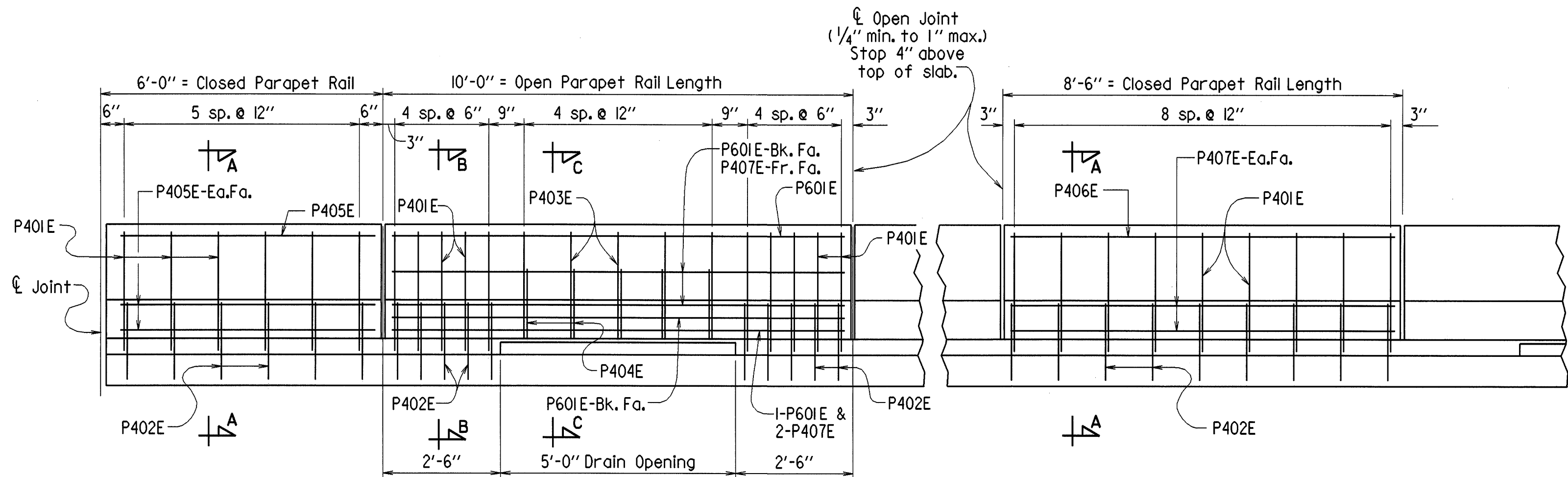


DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		110387	43	96
① 06978 - 305' UNIT - 46123								



DETAILS OF PARAPET RAILING

Scale : 1/2" = 1'-0"

GENERAL NOTES

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

All concrete shall be poured and screeded off prior to initial set. The concrete deck shall be finished in accordance with section 802.9, Class 5 of the Standard Specifications. Movement of the finishing machine across new concrete shall be on planks placed on the surface and shall be prohibited for 72 hours after finishing the pour. Sufficient concrete must be placed ahead of the strike-off to fully load the beam. If a longitudinal strike-off is used, a vertical camber adjustment must be made in the strike-off to account for the future dead load deflection of the railing.

Concrete in bridge superstructure shall be placed and consolidated for the entire pour before any concrete has taken its initial set. This may require the use of a retarding agent. Reinforcing steel shall conform to AASHTO M31 or M53, Grade 60. The reinforcing is to be accurately located in the forms and firmly held in place by steel wire supports, sufficient in number and size to prevent displacement during the course of construction. The wire supports will not be paid for directly but will be considered subsidiary to the item "Reinforcing Steel-Bridge".

All stud shear connectors shall be granular flux filled, solid fluxed, or equal, and shall be automatically end welded in accordance with recommendations of the manufacturer.

Field connections shall be bolted with 3/4" high strength bolts unless otherwise noted. Bolt holes shall be 1/16" except that 5/16" holes may be used for connection of expansion devices, diaphragms and end struts if a washer is used under both the nut and head of the bolt.

Diaphragms shall be installed as beams are erected and shall be completely bolted prior to pouring of the concrete deck. All bolts in diaphragms shall be installed and tightened in accordance with subsection 807.71 prior to the pouring of the concrete deck.

Drawings show general features of design only. Shop drawings shall be made in accordance with the specifications, submitted and approval secured before any fabrication is begun. Structural shapes of equal or greater strength may be substituted for shapes shown if approval is obtained from the bridge engineer. Payment will be made on the basis of shapes shown.

All Structural Steel shall be AASHTO M270, Gr. 50W unless otherwise noted and shall be paid for at the unit price per pound bid for "Structural Steel in Beam Spans (M270, Gr. 50W)". M270, Gr. 50W steel shall not be painted. All exposed surfaces to be cleaned in accordance with Subsection 807.84(e) of the Standard Specifications. Structural steel completely embedded in concrete may be AASHTO M270, Gr. 36.

All beams shall be blocked in their true position in the shop. The camber, length of sections, distance between bearings and openings of joints shall be measured with the beams in this position and this information shall become a part of the permanent record of the job. The component parts shall be match marked in this assembly and these marks shall be shown on the erection diagram. All beam dimensions are based on a temperature of 60°F. A tolerance of 1/4" is allowed for camber.

Beams, flange splice plates, and web splice plates are considered main load carrying members and shall meet the longitudinal Charpy V-Notch test specified in Section 807.05. All welding shall conform to Subsection 807.26. Welded connections shall be 3/8" fillet shop welds unless otherwise noted. All welding that is to be done during fabrication of structural steel, including temporary welds, shall be detailed on the shop drawings and submitted for approval. If the Contractor or Erector should want to make additional welds, whether temporary or permanent, he shall submit detailed drawings with formal request to the Bridge Engineer for approval.

Bearings shall be seated in accordance with Section 807.66. This work and material will not be paid for directly but will be considered subsidiary to the item "Structural Steel in Beam Spans (M270, Gr. 50W)".

MATERIALS AND STRENGTHS:  
Class S(AE) Concrete f'c = 4,000 psi.  
Reinforcing Steel (AASHTO M31 or M53, Gr. 60) fy = 60,000 psi.  
Structural Steel (AASHTO M270, Gr. 50W) Fy = 50,000 psi.  
Structural Steel (AASHTO M270, Gr. 36) Fy = 36,000 psi.

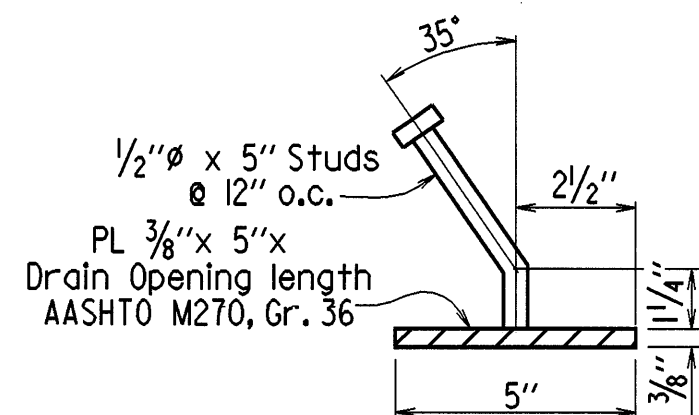
Load Distribution

Dead Load:	Interior Beam	Exterior Beam
To Beams:	980 plf + 1.3 (Wt. of Beam)	756 plf + 1.3 (Wt. of Beam)
To Composite Beam:	**348 plf	**348 plf

\*Includes 192 plf future wearing surface.

