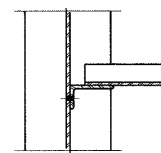


| INTERIOR GIRDER MOMENT TABLE  |                          |       |            |
|-------------------------------|--------------------------|-------|------------|
|                               | 0.4 Sp. 1 or 0.6 Sp. 3   | Pier  | 0.5 Span 2 |
| $I_s$                         | (in <sup>4</sup> ) 3620  | 3620  | 3620       |
| $I_c(n)$                      | (in <sup>4</sup> ) 10739 | —     | 10739      |
| $I_c(3n)$                     | (in <sup>4</sup> ) 8029  | —     | 8029       |
| $S_s$                         | (in <sup>3</sup> ) 267   | 267   | 267        |
| $S_c(n)$                      | (in <sup>3</sup> ) 410   | —     | 410        |
| $S_c(3n)$                     | (in <sup>3</sup> ) 372   | —     | 372        |
| DC1                           | (k/')                    | 0.835 | 0.835      |
| M <sub>DC1</sub>              | (k)                      | 184   | 37         |
| DC2                           | (k/')                    | 0.15  | 0.15       |
| M <sub>DC2</sub>              | (k)                      | 33    | 7          |
| DW                            | (k/')                    | 0.35  | 0.35       |
| M <sub>DW</sub>               | (k)                      | 77    | 15         |
| M <sub>ℓ + IM</sub>           | (k)                      | 389   | 346        |
| M <sub>u</sub> (Strength I)   | (k)                      | 1068  | 683        |
| * $\phi_r M_n, \phi_r M_{nc}$ | (k)                      | 1115  | 2185       |
| $f_s$ DC1                     | (ksi)                    | 8.3   | 1.7        |
| $f_s$ DC2                     | (ksi)                    | 1.5   | 0.2        |
| $f_s$ DW                      | (ksi)                    | 3.5   | 0.5        |
| $f_s$ 1.3(ℓ+IM)               | (ksi)                    | 22.7  | 13.1       |
| $f_s$ (Service II)            | (ksi)                    | 36.0  | 15.5       |
| V <sub>r</sub>                | (k)                      | —     | 15.1       |

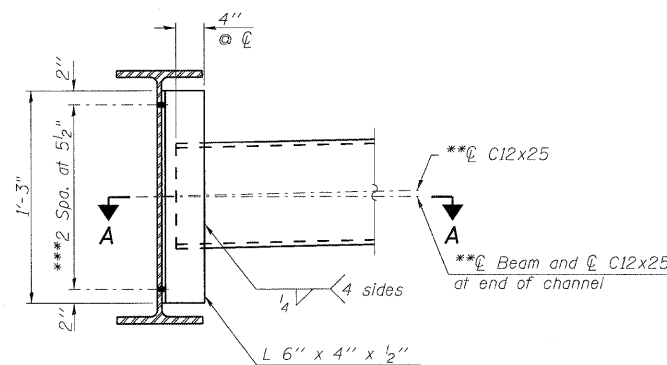
\* Compact sections

| TOP OF BEAM ELEVATIONS |          |        |        |        |          |
|------------------------|----------|--------|--------|--------|----------|
| Beam No.               | S. Abut. | Pier 1 | Splice | Pier 2 | N. Abut. |
| 1                      | 814.82   | 814.87 | 814.91 | 814.91 | 814.89   |
| 2                      | 815.14   | 815.19 | 815.22 | 815.22 | 815.20   |
| 3                      | 815.45   | 815.50 | 815.53 | 815.53 | 815.50   |
| 4                      | 815.77   | 815.81 | 815.84 | 815.83 | 815.80   |
| 5                      | 816.08   | 816.11 | 816.14 | 816.13 | 816.10   |
| 6                      | 816.40   | 816.43 | 816.45 | 816.45 | 816.41   |
| 7                      | 816.71   | 816.74 | 816.76 | 816.75 | 816.71   |

For fabrication use only.



SECTION A-A



DIAPHRAGM D  
(48 required)

Note:

Two hardened washers required for each set of oversized holes.

\*\*C12x30 are permitted to facilitate material acquisition.

Calculated weight of structural steel is based on C12x25.

The alternate, if utilized, shall be provided at no additional cost to the Department.

\*\*\*3/4"  $\phi$  HS bolts, 5/16"  $\phi$  holes. Diaphragms at stage construction

line shall be finger tightened prior to the deck slab pouring and then fully tightened after completion of the pour. Also see note regarding diaphragms at stage construction line regarding long slotted holes.

**NOTES**

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2. All splice plate material shall be AASHTO M 270 Grade 50. All diaphragm, connecting angles, and bearing stiffeners shall be AASHTO M270 Grade 36.

**NOTES FOR DIAPHRAGMS AT STAGE CONSTRUCTION LINE**

To accommodate the deflection during Stage II deck placement, use standard long slotted holes (1 3/8" x 1 7/8") in the diaphragm connector angle at only one side of diaphragm.

Bolts in slots shall be finger tight until the second stage pour is complete. Position slots so bolts start at one end of slot with no concrete load and finish near the opposite end of slot under deck dead load, allowing maximum displacement without laterally stressing the main members.

A plate washer or continuous bar of at least 5/16" thickness with standard holes shall be provided at the long slotted holes.

**BILL OF MATERIAL**

| Item                                     | Unit   | Total |
|--|--------|-------|
| Furnishing and Erecting Structural Steel | L. Sum | I     |
| Stud Shear Connectors                    | Each   | 3927  |

$I_s, S_s$ : 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<sup>4</sup> and in<sup>3</sup>).

$I_c(n), S_c(n)$ : 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<sup>4</sup> and in<sup>3</sup>).

$I_c(3n), S_c(3n)$ : 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<sup>4</sup> and in<sup>3</sup>).

DC1: Un-factored non-composite dead load (kips/ft.).

M<sub>DC1</sub>: 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.).

M<sub>DW</sub>: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M<sub>ℓ + IM</sub>: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

M<sub>u</sub> (Strength I): Factored design moment (kip-ft.).  
 $1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{ℓ + IM}$

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

$\phi_r M_{nc}$ : Compact non-composite negative moment capacity computed according to Article A6.1.1 (kip-ft.).

$f_s$  (Service II): Sum of stresses as computed from the moments below (ksi).  
 $M_{DC1} + M_{DC2} + M_{DW} + 1.3 M_{ℓ + IM}$

V<sub>r</sub>: Maximum factored shear range in composite portion of span computed according to Article 6.10.10.