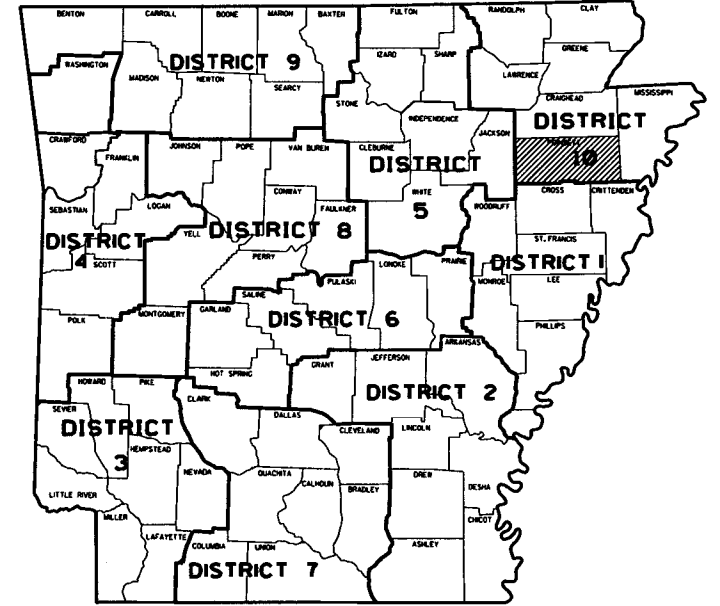


DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		100976	1	31
① SUNKEN LANDS BRIDGE PAINTING (I-555)(S)								

**ARKANSAS DEPARTMENT OF TRANSPORTATION  
MAINTENANCE PLANS**

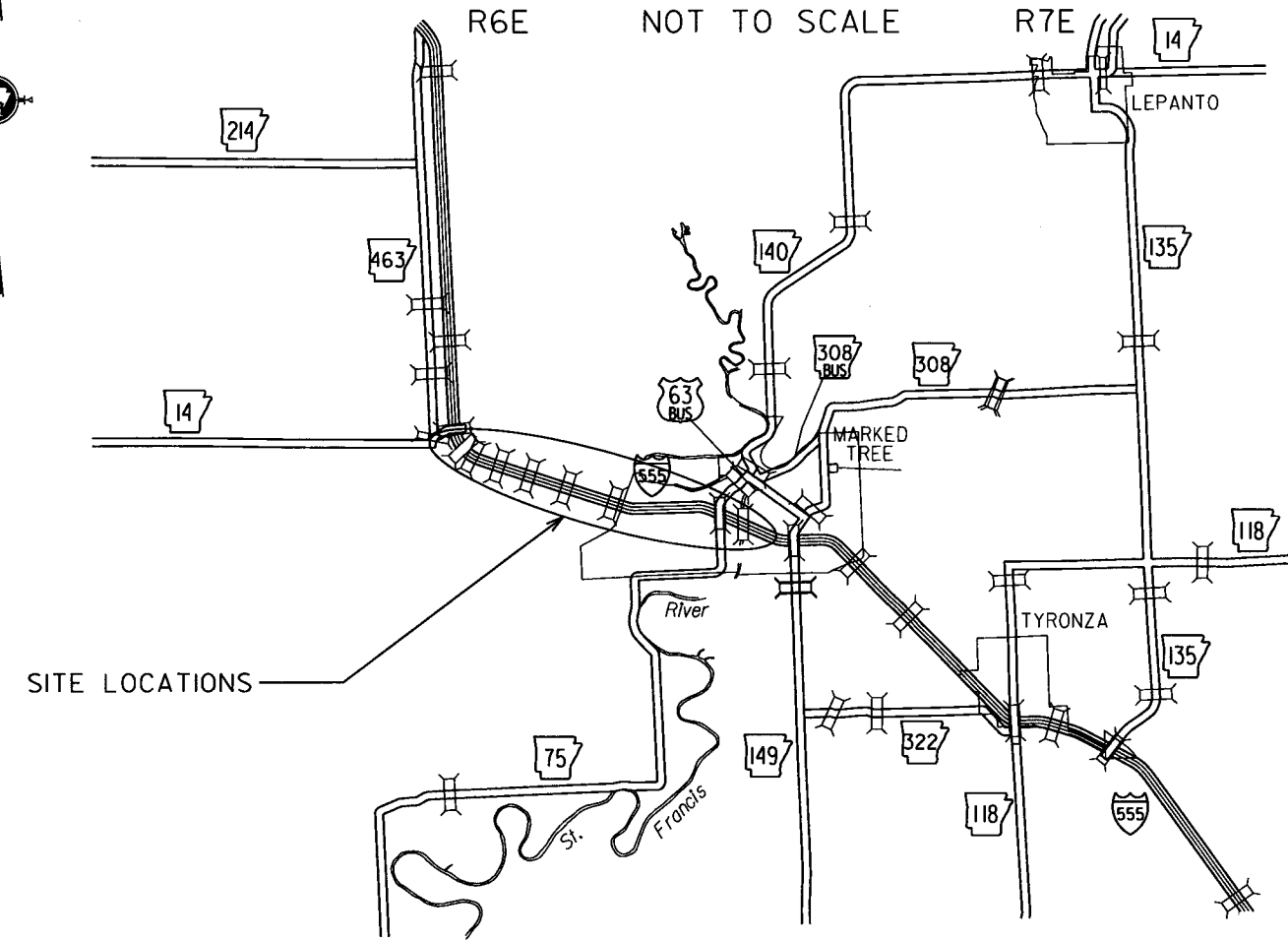
**SUNKEN LANDS BRIDGE PAINTING  
(I-555) (S)  
POINSETT COUNTY  
ROUTE 555 SECTION 2  
FEDERAL AID PROJ. NHPP-0056(49)  
JOB 100976**



**ARKANSAS HIGHWAY DIST. 10**

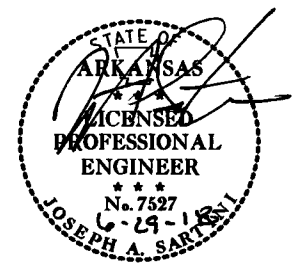
**BRIDGE DATA:**

- 1 BRIDGE NO. A5189  
I-555 SB, SEC. 02, LM. 13.31  
420'-0" COMPOSITE I-BEAM SPANS  
WITH 39'-0" CLEAR ROADWAY.  
LAT. 35° 31' 24" N LONG. 90° 25' 27" W
- 2 BRIDGE NO. B5189  
I-555 NB, SEC. 02, LM 13.31  
402'-0" COMPOSITE I-BEAM SPANS  
WITH 39'-0" CLEAR ROADWAY.  
LAT. 35° 31' 24" N LONG. 90° 25' 27" W
- 3 BRIDGE NO. 06230  
SH 63, SEC. 08B, LM 0.07 OVER I-555, SEC. 02, LM 13.72  
200'-0" CONT. COMPOSITE PLATE GIRDER UNIT  
WITH 40'-0" CLEAR ROADWAY.  
LAT. 35° 31' 33" N LONG. 90° 25' 51" W
- 4 BRIDGE NO. A5448  
I-555 NB, SEC. 2, LM 15.26  
480'-0" COMPOSITE I-BEAM SPANS  
WITH 37'-0" CLEAR ROADWAY.  
LAT. 35° 31' 46" N LONG. 90° 27' 26" W
- 5 BRIDGE NO. B5448  
I-555 SB, SEC. 2, LM 15.26  
480'-0" COMPOSITE I-BEAM SPANS  
WITH 37'-0" CLEAR ROADWAY.  
LAT. 35° 31' 46" N LONG. 90° 27' 26" W
- 6 BRIDGE NO. A5447  
I-555 NB, SEC. 2, LM 15.93  
1000'-0" COMPOSITE I-BEAM SPANS  
WITH 37'-0" CLEAR ROADWAY.  
LAT. 35° 31' 58" N LONG. 90° 28' 6" W
- 7 BRIDGE NO. B5447  
I-555 SB, SEC. 2, LM 15.93  
1000'-0" COMPOSITE I-BEAM SPANS  
WITH 37'-0" CLEAR ROADWAY.  
LAT. 35° 31' 58" N LONG. 90° 28' 6" W
- 8 BRIDGE NO. A5446  
I-555 NB, SEC. 2, LM 16.51  
600'-0" COMPOSITE I-BEAM SPANS  
WITH 37'-0" CLEAR ROADWAY.  
LAT. 35° 32' 9" N LONG. 90° 28' 41" W
- 9 BRIDGE NO. B5446  
I-555 SB, SEC. 2, LM 16.51  
600'-0" COMPOSITE I-BEAM SPANS  
WITH 37'-0" CLEAR ROADWAY.  
LAT. 35° 32' 9" N LONG. 90° 28' 41" W
- 10 BRIDGE NO. A5445  
I-555 NB, SEC. 2, LM 16.92  
1280'-0" COMPOSITE I-BEAM SPANS  
WITH 37'-0" CLEAR ROADWAY.  
LAT. 35° 32' 16" N LONG. 90° 29' 6" W
- 11 BRIDGE NO. B5445  
I-555 SB, SEC. 2, LM 16.92  
1280'-0" COMPOSITE I-BEAM SPANS  
WITH 37'-0" CLEAR ROADWAY.  
LAT. 35° 32' 16" N LONG. 90° 29' 6" W
- 12 BRIDGE NO. 06040  
CR 270-A OVER I-555, SEC. 02, LM 17.59  
217'-0" CONT. COMPOSITE PLATE GIRDER UNIT  
WITH 28'-0" CLEAR ROADWAY.  
LAT. 35° 32' 32" N LONG. 90° 29' 42" W



SITE LOCATIONS

T I O N



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						100976	2	31
								IND. OF SHTS. & GOV. SPECS.

INDEX OF SHEETS

SHEET NO.

TITLE

- 1 \_\_\_ TITLE SHEET
- 2 \_\_\_ INDEX OF SHEETS AND GOVERNING SPECIFICATIONS
- 3 \_\_\_ QUANTITIES AND GENERAL NOTES
- 4 \_\_\_ SUMMARY OF QUANTITIES AND REVISIONS
- 5 \_\_\_ SITE LOCATIONS MAP
- 6 \_\_\_ BRIDGE PICTURES (SHEET 1 OF 2)
- 7 \_\_\_ BRIDGE PICTURES (SHEET 2 OF 2)
- 8 \_\_\_ LAYOUT OF BRIDGE NOS. A&B5189 - FOR INFORMATION ONLY
- 9 \_\_\_ DETAILS OF BEAM SPANS - BR. NOS. A&B5189 - FOR INFORMATION ONLY
- 10 \_\_\_ DETAILS OF BEAM SPANS - BR. NOS. A&B5189 - FOR INFORMATION ONLY
- 11 \_\_\_ DETAILS OF BEAM SPANS - BR. NOS. A&B5189 - FOR INFORMATION ONLY
- 12 \_\_\_ LAYOUT OF BRIDGE NO. 06230 - FOR INFORMATION ONLY
- 13 \_\_\_ PLATE GIRDER UNIT DETAILS - BRIDGE NO. 06230 (SHEET 1 OF 3) - FOR INFORMATION ONLY
- 14 \_\_\_ PLATE GIRDER UNIT DETAILS - BRIDGE NO. 06230 (SHEET 2 OF 3) - FOR INFORMATION ONLY
- 15 \_\_\_ PLATE GIRDER UNIT DETAILS - BRIDGE NO. 06230 (SHEET 3 OF 3) - FOR INFORMATION ONLY
- 16 \_\_\_ ELASTOMERIC BEARING DETAILS - BRIDGE NO. 06230 - FOR INFORMATION ONLY
- 17 \_\_\_ GENERAL NOTES - BRIDGE NO. 06230 - FOR INFORMATION ONLY
- 18 \_\_\_ LAYOUT OF BRIDGE NOS. A&B5448 - FOR INFORMATION ONLY
- 19 \_\_\_ LAYOUT OF BRIDGE NOS. A&B5447 - FOR INFORMATION ONLY
- 20 \_\_\_ LAYOUT OF BRIDGE NOS. A&B5446 - FOR INFORMATION ONLY
- 21 \_\_\_ LAYOUT OF BRIDGE NOS. A&B5445 (SHEET 1 OF 3) - FOR INFORMATION ONLY
- 22 \_\_\_ LAYOUT OF BRIDGE NOS. A&B5445 (SHEET 2 OF 3) - FOR INFORMATION ONLY
- 23 \_\_\_ LAYOUT OF BRIDGE NOS. A&B5445 (SHEET 3 OF 3) - FOR INFORMATION ONLY
- 24 \_\_\_ DETAILS OF BEAM SPANS - BR. NOS. A&B5448,7,6,5 - FOR INFORMATION ONLY
- 25 \_\_\_ DETAILS OF BEAM SPANS - BR. NOS. A&B5448,7,6,5 - FOR INFORMATION ONLY
- 26 \_\_\_ LAYOUT OF BRIDGE NO. 06040 - FOR INFORMATION ONLY
- 27 \_\_\_ PLATE GIRDER UNIT DETAILS - BRIDGE NO. 06040 - FOR INFORMATION ONLY
- 28 \_\_\_ PLATE GIRDER UNIT DETAILS - BRIDGE NO. 06040 - FOR INFORMATION ONLY
- 29 \_\_\_ PLATE GIRDER UNIT DETAILS - BRIDGE NOS. 06040 & 06041 - FOR INFORMATION ONLY
- 30 \_\_\_ PLATE GIRDER UNIT DETAILS - BRIDGE NOS. 06040 & 06041 - FOR INFORMATION ONLY
- 31 \_\_\_ ELASTOMERIC BEARING DETAILS - BRIDGE NO. 06040 - 06043 - FOR INFORMATION ONLY

GOVERNING SPECIFICATIONS

ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2014, AND THE FOLLOWING SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS:

NUMBER TITLE

- ERRATA \_\_\_ ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
- FHWA-1273 \_\_\_ REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
- FHWA-1273 \_\_\_ SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
- FHWA-1273 \_\_\_ SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
- FHWA-1273 \_\_\_ SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
- FHWA-1273 \_\_\_ SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
- FHWA-1273 \_\_\_ SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
- FHWA-1273 \_\_\_ SUPPLEMENT - WAGE RATE DETERMINATION
- 100-3 \_\_\_ CONTRACTOR'S LICENSE
- 100-4 \_\_\_ DEPARTMENT NAME CHANGE
- 102-2 \_\_\_ ISSUANCE OF PROPOSALS
- 108-1 \_\_\_ LIQUIDATED DAMAGES
- 108-2 \_\_\_ WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER
- JOB 100976 \_\_\_ BIDDING REQUIREMENTS AND CONDITIONS
- JOB 100976 \_\_\_ CARGO PREFERENCE ACT REQUIREMENTS
- JOB 100976 \_\_\_ CONTAINMENT SYSTEM
- JOB 100976 \_\_\_ CONTRACTOR CERTIFICATION
- JOB 100976 \_\_\_ DOCUMENTATION OF PAYMENTS MADE TO DISADVANTAGED BUSINESS ENTERPRISES
- JOB 100976 \_\_\_ INSPECTOR'S PERSONAL PROTECTION CLOTHING
- JOB 100976 \_\_\_ MANDATORY ELECTRONIC CONTRACT
- JOB 100976 \_\_\_ MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
- JOB 100976 \_\_\_ NESTING SITES OF MIGRATORY BIRDS
- JOB 100976 \_\_\_ PAINT CONTRACTOR LABEL
- JOB 100976 \_\_\_ PARTNERING REQUIREMENTS
- JOB 100976 \_\_\_ SPECIAL MAINTENANCE OF TRAFFIC REQUIREMENTS
- JOB 100976 \_\_\_ SPECIAL SAFETY REQUIREMENTS FOR BRIDGES
- JOB 100976 \_\_\_ VALUE ENGINEERING
- JOB 100976 \_\_\_ WATER POLLUTION CONTROL

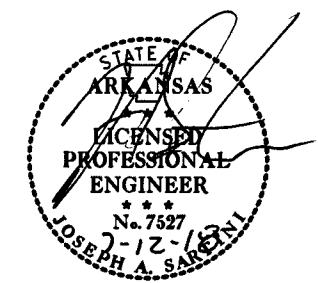
ROADWAY STANDARD DRAWINGS

DRWG. NO.

TITLE

DATE

- TC-1 \_\_\_ STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION 04-13-17
- TC-2 \_\_\_ STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION 09-02-15
- TC-3 \_\_\_ STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION 09-02-15



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. AID DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						100976	3	31
① QUANTITIES & GENERAL NOTES								

**CLEANING AND PAINTING EXISTING STRUCTURAL STEEL (TYPE II)**

DESCRIPTION	QUANTITY	UNIT
BRIDGE NO. A5189	214	TON
BRIDGE NO. B5189	214	TON
BRIDGE NO. 06230	63	TON
BRIDGE NO. A5448	118	TON
BRIDGE NO. B5448	118	TON
BRIDGE NO. A5447	245	TON
BRIDGE NO. B5447	245	TON
BRIDGE NO. A5446	195	TON
BRIDGE NO. B5446	195	TON
BRIDGE NO. A5445	346	TON
BRIDGE NO. B5445	346	TON
BRIDGE NO. 06040	107	TON
TOTAL:	2406	TON

**\*DISPOSAL OF HAZARDOUS WASTE**

DESCRIPTION	QUANTITY	UNIT
BRIDGE NO. A5189 (SITE NO. 1)	1.00	LUMP SUM
BRIDGE NO. B5189 (SITE NO. 2)	1.00	LUMP SUM
BRIDGE NO. 06230 (SITE NO. 3)	1.00	LUMP SUM
BRIDGE NO. A5448 (SITE NO. 4)	1.00	LUMP SUM
BRIDGE NO. B5448 (SITE NO. 5)	1.00	LUMP SUM
BRIDGE NO. A5447 (SITE NO. 6)	1.00	LUMP SUM
BRIDGE NO. B5447 (SITE NO. 7)	1.00	LUMP SUM
BRIDGE NO. A5446 (SITE NO. 8)	1.00	LUMP SUM
BRIDGE NO. B5446 (SITE NO. 9)	1.00	LUMP SUM
BRIDGE NO. A5445 (SITE NO. 10)	1.00	LUMP SUM
BRIDGE NO. B5445 (SITE NO. 11)	1.00	LUMP SUM
BRIDGE NO. 06040 (SITE NO. 12)	1.00	LUMP SUM

\* POTENTIAL HAZARDOUS WASTE IN THE FORM OF LEAD PAINT DEBRIS WILL BE REMOVED FROM THIS STRUCTURE AND SENT TO AN APPROPRIATE TREATMENT FACILITY AS PER CODE OF FEDERAL REGULATIONS 40 CFR PART 260.

**GENERAL NOTES**

1. PAINT SYSTEM: SEE SECTION 807 AND 820 OF THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.  
PRIME COAT: ONE COAT OF INORGANIC ZINC, 3 MIL DFT MINIMUM UNLESS NOTED.  
INTERMEDIATE EPOXY TIE COAT: 2 MIL DFT MINIMUM  
FINISH COAT: ONE COAT URETHANE, 3 MIL DFT MINIMUM, GRAY - FEDERAL STANDARD 595B COLOR CHIP 26270  
MAXIMUM DFT FOR EACH COAT AS RECOMMENDED BY COATING MANUFACTURER.
2. ALL SURFACES TO BE PAINTED SHALL BE CLEAN AND FREE OF DUST OR OTHER OBJECTIONABLE MATTER.
3. CONTRACTOR IS RESPONSIBLE FOR BEING FAMILIAR WITH THE LOCATION OF ALL UTILITIES ON THE BRIDGES BEFORE BIDDING.
4. UTILITIES ON BRIDGES SHOULD BE PROTECTED DURING THE CLEANING AND PAINTING OPERATION.
5. CONTAINMENT REQUIRED :
6. STORAGE OF EQUIPMENT AND HAZARDOUS MATERIALS IS PROHIBITED WITHIN THE ST. FRANCIS RIVER FLOODWAY AND THE AGFC ST. FRANCIS SUNKEN LANDS WMA BOUNDARIES.

NUMBER	CLASS OF CONTAINMENT	MIGRATORY BIRDS
A5189	4	NO
B5189	4	NO
06230	4	NO
A5448	4	NO
B5448	4	NO
A5447	4	NO
B5447	4	NO
A5446	4	NO
B5446	4	NO
A5445	4	NO
B5445	4	NO
06040	3	NO

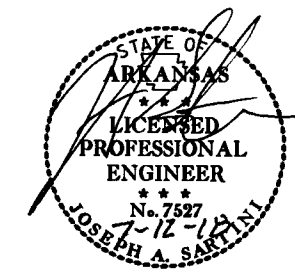
**MOBILIZATION**

DESCRIPTION	QUANTITY	UNIT
ENTIRE PROJECT	1.00	LUMP SUM
TOTAL:	1.00	LUMP SUM

**\*\*MAINTENANCE OF TRAFFIC**

DESCRIPTION	QUANTITY	UNIT
ENTIRE PROJECT	1.00	LUMP SUM
TOTAL:	1.00	LUMP SUM

\*\* ALL TRAFFIC CONTROL DEVICES AND/OR PAVEMENT MARKINGS WILL BE PLACED IF AND WHERE DIRECTED BY THE ENGINEER. ALL ITEMS NECESSARY FOR TRAFFIC CONTROL IS SUBSIDIARY TO THE ITEM OF "MAINTENANCE OF TRAFFIC".



### SUMMARY OF QUANTITIES

LOCATION			BRIDGE DATA		ITEM NO.		SP & 820	601	SP & 603	820
BRIDGE NUMBER	I-555 LOG MILE	COUNTY	ROADWAY WIDTH (FT)	ROADWAY LENGTH (FT)	BRIDGE NAME	PAY ITEM	CLEANING AND PAINTING EXISTING STRUCTURAL STEEL (TYPE II)	MOBILIZATION	MAINTENANCE OF TRAFFIC	DISPOSAL OF HAZARDOUS WASTE (SITE NO. )
							UNIT	TON	LUMP SUM	LUMP SUM
A5189	13.31	POINSETT	39	420	I-555 OVER ST. FRANCIS RIVER		214			1.00 (SITE NO. 1)
B5189	13.31	POINSETT	39	420	I-555 OVER ST. FRANCIS RIVER		214			1.00 (SITE NO. 2)
06230	13.72	POINSETT	40	200	SH 63 OVER I-555		63			1.00 (SITE NO. 3)
A5448	15.26	POINSETT	37	480	I-555 OVER FLOODWAY RELIEF		118			1.00 (SITE NO. 4)
B5448	15.26	POINSETT	37	480	I-555 OVER FLOODWAY RELIEF		118			1.00 (SITE NO. 5)
A5447	15.93	POINSETT	37	1000	I-555 OVER SAND SLOUGH		245			1.00 (SITE NO. 6)
B5447	15.93	POINSETT	37	1000	I-555 OVER SAND SLOUGH		245			1.00 (SITE NO. 7)
A5446	16.51	POINSETT	37	600	I-555 OVER DITCH NO. 61		195			1.00 (SITE NO. 8)
B5446	16.51	POINSETT	37	600	I-555 OVER DITCH NO. 61		195			1.00 (SITE NO. 9)
A5445	16.92	POINSETT	37	1280	I-555 OVER DITCH NO. 60		346			1.00 (SITE NO. 10)
B5445	16.92	POINSETT	37	1280	I-555 OVER DITCH NO. 60		346			1.00 (SITE NO. 11)
06040	17.59	POINSETT	28	217	CR 270A OVER I-555		107			1.00 (SITE NO. 12)
TOTAL JOB NO. 100976							2406	1.00	1.00	

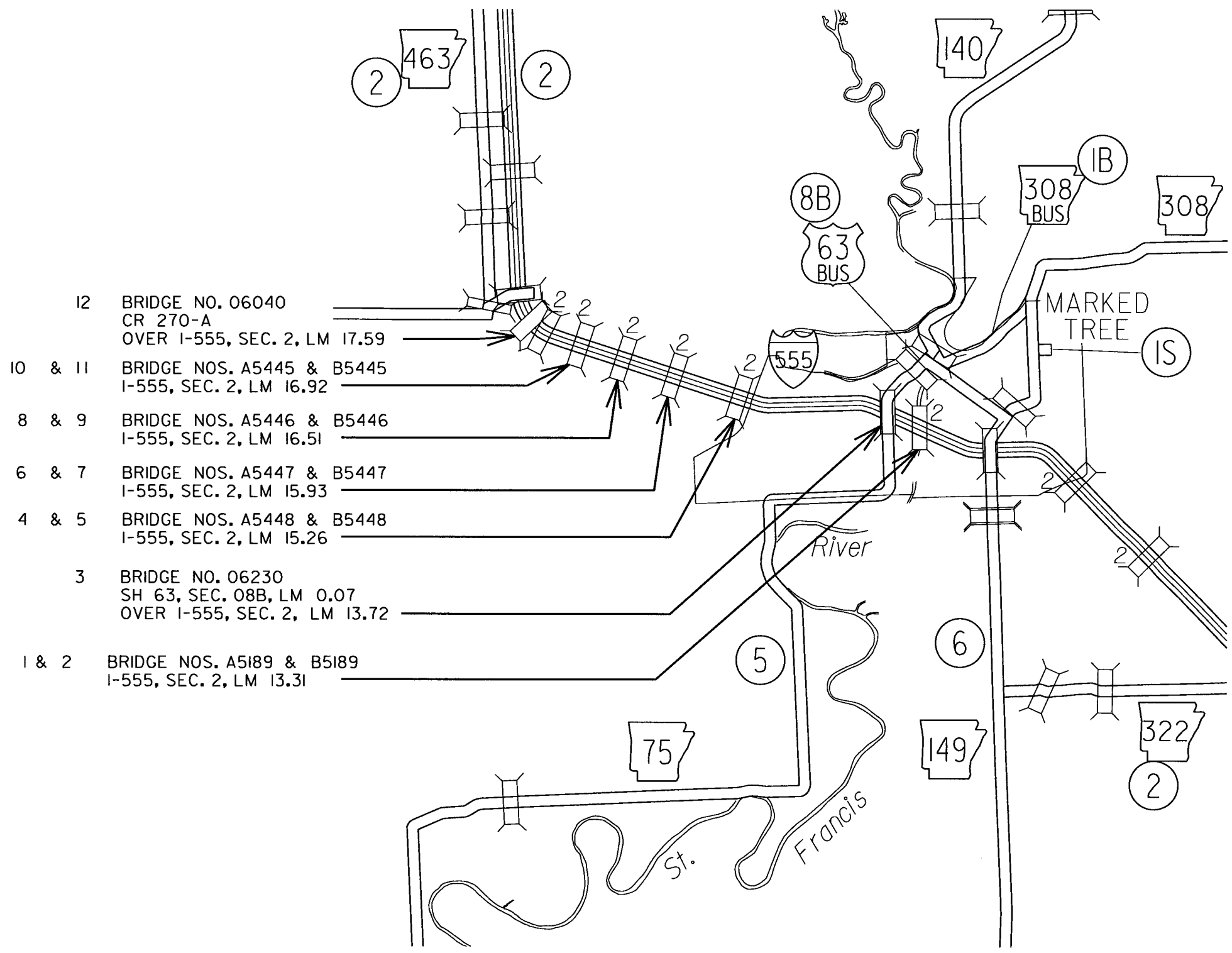
### REVISIONS

DATE	REVISION	SHEET NO.

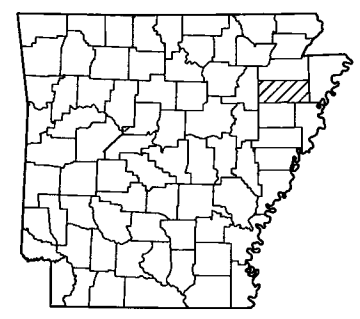


DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						100976	5	31

① SITE LOCATIONS MAP



- 12 BRIDGE NO. 06040  
CR 270-A  
OVER I-555, SEC. 2, LM 17.59
- 10 & 11 BRIDGE NOS. A5445 & B5445  
I-555, SEC. 2, LM 16.92
- 8 & 9 BRIDGE NOS. A5446 & B5446  
I-555, SEC. 2, LM 16.51
- 6 & 7 BRIDGE NOS. A5447 & B5447  
I-555, SEC. 2, LM 15.93
- 4 & 5 BRIDGE NOS. A5448 & B5448  
I-555, SEC. 2, LM 15.26
- 3 BRIDGE NO. 06230  
SH 63, SEC. 08B, LM 0.07  
OVER I-555, SEC. 2, LM 13.72
- 1 & 2 BRIDGE NOS. A5189 & B5189  
I-555, SEC. 2, LM 13.31



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.		100976	6	31

① BRIDGE PICTURES



SITE NO. 1 - BRIDGE NO. A5189



SITE NO. 2 - BRIDGE NO. B5189



SITE NO. 3 - BRIDGE NO. 06230



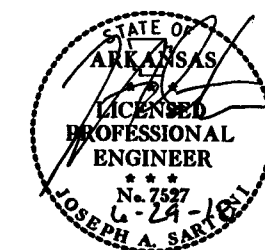
SITE NO. 4 - BRIDGE NO. A5448



SITE NO. 5 - BRIDGE NO. B5448



SITE NO. 6 - BRIDGE NO. A5447

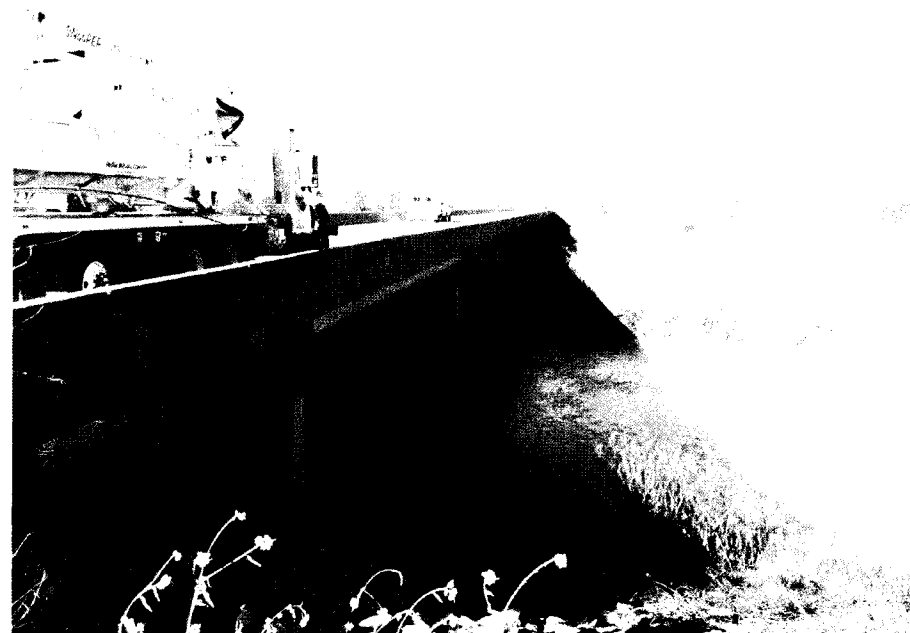


DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AD PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		100976	7	31

① BRIDGE PICTURES



SITE NO. 7 - BRIDGE NO. B5447



SITE NO. 8 - BRIDGE NO. A5446



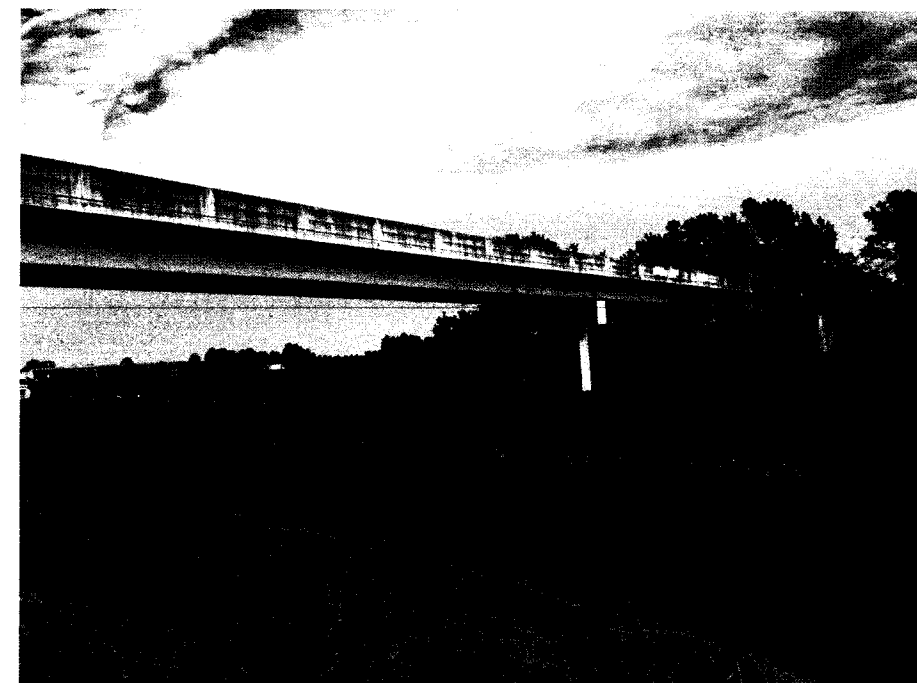
SITE NO. 9 - BRIDGE NO. B5446



SITE NO. 10 - BRIDGE NO. A5445



SITE NO. 11 - BRIDGE NO. B5445



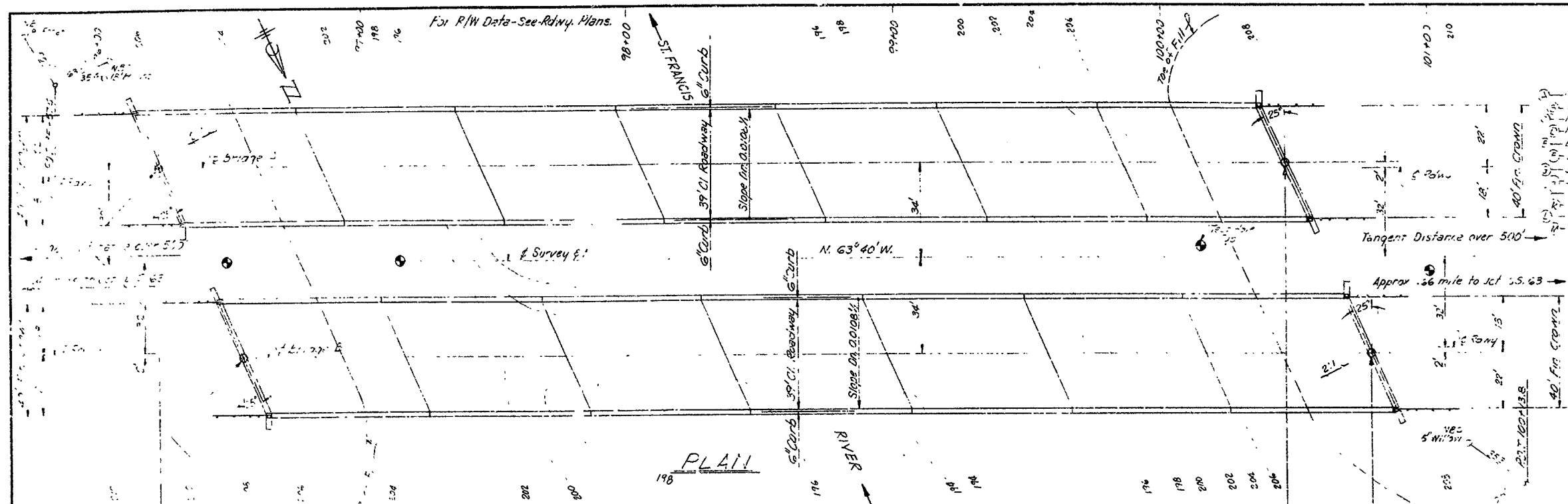
SITE NO. 12 - BRIDGE NO. 06040



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	100976	8	31

1 SITE NOS. 1 & 2 - FOR INFORMATION ONLY

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	100976		28	25



**BORINGS LOG**

1. In situ 1 1/2" Trace of Sandstone  
 2. In situ Sandstone  
 3. Fine Grained Sandstone  
 4. Fine Grained Water Bearing Sand  
 5. Brown Sandstone  
 6. In situ Sandstone  
 7. In situ Sandstone  
 8. In situ Sandstone  
 9. Fine Grained Water Bearing Sand  
 10. In situ Sandstone  
 11. In situ Sandstone  
 12. In situ Sandstone  
 13. In situ Sandstone  
 14. In situ Sandstone  
 15. In situ Sandstone  
 16. In situ Sandstone  
 17. In situ Sandstone  
 18. In situ Sandstone  
 19. In situ Sandstone  
 20. In situ Sandstone

Use Type X Approach Spans and  
 girders at each end of Bored  
 Piers. See Dwg. 1558F

**GENERAL NOTES**

Bench Mark - Nail in side, 10" Pecan, 250' left, Station 85 + 13, Elevation 207.80.

All concrete to be poured in the dry.

All piles shall be 18" octagonal precast concrete and shall be driven with an approved steam, or diesel hammer to a minimum capacity of 50 tons per square foot to a minimum penetration of 25 feet below the ground line. Lengths of piling shown are assumed for estimating quantities only. Actual lengths to be determined in the field. Drive one 55' test pile in Bent 3, Bridge A and Bent 6, Bridge B. Drive one 45' test pile in Bent 2, Bridge A and Bent 7, Bridge B.

Piles in end bents to be driven after embankment to subgrade is in place.

