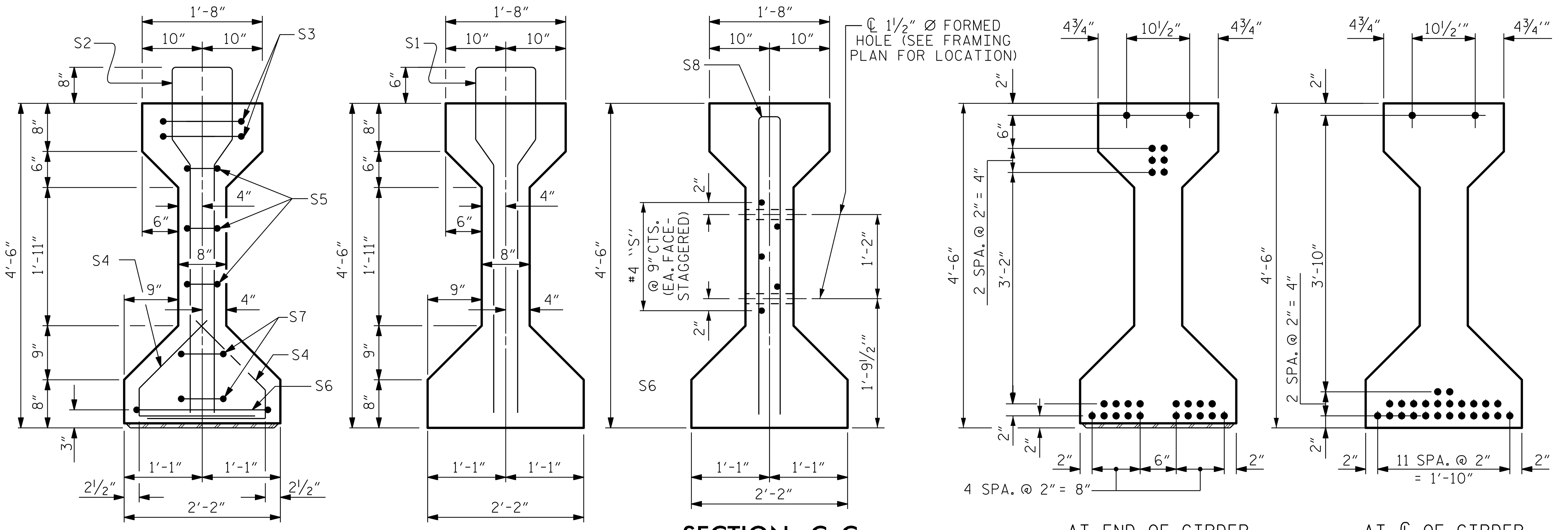


SECTION A–A

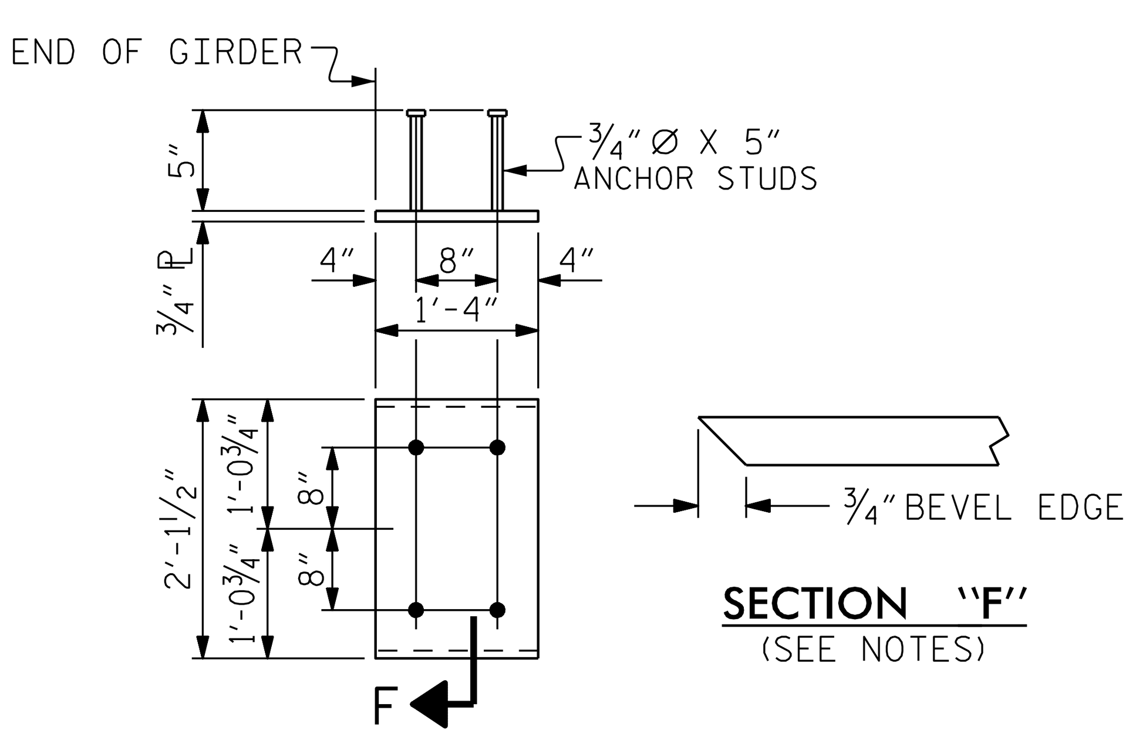
SECTION B–B

SECTION C–C
(S1 BARS NOT SHOWN)

AT END OF GIRDER

AT ℄ OF GIRDER

