

394

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

MT. IDA ROAD, HIGHWAY No. 6

GARLAND COUNTY

C. S. CHRISTIAN
HIGHWAY ENGINEER

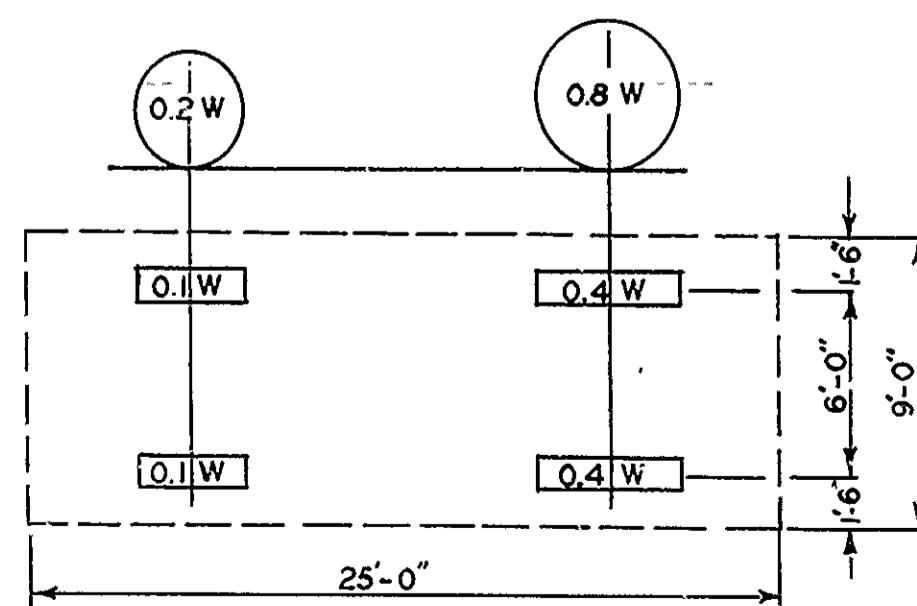
N. B. GARVER
BRIDGE ENGINEER

IRA G. HEDRICK, INC.
CONSULTING ENGINEERS
HOT SPRINGS, ARKANSAS

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WHEEL CONCENTRATION CLASS A LOADING



2- 15 TON TRUCKS

SPAN LENGTH	LOAD
50 TO 100	130* PER SQ. FT.
100 TO 200	80* " " "
200 AND OVER	64* " " "

EQUIVALENT UNIFORM LIVE LOADS

CONCRETE-25% IMPACT STEEL - L+300

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 \rightarrow . ALL BENDS SUCH AS S ON GIRDER BARS MUST HAVE A RADIUS OF NOT LESS THAN 12D.

CENTERS OF BARS IN FLOOR SLAB TO BE NOT LESS THAN $\frac{1}{2}$ " FROM FACE OF CONCRETE. CENTERS OF BARS TO BE 4" FROM FACE OF CONCRETE ON PIERS AND ABUTMENT SHAFTS AND 3" ON GIRDERS AND COLUMNS UNLESS OTHERWISE NOTED.

CHAMFERS TO BE 2" THROUGHOUT UNLESS OTHERWISE NOTED.

CONSTANTS

	CONCRETE 1-1-2 MIX	STEEL
FLOORSLABS, CROSSGIRDERS, GIRDERS, ETC.	975# PER SQ. IN.	
BEAMS CONTINUOUS OVER SUPPORTS AT CENTER OF BEAMS	975#	
OVER SUPPORTS	125#	
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 SQ. IN.
COMP. IN COLS. & OTHER COMP. MEMBERS FIXED ENDS	900- $\frac{22.5L}{D}$	
MODULUS OF ELASTICITY STEEL		30000000# " " "
" " " CONCRETE 1-2-4	2000000#	
" " " " 1-1-2	3000000#	
VARIATION IN TEMPERATURE FOR ARCH RINGS	$\pm 40^\circ$	
COEFFICIENT OF EXPANSION	.0000055	.0000067

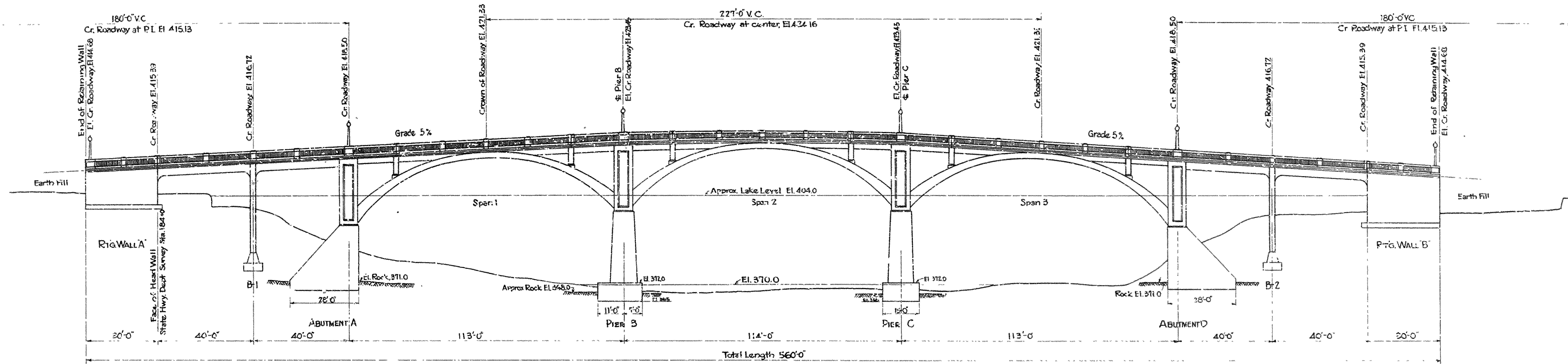
ROUTE 270 SEC. 4
GARLAND COUNTY

BR. No. 1080 DWG No. 5983

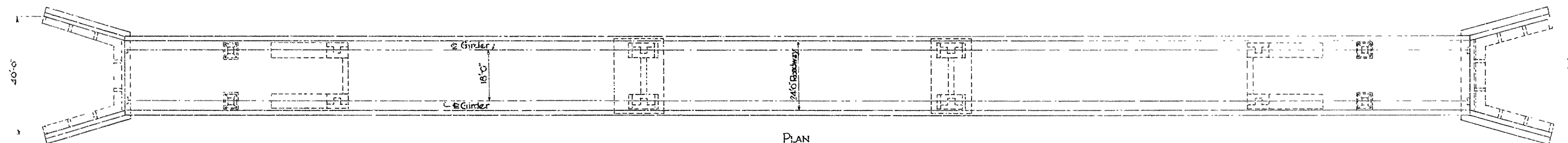
395

To Mt. Ida

To Hot Springs



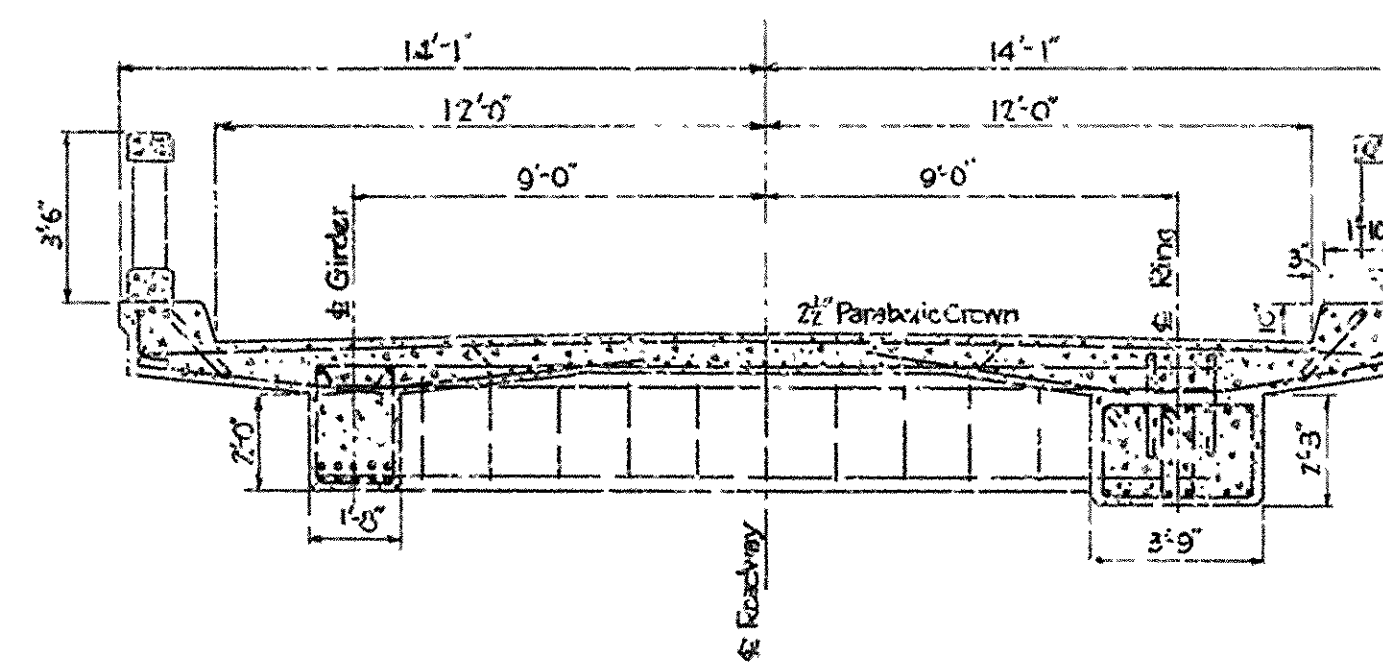
ELEVATION
Scale 1"=20'



PLAN
Scale 1"=20'

APPROXIMATE QUANTITIES

ABUTMENT PIERS A & D	
Excavation above El. 370.0	490 cu. yds.
Excavation below El. 370.0	300 cu. yds.
Class 'E' Concrete	72 cu. yds.
Class 'A' Concrete	516 cu. yds.
PIERS B & C	
Excavation below El. 370.0	168 cu. yds.
Class 'E' Concrete	64 cu. yds.
Class 'A' Concrete	492 cu. yds.
ONE ARCH SPAN - CLASS 'E' CONCRETE	
Two Rings	92 cu. yds.
Struts	6 cu. yds.
Span/ribs columns	3 cu. yds.
Two pier columns	25 cu. yds.
Floor system	14.8 cu. yds.
Handrail & Lamp Posts	19 cu. yds.
4-40' GIRDER SPANS - CLASS 'E' CONCRETE	
Columns	1.3 cu. yds.
Floor System	236 cu. yds.
Handrail & Lamp Posts	14 cu. yds.
COLUMN BASES & CAPS	
Excavation above El. 370.0	32 cu. yds.
Class 'A' concrete	18 cu. yds.
2-30' RETAINING WALLS	
Excavation above El. 370.0	554 cu. yds.
Walls & Bases, class 'A' concrete	475 cu. yds.
Handrails & Lamp Posts	9 cu. yds.
REINFORCING STEEL, ENTIRE JOB, 420,000 lbs.	



