

STATE OF ARKANSAS  
STATE HIGHWAY DEPARTMENT

PLAN OF PROPOSED BRIDGES  
ON  
CORNING - POCAHONTAS ROAD  
RANDOLPH COUNTY

ROUTE 67 SEC. 21  
JOB No 1003  
FEDERAL AID PROJECT No.

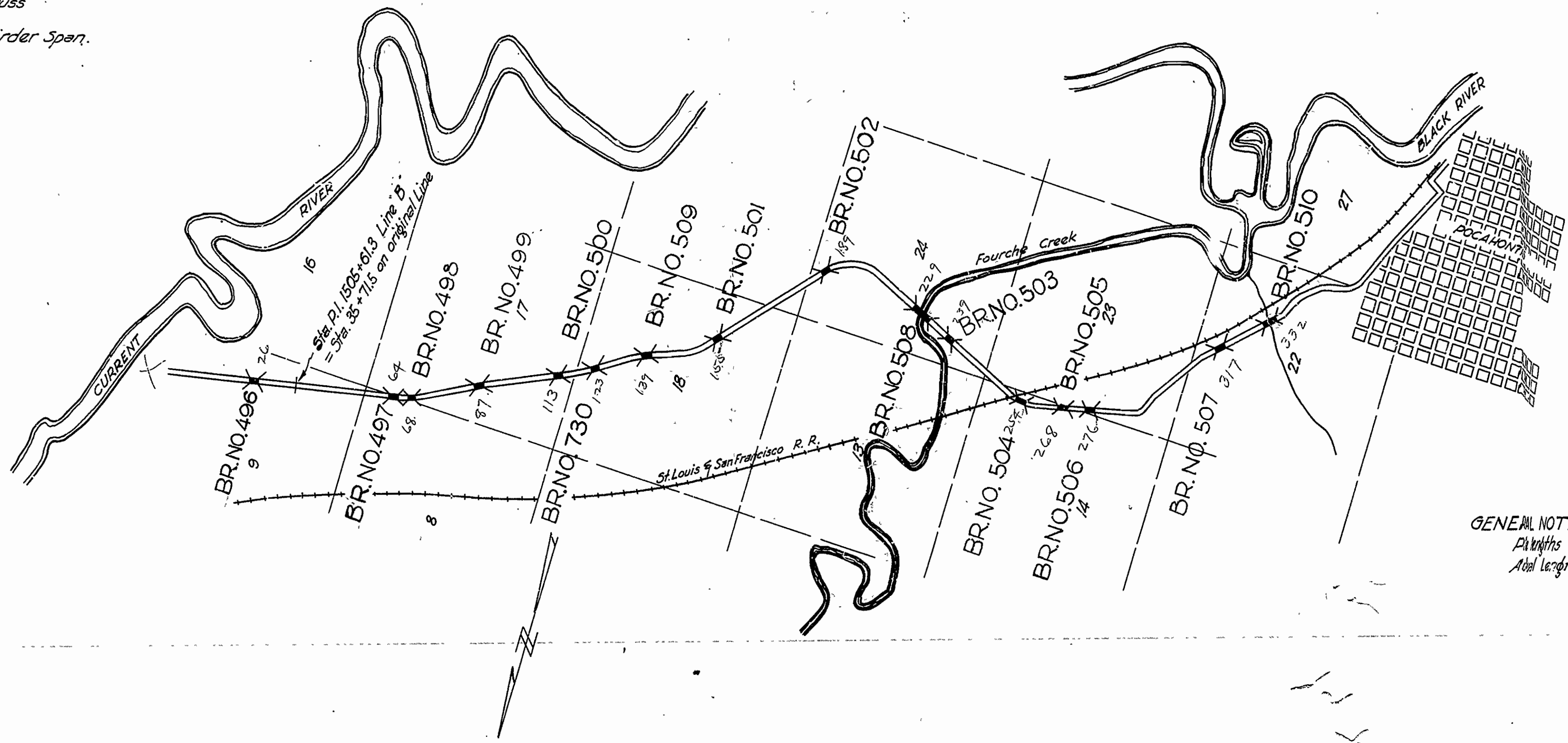
FISCAL YEAR	JOB NO.	SHEET No.	TOTAL SHEETS
1928	1003	1	18
Prop. Bas. Corning-Pocahontas Rd. Dist. 136			

INDEX OF SHEETS

Sh. No.	Drwg. No.	Description
1	736	Title Sheet
2	737	Layout Br. No. 496
3	173	Details of 30' R.C.D. Girder and Conc. Pile Bents
4	739	Layout Br. No. 497
5	739-A	" " " 730
6	741	" " " 498 & No. 503
7	743	" " " 499 & No. 500
8	745	" " " 501
9	746	Details of Substructure Br. No. 501
10	747	" " Superstructure " " 501
11	748	Layout Br. No. 502 & No. 504
12	750	" " " 505 & No. 506
13	751	" " " 507 & No. 509
14	752	" " " 508
15	753	Details of Substructure Brs. No. 508 & 510
16	93	" " 90'-0" Steel Truss
17	754	Layout Br. No. 510
18	181	Details of 40' R.C.D. Girder Span.

QUANTITIES

Item No.	Material	Quantity
12	Roadway Excav. (Earth)	3625 Cu.Yds.
13	Dry Excav. for Structures	1310 " "
13	Wet " " "	847 " "
54	Class "A" Concrete	717.71 " "
54	" " " " " 5" "	2354.21 " "
54	Seal Course Concrete (Class "A")	96.50 " "
55	Reinforcing Steel	521,637 Lbs.
56	Struct. Steel in Trusses	123,200 Lbs.
66	Untr. Timber Piling	4590 Lin.Ft.
68	Precast Concrete Piling	8764 " "
69	RipRap 1ft. thick	9846 Sq.Yds.
74	Concrete Railing for Structures	4112 Lin.Ft.



GENERAL NOTES: (applying to all bridges)  
Pile lengths shown are for Estimating Quantities only.  
Abut lengths to be determined in the field.

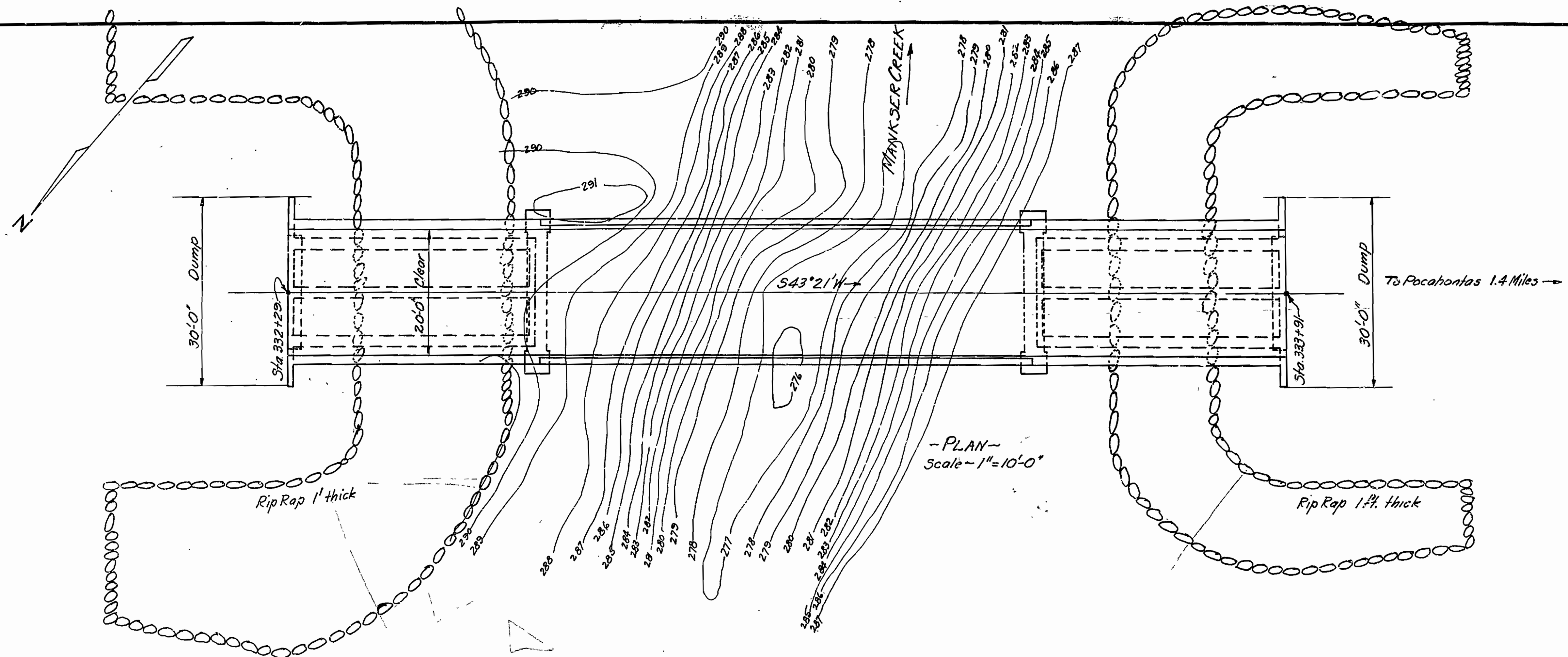
LAYOUT  
Scale: 1" = 2000'

GROSS LENGTH OF PROJECT 2102'-0" = 0.398 MI.  
NET LENGTH OF PROJECT 2102'-0" = 0.398 MI.

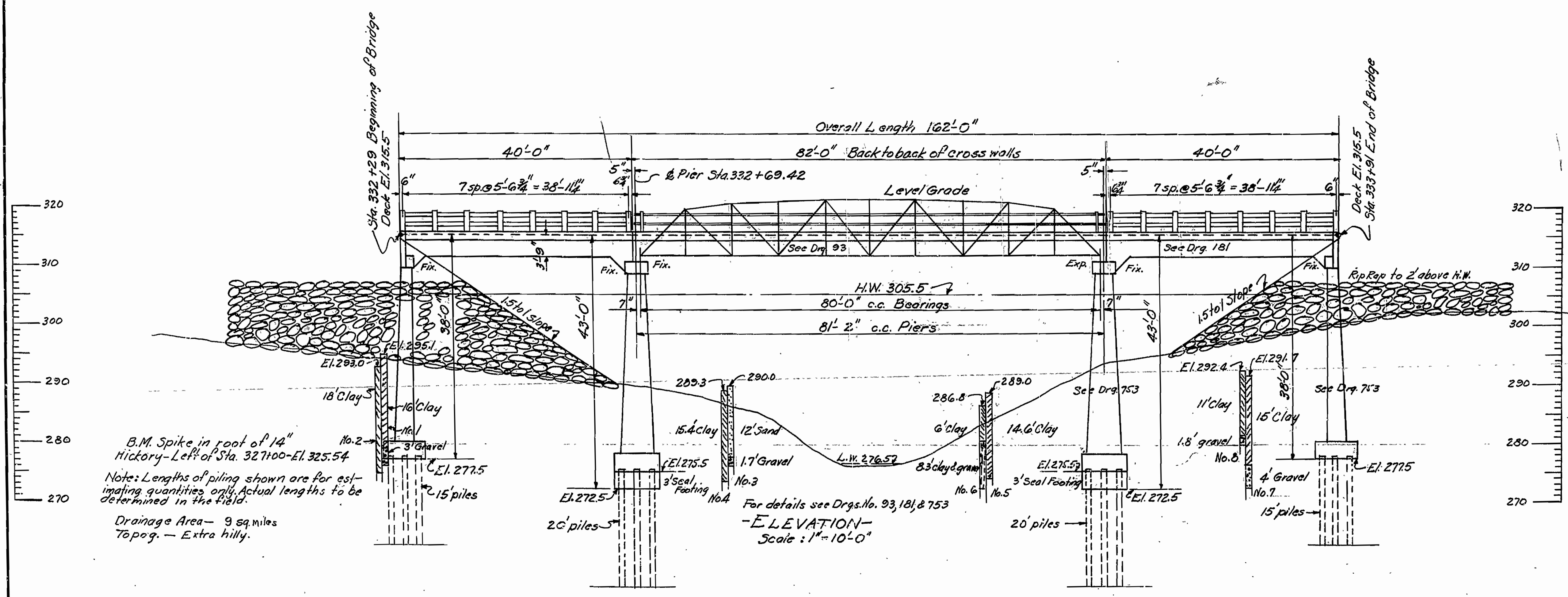
APPROVED  
COMMISSIONER STATE LANDS, HIGHWAYS AND IMPROVEMENTS  
APPROVED  
STATE HIGHWAY ENGINEER  
RECOMMENDED FOR APPROVAL  
DISTRICT ENGINEER - U.S. BUREAU OF PUBLIC ROADS  
RECOMMENDED FOR APPROVAL  
CHIEF ENGINEER - U.S. BUREAU OF PUBLIC ROADS  
APPROVED  
DIRECTOR U.S. BUREAU OF PUBLIC ROADS

M.B. Lewis  
BRIDGE ENGINEER

FISCAL YEAR	28	JOB No.	1003	SHEET No.	17	TOTAL SHEETS	18
FED. ROAD No.	6	STATE	ARK.	FED. AID PROJECT		FISCAL YEAR	
JOB No.	10476		44	137			
BR. OVER MANKSER CREEK, RANDOLPH CO., ARK. 754							



Item#	QUANTITIES FOR BR. #510	Units
13	Dry Excavation for structures	628 cu yd
13	Wet " " "	241 " "
54	Class-A Concrete	267.92 " "
54	Class-S " "	163.0 " "
54	Seal Concrete (Class-A)	51.13 " "
55	Reinforcing Steel	55,709 Lbs
56	Structural Steel in Truss	61600 " "
66	Untreated lumber piling	1800 Lin. Ft.
69	Rip Rap 1 ft. thick	835 Sq. Yds.
74	Conc. Paving for structures	174 Lin. Ft.
12	Earth Excavation	670 cu yd



B.M. Spike in root of 14" Hickory - Left of Sta. 327+00 - El. 325.54  
 Note: Lengths of piling shown are for estimating quantities only. Actual lengths to be determined in the field.  
 Drainage Area - 9 sq. miles  
 Topog. - Extra hilly.

