

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR  
**PRECAST REINFORCED CONCRETE BARRIER**  
41" SINGLE FACED

SHEET 5 OF 8  
**857D01**

**PART FRONT ELEVATION**  
#5 "S" BARS SPA. ON 18" CTRS.  
#5 "S" BAR ON 18" CENTERS  
#5 "B" BAR  
3" OFFSET  
FINISH GRADE  
CLASS 'AA' CONCRETE  
#5 "S" BAR

\*SEE SHEET 4 FOR DIMENSIONS

**PLAN OF BONDED CONNECTION OF PRECAST UNIT**  
CONNECTOR PIN ASSEMBLY 3'-1"±  
WASHER  
FILL W/ NON-SHRINK NON-RUSTING GROUT 5000 PSI @ EACH JOINT LOCATION  
CLASS 'AA' CONCRETE  
2 1/2" 2 1/2" 1 1/2" 1" 1 1/2" 1 1/2" 3" 2 1/8" 5" 8" 9" 1'-5"

**CROSS SECTIONAL VIEW**  
DETAIL X-X  
#5 "S" BAR SPA. @ 18" CTRS.  
10" RAD.  
3/4" 2" 1'-7" 10" 3" FINISH GRADE 13/4" CLEAR 9" CLEAR 1'-5" 2" CLEAR 1'-5" 8" 13/4" CLEAR 12" 5 1/2" 4" 3'-5" #5 "B" BARS

**JOINT FILLER DETAIL**  
1/2" EXPANSION JOINT FILLER  
VOID AREA  
#5 BAR EYE CONN.  
CONNECTOR PIN ASSEMBLY 3'-1"±  
NOTE: FILL COMPLETELY THROUGH BARRIER SECTION

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**DETAIL A**  
4 BOLT INSERT ASSEMBLY  
TACK WELD TYPICAL  
4" 4" 3 1/2" 3 1/2" 5" 13/4" OFFSET 13/4" OFFSET  
THREADED STEEL INSERT WITH 7/8" X 2 3/4" SOLID BOTTOM TO FIT BOLT WITH ROUND WASHER  
CLASS 'AA' CONCRETE  
GUARDRAIL END SHOE SEE DETAIL B62D02  
GUARDRAIL AND INSERT ASSEMBLY  
7/8" X 2 3/4" BOLTS WITH ROUND WASHERS FOR ATTACHING GUARDRAIL END SHOE TO BARRIER.  
13/4" OFFSET  
#5 "S" BAR  
SEE DETAIL A

**DETAIL B**  
4 BOLT HOLD DOWN PLATE  
1 1/8" DIA. HOLES FOR 7/8" BOLTS (TYP.)  
1/4" HOLD-DOWN PLATE  
CLASS 'AA' CONCRETE  
GUARDRAIL END SHOE SEE DETAIL B62D02  
GUARDRAIL AND BOLT  
7/8" BOLTS WITH ROUND WASHERS FOR ATTACHING GUARDRAIL END SHOE TO BARRIER.  
13/4" OFFSET  
13/4" OFFSET  
#5 "S" BAR  
1 1/4" DIA. HOLE (TYP.)

NOTES FOR 4 BOLT HOLD DOWN PLATE THE GUARDRAIL ANCHOR ASSEMBLY SHALL CONSIST OF A 1/4" HOLD DOWN PLATE AND 4 - 7/8" DIA. BOLTS WITH NUTS AND WASHERS. THE HOLD-DOWN PLATE SHALL CONFORM TO AASHTO M270 GRADE 36. AFTER FABRICATION, THE HOLD-DOWN PLATE SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH AASHTO M111. AFTER INSTALLATION, THE EXPOSED THREAD OF THE BOLTS SHALL BE BURRED WITH A SHARP POINTED TOOL. THE 1 1/4" DIA. HOLES SHALL BE FORMED OR DRILLED WITH A CORE BIT. IMPACT TOOLS WILL NOT BE PERMITTED. ANY CONCRETE DAMAGED BY THIS WORK SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER.

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DESIGN SERVICES UNIT  
STANDARDS AND SPECIAL DESIGN  
Office 919-250-4128 FAX 919-250-4119

**SEE PLATE FOR TITLE**

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JAMES HOWERY  
10/8/04

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