

**INTERIOR BEAM MOMENT TABLE**

	0.4 Span 1 or 0.6 Span 3	Pier 1 or 2	0.5 Span 2
$I_s$	1360.0	1360.0	1360.0
$I_c(n)$	4208.0	-	4208.0
$I_c(3n)$	3174.0	-	3174.0
$S_s$	3980.0	3980.0	3980.0
$S_c(n)$	6235.0	-	6235.0
$S_c(3n)$	5679.0	-	5679.0
$M \text{ @}$	12.1	16.2	12.1
$M \text{ @}$	138	400	185
$s \text{ @}$	4.16	-	4.16
$M_s \text{ @}$	57	-	87
$M \text{ @}$	414	236	536
$M \text{ (Imp)}$	124	68	145
$\frac{1}{3}(M \text{ @} + M \text{ (Imp)})$	897	507	1135
$M_a$	1419	1178	1829
$f_s \text{ @ (non-comp)}$	35	100	47
$f_s \text{ @ (comp)}$	10	-	15
$f_s \text{ @ (M @ + M (Imp))}$	144	127	182
$f_s \text{ (Overload)}$	189	228	244
$f_s \text{ (Total)}$	245	296	317
VR	260.0	-	204.0

\* Non-compact Section

**\*\* TOP OF BEAM ELEVATIONS - SOUTHBOUND**

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6	Beam 7	Beam 8	Beam 9
Q Brg. W. Abut.	271.412	271.456	271.493	271.526	271.493	271.454	271.407	271.361	271.315
Q Pier 1	271.222	271.266	271.304	271.336	271.303	271.264	271.217	271.171	271.124
Q Splice 1	271.179	271.223	271.261	271.293	271.260	271.221	271.174	271.128	271.081
Q Splice 2	271.009	271.053	271.091	271.123	271.090	271.050	271.004	270.957	270.910
Q Pier 2	270.966	271.010	271.048	271.080	271.047	271.007	270.961	270.914	270.867
Q Brg. E. Abut.	270.776	270.820	270.857	270.890	270.856	270.816	270.770	270.723	270.676

**\*\* TOP OF BEAM ELEVATIONS - NORTHBOUND**

Location	Beam 10	Beam 11	Beam 12	Beam 13	Beam 14	Beam 15	Beam 16	Beam 17	Beam 18
Q Brg. W. Abut.	271.313	271.357	271.401	271.445	271.482	271.514	271.479	271.439	271.392
Q Pier 1	271.123	271.166	271.210	271.254	271.291	271.322	271.287	271.247	271.201
Q Splice 1	271.080	271.123	271.167	271.211	271.248	271.279	271.244	271.204	271.158
Q Splice 2	270.909	270.953	270.996	271.040	271.077	271.108	271.073	271.033	270.986
Q Pier 2	270.866	270.909	270.953	270.997	271.033	271.064	271.029	270.989	270.942
Q Brg. E. Abut.	270.675	270.718	270.762	270.806	270.842	270.873	270.838	270.798	270.751

\*\* For Fabrication only

Note:  
Two hardened washers shall be required over all oversized holes for diaphragms.

**INTERIOR BEAM REACTION TABLE**

	West Abut.	Pier No. 1	Pier No. 2	East Abut.
R @	79.5	285.5	285.5	79.5
R @	185.9	215.1	215.1	185.9
IMP	55.8	62.4	62.4	55.8
R (Total)	321.2	563.0	563.0	321.2

$I_s$  and  $S_s$  are the moment of inertia and section modulus of the steel section used in computing  $f_s$  (Total & Overload).

$I_c(n)$  and  $S_c(n)$  are the moment of inertia and section modulus of the composite section used in computing stresses due to Live load.

$I_c(3n)$  and  $S_c(3n)$  are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads.

VR is the maximum  $l_t$  + Impact shear range in span.

$f_s$  (Total) is the sum of the stresses due to

$$1.3 [M \text{ @} + M_s \text{ @} + \frac{1}{3}(M \text{ @} + M \text{ (Imp)})]$$

$f_s$  (Overload) is the sum of the stresses due to

$$M \text{ @} + M_s \text{ @} + \frac{1}{3}(M \text{ @} + M \text{ (Imp)})$$

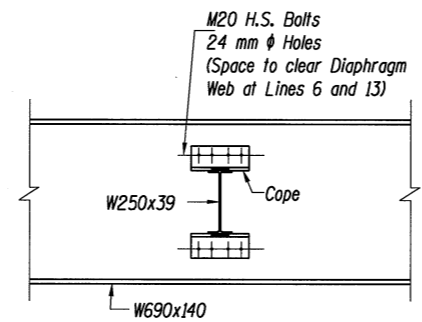
$M \text{ @}$  - Moment due to dead loads on non-composite section.

$M_s \text{ @}$  - Moment due to dead loads on composite section.

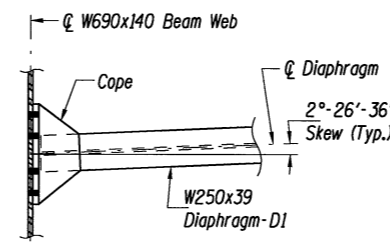
$M \text{ @}$  - Moment due to live load on non-composite or composite section.

