HENNEPIN COUNTY
MINNESOTA

Geotechnical laboratory testing

Description

This type of work includes conducting tests on soil and rock for the purpose of classifying materials and identifying their physical properties. The tests in soil include moisture content, grain size, Atterberg limits, permeability, consolidation, unconfined compression, direct shear, and triaxial. Laboratories will be approved for Level 1, Level 2 or both as defined below.

Level 1 – Standard tests

Level 1 Projects will include the following standard tests which need to be accredited by the AASHTO Materials Reference Laboratory (AMRL).

- Moisture content
- Grain size
- Atterberg limits
- Unconfined compression
- Consolidation

Level 2 – Specialized tests

Level 2 Projects will include the following specialized tests which need to be accredited by the AASHTO Materials Reference Laboratory (AMRL).

- Permeability (constant head and falling head)
- Direct shear
- Triaxial (UU, CU, and CD)

Standards and specifications

May include the following:

A. All tasks will be performed in accordance with current ASTM, AASHTO, and, for highway construction projects, MnDOT standards and specifications. The current Specifications for Subsurface Investigation &

Geotechnical Analysis and Design Recommendations can be found at:
https://www.dot.state.mn.us/materials/foundationdocs/tcontract/consultdrillreport.pdf

Provided by Hennepin County

Information to be supplied by Hennepin County for a project may include the following:

- American Society for Testing and Materials (ASTM), American Association of State Highway & Transportation Officials (AASHTO), and MnDOT Standard Specifications.

Typical services

Project deliverables may include the following:

- Final laboratory test results with numerical and graphical output in a paper and electronic format.

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