

DEAD LOAD DEFLECTION AND CAMBER TABLE FOR GIRDERS IN UNIT 10																																			
GIRDERS 1,4 & 7	0.6" Ø LOW RELAXATION			SPAN AA									SPAN AB									SPAN AC													
	TENTH POINTS	CL BRG.	.1	.2	.3	.4	.5	.6	.7	.8	.9	CL BRG.	CL BRG.	.1	.2	.3	.4	.5	.6	.7	.8	.9	CL BRG.	CL BRG.	.1	.2	.3	.4	.5	.6	.7	.8	.9	CL BRG.	
	CAMBER (GIRDER ALONE IN PLACE)	↑	0.000	0.062	0.117	0.160	0.188	0.197	0.188	0.160	0.117	0.062	0.000	0.000	0.062	0.117	0.160	0.188	0.197	0.188	0.160	0.117	0.062	0.000	0.000	0.062	0.117	0.160	0.188	0.197	0.188	0.160	0.117	0.062	0.000
	* DEFLECTION DUE TO SUPERIMPOSED D.L.	↓	0.000	0.036	0.071	0.098	0.115	0.121	0.115	0.098	0.071	0.036	0.000	0.000	0.036	0.071	0.098	0.115	0.121	0.115	0.098	0.071	0.036	0.000	0.000	0.035	0.069	0.096	0.113	0.119	0.113	0.096	0.069	0.035	0.000
FINAL CAMBER	↑	0	5/16"	9/16"	3/4"	7/8"	15/16"	7/8"	3/4"	9/16"	5/16"	0	0	5/16"	9/16"	3/4"	7/8"	15/16"	7/8"	3/4"	9/16"	5/16"	0	0	5/16"	9/16"	3/4"	7/8"	15/16"	7/8"	3/4"	9/16"	5/16"	0	

DEAD LOAD DEFLECTION AND CAMBER TABLE FOR GIRDERS IN UNIT 10																																			
GIRDERS 2,3,5 & 6	0.6" Ø LOW RELAXATION			SPAN AA									SPAN AB									SPAN AC													
	TENTH POINTS	CL BRG.	.1	.2	.3	.4	.5	.6	.7	.8	.9	CL BRG.	CL BRG.	.1	.2	.3	.4	.5	.6	.7	.8	.9	CL BRG.	CL BRG.	.1	.2	.3	.4	.5	.6	.7	.8	.9	CL BRG.	
	CAMBER (GIRDER ALONE IN PLACE)	↑	0.000	0.062	0.117	0.160	0.184	0.197	0.188	0.160	0.117	0.062	0.000	0.000	0.062	0.117	0.160	0.184	0.197	0.188	0.160	0.117	0.062	0.000	0.000	0.062	0.117	0.160	0.188	0.197	0.188	0.160	0.117	0.062	0.000
	* DEFLECTION DUE TO SUPERIMPOSED D.L.	↓	0.000	0.037	0.073	0.102	0.120	0.126	0.120	0.102	0.073	0.037	0.000	0.000	0.037	0.073	0.102	0.120	0.126	0.120	0.102	0.073	0.037	0.000	0.000	0.037	0.072	0.100	0.118	0.124	0.118	0.100	0.072	0.037	0.000
FINAL CAMBER	↑	0	5/16"	1/2"	11/16"	13/16"	7/8"	13/16"	11/16"	1/2"	5/16"	0	0	5/16"	1/2"	11/16"	13/16"	7/8"	13/16"	11/16"	1/2"	5/16"	0	0	5/16"	9/16"	3/4"	13/16"	7/8"	13/16"	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).

NOTES

ALL PRESTRESSING STRANDS SHALL BE 7-WIRE LOW-ELAXATION 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 PLATES "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 END 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 GIRDERS 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 7,200 PSI.

