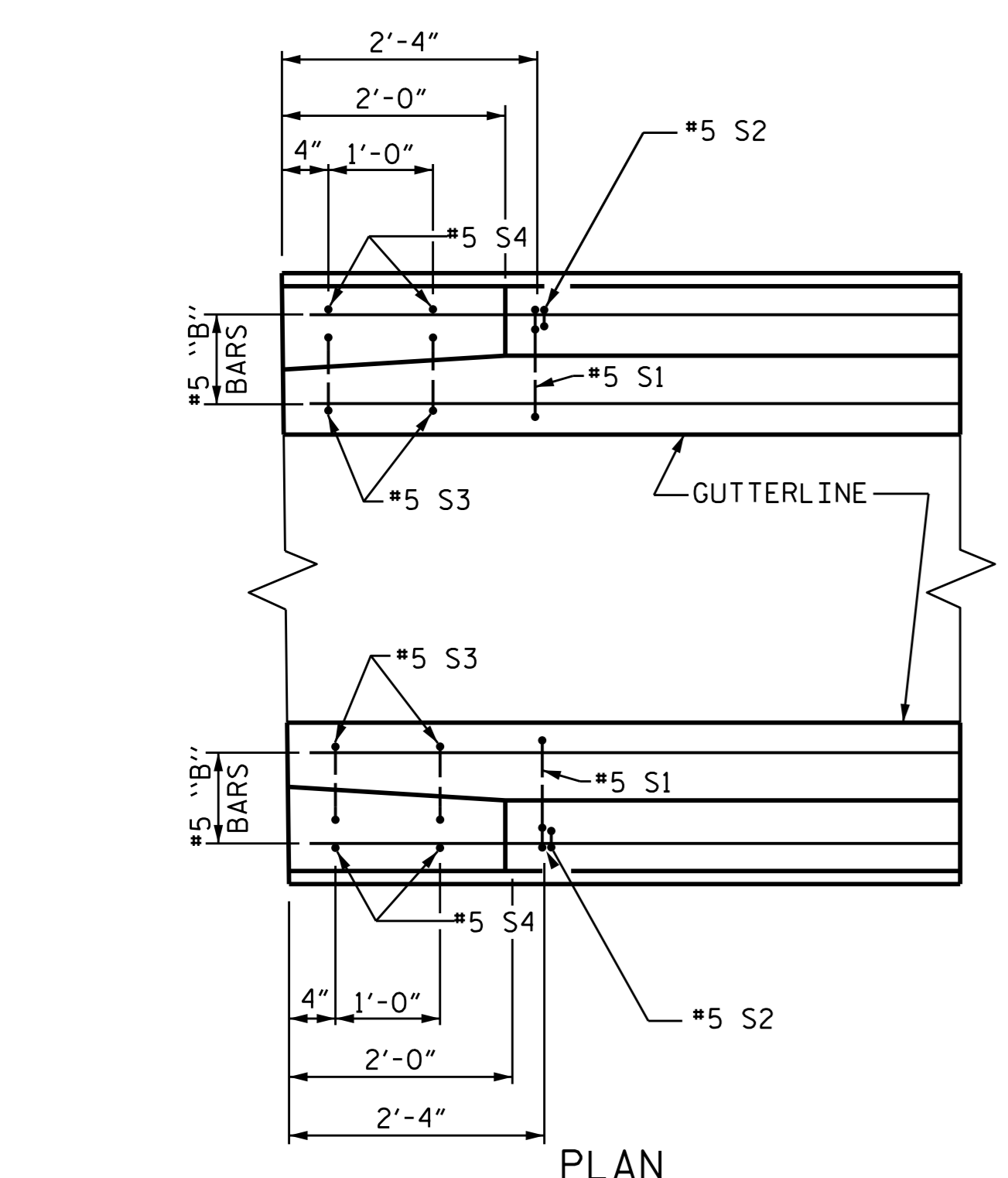