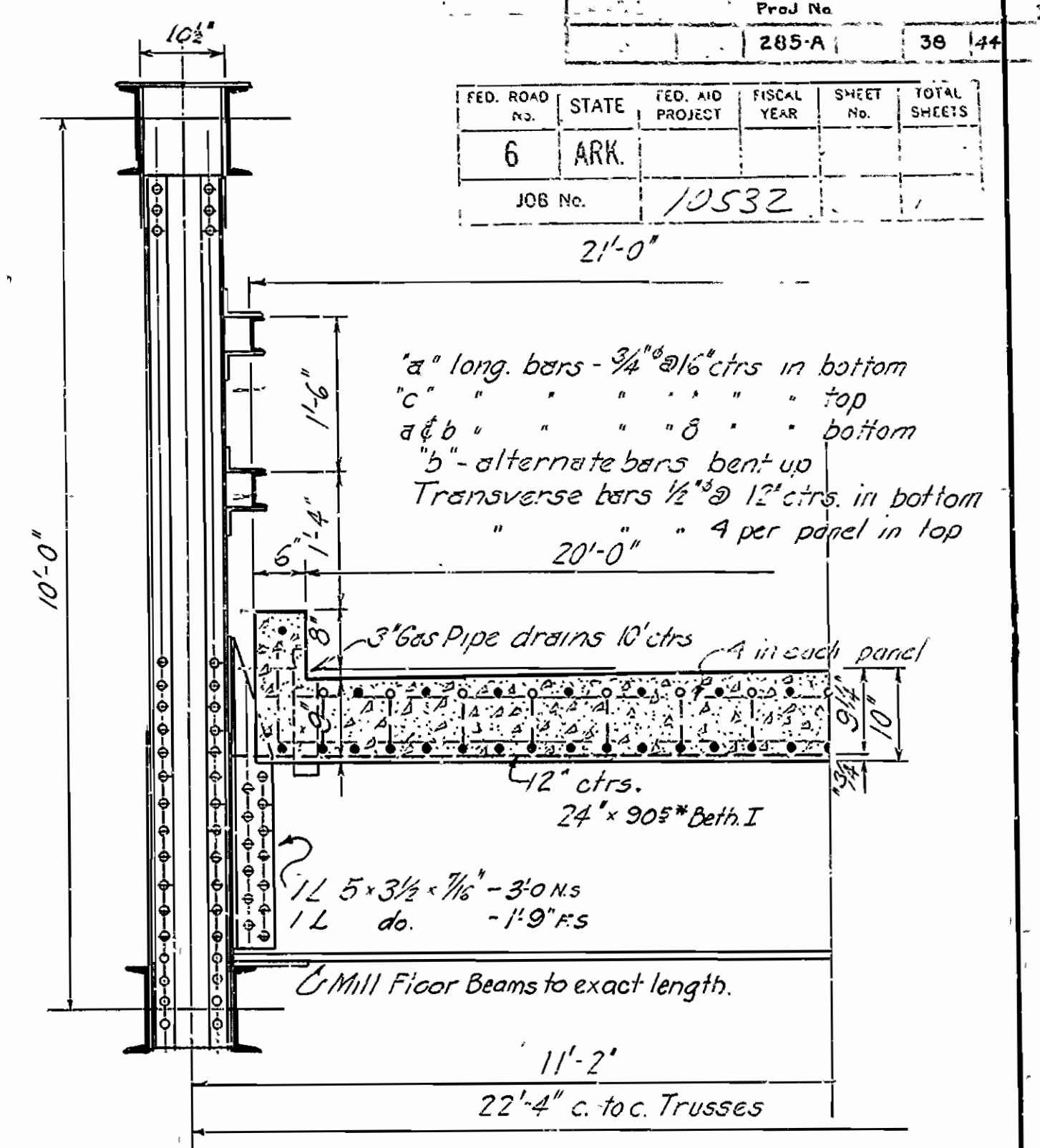
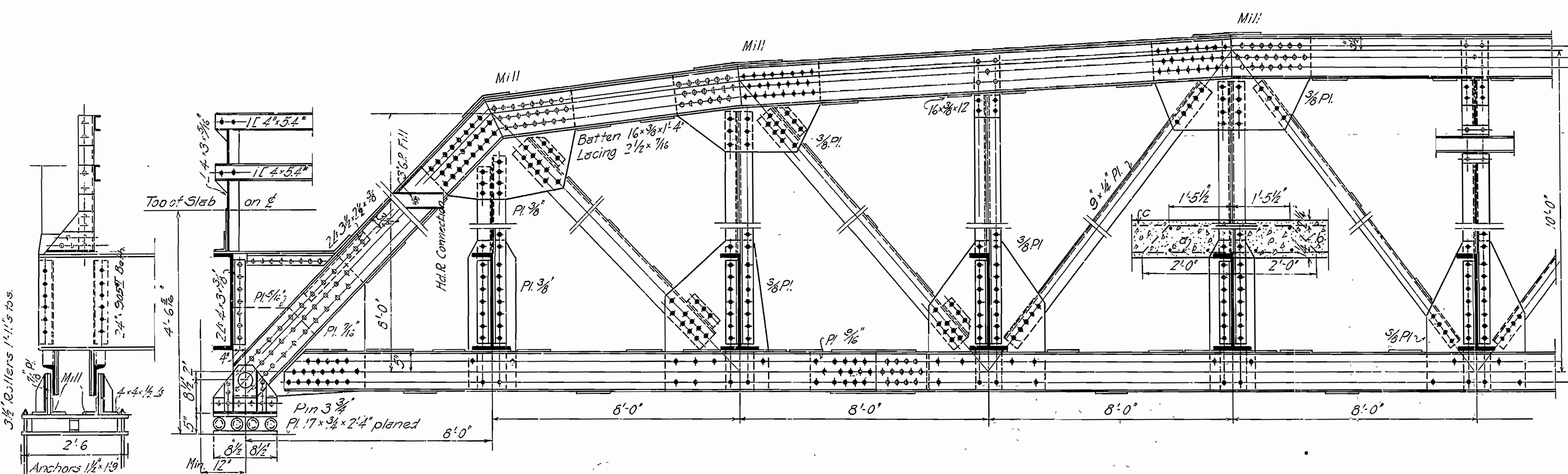
For details see Drgs. No. 93, 181, & 753  
 -ELEVATION-  
 Scale: 1" = 10'-0"

This drawing included in Job No. 10476 for general information only.

LAYOUT OF  
 BRIDGE OVER MANKSER CREEK.  
 1.4 MILES NE, POCAHONTAS, RANDOLPH CO.  
 ROUTE 67, SEC. 21  
 ARKANSAS STATE HIGHWAY DEPARTMENT  
 LITTLE ROCK, ARK.  
 Drawn By: *[Signature]* Date: 3-28-28  
 Traced By: *[Signature]* Date: 3-28-28  
 Checked By: *[Signature]* Date: *[Signature]*  
 BRIDGE ENGINEER  
 BRIDGE NO. 510 DRAWING NO. 754

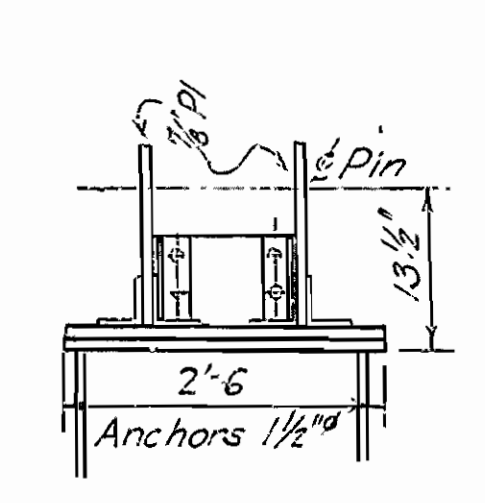
*[Signature]*  
 BRIDGE ENGINEER

FED. ROAD No.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK			36	144
JOB No.		10532			

