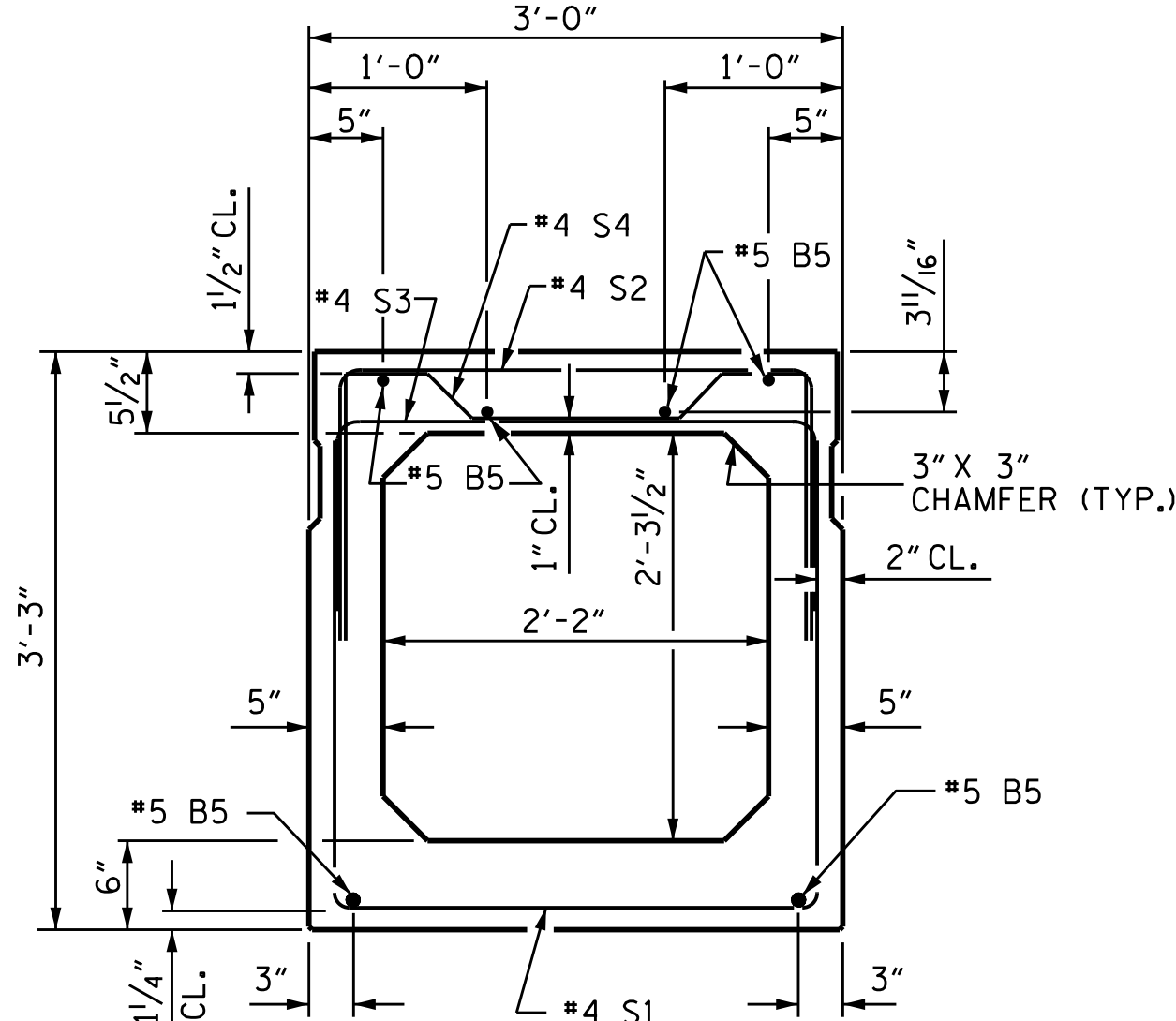


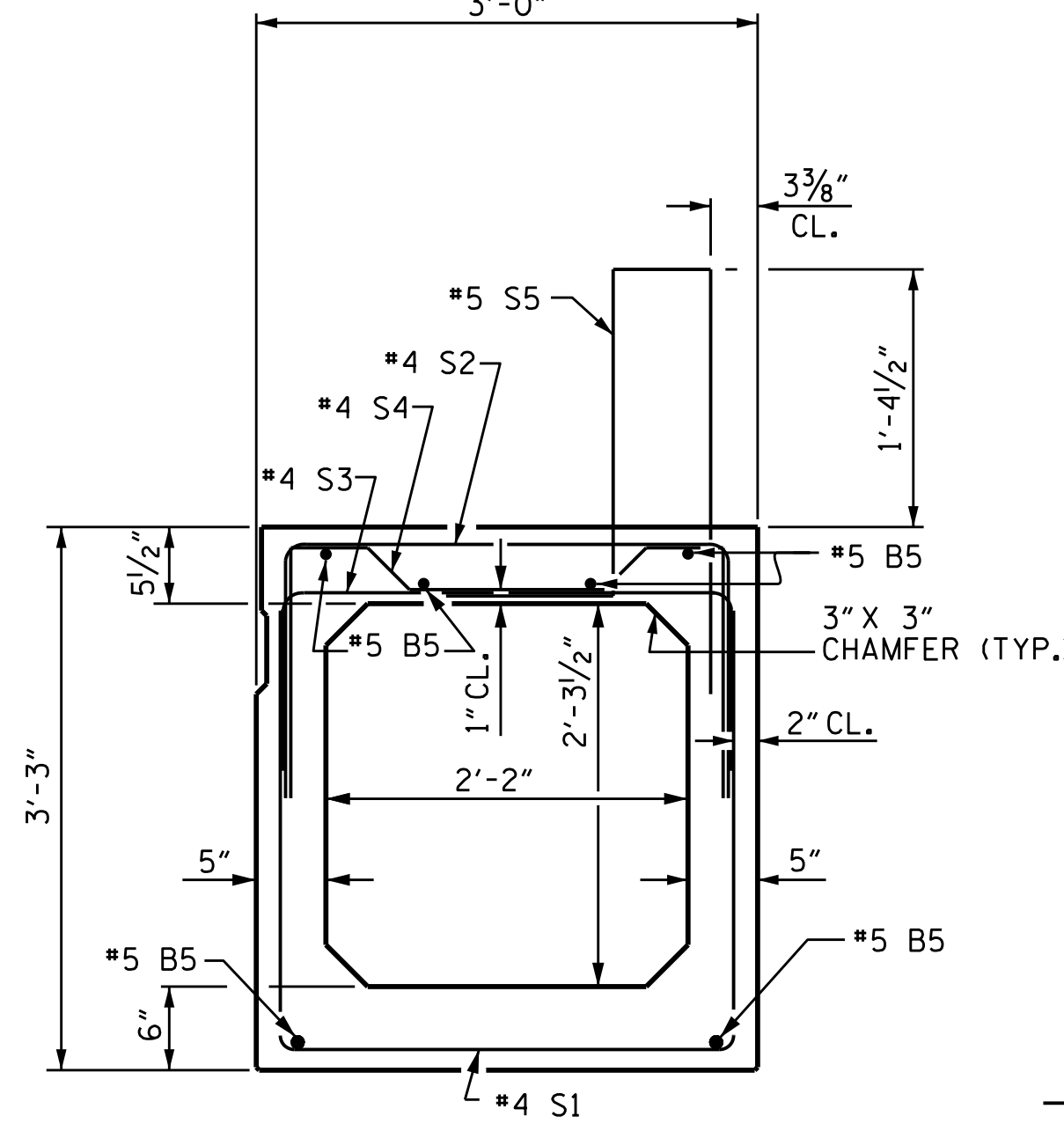
