CONTRACT: 72D87
SHEET 12 OF 16

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

					SHEET NO. 7
0.0.1 A.1.190	249	Sangamon	22	10	15 SHEETS
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT			

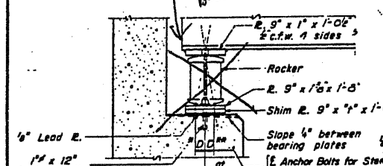
BEAM LENGTH
(Measured along ℄ Beam)

	North Bridge						South Bridge					
	Bm 1	Bm 2	Bm 3	Bm 4	Bm 5	Bm 6	Bm 1	Bm 2	Bm 3	Bm 4	Bm 5	Bm 6
Radius	3318.06	3322.65	3330.09	3337.51	3345.79	3350.19	3321.00	3324.60	3328.90	3333.21	3337.75	3340.15
A	32°-9⅝"	32°-9⅝"	32°-9⅝"	32°-9"	32°-9⅝"	32°-9⅝"	32°-9⅝"	32°-9"	32°-9⅝"	32°-9⅝"	32°-9⅝"	32°-9⅝"
B	14'-1⅛"	14'-1½"	14'-1⅛"	14'-1⅛"	14'-1⅛"	14'-1"	14'-0⅝"	14'-0⅝"	14'-0⅝"	14'-0"	13'-11⅝"	13'-11⅝"
C	60'-9⅝"	60'-9⅝"	60'-9⅝"	60'-9⅝"	60'-9⅝"	60'-9⅝"	60'-5"	60'-5⅛"	60'-5⅛"	60'-5⅛"	60'-5"	60'-5⅛"
D	13'-6⅛"	13'-6⅛"	13'-6⅛"	13'-6"	13'-6"	13'-5⅝"	13'-5"	13'-5⅛"	13'-5⅛"	13'-5⅛"	13'-5"	13'-5⅛"
E	30'-0⅝"	30'-0⅝"	30'-0⅝"	30'-0½"	29'-11⅝"	29'-11"	29'-7⅝"	29'-7⅝"	29'-7⅝"	29'-7⅝"	29'-6⅝"	29'-5⅞"
F	13'-8"	13'-7⅝"	13'-7⅝"	13'-7⅝"	13'-7⅝"	13'-7⅝"	13'-6⅛"	13'-6⅛"	13'-6⅛"	13'-6"	13'-5⅞"	13'-5⅞"
G	60'-6⅝"	60'-5⅞"	60'-7⅝"	60'-7⅝"	60'-5⅞"	60'-6⅛"	60'-3⅝"	60'-3⅝"	60'-3⅝"	60'-3"	60'-2⅝"	60'-2⅝"
Total	233'-7⅝"	233'-6⅛"	233'-6⅛"	233'-5⅝"	233'-3⅛"	233'-0"	231'-9⅝"	231'-7⅝"	231'-6⅛"	231'-5⅝"	231'-3⅝"	231'-1⅛"

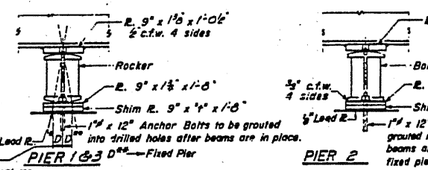
ELEVATION TOP OF BM
(For fabrication Only)

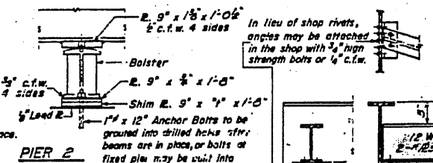
	North Bridge						South Bridge					
	Bm 1	Bm 2	Bm 3	Bm 4	Bm 5	Bm 6	Bm 1	Bm 2	Bm 3	Bm 4	Bm 5	Bm 6
℄ Brg. Rt. Abt.	G31.00	G32.15	G32.65	G32.73	G33.00	G33.19	G31.07	G31.90	G32.20	G32.39	G32.61	G32.95
℄ Brg. Pier 1	G31.96	G32.25	G32.55	G32.61	G33.06	G33.26	G31.81	G32.10	G32.40	G32.60	G32.95	G33.25
℄ Splice 1	G31.96	G32.25	G32.55	G32.63	G33.10	G33.30	G31.83	G32.16	G32.44	G32.76	G32.99	G33.27
℄ Brg. Pier 2	G32.01	G32.30	G32.60	G32.68	G33.15	G33.43	G31.95	G32.20	G32.54	G32.82	G33.05	G33.31
℄ Splice 2	G32.02	G32.31	G32.61	G32.69	G33.16	G33.44	G31.96	G32.27	G32.57	G32.85	G33.12	G33.40
℄ Brg. Pier 3	G31.94	G32.26	G32.56	G32.66	G33.13	G33.41	G32.01	G32.30	G32.60	G32.88	G33.15	G33.43
℄ Splice 3	G31.96	G32.27	G32.57	G32.65	G33.16	G33.40	G31.04	G32.31	G32.61	G32.89	G33.16	G33.40
℄ Brg. Rt. Abt.	G31.96	G32.27	G32.57	G32.65	G33.19	G33.40	G32.00	G32.35	G32.65	G32.93	G33.20	G33.45

