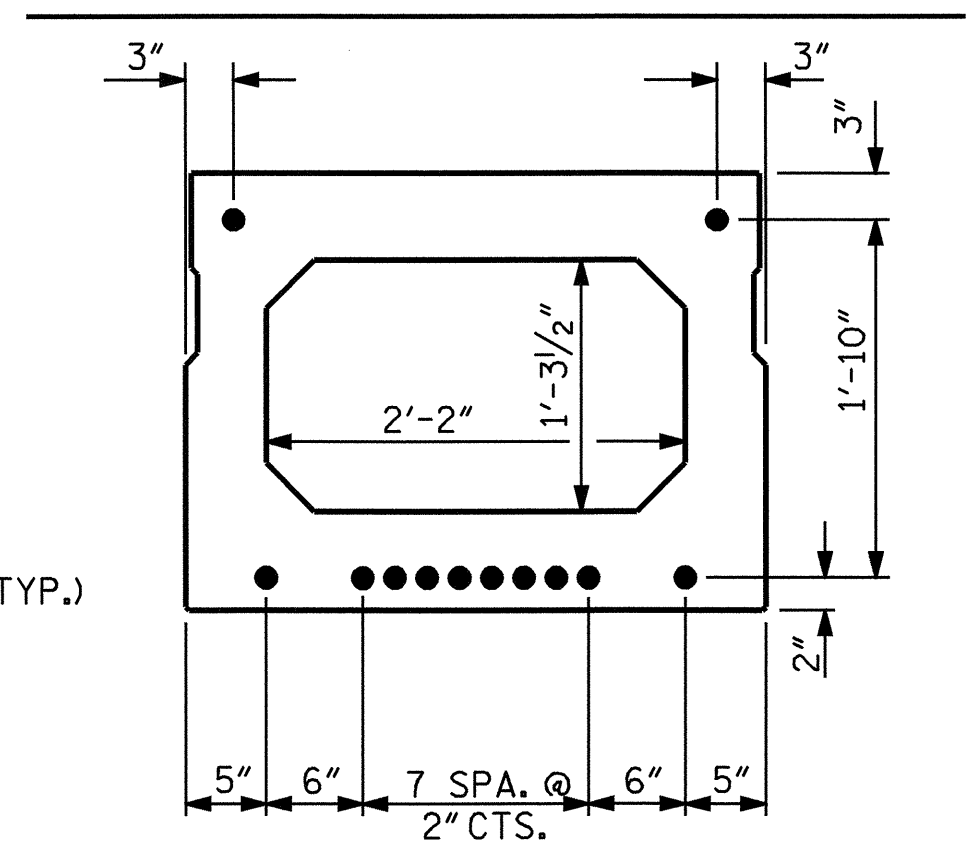
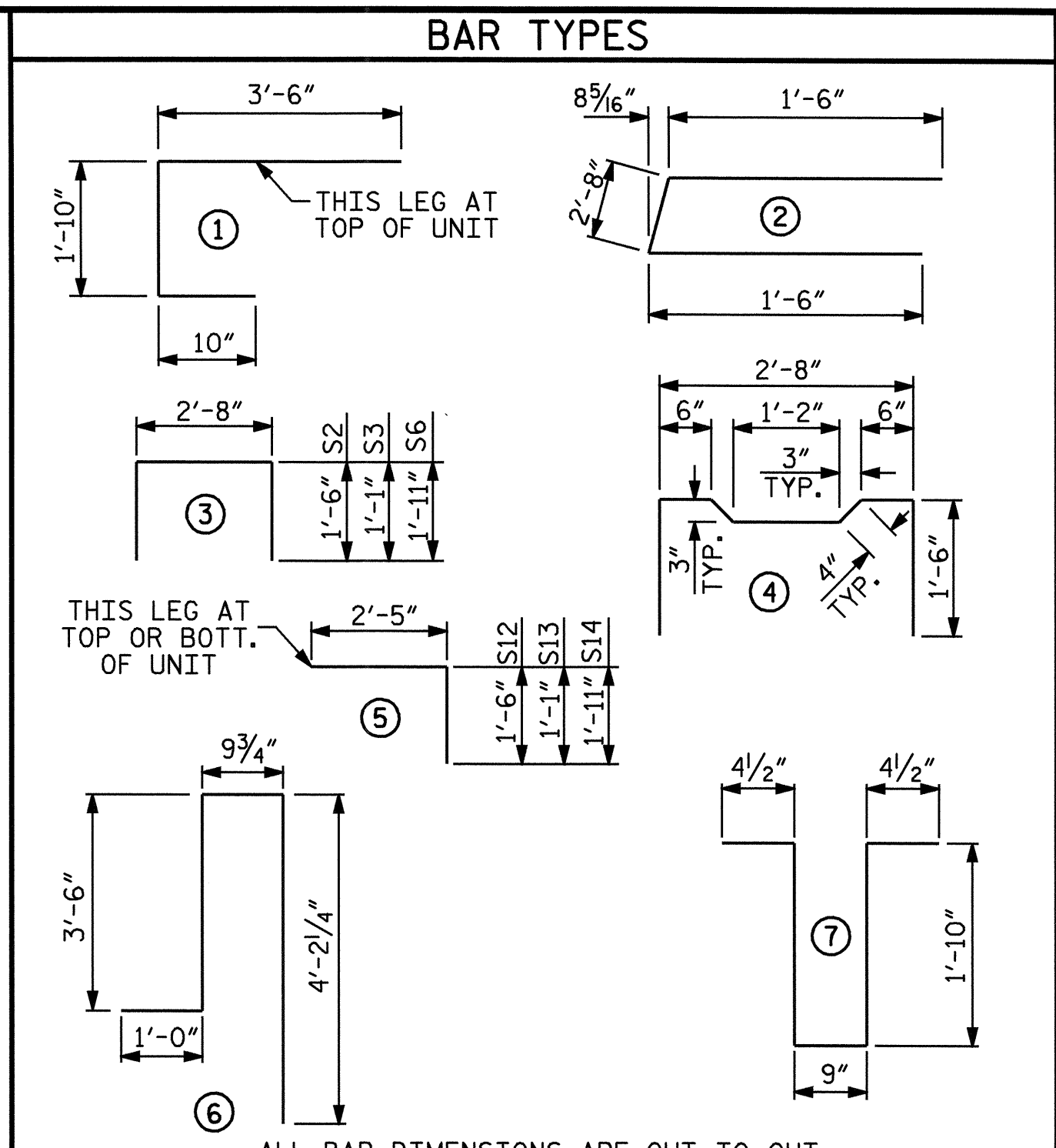