Live Load:

To Composite Beam:	1,727 Wheels + Impact	1,490 Wheels + Impact
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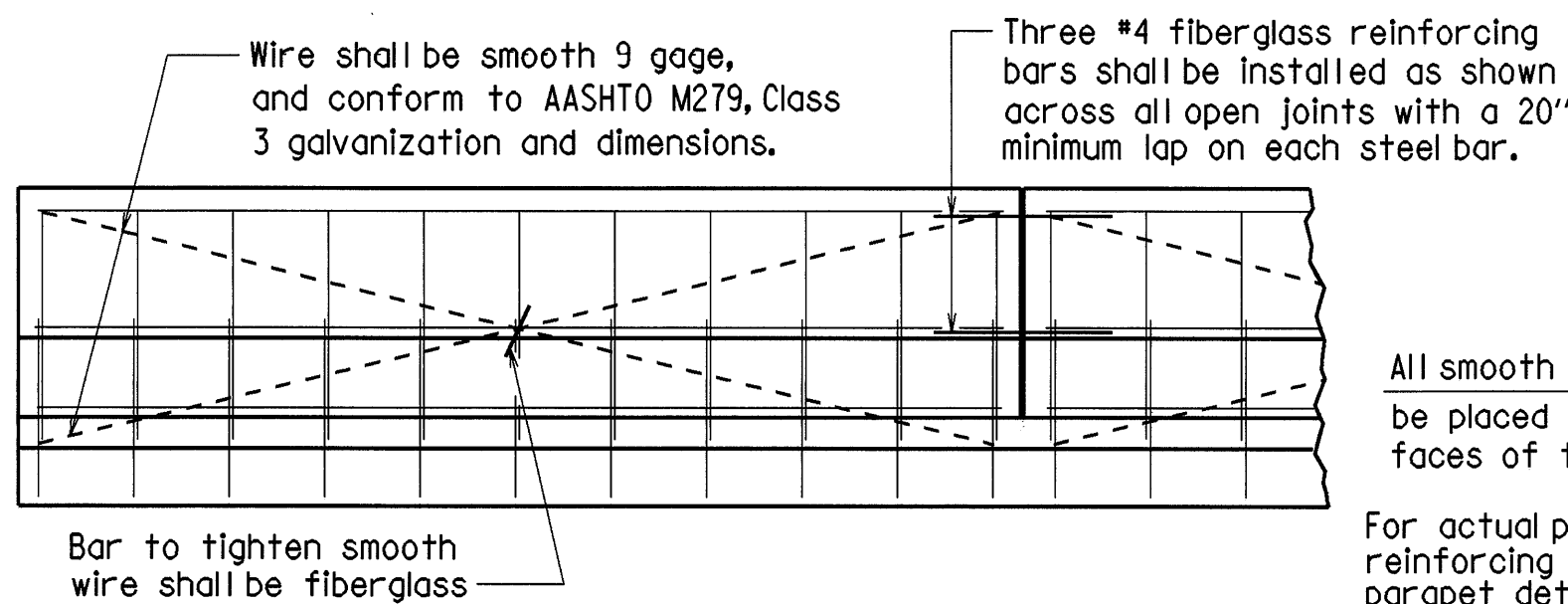


