

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.

APPLY EPOXY PROTECTIVE COATING TO END OF GIRDER SURFACES INDICATED IN ELEVATION VIEW.

EMBEDDED PLATE "B-1" SHALL BE GALVANIZED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. BEVEL EDGES OF PLATE "B-1" TO GIVE CLOSE FIT BUT NOT TIGHT FIT TO STEEL CASTING FORM.

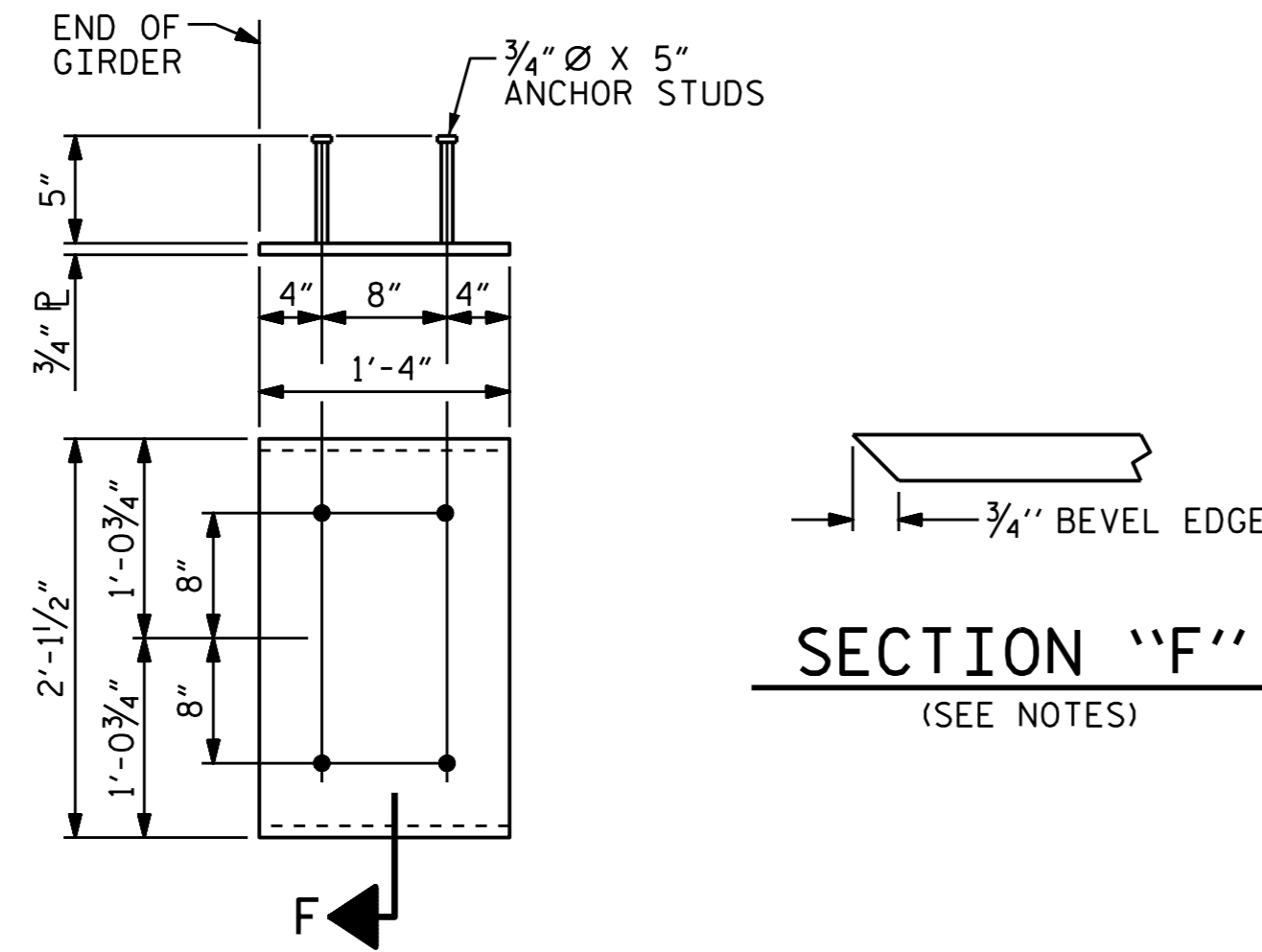
ANCHOR STUDS SHALL CONFORM TO AASHTO M169 GRADES 1010 THROUGH 1020 OR APPROVED EQUAL, AND SHALL MEET THE TYPE "B" REQUIREMENTS OF SUBSECTION 7.3 OF THE ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE.

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.

