

Excavate channel as shown;
approx. 160 cubic meters of
channel excavation

GENERAL NOTES

MATERIALS AND STRENGTHS:

| | |
|--|---------------------------|
| Class S(AE) Concrete (superstructure) | $f'_c = 28.0 \text{ MPa}$ |
| Class S Concrete (substructure) | $f'_c = 24.0 \text{ MPa}$ |
| Reinforcing Steel (AASHTO M31 or M53, Gr. 400) | $f_y = 400 \text{ MPa}$ |

CONCRETE PILING: Piling for Bents 1 and 5 shall be 405 mm octagonal or 355 mm square precast concrete and shall be driven to a minimum safe bearing capacity of 390 kN per pile. Piling shapes shall not be mixed. Piling in Bents 2 thru 4 shall be 455 mm square precast concrete and shall be driven to a minimum safe bearing capacity of 490 kN per pile. All piling shall be driven with an approved air, steam, or dieselhammer. Piling in end bents shall be driven after embankment to bottom of cap is in place and shall have a minimum penetration of 1.5 m below the bottom of the cap. Piling in Bent 1 shall be driven to a minimum tip elevation of 73.0. Lengths of piling shown are assumed for estimating quantities only. Actual lengths to be determined in the field. Drive one 12.5 m test pile in Bent 1, and one 12.5 m test pile in Bent 3.

BRIDGE DECK: The concrete bridge deck shall be given a tine finish as specified for final finishing in Subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish.

| DETAIL DRAWINGS: | DRAWING NO. |
|-------------------------------------|--------------|
| End Bents | 37661 |
| Intermediate Bents | 37662 |
| 9 m R.C.D.G. Spans | 37658, 37659 |
| Concrete Piling | 36506 |
| Type C Bridge Name Plate | 36502 |
| Embankment Construction | 36500 |
| Dumped Riprap and Filter Blanket | 36501 |
| Computing Excavation for Structures | 36501 |
| Type B2 Approach Gutters | 36526 |

EXISTING BRIDGE: The existing bridge No.02017 (log 22.59) is 61m wide and 35.4 m long and consists of 6-1 Beam Spans supported by a timber substructure. The existing bridge is located approximately 15.0 m downstream from the proposed new bridge.

REMOVAL AND SALVAGE: After the new bridge is open to traffic, the existing bridge (0207) shall be removed in accordance with section 205 of the Standard Specifications. All material from the existing bridge shall become the property of the contractor except the Steel Stringers which shall remain the property of the State.

| Flood Description | Frequency | Discharge | *Natural Water Surface Elevation | Water Surface Elevation with Backwater |
|-------------------|-----------|-----------|----------------------------------|--|
| | Years | CMS | Meters | Meters |
| Design | 50 | 50.1 | 83.9 | 83.48 |
| Base | 100 | 52.1 | 83.21 | 83.50 |
| Extreme | 500 | 69.1 | 83.42 | 83.75 |
| Over topping | >500 | - | - | - |

* Unconstricted water surface without structure or roadway approaches.
Drainage area = 7.5 sq. km; Historical H.W. = 83.22

LAYOUT OF BRIDGE OVER
CYPRESS CREEK
- OUACHITA CO. LINE STRS. & APPRS. (S)
NEVADA COUNTY
ROUTE 4 SEC. 7
AS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: LM DATE: 12-4-95
 CHECKED BY: ETF DATE: 2-12-96 SCALE: 1:200
 DESIGNED BY: MEC DATE: 11-7-95
 BRIDGE NO. 06673 DRAWING NO. 37660

