

PLAN

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.

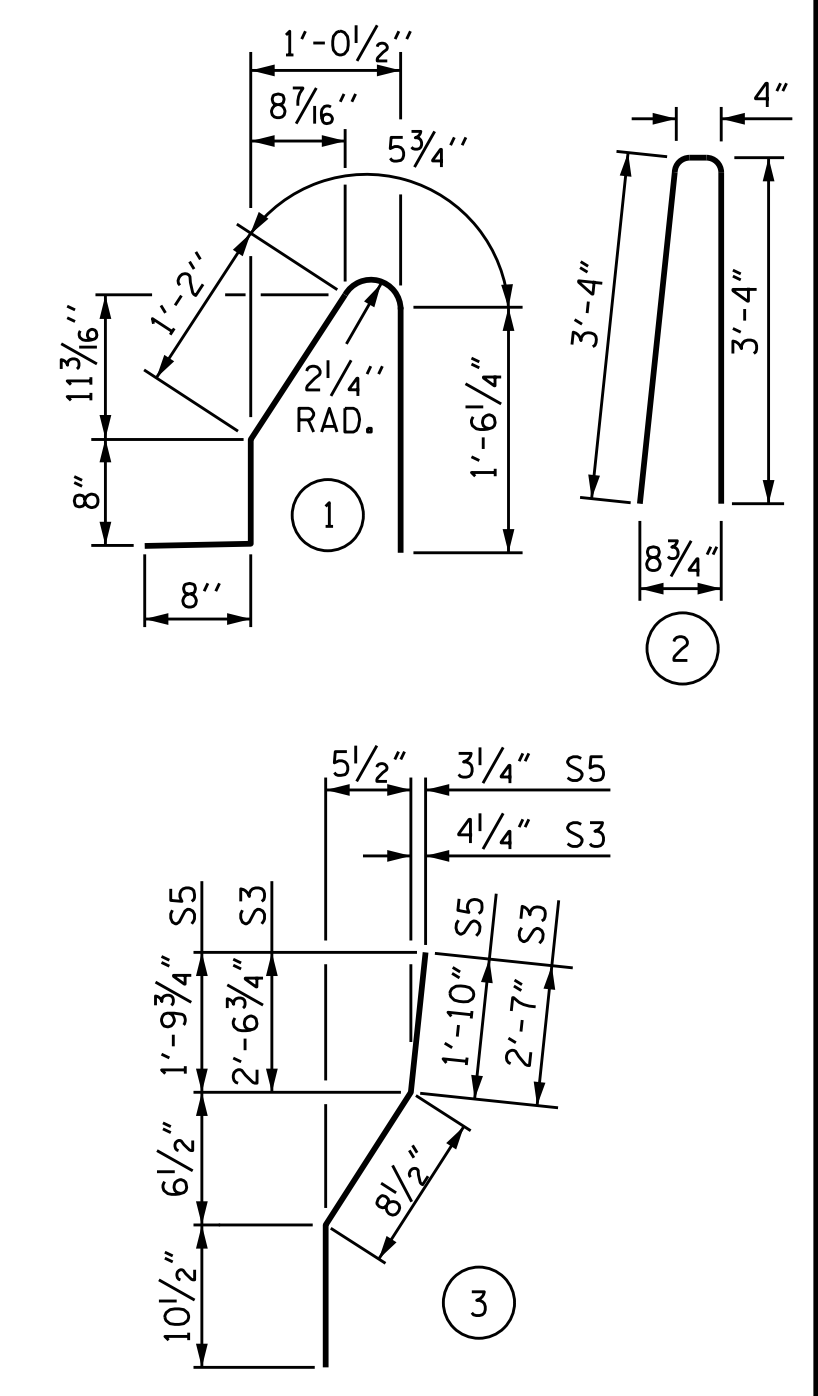
ALL REINFORCING STEEL IN BARRIER RAILS SHALL BE EPOXY COATED.

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 TEN FEET IN LENGTH.

