

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 B																					
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	.001	.003	.006	.010	.015	.019	.024	.028	.032	.035	.037	.037	.035	.031	.027	.021	.015	.008	0
* DEFLECTION DUE TO WEIGHT OF SLAB	↓	0	.002	.008	.017	.028	.039	.052	.065	.077	.087	.095	.100	.101	.099	.094	.085	.073	.057	.040	.020
DEFLECTION DUE TO WEIGHT OF RAIL & SIDEWALK	↓	0	.001	.003	.006	.009	.013	.017	.022	.025	.028	.031	.032	.032	.030	.027	.023	.018	.013	.006	0
TOTAL DEAD LOAD DEFLECTION	↓	0	.004	.014	.029	.047	.067	.088	.111	.130	.147	.161	.169	.170	.168	.159	.143	.123	.096	.068	.034
VERTICAL CURVE ORDINATE	↑	0	.014	.027	.039	.048	.057	.064	.069	.073	.075	.076	.075	.073	.069	.064	.057	.048	.039	.027	.014
REQUIRED CAMBER	↑	0	3/16"	1/2"	13/16"	1 1/8"	1 1/2"	1 13/16"	2 3/16"	2 7/16"	2 11/16"	2 7/8"	2 15/16"	2 15/16"	2 7/8"	2 11/16"	2 3/8"	2 1/16"	1 5/8"	1 1/8"	9/16"
SPAN B																					
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	.001	.003	.006	.010	.015	.019	.024	.028	.032	.035	.037	.037	.035	.031	.027	.021	.015	.008	0
* DEFLECTION DUE TO WEIGHT OF SLAB	↓	0	.002	.008	.017	.028	.039	.052	.065	.077	.087	.095	.100	.101	.099	.094	.085	.073	.057	.040	.021
DEFLECTION DUE TO WEIGHT OF RAIL & SIDEWALK	↓	0	.001	.004	.007	.011	.016	.021	.026	.031	.034	.037	.039	.039	.038	.036	.033	.028	.022	.015	.008
TOTAL DEAD LOAD DEFLECTION	↓	0	.004	.015	.030	.049	.070	.092	.115	.136	.153	.167	.176	.177	.174	.165	.149	.128	.100	.070	.037
VERTICAL CURVE ORDINATE	↑	0	.014	.027	.039	.048	.057	.064	.069	.073	.075	.076	.075	.073	.069	.064	.057	.048	.039	.027	.014
REQUIRED CAMBER	↑	0	3/16"	1/2"	13/16"	1 3/16"	1 1/2"	1 7/8"	2 3/16"	2 1/2"	2 3/4"	2 15/16"	3"	3"	2 15/16"	2 3/4"	2 1/2"	2 1/8"	1 11/16"	1 3/16"	5/8"
SPAN B																					
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	.001	.003	.006	.010	.015	.019	.024	.028	.032	.035	.037	.037	.035	.031	.027	.021	.015	.008	0
* DEFLECTION DUE TO WEIGHT OF SLAB	↓	0	.002	.008	.017	.028	.040	.052	.065	.077	.087	.095	.100	.101	.100	.094	.085	.073	.057	.040	.021
DEFLECTION DUE TO WEIGHT OF RAIL & SIDEWALK	↓	0	.001	.004	.009	.014	.020	.026	.032	.038	.042	.046	.048	.048	.047	.044	.040	.034	.027	.019	.010
TOTAL DEAD LOAD DEFLECTION	↓	0	.004	.015	.032	.052	.075	.097	.121	.143	.161	.176	.185	.186	.184	.173	.156	.134	.105	.074	.039
VERTICAL CURVE ORDINATE	↑	0	.014	.027	.039	.048	.057	.064	.069	.073	.075	.076	.075	.073	.069	.064	.057	.048	.039	.027	.014
REQUIRED CAMBER	↑	0	3/16"	1/2"	7/8"	1 3/16"	1 9/16"	1 15/16"	2 1/4"	2 9/16"	2 13/16"	3"	3 1/8"	3 1/8"	3 1/16"	2 7/8"	2 9/16"	2 3/16"	1 3/4"	1 3/16"	5/8"

* 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-

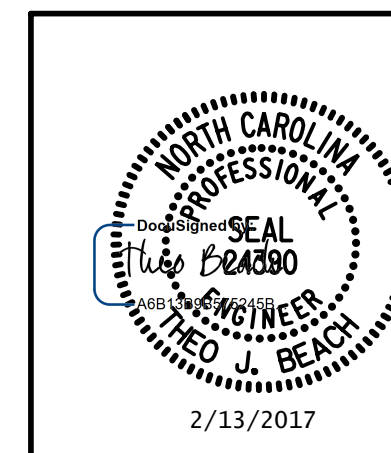
SHEET 4 OF 4

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUPERSTRUCTURE

DEAD LOAD DEFLECTION
AND GIRDER CAMBER

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

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S01-20
1			3			TOTAL SHEETS
2			4			S01-49