A
 H
 ETRIC
 D



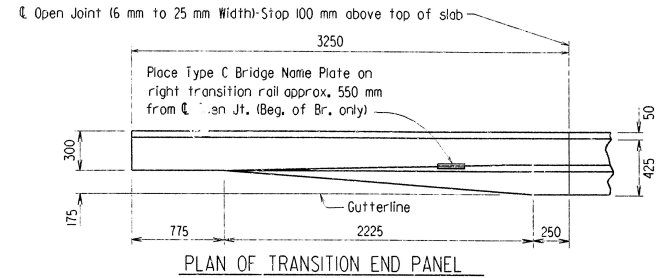
| | |
|--|--|
| A-Moist, Medium Stiff to Soft, Brown and Gray Sandy, Silty Clay | <p>* Unconstricte approaches. Drainage are</p> |
| B-Moist, Medium Stiff, Brown and Gray Sandy, Silty Clay | |
| C-Wet, Medium Dense, Gray Silty Sand | |
| D-Wet, Very Loose, Gray Silty Sand with some Clay Seams | |
| E-Moist, Stiff, Gray and Brown Silty Clay with Traces of Lignite | |
| F-Moist, Very Dense, Gray Sand with Clay Seams | |
| G-Moist, Hard, Gray Clay with Silt and Sand Lenses and Traces of Lignite | |
| H-Hard, Black Lignite | |
| J-Wet, Very Dense, Gray Silty Sand with some Clay Seams | |
| K-Wet, Very Dense, Gray Silty Sand | |
| L-Moist, Very Loose, Brown and Gray Silty Sand with Clay Seams | |
| M-Wet, Dense, Gray Silty Sand with Clay Seams | |
| N-Moist, Very Stiff, Gray Clay with Silt and Sand Lenses and Traces of Lignite | |
| O-Moist, Very Stiff, Gray and Brown Silty Clay with Traces of Lignite | |
| P-Moist, Very Hard, Gray Clay with Sand Seams | |
| Q-Moist, Hard, Gray Clay with Silt and Sand Lenses | |
| R-Moist, Hard, Gray Silty Clay with Lignite Seams | |
| S-Wet, Very Dense, Gray Silty sand with some Thin Cemented Sand Seams | |
| T-Wet, Very Dense, Gray Silty Sand with some Lignite Seams | |



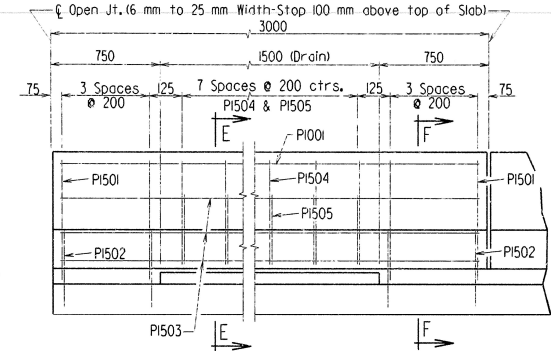
BRIDGE ENGINEER

br30087x3.11

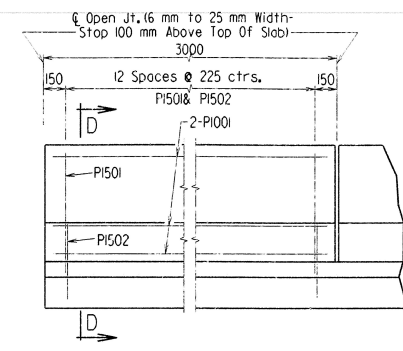
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|--------------|-------------|--------------|-------------|---------------------------|--------|--------------------|-----------|--------------|
| | | | | 6 | ARK. | | | |
| | | | | JOB NO. | R30087 | | 37659 | |
| | | | | 06672 & 06673 SPAN DTL'S. | | 37659 | | |



