

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	060416		66	113
				3432ARfBR LAYOUT 34397				

GENERAL NOTES

BENCH MARK: Chiseled Square 22.93' Lt. of Sta. 5649+09.322, Elev. 366.39.  
 CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, 1993 edition, with applicable supplemental specifications and special provisions.

DESIGN SPECIFICATIONS: AASHTO Standard Specifications for Highway Bridges, 1992 with current interim specifications.

LIVE LOADING: HS20 METHOD OF DESIGN: Load Factor  
 SEISMIC PERFORMANCE CATEGORY: A

MATERIALS AND STRENGTHS:  
 Superstructure Concrete (see span drws.)  $f'c = 4,000$  psi  
 Substructure Concrete (Class 5)  $f'c = 3,500$  psi  
 Reinforcing Steel (A615 or A617, GR. 60)  $f_y = 60,000$  psi

BRIDGE DECK: The concrete bridge deck overlay shall be given a fine finish as specified for final finishing in subsection 802.20 for Class 5 Bridge Roadway Surface Finish.

BOILED LINSEED OIL: Boiled linseed oil treatment shall be applied to the new concrete deck and to the face and top of the concrete parapet rail.

DETAIL DRAWINGS: DRAWING NO.  
 End Bents 34398, 34399  
 30' R.C. Slab Spans 34400, 34400A  
 Approach Slabs and Gutters 2016E & 2017

EXISTING BRIDGE: The existing bridge Nos. 3432A and 3432B are 40' wide and 120' long. The superstructure consists of 4 - 30'-0" R.C. Sonovoid Slab Spans. The substructure consists of concrete end bents with steel piling and concrete column interior bents with spread footings.

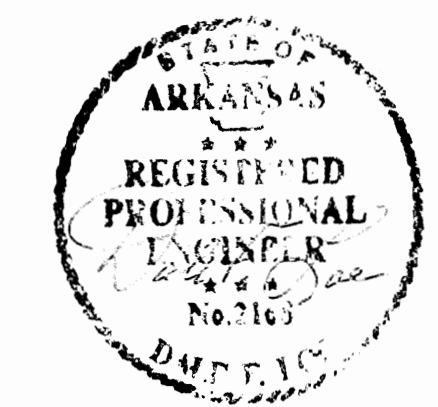
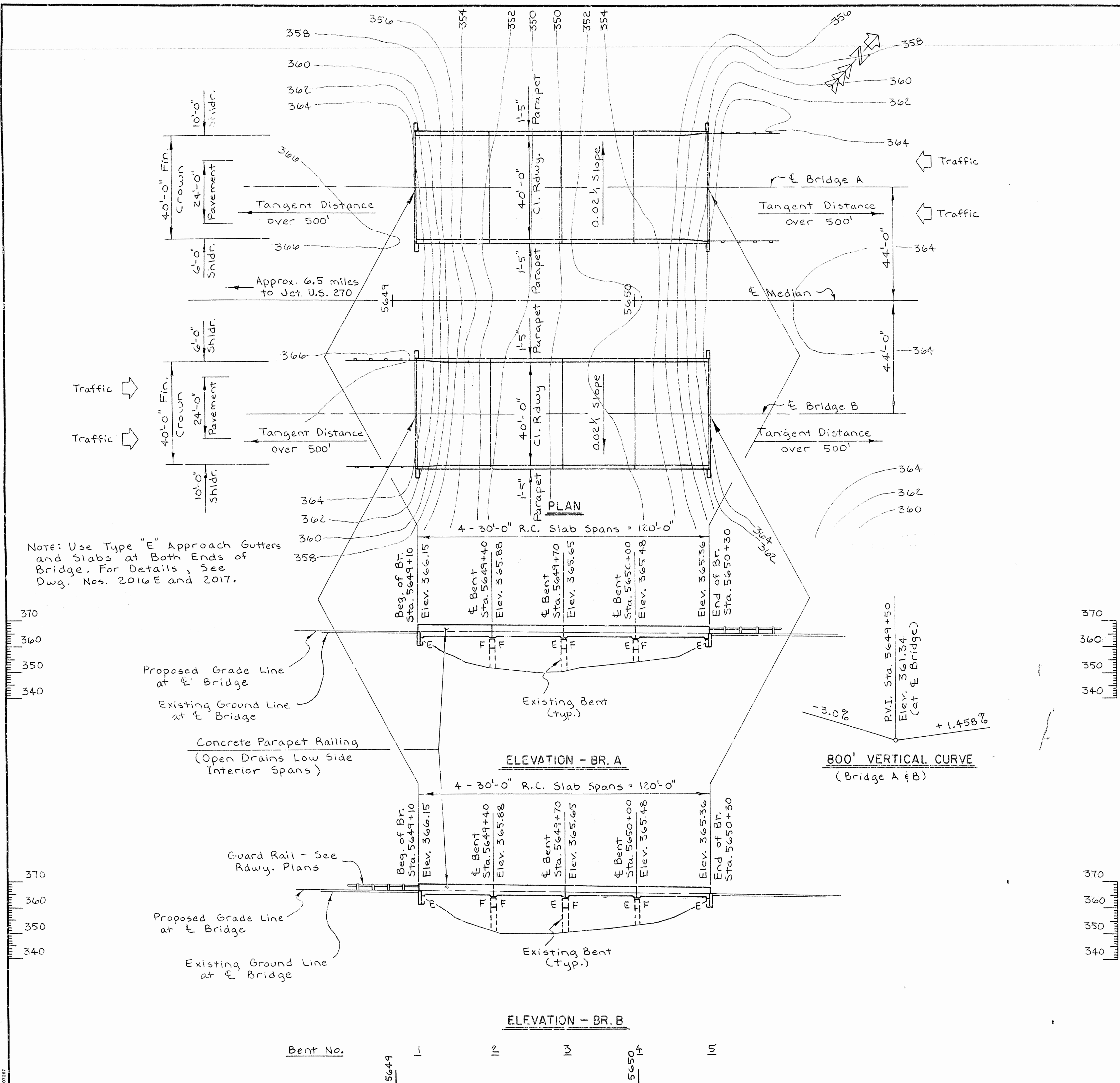
THE WORK CONTEMPLATED CONSISTS OF: Removing the existing approach slabs and gutters, removing the existing R.C. Sonovoid Slab Spans, retaining the existing cap dowel bars for fixity, repairing the existing substructure, and constructing new R.C. Slab Spans. For requirements in conducting the work, see section 821 of the standard specifications.

All dimensions relating to the existing bridge are to be verified in the field and the contractor shall be responsible for adjusting remodeling to the existing structure.

Plans of the existing structure will be made available to the Contractor upon request to the Programs and Contracts Division. Existing dwg. nos. 11213, 54318, 5431A, 5431-A3.

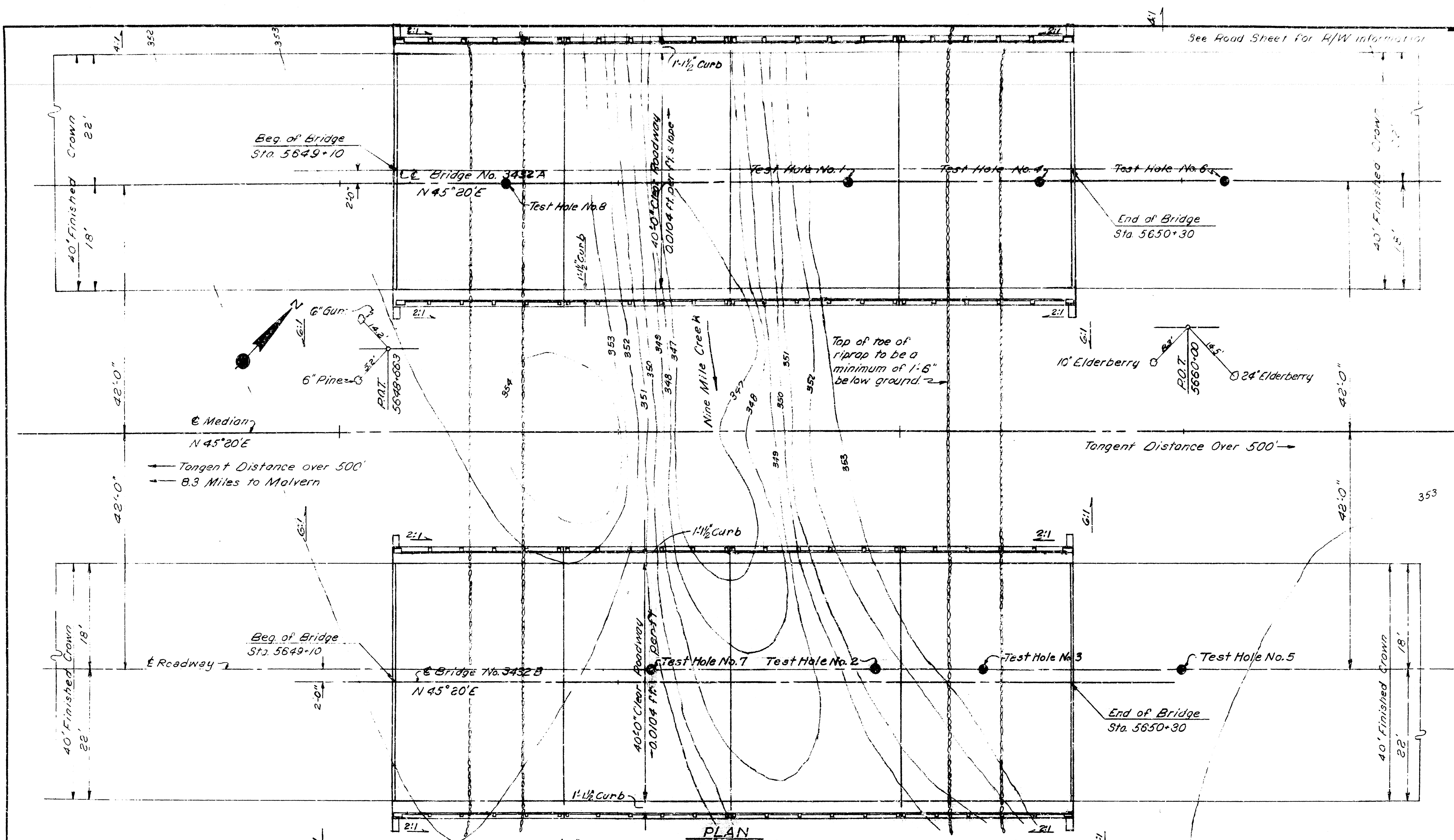
All material from the existing bridge shall become the property of the contractor except the metal bridge railing, guard rail, and guard rail posts and spacers which shall remain the property of the state.

MAINTENANCE OF TRAFFIC: During remodeling of one bridge, Interstate Traffic will be detoured to opposite bridge. See Roadway Plans for detour alignment and grade.



ALTERNATE NO. 1&2  
 LAYOUT OF BRIDGES  
 OVER NINE MILE CREEK  
 NINE MILE CREEK - HWY. 70 (F)  
 HOT SPRING COUNTY  
 ROUTE I-30 SEC. 2!  
 ARKANSAS STATE HIGHWAY COMMISSION  
 LITTLE ROCK, ARK.  
 DRAWN BY: GEC DATE: 6-2-93  
 CHECKED BY: CAB DATE: 6-2-93 SCALE: 1" = 20'-0"  
 DESIGNED BY: GEC DATE: 5-25-93  
 BRIDGE ENGINEER  
 BRIDGE NO. 3432AR & BR LAYOUT NO. 34397





See Road Sheet for R/W information

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	ST. NO.	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	050606		67	113
					3432-A+B	LAYOUT	34397A	

Piling Notes

All piling to be 12BP53 steel, 20' long, or to a minimum depth of 2 feet, whichever is greater, described as hard blue shale. The minimum bearing capacity of 36 tons per pile. Lengths shown are for estimating quantities only. Actual lengths to be determined in the field. Under the lengths shown, cut off or build up, where necessary, shall be paid for in accordance with section 804 of the specifications. All piling to be driven with a steam hammer after the embankment is in place.

