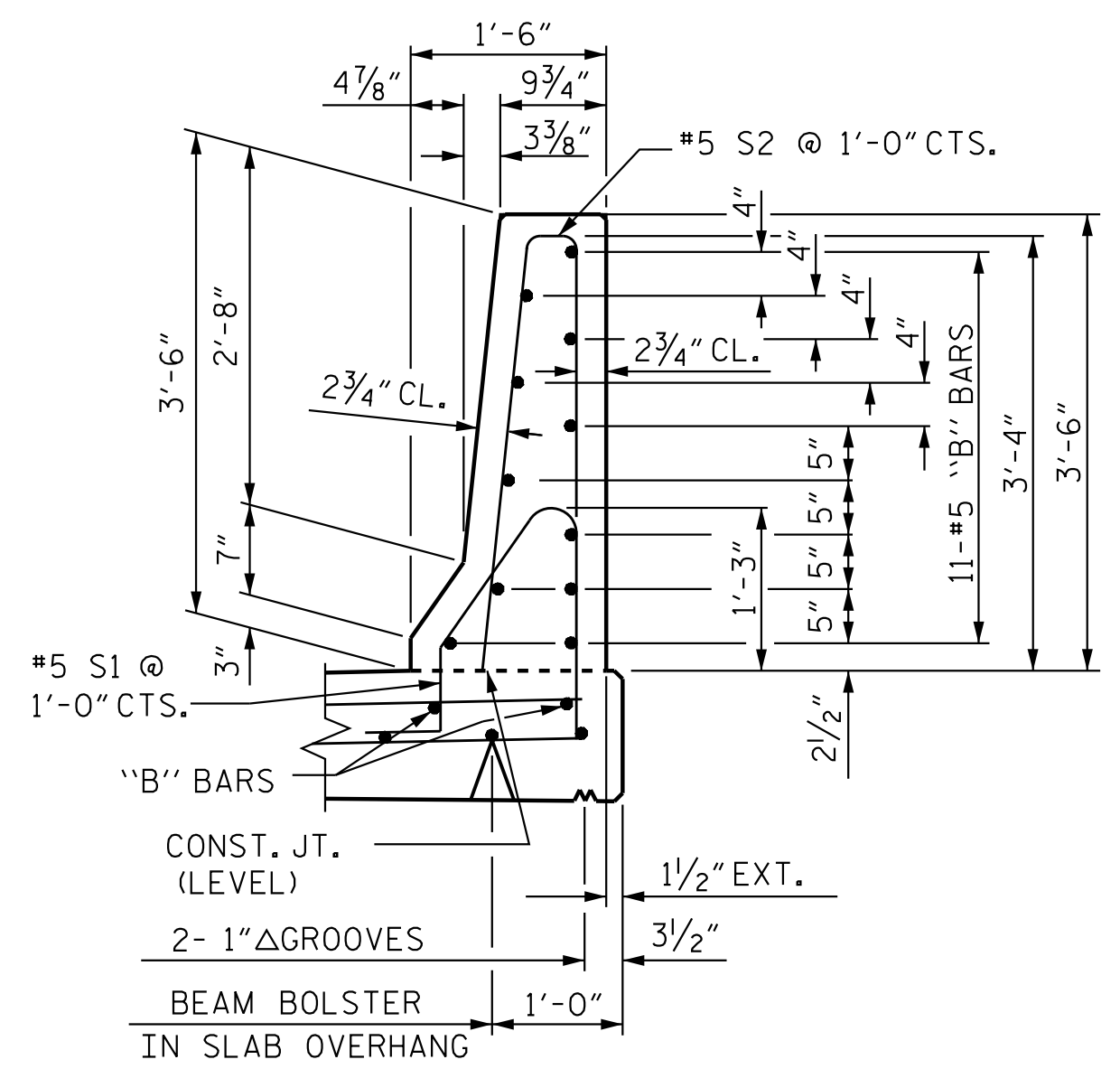
