January 2020 Revised Geotechnical Manual

This bulletin announces the approval and availability of an updated (January 2020) Geotechnical Engineering Manual.

The manual provides details for applying the general assignment of roles and concepts set forth in the Geotechnical Engineering Manual (GEM). The GEM has been prepared for use by in-house staff as well as consulting geotechnical engineers working for the Department. This document provides general guidance for the geotechnical design of transportation facilities for the Connecticut Department of Transportation as well as an overview of the geotechnical design process, from planning through the completed construction of a project. No hard copies will be distributed. The following are the significant changes:

- Section 3-4.7, Work Zone and Maintenance and Protection of Traffic adds procedures necessary to insure for proper work zones and maintenance and protection of traffic. These requirements are for both in-house and consultant design geotechnical engineers.
- Chapter 3 Appendix, includes a revised or updated Sample Test Boring Contract, Work Zone Safety Guidelines for Maintenance Operations, List of Boring Contractors and Sample Entry Permit Form.
- Section 5-1, Replaces Logplot with gINT as the Department’s required software for boring log data input and management.
- Section 6-2.4, Micropile updates clarifying the division of design responsibility between the design geotechnical engineers and the Contractor’s micropile design engineers.
- Section 6-3, Proprietary Retaining Wall update, changing the design code requirements from AASHTO working stress design to AASHTO LRFD design.
- Section 7-2.5.2a, Proprietary Retaining Wall update, changing the required geotechnical report content of bearing resistance for foundations from “allowable bearing” (AASHTO working stress), to “factored bearing” (AASHTO LRFD).
- Section 7.2.5.2d, Micropile updates, changing the required geotechnical report content of micropiles to included minimum micropile material properties requirements.

The January 2020 version of the Geotechnical Engineering Manual is effective immediately.