

# TEMPORARY SHORING DATA

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|---------------------|-----------|
| PROJ. REFERENCE NO. | SHEET NO. |
| U-5809              | TMP-2C    |

## Shoring Location No. 1 (CUT SHORING):

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

TEMPORARY SHORING IS REQUIRED FOR 48-INCH PIPE CONSTRUCTION BETWEEN EXISTING US 421 AND RPB, FROM -RPB- STATION 9+25, 57 FT RT TO -RPB- STATION 10+40, 57 FT RT.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM -RPB- STATION 9+25 TO -RPB- STATION 10+15, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

ABOVE ELEVATION 893 FT  
UNIT WEIGHT ( $\gamma$ ) = 120 LB/CF  
FRICTION ANGLE ( $\phi$ ) = 30 DEGREES  
COHESION ( $c$ ) = 0 LB/SF

ELEVATION 893 TO ELEVATION 882 FT  
UNIT WEIGHT ( $\gamma$ ) = 110 LB/CF  
FRICTION ANGLE ( $\phi$ ) = 24 DEGREES  
COHESION ( $c$ ) = 0 LB/SF  
GROUNDWATER ELEVATION = 884FT

ELEVATION 882 TO ELEVATION 873 FT  
UNIT WEIGHT ( $\gamma$ ) = 115 LB/CF  
FRICTION ANGLE ( $\phi$ ) = 26 DEGREES  
COHESION ( $c$ ) = 0 LB/SF

BELOW ELEVATION 873 FT  
UNIT WEIGHT ( $\gamma$ ) = 120 LB/CF  
FRICTION ANGLE ( $\phi$ ) = 30 DEGREES  
COHESION ( $c$ ) = 0 LB/SF

DESIGN TEMPORARY SHORING FROM -RPB- STATION 10+15 TO -RPB- STATION 10+40, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

ABOVE ELEVATION 886 FT  
UNIT WEIGHT ( $\gamma$ ) = 115 LB/CF  
FRICTION ANGLE ( $\phi$ ) = 26 DEGREES  
COHESION ( $c$ ) = 0 LB/SF

BELOW ELEVATION 886 FT  
UNIT WEIGHT ( $\gamma$ ) = 120 LB/CF  
FRICTION ANGLE ( $\phi$ ) = 30 DEGREES  
COHESION ( $c$ ) = 0 LB/SF  
GROUNDWATER ELEVATION = 884 FT

DRIVEN PILING FOR TEMPORARY SHORING FROM -RPB- STATION 9+25, 31 FT RT TO -RPB- STATION 10+40, 57 FT RT MAY NOT PENETRATE BELOW ELEVATION 865 FT DUE TO OBSTRUCTIONS, VERY DENSE OR HARD SOIL, BOULDERS OR WEATHERED OR HARD ROCK.

## Shoring Location No. 2 (CUT SHORING):

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

TEMPORARY SHORING IS REQUIRED FOR 48-INCH PIPE CONSTRUCTION BETWEEN EXISTING US 421 AND RPB, FROM -RPB- STATION 9+25, 55 FT RT TO -RPB- STATION 10+40, 81 FT RT.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM -RPB- STATION 9+25 TO -RPB- STATION 10+15, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

ABOVE ELEVATION 893 FT  
UNIT WEIGHT ( $\gamma$ ) = 120 LB/CF  
FRICTION ANGLE ( $\phi$ ) = 30 DEGREES  
COHESION ( $c$ ) = 0 LB/SF

ELEVATION 893 TO ELEVATION 882 FT  
UNIT WEIGHT ( $\gamma$ ) = 110 LB/CF  
FRICTION ANGLE ( $\phi$ ) = 24 DEGREES  
COHESION ( $c$ ) = 0 LB/SF  
GROUNDWATER ELEVATION = 884FT

ELEVATION 882 TO ELEVATION 873 FT  
UNIT WEIGHT ( $\gamma$ ) = 115 LB/CF  
FRICTION ANGLE ( $\phi$ ) = 26 DEGREES  
COHESION ( $c$ ) = 0 LB/SF

BELOW ELEVATION 873 FT  
UNIT WEIGHT ( $\gamma$ ) = 120 LB/CF  
FRICTION ANGLE ( $\phi$ ) = 30 DEGREES  
COHESION ( $c$ ) = 0 LB/SF

DESIGN TEMPORARY SHORING FROM -RPB- STATION 10+15 TO -RPB- STATION 10+40, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

ABOVE ELEVATION 886 FT  
UNIT WEIGHT ( $\gamma$ ) = 115 LB/CF  
FRICTION ANGLE ( $\phi$ ) = 26 DEGREES  
COHESION ( $c$ ) = 0 LB/SF


BELOW ELEVATION 886 FT  
UNIT WEIGHT ( $\gamma$ ) = 120 LB/CF  
FRICTION ANGLE ( $\phi$ ) = 30 DEGREES  
COHESION ( $c$ ) = 0 LB/SF  
GROUNDWATER ELEVATION = 884 FT

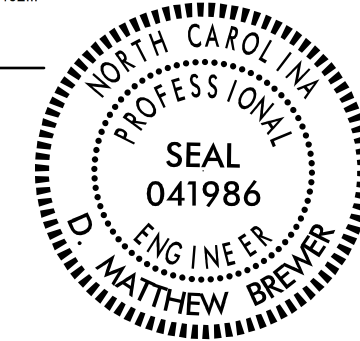
DRIVEN PILING FOR TEMPORARY SHORING FROM -RPB- STATION 9+25, 55 FT RT TO -RPB- STATION 10+40, 81 FT RT MAY NOT PENETRATE BELOW ELEVATION 867 FT DUE TO OBSTRUCTIONS, VERY DENSE OR HARD SOIL, BOULDERS OR WEATHERED OR HARD ROCK.

DO NOT USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM -RPB- STATION 9+25, 55 FT RT TO -RPB- STATION 10+40, 81 FT RT. CONTRACTOR DESIGNED SHORING IS REQUIRED. SEE TEMPORARY SHORING SPECIAL PROVISION.

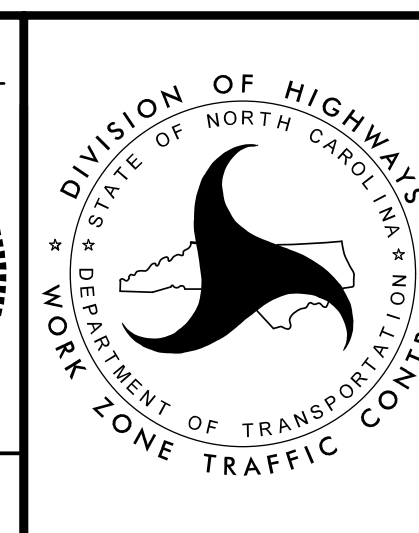
DO NOT USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM -RPB- STATION 9+25, 55 FT RT TO -RPB- STATION 10+40, 81 FT RT.

2/21/2024  
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User:smelvin

APPROVED:   
DATE: 3/27/2024



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



## TEMPORARY SHORING DATA