

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" Ø DOWEL HOLES AT FIXED ENDS OF SLAB SECTIONS SHALL BE FILLED WITH GROUT. THE 2 1/2" Ø DOWEL HOLES AT EXPANSION ENDS OF SLAB SECTIONS SHALL BE FILLED WITH JOINT SEALER MATERIAL TO 1/2" ABOVE THE TOP OF DOWELS AND THEN FILLED WITH GROUT.

THE JOINT SEALER MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF TYPE SL LOW MODULUS SILICONE SEALANT. THE 2" Ø BACKER ROD SHALL CONFORM TO THE REQUIREMENTS OF TYPE M 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 SIDWAYS. 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 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.

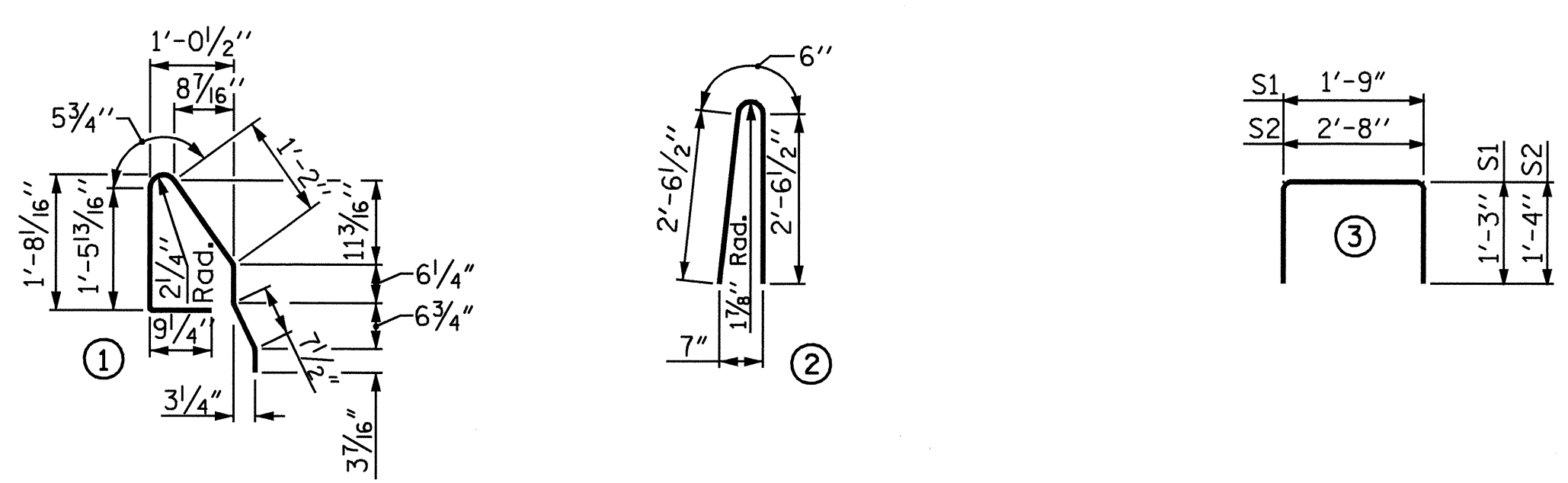
VERTICAL GROOVED CONTRACTION JOINTS, 1/2" IN DEPTH, SHALL BE TOOLED IN ALL EXPOSED FACES OF THE BARRIER RAIL AND IN ACCORDANCE WITH ARTICLE 825-10(B) OF THE STANDARD SPECIFICATIONS. A VERTICAL CONTRACTION JOINT SHALL BE LOCATED AT EACH THIRD POINT BETWEEN BARRIER RAIL EXPANSION JOINTS. ONLY ONE CONTRACTION 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.

PRESTRESSED CONCRETE CORED SLAB UNITS SHALL CONTAIN CALCIUM NITRITE CORROSION INHIBITOR. SEE SPECIAL PROVISIONS FOR CALCIUM NITRITE CORROSION INHIBITOR.

GRADE 270 STRANDS	
AREA (SQUARE INCHES)	1/2" Ø L.R. 0.153
ULTIMATE STRENGTH (LBS. PER STRAND)	41,300
APPLIED PRESTRESS (LBS. PER STRAND)	30,980

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT.