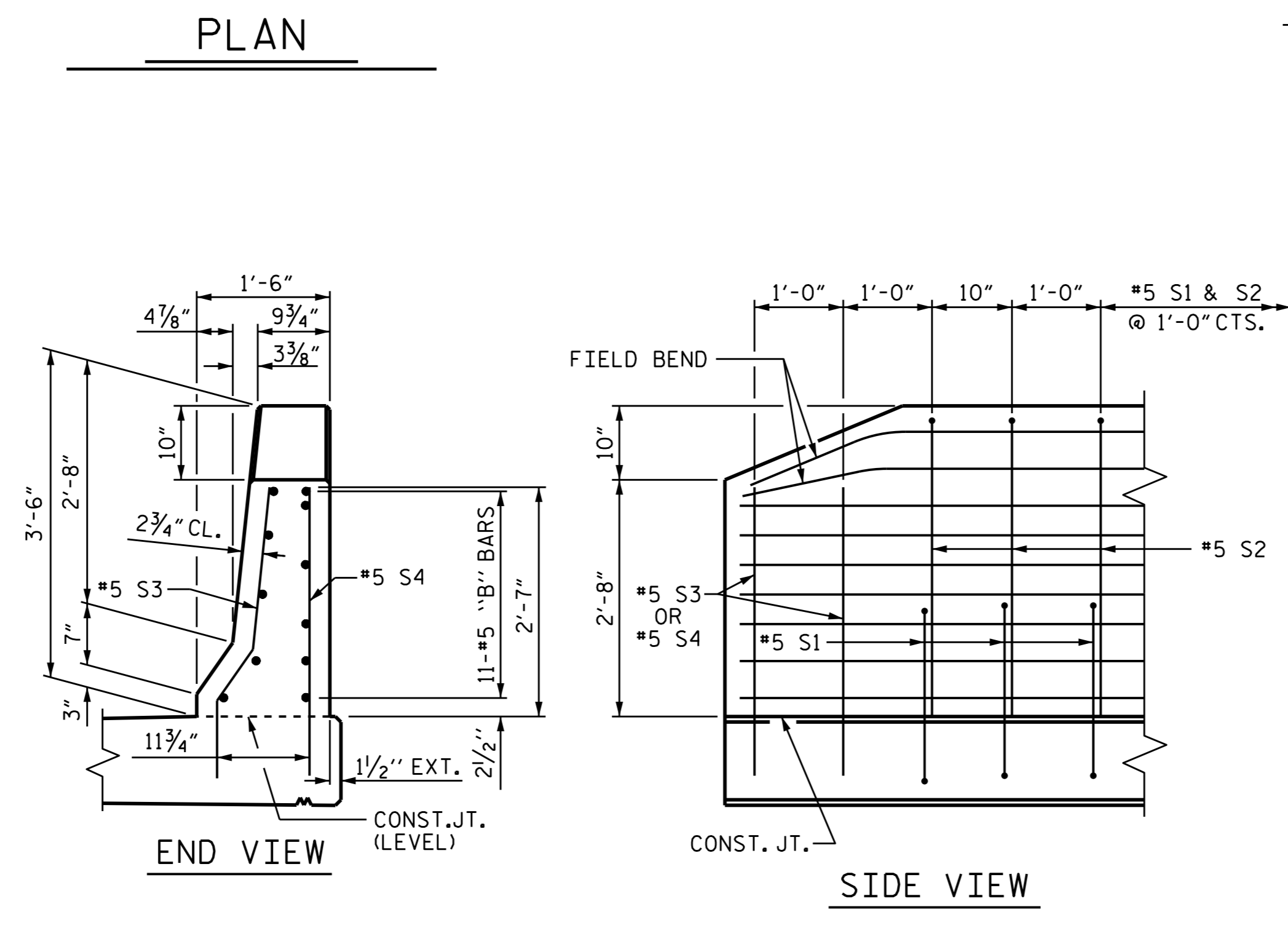


