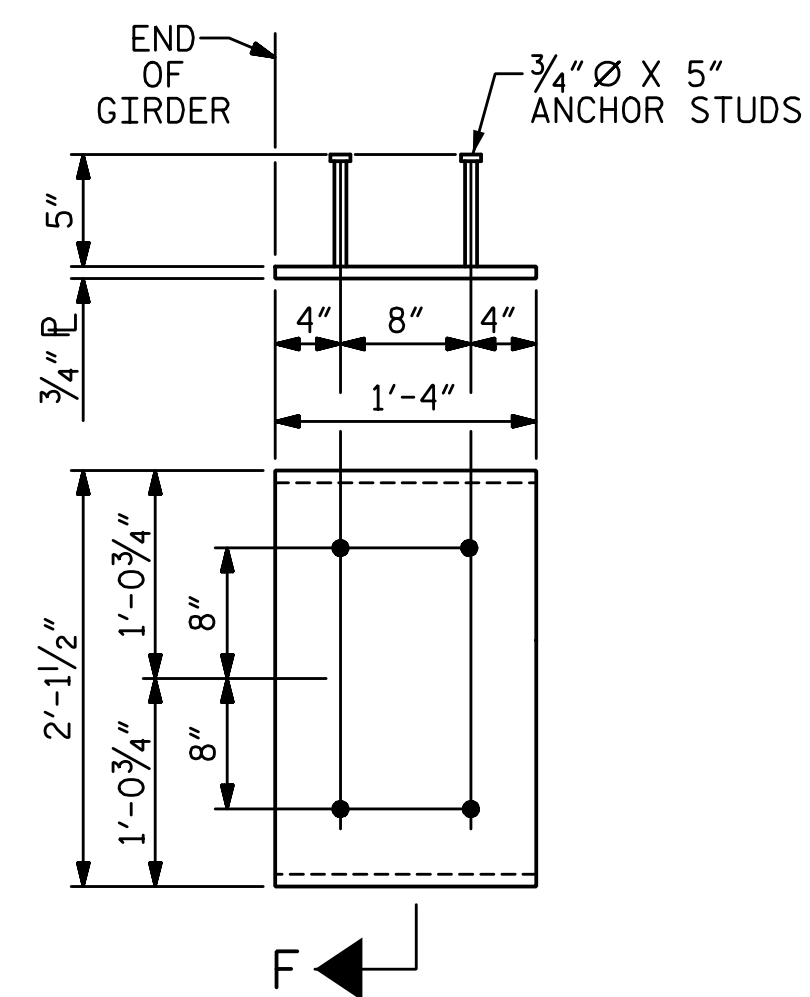
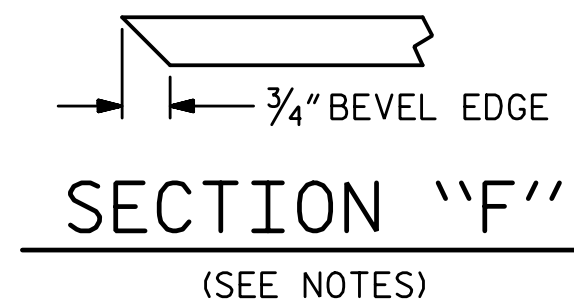
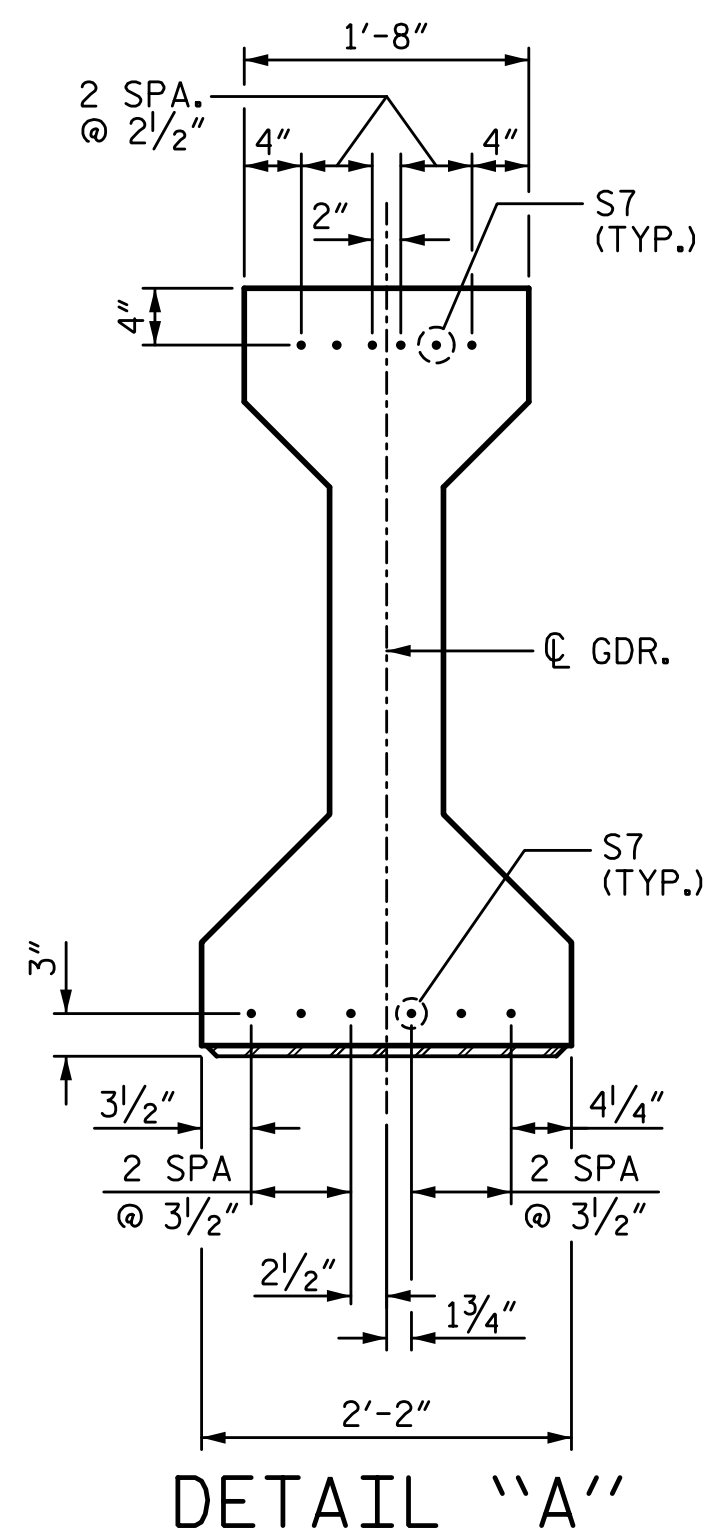


