

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.

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

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 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 4000 PSI FOR SPANS A & C AND 7200 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.

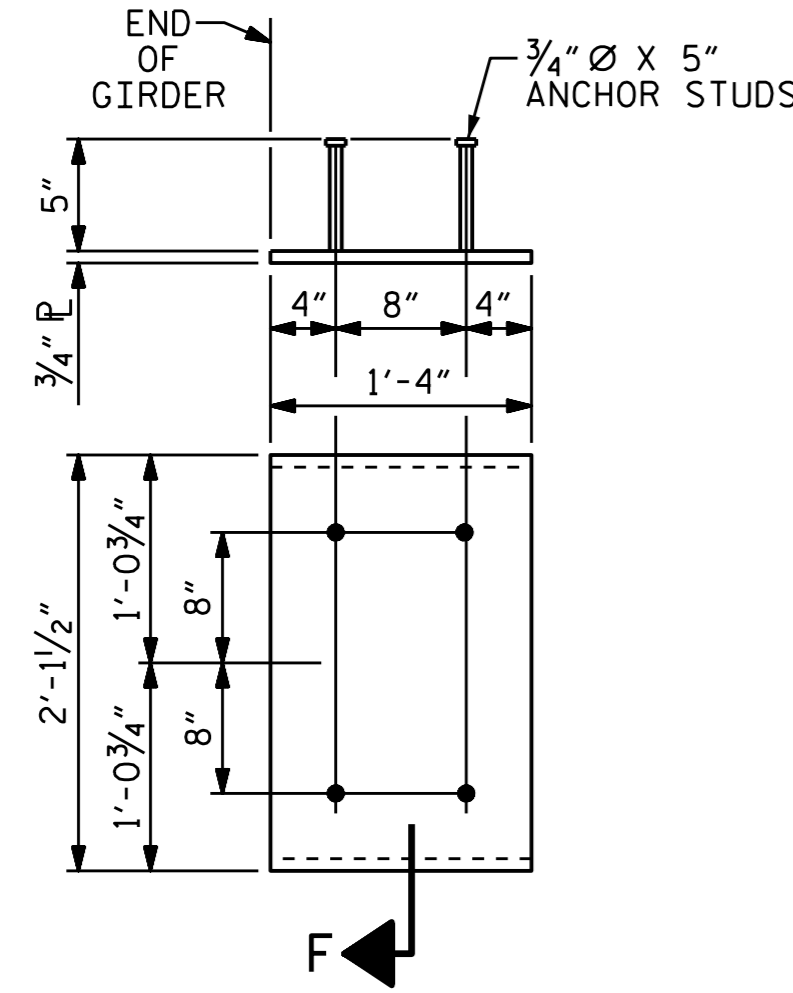
THE TOP SURFACE OF THE GIRDER, EXCLUDING THE OUTSIDE 4", SHALL BE RAKED TO A DEPTH OF 1/4".

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 OF THE 63" AND 72" MODIFIED BULB TEES ONLY.

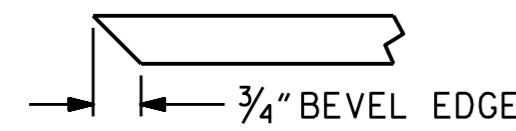
THE CONTRACTOR HAS THE OPTION TO PROVIDE, AT NO ADDITIONAL COST TO THE DEPARTMENT, 2 ADDITIONAL STRANDS AT THE TOP OF THE GIRDER TO FACILITATE TYING OF THE REINFORCING STEEL. THESE STRANDS SHALL BE PULLED TO A LOAD OF 4500 lbs.

THE UPLIFT FORCE DUE TO DRAPED STRANDS IS 28.8 KIPS IN SPAN B.