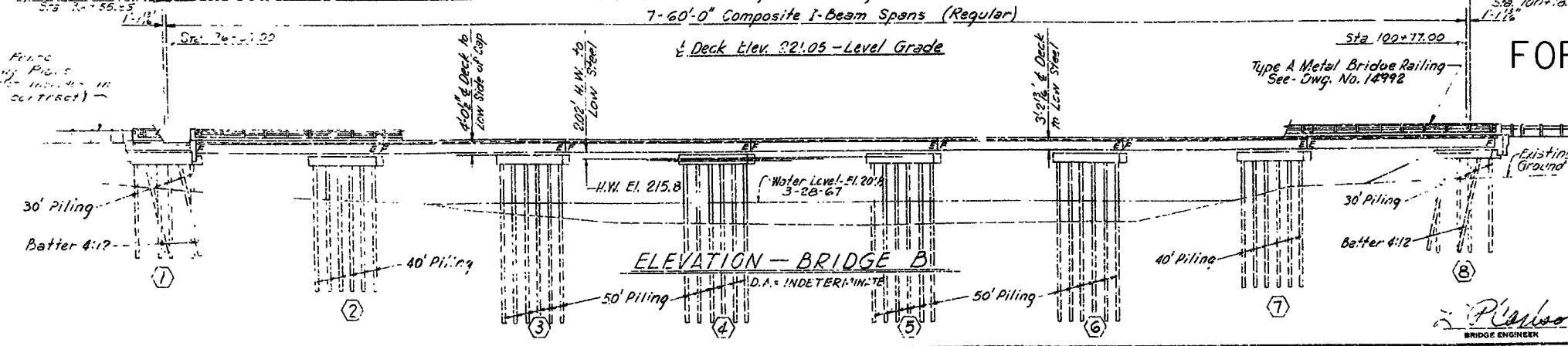
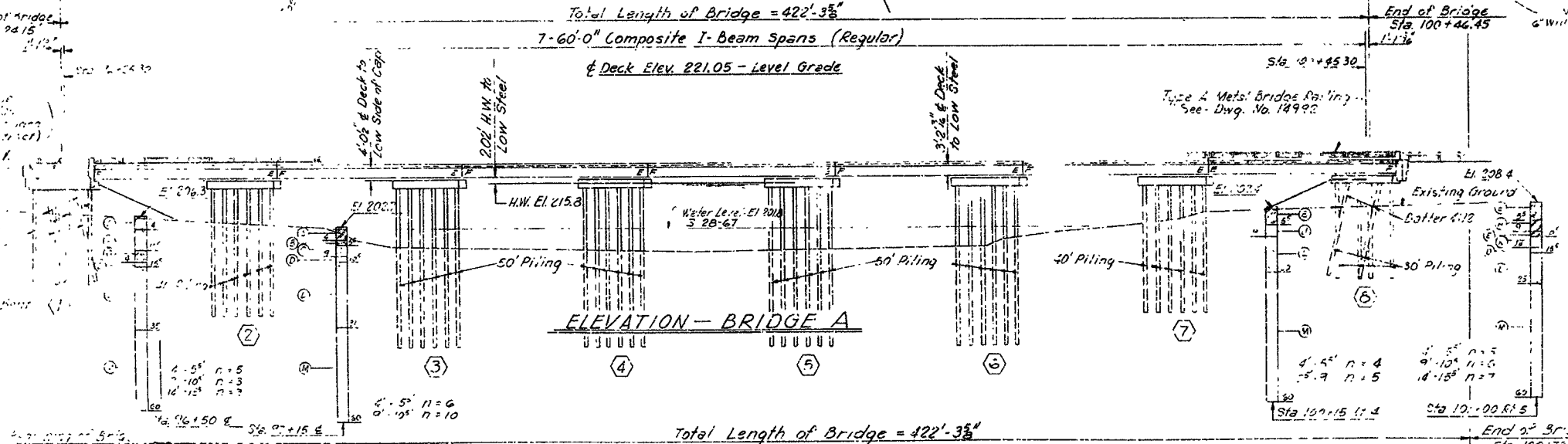
For Details of End Bents see Dwg. No. 15587.  
 For Details of Intermediate Bents see Dwg. No. 15588.  
 For Details of Composite I-Beam Spans see Dwg. No. 15589, 15590, 15591.  
 For Details of Precast Concrete Piling see Dwg. No. 2302.

**SPECIFICATIONS:** Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959, the 1966 Supplemental Specifications, and applicable Special Provisions.

**DESIGN SPECIFICATIONS:** AASHTO 1985

Live Loading: HS20

Unit Stresses: Class S Concrete (f'c) 1,200 psi  
 Reinforcing Steel 20,000 psi  
 Structural Steel (A 36) 20,000 psi



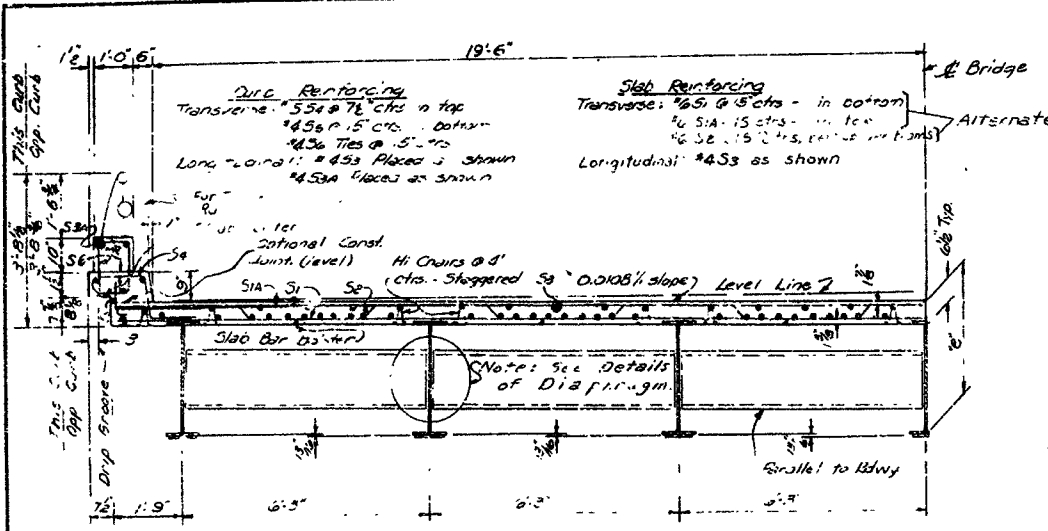
FOR INFORMATION ONLY

LAYOUT OF BRIDGE  
 OVER ST. FRANCIS RIVER  
 MARKED TREE BYPASS  
 POINSETT COUNTY  
 ROUTE 63 SEC. 8  
 ARKANSAS STATE HIGHWAY COMMISSION  
 LITTLE ROCK, ARK.

DRAWN BY: J.S. DATE: 5-29-67  
 CHECKED BY: U.A.S. DATE: 6-20-67  
 BRIDGE NO. 5189A & B DRAWING NO. 1558E

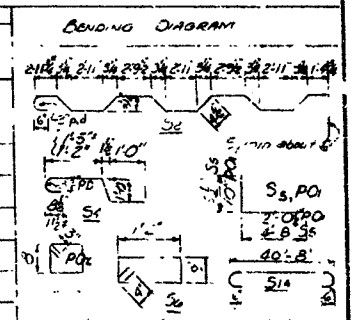


1 SITE NOS. 1 & 2- FOR INFORMATION ONLY

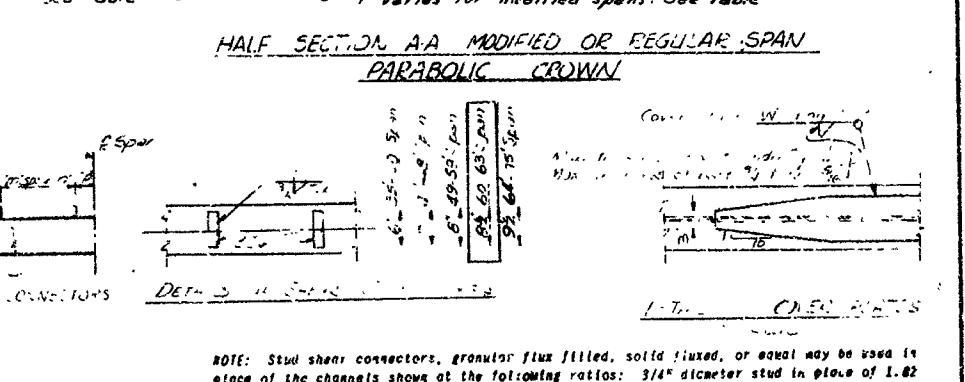
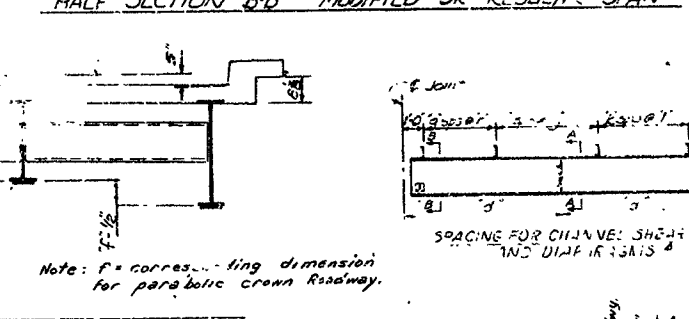
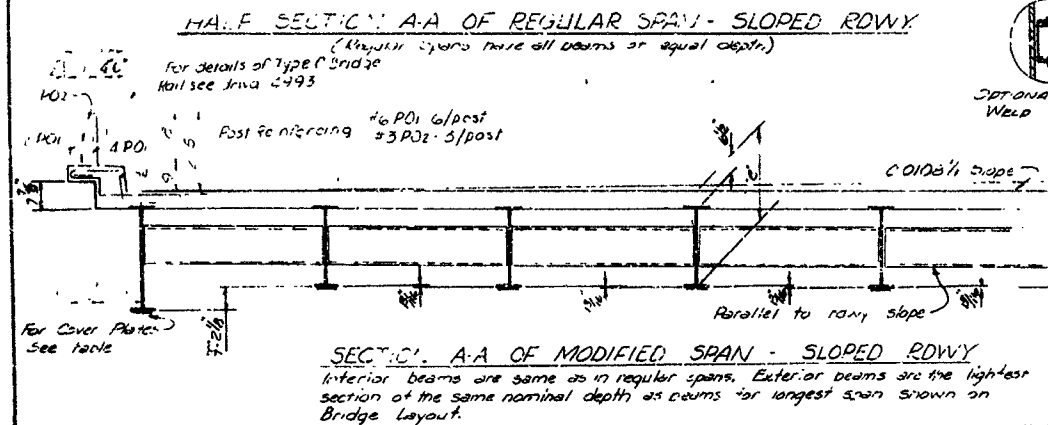
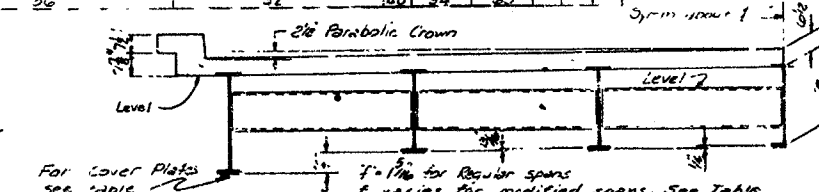
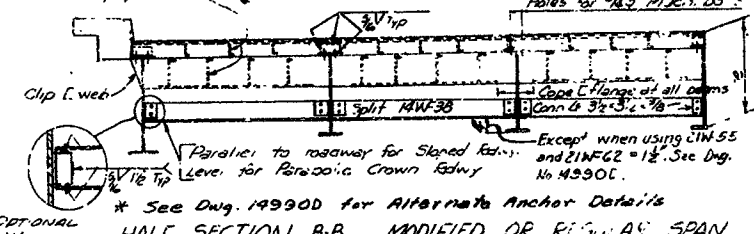


**BAR LIST - ONE SPAN**

Bar Size	Length	No.	Number Required	Bar Span
S1	40'-0"	35	36	37
S2	43'-0"	27	28	29
S3	5'-6"	102		
S4	7'-0"			
S5	5'-1"	50	51	52
S6	4'-5"	15	16	17
S7	5'-0"			



**EXPANSION DEVICE**  
 Roadway: 5'-3.33' x 33'-0"  
 Conn. 2' x 3/8" x 1/2" x 0'-0"  
 Expansion Joint Sealer (See Special Provisions)  
 Detail device 1/8" high and provide 1/8" shims  
 using 2-1/8" dia. & 1-1/8" dia.  
 \* 1/8" x 1/2" Straps @ 15' cts  
 top & bottom.



**VARIABLES OF SHEAR CONNECTOR SPACING**

Beam Depth	Beam Weight	Beam Spacing	Beam Spacing	Beam Spacing	Beam Spacing	Beam Spacing	Beam Spacing
11	9"	8"	11"	12"	14"	16"	6"

Table Data by FMH-72-67  
 Checked by Jno. D. July 27-67

**NOTE:** Stud shear connectors, granular flux filled, solid fluxed, or equal may be used in place of the channels shown at the following ratios: 3/4" diameter stud in place of 1.82 inches of channel, 7/8" diameter stud in place of 2.52 inches of channel. The studs shall be 4" long and automatically end welded to the beam flanges in accordance with recommendations of the manufacturer.

**Channel sections will be used as basis for measurement of structural steel in shear connectors.**

This drawing to be used with drawing 149900.

**DESIGN SPECIFICATIONS:** AASHTO 1981  
 Live Loading: HS20 and Special Interstate Loading of 2 - 24,000 axle spaced 8'-0" cts.  
**IDEAL LOAD (Type A Rail)** 508' x 115' (115' x 115')  
 a. To Composite Beam (without const. jt.) 508' x 115' (115' x 115')  
 b. To Composite Beam (with const. jt.) 508' x 115' (115' x 115')  
 (with const. jt.) 110' x 115' (115' x 115')  
 (with const. jt.) 156' x 115' (115' x 115')

**LIVE LOAD:** a. To Composite Beam 1,136 Wheels + Impact 1,129 Wheels + Impact

**UNIT STRESSES:** Class 5 Concrete (f<sub>c</sub>=10) 1,200 psi  
 Structural Steel (A-36) 20,000 psi  
 Reinforcing Steel 20,000 psi

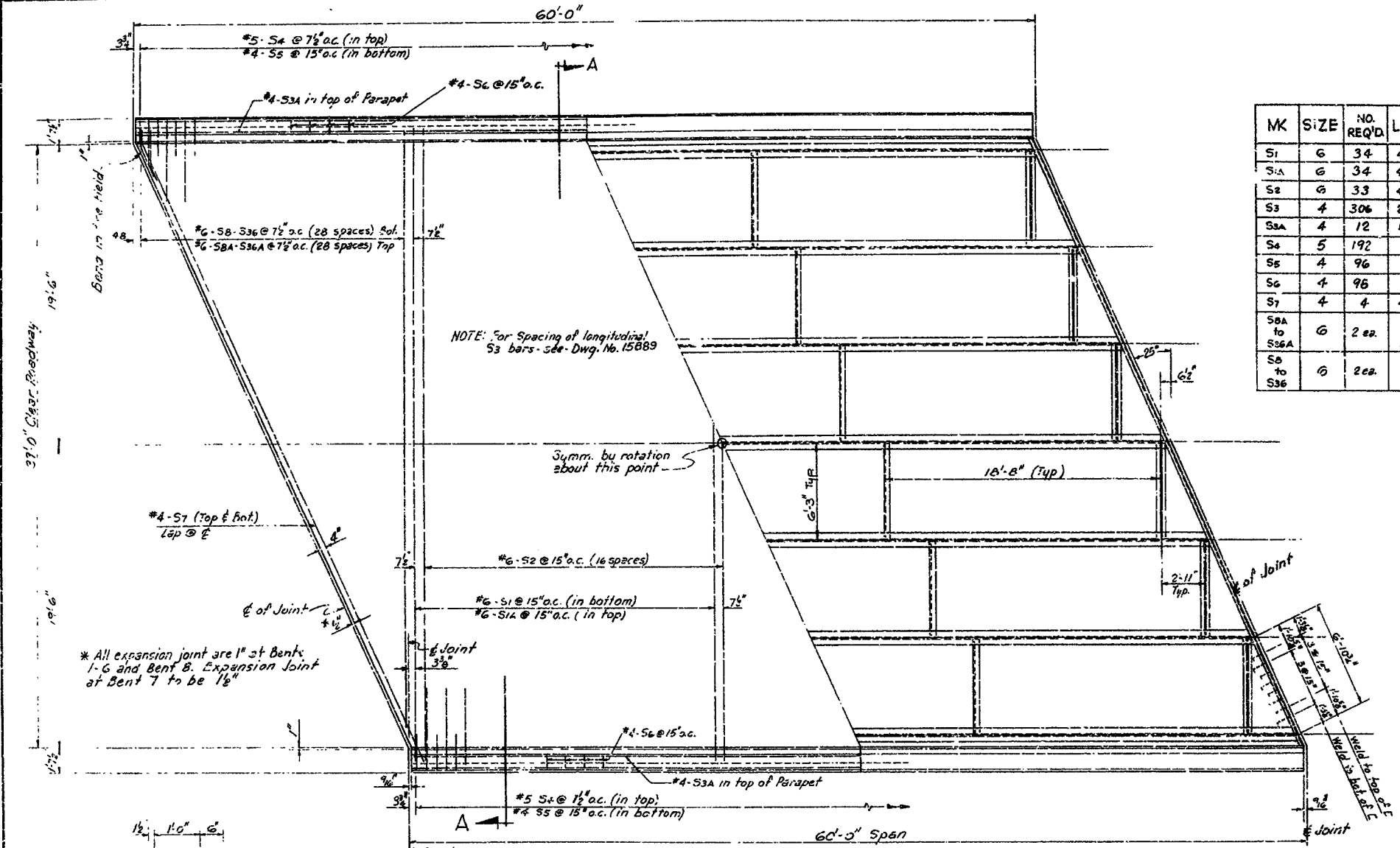
**DETAILS OF STANDARD 36-76 COMPOSITE I-BEAM SPANS**  
 39'-0" CLEAR RDWY 0'-6" CURB  
 2" PARABOLIC CROWN OR 0.008% SLOPE

**ROUTE 63 SEC. 8**  
**ARKANSAS STATE HIGHWAY COMMISSION**  
 LITTLE ROCK, ARK.

DESIGNED BY: JAS DATE: 7-7-67  
 CHECKED BY: JPD DATE: 10-9-67  
 BRIDGE 3198A & B DRAWING NO. 15589

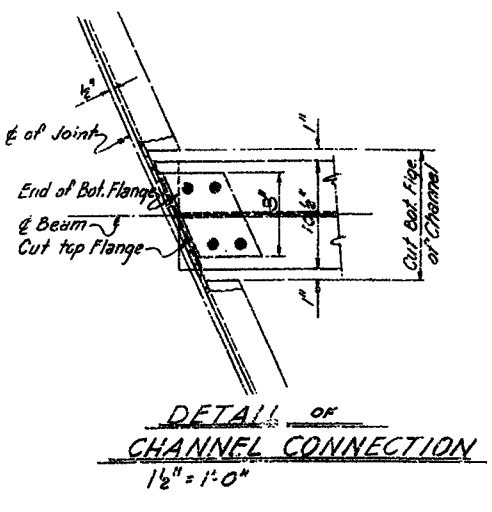
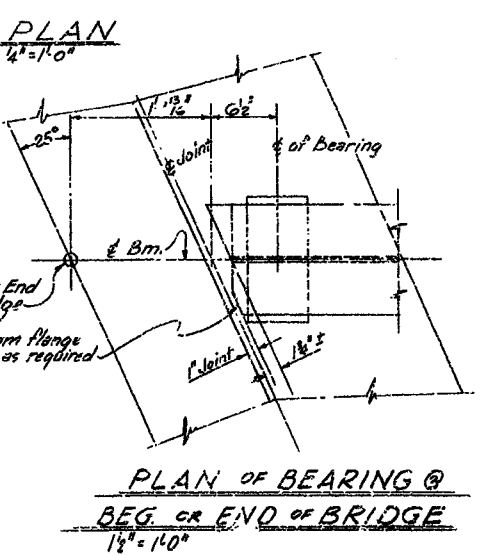
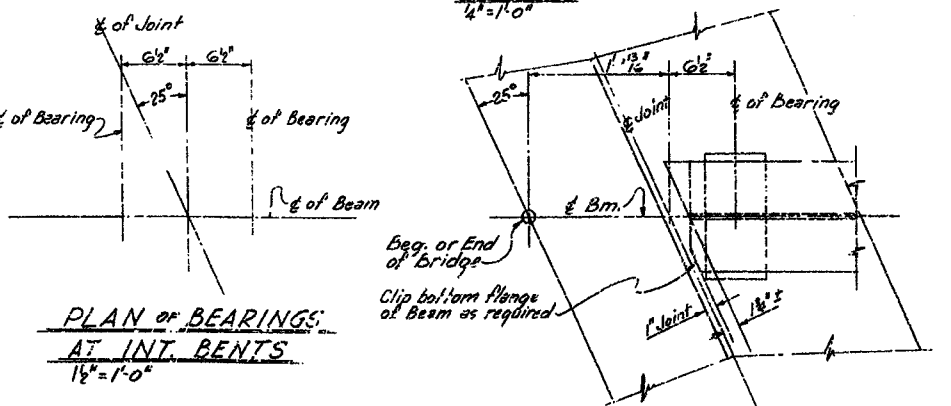
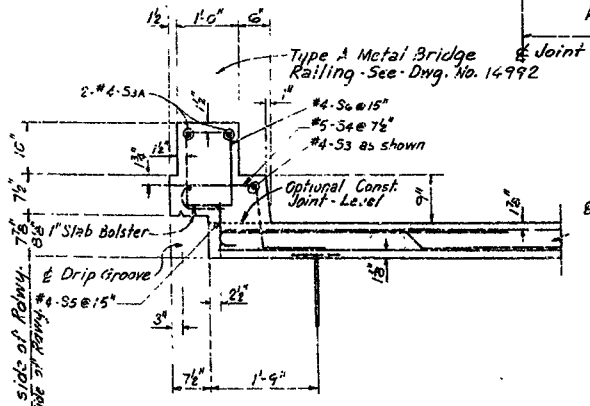
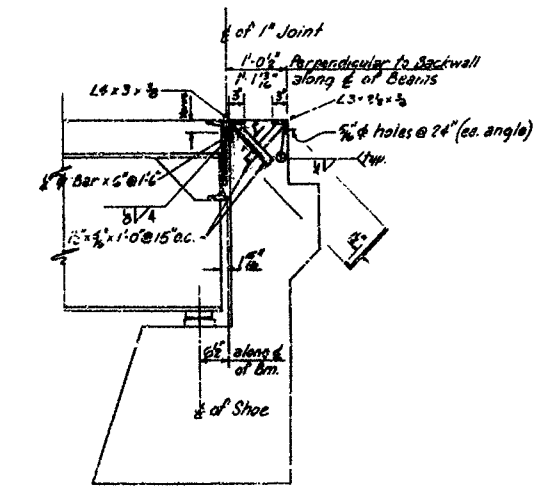
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	100976	10	31

1 SITE NOS. 1 & 2 - FOR INFORMATION ONLY



BAR LIST - PER SPAN					BENDING DIAGRAM	
MK	SIZE	NO. REQ'D	LENGTH	DIN DIA.		
S <sub>1</sub>	6	34	40'-8"	Str.	2-11 1/2, 2-11, 2-9 1/2, 2-11, 2-9 1/2, 2-11, 2-11, 2-1 1/2	
S <sub>1A</sub>	6	34	42'-0"	3"	3' pd	
S <sub>2</sub>	6	33	43'-0"	2 1/2"	Symm about E	
S <sub>3</sub>	4	306	21'-0"	Str.		
S <sub>3A</sub>	4	12	19'-6"	Str.	40'-7"	
S <sub>4</sub>	5	192	9'-0"	1 1/2"	S <sub>1A</sub>	
S <sub>5</sub>	4	96	5'-1"	1 1/2"	11'-5" to 38'-0"	
S <sub>6</sub>	4	96	4'-5"	1 1/2"	S <sub>2</sub>	
S <sub>7</sub>	4	4	44'-10"	Str.	S <sub>4</sub>	
S <sub>8A</sub> to S <sub>36A</sub>	6	2 ea.	2'-1"	3"	4'-8"	
S <sub>5</sub> to S <sub>36</sub>	6	2 ea.	1'-5"	Str.	SE	

Dimensions are to centers of bars.



FOR INFORMATION ONLY

DETAILS OF  
COMPOSITE I-BEAM SPANS  
FOR BRIDGE OVER  
ST. FRANCIS RIVER  
MARKED TREE BYPASS  
POINSETT COUNTY  
ROUTE 63 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

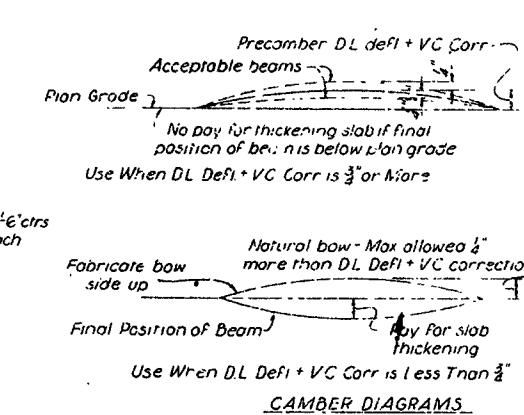
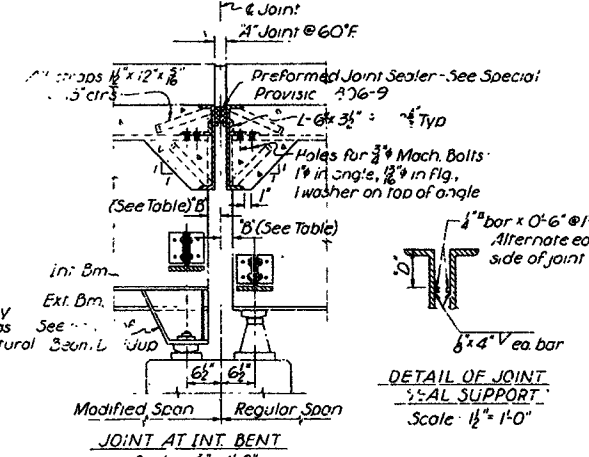
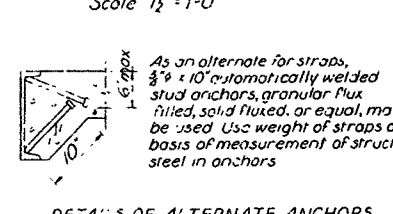
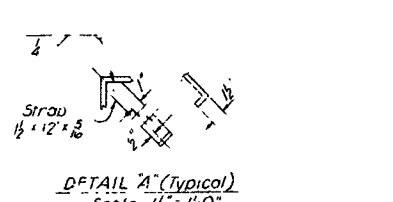
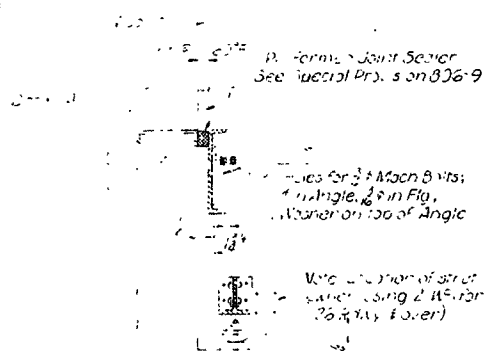
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TRACED BY: J.A.D. DATE: 4-27-67  
CHECKED BY: J.A.D. DATE: 4-27-67  
SCALE: As Noted

BRIDGE NO. 5189A & B DRAWING NO. 15590

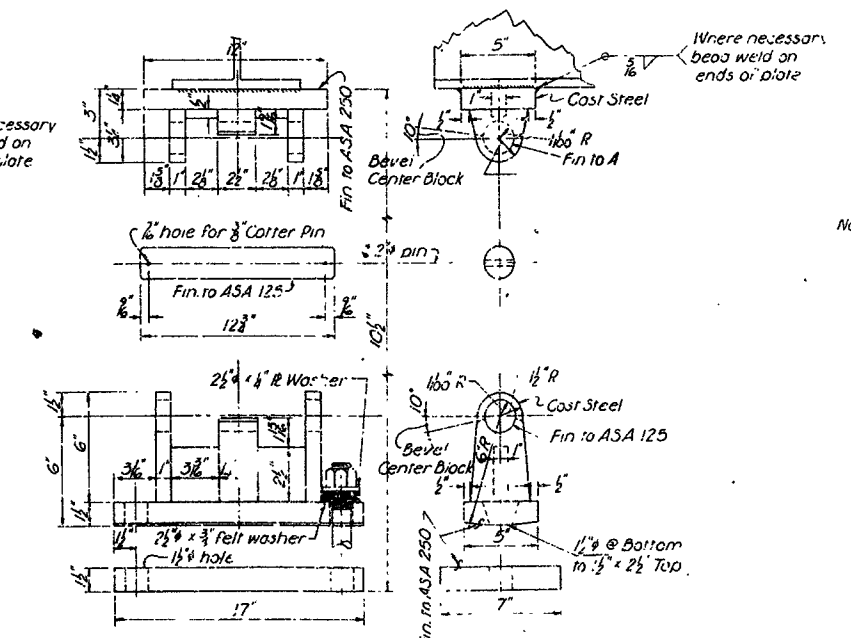
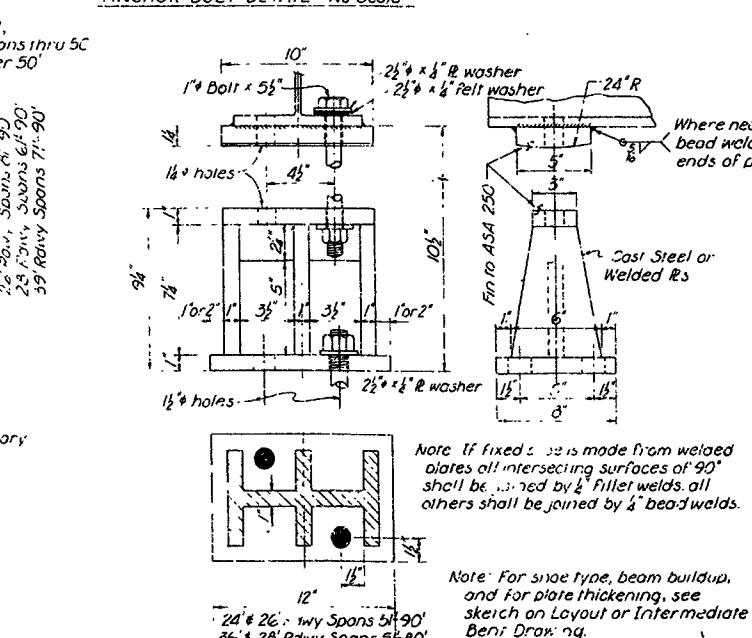
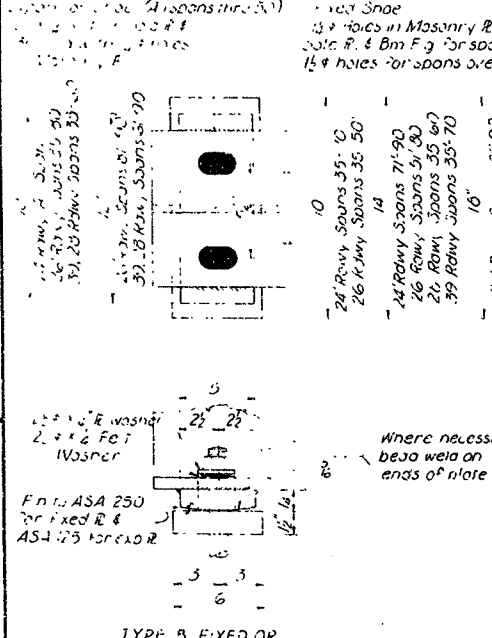
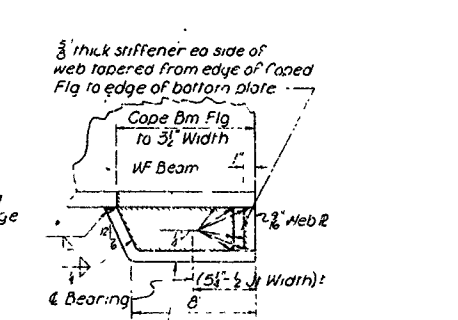
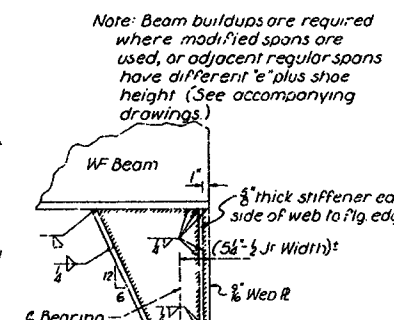
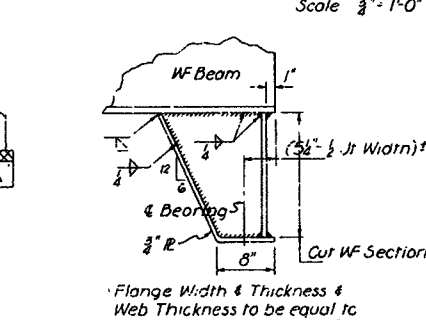
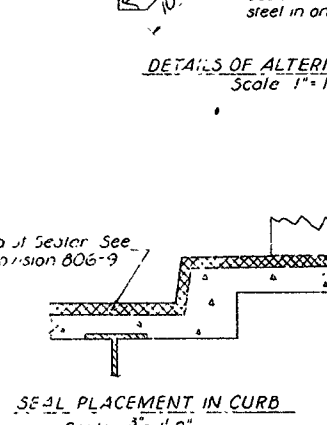
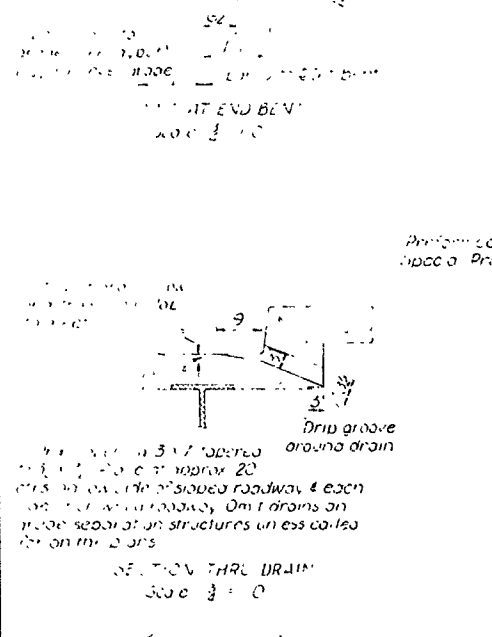
J.P. Carlson  
BRIDGE ENGINEER

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		11	31
				JOB NO.	100976			

1 SITE NOS. 1 & 2- FOR INFORMATION ONLY



**GENERAL NOTE:**  
 Concrete to be Class S. All exposed corners to be chamfered 3/4" unless otherwise noted.  
 Field connections to be riveted or bolted with high strength bolts.  
 Rivets: 3/4"  $\phi$ , open holes 13/16"  $\phi$  except where noted otherwise.  
 Structural shapes of equal or greater strength may be substituted for shapes shown, but payment will be made on the basis of shapes shown or those actually used whichever is less.  
 All welded connections to be 5/16" fillet shop welds except as noted. All welding shall conform to the American Welding Society Standard Specifications for Metal and Railway Bridges, current edition.  
 Shop Paint: All structural steel except surfaces in contact with concrete shall be given one coat of red lead and raw linseed oil before shipment.  
 Field Paint: First coat-red lead tinted with lamp black. Second coat-aluminum paint.  
 All metal bearing and roadway expansion devices to be paid for as "Structural Steel in Beam Spans." Bearings shall be finally seated in accordance with Sec. 806.54, including alternate, of the Standard Specifications. This work and material are to be considered as subsidiary to the item "Structural Steel in Beam Spans" and will not be paid for directly.  
 This drawing shows general features of design only. Shop drawings shall be made in accordance with the Specifications, submitted and approved secured before fabrication is begun.  
 All steel shall be ASTM A-36 unless otherwise noted.  
 Anchor bolts shall be galvanized to conform to ASTM Specification, Designation A153.  
 Reinforcing steel to be deformed bars of intermediate or hard grade. The reinforcing steel is to be accurately located in the forms and firmly held in place by steel wire supports, sufficient in number and size to prevent displacement during the course of construction. The wire supports will not be paid for directly but will be considered subsidiary to the item of "Reinforcing Steel."  
 Shop lists and bending diagrams of reinforcing steel, including wire supports, shall be submitted and approved secured before fabrication is begun.  
 Pouring Note:  
 Floor slabs may be poured in one continuous operation with a strikeoff extending over the whole span length, or may be poured in increments with the center one-third to one-half span length poured first. After the center section is poured, not less than 72 hours shall elapse before pouring the end sections. End sections may be poured simultaneously. If not poured simultaneously, 48 hours shall elapse between end section pours. A minimum of 72 hours shall elapse (1) between completion of the slab and the pouring of the curb section if poured separately, and (2) between the completion of the curb and the pouring of the type A rail parapet. Parapets for type B or C rail may be poured 24 hours after completion of the curb.  
 For details of Bridge Rolling see Dep. No. 14892 or 14893 as shown on Bridge Layout.  
 SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction Edition of 1959, the 1966 Supplemental Specifications thereto and applicable Special Provisions.



**EXPANSION JOINT DATA**

Total Length of Spans Expanding at (F-E) 1 Span or Pier (E-E 2 Spans)	Joint Width Perpendicular to (E-E) Spans (webs @ 60° F)	Scale	Width	Seal
To 80	1 1/2"	1/2"	1 1/2"	1 1/2"
Over 80 to 100	1 1/2"	2"	1 1/2"	1 1/2"
Over 100 to 140	1 1/2"	2"	1 1/2"	2"
Over 140 to 180	2"	3"	2"	2 1/2"

Note: All joints at Abutments and/or Fix-Fix joints shall be 1". The Dimension 'D' shall conform to the recommendations of the seal manufacturer as approved by the Bridge Engineer. The depth of the seal shall be approximately equal to the uncompressed width of the seal.

