

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 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 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 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 JOINT SHALL BE LOCATED AT EACH THIRD POINT BETWEEN BARRIER RAIL EXPANSION JOINTS. ONLY ONE JOINT IS REQUIRED AT MIDPOINT OF BARRIER RAIL SEGMENTS LESS THAN 20 FEET IN LENGTH AND NO JOINTS ARE REQUIRED FOR THOSE SEGMENTS LESS THAN 10 FEET IN LENGTH.

FOR ELASTOMERIC BEARINGS, SEE SPECIAL PROVISION.

FOR PRESTRESSED CONCRETE MEMBERS, SEE SPECIAL PROVISIONS.

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

BILL OF MATERIAL FOR ONE CORED SLAB SECTION

SPAN A AND E				EXTERIOR UNIT		INTERIOR UNIT	
BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT	LENGTH	WEIGHT
B1	4	# 4	STR	17'-7"	47	17'-7"	47
S1	8	# 4	3	4'-3"	23	4'-3"	23
S2	66	# 4	3	5'-4"	235	5'-4"	235
*S3	35	# 5	1	5'-3"	192		
REINFORCING STEEL				305 LBS.		305 LBS.	
*EPOXY COATED REINFORCING STEEL				192 LBS.			
5,000 P.S.I. CONCRETE				4.7 C. Y.		4.7 C. Y.	
1/2" Ø L.R. STRANDS				No.	12		12

BILL OF MATERIAL FOR ONE CORED SLAB SECTION

SPAN B, C, & D				EXTERIOR UNIT		INTERIOR UNIT	
BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT	LENGTH	WEIGHT
B2	4	# 4	STR	25'-8"	69	25'-8"	69
S1	8	# 4	3	4'-3"	23	4'-3"	23
S2	98	# 4	3	5'-4"	349	5'-4"	349
*S3	51	# 5	1	5'-3"	279		
REINFORCING STEEL				441 LBS.		441 LBS.	
*EPOXY COATED REINFORCING STEEL				279 LBS.			
5,000 P.S.I. CONCRETE				7.0 C. Y.		7.0 C. Y.	
1/2" Ø L.R. STRANDS				No.	19		19

DEAD LOAD DEFLECTION AND CAMBER

	SPAN A & E	SPAN B, C, & D
	3'-0" x 1'-9"	3'-0" x 1'-9"
CAMBER (SLAB ALONE IN PLACE)	1/2" ↑	1/2" ↑
DEFLECTION DUE TO SUPERIMPOSED DEAD LOAD **	1/16" ↓	1/4" ↓
FINAL CAMBER	1/2" ↑	1/4" ↑

** INCLUDES FUTURE WEARING SURFACE

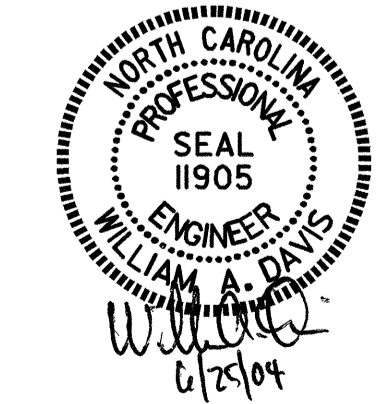
CORED SLABS REQUIRED

UNIT TYPE	NUMBER PER SPAN	LENGTH					TOTAL LENGTH
		SPAN A	SPAN B	SPAN C	SPAN D	SPAN E	
INTERIOR	9	33'-9 3/4"	49'-10 1/2"	49'-10 1/2"	49'-10 1/2"	33'-9 3/4"	1955'-3"
EXTERIOR	2	33'-9 3/4"	49'-10 1/2"	49'-10 1/2"	49'-10 1/2"	33'-9 3/4"	434'-6"
TOTAL NUMBER	11	371'-11 1/4"	548'-7 1/2"	548'-7 1/2"	548'-7 1/2"	371'-11 1/4"	2389'-9"

