

STATE OF ARKANSAS
STATE HIGHWAY COMMISSION

FED. ROAD DIST. NO.	STATE	APP. PROJECT	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	Ark.	AFP-A-27-C	1937	1	7
Job No. 8197					

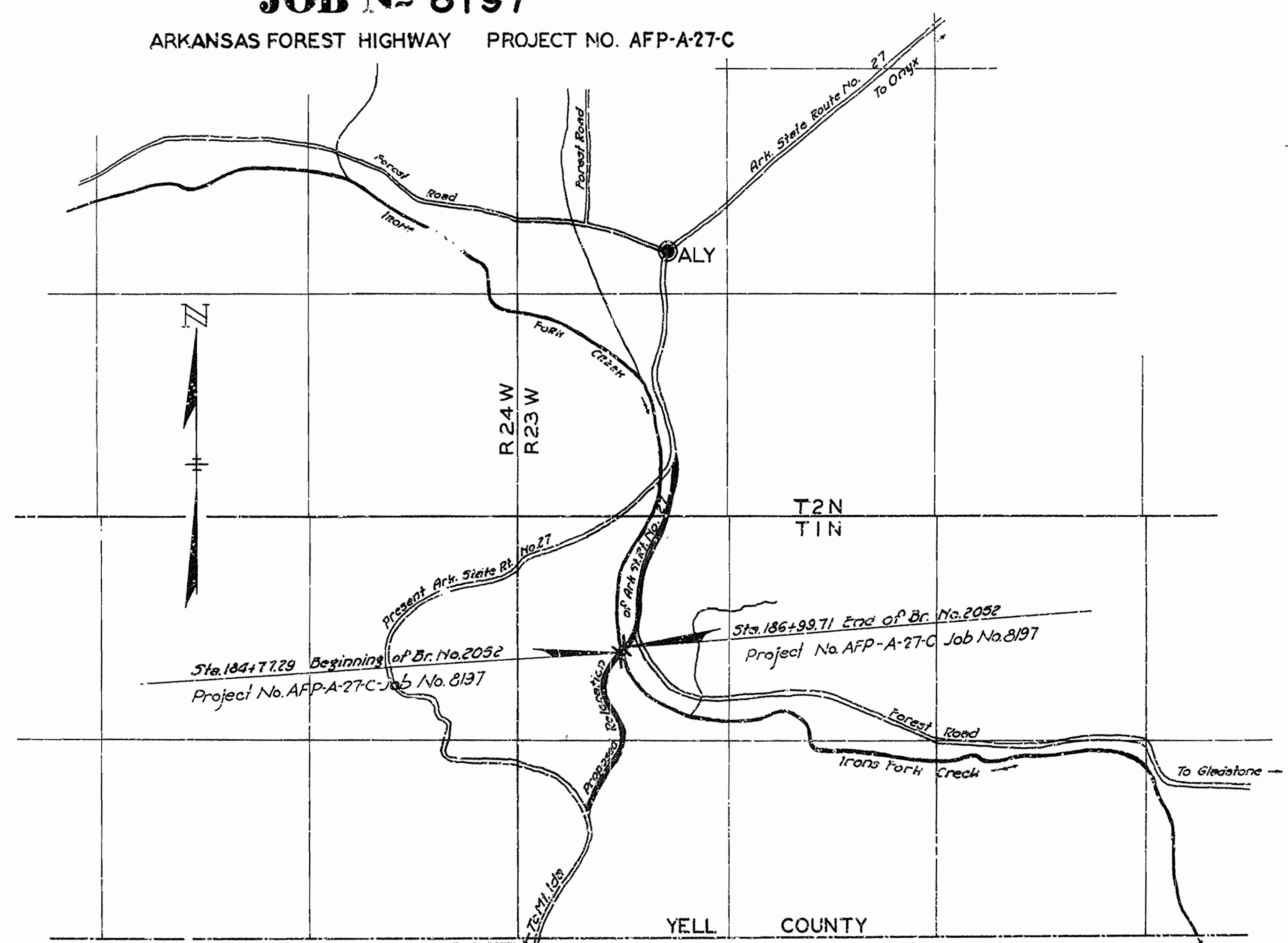
INDEX OF SHEETS

SHEET NO.	DRWG. NO.	TITLE
1	4731	Title Sheet
2	4732	Schedule of Quantities
3	4733	Layout of Bridge over Irons Fork Creek
4&5	4734-5	Details of Abuts. No. 1 & 2
6	4736	Details of Piers No. 1 & 2
7	4737	Details of Trusses

PLAN OF PROPOSED BRIDGE
OVER IRONS FORK CREEK
MT. IDA-ALY ROAD
YELL COUNTY
ROUTE 27 SEC. 8
JOB NO 8197

ITEM NO.	ITEM	QUANTITY	UNIT
103	Dry Excavation for Structures	315	Cu.Yd.
103	Wet Excavation for Structures	68	Cu.Yd.
103	Solid Rock Excavation for Structures	56	Cu.Yd.
SP-802	Class 'A' Concrete for Bridges	202.4	Cu.Yd.
803	Reinforcing Steel	29,460	Lb.
808	Untreated Bridge Timber	12,000	M.F.E.M.
SP	Erect, Clean, and Paint Truss Spans	Complete Lump Sum	

ARKANSAS FOREST HIGHWAY PROJECT NO. AFP-A-27-C



LAYOUT
Scale: 1" = 2000'-0"

LENGTH OF PROJECT	=	22242 Feet	or	0.042 Miles
LENGTH OF BRIDGES	=	22242 Feet	or	0.042 Miles
LENGTH OF EMBANKMENT	=	0.0 Feet	or	0.000 Miles
LENGTH OF JOB	=	22242 Feet	or	0.042 Miles

Arkansas State Highway Commission Standard Specifications for Road and Bridge Construction, adopted June 30th, 1936, with Special Provisions as listed, apply to this Project.

SPECIAL PROVISIONS

Division	Item	No. of Sheets
Division I	Required Special Provisions	169 (169 Abstr. 2199)
	83 Employment Centers for Labor	1 Sheet
	Partial Payments	1
	Wages of Labor	1
Division II	7-2 Unemployment Compensation or Insurance	1
	853-1 Machine Mixing	1
Division III	SP Erect, Clean, and Paint Truss Spans	1
	1053-1 Forest Fires	1

APPROVED
CHIEF ENGINEER U.S. BUREAU OF PUBLIC ROADS

APPROVED
DISTRICT U.S. BUREAU OF PUBLIC ROADS

APPROVED
CHIEF U.S. BUREAU OF PUBLIC ROADS

APPROVED
CHAIRMAN STATE HIGHWAY COMMISSION

APPROVED
STATE HIGHWAY ENGINEER

[Signature]
BRIDGE ENGINEER

BRIDGES NO. 2052

DRAWING NO. 4781

FED. ROAD DIST. NO.	STATE	Ark. Forest PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	AFP-A-27-C	1937	2	7
STATE JOB NO. 8197					

SCHEDULE OF BRIDGE QUANTITIES

UNIT OF BRIDGE \ ITEM	ITEM NO. 103 DRY EXCAVATION FOR STRUCTURES CU. YDS.	ITEM NO. 103 WET EXCAVATION FOR STRUCTURES CU. YDS.	ITEM NO. 103 SOLID ROCK EXCAVATION FOR STRUCTURES CU. YDS.	ITEM NO. S.P. 802 CLASS 'A' CONCRETE FOR BRIDGES CU. YDS.	ITEM NO. 803 REINFORCING STEEL LBS.	ITEM NO. 809 UNTREATED BRIDGE TIMBER M. FT. B.M.	ITEM NO. SP. ERECT, CLEAN, AND PAINT TRUSS SPANS LUMP SUM
ABUTMENT NO. 1	110	23	5	639	11,050	0.370	
PIER NO. 1	30	15	23	373	3,680		
PIER NO. 2	0	7	23	373	3,680		
ABUTMENT NO. 2	175	23	5	639	11,050	0.370	
SPAN NO. 1						3.505	COMPLETE(32%)
SPAN NO. 2						4.820	COMPLETE(41%)
SPAN NO. 3						2.935	COMPLETE(27%)
TOTALS	315	68	56	202.4	29,460	12,000	COMPLETE

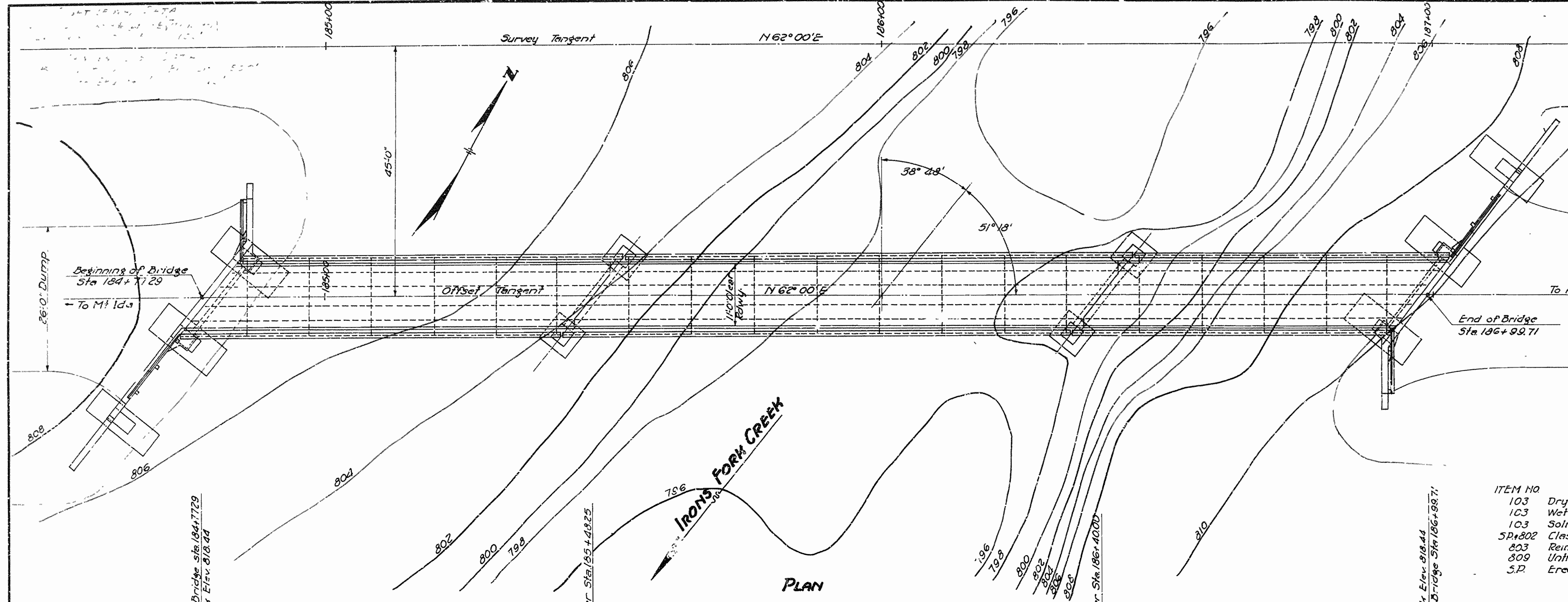
SCHEDULE OF QUANTITIES
 BRIDGE OVER IRONS FORK CREEK
 NEAR ALY ARKANSAS
 YELL COUNTY
 ROUTE 27 SEC. 8

ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.

