## SUMMARY OF PILE INFORMATION/INSTALLATION

(Blank entries indicate item is not applicable to structure)

	Pile Cut-Off (Top of Pile) Elevation FT	Estimated Pile Lenth per Pile FT	Scour Critical Elevation FT	Driven Piles				Predrilling for Piles*	•	Drilled-In Piles		
Factored Resistance per Pile TONS				Min Pile Tip (Tip No Higher Than) Elev FT	Required Driving Resistance (RDR)** per Pile TONS	Total Pile Redrives Quantity EACH	Predrilling Length per Pile Lin FT	Predrilling Elevation (Elev Not To Predrill Below) FT	Maximum Predrilling Dia INCHES	Pile Excavation (Bottom of Hole) Elev FT	Pile Exc Not In Soil per Pile Lin FT	Pile Exc In Soil per Pile Lin FT
105	166.94	25			195							
105	165.33	25			195	]						
						-						
	Resistance per Pile TONS	Resistance (Top of Pile) per Pile Elevation FT  105 166.94	Resistance per Pile Elevation per Pile FT  105  106.94  Pile Lenth per Pile FT  Pile Lenth per Pile FT  25	Resistance per Pile Elevation FT FT FT Elevation FT FT FT FT FT	Resistance per Pile Elevation FT Pile Lenth per Pile Elevation FT FT Pile Tip (Tip No Higher Than) Elev FT  105 166.94 25	Factored Resistance per Pile TONS  Pile Cut-Off (Top of Pile) Elevation FT  Pile Cut-Off (Top of Pile) Elevation FT  FT  Scour Critical Elevation FT  No Higher Than) Elev FT  105  166.94  25  Min Pile Tip (Tip No Higher Than) Elev FT  Required Driving Resistance (RDR)** per Pile TONS	Factored Resistance per Pile TONS  Pile Cut-Off (Top of Pile) Elevation FT  Pile Lenth per Pile FT  Estimated Pile Lenth per Pile FT  Pile Lenth per Pile FT  FT  Min Pile Tip (Tip No Higher Than) Elev FT  No Higher Tons  Required Driving Resistance (RDR)** per Pile Redrives Quantity EACH  105  166.94  25	Factored Resistance per Pile TONS  Pile Cut-Off (Top of Pile) Elevation FT  Predrilling No Higher Than) Elev FT  Total Pile Required Driving Resistance (RDR)** per Pile Length per Pile Length per Pile Lin FT  Total Pile Redrives Quantity EACH  Predrilling Resistance (RDR)** per Pile Lin FT  Tons  105	Factored Resistance per Pile TONS  Pile Cut-Off (Top of Pile) Elevation FT  FT  Scour Critical Pile Lenth per Pile FT  No Higher Than) Elev FT  Tons  Required Driving Resistance (RDR)** per Pile Tons  Required Driving Resistance (RDR)** per Pile Length per Pile Lin FT  Predrilling Elevation (Elev Not To Predrill Below) FT  Predrilling Elevation (Elev Not To Predrill Below) FT  105	Factored Resistance per Pile TONS  Pile Cut-Off (Top of Pile) Elevation FT  FT  Pile Cut-Off (Top of Pile) Elevation FT  FT  FT  Pile Lenth per Pile Tip (Tip No Higher Than) Elev FT  No Higher Than) Elev FT  TONS  Required Driving Resistance (RDR)** per Pile TONS  Required Driving Resistance (RDR)** per Pile TONS  Required Driving Resistance (RDR)** per Pile Length per Pile Lin FT  Predrilling Elevation (Elev Not To Predrill Below) FT  Maximum Predrilling Dia INCHES	Factored Resistance per Pile TONS  Pile Cut-Off (Top of Pile) Elevation FT  Min Pile Tip (Tip No Higher Than) Elev FT  TONS  105  Pile Cut-Off (Top of Pile) Elevation FT  FT  Min Pile Tip (Tip No Higher Than) Elev FT  No Higher Tons  Required Driving Resistance (RDR)** per Pile Lin FT  Required Driving Resistance (RDR)** per Pile Lin FT  Predrilling Length per Pile Lin FT  Predrilling Length per Pile Lin FT  Predrilling Elevation (Elev Not To Predrill Below) FT  No Hole) Elev FT  105	Factored Resistance per Pile TONS  Pile Cut-Off (Top of Pile) Elevation FT  Min Pile Tip (Tip No Higher Than) Elev FT  TONS  Pile Cut-Off (Top of Pile) Elevation FT  Min Pile Tip (Tip No Higher Than) Elev FT  TONS  Required Driving Resistance (RDR)** per Pile TONS  Required Driving Resistance (RDR)** per Pile TONS  Predrilling Length per Pile Length per Pile Lin FT  Predrilling Elevation (Elev Not To Predrill Below) FT  Not In Soil per Pile Lin FT

<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.

