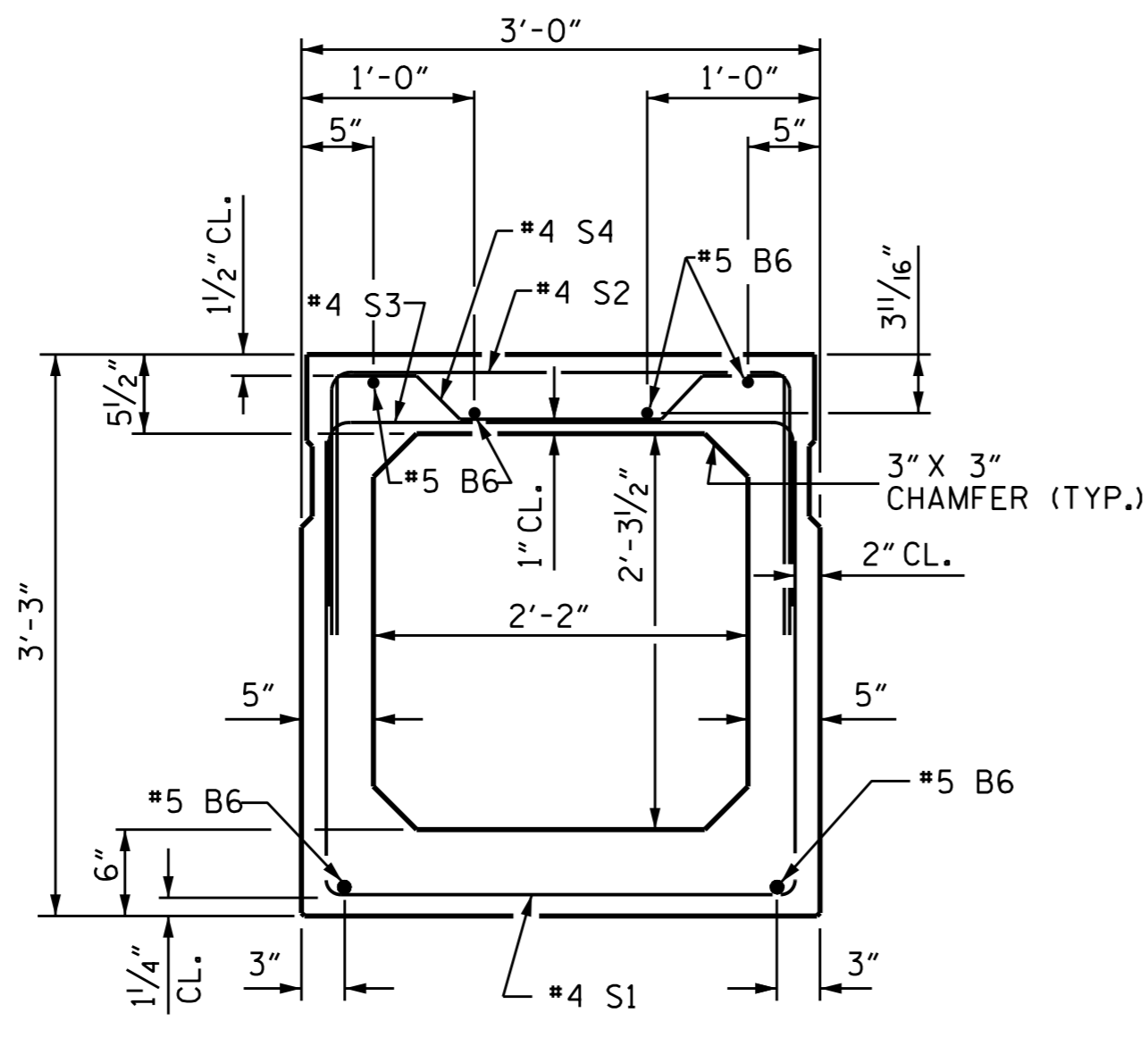


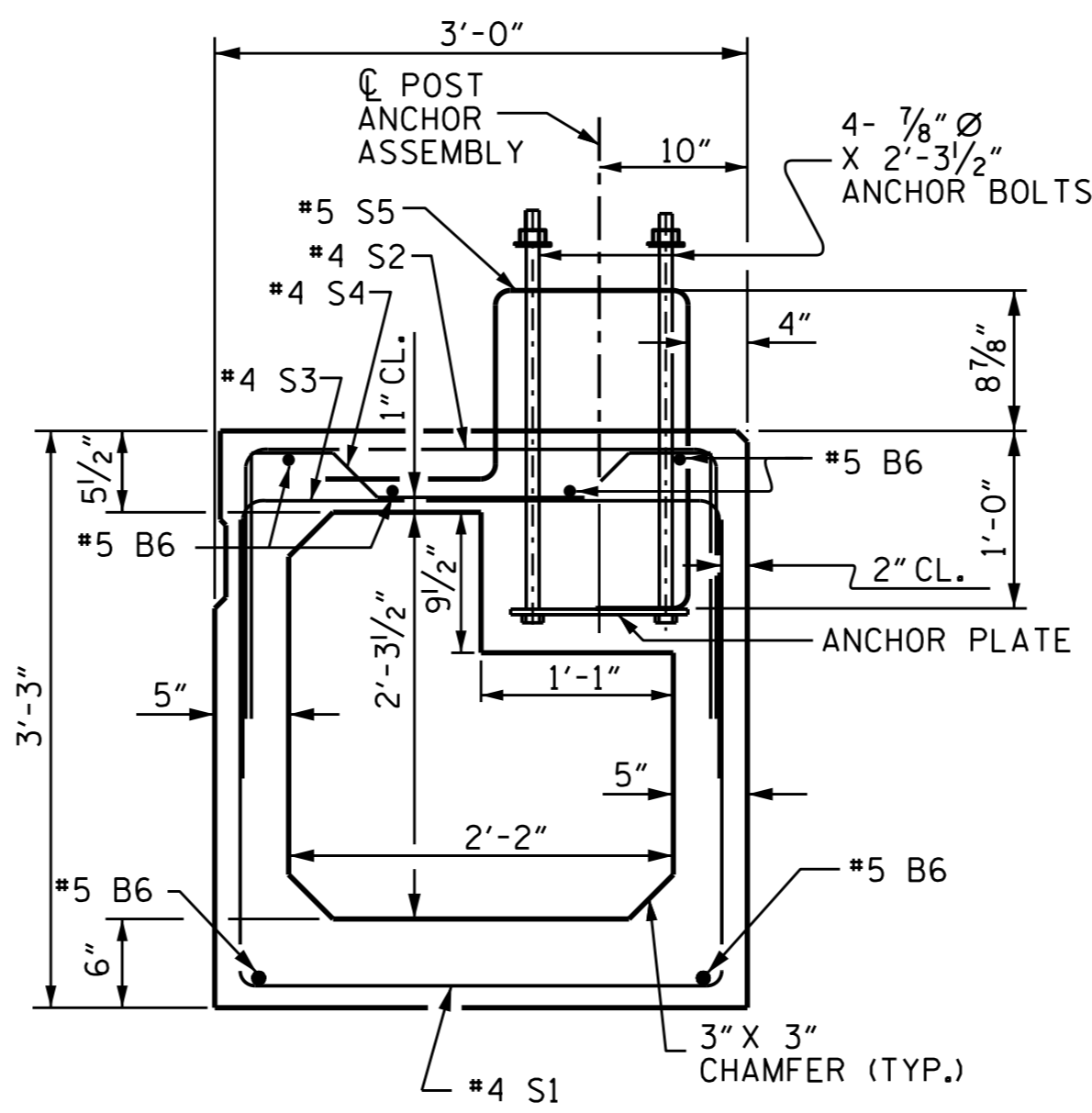
END ELEVATION

SHOWING PLACEMENT OF #5 & #4 "A" BARS AND LOCATION OF DOWEL HOLES. (INTERIOR BOX BEAM SECTION SHOWN-EXTERIOR SECTION SIMILAR EXCEPT SHEAR KEY LOCATION, STRAND LAYOUT NOT SHOWN.)



