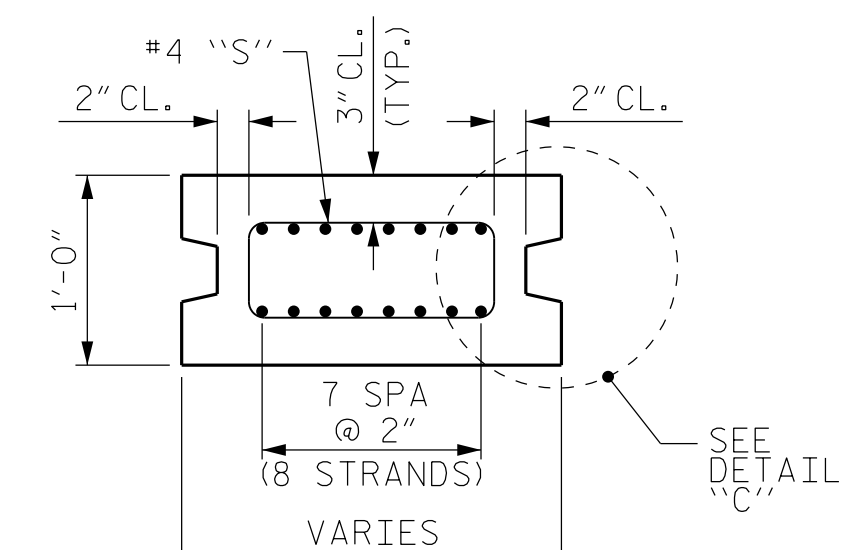


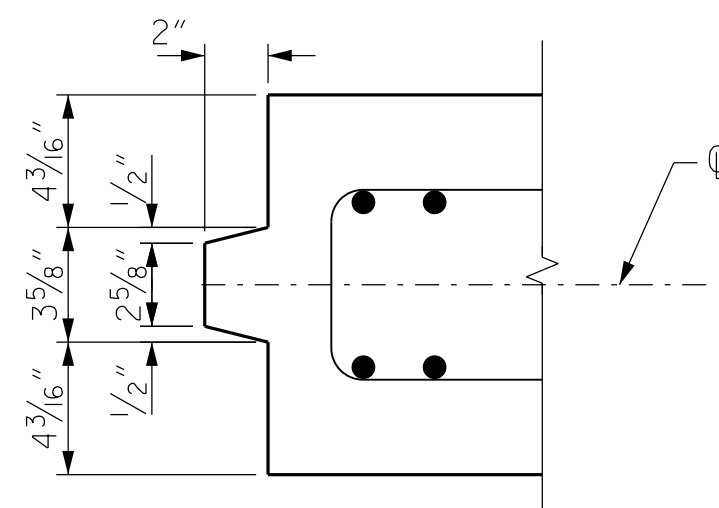
PILE TYPES
A9, A11, A13,
A14 & A15
(SPECIAL PILES)

DRAWN BY : B. L. GREEN, P.E. DATE : 3/19
 CHECKED BY : D. A. CANTRELL, P.E. DATE : 6/19
 DESIGN ENGINEER OF RECORD : B. L. GREEN, P.E. DATE : 7/19

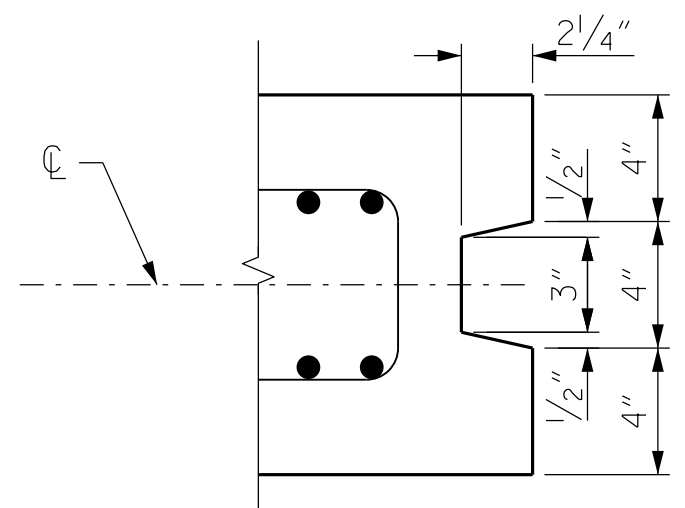
0.6" Ø L. R. GRADE 270 STRANDS		
AREA (SQUARE INCHES)	ULTIMATE STRENGTH (LBS. PER STRAND)	APPLIED PRESTRESS (LBS. PER STRAND)
0.217	58,600	43,950