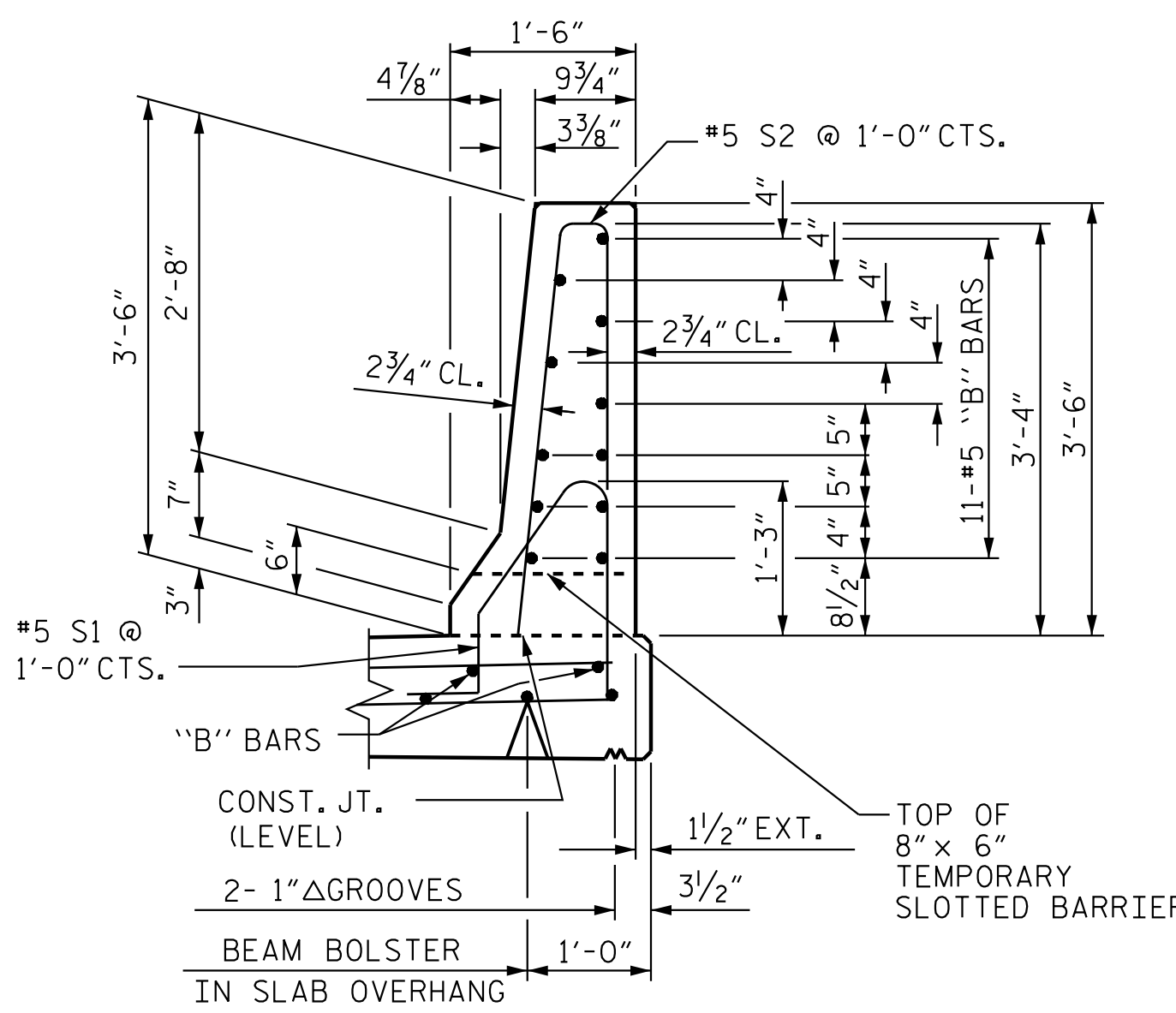


