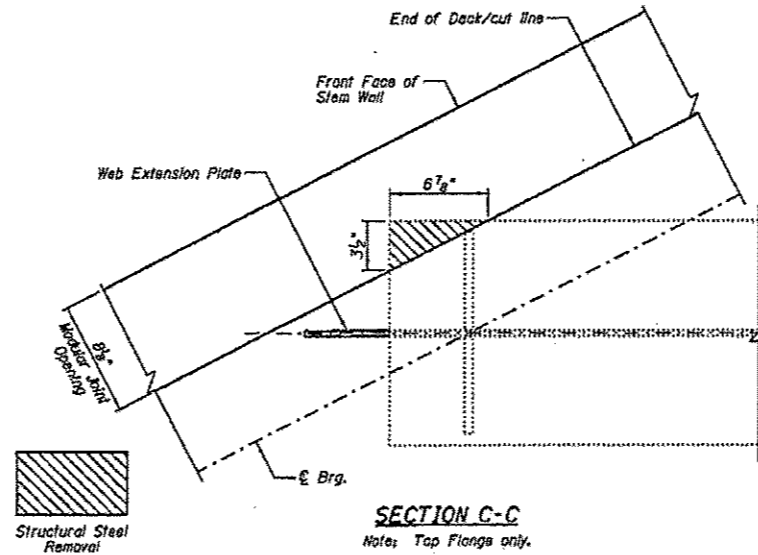


INTERIOR GIRDER MOMENT TABLE					
	0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3
$I_x$	(in <sup>4</sup> ) 31074	68666	47459	68666	31074
$I_{c(n)}$	(in <sup>4</sup> ) 67629	-	91350	-	67629
$I_{c(3n)}$	(in <sup>4</sup> ) 50769	-	69412	-	50769
$S_x$	(in <sup>3</sup> ) 979	2089	1472	2089	979
$S_{c(n)}$	(in <sup>3</sup> ) 1282	-	1796	-	1282
$S_{c(3n)}$	(in <sup>3</sup> ) 1178	-	1669	-	1178
$R$	(k/ft) 0.774	1.331	0.828	1.331	0.774
$M_D$	(k) 345	2347	1011	2075	109
$s_D$	(k/ft) 0.435	-	0.435	-	0.435
$M_L$	(k) 232	-	564	-	101
$M_I$	(k) 683	814	945	757	543
$M_1$	(k) 151	161	170	155	130
$M_2 (M_L + I)$	(k) 1390	1625	1858	1520	1122
$M_a$	(k) 2557	5164	4463	4674	1731
$M_u$	(k) 4730	-	6066	-	4730
$f_n$ non-comp	(ksi) 4.2	13.5	8.2	11.9	1.3
$f_n$ comp	(ksi) 2.4	-	4.1	-	1.0
$f_n \frac{1}{2} (M_L + M_I)$	(ksi) 13.0	9.3	12.4	8.7	10.5
$f_n$ (Overload)	(ksi) 19.6	22.8	24.7	20.7	12.9
$f_n$ (Total)	(ksi) -	29.7	-	26.8	-
VR	(k) 48.3	-	43.8	-	51.1

INTERIOR GIRDER REACTION TABLE				
	W. Abut.	Pier 1	Pier 2	E. Abut.
$R_R$	(k) 39.2	188.9	175.9	26.9
$R_L$	(k) 35.5	66.2	63.7	34.8
$R_I$	(k) 7.8	13.2	13.4	8.4
$R_{Total}$	(k) 82.5	268.3	253.0	70.1

- Compact sections
- Non-Compact and slender sections

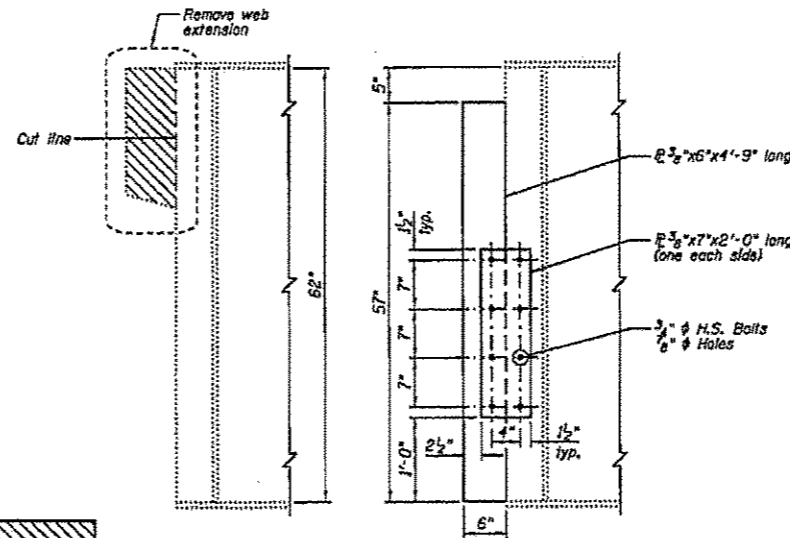
- $I_x, S_x$ : Non-composite moment of inertia and section modulus of the steel section used for computing  $f_n$  (Total and Overload) due to non-composite dead loads (in. and in. 3).
- $I_{c(n)}, S_{c(n)}$ : Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing  $f_n$  (Total and Overload) due to short-term composite live loads (in. 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  $f_n$  (Total and Overload) due to long-term composite (superimposed) dead loads (in. and in. 3).
- $R$ : Un-factored non-composite dead load (kips/ft.).
- $M_D$ : Un-factored moment due to non-composite dead load (kip-ft.).
- $s_D$ : Un-factored long-term composite (superimposed) dead load (kips/ft.).
- $M_L$ : Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
- $M_I$ : Un-factored live load moment (kip-ft.).
- $M_1$ : Un-factored moment due to impact (kip-ft.).
- $M_2$ : Factored design moment (kip-ft.).
- $1.3 [M_E + M_D + \frac{1}{2} (M_L + M_I)]$
- $M_u$ : 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.).
- $f_n$  (Overload): Sum of stresses as computed from the moments below (ksi).
- $M_E + M_D + \frac{1}{2} (M_L + M_I)$
- $f_n$  (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).
- $1.3 [M_E + M_D + \frac{1}{2} (M_L + M_I)]$
- VR: Maximum + Impact horizontal shear range within the composite portion of the span for stud shear connector design (kips).



