Orion B. Cook P.E.

Senior Engineer / Office Manager

Currently the managing officer of the Converse Consultants State College, Pennsylvania office, Mr. Cook oversees all aspects of the geotechnical and material testing and inspection projects which include: project initiation and client interaction, coordination and scheduling, technical report generation, and management. He specializes in geotechnical investigations, material testing and inspection, water resource development, hydrology, hydrogeology, basin analysis, aquifer storage and recovery, water well and geothermal drilling and testing activities, air pollution control and permitting, laboratory soil classification, stormwater management and spill prevention plans, and NPDES permitting.

For over 19 years Mr. Cook has had a progressive role in water resource development, environmental, permitting, and geotechnical services for Converse Consultants in Nevada, New Mexico, California, New Jersey, and Pennsylvania. He joined the Converse team at the Las Vegas, Nevada office where he initially oversaw many aspects of the materials testing laboratory. Mr. Cook then became extensively involved with municipal dewatering projects, quasi-municipal hydrology and hydrogeology studies, and installing/testing industrial water supply wells in Nevada, New Mexico, and California. Upon transferring to Pennsylvania, he has been involved with and has overseen many environmental and geotechnical specific projects: environmental site assessments, pollutant fate and transport, groundwater treatment, geotechnical drilling investigations, material testing and inspections, karst/sinkhole restoration, stormwater and spill prevention plans, and air permitting.

Education

- B.S., Environmental Engineering, Oregon State University, 2005

Registrations

- Nevada, Professional Civil Engineer No. 021253
- Pennsylvania, Professional Engineer No. PE080577
- New Jersey, Professional Engineer No. 24GE05274700

Affiliations

- Chamber of Business & Industry Centre County
- Nevada Water Resources Association

Areas of Expertise

- Geotechnical Engineering
- Hydrogeology and Aquifer Storage and Recovery
- Material Testing and Inspection
- Water Resource Development
- Pollutant Fate and Transport
- Air Pollution Control and Permitting
- Stormwater Pollution and spill prevention plans
- NPDES permitting
- Karst and Sinkhole Restoration
- Laboratory Determination of Soil Properties
- Environmental Remediation

Relevant Experience

Family Dollar Stores – Geotechnical Investigations, Multiple Sites in Pennsylvania and New York

Mr. Cook has been involved with the subsurface investigations and analyses for over 10 Family Dollar Store locations. Investigations included the drilling of multiple test boring holes, in-situ soil classification, standard penetration tests, logging activities, and oversight of the laboratory analysis of the soil samples collected from the exploratory borings. All data from the in-situ analysis and the laboratory testing is incorporated into geotechnical reports and submitted to the client.

Federal Express (FedEx) – Geotechnical Investigation, Muncy, Pennsylvania

Mr. Cook oversaw all aspects of this project for the proposed construction of a 123,988 square foot building on a 25+ acre lot. The subsurface investigation and analysis which included the drilling of 28 test boring holes to depths of 16 to 51 feet below ground surface, in-situ soil classification, standard penetration tests, and logging activities. All data from both the in-situ analysis and the laboratory testing was incorporated into a geotechnical report and submitted to the client.

Orion B. Cook P.E.

Senior Engineer / Office Manager

Lock Haven University – Geotechnical and Material Testing and Inspection, Lock Haven, Pennsylvania
The project consisted of the construction of two (2) 8,000 square foot, 4-story student housing buildings. Converse conducted a geotechnical investigation as part of the project design and additional slope stability analysis for the design of the retaining wall. Converse also provided the 12-month construction phase materials testing and inspection (MTI) for the project. Mr. Cook acted as the Project and Site Manager for the MTI phase of the project and was responsible for quality control, data review and interpretation, report preparation, and liaison with the Owner, construction Management Company, and contractor.

Northwest Savings Bank – Geotechnical Investigation, Bellefonte, Pennsylvania
Mr. Cook was involved with the subsurface investigation and analysis which included the drilling of multiple test boring holes, in-situ soil classification, standard penetration tests, and logging activities. He oversaw and performed the laboratory analysis of the soil samples collected from the exploratory borings. Laboratory soil tests included in-situ moisture content determination, mechanical grain size (sieve analysis), Atterberg limits, and Proctor compaction testing to obtain the soils optimum moisture content and maximum density. All data from both the in-situ analysis and the laboratory testing was incorporated into a geotechnical report and submitted to the client.

Lycoming County Bridges – Geotechnical Investigations, Lycoming County, Pennsylvania
Mr. Cook provided the project management, proposal preparation, and geotechnical report composition of seventeen (17) bridge structures in Lycoming County. Field investigations and activities included the drilling and logging of 30+ SPT borings. Geotechnical reports included cross sections of each site, photographic evidence of the recovered materials, among other items. Mr. Cook oversaw the laboratory analysis (USCS Classifications, Atterberg Limits, Compressive Strength and Elastic Moduli of Intact Rock Core Specimens, etc.) of the recovered samples collected from the exploratory borings and composed a draft of the geotechnical report for each site.

18th Street Netting Facility and Combined Service Treatment Shaft – Geotechnical Investigation, Jersey City, Hudson County, New Jersey
Mr. Cook oversaw and assisted with the project management, proposal preparation, and geotechnical report composition of a netting facility and combined service treatment shaft extending 150 feet below site grade in Jersey City, New Jersey. Field activities included the drilling and logging of four SPT borings. Mr. Cook oversaw the securing of the necessary permits to complete the work, reviewed the laboratory analysis (USCS Classifications, Atterberg Limits, Compressive Strength, and Elastic Moduli of Intact Rock Core Specimens, etc.) of the recovered samples collected from the exploratory borings, and composed a draft of the geotechnical report for the site. The geotechnical report recommended construction methods of a secant pile wall with integrated ring-beam system designed as a seepage cutoff as a supplemental dewatering method, used in conjunction with a well-point system to reduce the hydraulic head during construction.

7-Story Residential Development – Geotechnical Investigation, City of Allentown, Pennsylvania
Mr. Cook oversaw the geotechnical drilling for a proposed 7-story residential development in Allentown, PA. Soil samples were tested in our materials laboratory for grain size analysis, plasticity index, moisture content, and compressive strength of intact rock core specimens. Mr. Cook reviewed and certified the laboratory test results and geotechnical investigation report for this project.