**END ELEVATION**

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**

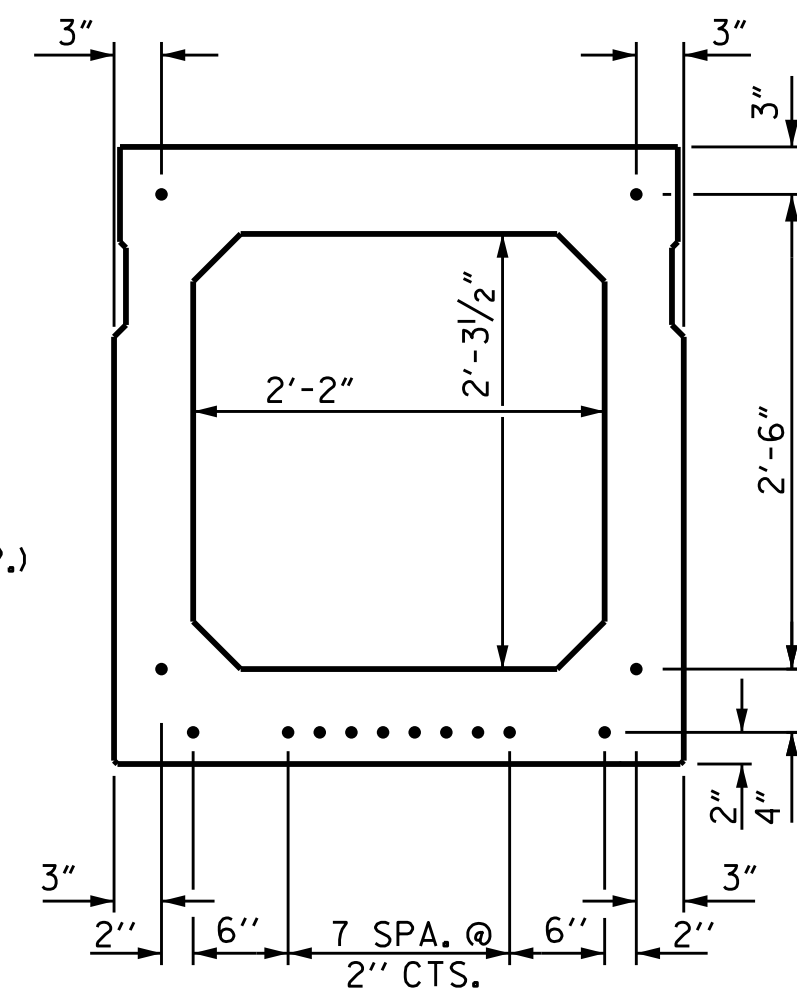
(STRAND LAYOUT NOT SHOWN)



**EXTERIOR BOX BEAM SECTION**

(STRAND LAYOUT NOT SHOWN)

