67

FED. ROAD DIST. NO.	STATE	F.A. PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	F-370 (10)			
STATE JOB NO. 9221			1947	1	23

STATE OF ARKANSAS

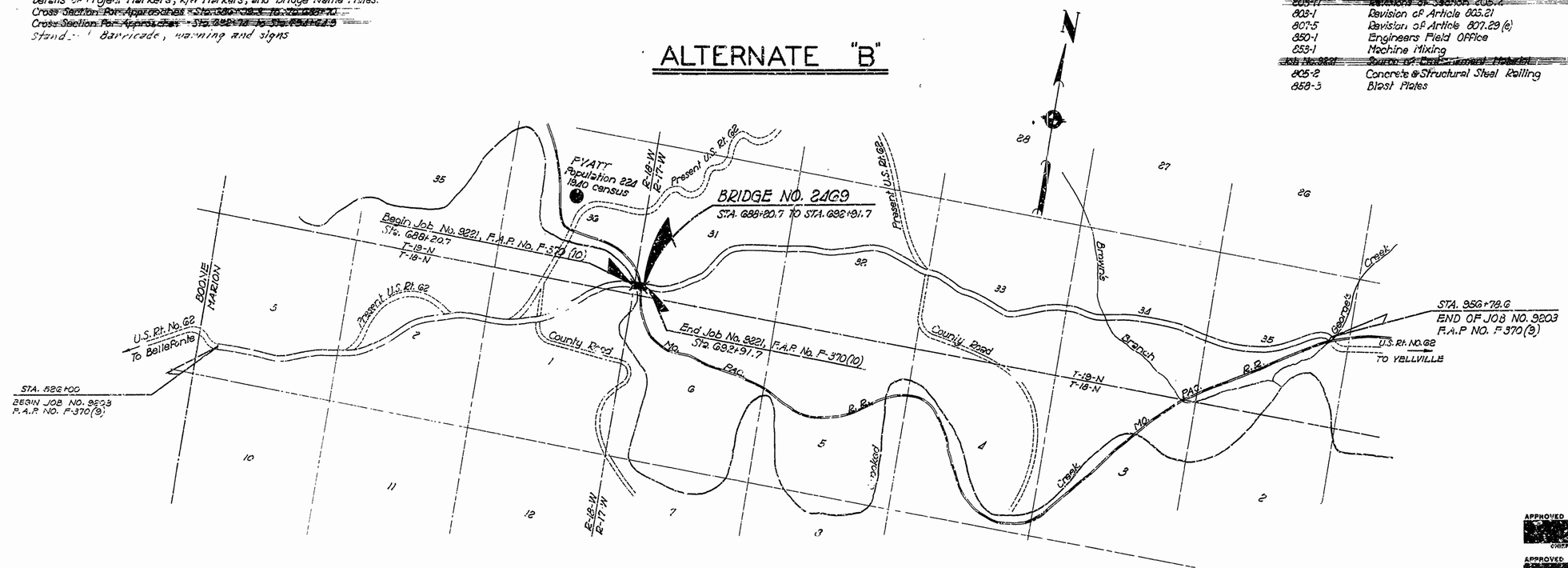
STATE HIGHWAY COMMISSION

PLAN OF PROPOSED BRIDGE
OVER CROOKED CREEK & MO. PAC. R.R.
BELLEFONTE-YELLVILLE ROAD
MARION COUNTY
ROUTE 62 SEC. 8
JOB Nº 9221
FEDERAL AID PROJECT NO. F-370-(10)

ALTERNATE "B"

INDEX OF SHEETS

SHEET NO.	DWG NO.	TITLES
1	7022	Title Sheet For Job No. 9221. - Alternate "B."
2	7023	Schedule of [redacted] bridge Quantities.
3	7024	Plan and Profile of Approaches - Sta. 681+00 to 699+00.
4	7025	Layout of Bridge over Crooked Creek and Mo. Pac. R.R. - Br. No. 2469.
5	7026	Details of Abutment No. 1
6	7027	Details of Piers No. 1, 4 and 5
7	7028	Details of Piers No. 2 and 3
8	7029	Details of Abutment No. 2
9	7030	Design Stresses, Selection of Members For Deck Truss Spans.
10	7031	Details of Deck Truss Spans - Sheet No 1.
11	7032	" " " " " " " 2.
12	7033	" " " " " " " 3.
13	7034	" " " " " " " 4.
14	7035	" " " " " " " 5.
15	7036	Typical Deck Details For Deck Cantilever Truss Spans.
16	7037	Details of Handrails " " " " "
17	7038	Details of I-Beam Spans - Sheet No. 1
18	7039	" " " " " Sheet No. 2
19	7040	Details of Handrail and Blast Plates For I-Beam Spans - Sheet No. 3.
20	7041	Details of ~~C.M. Pipe Spillway on L.S. Rt. of Sta. 688+25~~
21	F.R.C.-12	Standard ~~Pipe Culvert and Headwalls~~
22	1888	Embankment Constr. at Bridge Ends and Backfill For Structures
23	1891	Basis For Computing Excavation For Structures.
24	2397	Details of Project Markers, R/W Markers, and Bridge Name Plates.
25	7042	~~Cross Section For Approaches Sta. 680+00 S. to Sta. 688+00~~
26	7043	~~Cross Section For Approaches Sta. 692+00 N. to Sta. 699+00~~
[illegible]	[illegible]	Standard Barricade, warning and signs



LAYOUT Final Length
Scale: 1" = 2000'

LENGTH OF PROJECT= ~~[illegible]~~ 471'-6" = 0.089 MILE
LENGTH OF BRIDGES= 471'-0" = 0.089 MILE
LENGTH OF EMBANKMENT= ~~[illegible]~~
LENGTH OF JOB= ~~[illegible]~~ 471'-0" = 0.089 MILE

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED MARCH 1, 1940 WITH THE SPECIAL PROVISIONS LISTED BELOW

PAMPHLETS

DIVISION	PART
I	
II	1, [illegible], 8a, 8b, 9
III	
IV	

SPECIAL PROVISIONS

NO.	TITLE	NO. SHEETS
	Required Contract Provisions	8
2-1	Revision of Article 2.11 (approved 2-8-41)	2
2-2	Equipment List required	1
2-4	State License For Contractor	1
4-1	Revision of Article 4.9	1
T-6	Insurance and Construction over Railroad	3
8-3	Special Provision Pertaining to the required Contract Provisions For Federal-Aid Projects	2
9-5	Partial Payment	1
~~104-3~~	~~Embankment Material~~	~~2~~
~~704-3~~	~~Furnishing Embankment Material~~	~~1~~
~~805-17~~	~~Revision of Section 205.2~~	~~1~~
805-1	Revision of Article 805.21	1
807-5	Revision of Article 807.29 (e)	1
850-1	Engineers Field Office	1
853-1	Machine Mixing	1
~~Job No. 9221~~	~~Source of Embankment Material~~	~~1~~
805-2	Concrete & Structural Steel Railing	2
858-3	Blast Plates	2

APPROVED
CHIEF ENGINEER-STATE HIGHWAY COMMISSION

APPROVED
CHAIRMAN-STATE HIGHWAY COMMISSION

RECOMMENDED FOR APPROVAL
DISTRICT ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

APPROVED
COMMISSIONER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

REVISIONS: Some items deleted. W.C.H. 8-26-47
Special Provisions. W.C.H. 8-27-47

FINANCIAL ADVISOR ENGINEER (BRIDGE)

BRIDGE No. 2469 DRAWING No. 7022

FED. ROAD DIST. NO.	STATE	F. A. PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	F-376 (10)			23
STATE JOB		8281	1947	2	26

EARTHWORK

STATION	STATION	UNCLASSIFIED EXCAVATION NORMAL	OUTLET DITCH	UNDER BRIDGE	NORMAL	OUTLET DITCH		FILL +15% NORMAL	EMBANKMENT MATERIAL	
		CU. YD	CU. YD.	CU. YD.	CU. YD.	CU. YD.	CU. YD.	CU. YD.	CU. YD.	
678+17.5	688+70							5986	5986	
692+70	692+91.7			54						
692+91.7	694+00	59	3					38		
SUB-TOTALS		59	3	54				6024	5986	
TOTALS		* 116						6024	5986	

*. Approx 78 Cu. Yds. of Excavation to be wasted

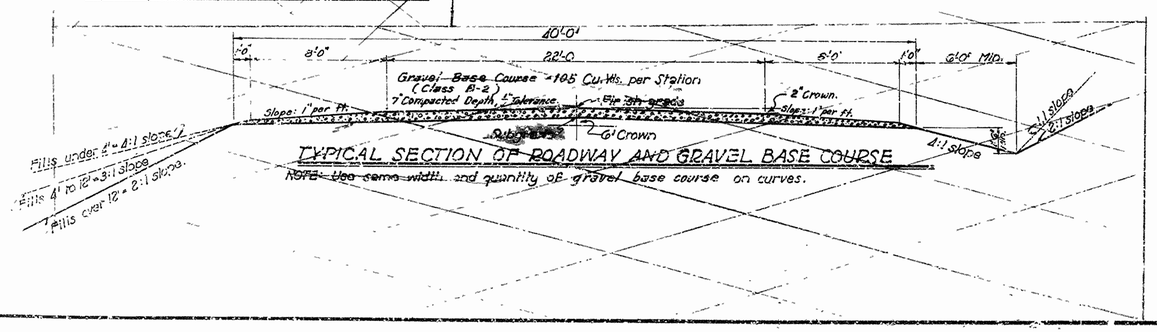
STRUCTURES

STATION	DESCRIPTION	DRY EXCAVATION FOR STRUCTURES	SOLID ROCK EXCAVATION FOR STRUCTURES	CONCRETE CLASS 'A'	CONCRETE CLASS 'B'	REINF. STEEL	REINF. CONCRETE PIPE CULVERT 24"	SPELTER COATED CORRUGATED CULVERT 12"
		CU. YD.	CU. YD.	CU. YD.	CU. YD.	LB.	LIN. FT.	LIN. FT.
[illegible]	2 R/W Markers Rt. & Lt.			0.05		5		
688+12.5	Construct 12" C.M. Pipe Spillways with special headwalls on Lt and Rt.	110		4.0		290		106
693+10.0	Construct 24"×50' R.C. Pipe Culvert with straight headwalls on Lt. and Rt.	10	40		2.68	112	50	
	TOTALS	120	40	4.05	2.68	407	50	106

GRAVEL BASE COURSE

CLASS B-2

STATION	STATION	NORMAL	ADD'L AT BRIDGE ENDS
		CU. YD.	CU. YD.
687+17.5 Ah.	688+20.7	108	
692+91.7	693+82.5	97	
SUB-TOTALS		205	
TOTALS		205	



TYPICAL SECTION OF ROADWAY AND GRAVEL BASE COURSE

NOTE: Use same width and quantity of gravel base course on curves.

SCHEDULE OF BRIDGE QUANTITIES

	ITEM NO.	103	103	103	S.P.& 802	S.P.& 802	S.P.& 803	S.P.& 805	S.P.& 807	S.P.& 807	S.P.858-3	922
	ITEM / UNIT OF BRIDGE (UNIT)	DRY EXCAVATION FOR STRUCTURES	WET EXCAVATION FOR STRUCTURES	SOLID ROCK EXCAVATION FOR STRUCTURES	CLASS 'A' CONCRETE FOR BRIDGES	CLASS 'S' CONCRETE FOR BRIDGES	REINFORCING STEEL	CONCRETE & STRUCTURAL STEEL RAILING	STRUCTURAL STEEL IN BEAM SPANS	STRUCTURAL STEEL IN TRUSS SPANS	BLAST PLATES	BRIDGE NAME PLATES (TYPE 'A')
		CU. YD.	CU. YD.	CU. YD	CU. YD.	CU. YD.	LB.	LIN. FT.	LB.	LB.	LB.	EACH
BRIDGE NO. 2469 COCE NO. X335	ABUTMENT NO. 1	137		6	83.77		10260	14.0	505			1
	PIER NO. 1	60		7	37.97		5120					
	PIER NO. 2		76	21	58.85		8280					
	PIER NO. 3		56	13	72.65		7380					
	PIER NO. 4			69	37.97		5120					
	PIER NO. 5			36	31.06		3780					
	ABUTMENT NO. 2	62		30	39.93		4150	14.0	505			1
	37'-8" I-BEAM SPAN - SPAN NO. 1					22.61	4240	75.33	22,680			
	136'-0" CANTILEVER DECK TRUSS SPAN - SPAN NO. 2					107.73	27,370	272.0		144,210		
	85'-0" SUSPENDED DECK TRUSS SPAN - SPAN NO. 3					66.32	17,050	168.0		70,870		
	136'-0" CANTILEVER DECK TRUSS SPAN - SPAN NO. 4					107.73	27,370	272.0		144,820		
	37'-8" I-BEAM SPAN - SPAN NO. 5					26.61	4,240	75.34	22,730		4,350	
	37'-8" I-BEAM SPAN - SPAN NO. 6					26.80	4,240	75.33	22,260			
	TOTALS FOR BRIDGE NO. 2469	259	132	182	363.20	361.80	126,610	966.0	68,680	367,900	4,350	2

SUMMARY OF ROADWAY QUANTITIES

ITEM NO.	ITEM	QUANTITY	UNIT
102	Unclassified Excavation	116	Cu. Yd.
103	Dry Excavation For Structures	120	Cu. Yd.
103	Solid Rock Excavation For Structures	40	Cu. Yd.
S.P.-104	Embankment Material	5986	Cu. Yd.
S.P.& 205	Gravel Base Course (Class B-2)	205	Cu. Yds.
901	Class 'A' Concrete	4.05	Cu. Yd.
901	Class 'B' Concrete	2.68	Cu. Yd.
902	Reinforcing Steel	407	Lb.
906	24" Reinforced Concrete Pipe Culvert	50	Lin. Ft.
906	12" Spelter Coated Corrugated Metal Pipe Culvert	106	Lin. Ft.

Revisions -- Roadway Quantities deleted. W.C.M. 6-26-47.

W. P. Gamer
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

SCHEDULE OF [redacted] BRIDGE QUANTITIES
BRIDGE OVER CROOKED CREEK
AND MISSOURI PACIFIC RAILROAD
BELLEFONTE-YELLVILLE ROAD
MARION COUNTY

ROUTE 62 SEC. 6

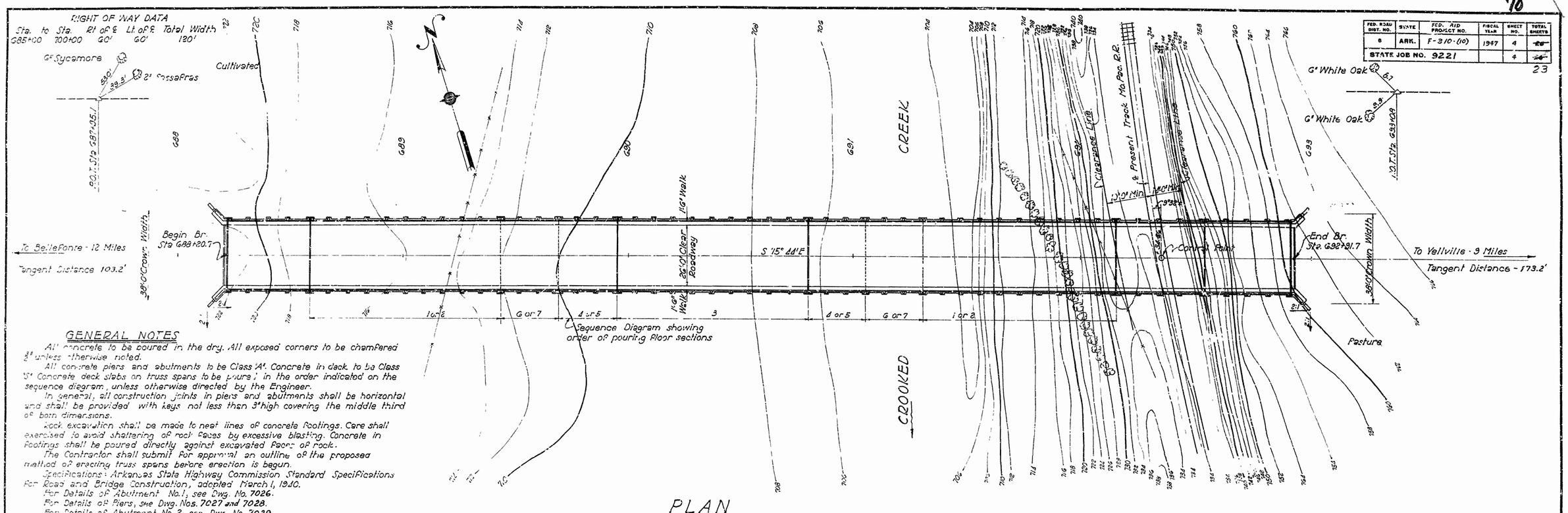
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

Drawn By: W.C.M. Date: 7-14-47
Traced By: B.B.S. Date: 7-14-47
Checked By _____ Date: _____
Scale: in. = ft.

BRIDGE No. 2469 DRAWING No. 7023

FED. ROAD DIST. NO.	STATE	FED. AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	ARK.	F-310-(10)	1947	4	~~20~~
STATE JOB NO. 9221				4	~~24~~

23



PLAN

GENERAL NOTES

All concrete to be poured in the dry. All exposed corners to be chamfered 3/4" unless otherwise noted.

All concrete piers and abutments to be Class "A". Concrete in deck to be Class "S". Concrete deck slabs on truss spans to be poured in the order indicated on the sequence diagram, unless otherwise directed by the Engineer.

