

| DATE REVISED | DATE FILMED | DATE REVISED | DATE FILMED | FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|---|-------------|--------------|-------------|---------------------|-------|--------------------|-----------|--------------|
| | | | | 6 | ARK. | | | |
| | | | | JOB NO. | 60452 | | 25 | 118 |
| ① 2811AR, 2804AR & CR, 6357A & C QUAN 30996 | | | | | | | | |

SCHEDULE OF BRIDGE QUANTITIES - JOB NO. 60452

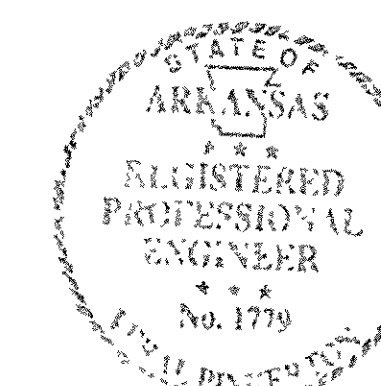
| BRIDGE NO. | CODE NO. | NAME PLATE TITLE | UNIT OF STRUCTURE | ITEM NO. | 205 | 517603 | 801 | 802 | 802 | 803 | 804 | 804 | 805 | 805 | 805 | 807 | SP & 807 | 809 | 812 | 816 | 816 | SS & 821 | SP JOB 60452 |
|-------------------------|----------|------------------|-------------------|--------------------------|---|---|---|---------------------|----------------------|--------------------|------------------------------|---|-------------------------|-------------------------|-----------------|--------------------------------------|--------------------------|----------------------|----------------------------|----------------|---------------|--|--------------------------|
| | | | | ITEM | REMOVAL OF EXISTING BRIDGE STRUCTURE (SITE NO.) | TEMPORARY BRIDGE STRUCTURE (24'-0" ROADWAY WIDTH) | UNCLASSIFIED EXCAVATION FOR STRUCTURES-BRIDGE | CLASS (AE) CONCRETE | CLASS S(AE) CONCRETE | BOILED LINSEED OIL | REINFORCING STEEL (GRADE 60) | EPOXY COATED REINFORCING STEEL (GRADE 60) | STEEL PILING (HP 10x42) | STEEL PILING (HP 12x53) | PILE ENCASEMENT | STRUCTURAL STEEL IN BEAM SPANS (A36) | PAINING STRUCTURAL STEEL | PREFORMED JOINT SEAL | BRIDGE NAME PLATE (TYPE C) | FILTER BLANKET | DUMPED RIPRAP | MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO.) | REPAIR OF EXISTING BENTS |
| | | | | UNIT | LUMP SUM | LIN. FT. | CU. YD. | CU. YD. | CU. YD. | GAL. | LB. | LB. | LIN. FT. | LIN. FT. | LIN. FT. | LB. | TON | LIN. FT. | EA. | SQ. YD. | CU. YD. | LUMP SUM | CU. FT. |
| 2811AR | X071 | HURRICANE CREEK | | BENT NOS. 1 & 7 | | | 24 | 32.34 | | 0.4 | 4298 | | 60 | | | 1270 | | | 1 | | | | |
| | | | | BENT NOS. 2-6 | | | 74 | 46.06 | | | 6442 | | | | | | | | | | | | |
| | | | | 2-90' CONT. W-BM. UNITS | | | | | 213.70 | 18.9 | | 47,500 | | | | 108,070 | | 129 | | | | | |
| | | | | TOTAL FOR BR. NO. 2811AR | | | 98 | 78.40 | 213.70 | 19.3 | 10,740 | 47,500 | 60 | | | 109,340 | 54.7 | 129 | 1 | | | 1.0 | 6 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| 2804AR | X071 | CROOKED CREEK | | BENT NO. 1 | | | 20 | 25.42 | | 0.2 | 2811 | | 176 | | | 881 | | | 1 | 420 | 249 | | |
| | | | | BENT NOS. 2 & 3 | | | 226 | 82.88 | | | 10,324 | | | | | | | | | | | | |
| | | | | BENT NOS. 4-6 | | | 133 | 76.27 | | | 9040 | | | | | | | | | | | | |
| | | | | BENT NO. 7 | | | 10 | 21.43 | | 0.2 | 2485 | | 80 | | | 881 | | | | 776 | 462 | | |
| | | | | 2-90' CONT. W-BM. UNITS | | | | | 278.50 | 25.1 | | 61,550 | | | | 151,028 | | 176 | | | | | |
| 2804CR | X071 | CROOKED CREEK | | TOTAL FOR BR. NO. 2804AR | | | 389 | 206.00 | 278.50 | 25.5 | 24,660 | 61,550 | 256 | | | 152,790 | 76.4 | 176 | 1 | 1196 | 711 | 1.0 | 3 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | BENT NO. 1 | | | 16 | 18.54 | | 0.2 | 2288 | | 110 | | | 508 | | | 1 | 280 | 173 | | |
| | | | | BENT NOS. 2 & 3 | | | 146 | 49.56 | | | 6398 | | | | | | | | | | | | |
| | | | | BENT NOS. 4-6 | | | | 17.20 | | | 1720 | | | | | | | | | | | | |
| 6357A | X071 | OTTER CREEK | | BENT NO. 7 | | | 4 | 16.10 | | 0.2 | 1884 | | | | | 508 | | | | 280 | 173 | | |
| | | | | 2-90' CONT. W-BM. UNITS | | | | | 179.20 | 15.2 | | 41,040 | | | | 92,534 | | 105 | | | | | |
| | | | | TOTAL FOR BR. NO. 2804CR | | 180 | 168 | 101.40 | 179.20 | 15.6 | 12,290 | 41,040 | 110 | | | 93,550 | 46.8 | 105 | 1 | 560 | 346 | 1.0 | 3 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| 6357A | X071 | OTTER CREEK | | BENT NOS. 1 & 6 | | | 38 | 50.86 | | 0.4 | 5623 | | 528* | | | 2098 | | | 1 | 621 | 392 | | |
| | | | | BENT NOS. 2-5 | | | | 64.44 | | | 6747 | | | 1056* | 160 | 6340 | | | | | | | |
| | | | | 1-140' CONT. W-BM. UNIT | | | | | 216.70 | 19.4 | | 55,870 | | | | 119,232 | | 117 | | | | | |
| | | | | TOTAL FOR BR. NO. 6357A | | | 38 | 115.30 | 216.70 | 19.8 | 12,370 | 55,870 | 528* | 1056* | 160 | 127,670 | 63.8 | 117 | 1 | 621 | 392 | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| 6357C | X071 | OTTER CREEK | | BENT NOS. 1 & 6 | | | 40 | 37.38 | | 0.4 | 4576 | | 320* | | | 1209 | | | 1 | 683 | 414 | | |
| | | | | BENT NOS. 2-5 | | | | 37.92 | | | 3944 | | | 640* | 100 | 3650 | | | | | | | |
| | | | | 1-140' CONT. W-BM. UNIT | | | | | 139.80 | 12.2 | | 34,750 | | | | 72,781 | | 70 | | | | | |
| | | | | TOTAL FOR BR. NO. 6357C | | 140 | 40 | 75.30 | 139.80 | 12.6 | 8520 | 34,750 | 320* | 640* | 100 | 77,640 | 38.8 | 70 | 1 | 683 | 414 | | |
| | | | | SITE NO. 1 (STA. 88+54±) | 1 | | | | | | | | | | | | | | | | | | |
| TOTAL FOR JOB NO. 60452 | | | | SITE NO. 2 (STA. 88+85±) | 1 | | | | | | | | | | | | | | | | | | |
| | | | | TOTAL FOR JOB NO. 60452 | | 320 | 733** | 576.40 | 1027.90 | 92.8 | 68,580 | 240,710 | 1274 | 1696 | 260 | 560,990 | 280.5 | 597 | 5 | 3060 | 1863 | | 12 |