BILL OF MATERIAL FOR ONE CORED SLAB SECTION

BAR	NUMBER	SIZE	TYPE	STAGE I				STAGE II					
				TYPE I UNIT LENGTH	TYPE I UNIT WEIGHT	TYPE II UNIT LENGTH	TYPE II UNIT WEIGHT	TYPE III UNIT LENGTH	TYPE III UNIT WEIGHT	TYPE IV UNIT LENGTH	TYPE IV UNIT WEIGHT	TYPE V UNIT LENGTH	TYPE V UNIT WEIGHT
* B1	4	#4	STR	23'- 4"	62	23'- 4"	62	23'- 4"	62	23'- 4"	62	23'- 4"	62
* S1	8	#5	3	4'- 3"	35	4'- 3"	35	4'- 3"	35	4'- 3"	35	4'- 3"	35
* S2	88	#4	3	5'- 4"	314	5'- 4"	314	5'- 4"	314	5'- 4"	314	5'- 4"	314
* S3	46	#5	1	5'- 4"	256					5'- 4"	256	5'- 4"	256
* EPOXY COATED REINFORCING STEEL LBS.					667		411		411		411		667
5,000 P.S.I. CONCRETE CU. YDS.					6.4		6.4		6.7		6.4		6.4
1/2" Ø L.R. STRANDS No.					20		20		20		20		20

DEAD LOAD DEFLECTION AND CAMBER

	STAGE I		STAGE II		
	TYPE I	TYPE II	TYPE III	TYPE IV	TYPE V
CAMBER (SLAB ALONE IN PLACE)	1 1/16" ↑	1 1/16" ↑	1 3/8" ↑	1 1/16" ↑	1 1/16" ↑
DEFLECTION DUE TO SUPERIMPOSED DEAD LOAD **	3/16" ↓	3/16" ↓	3/16" ↓	3/16" ↓	3/16" ↓
FINAL CAMBER	1 3/8" ↑	1 3/8" ↑	1 3/8" ↑	1 3/8" ↑	1 3/8" ↑

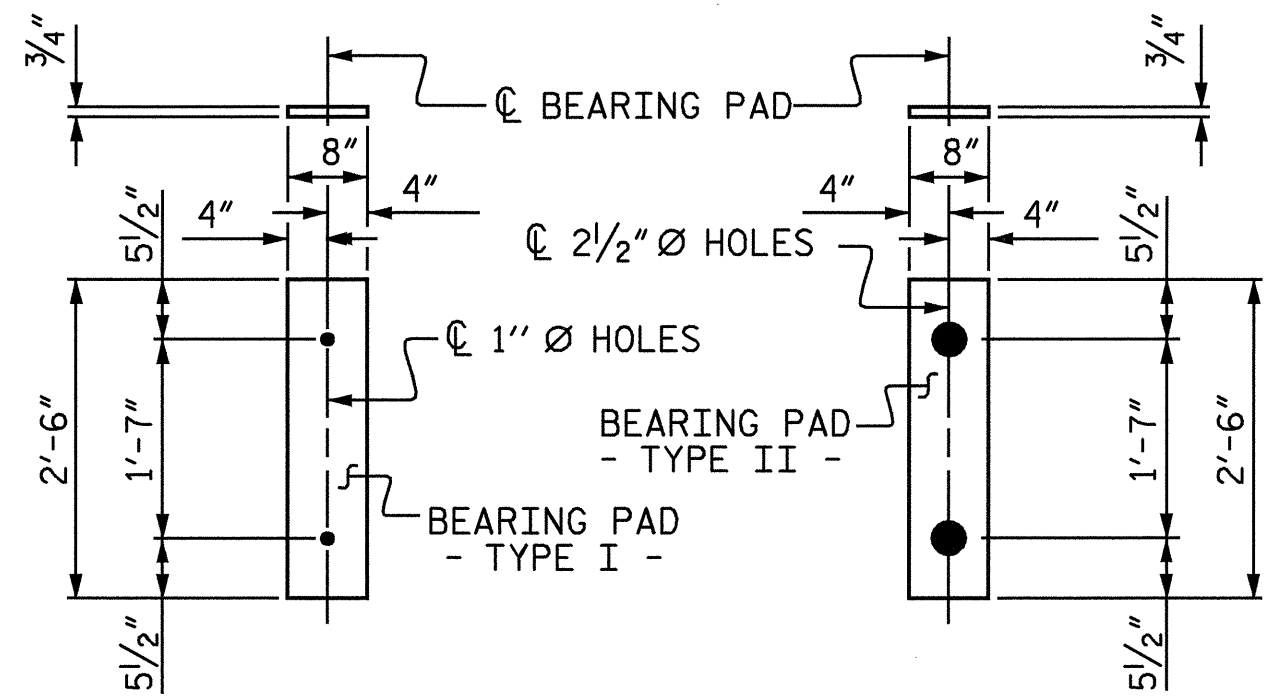
** INCLUDES FUTURE WEARING SURFACE

BILL OF MATERIAL FOR CONCRETE BARRIER RAIL

BAR	SIZE	TYPE	BARS PER SPAN		STAGE I			STAGE II			TOTAL WEIGHT
			SPAN A	SPAN B	TOTAL NO.	LENGTH	WEIGHT	TOTAL NO.	LENGTH	WEIGHT	
* B2	#5	STR	14	14	28	22'-2"	647	28	22'-2"	647	1294
* S4	#5	2	46	46	92	5'-7"	536	92	5'-7"	536	1072
* EPOXY COATED REINFORCING STEEL LBS.							1183		1183		2366
CLASS AA CONCRETE CU. YDS.							10.1		10.1		20.2
TOTAL LIN. FT. OF CONCRETE BARRIER RAIL							90.25		90.25		180.50

