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 USER: PPEPERSO DATE: 1/24/2022 TIME: 1:32:05 PM  
 FILE: ...\\402.145.B3186-B5898-SMU.BR.030-430168.dgn

**NOTES**

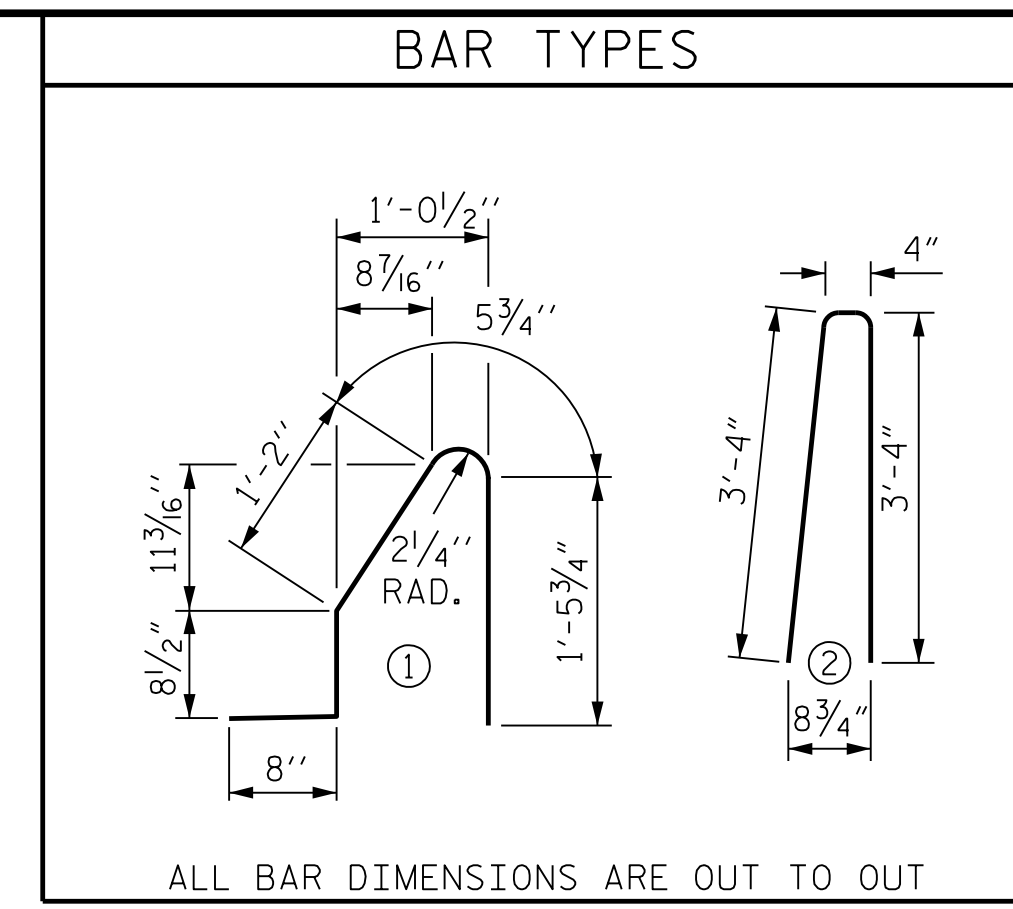
THE BARRIER RAIL IN A CONTINUOUS UNIT SHALL NOT BE CAST UNTIL ALL SLAB CONCRETE IN THAT UNIT HAS BEEN CAST AND HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.

ALL REINFORCING STEEL IN BARRIER RAILS SHALL BE EPOXY COATED.

