

DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF DISTRICT MINING OPERATIONS

**Scope of Work for a Geotechnical Investigation at New Hope Crushed Stone &
Lime Co., Inc. Quarry, Surface Mining Permit 7974SM3**
Bucks County, Solebury Township, Pennsylvania

June 29, 2021

NATURE OF THE PROJECT

The Department of Environmental Protection (Department) invites you to submit a proposal for Engineering and Related Services for a Geotechnical Investigation at the New Hope Quarry (Project) as part of required reclamation at the quarry site. Data collected in this Project will be used to determine the scope and scale of future work, which may include a stormwater control structure or a permitted dam.

BACKGROUND

The Pennsylvania Environmental Hearing Board determined that the depressed groundwater elevations around the New Hope Crushed Stone & Lime Co., Inc. (NHCS) resulting from its dewatering operations, are causing a nuisance at Solebury School (School) in the form of sinkholes. As a result of the now settled litigation involving the Department, NHCS and School, and other Department actions, it has been determined that the quarry lake shall be allowed to rise to 102.7' MSL. Through consultation with the Department's Division of Dam Safety, it was determined that the elevation of the contact between fill and bedrock will largely govern the scope and scale of a stormwater control structure or a permitted dam.

The quarry mined through Primrose Creek approximately 35 years ago. Therefore, the quarry lake lies within the active channel of Primrose Creek. Successful completion of the Project will require an engineered structure connecting the quarry lake to the downstream portion of Primrose Creek. This Project will help determine the location and type of structure required.

CURRENT SITUATION

NHCS no longer operates and forfeited their surface mining permit and reclamation bonds. This leaves the Department responsible for completing reclamation at the NHCS site. The current water elevation in the quarry is approximately 30' MSL. In order to keep flow in Primrose Creek, the Department is currently pumping approximately 500,000 gallons per day (GPD) from the quarry lake to the downstream portion of Primrose Creek.

The property is still owned by NHCS. The quarry property is for sale, and the Department is in contact with the realtor, in order to relate the remaining reclamation requirements to any potential buyers. The Department has full regulatory authority to complete required reclamation at the site through the

surface mining permit issued in accordance with the Noncoal Surface Mining, Conservation and Reclamation Act.

PROJECT INTENT

The Project shall consist of all required efforts to complete a geotechnical investigation to determine the elevation and geological nature of the contact between the overburden fill material and the buried bedrock along the east rim of the quarry. The finished work product will provide data and drawings to the Department so it can evaluate the scale and scope of the required structure. The services shall be overseen by a Professional Geologist or Engineer that is well versed in the such geotechnical investigations.

The Professional's contract with the Department is intended to provide the following minimum Professional services and work products:

- Furnish a copy of all data collected, digital and hardcopy
- A letter report summarizing the findings, which includes a description of the overburden-rock interface, a map showing the locations of the borings and/or any geophysical survey, a structural contour map of the overburden-rock interface, existing grade and representative cross-sections which include all of the above information. The drawings shall be sealed by a Professional Engineer and Geologist.

PROJECT SCOPE OF WORK

The Professional must comply with all terms and conditions of the Standard Department Agreement, General Conditions, Project Procedure manual, Administrative Procedures and all other Department instructions and guidelines. The following is the Scope of Work for this Phase of the Project organized into two sections of the General Conditions of the Department's Professional Design Agreement: Site Investigation, and Reporting.

Site Investigation

Review of existing site information, provided by PADEP including:

- Existing reclamation plans
- Groundwater elevation data
- Topographic data
- Test pit data

Site review

- Perform desktop research on the site
- Perform one field visit to the site to observe, log, and photograph site condition

Geotechnical/Geophysical Investigation

- Field surface and sub-surface investigation to collect all the data needed to determine the elevations and geological nature of the overburden-bedrock contact on the east rim of the quarry. This may include:
- Geotechnical borings (e.g. geoprobe or hollow stem auger)

- Geophysical methods such as ground penetrating radar
- Borings do not need to be deeper than 95' MSL.

Reporting

- Submit results and draft report to Department
- Address one round of comments from the Department
- Submit final report

THE PROFESSIONAL'S QUALIFICATIONS AND ITS PROJECT TEAM

The successful Professional shall meet the following criteria:

- All work shall be performed under the direct supervision of a PA registered professional geologist or engineer experienced in subsurface geotechnical investigations in Pennsylvania; and, is experienced with the regulatory agencies that permit and inspect stormwater control structures or a permitted dam .
- The Professional must provide a Project team organizational chart with position appointments and resumes for each team member. The word "team" shall be defined as the Professional's senior and mid-level engineers or geologists that are in responsible charge of this project, and who will be performing the design and permitting activities. No team member substitutions will be permitted by the DGS, unless the Professional receives written approval of a substitution request. Each team member's resume must reflect education and experience in geotechnical investigation projects in Pennsylvania.
- For this Project, the Professional's office location and proposed Project team shall be physically located within the State of Pennsylvania.
- The Professional must cite at least three (3) completed projects of similar nature, and provide contact information for the owners' representative.

SITE, EXISTING STRUCTURES, PROPERTY

SITING

NHCS owns the property where the work is to be performed. The Department has the legal authority to perform and contract this work. The Department will grant access to the property to the successful Professional for work associated with this Project.

CODE ISSUES

The Geotechnical Investigation must be performed in accordance with the standards and practices deemed acceptable by the relevant regulatory agencies that permit and inspect stormwater control structures or a permitted dam.

UTILITY SERVICES

- Potable water is not available at the site.
- Non-potable may be obtained from the lake or stream.
- Domestic sewerage is not available at the site; nor is a portable toilet.
- Electrical service is not available at the site.
- Hardwire telephone service is not available at the site.

CONTAMINANTS

It is not known if any environmental contaminants or hazardous materials will be revealed during the course of this Project. However, none are known or anticipated.

CONDITIONS

Please refer to the Completed Documents section of this Program Outline for additional information.

AGENCY POINT OF CONTACT

The Department's point of contact for this Project is:

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