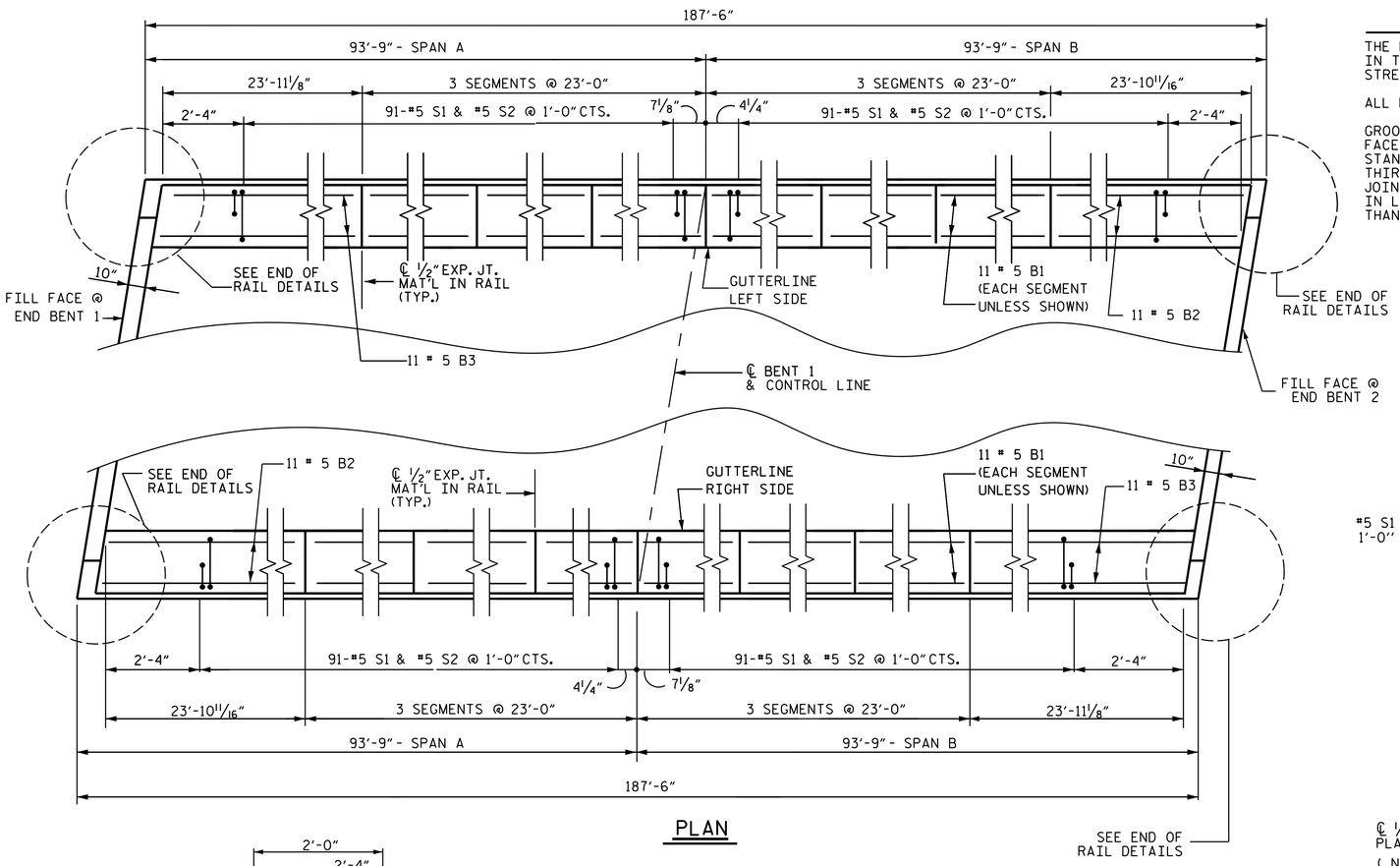


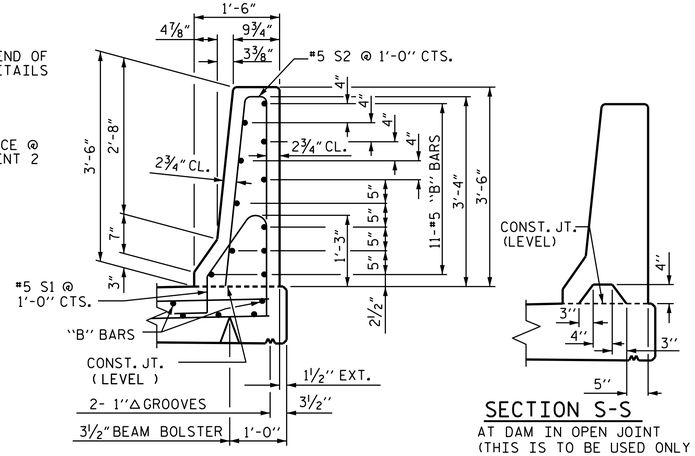
PLAN

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.

