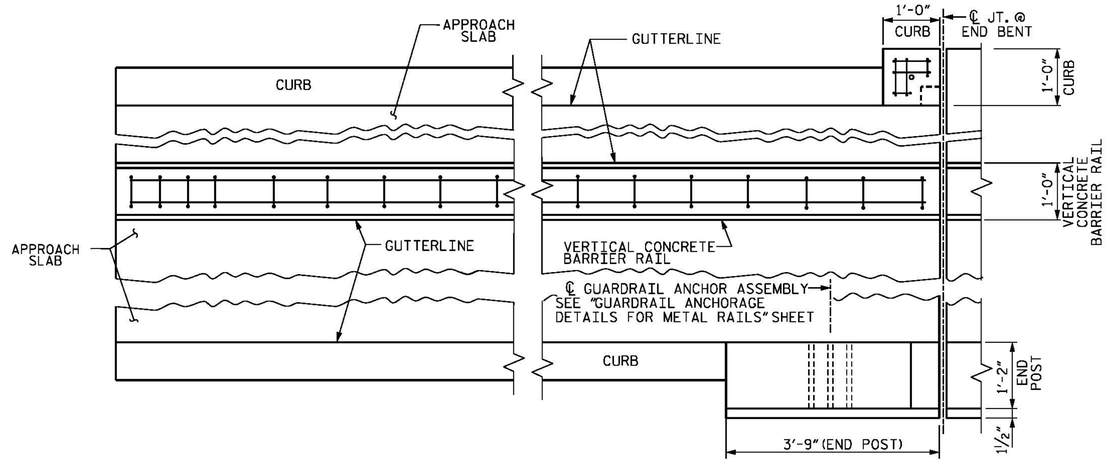


VERT. CONC. BARRIER RAIL AND END POST PLAN ON APPROACH SLAB

(APPROACH SLAB @ END BENT 1 SHOWN, APPROACH SLAB @ END BENT 2 SIMILAR.)

NOTES

THE COST OF THE VERTICAL CONCRETE BARRIER RAIL ON THE APPROACH SLABS SHALL BE INCLUDED IN THE LINEAR FOOT CONTRACT PRICE BID FOR "VERTICAL CONCRETE BARRIER RAIL".

THE VERTICAL CONCRETE BARRIER RAIL, END POST AND 1'-0" x 1'-0" CURB ON EACH APPROACH SLAB SHALL NOT BE CAST UNTIL ALL APPROACH SLAB CONCRETE HAS BEEN CAST AND HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.

ALL REINFORCING STEEL IN THE VERTICAL CONCRETE BARRIER RAILS, END POSTS, APPROACH SLABS AND CURBS SHALL BE EPOXY COATED.

GROOVED CONTRACTION JOINTS, ½" IN DEPTH, SHALL BE TOOLED IN ALL EXPOSED FACES OF THE VERTICAL CONCRETE 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 VERTICAL CONCRETE BARRIER RAIL EXPANSION JOINTS. ONLY ONE CONTRACTION JOINT IS REQUIRED AT MIDPOINT OF VERTICAL CONCRETE BARRIER RAIL SEGMENTS LESS THAN 20 FEET IN LENGTH AND NO CONTRACTION JOINTS ARE REQUIRED FOR THOSE SEGMENTS LESS THAN 10 FEET IN LENGTH.

THE COST OF THE END POST ON THE APPROACH SLABS SHALL BE INCLUDED IN THE LINEAR FOOT CONTRACT PRICE BID FOR "1'-2" x 2'-6" CONCRETE PARAPET".

SEE EXPANSION JOINT SEAL DETAILS SHEETS FOR ADDITIONAL INFORMATION. STEEL REINFORCEMENT IN THE END POST MAY BE SHIFTED SLIGHTLY AS NECESSARY TO ACCOMODATE JOINT SEAL DETAILS.

BILL OF MATERIAL

FOR END POST (ONE END POST ONLY)

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B21	8	#5	STR	3'-5"	29
E21	2	#7	STR	2'-6"	10
E22	2	#7	STR	3'-0"	12
E23	2	#7	STR	3'-6"	14
E24	2	#7	STR	4'-0"	16
E25	2	#7	STR	4'-4"	18
F21	2	#6	STR	1'-10"	6
F22	2	#6	STR	3'-0"	9
F23	2	#6	STR	3'-9"	11
S21	5	#5	1	7'-10"	41

EPOXY COATED REINFORCING STEEL	LBS.	166
CLASS AA CONCRETE	C. Y.	0.8
1'-2" x 2'-6" CONCRETE PARAPET	L.F.	3.75

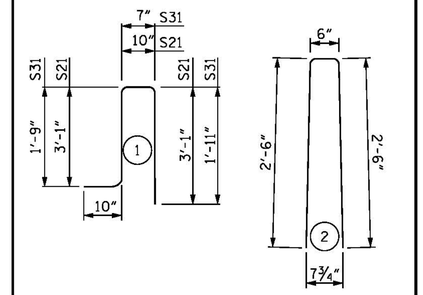
BILL OF MATERIAL

FOR VERTICAL CONCRETE BARRIER RAIL AT END BENT 1 (END BENT 2 SIMILIAR)

