

**NOTES**

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

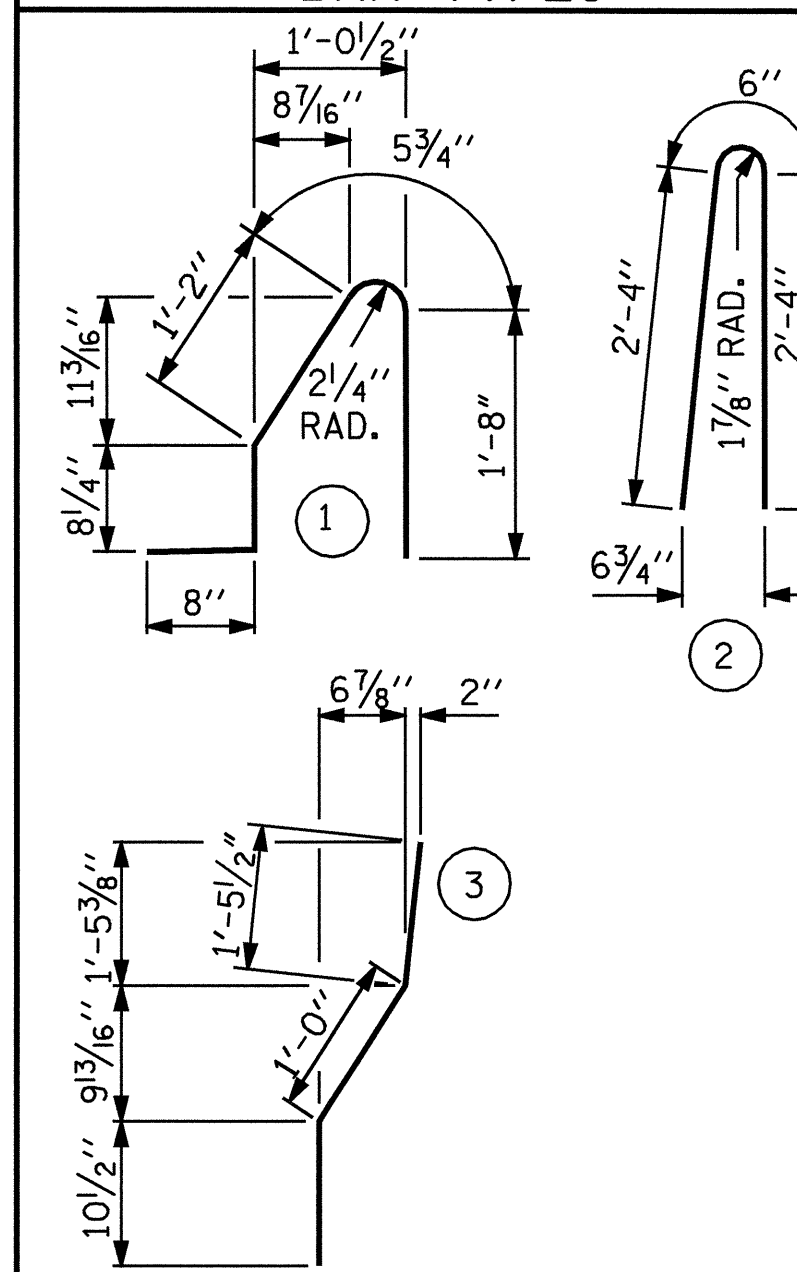
WHEN EVAZOTE JOINT SEAL IS REQUIRED, THE JOINT IN THE DECK SHALL BE SAWED PRIOR TO THE CASTING OF BARRIER RAIL.

ALL REINFORCING STEEL IN BARRIER RAILS SHALL BE EPOXY COATED.

THE #5 S3 AND #5 S4 BARS SHALL BE INSTALLED, USING AN ADHESIVE ANCHORING SYSTEM, AFTER SAWING THE JOINT. FOR ADHESIVELY ANCHORED ANCHOR BOLTS OR DOWELS, SEE SPECIAL PROVISIONS. THE YIELD LOAD FOR THE #5 S3 AND #5 S4 BARS IS 18.6 KIPS. FIELD TESTING FOR THE ADHESIVE BONDING SYSTEM IS NOT REQUIRED.

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. 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.