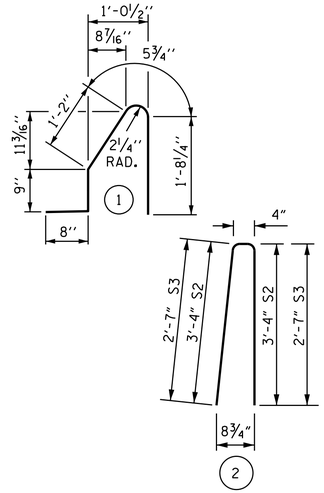
GROOVED CONTRACTION JOINTS, ½″ IN DEPTH, SHALL BE TOOLED IN ALL EXPOSED FACES OF THE BARRIER RAIL AND IN ACCORDANCE WITH ARTICLE 825-10(B) OF THE STANDARD SPECIFICATIONS. THE CONTRACTION JOINT SHALL BE LOCATED AT EACH THIRD POINT BETWEEN BARRIER RAIL EXPANSION JOINTS. ONLY ONE CONTRACTION JOINT IS REQUIRED 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.



SECTION THRU RAIL

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

BAR TYPES



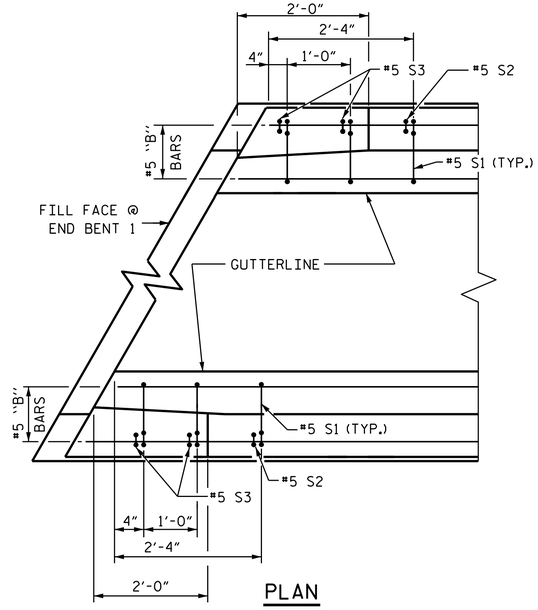
ALL BAR DIMENSIONS ARE OUT TO OUT

BILL OF MATERIAL

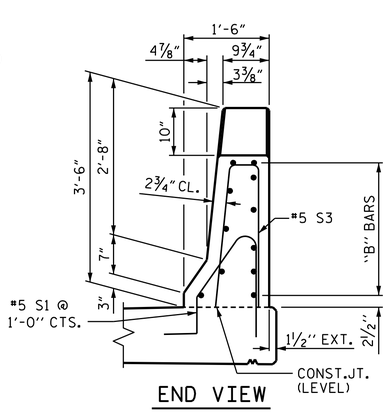
FOR CONCRETE BARRIER RAIL ONLY

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* S1	372	#5	1	4′-1″	1584
* S2	364	#5	2	7′-0″	2658
* S3	8	#5	2	5′-6″	46
* B1	132	#5	STR	22′-8″	3121
* B2	22	#5	STR	23′-4″	535
* B3	22	#5	STR	23′-7″	541

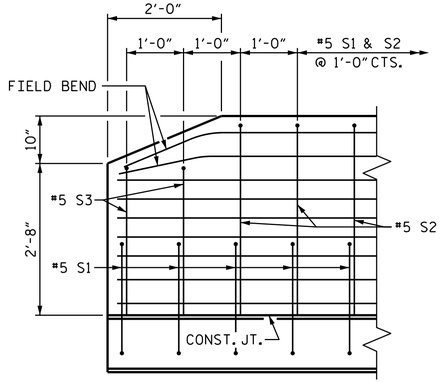
* EPOXY COATED REINFORCING STEEL 8485 LBS.
CLASS AA CONCRETE 50.5 CU. YDS.
CONCRETE BARRIER RAIL 371.64 LIN. FT.



PLAN



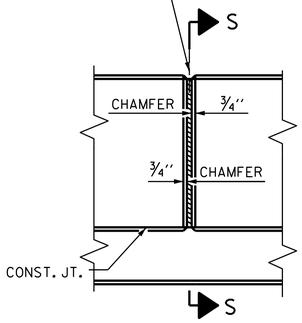
END VIEW



SIDE VIEW

END OF RAIL DETAILS

℄ ½″ 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

PROJECT NO. R-2561CA
COLUMBUS COUNTY
STATION: 34+01.72 -Y-

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARD
CONCRETE BARRIER RAIL

DESIGN ENGINEER OF RECORD: DocuSigned by: DB3C8E45B06D499...	DATE: 8/15/2022		
ASSEMBLED BY : Z. KADI	DATE : 6/26/2019		
CHECKED BY : R.C. LARSON	DATE : 7/26/2019		
DRAWN BY : ARB 5/87	REV. 7/12	MAA/GM	
CHECKED BY : SJD 9/87	REV. 6/13	MAA/GM	
	REV. 12/17	MAA/THC	

DocuSigned by: DB3C8E45B06D499...
NORTH CAROLINA PROFESSIONAL SEAL 14114 ENGINEER ROBERT C. LARSON
8/15/2022

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

ENGINEERS & PLANNERS ■ SCIENTISTS ■ CONSTRUCTION MANAGERS LICENSE NUMBER: C-0764
KCI Associates of North Carolina, P.A.
4505 Falls of Neuse Road, Suite 400 Raleigh, NC 27609-5270 Phone (919) 783-9214

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S1-14
1			3			TOTAL SHEETS
2			4			28