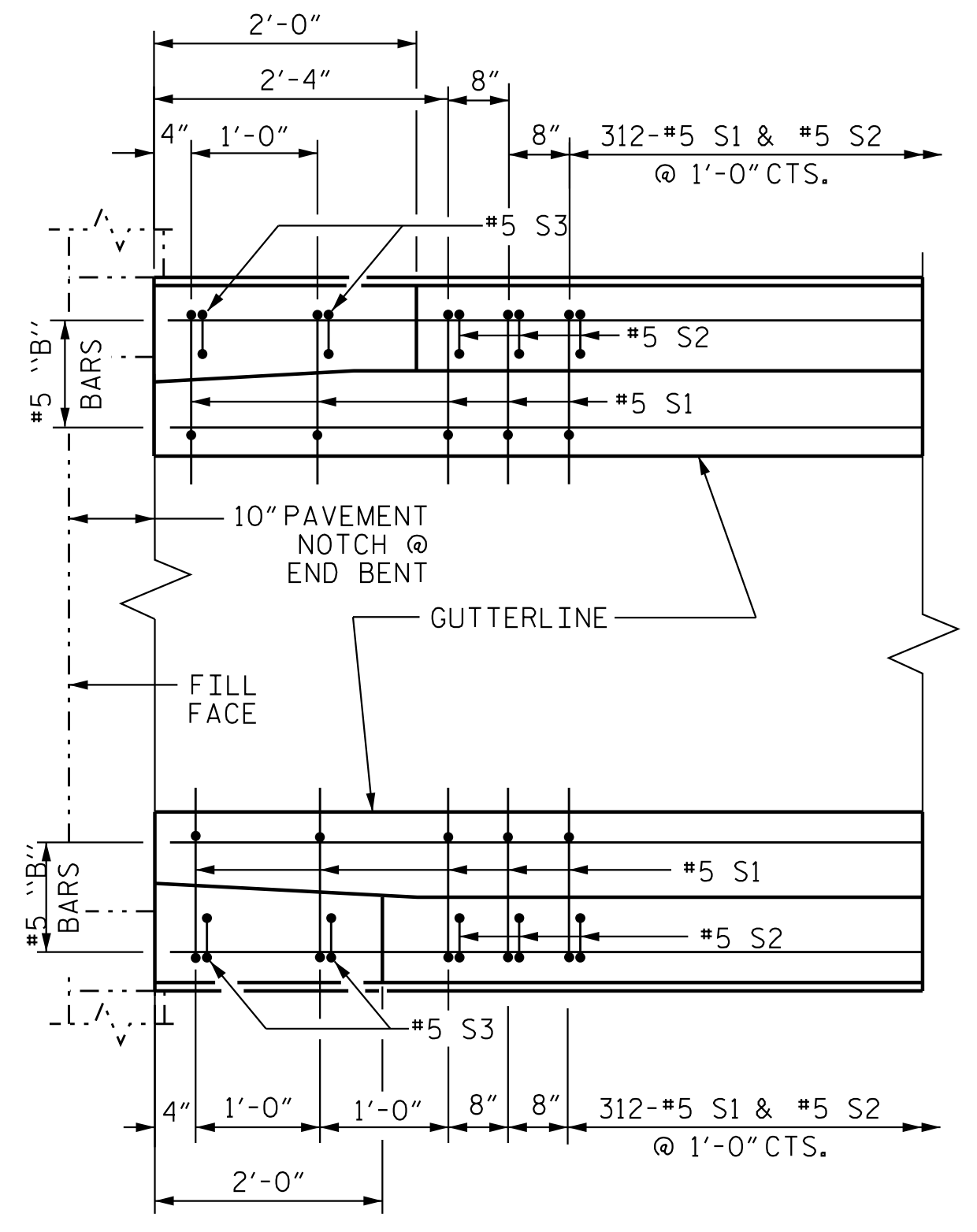
5/9/2023 2:04:04 PM jHagenbush



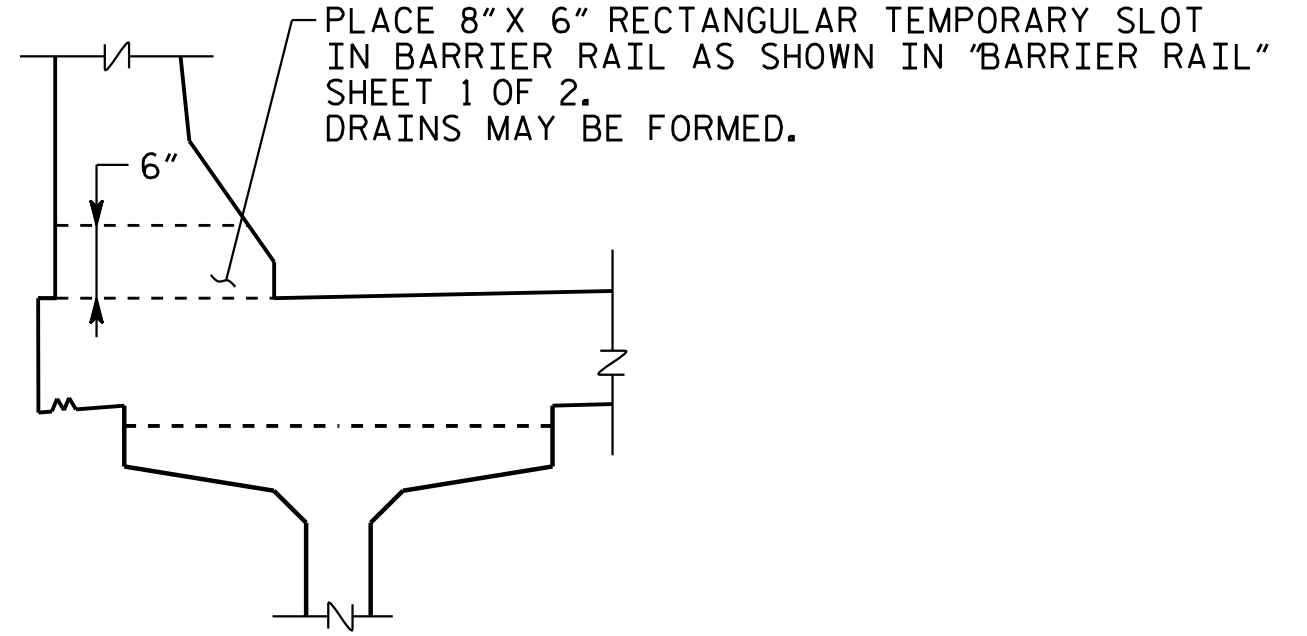
