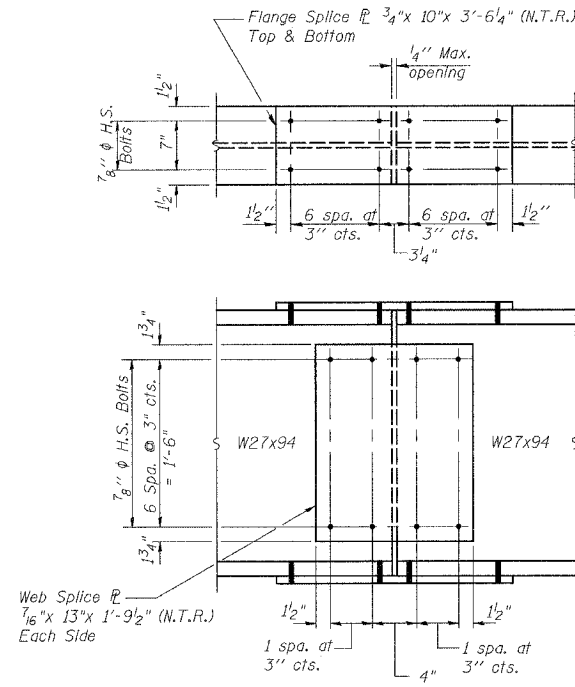


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|---------|----------|--------------|-------------------|---------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 15 32 SHEETS |
| FAI-55 | ** | WILL | 505 | 356 | |
| FED. ROAD DIST. NO. 7 | | ILLINOIS | | FED. AID PROJECT- | |

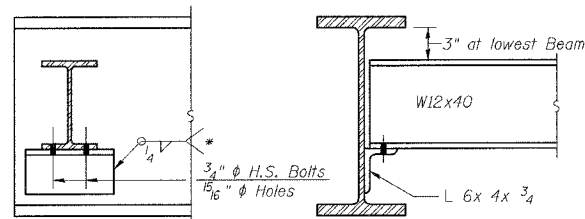
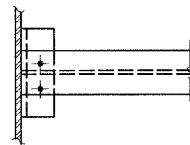
** SECTION 2006-032 BY
CONTRACT NO. 60B86



SPLICE

(For W27x94)
(2 Locations NB, 2 Locations SB)

Note:
All bolts in splices are AASHTO M 164 (ASTM 325)
7/8 inch diameter with Class A Contact Surfaces and Standard Holes.

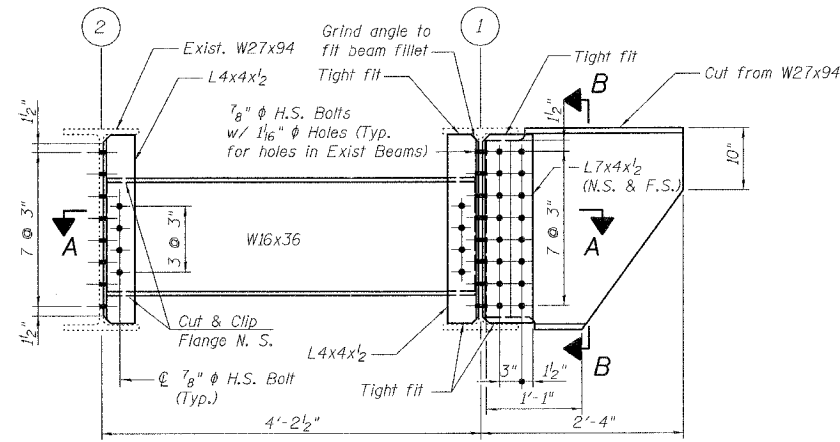


END DIAPHRAGM D1

(4 D1 Required NB)
(4 D1 Required SB)

* Field weld angles to existing NB & SB Beams 7.

** At existing NB & SB Beams 7, remove existing bolts. Drill 5/16 inch diameter holes in new connector angle L 6x4x3/4 (cut vertical leg as required) and reconnect with new 3/4 inch diameter H.S. Bolts.