**FOR INFORMATION ONLY**

DETAILS COMMON TO STANDARD 35'-90' COMPOSITE I-BEAM SPANS 24, 26, 28, 39 ROADWAYS ARKANSAS STATE HIGHWAY COMMISSION LITTLE ROCK, ARK.  
 DRAWN BY: RWM DATE: 1-4-67  
 TRACED BY: DATE: SCALE: As Shown  
 CHECKED BY: OFL DATE: 1-5-67  
 BRIDGE NO. 5189 A&B DRAWING NO. 14990D

*L. Nelson*  
 BRIDGE ENGINEER

Note: This drawing adapted from drawing 14950C

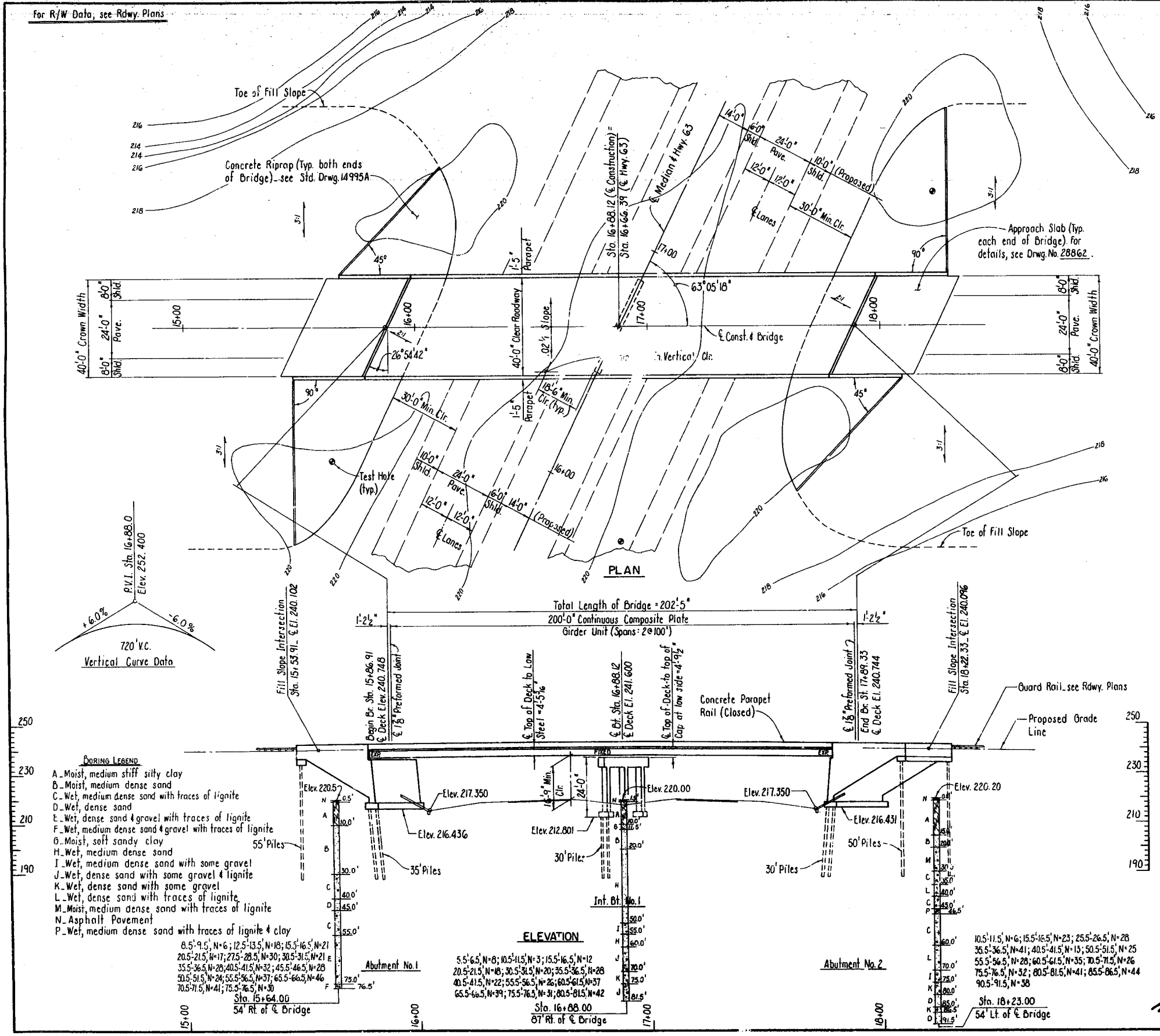
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				6	ARK.			
				JOB NO.	100976 12 31			

① SITE NO. 3 - FOR INFORMATION ONLY

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.	100191 31 86			

① 6230 LAYOUT - 28852

For R/W Data, see Rdwy. Plans



**GENERAL NOTES**

BENCH MARK: ABOUT 2.1 MI. SE OF MARKED TREE ON HWY. 63, IN NW CORNER POST OF CONCRETE HWY. BRIDGE MARKED WITH PLATE INSCRIBED "DIXON V. W. CLANTON, CONTRACTOR, ARK. STATE HWY. DEPT. 1928 BRIDGE", 3.8 FT. ABOVE ROADWAY, A STANDARD DISK STAMPED "K. 4 1928" AND SET HORIZONTALLY IN CENTER OF CORNER POST, ELEV. 823.431.

DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1988 EDITION WITH CURRENT INTERIMS.

CONSTRUCTION SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1979 AND APPLICABLE SPECIAL PROVISIONS.

DESIGN LIVE LOADS: HS 20-44  
DESIGN METHOD: LOAD FACTOR

CONCRETE: CONCRETE IN THE SUBSTRUCTURE SHALL BE CLASS S. CONCRETE IN THE SUPERSTRUCTURE SHALL BE CLASS (S)AE). ALL CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH,  $f'c = 3500$  PSI, AND SHALL BE POURED IN THE DRY. ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.

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

CONCRETE SURFACES NORMALLY SPECIFIED IN SUBSECTION 802.23 TO RECEIVE A CLASS 2 RUBBED FINISH SHALL RECEIVE THE ALTERNATE SPRAYED FINISH INSTEAD. SEE SPECIAL PROVISION SP 802-7, "SPRAYED CONCRETE FINISH."

REINFORCING STEEL: ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615 OR A617, GRADE 60 ( $f_y = 60,000$  PSI) OR SPECIFIED ON THE DESIGN DRAWINGS.

PILING: ALL PILING SHALL BE 14" OCT. OR 14" SQUARE PRECAST CONCRETE AND SHALL BE DRIVEN WITH AN APPROVED AIR, STEAM, OR DIESEL HAMMER TO A MINIMUM BEARING CAPACITY OF 44 TON PER PILE, AND TO A MINIMUM PENETRATION OF 20 FT. BELOW THE BRIDGE LINE. LENGTHS OF PILING SHOWN ARE ASSUMED FOR ESTIMATING QUANTITIES ONLY. ACTUAL LENGTHS TO BE DETERMINED IN THE FIELD. DRIVE ONE 40 FT. TEST PILE IN ABUT. 1, ONE 35 FT. TEST PILE IN ABUT. 2, AND ONE 35 FT. TEST PILE IN ABUT. 2.

PILES IN ABUTMENTS TO BE DRIVEN AFTER EMBANKMENT TO BOTTOM OF FOOTING IS IN PLACE.

PILES IN ABUTMENTS MAY BE DRIVEN IN HOLES PREDRILLED THROUGH THE EMBANKMENT. PILES IN ABUTMENTS SHALL BE DRIVEN A MINIMUM OF 10 FT. INTO NATURAL GROUND.

REFERENCE NOS.:  
FOR DETAILS OF ABUTMENTS, SEE DWS. NO. 28853 - 28855  
FOR DETAILS OF BENT 1, SEE DWS. NO. 28854  
FOR DETAILS OF 200' CONT. PLATE GIRDER UNIT, SEE DWS. NOS 28857 - 28859  
FOR DETAILS OF PRECAST CONCRETE PILING, SEE DWS. NO. 2383  
FOR DETAILS OF CONCRETE RIPRAP, SEE DWS. NO. 14995A

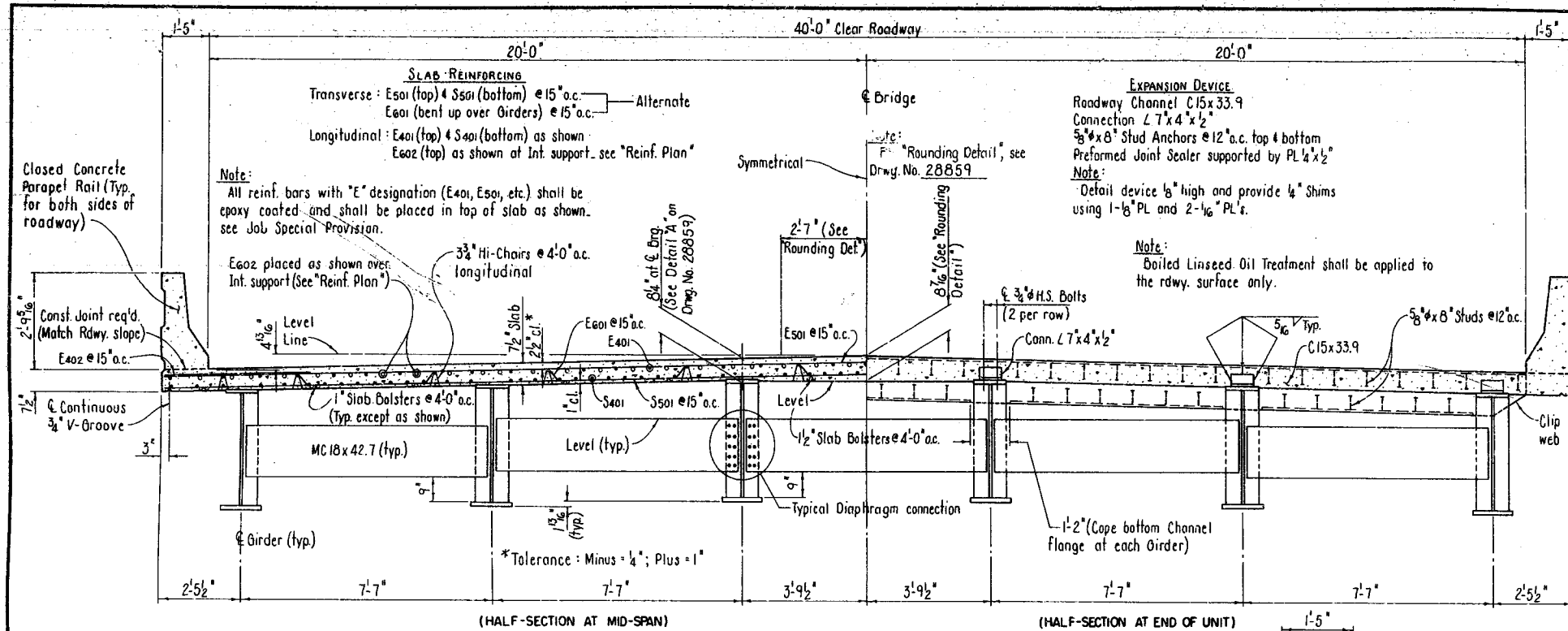
FOR INFORMATION ONLY

LAYOUT OF BRIDGE  
FOR HWY. 75 OVER HWY. 63  
HWY. 75 INTERCHANGE  
(MARKED TREE)  
POINTSETT COUNTY  
ROUTE 75 SEC. 5  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

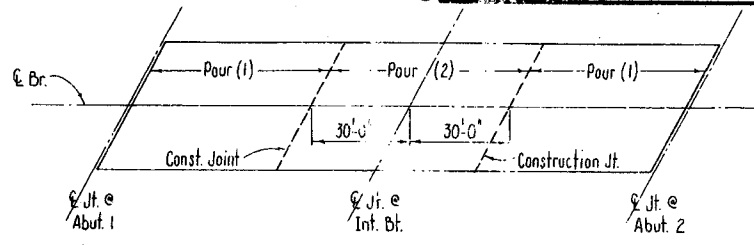
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CHECKED BY: CSL DATE: JAN. 87  
DESIGNED BY: CRH DATE: 10-86  
BRIDGE NO. 6230 DRAWING NO. 28852  
SCALE: 1" = 20'

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.	100976			
				① SITE NO. 3 - FOR INFORMATION ONLY				

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.	100191			
				① 6230 - SPAN DTLS. - 28857				



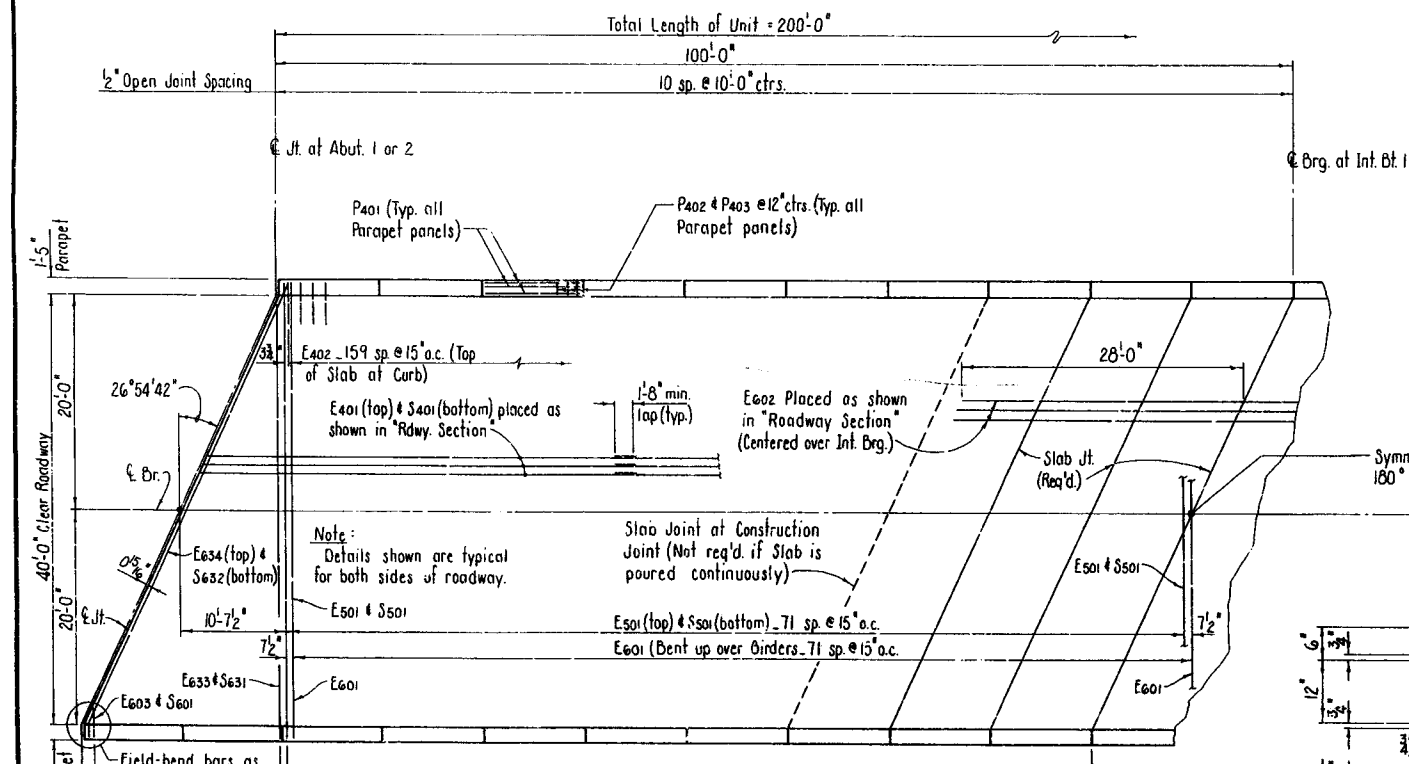
**ROADWAY SECTION**  
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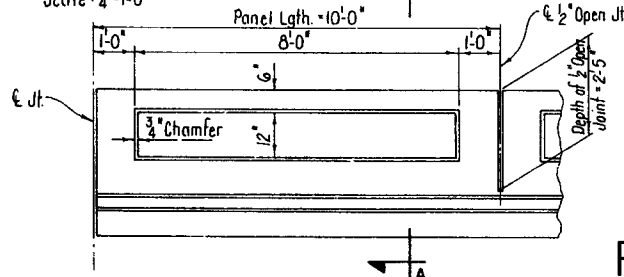
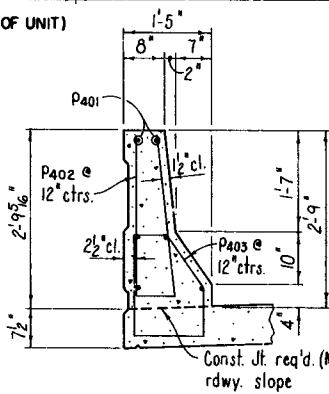
**BAR LIST**

MARK	NO. REQ'D	LENGTH	PIN DIA.	BENDING DIAGRAMS
S401	396	34'-9"	Str.	4'-1" 3" 3'-7" 3" 3'-6" 3" 3'-7" 3" 3'-6" 3" 3'-7" 3" 3'-6" 3" 3'-7" 3" 3'-6"
S501	144	42'-6"	Str.	
S601 - S631	2 of each	Varies 3'-7" to 40'-6"	Str.	*2" Over tolerance; No Under tolerance
S632	2	47'-4"	Str.	
E401	234	34'-9"	Str.	Symm. about E bar
E402	320	42'-6"	Str.	
E501	144	42'-6"	Str.	2'-6" 7'-2" 1'-7" 1'-1" 1'-1" 1'-1" 1'-1" 1'-1"
E601	143	43'-7"	4 1/2"	
E602	44	56'-0"	Str.	P402
E633 - E635	2 of each	Var. 3'-7" to 40'-6"	Str.	
E634	2	47'-4"	Str.	P403
P401	240	9'-6"	Str.	
P402	400	5'-6"	2"	
P403	400	5'-3"	2"	

Note: Dimensions are out to out of rs.  
 Note: The Contractor may, as his option and at his own expense, substitute two #6 straight bars in place of each E601 trussed bar. #6 straight bars placed in top of slab shall be epoxy coated. Payment for reinforcing steel will be based on weight of E601 bars.



**REINFORCING PLAN**  
 Scale: 1/8" = 1'-0"



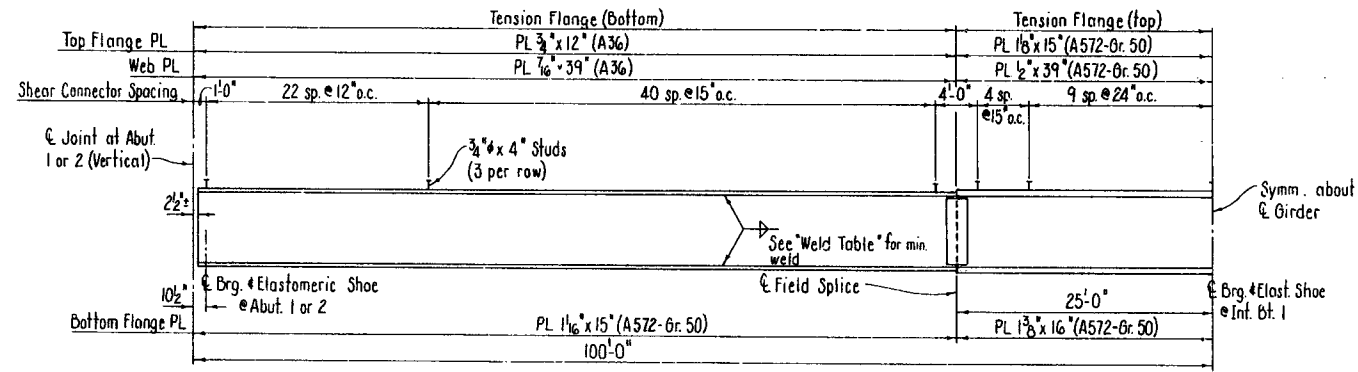
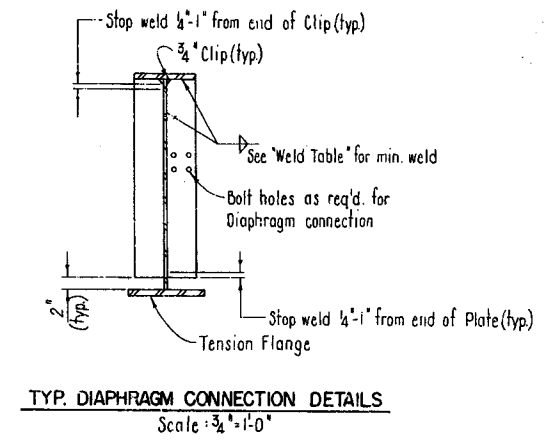
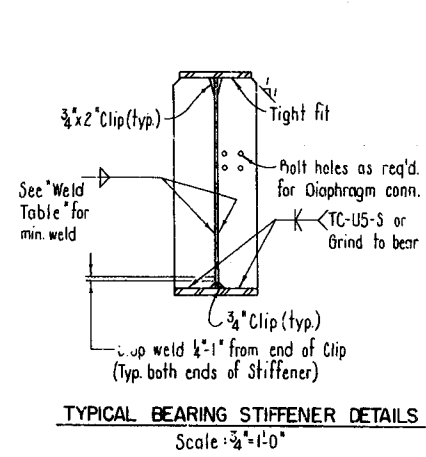
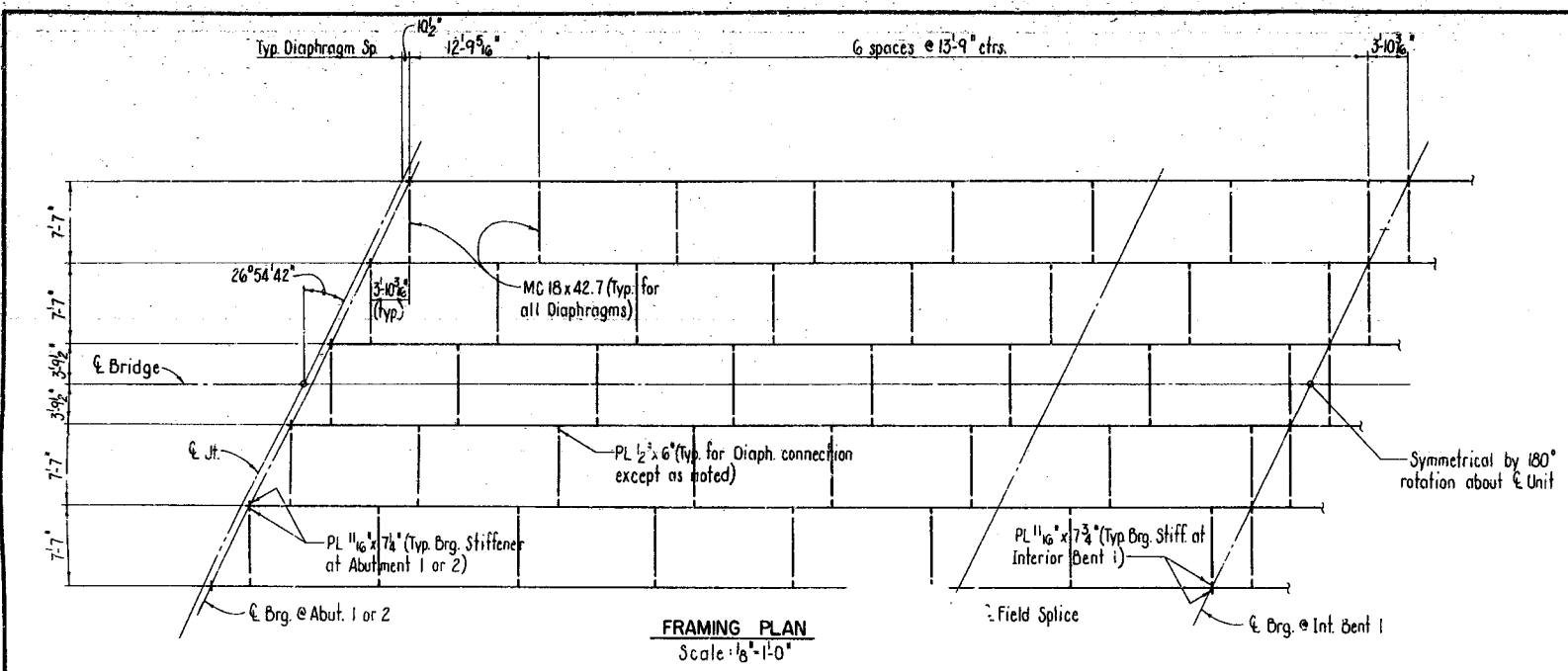
**SECTION A-A**  
 Scale: 3/4" = 1'-0"

FOR INFORMATION ONLY

SHEET 1 OF 3  
 DETAILS FOR 200'-0" CONTINUOUS  
 COMPOSITE PLATE GIRDER UNIT  
 HWY. 75 INTERCHANGE  
 POINSETT COUNTY  
 ROUTE 75 SEC. 5  
 ARKANSAS STATE HIGHWAY COMMISSION  
 LITTLE ROCK, ARK.

DRAWN BY: KMG DATE: JAN 87  
 CHECKED BY: CRH DATE: 1-22-87  
 DESIGNED BY: CRH DATE: 10-86  
 SCALE: AS SHOWN  
 BRIDGE NO. 6230 DRAWING NO. 28857

287



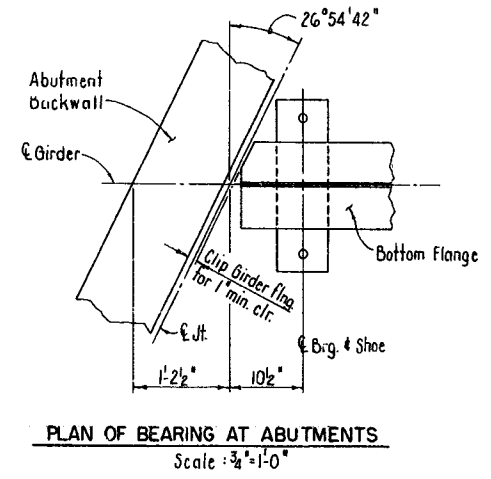
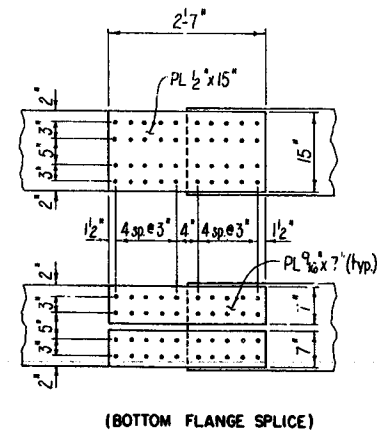
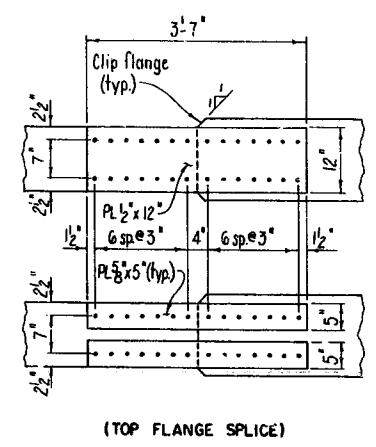
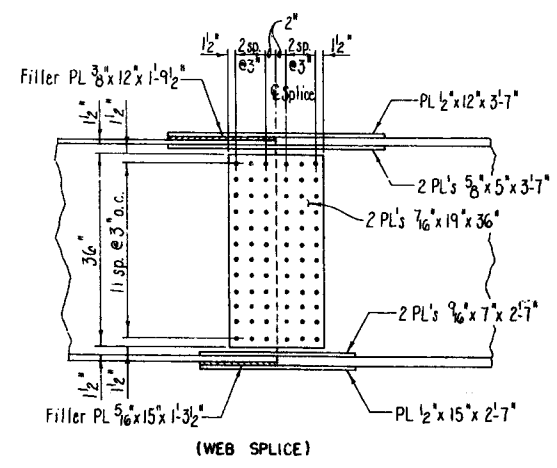
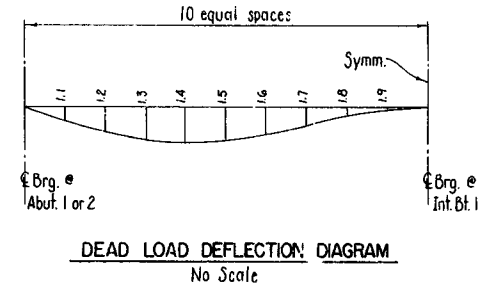
Note: For Shear Connector details, see Drwg. No. 28859

Note: For details of Elastomeric Fixed & Exp. Bearings, see Drwg. No. 28860

TABLE OF DEFLECTIONS (INCHES)

Point of Deflection	Weight of Structural Steel		Weight of Struct. Steel & Slab		Weight of Struct. Steel, Slab & Rail	
	Int.	Ext.	Int.	Ext.	Int.	Ext.
0	0.0	0.0	0.0	0.0	0.0	0.0
1.1	0.148	0.137	0.784	0.649	0.852	0.720
1.2	0.270	0.252	1.437	1.191	1.562	1.321
1.3	0.351	0.327	1.869	1.549	2.033	1.719
1.4	0.382	0.356	2.033	1.685	2.214	1.972
1.5	0.362	0.339	1.925	1.595	2.098	1.776
1.6	0.300	0.280	1.585	1.314	1.733	1.466
1.7	0.209	0.195	1.099	0.911	1.205	1.019
1.8	0.112	0.105	0.587	0.487	0.645	0.546
1.9	0.033	0.032	0.174	0.145	0.192	0.163
2.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: Camber for Deflection plus Vertical Curve ± 1/4" tolerance.



Notes  
1. All Field Splice Bolts to be 7/8" H.S. bolts.  
2. All Field Splice plates to be A36 Steel.

TYPICAL FIELD SPLICE DETAILS  
Scale: 3/8"=1'-0"

FOR INFORMATION ONLY

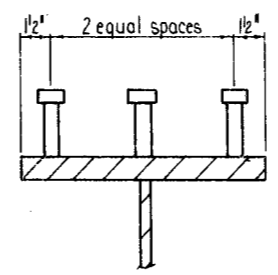
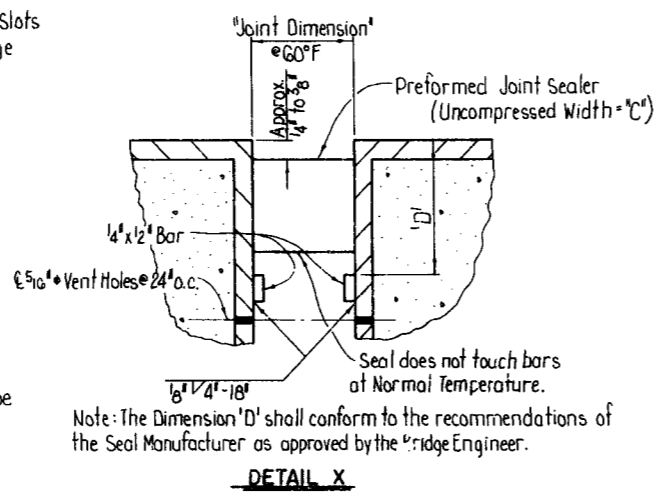
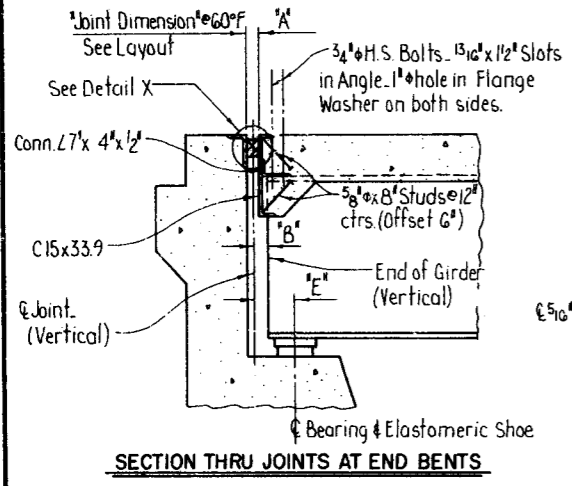
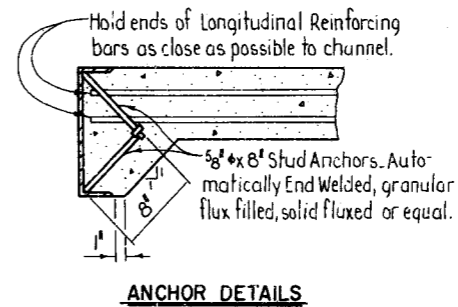
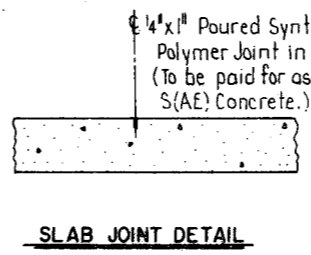
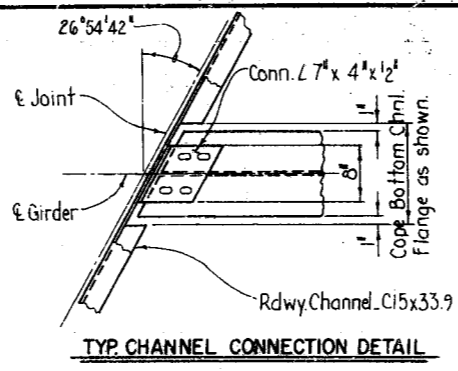
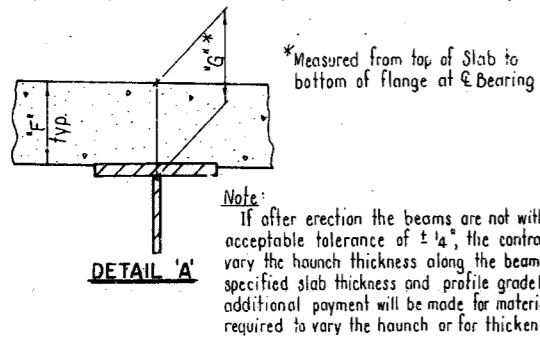
SHEET 2 OF 3  
DETAILS FOR 200'-0" CONTINUOUS  
COMPOSITE PLATE GIRDER UNIT  
HWY. 75 INTERCHANGE  
POINSETT COUNTY  
ROUTE 75 SEC. 5  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.  
DRAWN BY: KMG DATE: JAN 87  
CHECKED BY: CRH DATE: 1-23-87 SCALE: AS SHOWN  
DESIGNED BY: CRH DATE: 10-86  
BRIDGE NO. 6230 DRAWING NO. 28858

Frank Pinkerton  
BRIDGE ENGINEER

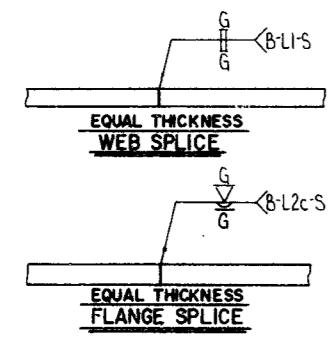
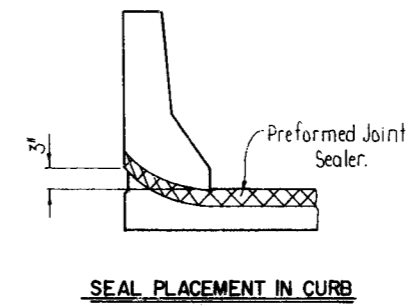


DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		100976	15	31
				SITE NO. 3 - FOR INFORMATION ONLY				

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		100191	38	86
		6230	- SPAN DETAIL - 28859	



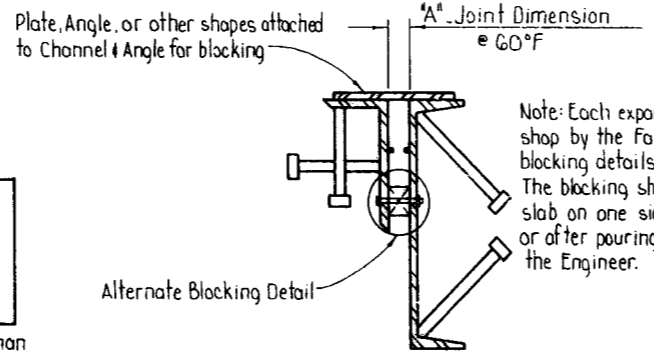
Stud Shear Connectors shown shall be 3/4" x 4" Long, granular flux filled, solid fluxed or equal, & automatically end welded to girder flanges in accordance with the recommendations of the manufacturer. 5/8" Studs may be substituted for the 3/4" Studs shown at the ratio of .73 - 5/8" Studs in place of one 3/4" Stud. The 3/4" Studs shall be used as the basis of payment of \$1.50 per 100 studs. Stud spacing shall not exceed 24".



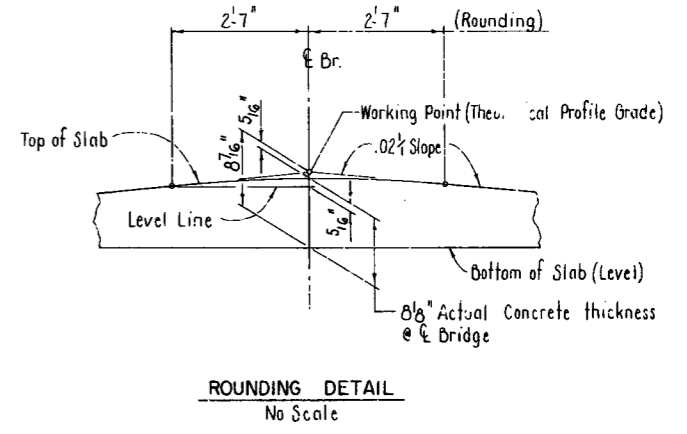
**TABLE FOR WELD**

Material Thickness of Thicker Part Joined - Inches	Minimum Size of Fillet Weld - Inches	Single Pass Weld
To 1/2" Inclusive	3/16"	must be used.
Over 1/2" to 3/4"	1/4"	
Over 3/4"	5/16"	

When a fillet weld size, as shown on plans, is larger than the minimum, the first pass shall be at least as large as that specified as Minimum Size of Fillet Weld.



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



**TABLE OF VARIABLES**

Bridge No	Unit	Abut. No.	"A" Joint Dimension	"B"	"C" - Uncomp. Seal Width	"E" - Joint to Bearing	"F" - Slab Thickness	"G"
	200'	1 & 2	1 1/8"	2 1/2"	3"	10 1/2"	7 1/2"	8 1/4"

FOR INFORMATION ONLY

SHEET 3 OF 3  
 DETAILS FOR 200'-0" CONTINUOUS  
 COMPOSITE PLATE GIRDER UNIT  
 HWY. 75 INTERCHANGE  
 POINSETT COUNTY  
 ROUTE 75 SEC. 5  
 ARKANSAS STATE HIGHWAY COMMISSION  
 LITTLE ROCK, ARK.