BILL OF MATERIAL FOR CONCRETE BARRIER RAIL

BAR	BARS PER SPAN					TOTAL NO.	SIZE	TYPE	LENGTH	WEIGHT
	SPAN A	SPAN B	SPAN C	SPAN D	SPAN E					
*B3	28				28	56	#5	STR	18'-6"	1081
*B4		28		28		84	#5	STR	26'-6"	2322
*S4	70	102	102	102	70	446	#5	2	5'-8"	2636
*EPOXY COATED REINFORCING STEEL LBS.									6039	
CLASS AA CONCRETE C. Y.									44.7	
TOTAL LIN. FT. OF CONCRETE BARRIER RAIL									435.50	

SPLICE CHART	
SIZE	LENGTH
4	1'-9"
5	3'-5"



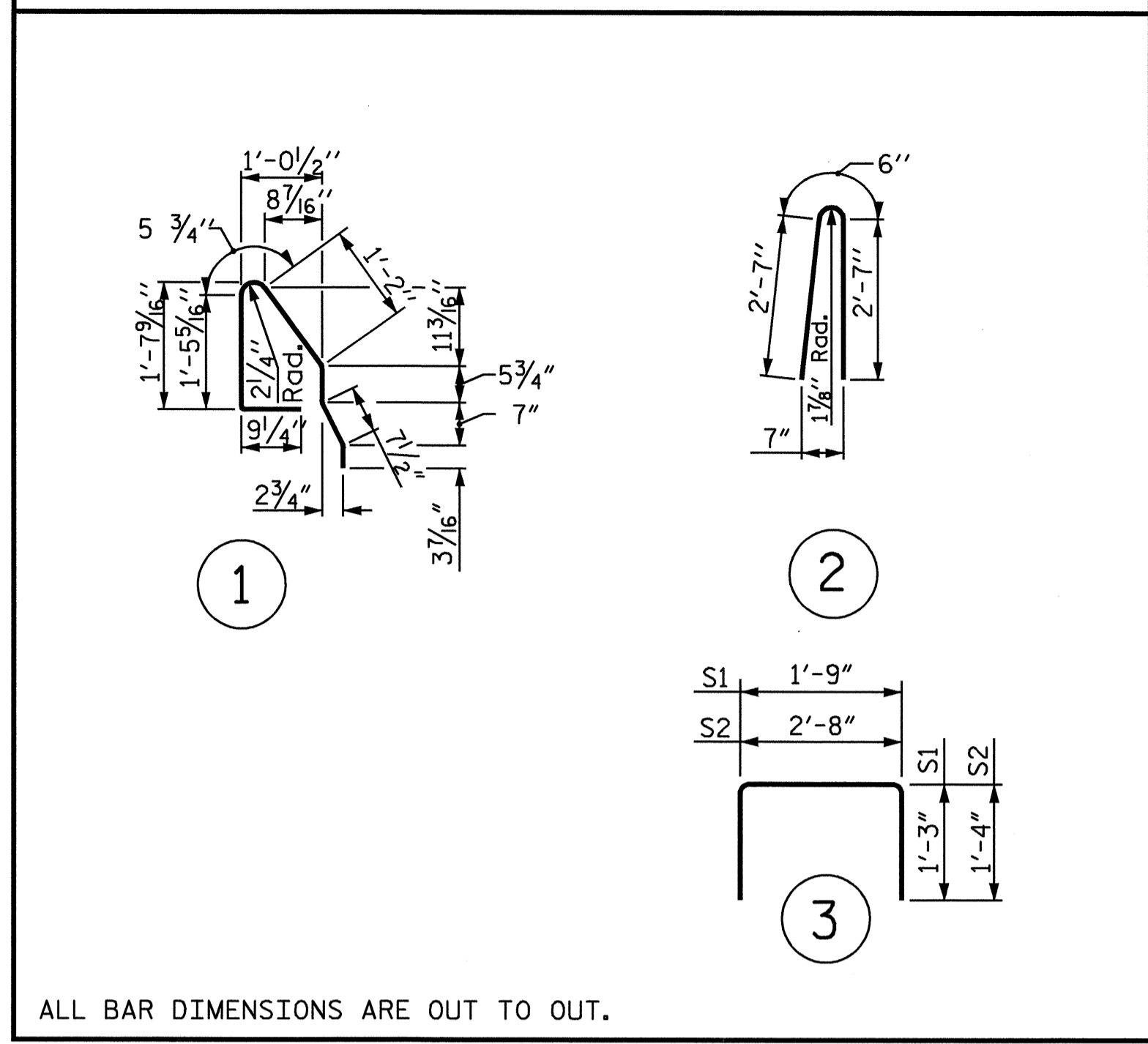
PROJECT NO. B-3629
CASWELL COUNTY
 STATION: 26+65.00 -L-

SHEET 5 OF 5

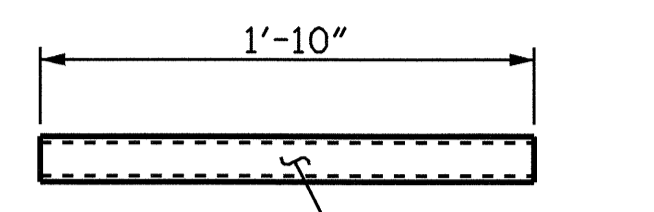
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
STANDARD 3'-0" X 1'-9" PRESTRESSED CONCRETE CORED SLAB UNIT					
REVISIONS					TOTAL SHEETS
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					26

STD. NO. PCS3

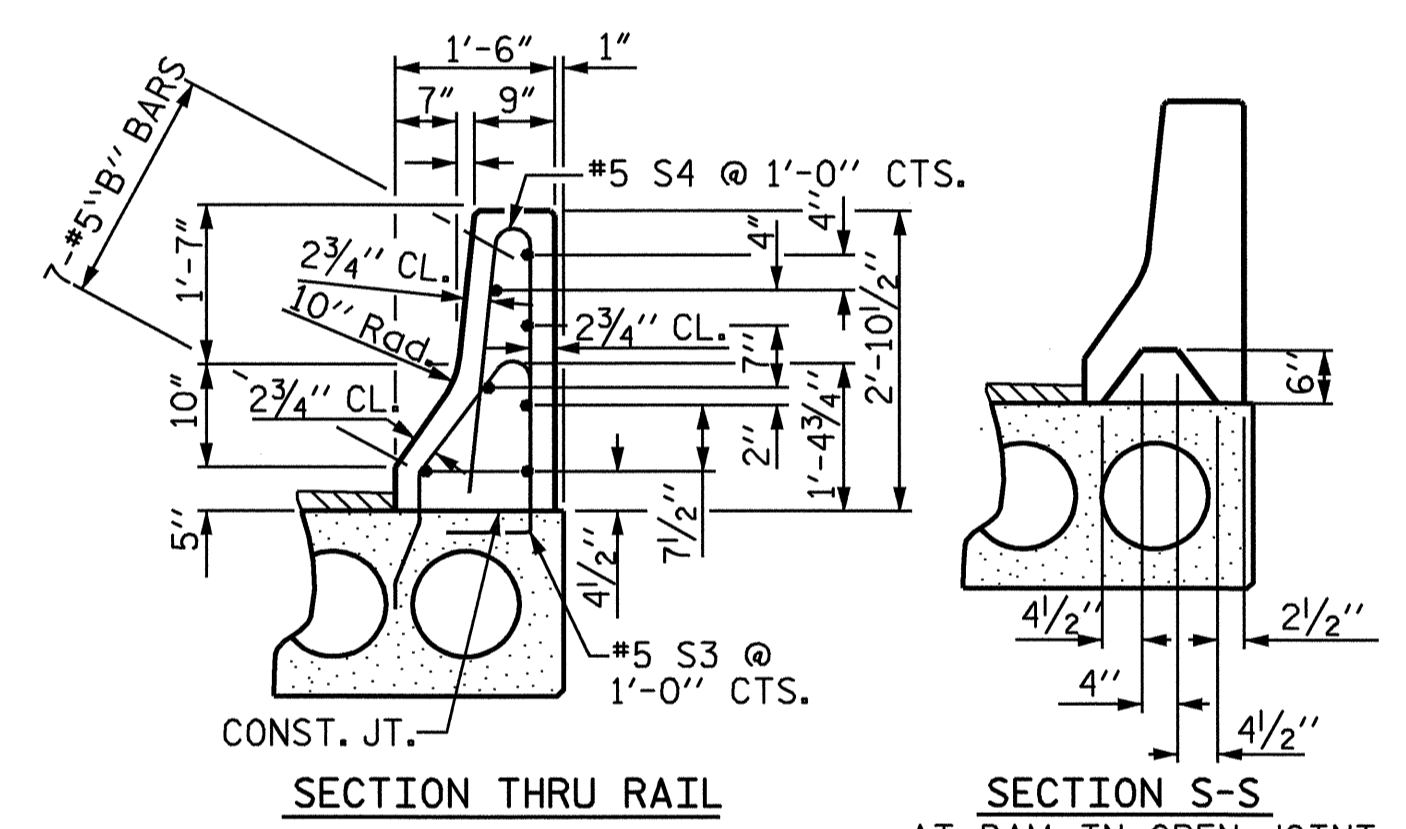
BAR TYPES



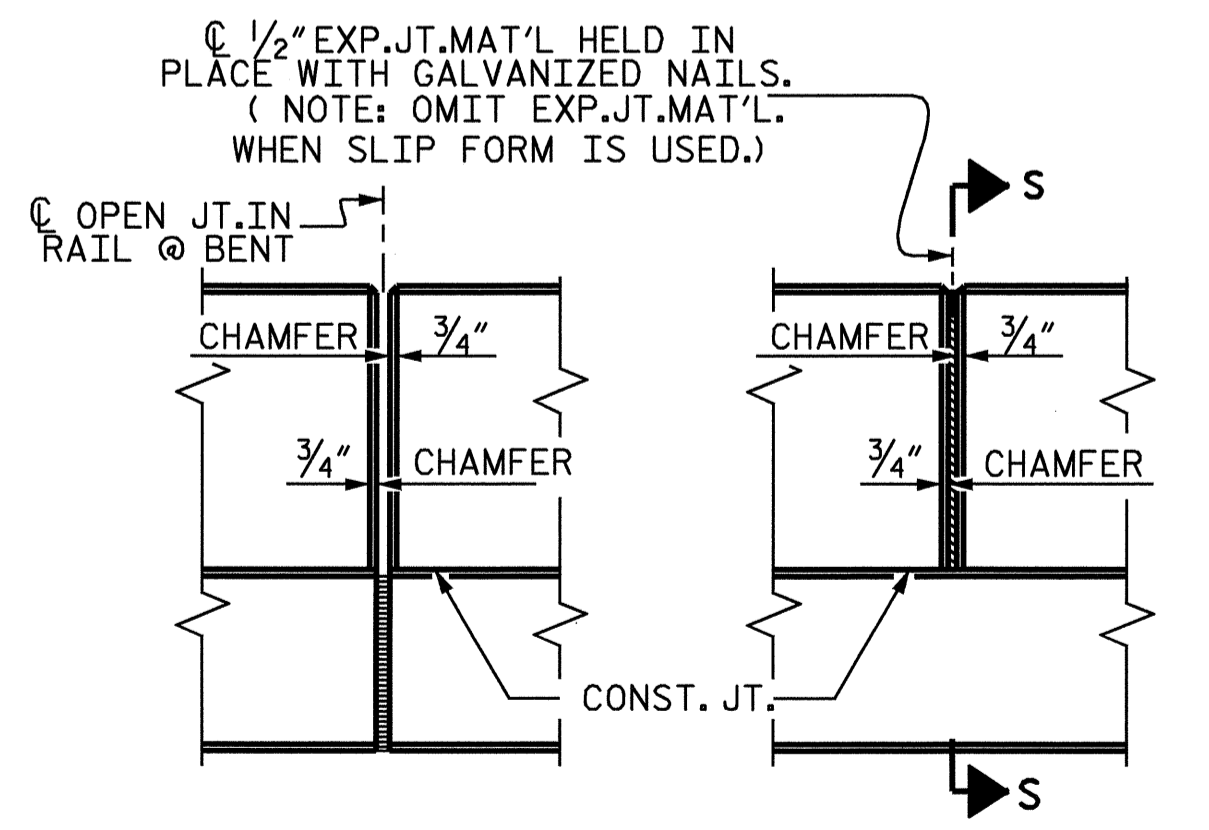
ALL BAR DIMENSIONS ARE OUT TO OUT.



