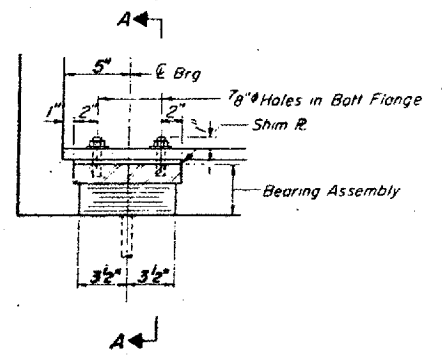
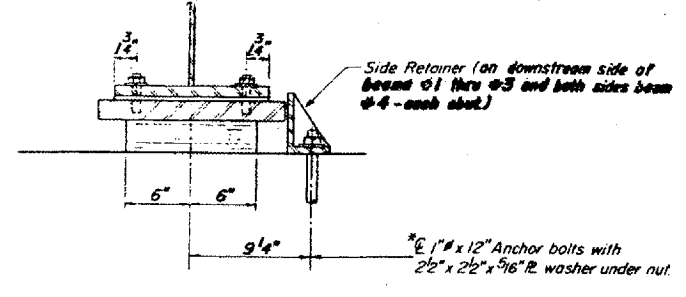


STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

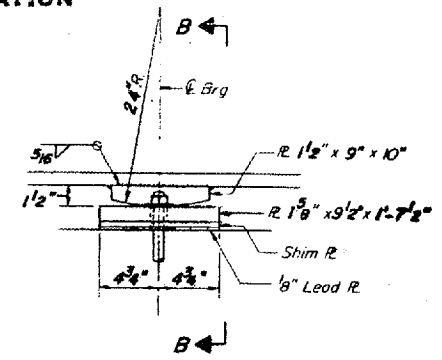
PROJECT	DATE	TOTAL SHEETS	SHEET NO.
F.A. 778 3B-BR	POPE	35	28
			17 SHEETS



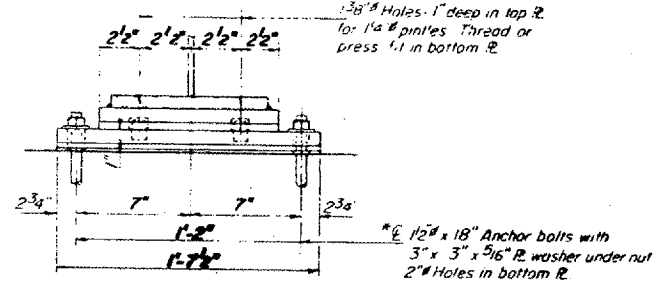
SECTION AT ABUT.



