



BILL OF MATERIAL FOR ONE CORED SLAB UNIT

				EXTERI	OR UNIT	INTERI	OR UNIT
BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT	LENGTH	WEIGHT
B1	4	#4	STR	24'-10"	66	24'-10"	66
S1	8	#5	3	4'-0"	33	4'-0"	33
S2	106	#4	3	4'-10"	342	4'-10"	342
* S3	57	# 5	1	5′-8″	337		
S5	4	#4	3	4'-11"	13	4'-11"	13
S6	4	#4	3	5′-0″	13	5′-0″	13
S7	4	#4	3	5′-1″	14	5′-1″	14
S8	4	#4	3	5′-3″	14	5′-3″	14
REINFORCING STEEL LBS			5.	495		495	
* EPOXY COATED							
REINFORCING STEEL LBS.				S .	337		
6000 P.S.I. CONCRETE CU. YDS).	6.4		6.4	
0.6" Ø L.R. STRANDS No).	17		17	

BILL OF MATERIAL FOR TWO PARAPETS & FOUR END POSTS					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
★ B12	64	#5	STR	13'-10"	923
₩ E1	8	#7	STR	2'-8"	44
∗ E2	8	#7	STR	3'-2"	52
∗ E3	8	#7	STR	3′-8″	60
∗ E4	8	#7	STR	4'-2"	68
∗ E5	8	#7	STR	4'-6"	74
* F1	8	#6	STR	2'-2"	26
* F2	4	#6	STR	3′-7"	22
* F3	4	#6	STR	4'-8"	26
* F4	4	#6	STR	3′-5″	21
⋇ F5	4	#6	STR	3′-10″	23
* \$4	114	#5	2	5′-9″	684
	* EPOXY COATED REINFORCING STEEL 2023 LBS.				

CLASS AA CONCRETE

1'-2" X 2'-8¾" CONCRETE PARAPET

	CORED SLABS REQUIRED				
			NUMBER	LENGTH	TOTAL LENGTH
E	XTERIOR	C.S.	2	48'-2"	96'-4"
Ι	NTERIOR	C.S.	9	48'-2"	433'-6"
T	OTAL		11		529'-10"

12.2 CU.YDS.

96.33 LIN.FT.

DEAD LOAD DEFLECTION AN	ND CAMBER
	0.6"Ø L.R. STRAND
CAMBER (SLAB ALONE IN PLACE)	1 ½ 6″ ∤
DEFLECTION DUE TO SUPERIMPOSED DEAD LOAD***	3⁄8″ ∤
FINAL CAMBER	11/16"

** INCLUDES FUTURE WEARING SURFACE

NOTES

ALL PRESTRESSING STRANDS SHALL BE 7-WIRE LOW RELAXATION GRADE 270 STRANDS AND SHALL CONFORM TO AASHTO M203 EXCEPT FOR SAMPLING REQUIREMENTS WHICH SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

ALL REINFORCING STEEL CAST WITH THE CORED SLAB SECTIONS SHALL BE GRADE 60 AND SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PRESTRESSED CONCRETE CORED SLABS.

RECESSES FOR TRANSVERSE STRANDS SHALL BE GROUTED AFTER THE TENSIONING OF THE STRANDS.

THE $2^{1}\!/_{2}$ $^{\prime\prime}$ $^{\prime\prime}$ DOWEL HOLES AT FIXED ENDS OF SLAB SECTIONS SHALL BE FILLED WITH NON-SHRINK GROUT.

THE BACKER RODS SHALL CONFORM TO THE REQUIREMENTS OF TYPE M BOND BREAKER. SEE SECTION 1028 OF THE STANDARD SPECIFICATIONS.

WHEN CORED SLABS ARE CAST, AN INTERNAL HOLD-DOWN SYSTEM SHALL BE EMPLOYED TO PREVENT VOIDS FROM RISING OR MOVING SIDEWAYS. AT LEAST SIX WEEKS PRIOR TO CASTING CORED SLABS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW AND COMMENT, DETAILED DRAWINGS OF THE PROPOSED HOLD-DOWN SYSTEM. IN ADDITION TO STRUCTURAL DETAILS, LOCATION AND SPACING OF THE HOLD-DOWNS SHALL BE INDICATED.

ALL REINFORCING STEEL IN THE PARAPET SHALL BE EPOXY COATED.

PRESTRESSING STRANDS SHALL BE CUT FLUSH WITH THE CORED SLAB UNIT

APPLY EPOXY PROTECTIVE COATING TO CORED SLAB UNIT ENDS.

GROOVED CONTRACTION JOINTS, $\frac{1}{2}$ " IN DEPTH, SHALL BE TOOLED IN ALL EXPOSED FACES OF THE PARAPET AND IN ACCORDANCE WITH ARTICLE 825-10(B) OF THE STANDARD SPECIFICATIONS. A CONTRACTION JOINT SHALL BE LOCATED AT EACH THIRD POINT BETWEEN PARAPET EXPANSION JOINTS. ONLY ONE CONTRACTION JOINT IS REQUIRED AT MIDPOINT OF PARAPET SEGMENTS LESS THAN 20 FEET IN LENGTH AND NO CONTRACTION JOINTS ARE REQUIRED FOR THOSE SEGMENTS LESS THAN 10 FEET IN LENGTH.

FLAME CUTTING OF THE TRANSVERSE POST-TENSIONING STRAND IS NOT ALLOWED.

THE TRANSFER OF LOAD FROM THE ANCHORAGES TO THE CORED SLAB UNIT SHALL BE DONE WHEN THE CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF NOT LESS THAN 4800 PSI.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

THE PERMITTED THREADED INSERTS ARE DETAILED AS AN OPTION FOR THE CONTRACTOR TO ATTACH FALSEWORK AND FORMWORK DURING CONSTRUCTION.

THE PERMITTED THREADED INSERTS IN THE EXTERIOR UNITS SHALL BE SIZED BY THE CONTRACTOR, SPACED AT 4'-O"CENTERS AND GALVANIZED IN ACCORDANCE WITH SECTION 1076 OF THE STANDARD SPECIFICATIONS. STAINLESS STEEL THREADED INSERTS MAY BE USED AS AN ALTERNATE.

THE PERMITTED THREADED INSERTS SHALL BE GROUTED BY THE CONTRACTOR IMMEDIATELY FOLLOWING REMOVAL OF THE FALSEWORK.

THE COST OF THE PERMITTED THREADED INSERTS SHALL BE INCLUDED IN THE PRICE BID FOR THE PRECAST UNITS.

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				

PROJECT NO. B-5244

BUNCOMBE COUNTY

STATION: 14+02.00 -L-

SHEET 3 OF 3

20125

DEPARTMENT OF TRANSPORTATION
RALEIGH

3'-0'' X 1'-6''
PRESTRESSED CONCRETE
CORED SLAB UNIT
120° SKEW

REVISIONS

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED 2

REVISIONS

NO. BY: DATE: NO. BY: DATE: S-7

3

TOTAL SHEETS

18

CONST. JT.

ELEVATION AT EXPANSION JOINTS

DATE : 11/14

DATE : 11/15

DATE : 11/15

DRAWN BY : B.N. GRADY

CHECKED BY : D. HODGE

DESIGN ENGINEER OF RECORD: B.N. GRADY