

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.

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 6,500 PSI.

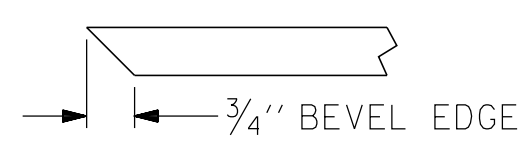
DEPENDING ON THE TYPE OF SYSTEM USED TO SUPPORT THE DECK SLAB FORMS, PRESET ANCHORS MAY BE NECESSARY IN THE PRESTRESSED CONCRETE GIRDER.

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

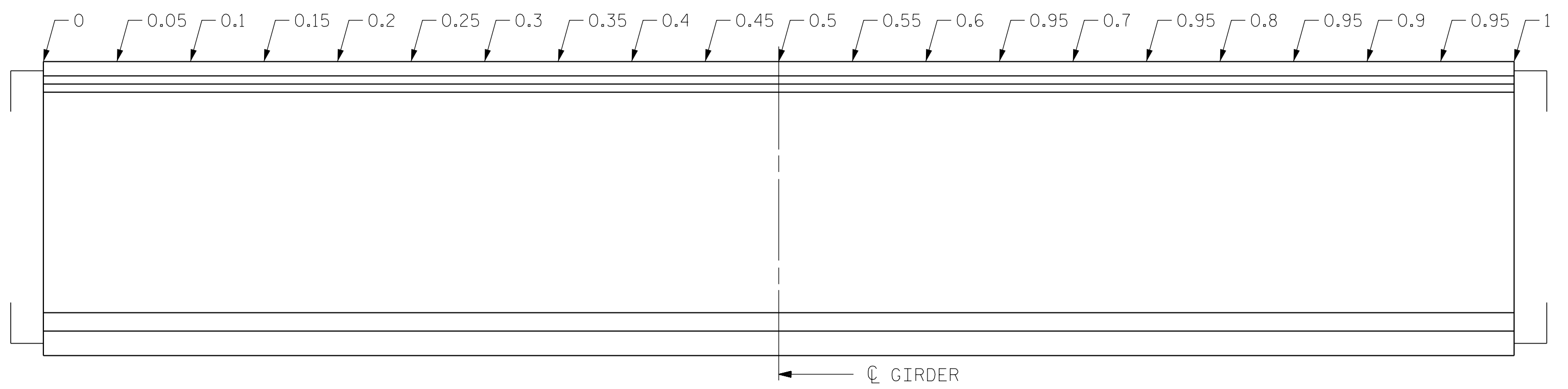
WHEN DRAPED STRANDS ARE DETAILED, THE LONGITUDINAL LOCATION OF THE HOLD DOWN DEVICES SHALL BE WITHIN 6" OF THE LOCATION SHOWN AND THE CENTER OF GRAVITY OF THE GROUP OF DRAPED STRANDS SHALL BE LOCATED WITHIN 1/2" OF THE THEORETICAL LOCATION SHOWN.

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.



SECTION "F"
(SEE NOTES)



GIRDER DIAGRAM FOR D.L. DEFLECTION TABLE
(SEE TABLE FOR GIRDERS)

DEAD LOAD DEFLECTION TABLE FOR GIRDERS

0.6" Ø LOW RELAXATION	GIRDERS 1 AND 10																				
	TWENTIETH POINTS	0	.05	.1	.15	.2	.25	.3	.35	.4	.45	.5	.55	.6	.65	.7	.75	.8	.85	.9	.95
CAMBER (GIRDER ALONE IN PLACE)	0.000	0.046	0.092	0.133	0.167	0.198	0.224	0.247	0.260	0.266	0.272	0.266	0.260	0.247	0.224	0.198	0.167	0.133	0.092	0.046	0.000
* DEFLECTION DUE TO SUPERIMPOSED D.L.	0.000	0.020	0.040	0.058	0.075	0.090	0.103	0.114	0.121	0.124	0.127	0.124	0.121	0.114	0.103	0.090	0.075	0.058	0.040	0.020	0.000
FINAL CAMBER	0	5/16	9/16	13/16	1	13/16	13/8	1 1/2	19/16	19/16	15/8	19/16	19/16	1 1/2	13/8	13/16	1	13/16	9/16	5/16	0