SECTION A-A

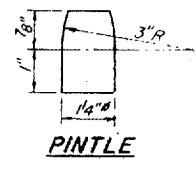


ELEVATION AT PIER

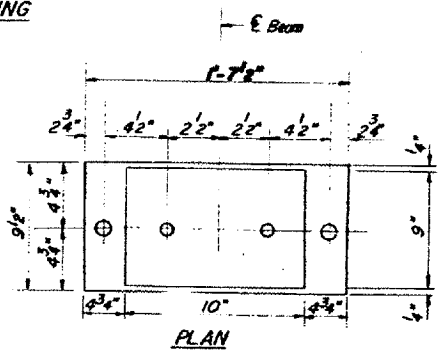


SECTION B-B

FIXED BEARING



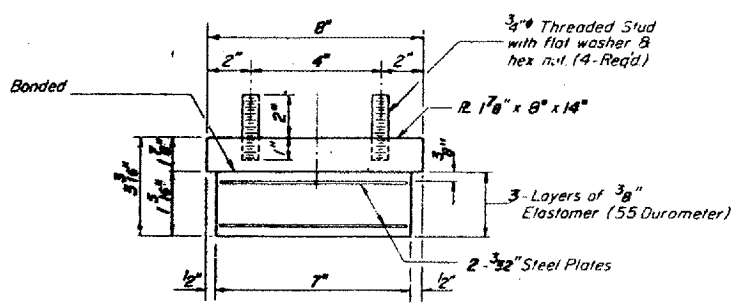
PINTLE



PLAN

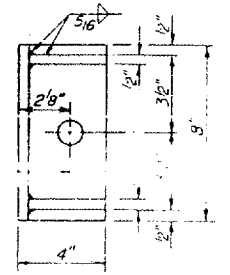
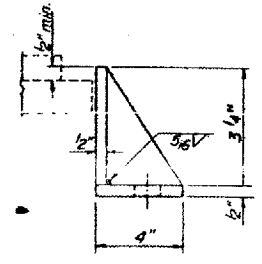
TYPE I ELASTOMERIC EXP. BRG.

\*Note: After girders have been erected holes of expansion bearings shall be drilled and anchor bolts grouted in place. Anchor bolts at fixed bearings may be built into the masonry.



BEARING ASSEMBLY

Note: Shim plates shall not be placed under Bearing Assembly.



SIDE RETAINER  
 (No. Req'd = 10)

**MOMENT TABLE - SPANS #1 & #2**

	40 Span # 1	Pier	60 Span # 2
$I_s$ (in <sup>4</sup> )	2100	3100	2100
$I_c$ (in <sup>4</sup> )	6353.6		6353.6
$S_s$ (in <sup>3</sup> )	176.0	258.0	176.0
$S_c$ (in <sup>3</sup> )	270.7		270.7
$Q$ (K/1)	.945	.979	.945
$M_d$ (K)	110.5	239.4	110.6
$f_s$ non-comp (ksi)	7.5	11.1	7.5
$S_d$ (K/1)	.297	.297	.297
$M_S d$ (K)	43.1	53.2	43.1
$M_k$ (K)	338.8	187.7	338.8
$M_{rup}$ (K)	101.1	56.1	101.1
Total (K)	483.0	297.0	483.0
$f_s$ comp (ksi)	21.4	19.8	21.4
$f_s$ TOTAL (ksi)	28.9	24.9	28.9
$V_R$ (K)	61.9		61.9

**TOP OF FLANGE ELEVATIONS \*\***

	E. Brg. W. Abut.	Pier	Splice #1 & #2	E. Brg. E. Abut.
Beam #1	426.04	426.03	426.03	426.02
Beam #2	425.71	425.70	425.70	425.69
Beam #3	425.37	425.36	425.37	425.36
Beam #4	425.03	425.02	425.02	425.02

\*\* For fabrication only.  
 $I_s$  and  $S_s$  are the moment of inertia and section modulus of the steel section used in computing  $f_s$  TOTAL.  
 $I_c$  and  $S_c$  are the moment of inertia and section modulus of the composite section used in computing  $f_s$  TOTAL.  
 $V_R$  is the maximum  $1/4$  + impact shear range in span used to determine shear connector spacing.  
 values given in tables are based upon service loads, total design stresses for factored loads are as follows:  
 At 4 Span #1  $f = 1.3(7.5 + 1.9 + 3 \times 19.5) = 54.5$  ksi  
 At Pier  $f = 1.3(11.1 + 2.5 + 3 \times 11.3) = 42.2$  ksi  
 At 6 Span #2  $f = 1.3(7.5 + 1.9 + 3 \times 19.5) = 54.5$  ksi

**REACTION TABLE**

	West Abut	Pier	East Abut
$R_R$ (K)	19.7	66.9	19.7
$R_L$ (K)	44.0	53.9	44.0
$R_{imp}$ (K)	13.2	16.1	13.2
$R$ TOTAL (K)	76.9	136.9	76.9

FOR INFORMATION ONLY:  
 BRIDGE NO. 5 STRUCTURE 076-0001

BEARING DETAILS  
 F.A. RTE. 778- SECTION 3B-BR  
 POPE COUNTY  
 STA. 693+40.00

DESIGNED David Burdick	EXAMINED <i>Oct 29 1980</i>
CHECKED Paul S. M. Conroy	PASSED
DRAWN Collins	APPROVED
CHECKED D.B. P.E.M.G.	

DIRECTOR OF HIGHWAYS