

| F.A.S. ROUTE NO. | SEC. NO.       | COUNTY | TOTAL SHEETS | SHEET NO. |
|------------------|----------------|--------|--------------|-----------|
| 591              | 75-00086-00-BR | ADAMS  | 17           | 1         |

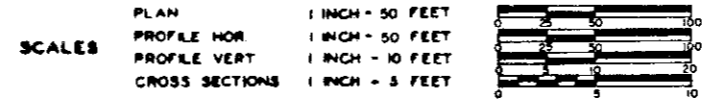
ILLINOIS PROJECT BR-S-591(101)

SHEET NO. 1

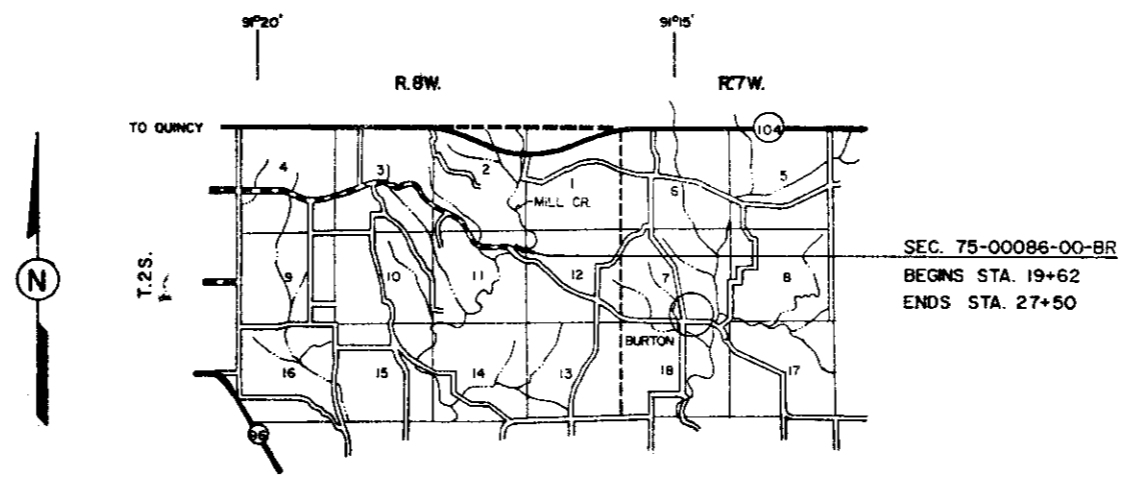
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
**PLANS FOR PROPOSED  
SPECIAL BRIDGE REPLACEMENT FUNDS**

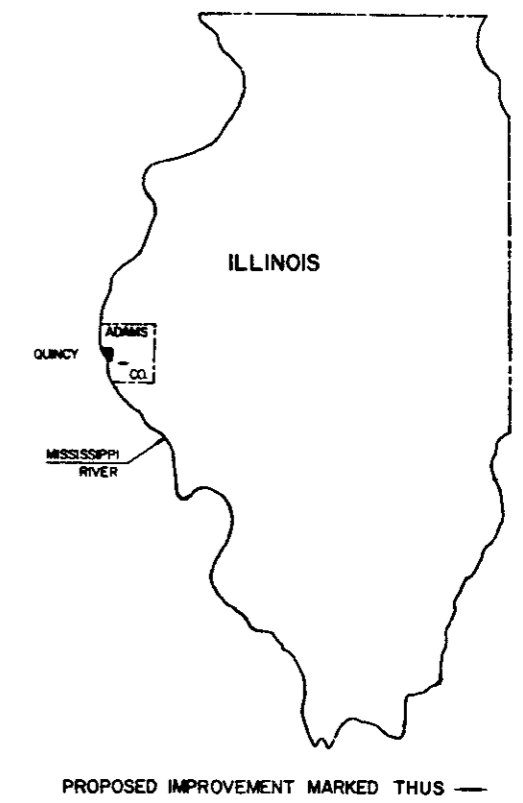


F.A.S. ROUTE 591 SECTION 75-00086-00-BR ADAMS COUNTY  
PROJECT BR-S-591(101)  
JOB NO. C-96-083-75



**LOCATION MAP**  
APPROX. SCALE 1" = 1 MILE

NET LENGTH OF IMPROVEMENT = 788 FT. = 0.149 MI.  
STRUCTURE LENGTH = 192.79 FT. (BK-BK. ABUT.)



HIGHWAY CLASSIFICATION  
F.A.S. ROUTE 591-CLASS E

SUBMITTED BY C.E. Taylor DATE 11/14/75  
COUNTY HIGHWAY SUPERINTENDENT

CONTRACT NO. 27843  
REVIEWED BY: GEN'L RFS 12-23-75  
DETAIL GS 12-22-1975

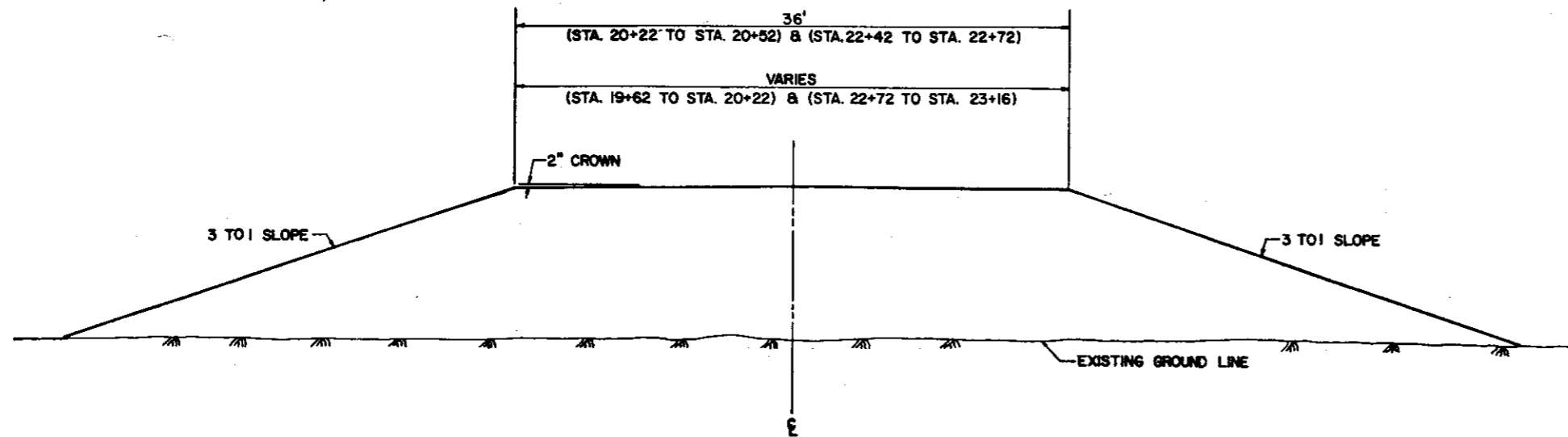
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED 10-20-75  
W.E. Burns  
SUPERVISOR OF HIGHWAY ENGINEERS

PASSED DEC 23 75  
Malvin B. Deussen  
ENGINEER OF LOCAL HIGHWAYS AND STREETS

DATE DEC 23 75  
L.S. R. Hanby  
DIRECTOR OF HIGHWAYS

75-00086-00-BR



**TYPICAL CROSS-SECTION**  
(EMBANKMENT CONES)

**SUMMARY OF QUANTITIES**

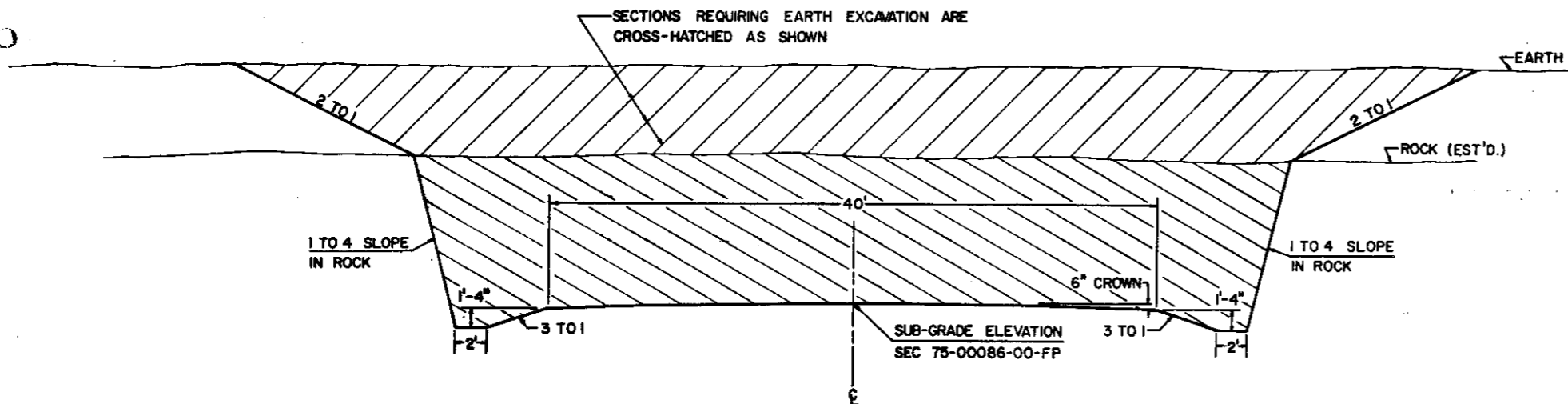
| F.A.S. 591 QUANTITIES | UNIT     | PAY ITEM   | CODE NO. |
|-----------------------|----------|--|----------|
| 17                    | ACRES    | TREE REMOVAL, ACRES                                    | 201005   |
| 4,111                 | CU. YDS. | EARTH EXCAVATION                                       | 202001   |
| 815                   | CU. YDS. | ROCK EXCAVATION  | 202002   |
| 3,128                 | CU. YDS. | CHANNEL EXCAVATION                                     | 203001   |
| 70                    | TONS     | BITUMINOUS CONCRETE SURFACE COURSE, MIXTURE C, CLASS I | X40614   |
| 8                     | CU. YDS. | ROCK EXCAVATION FOR STRUCTURES                         | 502004   |
| 62                    | EACH     | FLOOR DRAINS   | 503001   |
| 107                   | SQ. YDS. | PROTECTIVE COAT  | 503004   |
| 273                   | CU. YDS. | CLASS X CONCRETE                                       | 504003   |
| ONE                   | L. SUM   | FURNISHING AND ERECTING STRUCTURAL STEEL               | 507050   |
| 47,535                | POUNDS   | REINFORCEMENT BARS                                     | 512001   |
| 215                   | LIN. FT. | FURNISHING STEEL PILES HP8X36                          | X51301   |
| 215                   | LIN. FT. | DRIVING STEEL PILES                                    | 513026   |
| ONE                   | EACH     | NAME PLATES  | 514001   |
| 379                   | LIN. FT. | STEEL RAILING, TYPE S                                  | X50803   |
| 607                   | SQ. YDS. | WATERPROOFING MEMBRANE SYSTEM                          | X04241   |
| 1575                  | SQ. YDS. | DUMPED RIPRAP  | 601006   |

SEEDING AND MULCHING ON THIS PROJECT SHALL BE THE RESPONSIBILITY OF ADAMS COUNTY FORCES. THE CONTRACTOR SHALL BE SUBJECT TO COMPLIANCE WITH ALL THE OTHER EROSION CONTROL MEASURES AS DEFINED IN THE SPECIAL PROVISIONS.

