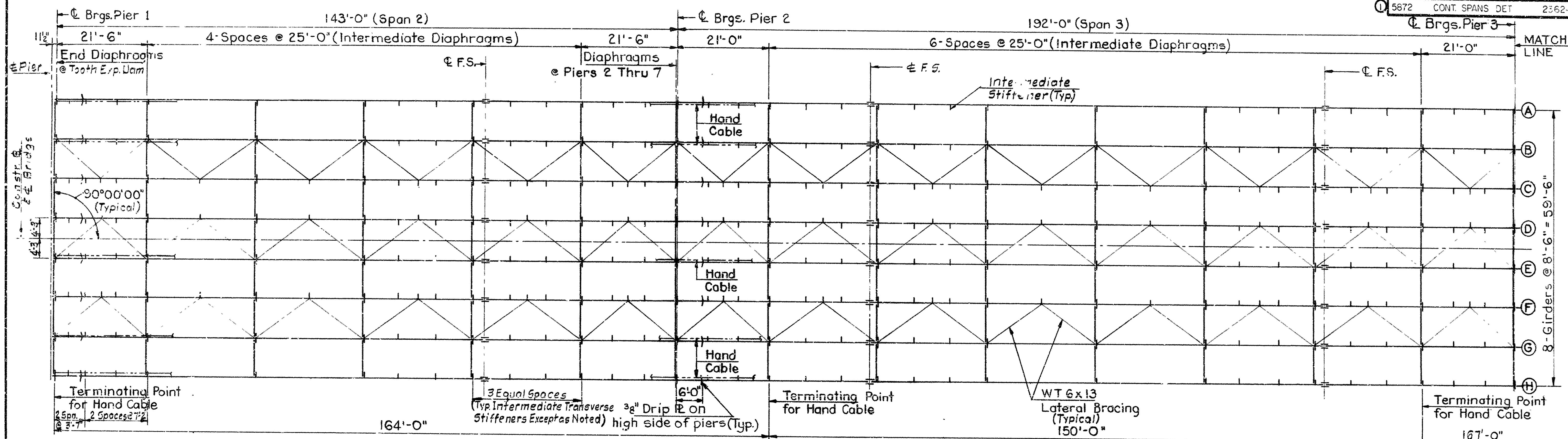


BAR LIST EAST ABUTMENT  
OUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY  
ROUTE 70 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.  
DRAWN BY: S.F. DATE: 5-23-80  
CHECKED BY: R.I.K. DATE: 5-29-80  
DESIGNED BY: R.F.S. DATE: 5-29-80  
SCALE: No Scale  
BRIDGE NO. 5872 DRAWING NO. 23623

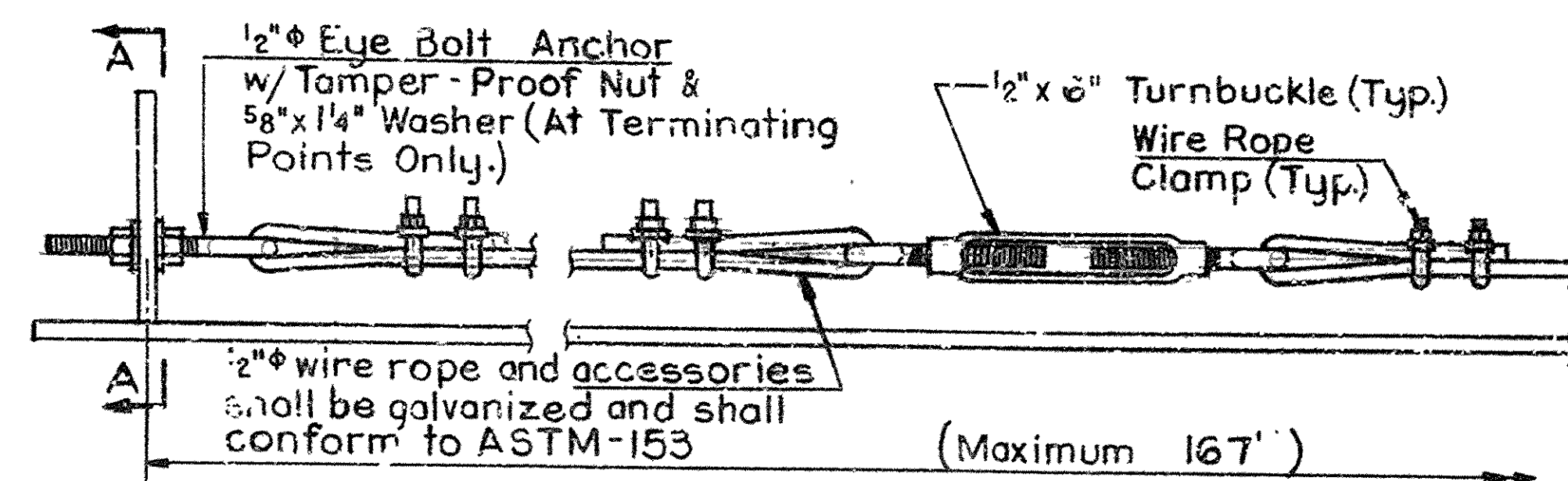
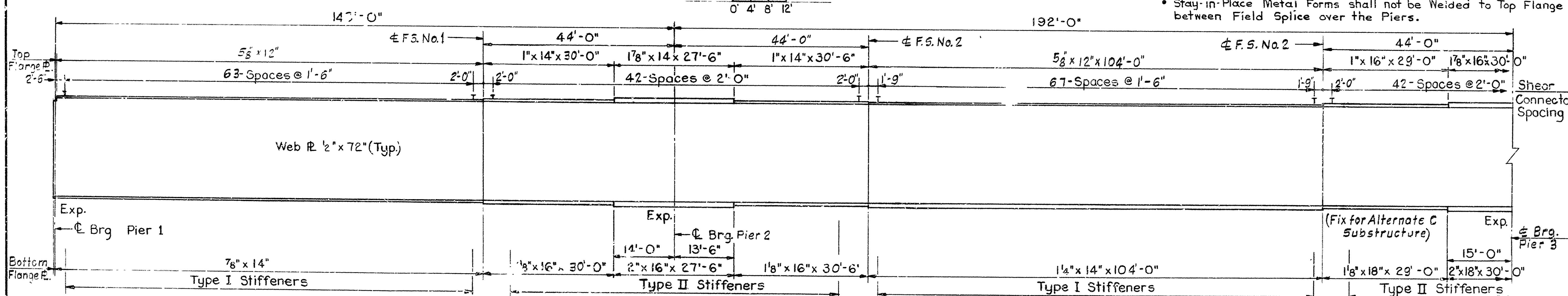
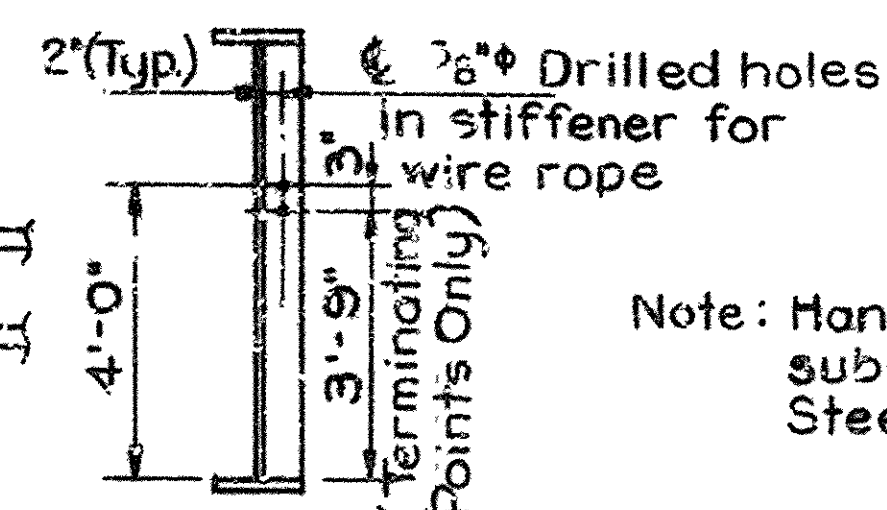


DATE	FILED	DATE	FILED	FED. ROAD	STATE	FED. AID PROJ. NO.	SHEET	TOTAL
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JOB NO.				60092				

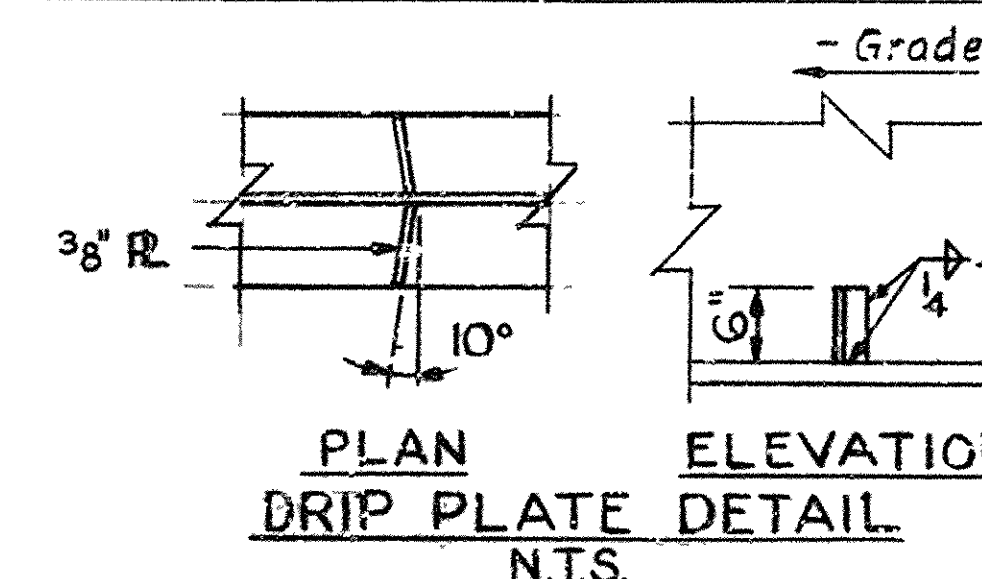
5872 CONT. SPANS DET 2362-



- Notes:
- For Girder, Diaphragms and Lateral Bracing Details See Dwg. Nos. 23626 & 23629.
  - Stay-in-Place Metal Forms shall not be Welded to Top Flange between Field Splice over the Piers.


 HAND CABLE DETAIL  
N.T.S.

 SECTION A-A  
N.T.S.

Note: Hand Cable and all accessories subsidiary to the Item "Structural Steel in Plate Girder Spans (A588)"



Note: Drip Plates are to be welded to both sides of each girder on the high side of each pier.

STEEL FRAMING PLAN  
CONTINUOUS SPANS  
OUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY  
ROUTE 70 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

BRIDGE NO. 5872 DRAWING NO. 23624

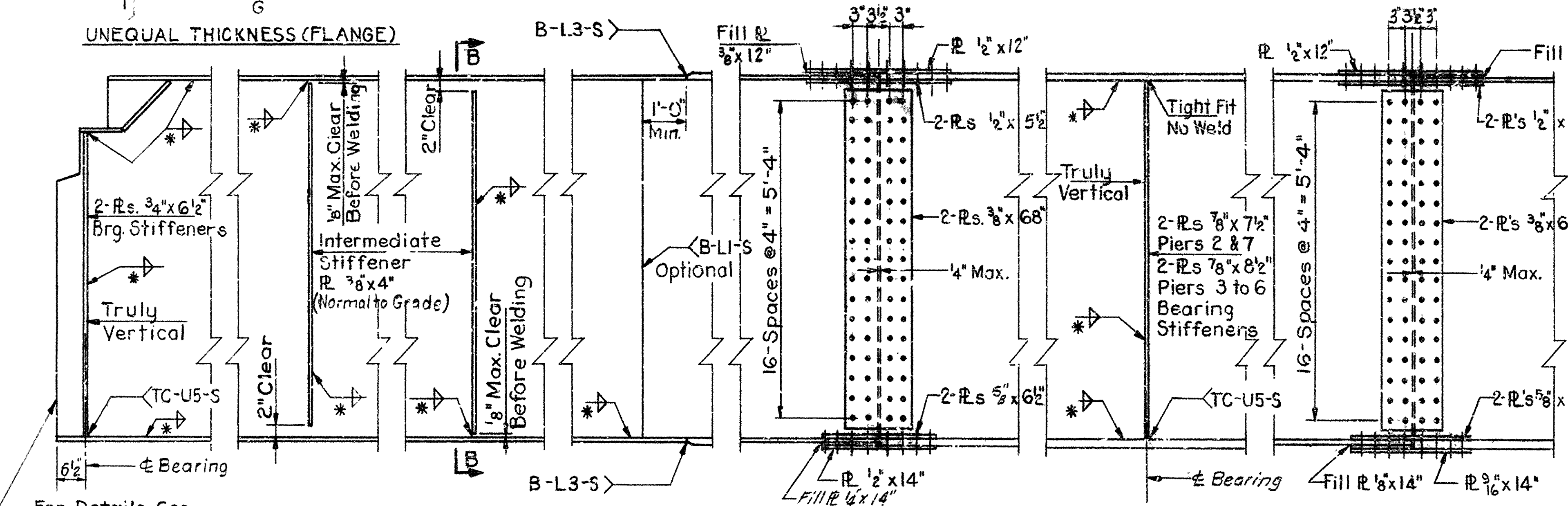
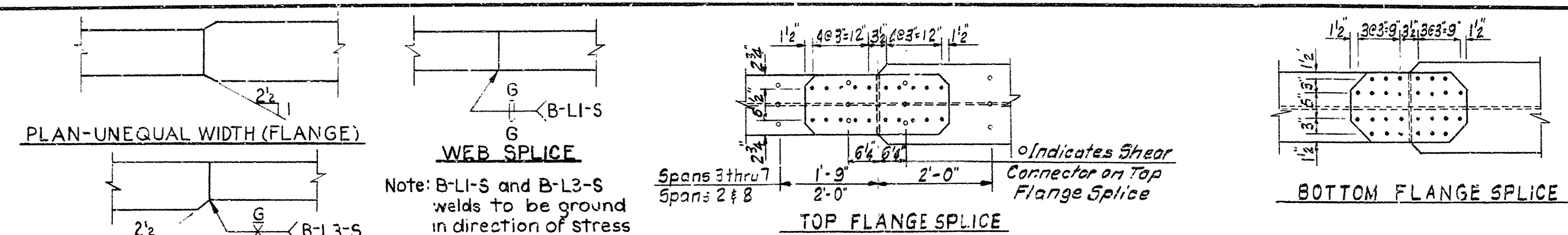






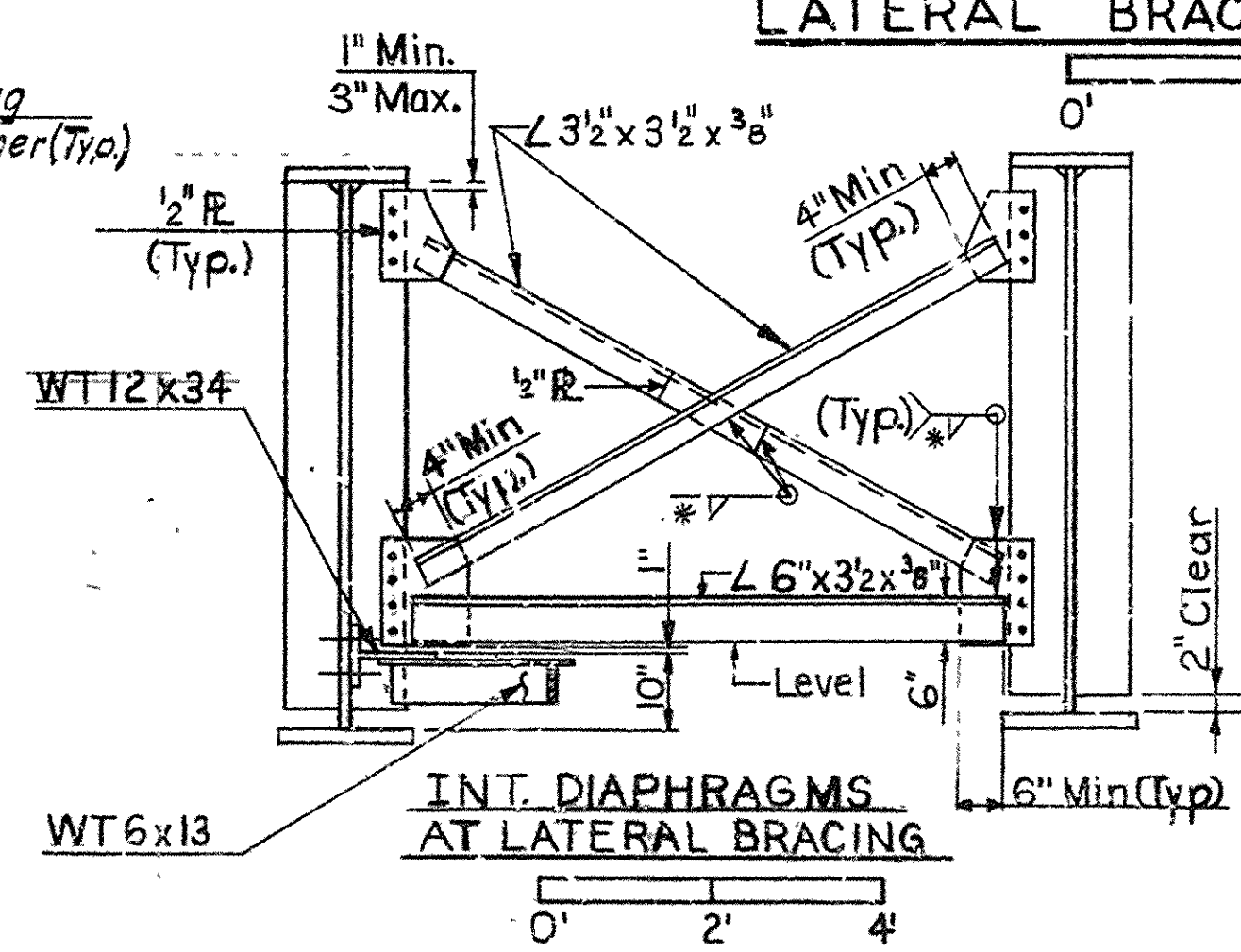
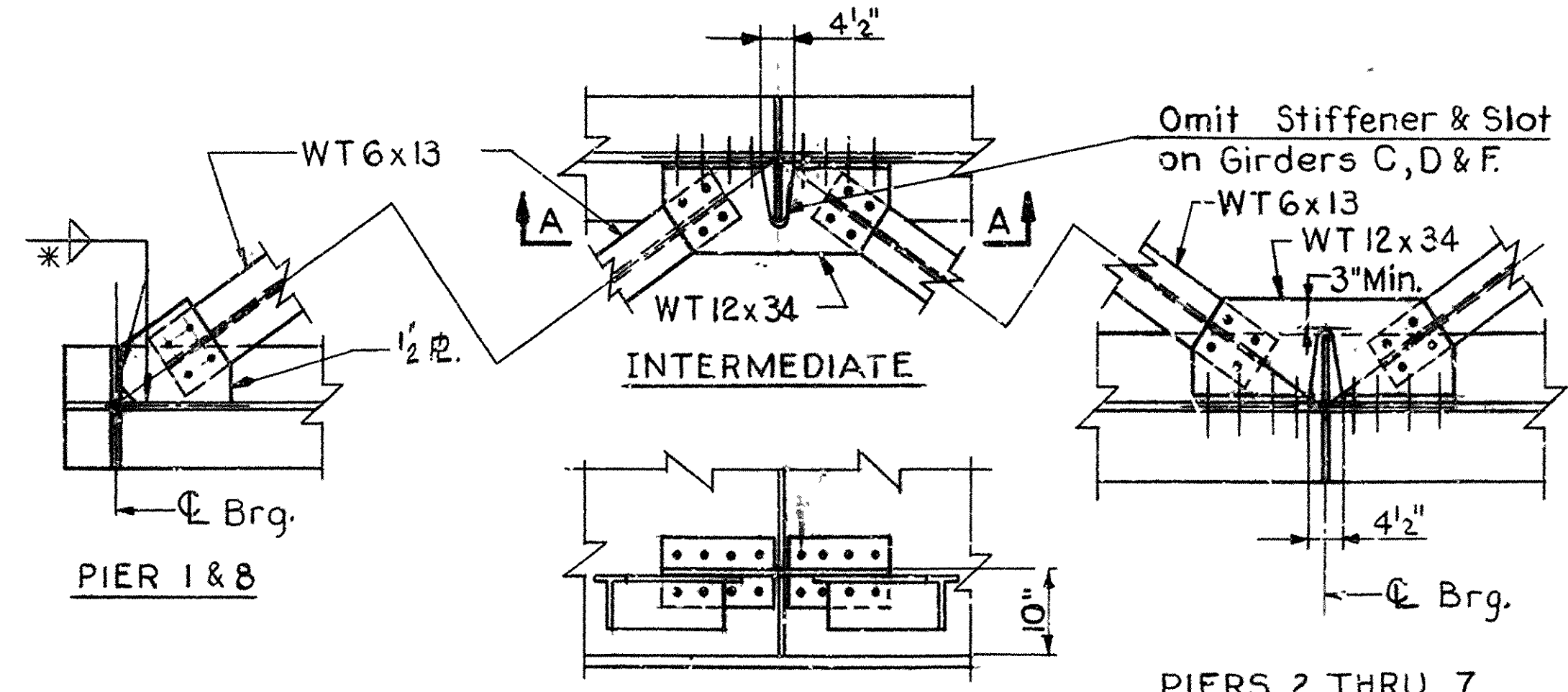
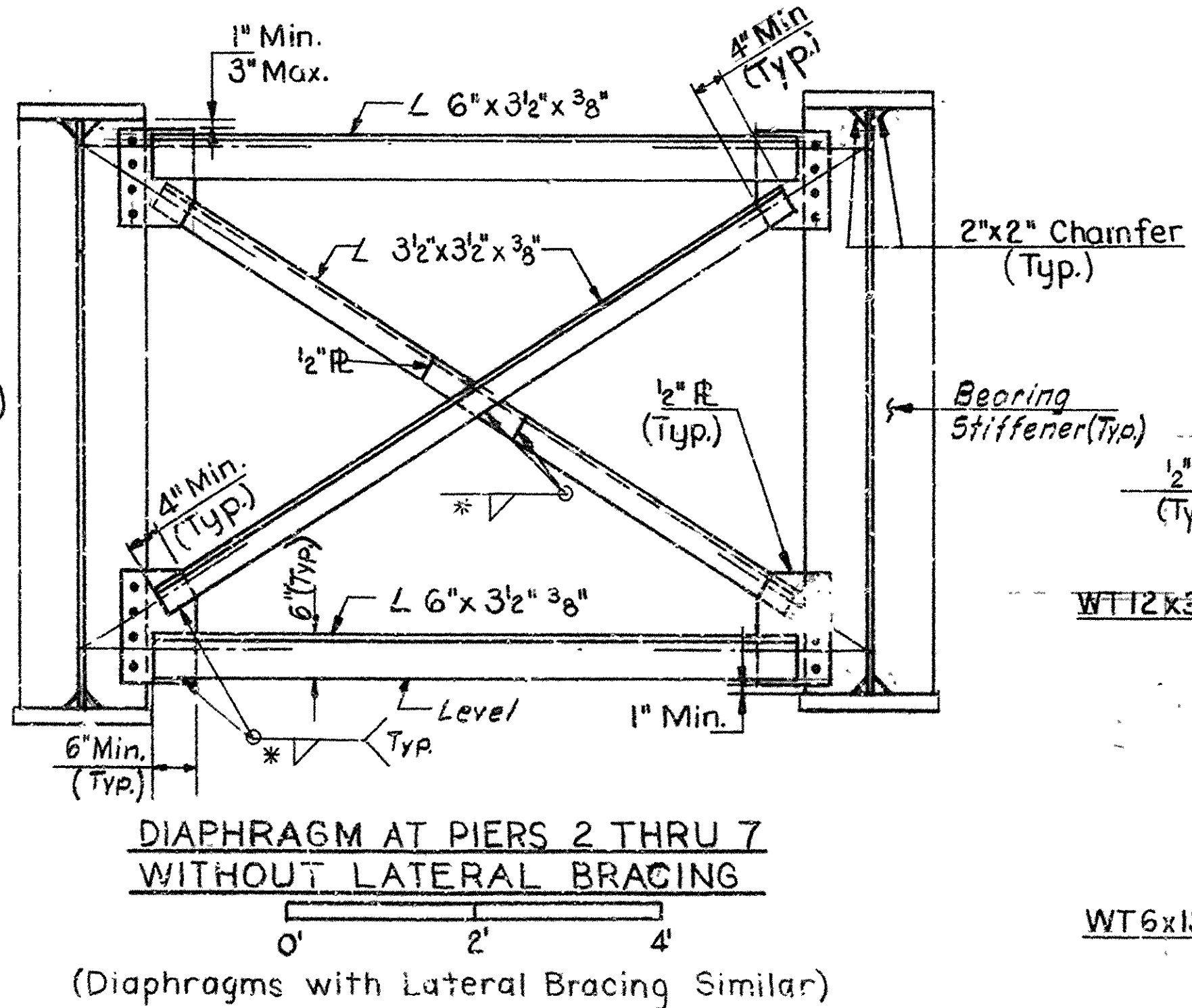
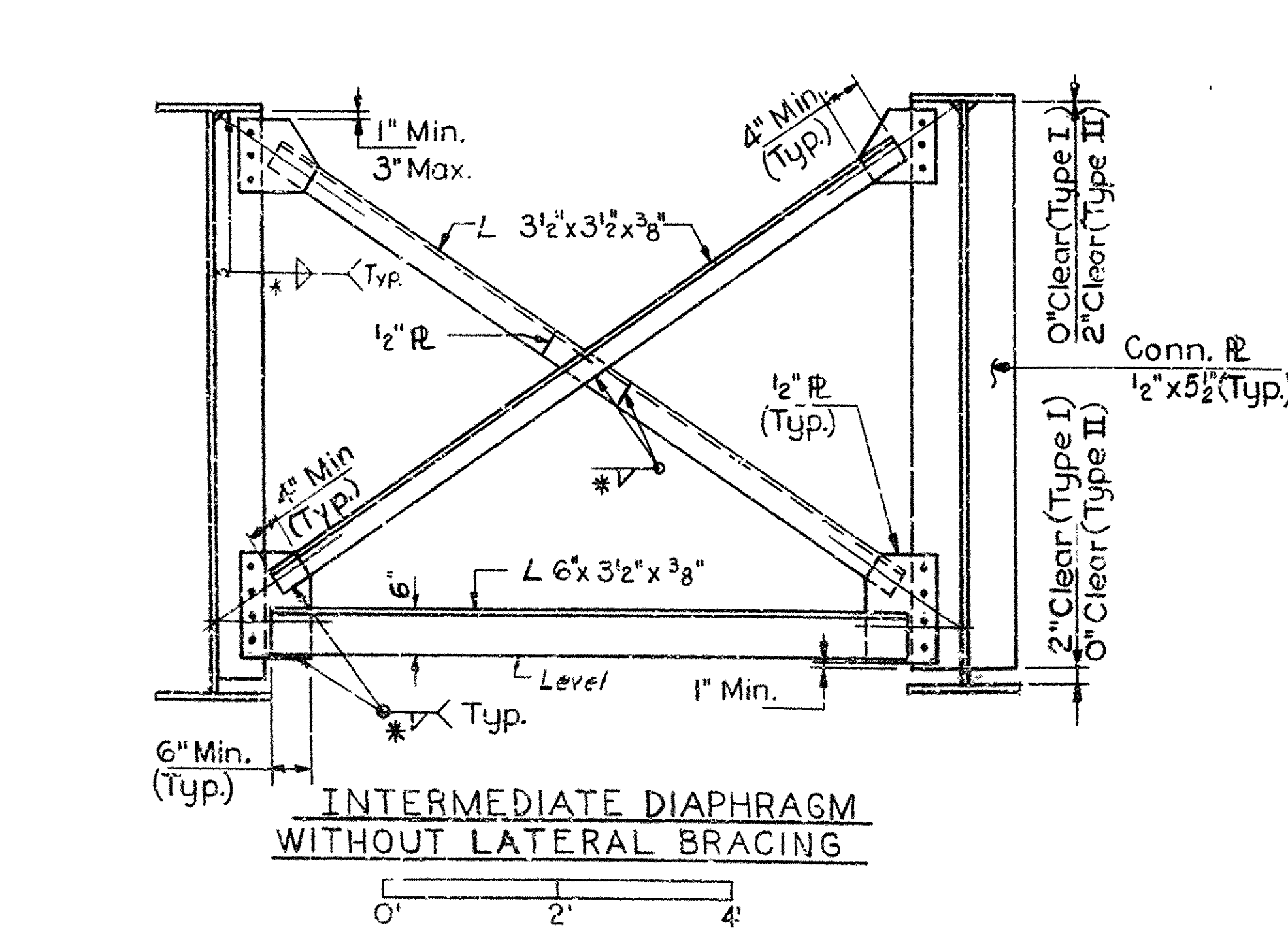
DATE	DATE	DATE	DATE	FED. ROAD	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
REVISED	PLANNED	REVISED	PLANNED	NO.	ARK.	BRF-014-2 (23)	37	80
				JOB NO.	60092			
				5872	CONT SPAN DET.		23626	

