



~48.22' TO 51.09' FROM FACE OF WALL TO C-L-L

VARIES, SEE ROADWAY PLANS

WILDLIFE FENCE, SEE ROADWAY PLANS

CONCRETE COPING (SEE COPING DETAILS) (SEE NOTES FOR FENCE AND POST ATTACHMENT TO CONCRETE COPING)

EXTENSION 6" MIN

6" MIN

4" MIN DOWEL

FINISHED GRADE*

PAVEMENT SECTION

TOP OF WALL

EXTRA LENGTH GUARDRAIL (SEE NOTE FOR GUARDRAIL)

TOP OF EXISTING STEEL H-PILE WALL (REMOVE ABOVE BENCH ELEVATION)

4" ASPHALT CONCRETE BASE COURSE CAP

3" MIN

UPPER REGION L - REINFORCEMENT LENGTH** (TYP) 0.7 * H OR 10 FT (MIN)

AGGREGATE

6" MIN (TYP)

PRECAST CONCRETE PANELS (SEE NOTES AND SPECIAL PROVISION)

LOWER REGION 0.5 * H OR 6 FT (MIN)

REDUCED LENGTH REINFORCEMENT (TYP) SEE SHORED MECHANICALLY STABILIZED EARTH RETAINING WALL SPECIAL PROVISIONS

1x14 (H+V) EXCAVATION

SHOTCRETE FACING 8" MIN (TYP)

FILTRATION GEOTEXTILE (TYP)

BEARING PAD (TYP)

PROVIDE MIN. 3" SHOTCRETE COVER OVER ALL SOIL NAIL REINFORCEMENT

TOP OF LEVELING PAD

BENCH 6' MIN (VARIES)

2%

FINISHED GRADE* FRONT SLOPE VARIES (1:1 MAX)

6" MIN

6" MIN (TYP)

EMBEDMENT 5' MIN

SHORED MSE (SMSE) WALL DESIGN HEIGHT - VARIES (SEE WALL ENVELOPE)

H

6 FT MAX TO BENCH TEMPORARY SHORING MAY BE REQUIRED

SEPARATE SOIL FROM SMSE BACKFILL USING TYPE 2 GEOTEXTILES

LIMITS OF REINFORCED ZONE.

PERMANENT SOIL NAIL WALL DESIGN HEIGHT - VARIES (SEE SMSE WALL ENVELOPE)

PERMANENT SOIL NAIL WALL

SEE TYPICAL SECTION FOR DETAILS

EXISTING STEEL H-PILE WALL (TO REMAIN)

ADDITIONAL SHOTCRETE TO FILL VOID (TYP)

EXISTING STEEL H-PILE WALL

AGGREGATE SHOULDER DRAIN IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 816.02, IF REQUIRED (SEE NOTE FOR DRAIN)

FOUNDATION MATERIAL

CAST-IN-PLACE UNREINFORCED CONCRETE LEVELING PAD (SEE LEVELING PAD STEP DETAILS)

BOTTOM OF WALL

SLOPE BENCH 1% (MIN) TO DRAIN

5 FT MIN

6" MIN (TYP)

STEEL, GEOSTRIP OR HDPE GEOGRID REINFORCEMENT (TYP)

GEOTECHNICAL ENGINEER

ENGINEER

PROFESSIONAL SEAL 041986

D. Matthew Brewer

7/15/2022

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

GEOTECHNICAL ENGINEERING UNIT

PROJECT NO.: A-0009CB

GRAHAM COUNTY

STATION: -L-366+70, 50' RT TO 369+72, 50' RT

SHEET 4 OF 8

RETAINING WALL #16 SHORED MECHANICALLY STABILIZED EARTH (SMSE) WALL

REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

SHEET NO. W16-4