Drawn By: WCH Date: 10-7-37
 Traced By: C.P.Y. Date: 10-7-37
 Checked By: _____ Date: _____
 Scale: _____ in. = _____ ft.
 BRIDGE NO. 2052 DRAWING NO. 4782

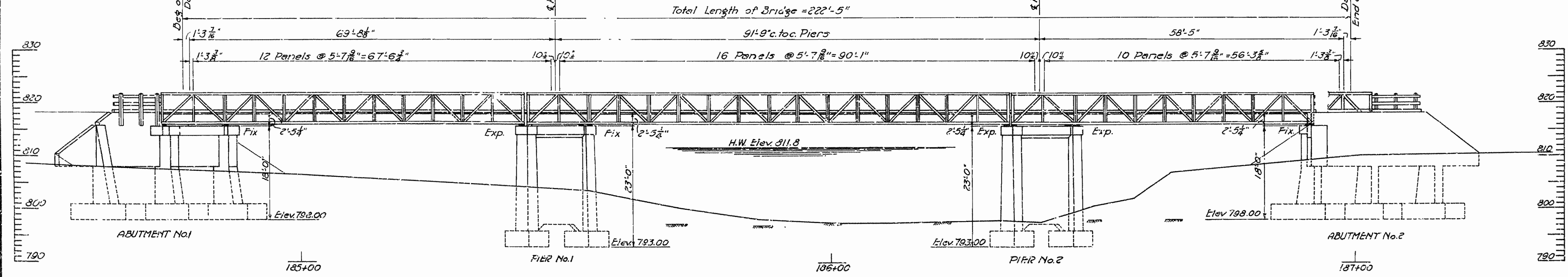
W.A. Gerner
 BRIDGE ENGINEER

FED. ROAD DIST. NO.	STATE	Ark Forest PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	AFP-A-27-C	1937	3	7
STATE JOB NO. 8197					



QUANTITIES

ITEM NO	ITEM	QUANTITY	UNIT
103	Dry Excavation for Structures	315	CuYd
103	Wet Excavation for Structures	68	CuYd
103	Solid Rock Excavation for Structures	56	CuYd
SP-802	Class 'A' Concrete for Bridges	2024	CuYd
803	Reinforcing Steel	29460	Lbs
809	Untreated Bridge Timber	12000	MFDM
S.P.	Erec., Clean, and Paint Truss Spans		Complete Lump Sum



Maximum foundation pressure - future constr. 7.5 tons

GENERAL NOTES

All concrete to be placed in dry.
 In general, all construction joints in piers and abutments shall be horizontal and shall be provided with keys not less than 3" deep covering the middle third of both dimensions unless otherwise noted.
 Rock excavation shall be done to neat lines of concrete footings. Care shall be exercised to avoid shattering of rock faces by excessive blasting.
 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.
 For details of Abutments, see Drawing No. 4784 & 4785
 For details of Piers, see Drawing No. 4786
 For details of Superstructure, see Drawing No. 4787
 Specification: Arkansas State Highway Commission standard Specifications for Road and Bridge Construction, adopted June 3, 1938.

Drainage Area = 5.35 sq. Miles. C-10

B.M. Notch on rock - 8" Twin Hickory.
 30' Rt. Sta. 185+65
 Elev. 804.39
 B.M. S.E. Corner of East Headwall
 of 30" x 24" Culvert, Sta. 199+74
 Elev. 821.43

NOTE: The contractor shall obtain the sections and parts of the unassembled trusses from stacks on the berms of the approach dump near the new Mill Creek, Clearwater Creek, and Brushy Creek Bridges on Route 270 in Scott and Montgomery Counties.

LAYOUT OF
 BRIDGE OVER IRONS FORK CREEK
 NEAR ALY, ARKANSAS
 YELL COUNTY
 ROUTE 27 SEC. 8

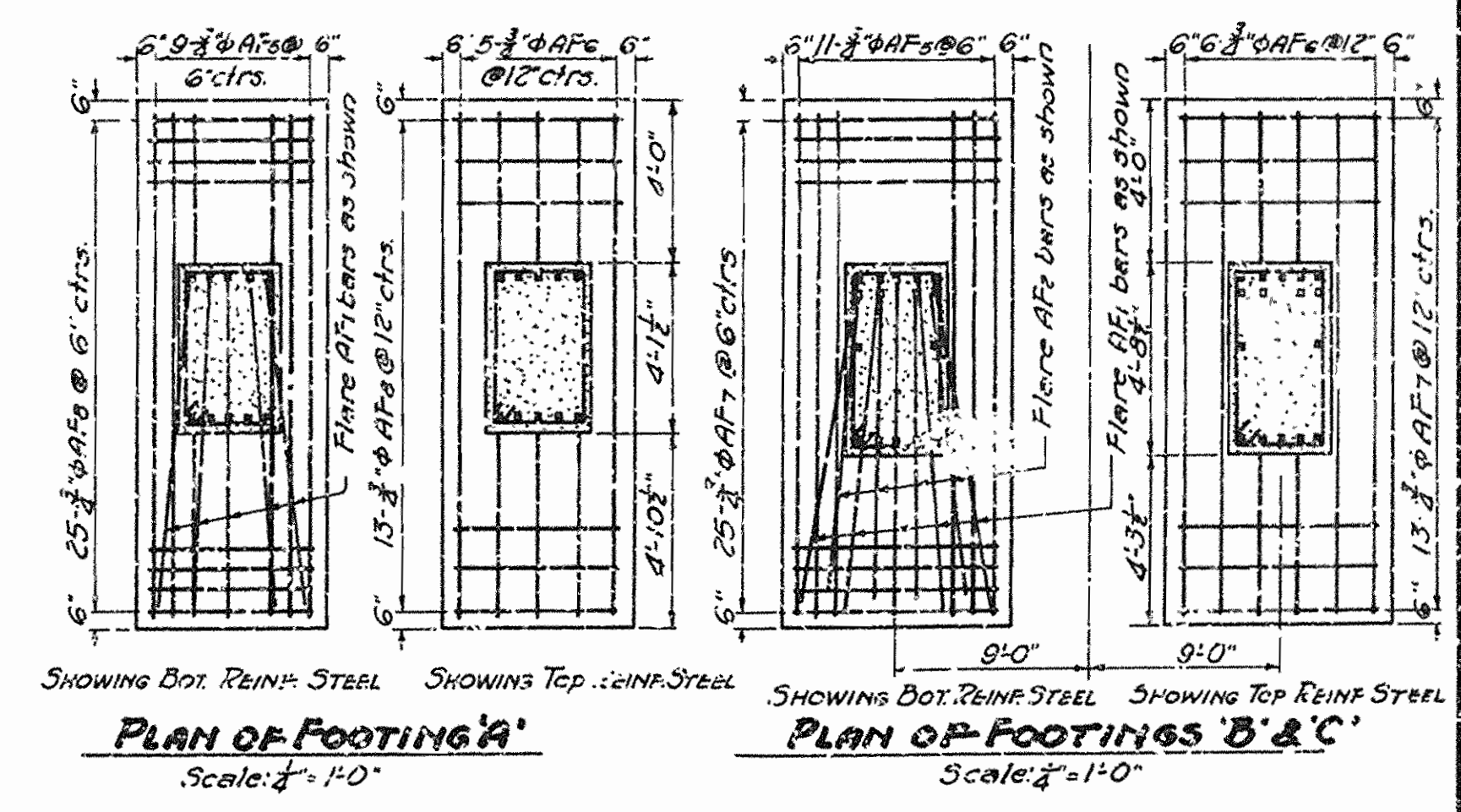
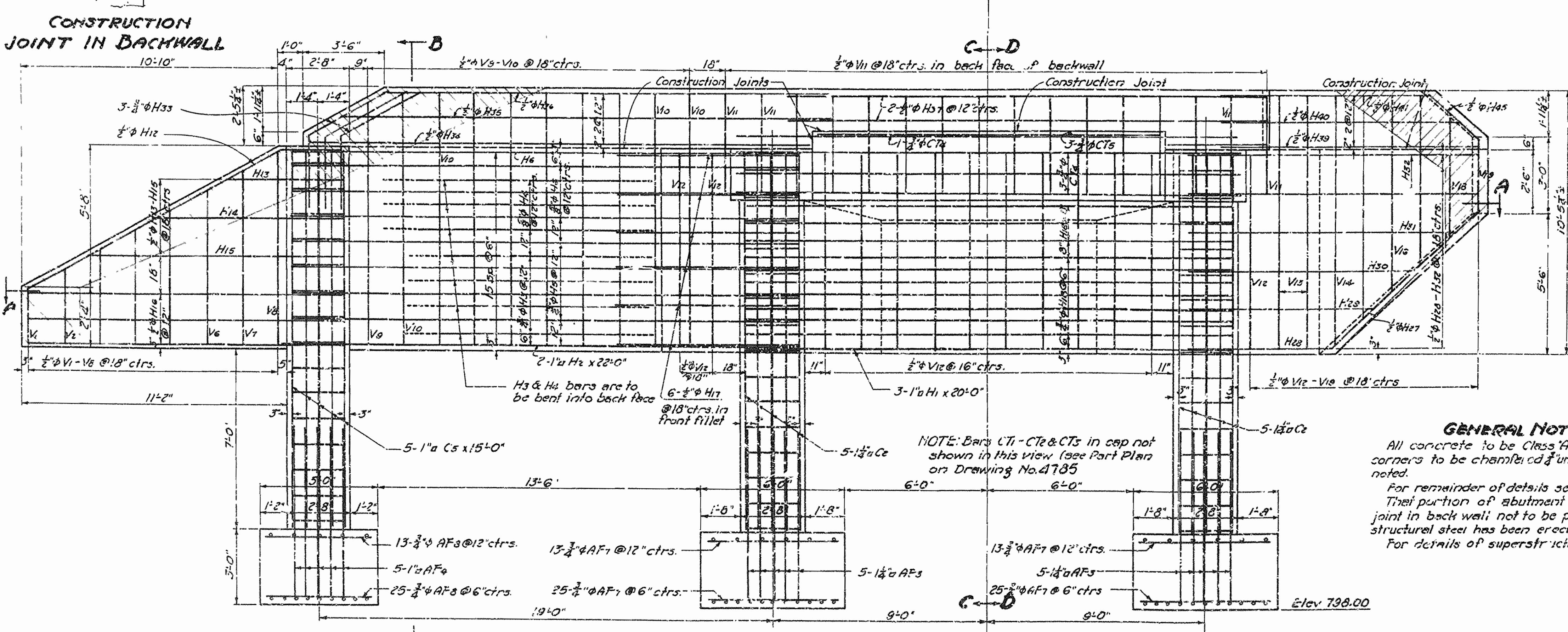
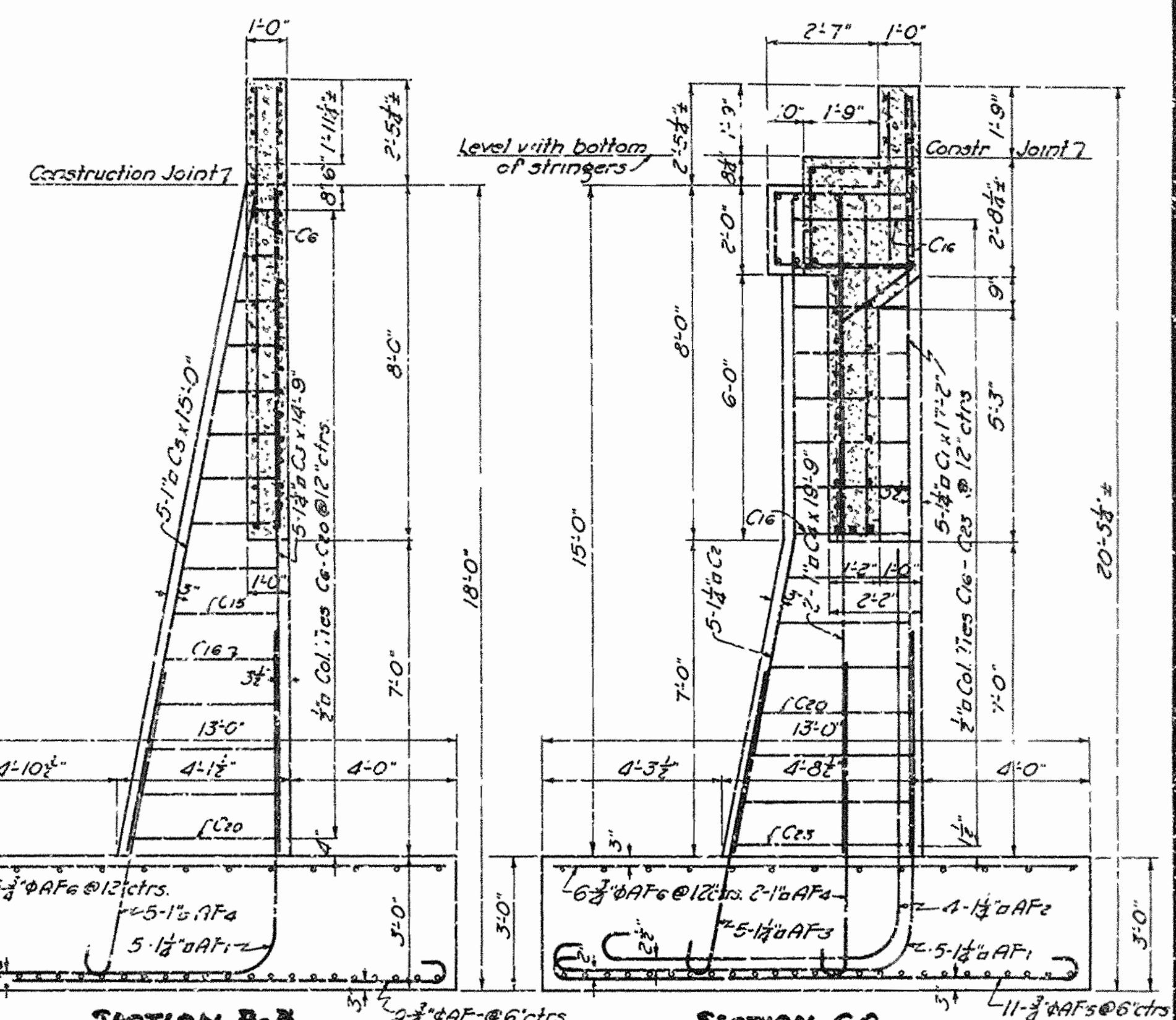
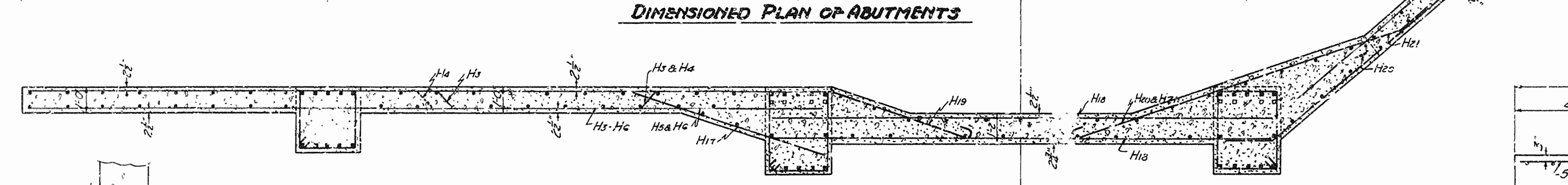
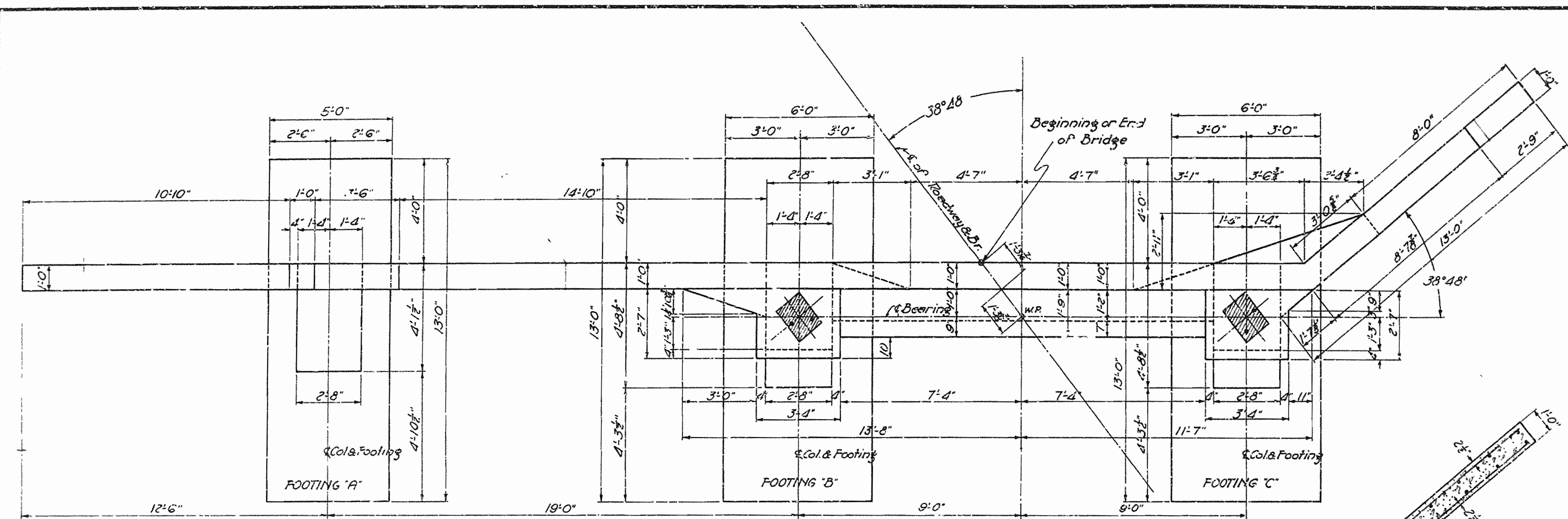
ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.

