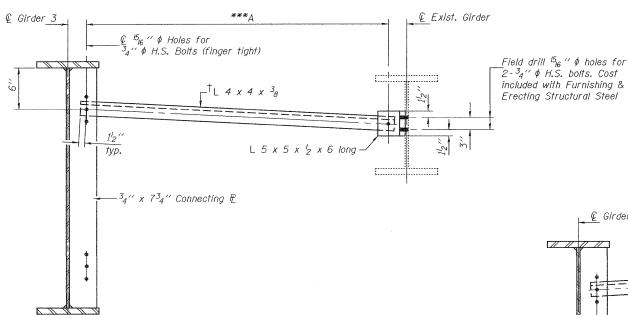


### ELEVATION AT ABUTMENTS

### ABUTMENT BEARING

(12 Required)



#### TEMPORARY BRACING FOR STAGE I CONSTRUCTION (7 Required)

\*\*\*The horizontal dimension A between the holes in the cross frame connection plate and L 5 x 5 shall be measured in the field. The holes in the L 5 x 5 shall be field drilled at this dimension. Cost included with Furnishing & Erecting Structural Steel.

All bearing plates shall be AASHTO M 270, Grade 50W.

Two hardened washers shall be required for each set of oversized holes. \*\*Fillet weld angles along 3 sides on one face of gusset plate.

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 M 314 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.

INTERIOR GIR.	DER MOME	NT TABLE
		0.5 Sp.
$I_{\mathcal{S}}$	(in <sup>4</sup> )	43533
$I_c(n)$	(in4)	84218
$I_c(3n)$	(in <sup>4</sup> )	63575
Ss	(in <sup>3</sup> )	1527
S <sub>c</sub> (n)	(in <sup>3</sup> )	1884
Sc(3n)	(in <sup>3</sup> )	1742
DC1	(k/')	0.963
M DC1	('k)	1550.7
DC2	(k/')	0.15
M DC2	('k)	241.5
DW	(k/')	0.329
Mow	('k)	529.8
ML + IM	('k)	1863.2
Mu (Strength I)	('k)	6295.6
$\phi_f M_D$	('k)	9321.3
fs DC1	(ksi)	12.2
f <sub>s</sub> DC2	(ksi)	1.7
fs DW	(ksi)	3.6
fs 1.3(4+IM)	(ksi)	15.4
fs (Service II)	(ksi)	32.9
Vf	(k)	27.1

\*Compact sections

INTERIOR GIRDER			
REACTION TABLE			
		Abuts.	
R <sub>DC1</sub>	(k)	54.7	
R <sub>DC2</sub>	(k)	8.5	
Row	(k)	18.7	
R4 + IM	(k)	88.6	
RTotal	(k)	170.5	

<i>INTERIOR GIRDER</i>				
REACTION TABLE				
		Abuts.		
R <sub>DC1</sub>	(k)	54.7		
R <sub>DC2</sub>	(k)	8.5		
Row	(k)	18.7		
R4 + IM	(k)	88.6		
RTotal	(k)	170.5		

 $I_s$ ,  $S_s$ : 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.).

M<sub>DC2</sub>: 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.).

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

ML + IN: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

Mu (Strength I): Factored design moment (kip-ft.). 1.25 (MDC1 + MDC2) + 1.5 MDW + 1.75 M& + IM

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

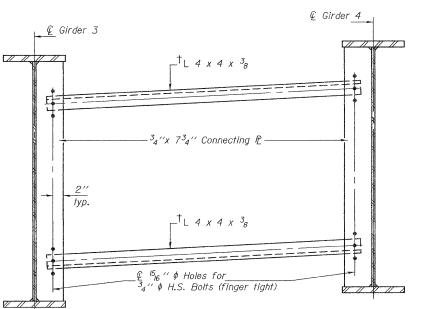
 $f_{\mathcal{S}}$  (Service II): Sum of stresses as computed from the moments below (ksi). MDC1 + MDC2 + MDW + 1.3 M & + IM

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

## ††TOP OF WEB ELEVATIONS

	⊈ Brg. W. Abut.	© Brg. E. Abut.		
Girder 1	397.19	397.19		
Girder 2	397.32	<i>397.32</i>		
Girder 3	397.42	397.42		
Girder 4	397.42	397.42		
Girder 5	397.32	397,32		
Girder 6	397.19	397.19		

††For fabrication use only.

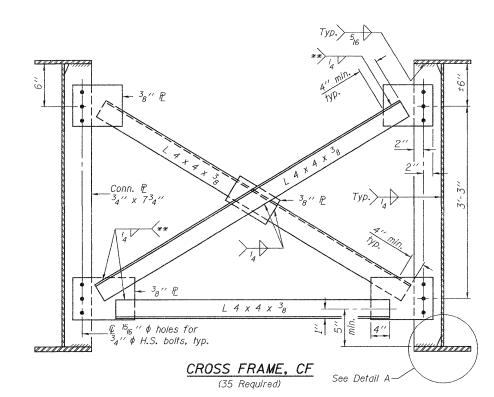


DETAIL A

# TEMPORARY BRACING FOR STAGE II CONSTRUCTION

(7 Required)

deck pour. Remove and replace with cross frame CF after Stage II deck pour is complete. Use between Girders 3 and 4 only. Cost included with Furnishing and Erecting Structural Steel.



 $^{\dagger}$ L 4 x 4 x  $^{3}$ <sub>8</sub> to be used as temporary during Stage I and Stage II

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION STRUCTURAL STEEL DETAILS **STRUCTURE NO. 073-0036** SHEET NO. 17 OF 24 SHEETS

F.A.P. RTE. COUNTY TOTAL SHEET NO. SECTION PERRY 299 121 869 1B-2 CONTRACT NO. 98797 ILLINOIS FED. AID PROJECT

DESIGNED - Michael D. Rolape EXAMINED DATE - 5/10/2011 CHECKED - Jessica C. Forrest DRAWN - h.t. duong PASSED CHECKED - MDR/JCF