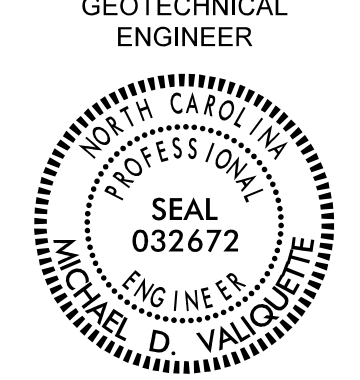


GEOTECHNICAL ENGINEER

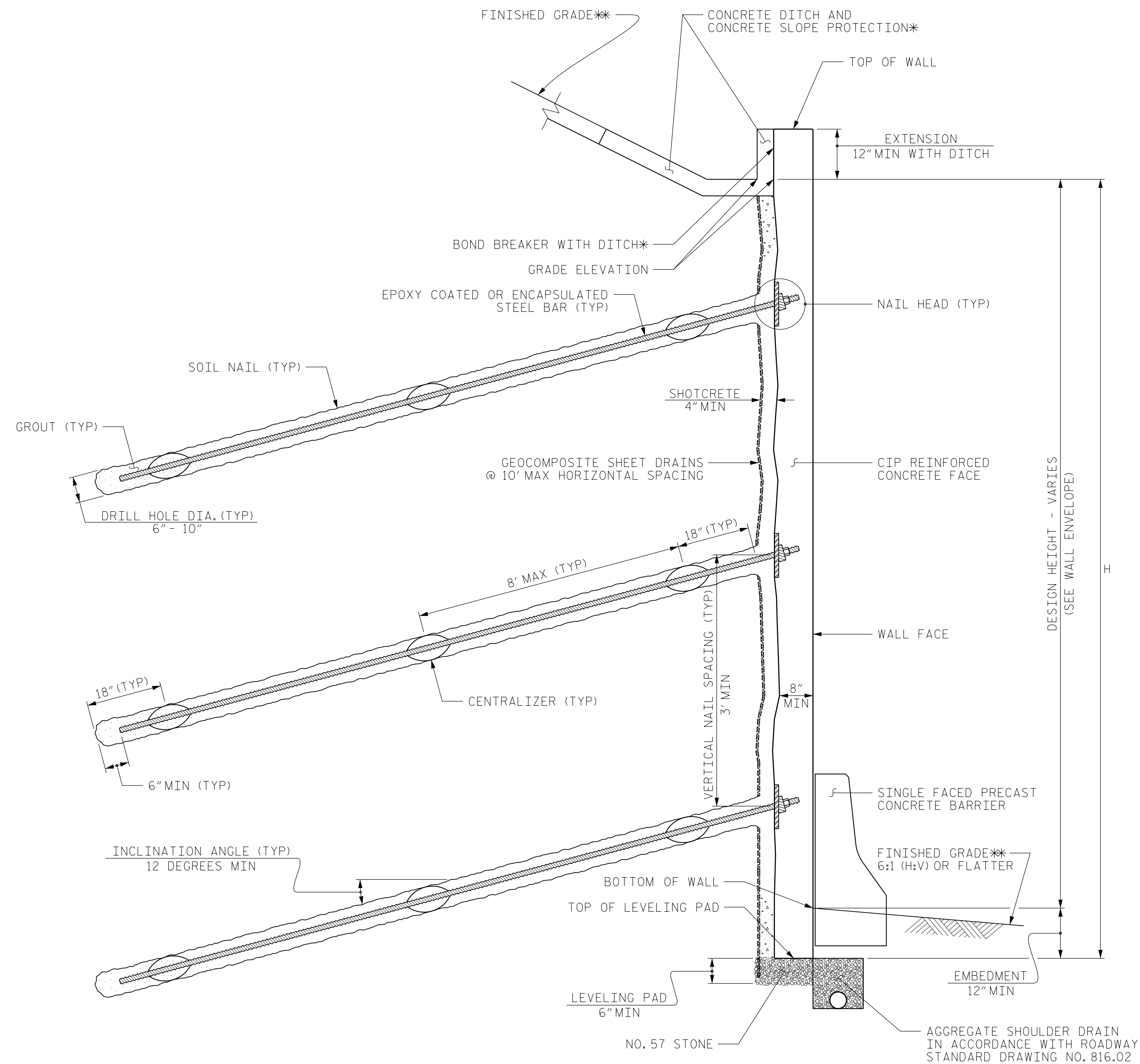
ENGINEER



DocuSigned by:  
Michael Valiquette 8/17/2021

DATE: 8/17/2021

**DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED**



**SOIL NAIL WALL - TYPICAL SECTION**

\* SEE CONCRETE DITCH BEHIND WALL DETAILS.  
\*\* SEE PLANS FOR FINISHED GRADE DETAILS.

**NOTES:**

- FOR SOIL NAIL RETAINING WALLS, SEE SOIL NAIL RETAINING WALLS PROVISION.
- FOR SINGLE FACED PRECAST CONCRETE BARRIER, SEE ROADWAY PLANS AND SECTION 857 OF THE STANDARD SPECIFICATIONS.
- AN ARCHITECTURAL FINISH IS REQUIRED FOR THE CIP REINFORCED CONCRETE FACE FOR RETAINING WALL NO. 4. SEE ARCHITECTURAL CONCRETE SURFACE TREATMENT SPECIAL PROVISION.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COLOR APPLICATION ARTIST AS NEEDED FOR THE PROJECT. SEE ARCHITECTURAL CONCRETE SURFACE TREATMENT SPECIAL PROVISION.
- BEFORE BEGINNING SOIL NAIL WALL DESIGN FOR RETAINING WALL NO. 4, 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.
- PERFORM GRADING BEHIND THE TOP OF WALL AND FILL PLACEMENT BEFORE BEGINNING WALL CONSTRUCTION.
- DESIGN RETAINING WALL NO. 4 FOR THE FOLLOWING:
  - 1) H = DESIGN HEIGHT + EMBEDMENT
  - 2) DESIGN LIFE = 75 YEARS
  - 3) MINIMUM EMBEDMENT = 1 FT
  - 4) IN-SITU ASSUMED MATERIAL PARAMETERS:
    - UNIT WEIGHT,  $\gamma = 120$  PCF
    - FRICTION ANGLE,  $\phi = 30$  DEGREES
    - COHESION,  $c = 0$  PSF
- FOUNDATIONS FOR SIGNS, LIGHTING, OR SIGNALS MAY BE LOCATED BEHIND RETAINING WALL NO. 4 AND MAY INTERFERE WITH SOIL NAILS. SUBMIT PROPOSED CONSTRUCTION METHODS FOR THESE FOUNDATIONS WITH THE SOIL NAIL WALL CONSTRUCTION PLAN.
- EXISTING OR FUTURE OBSTRUCTIONS SUCH AS FOUNDATIONS, GUARDRAIL, FENCE OR HANDRAIL POSTS, PAVEMENTS, PIPES, INLETS OR UTILITIES MAY INTERFERE WITH SOIL NAILS FOR RETAINING WALL NO. 4.

PROJECT NO.: R-5737

DAVIDSON COUNTY

STATION: -L- 75+78 TO -L- 80+00 LT

SHEET 2 OF 2

PREPARED BY: MRS	DATE: 4/21
REVIEWED BY: MDV	DATE: 4/21



NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**GEOTECHNICAL  
ENGINEERING UNIT**

**RETAINING WALL NO. 4 DETAILS  
US 29/US 70/BUSINESS 85 AT  
SR 1798 (OLD GREENSBORO RD)**

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1			3			W-12
2			4			