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THE FINAL ESTIMATE, NORTH CAROLINA PROJECT NO. 028356
 FOR STRUCTURES ON COUNTY ROADS
 OVER MILL CREEK NEAR WALNUT COVE
 AND
 OVER DAN RIVER NEAR DANBURY
 STOKES COUNTY
 DIVISION NO. 9

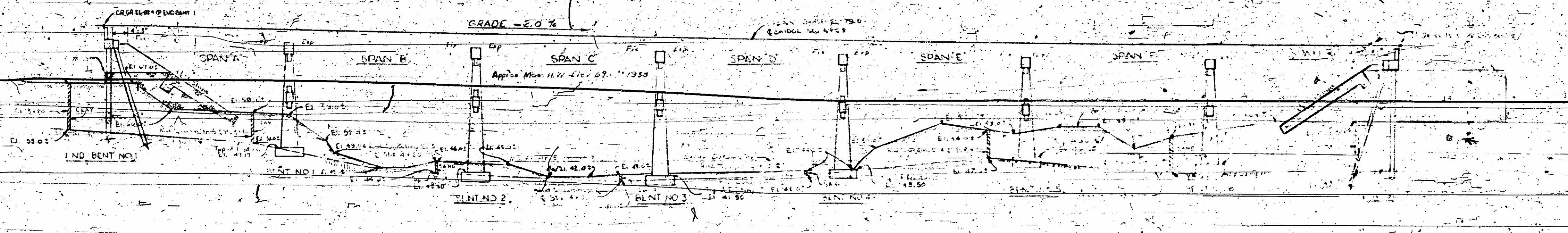
CONTRACTOR: DICKERSON, INC.
 MONROE, NC

CONTRACT LET - 10-29-57
 WORK STARTED - 12-30-57
 WORK COMPLETED - 7-31-58

Z. V. STEVART DIVISION ENGINEER
 W. S. BIZER RESIDENT ENGINEER
 R. D. GENTRY INSPECTOR

NOTE BOOKS: 1 MASONRY BOOK
 4 DIARIES

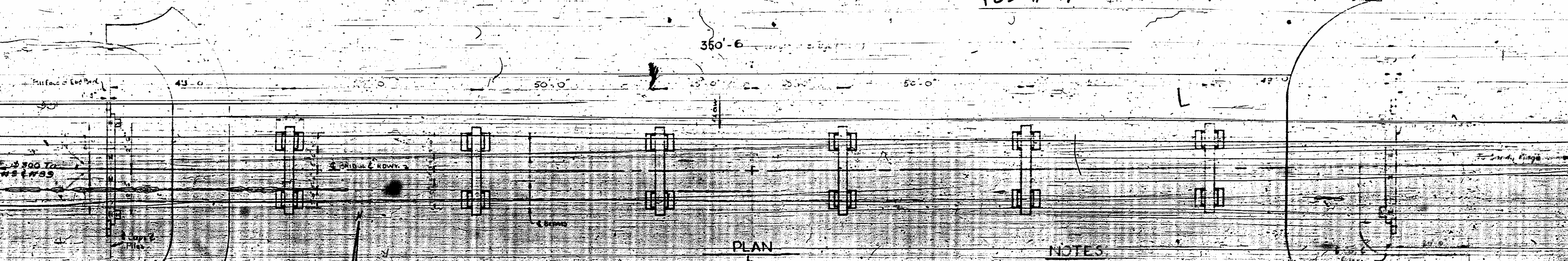
STOKES # 82
 Reel # 668
 Pos # 17



SECTION A-E-N-C BRIDGE

Reel # 668
Pos # 17

Stakes # 82



PLAN

NOTES

MAINTENANCE AND REMOVAL OF EXISTING STRUCTURE
 The existing structure located approximately 550' upstream and consisting of 9 @ 8' I-beam spans on concrete abutments and steel bents, and 2 @ 12" through steel truss on rubble masonry piers, timber floor and mill. If roadway shall be removed as follows: Superstructure completely, bents and rubble masonry piers down to one foot below natural ground line or bed of stream. In accordance with the Special Provisions from the contract, the contractor shall see Specifications.

Assumed level of 41.15
 For surface finish requirements see special provisions
 Piles for End Bents 1 & 2 shall be driven to a minimum bearing capacity of 25 tons each
 Computed foundation loads for spans 1-5
 1-5 - 31 tons per pier; Bents 2, 3, 4 & 5
 12 - 12 tons per pier
 Footing for Bent 1, 2 & 3 shall be carried at least 6' into rock, and Bents 2, 3 & 4 at least 12' into rock
 Test piles will not be used - Order test foundation 12' dia. 30' long

Roadway approaches will be 10' 1/4

TOTAL BILL OF MATERIAL

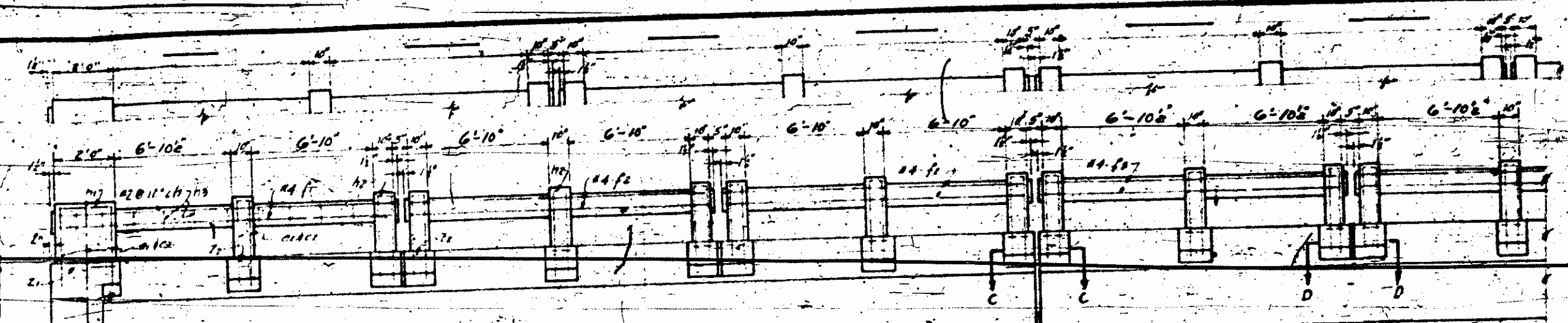
| CLASSIFICATION | QTY | UNIT | STRUCTURAL STEEL | | ALTERNATE GRADE | |
|-------------------|-------|--------|------------------|-------|-----------------|----------|
| | | | STEEL | STEEL | STEEL | CONCRETE |
| SUPPORT STRUCTURE | 287.8 | TONS | 106400 | | | |
| ABUTMENT NO. 1 | 0.2 | CU YDS | | 350 | 350 | |
| ABUTMENT NO. 2 | 0.2 | CU YDS | | 350 | 350 | |
| ABUTMENT NO. 3 | 0.2 | CU YDS | | 350 | 350 | |
| ABUTMENT NO. 4 | 0.2 | CU YDS | | 350 | 350 | |
| ABUTMENT NO. 5 | 0.2 | CU YDS | | 350 | 350 | |
| ABUTMENT NO. 6 | 0.2 | CU YDS | | 350 | 350 | |
| ABUTMENT NO. 7 | 0.2 | CU YDS | | 350 | 350 | |
| ABUTMENT NO. 8 | 0.2 | CU YDS | | 350 | 350 | |
| ABUTMENT NO. 9 | 0.2 | CU YDS | | 350 | 350 | |
| TOTALS | 292.8 | TONS | 106400 | 3500 | 3500 | |

