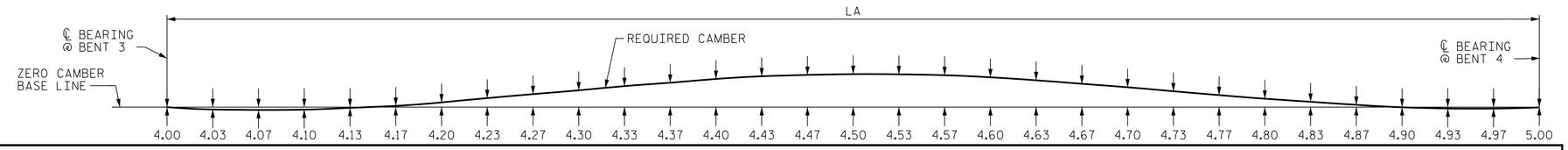
DocuSign Envelope ID: 228B5C22-79CA-4B09-870D-1104FCE02AF4



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	202.774′
2	203.443′
3	204.112′
4	204.780′

SPAN "D"

GIRDER 1

30TH POINTS	4.00	4.03	4.07	4.10	4.13	4.17	4.20	4.23	4.27	4.30	4.33	4.37	4.40	4.43	4.47	4.50	4.53	4.57	4.60	4.63	4.67	4.70	4.73	4.77	4.80	4.83	4.87	4.90	4.93	4.97	5.00
DEFLECTION DUE TO WEIGHT OF GIRDER	-0.002	0.002	0.005	0.005	0.006	0.005	0.003	0.001	-0.001	-0.003	-0.006	-0.009	-0.011	-0.013	-0.015	-0.016	-0.016	-0.016	-0.015	-0.014	-0.012	-0.010	-0.007	-0.005	-0.002	0.000	0.001	0.002	0.002	0.002	0.000
DEFLECTION DUE TO WEIGHT OF SLAB ✳	-0.005	0.001	0.002	0.000	-0.006	-0.016	-0.028	-0.042	-0.057	-0.073	-0.089	-0.103	-0.115	-0.124	-0.130	-0.133	-0.132	-0.127	-0.120	-0.109	-0.097	-0.083	-0.068	-0.052	-0.038	-0.024	-0.013	-0.004	0.001	0.002	0.000
DEFLECTION DUE TO WT. OF BARRIER RAIL	-0.001	0.000	-0.001	-0.001	-0.002	-0.003	-0.005	-0.006	-0.008	-0.009	-0.011	-0.012	-0.014	-0.015	-0.015	-0.016	-0.016	-0.015	-0.015	-0.014	-0.013	-0.011	-0.010	-0.008	-0.006	-0.005	-0.003	-0.002	-0.001	0.000	0.000
TOTAL DEAD LOAD DEFLECTION	-0.008	0.003	0.006	0.004	-0.003	-0.014	-0.029	-0.047	-0.066	-0.086	-0.106	-0.125	-0.140	-0.152	-0.160	-0.164	-0.164	-0.159	-0.150	-0.137	-0.121	-0.104	-0.085	-0.065	-0.046	-0.029	-0.015	-0.004	0.002	0.004	0.000
VERTICAL CURVE 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
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	1/16"	0"	-1/16"	-1/16"	1/16"	3/16"	3/8"	5/16"	13/16"	1 1/16"	1 1/4"	1 1/2"	1 11/16"	1 13/16"	1 15/16"	2"	1 15/16"	1 7/8"	1 13/16"	1 5/8"	1 7/16"	1 1/4"	1"	13/16"	9/16"	3/8"	3/16"	1/16"	0"	-1/16"	0"

SPAN "D"

