

PLAN OF BARRIER RAIL

\* ARC LENGTHS MEASURED ALONG OUTSIDE EDGE OF CONCRETE BARRIER RAIL.

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.

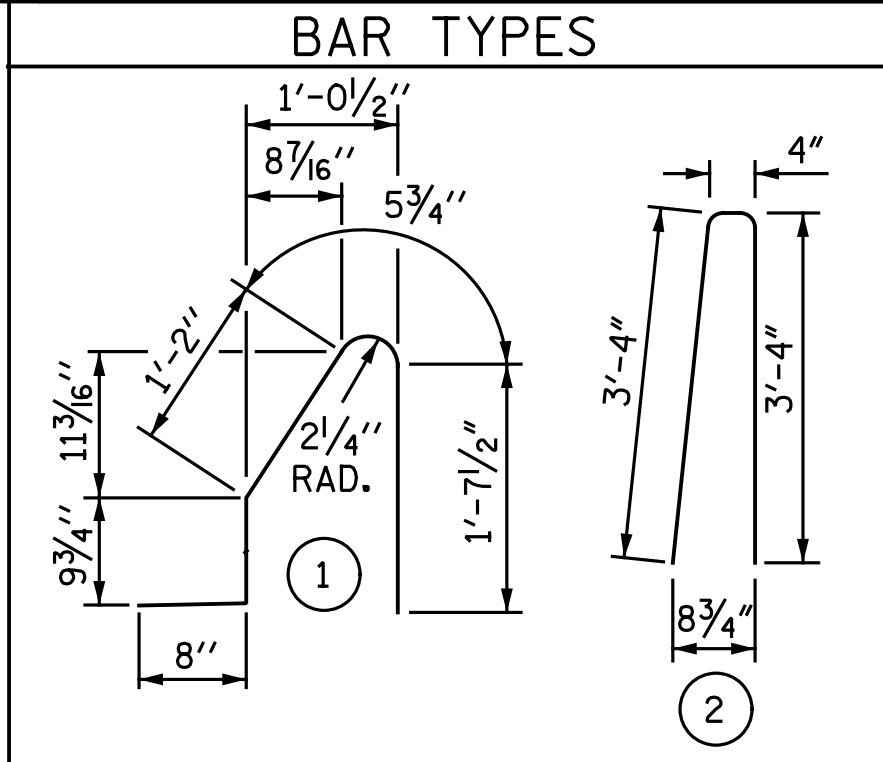
WHEN FOAM JOINT SEAL IS REQUIRED, THE JOINT IN THE DECK SHALL BE SAWED PRIOR TO THE CASTING OF BARRIER RAIL.

ALL REINFORCING STEEL IN BARRIER RAILS SHALL BE EPOXY COATED.

THE #5 S3, S4, S5 AND S6 BARS SHALL BE INSTALLED, USING AN ADHESIVE ANCHORING SYSTEM, AFTER SAWING THE JOINT. THE YIELD LOAD FOR THE #5 S3, S4, S5 AND S6 BARS IS 18.6 KIPS. FIELD TESTING FOR THE ADHESIVE BONDING SYSTEM IS NOT REQUIRED.

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.

FOR BARRIER RAIL CONSTRUCTED ON APPROACH SLABS AND END OF RAIL DETAILS, SEE "BRIDGE APPROACH SLAB DETAILS", SHEETS 2 OF 3 AND 3 OF 3.