ROADWAY AND GIRDER SECTION, ROADWAY AND ARCH RING SECTION AT CROWN
Scale 1/2"=10'

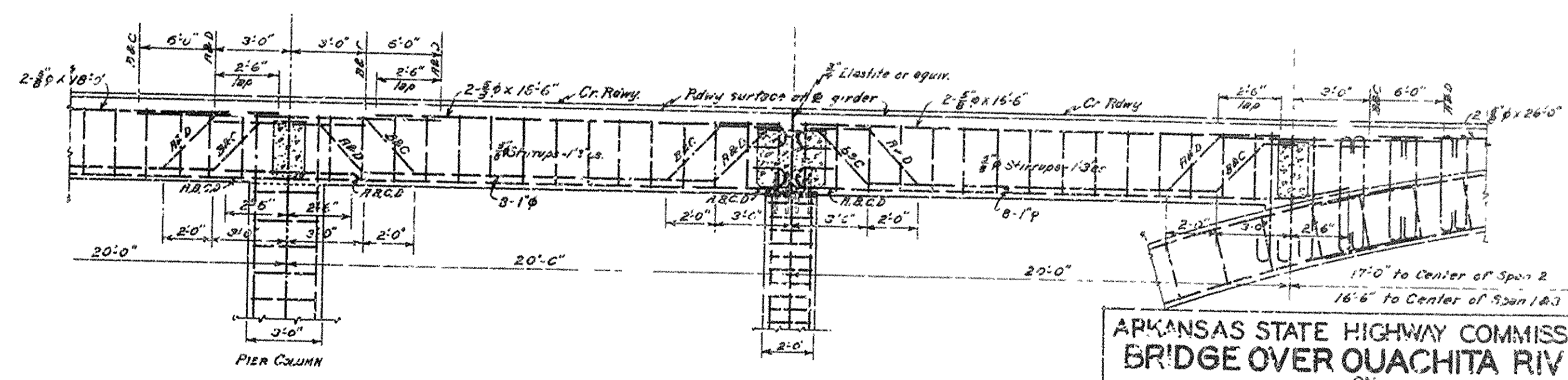
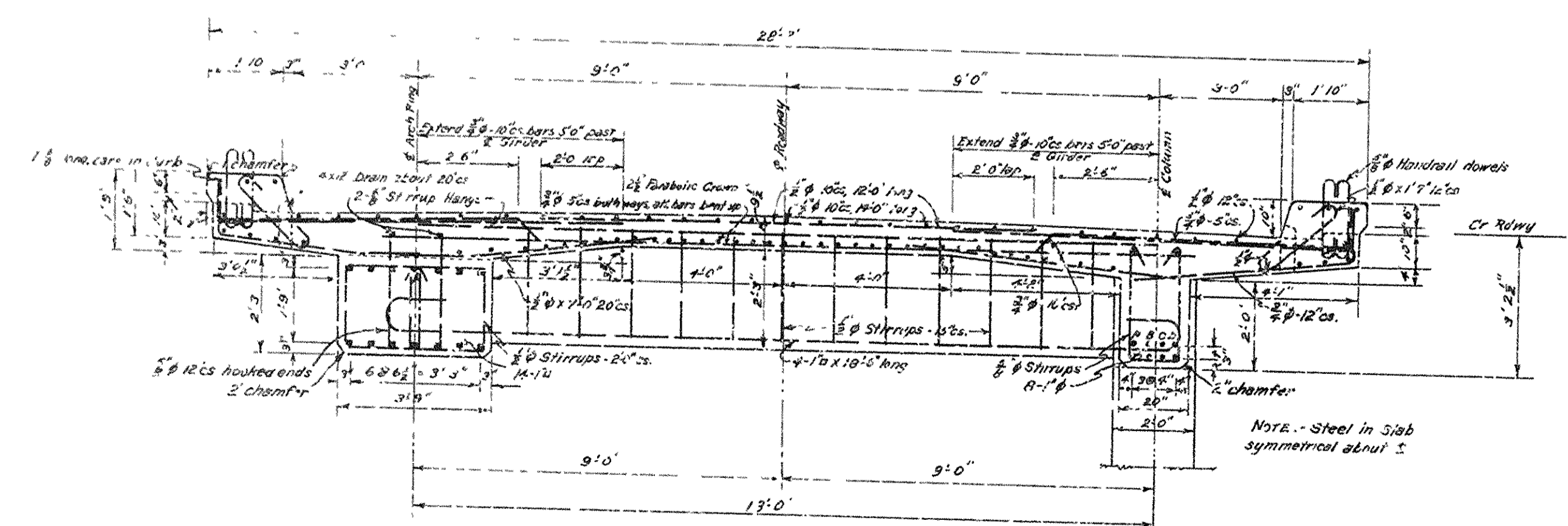
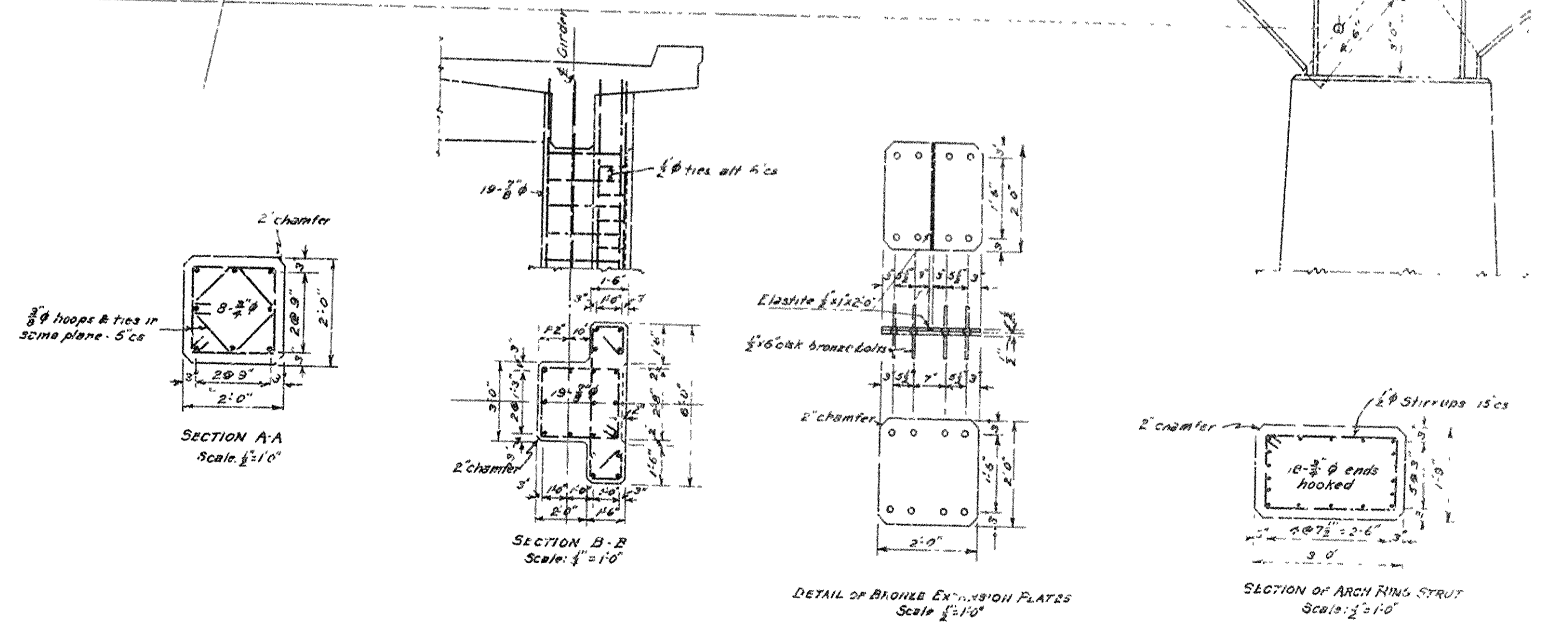
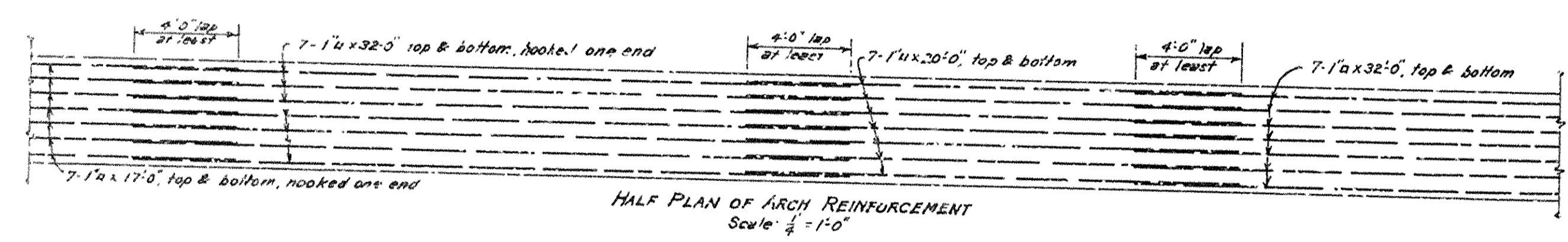
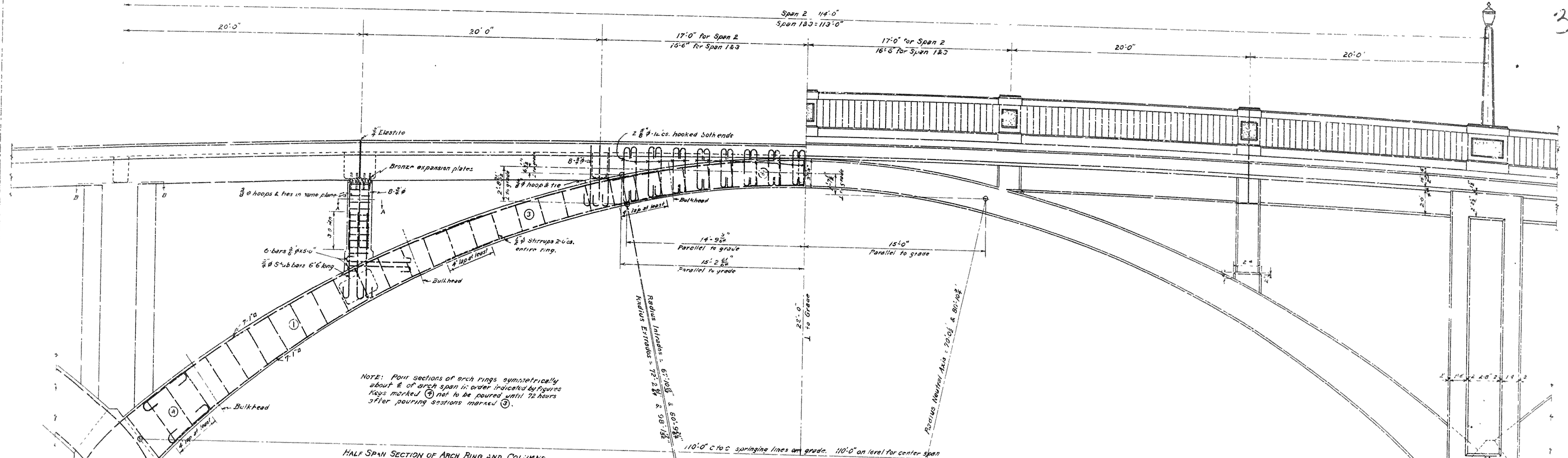
Revised July 25, 1930