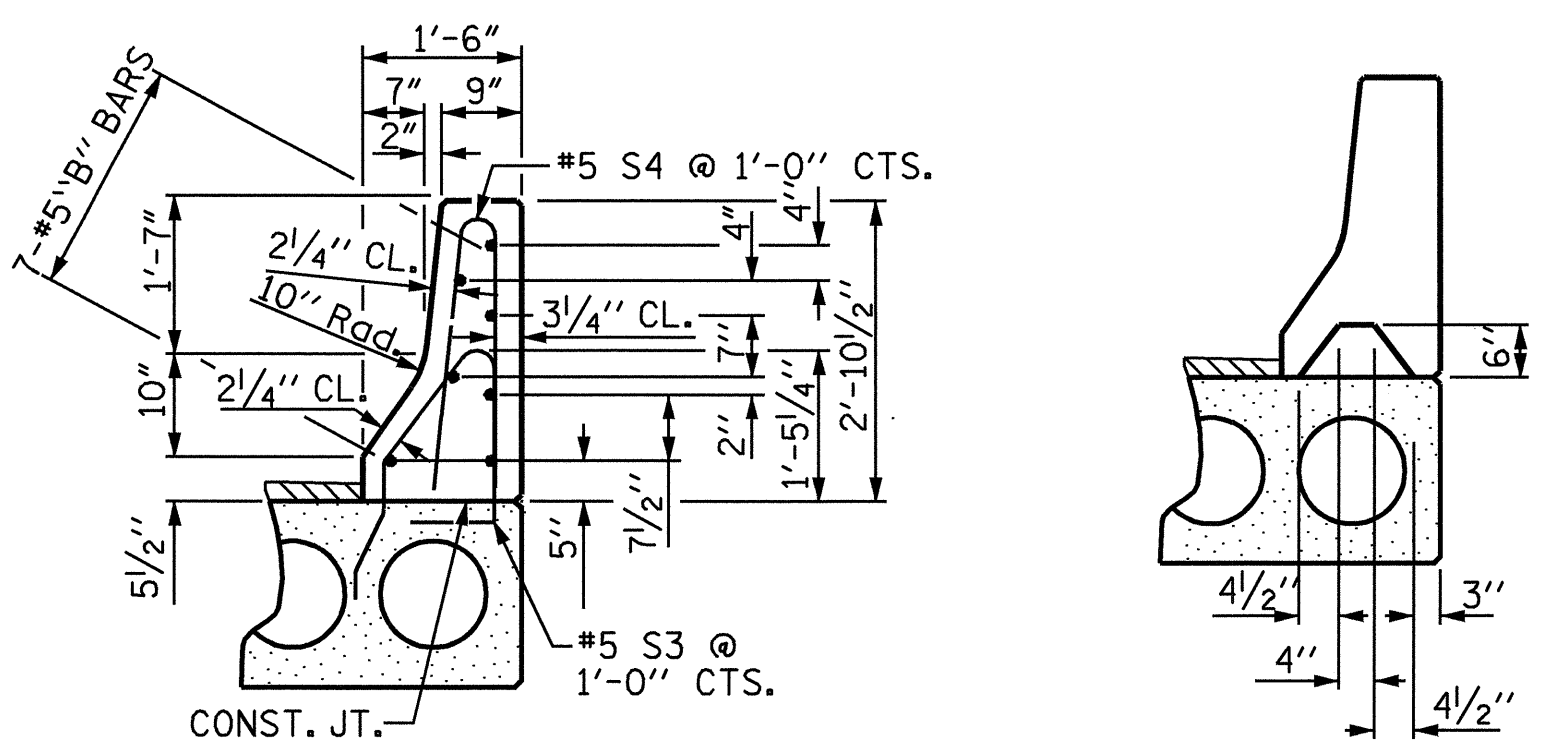
CORED SLABS REQUIRED

STAGE	TYPE	NUMBER	LENGTH	TOTAL LENGTH
STAGE I	TYPE I	2	45'-0"	90'-0"
	TYPE II	6	45'-0"	270'-0"
	TYPE III	2	45'-0"	90'-0"
STAGE I TOTAL		10	45'-0"	450'-0"
STAGE II	TYPE IV	16	45'-0"	720'-0"
	TYPE V	2	45'-0"	90'-0"
	STAGE II TOTAL	18	45'-0"	810'-0"
TOTAL		28	45'-0"	1260'-0"