0.6" Ø LOW RELAXATION STRAND LAYOUT

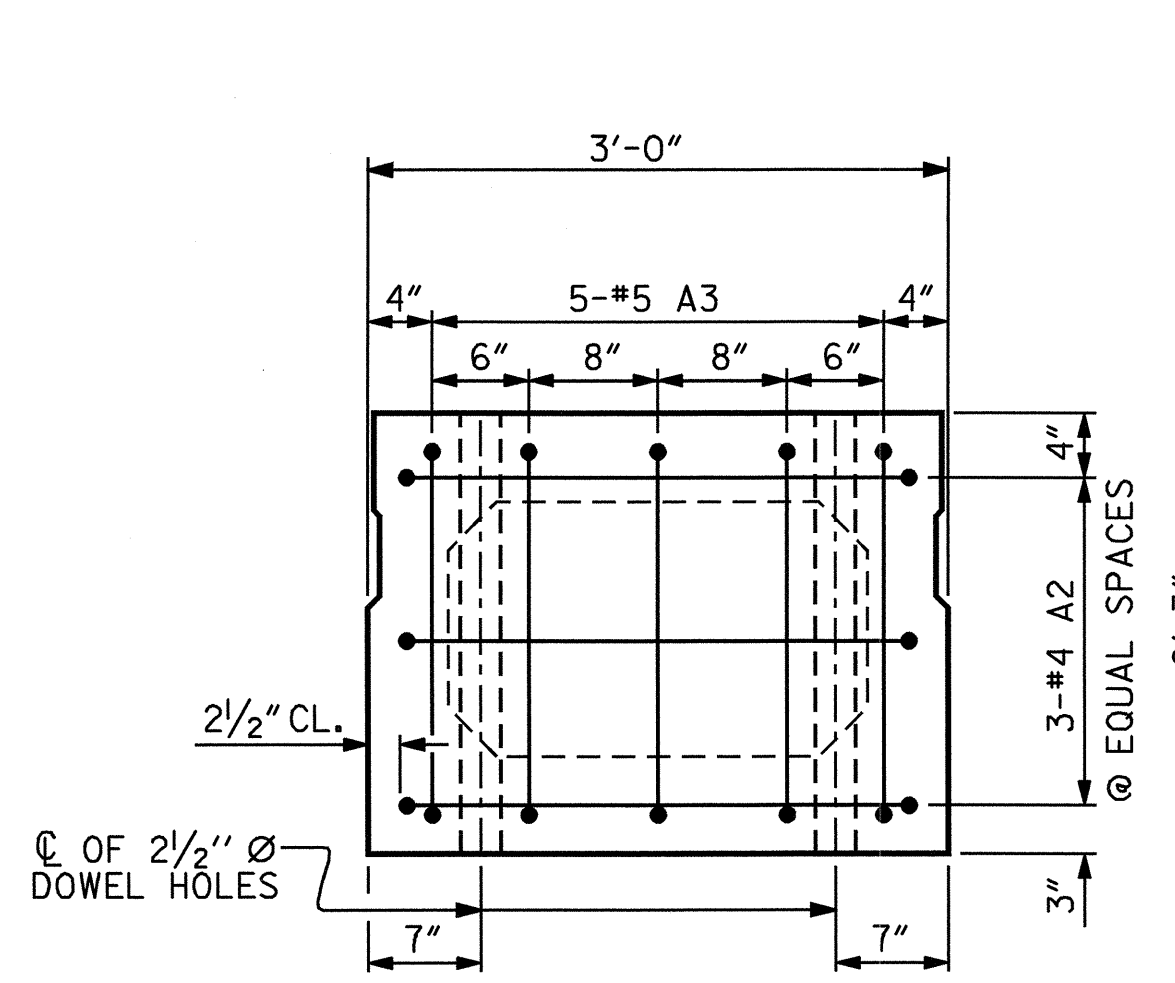


TYPICAL STRAND LOCATION  
(12 STRANDS REQUIRED)  
(INTERIOR BOX BEAM SECTION SHOWN; EXTERIOR SECTION SIMILAR EXCEPT SHEAR KEY LOCATION)

