

ARKANSAS STATE HIGHWAY COMMISSION

DWIGHT H. BLACKWOOD

CHAIRMAN

JUSTIN MATTHEWS

J. LAN WILLIAMS

J. S. PARKS

SAM J. WILSON

COMMISSIONERS

HIGHWAY BRIDGE OVER OUACHITA RIVER

ON ARKADELPHIA ROAD HIGHWAY NO. 7

NEAR

HOT SPRINGS, ARKANSAS

(GARLAND COUNTY)

C. S. CHRISTIAN

HIGHWAY ENGINEER

N. B. GARVER

BRIDGE ENGINEER

IRA G. HEDRICK, INC.
CONSULTING ENGINEERS
SHREVEPORT, LOUISIANA.

INDEX

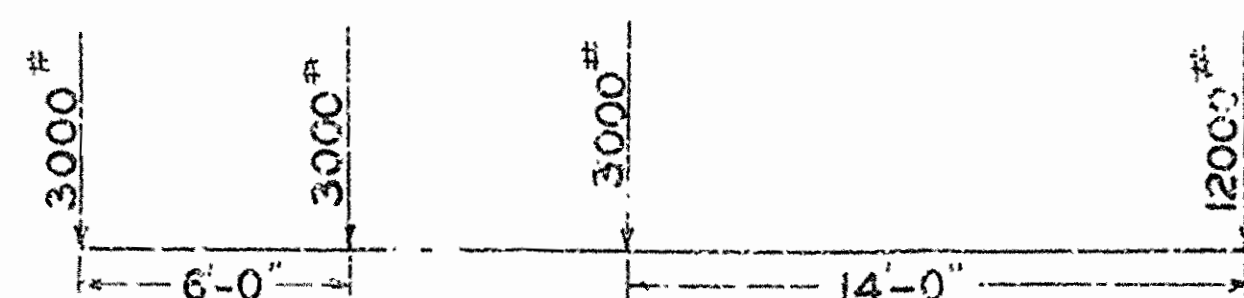
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REVISED JUNE 26, 1928.
by B.V. & J.S.W.
REVISED OCT. 16, 1928.
by K.F.

CONSTANTS

	CONCRETE 1-1-2 MIX	STEEL
FLOORSLABS, CROSSGIRDERS, GIRDERS, ETC.	975 [#] PER SQ. IN.	
BEAMS CONTINUOUS OVER SUPPORTS: AT CENTER OF BEAMS	975 [#] " " "	
BOND FOR STEEL IN CONCRETE	150 [#] " " "	
STRESS IN ARCH RINGS NOT INC. WIND & TEMP.	900 [#] " " "	
" " " INCLUDING " " "	1200 [#] " " "	
COLUMNS DIRECT COMPRESSION	900 - $\frac{22.5L}{D}$ " " "	
NOTE FOR 1-2-4 CONCRETE DECREASE ABOVE STRESSES 33 $\frac{1}{3}$ %		
TENSION NET SECTION		16000 [#] PER
COMP. IN COLS. & OTHER COMP. MEMBERS FIXED ENDS	900 - $\frac{22.5L}{D}$ " " "	
MODULUS OF ELASTICITY STEEL		30,000,000 [#]
" " " CONCRETE 1-2-4	2,000,000 [#] " " "	
" " " " 1-1-2	3,000,000 [#] " " "	
VARIATION IN TEMPERATURE FOR ARCH RINGS	± 40°	
COEFFICIENT OF EXPANSION	.0000055	.000006

WHEEL CONCENTRATIONS, CLASS A LOADING



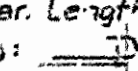
2-15 TON TRUCKS

EQUIVALENT UNIFORM LIVE LOADS

25% IMPACT

SPAN LENGTH	LOAD PER SQ. FT.
50' TO 100'	130 [#]
100' TO 200'	80 [#]
200' AND OVER	54 [#]

GENERAL NOTES

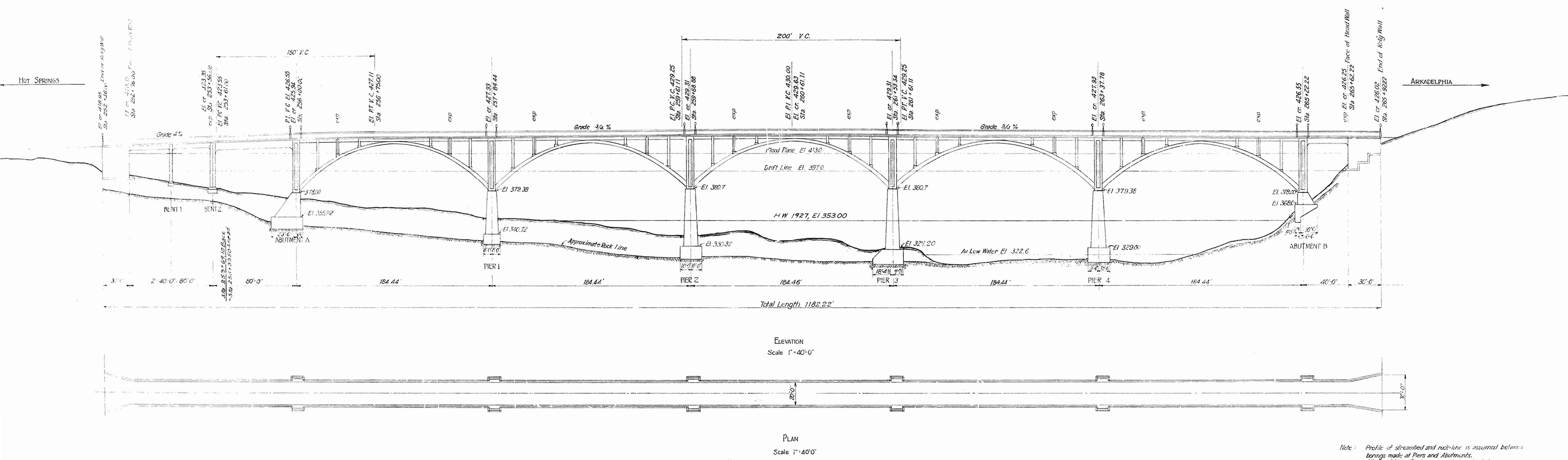
All hooks on reinforcing bars to have a radius of $4d$ and a return of $12d$, where d = diameter of round bar or side of square bar. Lengths of hooked bars are given to starting point of hook, thus:  All bends such as on girder bars must have a radius of not less than $12d$. Centers of bars in floor slab to be not less than $\frac{1}{4}$ " from face of concrete. Centers of bars to be 4" from face of concrete on piers, abutment shafts, and arch rings, and 2" on girders and columns unless otherwise noted. Chairs to be 2" throughout unless otherwise noted.

ROUTE 7 SEC. 6
GARLAND COUNTY

BR. No. 610 DRAWING

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Note: Profile of streambed and rock-line is assumed between borings made at Piers and Abutments.
 All foundations for Piers and Abutments, to be carried at least 3 ft. into rock at shallowest point.