PROJECT NO. 6, 2856
 STOKES COUNTY
 STATION: 2+05

STATE OF NORTH CAROLINA
 STATE HIGHWAY COMMISSION

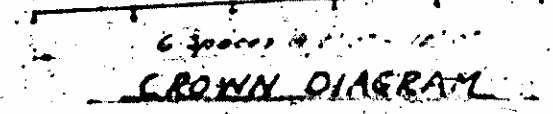
GENERAL DRAWING
 FOR BRIDGE OVER

W.H. RAY
 11/22/59



SECTION D-D

SECTION C-C



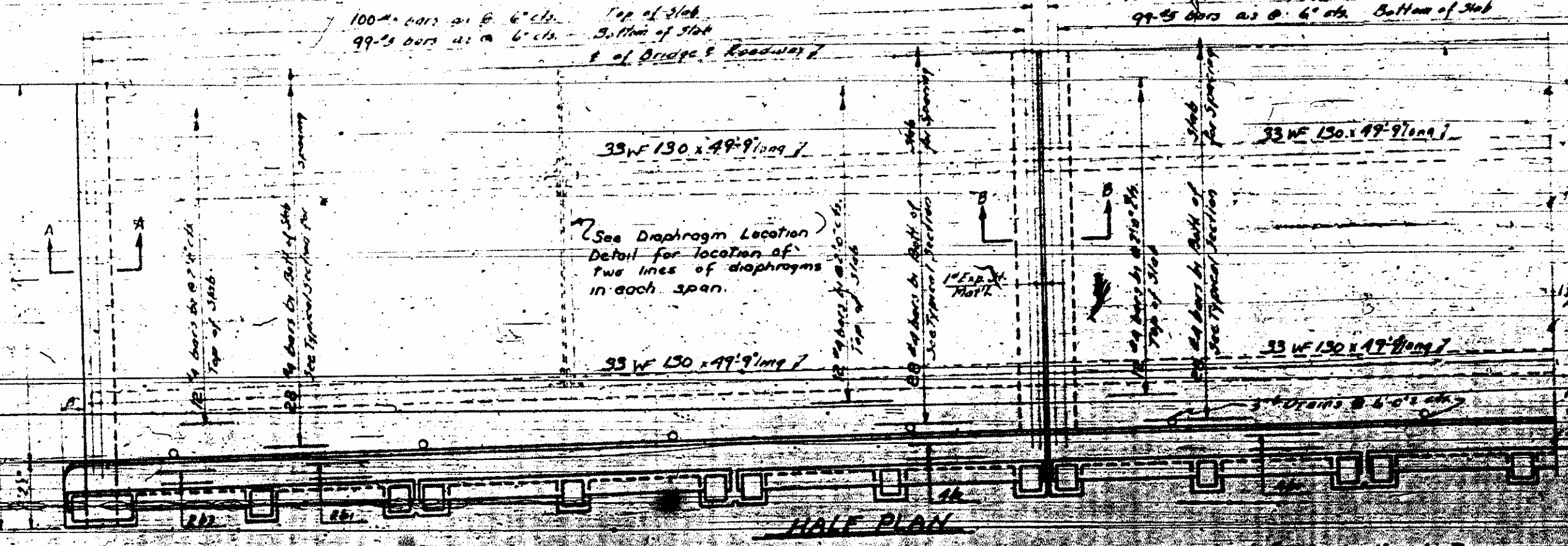
CROWN DIAGRAM

NOTE: For fixed and expansion end of beams see General Drawing

ELEVATION

HALF TYPICAL SECTION

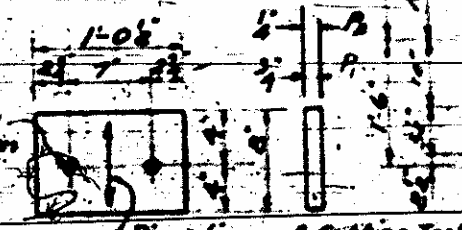
HALF END VIEW



See Diaphragm Location Detail for location of two lines of diaphragms in each span.

DRAIN DETAIL

Note: Pipe drains to be either cast-iron or standard weight galvanized steel.
 Required: 126

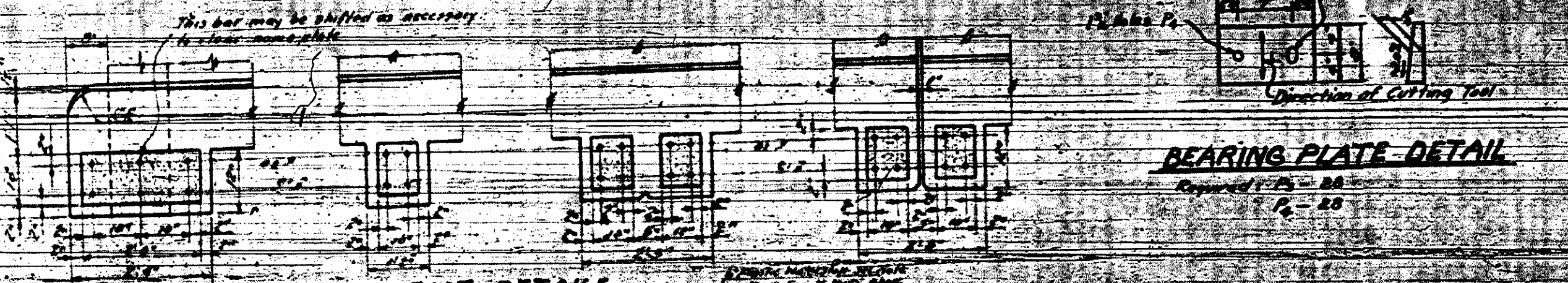


BEARING PLATE DETAIL

Note: Field connections of diaphragms to beams shall be bolted using 5/8" dia. strength bolts in accordance with the Special Provisions.

HALF TYPICAL SECTION

NOTE: Connections shall conform to the connections of channel to girders may be either welded or riveted using 5/16" rivets.



BEARING PLATE DETAIL

Required: 12-20
 12-20

BILL OF MATERIAL FOR 7 SPANS 50'-0"

| Qty | No | Size | Type | Length | Weight |
|-----|-----|------|------|--------|--------|
| 41 | 760 | 25 | 1 | 21'-0" | 18918 |
| 41 | 673 | 25 | 6 | 21'-0" | 19184 |
| 4 | 976 | 24 | 24 | 17'-5" | 11322 |
| 4 | 84 | 24 | 2 | 20'-5" | 387 |
| 4 | 8 | 24 | 2 | 20'-9" | 111 |
| 4 | 876 | 24 | 2 | 21'-9" | 641 |
| 4 | 876 | 24 | 2 | 21'-0" | 684 |
| 2 | 16 | 24 | 30 | 17'-5" | 184 |
| 2 | 28 | 24 | 30 | 16'-8" | 346 |
| 2 | 180 | 24 | 30 | 16'-5" | 1503 |
| 4 | 4 | 21 | 1 | 21'-0" | 8 |
| 4 | 106 | 21 | 1 | 21'-0" | 136 |
| 4 | 710 | 21 | 1 | 21'-0" | 510 |
| 4 | 4 | 24 | 30 | 20'-0" | 168 |
| 4 | 8 | 24 | 30 | 19'-6" | 170 |
| 4 | 48 | 24 | 4 | 16'-4" | 1106 |
| 2 | 4 | 24 | 1 | 21'-0" | 8 |
| 2 | 106 | 24 | 1 | 21'-0" | 136 |

PROJECT NO. 88356
 STOKES COUNTY
 STATION: 5+05

STATE HIGHWAY COMMISSION
 STANDARD I-BEAM SUPERSTRUCTURE WITH R.C. FLOOR AND RAIL 7 SINGLE 50'-0" SPANS

POST DETAILS

NOTE: Plastic Waterstop to be Flextrip as manufactured by Master Seal Inc. 9-3, Clinton St. Chicago, Ill. or an approved equal. Flextrip is two containers in expansion joints between major lines of post base and shall be installed in accordance with manufacturer's recommendations.

