

## SUMMARY OF PILE INFORMATION/INSTALLATION

(Blank entries indicate item is not applicable to structure)

[illegible]

\*Predrilling for Piles is required for end bents/bents with a predrilling length and at the Contractor's option for end bents/bents with predrilling information but no predrilling length.

$$^{**}RDR = \frac{\text{Factored Resistance} + \text{Factored Downdrag Load} + \text{Factored Dead Load}}{\text{Dynamic Resistance Factor}} + \text{Nominal Downdrag Resistance} + \frac{\text{Nominal Scour Resistance}}{\text{Scour Resistance Factor}}$$

## PILE DESIGN INFORMATION

(Blank entries indicate item is not applicable to structure)

| End Bent/<br>Bent No,<br>Pile(s) #(-#)<br>(e.g., "Bent 1,<br>Piles 1-5") | Factored<br>Axial<br>Load<br>per Pile<br>TONS | Factored<br>Downdrag<br>Load<br>per Pile<br>TONS | Factored<br>Dead<br>Load*<br>per Pile<br>TONS | Dynamic<br>Resistance<br>Factor | Nominal<br>Downdrag<br>Resistance<br>per Pile<br>TONS | Nominal<br>Scour Resistance<br>per Pile<br>TONS | Scour<br>Resistance<br>Factor<br>(Default = 1.00) |
|--------------------------------------------------------------------------|-----------------------------------------------|--------------------------------------------------|-----------------------------------------------|---------------------------------|-------------------------------------------------------|-------------------------------------------------|---------------------------------------------------|
| End Bent 1, Piles 1-5                                                    | 104                                           |                                                  |                                               | 0.60                            |                                                       |                                                 |                                                   |
| End Bent 2, Piles 1-6                                                    | 104                                           |                                                  |                                               | 0.60                            |                                                       |                                                 |                                                   |
|                                                                          |                                               |                                                  |                                               |                                 |                                                       |                                                 |                                                   |
|                                                                          |                                               |                                                  |                                               |                                 |                                                       |                                                 |                                                   |
|                                                                          |                                               |                                                  |                                               |                                 |                                                       |                                                 |                                                   |

\*Factored Dead Load is factored weight of pile above the ground line.

## SUMMARY OF PDA/PILE ORDER LENGTHS

(Blank entries indicate item is not applicable to structure)

| Pile Driving Analyzer (PDA) |                                                |                                  |                                             | Pile Order Lengths      |                                              |
|-----------------------------|------------------------------------------------|----------------------------------|---------------------------------------------|-------------------------|----------------------------------------------|
| End Bent/<br>Bent No        | PDA<br>Testing<br>Required?<br>YES or<br>MAYBE | PDA<br>Test Pile<br>Length<br>FT | Total<br>PDA<br>Testing<br>Quantity<br>EACH | End Bent/<br>Bent No(s) | Pile Order<br>Length<br>Basis*<br>EST or PDA |
| End Bent 1, Piles 1-5       | MAYBE                                          | 15                               | 1                                           |                         |                                              |
| End Bent 2, Piles 1-6       | MAYBE                                          | 15                               |                                             |                         |                                              |
|                             |                                                |                                  |                                             |                         |                                              |
|                             |                                                |                                  |                                             |                         |                                              |
|                             |                                                |                                  |                                             |                         |                                              |

\*EST = Pile order lengths from estimated pile lengths; PDA = Pile order lengths based on PDA testing. For groups of end bents/bents with pile order lengths based on PDA testing, the first end bent/bent no. listed for each group is the representative end bent/bent with the PDA.

## SUMMARY OF PILE ACCESSORIES

(Blank entries indicate item is not applicable to structure)

| End Bent/<br>Bent No.<br>Pile(s) #(#)<br>(e.g., "Bent 1,<br>Piles 1-5") | Pipe Pile<br>Plates<br>Required?<br>YES or<br>MAYBE | Steel Pile Points                                 |                                                    |                                      | Steel<br>Pile Tips<br>Required?<br>YES |
|-------------------------------------------------------------------------|-----------------------------------------------------|---------------------------------------------------|----------------------------------------------------|--------------------------------------|----------------------------------------|
|                                                                         |                                                     | Pipe Pile<br>Cutting<br>Shoes<br>Required?<br>YES | Pipe Pile<br>Conical<br>Points<br>Required?<br>YES | H-Pile<br>Points<br>Required?<br>YES |                                        |
| End Bent 1, Piles 1-5                                                   |                                                     |                                                   |                                                    | YES                                  |                                        |
| End Bent 2, Piles 1-6                                                   |                                                     |                                                   |                                                    | YES                                  |                                        |
|                                                                         |                                                     |                                                   |                                                    |                                      |                                        |
|                                                                         |                                                     |                                                   |                                                    |                                      |                                        |
|                                                                         |                                                     |                                                   |                                                    |                                      |                                        |
| <b>TOTAL QTY:</b>                                                       |                                                     |                                                   |                                                    | 11                                   |                                        |

NOTES:

1. The Pile Foundation Tables are based on the bridge substructure design and foundation recommendations sealed by a North Carolina Professional Engineer (Jeremy R Hamm #039779) on 10/25/2023.
2. Total Pile Driving Equipment Setup quantity (not shown in Pile Foundation Tables) equals the number of driven piles, i.e., the number of piles with a Required Driving Resistance.
3. The Engineer will determine the need for PDA Testing when PDAs may be required.
4. For piles, see Piles Provision and Section 450 of the Standard Specifications.
5. Any reference to "PDA Testing" shall be presumed to be updated to "Dynamic Pile Testing" per the updated 2024 Specifications.

PROJECT NO. BP14-R010

CLAY COUNTY

STATION: 12+60.00 -L-

SHEET 3 OF 4

STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

PILE

FOUNDATION

TABLES

DocuSigned by:

Elizabeth F. Laves7/30/2024

SIGNATUREDATE

SEAL

044167

ENGINEERS

ELIZABETH F. LAVES

| REVISIONS |     |       |     |     |       |  | SHEET NO.<br>S-3 |
|-----------|-----|-------|-----|-----|-------|--|------------------|
| NO.       | BY: | DATE: | NO. | BY: | DATE: |  | TOTAL<br>SHEETS  |
| 1         |     |       | 3   |     |       |  | 17               |
| 2         |     |       | 4   |     |       |  |                  |

DOCUMENT NOT CONSIDERED

FINAL UNLESS ALL

SIGNATURES COMPLETED