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 HIGHWAY BRIDGE OVER OUACHITA RIVER
 ON ARKADELPHIA ROAD NEAR HIGHWAY NO. 7
 HOT SPRINGS, ARKANSAS
 (GARLAND COUNTY)
 PLAN AND ELEVATION OF BRIDGE

SCALE: AS SHOWN

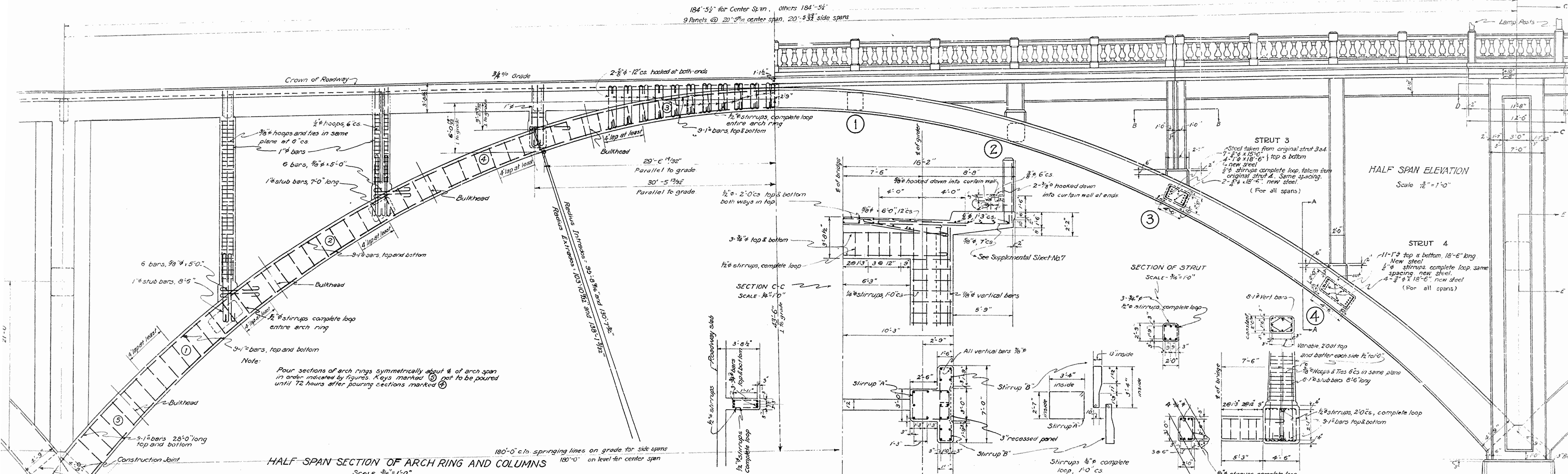
Made by K.F.
 Checked by K.F.
 Traced by K.F.
 Checked by B.V.
 Date June 8, 1928

IRA. G. HEDRICK, INC.
 Consulting Engineers
 Shreveport, La.

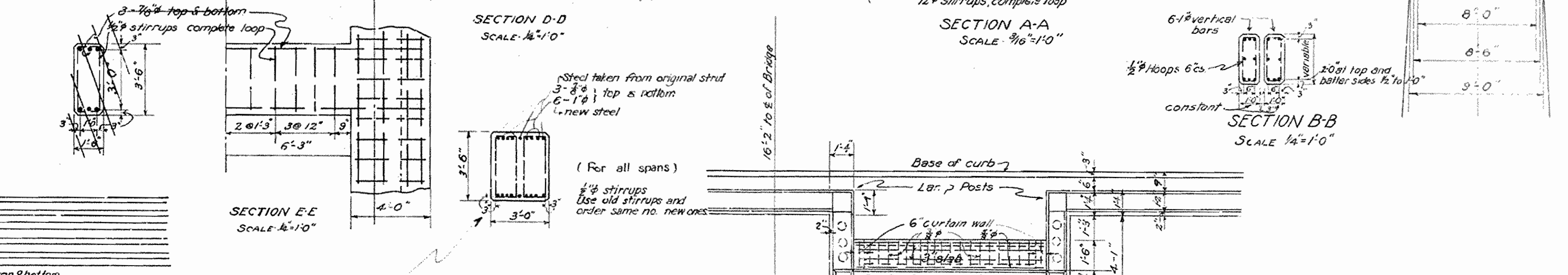
Sheet No. 1

Br.No. 610 DRWG. No 5976

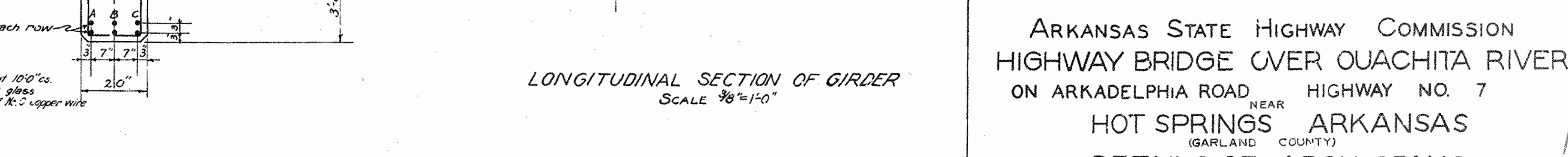
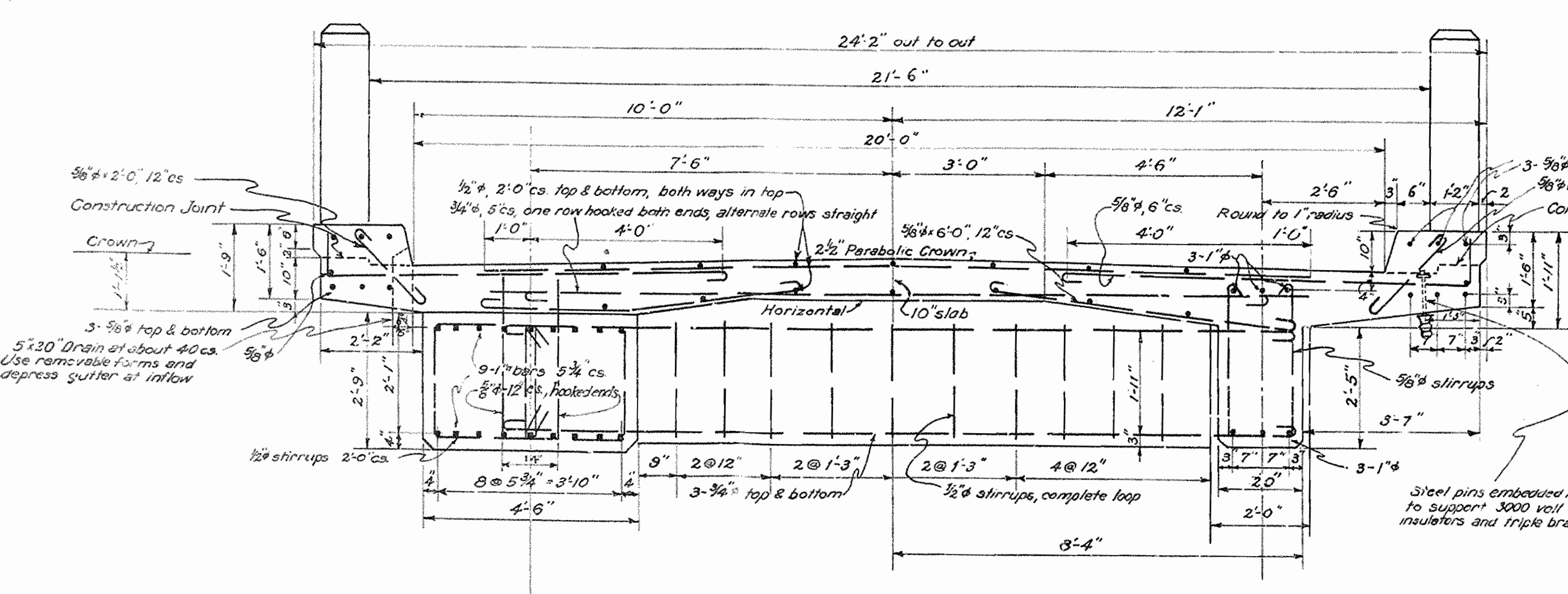
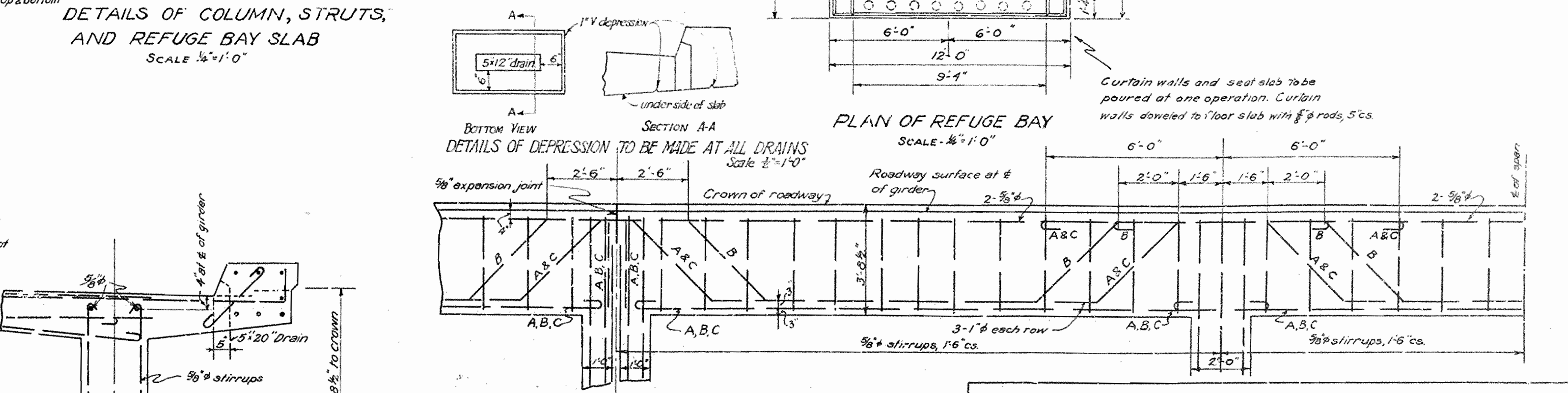
184'-5 1/2" for Center Span, others 184'-5 1/2"
 9 Panels @ 20'-5 3/4" center span, 20'-5 3/4" side spans



