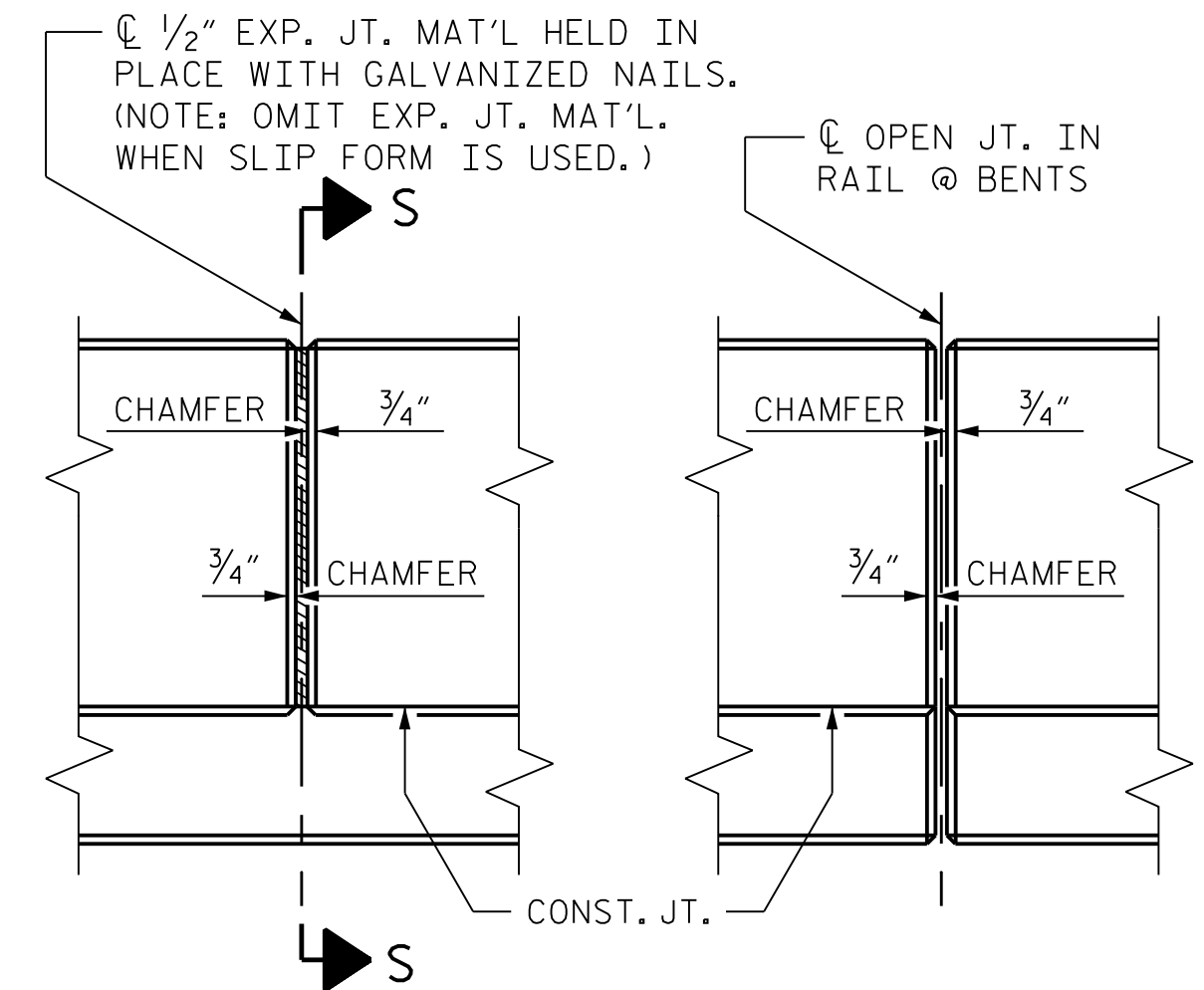


**PLAN**  
RAIL DETAILS AT EXPANSION JOINTS



**ELEVATION AT EXPANSION JOINTS**

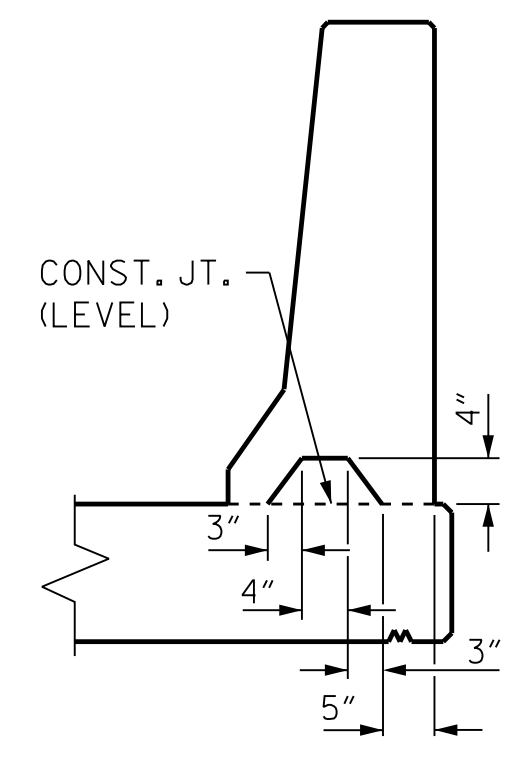
**NOTES**

THE BARRIER RAIL IN EACH UNIT SHALL NOT BE