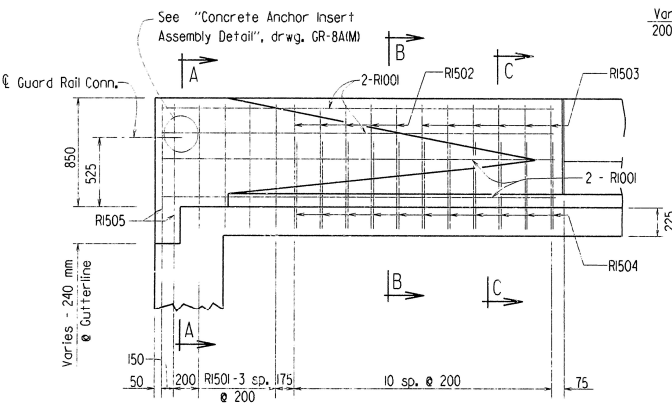
PLAN OF TRANSITION END PANEL



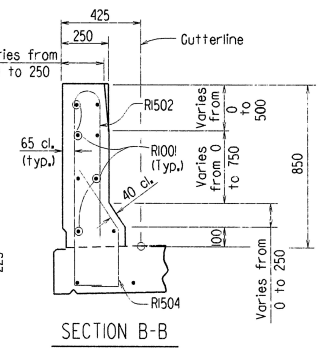
OPEN PARAPET RAIL



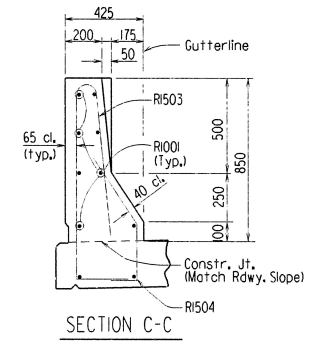
CLOSED PARAPET RAIL



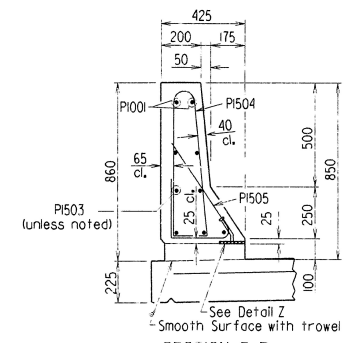
FRONT ELEVATION OF TRANSITION END PANEL



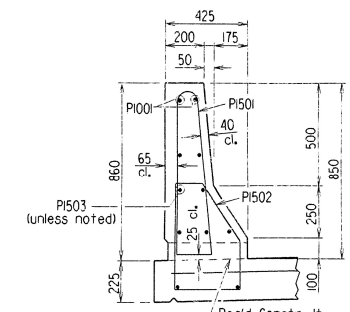
SECTION B-B



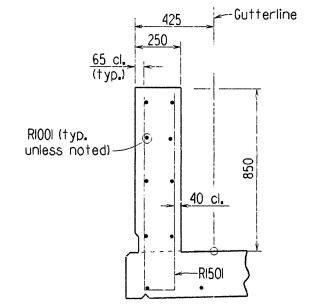
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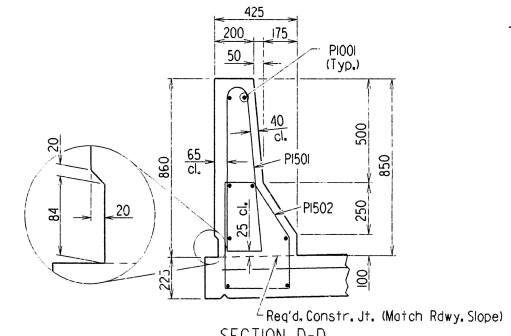
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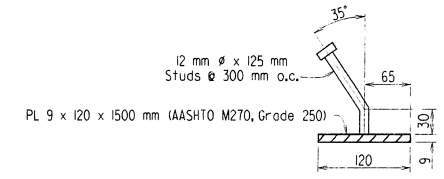
SECTION F-F