* FILLET WELD SIZE	
Thickness of Thicker Pl. Size	
3/8" to 3/4" Incl.	1/4"
Over 3/4" to 2" Incl.	5/16"



PIER 1 & 8    TYPE I    TYPE II    SHOP SPLICE    FIELD SPLICE #1    PIERS 2,3,4,5,6,7    FIELD SPLICE #2

GIRDER DETAILS



GIRDER DETAILS  
CONTINUOUS SPANS  
OUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY  
ROUTE 70 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: FW-55 DATE: 5-09-80  
CHECKED BY: R.F. DATE: 5-09-80  
DESIGNED BY: G.B. DATE: 5-9-80

BRIDGE NO. 5872    DRAWING NO. 23626











Notes:

- For Parapet Railing Details at Expansion Dams see Dwg. No
- For Trough Details not shown see Dwg. No. **23630.**
- **All fasteners to be 7/8" H.S. Bolts Unless noted otherwise**

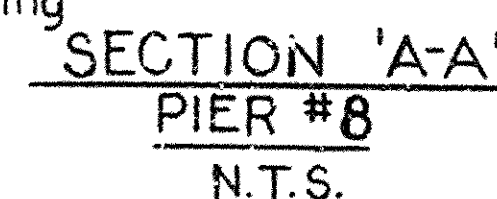
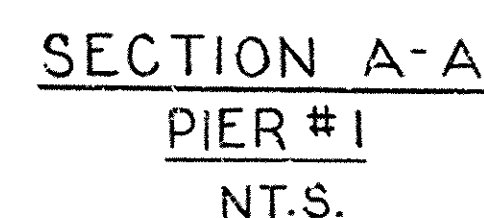


Diagram of a vertical shaft assembly. The shaft is supported by a bearing at the top and a base at the bottom. The distance from the top support to the base is 14". The distance from the top support to the center of the shaft is 11". The distance from the center of the shaft to the base is 3".

STUD DETAIL  
N.T.S.

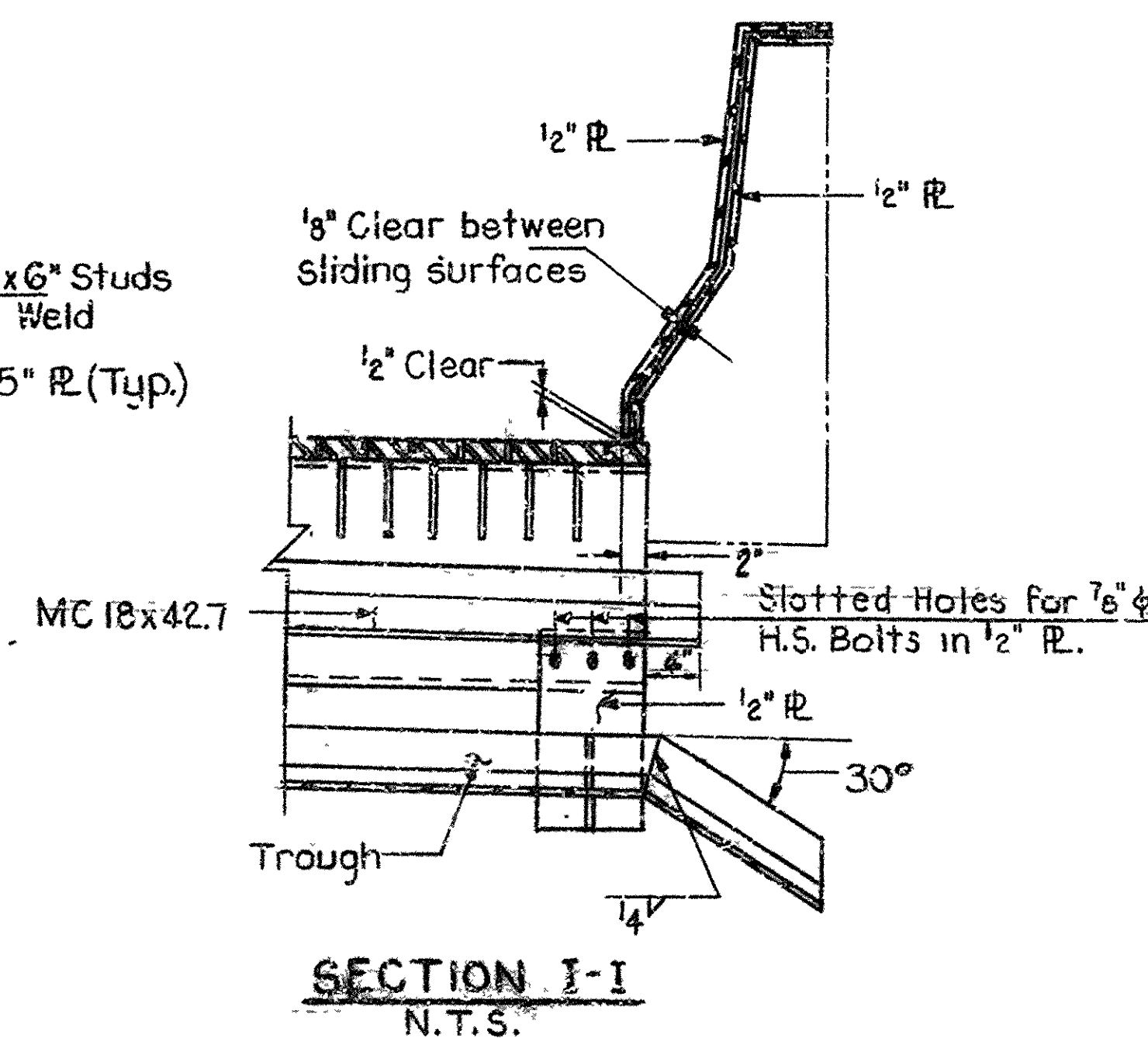
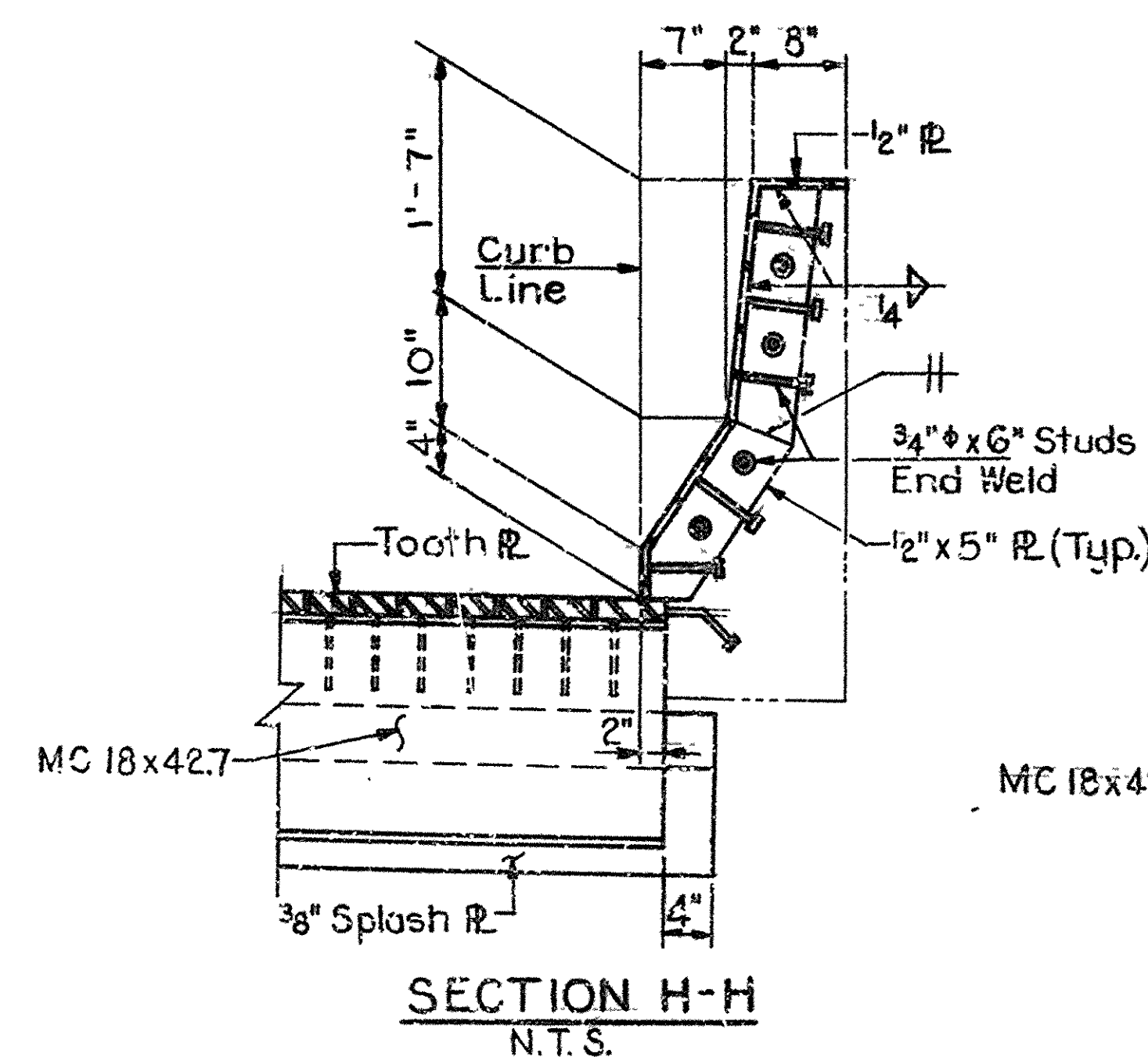
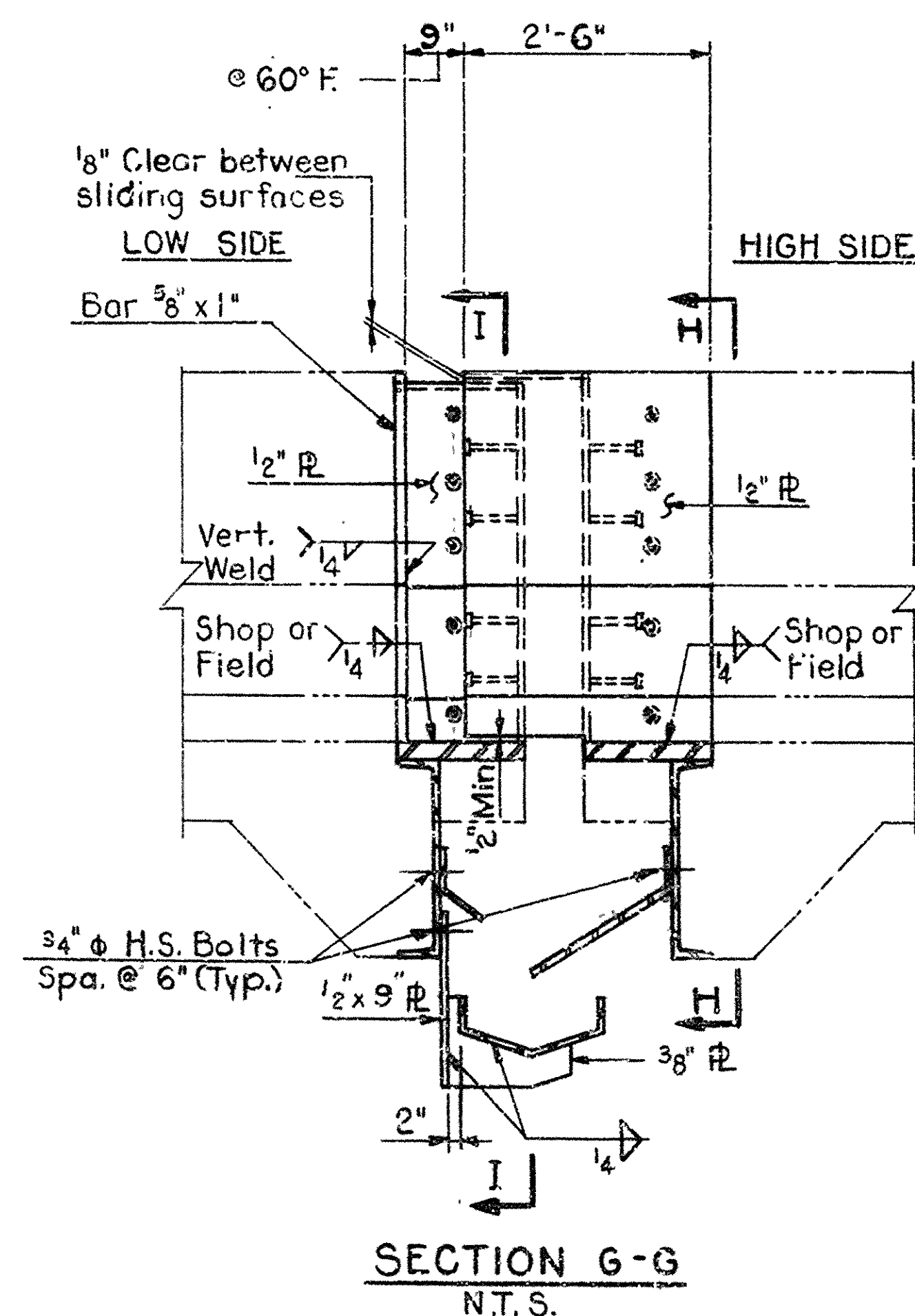
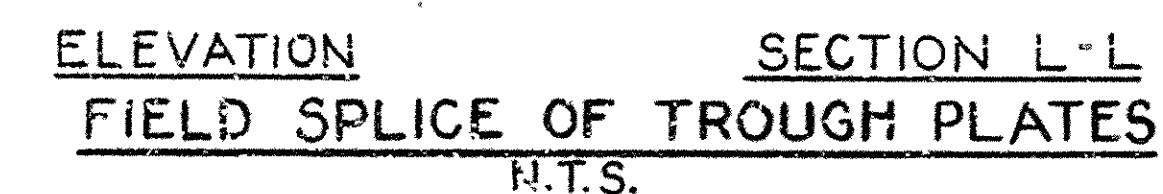
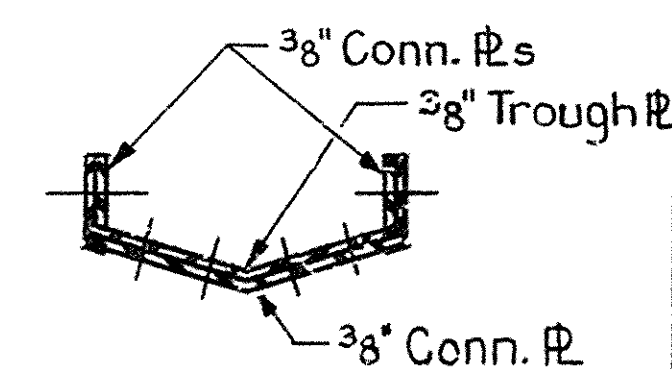
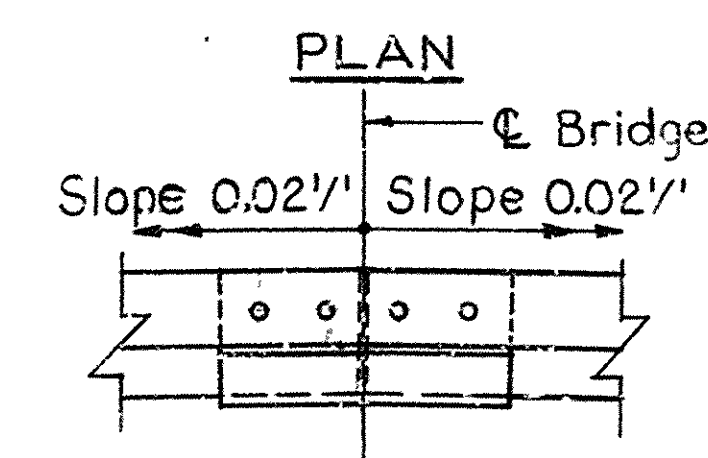
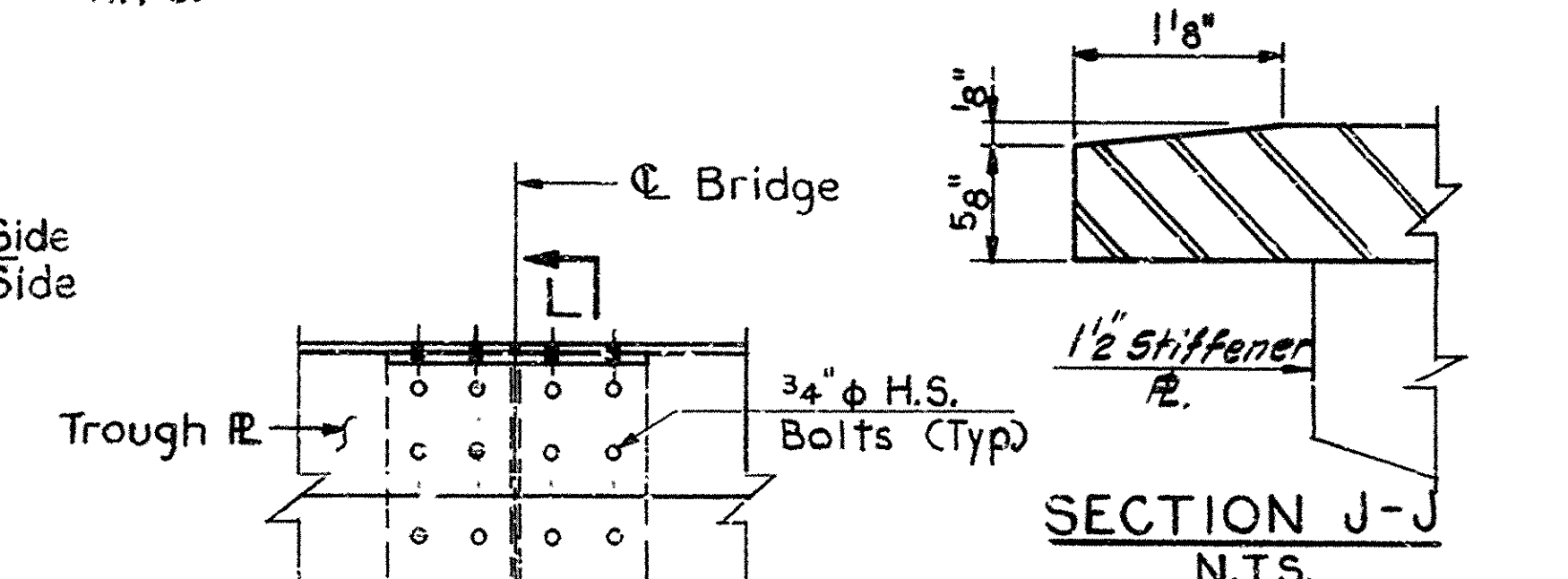
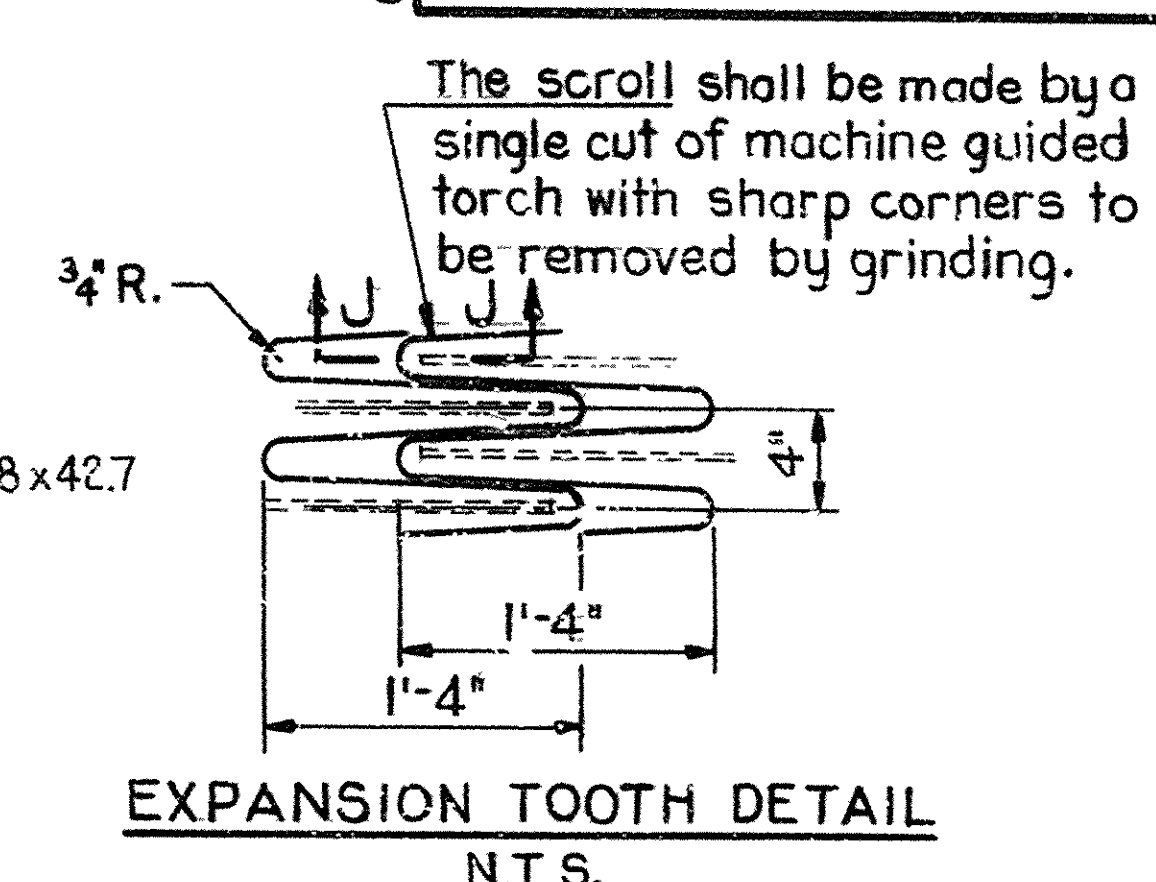
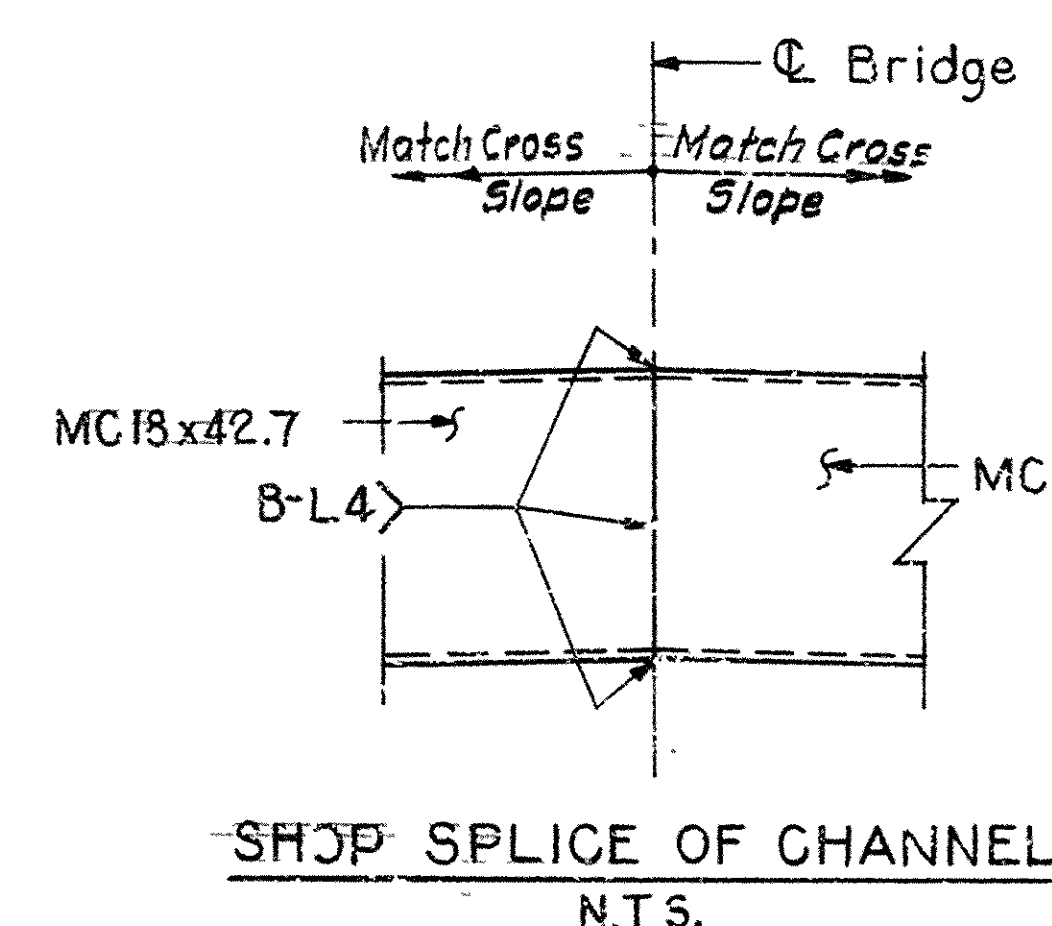
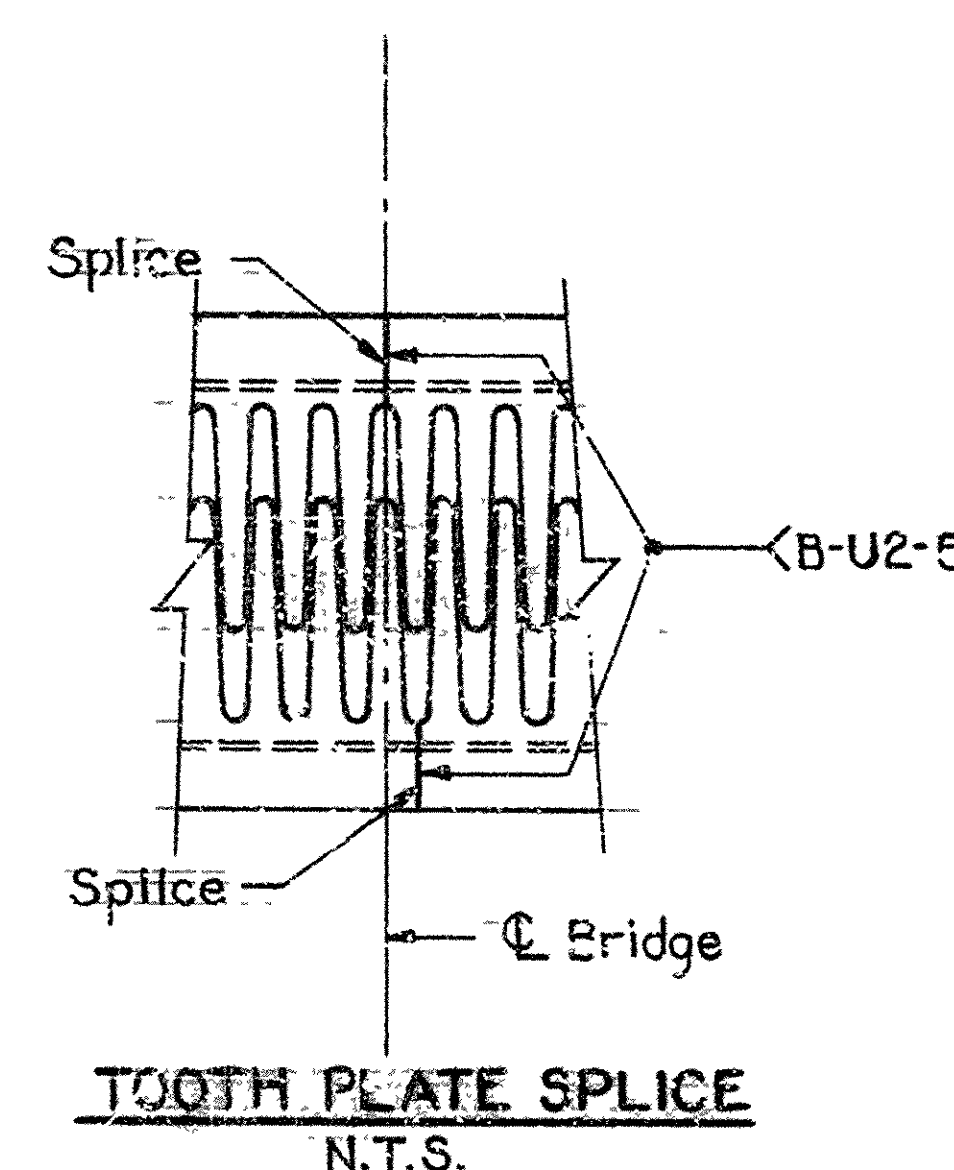
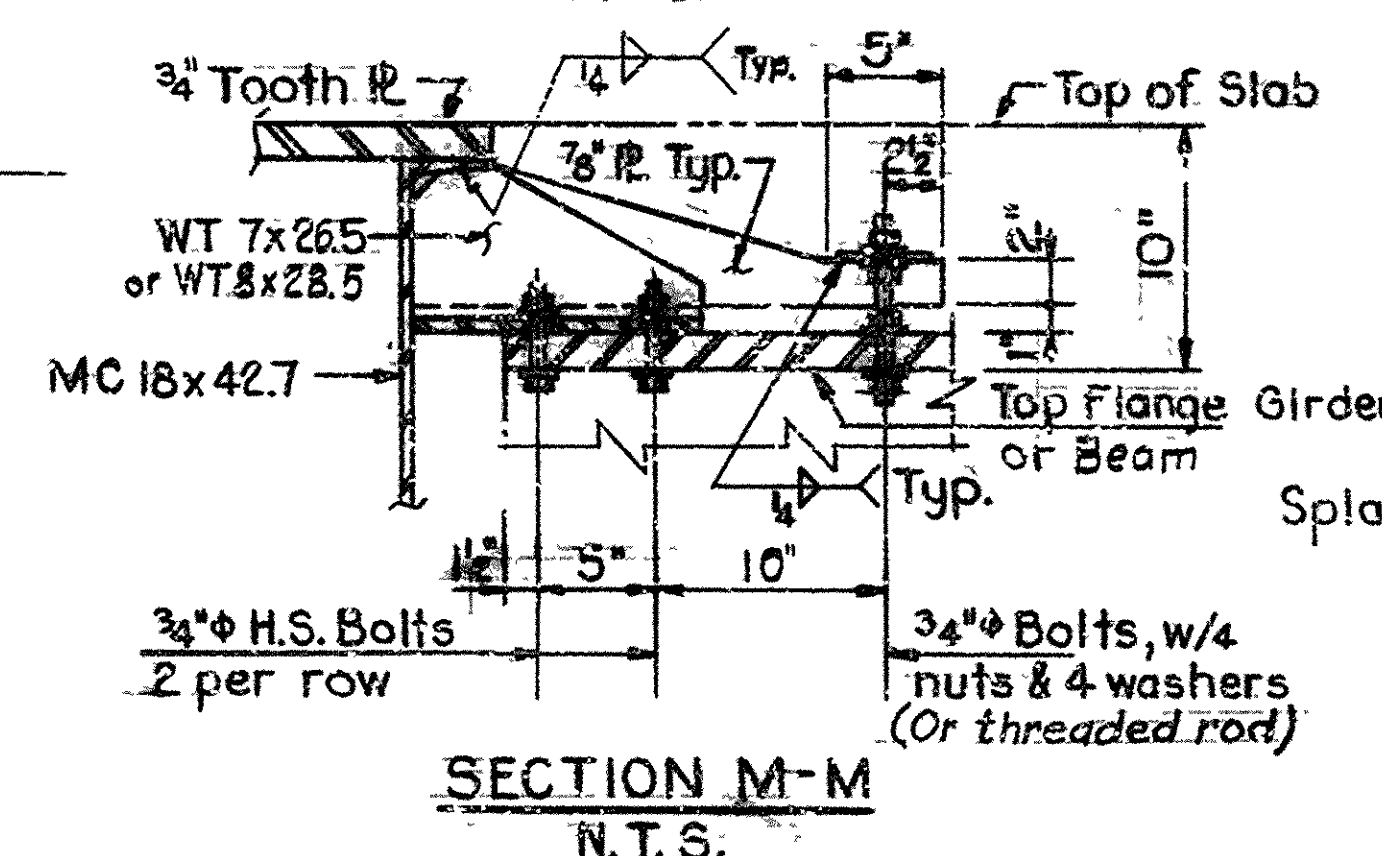
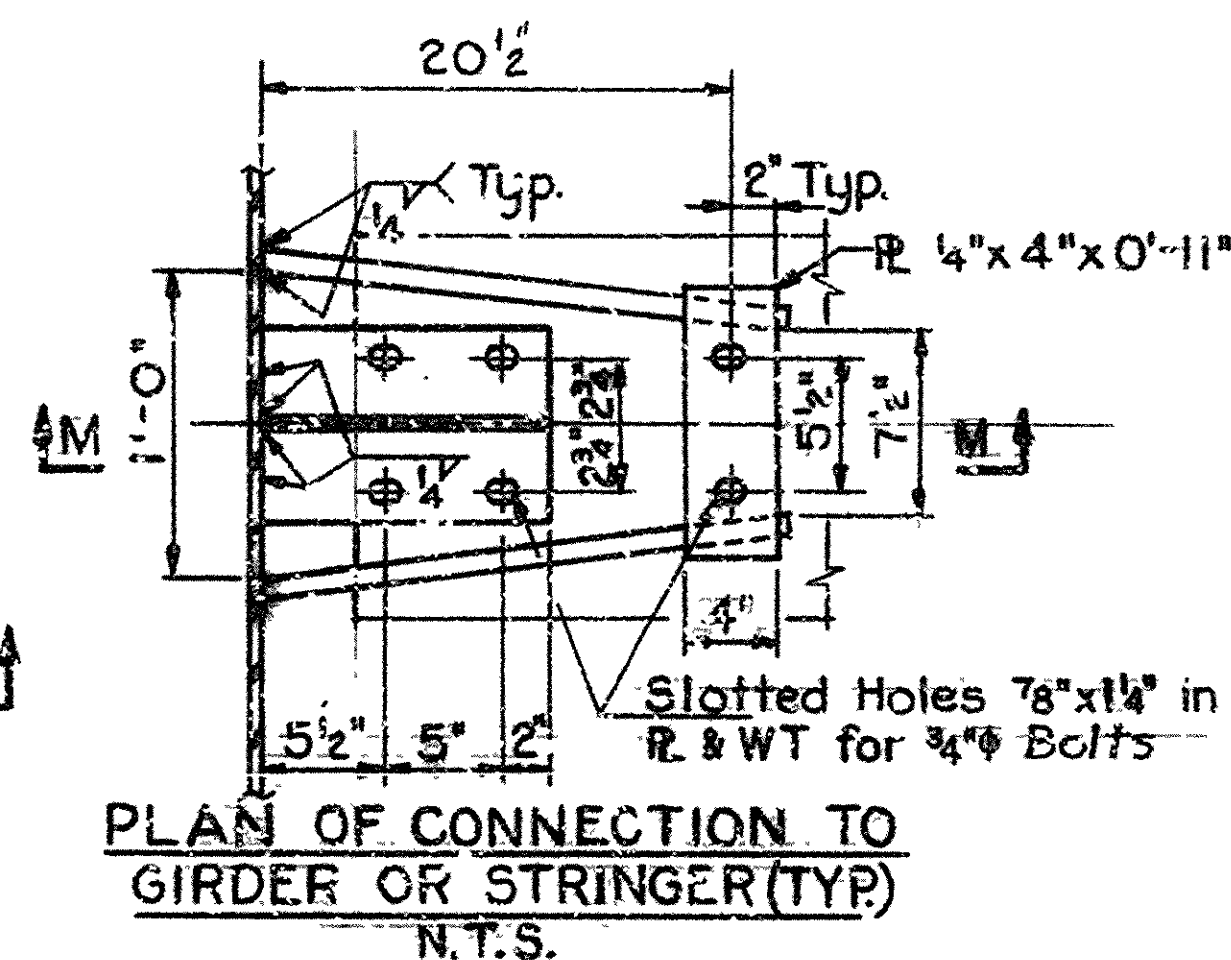
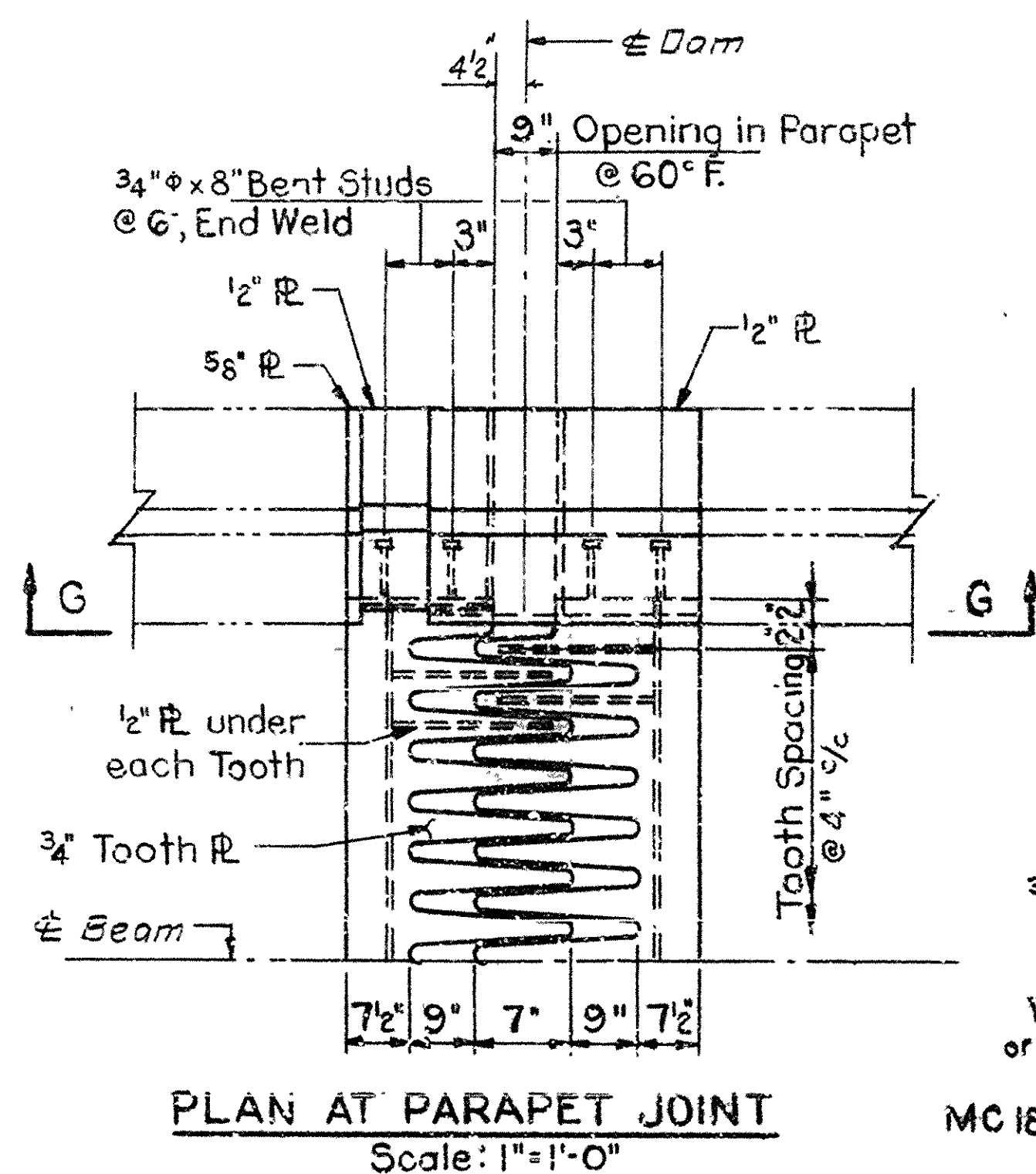
DRAWN BY: FW/SF DATE: 5/9/80  
CHECKED BY: GGG DATE: 5/9/80 SCALE: No Scale

