

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.

TIE ROD ASSEMBLY SHALL BE AASHTO M270 GRADE 36 STRUCTURAL STEEL.

ALL REINFORCING STEEL SHALL BE GRADE 60.

APPLY EPOXY PROTECTIVE COATING TO END OF GIRDER SURFACES INDICATED IN ELEVATION VIEW. FOR EPOXY PROTECTIVE COATING, SEE SPECIAL PROVISIONS.

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 5300 PSI FOR SPAN A (STAGES I & II), 6000 PSI FOR SPANS B, C, D & E (STAGE I), 6700 PSI FOR SPANS B, C, D & E (STAGE II), 7200 PSI FOR SPAN F (STAGES I & II) AND 4000 PSI FOR SPAN G (STAGES I & II).

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".

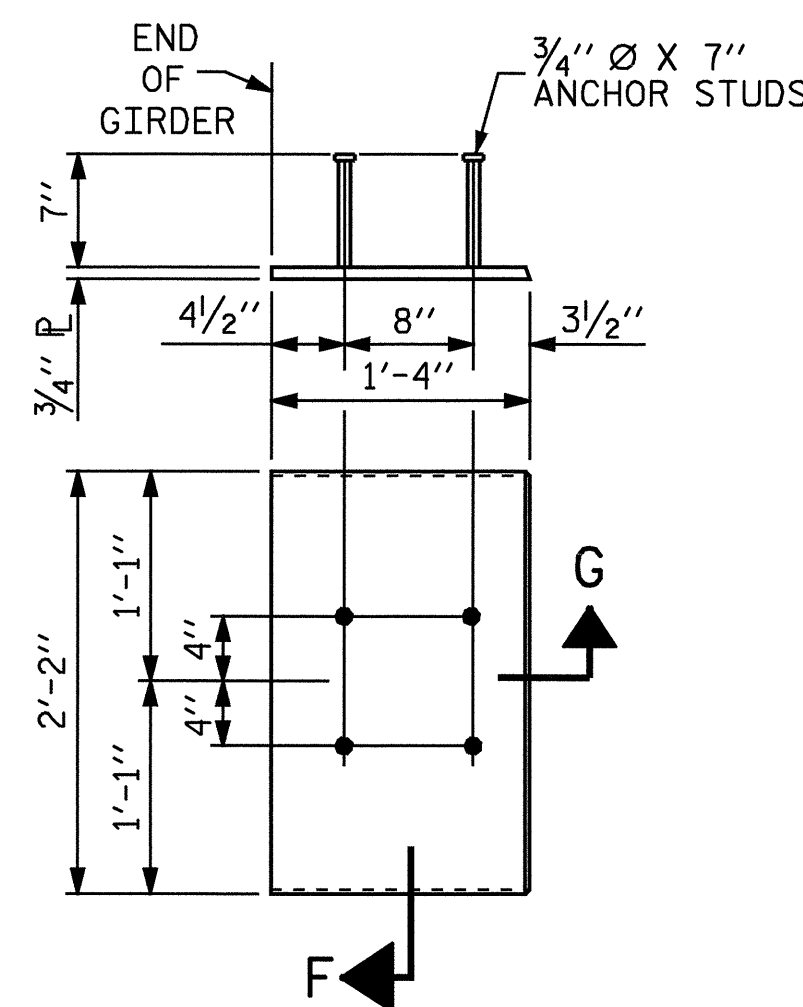
WHEN DRAPED STRANDS ARE DETAILED, THE LONGITUDINAL LOCATION OF THE HOLD DOWN DEVICES SHALL BE WITHIN 6" OF THE LOCATION SHOWN AND THE CENTER OF GRAVITY OF THE GROUP OF DRAPED STRANDS SHALL BE LOCATED WITHIN 1/2" OF THE THEORETICAL LOCATION SHOWN.