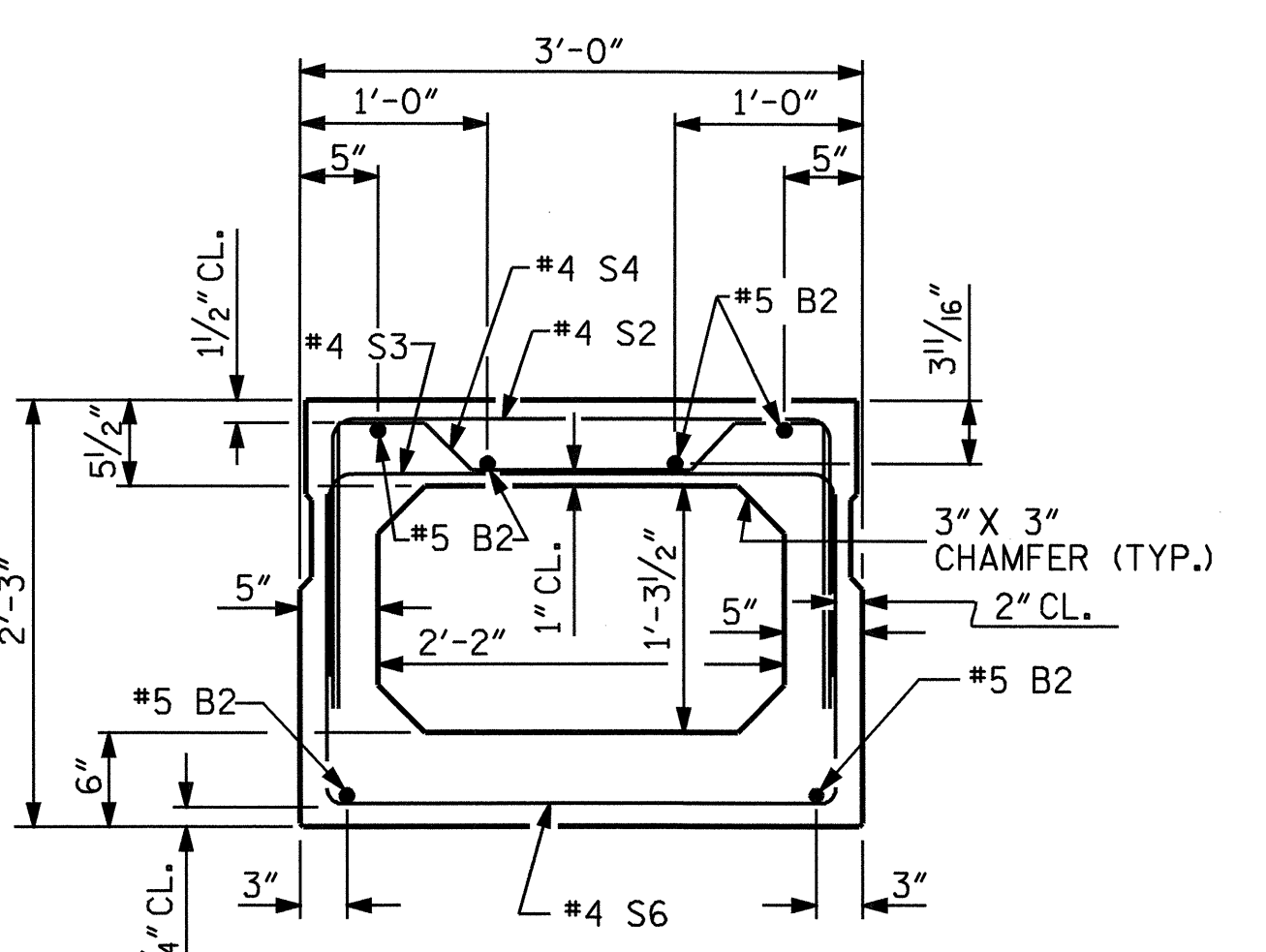


BILL OF MATERIAL FOR ONE BOX BEAM SECTION

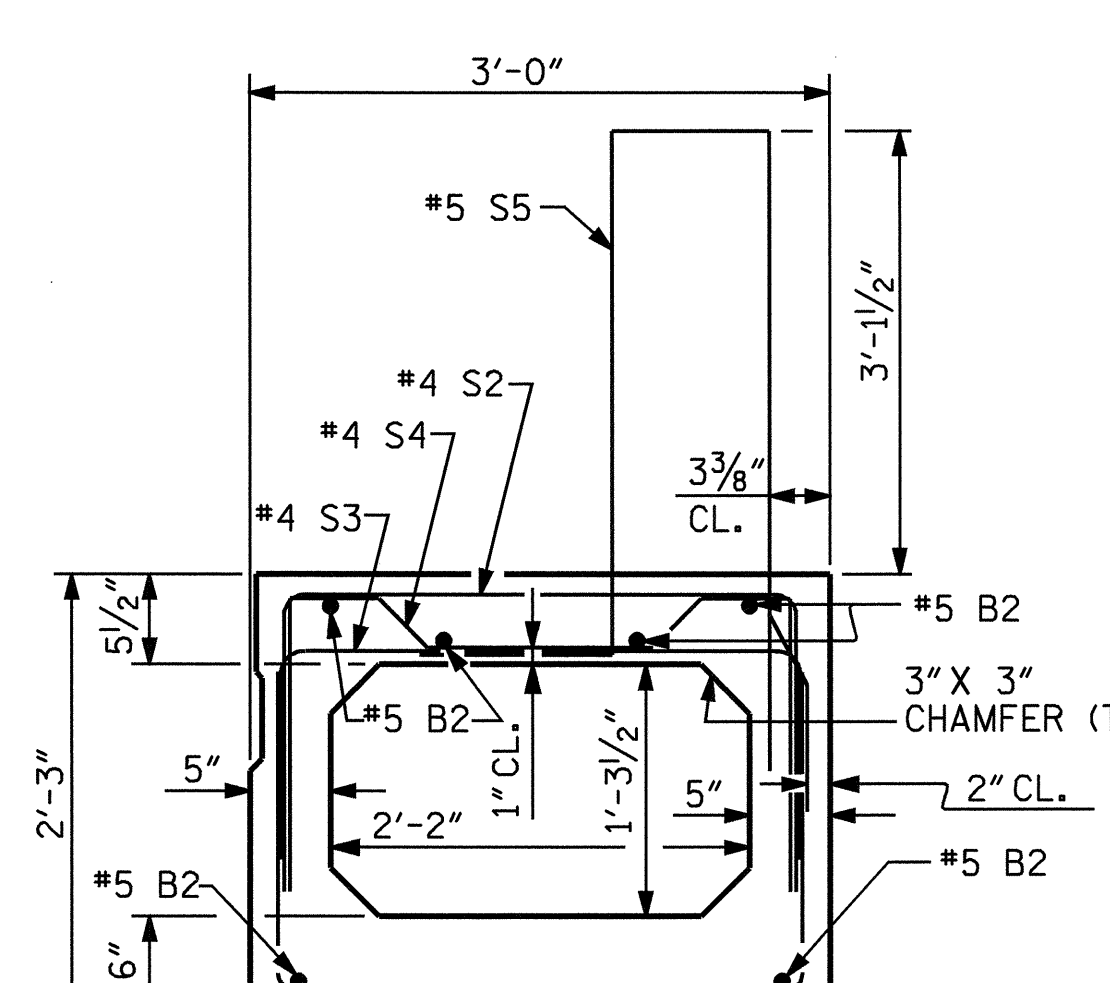
BAR NUMBER	SIZE	TYPE	EXTERIOR UNIT LENGTH	EXTERIOR UNIT WEIGHT	INTERIOR UNIT LENGTH	INTERIOR UNIT WEIGHT
A2	#4	2	5'-8"	68	5'-8"	68
A3	#5	1	6'-2"	64	6'-2"	64
B2	#5	STR	43'-4"	271	43'-4"	271
K2	#4	STR	2'-7"	10	2'-7"	10
K3	#4	7	5'-2"	31	5'-2"	31
S2	#4	3	5'-8"	144	5'-8"	144
S3	#4	3	4'-10"	197	4'-10"	197
S4	#4	4	5'-10"	90	5'-10"	90
S6	#4	3	6'-6"	165	6'-6"	165
S12	#4	5	3'-11"	31	3'-11"	31
S13	#4	5	3'-6"	28	3'-6"	28
S14	#4	5	4'-4"	35	4'-4"	35
*S5	#5	6	9'-6"	575	--	--
REINFORCING STEEL			1134 LBS.		1134 LBS.	
*EPOXY COATED REINF. STEEL			575 LBS.		575 LBS.	
5000 P.S.I. CONCRETE			7.2 CU. YDS.		7.2 CU. YDS.	
0.6" Ø L.R. STRANDS			No. 12		No. 12	