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

THE *5S3, *5S4, *5S5 AND *5S6 BARS SHALL BE INSTALLED USING AN ADHESIVE ANCHORING SYSTEM AFTER SAWING THE JOINT. THE YIELD LOAD FOR THE *5S3, *5S4, *5S5 AND *5S6 BARS IS 18.6 KIPS. FIELD TESTING FOR THE ADHESIVE BONDING SYSTEM IS NOT REQUIRED.

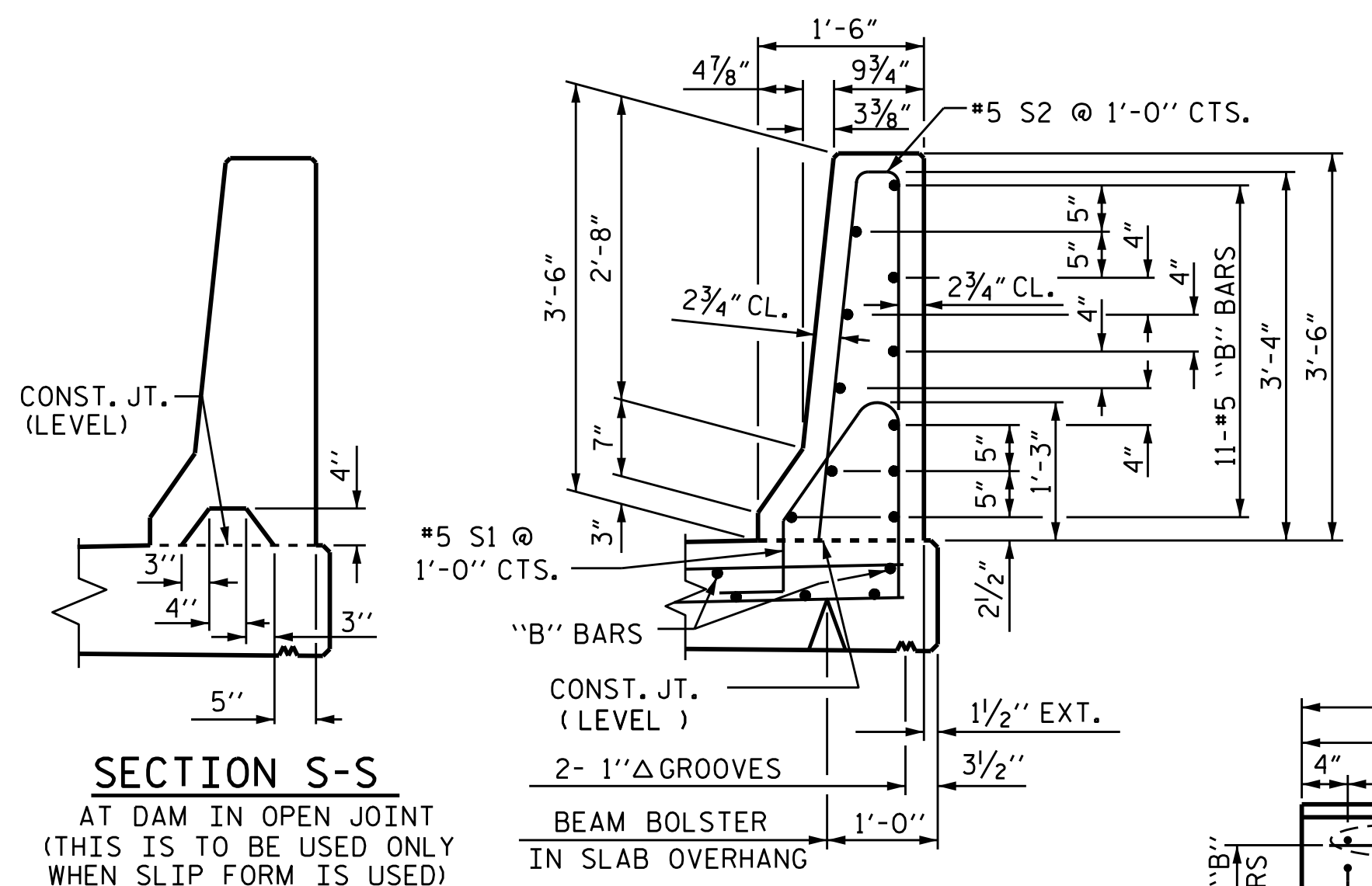
BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT.

