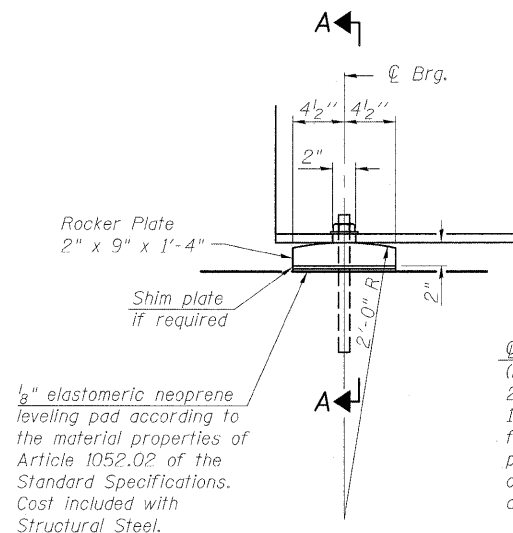
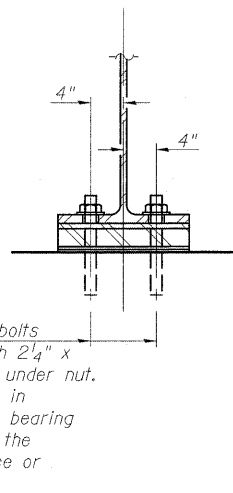


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

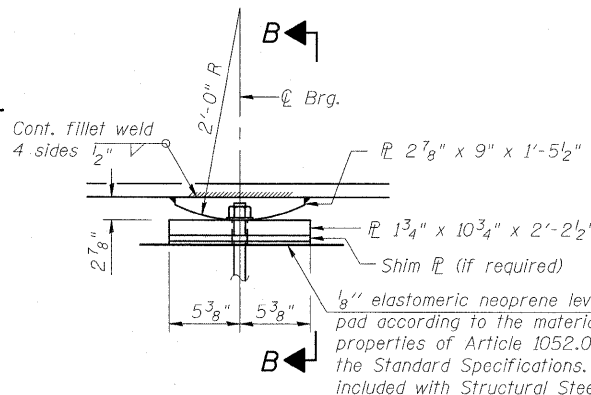


ELEVATION AT ABUTMENT



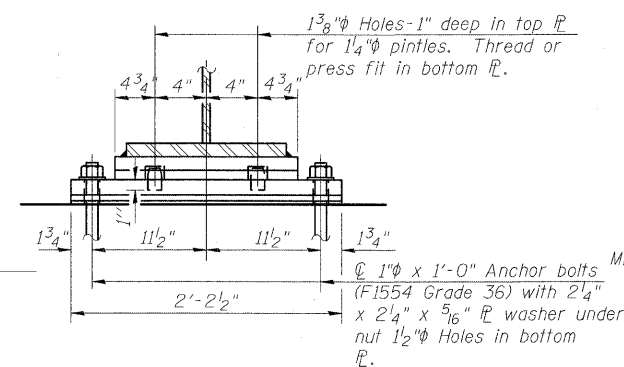
SECTION A-A

FIXED BEARING
(12 Required)

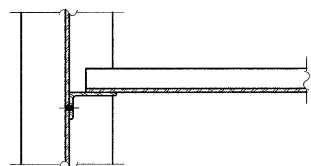


ELEVATION AT PIER

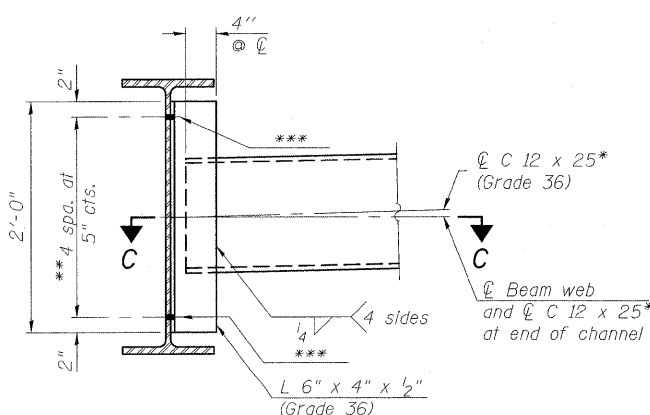
FIXED BEARING
(12 Required)