CAST UNTIL ALL SLAB CONCRETE IN THAT UNIT HAS BEEN CAST AND HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.

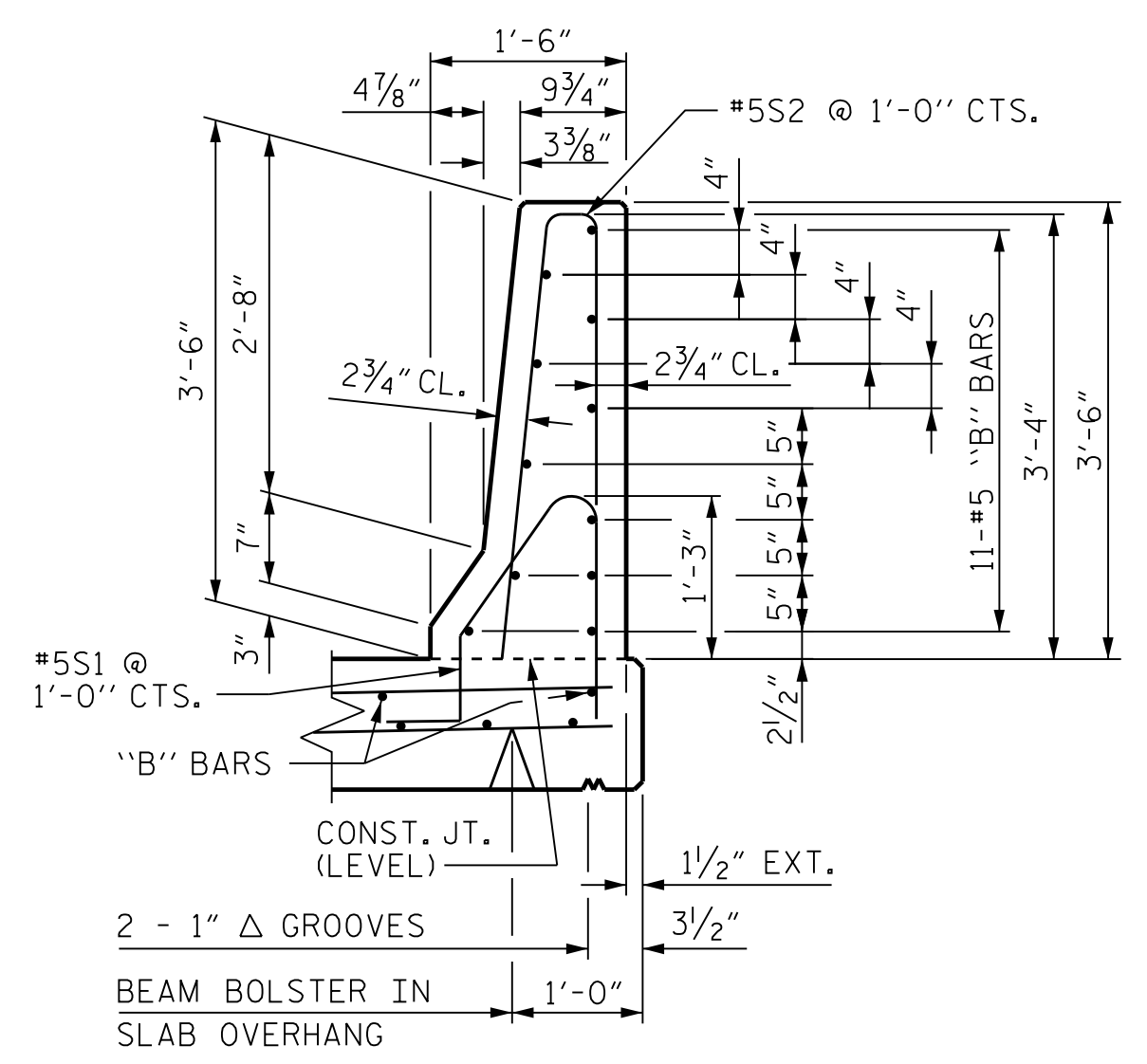
ALL REINFORCING STEEL IN BARRIER RAILS SHALL BE EPOXY COATED.

