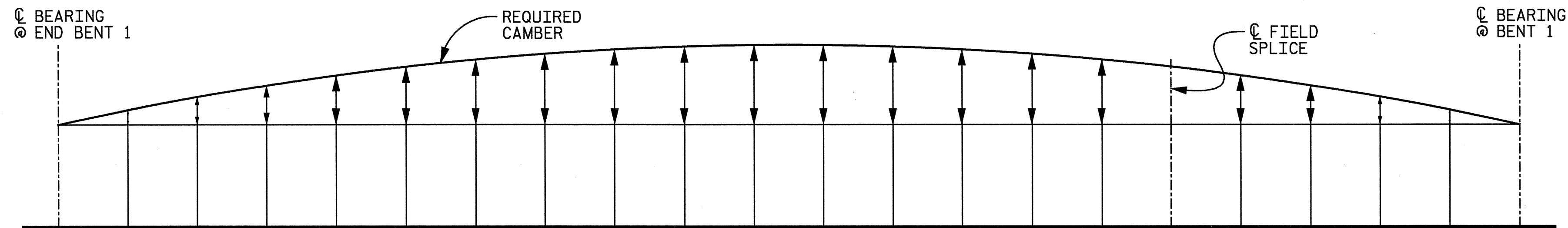


02/17/2005 04:55:51 PM n:\proj\3109-200\ustation\structure\final\3109-200\_camber\_a.dgn



