

DEAD LOAD DEFLECTION TABLE FOR GIRDERS																						
SPANS A & C																						
GIRDERS 1 & 4	TWENTIETH POINTS	CL BRG.	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90	0.95	CL BRG.
	CAMBER (GIRDER ALONE IN PLACE) (FT.)	0.000	0.010	0.019	0.028	0.036	0.043	0.049	0.054	0.058	0.060	0.061	0.060	0.058	0.054	0.049	0.043	0.036	0.028	0.019	0.010	0.000
	* DEFLECTION DUE TO SUPERIMPOSED D.L. (FT.)	0.000	0.003	0.006	0.009	0.012	0.014	0.017	0.018	0.020	0.020	0.021	0.020	0.020	0.018	0.017	0.014	0.012	0.009	0.006	0.003	0.000
	FINAL CAMBER	0"	1/16"	3/16"	1/4"	5/16"	3/8"	3/8"	7/16"	7/16"	1/2"	1/2"	1/2"	7/16"	7/16"	3/8"	3/8"	5/16"	1/4"	3/16"	1/16"	0"
GIRDERS 2 & 3	TWENTIETH POINTS	CL BRG.	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90	0.95	CL BRG.
	CAMBER (GIRDER ALONE IN PLACE) (FT.)	0.000	0.010	0.019	0.028	0.036	0.043	0.049	0.054	0.058	0.060	0.061	0.060	0.058	0.054	0.049	0.043	0.036	0.028	0.019	0.010	0.000
	* DEFLECTION DUE TO SUPERIMPOSED D.L. (FT.)	0.000	0.003	0.007	0.011	0.014	0.017	0.020	0.022	0.023	0.024	0.025	0.024	0.023	0.022	0.020	0.017	0.014	0.011	0.007	0.003	0.000
	FINAL CAMBER	0"	1/16"	1/8"	3/16"	1/4"	5/16"	3/8"	3/8"	7/16"	7/16"	7/16"	7/16"	7/16"	3/8"	3/8"	5/16"	1/4"	3/16"	1/8"	1/16"	0"

DEAD LOAD DEFLECTION TABLE FOR GIRDERS																						
SPAN B																						
GIRDERS 1 & 4	TWENTIETH POINTS	CL BRG.	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90	0.95	CL BRG.
	CAMBER (GIRDER ALONE IN PLACE) (FT.)	0.000	0.019	0.039	0.056	0.072	0.087	0.100	0.110	0.117	0.121	0.123	0.121	0.117	0.110	0.100	0.087	0.073	0.056	0.039	0.019	0.000
	* DEFLECTION DUE TO SUPERIMPOSED D.L. (FT.)	0.000	0.010	0.021	0.032	0.042	0.051	0.059	0.065	0.069	0.072	0.073	0.072	0.069	0.065	0.059	0.051	0.042	0.032	0.021	0.010	0.000
	FINAL CAMBER	0"	1/8"	3/16"	5/16"	3/8"	7/16"	1/2"	9/16"	9/16"	5/8"	5/8"	5/8"	9/16"	9/16"	1/2"	7/16"	3/8"	5/16"	3/16"	1/8"	0"
GIRDERS 2 & 3	TWENTIETH POINTS	CL BRG.	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90	0.95	CL BRG.
	CAMBER (GIRDER ALONE IN PLACE) (FT.)	0.000	0.019	0.039	0.056	0.072	0.087	0.100	0.110	0.117	0.121	0.123	0.121	0.117	0.110	0.100	0.087	0.073	0.056	0.039	0.019	0.000
	* DEFLECTION DUE TO SUPERIMPOSED D.L. (FT.)	0.000	0.012	0.025	0.038	0.050	0.061	0.071	0.078	0.083	0.086	0.087	0.086	0.083	0.078	0.071	0.061	0.050	0.038	0.025	0.012	0.000
	FINAL CAMBER	0"	1/16"	3/16"	3/16"	1/4"	5/16"	3/8"	3/8"	3/8"	7/16"	7/16"	7/16"	3/8"	3/8"	3/8"	5/16"	1/4"	3/16"	3/16"	1/16"	0"

* INCLUDES FUTURE WEARING SURFACE IN SUPERIMPOSED DEAD LOAD.

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 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.

