



**NOTES:**

DESIGN THE MSE WALL TO MEET ALL THE CRITERIA OF THE LATEST VERSION OF AASHTO "ALLOWABLE STRENGTH DESIGN" STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES AND INTERIMS.

THE SERVICE LIFE OF THE MSE WALL SHALL BE 100 YEARS

ALL WALL BACKFILL MATERIAL WITHIN THE REINFORCED ZONE MUST BE #57 WASHED CRUSHED STONE. SEE SECTION 1005 OF THE STANDARD SPECIFICATIONS FOR #57 STONE.

USE THE FOLLOWING MATERIAL PARAMETERS IN THE WALL DESIGN:

- A) #57 STONE: UNIT WEIGHT = 105 PCF = 34°; C=0
- B) RETAINED MATERIAL: UNIT WEIGHT = 120 PCF = 30°; C=0
- C) ALL OTHER EARTH MATERIAL AROUND WALL: UNIT WEIGHT = 120 PCF = 30°; C=0
- D) ALLOWABLE BEARING PRESSURE, WALL 1: 2.5 TSF

THE MINIMUM REINFORCEMENT RATIO SHALL BE 1.2:1 (L:H) TO SATISFY EXTERNAL STABILITY

THE TOP OF WALL ELEVATION IS WHERE THE FINISHED GRADE BEHIND THE MSE WALL INTERSECTS THE BACK OF THE WALL. SHOW A DETAIL LABELING THE TOP OF WALL.

CONSTRUCT JOINTS IN THE COPING IN ACCORDANCE WITH THE ARTICLE 825-10 OF THE STANDARD SPECIFICATIONS. LOCATE JOINTS IN ALL EXPOSED FACES OF THE COPING, AT 10 FEET MAXIMUM CENTERS, TO COINCIDE WITH PANEL JOINTS. EVERY THIRD JOINT SHALL BE AN EXPANSION JOINT. STOP REINFORCING STEEL 2" OF EITHER SIDE OF EXPANSION JOINTS. OTHER JOINTS SHALL BE GROOVED CONTRACTION JOINTS, 1/2" IN DEPTH.

DRAWN BY : J.B. WILSON DATE : 1/ 04  
 CHECKED BY : B.D. KLAPPENBACH DATE : 6/ 04

IN ELEVATION VIEW, SHOW THE TOP OF WALL (SOLID LINE), THE EXISTING GROUND LINE (DASHED LINE), AND THE PROPOSED GROUND LINE (SOLID LINE). SHOW ELEVATIONS FOR THE TOP OF WALL AT VERTICAL BREAK POINTS, AND AT NO GREATER THAN 50 FEET INTERVALS. LABEL WHETHER THE ELEVATION VIEW IS FRONT FACE OR BACK FACE.

CONCRETE COPING MUST BE CAST IN PLACE. TOP OF COPING ELEVATION MUST BE A MINIMUM OF 6 INCHES ABOVE FINISHED GRADE TO AVOID SPILLOVER.

SHOW A DETAIL FOR FABRIC AND SOIL ABOVE THE #57 STONE WHERE APPROPRIATE.

SHOW THE LIMITS OF SOIL REINFORCEMENT AND THE #57 STONE.

THE PANNELS SHALL HAVE PLAIN GREY FINISH.

SHOW ELEVATIONS OF TOP OF LEVELING PAD.

A MINIMAL PANEL EMBEDMENT OF 2 FEET BELOW THE GRADE LINE IS REQUIRED.

SHOW THE WALL'S BEARING PRESSURE ON PLANS.

DRAINAGE MUST BE AWAY FROM THE WALL AT THE TOP AND THE BOTTOM.

THE LEVELING PAD SHALL BE CAST-IN-PLACE AND MADE CONTINUOUS AT STEPS.

NOTE ON CONTRACTOR'S WORKING DRAWINGS: "VERIFY BEARING CAPACITY OF THE WALL'S FOUNDATIONS SOILS IN THE FIELD."

NOTE ON CONTRACTOR'S WORKING DRAWINGS: DRIVE PILES BEFORE BUILDING WALL.

THE GROUNDWATER ELEVATION SHALL BE TAKEN AS THE EXISTING GROUND SURFACE ELEVATION.

SHOW DETAILS IN THE PLANS FOR SKEWING REINFORCING STRIPS OR MATS AROUND ANY OBSTRUCTIONS, SUCH AS PILES AT END BENTS, GUARDRAILS, PAVED DITCHES, PAVEMENT STRUCTURES, AND DRAINAGE STRUCTURES. SOIL REINFORCING MUST NOT BE IN CONTACT WITH ANY OBSTRUCTIONS.

FINAL PLANS MUST BE ON REPRODUCIBLE SHEETS SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN NORTH CAROLINA.

SUBMIT PLANS, WORKING DRAWINGS AND CALCULATIONS, INCLUDING SAMPLE HAND CALCULATIONS, FOR REVIEW AND APPROVAL WITHIN AN APPROPRIATE TURN AROUND TIME.

SHOW DETAIL AND EXTENT OF SLOPE PROTECTION BETWEEN BRIDGE END BENT AND CAP WALL COPING.

MSE WALL, COPING, LEVELING PAD, 4" CONCRETE BERM, AND 4" CONCRETE DITCH SHALL BE PAID AT THE LUMP SUM PRICE FOR MSE RETAINING WALL AT STATION 162+29.76 -L-.

FOR MSE WALL, SEE SPECIAL PROVISIONS.

PROJECT NO. U-0620  
CUMBERLAND COUNTY  
 STATION: 162+29.76 -L-

SHEET 1 OF 2

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

MSE WALL ENVELOPE  
 @ END BENT #2



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