**BAR TYPES**



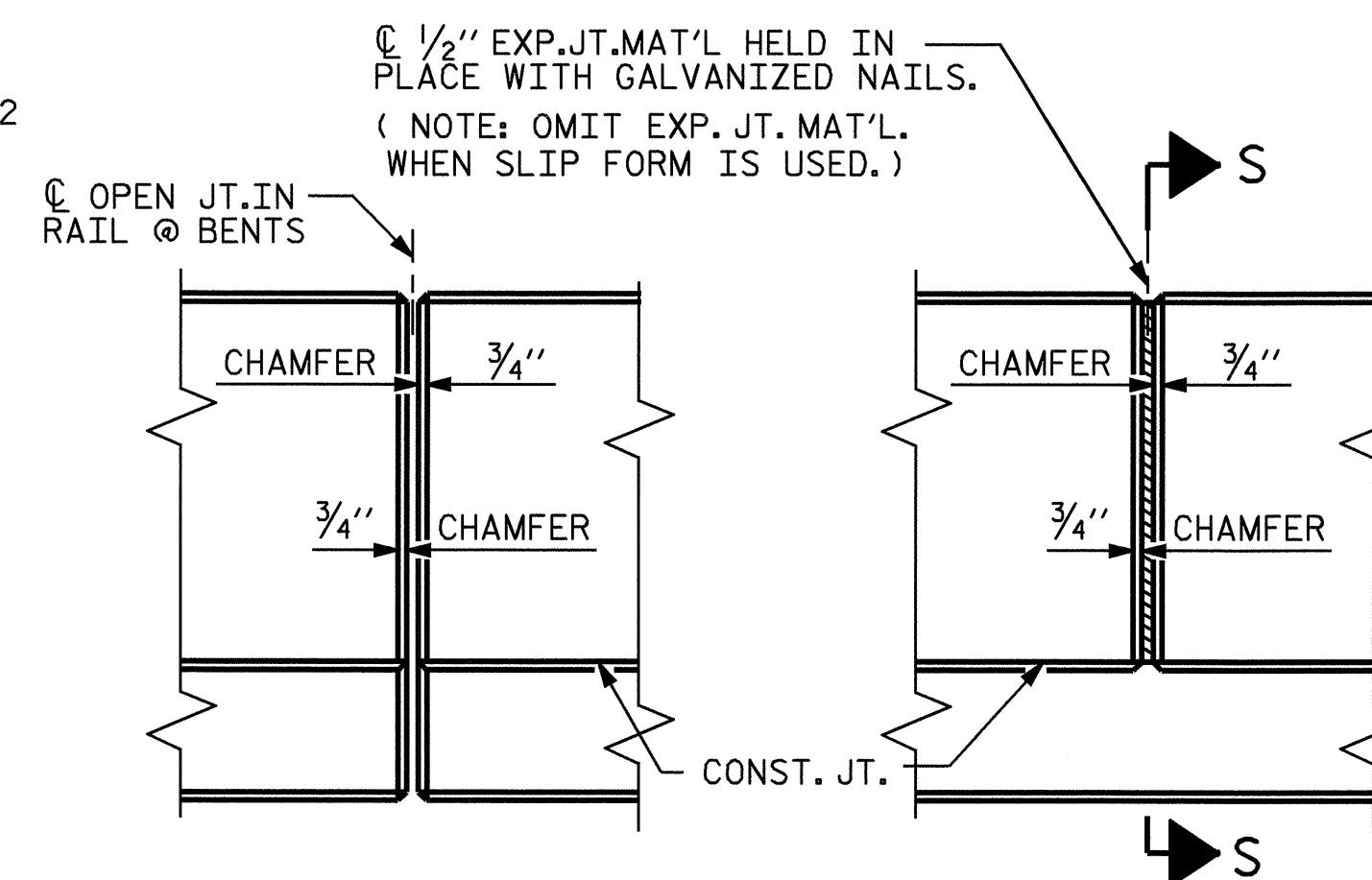
