

GEOTECHNICAL ENGINEER

ENGINEER

DocuSigned by:  
D. Matthew Brewer  
7/15/2022

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

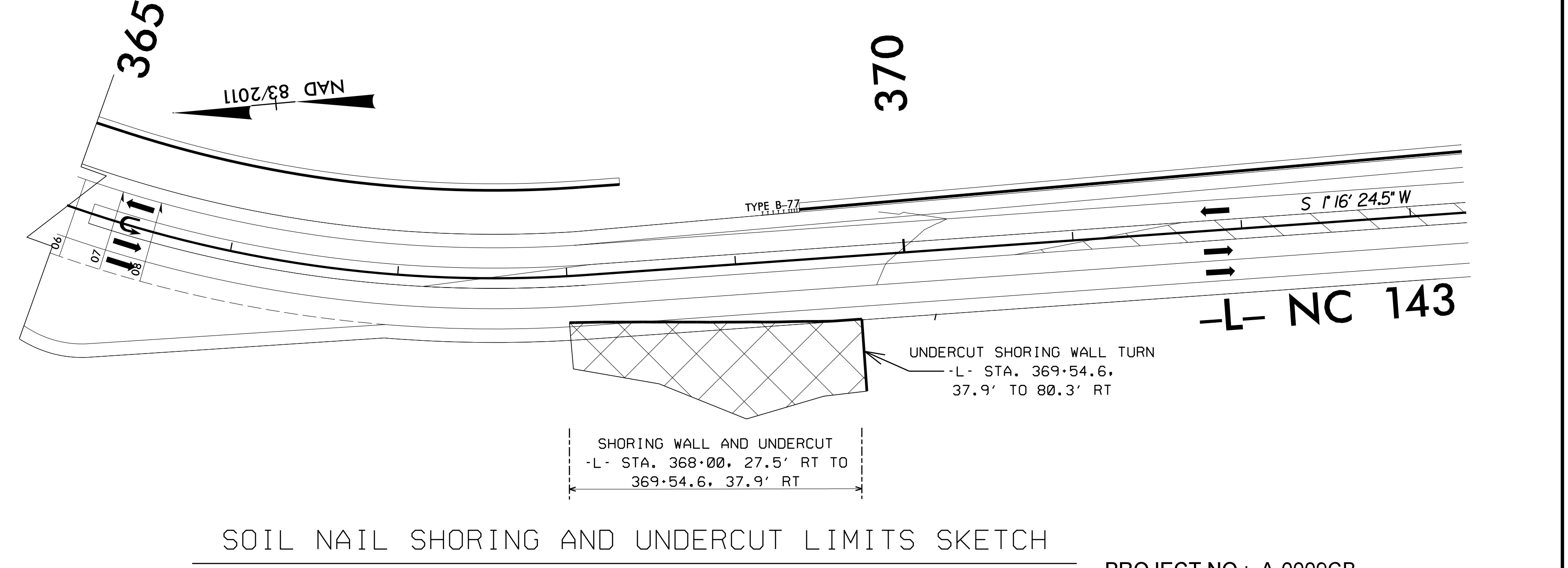
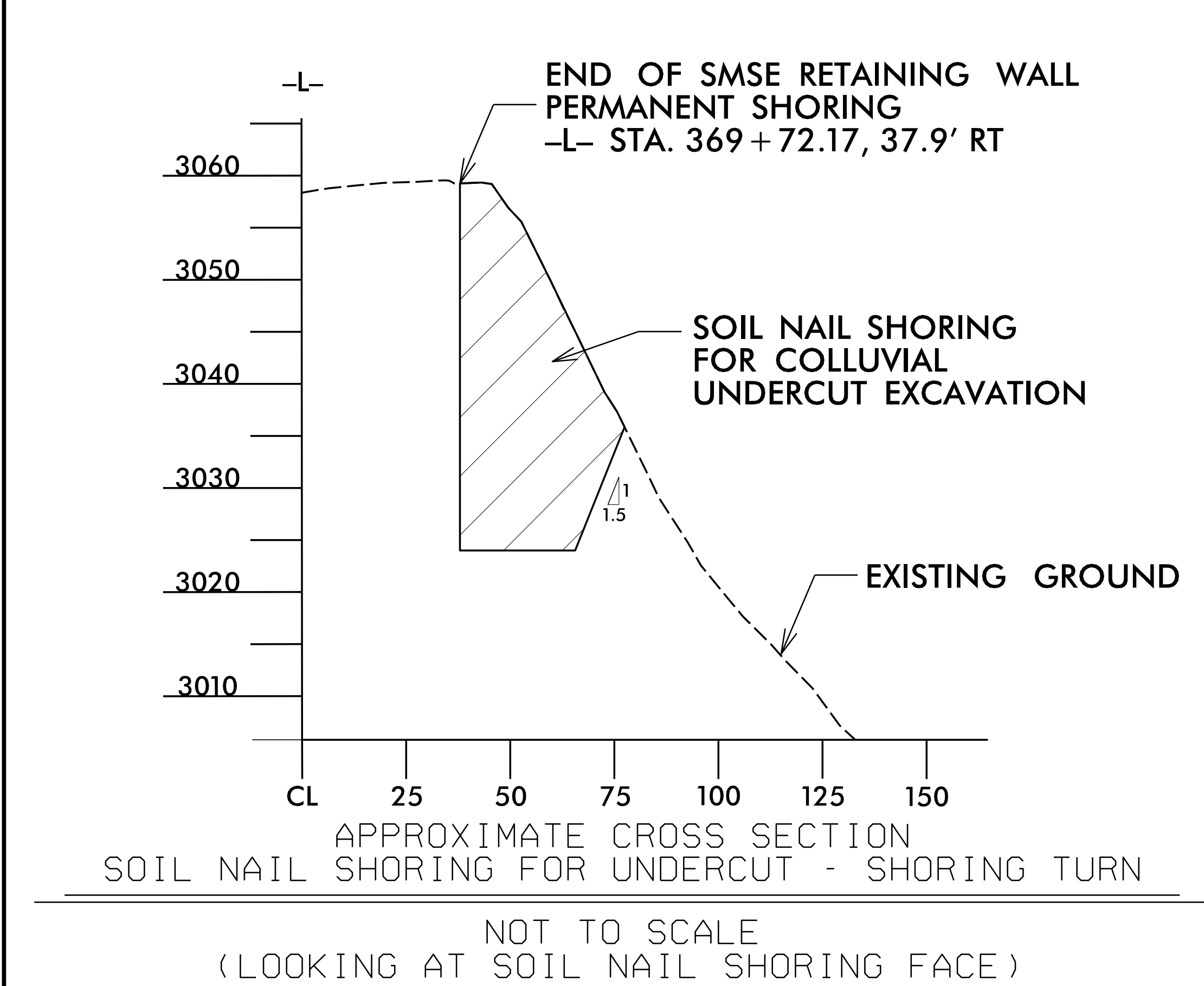
**ESTIMATED SOIL NAIL SHORING QUANTITIES**