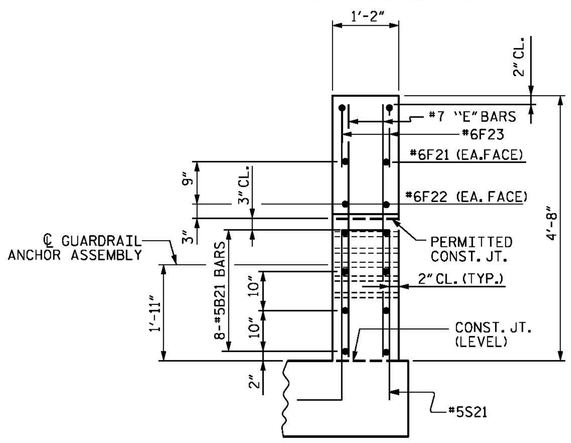
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B31	8	#5	STR	24'-8"	206
S31	27	#5	1	5'-1"	143
S32	27	#5	2	5'-6"	155

EPOXY COATED REINFORCING STEEL	LBS.	504
CLASS AA CONCRETE	C. Y.	2.3
VERTICAL CONCRETE BARRIER RAIL	L.F.	25

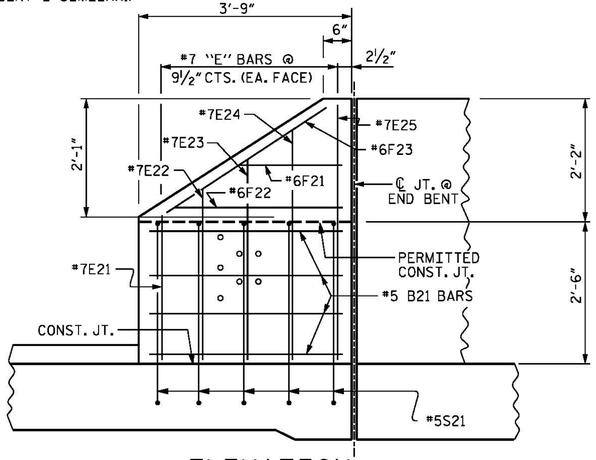
BAR TYPE



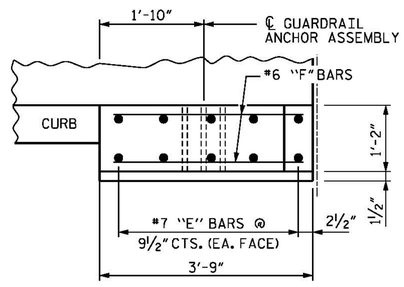
ALL BAR DIMENSIONS ARE OUT-TO-OUT



END VIEW



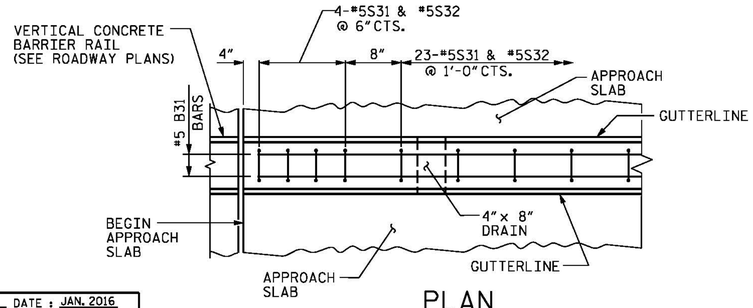
ELEVATION



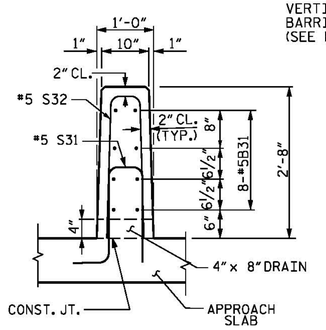
PLAN OF END POST

END POST FOR TWO BAR METAL RAIL

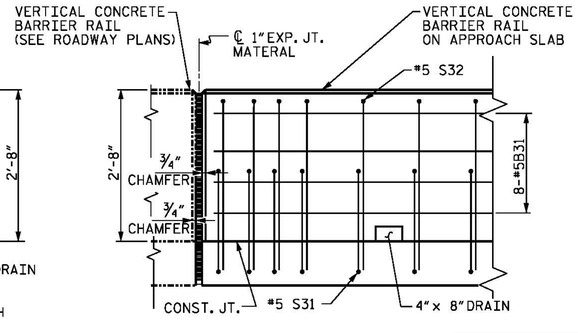
(APPROACH SLAB @ END BENT 1 SHOWN, APPROACH SLAB @ END BENT 2 SIMILAR.)



PLAN



ELEVATION



SIDE VIEW

VERTICAL CONCRETE BARRIER RAIL ON APPROACH SLAB

(APPROACH SLAB @ END BENT 1 SHOWN, APPROACH SLAB @ END BENT 2 SIMILAR.)

DESIGNED BY:	E. DAVIS	DATE :	JAN. 2016
DRAWN BY:	B. CALDWELL	DATE :	JAN. 2016
CHECKED BY:	J. SHERMAN	DATE :	FEB. 2016
DESIGN ENGINEER OF RECORD:	J. DOUGHTY	DATE :	MAY 2016

DRAWN BY : FCJ	11/88	REV. 10/1/11 MAA/GM
CHECKED BY : ARB	11/88	REV. 7/12 MAA/GM
		REV. 6/13 MAA/GM

PARSONS BRINCKERHOFF
434 FAYETTEVILLE STREET
SUITE 1500
RALEIGH, NC 27601
LICENSE NO. F-0165

NORTH CAROLINA PROFESSIONAL SEAL 032967 ENGINEER JASON R. DOUGHTY
5/12/16
DocuSigned by: Jason R Doughty
00F1C86448274F7...

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT NO. B-4929
PENDER COUNTY
STATION: 38+13.81 -L2-

SHEET 3 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD
BRIDGE APPROACH SLAB DETAILS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-209
1			3			TOTAL SHEETS
2			4			278

STD. NO. BAS4