NOTE: AREAS REQUIRING ROCK EXCAVATION ARE CROSS-HATCHED AS SHOWN BELOW. EXCAVATE TO CONFORM WITH THE DIMENSIONS SHOWN AND ALSO TO THE DEPTH EQUAL TO THE PROPOSED SUB-GRADE ELEV. FOR SEC. 75-00086-00-FP

**LEGEND**

|       |       |                        |
|-------|-------|------------------------|
| 1-5   | 6     | BASE OR SURVEY LINE    |
| ---   | ---   | FENCE LINE             |
| -x-x- | -x-x- | FENCE PROPERTY LINE    |
| -P-P- | -P-P- | UNFENCED PROPERTY LINE |
| - - - | - - - | PROPOSED R.O.W.        |
|       |       | CONSTRUCTION EASEMENT  |
| ---   | ---   | EXISTING TRAVELED WAY  |
| o     |       | TELEPHONE PEDESTAL     |
| +     |       | POWER POLE             |
|       |       | PROPOSED RIP RAP       |
| ---   | ---   | TIMBER                 |



**TYPICAL CROSS-SECTION**  
(SHOWING TYPICAL EARTH & ROCK EXCAVATION SECTION)

Curve Data  
 P.I. Sta. 17+33.61  
 $\Delta = 43^{\circ}35'$   
 $D = 5^{\circ}44'$   
 $T = 399.80'$   
 $R = 1000'$   
 $L = 760.56'$   
 $E = 76.95'$   
 P.C. Sta. 13+33.61  
 P.T. Sta. 20+94.37  
 $SE = 0.075\% \text{ 1/1}$   
 Attn.: Sta. 12+13.81 to  
 Sta. 13+93.81  
 Radl.: Sta. 20+34.37 to  
 Sta. 22+14.37



Sta. 17+33.61  
 Iron Pin  
 P.I.

Lawrence W. & Mary C. Dietrich  
 E 1/4, NE 1/4 of Sec. 11

Rip Rad 2' Deep shall be  
 placed on channel slopes

T-25 - R.O.W. of the A.B.M.

Lawrence & Shirley A. Reese  
 Fract. NW 1/4 of Sec. 12

Sta. 22+10 to Sta. 26+50  
 1.73 Acres Tree Removal

Sta. 27+04 approx. Ending  
 point of Earth Excavation

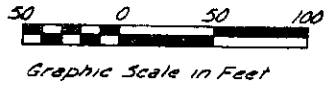
|        |               |      |       |
|--------|---------------|------|-------|
| County | Seal. No.     | C.H. | Sheet |
| Adams  | 75-0006-00-BR | #5   | 3     |

Sta. 19+62 to Sta. 27+50

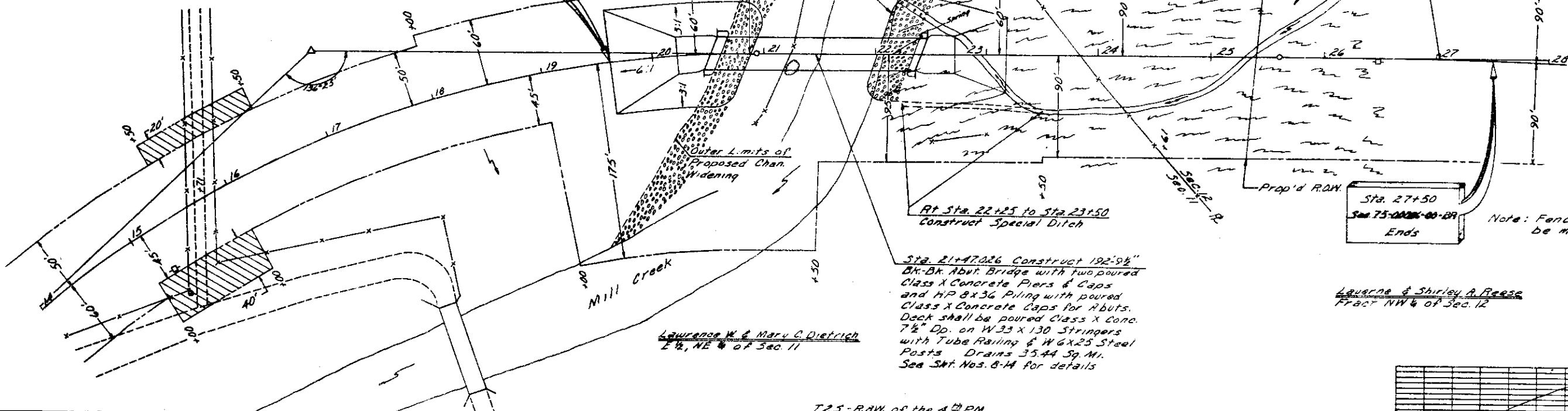
Sta. 19+62  
 Sec. 75-0006-00-BR  
 Begins

Sta. 27+50  
 Sec. 75-0006-00-BR  
 Ends

Note: Fences & Utilities to  
 be moved by Others



PLAN  
 DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 APPROVED: \_\_\_\_\_  
 NOTE BOOK: \_\_\_\_\_  
 NO. \_\_\_\_\_



Sta. 21+47.026 Construct 192'-9 1/2"  
 Abut. Bridge with two poured  
 Class X Concrete Piers & Caps  
 and HP 8 x 36 Piling with poured  
 Class X Concrete Caps for Abuts.  
 Deck shall be poured Class X Conc.  
 7 1/2" Dp. on W33 x 130 Stringers  
 with Tube Railing & W 6 x 25 Steel  
 Posts Drains 35.44 Sq. Ft.  
 See Sht. Nos. 8-14 for details

Lawrence & Shirley A. Reese  
 Fract. NW 1/4 of Sec. 12

Lawrence W. & Mary C. Dietrich  
 E 1/4, NE 1/4 of Sec. 11

PROFILE  
 DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 APPROVED: \_\_\_\_\_  
 NOTE BOOK: \_\_\_\_\_  
 NO. \_\_\_\_\_

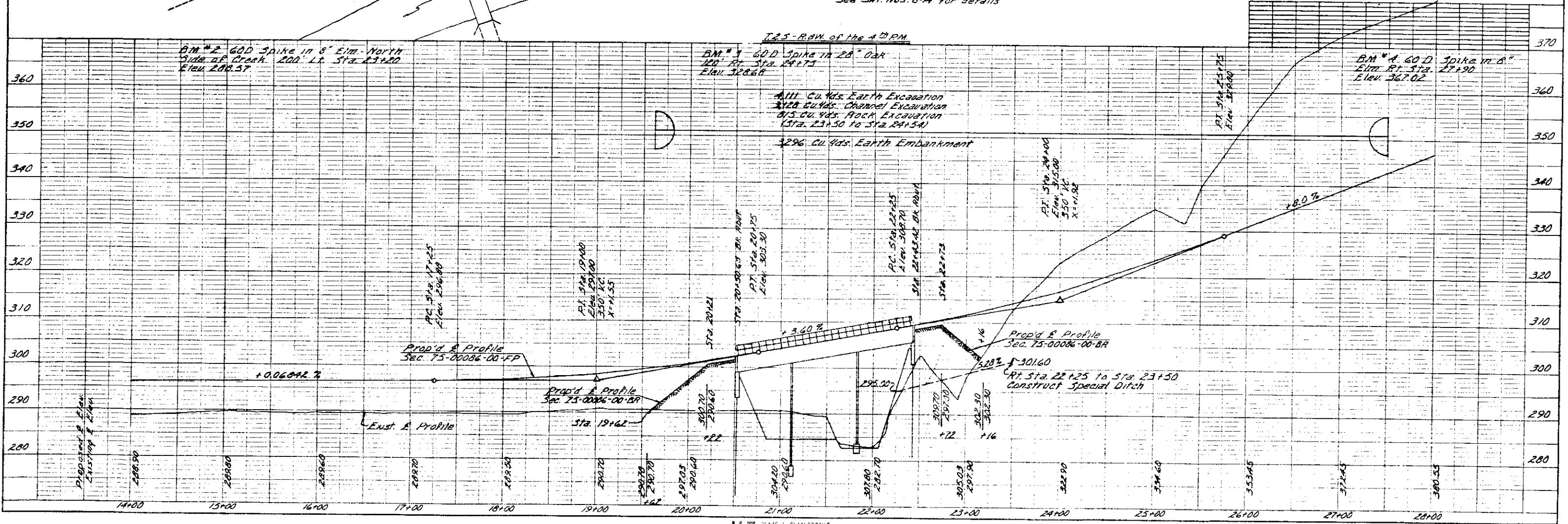
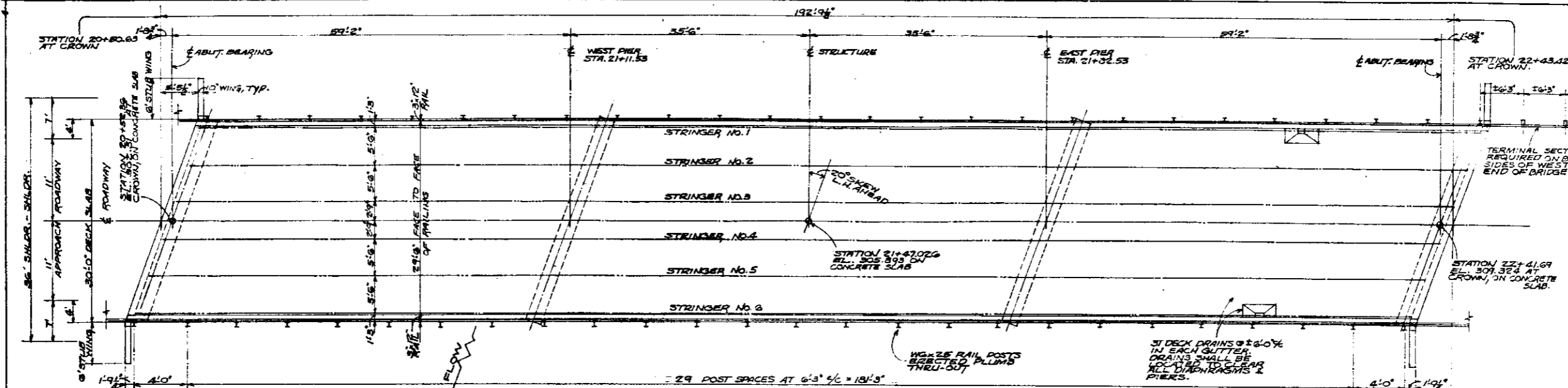


PLATE 1. PLAN PROFILE  
 48 7008 ALBANY

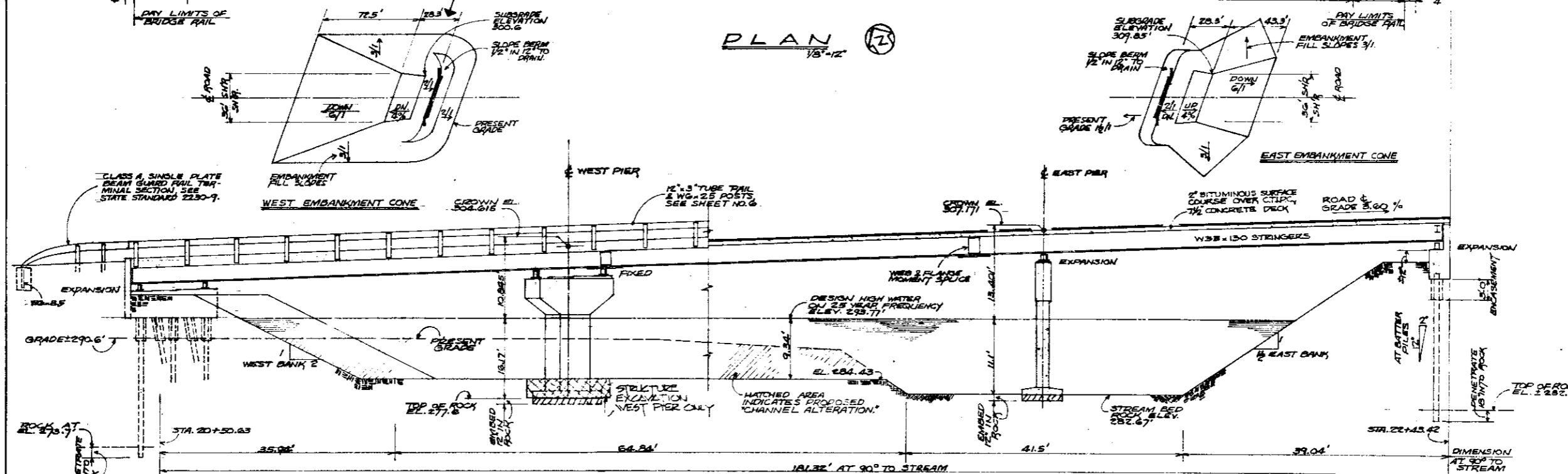
|        |                  |                |           |              |
|--------|------------------|----------------|-----------|--------------|
| COUNTY | R.A.S. ROUTE NO. | SECTION        | SHEET NO. | TOTAL SHEETS |
| ADAMS  | 591              | 75-00086-00-BR | B         | 17           |

**BRIDGE LAYOUT**

BRIDGE SHEET NO. 1 of 7 SHEETS



**PLAN**



**ELEVATION**

**SECTION**

- GENERAL NOTES**
1. ALL REINFORCEMENT BARS SHALL BE LAPPED A MINIMUM OF 24 DIAMETERS UNLESS OTHERWISE SHOWN.
  2. DIMENSIONS ON BAR BENDING DETAILS ARE OUT TO OUT.
  3. MINIMUM CONCRETE COVER ON REINFORCEMENT BARS 1/2" UNLESS OTHERWISE SHOWN.
  4. CLASS X CONCRETE SHALL BE USED THROUGH-OUT.
  5. THE EMBANKMENT CONFIGURATION SHALL BE THE MINIMUM EMBANKMENT CONSTRUCTION PRIOR TO CONSTRUCTION OF THE ABUTMENTS.
  6. ALL STRUCTURAL STEEL SHALL CONFORM TO AASHTO DESIGNATION M-183.
  7. FASTENERS SHALL BE HIGH-STRENGTH BOLTS. BOLTS 3/4" OPEN HOLES 1/2" UNLESS OTHERWISE NOTED.
  8. CALCULATED WEIGHT OF STRUCTURAL STEEL = 176,869 LBS.
  9. ANCHOR BOLTS SHALL BE SET BEFORE ANY OTHER WORK IS DONE ON SUPPORTS.
  10. ALL ROCKERS, BOLSTERS, BEARING PLATES, LEAD PLATES AND ANCHOR BOLTS SHALL BE FABRICATED AND SET IN ACCORDANCE WITH ARTICLE 607.08 OF THE STANDARD SPECIFICATION. EXPANSION DEVICES ARE INCLUDED IN THE QUANTITY OF STRUCTURAL STEEL. ESTIMATED WEIGHT = 8453 LBS.
  11. THE BASIC LEAD SILICO CHROMATE PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF THE STRUCTURAL STEEL.
  12. THE MAIN LOAD CARRYING MEMBER COMPONENTS SUBJECT TO THE SUPPLEMENTAL REQUIREMENTS FOR NOTCH TOUGHNESS ARE THE FLANGES WEBS, & SLICE PLATES OF THE FLANGE BEAMS.
  13. FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED TO THE BOTTOM FLANGE OF BEAMS OR GIRDERS NOR TO THE TOP FLANGE FOR A DISTANCE EQUAL TO ONE-FOURTH THE SPAN LENGTH EACH WAY FROM THE PIER SUPPORTS. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.
  14. TERMINAL SECTIONS SHALL BE FURNISHED AND INSTALLED BY THE ROAD CONTRACTOR.
  15. BEARING SEAT SURFACES SHALL BE CONSTRUCTED OR ADJUSTED TO THE DESIGNATED ELEVATIONS WITHIN A TOLERANCE OF 1/8" IN ADJUSTMENT SHALL BE MADE EITHER BY GRINDING THE SURFACE OR BRASSING. BRASSING 1/8" INCH ACROSS HIS SHIMS OF THE DIMENSION OF THE BOTTOM BEARING PLATE SHALL BE PROVIDED FOR EACH BEARING IN ADDITION TO ALL OTHER PLATES OR SHIMS. WEIGHT INCLUDED IN STRUCTURAL STEEL TOTAL.
  16. CHANNEL EXCAVATION SHALL BE CONSIDERED AS THE VARIATION OF THE EXISTING CHANNEL. FROM THE TYPICAL SECTION SHOWN, BLEND INTO THE EXISTING CHANNEL SECTION APPROXIMATELY 250 FEET UPSTREAM AND 250 FEET DOWNSTREAM MEASURED FROM THE ROAD CENTERLINE.

**WATERWAY INFORMATION**

DRAINAGE AREA = 35.44 SQ. MILES  
 CHARACTER OF AREA = 10% LEVEL, 20% ROLLING, 70% HILLY, 70% CLAY, 30% SAND, 70% WOODED, 30% CULTIVATED.

PRESENT OPENING = 711 SQ. FT.  
 REQUIRED OPENING<sub>25</sub> = 1200 SQ. FT.  
 OPENING PROVIDED<sub>25</sub> = 1200 SQ. FT.  
 DISCHARGE Q<sub>25</sub> = 7800 C.F.S.  
 REQUIRED OPENING<sub>100</sub> = 1841 SQ. FT.  
 DESIGN HIGH WATER<sub>100</sub> = 275.06 FT.  
 DISCHARGE Q<sub>100</sub> = 11,044 C.F.S.

**DESIGN STRESSES**

Rc = 1000 PSI, WINGS AND FOOTINGS  
 Rc = 1200 PSI, SUPERSTRUCTURE  
 Rc = 1400 PSI, SUBSTRUCTURE  
 Rf = 10  
 Rn = 20,000 PSI, REINFORCEMENT AND STRUCTURAL

MAX  $\frac{1}{2} \Delta = L/1000$

**DESIGN LOADING HS 20-44**

**TOTAL BILL OF MATERIAL**

| ITEM   | UNIT     | SUBST. | SUPER. | TOTAL  |
|--|----------|--------|--------|--------|
| * REMOVAL OF EXISTING STRUCTURE                  | EACH     | —      | —      | ONE    |
| CHANNEL EXCAVATION                               | CU. YD.  | 3128   | —      | 3128   |
| ROCK EXCAVATION FOR STRUCTURES                   | CU. YD.  | 8      | —      | 8      |
| FLOOR DRAINS                                     | EACH     | —      | 62     | 62     |
| CLASS X CONCRETE                                 | CU. YD.  | 116    | 157    | 273    |
| REINFORCEMENT BARS                               | LB.      | 13,160 | 34,375 | 47,535 |
| FURNISHING & ERECTING STRUCTURAL STEEL           | L. SUM   | —      | ONE    | ONE    |
| STRUCTURE EXCAVATION                             | CU. YD.  | 56     | —      | 56     |
| STEEL RAILING, TYPE S                            | LIN. FT. | —      | 379    | 379    |
| FURNISHING STEEL PILES, HP8-36                   | LIN. FT. | 215    | —      | 215    |
| DRIVING STEEL PILES                              | LIN. FT. | 215    | —      | 215    |
| NAME PLATES                                      | EACH     | —      | ONE    | ONE    |
| PROTECTIVE COAT                                  | SQ. YD.  | —      | 107    | 107    |
| * TERMINAL SECTION, SINGLE RAIL                  | EACH     | —      | 2      | 2      |
| WATER-PROOFING MEMBRANE                          | SQ. YD.  | —      | 607    | 607    |
| BITUMINOUS CONCRETE SURFACE COURSE, 1 1/2" THICK | TON      | —      | 70     | 70     |

