

| INDEX | | | | | | |
|------------|-------------------------------|---|-------------------------|----------------------------------|-------------------------------|--------------|
| PROJECT | STRUCTURE | TYPE | SPAN | OVER | STATION | CONTRACT NO. |
| I-70-1(9)4 | I-70-4-2310 | CONTINUOUS STEEL BEAM BRIDGES | 4 SPANS 413, 2-495, 413 | PENN. R.R. (SPUR) AND ACCESS RD. | TWIN STRUCTURES STA. 215+5200 | 6118 |
| SHEET NO. | SHEET DESIGNATION | SUBJECT | | | | |
| 1 | | INDEX & TITLE SHEET | | | | |
| 2 | PD. STD. | STANDARD DIVIDED LANE SECTION FOR FEDERAL AID AND INTERSTATE PROJECTS (REV. 2-1-62) | | | | |
| 3 & 4 | RD. PLAN SHEET NO. 5 & NO. 20 | ROAD PLAN & PROFILE, RD. PROJECT I-70-1(9)4 | | | | |
| 5 | RD. PLAN SHEET NO. 51 | PROFILE & SUPERELEVATION TRANSITION, FRONTAGE RD. NO. 3, RD. PROJECT I-70-1(9)4 | | | | |
| 6 | ONE SHEET | ROAD PLAN & PROFILE LINE "S-5-A" | | | | |
| 7 | ONE SHEET | PROFILE & SUPERELEVATION TRANSITION, ACCESS ROAD PR. NO. 5A | | | | |
| 8 | ONE SHEET | WIDENED R.C. BRIDGE APPROACH DETAILS & BILL OF MATERIALS | | | | |
| 9 | ONE SHEET | TEST BORING DATA | | | | |
| 10 | S (STR. NO. I-70-4-2310) | LAYOUT | | | | |
| 11 | S2 | GENERAL PLAN | | | | |
| 12 | S3 | BENTS NO. 1 & NO. 5 DETAILS & BILL OF MATERIALS | | | | |
| 13 | S4 | PIERS NO. 2 & NO. 4 DETAILS & BILL OF MATERIALS | | | | |
| 14 | S5 | PIER NO. 3 DETAILS & BILL OF MATERIALS | | | | |
| 15 | S6 | FRAMING PLAN | | | | |
| 16 | S7 | STRUCTURAL STEEL DETAILS | | | | |
| 17 | S8 | FLOOR DETAILS | | | | |
| 18 | S9 | FLOOR DETAILS & BILL OF MATERIALS | | | | |
| 19 | S10 | SCREEDS | | | | |

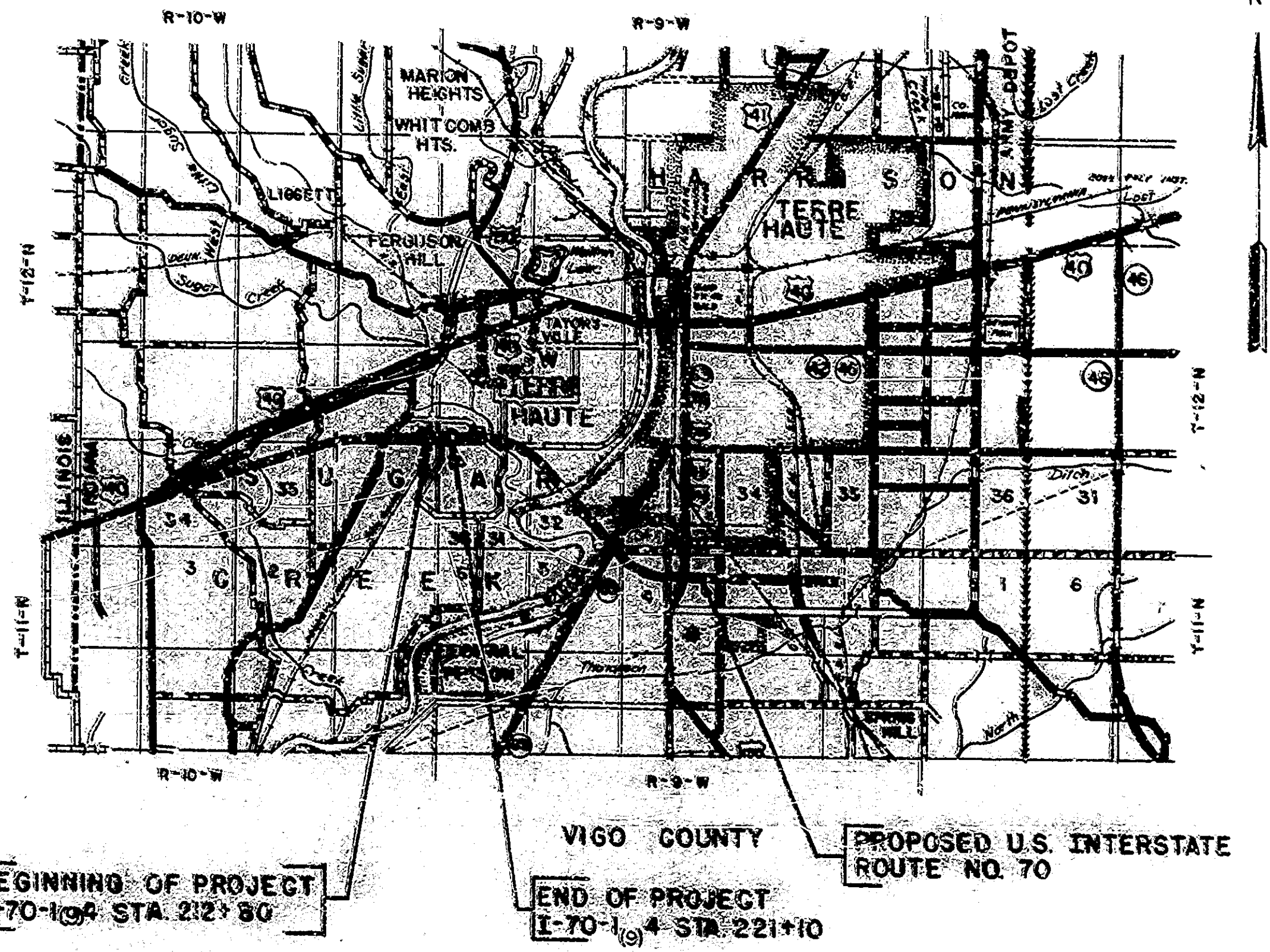
STATE OF INDIANA
STATE HIGHWAY COMMISSION

BRIDGE PLANS
ON

INTERSTATE ROUTE NO. 70 SECTION I
F.A. PROJECT I-70-1(9)4

BEGINNING AT A POINT ON E. APPROXIMATELY 150 FEET NORTH AND 280.6 FEET WEST OF THE S.E. CORNER OF SEC. 25, T-12-N, R-10-W AND EXTENDING EASTERLY A DISTANCE OF 830.0 FEET TO A POINT APPROXIMATELY 105.8 FEET NORTH AND 549.4 FEET EAST OF THE SW CORNER OF SEC. 30, T-12-N, R-9-W, ALL IN VIGO COUNTY.

ROADWAY LENGTH = 0.122 MI.
BRIDGE LENGTH = 0.035 MI.
TOTAL LENGTH = 0.157 MI.
MAXIMUM GRADE = -1.80 %



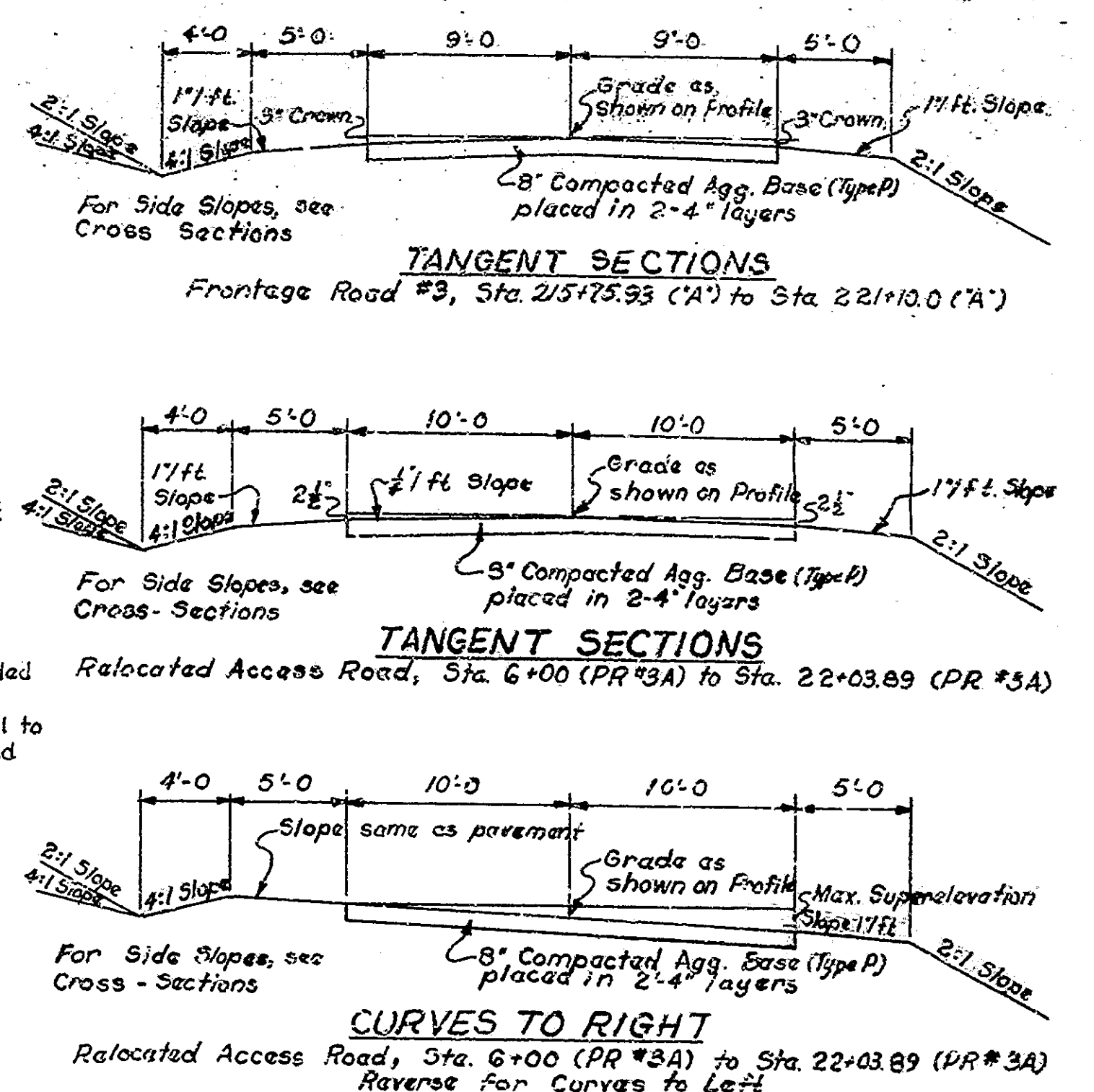
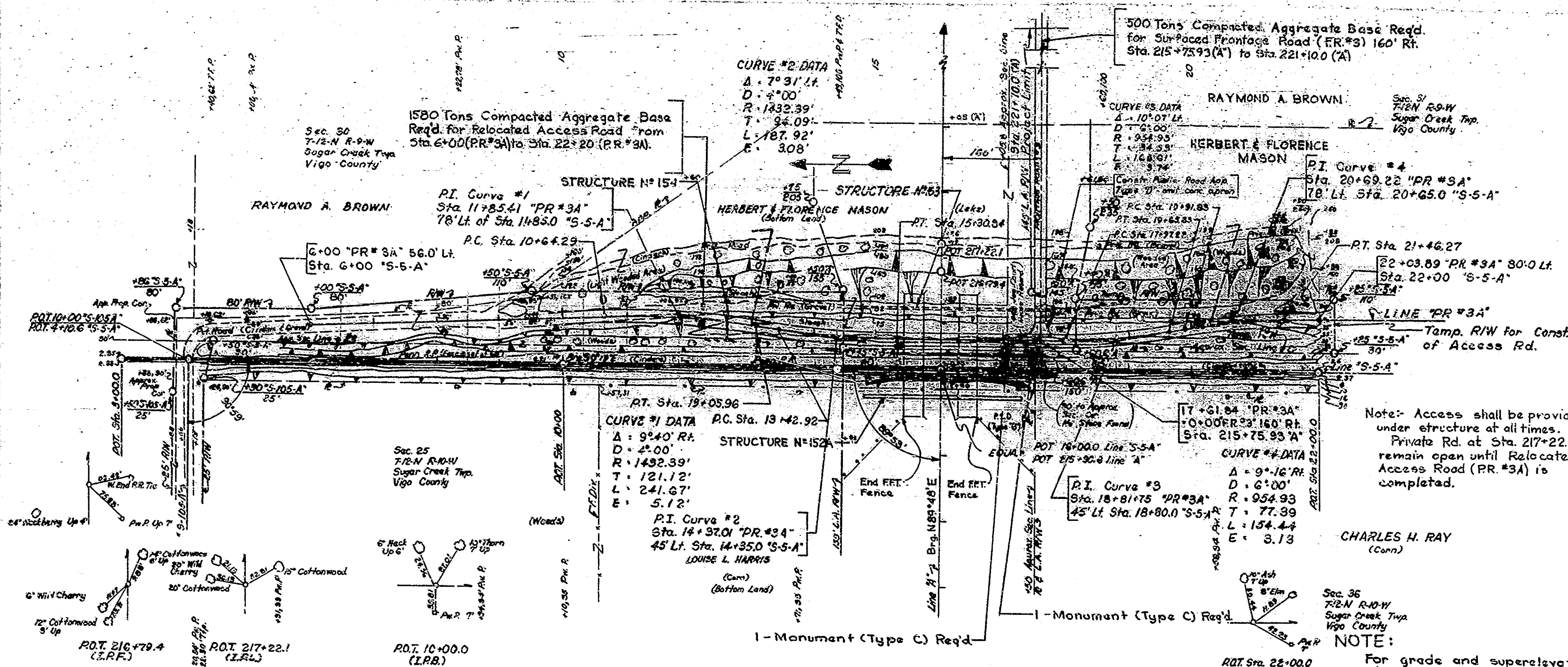
BEGINNING OF PROJECT
I-70-1(9)4 STA. 212+80

END OF PROJECT
I-70-1(9)4 STA. 221+10

PROPOSED U.S. INTERSTATE
ROUTE NO. 70

| BRIDGES OVER 20' SPAN | | | | |
|-----------------------|-------|-------------|-----------|--------------|
| ROAD NO. | STATE | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| 4 | IND. | 1962 | 1 | 45 |

| INDEX CONTINUED STANDARD DRAWINGS | | | | |
|--------------------------------------|-------------------------------------|---|----------|-----------|
| SHEET NO. | SHEET DESIGNATION | SUBJECT | APPROVAL | REVISION |
| 20 | CRS. SHEET | SUMMARY | | |
| 21-22 | NO. 20 PLAN SHEETS NO. 191-192 (20) | CROSS SECTIONS, RD. PROJECT I-70-1(9)4 | | |
| 23-24 | NO. 23 SHEETS | CROSS SECTIONS, LANE "S-5-A" | | |
| 25 | BRIDGE STD. C1 | STANDARD MISCELLANEOUS DETAILS | 6-21-62 | R-3-1-62 |
| 26 | BRIDGE STD. C2 | STANDARD MISCELLANEOUS DETAILS | | |
| 27 | BRIDGE STD. D | CASTING DETAILS ROADWAY DRAINS | | |
| 28 | BRIDGE STD. E | ROADWAY DRAIN OUTLET DETAILS | | |
| 29 | BRIDGE STD. H | TYP. DETAILS OF THICK FAVORABLE ALOC. YOE OF ST. A.E.S. | | |
| 30 | BRIDGE STD. I1 | TYP. DETAILS OF THICK PAVEMENT & LOCATING YOE OF SLOPE | | |
| 31 | BRIDGE STD. M1 | MISCELLANEOUS APPROACH DETAILS | | |
| 32 | BRIDGE STD. M2 | MISCELLANEOUS APPROACH DETAILS | | |
| 33 | BRIDGE STD. M3 | MISCELLANEOUS APPROACH DETAILS | | |
| 34 | BRIDGE STD. M4 | MISCELLANEOUS APPROACH DETAILS | | |
| 35 | BRIDGE STD. M5 | MISCELLANEOUS APPROACH DETAILS | | |
| 36 | BRIDGE STD. M6 | MISCELLANEOUS APPROACH DETAILS | | |
| 37A | BRIDGE STD. M6 | STANDARD CONCRETE PILE DETAILS | 12-4-62 | R-10-3-62 |
| 37B | BRIDGE STD. M6 | STANDARD CONCRETE PILE DETAILS | | |
| 38 | BRIDGE STD. R1A | ALUMINUM RAILING DETAILS | | |
| 39 | BRIDGE STD. R1B | STEEL RAILING DETAILS | | |
| 40 | BRIDGE STD. S1 | TYPICAL DETAILS FOR PAVING GRADE 8" OR GREATER | 3-22-62 | R-2-14-62 |
| 41 | BRIDGE STD. S2 | TYPICAL DETAILS FOR PAVING SPECIAL FILLING MATERIAL | | |
| 42 | BRIDGE STD. T SHEET A | STANDARD TEMPORARY BRIDGE | | |
| 43 | BRIDGE STD. T SHEET B | STANDARD TEMPORARY BRIDGE | | |
| 44 | ROAD STD. SHEET A | STANDARD PAVEMENT JOINTS | | |
| 45 | ROAD STD. SHEET MA | MISCELLANEOUS STANDARDS | 3-5-61 | R-61-64 |
| 46 | ROAD STD. SHEET MB | MISCELLANEOUS STANDARDS | | |
| 47 | ROAD STD. SHEET MC | MISCELLANEOUS STANDARDS | | |
| 48 | ROAD STD. SHEET MD | MISCELLANEOUS STANDARDS | | |
| 49 | ROAD STD. SHEET ME | MISCELLANEOUS STANDARDS | | |
| 50 | ROAD STD. SHEET MF | MISCELLANEOUS STANDARDS | | |
| 51 | ROAD STD. SHEET MG | MISCELLANEOUS STANDARDS | | |
| 52 | ROAD STD. SHEET MH | MISCELLANEOUS STANDARDS | | |
| 53 | ROAD STD. SHEET MI | MISCELLANEOUS STANDARDS | | |
| 54 | ROAD STD. SHEET MJ | MISCELLANEOUS STANDARDS | | |
| 55 | ROAD STD. SHEET MK | MISCELLANEOUS STANDARDS | | |
| 56 | ROAD STD. SHEET ML | MISCELLANEOUS STANDARDS | | |
| 57 | ROAD STD. SHEET MN | MISCELLANEOUS STANDARDS | 5-9-61 | R-411-61 |
| 58 | ROAD STD. SHEET MP | MISCELLANEOUS STANDARDS | | |
| 59 | ROAD STD. SHEET MQ | MISCELLANEOUS STANDARDS | | |
| 60 | ROAD STD. SHEET MR | MISCELLANEOUS STANDARDS | | |
| 61 | ROAD STD. SHEET MS | MISCELLANEOUS STANDARDS | | |
| 62 | ROAD STD. SHEET MT | MISCELLANEOUS STANDARDS | | |
| 63 | ROAD STD. SHEET MU | MISCELLANEOUS STANDARDS | | |
| 64 | ROAD STD. SHEET MV | MISCELLANEOUS STANDARDS | | |
| 65 | ROAD STD. SHEET MW | MISCELLANEOUS STANDARDS | | |
| 66 | ROAD STD. SHEET MX | MISCELLANEOUS STANDARDS | | |
| 67 | ROAD STD. SHEET MY | MISCELLANEOUS STANDARDS | | |
| 68 | ROAD STD. SHEET MZ | MISCELLANEOUS STANDARDS | | |
| 69 | ROAD STD. SHEET NA | MISCELLANEOUS STANDARDS | | |
| 70 | ROAD STD. SHEET NB | MISCELLANEOUS STANDARDS | | |
| 71 | ROAD STD. SHEET NC | MISCELLANEOUS STANDARDS | | |
| 72 | ROAD STD. SHEET ND | MISCELLANEOUS STANDARDS | | |
| 73 | ROAD STD. SHEET NE | MISCELLANEOUS STANDARDS | | |
| 74 | ROAD STD. SHEET NF | MISCELLANEOUS STANDARDS | | |
| 75 | ROAD STD. SHEET NG | MISCELLANEOUS STANDARDS | | |
| 76 | ROAD STD. SHEET NH | MISCELLANEOUS STANDARDS | | |
| 77 | ROAD STD. SHEET NI | MISCELLANEOUS STANDARDS | | |
| 78 | ROAD STD. SHEET NJ | MISCELLANEOUS STANDARDS | | |
| 79 | ROAD STD. SHEET NK | MISCELLANEOUS STANDARDS | | |
| 80 | ROAD STD. SHEET NL | MISCELLANEOUS STANDARDS | | |
| 81 | ROAD STD. SHEET NM | MISCELLANEOUS STANDARDS | | |
| 82 | ROAD STD. SHEET NN | MISCELLANEOUS STANDARDS | | |
| 83 | ROAD STD. SHEET NO | MISCELLANEOUS STANDARDS | | |
| 84 | ROAD STD. SHEET NP | MISCELLANEOUS STANDARDS | | |
| 85 | ROAD STD. SHEET NQ | MISCELLANEOUS STANDARDS | | |
| 86 | ROAD STD. SHEET NR | MISCELLANEOUS STANDARDS | | |
| 87 | ROAD STD. SHEET NS | MISCELLANEOUS STANDARDS | | |
| 88 | ROAD STD. SHEET NT | MISCELLANEOUS STANDARDS | | |
| 89 | ROAD STD. SHEET NU | MISCELLANEOUS STANDARDS | | |
| 90 | ROAD STD. SHEET NV | MISCELLANEOUS STANDARDS | | |
| 91 | ROAD STD. SHEET NW | MISCELLANEOUS STANDARDS | | |
| 92 | ROAD STD. SHEET NX | MISCELLANEOUS STANDARDS | | |
| 93 | ROAD STD. SHEET NY | MISCELLANEOUS STANDARDS | | |
| 94 | ROAD STD. SHEET NZ | MISCELLANEOUS STANDARDS | | |
| 95 | ROAD STD. SHEET OA | MISCELLANEOUS STANDARDS | | |
| 96 | ROAD STD. SHEET OB | MISCELLANEOUS STANDARDS | | |
| 97 | ROAD STD. SHEET OC | MISCELLANEOUS STANDARDS | | |
| 98 | ROAD STD. SHEET OD | MISCELLANEOUS STANDARDS | | |
| 99 | ROAD STD. SHEET OE | MISCELLANEOUS STANDARDS | | |
| 100 | ROAD STD. SHEET OF | MISCELLANEOUS STANDARDS | | |
| 101 | ROAD STD. SHEET OG | MISCELLANEOUS STANDARDS | | |
| 102 | ROAD STD. SHEET OH | MISCELLANEOUS STANDARDS | | |
| 103 | ROAD STD. SHEET OI | MISCELLANEOUS STANDARDS | | |
| 104 | ROAD STD. SHEET OJ | MISCELLANEOUS STANDARDS | | |
| 105 | ROAD STD. SHEET OK | MISCELLANEOUS STANDARDS | | |
| 106 | ROAD STD. SHEET OL | MISCELLANEOUS STANDARDS | | |
| 107 | ROAD STD. SHEET OM | MISCELLANEOUS STANDARDS | | |
| 108 | ROAD STD. SHEET ON | MISCELLANEOUS STANDARDS | | |
| 109 | ROAD STD. SHEET OO | MISCELLANEOUS STANDARDS | | |
| 110 | ROAD STD. SHEET OP | MISCELLANEOUS STANDARDS | | |
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| 112 | ROAD STD. SHEET OR | MISCELLANEOUS STANDARDS | | |
| 113 | ROAD STD. SHEET OS | MISCELLANEOUS STANDARDS | | |
| 114 | ROAD STD. SHEET OT | MISCELLANEOUS STANDARDS | | |
| 115 | ROAD STD. SHEET OU | MISCELLANEOUS STANDARDS | | |
| 116 | ROAD STD. SHEET OV | MISCELLANEOUS STANDARDS | | |
| 117 | ROAD STD. SHEET OW | MISCELLANEOUS STANDARDS | | |
| 118 | ROAD STD. SHEET OX | MISCELLANEOUS STANDARDS | | |
| 119 | ROAD STD. SHEET OY | MISCELLANEOUS STANDARDS | | |
| 120 | ROAD STD. SHEET OZ | MISCELLANEOUS STANDARDS | | |
| 121 | ROAD STD. SHEET PA | MISCELLANEOUS STANDARDS | | |
| 122 | ROAD STD. SHEET PB | MISCELLANEOUS STANDARDS | | |
| 123 | ROAD STD. SHEET PC | MISCELLANEOUS STANDARDS | | |
| 124 | ROAD STD. SHEET PD | MISCELLANEOUS STANDARDS | | |
| 125 | ROAD STD. SHEET PE | MISCELLANEOUS STANDARDS | | |
| 126 | ROAD STD. SHEET PF | MISCELLANEOUS STANDARDS | | |
| 127 | ROAD STD. SHEET PG | MISCELLANEOUS STANDARDS | | |
| 128 | ROAD STD. SHEET PH | MISCELLANEOUS STANDARDS | | |
| 129 | ROAD STD. SHEET PI | MISCELLANEOUS STANDARDS | | |
| 130 | ROAD STD. SHEET PJ | MISCELLANEOUS STANDARDS | | |
| 131 | ROAD STD. SHEET PK | MISCELLANEOUS STANDARDS | | |
| 132 | ROAD STD. SHEET PL | MISCELLANEOUS STANDARDS | | |
| 133 | ROAD STD. SHEET PM | MISCELLANEOUS STANDARDS | | |
| 134 | ROAD STD. SHEET PN | MISCELLANEOUS STANDARDS | | |
| 135 | ROAD STD. SHEET PO | MISCELLANEOUS STANDARDS | | |
| 136 | ROAD STD. SHEET PP | MISCELLANEOUS STANDARDS | | |
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| 144 | ROAD STD. SHEET PX | MISCELLANEOUS STANDARDS | | |
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| 150 | ROAD STD. SHEET QD | MISCELLANEOUS STANDARDS | | |
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| 168 | ROAD STD. SHEET QV | MISCELLANEOUS STANDARDS | | |
| 169 | ROAD STD. SHEET QW | MISCELLANEOUS STANDARDS | | |
| 170 | ROAD STD. SHEET QX | MISCELLANEOUS STANDARDS | | |
| 171 | ROAD STD. SHEET QY | MISCELLANEOUS STANDARDS | | |
| 172 | ROAD STD. SHEET QZ | MISCELLANEOUS STANDARDS | | |
| 173 | ROAD STD. SHEET RA | MISCELLANEOUS STANDARDS | | |
| 174 | ROAD STD. SHEET RB | MISCELLANEOUS STANDARDS | | |
| 175 | ROAD STD. SHEET RC | MISCELLANEOUS STANDARDS | | |
| 176 | ROAD STD. SHEET RD | MISCELLANEOUS STANDARDS | | |
| 177 | ROAD STD. SHEET RE | MISCELLANEOUS STANDARDS | | |
| 178 | ROAD STD. SHEET RF | MISCELLANEOUS STANDARDS | | |
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| 180 | ROAD STD. SHEET RH | MISCELLANEOUS STANDARDS | | |
| 181 | ROAD STD. SHEET RI | MISCELLANEOUS STANDARDS | | |
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| 183 | ROAD STD. SHEET RK | MISCELLANEOUS STANDARDS | | |
| 184 | ROAD STD. SHEET RL | MISCELLANEOUS STANDARDS | | |
| 185 | ROAD STD. SHEET RM | MISCELLANEOUS STANDARDS | | |
| 186 | ROAD STD. SHEET RN | MISCELLANEOUS STANDARDS | | |
| 187 | ROAD STD. SHEET RO | MISCELLANEOUS STANDARDS | | |
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| 189 | ROAD STD. SHEET RQ | MISCELLANEOUS STANDARDS | | |
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| 195 | ROAD STD. SHEET RW | MISCELLANEOUS STANDARDS | | |
| 196 | ROAD STD. SHEET RX | MISCELLANEOUS STANDARDS | | |
| 197 | ROAD STD. SHEET RY | MISCELLANEOUS STANDARDS | | |
| 198 | ROAD STD. SHEET RZ | MISCELLANEOUS STANDARDS | | |
| 199 | ROAD STD. SHEET SA | MISCELLANEOUS STANDARDS | | |
| 200 | ROAD STD. SHEET SB | MISCELLANEOUS STANDARDS | | |
| 201 | ROAD STD. SHEET SC | MISCELLANEOUS STANDARDS | | |
| 202 | ROAD STD. SHEET SD | MISCELLANEOUS STANDARDS | | |
| 203 | ROAD STD. SHEET SE | MISCELLANEOUS STANDARDS | | |
| 204 | ROAD STD. SHEET SF | MISCELLANEOUS STANDARDS | | |
| 205 | ROAD STD. SHEET SG | MISCELLANEOUS STANDARDS | | |
| 206 | ROAD STD. SHEET SH | MISCELLANEOUS STANDARDS | | |
| 207 | ROAD STD. SHEET SI | MISCELLANEOUS STANDARDS | | |
| 208 | ROAD STD. SHEET SJ | MISCELLANEOUS STANDARDS | | |
| 209 | ROAD STD. SHEET SK | MISCELLANEOUS STANDARDS | | |
| 210 | ROAD STD. SHEET SL | MISCELLANEOUS STANDARDS | | |
| 211 | ROAD STD. SHEET SM | MISCELLANEOUS STANDARDS | | |
| 212 | ROAD STD. SHEET SN | MISCELLANEOUS STANDARDS | | |
| 213 | ROAD STD. SHEET SO | MISCELLANEOUS STANDARDS | | |
| 214 | ROAD STD. SHEET SP | MISCELLANEOUS STANDARDS | | |
| 215 | ROAD STD. SHEET SQ | MISCELLANEOUS STANDARDS | | |
| 216 | ROAD STD. SHEET SR | MISCELLANEOUS STANDARDS | | |
| 217 | ROAD STD. SHEET SS | MISCELLANEOUS STANDARDS | | |
| 218 | | | | |

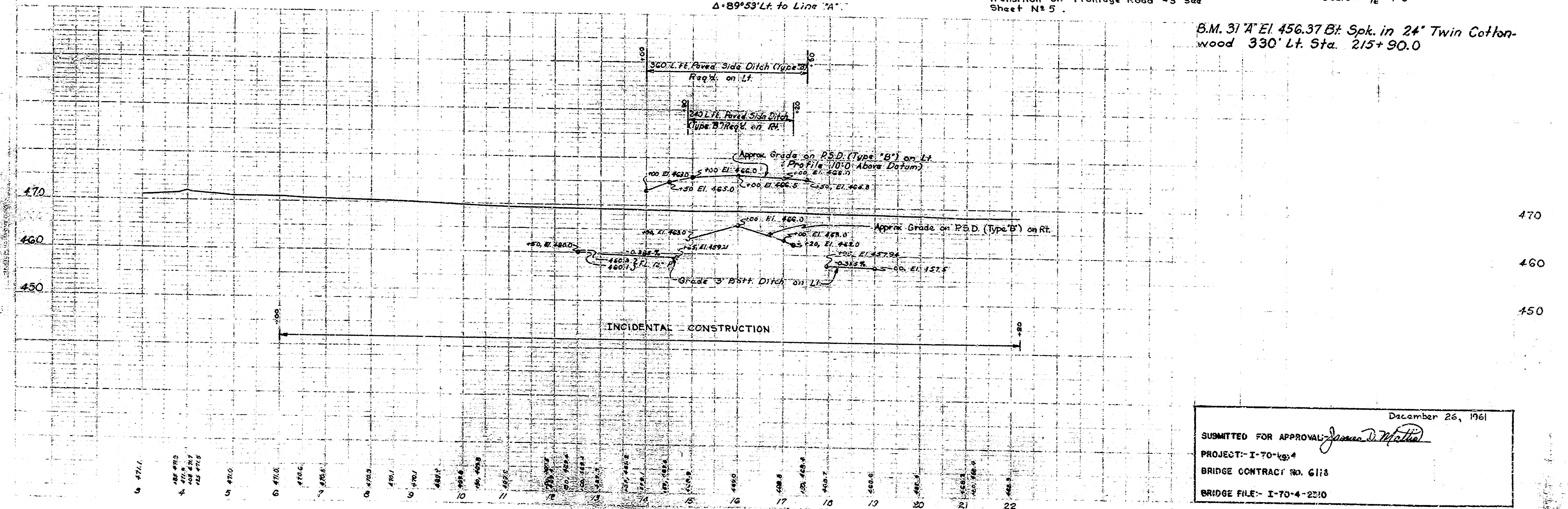


Note: Access shall be provided under structure at all times. Private Rd. at Sta. 217+22.1 to remain open until Relocated Access Road (PR #3A) is completed.