TYPICAL SECTION THRU RAIL



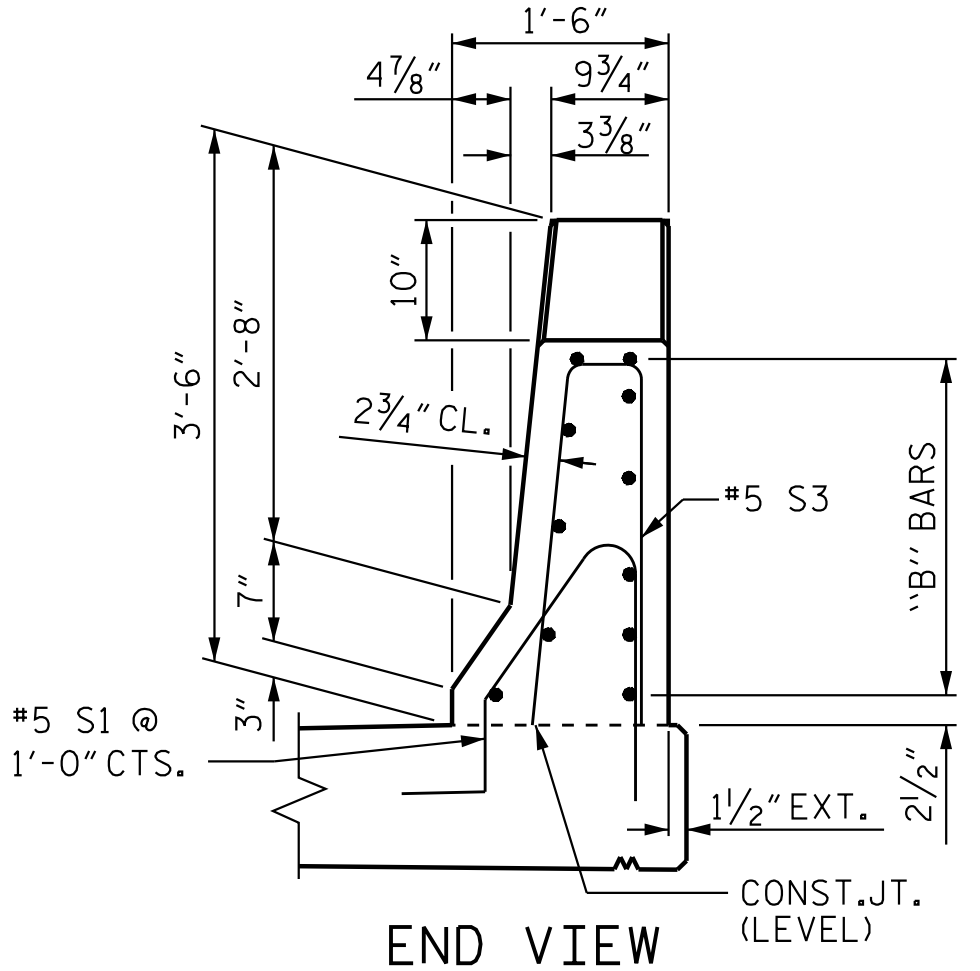
SECTION THRU RAIL WITH TEMPORARY SLOTS IN BARRIER RAIL



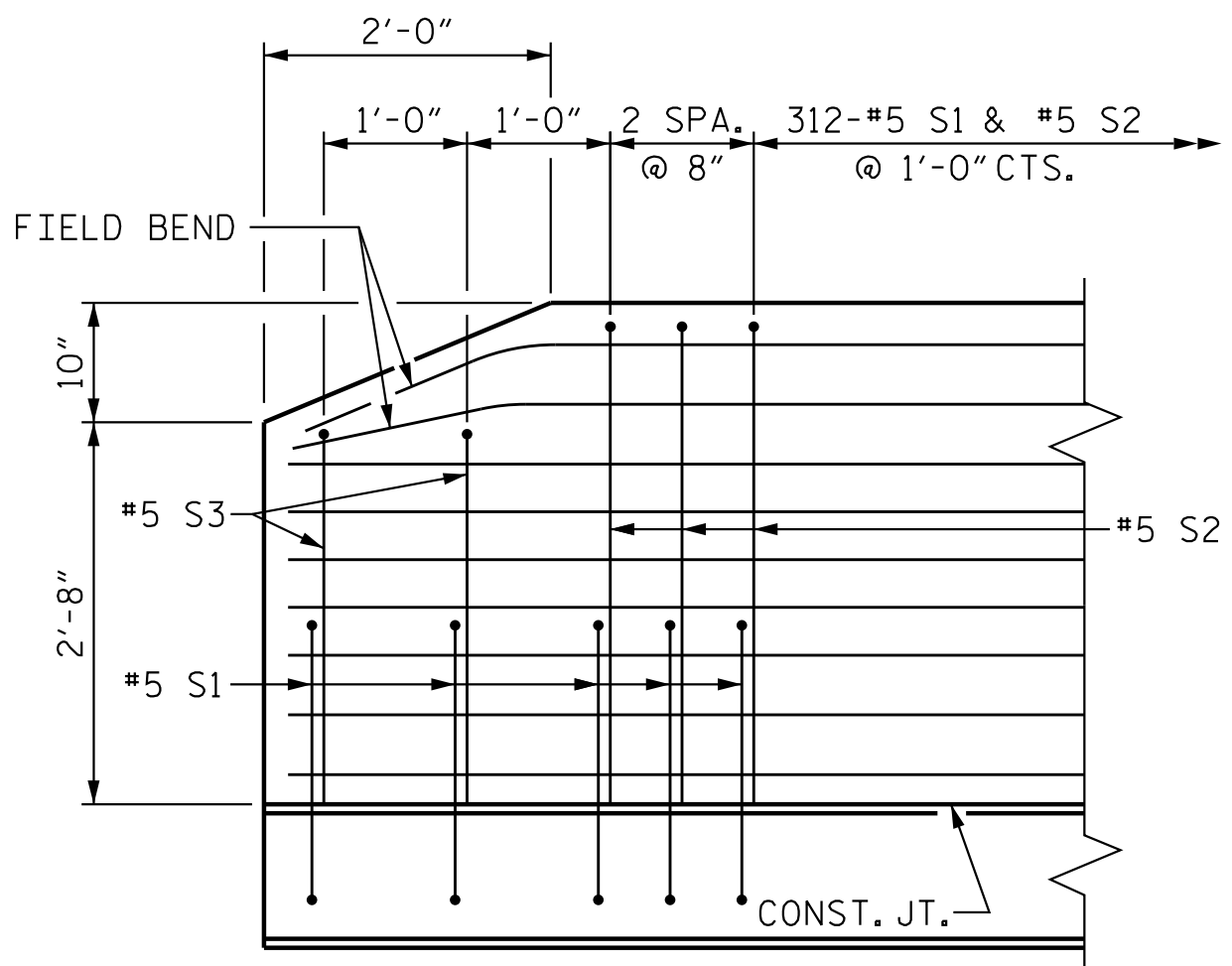
PLAN



TEMPORARY SLOTS IN BARRIER RAIL DETAIL



END VIEW



SIDE VIEW

END OF RAIL DETAILS
RIGHT SIDE AT END BENT 1 SHOWN, LEFT SIDE SIMILAR

NOTES

TEMPORARY SLOTS MAY BE RE-POSITIONED SLIGHTLY AS NECESSARY TO PROVIDE 1" MINIMUM COVER TO #5 S1 AND #5 S2 BARS.