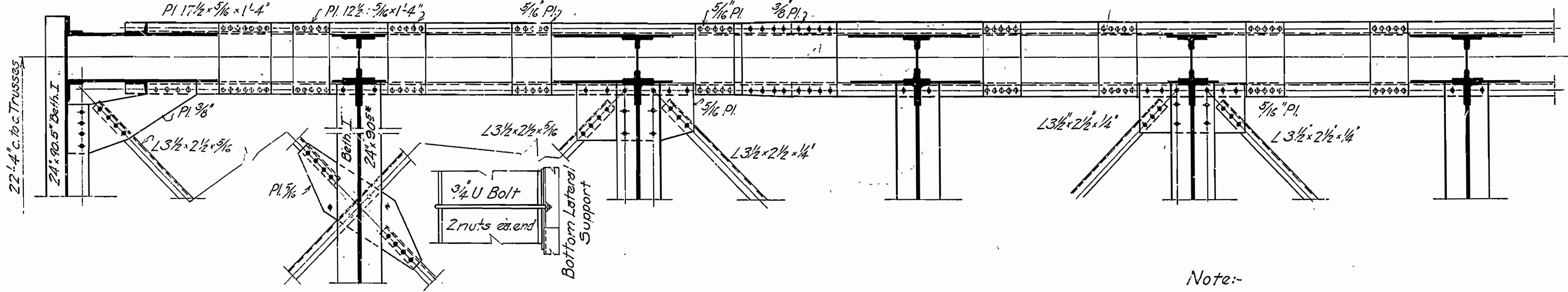


PARTIAL SECTION

EXPANSION SHOE

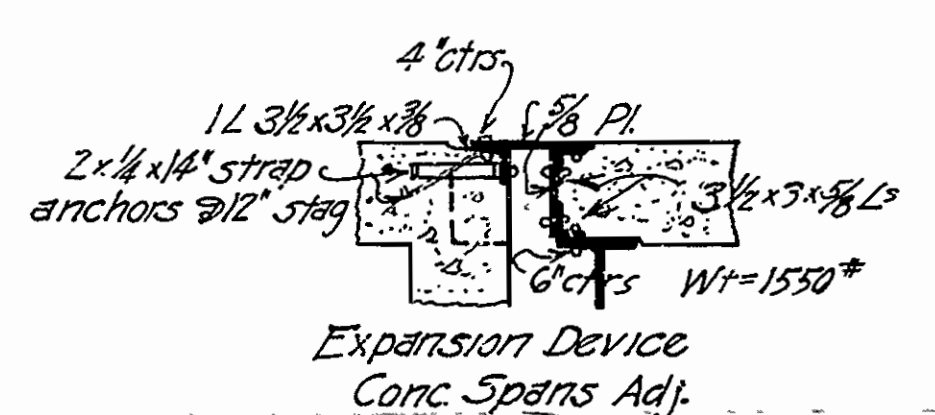


FIXED SHOE



Floor Beams  
 D.L.M. - 68300  
 L.L.M. - 163000  
 I.M. - 48700  
 Total 280500

S = 280,500 x 12 = 210.3  
 16000  
 24' Beth I x 90° = 214.6

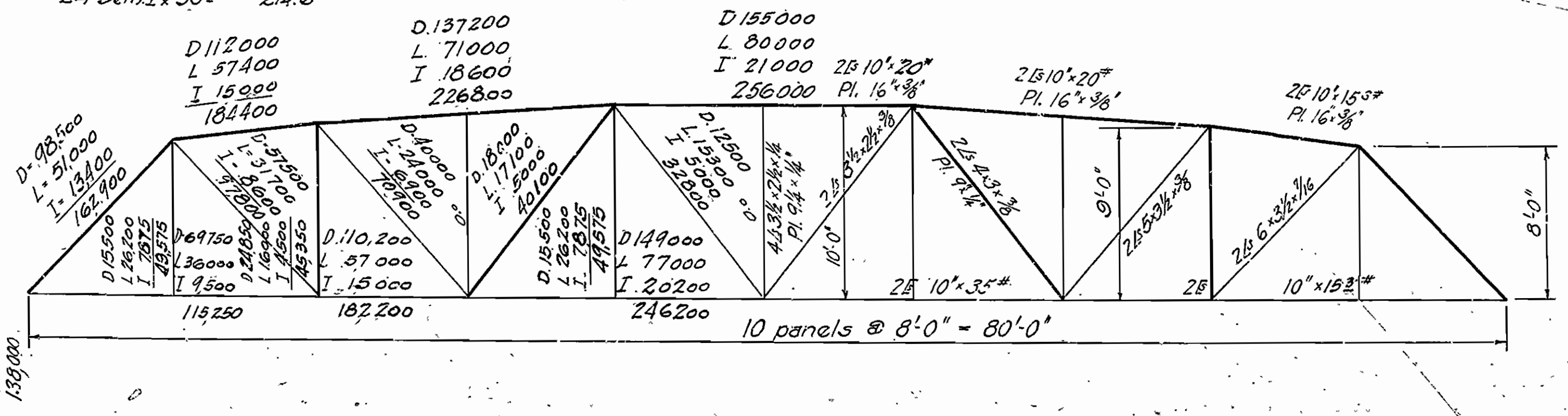
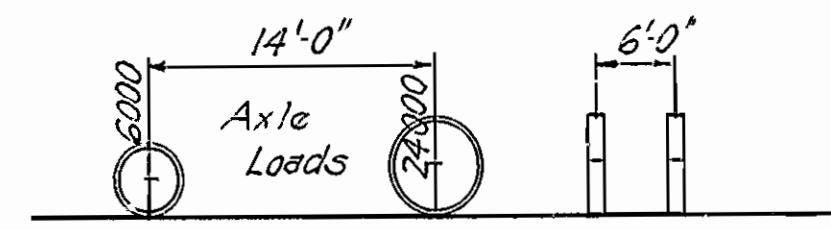


Expansion Device Conc. Spans Adj.

Note:-  
 This drawing is general.  
 Shop drawings must be submitted and approved before fabrication is begun.

LIVE LOAD:- Uniform - 100 lbs per sq. ft. of Roadway  
 Concentrated - 2.15 Ton Trucks as shown  
 Impact = 100  
 Unit Stresses - See Ark. Highway Dept. Specif. 9/30/25  
 Rivets:- 3/4" diameter  
 Open Holes:- Rivet holes in main members punch 3/16" smaller than rivet. During shop assembly ream to 1/16" larger than rivet specified.  
 All field connections riveted. Rivet holes in tension members so spaced that only one hole is deducted from each angle at point of maximum stress. Deduct two holes in each channel.  
 Shop Paint:- One coat red lead & raw linseed oil.  
 Field Paint:- Two coats of different colors as approved.  
 Batten Plates:- Spaced not over 3'-0" centers on tension members.  
 Concrete:- Floor slab Class 5' Extra 1" was added for wear.

SPECIFICATIONS



Struct. Steel 70,603# Shop Wt.  
 Rein. Steel 7905#  
 Conc. 5' (8'6") 532 cu yds.

M.B. Gann  
 Bridge Engineer

Revised	Rev. No.	5-10-32	844
	Sl. No.	105	

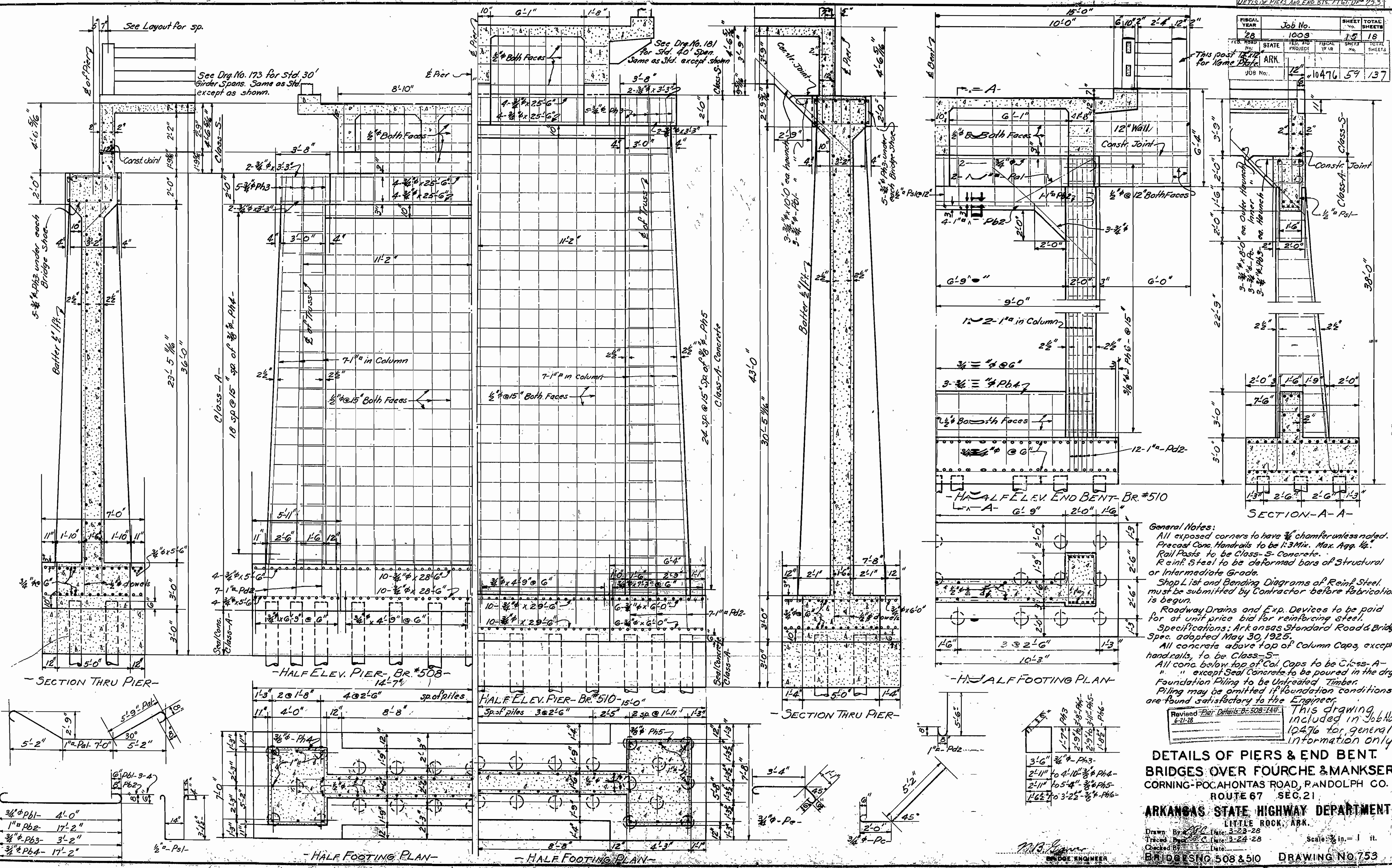
STANDARD PLAN  
 80'-0" STEEL HIGHWAY TRUSS

20'-0" Roadway Concrete Floor

ARKANSAS HIGHWAY DEPARTMENT  
 LITTLE ROCK, ARK.

Designed By \_\_\_\_\_ Date \_\_\_\_\_  
 Traced By \_\_\_\_\_ Date \_\_\_\_\_  
 Checked By \_\_\_\_\_ Date \_\_\_\_\_

FISCAL YEAR	Job No.	SHEET	TOTAL SHEETS
28	1003	15	18
FED. ROAD DIST. NO.	STATE PROJECT	FISCAL YEAR	SHEET NO.
12	10476	59	137
JOB No. 12 10476 59 137			



**General Notes:**  
 All exposed corners to have 3/8" chamfer unless noted.  
 Precast Conc. Handrails to be 1:3 Mix. Max. Agg. 1/2".  
 Rail Posts to be Class-S Concrete.  
 Reinf. Steel to be deformed bars of Structural or Intermediate Grade.  
 Shop List and Bending Diagrams of Reinf. Steel must be submitted by Contractor before fabrication is begun.  
 Roadway Drains and Exp. Devices to be paid for at unit price bid for reinforcing steel.  
 Specifications: Arkansas Standard Road & Bridge Spec. adopted May 30, 1925.  
 All concrete above top of Column Caps, except handrails, to be Class-S.  
 All conc. below top of Col. Caps to be Class-A " " except Seal Concrete to be poured in the dry.  
 Foundation Piling to be Untreated Timber.  
 Piling may be omitted if foundation conditions are found satisfactory to the Engineer.

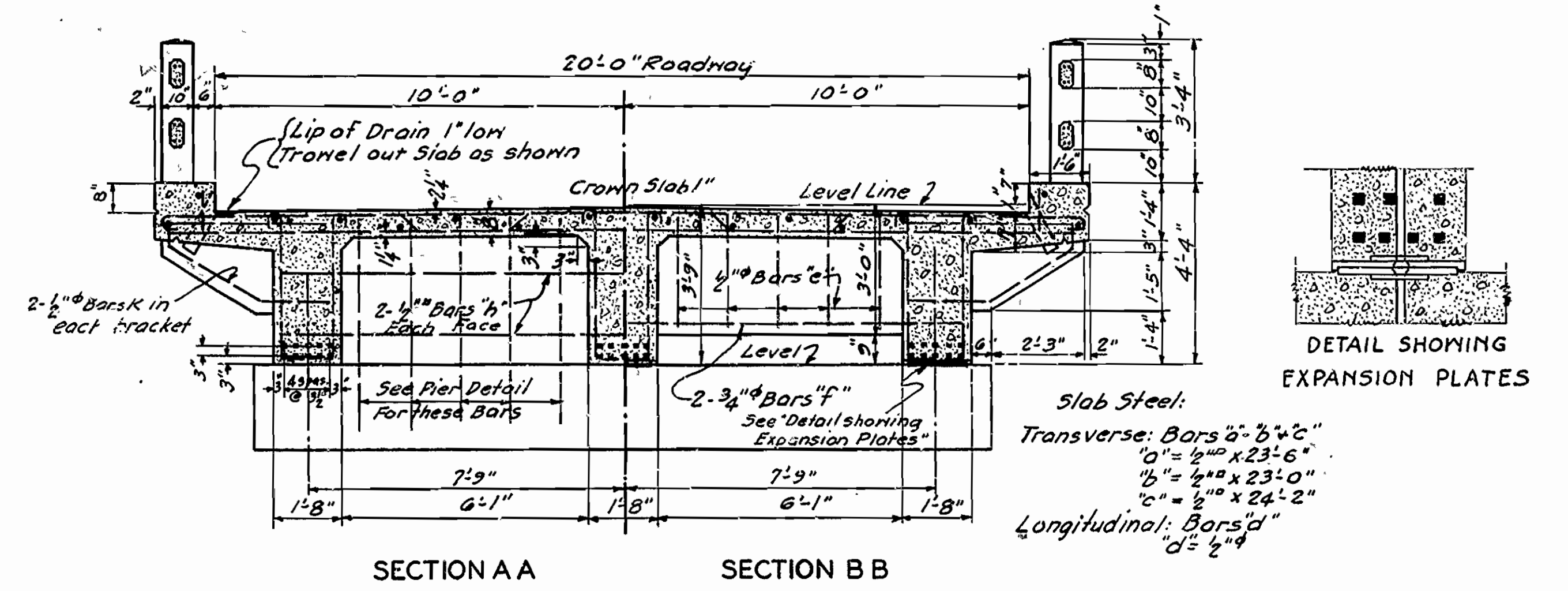
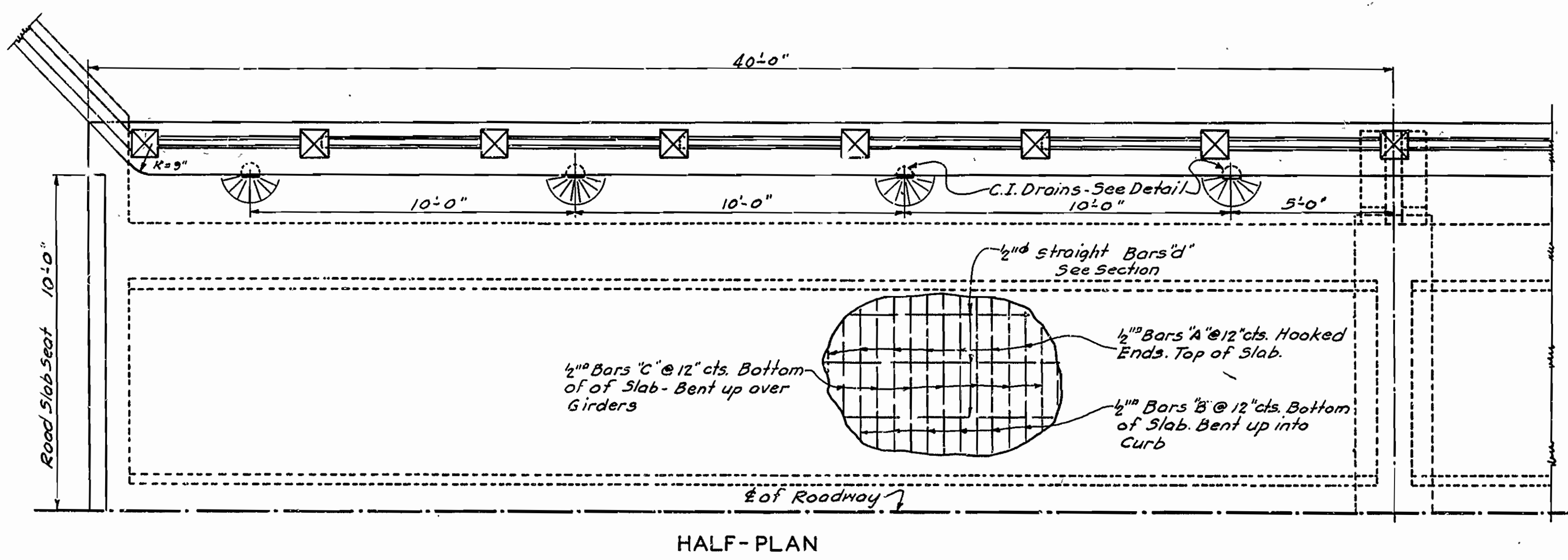
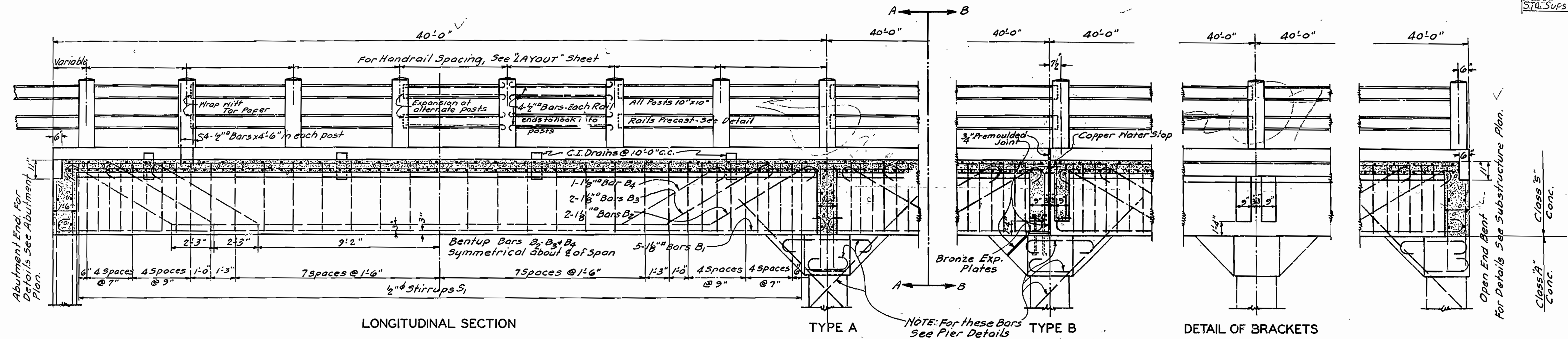
Revised Pier Details: BR #508-FAV  
 6-21-28

This drawing included in Job No. 10476 for general information only.

**DETAILS OF PIERS & END BENT  
 BRIDGES OVER FOURCHE & MANKSER CR.  
 CORNING-POCAHONTAS ROAD, RANDOLPH CO.  
 ROUTE 67 SEC. 21  
 ARKANSAS STATE HIGHWAY DEPARTMENT  
 LITTLE ROCK, ARK.**

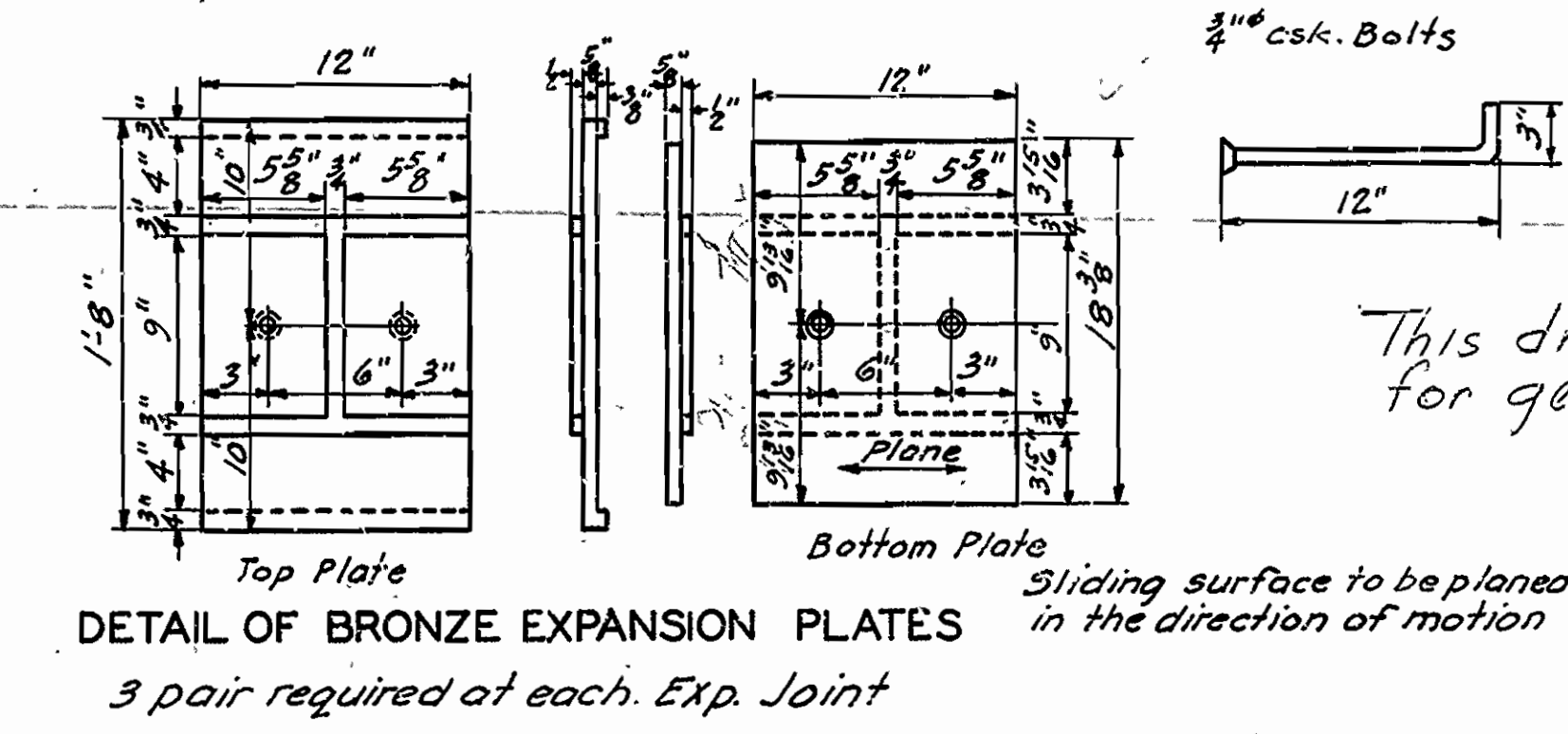
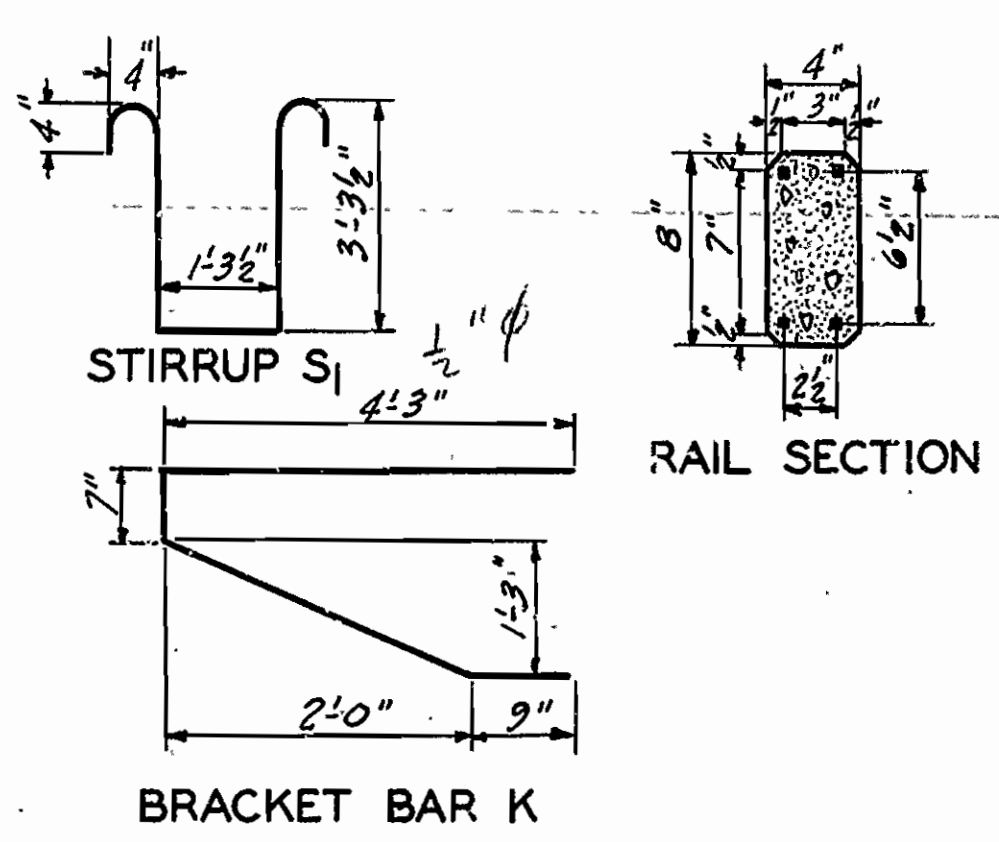
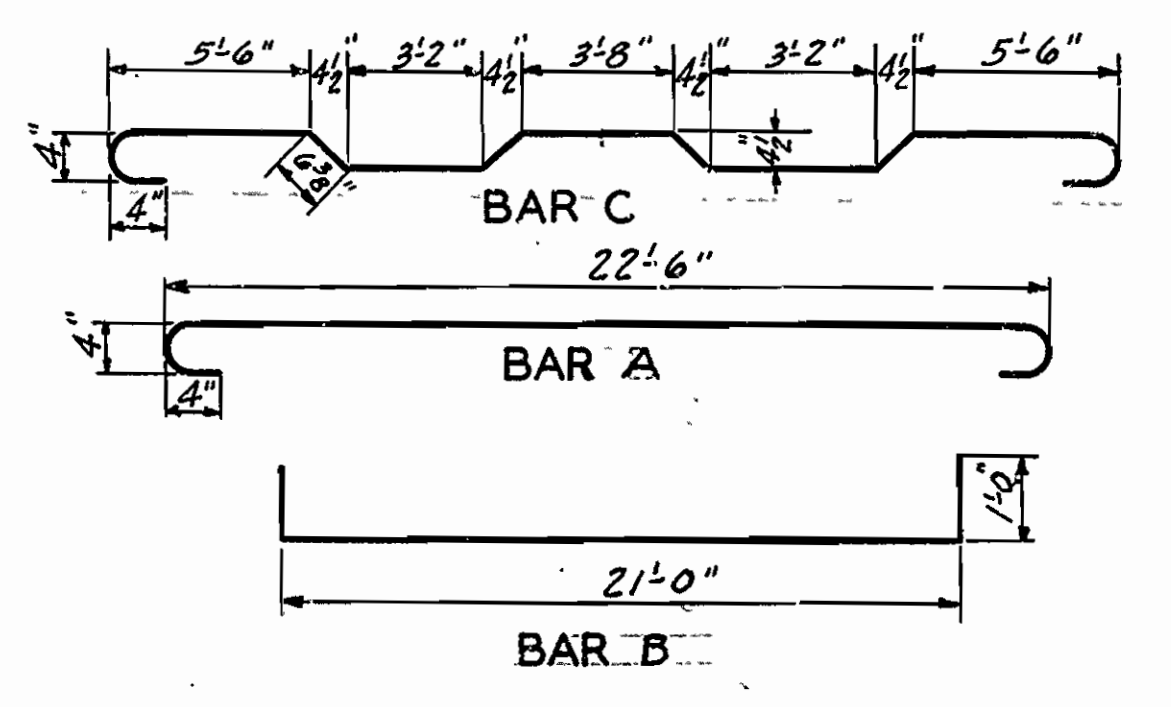
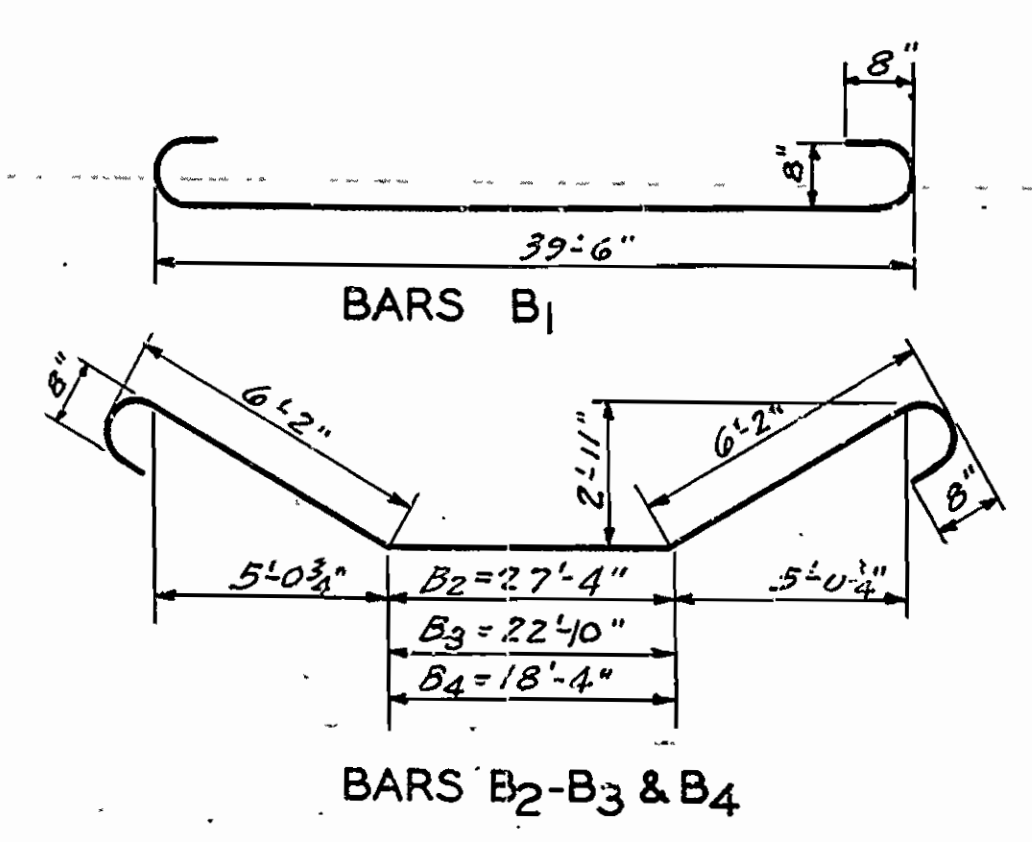
Drawn By: [Signature] Date: 3-23-28  
 Traced By: [Signature] Date: 3-24-28  
 Checked By: [Signature] Date: [Blank]  
 Scale: 3/8" = 1' ft.  
 BRIDGES INC 508 & 510 DRAWING No 753