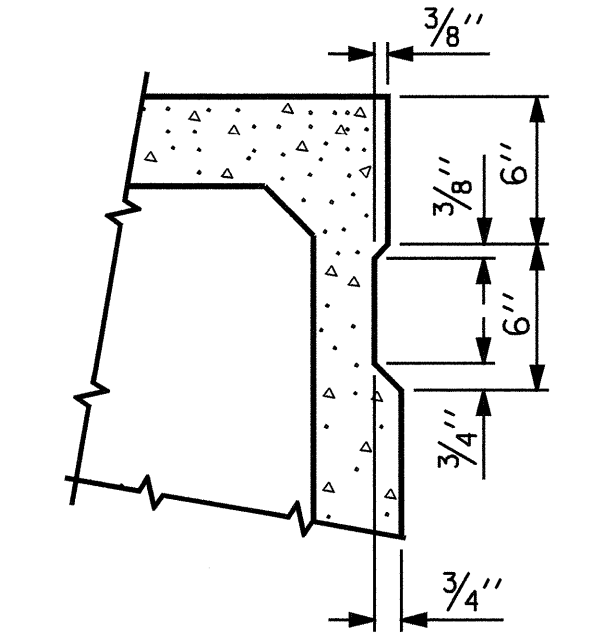
END ELEVATION  
SHOWING PLACEMENT OF #5 & #4 "A" BARS AND LOCATION OF DOWEL HOLES.  
(INTERIOR BOX BEAM SECTION SHOWN-EXTERIOR SECTION SIMILAR EXCEPT SHEAR KEY LOCATION. STRAND LAYOUT NOT SHOWN.)



INTERIOR BOX BEAM SECTION  
(STRAND LAYOUT NOT SHOWN)

