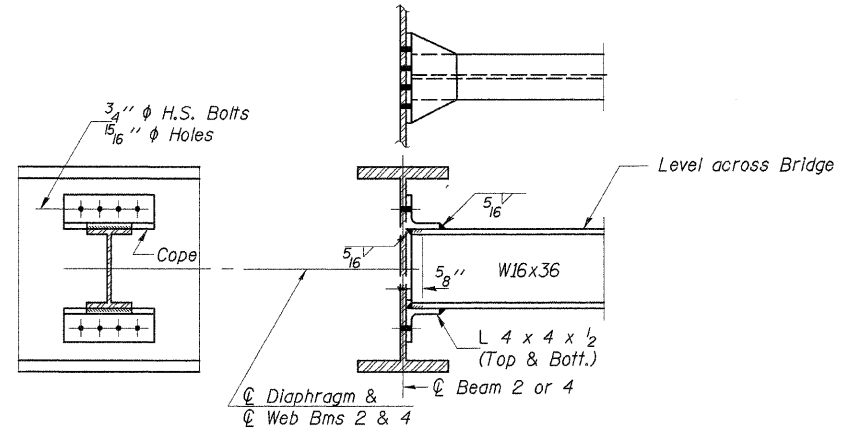


EXTERIOR BEAM MOMENT TABLE				
		0.4 Span 1 or 0.6 Span 3	Pier 1 or Pier 2	0.5 Span 2
$I_s$	(in <sup>4</sup> )	9,040	13,200	9,040
$I_c$ (n)	(in <sup>4</sup> )	22,082		22,082
$I_c$ (3n)	(in <sup>4</sup> )	16,127		16,127
$S_s$	(in <sup>3</sup> )	504	719	504
$S_c$ (n)	(in <sup>3</sup> )	714		714
$S_c$ (3n)	(in <sup>3</sup> )	643		643
$\phi$	(k/ft.)	1.043	1.283	1.043
$M\ell$	(k)	336	1,218	507
$s\ell$	(k/ft.)	0.240		0.240
$Ms\ell$	(k)	89		145
$M\ell$	(k)	553	454	668
$M$ (Imp)	(k)	137	136	182
$^{5_3}[M\ell + M(\text{Imp})]$	(k)	1,150	983	1,417
$M_a$	(k)	2,048	2,861	2,689
$M_u$	(k)	2,973		2,973
$f_s\ell$ non-comp (k.s.i.)		8.0	20.3	12.1
$f_s\ell$ (comp) (k.s.i.)		1.7		2.7
$f_s^{5_3}(\ell + \text{Imp})$ (k.s.i.)		19.3	16.4	23.8
$f_s$ (Overload) (k.s.i.)		29.0	36.7	38.6
$f_s$ (Total) (k.s.i.)			47.7	
VR	(k)	52.1		49.9

\*Compact Braced Section  
\*\*Non-Compact Section

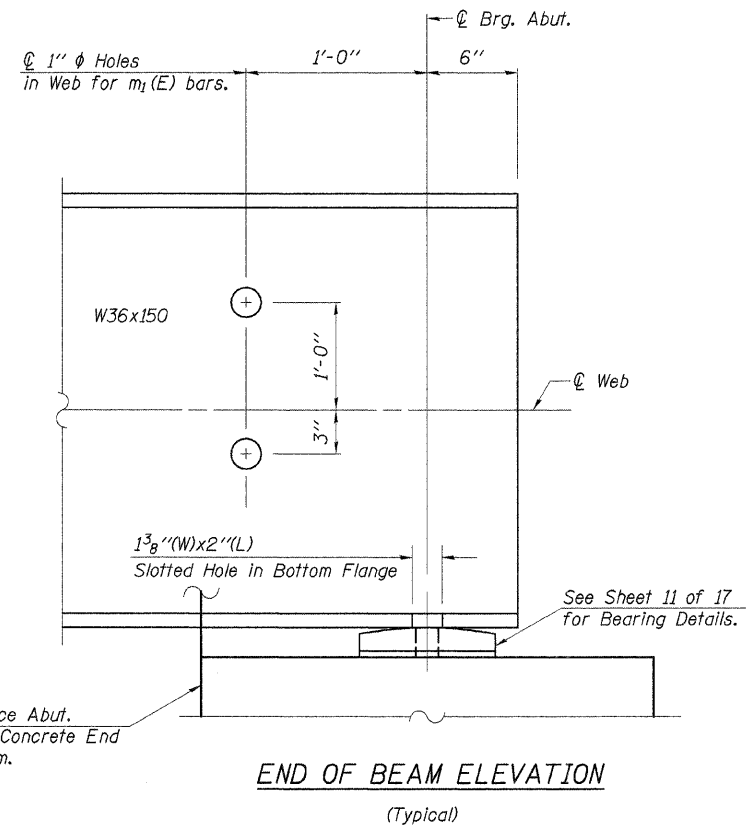
EXTERIOR BEAM REACTION TABLE			
		Abutment	Pier
$R\ell$	(k)	33.6	134.5
$R\ell$	(k)	37.5	56.8
Imp.	(k)	9.3	13.0
$R$ (Total)	(k)	80.4	204.3

