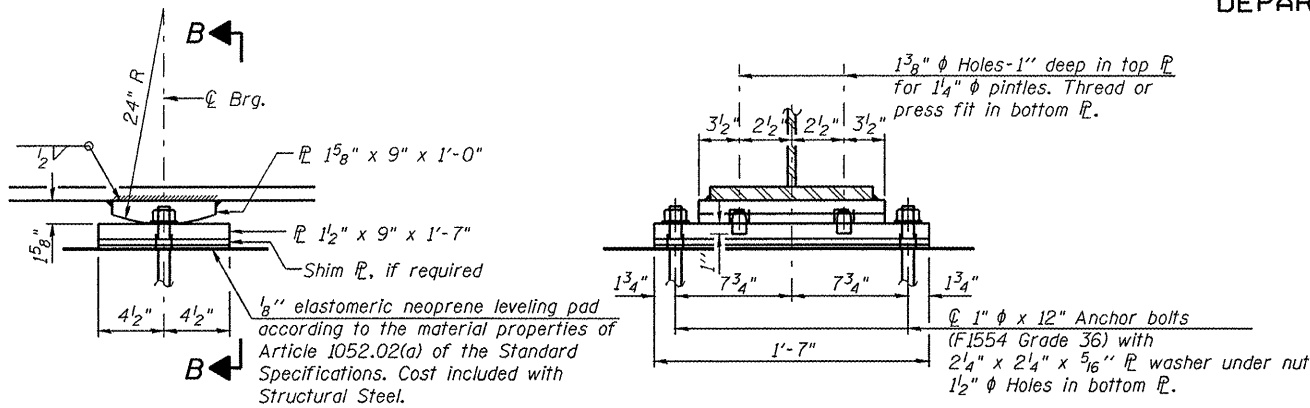
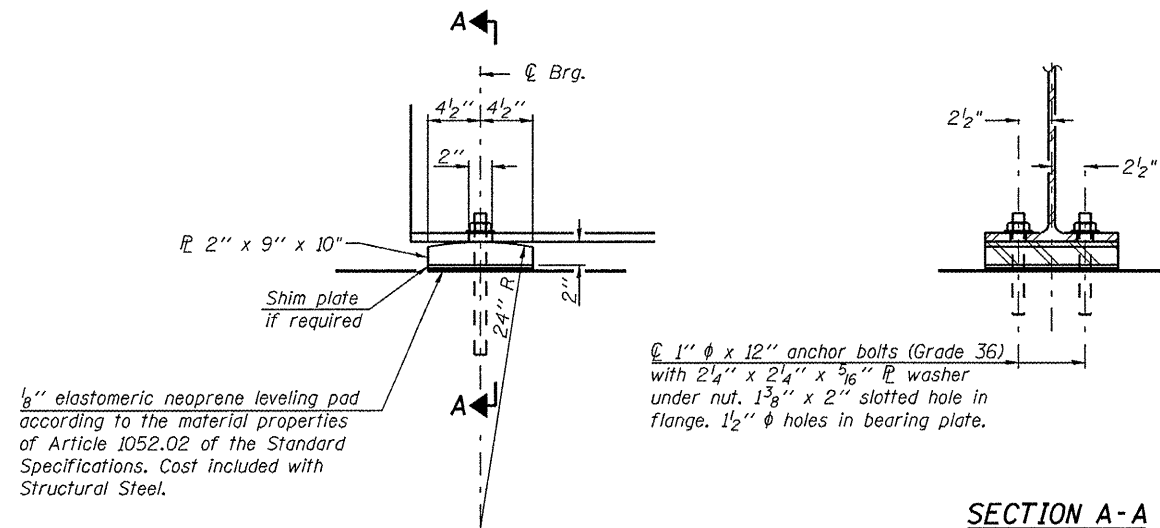


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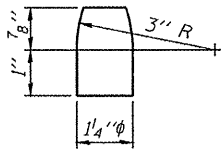
ELEVATION AT PIER

SECTION B-B



ELEVATION AT ABUTMENT

FIXED BEARINGS



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.

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

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.

All bearing plates shall be M270 Grade 50.

INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1 or 0.6 Sp. 3	Pier 1 or Pier 2	0.5 Sp. 2
I_s	(in ⁴)	2850	2850	2850
$I_c(n)$	(in ⁴)	9566	-	9566
$I_c(3n)$	(in ⁴)	7220	-	7220
S_s	(in ³)	213	213	213
$S_c(n)$	(in ³)	352	-	352
$S_c(3n)$	(in ³)	319	-	319
DC1	(k/')	0.824	0.824	0.824
MDC1	(k)	104	180	88
DC2	(k/')	0.129	0.129	0.129
MDC2	(k)	18	23	19
DW	(k/')	0.329	0.329	0.329
MDW	(k)	47	58	49
$M_L + IM$	(k)	420	236	433
M_u (Strength I)	(k)	958	754	965
$\phi_r M_{n_s}, \phi_r M_{n_c}$	(k)	1782	972	1798
f_s DC1	(ksi)	5.86	10.14	4.96
f_s DC2	(ksi)	0.68	1.30	0.71
f_s DW	(ksi)	1.77	3.27	1.84
f_s 1.3(L+IM)	(ksi)	18.61	17.28	19.19
f_s (Service II)	(ksi)	26.92	31.99	26.70
V_r	(k)	20.7	-	16.9

* Compact sections

INTERIOR GIRDER REACTION TABLE		
	Abut.	Pier
R_{DC1}	(k) 13.9	42.7
R_{DC2}	(k) 2.2	6.6
R_{DW}	(k) 5.6	16.7
$R_L + IM$	(k) 70.6	91.8
R_{Total}	(k) 92.3	157.8

I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) 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-Strength I, and Service II) 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-Strength I, and Service II) due to long-term composite (superimposed) dead loads (in.⁴ and in.³).

DC1: Un-factored non-composite dead load (kips/ft.).

MDC1: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

MDC2: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

MDW: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

$M_L + IM$: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).

$1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_L + IM$

$\phi_r M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).

$\phi_r M_{nc}$: Compact non-composite negative moment capacity computed according to Article A6.1.1 (kip-ft.).

f_s (Service II): Sum of stresses as computed from the moments below (ksi).

$M_{DC1} + M_{DC2} + M_{DW} + 1.3 M_L + IM$

f_s (Total)(Strength I): Sum of stresses as computed from the moments below on non-compact section (ksi).

$1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_L + IM$

V_r : Maximum factored shear range in composite portion of span computed according to Article 6.10.10.

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 1"	Each	56

BEARING DETAILS
STRUCTURE NO. 072-0227

 LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois	SHEET NO. 14 22 SHEETS	F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		6658	(ZC-15D-BR)BR	PEORIA	49	27	
					CONTRACT NO. 68478		
					FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT		
Designed By: TBP Date: 03/2009		Checked By: KMH File: 072-0527.dgn		Drawn By: TBP			