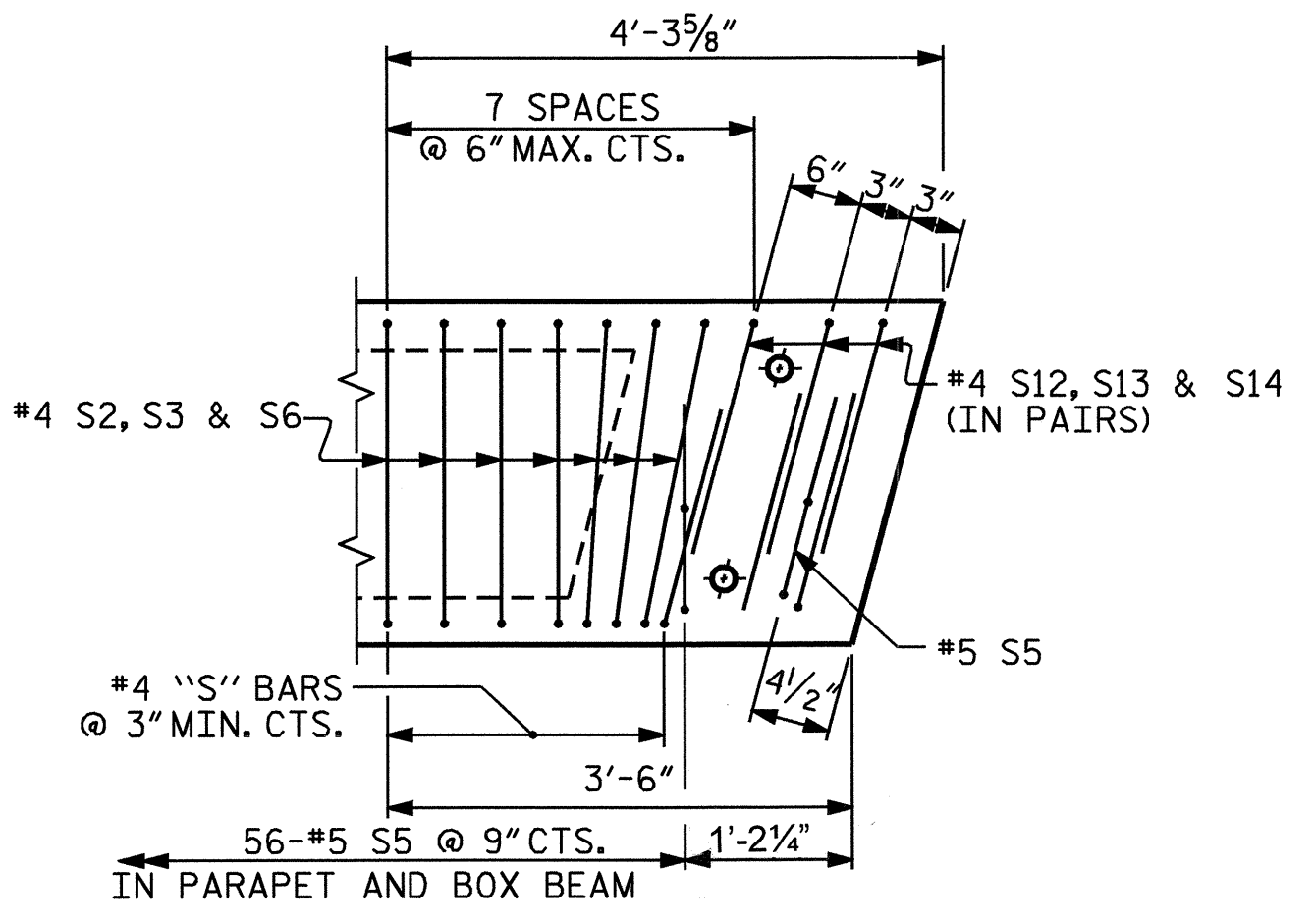


EXTERIOR BOX BEAM SECTION  
(STRAND LAYOUT NOT SHOWN)