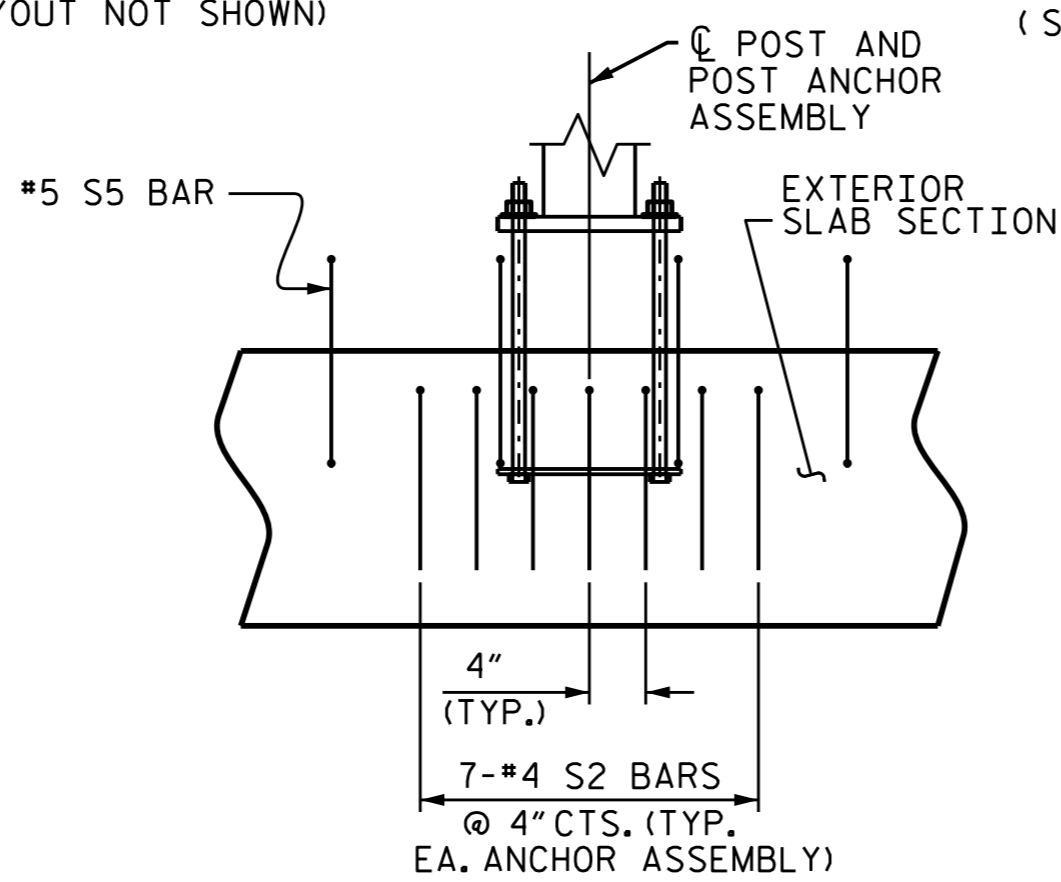
INTERIOR BOX BEAM SECTION

(STRAND LAYOUT NOT SHOWN)



EXTERIOR BOX BEAM SECTION

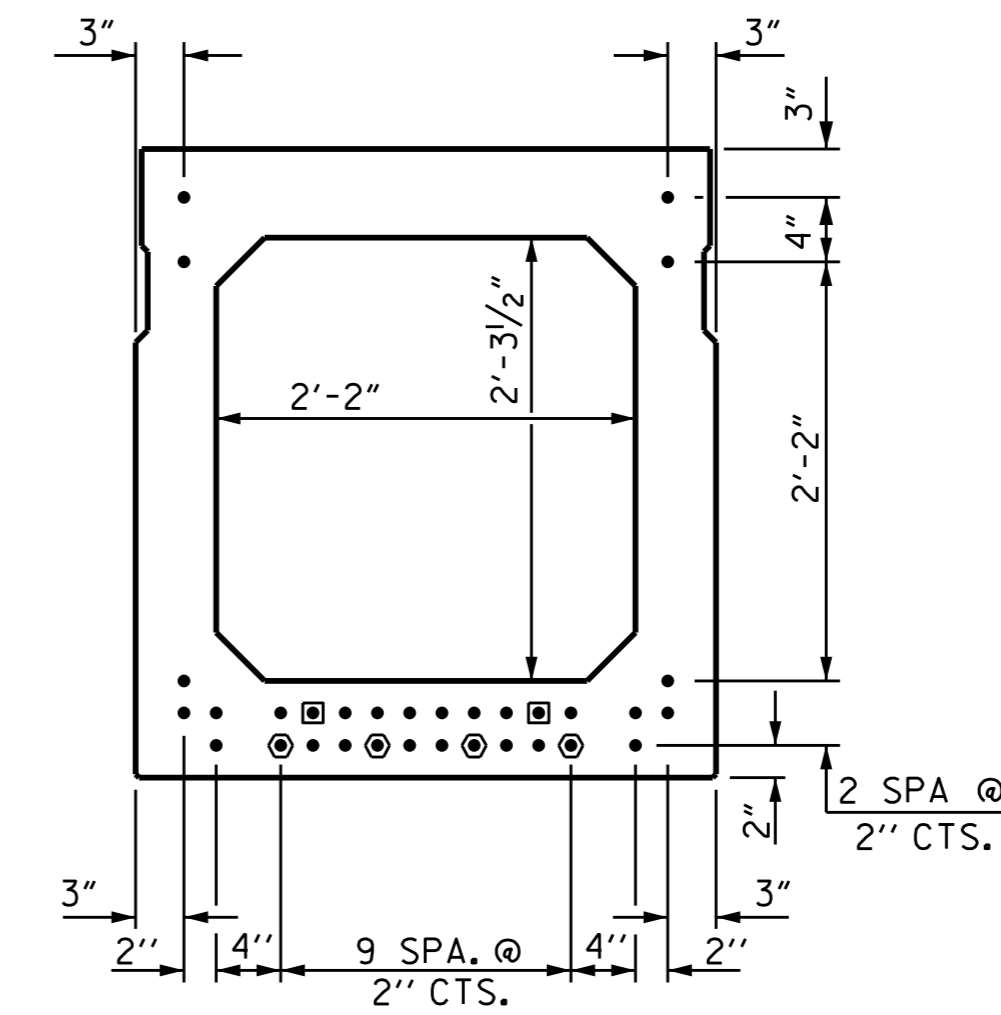
(STRAND LAYOUT NOT SHOWN)



SIDE VIEW AT POST LOCATION

(SHOWING ADDITIONAL S2 BARS AT EACH POST ASSEMBLY)

