

**NOTES**

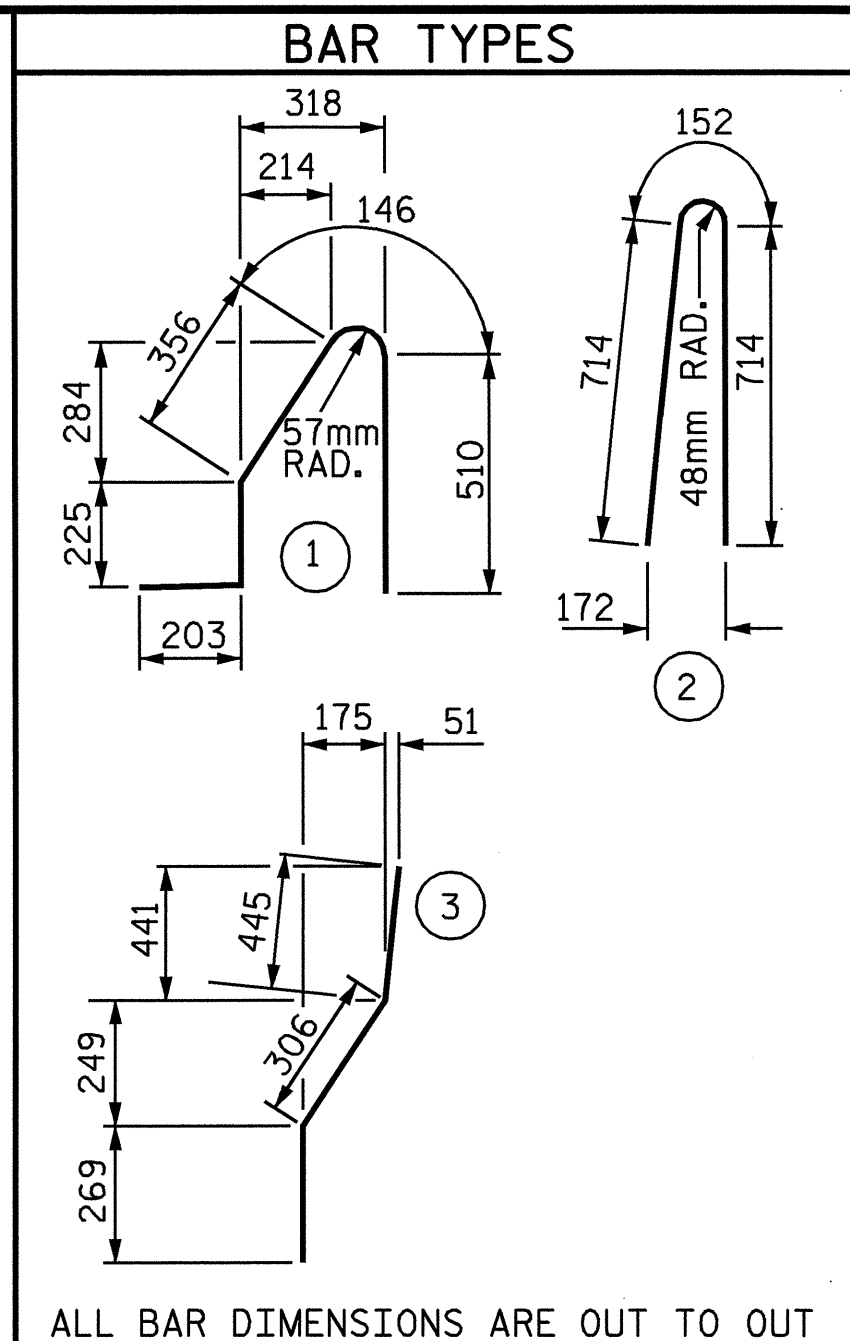
THE BARRIER RAIL IN A CONTINUOUS UNIT SHALL NOT BE CAST UNTIL ALL SLAB CONCRETE IN THAT SPAN HAS BEEN CAST AND HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 20.7 MPa.

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 #16S3 AND #16S4 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 #16 S3 AND #16 S4 BARS IS 82.7 kN. FIELD TESTING FOR THE ADHESIVE BONDING SYSTEM IS NOT REQUIRED.

VERTICAL GROOVED CONTRACTION JOINTS, 12mm 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 6.100m IN LENGTH AND NO JOINTS ARE REQUIRED FOR THOSE SEGMENTS LESS THAN 3.500m IN LENGTH.