**0.6" Ø LOW RELAXATION STRAND LAYOUT**

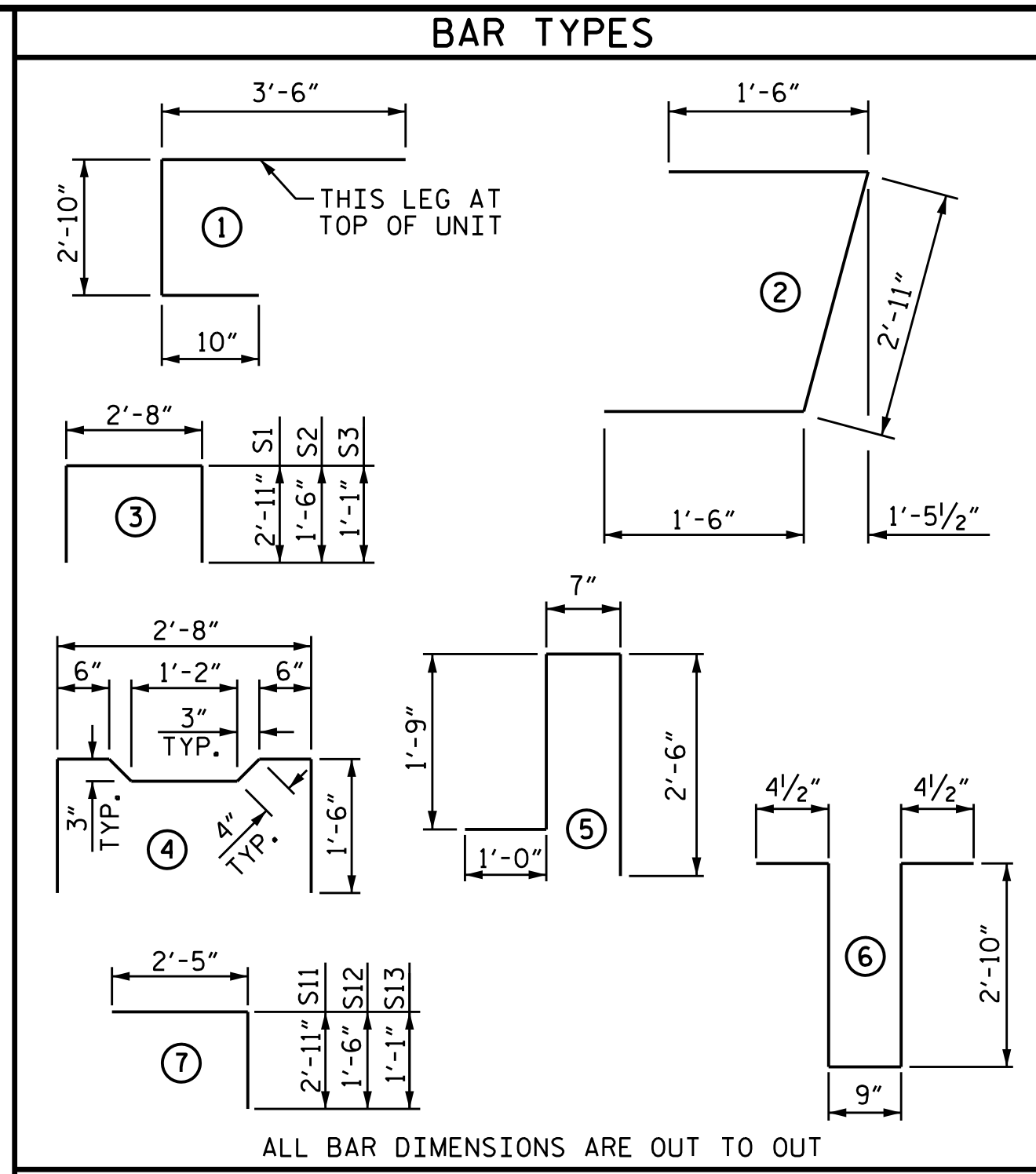


**TYPICAL STRAND LOCATION**

(14 STRANDS REQUIRED)