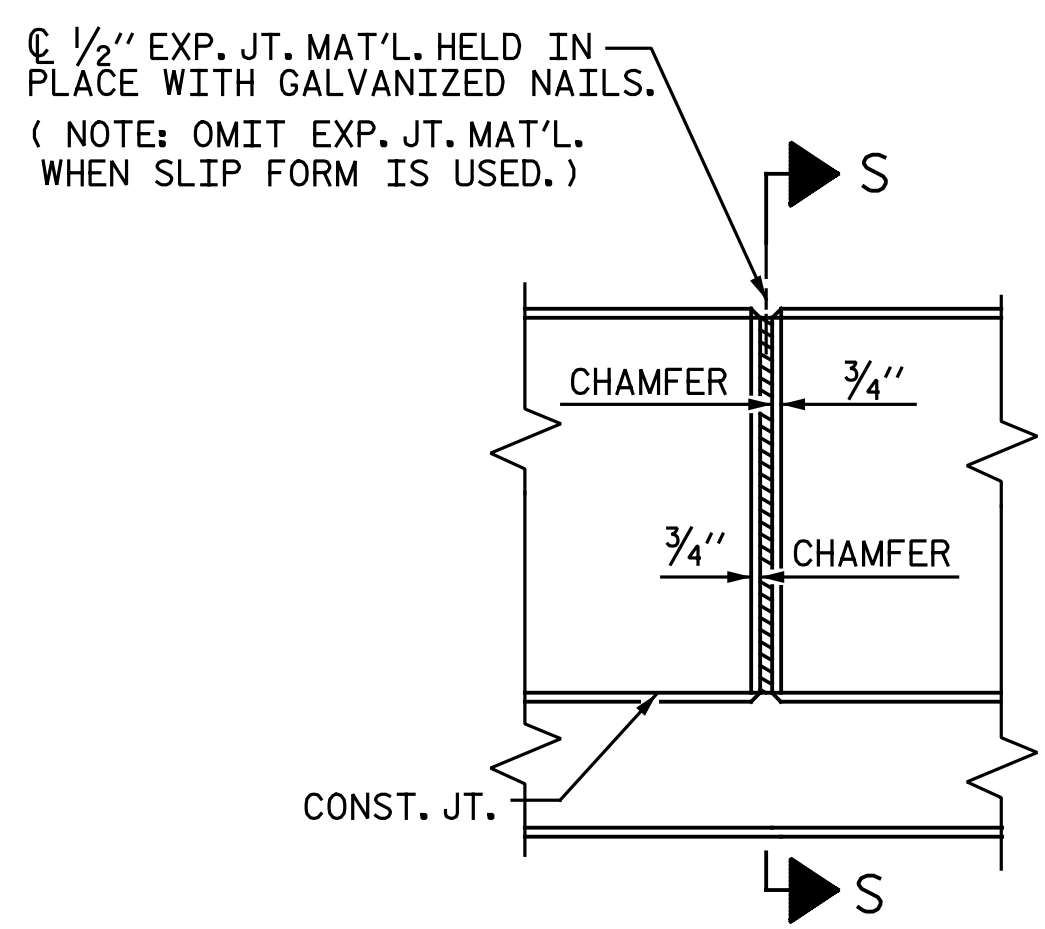
ALL BAR DIMENSIONS ARE OUT TO OUT

BILL OF MATERIAL FOR CONCRETE BARRIER RAIL ONLY

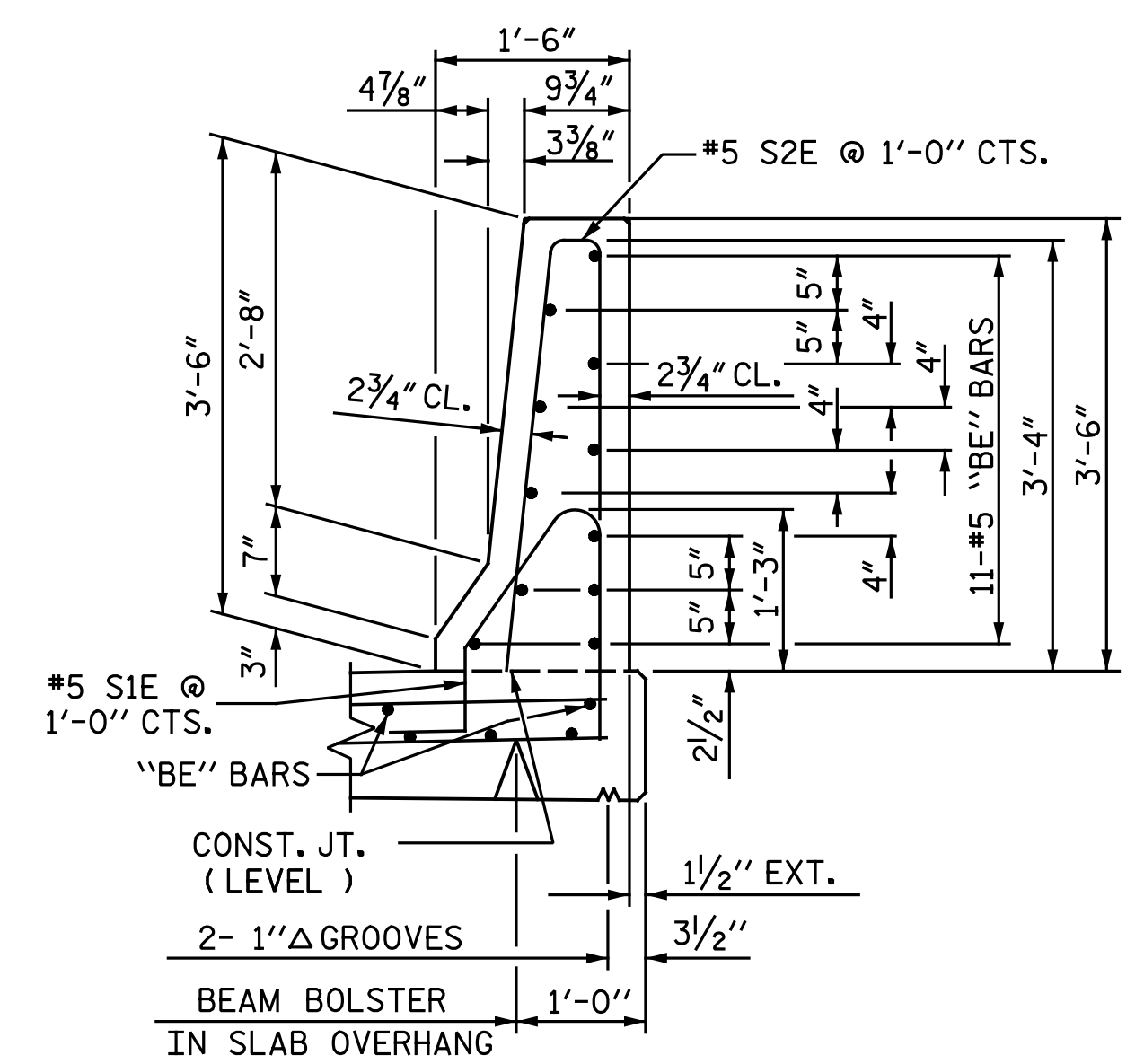
| BAR | NO. | SIZE | TYPE | LENGTH | WEIGHT |
|-----|-----|------|------|--------|--------|
| B1E | 132 | #5   | STR  | 27'-8" | 3,809  |
| B2E | 44  | #5   | STR  | 28'-7" | 1,312  |
| S1E | 452 | #5   | 1    | 4'-9"  | 2,239  |
| S2E | 452 | #5   | 2    | 7'-0"  | 3,300  |

