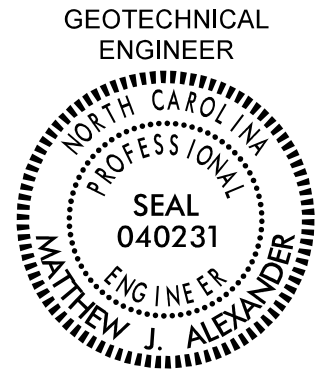


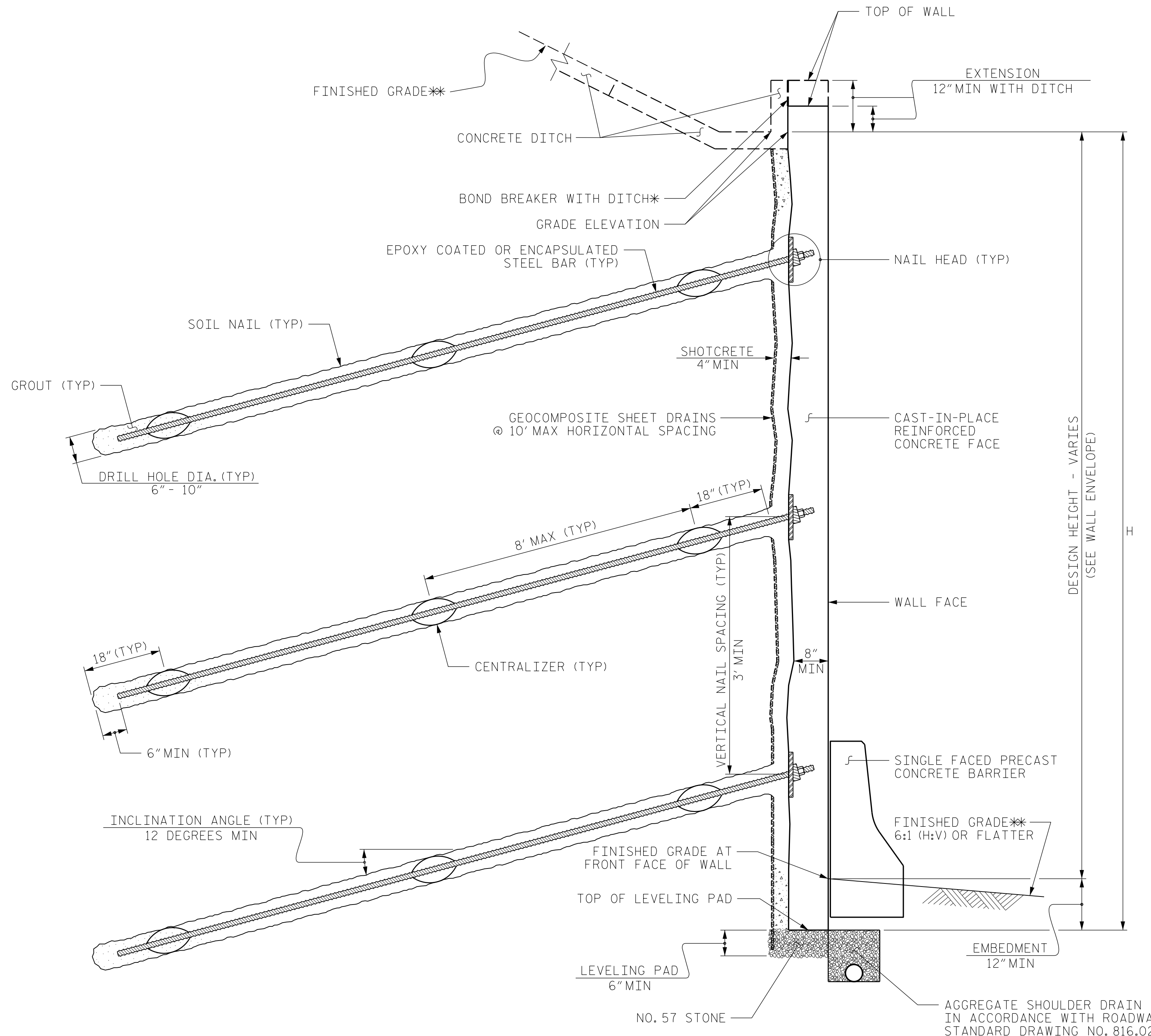
**NOTES:**

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.  
 WALL CONTRACTOR SHALL VERIFY IF AN ARCHITECTURAL FINISH IS REQUIRED FOR THE CAST-IN-PLACE REINFORCED CONCRETE FACE FOR RETAINING WALL NO. 6.  
 BEFORE BEGINNING SOIL NAIL WALL DESIGN FOR RETAINING WALL NO. 6, 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.

**GEOTECHNICAL DESIGN PARAMETERS:**

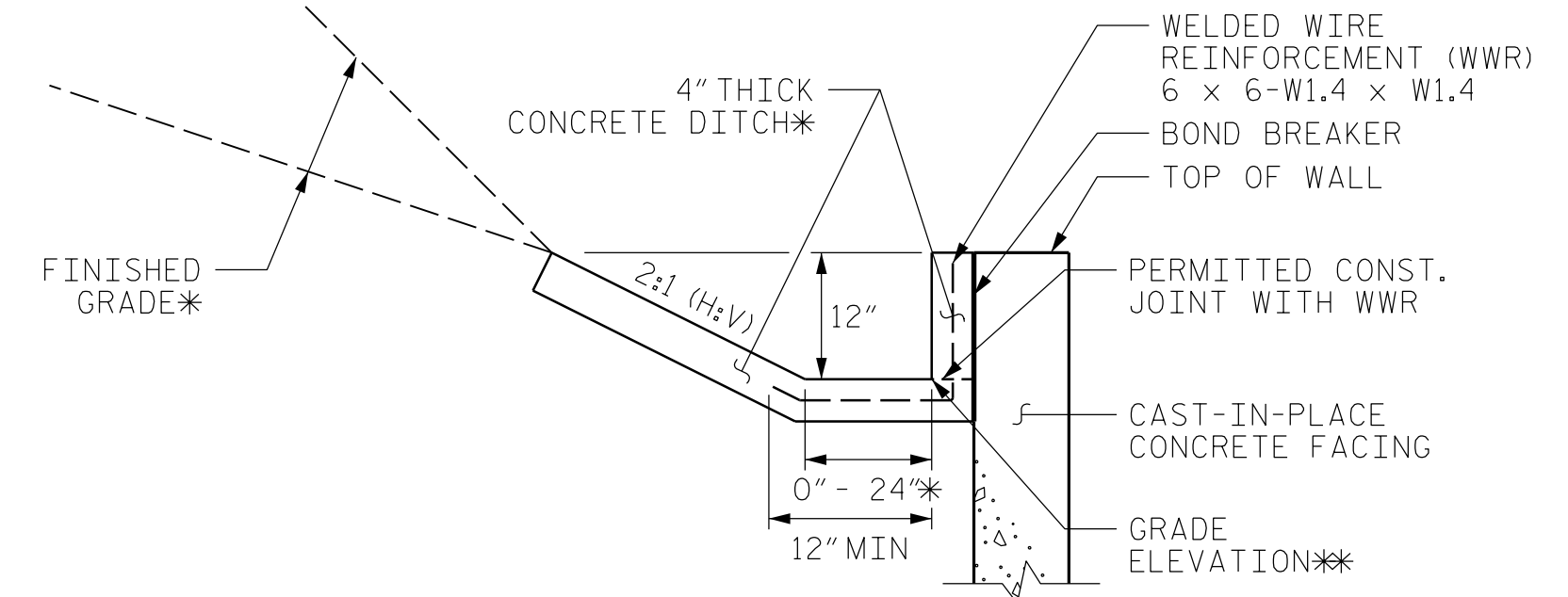
DESIGN RETAINING WALL NO. 6 FOR THE FOLLOWING:  
 1) H = DESIGN HEIGHT + EMBEDMENT  
 2) DESIGN LIFE = 100 YEARS  
 3) MINIMUM EMBEDMENT DEPTH BELOW FINISHED GRADE AT FRONT FACE = 2 FT  
 4) REFER TO STRUCTURE SUBSURFACE INVESTIGATION INVENTORY REPORT DATED AUGUST 2017 FOR STRATIGRAPHY AT WALL LOCATION.  
 4A) IN-SITU ASSUMED MATERIAL PARAMETERS FOR SILT (A-4):  
 UNIT WEIGHT,  $\gamma = 116$  LB/CF  
 FRICTION ANGLE,  $\phi = 41$  DEGREES  
 COHESION,  $c = 100$  LB/SF  
 4B) IN-SITU ASSUMED MATERIAL PARAMETERS FOR SILTY SAND (A-2-5):  
 UNIT WEIGHT,  $\gamma = 92$  LB/CF  
 FRICTION ANGLE,  $\phi = 34$  DEGREES  
 COHESION,  $c = 100$  LB/SF  
 4C) IN-SITU ASSUMED MATERIAL PARAMETERS FOR WEATHERED ROCK:  
 UNIT WEIGHT,  $\gamma = 135$  LB/CF  
 FRICTION ANGLE,  $\phi = 41$  DEGREES  
 COHESION,  $c = 500$  LB/SF  
 4D) IN-SITU ASSUMED MATERIAL PARAMETERS FOR CRYSTALLINE ROCK:  
 UNIT WEIGHT,  $\gamma = 170$  LB/CF  
 FRICTION ANGLE,  $\phi = 0$  DEGREES  
 COHESION,  $c = 510,000$  LB/SF