BRIDGE NO. 5872 DRAWING NO. 23629



DATE SERIALIZED	DATE FILED	DATE INDEXED	DATE FILED	FED. BUREAU NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BRF-014-2(23)	41	89
				JOB NO.	60092			

① 5872 TOOTH EXP. DAMS DET. 23630



NOTES:

- All fasteners to be  $\frac{3}{4}$ "  $\phi$  H.S. Bolts unless noted otherwise.

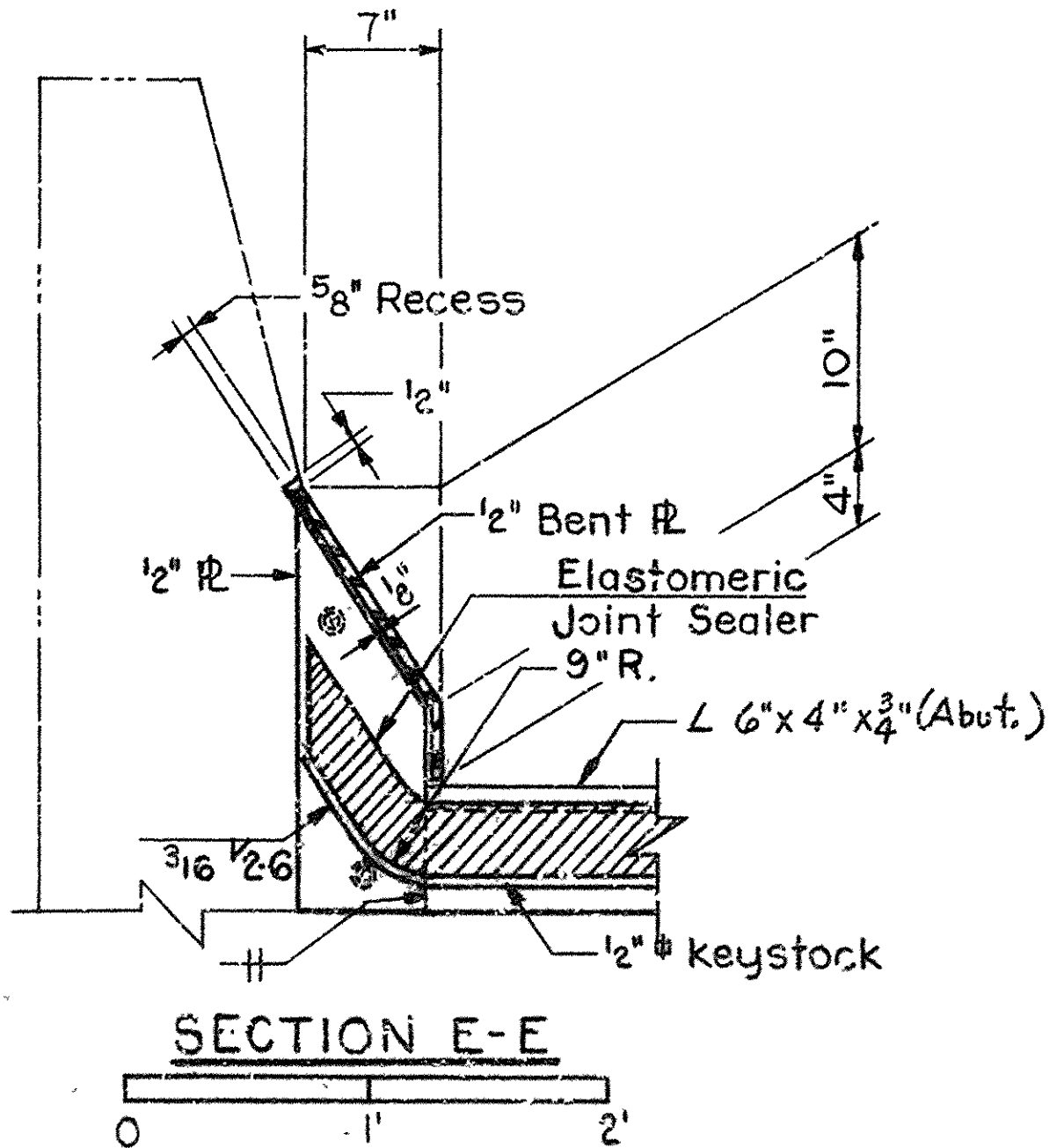
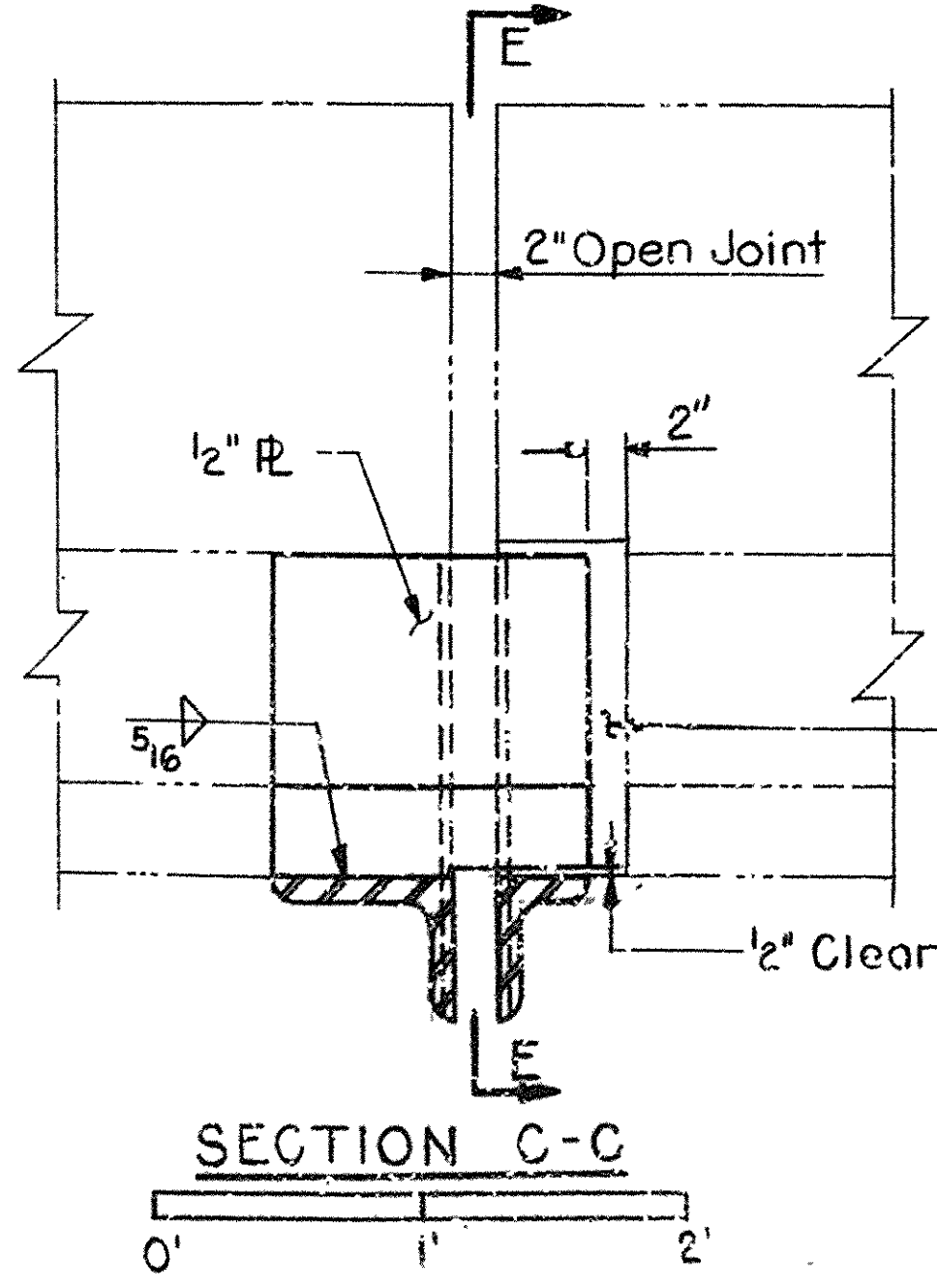
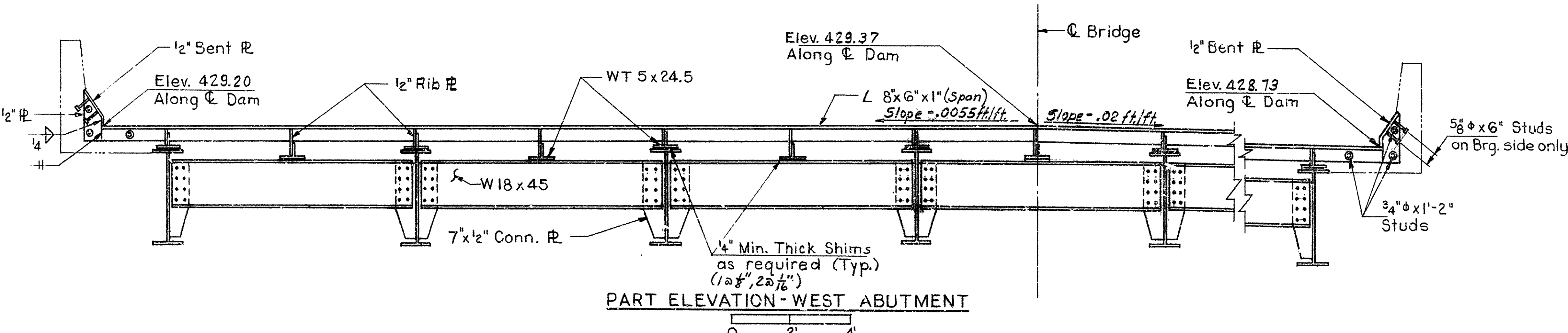
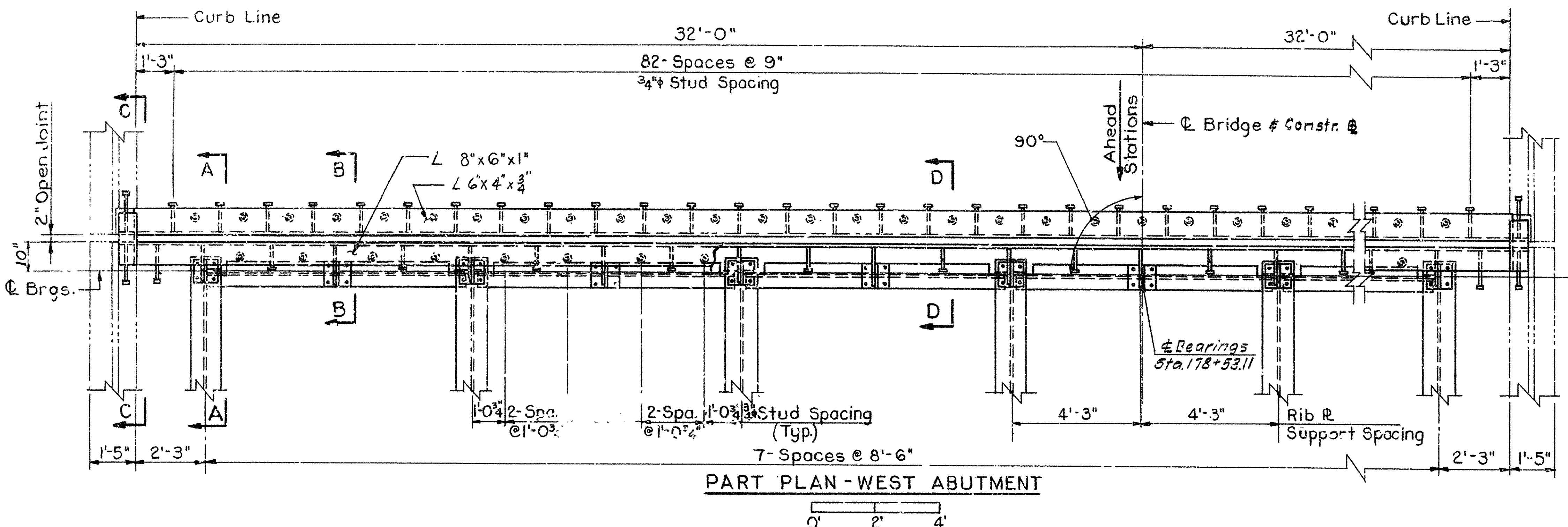
DETAILS OF TOOTH EXPANSION DAMS  
PIERS 1 & 8  
OUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY  
ROUTE 70 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: FW DATE: \_\_\_\_\_  
CHECKED BY: GGP DATE: 5/9/80 SCALE: As Shown

BRIDGE NO. 5872 DRAWING NO. 23630



DATE	REVISION	DATE	REVISION	FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BRF-014 2(23)	42	80
				JOB NO.	60092			
				5872	FIXED DAM DET		23631	



Notes:  
• For Sections A-A, B-B, and D-D See Dwg. No. 23632.  
• All fasteners to be 7/8" H.S. Bolts unless noted otherwise.