ARKANSAS STATE HIGHWAY COMMISSION
BRIDGE OVER OUACHITA RIVER
ON
MT. IDA ROAD, HIGHWAY NO. 6 370
522.5
GENERAL PLAN & PROFILE

IRA G. HEDRICK, INC.
CONSULTING ENGINEERS
HOT SPRINGS, ARKANSAS
MADE BY: L. D. K. F.
TRACED BY: R. F.
CHECKED BY: L. E.
DATE: JULY 12, 1930. SCALE: AS SHOWN
SHEET NO. 1

BR. No. 1080 DRWG. No. 5984

326

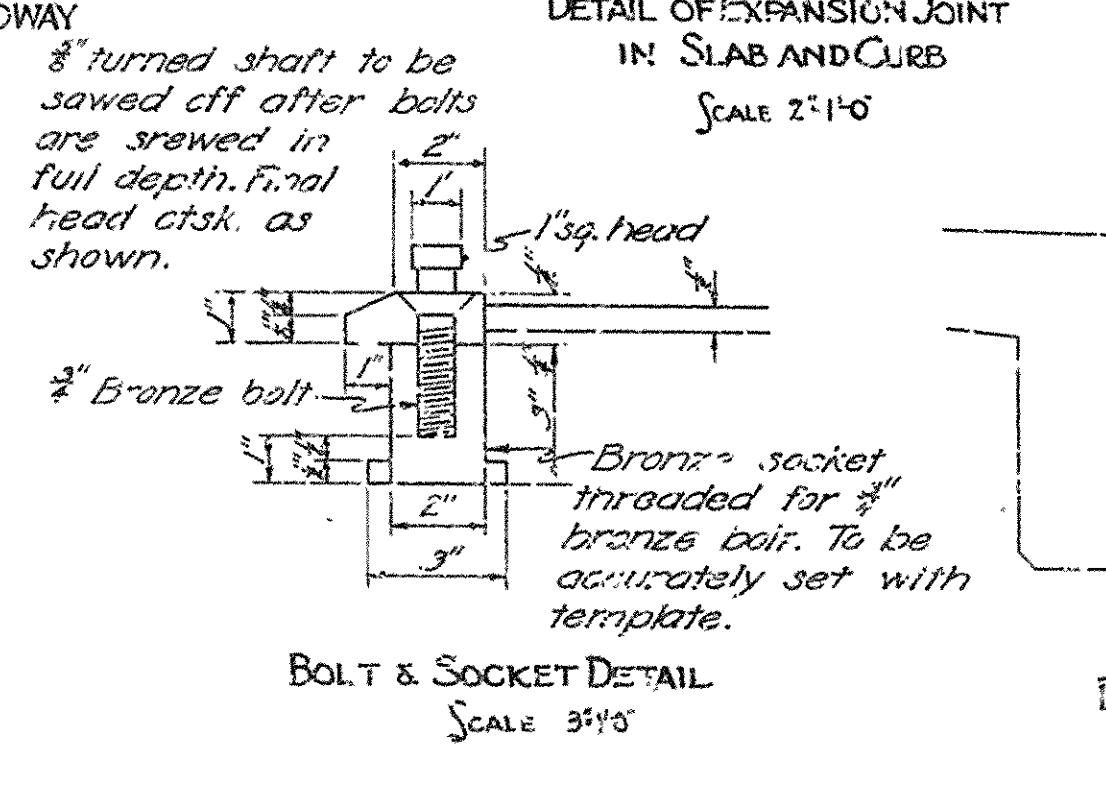
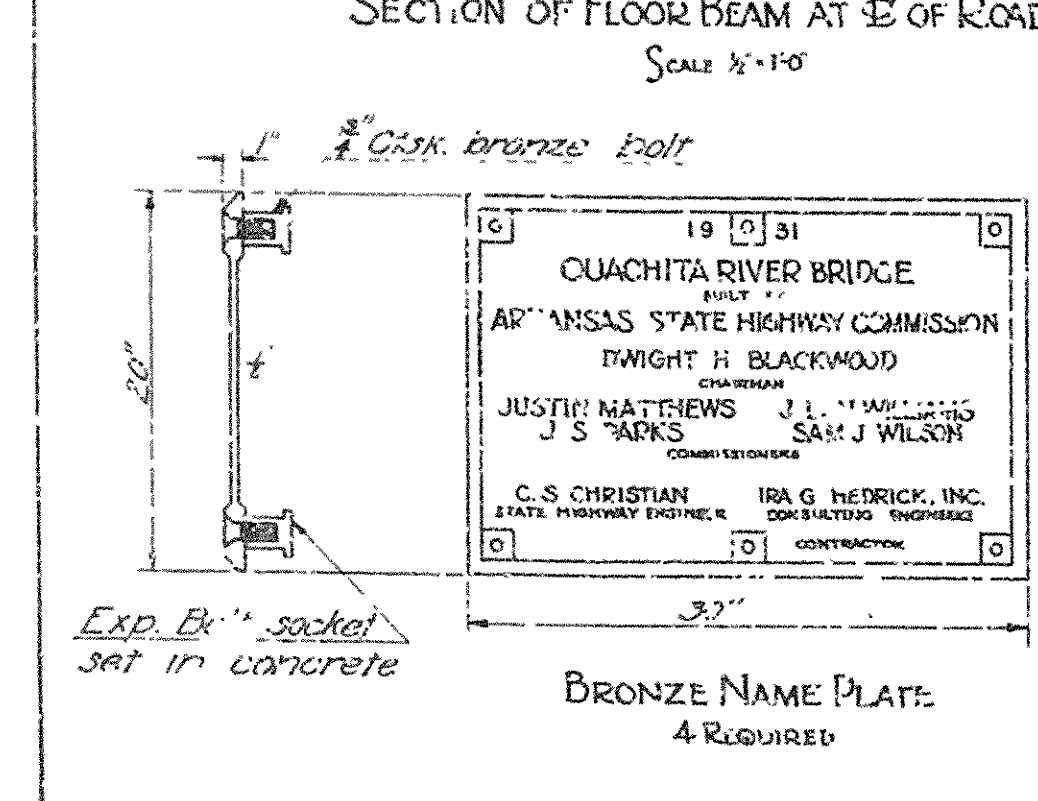
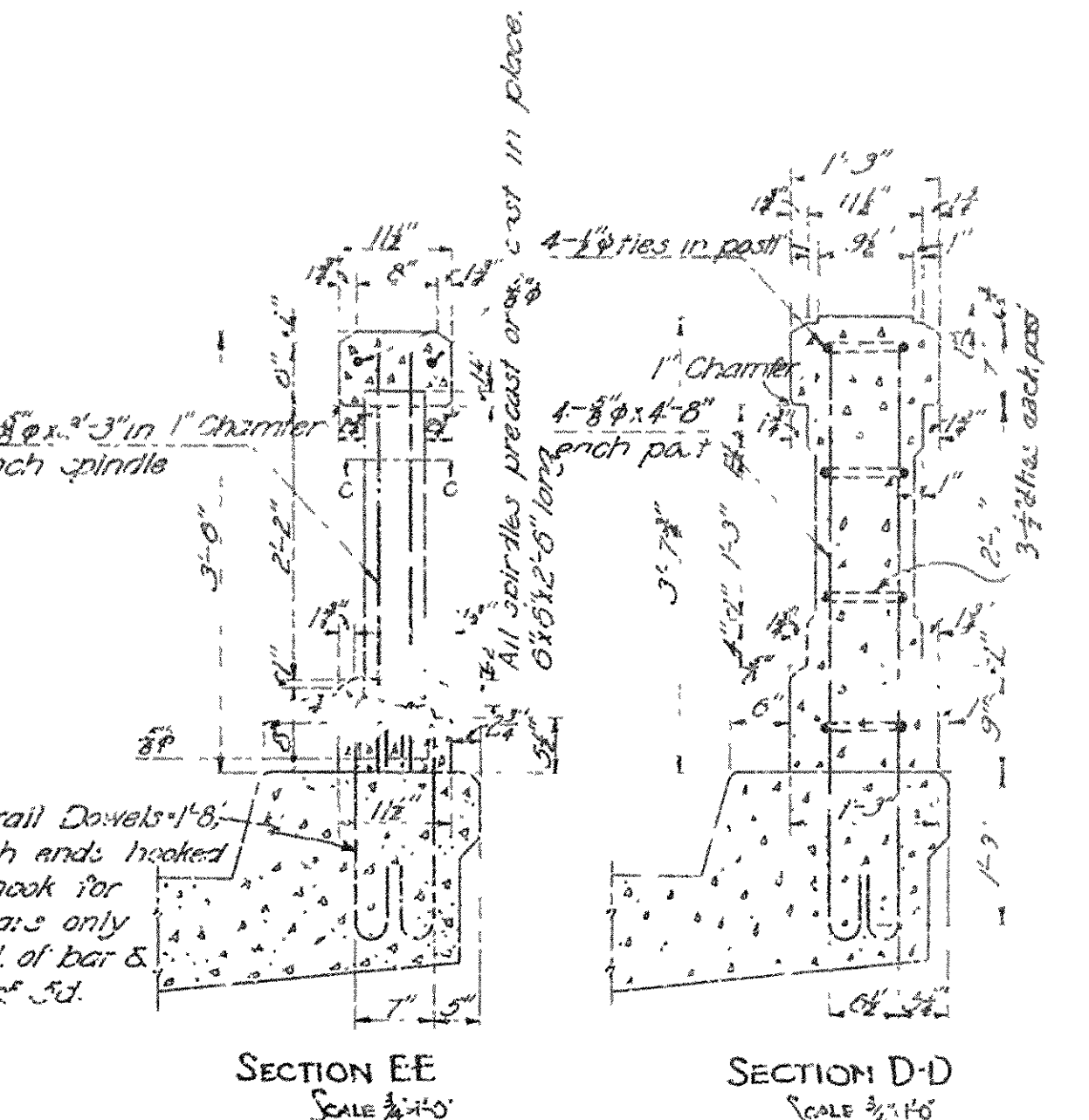
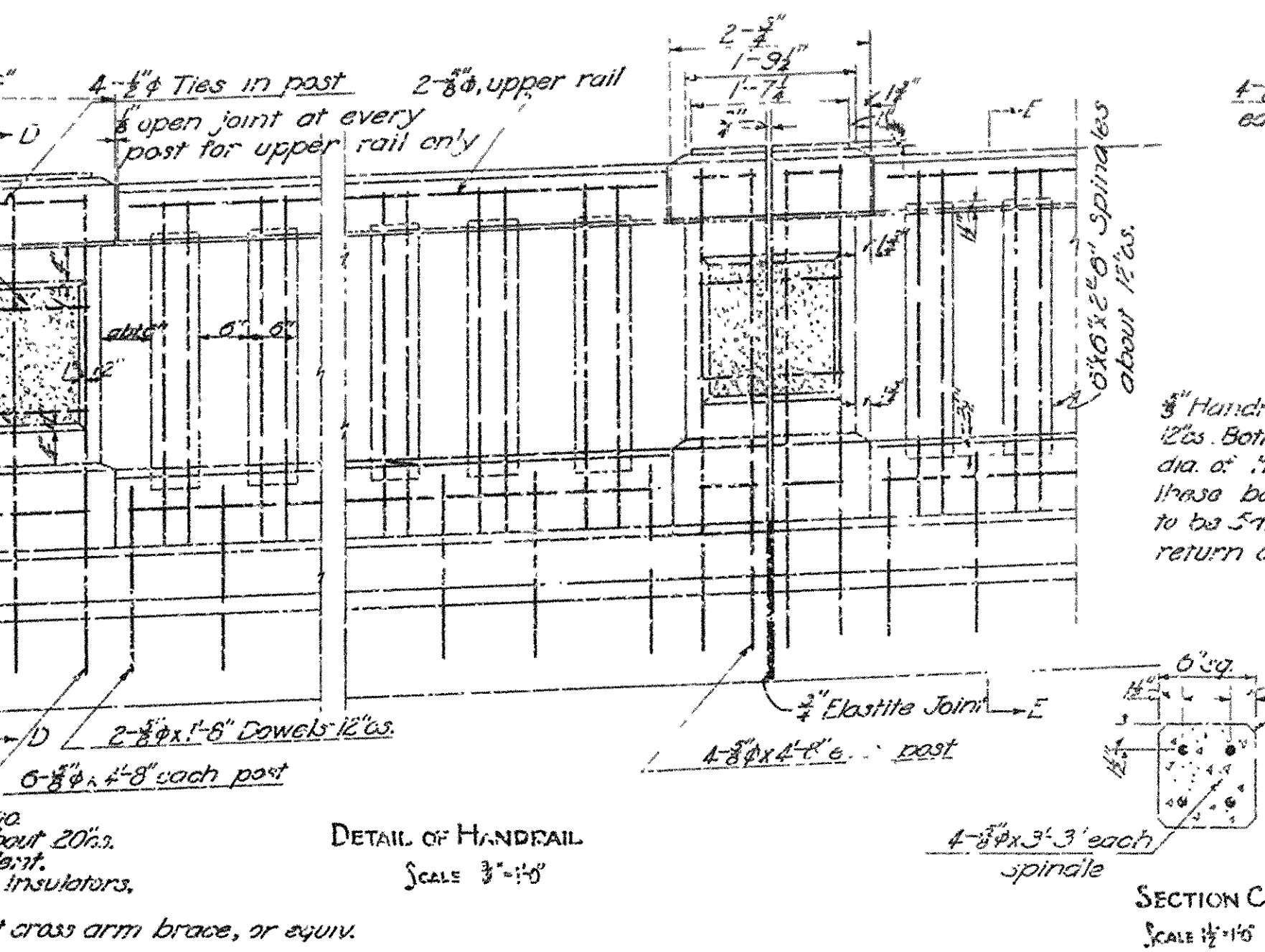
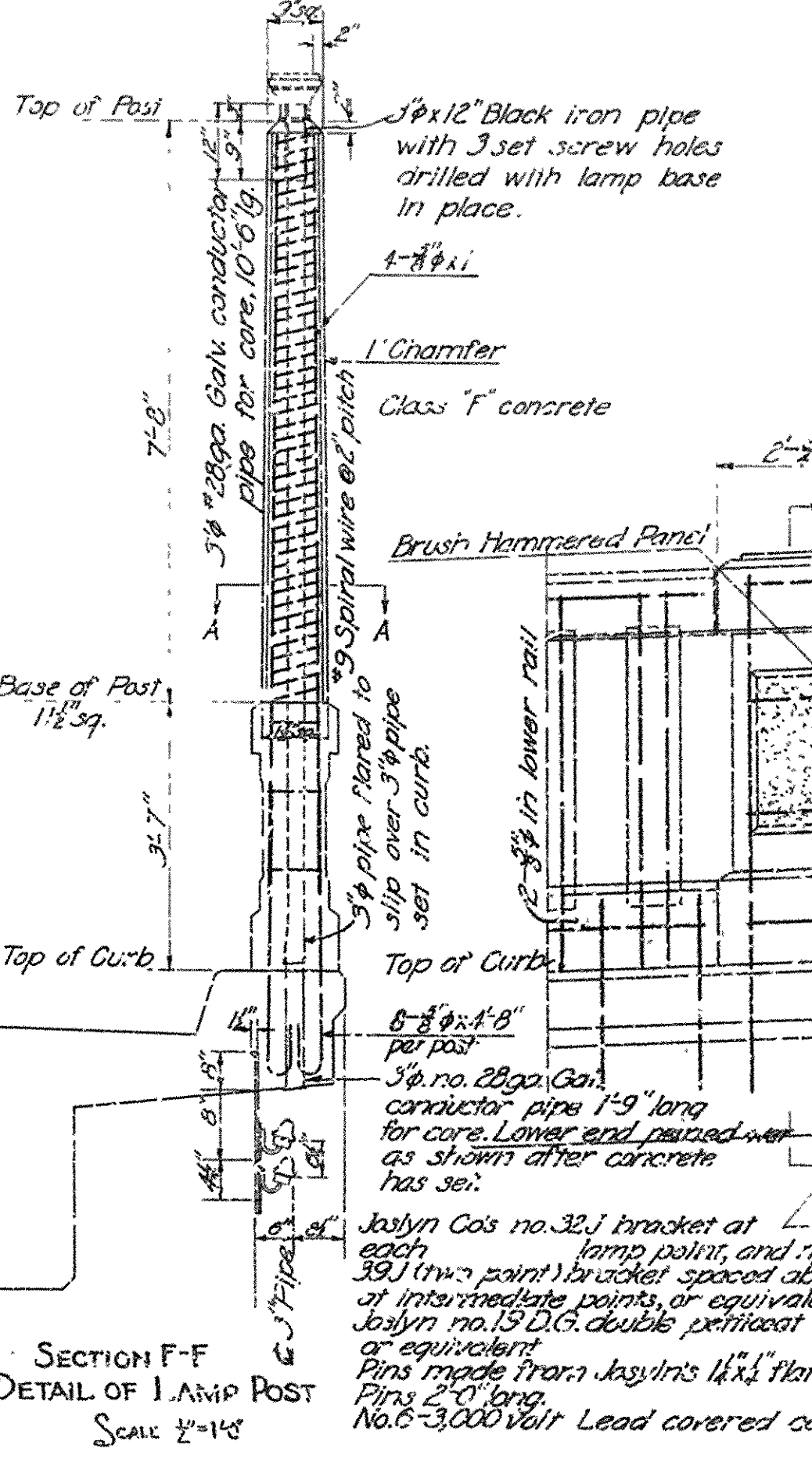