FOR TRAFFIC PHASING OPERATIONS, SEE TRAFFIC CONTROL PLANS AND SPECIAL PROVISIONS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

PRIOR TO PLACEMENT OF GROUT, ALL TEMPORARY SLOTS SHALL BE THOROUGHLY CLEANED AND ALL INTERIOR SURFACES SAND BLASTED TO REMOVE LOOSE MATERIALS AND OTHER CONTAMINANTS. ALL WORK SHALL BE APPROVED BY THE ENGINEER.

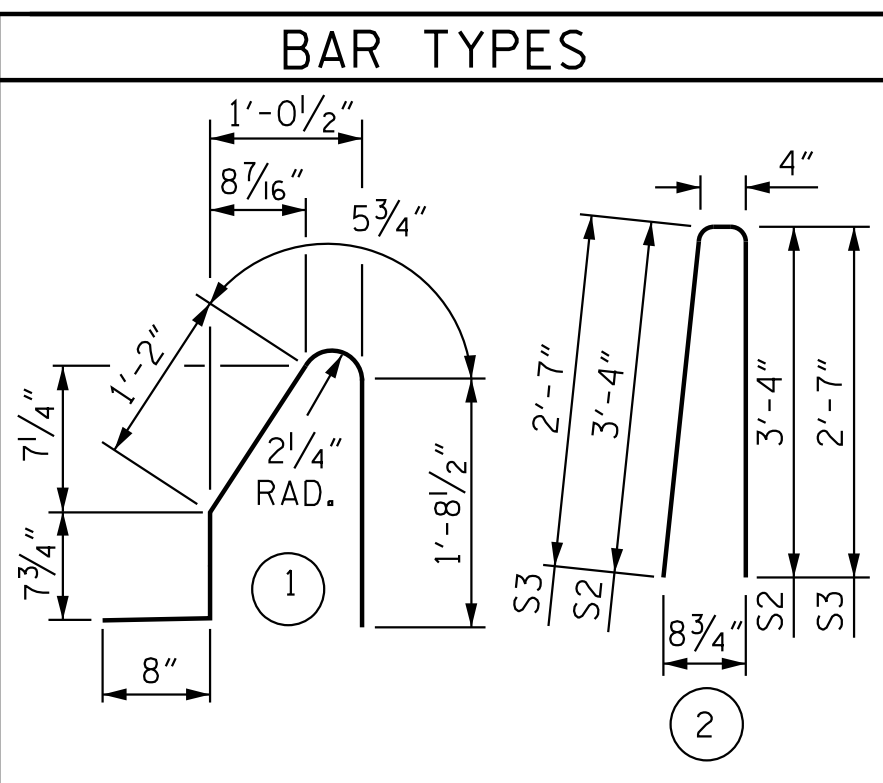
ONCE TEMPORARY TRAFFIC ON THE BRIDGE HAS BEEN SHIFTED INTO THE FINAL PHASE, TEMPORARY SLOTS IN THE BARRIER RAIL SHALL BE FILLED WITH A NON-SHRINK, NON-METALLIC GROUT.

NO SEPARATE PAYMENT FOR MATERIALS, LABOR, AND EQUIPMENT REQUIRED TO FILL TEMPORARY SLOTS SHALL BE MADE. ALL COSTS FOR THIS WORK SHALL BE INCIDENTAL TO THE PRICE OF THE CONCRETE BARRIER RAIL.

THE BARRIER RAIL IN THE 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 10 FEET IN LENGTH.