ALL BAR DIMENSIONS ARE OUT TO OUT

**BILL OF MATERIAL**

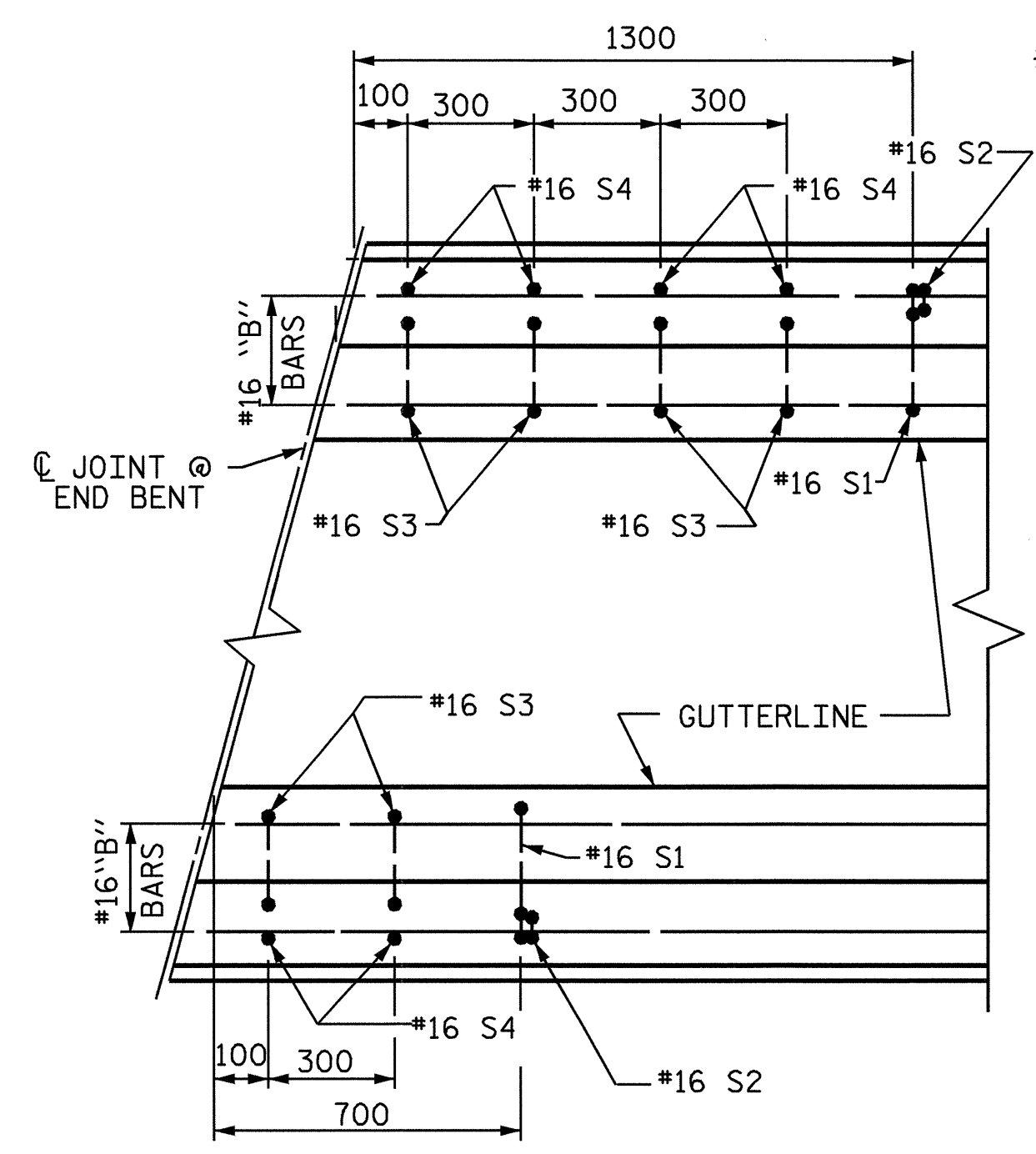
FOR CONCRETE BARRIER RAIL ONLY

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* B1	56	#16	STR	4700	408
* B2	98	#16	STR	8100	1232
* S1	482	#16	1	1440	1077
* S2	482	#16	2	1580	1182
* S3	12	#16	3	1020	19
* S4	12	#16	STR	960	18