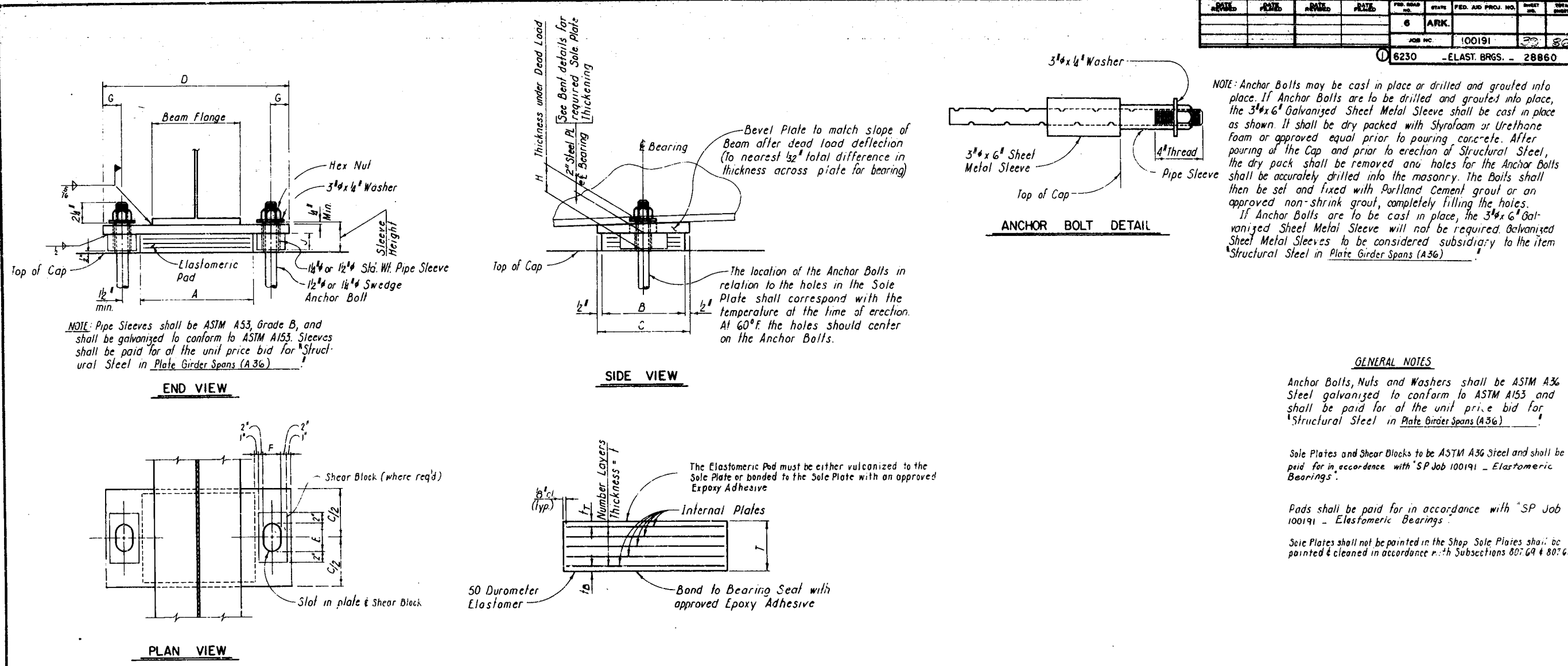
DRAWN BY: KMG DATE: JAN 87  
 CHECKED BY: CRH DATE: 1-23-87  
 DESIGNED BY: CRH DATE: 10-86

BRIDGE NO. 6230 DRAWING NO. 28859

*Frank Pinkerton*  
 BRIDGE ENGINEER

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		100976	16	31
(1) SITE NO. 3 - FOR INFORMATION ONLY								

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.		100191	33	56
						6230	-ELAST. BRGS. - 28860	



### ELASTOMERIC PAD

### TABLE OF VARIABLES

BRIDGE NO.	UNIT or SPAN	LOCATION	NO. & THICKNESS FOR (f)	NO. & THICKNESS OF INTERNAL PL	ANCHOR BOLT SIZE	A	B	C	D	E	F	H	T	t <sub>T</sub>	t <sub>B</sub>	NO. of BEARINGS	SLEEVE SIZE	BEARING TYPE	G	J	
	200' Unit	Abut. 142	4 @ 5/8"	5 @ 1/4 Ga.	1 1/2" x 19"	15"	6 1/2"	7 1/2"	24"	3 3/4"	2"	3 3/4"	1 3/8"	1/8"	1/8"	12	1 1/2" x 4"	EXP.	2 1/2"	**	
	200' Unit	Int. Bt. 1	5 @ 5/8"	6 @ 1/4 Ga.	1 1/2" x 20"	20"	12"	13"	36"	2"	2"	4 3/4"	2 1/4"	3/8"	3/8"	6	1 1/2" x 5"	FIXED	4"	2"	

\*\* No Shear Block Req'd

### FOR INFORMATION ONLY

DETAILS OF ELASTOMERIC FIXED AND EXPANSION BEARINGS FOR 200'-0" CONT. COMP. PL GIRDER UNIT HWY. 75 INTERCHANGE PONSETT COUNTY

Tabular Data by: KMG Date: Jan 87  
Checked by: CRH Date: 1-28-87

ROUTE 75 SEC 1  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK  
ALTERED BY: L.M. DATE: 8-25-80  
CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
DESIGNED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
BRIDGE NO. 6230 DRAWING NO. 28860

*Herold Pemberton*  
BRIDGE ENGINEER



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		100976	17	31

① SITE NO. 3 - FOR INFORMATION ONLY

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.		100191	40	86

① 6230 - General Notes - 28861

**SUPERSTRUCTURE GENERAL NOTES**

**DESIGN:**  
AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1983 EDITION WITH CURRENT INTERIMS.

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

**LIVE LOADING:**  
HS 20-44

**METHOD OF DESIGN:**  
LOAD FACTOR

**MATERIALS:**  
CONCRETE: ALL CONCRETE SHALL BE CLASS S(AE) WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH  $f'_c = 3500$  PSI.  
REINFORCING STEEL: REINFORCING STEEL SHALL CONFORM TO ASTM A615 OR A617, GRADE 60 (YIELD STRENGTH = 60,000 PSI), FOR SUPPORT HANDLING AND PLACEMENT OF EPOXY COATED REINFORCING, SEE JOB SPECIFICATION PROVISION.  
STRUCTURAL STEEL: STRUCTURAL STEEL SHALL CONFORM TO ASTM DESIGNATION A36,  $f_y = 36,000$  PSI, OR ASTM DESIGNATION A572, GRADE 50 ( $f_y = 50,000$  PSI).  
ELASTOMERIC BEARINGS: FOR ELASTOMERIC BEARINGS, SEE DWG. NO. 28860.

**STRUCTURAL STEEL:**  
STRUCTURAL SHAPES OF EQUAL OR GREATER STRENGTH MAY BE SUBSTITUTED FOR SHAPES SHOWN IF APPROVAL IS OBTAINED FROM THE BRIDGE ENGINEER. PAYMENT WILL BE MADE ON THE BASIS OF SHAPES SHOWN.  
ALL WEB PLATES AND FLANGE PLATES ARE CONSIDERED MAIN LOAD CARRYING MEMBERS AND SHALL MEET THE LONGITUDINAL CHARPY V-NOTCH TEST SPECIFIED IN SUBSECTION 807.05. FIELD SPlice PLATES DO NOT REQUIRE CHARPY V-NOTCH TEST.  
GIRDER FLANGE PLATES AND FIELD SPlice PLATES 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.  
ALL GIRDERS SHALL BE BLOCKED IN THEIR TRUE POSITION IN THE SHOP, IN GROUPS OF A MINIMUM OF THREE SECTIONS. GIRDERS SHALL BE BLOCKED WITH WEBS HORIZONTAL. SEE SECTION 807.16(b), OF THE STANDARD SPECIFICATIONS. THE CAMBER, LENGTH OF SECTIONS, DISTANCE BETWEEN BEARINGS AND OPENINGS OF JOINTS SHALL BE MEASURED WITH THE GIRDERS IN THIS POSITION AND THIS INFORMATION SHALL BECOME A PART OF THE PERMANENT RECORDS OF THIS JOB. THE COMPONENT PARTS SHALL BE MATCH MARKED IN THIS ASSEMBLY AND THESE MARKS SHALL BE SHOWN ON THE ERECTION DIAGRAM. ALL GIRDER DIMENSIONS ARE BASED ON A TEMPERATURE OF 60°F. A TOLERANCE OF  $\pm 1/4"$  IS ALLOWED FOR CAMBER.  
ANCHOR BOLTS SHALL BE GALVANIZED TO CONFORM TO ASTM SPECIFICATIONS, DESIGNATION A153.  
GIRDER WEBS MAY BE MADE BY SHOP SPlicing WITH A MINIMUM LENGTH OF 25'-0" FOR SECTIONS. FLANGE PLATES LONGER THAN 50 FT. MAY BE MADE BY SHOP SPlicing WITH MINIMUM LENGTH OF 25'-0" FOR SECTIONS. NO ADDITIONAL PAYMENT FOR WELOS FOR THESE SECTIONS WILL BE MADE.  
BEARINGS SHALL BE FIRMLY SEATED IN ACCORDANCE WITH SUBSECTION 807.51 OF THE STANDARD SPECIFICATIONS. THIS WORK AND MATERIAL ARE TO BE CONSIDERED AS SUBSIDIARY TO THE ITEM "STRUCTURAL STEEL IN PLATE GIRDER SPANS" AND WILL NOT BE PAID FOR DIRECTLY.  
FIELD CONNECTIONS TO BE BOLTED WITH HIGH STRENGTH BOLTS. BOLTS: 3/4" Ø, OPEN HOLES 13/16" EXCEPT WHERE NOTED OTHERWISE. BOLT SPACING SHALL BE 2-1/2" UNLESS OTHERWISE NOTED. MINIMUM EDGE DISTANCE SHALL BE 1-1/4" UNLESS NOTED OTHERWISE. BOLTS SHALL BE PLACED WITH HEADS ON THE OUTSIDE FACE OF THE EXTERIOR GIRDER AND ON BOTTOM OF GIRDER FLANGES.  
HOLES FOR 3/4" Ø, HIGH STRENGTH BOLTS IN DIAPHRAGMS MAY BE 15/16" Ø, IF A WASHER IS SUPPLIED FOR USE UNDER BOTH THE NUT AND HEAD OF THE BOLT.  
DIAPHRAGMS SHALL BE INSTALLED AS GIRDERS ARE ERECTED. DIAPHRAGMS SHALL BE INSTALLED AND COMPLETELY BOLTED PRIOR TO POURING OF FLOOR SLABS.  
ALL WELDING THAT IS TO BE DONE DURING FABRICATION OF STRUCTURAL STEEL, INCLUDING TEMPORARY WELDS SHALL BE DETAILED ON THE SHOP DRAWINGS AND SUBMITTED FOR APPROVAL. IF THE CONTRACTOR OR ERECTOR SHOULD WANT TO MAKE ADDITIONAL WELDS, WHETHER TEMPORARY OR PERMANENT, HE SHALL SUBMIT DETAILED DRAWINGS WITH FORMAL REQUEST TO THE BRIDGE DESIGN ENGINEER OF THE ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT FOR APPROVAL. ALL WELDING SHALL CONFORM TO SP 807-5.  
DRAWINGS SHOW GENERAL FEATURES OF DESIGN ONLY. SHOP DRAWINGS SHALL BE MADE IN ACCORDANCE WITH THE SPECIFICATIONS, SUBMITTED AND APPROVAL SECURED BEFORE FABRICATION IS BEGUN.  
ALL METAL BEARING AND ROADWAY EXPANSION DEVICES TO BE PAID FOR AS "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A36)".  
ALL STRUCTURAL STEEL SHALL BE ASTM A36 OR ASTM A572, GRADE 50. ALL STRUCTURAL STEEL SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER POUND BID FOR "STRUCTURAL STEEL IN PLATE GIRDER SPANS A572-GRADE 50". "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A36)".

LOAD DISTRIBUTION TO GIRDERS	40 FOOT ROADWAY	
	TO INTERIOR GIRDER	TO EXTERIOR GIRDER
DEAD LOAD		
(a) TO GIRDER ONLY	715 #/FT + WT/FT STRUC. ST.	580 #/FT + WT/FT STRUC. ST.
(b) TO COMPOSITE GIRDER	290 #/FT*	290 #/FT*
LIVE LOAD TO COMPOSITE GIRDER	1,286 WHEELS + IMPACT	1,286 WHEELS + IMPACT

\*INCLUDES 160 #/LIN. FT. FUTURE WEARING SURFACE.

**PAINTING:**  
SHOP PAINT. ALL STRUCTURAL STEEL EXCEPT GALVANIZED MEMBERS, CONTACT SURFACES OF BOLTED CONNECTIONS, SURFACES WITHIN THREE INCHES OF HOLES AND FIELD WELDS, AND SURFACES IN CONTACT WITH CONCRETE SHALL BE GIVEN ONE PRIME COAT AS SPECIFIED IN SUBSECTION 807.59 OF THE STANDARD SPECIFICATIONS OR SP 807-10.  
FIELD PAINT: IN ADDITION TO THE PRIME COAT ALL STRUCTURAL STEEL EXCEPT GALVANIZED MEMBERS SHALL RECEIVE TWO COATS OF PAINT AFTER ERECTION. THE CONTRACTOR SHOULD NOTE THE AMOUNT OF TIME ALLOWED TO ELAPSE BETWEEN COATS BEFORE ADDITIONAL CLEANING IS REQUIRED. SEE SP 807-10 AND THE STANDARD SPECIFICATIONS. COLOR OF PAINT SHALL BE BLUE.

**REINFORCING STEEL:**  
THE REINFORCING STEEL SHALL 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 ITEMS OF "REINFORCING STEEL."

**CONCRETE:**  
ALL CONCRETE SHALL BE POURED AND SCREEDED OFF PRIOR TO INITIAL SET. THE CONCRETE BRIDGE DECK SHALL BE GIVEN A TIME FINISH AS SPECIFIED FOR FINAL FINISHING IN SUBSECTION 802.23 FOR CLASS 6, ROADWAY SURFACE FINISH. MOVEMENT OF THE FINISHING MACHINE ACROSS NEW CONCRETE SHALL BE ON PLANKS PLACED ON THE SURFACE AND SHALL BE PROHIBITED FOR 72 HOURS AFTER FINISHING THE POUR. SUFFICIENT CONCRETE MUST BE PLACED AHEAD OF THE STRIKE-OFF TO FULLY LOAD THE GIRDER. IF A LONGITUDINAL STRIKE-OFF IS USED, A VERTICAL CAMBER ADJUSTMENT MUST BE MADE IN THE STRIKE-OFF TO ACCOUNT FOR THE FUTURE DEAD LOAD DEFLECTION DUE TO THE RAILING.  
THE CONTRACTOR MAY POUR THE BRIDGE SLAB CONTINUOUS OVER THE ENTIRE UNIT USING RETARDING AGENT TO RETARD SET.  
THE BRIDGE SLAB MAY BE POURED AS SHOWN ON THE POURING SEQUENCE DIAGRAM. IF THIS SEQUENCE IS USED, ALL POURS (1) ADJACENT TO POURS (2) MUST BE PLACED BEFORE POURS (2) CAN BE PLACED.  
THE CONTRACTOR MUST OBTAIN APPROVAL FROM THE PROJECT ENGINEER IF HE ELECTS TO MAKE POURS OTHER THAN AS SHOWN.

**SUBSTRUCTURE GENERAL NOTES**

ALL CONCRETE TO BE CLASS S AND SHALL BE POURED IN THE DRY. ALL EXPOSED CORNERS TO BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.  
ALL PILING SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 44 TONS PER PILE. PILING SHALL BE 16" OCTAGONAL OR 14" SQUARE PRECAST CONCRETE.  
SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1978 AND APPLICABLE SPECIAL PROVISIONS.  
LIVE LOAD: HS 20-44  
DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1983 WITH CURRENT INTERIMS.  
METHOD OF DESIGN: LOAD FACTOR  
CONCRETE: ALL CONCRETE SHALL BE CLASS "S" WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH  $f'_c = 3500$  PSI.  
REINFORCING STEEL: REINFORCING STEEL SHALL CONFORM TO ASTM A615 OR A617, GRADE 60, (YIELD STRENGTH = 60,000 PSI).  
STRUCTURAL STEEL IN BENTS SHALL CONFORM TO ASTM A36. STRUCTURAL STEEL IN ABUTMENTS SHALL BE PAID FOR AS STRUCTURAL STEEL IN PLATE GIRDER SPANS (A36).  
ADDITIONAL NOTES FOR ABUTMENTS:  
SEE SP JOB NO. 100191, "ABUTMENT CONSTRUCTION PROCEDURE."  
SEE SP 801-2, "CRUSHED STONE BACKFILL." PAYMENT FOR CRUSHED STONE BACKFILL SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID PER SQUARE FOOT FOR "ABUTMENT DRAINAGE SYSTEM".  
FOR 6" Ø PIPE UNDERDRAINS, SEE SECTION 611.

FOR INFORMATION ONLY

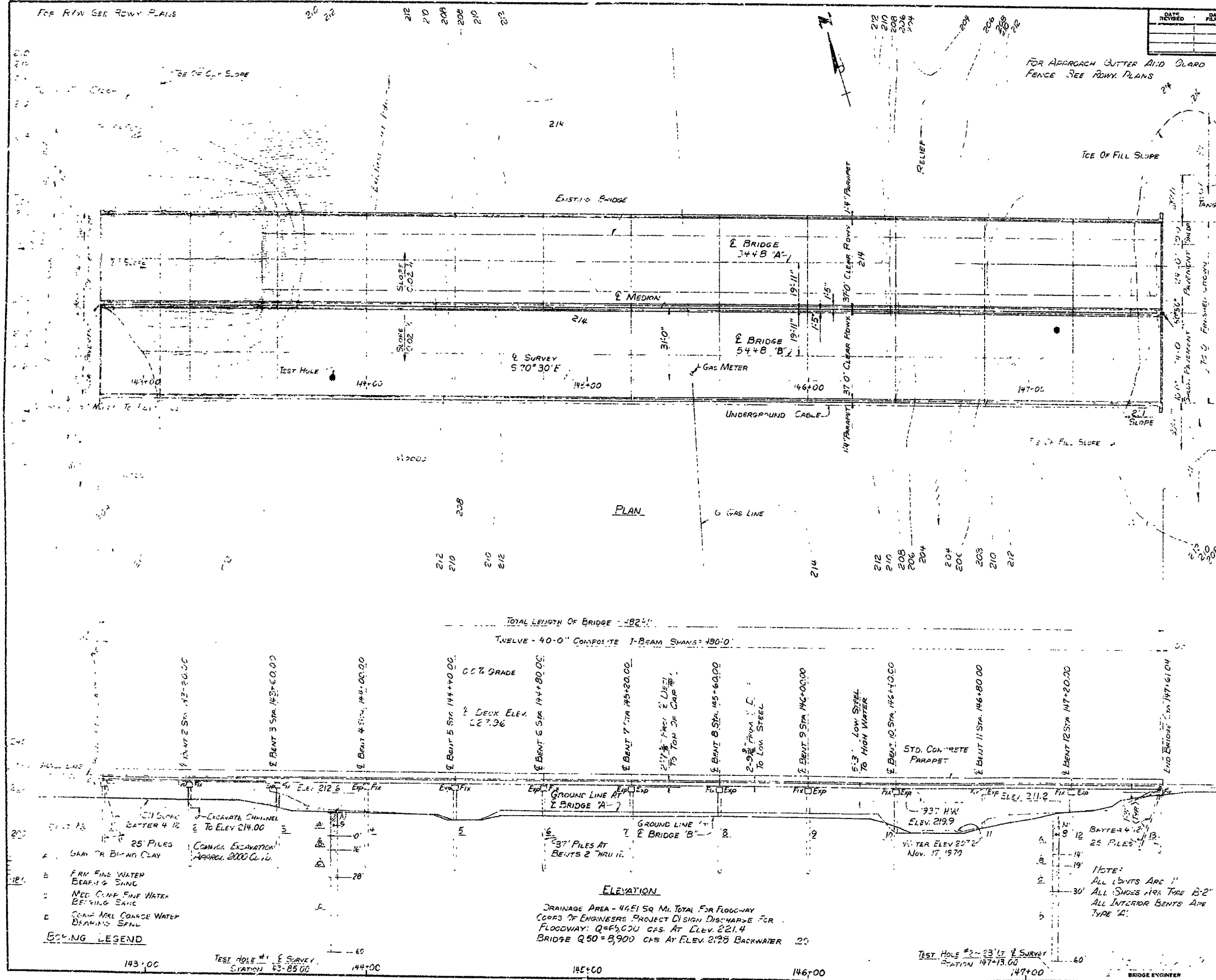
GENERAL NOTES  
HIGHWAY 75 INTERCHANGE  
POINSETT COUNTY

ROUTE 75 SEC. 5  
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.  
DRAWN BY: CRH DATE: JAN 87  
CHECKED BY: JAS DATE: FEB 87 SCALE: NONE  
REVISIONS BY: DATE: \_\_\_\_\_  
BRIDGE NO. 6230 DRAWING NO. 28861

*Steel Reinforcing*

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.		100976	18	31
				SITE NOS. 4 & 5 - FOR INFO. ONLY				



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	153-123	33	33
				JOB NO.	5448-23	Legist	17541	

FOR APPROACH CUTTER AND GLARD FENCE SEE ROWY PLANS

ICE OF FILL SLOPE

RELIEF

TANGENT DIST. OVER 500'

APPLY 50' MILE TO WEST LIMITS OF MARKED TREE.

GENERAL NOTES

BENCH MARK: "B" CLT ON WHEEL GUARD POST END OF BRIDGE 38' LEFT OF SURVEY LINE STA. 147+64. ELEV. 227.47

CONCRETE IN SUBSTRUCTURE TO BE CLASS "S". CONCRETE IN SUPERSTRUCTURE TO BE CLASS "S". ALL CONCRETE SHALL BE POURED IN THE DRY. ALL JOINTS SHALL BE CHAMFERED 1/4" UNLESS OTHERWISE SPECIFIED.

ALL PILING SHALL BE 16" OCTAGONAL PRECAST CONCRETE AND SHALL BE DRIVEN WITH AN APPROVED AIR, STEAM, OR DIESEL HAMMER TO A MINIMUM BEARING CAPACITY OF 40 TONS AND TO A MINIMUM PENETRATION OF 20 FEET BELOW THE GROUND LINE. PILE LENGTHS SHOWN ARE FOR ESTIMATING QUANTITIES ONLY. ACTUAL LENGTHS SHALL BE DETERMINED IN THE FIELD BY THE FOLLOWING PROCEDURE: IN BENT NO. 10, DRIVE ONE 42" TEST PILE TO BE TEST LOADED ACCORDING TO SECTION 804.6(S) OF THE SPECIFICATIONS. WHEN THE MINIMUM PENETRATION AND DESIGN CAPACITY AS DETERMINED BY THE PILE FORMULA IS FIRST ATTAINED, DRIVING SHALL CEASE AND THE PILE SHALL BE TEST LOADED. ADDITIONAL TEST PILES SHALL BE DRIVEN AS FOLLOWS: ONE 30" TEST PILE IN BENT NO. 1, AND ONE 42" TEST PILE IN BENT NO. 6.

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

STAGE CONSTRUCTION: STAGE 1 CONSISTS OF THE CONSTRUCTION OF THE RIGHT LANE BRIDGE (BRIDGE NO. 5448B) WHILE TRAFFIC IS MAINTAINED ON EXISTING STRUCTURE (BRIDGE NO. 1771). STAGE 2 CONSISTS OF THE REMOVAL OF THE EXISTING STRUCTURE AND THE CONSTRUCTION OF THE LEFT LANE BRIDGE (BRIDGE NO. 5448A).

DISPOSITION OF THE EXISTING STRUCTURE: THE CONTRACTOR SHALL REMOVE THE EXISTING BRIDGE STRUCTURE ACCORDING TO SECTION 1006 OF THE SPECIFICATIONS. THE EXISTING STRUCTURE IS 400 FEET IN LENGTH AND CONSISTS OF FOURTEEN 29'-0" I-BEAM SPANS ON TIMBER PILE BENTS.

FOR DETAILS OF END PENTS, SEE DWG. NO. 17-33.  
FOR DETAILS OF INTERMEDIATE SPANS, SEE DWG. NOS. 17-34 AND 17-35.  
FOR DETAILS OF COMPOSITE I-BEAM SPANS, SEE DWG NOS. 17-36 AND 1099E.  
FOR DETAILS OF STANDARD PRECAST CONCRETE PILES, SEE DWG. NO. 17-32.

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1959, THE 1966 SUPPLEMENTAL SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.  
DESIGN SPECIFICATIONS: MS10 1966  
LIVE LOADING: HS20  
UNIT STRESSES: CLASS V CONCRETE (F) 1,200 PSI  
REINFORCING STEEL 60,000 PSI  
STRUCTURAL STEEL (A 57), GRADE 50 27,000 PSI  
STRUCTURAL STEEL (A 36) 20,000 PSI

PLAN

UNDERGROUND CABLE

GAS LINE

TEST HOLE #1 SURVEY STATION 143-8500

TEST HOLE #2 SURVEY STATION 147+13.00

BRIDGE ENGINEER

BRIDGE NO. 5448-23 DRAWING NO. 18

LAYOUT OF BRIDGE OVER FLOODWAY RELIEF MARKED TREE - PINEY RIVER BRIDGES POINSETT COUNTY ROUTE 23 SEC. 3 ARKANSAS STATE HIGHWAY COMMISSION LITTLE ROCK, ARK.

DRAWN BY: DATE: SCALE: CHECKED BY: DATE: BRIDGE ENGINEER

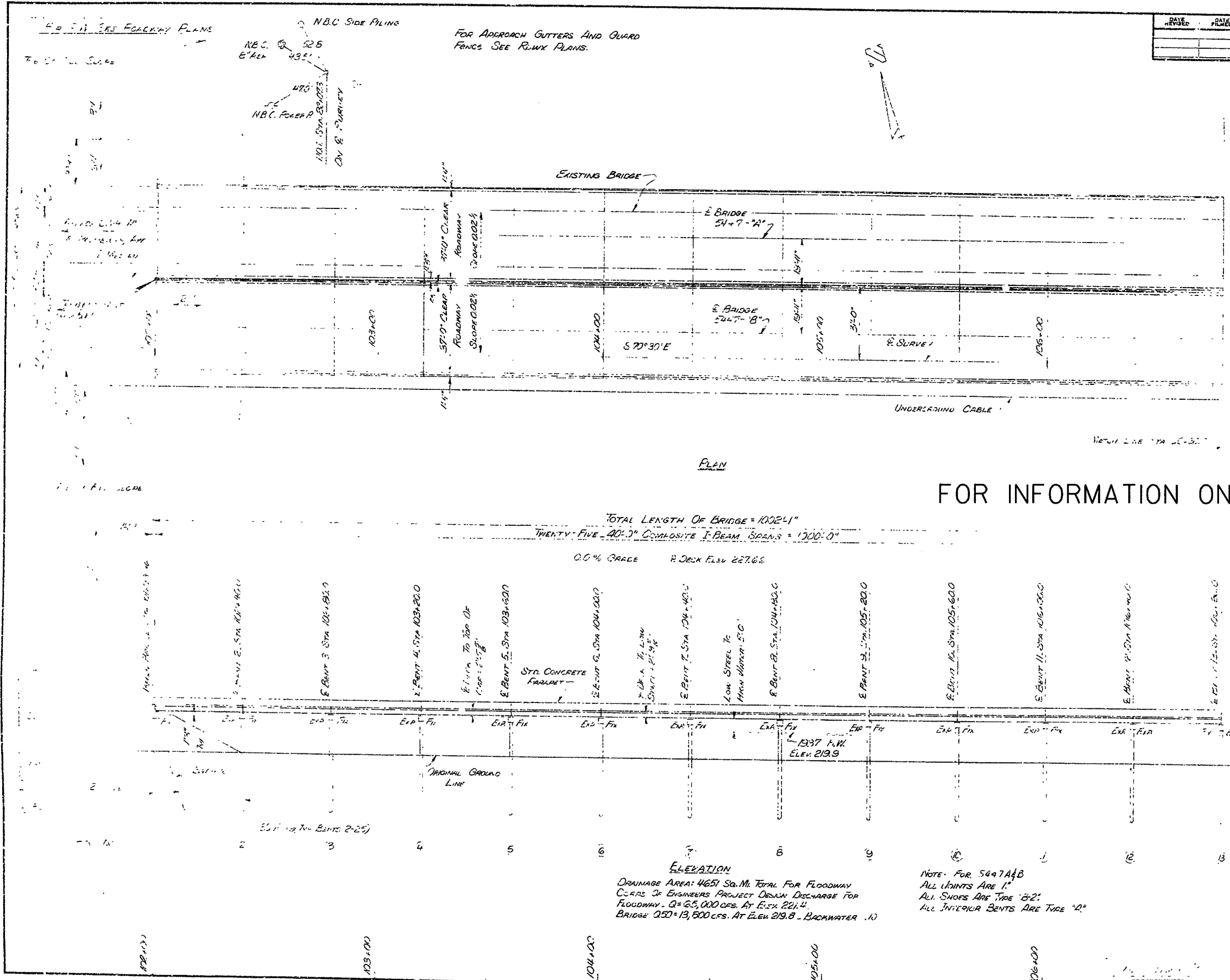
FOR INFORMATION ONLY

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.		100976	19	31

① SITE NOS. 6 & 7 - FOR INFO. ONLY

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.	100976		31	33

① 5447A-B LAYOUT 17533



PLAN

FOR INFORMATION ONLY

GENERAL NOTES

BENCH MARK: "Q" CUT ON WHEEL GUARD SOUTH SIDE OF BRIDGE 38' LEFT OF SURVEY LINE STA. 104+85. ELEV. 227.56.

CONCRETE IN SUBSTRUCTURE TO BE CLASS "S" CONCRETE. SUPERSTRUCTURE TO BE CLASS "SAC". ALL CONCRETE SHALL BE CURED IN THE DRY. ALL EXPOSED CORNERS TO BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.

ALL PILING SHALL BE 16" OCTAGONAL PRECAST CONCRETE AND SHALL BE DRIVEN WITH AN APPROVED AIR, STEEL, OR DIESEL HAMMER TO A MINIMUM BEARING CAPACITY OF 10 TONS AND TO A MINIMUM PENETRATION OF 20 FEET BELOW THE GROUND LINE. PILE LENGTHS SHOWN ARE FOR ESTIMATING QUANTITIES ONLY. ACTUAL LENGTHS SHALL BE DETERMINED IN THE FIELD BY THE FOLLOWING PROCEDURE: IN BENT NO. 3, DRIVE ONE 44" TEST PILE TO BE TEST LOADED ACCORDING TO SECTION 804.6(b) OF THE SPECIFICATIONS. WHEN THE MINIMUM PENETRATION AND BEARING CAPACITY AS DETERMINED BY THE PILE FORMULA IS FIRST ATTAINED, DRIVING SHALL CEASE AND THE PILE SHALL BE TEST LOADED. ADDITIONAL TEST PILES SHALL BE DRIVEN AS FOLLOWS: ONE 30" TEST PILE IN BENT NO. 1 AND ONE 44" TEST PILE IN EACH OF BENTS NO. 3, 13, 15, 17 AND 22.

PILES IN END BENTS TO BE DRIVEN AFTER EMBANKMENT TO SURGRADE IS IN PLACE.

STAGE CONSTRUCTION - STAGE 1 CONSISTS OF THE CONSTRUCTION OF THE RIGHT HAND BRIDGE (BRIDGE NO. 4447A) WHILE TRAFFIC IS MAINTAINED ON EXISTING STRUCTURE (BRIDGE NO. 1749). STAGE 2 CONSISTS OF THE REMOVAL OF THE EXISTING STRUCTURE AND THE CONSTRUCTION OF THE LEFT HAND BRIDGE (BRIDGE NO. 4447A).

DISPOSITION OF THE EXISTING STRUCTURE - THE CONTRACTOR SHALL REMOVE THE EXISTING BRIDGE STRUCTURE ACCORDING TO SECTION 1066 OF THE SPECIFICATIONS. THE EXISTING STRUCTURE IS 1421 FEET IN LENGTH AND CONSISTS OF FORTY-NINE 29'-0" I-BEAM SPANS ON TIMBER PILE BENTS.

FOR DETAILS OF ENLARGEMENTS, SEE DRAWING NO. 1743A FOR DETAILS OF INTERMEDIATE BENTS, SEE DRAWINGS 1753A AND 1753B FOR DETAILS OF COMPOSITE I-BEAM SPANS, SEE DRAWINGS 1753B AND 14990E FOR DETAILS OF STANDARD PRECAST CONCRETE PILES, SEE DRAWING NO. 2392.

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1955, TH. 1966 SUPPLEMENTAL SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS AASHO 1969

LIVE LOADING: HS20

UNIT STRESSES CLASS "S" CONCRETE (f<sub>c</sub>) 1,200 PSI  
REINFORCING STEEL (f<sub>y</sub>) 20,000 PSI  
STRUCTURAL STEEL (F<sub>y</sub>) 50 27,000 PSI  
STRUCTURAL STEEL (F<sub>u</sub>) 60 20,000 PSI

TOTAL LENGTH OF BRIDGE = 1002'-1"  
TWENTY-FIVE 40'-0" COMPOSITE I-BEAM SPANS = 1000'-0"

0.0% GRADE R. DEN. ELEV. 227.66

ELEVATION  
DRAINAGE AREA: 4651 SQ. MI. TOTAL FOR FLOODWAY  
COLETS OF ENGINEERS PROJECT DESIGN DISCHARGE FOR FLOODWAY - Q = 25,000 CFS. AT ELEV. 221.4  
BRIDGE Q50 = 13,500 CFS. AT ELEV. 219.8 - BACKWATER .10

NOTE: FOR 5447A+B  
ALL JOINTS ARE 1"  
ALL SHOES ARE TYPE "B-2"  
ALL INTERIOR BENTS ARE TYPE "D"

SHEET 1 OF 2  
LAYOUT OF BRIDGE  
OVER SAND SLOUGH  
MARKED TREE - PAYNEWAY BRIDGES

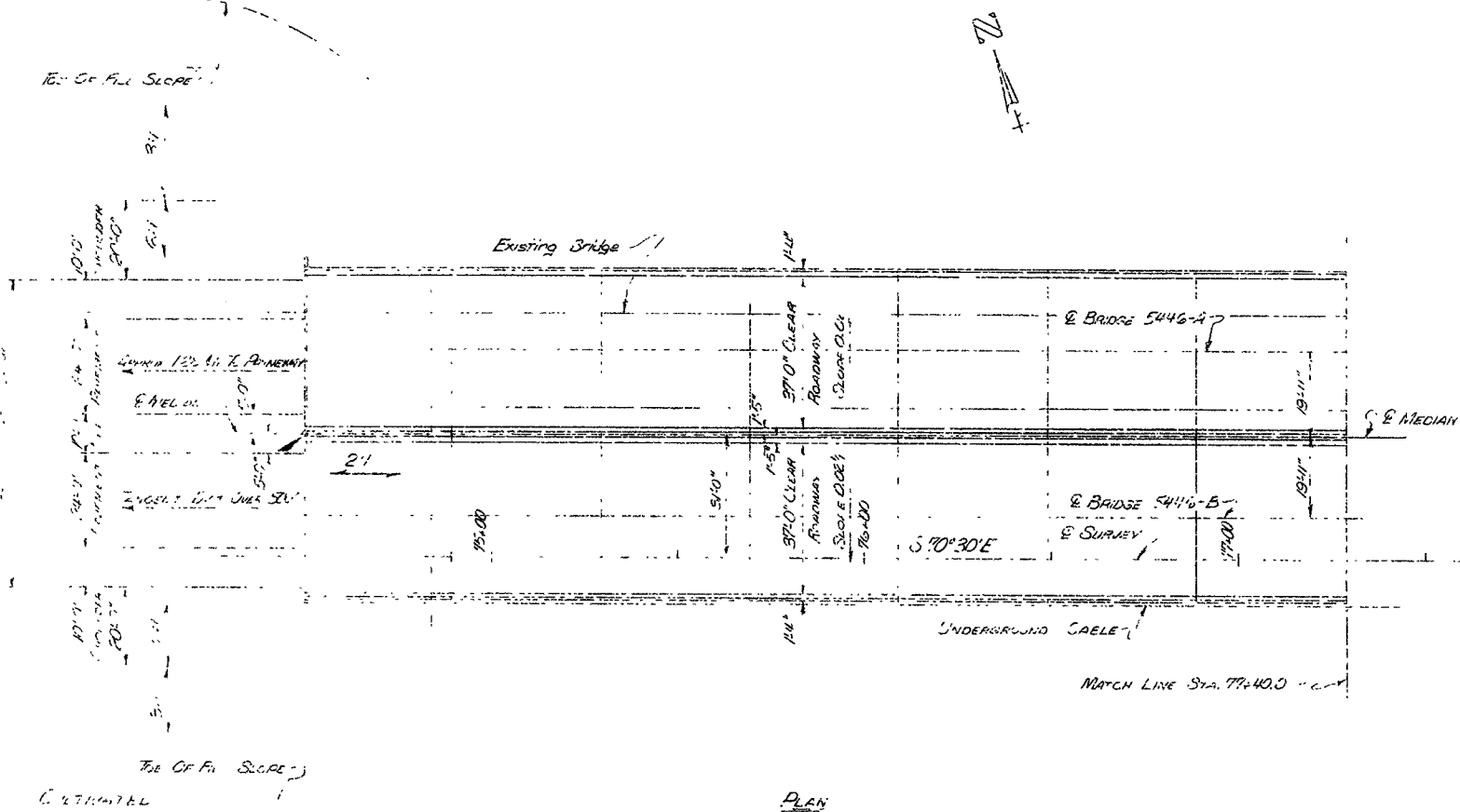
QUINSETT COUNTY  
ROUTE 53 SEC. 5  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.  
DRAWN BY: K.M.G. DATE: 1 Sept. 71  
CHECKED BY: H. DATE: 7-27 SCALE: 1" = 20'  
BRIDGE NO. 5447A+B DRAWING NO. 17533

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.	100976		20	31
				SITE NOS. 8 & 9 - FOR INFO. ONLY				

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	CD. ROAD NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
				5	ARK.	BR-F-023-123			
				JOB NO.	10679		29	83	
				5446 AFB LAYOUT		17537			

FOR P.L. SEE PROPOSED PLANS

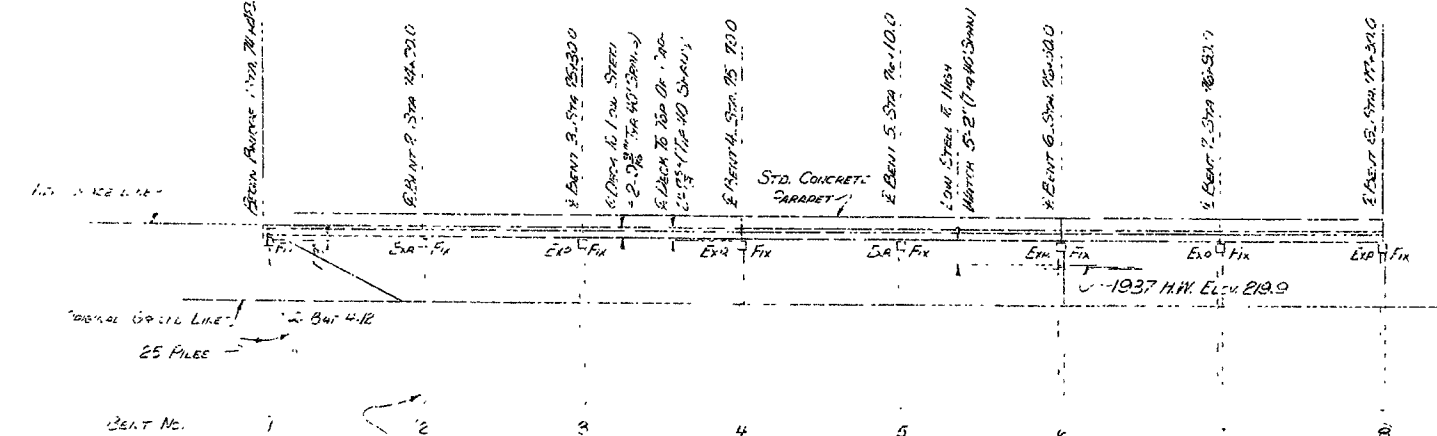
FOR APPROX. CUTTERS AND GUARD FENCE SEE ROWN PLANS.



TOTAL LENGTH OF BRIDGE = 722'-1"

FIFTEEN 40'-0" COMPOSITE I-BEAM SPANS = 600'-0"

0.0% GRADE & DECK ELEV. 227.86



**ELEVATION**  
 DRAINAGE AREA: 41.51 SQ. MI. TOTAL H.P. FLOODWAY  
 CURBS 7" ELEVATIONS PERMIT DRAINAGE DISCHARGE FOR FLOODWAY  
 TO GEORGIANS AT ELEV. 221.4  
 BRIDGE 0.50' H., BUD. NO. AT ELEV. 213.8 BACKWATER: .11'

**GENERAL NOTES**

BENCH MARK: 10" C.I.T. ON WHEEL GUARD EAST END OF BRIDGE 78' LEFT OF SURVEY LINE STA. 81+77. ELEV. 227.97.