GENERAL NOTES

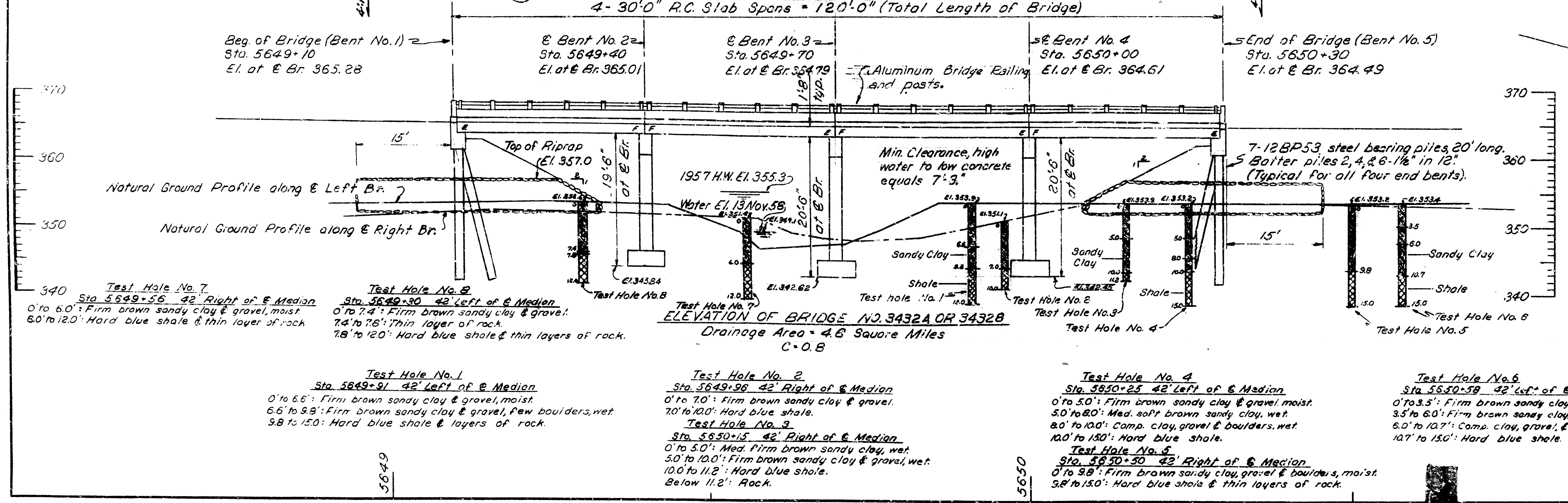
BM nail in 10" pine 125' Rt. of Sta. 5651+90, El. 354.38.  
For Details of Superstructure, see Dwg. No. 3432-B.  
For Details of Substructure, see Dwg. No. 3432-A.

Loadings: H20-S16 AASHTO 1957 & Special Interstates  
Loading of 2-24,000 lb axles at 4' centers.

Stresses: Class A Concrete (f<sub>c</sub>) = 4000 psi  
Class S Concrete (f<sub>c</sub>) = 2500 psi  
Reinforcing Steel (f<sub>s</sub>) = 20,000 psi

Specifications: Arkansas State Highway Department Standard Specifications for Highway Construction, 1957, 1959.

Foundation Pressure: 5900 p.s.f. DL + LL



800' Vertical Curve  
-3.00% +1.458%

P.V.I. Station 5649+50  
El. P.V.I. on Br. 360.472

Revised: Specifications note B.V. 4-20-60  
Revised Bridge Rating: 55.1-0-9-60  
Revision Checked: N.E.V. 10-26-60

**ALT. NO. 1 & 2  
FOR INFORMATION ONLY**

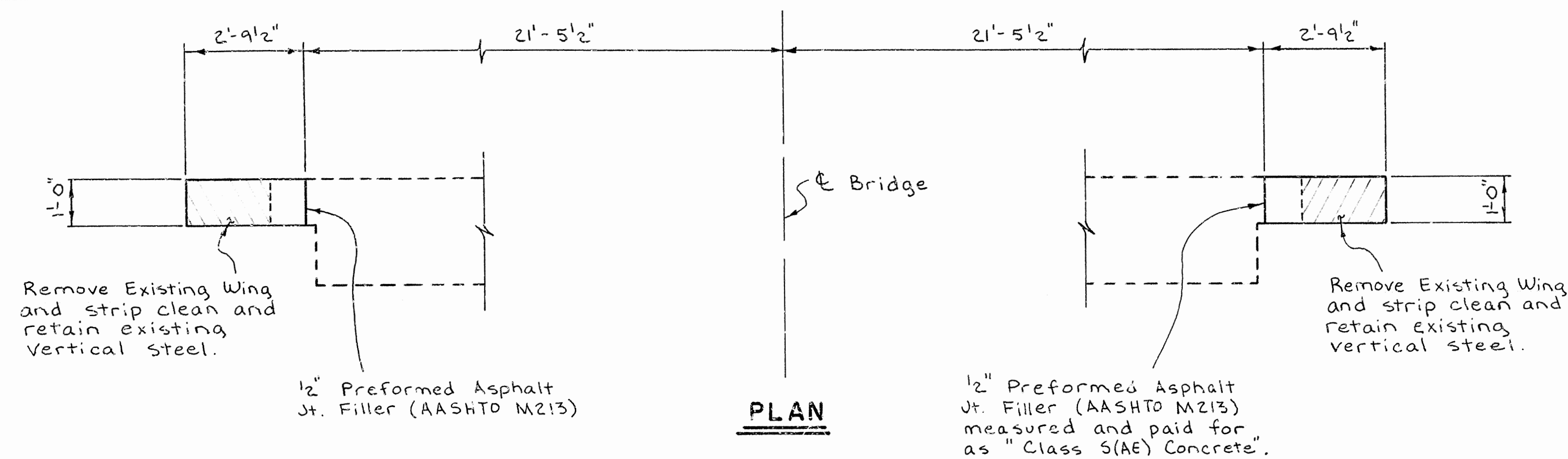
**LAYOUT OF BRIDGES  
OVER NINE MILE CREEK  
OUACHITA RIVER-NINE MILE CREEK  
HOT SPRING COUNTY**

INT. ROUTE 30 SEC. 21

**ARKANSAS STATE HIGHWAY COMMISSION**

LITTLE ROCK, ARK.  
DRAWN BY: H.W. DATE: 1 Dec. 59  
TRACED BY: DATE: 1 Dec. 59  
CHECKED BY: W.E.W. DATE: 12-8-59  
BRIDGE NO. 3432 A&B DRAWING NO. 34397A

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	060616		68	113
① 3432 AR & BR END BENTS								34398



# BAR LIST - PER BENT

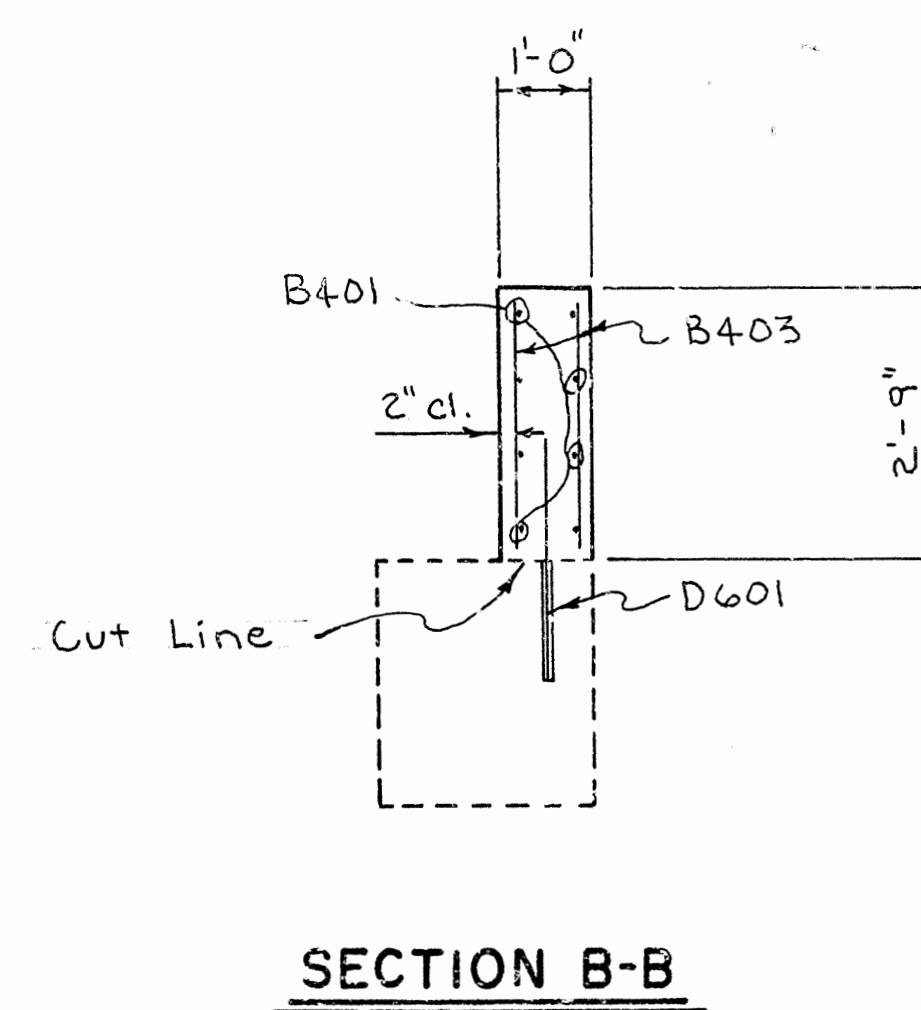
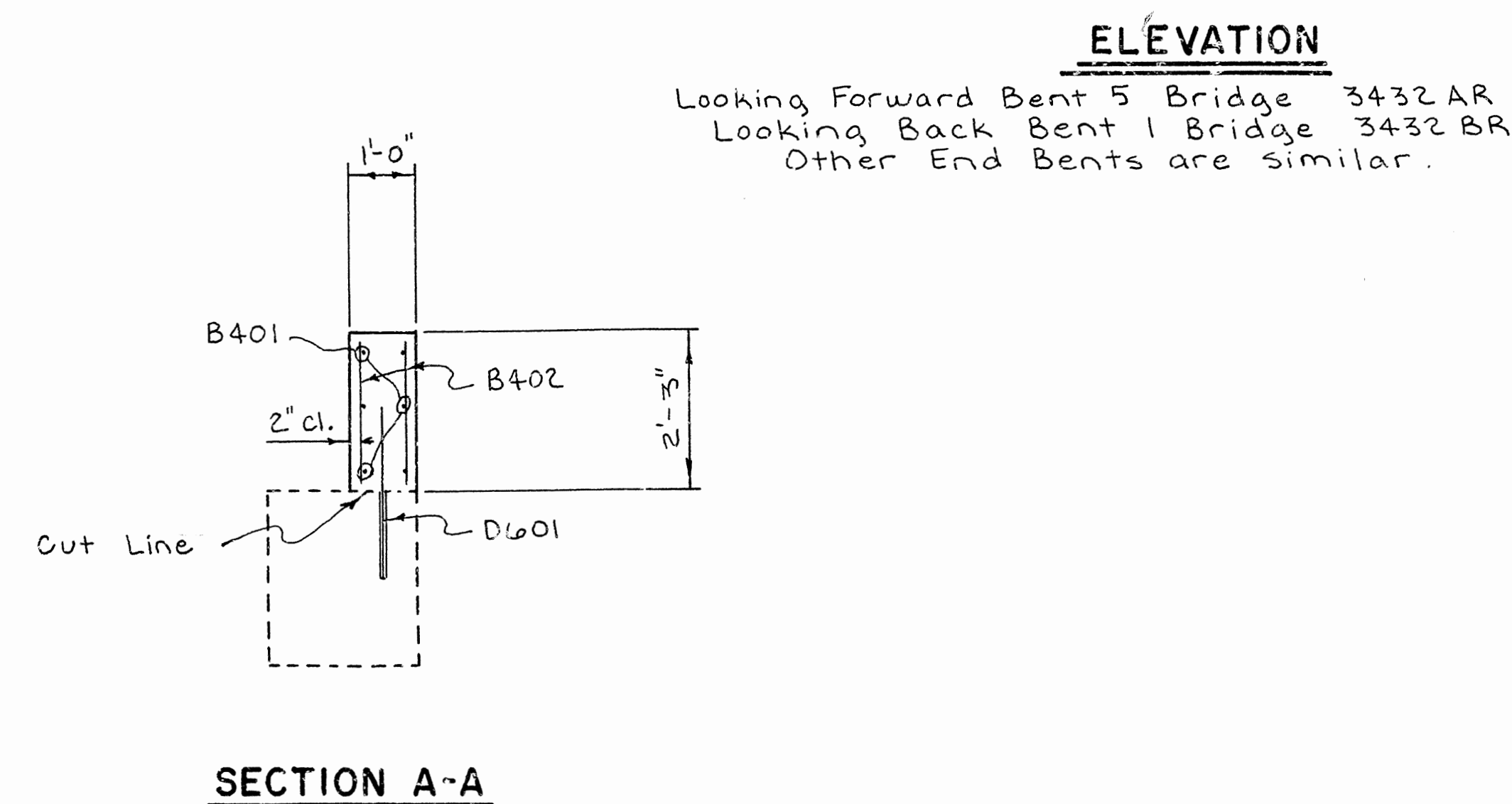
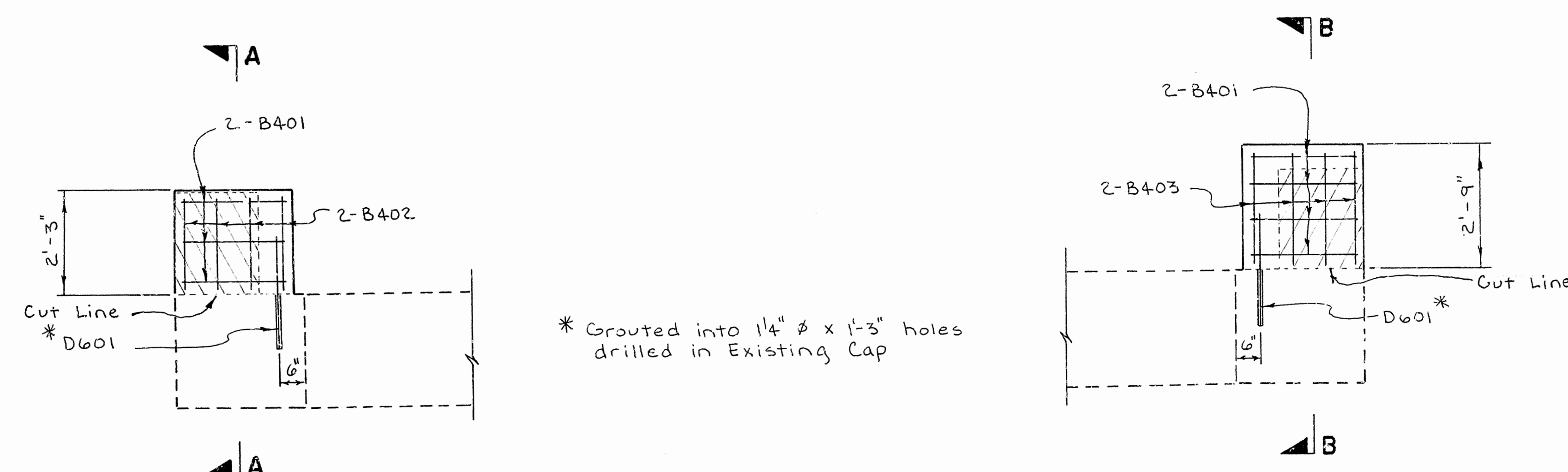
MARK	NO REQ'D.	LENGTH	PIN DIA.
B401	14	2'-5"	Str.
B402	8	2'-0"	Str.
B403	8	2'-6"	Str.
D601	2	2'-6"	Str.

