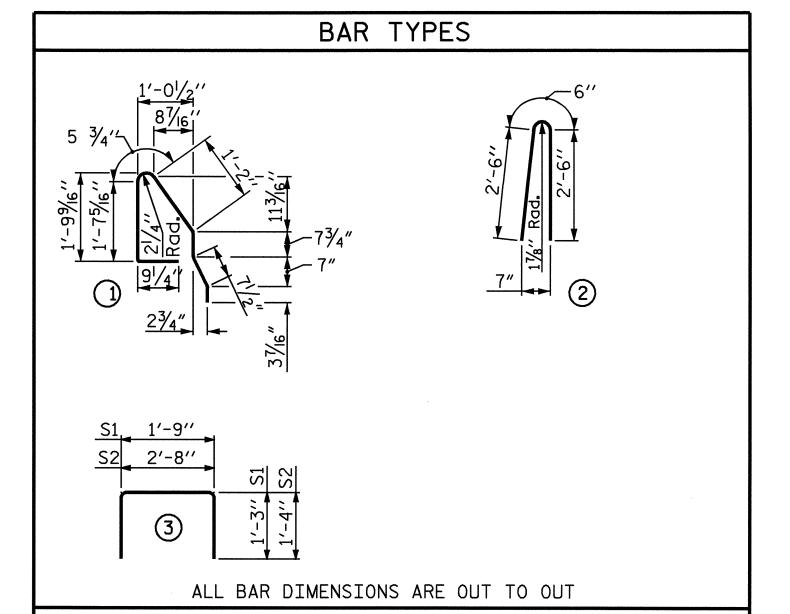
GRADE 270 S	TRANDS
	√2″Ø L.R.
AREA (SQUARE INCHES)	0.153
ULTIMATE STRENGTH (LBS.PER STRAND)	41,300
APPLIED PRESTRESS (LBS.PER STRAND)	30,980



## BILL OF MATERIAL FOR ONE CORED SLAB SECTION (SPANS "A" & "C")

	EXTERIOR UNIT				INTERI(	OR UNIT	
BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT	LENGTH	WEIGHT
B1	2	# 4	STR	23'- 5"	31	23`- 5''	31
S1	8	# 5	3	4'- 3"	35	4'- 3"	35
S2	46	# 4	3	5'- 4"	164	5′- 4″	164
* S3	25	# 5	1	5'- 7"	146		1
REINFO	RCING S		230 LBS.				
₩ EP0X	Y COATE						
5,000 P.S.I. CONCRETE 3.2 CU.							
1/2" Ø L.R. STRANDS No. 12							12

## BILL OF MATERIAL FOR ONE CORED SLAB SECTION (SPANS "B")

	EXTERIOR UNIT						OR UNIT	
BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT	LENGTH	WEIGHT	
B2	4	# 4	STR	28`- 4''	76	28`- 4''	76	
S1	8	# 5	3	4'- 3"	35	4'- 3"	35	
S2	108	# 4	3	5'- 4"	385	5'- 4"	385	
* S3	56	# 5	1	5'- 7"	326			
REINF	ORCING S	STEEL	496 LBS.		496 LBS.			
* EP0	KY COATE	D REIN	326 LBS.					
5,000	P.S.I.CC							
1/2" Ø 1	R. STRA	NDS	No.		24		24	

## 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 21/2" Ø DOWEL HOLES AT FIXED ENDS OF SLAB SECTIONS SHALL BE FILLED WITH GROUT. THE 21/2" Ø DOWEL HOLES AT EXPANSION ENDS OF SLAB SECTIONS SHALL BE FILLED WITH JOINT SEALER MATERIAL TO 11/2" ABOVE THE TOP OF DOWELS AND THEN FILLED WITH GROUT.

THE JOINT SEALER MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF TYPE B LOW MODULUS SILICONE SEALANT. THE 2"Ø BACKER ROD SHALL CONFORM TO THE REQUIREMENTS OF TYPE M BOND BREAKER. THE 12"WIDE BOND BREAKING TAPE SHALL BE CENTERED OVER THE JOINT AND CONFORM TO THE REQUIREMENTS OF TYPE N BOND BREAKER. SEE SECTION 1028 OF THE STANDARD SPECIFICATIONS.