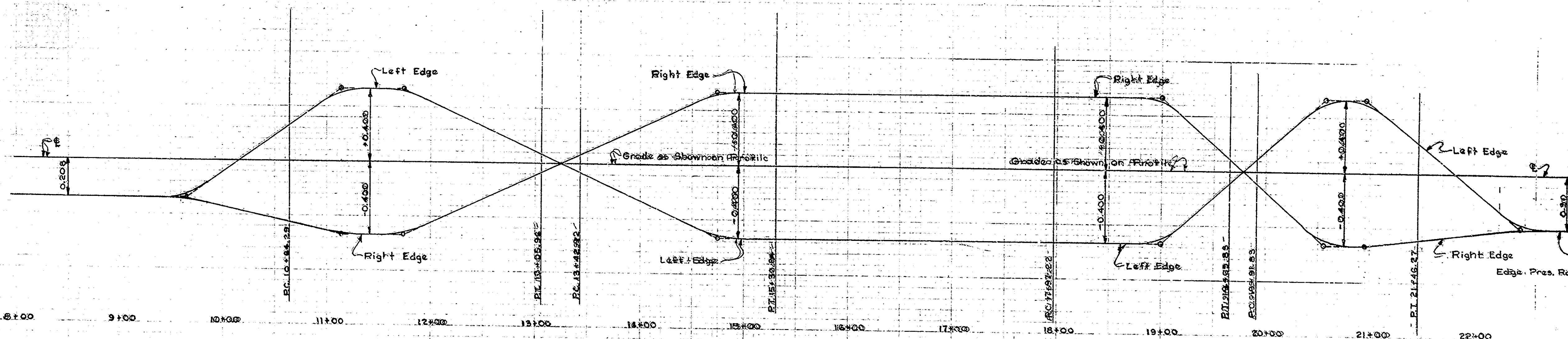
TYPICAL CROSS - SECTIONS
Scale: 1/8" = 1'-0"

P.O.T. 16+00.0 Line "S-S-A" (P.K.N) in RR Tie
EQUATION - P.O.T. 215+30.6 Line "A"
Delta 89°53' Lt. to Line "A"

B.M. 31' A' El. 456.37 Bt. Spk. in 24' Twin Cottonwood 330' Lt. Sta. 215+90.0

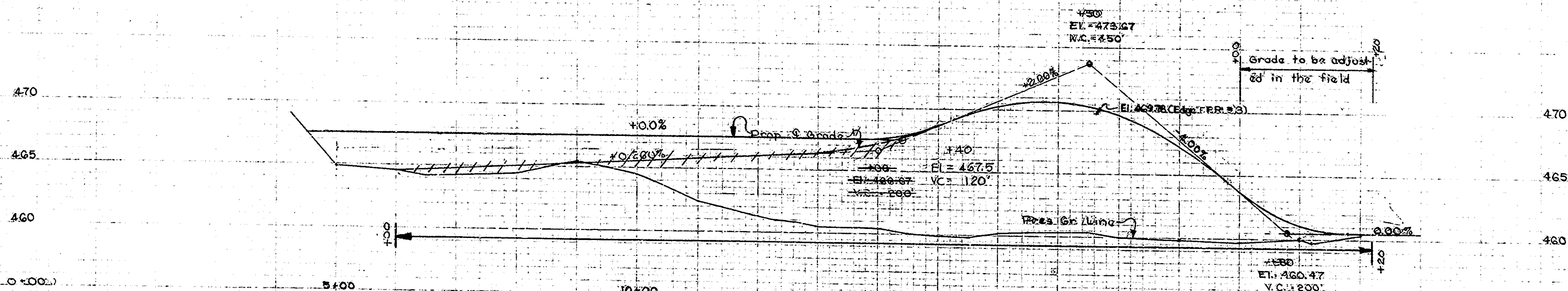


December 26, 1961
SUBMITTED FOR APPROVAL: *James D. Martin*
PROJECT: I-70-4-2210
BRIDGE CONTRACT NO. 6118
BRIDGE FILE: I-70-4-2210



SUPERELEVATION TRANSITION FOR 4° CURVES & 6° CURVES ON LINE "PR#3A"

SCALE: HORIZ. 1" = 50'
VERT. 1" = 0.3'



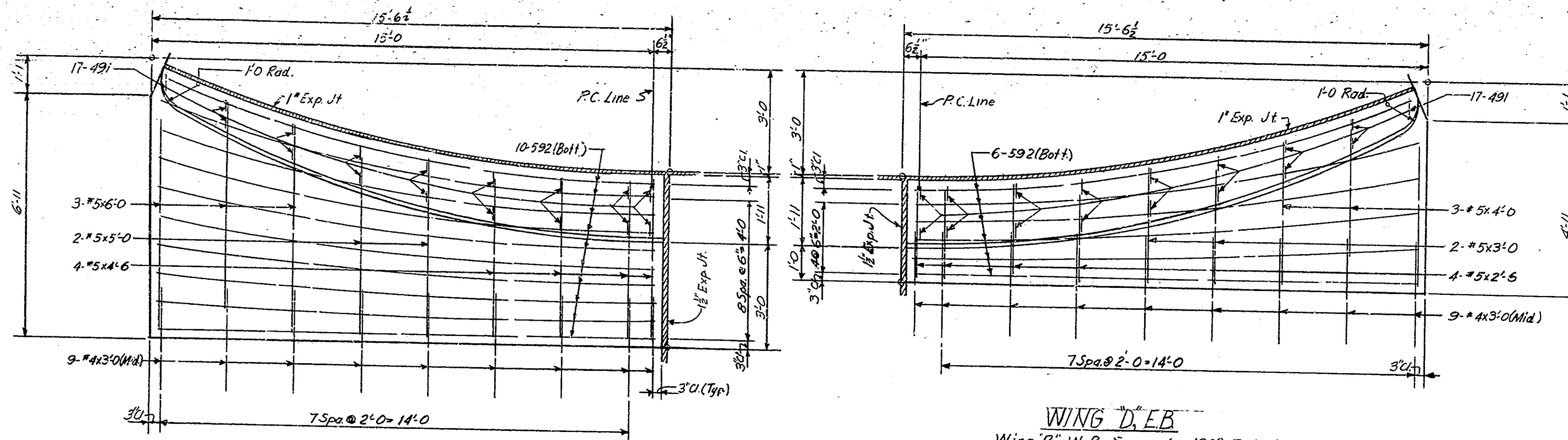
PROFILE ON LINE "PR#3A" (PAPER RELOCATION)

**PROFILE & SUPERELEVATION TRANSITION
RELOCATED ACCESS ROAD "PR#3A"**

Rev. 7-28-62 Prof. Gr.

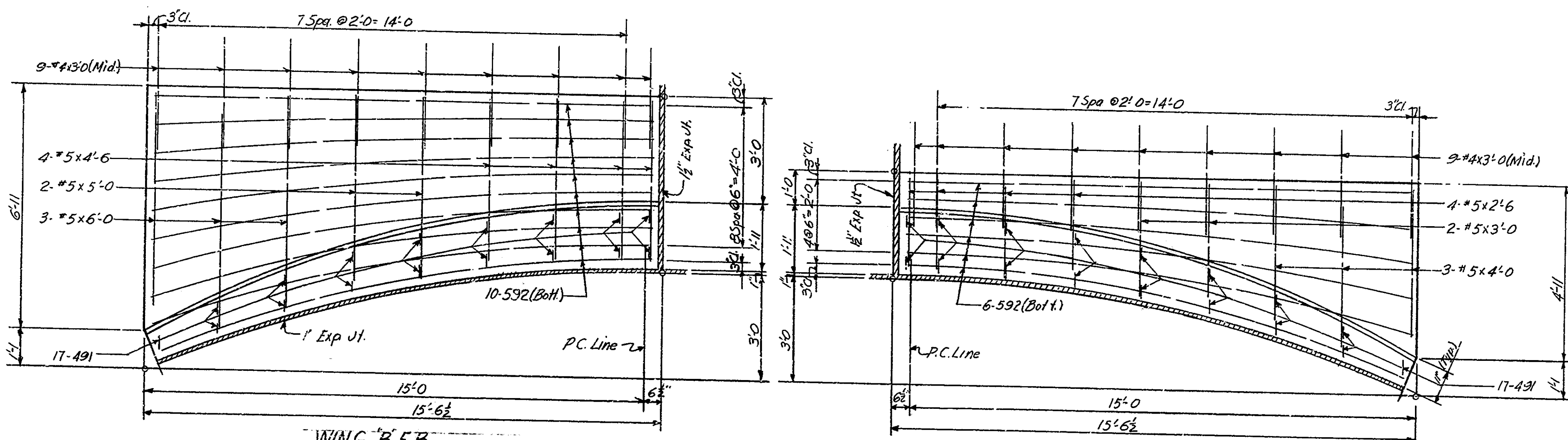
James D. Mattie December 26, 1961

| BRIDGES OVER 20' SPAN | | | | | |
|-----------------------|-------|---------------|--------|-------|--------|
| PUB. ROAD | STATE | PROJECT | FISCAL | SHEET | TOTAL |
| NO. | | NO. | YEAR | NO. | SHEETS |
| 4 | IND. | 70-1 (9) 4 | 1962 | 8 | 25 |



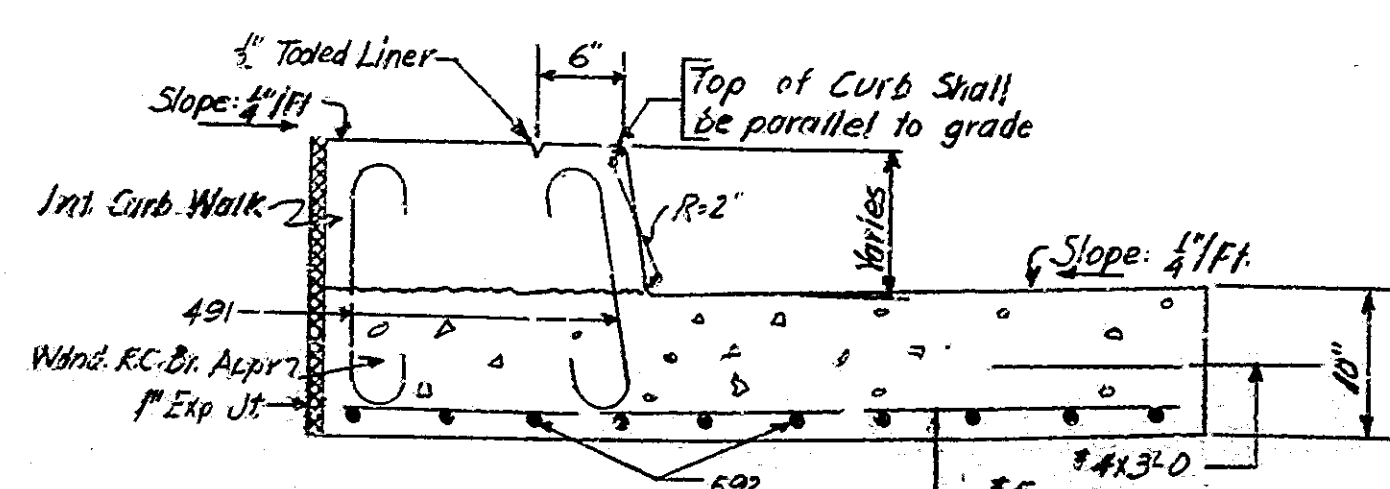
WING A, E.B.
Wing C; W. B. Same by 180° Rotation

WING D, E.B.
Wing B; W. B. Same by 180° Rotation

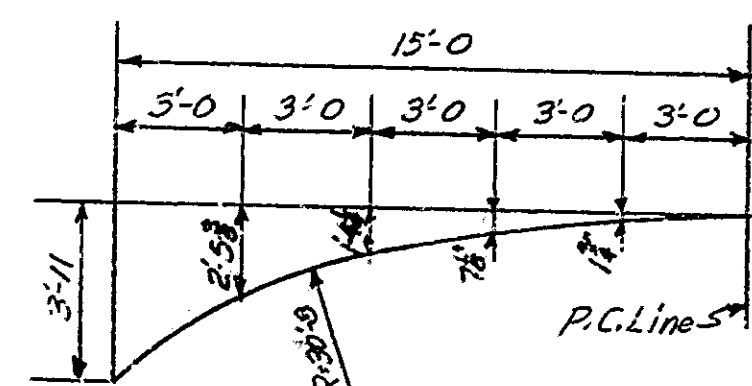


WING B, E.B.
Wing D; W. B. Same by 180° Rotation

WING C, E.B.
Wing A; W. B. Same by 180° Rotation

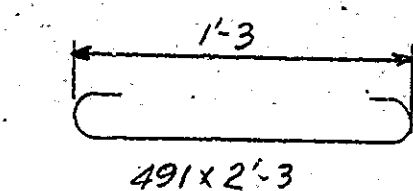


TYPICAL SECTION THRU WINGS
Scale: 1"=1'-0"



OFFSETS TO INTEGRAL CURB WALK GUTTER LINE
Not To Scale

NOTES:
For Reinforcing Bar Notes See Br. Std. "C"
For Standard R.C. Bridge Approach Details See Br. Std. "M3"



| Mark | Length |
|------|--------|
| 591 | 20'-0" |
| 592 | 20'-7" |
| 593 | 15'-0" |

***BILL OF MATERIALS**
WIDENED R.C. BRIDGE APP. &
R.C. BRIDGE APP.-E.B. LANE
(W.B. LANE SAME)

| REINFORCING STEEL | | | |
|---------------------|--------|--------|--------|
| Size | No. of | Length | Weight |
| Mark | Bars | | |
| 591 | 104 | 20'-7" | |
| 592 | 32 | 18'-7" | |
| #5 | 11 | 27'-6" | |
| #5 | 11 | 23'-6" | |
| #5 | 6 | 6'-0" | |
| #5 | 4 | 5'-0" | |
| #5 | 8 | 4'-6" | |
| #5 | 6 | 4'-0" | |
| #5 | 4 | 3'-0" | |
| #5 | 8 | 2'-6" | |
| Total #5 = 3492' | | | |
| 491 | 66 | 2'-3" | |
| #4 | 36 | 3'-0" | |
| Total #4 = 172' | | | |
| Total Steel = 3666' | | | |

| CONCRETE | |
|--------------------------|----------|
| 10' R.C. Pavement | 152.6 cu |
| Class F (Int. Curb Walk) | 3.00 cu |
| MISCELLANEOUS | |
| 1' Exp. Jt. | 60.5 LF |
| 1 1/2' Exp. Jt. | 67.7 LF |

* Not included in the Bridge Contract.

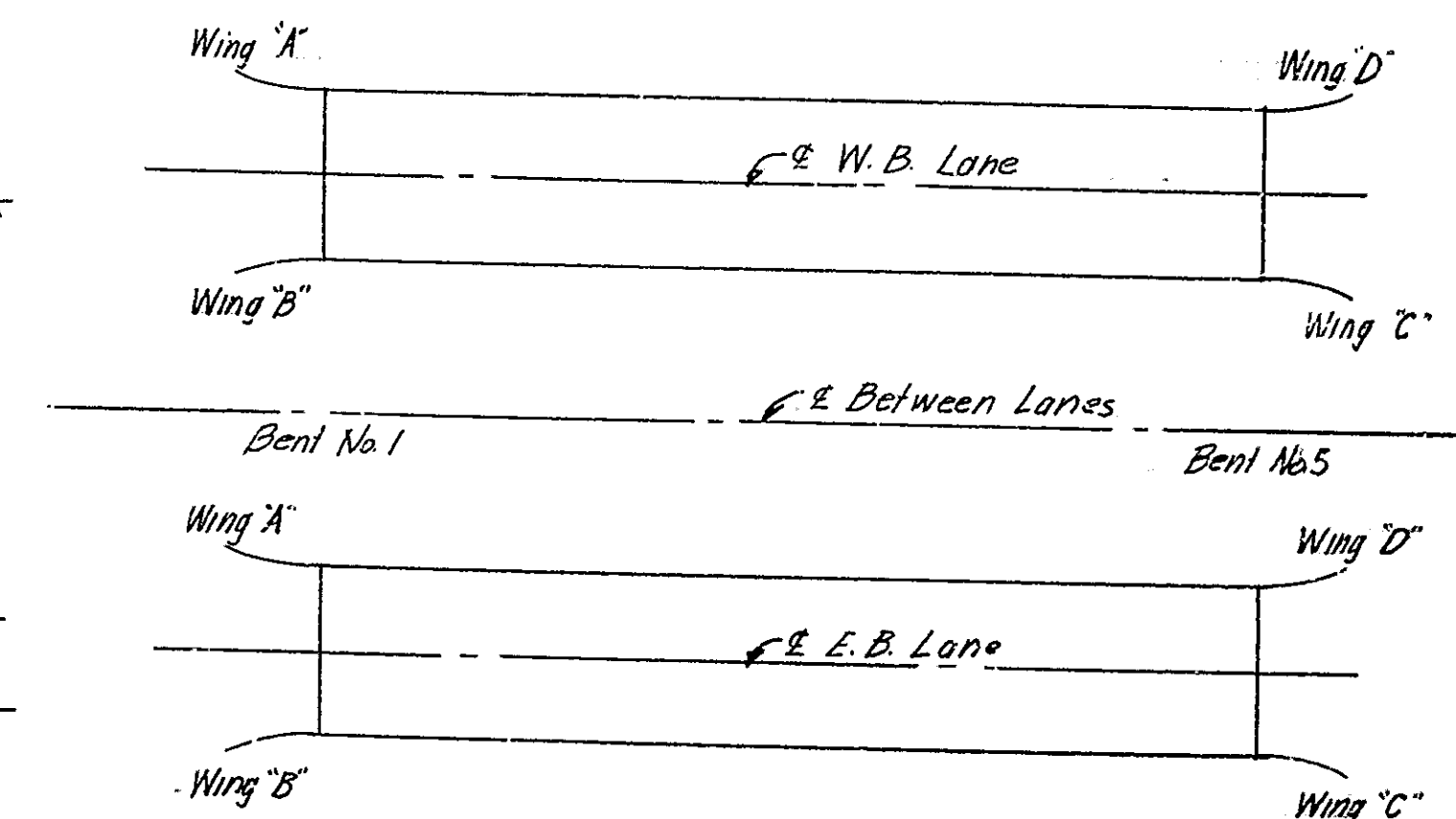


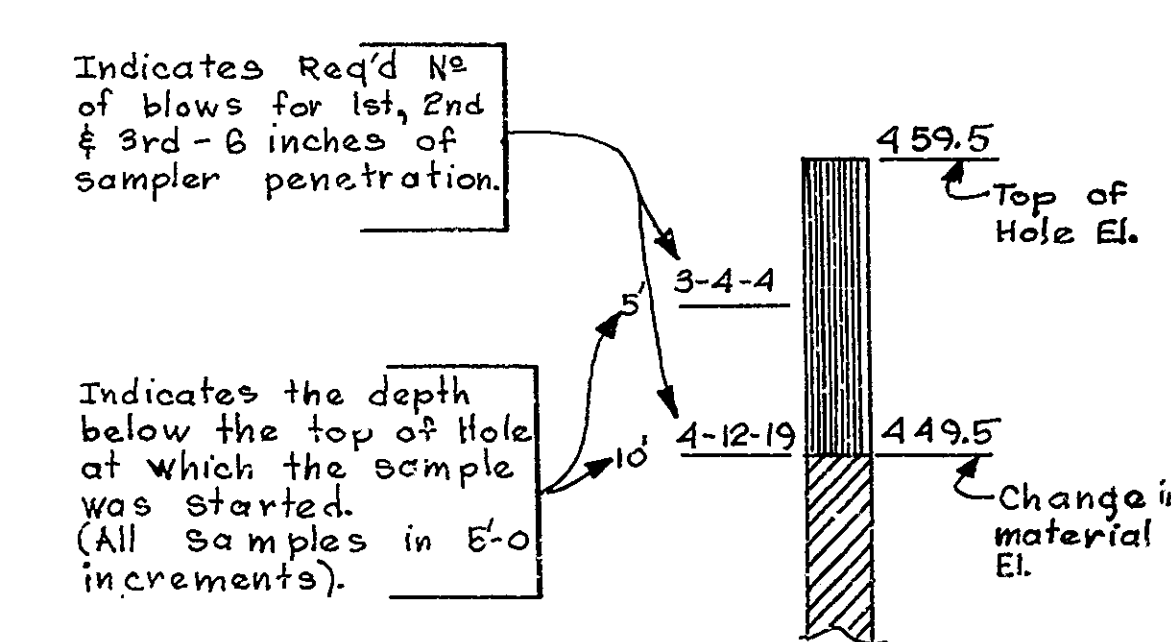
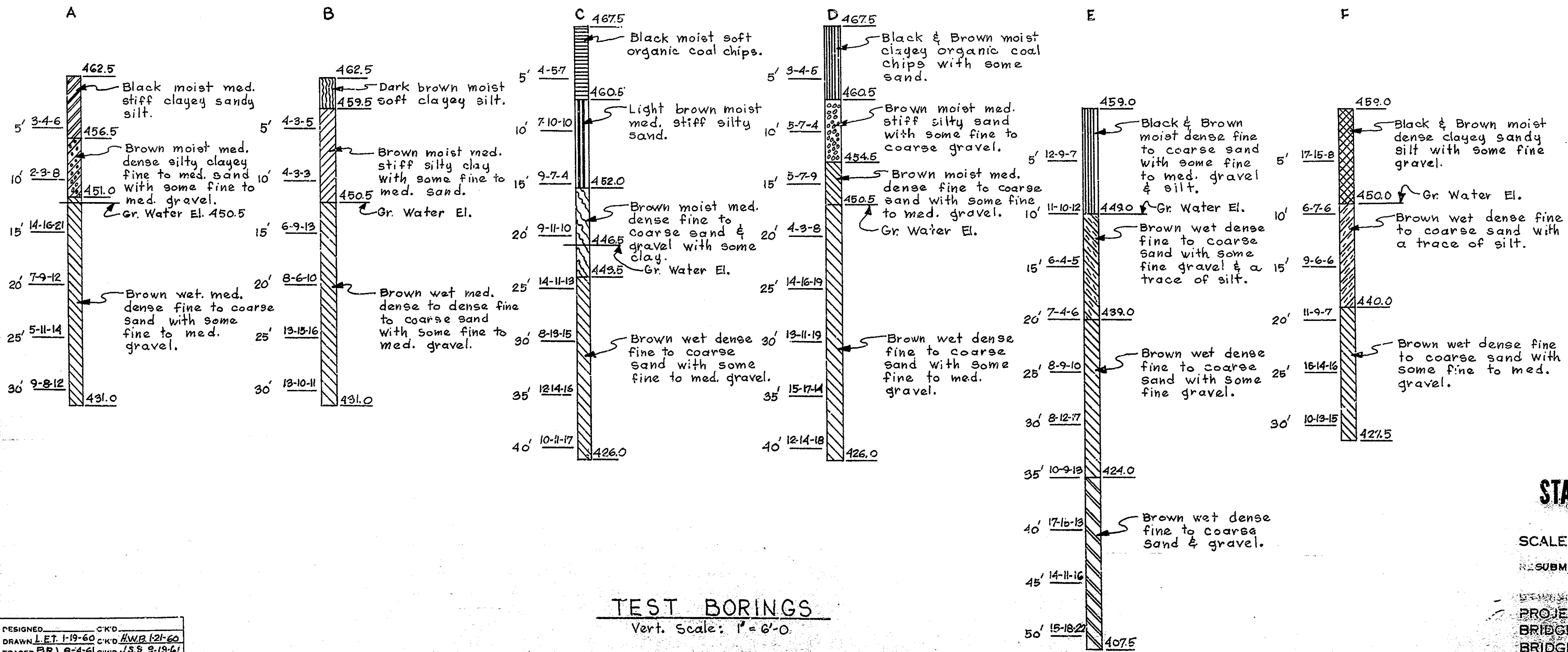
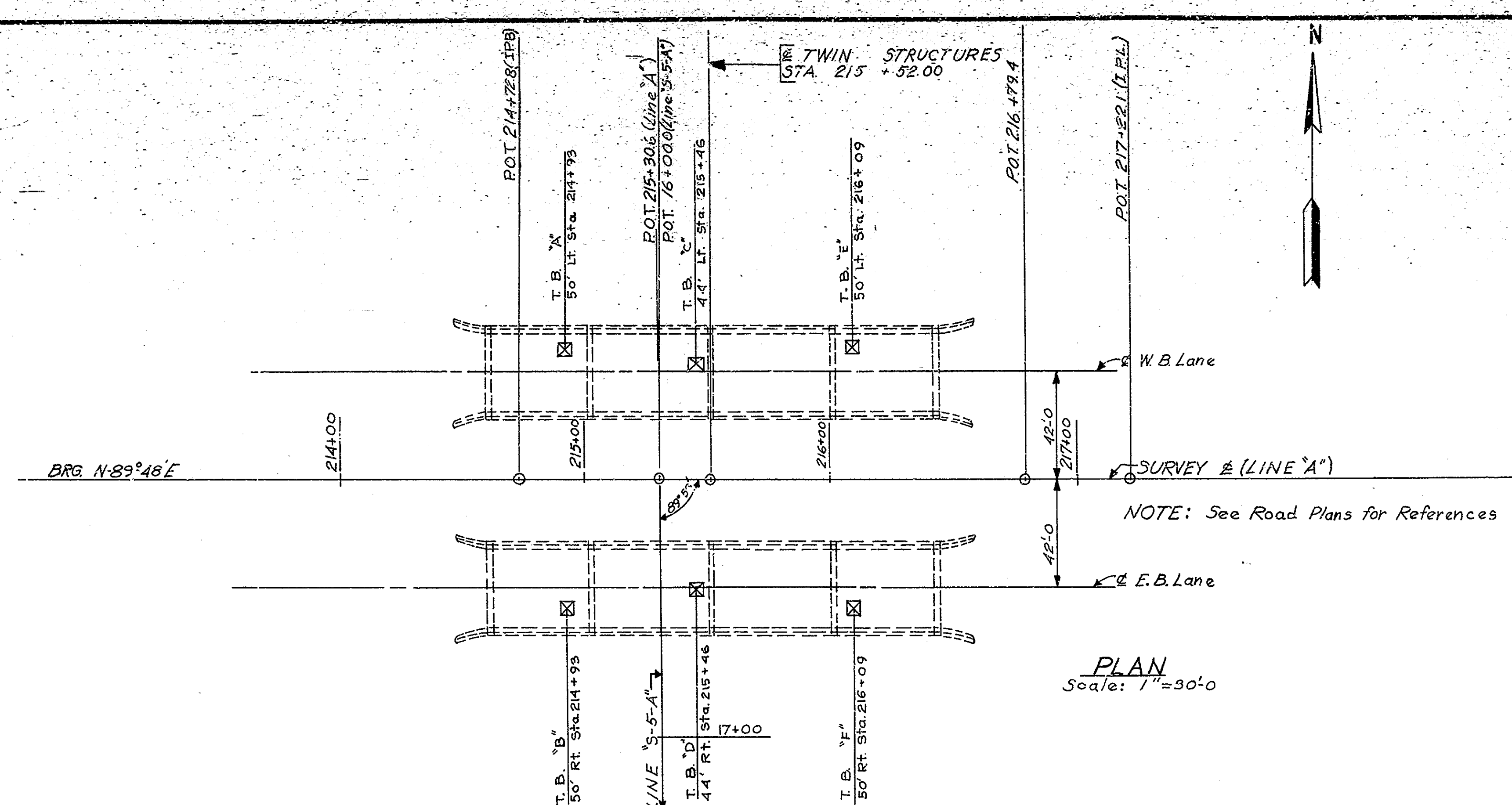
DIAGRAM SHOWING LOCATION OF WINGS
Not to Scale