** includes approx. 81 cu.yd. of Rock Excavation.

* These Steel Piles are required to have special tips which will not be paid for directly but will be considered subsidiary to the Items "Steel Piling (HP10x42)" and "Steel Piling (HP12x53)."

*** Use Paint Finish System B. The color shall match the Federal Standard 595A Color Chip No. 1778, Aluminum Color.

PHIL BRAND
DESIGN SECTION SUPERVISOR



SCHEDULE OF BRIDGE QUANTITIES
CROOKED, HURRICANE, & OTTER CREEK
STRS. & APPRS. (E.B. LANE)
SALINE & PULASKI COUNTIES
ROUTE 30 SEC. 22 & 23
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY *W. H. H.* DATE: 11-7-90
CHECKED BY *C.A.B.* DATE: 12-04-90
DESIGNED BY: DATE: SCALE: _____
BRIDGE NO. 2811AR, 2804AR & CR, 6357A & C DRAWING NO. 30996

For R/W Data and Guardrails - See Rdwy. Plans

Note:

Remove existing Approach Slab and Gutters at both Bridge Ends.

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| | | | | 6 | ARK. | | | |
| | | | | JOB NO. | | 60452 | 50 | 118 |
| | | | | | | 2804CR LAYOUT | 31010 | |

GENERAL NOTES

BENCH MARK: ☐ Cut in West end of Lt. Wheelguard of bridge over Lt. Service Rd. 118' Lt. Sta. 61+70, Elev. 299.62

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, 1991 edition, with applicable supplemental specifications and special provisions.

DESIGN SPECIFICATIONS: AASHTO Standard Specifications for Highway Bridges, 1989 with current interim specifications.

LIVE LOADING: HS20

METHOD OF DESIGN: Load Factor

MATERIALS AND STRENGTHS:

Class 5(AE) Concrete (superstructure) $f'_c = 4,000$ psi
Class 5 Concrete (substructure) $f'_c = 3,500$ psi
Reinforcing Steel (A615 or A617, Gr. 60) $F_y = 60,000$ psi
Structural Steel (A36) $F_y = 36,000$ psi

STEEL PILING: All piling shall be HP 10x42 and shall be driven with an approved air, steam, or diesel hammer to a minimum safe bearing capacity of 55 tons per pile. Lengths shown are for estimating quantities and for use in determining payment for cut-off and build-up in accordance with the specifications. Piles in end bents to be driven after embankment to bottom of cap is in place.

FOOTINGS: Footings at Bent Nos. 2 and 3 shall be set 2'-0" into cemented gravel and clay. Foundations for footings shall be prepared in accordance with section 801.04 of the Standard Specifications.

BRIDGE DECK: The concrete deck shall be given a fine finish as specified for final finishing in subsection 802.20 for Class 5 Bridge Roadway Surface Finish.

DETAIL DRAWINGS:

DRAWING NO.

End Bents 31011, 31013
Intermediate Bents 31012, 31018
90' Cont. Comp. W-Beam Unit 31002, 31014

TEMPORARY BRIDGE: Construct a 180' long temporary bridge approximately 40'-0" upstream. The temporary bridge shall have a minimum roadway width of 24', a minimum live load capacity of H15. See section 603 of the Standard Specifications. See drawing numbers 2391, 2391A & 2392A for standard temporary details. If timber piling and pine timber are used on this temporary bridge structure, the materials shall be treated with a preservative according to the standard specifications. See roadway plans for actual detour grade and alignment.

EXISTING BRIDGE: The existing bridge no. 2604C is 26' wide and 122' long and the superstructure consists of 4-30'-0" R.C. Slab Spans. The substructure consists of concrete end bents with steel piling and concrete col. int. bents with spread footings.

The work contemplated consists of widening and lengthening the existing bridge; replacing the existing superstructure; modifying and repairing existing bents; removal of end bent at beginning of the existing bridge; constructing new bent nos. 1, 2, and 3. For requirements in conducting the work, see section 821 of the Standard Specifications 455 B21.1.

All dimensions relating to the existing bridge are to be verified in the field and the Contractor shall be responsible for adjusting widening to existing structure.

