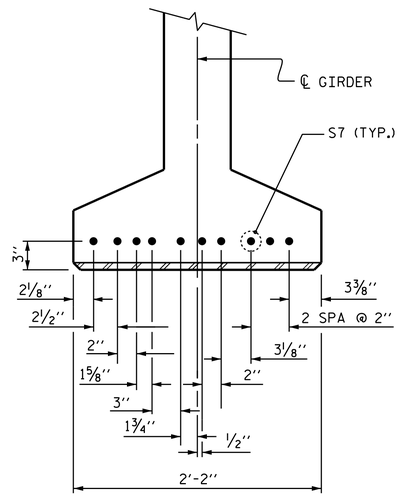
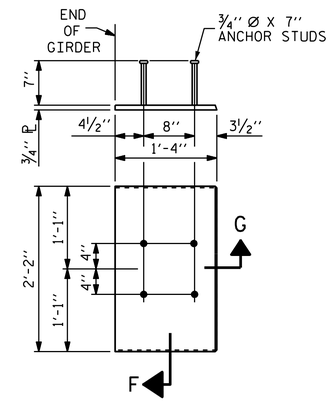


DETAIL "C"



EMBEDDED PLATE "B-1" DETAILS
FOR 72" MODIFIED BULB TEES

(2 REQ'D PER GIRDER)

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.

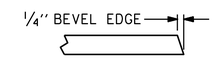
AT ENDS OF GIRDERS TO BE EMBEDDED IN CONCRETE DIAPHRAGMS OR END WALLS, PRESTRESSING STRANDS MAY EXTEND A MAXIMUM OF 2" BEYOND THE GIRDER ENDS. OTHERWISE, PRESTRESSING STRANDS SHALL BE CUT FLUSH WITH THE GIRDER ENDS.

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 FOR SPANS A AND C AND 6,200 PSI FOR SPAN B.

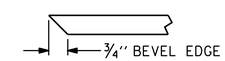
DEPENDING ON THE TYPE OF SYSTEM USED TO SUPPORT THE DECK SLAB FORMS, PRESET ANCHORS MAY BE NECESSARY IN THE PRESTRESSED CONCRETE GIRDER.

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.



SECTION "G"



SECTION "F"

(SEE NOTES)

DEAD LOAD DEFLECTION TABLE FOR GIRDERS

0.6" Ø LOW RELAXATION	SPAN A											SPAN C										
	GIRDER A1 THRU A8											GIRDER C1 THRU C8										
TENTH POINTS	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	0.0
CAMBER (GIRDER ALONE IN PLACE) ↑	0.000	0.045	0.086	0.117	0.138	0.145	0.138	0.117	0.086	0.045	0.000	0.000	0.028	0.053	0.073	0.085	0.090	0.085	0.073	0.053	0.028	0.000
* DEFLECTION DUE TO SUPERIMPOSED D.L. ↓	0.000	0.016	0.032	0.043	0.051	0.053	0.051	0.043	0.032	0.016	0.000	0.000	0.010	0.019	0.026	0.030	0.032	0.030	0.026	0.019	0.010	0.000
FINAL CAMBER ↑	0	3/8"	5/8"	7/8"	1 1/16"	1 1/8"	1 1/16"	7/8"	5/8"	3/8"	0	0	3/16"	7/16"	9/16"	11/16"	11/16"	11/16"	9/16"	7/16"	3/16"	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 GIRDERS

0.6" Ø LOW RELAXATION	SPAN B																					
	GIRDER B1 THRU B8																					
TWENTIETH POINTS	0.00	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	0.00	
CAMBER (GIRDER ALONE IN PLACE) ↑	0.000	0.048	0.097	0.140	0.183	0.217	0.251	0.272	0.294	0.301	0.308	0.301	0.294	0.272	0.251	0.217	0.183	0.140	0.097	0.048	0.000	
* DEFLECTION DUE TO SUPERIMPOSED D.L. ↓	0.000	0.015	0.031	0.045	0.058	0.069	0.080	0.087	0.094	0.096	0.098	0.096	0.094	0.087	0.080	0.069	0.058	0.045	0.031	0.015	0.000	
FINAL CAMBER ↑	0	3/8"	13/16"	1 1/8"	1 1/2"	1 3/4"	2 1/16"	2 1/4"	2 3/8"	2 7/16"	2 1/2"	2 7/16"	2 3/8"	2 1/4"	2 1/16"	1 3/4"	1 1/2"	1 1/8"	13/16"	3/8"	0	

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

PROJECT NO. U-2579B
FORSYTH COUNTY
STATION: 584+36.24 -L-

SHEET 5 OF 5

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARD

PRESTRESSED CONCRETE GIRDER CONTINUOUS FOR LIVE LOAD DETAILS

(LEFT LANE)

NORTH CAROLINA PROFESSIONAL SEAL 23371 ENGINEER VIPUL A. PATEL

DocuSigned by: Vipul A. Patel 1C157DE15D464AA... 8/1/2014

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-157
1			3			TOTAL SHEETS
2			4			707

STR. #5

STD. NO. PCG9

ASSEMBLED BY : T. H. CARROLL DATE :10/22/13
CHECKED BY : P. S. ADKINS DATE :12/30/13

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

DESIGN ENGINEER OF RECORD:
H. A. LOCKLEAR DATE : 6/4/14

31-JUL-2014 17:15
R:\Structures\Plans\Str05\U2579B_SD_G*_05.dgn
lsutton