

## Building Enclosure Testing

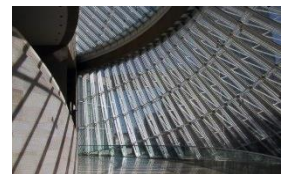


- Facade assessment
- Preconstruction performance verification
- Laboratory and field mock-up and performance testing
- Materials testing and evaluation
- Thermal and condensation risk analysis and testing
- Innovative and project-specific testing plans to verify performance of unique designs
- Thermal imaging (infrared) wall and roof evaluations
- Post-occupancy performance evaluation
- Execution of operations and maintenance actions
- Services for LEED certification
- Roofing and waterproofing

With dual commitments to performance and aesthetics, a building's enclosure system must meet challenging standards, beginning at the time of design and construction and continuing through its service life. Thorough testing of components prior to and during construction achieves a completed structure that fulfills the client's requirements and expectations. Post-occupancy building enclosure testing can help address known issues or can be integrated into a regular maintenance program aimed at maximizing service life and reducing costs.

A comprehensive building enclosure testing plan is the most reliable method for identifying areas of concern related to air leakage, condensation, and rain water entry—all issues that can impact the long-term durability, energy efficiency, and indoor air quality of a building. We employ experienced professionals and state-of-the-art modeling and analysis techniques to anticipate performance, identify issues, and refine new construction design details and/or repair designs for existing enclosures. Laboratory and field mock-ups help determine baseline requirements and methods for installation of systems and components. Functional performance testing, such as water testing or whole-building air testing, helps us validate a repaired or newly installed enclosure's ability to meet performance criteria and expectations.

WJE professionals help clients build responsible, durable, and maintainable structures. This is achieved through careful evaluation and testing of the various components to verify continuity of systems and conformance with the owner's expectation and design intent.



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### REPRESENTATIVE PROJECTS

- 100 11th Avenue - New York, NY: Curtain wall and roof leakage investigation
- ASHRAE Research: Measuring airtightness of mid- and high-rise nonresidential buildings
- Bridgepoint Condominiums - South Padre Island, TX: Water testing of curtain wall and door systems
- Corning Museum of Glass - Corning, NY: Water penetration testing and infrared imaging for gallery expansion
- Harold Washington Library Center - Chicago, IL: Water penetration and accelerated aging tests
- Irwin Army Community Hospital - Replacement Facility - Fort Riley, KS: Whole building air leakage testing
- New Haven County Courthouse - New Haven, CT: Water testing and roof probes
- University Library - Chicago, IL: Evaluation of UV and light transmissions through glass enclosure
- University of Texas Southwestern Medical Center - Dallas, TX: Canopy protection of wind-driven rain testing
- USDA North Central Research Station - St. Paul, MN: Audit of building condition for modernization

