

DEAD LOAD DEFLECTION TABLE FOR GIRDERS

SPAN "Q" - GIRDER 1																					
TWENTIETH POINTS	0	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	1
DEFLECTION DUE TO WEIGHT OF GIRDER	0.000	0.006	0.010	0.015	0.019	0.022	0.025	0.026	0.027	0.027	0.026	0.024	0.021	0.018	0.015	0.011	0.008	0.004	0.002	0.001	0.000
DEFLECTION DUE TO WEIGHT OF SLAB *	0.000	0.022	0.041	0.059	0.075	0.088	0.097	0.103	0.106	0.105	0.100	0.093	0.082	0.070	0.056	0.042	0.029	0.017	0.008	0.003	0.000
DEFLECTION DUE TO WEIGHT OF BARRIER RAIL	0.000	0.002	0.004	0.005	0.007	0.008	0.009	0.010	0.010	0.010	0.010	0.009	0.008	0.007	0.006	0.004	0.003	0.002	0.001	0.000	0.000
TOTAL DEAD LOAD DEFLECTION	0.000	0.030	0.055	0.079	0.101	0.118	0.131	0.139	0.143	0.142	0.136	0.126	0.111	0.095	0.077	0.057	0.040	0.023	0.011	0.004	0.000
VERTICAL CURVE ORDINATE	0.000	0.013	0.018	0.017	0.016	0.015	0.014	0.013	0.012	0.011	0.010	0.009	0.008	0.007	0.006	0.005	0.004	0.003	0.002	0.001	0.000
SUPERELEVATION ORDINATE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CAMBER DUE TO DISSIPATION RESULTING FROM HEAT CURVING **	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REQUIRED CAMBER	0	1/2	7/8	1 1/8	1 3/8	1 5/8	1 3/4	1 5/16	1 7/8	1 5/16	1 3/4	1 5/8	1 1/16	1 1/4	1	3/4	1/2	5/16	1/8	1/16	0

SPAN "Q" - GIRDER 2																					
TWENTIETH POINTS	0	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	1
DEFLECTION DUE TO WEIGHT OF GIRDER	0.000	0.006	0.011	0.016	0.021	0.024	0.027	0.028	0.029	0.029	0.028	0.026	0.023	0.019	0.016	0.012	0.008	0.005	0.002	0.001	0.000
DEFLECTION DUE TO WEIGHT OF SLAB *	0.000	0.024	0.046	0.066	0.084	0.099	0.109	0.116	0.119	0.117	0.113	0.104	0.092	0.079	0.063	0.048	0.033	0.019	0.010	0.003	0.000
DEFLECTION DUE TO WEIGHT OF BARRIER RAIL	0.000	0.002	0.004	0.006	0.007	0.009	0.010	0.010	0.011	0.011	0.010	0.009	0.009	0.007	0.006	0.005	0.003	0.002	0.001	0.000	0.000
TOTAL DEAD LOAD DEFLECTION	0.000	0.032	0.061	0.088	0.112	0.132	0.146	0.154	0.159	0.157	0.151	0.139	0.124	0.105	0.085	0.065	0.044	0.026	0.013	0.004	0.000
VERTICAL CURVE ORDINATE	0.000	0.013	0.018	0.017	0.016	0.015	0.014	0.013	0.012	0.011	0.010	0.009	0.008	0.007	0.006	0.005	0.004	0.003	0.002	0.001	0.000
SUPERELEVATION ORDINATE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CAMBER DUE TO DISSIPATION RESULTING FROM HEAT CURVING **	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REQUIRED CAMBER	0	9/16	1 5/16	1 1/4	1 1/16	1 3/4	1 5/16	2	2 1/16	2	1 5/16	1 3/4	1 1/16	1 3/8	1 1/16	1 3/16	9/16	3/8	3/16	1/16	0