$I_s$  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 Live Load + Impact shear range in the composite portion of the span.  
 $M_a$  (Applied Moment) =  $1.3[M\ell + Ms\ell + ^{5_3}(M\ell + M_{\text{imp}})]$ .  
 The plastic moment capacity ( $M_u$ ) is computed according to AASHTO 10.48.1 and 10.50.1.1  
 $f_s$  (Overload) is the sum of the stresses due to  $M\ell + Ms\ell + ^{5_3}(M\ell + M_{\text{imp}})$ .  
 $f_s$  (Total) (Non-compact section) is the sum of the stresses due to  $1.3[M\ell + Ms\ell + ^{5_3}(M\ell + M_{\text{imp}})]$ .

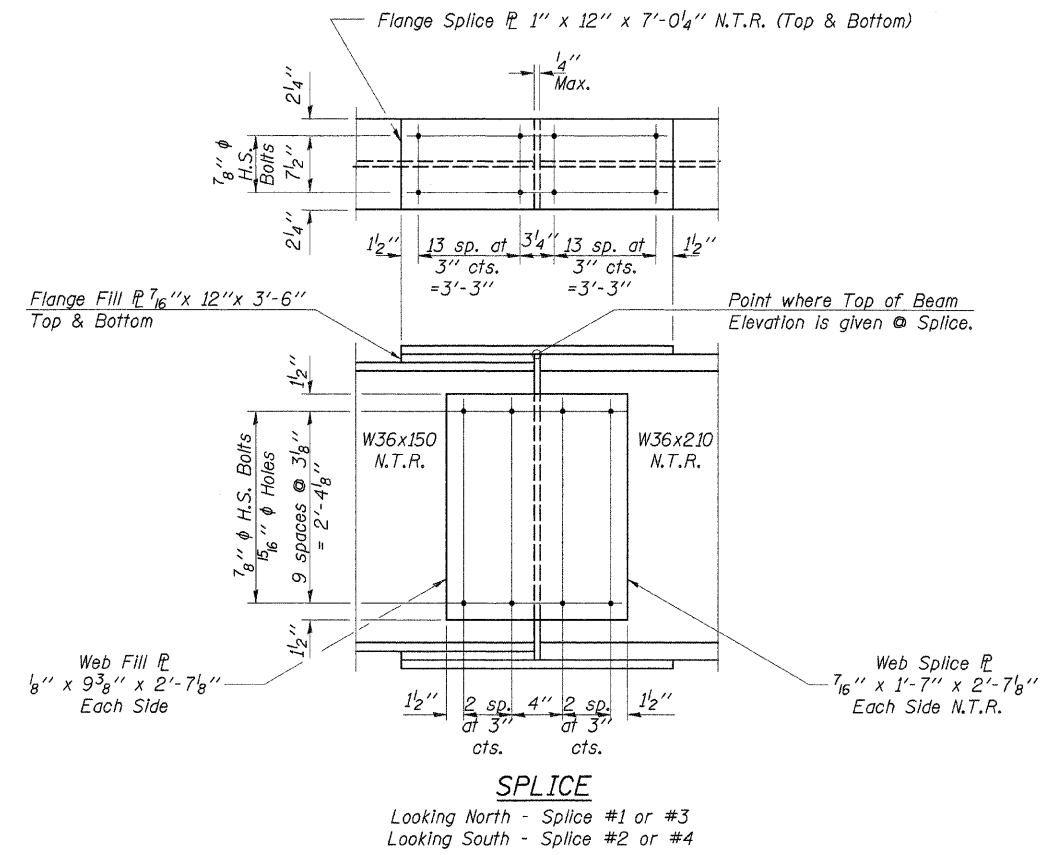


**DIAPHRAGM D**  
52 Required

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



**END OF BEAM ELEVATION**  
(Typical)



**SPLICE**  
Looking North - Splice #1 or #3  
Looking South - Splice #2 or #4

DESIGNED	A.R.K.
CHECKED	F.J.S. & S.F.M.
DRAWN	S.A.P.
CHECKED	A.R.K. & F.J.S.

I-2-D 2-26-93

Work this Sheet with Sheets 9 & 11 of 17.

<b>STRUCTURAL STEEL</b>		
SECTION 03-00147-01-BR COUNTY HIGHWAY 7 STARK COUNTY STATION 155+75		
4440 ASH GROVE SPRINGFIELD, IL 62711 (217) 793-8600 cbsinc@insightbb.com	<b>FEHR-GRAHAM &amp; ASSOCIATES, LLC</b> ENGINEERING AND SCIENCE CONSULTANTS PREPARED BY: ROBERTO L. RODRIGUEZ, P.E. CHECKED BY: MICHAEL W. SPRINGFIELD, P.E.	JOB NO.: 46808 FILE: 46808STEEL2.DGN DATE: 07/17/06