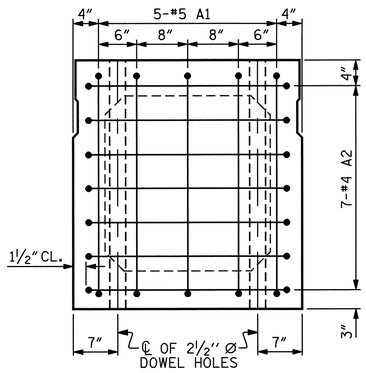
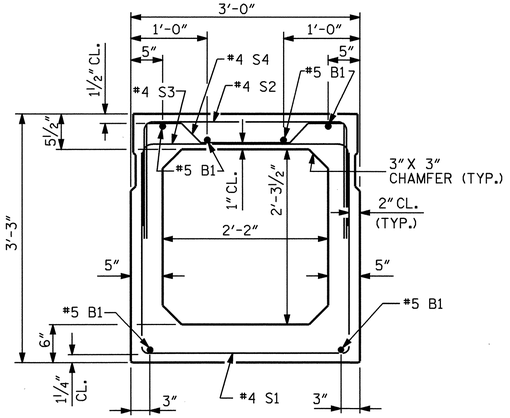


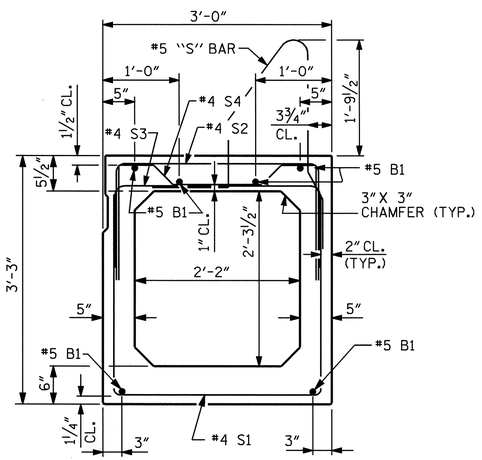
END ELEVATION

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.)



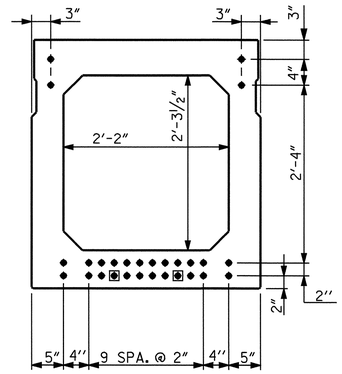
INTERIOR BOX BEAM SECTION

(STRAND LAYOUT NOT SHOWN)



EXTERIOR BOX BEAM SECTION

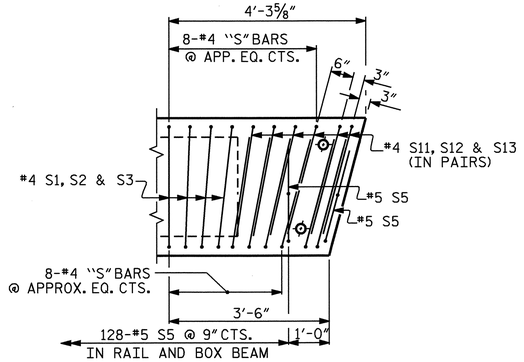
(STRAND LAYOUT NOT SHOWN)



0.6" Ø LOW RELAXATION STRAND LAYOUT

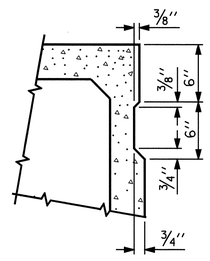
(28 STRANDS REQUIRED)

(INTERIOR BOX BEAM SECTION SHOWN-EXTERIOR SECTION SIMILAR EXCEPT SHEAR KEY LOCATION)



DETAIL "B"

EXTERIOR UNIT SHOWN, INTERIOR UNIT SIMILAR EXCEPT OMIT #4 S5 BARS. "B" BARS AND "A" BARS NOT SHOWN.



SHEAR KEY DETAIL

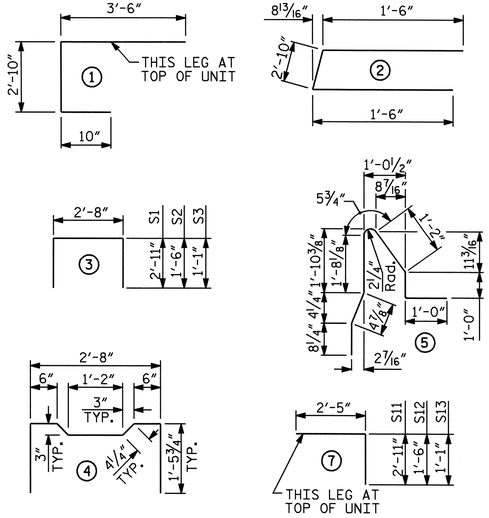
NOTE: OMIT SHEAR KEY ON OUTSIDE FACE OF EXTERIOR BOX BEAMS.