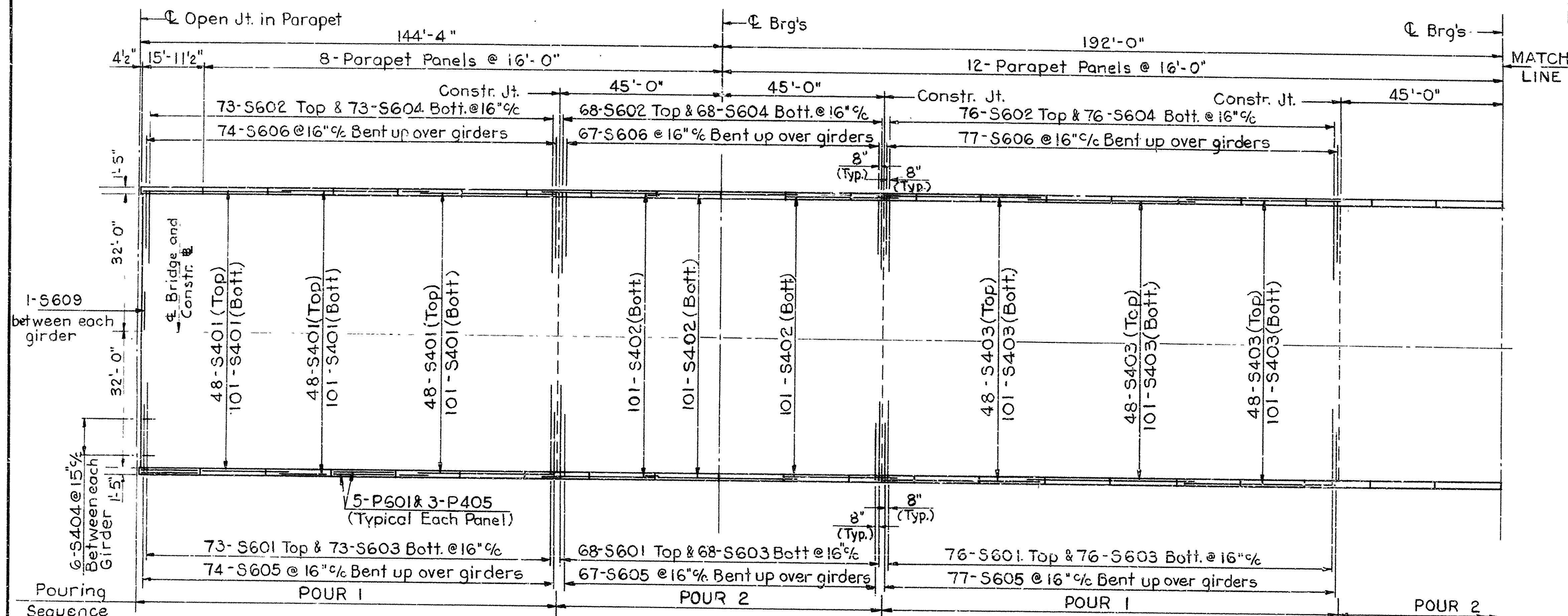
DETAILS OF FIXED DAM  
WEST ABUTMENT  
OUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY  
ROUTE 70 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.  
DRAWN BY: J.W. DATE: 5/3/80  
CHECKED BY: G.G.B. DATE: 5/3/80  
DESIGNED BY: DATE:  
SCALE: As Shown  
BRIDGE NO. 5872 DRAWING NO. 23631



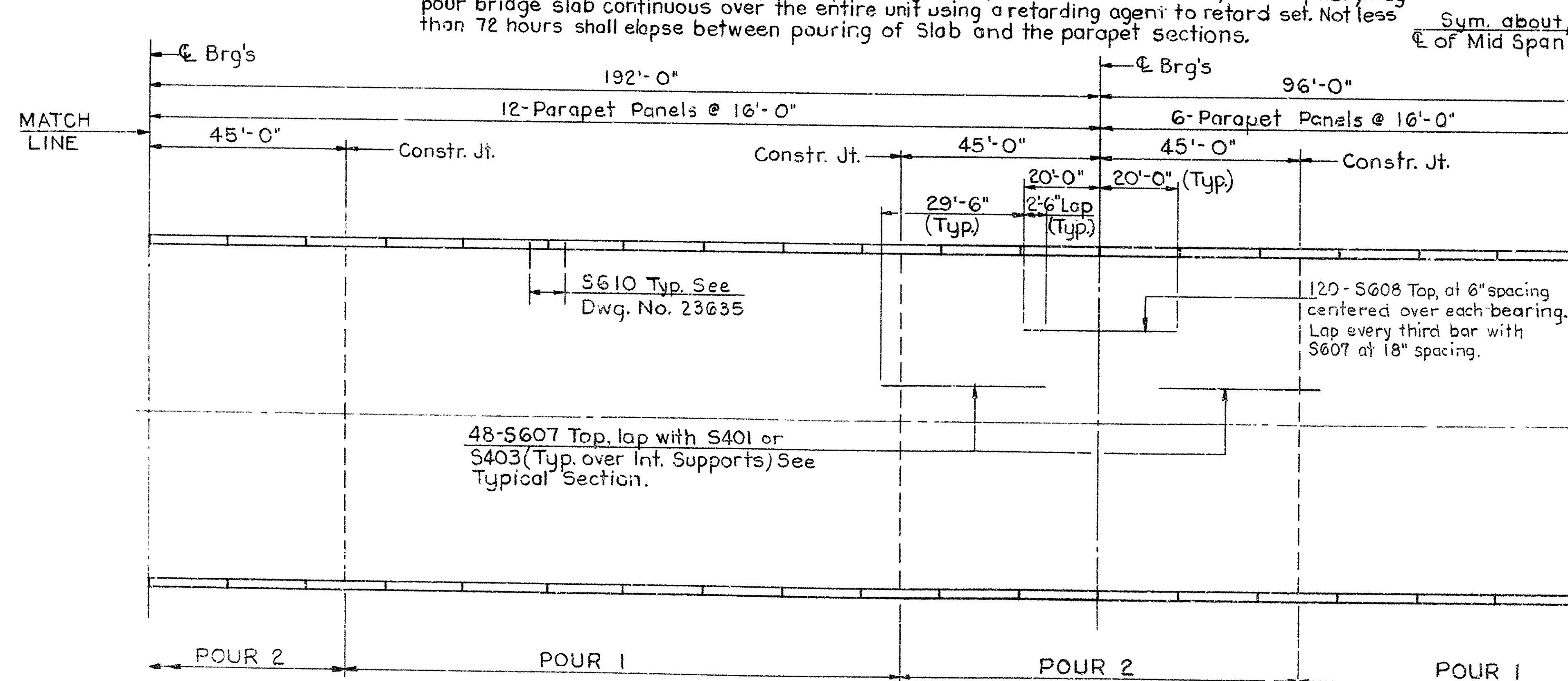




DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	PROJ. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BRF-014-2(23)	44	89
				JOB NO.	60092			
				5872	DECK SLAB DET.	23633		



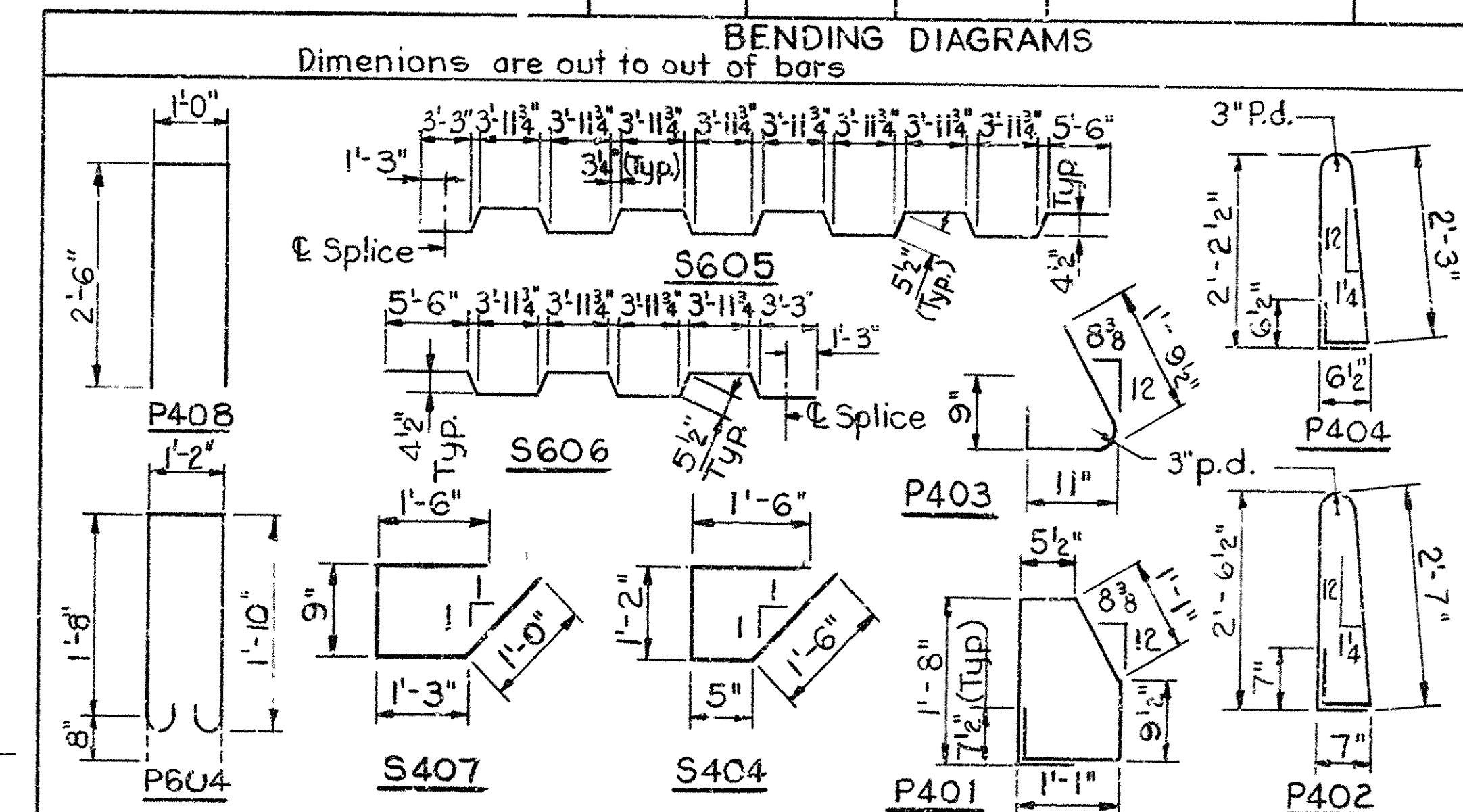
Slab Pouring Sequence: Pours with the same number may be placed simultaneously or separately. All pours (1) must be placed before pours (2) can be placed. Forty-Eight (48) hours shall elapse between pours except 72 hours shall elapse between adjacent pours. The contractor, at his option, may pour bridge 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 parapet sections.



Note: Luminaire Pole Foundations not shown.

SLAB PLAN  
0' 16' 32'

Mark	Size	No. Req'd	Length	Pin Dia.
S401	4	894	32'-8"	Str.
S402	4	1818	34'-2"	Str.
S403	4	2235	33'-3"	Str.
S404	4	168	4'-7"	2"
S405	4	298	30'-9"	Str.
S406	4	447	34'-5"	Str.
S407	4	84	4'-6"	2"
S601	6	1052	43'-0"	Str.
S602	6	1052	26'-0"	Str.
S603	6	1052	39'-0"	Str.
S604	6	1052	30'-0"	Str.
S605	6	1055	44'-9"	4 1/2"
S606	6	1055	27'-0"	4 1/2"
S607	6	576	32'-0"	Str.
S608	6	720	40'-0"	Str.
S609	6	56	7'-2"	Str.
S610	6	1276	6'-0"	Str.
S611	6	32	7'-0"	Str.
P401	4	1424	6'-4"	2"
P402	4	1424	7'-0"	2"
P403	4	2106	3'-6"	2"
P404	4	2106	6'-3"	2"
P405	4	468	15'-8"	Str.
P406	4	42	14'-11"	Str.
P407	4	24	14'-1"	Str.
P408	4	32	6'-5"	2"
P601	6	780	15'-8"	Str.
P602	6	70	14'-11"	Str.
P603	6	40	14'-1"	Str.
P604	6	64	5'-10"	4 1/2"



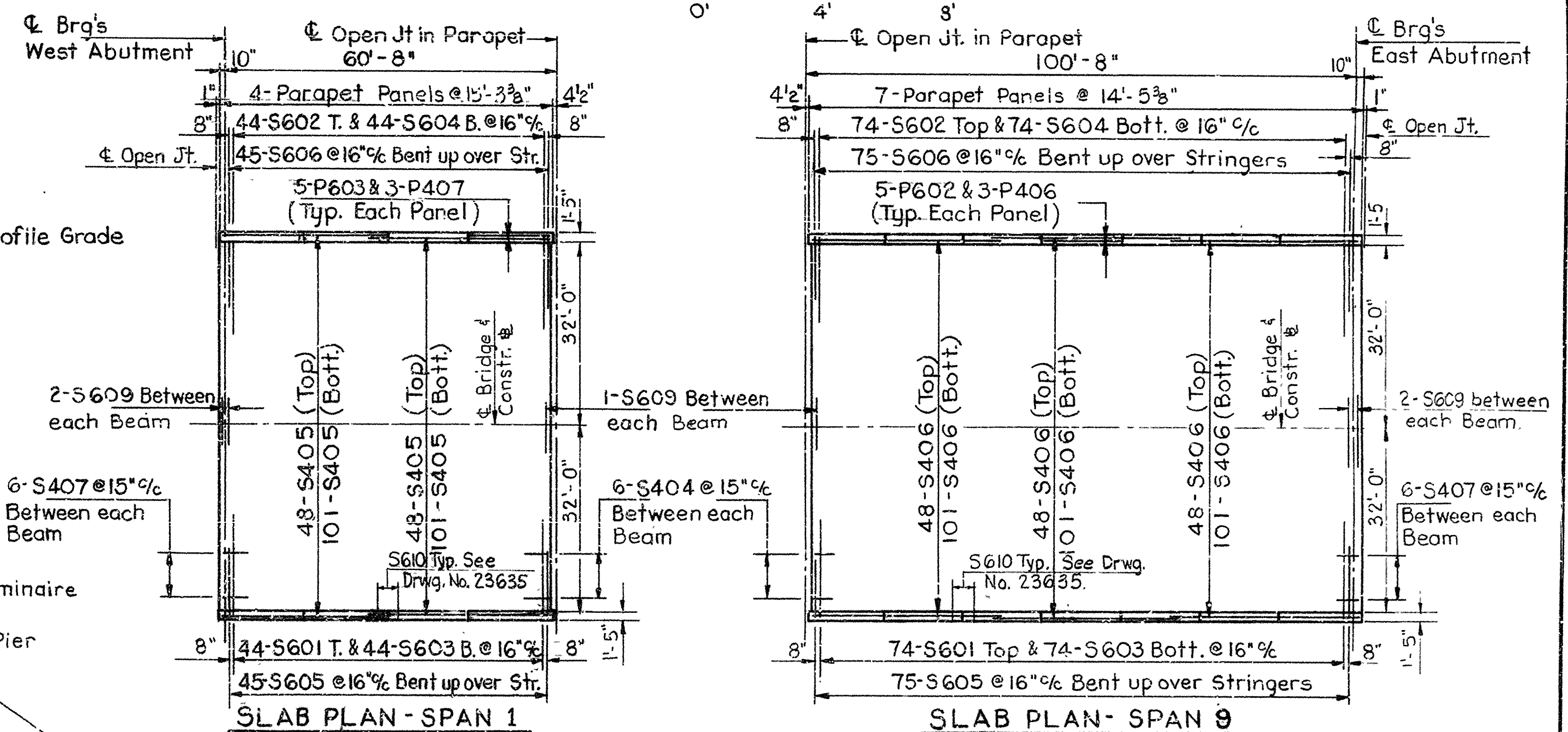
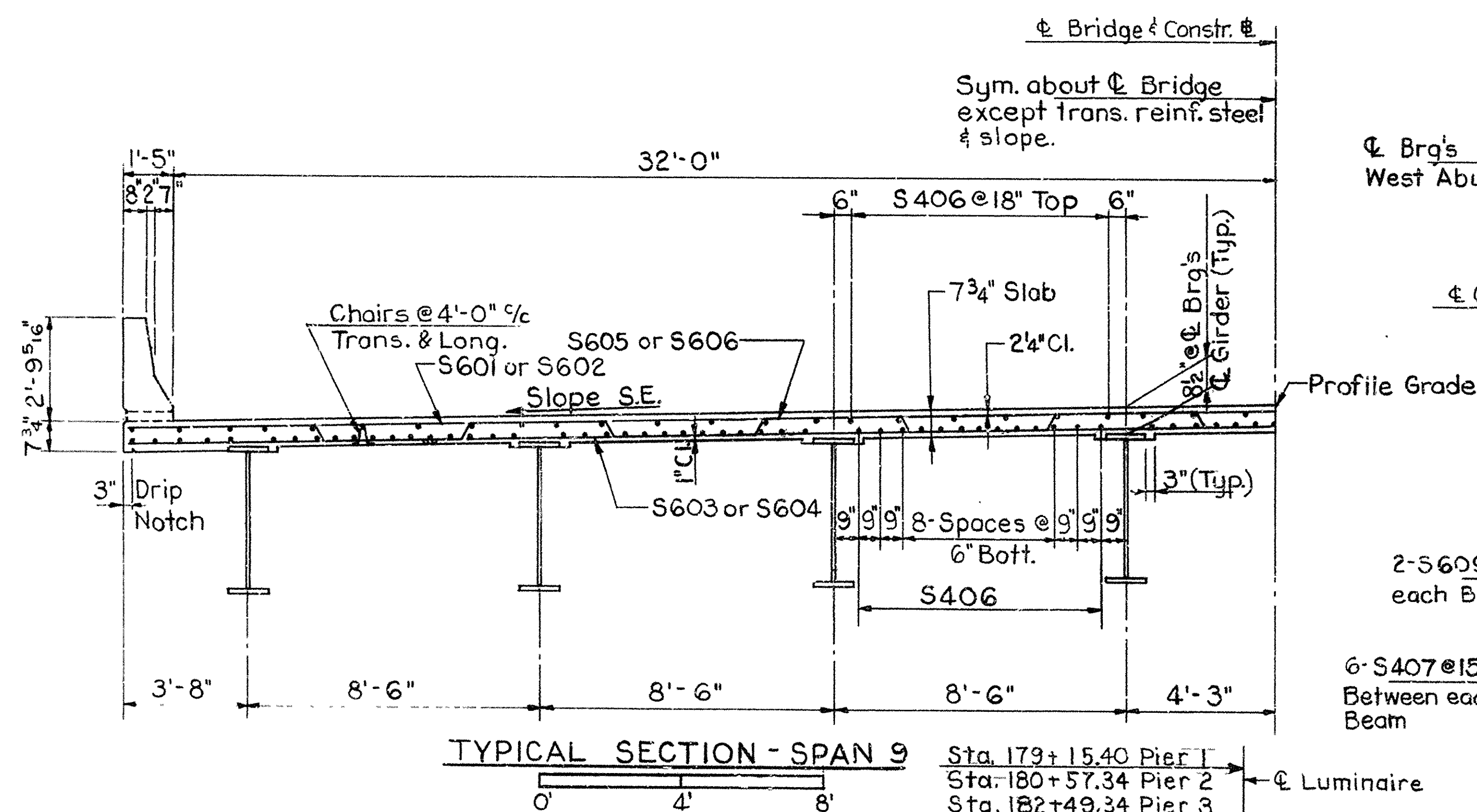
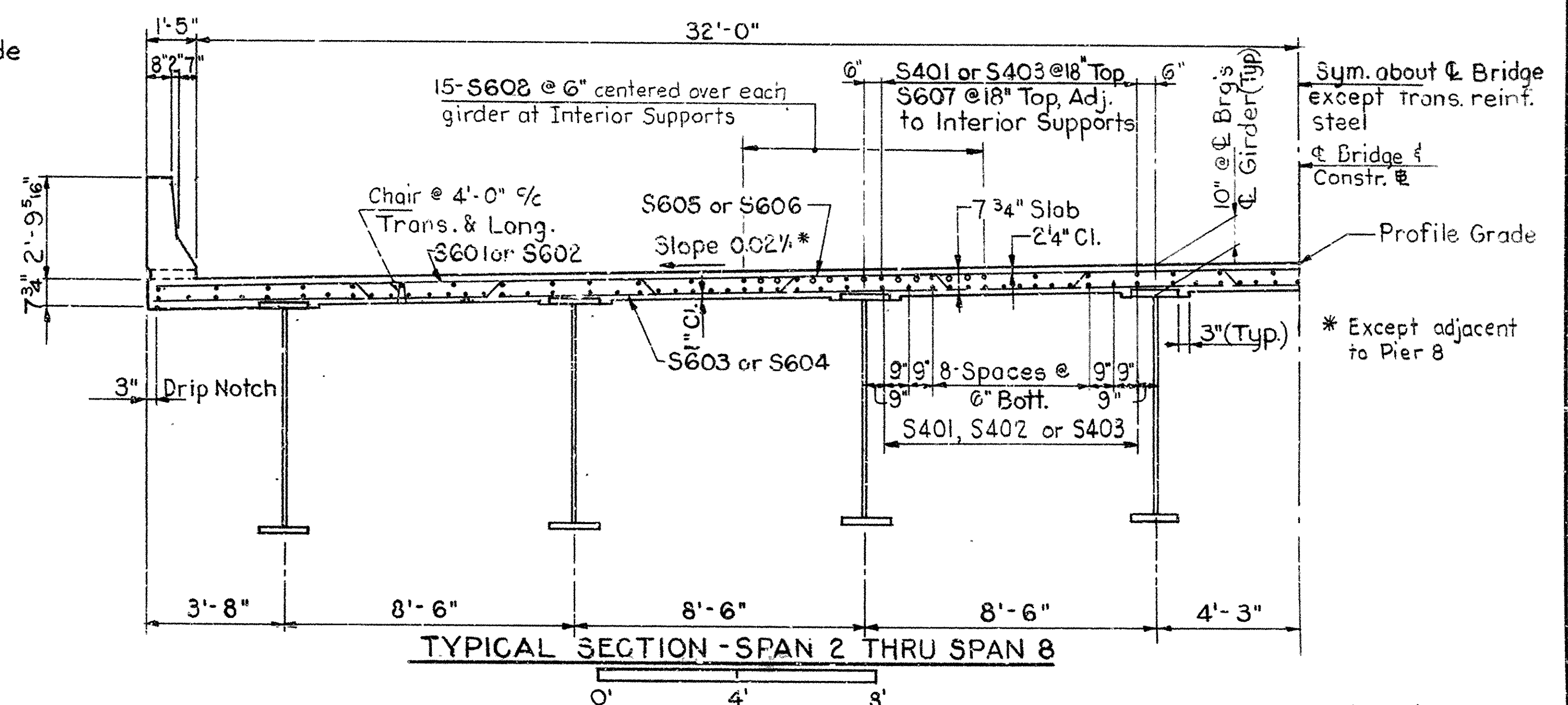
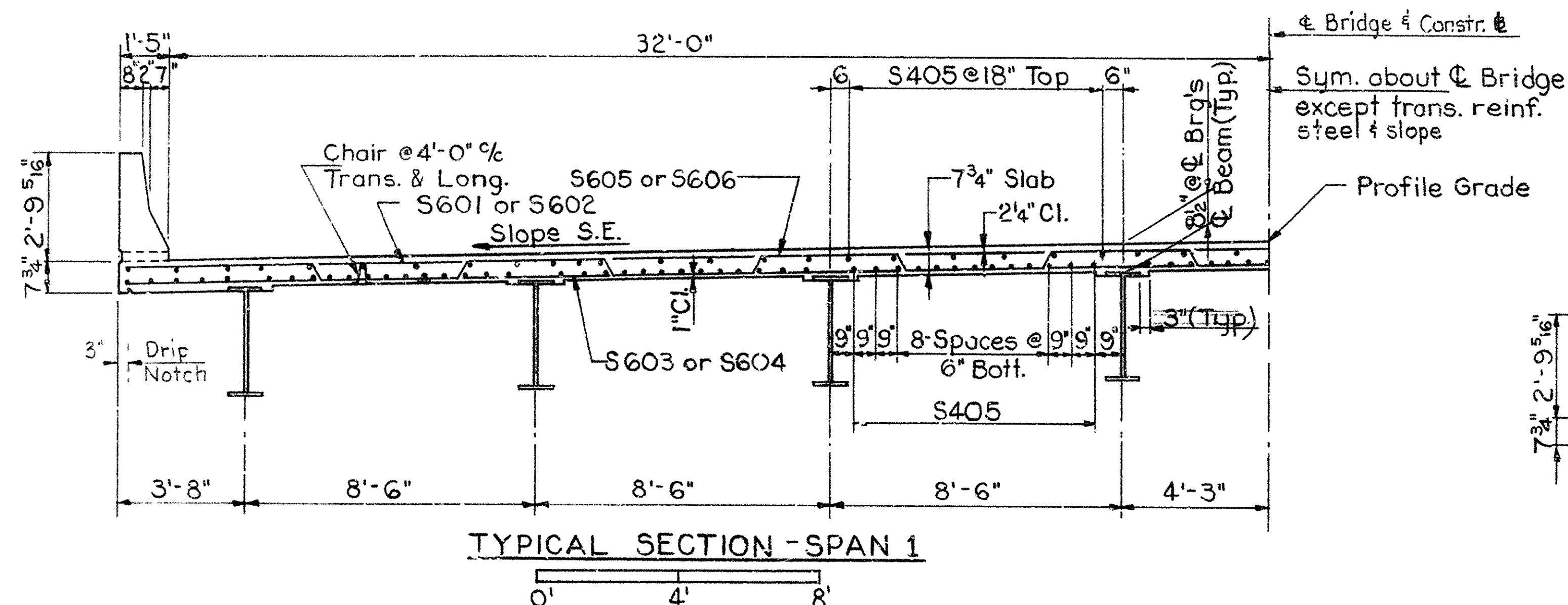
- Notes:
- For Typical Sections and Slab Plans for Spans 1 and 9 see Dwg. No. 23634.
  - For Reinforcing & Details of Parapet, See Dwg. No. 23635.
  - For Construction Joint Details and Luminaire Pole Foundation locations, see Dwg. No. 23634.