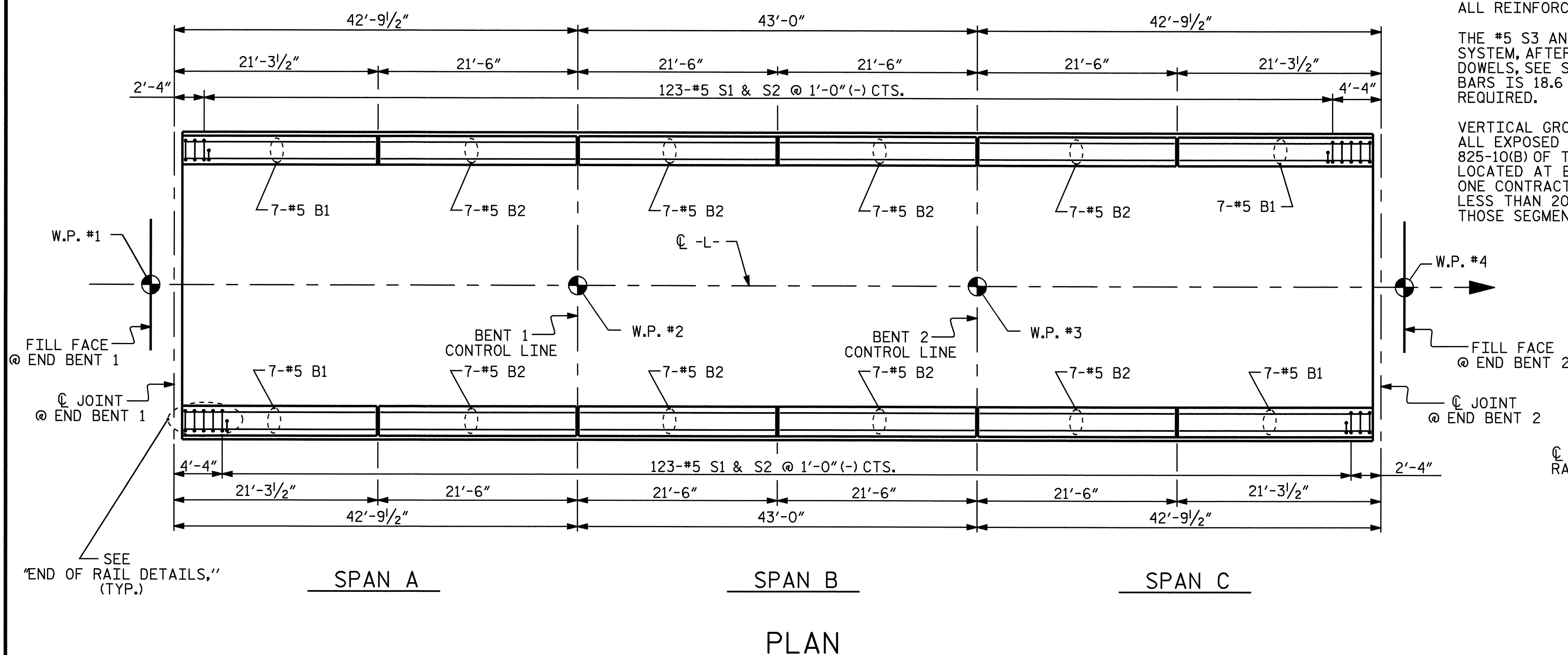
ALL BAR DIMENSIONS ARE OUT TO OUT

