

NOTES

ALL PRESTRESSING STRANDS SHALL BE 7-WIRE LOW-RELAXATION GRADE 270 STRANDS AND SHALL CONFORM TO AASHTO M203 EXCEPT FOR SAMPLING REQUIREMENTS WHICH SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

ALL REINFORCING STEEL SHALL BE GRADE 60.

EMBEDDED PLATE "B-1" SHALL BE GALVANIZED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

ANCHOR STUDS SHALL CONFORM TO AASHTO M169 GRADES 1010 THROUGH 1020 OR APPROVED EQUAL, AND SHALL MEET THE TYPE "B" REQUIREMENTS OF SUBSECTION 7.3 OF THE ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE.

AT ENDS OF GIRDERS TO BE EMBEDDED IN CONCRETE DIAPHRAGMS OR END WALLS, PRESTRESSING STRANDS MAY EXTEND A MAXIMUM OF 2" BEYOND THE GIRDER ENDS. OTHERWISE, PRESTRESSING STRANDS SHALL BE CUT FLUSH WITH THE GIRDER ENDS.

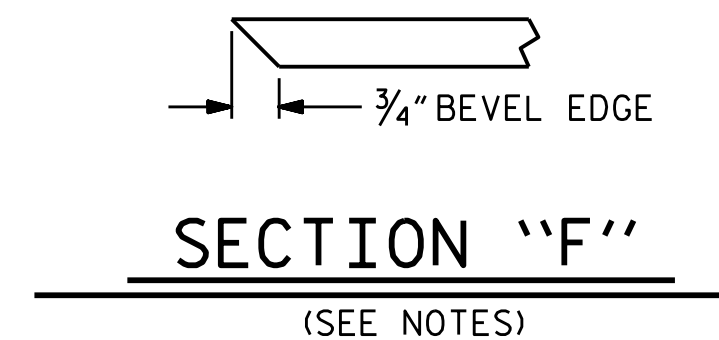
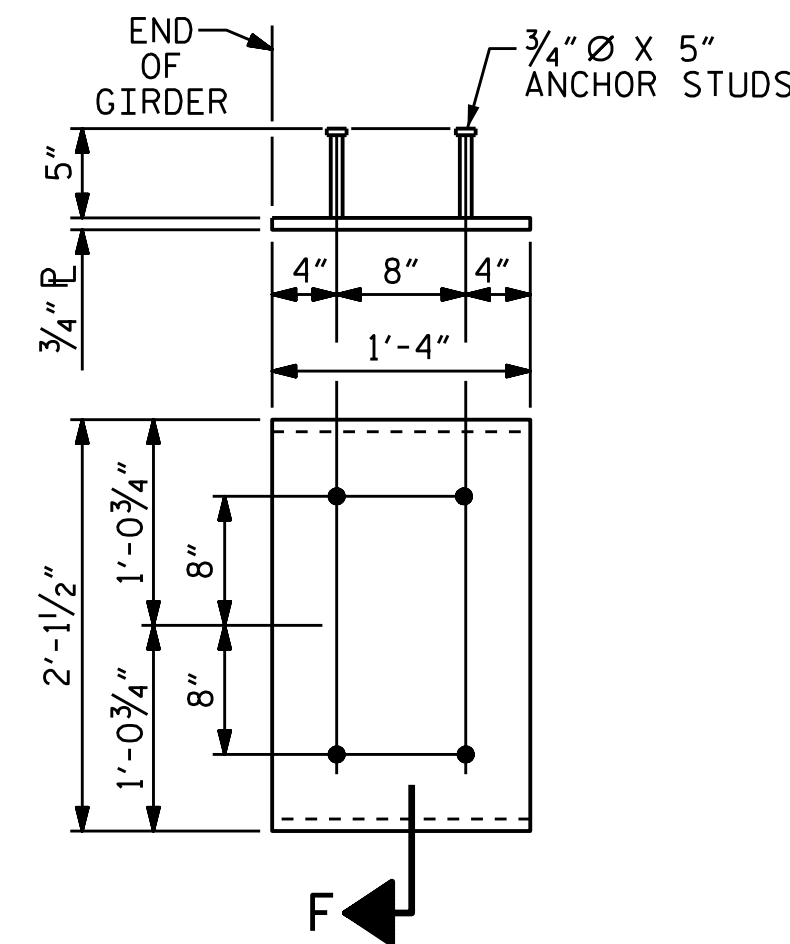
THE TRANSFER OF LOAD FROM THE ANCHORAGES TO THE GIRDER SHALL BE DONE WHEN CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF NOT LESS THAN 4000 PSI. FOR SPAN A & C AND 6600 PSI. FOR SPAN B.

DEPENDING ON THE TYPE OF SYSTEM USED TO SUPPORT THE DECK SLAB FORMS, PRESET ANCHORS MAY BE NECESSARY IN THE PRESTRESSED CONCRETE GIRDER.

THE TOP SURFACE OF THE GIRDER, EXCLUDING THE OUTSIDE 4", SHALL BE RAKED TO A DEPTH OF 1/4".

A 2" x 2" CHAMFER IS ALLOWED AT THE INTERSECTION OF THE WEB AND THE BOTTOM FLANGE OF THE 63" AND 72" MODIFIED BULB TEES ONLY.

THE CONTRACTOR HAS THE OPTION TO PROVIDE, AT NO ADDITIONAL COST TO THE DEPARTMENT, 2 ADDITIONAL STRANDS AT THE TOP OF THE GIRDER TO FACILITATE TYING OF THE REINFORCING STEEL. THESE STRANDS SHALL BE PULLED TO A LOAD OF 4500 lbs.



EMBEDDED PLATE "B-1" DETAILS FOR AASHTO TYPE IV GIRDER AND 63" & 72" MODIFIED BULB TEES
(2 REQ'D PER GIRDER)

DEAD LOAD DEFLECTION TABLE FOR GIRDER

0.6" Ø LOW RELAXATION		SPAN B (GIRDER 1 & 5)																																							
FOURIETH POINTS	0	0.025	0.050	0.075	0.100	0.125	0.150	0.175	0.200	0.225	0.250	0.275	0.300	0.325	0.350	0.375	0.400	0.425	0.450	0.475	0.500	0.525	0.550	0.575	0.600	0.625	0.650	0.675	0.700	0.725	0.750	0.775	0.800	0.825	0.850	0.875	0.900	0.925	0.950	0.975	0
CAMBER (GIRDER ALONE IN PLACE) †	0	0.017	0.035	0.052	0.069	0.085	0.101	0.115	0.130	0.143	0.156	0.167	0.178	0.186	0.195	0.202	0.208	0.212	0.216	0.217	0.219	0.217	0.216	0.212	0.208	0.202	0.195	0.186	0.178	0.167	0.156	0.143	0.130	0.115	0.101	0.085	0.069	0.052	0.035	0.017	0
* DEFLECTION DUE TO SUPERIMPOSED D.L.	0	0.013	0.025	0.038	0.050	0.062	0.073	0.084	0.095	0.104	0.114	0.122	0.130	0.136	0.143	0.147	0.152	0.155	0.158	0.159	0.160	0.159	0.158	0.155	0.152	0.147	0.143	0.136	0.130	0.122	0.114	0.104	0.095	0.084	0.073	0.062	0.050	0.038	0.025	0.013	0
FINAL CAMBER †	0	1/16"	1/8"	3/16"	1/4"	1/4"	5/16"	3/8"	7/16"	7/16"	1/2"	9/16"	9/16"	5/8"	5/8"	5/8"	11/16"	11/16"	11/16"	11/16"	11/16"	11/16"	11/16"	11/16"	11/16"	5/8"	5/8"	5/8"	9/16"	9/16"	1/2"	7/16"	7/16"	3/8"	5/16"	1/4"	1/4"	3/16"	1/8"	1/16"	0

DEAD LOAD DEFLECTION TABLE FOR GIRDER

0.6" Ø LOW RELAXATION		SPAN B (GIRDER 2, 3, & 4)																																							
FOURIETH POINTS	0	0.025	0.050	0.075	0.100	0.125	0.150	0.175	0.200	0.225	0.250	0.275	0.300	0.325	0.350	0.375	0.400	0.425	0.450	0.475	0.500	0.525	0.550	0.575	0.600	0.625	0.650	0.675	0.700	0.725	0.750	0.775	0.800	0.825	0.850	0.875	0.900	0.925	0.950	0.975	0
CAMBER (GIRDER ALONE IN PLACE) †	0	0.017	0.035	0.052	0.069	0.085	0.101	0.115	0.130	0.143	0.156	0.167	0.178	0.186	0.195	0.202	0.208	0.212	0.216	0.217	0.219	0.217	0.216	0.212	0.208	0.202	0.195	0.186	0.178	0.167	0.156	0.143	0.130	0.115	0.101	0.085	0.069	0.052	0.035	0.017	0
* DEFLECTION DUE TO SUPERIMPOSED D.L.	0	0.011	0.023	0.034	0.045	0.055	0.065	0.075	0.084	0.093	0.101	0.108	0.116	0.121	0.127	0.131	0.135	0.138	0.140	0.141	0.142	0.141	0.140	0.138	0.135	0.131	0.127	0.121	0.116	0.108	0.101	0.093	0.084	0.075	0.065	0.055	0.045	0.034	0.023	0.011	0
FINAL CAMBER †	0	1/16"	1/8"	3/16"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"	5/8"	11/16"	3/4"	13/16"	13/16"	7/8"	7/8"	7/8"	15/16"	15/16"	15/16"	15/16"	15/16"	7/8"	7/8"	7/8"	13/16"	13/16"	3/4"	11/16"	5/8"	5/8"	9/16"	1/2"	7/16"	3/8"	5/16"	3/16"	1/8"	1/16"	0

