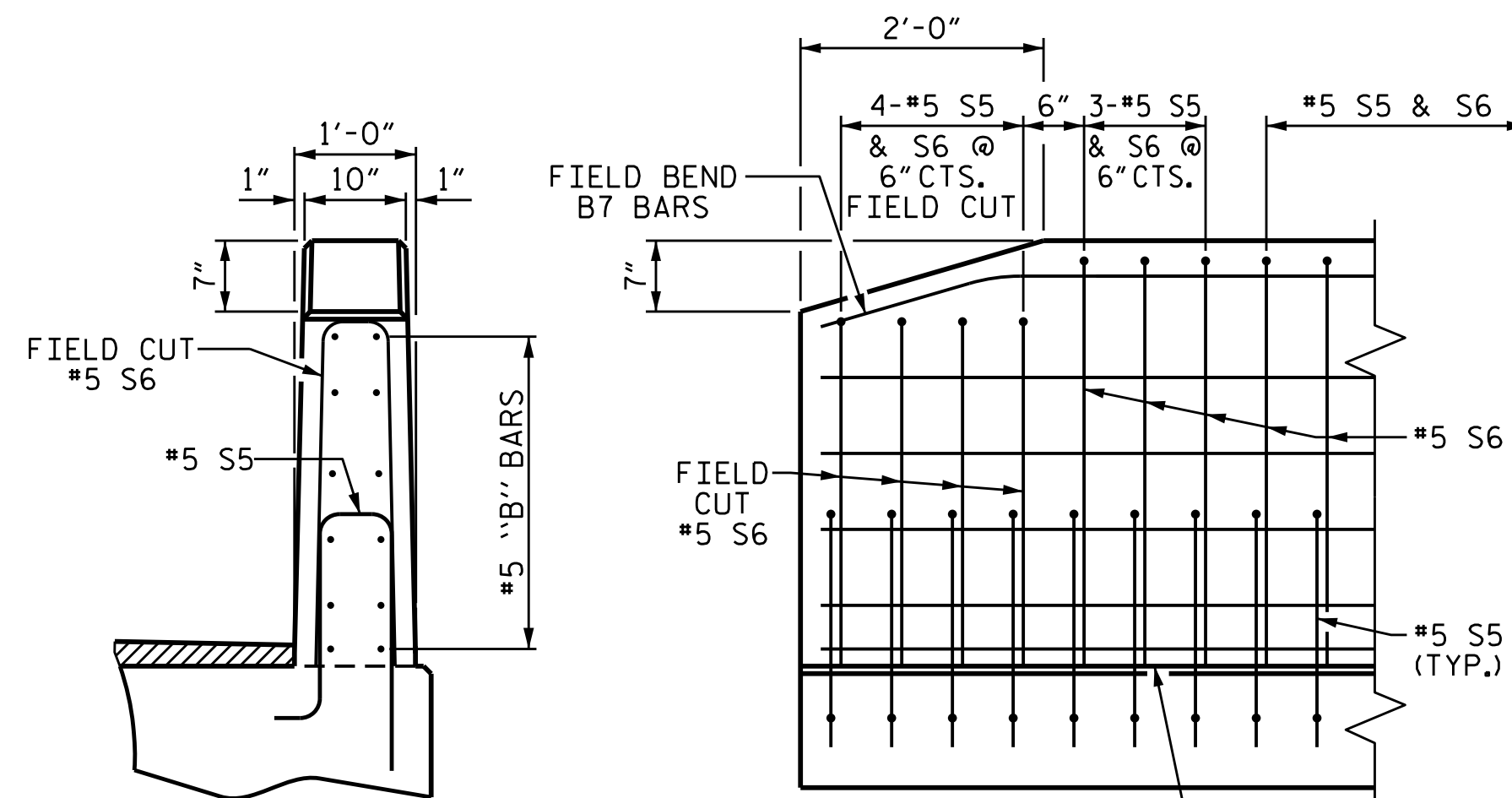


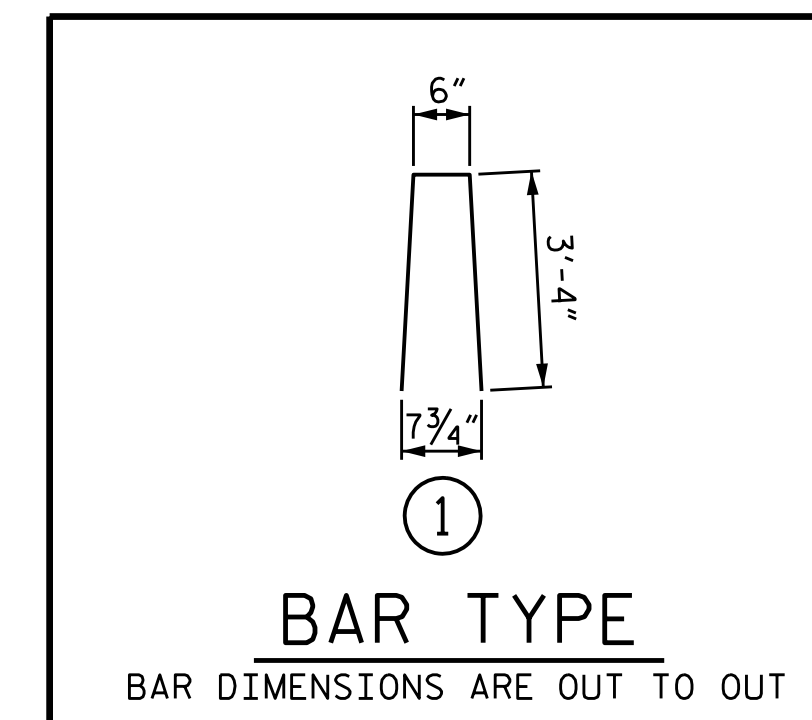
**FIXED END**  
(TYPE II - 20 REQ'D)