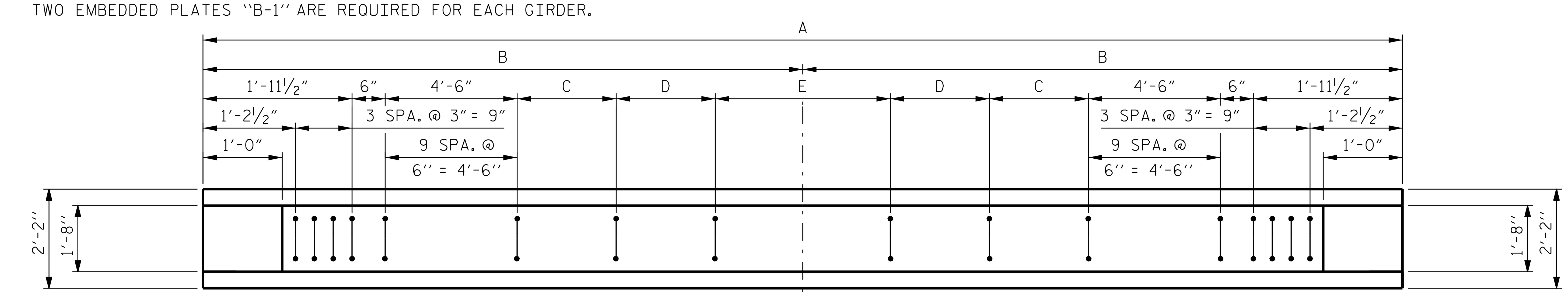
26 – 0.6" Ø LOW RELAXATION STRAND LAYOUT



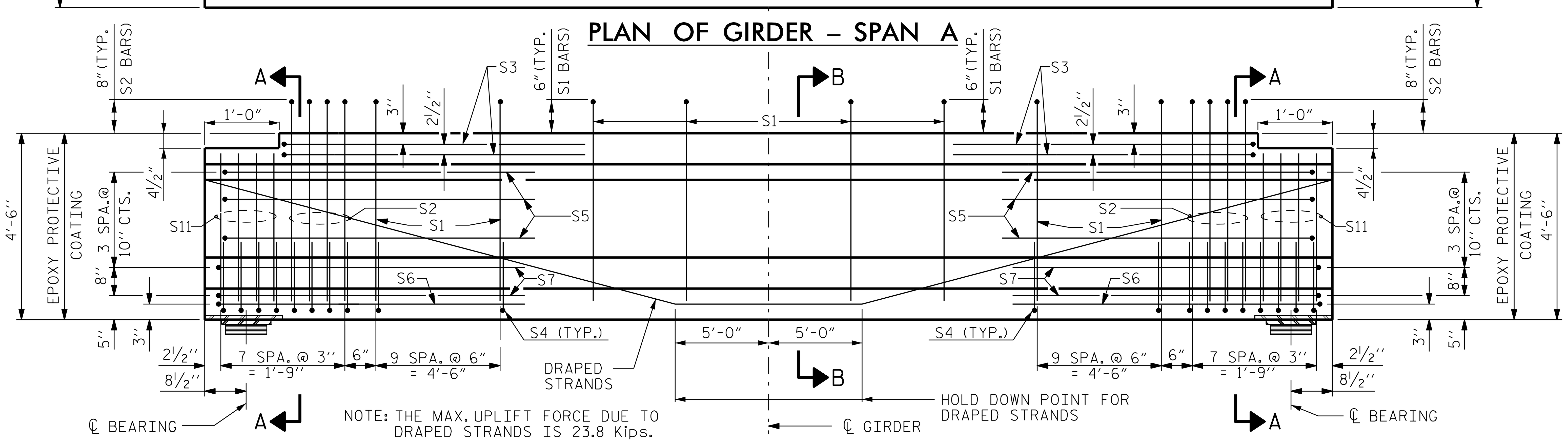
EMBEDDED PLATE "B-1" DETAILS

TWO EMBEDDED PLATES "B-1" ARE REQUIRED FOR EACH GIRDER.

GIRDER	A	B	C	D	E	REINFORCING STEEL (LBS.)	7500 PSI CONCRETE (C.Y.)
A1	88'-11⅜"	44'-5¹¹⁄₁₆"	2 SPA. @ 1'-0"	1'-6³⁄₁₆"	34 SPA. @ 2'-0"	1192	18.0
A2	88'-4¹¹⁄₁₆"	44'-2⅜"	2 SPA. @ 1'-0"	1'-2⅞"	34 SPA. @ 2'-0"	1240	17.9
A3	87'-10⁷⁄₁₆"	43'-11¼"	2 SPA. @ 1'-0"	1'-11¹¹⁄₁₆"	33 SPA. @ 2'-0"	1229	17.8
A4	87'-4⁹⁄₁₆"	43'-8¼"	2 SPA. @ 1'-0"	1'-8¾"	33 SPA. @ 2'-0"	1229	17.7
A5	86'-10¹⁵⁄₁₆"	43'-5⅜"	2 SPA. @ 1'-0"	1'-5¹⁵⁄₁₆"	33 SPA. @ 2'-0"	1229	17.6
A6	86'-5½"	43'-2¾"	2 SPA. @ 1'-0"	1'-3⁵⁄₁₆"	33 SPA. @ 2'-0"	1189	17.5
TOTAL = 525'-11½"						TOTAL = 7,300	TOTAL = 106.5



PLAN OF GIRDER – SPAN A



NOTE: THE MAX. UPLIFT FORCE DUE TO DRAPED STRANDS IS 23.8 Kips.

ELEVATION OF GIRDER – SPAN A
(SEE PARTIAL ELEVATION FOR ADDITIONAL "S" BARS)

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.

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.

ALL PRESTRESSED STRANDS SHALL BE CUT FLUSH WITH THE GIRDER ENDS.

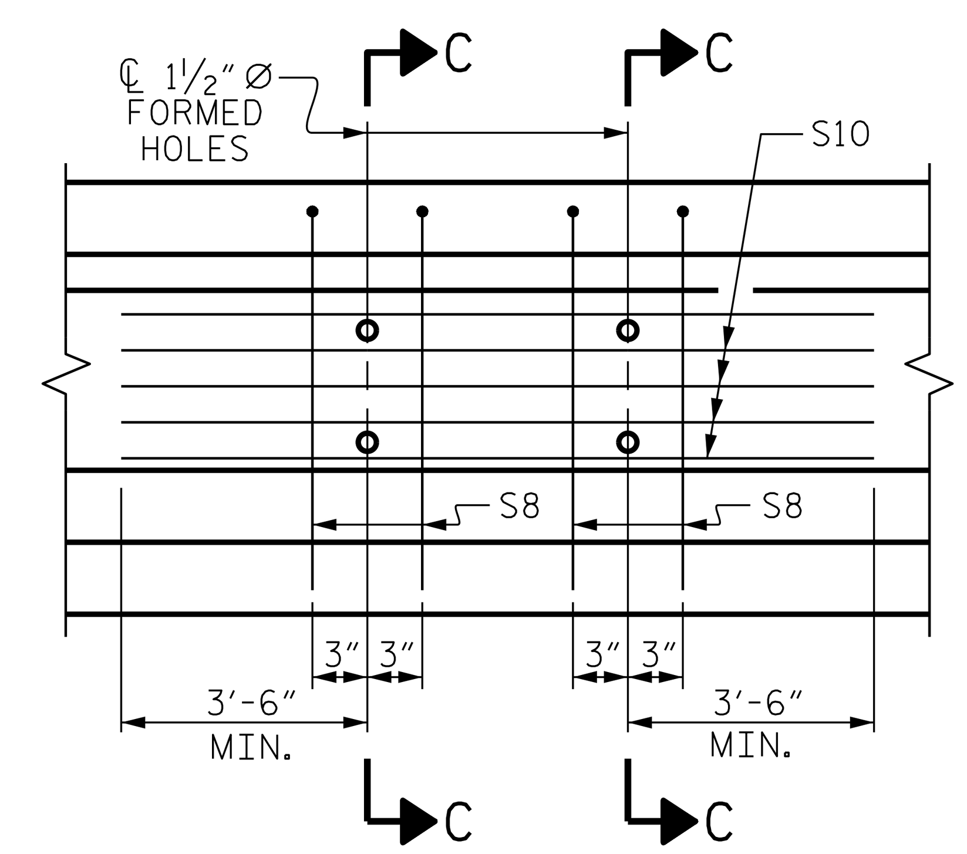
THE TRANSFER OF LOAD FROM THE ANCHORAGES TO THE GIRDER SHALL BE DONE WHEN CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF NOT LESS THAN 7500 PSI.

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

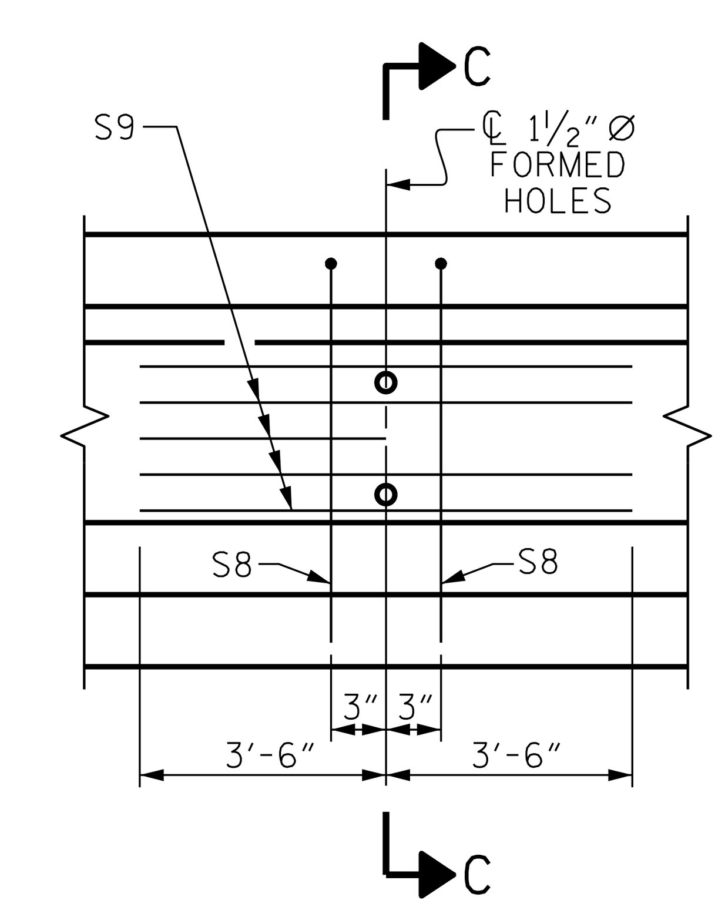
THE TOP SURFACE OF THE GIRDER SHALL BE RAKED TO A DEPTH OF ¼" EXCEPT IN THE AREA BETWEEN THE STIRRUP AND THE EDGE OF THE GIRDER.

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 ½" OF THE THEORETICAL LOCATION SHOWN.

FOR EMBEDDED CLIPS FOR PRESTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.



PARTIAL ELEVATION
SHOWING INTERMEDIATE DIAPHRAGM REINFORCING STEEL FOR GIRDERS A2, A3, A4 & A5



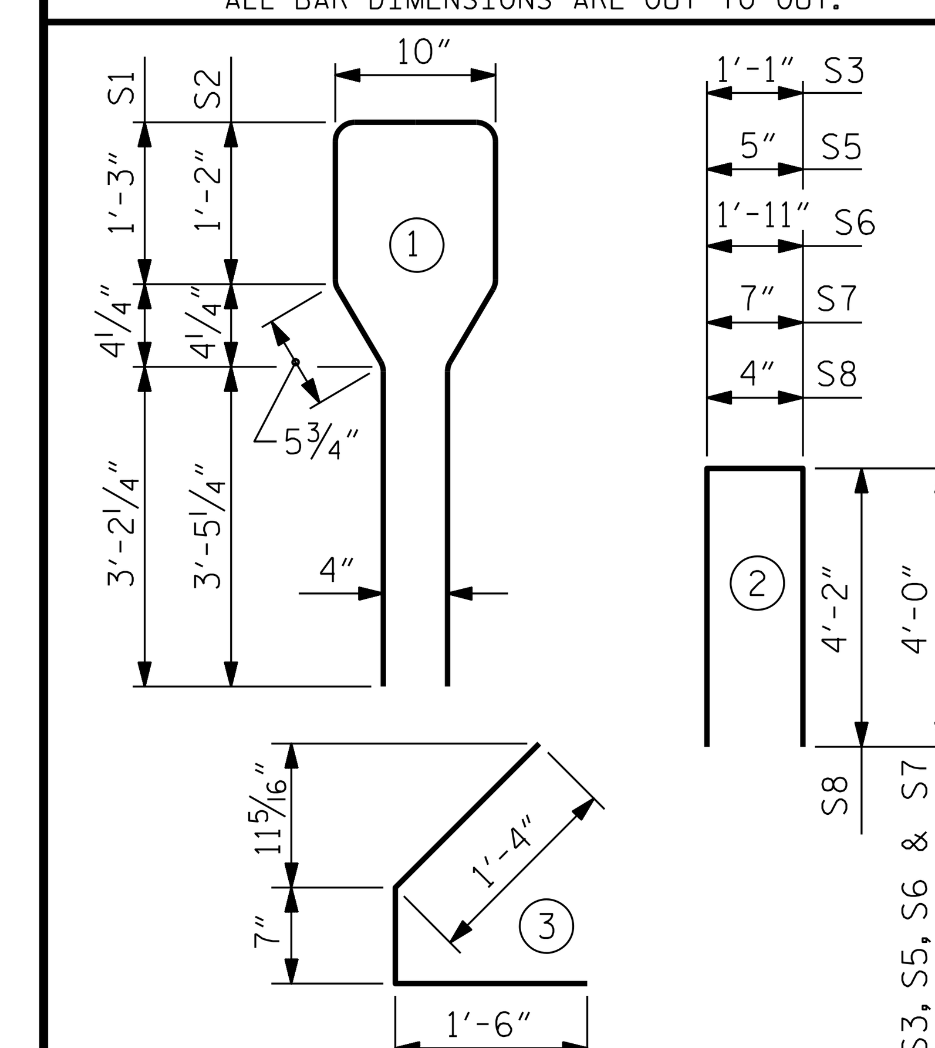
PARTIAL ELEVATION
SHOWING INTERMEDIATE DIAPHRAGM REINFORCING STEEL FOR GIRDERS A1 & A6

0.6" Ø L. R. GRADE 270 STRANDS		
AREA (SQUARE INCHES)	ULTIMATE STRENGTH (LBS. PER STRAND)	APPLIED PRESTRESS (LBS. PER STRAND)
0.217	58,600	43,950

REINFORCING STEEL FOR ONE GIRDER

	BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT
GDRS. A1 & A2	S1	59	#5	1	10'-8"	656
GDRS. A3 - A6	S1	58	#5	1	10'-8"	645
	S2	8	#6	1	11'-0"	133
	S3	4	#4	2	9'-1"	24
	S4	72	#4	3	3'-5"	164
	S5	6	#4	2	8'-5"	34
	S6	2	#4	2	9'-11"	13
	S7	4	#4	2	8'-7"	23
GDRS. A1 & A6	S8	2	#5	2	8'-8"	18
GDRS. A2 - A5	S8	4	#5	2	8'-8"	36
GDRS. A1 & A6	S9	5	#5	STR.	7'-0"	37
GDRS. A2 - A5	S10	5	#5	STR.	12'-1"	67
	S11	16	#6	STR.	3'-9"	90

BAR TYPES
ALL BAR DIMENSIONS ARE OUT TO OUT.



PROJECT NO. I-4729A
POLK COUNTY
STATION: 21+44.22 -RP_F-

SHEET 1 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

AASHTO TYPE IV PRESTRESSED CONCRETE GIRDER
SPAN A

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 029979 ANOOP D. SHAH
8/11/2017

PLANS PREPARED BY :
PARSONS
5540 Centerview Drive, Suite 217
Raleigh, NC 27606-3386
NC LICENSE No. F-0246
FOR NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

DRAWN BY :	T. DETMERS	DATE :	7-17
CHECKED BY :	D. DELK	DATE :	7-17
DESIGN ENGINEER :	S. PHAN	DATE :	7-17

REVISIONS

No.	BY:	DATE:	No.	BY:	DATE:
1			3		
2			4		

SHEET No. S2-12
TOTAL SHEETS 31
STR. #2

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