

STATE OF ARKANSAS
STATE HIGHWAY DEPARTMENT

PLAN OF PROPOSED BRIDGES
OVER
BIG MULBERRY & MILLER BRANCH
FRANKLIN & CRAWFORD COUNTIES

ROUTE 64 SEC. 2 & 3
JOB NO 474

EMERGENCY FINANCIAL F.A.P. No. 234-D

| | | | |
|-------------|---------|-------|--------------|
| FISCAL YEAR | Job No. | SHEET | TOTAL SHEETS |
| 1928 | 474 | 1 | 7 |

| | | | | | |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| FED. ROAD DIST. No. | STATE | FED. AID PROJ. No. | FISCAL YEAR | SHEET No. | TOTAL SHEETS |
| 6 | ARK. | 234-D | | 1 | 7 |

Proj. Cons. Big Mulberry & Miller Branch, Job # 1235

INDEX OF SHEETS

| Sheet No. | Title Sheet |
|-----------|---|
| 1 | 1235 Title Sheet |
| 2 | 1236 Layout Br. # 412 |
| 3 | 1237 Det. of Abutments Br. # 412 |
| 4 | 1237-A Det. of Bents |
| 5 | 1238 Layout Br. # 413 |
| 6 | 1239 Det. Arch Spans 1 & 2 Br. # 413 |
| 7 | 1240 " " Span #3 " " |
| 8 | 1241-A Det. of Bents # 1, 2 & 3 " " |
| 9 | 1003 Det. Std. 35' R.C.D.G., 3 Girders, 20' Rdwy. |
| 10 | 1002 " " 30' " " " " |

QUANTITIES

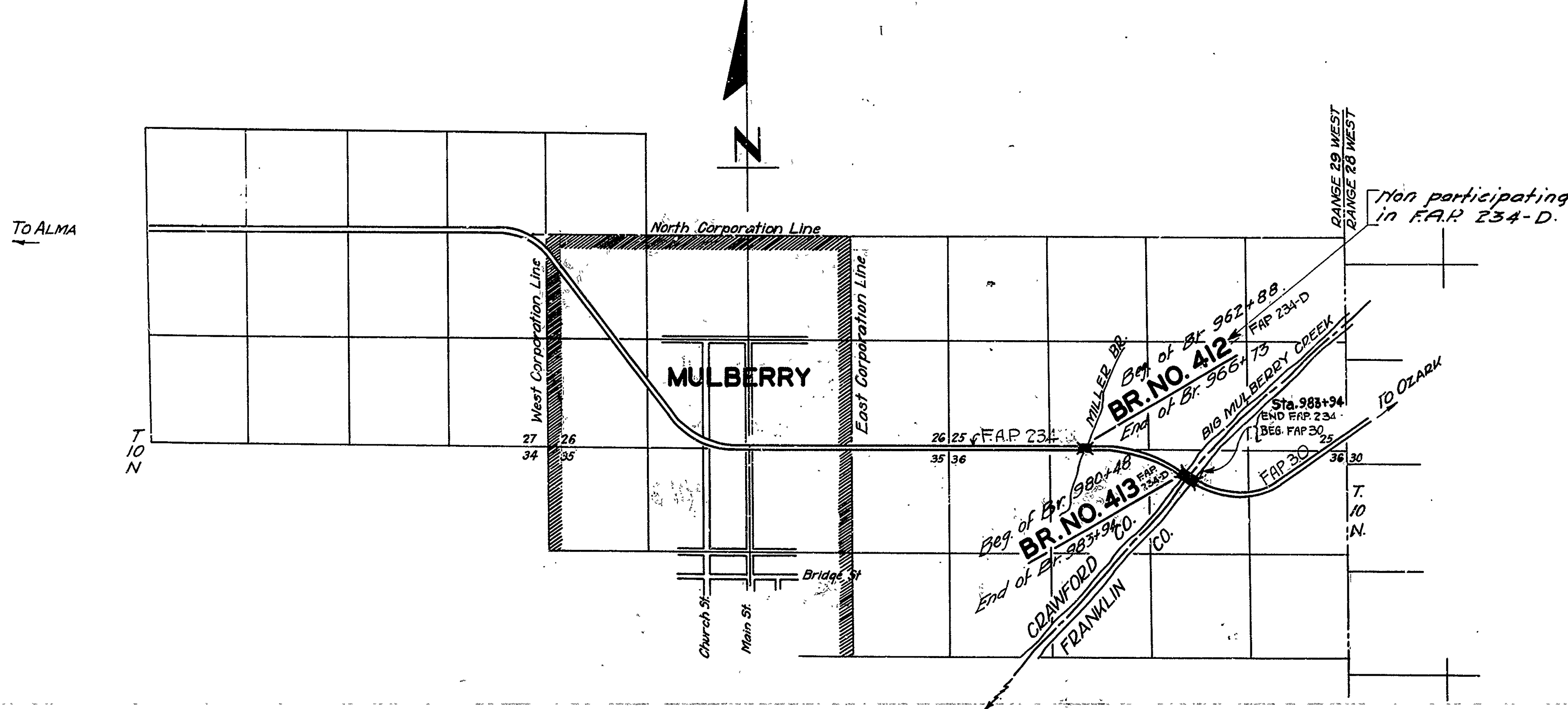
| | | |
|----------|-------------------------------|---------------|
| Item No. | Description | Quantity |
| 12 | Earth Excavation | 1800 Cu. Yd. |
| 13 | Dry Excav. for Structures | 648 Cu. Yd. |
| 13 | Wet " " " | 487 Cu. Yd. |
| 13 | Solid Rock Exc. " " | 474 Cu. Yd. |
| 54 | Class-A Concrete | 2477 Cu. Yd. |
| 54 | " -S- " | 1480 Cu. Yd. |
| 55 | Reinforcing Steel | 2150,015 Lbs. |
| 69 | Rip Rap 1' thick | 135 Sq. Yd. |
| 74 | Conc. Handrail for Structures | 1707 Lin. Ft. |

• Non-participating F.A.P. Item.

Specifications approved by Chief, Bureau of Public Roads, September 26, 1925, and adopted by State Highway Commission May 30, 1926, with revisions and special provisions as follows:

| Particulars | Revised | Effective Date |
|-------------|--------------|----------------|
| B | Jan. 1, 1928 | June 1, 1928 |
| C | " | " |
| D | July 1, 1928 | Nov. 24, 1928 |
| E | " | " |
| F | " | " |
| G | " | " |
| H | " | " |
| I | " | " |
| J | " | " |
| K | " | " |
| L | Apr. 5, 1928 | " |

Special Provisions:
1 Sheet, Cement
2 " Precast Concrete Piling



LAYOUT
Scale: 1"=1000'

GROSS LENGTH OF PROJECT 346'-0" = 0.063 Miles.
NET LENGTH OF PROJECT 346'-0" = 0.065 Miles.

Revised 4/26/27 quantities & index of sheets. J.B.C.
5-7-28 Quantities & sheet nos. M.H.P.
6-30 classification B.E.L. M.H.P.