**BILL OF MATERIAL**

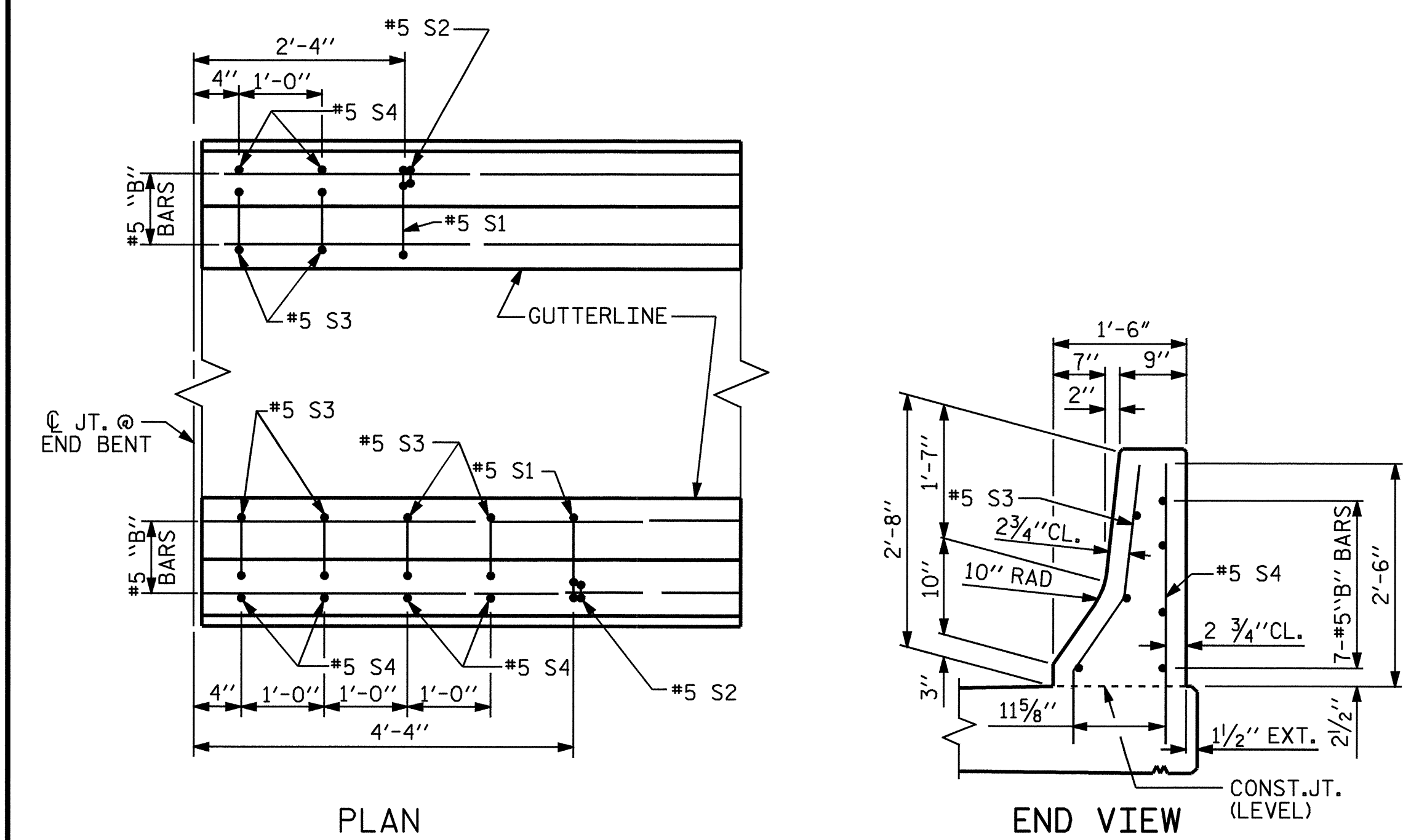
FOR CONCRETE BARRIER RAIL ONLY

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* B1	28	#5	STR	20'-10"	608
* B2	56	#5	STR	21'-1"	1231
* S1	246	#5	1	4'-8"	1197
* S2	246	#5	2	5'-2"	1326
* S3	12	#5	3	3'-4"	42
* S4	12	#5	STR	3'-2"	40