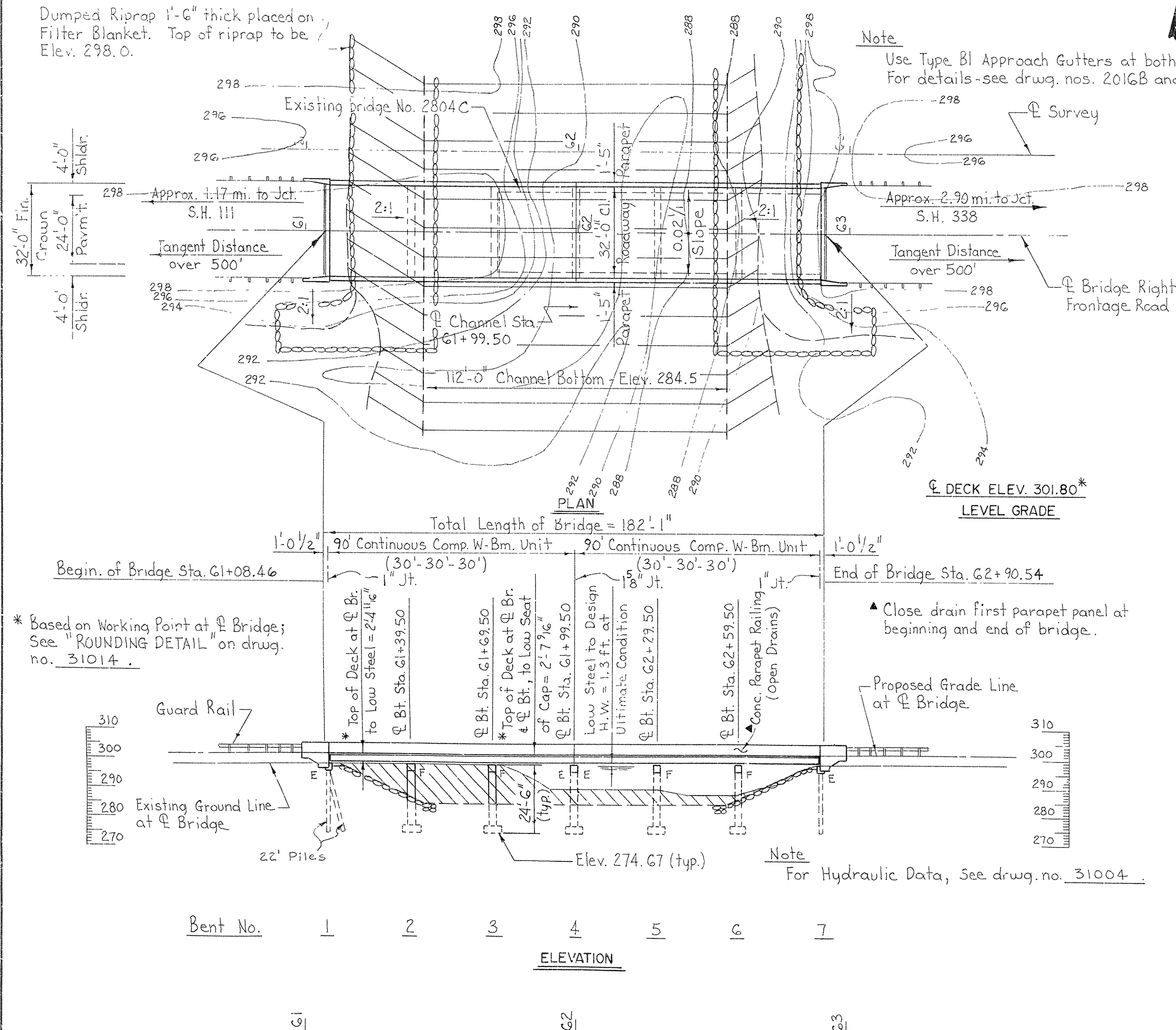
Plans of the existing structure will be made available to the Contractor upon request to the Programs and Contracts Division, Existing awg. nos. 9913, 9914, 5408A, and 5408B.

All material from the existing bridge shall become the property of the contractor except the metal bridge railing which shall remain the property of the state.

For Channel Improvements - See drwg. no. 31004.

Note

Use Type B1 Approach Gutters at both ends of bridge. For details-see drwg. nos. 2016B and 2017.



* Based on Working Point at Φ Bridge; See "ROUNDING DETAIL" on drwg. no. 31014.

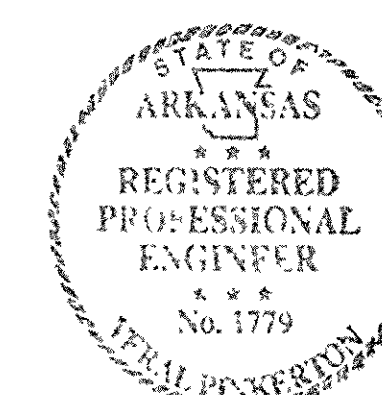
▲ Close drain first parapet panel at beginning and end of bridge.

Proposed Grade Line at Φ Bridge

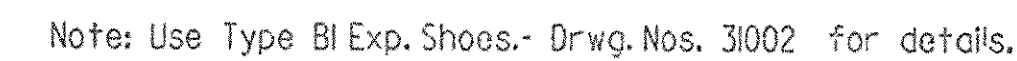
Note

For Hydraulic Data, See drwg. no. 31004.

LAYOUT OF BRIDGE OVER
CROOKED CREEK
(RIGHT FRONTAGE RD.)
CROOKED, HURRICANE, AND OTTER CREEK
STRS. & APPRS. (E.B. LANE)
SALINE & PULASKI COUNTIES
INT. ROUTE 30 SEC. 23
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.