replaced with elastomeric bearings 2009

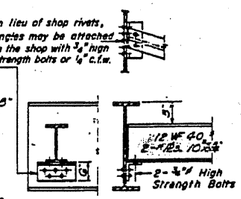


SECTION AT ABUTMENT

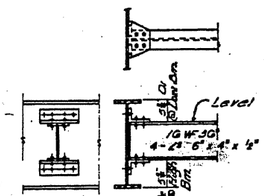




PIER 2



DIAPHRAGM D
20 Required
A bend plate to fit the Super Elevation.

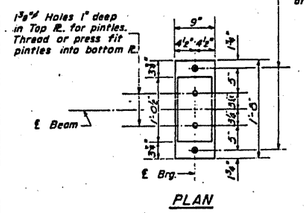


DIAPHRAGM D1 & D2
D1 = 100 Required
D2 = 30 Req'd.

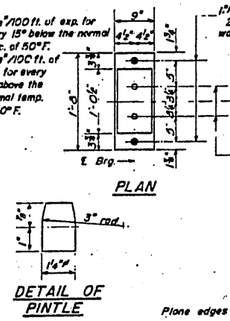
Table of Moments & Reactions for Interior Beams

	Moments				Reactions		
	Brg 1	Pier 1	Brg 2	Pier 2	Abut.	Pier 1	Pier 2
D.L.	1166.9ᵏ	3164.8ᵏ	1822ᵏ	3099ᵏ	42.7ᵏ	60.3ᵏ	53.3ᵏ
L.L.	310.7ᵏ	693.1ᵏ	342.9ᵏ	623.9ᵏ	9.3ᵏ	12.2ᵏ	12.0ᵏ
Impact	69.2ᵏ	176.4ᵏ	86.0ᵏ	156.4ᵏ	2.3ᵏ	3.0ᵏ	3.0ᵏ
Total	1546.8ᵏ	4034.3ᵏ	2251.1ᵏ	4079.4ᵏ	61.3ᵏ	75.3ᵏ	68.3ᵏ

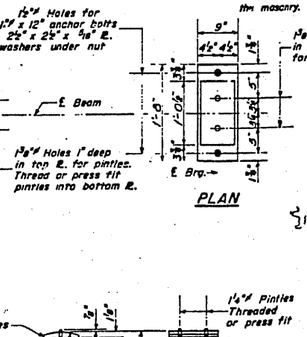
Value of Z"
2'-6" @ Bms. 3 & 5 only



PLAN

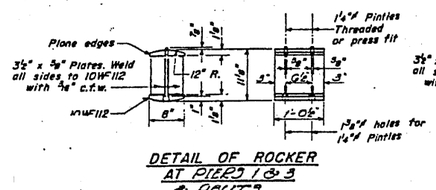


PLAN

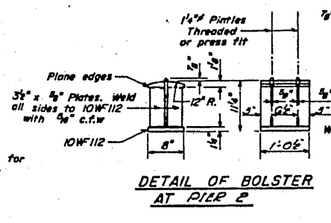


PLAN

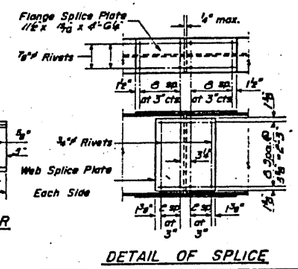
DETAIL OF PINTLE



DETAIL OF ROCKER AT PIERS 1 & 3 & ABUTS.



DETAIL OF BOLSTER AT PIER 2



DETAIL OF SPLICE

DESIGNED	W.J. Hennig	EXAMINED	Dec. 3 1964
CHECKED	Paul C. Wang	PASSED	
CHECKED	P.G. Bernett	APPROVED	
DRAWN	W.A. Sausaman Jr.		
CHECKED	Paul C. Wang		

I-2 7-2-62 Rev 11-9-62 Rev. 8-16-63 Rev. 12-10-63

NO. & SO. BRIDGES
STRUCTURAL STEEL DETAILS
F.A.P. 190 - SEC. 2-VB
SANGAMON COUNTY
STA. 606 + 88.24

FOR INFORMATION ONLY

EXISTING PLANS, SN 084-0074,0075
VARIOUS ROUTES
D6REHAB BDGE PAINTING 2011
MONT, SANG, SCHUY COUNTIES