FOUNDATION RECOMMENDATIONS

WBS # 17BP.14.R.69

DESCRIPTION Bridge 115 on SR 1104 over Baker's Creek

T.I.P. NO. N/A

COUNTY Macon

STATION 16+28.00 -L-

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 026917 ENGINEER MICHAEL J. WALKO
12-14-12
SIGNATURE

	INITIALS	DATE
DESIGN	MJW	Dec-12
CHECK	WPA	Dec-12
REVISED		

BENT	STATION	FOUNDATION TYPE	FACTORED RESISTANCE	MISCELLANEOUS DETAILS
END BENT 1	16+01.66	Cap on HP 12X53 Steel Piles	70 Tons/Pile	Ave. BOC Elevation = 2,432.3' Avg. Pile Length = 30' ± (LT), 40' ± (RT) 5 piles @ 8'-6" spacing
END BENT 2	16+54.26	Cap on HP 12X53 Steel Piles	70 Tons/Pile	Ave. BOC Elevation = 2,434.1' Avg. Pile Length = 25' ± (LT), 20' ± (RT) 5 piles @ 8'-6" spacing

NOTES ON PLANS & COMMENTS (See following page)

N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENG. UNIT-WRO

___ ACCEPTED

X ACCEPTED AS NOTED

___ RETURNED FOR CORRECTIONS

___ SEE LETTER

BY: Dean Hardister, PE

DATE: 01/03/2013

WBS # 17BP.14.R.69 **County** Macon

FOUNDATION RECOMMENDATION NOTES ON PLANS

1) For Piles, see Section 450 of the Standard Specifications.

2) Piles at End Bent 1 and End Bent 2 are designed for a factored resistance of 70 tons per pile.

3) Drive piles at End Bent 1 and End Bent 2 to a required driving resistance of 120 tons per pile.

4) Steel H-pile points are required for steel H-piles at End Bent 1 and End Bent 2. For steel pile points, see Section 450 of the Standard Specifications.

5) Testing the first production pile with the PDA during driving, restriking or redriving may be required. The engineer will determine the need for PDA testing. For PDA testing, see Section 450 of the Standard Specifications (and for pile driving criteria, see pile driving criteria provision).

REMOVE PARENTHESES & CAPITALIZE "PILE DRIVING CRITERIA PROVISION"

FOUNDATION RECOMMENDATION COMMENTS

1) A Delmag D19-32 pile hammer was utilized as a common hammer type to determine potential pile driving stresses. This hammer should provide sufficient energy to drive the piles to the required driving resistance at the end bents. The actual hammer to be utilized will be submitted by the contractor and analyzed after letting.

2) 1.5 (H:V) End Slopes with rip rap slope protection are recommended as shown on the preliminary general drawing.

3) The sub-regional approach fill detail should be used at both end bents.

4) No waiting period is required at either end bent prior to construction.

N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENG. UNIT-WRO

___ ACCEPTED

X ACCEPTED AS NOTED

___ RETURNED FOR CORRECTIONS

___ SEE LETTER

BY: Dean Hardister, PE

DATE: 01/03/2013

PILE PAY ITEMS

(Revised 8/15/12)

WBS ELEMENT 17BP.14.R.69 DATE Dec-12

TIP NO. DESIGNED BY MJW

COUNTY Macon CHECKED BY WBA

STATION 16+28.00 -L-

DESCRIPTION Bridge 115 on SR 1104 over Baker's Creek

N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENG. UNIT-WRO

___ ACCEPTED
X ACCEPTED AS NOTED
___ RETURNED FOR CORRECTIONS
___ SEE LETTER

BY: Dean Hardister, PE
DATE: 01/03/2013

NUMBER OF BENTS WITH PILES
NUMBER OF PILES PER BENT
NUMBER OF END BENTS WITH PILES
NUMBER OF PILES PER END BENT

Only required for "Predrilling for Piles" & "Pile Excavation" pay items

Bent # or End Bent #	PILE PAY ITEM QUANTITIES						
	Steel Pile Points (yes/no)	Pipe Pile Plates (yes/no/maybe)	Predrilling For Piles (per linear ft)	Pile Redrives (per each)	Pile Excavation (per linear ft)		PDA Testing (per each)
					In Soil	Not In Soil	
End Bent 1	Yes	No	No	0	0	0	
End Bent 2	Yes	No	No	0	0	0	
TOTALS			0	0	0	0	1

Notes:

Blanks or "no" represent quantity of zero.

If steel pile points are required, calculate quantity of "Steel Pile Points" as equal to the number of steel piles.

If pipe pile plates are or may be required, calculate the quantity of "Pipe Pile Plates" as equal to the number of pipe piles.

Show quantity of "PDA Testing" on the plans as total only.

If quantity of "PDA Testing" is 3 or less, reference "Pile Driving Criteria" provision in PDA notes on plans and include "Pile Driving Criteria" provision in the contract.