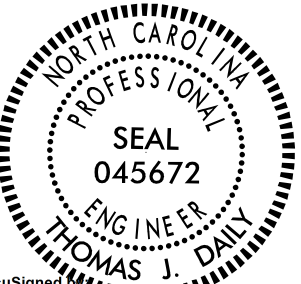


GEOTECHNICAL
ENGINEER



THOMAS J. DAILY
ENGINEER
SEAL
045672
NORTH CAROLINA
PROFESSIONAL

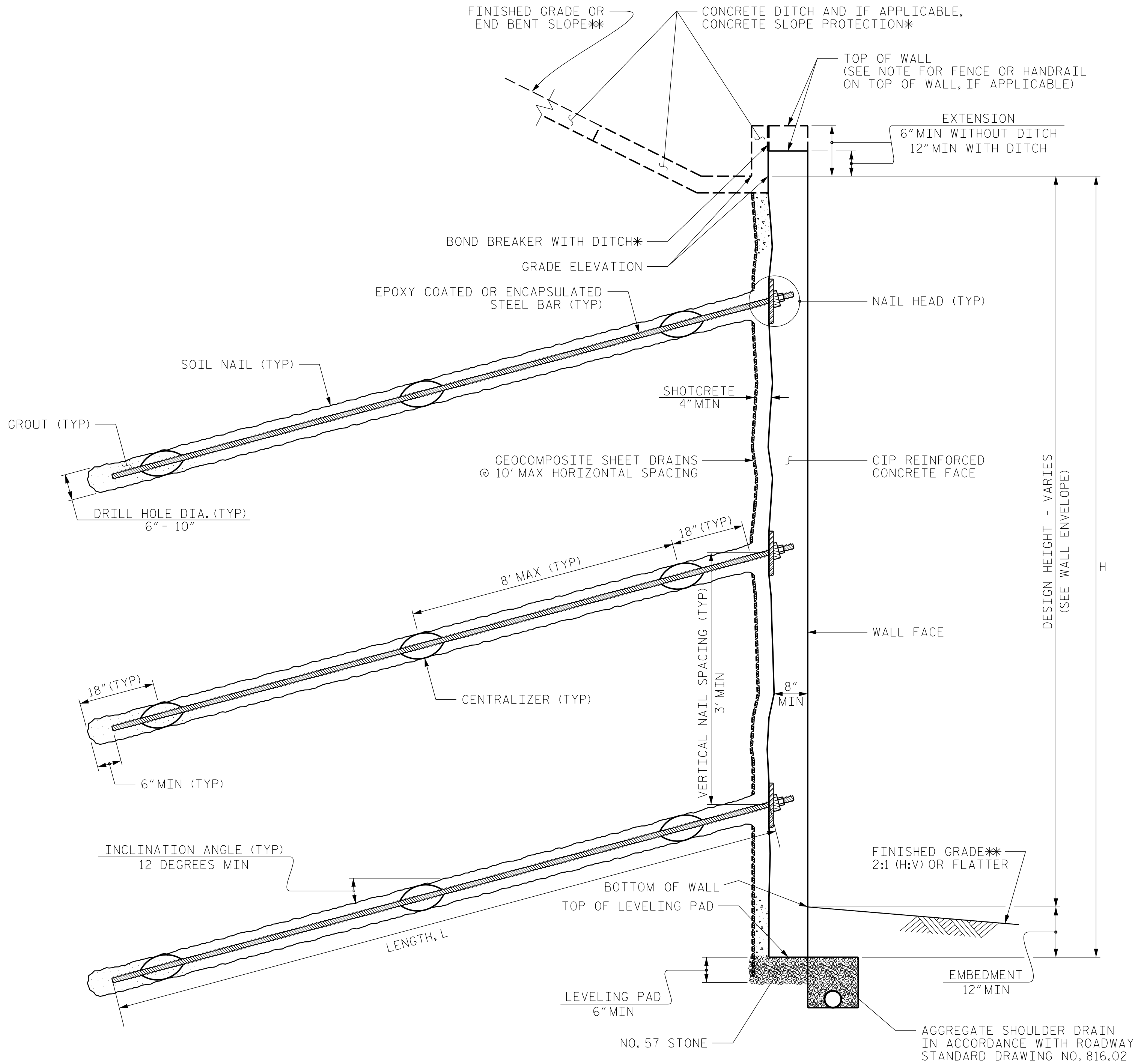
ENGINEER

Thomas J. Daily
F20CAB883F480F...
6/16/2026

SIGNATURE
DATE

SIGNATURE
DATE

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



SOIL NAIL WALL - TYPICAL SECTION

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

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.

BEFORE BEGINNING SOIL NAIL WALL DESIGN FOR RETAINING WALL NO.9, 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.9 FOR THE FOLLOWING:
- 1) H = DESIGN HEIGHT + EMBEDMENT
 - 2) DESIGN LIFE = 100 YEARS
 - 3) MINIMUM EMBEDMENT DEPTH = 12 INCHES
 - 4) IN-SITU ASSUMED RESIDUAL MATERIAL PARAMETERS:
UNIT WEIGHT, γ = 120 PCF
FRICTION ANGLE, ϕ = 30 DEGREES
COHESION, c = 0' PSF
 - 5) MINIMUM LENGTH, L = 1.4H or 10 FEET, WHICHEVER IS LONGER.

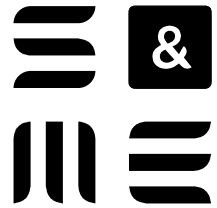
A WEATHER CUT ASHLAR FORM LINER ARCHITECTURAL FINISH IS REQUIRED FOR THE CIP REINFORCED CONCRETE FACE FOR RETAINING WALL NO.9. SEE WEATHER CUT ASHLAR FORM LINER ARCHITECTURAL FINISH SPECIAL PROVISION.

DRAINAGE BOXES OR PIPING WILL BE LOCATED BEHIND RETAINING WALL NO.9, AND MAY INTERFERE WITH THE SOIL NAILS. SUBMIT PROPOSED CONSTRUCTION METHODS FOR THESE ITEMS WITH THE SOIL NAIL WALL CONSTRUCTION PLAN.

PROJECT NO.: U-5810
WATAUGA COUNTY
STATION: -WALL09- STA. 10+00.00 TO 17+18.15

SHEET 2 OF 2 WALL ID RW-9

PREPARED BY: JOEY DAILY	DATE: 8/14/25
REVIEWED BY: KRISTEN HILL	DATE: 8/14/25



8848 RED OAK BLVD, SUITE A
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(704) 523-4726



NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

GEOTECHNICAL
ENGINEERING UNIT

RETAINING WALL NO. 9
TYPICAL SECTION AND NOTES

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1			3			W-16
2			4			