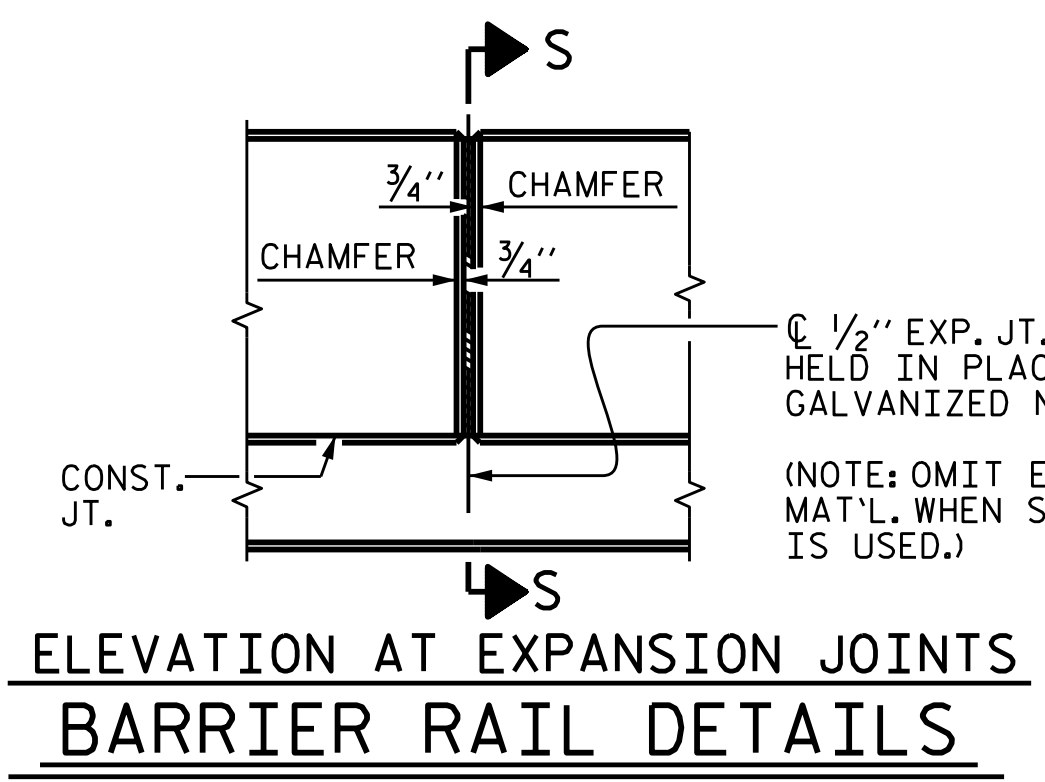
BILL OF MATERIAL

FOR CONCRETE BARRIER RAIL ONLY					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
*B1	198	#5	STR.	19'-6"	4,027
*B2	44	#5	STR.	13'-9"	631
*S1	406	#5	1	4'-6"	1,906
*S2	406	#5	2	7'-0"	2,964
*S3	4	#5	3	4'-2"	17
*S4	4	#5	STR	4'-0"	17
*S5	8	#5	3	3'-5"	29
*S6	8	#5	STR	3'-3"	27
* EPOXY COATED REINFORCING STEEL					9,618 LBS.
CLASS A CONCRETE					56.7 CU. YDS.
CONCRETE BARRIER RAIL					416.67 LIN. FT.