**END VIEW**      **SIDE VIEW**  
**END OF RAIL DETAILS**

**BOX BEAM UNITS REQUIRED**

	NUMBER	LENGTH	TOTAL LENGTH
EXTERIOR B.B.	2	75'-0"	150'-0"
INTERIOR B.B.	8	75'-0"	600'-0"
TOTAL	10		750'-0"

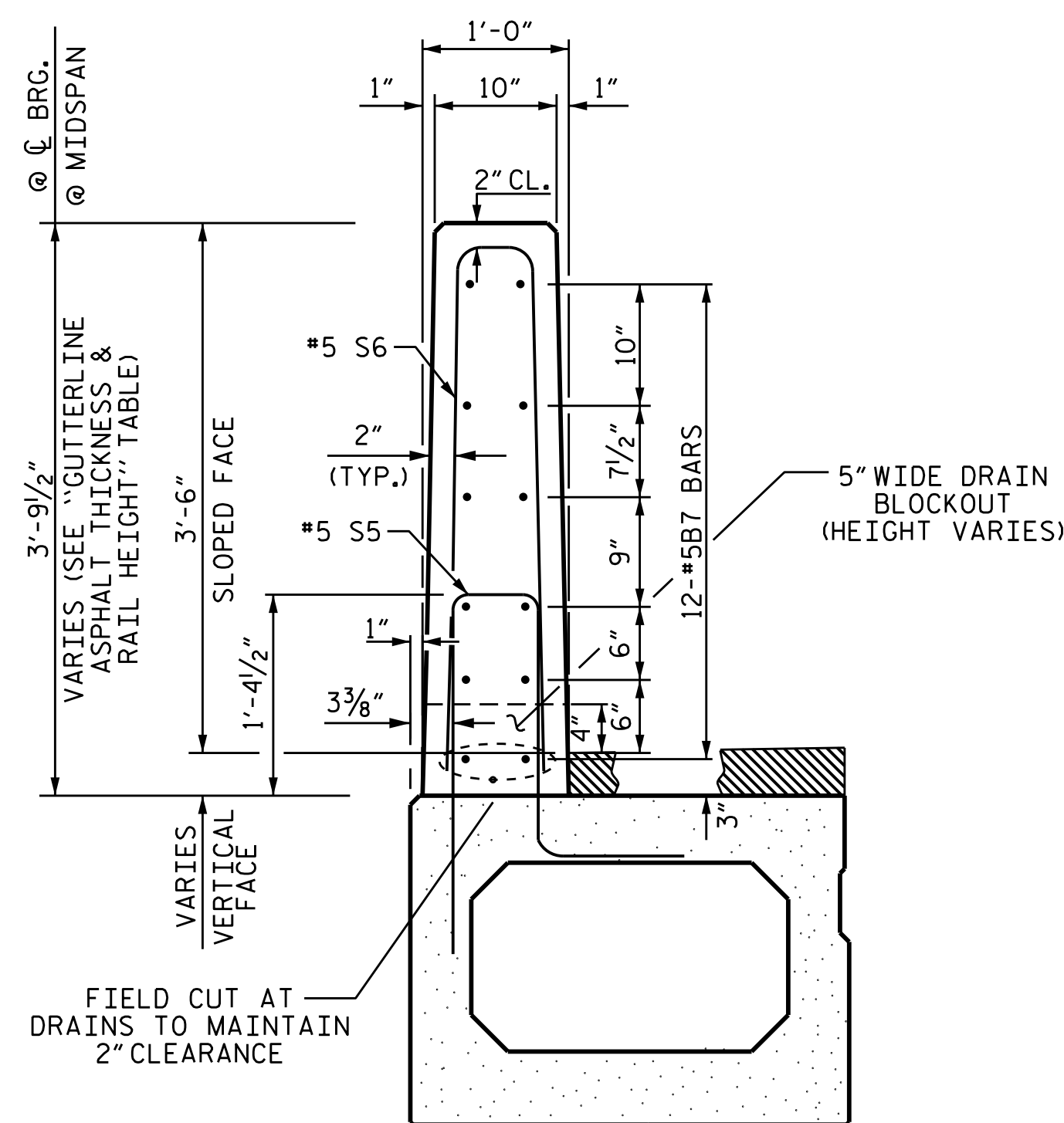


**BILL OF MATERIAL FOR VERTICAL CONCRETE BARRIER RAIL**

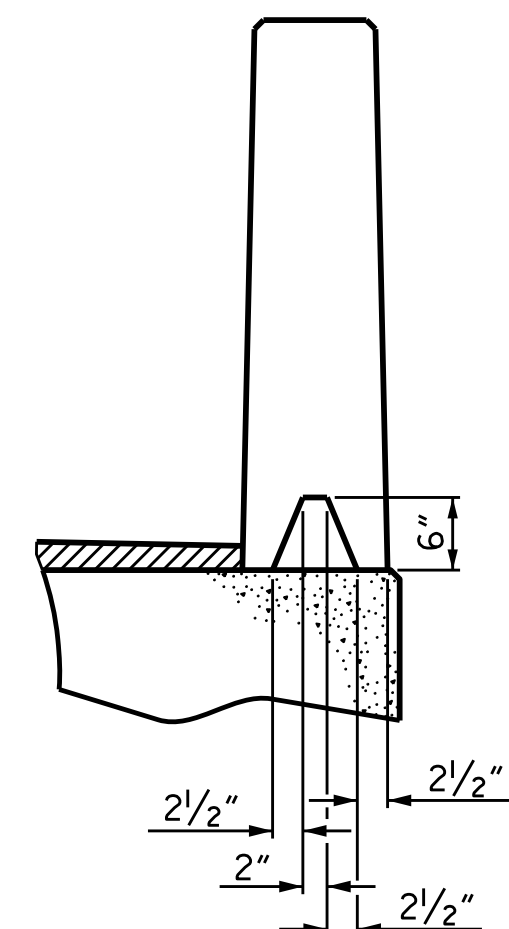
BAR	BARS PER PAIR OF EXTERIOR UNITS	SIZE	TYPE	LENGTH	WEIGHT
75' UNIT					
* B7	72	#5	STR	24'-7"	1846
* S6	210	#5	1	7'-2"	1570
* EPOXY COATED REINFORCING STEEL				LBS.	3416
CLASS AA CONCRETE				CU.YDS.	19.4
TOTAL VERTICAL CONCRETE BARRIER RAIL				LN. FT.	150.0

**GUTTERLINE ASPHALT THICKNESS & RAIL HEIGHT**

	ASPHALT OVERLAY THICKNESS @ MID-SPAN	RAIL HEIGHT @ MID-SPAN
75' UNITS	2 1/4"	3'-8 1/4"

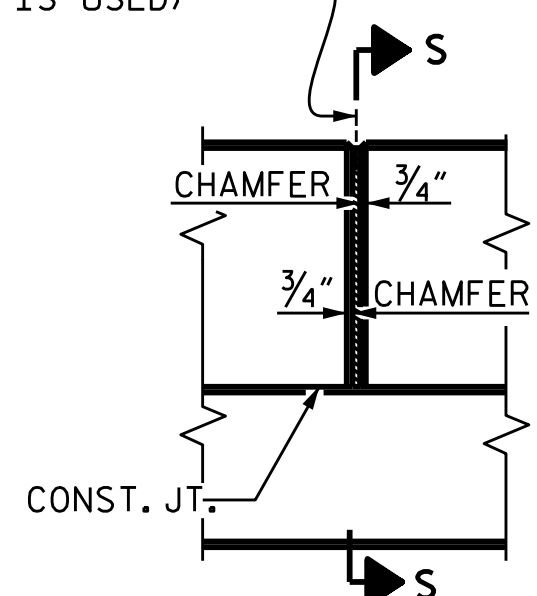


