

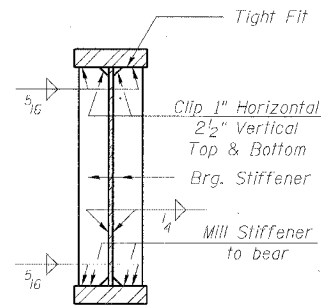
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 80	06-8HBR	BUREAU	165	85
FED. ROAD DIST. NO. 7	11.12008	FED. AID PROJECT-		

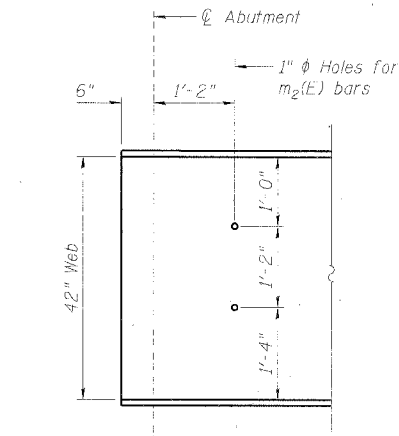
Contract # 66641

SHEET NO. 14

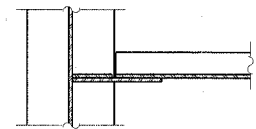
22 SHEETS



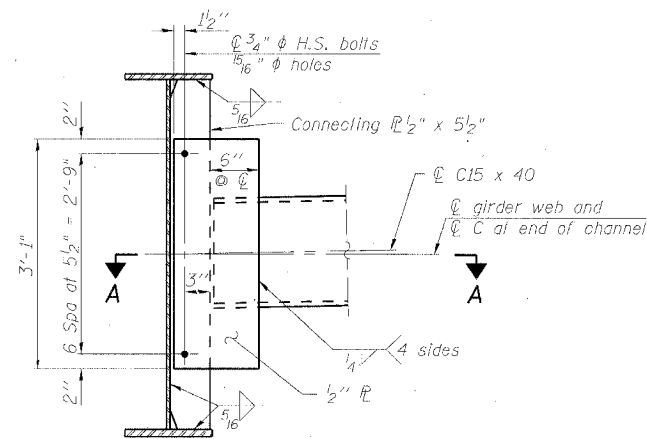
SECTION AT PIER



END OF GIRDER ELEVATION
(at integral abutments)



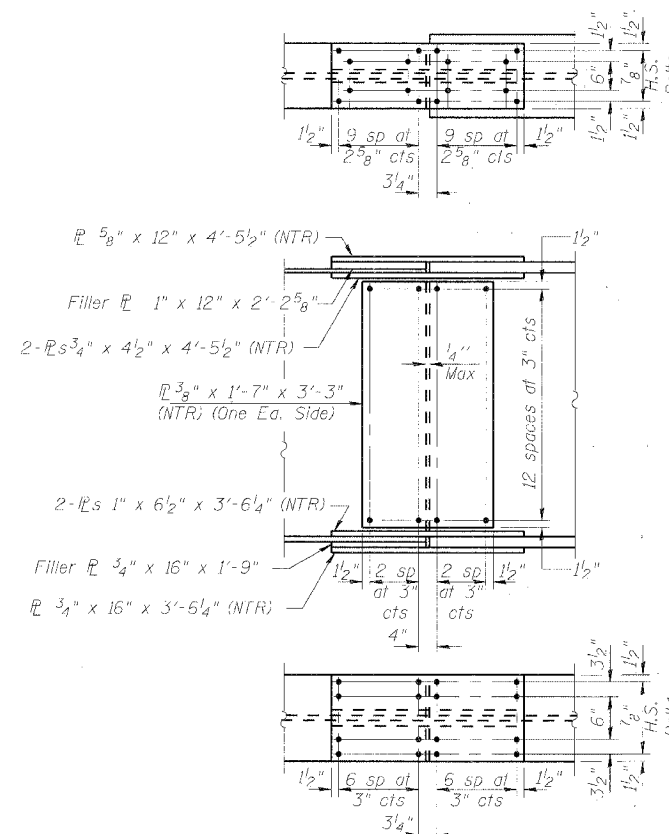
SECTION A-A



DIAPHRAGM D

Note:
Two hardened washers required for each set of oversized holes.

DESIGNED	BPS
CHECKED	BHS
DRAWN	RRG
CHECKED	GSP



FIELD SPLICE DETAIL

	0.4 Sp. 1	0.5 Sp. 2	Pier
I_s (in ⁴)	14097	29898	
I_c (in ⁴)	39768		
I_c (3n) (in ⁴)	29077		
S_s (in ³)	754	1314	
S_c (n) (in ³)	1058		
S_c (3n) (in ³)	976		
Z (in ³)		1446	
M (k/ft.)	1.018	1.663	
$M\phi$ (k)	664	2571	
$s\phi$ (k/ft.)	0.529		
$M_s\phi$ (k)	414		
M_L (k)	1022	874	
M (Imp) (k)	221	189	
$b_2(M_L + I)$ (k)	2075	1776	
M_a (k)	4100	5651	
M_u (k)	5230	6023	
$f_s\psi$ non-comp (k.s.i.)	10.6	23.5	
$f_s\psi$ (comp) (k.s.i.)	5.1		
$f_s\psi_2$ (k + I) (k.s.i.)	23.5	16.2	
f_s (Overload) (k.s.i.)	39.2	39.7	
f_s (Total) (k.s.i.)			
VR (k)	56.2		

	Abut	Pier
$R\phi$ (k)	58.2	218.5
R_L (k)	53.3	86.6
$Imp.$ (k)	11.5	18.7
R (Total) (k)	123.0	323.8

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. (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.
 M_a (Applied Moment) = $1.3[IMP + Ms\phi + b_2(M_L + I)]$.
 M_u is the Full Plastic Moment Capacity for Compact, Braced section.
 f_s (Overload) is the sum of the stresses due to $M\phi + Ms\phi + b_2(M_L + I)$.
 f_s (Total) (Non-compact section) is the sum of the stresses due to $1.3[IMP + Ms\phi + b_2(M_L + I)]$.

NOTES:

NTR denotes plates to which notch toughness requirements are applicable.

All splice plate material shall be AASHTO M 270 Grade 50.

All diaphragm, connecting plates, bearing stiffeners and splice filler plates shall be AASHTO M270 Grade 36.

FRAMING DETAILS

IL ROUTE 89 OVER
FAI ROUTE 80 (I-80)
SECTION 06-8HBR
BUREAU COUNTY
STATION 3702+69.82
STRUCTURE NO. 006-0178

PLOT DATE = 7/30/2007
FILE NAME = g:\p\c\proj\2004\689_002\add\118\BR_FRAM2.dwg
PLOT SCALE = N/A
USER NAME = zhangyb