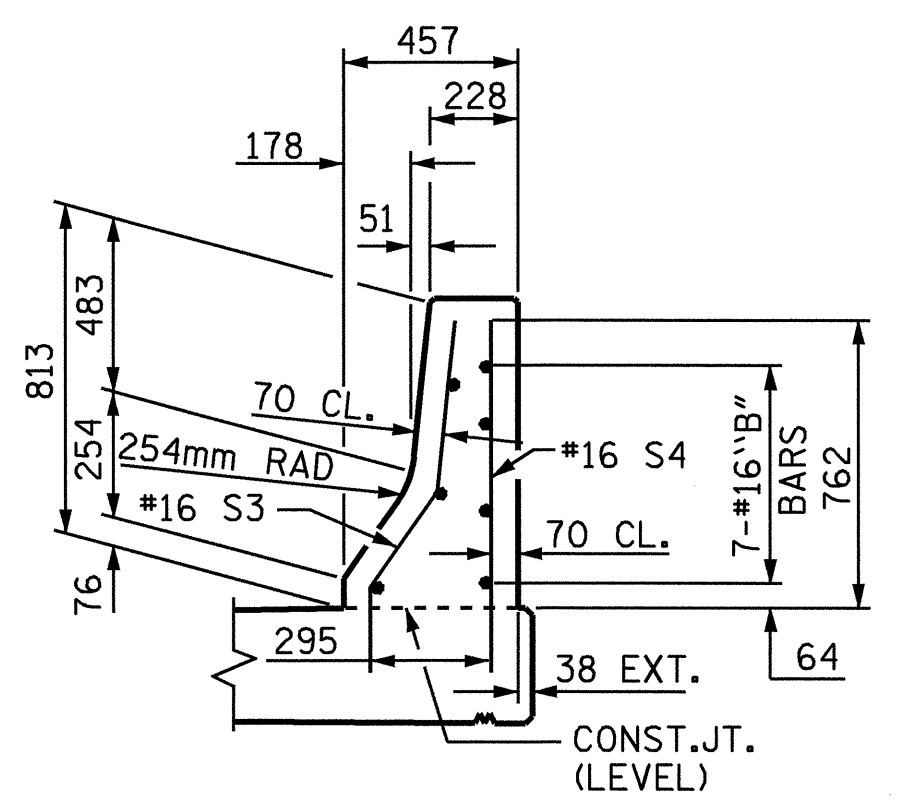
* EPOXY COATED REINFORCING STEEL	3,936 kg
CLASS AA CONCRETE	37.3 CU. METER
CONCRETE BARRIER RAIL	147.926 METERS