SPAN "Q" - GIRDER 3																					
TWENTIETH POINTS	0	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	1
DEFLECTION DUE TO WEIGHT OF GIRDER	0.000	0.006	0.012	0.017	0.022	0.026	0.028	0.030	0.031	0.031	0.029	0.027	0.024	0.021	0.017	0.013	0.009	0.005	0.003	0.001	0.000
DEFLECTION DUE TO WEIGHT OF SLAB *	0.000	0.026	0.050	0.071	0.091	0.106	0.117	0.124	0.127	0.126	0.121	0.112	0.099	0.085	0.068	0.051	0.036	0.021	0.011	0.004	0.000
DEFLECTION DUE TO WEIGHT OF BARRIER RAIL	0.000	0.002	0.004	0.006	0.008	0.009	0.010	0.011	0.011	0.011	0.011	0.010	0.009	0.008	0.006	0.005	0.003	0.002	0.001	0.000	0.000
TOTAL DEAD LOAD DEFLECTION	0.000	0.034	0.066	0.094	0.121	0.141	0.155	0.165	0.169	0.168	0.161	0.149	0.132	0.114	0.091	0.069	0.048	0.028	0.015	0.005	0.000
VERTICAL CURVE ORDINATE	0.000	0.013	0.018	0.017	0.016	0.015	0.014	0.013	0.012	0.011	0.010	0.009	0.008	0.007	0.006	0.005	0.004	0.003	0.002	0.001	0.000
SUPERELEVATION ORDINATE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CAMBER DUE TO DISSIPATION RESULTING FROM HEAT CURVING **	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REQUIRED CAMBER	0	9/16	1	1 1/16	1 1/8	1 1/8	2	2 1/8	2 3/16	2 1/8	2 1/16	1 7/8	1 11/16	1 1/16	1 3/16	7/8	5/8	3/8	3/16	1/16	0

SPAN "Q" - GIRDER 4																					
TWENTIETH POINTS	0	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	1
DEFLECTION DUE TO WEIGHT OF GIRDER	0.000	0.007	0.013	0.018	0.023	0.027	0.030	0.032	0.033	0.032	0.031	0.029	0.026	0.022	0.018	0.013	0.009	0.005	0.003	0.001	0.000
DEFLECTION DUE TO WEIGHT OF SLAB *	0.000	0.027	0.052	0.075	0.095	0.111	0.123	0.130	0.133	0.132	0.127	0.117	0.104	0.089	0.071	0.054	0.037	0.022	0.011	0.004	0.000
DEFLECTION DUE TO WEIGHT OF BARRIER RAIL	0.000	0.002	0.005	0.007	0.008	0.010	0.011	0.012	0.012	0.012	0.011	0.011	0.010	0.008	0.007	0.005	0.003	0.002	0.001	0.000	0.000
TOTAL DEAD LOAD DEFLECTION	0.000	0.036	0.070	0.100	0.126	0.148	0.164	0.174	0.178	0.176	0.169	0.157	0.140	0.119	0.096	0.072	0.049	0.029	0.015	0.005	0.000
VERTICAL CURVE ORDINATE	0.000	0.013	0.018	0.017	0.016	0.015	0.014	0.013	0.012	0.011	0.010	0.009	0.008	0.007	0.006	0.005	0.004	0.003	0.002	0.001	0.000
SUPERELEVATION ORDINATE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CAMBER DUE TO DISSIPATION RESULTING FROM HEAT CURVING **	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REQUIRED CAMBER	0	9/16	1 1/16	1 3/8	1 11/16	1 5/16	2 1/8	2 1/4	2 1/4	2 1/4	2 1/8	2	1 3/4	1 1/2	1 1/4	1 5/16	5/8	3/8	3/16	1/16	0