**SECTION THRU RAIL**  
(LEFT SIDE SHOWN RIGHT SIDE SIMILAR WITHOUT DRAINS)



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

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**

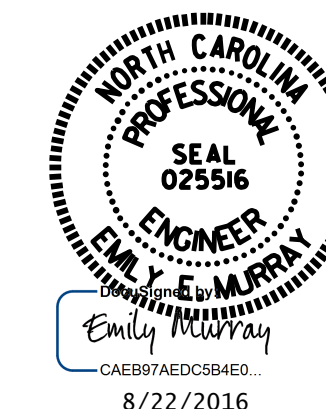
**VERTICAL CONCRETE BARRIER RAIL DETAILS**

PROJECT NO. B-5546  
RANDOLPH COUNTY  
STATION: 13+56.00-L-

SHEET 5 OF 5

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

**3'-0" X 2'-9"**  
**PRESTRESSED CONCRETE**  
**BOX BEAM UNIT**



REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-31
1			3			TOTAL SHEETS
2			4			38

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

ASSEMBLED BY : D.A. DAVENPORT	DATE : 10/08/14
CHECKED BY : J.K. BOWLES	DATE : 01/20/15
DRAWN BY : DGE 10/11	REV. 8/14
CHECKED BY : TMG 11/11	MAA/TMG