FISCAL YEAR	SHEET NO.	TOTAL SHEETS
10 476	57	137
Std. Subst. 40' R.C.D. G. 20' Rd. v. Dr. 71		



**GENERAL NOTES:**  
 All exposed corners to have 3/4" chamfer unless otherwise noted.  
 Precast Concrete Handrails to be 1:3 Mix. Maximum aggregate 3/4".  
 Rail Posts to be Class "S" Concrete.  
 Reinforcing Steel to be deformed bars of Structural or Intermediate grade. Shop list and Bending Diagrams of Steel must be submitted before fabrication. Drains and Exp. Devices to be paid for at the unit price bid for Reinforcing Steel.  
 All Concrete above top of Column cap except Handrail, Class "S"; below, Class "A".  
 Specifications: Arkansas Standard Road and Bridge Specifications, adopted May 30, 1925.  
 All Concrete to be poured in the dry.

This drawing included in Job No. 10476 for general information only.

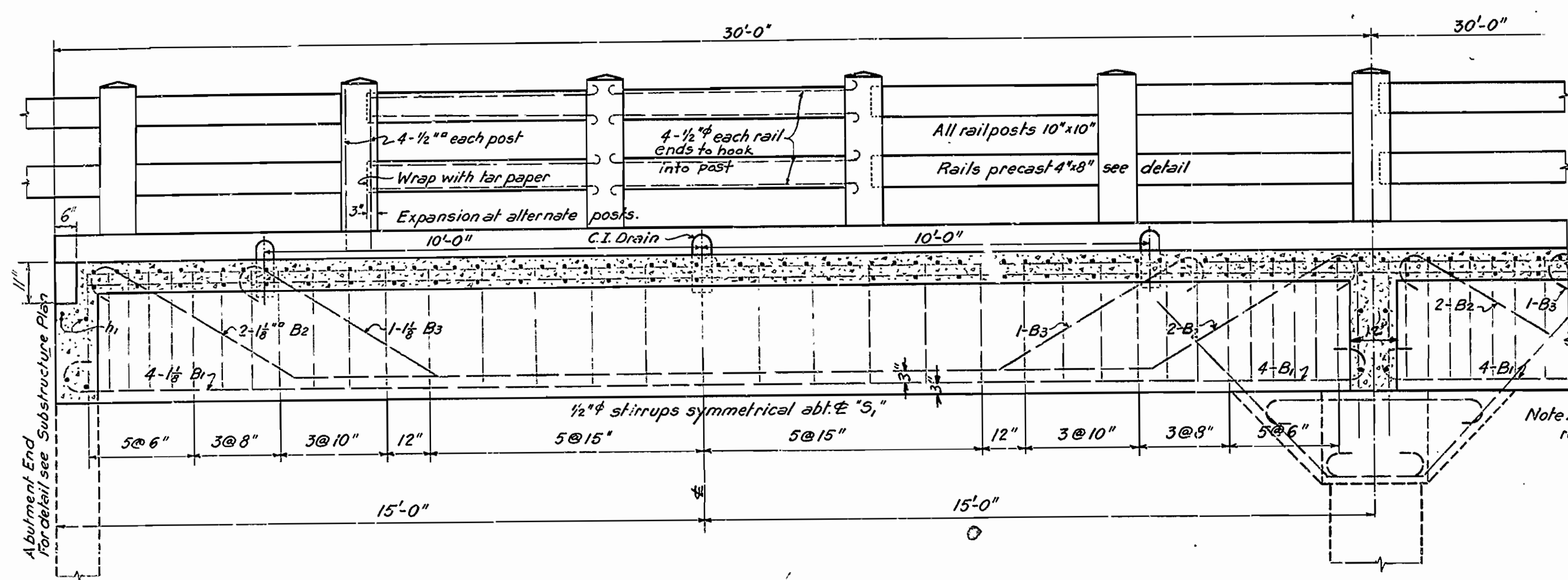


**STANDARD SUPERSTRUCTURE FOR 40' R.C.D. GIRDER 20' ROADWAY**

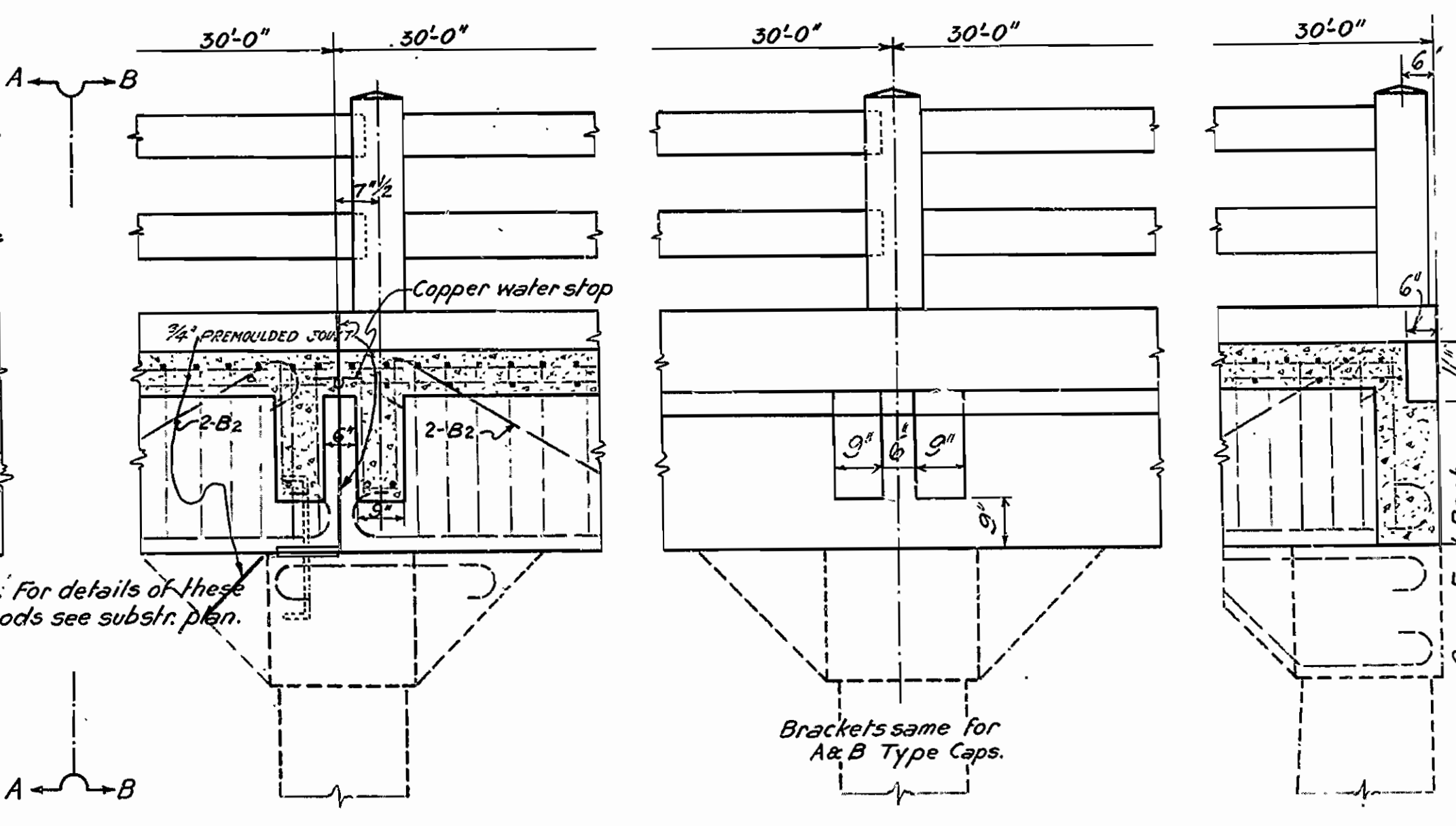
ROUTE SEC.  
**ARKANSAS STATE HIGHWAY DEPARTMENT**  
 LITTLE ROCK, ARK.  
 Drawn By: A.M.G. Date: 3-2-28  
 Traced By: J.M.G. Date: 3-10-28  
 Checked By: \_\_\_\_\_ Date: \_\_\_\_\_  
 Scale: 3/8" = 1 ft.  
**BRIDGE NO. DRAWING NO. 181**