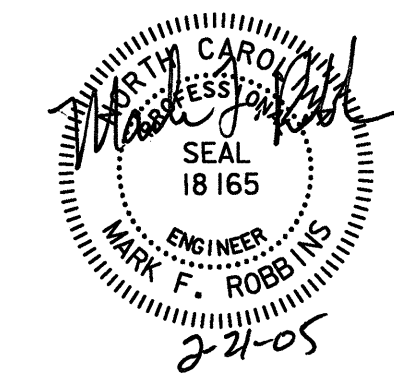
	1.00	1.01	1.02	1.03	1.04	1.05	1.06	1.07	1.08	1.09	1.10	1.11	1.12	1.13	1.14	F.S.	1.15	1.16	1.17	1.18	1.19	1.20	
GIRDER 1	DEFLECTION DUE TO WT. OF STEEL	0.000	0.005	0.009	0.013	0.016	0.019	0.021	0.022	0.022	0.022	0.021	0.019	0.017	0.014	0.011	0.011	0.008	0.005	0.003	0.001	0.000	0.000
	DEFLECTION DUE TO WT. OF SLAB ▲	0.000	0.016	0.030	0.043	0.054	0.063	0.069	0.073	0.074	0.073	0.069	0.063	0.056	0.047	0.037	0.036	0.027	0.018	0.010	0.005	0.001	0.000
	DEFLECTION DUE TO WT. OF RAIL	0.000	0.001	0.003	0.004	0.005	0.005	0.006	0.006	0.006	0.006	0.006	0.006	0.005	0.004	0.003	0.003	0.003	0.002	0.001	0.000	0.000	0.000
	TOTAL DEAD LOAD DEFLECTION	0.000	0.022	0.042	0.060	0.075	0.087	0.096	0.101	0.102	0.101	0.096	0.088	0.078	0.065	0.051	0.050	0.038	0.025	0.014	0.006	0.001	0.000
	VERTICAL CURVE ORDINATE	0.000	0.004	0.008	0.011	0.014	0.016	0.018	0.020	0.021	0.022	0.022	0.022	0.021	0.020	0.019	0.019	0.017	0.014	0.011	0.008	0.004	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
	REQUIRED CAMBER	0	26	50	71	89	103	114	121	123	123	118	110	99	85	70	69	55	39	25	14	5	0
GIRDER 2	DEFLECTION DUE TO WT. OF STEEL	0.000	0.005	0.009	0.013	0.016	0.019	0.021	0.022	0.022	0.022	0.021	0.019	0.017	0.014	0.011	0.011	0.008	0.005	0.003	0.001	0.000	0.000
	DEFLECTION DUE TO WT. OF SLAB ▲	0.000	0.017	0.033	0.048	0.060	0.069	0.076	0.080	0.081	0.080	0.076	0.069	0.061	0.051	0.041	0.040	0.030	0.020	0.011	0.005	0.001	0.000
	DEFLECTION DUE TO WT. OF RAIL	0.000	0.001	0.002	0.004	0.004	0.005	0.006	0.006	0.006	0.006	0.006	0.005	0.005	0.004	0.003	0.003	0.002	0.002	0.001	0.000	0.000	0.000
	TOTAL DEAD LOAD DEFLECTION	0.000	0.023	0.044	0.065	0.080	0.093	0.103	0.108	0.109	0.108	0.103	0.093	0.083	0.069	0.055	0.054	0.040	0.027	0.015	0.006	0.001	0.000
	VERTICAL CURVE ORDINATE	0.000	0.003	0.008	0.010	0.014	0.016	0.018	0.019	0.021	0.021	0.021	0.022	0.021	0.019	0.018	0.018	0.016	0.014	0.011	0.007	0.004	0.000
	SUPERELEVATION ORDINATE	0.000	0.000	0.000	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	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	26	52	74	93	108	120	126	129	128	123	115	104	88	73	72	56	41	26	13	5	0
GIRDER 3	DEFLECTION DUE TO WT. OF STEEL	0.000	0.005	0.009	0.013	0.016	0.019	0.021	0.022	0.022	0.022	0.021	0.019	0.017	0.014	0.011	0.011	0.008	0.005	0.003	0.001	0.000	0.000
	DEFLECTION DUE TO WT. OF SLAB ▲	0.000	0.017	0.033	0.048	0.060	0.069	0.076	0.080	0.081	0.080	0.076	0.069	0.061	0.051	0.041	0.040	0.030	0.020	0.011	0.005	0.001	0.000
	DEFLECTION DUE TO WT. OF RAIL	0.000	0.001	0.002	0.004	0.004	0.005	0.006	0.006	0.006	0.006	0.006	0.005	0.005	0.004	0.003	0.003	0.002	0.002	0.001	0.000	0.000	0.000
	TOTAL DEAD LOAD DEFLECTION	0.000	0.023	0.044	0.065	0.080	0.093	0.103	0.108	0.109	0.108	0.103	0.093	0.083	0.069	0.055	0.054	0.040	0.027	0.015	0.006	0.001	0.000
	VERTICAL CURVE ORDINATE	0.000	0.004	0.008	0.012	0.015	0.017	0.018	0.020	0.021	0.022	0.023	0.022	0.021	0.021	0.019	0.019	0.017	0.014	0.012	0.009	0.004	0.000
	SUPERELEVATION ORDINATE	0.000	0.005	0.004	0.004	0.003	0.003	0.003	0.002	0.002	0.002	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.000	0.000	0.000
	REQUIRED CAMBER	0	32	56	81	98	113	124	130	132	132	128	117	105	91	75	74	58	42	28	15	5	0
GIRDER 4	DEFLECTION DUE TO WT. OF STEEL	0.000	0.005	0.009	0.013	0.016	0.019	0.021	0.022	0.022	0.022	0.021	0.019	0.017	0.014	0.011	0.011	0.008	0.005	0.003	0.001	0.000	0.000
	DEFLECTION DUE TO WT. OF SLAB ▲	0.000	0.017	0.033	0.048	0.060	0.069	0.076	0.080	0.081	0.080	0.076	0.069	0.061	0.051	0.041	0.040	0.030	0.020	0.011	0.005	0.001	0.000
	DEFLECTION DUE TO WT. OF RAIL	0.000	0.001	0.002	0.004	0.004	0.005	0.006	0.006	0.006	0.006	0.006	0.005	0.005	0.004	0.003	0.003	0.002	0.002	0.001	0.000	0.000	0.000
	TOTAL DEAD LOAD DEFLECTION	0.000	0.023	0.044	0.065	0.080	0.093	0.103	0.108	0.109	0.108	0.103	0.093	0.083	0.069	0.055	0.054	0.040	0.027	0.015	0.006	0.001	0.000
	VERTICAL CURVE ORDINATE	0.000	0.004	0.008	0.011	0.014	0.017	0.019	0.020	0.021	0.022	0.022	0.022	0.021	0.020	0.018	0.019	0.016	0.015	0.012	0.008	0.005	0.000
	SUPERELEVATION ORDINATE	0.000	0.011	0.021	0.021	0.020	0.018	0.017	0.015	0.014	0.013	0.012	0.011	0.009	0.008	0.007	0.007	0.006	0.005	0.004	0.002	0.001	0.000
	REQUIRED CAMBER	0	38	73	97	114	128	139	143	144	143	137	126	113	97	80	80	62	47	31	16	7	0
GIRDER 5	DEFLECTION DUE TO WT. OF STEEL	0.000	0.005	0.009	0.013	0.016	0.019	0.021	0.022	0.022	0.022	0.021	0.019	0.017	0.014	0.011	0.011	0.008	0.005	0.003	0.001	0.000	0.000
	DEFLECTION DUE TO WT. OF SLAB ▲	0.000	0.017	0.033	0.048	0.060	0.069	0.076	0.080	0.081	0.080	0.076	0.069	0.061	0.051	0.041	0.040	0.030	0.020	0.011	0.005	0.001	0.000
	DEFLECTION DUE TO WT. OF RAIL	0.000	0.001	0.002	0.004	0.004	0.005	0.006	0.006	0.006	0.006	0.006	0.005	0.005	0.004	0.003	0.003	0.002	0.002	0.001	0.000	0.000	0.000
	TOTAL DEAD LOAD DEFLECTION	0.000	0.023	0.044	0.065	0.080	0.093	0.103	0.108	0.109	0.108	0.103	0.093	0.083	0.069	0.055	0.054	0.040	0.027	0.015	0.006	0.001	0.000
	VERTICAL CURVE ORDINATE	0.000	0.005	0.009	0.011	0.014	0.017	0.019	0.020	0.022	0.022	0.022	0.022	0.021	0.021	0.019	0.019	0.017	0.014	0.012	0.008	0.005	0.000
	SUPERELEVATION ORDINATE	0.000	0.013	0.027	0.040	0.046	0.043	0.040	0.037	0.034	0.031	0.028	0.025	0.022	0.020	0.017	0.016	0.014	0.011	0.008	0.006	0.003	0.000
	REQUIRED CAMBER	0	41	80	116	140	153	162	165	165	161	153	140	126	110	91	89	71	52	35	20	9	0
GIRDER 6	DEFLECTION DUE TO WT. OF STEEL	0.000	0.005	0.009	0.013	0.016	0.019	0.021	0.022	0.022	0.022	0.021	0.019	0.017	0.014	0.011	0.011	0.008	0.005	0.003	0.001	0.000	0.000
	DEFLECTION DUE TO WT. OF SLAB ▲	0.000	0.016	0.030	0.043	0.054	0.063	0.069	0.073	0.074	0.073	0.069	0.063	0.056	0.047	0.037	0.036	0.027	0.018	0.010	0.005	0.001	0.000
	DEFLECTION DUE TO WT. OF RAIL	0.000	0.001	0.003	0.004	0.005	0.005	0.006	0.006	0.006	0.006	0.006	0.006	0.005	0.004	0.003	0.003	0.003	0.002	0.001	0.000	0.000	0.000
	TOTAL DEAD LOAD DEFLECTION	0.000	0.022	0.042	0.060	0.075	0.087	0.096	0.101	0.102	0.101	0.096	0.088	0.078	0.065	0.051	0.050	0.038	0.025	0.014	0.006	0.001	0.000
	VERTICAL CURVE ORDINATE	0.000	0.004	0.008	0.011	0.014	0.016	0.018	0.021	0.022	0.022	0.022	0.022	0.021	0.020	0.019	0.018	0.017	0.015	0.011	0.008	0.004	0.000
	SUPERELEVATION ORDINATE	0.000	0.015	0.031	0.047	0.063	0.078	0.072	0.067	0.061	0.056	0.051	0.046	0.041	0.036	0.030	0.030	0.025	0.020	0.015	0.010	0.005	0.000
	REQUIRED CAMBER	0	41	81	118	152	181	186	189	185	179	169	156	140	121	100	98	80	60	40	24	10	0