Drawn By: WCH Date: 8/30/37
 Traced By: WCHGZ Date: 10/23/37
 Checked By: _____ Date: _____
 BRIDGE NO. 2052 DRAWING NO. 4783

W.A. Lanier
 BRIDGE ENGINEER

Scale: 1 in. = 10 ft.

FED. ROAD DIST. NO.	STATE	Ark. Forest. PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	AFP-A-27-C	1937	4	7
STATE JOB NO. 8197					



GENERAL NOTES
 All concrete to be Class 'A' All exposed corners to be chamfered unless otherwise noted.
 For remainder of details see Drwg. No. 4785
 That portion of abutment above construction joint in back wall; not to be poured until structural steel has been erected and bolted up.
 For details of superstructure see Drwg. No. 4787

SHEET 1 OF 2
 DETAILS ABUTMENTS NO. 1 & 2
 BRIDGE OVER IRONS FORK CREEK
 NEAR ALY, ARKANSAS
 YELL COUNTY
 ROUTE 25 SEC. 8

ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.

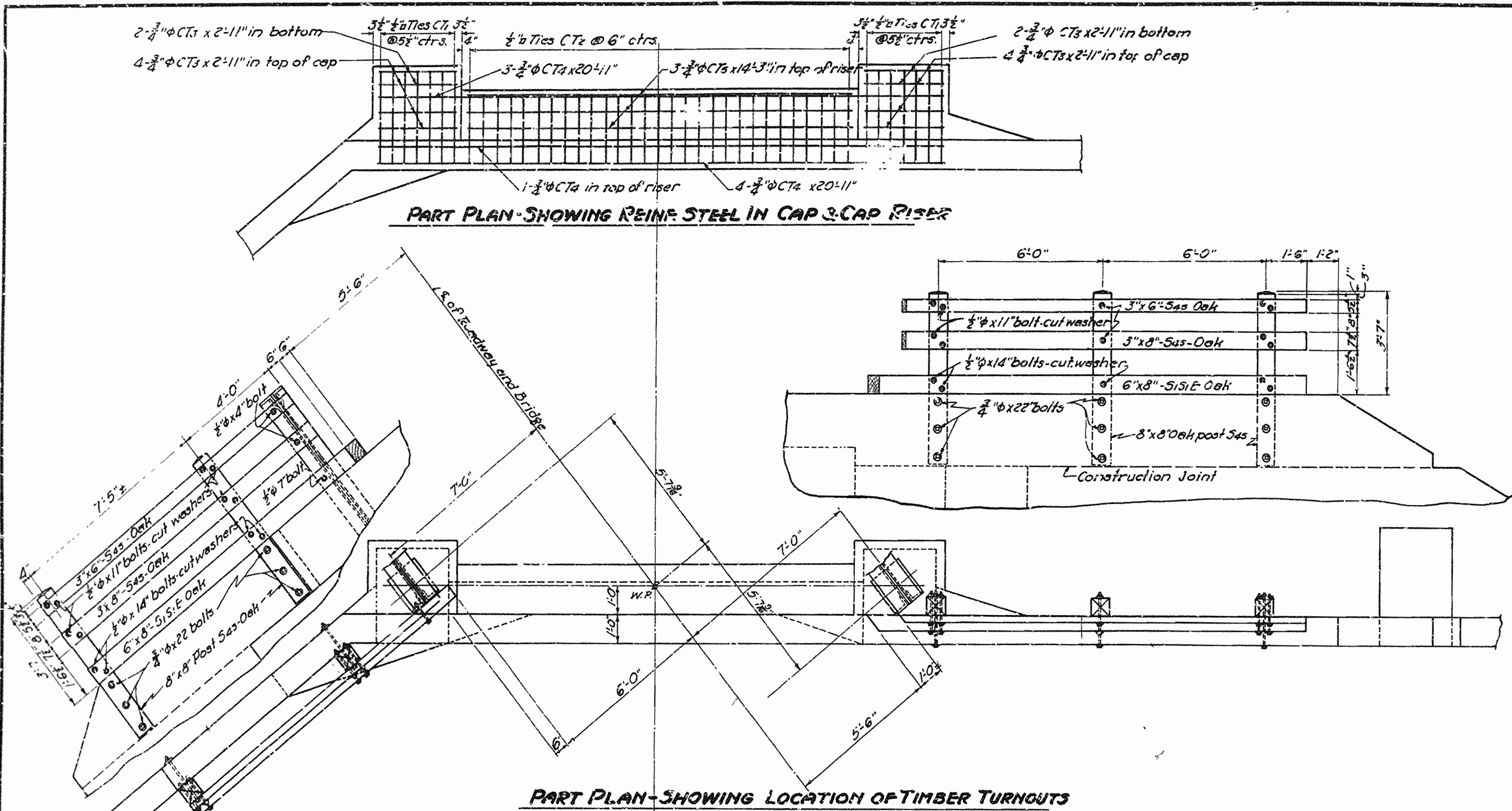
Drawn By: WCH Date: 9-28-37
 Traced By: WCH (CB) Date: 10-5-37
 Checked By: Date: _____

Scale: 1/2" = 1'-0" except as noted

BRIDGE NO. 2052 DRAWING NO. 4784

M. B. Garner
 BRIDGE ENGINEER

FED. ROAD DIST. NO.	STATE	Ark. Forest PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	AFP-A27C	1937	5	7
STATE JOB NO. 8197					



BAR LIST FOR ABUTS. NO. 1 & 2 - EACH

BENT BARS

MARK	SIZE	NO. REQ'D	LENGTH	A	B
AF1	1/2"	15	16'-9"	7'-10"	8'-4"
AF2	1/2"	8	16'-9"	9'-1"	7'-1"
AF3	1/2"	10	7'-0"	6'-0"	
C2	1/2"	10	14'-0"		
AF4	1/2"	9	7'-0"	6'-0"	
AF5	3/8"	31	13'-10"		
H3	3/8"	4	26'-0"	7'-8"	9'-10"
H4	3/8"	3	24'-3"	6'-5"	7'-1"
H10	3/8"	6	15'-9"		
H20	3/8"	2	13'-6"		
H2	3/8"	7	15'-9"		
H32	3/8"	6	6'-8"		
V21	3/8"	15	6'-0"		
H12	3/8"	2	14'-8"		
H22	3/8"	1	7'-2"	5'-2"	2'-0"
H30	3/8"	1	9'-4"	7'-4"	2'-0"
H30	3/8"	1	11'-6"	5'-6"	2'-0"
H31	3/8"	1	13'-3"	1'-8"	2'-0"
H32	3/8"	2	15'-0"	13'-0"	2'-0"
H33	3/8"	1	13'-0"	11'-0"	2'-0"
H40	3/8"	1	11'-7"	9'-7"	2'-0"
H41	3/8"	1	10'-3"	8'-3"	2'-0"
H42	3/8"	1	13'-3"	11'-9"	1'-6"
H43	3/8"	1	11'-10"	12'-4"	1'-6"
H44	3/8"	1	10'-6"	9'-0"	1'-6"
CT1	3/8"	14	10'-5"	3'-2"	1'-8"
CT2	3/8"	29	10'-1"	2'-4"	2'-4"
C2		Varies	Varies	Varies	Varies
V2		Varies	Varies	Varies	Varies
C23		Varies	Varies	Varies	Varies

