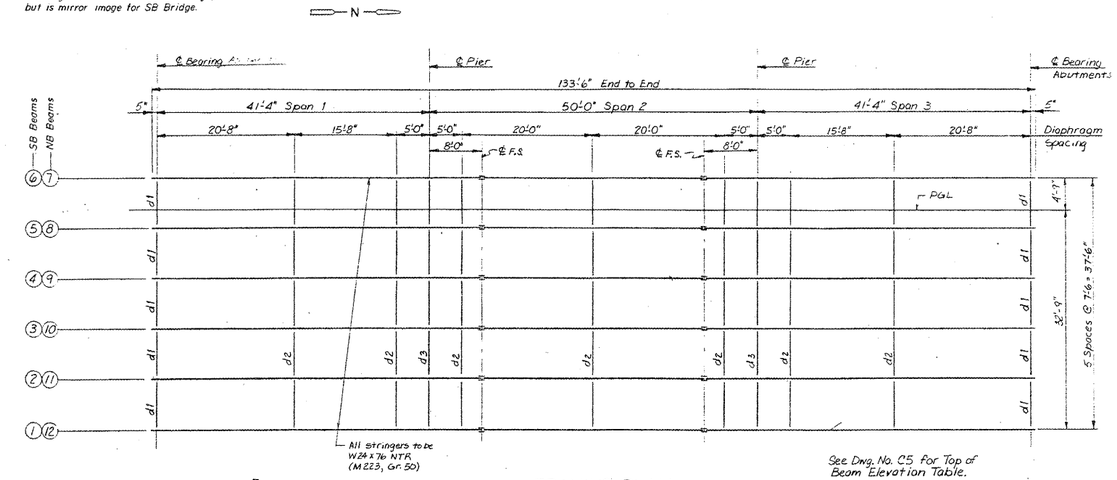
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

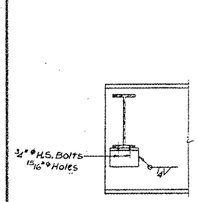
FAP ROUTE NO.	SECTION NO.	COUNTY	TOTAL SHEETS	SHEET NO.
412	50 - IVB	LA SALLE		33
FED. ROAD DIST. NO. 7	ILLINOIS			

Dwg. C6 of C13

Note:
"Framing Plan" is shown for NB Bridge, but is mirror image for SB Bridge.

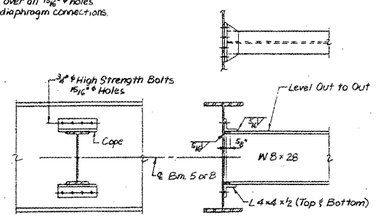


FRAMING PLAN

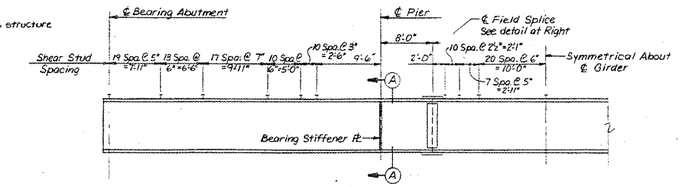


END DIAPHRAGM (d_1)

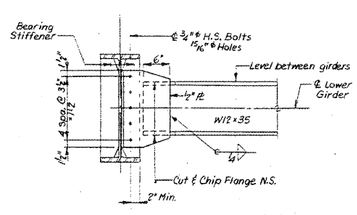
Note
Hardened washers shall be read over all 15/16" ℄ holes for diaphragm connections.



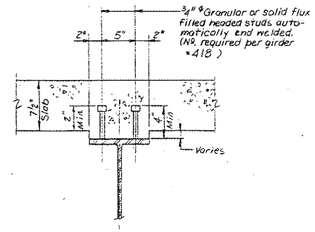
INTERIOR DIAPHRAGM (d_2)



W24x76 STRINGER ELEVATION



INTERIOR DIAPHRAGM AT PIER (d_3)



SHEAR STUDS

MOMENT TABLE DEFINITIONS

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

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

The Fully Plastic Moment capacity (Mu) is computed according to AASHTO 10.48.1 AND 10.50.1.

fs (Total) is the sum of the stresses due to 1.3 [M ℄ + Ms ℄ + 5/3(M ℄ + I)]

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

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

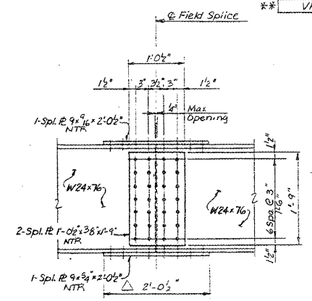
Ms ℄ - Moment due to dead loads on composite section.

