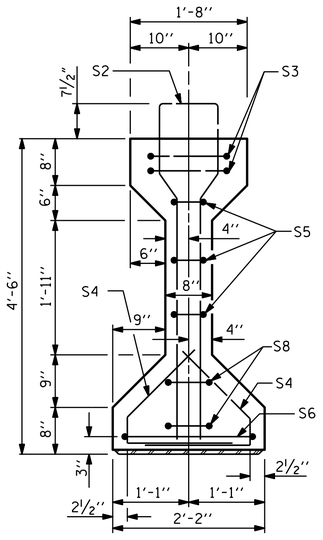
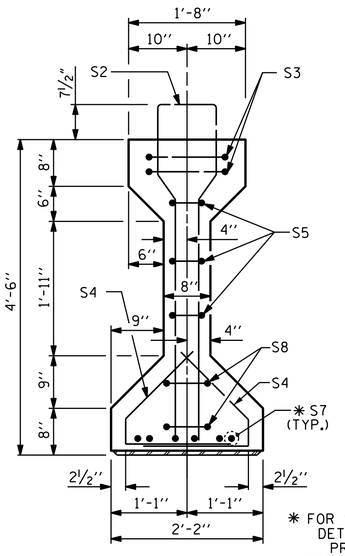
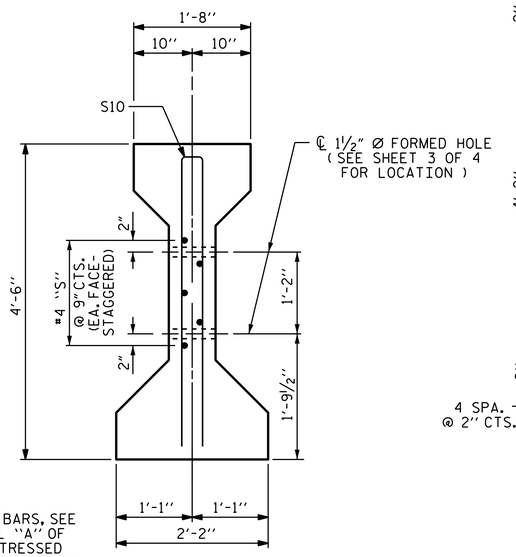


SECTION A-A



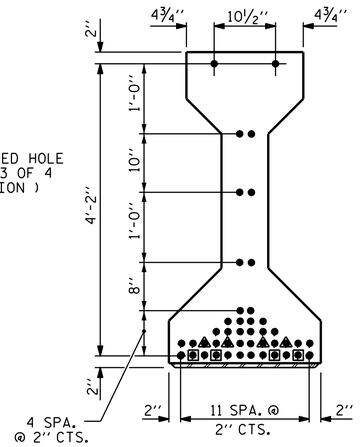
SECTION B-B

✱ FOR S7 BARS, SEE DETAIL "A" OF PRESTRESSED CONCRETE GIRDER CONTINUOUS FOR LIVE LOAD DETAILS SHEET

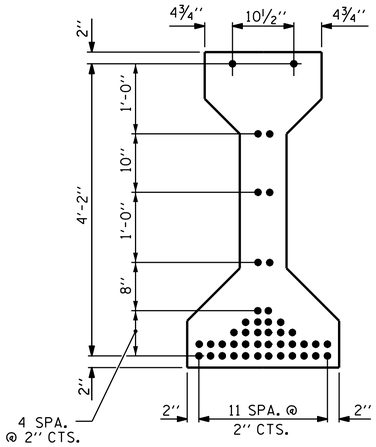


SECTION C-C

(S1 BARS NOT SHOWN)



AT END OF GIRDER



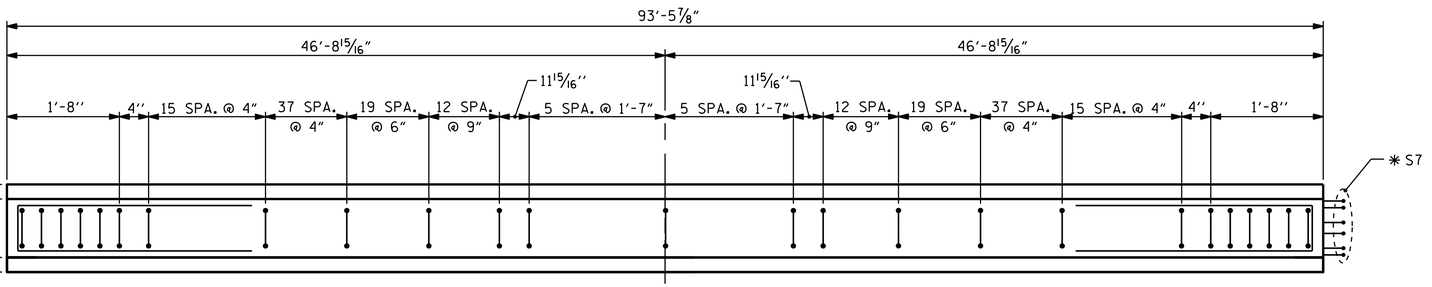
AT ℄ OF GIRDER

0.6" Ø LOW RELAXATION STRAND LAYOUT

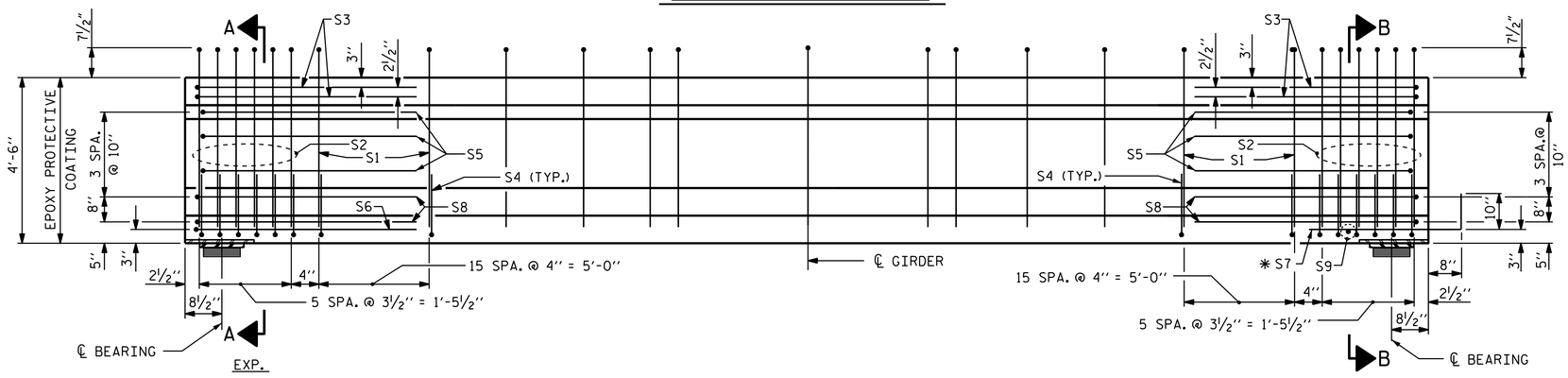
44 STRANDS REQUIRED

⊡ STRANDS DEBONDED FOR 10-0" FROM END OF GIRDER

▲ STRANDS DEBONDED FOR 8-0" FROM END OF GIRDER

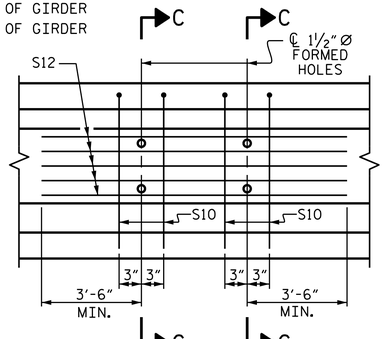


PLAN OF GIRDER



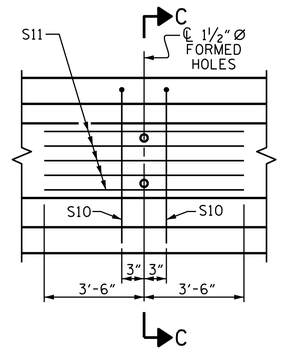
ELEVATION OF GIRDER

(SEE PARTIAL ELEVATION FOR ADDITIONAL "S" BARS)



PARTIAL ELEVATION

SHOWING INTERMEDIATE DIAPHRAGM REINFORCING STEEL FOR GIRDERS Nos. A2,A3.A4.&A5 FOR LOCATION OF BOLT HOLES IN GIRDERS, SEE SHEET 3 OF 4.



PARTIAL ELEVATION

SHOWING INTERMEDIATE DIAPHRAGM REINFORCING STEEL FOR GIRDERS A1 & A6. FOR LOCATION OF BOLT HOLES IN GIRDERS. SEE SHEET 3 OF 4.

EXTERIOR GDR.	S10	2	✱5	2	8'-8"	18
INTERIOR GDR.	S10	4	✱5	2	8'-8"	36
EXTERIOR GDR.	S11	5	✱4	STR	7'-0"	23
INTERIOR GDR.	S12	5	✱4	STR	12'-5"	41

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

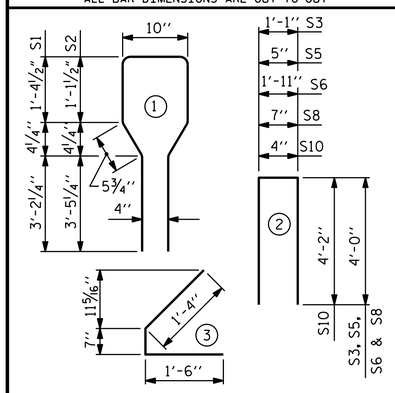
REINFORCING STEEL FOR ONE GIRDER

BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT
S1	179	✱4	1	10'-11"	1305
S2	12	✱6	1	10'-11"	197
S3	4	✱4	2	9'-1"	24
S4	88	✱4	3	3'-5"	201
S5	6	✱4	2	8'-5"	34
S6	1	✱4	2	9'-11"	7
✱ S7	6	✱5	STR	3'-8"	23
S8	4	✱4	2	8'-7"	23
S9	1	✱3	STR	1'-10"	1

✱ NOTE: S7 BARS SHALL BE BENT BEFORE SHIPMENT. HEAT BENDING SHALL NOT BE ALLOWED.

BAR TYPES

ALL BAR DIMENSIONS ARE OUT-TO-OUT



QUANTITIES FOR ONE GIRDER

	REINFORCING STEEL LB.	9000 PSI CONCRETE C.Y.	0.6" Ø L.R. STRANDS No.
EXTERIOR GDR.	1856	19.0	44
INTERIOR GDR.	1892	19.0	44

GIRDERS REQUIRED

NUMBER	LENGTH	TOTAL LENGTH
6	93'-5⅞"	560'-11¼"

PROJECT NO. R-2915A

WATAUGA/ASHE COUNTY

STATION: 11+18.63 -L-

SHEET 1 OF 4

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARD
AASHTO TYPE IV
PRESTRESSED CONCRETE GIRDER
CONTINUOUS FOR LIVE LOAD
SPAN A

NORTH CAROLINA PROFESSIONAL SEAL 17230 ENGINEER WAEL S. ARAFAT

DocuSigned by: Wael Arafat 7/28/2015

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-10
1			3			TOTAL SHEETS
2			4			31

ASSEMBLED BY : V.X. NGUYEN	DATE : 8-5-14	
CHECKED BY : D. HODGE	DATE : 2-15	
DRAWN BY : ELR 8/91	REV. 5/1/06R TLA/GM	DESIGN ENGINEER OF RECORD: A.M. LEE DATE : 4-15
CHECKED BY : GRP 8/91	REV. 10/1/11 MAA/GM	
	REV. 1/15 MAA/TMG	

24-JUL-2015 10:48
R:\Structures\FinalPlans\STR#1\R-2915A_SD_G*.dgn
warafat

STR. #1

STD. NO. PCG6 (Sht. 1)