



July 7, 2015

MR. ZIAD SHALABI, P.E.
APPLIED CIVIL ENGINEERING, INC.
9470 ANNAPOLIS ROAD, SUITE 414
LANHAM, MARYLAND 20706

RE: TECHNICAL MEMORANDUM
WATER TABLE DETERMINATION AT NEW BUILDING PAD
6503 VALLEY PARK ROAD
CAPITOL HEIGHTS, PRINCE GEORGE'S COUNTY, MARYLAND


GeoEnv Engineers & Consultants, LLC (GEE) completed a subsurface soil boring within the building pad for the proposed residential dwelling planned at the referenced site. The field investigations were complete on July 2, 2015, and intended to determine the presence and depth to the groundwater table within the subgrade of the proposed building pad. Based on the information provided by the engineer, the ground surface elevation at the location of the soil boring is 98.0 feet MSL.

Our soil test boring performed within the proposed building pad, and revealed the presence of approximately six inches of organic topsoil underlain by approximately 8 inches of silty clay, then high plasticity clays (CH) with gray mottles encountered to the termination depth of 8.5 feet below the ground surface (BGS). The water table was encountered at 6.1 feet BGS or approximately 91.9 feet MSL. It should be noted that our field investigations were performed during a period of frequent rain events.

For this site, we recommend that the foundation system for the new structure must be designed in accordance with current Prince George's County requirements and accepted engineering practices. Due to the presence high plasticity clay (CH) materials, we recommend that the exterior footings shall be set a minimum of four feet below the final grades. We also recommend that the basement level shall be set a minimum of two (2) feet above the high water table, and an adequate foundation drainage system shall be provided as a part of the foundation design. In addition, the below grade basement level, if any, must be provided with a commercial grade sump pump with a second (back up) sump pump capable of removing any accumulated water under the slabs. The encountered plastic clays with gray mottles are considered unsuitable for insitu infiltration, and thus infiltration trenches are considered unsuitable at this site. During construction, the building pad must be inspected and approved by the Geotechnical engineer prior to placing the footings. The inspecting engineer may provide additional field recommendations, if warranted.

We trust that this technical memorandum meets your needs. If you have any questions regarding the content of this memorandum, please do not hesitate to contact the undersigned engineer at (703)591-7170 or (703) 593-8090. We look forward to working with you again.

Sincerely,


Ibrahim (Abe) Chehab, P.E.
Principal Engineer