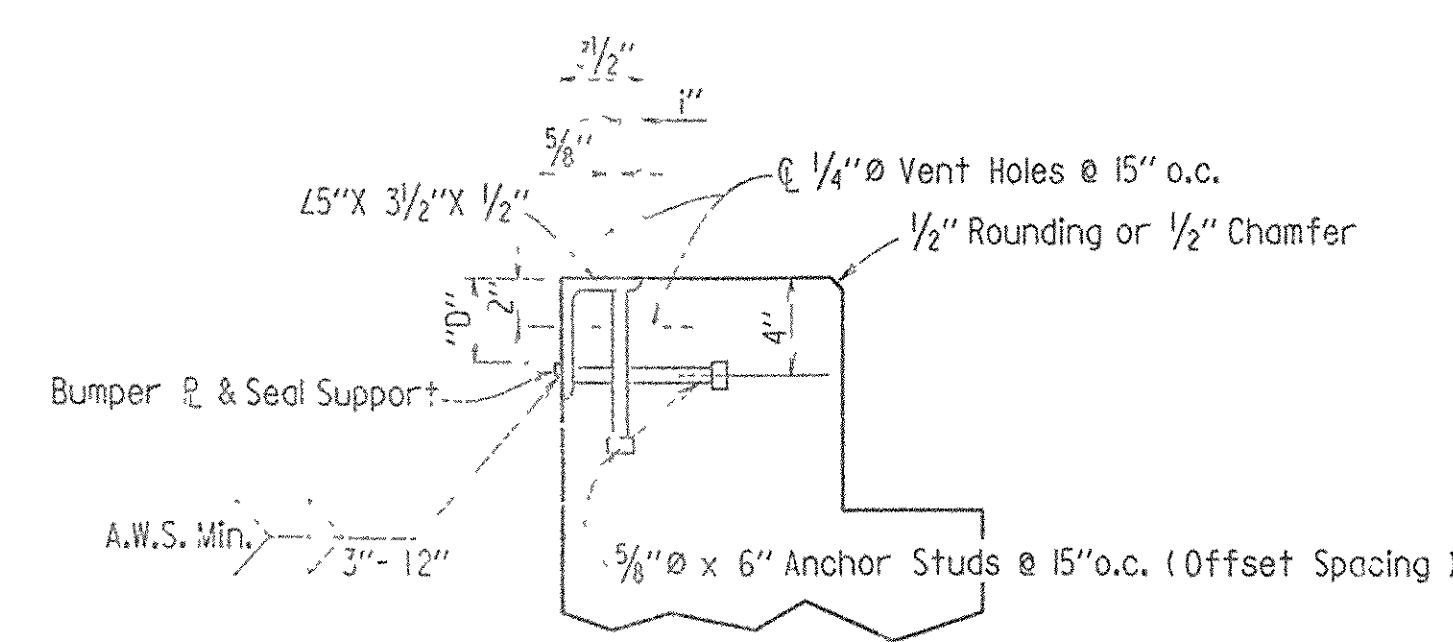
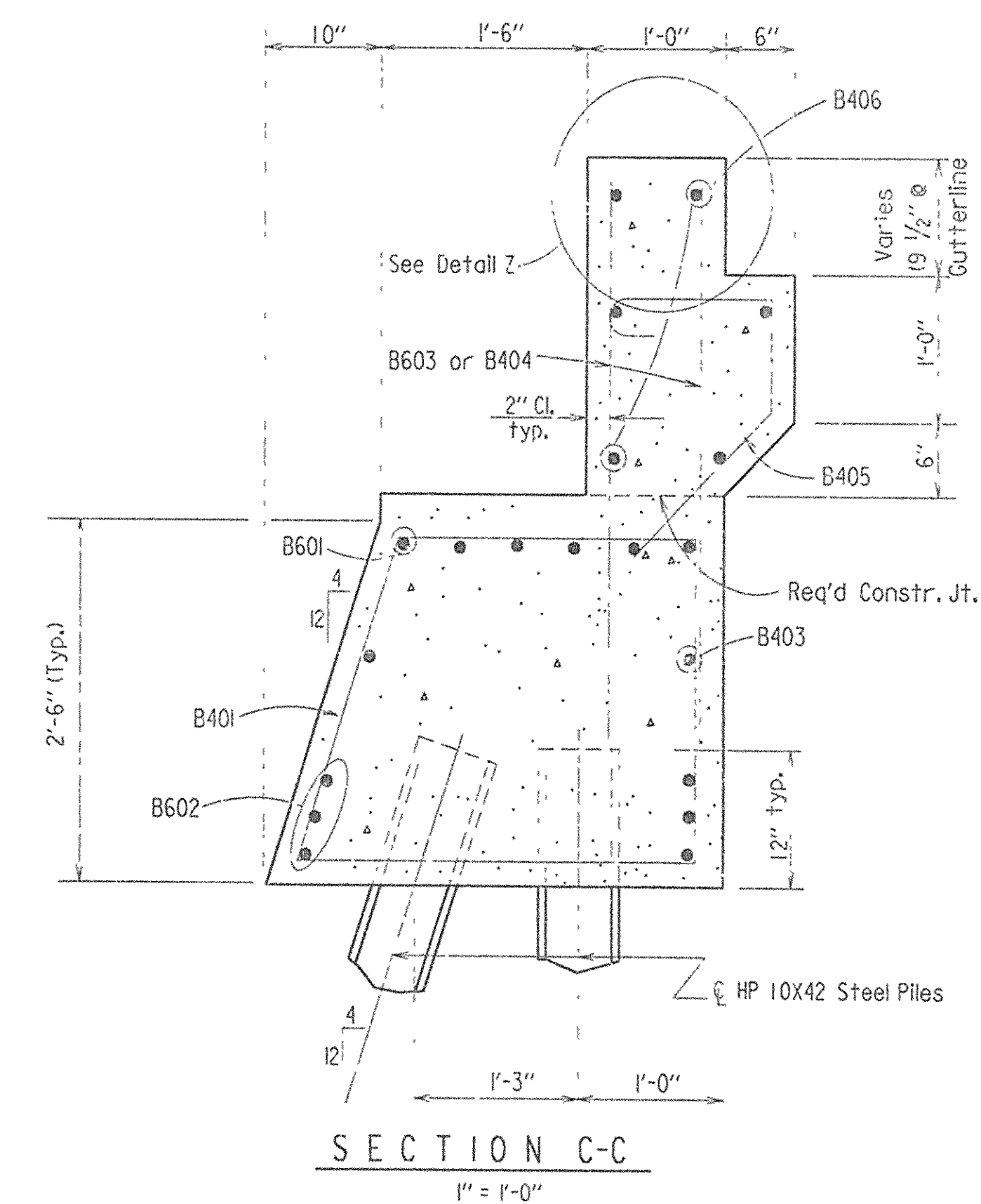
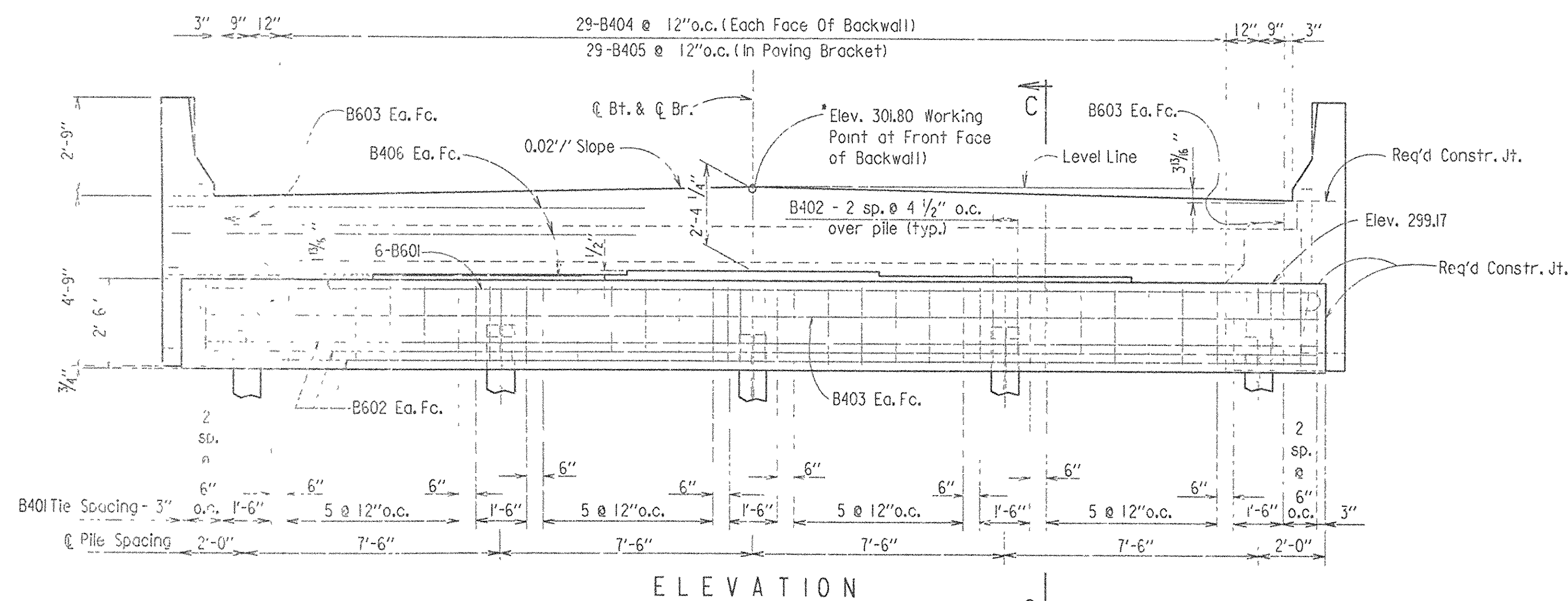
DRAWN BY: TEB DATE: 5/29/90
CHECKED BY: GEC DATE: 7/23/90
DESIGNED BY: Leta & Brown DATE: 12-20-90
SCALE: 1" = 20'-0"
BRIDGE NO. 2804CR DRAWING NO. 31010