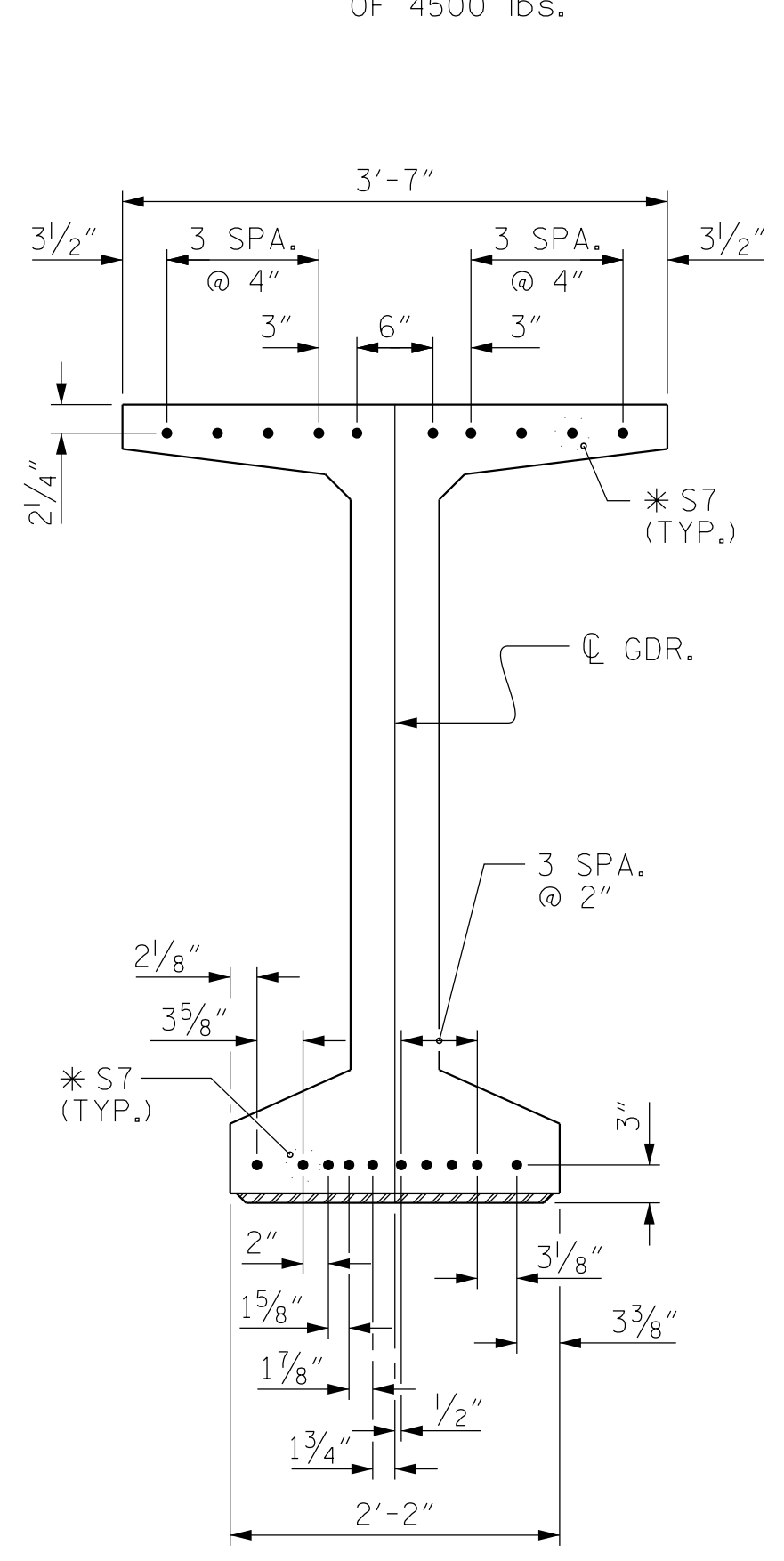
0.6" Ø LOW RELAXATION	GIRDERS 2 AND 9																				
	TWENTIETH POINTS	0	.05	.1	.15	.2	.25	.3	.35	.4	.45	.5	.55	.6	.65	.7	.75	.8	.85	.9	.95
CAMBER (GIRDER ALONE IN PLACE)	0.000	0.046	0.092	0.133	0.167	0.198	0.224	0.247	0.260	0.266	0.272	0.266	0.260	0.247	0.224	0.198	0.167	0.133	0.092	0.046	0.000
* DEFLECTION DUE TO SUPERIMPOSED D.L.	0.000	0.020	0.040	0.058	0.075	0.090	0.103	0.114	0.121	0.124	0.127	0.124	0.121	0.114	0.103	0.090	0.075	0.058	0.040	0.020	0.000
FINAL CAMBER	0	5/16	9/16	13/16	1	13/16	13/8	1 1/2	19/16	19/16	15/8	19/16	19/16	1 1/2	13/8	13/16	1	13/16	9/16	5/16	0

