

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.

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, PRESTRESSING STRANDS MAY EXTEND A MAXIMUM OF 2" BEYOND THE GIRDER ENDS. OTHERWISE, PRESTRESSING STRANDS SHALL BE CUT FLUSH WITH THE GIRDER ENDS.

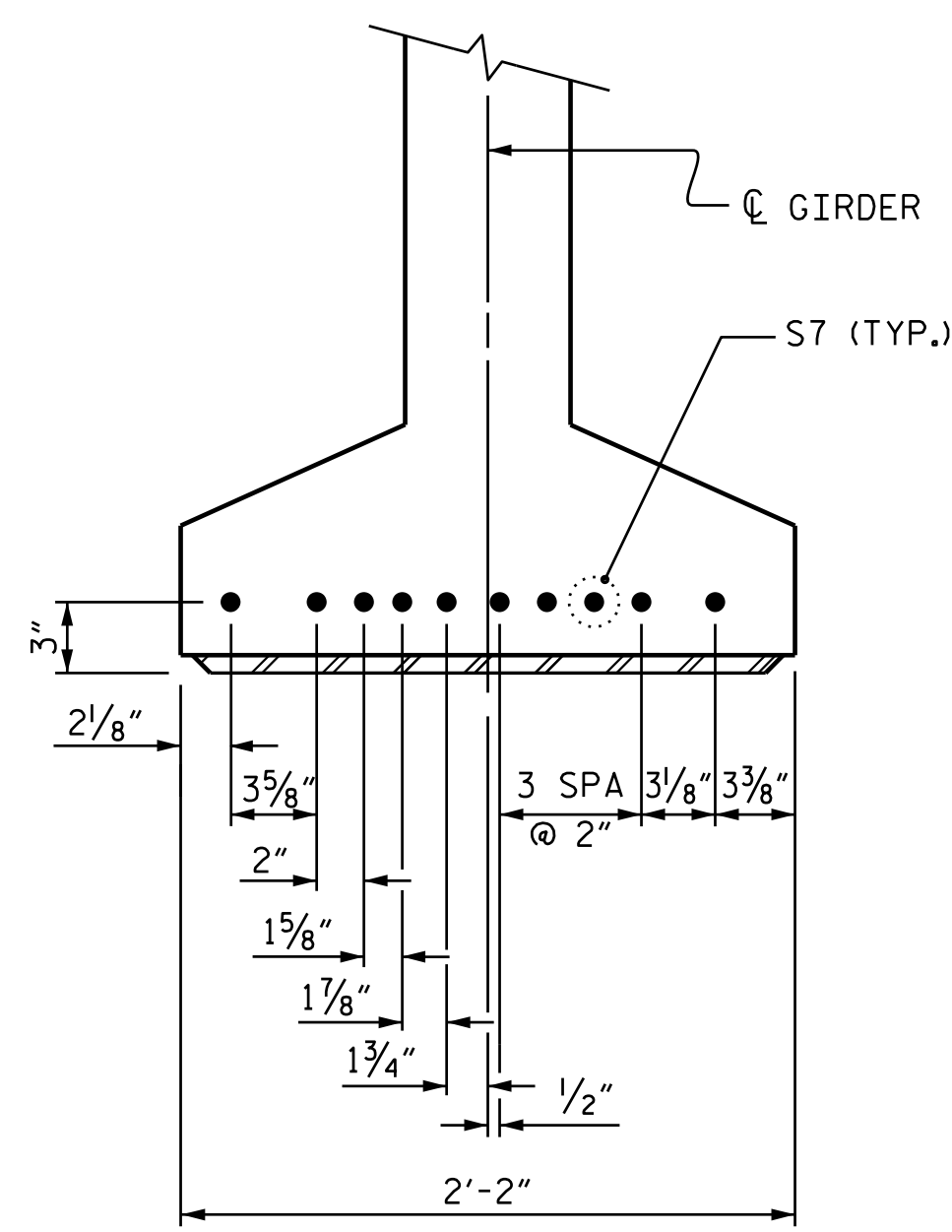
THE TRANSFER OF LOAD FROM THE ANCHORAGES TO THE GIRDER SHALL BE DONE WHEN CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF NOT LESS THAN 6,400 PSI FOR SPAN A AND 7,600 PSI FOR SPAN B.

