

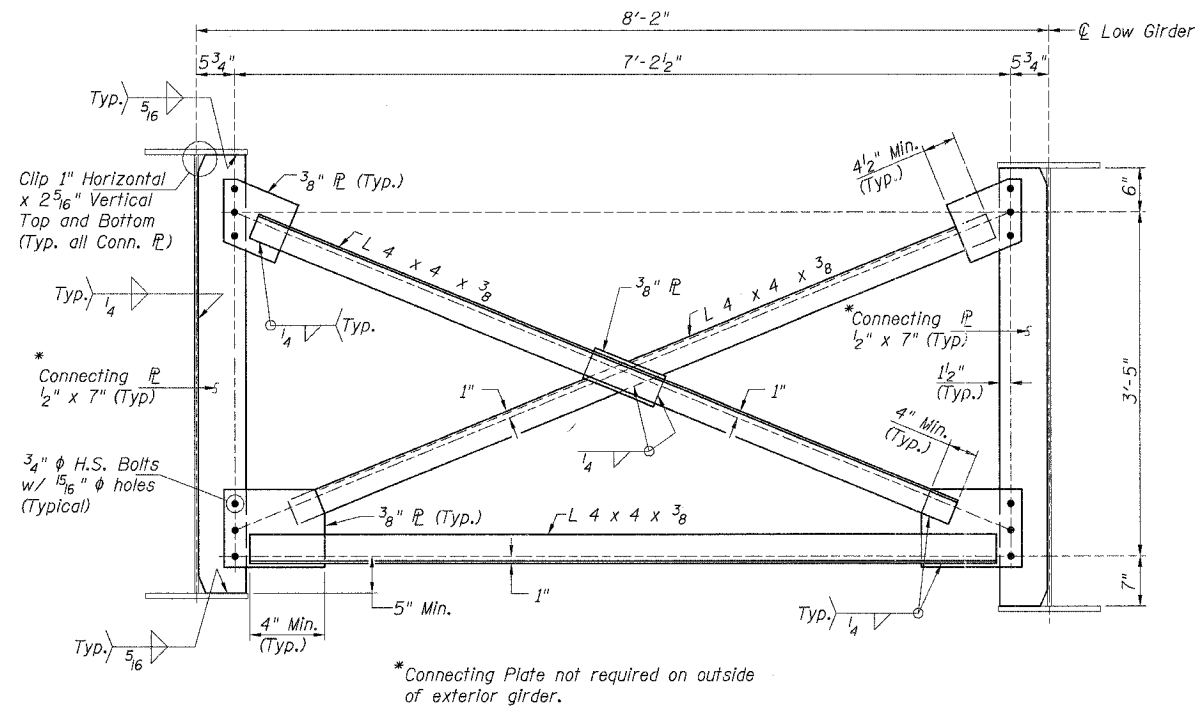
F.A.I. SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57/64 (41-3)HBK	JEFFERSON	18	287
STA. TO STA.		ILLINOIS FED. AID PROJECT	
FED. ROAD DIST. NO.		CONTRACT NO. 98963	

Sheet 17 of 25

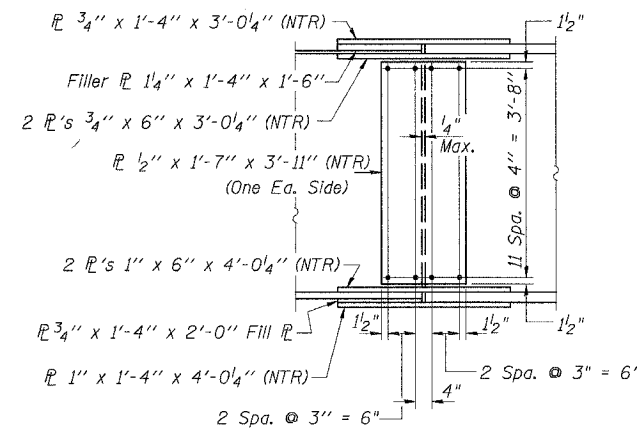
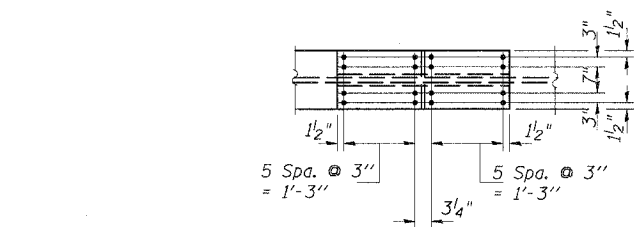
	0.4 Sp. 1	Pier
$I_s$	(in <sup>4</sup> ) 29969	56758
$I_c$ (n)	(in <sup>4</sup> ) 71440	---
$I_c$ (3n)	(in <sup>4</sup> ) 51939	---
$S_s$	(in <sup>3</sup> ) 1226	1957
$S_c$ (n)	(in <sup>3</sup> ) 1616	---
$S_c$ (3n)	(in <sup>3</sup> ) 1486	---
$\bar{D}$	(k/ft.) 1.06	1.53
$M\bar{D}$	(k) 1042	3651
$s\bar{D}$	(k/ft.) 0.47	---
$M_s\bar{D}$	(k) 532	---
$M\bar{L}$	(k) 1250	1237
$M$ (Imp)	(k) 246	244
$5\bar{D}[M_s + M(Imp)]$	(k) 2493	2468
$M_a$	(k) 5287	7955
$f_s\bar{D}$ (non-comp) (k.s.i.)	10.2	22.4
$f_s\bar{D}$ (comp) (k.s.i.)	4.3	---
$f_s\bar{S}_s(L+Imp)$ (k.s.i.)	18.5	15.1
$f_s$ (Overload) (k.s.i.)	33.0	37.5
$f_s$ (Total) (k.s.i.)	42.9	49.0
VR	(k) 70	---