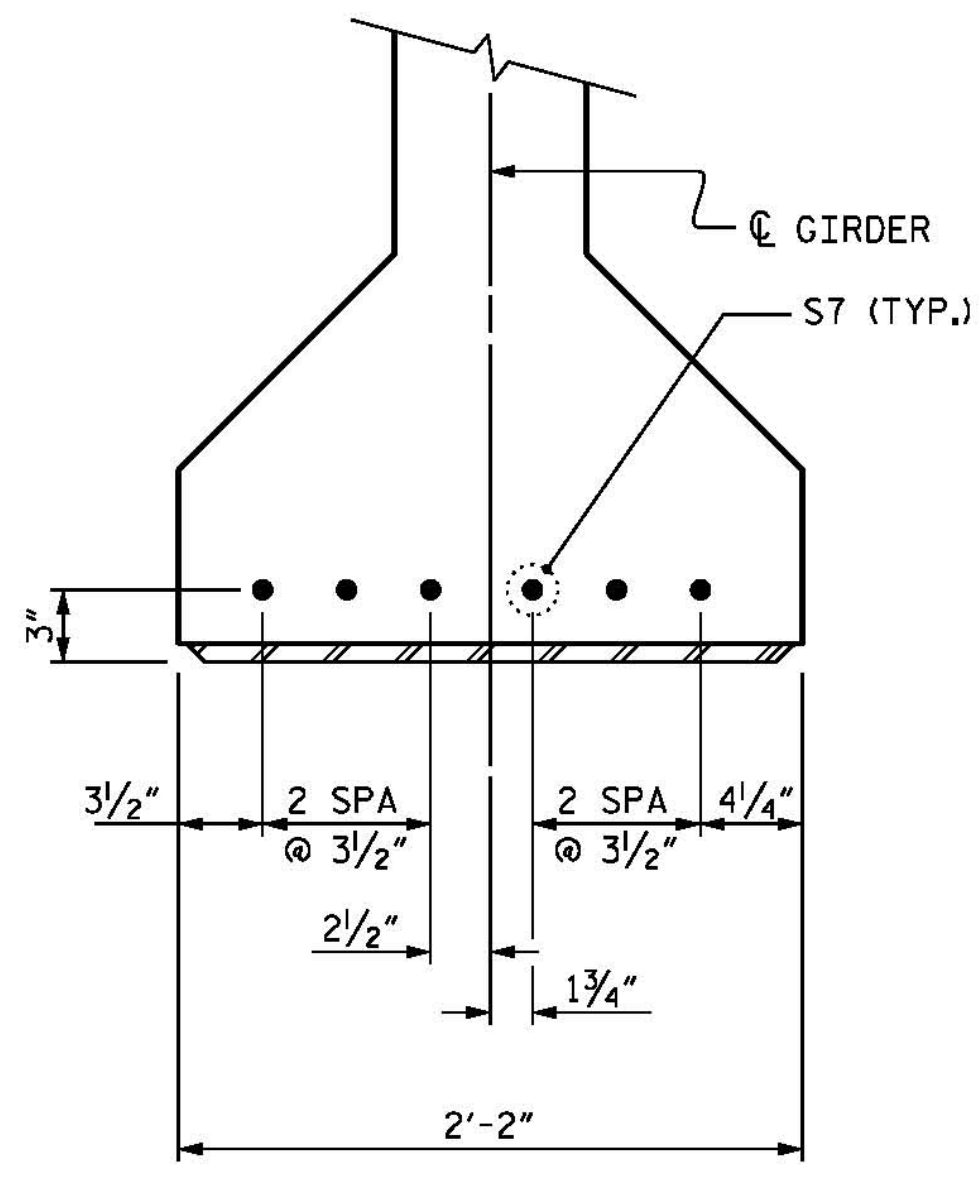
DEPENDING ON THE TYPE OF SYSTEM USED TO SUPPORT THE DECK SLAB FORMS, PRESET ANCHORS MAY BE NECESSARY IN THE PRESTRESSED CONCRETE GIRDER.