SECTION B-B



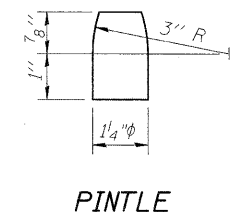
SECTION C-C



INTERIOR DIAPHRAGM
(45 Required)

- * Alternate C 12 x 30 channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized shall be provided at no extra cost to the Department.
- ** 3/4" ϕ HS bolts, 1 5/16" ϕ holes
- *** The connection angles on Beam 4 near the Stage Construction Line shall have 1 3/16" x 1 7/8" vertical slotted holes. The bolts in the slotted holes shall be finger tight until the Stage II deck pour is completed. The slotted holes in the connection angles shall be positioned to allow the bolts to move from one end of the slotted hole to the opposite end, under deck load. The holes shall be positioned allowing maximum bolt displacement without laterally stressing the beams. No slotted holes are allowed on the beams.

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Two hardened washers required for each set of oversized holes.
Anchor bolts at fixed bearings may be built into the masonry
Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
The structural steel plates and pintles of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.



PINTLE

INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1 or 0.6 Sp. 3	Pier 1 or 2	0.5 SP 2
I_s	(in ⁴)	11600	11600	11600
$I_c(n)$	(in ⁴)	26279	-	26279
$I_c(3n)$	(in ⁴)	19275	-	19275
S_s	(in ³)	686	686	686
$S_c(n)$	(in ³)	899	-	899
$S_c(3n)$	(in ³)	822	-	822
DC1	(k/')	0.962	0.962	0.962
M_{DC1}	(k)	300	606	336
DC2	(k/')	0.150	0.150	0.150
M_{DC2}	(k)	50	81	63
DW	(k/')	0.358	0.358	0.358
M_{DW}	(k)	120	193	150
$M_L + Imp$	(k)	866	696	975
M_u (Strength I)	(k)	2132	2366	2428
$\phi_r M_n$, $\phi_r M_{nc}$	(k)	4505	-	3948
f_s DC1	(ksi)	5.2	10.6	5.9
f_s DC2	(ksi)	0.7	1.4	0.9
f_s DW	(ksi)	1.8	3.4	2.2
f_s 1.3(L+IMP)	(ksi)	15.0	15.8	16.9
f_s (Service II)	(ksi)	22.7	31.2	25.9
f_s (Total)(Strength I)	(ksi)	-	41.4	-
Vr	(k)	20.6	-	22.2

INTERIOR GIRDER REACTION TABLE HL93 Loading			
		Abut.	Pier 1 or 2
R_{DC1}	(k)	24.4	85.4
R_{DC2}	(k)	3.9	12.9
R_{DW}	(k)	9.3	30.7
$R_L + Imp$	(k)	76.0	125.6
R_{Total}	(k)	113.6	254.6

STRUCTURAL STEEL &
BEARING DETAILS
STRUCTURE NUMBER 061-0094

DESIGNED	B.B.
CHECKED	C.J.F.
DRAWN	W.J.S.
CHECKED	C.J.F. & B.B.



BERNARDIN
LOCHMUELLER &
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Maryville, IL 62442-5635
Local: (618) 288-4995
Fax: 618-288-4696

SHEET NO. 16 23 SHEETS	F.A.P. RTE. 322	SECTION 25BR-1	COUNTY MARION	TOTAL SHEETS 43	SHEET NO. 39
	SN 061-0094		CONTRACT NO. 76A83		
FED. ROAD DIST. NO. 8 ILLINOIS FED. AID PROJECT 322					