

| FED. DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|----------------|-------|--------------------|-------------|-----------|--------------|
| 6 | ARK. | 32200A | 1930 | 7 | 16 |

STATE OF ARKANSAS
STATE HIGHWAY COMMISSION

PLAN OF PROPOSED BRIDGES
ON
HOPE-EMMET ROAD
HEMPSTEAD COUNTY

ROUTE 67 SEC. 2
JOB NO 3170

EMERGENCY FEDERAL AID PROJECT NO. 32 REQ-A

INDEX OF SHEETS

| Sheet No. | Drawg No. | Title |
|-----------|-----------|--|
| 1 | 3051 | Title sheet |
| 2 | 3052 | Layout Bridge No. 1628 |
| 3 | 3053 | Layout Bridge No. 1629 |
| 4 | 3054 | Details Abutments Bridge No. 1629 |
| 5 | 2354 | Standard 30'-0" R.C.G. Girder 27'-0" Roadway |
| 6 | 3055 | Layout Bridge No. 1630 |
| 7 | 3056 | Details Abutments Bridge No. 1630 |
| 8 | 3057 | Details Piers & Bents Bridge No. 1630 |
| 9 | 2447 | Standard 30'-0" Low Truss Span 24'-0" Rdwy. |
| 10 | 3058 | Layout Bridge No. 1646 |
| 11 | 3059 | Details Abutments Bridge No. 1646 |
| 12 | 2314 | Standard 35'-0" R.C.G. Girder 24'-0" Roadway |
| 13 | 3060 | Layout Bridge No. 1632 |
| 14 | 3061 | Details Abutments 1628, 1646, 1632 |
| 15 | 3062 | Details Bents 1628, 1646 and 1632 |
| 16 | 2315 | Standard 30'-0" R.C.G. Girder 24'-0" Roadway |

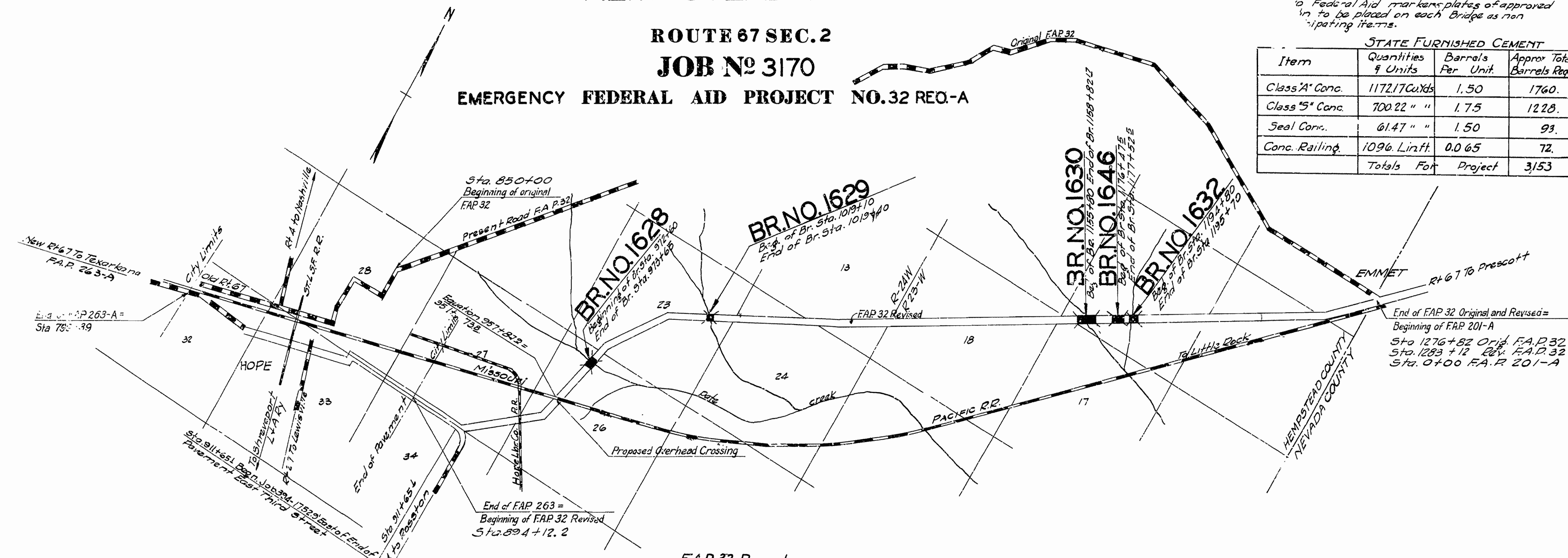
QUANTITIES

| Item No. | Description | Quantity |
|----------|-----------------------------------|----------------|
| SR 112 | Earth Excavation | 4138 Cu Yds |
| 13 | Dry Excavation for structures | 1158 Cu Yds |
| 13 | Wet Excavation for structures | 2321 Cu Yds |
| SP4 52 | Untreated Timber Piling | 7925 Lin Ft |
| 54 | Class 'A' Concrete | 1172.17 Cu Yds |
| 54 | Class 'S' Concrete | 700.22 Cu Yds |
| SP4 54 | Seal Concrete | 61.47 Cu Yds |
| 55 | Reinforcing steel | 321,735 lbs |
| 56 | Structural steel in truss bridges | 99,405 lbs |
| 74 | Concrete railing for structures | 1096 Lin Ft |

* Non participating in Federal Aid.

Note: Federal Aid markers plates of approved iron to be placed on each bridge as non participating items.

| Item | Quantities 9 Units | Barrels Per Unit | Approx Total Barrels Required |
|--------------------|-----------------------|---------------------|----------------------------------|
| Class 'A' Conc. | 1172.17 Cu Yds | 1.50 | 1760. |
| Class 'S' Conc. | 700.22 " | 1.75 | 1228. |
| Seal Conc. | 61.47 " | 1.50 | 93. |
| Conc. Railing | 1096 Lin Ft | 0.065 | 72. |
| Totals For Project | | | 3153 |



| Roadway | | Bridges | | Project | |
|----------|-------|---------|-------|---------|-------|
| Feet | Miles | Feet | Miles | Feet | Miles |
| 38881.73 | 7.563 | 632.17 | 0.119 | 395139 | 7.402 |

LAYOUT
Scale: 1"=2000'

LENGTH OF PROJECT = 632'-2" = 0.119 MI
LENGTH OF BRIDGES = 632'-2"
LENGTH OF EMBANKMENT = 253'-10"
LENGTH OF JOB = 386'-0"

Specifications approved by Chief, Bureau of Public Roads, September 28, 1925, and adopted by State Highway Commission May 30, 1925 with revisions and Special Provisions as follows:

| Pamphlet | Revision | Date | Approved |
|----------|----------|-----------------|--------------------------|
| A | Revised | Sept. 1st, 1928 | Approved June 1st, 1929 |
| B | Revised | Nov. 1st, 1929 | |
| C | | | |
| D | Revised | July 1st, 1928 | Approved Nov. 24th, 1928 |
| E | Revised | Jan. 1st, 1930 | |
| F | Revised | Aug. 1st, 1929 | |
| G | Revised | June 1st, 1929 | |
| H | Revised | Jan. 1st, 1930 | |
| I | | | |
| J | Revised | Jan. 1st, 1929 | Approved June 1st, 1929 |
| K | | | |
| L | Revised | Jan. 1st, 1929 | Approved June 1st, 1929 |

| Item | No. of Sheets |
|---|---------------|
| Pamphlet I | 51 Sheets |
| Bridge Timber | 12 " |
| Earth Excavation | 3 " |
| Concrete Aggregate | 2 " |
| Field Engineer's Office | 1 " |
| Aluminum Paint | 2 " |
| Seal Concrete | 1 " |
| Section B-2 | 1 " |
| Structural Steel | 1 " |
| State Furnished Cement | 3 " |
| Cont. furnish all material except cement. | 1 " |

APPROVED
CHIEF ENGINEER - U. S. BUREAU OF PUBLIC ROADS
APPROVED
DISTRICT ENGINEER - U. S. BUREAU OF PUBLIC ROADS
APPROVED
CHIEF - U. S. BUREAU OF PUBLIC ROADS
APPROVED
CHAIRMAN - STATE HIGHWAY COMMISSION
APPROVED
STATE HIGHWAY ENGINEER