* INCLUDES FUTURE WEARING SURFACE
ALL VALUES ARE SHOWN IN FEET (DECIMAL FORM), EXCEPT "FINAL CAMBER", WHICH IS GIVEN IN INCHES (FRACTION FORM).

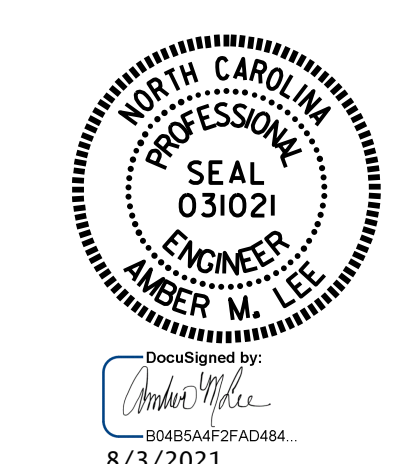
DEAD LOAD DEFLECTION TABLE FOR GIRDER

0.6" Ø LOW RELAXATION		SPAN A & C (GIRDER 1 & 5)																					
TWENTIETH POINTS	0	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90	0.95	0		
CAMBER (GIRDER ALONE IN PLACE) †	0	0.017	0.034	0.049	0.064	0.076	0.088	0.096	0.103	0.106	0.108	0.106	0.103	0.096	0.088	0.076	0.064	0.049	0.034	0.017	0		
* DEFLECTION DUE TO SUPERIMPOSED D.L.	0	0.009	0.018	0.026	0.035	0.041	0.047	0.051	0.055	0.057	0.058	0.057	0.055	0.051	0.047	0.041	0.035	0.026	0.018	0.009	0		
FINAL CAMBER †	0	1/8"	3/16"	1/4"	3/8"	7/16"	1/2"	9/16"	9/16"	9/16"	5/8"	5/8"	5/8"	5/8"	5/8"	9/16"	1/2"	7/16"	3/8"	1/4"	3/16"	1/8"	0

DEAD LOAD DEFLECTION TABLE FOR GIRDER

0.6" Ø LOW RELAXATION		SPAN A & C (GIRDER 2, 3, & 4)																			
TWENTIETH POINTS	0	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90	0.95	0
CAMBER (GIRDER ALONE IN PLACE) †	0	0.017	0.034	0.049	0.064	0.076	0.088	0.095	0.103	0.105	0.108	0.105	0.103	0.095	0.088	0.076	0.064	0.049	0.034	0.017	0
* DEFLECTION DUE TO SUPERIMPOSED D.L.	0	0.008	0.017	0.025	0.032	0.038	0.044	0.048	0.051	0.053	0.054	0.053	0.051	0.048	0.044	0.038	0.032	0.025	0.017	0.008	0
FINAL CAMBER †	0	1/8"	3/16"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"	5/8"	5/8"	5/8"	5/8"	9/16"	1/2"	7/16"	3/8"	5/16"	3/16"	1/8"	0

ASSEMBLED BY : M. G. SHAIKH DATE : 06/2020
CHECKED BY : A. LEE DATE : 06/2020
DRAWN BY : ELR 11/91 REV. 1/15 MAA/TMC
CHECKED BY : GRP 11/91 REV. 2/15 MAA/TMC
REV. 12/17 MAA/THC



PROJECT NO. BR-0002
ASHE COUNTY
STATION: 23+80.00 -L-

SHEET 3 OF 4

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

PRESTRESSED CONCRETE GIRDER
CONTINUOUS FOR LIVE LOAD
DETAILS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-17
1			3			TOTAL SHEETS 40
2			4			

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED