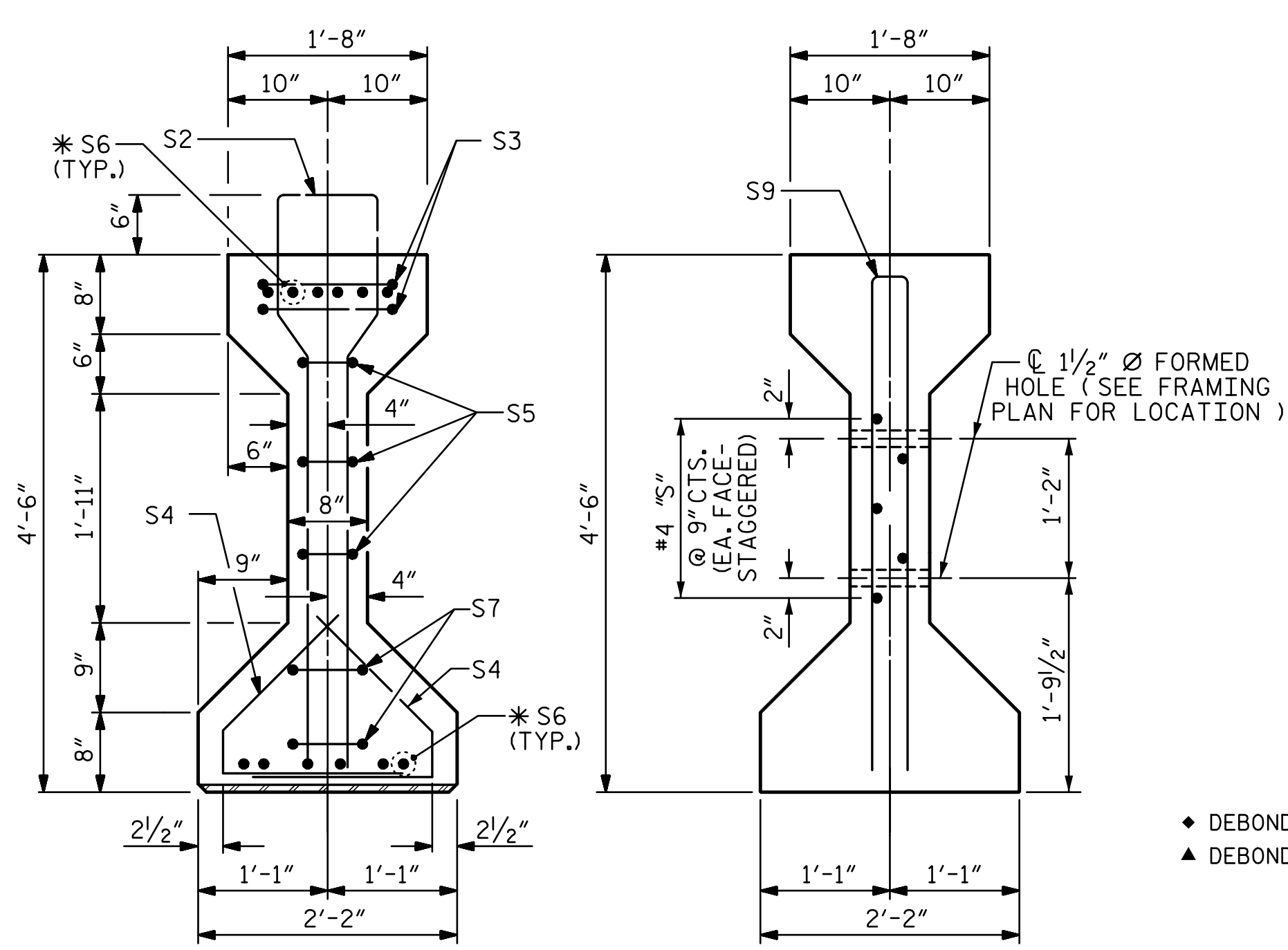
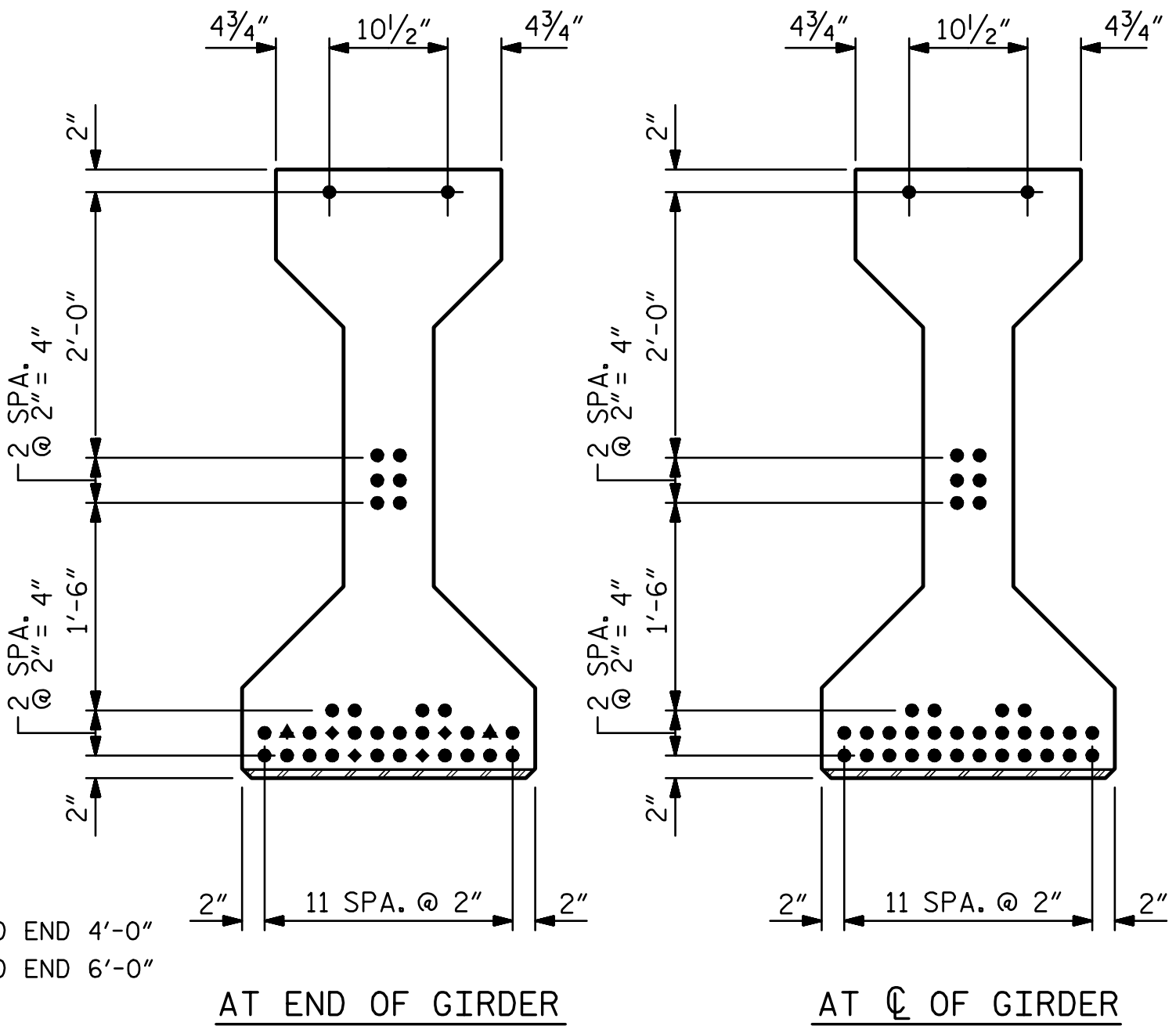


I:\Projects\255550\255550\0002\50_Deliverables & Submittals\AR-2514D\Structures\Site 5\LL\409_Oil_R2514D_SMU_PCG.dgn 4/10/2015 9:24:41 AM

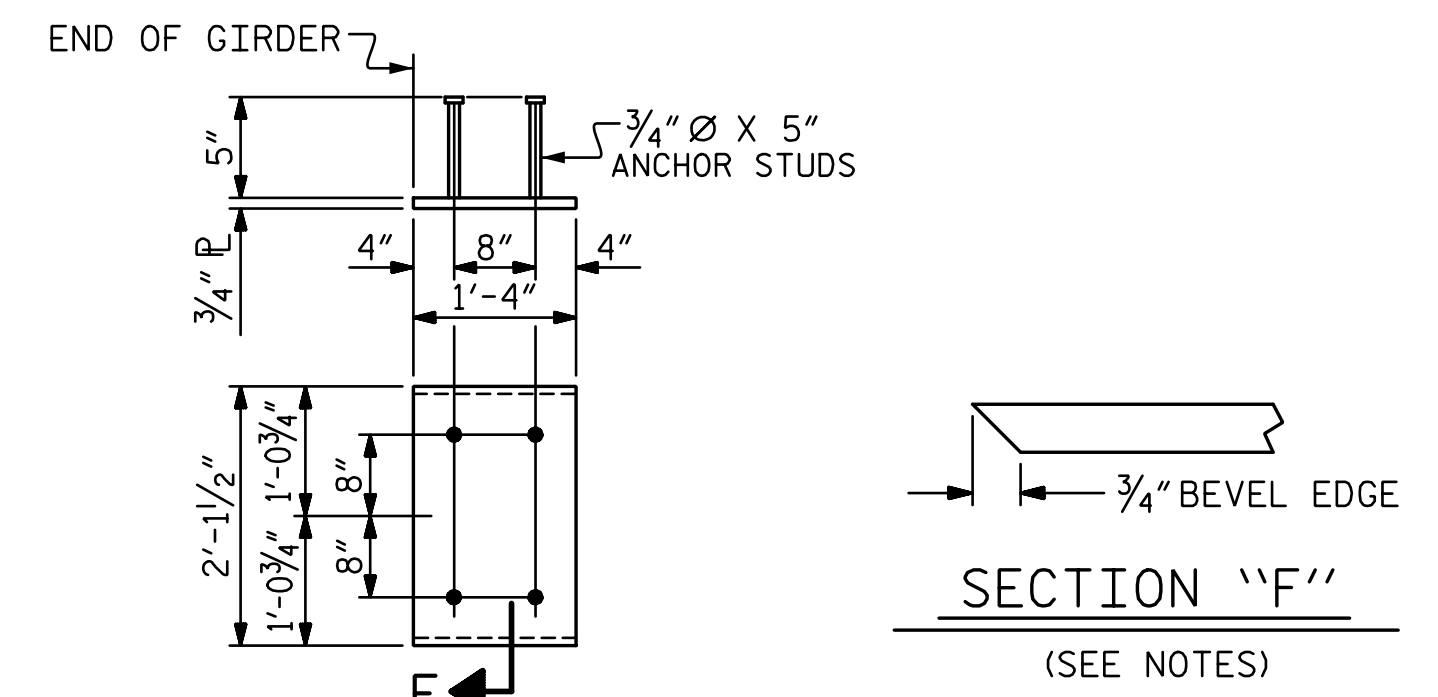


SECTION A-A
* FOR S6 BARS, SEE
DETAIL "A"

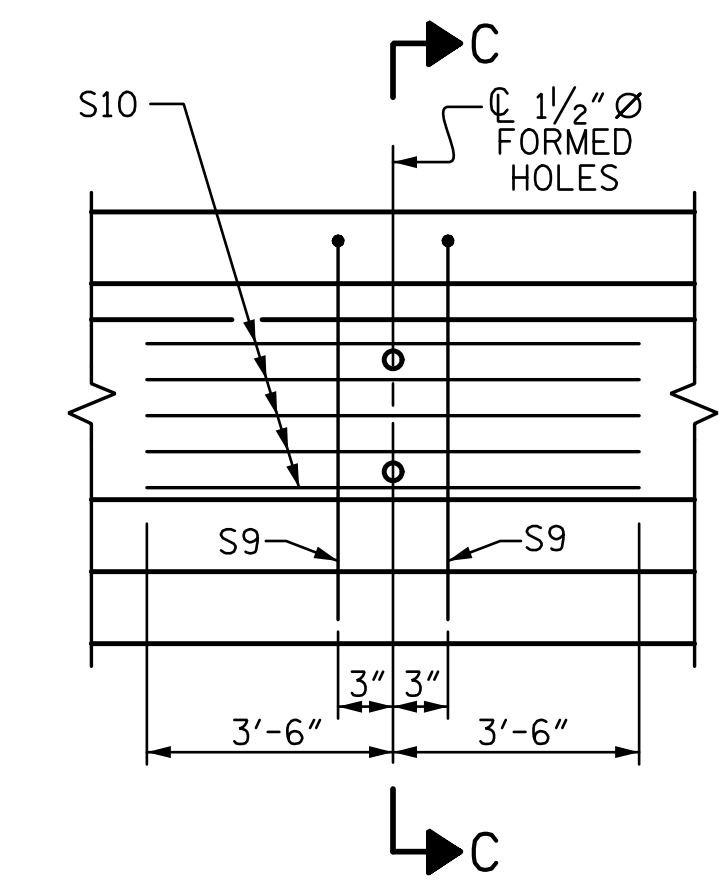
SECTION C-C
(S1 BARS NOT SHOWN)



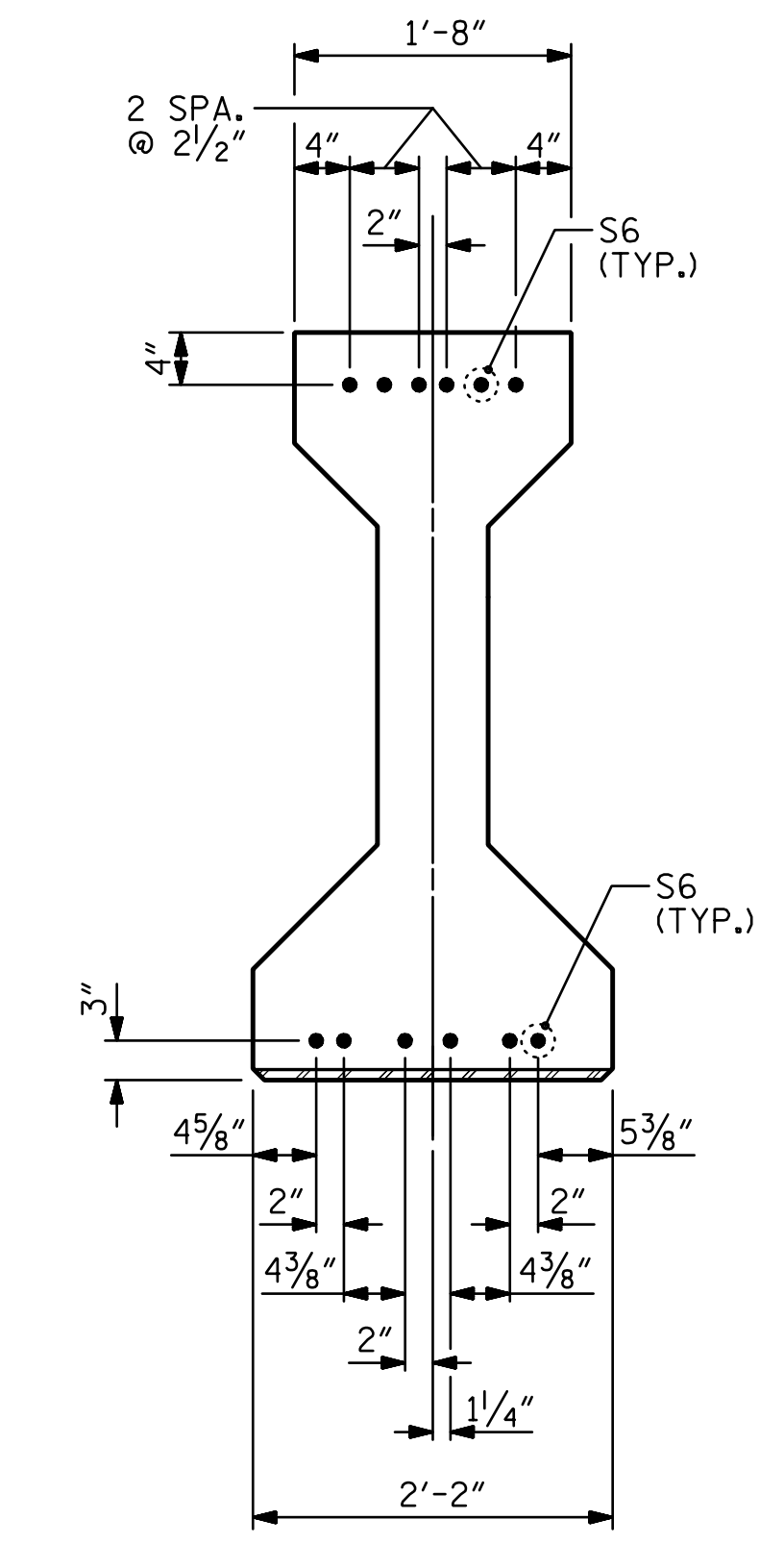
0.6" Ø LOW RELAXATION STRAND LAYOUT



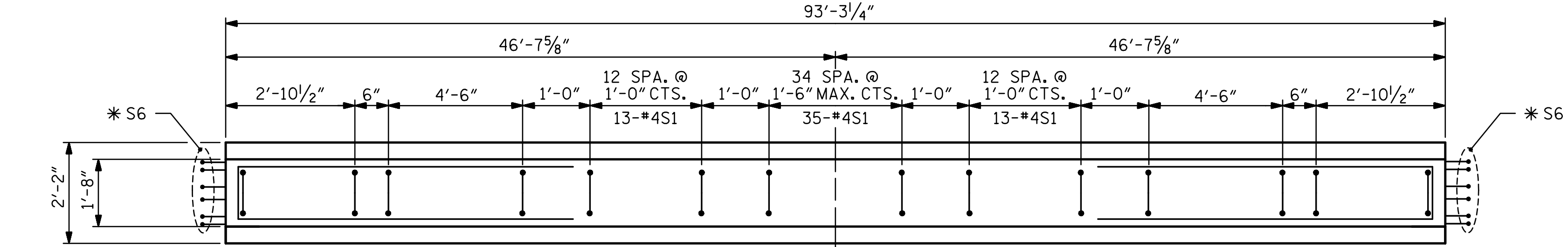
EMBEDDED PLATE "B-1" DETAILS
TWO EMBEDDED PLATES "B-1" ARE REQUIRED FOR EACH GIRDER.



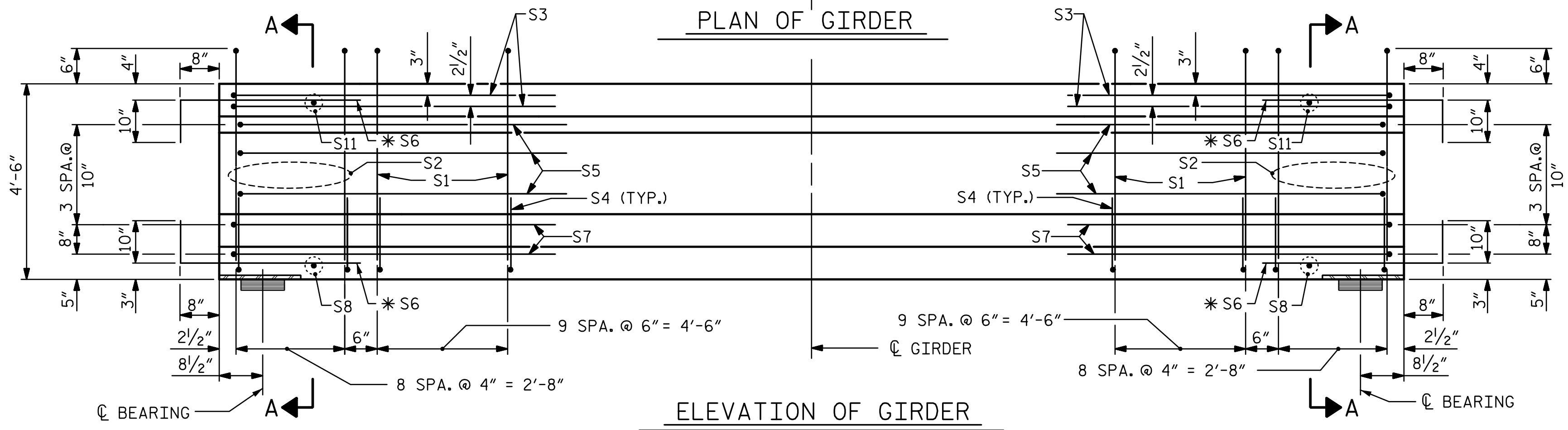
PARTIAL ELEVATION
SHOWING INTERMEDIATE DIAPHRAGM
REINFORCING STEEL FOR ALL GIRDERS



DETAIL "A"



PLAN OF GIRDER



ELEVATION OF GIRDER

(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.

ALL REINFORCING STEEL SHALL BE GRADE 60.

EMBEDDED PLATE "B-1" SHALL BE GALVANIZED IN ACCORDANCE WITH THE 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 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 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 TRANSFER OF LOAD FROM THE ANCHORAGES TO THE GIRDER SHALL BE DONE WHEN CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF NOT LESS THAN 6,000 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 1/4" EXCEPT IN THE AREA BETWEEN THE STIRRUP AND THE EDGE OF THE GIRDER.

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

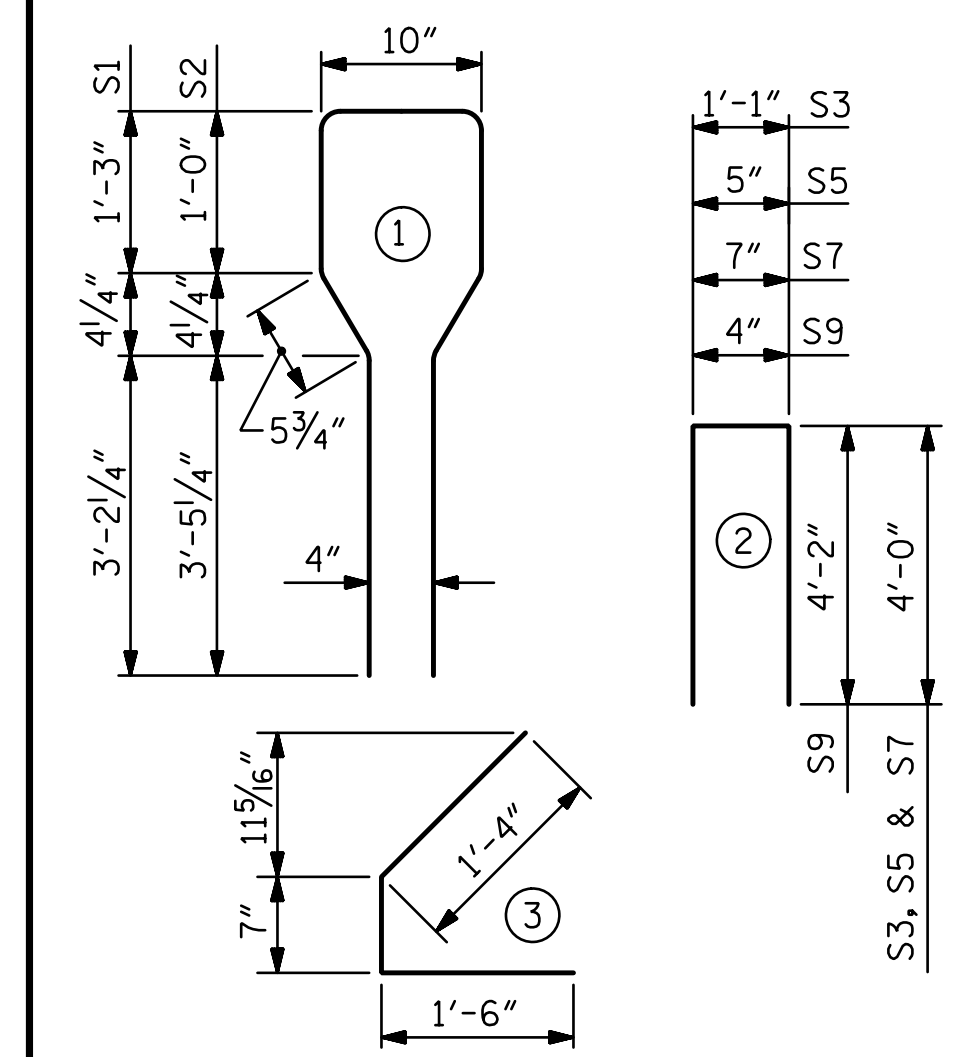
REINFORCING STEEL FOR ONE GIRDER

BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT
S1	81	#4	1	10'-8"	577
S2	18	#6	1	10'-8"	288
S3	4	#4	2	9'-1"	24
S4	76	#4	3	3'-5"	173
S5	6	#4	2	8'-5"	34
*S6	24	#5	STR	3'-8"	92
S7	4	#4	2	8'-7"	23
S8	2	#3	STR	1'-10"	1
S9	2	#5	2	8'-8"	18
S10	5	#4	STR	7'-0"	23
S11	2	#3	STR	1'-4"	1

* NOTE: S6 BARS SHALL BE BENT BEFORE SHIPMENT. HEAT BENDING SHALL NOT BE ALLOWED.

BAR TYPES

ALL BAR DIMENSIONS ARE OUT-TO-OUT



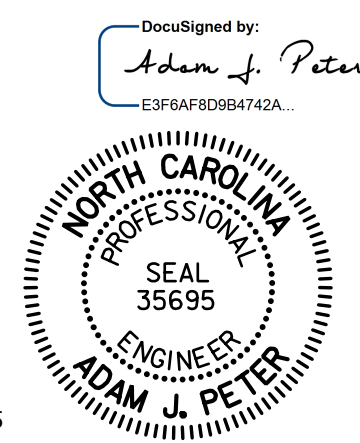
QUANTITIES FOR ONE GIRDER

REINFORCING STEEL	8,000 PSI CONCRETE	0.6" Ø L. R. STRANDS
LB.	C.Y.	No.
1,254	18.9	36

GIRDERS REQUIRED

NUMBER	LENGTH	TOTAL LENGTH
5	93'-3/4"	466'-4/4"

PROJECT NO. **R-2514D**
JONES & CRAVEN COUNTY
 STATION: **428+53.58 -L-**
= 13+04.09 -Y5-



4/10/2015

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUPERSTRUCTURE
**AASHTO TYPE IV
 PRESTRESSED CONCRETE GIRDER**
-LEFT LANE-

DRAWN BY: **JWJ** DATE: **4-14**
 CHECKED BY: **MLO** DATE: **5-14**
 DESIGN ENGINEER OF RECORD: **A. PETER** DATE: **6-14**

STV / Ralph Whitehead Associates, Inc.
 900 West Trade Street, Suite 715
 Charlotte, NC 28202
 NC License Number F-0991

REVISIONS				SHEET NO.
NO.	BY:	DATE:	NO.	DATE:
1			3	
2			4	

TOTAL SHEETS: 24