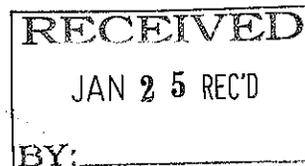


1 VanMeter DVM
Clowers _____
3 Hancock _____
2 ~~DAVE~~ _____
Rainwater _____



DEPARTMENT OF TRANSPORTATION

STATE OF GEORGIA

INTERDEPARTMENTAL CORRESPONDENCE

FILE NH000-0073-03 (242) Cobb
Northwest Corridor Project
PI No. 714130

OFFICE Materials and Research
Forest Park, GA.
DATE January 22, 2010

Z.S. for
FROM Georgene M. Geary, P. E., State Materials and Research Engineer

TO Darryl Van Meter, P. E., Innovative Program Delivery Engineer
Attn: John Hancock, Program Development Design Group Manager

SUBJECT Bridge Foundation Investigation Review
I-75 Reversible Ramp B to I-285 East Bound – Bridge 2B

As requested, we have reviewed the Bridge Foundation Investigation report, dated December 2, 2009, prepared by Willmer Engineering Inc. for the aforementioned site. We recommend as follows:

- 1. PWR and Auger Refusal Elevations:** The top of PWR elevations are not correct according to the boring logs. We recommend correcting as follows:

Boring No.	Top of PWR	Auger Refusal
BR-6	946	
BR-23	819	
BR-25	817.5	813
BR-27	816	
BR-27A	811	

- 2. Maximum Pile Design Loads:** We recommend a load transfer of 80% end bearing and 20% friction.
- 3. Foundation Recommendation:** Bent 1 should be changed to a spread footing. All drilled shaft information in this section should be deleted and pile footings should be recommended. Therefore an alternate will not be needed.

4. **Elevations:** We recommend changing BR-27A to BR-27B at Bent 15-Left. We recommend the bottom of footing and minimum tip be changed as follows:

Elevations				
<u>BENTS</u>	<u>BOTTOM OF SHAFT</u>	<u>BOTTOM OF FTG</u>	<u>MINIMUM TIP</u>	<u>ESTIMATED TIP</u>
1		945 or below		
2			832	828
4			862	
6			850	
7			830	
8			837	835
9			828	
10			828	
11			825	818
12			838	
14			815	
15-Right			815	
15-Left			816	805
16			810	

Also, the "±" symbol from all the minimum and estimated tip elevations should be removed.

5. **Down-drag Protection:** An MSE wall appears to be shown on the plans. If MSE walls will be used they should be referenced on the elevation plan sheet and the bottom of the leveling pad elevation indicated on the boring logs. Also, soil parameters are needed for the MSE walls unless they are included in a separate report.
6. **Drilled Shafts:** We recommend using pile footings. Therefore, this section should be deleted from the report. Also, the Special Provision 524 should be removed.
7. The foundation type and tips will need to be reevaluated once the scour line is established at bent 16.

This report should be revised and resubmitted to this office for further review.

If additional information is needed, please contact Nancy Smith of the Geotechnical Engineering Bureau at 404-363-7546.

GMG: NFS

Copy: Paul Liles, P. E., State Bridge and Structural Design Engineer