A 2" x 2" CHAMFER IS ALLOWED AT THE INTERSECTION OF THE WEB AND THE BOTTOM FLANGE.

FOR VERTICAL CRACKS IN PRESTRESSED CONCRETE GIRDERS PRIOR TO DETENSIONING, SEE SPECIAL PROVISIONS.

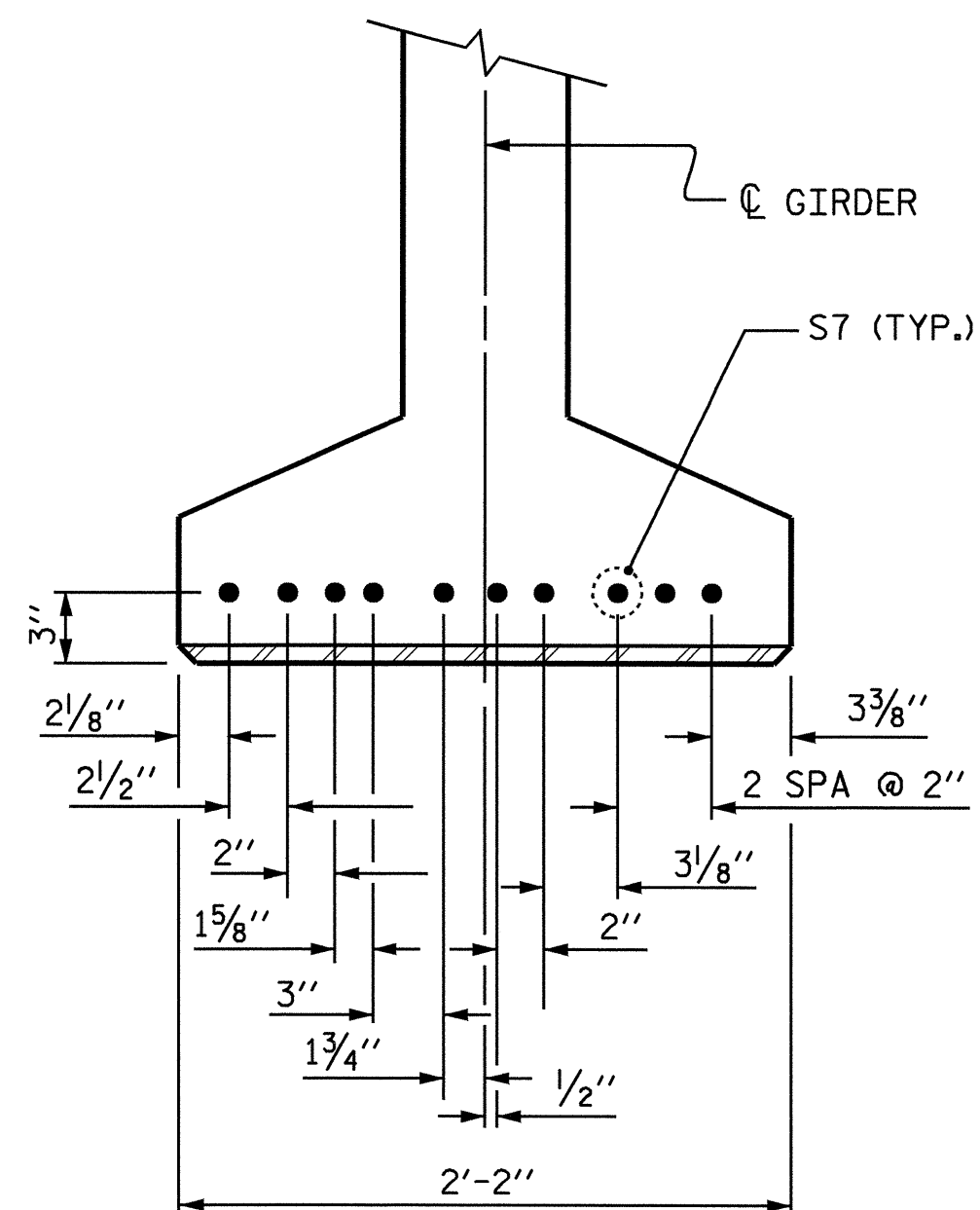
FOR PRESTRESSED CONCRETE MEMBERS, SEE SPECIAL PROVISIONS.

