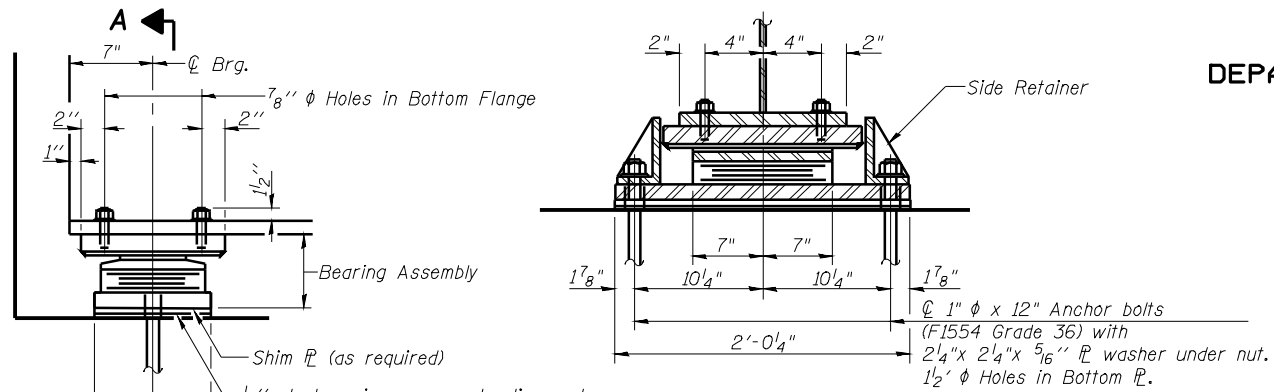
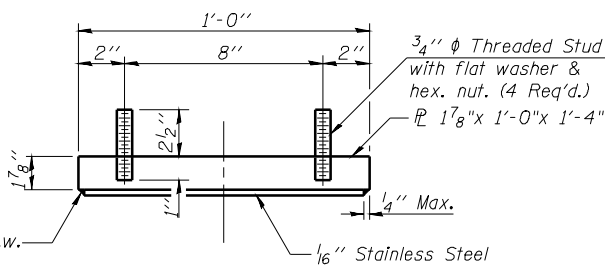


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DEPARTMENT OF TRANSPORTATION

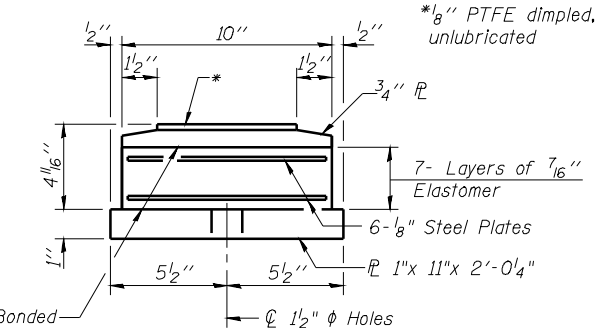


SECTION A-A

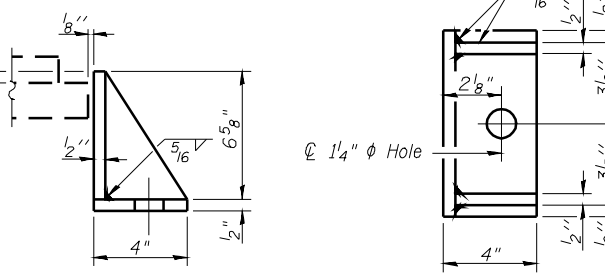
ELEVATION AT ABUT.
TYPE II ELASTOMERIC EXP. BRG.



TOP BEARING ASSEMBLY



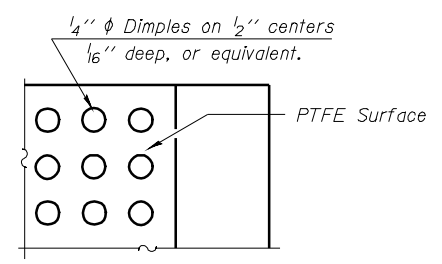
BOTTOM BEARING ASSEMBLY



SIDE RETAINER

BILL OF MATERIAL

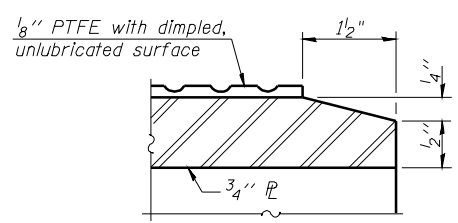
Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	12
Anchor Bolts, 1"	Each	24
Anchor Bolts, 1/4"	Each	24



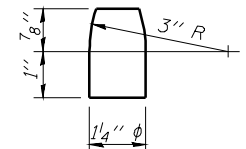
PLAN-PTFE SURFACE

SHIM PLATES

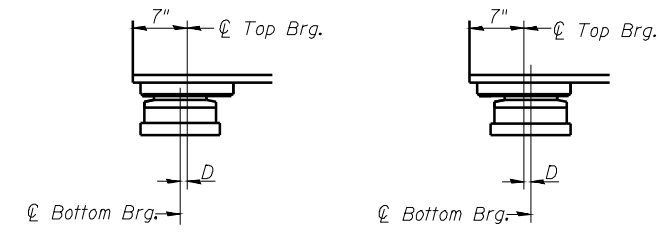
Location	Girder 4
Pier 1	1/4"
Pier 2	1/4"
W. Abut.	1/4"
E. Abut.	1/4"



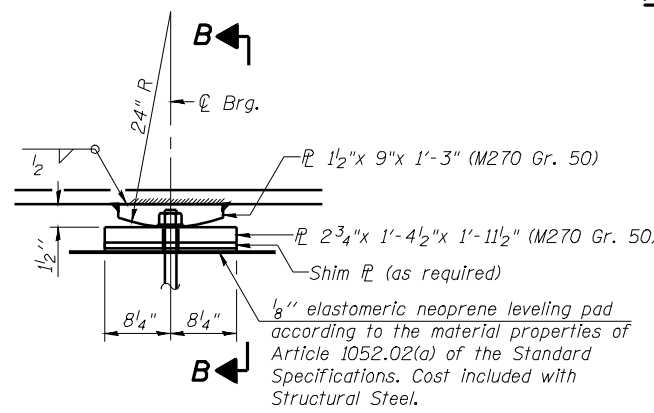
SECTION THRU PTFE



PINTLE

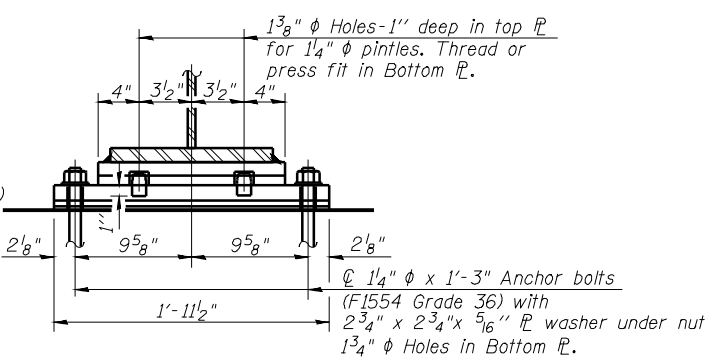


SETTING ANCHOR BOLTS AT EXP. BRG.



ELEVATION AT PIER

FIXED BEARING



SECTION B-B

INTERIOR GIRDER MOMENT TABLE

	0.4 Sp. 1 or 0.6 Sp. 3	Pier 1 or Pier 2	0.5 Sp. 2
I_s	38641	78231	48191
$I_c(n)$	89911	-	110831
$I_c(3n)$	65297	-	79628
S_s	1166	2235	1560
$S_c(n)$	1646	-	2118
$S_c(3n)$	1472	-	1911
ρ	0.904	1.485	0.942
$M \rho$	749	4164	1728
$s \rho$	0.450	-	0.450
$M_s \rho$	436	-	938
$M \rho$	1055	1378	1528
M_{IM}	205	238	237
$^{5/3} [M \rho + I]$	2100	2693	2942
M_a	4271	8914	7290
M_u	8054	-	10199
$f_s \rho$ non-comp	7.71	22.36	13.29
$f_s \rho$ (comp)	3.55	-	5.89
$f_s \rho$ [$M \rho + M_I$]	15.31	14.46	16.67
f_s (Overload)	26.57	36.82	35.85
f_s (Total)	-	47.87	-
VR	47.5	-	47.6

INTERIOR GIRDER REACTION TABLE

	Abut.	Pier
$R \rho$	59.1	262.2
$R \rho$	44.0	89.3
R_I	8.6	9.8
R_{Total}	111.7	361.3

*Compact section
**Braced non-compact and partially braced section

I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in.⁴ and in.³).

$I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total and Overload) due to short-term composite live loads (in.⁴ and in.³).

$I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total and Overload) due to long-term composite (superimposed) dead loads (in.⁴ and in.³).

Z: Plastic Section Modulus of the steel section in non-composite areas (in.³).

ρ : Un-factored non-composite dead load (kips/ft.).

$M \rho$: Un-factored moment due to non-composite dead load (kip-ft.).

$s \rho$: Un-factored long-term composite (superimposed) dead load (kips/ft.).

$M_s \rho$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).

$M \rho$: Un-factored live load moment (kip-ft.).

M_I : Un-factored moment due to impact (kip-ft.).

M_a : Factored design moment (kip-ft.).

$1.3 [M \rho + M_s \rho + \frac{5}{3} (M \rho + M_I)]$

M_u : Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).

f_s (Overload): Sum of stresses as computed from the moments below (ksi). $M \rho + M_s \rho + \frac{5}{3} (M \rho + M_I)$

f_s (Total): Sum of stresses as computed from the moments below on non-compact section (ksi). $1.3 [M \rho + M_s \rho + \frac{5}{3} (M \rho + M_I)]$

VR: Maximum ρ + impact horizontal shear range within the composite portion of the span for stud shear connector design (kips).

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.

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Anchor bolts for Type II bearings shall be placed in holes drilled in the concrete through holes in the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type II.

The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.

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.

**BEARING DETAILS
STRUCTURE NO. 005-0500**

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 17 29 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		317	(10B-1)R	BROWN/SCHUYLER	196	136
CONTRACT NO. 72432						ILLINOIS FED. AID PROJECT