GIRDER 2

30TH POINTS	4.00	4.03	4.07	4.10	4.13	4.17	4.20	4.23	4.27	4.30	4.33	4.37	4.40	4.43	4.47	4.50	4.53	4.57	4.60	4.63	4.67	4.70	4.73	4.77	4.80	4.83	4.87	4.90	4.93	4.97	5.00
DEFLECTION DUE TO WEIGHT OF GIRDER	0.000	0.004	0.005	0.007	0.007	0.006	0.005	0.002	0.000	-0.003	-0.005	-0.008	-0.011	-0.013	-0.014	-0.015	-0.016	-0.015	-0.014	-0.013	-0.011	-0.009	-0.006	-0.004	-0.001	0.001	0.002	0.003	0.003	0.002	0.000
DEFLECTION DUE TO WEIGHT OF SLAB ✳	-0.001	0.005	0.006	0.003	-0.004	-0.014	-0.027	-0.041	-0.057	-0.074	-0.090	-0.105	-0.117	-0.126	-0.132	-0.134	-0.133	-0.128	-0.120	-0.110	-0.097	-0.082	-0.067	-0.051	-0.036	-0.022	-0.011	-0.003	0.002	0.003	0.000
DEFLECTION DUE TO WT. OF BARRIER RAIL	0.000	0.001	0.001	0.001	0.000	-0.001	-0.002	-0.003	-0.005	-0.006	-0.007	-0.009	-0.010	-0.011	-0.011	-0.012	-0.012	-0.012	-0.011	-0.010	-0.009	-0.008	-0.007	-0.005	-0.004	-0.002	-0.001	0.000	0.000	0.000	0.000
TOTAL DEAD LOAD DEFLECTION	-0.001	0.010	0.013	0.011	0.004	-0.008	-0.024	-0.042	-0.062	-0.082	-0.103	-0.121	-0.137	-0.149	-0.157	-0.161	-0.160	-0.155	-0.146	-0.133	-0.117	-0.099	-0.080	-0.060	-0.041	-0.024	-0.010	0.000	0.005	0.005	0.000
VERTICAL CURVE 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
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"	-1/8"	-3/16"	-1/8"	-1/16"	1/8"	5/16"	1/2"	3/4"	1"	1 1/4"	1 7/16"	1 5/8"	1 13/16"	1 7/8"	1 15/16"	1 15/16"	1 7/8"	1 3/4"	1 9/16"	1 3/8"	1 3/16"	15/16"	3/4"	1/2"	5/16"	1/8"	0"	-1/16"	-1/16"	0"

SPAN "D"

GIRDER 3

30TH POINTS	4.00	4.03	4.07	4.10	4.13	4.17	4.20	4.23	4.27	4.30	4.33	4.37	4.40	4.43	4.47	4.50	4.53	4.57	4.60	4.63	4.67	4.70	4.73	4.77	4.80	4.83	4.87	4.90	4.93	4.97	5.00
DEFLECTION DUE TO WEIGHT OF GIRDER	0.000	0.004	0.005	0.007	0.008	0.007	0.005	0.003	0.001	-0.002	-0.004	-0.007	-0.010	-0.012	-0.013	-0.014	-0.014	-0.014	-0.013	-0.012	-0.010	-0.007	-0.005	-0.003	0.000	0.002	0.003	0.004	0.003	0.002	0.000
DEFLECTION DUE TO WEIGHT OF SLAB ✳	-0.001	0.006	0.007	0.004	-0.003	-0.013	-0.025	-0.040	-0.056	-0.073	-0.089	-0.104	-0.116	-0.125	-0.131	-0.133	-0.132	-0.127	-0.119	-0.108	-0.095	-0.080	-0.064	-0.049	-0.034	-0.020	-0.009	-0.001	0.003	0.004	0.000
DEFLECTION DUE TO WT. OF BARRIER RAIL	0.000	0.001	0.001	0.001	0.000	-0.001	-0.002	-0.003	-0.005	-0.006	-0.007	-0.009	-0.010	-0.011	-0.011	-0.012	-0.012	-0.012	-0.011	-0.010	-0.009	-0.008	-0.006	-0.005	-0.004	-0.002	-0.001	0.000	0.000	0.000	0.000
TOTAL DEAD LOAD DEFLECTION	-0.001	0.010	0.014	0.012	0.005	-0.007	-0.022	-0.040	-0.060	-0.080	-0.101	-0.120	-0.135	-0.148	-0.156	-0.159	-0.158	-0.152	-0.143	-0.130	-0.113	-0.095	-0.076	-0.056	-0.037	-0.020	-0.007	0.002	0.007	0.007	0.000
VERTICAL CURVE 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
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"	-1/8"	-3/16"	-1/8"	-1/16"	1/16"	1/4"	1/2"	11/16"	15/16"	1 3/16"	1 7/16"	1 5/8"	1 3/4"	1 7/8"	1 15/16"	1 7/8"	1 13/16"	1 11/16"	1 9/16"	1 3/8"	1 1/8"	15/16"	11/16"	7/16"	1/4"	1/16"	0"	-1/16"	-1/16"	0"

