STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 314	111BR-1	MADISON	123	101
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 11
17 SHEETS

Contract No. 76454

INTERIOR GIRDER MOMENT TABLE		0.5 Span
Is	(in^4)	31980
Ic (n)	(in^4)	61130
Ic (3n)	(in^4)	46169
Ss	(in^3)	1398
Sc (n)	(in^3)	1703
Sc (3n)	(in^3)	1579
Z	(in^3)	-
DC1	(k/')	1.03
M DC1	('k)	1359
DC2	(k/')	0.15
M DC2	('k)	199
DW	(k/')	0.34
M DW	('k)	452
M ℄+Imp	('k)	1724
Ma (Strength I)	('k)	5643
ØrMn	('k)	7951
fs DC1	(ksi)	11.7
fs DC2	(ksi)	1.5
fs DW	(ksi)	3.4
fs 1.3(℄+I)	(ksi)	15.8
fs (Service II)	(ksi)	32.4
fs (Total)(Strength I)	(ksi)	-
Vsr	(k)	37

INTERIOR GIRDER REACTION TABLE HL93 Loading		
R DC1	(k)	52.7
R DC2+DW	(k)	25.2
R ℄	(k)	84.0
R Imp	(k)	18.4
R Total	(k)	180.3

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs due to non-composite loads.

Ic(n) and Sc(n) are the moment of inertia and section modulus of the composite section used in computing fs due to short-term composite loads.

Ic(3n) and Sc(3n) are the moment of inertia and section modulus of the composite section used in computing fs due to long-term composite loads.

Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.

DC1 is the dead load acting on the non-composite section.

DC2 is the dead load acting on the long-term composite section.

DW is the dead load acting on the long-term composite section due to wearing surface.

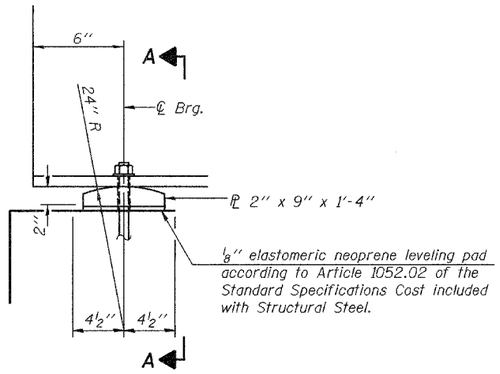
Ma (Strength I)=1.25 M(DC1+DC2)+1.5 M DW +1.75 M(℄+Imp)

ØrMn is the full plastic moment capacity computed in accordance with 6.10.7 and Appendix D6.1.

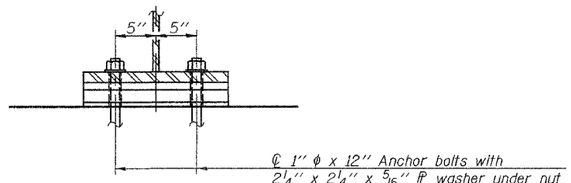
fs (Service II) is the sum of the stresses due to DC1+DC2+DW+1.3(℄+Imp)

fs (Total) (Strength I) (Non-Compact Section) is the sum of the stresses due to 1.25(DC1+DC2)+1.5DW+1.75(℄+Imp)

Vsr is the maximum shear range in the span (0.75 ℄+Imp)



ELEVATION



SECTION A-A

FIXED BEARINGS AT ABUTMENTS

Notes:
Anchor bolts at fixed bearings may be built into the masonry.
See sheet 12 of 17 for Anchor Bolt installation.

DESIGNED	CEH
CHECKED	DHC
DRAWN	BECKY M. LEACH
CHECKED	CEH & DHC

November 10, 2005
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STRUCTURAL STEEL & BEARING DETAILS
F.A.P. ROUTE 314 - SECTION 111BR-I
MADISON COUNTY
STATION 161+40.00
STRUCTURE NO. 060-0339