N.B. Jones
BRIDGE ENGINEER

BRIDGE No. 412, 413 DRAWING No. 1235

APPROVED: [Signature]
COMMISSIONER - STATE LAWS, HIGHWAYS AND IMPROVEMENTS

APPROVED: [Signature]
STATE HIGHWAY ENGINEER

RECOMMENDED FOR APPROVAL: [Signature]
DISTRICT ENGINEER - U.S. BUREAU OF PUBLIC ROADS

RECOMMENDED FOR APPROVAL: [Signature]
CHIEF ENGINEER - U.S. BUREAU OF PUBLIC ROADS

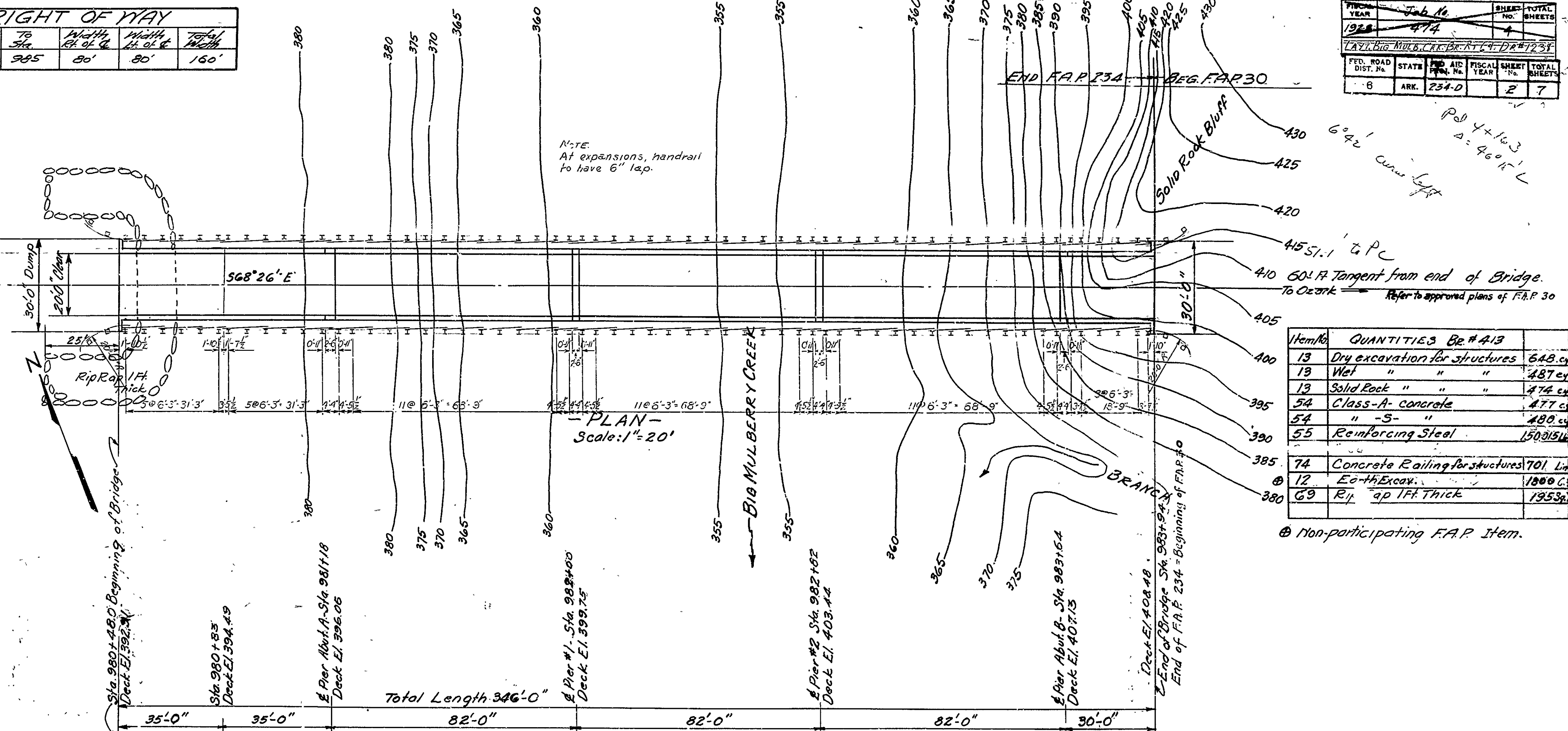
APPROVED: [Signature]
DIRECTOR - U.S. BUREAU OF PUBLIC ROADS

| RIGHT OF WAY | | | | |
|--------------|---------|-----------------|-----------------|-------------|
| From Sta. | To Sta. | Width ft. of R. | Width ft. of L. | Total Width |
| 962 | 985 | 80' | 80' | 160' |

| | | | | | |
|---------------------|---------------------------|-------------|-------|--------------|-------|
| PROJECT YEAR | 7-1928 | SHEET NO. | 474 | TOTAL SHEETS | 4 |
| LAYER | BIG MULBERRY CREEK BRIDGE | | | | |
| FED. ROAD DIST. No. | 6 | STATE | ARK. | FISCAL YEAR | 234-D |
| FED. AID DIST. No. | | PROJECT No. | 234-D | SHEET No. | 2 |
| | | | | TOTAL SHEETS | 7 |

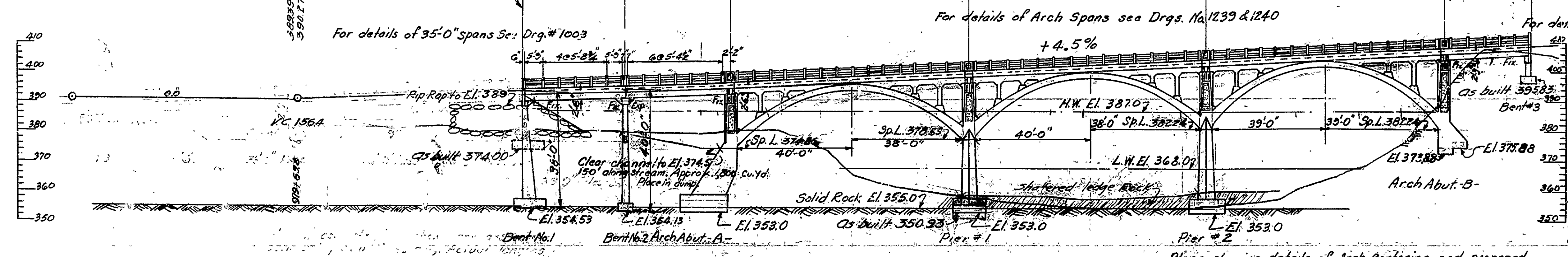
To Mulberry
88 Tangent From end of Bridge 1/4 Miles
Refer to approved plans of F.A.P. 234-B

NOTE:
At expansions, handrail to have 6" lap.



| Item No. | QUANTITIES | Be # 413 |
|----------|---------------------------------|--------------|
| 13 | Dry excavation for structures | 648 cu |
| 13 | Wet " " " | 487 cu |
| 13 | Solid Rock " " " | 474 cu |
| 54 | Class-A concrete | 477 cu |
| 54 | "-S- | 480 cu |
| 55 | Reinforcing Steel | 1500 lbs |
| 74 | Concrete Railing for structures | 701 Lin. Ft. |
| 12 | Earth Excav. | 1800 cu yd |
| 69 | Rip rap 1ft. Thick | 1953 sq. yd. |

⊗ Non-participating F.A.P. Item.



Drainage Area: 4.10 Sq. Mi. - 75% Mts.
B.M. Nail in 10" Cedar Slump 60' El.
of Sta. 981+15 Elev. 383.64
Effective Waterway: 5700 Sq. Ft.
See also Miller's Branch Bridge as Relief Opening.

- ELEVATION -
Scale: 1" = 20'-0"

Plans showing details of Arch Centering and proposed order of concreting must be submitted by the Contractor for approval before construction of the Arches is begun.

General Notes:
All exposed corners to have 3/4" chamfer unless otherwise noted. Precast concrete handrails to be 1:3 mix. Max. as 3/4".
Rail posts to be Class-S concrete.
All concrete in approaches except East abutment and hand rails to be Class-S - All concrete in Arch Spans above springing lines except handrails to be Class-S - All other concrete to be Class-A -
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 drains and expansion devices to be paid for at unit price bid for reinforcing steel.
All concrete to be poured in the dry.
Arch abutments and piers to be carried at least 2'-0" into sound rock. Excavation to be carried on in a manner to avoid shattering rock faces.
Specifications: Arkansas Std. Road & Bridge Spec. adopted May 30, 1925. Revised Jan. 1, 1928.