CONCRETE IN SUBSTRUCTURE TO BE CLASS 'S'. CONCRETE IN SUPERSTRUCTURE TO BE CLASS 'S&E'. ALL CONCRETE SHALL BE POURED IN THE DRY. ALL EXPOSED CORNERS TO BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.

ALL PILING SHALL BE 16" OCTAGONAL PRECAST CONCRETE AND SHALL BE DRIVEN WITH AN APPROVED AIR, STEAM, OR DIESEL HAMMER TO A MINIMUM BEARING CAPACITY OF 60 TONS AND TO A MINIMUM PENETRATION OF 20 FEET BELOW THE GROUND LINE. PILE LENGTHS SHOWN ARE FOR ESTIMATING QUANTITIES ONLY. ACTUAL LENGTHS SHALL BE DETERMINED IN THE FIELD BY THE FOLLOWING PROCEDURE: IN BENT NO. 16, DRIVE ONE 37' TEST PILE TO BE TEST LOADED ACCORDING TO SECTION 804.06(b) OF THE SPECIFICATIONS. WHEN THE MINIMUM PENETRATION AND BEARING CAPACITY AS DETERMINED BY THE PILE FORMULA IS FIRST ATTAINED, DRIVING SHALL CEASE AND THE PILE SHALL BE TEST LOADED. ADDITIONAL TEST PILES SHALL BE DRIVEN AS FOLLOWS: ONE 30' TEST PILE IN BENT NO. 1; AND ONE 44' TEST PILE IN EACH OF BENTS NO. 6 AND 11.

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

STAGE CONSTRUCTION: STAGE 1 CONSISTS OF THE CONSTRUCTION OF THE RIGHT LANE BRIDGE (BRIDGE NO. 5446A) WHILE TRAFFIC IS MAINTAINED ON EXISTING STRUCTURE (BRIDGE NO. 176A). STAGE 2 CONSISTS OF THE REMOVAL OF THE EXISTING STRUCTURE AND THE CONSTRUCTION OF THE LEFT LANE BRIDGE (BRIDGE NO. 5446A).

DISPOSITION OF THE EXISTING STRUCTURE: THE CONTRACTOR SHALL REMOVE THE EXISTING BRIDGE STRUCTURE ACCORDING TO SECTION 1006 OF THE SPECIFICATIONS. THE EXISTING STRUCTURE IS 1010 FEET IN LENGTH AND CONSISTS OF THIRTY-TWO 29'-0" I-BEAM SPANS ON TIMBER PILE BENTS AND ONE 60'-0" LOW TRUSS SPAN ON CONCRETE PIERS.

FOR DETAILS OF END BENTS, SEE DWG. NO. 17533.  
 FOR DETAILS OF INTERMEDIATE BENTS, SEE DWG. NOS. 17534 AND 17535.  
 FOR DETAILS OF COMPOSITE I-BEAM SPANS, SEE DWG. NOS. 17536 AND 14990E.  
 FOR DETAILS OF STANDARD PRECAST CONCRETE PILES, SEE DWG. NOS. 2362.

SPECIFICATION IS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1959, THE 1966 SUPPLEMENTAL SPECIFICATIONS AND APPLICABLE PROVISIONS

DESIGN SPECIFICATIONS: AASHTO 1969

LIVE LOADING: HS20

UNIT STRESSES:

CLASS 'S' CONCRETE (f' = 10)	1,200 PSI
REINFORCING STEEL	20,000 PSI
STRUCTURAL STEEL (A 572, GRADE 50)	27,000 PSI
STRUCTURAL STEEL (A 36)	20,000 PSI

NOTE:  
 ALL UNITS ARE IN FEET.  
 ALL DIMENSIONS ARE TYPE 'B' UNLESS NOTED.  
 ALL INTERIOR BENTS ARE TYPE 'A' UNLESS NOTED.

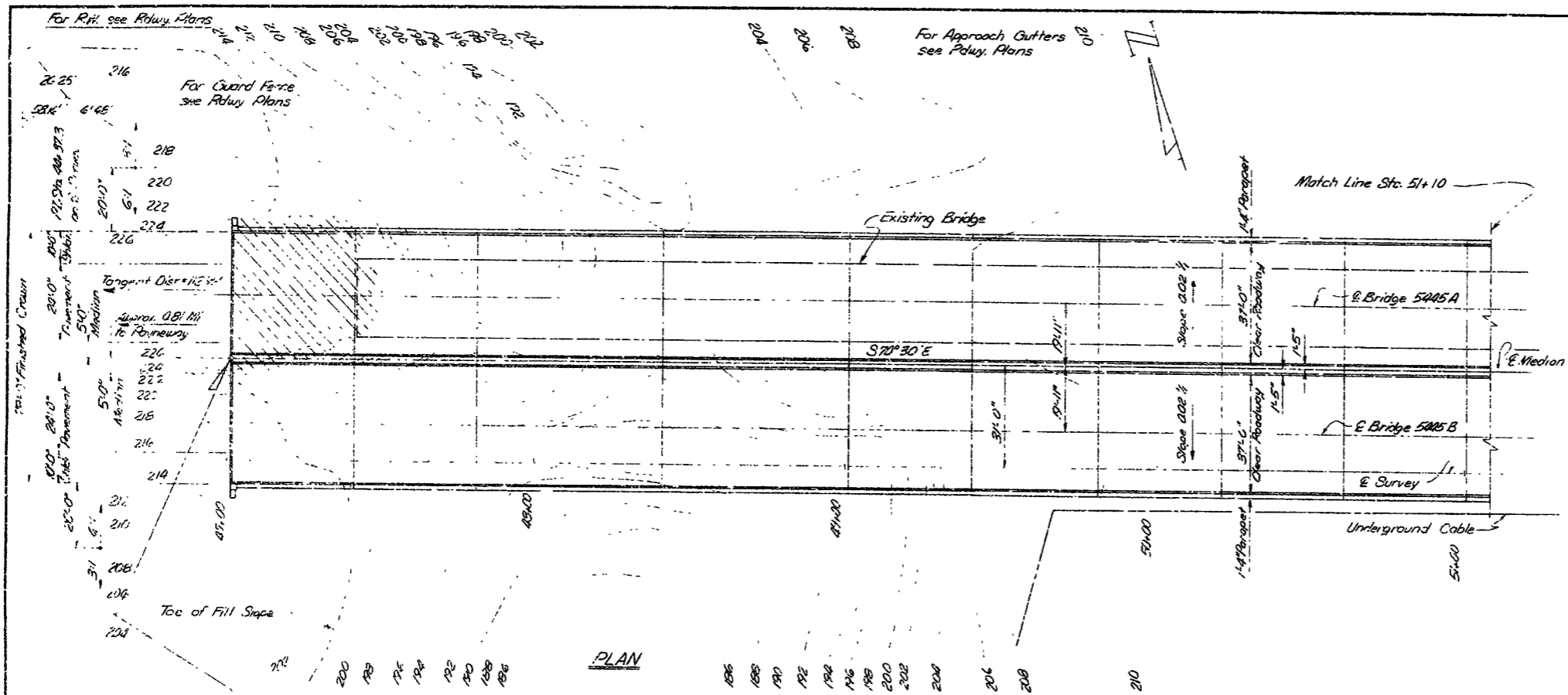
**FOR INFORMATION ONLY**

SHEET 1 OF 2  
 LAYOUT OF BRIDGE  
 OVER DITCH NO. 51  
 MARKED TREE-PAYNEWAY BRIDGES  
 MOINSETT COUNTY

ROUTE 27 SEC. 5  
 ARKANSAS STATE HIGHWAY COMMISSION  
 LITTLE ROCK, ARK.  
 DRAWN BY: K.M.S. DATE: 5-15-79  
 TRACED BY: DATE: 5-15-79  
 CHECKED BY: DATE: 5-15-79  
 BRIDGE NO. 5446 AFB DRAWING NO. 17537

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						100976	21	31

SITE NOS. 10 & 11 - FOR INFO. ONLY

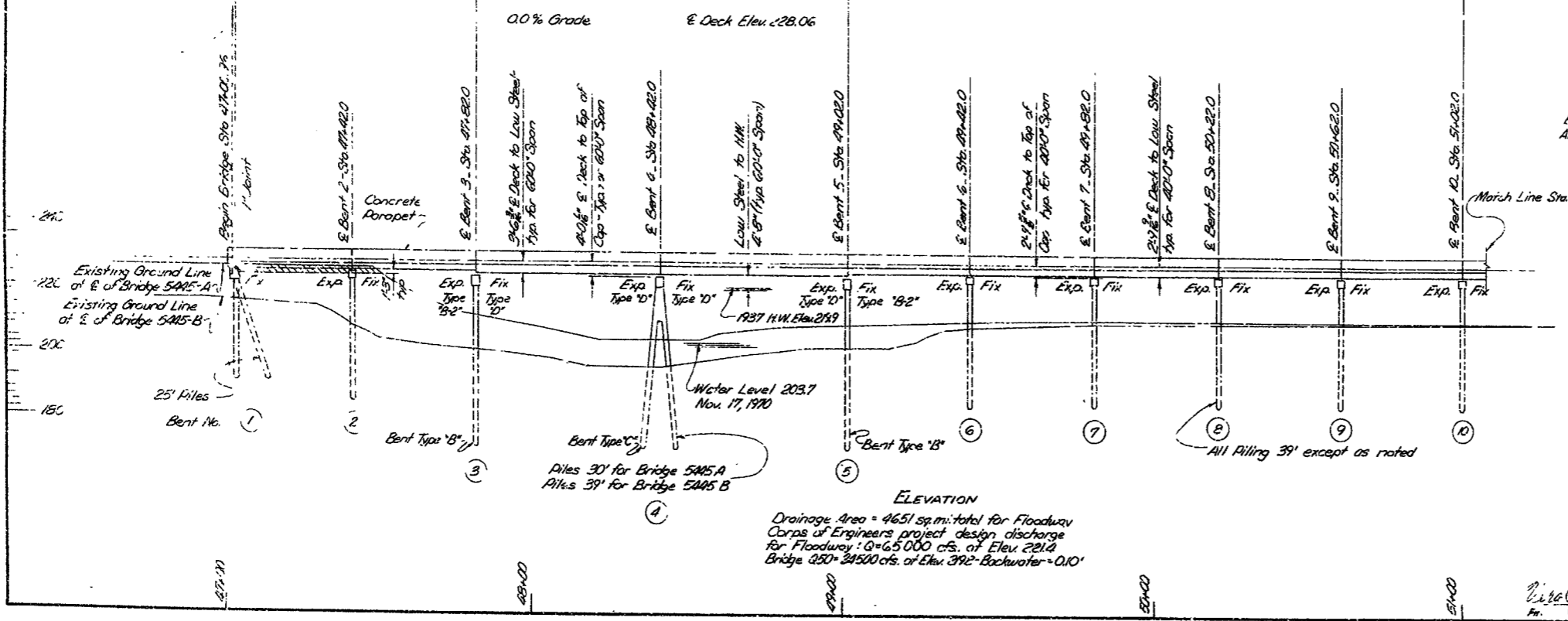


Total Length of Bridge = 1282'-11"

140' 2 Composite I-Beam Spans @ 40'-0" = 80'-0"

2 Composite I-Beam Spans @ 60'-0" = 120'-0"

5 Composite I-Beam Spans @ 40'-0" = 200'-0"



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
12-25-71	1502-12-27			6	ARK.	BR-F-033-122	22	33

① 5445 A+B LAYOUT (17530)

GENERAL NOTES

BENCH MARK: "□" CUT ON WHEEL GUARD WEST END OF BRIDGE 38' LEFT OF SURVEY LINE STA. 47+43. ELEV. 227.92.

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

ALL PILING SHALL BE 16" OCTAGONAL PRECAST CONCRETE AND SHALL BE DRIVEN WITH AN APPROVED AIR, STEAM, OR DIESEL HAMMER TO A MINIMUM BEARING CAPACITY OF 60 TONS AND TO A MINIMUM PENETRATION OF 20 FEET BELOW THE GROUND LINE. PILE LENGTHS SHOWN ARE FOR ESTIMATING QUANTITIES ONLY. ACTUAL LENGTHS SHALL BE DETERMINED IN THE FIELD BY THE FOLLOWING PROCEDURE. IN EACH OF BENT NOS. 8 AND 29, DRIVE ONE 44" TEST PILE TO BE TEST LOADED ACCORDING TO SECTION 604.601 OF THE SPECIFICATIONS. WHEN THE MINIMUM PENETRATION AND BEARING CAPACITY AS DETERMINED BY THE PILE FORMULA IS FIRST ATTAINED, DRIVING SHALL CEASE AND THE PILE SHALL BE TEST LOADED. ADDITIONAL TEST PILES SHALL BE DRIVEN AS FOLLOWS: ONE 30" TEST PILE IN BENT NO. 1; ONE 44" TEST PILE IN EACH OF BENT NOS. 10, 15, AND 20; AND ONE 50" TEST PILE IN BENT NO. 27.

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

STAGE CONSTRUCTION: STAGE 1 CONSISTS OF THE CONSTRUCTION OF THE RIGHT LANE BRIDGE (BRIDGE NO. 5445B) WHILE TRAFFIC IS MAINTAINED ON EXISTING STRUCTURE (BRIDGE NO. 1767). STAGE 2 CONSISTS OF THE REMOVAL OF THE EXISTING STRUCTURE AND THE CONSTRUCTION OF THE LEFT LANE BRIDGE (BRIDGE NO. 5445A).

DISPOSITION OF THE EXISTING STRUCTURE: THE CONTRACTOR SHALL REMOVE THE EXISTING BRIDGE STRUCTURE ACCORDING TO SECTION 1006 OF THE SPECIFICATIONS. THE EXISTING STRUCTURE IS 1213 FEET IN LENGTH AND CONSISTS OF THIRTY-NINE 29'-0" I-BEAM SPANS ON TIMBER PILE BENTS AND ONE 80'-0" LOW TRUSS SPAN ON CONCRETE PIERS.

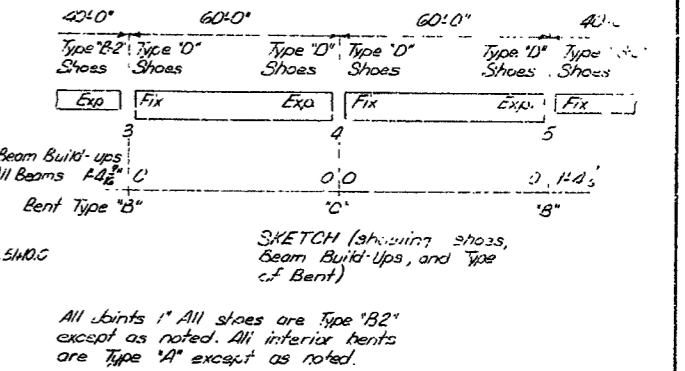
FOR DETAILS OF END BENTS, SEE DWG. NO. 17533.  
FOR DETAILS OF INTERMEDIATE BENTS, SEE DWG. NOS. 17534 AND 17535.  
FOR DETAILS OF COMPOSITE I-BEAM SPANS, SEE DWG. NOS. 17536 AND 14990E.  
FOR DETAILS OF STANDARD PRECAST CONCRETE PILES, SEE DWG. NO. 2382.

SPECIFICATION: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1959, THE 1966 SUPPLEMENTAL SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHO 1969

LIVE LOADING: HS20

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



FOR INFORMATION ONLY

SHEET 1 OF 3  
LAYOUT OF BRIDGE  
OVER DITCH NO. 60  
MARKED TREE-PAYNEWAY BRIDGES  
POINTSETT COUNTY  
ROUTE 63 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: J.P.S. H.M.B. DATE: 2 Dec. 71  
TRACED BY: J.D. DATE: 2-3-71  
CHECKED BY: J.D. DATE: 2-3-71

BRIDGE NO. 5445 A+B DRAWING NO. 17530

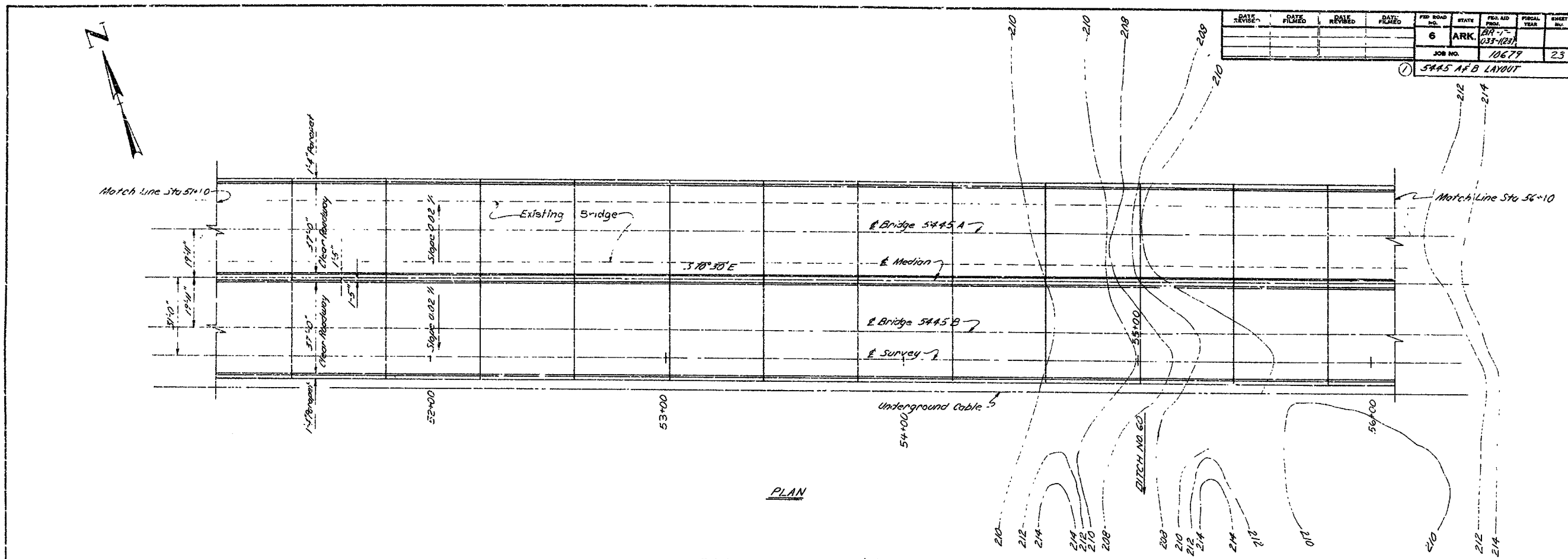
SCALE: 1" = 20'-0"

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.		100976	22	31

① SITE NOS. 10 & 11 - FOR INFO. ONLY

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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				JOB NO.		10679	23	83	

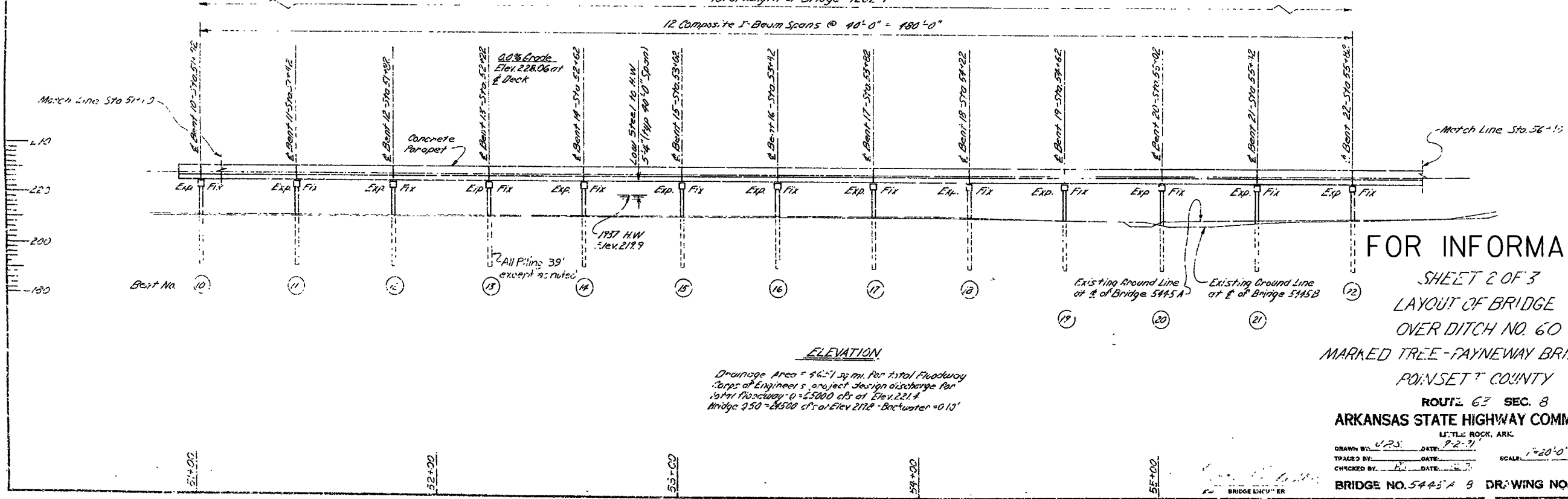
② 5445 A & B LAYOUT 11531



PLAN

Total length of Bridge = 1282'-1"

12 Composite I-Beam Spans @ 40'-0" = 480'-0"



ELEVATION

Drainage Area = 46.57 sq. mi. Per Aerial Floodway  
 Slope of Engineer's project design discharge per  
 later Floodway = 0.65000 cfs of Elev. 221.4  
 Bridge 350 = 26500 cfs at Elev. 217.0 "Bre"water = 0.10'

FOR INFORMATION ONLY

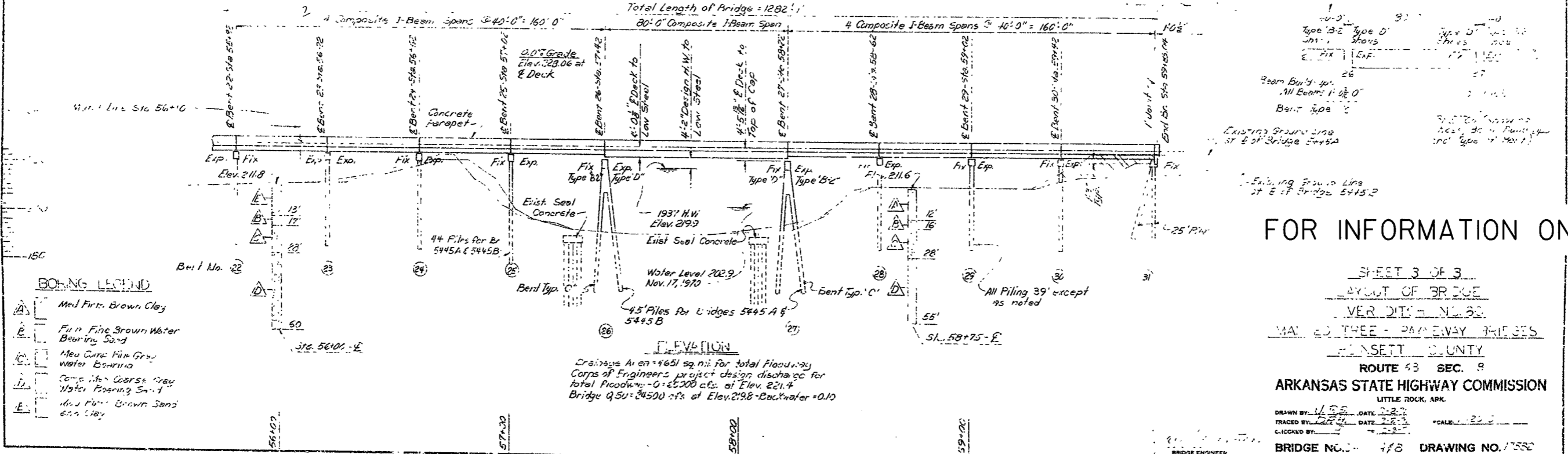
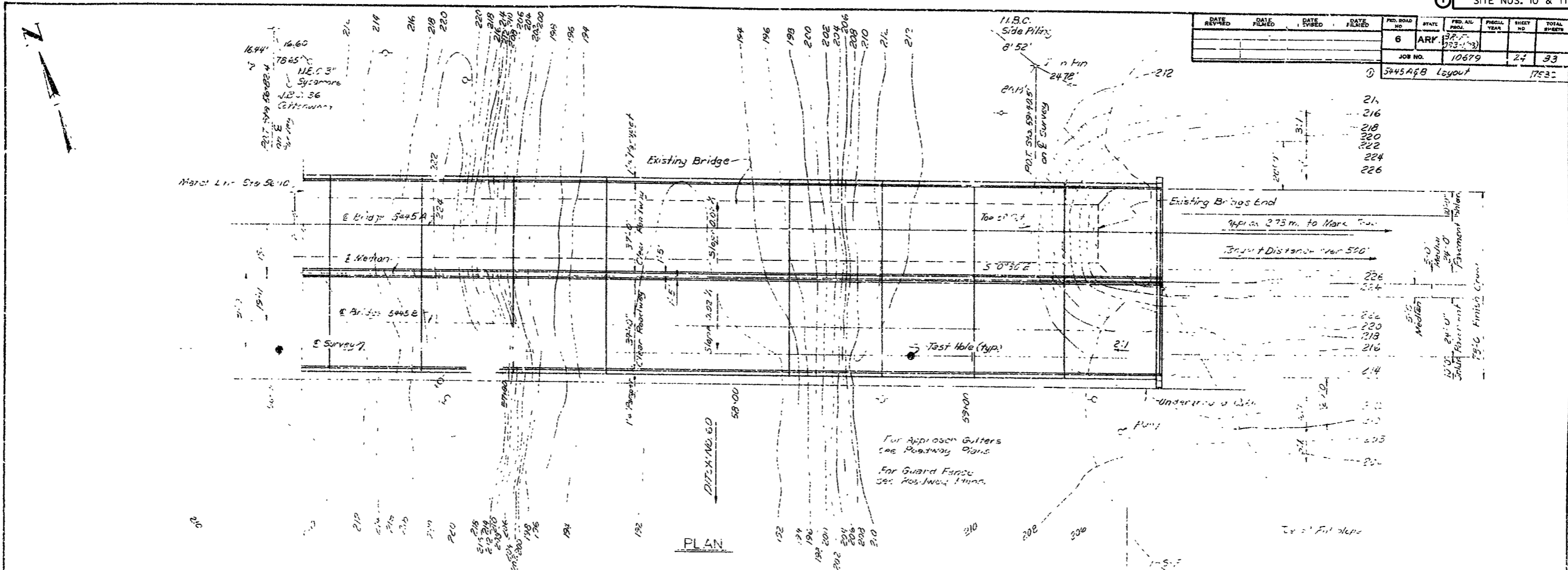
SHEET 2 OF 3  
 LAYOUT OF BRIDGE  
 OVER DITCH NO. 60  
 MARKED TREE-FAYNEWAY BRIDGES  
 POINSETT COUNTY  
 ROUTE 63 SEC. 8  
 ARKANSAS STATE HIGHWAY COMMISSION  
 LITTLE ROCK, ARK.

DRAWN BY: URS DATE: 9-2-71  
 TRACED BY: DATE: 1-2-72  
 CHECKED BY: DATE: 1-2-72  
 SCALE: 1"=20'-0"  
 BRIDGE NO. 5445 A & B DRAWING NO. 11531

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.		100976	23	31

① SITE NOS. 10 & 11 - FOR INFO. ONLY

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	PIECES	SHEET NO.	TOTAL SHEETS
				6	ARK.	37-333-33			
				JOB NO.		10879	24	33	
				① 5445 A&B Layout					17532



- BOHRING LEGEND**
- Med Firm. Brown Clay
  - Fine Fine Brown Water Bearing Sand
  - Med Cur. Firm Gray Water Bearing
  - Comp. Med. Coarse Gray Water Bearing Sand
  - Med Firm. Brown Sand and Clay

FOR INFORMATION ONLY

SHEET 3 OF 3  
 LAYOUT OF BRIDGE  
 VER. DIST. NO. 60  
 MAINTENANCE - PAVEMENT BRIDGES  
 FLETCHER COUNTY  
 ROUTE 43 SEC. 9  
 ARKANSAS STATE HIGHWAY COMMISSION  
 LITTLE ROCK, ARK.  
 DRAWN BY: [Signature] DATE: 2-2-72  
 TRACED BY: [Signature] DATE: 2-8-72  
 CHECKED BY: [Signature] DATE: 2-8-72  
 BRIDGE NO. 478 DRAWING NO. 17532

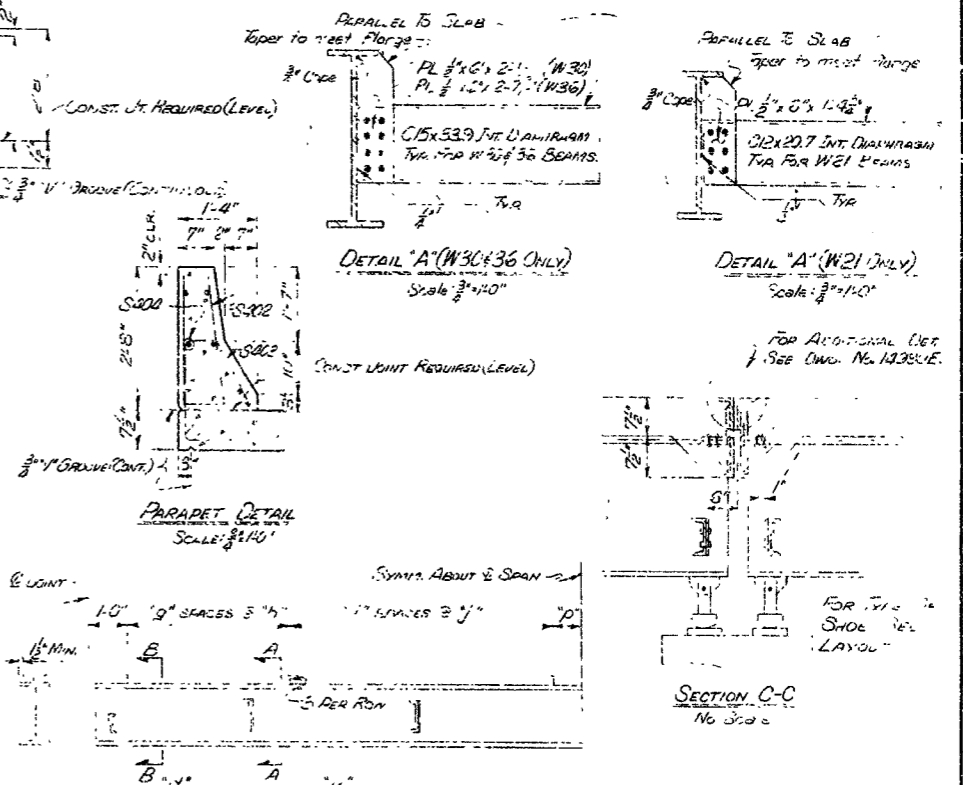
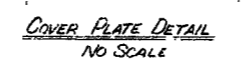
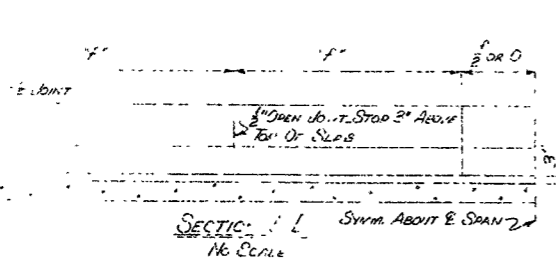
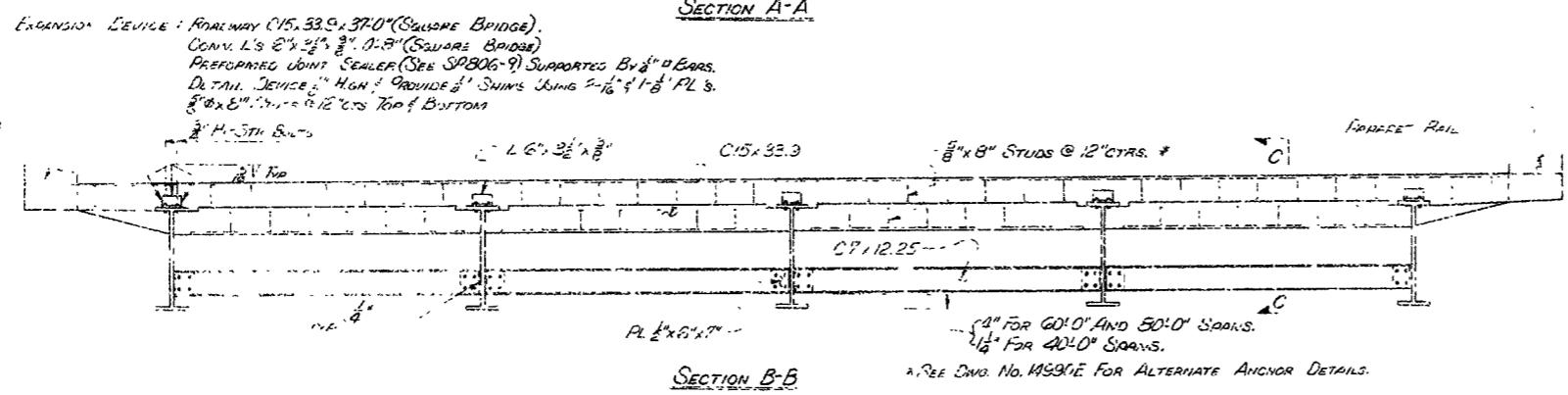
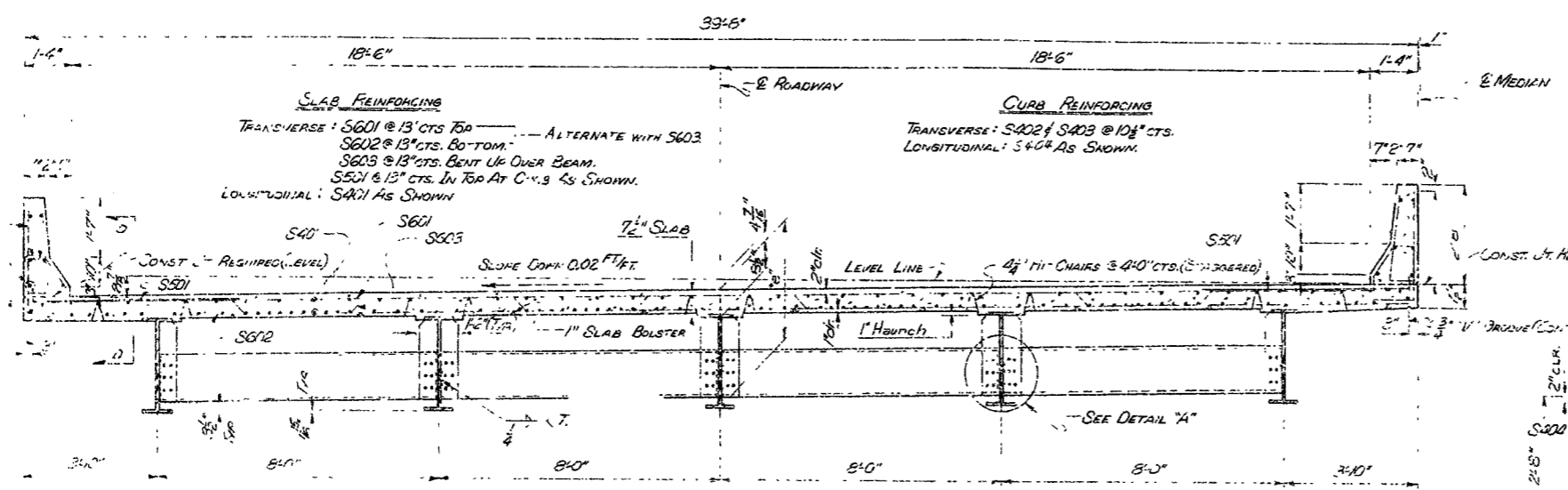


DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		100976	24	31

① SITE NOS. 4 THRU 11 - FOR INFO. ONLY

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	CR-F-033-123		
				JOB NO.		10679	28	33

① Span Details - 17536



SPACING FOR 3/4" STLD SHEAR CONNECTORS & DIAPHRAGMS

OPTIONAL CHANNEL SHEAR CONNECTORS  
 NO SCALE

NOTE: 7/8" STUDS OR C3X6.0 CHANNELS MAY BE USED IN PLACE OF THE 3/4" STUDS THAT ARE SHOWN, AT THE RATIO OF 0.735-7/8" STD OR 2.0 INCHES OF C3X6.0 CHANNEL IN PLACE OF ONE 3/4" STUD. THE STUD CONNECTORS SHALL BE 3" LONG AND MAY BE GRANULAR FLUX FILLED, SOLID FLUXED, OR EQUAL, AND AUTOMATICALLY END WELDED TO THE BEAM FLANGES IN ACCORDANCE WITH RECOMMENDATIONS OF THE MANUFACTURER. 3/4" STUDS WILL BE USED AS BASIS FOR MEASUREMENT OF STRUCTURAL STEEL IN SHEAR CONNECTORS.