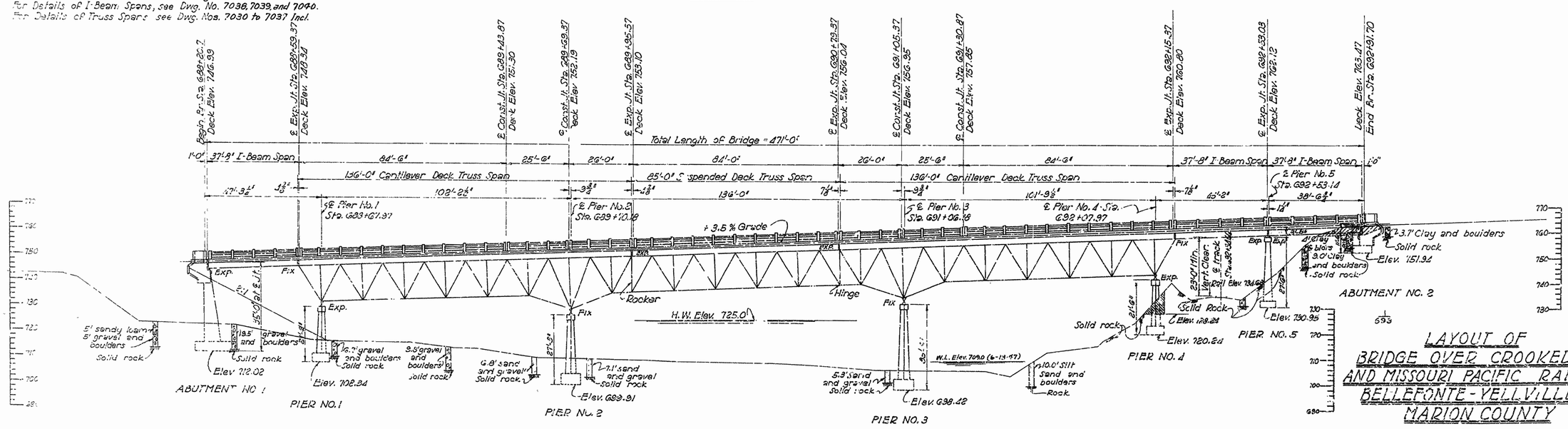
In general, all construction joints in piers and abutments shall be horizontal and shall be provided with keys not less than 3" high covering the middle third of both dimensions.

Rock excavation shall be made to neat lines of concrete footings. Care shall exercised to avoid shattering of rock faces by excessive blasting. Concrete in footings shall be poured directly against excavated faces of rock.

The Contractor shall submit for approval an outline of the proposed method of erecting truss spans before erection is begun.

Specifications: Arkansas State Highway Commission Standard Specifications for Road and Bridge Construction, adopted March 1, 1940.

For Details of Abutment No. 1, see Dwg. No. 7026.
For Details of Piers, see Dwg. Nos. 7027 and 7028.
For Details of Abutment No. 2, see Dwg. No. 7029.
For Details of I-Beam Spans, see Dwg. No. 7038, 7039, and 7040.
For Details of Truss Spans see Dwg. Nos. 7030 to 7037 Incl.



ELEVATION

Design Live Load - Hsc Loading A.A.S.H.O 1944

Unit Stresses

Class "A" Concrete (n=15)	700#/sq. in.
Class "S" Concrete (n=10)	1000#/sq. in.
Reinforcing Steel	18,000#/sq. in.
Structural Steel	18,000#/sq. in.

Maximum Foundation Pressures

Abutment No. 1	4.0	Tons/sq. ft
Pier No. 1 & 4	3.2	" " (3.6 Tons/sq. ft. D.L. L.L. + W.L.)
Pier No. 2 & 3	3.6	" " (5.9 " " " " " ")
Pier No. 5	2.7	" "
Abutment No. 2	5.8	" "

Drainage Area
210 Sq. Miles - Mountainous - Cavernous
B.M. Elev. 715.90
Nail in root of 18" Elm 100' right of Sta. G88+60

M. B. Barnes
PRINCIPAL HIGHWAY ENGINEER

LAYOUT OF BRIDGE OVER CROOKED CREEK AND MISSOURI PACIFIC RAILROAD BELLEPONTE - YELLVILLE ROAD MARION COUNTY

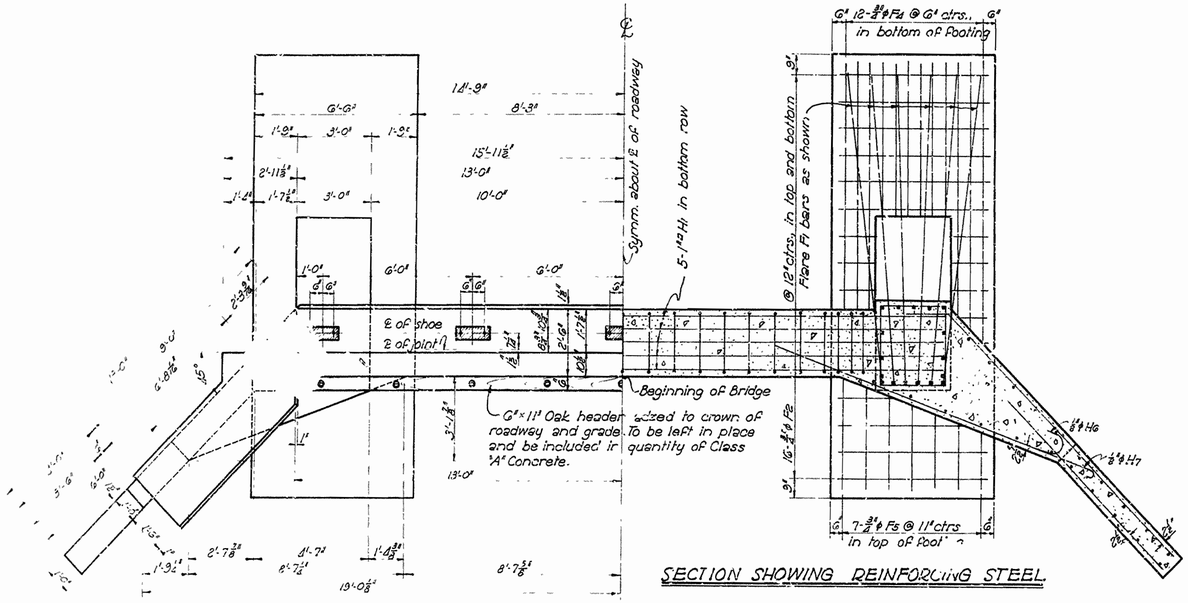
ROUTE 62 SEC. 8

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

Drawn By: B. Date: 4-1-47
Traced By: B.B.S. Date: 5-9-47
Checked By: Date:
Scale: 1" in. = 20' ft.

BRIDGE NO. 2469 DRAWING NO. 7025

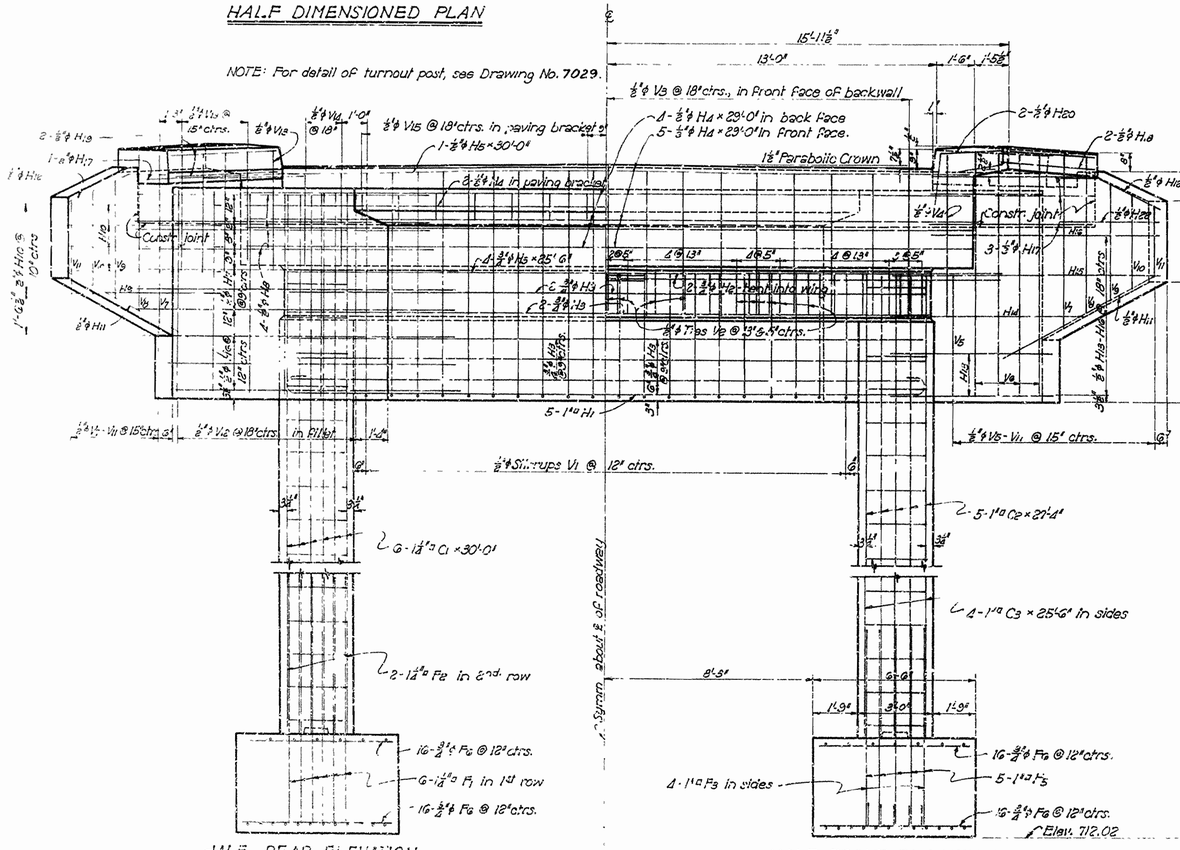
FED. ROAD DIST. NO.	STATE	FED. AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	ARK.	F-370-(10)			23
STATE JOB NO. 9221			1947	5	



HALF DIMENSIONED PLAN

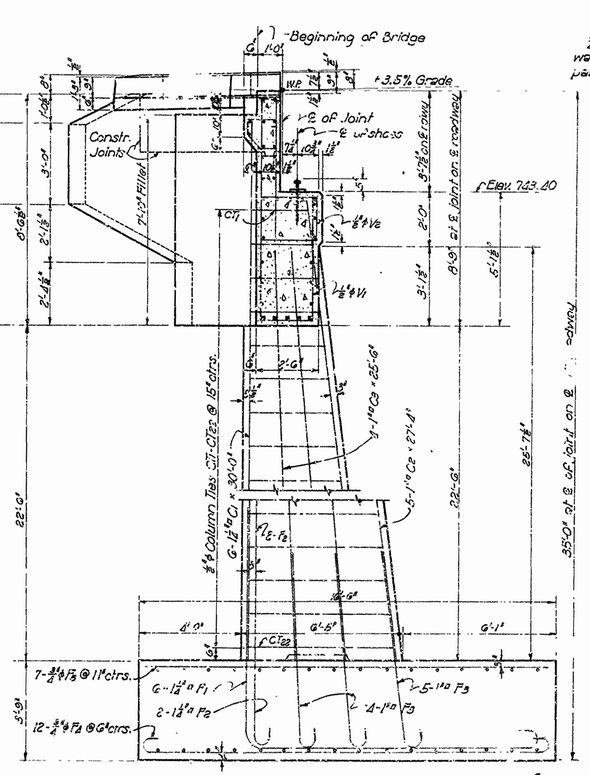
SECTION SHOWING REINFORCING STEEL

NOTE: For detail of turnout post, see Drawing No. 7029.



HALF REAR ELEVATION

HALF FRONT ELEVATION

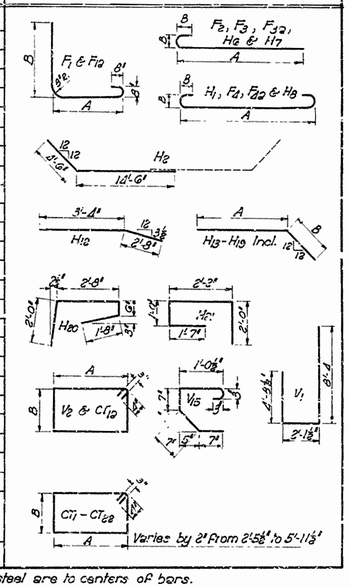


SECTION ON ℄ ROADWAY

LIST OF BENT BARS FOR ABUTMENTS NO. 1 AND 2 - EACH

MARK	SIZE	No. REQ'D PER ABUT. #1	#2	LENGTH	A	B
F1	1¼"□	12	—	21'-2"	11'-6"	9'-0"
F1a	1"□	—	10	15'-5"	5'-0"	9'-9"
F2	1¼"□	4	—	11'-6"	10'-6"	0'-8"
F3	1"□	18	—	8'-6"	7'-6"	0'-8"
F3a	1"□	—	8	8'-0"	7'-0"	0'-8"
H1	1"□	5	5	27'-4"	25'-4"	0'-8"
F4	¾"φ	24	—	17'-6"	13'-0"	0'-6"
F4a	¾"φ	—	18	9'-0"	7'-6"	0'-6"
H2	¾"φ	4	4	19'-0"	—	—
H3	¾"φ	6	8	13'-0"	12'-0"	0'-8"
H7	¾"φ	6	4	14'-0"	13'-6"	0'-4"
H8	⅝"φ	8	8	13'-6"	12'-8"	0'-4"
H12	⅝"φ	4	4	6'-0"	—	—
H13	"	4	4	8'-6"	6'-9"	1'-[illegible]
H14	"	2	2	10'-6"	8'-9"	1'-9"
H15	"	2	2	14'-6"	12'-9"	1'-9"
H16	"	2	2	12'-9"	10'-6"	1'-9"
H17	"	8	8	6'-3"	6'-6"	1'-9"
H18	"	4	4	3'-10"	4'-8"	1'-2"
H19	"	4	4	7'-9"	6'-2"	1'-7"
H20	"	4	4	6'-10"	—	—
H21	⅝"φ	10	10	6'-3"	—	—
V1	⅝"φ	20	20	15'-2"	—	—
V2	⅝"φ	35	35	8'-8"	2'-3⅝"	1'-8"
V15	⅝"φ	14	14	3'-2"	—	—
CT1 To CT22	⅝"φ	2 Each	—	Varies 10'-11" to 17'-11"	Varies 2'-5⅝" to 5'-11⅝"	2'-7⅝"
CT10	⅝"φ	—	10	11'-4"	3'-8"	2'-7⅝"

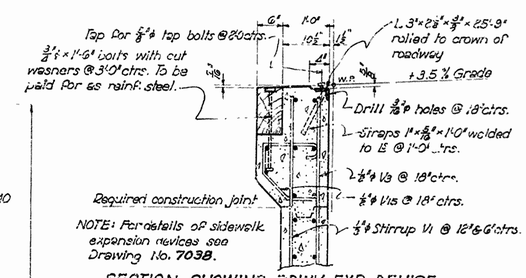
BENDING DIAGRAM



NOTE: Dimensions relating to reinforcing steel are to centers of bars.

LIST OF STRAIGHT BARS - EACH ABUT.

MARK	SIZE	NO. REQ'D PER ABUT. #1	#2	LENGTH
C1	1¼"□	12	—	30'-0"
C2	1"□	10	—	27'-4"
C3	1"□	8	—	25'-6"
F5	¾"φ	14	—	16'-0"
F5a	¾"φ	—	14	7'-6"
	⅝"φ	64	32	6'-0"
	¾"φ	14	14	25'-6"
H4	⅝"φ	11	11	29'-0"
H5	⅝"φ	1	1	30'-0"
H9	⅝"φ	2	2	6'-9"
H10	⅝"φ	8	8	8'-9"
H11	⅝"φ	4	4	3'-9"
V3	½"φ	17	17	5'-3"
V4	"	2	2	6'-0"
V5	"	2	2	4'-6"
V6	"	8	8	3'-0"
V7	"	4	4	6'-2"
V8	"	4	4	5'-8"
V9	"	4	4	4'-6"
V10	"	4	4	3'-8"
V11	"	4	4	2'-10"
V12	"	12	12	7'-4"
V13	"	10	10	4'-6"
V14	⅝"φ	4	4	3'-6"
H22	⅝"φ	2	2	5'-6"



NOTE: For details of sidewalk expansion devices see Drawing No. 7038.

SECTION SHOWING RDWY. EXP. DEVICE
Scale: ¾" = 1'-0"

GENERAL NOTES

All concrete to be Class "A" and shall be poured in the dry. All exposed corners to be chamfered ¾" unless otherwise noted.

Expansion devices to be paid for at the unit price bid for "Structural Steel in Beam Spans".

Toe of footings to be carried at least [illegible] inches into solid rock.

Maximum foundation pressure for Abut. No. 1 is 40 Tons/□'.

For details of turnout see Drawing No. 7029.

For details of superstructure see Drwg. Nos. 7038, 7039 & 7040.