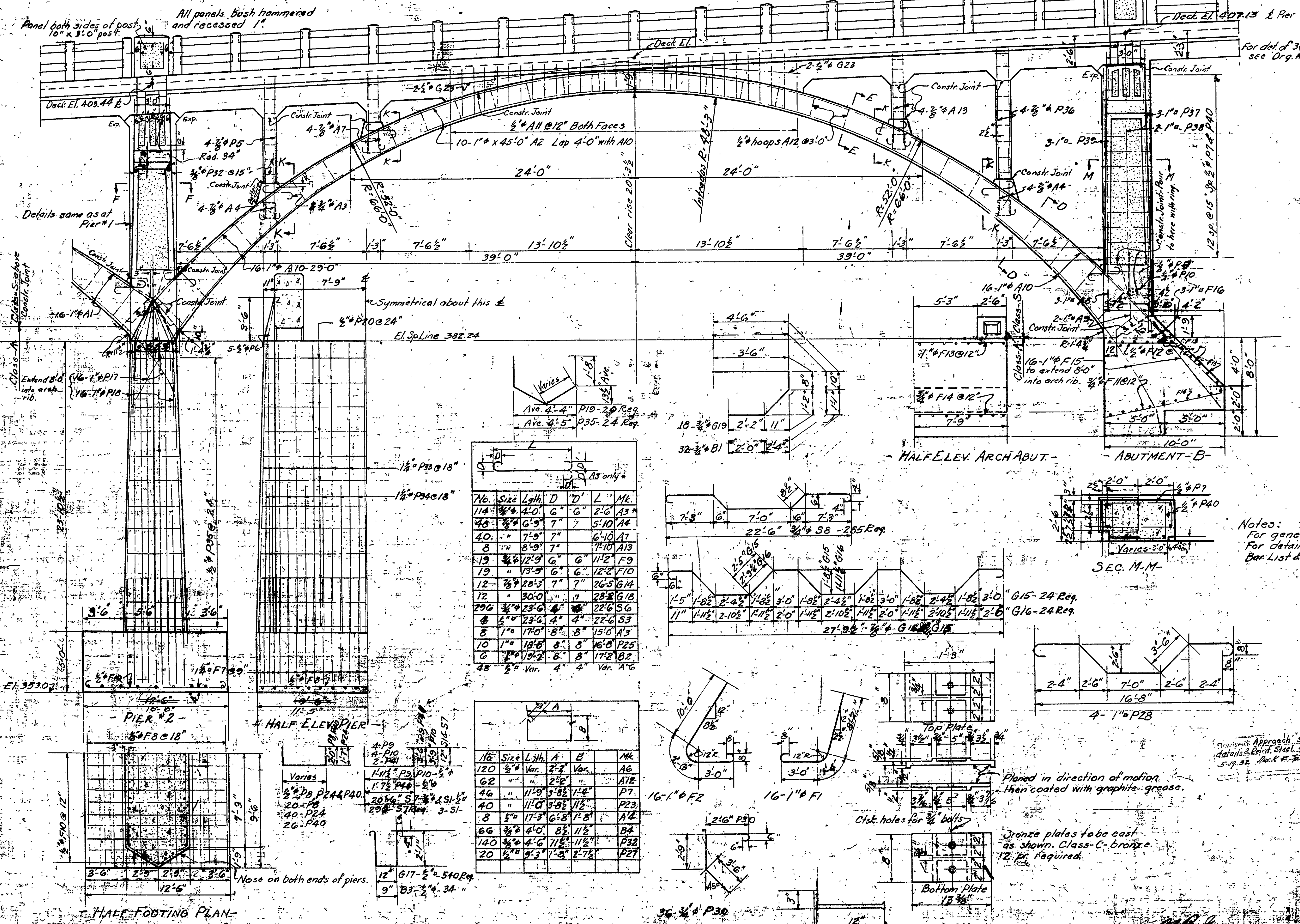
LAYOUT OF
BRIDGE OVER BIG MULBERRY CREEK.
1/4 Miles East of Mulberry
ROUTE 6 SEC. 2 & 3
Crawford & Franklin Cos.
ARKANSAS STATE HIGHWAY DEPARTMENT
LITTLE ROCK, ARK.
Drawn By: [Signature] Date: 10-1-28
Traced By: [Signature] Date: 10-16-28
Checked By: [Signature] Date: [Blank]
BRIDGE NO. 413 DRAWING NO. 1238
Scale: 1" = 20' ft.

Revised Approach Spans 11/27/28
S. P. 22, 23, 24, 25, 26, 27, 28

M.B. James
BRIDGE ENGINEER

| | | | | | |
|-----------|--|-------------|--|--------------|--|
| SHEET | | NO. | | OF | |
| 474 | | 6 | | OF | |
| PROJ. NO. | | FISCAL YEAR | | SHEET NO. | |
| 6 | | 1934-D | | 474 | |
| DIST. NO. | | STATE | | TOTAL SHEETS | |
| 6 | | ARK. | | 51 | |

Note: Details not shown same as for Arch Spans #1 & 2



STRAIGHT BARS.

| No. | Size | Lgh. | Mk. | No. | Size | Lgh. | Mk. |
|-----|------|--------|-----|-----|------|--------|-----|
| 128 | 1" | 27'-0" | A1 | 24 | 3/8" | 8'-6" | P5 |
| 60 | 1" | 45'-0" | A2 | 16 | 3/8" | 9'-6" | P6 |
| 224 | 3/4" | Var. | A5 | 6 | 1" | 12'-9" | P11 |
| 24 | 1" | 7'-0" | A8 | 18 | 1" | 12'-9" | P12 |
| 20 | 1" | 10'-0" | A9 | 12 | 1" | 17'-0" | P13 |
| 64 | 1" | 25'-0" | A10 | 12 | " | 13'-6" | P14 |
| 120 | 3/4" | Var. | A11 | 8 | " | 7'-0" | P15 |
| 24 | 3/8" | 15'-0" | A14 | 20 | 3/8" | 6'-0" | P16 |
| | | | | 64 | 1" | 16'-0" | P17 |
| | | | | 64 | " | 18'-0" | P18 |
| | | | | 44 | 3/4" | 15'-6" | P20 |
| | | | | 16 | " | 25'-0" | A2 |
| | | | | 28 | 1" | 20'-0" | P21 |
| | | | | 6 | 1" | 10'-0" | A3 |
| | | | | 28 | " | 10'-0" | P22 |
| | | | | 12 | 3/4" | 8'-6" | P26 |
| | | | | 4 | " | 17'-0" | P29 |
| | | | | 40 | 3/4" | 5'-0" | P31 |
| | | | | 9 | " | 19'-0" | F4 |
| | | | | 28 | 1" | 23'-9" | P33 |
| | | | | 28 | 3/8" | 16'-3" | F5 |
| | | | | 28 | " | 12'-0" | P34 |
| | | | | 8 | 3/4" | 10'-6" | P36 |
| | | | | 112 | 1/2" | 9'-0" | F7 |
| | | | | 6 | 1" | 18'-9" | P37 |
| | | | | 17 | 3/4" | 18'-6" | F8 |
| | | | | 4 | " | 21'-0" | P38 |
| | | | | 16 | 3/4" | 9'-9" | F11 |
| | | | | 16 | " | 16'-0" | P39 |
| | | | | 32 | 3/8" | 5'-6" | F12 |
| | | | | 11 | 1" | 15'-0" | F13 |
| | | | | 10 | 3/4" | 15'-0" | F14 |
| | | | | 32 | 1" | 17'-0" | F15 |
| | | | | 6 | 1" | 7'-0" | F16 |
| | | | | 12 | 3/4" | 14'-0" | G21 |
| | | | | 108 | 3/8" | 16'-6" | G22 |
| | | | | 24 | " | 15'-0" | G23 |
| | | | | 126 | 3/8" | 27'-6" | S5 |
| | | | | 48 | " | 2'-3" | S9 |

Notes:
For general notes see Layout Sheet - Drg. # 1238
For details C. I. Drains & Copper Water Stops see Drg. # 1003
Bar List & Diagrams on this sheet for Arch Spans only.

Approach spans, Pile
Details of Arch Span No. 3
Route 64 Sec. 2 & 3
Arkansas State Highway Department
Little Rock, Ark.
Date: 10-10-28
10-15-28
Scale: 1/4" = 1'-0"
No. 413 DRAWING NO. 1240

| No. | Size | Lgh. | D | D' | L | Mk. |
|-----|------|--------|----|----|--------|-----|
| 114 | 3/4" | 4'-0" | 6" | 6" | 2'-6" | A3* |
| 48 | 3/8" | 6'-9" | 7" | 7" | 5'-10" | A4 |
| 40 | " | 7'-9" | 7" | 7" | 6'-10" | A7 |
| 8 | " | 8'-9" | 7" | 7" | 7'-10" | A13 |
| 19 | 3/4" | 12'-9" | 6" | 6" | 11'-2" | F9 |
| 19 | " | 13'-9" | 6" | 6" | 12'-2" | F10 |
| 12 | 3/8" | 28'-3" | 7" | 7" | 26'-5" | G14 |
| 12 | " | 30'-0" | " | " | 28'-8" | G18 |
| 296 | 3/4" | 23'-6" | 4" | 4" | 22'-6" | S6 |
| 8 | 3/4" | 23'-0" | 4" | 4" | 22'-6" | S3 |
| 8 | 1" | 17'-0" | 8" | 8" | 15'-0" | A3 |
| 10 | 1" | 18'-8" | 8" | 8" | 16'-8" | P25 |
| 6 | 1" | 19'-2" | 8" | 8" | 17'-2" | B2 |
| 48 | 3/8" | Var. | 4" | 4" | Var. | A6 |

| No. | Size | Lgh. | A | E' | Mk. |
|-----|------|--------|--------|-------|-----|
| 120 | 3/8" | Var. | 2'-2" | Var. | A6 |
| 62 | " | " | 2'-2" | " | A7E |
| 46 | " | 11'-9" | 5'-8" | 1'-4" | P7 |
| 40 | " | 11'-0" | 5'-8" | 1'-2" | P23 |
| 8 | 3/4" | 17'-3" | 6'-8" | 1'-8" | A4 |
| 66 | 3/8" | 4'-0" | 8" | 1'-2" | BA |
| 140 | 3/4" | 4'-6" | 11'-2" | 1'-2" | P32 |
| 20 | 1/2" | 9'-3" | 1'-3" | 2'-7" | P27 |

HALF-FOOTING PLAN

HALF-ELEV. ARCH ABUT.