SECTION A-A



SECTION D-D

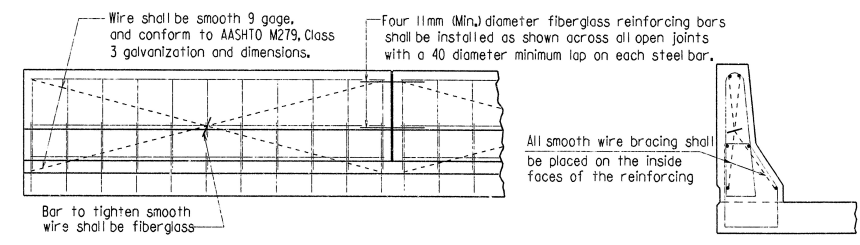
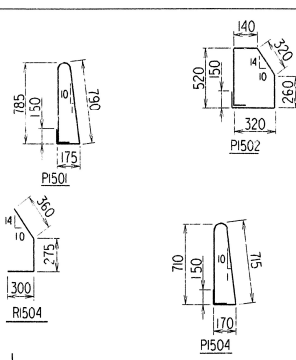


DETAIL Z

BAR LIST - PER SPAN

| MK | Size | Length | Pin Dia. | Number | Required |
|-------|------|--------|----------|--------|----------|
| PI001 | 10 | 2900 | Str. | 24 | 12 |
| PI501 | 15 | 2000 | 70 | 52 | 48 |
| PI502 | 15 | 1660 | 70 | 52 | 48 |
| PI503 | 15 | 2900 | Str. | — | 42 |
| PI504 | 15 | 1840 | 70 | — | 48 |
| PI505 | 15 | 950 | 70 | — | 48 |
| R1001 | 10 | 3150 | Str. | 16 | — |
| R1501 | 15 | 1950 | 70 | 8 | — |
| R1502 | 15 | 2010 | 70 | 10 | — |
| R1503 | 15 | 1990 | 70 | 12 | — |
| R1504 | 15 | 900 | 70 | 22 | — |
| R1505 | 15 | 2810 | 70 | 4 | — |

Bending Diagrams (Dimensions are out to out of bars.)



DETAILS OF OPTIONAL SLIPFORMING OF CONCRETE PARAPET RAIL

All panels shall be braced as shown to prevent racking. All open joints shall be sawed as soon as practical to a minimum width of 6 mm. To control cracking before sawing all joints must be grooved before the concrete is set. Sawing of the joints must be controlled so it will follow the grooved joint.

The extruded parapet shall conform to the horizontal and vertical lines shown on the plans or as directed by the Engineer and shall present a smooth, uniform appearance and texture. Exposed surfaces may be given a light brush finish or a Class 3, Textured Coating Finish, in place of Class 2, Rubbed Finish.

Note:

The surfaces of the 9 mm Plates which will not be in contact with concrete shall be painted in accordance with Section 638, or as approved by the Engineer. Only one coat is required and shall be applied in the fabricator's shop. Painting will not be paid for directly, but will be considered subsidiary to Class 5(AE) Concrete-Bridge.

Studs shall be granular flux filled, solid fluxed, or equal, and shall be automatically and welded to the plate in accordance with the recommendations of the manufacturer.

SHEET 2 OF 2
DETAILS OF STANDARD
9 METER R.C. DECK GIRDER
10.8 METER CL. RDWY 2% PEAKED CROWN
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.



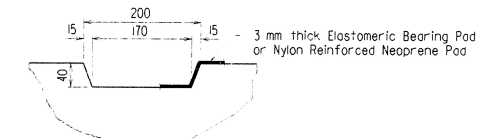
DRAWN BY: JWD DATE: 2-1-96
CHECKED BY: CDF DATE: 5-2-96
DESIGNED BY: STD DATE: SCALE: N.T.S.
BRIDGE NO. 06672 & 06673 DRAWING NO. 37659



| DATE REVISED | DATE FILMED | DATE REVISED | DATE FILMED | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|--------------|-------------|--------------|-------------|--------------------|-----------|--------------|
| | | | | 6 | ARK. | |
| | | | | JOB NO. | R30087 | |
| | | | | 06673 | END BENTS | 37661 |