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".

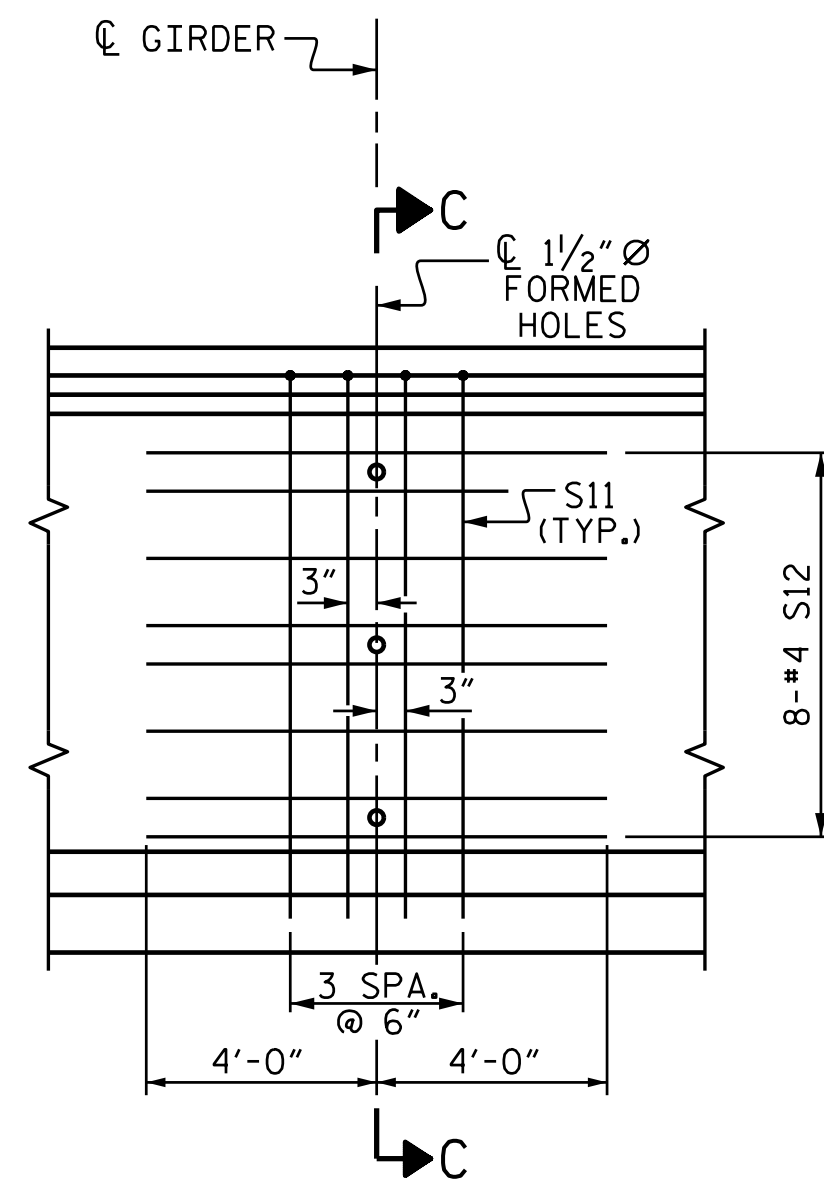
A 2" x 2" CHAMFER IS ALLOWED AT THE INTERSECTION OF THE WEB AND THE BOTTOM FLANGE OF THE 63" AND 72" MODIFIED BULB TEES ONLY.

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.



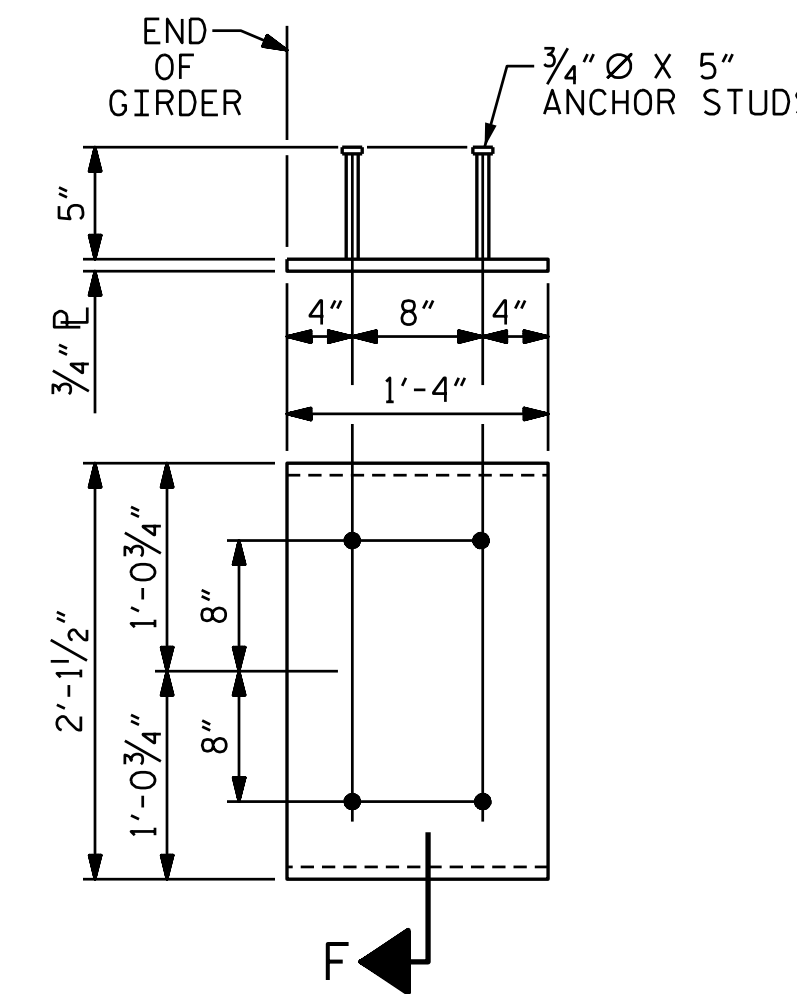
DETAIL "C"

(FOR 63" MODIFIED BULB TEES)



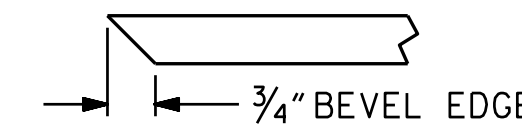
PARTIAL ELEVATION

SHOWING INTERMEDIATE STEEL DIAPHRAGM REINFORCING STEEL FOR GIRDERS



EMBEDDED PLATE "B-1" DETAILS

(2 REQ'D PER GIRDER)



SECTION "F"

(SEE NOTES)

