93392

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 40	*	SANGAMON	33	13
PROJECT				

* 00-00021-02-BR

INTERIOR GIRDER MOMENT TABLE

		0.4 Span 1 or 0.6 Span 3	Pier #1 or Pier #2	0.5 Span 2
Is	(in^4)	12,100	16,100	10,500
Ic (n)	(in^4)	26,653	–	23,830
Ic (3n)	(in^4)	19,563	–	17,560
Ss	(in^3)	664	895	580
Sc (n)	(in^3)	889	–	783
Sc (3n)	(in^3)	804	–	710
℄	(K/Ft)	.887	.938	.863
M ℄	(Ft–k)	571	1069	363
S ℄	(K/Ft)	.355	.355	.355
Ms ℄	(Ft–k)	245	381	196
M ℄	(Ft–k)	790	637	787
M (Imp)	(Ft–k)	178	138	165
5/3[M ℄+M(Imp)]	(Ft–k)	1613	1292	1586
Ma	(Ft–k)	3158	3565	2788
Mu	(Ft–k)	4285	---	3815
fs ℄ non–comp	k.s.i.	10.3	19.4	7.5
fs ℄ (comp)	k.s.i.	3.7	–	3.3
fs 5/3(℄+Imp)	k.s.i.	21.8	17.3	24.3
fs (Overload)	k.s.i.	35.8	36.7	35.1
fs (Total)	k.s.i.	---	47.7	---
VR	(k)	55.3	–	44.2

INTERIOR GIRDER REACTION TABLE

		Abuts.	Piers
R ℄	(k)	45.1	147.6
R ℄	(k)	45.9	71.1
Imp.	(k)	10.3	15.5
R (Total)	(k)	101.3	234.2

Note: Reactions are not factored

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.

Ma (Applied Moment) = 1.3 [M ℄+Ms ℄ +5/3 (M ℄ + Mlmp)].

The Plastic Moment Capacity for compact, braced section, (Mu) is computed according to AASHTO 10.48.1 & 10.50.1.1

fs (Overload) is the sum of the stresses due to M ℄ + Ms ℄ +5/3 (M ℄ + Mlmp).

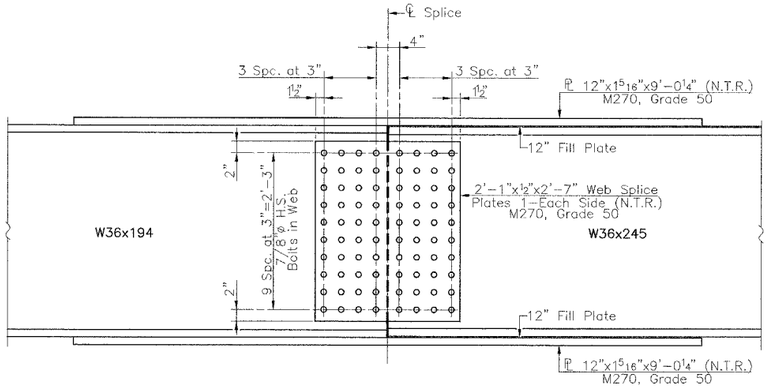
fs(Total) (Non–compact section) is the sum of the stresses due to 1.3[M ℄ + Ms ℄ + 5/3(M ℄ + Mlmp)].

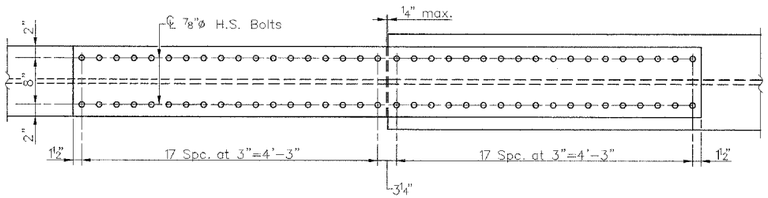
$M_{℄}$ – Moment due to dead loads on non–composite section.

$Ms_{℄}$ – Moment due to dead loads on composite section.

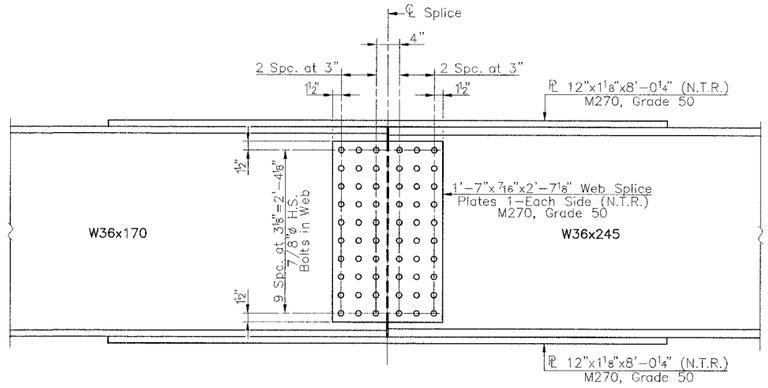
M_{LL} – Moment due to live loads on non–composite or composite section.

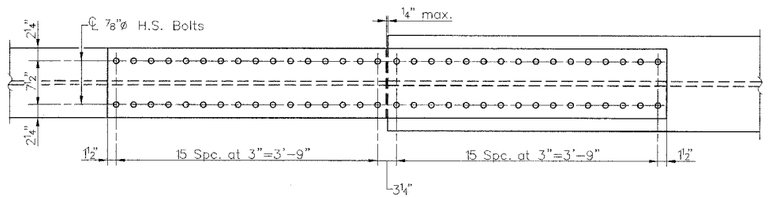
$M_{(Imp)}$ – Moment due to live load impact on non–composite or composite section.



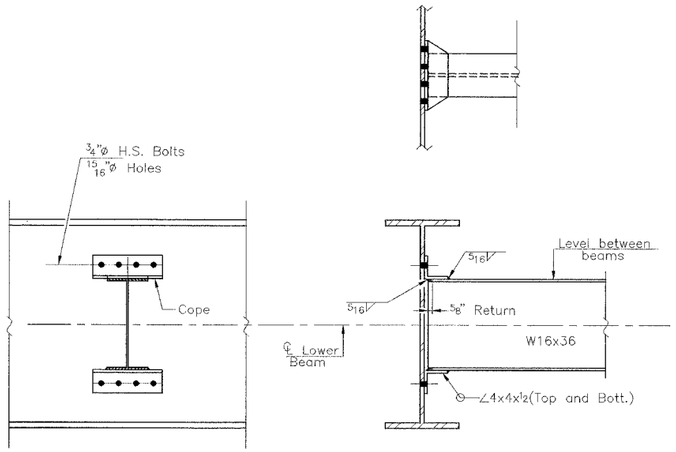


SPLICE #1 AND #4





SPLICE #2 AND #3



DIAPHRAGM D
(85 Required)

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

STRUCTURAL STEEL
C.H. 40 OVER HORSE CREEK
SECTION 00–00021–02–BR
SANGAMON COUNTY

FILE NAME: SCCH140S52 (REV. 3/14/05)