Structural Steel Removal

**SECTION C-C**

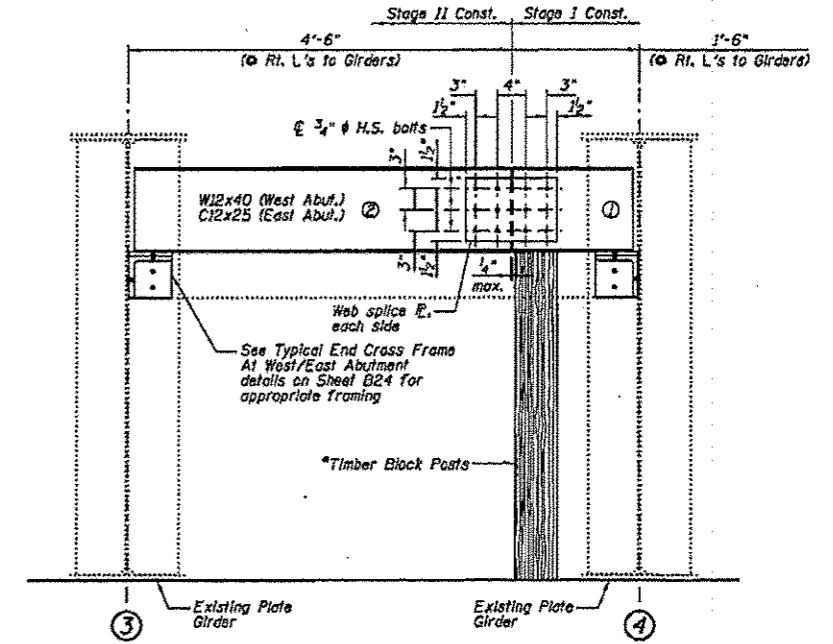
Notes: Top Flange only.



Structural Steel Removal

**WEB EXTENSION PLATE DETAIL**

(12 - Required)



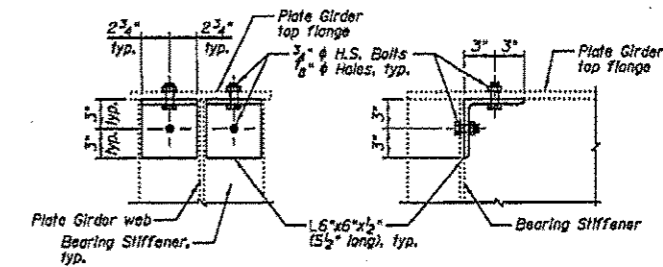
**CROSS FRAME**

\* Cast of Timber Block Posts are Included with Furnishing and Erecting Structural Steel.

**CROSS FRAME STAGE**

**CONSTRUCTION SEQUENCE**

- 1.) Order Cross Frame in two sections.
- 2.) Attach Section ① of Cross Frame to Girder 4.
- 3.) Place Timber Block Posts between Section ① of Cross Frame and Abutment Bearing Section.
- 4.) Attach Section ② of Cross Frame to both Girder 3 and Section ① of Cross Frame during Stage II Construction with splice plates.
- 5.) Remove Timber Block Posts.
- 6.) Install lower portion of Cross Frame during Stage II Construction.



**EXISTING TOP FLANGE ABUTMENT BEARING STIFFENER CONNECTION DETAILS**

(24 - Required @ 12 locations)

**STRUCTURAL STEEL**  
**STRUCTURE NO.084-0078**

**NOTES:**

- 1.) See Sheet B22 for Section C-C location.
- 2.) See Sheet B22 for Web Extension Plate locations.

**FOR INFORMATION ONLY**

FILE NAME *	USER NAME *	DESIGNED -	REVISED -	STATE OF ILLINOIS	STRUCTURAL STEEL	F.A.I. RATE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\documents and settings\modald\desktop\p10r\sheet.dgn	modald	DRAWN -	REVISED -	DEPARTMENT OF TRANSPORTATION		55	D6 PAINTING 2013	SANGAMON	26	21
Default		PLOT SCALE = 8.9098" / in.	CHECKED -		SCALE: 1" = 12'				CONTRACT NO. 72F85	
		PLOT DATE = Nov-29-2012 9:12:52PM	DATE -						ILLINOIS FED. AID PROJECT	