DEAD LOAD DEFLECTION TABLE

0.6" Ø LOW RELAXATION	SPAN A																					
	EXTERIOR GIRDERS																					
	TENTH POINTS	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	0										
CAMBER (GIRDER ALONE IN PLACE)	↑	0.0	0.053	0.101	0.138	0.162	0.170	0.162	0.138	0.101	0.053	0.0										
* DEFLECTION DUE TO SUPERIMPOSED D.L.	↓	0.0	0.026	0.052	0.072	0.085	0.089	0.085	0.072	0.052	0.026	0.0										
FINAL CAMBER	↑	0.0	5/16"	3/8"	1/2"	5/8"	1"	1 1/8"	1 1/4"	1 1/2"	1 3/4"	0.0										
	SPAN B																					
	EXTERIOR GIRDERS																					
	TENTH POINTS	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	0										
CAMBER (GIRDER ALONE IN PLACE)	↑	0.0	0.053	0.101	0.138	0.162	0.170	0.162	0.138	0.101	0.053	0.0										
* DEFLECTION DUE TO SUPERIMPOSED D.L.	↓	0.0	0.029	0.057	0.079	0.093	0.097	0.093	0.079	0.057	0.029	0.0										
FINAL CAMBER	↑	0.0	5/16"	1/2"	11/16"	13/16"	7/8"	13/16"	11/16"	1/2"	5/16"	0.0										
	SPAN B																					
	EXTERIOR GIRDERS																					
	TWENTIETH POINTS	0	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	0
CAMBER (GIRDER ALONE IN PLACE)	↑	0.0	0.045	0.088	0.129	0.166	0.200	0.228	0.250	0.267	0.277	0.280	0.277	0.267	0.250	0.228	0.200	0.166	0.129	0.088	0.045	0.0
* DEFLECTION DUE TO SUPERIMPOSED D.L.	↓	0.0	0.025	0.049	0.073	0.097	0.115	0.134	0.145	0.157	0.161	0.165	0.161	0.157	0.145	0.134	0.115	0.097	0.073	0.049	0.025	0.0
FINAL CAMBER	↑	0.0	1/4"	7/16"	11/16"	13/16"	1"	1 1/8"	1 1/4"	1 1/2"	1 3/8"	1 3/8"	1 3/8"	1 3/8"	1 1/4"	1 1/8"	1"	13/16"	11/16"	7/16"	1/4"	0.0
	SPAN B																					
	INTERIOR GIRDERS																					
	TWENTIETH POINTS	0	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	0
CAMBER (GIRDER ALONE IN PLACE)	↑	0.0	0.045	0.088	0.129	0.166	0.200	0.228	0.250	0.267	0.277	0.280	77	0.267	0.250	0.228	0.200	0.166	0.129	0.088	0.045	0.0
* DEFLECTION DUE TO SUPERIMPOSED D.L.	↓	0.0	0.027	0.054	0.079	0.105	0.125	0.146	0.159	0.171	0.176	0.180	0.176	0.171	0.159	0.146	0.125	0.105	0.079	0.054	0.027	0.0
FINAL CAMBER	↑	0.0	3/16"	7/16"	9/16"	3/4"	7/8"	1"	1 1/8"	1 1/8"	1 3/16"	1 3/16"	1 3/16"	1 1/8"	1 1/8"	1"	7/8"	3/4"	9/16"	7/16"	3/16"	0.0

* 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-2525C
GUILFORD COUNTY
 STATION: 17+37.28 -Y16-

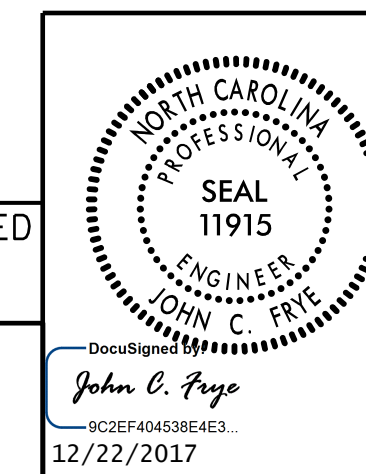
SHEET 3 OF 4

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

PRESTRESSED CONCRETE GIRDER
 CONTINUOUS FOR LIVE LOAD
 DETAILS

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

PLANS PREPARED BY:
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 Fuquay-Varina, NC 27526
 (919) 552-2253
 www.mottmac.com
 MOTT MACDONALD LICENSE NO. F-0669



REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S1-13
1			3			TOTAL SHEETS
2			4			29

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DRAWN BY: J. T. WILLIAMS DATE: 4-2017
 CHECKED BY: J. E. MONDOLFI DATE: 8-2017
 DESIGN ENGINEER OF RECORD: J. E. MONDOLFI DATE: 11-2017