HALF SPAN SECTION OF ARCH RING AND COLUMNS
 SCALE 3/16" = 1'-0"



HALF PLAN OF ARCH REINFORCEMENT
 SCALE 3/16" = 1'-0"



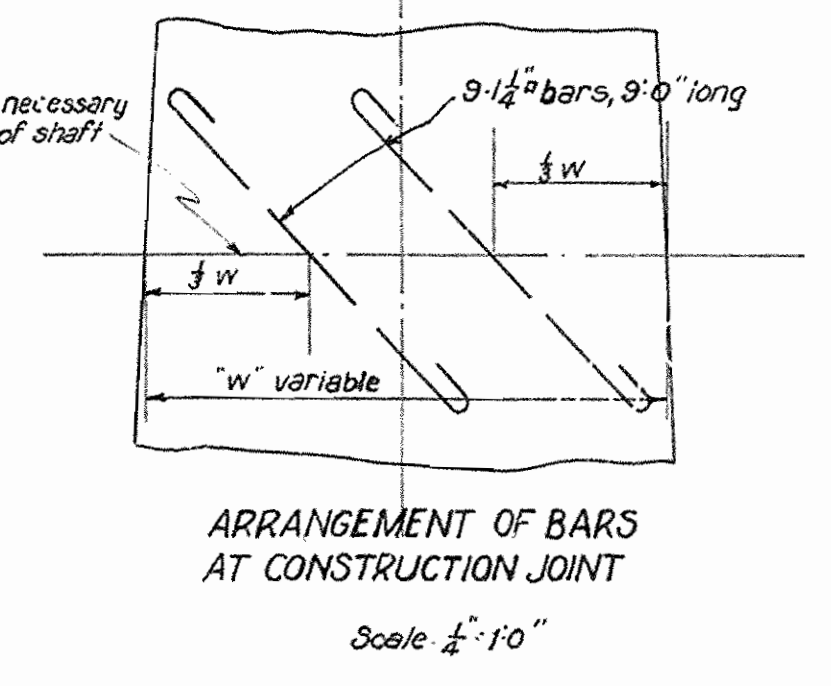
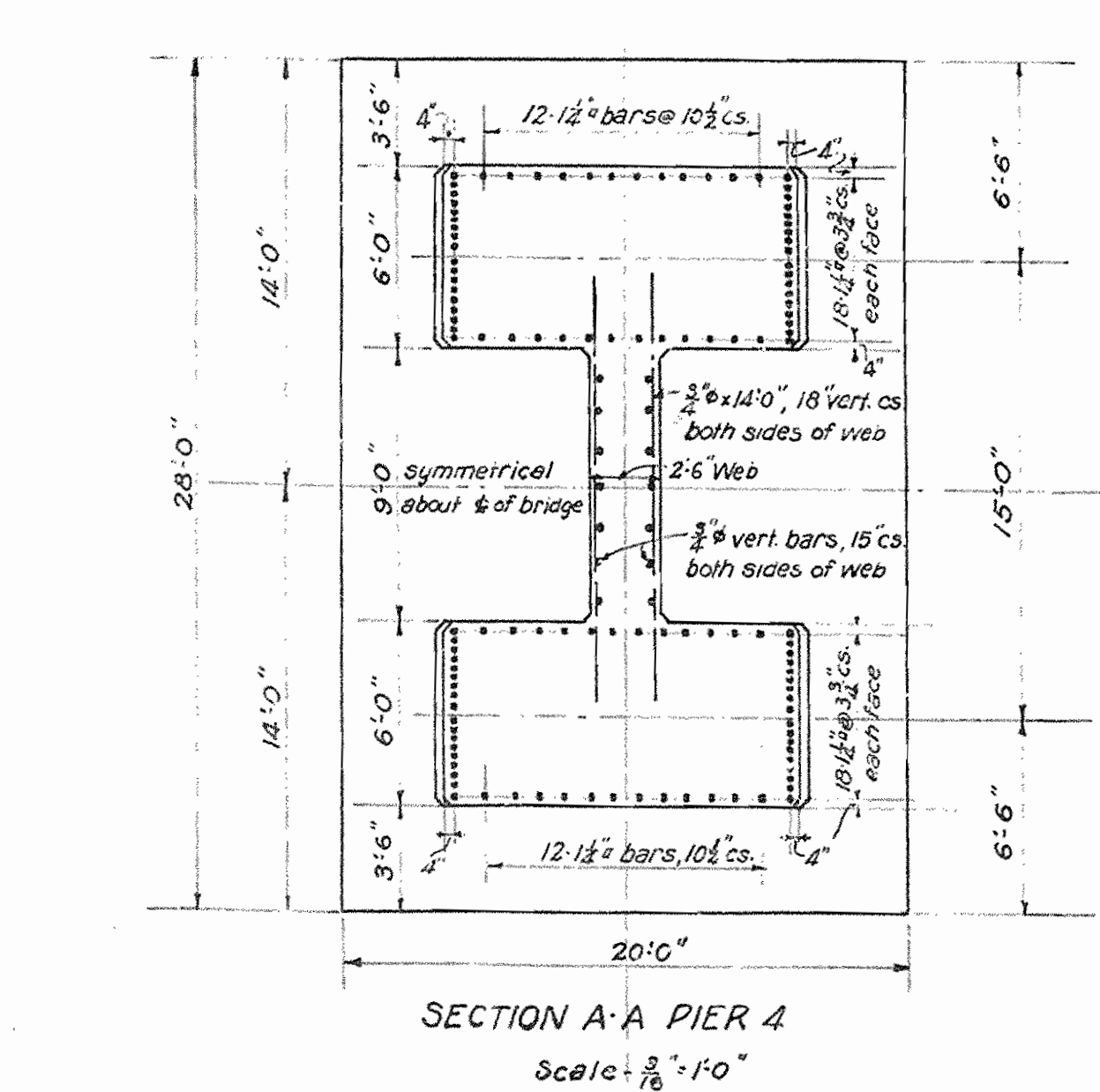
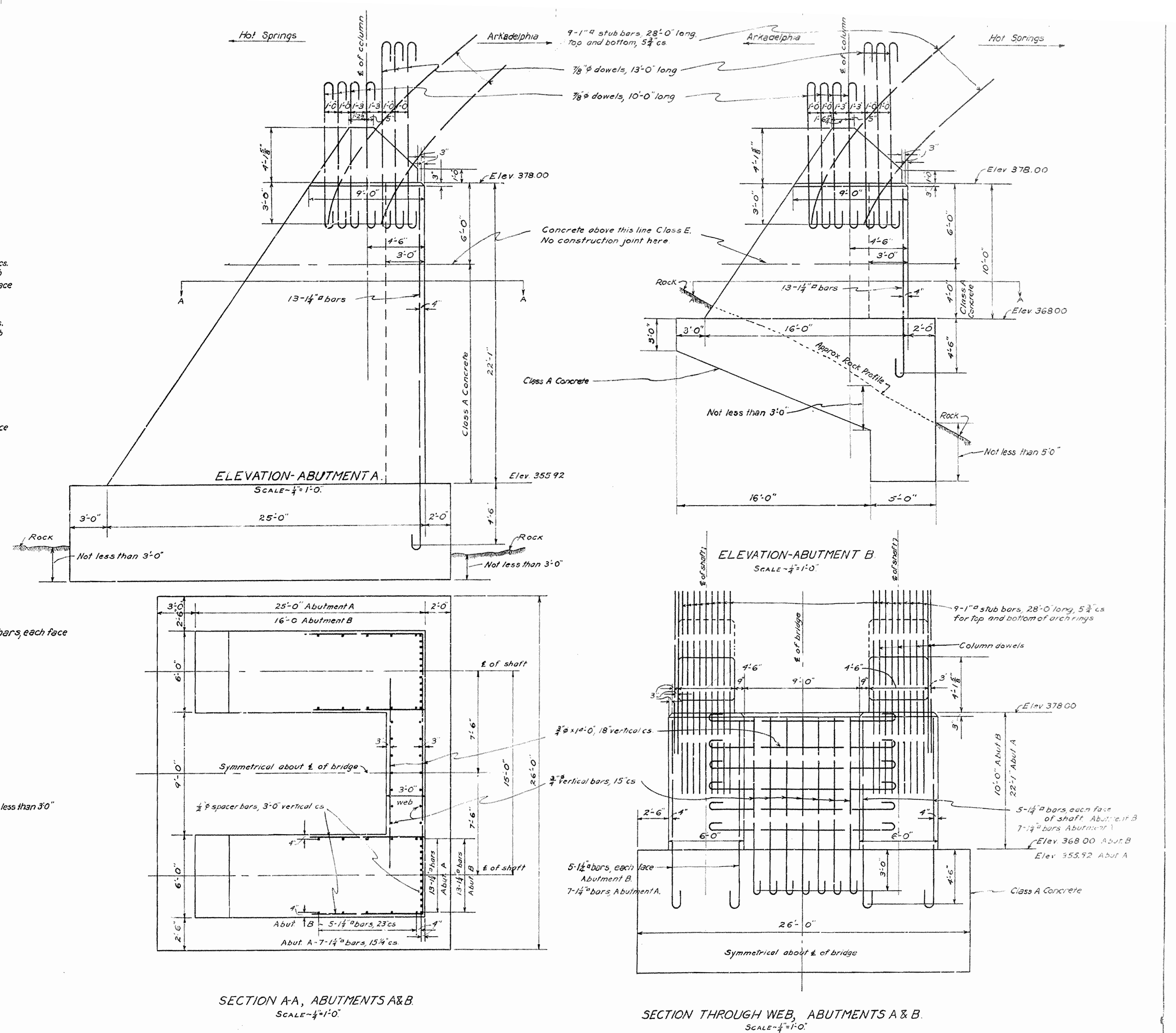
