



**Legend**  
T(i): Tie Girder Panel Point along  $\bar{C}$  Tie Girder  
TS(i):  $\bar{C}$  Tie Girder Splice along  $\bar{C}$  Tie Girder  
R(i): Hanger work point along  $\bar{C}$  Arch Rib  
RS(i):  $\bar{C}$  Arch Rib Splice along  $\bar{C}$  Arch Rib

Work Point	TIE GIRDER CAMBER											
	Steel Only		Slab Only		Barriers		Total Camber		Final Arch Coord. (1)		Cambered Arch Coord.	
	dX (ft)	dY (ft)	dX (ft)	dY (ft)	dX (ft)	dY (ft)	dX (ft)	dY (ft)	X (ft)	Y (ft)	X (ft)	Y (ft)
T0	0.039	0.000	0.041	0.000	0.004	0.000	0.084	0.000	0.000	0.000	0.084	0.000
TS1	0.039	0.017	0.040	0.018	0.004	0.002	0.082	0.037	15.000	0.000	15.082	0.037
T1	0.037	0.037	0.038	0.041	0.003	0.005	0.079	0.084	33.500	0.000	33.579	0.084
T2	0.035	0.067	0.036	0.080	0.003	0.011	0.074	0.158	67.167	0.000	67.240	0.158
TS2	0.033	0.078	0.034	0.094	0.003	0.013	0.071	0.185	84.000	0.000	84.071	0.185
T3	0.031	0.085	0.032	0.105	0.003	0.014	0.065	0.204	100.833	0.000	100.899	0.204
T4	0.026	0.093	0.027	0.116	0.002	0.016	0.055	0.225	134.500	0.000	134.555	0.225
TS3	0.024	0.094	0.024	0.117	0.002	0.016	0.051	0.228	151.333	0.000	151.384	0.228
T5	0.022	0.095	0.022	0.117	0.002	0.016	0.046	0.228	168.167	0.000	168.213	0.228
T6	0.018	0.095	0.018	0.119	0.002	0.016	0.038	0.230	201.833	0.000	201.871	0.230
TS4	0.015	0.094	0.016	0.118	0.001	0.016	0.033	0.229	218.667	0.000	218.700	0.229
T7	0.013	0.093	0.014	0.116	0.001	0.016	0.028	0.225	235.500	0.000	235.528	0.225
T8	0.008	0.086	0.009	0.108	0.001	0.014	0.018	0.208	269.167	0.000	269.185	0.208
TS5	0.006	0.079	0.006	0.097	0.001	0.013	0.013	0.189	286.000	0.000	286.013	0.189
T9	0.005	0.068	0.005	0.082	0.000	0.011	0.010	0.162	302.833	0.000	302.843	0.162
T10	0.002	0.038	0.002	0.045	0.000	0.006	0.004	0.088	336.500	0.000	336.504	0.088
TS6	0.001	0.017	0.001	0.019	0.000	0.002	0.001	0.039	355.000	0.000	355.001	0.039
T11	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	370.000	0.000	370.000	0.000