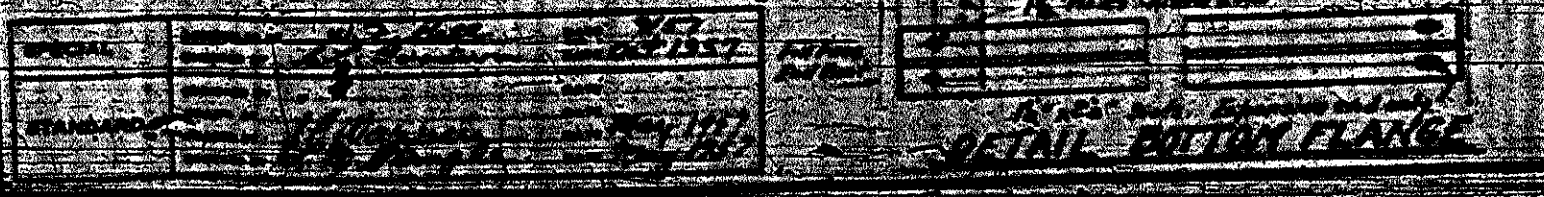


SECTION THROUGH BEAM

SECTION A-A

SECTION B-B

DIAPHRAGM LOCATION DETAIL

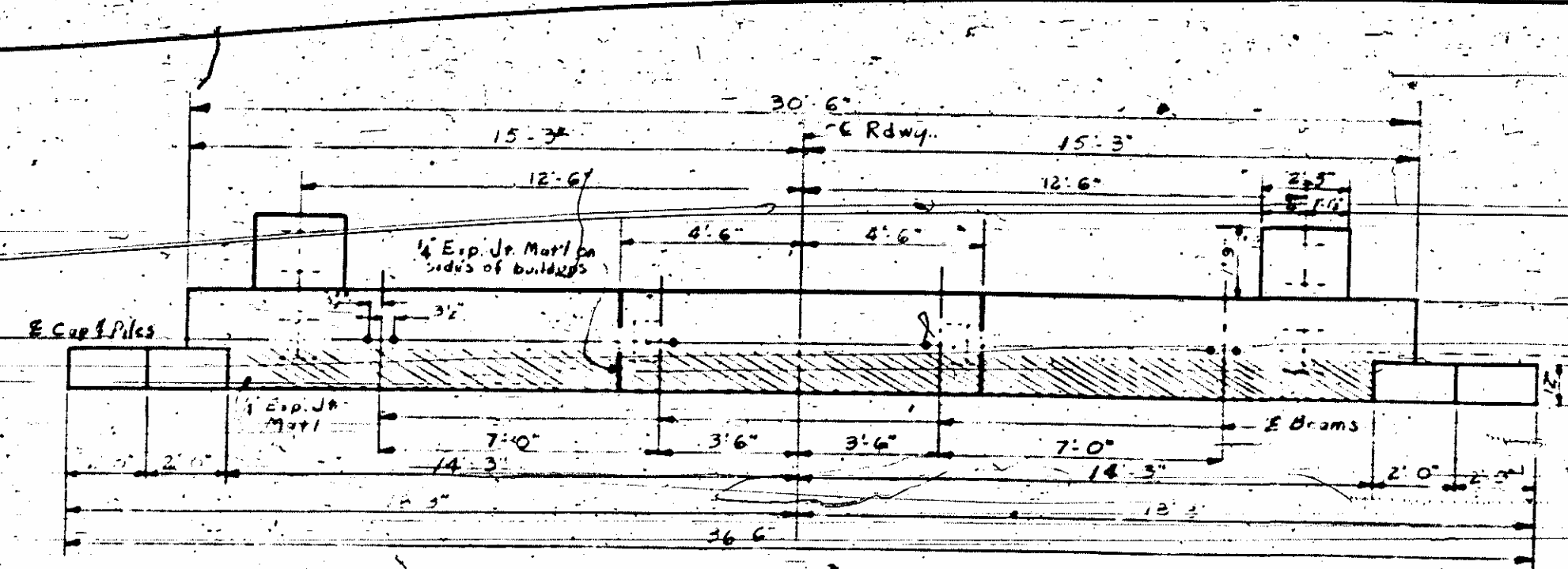


DETAIL BOTTOM FLANGE

BAR TYPES

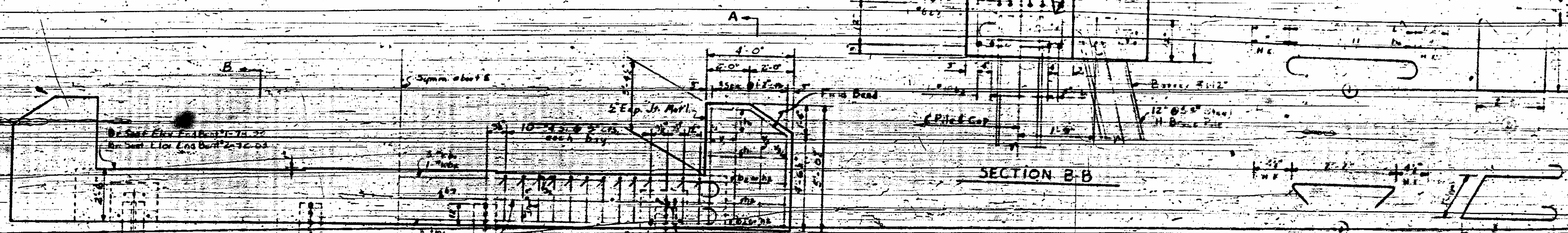


Reinforcing Steel: 126-56618
 Concrete: 28718
 Structural Steel: 106-900



PLAN OF END BENT #1
END BENT #2 SIMILAR

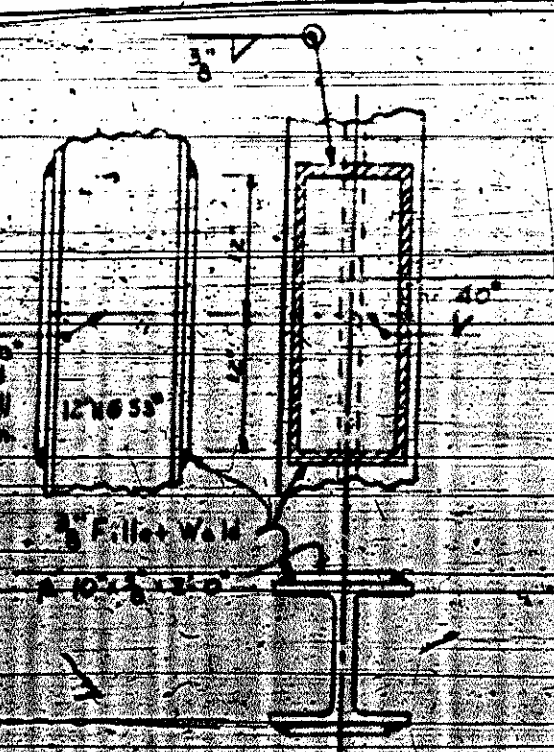
| BILL OF MATERIAL FOR ONE BENT - 2 BEAMS | | | | | |
|---|-----|------|--------|-------|---------|
| Part No. | Qty | Size | Weight | Notes | Remarks |
| 04 | 4 | 50 | 12.5 | | |
| 05 | 1 | 8 | 10.2 | | |
| 06 | 4 | 50 | 5.5 | | |
| 07 | 2 | 50 | 2.2 | | |
| 08 | 2 | 50 | 8.0 | | |
| 09 | 4 | 50 | 4.8 | | |
| 10 | 4 | 50 | 7.5 | | |
| 11 | 4 | 50 | 7.1 | | |
| 12 | 4 | 50 | 5.7 | | |
| 13 | 4 | 50 | 7.1 | | |
| 14 | 4 | 50 | 5.7 | | |
| 15 | 4 | 50 | 7.1 | | |
| 16 | 4 | 50 | 5.7 | | |
| 17 | 4 | 50 | 7.1 | | |
| 18 | 4 | 50 | 5.7 | | |
| 19 | 4 | 50 | 7.1 | | |
| 20 | 4 | 50 | 5.7 | | |
| 21 | 4 | 50 | 7.1 | | |
| 22 | 4 | 50 | 5.7 | | |
| 23 | 4 | 50 | 7.1 | | |
| 24 | 4 | 50 | 5.7 | | |
| 25 | 4 | 50 | 7.1 | | |
| 26 | 4 | 50 | 5.7 | | |
| 27 | 4 | 50 | 7.1 | | |
| 28 | 4 | 50 | 5.7 | | |
| 29 | 4 | 50 | 7.1 | | |
| 30 | 4 | 50 | 5.7 | | |



