

PLAN

* ARC DIMENSION ALONG OUTSIDE EDGE OF SUPERSTRUCTURE

NOTES

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

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

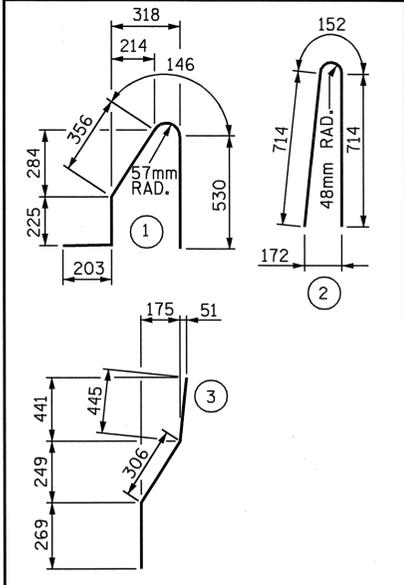
ALL REINFORCING STEEL IN BARRIER RAILS SHALL BE EPOXY COATED.

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 #16S3 AND #16S4 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 6.1m IN LENGTH AND NO JOINTS ARE REQUIRED FOR THOSE SEGMENTS LESS THAN 3.5m IN LENGTH.

#16S1 & #16S2 MAY BE SHIFTED SLIGHTLY AS NECESSARY TO MAINTAIN 50mm COVER AT 13mm EXPANSION JOINTS IN RAIL.

BAR TYPES

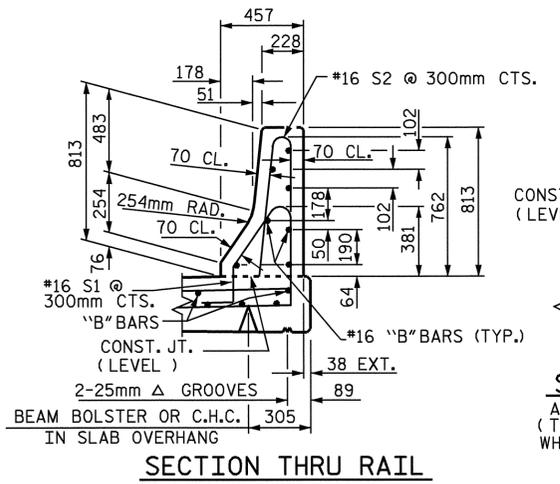


ALL BAR DIMENSIONS ARE OUT TO OUT

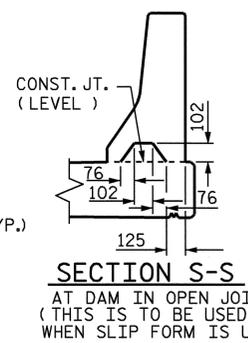
BILL OF MATERIAL

FOR CONCRETE BARRIER RAIL ONLY

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
*B1	56	#16	STR	7160	622
*S1	184	#16	1	1460	417
*S2	184	#16	2	1580	451
*S3	12	#16	3	1020	19
*S4	12	#16	STR	940	18
*EPOXY COATED REINFORCING STEEL					1527 kg
CLASS AA CONCRETE				14.6 CU. METERS	
CONCRETE BARRIER RAIL					58.275 METERS

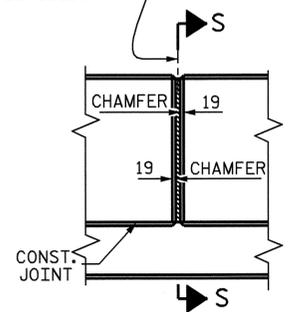


SECTION THRU RAIL

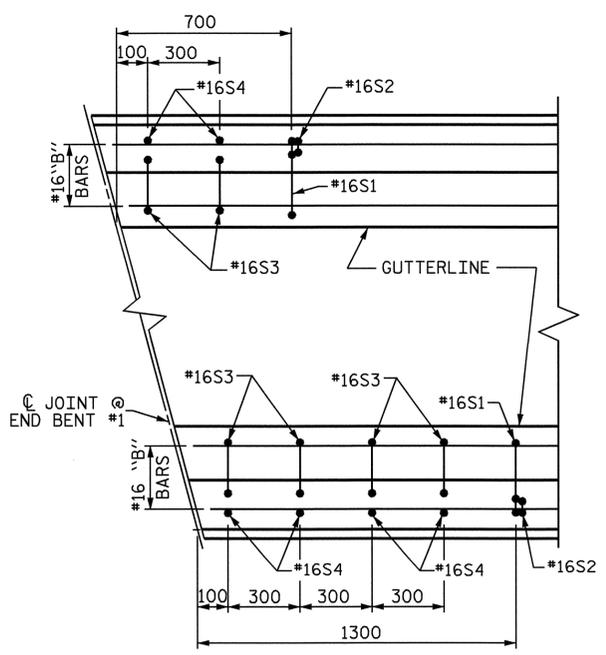


SECTION S-S
 AT DAM IN OPEN JOINT
 (THIS IS TO BE USED ONLY
 WHEN SLIP FORM IS USED)

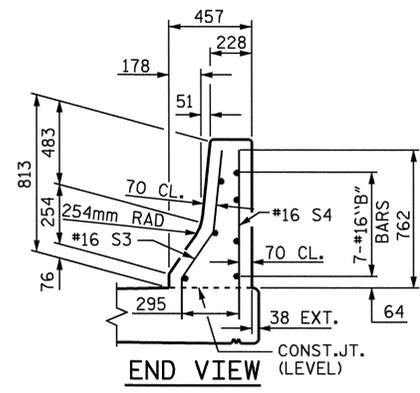
13mm EXP. JT. MAT'L HELD IN PLACE WITH GALVANIZED NAILS.
 (NOTE: OMIT EXP. JT. MAT'L. WHEN SLIP FORM IS USED.)



ELEVATION AT EXPANSION JOINTS
BARRIER RAIL DETAILS



PLAN
 (END BENT #1 SHOWN,
 END BENT #2 SIMILAR)

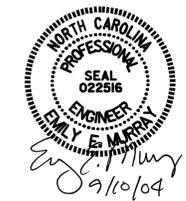


END VIEW

END OF RAIL DETAILS
 (FOR ADHESIVE ANCHORING AT SAWS JOINTS)

PROJECT NO. R-2206C
 LINCOLN-CATAWBA COUNTY
 STATION: 245+91.502 -L-

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUPERSTRUCTURE
 CONCRETE
 BARRIER RAIL
 RIGHT LANE



REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	DATE:	S-290
1			3		TOTAL SHEETS
2			4		374

DRAWN BY: M. M. PARSONS DATE: 4/25/03
 CHECKED BY: T. AVERETTE DATE: 3/29/04