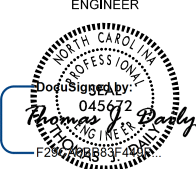


GEOTECHNICAL
ENGINEER



DocuSigned by:
Thomas J. Daily
045672
12/31/2025

ENGINEER

10/13/2025

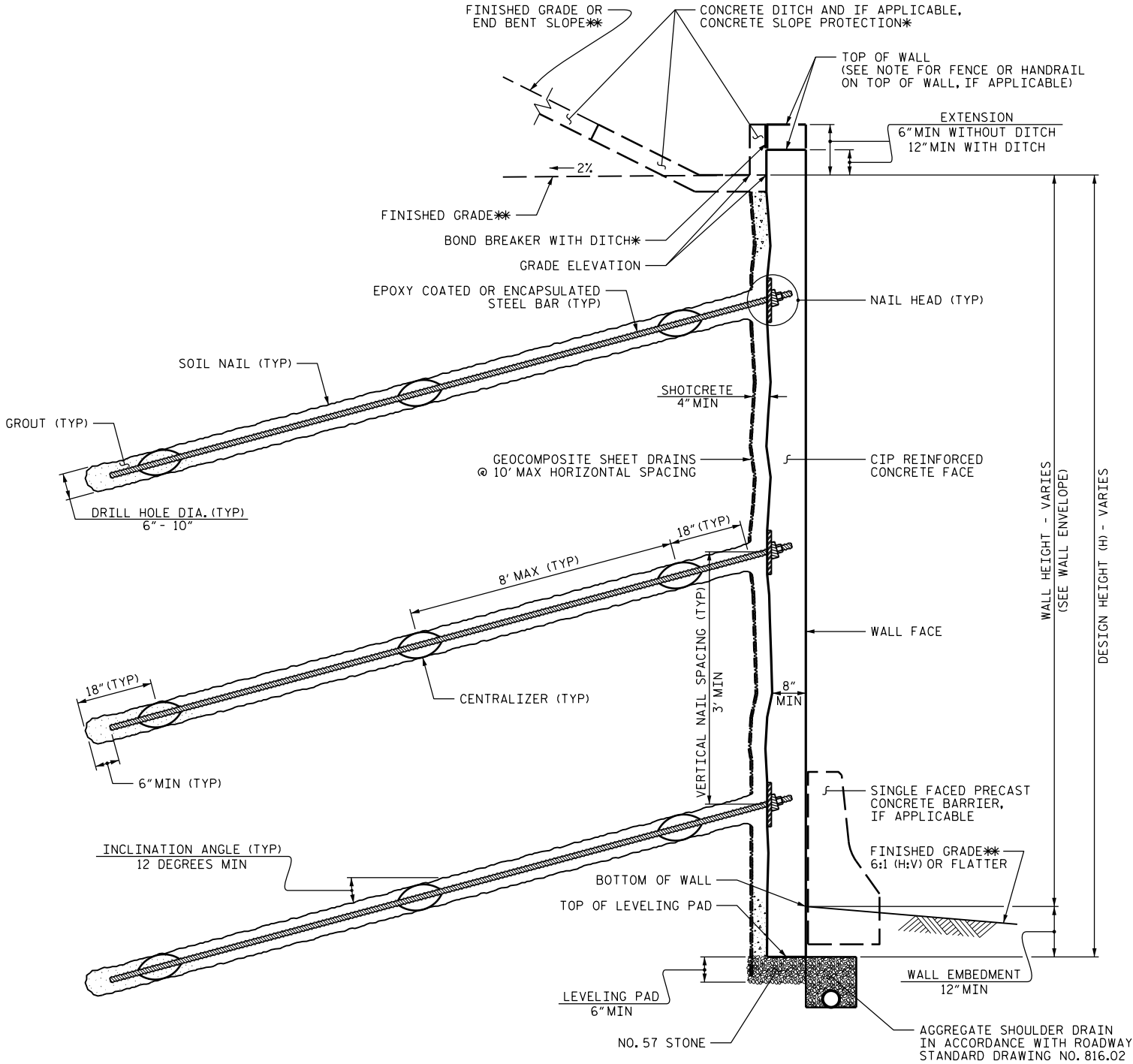
SIGNATURE

DATE

SIGNATURE

DATE

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



NOTES:

FOR SOIL NAIL RETAINING WALLS, SEE SOIL NAIL RETAINING WALLS PROVISION.

FOR STEEL BEAM GUARDRAIL, SEE ROADWAY PLANS AND SECTION 862 OF THE STANDARD SPECIFICATIONS.

FOR SINGLE FACED PRECAST CONCRETE BARRIER, SEE ROADWAY PLANS AND SECTION 857 OF THE STANDARD SPECIFICATIONS.

A SHOTCRETE FINISH IS REQUIRED FOR THE CIP REINFORCED CONCRETE FACE FOR RETAINING WALL NO.1. SEE SECTION 825 OF THE STANDARD SPECIFICATIONS.

BEFORE BEGINNING SOIL NAIL WALL DESIGN FOR RETAINING WALL NO.1, SURVEY WALL LOCATION AND SUBMIT A REVISED WALL PROFILE VIEW (WALL ENVELOPE) FOR REVIEW. DO NOT START WALL DESIGN OR CONSTRUCTION UNTIL THE REVISED WALL ENVELOPE IS ACCEPTED.

DESIGN RETAINING WALL NO.1 FOR THE FOLLOWING:

1) DESIGN HEIGHT (H) = WALL HEIGHT + WALL EMBEDMENT

2) DESIGN LIFE = 100 YEARS

3) IN-SITU ASSUMED MATERIAL PARAMETERS ABOVE ELEVATION 946.0 FT:

UNIT WEIGHT, γ = 115 PCF

FRICTION ANGLE, ϕ = 28 DEGREES

COHESION, c = 0 PSF

4) IN-SITU ASSUMED MATERIAL PARAMETERS BELOW ELEVATION 946.0 FT:

UNIT WEIGHT, γ = 140 PCF

FRICTION ANGLE, ϕ = 45 DEGREES

COHESION, c = 0 PSF

SOIL NAIL WALL - TYPICAL SECTION

*SEE CONCRETE DITCH BEHIND WALL DETAILS.
**SEE PLANS FOR FINISHED GRADE OR END BENT SLOPE DETAILS.

PROJECT NO.: BP14.R006

POLK COUNTY

STATION: -W1- 10+00 TO 11+20

WALL ID RW- 1

PREPARED BY: J. Daily	DATE: 11/13/23
REVIEWED BY: K. Hill	DATE: 11/13/23



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(704) 523-4726



NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

GEOTECHNICAL
ENGINEERING UNIT

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