Company Brochure: Field and Laboratory Services

Since 1954, Shannon & Wilson has helped the private and public sectors resolve the most pressing project issues and challenges. Shannon & Wilson is a full-service, 100 percent employee-owned, nationally recognized leader in geotechnical and environmental engineering, providing integrated services to private and public clients. Our services include consulting, project development, engineering design, environmental remediation, construction management and project performance monitoring.

The Services We Deliver
Shannon & Wilson is an internationally recognized consulting firm dedicated to providing quality services in the fields of geotechnical engineering and the applied earth sciences. We commit ourselves to providing clients comprehensive information to guide them through decision-making processes and arrive at practical, cost-effective solutions for each project. We achieve this by maintaining a staff of talented engineers, geologists, and scientists providing services in:

♦ Geotechnical engineering and geology
♦ Environmental science and engineering
♦ Natural resource studies
♦ Arctic engineering
♦ Construction monitoring and inspection
♦ GIS
♦ Hydrogeology
♦ Instrumentation
♦ Laboratory testing
♦ Mining engineering
♦ Seismic engineering
♦ Tunneling

In addition to design, Shannon & Wilson routinely provides technical plans and specifications, detailed cost estimating, and construction-phase engineering services. Shannon & Wilson excels in construction observation and management, working on site with contractors and subcontractors and helping them identify and resolve construction problems. This has been a key to our success in engineering cost-effective, constructible designs.

Our experience and staff come from our offices around the country, and emphasize solutions that include a prompt response, while cost effectively addressing technical challenges.

With more than 300 professionals in 12 offices nationwide, including 24 in our Saint Louis office, we respond to projects with short time frames, diverse needs, and concurrent deliverable schedules.
Construction Monitoring and Inspection Field Services

In addition to our design capabilities, Shannon & Wilson excels in construction observation and management, working on site with contractors and subcontractors and helping them identify and resolve construction problems. This has been a key to our success in engineering cost-effective, constructible designs. Often we act as the owner’s design and site representative, reviewing plans and specifications, overseeing construction, approving invoices and quantities, reviewing change orders, and providing field direction. Following is a listing of the services we offer in this area:

- **Fill Control**
  - Nuclear Gauge
  - Sand Cone
  - Monitor Procedural Criteria
  - Borrow Source Evaluations
  - Subgrade Preparation
  - Clearing and Grubbing
  - Benching

- **Footing Installation**
  - Examination of Footing Subgrade
  - Check Footing Dimensions and Reinforcing
  - Make Concrete Test Cylinders

- **Pile Driving**
  - Wave Equation Analysis to Evaluate Pile Hammer
  - Monitor Test Piles
  - Evaluate Results of Dynamic Pile Analyzer
  - Monitor and Evaluate Pile Load Tests
  - Monitor Production Piles

- **Drilled Pier Installation**
  - Monitor Drilling of Piers
  - Monitor Use of Casing to Control Groundwater and Unstable Ground
  - Check Plumb and Location Criteria
  - Monitor Cleaning of Pier Bottom
  - Examine Bearing Strata
  - Examine Pilot Hole into Bearing Strata
  - Monitor Concrete Placement
  - Monitor Placement of Reinforcing
  - Monitor Removal of Casing

- **Deep Dynamic Compaction**
  - Design Testing Program
  - Monitor Testing Program
  - Evaluate Effectiveness of Method
  - Monitor Production Compaction
  - Respond to Anomalies During Project

- **Pavement Construction**
  - Monitor Subgrade Preparation
  - Monitor Proofrolling of Subgrade
  - Develop Recommendations for Subgrade Remediation
  - Monitor Base Placement and Compaction
  - Develop Recommendations for Repair of Damaged Base
  - Monitor Placement of Pavement
  - Nuclear Gauge Testing of Asphalt During Placement
  - Pavement Cores

- **Landslide Repair**
  - Monitor Grading to Reshape Ground
  - Monitor the Installation of Drains
  - Monitor Excavations and Placement of Buttress Materials
  - Monitor the Installation of Structural Components
  - Monitor Instrumentation
  - Evaluate the Instrumentation Data
  - Evaluate the Effectiveness of the Work
  - Evaluate Materials
On-Call Services
Shannon & Wilson has current and/or previous experience with geotechnical, environmental, and/or materials testing services on-call contracts with the Cities of Clayton, Chesterfield, Des Peres and Maryland Heights, as well as St. Louis Community College, the Metropolitan St. Louis Sewer District (geotechnical and construction management), and the Iowa Department of Transportation.

Laboratory Testing Services
Shannon & Wilson has performed laboratory testing for a wide variety of government, commercial, and industrial clients for more than 50 years. We are highly experienced in performing all types of geotechnical laboratory testing, and have a full complement of calibrated laboratory equipment. We are currently validated to perform materials testing for the Union Pacific Railroad and the U.S. Army Corps of Engineers. The U.S. Army Corps of Engineers inspected our laboratory facilities, with the following comment:

"The [Shannon & Wilson] laboratories were found to have high quality, calibrated, well maintained equipment, to have sufficient space to efficiently perform, and to have personnel highly qualified in the test methods. Shannon & Wilson, Inc., is highly recommended for use as a contractor quality control testing facility."

Our laboratory is also prepared for inspection in accordance with ASTM D3740.

Laboratory testing is provided under the direct supervision of William Kremer, a registered geotechnical engineer. Our laboratories are among the largest and best equipped in the area, routinely providing testing for our own projects, for many of our competitors, and under subcontract to the U.S. Army Corps of Engineers. Each test is performed in accordance with applicable ASTM and other approved standards, by experienced technicians who must qualify for each test performed, using calibrated equipment.
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Shannon & Wilson is located in Los Angeles and Sacramento, CA; Seattle and Richland, WA; Portland, OR; Denver, CO; Saint Louis, MO; Jacksonville, FL; and Anchorage and Fairbanks, AK.

We help our clients achieve their goals.