**PLAN OF BARRIER RAIL**

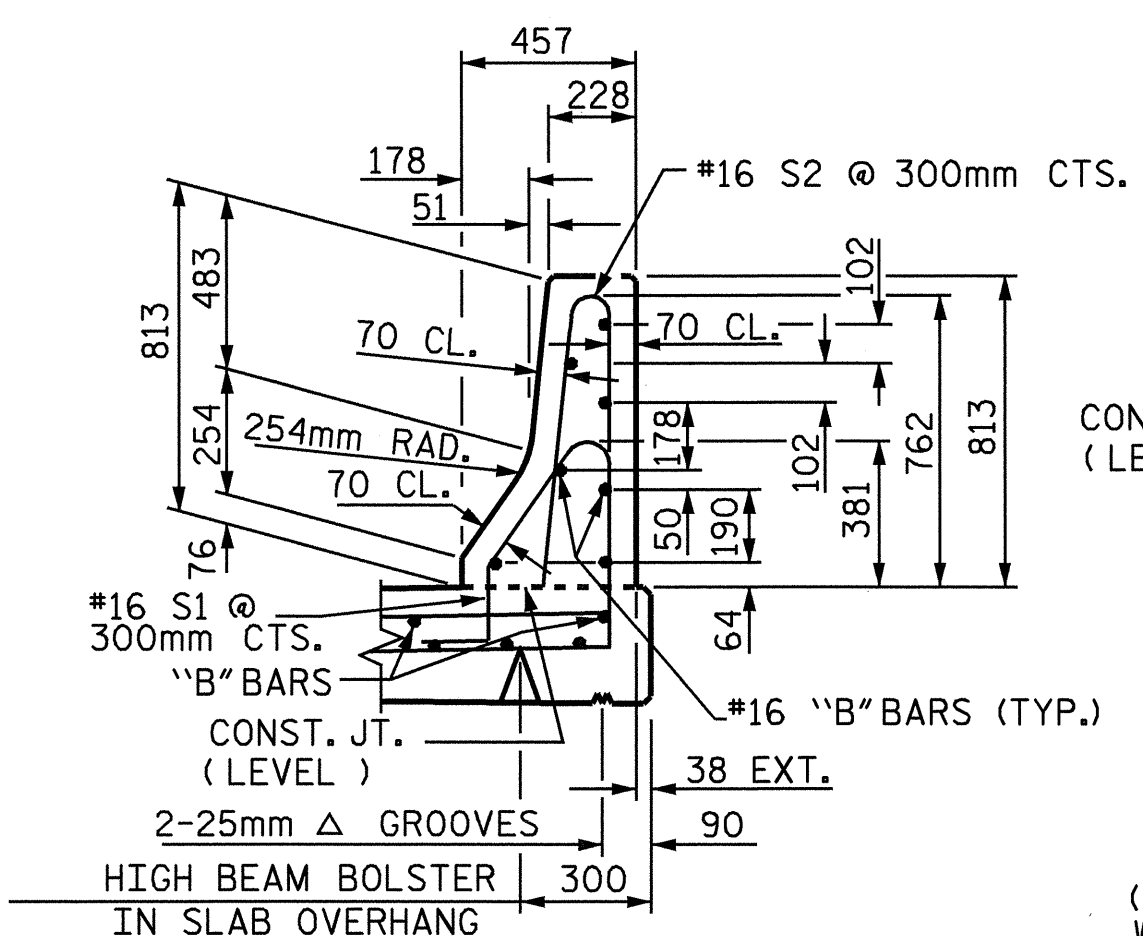
\*\* SEE PLAN FOR END OF BARRIER RAIL FOR ADDITIONAL "S" BARS NOT SHOWN IN PLAN.