[illegible]

TYPICAL ANCHOR BOLT LAYOUT

$$2'' = 1 - 0''$$

For Bar List and Bending Diagrams of Wing and Rail Reinforcing -
See drwg. nos. 30999.



Note: For Joint Support Details & Dimension "D" see Dwg. No. 31002.

DETAIL Z

$$1\frac{1}{2}'' = 1'-0''$$

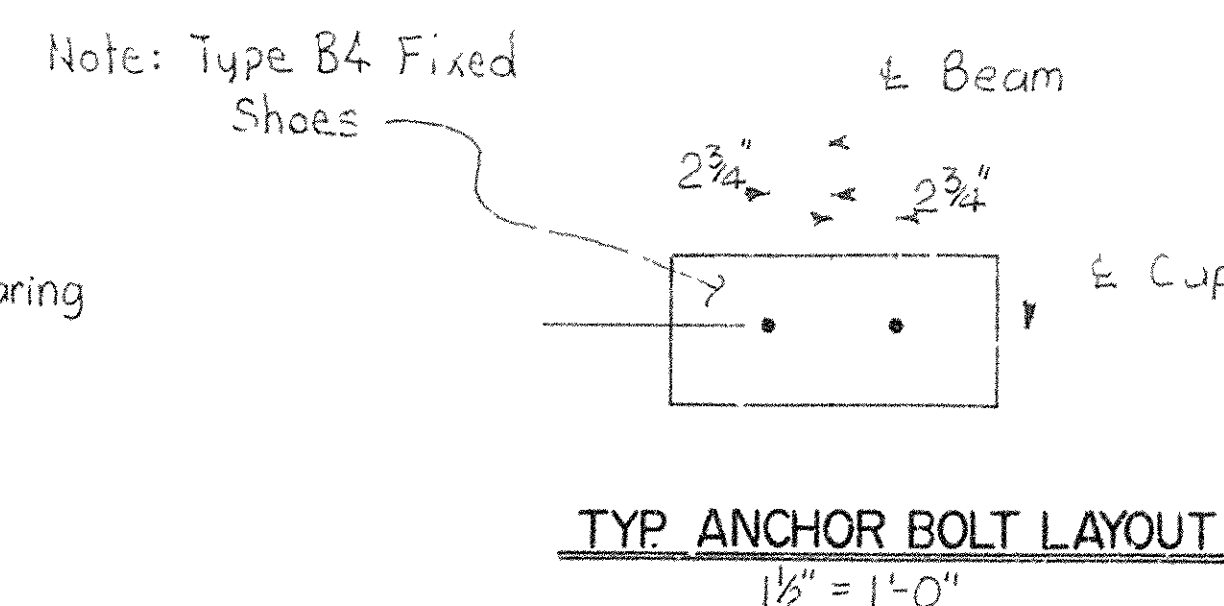
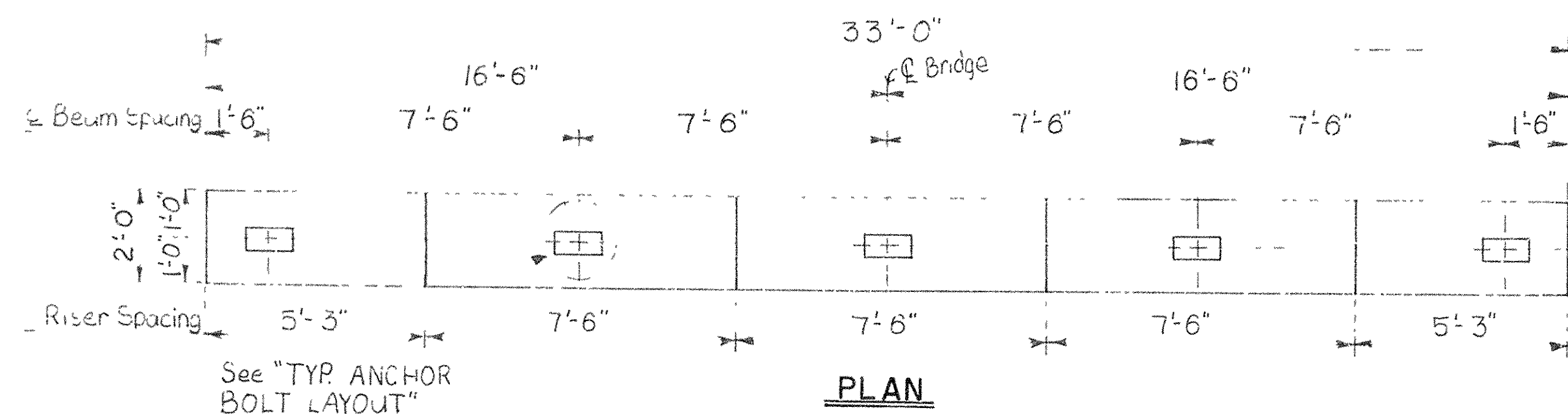
GENERAL NOTES

FOR ADDITIONAL INFORMATION, SEE LAYOUT.