DETAILS OF ABUTMENT NO. 1
BRIDGE OVER CROOKED CREEK AND MISSOURI PACIFIC RAILROAD
BELLFONTE-YELLVILLE ROAD
MARION COUNTY

ROUTE 62 SEC. 8

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

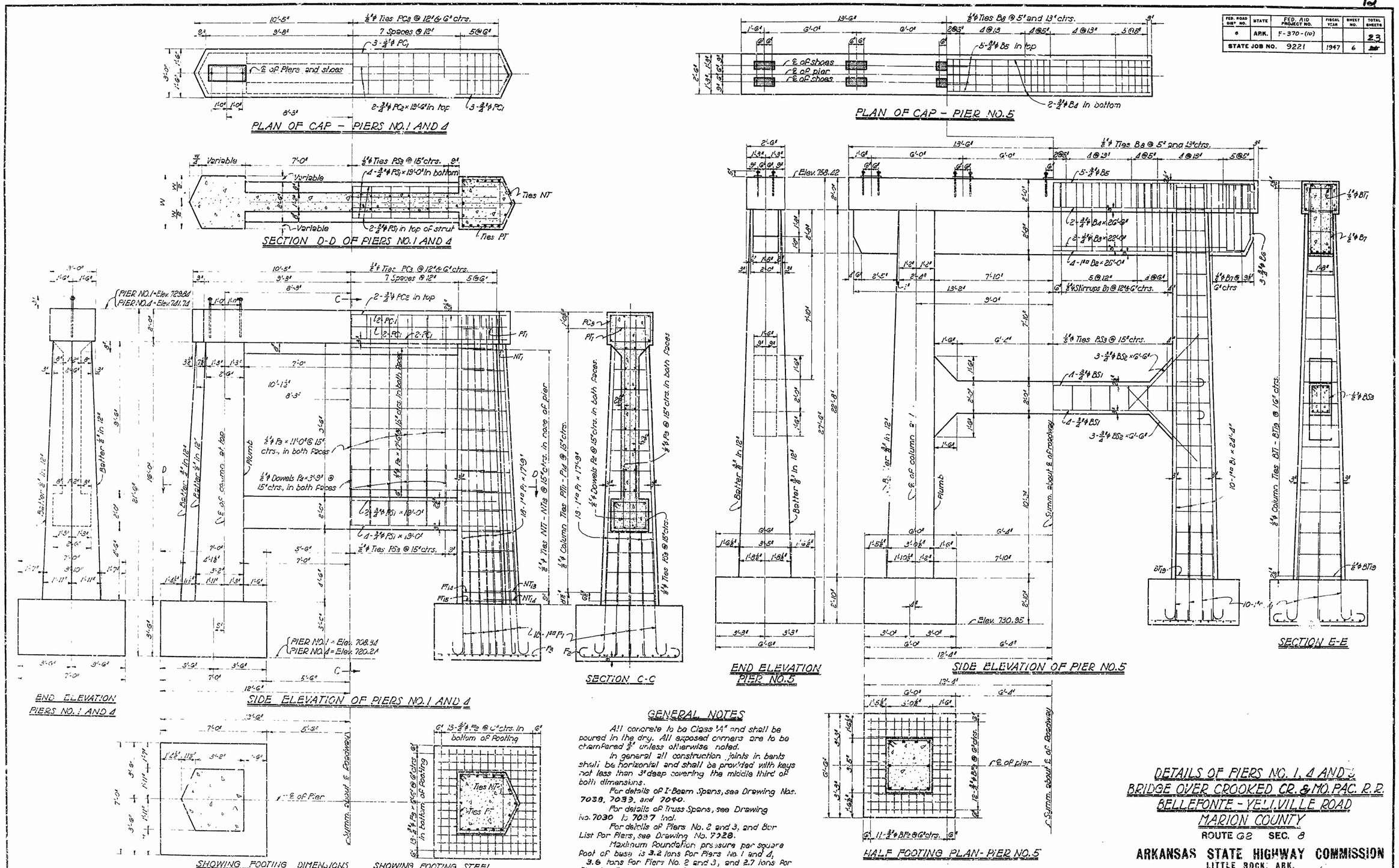
Drawn By: W.C.J. Date: 6-20-47
Traced By: R.B.S. Date: 6-25-47
Checked By: _____ Date: _____

Scale: ⅜ in. = 1 ft. EXCEPT AS NOTED

BRIDGE No. 2469 DRAWING No. 7026

M. B. Lewis
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

FED. ROAD DIST. NO.	STATE	FED. AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	F-370-(10)			23
STATE JOB NO. 9221			1947	6	



GENERAL NOTES

All concrete to be Class "A" and shall be poured in the dry. All exposed corners are to be chamfered ¾" unless otherwise noted.

In general all construction joints in bents shall be horizontal and shall be provided with keys not less than 3" deep covering the middle third of both dimensions.

For details of I-Beam Spans, see Drawing Nos. 7038, 7039, and 7040.

For details of Truss Spans, see Drawing No. 7030 to 7037 Incl.

For details of Piers No. 2 and 3, and Bar List for Piers, see Drawing No. 7028.

Maximum foundation pressure per square foot of base is 3.2 tons for Piers No. 1 and 4, 3.6 tons for Piers No. 2 and 3, and 2.7 tons for Pier No. 5.

DETAILS OF PIERS NO. 1, 4 AND 5
BRIDGE OVER CROOKED CR. & MO. PAC. R.R.
BELLEFONTE - YELLVILLE ROAD
MARION COUNTY

ROUTE 62 SEC. 8

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

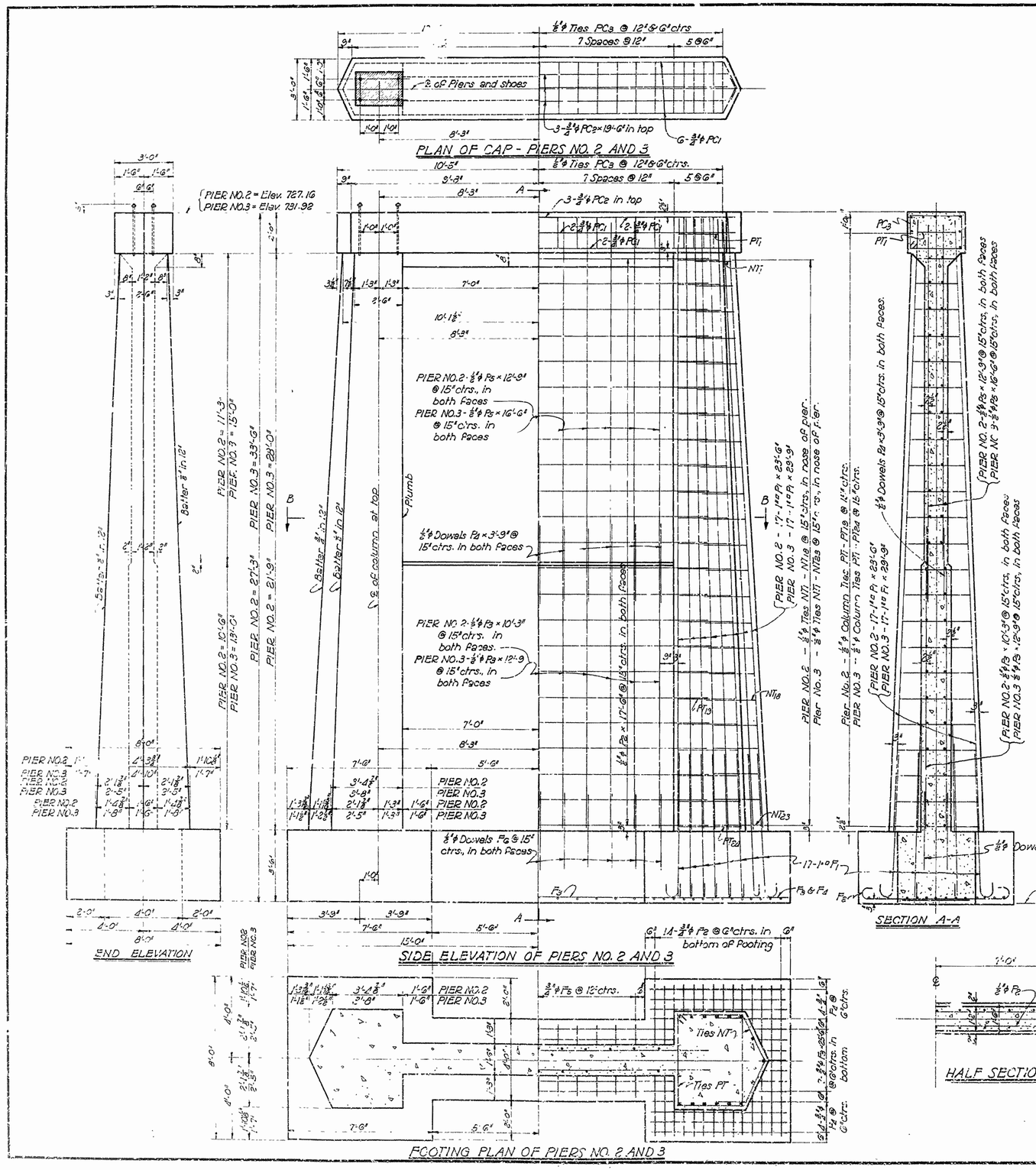
Drawn By: W.C.H. Date: 6-13-47
Traced By: [illegible] Date: 7-2-47
Checked By: _____ Date: _____

Scale: ¾ in. = 1 ft.

BRIDGE No. 2668 DRAWING No. 7027

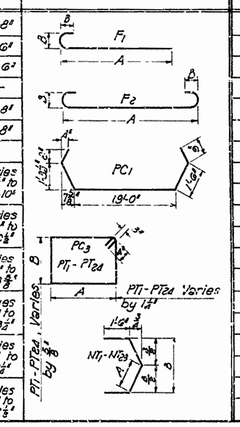
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

FED ROAD DIST. NO.	STATE	FED AID PROJECT NO.	FISCAL YEAR	SHEET NO	TOTAL SHEETS
6	ARK.	F-370-(10)			23
STATE JOB NO.		9221	1947	7	35



BAR LIST FOR PIERS NO. 1, 2, 3, AND 4

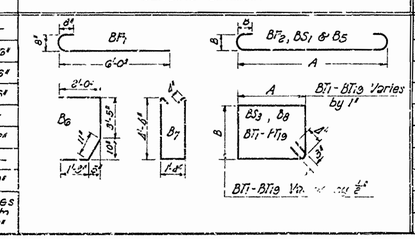
BENT BARS										STRAIGHT BARS					
MARK	SIZE	NO. REQ'D PER PIER: PIER NO.1	PIER NO.2	PIER NO.3	PIER NO.4	LENGTH	A	B	BENDING DIAGRAM	MARK	SIZE	NO. REQ'D. PER PIER: PIER NO.1	PIER NO.2	PIER NO.3	PIER NO.4	LENGTH
F_1	1" ⌀	36	34	34	36	8'-0"	7'-0"	0'-8"		P_1	1" ⌀	36	—	—	36	17'-9"
F_2	3/4" ⌀	26	—	—	26	8'-0"	6'-6"	0'-6"		P_1	1" ⌀	—	34	—	—	29'-6"
F_2	3/4" ⌀	—	28	28	—	9'-0"	7'-6"	0'-6"		P_1	1" ⌀	—	—	34	—	29'-9"
PC_1	3/4" ⌀	6	6	6	6	23'-6"	—	—		P_3	3/4" ⌀	26	—	—	26	6'-6"
PC_3	5/8" ⌀	25	25	25	25	9'-5"	2'-6"	1'-8"		P_3	3/4" ⌀	—	7	7	—	25'-6"
PS_2	1/2" ⌀	11	—	—	11	8'-5"	2'-2"	1'-8"		P_4	3/4" ⌀	—	16	16	—	7'-0"
										P_5	3/4" ⌀	—	11	11	—	3'-6"
PT_7 to PT_{15}	1/2" ⌀	2 Each	—	—	2 Each	Varies 9'-1" to 13'-5"	Varies 2'-0 3/8" to 3'-6 3/8"	Varies 2'-1 1/4" to 2'-10"		PC_2	3/4" ⌀	2	3	3	2	19'-6"
PT_7 to PT_{19}	1/2" ⌀	—	2 Each	—	—	Varies 3'-1" to 14'-6"	Varies 2'-0 3/8" to 2'-7 1/2"	Varies 2'-1 1/4" to 3'-0 3/8"		PS_1	3/4" ⌀	6	—	—	6	19'-0"
PT_7 to PT_{24}	1/2" ⌀	—	—	2 Each	—	Varies 9'-1" to 16'-3"	Varies 2'-0 3/8" to 4'-5 3/8"	Varies 2'-1 1/4" to 3'-3 3/8"		P_6	5/8" ⌀	—	22	22	—	3'-9"
NT_7 to NT_{14}	1/2" ⌀	2 Each	—	—	2 Each	Varies 5'-2" to 6'-6"	Varies 1'-1" to 1'-10"	Varies 1'-11" to 3'-3 1/2"		P_2	1/2" ⌀	16	36	46	16	17'-6"
NT_7 to NT_{18}	1/2" ⌀	—	2 Each	—	—	Varies 5'-2" to 7'-1 1/2"	Varies 1'-1" to 2'-0 3/4"	Varies 1'-1" to 3'-3 3/4"		P_3	5/8" ⌀	22	—	—	22	11'-0"
NT_7 to NT_{23}	1/2" ⌀	—	—	2 Each	—	Varies 5'-2" to 7'-9 3/8"	Varies 1'-1" to 2'-4 1/2"	Varies 1'-1" to 4'-2 1/2"		P_3	1/2" ⌀	—	22	—	—	10'-3"
										P_3	5/8" ⌀	—	—	22	—	12'-9"
										P_4	1/2" ⌀	22	22	22	22	3'-9"
										P_5	1/2" ⌀	—	22	—	—	12'-9"
										P_5	5/8" ⌀	—	—	22	—	16'-6"



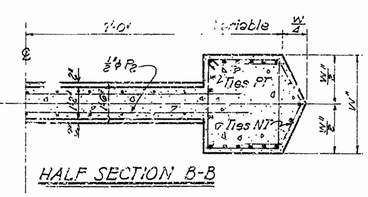
REINFORCING STEEL NOTE:- Dimensions relating to reinforcing steel are to centers of bars. Reinforcing steel to be deformed bars of structural or intermediate grade. Shop lists and bending diagrams must be submitted and approval secured before fabrication is begun.

BAR LIST FOR PIER NO. 5

BENT BARS							STRAIGHT BARS			
MARK	SIZE	NO. REQ'D.	LENGTH	A	B	BENDING DIAGRAM	MARK	SIZE	NO. REQ'D.	LENGTH
BF_1	1" ⌀	20	7'-0"	—	—		B_1	1" ⌀	20	22'-4"
BF_2	3/4" ⌀	22	7'-6"	6'-6"	0'-6"		B_2	1" ⌀	4	25'-0"
BS_1	3/4" ⌀	8	21'-6"	20'-0"	0'-6"					
B_5	3/4" ⌀	5	28'-0"	26'-6"	0'-6"		BF_3	3/4" ⌀	24	5'-6"
B_6	3/4" ⌀	6	7'-7"	—	—		BS_2	3/4" ⌀	16	6'-6"
BS_3	5/8" ⌀	13	6'-5"	1'-8"	1'-2"		B_3	5/8" ⌀	2	22'-0"
B_7	1/2" ⌀	30	10'-9"	—	—		B_4	5/8" ⌀	2	26'-6"
B_8	5/8" ⌀	39	8'-5"	2'-2"	1'-8"					
BT_7 to BT_{19}	1/2" ⌀	2 Each	Varies 7'-8" to 12'-2"	Varies 1'-6 3/8" to 3'-0 3/8"	Varies 1'-1" to 2'-3"					



NOTE: See Drawing No. 7027 for General Notes for Piers.



DETAILS OF PIERS NO. 2 & 3
BRIDGE OVER CROOKED CR. & MO. PAC. R. R.
BELLEFONTE - YELLVILLE ROAD
MARION COUNTY

ROUTE 62 SEC. 8

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

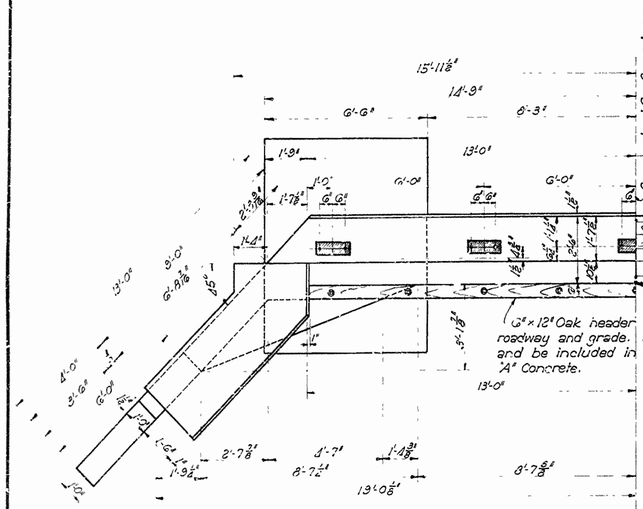
Drawn By: W.C.N. Date: 6-17-47
Traced By: B.B.S. Date: 7-7-47
Checked By: _____ Date: _____

Scale: 3/8 in. = 1 ft.

