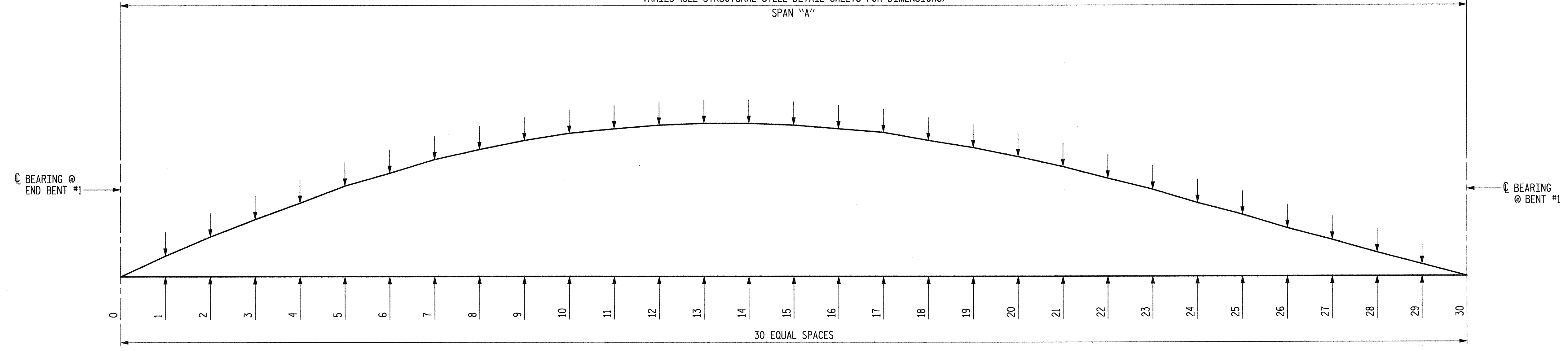


## DEAD LOAD DEFLECTION AND CAMBER

GIRDER	THIRTIETH POINTS	SPAN "A"																														
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1	DEFLECTION DUE TO WT. OF STEEL	0	.003	.006	.008	.010	.013	.015	.016	.018	.019	.020	.021	.021	.022	.021	.021	.020	.019	.018	.017	.016	.014	.012	.010	.009	.007	.005	.004	.002	.001	0
	DEFLECTION DUE TO WT. OF SLAB	0	.011	.022	.032	.041	.051	.058	.065	.071	.076	.080	.082	.084	.084	.084	.082	.080	.076	.071	.066	.060	.054	.048	.040	.033	.027	.020	.014	.009	.004	0
	DEFLECTION DUE TO WT. OF RAIL	0	.001	.001	.002	.003	.004	.004	.005	.005	.006	.006	.006	.006	.006	.006	.006	.006	.006	.005	.005	.004	.004	.003	.003	.002	.002	.001	.001	.000	.000	0
	TOTAL DEAD LOAD DEFLECTION	0	.015	.029	.042	.054	.068	.077	.086	.094	.101	.106	.109	.111	.112	.111	.109	.106	.101	.094	.088	.080	.072	.063	.053	.044	.036	.026	.019	.011	.005	0
	CAMBER DISSIPATION	0	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
	VERTICAL CURVE ORDINATE	0	.008	.015	.021	.027	.032	.037	.042	.046	.049	.052	.054	.056	.057	.058	.058	.058	.057	.056	.054	.052	.049	.046	.042	.037	.032	.027	.021	.015	.008	0
	SUPERELEVATION ORDINATE	0	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
REQUIRED CAMBER	0	23	44	63	81	100	114	128	140	150	158	163	167	169	169	167	164	158	150	142	132	121	109	95	81	68	53	40	26	13	0	
2	DEFLECTION DUE TO WT. OF STEEL	0	.004	.007	.011	.014	.017	.020	.022	.024	.026	.027	.028	.029	.029	.029	.029	.028	.027	.025	.024	.022	.020	.017	.015	.012	.010	.008	.005	.003	.001	0
	DEFLECTION DUE TO WT. OF SLAB	0	.015	.030	.043	.056	.068	.079	.088	.096	.103	.108	.112	.114	.115	.114	.112	.109	.104	.098	.091	.083	.075	.066	.056	.046	.037	.028	.020	.013	.006	0
	DEFLECTION DUE TO WT. OF RAIL	0	.001	.002	.003	.004	.005	.006	.006	.007	.008	.008	.008	.008	.008	.008	.008	.008	.008	.007	.007	.006	.005	.005	.004	.003	.003	.002	.001	.001	.000	0
	TOTAL DEAD LOAD DEFLECTION	0	.020	.039	.057	.074	.090	.105	.116	.127	.137	.143	.148	.151	.152	.151	.149	.145	.139	.130	.122	.111	.100	.088	.075	.061	.050	.038	.026	.017	.007	0
	CAMBER DISSIPATION	0	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
	VERTICAL CURVE ORDINATE	0	.009	.017	.025	.032	.038	.044	.049	.054	.058	.061	.064	.066	.068	.069	.069	.069	.068	.066	.064	.061	.058	.054	.049	.044	.038	.032	.025	.017	.009	0
	SUPERELEVATION ORDINATE	0	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
REQUIRED CAMBER	0	29	56	82	106	128	149	165	181	195	204	212	217	220	220	218	214	207	196	186	172	158	142	124	105	88	70	51	34	16	0	
3	DEFLECTION DUE TO WT. OF STEEL	0	.005	.010	.014	.018	.022	.025	.028	.031	.033	.035	.036	.037	.037	.037	.036	.035	.034	.032	.030	.027	.024	.021	.018	.015	.012	.009	.006	.004	.001	0
	DEFLECTION DUE TO WT. OF SLAB	0	.019	.038	.055	.071	.086	.099	.111	.121	.130	.136	.141	.143	.144	.143	.140	.136	.129	.121	.113	.102	.091	.080	.068	.056	.045	.033	.023	.014	.006	0
	DEFLECTION DUE TO WT. OF RAIL	0	.001	.003	.004	.005	.006	.007	.008	.009	.010	.010	.011	.011	.011	.011	.010	.010	.009	.009	.008	.007	.006	.005	.004	.003	.002	.002	.001	.001	.000	0
	TOTAL DEAD LOAD DEFLECTION	0	.025	.051	.073	.094	.114	.131	.147	.161	.173	.181	.188	.191	.192	.191	.187	.181	.173	.162	.152	.137	.122	.107	.091	.075	.060	.044	.031	.019	.007	0
	CAMBER DISSIPATION	0	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
	VERTICAL CURVE ORDINATE	0	.010	.020	.029	.037	.045	.052	.058	.063	.068	.072	.075	.078	.079	.080	.081	.080	.079	.078	.075	.072	.068	.063	.058	.052	.045	.037	.029	.020	.010	0
	SUPERELEVATION ORDINATE	0	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
REQUIRED CAMBER	0	35	71	102	131	159	183	205	224	241	253	263	269	271	271	268	261	252	240	227	209	190	170	149	127	105	81	60	39	17	0	
4	DEFLECTION DUE TO WT. OF STEEL	0	.006	.012	.017	.022	.027	.031	.035	.038	.041	.043	.044	.045	.045	.044	.043	.040	.038	.035	.032	.028	.025	.021	.017	.014	.010	.007	.005	.002	0	
	DEFLECTION DUE TO WT. OF SLAB	0	.024	.046	.066	.086	.104	.120	.134	.146	.156	.164	.169	.172	.172	.170	.166	.161	.152	.143	.132	.118	.105	.092	.077	.063	.050	.037	.026	.016	.007	0
	DEFLECTION DUE TO WT. OF RAIL	0	.002	.003	.005	.006	.008	.009	.010	.011	.012	.013	.013	.013	.013	.013	.013	.013	.012	.011	.010	.009	.008	.007	.006	.005	.004	.003	.002	.001	.000	0
	TOTAL DEAD LOAD DEFLECTION	0	.032	.061	.088	.114	.139	.160	.179	.195	.209	.220	.226	.230	.230	.228	.223	.217	.204	.192	.177	.159	.141	.124	.104	.085	.068	.050	.035	.022	.009	0
	CAMBER DISSIPATION	0	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
	VERTICAL CURVE ORDINATE	0	.012	.023	.034	.043	.052	.060	.067	.073	.079	.083	.087	.090	.092	.093	.093	.093	.092	.090	.087	.083	.079	.073	.067	.060	.052	.043	.034	.023	.012	0
	SUPERELEVATION ORDINATE	0	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
REQUIRED CAMBER	0	44	84	122	157	191	220	246	268	288	303	313	320	322	321	316	310	296	282	264	242	220	197	171	145	120	93	69	45	21	0	

