

GENERAL NOTES

All concrete shall be Class S(AE) with a minimum 28 day compressive strength $f'_c = 4000$ psi. Concrete shall be poured in the dry and all exposed corners to be chamfered 3/4" unless otherwise noted.

Concrete in bridge deck shall be placed, consolidated and screeded off for the entire pour before any concrete has taken its initial set. This may require the use of a retarding agent.

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 girder. A minimum of 72 hours shall elapse between completion of the slab and the pouring of the parapet railing. Longitudinal screed is prohibited.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60. Epoxy coated reinforcing steel shall conform to AASHTO M284. The reinforcing steel 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 in accordance with Subsection 804.06 of the Standard Specifications. The wire supports will not be paid for directly, but will be considered subsidiary to the item of "Epoxy Coated Reinforcing Steel".

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 Plate Girder Spans (M270, Gr.50W)". All exposed surfaces shall be cleaned in accordance with Subsection 807.84 of the Standard Specifications. See dwg. no. 42013 for cleaning of external load plates. Structural steel completely embedded in concrete may be AASHTO M270, Gr.36.

All girders (and Cross Frames and Cross Frame Stiffeners) are considered main load carrying members and shall meet the Longitudinal Charpy V-Notch Test specified in Section 807.05 of the Standard Specifications. This work and material will not be paid for directly, but are to be considered as subsidiary to the item "Structural Steel in Plate Girder Spans (M270, Gr.50W)". Charpy V-Notch Test will not be required on web and flange splice plates.

Drawings show general features of design only. Shop drawings shall be made in accordance with the Subsection 807.04 of the Standard Specifications, submitted and approval secured before fabrication is begun. Girder webs may be made by shop splicing with minimum lengths of 25 ft. for sections. Flange plates longer than 49 ft. may be made by shop splicing with minimum lengths of 25 ft. for sections. Material specifications and location of the shop-welded splices, if any, shall be shown on the shop drawings. No additional payment for welds for these splices will be made.

Requests for substitution of structural steel shapes shown with shapes of greater size must be submitted by the Contractor to the Engineer for approval. Steels of equal or greater strengths will be accepted only when shown on the approved shop drawings. Payment will be based on the basis of shapes and materials shown in the plans, and no additional compensation will be made for any adjustments due to substitutions.

Cross frames shall be installed as girders are erected. All bolts in Cross Frames and field splices shall be installed and tightened in accordance with Subsection 807.71 of the Standard Specifications prior to pouring of the slabs.

All girders shall be blocked in their true position with webs horizontal in the shop, in groups of a minimum of 3 sections as specified in Section 807.54 (b2). The camber, length of sections, distance between bearings and opening of joints shall be measured with the girders in this position and this information shall become part of the permanent record of this job. The component parts shall be match marked in this assembly and these marks shall be shown on the erection diagram. All girder dimensions are based on a temperature of 60 degrees F. A tolerance of 1/4" (plus or minus) is allowed for camber.

Web and flange plates for main members and flange splice plates for main members shall be cut and fabricated so that the primary direction of rolling is parallel to the direction of the main tensile and/or compressive stresses.

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 a formal request to the Bridge Engineer for Approval. All welding shall conform to Subsection 807.26.

Groove welds in main members shall be Quality Control (Q.C.) tested by nondestructive testing, as required by the Standard Specifications. Fillet welds at flange to web plate connections shall be Q.C. tested by the magnetic particle method. All Quality Control (Q.C.) testing is at the contractor's expense.

Field connections to be bolted with high-strength bolts. Bolts shall be 3/4" dia. and open holes 13/16" dia. except as noted. 7/8" dia. bolts shall be used on all field splices and holes shall be 15/16" dia. Bolt spacing shall be 3" unless noted. Min. edge distance shall be 1-1/2" unless otherwise noted. Bolts shall be placed with heads on the outside face of the exterior girder and on the bottom of the girder flanges. Holes for 3/4" dia. high-strength bolts in Cross Frames may be 15/16" dia. if a washer is supplied for use under both the nut and head of bolt.

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

Construction Specifications: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2003 edition) with applicable supplemental specifications and special provisions.

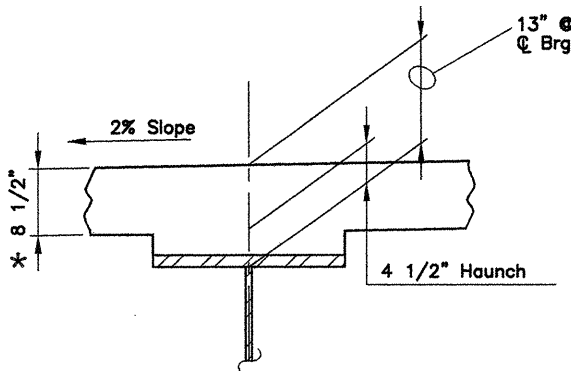
Design Specifications: AASHTO Standard Specifications for Highway Bridges (2002 edition) with current interim specifications.