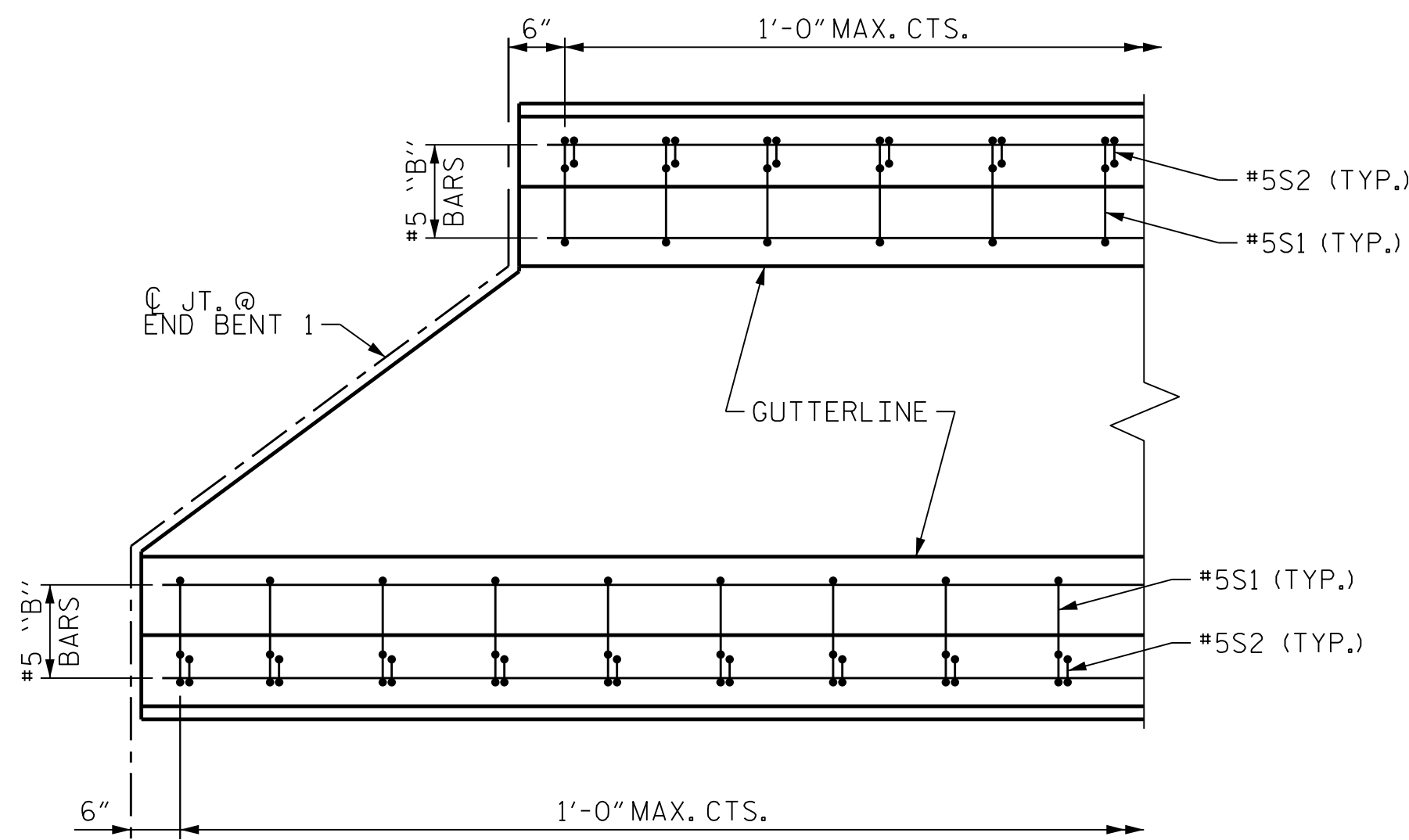
GROOVED CONTRACTION JOINTS, 1/2" IN DEPTH, SHALL BE TOOLED IN ALL EXPOSED FACES OF THE BARRIER RAIL AND IN ACCORDANCE WITH ARTICLE 825-10(B) OF THE STANDARD SPECIFICATIONS. THE CONTRACTION JOINT SHALL BE LOCATED AT EACH THIRD POINT BETWEEN BARRIER RAIL EXPANSION JOINTS. ONLY ONE CONTRACTION JOINT IS 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 DETAILS" SHEETS FOR BARRIER RAIL CONSTRUCTED ON APPROACH SLABS AND END OF RAIL DETAILS.

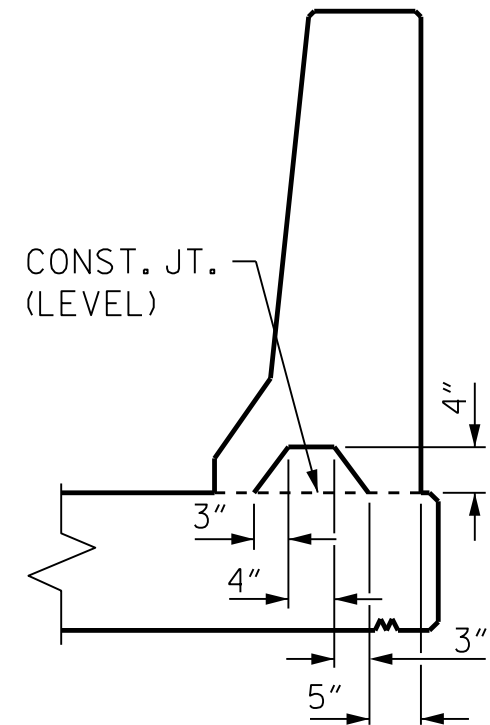
THE #5 S1 AND S2 BARS MAY BE SHIFTED AS NECESSARY TO MAINTAIN 2" MINIMUM CLEARANCE TO THE 1/2" EXPANSION JOINT MATERIAL.