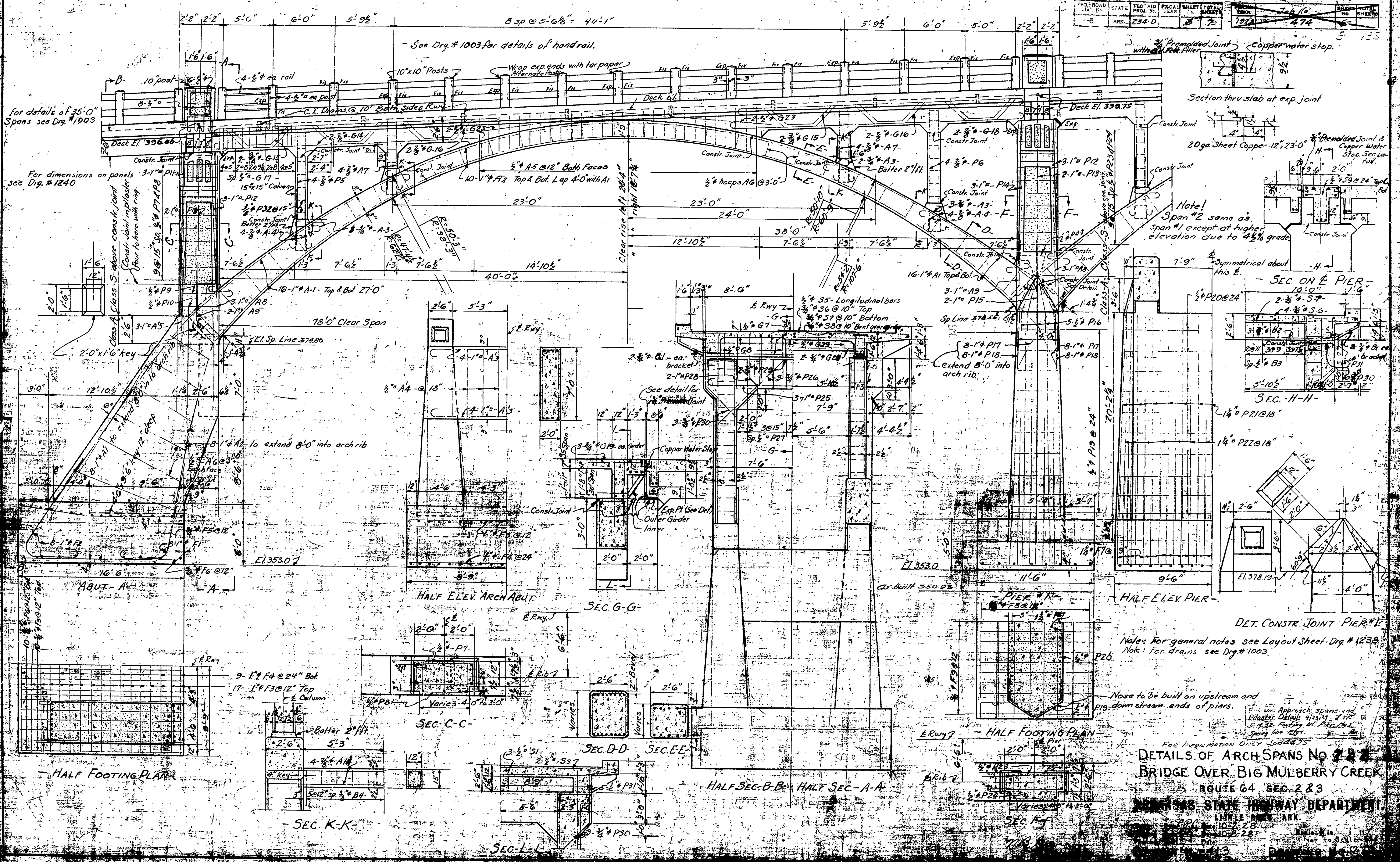
ABUTMENT-B

SEC. M-M

Placed in direction of motion, then coated with graphite grease.

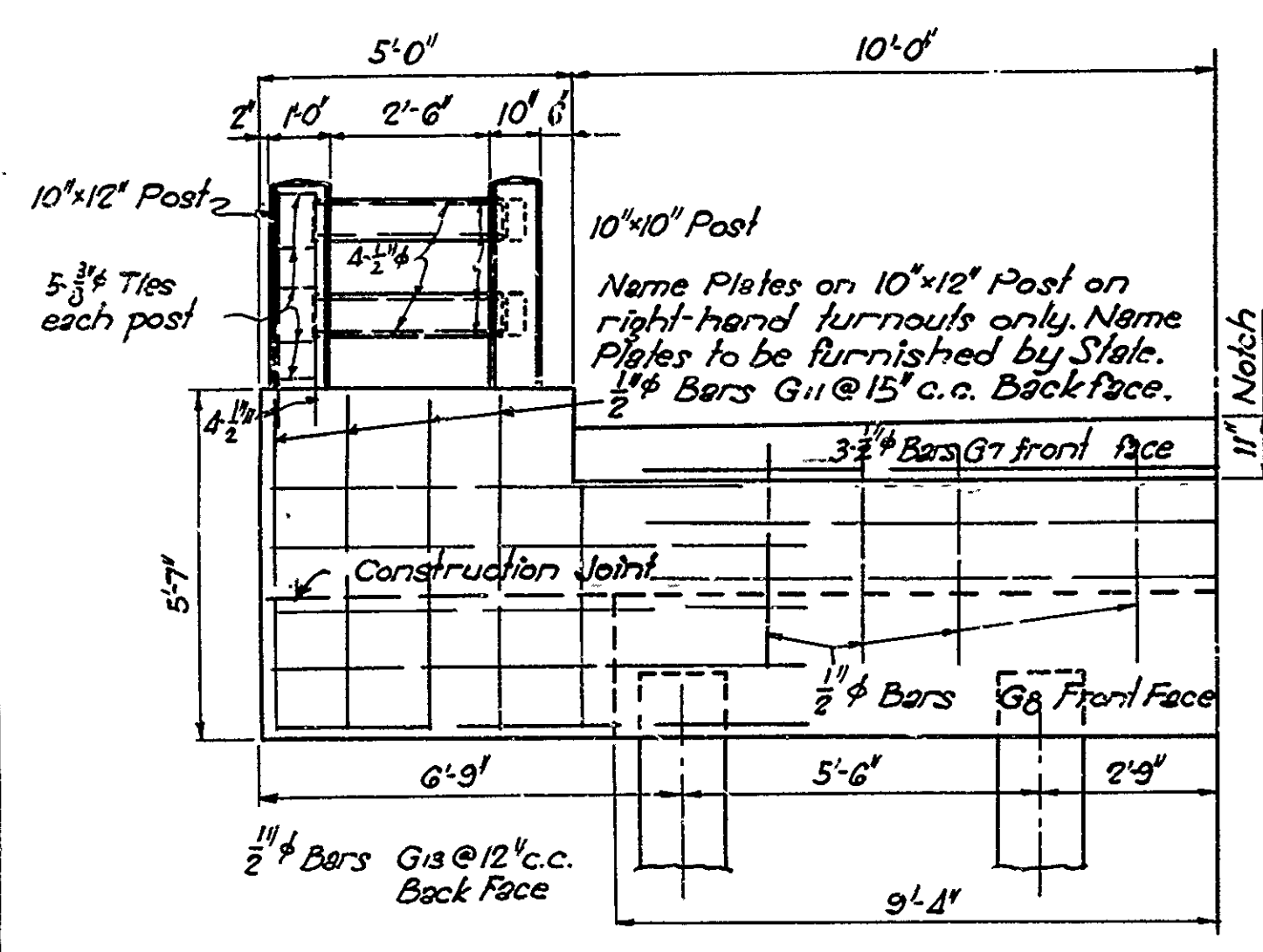
Iron plates to be cast as shown. Class-C bronze. 12 pr. required.

| | | | | | |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| 6 | ARK. | 234 D. | 57 | 7 | 7 |