BAR LIST (EACH SPAN)

MARK	LENGTH	PIN DIA.	SPAN LENGTH		
			40'	60'	80'
S401	20'-7"	STR.	232		
S402	5'-5"	2"	92	138	182
S403	5'-4"	2"	92	135	182
S404	9'-6"	STR.	43	72	96
S501	5'-8"	STR.	74	110	148
S601	35'-2"	STR.	37	52	77
S602	39'-2"	STR.	37	55	74
S603	41'-0"	3"	37	55	74
S401	39'-6"	STR.	116		
S401	27'-8"	STR.			348

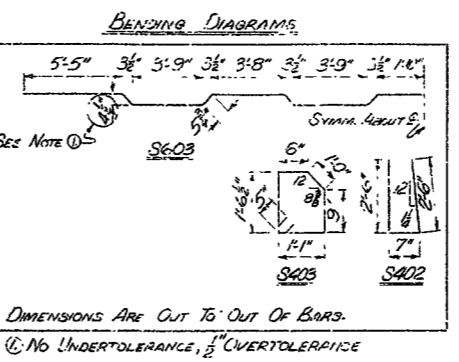


TABLE OF VARIABLES

SPAN	INTERIOR BEAM				EXTERIOR BEAM				DIAPHRAGM	PARAPET	VARIABLE OF SHEAR				
	BEAM SIZE	COVER PL. SIZE	TOP TO BOTTOM	DEAD LOAD DEF.	BEAM SIZE	COVER PL. SIZE	TOP TO BOTTOM	DEAD LOAD DEF.							
40'	W21x55	1" x 6" x 31'-8"	2'-4 1/2"	1 1/8"	W21x55	1" x 6" x 30'-8"	2'-4 1/2"	1 1/8"	2 @ 20"	10'-0"	10'	7"	17'	9'	5'
60'	W21x55	1" x 6" x 31'-0"	2'-4 1/2"	1 1/8"	W21x55	1" x 6" x 30'-0"	2'-4 1/2"	1 1/8"	3 @ 20"	10'-0"	14'	9'	18'	12'	6"
80'	W21x55	1" x 6" x 31'-0"	2'-4 1/2"	1 1/8"	W21x55	1" x 6" x 30'-0"	2'-4 1/2"	1 1/8"	4 @ 20"	10'-0"	14'	11'	22'	14'	6"

FOR INFORMATION ONLY

DETAILS OF  
 COMPOSITE BEAM SPANS  
 .02 FT/FT SLOPE - 370" CLR. FROM  
 MARKED TREE - FAYETTEVILLE, ARK.  
 POWERS COUNTY

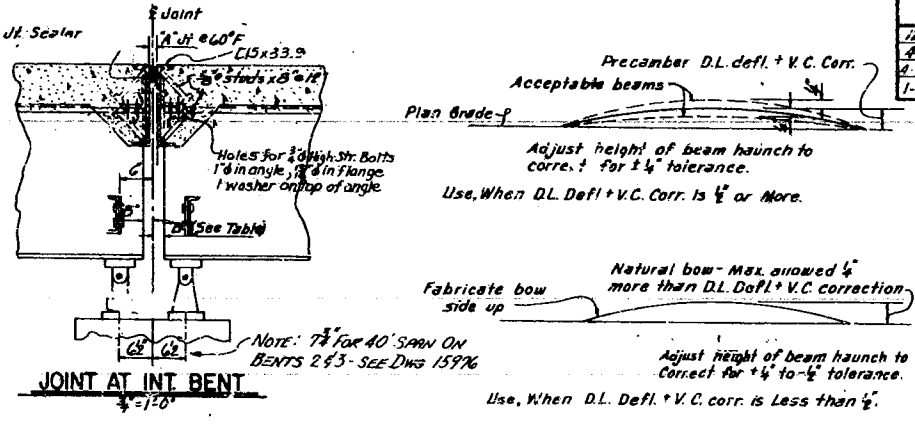
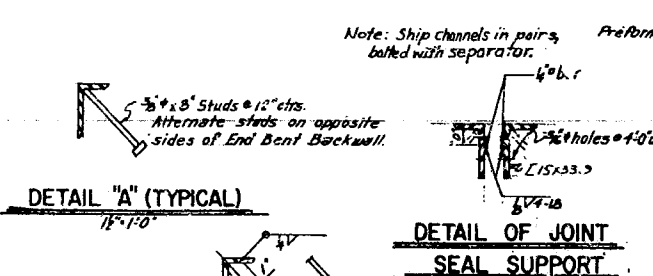
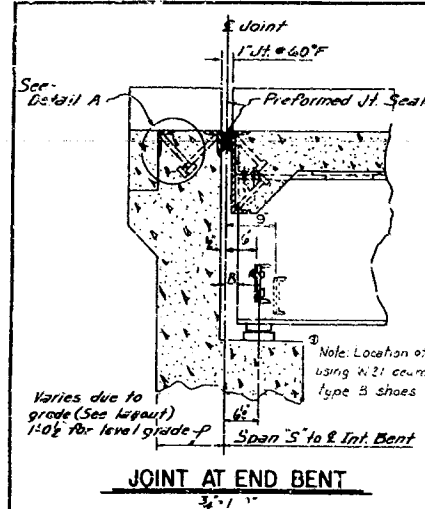
ROUTE 63 SEC. 8  
 ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.  
 DRAWN BY: M.M.B. DATE: 15 SEPT 71  
 TRACED BY: H. DATE: 11-2-71  
 CHECKED BY: H. DATE: 11-2-71  
 BRIDGE NO. 5445 FEB 5446A  
 P. 5447A-B & 5448A-B  
 DRAWING NO. 17536

STRUCTURAL DATA BY: DV DATE: 9-21-71  
 CHECKED BY: C.E. DATE: 11-11-71

BRIDGE ENGINEER





DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
12-14-70	1/10/76	2-10-72	8-55-70-72	6	ARK.	25-1251(1)	12	26
4-2-71	5/24-4/12/71	8-8-72	5/5-8-72					
4-9-71	8/5-4/2/71	10-7-72	5/30-10-72					
1-11-73	9/1-1-12-73							

**GENERAL NOTES**

ALL CONCRETE TO BE CLASS S OR S(AE) AS SHOWN ON THE LAYOUT. ALL EXPOSED CORNERS TO BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED. FIELD CONNECTIONS TO BE BOLTED WITH HIGH STRENGTH BOLTS. BOLTS 3/4" Ø, OPEN HOLES 1/16" Ø EXCEPT WHERE NOTED OTHERWISE. STRUCTURAL SHAPES OF EQUAL OR GREATER STRENGTH MAY BE SUBSTITUTED FOR SHAPES SHOWN, BUT PAYMENT WILL BE MADE ON THE BASIS OF SHAPES SHOWN.

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

ALL STRUCTURAL STEEL EXCEPT SURFACES IN CONTACT WITH CONCRETE SHALL BE GIVEN ONE SHOP COAT AND TWO FIELD COATS IN ACCORDANCE WITH SECTION 807.59 OF THE SPECIFICATIONS.

ALL METAL BEARING AND ROADWAY EXPANSION DEVICES TO BE PAID FOR AS "STRUCTURAL STEEL IN BEAM SPANS." BEARINGS SHALL BE FINALLY SEATED IN ACCORDANCE WITH SECTION 807.05(g) OF THE STANDARD SPECIFICATIONS. THIS WORK AND MATERIAL ARE TO BE CONSIDERED AS SUBSIDIARY TO THE ITEM "STRUCTURAL STEEL IN BEAM SPANS" AND WILL NOT BE PAID FOR DIRECTLY.

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

ALL STEEL SHALL BE ASTM A-36 UNLESS OTHERWISE NOTED.

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

REINFORCING STEEL TO BE ASTM A615, GRADE 40. THE REINFORCING STEEL IS TO BE ACCURATELY LOCATED IN THE FORMS AND FIRMLY HELD IN PLACE BY STEEL WIRE SUPPORTS, SUFFICIENT IN NUMBER AND SIZE TO PREVENT DISPLACEMENT DURING THE COURSE OF CONSTRUCTION. THE WIRE SUPPORTS WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED SUBSIDIARY TO THE ITEM OF "REINFORCING STEEL."

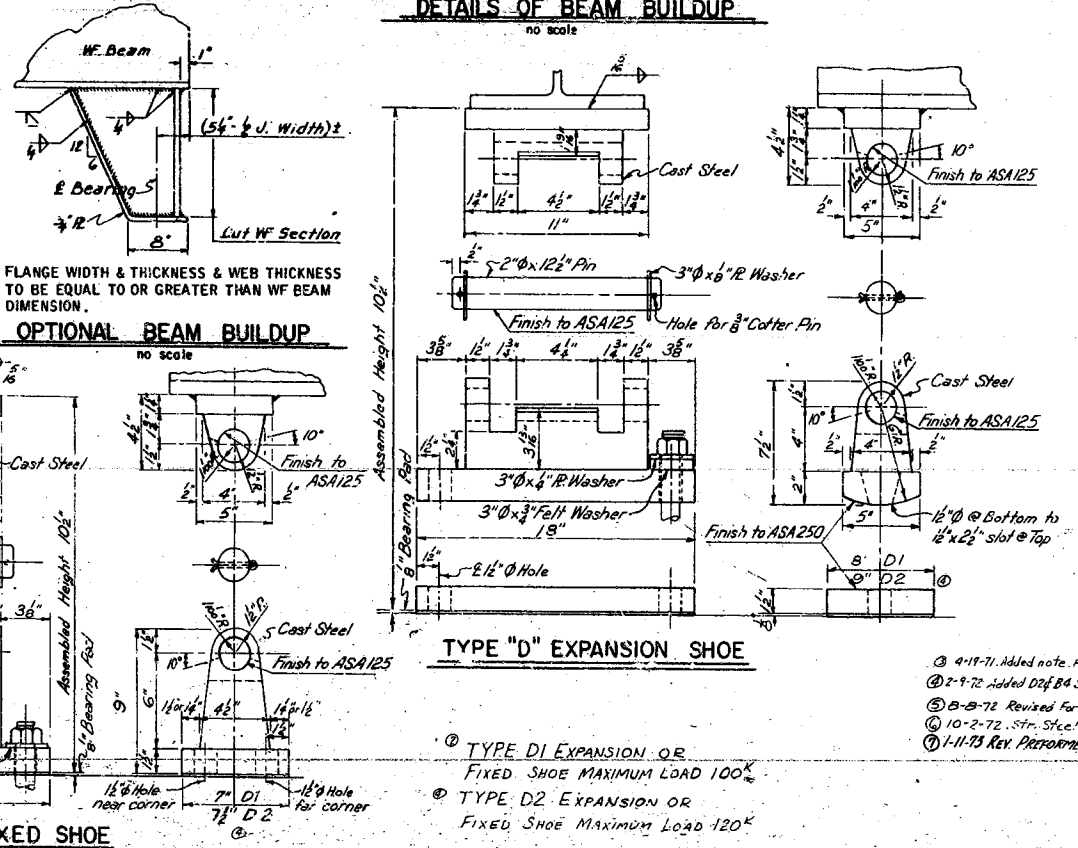
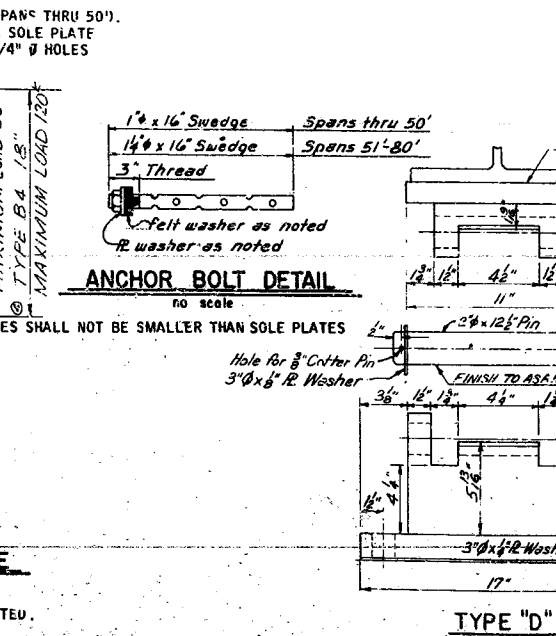
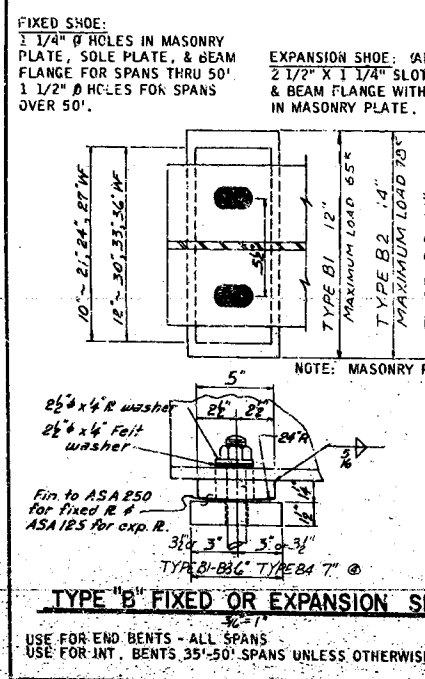
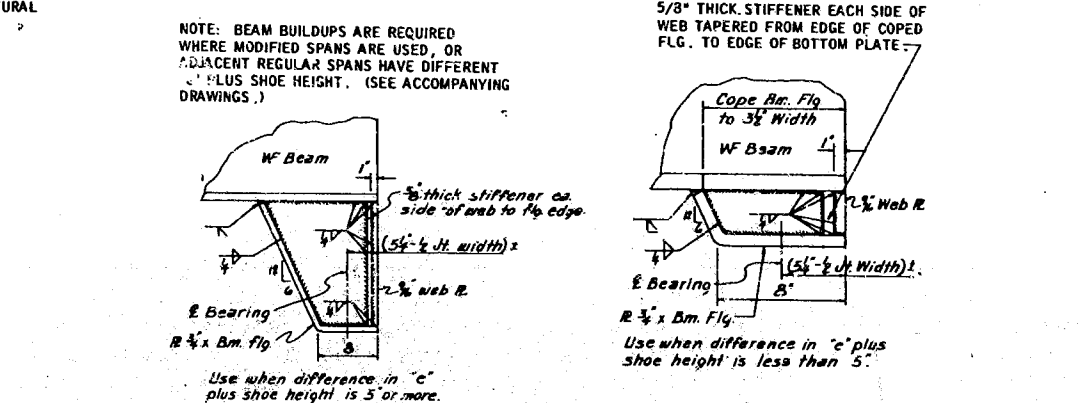
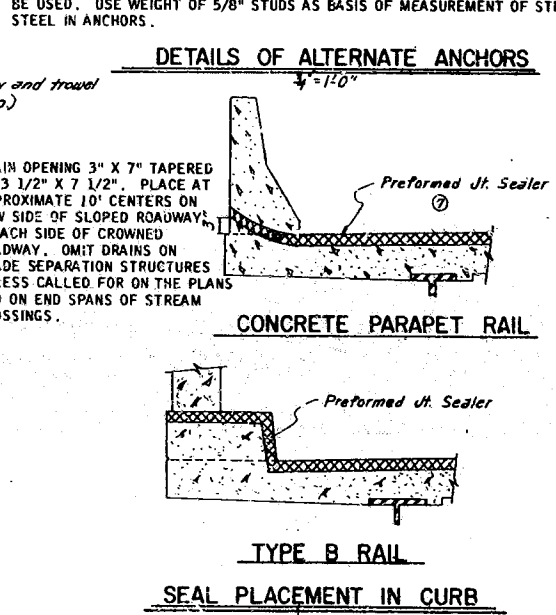
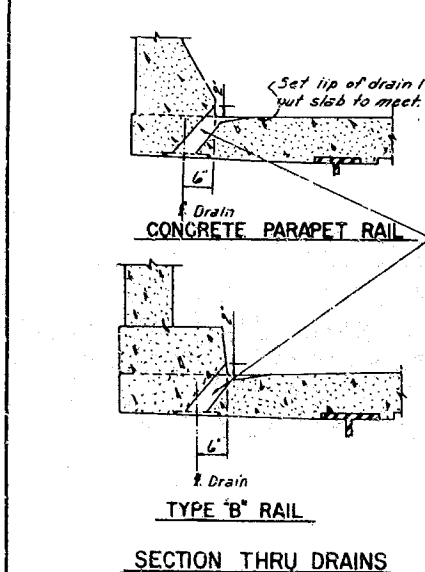
SHOP LISTS AND BENDING DIAGRAMS OF REINFORCING STEEL, INCLUDING WIRE SUPPORTS, SHALL BE SUBMITTED AND APPROVAL SECURED BEFORE FABRICATION IS BEGUN.

**SLAB POURING NOTE:**  
FLOOR SLABS MAY BE POURED IN ONE CONTINUOUS OPERATION WITH A STRIKEOFF EXTENDING OVER THE WHOLE SPAN LENGTH, OR MAY BE POURED IN INCREMENTS WITH THE CENTER ONE-THIRD TO ONE-HALF SPAN LENGTH POURED FIRST. AFTER THE CENTER SECTION IS POURED, NOT LESS THAN 72 HOURS SHALL ELAPSE BEFORE POURING THE END SECTIONS. END SECTIONS MAY BE POURED SIMULTANEOUSLY. IF NOT POURED SIMULTANEOUSLY, 48 HOURS SHALL ELAPSE BETWEEN END SECTION POURS. A MINIMUM OF 72 HOURS SHALL ELAPSE BETWEEN COMPLETION OF THE SLAB AND THE POURING OF THE CURB SECTION OR PARAPET. CONCRETE POSTS FOR RAIL MAY BE POURED 24 HOURS AFTER COMPLETION OF THE CURB.

FOR DETAILS OF BRIDGE LAYOUT SEE DWG. NO. 14992A OR 14993B AS SHOWN ON BRIDGE LAYOUT.

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

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



**FOR INFORMATION ONLY**

EXPANSION JOINT DATA			
Total Length of Spans Expanding at (F-E) Span Bent or Pier (F-E 2 Spans)	Joint Width Perpendicular to Angles @ 60°	Seal Width	Joint Seal
To 80'	1"	1 1/2"	1 1/2"
Over 80' to 100'	1 1/2"	2"	2"
Over 100' to 130'	1 3/4"	2 1/2"	2 1/2"
Over 130' to 150'	2"	3"	3"
Over 150' to 180'	2 1/4"	3 1/2"	3 1/2"

NOTE: ALL JOINTS AT ABUTMENTS AND AT FIX-FIX JOINTS SHALL BE 1" DIMENSION "D" SHALL CONFORM TO THE RECOMMENDATIONS OF THE SEAL MANUFACTURER AS APPROVED BY THE BRIDGE ENGINEER. THE DEPTH OF THE SEAL SHALL BE APPROXIMATELY EQUAL TO THE UNCOMPRESSED WIDTH OF THE SEAL. JOINTS SHOWN ARE TO BE USED AT SKEW ANGLES UP TO AND INCLUDING 15°. FOR JOINTS TO BE USED AT SKEW ANGLES GREATER THAN 15°, SEE SUPPLEMENTAL DETAILS.

0-12-14-70 Revised Shoe, FMH.  
0-4-2-71 Added Type "D" Shoes, KMG.

**DETAILS COMMON TO STANDARD 35'-90' COMPOSITE I-BEAM SPANS**

**ALL ROADWAYS**

**ARKANSAS STATE HIGHWAY COMMISSION**

LITTLE ROCK, ARK.

DRAWN BY: M.W.W. DATE: 10-2-70  
TRACED BY: DATE: SCALE: as noted  
CHECKED BY: FMH DATE: 10-6-70

BRIDGE NO. DRAWING NO. 14990E

For R/W Data see Rdwy. Plans

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.	100976		26	31

① SITE NO. 12 - FOR INFORMATION ONLY

Note:  
For Approach Slabs at ends of Bridge see Drwg. No. 26425.

GENERAL NOTES

BENCH MARK: COTTON PICKER SPINDLE IN SIDE OF POWER POLE 211 FT. LEFT OF STA. 82+47 (CENTERLINE CONSTRUCTION). ELEVATION 213.31.

DESIGN SPECIFICATIONS: AASHTO 1977 WITH 1978 THRU 1982 INTERIM SPECIFICATIONS.

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

LIVE LOADING: HS 20-44

METHOD OF DESIGN: LOAD FACTOR

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

REINFORCING STEEL SHALL CONFORM TO ASTM A 615 OR A 617, GRADE 60 (YIELD STRENGTH = 60,000 PSI).

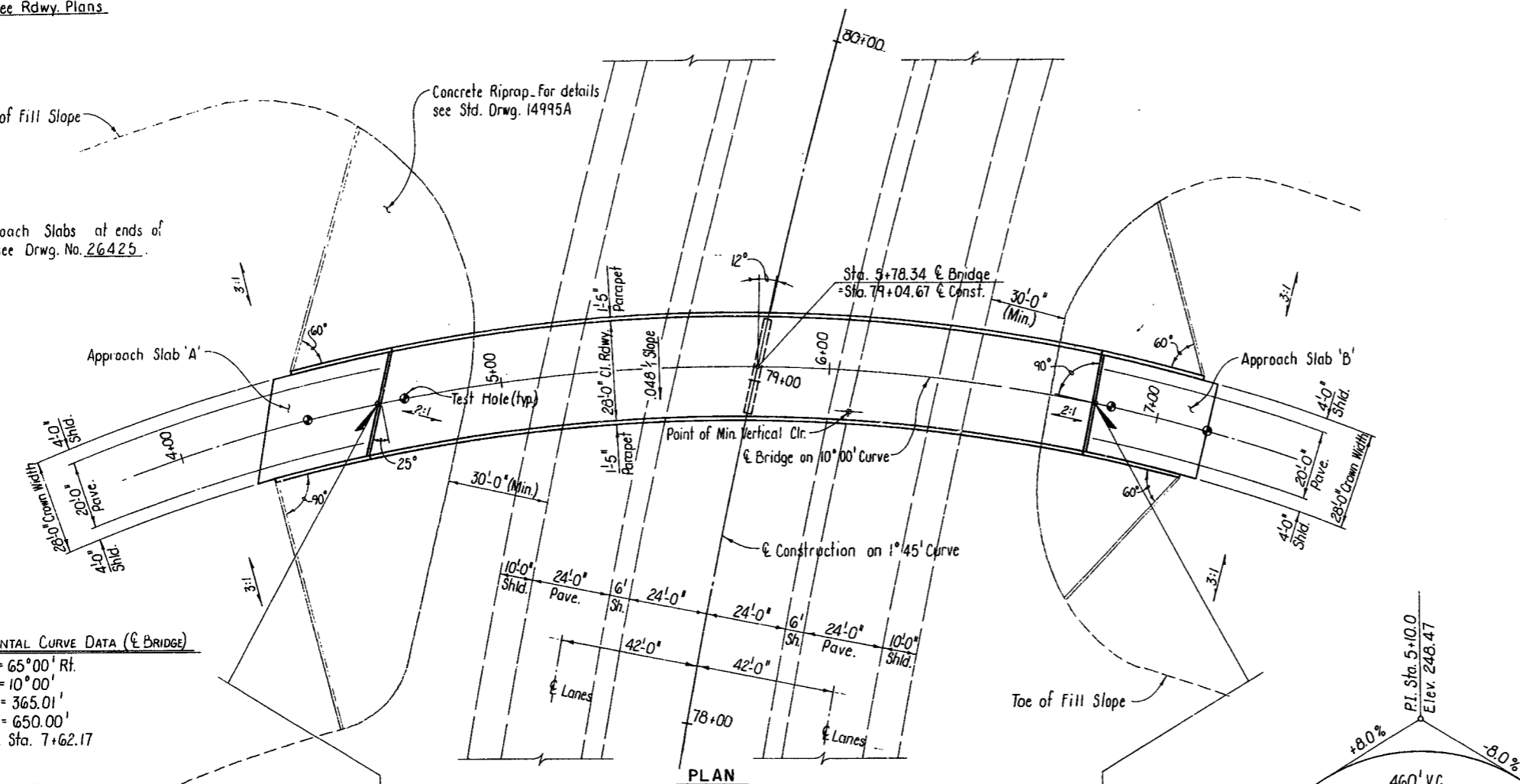
STRUCTURAL STEEL SHALL CONFORM TO ASTM A 572, GRADE 50 OR ASTM A 36.

ALL PILING SHALL BE 16" OCTAGONAL OR 14" SQUARE PRECAST CONCRETE AND SHALL BE DRIVEN WITH AN APPROVED AIR, STEAM, OR DIESEL HAMMER TO A MINIMUM BEARING CAPACITY OF 44 TONS PER PILE AND TO A MINIMUM PENETRATION OF 20 FT. BELOW THE GROUND LINE. LENGTHS OF PILING SHOWN ARE ASSUMED FOR ESTIMATING QUANTITIES ONLY. ACTUAL LENGTHS SHALL BE DETERMINED IN THE FIELD. DRIVE ONE 40 FT. TEST PILE IN BENT NO. 2 AND ONE 40 FT. TEST PILE IN ABUTMENT NOS. 1 & 3. PILES IN END BENTS SHALL BE DRIVEN AFTER EMBANKMENT TO BOTTOM OF PILE FOOTING IS IN PLACE.

THE CONCRETE DECK SHALL RECEIVE A TINE FINISH AS SPECIFIED FOR FINAL FINISHING IN SUBSECTION 802.23 FOR A CLASS 6, ROADWAY SURFACE FINISH.

CONCRETE SURFACES NORMALLY SPECIFIED IN SUBSECTION 802.23 TO RECEIVE A CLASS 2 RUBBED FINISH SHALL RECEIVE THE ALTERNATE SPRAYED FINISH INSTEAD. SEE SPECIAL PROVISION "SPRAYED CONCRETE FINISH."

FOR DETAILS OF END ABUTMENTS, SEE DWG. NOS. 26382 - 26384, 26386 & 26387  
 FOR DETAILS OF INTERMEDIATE BENT, SEE DWG. NO. 26385  
 FOR DETAILS OF CONTINUOUS PLATE GIRDER UNIT, SEE DWG. NOS. 26388 THRU 26392  
 FOR DETAILS OF CONCRETE PILING, SEE DWG. NO. 2383  
 FOR DETAILS OF APPROACH GUTTERS, SEE DWG. NO. 26425  
 FOR TOP OF DECK AND GIRDER ELEVATIONS, SEE DRWG. NO. 26426.



HORIZONTAL CURVE DATA (€ BRIDGE)

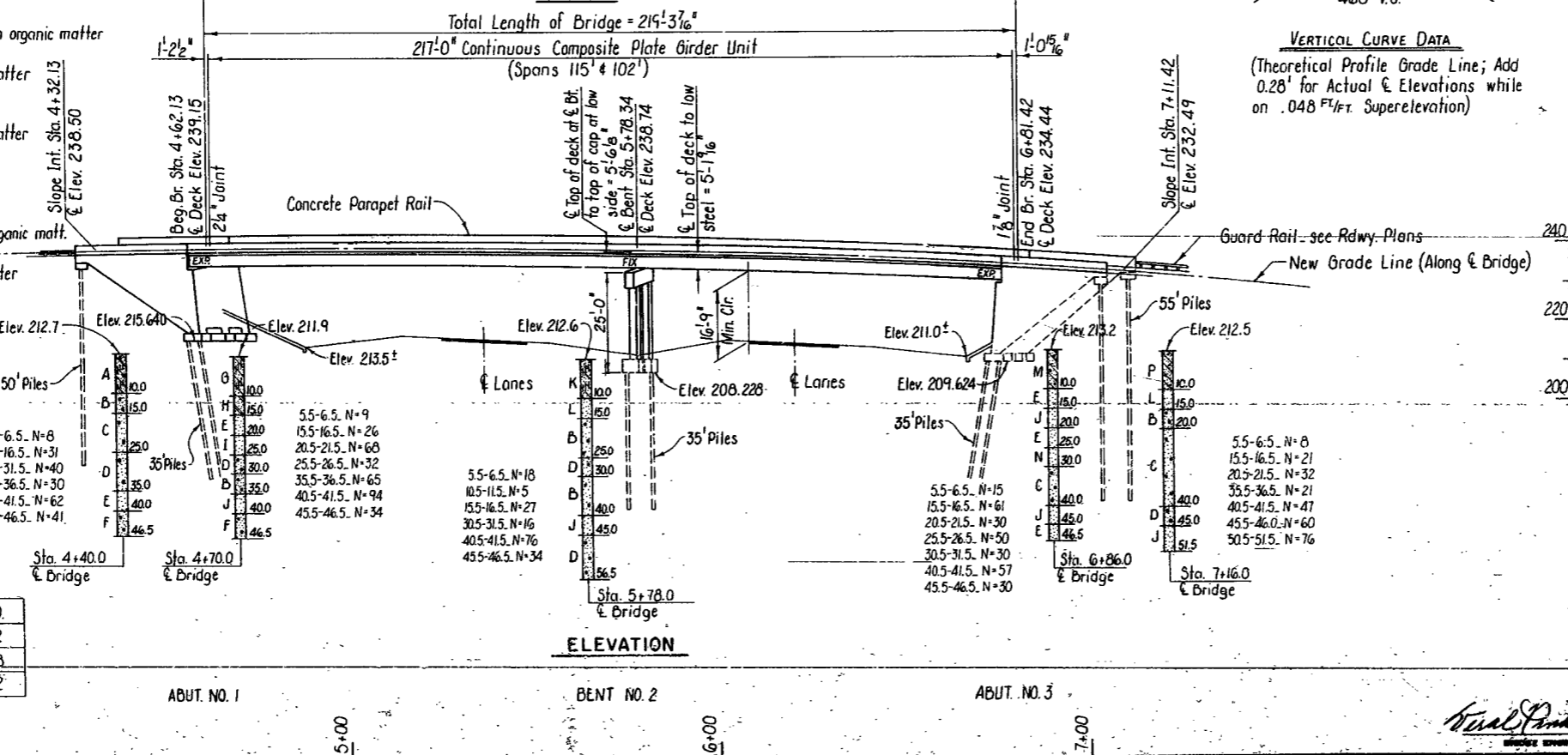
$\Delta = 65^{\circ}00'$  Rt.  
 $D = 10^{\circ}00'$   
 $T = 365.01'$   
 $L = 650.00'$   
 P.I. Sta. 7+62.17

- BORING LEGEND
- A. Moist, stiff-med. stiff silty, sandy clay with organic matter
  - B. Wet, med. dense sand with organic matter
  - C. Wet, dense-med. dense sand with organic matter
  - D. Wet, dense sand with organic matter
  - E. Wet, med. dense sand
  - F. Wet, very dense-dense sand with organic matter
  - G. Moist, stiff silty, sandy clay
  - H. Wet, loose clayey sand
  - I. Wet, very dense sand with some clay
  - J. Wet, very dense sand
  - K. Wet, stiff-very stiff silty, sandy clay with organic matt.
  - L. Wet, loose sand
  - M. Moist, stiff sandy clay with organic matter
  - N. Wet, dense sand
  - P. Moist, med. stiff sandy clay with gravel

PILE DATA

LOCATION	LENGTH	NO.	LENGTH	NO.
ABUT. 1	50'	3	* 35'	12
BENT 2			* 35'	18
ABUT. 3	55'	3	* 35'	12

\* One Pile in each Bent to be a 40 Test Pile.



FOR INFORMATION ONLY

LAYOUT OF  
 HWY. 63 UNDERPASS  
 PAYNEWAY - SOUTH TRUMANN (GR. & STRS.)  
 POINSETT COUNTY

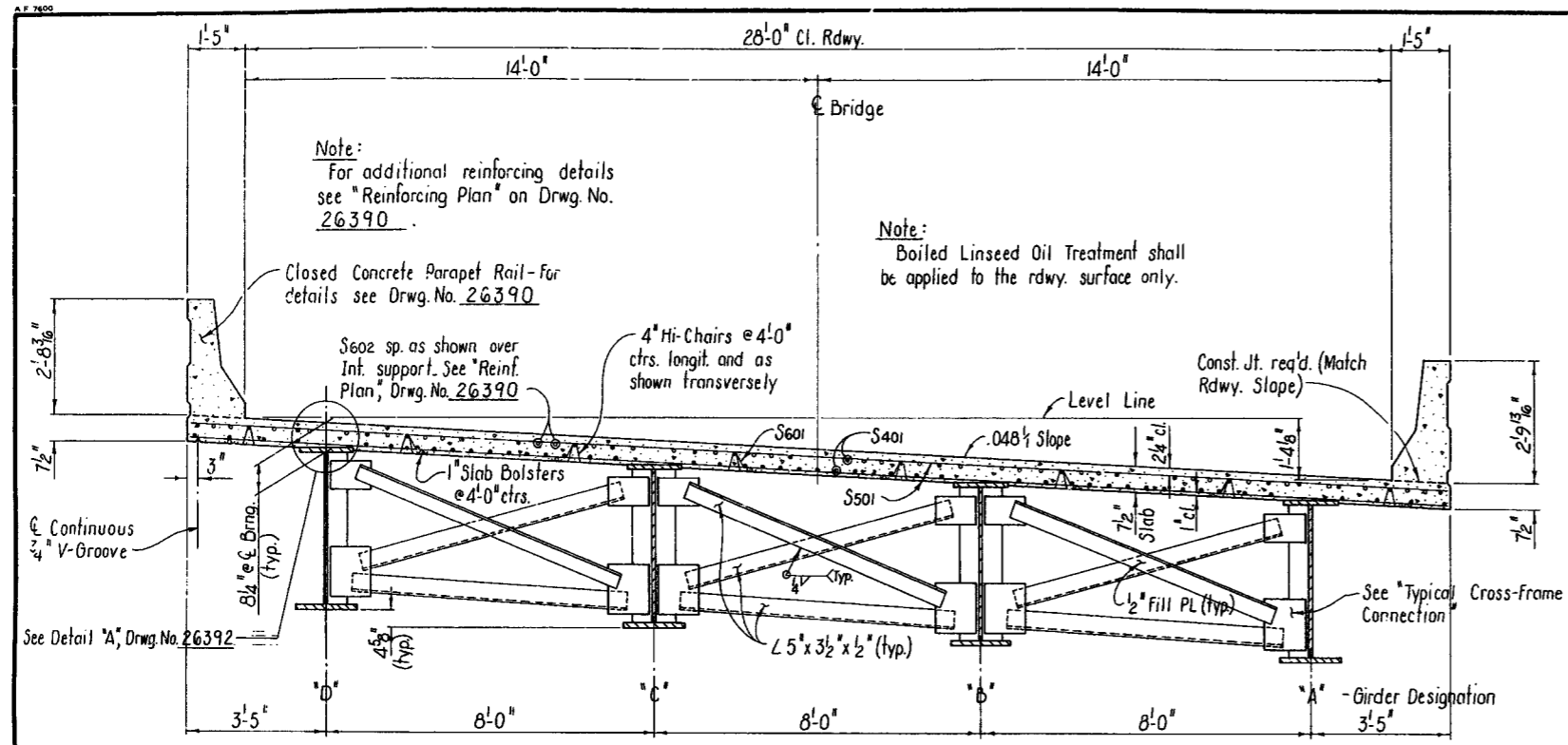
ROUTE 63 SEC. 8  
 ARKANSAS STATE HIGHWAY COMMISSION  
 LITTLE ROCK, ARK.

BRIDGE NO. 6040 DRAWING NO. 26381

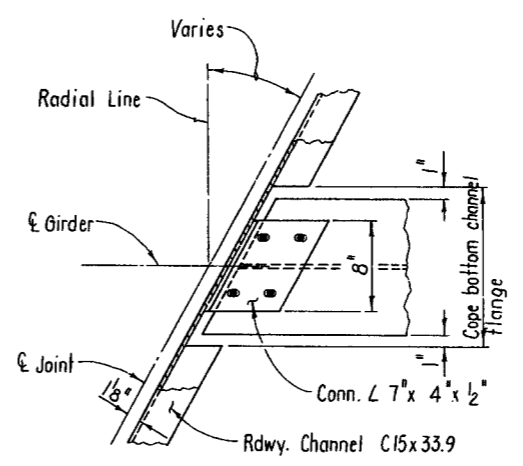
BRIDGE ENGINEER

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AD PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		100976	27	31

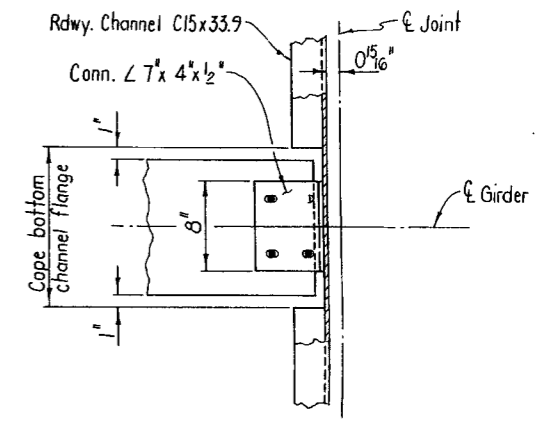
① SITE NO. 12 - FOR INFORMATION ONLY



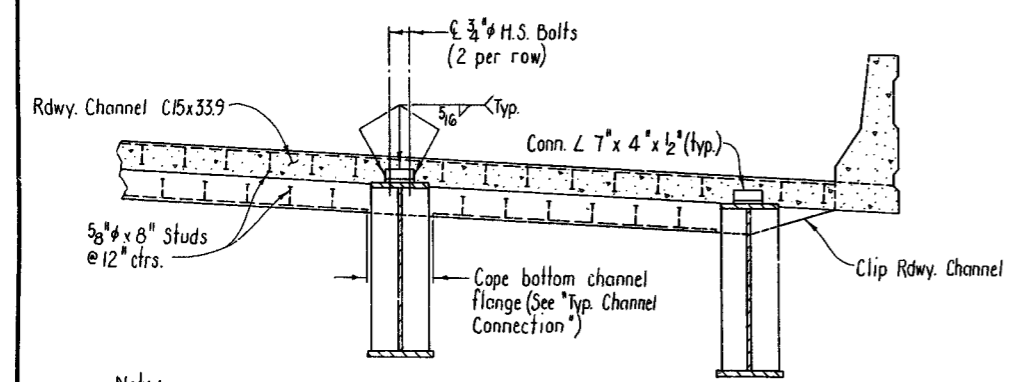
TYPICAL ROADWAY SECTION  
Scale: 1/2"=1'-0"  
(Looking Ahead)



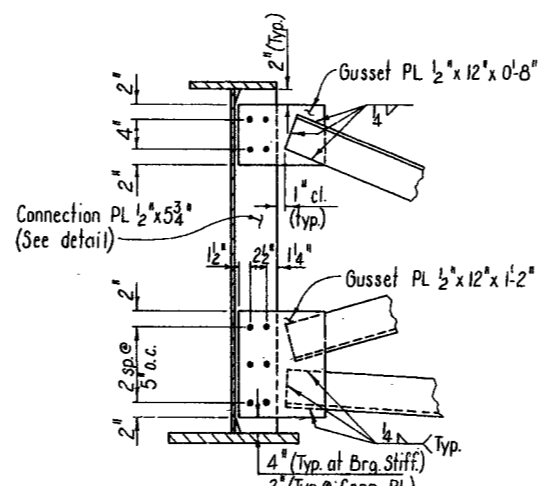
TYP. CHANNEL CONNECTION FOR BENT 1  
Scale: 1/2"=1'-0"



TYP. CHANNEL CONNECTION FOR BENT 3  
Scale: 1/2"=1'-0"



Note: Cross-frames same as shown above.  
PART RDWY. SECTION AT EXPANSION DEVICE  
Scale: 1/2"=1'-0"



TYPICAL CROSS-FRAME CONNECTION  
Scale: 1"=1'-0"

Note: For additional details see "Details Common To Plate Girder Units," Drwg. No. 26392.  
For "General Notes" see Drwg. No. 26424.

