

2/10/2017 9:09:03 AM G:\Projects\2014\U-3109A\Structures\Site 1-Bridge 434 (NBL)\Drawings\Final\401\_U3109A\_SMU\_DL.dgn

DEAD LOAD DEFLECTION TABLE FOR GIRDERS																						
SPAN A																						
GIRDER 5																						
TWENTIETH POINTS	0	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	1.0	
DEFLECTION DUE TO WEIGHT OF GIRDER	↓	0	.007	.014	.020	.025	.029	.033	.034	.035	.034	.033	.030	.026	.022	.018	.013	.009	.005	.003	.001	0
* DEFLECTION DUE TO WEIGHT OF SLAB	↓	0	.019	.037	.054	.068	.079	.088	.093	.094	.093	.088	.080	.070	.059	.047	.035	.024	.014	.007	.002	0
DEFLECTION DUE TO WEIGHT OF RAIL & SIDEWALK	↓	0	.006	.012	.017	.022	.025	.028	.030	.030	.030	.029	.026	.023	.020	.016	.012	.008	.005	.002	.001	0
TOTAL DEAD LOAD DEFLECTION	↓	0	.032	.063	.091	.115	.133	.149	.157	.159	.157	.150	.136	.119	.101	.081	.060	.041	.024	.012	.004	0
VERTICAL CURVE ORDINATE	↑	0	.014	.027	.038	.048	.056	.062	.068	.071	.074	.074	.071	.068	.062	.056	.048	.038	.027	.014	0	
REQUIRED CAMBER	↑	0	3/16"	1/16"	1 3/16"	1 5/16"	2 1/4"	2 3/16"	2 1/16"	2 3/4"	2 3/4"	2 1/16"	2 1/2"	2 1/4"	2"	1 1/16"	1 3/8"	1 1/16"	3/4"	7/16"	3/16"	0
SPAN A																						
GIRDER 6																						
TWENTIETH POINTS	0	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	1.0	
DEFLECTION DUE TO WEIGHT OF GIRDER	↓	0	.007	.014	.020	.025	.029	.033	.034	.035	.034	.033	.030	.026	.022	.018	.013	.009	.005	.003	.001	0
* DEFLECTION DUE TO WEIGHT OF SLAB	↓	0	.019	.037	.054	.068	.080	.088	.093	.094	.093	.088	.080	.070	.059	.047	.035	.024	.014	.007	.002	0
DEFLECTION DUE TO WEIGHT OF RAIL & SIDEWALK	↓	0	.007	.014	.021	.026	.031	.034	.036	.037	.036	.035	.032	.028	.024	.019	.014	.010	.006	.003	.001	0
TOTAL DEAD LOAD DEFLECTION	↓	0	.033	.065	.095	.119	.140	.155	.163	.166	.163	.156	.142	.124	.105	.084	.062	.043	.025	.013	.004	0
VERTICAL CURVE ORDINATE	↑	0	.014	.027	.038	.048	.056	.062	.068	.071	.074	.074	.071	.068	.062	.056	.048	.038	.027	.014	0	
REQUIRED CAMBER	↑	0	3/16"	1/8"	1 5/8"	2"	2 3/8"	2 5/8"	2 3/4"	2 7/8"	2 7/8"	2 3/4"	2 3/16"	2 5/16"	2 1/16"	1 3/4"	1 7/16"	1 1/16"	3/4"	1/2"	3/16"	0
SPAN A																						
GIRDER 7																						
TWENTIETH POINTS	0	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	1.0	
DEFLECTION DUE TO WEIGHT OF GIRDER	↓	0	.007	.014	.020	.025	.029	.033	.034	.035	.034	.033	.030	.026	.022	.018	.013	.009	.005	.003	.001	0
* DEFLECTION DUE TO WEIGHT OF SLAB	↓	0	.019	.037	.054	.068	.080	.088	.093	.095	.093	.088	.080	.070	.059	.047	.035	.024	.014	.007	.002	0
DEFLECTION DUE TO WEIGHT OF RAIL & SIDEWALK	↓	0	.009	.018	.025	.032	.038	.042	.044	.045	.045	.043	.039	.035	.029	.024	.018	.012	.007	.004	.001	0
TOTAL DEAD LOAD DEFLECTION	↓	0	.035	.069	.099	.125	.147	.163	.171	.175	.172	.164	.149	.131	.110	.089	.066	.045	.026	.014	.004	0
VERTICAL CURVE ORDINATE	↑	0	.014	.027	.038	.048	.056	.062	.068	.071	.074	.074	.071	.068	.062	.056	.048	.038	.027	.014	0	
REQUIRED CAMBER	↑	0	3/16"	1/8"	1 5/8"	2 1/16"	2 7/16"	2 1/16"	2 7/8"	2 15/16"	2 15/16"	2 7/8"	2 1/16"	2 7/16"	2 1/8"	1 13/16"	1 7/16"	1 1/8"	3/4"	1/2"	3/16"	0

\* INCLUDES SLAB, BUILDUPS AND STAY-IN-PLACE FORMS  
ALL VALUES ARE SHOWN IN FEET (DECIMAL FORM), EXCEPT "REQUIRED CAMBER", WHICH IS GIVEN IN INCHES (FRACTION FORM).

PROJECT NO. U-3109A  
ALAMANCE COUNTY  
STATION: 26+54.73 -NBL-

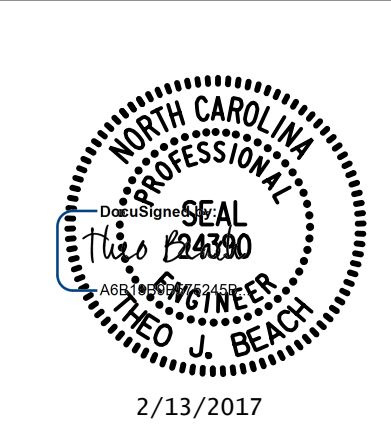
SHEET 2 OF 4

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUPERSTRUCTURE

DEAD LOAD DEFLECTION  
AND GIRDER CAMBER

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S01-18
1			3			TOTAL SHEETS
2			4			S01-49

PLANS PREPARED BY:  
**SE & A**  
SIMPSON ENGINEERS & ASSOCIATES  
5640 Dillard Drive  
Suite 200  
Cary, NC 27518  
(919) 852-0468  
(919) 852-0598 (Fax)  
www.simpsonengr.com  
LICENSURE NO. C-2521



DRAWN BY: S. D. COOPER DATE: 5-15  
CHECKED BY: B.S. COX DATE: 5-15  
DESIGN ENGINEER OF RECORD: T.J. BEACH DATE: 5-15