## GENERAL NOTES

All Concrete shall be Class "S" with a minimum 28 day compressive strength  $f'_c = 3500$  psi. and shall be poured in the dry. All exposed corners to be chamfered 3/4" unless otherwise noted.

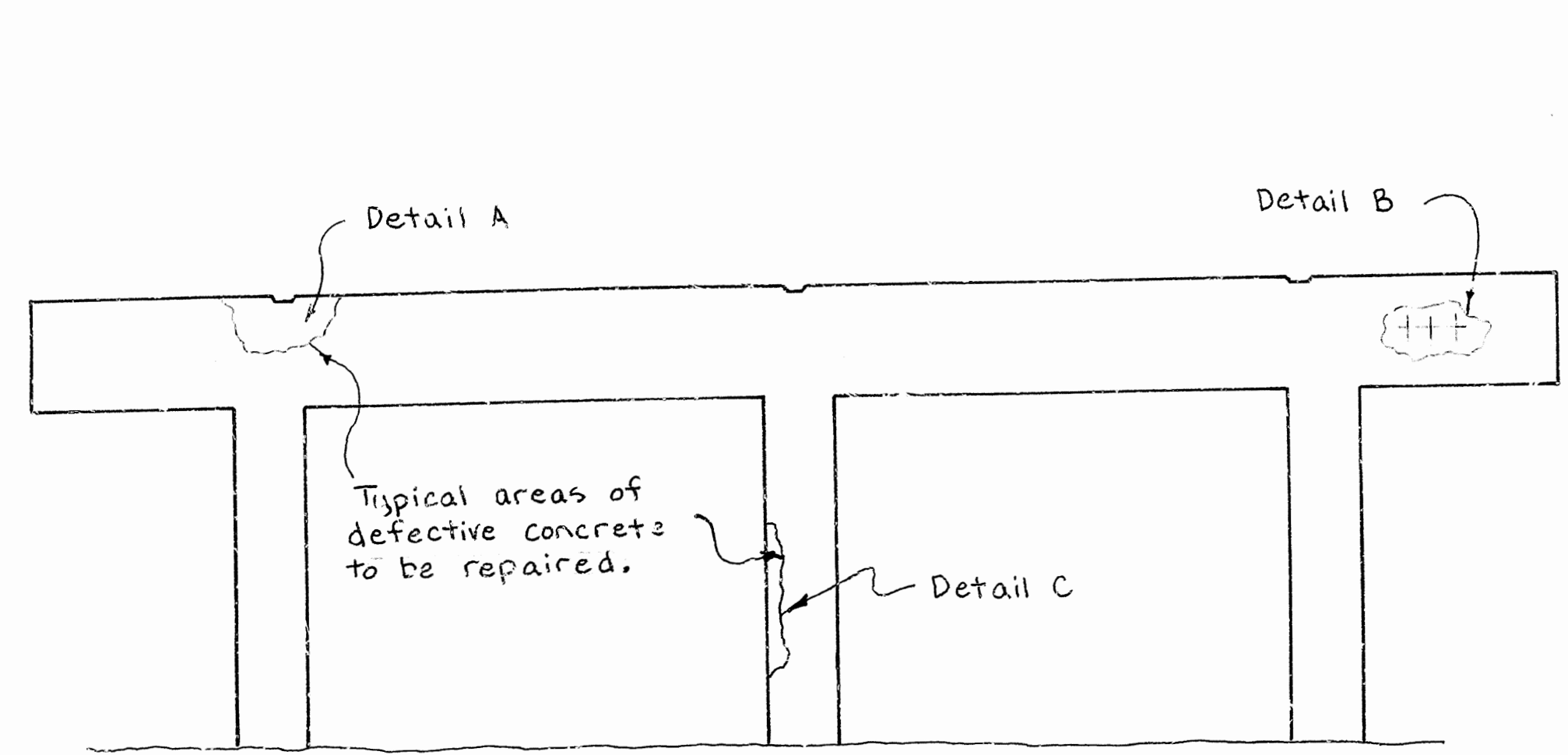
All Reinforcing Steel shall conform to ASTM A615 or A617, Grade 60 (yield strength = 60,000 psi.)

For additional information, see layout.

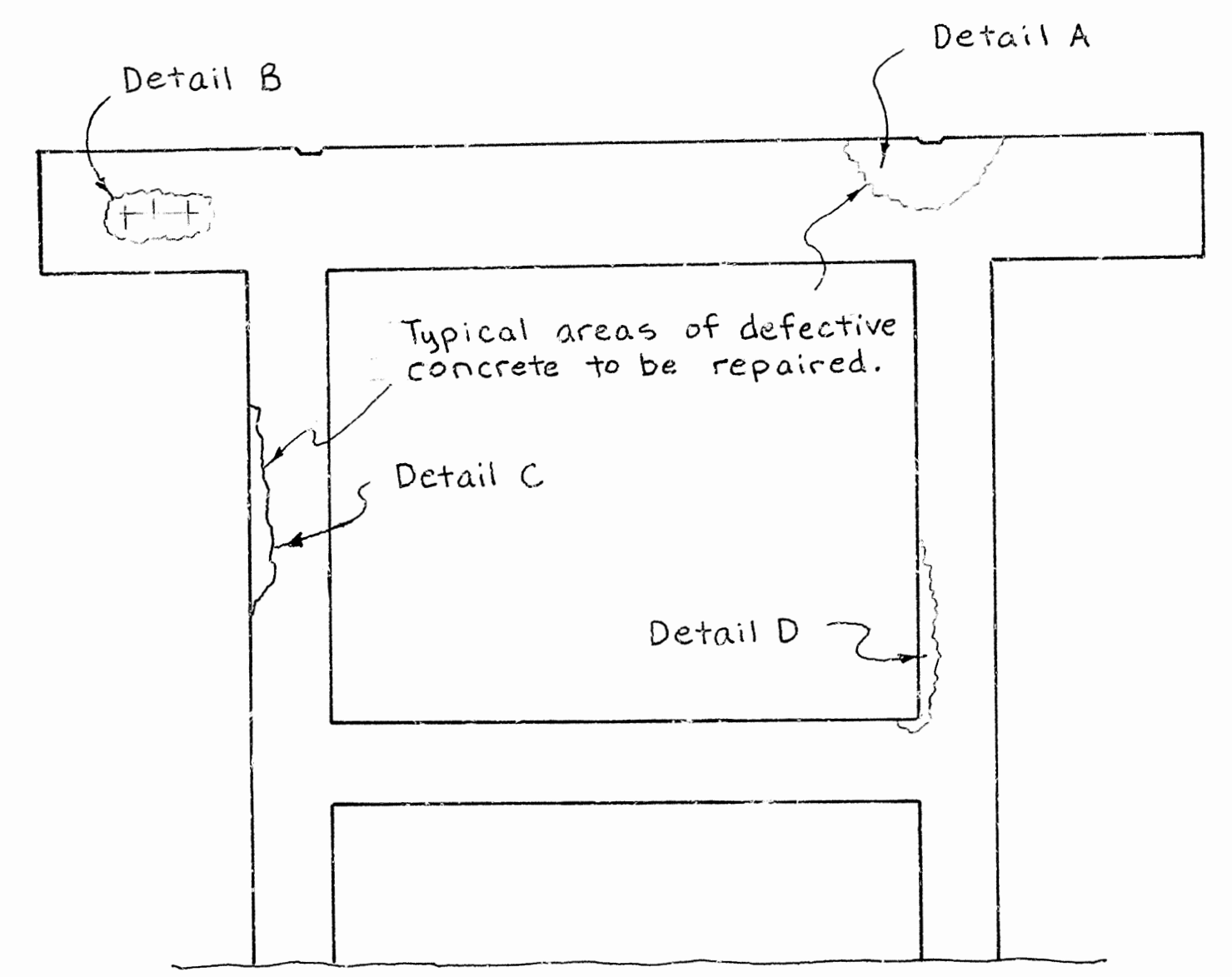


ALT. NO. 1 & 2  
DETAILS OF REMODELING  
END BENTS  
NINE MILE CREEK  
HOT SPRING COUNTY  
ROUTE I-30 SEC. 21  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.  
DRAWN BY: GEC DATE: 6-9-93  
CHECKED BY: CAB DATE: 6-24-93  
DESIGNED BY: GEC DATE: 5-25-93  
SCALE: 1/2" = 1'-0"  
BRIDGE NO. 3432 AR & BR DRAWING NO. 34398





**TYPICAL TYPES OF BENT REPAIR**  
**BRIDGE NO. 3432 AR & BR**

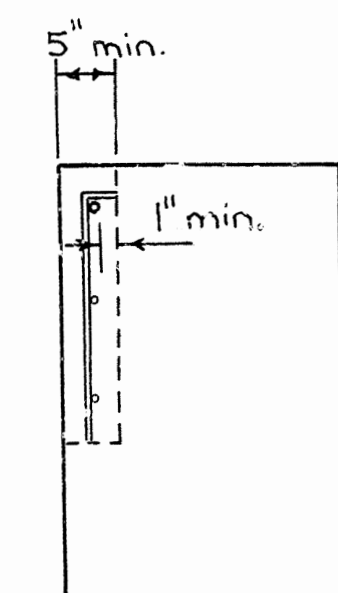


**TYPICAL TYPES OF BENT REPAIR**  
**BRIDGE NO. 3245 AR & BR**

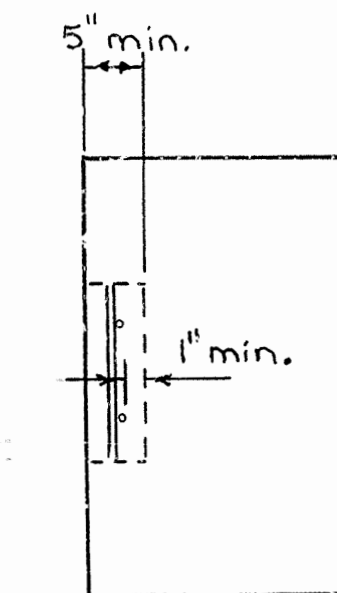
**BENT REPAIR QUANTITIES**

BRIDGE NO.	BENT NO.	REPAIR CU. FT.
3432 AR	2	2.6
	3	0.6
	4	0.0
3432 BR	2	11.0
	3	7.0
	4	0.0
3245 AR	2	0.0
	3	1.0
	4	5.1
	5	1.7
3245 BR	2	4.1
	3	2.9
	4	6.3
	5	2.1

Estimated repair quantities are based on best available information. Actual repair quantities to be determined in the field.



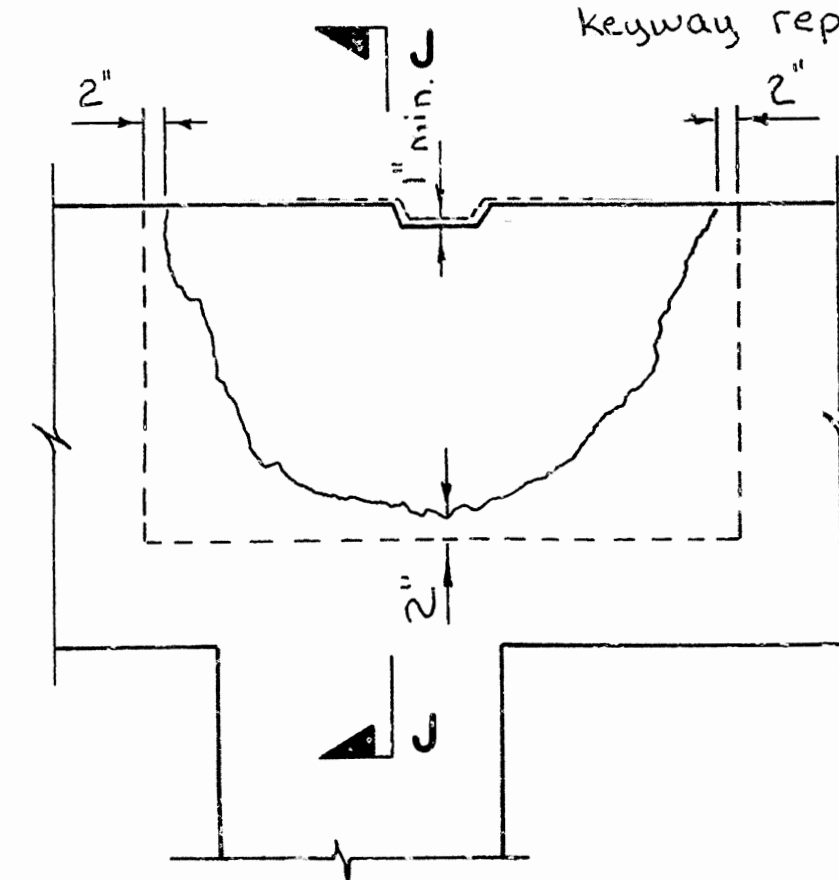
Sandblasting or other surface cleaning equipment shall be used to remove rust and old concrete from the exposed reinforcing steel.



**SECTION J-J**

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

Provide 1" min. cl. between new keyway repair and bottom of slab.

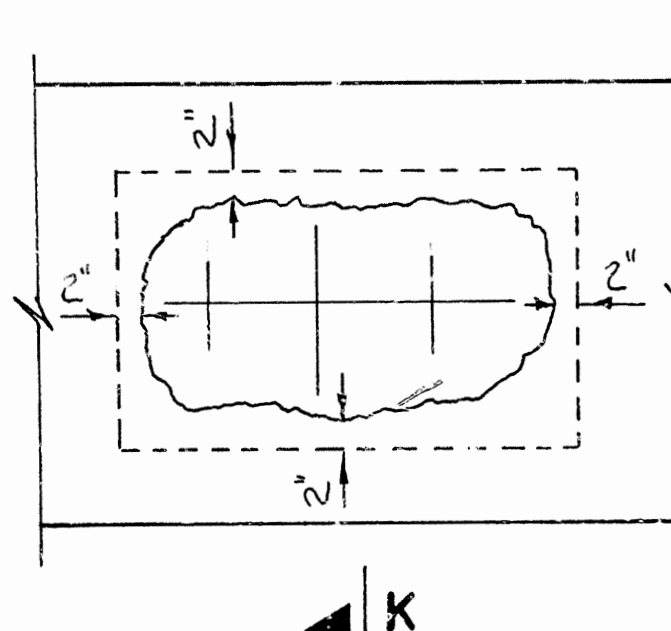


**DETAIL A**

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

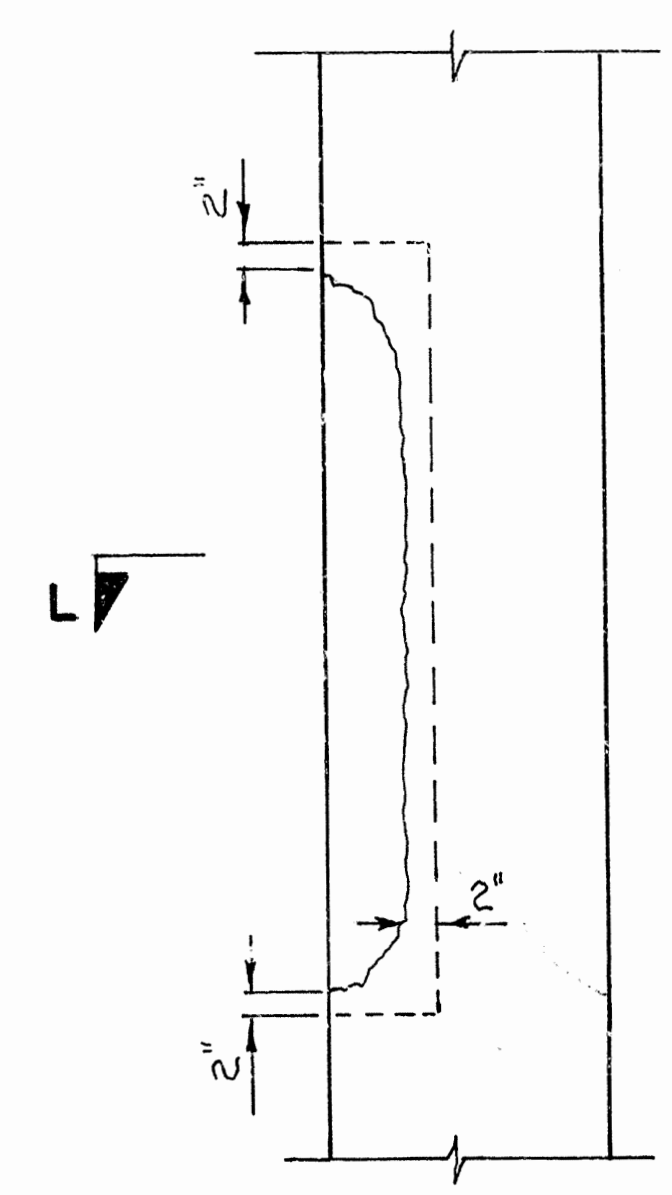
**SECTION K-K**

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



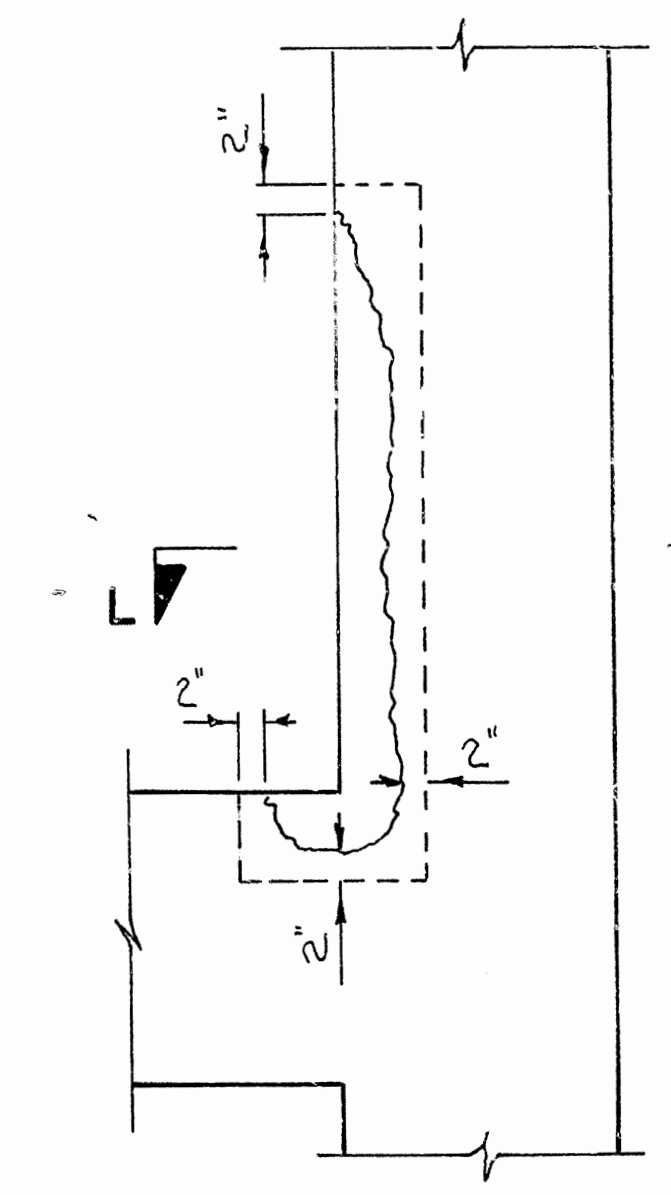
**DETAIL B**

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



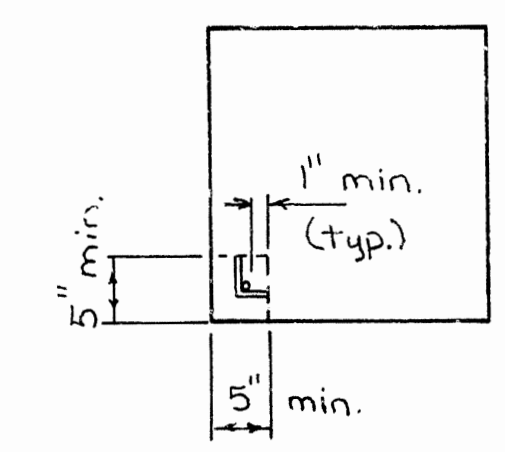
**DETAIL C**

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



**DETAIL D**

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



Sandblast existing exposed reinforcing steel.

**SECTION L-L**

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

A 1/2" deep slot shall be cut in the surface along neat lines around the area to be repaired. Defective concrete shall be chipped out, using special care not to damage existing reinforcing steel. After all loose materials are removed, new Class S Concrete shall be used to replace the defective concrete.

All work shall be done in accordance with Section 802 of the Standard Specifications for Highway Construction and S.P. "Repair of Existing Bents".