PLAN OF DECK SLAB  
CONTINUOUS SPANS  
OUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY  
ROUTE 70 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

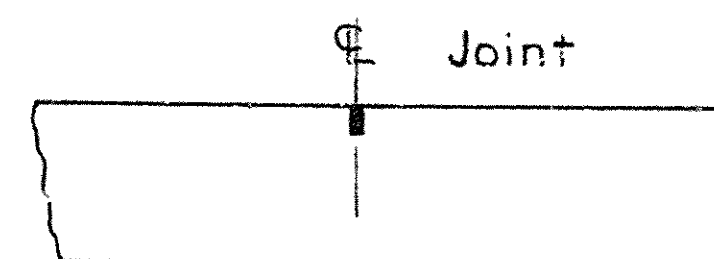
DRAWN BY: JFW  
CHECKED BY: R.E.C.  
DESIGNED BY: R.A. 1668  
DATE: 5/98  
SCALE: As Shown  
BRIDGE NO. 5872  
DRAWING NO. 23633



DATE	BY	DATE	BY	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BRF-014-2(23)	45	89
				JOB NO.		60092		
				5872		DECK SLAB DET.		23634



1/4" x 1" Poured Asphalt Joint in slab  
to be paid for as Class (S(AE)) Concrete



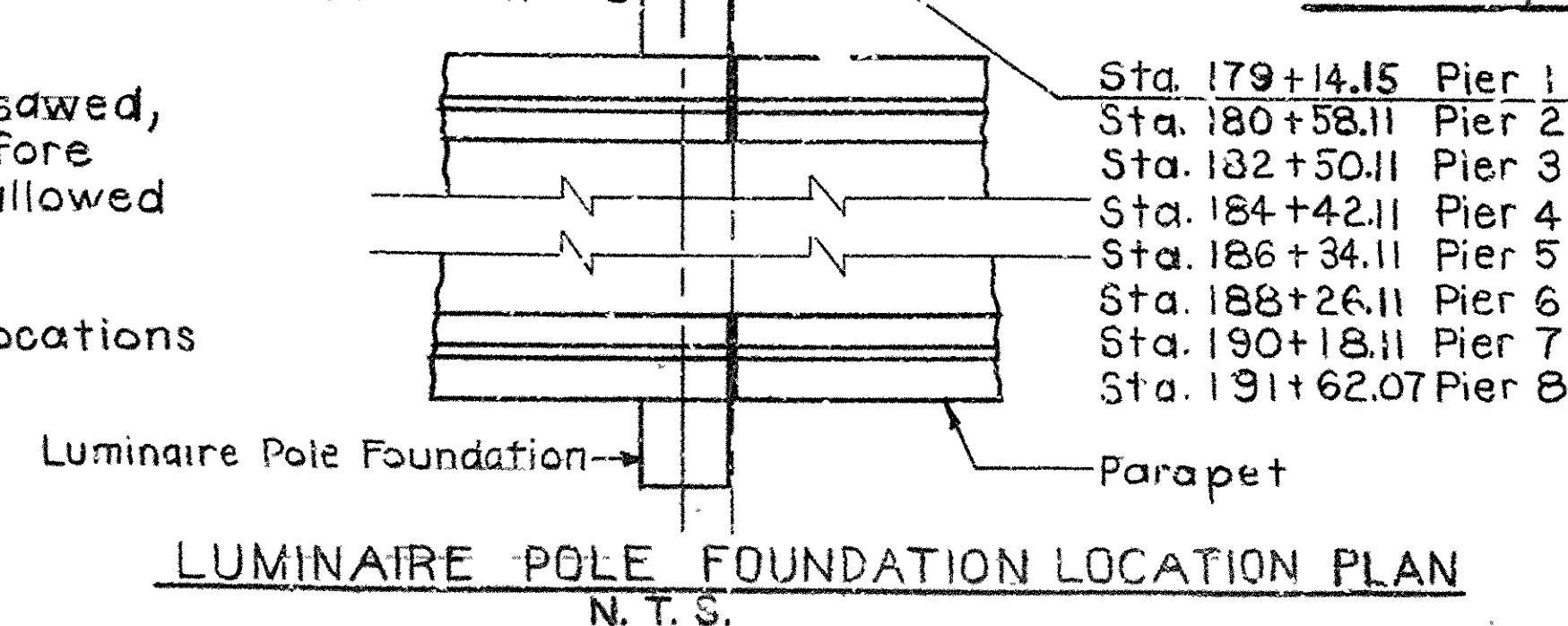
If slab joints are to be sawed,  
they shall be sawed before  
any vehicular traffic is allowed  
on the span unit.

See Dwg. No. 23633 for locations  
of construction joints.

SLAB CONSTRUCTION JOINT DETAIL

N.T.S.

Sta. 179+15.40 Pier 1  
Sta. 180+57.34 Pier 2  
Sta. 182+49.34 Pier 3  
Sta. 184+41.34 Pier 4  
Sta. 186+34.88 Pier 5  
Sta. 188+26.88 Pier 6  
Sta. 190+18.88 Pier 7  
Sta. 191+60.82 Pier 8



N.T.S.

#### Notes:

- For bar list see Dwg. No. 23633
- For reinforcing and details of Parapet see Dwg. No. 23635
- For details of Luminaire Pole Foundation see Dwg. No. 23635

#### PLAN OF DECK SLAB - SIMPLE SPANS CROSS SECTIONS - ALL SPANS OUACHITA RIVER BRIDGE AND APPROACHES GARLAND COUNTY

ROUTE 70 SEC. 8

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: JFW DATE: \_\_\_\_\_  
CHECKED BY: D.F.G. DATE: \_\_\_\_\_  
DESIGNED BY: DPA DATE: 5/9/80

SCALE: As Shown

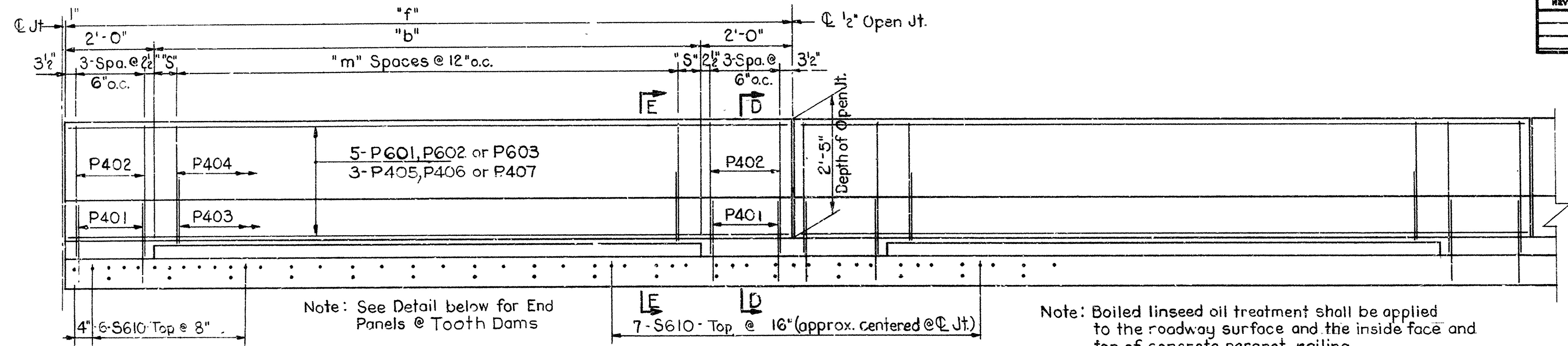
BRIDGE NO. 5872

DRAWING NO. 23634

BRIDGE ENGINEER



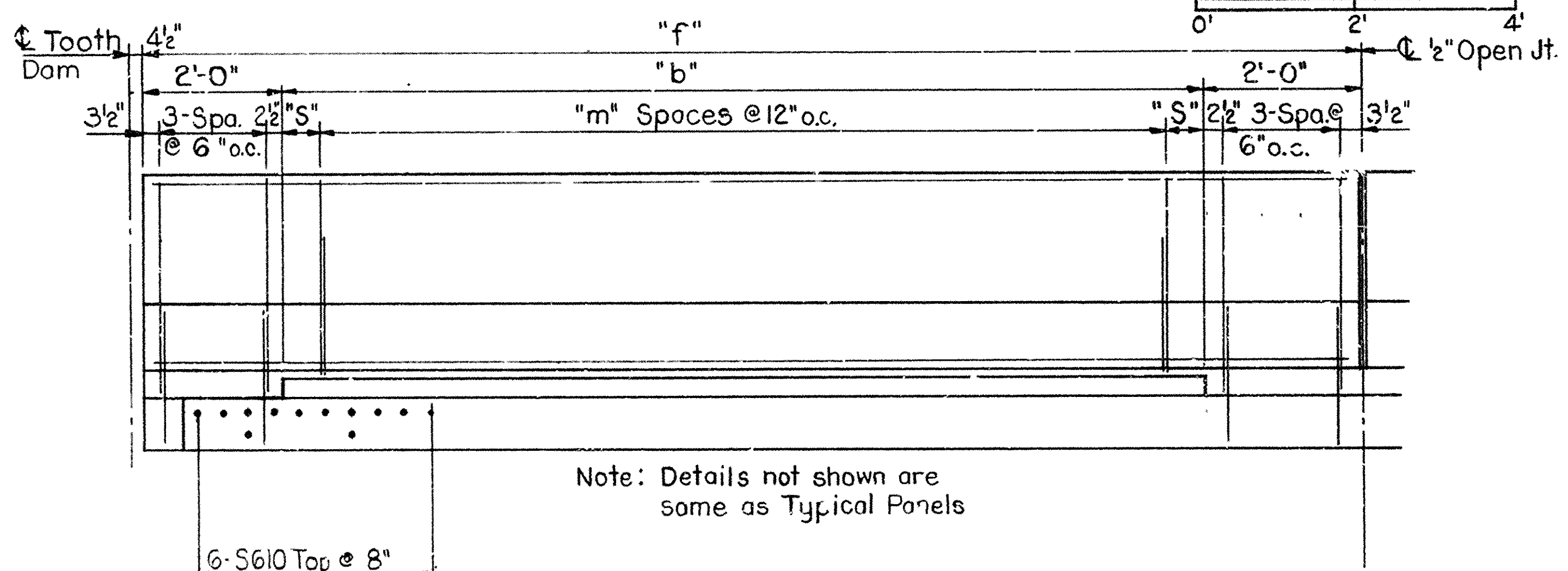
DATE REVIEWED	DATE FILMED	DATE REVIEWED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BRF-CH-2(23)	46	89
				JOB NO.	60092			
				5872	PARAPET DET.			23635



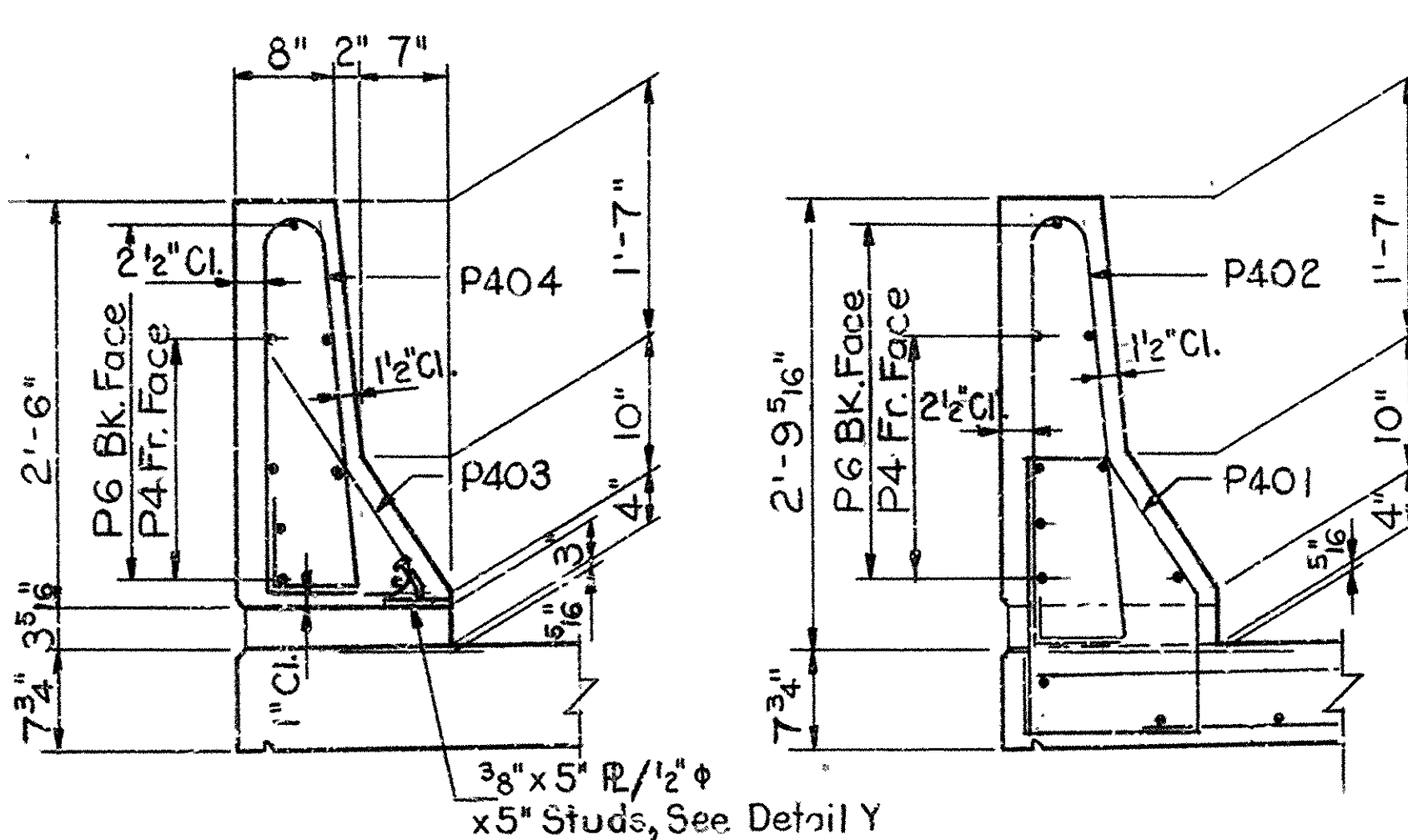
TYPICAL END PANEL

See Slab Plan for location  
Dwg.No. 23634 for others Dwg.No. 23633

LONGITUDINAL SECTION AT CURB  
FOR OPEN PARAPET RAILING

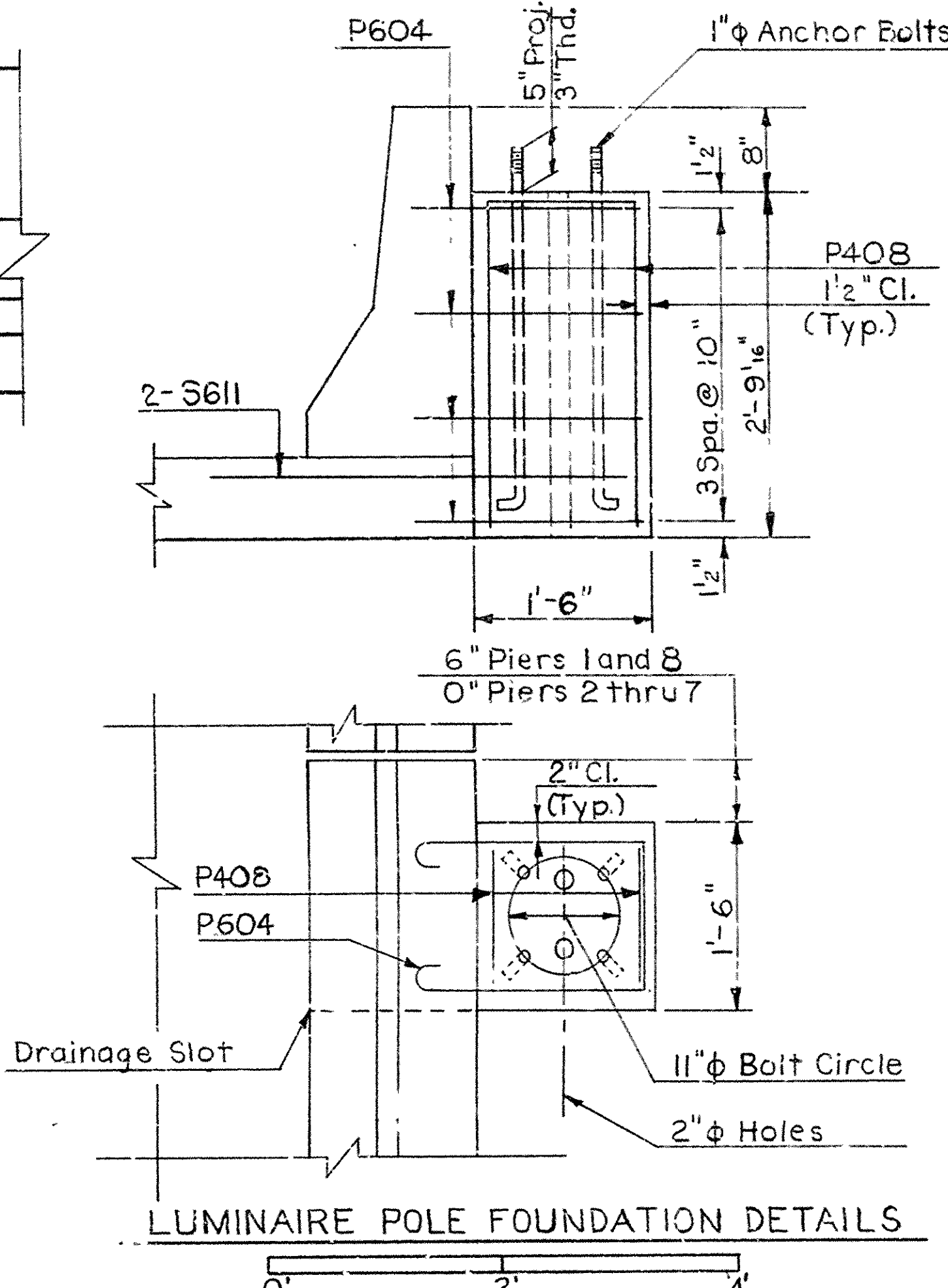


END PANEL ADJACENT TO TOOTH DAMS



## SECTION E-E

## SECTION D-D

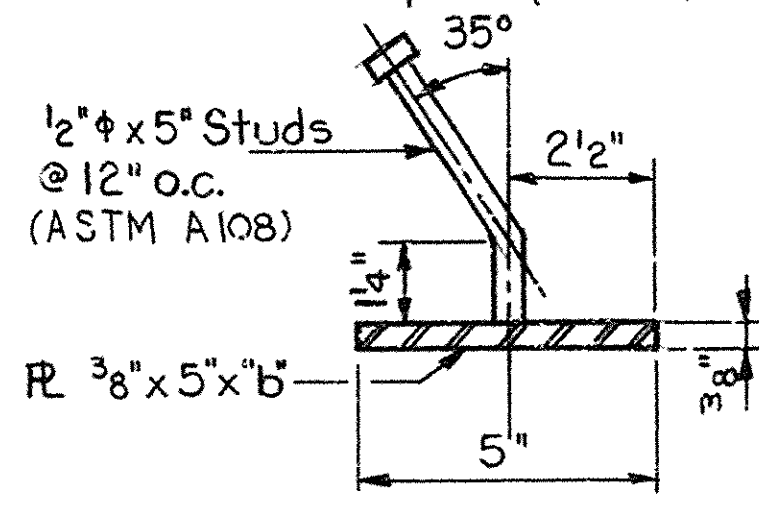


## LUMINAIRE POLE FOUNDATION DETAILS

Notes:  
For Bar Lengths and Bends see Dwg. No. 23633  
For Luminaire Pole Foundation Locations see  
Dwg. No. 23634

VARIABLES FOR PARAPET RAILING						
Spans	Panels	No.	"f"	"b"	"m"	"s"
2 thru 8	Interior	152	16'-0"	12'-0"	11	6"
	Tooth Dam	4	15'-11 $\frac{1}{2}$ "	11'-11 $\frac{1}{2}$ "	11	5 $\frac{3}{4}$ "
1	Others	8	14'-5 $\frac{3}{8}$ "	10'-5 $\frac{3}{8}$ "	9	5 $\frac{1}{16}$ "
9	Others	14	15'-3 $\frac{3}{8}$ "	11'-3 $\frac{3}{8}$ "	10	7' 1 $\frac{1}{16}$ "

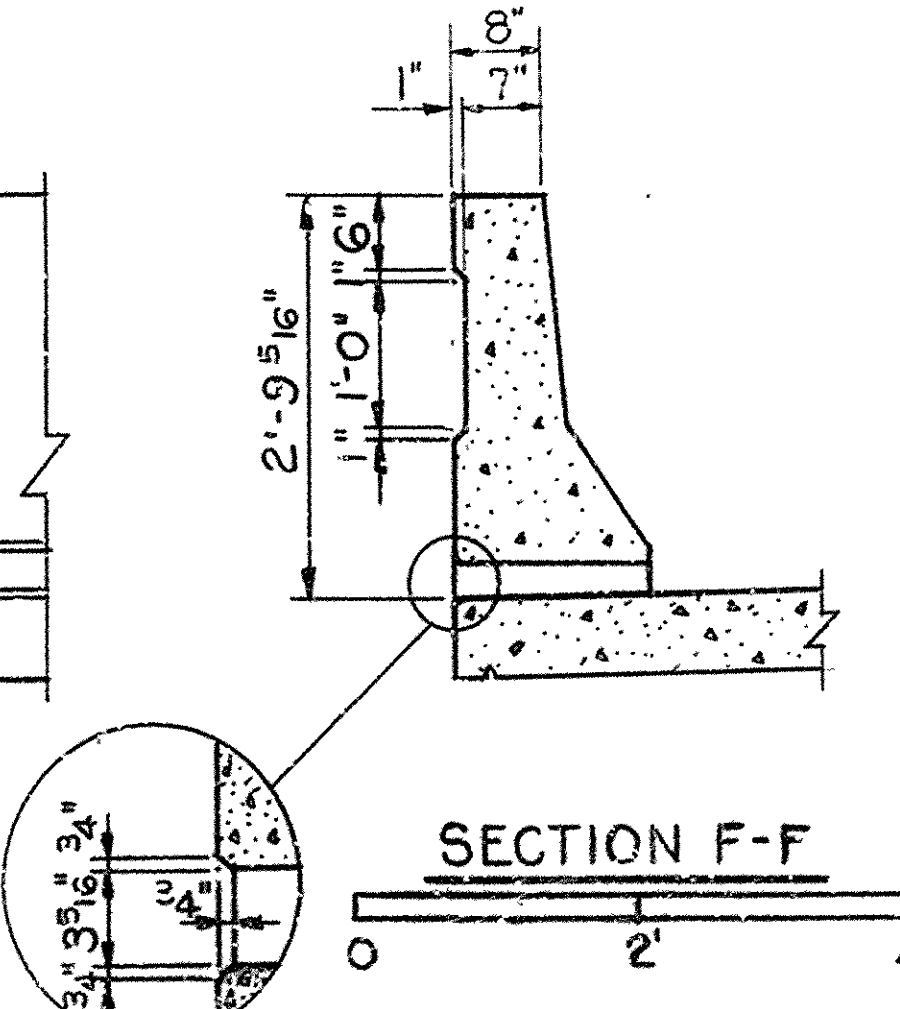
Note: Studs shall be 5" long, granular flux filled, solid flux or equal and automatically welded to plate. Studs and plate to be measured and paid for as Structural Steel in Beam Spans (A588) or Structural Steel in Plate Girder Spans (A-588).