**DEBONDING LEGEND**

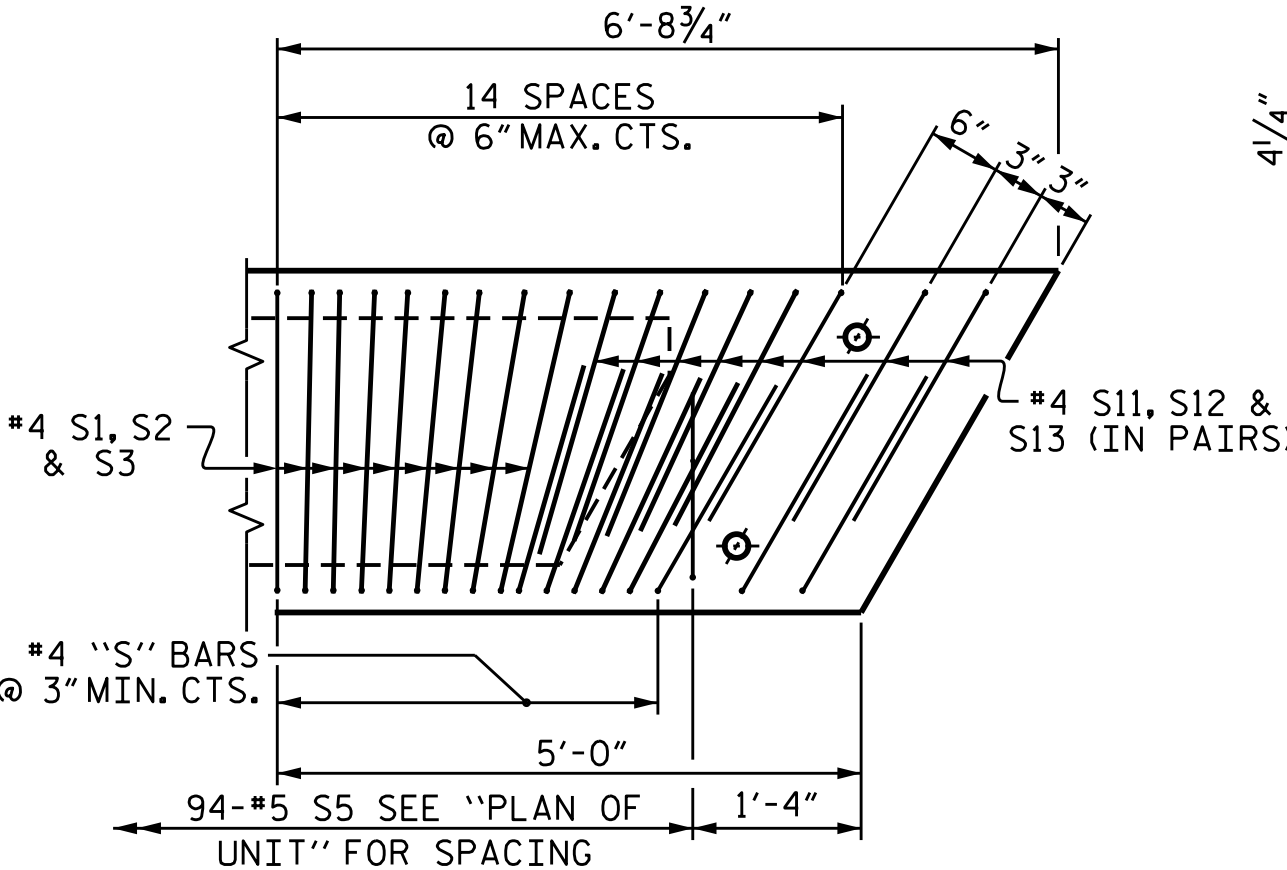
● FULLY BONDED STRANDS



ALL BAR DIMENSIONS ARE OUT TO OUT

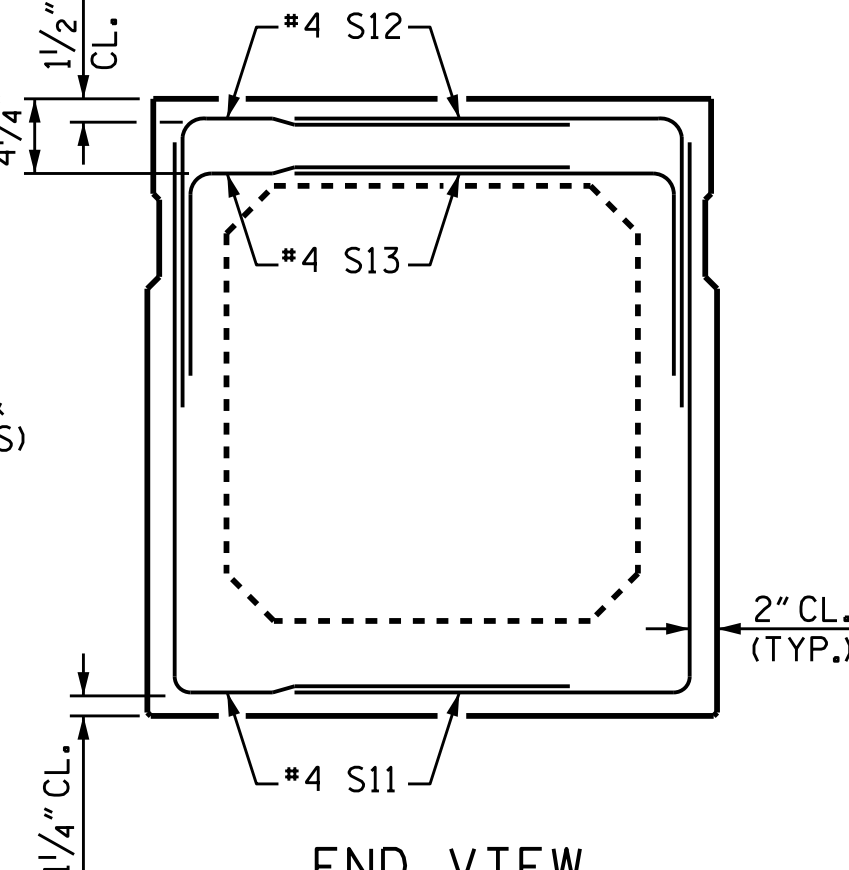
**BILL OF MATERIAL FOR ONE BOX BEAM SECTION**