SECTION B-B



ELEVATION



STANDARD SPLICE FOR STEEL H-PILE IF REQUIRED



SECTION A-A

R/R TYPE
All dimensions shown are in feet and inches

PROJECT NO. B-2-356
STOKES COUNTY
STATION 5+03

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION

END BENTS #1 & 2

SEPTEMBER 1957

179A
W.H. Reynolds

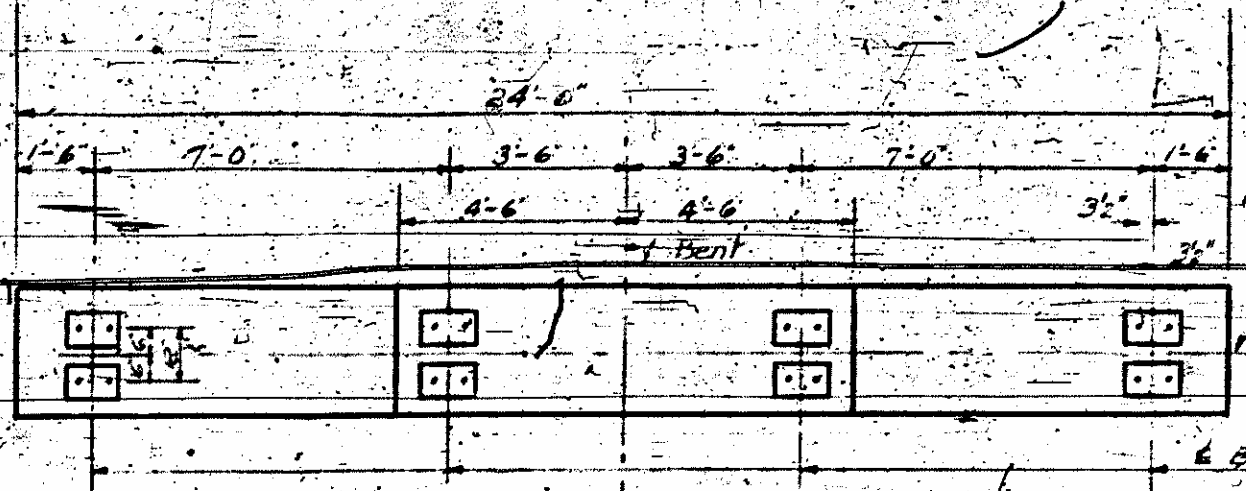
179A
W.H. Reynolds

| | | |
|-----|------|------|
| NO. | REV. | DATE |
| 1 | AC | |

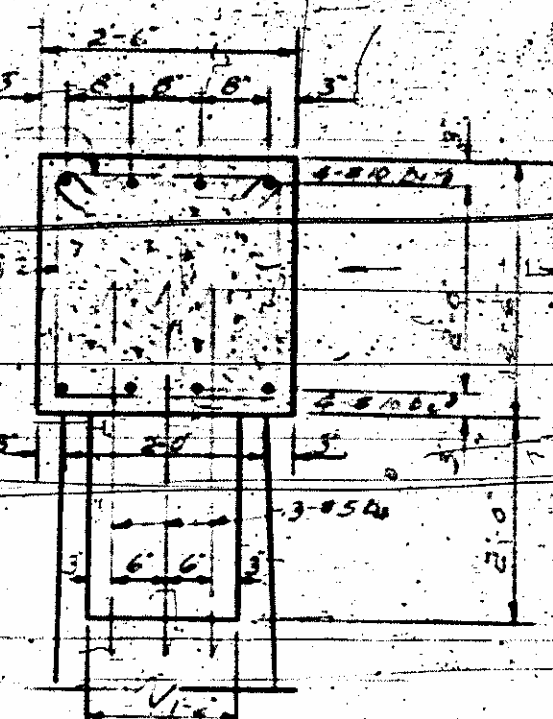
BILL OF MATERIAL - SEE EST.

6 BENTS REQ.

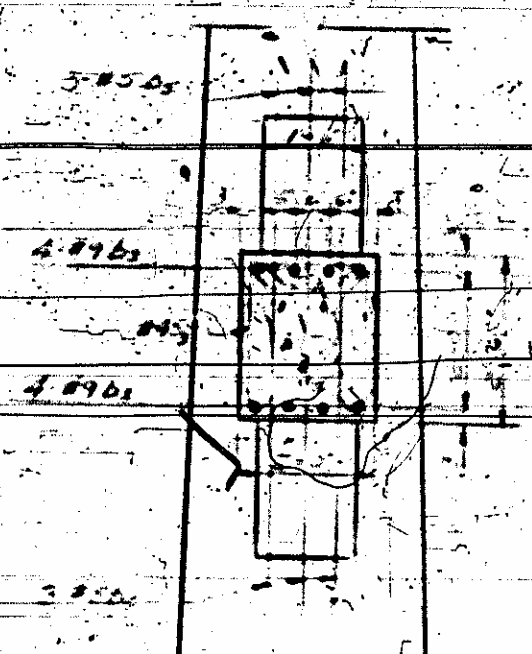
| | | | |
|-----|-------------------|------|-------|
| NO. | DESCRIPTION | QTY | UNIT |
| 1 | REINFORCING STEEL | 150 | LB |
| 2 | CONCRETE | 100 | CU YD |
| 3 | FORMWORK | 200 | SQ YD |
| 4 | BRICK | 1000 | NO |
| 5 | MORTAR | 100 | CU YD |
| 6 | PAINT | 100 | GA |