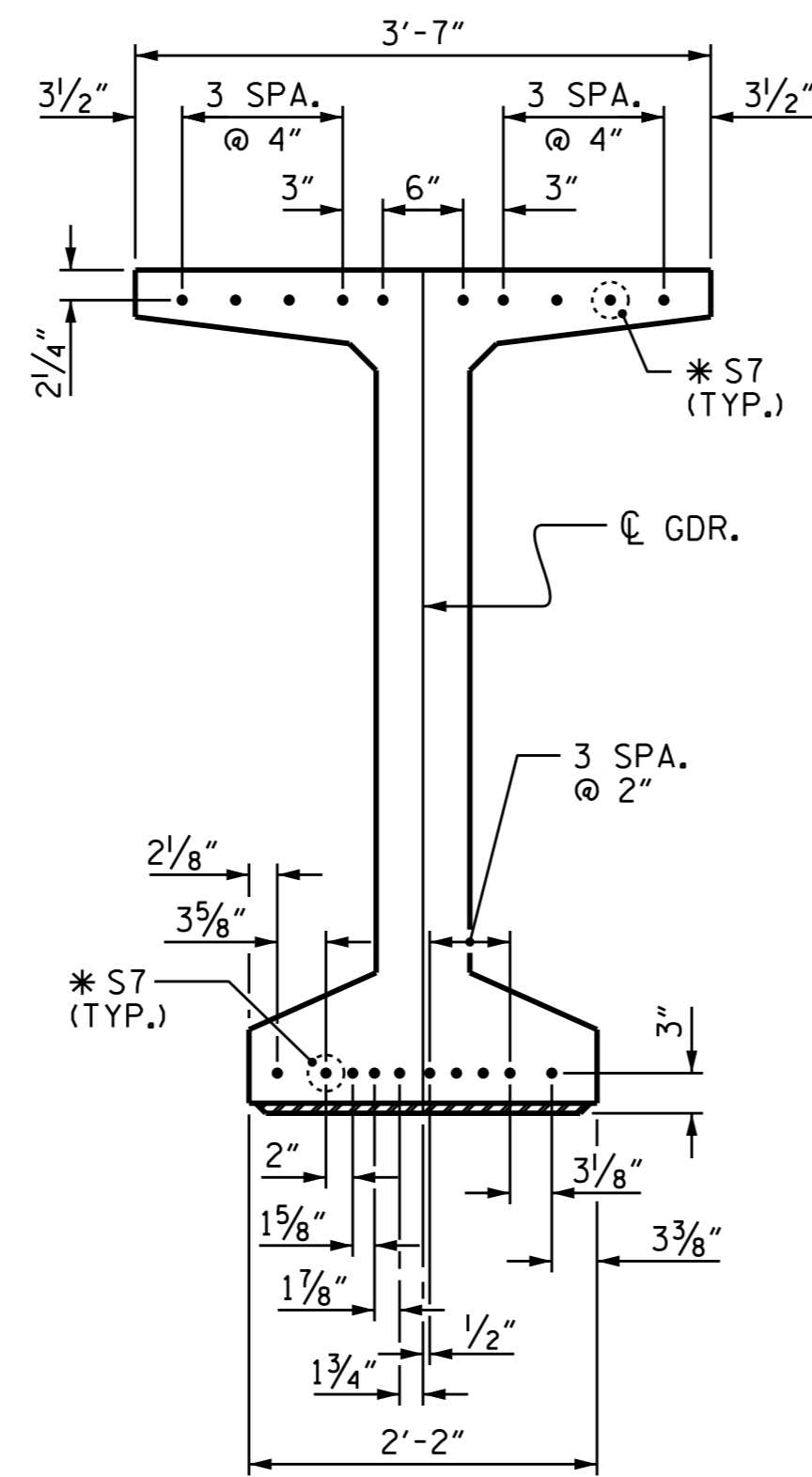
EMBEDDED PLATE "B-1" DETAILS FOR AASHTO TYPE IV GIRDER AND 72" MODIFIED BULB TEES

(2 REQ'D PER GIRDER)



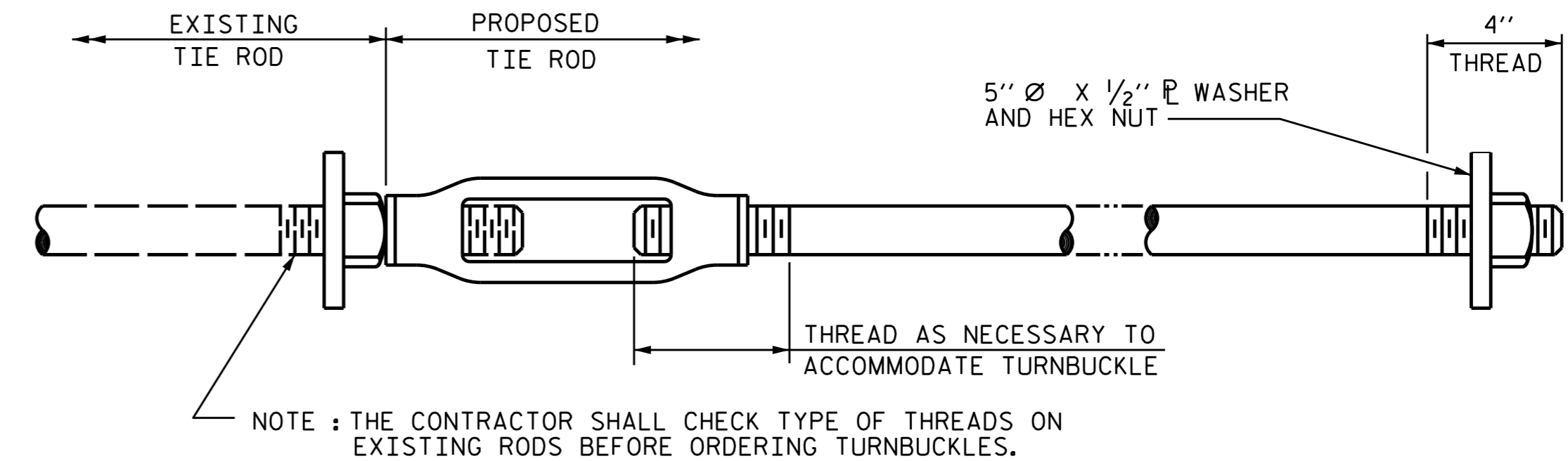
SECTION "F"