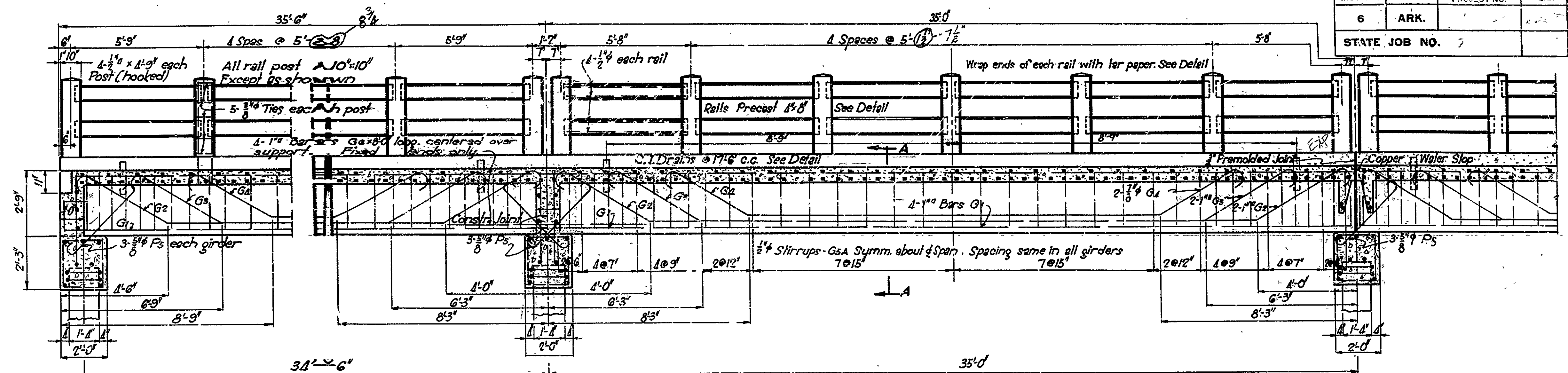


DETAILS OF ARCH SPANS NO. 222
BRIDGE OVER BIG MULBERRY CREEK
ROUTE 64 SEC. 223
ARIZONA STATE HIGHWAY DEPARTMENT
LITTLE ROCK, ARK.
PROJ. NO. 2-28
SHEET NO. 28
DATE 10-2-28

| | | | | | |
|---------------------|-------|-------------|-------------|-----------|--------------|
| FED. ROAD DIST. NO. | STATE | PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| 6 | ARK. | | | | |
| STATE JOB NO. 7 | | | | | |



BACK FACE OF END BENT

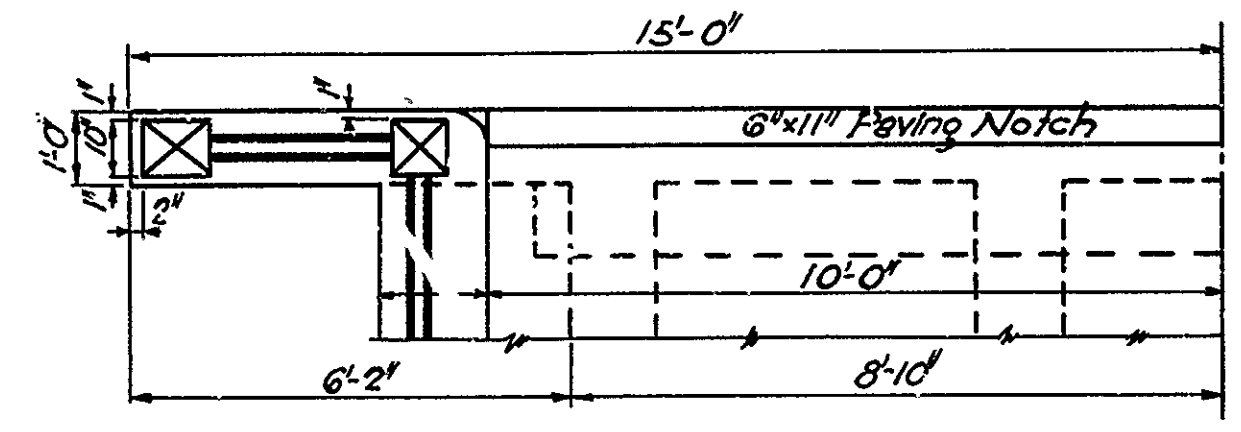


LONGITUDINAL SECTION

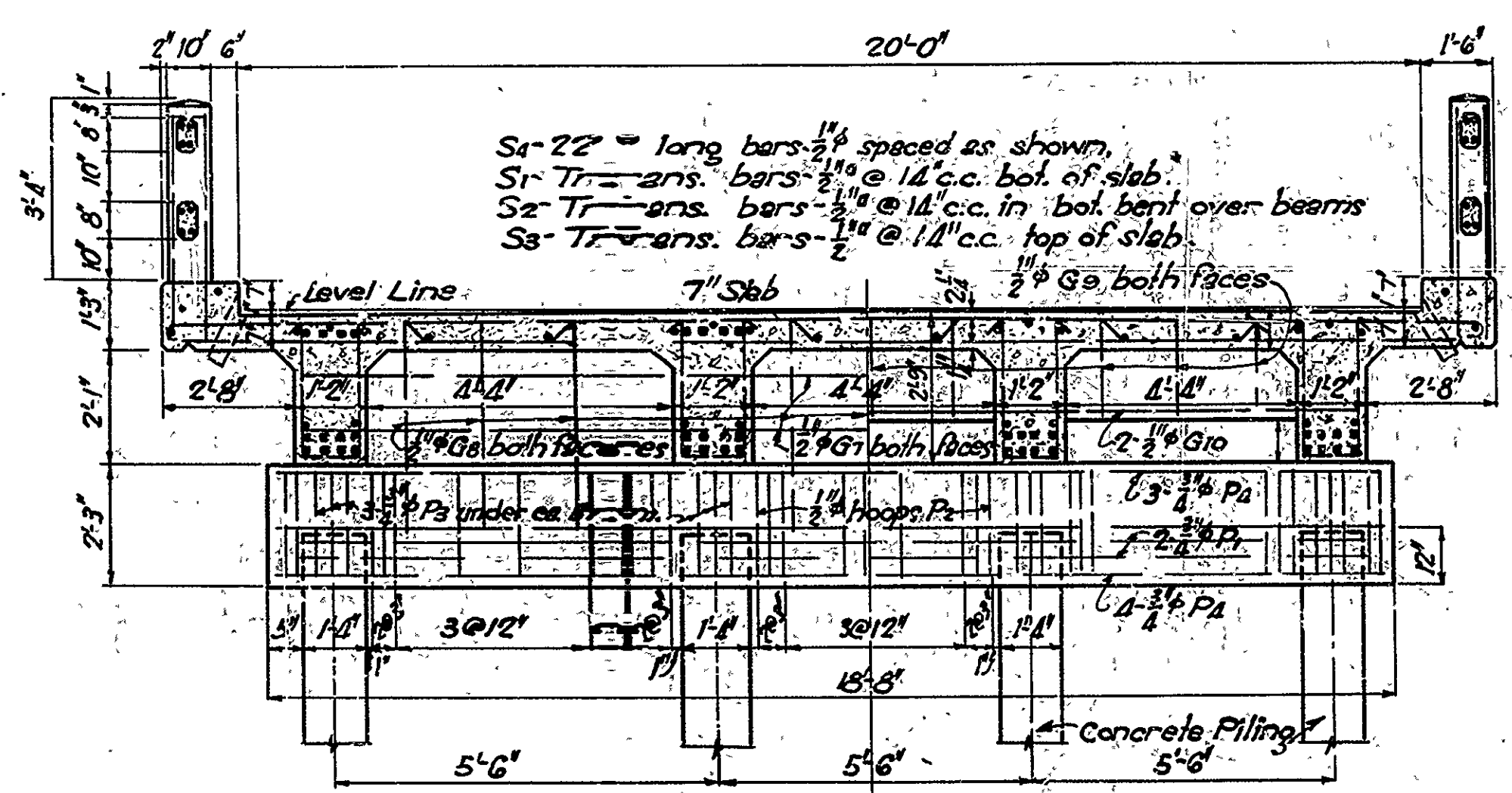
END BENT

INT. BENT (FIXED)

