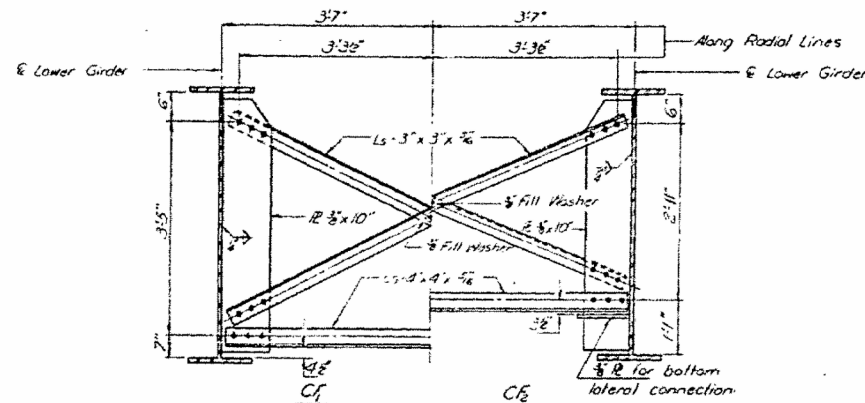
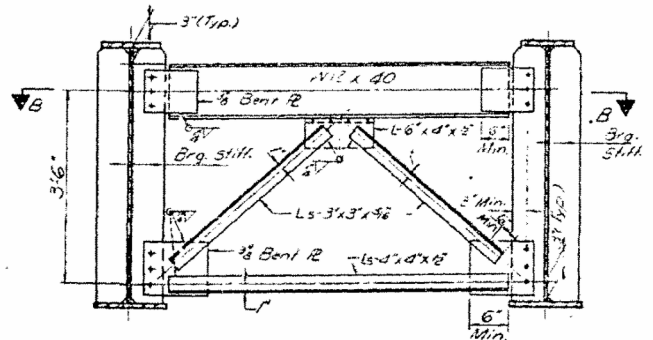


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

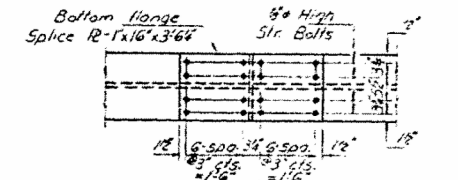
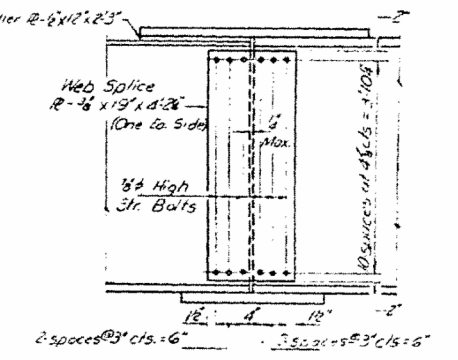
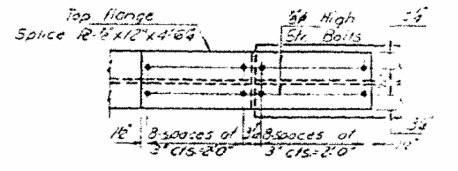
PROJECT NO.	58-66	SECTION	MACON	SHEET NO.	50 26	SHEET NO.	33 SHEETS
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CROSS FRAME
No. Required for C₁=122
No. Required for C₂=28



CROSS FRAME C₁, C₂, C₃, C₄ & C₅
No. Required for C₁, C₂, C₃, C₄, C₅=5ea.



FIELD SPLICE DETAIL

TABLE OF 'L' DIMENSIONS

	G-1	G-2	G-3	G-4	G-5	G-6	G-7	G-8	G-9	G-10	G-11	G-12
Radius	5633.66	5660.63	5668.00	5675.16	5682.32	5689.50	5696.66	5703.83	5711.00	5718.16	5725.33	5732.50
L ₁	149.64	149.52	149.5	149.48	149.33	149.33	149.33	149.33	149.33	149.33	149.33	149.33
L ₂	112.28	112.28	112.28	113.11	113.11	113.11	113.11	113.11	113.11	113.11	113.11	113.11
L ₃	21.11	21.11	21.11	21.11	21.11	21.11	21.11	21.11	21.11	21.11	21.11	21.11
L ₄	34.10	34.10	34.10	34.10	34.10	34.10	34.10	34.10	34.10	34.10	34.10	34.10
L ₅	37.65	37.65	37.65	37.65	37.65	37.65	37.65	37.65	37.65	37.65	37.65	37.65
L ₆	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9
L ₇	37.24	37.24	37.24	37.24	37.24	37.24	37.24	37.24	37.24	37.24	37.24	37.24
L ₈	34.4	34.4	34.4	34.4	34.4	34.4	34.4	34.4	34.4	34.4	34.4	34.4
L ₉	79.48	79.48	79.48	79.48	79.48	79.48	79.48	79.48	79.48	79.48	79.48	79.48
L ₁₀	381.34	381.34	381.34	381.34	381.34	381.34	381.34	381.34	381.34	381.34	381.34	381.34

TABLE OF DIMENSIONS 'A' THRU 'F'

