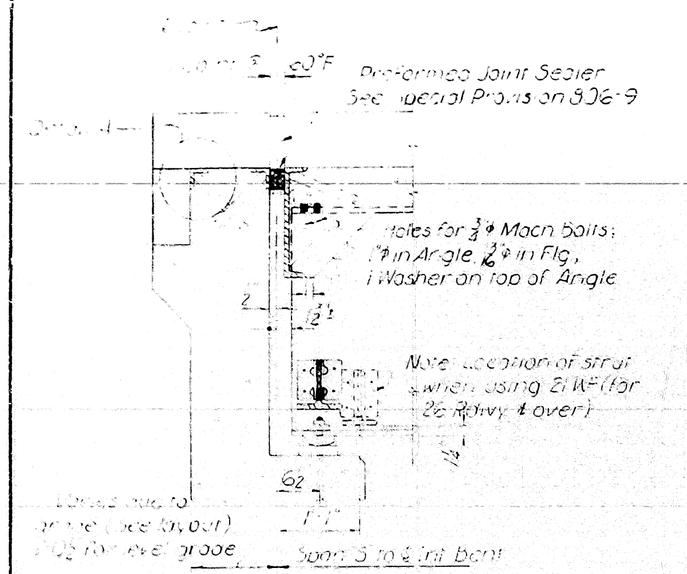
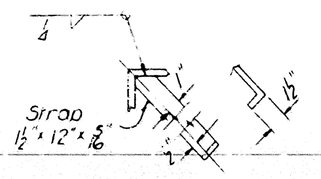
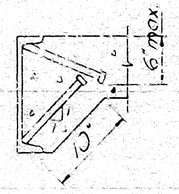
FED. ROAD NO.	STATE	FED. AID PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.				
JOB NO.		6902	67	76	



JOINT AT END BENT
Scale ½" = 1'-0"

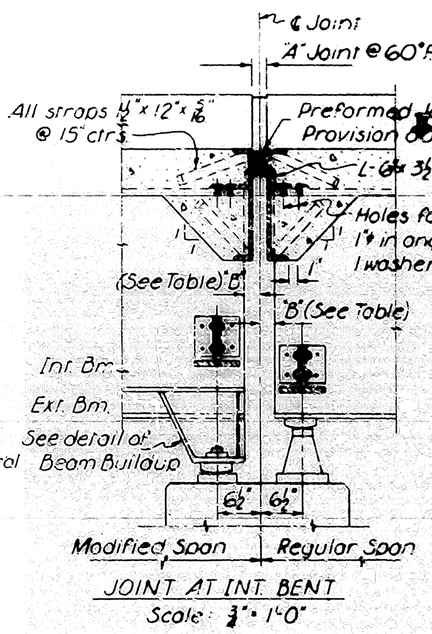


DETAIL "A" (Typical)
Scale 1½" = 1'-0"

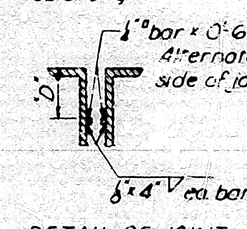


As an alternate for straps, ¾ϕ x 10" automatically welded stud anchors, granular flux filled, solid fluxed, or equal, may be used. Use weight of straps as basis of measurement of structural steel in anchors.

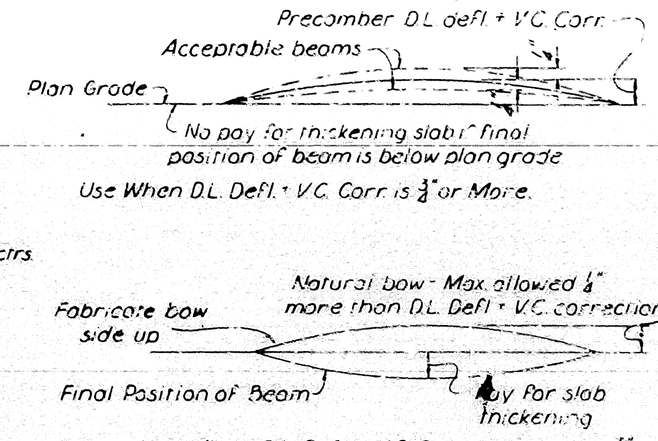
DETAILS OF ALTERNATE ANCHORS
Scale 1" = 1'-0"



JOINT AT INT. BENT
Scale ¾" = 1'-0"



DETAIL OF JOINT SEAL SUPPORT
Scale 1½" = 1'-0"



CAMBER DIAGRAMS
No Scale

GENERAL NOTES

All concrete to be Class S. All exposed corners to be chamfered 3/4" unless otherwise noted.