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

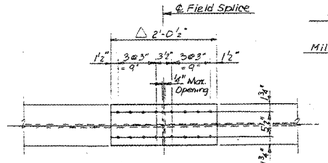
I - Live load impact

INTERIOR GIRDER MOMENT TABLE

	0.4 Sp. 1 or 3	Pier 1 or 2	0.5 Sp. 2
Is (in.4)	2100	2100	2100
Ic (in.4)	7384		7384
Ss (in.3)	176	176	176
Sc (in.3)	294		294
Z (in.3)		200	
℄ (K/I)	.808	1.112	.808
M ℄ ('K)	98	215	83
s ℄ (K/I)	.304		.304
Ms ℄ ('K)	44		49
M ℄ ('K)	260	139	300
M trmp. ('K)	84	42	90
5/3 (M ℄ + I) ('K)	607	302	650
Mo ('K)	974	672	1013
* Mu ('K)	1823	833	1823
fs ℄ non-comp (k.s.i.)	6.8	14.9	5.7
fs ℄ (comp.) (k.s.i.)	2.0		2.2
fs 5/3 (℄ + I) (k.s.i.)	24.8	20.8	26.5
Fs (Overload) (k.s.i.)	33.6	35.7	34.4
** VR ('K)	51.4		62.8



ELEVATION VIEW



TOP AND BOTTOM VIEW

FIELD SPLICE
All Splice Plates shall be AASHTO M223, Gr. 50

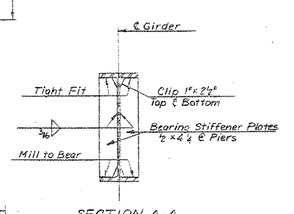
INTERIOR GIRDER REACTION TABLE

	Abut.	Pier
R ℄ (K)	17.8	55.9
R M ℄ (K)	36.7	43.9
Imp. (K)	11.0	12.8
R Total (K)	65.5	112.6

* Mu = Full plastic moment capacity for compact, braced section.

Mo (Applied Moment) = 1.3 [M ℄ + Ms ℄ + 5/3 (M ℄ + I)]

** VR is the maximum ℄ + impact shear range in the span, and occurs adjacent to the piers.



SECTION A-A

For General Notes see Dwg. No. C1

NTR means notch toughness requirements are applicable.

FRAMING PLAN, STRESS TABLE & STEEL DETAILS

F.A.P. ROUTE 412 OVER CONRAIL RAILROAD
F.A.P. 412 - SECTION 50-IVB
LASALLE COUNTY
STA. 565+86.08
STRUCTURE NUMBERS 050-0210 (SB) & 050-0211 (NB)

NO.	REVISION DESCRIPTION	BY	DATE
2			
1			

Designed by MCB
Drawn by TRT
Checked by SMK
Date June 26, 1987

HDR Infrastructure, Inc. A Centerra Company

Drawing No. C6

FOR INFORMATION ONLY

FILE NAME =	USER NAME = woodshankrl	DESIGNED - RON WOODSHANK	REVISED -
c:\pw_work\PWIDOT\WOODSHANKRL\dms51013\d366878 - 0500210 & 0211-details.dgn		DRAWN - RON WOODSHANK	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Dec 09, 2008 - 08:08:03 AM	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS

SCALE: | SHEET NO. 4 OF 5 SHEETS | STA. 565+17.75 TO STA. 566+55.92

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(50-1VB)BP	LASALLE	11	10
		CONTRACT NO. 66878		
FED. ROAD DIST. NO.	ILLINOIS			