$M \text{ (Imp)}$  = Moment due to Live Load Impact on non-composite or composite section.

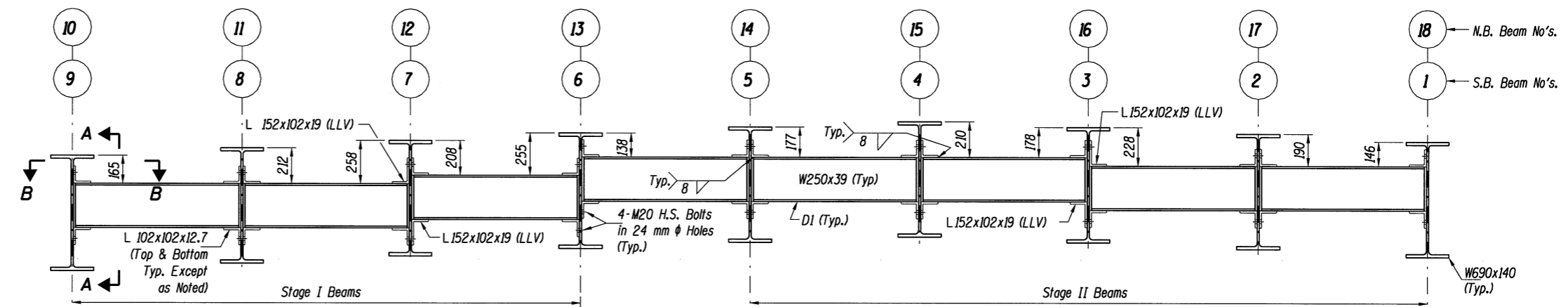
$M_a$  (Applied Moment) =  $1.3 [M \text{ @} + M_s \text{ @} + \frac{1}{3}(M \text{ @} + M \text{ (Imp)})]$ .



**SECTION A-A**



**SECTION B-B**

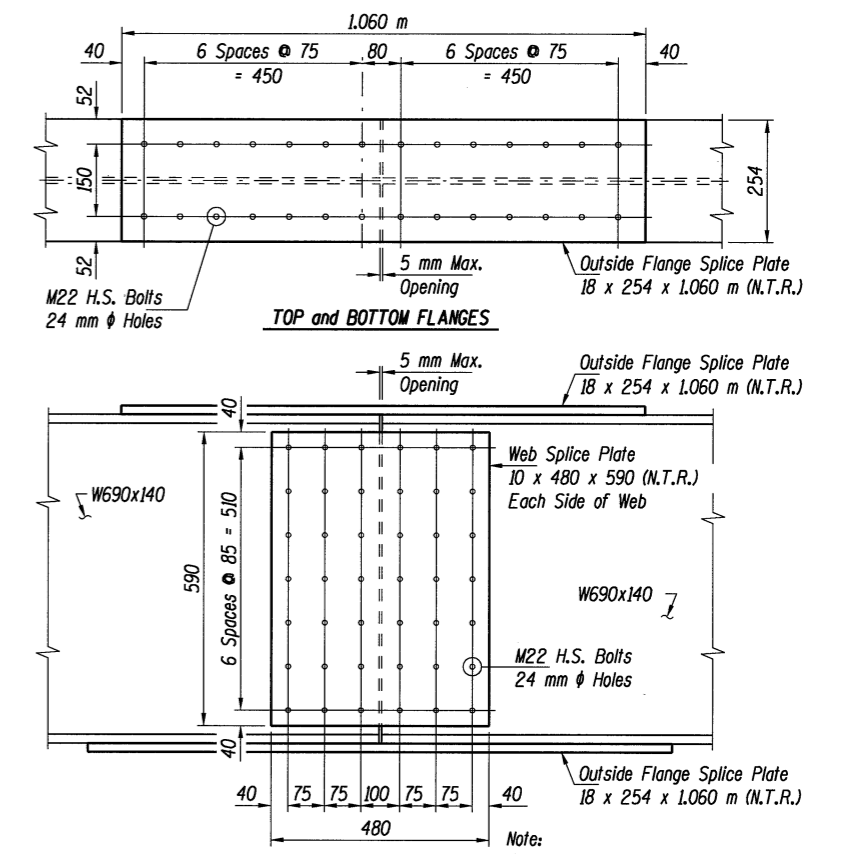


**CROSS SECTION**

SOUTH BOUND - LOOKING WEST  
NORTH BOUND - LOOKING EAST

**INTERIOR DIAPHRAGM DETAILS - DI**

(48 Individual Diaphragms Required per Bridge)



**SPlice DETAILS**

(36 - Required)

Note:  
Flange Splice Plates and Web Splice Plates shall conform to the requirements of AASHTO M 270M, Grade 345.

**STRUCTURAL STEEL DETAILS - (N.B. & S.B.)**  
F.A.I. 55 OVER LINDEN STREET  
SECTION (57-4HB-3)BR  
STRUCTURE NO. 057-0235 (N.B.) & 057-0236 (S.B.)  
McLEAN COUNTY  
STATION 38+544.044

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JOB NO.  
94S2063

DATE  
03/26/04

\$TIME\$ 8/16/2009 \$FILE\$  
 LAYOUT G.L.C. 11/5/97  
 DRAWN D.A.W. 11/5/97  
 REVIEWED \* \* \*