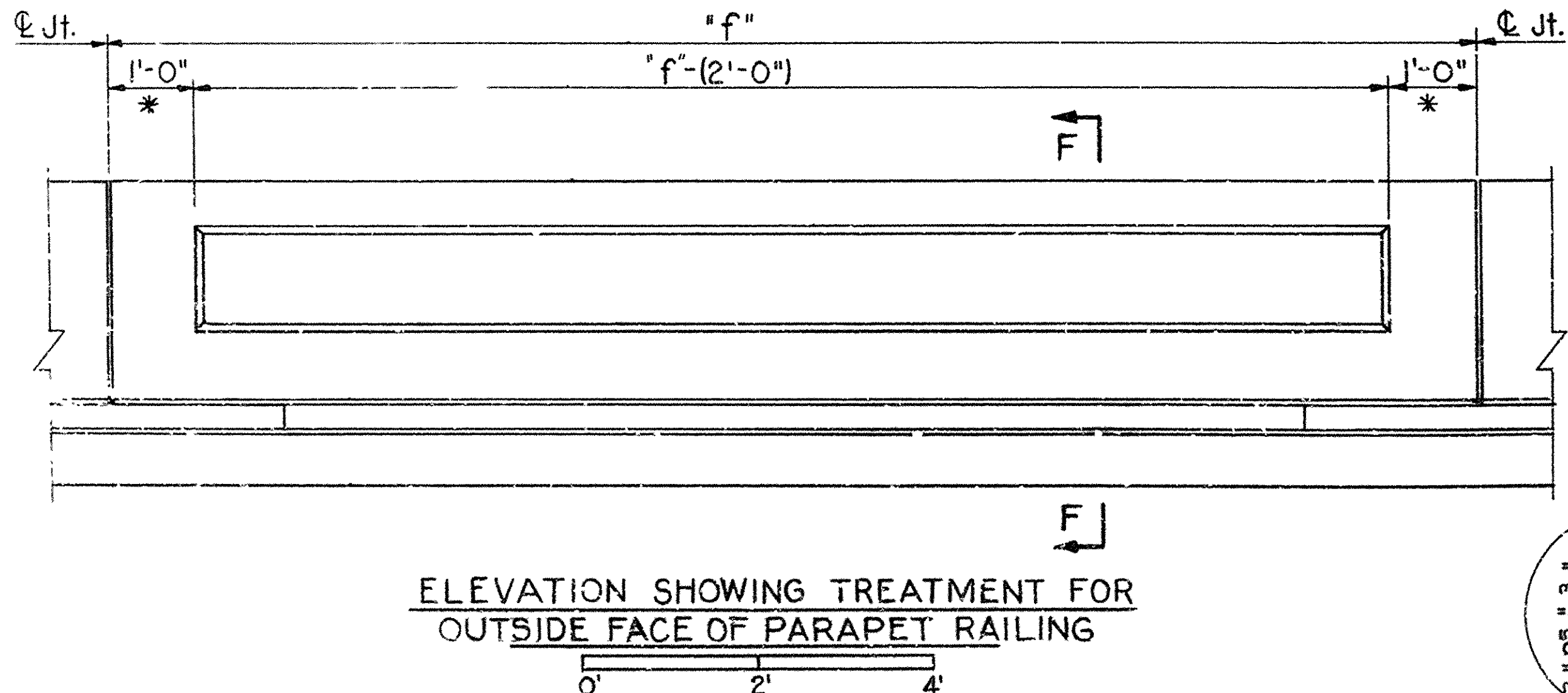
DETAIL Y

NTS

Note: The surfaces of the 38" R which will not be in contact with concrete shall receive two coats of paint in the shop. These coats shall be those specified as First Shop and Second Field coat in sub-section 807.59 (a) and 807.59 (c).



## SECTION F-F



ELEVATION SHOWING TREATMENT FOR  
OUTSIDE FACE OF PARAPET RAILING

\* This dimension will vary at the Locations of Luminaire Pole Foundations.

DETAILS OF PARAPET RAILING  
QUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY

ROUTE 70 SEC. 8

**ARKANSAS STATE HIGHWAY COMMISSION**

LITTLE ROCK, ARK.

DRAWN BY: JFW DATE: \_\_\_\_\_  
CHECKED BY: P.F.A. DATE: \_\_\_\_\_  
DESIGNED BY: PPA/GGB DATE: 5/9/80

SCALE: AS SHOWN

BRIDGE NO. 5872

**DRAWING NO. 23635**

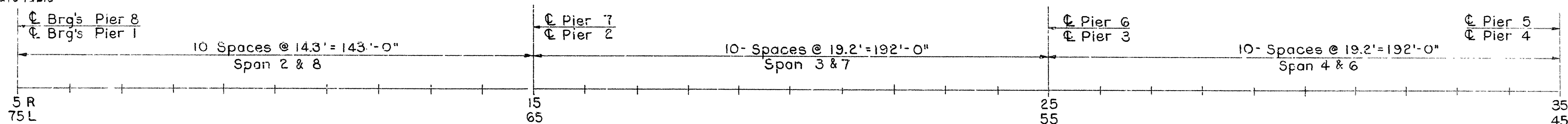
## BRIDGE ENGINEER



### ROADWAY ELEVATIONS & DEAD LOAD DEFLECTIONS

Order	Points →	* 5 R	74 6	73 7	72 8	71 9	70 10	69 11	68 12	67 13	66 14	65 15	64 16	63 17	62 18	61 19	60 20	59 21	58 22	57 23	56 24	55 25	54 26	53 27	52 28	51 29	50 30	49 31	48 32	47 33	46 34
A, H	Rdwy. Elev.	430.226	430.555	430.884	431.213	431.542	431.870	432.199	432.528	432.857	433.186	433.515	433.857	434.398	434.840	435.281	435.723	436.165	436.606	437.048	437.489	437.931	438.373	438.814	439.238	439.628	439.984	440.306	440.595	440.849	441.069
	Conc. Defl.	0.0	0.075	0.131	0.176	0.186	0.176	0.141	0.091	0.040	0.005	0.0	0.045	0.126	0.211	0.272	0.292	0.285	0.196	0.111	0.035	0.0	0.025	0.091	0.166	0.226	0.252	0.231	0.171	0.096	0.030
B, G	Rdwy. Elev.	430.396	430.725	431.054	431.383	431.712	432.040	432.369	432.698	433.027	433.356	433.685	434.127	434.568	435.010	435.451	435.893	436.335	436.776	437.218	437.659	438.101	438.543	438.984	439.408	439.798	440.154	440.476	440.765	441.019	441.239
	Conc. Defl.	0.0	0.078	0.135	0.182	0.193	0.182	0.146	0.094	0.042	0.005	0.0	0.047	0.130	0.219	0.281	0.302	0.276	0.203	0.115	0.036	0.0	0.026	0.094	0.172	0.234	0.260	0.240	0.177	0.099	0.031
C, F	Rdwy. Elev.	430.566	430.895	431.224	431.553	431.882	432.210	432.539	432.868	433.197	433.526	433.855	434.297	434.738	435.180	435.621	436.063	436.505	436.946	437.388	437.829	438.271	438.713	439.154	439.578	439.968	440.324	440.646	440.935	441.139	441.409
	Conc. Defl.	0.0	0.078	0.135	0.182	0.193	0.182	0.146	0.094	0.042	0.005	0.0	0.047	0.130	0.219	0.281	0.302	0.276	0.203	0.115	0.036	0.0	0.026	0.094	0.172	0.234	0.260	0.240	0.177	0.099	0.031
D, E	Rdwy. Elev.	430.736	431.065	431.394	431.723	432.052	432.380	432.709	433.038	433.367	433.696	434.025	434.467	434.908	435.350	435.791	436.233	436.675	437.116	437.558	437.999	438.441	438.883	439.324	439.748	440.138	440.494	440.816	441.105	441.359	441.579
	Conc. Defl.	0.0	0.078	0.135	0.182	0.193	0.182	0.146	0.094	0.042	0.005	0.0	0.047	0.130	0.219	0.281	0.302	0.276	0.203	0.115	0.036	0.0	0.026	0.094	0.172	0.234	0.260	0.240	0.177	0.099	0.031

\* For 75 L See Separate Table



## ROADWAY ELEVATIONS & DEAD LOAD DEFLECTIONS

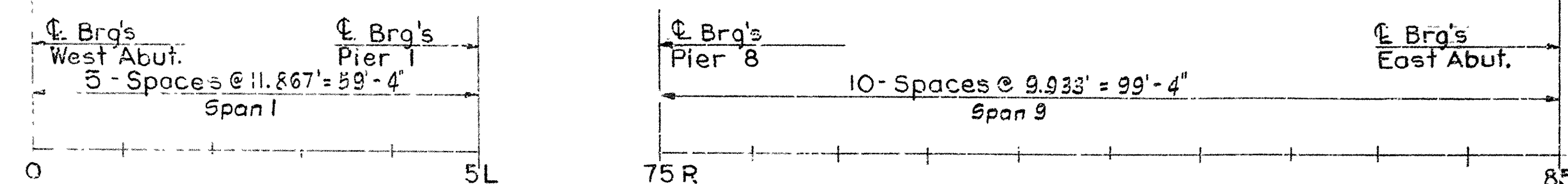
Beam	Points →	0	1	2	3	4	5L	75R	76	77	78	79	80	81	82	83	84	85
A	Rdwy. Elev.	428.800	429.073	429.346	429.619	429.892	430.165	430.165	429.936	429.708	429.479	429.251	429.028	428.812	428.601	428.398	428.200	427.932
	Conc. Defl.	0.0	0.050	0.085	0.085	0.050	0.0	0.0	0.079	0.144	0.199	0.228	0.238	0.228	0.199	0.144	0.079	0.0
B	Rdwy. Elev.	428.970	429.243	429.516	429.789	430.062	430.335	430.335	430.106	429.878	429.649	429.421	429.198	428.982	428.771	428.568	428.370	428.124
	Conc. Defl.	0.0	0.052	0.089	0.089	0.052	0.0	0.0	0.083	0.151	0.208	0.240	0.250	0.240	0.208	0.151	0.083	0.0
C	Rdwy. Elev.	429.140	429.413	429.686	429.959	430.232	430.505	430.505	430.276	430.048	429.819	429.591	429.368	429.152	428.941	428.738	428.540	428.316
	Conc. Defl.	0.0	0.052	0.083	0.089	0.052	0.0	0.0	0.083	0.151	0.208	0.240	0.250	0.240	0.208	0.151	0.083	0.0
D	Rdwy. Elev.	429.310	429.583	429.856	430.129	430.402	430.675	430.675	430.446	430.218	429.989	429.761	429.538	429.322	429.111	428.908	428.710	428.508
	Conc. Defl.	0.0	0.052	0.089	0.089	0.052	0.0	0.0	0.083	0.151	0.208	0.240	0.250	0.240	0.208	0.151	0.083	0.0
E	Rdwy. Elev.	429.370	429.623	429.875	430.129	430.402	430.675	430.690	430.478	430.266	430.055	429.844	429.638	429.438	429.245	429.058	428.877	428.700
	Conc. Defl.	0.0	0.052	0.089	0.089	0.052	0.0	0.0	0.083	0.151	0.208	0.240	0.250	0.240	0.208	0.151	0.083	0.0
F	Rdwy. Elev.	429.320	429.532	429.745	429.959	430.232	430.505	430.549	430.372	430.194	430.016	429.839	429.666	429.500	429.341	429.188	429.041	428.892
	Conc. Defl.	0.0	0.052	0.089	0.089	0.052	0.0	0.0	0.083	0.151	0.208	0.240	0.250	0.240	0.208	0.151	0.083	0.0
G	Rdwy. Elev.	429.270	429.442	429.614	429.789	430.062	430.335	430.409	430.265	430.121	429.977	429.833	429.695	429.563	429.437	429.318	429.205	429.084
	Conc. Defl.	0.0	0.052	0.089	0.089	0.052	0.0	0.0	0.083	0.151	0.208	0.240	0.250	0.240	0.208	0.151	0.083	0.0
H	Rdwy. Elev.	429.220	429.351	429.483	429.619	429.892	430.165	430.269	430.159	430.049	429.938	429.828	429.723	429.625	429.533	429.448	429.369	429.277
	Conc. Defl.	0.0	0.050	0.085	0.085	0.050	0.0	0.0	0.079	0.144	0.199	0.228	0.238	0.228	0.199	0.144	0.079	0.0

### ROADWAY ELEVATIONS & DEAD LOAD DEFLECTIONS

Girder		Points →	45 35	44 36	43 37	42 38	41 39	40
2	A, H	Rdwy. Elev.	441.2	441.409	441.527	441.612	441.663	441.680
		Conc. Defl.	0.0	0.035	0.111	0.191	0.257	0.277
	B, G	Rdwy. Elev.	441.426	441.579	441.697	441.782	441.833	441.850
		Conc. Defl.	0.0	0.036	0.115	0.198	0.266	0.286
6	C, F	Rdwy. Elev.	441.596	441.749	441.867	441.952	442.003	442.020
		Conc. Defl.	0.0	0.036	0.115	0.198	0.266	0.286
8	D, E	Rdwy. Elev.	441.766	441.919	442.037	442.122	442.173	442.190
		Conc. Defl.	0.0	0.036	0.115	0.198	0.266	0.286

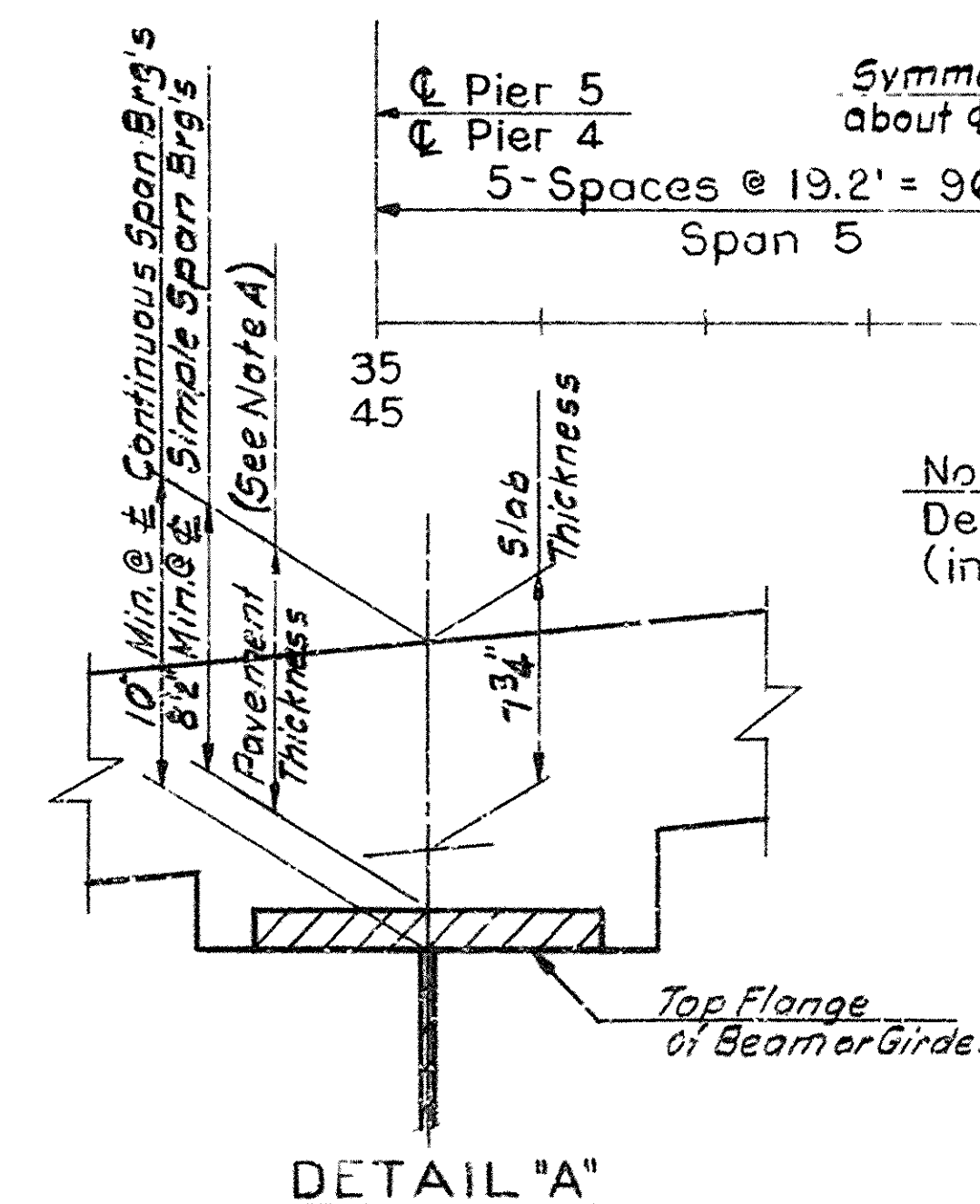
ROADWAY ELEV. & D.L. DEFLECTIONS

Girder	Points $\rightarrow$	75 L
A	Roadway Elev.	430.226
	Concrete Defl.	0.0
B	Roadway Elev.	430.396
	Concrete Defl.	0.0
C	Roadway Elev.	430.566
	Concrete Defl.	0.0
D	Roadway Elev.	430.736
	Concrete Defl.	0.0
E	Roadway Elev.	430.746
	Concrete Defl.	0.0
F	Roadway Elev.	430.597
	Concrete Defl.	0.0
G	Roadway Elev.	430.443
	Concrete Defl.	0.0
H	Roadway Elev.	430.299
	Concrete Defl.	0.0



Note A:

After all *girders* and crossframes have been erected and false work removed, the Contractor shall take elevations along the tops of the *girders* at points where the elevations are shown in the tables - "Roadway Elevations". The difference between these elevations and the given top of pavement elevations plus the amount of deflection as given in the table will be the thickness of the pavement over the *girders* at these points. The minimum slab thickness over the *girders* shall not be less than shown in Detail "A" at the center of the web. If the *girders* have excess camber and this minimum thickness cannot be obtained, the grade line shall be adjusted to obtain this minimum thickness.



Note: Deflections shown in table above are deflections (in feet) due to slab and parapet loads.

TABLE OF ELEVATIONS AND DEFLECTIONS  
OUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY

**ROUTE 70 SEC. 8**

**ARKANSAS STATE HIGHWAY COMMISSION**

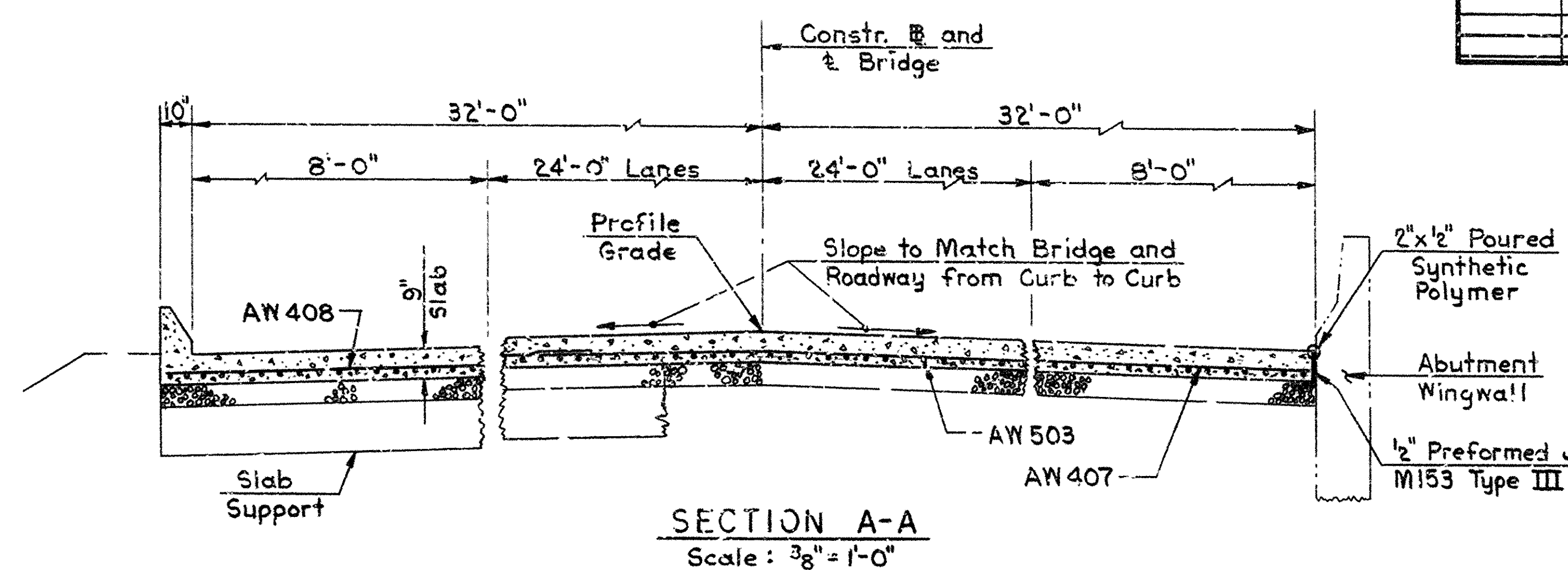
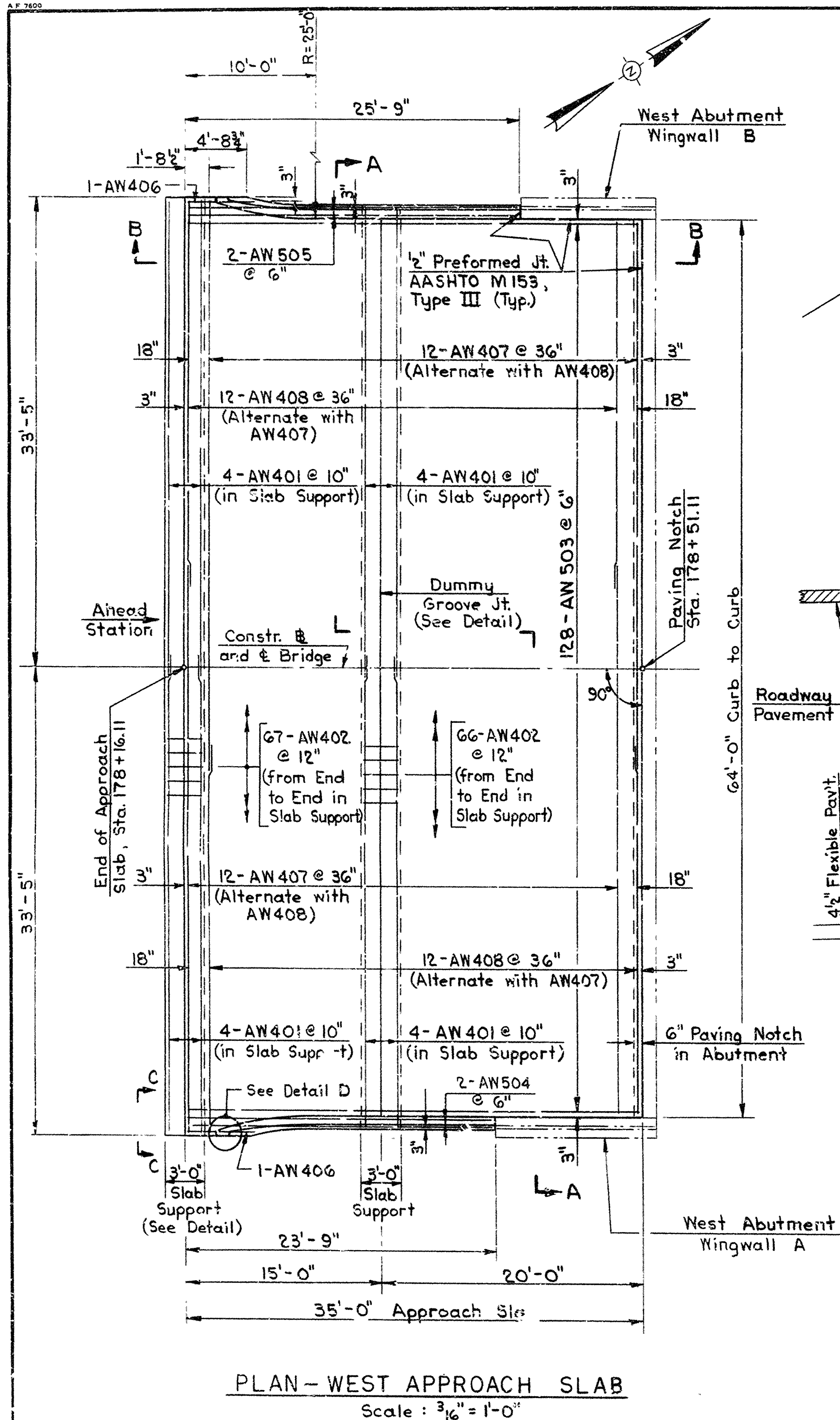
LITTLE ROCK, ARK.