VARIES (SEE STRUCTURAL STEEL DETAIL SHEETS FOR DIMENSIONS)  
SPAN "A"



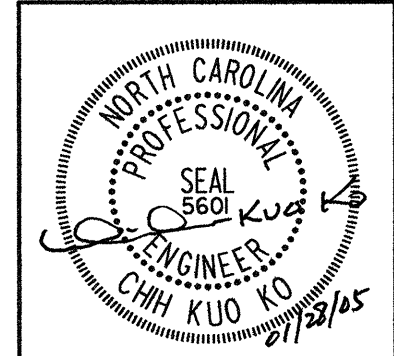
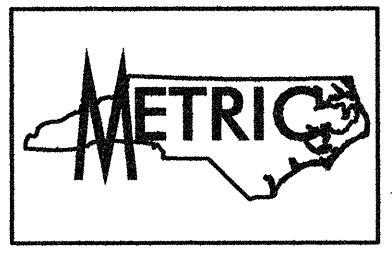
### SCHEMATIC OF CAMBER ORDINATES - SPAN "A"

FOR CAMBER VALUES AT THIRTIETH POINTS, SEE TABLES.  
SLOPE FOR ZERO CAMBER LINE VARIES.

- NOTES:
- VALUES GIVEN IN TABLE ARE AT THIRTIETH POINTS BETWEEN  $\odot$  BEARINGS.
  - DEFLECTION AND ORDINATE VALUES ARE GIVEN IN METERS (DECIMAL FORM).
  - REQUIRED CAMBER VALUES GIVEN IN MILLIMETERS.

PROJECT NO. R-2552AA  
WAKE-JOHNSTON COUNTY  
 STATION: 28+31.359 -11Y1-

SHEET 1 OF 5



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

### SUPERSTRUCTURE CAMBER AND DEAD LOAD DEFLECTIONS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			5-106
2			4			TOTAL SHEETS 429

Plans prepared by:  
**KO & ASSOCIATES, P.C.**  
 Consulting Engineers  
 1011 SCHAUB DR., SUITE #202  
 RALEIGH, N.C. 27606  
 For Division of Highways

DWG. NO. 23

PLOT: 01/27/2005 09:20:28 PM Ko & Associates, P.C.  
 FILE NAME: r1\2552aa.dwg

DRAWN BY: B.E. LANNING DATE: JAN. 2005  
 CHECKED BY: A.K. ORR DATE: JAN. 2005