

Materials Testing Services



Froehling & Robertson, Inc. recognizes that construction materials testing (CMT) is an integral link between a project's design and construction phases. F&R also understands that CMT support is comprised of two separate but equally important services. First and foremost, F&R undertakes the scientific testing needed to ensure that construction projects meet design specifications and are in compliance with applicable regulatory requirements. Second, F&R provides project team members and the relevant regulatory agencies with the documentation needed to allow the project to proceed. F&R's fully integrated field and lab testing capabilities allow us to quickly and cost-effectively provide these services regardless of the type of project that is being undertaken.

Not only does F&R have some of the most advanced testing facilities and equipment in the industry, but our professionals are among the most highly trained. Our specialists are examined and certified by several technical groups – including WACEL, NICET, ACI, AWS, VDOT, and ASNT – and are constantly undertaking new training to ensure that they are up-to-date on the latest procedures and techniques.

This combination of individual skills and companywide technological capability allows F&R to seamlessly integrate our personnel with the other members of our clients' construction teams. In the end, our ability to quickly and efficiently test the various concrete, soil, asphalt, and roofing materials that are being considered and/or used by our clients allows us to help them move confidently into the later stages of their projects.

Concrete

F&R monitors and tests concrete placements on construction sites. Typical tests include temperature, slump, and air content of concrete. Our personnel also mold concrete cylinders and beams for laboratory testing. Additional services can include concrete plant inspections, analyses of in-place concrete and mix designs, and the development of maturity curves. All of these tests are aimed at verifying compliance with the provisions of ACI 318, 301, 214, 304, 305 and 306; VUSBC, IBC 2006 and local building codes; generally accepted constructed practices; and project-specific requirements.

Masonry

F&R is regularly provides periodic inspections at the start of process of laying units at the construction site. Specifically, our professionals perform on-site inspection to ensure placement of vertical and horizontal reinforcing steel bars are in compliance with construction plans and requirements; ensure masonry structures are constructed in general accordance with ACI 530/ASCE5/TMS402, VUSBC, IBC 2006 and project specifications; and make and test grout prisms and mortar cubes per specification.



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Soils

Monitoring as well as moisture and density testing of structural fill is typically performed by sand cone, drive tube, or nuclear gauge methods. Laboratory testing services may include proctors, CBRs, soil classification, gradation, aggregate soundness, and specific gravity tests.

Reinforcing Steel

Professionals evaluate the placement of reinforcing steel for cast-in-place concrete and masonry structures for compliance with project plans and specifications.

Structural Steel

In order to assure adherence to AISC and AWS requirements, F&R has structural inspectors and AWS certified welding inspectors available for the examination of structural steel. Some areas of inspection would include shop fabrication, field inspection, and engineering. With proper planning and implementation, a summary inspection report can be provided to satisfy local building code criteria. Our structural steel services include dye penetrant, ultrasonic, and radiographic testing capabilities.

Fireproofing

Professionals monitor, test, and evaluate thickness determinations of sprayed on and Intumescent fireproofing as well as perform density and cohesion testing for sprayed on fireproofing to verify project design specification requirements, UL code specifications, and/or Fire Marshall requirements are met.

Asphalt

F&R's activities in this area include monitoring of asphalt placement in the field for temperature and thickness and testing for asphalt density. Additional services may include batch plant inspections and physical property testing at the plant or in our labs. Relevant laboratory services include asphalt paving mix design, Marshall testing, extraction, and more.

Roofing

F&R monitors the installation of all types of roof systems in accordance with project specifications and plans. Additional services can include roof moisture surveys by infrared and nuclear methods.

Paints & Coatings

When called upon to test the application of paints and other coatings to construction materials, F&R's professionals routinely check primer thickness and final coat thickness to verify specification requirements are met; check surface preparation and environmental conditions (temperature and humidity); and ensure compliance with project plans and specifications.