DRAWN BY: FW-S.F. DATE: \_\_\_\_\_  
CHECKED BY: GGB DATE: 5/12/80 SCALE: No Scale  
DESIGNED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

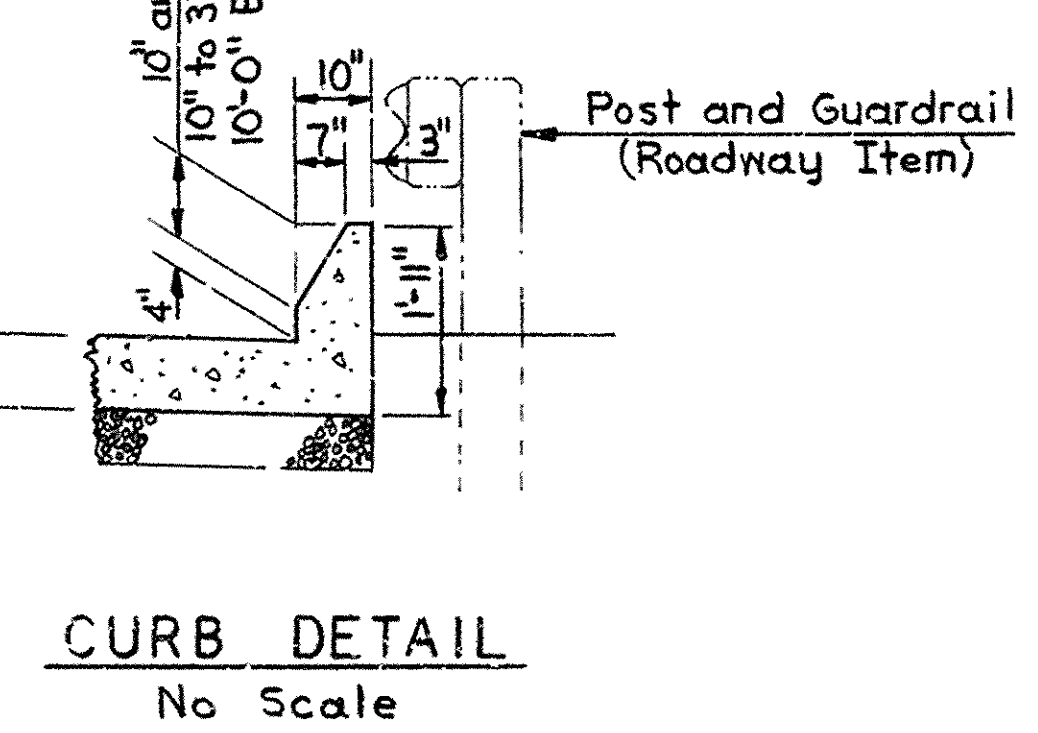
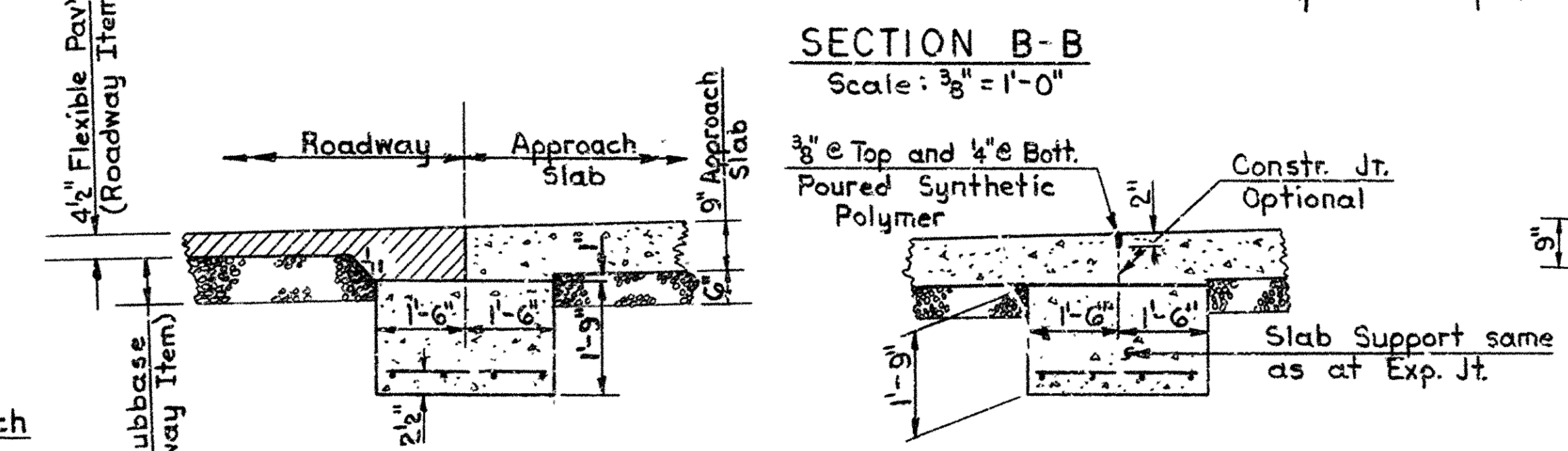
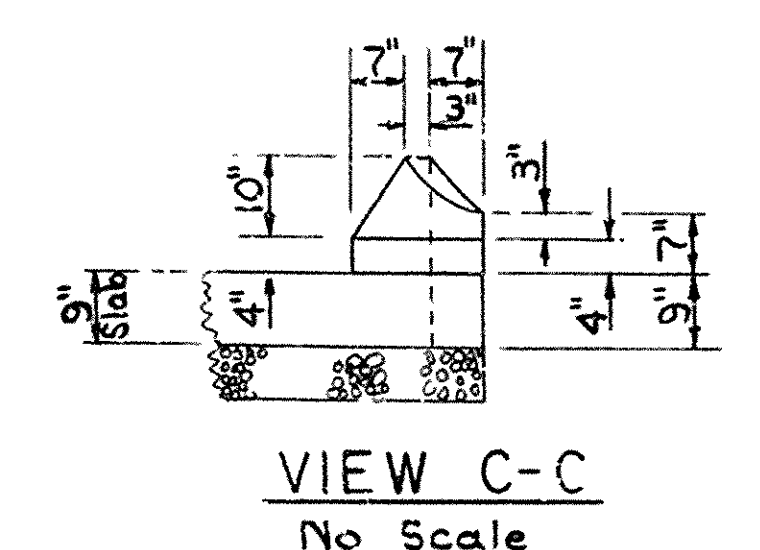
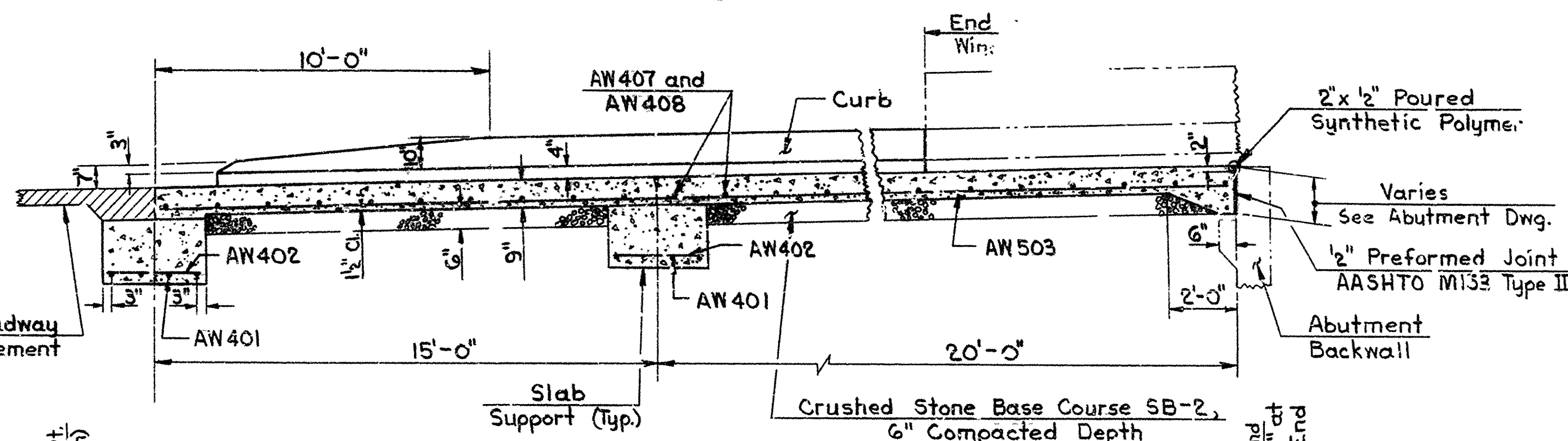
BRIDGE NO. 5872      DRAWING NO. 23636



DATE	REVISION	DATE	REVISION	DATE	REVISION	DATE	REVISION	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
								6	ARK.	BRF-014-2(22)	48	22
5872 DET. OF APPR. SLAB W. ABUT. 23637												



BAR LIST					REMARKS
MARK	SIZE	No.	LENGTH		
AW401	4	16	34'-0"		All Straight Bars
AW402	4	133	2'-8"		
AW503	5	126	34'-8"		
AW504	5	2	23'-5"		
AW505	5	2	25'-5"		
AW406	4	2	4'-2"		
AW407	4	24	40'-0"		
AW408	4	24	28'-0"		



DETAIL OF SLAB SUPPORT AT END OF APPROACH SLAB  
Scale: 1/2" = 1'-0"

DETAIL OF DUMMY GROOVED JOINT  
Scale: 1/2" = 1'-0"

APPROXIMATE QUANTITIES				
ITEM	UNIT	SLAB SUPPORTS	SLAB AND CURB	TOTAL
Class S Concrete	C.Y.	26	67	93
Reinforcing Steel	LBS.	600	5830	6430
Crushed Stone Base Course, SB-2	C.Y.	—	—	36
1/2" Preformed Joint AASHTO M153 Type III	L.F.	—	—	87

**General Notes for Approach Slabs:**

- Approach Slabs and Gutters for Structures shall be paid for at the Contract Unit price each bid for "Approach Slabs and Gutters (Special)", which price shall be full compensation for furnishing materials, including concrete, reinforcing steel and joint filler, placement and compaction of base material; forms, mixing, placing, curing and finishing; for excavation and backfill; and for all labor, tools, equipment and incidentals necessary to complete the work.

- All Concrete shall be Class S.
- Reinforcement Steel shall conform to ASTM A615 or A617, Grade 60.
- Surface finish for Approach Slabs shall match that used on bridge deck.
- Cross-slopes of Gutter Slabs shall match Approach Slab cross-slopes.

DETAILS OF APPROACH SLAB, WEST ABUTMENT  
OUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY

ROUTE 70 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: T.M.K. DATE: 5-9-80  
CHECKED BY: P.L.K. DATE: 5-9-80  
DESIGNED BY: J.D.A. DATE: 5-9-80

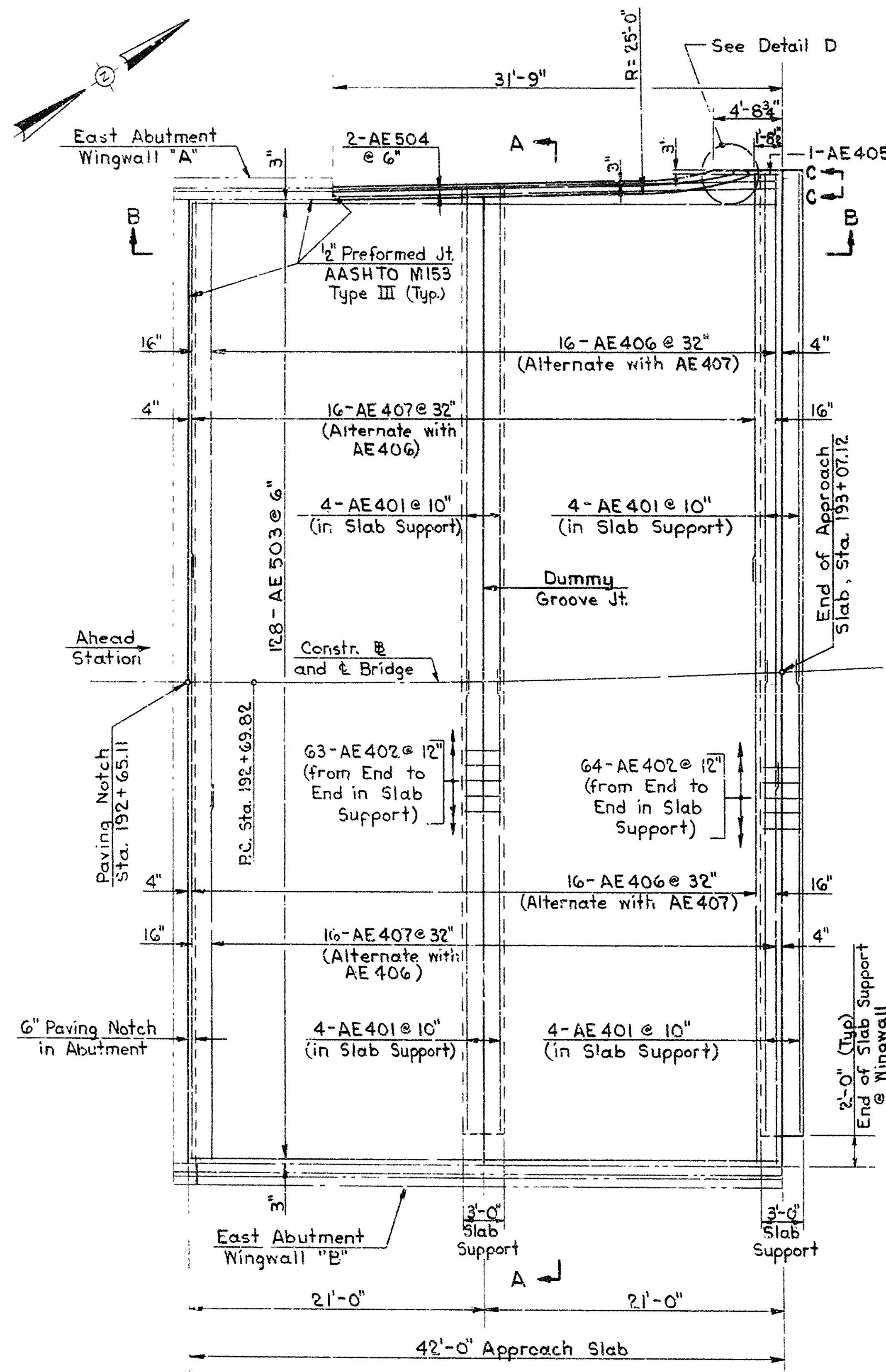
BRIDGE NO. 60092 DRAWING NO. 23637



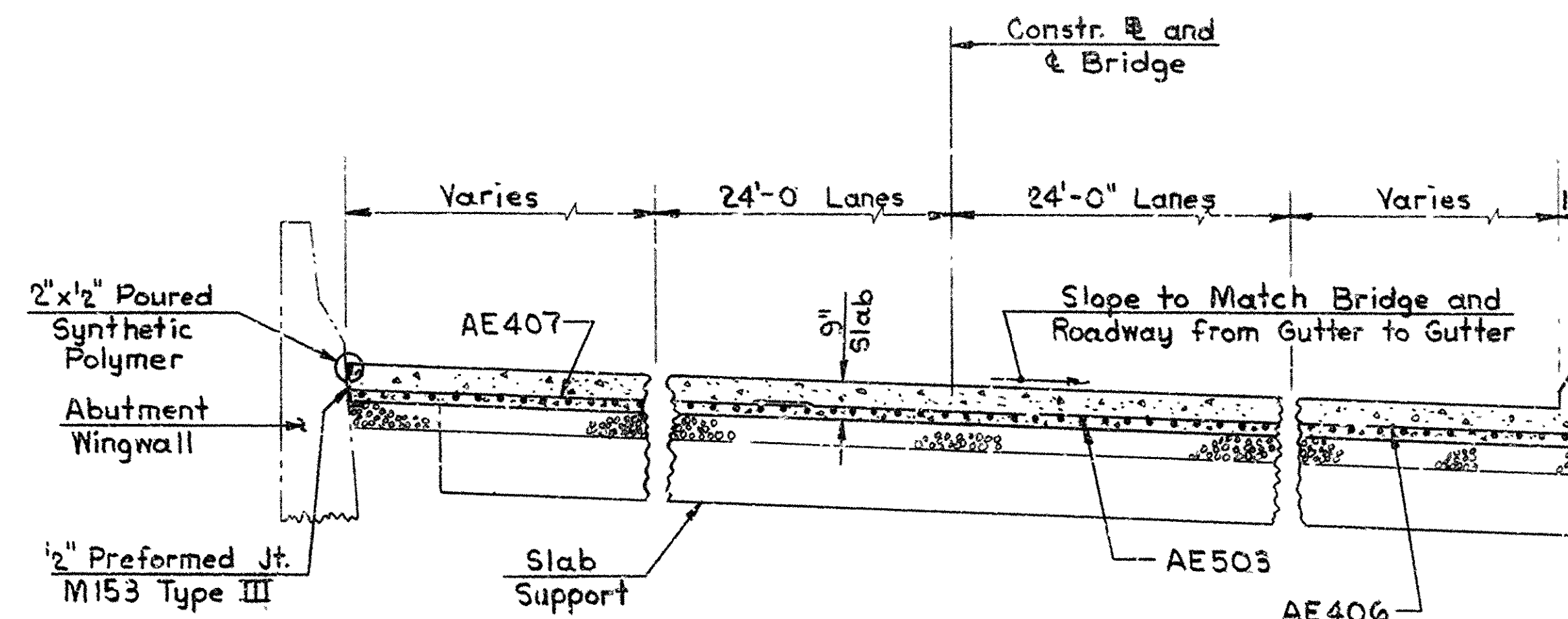
DATE REVISION	DATE REVISION	DATE REVISION	DATE REVISION	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BRF-014-2(23)	49	50

5872 DET. OF APPR. SLAB E. ABUT 23638

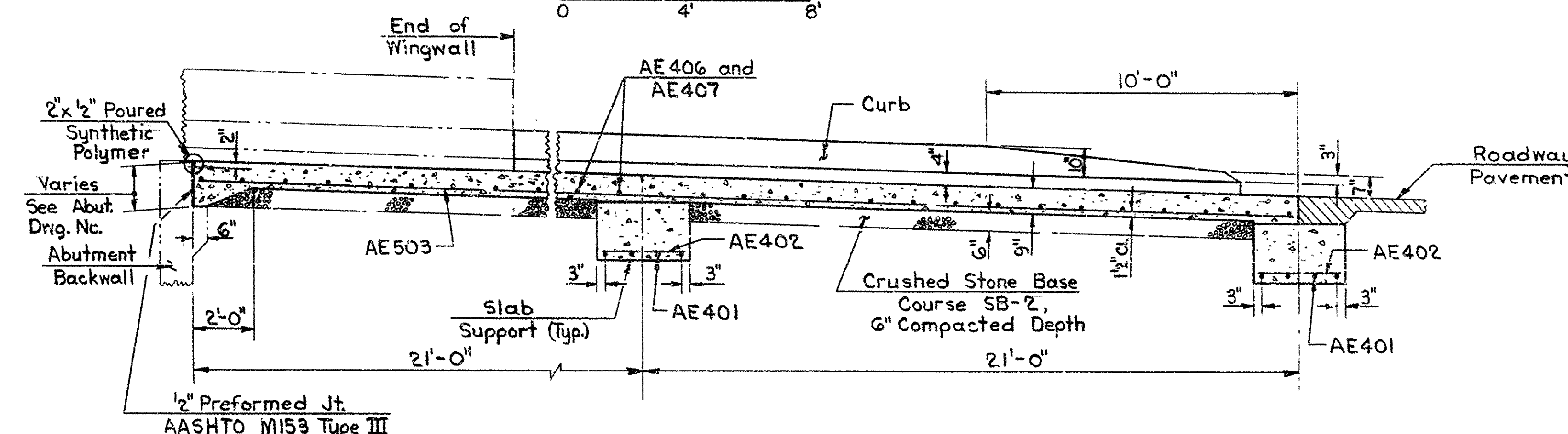
BAR LIST					REMARKS
MARK	SIZE	IN.	LENGTH		
AE401	4	16	34'-0"		
AE402	4	127	2'-8"		
AE503	5	128	41'-6"		
AE504	5	2	31'-3"		
AE405	4	1	41'-2"		
AE406	4	32	40'-0"		All Straight Bars
AE407	4	32	28'-0"		



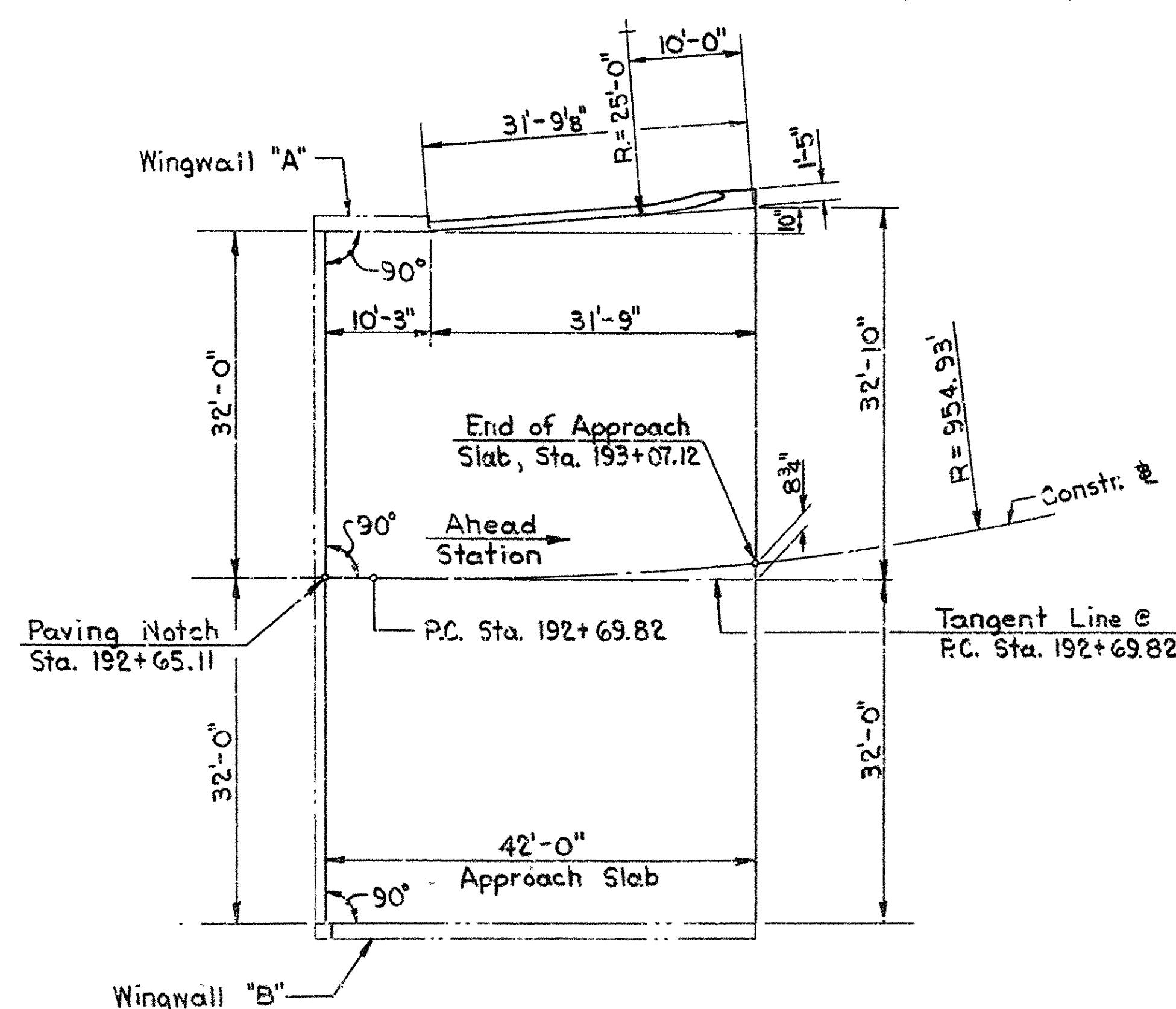
PLAN - EAST APPROACH SLAB



SECTION A-A



SECTION B-B



GEOMETRIC LAYOUT

No Scale

APPROXIMATE QUANTITIES				
ITEM	UNIT	SLAB SUPPORTS	SLAB AND CURB	TOTAL
Class 5 Concrete	C.Y.	25	78	103
Reinforcing Steel	LBS.	00	7100	7700
Crushed Stone Base Course, SB-2	C.Y.	—	—	44
2" Preformed Joint AASHTO M153 Type III	L.F.	—	—	118

Note:  
For Detail of Slab Support at End of Approach Slab, Detail of Dummy Grooved Joint, Curb Detail, View C-C and Detail D and General Notes for Approach Slabs, see Drawing No. 23637.

DETAILS OF APPROACH SLAB  
EAST ABUTMENT  
OUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY

ROUTE 70 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: T.M.K. DATE: 5-9-80  
CHECKED BY: B.L.K. DATE: 5-9-80  
DESIGNED BY: J.L.K. DATE: 5-9-80  
SCALE: As Shown

BRIDGE NO. 60092 DRAWING NO. 23638



A-1  
STA. 178+48  
30' LT. & BR.  
G.E. 427.5

	A	B		ELEV.	DEPTH
425	3.5		VERY STIFF TAN & GRAY SILTY CLAY WITH GRAVEL & SHALE FRAGMENTS.	424.0	3.5
			STARTED CORING @ 10.0'		
420	7.0	18-20-38			
	8.2	25-1"	MEDIUM SOFT TO MEDIUM HARD TAN & GRAY WEATHERED SHALE WITH OCCASIONAL HARD SANDSTONE SEAMS OR THIN LAYERS.		
415	14.0	81%	BROKEN & FRACTURED.		
410	19.0	90%			
405	25.0	100%	(MEDIUM HARD BELOW 7.5')	402.5	25.0
400			END OF BORING @ 25.0'		

A-2  
STA. 178+53  
ON E BR.  
G.E. 421.4

	A	B		ELEV.	DEPTH
	1.0		* DENSE TAN & REDDISH TAN SANDY SILT	420.4	1.0
	3.5		STARTED CORING @ 4.0'	417.9	3.5
	7.5	40%			
	14.0	100%	MEDIUM HARD TO HARD TAN & LIGHT GRAY BROKEN & FRACTURED SANDSTONE WITH FERROUS STAINS. 100% WATER LOSS @ 9.5'. SOFT @ 9.5' & 10.5'		
	18.5	100%		402.9	18.5
			END OF BORING @ 18.5'		

\* DENSE TAN SANDSTONE & SHALE FILL

0 5' 10'  
Vertical Scale

A-3  
STA. 178+48  
30' RT. & BR.  
G.E. 423.6

	A	B		ELEV.	DEPTH
2.5	50-4"		DENSE TAN CLAYEY SILT WITH ORGANIC MATTER & TAN SANDY SILT.		
4.7	50-5"			418.1	5.5
5.5			STARTED CORING @ 6.0'		
7.5	60%				
13.0	50%		MEDIUM HARD TO HARD TAN & LIGHT GRAY SANDSTONE WITH SOFT WEATHERED SEAMS. JOINTED & VERY FRACTURED. SOFT @ 11.0'-11.5' & 17.0'-18.0'. APPROX. 40° TO 60° DIP.		
16.0	98%				
20.0	66%				
23.0	83%		POSSIBLE VOID FROM 21.5' TO 22.0'.	400.6	23.0
			END OF BORING @ 23.0'		

NOTES: 100% WATER LOSS @ 12.5'  
HOLE OFFSET 6' NORTH & DRILLED IN 2' CUT.