WIDENED R.C. BRIDGE APPROACH DETAILS & BILL OF MATERIALS
STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE: 1/2" = 1'-0" Unless Noted
SUBMITTED FOR APPROVAL: *James D. Waller* December 26, 1961

PROJECT: 70-1 (9) 4
BRIDGE CONTRACT NO. 6118
BRIDGE FILE: 70-4-2310

| BRIDGES OVER 20' SPAN | | | | | |
|-----------------------|-------|-------------|-------------|-----------|--------------|
| PUB. ROAD REG. NO. | STATE | PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| 4 | IND. | I-70-1(9)4 | 1962 | 9 | 45 |



KEY TO TEST BORING DATA

TEST BORING DATA

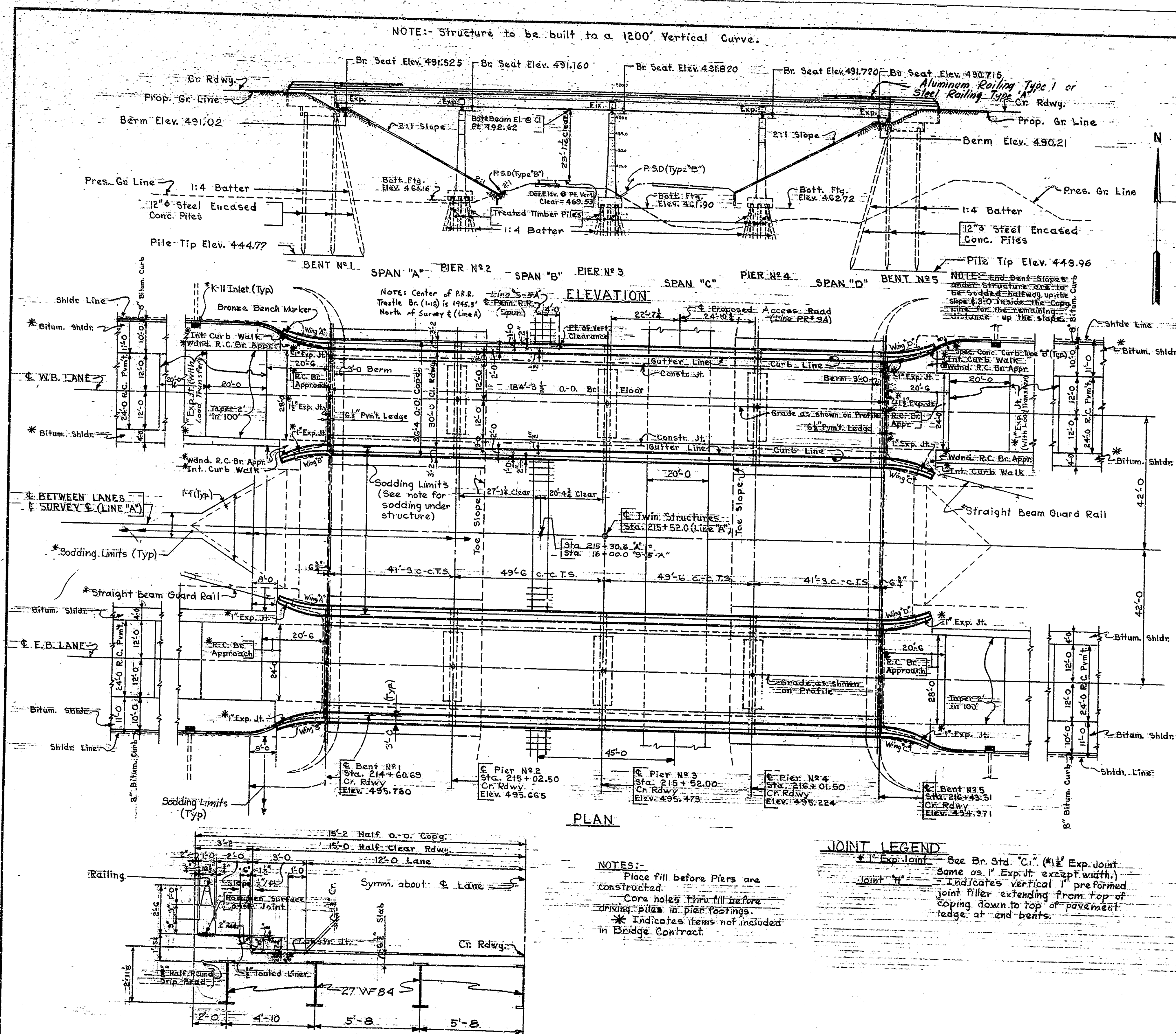
STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE: As Noted December 26, 1961

SUBMITTED FOR APPROVAL: *James D. Mattie*

PROJECT: I-70-1(9)4
BRIDGE CONTRACT NO. 6118
BRIDGE FILE: I-70-4-2310

DESIGNED: J.E.T. 1-19-60 C.W.D. H.N.B. 12-60
DRAWN: J.E.T. 1-19-60 C.W.D. H.N.B. 12-60
TRACES: B.R.J. 8-4-61 C.W.D. J.S.S. 9-18-61



NOTE: Structure to be built to a 1200' Vertical Curve.

| BRIDGES OVER 20' SPAN | | | | | |
|-----------------------|-------|-------------|------|-----------|--------------|
| RD. NO. | STATE | PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
| 4 | IND. | I-70-4 | 1962 | 11 | 45 |

DESIGN DATA:

Designed for H20-S16-44 loading in accordance with 1961 A.A.S.H.O. specifications and main carrying members checked for special loading which consists of 2-24,000 axle loads spaced 4'-0" apart.

TYPICAL CROSS SECTIONS:-

For Typical Cross Section see State Highway Dept. of Indiana Standard Divided Lane Section for Federal Aid Interstate Projects (Rev. 2-1-64) Sheet No. 2.
For Typical Section on Proposed Access Road see Sheet No. 6.

GENERAL NOTES:-

- No present structure at proposed bridge site.
- Depth of footings to be extended if found necessary. See Art. B 403.2(a) of the specifications.
- Piles to have minimum bearing value shown on detail drawings. Determine pile lengths by Art. F 103 and F 203 of the specifications.
- For details of steel encased concrete piles, see Bridge Std. 'C' and applicable articles in specifications.
- Piles shall be driven to elevation shown on plans or below if necessary to obtain desired bearing.
- Reinforcing steel covering shall be 1/2" in top & 1" in bottom of floor slabs, 3" in fgs. except bottom steel which shall be 4" and 2" in all other parts unless noted.
- Concrete in footings and pier stems to construction joint at top of stem to be class 'E'.
- Concrete in superstructure, including railings, bent caps and tops of piers, above construction joint at top of stem to be class 'F'.
- Concrete in steel encased concrete piles, paved side ditches, concrete curbs, and headwalls, to be class 'D'.
- Continuous concrete pours shall be required between construction joints as shown on detail plans.
- The back of the midwalls and wingwalls shall be water-proofed in accordance with the specifications.
- Bevel forms under copings and chamfer exposed edges 1" unless noted.
- Tolerance in position of pile head 2" maximum at end bents.
- Three 1" Expansion Joints with Load Transfer to be placed in approach pavement. See Bridge Std. 'M3'.
- All railings to be constructed perpendicular to grade.
- See special provisions for items included in this contract.

| STANDARD DRAWINGS | | PURPOSE |
|-------------------|---|---|
| BR-STD | RD-STD | |
| C1 | | Reinforcing Bar Notes; Test Bar Samples; Bar Bending Details; Splicing pile shells in field; Notch in end of Beams; |
| M5 | | Concrete Slope-wall |
| S1 | | Grade 'B' Special Borrow |
| R1-B | | Steel Railing Type 'A' |
| R1-A | | Aluminum Railing (Type 1) |
| | STD. DIVIDED LANE SECTION FOR FEDERAL AID INTERSTATE PROJECTS | Typical Cross Section on Interstate Route. |
| | MA | Pavement Offsets; Monuments (Type C) |
| | MP1 | Pipe Gages |
| | M-E | Pipe Culvert Headwall; Concrete Curb (Type B); Paved Side Ditch (Type B) |
| | M-N | Back fill for Structures; Subsurface Drains |
| | M-P | Surface; Subsurface drainage pipes |
| | SHEET 1 DETOURS | Standard Detour Sign |
| | SHEET 2 DETOURS | Standard Detour Sign |
| | SHEET 3 DETOURS | Standard Detour Sign |
| | SHEET 3A DETOURS | Standard Detour Sign |
| | SHEET 1 | Construction Identification Sign |

GENERAL PLAN
TWIN STRUCTURES
CONTINUOUS STEEL BEAM BRIDGES
 4 SPANS: 41'-3", 49'-6", 49'-6", 41'-3" 30' RDWY. 2@2'-0" WALKS
 OVER PENN. R.R. (SPUR) & ACCESS RD. ON INTERSTATE ROUTE I-70
STATE HIGHWAY DEPARTMENT OF INDIANA
 VIGO COUNTY

SCALE: 1/8" = 1'-0" Unless Noted December 26, 1961
 SUBMITTED FOR APPROVAL: *James D. Mather*

DESIGNED: S 20F-10
 DRAWN: I-70-1(9) 4
 BRIDGE CONTRACT NO. 6118
 BRIDGE FILE: I-70-4-2310

NOTES:-
 Place fill before piers are constructed.
 Core holes thru fill before driving piles in pier footings.
 * Indicates items not included in Bridge Contract.

JOINT LEGEND
 * 1" Exp. Joint See Br. Std. 'C1' (#1" Exp. Joint same as 1" Exp. Joint except width.)
 Joint " " Indicates vertical 1" preformed joint filler extending from top of coping down to top of pavement ledge at end bents.

DESIGNED: CKD
 DRAWN: L.T. B. & C. CKD
 TRACED: CKD

Rev. 4-10-64 Slope, null. Notes
 Rev. 6-7-62 Vert. Clearance

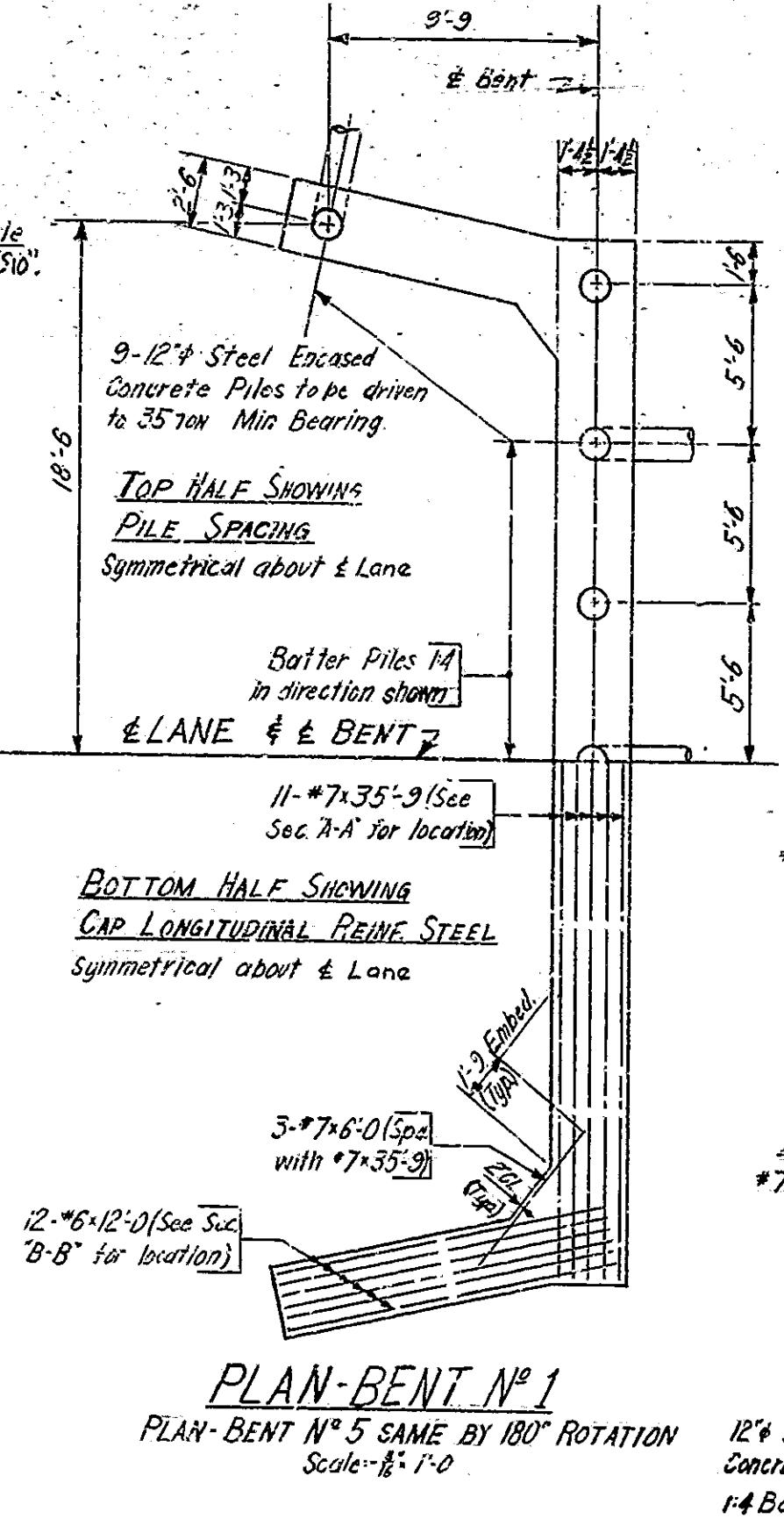
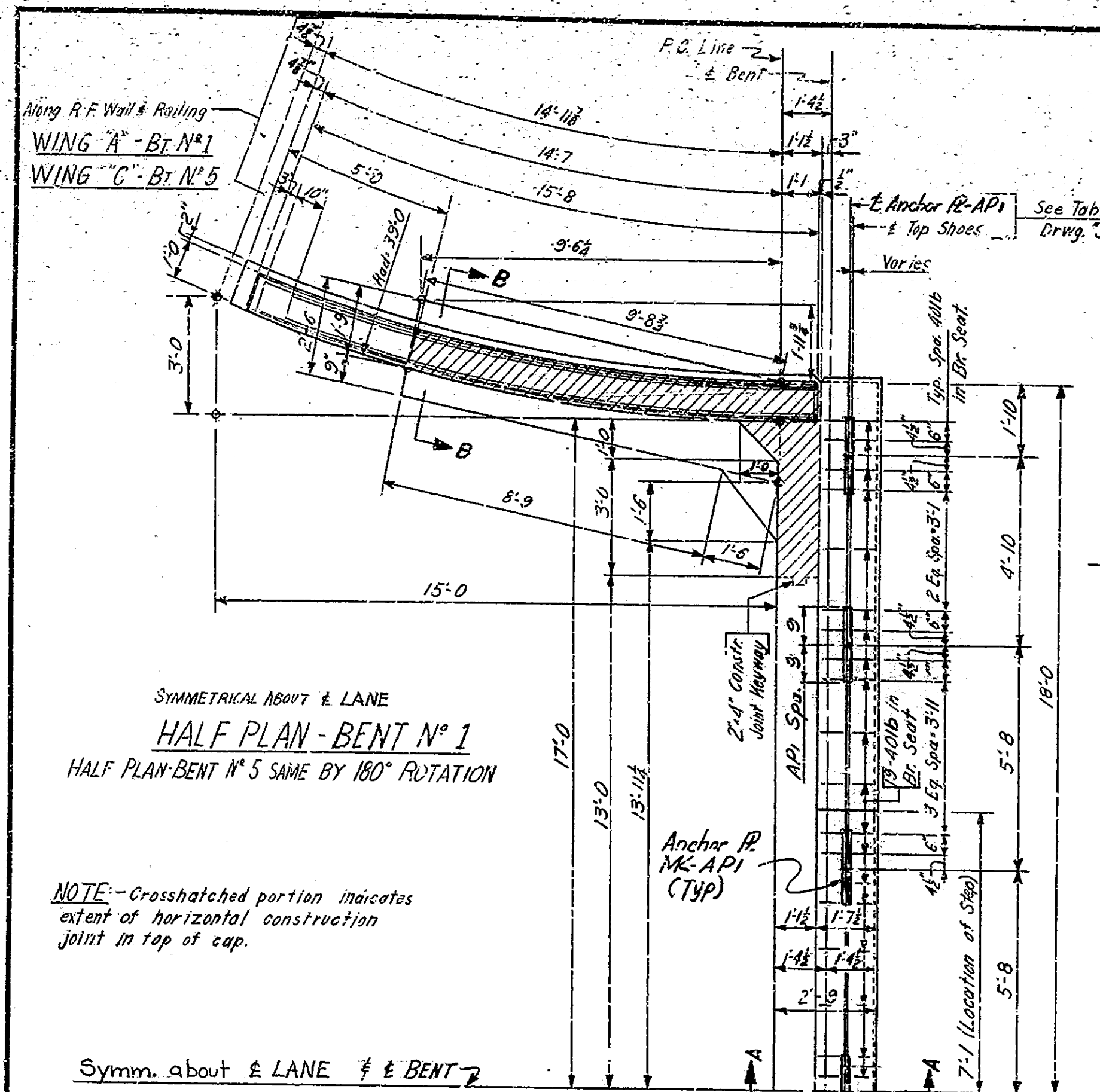
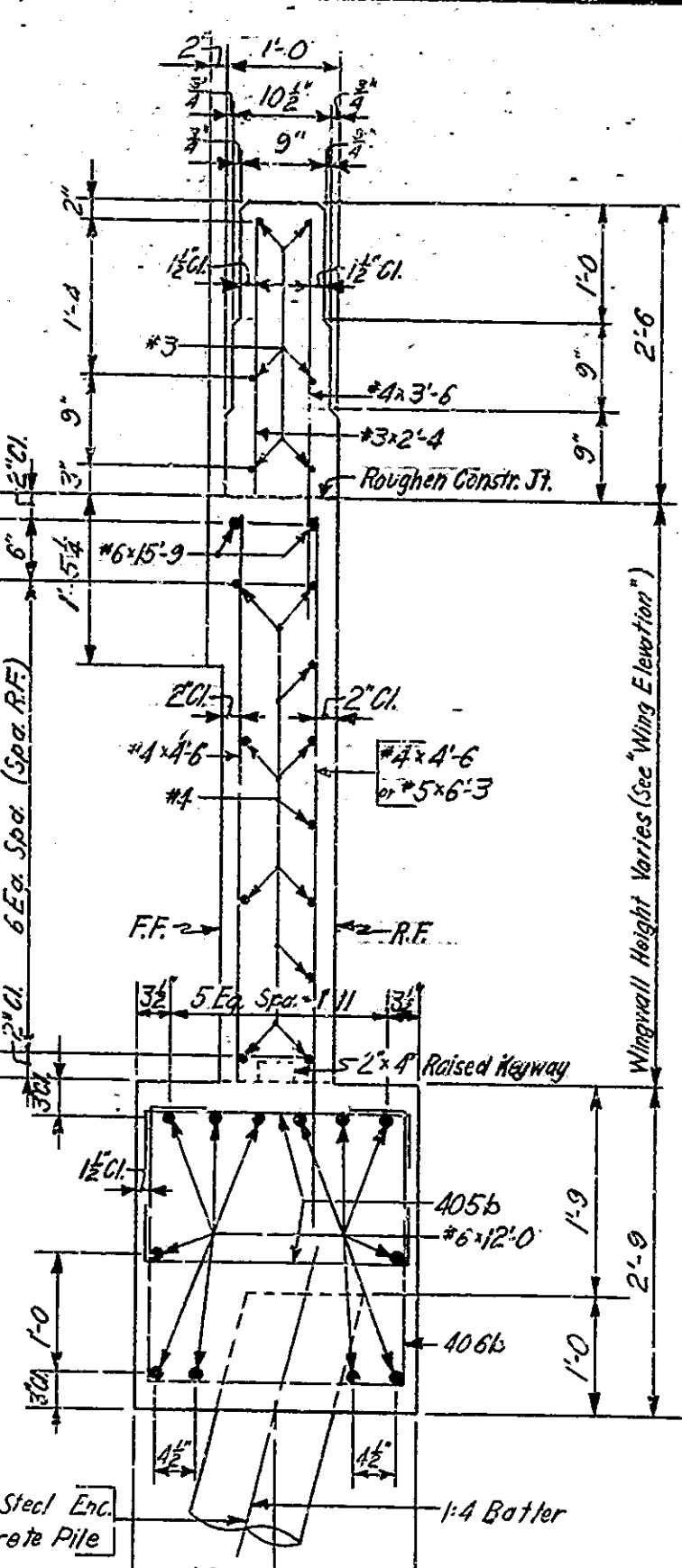


TABLE OF ELEVATIONS

| LOCATION | BENT N° 1 | BENT N° 5 |
|---------------------------|-----------|-----------|
| Top of Abutment | 494.71 | 493.90 |
| Top of Step | 491.690 | 490.885 |
| Bridge Seat | 491.525 | 490.715 |
| Wing A & Wing B, Elev. 1" | 496.47 | |
| Wing A & Wing B, Elev. 2" | 496.50 | |
| Wing C & Wing D, Elev. 1" | 495.66 | |
| Wing C & Wing D, Elev. 2" | 495.55 | |



MARK

| MARK | 0" | 7" | LENGTH |
|------|-------|-------|--------|
| 401b | 2'-6" | 6" | 3'-6" |
| 403b | 10" | 4'-0" | 9'-0" |
| 405b | 2'-3" | 6" | 3'-3" |

MARK

| MARK | 0" | 7" | LENGTH |
|------|-------|-------|--------|
| 402b | 2'-6" | 2'-6" | 8'-6" |
| 406b | 2'-3" | 2'-4" | 7'-1" |

MARK

| MARK | 0" | 7" | LENGTH |
|------|-------|-------|--------|
| 407b | 1'-7" | 1'-7" | 3'-2" |
| 301b | 11" | 7" | 1'-6" |

BRIDGES OVER 20' SPAN

| PUR. ROAD NO. | STATE | PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------|-------|-------------|-------------|-----------|--------------|
| 4 | IND. | 1-70-199 | 1962 | 12 | 45 |

BILL OF MATERIALS
 BENT N° 1 - E.B. LANE
 BENT N° 1 - W.B. LANE AND BENT N° 5 - E.B. & W.B. LANES SAME

REINFORCING STEEL

| SIZE # | # OF MARK | LENGTH | WEIGHT |
|---------------|-----------|--------|--------|
| #7 | 11 | 35'-9" | |
| #7 | 6 | 6'-0" | |
| Total #7 = | | | 877# |
| #6 | 4 | 15'-9" | |
| #6 | 24 | 12'-0" | |
| Total #6 = | | | 527# |
| #5 | 30 | 6'-3" | |
| Total #5 = | | | 196# |
| 401b | 64 | 3'-6" | |
| 402b | 26 | 8'-6" | |
| 403b | 34 | 9'-0" | |
| 404b | 14 | 4'-9" | |
| 405b | 28 | 3'-3" | |
| 406b | 14 | 7'-1" | |
| 407b | 2 | 3'-2" | |
| #4 | 12 | 18'-6" | |
| #4 | 16 | 15'-9" | |
| #4 | 6 | 10'-0" | |
| #4 | 2 | 5'-3" | |
| #4 | 34 | 4'-6" | |
| #4 | 2 | 3'-9" | |
| #4 | 28 | 3'-6" | |
| Total #4 = | | | 1222# |
| 301b | 2 | 1'-6" | |
| #3 | 4 | 15'-3" | |
| #3 | 4 | 15'-0" | |
| #3 | 4 | 13'-6" | |
| #3 | 2 | 4'-0" | |
| #3 | 2 | 2'-6" | |
| #3 | 28 | 2'-4" | |
| Total #3 = | | | 269# |
| TOTAL STEEL = | | | 2918# |

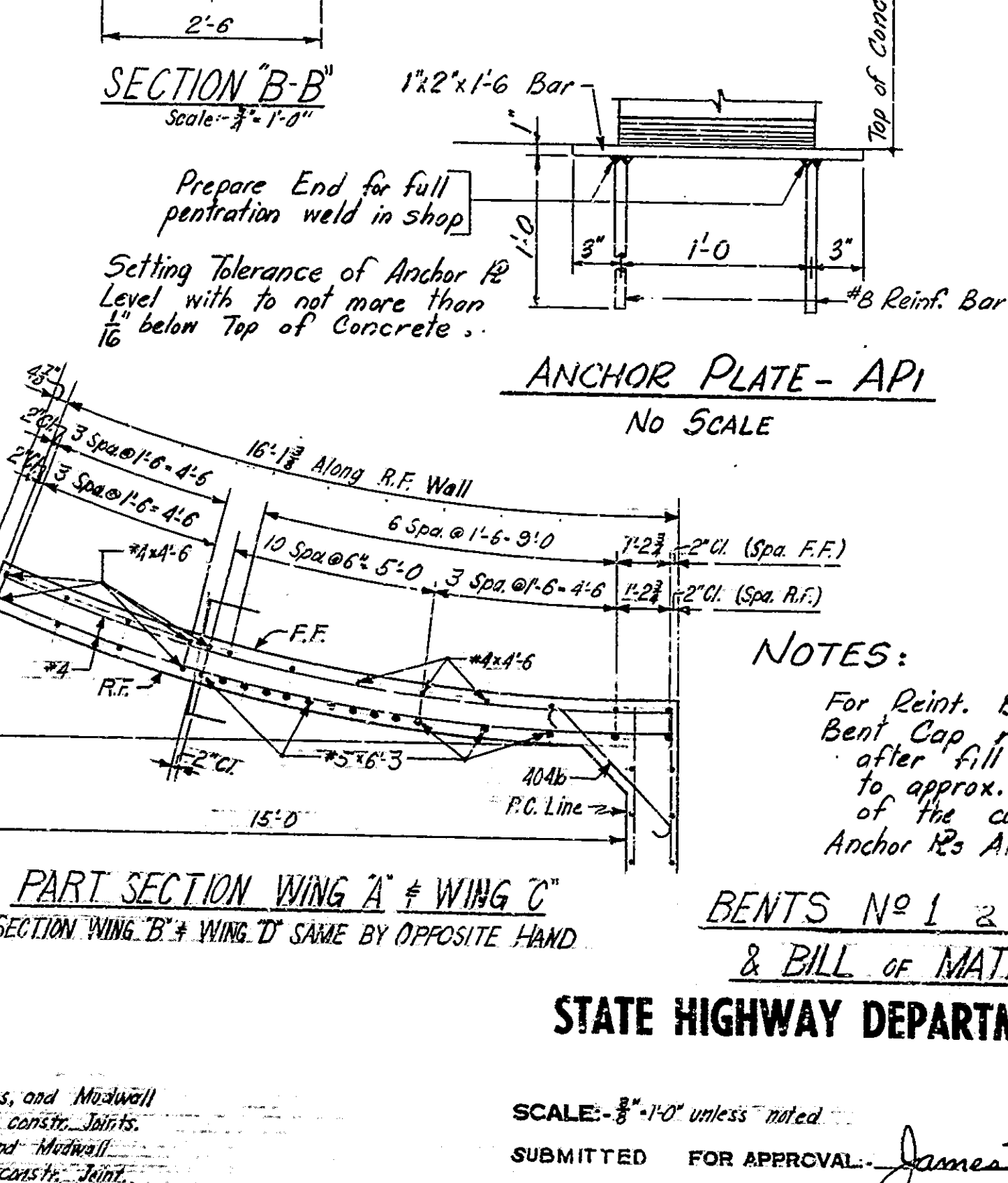
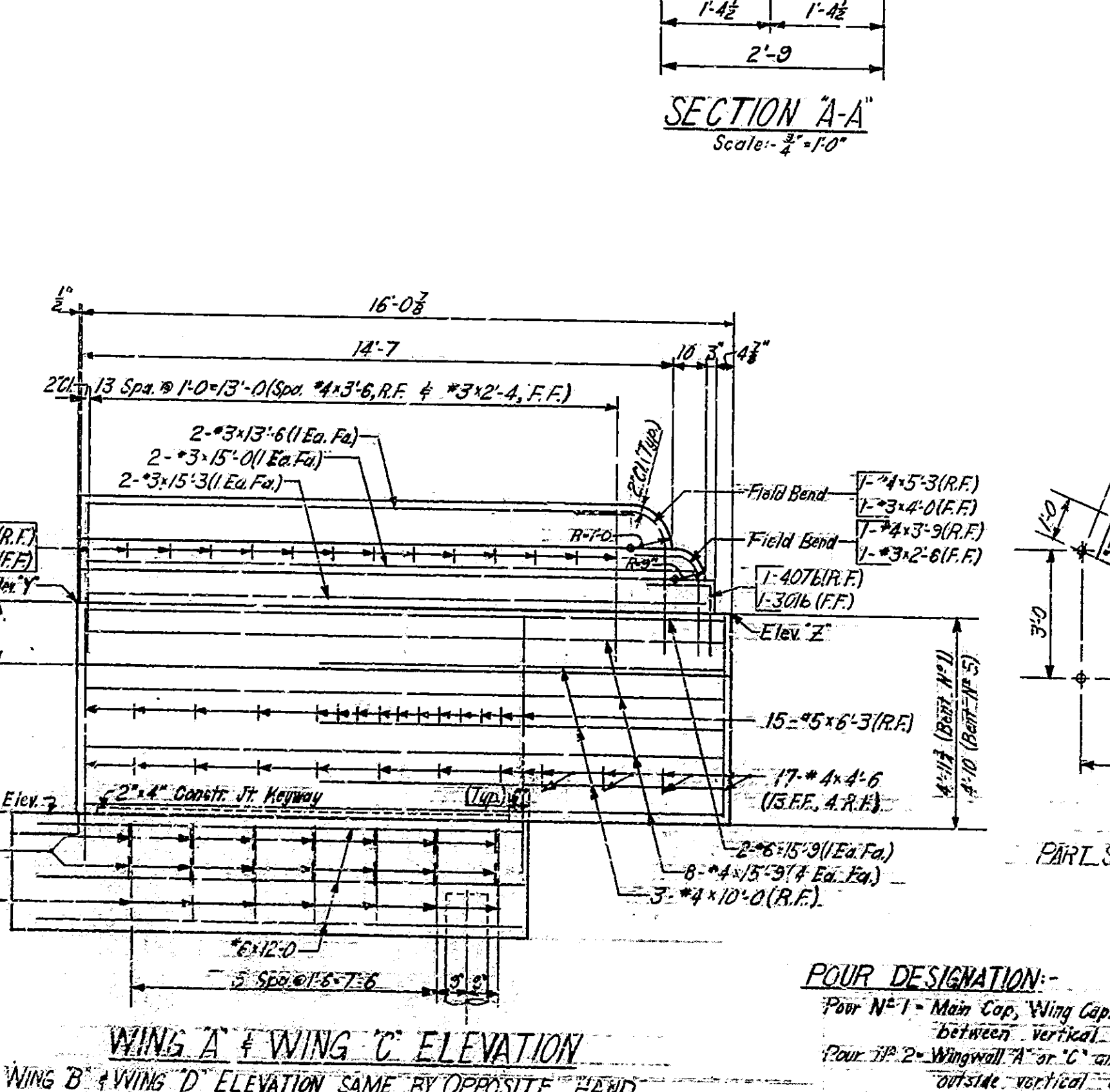
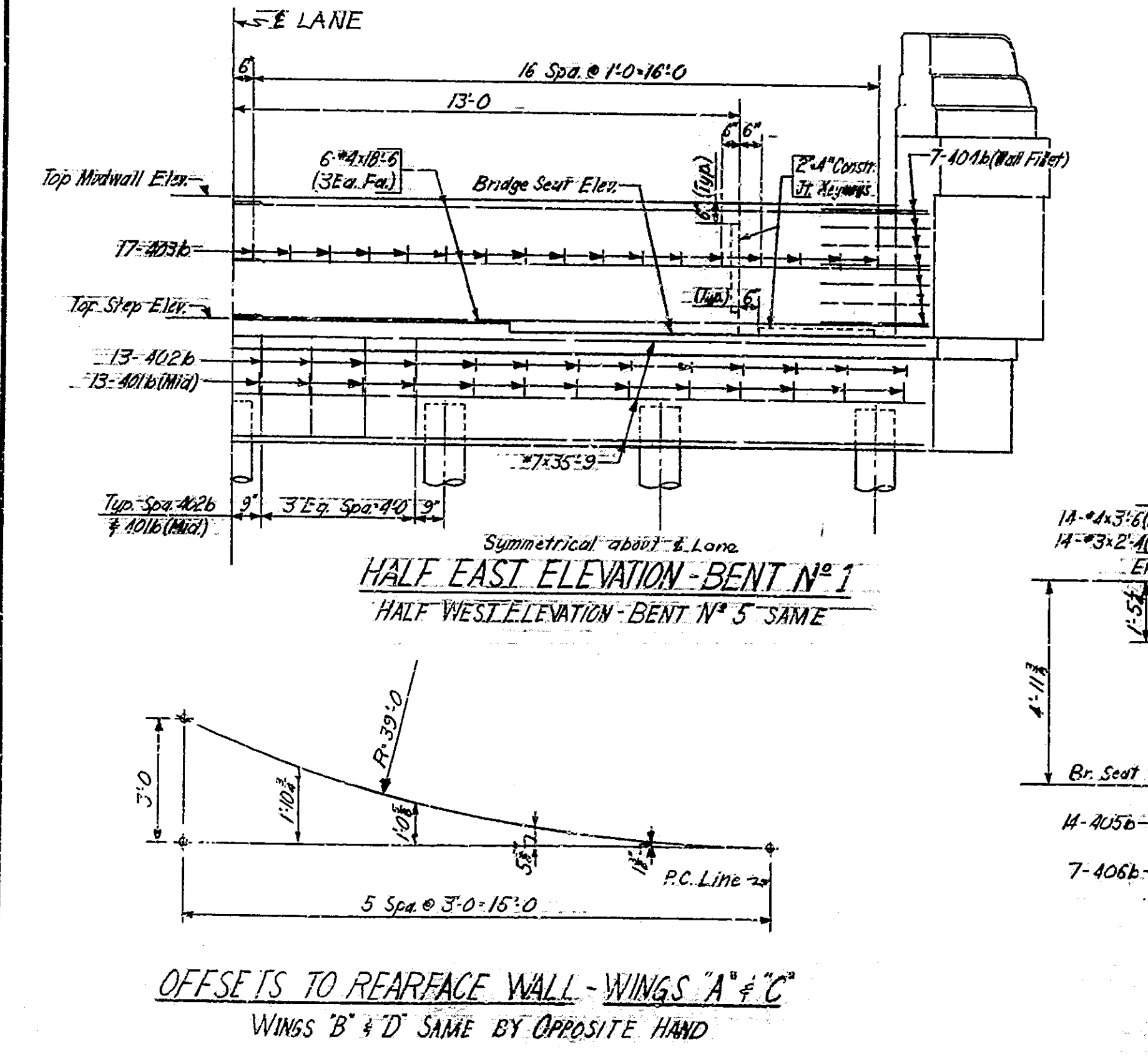
CONCRETE

| Class F | Qty | |
|-----------------|----------|----------|
| Bent N° 1 | 18.9 Cus | |
| Part N° 2 | 37.7 Cus | |
| Part N° 3 | 37.7 Cus | |
| TOTAL CLASS F = | | 94.3 Cus |

Rolling Concrete (Rt. & Lt. Altho) 2 @ 12 Cus = 24 Cus

MISCELLANEOUS

| | |
|--|------------|
| 9-12" x 45'-0" Steel Enc. Conc. Piles (#7 Gauge) | 405 Lin Ft |
| Anchor IR - MK API | 7 Ea. |



NOTES:

For Reinf. Bar Notes See Br. Std. C1

Bent Cap not to be poured until after fill has been completed up to approx. elevation of the bottom of the cap.

Anchor IRs API to be preset in concrete.

BENTS N° 1 & N° 5 DETAILS & BILL OF MATERIALS

STATE HIGHWAY DEPARTMENT OF INDIANA

DESIGNED L.S. 11-3-60 CKD BY R. 12-1-60
 DRAWN D.H.S. 1-6-61 CKD BY R. 2-10-61
 TRACED CKD

POUR DESIGNATION:

Part N° 1 - Main Cap, Wing Caps, and Abutment between vertical const. joints.

Part N° 2 - Wingwall "A" or "C" and Abutment outside vertical const. joint.

Part N° 3 - Wingwall "B" or "D" and Abutment outside vertical const. joint.

SCALE: 3/8" = 1'-0" unless noted

DATE: December 26, 1961

SUBMITTED FOR APPROVAL: James J. Mattox

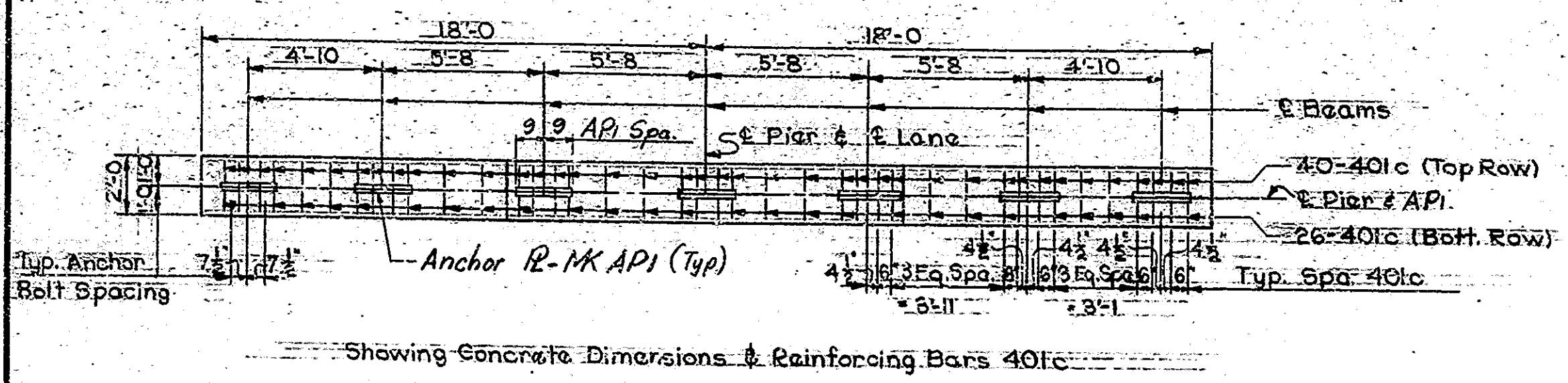
DRAWING: 33 OF 10

PROJECT: I-70-199

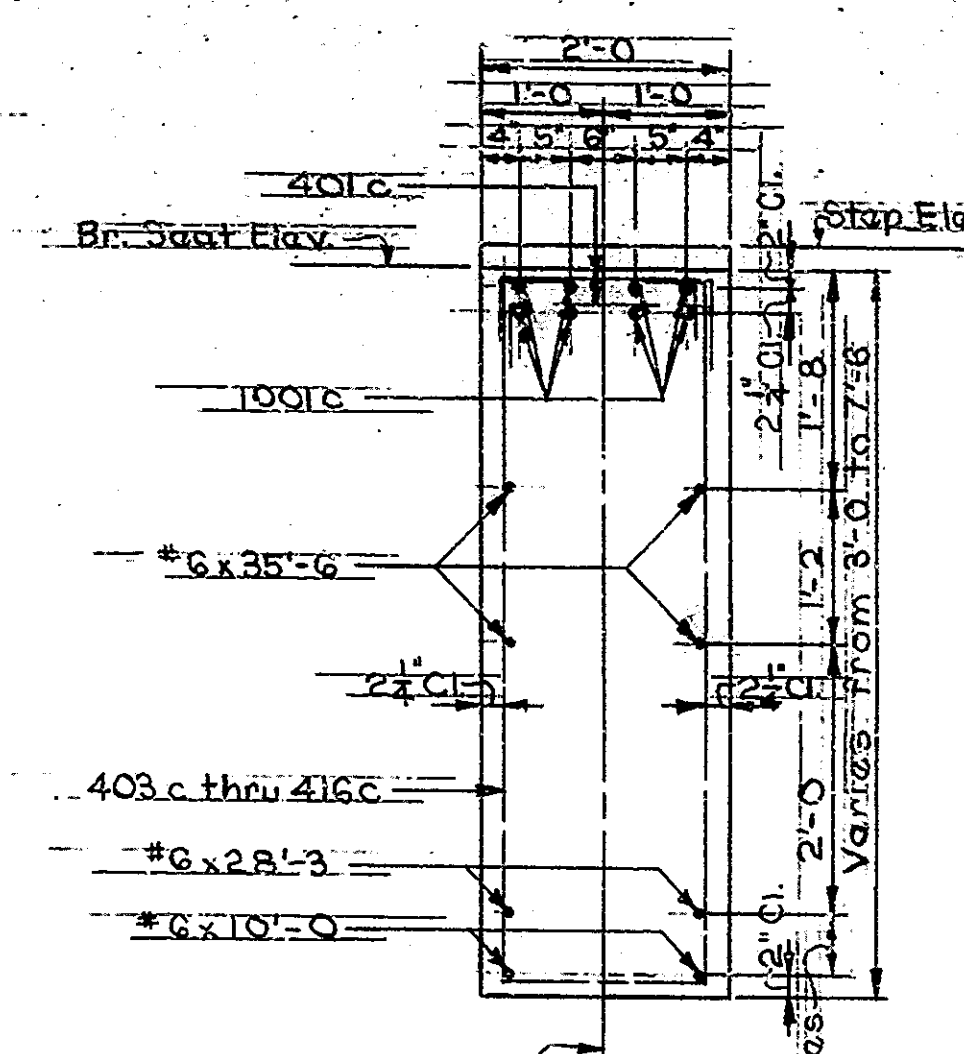
BRIDGE CONTRACT NO. G118

BRIDGE FILE: I-70-4-2310

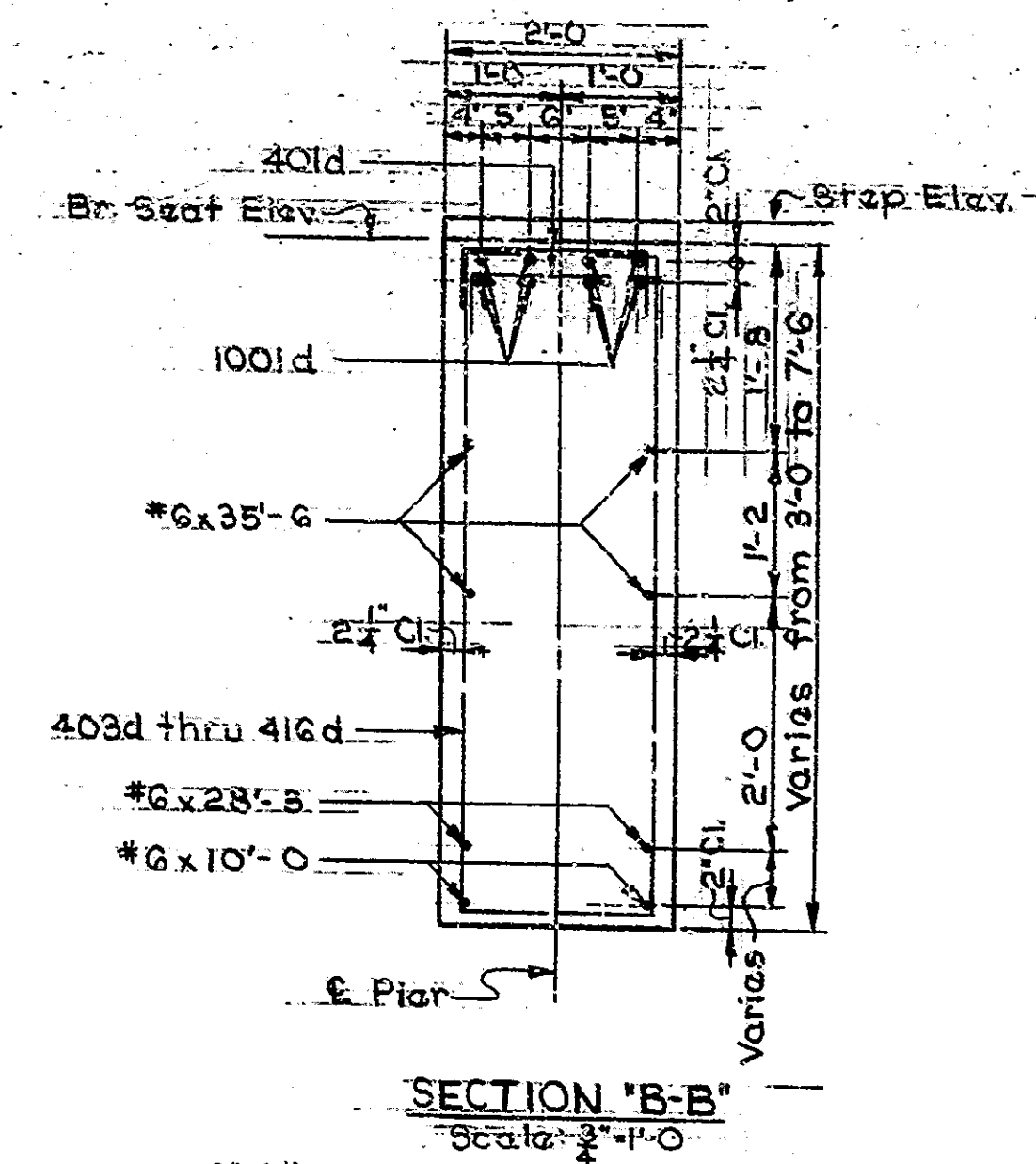
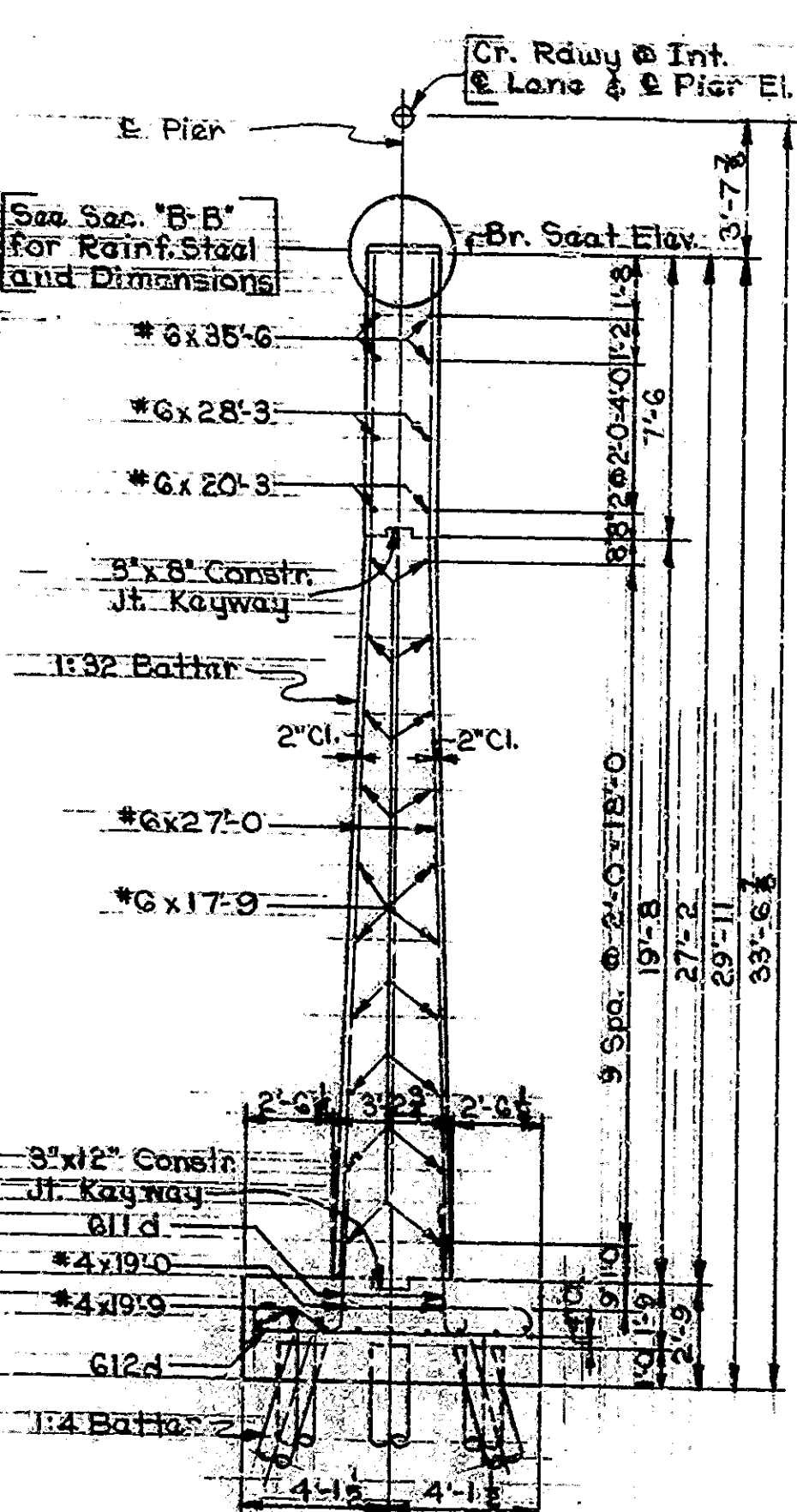
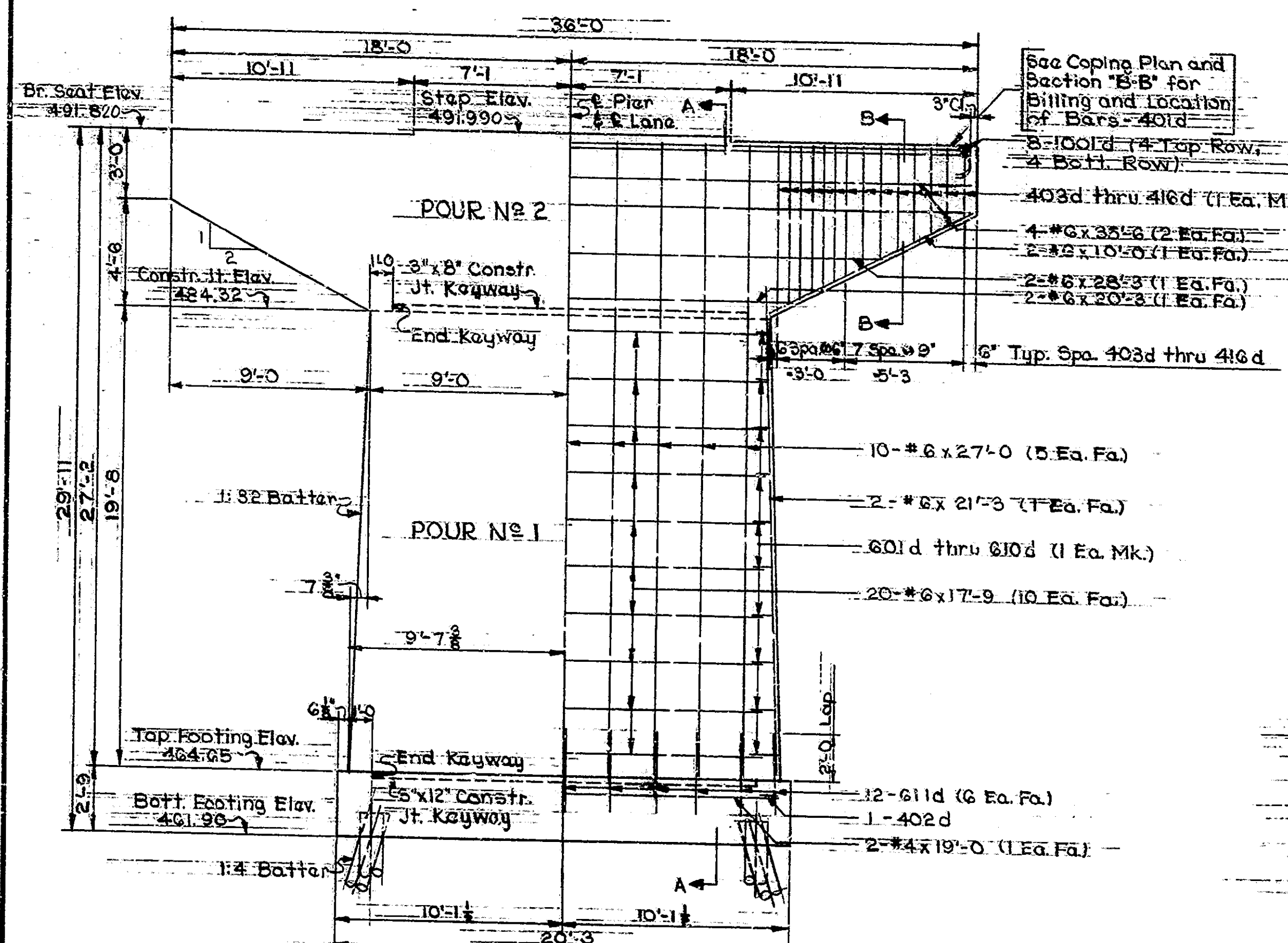
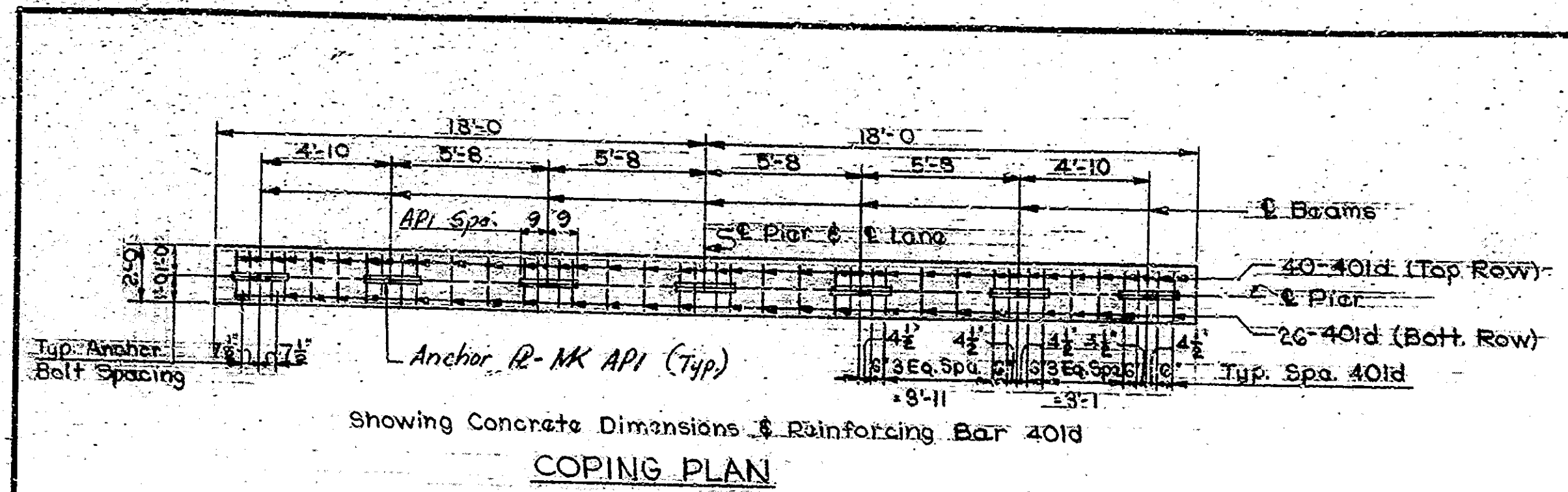
| BRIDGES OVER 20' SPAN | | | | | |
|-----------------------|-------|--------------|-------------|-----------|--------------|
| PUR. ROAD NO. | STATE | PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| 4 | IND. | 1-70-1 (9) C | 1962 | 13 | 45 |



| TABLE OF ELEVATIONS & DIMENSIONS | | |
|---------------------------------------|------------|------------|
| LOCATION | PIER NO. 2 | PIER NO. 4 |
| Cr. Rdwy. Elev. @ Int. E. Lane & Pier | 495.665 | 495.224 |
| Stop Elev. | 491.325 | 490.885 |
| Bridge Seat Elev. | 491.160 | 490.720 |
| Construction Jt. Elev. | 485.66 | 485.22 |
| Top of Footing Elev. | 465.66 | 465.22 |
| Bottom of Footing Elev. | 463.16 | 462.72 |
| Dimension 'A' | 4'-6" | 4'-6" |
| Dimension 'H' | 32'-6" | 32'-6" |



| BRIDGES OVER 20' SPAN | | | | | |
|-----------------------|-------|-------------|-------------|----------|--------------|
| PUB. ROAD DIST. NO. | STATE | PROJECT NO. | FISCAL YEAR | DWG. NO. | TOTAL SHEETS |
| 4 | IND. | 1-701(9)-4 | 1962 | 14 | 45 |



| Mark | o | h | length |
|------|-------|--------|---------|
| 403d | 1'-7" | 3'-0" | 8'-8" |
| 404d | 1'-7" | 3'-4" | 9'-5" |
| 405d | 1'-7" | 3'-9" | 10'-2" |
| 406d | 1'-7" | 4'-1" | 10'-11" |
| 407d | 1'-7" | 4'-6" | 11'-8" |
| 408d | 1'-7" | 4'-10" | 12'-5" |
| 409d | 1'-7" | 5'-3" | 13'-2" |
| 410d | 1'-7" | 5'-7" | 13'-11" |
| 411d | 1'-7" | 5'-10" | 14'-5" |
| 412d | 1'-7" | 6'-1" | 14-11 |
| 413d | 1'-7" | 6'-4" | 15'-5" |
| 414d | 1'-7" | 6'-7" | 15-11 |
| 415d | 1'-7" | 6'-10" | 16'-5" |
| 416d | 1'-7" | 7'-1" | 16-11 |