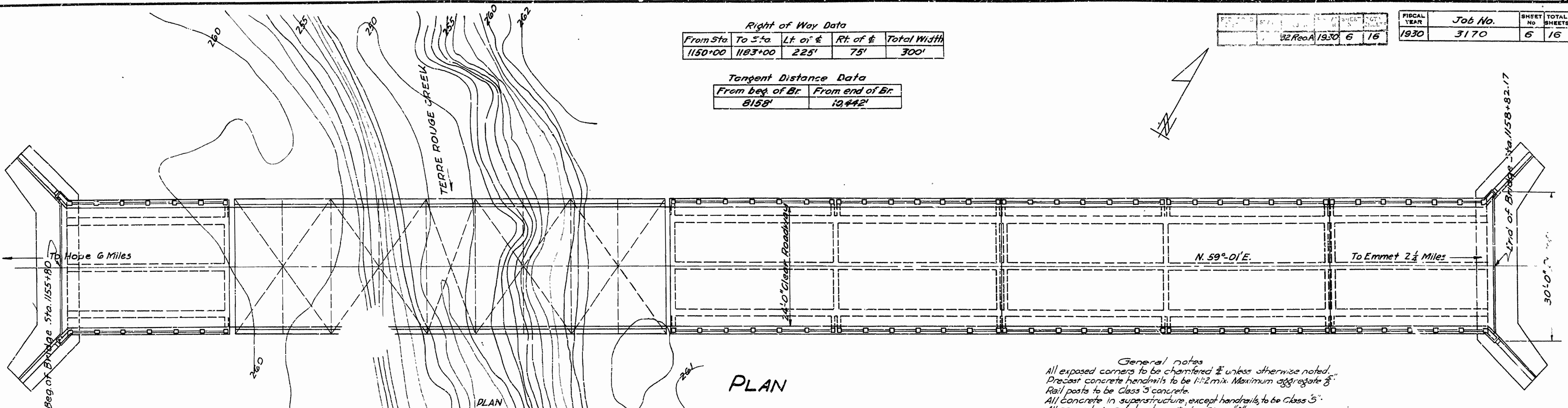
N. B. Gower
BRIDGE ENGINEER

BRIDGES NO. 1628, 1629, 1630, 1646, 1632 DRAWING NO. 3051

| Right of Way Data | | | | |
|-------------------|---------|----------|----------|-------------|
| From Sta | To Sta | Lt. of E | Rt. of E | Total Width |
| 1150+00 | 1183+00 | 225' | 75' | 300' |

| Tangent Distance Data | |
|-----------------------|-----------------|
| From beg. of Br. | From end of Br. |
| 8158' | 10,442' |

| | | | |
|------|--------------|---------|-----------------|
| 1930 | Job No. 3170 | SHEET 6 | TOTAL SHEETS 16 |
|------|--------------|---------|-----------------|

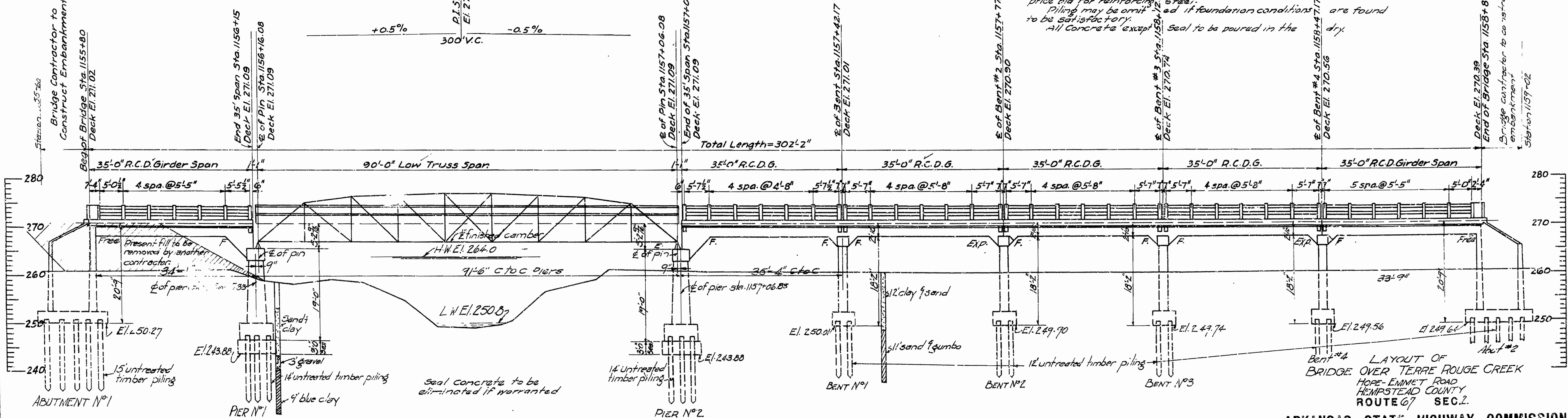


PLAN

QUANTITIES

| Item No | Description | Quantity | Unit |
|---------|----------------------------------|----------|----------|
| 13 | Earth excavation | 740 | Cu. Yds. |
| 13 | Dry excavation for structures | 624 | " " |
| 13 | Wet excavation for structures | 762 | " " |
| SP&52 | Untreated timber piling | 2579 | Lin. Ft. |
| 54 | Class "A" concrete | 408.08 | Cu. Yds. |
| 54 | Class "S" concrete | 318.62 | " " |
| SP&54 | "Seal" concrete (Class "A") | 61.47 | " " |
| 55 | Reinforcing steel | 131,090 | Lbs. |
| 56 | Structural steel (truss bridges) | 30,405 | " " |
| 74 | Concrete railing for structures | 417 | Lin. Ft. |

General notes
 All exposed corners to be chamfered 1/2" unless otherwise noted.
 Precast concrete handrails to be 1:2 mix. Maximum aggregate 3/8".
 Rail posts to be Class 3 concrete.
 All concrete in superstructure, except handrails, to be Class 5.
 All concrete in substructure, to be Class "A".
 Reinforcing steel to be deformed bars of structural or intermediate grade.
 Shop lists and bending diagrams must be submitted and approved before fabrication is begun.
 Lengths of piling shown are assumed for estimating quantities only. Actual lengths to be determined in the field.
 Volume occupied by embedded pile heads not to be included in pay quantities of concrete in footing.
 Two field coats of aluminum paint to be applied to the structural steel.
 Specifications: Arkansas Standard Standard Bridge Specifications adopted May 30, 1915 revised.
 For details of superstructure see drawing No. 2314 & 2447.
 For details of piers, abutments and bents see drawing Nos. 3056 & 3057.
 Bridge contractor to construct embankment around bridge ends.
 Roadway drains and expansion devices to be paid for at the unit price bid for reinforcing steel.
 Piling may be omitted if foundation conditions are found to be satisfactory.
 All concrete except seal to be poured in the dry.