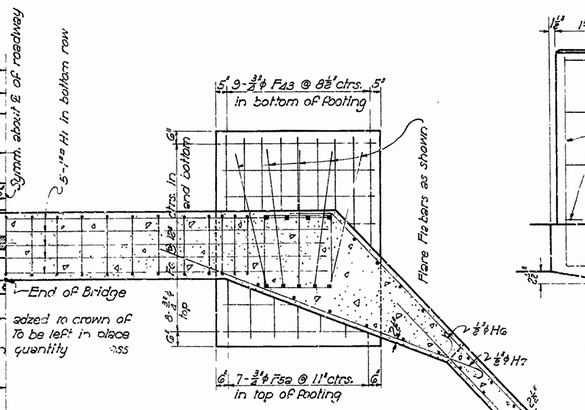
BRIDGE No. 2463 DRAWING No. 7028

PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

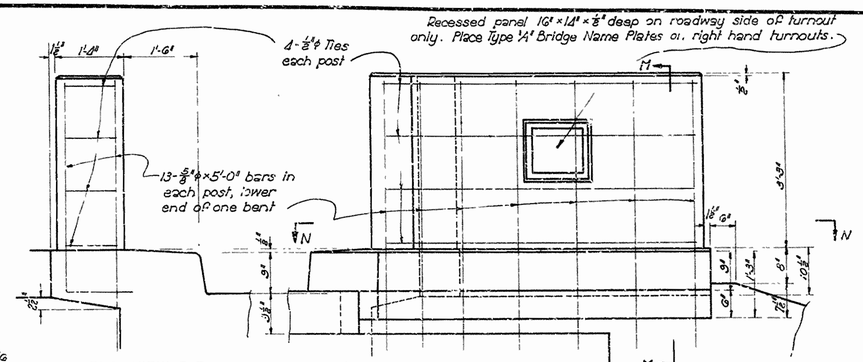
FED. ROAD DIST. NO.	STATE	FED. AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	F-370-(10)			23
STATE JOB NO. 9221			1947	8	25



HALF DIMENSIONED PLAN

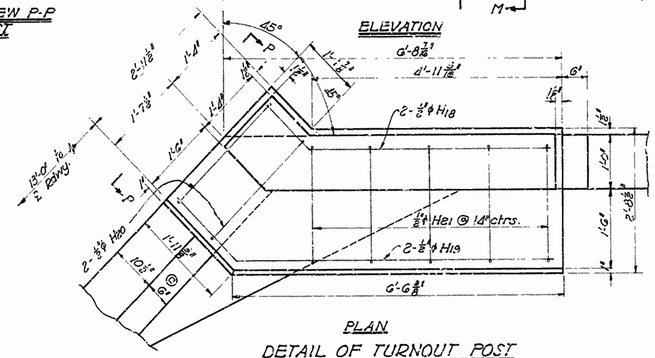


SECTION SHOWING REINFORCING STEEL



END VIEW P-P OF POST

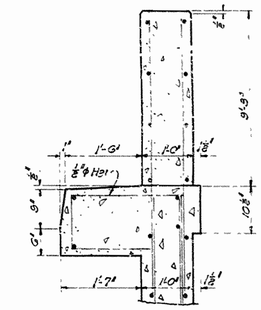
ELEVATION



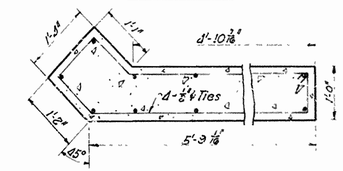
PLAN

DETAIL OF TURNOUT POST

Scale: ¾" = 1'-0"

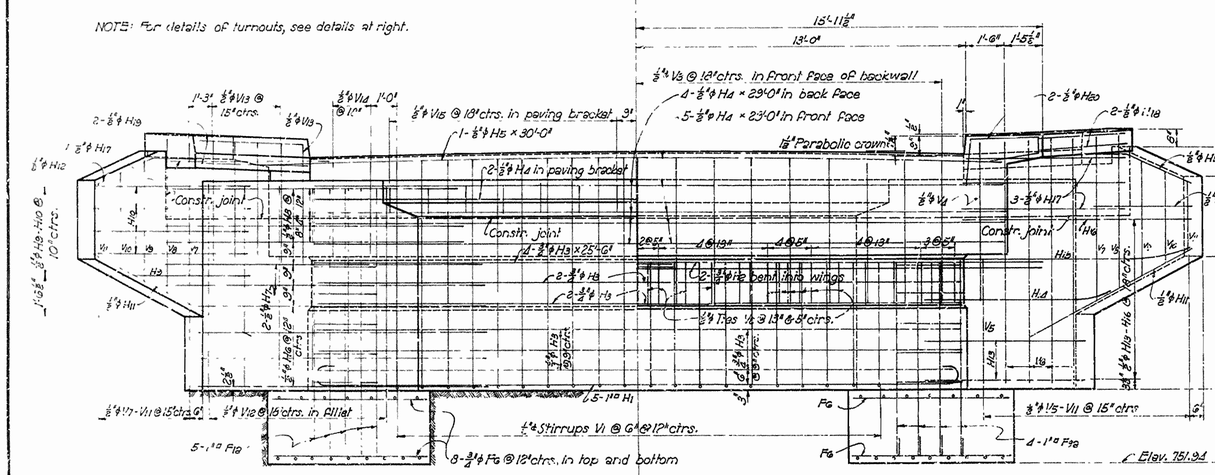


SECTION M-M



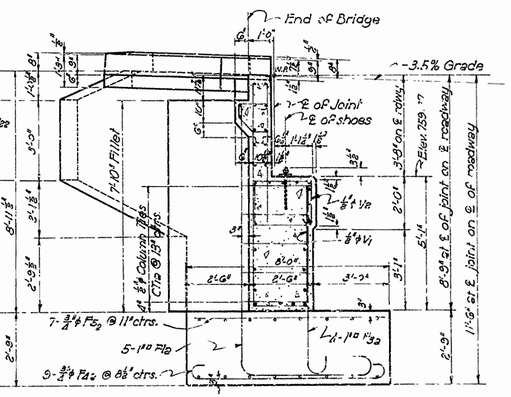
SECTION N-N

NOTE: For details of turnouts, see details at right.

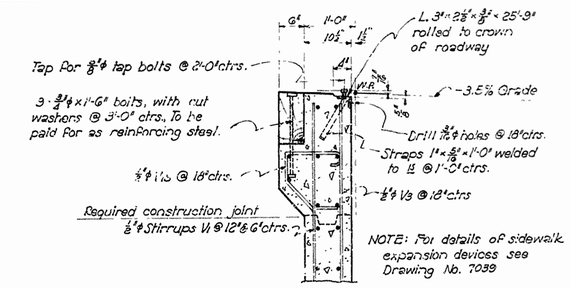


HALF REAR ELEVATION

HALF FRONT ELEVATION



SECTION ON ℄ ROADWAY



SECTION SHOWING RDWY. EXP. DEVICE

Scale: ¾" = 1'-0"

GENERAL NOTES

All concrete to be Class "A" and shall be poured in the dry. All exposed corners to be chamfered ¾" unless otherwise noted.

Expansion devices to be paid for at the unit price bid for Structural Steel in Beam Spans.

Toe of Footings to be carried at least 6 inches into solid rock.

Maximum foundation pressure for Abutment No. 2 is 3.3 Tons/□'

For Bar List for Abutment No. 2, see Drawing No. **7026**.

For details of superstructure, see Drawing Nos. **7038, 7039,** and **7040**.

The concrete turnout posts shall be paid for at the unit price bid per linear foot for Concrete and Structural Steel Railing.

M. D. Garner
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

DETAILS OF ABUTMENT NO. 2 BRIDGE OVER CROOKED CREEK AND MISSOURI PACIFIC RAILROAD BELLEFONTE-YELLVILLE ROAD MARION COUNTY

ROUTE 62 SEC. 8

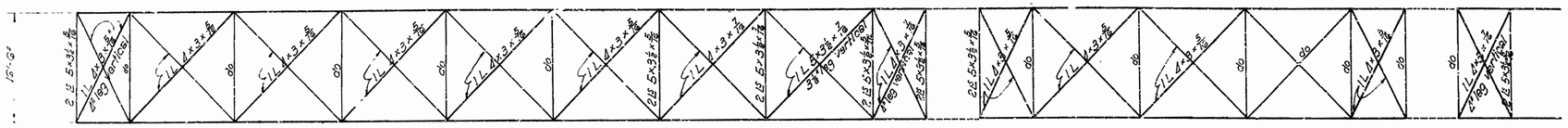
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

Drawn. By: W.C.M. Date: 6-21-47
Traced By: B.L.S. Date: 6-28-47
Checked By: Date:

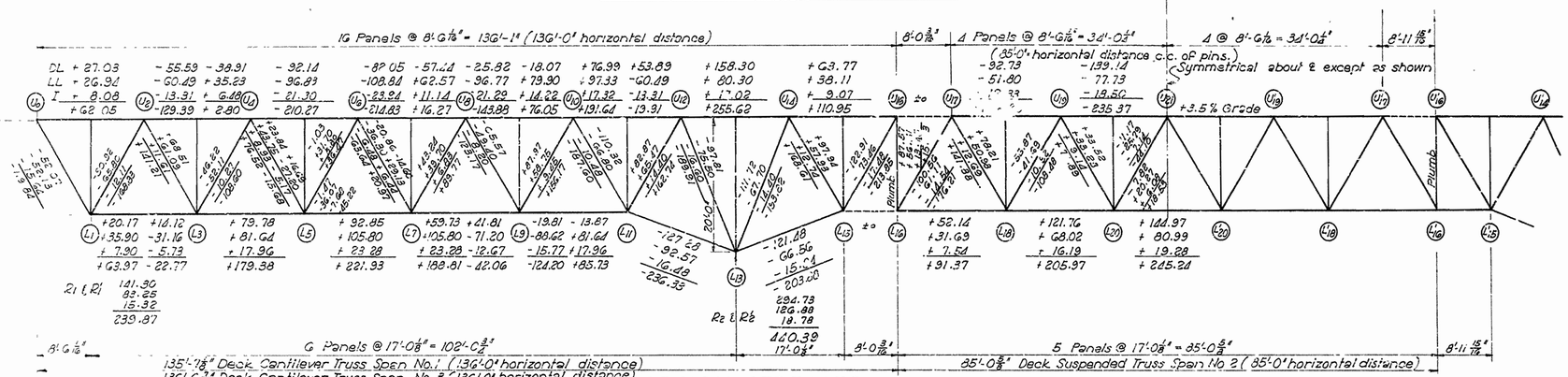
Scale: ⅜ in. = 1 ft. Except as noted

BRIDGE No. 2469 DRAWING No. 7029

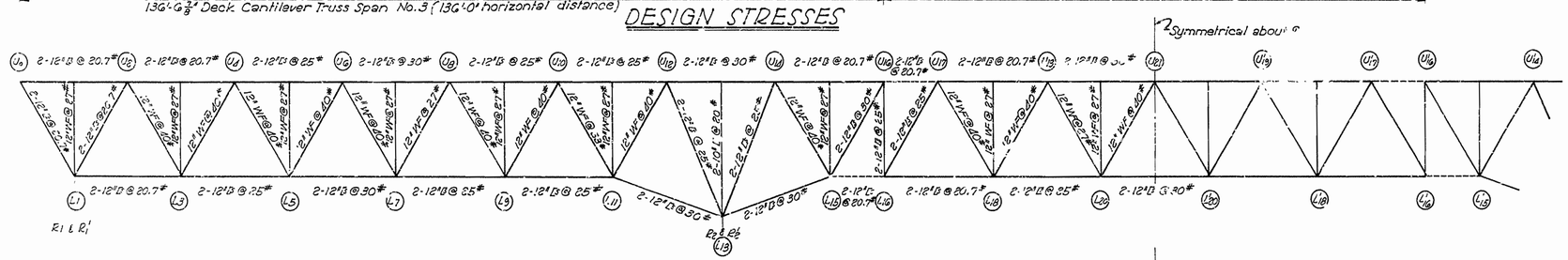
FED ROAD DIST. NO.	STATE	FED AID PROJECT NO.	F.SCAL. YL/P	SHEET NO.	TOTAL SHEETS
6	ARK.	F-370-(10)			25
STATE JOB NO. 9221			1:97	9	



TOP CHORD LATERAL BRACING

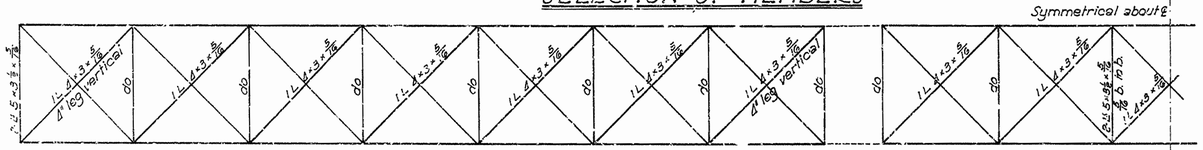


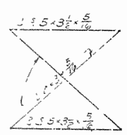
DESIGN STRESSES



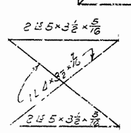
CROSS FRAME AT U16-L16 & U15-L15

SELECTION OF MEMBERS

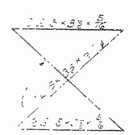




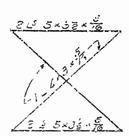
TYPICAL INTERMEDIATE CROSS FRAME



HANGER CROSS FRAME AT U16-L16 & U16'-L16

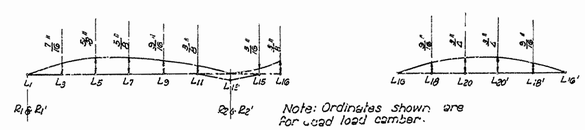


CROSS FRAME AT U17-L17 & U17'-L17



PORTAL CROSS FRAME AT U18-U17 & U17'-U16

BOTTOM CHORD LATERAL BRACING



CANTILEVER TRUSS SPANS — SUSPENDED SPAN

CAMBER BLOCKING DIAGRAMS

Note: Ordinates shown are for dead load camber.

GENERAL NOTES

Concrete Deck: All concrete in roadway slab, sidewalk slab, rail post and brackets to be Class "S". All exposed corners to be chamfered 3/4" unless otherwise noted.

Rivets: In truss members, floor beams, cross frames and lateral bracing, use 3/4" ϕ; in handrail use 5/8" ϕ. Use machine bolts where bolts are indicated, unless otherwise noted.

Holes: All holes, unless otherwise noted, shall be subpunched to a 3/16" less diameter than nominal size of rivet, and reamed to a diameter 1/16" larger than nominal size of rivet.

Camber: Trusses shall be cambered to compensate for deflection due to dead load.

Shop Paint: All parts which come in contact shall be painted one coat of red lead and raw linseed oil before they are riveted together. When assembled and after all shop work has been completed, all steel shall be given one coat of red lead and raw linseed oil before shipment.

Field Paint: 1st coat, white lead. 2nd coat, aluminum paint.

Shapes with equal or greater section may be substituted for those shown. Payment, however, will be based upon the the shapes shown or actually used, whichever is the lesser.

All welded connections to have 5/16" fillet shop welds, except as noted. Welding to be by the electric arc process.

This drawing shows general features of design only. Shop drawings shall be made in accordance with the specifications, and shall be submitted and approved before fabrication is begun.

Specifications: Arkansas State Highway Commission Standard Specifications for Road and Bridge Construction adopted March 1, 1940.

Design Live Load - H-20 Loading A.A.S.H.O. 1944

Unit Stresses:

Class "S" Concrete (n=10)	1000 Lbs./sq. in.
Reinforcing Steel	18,000 Lbs./sq. in.
Structural Steel	18,000 Lbs./sq. in.

FLOOR BEAM DATA

	Positive	Negative
Dead Load Moment	369,040'#	358,640'#
Live Load Moment	1,292,160'#	528,000'#
30% Impact	387,648'#	158,400'#
Totals	1,718,760'#	1,046,040'#

Section Modulus required = 95.5

Use 18"CB @ 55 #, Section Modulus = 98.2

N. O. Garner
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

DESIGN STRESSES
SELECTION OF MEMBERS & GENERAL NOTES
FOR DECK TRUSS SPANS
BRIDGE OVER CROOKED CREEK & MO. PAC. R.R.
BELLFONTE - YELLVILLE ROAD
MARION COUNTY

ROUTE 62 SEC. 8

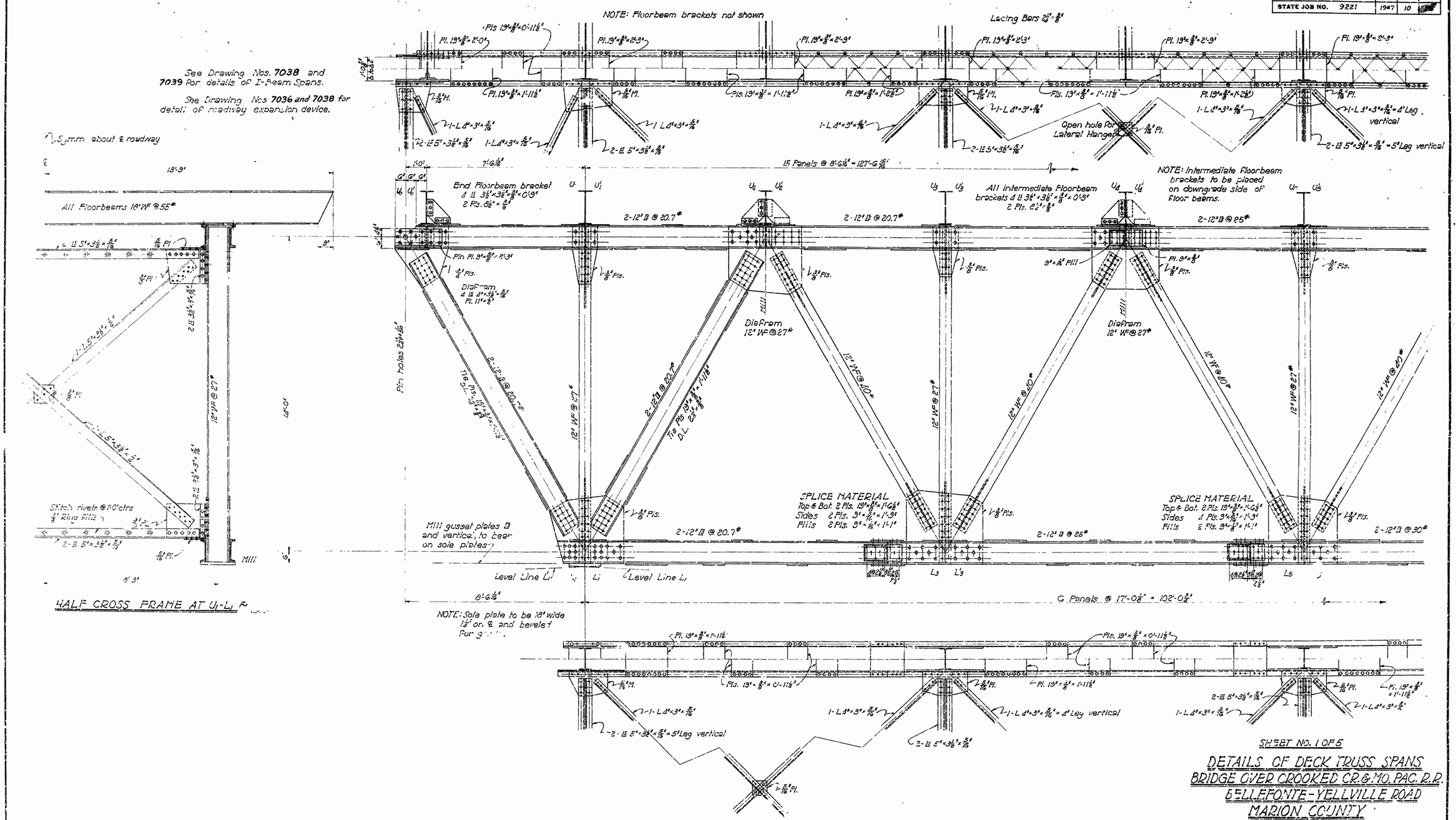
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

Drawn By: H.B. Date: 5-21-47
Traced By: B.B.S. Date: 6-5-47
Checked By: _____ Date: _____

Scale: 1 in. = 10 ft.