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

## PILE DESIGN INFORMATION

(Blank entries indicate item is not applicable to structure)

End Bent/ Bent No, Pile(s) #-# (e.g., "Bent 1, Piles 1-5")	Factored Axial Load per Pile TONS	Factored Downdrag Load per Pile TONS	Factored Dead Load* per Pile TONS	Dynamic Resistance Factor	Nominal Downdrag Resistance per Pile TONS	Nominal Scour Resistance per Pile TONS	Scour Resistance Factor (Default = 1.00)
End Bent 1, Piles 1-7	104	7.9		0.60	6.3		1.00
End Bent 2, Piles 1-7	104	7.3		0.60	5.8		1.00

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

#### SUIMMARY OF DRILLED PIER INFORMATION/INSTALLATION

(Blank entries indicate item is not applicable to structure)

End Bent/ Bent No, Pier(s) #-# (e.g., "Bent 1, Piers 1-3")	Factored Resistance per Pier TONS	Minimum Pier Tip (Tip No Higher Than) Elevation FT	Required Tip Resistance per Pier TSF	Scour Critical Elevation FT	Minimum Drilled Pier Penetration Into Rock per Pier Lin FT	Drilled Pier Length per Pier Lin FT	Drilled Pier Length Not In Soil per Pier Lin FT	Drilled Pier Length In Soil per Pier Lin FT	Permanent Steel Casing Required? YES or MAYBE	Permanent Steel Casing Tip Elevation (Elev Not To Extend Casing Below) FT	Permanent Steel Casing Length* per Pier Lin FT
Bent 1, Piers 1-2	685	129.0	110	137	9.0		11.0	8.0	MAYBE	139.0	12.0
Bent 2, Piers 1-2	685	128.0	115	135	9.0		10.5	3.7	YES	137.0	5.2
Bent 3, Piers 1-2	615	129.0	100	136	9.0		11.0	9.0	MAYBE	139.0	11.5

<sup>\*</sup>Permanent Steel Casing Length equals the difference between the ground line or top of drilled pier elevation, whichever is higher, and the permanent casing tip elevation.

## SUIMIMIARY OF PIDA/PILLE ORIDER LENGTHS

(Blank entries indicate item is not applicable to structure)

P	ile Driving Analyz	Pile Order Lengths			
End Bent/ Bent No	PDA Testing Required? YES or MAYBE	PDA Test Pile Length FT	Total PDA Testing Quantity EACH	End Bent/ Bent No(s)	Pile Order Length Basis* EST or PDA
End Bent 1	MAYBE	30			
End Bent 2	MAYBE	30	1		

<sup>\*</sup>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)

Fud Baut	Din a Dila	S				
End Bent/ Bent No, Pile(s) #-# (e.g., "Bent 1, Piles 1-5")	Pipe Pile Plates Required? YES or MAYBE	Pipe Pile Cutting Shoes Required? YES Pipe Pile Conical Points Required? YES		H-Pile Points Required? YES	Steel Pile Tips Required? YES	
End Bent 1, Piles 1-7				YES		
End Bent 2, Piles 1-7				YES		
TOTAL QTY:				14		

## SUMMARY OF DRILLED PIER TESTING

(Blank entries indicate item is not applicable to structure)

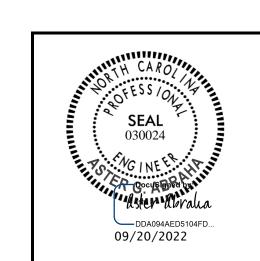
End Bent/ Bent No, Pier(s) #-# (e.g., "Bent 1, Piers 1-3")	Standard Penetration Test (SPT) Required? YES or MAYBE	Crosshole Sonic Logging (CSL) Required?* YES or MAYBE	Total CSL Tube Length (For All Tubes) per Pier Lin FT	Shaft Inspection Device (SID) Required? YES or MAYBE	Pile Integrity Test (PIT) Required? MAYBE
Bent 1, Piers 1-2		MAYBE	82	MAYBE	
Bent 2, Piers 1-2		MAYBE	63	MAYBE	
Bent 3, Piers 1-2		MAYBE	86	MAYBE	
		1			1
TOTAL QTY:		3	462	3	

<sup>\*</sup>CSL Tubes are required if CSL Testing is or may be required. The number of CSL Tubes per drilled pier is equal to one tube per foot of design pier diameter with at least 4 tubes per pier. The length of each CSL Tube is equal to the drilled pier length plus 1.5 ft.

PROJEC'	T NO. <u>B</u> -	·5670
	NASH	COUNTY
STATION	N: <u>16+98.</u>	00 -L-

# NOTES:

- 1. The Pile and Drilled Pier Foundation Tables are based on the bridge substructure design and foundation recommendations sealed by a North Carolina Professional Engineer (Jinyoung Park, PE# 032171) on 11-16-2021.
- 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, Permanent Steel Casing, SPTs, CSL Testing and SID Inspections when these items may be required.



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PILE AND DRILLED PIER FOUNDATION TABLES

SIGNATURE	DATE			REVI	SIONS	5		SHEET NO. S-3
DOCUMENT NOT C	NO.	BY:	DATE:	NO.	BY:	DATE:	40	
FINAL UNLESS ALL		1			3			40
SIGNATURES CO	2			4				