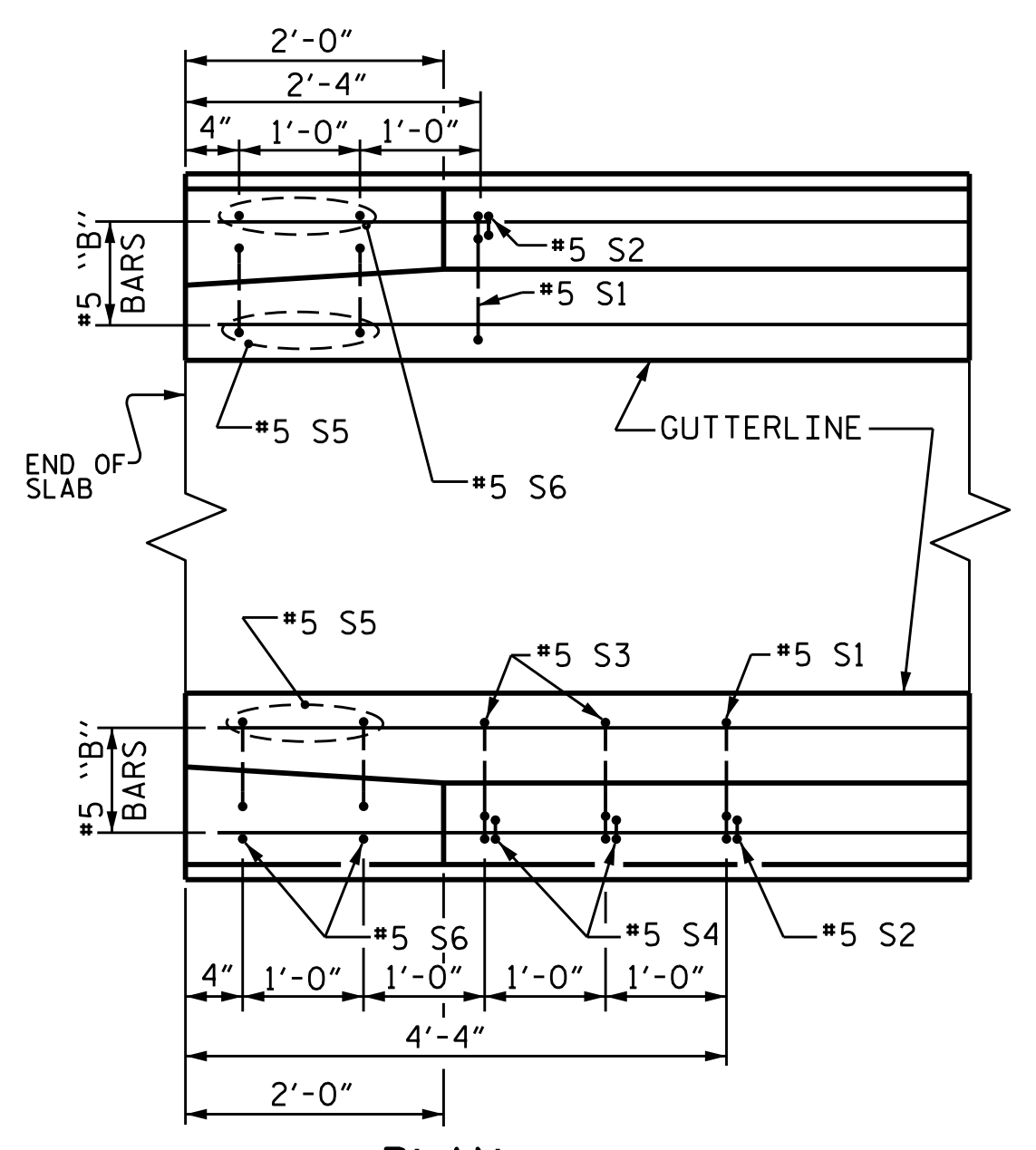


SECTION S-S
AT DAM IN OPEN JOINT
(THIS IS TO BE USED ONLY
WHEN SLIP FORM IS USED)