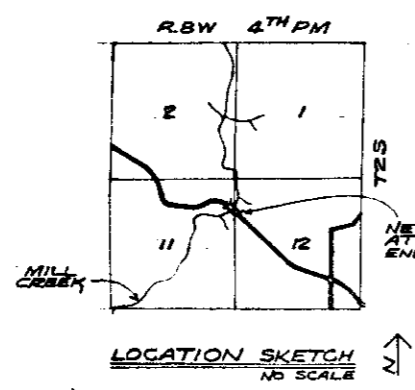
\* SHALL BE LET UNDER DIFFERENT CONTRACT

STATION 21+47.026  
 MILL CREEK  
 BUILT 19  
 F.A.S. RT 591, SEC. 75-00086-00-BR  
 PROJECT BR-S-591(101)  
 LOADING HS20  
 STRUCTURE NO. 3300

**APPROVED**  
 FOR STRUCTURAL ACT ONLY

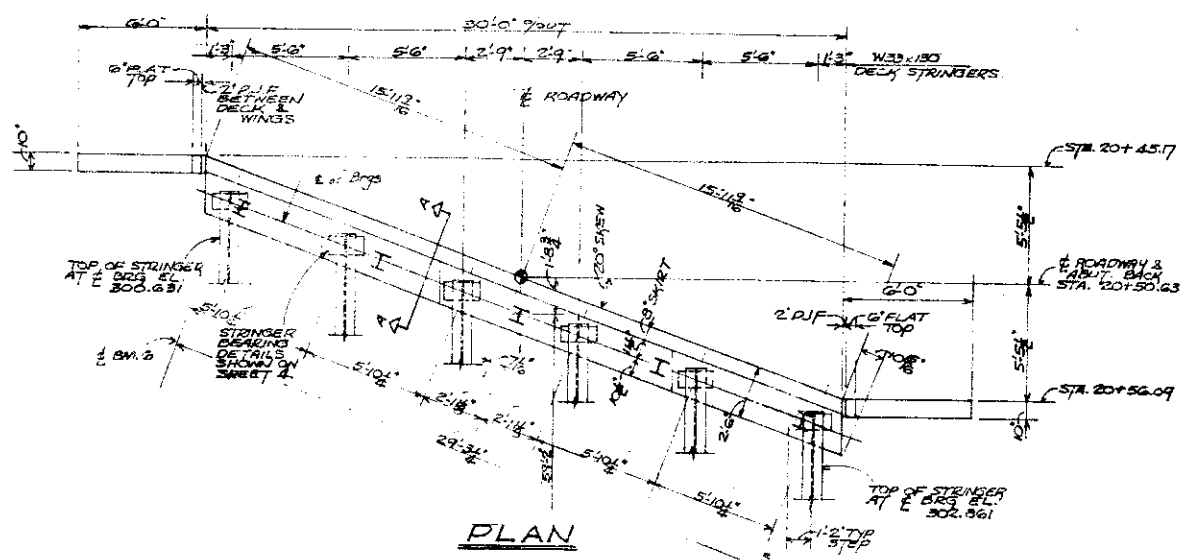
*Herbert E. Flachs*

**BRIDGE OVER MILL CREEK**  
 ADAMS COUNTY, ILLINOIS  
 PREPARED BY:  
 HAFNER DIERKES FLACHS  
 510 MAINE STREET QUINCY  
 ILL. PROJECT 1208  
 PREPARED FOR:  
 ADAMS COUNTY HIGHWAY DEPARTMENT  
 C. TAYLOR SUPERINTENDENT

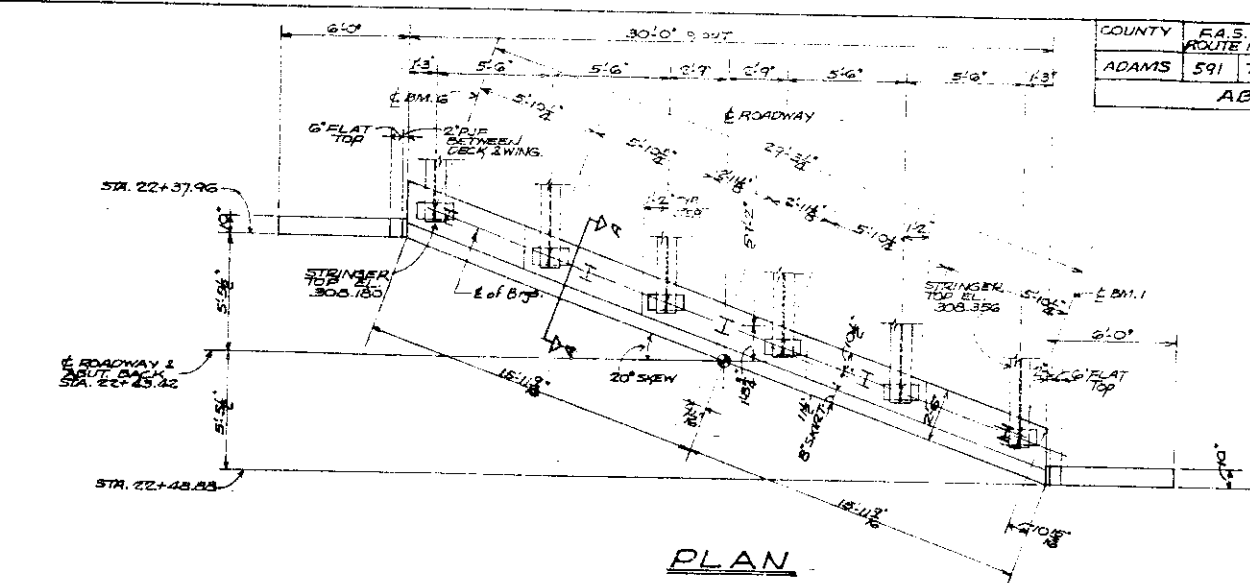


**WEST ABUT. PILE DATA:**  
 5-HP8-36 STEEL PILES  
 CAPACITY- PILES SHALL BE  
 DRIVEN TO REFUSAL  
 ESTIMATED LENGTH- 22 FT.

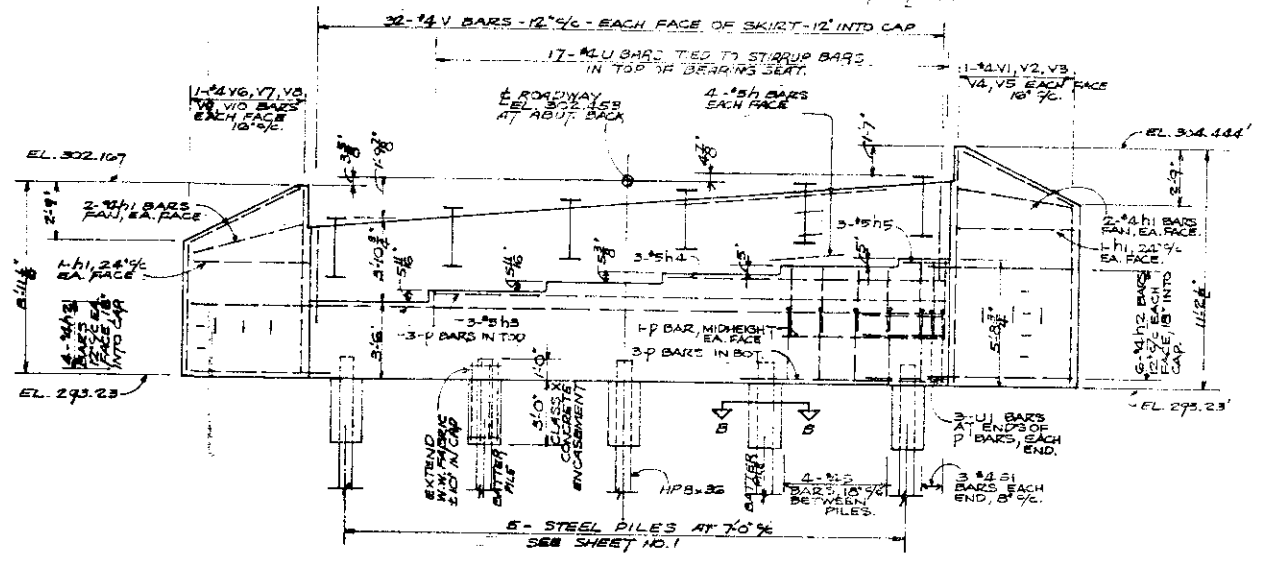
**EAST ABUT. PILE DATA:**  
 5-HP8-36 STEEL PILES  
 CAPACITY- PILES SHALL  
 BE DRIVEN TO REFUSAL  
 ESTIMATED LENGTH- 21 FT.



