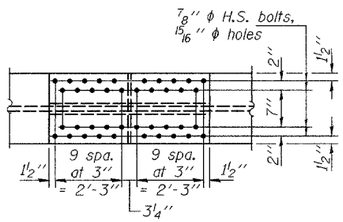
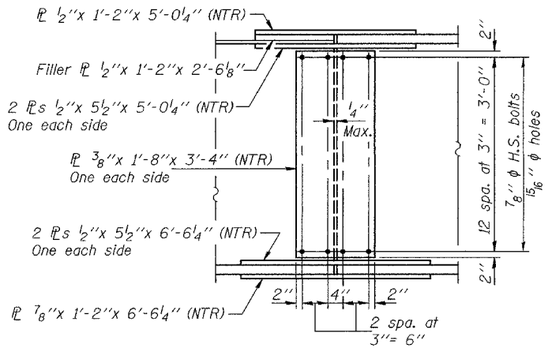
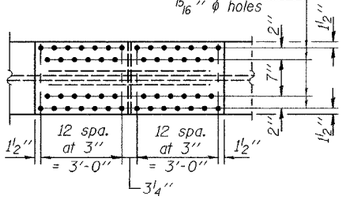


PLAN

Top flange



ELEVATION



PLAN

Bottom flange

FIELD SPLICE DETAIL

(8 required)

Notes: NTR denotes members to which Notch Toughness Requirements are applicable.
Splice elevations are looking East.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 80	(50-2) HBR	LaSALLE		162
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 20
35 SHEETS

Contract No. 86603

INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1	Pier	0.6 Sp. 2
Is	(in⁴)	17673	24113	20041
Ic (n)	(in⁴)	47524	———	48266
Ic (3n)	(in⁴)	33705	———	34945
Ss	(in³)	954	1048	993
Sc (n)	(in³)	1306	———	1313
Sc (3n)	(in³)	1197	———	1206
S℄	(in³)	49.0	49.0	49.0
℄	(k/ft.)	0.883	1.435	0.897
M℄	('k)	376	1477	621
s℄	(k/ft.)	0.505	———	0.505
Ms℄	('k)	239	———	372
M4	('k)	633	455	728
M (Imp)	('k)	159	114	182
⅗[M4+M(Imp)]	('k)	1320	948	1517
Ma	('k)	2516	3153	3263
Mb℄	('k)	7	23	10
fs℄ non-comp	(k.s.i.)	4.7	16.9	7.5
fs℄ (comp)	(k.s.i.)	2.4	———	3.7
fs⅗(4+Imp)	(k.s.i.)	12.1	10.9	13.9
f℄	(k.s.i.)	1.7	5.6	2.4
fs (Overload)	(k.s.i.)	19.3	27.8	25.1
fs (Total)	(k.s.i.)	25.0	36.1	32.6
Fcr (Overload)	(k.s.i.)	47.5	33.3	47.5
VR	(k)	31.9	———	34.7
Fcr	(k.s.i.)	49.4	43.4	49.4

INTERIOR GIRDER REACTION TABLE				
		S. Abut.	Pier	N. Abut.
R℄	(k)	42.6	162.2	53.9
R4	(k)	42.9	63.8	50.1
Imp.	(k)	12.9	19.2	15.0
R (Total)	(k)	98.4	245.2	119.0

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total and Overload).

Ic (n) & 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).

S℄ is the section modulus for one flange plate for lateral flange bending.

M ℄-Moment due to dead loads on non-composite section.

Ms ℄-Moment due to dead loads on composite section.

M 4-Moment due to live load on non-composite or composite section.

M(Imp)-Moment due to live load impact on non-composite or composite section.

Ma (Applied Moment) = 1.3 [M ℄ + Ms ℄ + ⅗(M 4 + M(Imp))].

Mb℄ is the lateral bending moment for one flange plate (factored).

fs ℄ (non-comp) is the stress due to M ℄.

fs ℄ (comp) is the stress due to Ms ℄.

fs (Overload) is the sum of the stresses due to M ℄ + Ms ℄ + ⅗(M 4 + M(Imp)).

fs ⅗ (M4 + M(Imp)) is ⅗ times the stresses due to M4 + M(Imp).

f℄ is the calculated normal stress at the edge of the flange due to lateral bending (factored).

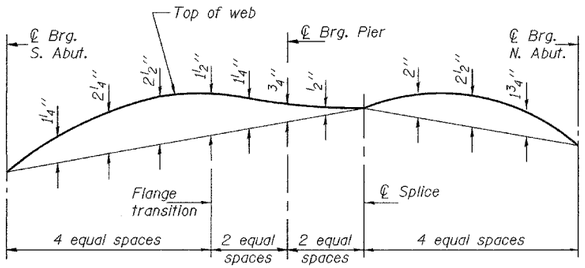
fs (Total) is the sum of the stresses due to 1.3[M℄ + Ms℄ + ⅗(M4 + M(Imp))].

Fcr (Overload) is the critical average flange stress at overload computed according to the 2003 AASHTO Guide Specifications for Horizontally Curved Steel Girder Highway Bridges Section 9.5.

VR is the maximum 4 + impact shear range in span.

Fcr is the critical average flange stress computed according to the 2003 AASHTO Guide Specifications for Horizontally Curved Steel Girder Highway Bridges Sections 5.2, 5.3 and 5.4.

M 4 and R 4 includes the effects of centrifugal force and superelevation.



CAMBER DIAGRAM

DESIGNED	CME
CHECKED	RLM
DRAWN	h.t. parsons
CHECKED	CME/RLM

Nov. 29, 2004

EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN

PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STRUCTURAL STEEL DETAILS
F.A.I. RT. 80 - SEC. (50-2)HBR
LaSALLE COUNTY
STATION 62+39.22
STRUCTURE NO. 050-0230