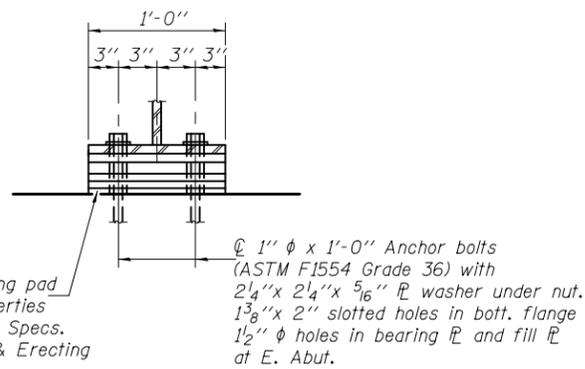


ELEVATION AT ABUTMENTS



SECTION A-A

ABUTMENT BEARING

(14 Required)

INTERIOR BEAM MOMENT TABLE	
	0.5 Sp.
I_s	(in ⁴) 9040
$I_c(n)$	(in ⁴) 23395
$I_c(3n)$	(in ⁴) 16947
S_s	(in ³) 504
$S_c(n)$	(in ³) 737
$S_c(3n)$	(in ³) 661
DC1	(k/')
M_{DC1}	(k)
DC2	(k/')
M_{DC2}	(k)
DW	(k/')
M_{DW}	(k)
$M_k + IM$	(k)
M_u (Strength I)	(k)
$\phi_r M_n$	(k)
f_s DC1	(ksi)
f_s DC2	(ksi)
f_s DW	(ksi)
f_s 1.3($k + IM$)	(ksi)
f_s (Service II)	(ksi)
V_r	(k)

INTERIOR BEAM REACTION TABLE	
	Abuts.
R_{DC1}	(k) 28.5
R_{DC2}	(k) 4.6
R_{DW}	(k) 11.0
$R_k + IM$	(k) 82.1
R_{Total}	(k) 126.2

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.).

M_{DC1} : 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.).

M_{DC2} : 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.).

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

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

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

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

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

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

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

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

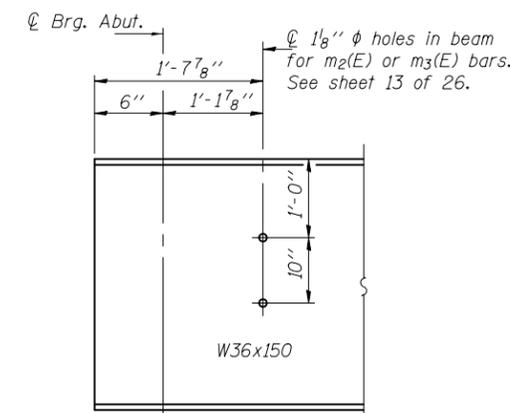
Notes: All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

Two hardened washers required for each set of oversized holes in diaphragms.

****TOP OF BEAM ELEVATIONS**

Location	☉ Brg. W. Abut.	☉ Brg. E. Abut.
Beam 1	467.94	468.71
Beam 2	468.23	468.86
Beam 3	468.49	468.98
Beam 4	468.75	469.10
Beam 5	468.97	469.16
Beam 6	469.18	469.19
Beam 7	469.37	469.20

**For fabrication use only.



TYP. END OF BEAM ELEVATION

DESIGNED - Stephen M. Ryan
 CHECKED - Fess Teklehalmanot
 DRAWN - h.t. duong
 CHECKED - GRA/SMR/FT

EXAMINED - *Thomas J. Domagalaki*
 ENGINEER OF BRIDGE DESIGN
 PASSED - *Carl P. Long*
 ENGINEER OF BRIDGES AND STRUCTURES

DATE - MARCH 20, 2012
 REVISED
 REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL DETAILS
 STRUCTURE NO. 060-0204

SHEET NO. 18 OF 26 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
770	64-1BR	MADISON	137	92
CONTRACT NO. 76401				
ILLINOIS FED. AID PROJECT				