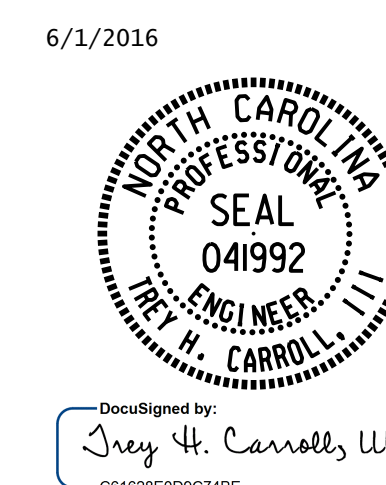
SPAN "Q" - GIRDER 5																					
TWENTIETH POINTS	0	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	1
DEFLECTION DUE TO WEIGHT OF GIRDER	0.000	0.007	0.014	0.020	0.025	0.029	0.032	0.034	0.035	0.035	0.033	0.031	0.027	0.023	0.019	0.014	0.010	0.006	0.003	0.001	0.000
DEFLECTION DUE TO WEIGHT OF SLAB *	0.000	0.028	0.054	0.077	0.098	0.115	0.127	0.135	0.138	0.137	0.131	0.120	0.107	0.091	0.073	0.055	0.038	0.022	0.011	0.004	0.000
DEFLECTION DUE TO WEIGHT OF BARRIER RAIL	0.000	0.003	0.005	0.007	0.009	0.011	0.012	0.013	0.013	0.013	0.012	0.011	0.010	0.009	0.007	0.005	0.004	0.002	0.001	0.000	0.000
TOTAL DEAD LOAD DEFLECTION	0.000	0.038	0.073	0.104	0.132	0.155	0.171	0.182	0.186	0.185	0.176	0.162	0.144	0.123	0.099	0.074	0.052	0.030	0.015	0.005	0.000
VERTICAL CURVE ORDINATE	0.000	0.013	0.018	0.017	0.016	0.015	0.014	0.013	0.012	0.011	0.010	0.009	0.008	0.007	0.006	0.005	0.004	0.003	0.002	0.001	0.000
SUPERELEVATION ORDINATE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CAMBER DUE TO DISSIPATION RESULTING FROM HEAT CURVING **	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REQUIRED CAMBER	0	5/8	1 1/16	1 1/16	1 3/4	2 1/16	2 1/4	2 5/16	2 3/8	2 3/8	2 1/4	2 1/16	1 13/16	1 1/16	1 1/4	1 5/16	1 1/16	3/8	3/16	1/16	0

NOTES:

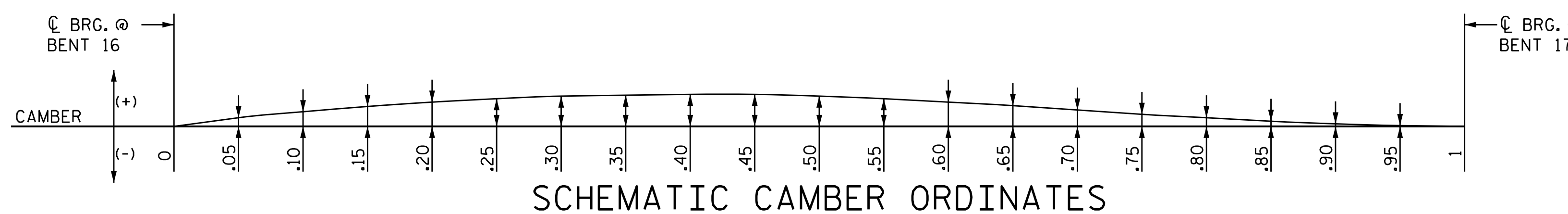
- SLOPE FOR ZERO CAMBER BASE LINE VARIES.
- TWENTIETH POINTS SHOWN ARE MEASURED ALONG C GIRDER FOR EACH GIRDER.
- DOWNWARD DEFLECTIONS ARE SHOWN AS POSITIVE.
- VERTICAL CURVE AND SUPERELEVATION ORDINATES THAT INCREASE CAMBER ARE SHOWN AS POSITIVE.

- ALL VALUES ARE SHOWN IN FEET ( DECIMAL FORM ), EXCEPT " FINAL CAMBER ", WHICH IS GIVEN IN INCHES ( FRACTION FORM ).
- \* INCLUDES SLAB, BUILDUPS & STAY-IN-PLACE FORMS.
- \*\* HEAT CURVING METHOD IS ALLOWED. CAMBER DISSIPATION RESULTING FROM HEAT CURVING IS ZERO FOR ALL GIRDERS.

PROJECT NO. B-4929  
PENDER COUNTY  
 STATION: 38+13.81 -L2-  
 SHEET 4 OF 9 STEEL ALTERNATE



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
 SUPERSTRUCTURE  
 DEAD LOAD DEFLECTIONS  
 SPAN "Q"



DRAWN BY : K. WHITE DATE : FEB 2016  
 CHECKED BY : T. H. CARROLL DATE : FEB 2016  
 DESIGN ENGINEER OF RECORD : T. H. CARROLL DATE : MAY 2016

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-247
2			4			TOTAL SHEETS 278