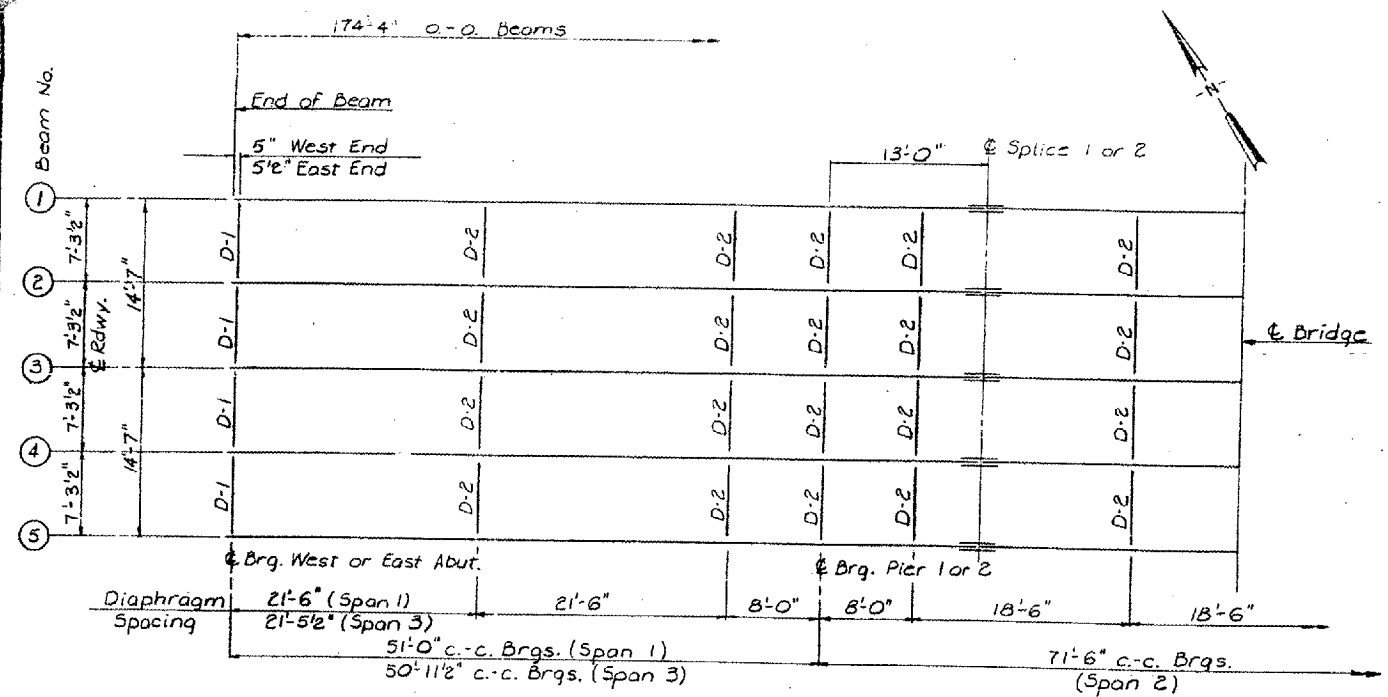
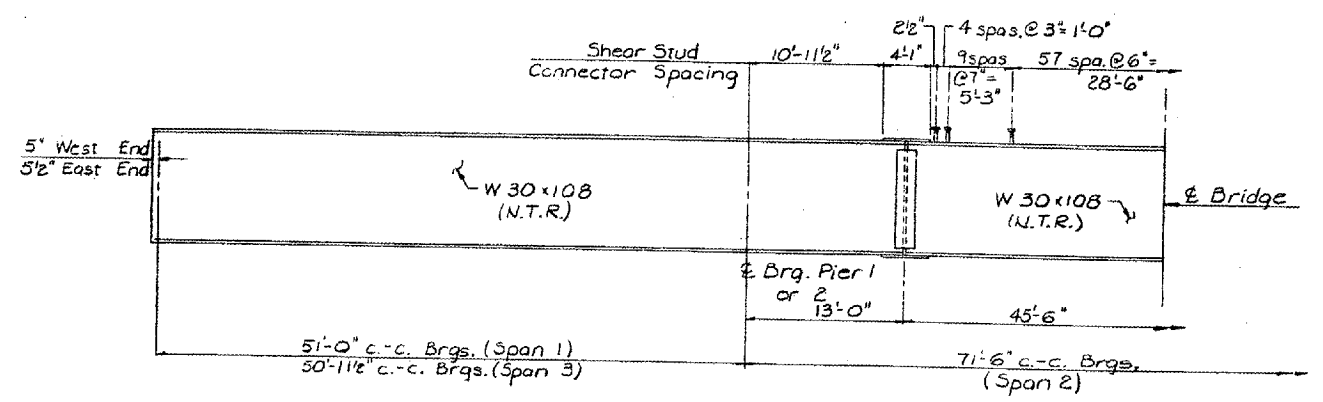