EPOXY COATED REINFORCING STEEL \* 10,660 LBS.  
CLASS AA CONCRETE \* 61.5 CU. YDS.  
CONCRETE BARRIER RAIL \* 451.7 LIN. FT.

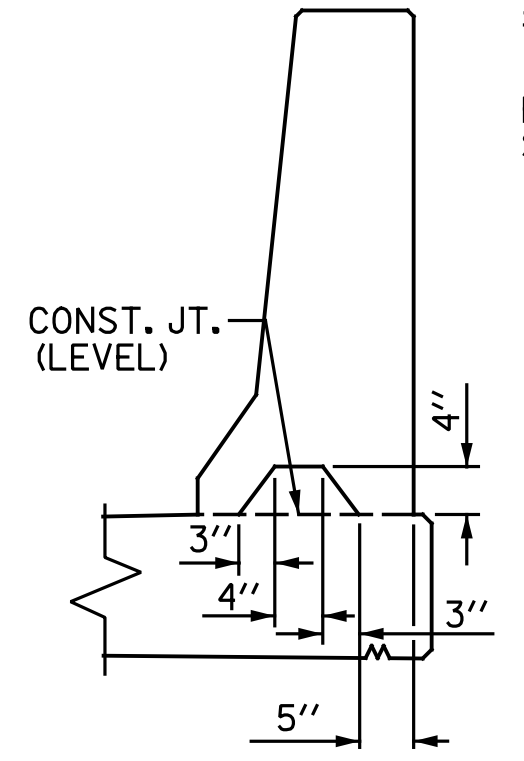
\* QUANTITIES DO NOT INCLUDE APPROACH SLAB BARRIER RAILS.



ELEVATION AT EXPANSION JOINTS BARRIER RAIL DETAILS



SECTION THRU RAIL



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

PROJECT NO. U-2524D  
GUILFORD COUNTY  
STATION: 495+22.00 -LREV-

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
STANDARD  
CONCRETE  
BARRIER RAIL

RIGHT LANES

Michael Baker International logo and seal of Bradley J. Bell, Professional Engineer, Seal 042399, dated 7/18/2016.

| REVISIONS |     | SHEET NO. |     |
|-----------|-----|-----------|-----|
| NO.       | BY: | DATE:     | NO. |
| 1         |     |           | 3   |
| 2         |     |           | 4   |

SHEET NO. S4-17  
TOTAL SHEETS 35

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ASSEMBLED BY : N.B. SPEAKS DATE : 3-7-16  
CHECKED BY : B.J. BELL DATE : 3-10-16  
DRAWN BY : ARB 5/87 REV. 10/1/11 MAA/GM  
CHECKED BY : SJD 9/87 REV. 7/12 MAA/GM  
REV. 6/13 MAA/GM