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 72" MODIFIED BULB TEES

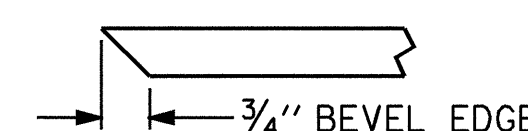
(2 REQ'D PER GIRDER)



DETAIL "C"



SECTION "G"



SECTION "F"

(SEE NOTES)

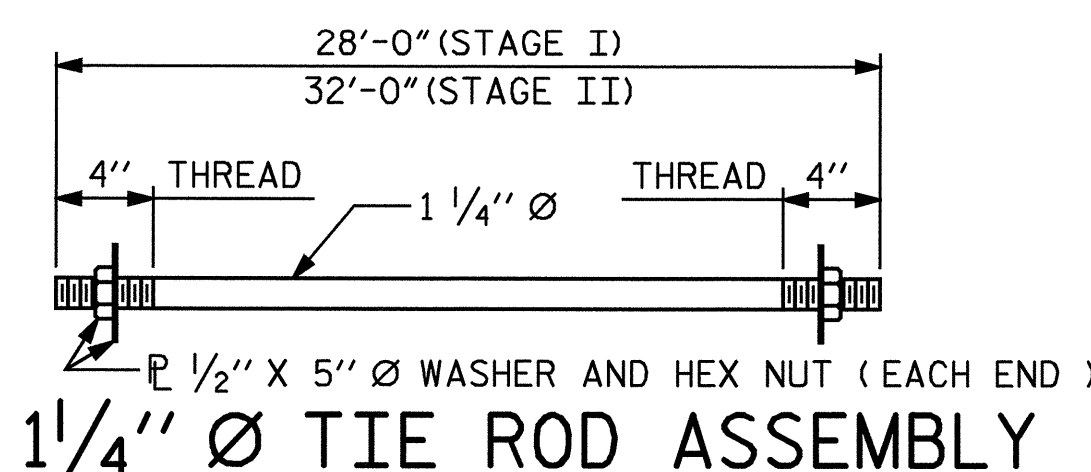
0.6" Ø LOW RELAXATION TENTH POINTS	SPAN A - GIRDERS 1 THRU 8 (STAGES I & II)										SPANS B, C & E - GIRDERS 1 THRU 4 (STAGE I)										SPANS B, C & E - GIRDERS 5 THRU 8 (STAGE II)									
	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	0	.1	.2	.3	.4	.5	.6	.7	.8	.9
CAMBER (GIRDER ALONE IN PLACE)	0.0	0.090	0.170	0.232	0.272	0.286	0.272	0.232	0.170	0.090	0.0	0.0	0.132	0.251	0.343	0.402	0.422	0.402	0.343	0.251	0.0	0.0	0.154	0.291	0.399	0.467	0.491	0.467	0.399	0.291
* DEFLECTION DUE TO SUPERIMPOSED D.L.	0.0	0.023	0.044	0.060	0.070	0.074	0.070	0.060	0.044	0.023	0.0	0.0	0.056	0.106	0.145	0.170	0.178	0.170	0.145	0.106	0.0	0.0	0.057	0.107	0.147	0.172	0.181	0.172	0.147	0.107
FINAL CAMBER	0.0	13/16"	1 1/2"	2 1/16"	2 7/16"	2 9/16"	2 7/16"	2 1/16"	1 1/2"	13/16"	0.0	0.0	1 5/16"	1 3/4"	2 3/8"	2 13/16"	2 15/16"	2 13/16"	2 3/8"	1 3/4"	1 5/16"	0.0	0.0	1 3/16"	2 3/16"	3"	3 9/16"	3 3/4"	3 3/16"	

