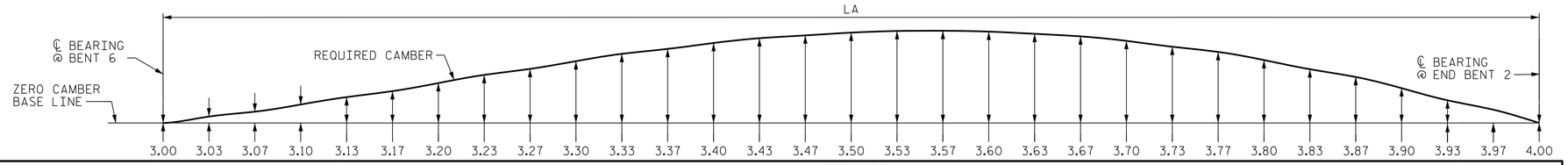
DocuSign Envelope ID: 98D8AB02-E34D-44CF-926D-115192AC4DB3



NOTES

SLOPE FOR THE ZERO CAMBER BASE LINE VARIES.

VALUES GIVEN ARE AT THIRTIETH POINTS BETWEEN CENTERLINE OF BEARINGS.

DEFLECTIONS AND ORDINATES ARE IN FEET (DECIMAL FORM).

REQUIRED CAMBER VALUES ARE IN INCHES (FRACTION FORM).

DOWNWARD DEFLECTION IS INDICATED WITH A "-" SIGN.

GIRDER	LA
1	182.515′
2	183.962′
3	185.408′
4	186.854′

SPAN "G"

GIRDER 1

30TH POINTS	3.00	3.03	3.07	3.10	3.13	3.17	3.20	3.23	3.27	3.30	3.33	3.37	3.40	3.43	3.47	3.50	3.53	3.57	3.60	3.63	3.67	3.70	3.73	3.77	3.80	3.83	3.87	3.90	3.93	3.97	4.00
DEFLECTION DUE TO WEIGHT OF GIRDER	0.000	-0.006	-0.013	-0.021	-0.030	-0.040	-0.051	-0.063	-0.074	-0.085	-0.096	-0.106	-0.115	-0.122	-0.128	-0.133	-0.135	-0.136	-0.136	-0.133	-0.129	-0.123	-0.115	-0.105	-0.094	-0.081	-0.067	-0.051	-0.035	-0.018	0.000
DEFLECTION DUE TO WEIGHT OF SLAB ✱	0.000	-0.012	-0.028	-0.049	-0.074	-0.103	-0.135	-0.169	-0.204	-0.240	-0.274	-0.306	-0.336	-0.361	-0.381	-0.397	-0.408	-0.413	-0.412	-0.406	-0.394	-0.376	-0.353	-0.324	-0.290	-0.251	-0.208	-0.160	-0.109	-0.055	0.000
DEFLECTION DUE TO WT. OF BARRIER RAIL	0.000	-0.002	-0.003	-0.006	-0.009	-0.012	-0.015	-0.019	-0.022	-0.026	-0.029	-0.032	-0.035	-0.037	-0.039	-0.041	-0.041	-0.042	-0.042	-0.041	-0.040	-0.038	-0.036	-0.033	-0.030	-0.026	-0.021	-0.017	-0.011	-0.006	0.000
TOTAL DEAD LOAD DEFLECTION	0.000	-0.019	-0.044	-0.076	-0.112	-0.155	-0.201	-0.250	-0.301	-0.351	-0.399	-0.445	-0.485	-0.520	-0.549	-0.570	-0.585	-0.591	-0.590	-0.580	-0.562	-0.537	-0.503	-0.462	-0.414	-0.358	-0.296	-0.228	-0.155	-0.079	0.000
VERTICAL CURVE ORDINATE	0.000	0.035	0.067	0.097	0.124	0.149	0.172	0.192	0.210	0.226	0.239	0.249	0.258	0.264	0.267	0.268	0.267	0.264	0.258	0.249	0.239	0.226	0.210	0.192	0.172	0.149	0.124	0.097	0.067	0.035	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	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	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 5/16″	2 1/16″	2 13/16″	3 5/8″	4 1/2″	5 5/16″	6 1/8″	6 15/16″	7 5/8″	8 5/16″	8 15/16″	9 3/8″	9 13/16″	10 1/16″	10 1/4″	10 1/4″	10 3/16″	9 15/16″	9 5/8″	9 1/8″	8 9/16″	7 7/8″	7″	6 1/16″	5 1/16″	3 7/8″	2 11/16″	1 3/8″	0″

SPAN "G"