BRIDGE No. 2469 DRAWING No. 7030

FED. ROAD DIST. NO.	STATE	FED. AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	ARK.	F-370-(10)			23
STATE JOB NO.		9221	1947	10	



SHEET NO. 1 OF 5

DETAILS OF DECK TRUSS SPANS
BRIDGE OVER CROOKED CR. & MO. PAC. R.R.
BELLEFONTE-YELLVILLE ROAD
MARION COUNTY

ROUTE SEC.

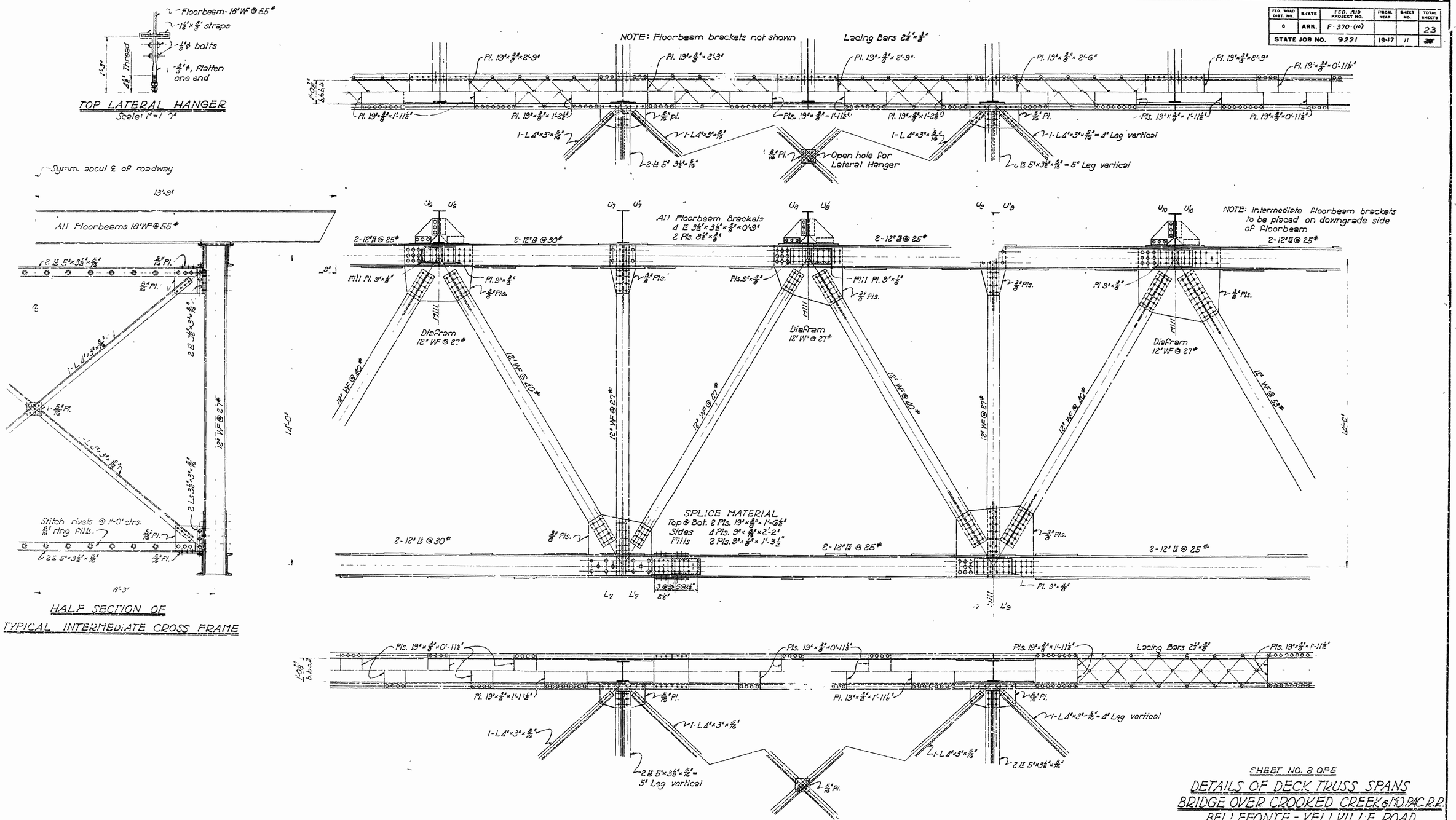
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

Drawn by: W.O.H. Date: 5-22-47
Traced By: S.B.S. Date: 6-9-47
Checked By: _____ Date: _____
Scale: ½" in. = 1'-0" in.

W. G. Carver
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

BRIDGE No. 2469 DRAWING No. 7031

FED. ROAD DIST. NO.	STATE	FED. AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	ARK.	F-370-(18)			23
STATE JOB NO.		9221	1947	11	



Revisions:- Splice - L_7-L_8 & L'_7-L'_8. W.C.H. 8-22-47.

SHEET NO. 2 OF 5

DETAILS OF DECK TRUSS SPANS
BRIDGE OVER CROOKED CREEK & MO. PAC. R.R.
BELLEFONTE - VELLVILLE ROAD
MARION COUNTY

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

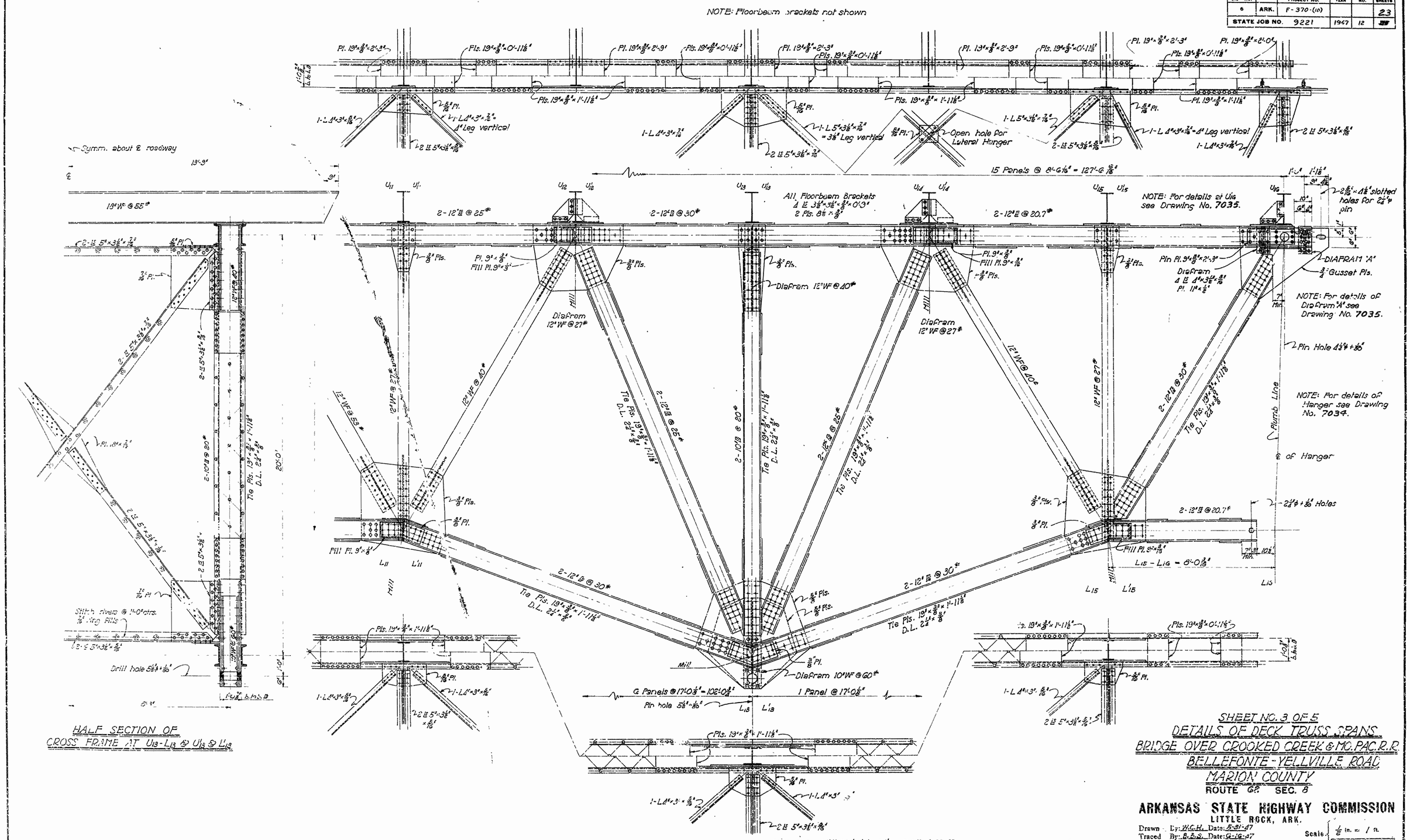
Drawn By: W.C.H. Date: 5-20-47
Traced By: B.B.S. Date: 6-12-47
Checked By: _____ Date: _____

Scale: ½ in. = 1 ft. Except As Shown.

BRIDGE No. 2469 DRAWING No. 7032

N. C. Garver
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

FED. ROAD DIST. NO.	STATE	FED. AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	F-370-(10)			23
STATE JOB NO. 9221			1947	12	



SHEET NO. 3 OF 5

DETAILS OF DECK TRUSS SPANS

BRIDGE OVER CROOKED CREEK & MO. PAC. R.R.

BELLEFONTE - YELLVILLE ROAD

MARION COUNTY

ROUTE 62 SEC. 8

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

Drawn By: W.C.H. Date: 5-31-47
Traced By: R.S.S. Date: 6-16-47
Checked By: _____ Date: _____

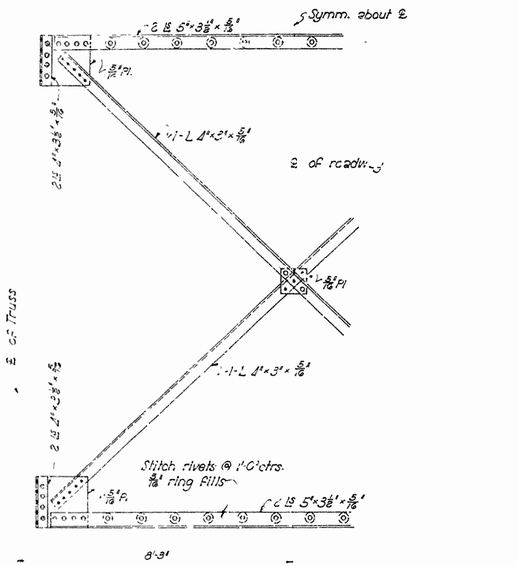
Scale: 1/2 in. = 1 ft.

PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

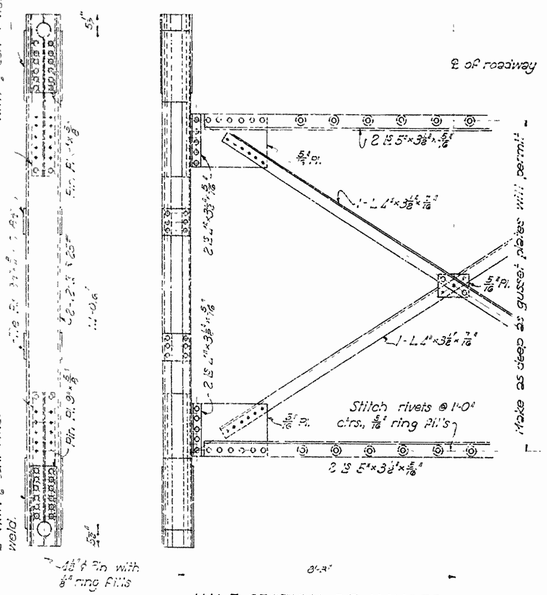
BRIDGE No. 2469

DRAWING No. 7033

FED. ROAD DIST. NO.	STATE	FED. AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK	F-370-(10)			23
STATE JOB NO.		9221	1947	13	

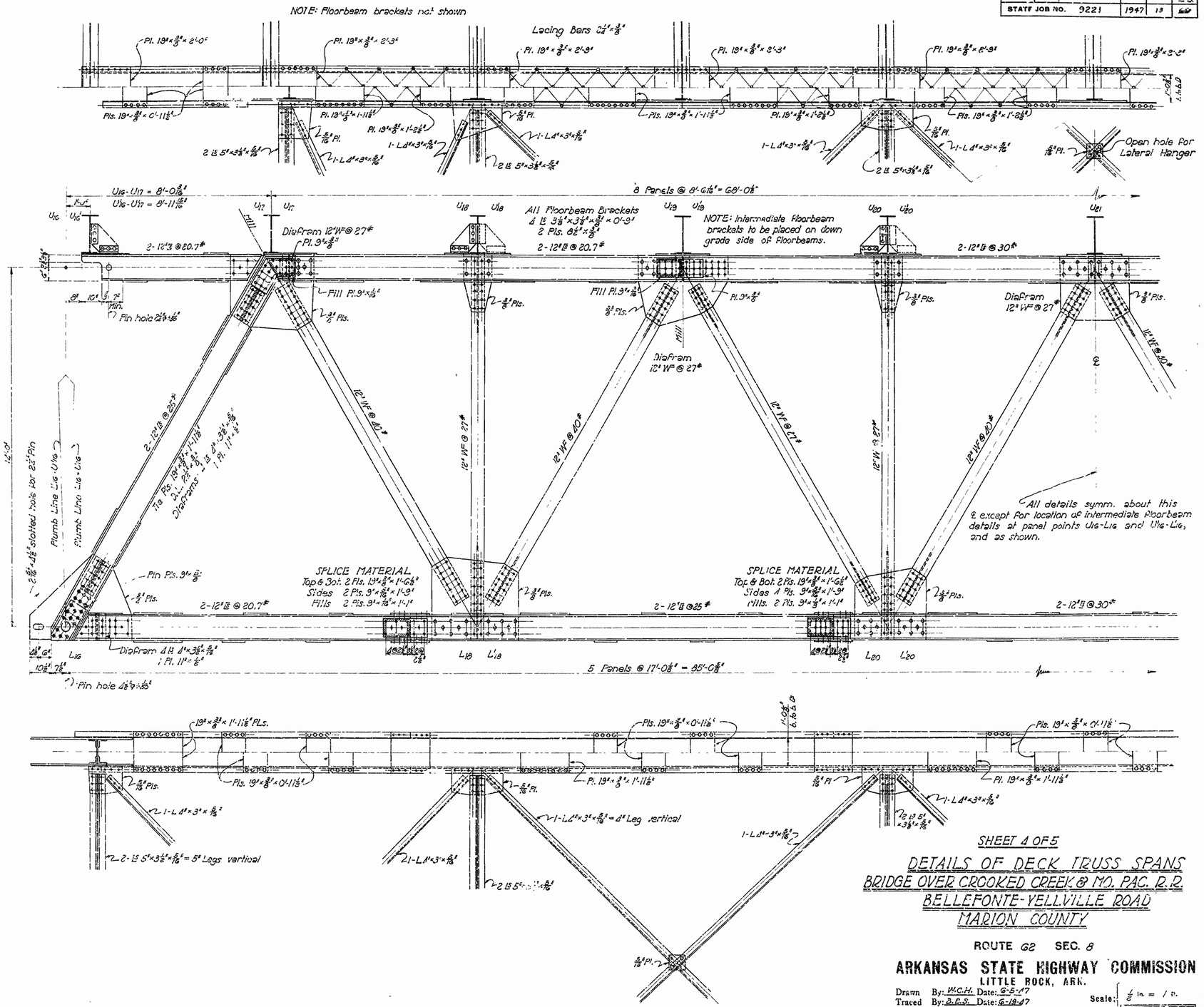


HALF PORTAL CROSS FRAME
AT L_{16}-U_{17} AND L'_{16}-U'_{17}



HALF SECTION OF HANGER
CROSS FRAME AT U_{16}-L_{16}

NOTE: Weld edges of pin plates and diaphram flanges outside pin hole with ⅝" cont. fillet welds.



SHEET 4 OF 5

DETAILS OF DECK TRUSS SPANS
BRIDGE OVER CROOKED CREEK & MO. PAC. R.R.
BELLEFONTE-YELLVILLE ROAD
MARION COUNTY

ROUTE 62 SEC. 8

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

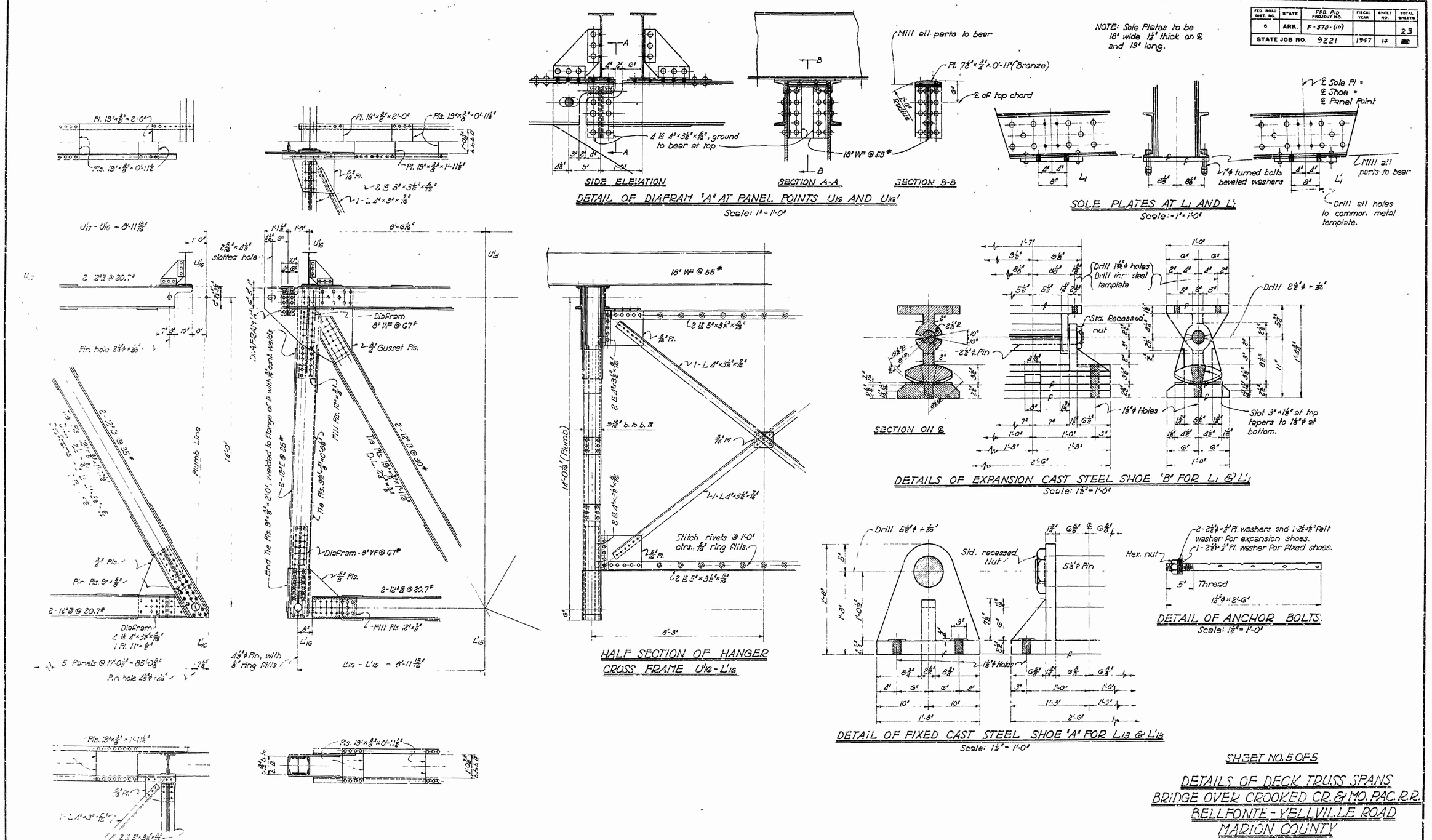
Drawn By: W.C.H. Date: 6-5-47
Traced By: B.P.S. Date: 6-18-47
Checked By: _____ Date: _____
Scale: ⅛ in. = 1 ft.

