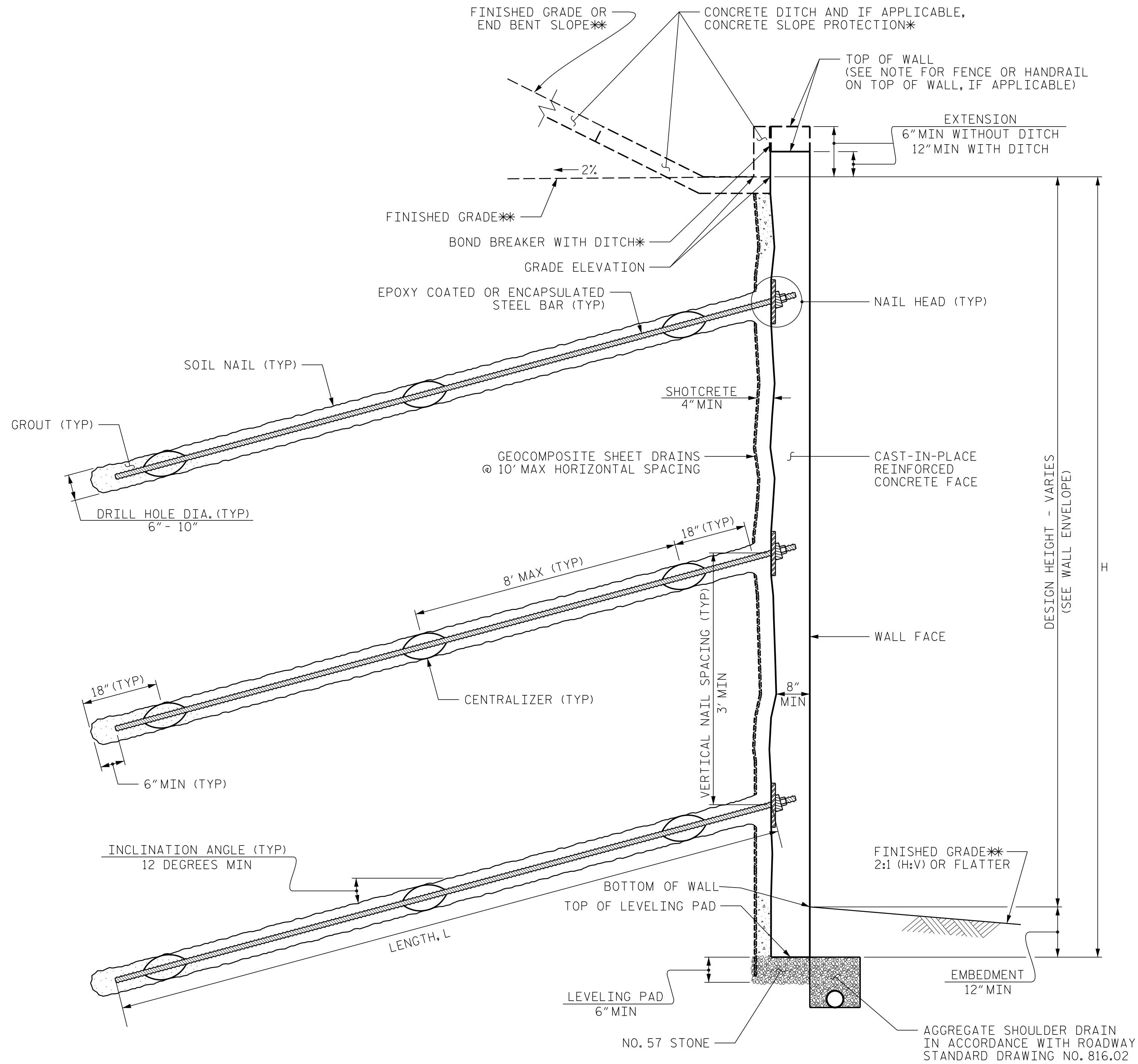




SOIL NAIL WALL - TYPICAL SECTION

*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.

BEFORE BEGINNING SOIL NAIL WALL DESIGN FOR RETAINING WALL NO.2, 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.2 FOR THE FOLLOWING:

- 1) H = DESIGN HEIGHT + EMBEDMENT
- 2) DESIGN LIFE = 100 YEARS
- 3) MINIMUM EMBEDMENT DEPTH = 12 INCHES
- 4) MINIMUM SOIL NAIL LENGTH = 1.2H OR 10 FEET, WHICHEVER IS LONGER
- 5) IN-SITU ASSUMED ROADWAY EMBANKMENT MATERIAL PARAMETERS:
UNIT WEIGHT, γ = 115 PCF
FRICTION ANGLE, ϕ = 30 DEGREES
COHESION, c = 0 PSF
- 5) IN-SITU ASSUMED RESIDUAL MATERIAL PARAMETERS:
UNIT WEIGHT, γ = 120 PCF
FRICTION ANGLE, ϕ = 30 DEGREES
COHESION, c = 0 PSF
- 6) IN-SITU ASSUMED WEATHERED ROCK MATERIAL PARAMETERS:
UNIT WEIGHT, γ = 145 PCF
FRICTION ANGLE, ϕ = 38 DEGREES
COHESION, c = 200 PSF

A WEATHER CUT ASHLAR FORM LINER ARCHITECTURAL FINISH IS REQUIRED FOR THE CIP REINFORCED CONCRETE FACE FOR RETAINING WALL NO.2. SEE WEATHER CUT ASHLAR FORM LINER ARCHITECTURAL FINISH SPECIAL PROVISION.

PROJECT NO.: U-5810

WATAUGA COUNTY

STATION: -WALL02- STA 10+00 TO 12+08.90

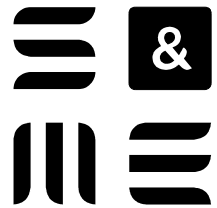
SHEET 2 OF 2

WALL ID RW-2-

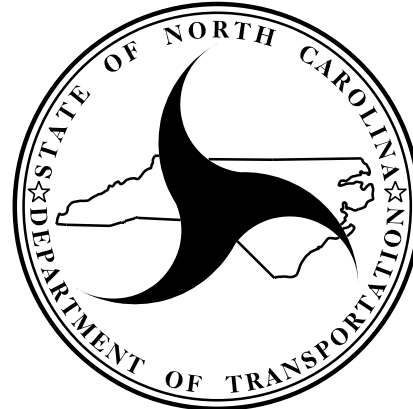
RETAINING WALL NO. 2
TYPICAL SECTION AND NOTES

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

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



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NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

GEOTECHNICAL
ENGINEERING UNIT