Work Point	ARCH RIB CAMBER											
	Steel Only		Slab Only		Barriers		Total Camber		Final Arch Coord. (1)		Cambered Arch Coord.	
	dX (ft)	dY (ft)	dX (ft)	dY (ft)	dX (ft)	dY (ft)	dX (ft)	dY (ft)	X (ft)	Y (ft)	X (ft)	Y (ft)
T0	0.039	0.000	0.040	0.000	0.004	0.000	0.084	0.000	0.000	0.000	0.084	0.000
RS1	0.028	0.016	0.029	0.017	0.002	0.002	0.060	0.035	14.726	11.427	14.786	11.462
R1	0.023	0.025	0.024	0.026	0.002	0.003	0.049	0.054	23.602	17.856	23.651	17.911
RS2	0.017	0.038	0.017	0.040	0.001	0.005	0.035	0.083	38.588	27.931	38.623	28.014
R2	0.014	0.045	0.014	0.048	0.000	0.006	0.028	0.099	48.342	33.961	48.370	34.061
R3	0.011	0.059	0.010	0.063	0.000	0.008	0.021	0.130	74.248	47.960	74.270	48.090
RS3	0.011	0.062	0.010	0.067	0.000	0.009	0.021	0.137	83.955	52.450	83.976	52.588
R4	0.012	0.066	0.011	0.071	0.000	0.009	0.022	0.147	99.816	58.902	99.839	59.048
R5	0.012	0.066	0.011	0.072	0.000	0.009	0.023	0.147	101.505	59.524	101.528	59.671
RS4	0.013	0.070	0.013	0.074	0.001	0.009	0.026	0.153	120.011	65.525	120.037	65.679
R6	0.014	0.072	0.014	0.075	0.001	0.010	0.028	0.157	130.348	68.227	130.376	68.384
R7	0.015	0.073	0.015	0.076	0.001	0.010	0.031	0.159	139.794	70.287	139.824	70.446
R8	0.017	0.074	0.018	0.077	0.001	0.010	0.036	0.161	161.091	73.501	161.127	73.663
RS5	0.018	0.075	0.018	0.077	0.001	0.010	0.038	0.162	167.771	74.102	167.809	74.264
R9	0.019	0.075	0.020	0.078	0.002	0.010	0.040	0.163	175.833	74.566	175.873	74.729
R10	0.021	0.075	0.022	0.078	0.002	0.010	0.045	0.163	194.167	74.566	194.212	74.729
RS6	0.022	0.075	0.023	0.078	0.002	0.010	0.047	0.162	202.229	74.102	202.276	74.264
R11	0.023	0.074	0.024	0.077	0.002	0.010	0.049	0.162	208.909	73.501	208.958	73.663
R12	0.025	0.073	0.027	0.077	0.003	0.010	0.054	0.160	230.206	70.287	230.260	70.447
R13	0.026	0.072	0.028	0.076	0.003	0.010	0.057	0.158	239.652	68.227	239.708	68.385
RS7	0.027	0.070	0.029	0.075	0.003	0.010	0.059	0.155	249.989	65.525	250.048	65.680
R14	0.028	0.067	0.031	0.073	0.003	0.009	0.062	0.149	268.495	59.524	268.557	59.673
R15	0.028	0.066	0.031	0.073	0.003	0.009	0.063	0.148	270.184	58.902	270.246	59.050
RS8	0.029	0.062	0.032	0.068	0.004	0.009	0.064	0.139	286.045	52.450	286.109	52.590
R16	0.029	0.060	0.032	0.065	0.004	0.008	0.064	0.133	295.752	47.960	295.816	48.093
R17	0.026	0.046	0.028	0.050	0.003	0.006	0.058	0.103	321.658	33.961	321.716	34.064
RS9	0.023	0.039	0.025	0.042	0.003	0.005	0.051	0.086	331.412	27.931	331.463	28.018
R18	0.017	0.026	0.018	0.028	0.002	0.003	0.037	0.057	346.398	17.856	346.435	17.914
RS10	0.011	0.017	0.013	0.018	0.001	0.002	0.026	0.038	355.274	11.427	355.299	11.464
T11	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	370.000	0.000	370.000	0.000

(1) Final Arch Coordinates are based on a local axis from the centerline of the Tie Girder at Pier 1 to centerline of the Tie Girder at Pier 2.  
Positive dY camber values denote upward camber  
Negative dX camber values denote shortening of member

**Notes:**  
"Steel Only" camber represents the amount of deflection due to all structural steel. Erection deflections are not included.  
"Slab Only" camber represents the amount of deflection due to the 8" deck slab.  
"Barriers" camber represent the amount of deflection due to barriers, railings, utilities and other items added after deck has cured.  
Camber Tables are based on total dead loads and are not adjusted for erection sequence or erection deflections.  
The Contractor shall fabricate Tie Girders such that under total dead load, the top of the Tie Girder is parallel with the profile gradeline.  
The Contractor shall fabricate the Arch Rib such that under total dead load the Arch Rib follows the rib geometry shown on sheet 26 of 79.  
The Contractor shall verify the deflections, camber, and laydown dimensions shown in the Plans.

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**HNTB**

DESIGNED - PA, JDJ, BPD, CJW	REVISED -
DRAWN - GLD	REVISED -
CHECKED - RJK	REVISED -
DATE - 02/04/2011	REVISED -

**CITY OF ROCKFORD  
MORGAN STREET BRIDGE**

**TIED ARCH CAMBER  
STRUCTURE NO. 101-6108**

SCALE: SHEET NO. 29 OF 79 SHEETS STA. 47+00.74 TO STA. 52+63.50

F.A.I.L. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5077	99-00493-00-BR	WINNEBAGO	253	155
CONTRACT NO. 85529			FED. ROAD DIST. NO. 2 [ILLINOIS] FED. AID PROJECT BRN-509965	