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. THE 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.

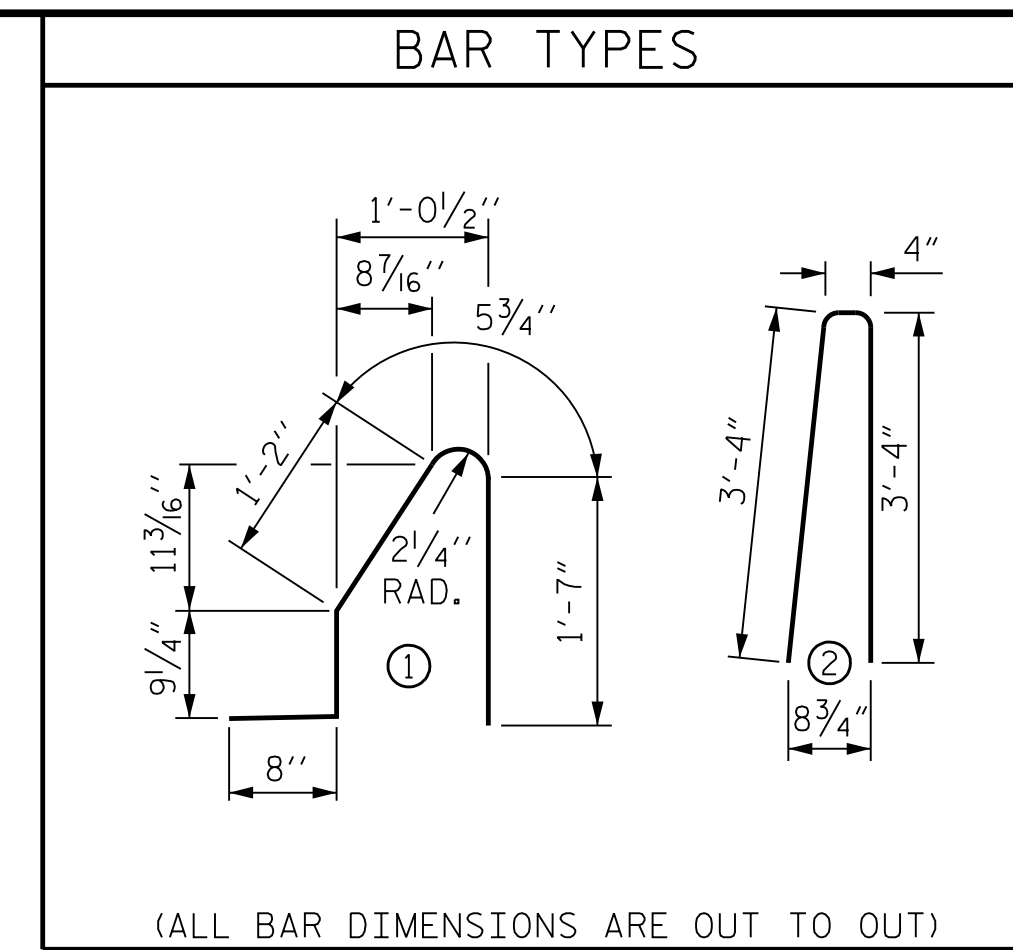
SEE "BRIDGE APPROACH SLAB" SHEETS FOR BARRIER RAIL CONSTRUCTED ON APPROACH SLABS AND END OF RAIL DETAILS.