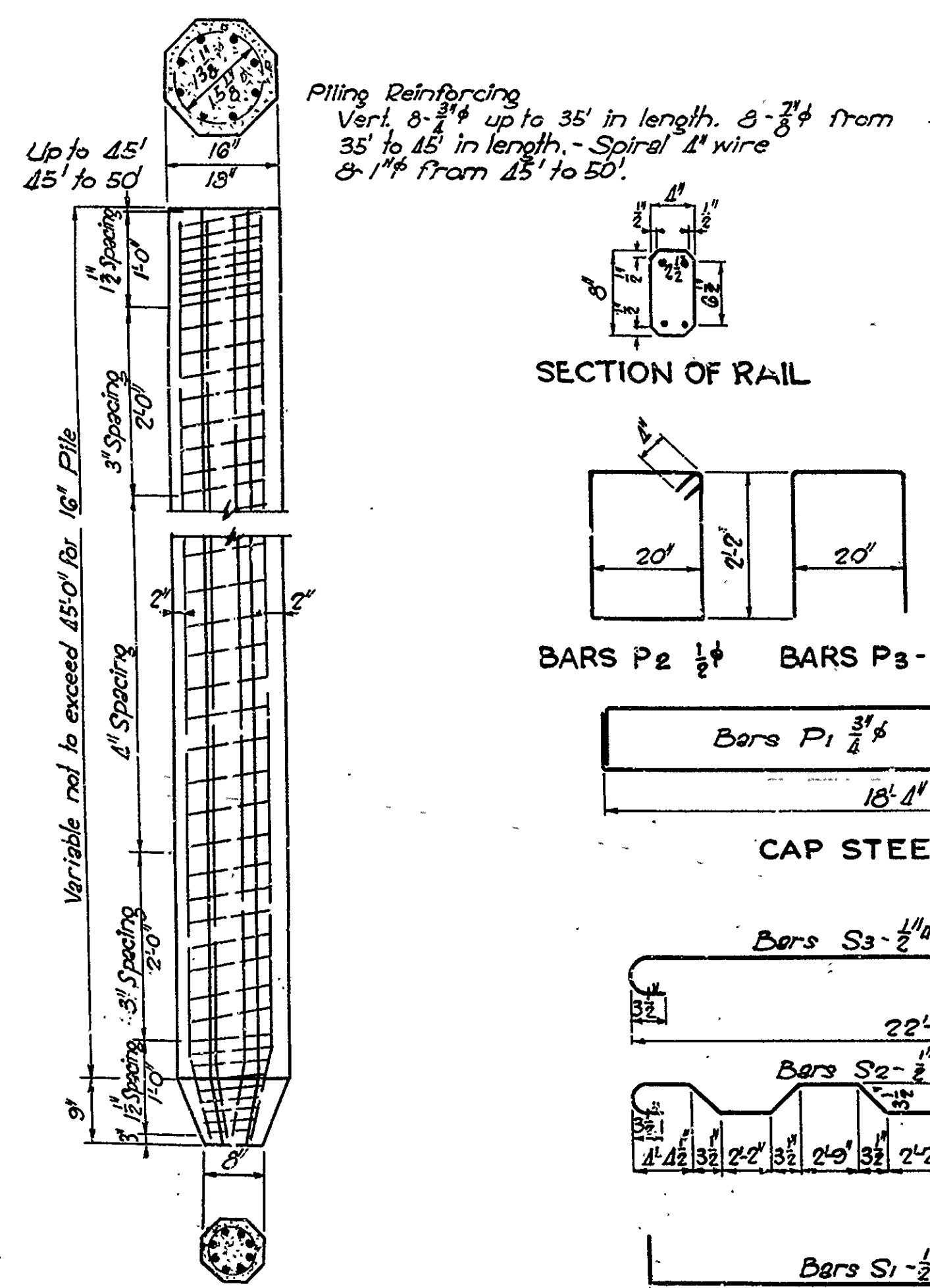
INT. BENT (EXPANSION)