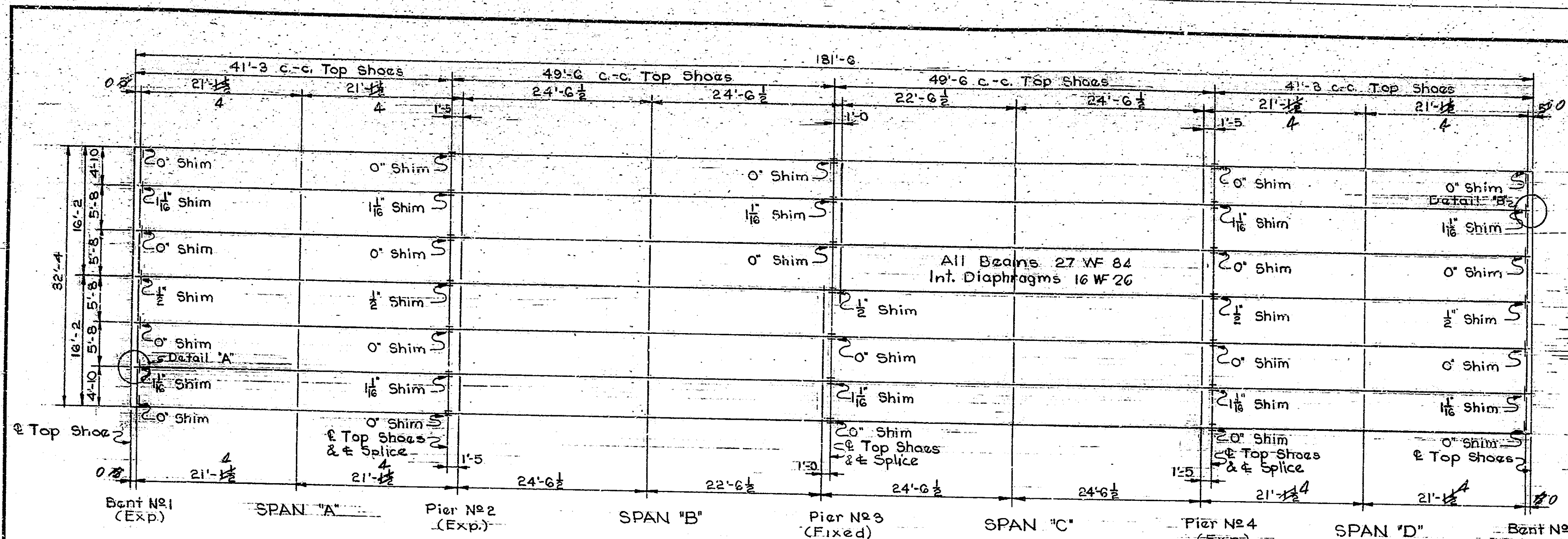
| Mark | o | h | length |
|------|--------|-----|--------|
| 401d | 1'-8" | 6" | 2'-8" |
| 402d | 2'-10" | 6" | 3'-10" |
| 601d | 2'-11" | 6" | 3'-7" |
| 602d | 3'-8" | 6" | 2'-0" |
| 603d | 3'-10" | 6" | 3'-1" |
| 604d | 3'-11" | 6" | 3'-4" |
| 605d | 2'-24" | 9" | 3'-10" |
| 606d | 2'-24" | 9" | 3'-7" |
| 607d | 2'-24" | 10" | 4'-1" |
| 608d | 2'-24" | 11" | 4'-4" |
| 609d | 2'-7" | 10" | 4'-7" |
| 610d | 2'-8" | 10" | 4'-10" |

BILL OF MATERIALS
PIER No 3 E.B. LANE
Pier No 3 W.B. Lane Same

| REINFORCING STEEL | | | |
|-------------------|-------------|--------------|---------------|
| Size & Mark. | No. of Bars | Length | Weight |
| 1001d | 8 | 38'-4" | 1,320* |
| 601d | 2 | 2'-7" | |
| 602d | 2 | 2'-10" | |
| 603d | 2 | 3'-1" | |
| 604d | 2 | 3'-4" | |
| 605d | 2 | 3'-7" | |
| 606d | 2 | 3'-10" | |
| 607d | 2 | 4'-1" | |
| 608d | 2 | 4'-4" | |
| 609d | 2 | 4'-7" | |
| 610d | 2 | 4'-10" | |
| 611d | 2 | 4'-1" | |
| 612d | 2 | 9'-1" | |
| #6 | 4 | 35'-6" | |
| #6 | 1 | 28'-8" | |
| #6 | 1 | 27'-0" | |
| #6 | 2 | 21'-3" | |
| #6 | 2 | 20'-3" | |
| #6 | 2 | 17'-9" | |
| #6 | 4 | 10'-0" | |
| | | Total | 2,534* |

| Mark | o | h | length |
|------|----|---------|--------|
| 401d | 66 | 2'-8" | |
| 402d | 66 | 3'-8" | |
| 403d | 66 | 4'-8" | |
| 404d | 66 | 5'-8" | |
| 405d | 66 | 6'-8" | |
| 406d | 66 | 7'-8" | |
| 407d | 66 | 8'-8" | |
| 408d | 66 | 9'-8" | |
| 409d | 66 | 10'-8" | |
| 410d | 66 | 11'-8" | |
| 411d | 66 | 12'-8" | |
| 412d | 66 | 13'-8" | |
| 413d | 66 | 14'-8" | |
| 414d | 66 | 15'-8" | |
| 415d | 66 | 16'-8" | |
| 416d | 66 | 17'-8" | |
| 417d | 66 | 18'-8" | |
| 418d | 66 | 19'-8" | |
| 419d | 66 | 20'-8" | |
| 420d | 66 | 21'-8" | |
| 421d | 66 | 22'-8" | |
| 422d | 66 | 23'-8" | |
| 423d | 66 | 24'-8" | |
| 424d | 66 | 25'-8" | |
| 425d | 66 | 26'-8" | |
| 426d | 66 | 27'-8" | |
| 427d | 66 | 28'-8" | |
| 428d | 66 | 29'-8" | |
| 429d | 66 | 30'-8" | |
| 430d | 66 | 31'-8" | |
| 431d | 66 | 32'-8" | |
| 432d | 66 | 33'-8" | |
| 433d | 66 | 34'-8" | |
| 434d | 66 | 35'-8" | |
| 435d | 66 | 36'-8" | |
| 436d | 66 | 37'-8" | |
| 437d | 66 | 38'-8" | |
| 438d | 66 | 39'-8" | |
| 439d | 66 | 40'-8" | |
| 440d | 66 | 41'-8" | |
| 441d | 66 | 42'-8" | |
| 442d | 66 | 43'-8" | |
| 443d | 66 | 44'-8" | |
| 444d | 66 | 45'-8" | |
| 445d | 66 | 46'-8" | |
| 446d | 66 | 47'-8" | |
| 447d | 66 | 48'-8" | |
| 448d | 66 | 49'-8" | |
| 449d | 66 | 50'-8" | |
| 450d | 66 | 51'-8" | |
| 451d | 66 | 52'-8" | |
| 452d | 66 | 53'-8" | |
| 453d | 66 | 54'-8" | |
| 454d | 66 | 55'-8" | |
| 455d | 66 | 56'-8" | |
| 456d | 66 | 57'-8" | |
| 457d | 66 | 58'-8" | |
| 458d | 66 | 59'-8" | |
| 459d | 66 | 60'-8" | |
| 460d | 66 | 61'-8" | |
| 461d | 66 | 62'-8" | |
| 462d | 66 | 63'-8" | |
| 463d | 66 | 64'-8" | |
| 464d | 66 | 65'-8" | |
| 465d | 66 | 66'-8" | |
| 466d | 66 | 67'-8" | |
| 467d | 66 | 68'-8" | |
| 468d | 66 | 69'-8" | |
| 469d | 66 | 70'-8" | |
| 470d | 66 | 71'-8" | |
| 471d | 66 | 72'-8" | |
| 472d | 66 | 73'-8" | |
| 473d | 66 | 74'-8" | |
| 474d | 66 | 75'-8" | |
| 475d | 66 | 76'-8" | |
| 476d | 66 | 77'-8" | |
| 477d | 66 | 78'-8" | |
| 478d | 66 | 79'-8" | |
| 479d | 66 | 80'-8" | |
| 480d | 66 | 81'-8" | |
| 481d | 66 | 82'-8" | |
| 482d | 66 | 83'-8" | |
| 483d | 66 | 84'-8" | |
| 484d | 66 | 85'-8" | |
| 485d | 66 | 86'-8" | |
| 486d | 66 | 87'-8" | |
| 487d | 66 | 88'-8" | |
| 488d | 66 | 89'-8" | |
| 489d | 66 | 90'-8" | |
| 490d | 66 | 91'-8" | |
| 491d | 66 | 92'-8" | |
| 492d | 66 | 93'-8" | |
| 493d | 66 | 94'-8" | |
| 494d | 66 | 95'-8" | |
| 495d | 66 | 96'-8" | |
| 496d | 66 | 97'-8" | |
| 497d | 66 | 98'-8" | |
| 498d | 66 | 99'-8" | |
| 499d | 66 | 100'-8" | |
| 500d | 66 | 101'-8" | |
| 501d | 66 | 102'-8" | |
| 502d | 66 | 103'-8" | |
| 503d | 66 | 104'-8" | |
| 504d | 66 | 105'-8" | |
| 505d | 66 | 106'-8" | |
| 506d | 66 | 107'-8" | |
| 507d | 66 | 108'-8" | |
| 508d | 66 | 109'-8" | |
| 509d | 66 | 110'-8" | |
| 510d | 66 | 111'-8" | |
| 511d | 66 | 112'-8" | |
| 512d | 66 | 113'-8" | |
| 513d | 66 | 114'-8" | |
| 514d | 66 | 115'-8" | |
| 515d | 66 | 116'-8" | |
| 516d | 66 | 117'-8" | |
| 517d | 66 | 118'-8" | |
| 518d | 66 | 119'-8" | |
| 519d | 66 | 120'-8" | |
| 520d | 66 | 121'-8" | |
| 521d | 66 | 122'-8" | |
| 522d | 66 | 123'-8" | |
| 523d | 66 | 124'-8" | |
| 524d | 66 | 125'-8" | |
| 525d | 66 | 126'-8" | |
| 526d | 66 | 127'-8" | |
| 527d | 66 | 128'-8" | |
| 528d | 66 | 129'-8" | |
| 529d | 66 | 130'-8" | |
| 530d | 66 | 131'-8" | |
| 531d | 66 | 132'-8" | |
| 532d | 66 | 133'-8" | |
| 533d | 66 | 134'-8" | |
| 534d | 66 | 135'-8" | |
| 535d | 66 | 136'-8" | |
| 536d | 66 | 137'-8" | |
| 537d | 66 | 138'-8" | |
| 538d | 66 | 139'-8" | |
| 539d | 66 | 140'-8" | |
| 540d | 66 | 141'-8" | |
| 541d | 66 | 142'-8" | |
| 542d | 66 | 143'-8" | |
| 543d | 66 | 144'-8" | |
| 544d | 66 | 145'-8" | |
| 545d | 66 | 146'-8" | |
| 546d | 66 | 147'-8" | |
| 547d | 66 | 148'-8" | |
| 548d | 66 | 149'-8" | |
| 549d | 66 | 150'-8" | |
| 550d | 66 | 151'-8" | |
| 551d | 66 | 152'-8" | |
| 552d | 66 | 153'-8" | |
| 553d | 66 | 154'-8" | |
| 554d | 66 | 155'-8" | |
| 555d | 66 | 156'-8" | |
| 556d | 66 | 157'-8" | |
| 557d | 66 | 158'-8" | |
| 558d | 66 | 159'-8" | |
| 559d | 66 | 160'-8" | |
| 560d | 66 | 161'-8" | |
| 561d | 66 | 162'-8" | |
| 562d | 66 | 163'-8" | |
| 563d | 66 | 164'-8" | |
| 564d | 66 | 165'-8" | |
| 565d | 66 | 166'-8" | |
| 566d | 66 | 167'-8" | |
| 567d | 66 | 168'-8" | |
| 568d | 66 | 169'-8" | |
| 569d | 66 | 170'-8" | |
| 570d | 66 | 171'-8" | |
| 571d | 66 | 172'-8" | |
| 572d | 66 | 173'-8" | |
| 573d | 66 | 174'-8" | |
| 574d | 66 | 175'-8" | |
| 575d | 66 | 176'-8" | |
| 576d | 66 | 177'-8" | |
| 577d | 66 | 178'-8" | |
| 578d | 66 | 179'-8" | |
| 579d | 66 | 180'-8" | |
| 580d | 66 | 181'-8" | |
| 581d | 66 | 182'-8" | |
| 582d | 66 | 183'-8" | |
| 583d | 66 | 184'-8" | |
| 584d | 66 | 185'-8" | |
| 585d | 66 | 186'-8" | |
| 586d | 66 | 187'-8" | |
| 587d | 66 | 188'-8" | |
| 588d | 66 | 189'-8" | |
| 589d | 66 | 190'-8" | |
| 590d | 66 | 191'-8" | |
| 591d | 66 | 192'-8" | |
| 592d | 66 | 193'-8" | |
| 593d | 66 | 194'-8" | |
| 594d | 66 | 195'-8" | |
| 595d | 66 | 196'-8" | |
| 596d | 66 | 197'-8" | |
| 597d | 66 | 198'-8" | |
| 598d | 66 | 199'-8" | |
| 599d | 66 | 200'-8" | |
| 600d | 66 | 201'-8" | |
| 601d | 66 | 202'-8" | |
| 602d | 66 | 203'-8" | |
| 603d | 66 | 204'-8" | |
| 604d | 66 | 205'-8" | |
| 605d | 66 | 206'-8" | |
| 606d | 66 | 207'-8" | |
| 607d | 66 | 208'-8" | |
| 608d | 66 | 209'-8" | |
| 609d | 66 | 210'-8" | |
| 610d | 66 | 211'-8" | |
| 611d | 66 | 212'-8" | |
| 612d | 66 | 213'-8" | |
| 613d | 66 | 214'-8" | |
| 614d | 66 | 215'-8" | |
| 615d | 66 | 216'-8" | |
| 616d | 66 | 217'-8" | |
| 617d | 66 | 218'-8" | |
| 618d | 66 | 219'-8" | |
| 619d | 66 | 220'-8" | |
| 620d | 66 | 221'-8" | |
| 621d | 66 | 222'-8" | |
| 622d | 66 | 223'-8" | |
| 623d | 66 | 224'-8" | |
| 624d | 66 | 225'-8" | |
| 625d | 66 | 226'-8" | |
| 626d | 66 | 227'-8" | |
| 627d | 66 | 228'-8" | |
| 628d | 66 | 229'-8" | |
| 629d | 66 | 230'-8" | |
| 630d | 66 | 231'-8" | |
| 631d | 66 | 232'-8" | |
| 632d | 66 | 233'-8" | |
| 633d | 66 | 234'-8" | |
| 634d | 66 | 235'-8" | |
| 635d | 66 | 236'-8" | |
| 636d | 66 | 237'-8" | |
| 637d | 66 | 238'-8" | |
| 638d | 66 | 239'-8" | |
| 639d | 66 | 240'-8" | |
| 640d | 66 | 241'-8" | |
| 641d | 66 | 242'-8" | |
| 642d | 66 | 243'-8" | |
| 643d | 66 | 244'-8" | |
| 644d | 66 | 245'-8" | |
| 645d | 66 | 246'-8" | |
| 646d | 66 | 247'-8" | |
| 647d | 66 | 248'-8" | |
| 648d | 66 | 249'-8" | |
| 649d | 66 | 250'-8" | |
| 650d | 66 | 251'-8" | |
| 651d | 66 | 252'-8" | |
| 652d | 66 | 253'-8" | |
| 653d | 66 | 254'-8" | |
| 654d | 66 | 255'-8" | |
| 655d | 66 | 256'-8" | |
| 656d | 66 | 257'-8" | |
| 657d | 66 | 258'-8" | |
| 658d | 66 | 259'-8" | |
| 659d | 66 | 260'-8" | |
| 660d | 66 | 261'-8" | |
| 661d | 66 | 262'-8" | |
| 662d | 66 | 263'-8" | |
| 663d | 66 | 264'-8" | |
| 664d | 66 | 265'-8" | |
| 665d | 66 | 266'-8" | |
| 666d | 66 | 267'-8" | |
| 667d | 66 | 268'-8" | |
| 668d | 66 | 269'-8" | |
| 669d | 66 | 270'-8" | |
| 670d | 66 | 271'-8" | |
| 671d | 66 | 272'-8" | |
| 672d | 66 | 273'-8" | |
| 673d | 66 | 274'-8" | |
| 674d | 66 | 275'-8" | |
| 675d | 66 | 276'-8" | |
| 676d | 66 | 277'-8" | |
| 677d | 66 | 278'-8" | |
| 678d | 66 | 279'-8" | |
| 679d | 66 | 280'-8" | |
| 680d | | | |

| BRIDGES OVER 20' SPAN | | | | | |
|-----------------------|-------|---------|--------|-------|--------|
| PUB. ROAD | STATE | PROJECT | FISCAL | SHEET | TOTAL |
| NO. | | NO. | YEAR | NO. | SHEETS |
| 4 | IND. | I-70(4) | 1962 | 15 | 45 |



DATA USED FOR DESIGN AND DETAILS

LIVE LOADS: H-20-S16-44 loading with impact and distribution of loads in accordance with 1961 AASHTO Specifications and a Special Loading consisting of 2-24,000 lb. axles spaced 4'-0" apart.

DEAD LOADS: Actual weight plus 35 pounds per sq. ft. of roadway to provide for future wearing surface.

SLAB: Designed for 16,000 lb. wheel plus impact, and with 2" monolithic wearing surface.

UNIT STRESSES:

| | |
|---|---------------|
| Structural Steel Bending (Tension) | 20,000 p.s.i. |
| Low Alloy Structural Steel | 22,000 p.s.i. |
| Shear on Rivets | 13,500 p.s.i. |
| Structural Steel Bearing (incl. Rivets & U.S. Bolts) | 40,000 p.s.i. |
| Bearing Steel on Concrete (incl. over | |
| laminating and eccentric loading) | 1,000 p.s.i. |
| Reinforcing Steel (Tension) | 20,000 p.s.i. |
| Concrete Compression | 1,200 p.s.i. |
| Structural Steel Bearing (Except Rivets & U.S. Bolts) | 29,500 p.s.i. |

All Structural Steel to be A36 Unless Noted.

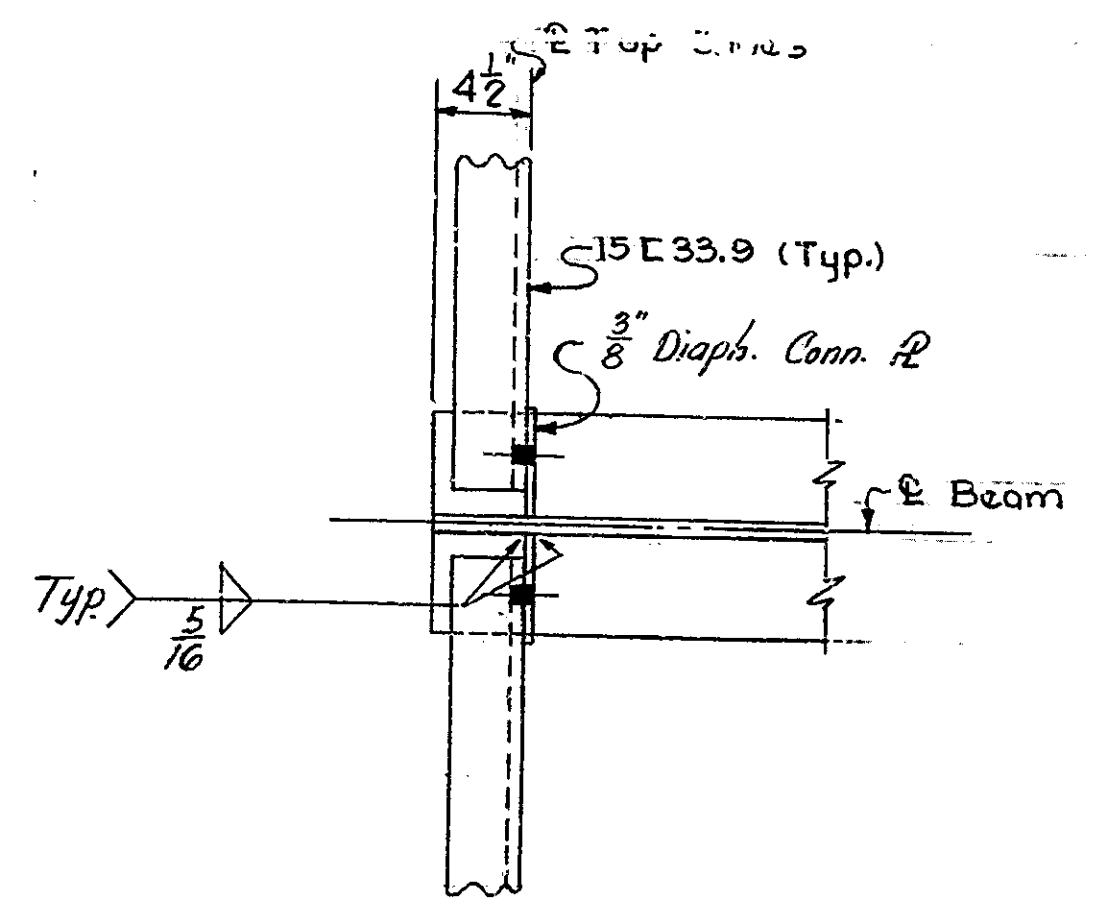
FABRICATION NOTES:

- Rivets are 7/8" φ.
- Open Holes 1/8" Unless Noted.

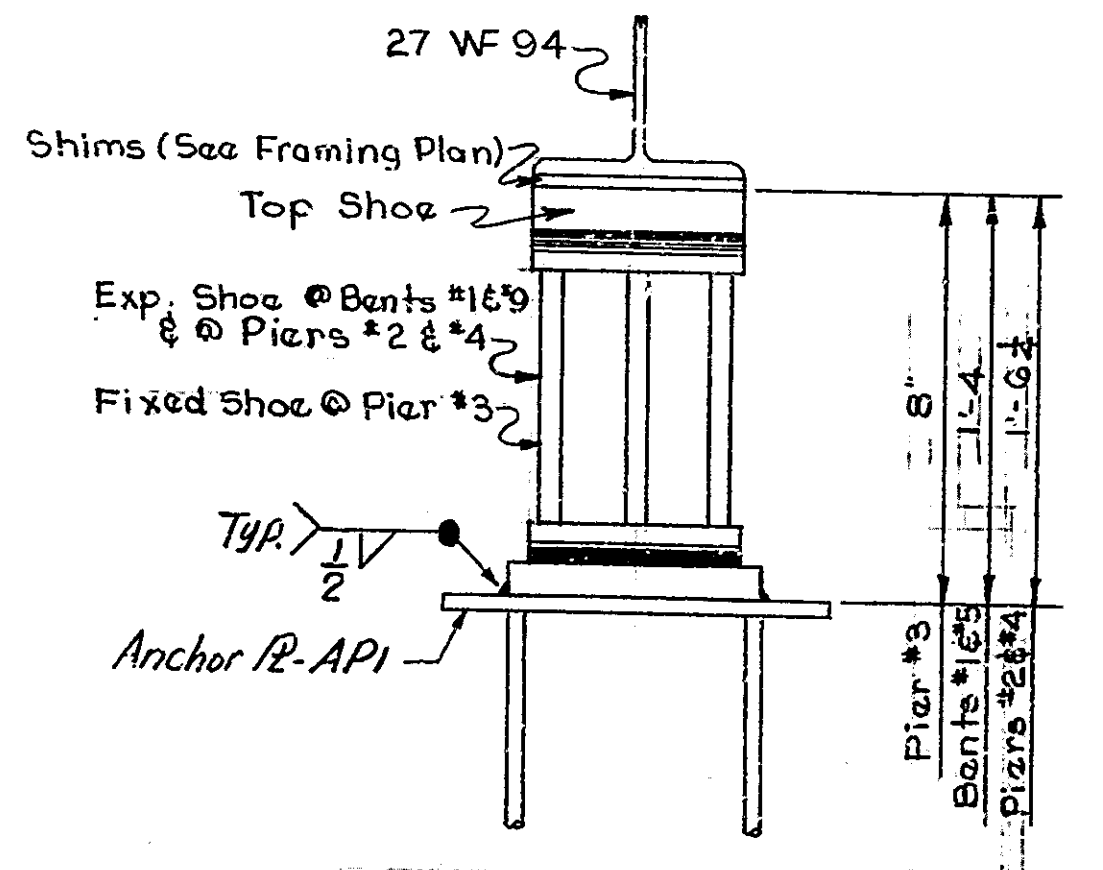
End Diaph. 15 I 33.9

FRAMING PLAN-E.B. LANE
Framing Plan-W.B. Lane Same
Except For Erection Marks
Scale: 1/8" = 1'-0"

NOTE: E.B. Lane beam erection marks to be prefixed with the letter 'E', W.B. Lane beam erection marks to be prefixed with the letter 'W'



DETAIL "A"
Detail "B" Same by 180° Rotation
Scale: 1/2" = 1'-0"



SHOE ASSEMBLY
No Scale

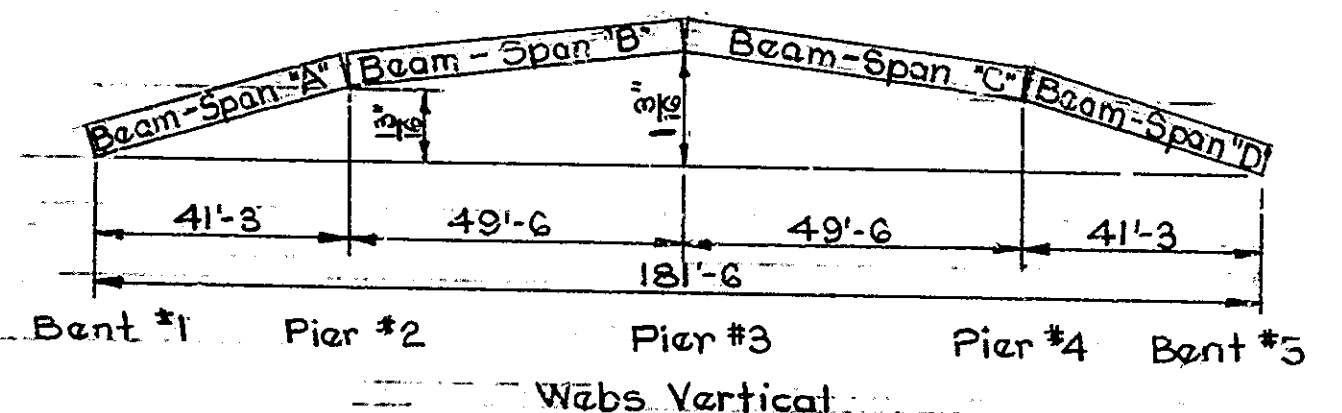


DIAGRAM FOR SHOP ASSEMBLY OF BEAMS FOR REAMING
No Scale

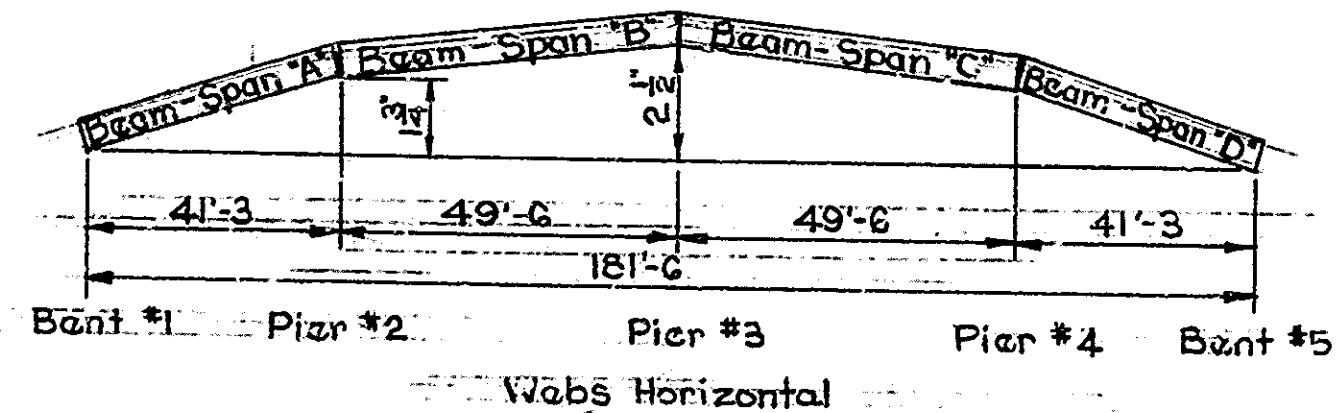
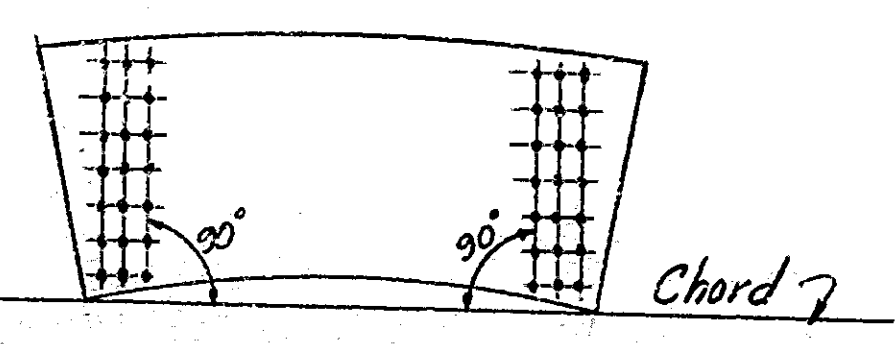


DIAGRAM FOR SHOP ASSEMBLY OF BEAMS FOR REAMING
No Scale

| TABLE OF MOMENTS AND REACTIONS | | | | | | | | | | | | | | |
|--------------------------------|-----------------|----------|-----------------|----------|-----------------|----------|-----------------|----------|---------------|----------|---------------|----------|---------------|----------|
| | Mom. @ Span "A" | | Mom. @ Span "B" | | *Neg. Mom. @ R2 | | *Neg. Mom. @ R3 | | Reaction @ R1 | | Reaction @ R2 | | Reaction @ R3 | |
| | Int. Bm. | O.S. Bm. | Int. Bm. | O.S. Bm. | Int. Bm. | O.S. Bm. | Int. Bm. | O.S. Bm. | Int. Bm. | O.S. Bm. | Int. Bm. | O.S. Bm. | Int. Bm. | O.S. Bm. |
| Dead Load | 107.8 | 134.4 | 104.6 | 126.1 | 163.9 | 216.7 | 188.6 | 209.5 | 13.31 | 16.77 | 40.92 | 52.29 | 40.45 | 51.55 |
| Live Load | 104.3 | 165.8 | 196.8 | 167.7 | 171.8 | 146.4 | 179.3 | 115.29 | 31.27 | 14.62 | 38.20 | 20.45 | 68.20 | 26.45 |
| Impact | 58.9 | 49.7 | 56.5 | 48.1 | 50.6 | 43.0 | 43.9 | 34.0 | 4.39 | 1.23 | 6.02 | 21.96 | 5.86 | |
| Total | 360.4 | 349.9 | 357.9 | 341.9 | 386.3 | 406.1 | 389.4 | 406.3 | 54.08 | 35.78 | 90.25 | 78.76 | 89.61 | 77.86 |

* Moment includes 10% for Splice Design.



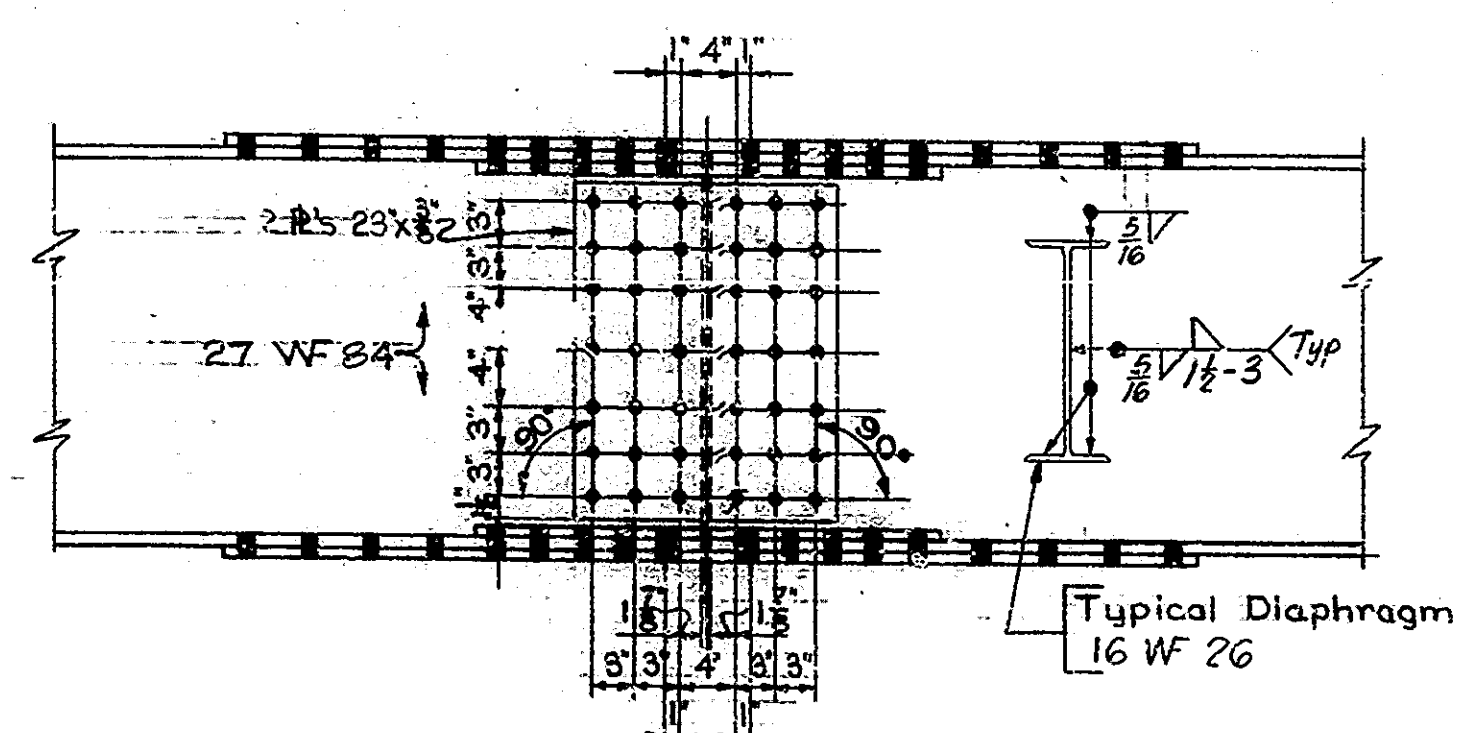
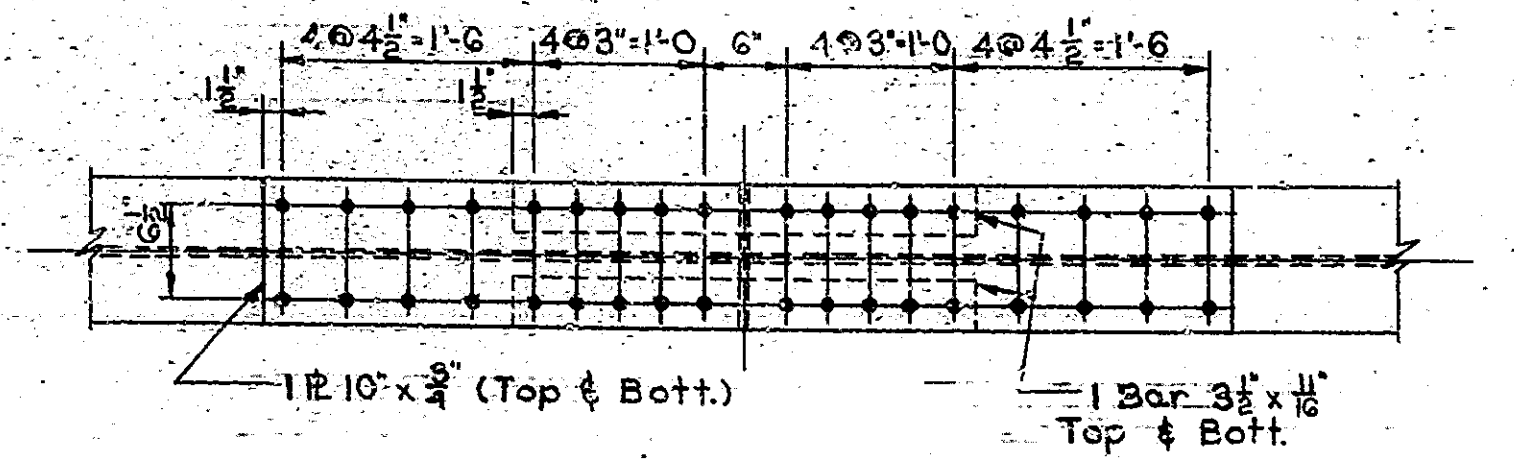
WEB PUNCHING DIAGRAM
No Scale
Rev. 6-11-62 Diaph. Spa.
Rev. 4-10-64 Beam & Diaph. Sizes

- All paint shall be in accordance with Current State Highway Specifications: Shop Paint: One Coat Red Lead, Type I or II Except as Noted. Field Paint: Two Coats of Aluminum.
- Beams to be straight within a tolerance of 1/8" inch at center. If camber exists, layout beams with camber up. Beams shall be checked for camber while supported in such a way as to have no bending moment in the direction of camber.
- Notes for Beam Splices shall be Subpunched or Subdrilled and reamed to size while assembled. See Article E 1103.18(d) of the Specifications.
- The shop plans shall indicate whether reaming is to be done in shop or field. If shop reaming or drilling is used, the beams may be reamed with the webs either in a vertical or horizontal position. If the beams are reamed with the webs vertical, they shall be supported relative to their final erection position. If they are reamed with the webs horizontal a minimum of one line of beams shall be shop assembled with the webs vertical and inspected for fit. The shop details shall show a plan of matchmarking for all reamed pieces. All splice plates to be removed, cleaned and painted after reaming. Splice plates shall not extend beyond the end of beam after bolting for shipment.
- Flange splice bars shall have planed or rolled edges and holes in bars shall be subdrilled and reamed or drilled full size while assembled.
- The Contractor shall prepare detailed working or shop drawings to enable him to fabricate, erect and construct all parts of the work in conformity with the Engineer's drawings and specifications and shall submit five (5) copies of these to the Engineer. See Article E 1102.2 of the Specifications.
- Holes in all material connecting Top Shoes to Beam Flanges to be 1" Diameter. Bolts connecting Beam Flange to Top Shoe shall extend into Top Shoe a minimum of 5" inch.
- Shims between Beams and Top Shoes may be built up. No shim shall be less than 3/8" thickness.
- Weight of Structural Steel (estimated) 35000# in Each Structure.

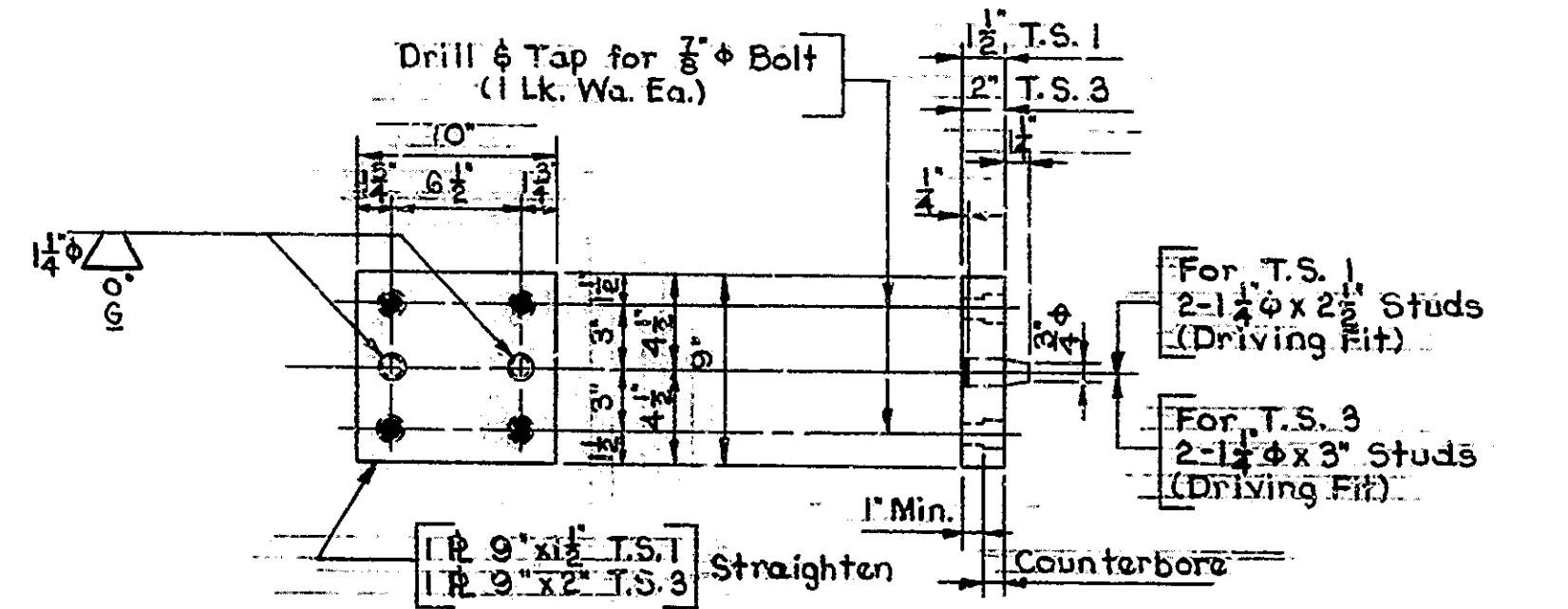
FRAMING PLAN
STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE: AS NOTED
SUBMITTED FOR APPROVAL: *James D. Mattheis*
December 26, 1961
DRAWING: S6 OF 10
PROJECT: I-70-1(9) 4
BRIDGE CONTRACT NO. 6118
BRIDGE FILE: I-70-4-2310

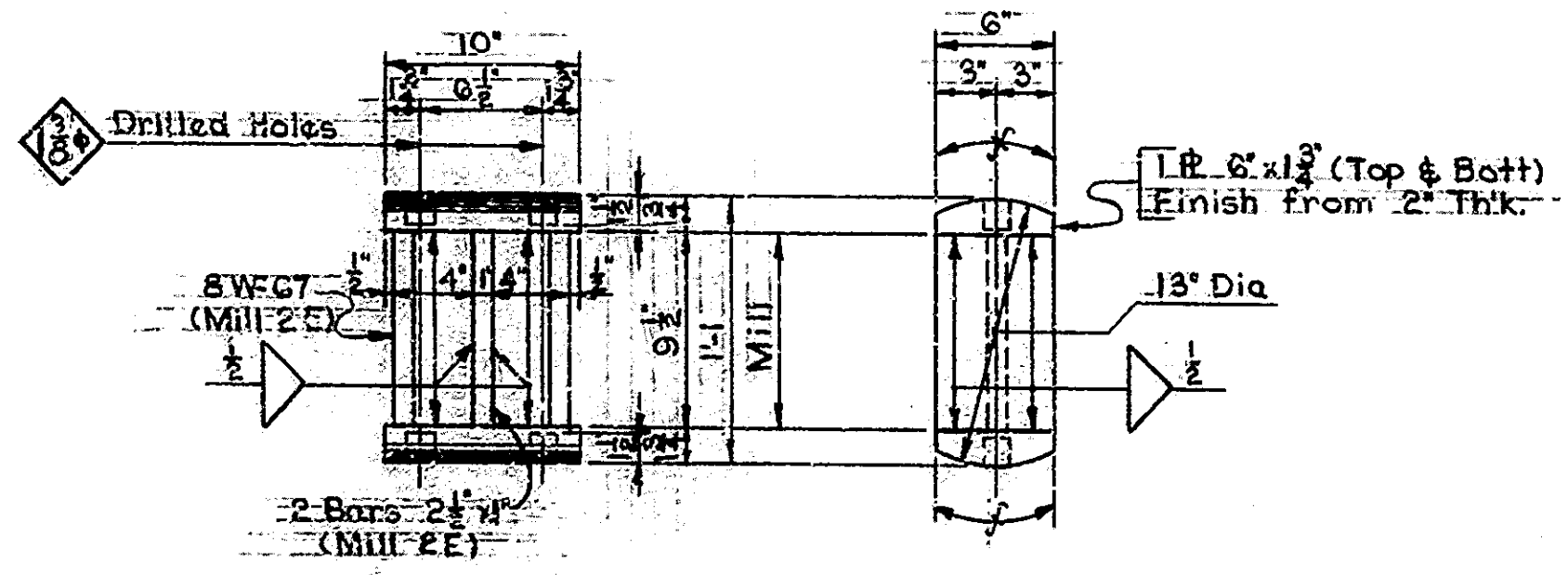
| BRIDGES OVER 20' SPAN | | | | | |
|-----------------------|-------|--------------|-------------|-----------|--------------|
| PUB. ROAD REG. NO. | STATE | PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| 4. | IND. | I-70-4 (9) 4 | 1962 | 16 | 45 |



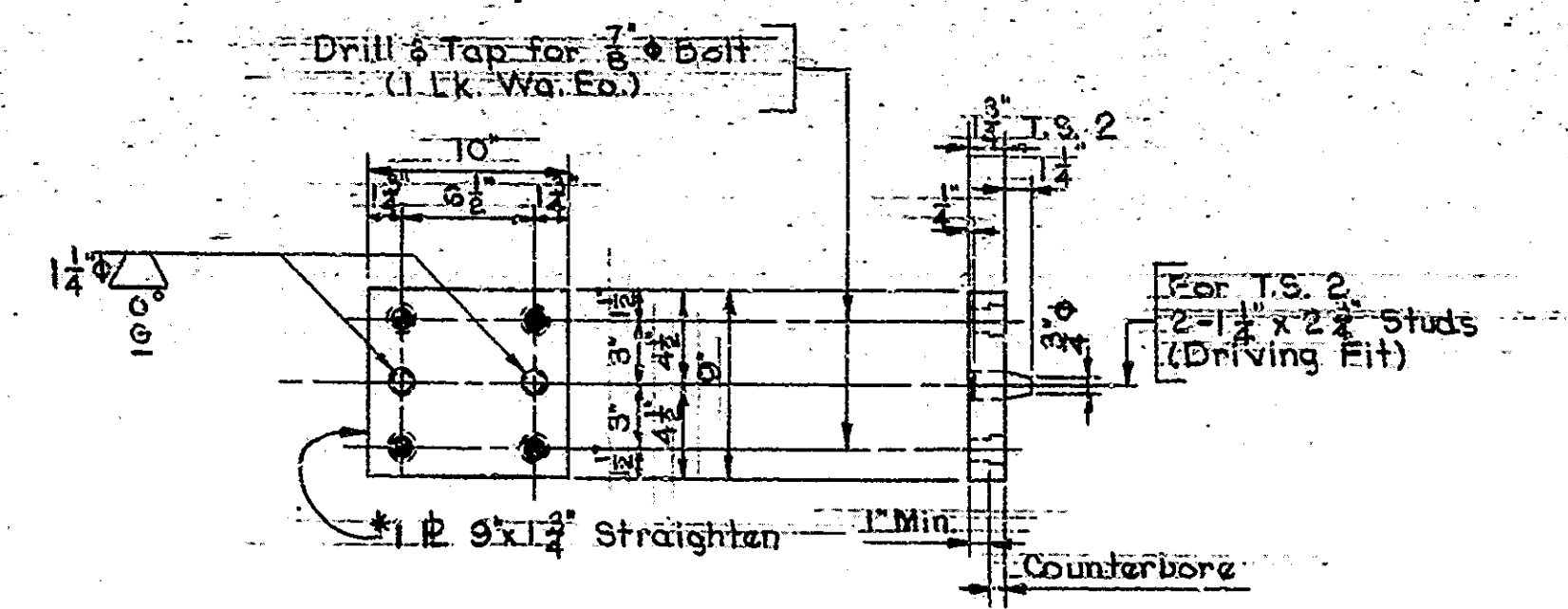
TYPICAL BEAM SPLICE
Scale: 1" = 1'-0"



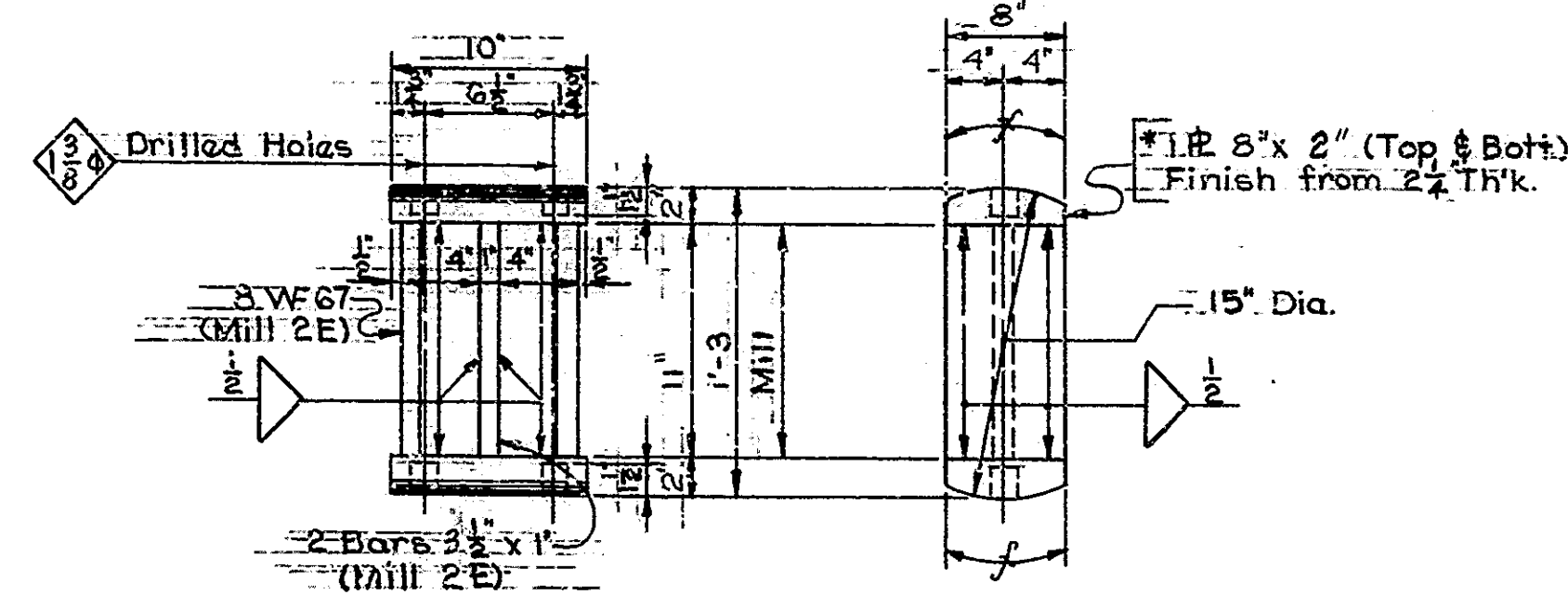
TOP SHOE 1 @ BENT NO 1 & NO 5
TOP SHOE 3 @ PIER NO 3
Scale: 1 1/2" = 1'-0"



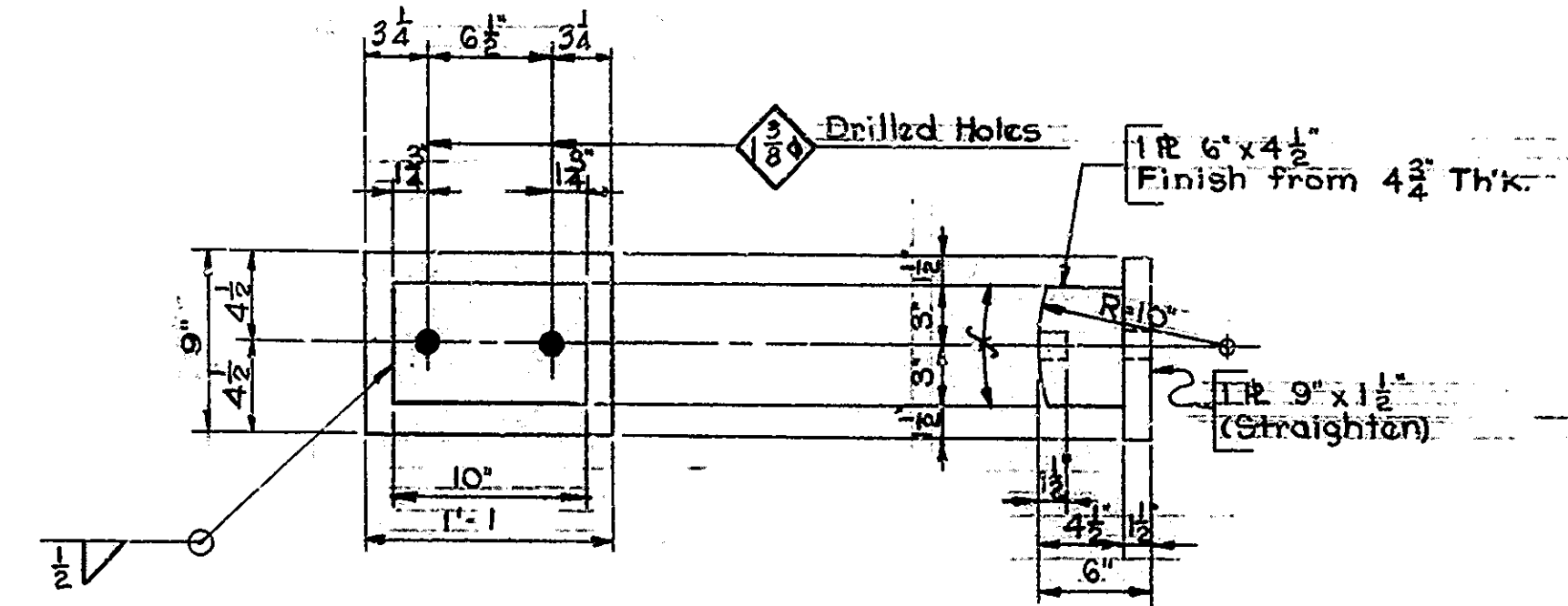
EXPANSION SHOE @ BENT NO 1 & NO 5
Scale: 1 1/2" = 1'-0"



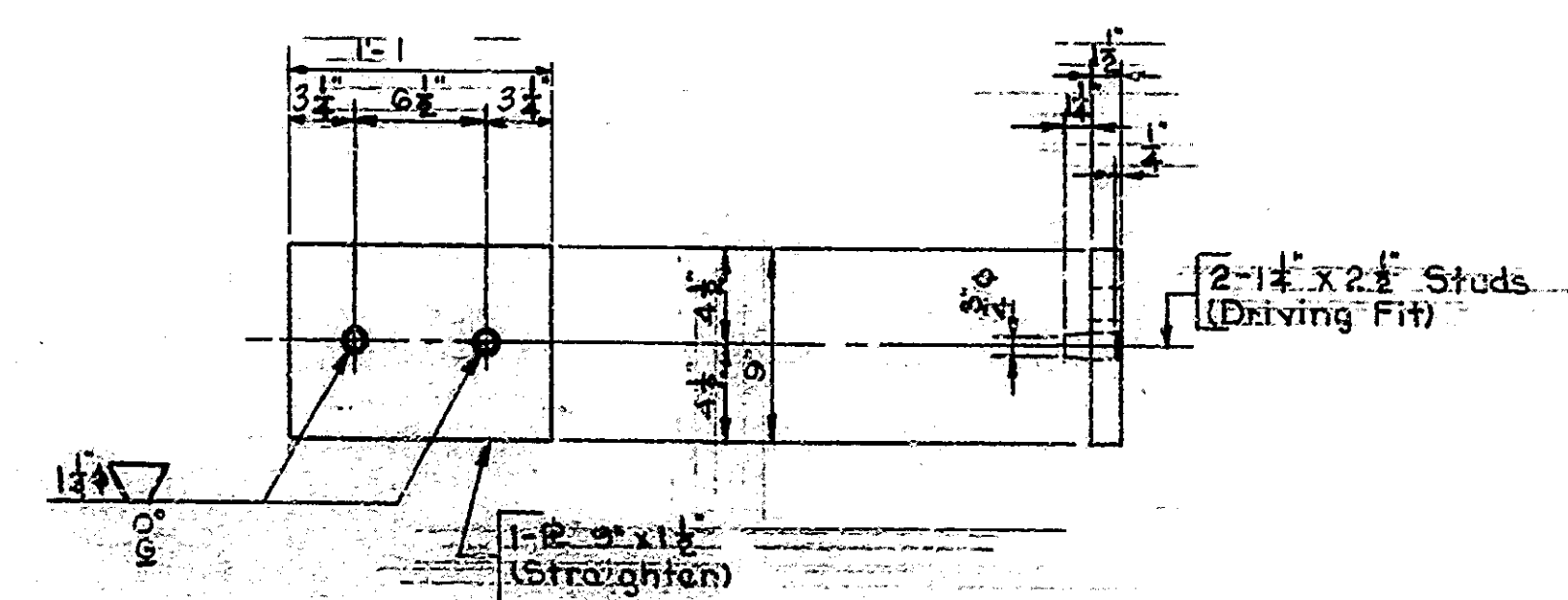
* TOP SHOE 2 @ PIERS NO 2 & NO 4
Scale: 1 1/2" = 1'-0"



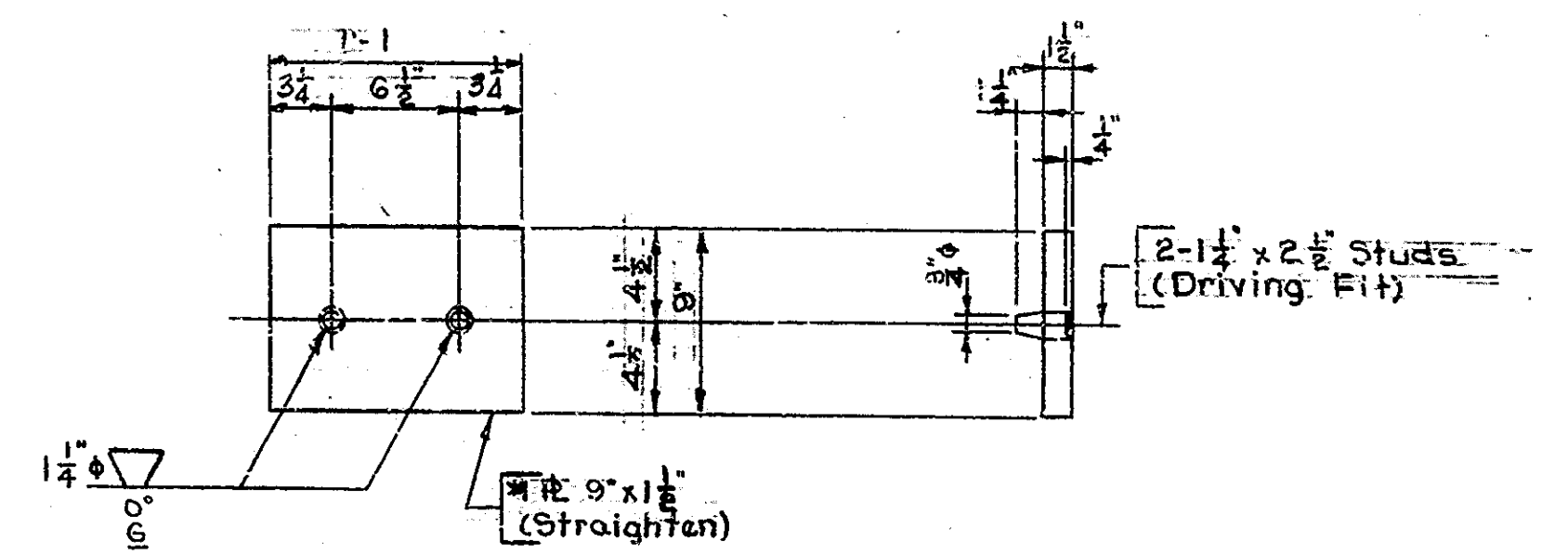
* EXPANSION SHOE @ PIERS NO 2 & NO 4
Scale: 1 1/2" = 1'-0"



FIXED SHOE @ PIER NO 3
Scale: 1 1/2" = 1'-0"



EXPANSION PLATE @ BENTS NO 1 & NO 5
Scale: 1 1/2" = 1'-0"



* EXPANSION PLATE @ PIERS NO 2 & NO 4
Scale: 1 1/2" = 1'-0"

NOTE:
The material marked * (i.e. Top Shoes, Expansion Plate, and top and bottom plates of Expansion Shoe) at Piers No 2 & No 4 to be made from High Strength Low Alloy Structural Steel (A.S.T.M. A-441)

NOTES:-
Rivets are 7/8"
Open Holes 1/8" unless noted
For Fabrication Notes see Drawg. 5-6
For Screws see Drawg. 5-10
Curved surfaces of shoes to be machined after weldments have been completed.

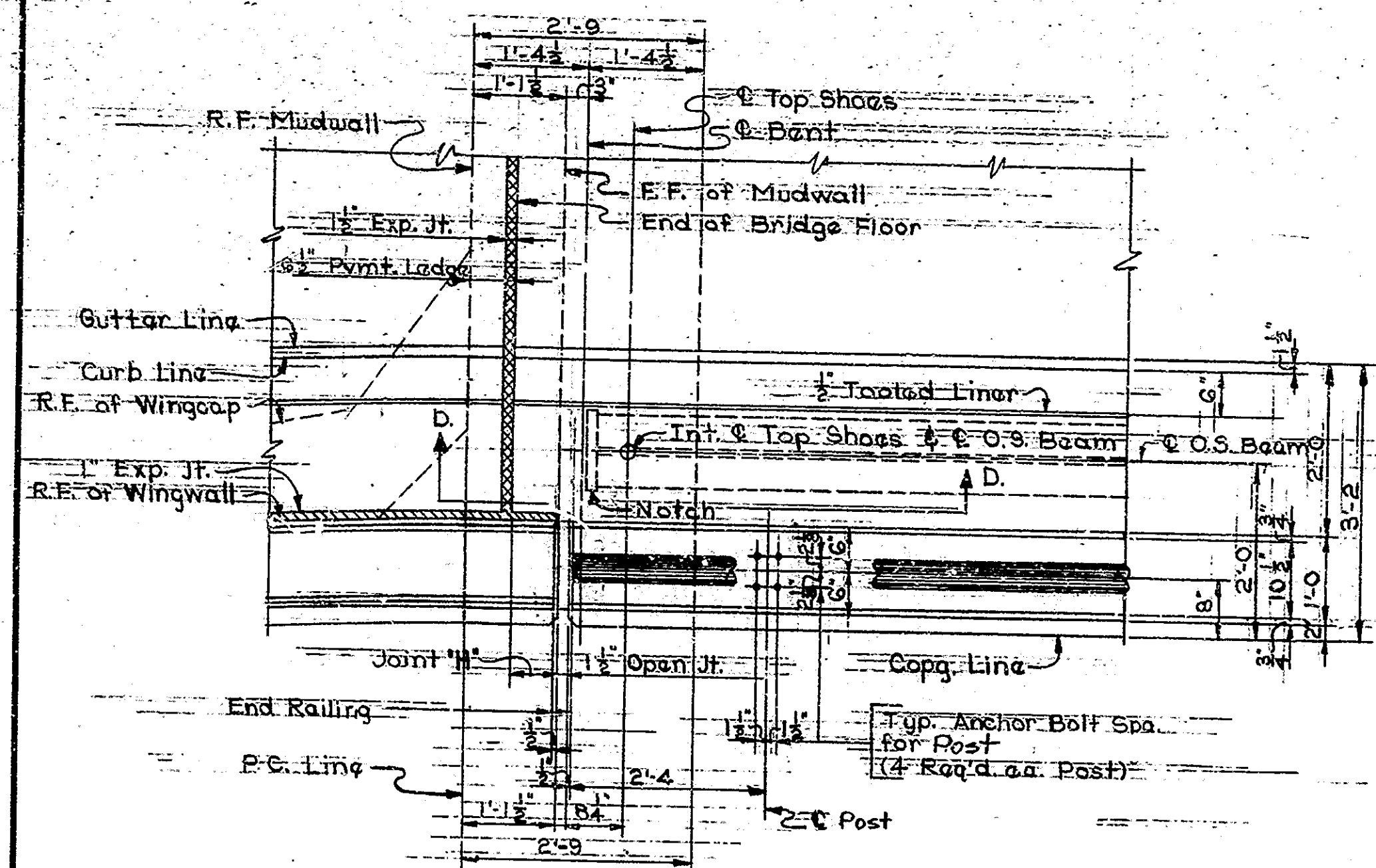
STRUCTURAL STEEL DETAILS
STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE: AS NOTED
SUBMITTED FOR APPROVAL: *James D. Mott* December 26, 1961
DRAWING: 57 OF 110
PROJECT: I-70-4 (9) 4
BRIDGE CONTRACT NO. 6118
BRIDGE FILE: I-70-4-2310

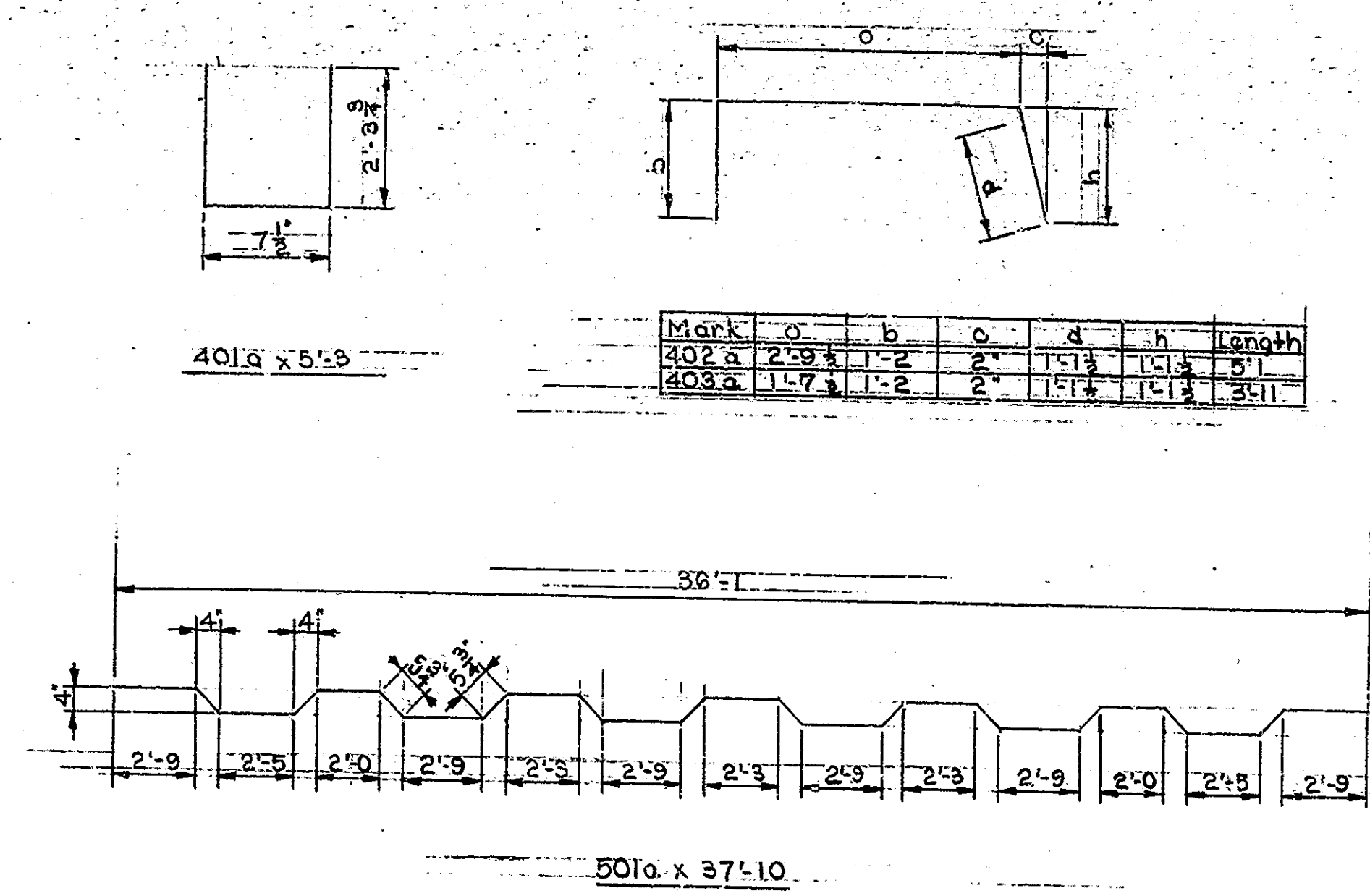
DESIGNED: J.S.S. 10-28-60 by H.W.B. 11-2-60
DRAWN: R.D. 1-24-61 by J.S.S. 2-15-61
CHECKED: *ckp*

Rev. 4-10-64 - Bearing Pls.

| BRIDGES OVER 20' SPAN | | | | | |
|-----------------------|-------|---------|--------|-------|--------|
| PUB. ROAD | STATE | PROJECT | FISCAL | SHEET | TOTAL |
| NO. | | NO. | YEAR | NO. | SHEETS |
| 4 | IND. | 1-70-1 | 1962 | 18 | 45 |
| | | 19-4 | | | |



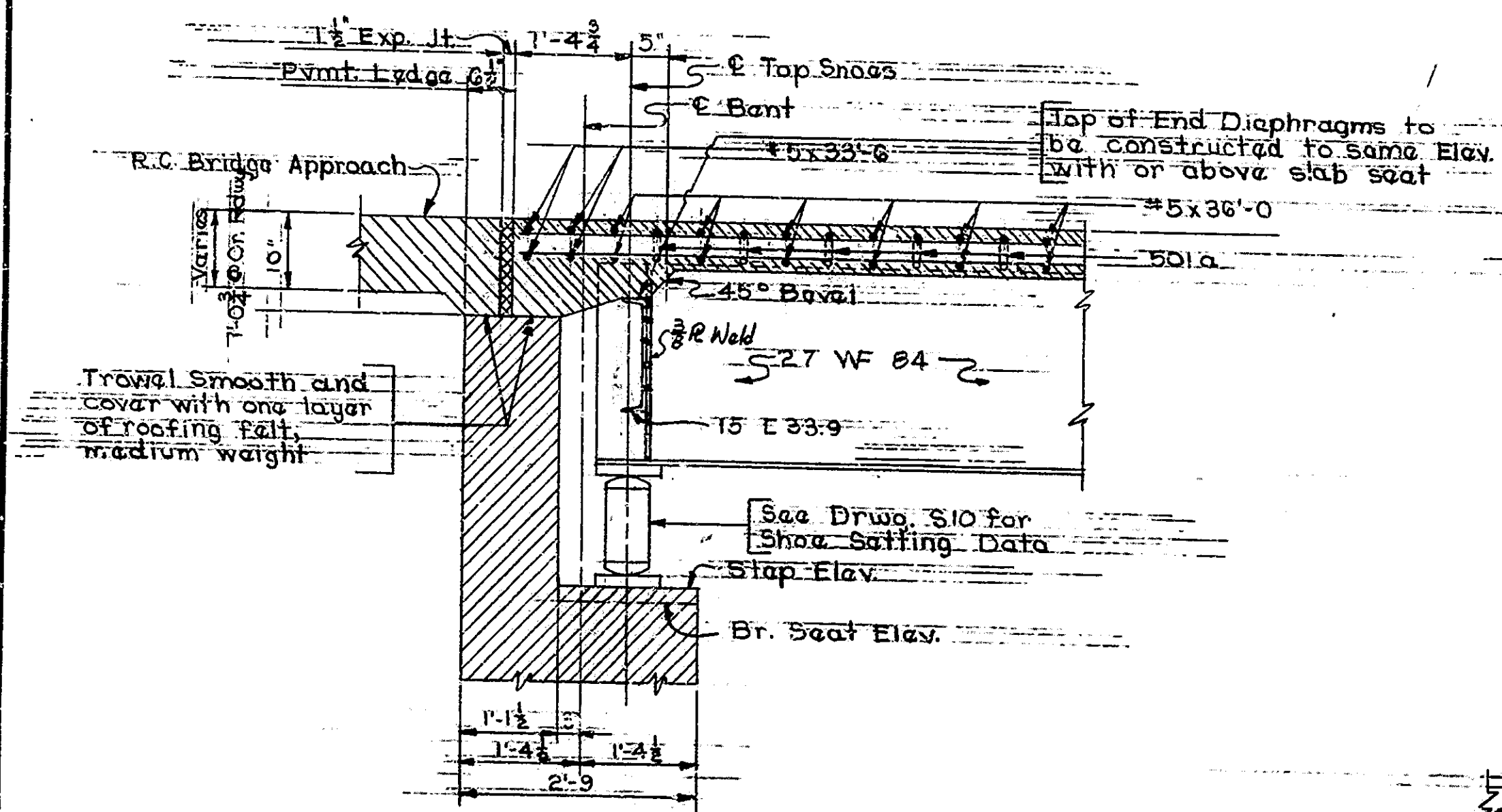
TYPICAL CORNER DETAIL



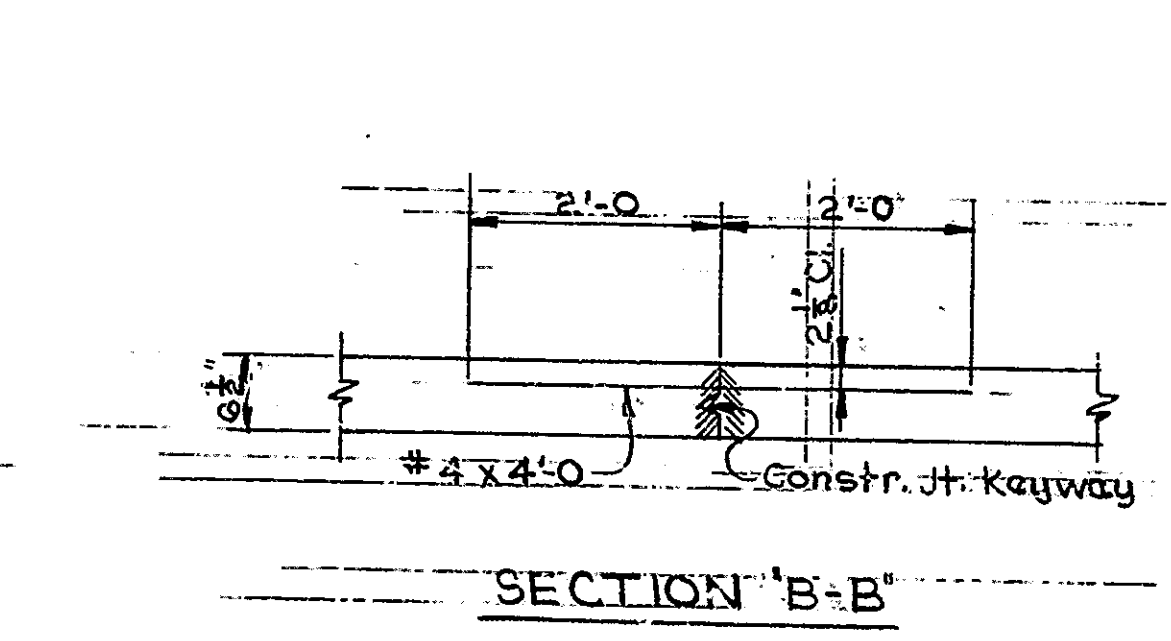
| Mark | a | b | c | d | h | Length |
|------|-----------|-------|----|-----------|-----------|--------|
| 402a | 2'-9" | 1'-2" | 2' | 1'-1 1/2" | 1'-3 1/2" | 51' |
| 403a | 1'-7 1/2" | 1'-2" | 2' | 1'-1 1/2" | 1'-3 1/2" | 311' |

BILL OF MATERIALS
SPANS 'A', 'B', 'C', & 'D'

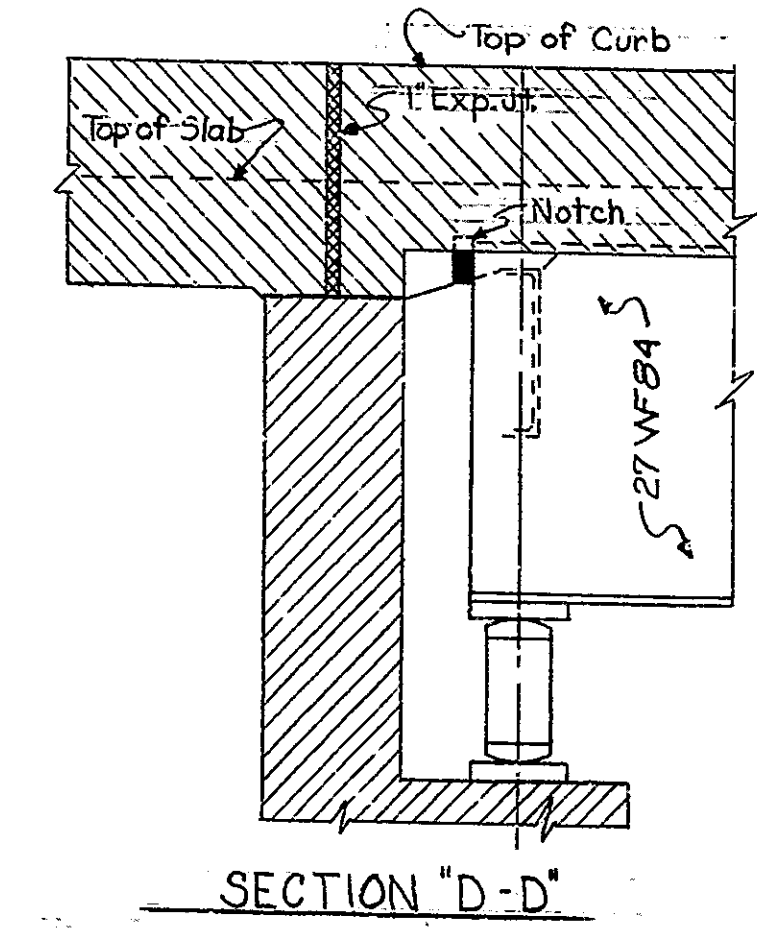
| REINFORCING STEEL | | |
|-----------------------------|-------------|---------|
| Size & No. of Mark Bars | Length | Weight |
| #5 182 | 37'-10" | |
| #5 866 | 36'-0" | |
| #5 6 | 33'-6" | |
| | Total #5 | 21,204# |
| 401a | 384 | 5'-8" |
| 402a | 245 | 5'-1" |
| 403a | 4 | 3'-11" |
| #4 340 | 33'-0" | |
| #4 54 | 4'-0" | |
| | Total #4 | 10,974# |
| #3 24 | 23'-0" | |
| #3 72 | 20'-9" | |
| | Total #3 | 814# |
| | Total Steel | 32,992# |
| CONCRETE | | |
| Class: P-6 Super Slab | | |
| Pour No. 1 | 132 Cys | |
| Pour No. 2 | 253 Cys | |
| Pour No. 3 | 253 Cys | |
| Pour No. 4 | 315 Cys | |
| Pour No. 5 (RT-413) | | |
| Alkal. 2 @ 50 Cys | 100 Cys | |
| Pour No. 6 (RT-413) | | |
| Alkal. 2 @ 100 Cys | 200 Cys | |
| Pour No. 7 (RT-413) | | |
| Alkal. 2 @ 100 Cys | 200 Cys | |
| Pour No. 8 (RT-413) | | |
| Alkal. 2 @ 120 Cys | 240 Cys | |
| Total Class P-6 | | |
| (Except Railings) | 1699 Cys | |
| Railings Concrete | | |
| (RT-413 Alkal. 2 @ 100 Cys) | 200 Cys | |
| MISCELLANEOUS | | |
| Railings: Top to A | | |
| (RT-413 Alkal. 2 @ 100 Cys) | 200 Cys | |



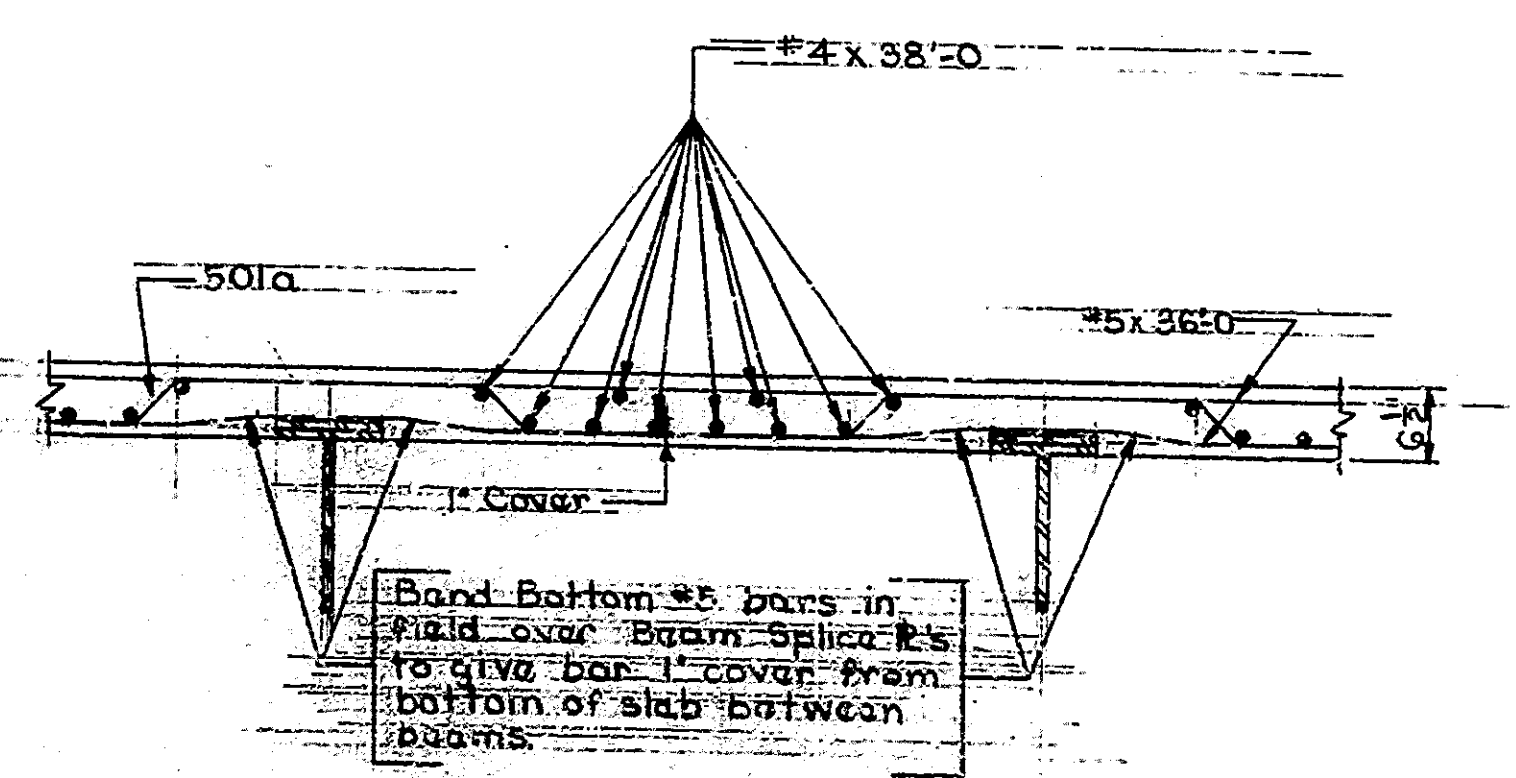
SECTION 'A-A'



SECTION 'B-B'



SECTION 'D-D'



FIELD BEND REQUIRED ON #5 BARS OVER BEAM SPLICES

NOTES:-
For location of sections 'A-A', 'A-A', 'A-A' and 'B-B' see Drawg. S-8
For Reinforcing Bar Notes and Notch at end of beams, see Br. Std. 'C'
For Joint Legend, see Drawg. S-2

FLOOR DETAILS & BILL OF MATERIALS
STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE: 3/4"=1'-0"
December 26, 1961
SUBMITTED FOR APPROVAL: James D. Mathis
DRAWING: S-9 OF 10
PROJECT: I-70-1(9)4
BRIDGE CONTRACT NO. 6118
BRIDGE FILE: I-70-4-2310

DESIGNED JSS:10-26-60 rev. 11-2-60
DRAWN F.D. 12-19-60 C.R. REC. 12-19-60
TRACED C.K.D.