Field connections to be riveted or bolted with high strength bolts.

Rivets: 7/8" ϕ open holes 13/16" ϕ except where noted otherwise.

Structural shapes of equal or greater strength may be substituted for shapes shown, but payment will be made on the basis of shapes shown or those actually used, whichever is less.

All welded connections to be 5/16" fillet shop welds except as noted. All welding shall conform to the American Welding Society Standard Specifications for Welded Highway and Railway Bridges, current edition.

Shop Paint: All structural steel except surfaces in contact with concrete shall be given one coat of red lead and raw linseed oil before shipment.

Field Paint: First coat-red lead tinted with lamp black. Second coat-aluminum paint.

All metal bearing and roadway expansion devices to be paid for as "Structural Steel in Beam Spans." Bearings shall be finally seated in accordance with Sec. 806.54, including alternate, of the Standard Specifications. This work and material are to be considered as subsidiary to the item "Structural Steel in Beam Spans" and will not be paid for directly.

This drawing shows general features of design only. Shop drawings shall be made in accordance with the Specifications, submitted and approval secured before fabrication is begun.

All steel shall be ASTM A-36 unless otherwise noted.

Anchor bolts shall be galvanized to conform to ASTM Specification, Designation A153.

Reinforcing steel to be deformed bars of intermediate or hard grade. 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. The wire supports will not be paid for directly but will be considered subsidiary to the item of "Reinforcing Steel."

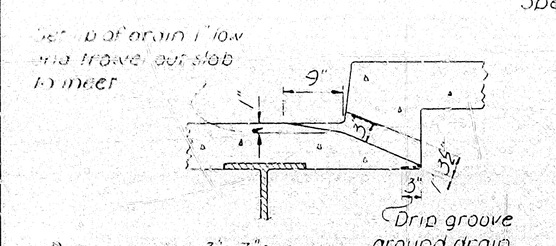
Shop lists and bending diagrams of reinforcing steel, including wire supports, shall be submitted and approval secured before fabrication is begun.

Slab Pouring Note:

Floor slabs may be poured in one continuous operation with a strikeoff extending over the whole span length, or may be poured in increments with the center one-third to one-half span length poured first. After the center section is poured, not less than 72 hours shall elapse before pouring the end sections. End sections may be poured simultaneously. If not poured simultaneously, 48 hours shall elapse between end section pours. A minimum of 72 hours shall elapse (1) between completion of the slab and the pouring of the curb section if poured separately, and (2) between the completion of the curb and the pouring of the type A rail parapet. Posts for Type B or C rail may be poured 24 hours after completion of the curb.

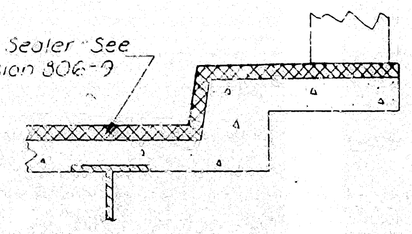
For details of Bridge Railing see Dwg. No. 14992 or 14993 as shown on Bridge Layout.

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction Edition of 1959, the 1966 Supplemental Specifications thereto and applicable Special Provisions.

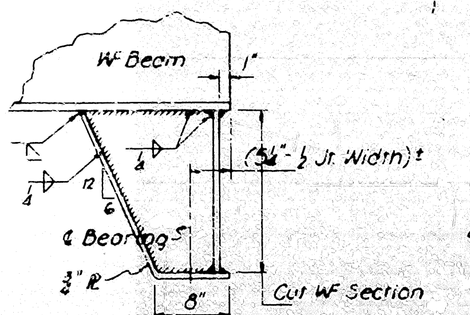


Drain opening 3" x 7" tapered to 3½ x 7½". Place at approx. 20' ctrs on low side of sloped roadway & each side of crowned roadway. Omit drains on grade separation structures unless called for on the plans.