M.B. Lewis  
 BRIDGE ENGINEER

FISCAL YEAR	JOB 557	SHEET TOTAL
	7557	32 100
STD. SUBST. 30' R.C.D. GIRD. 2 1/2' P.W. 10' M		



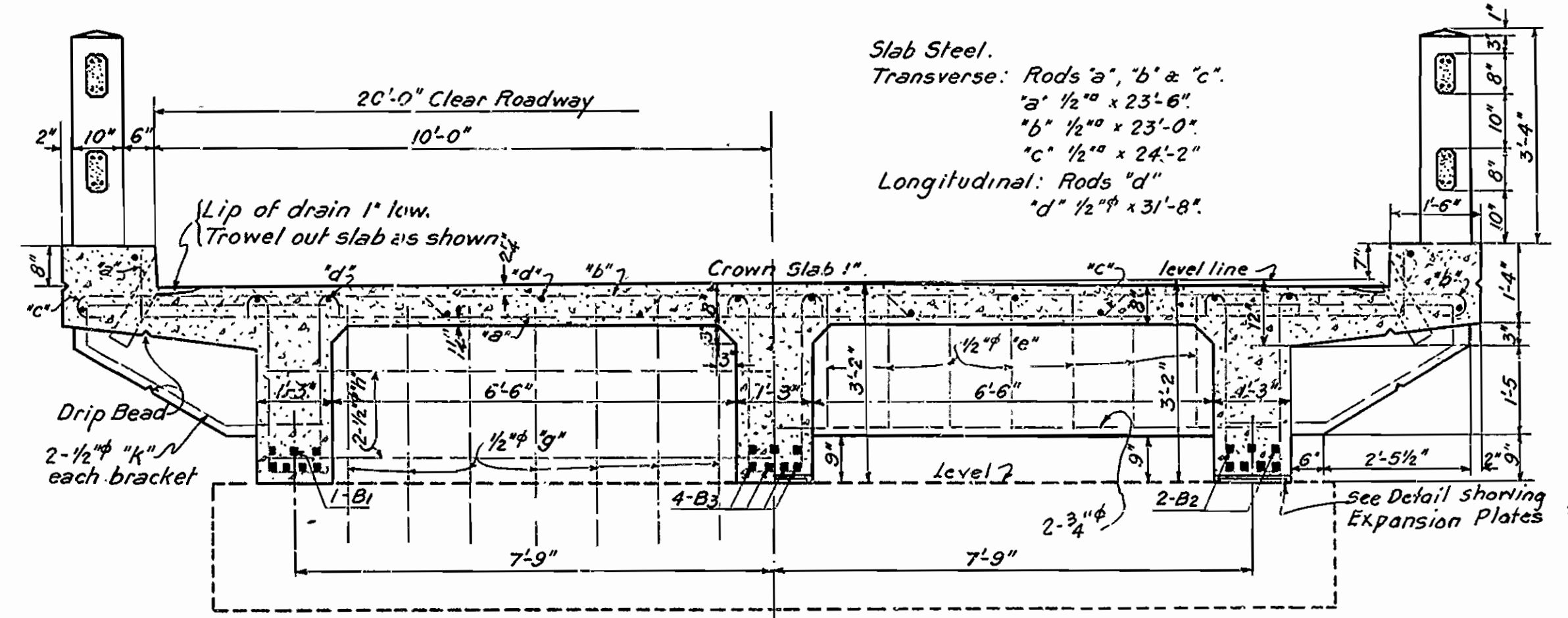
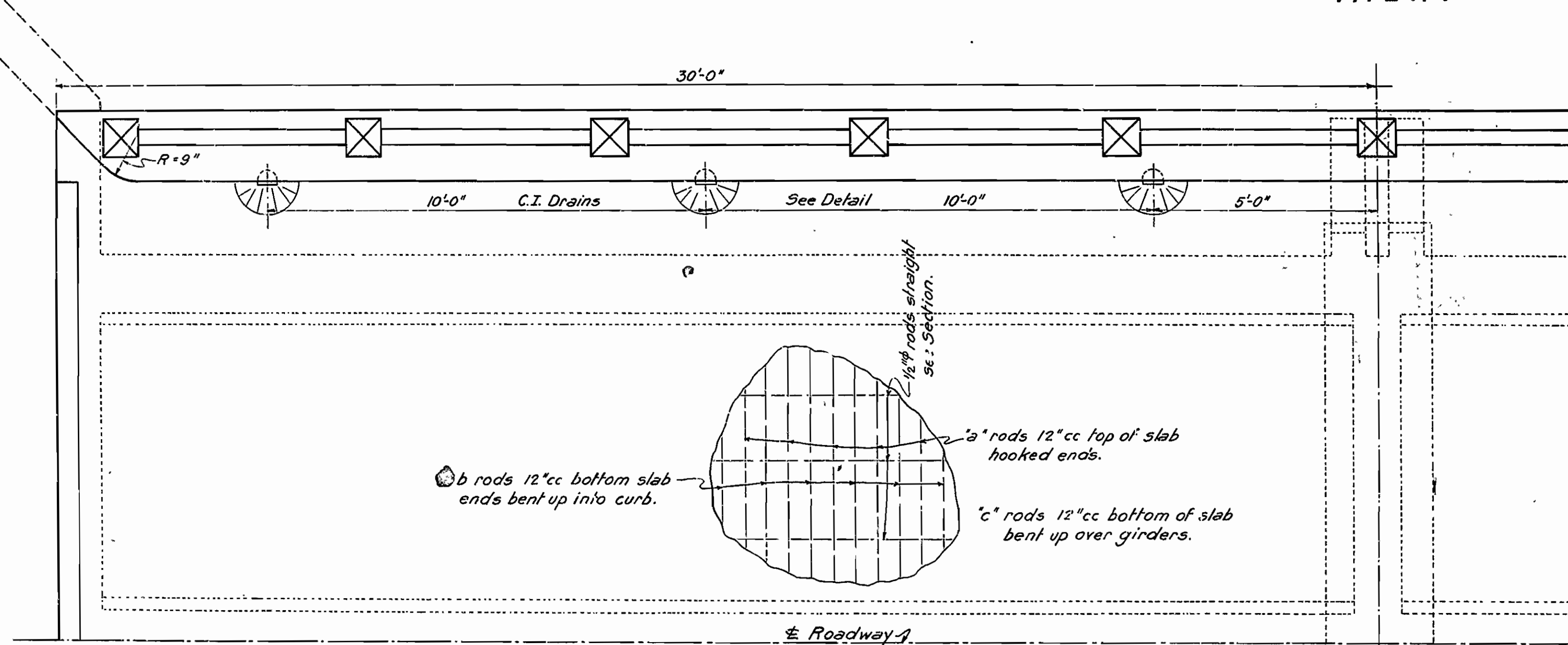
TYPE-A-



TYPE-B-

DETAIL OF BRACKETS.

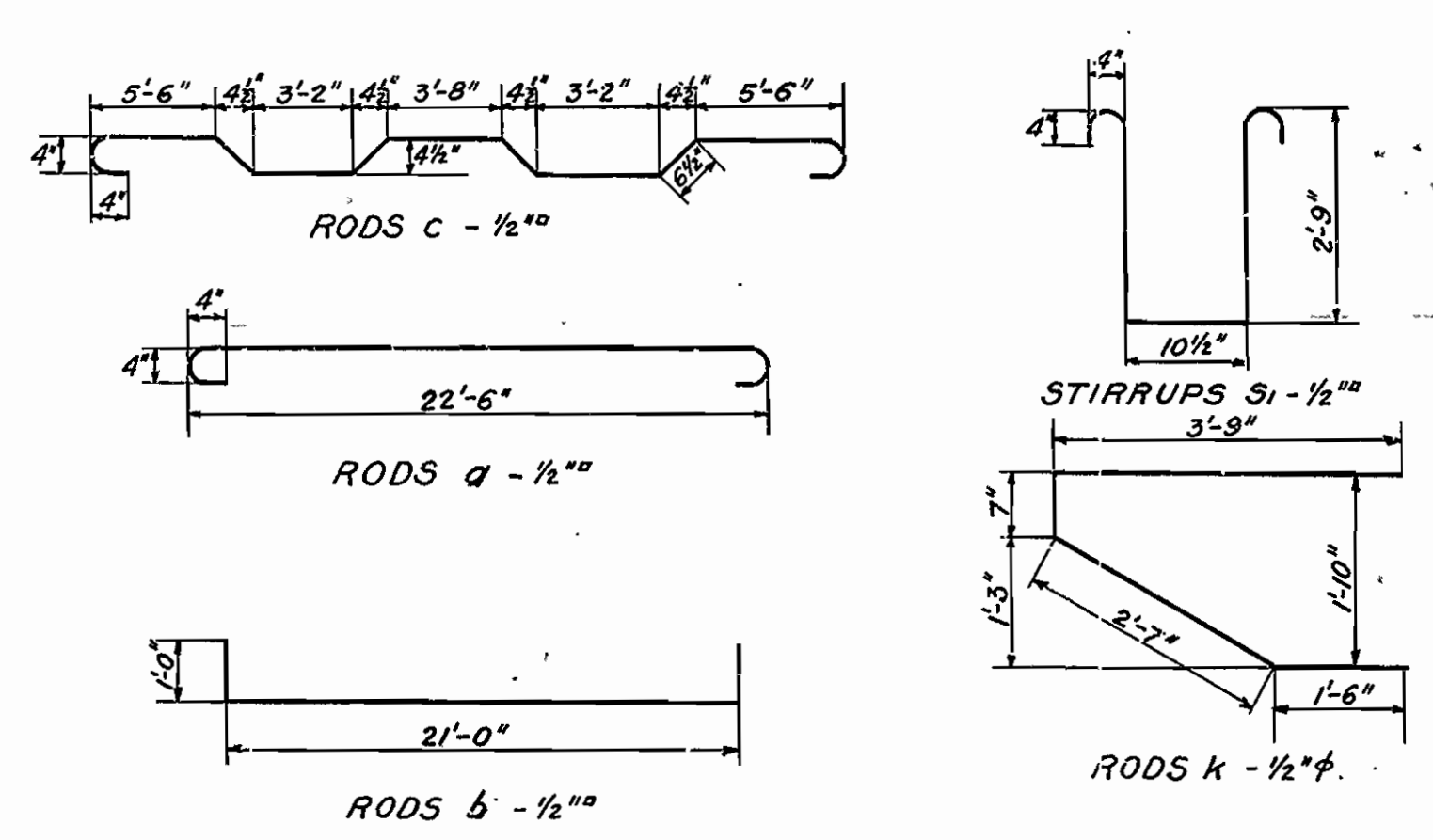
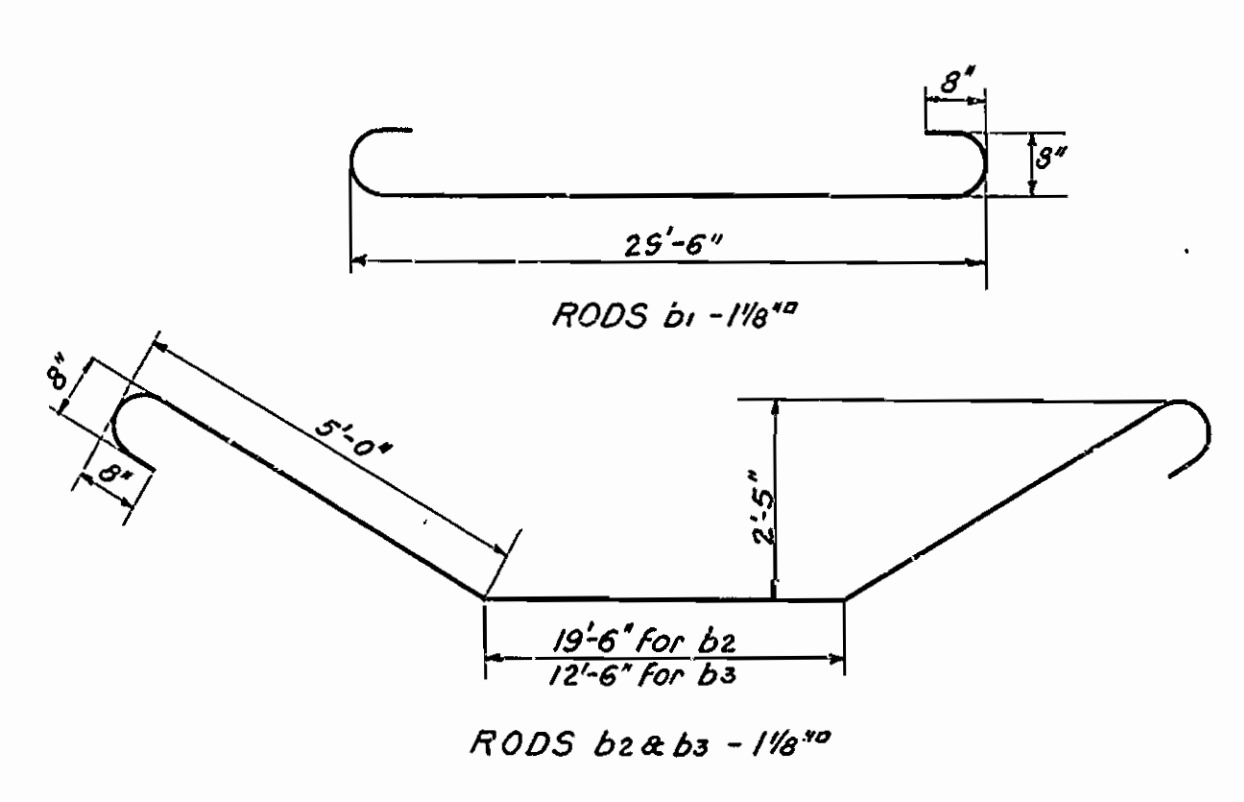
See Layout for location of Expansion Joints