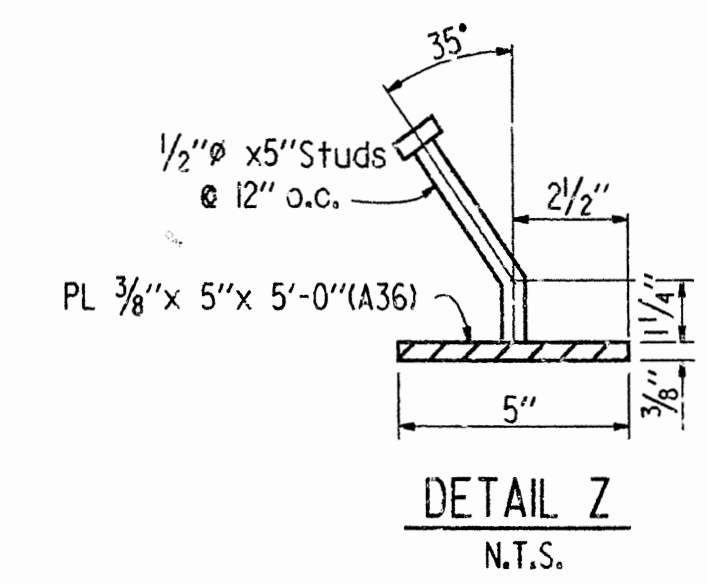
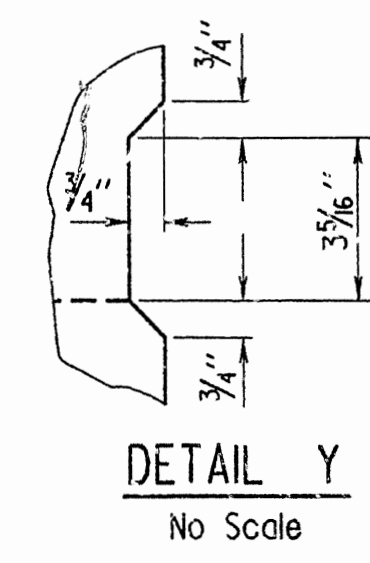
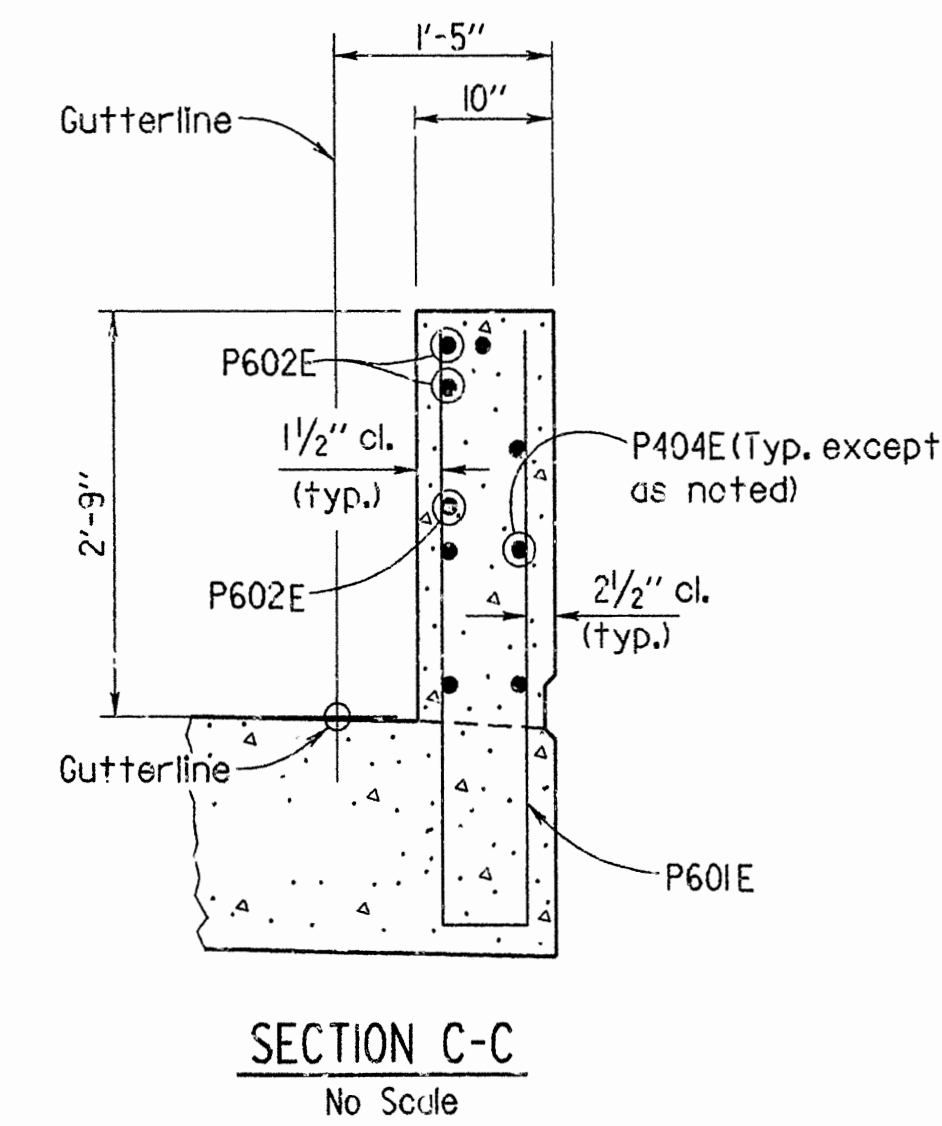
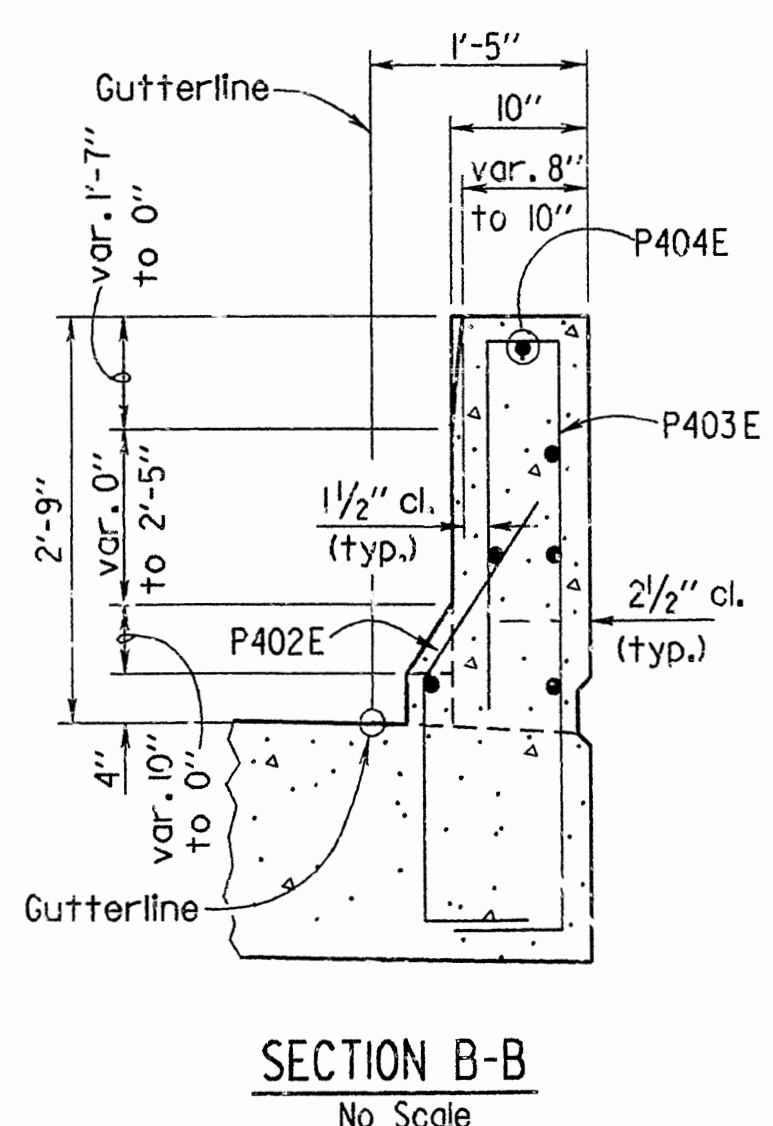
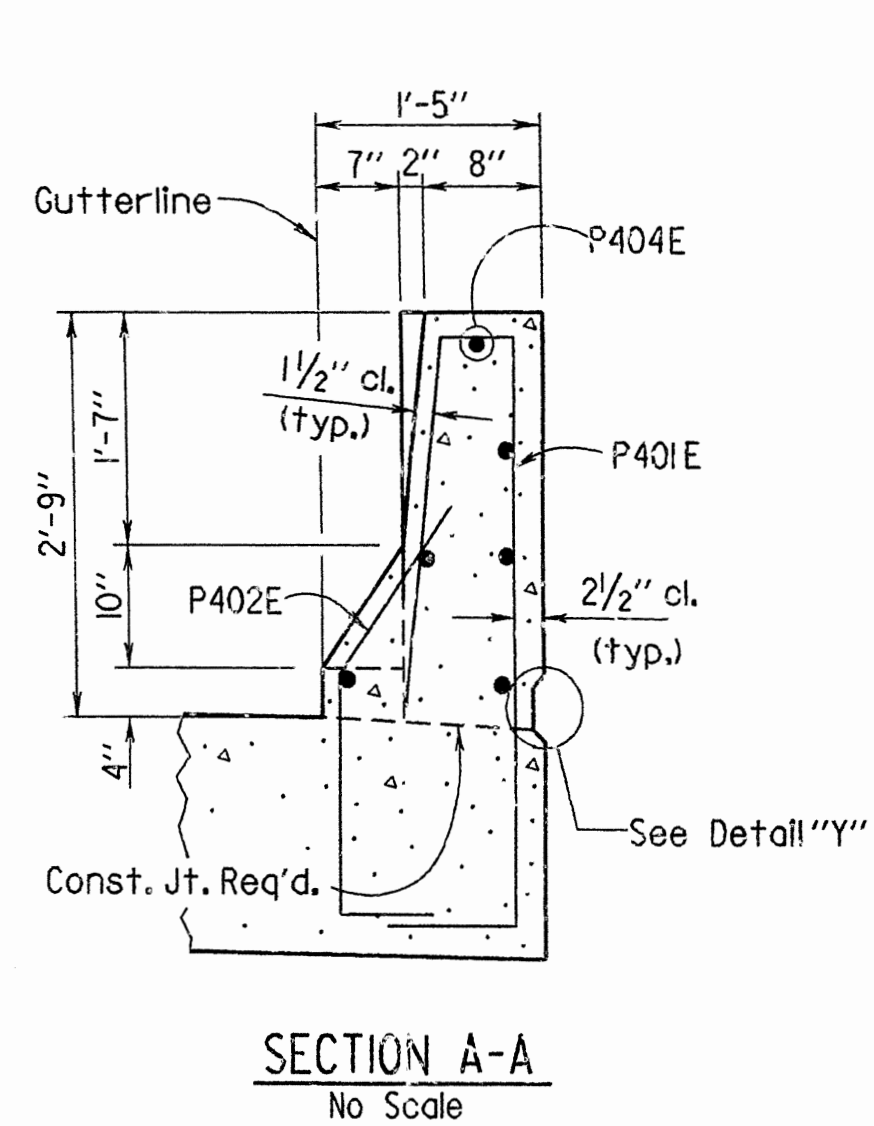
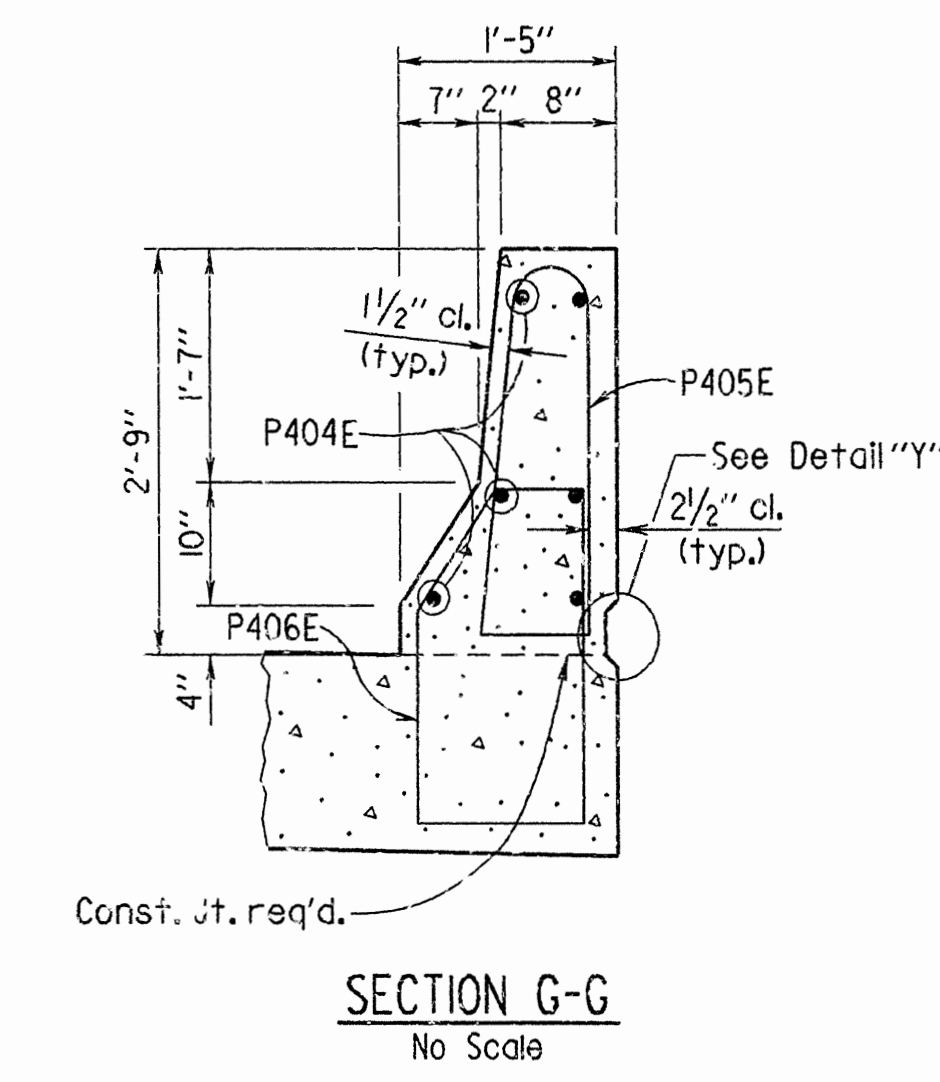
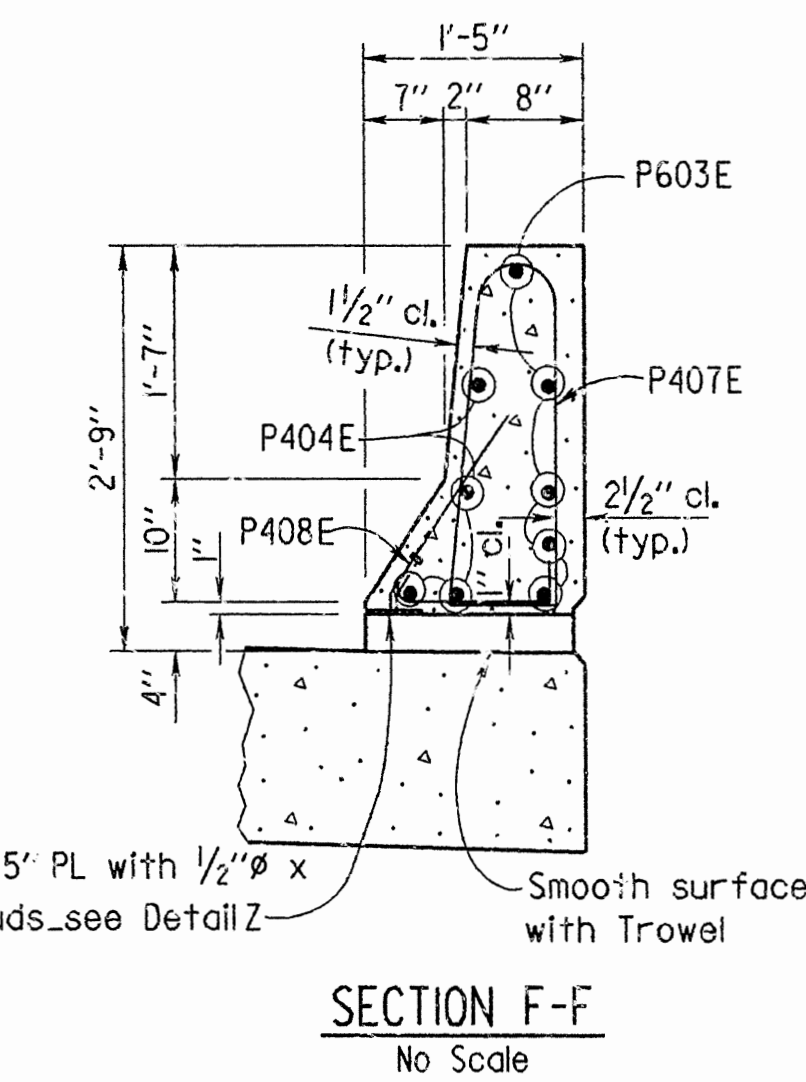