0.6" Ø LOW RELAXATION STRAND LAYOUT



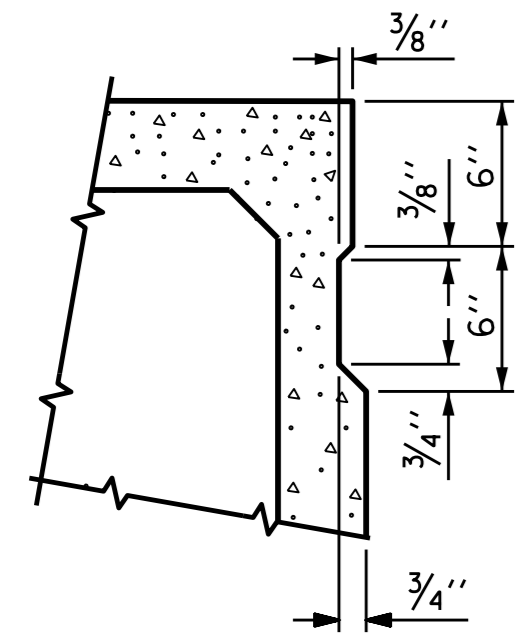
TYPICAL STRAND LOCATION

(32 STRANDS REQUIRED)

DEBONDING LEGEND

- FULLY BONDED STRANDS
- ◐ STRANDS DEBONDED FOR 4'-0" FROM END OF GIRDER
- ◑ STRANDS DEBONDED FOR 12'-0" FROM END OF GIRDER

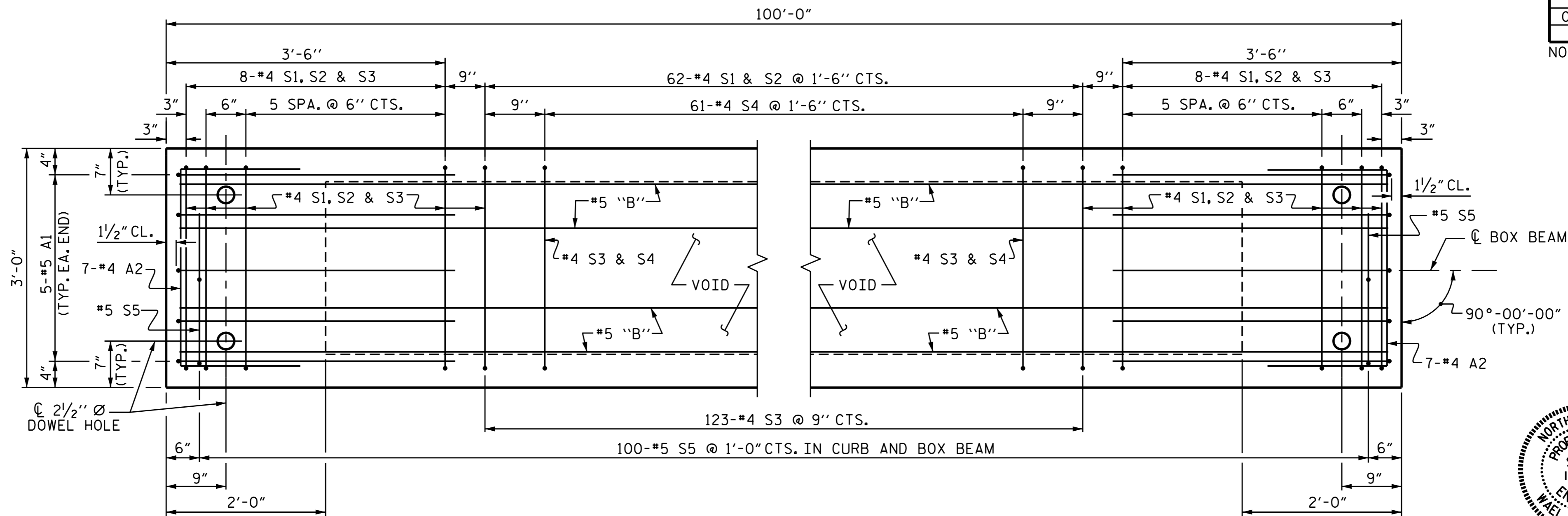
BOND SHALL BE BROKEN ON STRANDS AS SHOWN FOR THE SPECIFIED LENGTH FROM EACH END OF THE BOX BEAM. SEE STANDARD SPECIFICATIONS ARTICLE 1078-7.



