A geotechnical engineering report (for a BFI, Soil Survey, Retaining Wall, etc.) is based on a subsurface exploration plan designed to incorporate a unique set of project-specific factors. These typically include: the general nature of the structures involved; their size and configuration; the location of the structures on the site and their orientation; the site’s existing surface and subsurface conditions; and the post-construction performance requirements of the structures. Even though the guidelines and practices in this manual have been developed in an attempt to standardize the geotechnical scopes of work undertaken and to provide standard templates to be used in preparing the final geotechnical reports, limitations in the services provided and the final reports issued still exists. Therefore, the geotechnical consultant, designer, contractor, and the GDOT must recognize these limitations to avoid misinterpretation of the geotechnical report during design and construction.

The following paragraphs provide discussions regarding the above referenced limitations. It should be noted, however, that the discussions below do not take into account every possible limitation that could exist during execution of a geotechnical study and the interpretation of the report afterwards. Effective communication and involvement between the geotechnical engineer and the design & construction teams throughout the project’s design & construction phases are the only means to ensure that misinterpretations and unforeseen subsurface conditions are adequately addressed. As a minimum, the geotechnical engineer should discuss the exploration and report limitations with the designer and make himself/herself available throughout the design and construction phases in case questions arise. However, consultant reports should not contain all-encompassing or vague statements that could be misleading to contractors. Reports should contain specific recommendations for each particular situation.

A geotechnical exploration identifies actual subsurface conditions only at those points where samples are taken, when they are taken. Data derived through sampling and subsequent laboratory testing are extrapolated by geotechnical engineers who then render an opinion about the overall subsurface conditions, their likely reaction to proposed construction activity, and appropriate foundation design. Even under optimal circumstances, actual conditions may differ from those inferred to exist, because no geotechnical engineer, no matter how qualified, and no subsurface exploration program, no matter how comprehensive, can reveal what is hidden by earth, rock and time. The actual interface between materials may be far more gradual or abrupt than a report indicates. In addition, actual conditions may vary from predictions between sample locations and the construction process itself may alter soil conditions.
The geotechnical scope of services for the GDOT projects generally will not include an environmental assessment for determining the presence or absence of wetlands or hazardous or toxic materials in the soil, bedrock, surface water, groundwater, or air, on or below or around this site. Any statements in the reports or on the boring logs regarding odors, colors, unusual or suspicious items or conditions are strictly for information purposes only.

Unless the geotechnical consultant indicates otherwise, the geotechnical report should not be used:

- When the nature of the proposed structure(s) is changed. For example, if a cast-in-place retaining wall is changed to a MSE wall, or if a bridge widening is changed to a parallel structure;
- When the size or configuration of the proposed structure is altered;
- When the location or orientation of the proposed structure is modified;
- For application to an adjacent site;
- When an alignment change has been made.

There are standard clauses and disclaimers that can and should be used when issuing geotechnical reports. Currently, the GDOT places the following disclaimer on all reports provided to contractors:

“The Department of Transportation is making this foundation report available to contractors and assumes no responsibility for its accuracy. No claim will be considered if the contractor relies on this information in his bidding or in his construction operations and finds that it is inaccurate. This foundation report is not considered as a part of the Plans and Specifications or Contract for this job.”

If summary reports, Boring Logs (without the accompanying report) or partial information are being provided to the designer or other parties by the geotechnical engineer, language similar to the following is recommended to be included with the transmittal:

“The information, conclusions and/or recommendations contained in this summary are for information purposes only. The complete geotechnical report must be reviewed and understood if such data are to be used for design, estimating or construction purposes. The geotechnical consultant assumes no liability for any party’s usage of this information beyond that which it was intended.”

Final reports and other correspondence from the geotechnical engineer can and sometimes should include other statements of limitation and disclaimers. However, as stated previously, there is no substitution for frequent and clear communication between all parties involved. The geotechnical consultant is encouraged to work closely with his/her GDOT Liaison and/or the GDOT Geotechnical Environmental Pavement Bureau when questions arise regarding unusual project conditions that may require special consideration or discussions regarding limitations.