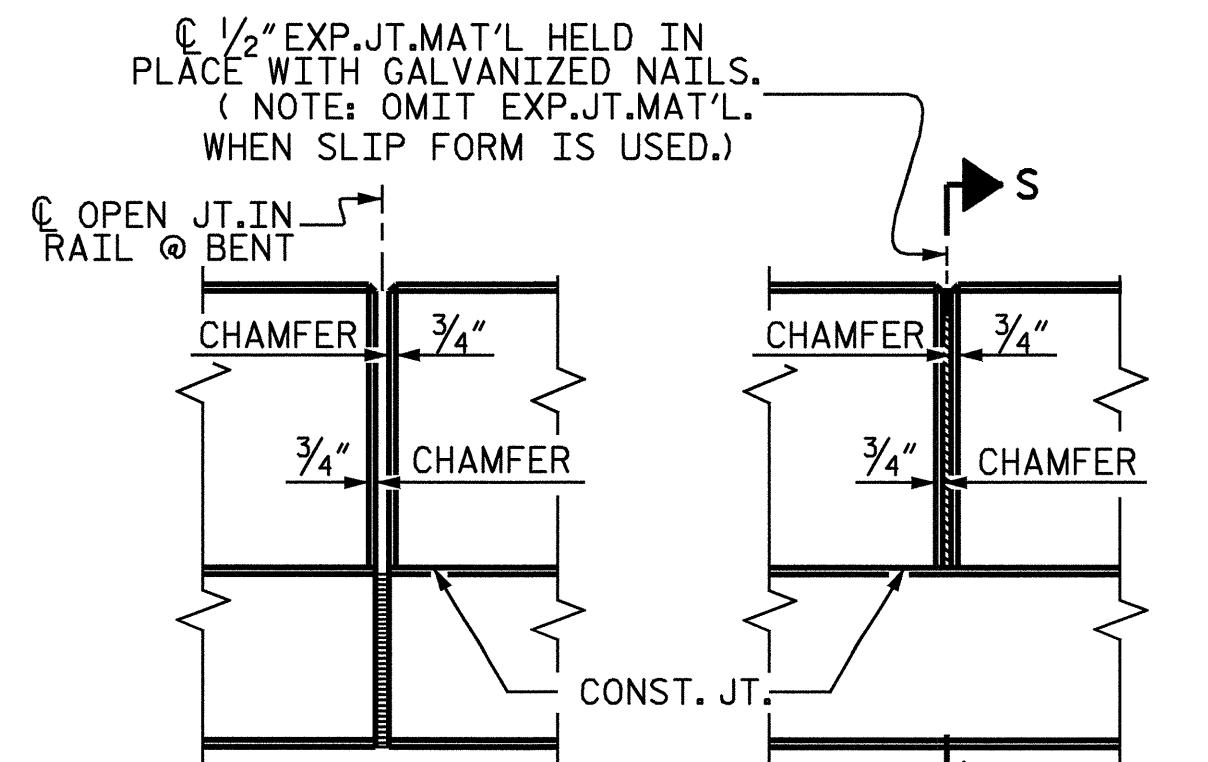


FIXED END (TYPE I - 28 REQ'D) EXPANSION END (TYPE II - 28 REQ'D)

ELASTOMERIC BEARING DETAILS



SECTION S-S AT DAM IN OPEN JOINT (THIS IS TO BE USED ONLY WHEN SLIP FORM IS USED)



ELEVATION AT EXPANSION JOINTS

BARRIER RAIL DETAILS

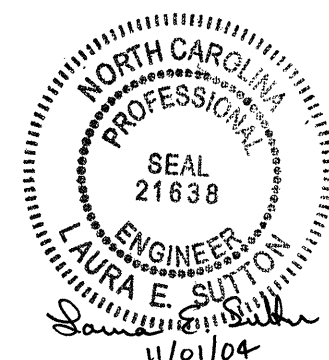
PROJECT NO. B-3626
CARTERET COUNTY
 STATION: 20+29.50 -L-

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**STANDARD
 3'-0" X 1'- 9"
 PRESTRESSED
 CONCRETE CORED
 SLAB UNIT**

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

TOTAL SHEETS: 23



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ASSEMBLED BY : B.N.BARODAWALA DATE :10-30-02
 CHECKED BY : S.H. SOCKWELL DATE : 4-25-03
 DRAWN BY : WJH 4/89 REV. 10/17/00 RWW/LES
 CHECKED BY : FCJ 5/89 REV. 7/10/01 RWW/LES
 REV. 5/7/03 RWW/JTE