## SUMMARY OF PILE INFORMATION/INSTALLATION

(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>Resistance<br>per Pile<br>TONS | Pile Cut-Off<br>(Top of Pile)<br>Elevation<br>FT | Estimated<br>Pile Lenth<br>per Pile<br>FT | Scour<br>Critical<br>Elevation<br>FT | Driven Piles  |   | Predrilling for Piles*                        |   |   | Drilled-In Piles                        |  |  |   |
|--|--|--|---|--------------------------------------|---|---|---|---|---|---|--|--|---|
|  |  |  |   |                                      | Min Pile<br>Tip (Tip<br>No Higher<br>Than) Elev<br>FT | Required<br>Driving<br>Resistance<br>(RDR)** per Pile<br>TONS | Total<br>Pile<br>Redrives<br>Quantity<br>EACH | Predrilling<br>Length<br>per Pile<br>Lin FT | Predrilling<br>Elevation<br>(Elev Not To<br>Predrill Below)<br>FT | Maximum<br>Predrilling<br>Dia<br>INCHES | Pile<br>Excavation<br>(Bottom of<br>Hole) Elev<br>FT | Pile Exc<br>Not In<br>Soil<br>per Pile<br>Lin FT | Pile Exc<br>In Soil<br>per Pile<br>Lin FT |
| End Bent 1, Piles 1-8  | 120  | 103.00   | 65  |                                      | 43.0  | 200   |   |   |   |   |  |  |   |
| Bent 1, Piles 1-15   | 120  | 83.00  | 60  |                                      | 28.0  | 200   | 16  |   |   |   |  |  |   |
| End Bent 2, Piles 1-8  | 120  | 103.00   | 65  |                                      | 43.0  | 200   |   |   |   |   |  |  |   |

<sup>\*</sup>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.

## 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 1-8  | 120   |  |   | 0.60                            |   |   | 1.00  |
| Bent 1, Piles 1-15   | 120   |  |   | 0.60                            |   |   | 1.00  |
| End Bent 2, Piles 1-8  | 120   |  |   | 0.60                            |   |   | 1.00  |

<sup>\*</sup>Factored Dead Load is factored weight of pile above the ground line.

## NOTES:

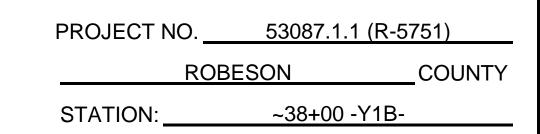
- 1. The Pile Foundation Tables are based on the bridge substructure design and foundation recommendations sealed by a North Carolina Professional Engineer (Ali Salehian, PE# 046104) on 06-18-2021.
- 2. Total Pile Driving Equipment Setup quantity (not shown in Pile Foundation Tables) equals the number 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.

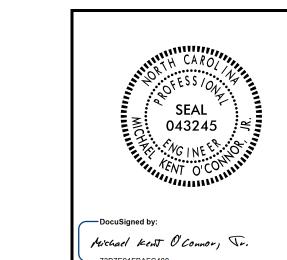
## SUMMARY OF PDA/PILE ORDER LENGTHS

(Blank entries indicate item is not applicable to structure)

| Pi                    | le Driving Analyz                              | Pile Order Lengths                               |   |                         |  |
|-----------------------|--|--|---|-------------------------|--|
| End Bent/<br>Bent No  | PDA<br>Testing<br>Required?<br>YES or<br>MAYBE | PDA Test Pile Length FT Total PDA Testin Quantin |   | End Bent/<br>Bent No(s) | Pile Order<br>Length<br>Basis*<br>EST or PDA |
| End Bent 1, Piles 1-8 | MAYBE  | 65   |   |                         |  |
| Bent 1, Piles 1-15    | MAYBE  | 60   | 1 |                         |  |
| End Bent 2, Piles 1-8 | MAYBE  | 65   |   |                         |  |

\*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.





STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

PILE FOUNDATION TABLES

| DOCUMENT NOT CONSIDERED | ١ |
|-------------------------|---|
| FINAL UNLESS ALL        |   |
| SIGNATURES COMPLETED    |   |

|      |     | S-3 |       |     |     |       |        |
|------|-----|-----|-------|-----|-----|-------|--------|
| ERED | NO. | BY: | DATE: | NO. | BY: | DATE: | TOTAL  |
|      | 1   |     |       | 3   |     |       | SHEETS |
| ED   | 2   |     |       | 4   |     |       | 28     |
|      |     |     |       |     |     |       |        |

 $<sup>^{**}</sup>RDR = \frac{Factored\ Resistance +\ Factored\ Downdrag\ Load +\ Factored\ Dead\ Load}{Dynamic\ Resistance\ Factor} + Nominal\ Downdrag\ Resistance\ + \frac{Nominal\ Scour\ Resistance\ Factor}{Scour\ Resistance\ Factor}$