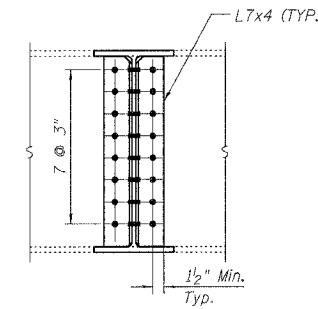


**INTERIOR DIAPHRAGM D3
AND BRACKET DETAIL**

(NB ONLY - 12 REQUIRED)



SECTION A-A



SECTION B-B

INTERIOR GIRDER MOMENT TABLE
(NB PROPOSED BEAMS 7A & 7B, NON-COMPOSITE)

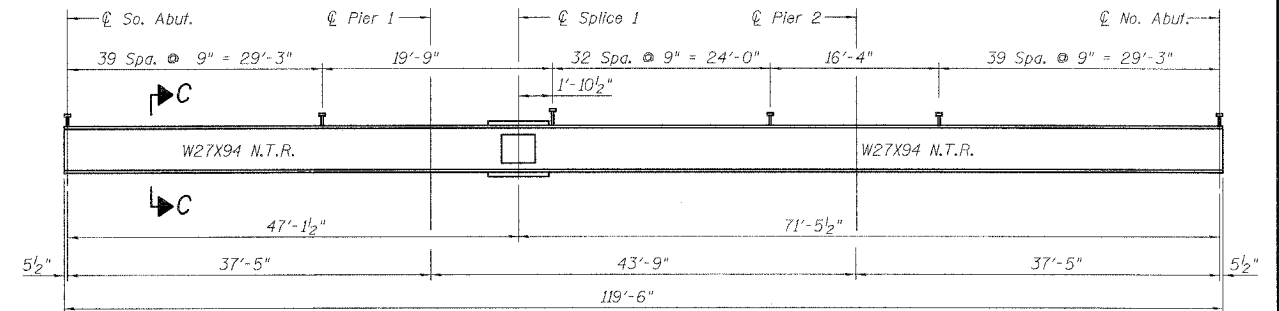
| | 0.4 Sp. 1 or 0.6 Sp. 3 | Pier 1 or Pier 2 | 0.5 Sp. 2 |
|------------------------------------|---------------------------|---------------------|-----------|
| I (in 4) | 3270 | 3270 | 3270 |
| S (in 13) | 243 | 243 | 243 |
| Q (k/ft.) | 1,230 | 1,230 | 1,230 |
| M _D (k) | 127 | 202 | 93 |
| M _L (k) | 196 | 153 | 191 |
| M (Imp) (k) | 59 | 46 | 57 |
| 5/8 M _L + M (Imp) (k) | 424 | 331 | 412 |
| M _a (k) | 717 | 693 | 659 |
| f _{sD} (k.s.i.) | 6.3 | 10.0 | 4.6 |
| f _{s5/8(L+Imp)} (k.s.i.) | 21.0 | 16.3 | 20.4 |
| f _s (Overload) (k.s.i.) | 27.2 | 26.3 | 25.0 |
| f _s (Total) (k.s.i.) | 35.4 | 34.2 | 32.5 |

INTERIOR GIRDER REACTION TABLE
(NB PROPOSED BEAMS 7A & 7B)

| | Abut. | Pier |
|--------------------|-------|-------|
| R _D (k) | 17.7 | 55.5 |
| R _L (k) | 35.4 | 44.1 |
| Imp. (k) | 10.6 | 13.2 |
| R (Total) (k) | 63.7 | 112.8 |