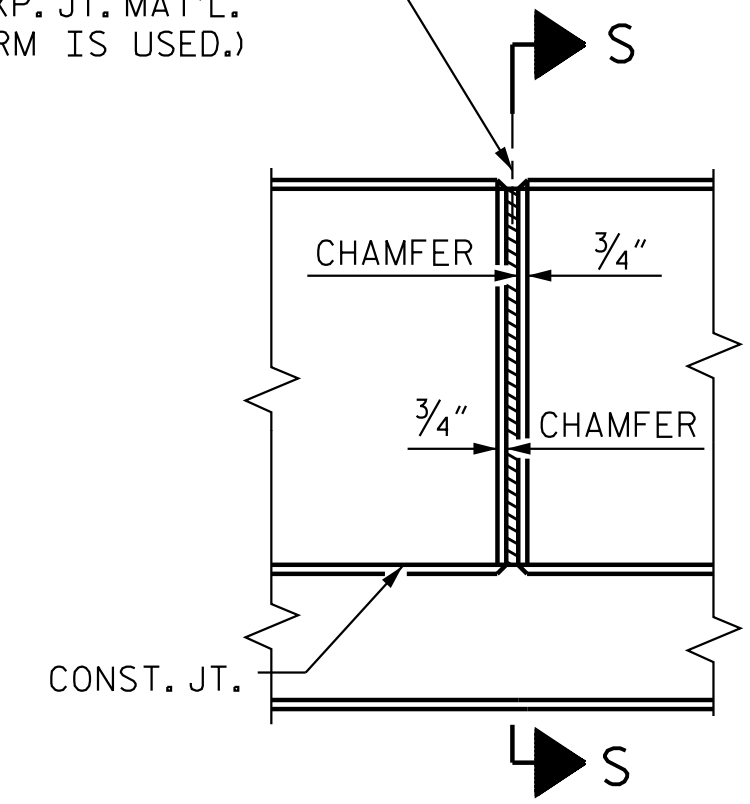


ALL BAR DIMENSIONS ARE OUT TO OUT

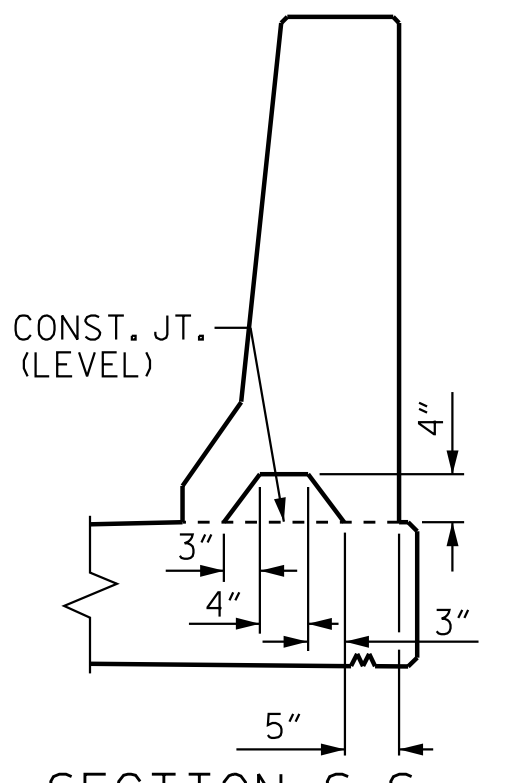
BILL OF MATERIAL

FOR CONCRETE BARRIER RAIL ONLY					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* B1	44	#5	STR	18'-9"	861
* B2	110	#5	STR	29'-7"	3395
* B3	110	#5	STR	25'-7"	2936
* S1	640	#5	1	4'-8"	3116
* S2	632	#5	2	7'-0"	4615
* S3	8	#5	2	5'-6"	46
* EPOXY COATED REINFORCING STEEL					14,969 LBS.
CLASS AA CONCRETE					87.0 CU. YDS.
CONCRETE BARRIER RAIL					636.67 LIN. FT.

@ 1/2" 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



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

PROJECT NO. R-2707D
CLEVELAND COUNTY
STATION: 849+00.00 -L-

SHEET 2 OF 2



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www.stantec.com
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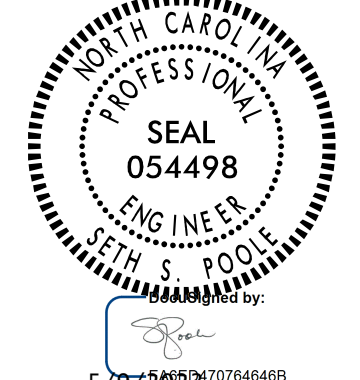
ASSEMBLED BY: J.E. HAGENBUSH DATE: 09/28/18
CHECKED BY: S.S. POOLE DATE: 12/10/22

DRAWN BY: ARB 5/87
CHECKED BY: SJD 9/87

REV. 7/12
REV. 6/13
REV. 12/17

MAA/GM
MAA/GM
MAA/GM

DESIGN ENGINEER
OF RECORD: S.S. POOLE DATE: 05/09/23



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD
CONCRETE
BARRIER RAIL
(LEFT LANE)

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S5-32
1			3			TOTAL SHEETS
2			4			56