SHEAR KEY DETAIL

NOTE: OMIT SHEAR KEY ON OUTSIDE FACE OF EXTERIOR BOX BEAMS.

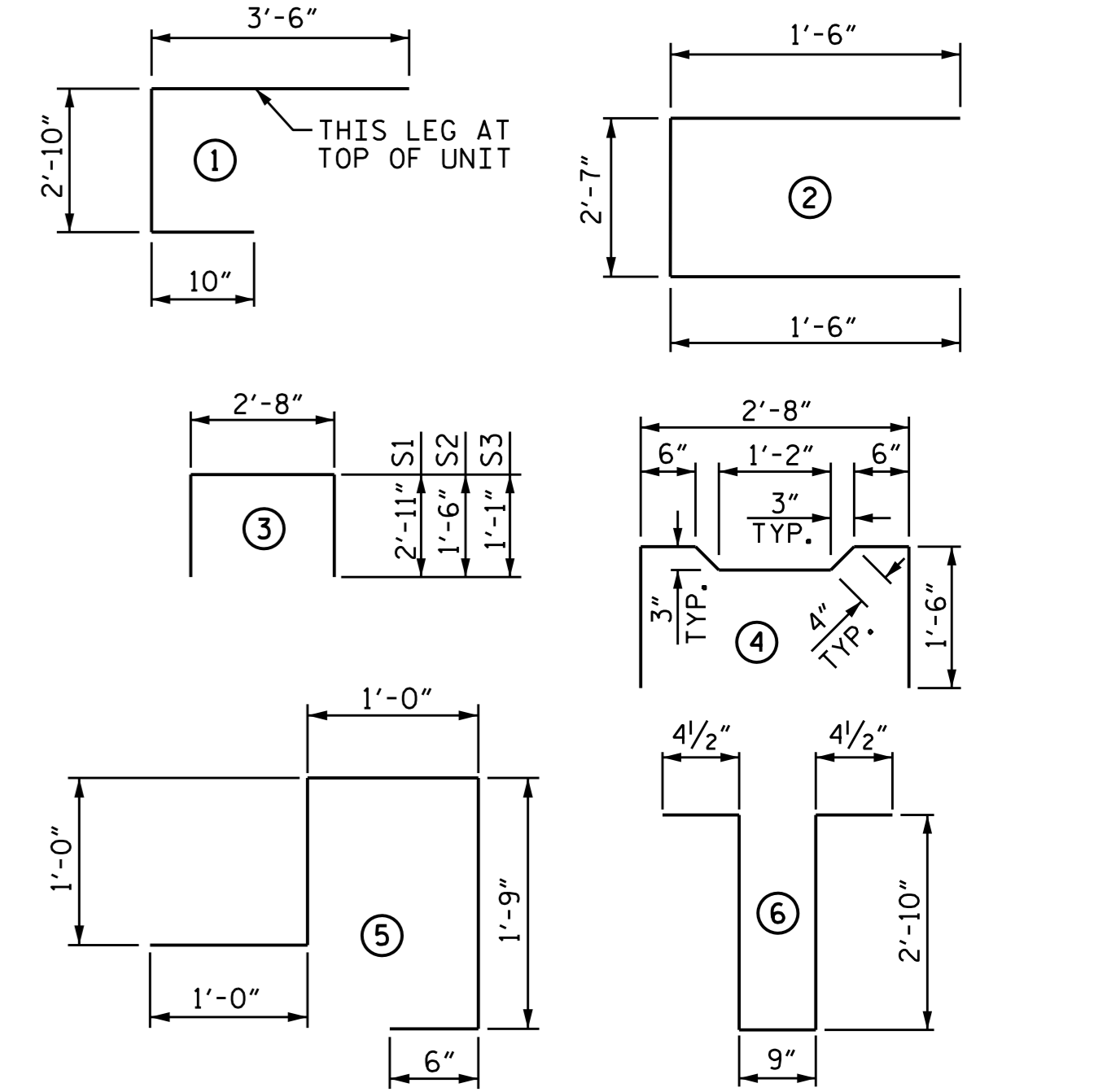
GRADE 270 STRANDS	
0.6" Ø L.R.	
AREA (SQUARE INCHES)	0.217
ULTIMATE STRENGTH (LBS. PER STRAND)	58,600
APPLIED PRESTRESS (LBS. PER STRAND)	43,950