(SEE NOTES)



DETAIL "C"

(FOR 63" & 72" MODIFIED BULB TEES)



TIE ROD ASSEMBLY WITH TURNBUCKLE OR SLEEVE NUT

(4 COMPLETE ASSEMBLIES REQUIRED)

LOCATION OF THE PROPOSED 1/4" Ø TIE RODS FOR THE INTERIOR DIAPHRAGMS IS TO LINE UP, AS NEAR AS POSSIBLE, WITH EXISTING 1/4" Ø TIE RODS. THESE DIMENSIONS SHOWN ON THE PLANS SHALL BE CHECKED BY THE RESIDENT ENGINEER AND SUBMITTED, ALONG WITH SPAN LENGTHS, TO THE STRUCTURE MANAGEMENT UNIT.

NUTS ON EXISTING TIE RODS SHALL NOT BE REMOVED UNLESS TIE ROD PROJECTION BEYOND THE NUT IS LESS THAN 1/8". TURNBUCKLES SHALL BE TIGHTENED AGAINST THE EXISTING NUTS EXCEPT AS NOTED ABOVE.

DEAD LOAD DEFLECTION TABLE FOR GIRDERS												
0.6" Ø LOW RELAXATION	SPAN A & C											
	GIRDERS #6											
TENTH POINTS		.1	.2	.3	.4	.5	.6	.7	.8	.9		
CAMBER ( GIRDER ALONE IN PLACE )	↑	0	0.014	0.026	0.036	0.042	0.044	0.042	0.036	0.026	0.014	0
* DEFLECTION DUE TO SUPERIMPOSED D.L.	↓	0	0.005	0.010	0.014	0.017	0.017	0.017	0.014	0.010	0.005	0
FINAL CAMBER	↑	0	1/8"	3/16"	1/4"	5/16"	5/16"	5/16"	1/4"	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).

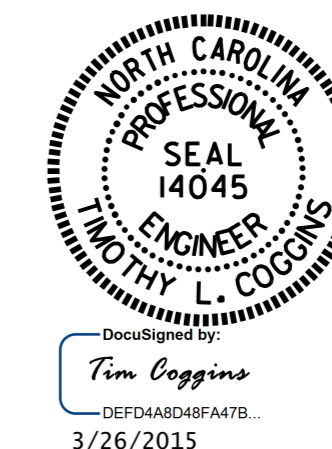
DEAD LOAD DEFLECTION TABLE FOR GIRDERS												
0.6" Ø LOW RELAXATION	SPAN B											
	GIRDERS #6											
TENTH POINTS		.1	.2	.3	.4	.5	.6	.7	.8	.9		
CAMBER ( GIRDER ALONE IN PLACE )	↑	0	0.173	0.326	0.447	0.523	0.550	0.523	0.447	0.326	0.173	0
* DEFLECTION DUE TO SUPERIMPOSED D.L.	↓	0	0.073	0.139	0.190	0.222	0.233	0.222	0.190	0.139	0.073	0
FINAL CAMBER	↑	0	1 3/16"	2 1/4"	3 1/16"	3 5/8"	3 3/16"	3 5/8"	3 1/16"	2 1/4"	1 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).

ASSEMBLED BY : B.N.BARODAWALA DATE : 2-18-14  
CHECKED BY : NEIL RUFFIN DATE : 8-20-14

DRAWN BY : ELR 11/91  
CHECKED BY : GRP 11/91

REV. 10/11/11 MAA/GM  
REV. 1/15 MAA/TMG  
REV. 2/15 MAA/TMG



PROJECT NO. R-2514D  
JONES & CRAVEN COUNTY  
STATION: 625+23.28 -L-

SHEET 3 OF 3

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:	S18-017
1			3			TOTAL SHEETS
2			4			39