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

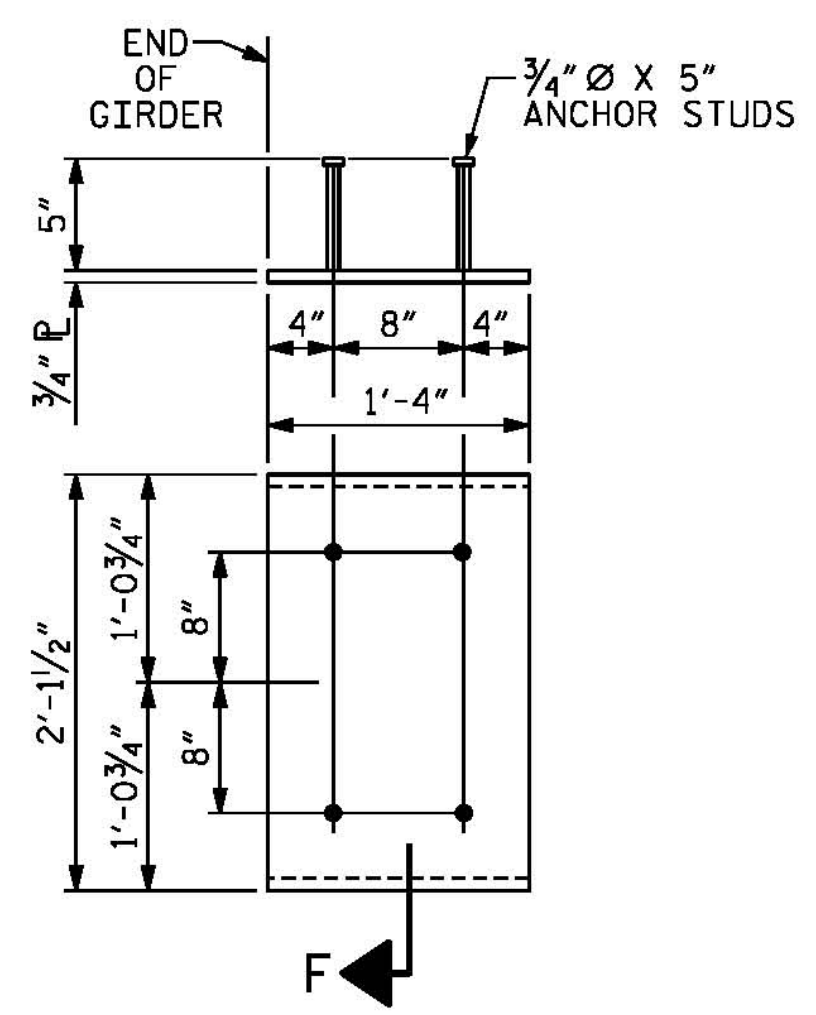
WHEN DRAPED STRANDS ARE DETAILED, THE LONGITUDINAL LOCATION OF THE HOLD DOWN DEVICES SHALL BE WITHIN 6" OF THE LOCATION SHOWN AND THE CENTER OF GRAVITY OF THE GROUP OF DRAPED STRANDS SHALL BE LOCATED WITHIN 1/2" OF THE THEORETICAL LOCATION SHOWN.

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.