STRAIGHT BARS

MARK	SIZE	NO. REQ'D	LENGTH	MARK	SIZE	NO. REQ'D	LENGTH
C1	1/2"	10	17'-2"	H13	3/8"	1	5'-0"
C3	1/2"	5	14'-9"	H14	3/8"	1	7'-10"
				H15	3/8"	1	10'-8"
C4	1/2"	4	14'-9"	H16	3/8"	3	13'-3"
C5	1/2"	5	13'-0"	H17	3/8"	6	8'-0"
H1	1/2"	3	20'-0"	H27	3/8"	2	9'-6"
H2	1/2"	2	22'-0"	H34	3/8"	2	21'-0"
				H35	3/8"	2	20'-6"
AF6	3/8"	17	12'-8"	H36	3/8"	2	18'-9"
AF7	3/8"	76	5'-8"	H37	3/8"	2	20'-0"
AF8	3/8"	38	4'-4"	H38	3/8"	2	21'-0"
CT3	3/8"	12	2'-11"	H39	3/8"	2	21'-0"
CT4	3/8"	8	20'-11"	V1	3/8"	2	3'-2"
CT5	3/8"	3	14'-3"	V2	3/8"	2	6'-9"
H5	3/8"	4	21'-0"	V3	3/8"	2	5'-10"
H7	3/8"	1	20'-0"	V4	3/8"	2	5'-0"
H8	3/8"	1	22'-0"	V5	3/8"	2	4'-3"
H9	3/8"	1	24'-0"	V6	3/8"	2	3'-6"
H10	3/8"	2	25'-6"	V7	3/8"	2	2'-9"
H11	3/8"	1	13'-3"	V8	3/8"	2	2'-0"
H18	3/8"	15	20'-0"	V9	3/8"	1	
H22	3/8"	1	6'-0"	V10	3/8"	19	10'-0"
H23	3/8"	1	7'-6"	V11	3/8"	16	4'-0"
H24	3/8"	1	9'-0"	V12	3/8"	28	7'-6"
H25	3/8"	1	10'-6"	V13	3/8"	2	3'-3"
H26	3/8"	4	12'-0"	V14	3/8"	2	8'-6"
				V15	3/8"	2	7'-4"
H6	3/8"	7	21'-0"	V16	3/8"	2	6'-2"
				V17	3/8"	2	5'-0"
V10	3/8"	4	4'-0"	V18	3/8"	2	3'-10"
				V19	3/8"	2	2'-8"

GENERAL NOTES

All concrete to be Class A. All exposed corners to be chamfered 3" unless otherwise noted.

For remainder of details see Drawing No. 4784

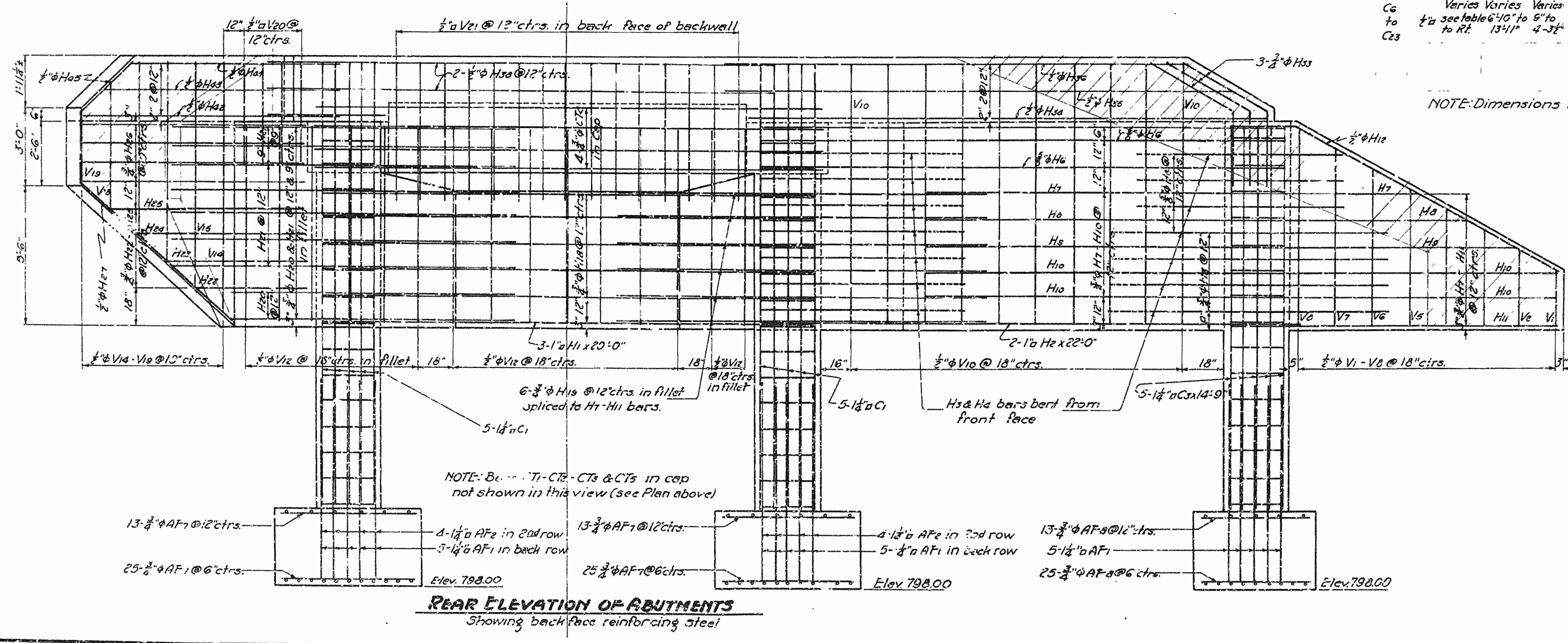
For details of superstructure see Drawing No. 4787

Malleable or cast iron washers to be used under bolt heads and nuts bearing on concrete or wood except as noted.

The payment for all hardware, bolts, washers, spikes, nails, dowels, drift pins, etc. used for connecting timber parts shall be included in price bid for timber in place.

Timber in rails and posts to be given 3 coats of white lead paint.

Anchor bolts and guide rods fastening structural steel and timber to concrete to be paid for at the price bid for "Reinforcing steel."



SHEET 2 OF 2
 DETAILS ABUTMENT NO. 1 & 2
 BRIDGE OVER IRONS FORK CREEK
 NEAR ALY, ARKANSAS
 YELL COUNTY
 ROUTE 25 SEC. 8

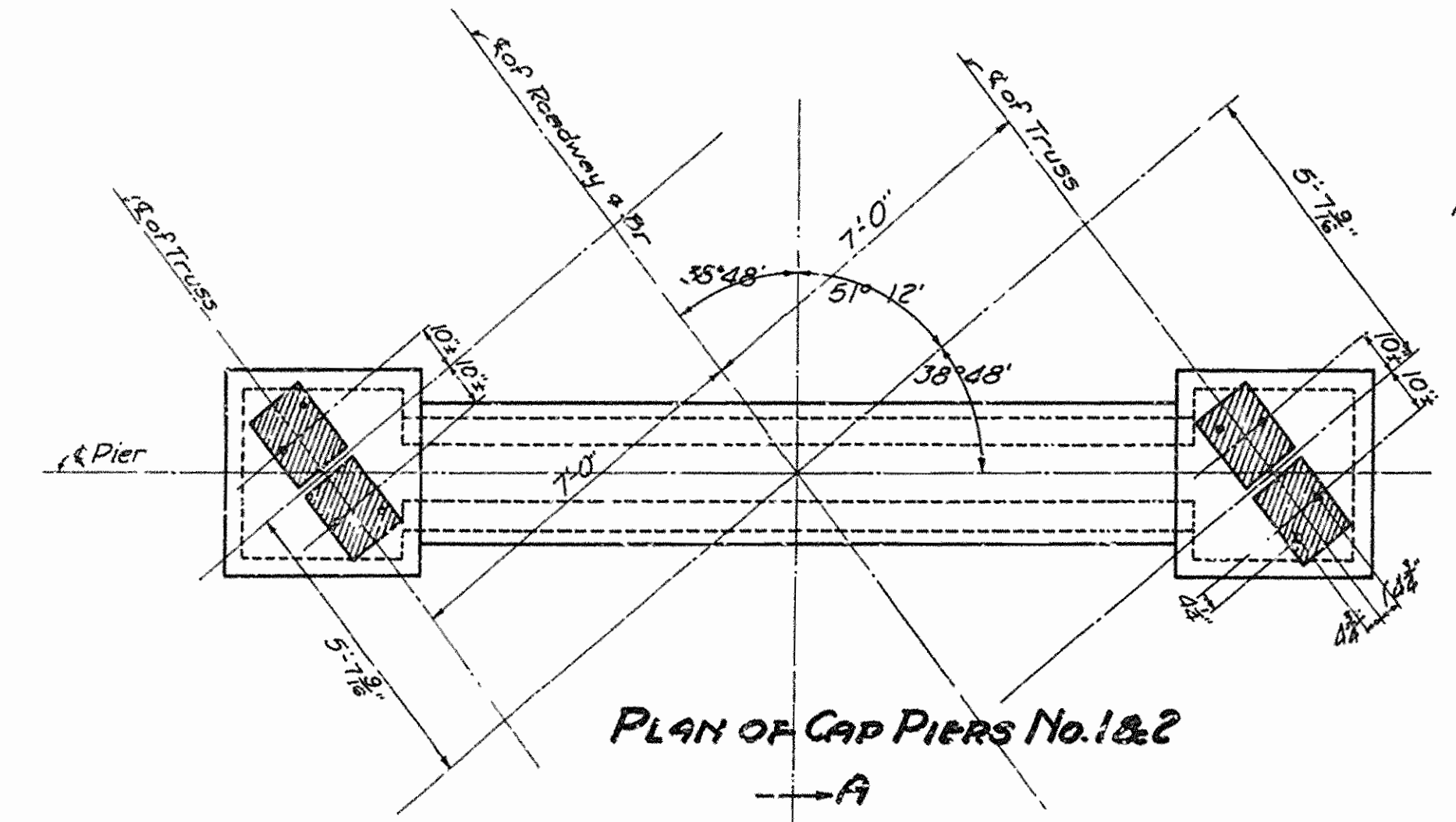
KANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.