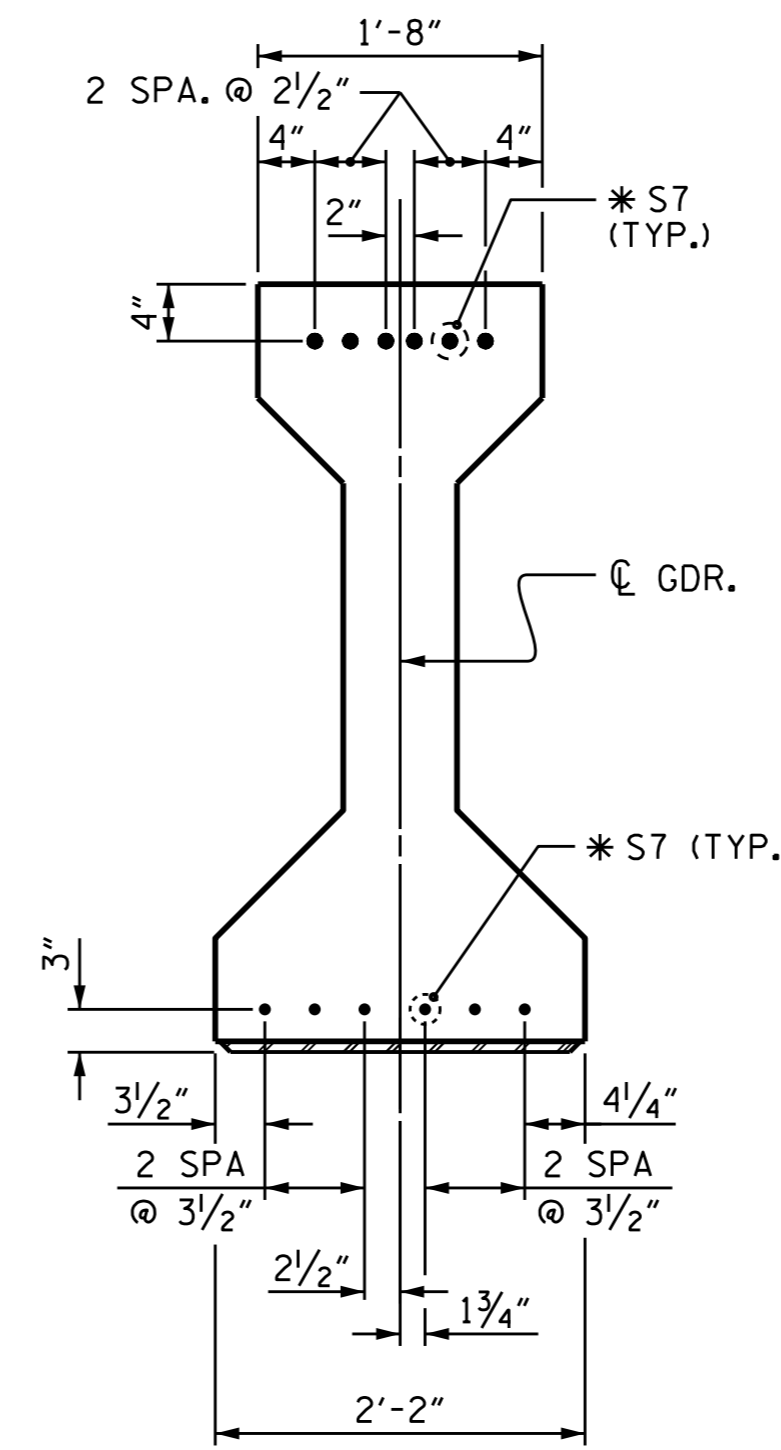
TRANSFER OF LOAD FROM THE ANCHORAGES TO THE GIRDER SHALL BE DONE WHEN CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF NOT LESS THAN 6400 PSI FOR SPAN A AND 6800 PSI FOR SPAN B.

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".



EMBEDDED PLATE "B-1" DETAILS
(2 REQ'D PER GIRDER)



DETAIL "A"