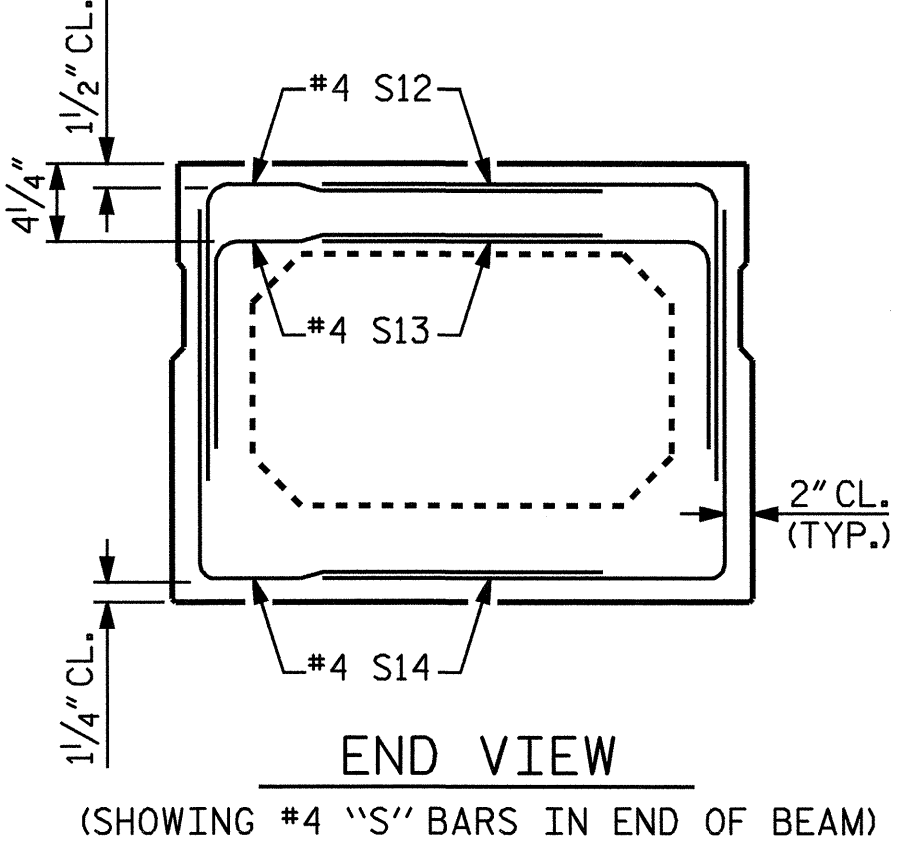


SHEAR KEY DETAIL  
NOTE: OMIT SHEAR KEY ON OUTSIDE FACE OF EXTERIOR BOX BEAMS.

