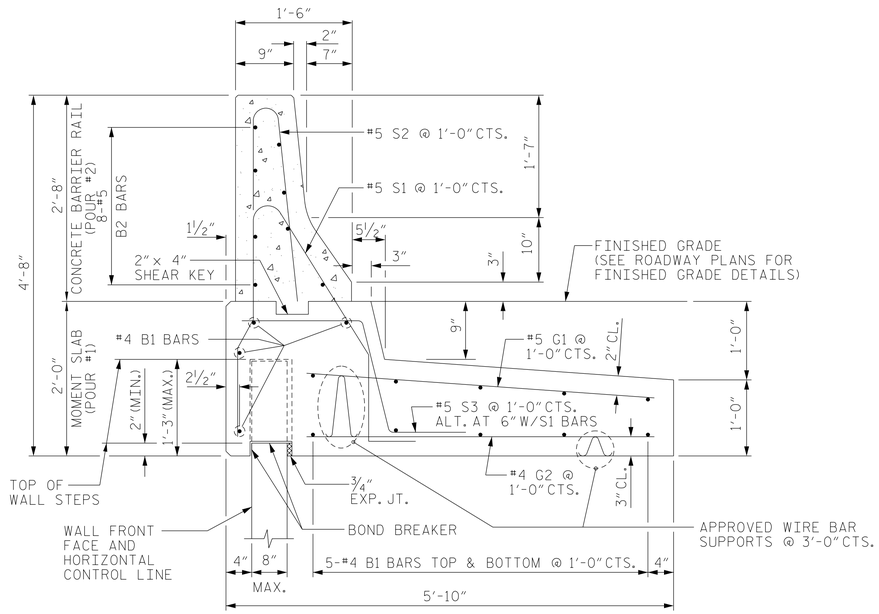
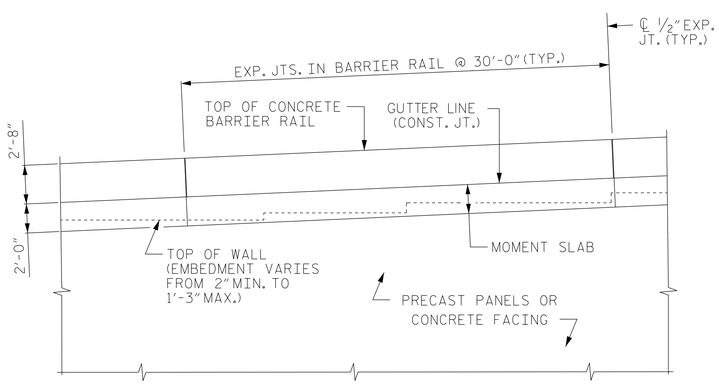


CONCRETE BARRIER RAIL WITH MOMENT SLAB



CONCRETE BARRIER RAIL WITH MOMENT SLAB - PARTIAL ELEVATION

NOTES:

FOR CONCRETE BARRIER RAIL WITH MOMENT SLAB, SEE CONCRETE BARRIER RAIL WITH MOMENT SLAB PROVISION.

CONCRETE BARRIER RAIL WITH MOMENT SLAB SHALL BE A MINIMUM OF 15 FEET IN LENGTH.

EXPANSION JOINTS SHALL BE PLACED IN THE BARRIER RAIL AND MOMENT SLAB AT A MAXIMUM SPACING OF 30 FEET.

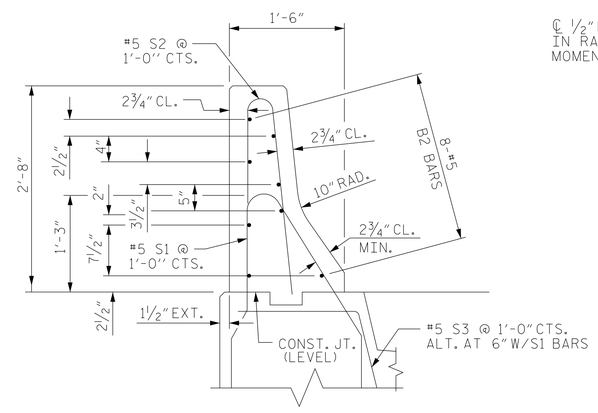
GROOVED CONTRACTION JOINTS, 1/2" IN DEPTH, SHALL BE TOOLED IN ALL EXPOSED SURFACES OF THE BARRIER RAIL AND IN ACCORDANCE WITH ARTICLE 825-10(B) OF THE STANDARD SPECIFICATIONS. A CONTRACTION JOINT SHALL BE LOCATED AT EACH THIRD POINT BETWEEN BARRIER RAIL EXPANSION JOINTS. ONLY ONE CONTRACTION JOINT IS REQUIRED AT MID-POINT OF BARRIER RAIL SEGMENTS LESS THAN 20 FEET IN LENGTH.