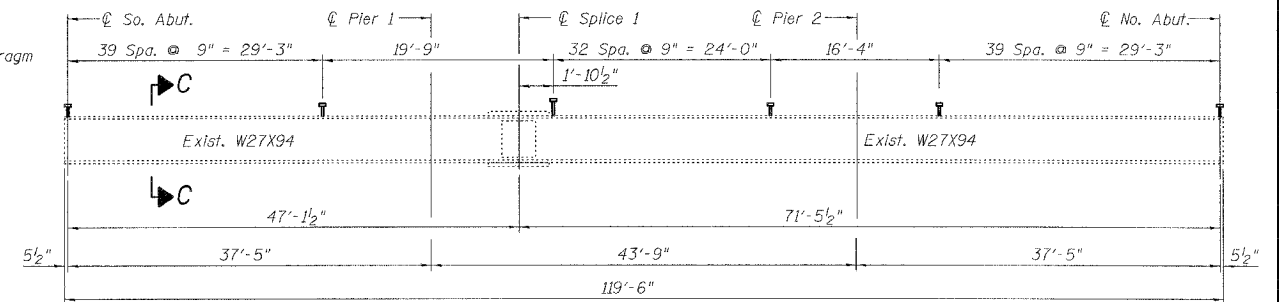
I and S are the moment of inertia and section modulus of the steel section used in computing f_s (Total & Overload).

M_a (Applied Moment) = 1.3(M_D + 5/8 M_L + M (Imp)).
f_s (Overload) is the sum of the stresses due to M_D + 5/8 M_L + M (Imp).
f_s (Total) (Non-compact section) is the sum of the stresses due to 1.3(M_D + 5/8 M_L + M (Imp)).



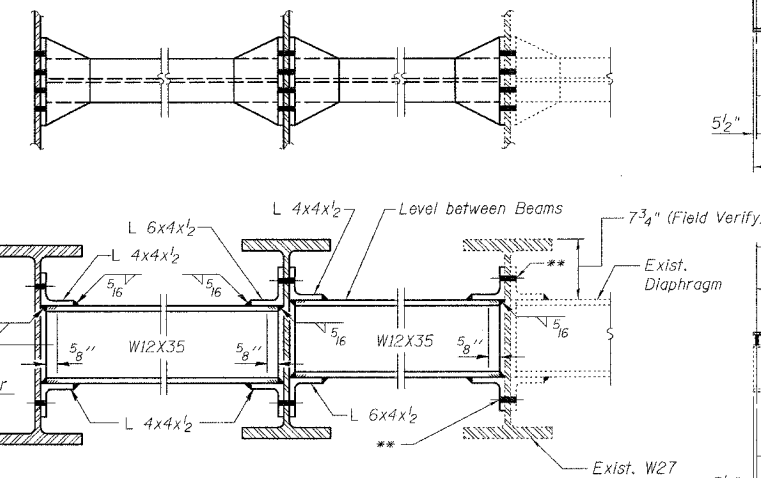
BEAM ELEVATION

(For SB Beams 7A & 7B and NB Beams 7A & 7B)



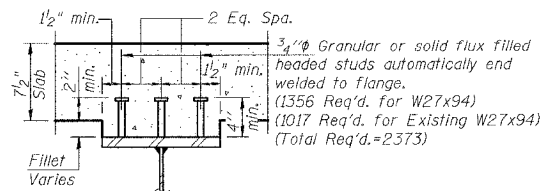
BEAM ELEVATION

(For Existing SB Beam 7 and NB Beams 1 & 7)



INTERIOR DIAPHRAGM D2

(10 D2 Required NB)
(10 D2 Required SB)



SECTION C-C

(For Information Only)

Notes:

- N.T.R. denotes members subject to the supplemental requirements for notch toughness (Zone 2).
- Two hardened washers shall be required over all oversize holes for diaphragms.
- Work this Sheet with Sheet No. 14.



STRUCTURAL STEEL DETAILS I
I-55 OVER MS (ABANDONED) R.R.
FAI ROUTE 55-SEC. 2006-032 BY
WILL COUNTY
STA. 710+34.86
STRUCTURE NO. 099-0022 (NB)
STRUCTURE NO. 099-0023 (SB)

| | |
|----------|-------------|
| DESIGNED | J. ZUO |
| CHECKED | A. HAMMAD |
| DRAWN | J. ZUO |
| CHECKED | J. GRAINAWI |

Date: 6/30/2006