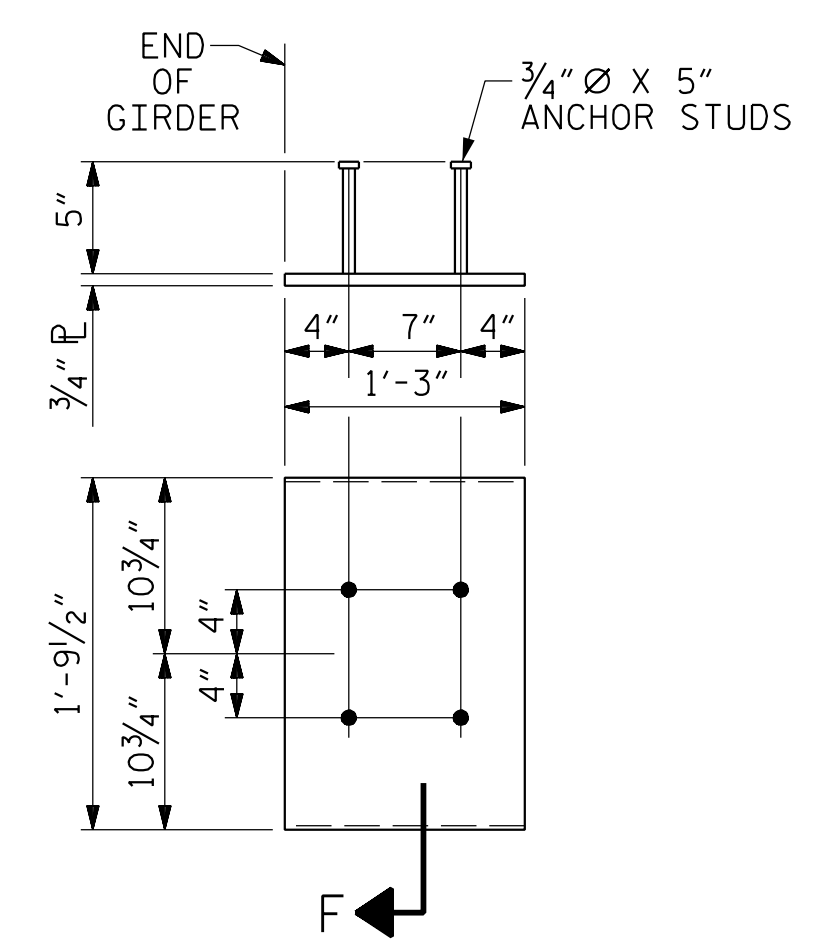


SECTION "F"
(SEE NOTES)



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

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.

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 6300 PSI IN SPANS A & C.

THE TRANSFER OF LOAD FROM THE ANCHORAGES TO THE GIRDER SHALL BE DONE WHEN CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF NOT LESS THAN 7500 PSI IN 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 SHALL BE RAKED TO A DEPTH OF 1/4" EXCEPT IN THE AREA BETWEEN THE STIRRUP AND THE EDGE OF THE GIRDER AND WHERE NOTED ON THE GIRDER SHEET.

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.

DEAD LOAD DEFLECTION TABLE FOR GIRDERS - SPAN A & C

0.6" Ø LOW RELAXATION	GIRDERS 1 - 15																				
	0	.05	.1	.15	.2	.25	.3	.35	.4	.45	.5	.55	.6	.65	.7	.75	.8	.85	.9	.95	1.0
TWENTIETH POINTS	0	.05	.1	.15	.2	.25	.3	.35	.4	.45	.5	.55	.6	.65	.7	.75	.8	.85	.9	.95	1.0
CAMBER (GIRDER ALONE IN PLACE) ↑	0.0	0.015	0.030	0.044	0.057	0.068	0.077	0.085	0.091	0.094	0.095	0.094	0.091	0.085	0.077	0.068	0.057	0.044	0.030	0.015	0.0
* DEFLECTION DUE TO SUPERIMPOSED D.L. ↓	0.0	0.003	0.005	0.008	0.011	0.013	0.015	0.017	0.018	0.019	0.019	0.018	0.017	0.015	0.013	0.011	0.008	0.005	0.003	0.0	0.0
FINAL CAMBER ↑	0.0	1/8"	5/16"	7/16"	9/16"	11/16"	3/4"	13/16"	7/8"	7/8"	15/16"	7/8"	7/8"	13/16"	3/4"	11/16"	9/16"	7/16"	5/16"	1/8"	0.0