GIRDER 2

30TH POINTS	3.00	3.03	3.07	3.10	3.13	3.17	3.20	3.23	3.27	3.30	3.33	3.37	3.40	3.43	3.47	3.50	3.53	3.57	3.60	3.63	3.67	3.70	3.73	3.77	3.80	3.83	3.87	3.90	3.93	3.97	4.00
DEFLECTION DUE TO WEIGHT OF GIRDER	0.000	-0.007	-0.016	-0.026	-0.037	-0.049	-0.062	-0.075	-0.088	-0.101	-0.114	-0.125	-0.135	-0.143	-0.150	-0.155	-0.158	-0.159	-0.158	-0.155	-0.150	-0.143	-0.133	-0.122	-0.109	-0.094	-0.078	-0.060	-0.040	-0.021	0.000
DEFLECTION DUE TO WEIGHT OF SLAB ✱	0.000	-0.014	-0.033	-0.057	-0.085	-0.117	-0.153	-0.191	-0.230	-0.269	-0.307	-0.343	-0.376	-0.404	-0.426	-0.444	-0.455	-0.461	-0.460	-0.453	-0.439	-0.419	-0.393	-0.361	-0.323	-0.280	-0.231	-0.178	-0.121	-0.062	0.000
DEFLECTION DUE TO WT. OF BARRIER RAIL	0.000	-0.001	-0.003	-0.005	-0.008	-0.010	-0.014	-0.017	-0.021	-0.024	-0.027	-0.030	-0.033	-0.036	-0.037	-0.039	-0.040	-0.040	-0.040	-0.039	-0.038	-0.036	-0.034	-0.031	-0.028	-0.024	-0.020	-0.015	-0.010	-0.005	0.000
TOTAL DEAD LOAD DEFLECTION	0.000	-0.023	-0.052	-0.088	-0.129	-0.177	-0.228	-0.283	-0.339	-0.395	-0.448	-0.499	-0.544	-0.583	-0.614	-0.638	-0.653	-0.660	-0.658	-0.647	-0.627	-0.598	-0.560	-0.513	-0.459	-0.398	-0.328	-0.252	-0.171	-0.087	0.000
VERTICAL CURVE ORDINATE	0.000	0.035	0.067	0.097	0.124	0.149	0.172	0.192	0.210	0.226	0.239	0.249	0.258	0.264	0.267	0.269	0.267	0.264	0.258	0.249	0.239	0.226	0.210	0.192	0.172	0.149	0.124	0.097	0.067	0.035	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	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	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REQUIRED CAMBER	0″	11/16″	1 7/16″	2 3/16″	3 1/16″	3 15/16″	4 13/16″	5 11/16″	6 9/16″	7 7/16″	8 1/4″	9″	9 5/8″	10 3/16″	10 9/16″	10 7/8″	11 1/16″	11 1/16″	11″	10 3/4″	10 3/8″	9 7/8″	9 1/4″	8 7/16″	7 9/16″	6 9/16″	5 7/16″	4 3/16″	2 7/8″	1 7/16″	0″

SPAN "G"

GIRDER 3

30TH POINTS	3.00	3.03	3.07	3.10	3.13	3.17	3.20	3.23	3.27	3.30	3.33	3.37	3.40	3.43	3.47	3.50	3.53	3.57	3.60	3.63	3.67	3.70	3.73	3.77	3.80	3.83	3.87	3.90	3.93	3.97	4.00
DEFLECTION DUE TO WEIGHT OF GIRDER	0.000	-0.009	-0.019	-0.031	-0.044	-0.058	-0.072	-0.088	-0.103	-0.117	-0.131	-0.144	-0.155	-0.164	-0.172	-0.177	-0.180	-0.181	-0.180	-0.176	-0.170	-0.162	-0.151	-0.138	-0.123	-0.107	-0.088	-0.067	-0.046	-0.023	0.000
DEFLECTION DUE TO WEIGHT OF SLAB ✱	0.000	-0.017	-0.039	-0.065	-0.096	-0.131	-0.170	-0.212	-0.254	-0.297	-0.338	-0.377	-0.412	-0.442	-0.467	-0.485	-0.497	-0.503	-0.502	-0.494	-0.478	-0.456	-0.427	-0.392	-0.351	-0.304	-0.251	-0.193	-0.131	-0.067	0.000
DEFLECTION DUE TO WT. OF BARRIER RAIL	0.000	-0.001	-0.003	-0.006	-0.009	-0.012	-0.016	-0.019	-0.023	-0.027	-0.031	-0.034	-0.037	-0.040	-0.042	-0.044	-0.045	-0.045	-0.045	-0.044	-0.043	-0.040	-0.038	-0.035	-0.031	-0.027	-0.022	-0.017	-0.011	-0.006	0.000
TOTAL DEAD LOAD DEFLECTION	0.000	-0.027	-0.061	-0.102	-0.148	-0.201	-0.258	-0.319	-0.380	-0.441	-0.500	-0.555	-0.604	-0.646	-0.680	-0.706	-0.722	-0.729	-0.727	-0.714	-0.691	-0.658	-0.616	-0.565	-0.505	-0.437	-0.361	-0.277	-0.188	-0.096	0.000
VERTICAL CURVE ORDINATE	0.000	0.035	0.067	0.097	0.124	0.149	0.172	0.192	0.210	0.226	0.239	0.249	0.258	0.264	0.267	0.269	0.267	0.264	0.258	0.249	0.239	0.226	0.210	0.192	0.172	0.149	0.124	0.097	0.067	0.035	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	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	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REQUIRED CAMBER	0″	3/4″	1 9/16″	2 3/8″	3 1/4″	4 3/16″	5 3/16″	6 1/8″	7 1/16″	8″	8 7/8″	9 5/8″	10 3/8″	10 15/16″	11 3/8″	11 11/16″	11 7/8″	11 15/16″	11 13/16″	11 9/16″	11 3/16″	10 5/8″	9 15/16″	9 1/16″	8 1/8″	7 1/16″	5 13/16″	4 1/2″	3 1/16″	1 9/16″	0″