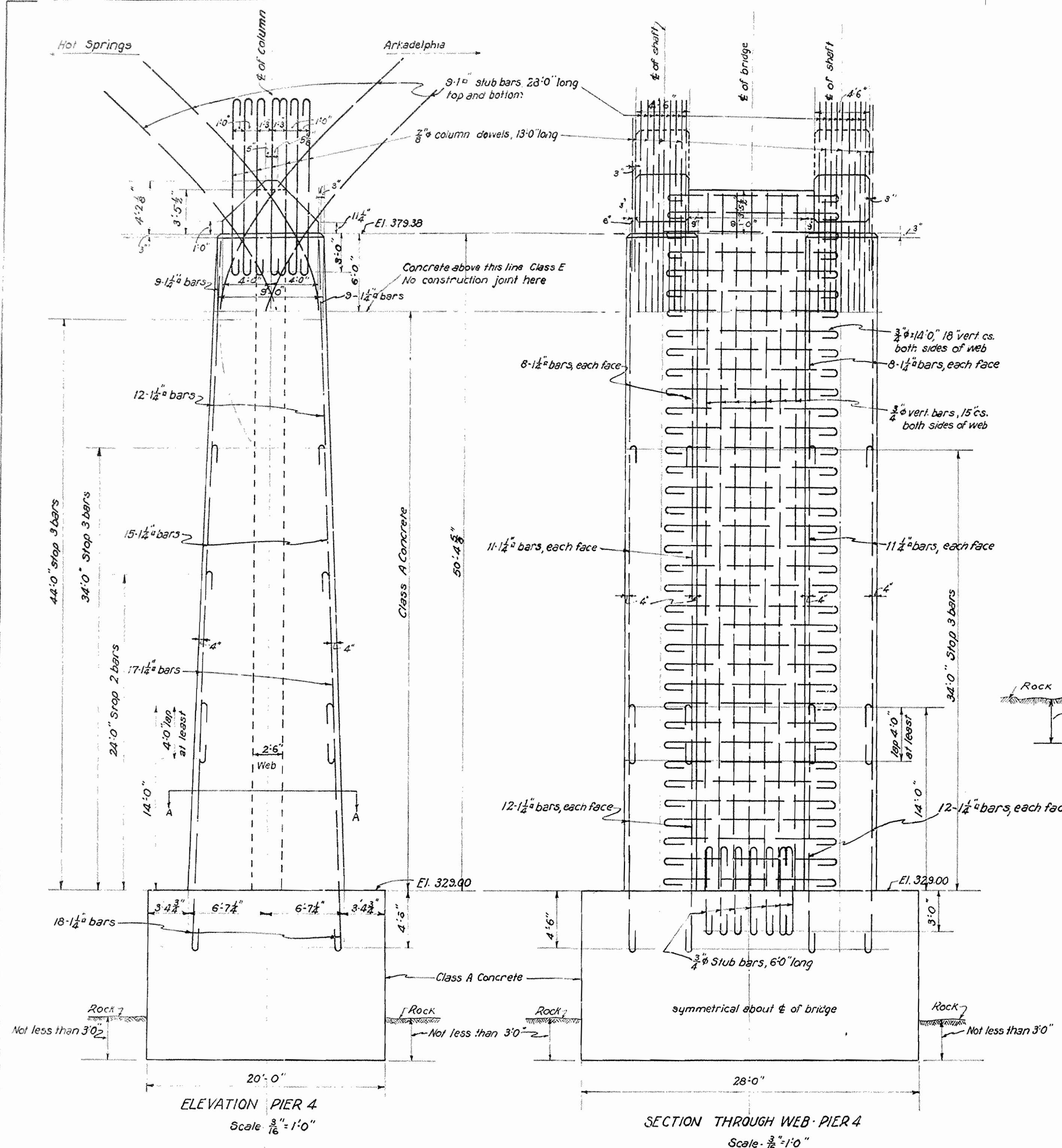
ARKANSAS STATE HIGHWAY COMMISSION
 HIGHWAY BRIDGE OVER OUACHITA RIVER
 ON ARKADELPHIA ROAD NEAR HIGHWAY NO. 7
 HOT SPRINGS ARKANSAS
 (GARLAND COUNTY)
 DETAILS OF ARCH SPANS
 SCALES AS SHOWN