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 Checked By: _____ Date: _____

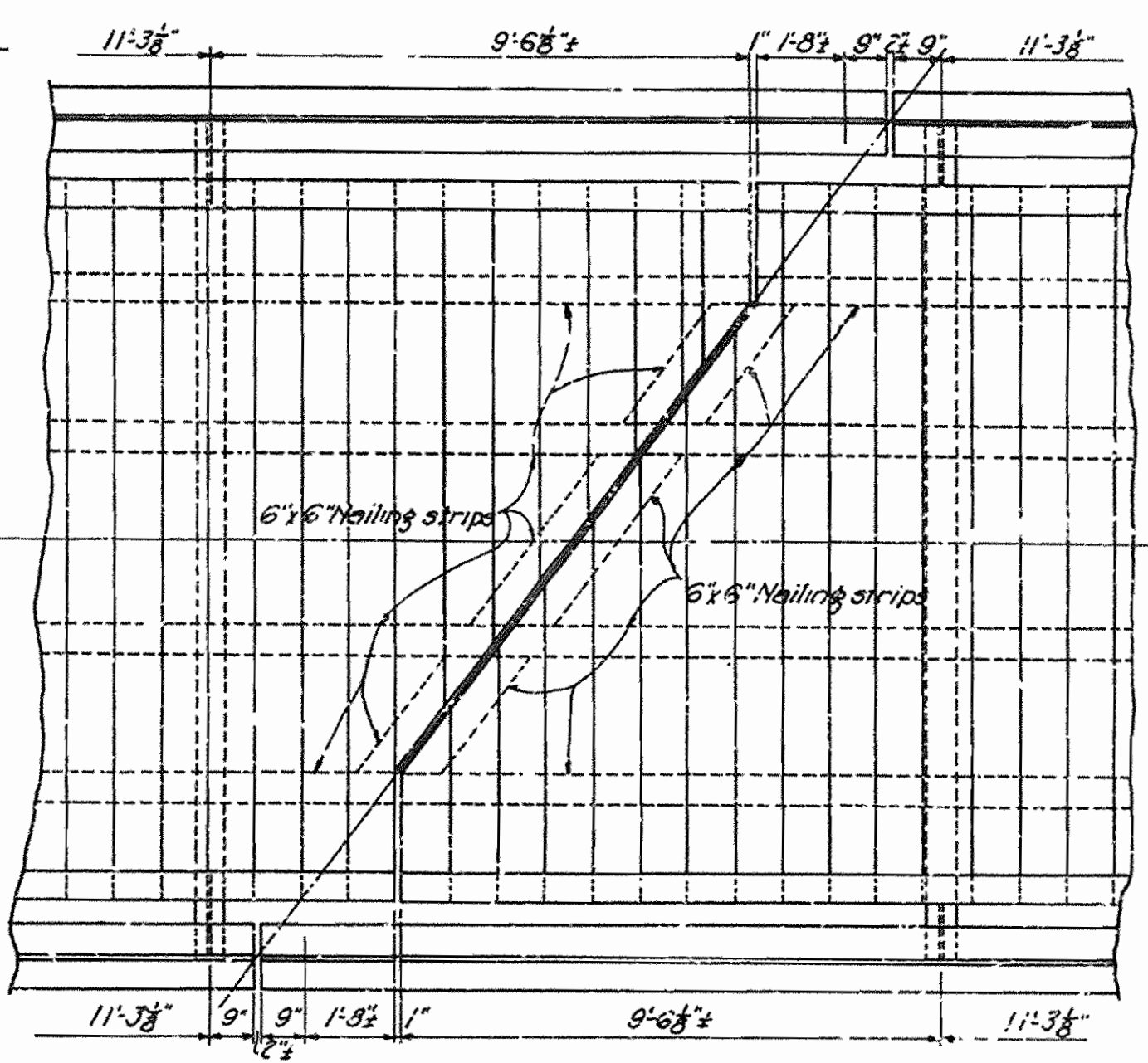
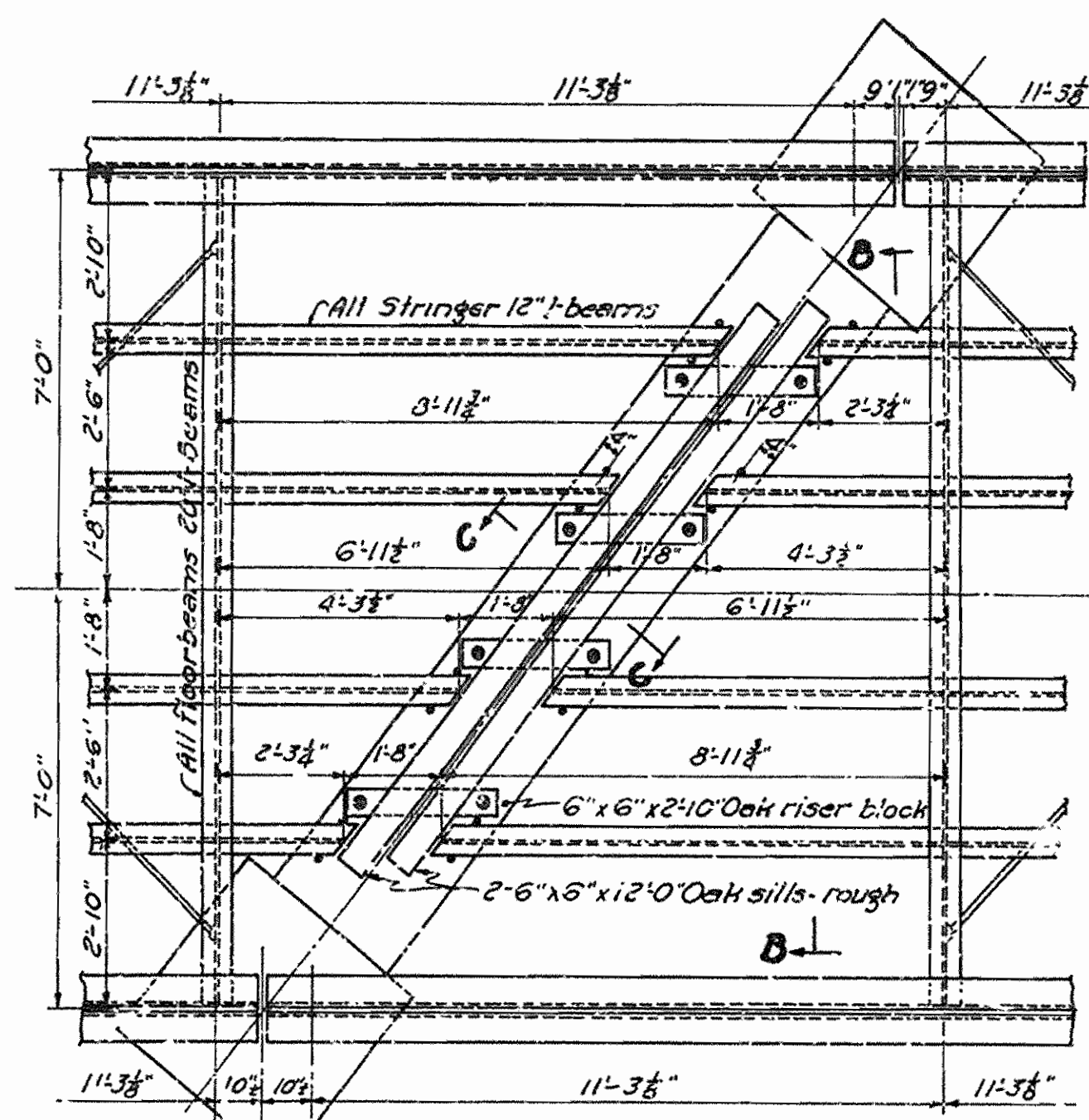
BRIDGE ENGINEER
BRIDGE NO. 2052 DRAWING NO. 35

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

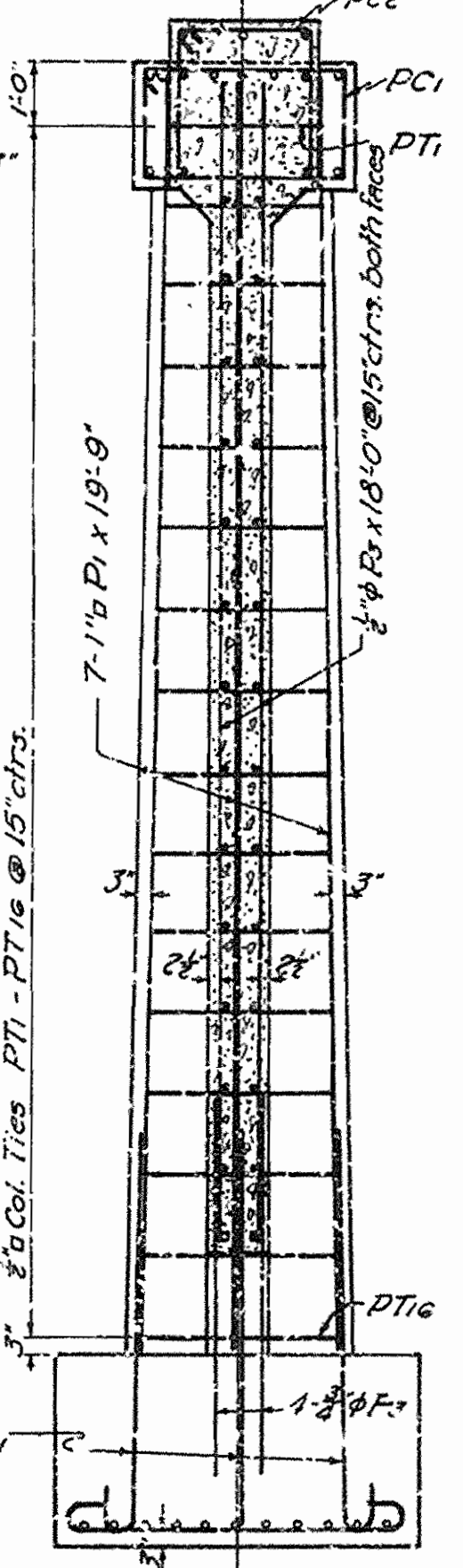
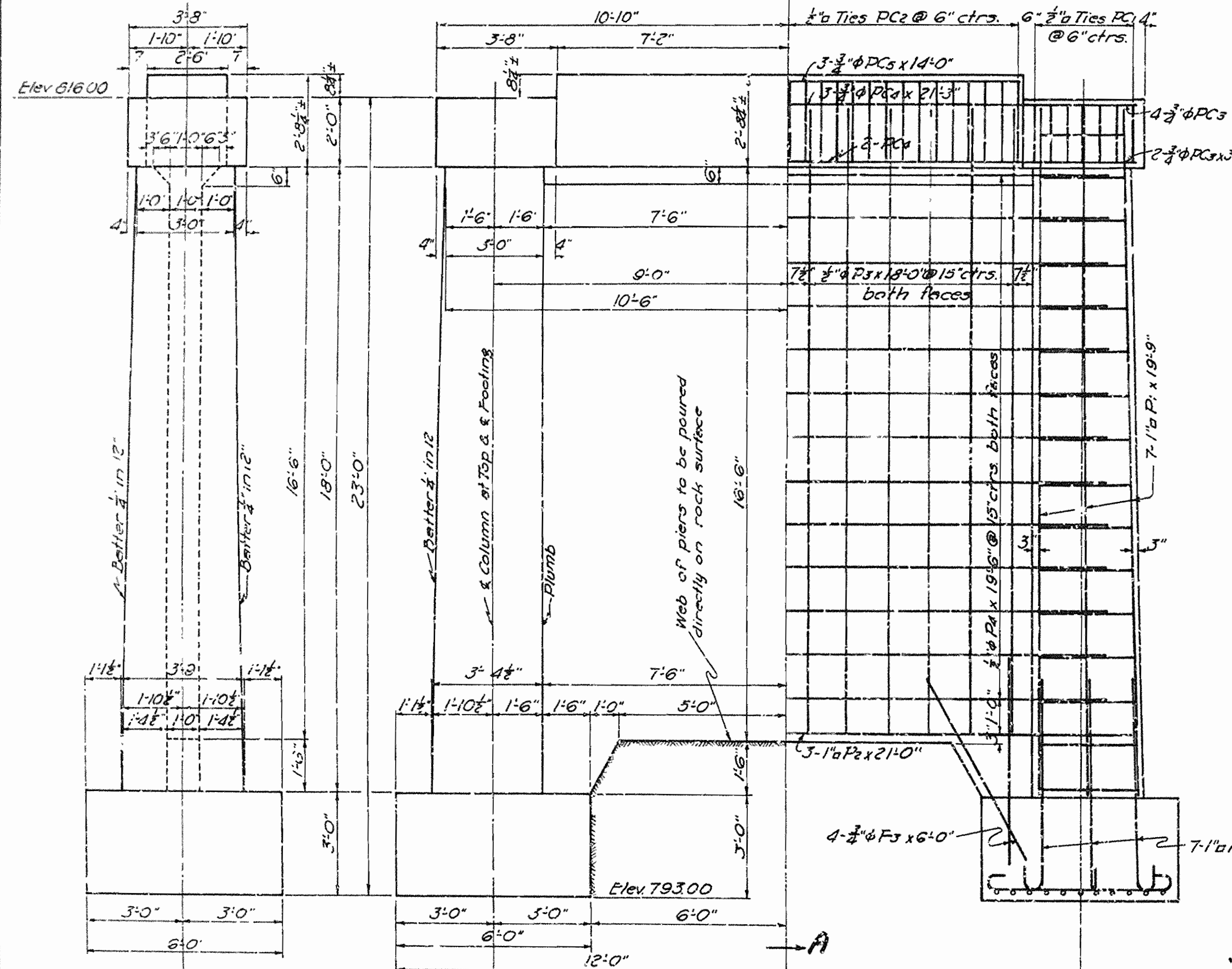
FED. ROAD DIST. NO.	STATE	Arch. Forest PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	AFP-A27C	1937	6	7
STATE JOB NO. 8197					