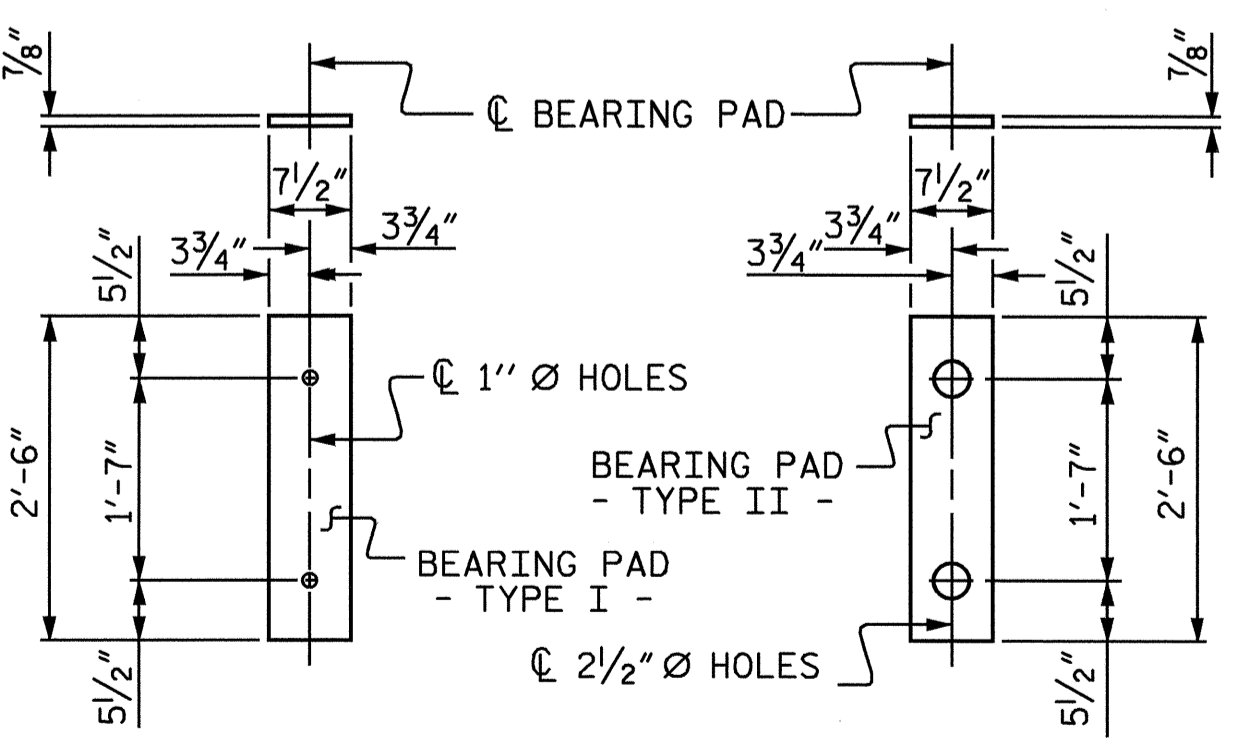
DECK DRAIN DETAIL
(8 REQUIRED)



BARRIER RAIL - END OF RAIL DETAILS



BARRIER RAIL DETAILS



ELASTOMERIC BEARING DETAILS

ASSEMBLED BY : J.D. HAWK	DATE : 1/12/04
CHECKED BY : J.G. KHARVA	DATE : 1/15/04
DRAWN BY : WJH 4/89	REV. 2/6/97 EEM/RGW
CHECKED BY : FCJ 5/89	REV. 8/16/99 RWW/LES
	REV. 10/17/00 RWW/LES