Live Loading: HS20 Method of Design: Load Factor

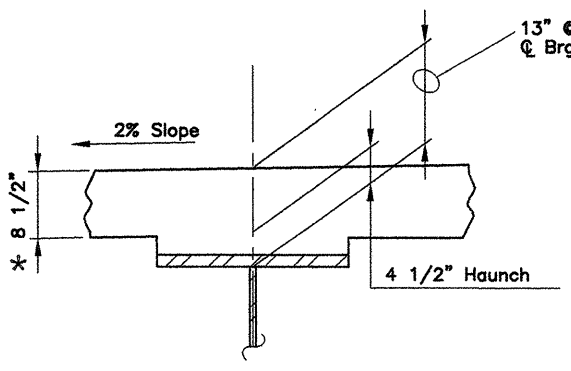
Materials and Strengths:
Class S (AE) Concrete $f'_c = 4000$ psi
Reinforcing Steel (M31 or M53 Gr. 60) $f_y = 60000$ psi
Structural Steel (M 270, Gr. 50W) $F_y = 50000$ psi
Structural Steel (M 270 Gr. 36) $F_y = 36000$ psi

Load Distribution:

Dead Load: Interior Girder Exterior Girder
To Girder: 1254 lb/ft + (Wt. of Steel) 1140 lb/ft + (Wt. of Steel)
To Composite Girder: 550 lb/ft* 550 lb/ft*
Live Load to Composite Girder: 2.060 Wheels + Impact 1.658 Wheels + Impact
*Includes 250 lb/ft future wearing surface.



EXTERIOR GIRDER

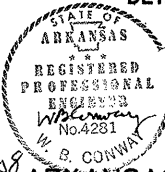


INTERIOR GIRDER

NOTE: * Tolerance when removable deck forming is used is minus 1/4" and plus 1/2". Haunch forming is required and shall be adjusted to maintain slab thickness tolerance. Tolerances shown are applicable only when removable deck forming is used. See Std. Dwg. 14991 for tolerances when permanent steel deck forms are used. Payment for Concrete shall be based on removable deck forming. Haunch dimensions may vary within the following limits to maintain the grade and slab thickness tolerance: Minimum - occurs when top flange or top splice plate contacts bottom reinforcing steel; Maximum - top flange thickness plus 2 3/4". No increase in concrete and structural steel quantities will be made to maintain tolerances.

DETAIL OF SLAB AND HAUNCH TOLERANCES

No Scale



ALTERNATE NO. 1 & NO. 2
BRIDGE OVER WHITE RIVER
(SHEET 15 OF 15)

DETAILS OF 1050'-0" CONT. COMP.
PLATE GIRDER UNIT

WHITE RIVER STR. & APPRS.
(CLARENDON) (PH. II) (F)
MONROE COUNTY

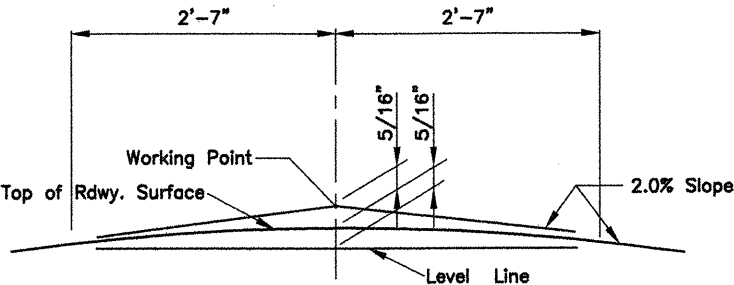
ROUTE 79 SEC. 13

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

Engstrom/Modjeski and Masters

DRAWN BY: DLG DATE: Nov. 07 FILENAME: b110394_s15
CHECKED BY: HJE DATE: Nov. 01 SCALE: 1"=1'-0"
DESIGNED BY: HJE DATE: Nov. 01
BRIDGE NO. 06830 DRAWING NO. 41993

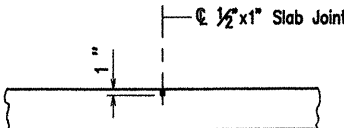
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		110394	81	196
				06830		1050' GEN. NOTES		41993



NOTE: Working Point matches Theoretical Roadway Grade.

ROUNDING DETAIL

No Scale



Use 1/2" X 1" Type 3, 4 or 6 Joint Sealer. See Subsection 501.02(h) and 501.05(j). Backer rod shall not be installed. Joint Sealer shall be measured and paid for as Class S(AE) Concrete-Bridge. Slab joints shall extend to the outside edge of the deck slab. Slab joints shall be installed before the parapet railing is poured. If slab joints are to be sawed, they shall be sawed as soon as the concrete has sufficiently set to allow sawing of the joint without damage to the slab. Slab joints shall be placed at all pouring sequence construction joints and required slab joint locations.

SLAB JOINT DETAIL

N.T.S.

COMPANY: 1999 JOBS: 99-044 AHTD\WHITERIVER\JOB 110394\1050gennotest1&2 ACAD SCALE: 1"=1'-0"