THE BARRIER RAIL SHALL NOT BE CAST UNTIL THE MOMENT SLAB HAS ATTAINED AN AGE OF THREE CURING DAYS OR A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI. IN ADDITION, NO FILL MATERIAL, ASPHALT, OR CONSTRUCTION EQUIPMENT IS ALLOWED ON THE MOMENT SLAB PRIOR TO SATISFYING THE MINIMUM CONCRETE CURING AND STRENGTH REQUIREMENTS.

ALL REINFORCING STEEL IN THE BARRIER RAIL SHALL BE EPOXY COATED.

IF EXISTING OR FUTURE OBSTRUCTIONS SUCH AS FOUNDATIONS, BARRIERS, PIPES, INLETS OR UTILITIES WILL INTERFERE WITH CONCRETE BARRIER RAIL WITH MOMENT SLAB OR CONCRETE FACING FOR RETAINING WALL WILL BE THICKER THAN 8", CONCRETE BARRIER RAIL WITH MOMENT SLAB DETAILS SHALL BE REVISED AND SUBMITTED FOR APPROVAL.

CONCRETE BARRIER RAIL WITH MOMENT SLAB
PAY LENGTH = 2,175 LIN. FT.



SECTION THRU RAIL

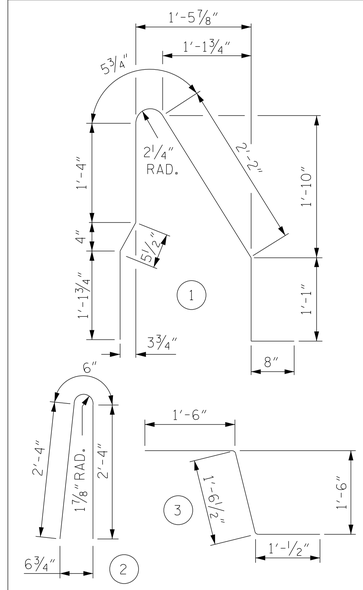
ELEV. @ EXP. JOINTS

BARRIER RAIL DETAILS

GEOTECHNICAL ENGINEER	STRUCTURE DESIGN ENGINEER
SIGNATURE DATE	Docusigned by: David Stutts 9/2/2014 PROFESSIONALSEAL SIGNATURE DATE

NORTH CAROLINA PROFESSIONAL SEAL 26936 ENGINEER DAVID S. STUTTS

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT

BILL OF MATERIAL

FOR ONE 30'-0" SECTION OF CONCRETE BARRIER RAIL WITH MOMENT SLAB

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	14	#4	STR	29'-7"	277
* B2	8	#5	STR	29'-7"	247
G1	31	#5	STR	4'-4"	140
G2	31	#4	STR	4'-4"	90
* S1	31	#5	1	7'-3"	234
* S2	31	#5	2	5'-2"	167
S3	30	#5	3	4'-1"	128
REINFORCING STEEL					635 LBS.
* EPOXY COATED REINFORCING STEEL					648 LBS.
CLASS AA CONCRETE BARRIER RAIL					3.1 CU. YDS.
CLASS A CONCRETE MOMENT SLAB					9.1 CU. YDS.
CONCRETE BARRIER RAIL WITH MOMENT SLAB					30 LIN. FT.

PROJECT NO.: R-2519B (35609.1.1)

YANCEY/MITCHELL ***COUNTY***

STATION:

SHEET 1 OF 1

PREPARED BY:	D. TEAGUE	DATE: 8/14
REVIEWED BY:	D. STUTTS	DATE: 8/14

GEOTECHNICAL ENGINEERING UNIT

☐ *EASTERN REGIONAL OFFICE*

☐ *WESTERN REGIONAL OFFICE*

☒ *CONTRACT OFFICE*

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

CONCRETE BARRIER RAIL WITH MOMENT SLAB FOR PRECAST PANELS AND CONCRETE FACING

REVISIONS								SHEET NO.
NO.	BY	DATE	NO.	BY	DATE			W-18
1			3					TOTAL SHEETS
2			4					18