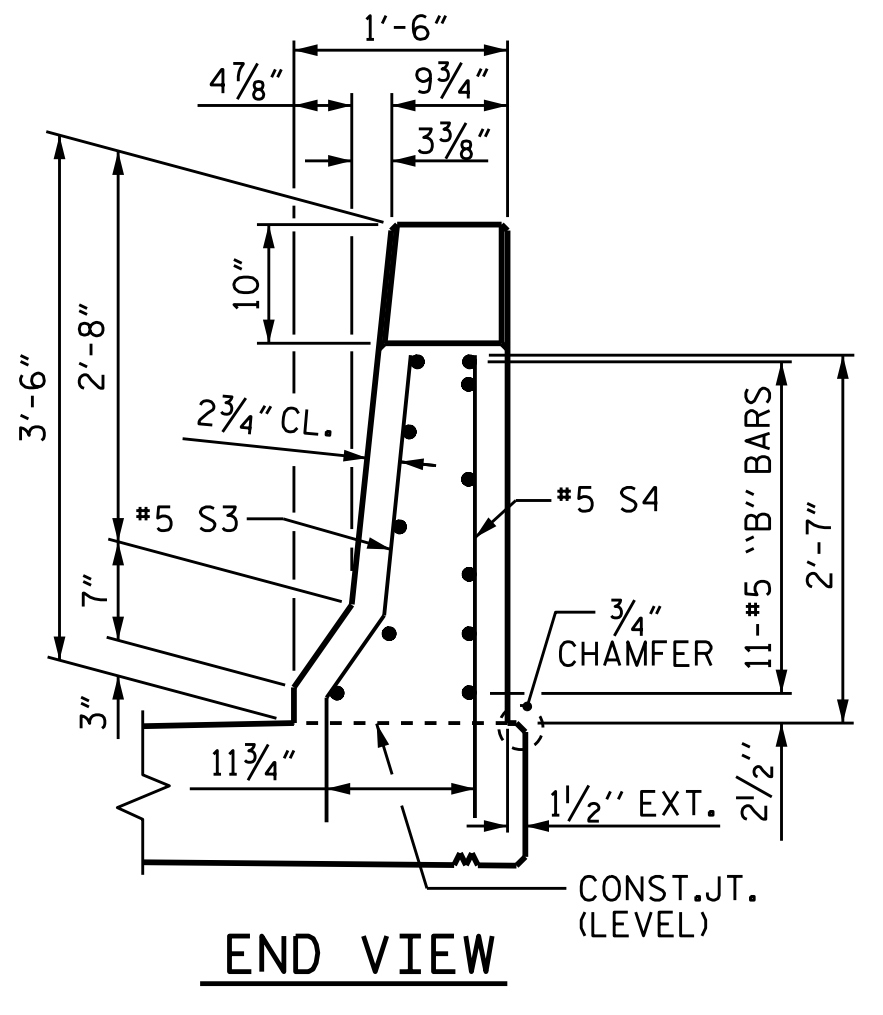
SECTION THRU RAIL



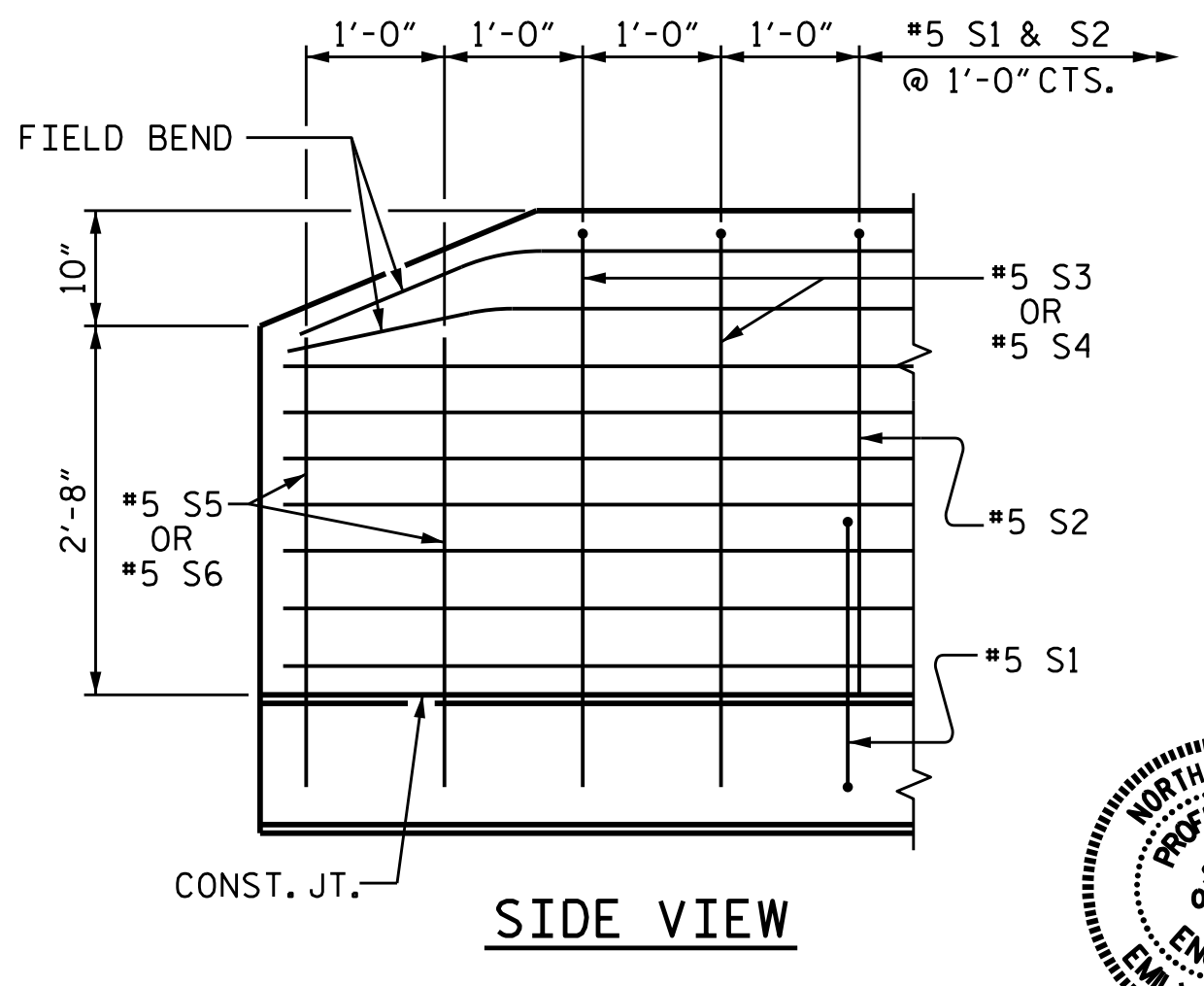
ELEVATION AT EXPANSION JOINTS
BARRIER RAIL DETAILS



PLAN

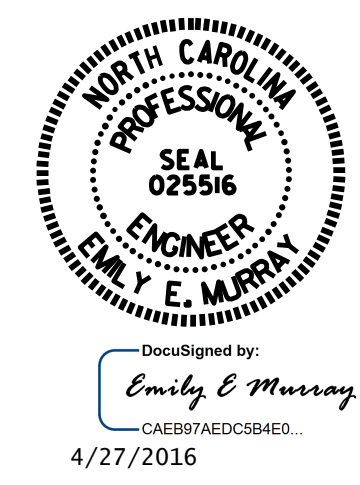


END VIEW



SIDE VIEW

END OF RAIL DETAILS
FOR ADHESIVE ANCHORING AT RAIL ENDS



PROJECT NO. B-4761
HALIFAX COUNTY
STATION: 20+11.00 -L-

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

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-17
1			3			TOTAL SHEETS 31
2			4			

DRAWN BY: M.D.PISO DATE: 6-08-2015
CHECKED BY: N.RUFFIN DATE: 7-31-2015
DESIGN ENGINEER OF RECORD: G. KOUCHEKI DATE: 3/14/16

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED