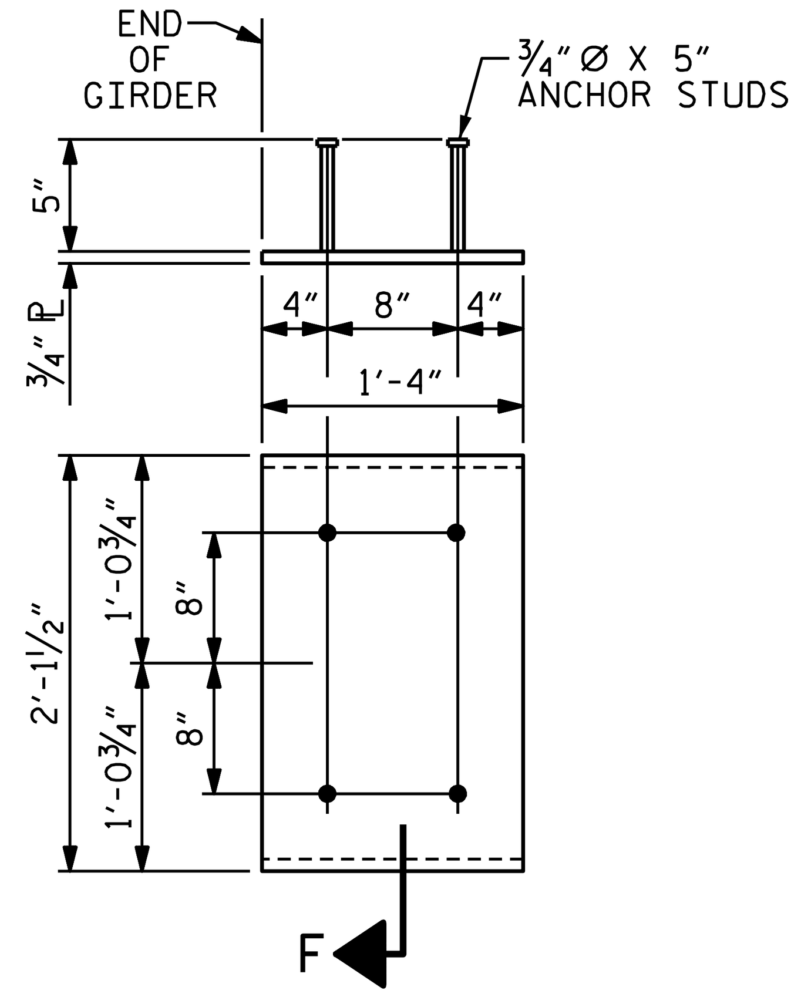
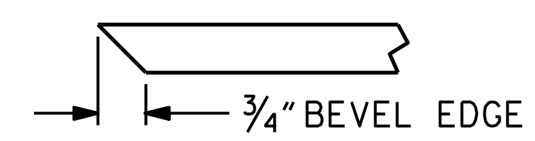


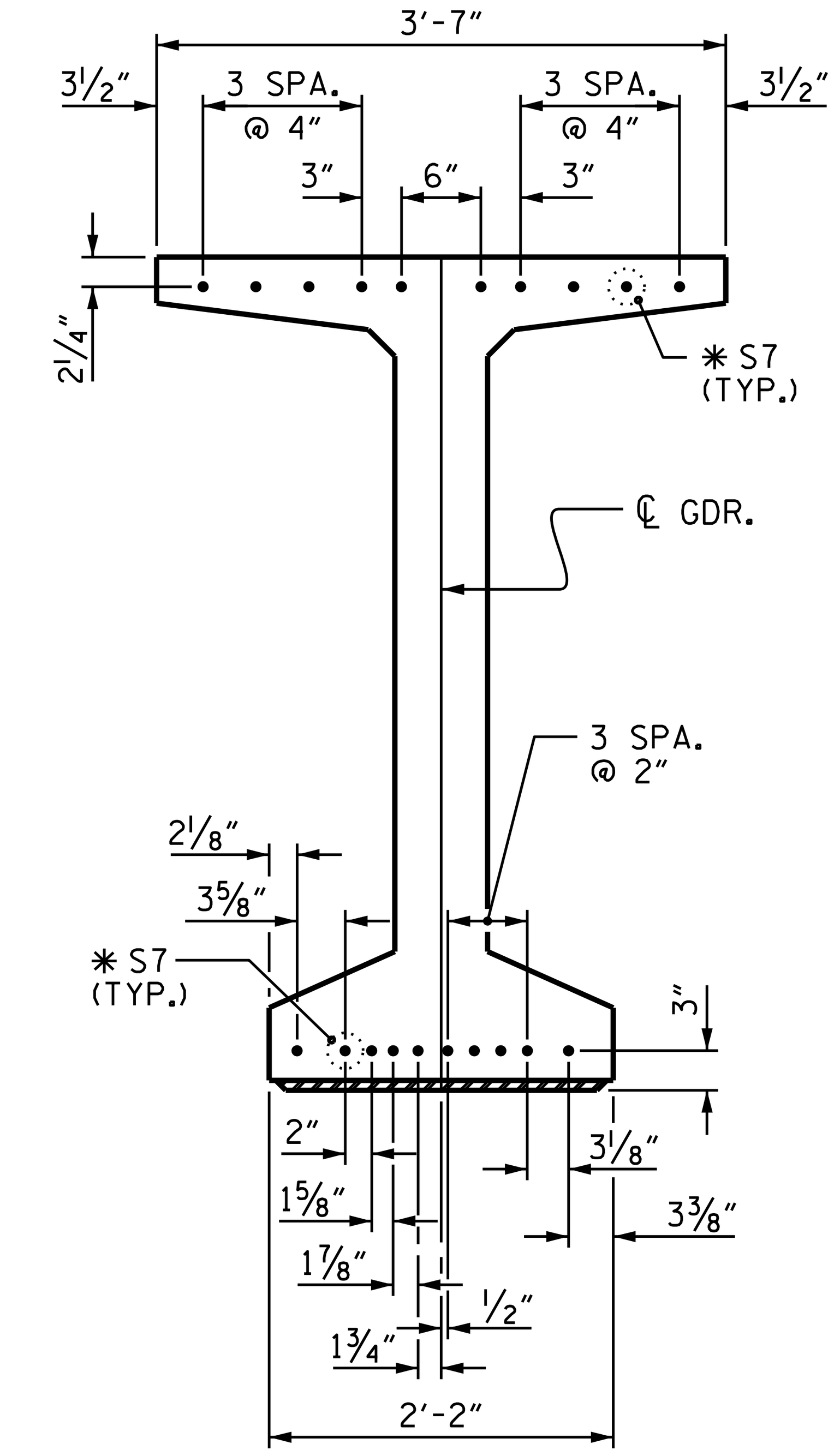
EMBEDDED PLATE "B-1" DETAILS FOR AASHTO TYPE IV GIRDER AND 63" MODIFIED BULB TEES

(2 REQ'D PER GIRDER)



SECTION "F"

(SEE NOTES)



DETAIL "C"

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 7,500 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", EXCEPT AS NOTED IN THE LINK SLAB AREA.

A 2" x 2" CHAMFER IS ALLOWED AT THE INTERSECTION OF THE WEB AND THE BOTTOM FLANGE OF THE 63" 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.

THE TOP OF THE GIRDER IN THE REGION OF THE LINK SLAB SHALL BE SMOOTH (NOT RAKED) AND FREE OF STIRRUPS, DECK FORMWORK ATTACHMENTS AND OVERHANG FALSEWORK/FORMWORK ATTACHMENTS.

DEAD LOAD DEFLECTION TABLE FOR GIRDERS

0.6" LOW RELAXATION STRANDS		SPAN A & B GIRDER 1 & 4																																							
FORTIETH POINTS		℄ BRG.	.025	.050	.075	.100	.125	.150	.175	.200	.225	.250	.275	.300	.325	.350	.375	.400	.425	.450	.475	.500	.525	.550	.575	.600	.625	.650	.675	.700	.725	.750	.775	.800	.825	.850	.875	.900	.925	.950	.975	℄ BRG.
CAMBER (GIRDER ALONE IN PLACE)	↑	0.000	0.025	0.049	0.073	0.096	0.119	0.141	0.162	0.181	0.201	0.219	0.235	0.250	0.263	0.275	0.284	0.292	0.299	0.303	0.306	0.307	0.306	0.303	0.299	0.292	0.284	0.275	0.263	0.250	0.235	0.219	0.201	0.181	0.162	0.141	0.119	0.096	0.073	0.049	0.025	0.000
* DEFLECTION DUE TO SUPERIMPOSED D.L.	↓	0.000	0.015	0.029	0.043	0.058	0.072	0.086	0.099	0.112	0.124	0.135	0.145	0.155	0.163	0.170	0.177	0.182	0.186	0.189	0.191	0.191	0.191	0.189	0.186	0.182	0.177	0.170	0.163	0.155	0.145	0.135	0.124	0.112	0.099	0.086	0.072	0.058	0.043	0.029	0.015	0.000
FINAL CAMBER	↑	0	1/8"	1/4"	3/8"	7/16"	9/16"	11/16"	3/4"	13/16"	15/16"	1"	1 1/16"	1 1/8"	1 3/16"	1 1/4"	1 5/16"	1 5/16"	1 3/8"	1 3/8"	1 3/8"	1 3/8"	1 3/8"	1 3/8"	1 3/8"	1 5/16"	1 5/16"	1 1/4"	1 3/16"	1 1/8"	1 1/16"	1"	15/16"	13/16"	3/4"	11/16"	9/16"	7/16"	3/8"	1/4"	1/8"	0

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

DEAD LOAD DEFLECTION TABLE FOR GIRDERS

0.6" LOW RELAXATION STRANDS		SPAN A & B GIRDER 2 & 3																																							
FORTIETH POINTS		℄ BRG.	.025	.050	.075	.100	.125	.150	.175	.200	.225	.250	.275	.300	.325	.350	.375	.400	.425	.450	.475	.500	.525	.550	.575	.600	.625	.650	.675	.700	.725	.750	.775	.800	.825	.850	.875	.900	.925	.950	.975	℄ BRG.
CAMBER (GIRDER ALONE IN PLACE)	↑	0.000	0.025	0.049	0.073	0.096	0.119	0.141	0.162	0.181	0.201	0.219	0.235	0.250	0.263	0.275	0.284	0.292	0.299	0.303	0.306	0.307	0.306	0.303	0.298	0.292	0.284	0.275	0.263	0.250	0.235	0.219	0.201	0.181	0.162	0.141	0.119	0.096	0.073	0.049	0.025	0.000
* DEFLECTION DUE TO SUPERIMPOSED D.L.	↓	0.000	0.015	0.030	0.045	0.060	0.075	0.090	0.104	0.117	0.130	0.141	0.152	0.161	0.170	0.178	0.185	0.190	0.194	0.197	0.199	0.200	0.199	0.197	0.194	0.190	0.185	0.178	0.170	0.161	0.152	0.141	0.130	0.117	0.104	0.090	0.075	0.060	0.045	0.030	0.015	0.000
FINAL CAMBER	↑	0	1/8"	1/4"	5/16"	7/16"	1/2"	5/8"	11/16"	3/4"	7/8"	15/16"	1"	1 1/16"	1 1/8"	1 3/16"	1 3/16"	1 1/4"	1 1/4"	1 1/4"	1 5/16"	1 5/16"	1 5/16"	1 1/4"	1 1/4"	1 1/4"	1 3/16"	1 1/8"	1 1/8"	1 1/16"	1"	15/16"	7/8"	3/4"	11/16"	5/8"	1/2"	7/16"	5/16"	1/4"	1/8"	0

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

PROJECT NO. B-5845
CLEVELAND COUNTY
STATION: 22+56.00-L-

SHEET 3 OF 4

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 20125 MARSHALL G. CHEEK, JR.
DocuSigned by: Marshall G. Cheek, Jr.
6/27/2024

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS
201 W. MARION ST STE 200
SHELBY, NC 28150
PH (704) 476-0003
CORP. LICENSE NO.: C-0275

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

REVISIONS							SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:		S-18
1			3				TOTAL SHEETS
2			4				40

ASSEMBLED BY :	JLA	DATE :	4/22
CHECKED BY :	MGC	DATE :	5/22
DESIGN ENGINEER OF RECORD :	ZCS	DATE :	8/22

DRAWN BY : ELR	11/91	REV. 1/15	MAA/TMG
CHECKED BY : GRP	11/91	REV. 2/15	MAA/TMG
		REV. 12/17	MAA/THC

STD. NO. PCG9