PLAN OF CAP



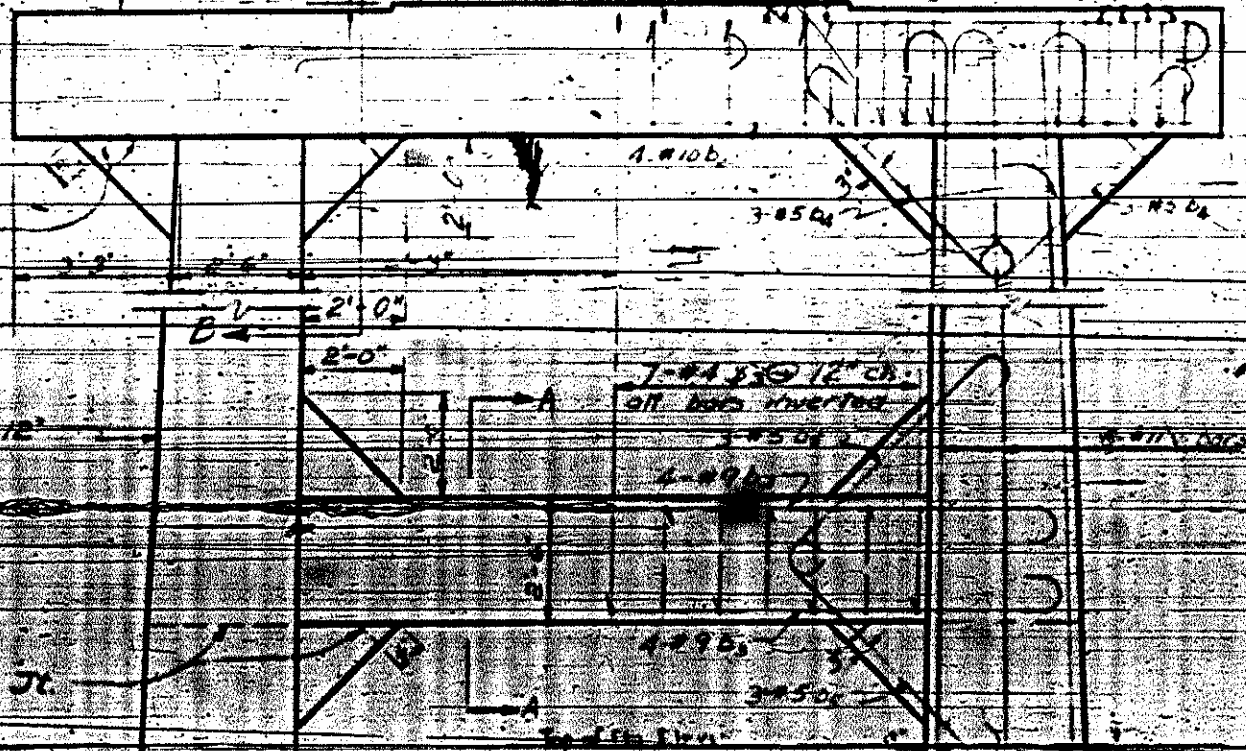
SECTION B-B



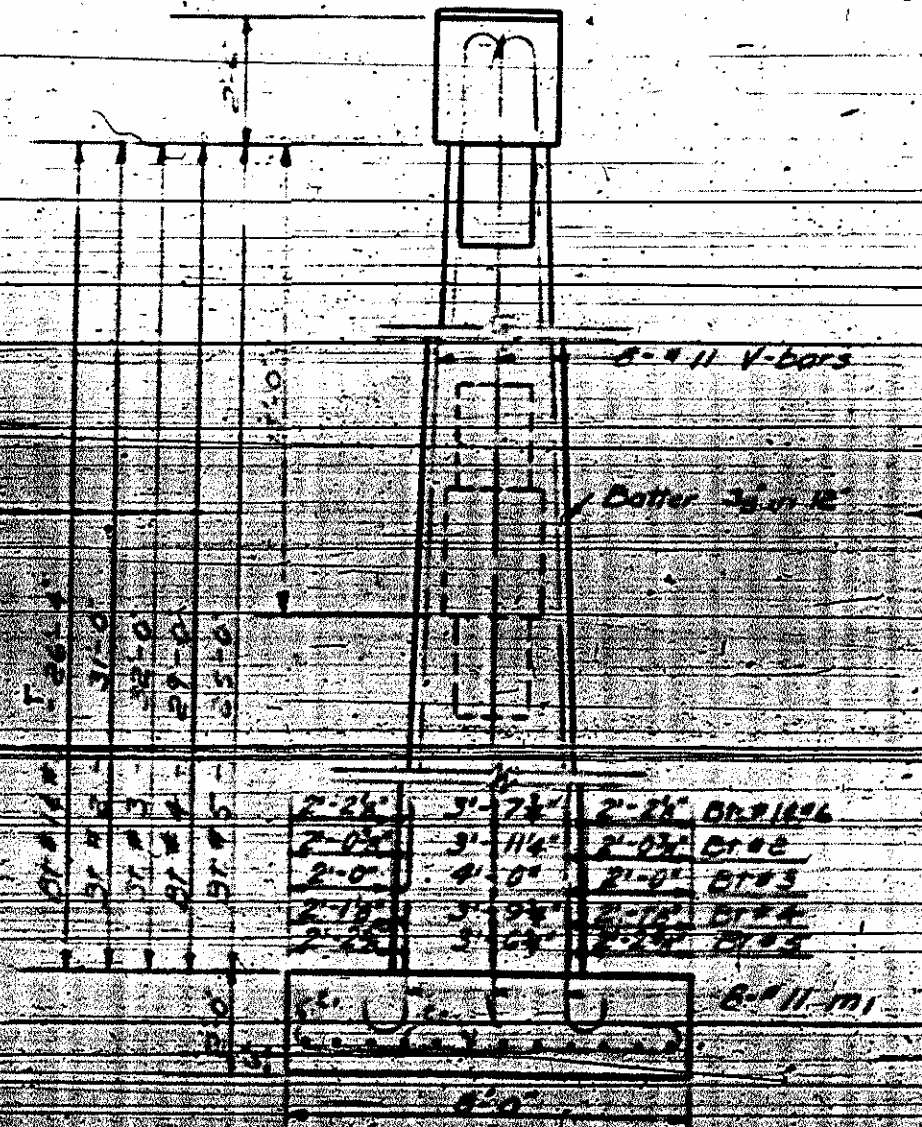
SECTION A-A

Gr. Seat El. 61' 10.00
 Br. Seat El. 61' 0.00
 M. Seat El. 5' 0.00
 Gr. Seat El. 4' 7.00
 Br. Seat El. 3' 0.00
 M. Seat El. 6' 15.00

14 #4 S, stirrups inverted or normal as shown
 Reinforcing steel Symm about C



ELEVATION



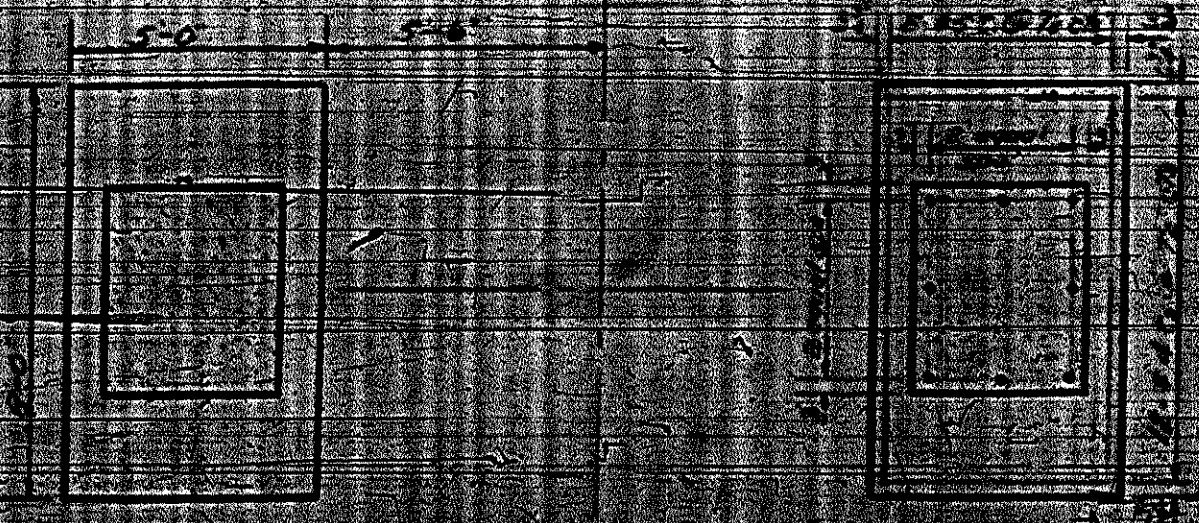
END ELEVATION

| | | | |
|-----|-------------------|------|-------|
| NO. | DESCRIPTION | QTY | UNIT |
| 1 | REINFORCING STEEL | 150 | LB |
| 2 | CONCRETE | 100 | CU YD |
| 3 | FORMWORK | 200 | SQ YD |
| 4 | BRICK | 1000 | NO |
| 5 | MORTAR | 100 | CU YD |
| 6 | PAINT | 100 | GA |

| | | | |
|-----|-------------------|------|-------|
| NO. | DESCRIPTION | QTY | UNIT |
| 1 | REINFORCING STEEL | 150 | LB |
| 2 | CONCRETE | 100 | CU YD |
| 3 | FORMWORK | 200 | SQ YD |
| 4 | BRICK | 1000 | NO |
| 5 | MORTAR | 100 | CU YD |
| 6 | PAINT | 100 | GA |

| | |
|--------|---------|
| BLANK | 3-2 1/2 |
| APR 19 | 3-2 1/2 |
| APR 19 | 3-2 1/2 |
| APR 19 | 3-2 1/2 |
| APR 19 | 3-2 1/2 |

| | |
|-------|-------|
| DI. 1 | 48.11 |
| DI. 2 | 41.50 |
| DI. 3 | 41.50 |
| DI. 4 | 45.00 |
| DI. 5 | 42.50 |
| DI. 6 | 44.17 |



PLAN OF FOOTINGS

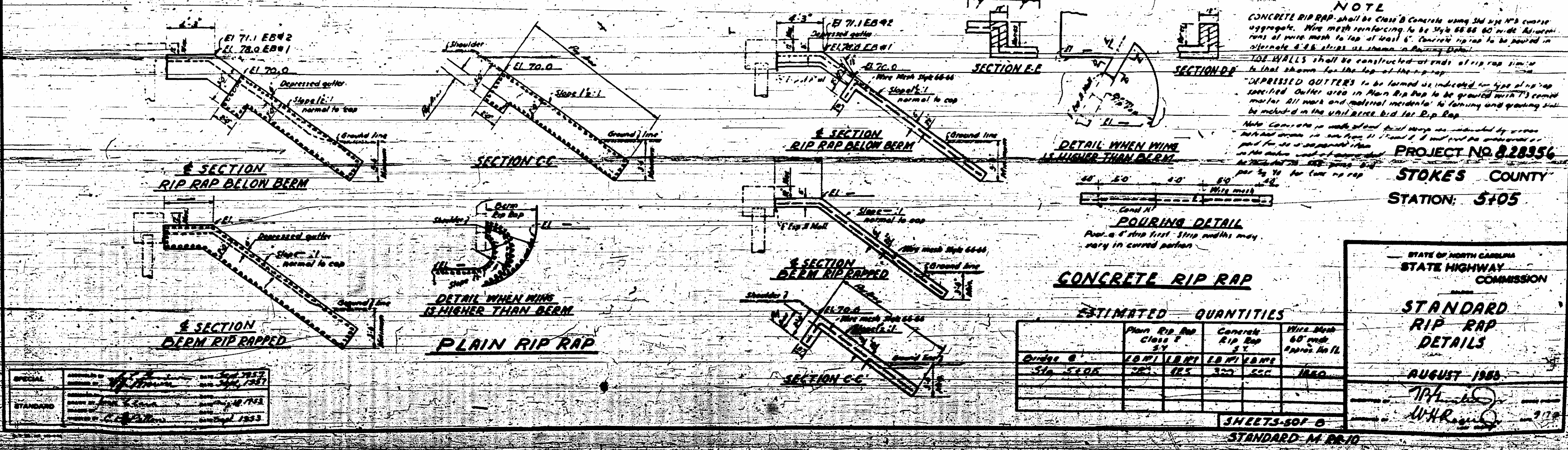
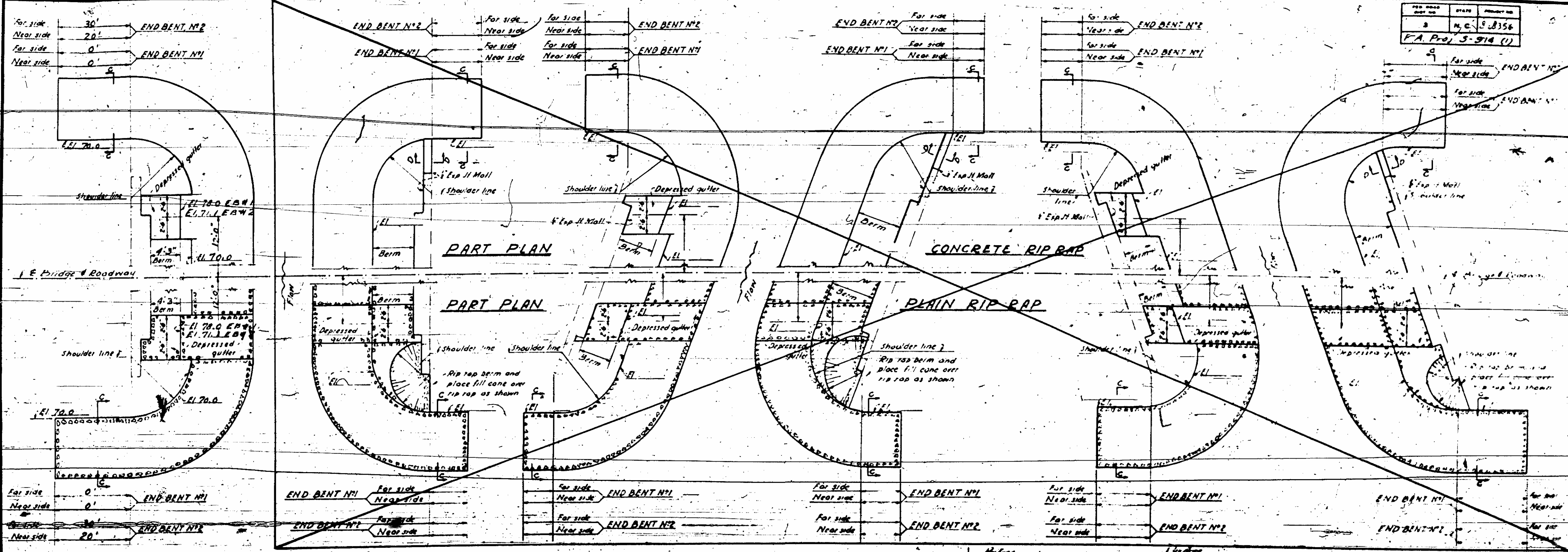
PROJECT NO. 22856
STORES COUNTY
STATION: 5+00

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION

INTERIOR BENTS
NO. 1, 2, 3, 4, 5, 6

DATE: 10/15/55
 BY: W.S. [Signature]
 CHK: R. [Signature]

OK - [Signature]



NOTE
 CONCRETE RIP RAP shall be Class B Concrete using Std size No 3 coarse aggregate. Wire mesh reinforcing to be 5/8x5/8 60 mesh. All sections runs of wire mesh to top of least 6" concrete rip rap to be poured in alternate 6" lifts as shown in Pouring Detail.
 SIDE WALLS shall be constructed at ends of rip rap similar to that shown for the top of the rip rap.
 DEPRESSED GUTTERS to be formed as indicated in type of rip rap specified. Gutter area in Plain Rip Rap to be graded with 1/2" compact mortar. All work and material incident to forming and grading shall be included in the unit price bid for Rip Rap.
 Note: Concrete is made of sand and gravel as indicated by gross weight shown in section 11. Sand & Gravel to be purchased at the price shown and not to exceed 70¢ per cu yd for concrete rip rap per 1/2" for concrete rip rap.

PROJECT NO. 28356
STOKES COUNTY
STATION: 5+05

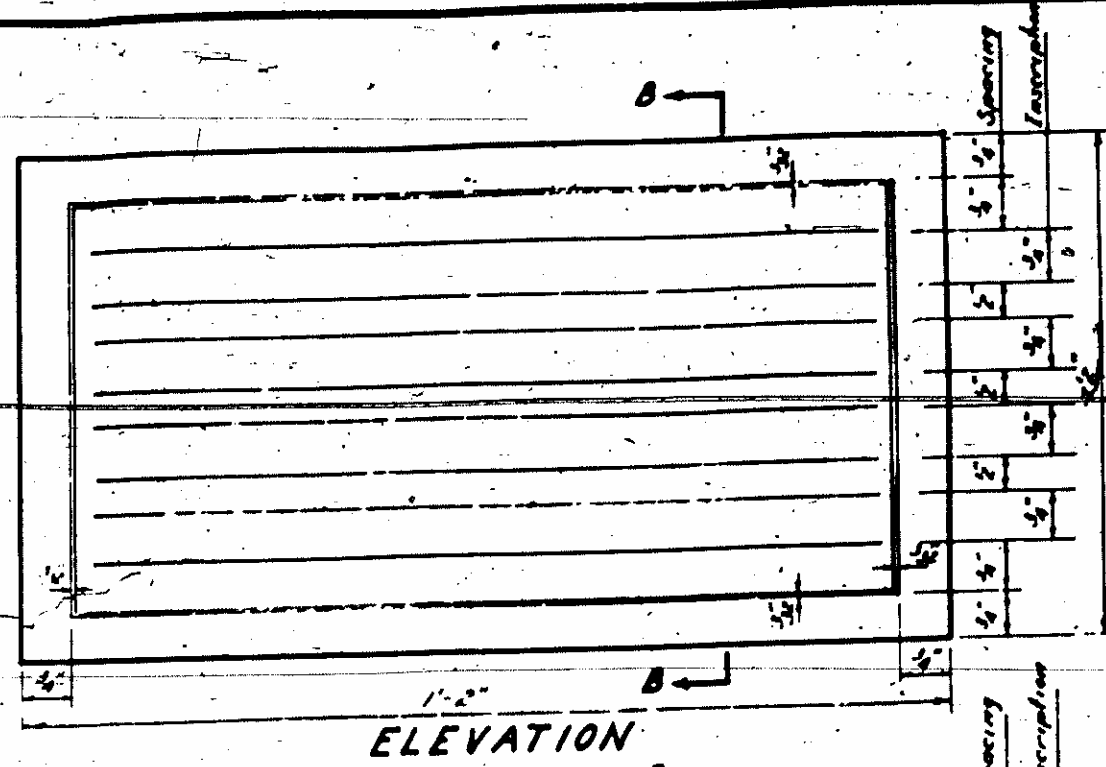
ESTIMATED QUANTITIES

| | Plain Rip Rap Class B | Concrete Rip Rap | Wire Mesh 60 mesh Approx. No. ft. |
|----------|-----------------------|------------------|-----------------------------------|
| Quantity | 1071 LB | 185 | 327 |
| Unit | CY | CY | CY |

STATE OF NORTH CAROLINA
 STATE HIGHWAY COMMISSION
STANDARD RIP RAP DETAILS
 AUGUST 1960
 W.H. Ragan

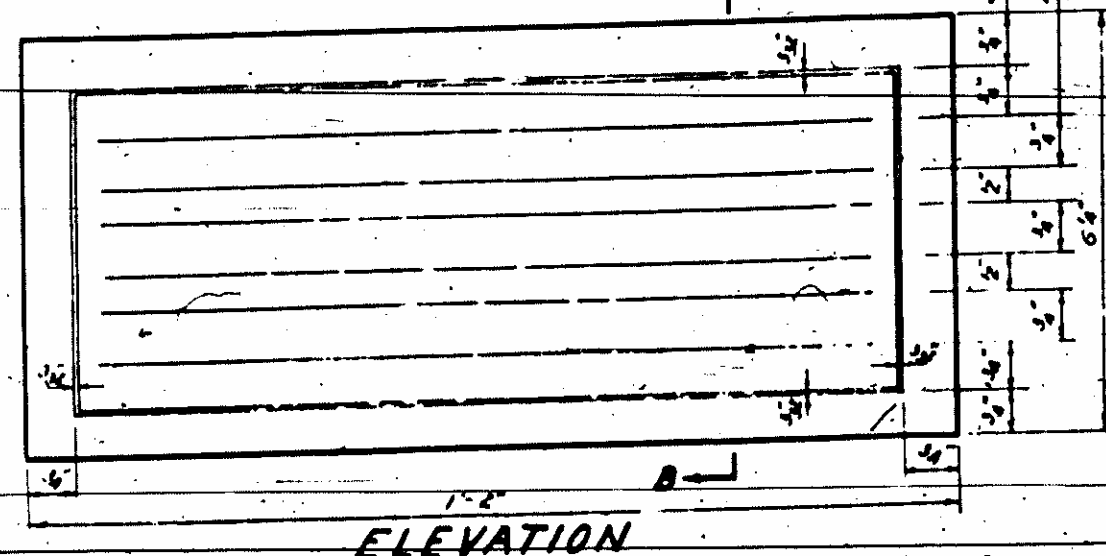
SPECIAL APPROVED BY: [Signature] DATE: Sept. 1957
 STANDARD DRAWING NO. 1453 DATE: August 1953

| | | |
|--------------------|-------|-------------|
| PROJ. NO. | STATE | PROJECT NO. |
| B | N.C. | 28356 |
| FA Proj. 5.9.2 (1) | | |