ELEVATION

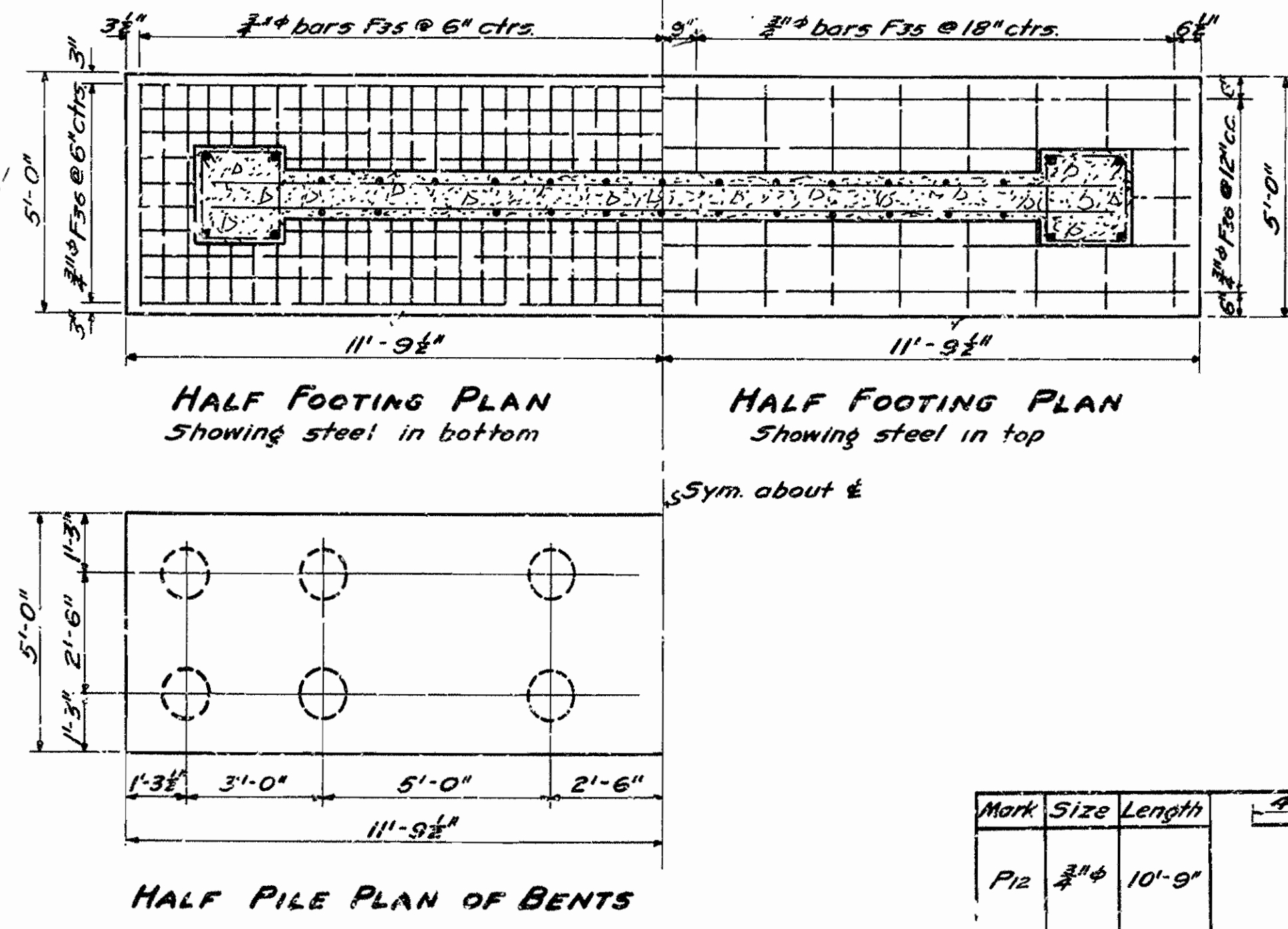
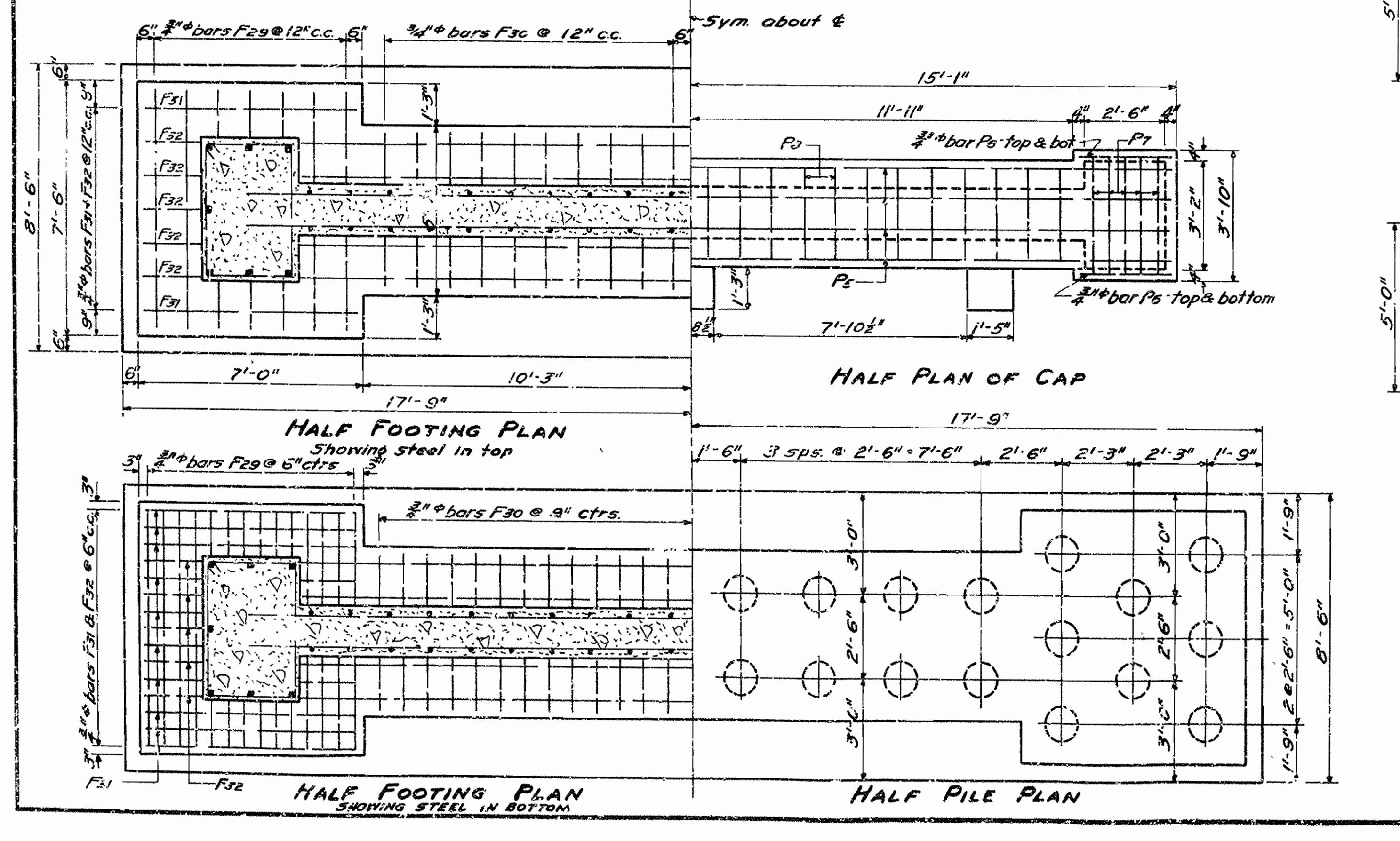
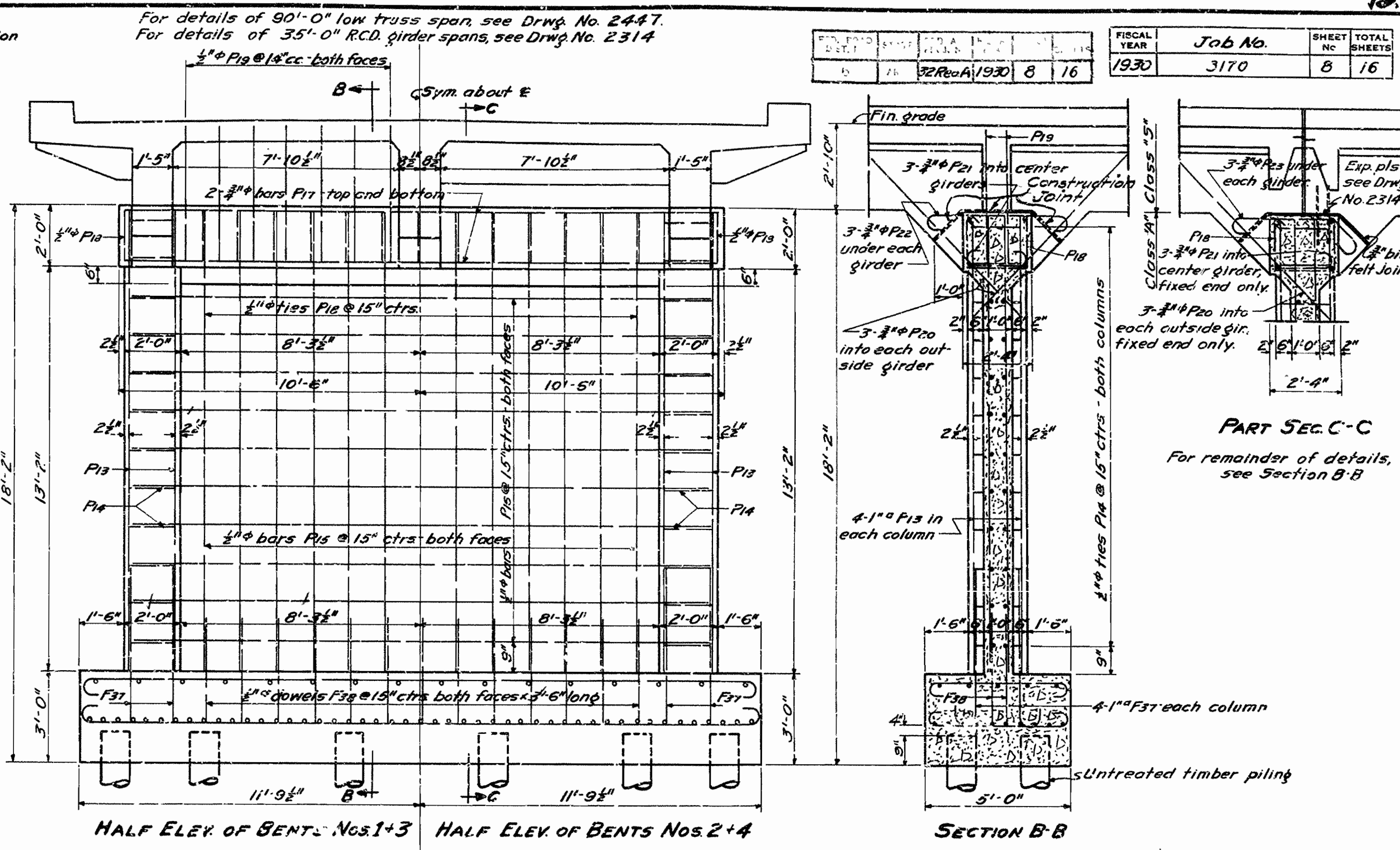
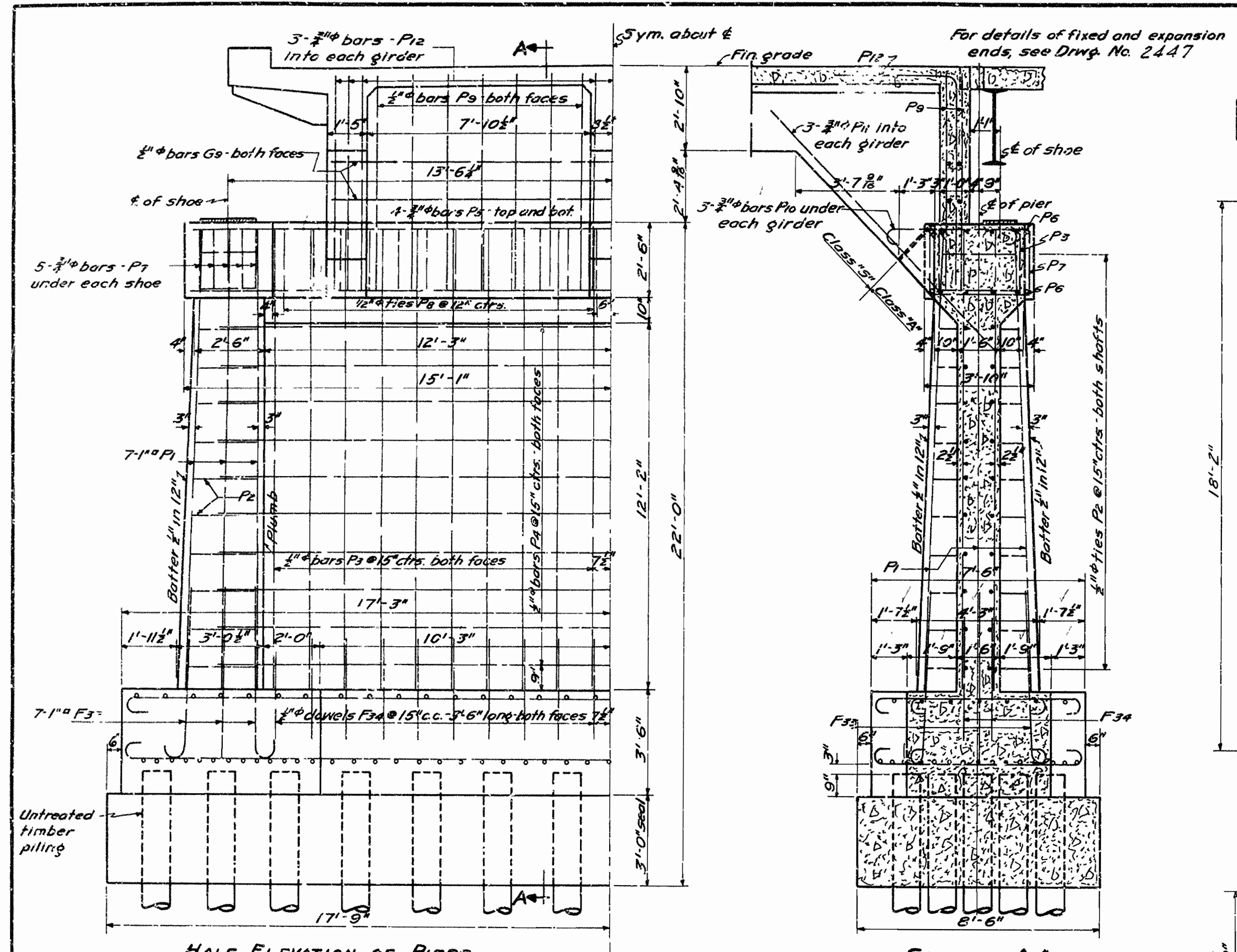
Drainage area = 38 square miles
 Hilly, wooded - 50% cleared.

S.M. #22 Elev. 260.62
 Nail in root of 48" Water Oak 90'
 left of station 1157+50

ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 Drawn By: H.S. Date: 12-1-31
 Traced By: C.A. Date: 2-3-31
 Checked By: Date: 2-15-31
 BRIDGE No. 1630 DRAWING No. 3055

H.B. Smith
 BRIDGE ENGINEER

| | | | | | | |
|-------------|---------|--------------|-------------|---------|-----------|--------------|
| DESIGNED BY | DATE | SCALE | FISCAL YEAR | JOB NO. | SHEET NO. | TOTAL SHEETS |
| W.B. Jones | 2-23-31 | 1/8" = 1'-0" | 1930 | 3170 | 8 | 16 |



| Mark | Size | Length | Bending Diagrams | | |
|------|------|--------------------------|------------------|-----------|--|
| F29 | 3/4" | 8'-6" | 7'-0" | | |
| F30 | " | 6'-0" | 4'-6" | | |
| F31 | " | 8'-0" | 6'-6" | | |
| F32 | " | 35'-6" | 34'-0" | | |
| P10 | " | 6'-0" | 4'-6" | | |
| F35 | " | 24'-7" | 23'-1" | | |
| P22 | " | 6'-3" | 4'-9" | | |
| F33 | 1" | 6'-10" | 5'-10" | | |
| F37 | " | 6'-4" | 5'-4" | | |
| P2 | 1/2" | VARIES WITH BENT SPACING | | | |
| P7 | 3/4" | 12'-2" | 3'-7" | 2'-12" | |
| P8 | 1/2" | 10'-10" | 2'-11" | 2'-12" | |
| P14 | " | 7'-7" | 1'-8" | 1'-8" | |
| P18 | " | 8'-1" | 2'-0 1/2" | 1'-7 1/2" | |
| P21 | 3/4" | 8'-3" | | | |
| P23 | 3/4" | 6'-0" | | | |
| P12 | 3/4" | 10'-9" | | | |