REVISED JUNE 26, 1928.
 by B.V. & J.S.W.
 REVISED August 17, 1928.

Made by J.S.W.
 Checked by J.S.W.
 Traced by J.S.W.
 Checked by B.V.
 Date 6-5-28

I.R.A.G. HEDRICK INC.
 Consulting Engineers
 Shreveport, La.
 FILE No. _____
 SHEET No. 2

BR No. 610 DRWG. NO. 5977

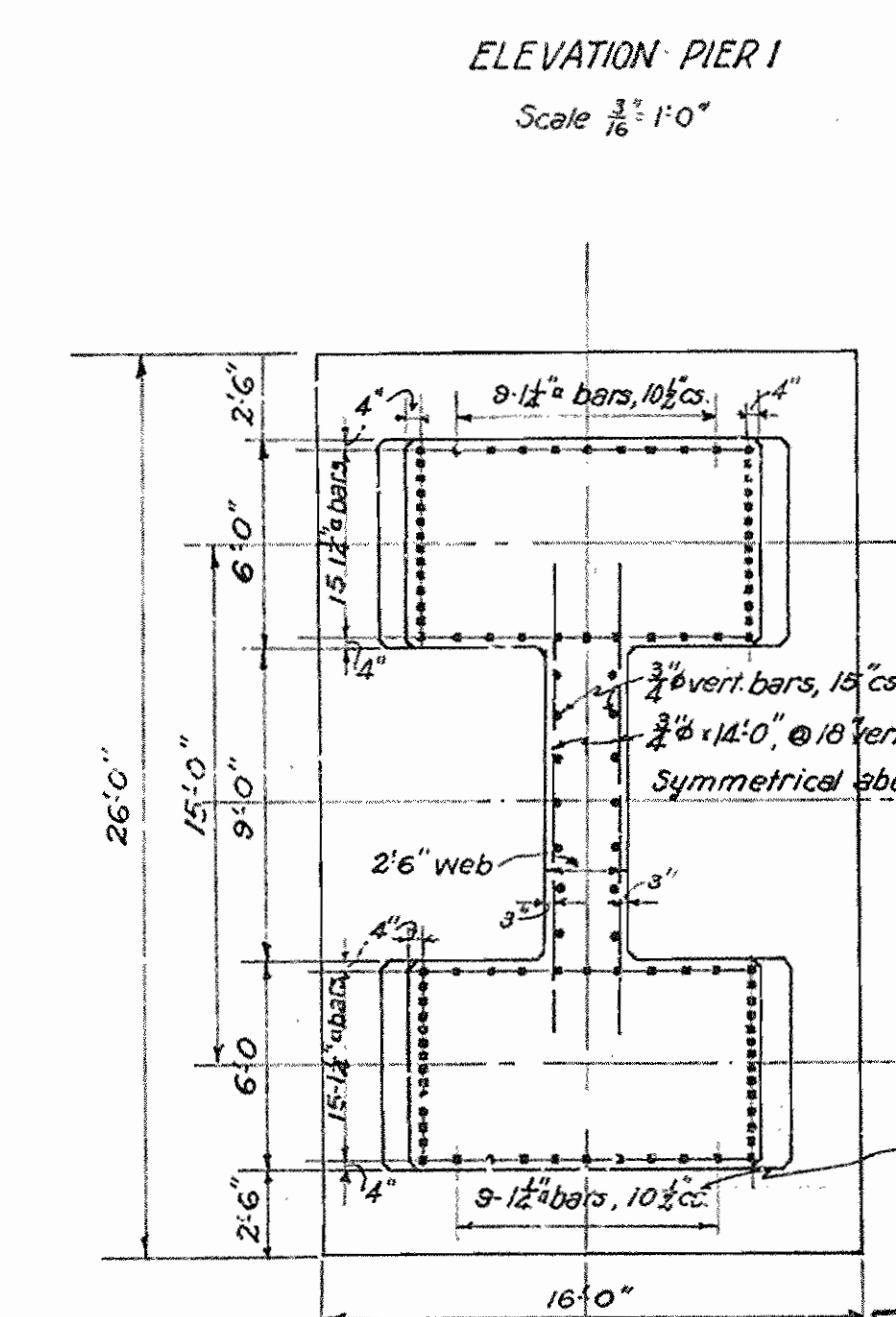
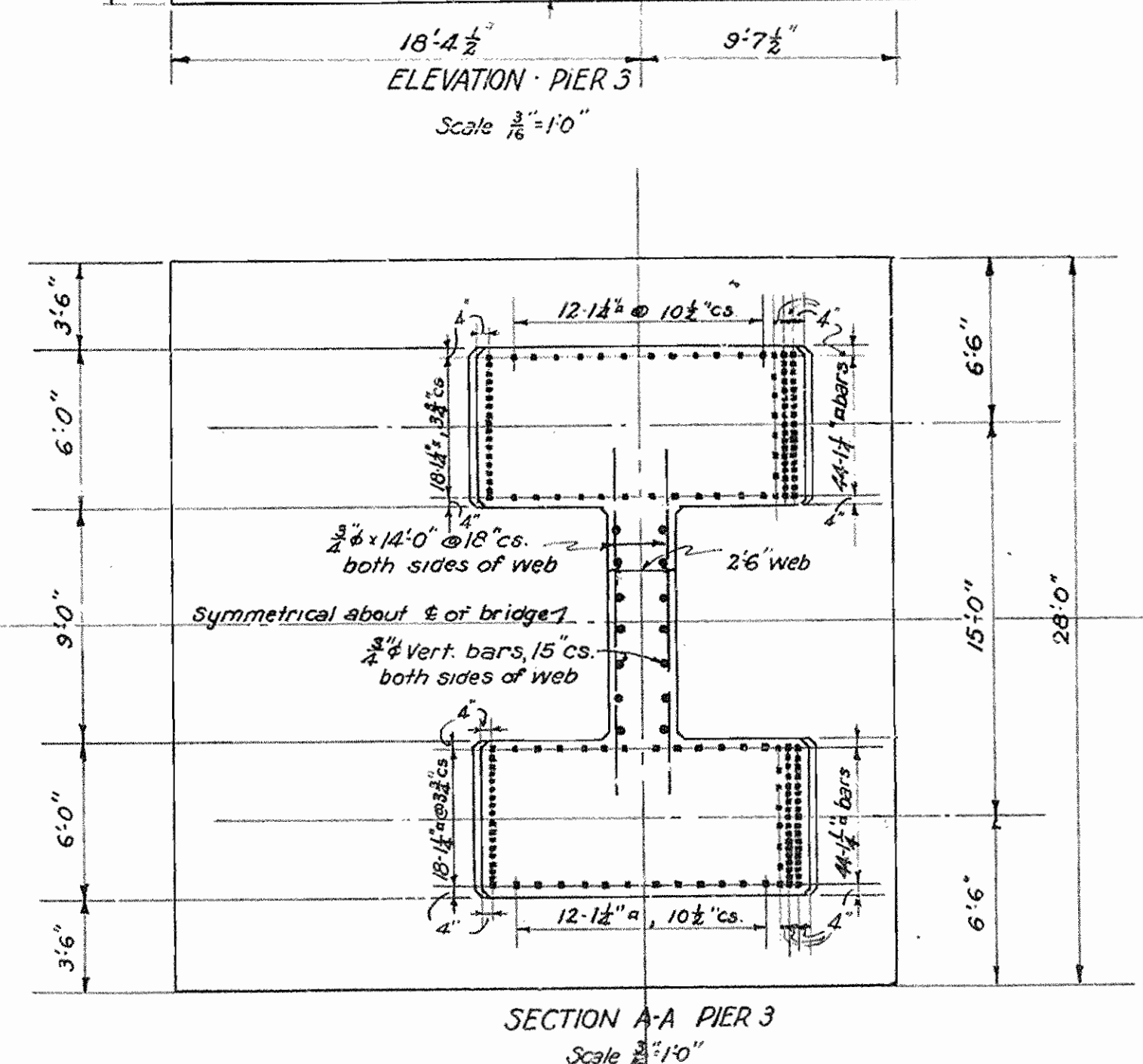