| RETAINING WALL # | SOIL NAIL SHORING (SQ. FEET) | SOIL NAIL VERIFICATION TESTS | SOIL NAIL PROOF TESTS |
|------------------|------------------------------|------------------------------|-----------------------|
| 16               | 4,000                        | 3                            | 13                    |

**ESTIMATED QUANTITIES**

|   |          |
|---|----------|
| UNDERCUT EXCAVATION                         | 4,550 CY |
| GEOTEXTILE FOR SOIL STABILIZATION           | 850 SY   |
| SELECT GRANULAR MATERIAL                    | 850 CY   |
| SHOULDER DRAIN                              | 650 LF   |
| CONCRETE PAD FOR SHOULDER DRAIN PIPE OUTLET | 4 EA     |

NOT TO SCALE  
(LOOKING AT WALL FACE)



APPROXIMATE CROSS SECTION  
SOIL NAIL SHORING FOR UNDERCUT - SHORING TURN

NOT TO SCALE  
(LOOKING AT SOIL NAIL SHORING FACE)

|                  |                 |
|------------------|-----------------|
| PREPARED BY: DMB | DATE: 7/14/2022 |
| REVIEWED BY: REK | DATE: 7/14/2022 |

Prepared in the Office of:

**CAROLINAS GEOTECHNICAL GROUP**  
2400 CROWNPOINT EXECUTIVE DRIVE  
SUITE 800  
CHARLOTTE, NC 28227  
(980) 339-8684

PROJECT NO.: A-0009CB

GRAHAM COUNTY

STATION: -L-366+70, 50' RT TO 369+72, 50' RT

SHEET 6 OF 8

**RETAINING WALL #16  
SOIL NAIL SHORING FOR  
UNDERCUT EXCAVATION**

| REVISIONS |    |      |     |    |      | SHEET NO. |
|-----------|----|------|-----|----|------|-----------|
| NO.       | BY | DATE | NO. | BY | DATE |           |
| 1         |    |      | 3   |    |      | W16-6     |
| 2         |    |      | 4   |    |      |           |