▲ DENOTES INCLUSION OF SLAB, BUILDUPS AND STAY-IN-PLACE FORMS.

**SCHMATIC CAMBER ORDINATES - SPAN "A"**

**NOTES:**

- VALUES ARE SHOWN IN METERS, EXCEPT "REQUIRED CAMBER" WHICH IS GIVEN IN MILLIMETERS.
- SLOPE FOR THE ZERO CAMBER BASE LINE VARIES.
- FOR GIRDER DESIGNATIONS, SEE "FRAMING PLAN AND GIRDER DETAILS" SPAN 'A' SHEET.
- DEFLECTIONS IN THE DOWNWARD DIRECTION ARE POSITIVE. A REQUIRED CAMBER IN THE UPWARD DIRECTION IS POSITIVE.



PROJECT No. R-252C  
 JOHNSTON COUNTY  
 STATION: POT 148+08.446 -L2-  
 POT 23+96.446 -Y4-

SHEET 1 OF 2			
REVISIONS	NO.	BY	DATE
	1		
	2		

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
**CAMBER AND DEFLECTIONS**  
 -RIGHT LANE-

**RALPH WHITEHEAD ASSOCIATES, INC.**  
 CONSULTING ENGINEERS  
 P.O. BOX 35624 CHARLOTTE, N.C. 28235

DRAWN BY: WBS, LGH DATE: 11-04  
 CHECKED BY: TJT DATE: 1-05 DWG. NO.: D-1750.16

SHEET NO. 5-373  
 TOTAL SHEETS 431