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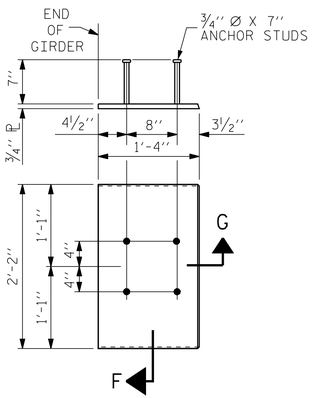
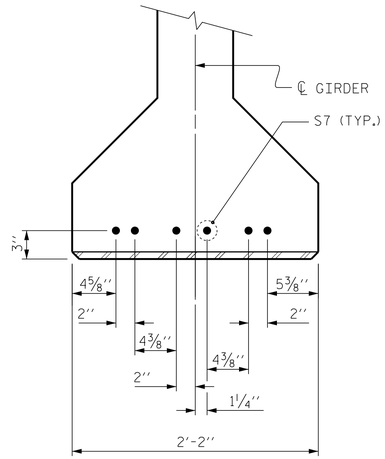


EMBEDDED PLATE "B-1" DETAILS FOR AASHTO TYPE IV GIRDER

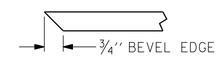
(2 REQ'D PER GIRDER)



DETAIL "A"

(FOR AASHTO TYPE IV GIRDERS)

SECTION "G"



SECTION "F"

(SEE NOTES)

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.

THE TRANSFER OF LOAD FROM THE ANCHORAGES TO THE GIRDER SHALL BE DONE WHEN CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF NOT LESS THAN 4,000 PSI (SPAN A & C) AND 5,000 PSI (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".

WHEN DRAPED STRANDS ARE DETAILED, THE LONGITUDINAL LOCATION OF THE HOLD DOWN DEVICES SHALL BE WITHIN 6" OF THE LOCATION SHOWN AND THE CENTER OF GRAVITY OF THE GROUP OF DRAPED STRANDS SHALL BE LOCATED WITHIN 1/2" OF THE THEORETICAL LOCATION SHOWN.

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.

THE UPLIFT FORCE DUE TO THE DRAPED STRANDS IS 20.7 KIPS.

DEAD LOAD DEFLECTION TABLE

	SPAN A																					
0.6"Ø LOW RELAXATION	GIRDER A1 & A9											GIRDER A2-A8										
TENTH POINT	BRG.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	BRG.	BRG.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	BRG.
CAMBER (GIRDER ALONG IN PLACE) ↑	0	0.008	0.016	0.021	0.025	0.026	0.025	0.021	0.016	0.008	0	0	0.008	0.015	0.021	0.025	0.026	0.025	0.021	0.015	0.008	0
* DEFLECTION DUE TO SUPERIMPOSED D.L. ↓	0	0.003	0.006	0.008	0.010	0.011	0.010	0.008	0.006	0.003	0	0	0.003	0.006	0.008	0.009	0.010	0.009	0.008	0.006	0.003	0
FINAL CAMBER ↑	0	1/16	1/8	1/8	3/16	3/16	3/16	1/8	1/8	1/16	0	0	1/16	1/8	1/8	3/16	3/16	3/16	1/8	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).

SIGN CONVENTION FOR DEAD LOAD DEFLECTION TABLE ↕ + o −

PROJECT NO. B-5119
GUILFORD COUNTY
STATION: 26+31.94 -L - 16+43.93 -Y1-
SHEET 4 OF 5

NORTH CAROLINA PROFESSIONAL SEAL 12186 ENGINEER CECIL L. NARRON

DocuSigned by: Cecil L. Narron C169A3D645024DD... 11/3/2014

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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARD

PRESTRESSED CONCRETE GIRDER CONTINUOUS FOR LIVE LOAD DETAILS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-17
1			3			TOTAL SHEETS
2			4			77

STD. NO. PCG9

ASSEMBLED BY : JIK		DATE : 10/14	
CHECKED BY : JCW		DATE : 10/14	
DRAWN BY : ELR 11/91	REV. 7/10/01RR LES/RDR		
CHECKED BY : GRP 11/91	REV. 5/1/06 TLA/GM		
	REV. 10/1/11 MAA/GM		

10/31/2014 K:\RDT_Structures_Bridge\NC\01103686_B-5119 I40-85 Bridges\Cad\dgn\B-5119_349_S17.dgn