FOR INFORMATION ONLY  
SHEET 1 OF 4

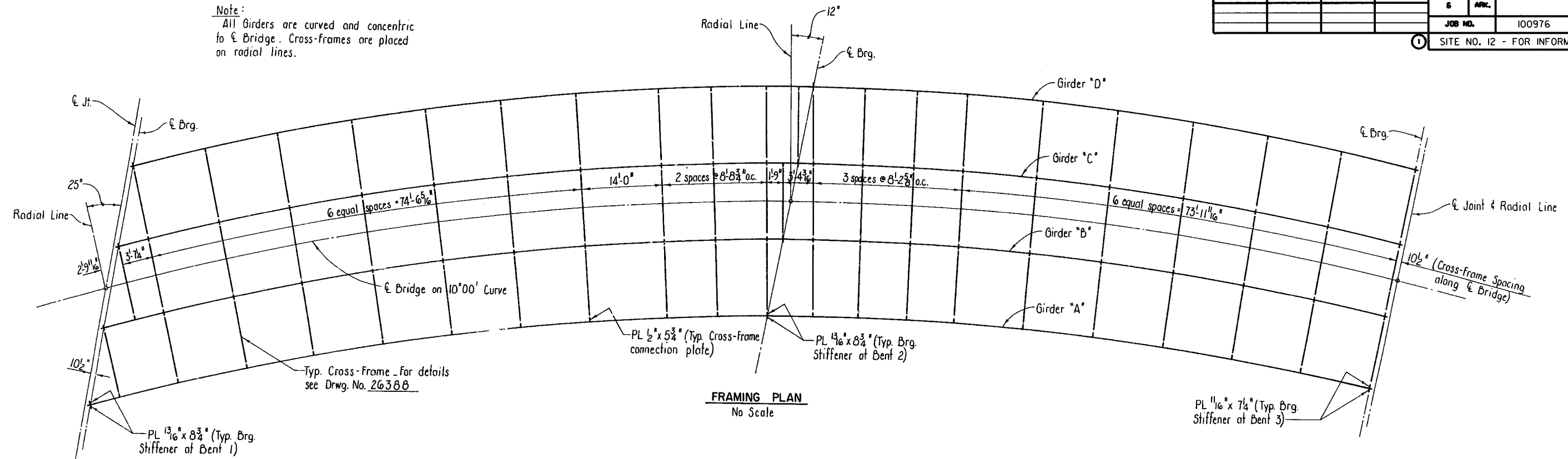
DETAILS OF  
217'-0" CONTINUOUS COMPOSITE  
PLATE GIRDER UNIT  
HWY. 63 UNDERPASS  
POINSETT COUNTY

ROUTE 63 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

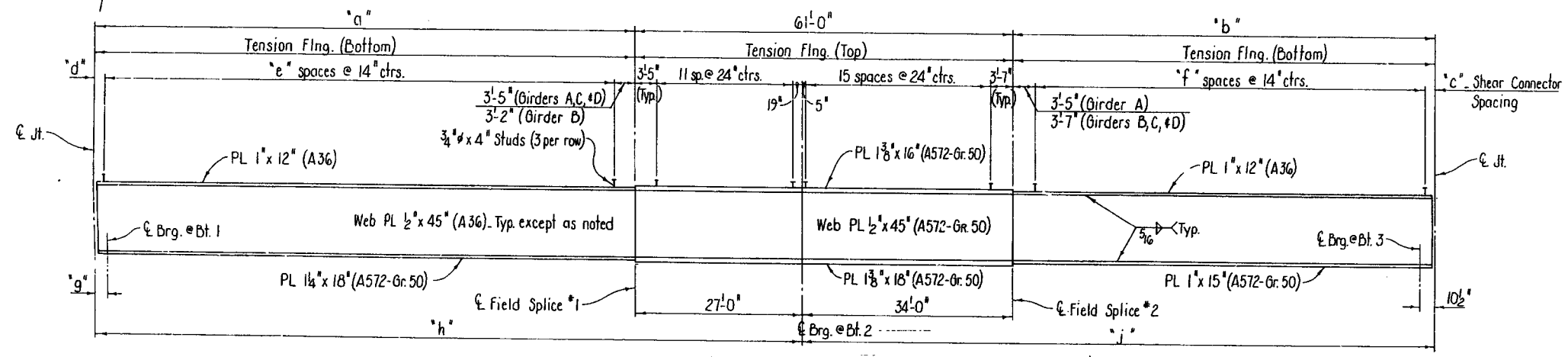
DRAWN BY: KMG DATE: 27 SEPT. 83  
CHECKED BY: CES DATE: 1/11/84 SCALE: AS SHOWN  
DESIGNED BY: JLB DATE: AUG. 83  
BRIDGE NO. 6040 DRAWING NO. 26388

*Small Pinkerton*  
BRIDGE ENGINEERS

Note:  
All Girders are curved and concentric to  $\epsilon$  Bridge. Cross-frames are placed on radial lines.



**FRAMING PLAN**  
No Scale



**TYPICAL GIRDER ELEVATION**  
No Scale

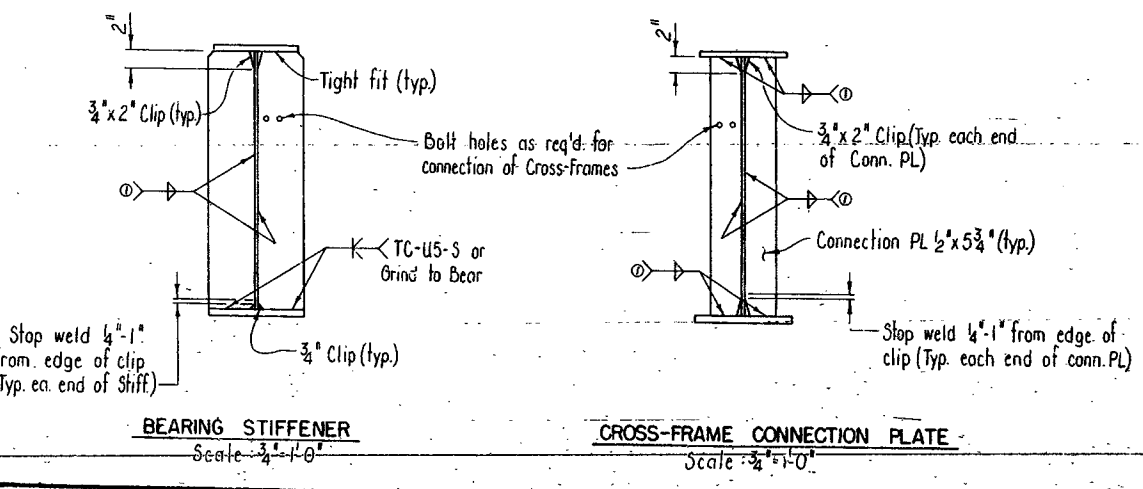
**TABLE OF GIRDER VARIABLES**

	VAR. ABLE									
	"a"	"b"	"c"	"d"	"e"	"f"	"g"	"h"	"j"	
Girder "A"	88'-7 3/4"	68'-5"	10"	14 3/4"	72	55	11 5/8"	115'-7 3/4"	102'-5"	
Girder "B"	88'-2 7/16"	68'-1 1/16"	18 1/16"	12 7/16"	72	54	11 5/8"	115'-2 7/16"	102'-1 1/16"	
Girder "C"	87'-9 1/2"	67'-10 3/8"	15 3/8"	18 1/2"	71	54	11 1/8"	114'-9 1/2"	101'-10 3/8"	
Girder "D"	87'-4 1/2"	67'-7 1/16"	12 1/16"	13 1/2"	71	54	11 3/16"	114'-4 1/2"	101'-7 1/16"	

① See "Weld Table", Drwg. No. 26392, for minimum weld size.

Note: for Field Splice details, see Drwg. No. 26391.

Note: For Shoe location and type, see Drwg. No. 26393.



**BEARING STIFFENER**  
Scale: 3/4" = 1'-0"

**CROSS-FRAME CONNECTION PLATE**  
Scale: 3/4" = 1'-0"

FOR INFORMATION ONLY

SHEET 2 OF 4

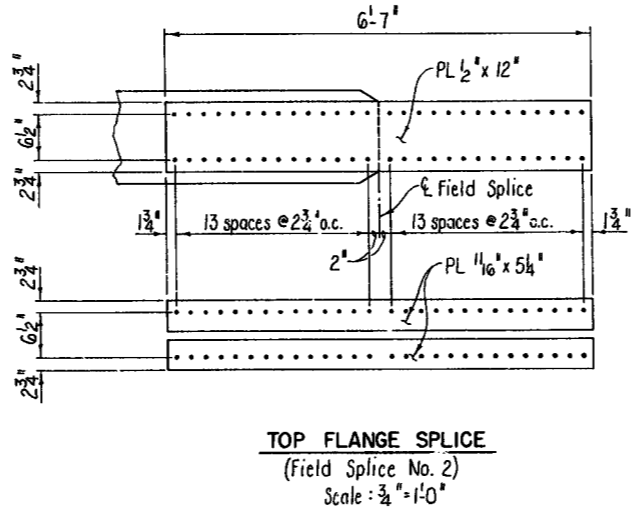
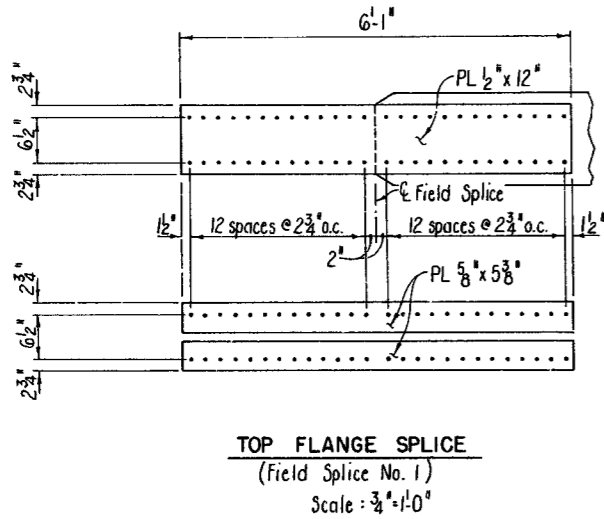
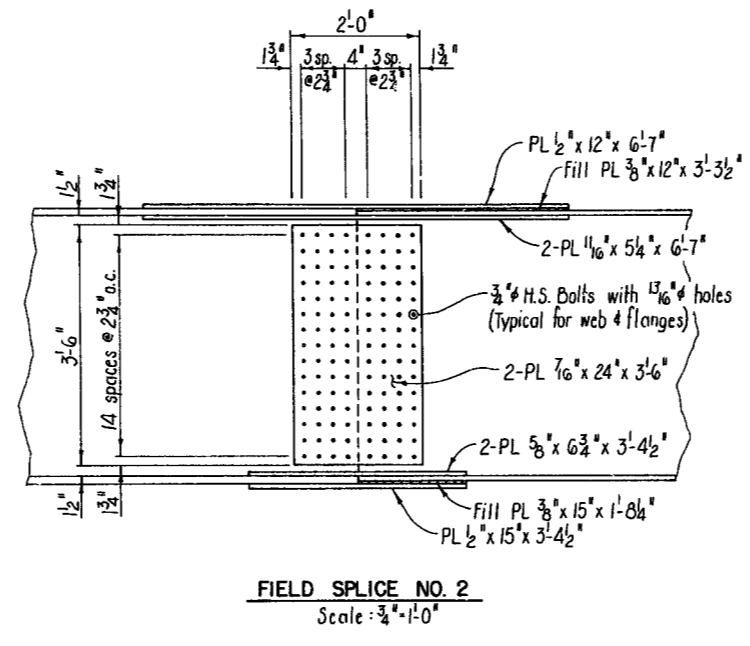
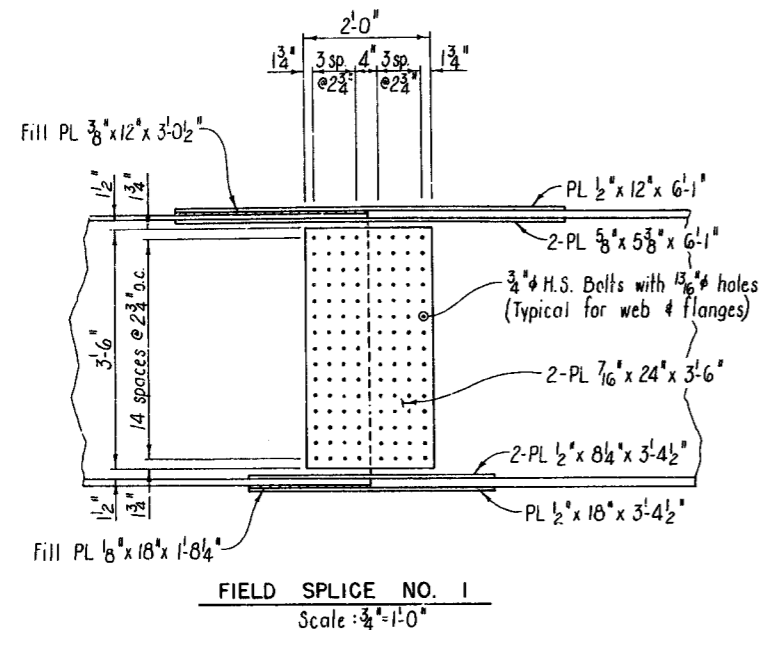
DETAILS OF  
217'-0" CONTINUOUS COMPOSITE  
PLATE GIRDER UNIT  
HWY. 63 UNDERPASS  
POINSETT COUNTY

ROUTE 63 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: KMG DATE: 28 SEPT. 83  
CHECKED BY: CES DATE: 1-11-84  
DESIGNED BY: MJA DATE: 2/22/83

*Visual Inspection*  
BRIDGE ENGINEER

BRIDGE NO. 6040 DRAWING NO. 26389



Note:  
All splice plates to be  
A36 steel.

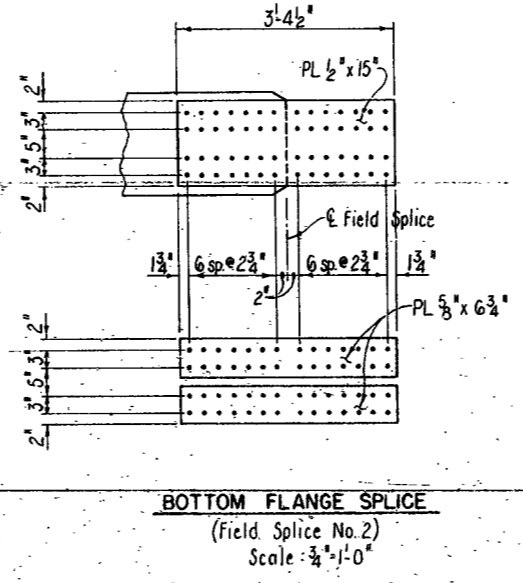
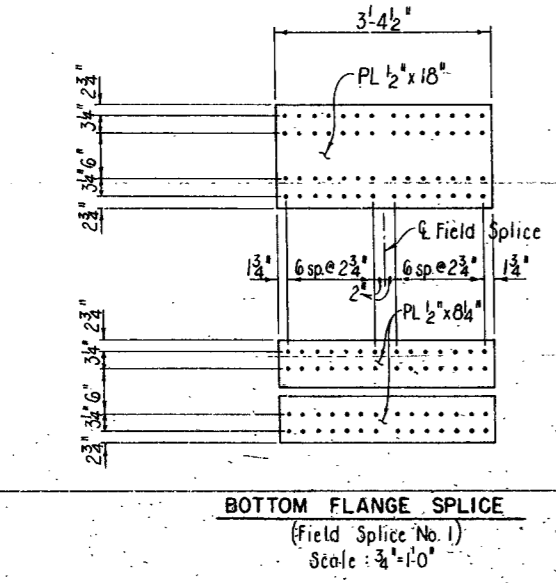
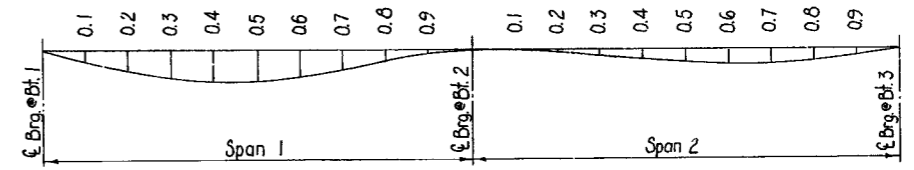


TABLE OF DEFLECTIONS (INCHES)

Point of Deflection	Wt. of Structural Steel				Wt. of Structural Steel and Slab				Wt. of Structural Steel, Slab, & Conc. Parapet Rail			
	Gir. "D"	Gir. "C"	Gir. "B"	Gir. "A"	Gir. "D"	Gir. "C"	Gir. "B"	Gir. "A"	Gir. "D"	Gir. "C"	Gir. "B"	Gir. "A"
0	0	0	0	0	0	0	0	0	0	0	0	0
0.1	0.196	0.199	0.202	0.205	1.064	1.019	0.879	0.651	1.224	1.151	0.982	0.717
0.2	0.362	0.367	0.373	0.379	1.966	1.883	1.623	1.198	2.262	2.128	1.813	1.318
0.3	0.478	0.485	0.493	0.501	2.588	2.481	2.136	1.568	2.980	2.806	2.387	1.725
0.4	0.532	0.540	0.548	0.557	2.863	2.750	2.366	1.726	3.300	3.114	2.645	1.899
0.5	0.520	0.528	0.537	0.545	2.780	2.678	2.301	1.666	3.207	3.035	2.575	1.833
0.6	0.450	0.457	0.464	0.472	2.377	2.298	1.972	1.414	2.747	2.609	2.209	1.555
0.7	0.335	0.341	0.346	0.352	1.747	1.696	1.450	1.022	2.023	1.929	1.627	1.124
0.8	0.201	0.204	0.208	0.211	1.030	1.002	0.849	0.579	1.194	1.142	0.953	0.634
0.9	0.078	0.079	0.081	0.082	0.389	0.378	0.311	0.193	0.450	0.430	0.347	0.207
0	0	0	0	0	0	0	0	0	0	0	0	0
0.1	-0.007	-0.007	-0.008	-0.008	-0.023	-0.010	0.026	0.082	-0.022	-0.007	0.037	0.107
0.2	0.028	0.028	0.028	0.028	0.181	0.205	0.254	0.323	0.219	0.243	0.303	0.392
0.3	0.084	0.084	0.084	0.085	0.500	0.530	0.573	0.623	0.594	0.618	0.670	0.739
0.4	0.142	0.143	0.144	0.145	0.840	0.870	0.895	0.907	0.989	1.006	1.035	1.063
0.5	0.188	0.189	0.190	0.192	1.106	1.133	1.134	1.103	1.296	1.303	1.303	1.282
0.6	0.208	0.210	0.212	0.213	1.227	1.248	1.229	1.164	1.432	1.431	1.407	1.345
0.7	0.197	0.199	0.201	0.202	1.164	1.179	1.148	1.070	1.355	1.349	1.311	1.231
0.8	0.155	0.156	0.157	0.159	0.912	0.922	0.893	0.822	1.061	1.053	1.017	0.944
0.9	0.085	0.086	0.087	0.088	0.503	0.508	0.490	0.449	0.584	0.580	0.558	0.515
0	0	0	0	0	0	0	0	0	0	0	0	0

Note: Camber for Deflection plus vertical curve  
1/4" tolerance. Negative sign (-) indicates up-  
ward deflection.



FOR INFORMATION ONLY

SHEET 4 OF 4

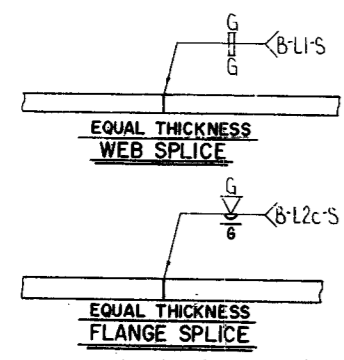
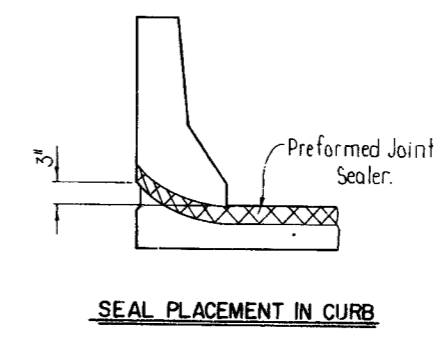
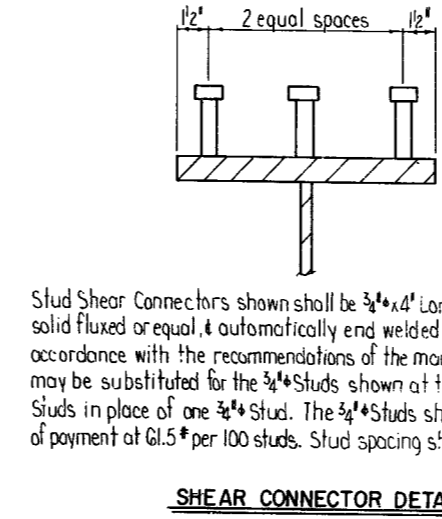
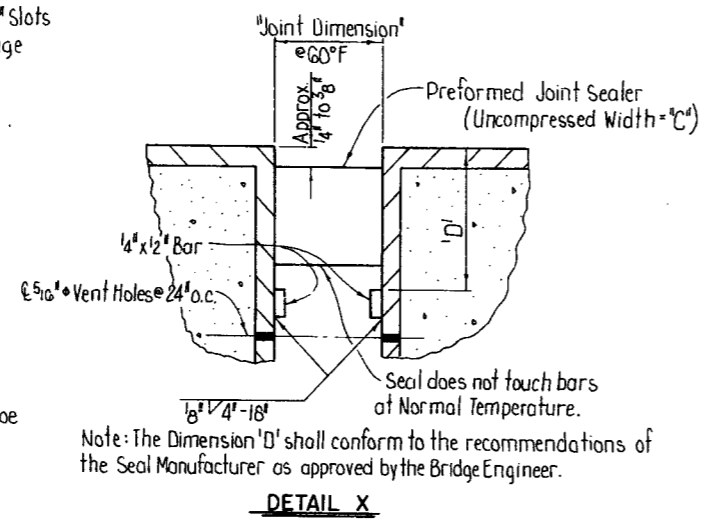
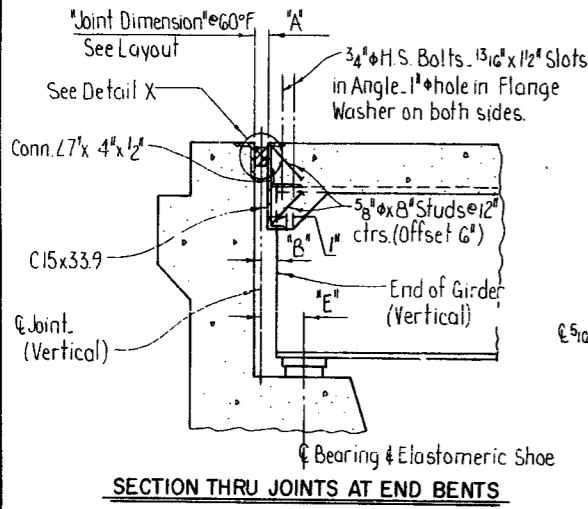
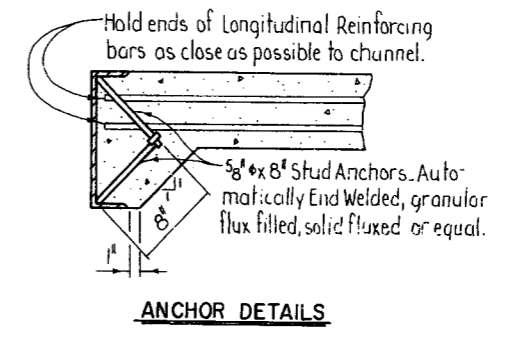
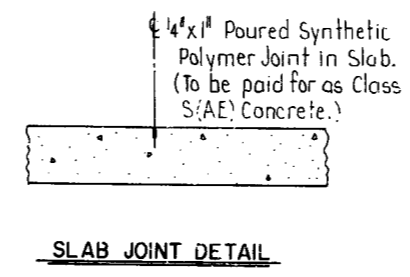
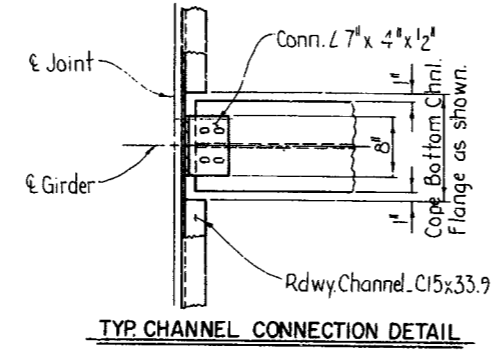
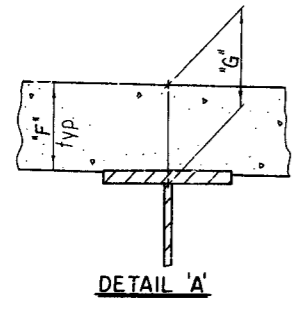
DETAILS OF  
217'-0" CONTINUOUS COMPOSITE  
PLATE GIRDER UNIT  
HWY. 63 UNDERPASS  
POINSETT COUNTY

ROUTE 63 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: KMG DATE: 3 OCT 83  
CHECKED BY: CES DATE: 1-11-84  
DESIGNED BY: JAB DATE: 2-6-83  
SCALE: AS SHOWN  
BRIDGE NO. 6040 DRAWING NO. 2639

*W. D. Pinkerton*  
BRIDGE ENGINEER

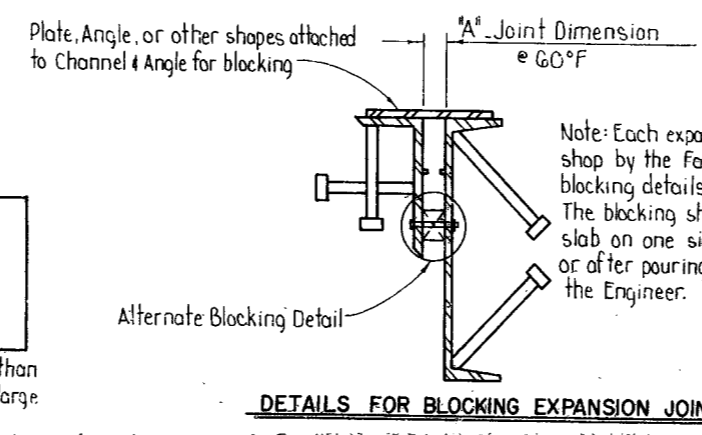
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AD PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100976		30	31
SITE NO. 12 - FOR INFORMATION ONLY								



**TABLE FOR WELD**

Material Thickness of Thicker Part Joined - Inches	Minimum Size of Fillet Weld - Inches	Single Pass Weld
To 1/2" Inclusive	3/16"	must be used.
Over 1/2" to 3/4"	1/4"	
Over 3/4"	5/16"	

When a fillet weld size, as shown on plans, is larger than the minimum, the first pass shall be at least as large as that specified as Minimum Size of Fillet Weld.



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

**TABLE OF VARIABLES**

Bridge No	Unit	Bent No.	'A'-Joint Dimension	'B'	'C'-Uncomp. Seal Width	'E'-& Joint to Bearing	'F'- Slab Thickness	'G'
6040	217'	1	2 1/4"	2 3/8"	3 1/2"	10 1/2"	7 1/2"	8 1/4"
	217'	3	1 7/8"	3"	3"	10 1/2"	7 1/2"	8 1/4"
6041	220'	1	1 7/8"	2 1/4"	3"	9"	7 1/4"	8"
	220'	3	1 7/8"	2 1/4"	3"	9"	7 1/4"	8"

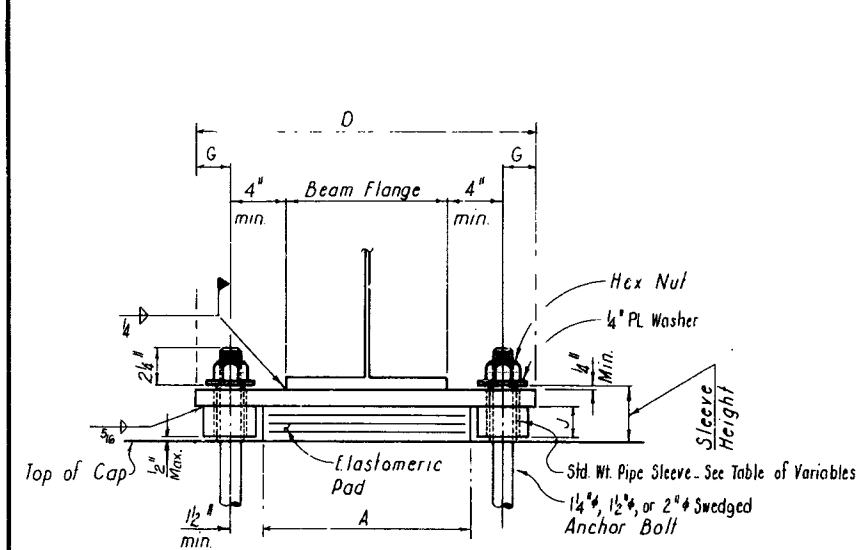
FOR INFORMATION ONLY

DETAILS COMMON TO CONTINUOUS COMPOSITE PLATE GIRDER UNITS

ROUTE 63 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION

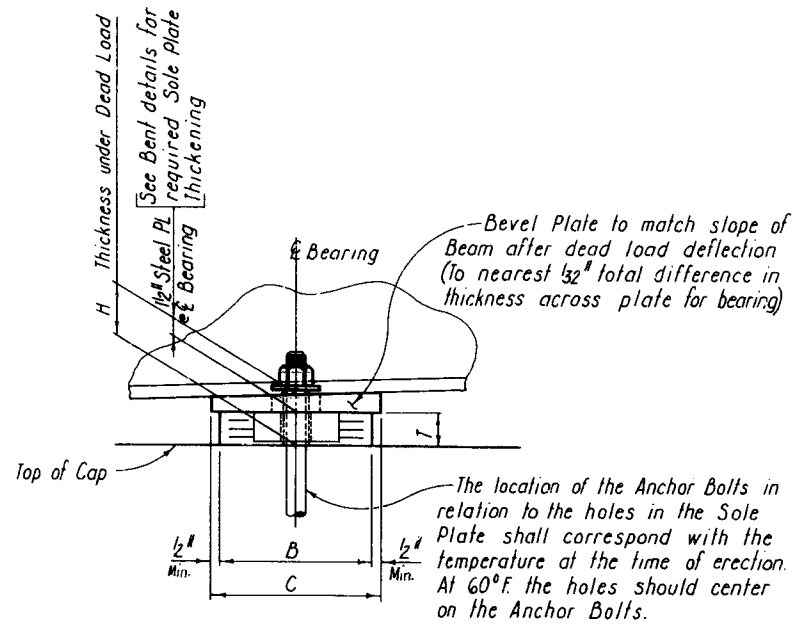
DESIGNED BY: KDH DATE: 27 SEPT. 83  
CHECKED BY: JLB DATE: Dec. 83 SCALE: NONE  
DRAWN BY: SP DATE: DATE:  
BRIDGE NO. 6040, 6041 DRAWING NO. 26392



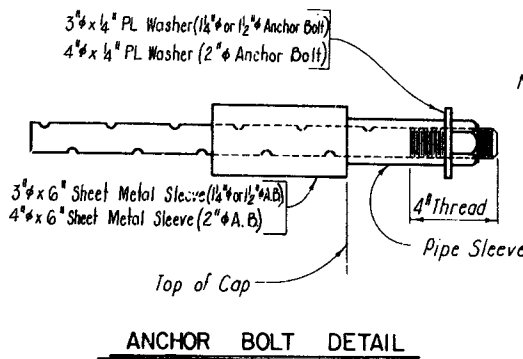


NOTE: Pipe Sleeves shall be ASTM A53, Grade B, and shall be galvanized to conform to ASTM A153. Sleeves shall be paid for at the unit price bid for "Structural Steel in Plate Girder Spans (A36)", or "Structural Steel in Beam Spans (A36)".

END VIEW



SIDE VIEW



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, the Galvanized Sheet Metal Sleeve shall be cast in place as shown. It shall be dry packed with Styrofoam or Urethane foam or approved equal 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 Sheet Metal Sleeve will not be required. Galvanized Sheet Metal Sleeves to be considered subsidiary to the item "Structural Steel in Plate Girder Spans (A36)" or "Structural Steel in Beam Spans (A36)".

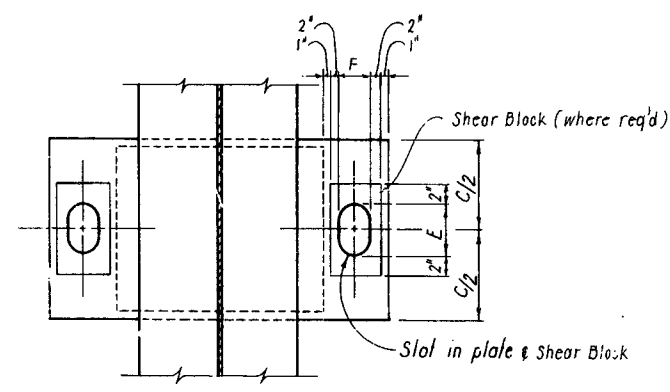
GENERAL NOTES

Anchor Bolts, Nuts and Washers shall be ASTM A36 Steel galvanized to conform to ASTM A153 and shall be paid for at the unit price bid for "Structural Steel in Plate Girder Spans (A36)", or "Structural Steel in Beam Spans (A36)".

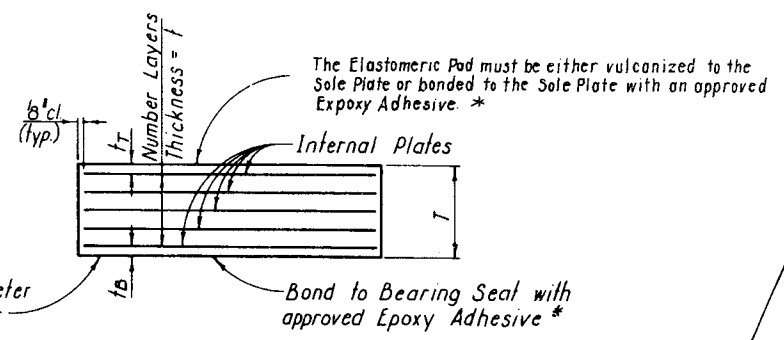
Sole Plates and Shear Blocks to be ASTM A36 Steel and shall be included in the contract Lumb Sum price bid for "Elastomeric Bearings".

Pads shall be paid for in accordance with Section 808 of the Standard Specifications.

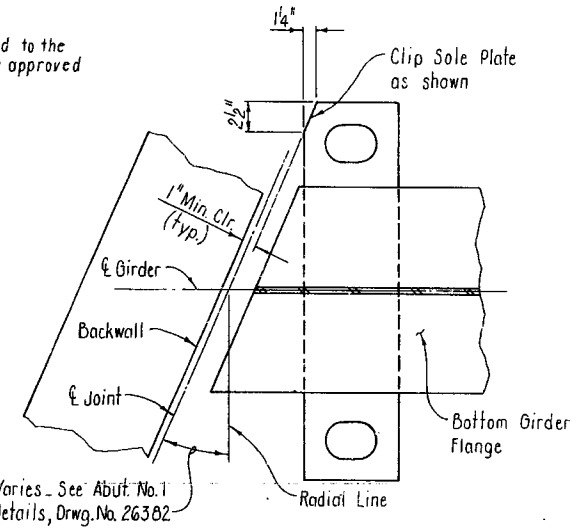
Sole Plates shall not be painted in the Shop. Sole Plates shall be painted & cleaned in accordance with Subsections 807.69 & 807.67



PLAN VIEW



ELASTOMERIC PAD



DETAIL OF SOLE PLATE CLIP (ABUT. NO. 1 - BR. NO. 6040 ONLY)

Varies - See Abut. No. 1 details, Drwg. No. 26382

\*\* No Shear Block Req'd.