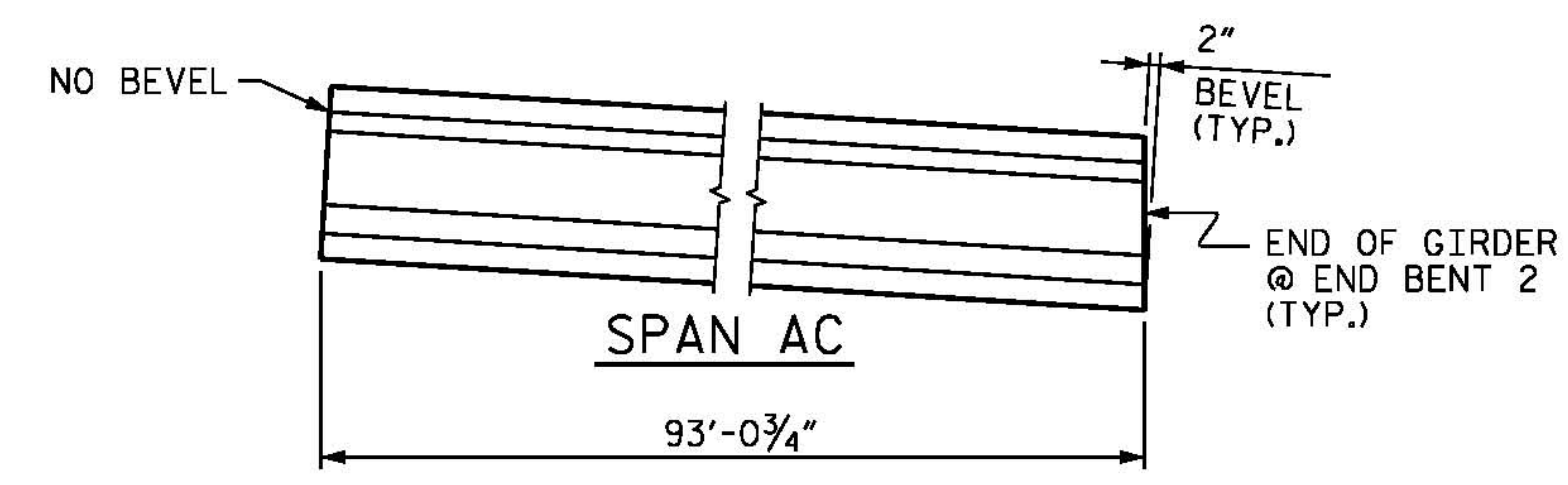
GIRDER CAMBER PREDICTED USING REFINED METHOD FOR CAMBER, PER NCDOT POLICY MEMO (8-28-14).



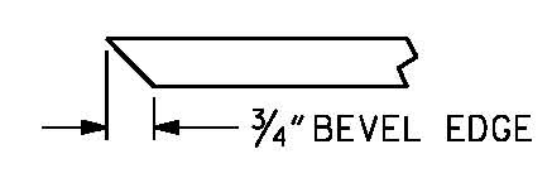
DETAIL "A"
(FOR AASHTO TYPE IV GIRDERS)



EMBEDDED PLATE "B-1" DETAILS FOR AASHTO TYPE IV GIRDER
(2 REQ'D PER GIRDER)



GIRDER END BEVEL

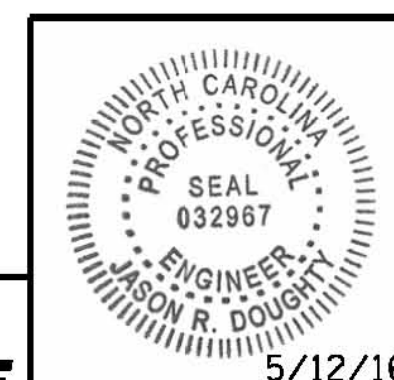


SECTION "F"
(SEE NOTES)

PROJECT NO. B-4929
PENDER COUNTY
 STATION: 38+13.81 -L2-

DESIGNED BY: J. BORUTA DATE: JAN 2016
 DRAWN BY: M. HOBBS DATE: JAN 2016
 CHECKED BY: M. WAGNER DATE: JAN 2016
 DESIGN ENGINEER OF RECORD: J. DOUGHTY DATE: MAY 2016

PARSONS BRINCKERHOFF
 434 FAYETTEVILLE STREET
 SUITE 1500
 RALEIGH, NC 27601
 LICENSE NO. F-0165



DocuSigned by:
 Jason R. Doughty
 5/12/16
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STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUPERSTRUCTURE
 PRESTRESSED CONCRETE
 GIRDER CONTINUOUS
 FOR LIVE LOAD
 DETAILS - UNIT 10

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-100
1			3			TOTAL SHEETS 278
2			4			

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

5/10/2016 400_197_B4929_SMU_DL10.dgn