

3.5 GROUNDWATER

Groundwater was encountered in all of the land borings drilled for this project. The groundwater elevation ranged from ± 894 feet to ± 865 feet. The water surface elevation of the Yadkin River measured during the survey portion of our exploration on April 29, 2004 was ± 865 feet. Fluctuation of groundwater and river water surface levels can occur with seasonal and climatic variations. According to the Bridge Survey and Hydraulic Report, the normal creek water surface elevation is 866.3 feet, the 10-year floodwater surface elevation is 881.4 feet, the 50-year floodwater surface elevation is 883.8 feet, the 100-year flood elevation is 884.7 feet, and the 500-year flood elevation is 886.4 feet.

4.0 NOTES TO THE DESIGNER

Gravel is present to varying degrees within the roadway embankment fill and alluvium present at the site, and rock fragments are present within some of the residual soil present at the site. In addition, large rip rap rocks and boulders are present along the existing embankment slope in the vicinity of left side of the proposed End Bent-1. It should also be noted that the floodplain area at the subject site tends to be very wet, soft, and unstable under relatively heavy equipment.

5.0 CLOSURE

This subsurface investigation is based on the Bridge Survey & Hydraulic Design Report, and the data obtained from our field and laboratory-testing program. If the proposed location and geometry, or finished grades are changed or are different from those outlined above, or if subsurface conditions are encountered during construction that differ from those indicated by our borings, we will require the opportunity to review these changed conditions and make any necessary modifications to the report.

Cross-sections and profiles are a generalized interpretation of soil conditions between borings and should not be considered accurate other than at the boring locations. Subsurface conditions between boring locations or elsewhere on the site may vary, and subsurface anomalies may exist which were not detected.

Trigon Engineering Consultants, Inc. appreciates the opportunity to be of service to the NCDOT on this project. Should you have any questions concerning this report, please feel free to contact the undersigned.

Respectfully submitted,

TRIGON ENGINEERING CONSULTANTS, INC.

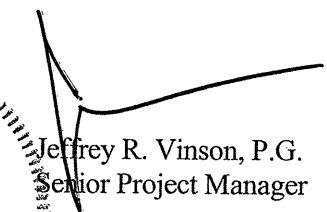
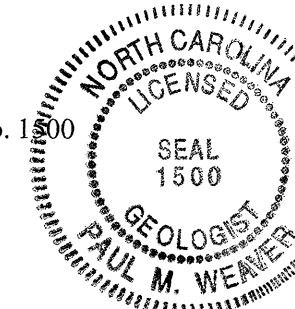


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PMW/JRV:pkb

Attachments

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