SPAN "G"

GIRDER 4

30TH POINTS	3.00	3.03	3.07	3.10	3.13	3.17	3.20	3.23	3.27	3.30	3.33	3.37	3.40	3.43	3.47	3.50	3.53	3.57	3.60	3.63	3.67	3.70	3.73	3.77	3.80	3.83	3.87	3.90	3.93	3.97	4.00
DEFLECTION DUE TO WEIGHT OF GIRDER	0.000	-0.011	-0.023	-0.036	-0.051	-0.067	-0.083	-0.100	-0.117	-0.133	-0.149	-0.163	-0.175	-0.185	-0.194	-0.200	-0.203	-0.204	-0.202	-0.198	-0.191	-0.181	-0.169	-0.155	-0.138	-0.119	-0.098	-0.075	-0.051	-0.026	0.000
DEFLECTION DUE TO WEIGHT OF SLAB ✱	0.000	-0.019	-0.043	-0.072	-0.106	-0.144	-0.186	-0.231	-0.277	-0.322	-0.366	-0.408	-0.446	-0.478	-0.504	-0.524	-0.537	-0.543	-0.541	-0.532	-0.515	-0.491	-0.460	-0.422	-0.377	-0.326	-0.269	-0.207	-0.141	-0.072	0.000
DEFLECTION DUE TO WT. OF BARRIER RAIL	0.000	-0.002	-0.005	-0.009	-0.012	-0.017	-0.021	-0.026	-0.031	-0.035	-0.040	-0.044	-0.047	-0.050	-0.053	-0.055	-0.056	-0.056	-0.056	-0.055	-0.053	-0.051	-0.048	-0.044	-0.039	-0.034	-0.028	-0.022	-0.015	-0.008	0.000
TOTAL DEAD LOAD DEFLECTION	0.000	-0.032	-0.071	-0.117	-0.169	-0.227	-0.291	-0.357	-0.424	-0.491	-0.555	-0.615	-0.668	-0.714	-0.751	-0.778	-0.796	-0.803	-0.799	-0.785	-0.759	-0.723	-0.677	-0.620	-0.555	-0.480	-0.396	-0.304	-0.207	-0.105	0.000
VERTICAL CURVE ORDINATE	0.000	0.035	0.067	0.097	0.124	0.149	0.172	0.192	0.210	0.226	0.239	0.250	0.258	0.264	0.267	0.269	0.267	0.264	0.258	0.250	0.239	0.226	0.210	0.192	0.172	0.149	0.124	0.097	0.067	0.035	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	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	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
REQUIRED CAMBER	0″	13/16″	1 11/16″	2 9/16″	3 1/2″	4 1/2″	5 9/16″	6 9/16″	7 5/8″	8 5/8″	9 1/2″	10 3/8″	11 1/8″	11 3/4″	12 3/16″	12 9/16″	12 3/4″	12 13/16″	12 11/16″	12 7/16″	12″	11 3/8″	10 5/8″	9 3/4″	8 3/4″	7 9/16″	6 1/4″	4 13/16″	3 5/16″	1 11/16″	0″

✱ = INCLUDES SLAB, BUILDUPS, AND STAY-IN-PLACE FORMS.
✱✱ = HEAT CURVING IS ALLOWED. CAMBER DISSIPATION DUE TO HEAT CURVING IS ZERO FOR ALL GIRDERS.

PROJECT NO. U-2579AB

FORSYTH COUNTY

STATION: 47+63.62 -Y15FLYBD-

SHEET 7 OF 7

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUPERSTRUCTURE DEAD LOAD DEFLECTION AND CAMBER ORDINATES SPAN "G"

NORTH CAROLINA PROFESSIONAL SEAL 29589 ENGINEER DOMENIC A. COLETTI

10/11/2021

HDR Engineering, Inc. of the Carolinas
555 Fayetteville St., Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS													
NO.	BY:	DATE:	NO.	BY:	DATE:	NO.	BY:	DATE:	NO.	BY:	DATE:	NO.	BY:	DATE:
1	--	--	3	--	--									
2	--	--	4	--	--									

SHEET NO. S05-059

TOTAL SHEETS 116

DES BY: A. MILLER DATE: 09/19
DES CHK: M. NEIHEISEL DATE: 09/19
DWG BY: B. PETERSON DATE: 10/19
CHK BY: M. NEIHEISEL DATE: 10/19

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT STRUCTURES DEFAULT PEN.tbl
USER: PPETERSO DATE: 10/1/2021 TIME: 8:23:33 AM
FILE: ...\SUPERS