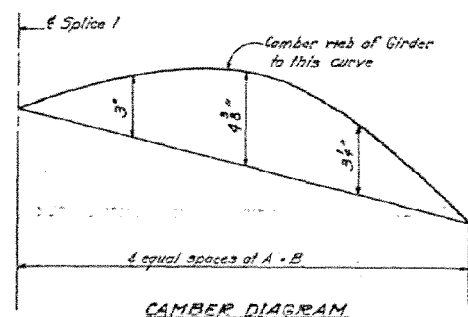


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
58-20	HVB	MACON	95	56
SHEET NO. 20				
33 SHEETS				

TOP OF WEB OR FLANGE ELEVATIONS  
(Elevations for fabrication only.)  
\* Indicates top of Flange.

Location	SOUTH BOUND LANES							NORTH BOUND LANES							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
E. Reg. E. Abut.	731.16	*731.33	*731.45	*731.57	*731.63	*731.52	731.33	731.29	*731.47	*731.57	*731.51	*731.39	*731.24	*731.09	730.88
E. Link #1	730.91	731.02	731.13	731.25	731.31	731.19	731.06	731.01	731.12	731.23	731.16	731.04	730.89	730.75	730.61
E. Bra. Pier #1	730.98	731.09	731.20	731.32	731.40	731.28	731.14	731.08	731.20	731.31	731.24	731.12	730.96	730.82	730.68
E. Splice #1	730.93	731.18	731.25	731.40	731.46	731.34	731.20	731.14	731.27	731.37	731.31	731.18	731.01	730.87	730.73
E. Splice #2	730.56	730.65	730.74	730.89	730.94	730.82	730.68	730.57	730.67	730.77	730.72	730.60	730.42	730.30	730.18
E. Bra. Pier #2	730.41	730.50	730.59	730.72	730.78	730.65	730.51	730.40	730.52	730.62	730.55	730.43	730.25	730.14	730.02
E. Link #2	730.17	730.26	730.34	730.45	730.51	730.38	730.25	730.12	730.24	730.34	730.27	730.15	729.99	729.87	729.76
E. Bra. Pier #3	729.97	*730.11	*730.19	*730.30	*730.35	*730.23	730.02	729.88	*730.06	*730.16	*730.09	*729.97	*729.81	*729.70	729.53
E. Reg. W. Abut.	729.74	*729.86	*729.93	*730.03	*730.09	*729.96	729.74	729.61	*729.78	*729.87	*729.80	*729.67	*729.51	*729.41	729.26



A & B DIMENSIONS

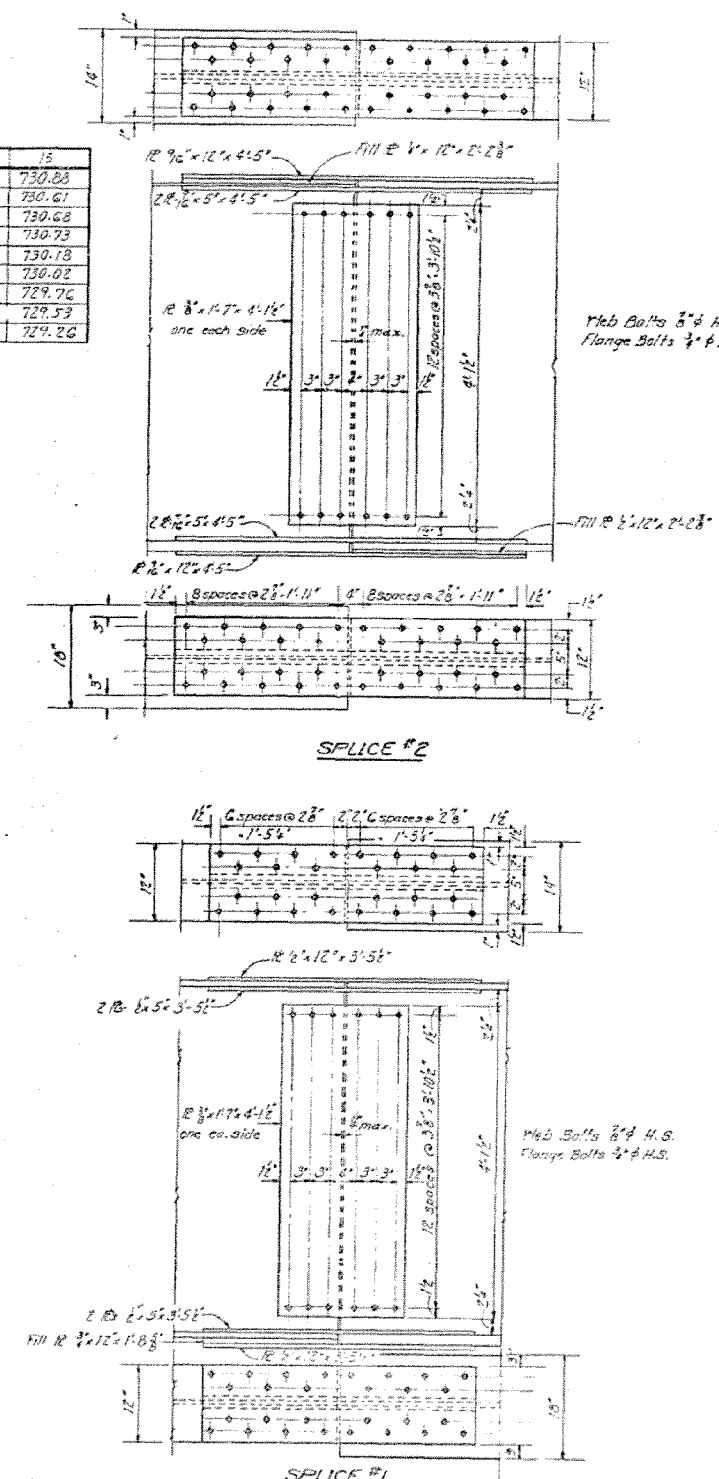
Beam	A	B
1	26'-4"	105'-6"
2	26'-3 1/2"	105'-3 1/2"
3 thru 13	26'-3 1/2"	105'-11"
14	26'-2 1/2"	104'-10 1/2"
15	26'-2"	104'-8 1/2"

INTERIOR GIRDER MOMENT TABLE						
	.4 Span 1	Pier 1	.5 Span 2	Pier 2	.5 Span 3	Pier 3
I <sub>s</sub> (in <sup>4</sup> )	6710	20045	31911	24711	6710	6710
I <sub>c</sub> (in <sup>4</sup> )			84,296			
S <sub>s</sub> (in <sup>3</sup> )	406	722	1493	882	406	406
S <sub>c</sub> (in <sup>3</sup> )			2017			
M (k-ft)	.891	.922	1.002	.947	.891	.891
M <sub>0</sub> (k)	198	313	1607	447	224	65
P <sub>0</sub> (ksi)	5.3	5.2	12.7	6.1	6.4	1.9
S <sub>0</sub> (k-ft)	.46	.46	.46	.46	.46	.46
M <sub>0</sub> (k)	92	162	732	201	81	94
M <sub>0</sub> (k)	292	482	1299	564	305	191
M <sub>0</sub> (k)	89	135	220	141	85	56
TOTAL (k)	477	779	2291	945	458	314
R <sub>0</sub> (ksi)	14.1	12.7	13.6	12.3	13.7	10.1
I <sub>0</sub> (ksi)	19.4	13.1	26.5	18.2	20.5	13.0
V <sub>0</sub> (k)			63.2			

INTERIOR GIRDER REACTION TABLE						
	E. Abut. #1	Pier 1	Pier 2	Pier 3	Link 2	W. Abut.
R <sub>0</sub> (k)	27.0	134.9	121.4	67.6	24.2	29.1
R <sub>0</sub> (k)	36.4	48.6	48.4	40.3	32.1	36.0
Imp. (k)	10.9	9.5	10.0	12.1	9.3	10.5
R <sub>0</sub> TOTAL (k)	74.3	193.0	199.8	120.0	65.6	75.6

I<sub>s</sub> and S<sub>s</sub> are the moment of inertia and section modulus of the steel section.  
I<sub>c</sub> and S<sub>c</sub> are the moment of inertia and section modulus of the composite section used in computing R<sub>0</sub>.  
V<sub>0</sub> is the maximum & impact shear force in span used to determine shear connector spacing.

DESIGNED	Suresh Desai	EXAMINED	DEC 18 2015
CHECKED	John A. Morris	PASSED	
DRAWN	S.A.	APPROVED	
CHECKED	Sam		



STRUCTURAL STEEL-DETAILS  
F.A.R.T. 412 SEC. 58-20HVB  
MACON COUNTY  
STA. 153+62.06