BILL OF MATERIAL					
FOR CONCRETE BARRIER RAIL ON BRIDGE DECK ONLY					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
*B1	11	#5	STR	22'-1"	254
*B2	132	#5	STR	25'-7"	3523
*B3	11	#5	STR	19'-11"	229
*B4	11	#5	STR	25'-11"	298
*B5	121	#5	STR	26'-7"	3355
*B6	11	#5	STR	24'-7"	283
*S1	706	#5	1	4'-6"	3314
*S2	706	#5	2	7'-0"	5155
*EPOXY COATED REINFORCING STEEL					16,411 LBS.
CLASS AA CONCRETE					95.7 CU. YDS.
CONCRETE BARRIER RAIL					703.2 LIN. FT.

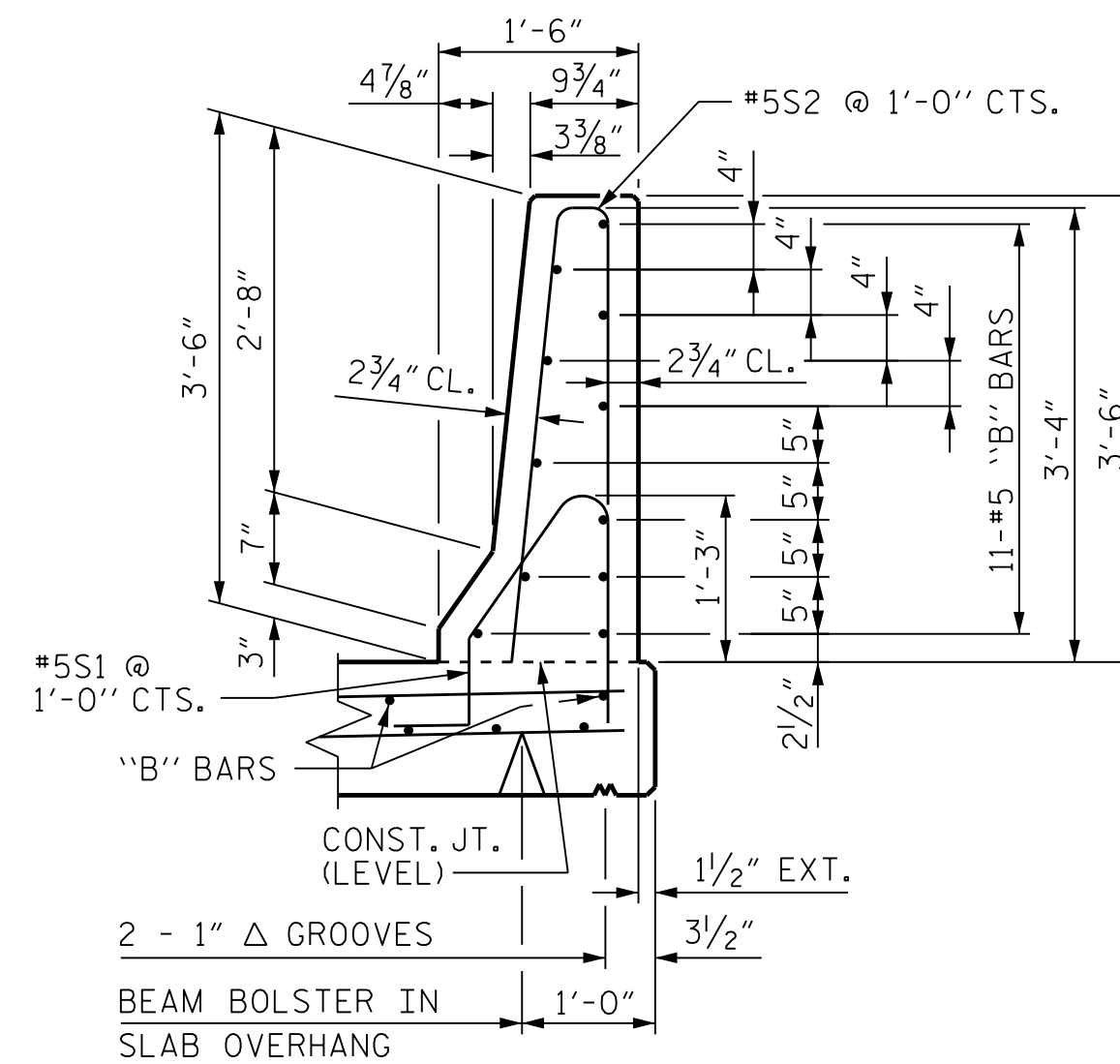


**PLAN**  
**RAIL DETAILS AT EXPANSION JOINTS**  
 (END BENT 1 SHOWN, END BENT 2 SIMILAR)

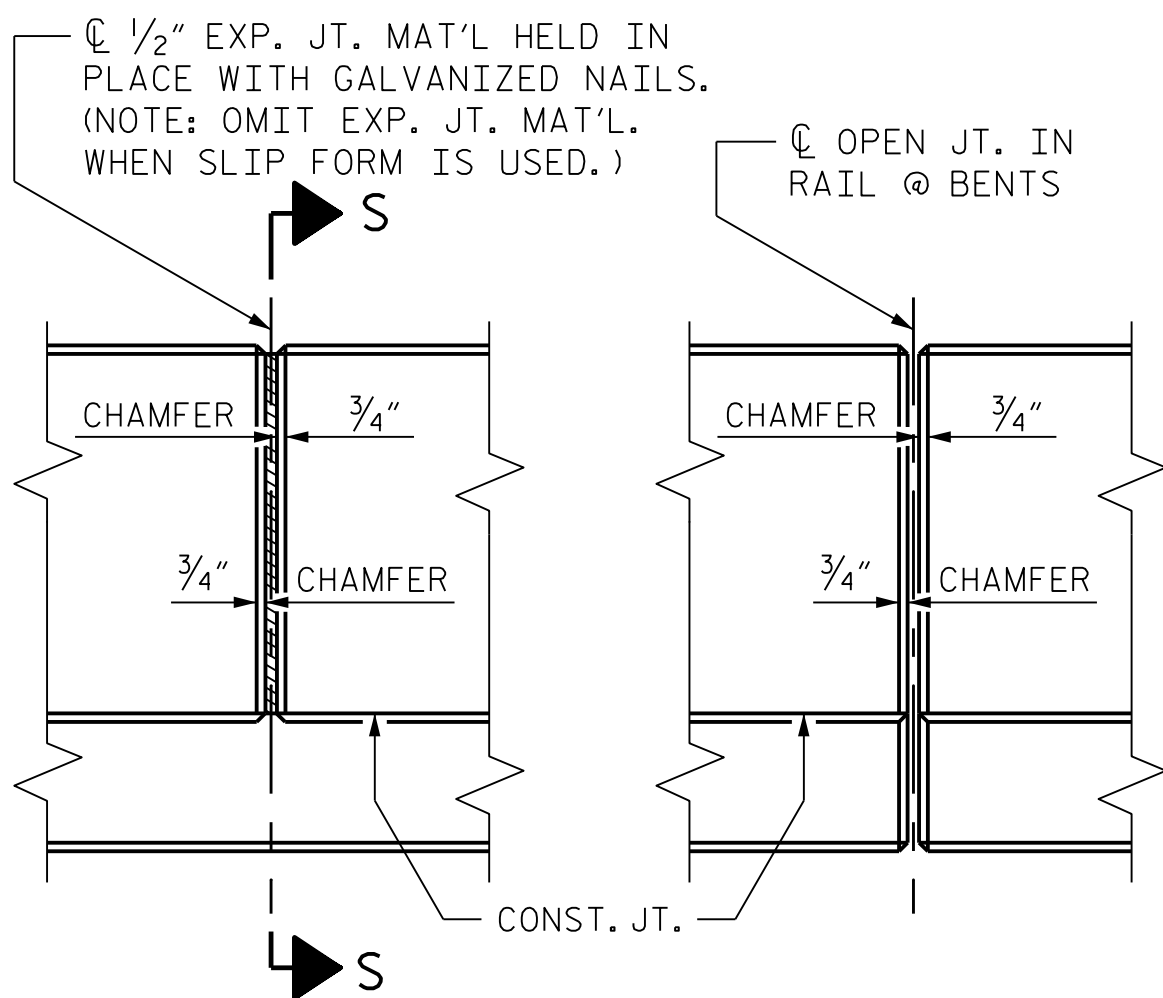


**SECTION S-S**

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



**SECTION THROUGH RAIL**



**ELEVATION AT EXPANSION JOINTS**

**BARRIER RAIL DETAILS**

PROJECT NO. B-3186/B-5898  
HAYWOOD COUNTY  
 STATION: 27+54.43 -Y1RT-

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

**SUPERSTRUCTURE  
 CONCRETE BARRIER  
 RAIL DETAILS**



W. Brian Watson 1/24/2022

DES BY: S. NIFONG	DATE: 04/21	DWG BY: M. SELLS	DATE: 04/21
DES CHK: H. ABU NIMEH	DATE: 07/21	CHK BY: H. ABU NIMEH	DATE: 07/21



DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED

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

SHEET NO. 502-30  
TOTAL SHEETS 48