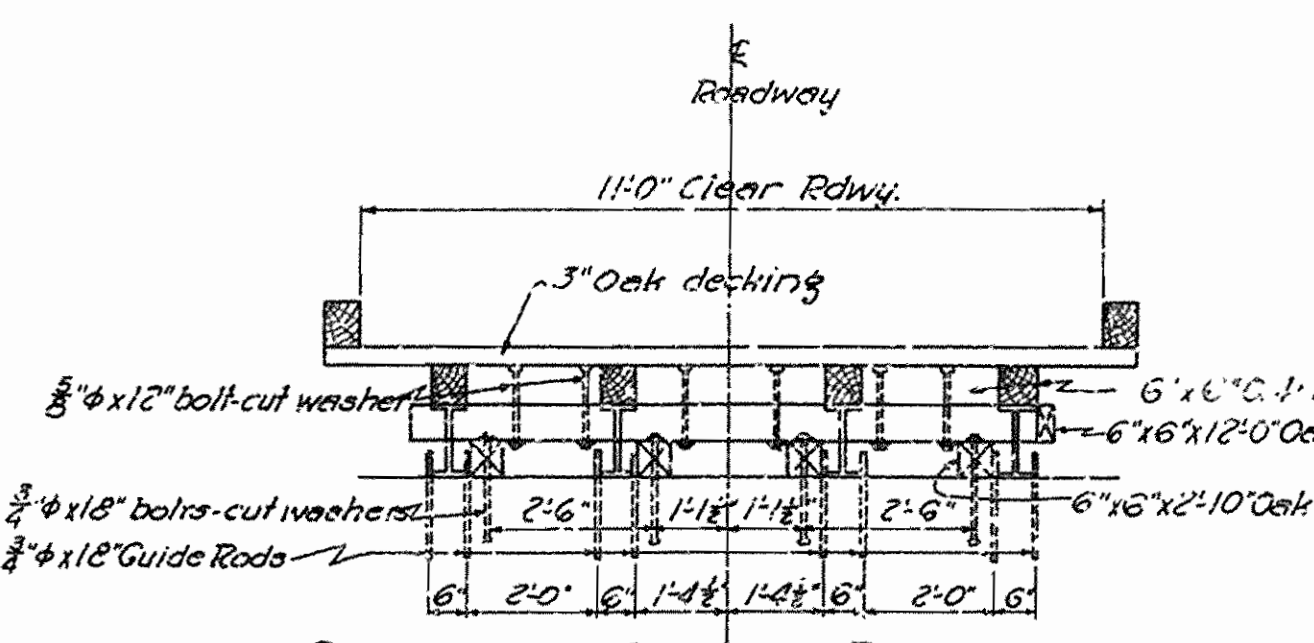
NOTE: Location of anchor bolts are approximate only. Actual location to be determined in the field. All anchor bolts to be new 1"φ x 2'-0" long.



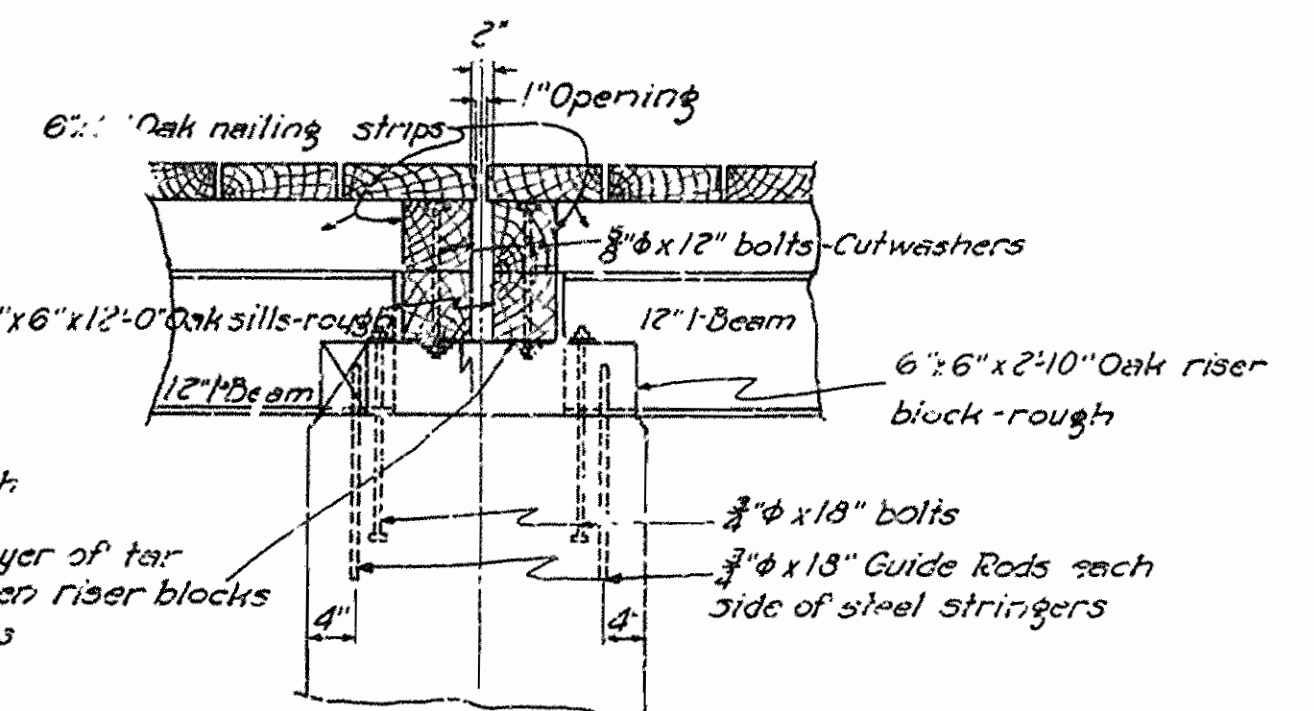
PART PLAN SHOWING LENGTH TO CUT STRINGERS PART PLAN SHOWING EXPANSION JOINT IN DECK IN END PANELS AT PIERS No. 1&2



SECTION A-A PIERS No. 1&2



SECTION B-B SHOWING DETAILS AT PIERS



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

GENERAL NOTES FOR PIERS

All concrete to be Class 'A'. All exposed corners to be chamfered 3/8". Dimensions relating to reinforcing steel are to centers of bars. For details of superstructure see Drawing No. 4787. Anchor bolts and guide rods fastening structural steel and timber to concrete, to be paid for at the unit price bid for Reinforcing steel.

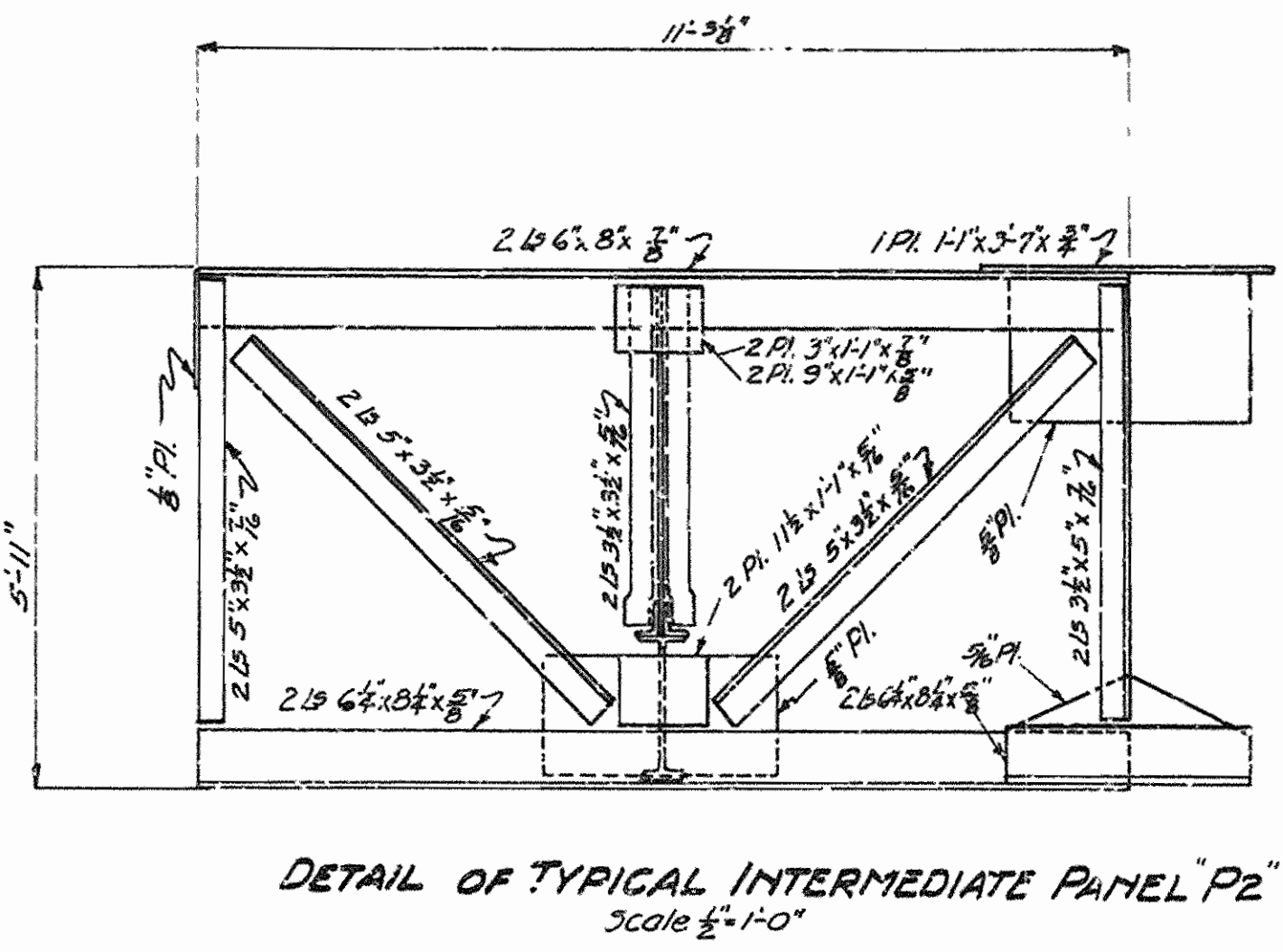
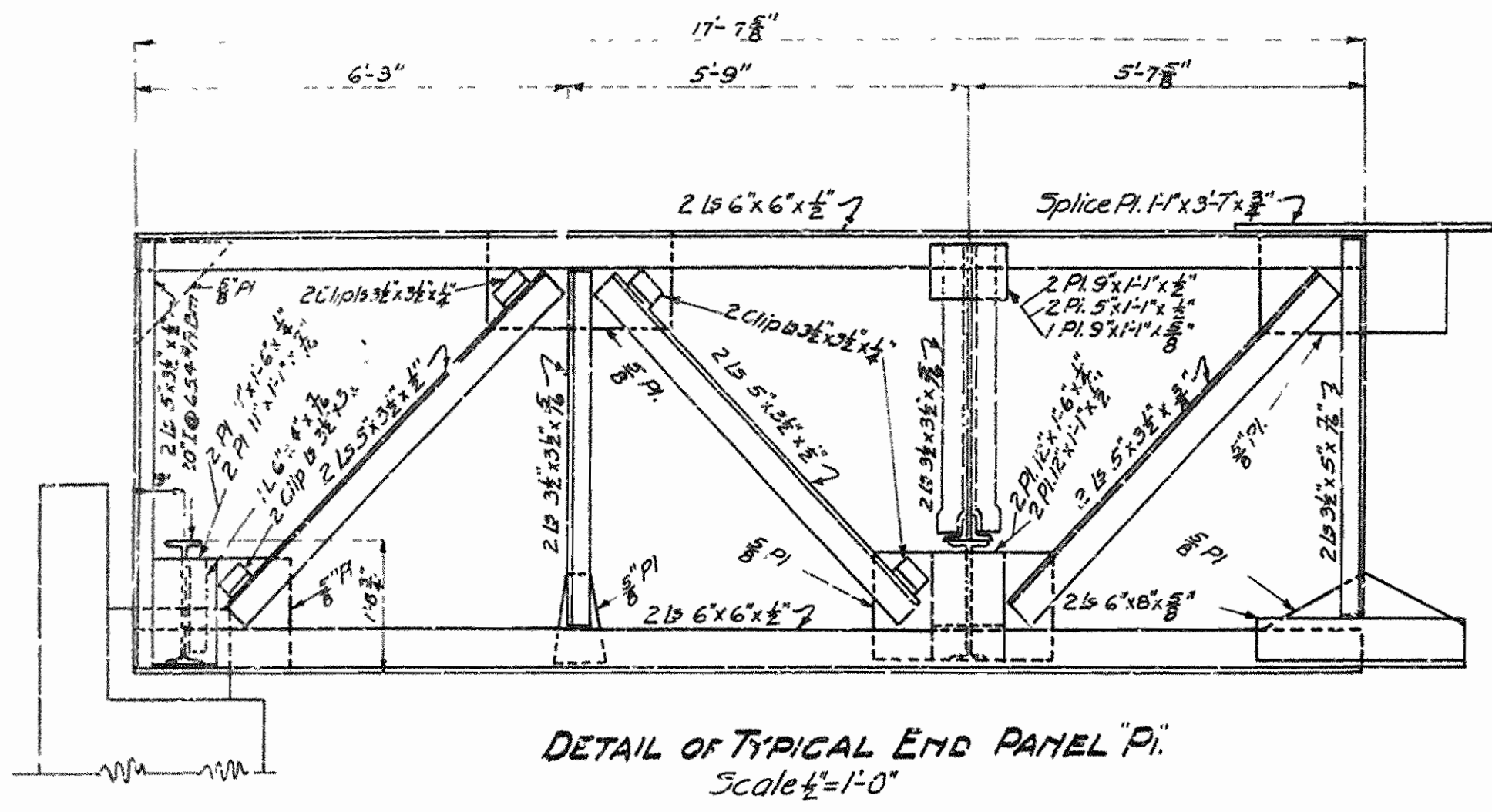
BAR LIST FOR PIERS No. 1&2 - EACH

BENT BARS				STRAIGHT BARS			
MARK	SIZE	No. Req'd	LENGTH	MARK	SIZE	No. Req'd	LENGTH
P1	1"φ	14	14	P1	1"φ	14	19'-9"
P2	3/4"φ	44	44	P2	1"φ	3	21'-0"
PC1	3/4"φ	14	14	PC3	3/4"φ	12	3'-3"
PC2	3/4"φ	20	20	PC4	3/4"φ	5	21'-3"
PT1	3/4"φ	8	8	PC5	3/4"φ	3	14'-0"
PT1c	3/4"φ	24	24	PC6	3/4"φ	8	6'-0"
PT1e	3/4"φ	26	26	PC7	3/4"φ	24	10'-0"
				PC8	3/4"φ	26	19'-6"

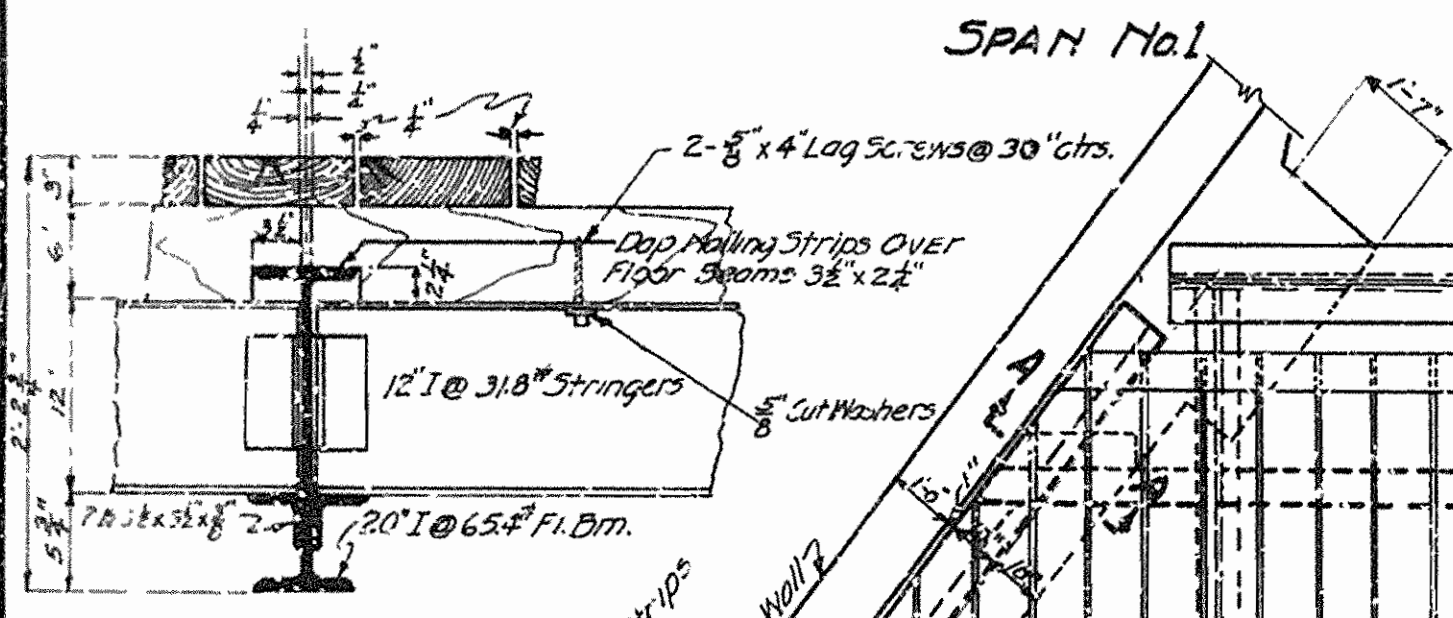
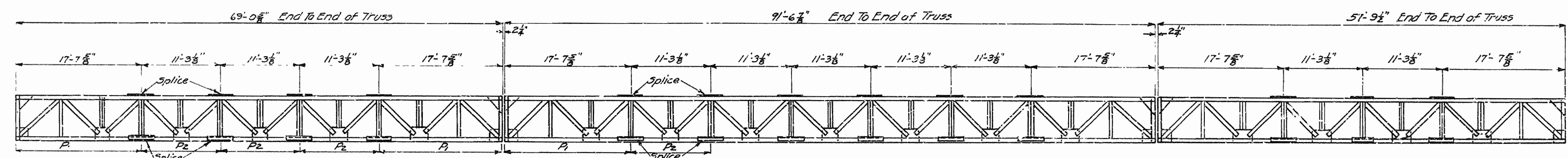
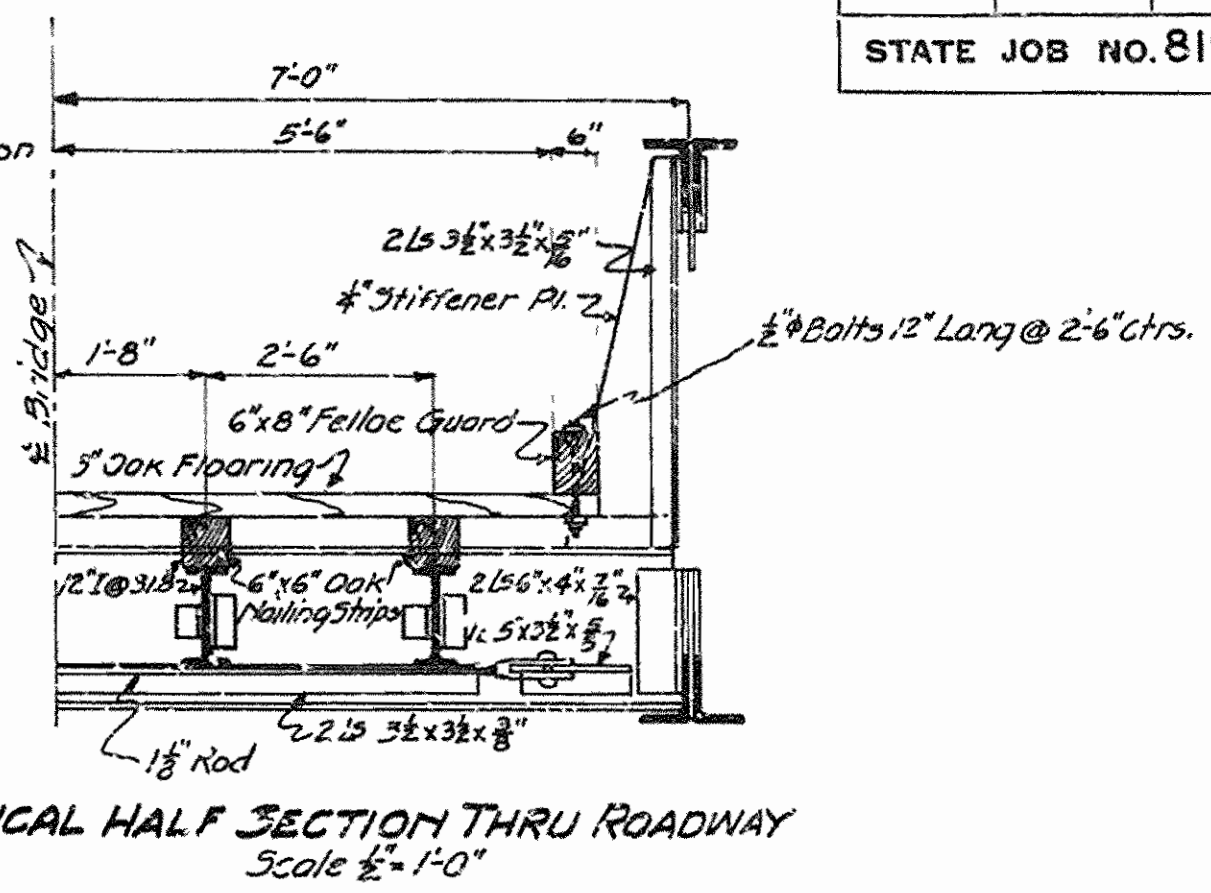
DETAIL OF PIERS No. 1&2
BRIDGE OVER IRONS FORK CREEK
NEAR ALY, ARKANSAS
YELL COUNTY
ROUTE 27 SEC. 8
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
Scale: 3/8" = 1'-0"
DRAWING NO. 4786

BRIDGE ENGINEER

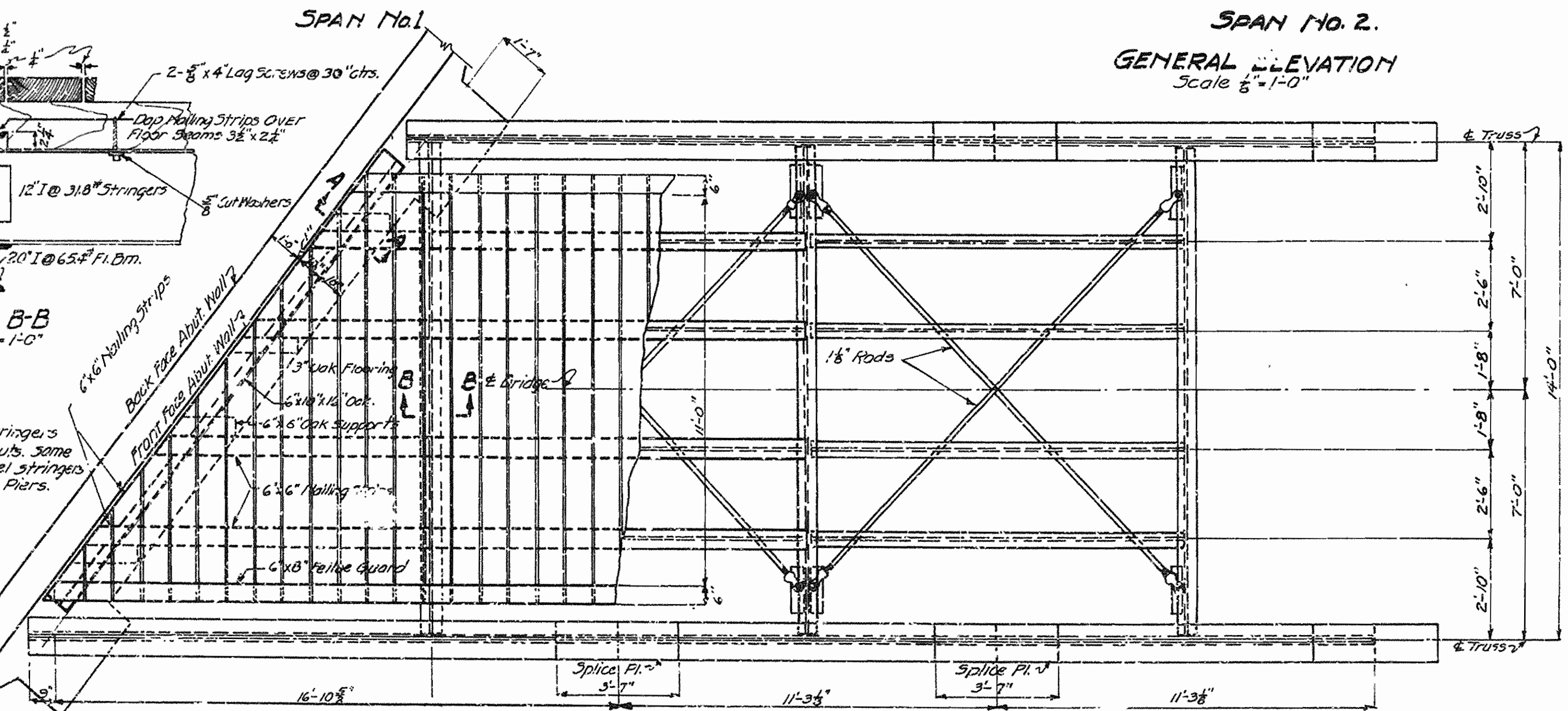
FED. ROAD DIST. NO.	STATE	Ark. Forest PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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STATE JOB NO. 8197					



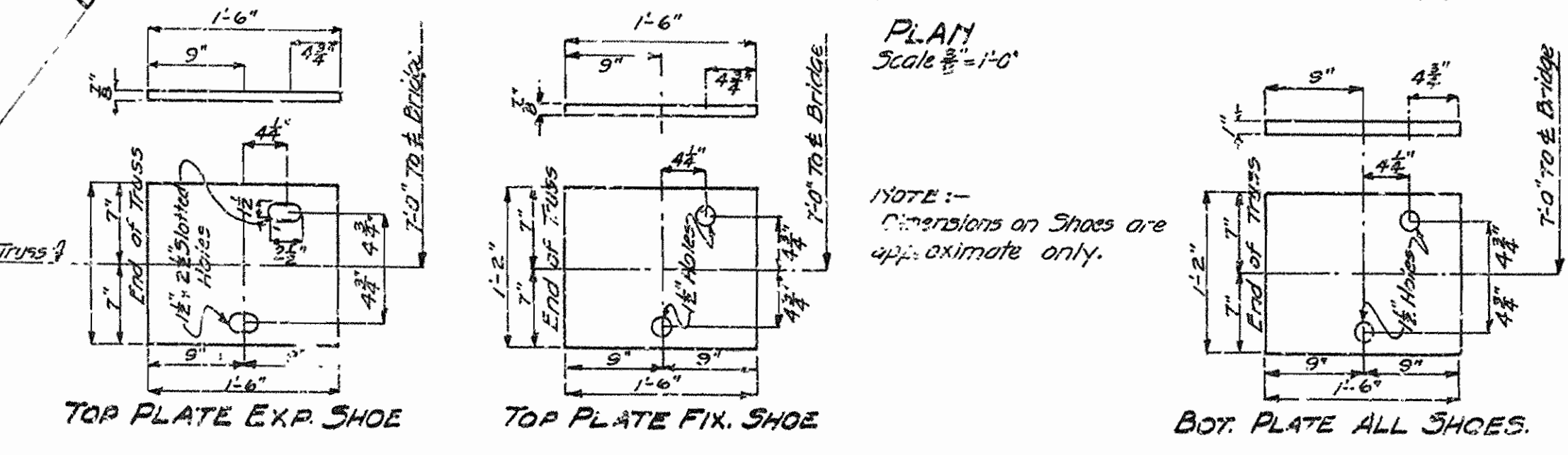
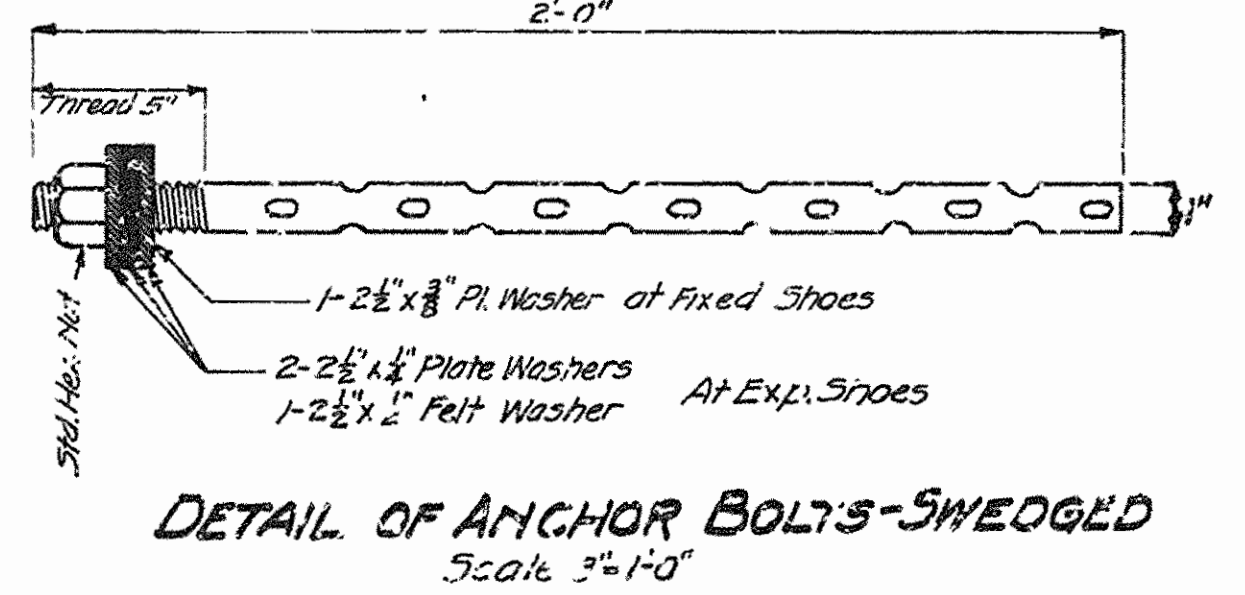
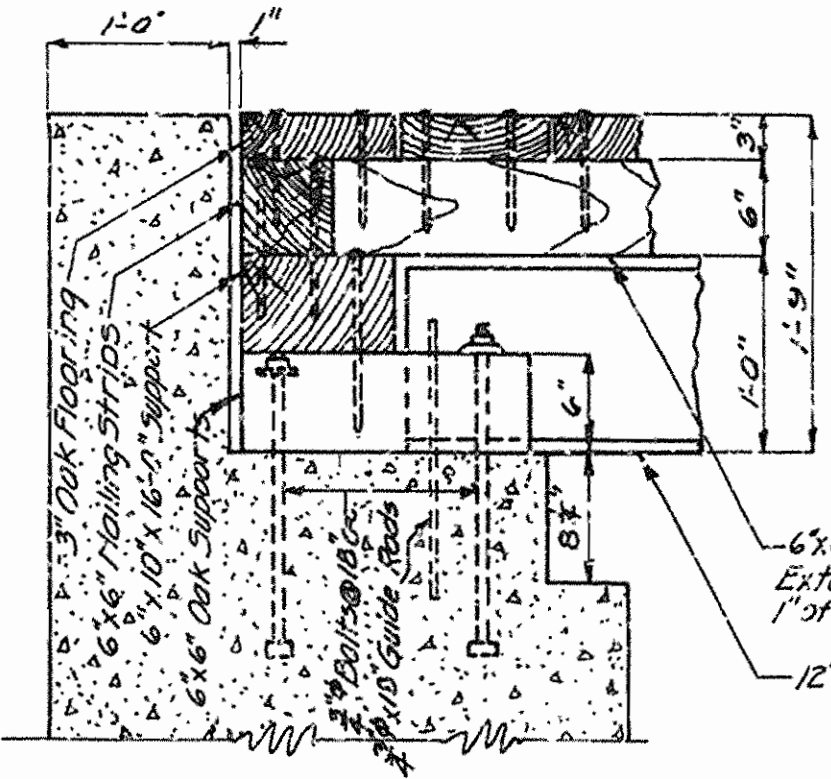
NOTE: All Truss field connections are 1" bolts.



NOTE: Lengths of steel stringers in End Panels at Abuts. same as lengths of steel stringers in End Panels at Piers.



Dimensions of Trusses are general only. Detailed dimensions are to be secured and verified in the field before construction is begun.
 All field connections are to be bolted unless otherwise noted.
 All members damaged by contractor shall be repaired or replaced at his own expense.
 All structural steel in trusses shall be thoroughly cleaned.
 Field Painting:
 All structural steel shall be given one coat of Red Lead and raw linseed oil before assembling.
 2nd. field coat shall be white lead tinted with lamp black.
 3rd. field coat shall be Aluminum paint.
 Oak flooring to be rough. Thickness of planking shall be a maximum of 3/8" and a minimum of 2/8" with not more than 1/8" variation in thickness of adjacent planks.
 Decking shall be fastened to each nailing strip with 2-6" spikes.
 Malleable or cast iron washers to be used under all bolt heads and nuts bearing on wood except as noted.
 The payment for all hardware bolts, washers, spikes, nails, dowels, drift pins, lag screws, etc., used for connecting timber parts shall be included in price bid for timber in place.
 Timber in handrail and handrail posts on abutments to be given 3 coats of white lead paint.
 Contractor will be required to furnish ten per cent (not more) of connecting bolts required. The balance will be the bolts salvaged from the prior dismantling of spans.
 Anchor bolts and guide bolts to be paid for at unit price bid for reinforcing steel.
 Specifications: Arkansas State Highway Commission Standard Specifications for Road and Bridge Construction adopted June 30, 1936
 OAK TIMBER
 Rail Post 8"x8" S.4S. Sills 6"x6" 6"x10" Rough.
 Rail Members 3"x6" 3"x8" S.4S. Nailing Strips 6"x6" "
 Felloe Guard 6"x8" S.131E. Riser Blocks 6"x6" "
 Decking 3"x10" Rough



NOTE: Dimensions on Shoes are approximate only.

DETAIL OF TRUSSES
 BRIDGE OVER IRONS FORK CREEK
 NEAR ALY ARKANSAS
 YELL COUNTY
 ROUTE 27 SEC. 8

ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 Drawn By: L.A.M. Date: 9-23-37
 Traced By: L.A.M. Date: 12-4-37
 Checked By: Date:
 BRIDGE NO. 2052 DRAWING NO. 4787

W.D. Kerner
 BRIDGE ENGINEER