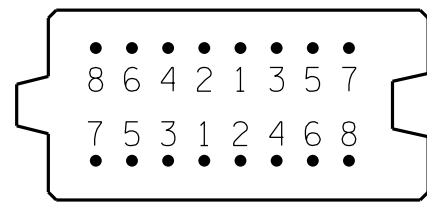
SECTION A-A



DETAIL "B"
TONGUE



DETAIL "C"
GROOVE



PATTERN FOR BURNING

PILE	QUANTITIES FOR ONE PILE		
	REINFORCING STEEL LB.	8,000 PSI CONCRETE C.Y.	0.6" Ø L. R. STRANDS No.
A9 (SPECIAL PILE)	249	3.4	16
A11 (SPECIAL PILE)	272	3.8	16
A13 (SPECIAL PILE)	250	3.5	16
A14 (SPECIAL PILE)	221	3.0	16
A15 (SPECIAL PILE)	212	2.8	16

NOTES

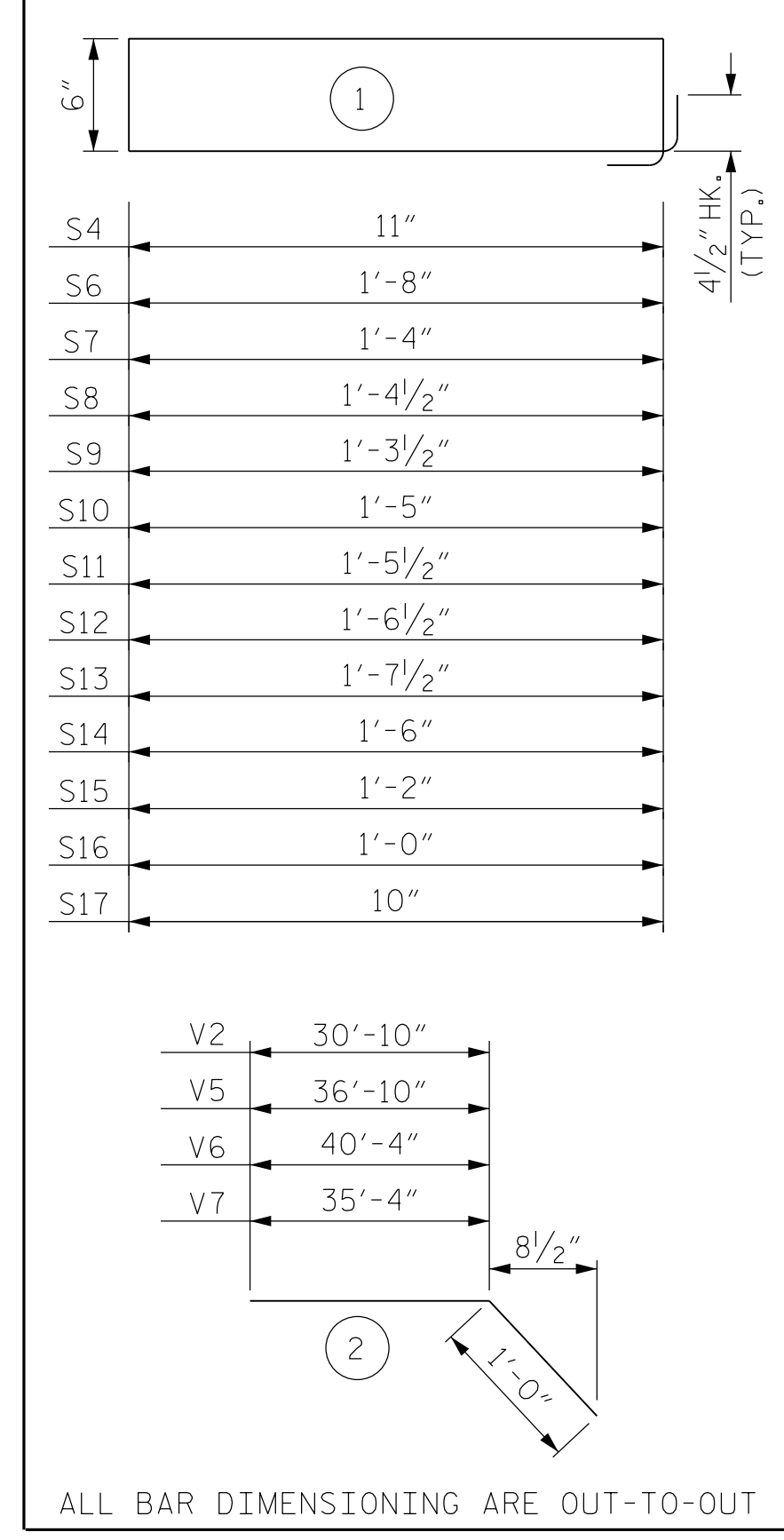
THE SHEET PILE WIDTH DIMENSIONS ARE NOMINAL. THESE DIMENSIONS MAY BE SHORTENED BY THE MANUFACTURER UP TO 1/2" TO ALLOW FOR SHEET PILE FIT-UP IN ITS FINAL POSITION. NO CHANGES SHALL BE MADE TO THE TONGUES OR GROOVES.

