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Construction Materials Engineering and Testing is a critical component in the process of taking a structure off the blueprint and making it a reality. Our clients have come to depend on A&A's materials engineering and testing staff of professionals to protect their interests during the final design and the construction phases of their projects. A&A maintains multi-faceted modern materials testing laboratories equipped with soils testing equipment such as strength and compaction devices, sieves, scales, ovens, soil classification stations, molds, and other equipment necessary to provide moisture content, bearing ratios, density data, boring data for soils and rock, and asphalt testing. At A&A, we are acutely aware that inaccurate subsurface/geological evaluations and construction delays translate into extra costs. Our team of engineers and engineering technicians help our clients anticipate and minimize potential issues and delays.

As a client, you can expect rapid, individualized response and defensible, accurate results when contracting for construction materials testing. We specialize in testing and analysis of the properties and performance behavior of soils and mechanical, hydraulic and physical testing of all forms of materials used in the construction development industries. A&A works as part of your construction team to keep your project on track. Our firm brings wide-ranging experience in materials engineering evaluation, testing and inspection to every project.

Our construction materials engineering and testing credentials speak for themselves. Our professional staff includes registered engineers having vast experience and understanding of local materials and construction practices. Our technicians are certified by the American Concrete Institute, the National Institute for Certification in Engineering Technologies, the American Welding Society, the International Code Council, and Pennsylvania Department of Transportation. Our materials testing laboratories are accredited by the American Association of State Highway and Transportation Officials (R-18), AMRL, CCRL and the United States Army Corps of Engineers.

Premier Project- North Shore Connector

A&A provided construction material testing for soils, asphalt and concrete for the North Shore Connector. A&A provided concrete strength testing for over 10,000 concrete specimens.



A&A provides the following services:

Bridge and Structural Inspection

- NBIS Bi-Annual Inspections
- Special Investigations
- Fracture Critical Inspections
- Cursory Inspections
- Under water and Scour Inspections



Soils and Foundation

- Fill and Backfill Testing
- Laboratory Testing and Analysis
- Ground Stabilization Inspection
- Auger Cast Piles & Caisson Inspection
- Deep Foundations Testing and Inspection



Concrete and Masonry

- Slump, Air Content, Temperature and Unit Weight
- Cast Cylinders and Compressive Strength Testing
- Forensic Evaluations of Concrete
- Mix Design Review
- Compressive, Flexural, and Split Tensile Strength Testing
- In-Situ Evaluation and Investigation
- Reinforcement Location
- Post Tensioning Calibration and Inspection
- Pre-stressed / Pre-cast Concrete Testing and Inspection
- Reinforcing Steel
- Aggregate Testing
- Roller Compacted Concrete



Structural Steel

- In-Shop Structural Steel Fabrication Inspection and Certification
- Steel Field Erection Inspection
- Weld Certification and Procedure Qualification
- Nondestructive Examination



Chapter 17 Building Special Inspections

- Soils, Wood, Concrete, Steel
- Fire Proofing



Pavement

- Pre-Construction Services
- Soil Density Testing
- Soil Stabilization Testing
- Soil-Cement
- Field-Testing and Inspection
- Concrete Pavement Inspection



Specialized Testing

- Anchor Bolt Pull Testing
- Pachometer Rebar Location
- Half Cell Chloride Testing
- Rebar Corrosion Analysis
- Spray Applied Fireproofing
- Structural Health Monitoring
- Bond Testing
- Coating Inspections



Quality Assurance/Quality Control

- Department of General Services
- Army Corps of Engineers