

Residual soils are present primarily outside the floodplains of New Hope Creek and Sandy Creek and are derived from the weathering of the Triassic rocks underlying the project. The surficial residual soils are generally brown to gray, stiff, moist silty clay (A-6). The surficial clays have low to high plasticity indices (12 to 27) that generally decrease with depth. The subsurface residual soils consist of brown and gray, medium stiff to hard, moist, silty clay (A-6, A-7-5, A-7-6) and sandy silt (A-4).

Weather Rock is present in all borings except for CMP-4, -DET1- 4+47, 12 ft. Lt. It consists of weathered Triassic mudstone and sandstone.

#### Rock Properties

Triassic Mudstone and Sandstone, Non-Crystalline Rock, was encountered in two borings on the -Detour 2- alignment as lenses within the Triassic Weathered Rock.

#### Groundwater

Groundwater was encountered throughout the project in all of the borings and is usually more than 6 feet below grade except for the areas noted above. The groundwater table is subject to seasonal fluctuations.

Respectfully submitted,



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#### Appendix A

#### Undisturbed Samples

Undisturbed "Shelby" tube samples were taken at the following locations to provide data relative to in situ soil strength.

<u>Sample No.</u>	<u>Location</u>	<u>Depth</u>	<u>Test Performed</u>
ST-5	5+82.5, 18.7'RT, -Detour 1-	0.50-1.50 Ft	Consolidation
ST-6	5+82.5, 16.7'RT, -Detour 1-	0.50-1.80 Ft.	Triaxial CU
ST-7	5+29.97, 24.7LT, -Detour 2-	7.5-9.5 Ft.	Consolidation
ST-8	5+29.97, 17.7 RT, -Detour 2	13.5-15.5 Ft.	Triaxial CU
ST-9	2+01.17, 12.5 RT, -Detour 1-	4.0-6.0 Ft.	Consolidation