	G-1	G-2	G-3	G-4	G-5	G-6	G-7	G-8	G-9	G-10	G-11	G-12
A	21.11	21.11	21.11	21.11	21.11	21.11	21.11	21.11	21.11	21.11	21.11	21.11
B	21.10	21.10	21.10	21.10	21.10	21.10	21.10	21.10	21.10	21.10	21.10	21.10
C	24.64	24.64	24.64	24.64	24.64	24.64	24.64	24.64	24.64	24.64	24.64	24.64
D	24.64	24.64	24.64	24.64	24.64	24.64	24.64	24.64	24.64	24.64	24.64	24.64
E	21.06	21.06	21.06	21.06	21.06	21.06	21.06	21.06	21.06	21.06	21.06	21.06
F	21.06	21.06	21.06	21.06	21.06	21.06	21.06	21.06	21.06	21.06	21.06	21.06

INTERIOR GIRDER MOMENT TABLE

	Span 1	Pier 1	Span 2	Pier 2	Span 3
I _s (in ⁴)	27820.4	18235.4	27820.4	18235.4	27820.4
I _c (in ⁴)	10222.1	10222.1	10222.1	10222.1	10222.1
S _x (in ³)	1204.5	2631.0	1204.5	2631.0	1204.5
S _c (in ³)	1668.6	1668.6	1668.6	1668.6	1668.6
I _{sp} (in ⁴)	73.82	208.61	73.82	208.61	73.82
I _{sp} (in ⁴)	7.4	8.5	6.9	8.2	6.9
S _{sp} (in ³)	0.44	0.44	0.44	0.44	0.44
M _{sp} (k)	403.4	782.2	451.5	782.2	379.9
M _{sp} (k)	932.1	1030	1034.2	1034.2	336.2
M _{imp} (k)	203.8	220.6	186.2	217.7	200.8
Total (k)	1591.3	2111.8	1671.9	2074.5	1536.9
S _{sp} (in ³)	11.4	8.6	12.0	9.3	11.1
S _{sp} (in ³)	8.3	17.1	13.3	18.7	18.0
I _{sp} (in ⁴)	3.3	6.3	5.3	6.3	3.2

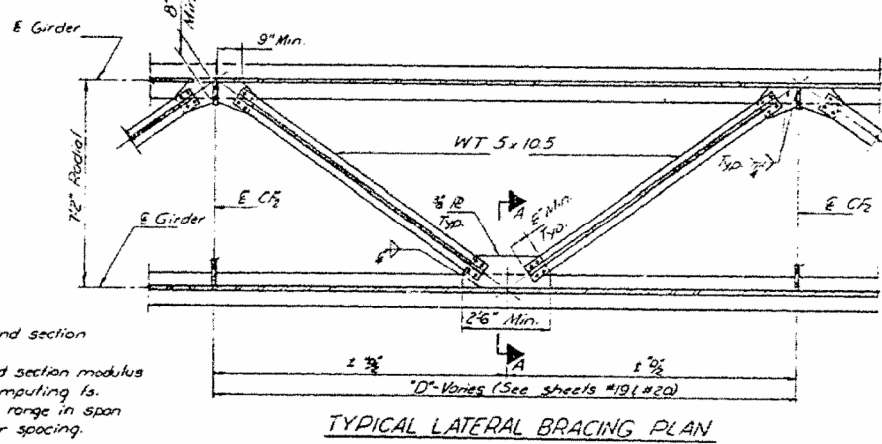
I_s and S_x are the moment of inertia and section modulus of the steel section.
I_c and S_c are the moment of inertia and section modulus of the composite section used in computing I_s.
VR is the maximum 4' impact shear range in span used to determine shear connector spacing.

TOP OF WEB ELEVATIONS - Before Any Deflection
(For Fabrication Only)

	G-1	G-2	G-3	G-4	G-5	G-6	G-7	G-8	G-9	G-10	G-11	G-12
E Brg. # Abut.	675.71	675.99	676.28	676.56	676.85	677.14	677.42	677.71	677.99	678.28	678.57	678.85
E Splice 1	675.39	675.87	676.16	676.44	676.73	677.02	677.31	677.60	677.89	678.18	678.47	678.76
E Pier 1	675.44	675.72	676.01	676.29	676.58	676.87	677.16	677.45	677.74	678.03	678.32	678.61
E Splice 2	675.43	675.73	676.02	676.30	676.59	676.88	677.17	677.46	677.75	678.04	678.33	678.62
E Splice 3	675.48	675.76	676.05	676.33	676.62	676.91	677.20	677.49	677.78	678.07	678.36	678.65
E Pier 2	675.09	675.37	675.66	675.94	676.23	676.52	676.81	677.10	677.39	677.68	677.97	678.26
E Splice 4	675.07	675.35	675.64	675.92	676.21	676.50	676.79	677.08	677.37	677.66	677.95	678.24
E Brg. # Abut.	674.83	675.11	675.40	675.68	675.97	676.26	676.55	676.84	677.13	677.42	677.71	678.00

INTERIOR GIRDER REACTION TABLE

	Abut. 1	Pier 1	Pier 2	Abut. 2
R ₁ (k)	512	213.4	210.3	53.4
R ₂ (k)	424	82.5	81.9	42.3
Imp. (k)	8.9	16.3	16.4	8.9
R _{total} (k)	108.5	32.4	308.6	106.6



TYPICAL LATERAL BRACING PLAN

DESIGNED: *St. L. & P.*
CHECKED: *R. D. Dady*
DRAWN: *R. Dady*
CHECKED: *S. L. S. L.*

EXAMINED: *Richard A. Gletzer*
PASSED: *Richard A. Gletzer*

FEB 21 10'

STRUCTURAL STEEL DETAILS
EAST AND WEST BOUND LANES
F.A.I. RT. 72 SEC. 58-66B
MACON COUNTY
STA. 721+1200