Sec. 129 B.C.B.

Sheet 9 of 16



**HALF FRAMING PLAN**  
 All Beams W30 x 108 (N.T.R.)



**TOP OF BEAM ELEVATIONS \***

	Bm. #1 or #5	Bm. #2 or #4	Bm. #3
℄ Brq. West Abut.	384.83	384.95	385.06
℄ Brq. Pier #1			
℄ Splice #1			
℄ Splice #2			
℄ Brq. Pier #2			
℄ Brq. East Abut.	384.83	384.95	385.06

\*Elevations are for Fabrication Only

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

$I_c$  and  $S_c$  are the moment of inertia and section modulus of the composite section used in computing  $f_s$  (Overload)

$Z$  is the plastic section modulus used to determine the Fully Plastic Moments in the non-composite areas.

The Fully Plastic Moments ( $M_u$ ) are computed according to A.A.S.H.T.O. 1.759(A) & 1.762(A).

$f_s$  (Overload) is the sum of the stresses due to  $M_e + M_{s\phi} + s_3(M_e + M_r)$

$VR$  is the maximum  $t +$  impact shear range in span used to determine shear connector spacing.

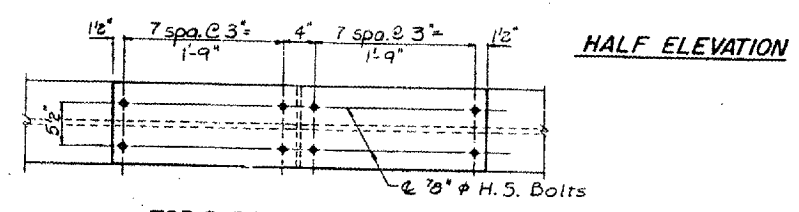
Note: N.T.R. indicates components to which notch toughness requirements are applicable. Work this Shr. w/ Shts. 10 & 11.