DATE REVISION	DATE FILLED	DATE REVISION	DATE FILLED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BRF-014-2(23)	50	89
						JOB NO. 60092		
						TEST BORINGS		23639

#### GENERAL NOTES

- COLUMN "A" — • DENOTES DEPTH OF LOWER LIMITS OF SPOON SAMPLE OR BOTTOM OF CORE RUN.
- COLUMN "B" — • DENOTES BLOWS FOR EACH 6 INCHES OF SPOON SAMPLER OR PERCENT OF CORE RECOVERY.
- SIZE OF CASING — 4 INCHES I.D., FLUSH JOINT.
  - WEIGHT OF HAMMER ON CASING 140 POUNDS.
  - SIZE OF SAMPLING SPOON — 2 INCHES O.D., ST'D. SPLIT SPOON.
  - WEIGHT OF HAMMER ON SPOON — 140 POUNDS.
  - DROP OF HAMMER ON SPOON — 30 INCHES.
  - SIZE OF CORE — 2 1/8 INCHES DIAMETER.
  - G.E. — INDICATES GROUND ELEVATION.
  - 1 W.L. — INDICATES WATER LEVEL AT 0 HRS.
  - 2 W.L. — INDICATES WATER LEVEL AT 24 HRS.

WEST ABUTMENT  
TEST BORINGS  
OUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY  
ROUTE 70 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.  
DRAWN BY: D.W.S. DATE: 5-9-80  
CHECKED BY: R.T.K. DATE: 5-9-80  
DESIGNED BY: DATE: SCALE: As Shown  
BRIDGE NO. 5872 DRAWING NO. 17630



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BRF-014-2(23)	51	82
				JOB NO.		60092		
				5472		Test # 251.05	23640	

P1-1		STA. 179+09		15' LT. & BR.		G.E. 409.9	
A	B	STIFF TAN CLAYEY SILT *		ELEV.	DEPTH	I.W.L.	
3.0	10-50	SOFT TAN & GRAY VERY WEATHERED SHALE WITH CLAY SEAMS		407.9	2.0		
4.2	25-1			404.4	3.5		
		STARTED CORING @ 6.0'					
		HARD TAN & GRAY SANDSTONE WITH OCCASIONAL INTERBEDDED CLAYEY SHALE PARTINGS & SEAMS. FRACTURED & JOINTED.					
11.0	75%						
16.0	60%	DRILLED WITH ROCK BIT 16'-17'.					
20.0	100%						
25.0	100%	END OF BORING @ 25.0'		384.9	25.0		

\* WITH ORGANIC MATTER & GRAVEL.  
NOTE: WATER LOSS ON THIS HOLE.

P1-2		STA. 179+13		15' RT. & BR.		G.E. 407.1	
A	B	VERY STIFF TAN CLAYEY SILT. *		ELEV.	DEPTH		
3.0				404.1	3.0		
4.5	25-1	MEDIUM SOFT TAN & GRAY WEATHERED SHALE WITH CLAY SEAMS.		401.1	6.0		
6.0		STARTED CORING @ 6.5'					
10.0	90%	HARD LIGHT GRAY SANDSTONE WITH OCCASIONAL SHALE & CLAYEY SHALE PARTINGS & SEAMS. FRACTURED & JOINTED.					
16.0	100%						
21.5	100%	END OF BORING @ 21.5'		385.6	21.5		

\* WITH OCCASIONAL ORGANIC MATTER & OCCASIONAL POORLY CEMENTED SANDSTONE FRAGMENTS.  
NOTES: WATER LOSS ON THIS HOLE.  
HOLE OFFSET 6' WEST & DRILLED IN 2' CUT.

P2-1		STA. 180+53		15' LT. & BR.		G.E. 366.0	
A	B	VERY SOFT TAN SILTY CLAY.		ELEV.	DEPTH		
3.0	0-3'	95% PASSING NO. 200 SIEVE.		365.0	3.0		
4.5	16-33-27	DENSE GRAY & TAN SANDY GRAVEL WITH SOME CLAY		363.0	5.0		
5.0	50-8'	STARTED CORING @ 6.5'					
9.0	58%	HARD LIGHT GRAY FRACTURED SANDSTONE WITH OCCASIONAL QUARTZ VEINS & OCCASIONAL SHALE PARTINGS, SEAMS & OCCASIONAL LAYERS.					
13.0	100%						
14.0	100%						
18.0	100%						
23.0	100%	SOME DARK GRAY SHALE SEAMS BELOW 22'.					
27.0	100%	END OF BORING @ 27.0'		341.0	27.0		

NOTES: WATER SURFACE ELEVATION = 400.00  
WATER DEPTH = 32.0'

P2-2			
STA. 180+63			
15' RT. & BR.			
G.E. 370.0			
A	B	ELEV.	DEPTH
1.5	1-18"	366.0	4.0
3.5	0-0-5		
4.2	10-0		
	STARTED CORING @ 8.0'		
7.0	50-6"		
10.0	75%		
	MEDIUM HARD TO HARD LIGHT GRAY FRACTURED SANDSTONE WITH OCCASIONAL SHALE PARTINGS & SEAMS. SOME SOFT WEATHERED SEAMS ABOVE 7.5'. QUARTZ SEAMS @ 14'.		
16.0	100%		
20.0	100%		
21.5	100%	341.5	28.5
24.0	100%		
28.5	100%		
	END OF BORING @ 28.5'		

NOTES: WATER SURFACE ELEVATION = 399.85  
WATER DEPTH = 30.0'

0 5' 10'  
Vertical Scale

PIERS 1 AND 2  
TEST BORINGS  
OUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY  
ROUTE 70 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: D.W.S. DATE: 5-9-80  
CHECKED BY: R.E.K. DATE: 5-9-80 SCALE: As Shown  
DESIGNED BY: DATE:  
BRIDGE NO. 5872 DRAWING NO. 23640



P3-1  
STA. 182+45  
15' LT. & BR.  
G.E. 361.7

A	B	ELEV.	DEPTH
1.5	0-18		
3.0	0-18		
4.5	0-12	357.2	4.5
6.0	5-5-8		
8.5		353.2	8.5
9.5	50-11		
12.0		349.7	12.0
12.9	50-6		
16.0	100 %		
21.0	100 %		
26.0	100 %		
31.5	100 %	330.2	31.5

NOTES: WATER SURFACE ELEVATION = 399.20  
WATER DEPTH = 37.5'

P3-2  
STA. 182+55  
15' RT. & BR.  
G.E. 362.6

A	B	ELEV.	DEPTH
4.0	0-48	358.6	4.0
5.5	10-10-10		
9.5		353.1	9.5
11.0	*	351.6	11.0
15.0	100 %		
22.0	100 %	340.6	22.0

END OF BORING @ 22.0'

\* DENSE TAN CLAYEY SAND & GRAVEL.  
NOTES: WATER SURFACE ELEVATION = 399.60  
WATER DEPTH = 37.0'

P4-1  
STA. 184+37  
15' LT. & BR.  
G.E. 354.5

A	B	ELEV.	DEPTH
1.5	2-1-1		
3.5	2-9-8		
4.5	6-10-0	350.0	4.5
8.0	100 %		
10.0	100 %		
15.0	100 %		
20.0	100 %		
25.5	100 %	329.0	25.5

END OF BORING @ 25.5'

NOTES: WATER SURFACE ELEVATION = 399.50  
WATER DEPTH = 45.0'

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BRF-014-2(23)	52	89
				JOB NO.	60092			
				5872	TEST BORINGS			23641

P4-2  
STA. 184+47  
15' RT. & BR.  
G.E. 354.5

A	B	ELEV.	DEPTH
1.5	0-18		
3.5	6-5-4	350.5	4.0
4.0			
4.3	10-0		
7.5	100 %		
10.0	100 %		
16.5	100 %	338.0	16.5

END OF BORING @ 16.5'

NOTES: WATER SURFACE ELEVATION 399.30  
WATER DEPTH = 45.0'

0 5' 10'  
Vertical Scale

PIERS 3 AND 4  
TEST BORINGS  
OUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY  
ROUTE 70 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: DWS. DATE: 5-9-80  
CHECKED BY: BTK. DATE: 5-9-80  
DESIGNED BY: DATE:

SCALE: As Shown

BRIDGE NO. 5872

DRAWING NO. 23641

BRIDGE ENGINEER



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BRF-014-2(23)	53	80
				JOB NO.		60092		
				5872		TEST BORINGS	23642	

P5-1  
STA. 186+29  
15' LT. & BR.  
G.E. 352.2

A	B		ELEV.	DEPTH
1.5	0-1-5	VERY LOOSE TO DENSE SANDY GRAVEL WITH SOME CLAY. DENSE BELOW 2'.		
3.5	12-26-31			
5.0	50-11		347.2	5.0
		STARTED CORING @ 7.0'		
9.5	100%	HARD DARK GRAY SANDSTONE & SHALE.  MASSIVE WITH OCCASIONAL FRACTURED & JOINTED.		
15.0	100%			
20.0	100%			
26.0	100%		326.2	26.0

NOTES: WATER SURFACE ELEVATION = 399.20.  
WATER DEPTH = 47.0'.

P5-2  
STA. 186+39  
15' RT. & BR.  
G.E. 351.2

A	B		ELEV.	DEPTH
1.5	0-4-12	MEDIUM DENSE TO DENSE TAN & GRAY SANDY GRAVEL WITH SOME CLAY.  STARTED CORING @ 4.0'		
2.5	10-0		347.7	3.5
3.5				
5.0	100%			
12.0	100%	HARD DARK GRAY SANDSTONE WITH SHALE & OCCASIONAL QUARTZ PARTINGS & SEAMS.  MODERATELY FRACTURED & JOINTED.		
18.0	100%			
22.5	100%		328.7	22.5

NOTES: WATER SURFACE ELEVATION = 399.20.  
WATER DEPTH = 48.0'.

P6-1  
STA. 188+21  
15' LT. & BR.  
G.E. 350.8

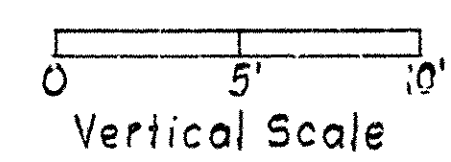
A	B		ELEV.	DEPTH
1.5	0-12-8	LOOSE TO DENSE GRAY CLAYEY SAND *  STARTED CORING @ 5.25'		
2.5	1-6-10		348.3	2.5
7.5	100%	HARD DARK GRAY SANDSTONE WITH OCCASIONAL SHALE PARTINGS & SEAMS.  SLIGHTLY JOINTED & FRACTURED.		
15.5	100%		335.3	15.5

\* WITH ORGANIC MATTER & GRAVEL.  
NOTES: WATER SURFACE ELEVATION = 399.30.  
WATER DEPTH = 48.5'.

P6-2  
STA. 188+31  
15' RT. & BR.  
G.E. 350.8

A	B		ELEV.	DEPTH
0.80	0-10-0	VERY SOFT GRAY CLAY & DENSE CLAYEY SAND & GRAVEL.  STARTED CORING @ 4.5'		
3.0			347.8	3.0
7.5	100%	HARD LIGHT TO DARK GRAY SANDSTONE WITH OCCASIONAL DARK GRAY SHALE PARTINGS & SEAMS.		
12.0	100%			
15.5	100%		335.3	15.5

NOTES: WATER SURFACE ELEVATION = 399.30.  
WATER DEPTH = 48.5'.



PIERS 5 AND 6  
TEST BORINGS  
OUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY  
ROUTE 70 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: D.W.S. DATE: 5-9-80  
CHECKED BY: B.L.K. DATE: 5-9-80  
DESIGNED BY: DATE:  
SCALE: AS SHOWN

BRIDGE NO. 5872 DRAWING NO. 23642



DATE REVISED	DATE REVISED	DATE REVISED	DATE REVISED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				8	ARK.	BRF-014-2(23)	54	58
				JOB NO.		60092		
				5-7		TEST BORINGS	23643	

P8-1  
STA. 191+50  
19' LT. & BR.  
G.E. 407.1

A	B		ELEV.	DEPTH
1.5		DENSE TAN SANDY SILT *	405.6	1.5
2.2	10-0	MEDIUM SOFT TAN & GRAY WEATHERED SHALE WITH CLAYEY SHALE PARTINGS, SEAMS & LAYERS.		
4.3	25-1			
6.2	10-0	SOFT FROM 7'-8'.		
8.2	10-0		398.1	9.0
9.0		STARTED CORING @ 14.0'		
16.0	100%	HARD TAN & GRAY SANDSTONE WITH SHALE PARTINGS & SEAMS.		
		CLAYEY SEAMS @ 15.5'.		
24.0	100%		383.1	24.0
END OF BORING @ 24.0'				

\* WITH SANDSTONE GRAVEL & CLAY.  
NOTE: WATER LOSS ON THIS HOLE.

P8-2  
STA. 191+67  
9' RT. & BR.  
G.E. 407.5

A	B		ELEV.	DEPTH
		DENSE TAN SANDY SILT WITH SANDSTONE GRAVEL FILL.		
3.5			404.0	3.5
4.2	50-7	DENSE TAN SILTY FINE SAND.		
6.5	25-1	SLIGHTLY CLAYEY WITH SOME SOFT SANDSTONE SEAMS.		
8.3	25-1	SOFT FROM 7'-8'.		
10.0		STARTED CORING @ 13.5'	397.5	10.0
15.0	98%	HARD TAN & LIGHT GRAY SANDSTONE.		
		JOINTED & SLIGHTED FRACTURED.		
20.0	100%	SOFT WEATHERED ZONE FROM 15'-16.5'.		
		QUARTZ VEINS BELOW 21'.		
		APPROX. 40° - 60° DIP.		
26.5	100%		381.0	26.5
END OF BORING @ 26.5'				

NOTE: WATER LOSS ON THIS HOLE.

P7-1  
STA. 190+13  
15' LT. & BR.  
G.E. 362.3

A	B		ELEV.	DEPTH
1.5	1-3-6	SOFT GRAY CLAY.	360.8	1.5
3.0	10-15-28	*	359.3	3.0
		STARTED CORING @ 6.0'		
		HARD DARK GRAY SANDSTONE WITH SHALE PARTINGS & SEAMS.		
10.0	100%	SOME FRACTURES & JOINTS.		
15.0	100%			
20.0	100%		342.3	20.0
END OF BORING @ 20.0'				

\* DENSE GRAY SANDY GRAVEL WITH SOME CLAY.  
NOTES: WATER SURFACE ELEVATION = 399.30.  
WATER DEPTH = 37.0'.

P7-2  
STA. 190+23  
15' RT. & BR.  
G.E. 361.8

A	B		ELEV.	DEPTH
0.5	1-10-0	*		
		STARTED CORING @ 2.5'		
5.0	100%	HARD LIGHT GRAY VERY FRACTURED & JOINTED SANDSTONE WITH OCCASIONAL QUARTZ & SHALE PARTINGS AND SEAMS.		
10.0	100%			
		LESS FRACTURED BELOW 14'.		
17.5	100%		344.3	17.5
END OF BORING @ 17.5'				

\* SOFT GRAY SILTY CLAY WITH GRAVEL.  
ELEV. = 361.5 DEPTH = 0.5  
NOTES: WATER SURFACE ELEVATION = 399.30.  
WATER DEPTH = 37.5'.

0 5 10  
Vertical Scale

PIERS 7 AND 8  
TEST BORINGS  
OUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY

ROUTE 70 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: D.W.S. DATE: 5-9-80  
CHECKED BY: R.T.K. DATE: 5-9-80 SCALE: As Shown  
DESIGNED BY: DATE:

BRIDGE NO. 5872 DRAWING NO. 23643

BRIDGE ENGINEER



B-1  
STA. 192+68  
30' LT. & BR.  
G.E. 427.5

	A	B		ELEV.	DEPTH
425	2.5	50-7	DENSE TAN SANDY SILT WITH GRAVEL (FILL).		
	4.3	10-0			
	5.5			422.0	5.5
420	7.0	25-25	*		
	8.0			419.5	8.0
			STARTED CORING @ 9.0'		
415	11.0	100%			
	15.0	90%	MEDIUM HARD TO HARD LIGHT GRAY & GRAY FRACTURED SANDSTONE WITH OCCASIONAL QUARTZ & SHALE PARTINGS & SEAMS.		
410	19.0	100%			
			SOFT WEATHERED & BROKEN WITH SOME SANDY CLAY POCKETS OR SEAMS BETWEEN 11' & 12' WITH SOME FRACTURED SANDSTONE. DRILLED WITH ROCK BIT 19'-22'		
405	25.0	100%			
			50% WATER LOSS @ 22.5'.		
400	30.0	100%			
			HARD BELOW 24.5'.		
395	35.0	100%			
	37.0		HARD DARK GRAY SHALE & SANDSTONE BELOW 36.0'.	390.5	37.0
390			END OF BORING @ 37.0'		

\* DENSE TAN SILTY SAND WITH SANDSTONE & QUARTZ GRAVEL, SLIGHTLY CLAYEY. 13% PASSING NO. 200 SIEVE

NOTE: WATER LOSS ON THIS HOLE.

B-2  
STA. 192+64  
ON & BR.  
G.E. 425.6

	A	B		ELEV.	DEPTH
			FIRM TO STIFF TAN & GRAY SLIGHTLY CLAYEY SILT WITH SAND & GRAVEL.		
			POSSIBLE FILL TO 3.5'		
	6.5			419.1	6.5
	8.5	50-4	VERY STIFF LIGHT GRAY & TAN CLAYEY SILT WITH SOME SOFT SANDSTONE SEAMS & GRAVEL.		
	10.0			415.6	10.0
	13.5	10-0	MEDIUM HARD TO HARD TAN & GRAY SANDSTONE WITH OCCASIONAL QUARTZ, SHALE PARTINGS & SEAMS.		
			HARD BELOW 17.5'		
			JOINTED & OCCASIONALLY FRACTURED.		
			MEDIUM BEDDED WITH APPROX. 45° DIP.		
			STARTED CORING @ 20.0'		
	24.0	100%			
	28.0	100%			
	30.0			395.6	30.0
			END OF BORING @ 30.0'		

NOTE: WATER LOSS ON THIS HOLE.

B-3  
STA. 192+98  
30' RT. & BR.  
G.E. 418.1

	A	B		ELEV.	DEPTH
	4.5	50-4	SOFT DARK GRAY & TAN CLAYEY SHALE WITH INTERBEDDED SANDSTONE SEAMS & FRAGMENTS.	413.1	5.0
	5.0				
	8.2	25-1	DENSE TAN SILTY FINE SAND WITH SOME SOFT SANDSTONE SEAMS & GRAVEL.		
			SOME CLAYEY SHALE SEAMS OR POCKETS.		
	14.0			404.1	14.0
			STARTED CORING @ 15.0'		
	19.0	100%			
			MEDIUM HARD TO HARD TAN & GRAY SANDSTONE WITH SOME DARK GRAY SHALE PARTINGS & SEAMS.		
	23.0	100%			
			FRACTURED & JOINTED.		
	28.5	100%		389.6	28.5
			END OF BORING @ 28.5'		

NOTE: WATER LOSS ON THIS HOLE.

0 5' 10'  
Vertical Scale

DATE DESIGNED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BRF-014-2 (23)	35	89
						JOB NO. 60092		
						5872	TEST BORINGS	23644

EAST ABUTMENT  
TEST BORINGS  
OUACHITA RIVER BRIDGE  
AND APPROACHES  
GARLAND COUNTY  
ROUTE 70 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: DWS DATE: 5-9-80  
CHECKED BY: R.L.K. DATE: 5-9-80 SCALE: As Shown  
DESIGNED BY: DATE:

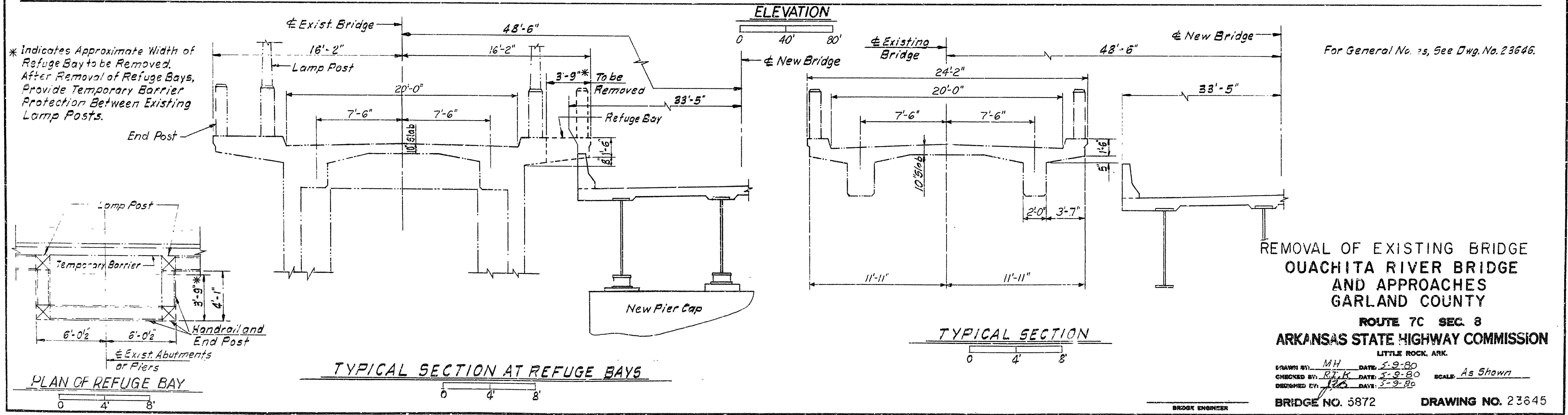
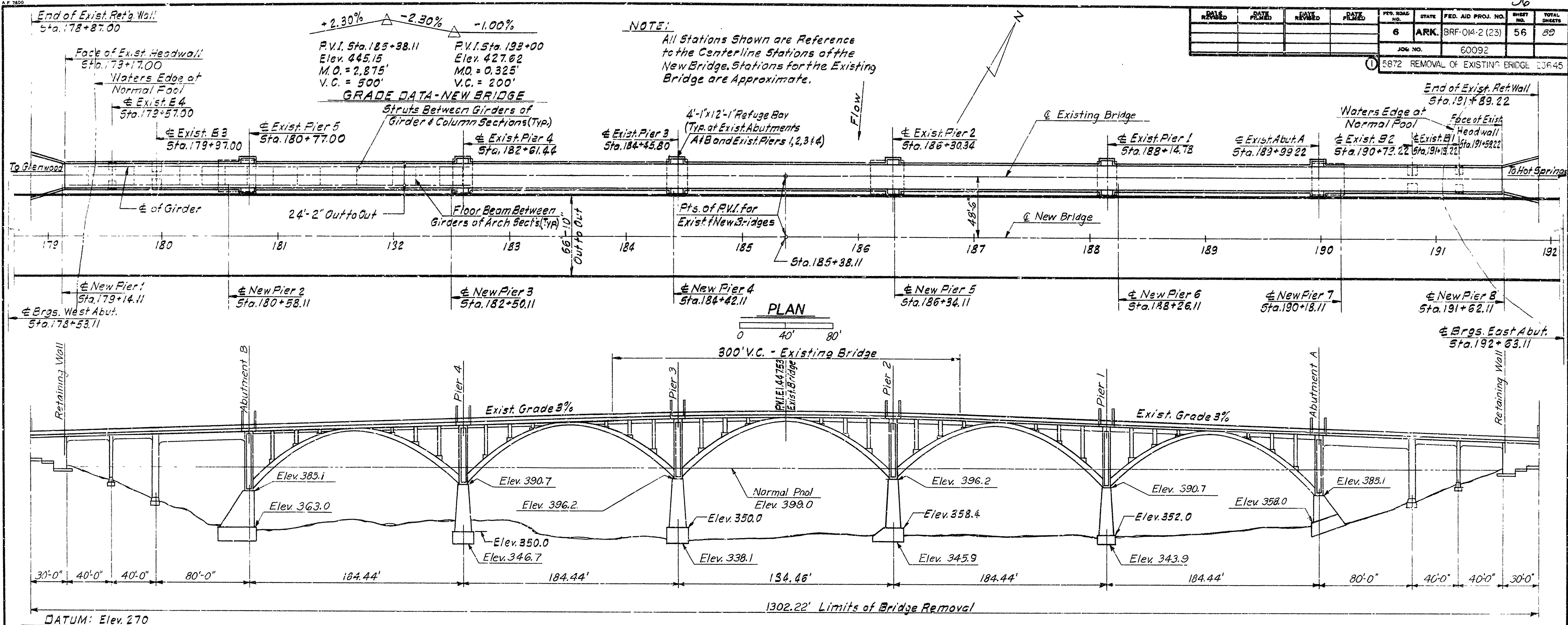
BRIDGE NO. 5872

DRAWING NO. 23644

BRIDGE ENGINEER

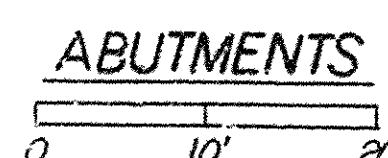


DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BRF-014-2 (23)	56	89
				JOB NO.		60092		
				5872 REMOVAL OF EXISTING BRIDGE 23645				





5872	REMOVAL OF EXISTING BRIDGE 2-6
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- All Dimensions and Elevations for Existing Bridge were Obtained from the Original Drawings (See above Note) and shall be Verified where Necessary by Contractor.

DRAWING NO. 23646