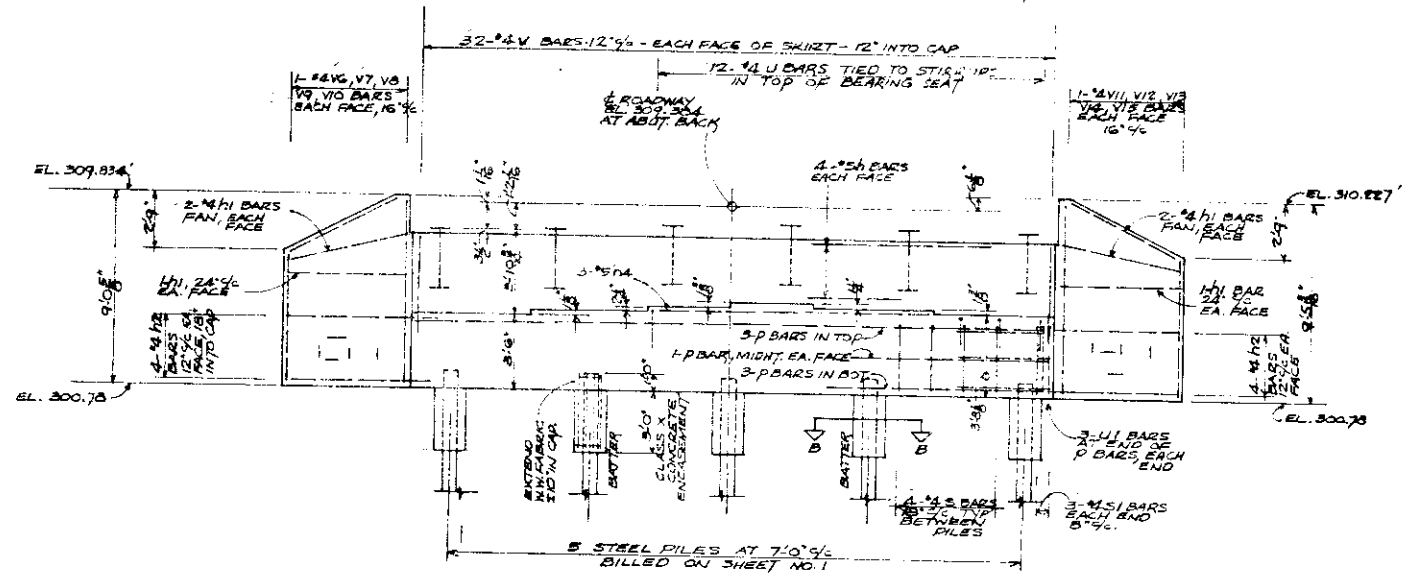
PLAN



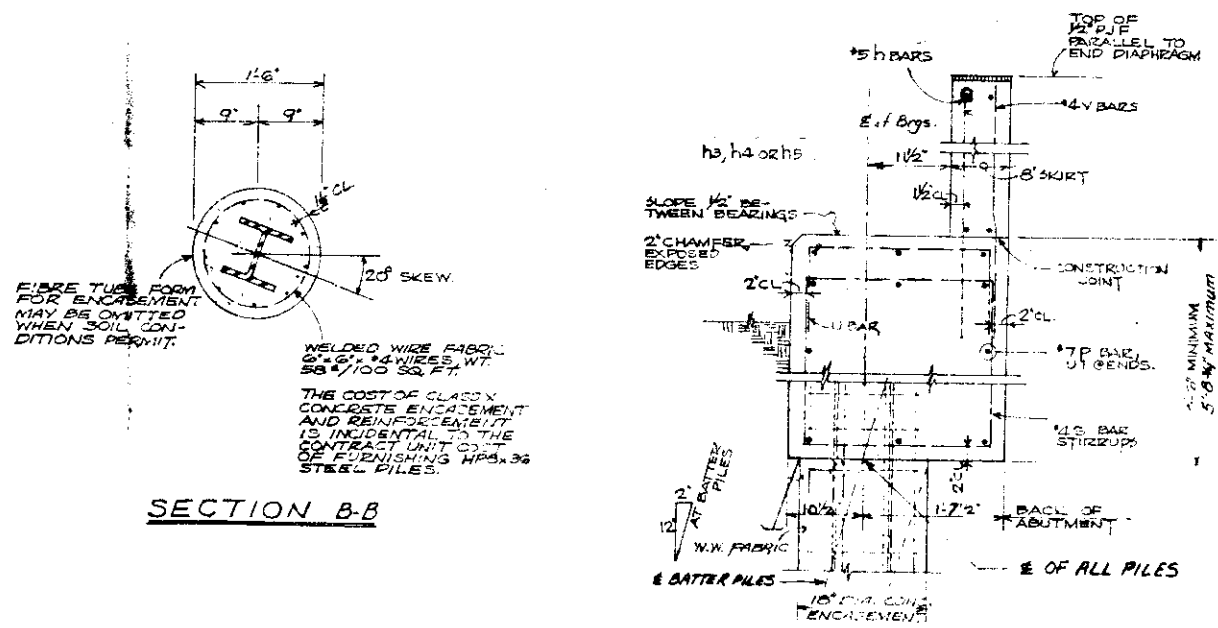
PLAN



ELEVATION - WEST ABUTMENT



ELEVATION - EAST ABUTMENT

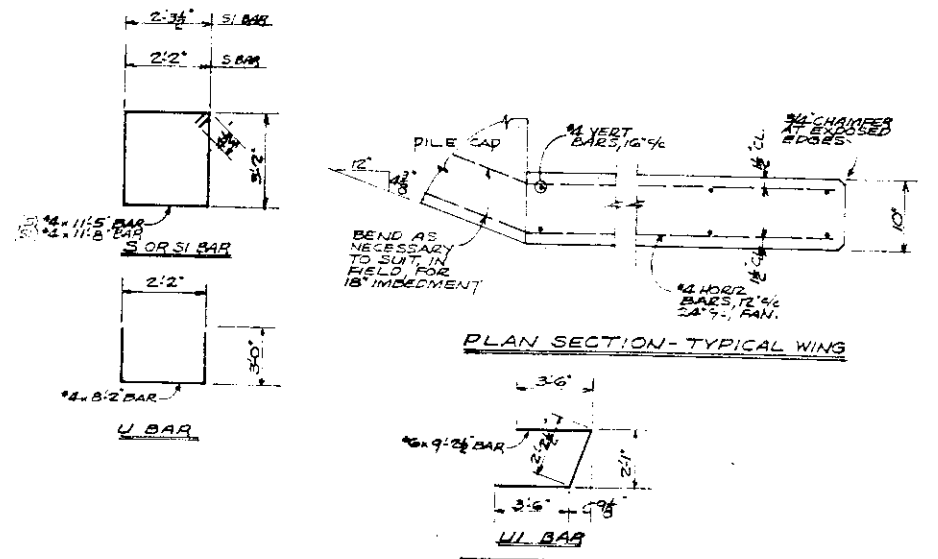


SECTION B-B

SECTION A-A

| BAR | NO. | SIZE | LENGTH   | SHAPE |
|-----|-----|------|----------|-------|
| h3  | 3   | #5   | 25'8"    | —     |
| h4  | 6   | #5   | 13'10"   | —     |
| h   | 32  | #5   | 17'4"    | —     |
| h1  | 24  | #4   | 5'9"     | —     |
| h2  | 36  | #4   | 7'4"     | —     |
| h5  | 3   | #5   | 2'2"     | —     |
| s   | 32  | #4   | 11'5"    | —     |
| p   | 16  | #7   | 3'10"    | —     |
| v   | 128 | #4   | 4'9"     | —     |
| v1  | 2   | #4   | 8'0"     | —     |
| v2  | 2   | #4   | 8'8"     | —     |
| v3  | 2   | #4   | 9'4"     | —     |
| v4  | 2   | #4   | 10'0"    | —     |
| v5  | 2   | #4   | 10'9"    | —     |
| v6  | 4   | #4   | 5'10"    | —     |
| v7  | 4   | #4   | 6'0"     | —     |
| v8  | 4   | #4   | 7'2"     | —     |
| v9  | 4   | #4   | 7'10"    | —     |
| v10 | 4   | #4   | 8'5"     | —     |
| v11 | 2   | #4   | 6'2"     | —     |
| v12 | 2   | #4   | 6'10"    | —     |
| v13 | 2   | #4   | 7'5"     | —     |
| v14 | 2   | #4   | 8'3"     | —     |
| v15 | 2   | #4   | 9'0"     | —     |
| s1  | 12  | #4   | 11'8"    | —     |
| u   | 29  | #4   | 5'0"     | —     |
| u1  | 12  | #6   | 7'2 1/2" | —     |