SECTION THRU DRAIN
Scale ¾" = 1'-0"



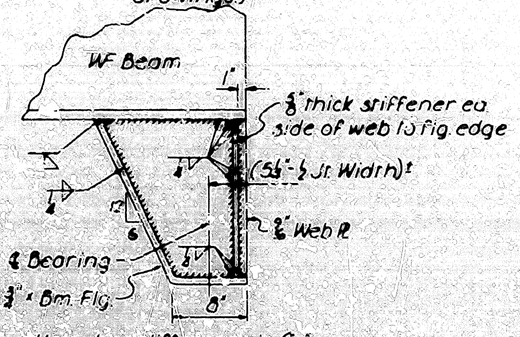
SEAL PLACEMENT IN CURB
Scale ¾" = 1'-0"



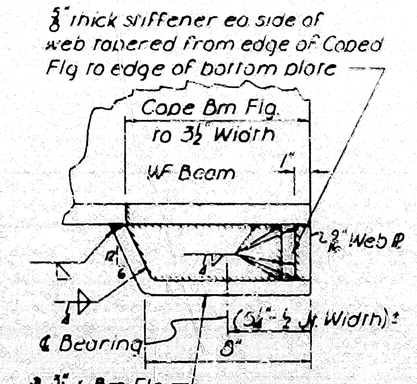
Flange Width & Thickness & Web Thickness to be equal to or greater than WF Beam Dim.

OPTIONAL BEAM BUILDUP
No Scale

Note: Beam buildups are required where modified spans are used, or adjacent regular spans have different "e" plus shoe height. (See accompanying drawings.)

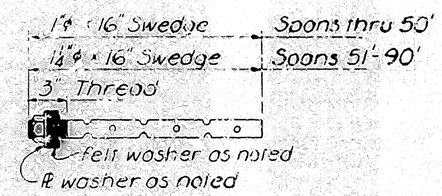


Use when difference in ("e" plus shoe height) is 5" or more.



Use when difference in ("e" plus shoe height) is less than 5."

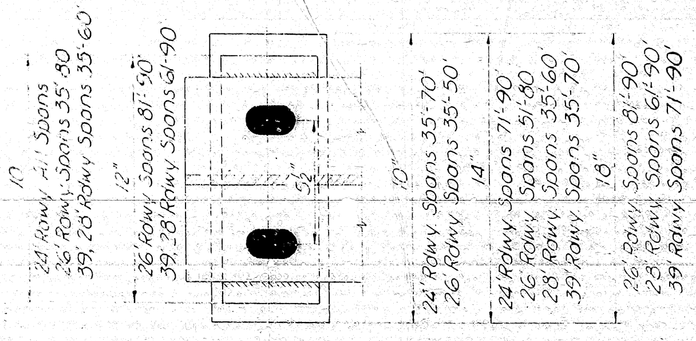
DETAILS OF BEAM BUILDUP
No Scale

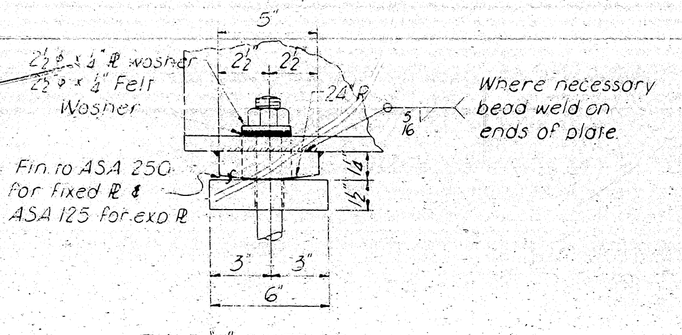


ANCHOR BOLT DETAIL - No Scale

Expansion Shoe - (All spans thru 50')
2½" x ⅛" Slots in Sole ℄ & Bm. Flg. with 1¼ϕ holes in Masonry ℄

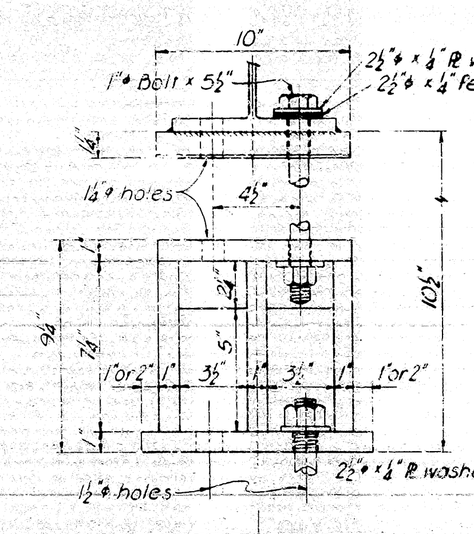
Fixed Shoe:
1¼ϕ Holes in Masonry ℄, Sole ℄, & Bm. Flg. for spans thru 50'
1½ϕ holes for spans over 50'

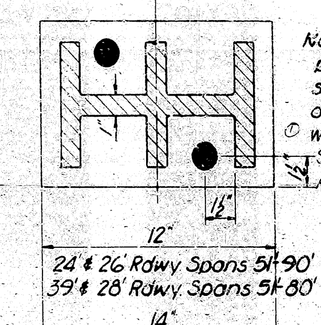




TYPE "B" FIXED OR EXPANSION SHOE - Scale ½" = 1"

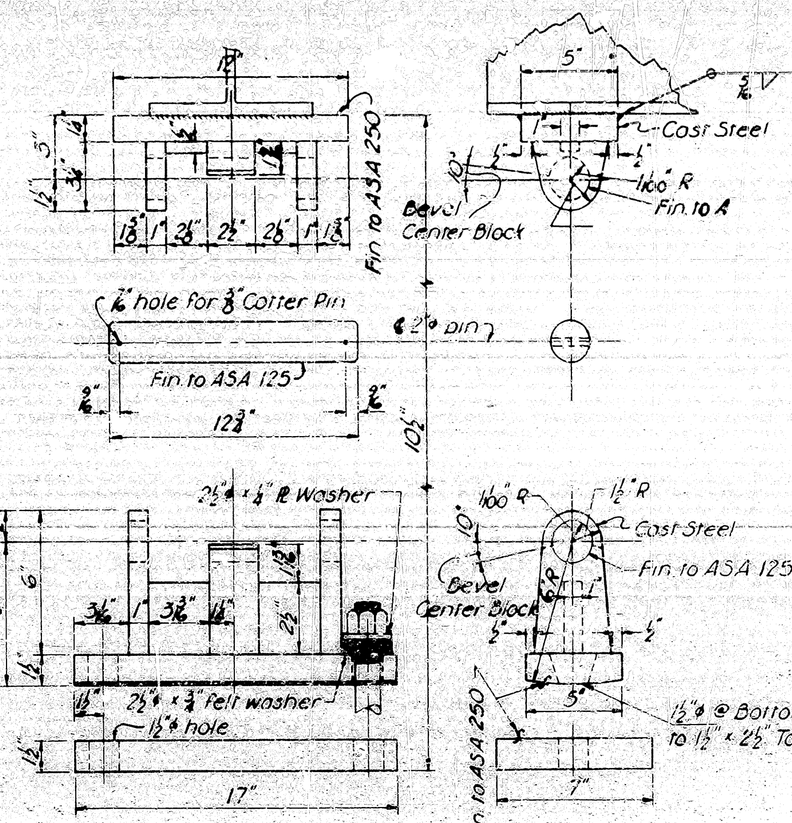
Use for end bents - all spans.
Use for int. bents - 35'-50' spans, unless otherwise shown.





Note: If fixed shoe is made from welded plates all intersecting surfaces of 90° shall be joined by fillet welds, all others shall be joined by bead welds, with size welds according to A.W.S. Standard Specifications for Welded Highway & Railway Bridges, current edition.
Note: For shoe type, beam buildup, and for plate thickening, see sketch on Layout or Intermediate Bent Drawing.

TYPE "A" FIXED SHOE
Scale ½" = 1"



TYPE "A" EXPANSION SHOE
Scale ½" = 1"

Note: This drawing adapted from drwg. 14990C.

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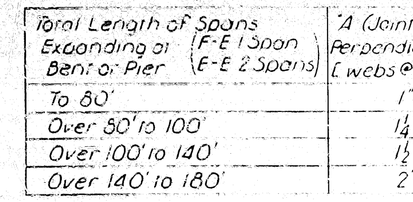
EXPANSION JOINT DATA

Total Length of Spans Expanding at (F-E 1 Span / F-E 2 Spans) Bent or Pier	"A" (Joint Width Perpendicular to E webs @ 60°F)	Seal Width	Seal	B
To 80'	1"	1¾"		1¾"
Over 80' to 100'	1¼"	2"		1⅞"
Over 100' to 140'	1½"	2½"		2"
Over 140' to 180'	2"	3"		2¼"



Note: All joints at Abutments and at Fix-Fix joints shall be ↑
The Dimension "D" shall conform to the recommendations of the seal manufacturer as approved by the Bridge Engineer. The depth of the seal shall be approximately equal to the uncompressed width of the seal.

DETAILS COMMON TO STANDARD 35'-90' COMPOSITE I-BEAM SPANS
24, 26, 28, 39 ROADWAYS
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: RWM DATE: 1-4-67
TRACED BY: DATE:
CHECKED BY: DFL DATE: 1-5-67
SCALE: As Shown

L. Carlson
BRIDGE ENGINEER

BRIDGE NO. 5210 DRAWING NO. 14990D

FARRELL & SCHAER 10000