DESIGNED BY: GEC DATE: 8-15-90 SCALE: 1/8" = 1'
BRIDGE NO. 2804CR DRAWING NO. 31011

1,550,3000,1638,7EBE549,B1638,B1

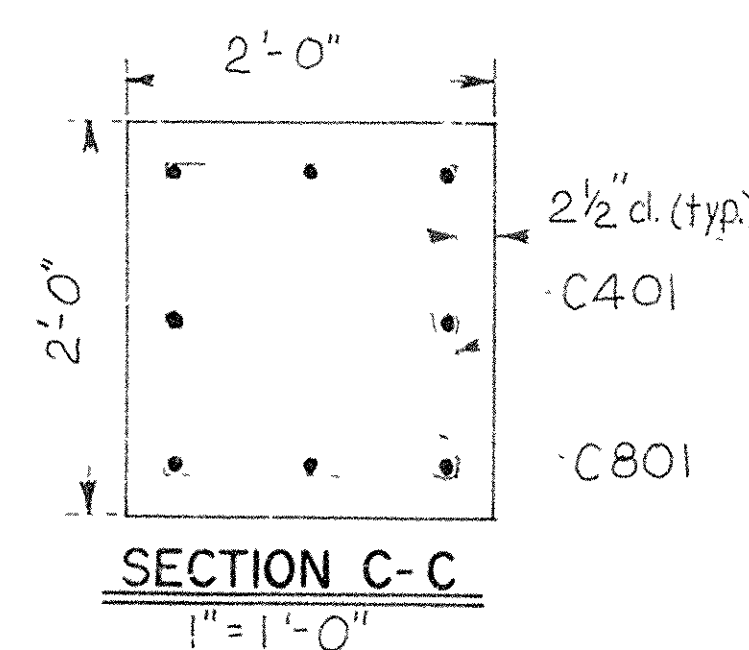
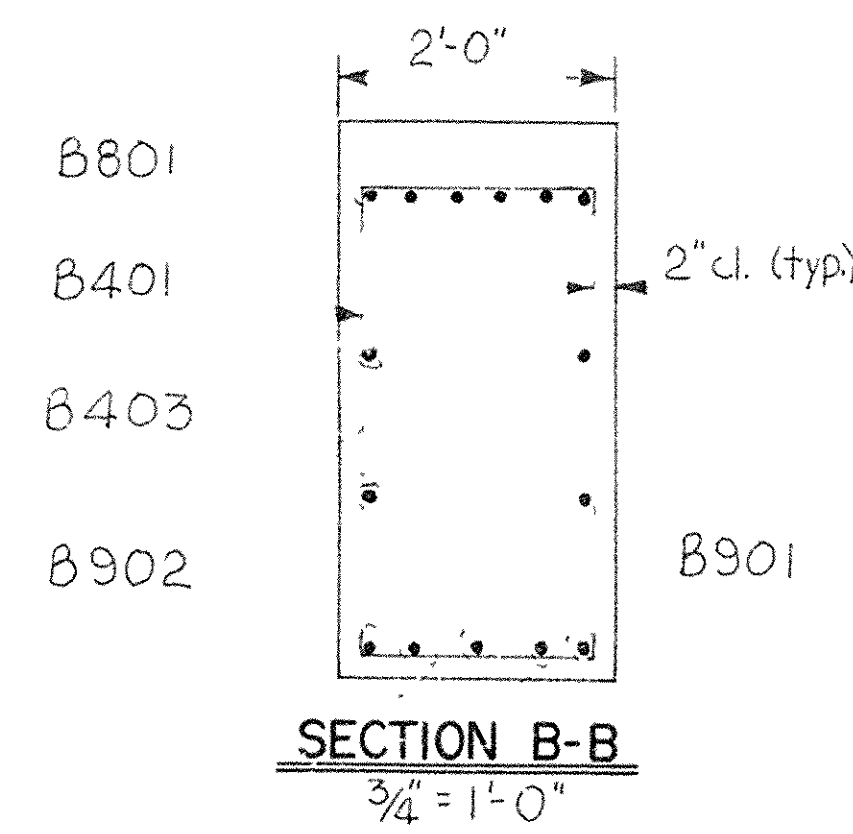
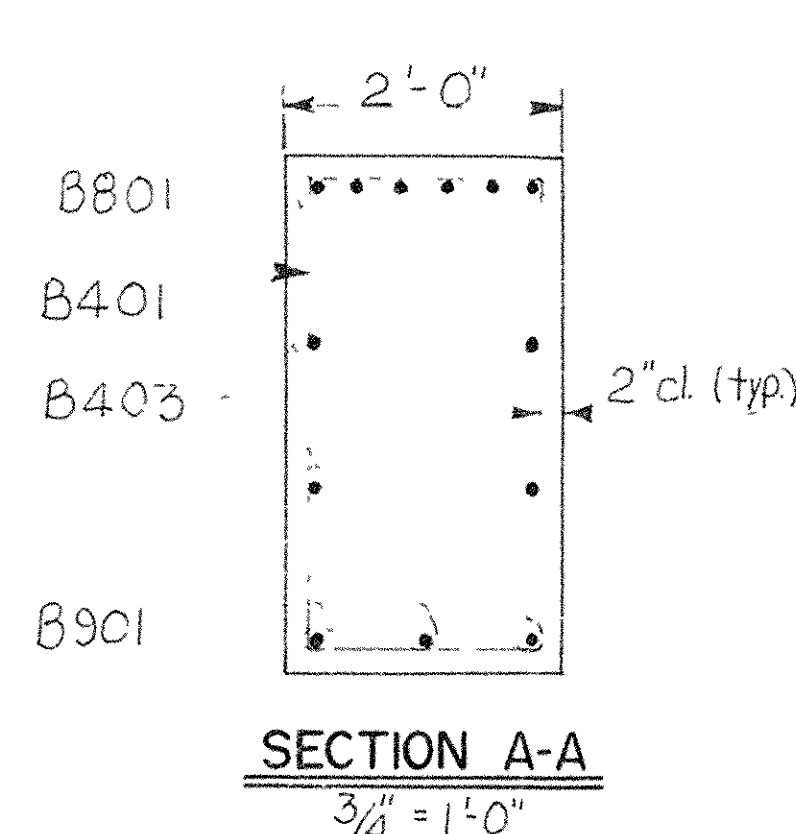