DEBONDING LEGEND

- ● FULLY BONDED STRANDS
- ◙ STRANDS DEBONDED FOR 4'-0" FROM END OF UNIT

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.

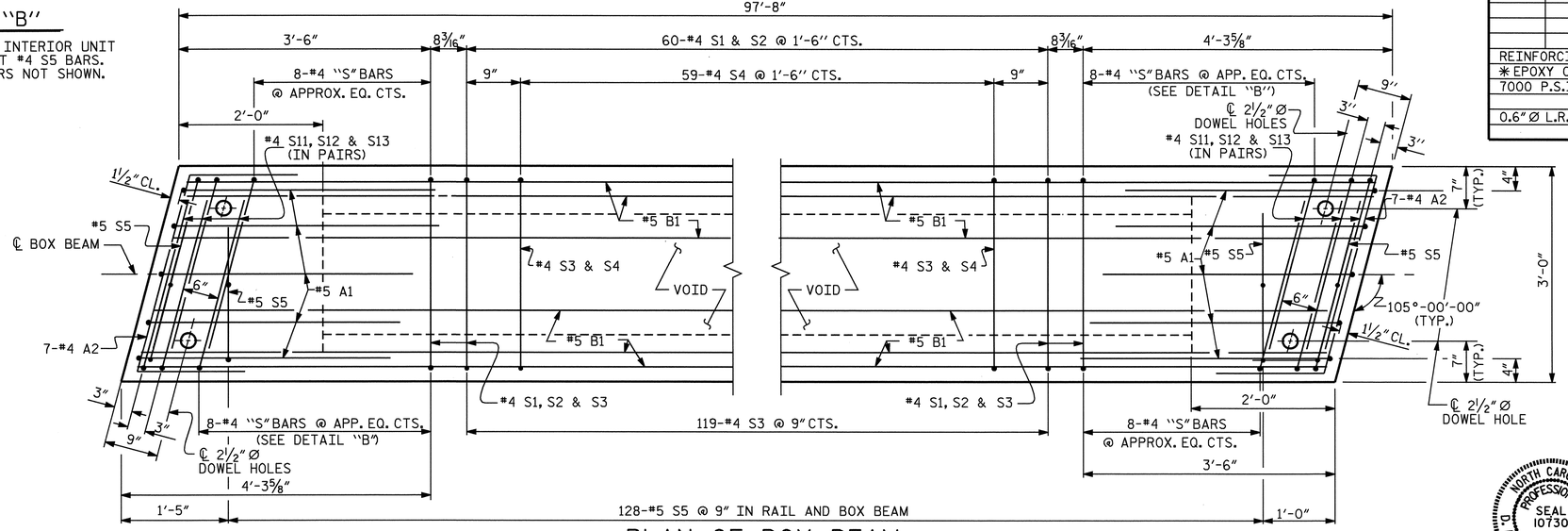
BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT

BILL OF MATERIAL FOR ONE BOX BEAM SECTION

				EXTERIOR UNIT		INTERIOR UNIT	
BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT	LENGTH	WEIGHT
A1	10	#5	1	7'-2"	75	7'-2"	75
A2	14	#4	2	5'-10"	55	5'-10"	55
B1	12	#5	STR	49'-9"	623	49'-9"	623
S1	68	#4	3	8'-6"	386	8'-6"	386
S2	68	#4	3	5'-8"	257	5'-8"	257
S3	127	#4	3	4'-10"	410	4'-10"	410
S4	59	#4	4	5'-10"	230	5'-10"	230
S11	24	#4	7	5'-4"	86	5'-4"	86
S12	24	#4	7	3'-11"	63	3'-11"	63
S13	24	#4	7	3'-6"	56	3'-6"	56
✳ S5	130	#5	5	6'-5"	870	--	--
REINFORCING STEEL					2241 LBS.		2241 LBS.
✳ EPOXY COATED REINF. STEEL					870 LBS.		
7000 P.S.I. CONCRETE					20.3 CU. YDS.		20.1 CU. YDS.
0.6" Ø L.R. STRANDS					No. 28		No. 28



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.

NORTH CAROLINA PROFESSIONAL SEAL 10730 ENGINEER D. ANDREW DAVENPORT JR.

PROJECT NO. B-4266

RUTHERFORD COUNTY

STATION: 13+29.00-L-

SHEET 2 OF 5

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

3'-0" X 3'-3" PRESTRESSED CONCRETE BOX BEAM UNIT

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-5
1			3			TOTAL SHEETS
2			4			18

ASSEMBLED BY :	H. TOM BARBOUR	DATE :	4-5-05
CHECKED BY :	D. A. DAVENPORT	DATE :	4-05
DRAWN BY :	TLA 3/05	ADDED	
CHECKED BY :			

05-AUG-2005 07:33
R:\STRUCTURES\tbarbour\Microstation\B-4266_sd_boxbeam01.dgn
ddavenport