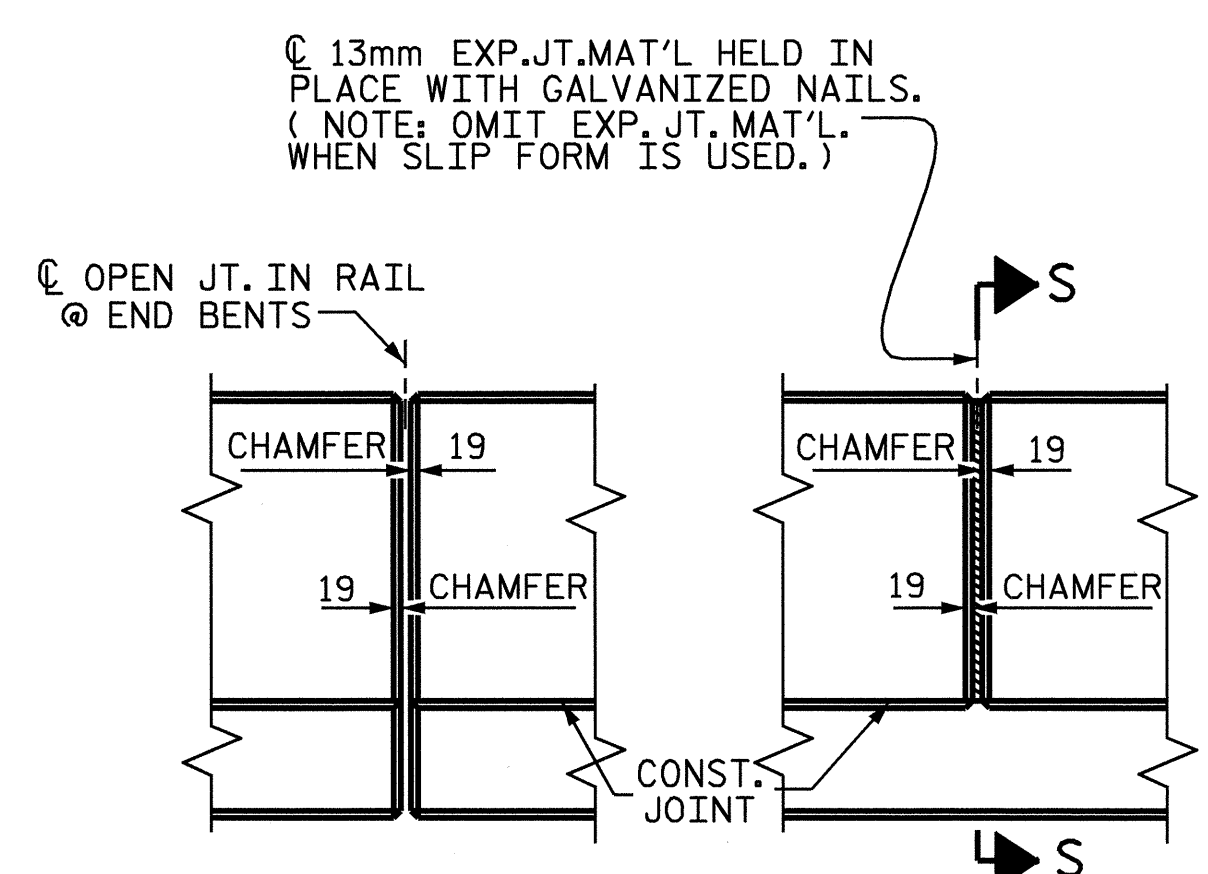
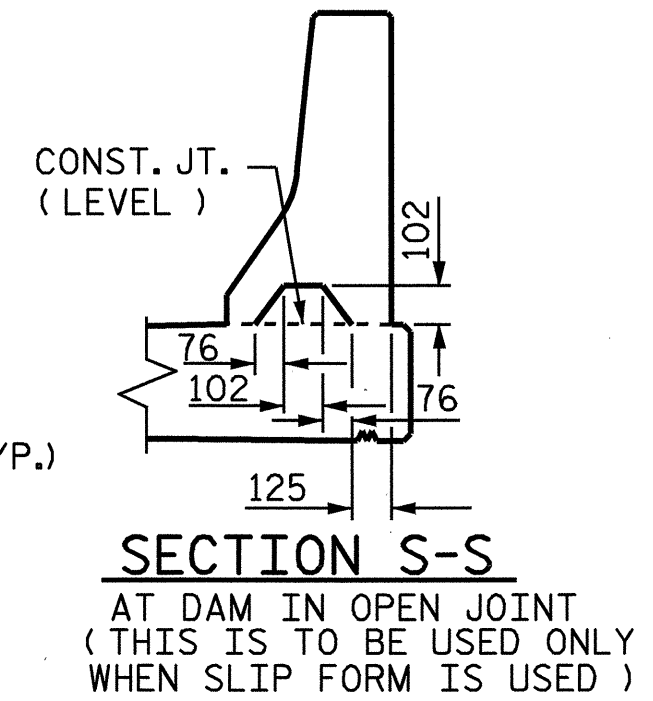
**PLAN FOR END OF BARRIER RAIL**  
END BENT 1 SHOWN, END BENT 2 SIMILAR.



**END VIEW BARRIER RAIL END OF RAIL DETAILS**

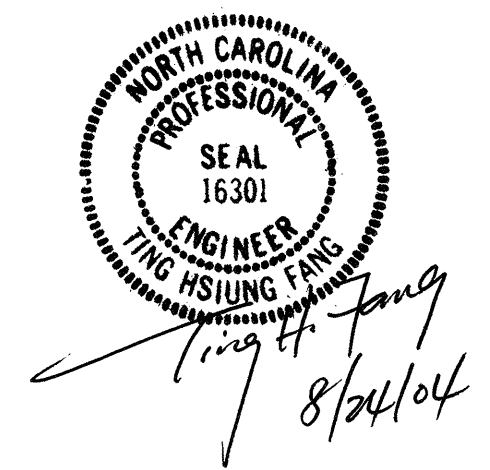


**SECTION THRU RAIL**



**ELEVATION AT EXPANSION JOINTS BARRIER RAIL DETAILS**

PROJECT NO. R-513A  
ROBESON COUNTY  
STATION: 68+75.743 -L-



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

**STANDARD CONCRETE BARRIER RAIL**

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			5-92
2			4			TOTAL SHEETS 172

ASSEMBLED BY : N. Q. TRAN	DATE : 10-17-02
CHECKED BY : T. A. WALTER	DATE : 12-30-02
DRAWN BY : ARB 5/87	REV. 5/16/97 EEM/RGW
CHECKED BY : SJD 9/87	REV. 7/17/98 RWW/LES
	REV. 8/16/99 RWW/LES