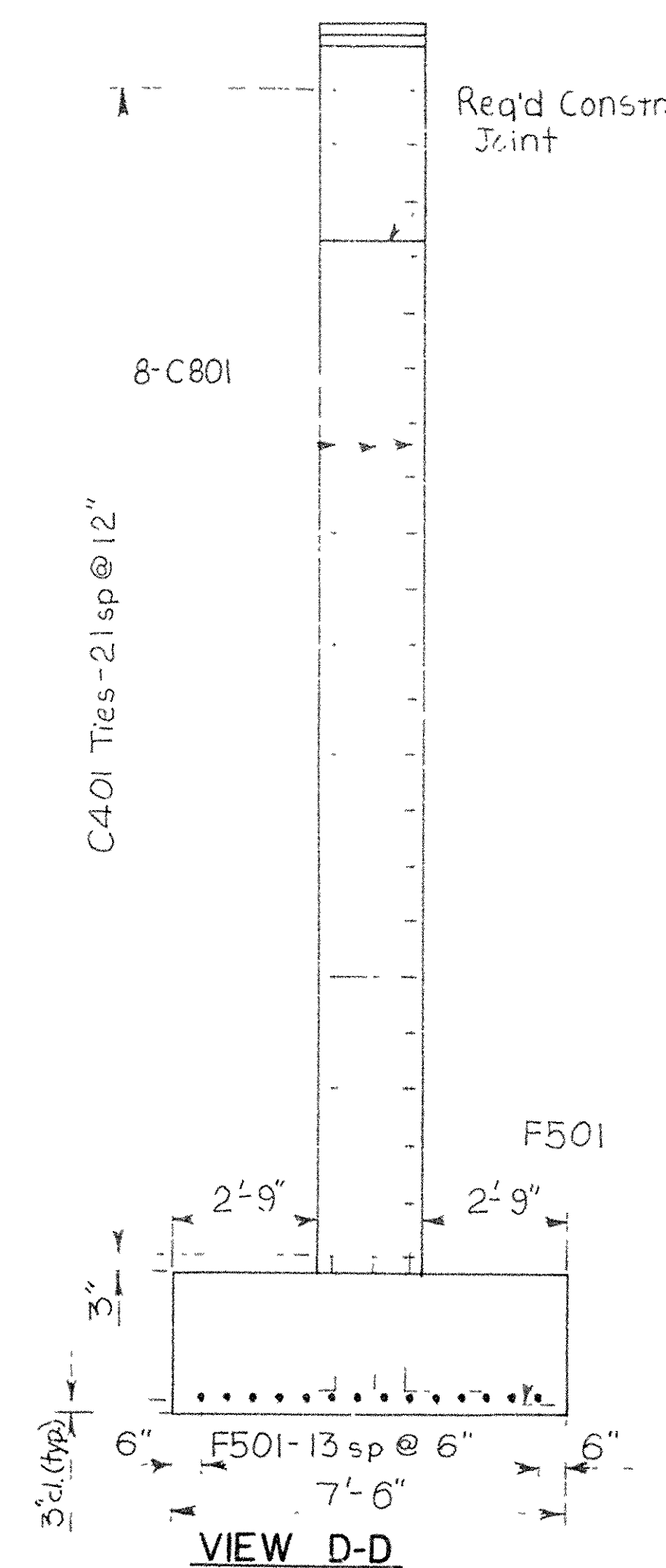
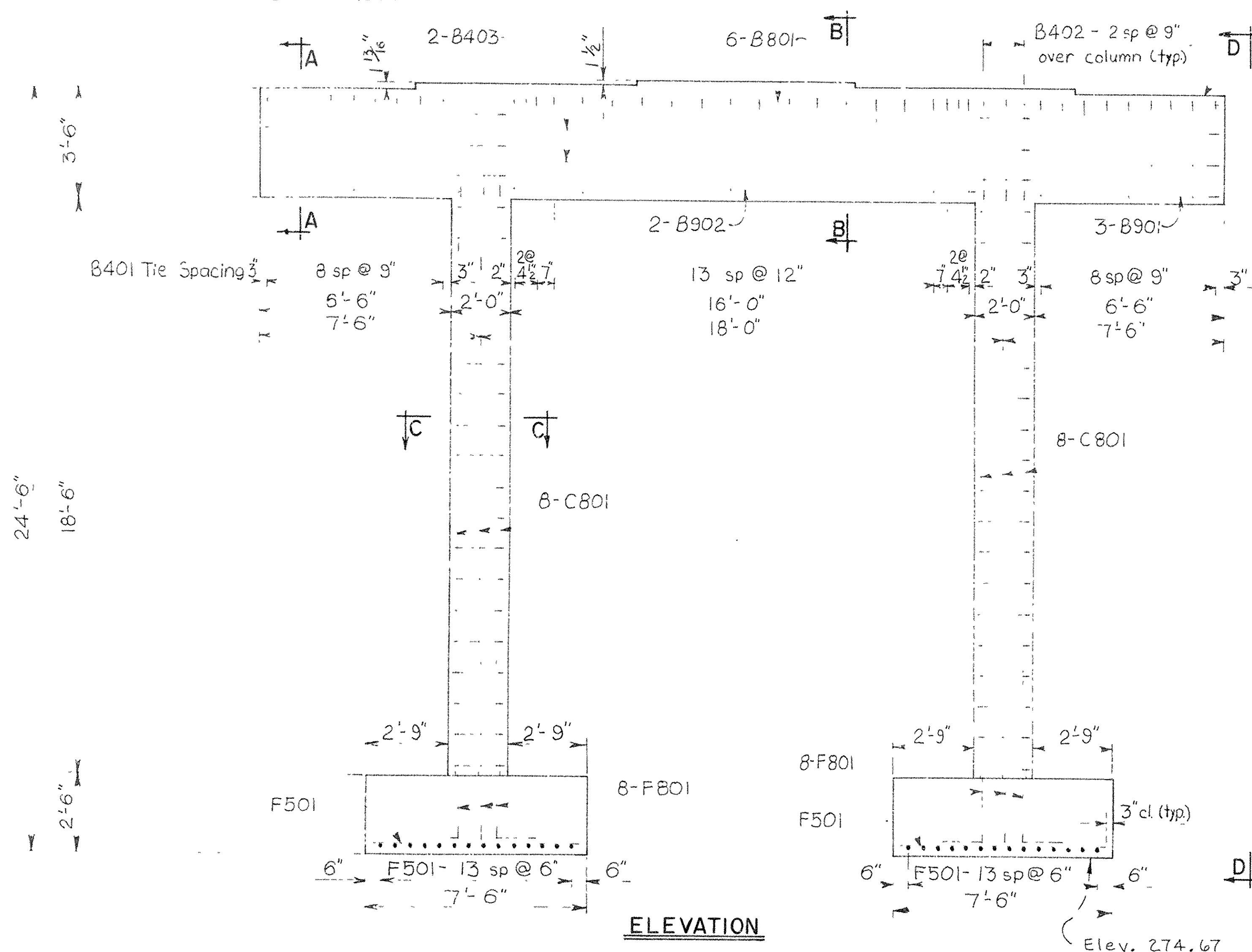
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| | | | | 6 | ARK. | | | |
| | | | | | | JOB NO. 60452 | 53 | 118 |
| | | | | | | 2804-CR BENT | 31012 | |