0.6" Ø LOW RELAXATION	GIRDERS 3 AND 8																				
	TWENTIETH POINTS	0	.05	.1	.15	.2	.25	.3	.35	.4	.45	.5	.55	.6	.65	.7	.75	.8	.85	.9	.95
CAMBER (GIRDER ALONE IN PLACE)	0.000	0.046	0.092	0.133	0.167	0.198	0.224	0.247	0.260	0.266	0.272	0.266	0.260	0.247	0.224	0.198	0.167	0.133	0.092	0.046	0.000
* DEFLECTION DUE TO SUPERIMPOSED D.L.	0.000	0.021	0.043	0.063	0.081	0.097	0.111	0.123	0.130	0.133	0.137	0.133	0.130	0.123	0.111	0.097	0.081	0.063	0.043	0.021	0.000
FINAL CAMBER	0	5/16	9/16	3/4	15/16	1 1/8	1 1/4	1 3/8	1 7/16	1 7/16	1 1/2	1 7/16	1 7/16	1 3/8	1 1/4	1 1/8	15/16	3/4	9/16	5/16	0

0.6" Ø LOW RELAXATION	GIRDERS 4 AND 7																				
	TWENTIETH POINTS	0	.05	.1	.15	.2	.25	.3	.35	.4	.45	.5	.55	.6	.65	.7	.75	.8	.85	.9	.95
CAMBER (GIRDER ALONE IN PLACE)	0.000	0.046	0.092	0.133	0.167	0.198	0.224	0.247	0.260	0.266	0.272	0.266	0.260	0.247	0.224	0.198	0.167	0.133	0.092	0.046	0.000
* DEFLECTION DUE TO SUPERIMPOSED D.L.	0.000	0.021	0.043	0.063	0.081	0.097	0.111	0.123	0.130	0.133	0.137	0.133	0.130	0.123	0.111	0.097	0.081	0.063	0.043	0.021	0.000
FINAL CAMBER	0	5/16	9/16	3/4	15/16	1 1/8	1 1/4	1 3/8	1 7/16	1 7/16	1 1/2	1 7/16	1 7/16	1 3/8	1 1/4	1 1/8	15/16	3/4	9/16	5/16	0