**DETAILS OF PIERS AND BENTS
FOR BRIDGE OVER TERRE ROUGE CK.
HOPE-EMMET ROAD
HEMPSTEAD CO.
ROUTE 67 SEC. 2**

**ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.**

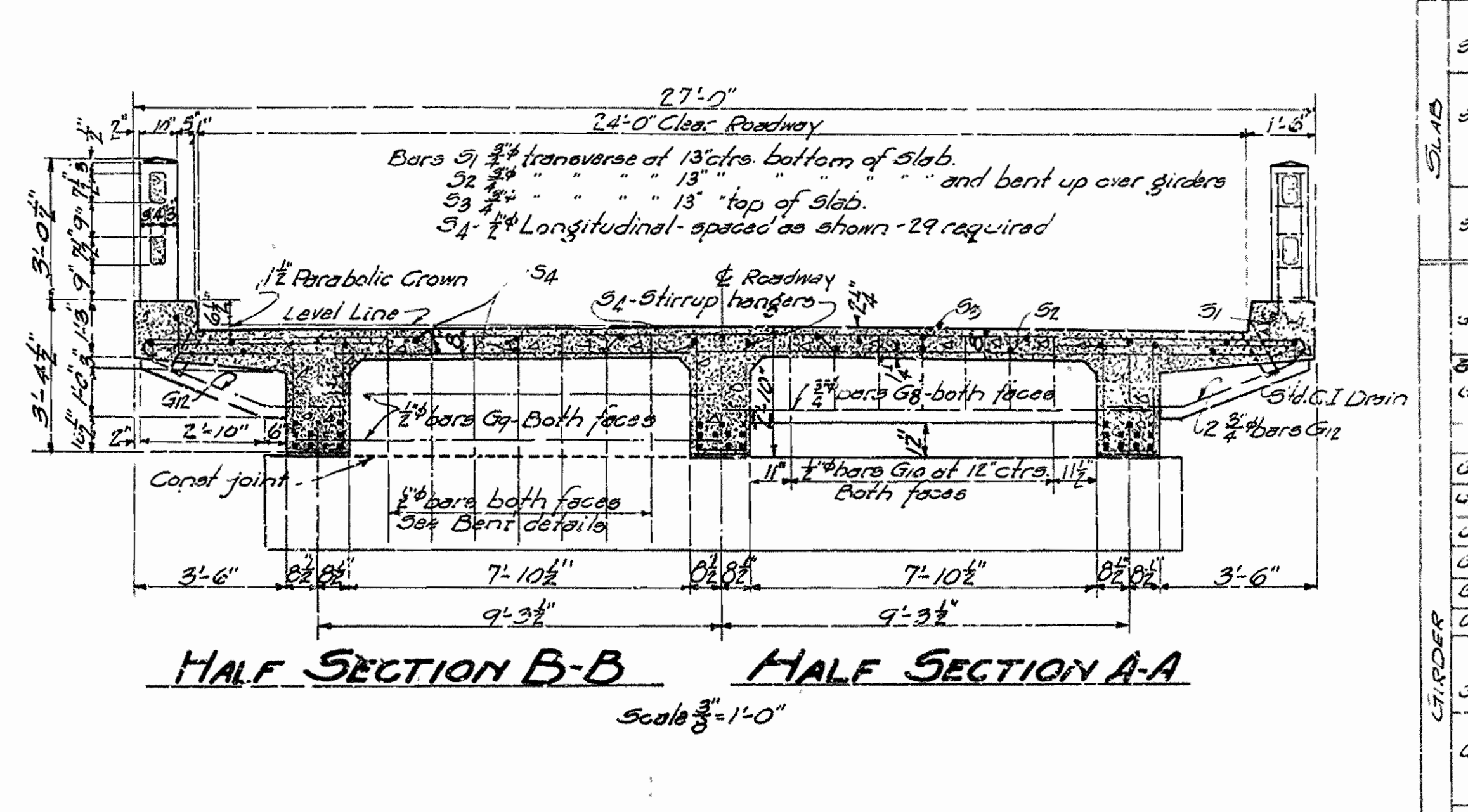
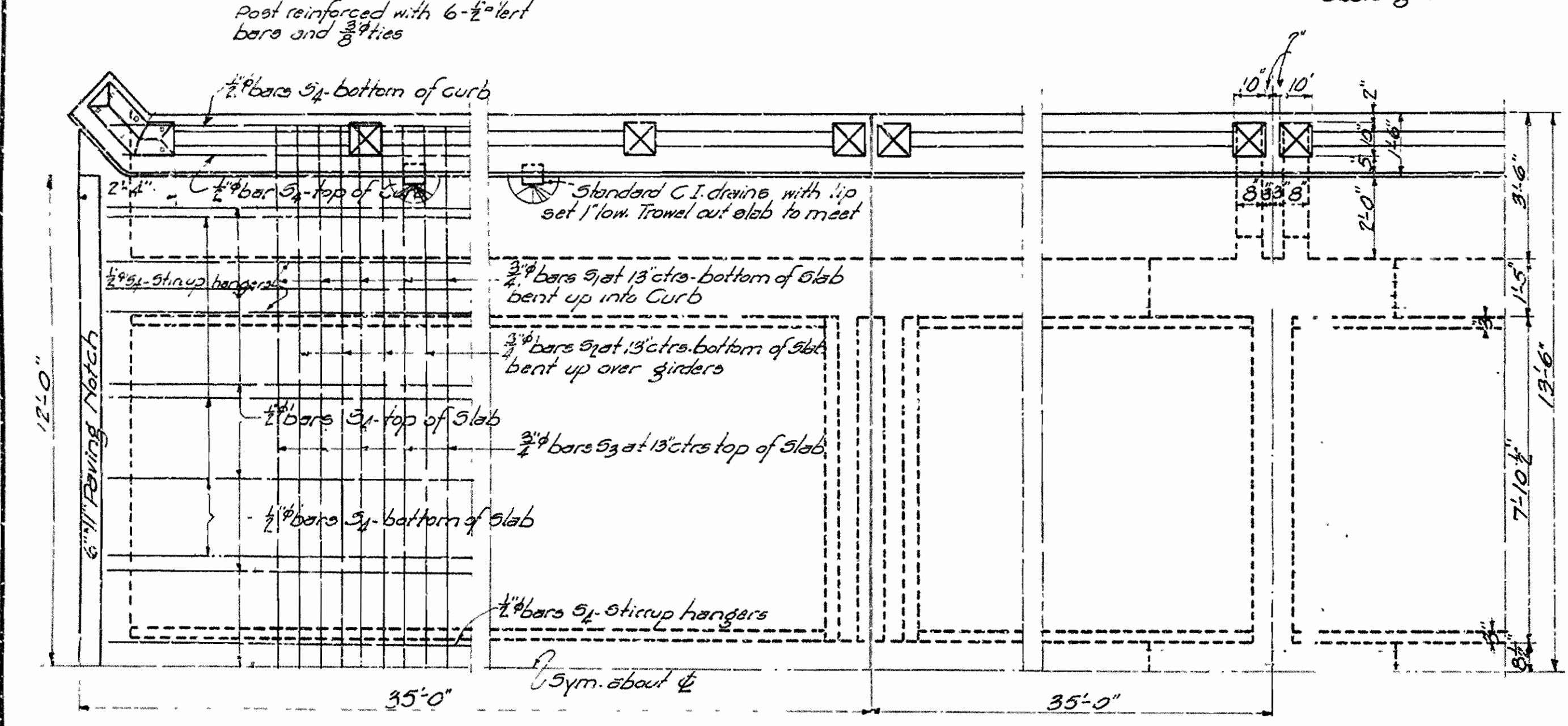
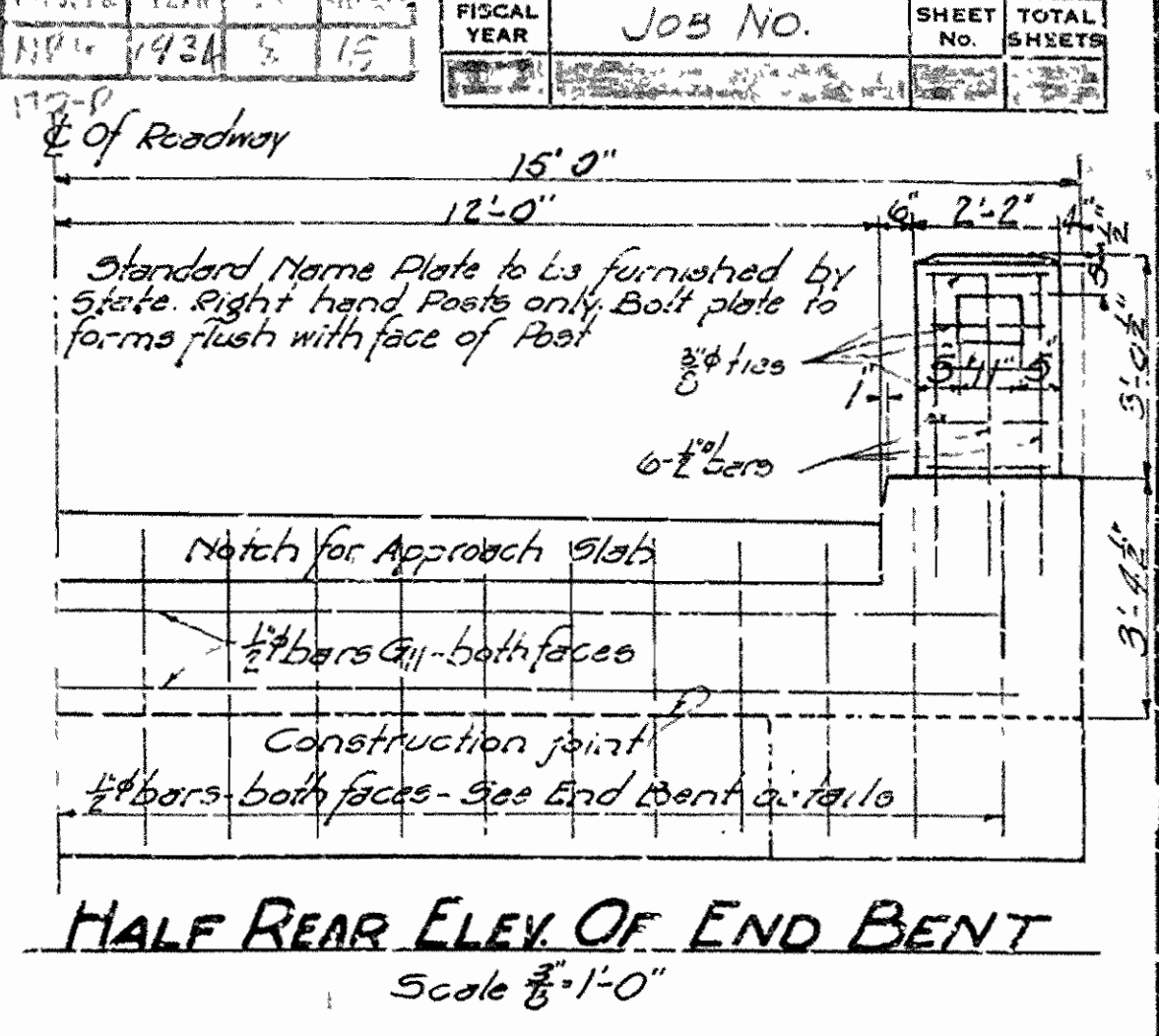
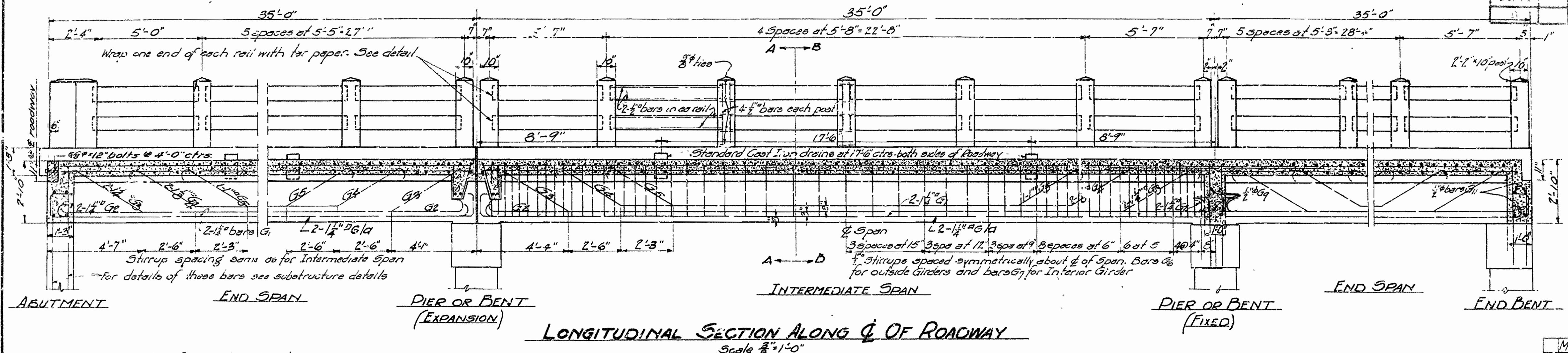
Drawn By: *H.B.* Date: *2-23-31*
 Traced By: *W.H.H.* Date: *2-23-31*
 Checked By: *W.C.* Date: *2-16-31*

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

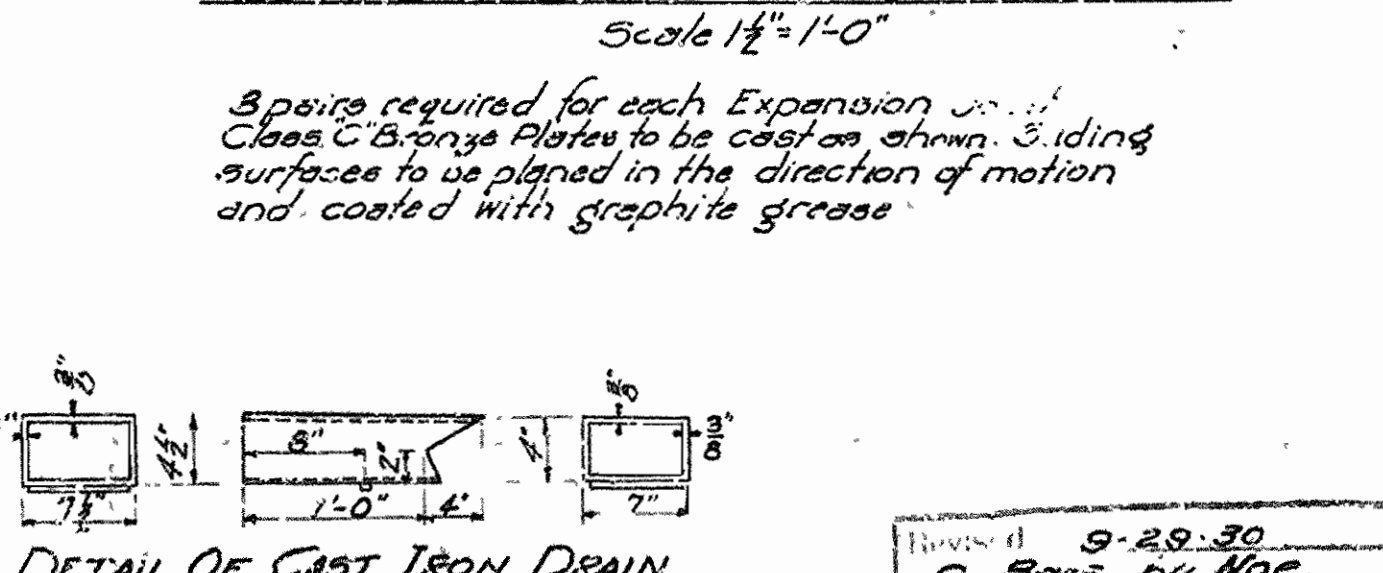
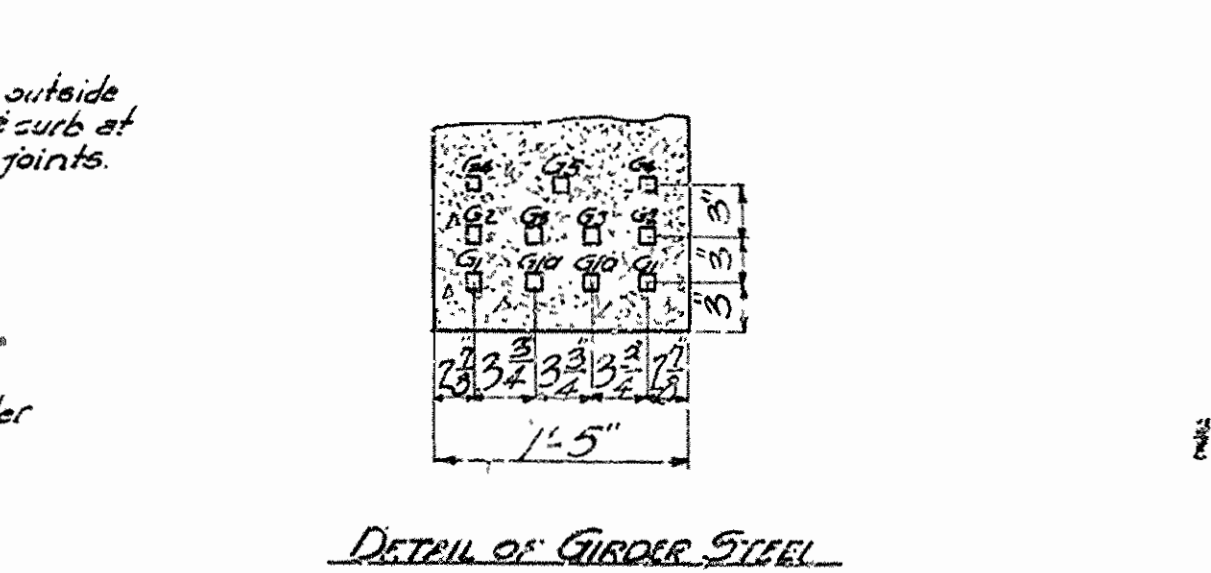
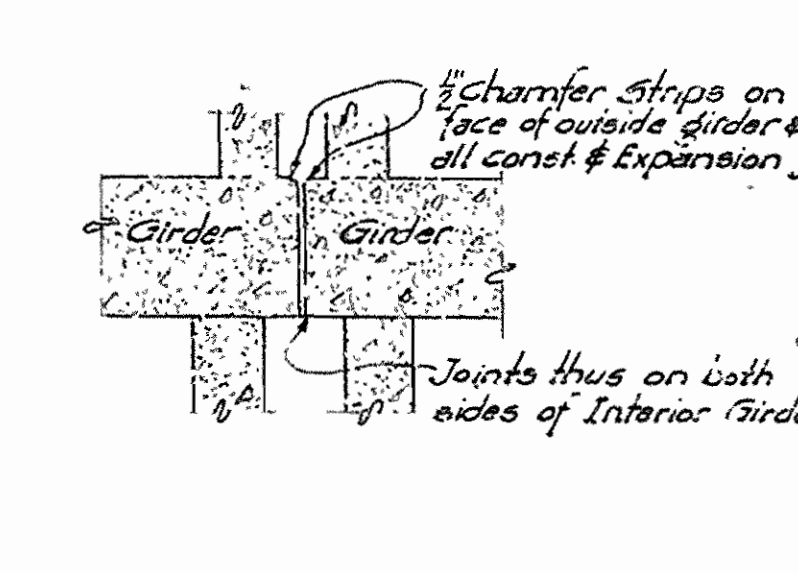
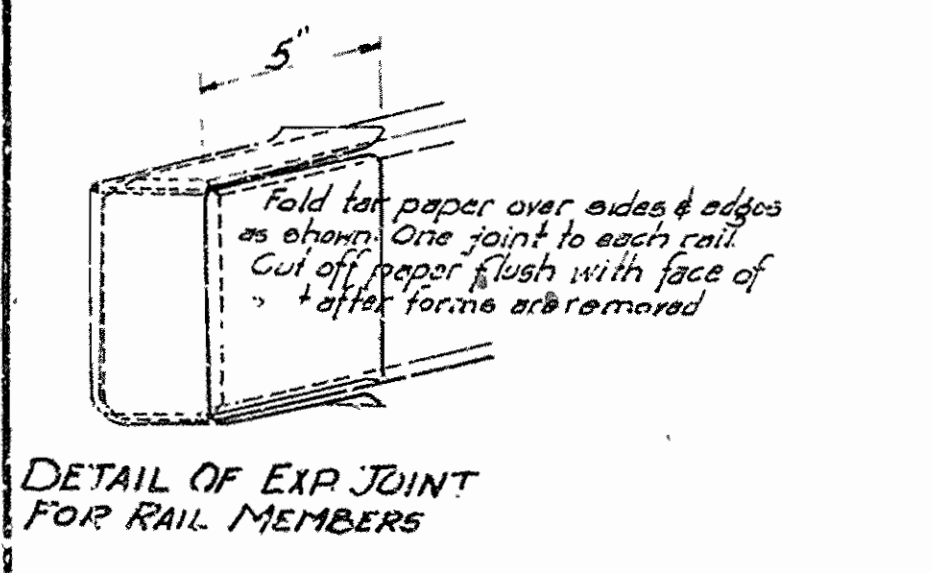
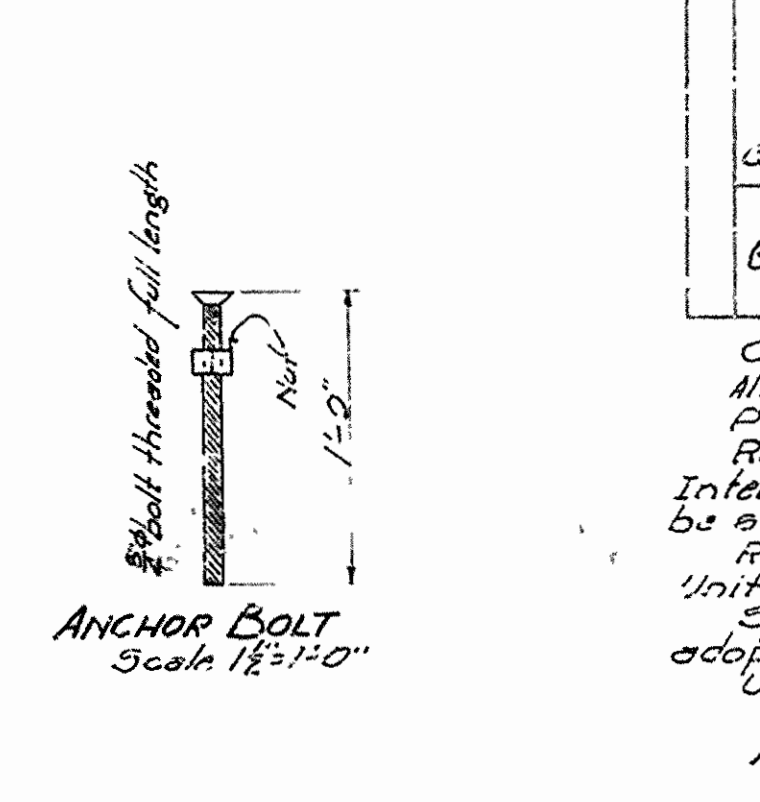
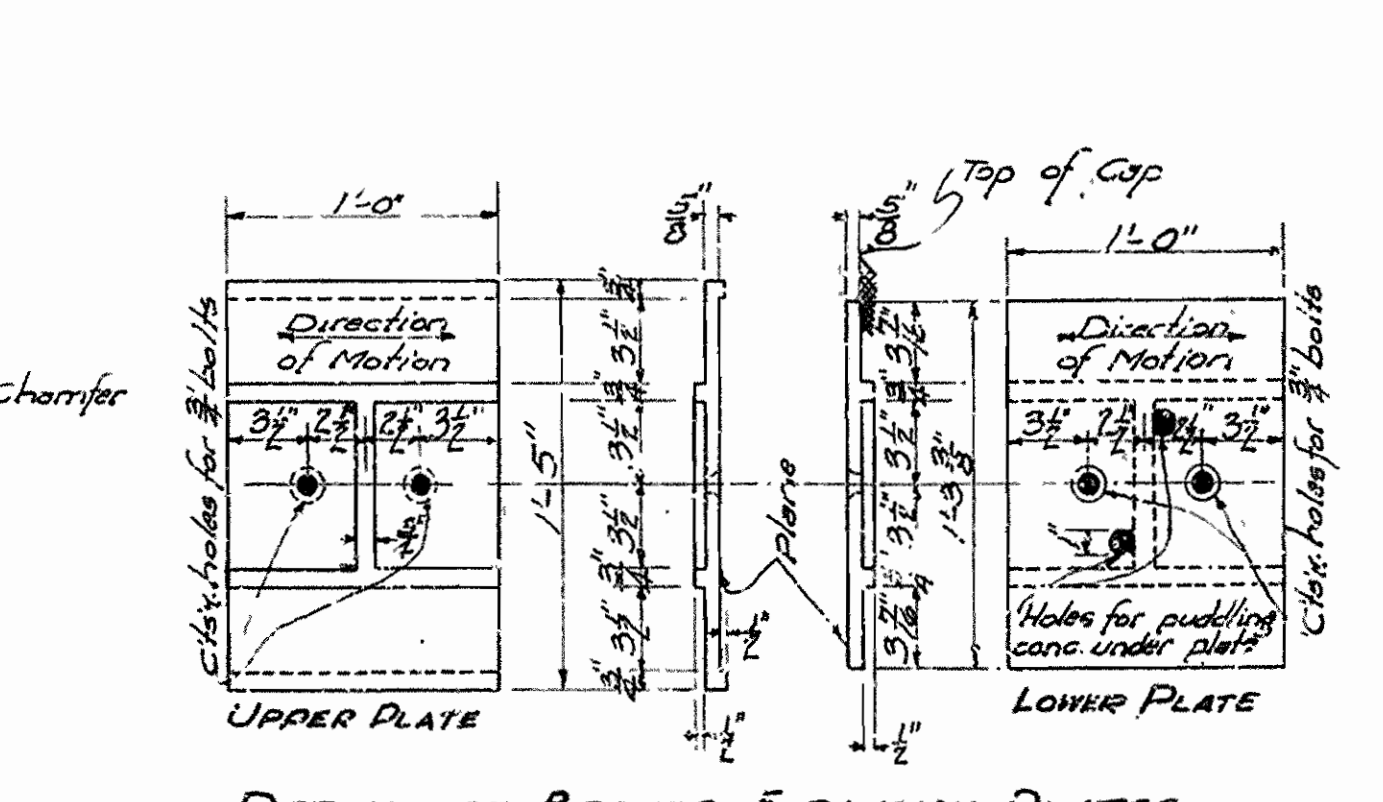
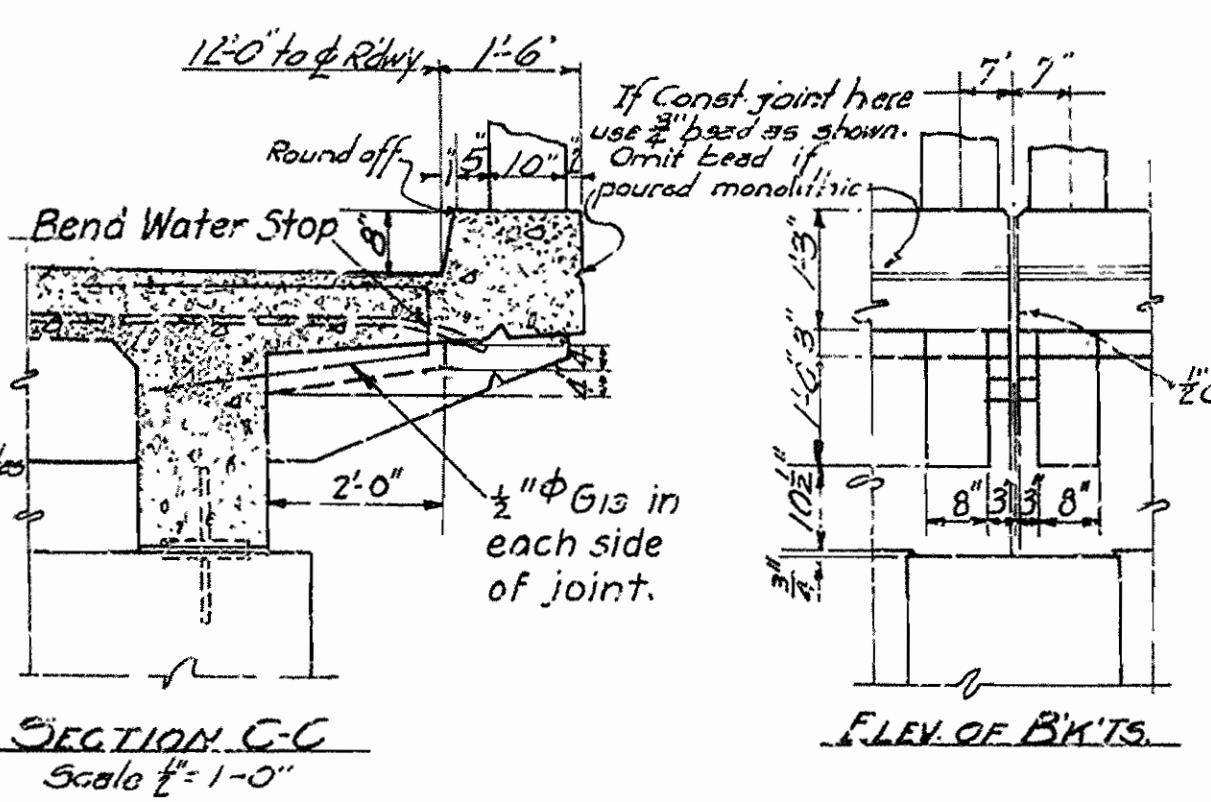
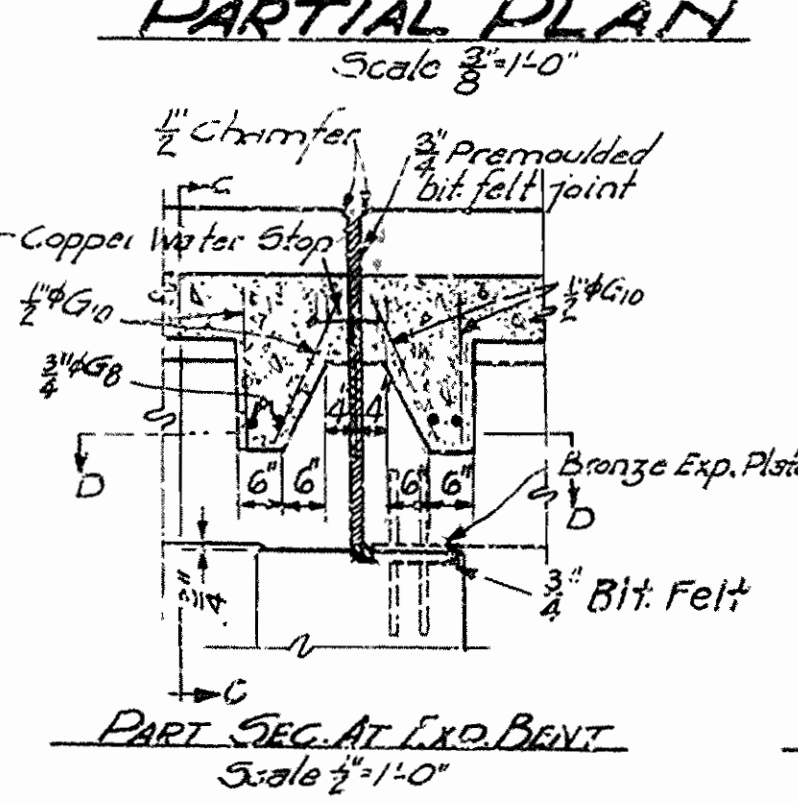
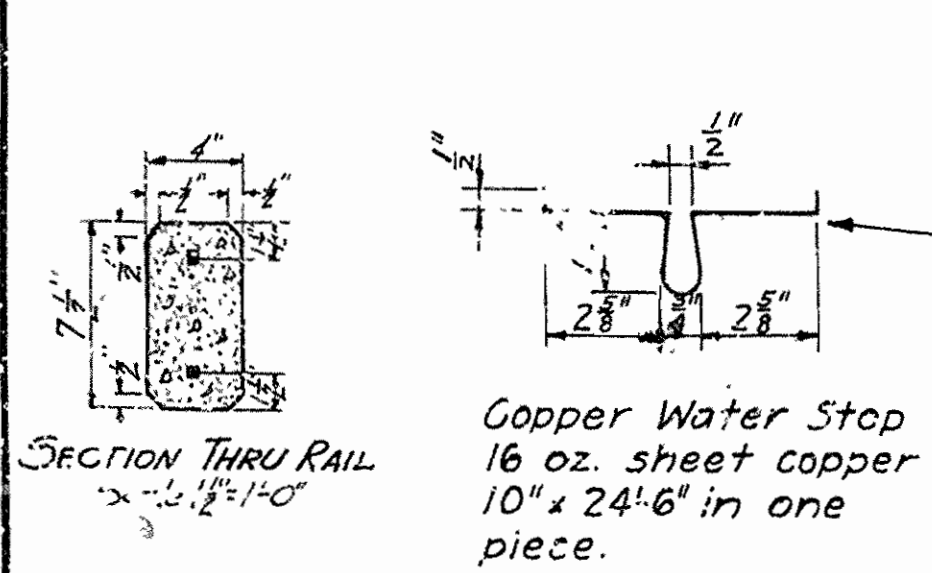
BRIDGE NO. 1630 DRAWING NO. 3057

W.B. Jones
BRIDGE ENGINEER

| | | | | | |
|-------|-----|------|------|-------|-------|
| STATE | NO. | YEAR | DATE | SHEET | TOTAL |
| ARK. | 143 | 1934 | 5 | 15 | |



| MR | SIZE | LENGTH | BENDING DIAGRAM |
|-----|------|---------|---|
| S1 | 3/4" | 27'-0" | 25'-0" |
| S2 | 3/4" | 20'-2" | 26'-6 1/2" |
| S3 | 3/4" | 27'-6" | 26'-6" |
| S4 | 1/2" | 38'-8" | 34'-8" |
| S5A | 1/2" | 36'-2" | 34'-2" @ 1/2" |
| S5B | 1/2" | 30'-5" | 32'-8" @ 1/2" |
| G1 | 1/2" | 36'-5" | 20' @ 3'-0" 4'-2" 26'-4" |
| G2 | 1/2" | 30'-2" | 14' @ 3'-1" 3'-5" 21'-4" |
| G3 | 1/2" | 25'-8" | 14' @ 3'-1" 5'-5" 16'-0" |
| G4 | 1/2" | 36'-2" | 2'-0" @ 3'-1/2" 4'-2" 25'-0" |
| G5 | 1/2" | 29'-5" | 14' @ 3'-1" 3'-5" 20'-0" |
| G6 | 1/2" | 25'-2" | 14' @ 3'-1" 3'-5" 16'-4" |
| G7 | 1/2" | 6'-7" | 1'-2 1/2" @ 1'-0" 2'-4" @ 1'-0" 2'-5" @ 1'-0" |
| G8 | 3/4" | 10'-6" | 5'-7" @ 1'-0" 3'-1" @ 1'-0" |
| G9 | 3/4" | 16'-11" | 2'-8" @ 1'-0" 1'-6" @ 1'-0" |



GENERAL NOTES:
 All exposed corners to have 1/2" chamfer unless otherwise noted.
 Precast concrete handrail to be 1 1/2" min. Max. egg 3".
 Reinforcing steel to be deformed bars of structural or intermediate grade. Shop List and Bending Diagrams must be submitted by the Contractor before fabrication is begun.
 Roadway Drains and Expansion Devices to be paid for at unit price bid for reinforcing steel.
 Specifications: Arkansas Road and Bridge specifications adopted May 20, 1925 and revised.
 Unit stresses: f_c=15000 psi, f_s=15000 psi, n=15. High loading.
 All dimensions shown are center to center of bars.

DETAILS OF
STANDARD 35'-0" RC DECK GIRDER
 3 GIRDER TYPE
24'-0" CLEAR ROADWAY
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 Drawn By: *D. J. ...* Date: 2-22-30
 Traced By: *...* Date: 2-22-30
 Checked By: *...* Date: 3-28-30
 BRIDGE NO. 1487 DRAWING NO. 2314

Revised 9-22-30
 G. Bars by No. 9-29-33 Water stop & Brackets by G.A.

M. B. ...
 BRIDGE ENGINEER