BAR	NUMBER	SIZE	TYPE	EXTERIOR UNIT		INTERIOR UNIT	
				LENGTH	WEIGHT	LENGTH	WEIGHT
A1	10	#5	1	7'-2"	75	7'-2"	75
A2	38	#4	2	5'-11"	150	5'-11"	150
B5	12	#5	STR	35'-11"	450	35'-11"	450
K1	12	#4	6	7'-2"	57	7'-2"	57
K2	8	#4	STR	2'-10"	15	2'-10"	15
S1	57	#4	3	8'-6"	324	8'-6"	324
S2	57	#4	3	5'-8"	216	5'-8"	216
S3	95	#4	3	4'-10"	307	4'-10"	307
S4	38	#4	4	5'-10"	148	5'-10"	148
S11	32	#4	7	5'-4"	114	5'-4"	114
S12	32	#4	7	3'-11"	84	3'-11"	84
S13	32	#4	7	3'-6"	75	3'-6"	75
*S5	94	#5	5	5'-10"	572	--	--
REINFORCING STEEL				2015	LBS.	2015	LBS.
*EPOXY COATED REINF. STEEL				572	LBS.		
5000 P.S.I. CONCRETE				14.1	CU. YDS.	14.0	CU. YDS.
0.6" Ø L.R. STRANDS				No. 14		No. 14	



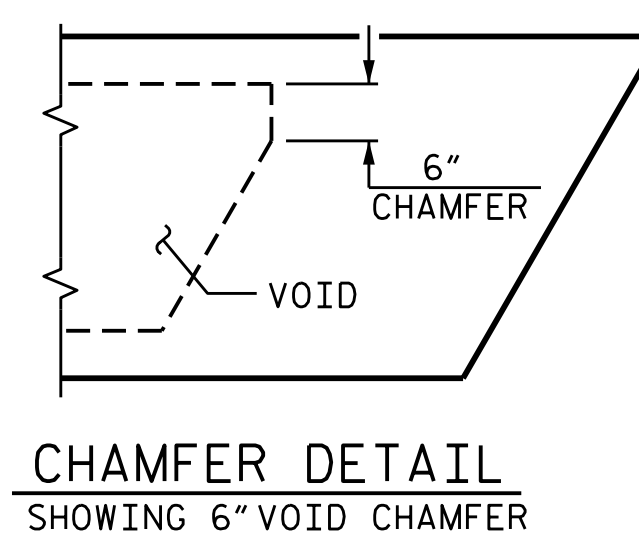
**DETAIL "B"**

EXTERIOR UNIT SHOWN, INTERIOR UNIT SIMILAR EXCEPT OMIT #5 S5 BARS. "B" BARS AND "A" BARS NOT SHOWN.

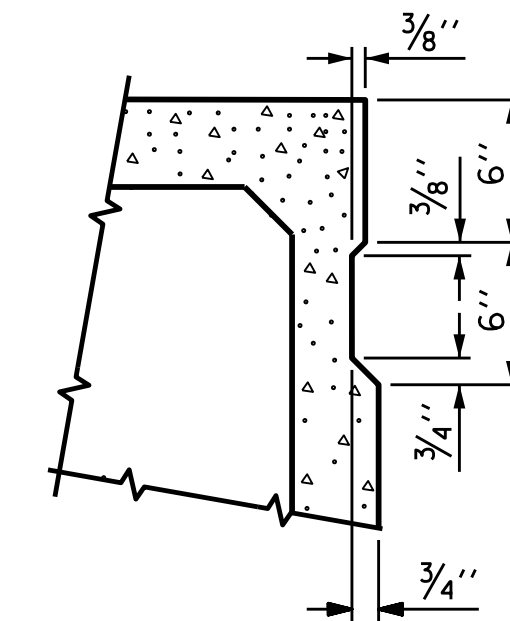


**END VIEW**

(SHOWING #4 "S" BARS IN END OF BEAM)