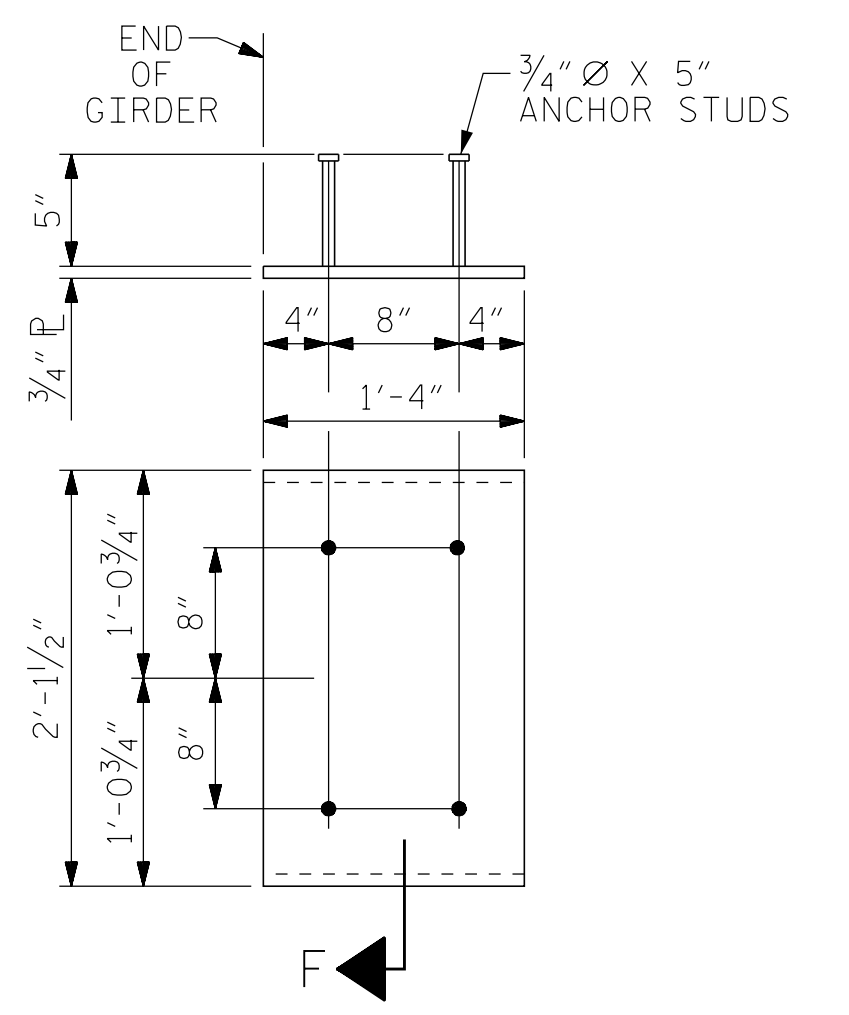
0.6" Ø LOW RELAXATION	GIRDERS 5 AND 6																				
	TWENTIETH POINTS	0	.05	.1	.15	.2	.25	.3	.35	.4	.45	.5	.55	.6	.65	.7	.75	.8	.85	.9	.95
CAMBER (GIRDER ALONE IN PLACE)	0.000	0.046	0.092	0.133	0.167	0.198	0.224	0.247	0.260	0.266	0.272	0.266	0.260	0.247	0.224	0.198	0.167	0.133	0.092	0.046	0.000
* DEFLECTION DUE TO SUPERIMPOSED D.L.	0.000	0.021	0.043	0.063	0.081	0.097	0.111	0.123	0.130	0.133	0.137	0.133	0.130	0.123	0.111	0.097	0.081	0.063	0.043	0.021	0.000
FINAL CAMBER	0	5/16	9/16	3/4	15/16	1 1/8	1 1/4	1 3/8	1 7/16	1 7/16	1 1/2	1 7/16	1 7/16	1 3/8	1 1/4	1 1/8	15/16	3/4	9/16	5/16	0

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



DETAIL "C"

(FOR 63" & 72" MODIFIED BULB TEES)



EMBEDDED PLATE "B-1" DETAILS FOR AASHTO TYPE IV GIRDER AND 63" & 72" MODIFIED BULB TEES
(2 REQ'D PER GIRDER)

PROJECT NO. R-5605
TRANSYLVANIA COUNTY
STATION: 36+73.00 -L-

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD
PRESTRESSED CONCRETE GIRDER
CONTINUOUS FOR LIVE LOAD
DETAILS

ASSEMBLED BY :	PFC	DATE :	8/15
CHECKED BY :	CMT	DATE :	8/15
DRAWN BY :	ELR 11/91	REV. 10/1/11	MAA/CM
CHECKED BY :	GRP 11/91	REV. 1/15	MAA/TMG
		REV. 2/15	MAA/TMG

Prepared in the Office of:
Mattern & Craig
CONSULTING ENGINEERS - SURVEYORS
FIRM LICENSE NO. C-1154
12 BROAD STREET
ASHEVILLE, NORTH CAROLINA 28801
(828) 254-2201 - FAX (828) 254-4562

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-8
1			3			TOTAL SHEETS
2			4			51