INTERIOR GIRDER MOMENT TABLE						
		0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3
I_s	(in^4)	17429	32995	22116	32995	17429
$I_c(n)$	(in^4)	40581	-	48002	-	40581
$I_c(3n)$	(in^4)	30457	-	36081	-	30457
S_s	(in^3)	677	1242	851	1242	677
$S_c(n)$	(in^3)	911	-	1097	-	911
$S_c(3n)$	(in^3)	837	-	1013	-	837
β	(k/')	0.766	1.291	0.794	1.291	0.766
$M\beta$	('k)	288	1288	458	1187	217
$s\beta$	(k/')	0.435	-	0.435	-	0.435
$M_s\beta$	('k)	189	-	294	-	143
ML	('k)	552	505	670	481	499
MI	('k)	132	113	141	109	124
$\frac{3}{4}(ML + I)$	('k)	1140	1030	1352	983	1038
M_s	('k)	2102	3013	2735	2821	1818
* M_u	('k)	3386	-	3971	-	3386
$f_s\ \beta$ non-comp	(ksi)	5.1	12.4	6.5	11.5	3.8
$f_s\ \beta$ (comp)	(ksi)	2.7	-	3.5	-	2.1
$f_s\ \frac{3}{4}(ML + MI)$	(ksi)	15.0	10.0	14.8	9.5	13.7
f_s (Overload)	(ksi)	22.8	22.4	24.7	21.0	19.6
** f_s (Total)	(ksi)	-	29.1	-	27.3	-
VR	(k)	47.1	-	42.7	-	48.4

INTERIOR GIRDER REACTION TABLE					
		S. Abut.	Pier 1	Pier 2	N. Abut.
$R\beta$	(k)	34.2	137.5	131.7	28.6
R_L	(k)	34.8	54.2	53.0	34.5
R_I	(k)	8.4	11.9	12.2	8.6
R_{Total}	(k)	77.4	203.6	196.9	71.7

* Compact sections
** Non-Compact and slender sections

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s(Total and Overload) due to non-composite dead loads ($in.^4$ and $in.^3$).

$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s(Total and Overload) due to short-term composite live loads ($in.^4$ and $in.^3$).

$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s(Total and Overload) due to long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

β: Un-factored non-composite dead load (kips/ft.).

$M\beta$: Un-factored moment due to non-composite dead load (kip-ft.).

$s\beta$: Un-factored long-term composite (superimposed) dead load (kips/ft.)

$M_s\beta$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).

ML: Un-factored live load moment (kip-ft.).

MI: Un-factored moment due to impact (kip-ft.).

M_u: Factored design moment (kip-ft.).
$1.3\ [\ M\beta + M_s\beta + \frac{5}{3}\ (ML + MI)]$

M_n: Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).

f_s (Overload): Sum of stresses as computed from the moments below (ksi).
$M\beta + M_s\beta + \frac{5}{3}\ (ML + MI)$

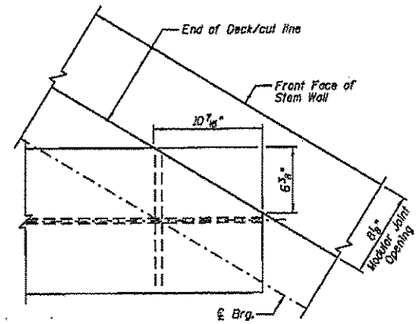
f_s (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).
$1.3\ [M\beta + M_s\beta + \frac{5}{3}\ (ML + MI)]$

VR: Maximum L + impact horizontal shear range within the composite portion of the span for stud shear connector design (kips).

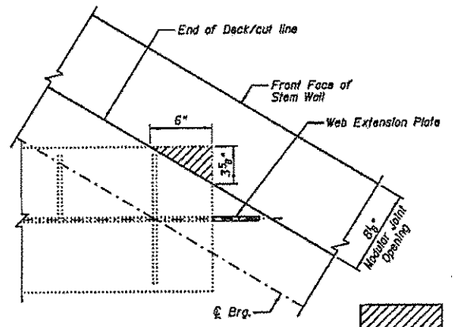
EXTERIOR GIRDER MOMENT TABLE						
		0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3
I_s	(in^4)	18080	29968	22767	29968	18080
$I_c(n)$	(in^4)	42305	-	49613	-	42305
$I_c(3n)$	(in^4)	31445	-	37009	-	31445
S_s	(in^3)	702	1136	876	1136	702
$S_c(n)$	(in^3)	961	-	1146	-	961
$S_c(3n)$	(in^3)	876	-	1051	-	876
β	(k/')	0.845	1.348	0.873	1.348	0.845
$M\beta$	('k)	324	1348	520	1244	245
$s\beta$	(k/')	0.435	-	0.435	-	0.435
$M_s\beta$	('k)	190	-	302	-	146
ML	('k)	521	464	642	441	471
MI	('k)	125	104	134	100	117
$\frac{3}{4}(ML + I)$	('k)	1077	947	1293	902	980
M_s	('k)	2068	2963	2750	2789	1782
* M_u	('k)	4983	-	5705	-	4983
$f_s\ \beta$ non-comp	(ksi)	5.5	14.2	7.1	13.1	4.2
$f_s\ \beta$ (comp)	(ksi)	2.6	-	3.4	-	2.0
$f_s\ \frac{3}{4}(ML + MI)$	(ksi)	13.4	10.0	13.8	9.5	12.2
f_s (Overload)	(ksi)	21.6	24.2	24.1	22.7	18.4
** f_s (Total)	(ksi)	-	31.5	-	29.5	-
VR	(k)	44.2	-	40.1	-	45.4