\*\*\* Total for two Bridges

TABLE OF VARIABLES

BRIDGE NO.	UNIT or SPAN	LOCATION	NO. & THICKNESS FOR (t)	NO. & THICKNESS OF INTERNAL PL	ANCHOR BOLT SIZE	A	B	C	D	E	F	H	T	t	t <sub>B</sub>	NO. of BEARINGS	SLEEVE SIZE	BEARING TYPE	G	J
6040		Bt. 1	3 @ 1/6"	4 @ 3/32"	2" x 22"	20"	7 1/2"	8 3/4"	33"	4 3/4"	3 1/4"	4"	2 1/2"	7/16"	7/16"	4	2" x 4 1/2"	EXP.	3 1/2"	**
		Bt. 2	3 @ 5/8"	4 @ 3/16"	1 1/2" x 24"	22"	16 3/4"	17 3/4"	38 1/2"	2 1/4"	2 1/4"	5 1/2"	3 3/8"	5/8"	5/8"	4	1 1/2" x 5 1/2"	FIXED	4 1/8"	3 1/2"
		Bt. 3	4 @ 3/8"	5 @ 3/32"	1 1/2" x 22"	18"	7"	8"	34 1/2"	3 1/4"	2 1/4"	3 3/4"	2 1/2"	1/2"	1/2"	4	1 1/2" x 4 1/2"	EXP.	4 1/8"	2"
6041		Bt. 1 & 3	5 @ 5/16"	6 @ 3/32"	1 1/2" x 23"	17"	7"	8"	36 1/2"	3 1/4"	2 1/4"	2 1/4"	2 1/4"	5/16"	5/16"	12	1 1/2" x 4 1/2"	EXP.	4 1/8"	2 1/4"
		Bt. 2	2 @ 1/16"	3 @ 1/8"	1 1/2" x 23"	24"	14 1/4"	15 1/4"	40 1/2"	2 1/4"	2 1/4"	2 1/4"	2 1/4"	3/16"	3/16"	6	1 1/2" x 5"	FIXED	4 1/8"	2 1/8"
G042A4B (Alt. No. 1 only)		Bt. 2	2 @ 1/16"	3 @ 3/32"	1 1/4" x 18"	14 1/2"	9 1/4"	10 1/4"	30 1/2"	2"	2"	3 1/2"	2 1/16"	1/16"	1/16"	12 ***	1 1/4" x 3 3/4"	FIXED	4"	1 1/2"
		Bt. 3	2 @ 1/16"	3 @ 3/32"	1 1/4" x 18"	14 1/2"	9 1/4"	10 1/4"	30 1/2"	2"	2"	3 1/2"	2 1/16"	1/16"	1/16"	12 ***	1 1/4" x 3 3/4"	EXP.	4"	1 1/2"
G043A4B		Bt. 2	3 @ 1/2"	4 @ 3/32"	1 1/2" x 19"	16"	11 3/4"	12 3/4"	32 1/2"	2 1/4"	2 1/4"	2 1/4"	2 1/4"	1/2"	1/2"	12 ***	1 1/2" x 4 1/2"	FIXED	4 1/8"	2 1/8"
		Bt. 3	3 @ 1/2"	4 @ 3/32"	1 1/2" x 19"	16"	11 3/4"	12 3/4"	32 1/2"	2 1/4"	2 1/4"	2 1/4"	2 1/4"	1/2"	1/2"	12 ***	1 1/2" x 4 1/2"	EXP.	4 1/8"	2 1/8"


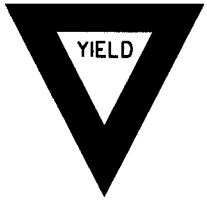



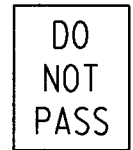



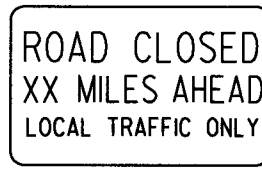
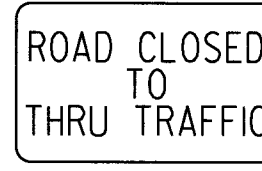

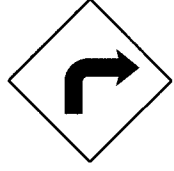





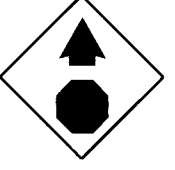
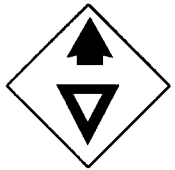
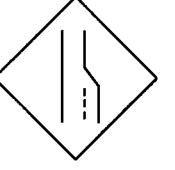

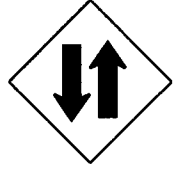

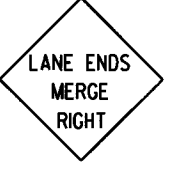


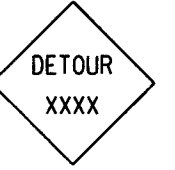






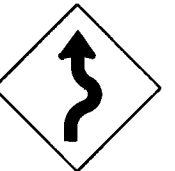



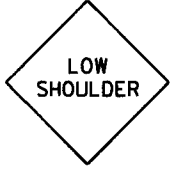
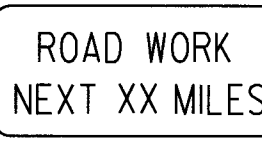
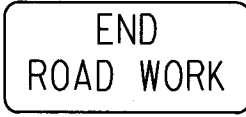
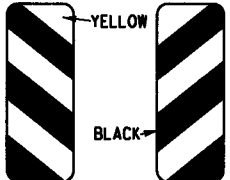


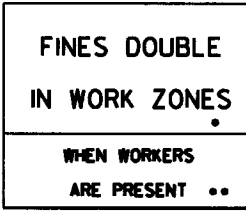
FOR INFORMATION ONLY

DETAILS OF ELASTOMERIC FIXED AND EXPANSION BEARINGS  
PAYNEWAY - SOUTH TRUMANN (GR. & STRS.)  
POINSETT COUNTY

ROUTE 63 SEC. 8  
ARKANSAS STATE HIGHWAY COMMISSION

ALTERED BY: KMG DATE: DEC 83  
CHECKED BY: DHM DATE: 7 JAN 84  
BRIDGE NO. 6040-6043 DRAWING NO. 26393

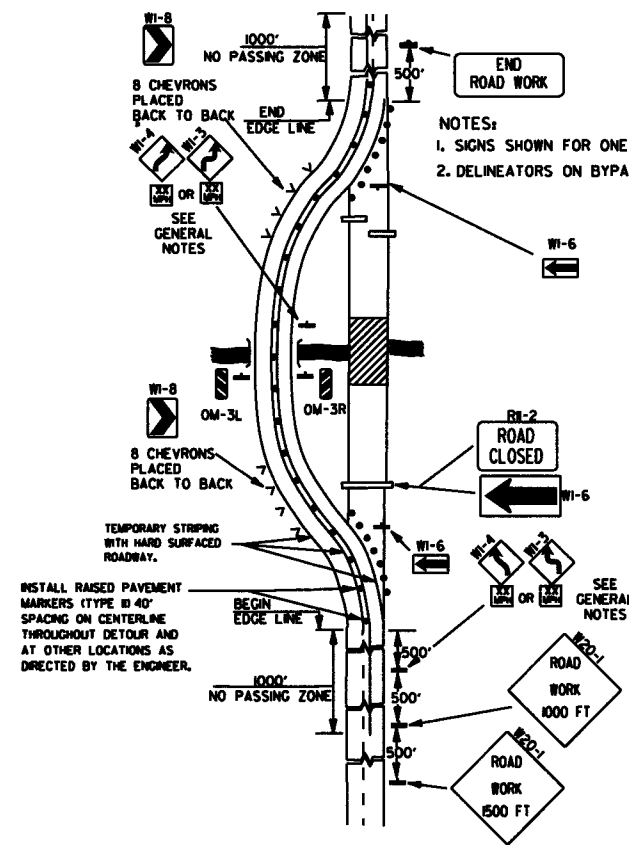
Tabular Data by: KMG Date: 20 Dec 83  
Checked by: DHM Date: 9 Jan 84

<p>RI-1</p>  <p>STANDARD 30"x30" EXPRESSWAY 36"x36" SPECIAL 48"x48"</p>	<p>RI-2</p>  <p>STD. 36"x36"x36" EXPWY. 48"x48"x48" FWY. 60"x60"x60"</p>	<p>R2-1</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	<p>W3-5</p>  <p>STD. 36"x36" EXPWY. 48"x48" FWY. 48"x48"</p>	<p>W3-5a</p>  <p>STD. 36"x36" EXPWY. 48"x48" FWY. 48"x48"</p>	<p>R4-1</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	<p>R4-2</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	<p>ADVANCE DISTANCES (XXXX)</p> <p>500 FT      1/2 MILE 1000 FT     3/4 MILE 1500 FT     1 MILE                   AHEAD</p> <p>GENERAL NOTES:</p> <ol style="list-style-type: none"> <li>ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND TO THE STANDARD HIGHWAY SIGNS, LATEST EDITION, OR AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION.</li> <li>TRAFFIC CONTROL DEVICES SHALL BE SET UP JUST BEFORE THE START OF CONSTRUCTION OPERATIONS AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SUCH CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS NEEDED AND REMOVED THEREAFTER.</li> <li>EXISTING SIGNS AND CONSTRUCTION SIGNS SHALL BE KEPT IN PROPER POSITION, AND BE CLEAN AND LEGIBLE AT ALL TIMES. SIGNS THAT DO NOT APPLY TO EXISTING CONDITIONS SHALL BE REMOVED. SIGNS THAT ARE DAMAGED, DEFACED, OR THAT ACCUMULATE DIRT DURING CONSTRUCTION SHALL BE CLEANED, REPAIRED, OR REPLACED.</li> <li>SIGNS ARE USUALLY MOUNTED ON A SINGLE POST, ALTHOUGH THOSE WIDER THAN 36" OR LARGER THAN 10 SQ. FT. SHALL BE MOUNTED ON TWO POSTS OR ABOVE A TYPE III BARRICADE.</li> <li>SIGN POSTS DIRECT BURIED IN SOIL SHALL BE 2 LB. MINIMUM CHANNEL POST OR 4"x4" WOOD POSTS. CHANNEL POSTS SHALL BE PAINTED GREEN. WOOD POSTS SHALL BE PAINTED WHITE. ALL POSTS SHALL BE NEATLY CONSTRUCTED, AND SHALL BE REPLUMBED, CLEANED, OR REPAIRED AS NEEDED FOR THE DURATION OF THE JOB. THERE SHALL NOT BE MORE THAN 2 POSTS IN A 7' PATH FOR WOOD OR CHANNEL POSTS. ANY CHANNEL POST SPLICE SHALL BE IN ACCORDANCE WITH STANDARD DRAWING TC-3.</li> <li>POST MOUNTED SIGNS IN RURAL AREAS SHALL BE CONSTRUCTED WITH THE NEAR EDGE OF THE SIGN FROM 6 TO 12 FEET FROM THE PAVEMENT EDGE. SIGNS IN URBAN AREAS AND BARRICADE MOUNTED SIGNS SHALL BE MOUNTED A MINIMUM OF 2 FEET FROM THE PAVEMENT EDGE.</li> <li>ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN URBAN AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN RURAL AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE, EXCEPT A MINIMUM OF 6' SHALL BE USED WHEN MOUNTING AN ADVISORY SIGN BELOW A WARNING SIGN. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR INTERMEDIATE TERM STATIONARY WORK CONDITIONS. THE SIGNS MINIMUM MOUNTING HEIGHT SHALL BE 5'. RETROREFLECTIVE DEVICES SHALL BE USED. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR SHORT-TERM, SHORT DURATION, AND MOBILE CONDITIONS. THEY SHALL BE NO LESS THAN ONE (1) FOOT ABOVE THE TRAVELED WAY. LONG-TERM STATIONARY SIGNS SHALL BE DIRECT BURIED IN SOIL, UNLESS CONDITIONS NECESSITATE THE USE OF PORTABLE SIGNS, OR AS APPROVED BY THE ENGINEER. CONCRETE PADS, CONCRETE OR ROCK BALLAST, OR OTHER SOLID MATERIALS SHALL NOT BE UTILIZED WITH PORTABLE SIGN SUPPORTS.</li> <li>FLAGGERS SHALL USE REFLECTORIZED STOP-SLOW PADDLES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.</li> <li>MOST OF THE SIGNS SHOWN ARE ORIENTED TO THE RIGHT. HOWEVER, THIS DOES NOT PRECLUDE THE USE OF MIRROR IMAGES OF THESE SIGNS WHERE THE REVERSE ORIENTATION MIGHT BETTER CONVEY TO MOTORISTS THE PROPER DIRECTION OF MOVEMENT.</li> <li>R55-1 SIGNS SHALL BE PLACED AT LEAST 1500' BUT NOT MORE THAN 1 MILE IN ADVANCE OF THE WORK ZONE. IF A SPEED LIMIT REDUCTION IS IN EFFECT, THE SIGN SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE "REDUCED SPEED AHEAD" SIGN.</li> </ol> <p>* NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 &amp; 5, BUT MEET THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED FOR ALL PROJECTS.</p>
<p>R5-1</p>  <p>STD. 30"x30" EXPWY. 36"x36" SPECIAL 48"x48"</p>	<p>R11-2</p>  <p>48"x30"</p>	<p>R11-3A</p>  <p>60"x30"</p>	<p>R11-4</p>  <p>60"x30"</p>	<p>W21-5a</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W1-1</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W1-2</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	
<p>W1-3</p>  <p>STD. 48"x48"</p>	<p>W1-4</p>  <p>STD. 48"x48"</p>	<p>W1-6</p>  <p>STD. 48"x24" SPECIAL 60"x30"</p>	<p>W1-8</p>  <p>STD. 18"x24" SPECIAL 24"x30" EXPWY. 30"x36" FWY. 36"x48"</p>	<p>W3-1</p>  <p>STD. 36"x36" SPECIAL 48"x48"</p>	<p>W3-2</p>  <p>STD. 36"x36" SPECIAL 48"x48"</p>	<p>W4-2</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	
<p>W5-1</p>  <p>STD. 36"x36" SPECIAL 48"x48"</p>	<p>W6-3</p>  <p>EXPWY. 36"x36" SPECIAL 48"x48"</p>	<p>W8-7</p>  <p>EXPWY. 36"x36" FWY. 48"x48"</p>	<p>W9-2</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W13-1</p>  <p>STD. 24"x24"</p>	<p>W20-1</p>  <p>STD. 48"x48"</p>	<p>W20-2</p>  <p>STD. 48"x48"</p>	<p>W20-3</p>  <p>STD. 48"x48"</p>
<p>W20-4</p>  <p>STD. 48"x48"</p>	<p>W20-5</p>  <p>STD. 48"x48"</p>	<p>W20-7a</p>  <p>500 FEET 24" W20-7b</p> <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W21-2</p>  <p>STD. 30"x30" SPECIAL 36"x36"</p>	<p>W21-5</p>  <p>STD. 30"x30" SPECIAL 36"x36"</p>	<p>W24-1</p>  <p>STD. 36"x36"</p>	<p>W1-4b</p>  <p>STD. 48"x48"</p>	<p>R56-1</p>  <p>STD. 18"x18"</p>
<p>W8-11</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W8-9</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>G20-1</p>  <p>60"x24"</p>	<p>G20-2</p>  <p>48"x24"</p>	<p>OM-3L    OM-3R</p>  <p>12"x36"</p>	<p>M4-9</p>  <p>STD. 30"x24" SPECIAL 48"x36" SPECIAL 60"x48"</p>	<p>M4-10</p>  <p>48"x18"</p>	<p>R55-1</p>  <p>36"x60"</p> <p>• USE 6" C LETTERS •• USE 4" D LETTERS</p>

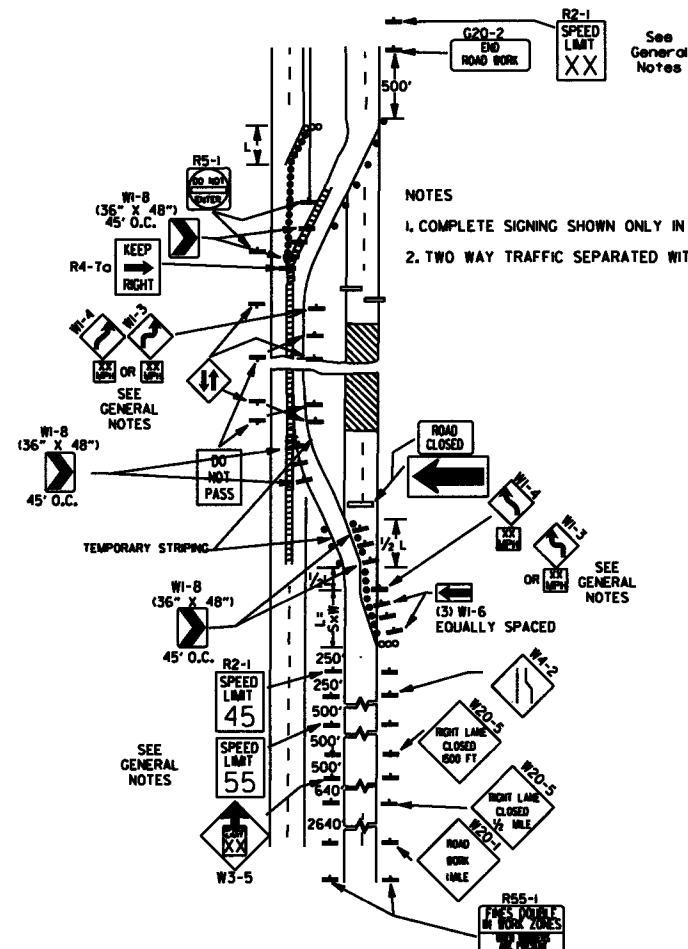
4-13-17	DELETED RSP-1 & ADDED W21-5a	
9-2-15	REVISED REDUCED SPEED LIMIT AHEAD SIGNS REVISED ROAD WORK NEXT XX MILES	
12-15-8	REVISED W24-1	
4-17-10	DELETED W8-9a & ADDED W8-9	
10-15-09	ADDED REFERENCE TO MASH & ADDED SIGN W24-1	
4-17-08	REVISED SIGN DESIGNATIONS	
1-18-04	REVISED NOTES	
10-9-03	REVISED NOTE 1	
1-16-01	REVISED NOTE 7	
9-28-00	REVISED NOTE	
1-18-98	ADDED NOTE	
6-26-97	REVISED NOTE 5	
4-03-97	REVISED NOTE 5	
10-18-96	ADDED CONTROLLED ACCESS HWY. SIGN & TO NOTE 7	
10-12-95	ADDED R55-1	
6-8-95	REVISED TO CORRECT SIGN ILLUSTRATIONS	6-8-95
2-2-95	REVISED PER PART VI, MUTCD SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	
DATE	REVISION	FILMED

ARKANSAS STATE HIGHWAY COMMISSION  
STANDARD TRAFFIC CONTROLS  
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STANDARD DRAWING TC-1

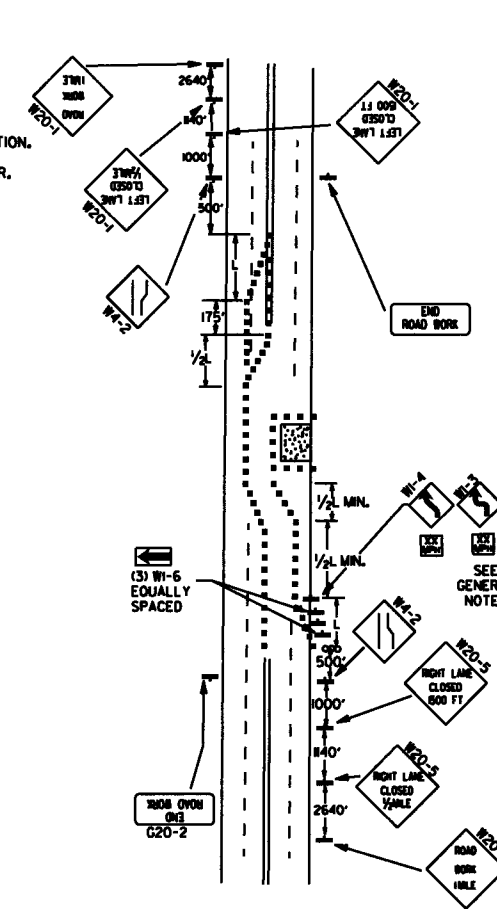




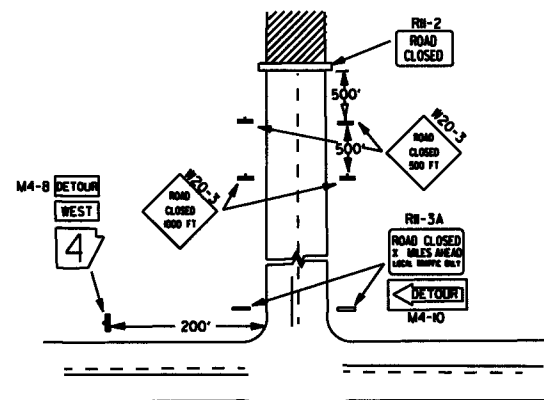
(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.



(B) TYPICAL APPLICATION - 4-LANE DIVIDED ROADWAY WHERE ONE ROADWAY IS CLOSED.

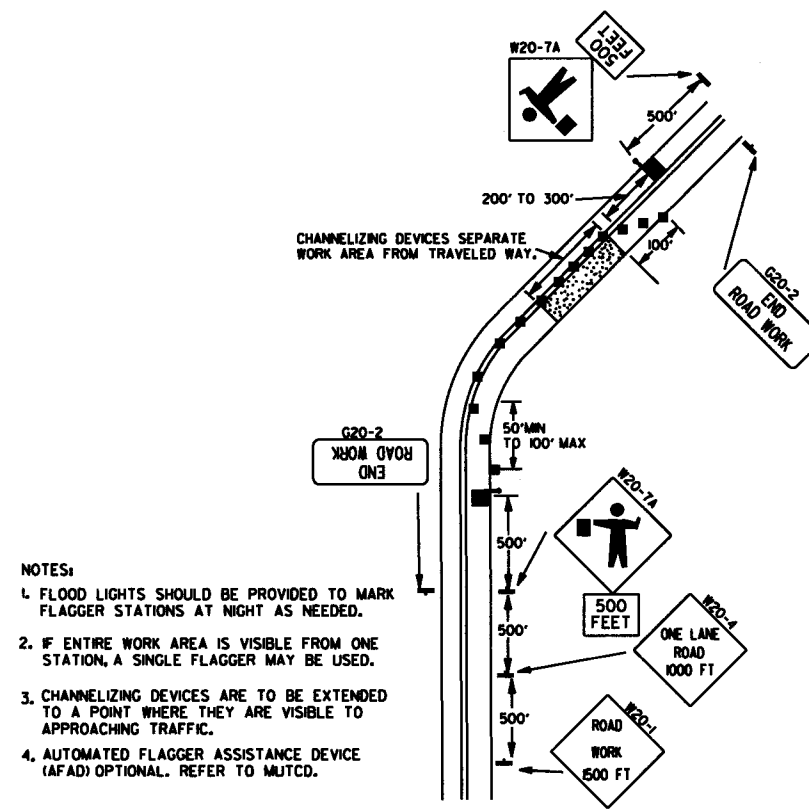


(C) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



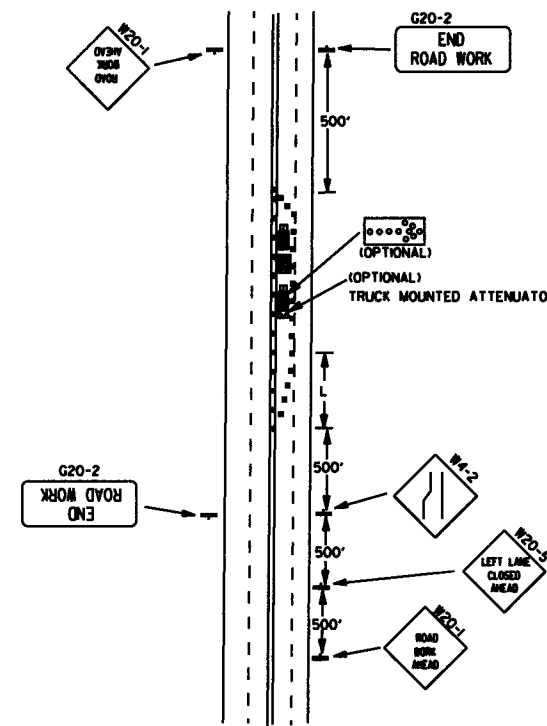
- NOTES:
- REGULATORY TRAFFIC CONTROL DEVICES TO BE MODIFIED AS NEEDED FOR THE DURATION OF THE DETOUR.
  - STREET NAMES MAY BE USED WHEN DESIRABLE FOR DIRECTING DETOURED TRAFFIC.

(D) TYPICAL APPLICATION - ROADWAY CLOSED BEYOND DETOUR POINT.



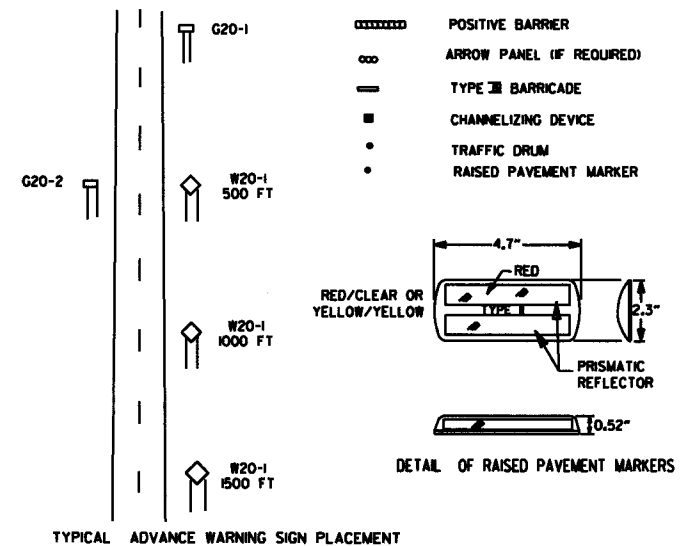
- NOTES:
- FLOOD LIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.
  - IF ENTIRE WORK AREA IS VISIBLE FROM ONE STATION, A SINGLE FLAGGER MAY BE USED.
  - CHANNELIZING DEVICES ARE TO BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.
  - AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD) OPTIONAL. REFER TO MUTCD.

(E) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON 2-LANE HIGHWAY WHERE ONE LANE IS CLOSED AND FLAGGING IS PROVIDED.



(F) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WITH INSIDE LANE CLOSED.

- KEY:
- FLAGGER
  - POSITIVE BARRIER
  - ARROW PANEL (IF REQUIRED)
  - TYPE III BARRICADE
  - CHANNELIZING DEVICE
  - TRAFFIC DRUM
  - RAISED PAVEMENT MARKER

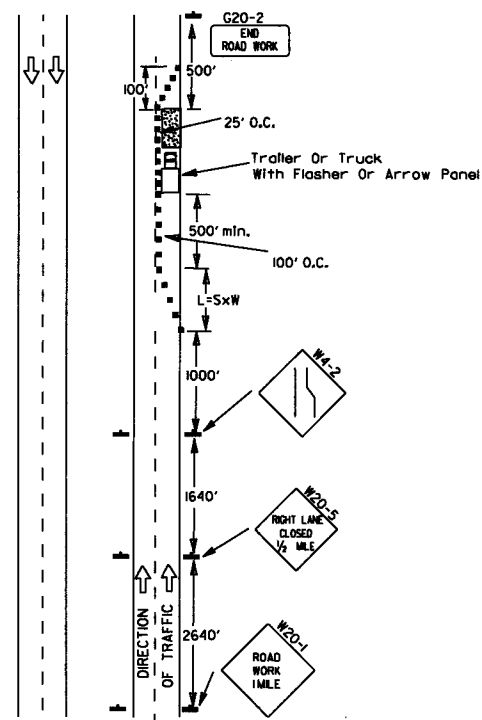


- TAPER FORMULAE:
- $L = SXW$  FOR SPEEDS OF 45MPH OR MORE.
- $L = \frac{WS^2}{60}$  FOR SPEEDS OF 40MPH OR LESS.
- WHERE:
- L = MINIMUM LENGTH OF TAPER.
  - S = NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85TH PERCENTILE SPEED.
  - W = WIDTH OF OFFSET.

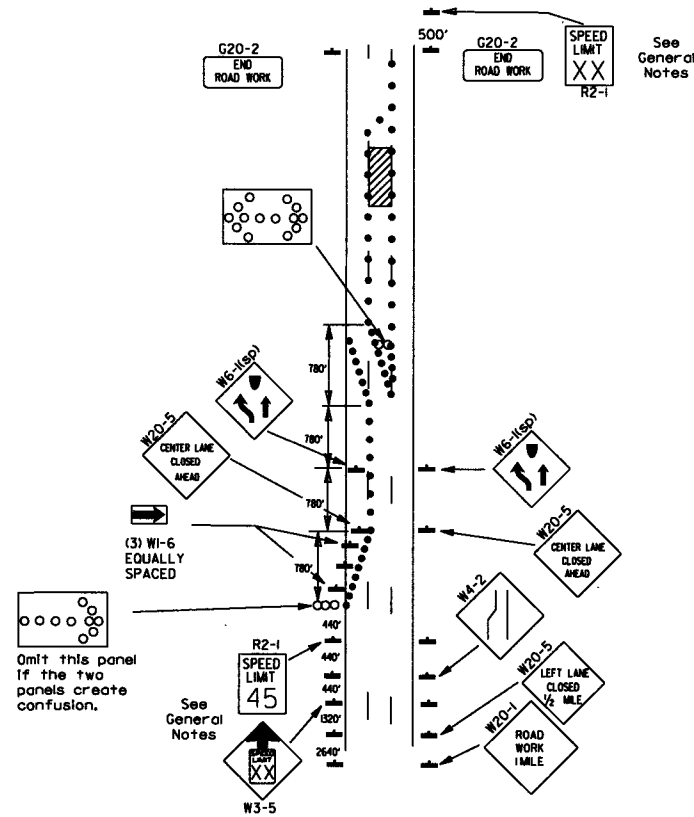
- GENERAL NOTES:
- ADVISORY SPEED POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS TO BE DETERMINED AT SITE. USE W1-4 WHEN SPEED IS GREATER THAN 30MPH AND W1-3 WHEN 30MPH OR LESS.
  - WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-(K55) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-145MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-KXX SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
  - WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-(K65) SHALL BE OMITTED. ADDITIONAL R2-155MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-KXX SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
  - THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT. BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES THE SPEED LIMIT, OR AS DIRECTED BY THE ENGINEER.
  - WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
  - PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
  - TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DELINEATED BY AFFIXING CONSPICUITY MATERIAL IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER. WHEN PLACED ON OR ADJACENT TO THE SHOULDER AND NOT BEHIND A POSITIVE BARRIER, THESE DEVICES SHALL BE DELINEATED BY PLACING FIVE (5) TRAFFIC DRUMS, EQUALLY SPACED ALONG THE TRAFFIC SIDE OF THE DEVICE.
  - DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE AHTD QUALIFIED PRODUCTS LIST.

9-2-85	REVISED NOTE 2, ADDED NOTE 8, REVISED DRAWING (A) & REPLACED R2-5A WITH W3-5	
9-12-85	REVISED DETAIL OF RAISED PAVEMENT MARKERS	
3-11-90	ADDED (AFAD)	
8-20-08	REVISED SIGN DESIGNATIONS	
8-18-04	ADDED GENERAL NOTE	
10-18-96	ADDED R55-1	
4-26-96	CORRECTED (G) BEHIND G20-2	
6-8-95	CORRECTED SIGN IDENT. ON W1-4A	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	
DATE	REVISION	FILMED

ARKANSAS STATE HIGHWAY COMMISSION  
STANDARD TRAFFIC CONTROLS  
FOR HIGHWAY CONSTRUCTION



(A) Typical application - daytime maintenance operations of short duration on a 4-lane divided roadway where half of the roadway is closed.

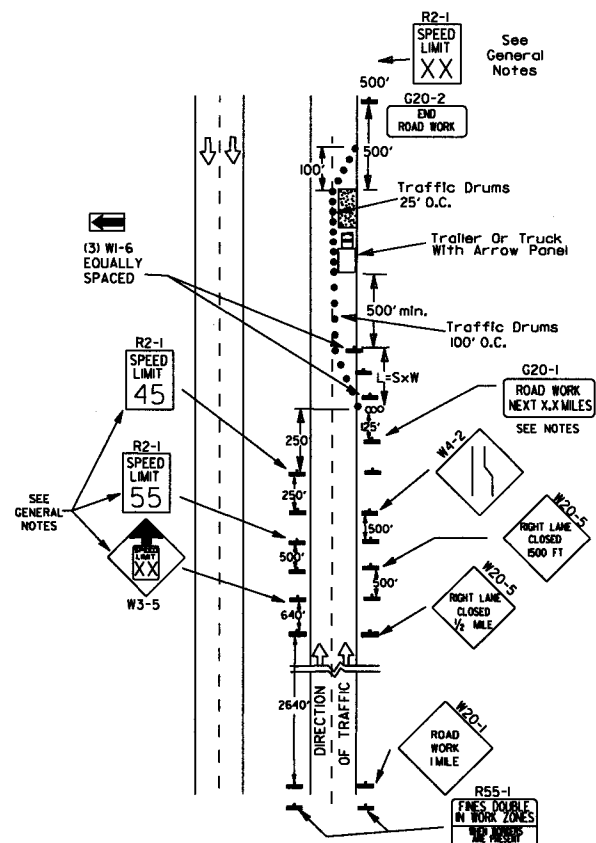


(B) Typical application - 3-lane oneway roadway where center lane is closed.

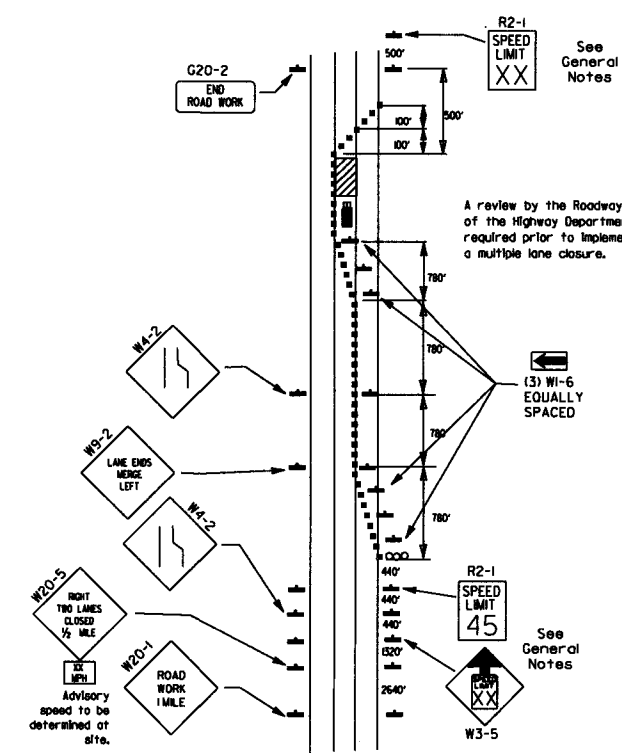
- KEY:
- Arrow Panel (if Required)
  - Channelizing Device
  - Traffic drum

GENERAL NOTES:

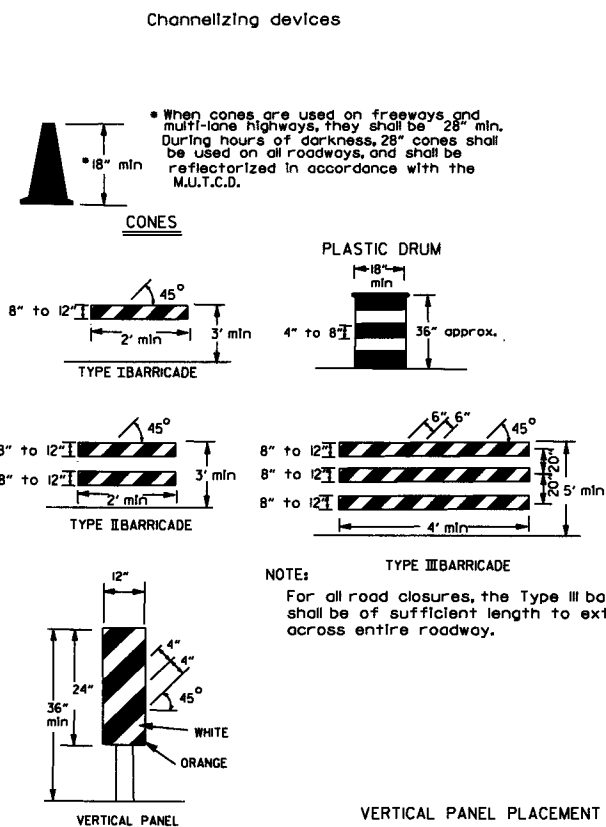
1. A speed limit reduction may be implemented ONLY when designated in the plan or when recommended by the Roadway Design Division.
2. When the existing speed limit is 55mph and the plans require a speed limit of 45mph, the R2-1(55) shall be omitted and the W3-5 shall be installed at that location. Additional R2-1(45) speed limit signs shall be installed at a maximum of 1/2 mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
3. When the existing speed limit is 65mph and the plans require a speed limit of 55mph, the R2-1(65) shall be omitted. Additional R2-1(55) speed limit signs shall be installed at a maximum of 1/2 mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
4. The maximum spacing between channelizing devices in a taper should be approximately equal in feet to the speed limit. Beyond the taper, maximum spacing shall be two times the speed limit or as directed by the Engineer.
5. Warning lights and/or flags may be mounted to signs or channelizing devices at night as needed.
6. Pavement markings no longer applicable which might create confusion in the minds of vehicle operators shall be removed or obliterated as soon as practicable.
7. The G20-1 sign will be required on jobs of over two miles in length. When the lane closure is not at the beginning of the project, the G20-1 sign shall be erected 125' in advance of the job limit. Additional W20-1(1/2 MILE) signs are not required in advance of lane closures that begin inside the project limits.
8. Flaggers shall use STOP/SLOW paddles for controlling traffic through work zones. Flags may be used only for emergency situations.
9. All plastic drums and cones shall meet the requirements of NCHRP-350 or Manual for Assessing Safety Hardware (MASH).
10. Trailer mounted devices such as arrow panels and portable changeable message signs shall be delineated by affixing conspicuity material in a continuous line on the face of the trailer. When placed on or adjacent to the shoulder and not behind a positive barrier, these devices shall be delineated by placing five (5) traffic drums, equally spaced along the traffic side of the device.



(C) Typical application - construction operations of intermediate to long term duration on a 4-lane divided roadway where half of the roadway is closed.



(D) Typical application - closing multiple lanes of a multilane highway.

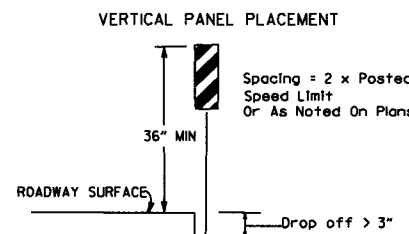
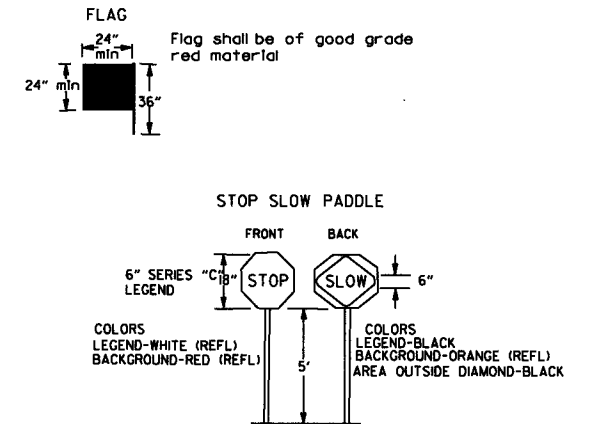


Channelizing devices

TRAFFIC CONTROL DEVICES FOR VERTICAL PAVEMENT DIFFERENTIALS

VERTICAL DIFFERENTIAL	LOCATIONS	TRAFFIC CONTROL
1" to 3"	Centerline, lane lines	WB-11
1" to 3"	Edge of shoulder	WB-9
Greater than 3"	Lane lines	Standard lane closure required
Greater than 3"	Edge of traveled lane	*RSP-land vertical panels, drums or concrete barrier
Greater than 3"	Edge of shoulder	*Vertical panels, drums or concrete barrier

\* When shown on the plans concrete barrier will be used.  
When the shoulder area is used as part of the traveled lane and there is insufficient width to place drums on the remaining shoulder width, then vertical panels shall be used.

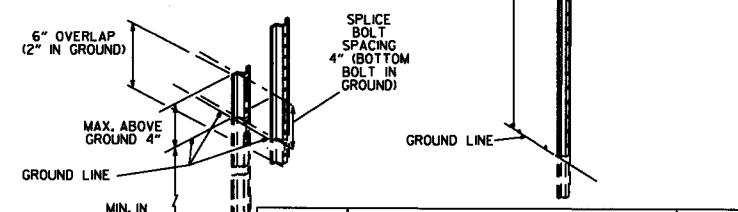


DETAIL OF SPLICES

USE SPLICES ONLY WHEN NECESSARY FOR INSTALLATION. TYPICAL INSTALLATION SHOULD HAVE NO SPLICES (SEE STD. DRAWING NO. SHS-2)

NORMAL INSTALLATIONS WILL REQUIRE 1/4" DIA. BOLTS TO MOUNT SIGNS TO POST AND 5/16" DIA. BOLTS TO ASSEMBLE THE VARIOUS POST SUPPORTS. EACH OF THESE BOLTS SHALL BE CARRIAGE BOLTS.

SIGN POSTS SHALL BE PAINTED GREEN; SIGNS SHALL NOT BE PAINTED, AND ALL SIGN POSTS SHALL BE PLUMB.



DATE	REVISION	FILED
9-2-15	REVISED NOTE 2 & REPLACED R2-5A WITH W3-5	
10-15-09	ADDED REFERENCE TO MASH	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED NOTE	
10-1-98	ADDED NOTE	
4-03-97	ADDED (SPI) TO W6-1& REVISED TRAFFIC CONTROL DEVICES NOTE	
10-18-96	ADDED R55-1	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL, TEXT	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	