REINFORCEMENT BARS, LB. 3330  
CLASS X CONCRETE, CU. YD. 36



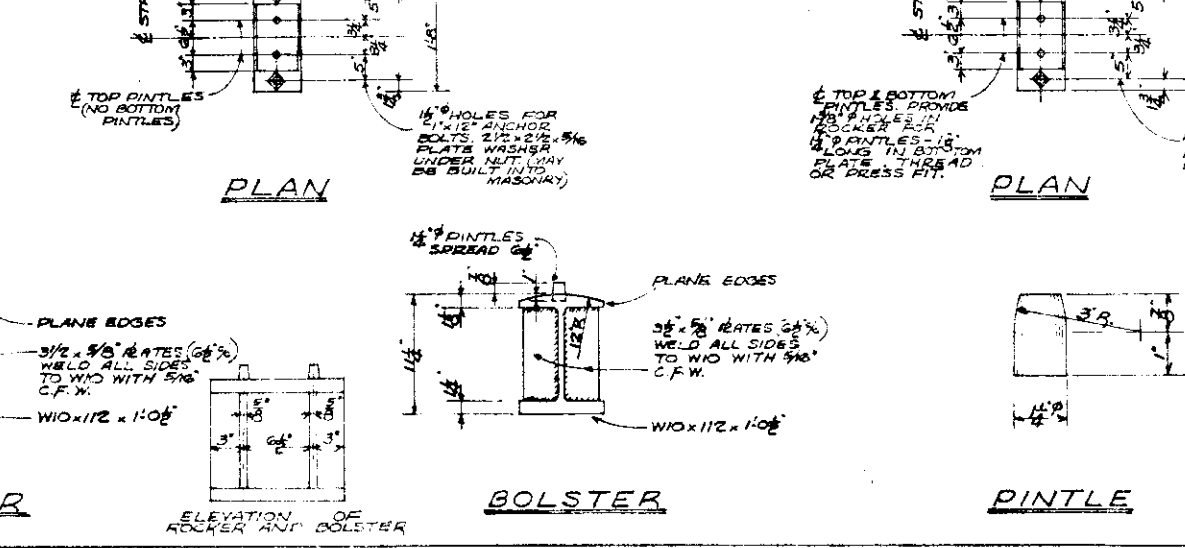
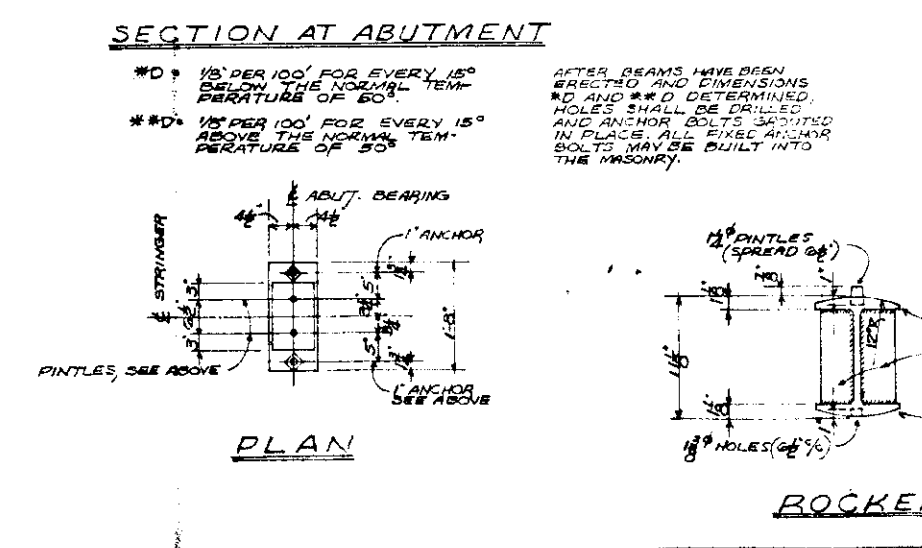
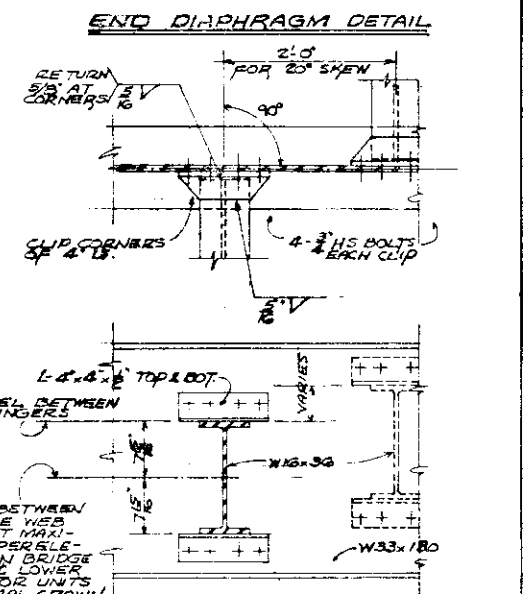
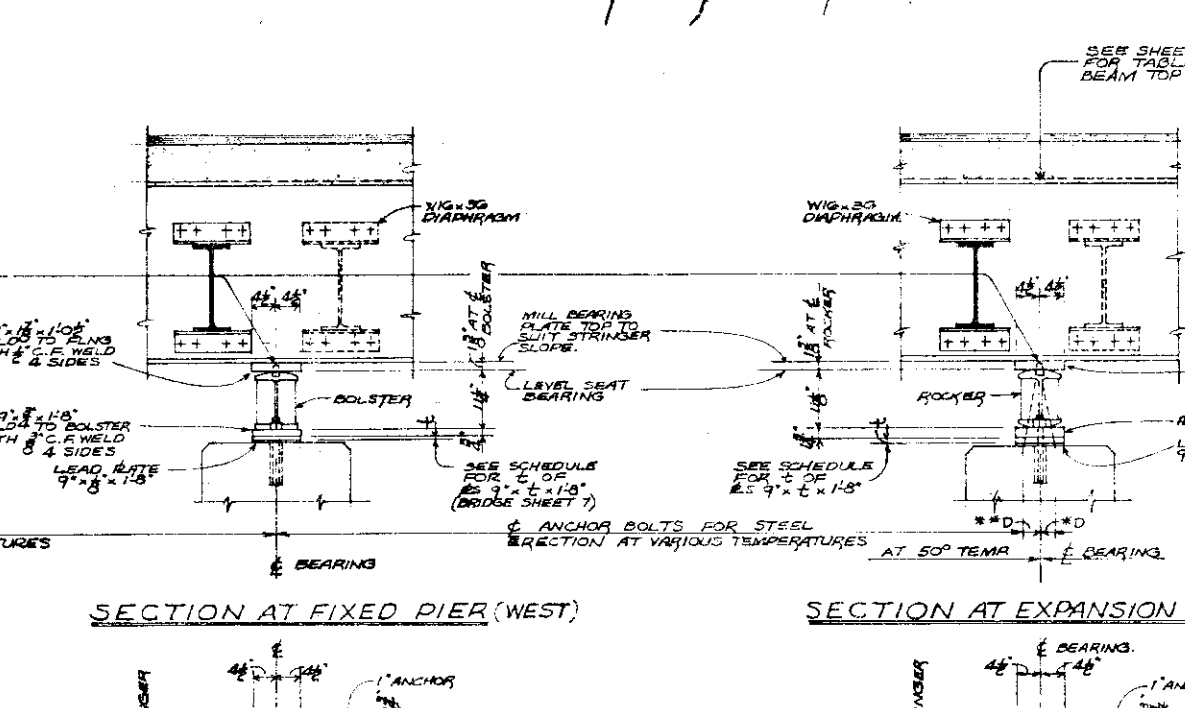
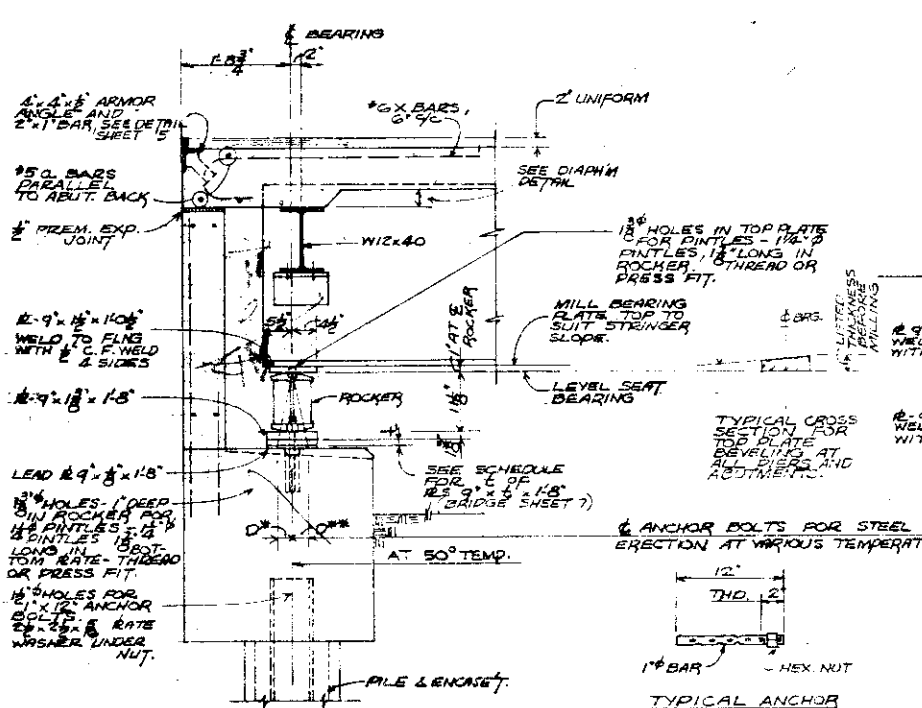
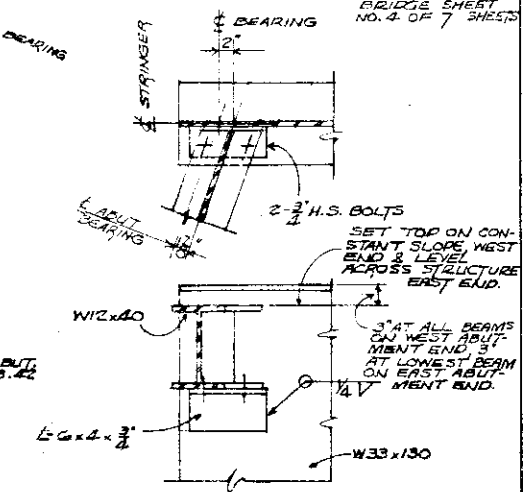
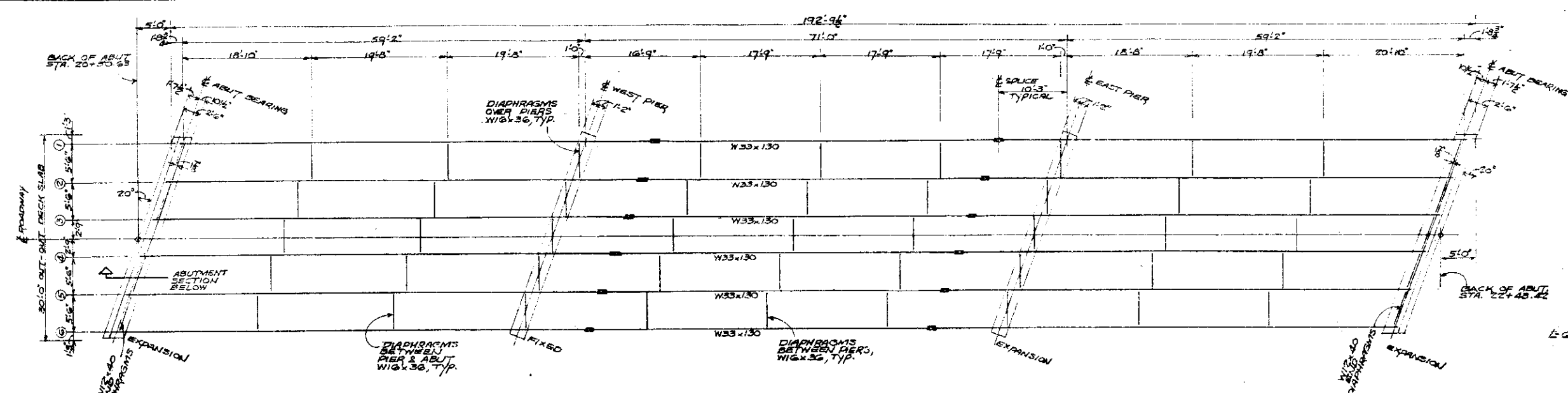
PLAN SECTION - TYPICAL WING

BRIDGE OVER MILL CREEK  
ADAMS COUNTY, ILLINOIS  
PREPARED BY:  
HAFNER DIERKES FLACHS  
510 MAINE STREET, QUINCY  
MO. PROJECT 1203  
PREPARED FOR:  
ADAMS COUNTY HIGHWAY DEPARTMENT



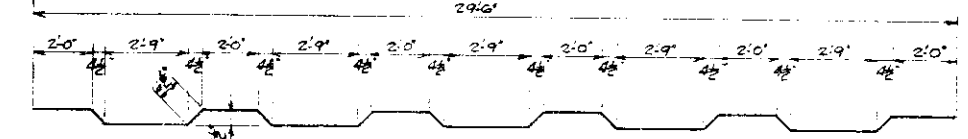
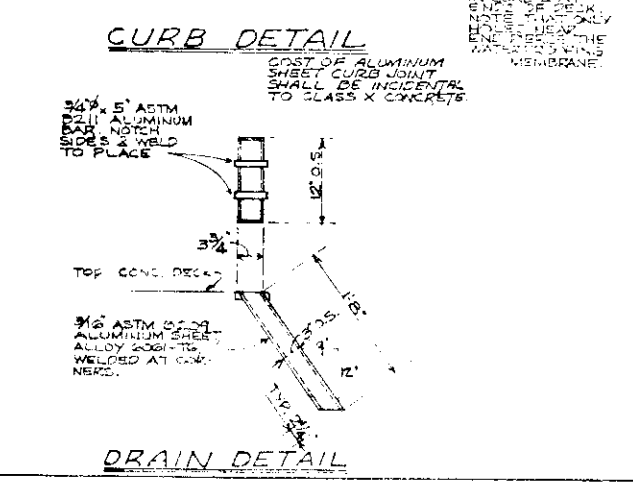
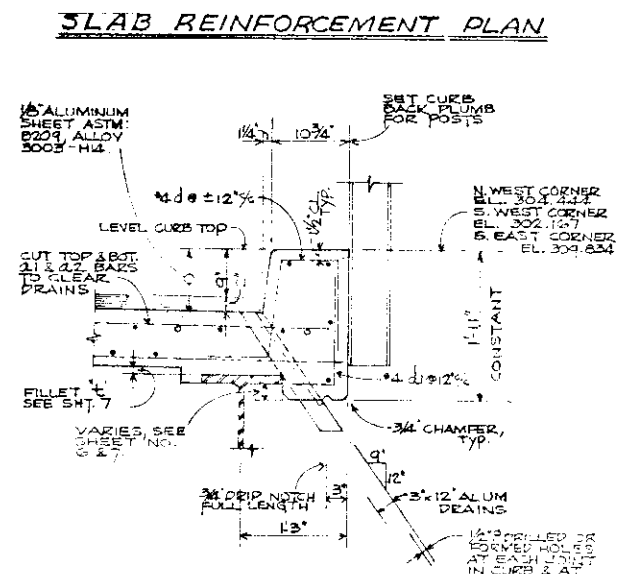
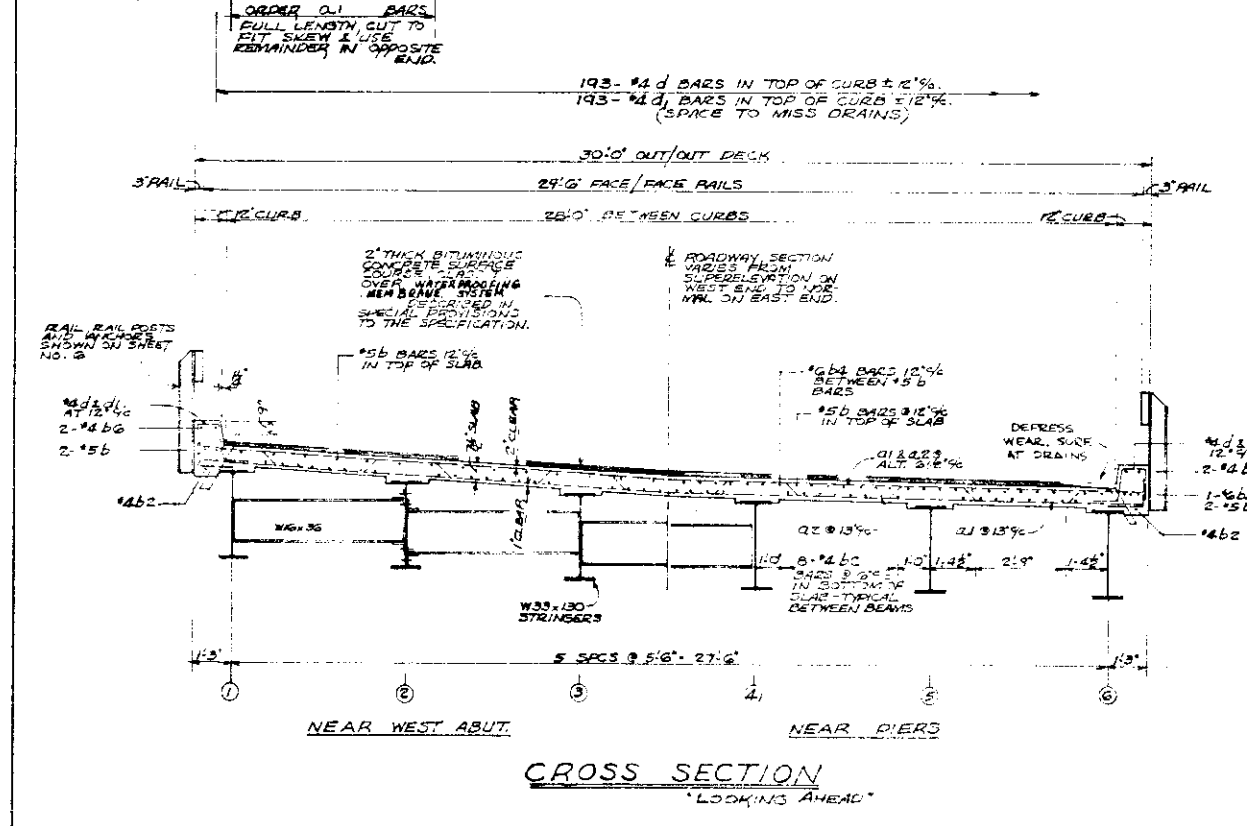
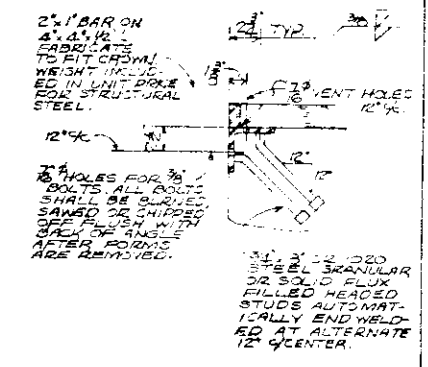
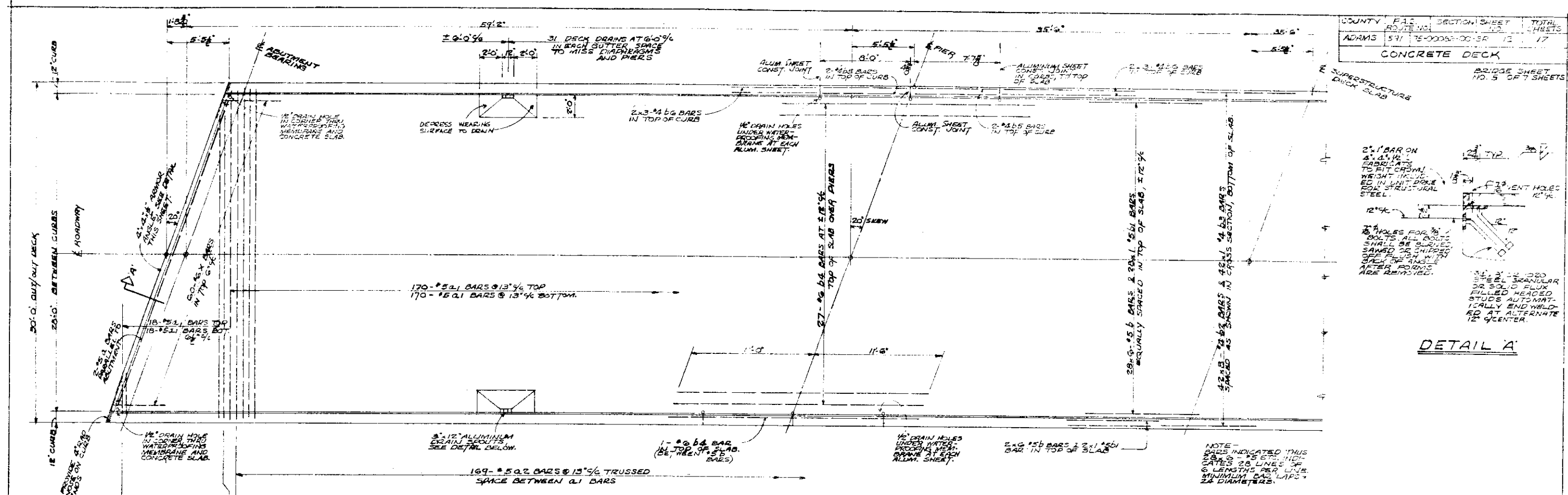
| COUNTY | F.A.E. ROUTE NO. | SECTION        | SHEET NO. | TOTAL SHEETS |
|--------|------------------|----------------|-----------|--------------|
| ADAMS  | 591              | 75-00086-00-BR | 11        | 17           |

STRUCTURAL STEEL  
BRIDGE SHEET NO. 4 OF 7 SHEETS



**DETAIL OF SPlice**

**BRIDGE OVER MILL CREEK**  
ADAMS COUNTY, ILLINOIS  
PREPARED BY:  
HAENER DIERKES FLACHS  
510 MAINE STREET, QUINCY  
HDR PROJECT 1003  
PREPARED FOR:  
ADAMS COUNTY HIGHWAY DEPARTMENT