EXTERIOR GIRDER REACTION TABLE					
		S. Abut.	Pier 1	Pier 2	N. Abut.
$R\beta$	(k)	36.7	145.6	139.5	30.8
R_L	(k)	32.8	50.9	49.8	32.5
R_I	(k)	7.9	11.2	11.5	8.1
R_{Total}	(k)	77.4	207.7	200.8	71.4

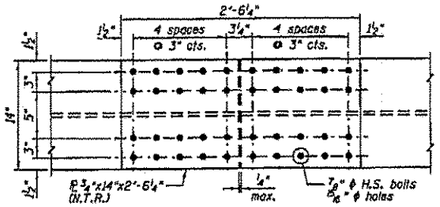
* Compact sections
** Non-Compact and slender sections



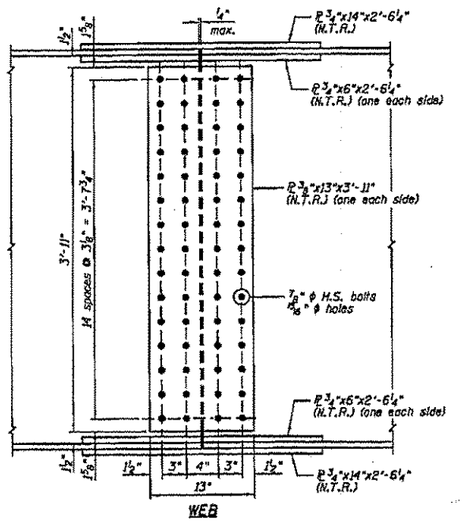
SECTION D-D
Note: Top Flange only.



SECTION E-E
Note: Top Flange only.

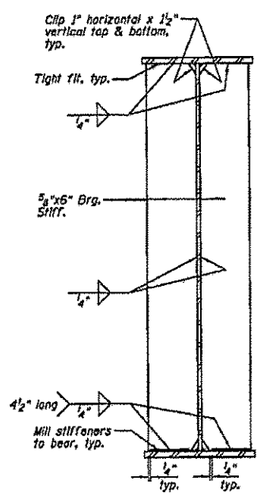


TOP AND BOTTOM FLANGE

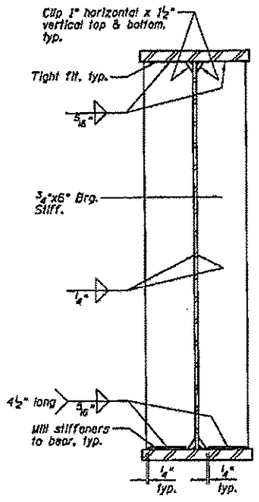


WEB

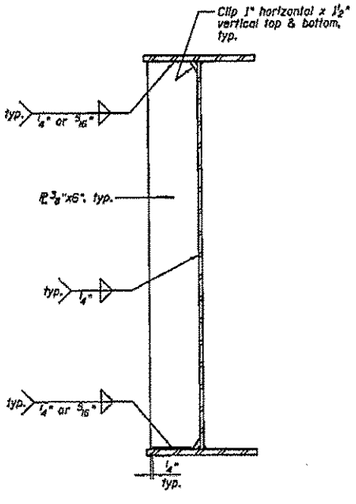
SPLICE DETAILS
(8 - Required)



SECTION @ ABUTMENTS



SECTION @ PIERS



SECTION @ CROSS FRAME CF2
Note: Connecting plate not required on outside face of plate girder.

NOTES:

1.) Load carrying components designated N.T.R. shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
2.) All girder flange plates, web plates, splice plates and bearing stiffener plates shall be AASHTO M270 Grade 50.
3.) See Sheet B23 for Sections D-D and E-E locations.

STRUCTURAL STEEL
STRUCTURE NO.084-0028

FOR INFORMATION ONLY

FILE NAME = c:\documents and settings\mcdonaldrs\desktop\planesheet.dgn	USER NAME = mcdonaldrs	DESIGNED -	REVISED -
		DRAWN -	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	D6 PAINTING 2013	SANGAMON	26	9
		CONTRACT NO. 72F85		
	ILLINOIS FED. AID PROJECT			