PLAN



PLAN



END OF RAIL DETAILS

FOR ADHESIVE ANCHORING AT SAWED JOINTS

NOTES

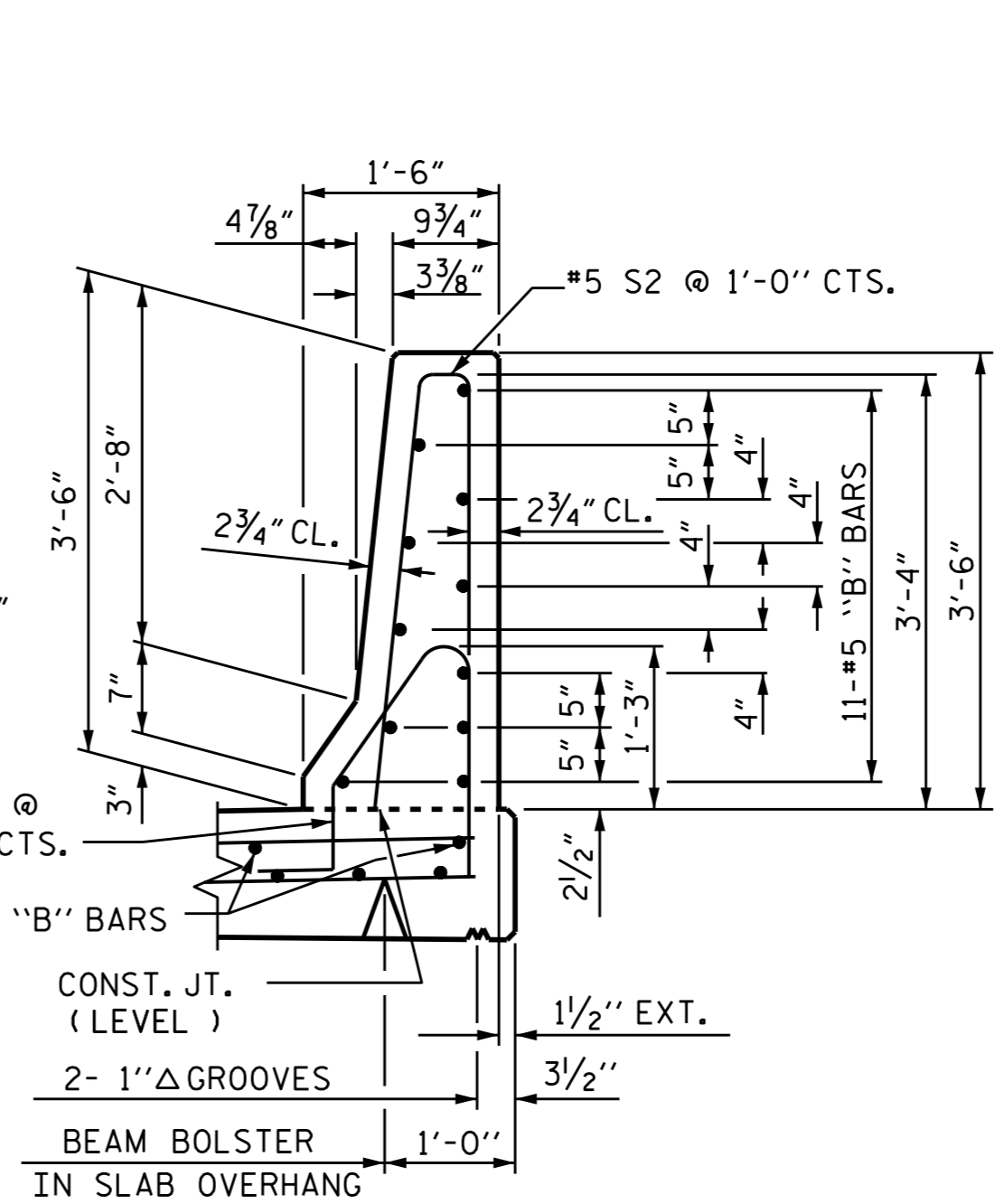
THE BARRIER RAIL IN EACH SPAN SHALL NOT BE CAST UNTIL ALL SLAB CONCRETE IN THAT SPAN HAS BEEN CAST AND HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.

ALL REINFORCING STEEL IN BARRIER RAILS SHALL BE EPOXY COATED.

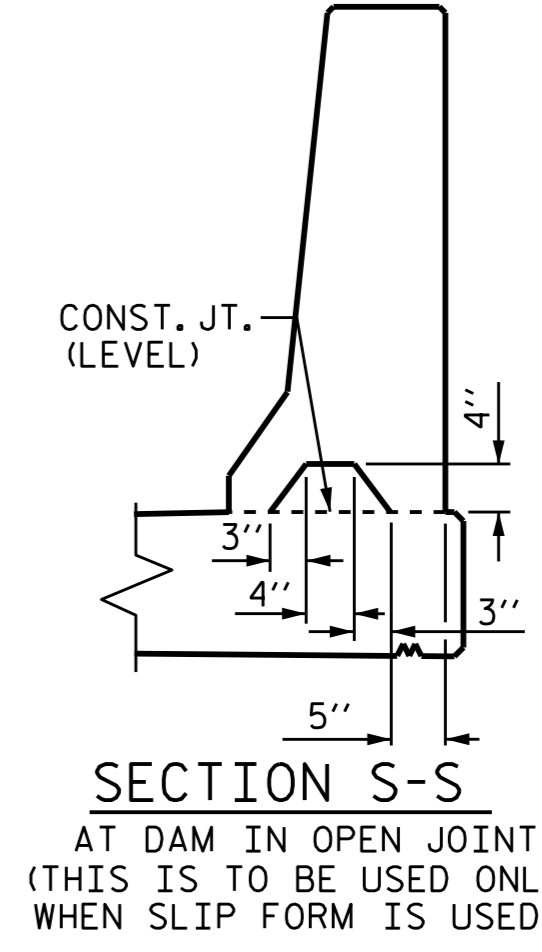
GROOVED CONTRACTION JOINTS, 1/2" IN DEPTH, SHALL BE TOOLED IN ALL EXPOSED FACES OF THE BARRIER RAIL AND IN ACCORDANCE WITH ARTICLE 825-10(B) OF THE STANDARD SPECIFICATIONS. THE CONTRACTION JOINT SHALL BE LOCATED AT EACH THIRD POINT BETWEEN BARRIER RAIL EXPANSION JOINTS. ONLY ONE CONTRACTION JOINT IS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

#5 S1 AND #5 S2 BARS MAY BE SHIFTED SLIGHTLY IN ORDER TO MAINTAIN A 2" MINIMUM CLEARANCE TO THE 1/2" EXPANSION JOINT MATERIAL IN RAIL.

THE #5 S3 AND #5 S4 BARS SHALL BE INSTALLED, USING AN ADHESIVE ANCHORING SYSTEM, AFTER SAWING THE JOINT. 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.

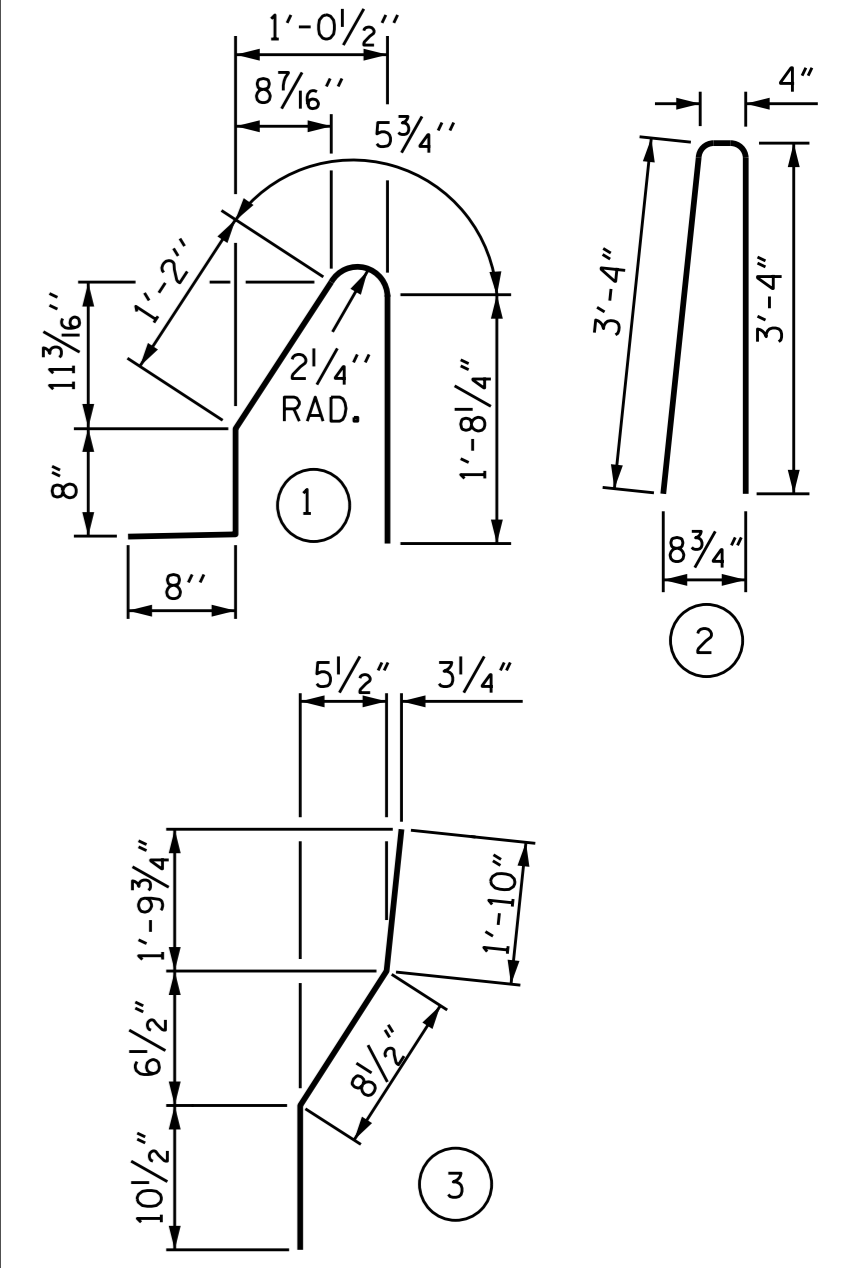


SECTION THRU RAIL



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

BAR TYPES



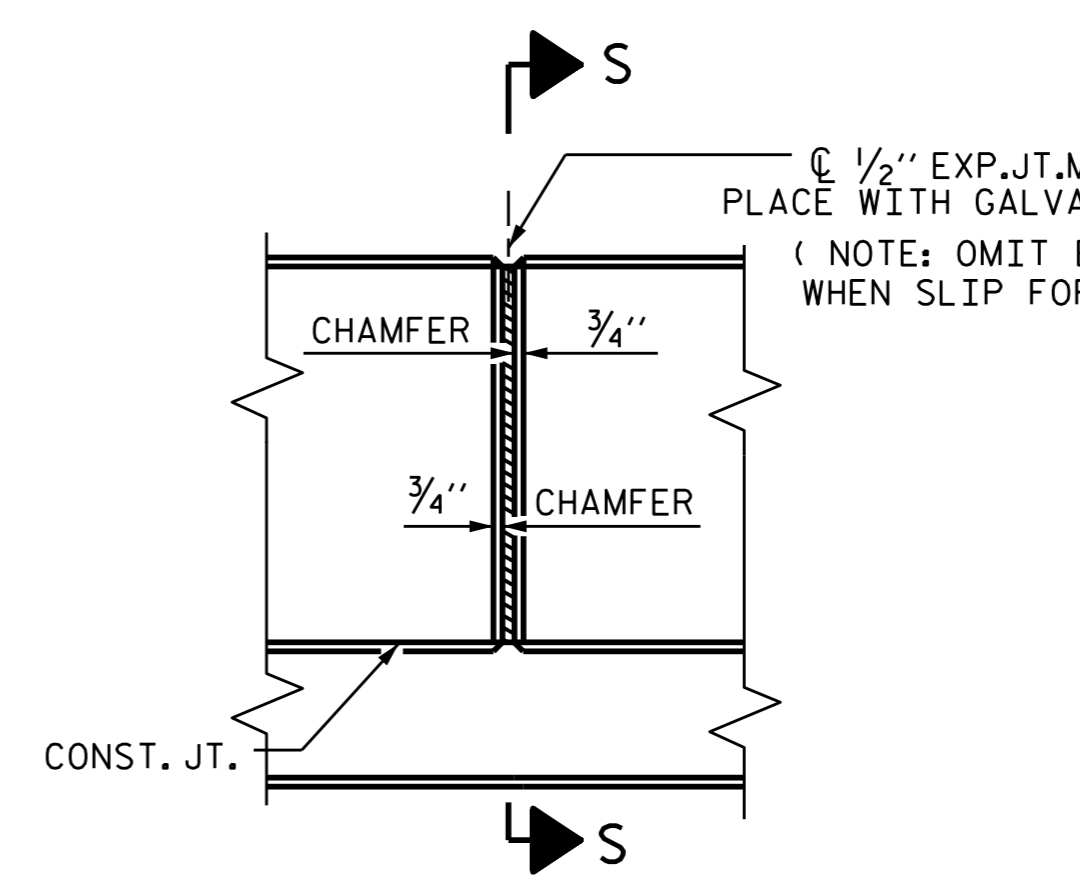
ALL BAR DIMENSIONS ARE OUT TO OUT

BILL OF MATERIAL

FOR CONCRETE BARRIER RAIL ONLY

BAR NO.	SIZE	TYPE	LENGTH	WEIGHT
* B1	22	#5 STR	13'-11"	319
* B2	132	#5 STR	24'-7"	3385
* B3	22	#5 STR	18'-9"	430
* S1	360	#5 1	4'-8"	1752
* S2	360	#5 2	7'-0"	2628
* S3	8	#5 3	3'-5"	29
* S4	8	#5 STR	3'-3"	27

* EPOXY COATED REINFORCING STEEL 8570 LBS.
CLASS AA CONCRETE 50.3 CU. YDS.
CONCRETE BARRIER RAIL 367.08 LIN. FT.



ELEVATION AT EXPANSION JOINTS
BARRIER RAIL DETAILS



Designed by:
Tim Higgins
DEFDAND8FA7B
3/23/2015

PROJECT NO. R-2514D
JONES & CRAVEN COUNTY
STATION: 28+29.35 -Y10-

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARD
CONCRETE
BARRIER RAIL
(LEFT LANE)

REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S15-017	
1			3			TOTAL SHEETS 30	
2			4				

DRAWN BY : D.G. ELY DATE : 2/3/15
CHECKED BY : G. DICKEY DATE : 2/4/15
DESIGN ENGINEER OF RECORD: *plamreza* DATE : 2/20/15

DRAWN BY : ARB 5/87 MAA/GM
CHECKED BY : SJD 9/87 REV. 10/1/11 MAA/GM
REV. 7/12 MAA/GM
REV. 6/13 MAA/GM