PLAN OF BOX BEAM

EXTERIOR UNIT SHOWN, INTERIOR UNIT SIMILAR EXCEPT OMIT #5 S5 BARS. FOR LOCATION OF DIAPHRAGMS, SEE PLAN OF SPANS. FOR REINFORCING STEEL IN DIAPHRAGMS, SEE DIAPHRAGM DETAILS.

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT

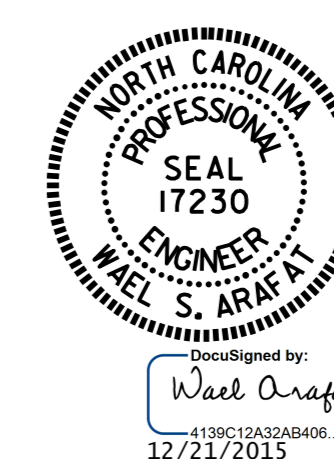
BILL OF MATERIAL FOR ONE BOX BEAM SECTION

BAR	NUMBER	SIZE	TYPE	EXTERIOR UNIT		INTERIOR UNIT	
				LENGTH	WEIGHT	LENGTH	WEIGHT
A1	10	#5	1	7'-2"	75	7'-2"	75
A2	44	#4	2	5'-7"	164	5'-7"	164
B6	12	#5	STR	50'-11"	637	50'-11"	637
K1	15	#4	6	7'-2"	72	7'-2"	72
K2	10	#4	STR	2'-7"	17	2'-7"	17
S1	78	#4	3	8'-6"	443	8'-6"	443
S2	162	#4	3	5'-8"	613	--	--
S2	78	#4	3	--	--	5'-8"	295
S3	139	#4	3	4'-10"	449	4'-10"	449
S4	61	#4	4	5'-10"	238	5'-10"	238
* S5	100	#5	5	5'-3"	548	--	--
REINFORCING STEEL				LBS.	2708	LBS.	2390
* EPOXY COATED REINF. STEEL				LBS.	548		
7500 P.S.I. CONCRETE				CU. YDS.	22.3	CU. YDS.	19.4
0.6" Ø L.R. STRANDS				No.	32	No.	32

NOTE: THE VOID IN THE EXTERIOR UNIT IS TO BE MODIFIED THE FULL LENGTH OF THE VOID TO ALLOW THE POST ANCHOR ASSEMBLIES TO BE PLACED. SEE THE EXTERIOR BOX BEAM SECTION FOR DETAILS OF THE MODIFICATION.

PROJECT NO. **B-5173**
SURRY COUNTY
 STATION: **17+22.00 -L-**

SHEET 3 OF 5



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 STANDARD
 3'-0" X 3'-3"
 PRESTRESSED CONCRETE
 BOX BEAM UNIT
 SPAN "A"

REVISIONS						SHEET NO. S-7	TOTAL SHEETS 18
NO.	BY:	DATE:	NO.	BY:	DATE:		
1			3				
2			4				

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

ASSEMBLED BY :	H. T. BARBOUR	DATE :	8-20-15
CHECKED BY :	V. X. NGUYEN	DATE :	9-15
DRAWN BY :	TLA 5/05	REV. 5/1/06	TLA/GM
CHECKED BY :	GM 6/05	REV. 10/1/11	MAA/GM
		REV. 1/15	RWW/TMG