BAR LIST - PER BENT

| MARK | NUMBER REQUIRED | LENGTH | A | B | P.D. | BENDING DIAGRAMS |
|-------|-----------------|--------|--------|------|------|------------------|
| B1501 | 48 | 2700 | 650 | 635 | 70 | |
| B1502 | 15 | 1850 | 650 | 635 | 70 | |
| B1503 | 2 | 11 800 | | | Str. | |
| B2001 | 6 | 12 240 | 11 800 | 160 | 120 | |
| B2002 | 6 | 11 800 | | | Str. | |
| W1001 | 10 | 1980 | 1200 | 800 | 50 | |
| W1002 | 10 | 2080 | 1500 | 600 | 50 | |
| W1003 | 44 | 1560 | | | Str. | |
| W1004 | 8 | 2480 | 1200 | 1300 | 50 | |
| W1005 | 8 | 2580 | 1500 | 1100 | 50 | |
| W1006 | 8 | 1580 | 900 | 800 | 50 | |



Note: 3 mm thick Elastomeric Bearing Pad or Nylon Reinforced Neoprene Pad to be in full contact with bent cap surfaces when placing superstructure concrete. See span details for material specifications and payment.

KEYWAY DETAIL

N.T.S.

GENERAL NOTES

Stations and elevations are in meters. All other dimensions are in millimeters (mm) unless otherwise noted.

All concrete shall be Class "S" with a minimum 28 day compressive strength f'_c : 24.0 MPa and shall be poured in the dry. All exposed corners shall be chamfered 20 mm unless otherwise noted.

All reinforcing steel shall conform to AASHTO M31 or M53. Grade 400 (yield strength = 400 MPa).

Preformed Asphalt Joint Filler shall be measured and paid for as Class S Concrete-Bridge.

All piles shall be 405 mm octagonal or 355 mm square precast concrete and shall be driven to a minimum safe bearing capacity of 390 kN per pile.

For additional information, see Layout.

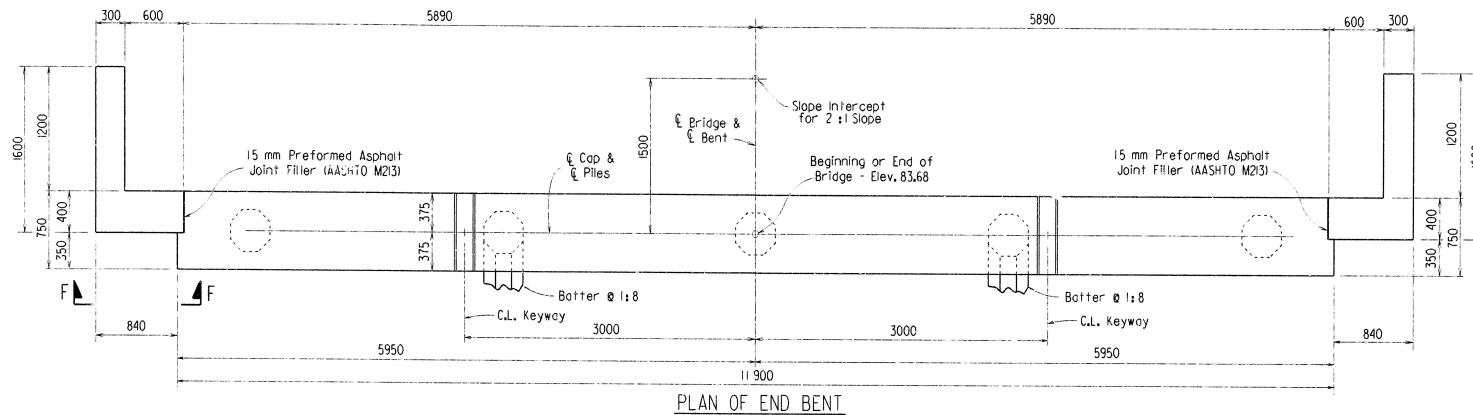
DETAILS OF END BENTS
CYPRESS CREEK
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