WHEN CORED SLABS ARE CAST, A POSITIVE HOLD-DOWN SYSTEM SHALL BE EMPLOYED TO PREVENT VOIDS FROM RISING OR MOVING SIDEWAYS. THIS SYSTEM SHALL BE DESIGNED TO BE LEFT IN PLACE UNTIL THE CONCRETE HAS REACHED RELEASE STRENGTH. AT LEAST THREE 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.

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 4000 PSI.

ALL REINFORCING STEEL IN BARRIER RAILS SHALL BE EPOXY COATED. PRESTRESSING STRANDS SHALL BE CUT FLUSH WITH THE CORED SLAB UNIT ENDS.

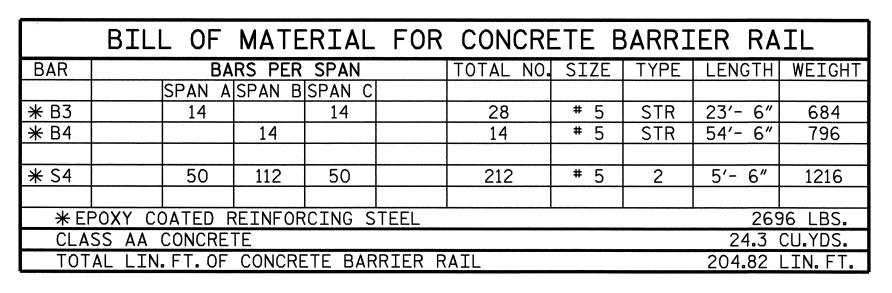
APPLY EPOXY PROTECTIVE COATING TO CORED SLAB UNIT ENDS. FOR EPOXY PROTECTIVE COATING, SEE SPECIAL PROVISIONS.

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

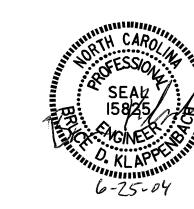
FOR ELASTOMERIC BEARINGS, SEE SPECIAL PROVISIONS.

FOR PRESTRESSED CONCRETE MEMBERS, SEE SPECIAL PROVISIONS.

CORED SLABS REQUIRED									
	SPAN "A" SPAN "B" SPAN "C"								
	NUMBER	LENGTH	NUMBER	LENGTH	NUMBER	LENGTH	LENGTH		
EXTERIOR C.S.	2	23'- 91/4''	2	54′-107/ <sub>16</sub> ′′	2	23'- 91/4''	204'- 97/8''		
INTERIOR C.S.	10	23'- 91/4''	10	54′-107/ <sub>16</sub> ′′	10	23'- 9 <sup>1</sup> / <sub>4</sub> ''	1024'- 13/8''		
TOTAL	12	285'- 3''	12	658'- 5 <sup>1</sup> / <sub>4</sub> ''	12	285′- 3′′	1228′-11 <sup>1</sup> / <sub>4</sub> ′′		