BAR LIST - PER BENT

| Mark | No. Req'd | Length | A | B | Pin Dia. | Bending Diagrams |
|------|-----------|--------|-------|-------|----------|------------------|
| B401 | 38 | 10'-0" | 1'-8" | 3'-2" | 2" | |
| B402 | 6 | 7'-10" | 1'-8" | 3'-2" | 2" | |
| B403 | 4 | 32'-8" | - | - | Str. | |
| B801 | 6 | 32'-8" | - | - | Str. | |
| B901 | 3 | 32'-8" | - | - | Str. | |
| B902 | 2 | 16'-0" | - | - | Str. | |
| C401 | 44 | 6'-8" | 1'-7" | 1'-7" | 2" | |
| C801 | 16 | 21'-6" | - | - | Str. | |
| F501 | 56 | 7'-0" | - | - | Str. | |
| F801 | 16 | 7'-11" | 6'-9" | 1'-4" | 6" | |

DIM. ARE OUT TO OUT OF BARS



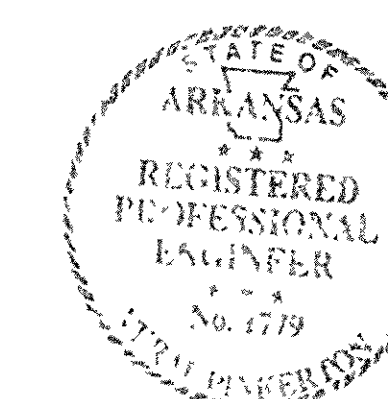
GENERAL NOTES

All concrete shall be Class "S" and shall be poured in the dry. All exposed corners shall be chamfered 3/4" unless otherwise noted.

Reinforcing steel shall be ASTM A615 or A617, Grade 60.

If anchor bolt holes are drilled into cap, top main reinforcing bars shall be properly placed to avoid damage.

For additional information see layout.



DETAILS OF
INTERMEDIATE BENT NOS. 2 & 3
CROOKED CREEK
(RIGHT FRONTAGE ROAD)
INT. ROUTE 30 SEC. 23
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: BSA DATE: 8-17-90
CHECKED BY: GEC DATE: 8-15-90
DESIGNED BY: GEC DATE: 8-15-90

BRIDGE NO. 2804CR DRAWING NO. 31012