STOKES COUNTY
PROJECT B.28356
FEDERAL AID
1958

DETAIL SHOWING CORRECT WORDING
NAME PLATE USING FOUR LINES

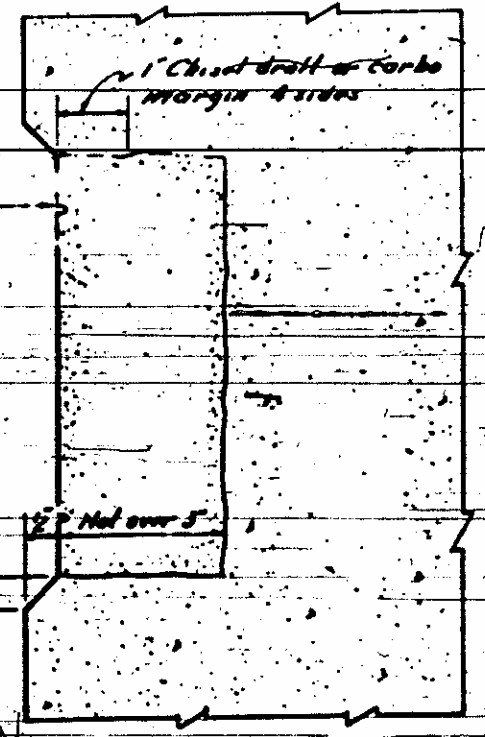


STOKES COUNTY
PROJECT B.28356
FEDERAL AID
1958

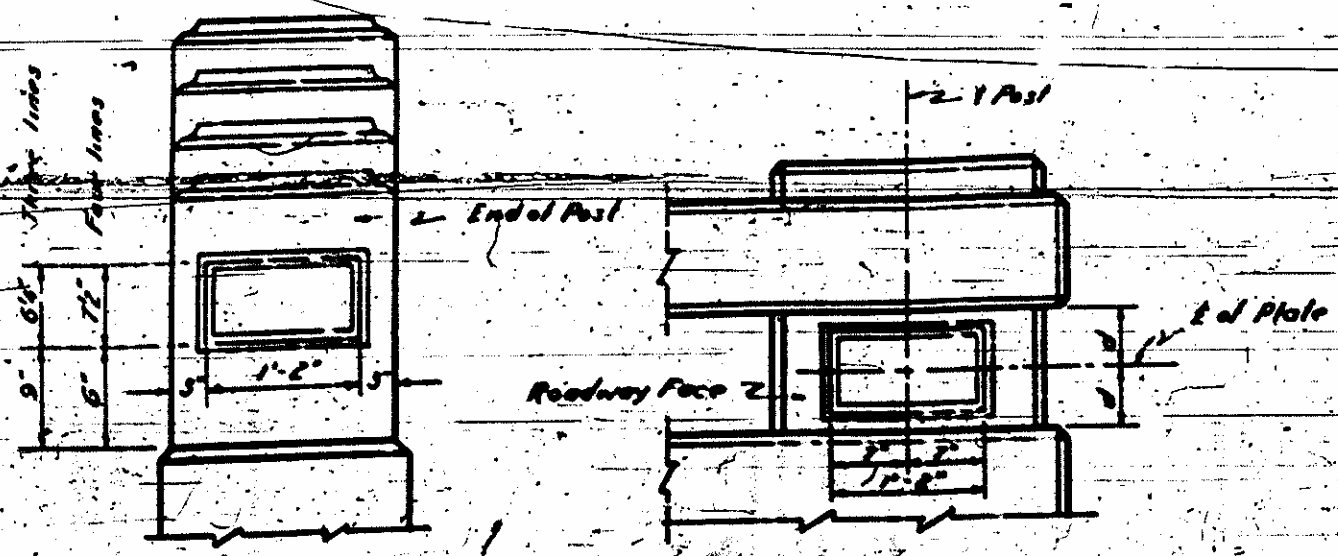
DETAIL SHOWING CORRECT WORDING
NAME PLATE USING THREE LINES

GENERAL NOTE

Two name plates are required for each bridge: one on each right hand and post approaching the bridge. See location detail.
The name plates are to be made of granite. Granite shall be light gray, fine or medium grained, sound in quality and free from defects that would mar its appearance. Exposed face of plates to have a fine rubbed finish.
Lettering shall be sandblast sunk, 3/8" high, vertical, Modern Roman style. The wording shall be as shown in the "Detail Showing the Correct Wording."
The entire cost of the name plates, complete in place shall be included in the contract price bid for class "A" concrete.

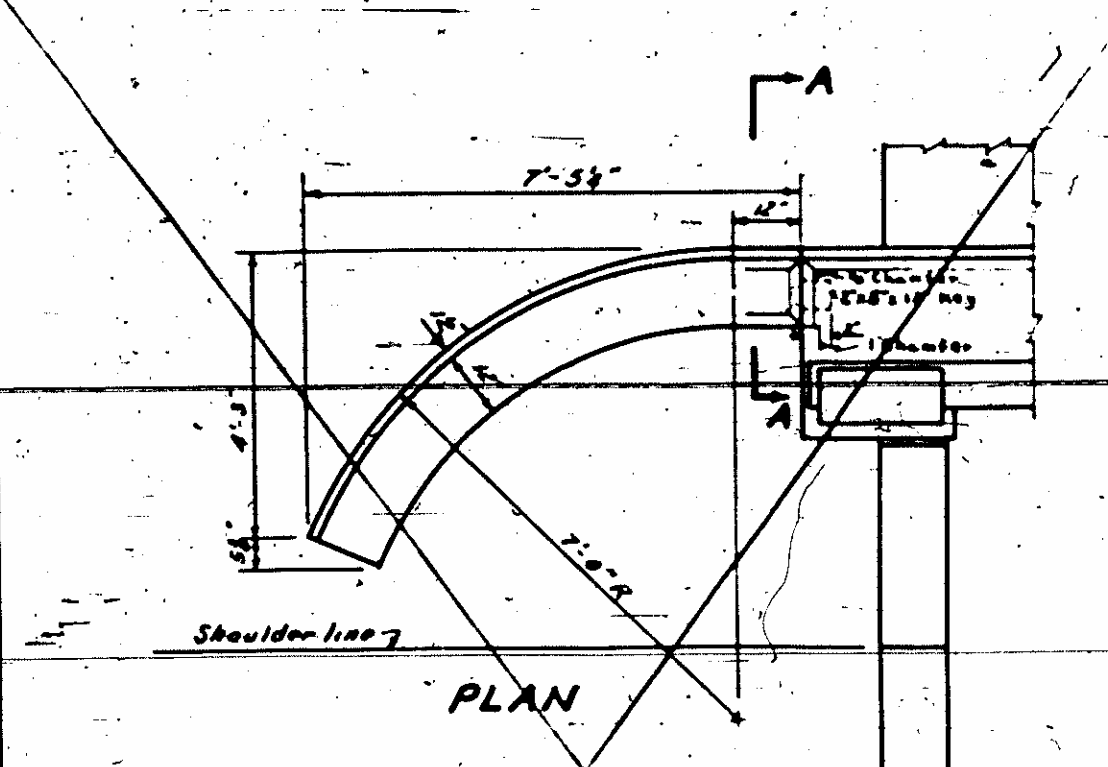


SECTION B-B

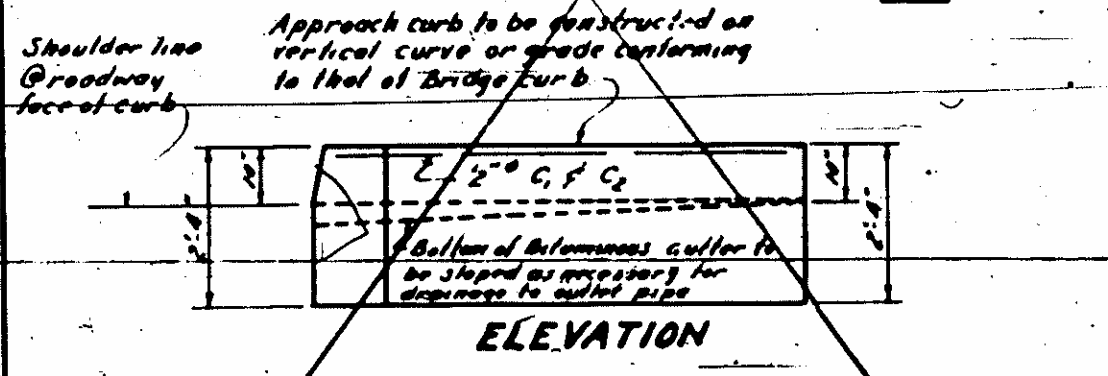


FOR BALUSTER TYPE RAIL
FOR BAR TYPE RAIL
LOCATION DETAIL FOR NAME PLATES

NAME PLATES



PLAN

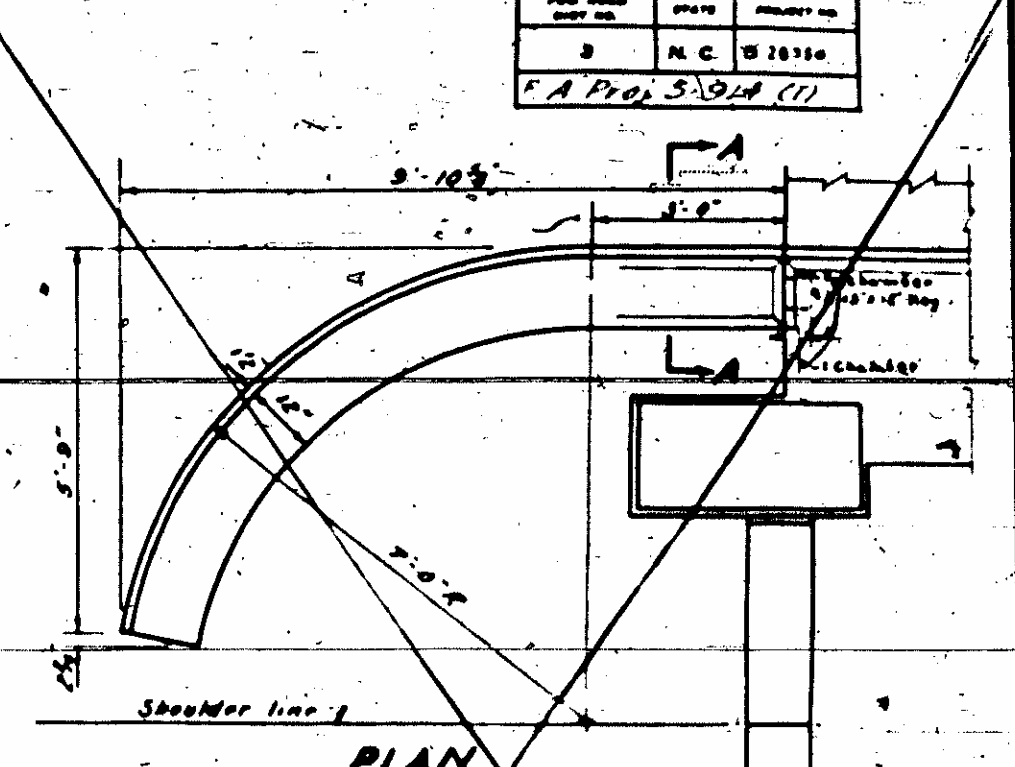


ELEVATION

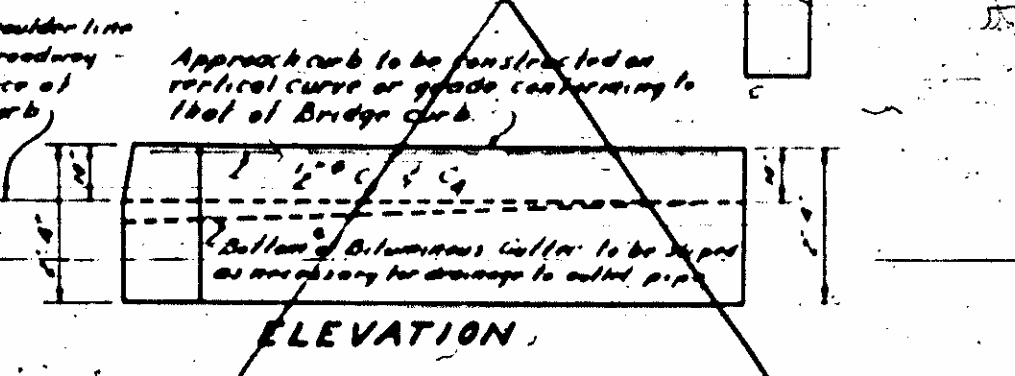
BILL OF MATERIAL FOR 12" CURB

| Bar No. | Size | Length | Weight |
|--------------------------|-----------|--------|--------|
| C ₁ | 2" x 2" | 2'-0" | 21 |
| C ₂ | 4" x 2" | 8'-6" | 29 |
| C ₃ | 1/2" x 2" | 3'-0" | 12 |
| Reinforcing Steel, Lbs. | | | 76 |
| Class "A" Concrete, C.Y. | | | 3.2 |

TO BE USED WITH 12" & 18" CURBS



PLAN

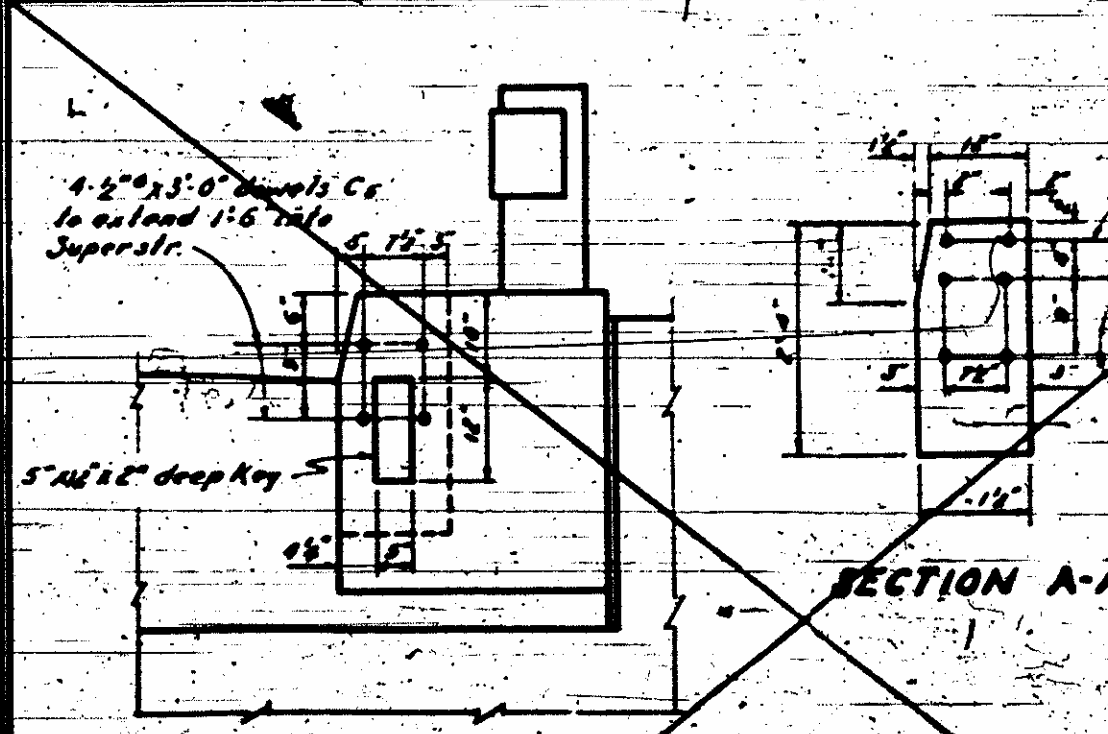


ELEVATION

BILL OF MATERIAL FOR 2" CURB

| Bar No. | Size | Length | Weight |
|--------------------------|-----------|--------|--------|
| C ₁ | 2" x 2" | 2'-0" | 21 |
| C ₂ | 4" x 2" | 12'-0" | 32 |
| C ₃ | 1/2" x 2" | 3'-0" | 12 |
| Reinforcing Steel, Lbs. | | | 99 |
| Class "A" Concrete, C.Y. | | | 4.6 |

TO BE USED WITH 2" & 3" WALKS



END ELEVATION SHOWING
KEY IN SUPERSTRUCTURE

APPROACH CURBS

NOTE: The excavation for curbs will not be measured and paid for as a separate item. The entire cost for same to be included in the unit price bid for Class "A" Concrete.
Drains and Bituminous surfacing of ends of bridge to be furnished and placed by Roadway Contractor.

Revised to show checker detail in 764 B5 M.

PROJECT NO. B.28356
STOKES COUNTY
STATION: 5+05

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION

STANDARD
APPROACH CURBS
AND
NAME PLATES

SEPT. 1953

W. H. R. [Signature]
W. H. R. [Signature]

| | | |
|----------|-------------|------|
| SPECIAL | APPROVED BY | DATE |
| STANDARD | APPROVED BY | DATE |