**CHAMFER DETAIL**

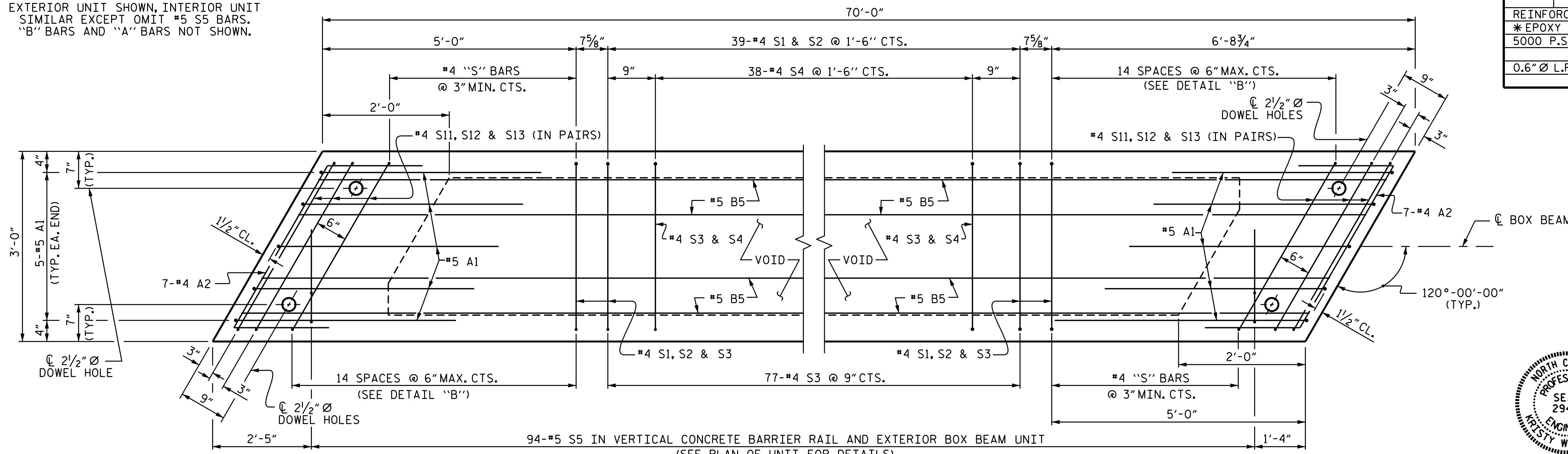


**SHEAR KEY DETAIL**

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

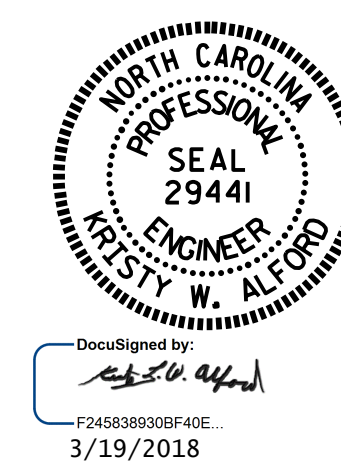
**GRADE 270 STRANDS**

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 UNIT". FOR THREADED INSERTS, SEE "THREADED INSERT DETAIL". FOR REINFORCING STEEL IN DIAPHRAGMS, SEE "DOUBLE DIAPHRAGM DETAILS".



PROJECT NO. B-5320  
GRANVILLE COUNTY  
 STATION: 15+98.00 -L-  
 SHEET 5 OF 9

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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

TOTAL SHEETS 26

ASSEMBLED BY : M. A. LESHURE	DATE : 1/4/18
CHECKED BY : R. L. CHESSON	DATE : 1/18
DRAWN BY : TLA 5/05	REV. 10/11/11
CHECKED BY : GM 6/05	REV. 1/15
	REV. 12/17
	MAA/GM
	RWW/TMG
	MAA/THC