HALF PLAN OF END BENT

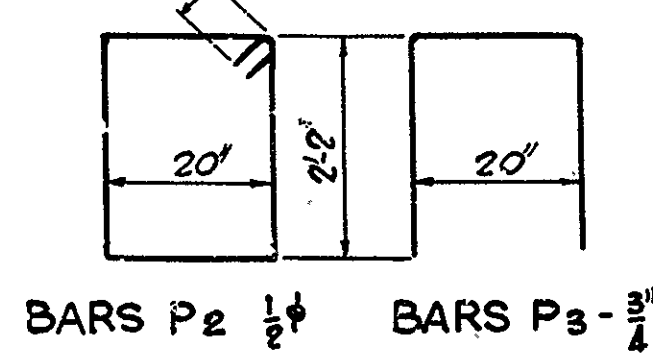


HALF SECT. AT FIXED BENTS HALF SECT. AT EXP. BENTS

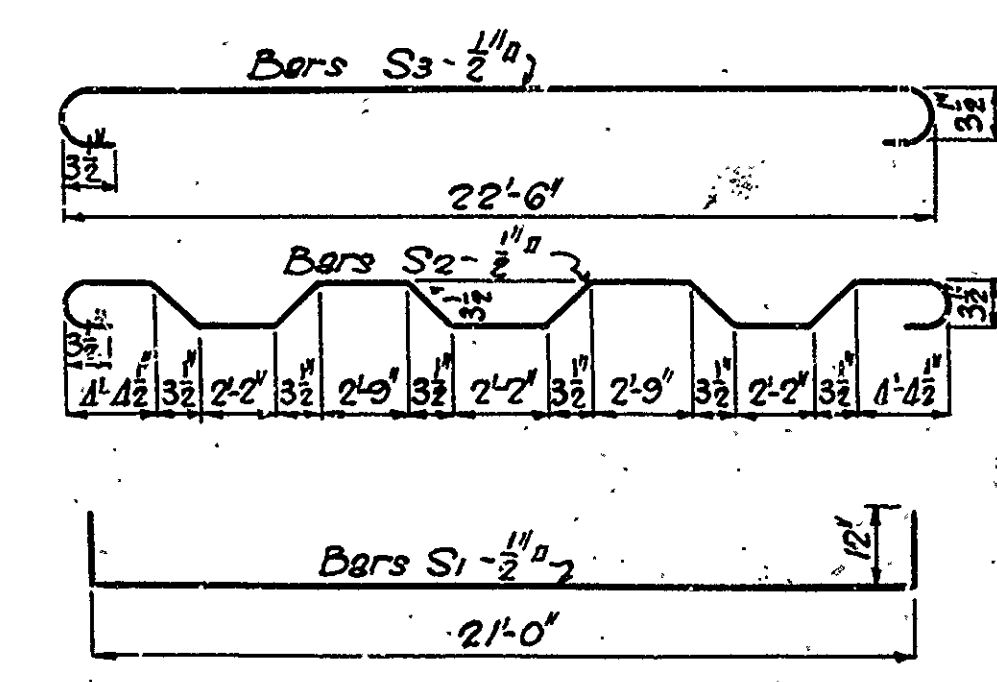


DETAIL OF CONCRETE PILE

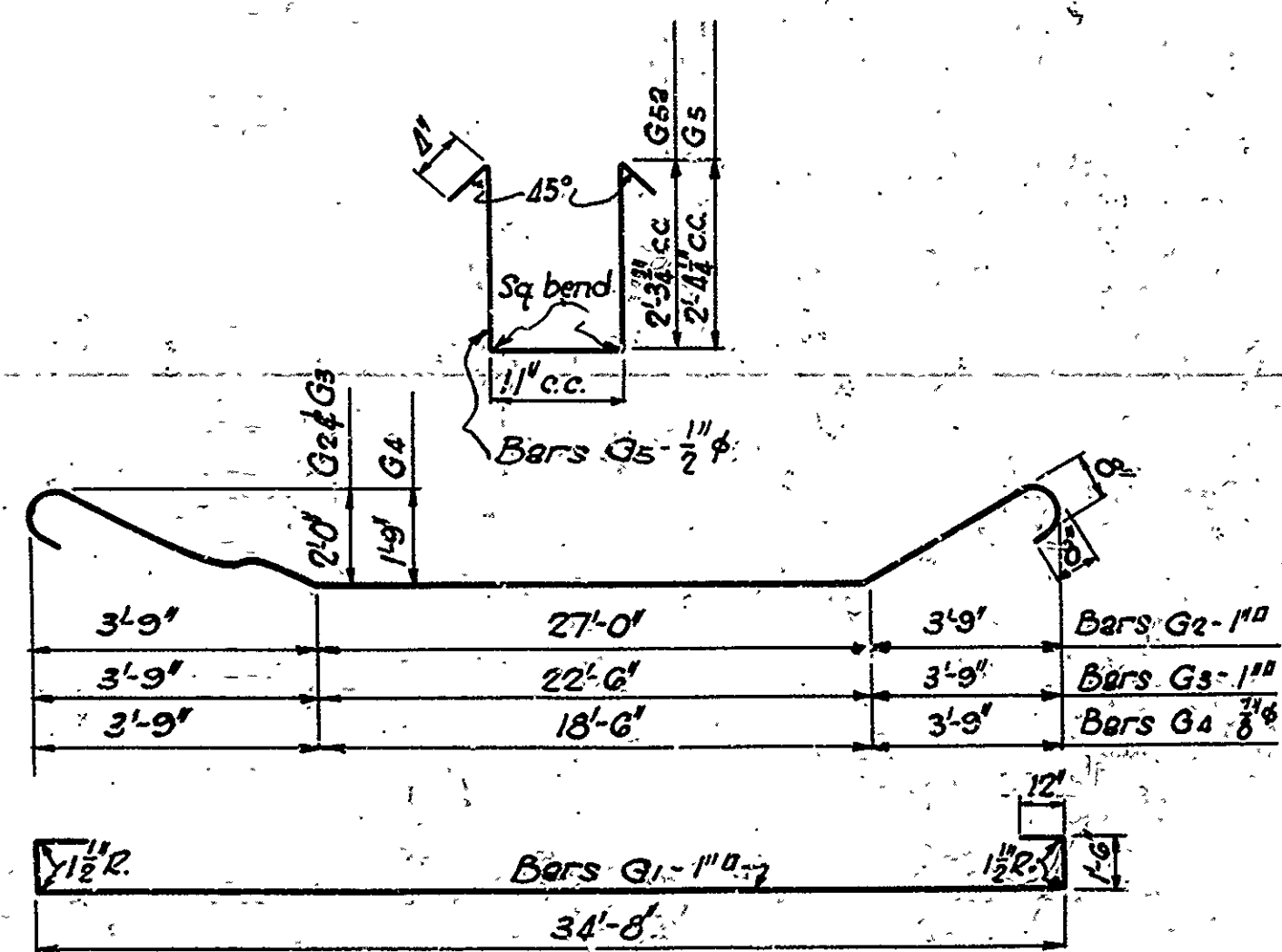
SECTION OF RAIL



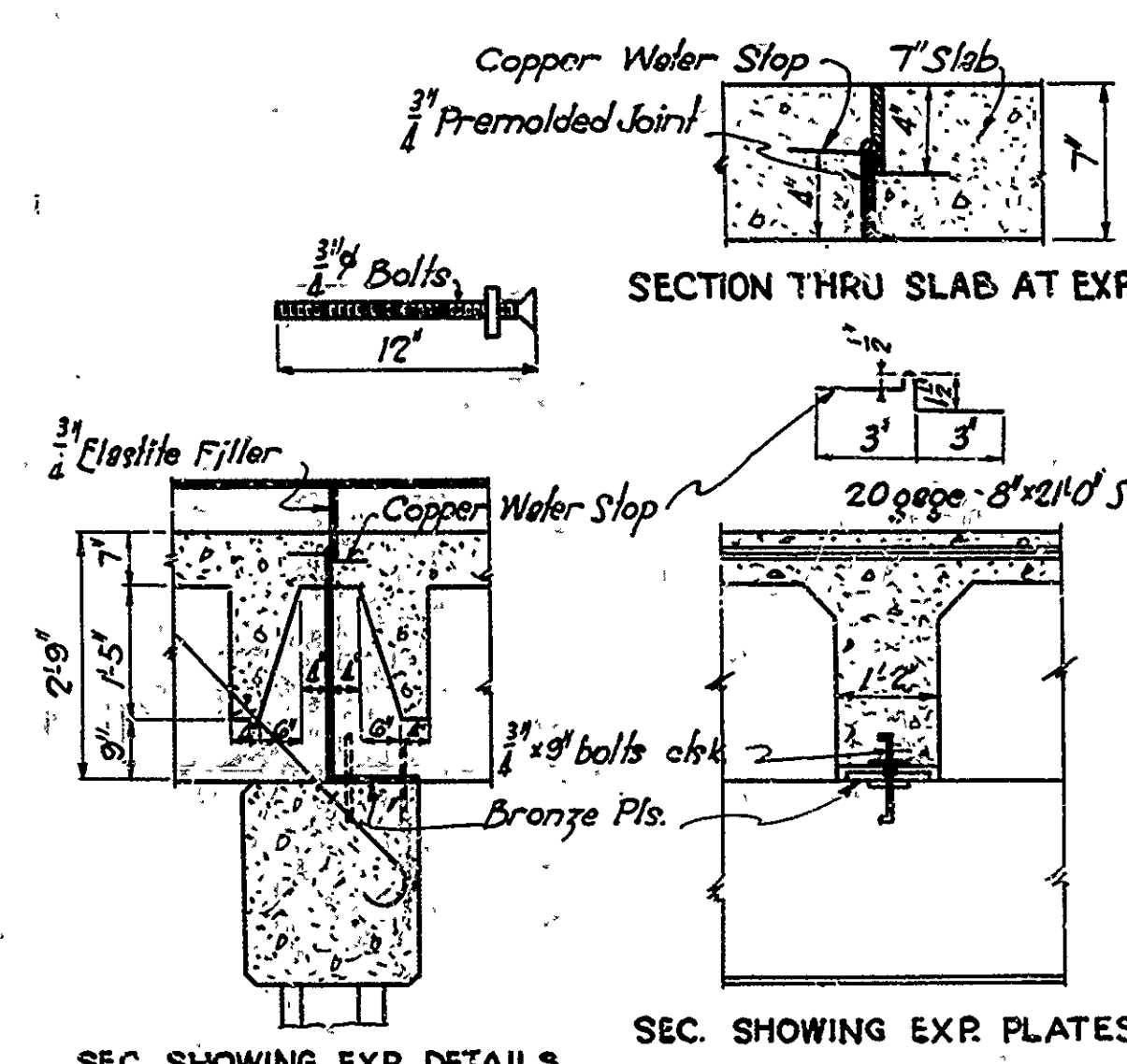
CAP STEEL



SLAB STEEL



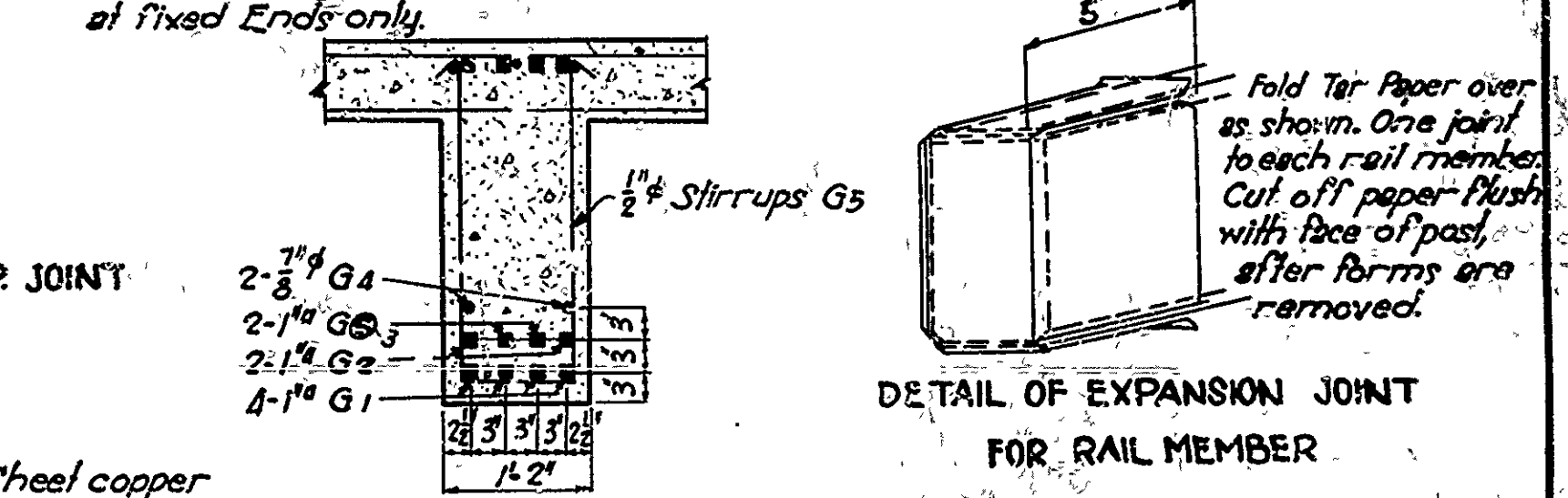
GIRDER STEEL



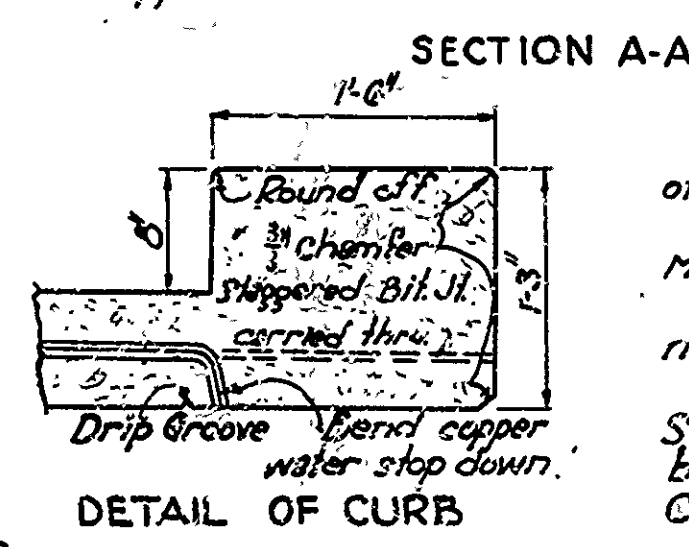
SECTION THRU SLAB AT EXP. JOINT

SEC. SHOWING EXP. DETAILS

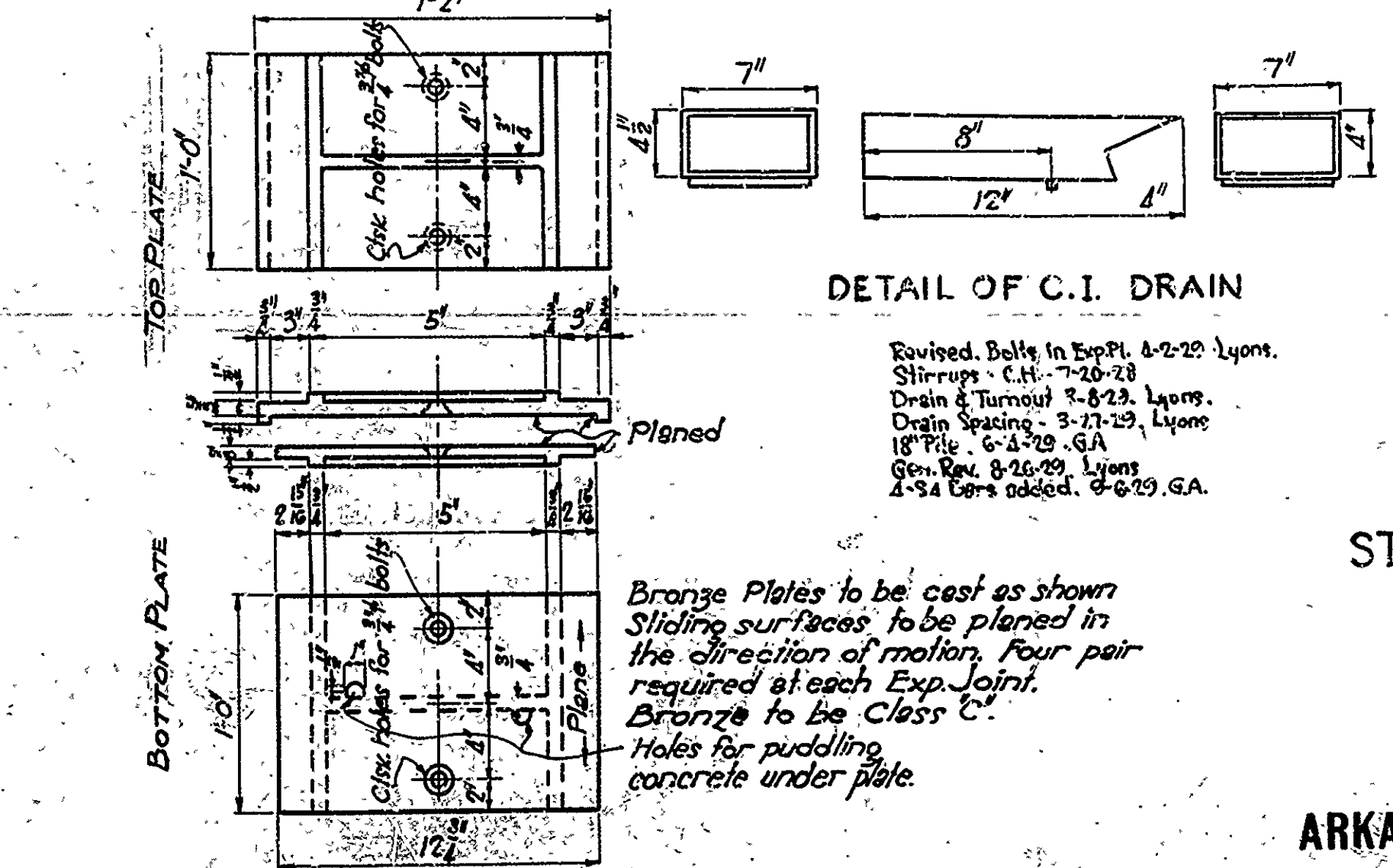
SEC. SHOWING EXP. PLATES



DETAIL OF EXPANSION JOINT FOR RAIL MEMBER



DETAIL OF CURB



DETAIL OF C.I. DRAIN

EXPANSION PLATES Sliding surfaces to be coated with graphite grease

GENERAL NOTES
 All exposed corners to have 3/4\"/>

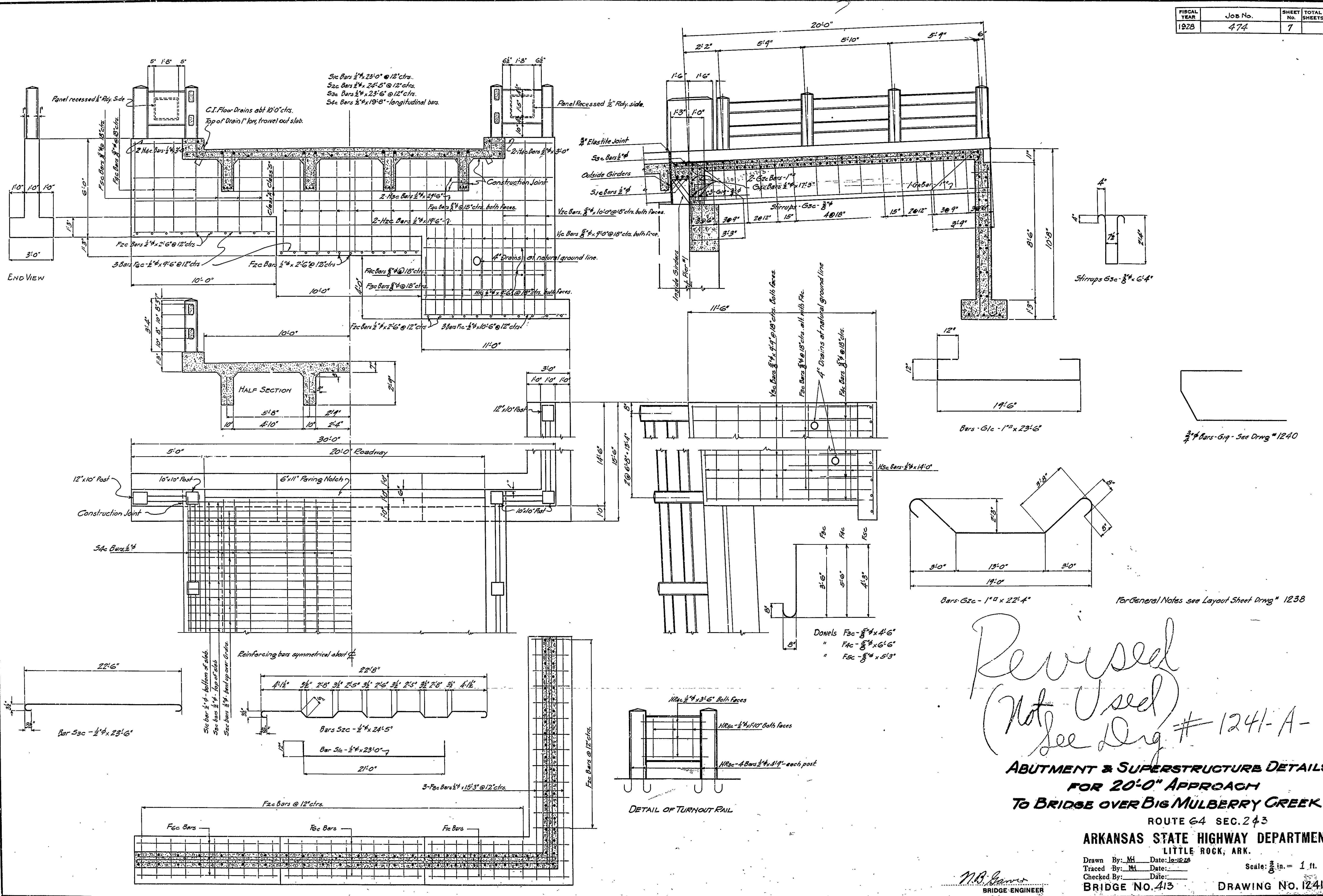
Revised: 4-6 Gs added to bottom of Girders. Exp. plate bolts changed. 9/23/29 G.A.
 GENERAL REV. 4-10-30. R.P.B.

DETAILS
STANDARD 35' R.C. DECK GIRDER AND CONCRETE PILE BENTS
 20'-0\"/>

ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 Drawn By: NEB Date: 6-18-28
 Re-traced By: G.W.D. Date: 11-23-27
 Checked By: Date:
 BRIDGE NO. DRAWING No. 1019

M.B. Sanner
 BRIDGE ENGINEER

| | | | |
|-------------|---------|-----------|--------------|
| FISCAL YEAR | Job No. | SHEET No. | TOTAL SHEETS |
| 1928 | 474 | 7 | |



Revised
(Not Used)
See Desig. # 1241-A

**ABUTMENT & SUPERSTRUCTURE DETAILS
FOR 20'-0" APPROACH
TO BRIDGE OVER BIG MULBERRY CREEK**

ROUTE 64 SEC. 2 & 3
ARKANSAS STATE HIGHWAY DEPARTMENT
LITTLE ROCK, ARK.

Drawn By: MM Date: 12-15-28
Traced By: MM Date: _____
Checked By: _____ Date: _____
Scale: $\frac{3}{8}$ in. = 1 ft.
BRIDGE NO. 413 **DRAWING NO. 1241**

M.B. Powers
BRIDGE ENGINEER