0.6" Ø LOW RELAXATION TENTH POINTS	SPAN D - GIRDERS 1 THRU 4 (STAGE I)										SPAN D - GIRDERS 5 THRU 8 (STAGE II)										SPAN F - GIRDERS 1 THRU 4 (STAGE I)									
	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	0	.1	.2	.3	.4	.5	.6	.7	.8	.9
CAMBER (GIRDER ALONE IN PLACE)	0.0	0.128	0.242	0.331	0.388	0.408	0.388	0.331	0.242	0.128	0.0	0.0	0.147	0.279	0.382	0.447	0.469	0.447	0.382	0.279	0.0	0.0	0.162	0.306	0.418	0.490	0.515	0.490	0.418	0.306
* DEFLECTION DUE TO SUPERIMPOSED D.L.	0.0	0.049	0.093	0.127	0.149	0.156	0.149	0.127	0.093	0.049	0.0	0.0	0.050	0.095	0.130	0.152	0.159	0.152	0.130	0.095	0.0	0.0	0.068	0.129	0.176	0.207	0.217	0.207	0.176	0.129
FINAL CAMBER	0.0	15/16"	1 13/16"	2 1/16"	2 7/8"	3"	2 7/8"	2 1/16"	1 13/16"	1 5/16"	0.0	0.0	1 3/16"	2 3/16"	3"	3 3/16"	3 3/4"	3 9/16"	3"	2 3/16"	1 3/16"	0.0	0.0	1 1/8"	2 1/8"	2 7/8"	3 3/8"	3 3/16"	3 3/8"	

0.6" Ø LOW RELAXATION TENTH POINTS	SPAN F - GIRDERS 5 THRU 9 (STAGE II)										SPAN G - GIRDERS 1 THRU 9 (STAGES I & II)									
	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	0	.1	.2	.3	.4	.5	.6	.7	.8	.9
CAMBER (GIRDER ALONE IN PLACE)	0.0	0.131	0.248	0.340	0.398	0.418	0.398	0.340	0.248	0.131	0.0	0.0	0.021	0.039	0.054	0.063	0.066	0.063	0.054	0.039
* DEFLECTION DUE TO SUPERIMPOSED D.L.	0.0	0.061	0.115	0.158	0.185	0.194	0.185	0.158	0.115	0.061	0.0	0.0	0.004	0.007	0.010	0.012	0.013	0.012	0.010	0.007
FINAL CAMBER	0.0	13/16"	1 5/8"	2 3/16"	2 9/16"	2 11/16"	2 9/16"	2 3/16"	1 5/8"	13/16"	0.0	0.0	3/16"	3/8"	1/2"	5/8"	5/8"	5/8"	1/2"	

* INCLUDES FUTURE WEARING SURFACE

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

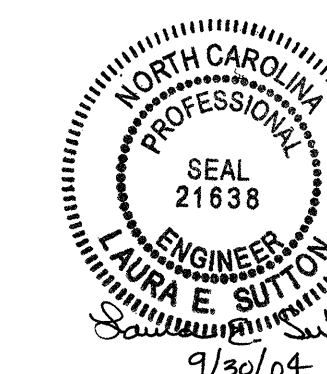


(12 COMPLETE ASSEMBLIES REQUIRED FOR EACH STAGE)

PROJECT NO. I-4025 A
YADKIN - SURRY COUNTY
 STATION: 28+95.00 -SBL-

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

PRESTRESSED CONCRETE GIRDER
 CONTINUOUS FOR LIVE LOAD
 DETAILS



REVISIONS						SHEET NO. 5-21
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			
2			4			

ASSEMBLED BY : T.A. WALTER DATE : 5/12/04
 CHECKED BY : M.A. ALLEN DATE : 8/6/04