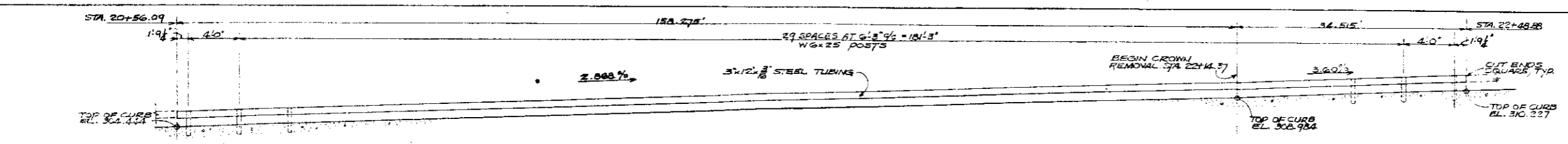


**BILL OF MATERIAL**

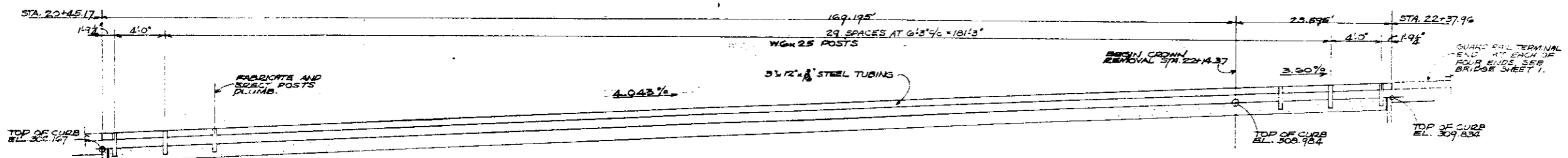
| BAR  | NO. | SIZE | LENGTH | SHAPE |
|--|-----|------|--------|-------|
| Q1   | 4   | #5   | 311.8" |       |
| Q1   | 376 | #5   | 29.8"  |       |
| Q2   | 129 | #5   | 27.2"  |       |
| <hr/>  |     |      |        |       |
| b  | 192 | #5   | 30.0"  |       |
| b1   | 32  | #5   | 20.0"  |       |
| b2   | 396 | #4   | 24.0"  |       |
| b3   | 42  | #4   | 8.6"   |       |
| b4   | 58  | #6   | 22.5"  |       |
| b5   | 16  | #4   | 7.8"   |       |
| b6   | 36  | #4   | 18.11" |       |
| <hr/>  |     |      |        |       |
| x  | 120 | #8   | 5.3"   |       |
| y  | 386 | #4   | 3.7"   |       |
| z  | 322 | #4   | 11.9"  |       |
| REINFORCEMENT BARS, LB. 34,375               |     |      |        |       |
| CLASS X CONCRETE, CU YD.                     |     |      |        | 157   |
| FLOOR DRAINS, EACH,                          |     |      |        | 62    |
| WATERPROOFING MEMBRANE SYSTEM,               |     |      |        | 607   |
| BITUMINOUS CONCRETE SURFACE COURSE, CLASS I, |     |      |        | 70    |
| PROTECTIVE COAT, SQ. YD.                     |     |      |        | 107   |

**BRIDGE OVER MILL CREEK**  
 ADAMS COUNTY, ILLINOIS  
 PREPARED BY:  
 HAFNER DIERNES FLACHS  
 510 MAINE STREET, QUINCY  
 ILL. PROJECT 1203  
 PREPARED FOR:  
 ADAMS COUNTY HIGHWAY DEPARTMENT

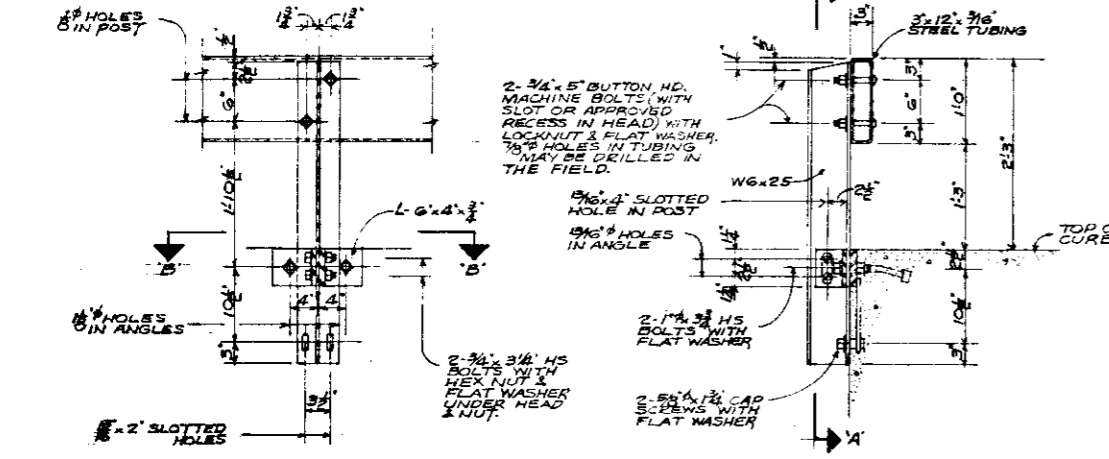




**SECTION - NORTH SIDE RAILING**

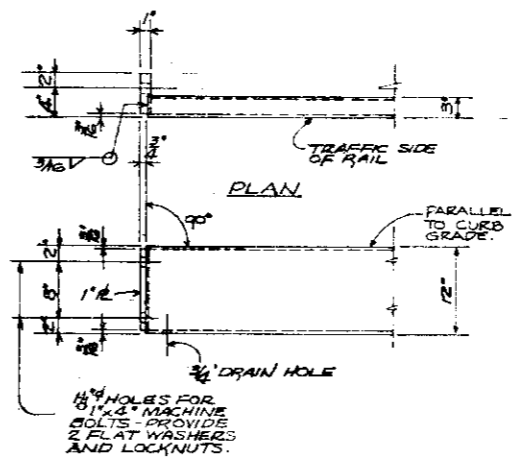


**ELEVATION - SOUTH SIDE RAILING**



**SECTION A-A'**

**SECTION AT RAIL POST**



**END OF RAIL DETAILS**

**NOTES**

HOLLOW STRUCTURAL STEEL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM DESIGNATION A-500 GRADE B OR ASTM A501 OR AASHTO M-188 STRUCTURAL STEEL TUBING.

ALL OTHER STEEL SHAPES AND PLATES SHALL CONFORM TO AASHTO M-188 EXCEPT POSTS SHALL CONFORM TO AASHTO M-188.

BOLTS, CAP SCREWS, AND NUTS SHALL CONFORM TO THE REQUIREMENT OF ASTM DESIGNATION A-307 EXCEPT HIGH STRENGTH BOLTS, NUTS AND WASHERS NOTED WHICH SHALL CONFORM TO ASTM DESIGNATION A-325.

ALL BOLTS, NUTS, CAP SCREWS, WASHERS AND LOCK WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO DESIGNATION M-232.

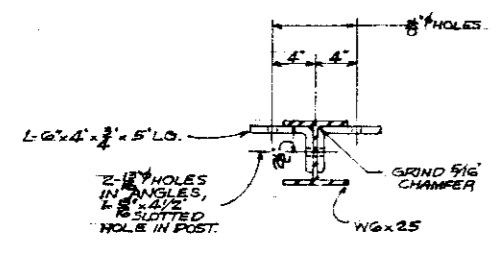
ALL POSTS, RAILING, RAIL SPLICES, ANCHOR DEVICES AND ANGLES SHALL BE GALVANIZED AFTER SHOP FABRICATION IN ACCORDANCE WITH AASHTO DESIGNATION M-111 AND ASTM A-385. GALVANIZED RAIL SHALL NOT BE PAINTED.

RAILING SHALL BE IN ACCORDANCE WITH SECTION 508 OF THE STANDARD SPECIFICATIONS EXCEPT AS NOTED, AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LINEAL FOOT FOR STEEL RAILING, TYPE S.

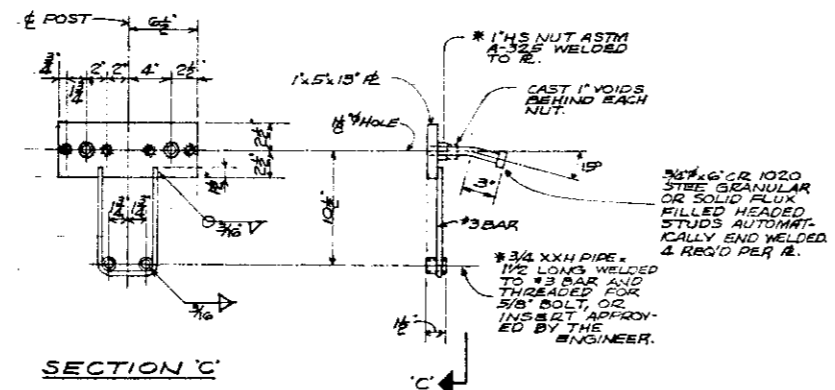
ALL FIELD DRILLED HOLES SHALL BE COATED WITH ZINC RICH PAINT BEFORE ERECTION.

THE LOWER PORTION OF THE POST FLANGE IN CONTACT WITH CONCRETE SHALL RECEIVE TWO COATS OF ASPHALT PAINT CONFORMING TO SECTION 714.08 TYPE B OR PLACE 1/8" FABRIC BEARING PAD BETWEEN THE POST AND CONCRETE.

THE 3/4" HIGH STRENGTH BOLTS USED TO CONNECT THE 6" x 4" x 3/4" ANGLES TO THE POST SHALL BE TIGHTENED IN ACCORDANCE WITH ARTICLE 507.04(9)(3) OF THE STANDARD SPECIFICATIONS. THE 1" HIGH STRENGTH BOLTS CONNECTING THE ANGLES TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL 1/8 TURN.



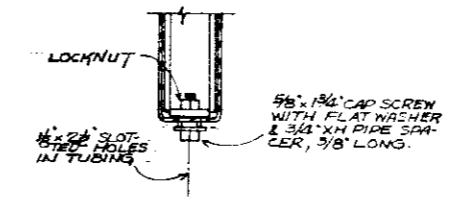
**SECTION B-B'**



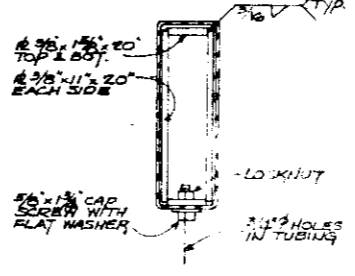
**SECTION C-C'**

**ANCHOR DEVICE**

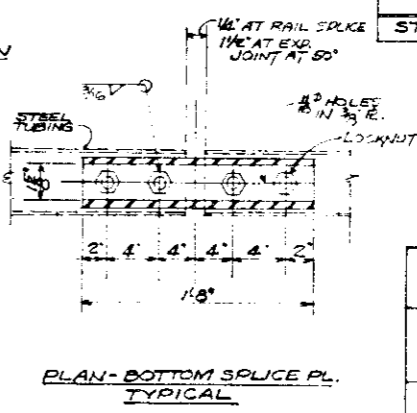
\*THREADED AREAS SHALL BE PLUGGED OR BLOTTED OFF DURING CASTING OF BEAM.



**RAIL SPLICE CONNECTION AT EXPANSION JOINT**



**SECTION AT RAIL SPLICE**



**PLAN - BOTTOM SPLICE PL. TYPICAL**

**BILL OF MATERIAL**

| ITEM                  | UNIT     | QUANTITY |
|-----------------------|----------|----------|
| STEEL RAILING, TYPE S | LIN. FT. | 379      |

BRIDGE OVER MILL CREEK  
ADAMS COUNTY, ILLINOIS

PREPARED BY:  
HAFFNER DIERKES FLACHS  
510 MAINE STREET, QUINCY  
MO. PROJECT 1003

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ADAMS COUNTY HIGHWAY DEPARTMENT