9/14/2022 8:05:58 AM P:\Raleigh\Projects\2018\Division 3 (SEA)\B-5652 (Onslow 33 US17 NBL over Wolf Swamp)\Structures\Drawings\Final\401-B5652-SMU_DL_660033.dgn



EMBEDDED PLATE "B-1" DETAILS
(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.

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 6000 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".

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.

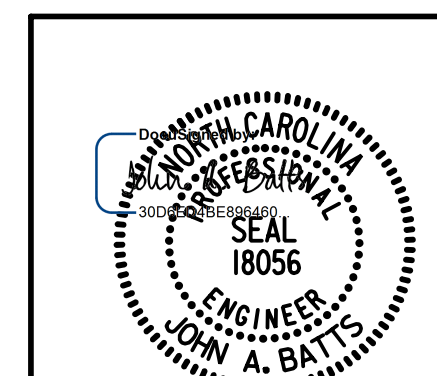
PRESTRESSED CONCRETE GIRDERS SHALL CONTAIN CALCIUM NITRITE CORROSION INHIBITOR.

DEAD LOAD DEFLECTION TABLE FOR GIRDERS																						
0.6" Ø LOW RELAXATION		GIRDERS AG1 & AG5																				
TWENTIETH POINTS		0	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	1.0
CAMBER (GIRDER ALONE IN PLACE)	↑	0	0.030	0.059	0.087	0.112	0.135	0.154	0.169	0.180	0.187	0.189	0.187	0.180	0.169	0.154	0.135	0.112	0.087	0.059	0.030	0
* DEFLECTION DUE TO SUPERIMPOSED D.L.	↓	0	0.018	0.038	0.057	0.075	0.090	0.104	0.114	0.122	0.127	0.128	0.127	0.114	0.104	0.090	0.075	0.057	0.038	0.018	0	0
FINAL CAMBER	↑	0	1/8"	1/4"	3/8"	7/16"	9/16"	5/8"	11/16"	11/16"	3/4"	3/4"	3/4"	11/16"	11/16"	5/8"	9/16"	7/16"	3/8"	1/4"	1/8"	0
0.6" Ø LOW RELAXATION		GIRDERS AG2, AG3 & AG4																				
TWENTIETH POINTS		0	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	1.0
CAMBER (GIRDER ALONE IN PLACE)	↑	0	0.030	0.059	0.087	0.112	0.135	0.154	0.169	0.180	0.187	0.189	0.187	0.180	0.169	0.154	0.135	0.112	0.087	0.059	0.030	0
* DEFLECTION DUE TO SUPERIMPOSED D.L.	↓	0	0.020	0.042	0.063	0.083	0.100	0.115	0.127	0.135	0.141	0.142	0.141	0.135	0.127	0.115	0.100	0.083	0.063	0.042	0.020	0
FINAL CAMBER	↑	0	1/8"	3/16"	5/16"	3/8"	7/16"	7/16"	1/2"	9/16"	9/16"	9/16"	9/16"	9/16"	1/2"	7/16"	7/16"	3/8"	5/16"	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).

PROJECT NO. B-5652
ONLOW COUNTY
STATION: 20+64.00 -L-RT-

DRAWN BY: T. BANKOVICH DATE: 5-22
CHECKED BY: J.A. BATTS DATE: 5-22
DESIGN ENGINEER OF RECORD: J.A. BATTS DATE: 5-22



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

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-10
1			3			TOTAL SHEETS
2			4			26

LICENSURE NO. C-4434
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED