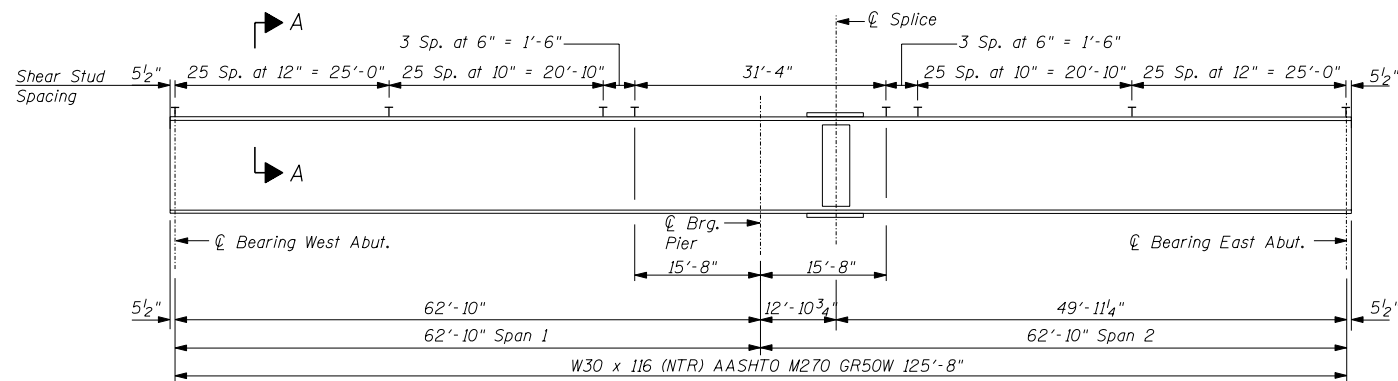
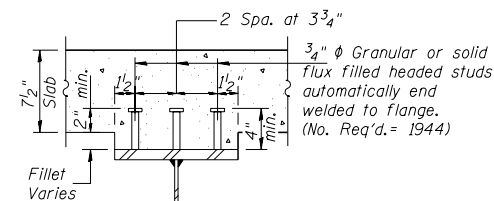


F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1513	5BR-1	CHAMPAIGN	38	18
STA.		TO STA.		
FED. ROAD DIST. NO. 5		ILLINOIS FED. AID PROJECT		

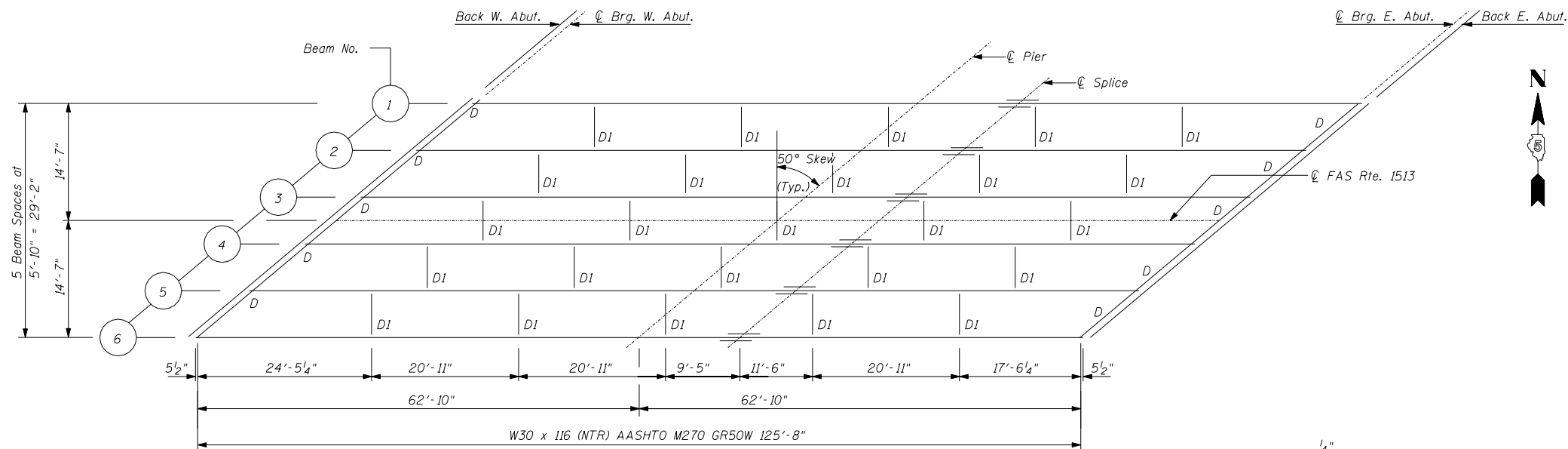


ELEVATION

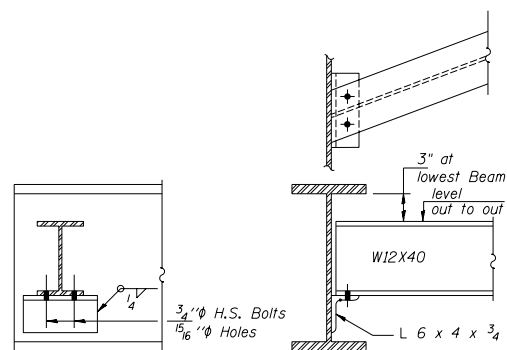


SECTION A-A

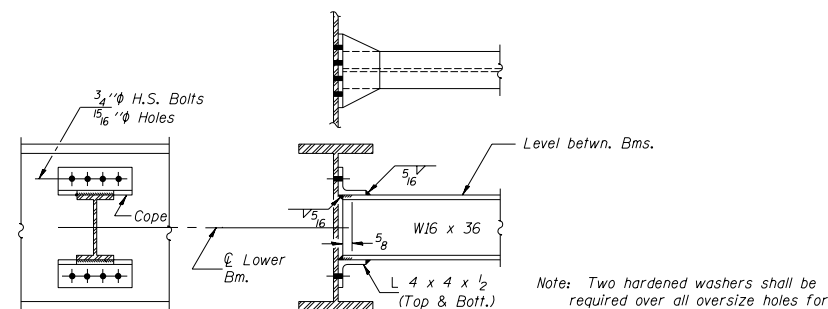
	W. Abut.	℄ Pier	℄ Splice	E. Abut.
Beam 1	693.90	693.53	693.44	693.28
Beam 2	694.04	693.67	693.58	693.42
Beam 3	694.17	693.80	693.71	693.55
Beam 4	694.20	693.84	693.75	693.58
Beam 5	694.14	693.78	693.69	693.52
Beam 6	694.06	693.71	693.62	693.45



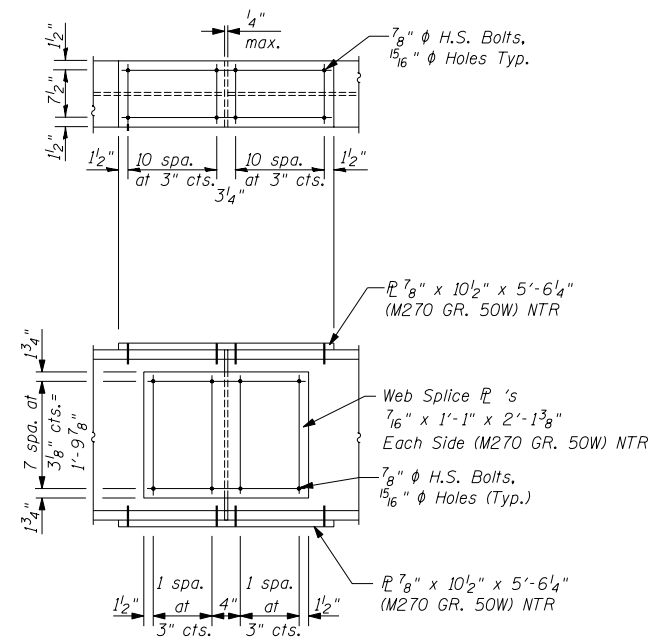
FRAMING PLAN



END DIAPHRAGM D  
(10 Required)



INTERIOR DIAPHRAGM D1  
(25 Required)



SPLICE DETAIL

	0.4 Sp. 1 & 0.6 Sp. 2	Pier
Is	(in <sup>4</sup> ) 4930	4930
Ic (n)	(in <sup>4</sup> ) 12787	
Ic (3n)	(in <sup>4</sup> ) 9382	
Ss	(in <sup>3</sup> ) 329	329
Sc (n)	(in <sup>3</sup> ) 477	
Sc (3n)	(in <sup>3</sup> ) 430	
Z	(in <sup>3</sup> )	
φ	(K/ft.) 0.708	1.117
Mφ	(K) 198	495
sφ	(K/ft.) 0.409	
Msφ	(K) 136	
Mφ	(K) 390	204
M (Imp)	(K) 104	55
5 <sub>3</sub> (M <sub>t</sub> +I)	(K) 824	432
Ma	(K) 1506	1206
Mu	(K) 1852	
fsφ non-comp (k.s.i.)	7.3	18.2
fsφ (comp) (k.s.i.)	3.8	
fs <sub>3</sub> (4+I) (k.s.i.)	20.8	15.8
fs (Overload) (k.s.i.)	31.9	33.9
fs (Total) (k.s.i.)		44.1
VR	(K) 43.2	

	Abut.	Pier
Rφ	(k) 27.3	86.0
R <sub>t</sub>	(k) 33.7	41.0
Imp.	(k) 9.0	8.2
R (Total)	(k) 70.0	135.2

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).  
 Ic(n) and Sc(n) are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.  
 Ic(3n) and Sc(3n) are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (see AASHTO 10.38)  
 VR is the maximum Live Load + Impact shear range in span.  
 Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.  
 Ma (Applied Moment) = 1.3[Mφ + Msφ + 5<sub>3</sub>(M<sub>t</sub> + M<sub>imp</sub>)].  
 Mu is the Full Plastic Moment Capacity for Compact, Braced Section.  
 fs (Overload) is the sum of the stresses due to Mφ + Msφ + 5<sub>3</sub>(M<sub>t</sub> + M<sub>imp</sub>).  
 fs (Total) (Non-compact section) is the sum of the stresses due to 1.3[Mφ + Msφ + 5<sub>3</sub>(M<sub>t</sub> + M<sub>imp</sub>)].

Notes:  
 Steel designated with N.T.R. shall conform to the requirements for Notch Toughness (Zone 2).  
 All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION FRAMING PLAN IL ROUTE 10 OVER CAMP CREEK FAS RTE. 1513 SECTION 5BR-1 STA. 16+69.00 CHAMPAIGN COUNTY STR. 010-0275 SCALE: N.T.S. DATE MAY 2007
NAME	DATE	
		DRAWN BY LP CHECKED BY MJS