BRIDGE No. 2209 DRAWING No. 7034

N. B. Garver
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

FED. ROAD DIST. NO.	STATE	FED. AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	F-370-(10)			23
STATE JOB NO. 9221			1947	14	

NOTE: Sole Plates to be 18" wide 1¼" thick on ℄ and 19" long.



SHEET NO. 5 OF 5

DETAILS OF DECK TRUSS SPANS
BRIDGE OVER CROOKED CR. & MO. PAC. R.R.
BELLFONTE - YELLVILLE ROAD
MARION COUNTY

ROUTE 62 SEC. 8

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

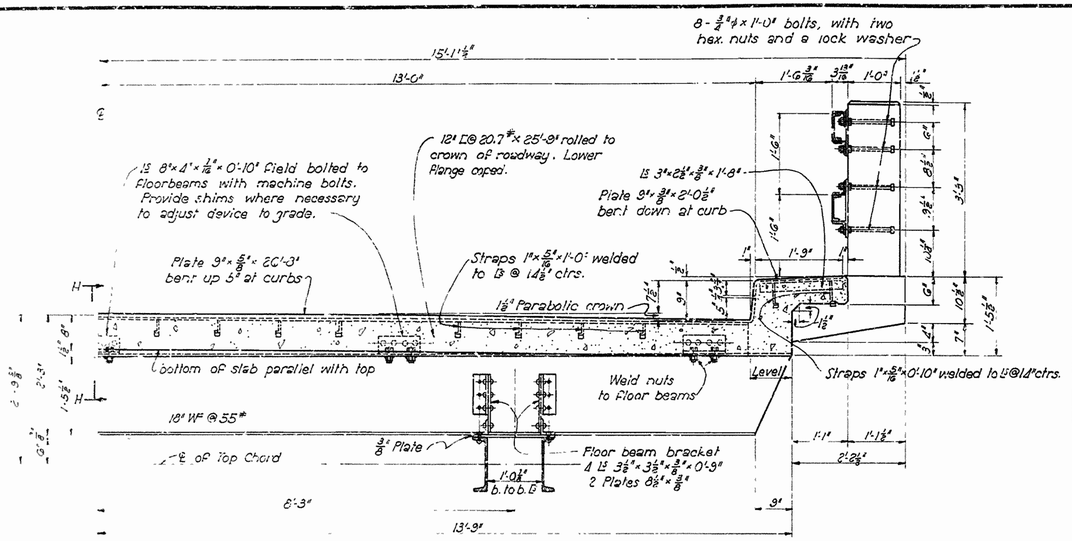
Drawn By: W.C.H. Date: 6-14-47
Traced By: B.B.S. Date: 6-23-47
Checked By: _____ Date: _____

Scale: ½" in. = 1 ft. EXCEPT AS NOTED

BRIDGE No. 2469 DRAWING No. 7035

N. B. Garver
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

FED. ROAD DIST. NO.	STATE	FED. AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	F-370-(10)			23
STATE JOB NO. 9221			1947	15	

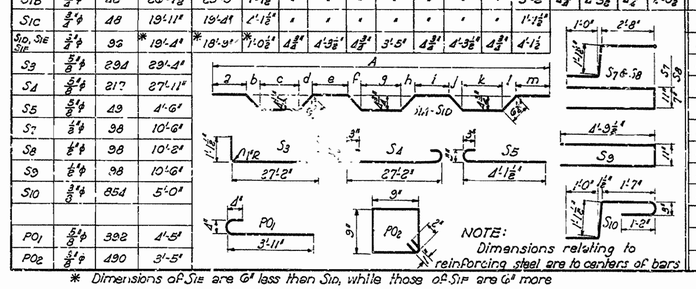


HALF SECTION E-E AT EXPANSION JOINTS

BAR LIST FOR TRUSS SPANS

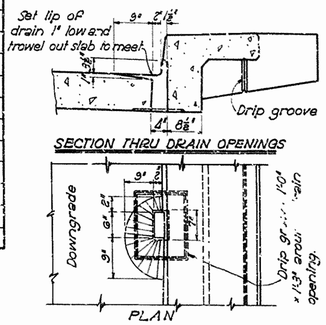
BENT BARS				BENDING DIAGRAM														
MARK	SIZE	NO. REQ'D	LENGTH	A	a	b	c	d	e	f	g	h	i	j	k	l	m
S1A	3/4"φ	192	31'-2 1/8"	30'-4"	4'-1 1/8"	4 1/8"	4'-3 1/8"	1 1/8"	3'-5"	4 1/8"	4'-3 1/8"	4 1/8"	3'-5"	4 1/8"	4'-3 1/8"	4 1/8"	4'-1 1/8"
S1B	3/4"φ	48	20'-7 1/8"	25'-9"	1'-1 1/8"	"	"	"	"	"	"	"	3'-5"	4 1/8"	4'-3 1/8"	4 1/8"	2'-0 1/8"
S1C	3/4"φ	48	19'-11"	19'-4"	2'-1 1/8"	"	"	"	"	"	"	"	1'-1 1/8"				
S1D, S1E	3/4"φ	96	* 18'-4"	* 18'-9"	* 1'-0 1/8"	4 1/8"	4'-3 1/8"	4 1/8"	3'-5"	4 1/8"	4'-3 1/8"	4 1/8"	4'-1 1/8"				
S3	3/4"φ	284	29'-4"														
S4	3/4"φ	217	27'-11"														
S5	3/4"φ	49	14'-6"														
S7	3/4"φ	98	10'-6"														
S8	3/4"φ	98	10'-2"														
S9	3/4"φ	98	10'-6"														
S10	3/4"φ	854	5'-0"														
P01	3/4"φ	392	4'-8"														
P02	3/4"φ	490	3'-5"														

STRAIGHT BARS			
MARK	SIZE	NO. REQ'D	LENGTH
S2A	3/4"φ	403	28'-0"
S2B	3/4"φ	124	25'-9"
S2C	3/4"φ	62	18'-6"
S2D	3/4"φ	124	17'-8"
S2E	3/4"φ	124	30'-4"
S2F	3/4"φ	62	30'-10"
SGA	1/2"φ	32	27'-3"
SGB	1/2"φ	8	25'-8"
SGC	1/2"φ	8	17'-9"
SGD	1/2"φ	16	17'-2"



* Dimensions of S1E are 6" less than S1D, while those of S1F are 6" more

NOTE: Place drain openings on each side of roadway at center of panel in every other panel beginning with panel 0-1 and ending with panel 2'-1'.



DETAIL OF DRAIN OPENING

GENERAL NOTES

All concrete to be Class "S". All exposed corners to be chamfered 3/4" unless otherwise noted.

Reinforcing steel to be deformed bars of structural or intermediate grade. Shop lists and bending diagrams must be submitted and approval secured before fabrication is begun.

All reinforcing steel shall be accurately located in the forms and firmly held in place by means of steel wire supports, sufficient in number and size to prevent displacement during the course of construction and to keep the steel a proper distance from the forms.

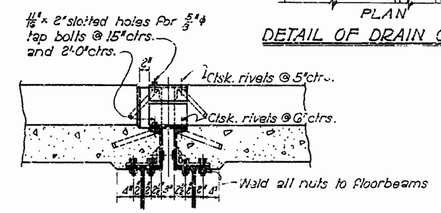
Wire supports will not be paid for directly but will be considered subsidiary to the item of "reinforcing steel". Shop lists and diagrams of type to be used must be submitted for approval.

Rivets: 3/4"φ. Open holes: 13/16"φ. Where bolts are indicated, use machine bolts. All welded connections to be 5/16" shop fillet welds unless otherwise noted.

DESIGN LIVE LOAD: H-20 LOADING A.A.S.H.O. 1944

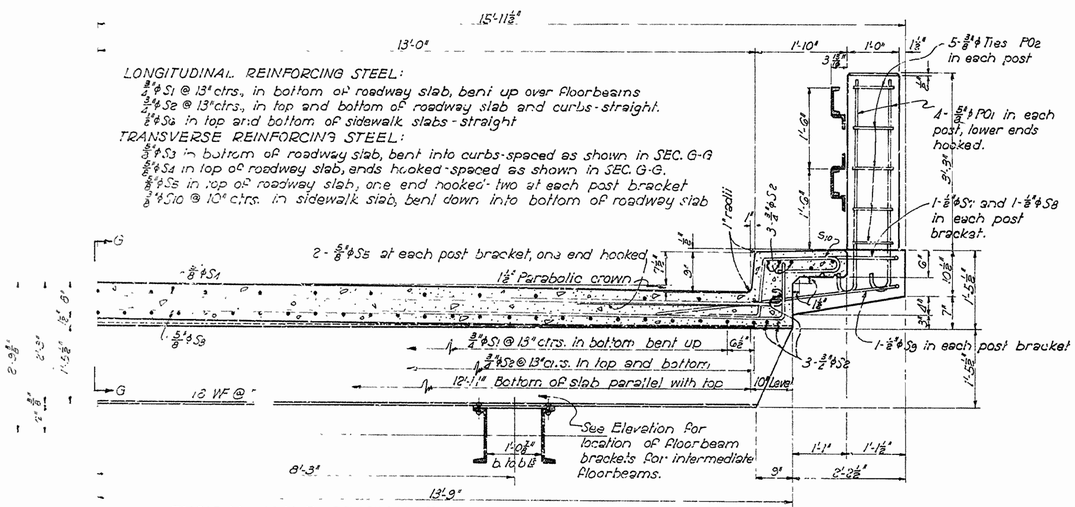
UNIT STRESSES:

Class "S" Concrete (n=10)	1000#/□"
Reinforcing Steel	18000#/□"
Structural Steel	18000#/□"

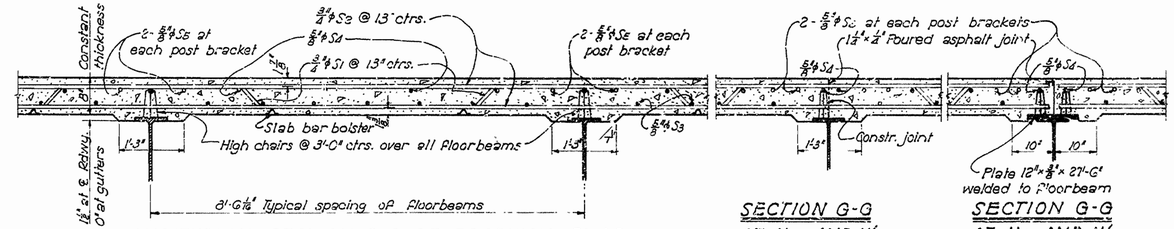


SECTION H-H SHOWING DECK EXPANSION DEVICE AT PANEL POINTS U16 & U16

NOTE: For expansion devices at U0, see Drawing No. 7038 and at U0, see Drawing No. 7039.



TYPICAL HALF SECTION F-F OF DECK

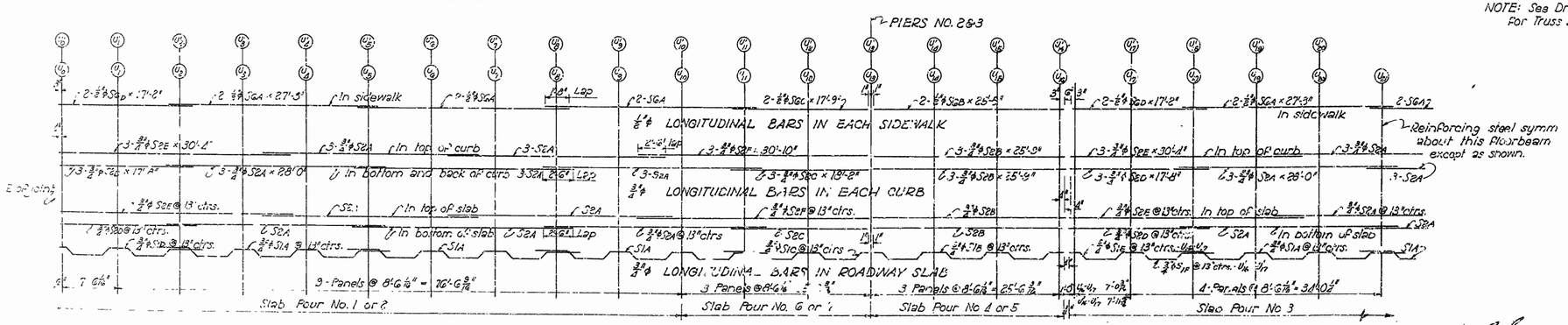


LONGITUDINAL SECTION G-G OF ROADWAY SLAB

SECTION G-G AT U10 AND U16

SECTION G-G AT U13 AND U13

NOTE: See Drawing No. 7037 for Elevation and details of hand rail for Truss Spans



LAYOUT OF LONGITUDINAL SLAB BARS & SLAB POURING SEQUENCE

TYPICAL DECK DETAILS FOR DECK CANTILEVER TRUSS SPANS BRIDGE OVER CROOKED CREEK AND MISSOURI PACIFIC RAILROAD BELLEFONTE-YELLVILLE ROAD MARION COUNTY

ROUTE 62 SEC. 8

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

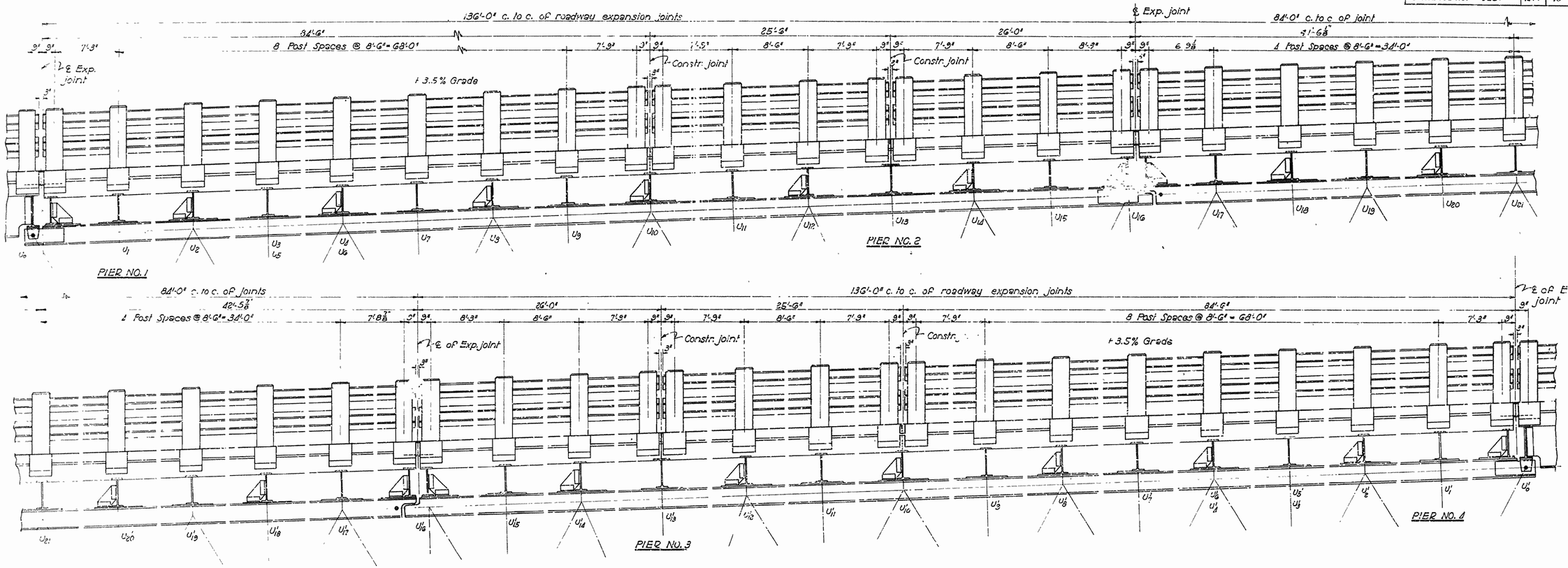
Drawn By: W.G.H. Date: 5-19-47
Traced By: B.B.W. Date: 6-3-47
Checked By: _____ Date: _____

Scale: 3/4 in. = 1 ft.

