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PROJECT BRIEF

Colebrook Municipal Landfill Geotechnical Design

PROJECT PROFILE

CLIENT:
Lynnfield Engineering, Inc.

LOCATION:
Colebrook, NH

VALUE:

- Developed a design solution providing a stable perimeter containment berm that allowed an increase in the volume of the landfill as part of the closure design

SERVICES PROVIDED:

- Real-time 24/7 monitoring of perimeter berm with in-place inclinometers using Geocomp's data management system

"The berm was constructed over very soft organic foundation soils that posed settlement and stability problems. High strength geosynthetic base reinforcement was designed to provide adequate construction stability."

GEOTECHNICAL DESIGN

Geocomp provided geotechnical design services for a 25 foot high perimeter berm associated with closure of the Colebrook Municipal Landfill located off of Skyline Drive in Colebrook, New Hampshire. The berm was constructed over very soft organic foundation soils that posed settlement and stability problems. High strength geosynthetic base reinforcement was designed to provide adequate construction stability. In addition, staged construction of the berm was required, to allow sufficient strength gain in the organic soils prior to completing the berm to its full height. The performance of the berm was monitored by Geocomp using remote real time monitoring.

BACKGROUND

The Colebrook Municipal Landfill is an unlined 12 acre landfill located in northern, NH. USEPA regulations required that all unlined landfill be closed and capped. In order to achieve final site grades for cap construction, a perimeter earth bern (max. 25 foot hight) was required around the landfill perimeter. The eastern slope of the landfill, however, is underlain by weak compressible organic soils, that posed stability problems to the proposed perimeter berm.