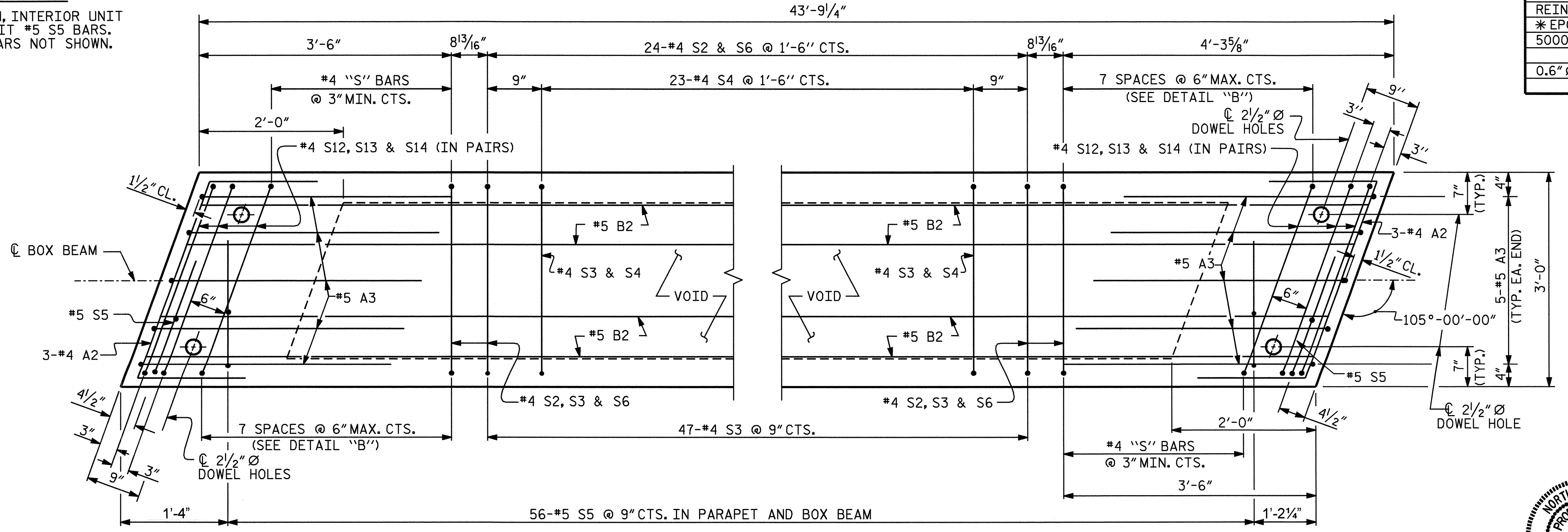
GRADE 270 STRANDS	
AREA ( SQUARE INCHES )	0.217
ULTIMATE STRENGTH ( LBS. PER STRAND )	58,600
APPLIED PRESTRESS ( LBS. PER STRAND )	43,950



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)

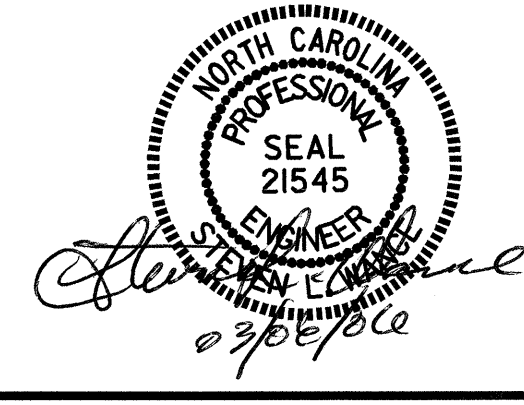


PLAN OF BOX BEAM

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.

ASSEMBLED BY : SWANcPE	DATE : 08/05
CHECKED BY : M.A. ALLEN	DATE : 11/05
DRAWN BY : TLA 5/05	ADDED 7/11/05
CHECKED BY : GM 6/05	

24-JAN-2006 10:31  
N:\Structures\swanace\Microstation\4110 Box Bm Supstr.dgn  
mallen



PROJECT NO. B-4110  
DURHAM COUNTY  
STATION: 17+41.66 -L-

SHEET 5 OF 13

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
STANDARD  
3'-0" X 2'-3"  
PRESTRESSED CONCRETE  
BOX BEAM UNIT  
SPAN B

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-8
1			3			SUBS
2			4			27

STD. NO. PCBB2