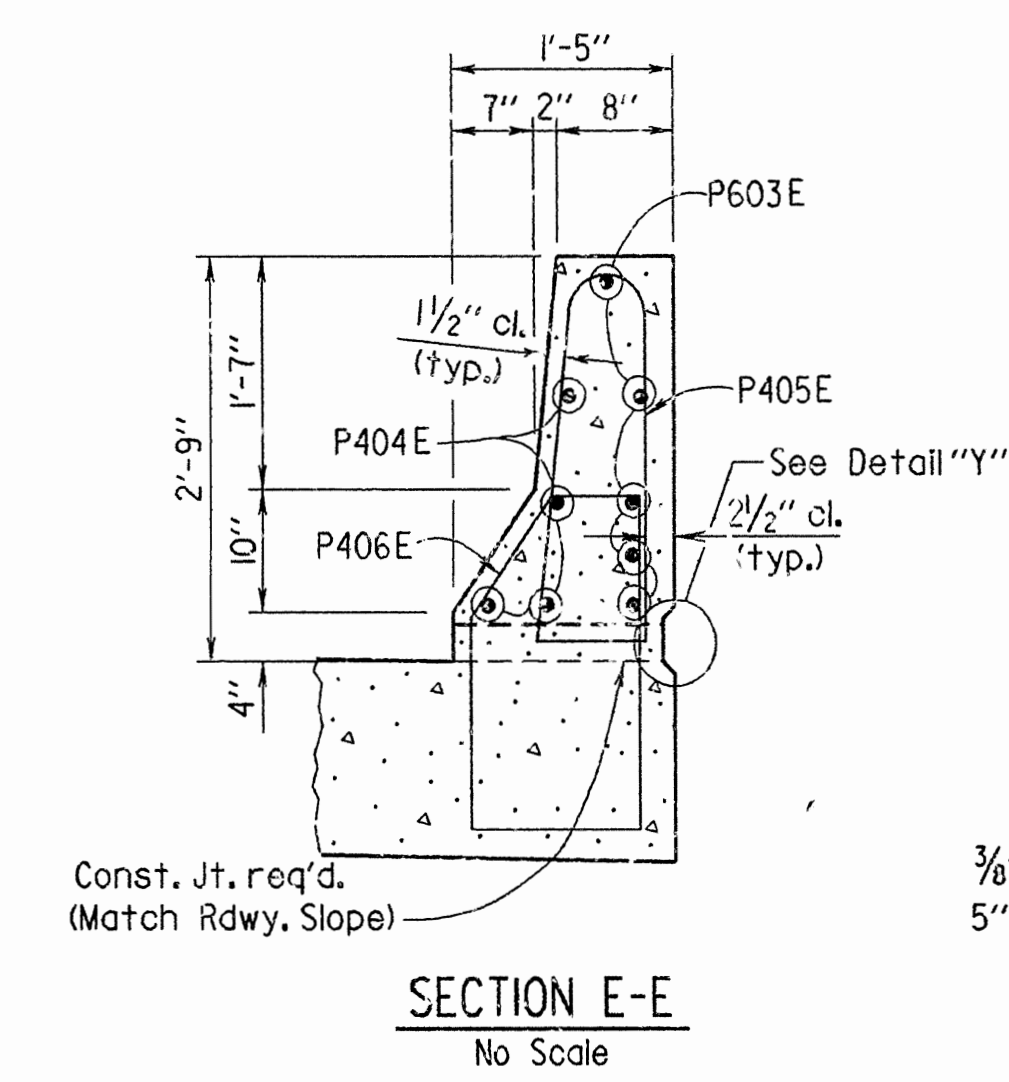
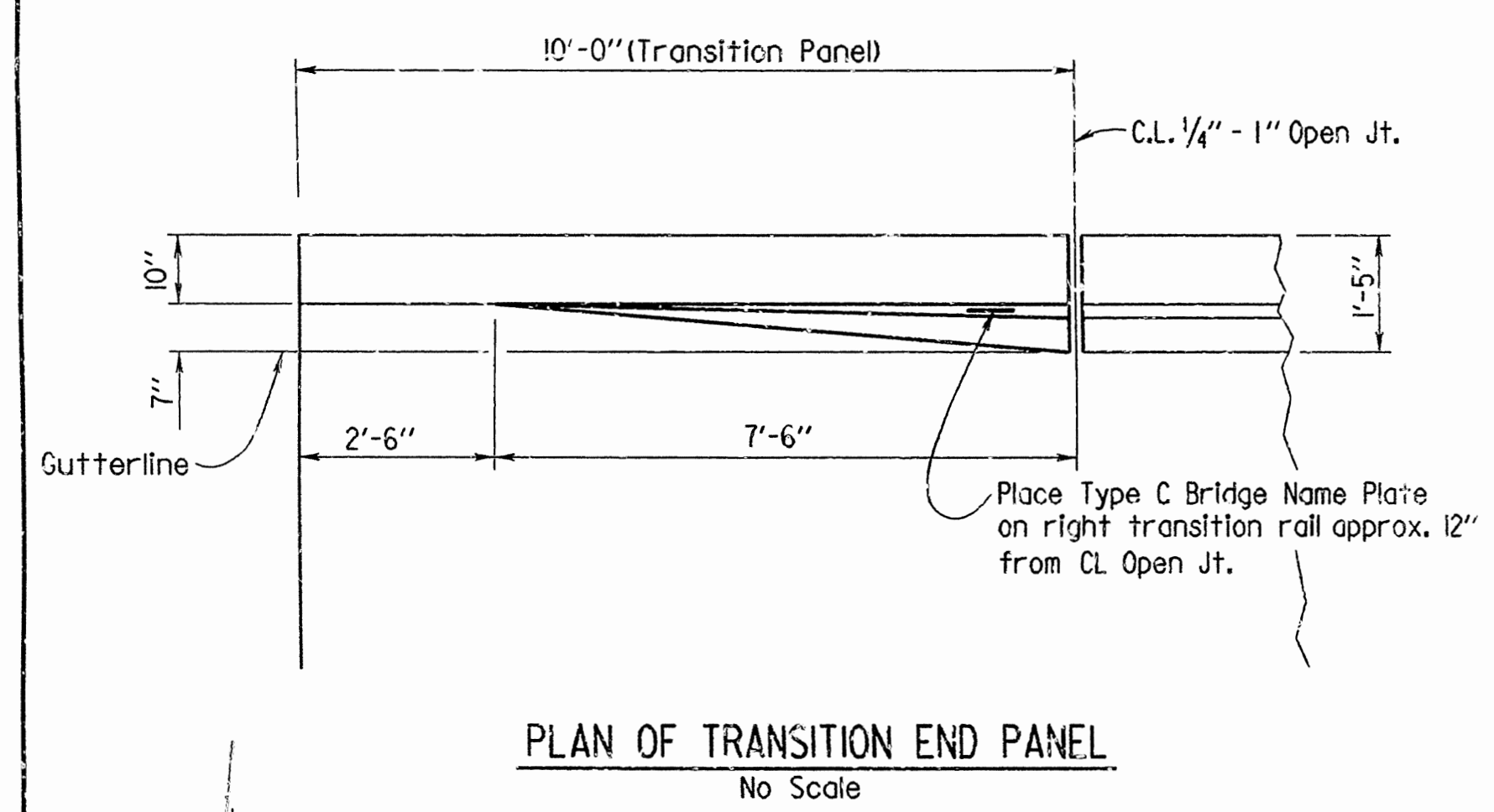
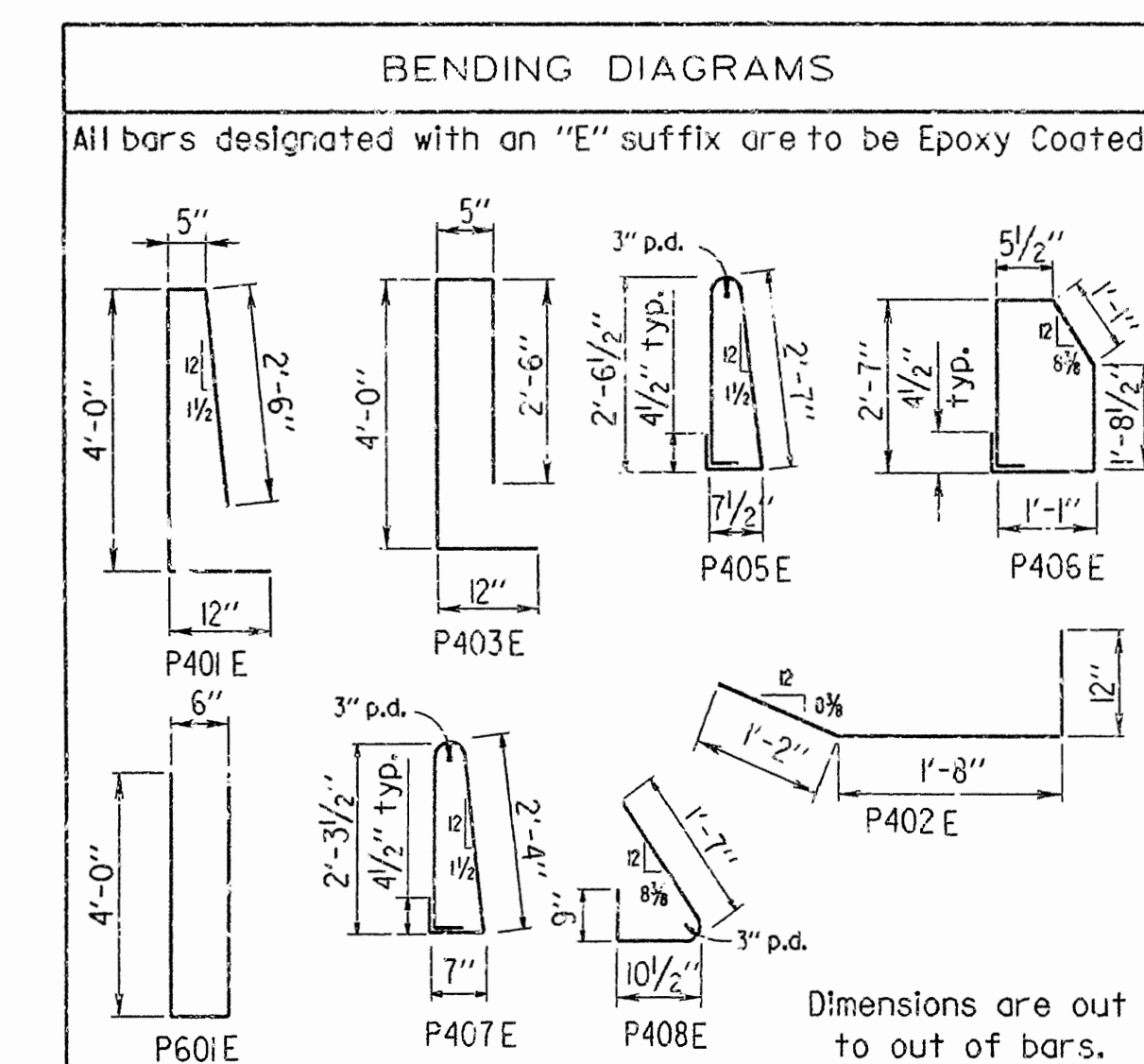
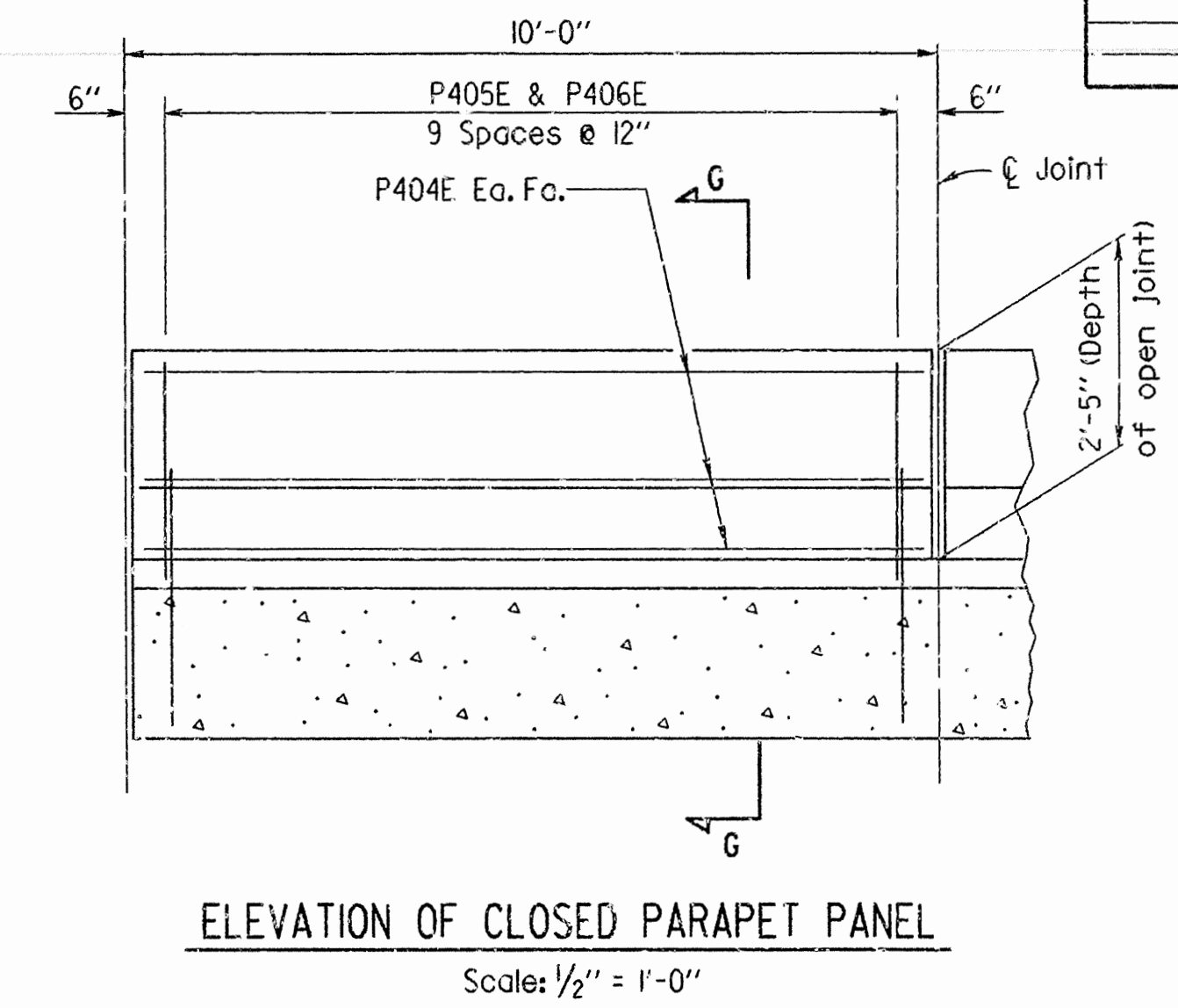
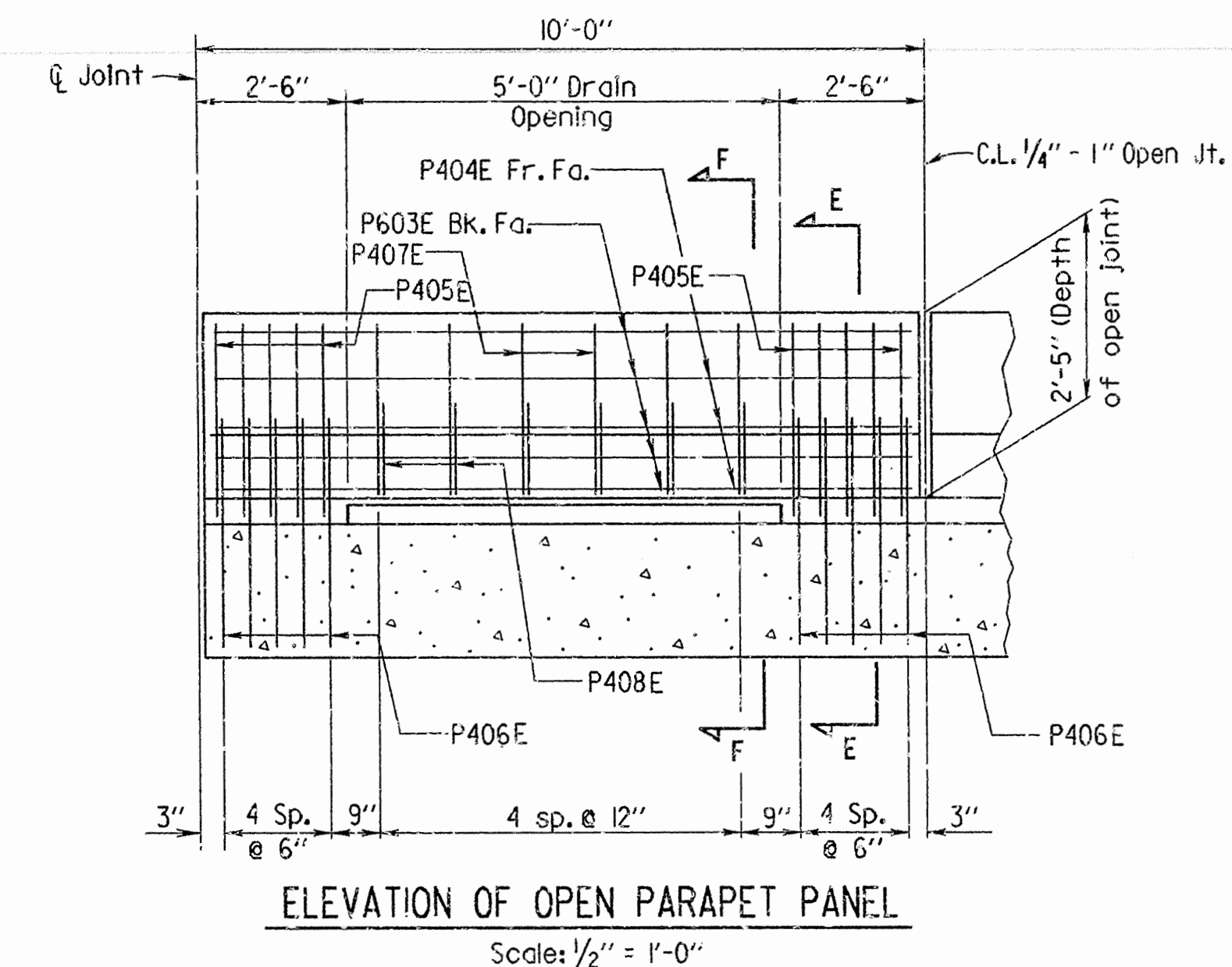
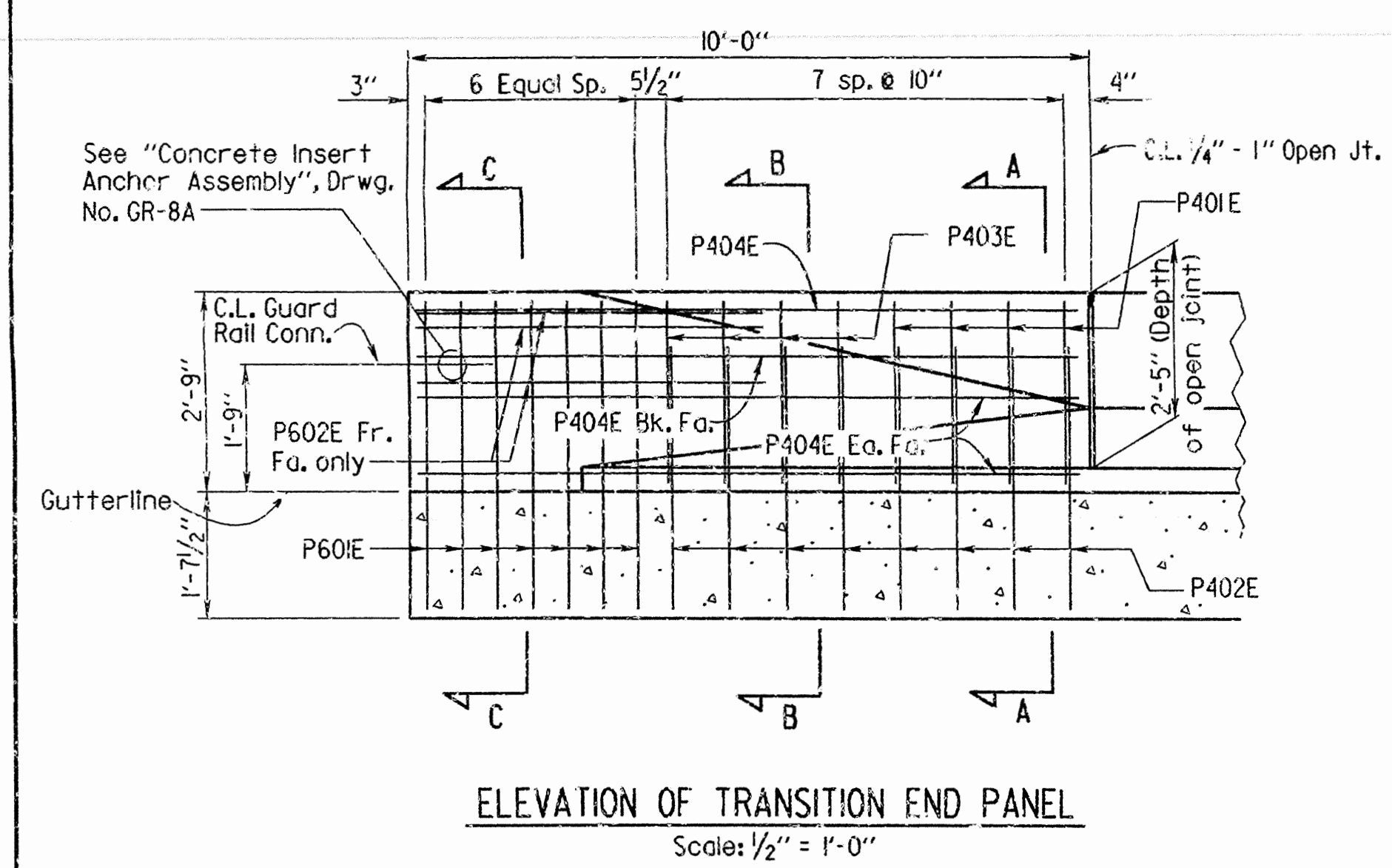
ALT. NO. 1 & 2  
BENT REPAIR DETAILS  
NINE MILE & TEN MILE CREEK  
HOT SPRING COUNTY  
ROUTE I-30 SEC. 21  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.  
DRAWN BY: GEC DATE: 6-8-93  
CHECKED BY: CAB DATE: 6-24-93  
DESIGNED BY: GEC DATE: 5-25-93  
SCALE: 1/4" = 1'-0" or as noted  
BRIDGE NO. 3432 AR & BR  
3245 AR & BR  
DRAWING NO. 34399



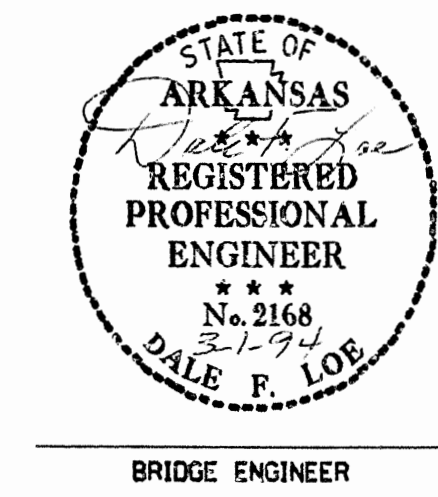




DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	060616		71	113
				3432AR&BR SPAN DTLS.		34400A		

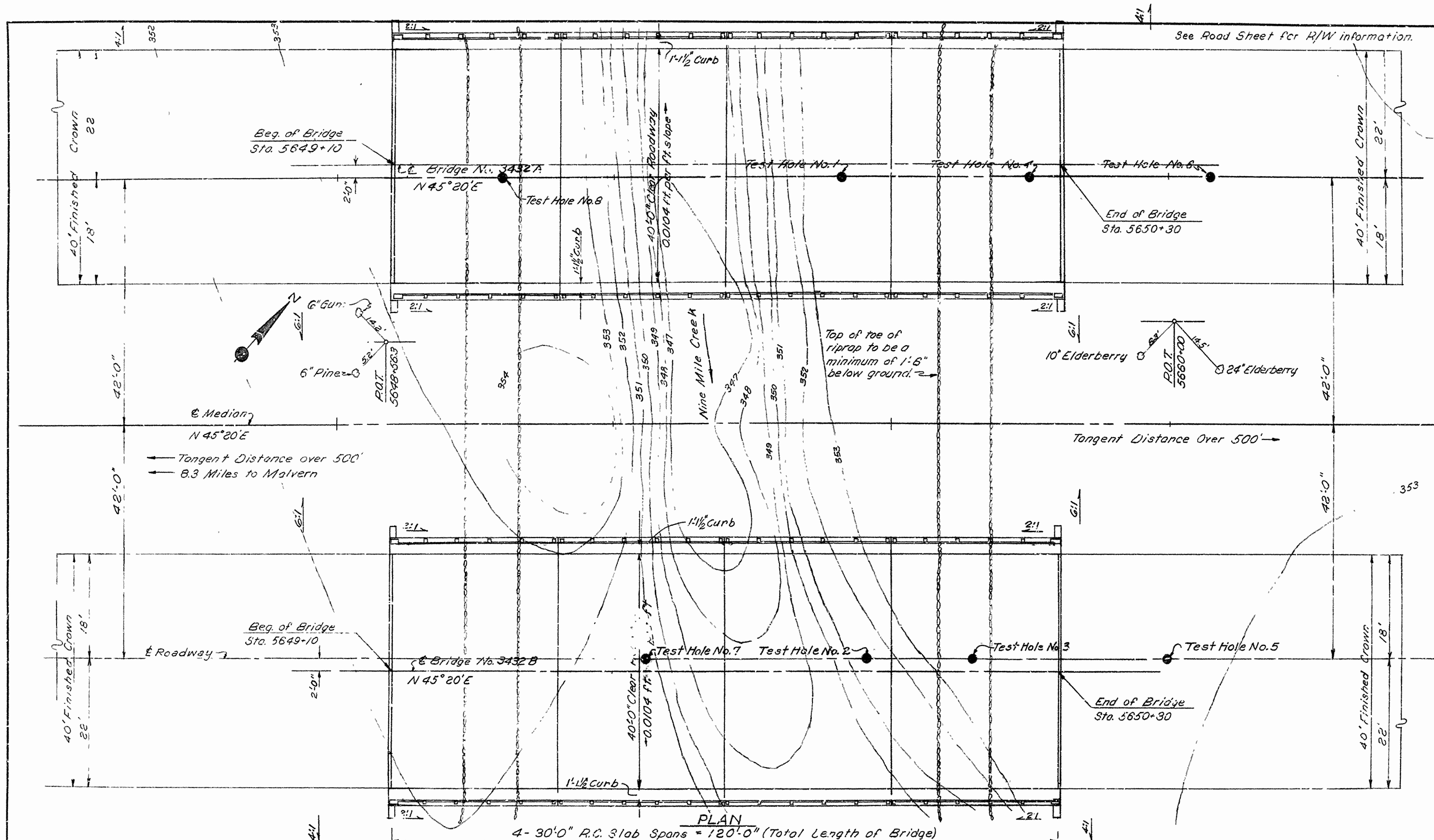


Note:  
Parapet Studs shall be 5" long, granular flux filled, solid fluxed, or equal, and automatically end welded to the plate. Studs and plate shall meet the requirements of Section 807. Studs and plate shall be measured and paid for as Class S(AE) Concrete. The surfaces of the 3/8" Plates which will not be in contact with concrete shall be painted in accordance with Section 638 or as approved by the Engineer, except that only one prime coat is required where multiple coats are specified. All coats shall be applied in the fabricator's shop. Painting will not be paid for directly, but will be considered subsidiary to Class S(AE) Concrete.



ALT. NO. 1 & 2  
(SHEET 2 OF 2)  
DETAILS OF  
30' R.C. SLAB SPANS  
NINE MILE CREEK  
HOT SPRING COUNTY  
ROUTE 1-30 SEC. 21  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.  
DRAWN BY: MJT DATE: 6-16-93  
CHECKED BY: GEC DATE: 8-9-93 SCALE: As Shown  
DESIGNED BY: GEC DATE: 5-25-93  
BRIDGE NO. 3432AR&3432BR DRAWING NO. 34400A





Piling Notes:

All piling to be 12 SP53 driven to refusal or to a minimum depth of 2 feet into the material described as hard blue shale with a minimum bearing capacity of 36 tons per pile. Lengths shown are for estimating quantities on 'y Actual lengths to be determined in the field. Order the lengths shown, cut-off or build-up, where necessary, shall be paid for in accordance with section 804 of the specifications. All piling to be driven with a steam hammer after the embankment is in place.

### GENERAL NOTES

BM nail in 10" pine 125' Rt. of Sta. 5651+80. El. 3549.2.

For Details of Superstructure, see Dwg. No 5431-B3.

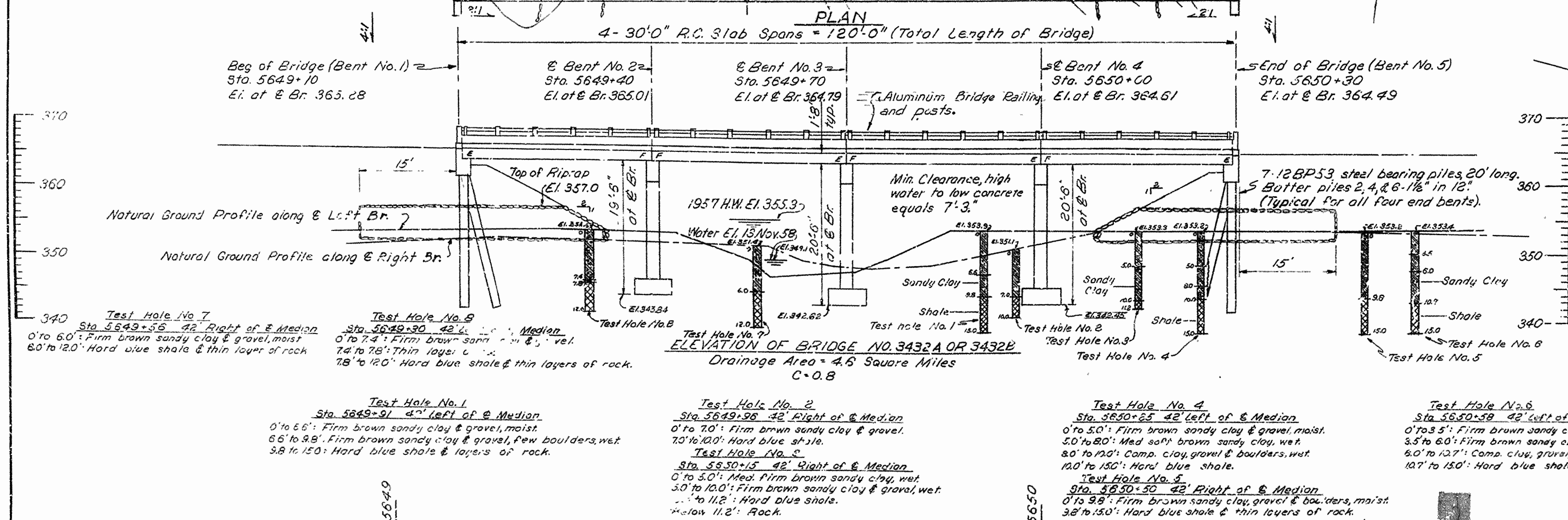
For Details of Superstructure, see Dwg. No. 543-25.  
For Details of Substructure, see Dwg. No. 543-A3 & 543-A.

Loading: H20-51's A.A.S.H.O. 1957 & Special Interstate  
Loading of 2-24,000 lb. axles at 4' centers.

Stresses: Class A Concrete ( $n=15$ ) = 840 psi  
Class S Concrete ( $n=10$ ) = 1200 psi  
Reinforcing Steel = 20000 psi

Specifications: Arkansas State Highway Commission Standard Specifications for Highway Construction, adopted Dec. 9, 1959.

Foundation Pressure 5900 p.s.f. DL + LL.



Revised: Specifications note B.V. 4-20-60  
Revised Bridge Railing: C.E.V. 10-19-60  
Revision Checked: W.E.W. 10-26-60

LAYOUT OF BRIDGES  
OVER NINE MILE CREEK  
QUACHITA RIVER-NINE MILE CREEK  
HOT SPRING COUNTY

INT. ROUTE 30 SEC. 2

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: W.E.W. DATE: 1 Dec. 58  
 TRACED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 CHECKED BY: W.E.W. DATE: 12-6-58

SCALE: 1" = 10'-0"

BRIDGE NO. 3432 A&amp;B      DRAWING NO. 11213