DETAIL Z

No Scale

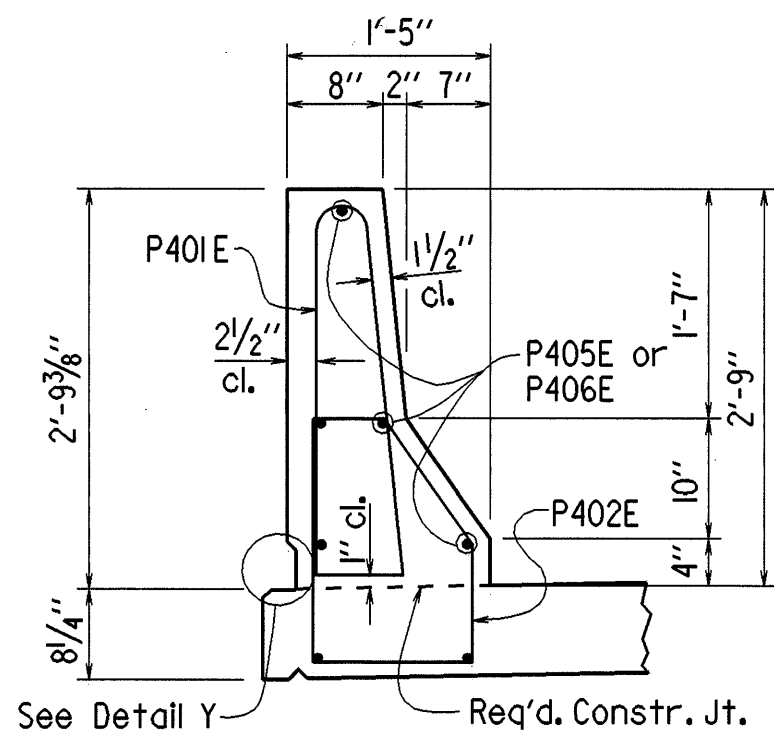
Note:  
Parapet studs shall be 5" long, granular flux filled, solid fluxed, or equal and automatically end welded to the plate. Studs and plate shall meet the requirements of Section 807. Studs and plates shall be measured and paid for as Structural Steel in Beam Spans (M270, Gr. 50W).

The surfaces of the 3/8" 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 Structural Steel in Beam Spans (M270, Gr. 50W).