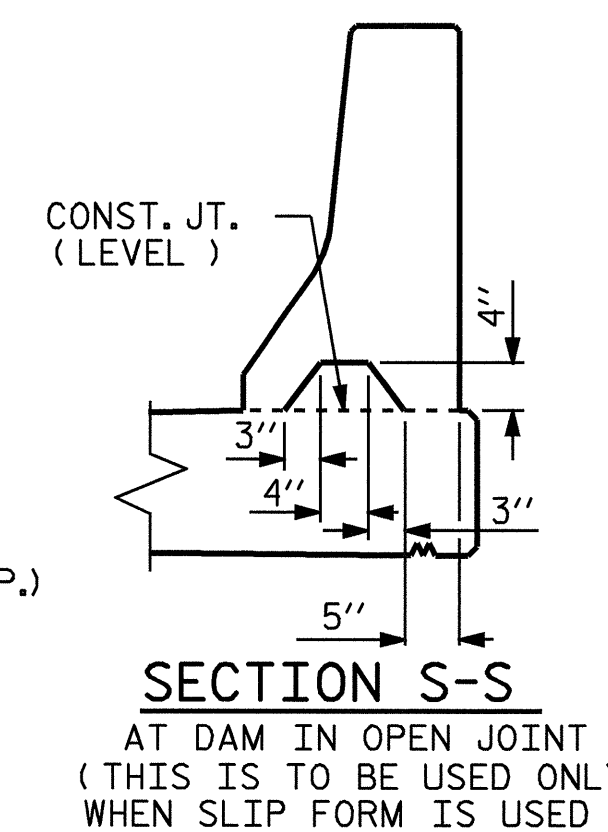
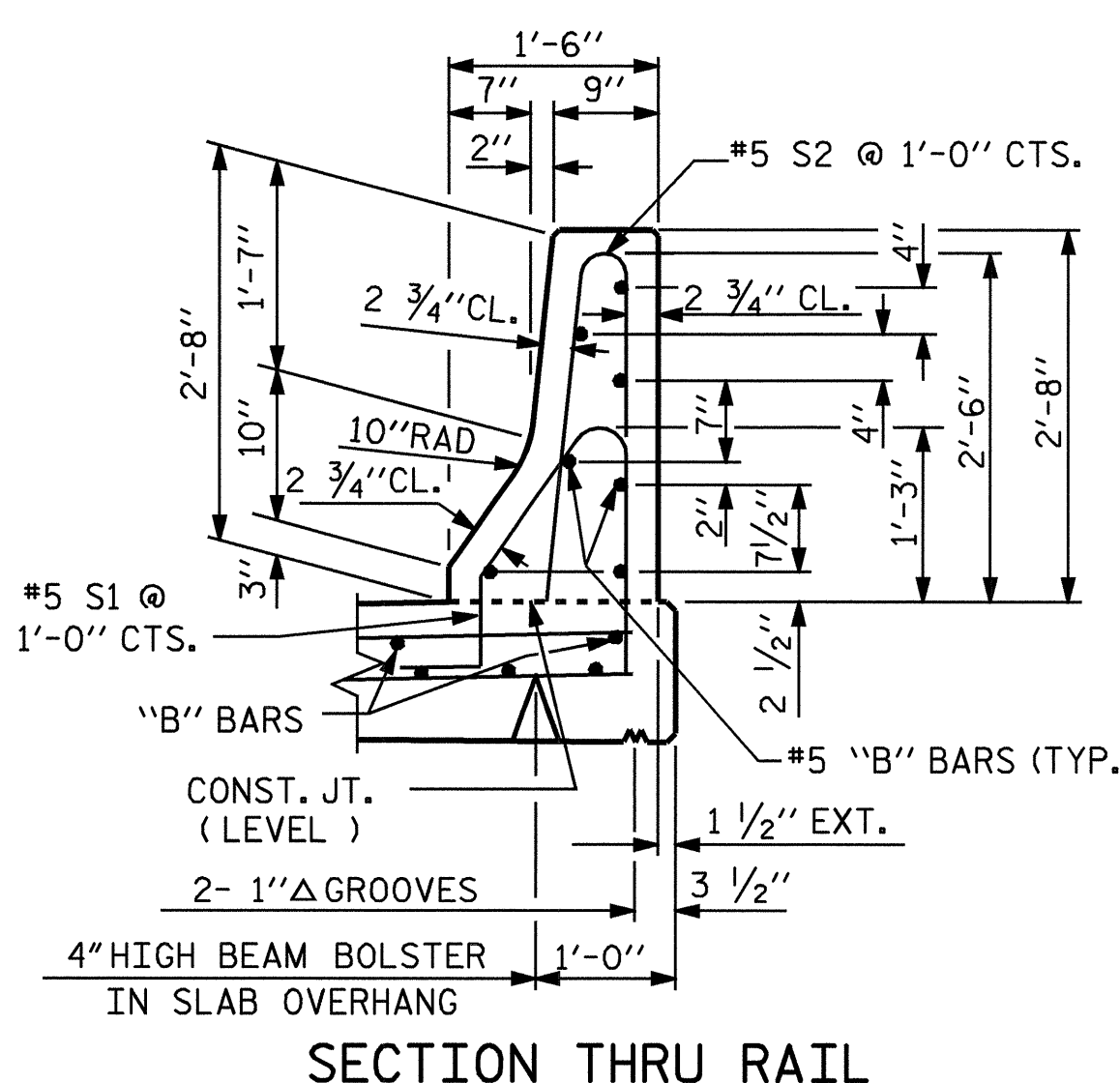
\* EPOXY COATED REINFORCING STEEL 4444 LBS.  
 CLASS AA CONCRETE 25.7 CU. YDS.  
 CONCRETE BARRIER RAIL 257.17 LIN. FT.



**ELEVATION AT EXPANSION JOINTS  
BARRIER RAIL DETAILS**



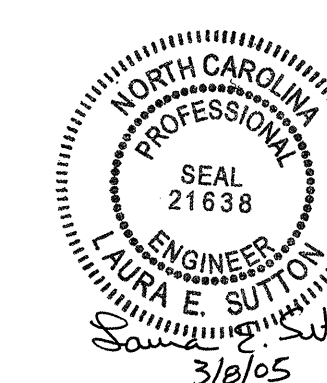
**END OF RAIL DETAILS**  
FOR ADHESIVE ANCHORING AT SAWED JOINTS



**SECTION THRU RAIL  
BARRIER RAIL DETAILS**

PROJECT NO. B-3467  
HALIFAX COUNTY  
 STATION: 31+50.00 -L-

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
**STANDARD  
 CONCRETE  
 BARRIER RAIL**



REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-45
1			3			TOTAL SHEETS 60
2			4			

ASSEMBLED BY : J.L. WALTON DATE : 4/22/03  
 CHECKED BY : B.N. BARODAWALA DATE : 6/5/03  
 DRAWN BY : ARB 5/87 REV. 8/16/99 RWW/LES  
 CHECKED BY : SJD 9/87 REV. 10/17/00 RWW/LES  
 REV. 5/1/03R RWW/JTE