BRIDGE No. 2469 DRAWING No. 7036

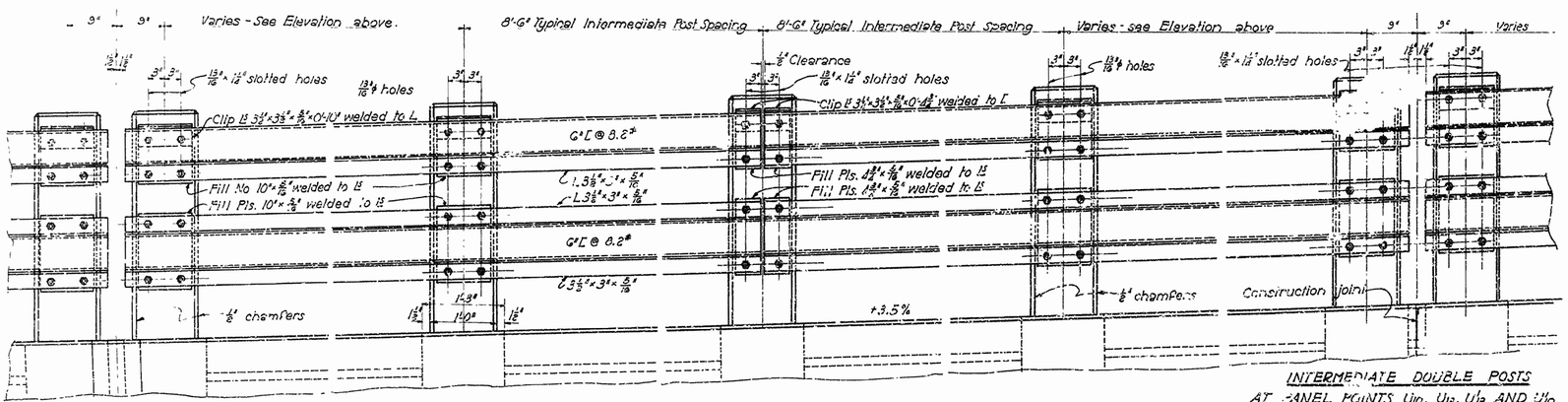
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

FED. ROAD DIST. NO.	STATE	FED. AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	F-370-(10)			23
STATE JOB NO.	9221		1947	16	



SIDE ELEVATION OF TRUSS SPANS – SHOWING RAIL POST SPACING AND LOCATION OF FLOORBEAM BRACKETS

Scale: 3/8" = 1'-0"



INSIDE ELEVATION OF HANDRAIL

Scale: 1" = 1'-0"

HANDRAIL NOTES

The concrete rail posts and structural steel rail members shall be paid for at the unit price bid per linear foot for "Concrete and Structural Steel Railing."

Handrail members shall extend over two panels, except between construction joints or double posts when members shall extend over three panels.

All horizontal lines of handrail to be parallel to the finished grade. All vertical lines shall be plumb in their final position, except sides of post bracket adjacent to roadway expansion joints.

DETAILS OF HANDRAILS FOR DECK CANTILEVER TRUSS SPANS BRIDGE OVER CROOKED CREEK AND MISSOURI PACIFIC RAILROAD BELLFONTE - YELLVILLE ROAD MARION COUNTY

ROUTE 62 SEC. 6

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

Drawn By: W.C.H. Date: 6-17-47
Traced By: B.H.S. Date: 6-23-47
Checked By: ____ Date: ____

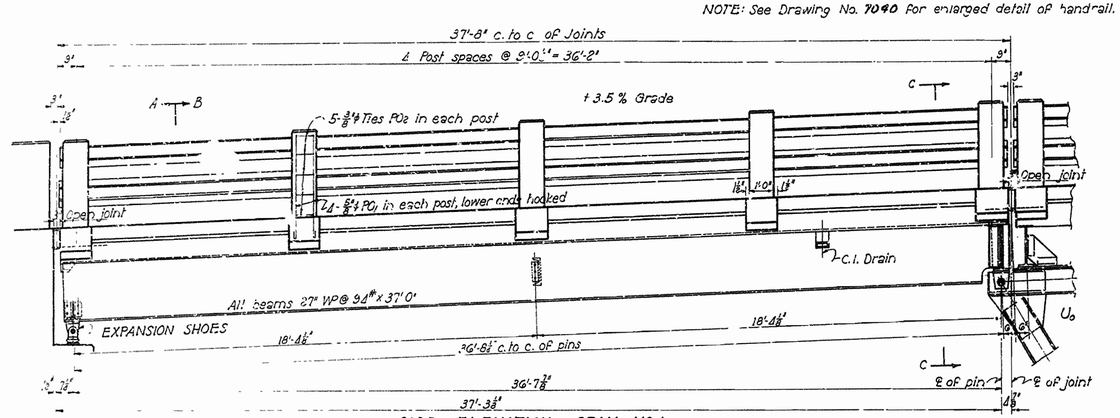
Scale: AS SHOWN

BRIDGE No. 2469 DRAWING No. 7037

N. D. Garner
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

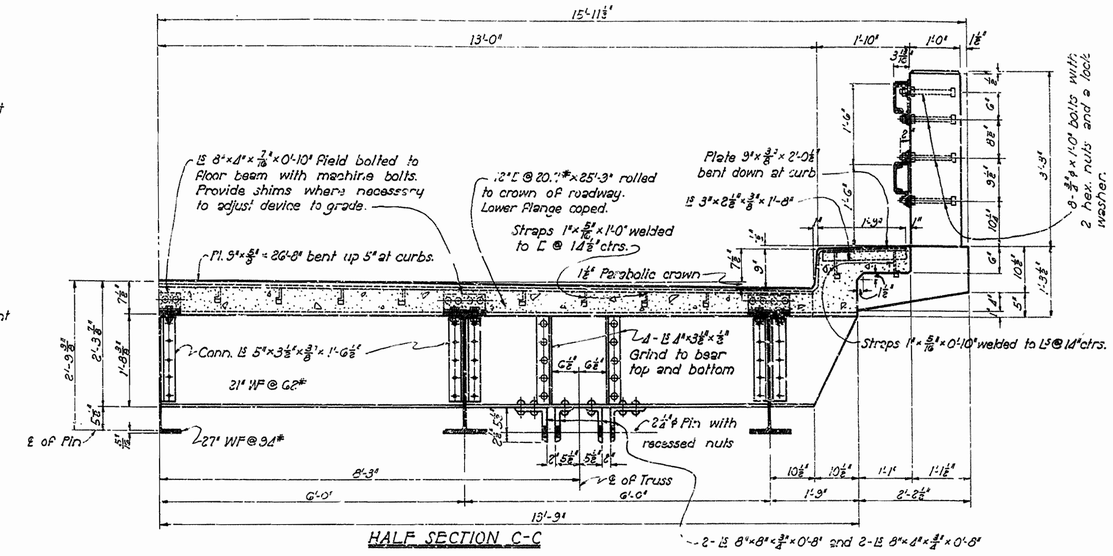
FED. ROAD DIST. NO.	STATE	FED. AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	ARK	F-370-(10)			23
STATE JOB NO.		9221	1947	17	

NOTE: See Drawing No. 7040 for enlarged detail of handrail.

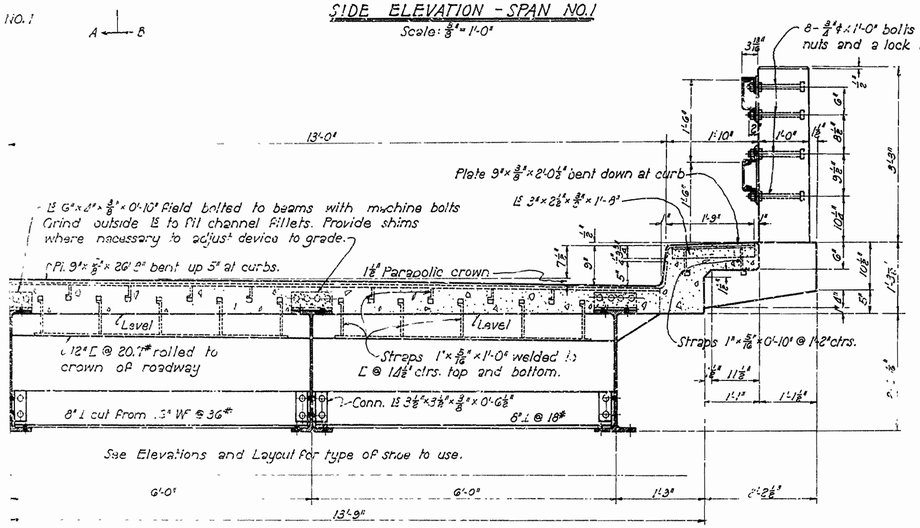


SIDE ELEVATION - SPAN NO. 1

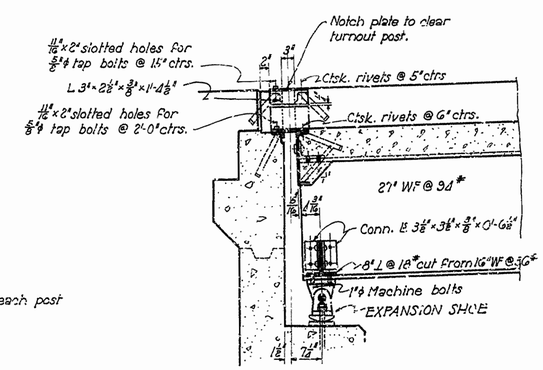
Scale: 3/8" = 1'-0"



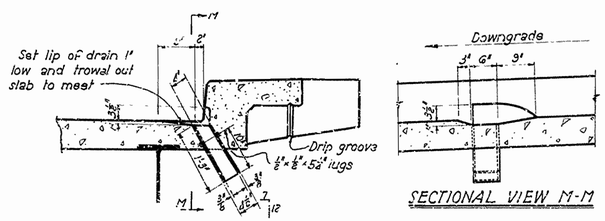
HALF SECTION C-C



HALF SECTION A-A & D-D

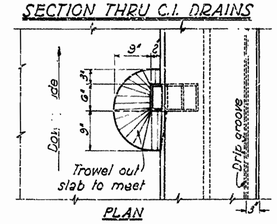


EXPANSION DETAILS AT ABUTMENT NO. 1



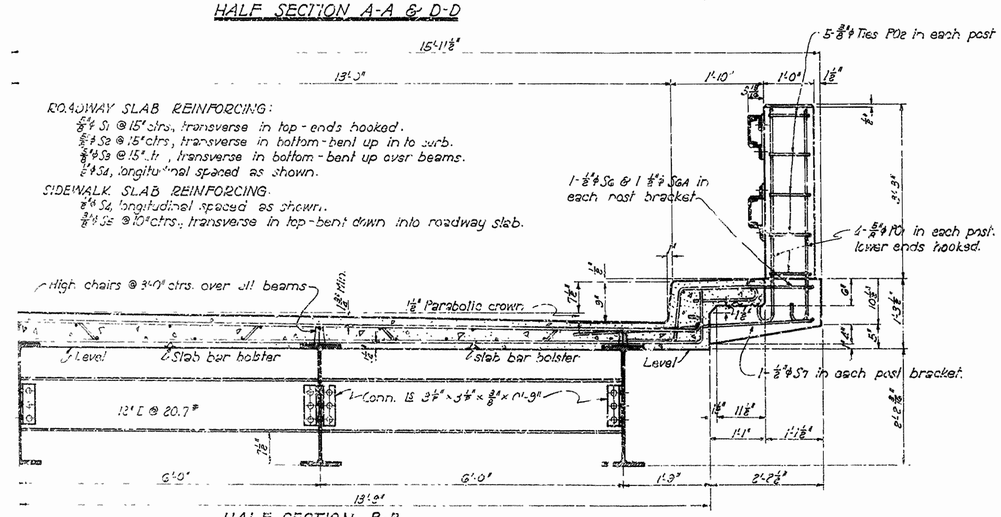
SECTION THRU C.I. DRAINS

SECTIONAL VIEW M-M

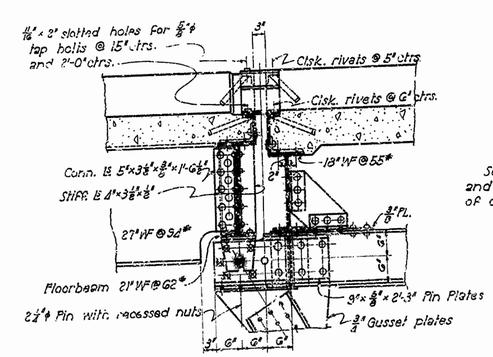


DETAIL OF C.I. ROADWAY DRAINS

NOTE: Place drains on each side of roadway approx 7'-6" from ℄ of roadway expansion joints, as shown on Elevation of each span.
Cast iron drains are to be paid for as Structural Steel in Beam Spans and are to be painted same as structural steel.
Weight of each drain = 29 lbs.



HALF SECTION B-B



EXPANSION DETAILS AT U0

See Drawings No. 7039 and 7040 for remainder of details.

SHEET NO. 1 OF 3 OF

DETAILS OF I-BEAM SPANS
26'-0" CLEAR ROADWAY - 2 SIDEWALKS @ 1'-6"
5 GIRDER TYPE

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

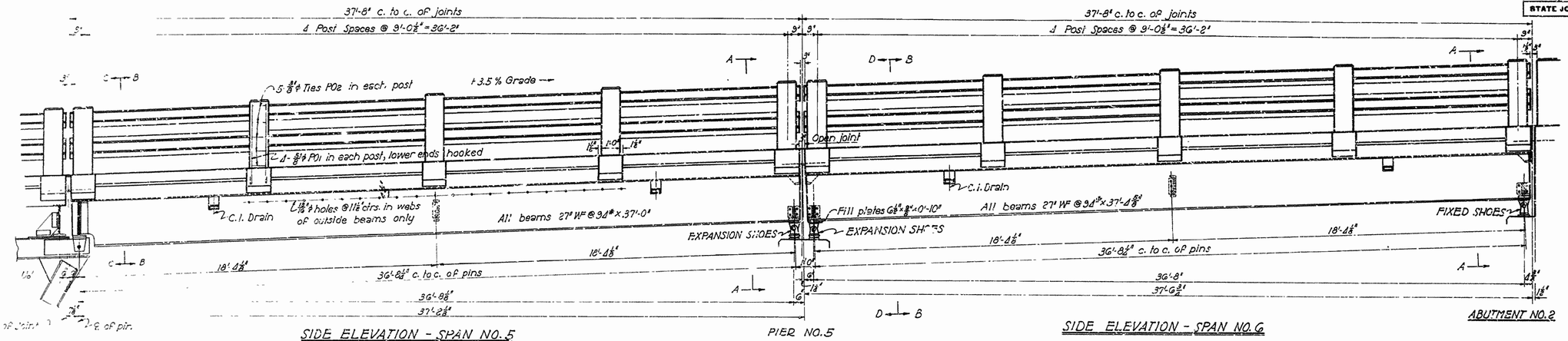
Drawn By: W.G.H. Date: 5-6-47
Traced By: B.B.C. Date: 5-20-47
Checked By: Date:
Scale: 3/8" in. = 1' ft. EXCEPT AS NOTED

BRIDGE No. 2469 DRAWING No. 7038

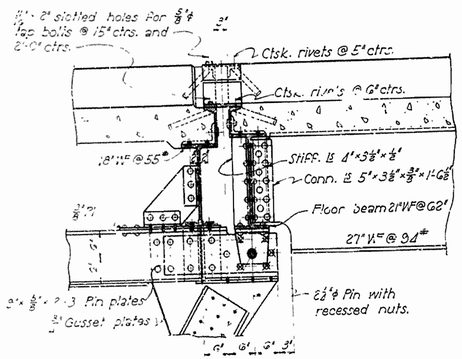
M. O. Garver
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

FED. ROAD DIST. NO.	STATE	FED. AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	F-370 (10)			23
STATE JOB NO.	9221		1947	18	35

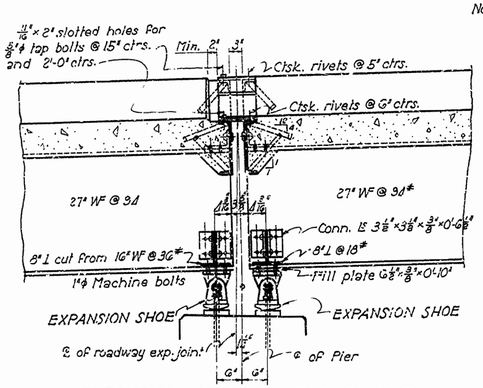
NOTE: See Drawing No. 7040 for enlarged details of handrail.



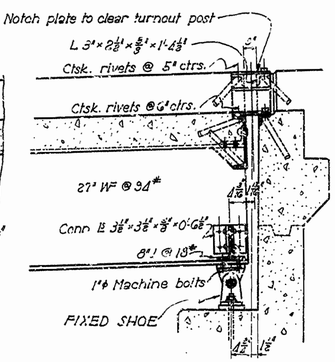
NOTE: For details of blast plate for Span No. 5, see Drawing No. 7040.



EXPANSION DETAILS AT U0'



EXPANSION DETAILS AT PIER NO. 5



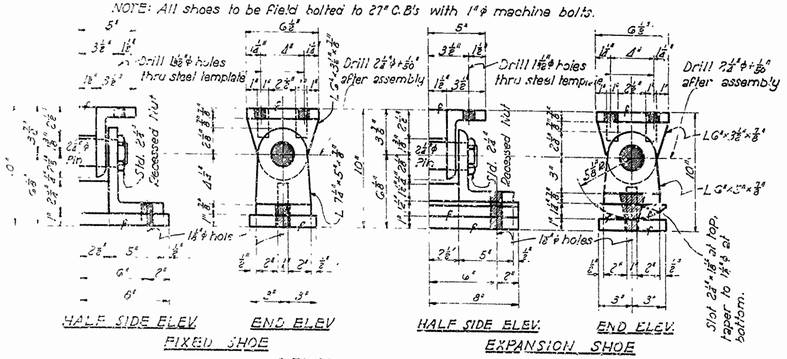
EXPANSION DETAILS AT ABUTMENT NO. 2

SHOE NOTES. All shoes to be built from structural steel plates and shapes. All material to be welded together with 3/8" fillet welds extending entire length of all edges and surfaces in contact. Surfaces in contact to be milled to bear before welding.

Masonry plates shall be finally seated on 3 layers of burlap saturated with red lead. This work and material to be included in the unit price bid for Structural Steel in Beam Spans.