SPAN "D"

GIRDER 4

30TH POINTS	4.00	4.03	4.07	4.10	4.13	4.17	4.20	4.23	4.27	4.30	4.33	4.37	4.40	4.43	4.47	4.50	4.53	4.57	4.60	4.63	4.67	4.70	4.73	4.77	4.80	4.83	4.87	4.90	4.93	4.97	5.00
DEFLECTION DUE TO WEIGHT OF GIRDER	-0.002	0.002	0.005	0.006	0.007	0.007	0.005	0.004	0.001	-0.001	-0.003	-0.006	-0.008	-0.010	-0.012	-0.013	-0.013	-0.013	-0.012	-0.010	-0.008	-0.006	-0.004	-0.001	0.001	0.003	0.004	0.004	0.004	0.003	0.000
DEFLECTION DUE TO WEIGHT OF SLAB ✳	-0.005	0.002	0.004	0.002	-0.003	-0.013	-0.025	-0.039	-0.054	-0.070	-0.086	-0.101	-0.113	-0.122	-0.128	-0.130	-0.128	-0.123	-0.115	-0.104	-0.090	-0.076	-0.060	-0.045	-0.030	-0.016	-0.006	0.002	0.005	0.005	0.000
DEFLECTION DUE TO WT. OF BARRIER RAIL	-0.001	0.000	0.000	-0.001	-0.002	-0.003	-0.004	-0.006	-0.008	-0.009	-0.011	-0.012	-0.014	-0.015	-0.015	-0.016	-0.016	-0.015	-0.015	-0.014	-0.013	-0.011	-0.009	-0.008	-0.006	-0.004	-0.003	-0.001	-0.001	0.000	0.000
TOTAL DEAD LOAD DEFLECTION	-0.007	0.004	0.009	0.008	0.002	-0.009	-0.024	-0.041	-0.060	-0.081	-0.101	-0.119	-0.135	-0.147	-0.155	-0.158	-0.157	-0.151	-0.141	-0.128	-0.111	-0.093	-0.073	-0.053	-0.034	-0.018	-0.004	0.005	0.008	0.007	0.000
VERTICAL CURVE 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
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	1/16"	-1/16"	-1/8"	-1/8"	0"	1/8"	5/16"	1/2"	3/4"	15/16"	1 3/16"	1 7/16"	1 5/8"	1 3/4"	1 7/8"	1 7/8"	1 7/8"	1 13/16"	1 11/16"	1 9/16"	1 5/16"	1 1/8"	7/8"	5/8"	7/16"	3/16"	1/16"	-1/16"	-1/8"	-1/16"	0"

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

DES BY: G. SCHMITZ DATE: 09/19
DES CHK: S. NIFONG DATE: 10/19

DWG BY: B. PETERSON DATE: 10/19
CHK BY: G. SCHMITZ DATE: 10/19

NORTH CAROLINA PROFESSIONAL SEAL 29589 ENGINEER DOMENIC A. COLETTI
10/15/2021

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

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PROJECT NO. U-2579AB
FORSYTH COUNTY
STATION: 60+66.06 -Y15FLYAC-

SHEET 4 OF 10

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUPERSTRUCTURE DEAD LOAD DEFLECTION AND CAMBER ORDINATES SPAN "D"

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S04-066
1	--	--	3	--	--	TOTAL SHEETS
2	--	--	4	--	--	144

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt
USER: PPETERSO DATE: 10/14/2021
FILE: ...\SUPERS
PENTABLE: NCDOT STRUCTURES DEFAULT PEN.tbl
TIME: 4:02:39 PM