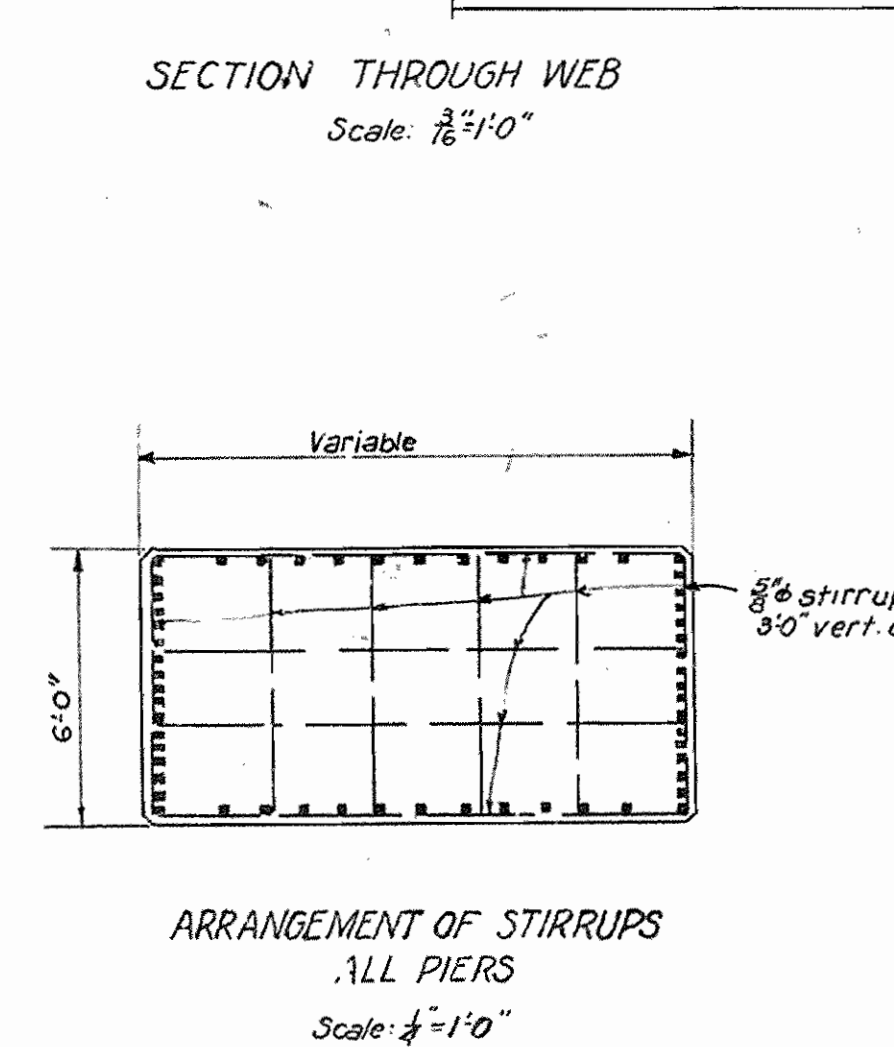
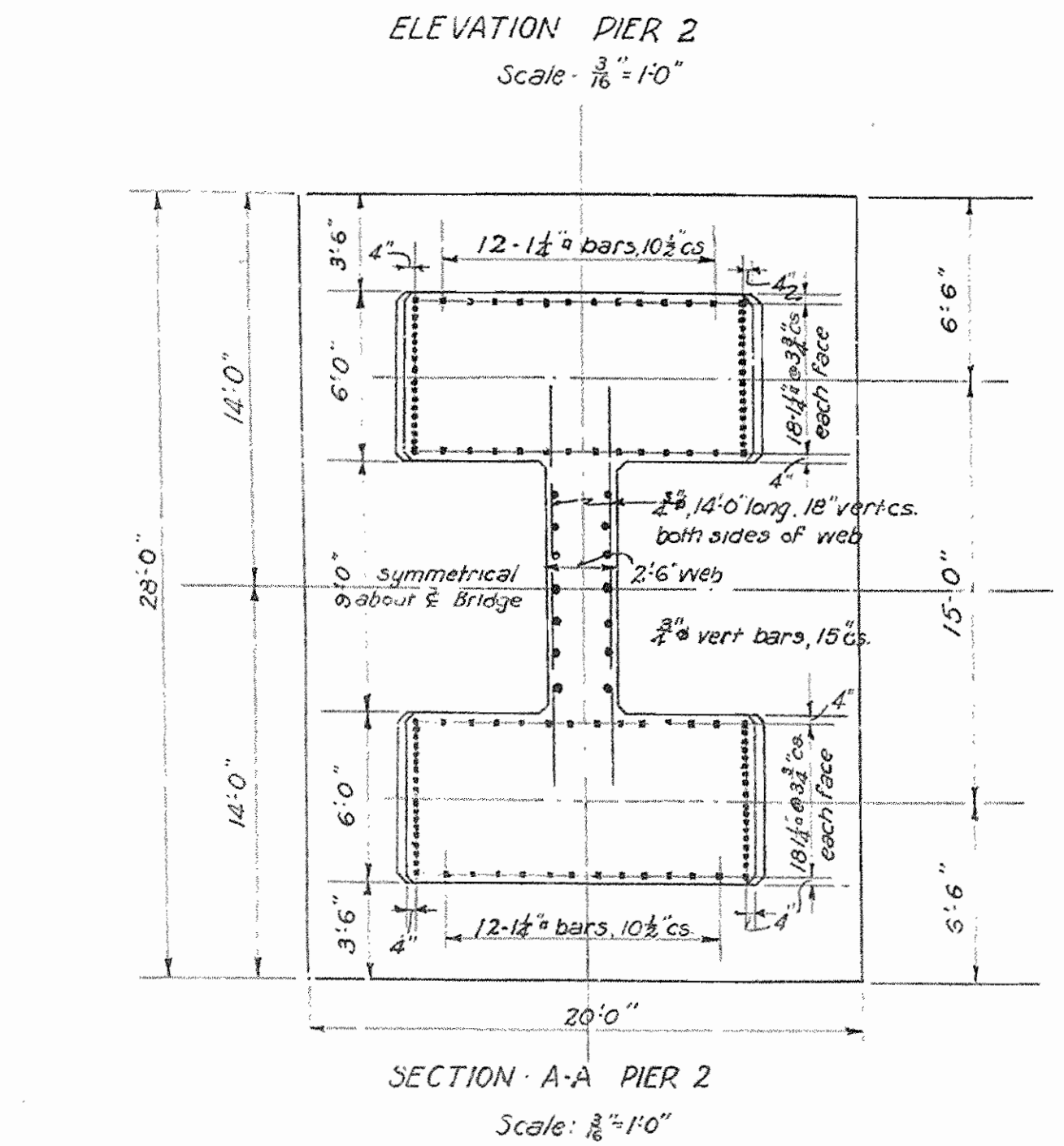
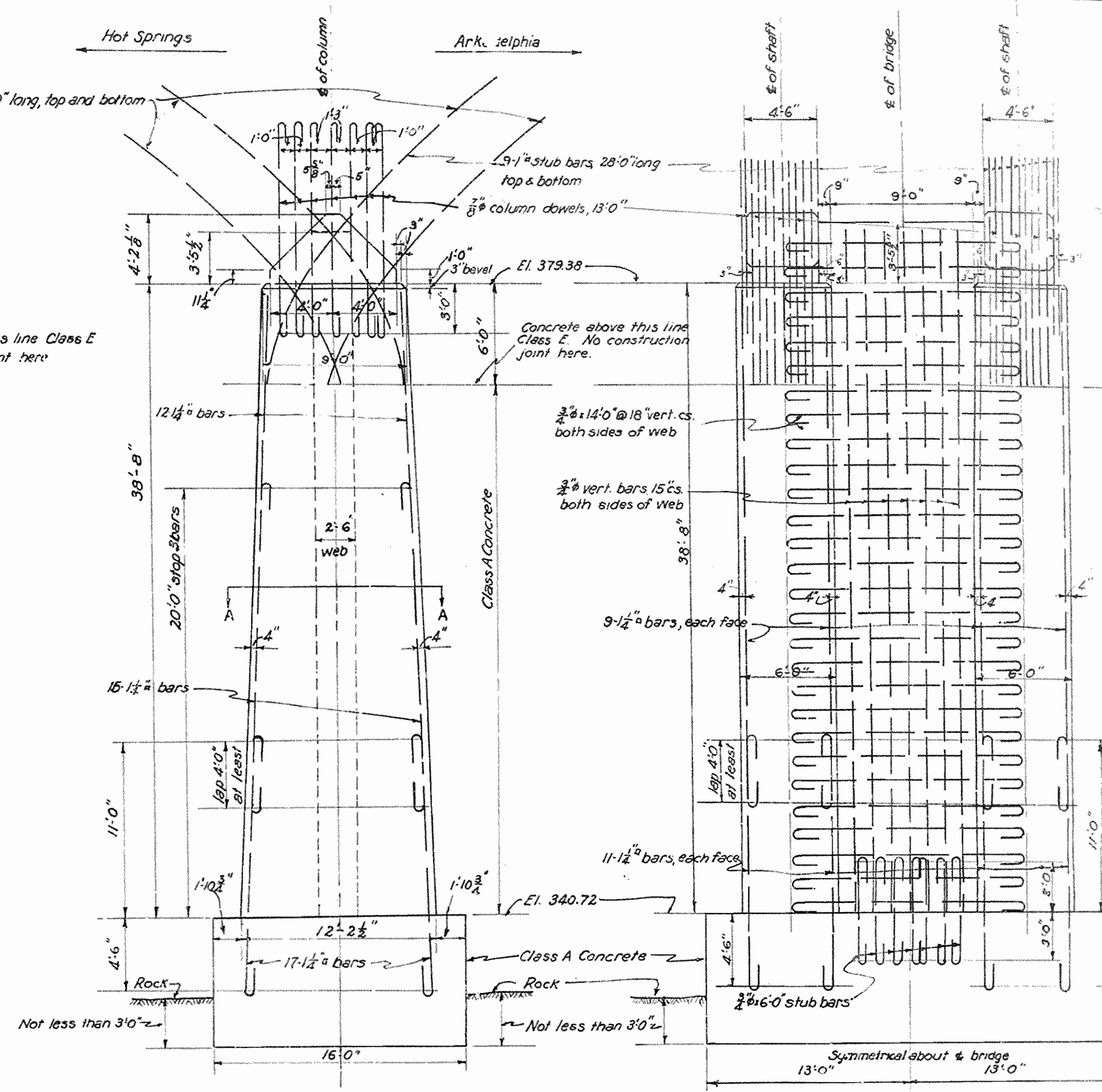
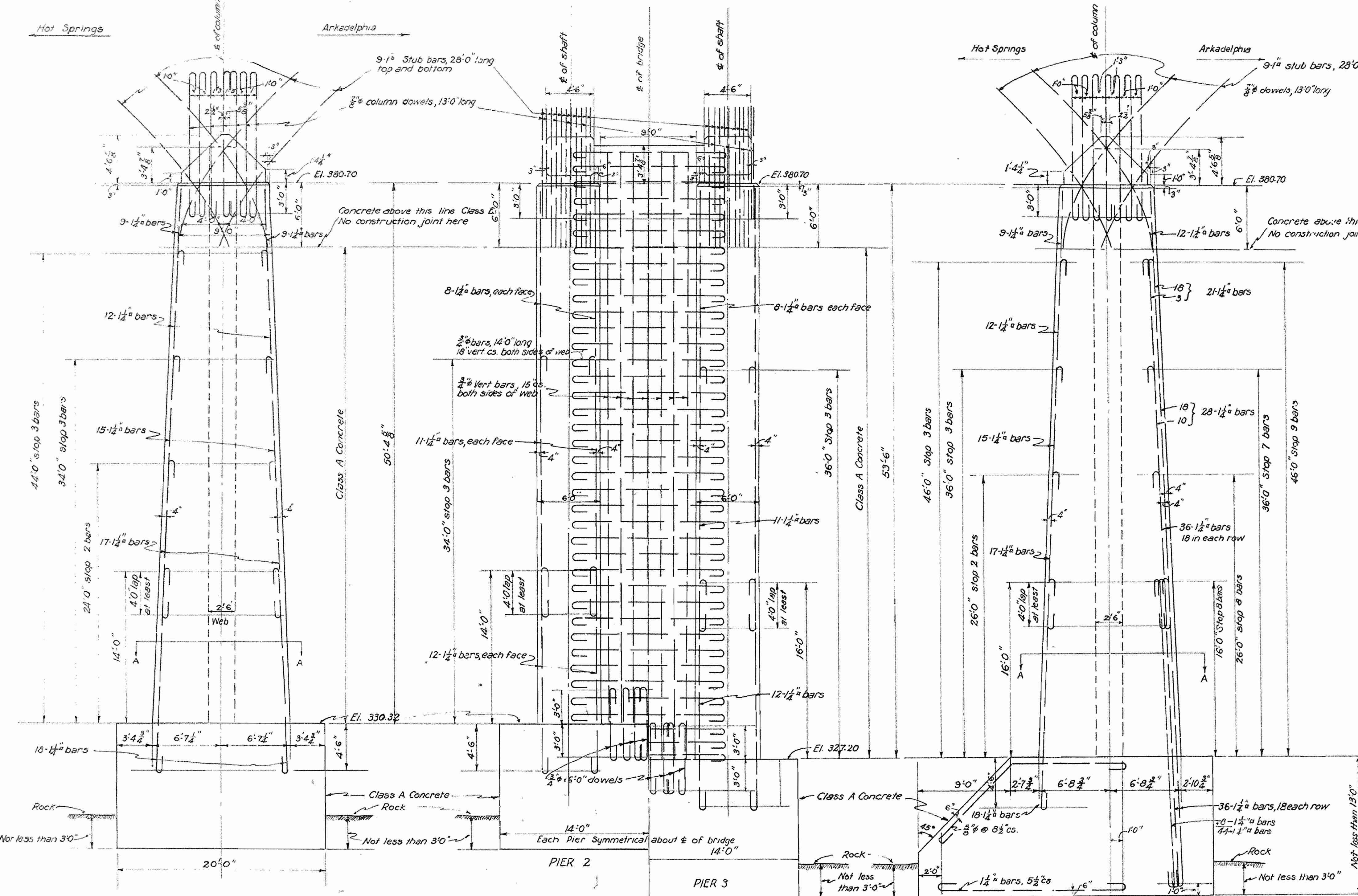