ANCHOR BOLT

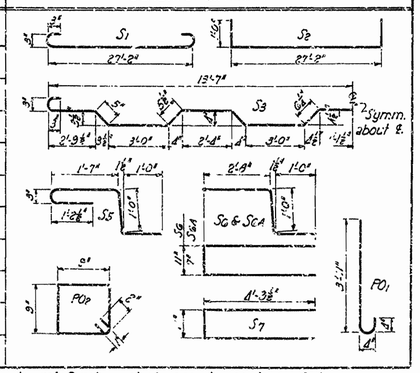
NOTE: All shoes to be field bolted to 27" C.B's with 1"φ machine bolts.



DETAILS OF SHOES
Scale: 3/8" = 1'-0"

BAR LIST FOR SPANS NO. 1, 5 AND 6 - EACH

MARK	SIZE	NO. REQ'D	LENGTH	BENDING DIAGRAM
S1	5/8"φ	31	27'-11"	
S2	5/8"φ	31	29'-2"	
S3	5/8"φ	[illegible]	28'-11 1/2"	
S4	1/2"φ	82	STRAIGHT 19'-6"	
S5	3/8"φ	90	4'-11"	
S6	1/2"φ	10	10'-5"	
S6A	1/2"φ	10	3'-11"	
S7	1/2"φ	10	10'-6"	
P01	5/8"φ	40	2'-5"	
P02	3/8"φ	50	3'-5"	



NOTE: Dimensions relating to reinforcing steel are to centers of bars.

GENERAL NOTES

All concrete to be Class "S". All exposed corners to be chamfered 3/4" unless otherwise noted.

Reinforcing steel to be deformed bars of structural or intermediate grade. Shop lists and bending diagrams must be submitted and approval secured before fabrication is begun.

All reinforcing steel shall be accurately located in the forms and firmly held in place by means of steel wire supports, sufficient in number and size, to prevent displacement during the course of construction and to keep the steel a proper distance from the forms.

Wire supports will not be paid for directly but will be considered subsidiary to the item of "reinforcing steel". Shop lists and diagrams of the type to be used must be submitted for approval.

Rivets - 3/4"φ. Open holes - 13/16"φ. Where bolts are indicated, use machine bolts. Use 3/4"φ rivets in handrail.

Structural shapes, of equal or greater [illegible] may be substituted for shapes shown, but payment will be made on shapes shown or actually used, whichever is the lesser.

All welded connections to be 5/16" s[illegible] welds, except as noted for shoes. Welding to be by the electric arc process.

Ends of stiffener angles to be ground to bear against beam flanges.

All bearing and roadway expansion devices to be paid for at the unit price bid for "Structural Steel in Beam Spans".

Cast iron drains to be paid for at the unit price bid for "Structural Steel in Beam Spans", and are to be painted the same as structural steel.

Shop Paint: - All structural steel shall be given one coat of red lead and raw linseed oil before shipment, except surfaces in contact with concrete.

Field Paint: - 1st coat, white lead tinted with lamp black; 2nd coat, aluminum paint.

To provide for deflection of girders due to dead load, the slab shall be approximately 3/4" thicker at mid-span, and 1/4" thicker at the quarter points.

This drawing shows general features of design only. Shop drawings shall be made in accordance with the specification, and shall be submitted and approval secured before fabrication is begun.

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Road and Bridge Construction, adopted [illegible]ch 1, 1940.

DESIGN LIVE LOAD: H-20 LOADING A.A.S.H.O. 1944

Load Distribution to Interior Beams: - Dead Load 710#/Lin. Ft.
Live Load 1.20 Wheels 30% Impact

Load Distribution to Outside Beams: Dead Load 930#/Lin. Ft.
Live Load 0.833 Wheels 30% Impact

UNIT STRESSES: Class "S" Concrete (n=10) 1000#/□"
Reinforcing Steel 18000#/□"
Structural Steel 18000#/□"

See Drawing No. 7038 and 7040 for remainder of details.

SHEET NO. 2 OF 3 OF
DETAILS OF I-BEAM SPANS
26'-0" CLEAR ROADWAY - 2 SIDEWALKS
5 GIRDER TYPE

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

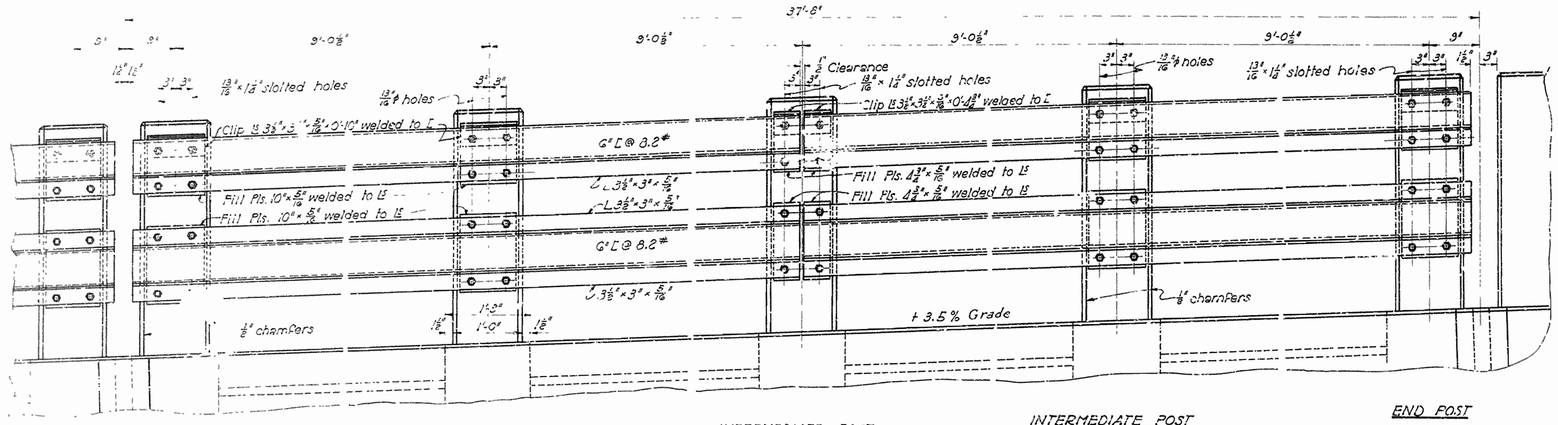
Drawn By: W.C.H. Date: 5-10-47
Traced By: B.B.J. Date: 5-23-47
Checked By: _____ Date: _____
Scale: 3/8" = 1'-0" EXCEPT AS NOTED

M. O. Lever
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

BRIDGE No. 2469 DRAWING No. 7039

85

FED ROAD DIST NO	STATE	FED AID PROJECT NO.	FISCAL YEAR	SHEET NO	TOTAL SHEETS
6	ARK.	F-370 (10)			33
STATE JOB NO. 922'			1947	19	35



END POSTS AT EXP. JOINTS — INTERMEDIATE POST — INTERMEDIATE POST AT RAIL SPLICE — INTERMEDIATE POST — END POST

INSIDE ELEVATION OF HANDRAIL

Scale: 1" = 1'-0"

BLAST PLATE NOTES:

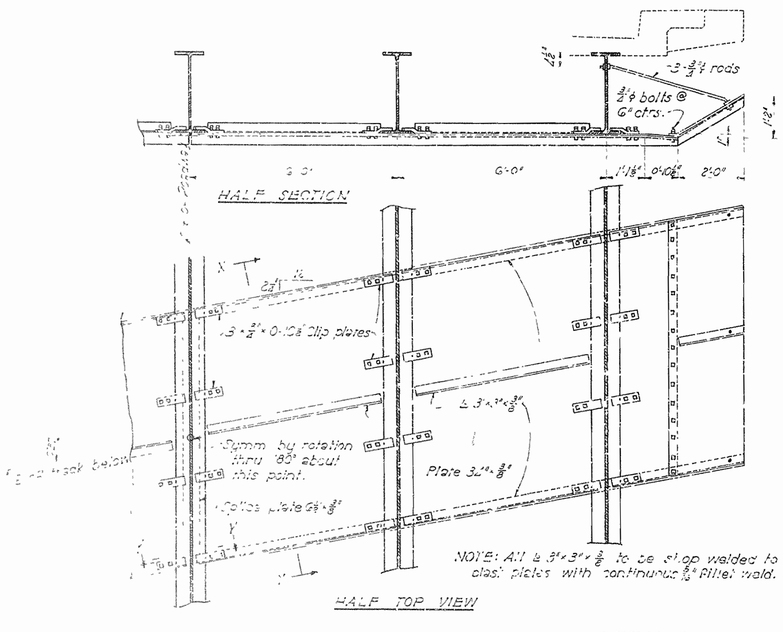
The blast plates are to be made of wrought iron or alloy steel, U.S.S. Cor-ten or Mayari R, and are to be paid for at the unit price bid per pound for "Blast Plates". Blast plates are to be painted the same as structural steel.

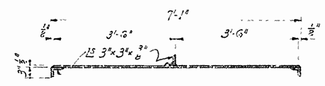
HANDRAIL NOTES:

The concrete rail posts and structural steel rail members shall be paid for at the unit price bid per linear foot for "Concrete and Structural Steel Railing".

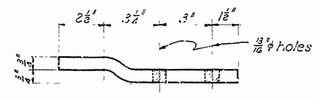
Handrail members to extend over two panels.

All horizontal lines of handrail to be parallel to the finished grade. All vertical lines shall be plumb in their final position, except sides of post brackets adjacent to roadway expansion joints.



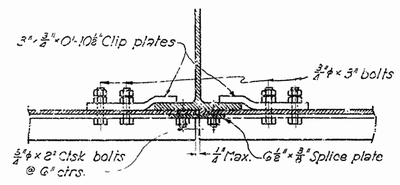


SECTION X-X



DETAIL OF CLIP

Scale: 1 1/2" = 1'-0"



SECTION Y-Y SHOWING SPLICE DETAIL

Scale: 1 1/2" = 1'-0"

DETAILS OF BLAST PLATES

SHEET 3 OF 3 OF

DETAILS OF HANDRAIL & BLAST PLATES FOR I-BEAM SPANS 26'-0" CLEAR ROADWAY 2 SIDEWALKS @ 1'-6" 5 GIRDER TYPE

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

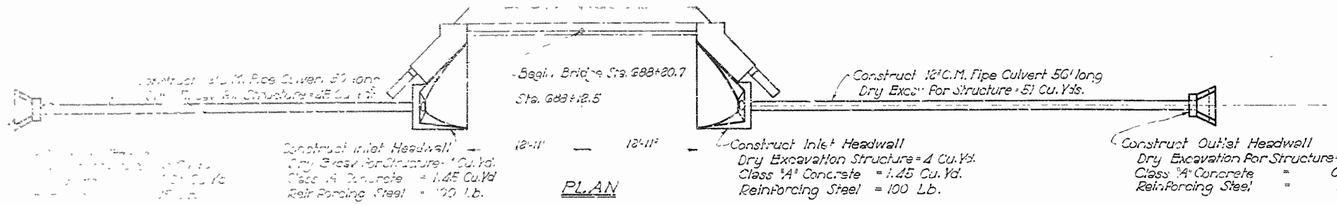
Drawn By: W.C.H. Date: 5-12-47
Traced By: B.B.S. Date: 5-26-47
Checked By: _____ Date: _____

Scale: 1/4 in. = 1 ft. EXCEPT AS NOTED

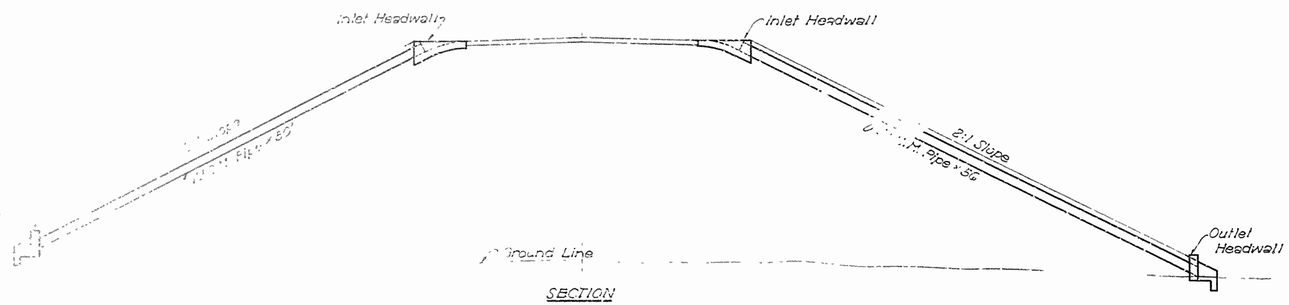
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

BRIDGE No. 2469 DRAWING No. 7040

FED. ROAD DIST. NO.	STATE	FED. AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	F-370(10)		3	13
STATE JOB NO.	9259			3	13



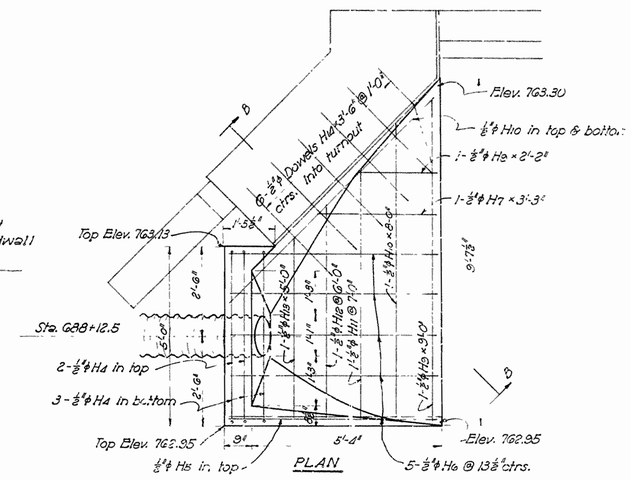
PLAN

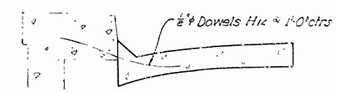


SECTION

LOCATION OF C.M. PIPE SPILLWAYS

Scale: 1/8" = 1'-0"

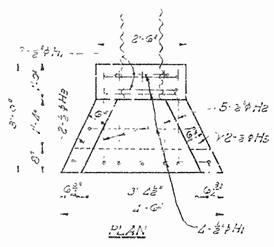




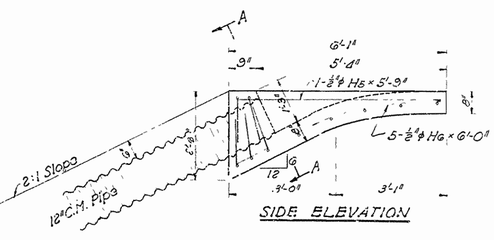
SECTION B-B

BAR LIST FOR EACH HEADWALL

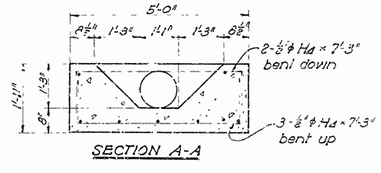
Outlet Headwall	6 - 1/8"φ H1	× 5'-6" Bent in Field
	5 - 1/8"φ H6	× 3'-6" Bent in Field
	4 - 1/8"φ H3	× 3'-4" Straight
Inlet Headwall	5 - 1/8"φ H4	× 7'-3" Bent in Field
	1 - 1/8"φ H5	× 5'-9" Straight
	5 - 1/8"φ H6	× 6'-0" Bent in Field
	1 - 1/8"φ H7	× 3'-3" Straight
	1 - 1/8"φ H8	× 2'-6" "
	1 - 1/8"φ H9	× 3'-0" "
	3 - 1/8"φ H10	× 8'-0" "
	1 - 1/8"φ H11	× 7'-0" "
	1 - 1/8"φ H12	× 6'-0" "
	1 - 1/8"φ H13	× 5'-0" "
	6 - 1/8"φ H14	× 3'-6" "



PLAN

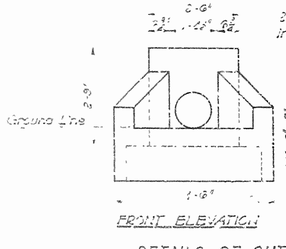


SIDE ELEVATION

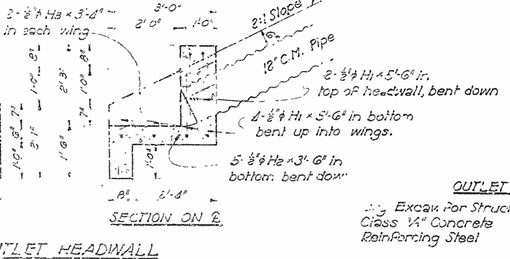


SECTION A-A

DETAILS OF INLET HEADWALL



FRONT ELEVATION



SECTION ON ℄

DETAILS OF OUTLET HEADWALL

QUANTITIES

OUTLET HEADWALL - EACH		INLET HEADWALL - EACH	
Dry Excav. For Structures	3 Cu. Yds.	Dry Excav. For Structures	4 Cu. Yd.
Class 'A' Concrete	0.55 Cu. Yds.	Class 'A' Concrete	1.45 Cu. Yd.
Reinforcing Steel	45 Lb.	Reinforcing Steel	100 Lbs.

GENERAL NOTES

All concrete in headwalls to be Class 'A'. All exposed corners to have 3/4" chamfers.

All reinforcing steel to be deformed bars of structural or intermediate grade.

Corrugated Metal Pipe Culvert to be Spelter Coated.

DETAILS OF C.M. PIPE SPILLWAY ON LEFT AND RIGHT OF STA. 688+12.5 BRIDGE OVER CROOKED CREEK AND MISSOURI PACIFIC RAILROAD BELLEFONTE - YELLVILLE ROAD

ROUTE 62 SEC. B

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

Drawn By: W.C.H. Date: 7-11-47

Traced By: B.B.S. Date: 7-14-47

Checked By: _____ Date: _____

Scale: 1/8 in. = 1 ft. EXCEPT AS NOTED

BRIDGE No. 2169

DRAWING No. 7041

M. C. Beaver

PRINCIPAL HIGHWAY ENGINEER (BRIDGE)