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



**SECTION THROUGH RAIL**  
**BARRIER RAIL DETAILS**



BILL OF MATERIAL					
FOR CONCRETE BARRIER RAIL ON BRIDGE DECK ONLY					
UNIT 1					
BAR NO.	SIZE	TYPE	LENGTH	WEIGHT	
*B1	11	# 5	23'-5"	269	
*B2	11	# 5	28'-11"	332	
*B3	11	# 5	25'-0"	287	
*B4	11	# 5	29'-1"	334	
*B26	88	# 5	25'-7"	2,349	
*B28	110	# 5	27'-7"	3,165	
*B29	407	# 5	28'-7"	12,134	
*B30	55	# 5	29'-7"	1,698	
*S1	1,821	# 5	4'-8"	8,864	
*S2	1,821	# 5	7'-0"	13,296	
* EPOXY COATED REINFORCING STEEL				42,728 LBS.	
CLASS AA CONCRETE				247.3 CU. YDS.	
CONCRETE BARRIER RAIL				1,819.8 LIN. FT.	
UNIT 2					
BAR NO.	SIZE	TYPE	LENGTH	WEIGHT	
*B5	11	# 5	29'-2"	335	
*B6	11	# 5	28'-11"	332	
*B7	11	# 5	28'-3"	325	
*B8	11	# 5	26'-3"	302	
*B26	121	# 5	25'-7"	3,229	
*B27	231	# 5	26'-7"	6,405	
*B28	209	# 5	27'-7"	6,013	
*B29	132	# 5	28'-7"	3,936	
*B30	33	# 5	29'-7"	1,019	
*S1	1,939	# 5	4'-8"	9,438	
*S2	1,939	# 5	7'-0"	14,157	
* EPOXY COATED REINFORCING STEEL				45,491 LBS.	
CLASS AA CONCRETE				263.4 CU. YDS.	
CONCRETE BARRIER RAIL				1,937.7 LIN. FT.	

PROJECT NO. U-2579AB  
FORSYTH COUNTY  
 STATION: 60+66.06 -Y15FLYAC-



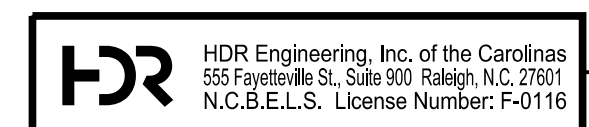
*Dominic A. Colletti* 10/15/2021

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

SHEET NO. S04-081  
 TOTAL SHEETS 144

PLOT DRIVER: NCDOT... PENTABLE: NCDOT STRUCTURES DEFAULT PEN.tbl  
 USER: PPETERSO DATE: 10/14/2021 TIME: 4:03:38 PM  
 FILE: ... \SUPERS

DES BY: <u>L. ZAMPETTI</u>	DATE: <u>07/19</u>	DWG BY: <u>M. SELLS</u>	DATE: <u>07/19</u>
DES CHK: <u>J. ROBERTS</u>	DATE: <u>07/19</u>	CHK BY: <u>S. NIFONG</u>	DATE: <u>11/19</u>



**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**