|  |  |
|--|--|
| GEOTECHNICAL ENGINEER<br><br>Matthew J. Alexander<br>PROFESSIONAL ENGINEER<br>STATE OF NORTH CAROLINA<br>SEAL NO. 040231 | ENGINEER<br>_____<br>DATE: 8/10/2017<br>SIGNATURE: _____ DATE: _____ |
| <b>DOCUMENT NOT CONSIDERED FINAL<br/>                 UNLESS ALL SIGNATURES COMPLETED</b>  |  |



**SOIL NAIL WALL - TYPICAL SECTION**

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



**CONCRETE DITCH BEHIND WALL WITH CONCRETE FACING**

\*SEE ROADWAY PLANS FOR CONCRETE DITCH AND FINISHED GRADE DETAILS.  
 \*\*SEE WALL ENVELOPE FOR GRADE ELEVATIONS.

FOR CONCRETE DITCHES, SEE SECTION 850 OF THE STANDARD SPECIFICATIONS.

PROJECT NO.: 34243.1.4 (I-4729A)  
 POLK COUNTY  
 STATION: 12+86.17 -RWALL\_6- /  
 SHEET 3 OF 3 29+78.88 -RP\_F-

**Terracon**  
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 NC REGISTERED FIRM: F-0869

| SOIL NAIL RETAINING WALL NO. 6 TYPICAL SECTION AND NOTES |    |      |     |    |      |
|--|----|------|-----|----|------|
| REVISIONS  |    |      |     |    |      |
| NO.  | BY | DATE | NO. | BY | DATE |
| 1  |    |      | 3   |    |      |
| 2  |    |      | 4   |    |      |

|                              |                |
|------------------------------|----------------|
| PREPARED BY: M. J. ALEXANDER | DATE: 8/4/2017 |
| REVIEWED BY: A. F. RIGGS     | DATE: 8/4/2017 |

SHEET NO. W-16