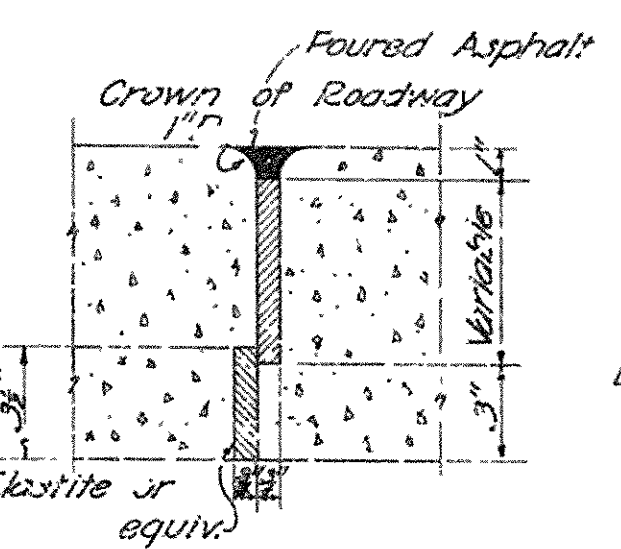
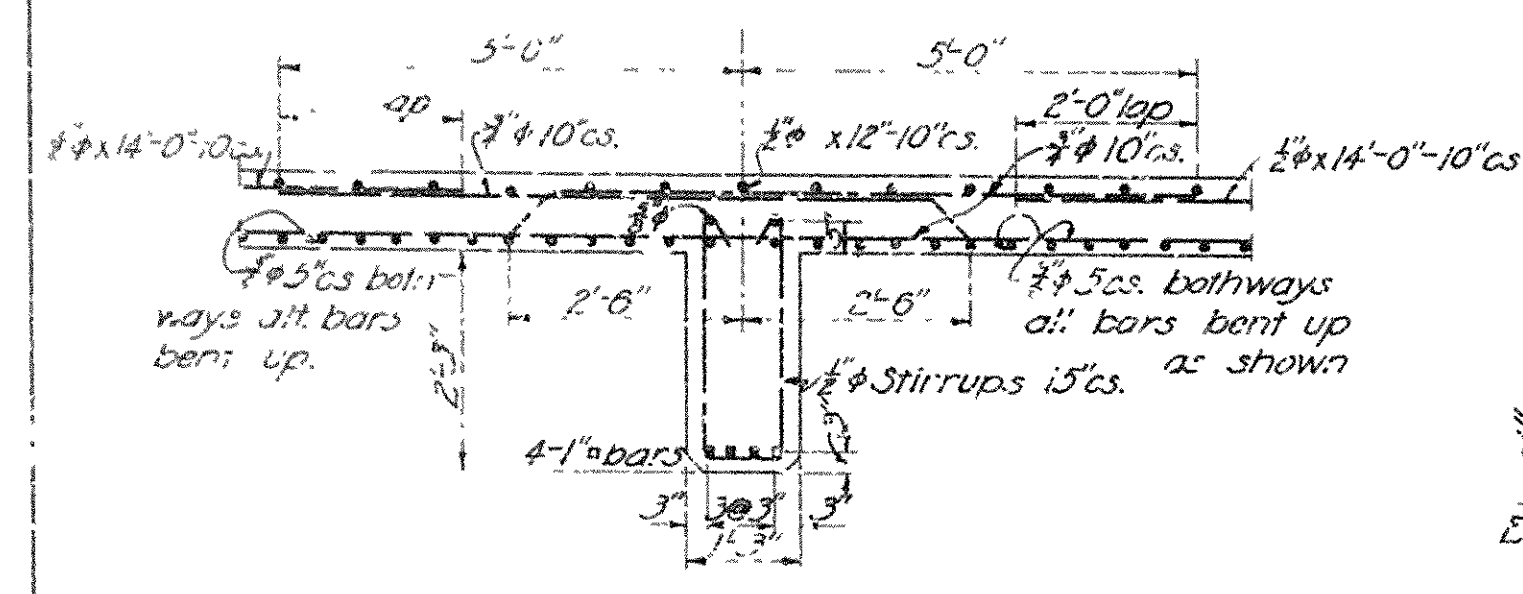
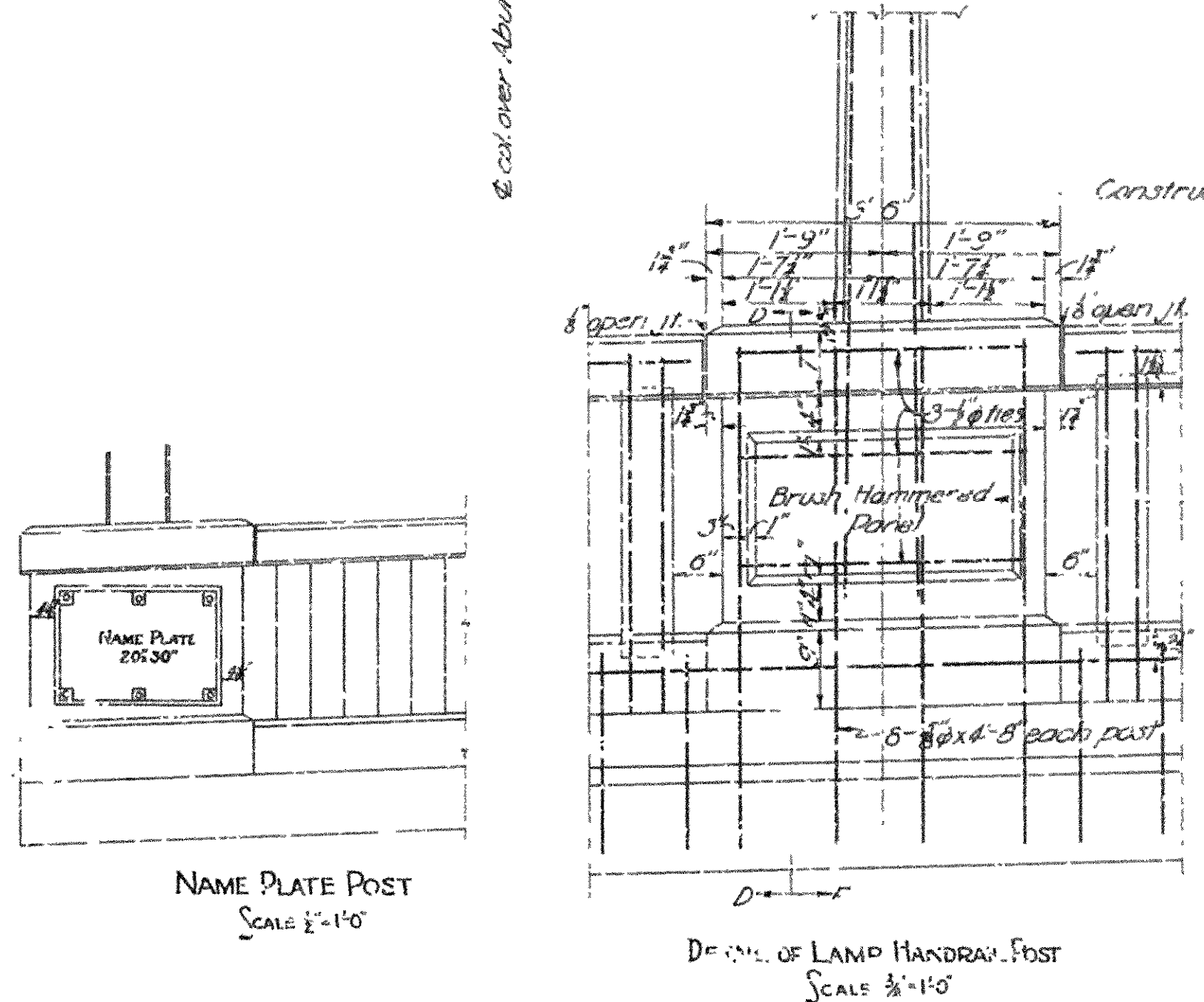
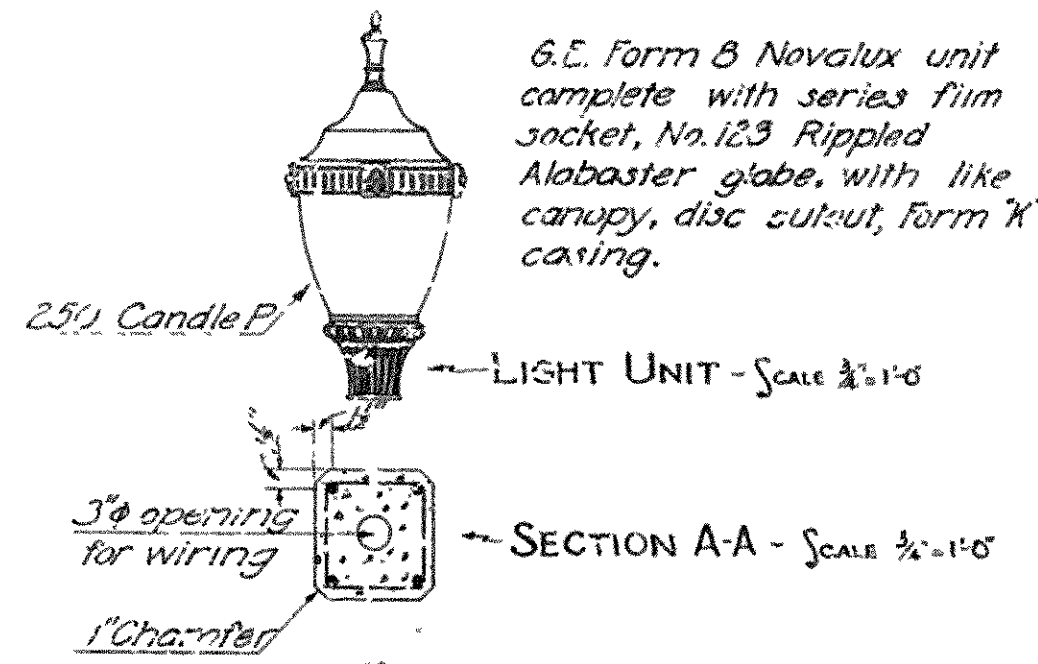
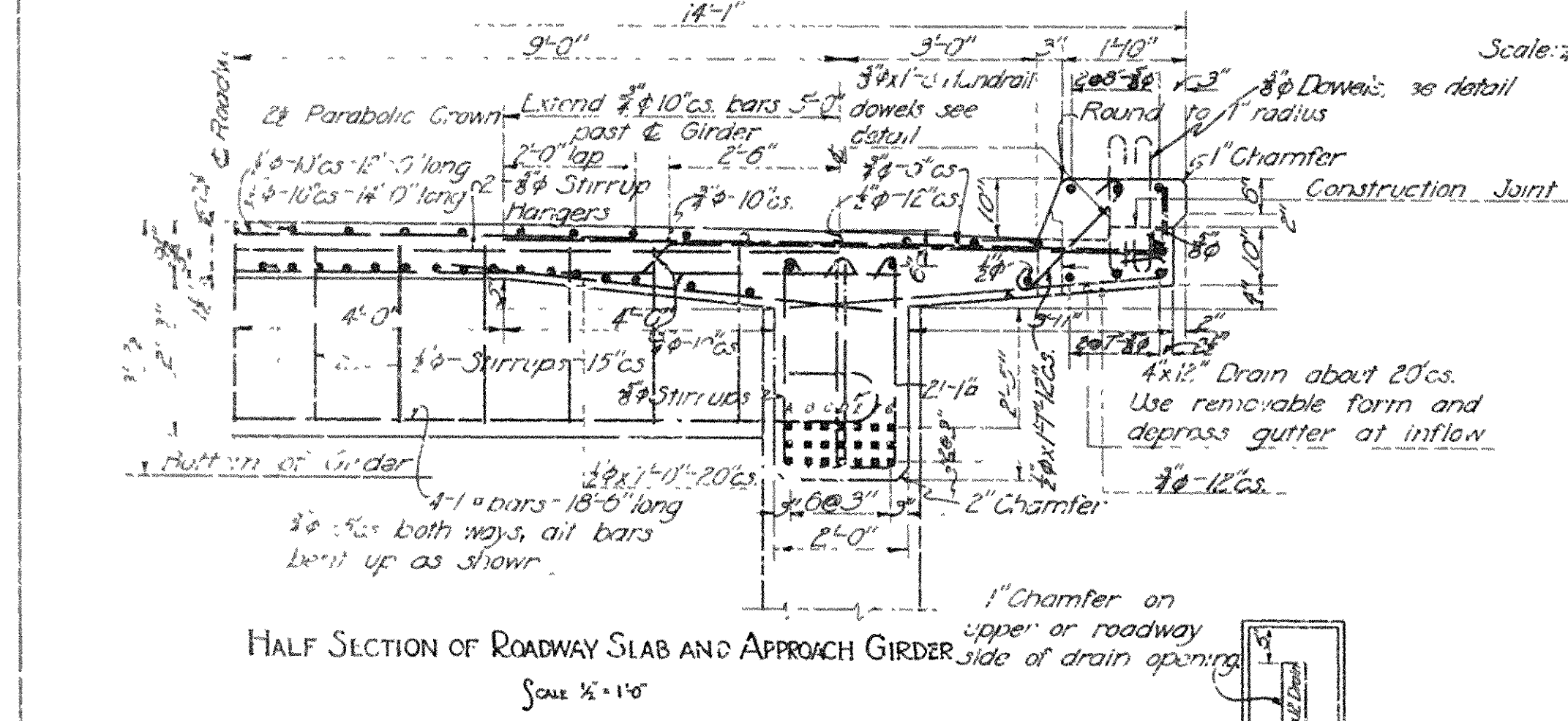
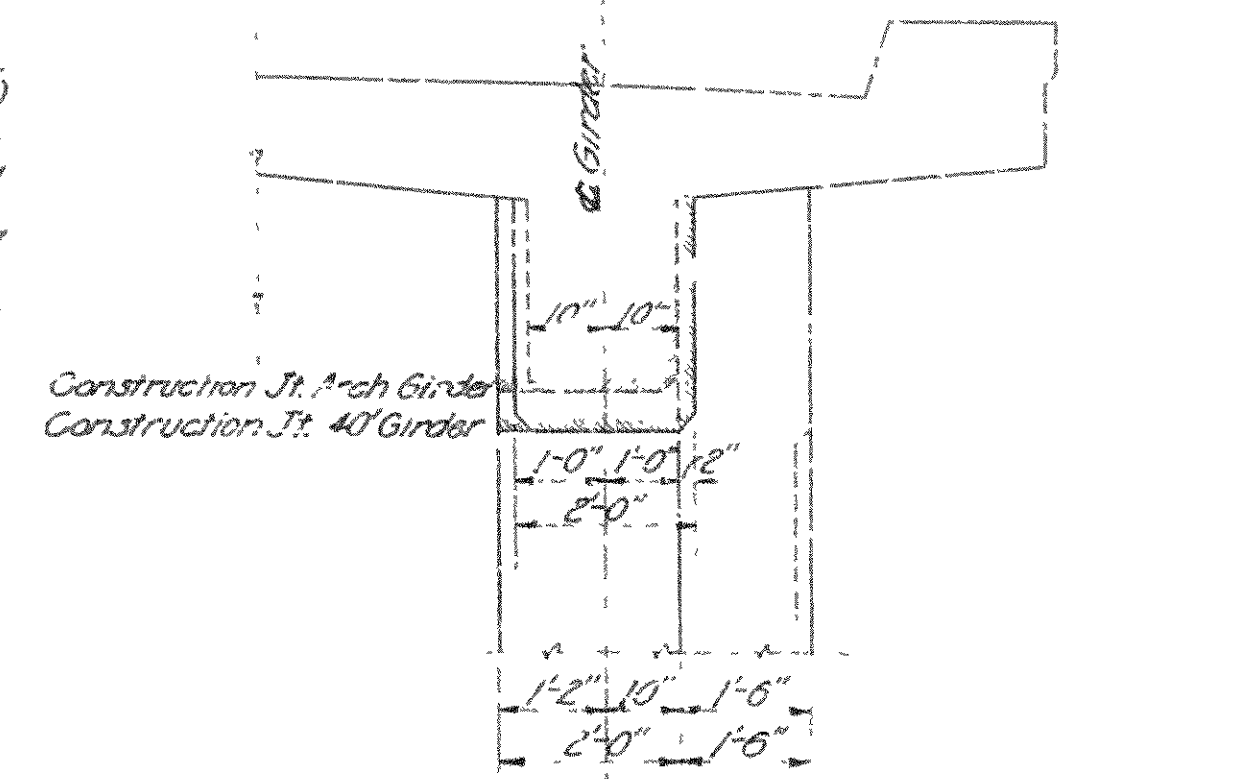
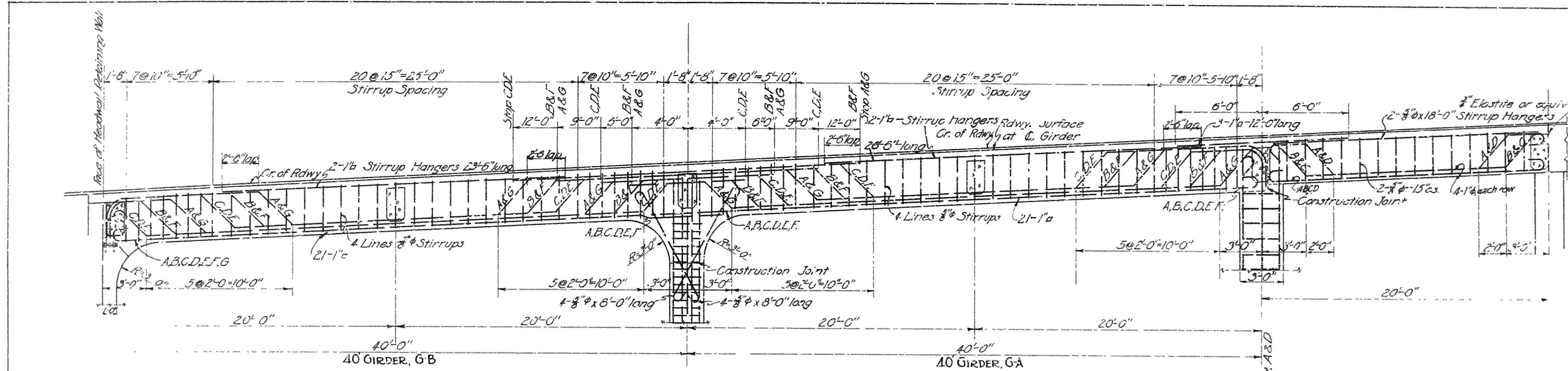


ARKANSAS STATE HIGHWAY COMMISSION
BRIDGE OVER OUACHITA RIVER
ON
MT. IDA ROAD, HIGHWAY NO. 6
DETAILS OF ARCH SPANS

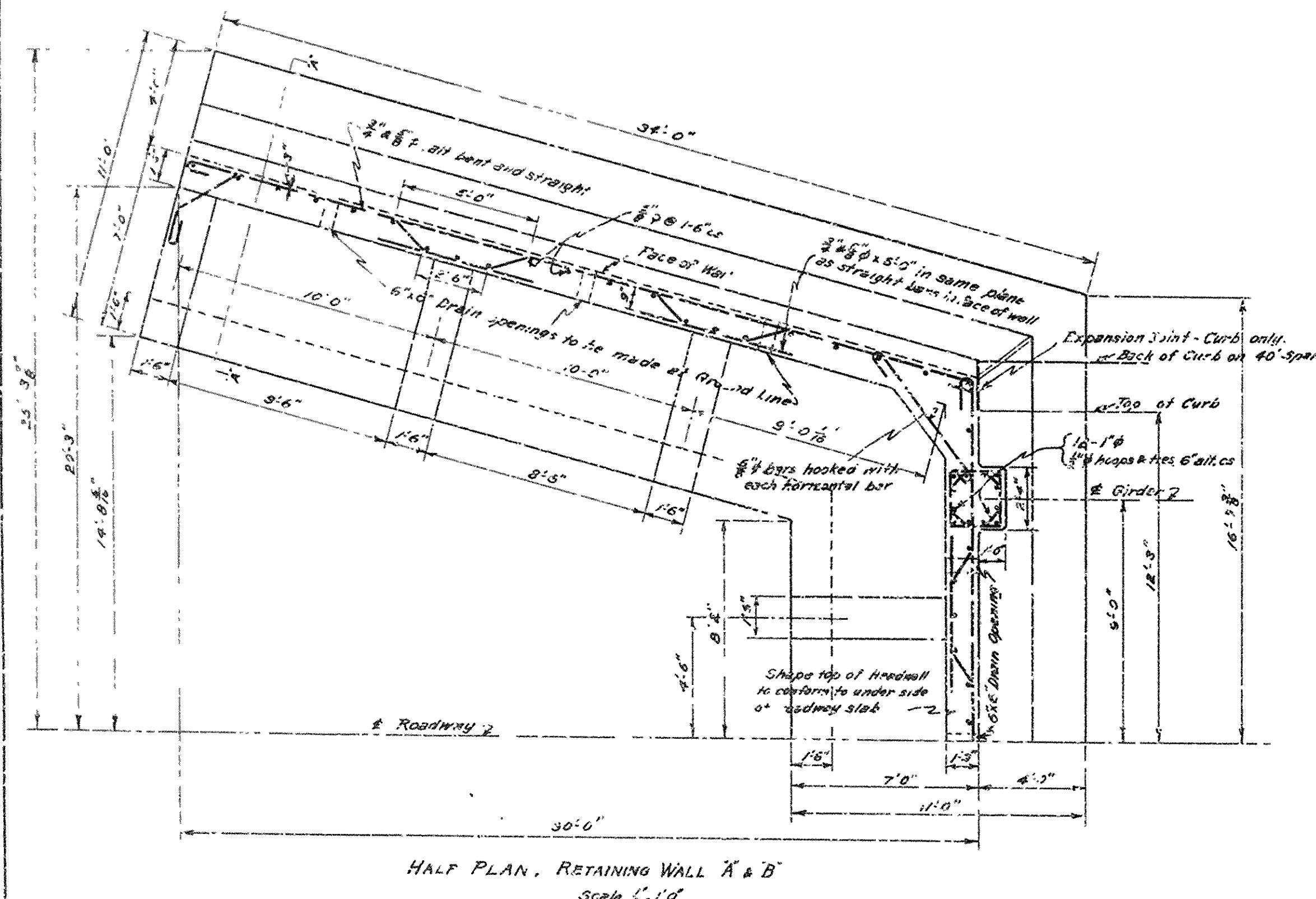
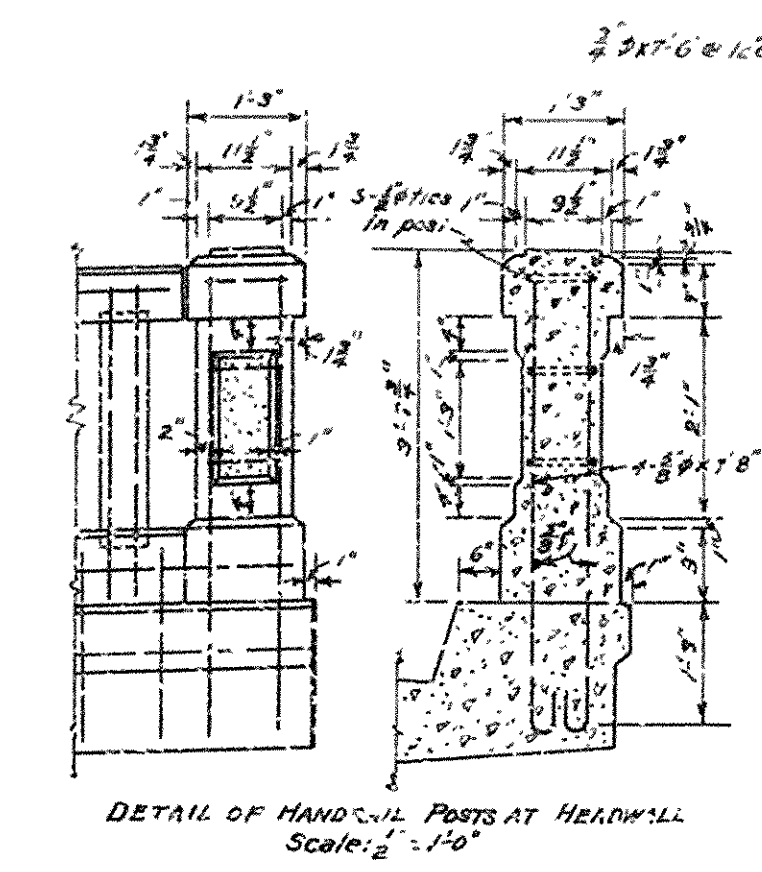
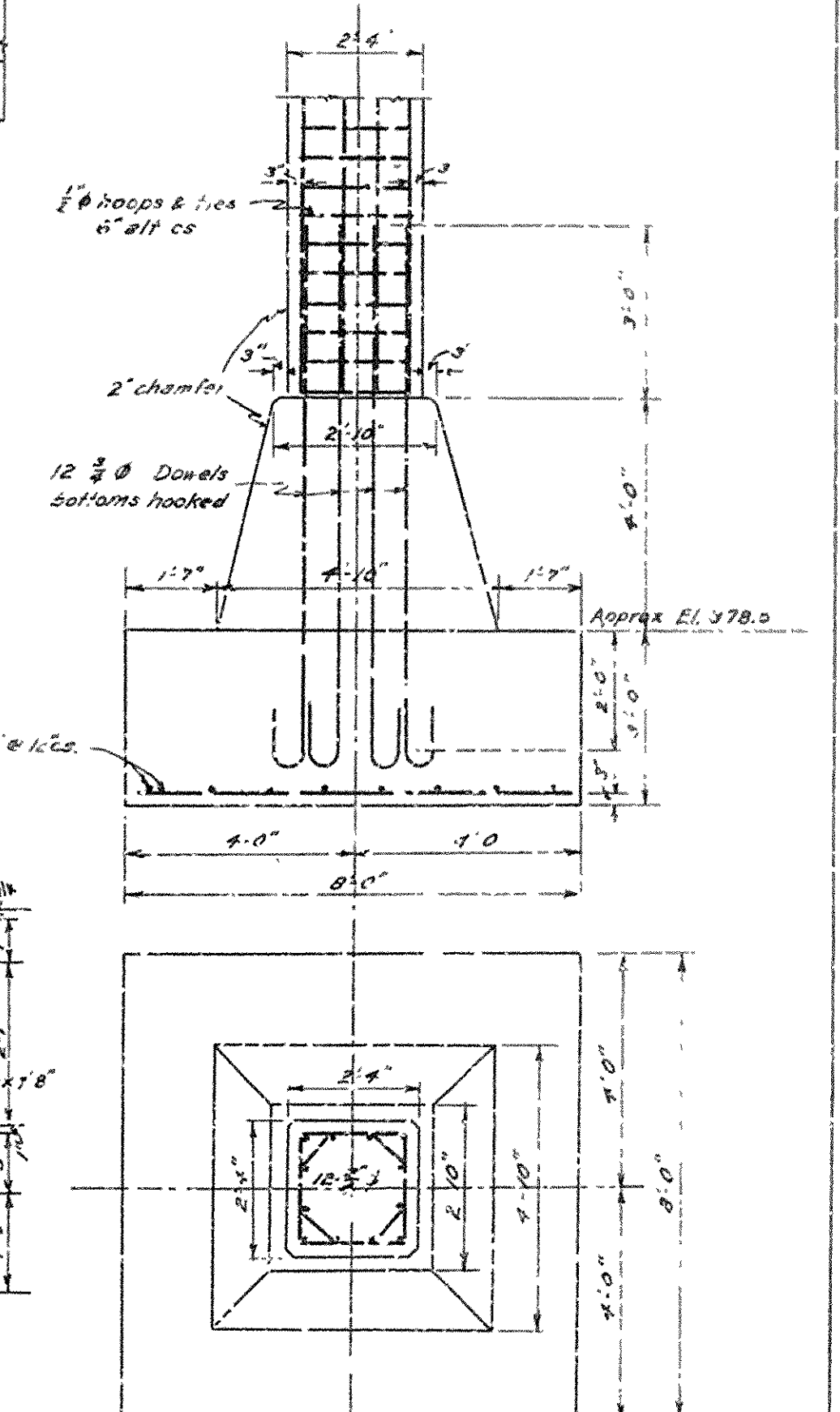
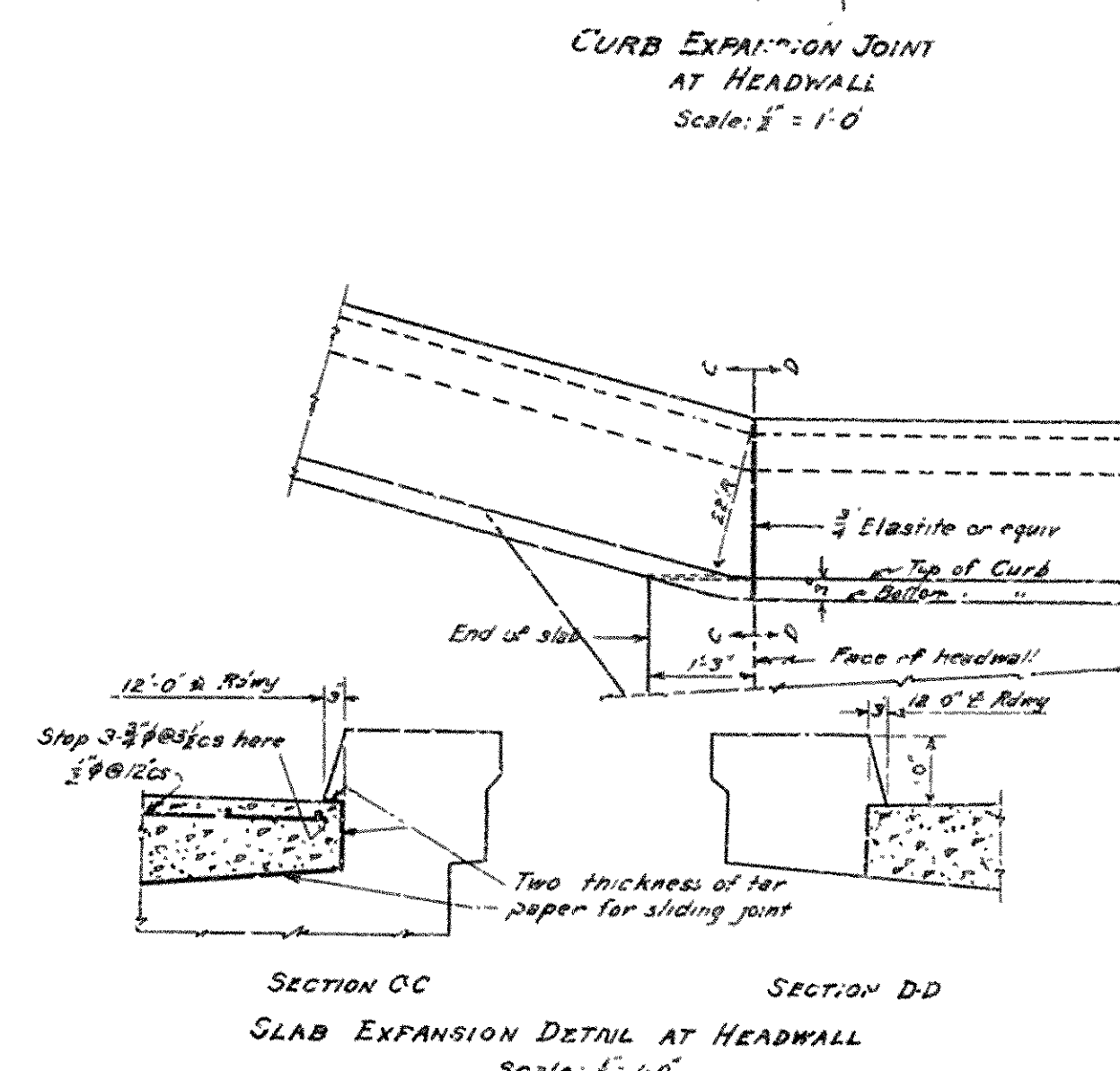
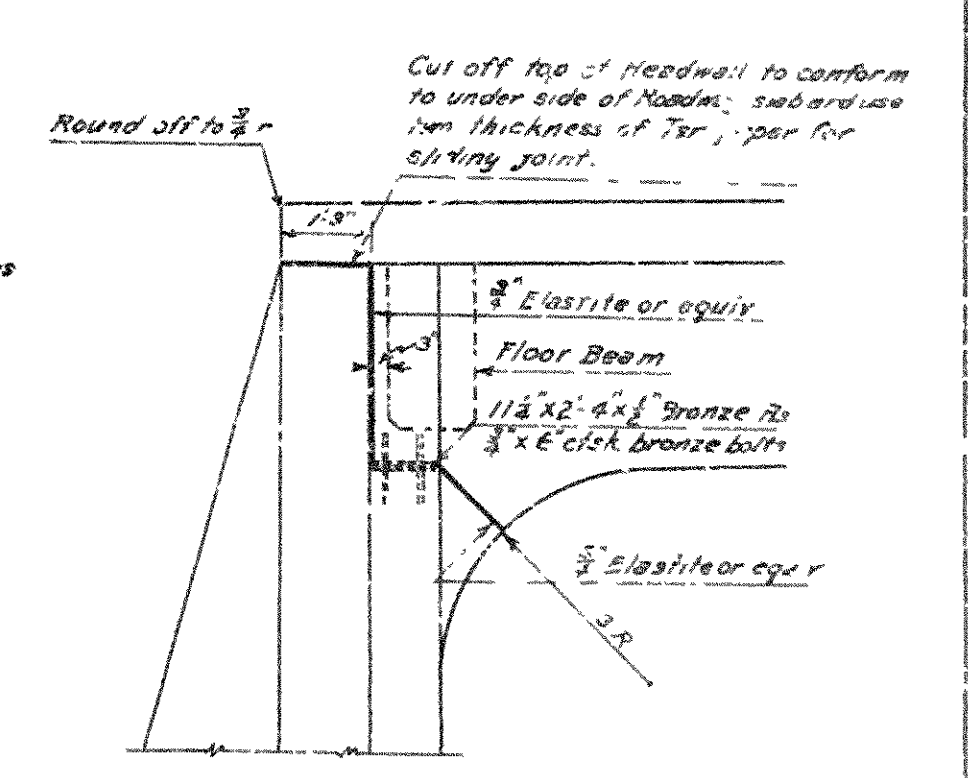
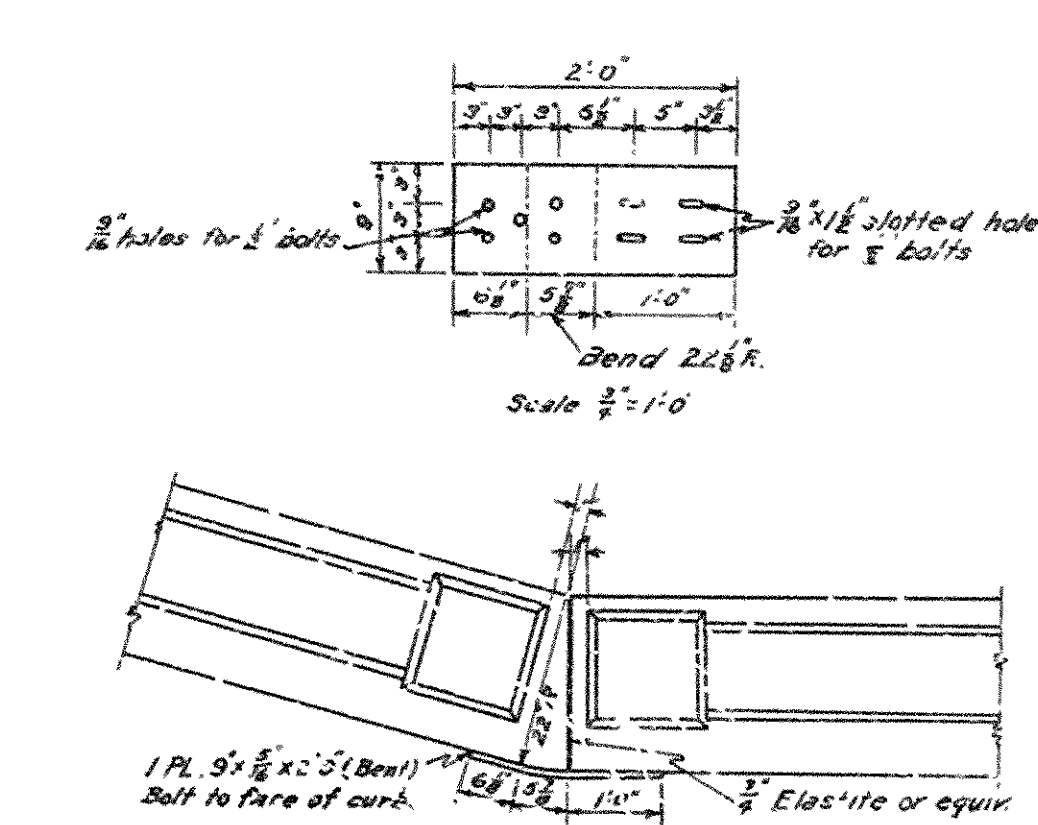
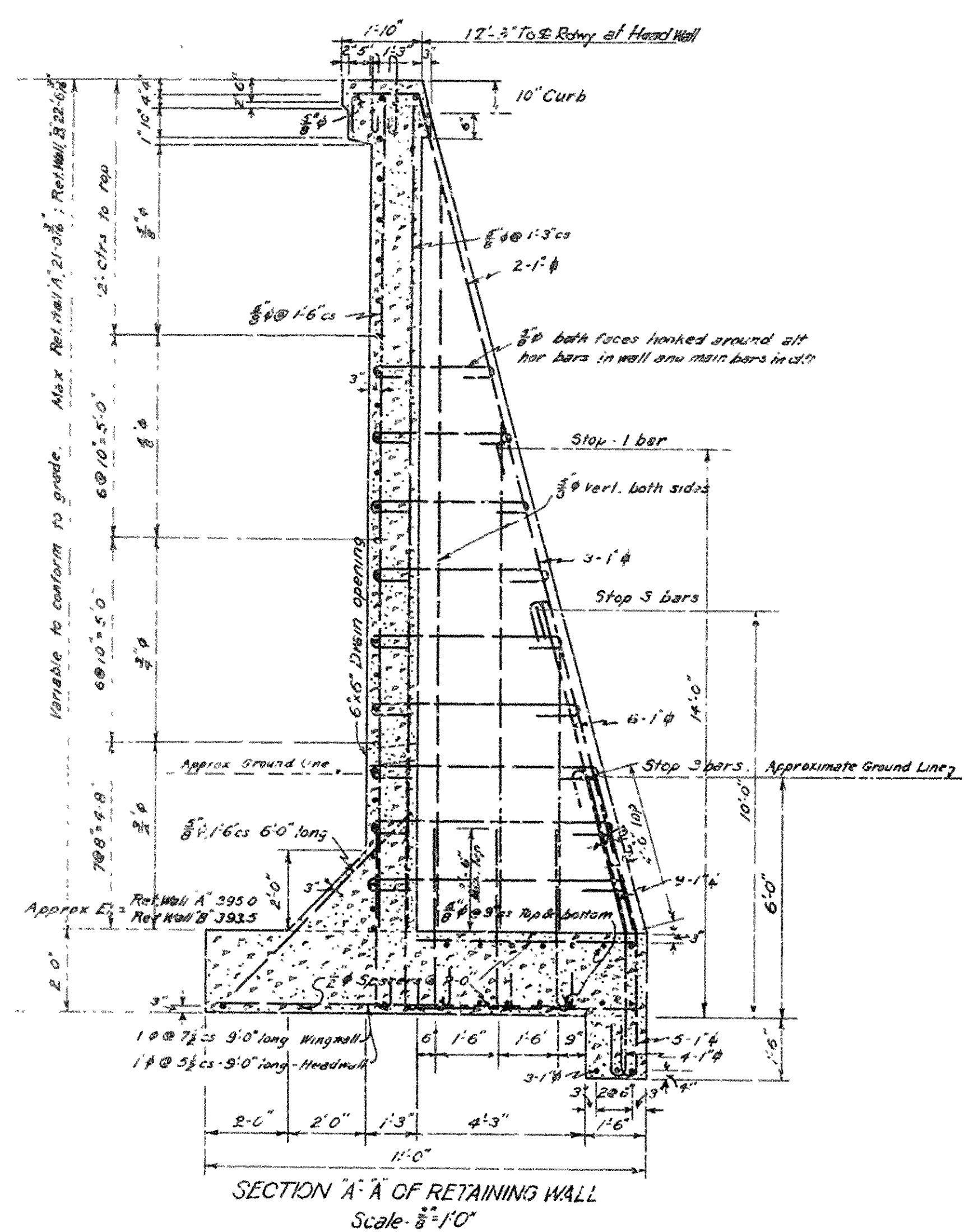
MADE BY: W.C.H.
TRACED BY: V.C.H.
CHECKED BY: K.F.
DATE: JULY 26, 1930. SCALE: AS SHOWN

IRA G. HEDRICK, INC.
CONSULTING ENGINEERS
HOT SPRING, ARKANSAS

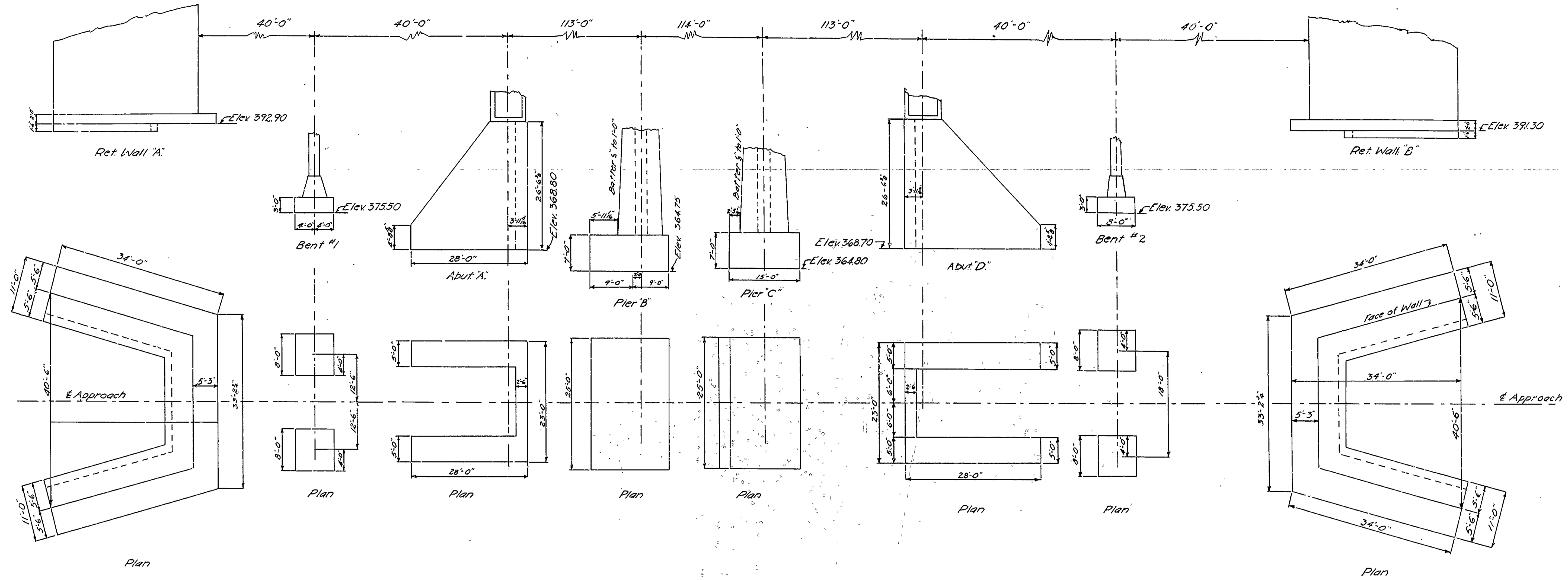
BR. No. 1080 DRWG. No. 5985



ARKANSAS STATE HIGHWAY COMMISSION
 BRIDGE OVER QUACHITA RIVER
 ON
 MT. IDA ROAD, HIGHWAY NO. 6
 DETAILS OF APPROACH GIRDER SPAN
 MADE BY: WCH
 TRACED BY: G.H.
 CHECKED BY: K.F.
 DATE: July 28, 1920. SCALE: As Shown
 SHEET NO. 4
 BR. No. 1080 DRW. No. 5987



ARKANSAS STATE HIGHWAY COMMISSION
BRIDGE OVER OJACHITA RIVER
 ON
 MT. IDA ROAD, HIGHWAY NO. 6
**DETAILS OF RET'G. WALLS,
 COLUMNS & FOOTINGS**
 MADE BY: WCH
 TRACED BY: WCH
 CHECKED BY: I.G.F.
 DATE: JUN. 25, 1930 SCALE: As shown SHEET NO. 5
 IRA G. HEDRICK, INC.
 CONSULTING ENGINEERS
 HOT SPRINGS, ARKANSAS



SCALE
 Horizontal 1"=10'-0"
 Vertical 1"=10'-0"

ARKANSAS STATE HIGHWAY COMMISSION
 BRIDGE OVER OUACHITA RIVER
 ON
 MT. IDA ROAD, HIGHWAY NO. 6
 RECORD DRAWINGS OF
**BASES, PIERS, COLUMNS,
 FOOTINGS & RETG WALLS**
 MADE BY: I.C.D. IRA G. HEDRICK, INC.
 TRACED BY: I.C.D. CONSULTING ENGINEERS,
 CHECKED BY: HOT SPRINGS, ARKANSAS
 DATE: JAN. 27, 1931 SCALE: AS SHOWN SHEET NO. 6