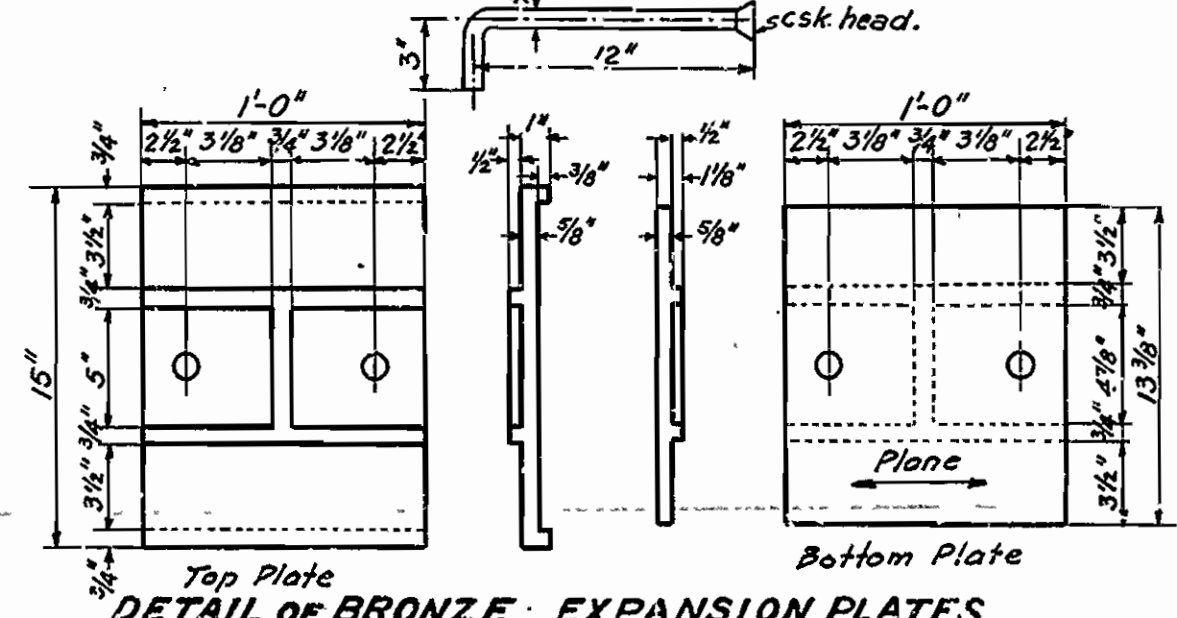
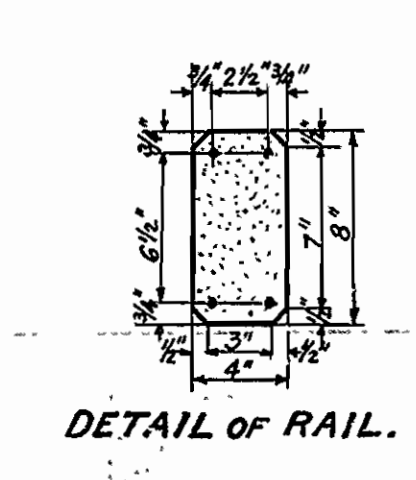
SECTION A-A.

SECTION B-B.

DETAIL SHOWING EXPANSION PLATES



BENDING DETAILS.



DETAIL OF C.I. DRAIN.

Notes:  
All exposed corners to have 1/4" Chamfer unless otherwise noted.  
Precast concrete handrails to be 1:3 Mix. Max. aggregate 1/4".  
Rail posts to be Class S concrete.  
Reinforcing steel to be deformed bars of structural or intermediate grade.  
Shapelist and bending diagrams of reinforcing steel must be submitted by contractor before fabrication is begun.  
Drains and Exp. Devices to be paid for at unit price bid for Reinf. Steel.  
All concrete above top of column caps, except handrail, to be Class "S".  
All concrete below top of column caps to be Class "A" Concrete.  
All concrete to be poured in the dry.  
Specifications: Arkansas Standard Road and Bridge Specifications, adopted May 30th 1925.

ORIGINAL DETAILS  
STANDARD SUPERSTRUCTURE  
FOR  
30 FT. R.C.D. GIRDER.  
20 FT. ROADWAY.  
ROUTE SEC.

ARKANSAS STATE HIGHWAY DEPARTMENT  
LITTLE ROCK, ARK.

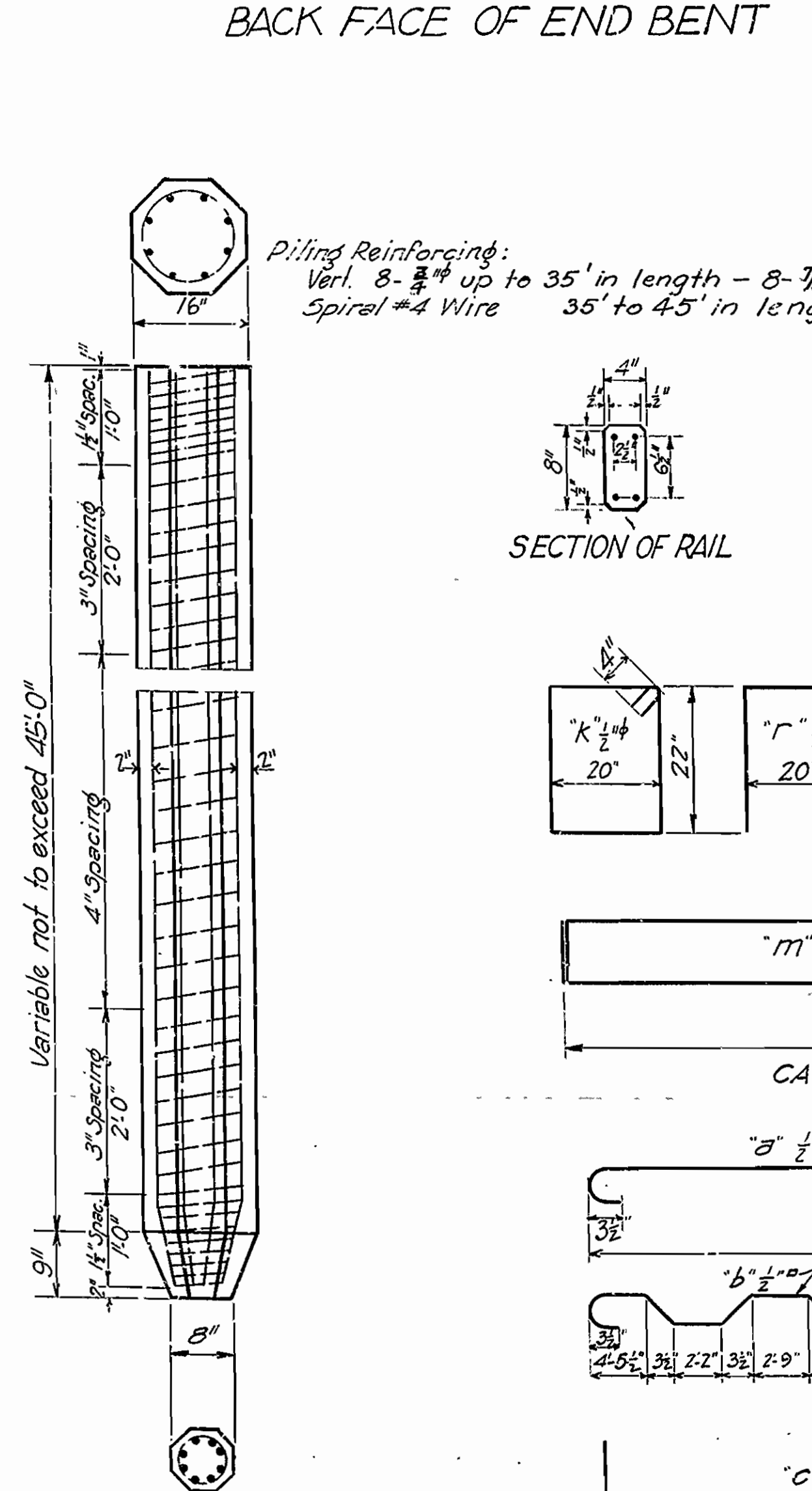
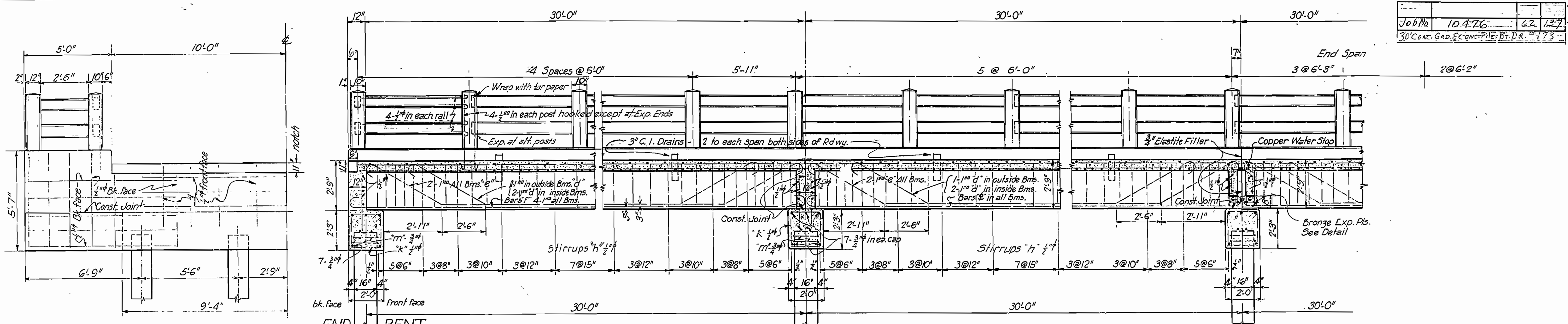
Drawn By: CAD Date: 12/19/27  
Traced By: J.S. Date: 1-19-28  
Checked By: Date:  
Scale: in. = 1/2" ft. = 1

