FIRM PROFILE **General Information**

CTLGroup is a globally recognized consulting and testing firm that offers expert technical services to clients across a diverse range of industries. Our team comprises engineers, architects, scientists, and consultants who bring unparalleled experience, knowledge, and capabilities in structures and materials. This makes CTLGroup the first call whether you require advice, data, forensic analysis, expert testimony, or a combination of services.

For over a century, CTLGroup has been providing dependable solutions to some of the world's most significant challenges. We are committed to evolving and adapting to new challenges as the world around us changes.

Why CTLGroup

A one-stop provider.

We provide world-class materials testing in our laboratory and expert consulting in structural mechanics. We are among the few in our field who have both in-house. Our capabilities are not siloedwe can assemble a tailored, integrated team to meet a need. quickly and seamlessly.

Accessible and approachable.

Our team is committed to operating with absolute integrity. We take the time to listen, understand the problem at hand and deliver solutions that are based on sound research principles. We're a nimble organization, and our clients benefit from having expertise directly available to them when they need it.

Confidence you can build on.

We are experts in materials and mechanics for structures and other applications. Our collective. cumulative expertise manifests itself in proven, highly sophisticated investigative processes that, combined with our people, gives you maximum confidence that you're getting the right answers the first time.

CTLGroup serves clients in an array of industry sectors, including:

Buildings

Civil Infrastructure

- Industrial Infrastructure Power
- Litigation + Insurance
- Materials + Products

Transportation

• Oil + Gas/Chemical

CTLGroup.com

Key Facts

Over half of professional staff hold advanced degrees

70% of staff hold professional licenses within the U.S., Canada, Mexico, and U.S. Virgin Islands

Licensed to provide engineering services in most U.S. states

50,000+ square feet of materials + structural testing laboratories

Projects in 70+ countries

Quality Management System

Our dynamic QMS processes provide the framework for monitoring, measuring, and improving everything we do. Through our QMS, we have achieved accreditations and certifications, such as:

ISO 9001 Certification

ISO 17025 and AASHTO Accreditation

U.S. Army Corps of Engineers Validated laboratory status

10 CFR 50, Appendix B/NQA-1 Compliant for nuclear safety related work



FIRM PROFILE Services

Consulting Services

Building practices, construction materials, evolving technology, and structural issues present a variety of complex challenges. Clients around the world turn to CTLGroup for timely and reliable solutions.

Our cross-disciplinary teams of engineers, architects, and scientists work together to deliver comprehensive results to almost any structural, material, or productrelated problem. Few firms can match the powerful combination of our award-winning consulting teams and our renowned, world-class testing laboratories. Our consultants serve as trusted advisors and problem solvers in these areas. Building Sustainability Failure Investigation Structural Engineering + Evaluation Repair + Rehabilitation Pavement Design Mass Concrete Consulting Materials Consulting Nondestructive Testing Construction Consulting Metallurgical + Mechanical Consulting

Laboratory Services

CTLGroup provides the analyses and collaboration clients need when making big performance decisions. We offer physical, chemical, and microscopic analyses of building materials and products. CTLGroup conducts large-scale testing of engineered systems and components (load capacity up to ten million pounds). Clients count on CTLGroup for the testing of metals, aggregates, building systems, concrete, and cement. The diversity of our standard tests is complemented by the development of custom and specialized tests.

Testing areas and scope include:

- Materials Analysis
- Materials Characterization
- Materials Performance Assessment
- Research + Product Development
- Failure Analysis
- Mix Design Optimization
- Service Life Prediction and Modeling
- Specialized Testing

Testing services include:

- Analytical Chemical Testing
- Fatigue Testing (Stay Cable, AREMA, AAR)
- Mechanical Behavior Testing
- Mortar/Cement/Concrete Testing
- Nondestructive Testing
- Petrography/Microscopy
- Physical Testing
- Abrasion Resistance

CTL Group operates one of the most sophisticated private laboratories in the U.S.



FIRM PROFILE

Process and Capabilities That Deliver Confidence

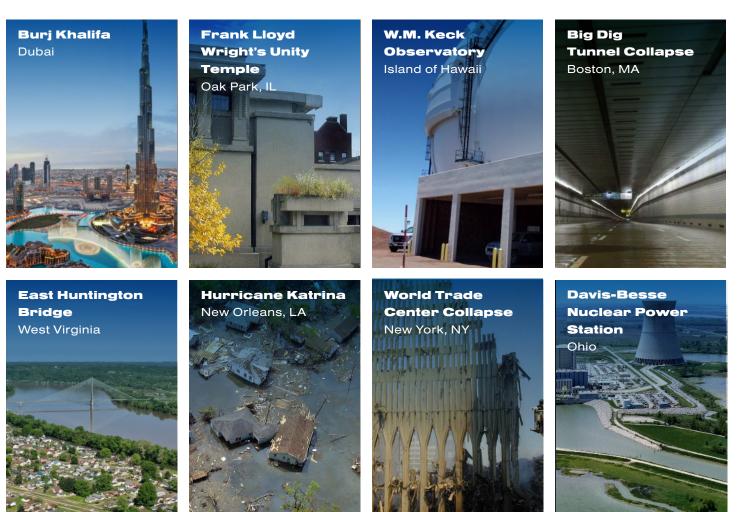
Many of our clients have trusted CTLGroup to get to the right answers during critical situations, when there's no time to waste. Our ability to deliver comes from our people, processes, and our deep in-house capabilities. From consulting to lab and field analysis, our resources allow us to carry out our investigations in a nimble manner that benefits our clients. As objective scientists, we approach our work with a commitment to impartiality and an unwavering dedication to the scientific method. Our collective, cumulative expertise manifests itself in proven, highly sophisticated investigative processes that, combined with our people, give our clients maximum confidence that they're getting the right answers the first time.

Feedback

Research

Hypothesize





Test

