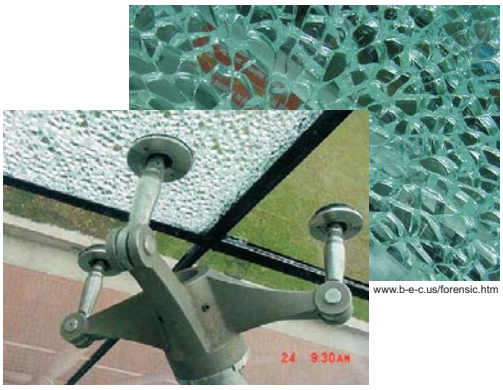
BUILDING ENCLOSURE FORENSIC SERVICES



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Forensic Analysis of Building Enclosures

Mr. Kazmierczak (Kaz) has provided a variety of consulting engineering services and has established an enviable reputation in providing innovative and practical expert advice and solutions for legal support. As a forensic expert, he investigated high-profile cases in the South East region of the U.S., providing assistance in evaluation of property damage. He specializes in building enclosures, particularly in the architectural glazing.

He collects data in the field, conducts field observations, performs quality tests, causation and condition assessments, performs simulations of failures, and recommends remediation procedures and materials. However, the expert witness services are incidental to his main line of work, which is design and construction assistance of building enclosures. In his career he worked with over 400 building enclosures.

Assistance in evaluation of casualty & property damage

Kaz is skilled in cause-and-origin investigations and analyses, like-kind repair analyses and estimates, separation of the pre-existing damage, and building code analyses. He specializes in architectural glass and glazing: (i.e. curtain walls, skylights, windows, and glazed doors). Thoroughly familiar with insurance adjusting practices and a current holder of the Florida independent property and casualty adjuster's license.

Review of Documentation

Kaz is a certified Construction Documents Technologist (CDT), thoroughly familiar with different construction contracts and delivery modes, as well as typical division of responsibilities in the design and construction. He reviews a third-party documentation, concentrating on the high-risk items that are typically seen overlooked by parties of the construction process. He reviews documentation for constructability, compliance with applicable codes and standards, and the level of building science knowledge at the time the documentation was produced. The reviews typically serve as a basis for determination of the compliance with the standard of care or as a part of due diligence and risk management effort.

Building Code Analysis

Kaz is a registered architect in New York and Florida states and has diversified experience in building enclosures. He is thoroughly familiar with the respective nation-wide and state-wide building codes and industry standards. He also researches the ordinances of local municipalities and interviews building officials. Kaz analyses code requirements and code definitions as they pertain to the scope of the investigations.

Identification of Standard of Care

As a construction professional, Kaz has a good understanding of the level of care typically seen in the work of other construction professionals. He analyses the track of available documentation to verify existence of potential causal links with the deficiencies observed in the field .

Like-kind Repair Analysis

Kaz develops like-kind analysis based on respective code interpretations (repair or alteration). His network of contractors and salespeople in the construction sector coupled with the familiarity of the estimating software allows him to develop parallel estimates for alternative scenarios and detect the typical mistakes made by the common estimating programs.


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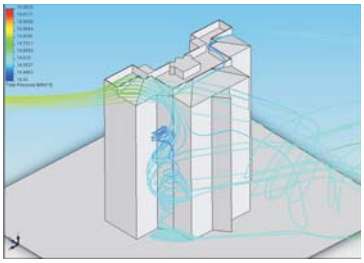

Thermal, Moisture, Optical, and Structural Analyses and Simulations

Kaz performs virtual wind tunnel studies and hygrothermal calculations, providing the data to verify the causation of failures, defects, and damages seen in the field. The cutting-edge computational fluid dynamics (CFD) analysis allow for tracing windborne projectiles originating from assumed locations. These analysis help e.g. in verification of directional scratches of glass and cladding, as well as the verification of origin of impact damages. These simulations also allow for separation of damages caused by separate wind events and identification of pre-existing conditions.

He also performs comparative optical analysis of glass, which allow for identification of commercially available matching glass. These analysis save dollars which would otherwise be spent on a blanket glass replacement of an entire facade, while only few pieces of glass are broken.

Field Investigations

Kaz holds a suspended scaffold certificate and personally performs investigations in a field. He arrives promptly to capture the conditions after catastrophic events before a clean-up begins. He spent thousands of hours investigating buildings damaged in hurricanes in Florida and Louisiana, as well as tornados in Georgia and Alabama. He meticulously checks and re-checks his measurements and observations. He is familiar with the common recording requirements and provides field notes, reports, photographs, and recordings in a convenient format.

Field Testing

Kaz performs measurements and testing in the field to verify the existence and extent of claimed deficiencies and identify their sources and possible origins. These tests typically yield data that allows for the definition of the optimal remediation method and allow for verification of the repair or replacement methods previously proposed.

Testimony and Court Appearance

Kaz is familiar with the federal rules of evidence and keeps meticulous records. He is a member in good standing of several professional associations, maintains the continuing education record, attends and speaks at professional events, has a practical, real world experience, gives lectures, and publishes peer reviewed articles. He is ethical, objective, and truthful, listens carefully, prepares diligently, and projects a confident, competent, and professional image. He explains complex ideas in terms that lay people can understand and be moved by.

Mr. Karol Kazmierczak (Kaz) M.Sc. is the building science architect with 20 years of experience. He founded Building Enclosure Council (BEC) in Miami, speaks publicly, and writes articles and papers on the subject of building enclosures. His primary area of expertise is the architectural glazing.