BRIDGES NO. DRAWING NO. 178

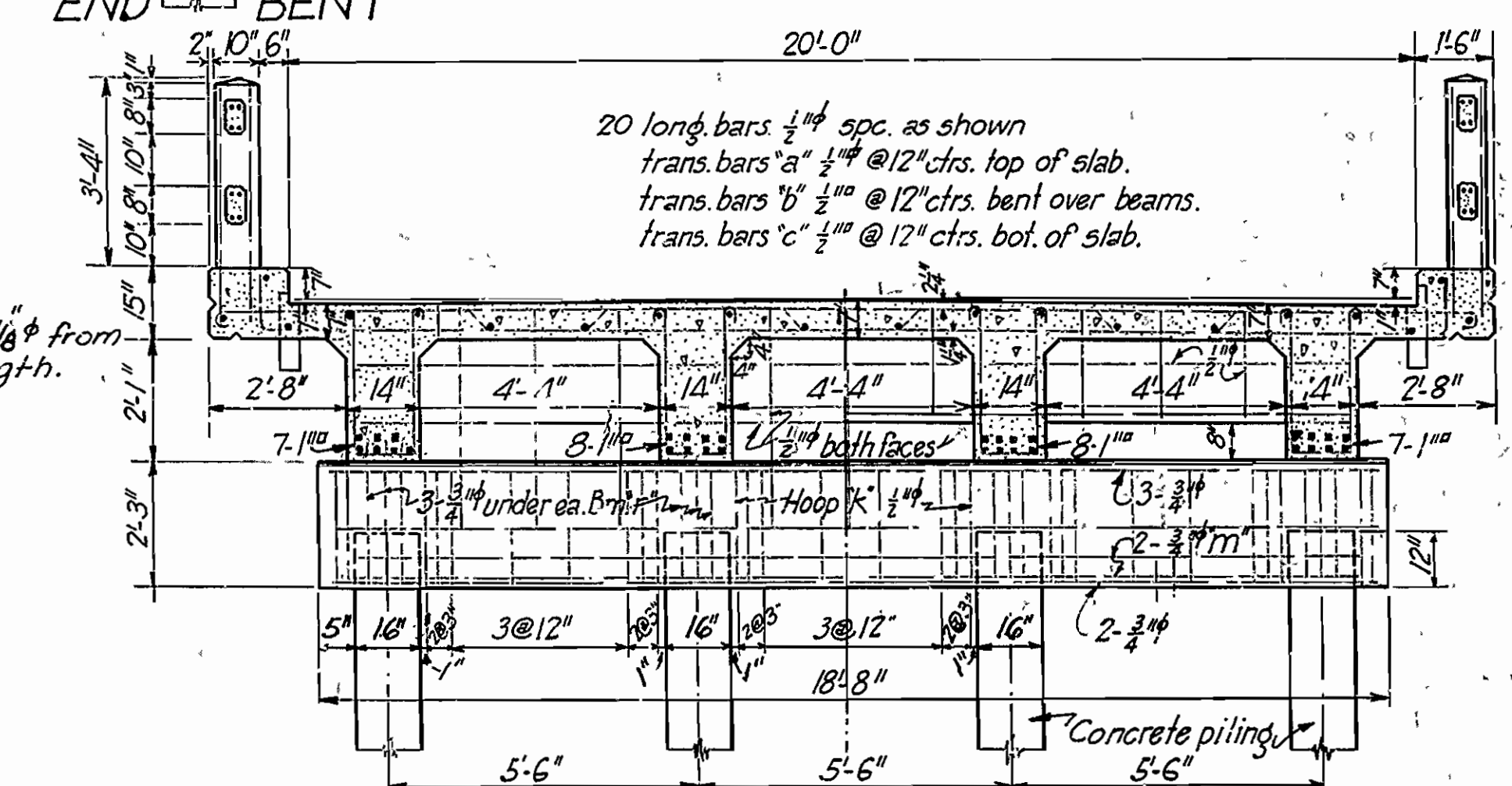
M.B. Barber  
BRIDGE ENGINEER

OK 6077

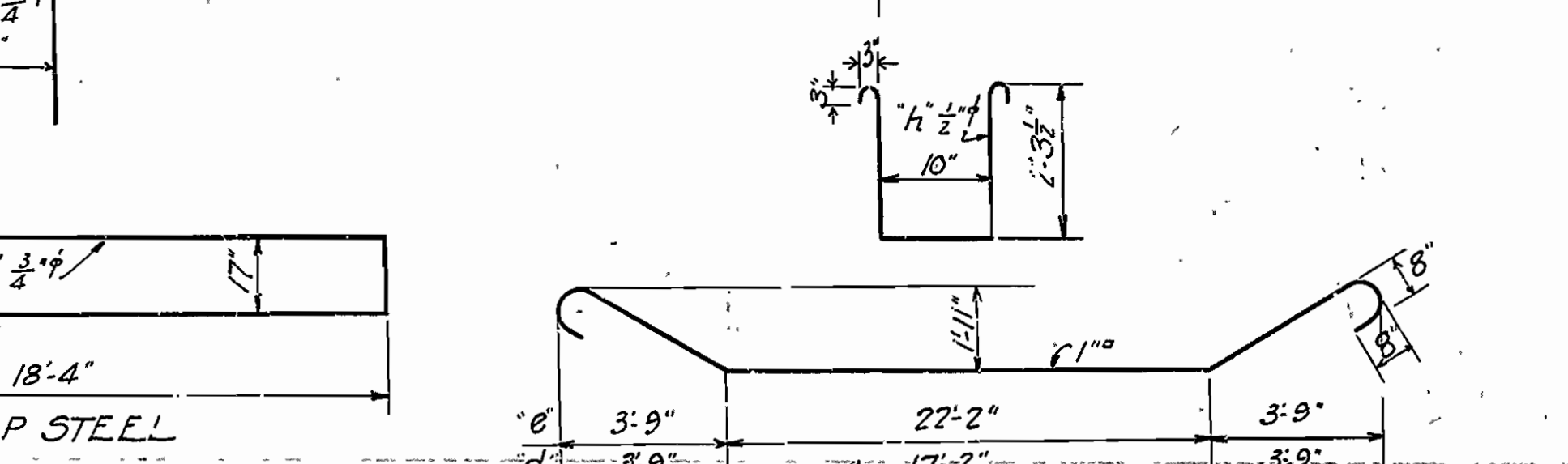
Job No.	10476	62	137
30' CONC. GIRDER & CONC. PILE BENT			



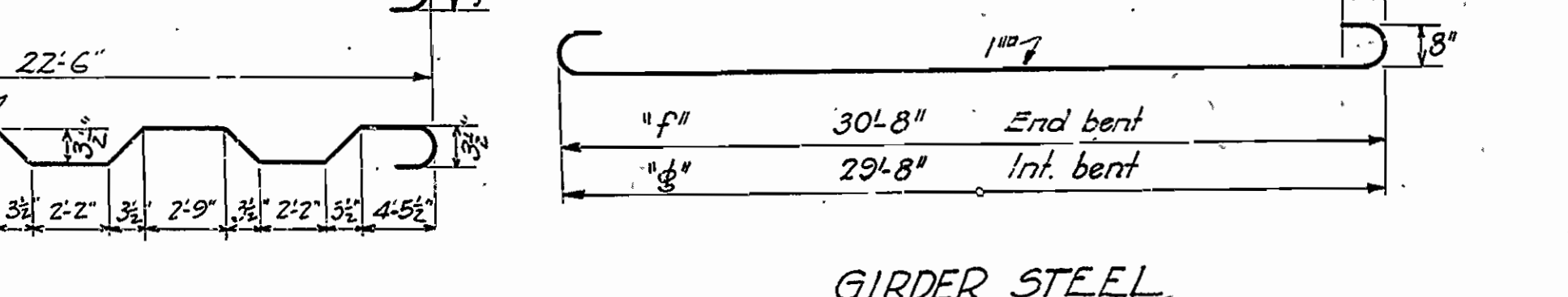
DETAIL OF CONCRETE PILE



HALF SECTION AT FIXED BENTS | HALF SECTION AT EXP. BENTS



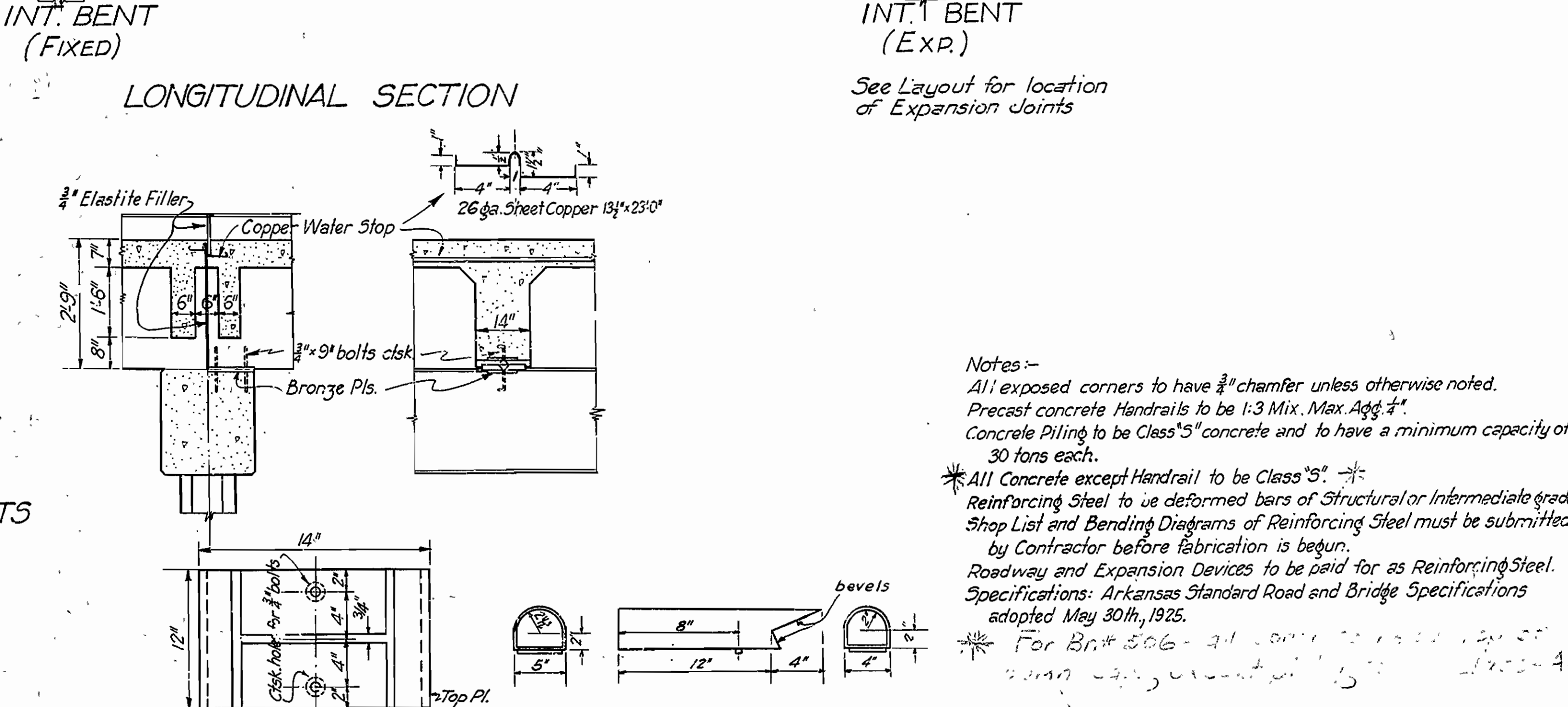
CAP STEEL



GIRDER STEEL

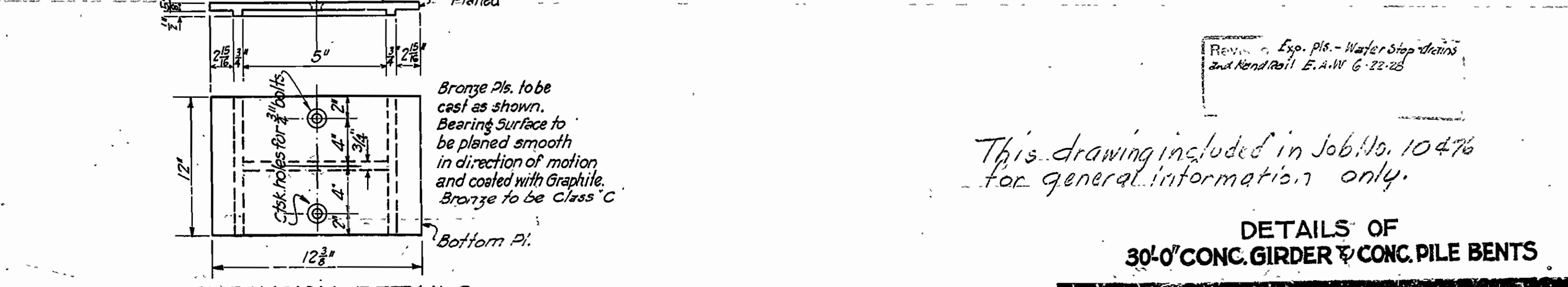


SLAB STEEL



EXPANSION DETAILS

4 pairs pls. required for each Exp. joint.



DETAIL OF DRAIN

- Notes:-
- All exposed corners to have 3/8" chamfer unless otherwise noted.
  - Precast concrete Handrails to be 1:3 Mix. Max. Agg. 4".
  - Concrete Piling to be Class "5" concrete and to have a minimum capacity of 30 tons each.
  - All Concrete except Handrail to be Class "5".
  - Reinforcing Steel to be deformed bars of Structural or Intermediate grade.
  - Shop List and Bending Diagrams of Reinforcing Steel must be submitted by Contractor before fabrication is begun.
  - Roadway and Expansion Devices to be paid for as Reinforcing Steel.
  - Specifications: Arkansas Standard Road and Bridge Specifications adopted May 30th, 1925.
  - For Bar #306 - all corners to be rounded with 1/4" radius.

This drawing included in Job No. 10476 for general information only.

DETAILS OF 30'-0" CONC. GIRDER & CONC. PILE BENTS

ARKANSAS STATE HIGHWAY DEPARTMENT  
LITTLE ROCK, ARK.

Drawn By: M.B. Barrow Date: 11-1-27  
 Traced By: J.H. Date: 11-2-27  
 Checked By: J.H. Date: 11-2-27

Scale: 3/8" = 1'-0" Except as noted.

Bridge No. [ ] Drawing No. 113

M.B. Barrow  
Bridge Engineer