THE WATER/CEMENT RATIO FOR PRESTRESSED CONCRETE SHEET PILES SHALL NOT EXCEED 0.40.

PRESTRESSED CONCRETE SHEET PILES SHALL CONTAIN CALCIUM NITRITE CORROSION INHIBITOR IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, EXCEPT THAT THE INHIBITOR SHALL BE APPLIED AT A RATE OF 4.0 GALLONS PER CUBIC YARD. NO SEPARATE PAYMENT WILL BE MADE FOR THE ADDITION OF CALCIUM NITRITE, AS IT IS CONSIDERED INCIDENTAL TO THE VARIOUS PAY ITEMS.

PRESTRESSED CONCRETE SHEET PILES SHALL CONTAIN A MINIMUM OF 25% FLY ASH CLASS F OR A MINIMUM OF 40% GROUND GRANULATED BLAST FURNACE SLAG (GGBS). ADDITIONALLY, SILICA FUME SHALL BE SUBSTITUTED FOR A MINIMUM 5% OF THE PORTLAND CEMENT BY WEIGHT IN THE PRESTRESSED CONCRETE SHEET PILES. MINERAL ADMIXTURES SHALL REPLACE THE CEMENT CONTENT AT A 1:1 RATIO BY WEIGHT. NO PAYMENT WILL BE MADE FOR THIS SUBSTITUTION, AS IT IS CONSIDERED INCIDENTAL TO THE VARIOUS PAY ITEMS.

BAR TYPES



BILL OF MATERIAL

A9 (SPECIAL PILE)					
BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT
S4	1	#4	1	3'-7"	3
S8	10	#4	1	4'-6"	31
S12	41	#4	1	4'-10"	133
S15	1	#4	1	4'-3"	3
V5	2	#5	2	37'-10"	79
A11 (SPECIAL PILE)					
BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT
S9	14	#4	1	4'-4"	41
S11	44	#4	1	4'-8"	138
S15	1	#4	1	4'-1"	3
S17	1	#4	1	3'-5"	3
V6	2	#5	2	41'-4"	87
A13 (SPECIAL PILE)					
BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT
S7	1	#4	1	4'-5"	3
S10	12	#4	1	4'-7"	37
S13	39	#4	1	5'-0"	131
S16	1	#4	1	3'-9"	3
V7	2	#5	2	36'-4"	76
A14 (SPECIAL PILE)					
BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT
S6	35	#4	1	5'-1"	119
S7	1	#4	1	4'-5"	3
S11	9	#4	1	4'-8"	29
S16	1	#4	1	3'-9"	3
V2	2	#5	2	31'-10"	67
A15 (SPECIAL PILE)					
BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT
S7	9	#4	1	4'-5"	27
S14	35	#4	1	4'-9"	112
S15	1	#4	1	4'-1"	3
S17	1	#4	1	3'-5"	3
V2	2	#5	2	31'-10"	67

PROJECT NO. B-4863
 CARTERET COUNTY
 STATION: 34+75.00 -L-

SHEET 8 OF 16

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

CONCRETE SHEET PILE
 RETAINING WALL
 SHEET PILE DETAILS



DocuSigned by:
 Brandon L. Green
 202702898861448... 3/9/2020

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

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

W-08
 TOTAL SHEETS
 24