DEAD LOAD DEFLECTION TABLE FOR GIRDERS - SPAN B

0.6" Ø LOW RELAXATION	GIRDERS 1 & 15																				
	0	.05	.1	.15	.2	.25	.3	.35	.4	.45	.5	.55	.6	.65	.7	.75	.8	.85	.9	.95	1.0
TWENTIETH POINTS	0	.05	.1	.15	.2	.25	.3	.35	.4	.45	.5	.55	.6	.65	.7	.75	.8	.85	.9	.95	1.0
CAMBER (GIRDER ALONE IN PLACE) ↑	0.0	0.030	0.059	0.087	0.112	0.135	0.153	0.169	0.180	0.186	0.189	0.186	0.180	0.169	0.153	0.135	0.112	0.087	0.059	0.030	0.0
* DEFLECTION DUE TO SUPERIMPOSED D.L. ↓	0.0	0.016	0.031	0.046	0.062	0.074	0.086	0.093	0.101	0.103	0.106	0.103	0.101	0.093	0.086	0.074	0.062	0.046	0.031	0.016	0.0
FINAL CAMBER ↑	0.0	3/16"	5/16"	1/2"	5/8"	3/4"	13/16"	15/16"	15/16"	1"	1"	1"	15/16"	15/16"	13/16"	3/4"	5/8"	1/2"	5/16"	3/16"	0.0

0.6" Ø LOW RELAXATION	GIRDERS 2 - 6, 13 & 14																				
	0	.05	.1	.15	.2	.25	.3	.35	.4	.45	.5	.55	.6	.65	.7	.75	.8	.85	.9	.95	1.0
TWENTIETH POINTS	0	.05	.1	.15	.2	.25	.3	.35	.4	.45	.5	.55	.6	.65	.7	.75	.8	.85	.9	.95	1.0
CAMBER (GIRDER ALONE IN PLACE) ↑	0.0	0.030	0.059	0.087	0.112	0.135	0.153	0.169	0.180	0.186	0.189	0.186	0.180	0.169	0.153	0.135	0.112	0.087	0.059	0.030	0.0
* DEFLECTION DUE TO SUPERIMPOSED D.L. ↓	0.0	0.016	0.031	0.046	0.062	0.074	0.086	0.096	0.105	0.114	0.117	0.120	0.117	0.114	0.105	0.096	0.083	0.069	0.052	0.035	0.018
FINAL CAMBER ↑	0.0	1/8"	5/16"	7/16"	1/2"	5/8"	11/16"	3/4"	13/16"	13/16"	13/16"	13/16"	13/16"	3/4"	11/16"	5/8"	1/2"	7/16"	5/16"	1/8"	0.0

0.6" Ø LOW RELAXATION	GIRDERS 7, 11 & 12																				
	0	.05	.1	.15	.2	.25	.3	.35	.4	.45	.5	.55	.6	.65	.7	.75	.8	.85	.9	.95	1.0
TWENTIETH POINTS	0	.05	.1	.15	.2	.25	.3	.35	.4	.45	.5	.55	.6	.65	.7	.75	.8	.85	.9	.95	1.0
CAMBER (GIRDER ALONE IN PLACE) ↑	0.0	0.030	0.059	0.087	0.112	0.135	0.153	0.169	0.180	0.186	0.189	0.186	0.180	0.169	0.153	0.135	0.112	0.087	0.059	0.030	0.0
* DEFLECTION DUE TO SUPERIMPOSED D.L. ↓	0.0	0.012	0.024	0.036	0.048	0.057	0.067	0.072	0.078	0.080	0.082	0.080	0.078	0.072	0.067	0.057	0.048	0.036	0.024	0.012	0.0
FINAL CAMBER ↑	0.0	3/16"	7/16"	5/8"	3/4"	15/16"	1 1/16"	1 3/16"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 3/16"	1 1/16"	15/16"	3/4"	5/8"	7/16"	3/16"	0.0

0.6" Ø LOW RELAXATION	GIRDER 8																				
	0	.05	.1	.15	.2	.25	.3	.35	.4	.45	.5	.55	.6	.65	.7	.75	.8	.85	.9	.95	1.0
TWENTIETH POINTS	0	.05	.1	.15	.2	.25	.3	.35	.4	.45	.5	.55	.6	.65	.7	.75	.8	.85	.9	.95	1.0
CAMBER (GIRDER ALONE IN PLACE) ↑	0.0	0.030	0.059	0.087	0.112	0.135	0.153	0.169	0.180	0.186	0.189	0.186	0.180	0.169	0.153	0.135	0.112	0.087	0.059	0.030	0.0
* DEFLECTION DUE TO SUPERIMPOSED D.L. ↓	0.0	0.015	0.029	0.043	0.058	0.069	0.080	0.087	0.095	0.097	0.100	0.097	0.095	0.087	0.080	0.069	0.058	0.043	0.029	0.015	0.0
FINAL CAMBER ↑	0.0	3/16"	3/8"	1/2"	5/8"	13/16"	7/8"	1"	1"	1 1/16"	1 1/16"	1 1/16"	1"	1"	7/8"	13/16"	5/8"	1/2"	3/8"	3/16"	0.0

0.6" Ø LOW RELAXATION	GIRDERS 9 & 10																				
	0	.05	.1	.15	.2	.25	.3	.35	.4	.45	.5	.55	.6	.65	.7	.75	.8	.85	.9	.95	1.0
TWENTIETH POINTS	0	.05	.1	.15	.2	.25	.3	.35	.4	.45	.5	.55	.6	.65	.7	.75	.8	.85	.9	.95	1.0
CAMBER (GIRDER ALONE IN PLACE) ↑	0.0	0.030	0.059	0.087	0.112	0.135	0.153	0.169	0.180	0.186	0.189	0.186	0.180	0.169	0.153	0.135	0.112	0.087	0.059	0.030	0.0
* DEFLECTION DUE TO SUPERIMPOSED D.L. ↓	0.0	0.016	0.033	0.049	0.065	0.078	0.090	0.098	0.107	0.109	0.112	0.109	0.107	0.098	0.090	0.078	0.065	0.049	0.033	0.016	0.0
FINAL CAMBER ↑	0.0	3/16"	5/16"	7/16"	9/16"	11/16"	3/4"	7/8"	7/8"	15/16"	15/16"	15/16"	7/8"	7/8"	3/4"	11/16"	9/16"	7/16"	5/16"	3/16"	0.0

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

PLANS PREPARED BY:

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PROJECT NO. I-5987B
ROBESON COUNTY
STATION: 586+14.00 -L- POT

SHEET 3 OF 4

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUPERSTRUCTURE
PRESTRESSED CONCRETE GIRDER
FOR LINK SLAB DETAILS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S5-23
1			3			TOTAL SHEETS
2			4			64

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

DRAWN BY :	W. B. ALLEN	DATE :	11/21
CHECKED BY :	G. F. WILSON	DATE :	2/22
DESIGN ENGINEER OF RECORD:	L. K. AUSTIN	DATE :	2/22

4/22/2022 5:49:20 PM G:\Projects\2019\2019\2019\CLIENTS\Structures\I-5987B (Big Marsh Swamp)\5987B_SML\G3_770536.dgn