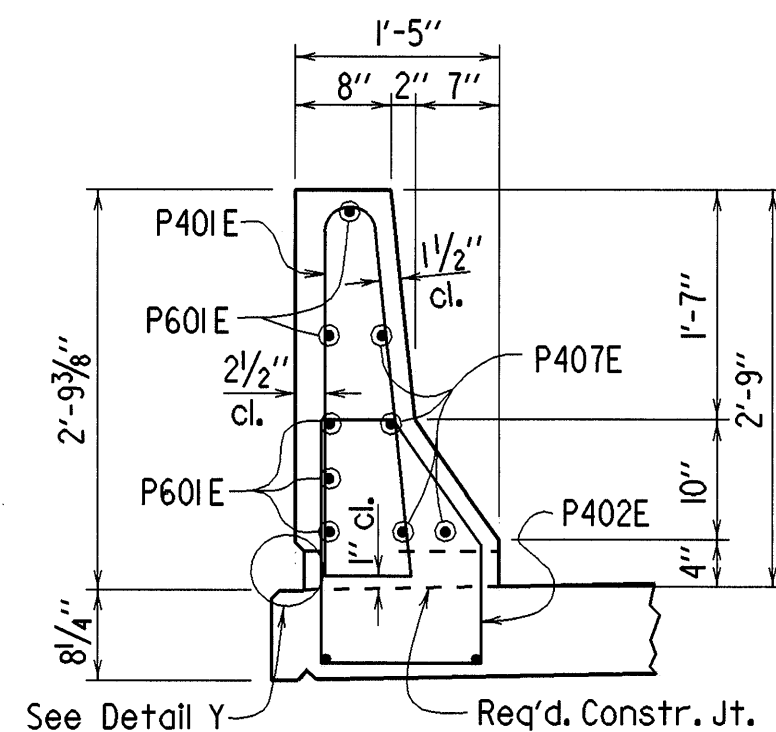
DETAILS OF OPTIONAL SLIPFORMING OF CONCRETE PARAPET RAIL

No Scale



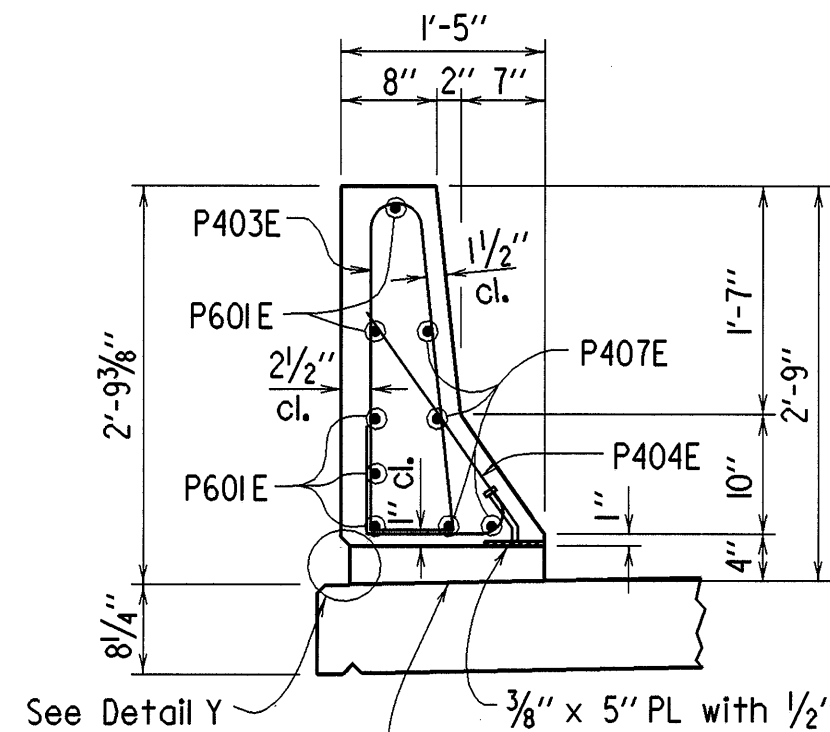
SECTION A-A

Scale : 3/4" = 1'-0"



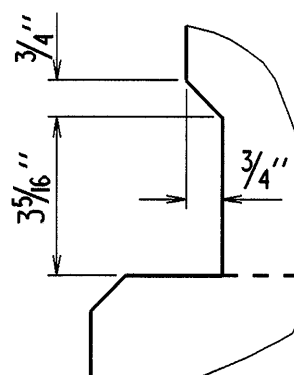
SECTION B-B

Scale : 3/4" = 1'-0"



SECTION C-C

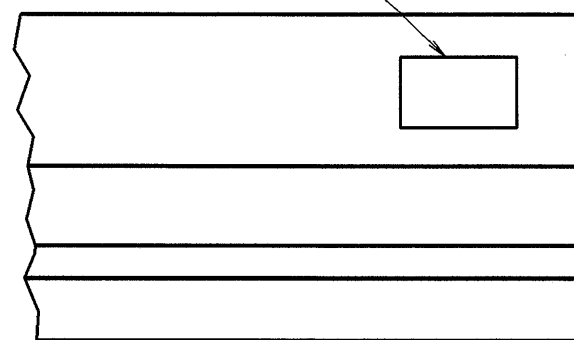
Scale : 3/4" = 1'-0"



DETAIL Y

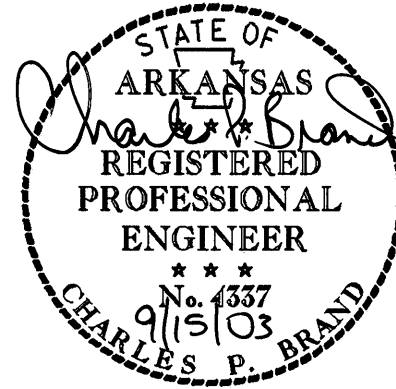
No Scale

Place Type D Bridge Name Plate on right parapet rail approx. 1'-3" from front face of backwall. (Beg. of bridge only)



NAME PLATE DETAIL

No Scale



BRIDGE ENGINEER

SHEET 4 OF 4  
DETAILS OF 305' CONTINUOUS  
COMPOSITE W-BEAM UNIT  
WALNUT LAKE

ROUTE SEC.  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: KDH	DATE: 3-24-03	FILENAME: B110387.S4
CHECKED BY: GVA	DATE: 7-22-03	SCALE: AS NOTED
DESIGNED BY: [Signature]	DATE: March 03	
BRIDGE NO. 06978		DRAWING NO. 46123