**INTERIOR BEAM MOMENT TABLE**

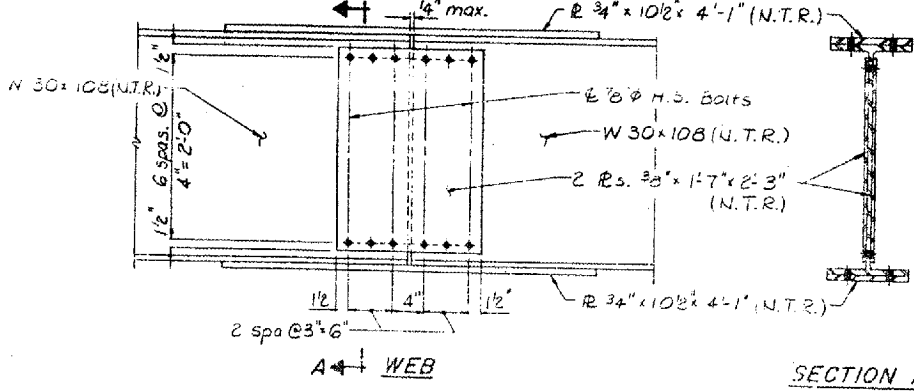
	0.4 Span 1 or 0.6 Span 3	Pier 1 or Pier 2	0.5 Span 2
$I_s$	(in <sup>4</sup> ) 4470	4470	4470
$I_c$	(in <sup>4</sup> )		13356
$S_s$	(in <sup>3</sup> ) 299	299	299
$S_c$ ( $n=27, n=9$ )	(in <sup>3</sup> )		422, 467
$Z$	(in <sup>3</sup> )		346
$\phi$	(%) 1.151	1.151	823
$M_e$	(k) 184	437	202
$S_{\phi}$	(k)		328
$M_{s\phi}$	(k)		96
$M_u$	(k) 331	264	510
$M_{Imp}$	(k) 94	71	132
$s_3(M_e + I)$	(k) 710	560	1069
1.3( $M_e + M_{s\phi} + s_3(M_e + I)$ ) (k)	1162	1296	1778
Fully Plastic Moment (k)	1442	1442	2723
$f_s$ @ non-comp (ksi)	7.4	17.54	8.1
$f_s$ @ comp (ksi)			2.7
$f_s$ @ ( $t + I$ ) (ksi)	28.5	22.5	27.5
$f_s$ (overload) (ksi)	35.9	40.0	38.3
$VR$	(k)		47.7

**INTERIOR BEAM REACTION TABLE**

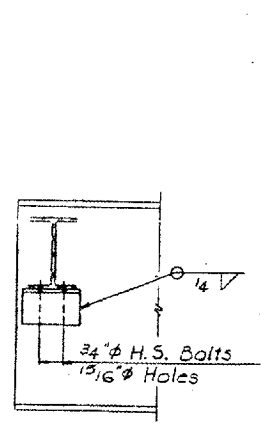
	East or West Abut.	Pier 1 or Pier 2
$R_e$	20.7	79.1
$R$	36.9	47.4
Imp.	10.5	12.7
$R_e + t + I$	68.1	139.2



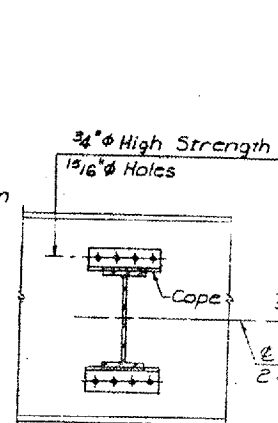
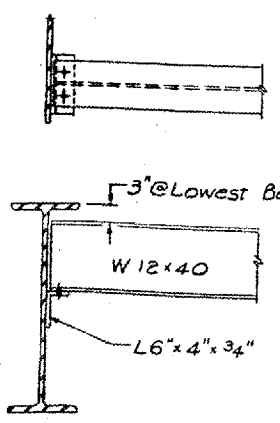
**TOP & BOTTOM FLANGES**



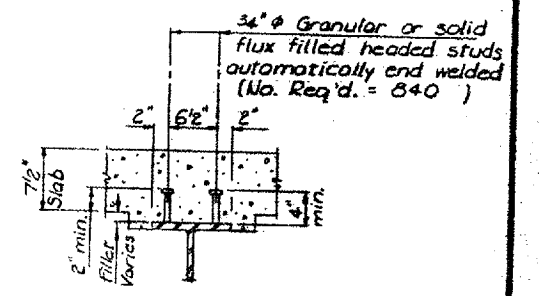
**SPLICES 1 & 2**



**END DIAPHRAGM D-1**  
 ( 8 Required )



**INTERIOR DIAPHRAGMS D-2**  
 ( 10 Required )



**FOR INFORMATION ONLY:**  
 BRIDGE NO. 2 STRUCTURE 100-0033

STRUCTURAL STEEL  
 FEDERAL AID PRIMARY RT. 726 (ILL. 148)  
 SECTION 129-BC-BR-1  
 OVER POND CREEK  
 WILLIAMSON COUNTY  
 STATION 222+80.00

Note: Hardened washers shall be required over 1 1/2" φ holes for diaphragm connections (21 Part).