	Abut.	Pier
$R\bar{D}$	(k) 69.9	253.3
$R\bar{L}$	(k) 53.4	94.9
Imp.	(k) 10.6	18.7
$R$ (Total)	(k) 133.9	366.9

- $I_s, S_s$ : Non-composite moment of inertia and section modulus of the steel section used for computing  $f_s$  (Total and Overload) 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 and Overload) 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 and Overload) due to long-term composite (superimposed) dead loads (in.4 and in.3).
- $\bar{D}$ : Un-factored non-composite dead load (kips/ft.).
- $M\bar{D}$ : Un-factored moment due to non-composite dead load (kip-ft.).
- $s\bar{D}$ : Un-factored long-term composite (superimposed) dead load (kips/ft.).
- $M_s\bar{D}$ : Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
- $M\bar{L}$ : Un-factored live load moment (kip-ft.).
- $M$  (Imp): Un-factored moment due to impact (kip-ft.).
- $M_a$ : Factored design moment (kip-ft.).
- $1.3 [M\bar{D} + M_s\bar{D} + \frac{5}{3} (M\bar{L} + M_{Imp})]$
- $f_s$  (Overload): Sum of stresses as computed from the moments below (ksi).  $M\bar{D} + M_s\bar{D} + \frac{5}{3} (M\bar{L} + M_{Imp})$
- $f_s$  (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).  $1.3 [M\bar{D} + M_s\bar{D} + \frac{5}{3} (M\bar{L} + M_{Imp})]$
- VR: Maximum  $\frac{1}{4}$  + impact horizontal shear range within the composite portion of the span for stud shear connector design (kips).

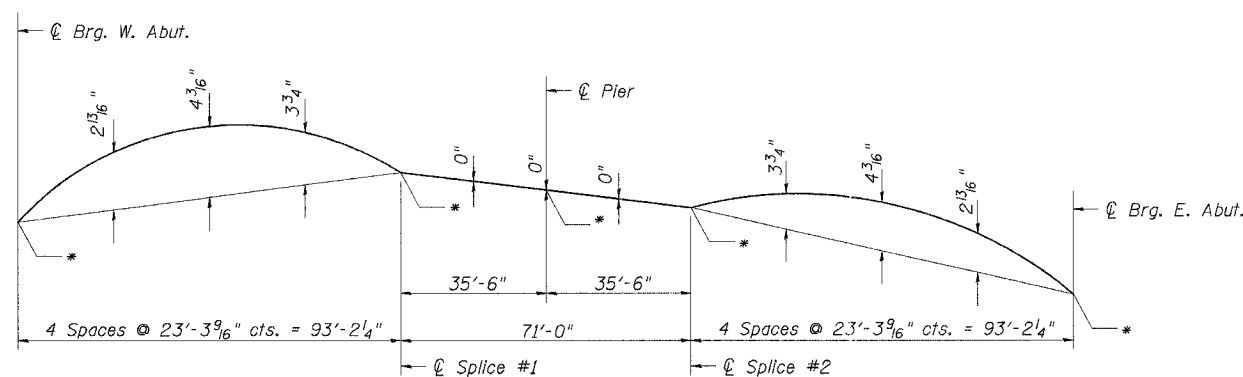


INTERIOR CROSS FRAME CF  
(130 Required)



FIELD SPLICE DETAIL  
(22 Required)

- Notes:
- Use  $\frac{7}{8}$ "  $\phi$  H.S. Bolts with  $\frac{15}{16}$ "  $\phi$  holes for all Splice Connections.
  - All splice plate material except fill plates, shall be AASHTO M270 Grade 50.
  - "NTR" denotes plates to which Notch Toughness Requirements are applicable.
  - Use  $\frac{3}{4}$ "  $\phi$  H.S. Bolts with  $\frac{15}{16}$ "  $\phi$  holes in all Cross Frame connections.
  - Two hardened washers shall be required over all oversized holes.
  - Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.



CAMBER DIAGRAM

\* See Table For Top of Web Elevations

\*\* TOP OF WEB ELEVATIONS

	Girder 1	Girder 2	Girder 3	Girder 4	Girder 5	Girder 6	Girder 7	Girder 8	Girder 9	Girder 10	Girder 11
$\bar{C}$ Brg. W. Abut.	530.261	530.443	530.625	530.806	530.986	530.946	530.799	530.651	530.503	530.354	530.205
$\bar{C}$ Splice No. 1	530.546	530.709	530.872	531.034	531.195	531.136	530.970	530.803	530.635	530.467	530.299
$\bar{C}$ Brg. Pier	530.444	530.600	530.755	530.909	531.063	530.997	530.823	530.649	530.474	530.299	530.123
$\bar{C}$ Splice No. 2	530.341	530.489	530.637	530.785	530.931	530.858	530.677	530.495	530.313	530.131	529.948
$\bar{C}$ Brg. E. Abut.	529.516	529.646	529.774	529.902	530.030	529.937	529.737	529.536	529.335	529.134	528.931

\*\* For Fabrication Only

STRUCTURAL STEEL DETAILS  
VETERANS MEMORIAL DR. over F.A.I. ROUTES 57/64  
SECTION (41-3)HBK  
JEFFERSON COUNTY  
STATION 49+72.27  
STRUCTURE NO. 041-0108

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JOB NO.

9852019A

DATE

03-14-07

March 2007 Submit Final  
3/21/2007  
N:\98\085\9862\0794\Struct\Steel\Draw Plans\03-18-04\F-017.dwg

LAYOUT	MM	03/12/07
DRAWN	DAB	03/12/07
REVIEWED		
CSR	02/02/04	
DAP	02/02/04	
TEH	02/02/04	
REVIEWED		