Rev. 4-10-64 - Diaph

TABLE OF ELEVATIONS - E.B. LANE

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|----------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Elevation Top of Coping Form | 496.470 | 496.460 | 496.445 | 496.410 | 496.375 | 496.355 | 496.340 | 496.310 | 496.280 | 496.235 | 496.185 | 496.160 | 496.140 | 496.105 | 496.055 | 496.000 | 495.940 | 495.910 | 495.885 | 495.830 | 495.775 | 495.705 | 495.660 |
| Elevation Top of O.S. Bm. | | | | | | | | | | | | | | | | | | | | | | | |
| Dist. Top Bm. to Top Coping Form | | | | | | | | | | | | | | | | | | | | | | | |
| Elevation Top of Screed | 495.635 | 495.625 | 495.610 | 495.580 | 495.540 | 495.520 | 495.505 | 495.475 | 495.445 | 495.400 | 495.350 | 495.325 | 495.310 | 495.270 | 495.225 | 495.170 | 495.105 | 495.080 | 495.050 | 495.000 | 494.940 | 494.870 | 494.825 |
| Elevation Top of Bm. | | | | | | | | | | | | | | | | | | | | | | | |
| Dist. Top Bm. to Top Screed | | | | | | | | | | | | | | | | | | | | | | | |
| Elevation Top of Coping Form | 496.470 | 496.460 | 496.445 | 496.410 | 496.375 | 496.355 | 496.340 | 496.310 | 496.280 | 496.235 | 496.185 | 496.160 | 496.140 | 496.105 | 496.055 | 496.000 | 495.940 | 495.910 | 495.885 | 495.830 | 495.775 | 495.705 | 495.660 |
| Elevation Top of O.S. Bm. | | | | | | | | | | | | | | | | | | | | | | | |
| Dist. Top Bm. to Top Coping Form | | | | | | | | | | | | | | | | | | | | | | | |

TABLE OF ELEVATIONS - W.B. LANE

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|----------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Elevation Top of Coping Form | 496.470 | 496.460 | 496.445 | 496.410 | 496.375 | 496.355 | 496.340 | 496.310 | 496.280 | 496.235 | 496.185 | 496.160 | 496.140 | 496.105 | 496.055 | 496.000 | 495.940 | 495.910 | 495.885 | 495.830 | 495.775 | 495.705 | 495.660 |
| Elevation Top of O.S. Bm. | | | | | | | | | | | | | | | | | | | | | | | |
| Dist. Top Bm. to Top Coping Form | | | | | | | | | | | | | | | | | | | | | | | |
| Elevation Top of Screed | 495.635 | 495.625 | 495.610 | 495.580 | 495.540 | 495.520 | 495.505 | 495.475 | 495.445 | 495.400 | 495.350 | 495.325 | 495.310 | 495.270 | 495.225 | 495.170 | 495.105 | 495.080 | 495.050 | 495.000 | 494.940 | 494.870 | 494.825 |
| Elevation Top of Bm. | | | | | | | | | | | | | | | | | | | | | | | |
| Dist. Top Bm. to Top Screed | | | | | | | | | | | | | | | | | | | | | | | |
| Elevation Top of Coping Form | 496.470 | 496.460 | 496.445 | 496.410 | 496.375 | 496.355 | 496.340 | 496.310 | 496.280 | 496.235 | 496.185 | 496.160 | 496.140 | 496.105 | 496.055 | 496.000 | 495.940 | 495.910 | 495.885 | 495.830 | 495.775 | 495.705 | 495.660 |
| Elevation Top of O.S. Bm. | | | | | | | | | | | | | | | | | | | | | | | |
| Dist. Top Bm. to Top Coping Form | | | | | | | | | | | | | | | | | | | | | | | |

| BRIDGES OVER 20' SPAN | | | | |
|-----------------------|-------|--------------|-------------|--------------|
| PUB. ROAD REG. NO. | STATE | PROJECT NO. | FISCAL YEAR | TOTAL SHEETS |
| 4 | IND. | I-70-1 (9) 4 | 1962 | 19 |

NOTES:

PURPOSE:
 "Plan of Screeds" shows locations of screeds. "Table of Elevations" shows data for setting screeds and coping forms, so that the slab and copings will be at the final grade elevations after all the concrete has been poured. "Table I" shows data for setting Expansion Plates.

GENERAL PROCEDURE:
 (1) After all rivets have been driven, adjust the superstructure longitudinally so that dimension "C" from the centerline of the Top Shoe to the face of the Mudwall at Bents N^o 1 & N^o 5 are equal.
 (2) With the superstructure in the adjusted position, call for in (1), and the Fixed Shoe to the Anchor B.M. AP1 at Pier N^o 3.
 (3) Adjust the expansion plates under each expansion shoe in accordance with dimension A or B in Table I for the prevailing temperature. Note that dimension A is always the distance from a vertical line through the E of the Top Shoe in a direction away from the Fixed Shoe. Weld Expansion Plates to Anchor Plates MK AP1 at Piers 2 & 4.
 (4) After the shoes are set, take elevations at all screed points on top of adjacent beams. Enter these elevations in the "Table of Elevations". Subtract these elevations from the tabulated elevations and use the resulting dimension as the height for setting the screed or coping form above that point. This dimension remains constant regardless of how much or in what order the concrete is poured. Do not set screeds or coping forms by leveling.
 (5) No concrete in the floor is to be poured until the above operations are completed.

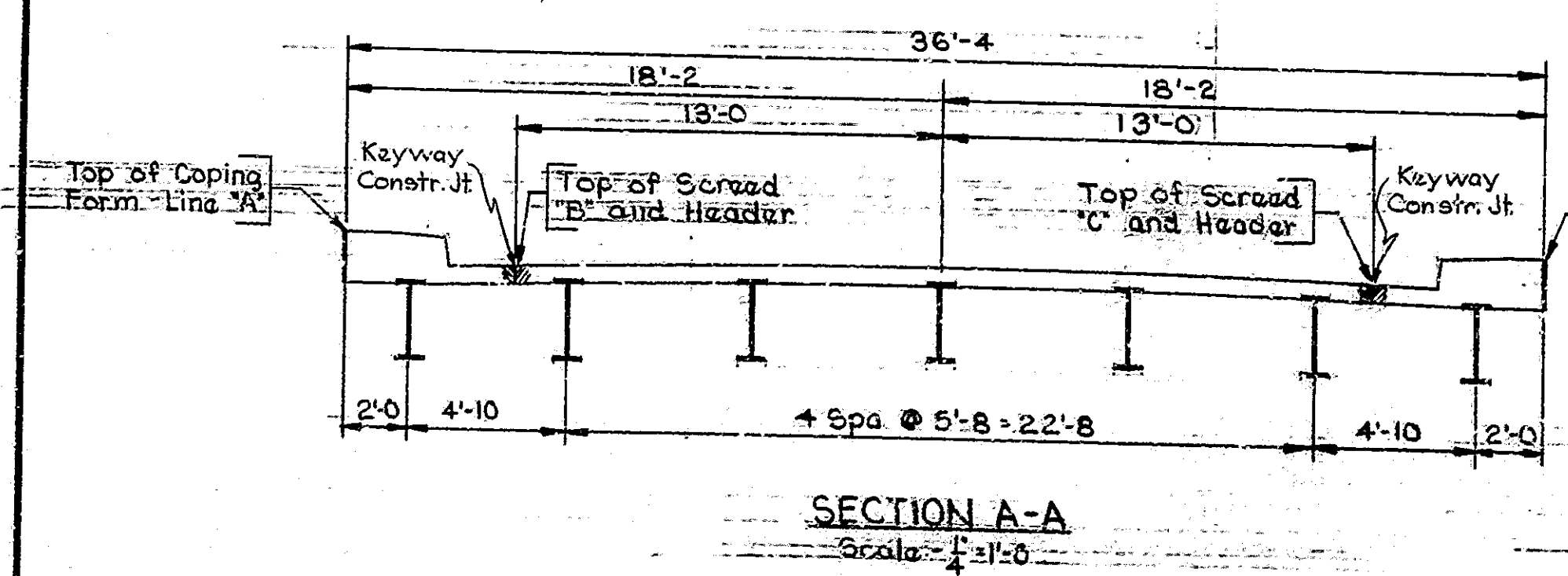
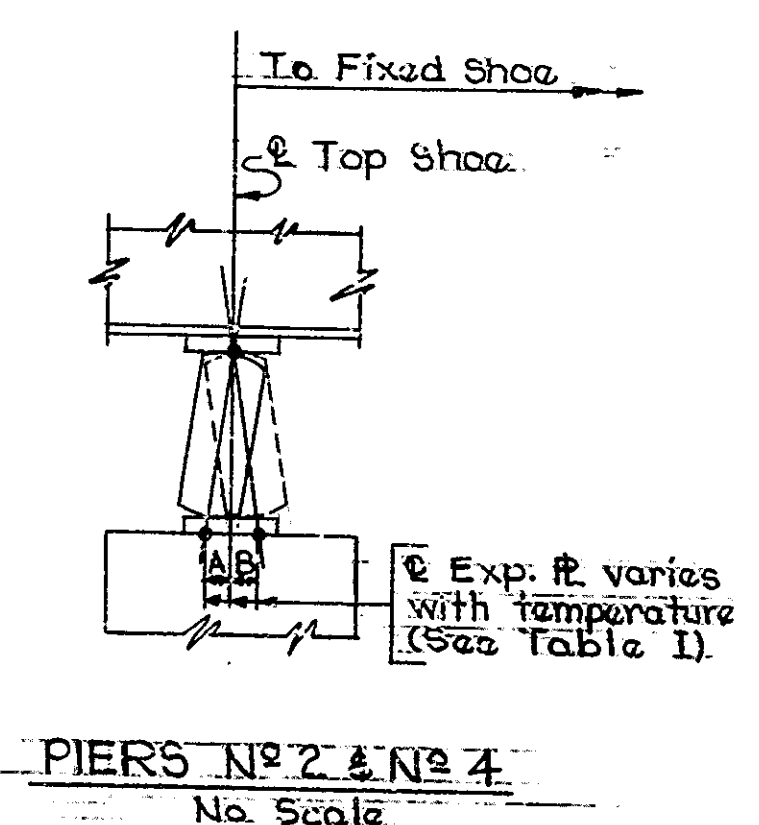
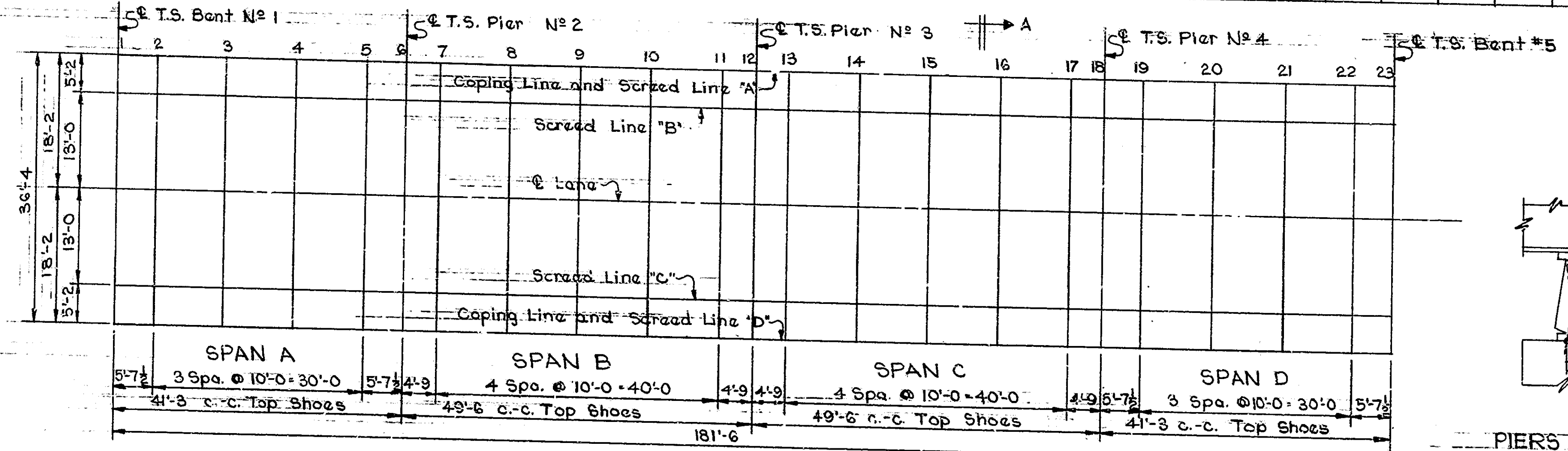


TABLE I

| | Dimension A | | | | | | Dimension B | | | | | |
|------------------------------------|-------------|-----|-----|-----|-----|------|-------------|-----|-----|-----|-----|------|
| | 0° | 20° | 40° | 60° | 80° | 100° | 0° | 20° | 40° | 60° | 80° | 100° |
| Bent #1 or #5 Dim. T.S. to Exp. P. | 15" | 13" | 8" | 5" | 3" | 1" | 15" | 13" | 8" | 5" | 3" | 1" |
| Pier #2 or #4 Dim. T.S. to Exp. P. | 16" | 14" | 9" | 6" | 4" | 2" | 16" | 14" | 9" | 6" | 4" | 2" |

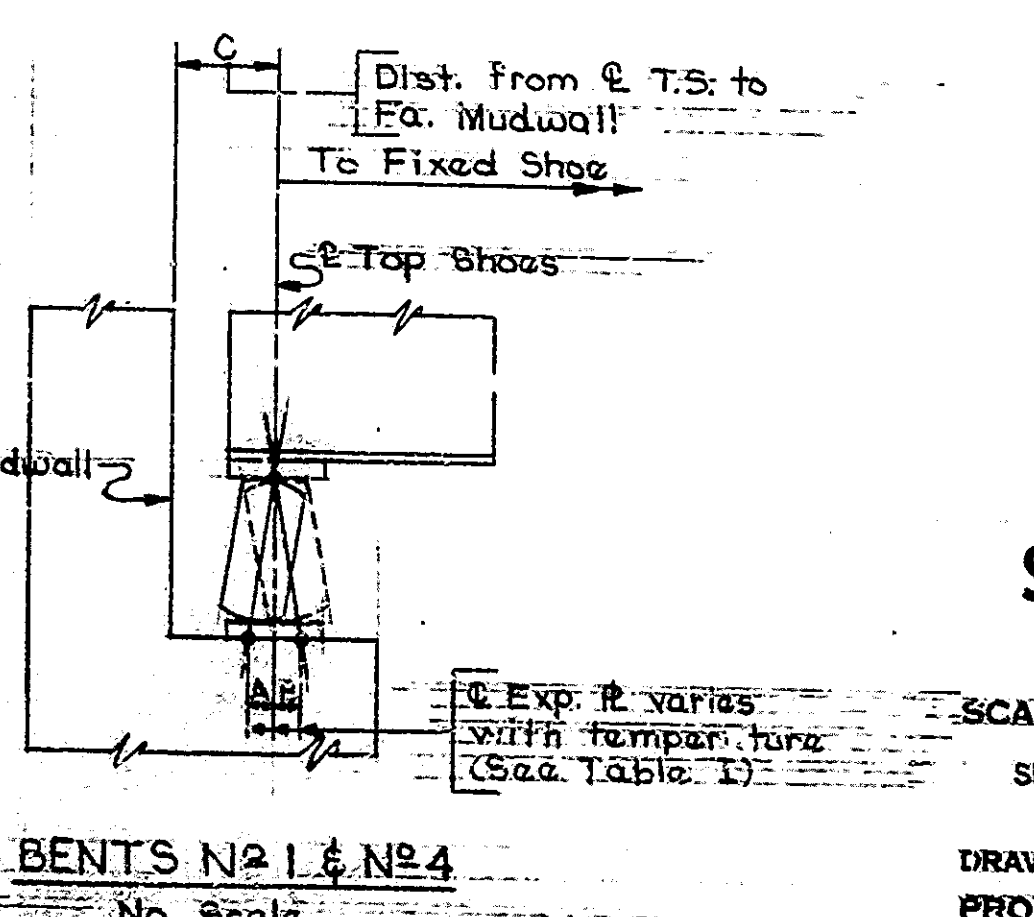
Top of Coping Form - Line "D"

Span A or C: 3 Spa. @ 10'-0" = 30'-0"

Span B or D: 4 Spa. @ 10'-0" = 40'-0"

Dim. C: 18'-2" (Span A), 13'-0" (Span B), 13'-0" (Span C), 18'-2" (Span D)

Symm. about Pier N^o 3



SCREEDS
 STATE HIGHWAY DEPARTMENT OF INDIANA

SCALE: AS NOTED
 SUBMITTED FOR APPROVAL: James D. Mattis
 December 26, 1961

DESIGNED J.S.S. 11-1-60
 DRAWN D.E.O. 1-25-61
 CHECKED J.S.S. 1-9-61
 TRACED C.V.D.

DRAWING: 310 OF 10
 PROJECT: I-70-1 (9) 4
 BRIDGE CONTRACT NO. 6116
 BRIDGE FILE: I-70-4-2316

Rev. 4-10-64 ~ Notes

STRUCTURE QUANTITIES

| ITEM | CONCRETE | | RAILING CONCRETE | | REINFORCING STEEL (1934 STD. WTS) | | | | | | | | | | STRUCTURAL STEEL ESTIMATED | CAST IRON | 1 1/2" STEEL ENCASED CONCRETE PILES | TREATED TIMBER PILES | RAILING Type 1 or 2 | ANCHOR PLATES MK-AP1 | |
|-------------------------------|----------|----------|------------------|----------|-----------------------------------|-------------|------------|------------|------------|------------|------------|------------|------------|------------|----------------------------|-----------|-------------------------------------|----------------------|---------------------|----------------------|--------|
| | CLASS D | CLASS E | CLASS F | CLASS G | #11(1/2") | #10(1 1/4") | #9(1 1/8") | #8(1 1/4") | #7(1 1/8") | #6(1 1/4") | #5(1 1/8") | #4(1 1/4") | #3(1 1/8") | #2(1 1/4") | | | | | | | TOTALS |
| | CU. YDS. | CU. YDS. | CU. YDS. | CU. YDS. | CU. YDS. | CU. YDS. | CU. YDS. | CU. YDS. | CU. YDS. | CU. YDS. | CU. YDS. | CU. YDS. | CU. YDS. | CU. YDS. | | | | | | | LBS. |
| | CU. YDS. | CU. YDS. | CU. YDS. | CU. YDS. | CU. YDS. | CU. YDS. | CU. YDS. | CU. YDS. | CU. YDS. | CU. YDS. | CU. YDS. | CU. YDS. | CU. YDS. | CU. YDS. | | | | | | | LBS. |
| V.V. LANE SUBSTRUCTURE | | | | | | | | | | | | | | | | | | | | | |
| Bent No 1 | 26.3 | | | | | | | | | | | | | | | | | | | | |
| Pier No 2 | 17.2 | | 31.8 | 15.2 | 2.4 | | | | | | | | | | | | | | | | |
| Pier No 3 | 17.2 | | 35.5 | 17.0 | | | | | | | | | | | | | | | | | |
| Pier No 4 | 17.2 | | 31.8 | 15.2 | | | | | | | | | | | | | | | | | |
| Bent No 5 | 26.3 | | | | 2.4 | | | | | | | | | | | | | | | | |
| SUPERSTRUCTURE | | | | | | | | | | | | | | | | | | | | | |
| | 169.9 | | | | 19.0 | | | | | | | | | | | | | | | | |
| E.B. LANE SUBSTRUCTURE | | | | | | | | | | | | | | | | | | | | | |
| Bent No 1 | 26.3 | | | | 2.4 | | | | | | | | | | | | | | | | |
| Pier No 2 | 17.2 | | 31.8 | 15.2 | | | | | | | | | | | | | | | | | |
| Pier No 3 | 17.2 | | 35.5 | 17.0 | | | | | | | | | | | | | | | | | |
| Pier No 4 | 17.2 | | 31.8 | 15.2 | | | | | | | | | | | | | | | | | |
| Bent No 5 | 26.3 | | | | 2.4 | | | | | | | | | | | | | | | | |
| SUPERSTRUCTURE | | | | | | | | | | | | | | | | | | | | | |
| | 169.9 | | | | 19.0 | | | | | | | | | | | | | | | | |
| SPLICE BARS | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| TOTALS | 548.2 | | 196.2 | 94.8 | 47.6 | | | | | | | | | | | | | | | | |

| BRIDGES OVER 20' SPAN | | | | | |
|-----------------------|-------|-------------|-------------|-----------|--------------|
| FED. ROAD DIST. NO. | STATE | PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| 4 | IND | I-70-1(9)4 | 1962 | 20 | 45 |

SUMMARY

| ITEM | DESCRIPTION | UNIT | QUANTITY |
|------|--|----------|----------|
| 1 | Class F Concrete | Cu. Yds. | 548.2 |
| 2 | Class D Concrete | Cu. Yds. | |
| 3 | Class E Concrete above Footings | Cu. Yds. | 196.2 |
| 4 | Class E Concrete in Footings | Cu. Yds. | 94.8 |
| 5 | Railing Concrete | Lin. Ft. | |
| 6 | Reinforcing Steel | Lbs. | 103,586 |
| 7 | Structural Steel | Lbs. | |
| 8 | Cast Iron | Lbs. | |
| 9 | Untreated Timber Piles Furnished | Lin. Ft. | |
| 10 | Untreated Timber Piles Driven | Lin. Ft. | |
| 11 | Finishing Equipment for Driving Piles | Lump Sum | 1 |
| 12 | Wet Excavation | Cu. Yds. | |
| 13 | Waterway Excavation | Cu. Yds. | |
| 14 | Common Excavation | Cu. Yds. | 660 |
| 15 | Special Borrow | Cu. Yds. | 143,750 |
| 16 | Grade B. Special Borrow | Cu. Yds. | 34,840 |
| 17 | Gridding | Sq. Yds. | 3,375 |
| 18 | Mulched Seeding | Sq. Yds. | |
| 19 | Cement Concrete Pavement | Sq. Yds. | |
| 20 | Reinforced Cement Concrete Pavement | Sq. Yds. | |
| 21 | Thickened Rein. Cement Concrete Pavement | Sq. Yds. | |
| 22 | Compacted Aggregate Base Type P | Tons | 2,080 |
| 23 | Removal Present Structure | Lump Sum | |
| 24 | Temporary Bridge and Approaches | Lump Sum | |
| 25 | Warning Signs | Each | |
| 26 | Std. Barricades (Type A) | Each | |
| 27 | Class D Concrete in Structures | Cu. Yds. | 10.8 |
| 28 | R/W Markers | Each | |
| 29 | Steel Pile Shells Furnished (2") | Lin. Ft. | 1,620 |
| 30 | Steel Pile Shells Driven (2") | Lin. Ft. | 1,620 |
| 31 | Treated Timber Piles Furnished | Lin. Ft. | 2,280 |
| 32 | Treated Timber Piles Driven | Lin. Ft. | 2,280 |
| 33 | Railing Type 1 or Type A | Lin. Ft. | 731.2 |
| 34 | Railing Concrete (Parapet Wall) | Cu. Yds. | 47.6 |
| 35 | Structural Steel | Lump Sum | 1 |
| 36 | Foundation Excavation (Unclassified) | Cu. Yds. | 80 |
| 37 | 12" Pipe (Group "D") - 16 Ga. | Lin. Ft. | 38 |
| 38 | 24" Pipe (Group "A") - 14 Ga. | Lin. Ft. | 390 |
| 39 | 30" Pipe (Group "A") - 14 Ga. | Lin. Ft. | 250 |
| 40 | Monuments (Type "C") | Each | 2 |
| 41 | Std. Barricades (Type "B") | Each | 2 |
| 42 | Paved Side Ditch (Type "B") | Lin. Ft. | 600 |
| 43 | Typical Sign Standards | Each | 4 |
| 44 | Anchor Plate - MK AP1 | Each | 70 |
| 45 | 6" Perf. C.M. Pipe 18 ga. | Lin. Ft. | 172 |
| 46 | Furnishing & Placing Agr. Limestone | Tons | 5.2 |
| 47 | Furnishing & Placing Fertilizer | Tons | 0.8 |
| 48 | Furnishing & Placing Mulching Mat | Tons | 6.5 |
| 49 | Furnishing & Placing Seed | Lbs. | 182 |
| 50 | 4" Concrete Slope Wall | Sq. Yds. | 1214 |
| 51 | Pure Calcium Chloride | Tons | 5.6 |
| 52 | | | |
| 53 | | | |
| 54 | | | |
| 55 | | | |
| 56 | | | |
| 57 | | | |
| 58 | | | |
| 59 | | | |
| 60 | | | |

BILL OF SPLICE BARS

| Size | Number | Pieces | Length | Weight |
|--------|--------|--------|--------|--------|
| #10 | 1 | | 10'-6" | 4.57 |
| #7 | 1 | | 8'-0" | 1.6 |
| #6 | 3 | | 7'-6" | 3.4 |
| #5 | 5 | | 6'-9" | 3.5 |
| #4 | 4 | | 6'-0" | 1.6 |
| #3 | 3 | | 5'-6" | 1.6 |
| Total: | | | | 15.2* |

BILL OF MATERIALS FOR R.C. BRIDGE APPROACH

| Size | Mark | No. Pcs. | Length | No. Pcs. | Length | Weight |
|-----------------------------------|------|----------|--------|----------|--------|--------|
| (Not included in Bridge Contract) | | | | | | |

BARRICADES, BARRIERS, TRAFFIC SIGNS, & LIGHTS

| ITEM | UNIT | QUANTITY | ASSEMBLY |
|-----------------------------------|------|----------|--|
| TYPICAL | | | Signs: XW-7 Signs: XW-2 |
| STANDARD | | | Torches Barricades (Type A) |
| STD. BARRICADES (Type A) | Each | | Lanterns |
| BRIDGE (VARIABLE) BARRIERS | Each | 2 | * Subtle Barriers Lanterns or Torches |
| STD. BARRICADES (Type B) | Each | 2 | Barricades (Type B) Signs: XW-1 Lanterns |
| TYPICAL SIGN STANDARDS | Each | | Signs |
| CONSTRUCTION IDENTIFICATION SIGNS | Each | 2 | ** Signs: XM-6 ** " XM-7 ** " XMB |

APPROACH STRUCTURES

| STRUCT. NO. | LOCATION | DESCRIPTION | CL. D CONC. IN STRUCT. CU. YDS. | REINF. STEEL LBS. | CAST IRON LBS. | REMARKS |
|-------------|-----------------------------|-----------------------------|---------------------------------|-------------------|----------------|----------------------|
| 152A | Sta. 214+90 (Line A) | 30" Group A Pipe - 14 Ga. | 250 | 5.78 | | 2 Cliv. Hdw's Req'd. |
| 153 | Sta. 216+20 (Line A) | 24" Group A Pipe - 14 Ga. | 320 | 3.75 | | 2 Culv. Hdw's Req'd. |
| 154 | Lt. Sta. 12+60 (Line S-B-A) | 12" Group D Pipe - 16 Ga. | 48 | 1.22 | | 2 Culv. Hdw's Req'd. |
| 151A | Lt. Sta. 214+55 (Line A) | 6" Perf. C.M. Pipe - 12 Ga. | 43 | | | |
| 151B | Rt. Sta. 214+55 (Line A) | 6" Perf. C.M. Pipe - 12 Ga. | 43 | | | |
| 155A | Lt. Sta. 216+49 (Line A) | 6" Perf. C.M. Pipe - 18 Ga. | 43 | | | |
| 155B | Rt. Sta. 216+49 (Line A) | 6" Perf. C.M. Pipe - 18 Ga. | 43 | | | |
| TOTALS | | | 10.81 | | | |

*Not a pay item. ** ReflectORIZED
*To be placed as directed by the Engineer.

NOTES:-
The weight of Structural Steel shown is approximate only and it shall be the contractor's responsibility to determine the weight on which he bases his bid.
Where Sign Standards are used in unpaved Areas the Contractor may use two posts (a) three feet in the ground.

SUMMARY
STATE HIGHWAY DEPARTMENT OF INDIANA

December 26, 1961

SUBMITTED FOR APPROVAL: *James D. Mattie*

PROJECT: I-70-1(9)4
BRIDGE CONTRACT NO. 6118
BRIDGE FILE: I-70-4-2310

BRIDGE BRJ 4-18-61 JSS 9-1-61
TOL. TLN 9-18-61 JSS 9-19-61

Rev. 4-10-64 Items No 18 Deleted 44 thru 50 Added
Rev. 7-25-62 Items No. 14, 15, 23 & 31
Rev. 3-30-62 Item No. 49 Added, Signs