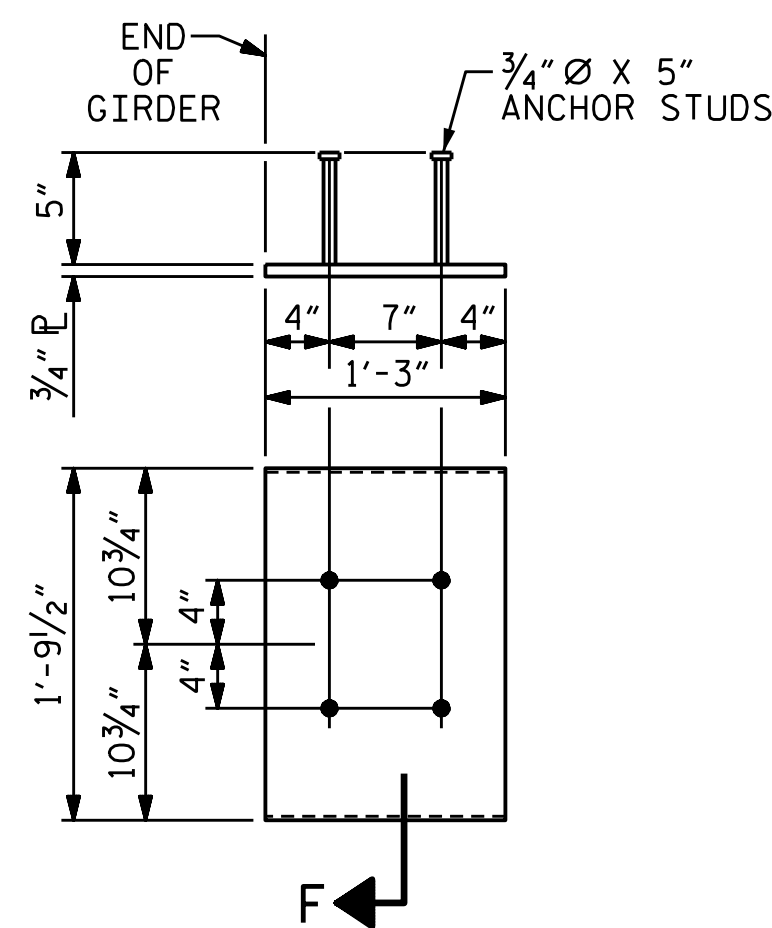
THE TRANSFER OF LOAD FROM THE ANCHORAGES TO THE GIRDER SHALL BE DONE WHEN CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF NOT LESS THAN 4,000 PSI FOR SPANS A & C AND 6,000 PSI FOR SPAN B.

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

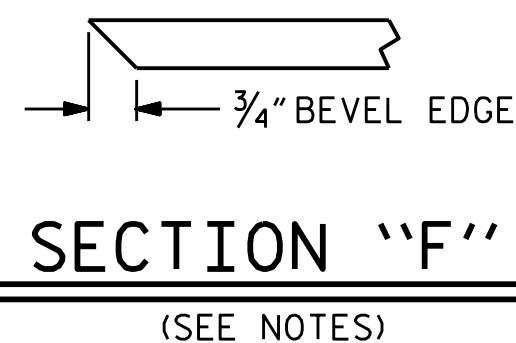
THE TOP SURFACE OF THE GIRDER, EXCLUDING THE OUTSIDE 4", SHALL BE RAKED TO A DEPTH OF 1/4".

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.

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.



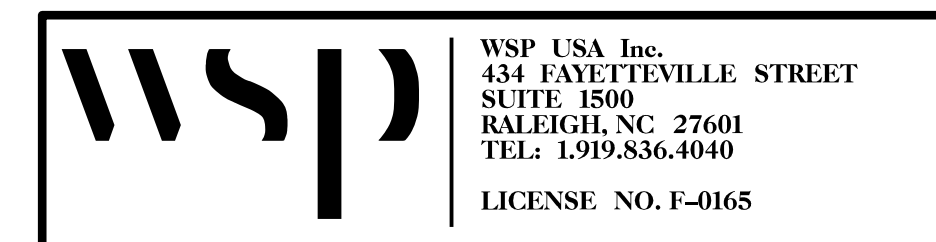
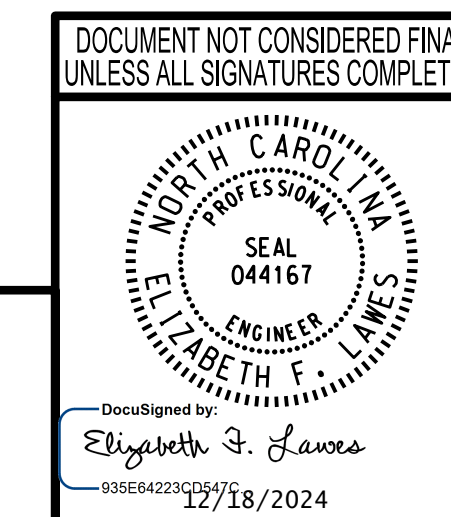
EMBEDDED PLATE "B-1" DETAILS FOR AASHTO TYPE III GIRDER
(2 REQ'D PER GIRDER)



SECTION "F"
(SEE NOTES)

PROJECT NO. **BR-0100**
RUTHERFORD COUNTY
STATION: **18+28.00 -L-**

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUPERSTRUCTURE
PRESTRESSED CONCRETE GIRDER FOR LINK SLAB DETAILS



DESIGNED BY: J. WHEATLEY DATE: MAY 2024
DRAWN BY: M. HOBBS DATE: MAY 2024
CHECKED BY: E. LAWES DATE: MAY 2024
DESIGN ENGINEER OF RECORD: E. LAWES DATE: MAY 2024

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			5-15
2			4			30