DEAD LOAD DEFLECTION TABLE																					
SPAN A																					
0.6" LOW RELAXATION GIRDERS #1, #3, #6, & #8																					
TWENTIETH POINTS	BRG.	.05	.1	.15	.2	.25	.3	.35	.4	.45	.5	.55	.6	.65	.7	.75	.8	.85	.9	.95	BRG.
CAMBER (GIRDER ALONE IN PLACE) ↑	0	0.038	0.075	0.109	0.141	0.169	0.193	0.212	0.226	0.234	0.237	0.234	0.226	0.212	0.193	0.169	0.141	0.109	0.075	0.038	0
* DEFLECTION DUE TO SUPERIMPOSED D.L. ↓	0	0.028	0.055	0.080	0.103	0.124	0.141	0.155	0.165	0.172	0.174	0.172	0.165	0.155	0.141	0.124	0.103	0.080	0.055	0.028	0
FINAL CAMBER ↑	0	1/8"	1/4"	3/8"	7/16"	9/16"	5/8"	11/16"	3/4"	3/4"	3/4"	3/4"	3/4"	11/16"	5/8"	9/16"	7/16"	3/8"	1/4"	1/8"	0
INTERIOR GIRDERS #2 & #7																					
CAMBER (GIRDER ALONE IN PLACE) ↑	0	0.038	0.075	0.109	0.141	0.169	0.193	0.212	0.226	0.234	0.237	0.234	0.226	0.212	0.193	0.169	0.141	0.109	0.075	0.038	0
* DEFLECTION DUE TO SUPERIMPOSED D.L. ↓	0	0.029	0.057	0.084	0.108	0.130	0.148	0.163	0.174	0.180	0.182	0.180	0.174	0.163	0.148	0.103	0.108	0.084	0.057	0.029	0
FINAL CAMBER ↑	0	1/8"	3/16"	5/16"	3/8"	7/16"	9/16"	9/16"	5/8"	5/8"	5/8"	5/8"	5/8"	9/16"	9/16"	7/16"	3/8"	5/16"	3/16"	1/8"	0
INTERIOR GIRDERS #4 & #5																					
CAMBER (GIRDER ALONE IN PLACE) ↑	0	0.038	0.075	0.109	0.141	0.169	0.193	0.212	0.226	0.234	0.237	0.234	0.226	0.212	0.193	0.169	0.141	0.109	0.075	0.038	0
* DEFLECTION DUE TO SUPERIMPOSED D.L. ↓	0	0.025	0.050	0.073	0.094	0.113	0.129	0.142	0.151	0.157	0.159	0.157	0.151	0.142	0.129	0.113	0.094	0.073	0.050	0.025	0
FINAL CAMBER ↑	0	1/8"	5/16"	7/16"	9/16"	11/16"	3/4"	13/16"	7/8"	15/16"	15/16"	15/16"	7/8"	13/16"	3/4"	11/16"	9/16"	7/16"	5/16"	1/8"	0
SPAN B																					
0.6" LOW RELAXATION GIRDERS #1, #3, #6 & #8																					
CAMBER (GIRDER ALONE IN PLACE) ↑	0	0.037	0.073	0.107	0.138	0.166	0.189	0.208	0.222	0.230	0.233	0.230	0.222	0.208	0.189	0.166	0.138	0.107	0.073	0.037	0
* DEFLECTION DUE TO SUPERIMPOSED D.L. ↓	0	0.030	0.060	0.088	0.113	0.136	0.155	0.171	0.182	0.189	0.191	0.189	0.182	0.171	0.155	0.136	0.113	0.088	0.060	0.030	0
FINAL CAMBER ↑	0	1/16"	1/8"	1/4"	5/16"	3/8"	3/8"	7/16"	1/2"	1/2"	1/2"	1/2"	1/2"	7/16"	3/8"	3/8"	5/16"	1/4"	1/8"	1/16"	0
INTERIOR GIRDERS #2 & #7																					
CAMBER (GIRDER ALONE IN PLACE) ↑	0	0.037	0.073	0.107	0.138	0.166	0.189	0.208	0.222	0.230	0.233	0.230	0.222	0.208	0.189	0.166	0.138	0.107	0.073	0.037	0
* DEFLECTION DUE TO SUPERIMPOSED D.L. ↓	0	0.032	0.063	0.092	0.119	0.143	0.163	0.179	0.191	0.198	0.201	0.198	0.191	0.179	0.163	0.143	0.119	0.092	0.063	0.032	0
FINAL CAMBER ↑	0	1/16"	1/8"	3/16"	1/4"	1/4"	5/16"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	1/4"	1/4"	3/16"	1/8"	1/16"	0
INTERIOR GIRDERS #4 & #5																					
CAMBER (GIRDER ALONE IN PLACE) ↑	0	0.037	0.073	0.107	0.138	0.166	0.189	0.208	0.222	0.230	0.233	0.230	0.222	0.208	0.189	0.166	0.138	0.107	0.073	0.037	0
* DEFLECTION DUE TO SUPERIMPOSED D.L. ↓	0	0.028	0.055	0.080	0.104	0.124	0.142	0.156	0.166	0.172	0.175	0.172	0.166	0.156	0.142	0.124	0.104	0.080	0.055	0.028	0
FINAL CAMBER ↑	0	1/8"	3/16"	5/16"	7/16"	1/2"	9/16"	5/8"	1/16"	1/16"	1/16"	1/16"	1/16"	5/8"	9/16"	1/2"	7/16"	5/16"	3/16"	1/8"	0

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



DocuSigned by:
Ting Fang
E720840097435 7/1/2016

PROJECT NO. U-2524D
GUILFORD COUNTY
STATION: 25+18.62 -Y6-

SHEET 4 OF 4

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUPERSTRUCTURE
DEAD LOAD DEFLECTIONS

DESIGN ENGINEER OF RECORD:
P. K. NEWTON DATE: 5/9/2016
ASSEMBLED BY: M. SHAHIDI DATE: 4/20/16
CHECKED BY: T. H. FANG DATE: 5/2/16
DRAWN BY: ELR 11/91
CHECKED BY: GRP 11/91
REV. 7/10/01RR LES/RDR
REV. 5/1/06 TLA/GM
REV. 10/1/11 MAA/GM

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			51-14
2			4			33