ALTERED BY: LM DATE: 4-19-96
CHECKED BY: C.J.F. DATE: 4-29-96 SCALE: 1:30 OR AS NOTED
DESIGNED BY: C.J.F. DATE: 4-10-96

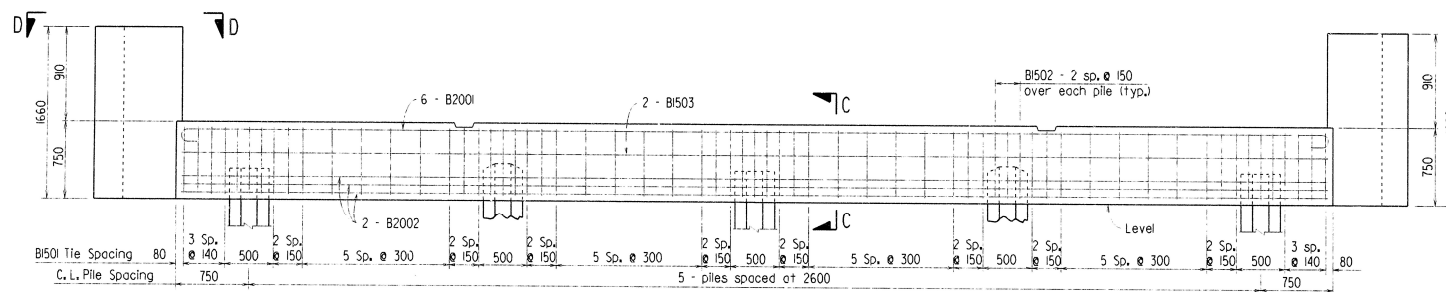
BRIDGE NO. 06673 DRAWING NO. 37661



BRIDGE ENGINEER

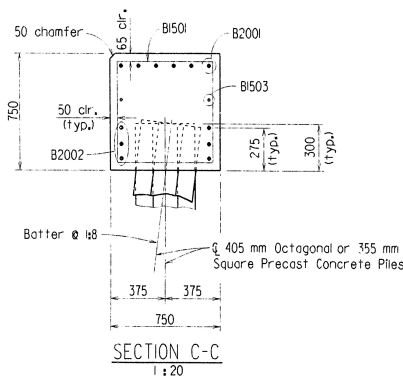


PLAN OF END BENT

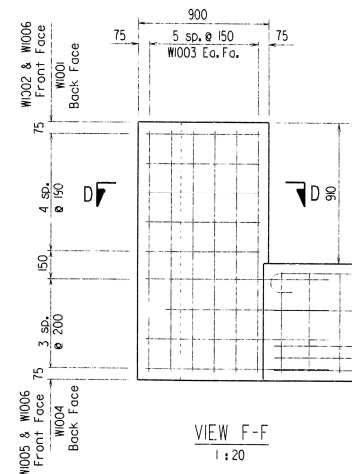


ELEVATION OF END BENT

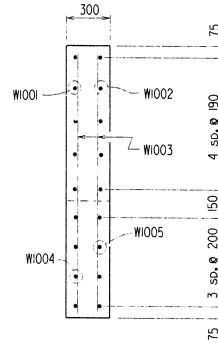
Looking Back - Bent 1
Looking ahead - Bent 5



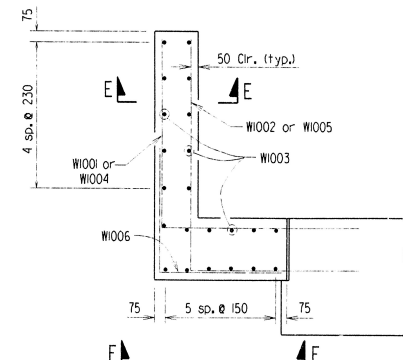
SECTION C-C
1:20



VIEW F-F
1:20



SECTION E-E
1:20



SECTION D-D
1:20