ARKANSAS STATE HIGHWAY COMMISSION
HIGHWAY BRIDGE OVER OUACHITA RIVER
ON ARKADELPHIA ROAD NEAR HIGHWAY NO. 7
HOT SPRINGS, ARKANSAS
(GARLAND COUNTY)
DETAILS OF ABUTMENTS AND PIERS
SCALES AS SHOWN

REVISED JUNE 26, 1928.
by B.V. & J.S.W.

Made by JSW&BV
Checked by
Traced by B.V.&J.S.W.
Checked by B.V.&J.S.W.
Date June 13, 1928

IRA G. HEDRICK, INC.
Consulting Engineers
Shreveport, La.
FILE No.
SHEET No. 3.



ARKANSAS STATE HIGHWAY COMMISSION
 HIGHWAY BRIDGE OVER OUACHITA RIVER
 ON ARKADELPHIA ROAD HIGHWAY NO. 7
 NEAR GARLAND COUNTY
 HOT SPRINGS, ARKANSAS
 DETAILS OF PIERS 1, 2, AND 3
 SCALES AS SHOWN

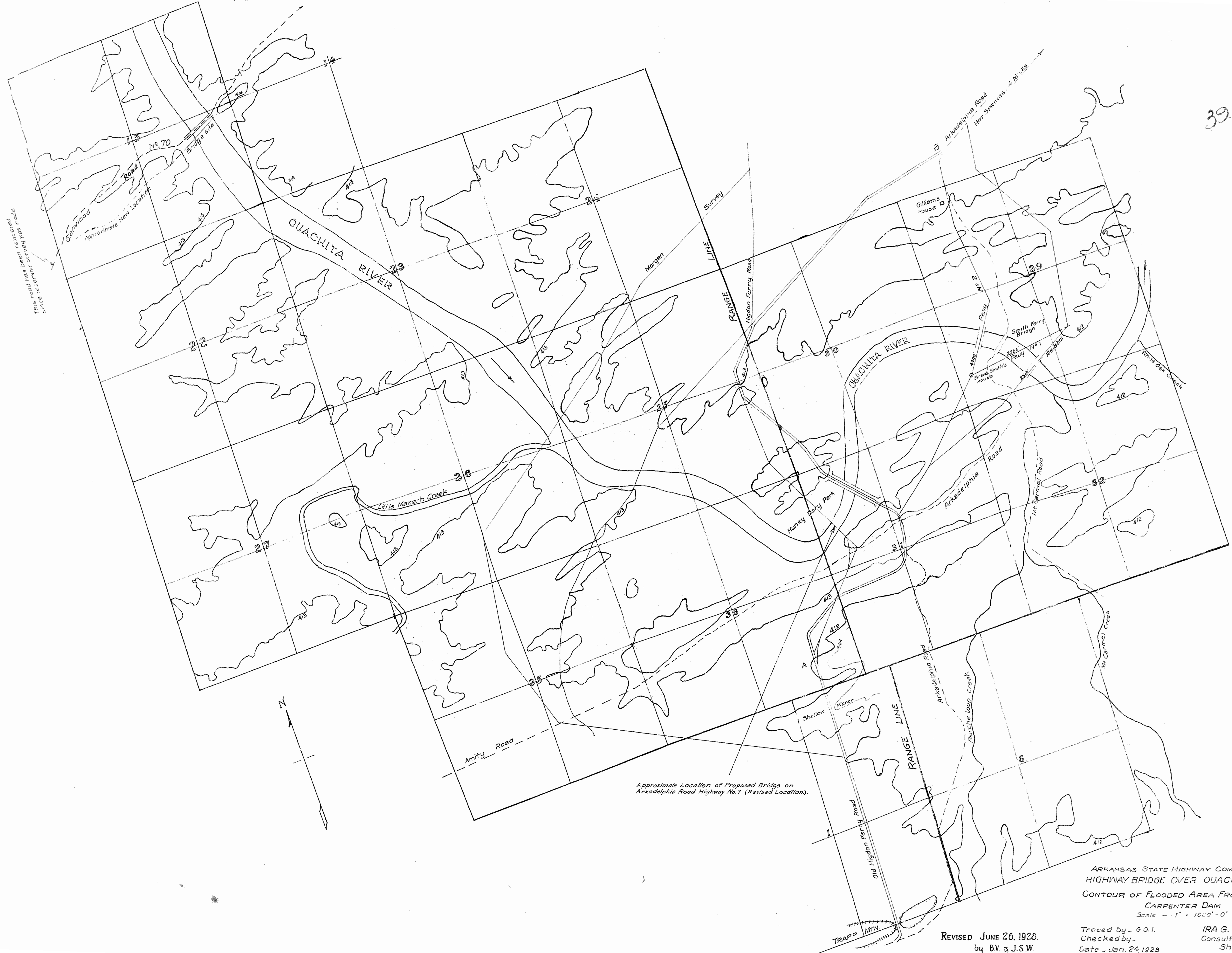
REVISED JUNE 26, 1928
 by B.V. & J.S.W.
 REVISED SEPT. 29, 1928
 by K.F.

Made by J.S.W.
 Checked by J.S.W.
 Checked by B.V. & K.F.
 Date June 26, 1928

IRA G. HEDRICK, INC.
 Consulting Engineers
 Shreveport, La.

Hot Springs - About 5 1/2 miles

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Approximate Location of Proposed Bridge on Arkadelphia Road Highway No. 7 (Revised Location).

ARKANSAS STATE HIGHWAY COMMISSION
 HIGHWAY BRIDGE OVER OUACHITA RIVER
 CONTOUR OF FLOODED AREA FROM PROPOSED
 CARPENTER DAM
 Scale - 1" = 1000'-0"

REVISED JUNE 26, 1928.
 by BV. & J.S.W.

Traced by - G.O.I.
 Checked by -
 Date - Jan. 24, 1928

IRA G. HEDRICK, INC.
 Consulting Engineers
 Shreveport, La.
 FILE NO.