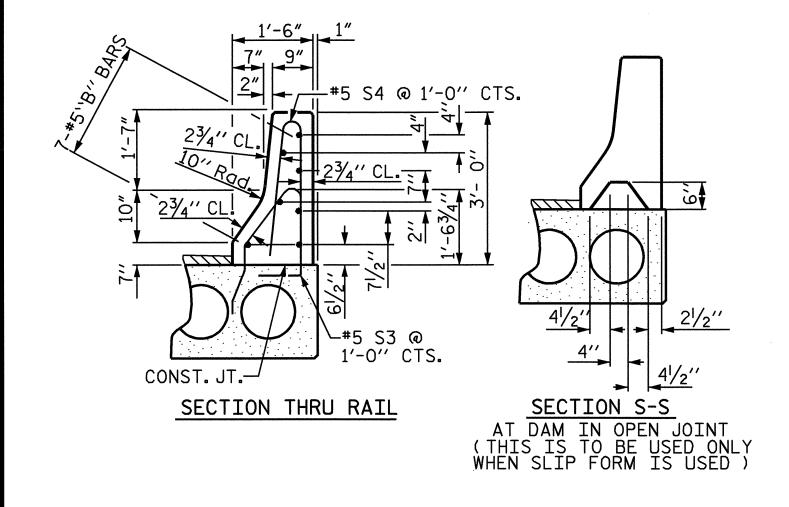
DEAD LOAD DEFLEC	TION AND	CAMBER					
·	3'-0"× 1'-9"						
	SPAN "A"	SPAN "B"	SPAN "C"				
	½″Ø L.R. STRAND	½″Ø L.R. STRAND	½″Ø L.R. STRAND				
CAMBER (SLAB ALONE IN PLACE ) A	5/16′′	27/16′′	5/16′′				
DEFLECTION DUE TO ★★ SUPERIMPOSED DEAD LOAD	0′′	7/16′′	0′′				
FINAL CAMBER	5/16′′	2''	5/16′′				
** INCLUDES FUTURE WEARING SURFA	CE						

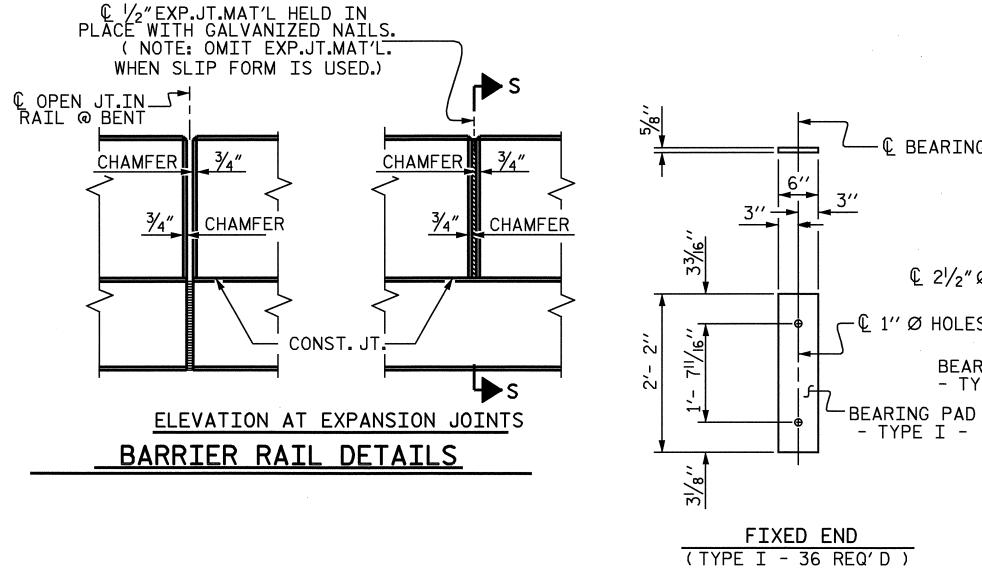


PROJECT NO. B-3504RANDOLPH COUNTY STATION: 18+70.50 -L-SHEET 7 OF 7

> STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION CONCRETE CORED SLAB UNIT

OCTOBER	₹				1981
	RE <sup>v</sup>	VISIONS			SHEET NO.
10. BY:	DATE:	NO.	BY:	DATE:	S-11
1		3			TOTAL SHEETS
2		4			27





ASSEMBLED BY : CHECKED BY :				10-7-03 6-1-04
DRAWN BY: WJH	4/03	REV. 10. REV. 7. REV. 5/	10/01	RWW/LES RWW/LES RWW/JTE

© BEARING PAD  3"  6"  3"  © 2½" Ø HOLES	<u>}</u>
BEARING PAD  TYPE II -  BEARING PAD  TYPE I -	ı
FIXED END  (TYPE I - 36 REQ'D)  EXPANSION END  (TYPE II - 36 REQ'D)	

ELASTOMERIC BEARING DETAILS