

elevations from ± 208.0 to ± 214.4 feet. Underlying the embankment fill, alluvial soils were encountered in all borings except EB1-A. The alluvial soils primarily consist of sandy silt (A-4) with areas of silty and sandy clay (A-6), and generally extend to elevations from ± 203.9 to ± 211.0 feet. Residual soils primarily consist of saprolitic sandy silts (A-4) with rock fragments and generally extend to elevations from ± 185.70 to ± 208.70 feet. Weathered rock primarily consisting of metamudstone was encountered beneath the residual soils from elevations of ± 184.4 to ± 205.6 feet. Non-crystalline metamudstone extended below the weathered rock at elevations from ± 170.6 to ± 195.6 feet, where borings were terminated.

In the two interior bent borings, B1-A and B1-B, the rock cores show varying degrees of weathering, from moderate to severe, and hardness of moderate to medium. Fracture spacing was very close to close, and iron staining was observed on the majority of fracture spaces. Strata REC ranged from 34% to 98% with an average of 71%. Strata RQD ranged from 0% to 6%. Only one run encountered a RQD greater than 0%. The poor recovery rates are attributed to the washing away of severely weathered material.

The weathered rock specimens recovered from the site were consistent with the descriptions of geologic conditions for the area. Titan Atlantic/Terracon personnel did not observe any rock outcrops and/or boulders of similar rock in the vicinity of the site.

A profile showing graphical descriptions of the subsurface conditions is included in the Appendix as Drawing No. 3. Cross sections showing graphical representations of the general subsurface conditions encountered at each proposed bent are included in the Appendix of this report as Drawing Nos. 4 through 6.

GROUNDWATER

Groundwater was encountered in all borings. The stabilized groundwater depths measured in the borings varied from 2.8 to 3.5 feet below the existing ground surface. These depths correspond to elevations of approximately ± 210.40 and ± 210.80 feet. These elevations are slightly above the Hawtree Creek elevation of 210.2, which was measured at the time of drilling.

CLOSING

The geotechnical investigation and results described in this report are based on the Bridge Survey & Hydraulic Design Report for this project dated 10/28/03 and on the general drawings and boring logs created by Titan Atlantic/Terracon. If any significant changes are made in the design or location of the proposed bridge, the subsurface information and recommendations will have to be reviewed and modified as necessary.

